



**CITY OF DELRAY BEACH
100 NW 1st AVENUE, DELRAY BEACH, FL 33444**

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and
Blocks 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006 (913-47)**

MAYOR	- CARY D. GLICKSTEIN
VICE MAYOR	- AL JACQUET
DEPUTY VICE MAYOR	- JORDANA JARJURA
COMMISSIONER	- MITCH KATZ
COMMISSIONER	- SHELLY PETROLIA
CITY MANAGER	- DONALD B. COOPER

Purchasing Department ♦ (561) 243-7161 ♦ purchasing@mydelraybeach.com

**CITY
ITBC No. 2017-012**

Title:	SW 10th Ave Sidewalk and Blocks 8 and 20 Alley Improvements, Project Nos. 2014-002 and 2009-006
Bidder Name:	

Addenda Acknowledgement

Bidder hereby acknowledges the receipt of the following addenda, which were issued by the City and incorporated into and made part of this ITBC. It is the sole responsibility of Bidder to ensure that all addenda have been received and receipt of each has been acknowledged. Failure to submit acknowledgement of each addendum issued may result in Bidder being deemed non-responsive.

ADDENDA NUMBER	ADDENDA DATE

Submission Deadline: November 29, 2016 - 2:00 P.M. ET

Submissions Accepted Via: BidSync, Delivery Service, or in Person

**Submit to: City of Delray Beach
Purchasing Division
100 N.W. 1st Avenue
Delray Beach, FL 33444**

Comments: A facsimile copy will not be accepted as a sealed Bid.

**City of Delray Beach
Confirmation of Receipt (Date/Time Stamp):**

CITY OF DELRAY BEACH

**ITBC No. 2017-012
SW 10th Ave Sidewalk and
Blocks 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

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**CITY OF DELRAY BEACH
PURCHASING DEPARTMENT
TEL: (561) 243-7161
purchasing@mydelraybeach.com**

INVITATION TO BID INSTRUCTIONS

ITBC NO: 2017-012

**TITLE: SW 10th Ave Sidewalk and
Blocks 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

ISSUE DATE: October 25, 2016

DEPARTMENT: Environmental Services

DUE DATE: November 29, 2016

TIME: 2:00 P.M., ET

The City of Delray Beach, Florida is soliciting proposals for the S.W. 10th Avenue Sidewalk and Blocks 8 and 20 Alley Improvements, City Project Nos. 2014-002 and 2009-006 as identified in the Specifications and Scope of Services herein. Bidders must meet the minimum qualification requirements contained in this Invitation to Bid Construction (ITBC). **Pre-qualification prior to submitting a Bid is not required.**

A **Non-Mandatory Pre-bid** conference has been scheduled for November 4, 2016 at 10:00 AM ET at City Hall's Conference Room, located at 100 N.W. 1st Ave., Delray Beach, Florida 33444. Interested contractors and sub-contractors are invited to attend the pre-bid conference to obtain additional information and clarification of the City's requirements.

1. **NOTIFICATION:** The City utilizes the following methods for notification and distribution of solicitation opportunities:

- Bidsync – www.bidsync.com
- City of Delray Beach [website](#)
- Request via email purchasing@mydelraybeach.com
- Hard copies are available at City Hall

These are the only methods of notification and distribution authorized by the City. The City shall not be responsible for receipt of notification and information from any source other than those shown above. It shall be the Proposer's responsibility to verify the validity of all ITBC documents and solicitation information received by sources other than those listed.

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2. **REQUIRED INFORMATION:** This ITBC contain various sections which require completion. Responses to this ITBC (Proposals) must be completed and returned prior to the Due Date and Time set for Proposal opening or the Proposer will be found non-responsive.
3. **CORRESPONDENCE:** The number of this ITBC must appear on all correspondence, or inquiries, pertaining to this ITBC.
4. **NOTICE OF PUBLIC DOCUMENTS:** Any and all materials initially or subsequently submitted as part of the solicitation process for this ITBC shall become the property of the City, and shall be treated as City documents subject to typical practice and applicable laws for public records.
5. **ADDENDA:** Any interpretations, corrections or changes to this ITBC will be made by addenda. Sole issuing authority shall be vested in the City Purchasing Department. Addenda will be posted and available through the City notification methods shown above.
6. **ELECTRONIC SUBMISSION:** Electronic Bids will not be accepted for this ITBC.
7. **PAPER SUBMISSION:** All copies of the Bid must be received on or before the Due Date and Time (local time) at the City of Delray Beach, Florida at the City Hall Lobby Reception Desk located at 100 N.W. 1st Avenue, Delray Beach, Florida 33444 in a sealed container.

It is the sole responsibility of the Bidder to ensure their Bid reaches the City Hall Lobby Reception Desk on or before, the Due Date and Time. City business hours are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding City holidays. The Bidder's name, return address, the ITBC number, ITBC title, Due Date and Time must be noted on the outside of the sealed container. Included in the sealed container shall be:

- One (1) unbound original clearly marked "ORIGINAL".
- Two (2) copies clearly marked "COPY" with all required information and identical to the original.
- One (1) electronic copy with all required information, and identical to the original, on a universal serial bus (USB) portable flash memory card. Electronic copies should be in Adobe Acrobat[®] pdf format in one continuous file. Do not password protect or otherwise encrypt electronic copies

It is the sole responsibility of the Bidder to utilize the forms provided in this ITBC.

8. **BID OPENINGS:** All Bids submitted shall be publicly opened at City of Delray Beach; City Hall located at 100 N.W. 1st Avenue, Delray Beach, FL or other designated City location as posted.
9. **LATE BIDS:** Bids received after the Due Date and Time shall be returned to Bidder unopened and will be considered non-responsive. The City is not responsible for the lateness due to weather conditions, delivery service, or any other reasons.
10. **EVALUATION OF BIDS:** The review process will be conducted in two phases. In Phase One, the Chief Purchasing Officer (CPO) or designee shall determine whether each Proposer is responsive and responsible. A responsive Bidder shall mean a Bidder that has submitted a Bid that conforms in all material respects to the requirements in the ITBC. Among other things, a Bid may be found non-responsive if the Bidder failed to provide the information requested in the Bid; failed to utilize or complete the required forms; provided incomplete, indefinite, or ambiguous responses; failed to comply with the applicable deadlines; provided improper or

undated signatures; or provided information that is false, misleading, or exaggerated. A responsible Bidder means a Bidder meets the minimum qualification requirement(s) of this ITBC.

In Phase Two, the Bid Tabulation will be completed for those Bidders that are deemed responsive and responsible.

11. **QUESTIONS:** Each Bidder must examine this ITBC, which incorporates all its addenda, appendices, exhibits and attachments. All questions concerning this ITBC, such as technical specifications, discrepancies, omissions and exceptions to any term or condition of the ITBC documents, including the Sample Agreement, should be submitted in writing utilizing the question / answer feature provided by BidSync at www.bidsync.com. Questions of a material nature must be received prior to the Deadline for Delivery of Questions specified in the Solicitation Schedule for this ITBC.

The City’s response to questions and requests for information will be answered within the question/answer feature provided by BidSync. Additionally, all questions received and responses given will be provided via an addendum to this ITBC and uploaded to BidSync. Material changes, if any, to the requirements, scope, specifications, or the solicitation process will be made by official written addendum issued by the City and uploaded to BidSync as an addendum to this ITBC.

Submission of a Bid will be considered evidence that the Bidder has familiarized themselves with the nature and extent of the work, and the equipment, materials, and labor required. The questions submitted and answers provided in BidSync shall become part of any Agreement resulting from this ITBC.

12. **SCOPE OF SERVICES:** The City is seeking bids from qualified firms for the improvement Project of SW 10th Ave Sidewalk and Block 8 and 20 Alley, Project Nos. 2014-002 and 2009-006 that meets the requirements as stated herein.
13. **CITY’S ACCEPTANCE:** Unless otherwise specified herein, the Bidder will allow a minimum of ninety (90) days from the Due Date and Time for acceptance of its Bid by the City Manager and/or City Commission.
14. **AWARD:** The City reserves the right to waive minor defects, variations to specifications, informalities, irregularities and technicalities in any Bids, to reject any and all Bids in whole or in part, with or without cause, and/or to accept Bids that in its judgment will be for the best interest of the City. The City may also reject any or all Bids without cause prior to award.

15. **SOLICITATION SCHEDULE:**

ACTIVITY	DATE
Issue ITBC	October 25, 2016
Non - Mandatory Pre-bid Conference	November 4, 2016 at 10:00 AM ET
Deadline for Delivery of Questions	November 17, 2016 by 5:00 p.m. ET
Due Date and Time (for delivery of Bids)	November 29, 2016 by 2:00 p.m., ET
Institute Cone of Silence	November 29, 2016 at 2:00 p.m., ET
Phase 1 Evaluation Complete	December 8, 2016
Bid Tabulation Complete	December 9, 2016

SECTION 1: TERMS AND CONDITIONS

1. SUBMISSION AND RECEIPT OF BIDS:

- A. To receive consideration, Bids must be received prior to the Due Date and time as designated in this ITBC.
- B. Unless otherwise specified, Bidders must complete all questions and price blanks in the spaces provided in this ITBC. Failure to do so may cause the Bid to be rejected. Bidders may attach supplemental information.
- C. Bids having any erasures or corrections must be initialed by Bidder in ink. Bids shall be signed in ink. All prices shall be typewritten or filled in with ink.
- D. All Bids must be signed with the Bidder's name and by an officer or employee having the authority to bind the Bidder by his/her signature.

2. BID PACKAGE: The following forms must be included with each Bid in the format specified in Section 2:

- Form 1. Bidder's Submittal Signature Page
- Form 2. Public Entity Crimes
- Form 3. Drug-Free Workplace
- Form 4. Conflict of Interest
- Form 5. Acknowledgement of Addenda
- Form 6. Schedule of Pricing
- Form 7. Genuine Bid
- Form 8. Bid Guaranty
- Form 9. Cone of Silence
- Form 10. Non-Collusion Affidavit
- Form 11. Other Required Information
- Form 12. Questionnaire

3. QUANTITIES OR USAGE: Whenever a bid is solicited seeking a source for a specified time for materials or services with quantities or usage shown; these quantities are estimated only. No guarantee or warranty is given or implied by the City as to the total amount that may or may not be purchased from any resulting Agreement(s). These estimated quantities are for Bidders' information only and will be used for tabulation purposes and presentation of Bids for award.

4. PRICING/PERIOD OF AGREEMENT:

- A. Bidder warrants by virtue of bidding that prices, terms, and conditions quoted will be firm for acceptance for a period of **ninety (90) days** from the Due Date unless otherwise stated by the City or Bidder.
- B. Bidders may offer a cash discount for prompt payment. However, such discounts will not be considered in determining the lowest net cost for bid evaluation purposes. Therefore, Bidders should reflect any discounts to be considered in the bid evaluation in the unit prices quoted.

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5. COMPLIANCE WITH SAFETY STANDARDS:

- A. All equipment, machinery, electrical appliances, cords and apparatus shall comply with all safety provisions of the Occupational Safety and Health Act (OSHA) and other applicable regulatory agencies.
- B. Whenever a bid is sought and services secured for any type of on-site construction the Bidder(s) that is awarded the Agreement(s) (Successful Bidder) shall remove from the work site at the end of each working day all rubbish and waste debris resulting from its operations. The Successful Bidder shall also secure the work site before leaving at the end of each working day.

6. SIGNED BID CONSIDERED AN OFFER: This signed Bid shall be considered an offer on the part of the Bidder, which offer shall be deemed accepted upon approval by the City Manager and/or City Commission of the City and in case of default on the part of the Bidder after such acceptance, the City may take such action as it deems appropriate including legal action for damages or specific performance.

7. INDEMNITY/HOLD HARMLESS AGREEMENT: Successful Bidder shall at all times hereafter indemnify, hold harmless and, at the City Attorney's option, defend or pay for an attorney selected by the City Attorney to defend the City, its offers, agents, servants, and employees from and against and all causes of action, demands, claims, losses, liabilities and expenditures of any kind, including attorney fees, court cost, and expenses, caused or alleged to be caused by any intentional, negligent, or reckless act of, omission of, Successful Bidder, its employees, agents, servants, or officers, or accruing, resulting from, or related to the subject matter of this Agreement including, without limitation, any and all claims, losses, liabilities, expenditures, demands or causes of action of any nature whatsoever resulting from injuries or damages sustained by any person or property. In the event any lawsuit or other proceedings is brought against the City by reason of any such claim, cause of action, or demand, Successful Bidder shall, upon notice from the City, resist and defend such lawsuit or proceedings by counsel satisfactory to City or, at City's option, pay for an attorney selected by the City Attorney to defend City. The obligations of this section shall survive the expiration or earlier termination of the Agreement. To the extent considered necessary by the Bidder, Administrator and the City Attorney, any sums due Successful Bidder under this Agreement may be retained by the City until all City's claims for indemnification pursuant to this Agreement have been settled or otherwise resolved. Any amount withheld shall not be subject to payment of interest by City.

8. LIMITATIONS ON COMMUNICATIONS -- CONE OF SILENCE: Bidders are advised that a Cone of Silence will be in effect during this Bid. The Cone of Silence is effective from the Due Date and Time until award is made by the City Manager and/or Commission. The Cone of Silence prohibits any communications, regarding this Bid, between the Bidders or any Person representing the Bidders, and any member of the City Commission, the Commission's staff, any City employee authorized to act on behalf of the City to award the Agreement under this Bid, or any member of the Selection Committee. All correspondence regarding this ITBC must be in writing and must be directed to the Chief Purchasing Officer, who is the only Person authorized to receive such documents.

Section 36.13 of the City Code provides "any person participating in a competitive solicitation issued by the City shall comply with Section 2-355 of the Palm Beach County Code of Ordinances." The County Code provides as follows:

- A. 'Cone of Silence' means a prohibition on any communication, except for written correspondence, regarding a particular request for proposals, request for qualification, bid, or any other competitive solicitation between:
 - i. Any person or person's representative seeking an award from such competitive solicitations; and
 - ii. Any county commissioner or commissioner's staff, any member of a local governing body or the member's staff, a mayor or chief executive officer that is not a member of a local governing body or the mayor or chief executive officer's staff, or any employee authorized to act on behalf of the commission or local governing body to award a particular Agreement.
 - B. For the purposes of this section, a person's representative shall include but not be limited to the person's employee, partner, officer, director, consultant, lobbyist, or any actual or potential subcontractor or consultant of the person.
 - C. The Cone of Silence shall be in effect as of the deadline to submit the proposal, bid, or other response to a competitive solicitation. The Cone of Silence applies to any person or person's representative who responds to a particular request for proposals, request for qualification, bid, or any other competitive solicitation, and shall remain in effect until such response is either rejected by the county or municipality as applicable or withdrawn by the person or person's representative. Each request for proposals, request for qualification, bid or any other competitive solicitation shall provide notice of cone of silence requirements and refer to this article.
 - D. The provisions of this article shall not apply to oral communications at any public proceeding, including pre-bid conferences, oral presentations before selection committees, Bidder negotiations during any public meeting, presentations made to the board or local municipal governing body as applicable, and protest hearings. Further, the Cone of Silence shall not apply to Bidder negotiations between any employee and the intended awardee, any dispute resolution process following the filing of a protest between the person filing the protest and any employee, or any written correspondence at any time with any employee, county commissioner, member of a local municipal governing body, mayor or chief executive officer that is not a member of the local municipal governing body, or advisory board member or selection committee member, unless specifically prohibited by the applicable competitive solicitation process.
 - E. The Cone of Silence shall not apply to any purchases made in an amount less than the competitive solicitation threshold set forth in the county purchasing ordinance (County Code, chapter 2, article III, division 2, part A, section 2-51 et seq.) or municipal ordinance as applicable.
 - F. The Cone of Silence shall terminate at the time the board, local municipal governing body, or a county or municipal department authorized to act on behalf of the board or local municipal governing body as applicable, awards or approves an Agreement, rejects all Bids or responses, or otherwise takes action which ends the solicitation process.
 - G. Any Agreement entered into in violation of the Cone of Silence provisions in this section shall render the transaction voidable.
- 9. LIABILITY, INSURANCE, PERMITS AND LICENSES:** Where the successful Bidder is required to enter or go onto City property to deliver goods, materials, or perform work or services as a result of a Bid award, the successful Bidder will assume the full duty, obligation, and expense of obtaining all necessary licenses, permits, and insurance and assure all work complies with all Federal, State, Local, Palm Beach County and Delray Beach ordinances, orders, codes, laws, rules, regulations, directives, and guidelines. The successful Bidder shall be liable for any damages or loss to Delray Beach occasioned by negligence of the successful

Bidder (or agent) or any person the successful Bidder has designated in the completion of the Agreement as a result of the Bid of this Bid.

The successful Bidder shall supply proof of insurance, detailing terms and provisions of coverage, and must be received and approved by the City Risk Manager within 10 days of final execution of the Agreement.

Successful Bidder shall carry the following minimum types of insurance:

- A. Workers' Compensation: with the statutory limits.
- B. Employers' Liability insurance: with a limit of not less than \$100,000 for each accident, \$100,000 for each disease, and \$500,000 for aggregate disease.
- C. Comprehensive General Liability Insurance: with limits of not less than one million (\$1,000,000) dollars per occurrence and two million (\$2,000,000) in the aggregate for Bodily Injury and Property Damage. The 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 Bidders, products and/or completed operations for Bidders, 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.
- D. Motor Vehicle Liability Insurance: with coverage for all vehicles associated with Bidder's operations to include all owned, non-owned and hired vehicles. The coverage will be written on an occurrence basis with limits of liability not less than \$1,000,000.00 combined single limit per each occurrence.

All insurance policies shall be issued by companies that (a) are authorized to do business in the State of Florida; (b) have agents upon whom service of process may be made in Palm Beach County, Florida; and (c) have a Best's rating of A- VIII or better. All insurance policies shall name the City OF Delray Beach as an additional insured. The Successful Bidder agrees to notify the City within (5) business days of coverage cancellation, lapse or material modification. All renewal or replacement certificates of insurance shall be forwarded to the City Risk Management Division.

10. AWARD OF BID: The City reserves the right to accept any Bid or combination of Bid alternates which, in the City's judgment will best serve the City's interest, reject any and all Bids, to waive any and all informalities and/or irregularities, and to negotiate terms with the Successful Bidder, and the right to disregard all non-conforming, non-responsive, unbalanced or conditional Bids. The City reserves the right to reject any or all Bids, or any part of any Bid, to waive any informality in any Bid, and to award the purchase in the best interest of the City. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

11. BILLING INSTRUCTIONS: Contractor shall submit Applications for Payment in **accordance** with the General Conditions. Applications for Payment will be processed by the Construction Management Technician **as provided in the General Conditions.**

**Environmental Services Department
Main Administration Building
434 South Swinton Avenue
Delray Beach, Florida 33444**

Attention: Construction Management Technician

- 12. TAXES:** The City is exempt from any sales tax imposed by the State and/or Federal Government. State Sales Tax Exemption Certificate No. **85-8012621559C-4** appears on each purchase order.
- 13. EXCEPTIONS TO CONDITIONS:** In the event Bid Specifications differ from the General Conditions, Bid Specifications and Special Provisions Bid Specifications will prevail.
- 14. TERMINATION:** The City reserves the right, in its best interest as determined by the City, to cancel the Agreement by giving written notice to the Successful Bidder thirty (30) days prior to the effective date of such cancellation. In the event of such termination, any completed services performed by the Successful Bidder under the Agreement shall, at the option of the City, become the City's property and the Successful Bidder shall be entitled to receive equitable compensation for any work completed to the satisfaction of the City.
- 15. ANTI-COLLUSION:**
- A. Bidder certifies that its Bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a Bid for the same materials, services, supplies, or equipment and is in all respects fair and without collusion or fraud.
 - B. No premiums, rebates or gratuities permitted; either with, prior to, or after any delivery of material or provision of services. Any such violation may result in Agreement cancellation, return of materials or discontinuation of services and the possible removal from the supplier bid list(s).
- 16. CONFLICT OF INTEREST:**
- A. Bidder declares and certifies that no officer, employee or person whose salary is payable in whole or part from the City is directly or indirectly interested in this bid or in the supplies, materials, equipment or services to which it relates or in any portion of the profits thereof; and
 - B. The award is subject to provisions of Florida State Statutes and City Ordinances.
- 17. CITY POLICIES:** Successful Bidder shall comply with the City Equal Employment Opportunity Policy, Violence in the Workplace Policy, Drug and Alcohol Free Workplace Policy, General Complaint Policy and Sexual Harassment Policy. Copies of these policies may be obtained from the City Human Resources Division. Violations of these policies may result in cancellation/termination of the Agreement.
- 18. NON-DISCRIMINATION:** The Bidder shall not discriminate against employees or applicants for employment because of race, creed, color, religion, sex, age, handicapped status, disabilities, or national origin. The Bidder will endeavor to ensure that applicants are employed and that employees are treated during employment, without regard to their race, creed, color, religion, sex, age, handicapped status, disabilities, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. The Bidder agrees to post in conspicuous places,

available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. These provisions apply to all subcontractors and it is the responsibility of the subcontractors to be in compliance.

19. DISCRIMINATION: An entity or affiliate who has been placed on the discriminatory supplier list may not submit a Bid on an Agreement to provide goods or services to a public entity, may not submit a Bid on an Agreement 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 award or perform work as a Bidder, supplier, subcontractors, or consultant under Agreement with any public entity, and may not transact business with any public entity.

20. BID PROTEST: PROTEST OF AWARD / PROTEST BOND: Parties that are not actual Bidders including, but not limited to, subcontractors, material and labor suppliers, manufacturers and their representatives, shall not have standing to protest or appeal any determination made.

After the notice of intent to award and agreement is posted, any actual Bidder who is aggrieved in connection with the pending award of the agreement or any element of the process leading to the award of the agreement may file a protest with the CPO by close of business on the third business day after posting (excluding the day of notification) or any right to protest is forfeited. It shall be the sole responsibility of such Bidder to verify the operating hours of City Hall. Notice of Intent to Reject all Bids is subject to the protest procedure.

Note: Any Bidder filing a protest shall simultaneously provide a Protest Bond to the City in the amount of fifteen thousand dollars (\$15,000). If the protest is decided, in the protester's favor the entire protest bond is returned. If the protest is not decided in the protester's favor the protest shall be forfeited to the City. The protest bond shall be in the form of a cashier's check. Ord.No.29-13, Section 36.04

Protest shall be addressed to:
City of Delray Beach
Chief Purchasing Officer
100 N.W. 1st Avenue
Delray Beach, FL 33444

21. PUBLIC RECORDS:

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 PUBLICRECORDSREQUEST@MYDELRAYBEACH.COM.

Successful Bidder shall comply with public records laws, specifically to:

- i. Keep and maintain public records required by the City to perform the service.

- ii. Upon request from the City's custodian of public records, provide the City 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 Florida Statute or as otherwise provided by law.
- iii. 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 Agreement term and following completion of the Agreement if the Successful Bidder does not transfer the records to the City.
- iv. Upon completion of the Agreement, transfer, at no cost, to the City all public records in possession of the Successful Bidder or keep and maintain public records required by the City to perform the service. If the Successful Bidder transfers all public records to the City upon completion of the Agreement, the Successful Bidder shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Successful Bidder keeps and maintains public records upon completion of the Agreement, the Successful Bidder shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.
- v. If the Successful Bidder does not comply with this section, the City shall enforce the contract provisions in accordance with the contract and may unilaterally cancel this contract in accordance with state law.

22. PUBLIC ENTITY CRIMES INFORMATION STATEMENT: Any person or affiliate who has been placed on the convicted supplier list following a conviction for a public entity crime may not submit a Bid on an Agreement to provide any goods or services to a public entity, may not submit a Bid on an Agreement 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 Bidder, supplier, subcontractor, or consultant under an Agreement with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted supplier list.

23. 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 city Agreements, transactions, accounts and records. The City has entered into an Inter-local Agreement for Inspector General Services. This agreement provides for the Inspector General to provide services to the City in accordance with the City functions and powers set out in the Palm Beach County Office of Inspector General Ordinance. All parties doing business with the City and receiving City funds shall fully cooperate with the Inspector General, including providing access to records relating to the Agreement. The Inspector General has the power to subpoena witnesses, administer oaths, require the production of records, and audit, investigate, monitor, and inspect the activities of the Bidder, its officers, agents, employees, and lobbyists in order to ensure compliance with Agreement specifications and detect corruption and fraud.

Failure to cooperate with the Inspector General, or interference with or impeding any investigation shall be a violation of Ordinance 2009-049, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

24. LOCAL PREFERENCE: In accordance with the City Code of Ordinances Sec. 36.14, the City shall give preference to a Local Business if the Local Business' bid is determined to be within five percent (5%) or five thousand dollars (\$5,000.00), whichever is less, of the lowest responsible and responsive Bidder.

25. METHOD OF ORDERING: A Purchase Order(s) will be issued for this purchase.

26. JOB SITE VISITATION: Job site visitation is mandatory; submission of a Bid will be construed that the Bidder is acquainted sufficiently with the work to be performed. For access to the site, contact the Purchasing Department at purchasing @mydelraybeach.com. Purchasing will make any necessary site access accommodations with the Project Manager.

[Remainder of page intentionally left blank]

SECTION 2: BID FORMAT

1. **INFORMATION:** Any process questions in regard to the submission of Bids should be submitted via email to: purchasing@mydelraybeach.com.
2. **MINIMUM QUALIFICATIONS:** Bidder must submit the requested information for verification it meets the following minimum qualification requirements:

- A. Bidder must be registered with the State of Florida. Division of Corporations to do business in Florida.

No documentation is required. The City will verify registration.

- B. Must have been in business for a minimum of twenty-four (24) 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 24 months prior to the Due Date and Time.

- C. Bidder must have completed a minimum of two projects since September 1, 2014 that included at least two of the following types of work for each project.
 - i. Paver sidewalks
 - ii. Pavement resurfacing
 - iii. Concrete curbs
 - iv. Drainage
 - v. Planting sod
 - vi. Pavement markings and signage

Provide the following information for the two qualifying projects:

- i. **Name of project owner**
- ii. **Contact name**
- iii. **Contact email**
- iv. **Location / address of project**
- v. **Dates of project (start/end)**
- vi. **Types of work from the list above in Item C were included in the project**

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

Disclose the name of any officer, director or agent who is also an employee of the City. Disclose the name of any City employee who owns, directly or indirectly, any interest in the Bidder's firm or any of its branches. If no conflicts of interests are present, Bidder must submit a statement to that affect.

[Remainder of page intentionally left blank]

3. BID FORMAT: Bids must adhere to the following format:

Chapter 1	Letter of Intent (3A) Form 1, Bid Submittal Signature Page
Chapter 2	Bidder's Statement of Organization (3B) Form 11, Other Required Information
Chapter 3	Form 2, Public Entity Crimes Form 3, Drug-Free Workplace Form 4, Conflict of Interest
Chapter 4	Form 5, Acknowledgement of Addenda
Chapter 5	Form 7, Genuine Bid Form 8, Bid Guaranty Form 9, Cone of Silence Form 10, Non-Collusion Affidavit Form 12, Questionnaire
Chapter 6	Form 6, Schedule of Pricing

- A. **Letter of Intent:** Letter should be limited to no more than two pages. Provide a brief statement of Bidder's understanding of the scope of work to be rendered and/or goods to be provided and a statement of Bidder's commitment to perform according to the requirements stated in this ITBC.

Include the contact information for Bidder's primary and secondary representative during this ITBC process to include the following:

- i. Name
- ii. Title
- iii. Phone number
- iv. Email address
- v. Mailing address

- B. **Bidder's Statement of Organization:** Include the following information regarding Bidder:

- i. Full legal name including any dba,
- ii. Address, City, State, Zip
- iii. Telephone number
- iv. Facsimile number
- v. E-mail address
- vi. Website URL address
- vii. Type of organization (e.g. corporation, partnership, LLC)
- viii. Hours of operation
- ix. Years in business
- x. Address of corporate headquarters
- xi. Address of local office (if any)
- xii. List of owners and/or partners and managers of the firm and their contact information (addresses and phone numbers)

- C. **Subcontractors:** Bidder must furnish with its bid, a list of the items proposed to be sub-contracted and the estimated dollar value of the work to be performed by each subcontractor.

[Remainder of page intentionally left blank]

SECTION 3: SCOPE OF WORK

1. **PURPOSE:** The City is seeking bids from qualified firms for Sidewalk and Alley Improvements per the specifications and requirements of this ITBC.

2. **SCOPE**

The scope of work will cover 110 linear feet of sidewalk improvements and includes the construction of paver sidewalk, construction of a new alley on Blocks 20 and 8 in Delray Beach; installation of new pavement section, curbing, drainage, swale grading and sodding. Construction also includes clearing, grubbing and disposal, dewatering, pavement markings, and signage.

3. **SPECIFICATIONS**

See Attached Appendix B, Specifications.

4. **DRAWINGS**

See Attached Appendix C, Plans.

[Remainder of page intentionally left blank]

BID SUBMITTAL CHECKLIST

A responsive Bidder means a Bidder that has submitted a bid that conforms in all material respects to the requirements in this ITBC. The CPO or designee will determine whether each Bidder correctly submitted all of the necessary forms and documents. The purpose of this checklist is to assist Bidders in completing their Bids. Do not include checklist with your Bid submittal.

- Letter of Intent
- Bidder's Statement of Organization
- Subcontractor Information
- Form 1-Bid Submittal Signature Page
- Form 2-Public Entity Crimes
- Form 3-Drug Free Workplace
- Form 4-Conflict of Interest
- Form 5-Acknowledgement of Addenda
- Form 6-Schedule of Pricing
- Form 7-Genuine Bid
- Form 8-Bid Guaranty
- Form 9-Cone of Silence
- Form 10-Non-Collusion Affidavit
- Other Required Information
- Questionnaire

[Remainder of page intentionally left blank]

SECTION 4: FORMS FOR BID

Each Bidder must complete and submit the forms included in this Section 4.

[Remainder of page intentionally left blank]

Form 1 - Bid Submittal Signature Page

By signing this Form 1, Bid Submittal Signature Page, 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. By signing this Bid Bidder agrees to furnish and deliver all materials and to do and perform all work in accordance with the Contract Documents for the Project entitled:

**ITBC No. 2017-012
SW 10th Ave Sidewalk and
Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

By signing this Form 1, Bidder acknowledges it has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary. **Bidder warrants and represents that there are no defects, errors or inconsistencies in the plans, specifications or any of the Contract Documents and that the actual site conditions comport to the conditions set forth therein.**

Firm Name: _____

Street Address: _____

Mailing Address (if different from Street Address): _____

Telephone Number(s): _____

Fax Number(s): _____

Email Address: _____

Federal Identification Number: _____

Signature Date

Printed Name and Title

By signing this document, the Bidder has examined copies of all the Contract documents and addenda and agrees to all terms and conditions of the ITBC and the resulting agreement.

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF BIDDER TO BE BOUND BY THE TERMS OF ITS BID. FAILURE TO SUBMIT THIS FORM EXECUTED BY AN AUTHORIZED REPRESENTATIVE WHERE INDICATED 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 BID.

Signature Authority

Indicate below Bidder's type of organization and provide the required documentation as applicable to demonstrate that the executor of Bidder's Bid is duly authorized to execute on behalf of, and as the official act of, Bidder.

Select	Type of Organization	Officer Who Signed Proposal Submittal Signature Page	Required Authorizing Documentation
<input type="checkbox"/>	Corporation	President, Vice President, or Chief Executive Officer	None
<input type="checkbox"/>	Corporation	Director, Manager, or other title	Corporate resolution
<input type="checkbox"/>	Limited Liability Company (LLC) – Member-Managed	Member	Articles of Organization or Operating Agreement
<input type="checkbox"/>	Limited Liability Company (LLC) – Manager-Managed	Manager	Articles of Organization or Operating Agreement
<input type="checkbox"/>	Limited Partnership	General Partner	Document demonstrating the legal authority to bind the Limited Partnership
<input type="checkbox"/>	Partnership	Partner	None
		CEO, Director, Manager or other title	Authorizing documentation
<input type="checkbox"/>	Individual	Individual	None

Documentation is not required.

The required authorizing documentation is included with Bid.

Form 2 - Public Entity Crimes

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 Bidders list following a conviction for a public entity crime may not submit a Bid on a Bidder to provide any goods or services to a public entity; may not submit a Bid on a Bidder 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 Bidder, supplier, sub-Bidder, or consultant under a Bidder 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 Bidders list.

Acknowledged by:

Firm Name (print)

Signature

Date

Printed Name and Title

Form 3 - Drug-Free Workplace

If identical tie bids exist, preference will be given to the vendors who submit a certification with their bid/Bid certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. The drug-free workplace preference is applied as follows:

IDENTICAL TIE BIDS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State of by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program.

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

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

Firm Name (print)

Signature

Date

Printed Name and Title

Form 4 - Conflict of Interest Disclosure Form

The award of this ITBC is subject to the provisions of Chapter 112, Florida Statutes and Palm Beach County Ordinance Section 2-443. All Bidders must disclose: the name of any officer, director, or agent who is also an employee or relative of an employee of the City.

Furthermore, all Bidders must disclose the name of any City employee or relative(s) of a City employee who owns, directly or indirectly, an interest in the Bidders 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 key personnel involved in the award of this ITBC.

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.

Select the statement below which applies to Bidder and, if applicable attach supporting information:

To the best of our knowledge, the undersigned firm has no potential conflict of interest as defined in Chapter 112, Florida Statutes and Section 2-443, Palm Beach County Code of Ordinances.

The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest as defined in Chapter 112, Florida Statutes and Section 2-443, Palm Beach County Code of Ordinances.

Acknowledged by:

Firm Name (print)

Signature Date

Printed Name and Title

Disclose the name of any officer, director or agent of Bidder who is also an employee of the City. Disclose the name of any City employee who owns, directly or indirectly, any interest in the Bidder's firm or any of its branches. If no conflicts of interests exist enter N/A.

Form 5 - Acknowledgment of Addenda

The Bidder hereby acknowledges the receipt of the following addenda, which were issued by the City and incorporated into and made part of this ITBC. The Bidder acknowledges that it is solely responsible for ensuring that it is aware of, and in receipt of, all addenda.

ADDENDUM NUMBER	DATE RECEIVED	PRINT NAME OF AGENT	TITLE OF AGENT	SIGNATURE OF AGENT

Bidder (firm name)

Signature Date

Printed Name and Title

Form 6 - Schedule of Pricing

A. Bidder must complete the attached Form 6 – Schedule of Pricing, with line item pricing and submit with its bid. Enter the total price from Form 6 – Schedule of Pricing, in the space provided below in both numerals and words.

(1) TOTAL EVALUATED BID "1" – Block 20, PRICE (items 1-20) as shown on Form 6.

Numerals: \$ _____

Words: _____

(2) TOTAL EVALUATED BID "2" – Block 8, PRICE (items 21-60) as shown on Form 6.

Numerals: \$ _____

Words: _____

B. INDEMNIFICATION: The City will pay to the Contractor the specific consideration of ten dollars and other good and valuable consideration as specific consideration for the indemnification provided herein. Contractor acknowledges that the Grand Total bid price above includes said consideration for the indemnification provision.

Yes No

C. JOINT BIDDING, CO-OPERATIVE PURCHASING AGREEMENT: Will extend same price, terms, and conditions of this bid to other Palm Beach, Martin and Broward County Governmental agencies?

Yes No

D. BID INFORMATION WAS OBTAINED FROM:

BidSync Newspaper Ad City Hall City Website

Other (specify) _____

Bidder: _____

Signature

Date

Printed Name and Title

Form 6 - Schedule of Pricing (cont'd)

TRENCH SAFETY ACT
Florida Statutes Section 553.60 et seq.

"Trench Safety Act" Compliance

Bidder acknowledges that the Florida Trench Safety Act, Section 553.60 et. seq., which became effective October 1, 1990, shall be in effect during the period of construction of the project. The Bidder by signing and submitting a Bid is, in writing, assuring that it will perform any trench excavation in accordance with the applicable trench safety standards. The Bidder further identifies the following separate item of cost of compliance with the applicable trench safety standards as well as the method of compliance.

<u>Method of Compliance</u>	<u>Cost</u>
_____	_____
_____	_____
_____	_____

Bidder acknowledges that the Trench Safety Act Method of Compliance Cost shown above is included in the applicable items of its Bid and in the Grand Total bid price. Failure to complete the above may result in the Bid being deemed non-responsive.

The Bidder is, and the City and Engineer are not, responsible to review or assess City's safety precautions, programs or costs, or the means, methods, techniques or technique adequacy, reasonableness of cost, sequences or procedures of any safety precaution, program or cost, including but not limited to, compliance with any and all requirements of Florida Statute Section 553.60 et. seq. cited as the "Trench Safety Act". Bidder is, and the City and Engineer are not, responsible to determine if any safety or safety related standards apply to the project, including, but not limited to, the "Trench Safety Act".

4. Bidder will complete the Work for the following prices:

BID "1"

BLOCK 20

SCHEDULE OF BID PRICES

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
GENERAL CONDITIONS						
1	Maintenance of Traffic	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
2	Mobilization/Demobilization	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
3	Clearing and Grubbing	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
4	As-Built Record and Drawings	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
5	NPDES Permit / Erosion Control	L.S.	1	Dollars	\$	\$
				Cents		
6	Indemnification	L.S.	1	Ten Dollars	\$ 10.00	\$ 10.00
				No Cents		
7	Video Recording Allowance	L.S.	1	Five Hundred Dollars	\$ 500.00	\$ 500.00
				No Cents		
8	Project Identification Sign	E.A.	1	Dollars	\$	\$
				Cents		
9	Unforeseen Condition Allowance	L.S.	1	Five Thousand Dollars	\$ 5,000.00	\$ 5,000.00
				No Cents		
10	Asphalt Concrete Surface Course (2" T Two Lifts	S.Y.	320	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
11	Limerock Base (8") (LBR 100)	S.Y.	360	Dollars	\$	\$
				Cents		
12	Stabilized Subgrade (12") (LBR 40)	S.Y.	380	Dollars	\$	\$
				Cents		
13	Type C Inlet	EA.	2	Dollars	\$	\$
				Cents		
14	Reinforced Concrete Pipe (24")	L.F.	41	Dollars	\$	\$
				Cents		
15	Exfiltration Trench (24")	L.F.	41	Dollars	\$	\$
				Cents		
16	5' Wide Concrete Sidewalk (4" Thick)	S.Y.	15	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
17	Tactile Surface Detectable Warnings	EA.	2		\$	\$
				Dollars		
				Cents		
18	Concrete Valley Gutter	L.F.	621		\$	\$
				Dollars		
				Cents		
19	Type D Curb	L.F.	20		\$	\$
				Dollars		
				Cents		
20	Marking and Signing Striping, 24" White (Thermo) Stop Bar Stop Sign	LS	1		\$	\$
				Dollars		
				Cents		
TOTAL EVALUATED BID BID ITEMS 1 through 20 (in numbers)					\$	\$
TOTAL EVALUATED BID BID ITEMS 1 through 20 (in words)				Dollars		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
<p>Bid "2" BLOCK 8 SW 10TH AVE SIDEWALK</p> <p>GENERAL CONDITIONS</p>						
21	Maintenance of Traffic	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
22	Mobilization/Demobilization	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
23	As-Built Record and Drawings	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
24	NPDES Permit / Erosion Control	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
25	Indemnification	LS	1	_____ Dollars _____ Cents	\$ 10.00	\$ 10.00

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
26	Video Recording Allowance	LS	1	Five Hundred Dollars	\$ 500.00	\$ 500.00
				Cents		
	BLOCK 8					
	SITE GENERAL CONDITIONS				\$	\$
				Dollars		
				Cents		
27	Project Identification Sign	L.S.	1		\$	\$
				Dollars		
				Cents		
28	Unforeseen Condition Allowance	L.S.	1	Fifteen Thousand Dollars	\$ 15,000.00	\$ 15,000.00
				No		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
DEMOLITION						
29	Clearing and Grubbing	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
30	Remove Existing 2" WM	LF	310	_____ Dollars _____ Cents	\$ _____	\$ _____
ROADWAY						
31	1" Mill and Resurface	S.Y.	340	_____ Dollars _____ Cents	\$ _____	\$ _____
32	1 1/2" Type S-3 Asphalt Incl Tack Coat Two 2 3/4" Lifts	S.Y.	1,210	_____ Dollars _____ Cents	\$ _____	\$ _____
33	Limerock Base (8") (LBR 100) Incl Tack Coat	S.Y.	1,445	_____ Dollars _____ Cents	\$ _____	\$ _____

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
34	Stabilized Subgrade (12") (LBR 40)	SY	1,550		\$	\$
				Dollars		
				Cents		
35	Concrete Driveway Apron (6" Thick)	SF	225		\$	\$
				Dollars		
				Cents		
36	5' Wide Concrete Sidewalk (4" Thick)	LF	45		\$	\$
				Dollars		
				Cents		
37	Existing Sidewalk Joint Cutting	LF	22		\$	\$
				Dollars		
				Cents		
38	Curb Ramps with Detactable Warning Surface	EA	4		\$	\$
				Dollars		
				Cents		
39	Concrete Valley Gutter	LF	855		\$	\$
				Dollars		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
40	Concrete Bollards	EA	25	Dollars	\$	\$
				Cents		
41	Marking and Signing(ALLEY) Striping, 24" White (Thermo) Stop Bar Stop Sign	LS	1	Dollars	\$	\$
				Cents		
42	Swale Grading and Sodding	SY	258	Dollars	\$	\$
				Cents		
DRAINAGE						
43	Reinforced Concrete Pipe (18")	LF	325	Dollars	\$	\$
				Cents		
44	Exfiltration Trench (18")	LF	65	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
45	Type E Drainage Inlet	EA	2		\$	\$
				Dollars		
				Cents		
46	4' Dia Storm Manhole	EA	1		\$	\$
				Dollars		
				Cents		
SW 10TH AVE SIDEWALK SITE GENERAL CONDITIONS						
47	Unforeseen Condition Allowance	LS	1	Five Thousand	\$ 5,000.00	\$ 5,000.00
				Dollars		
				Cents		
DEMOLITION						
48	Clearing and Grubbing	LS	1		\$	\$
				Dollars		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
ROADWAY						
49	1 1/2" Type S-3 Asphalt Incl Tack Coat Two 2 3/4" Lifts	S.Y.	110	Dollars	\$	\$
				Cents		
50	Limerock Base (8") (LBR 100) Incl Tack Coat	S.Y.	115	Dollars	\$	\$
				Cents		
51	Stabilized Subgrade (12") (LBR 40)	S.Y.	120	Dollars	\$	\$
				Cents		
52	Existing Sidewalk Joint Cutting	LF	25	Dollars	\$	\$
				Cents		
53	Curb Ramps with Tactile(PAVER) Surface	EA	2	Dollars	\$	\$
				Cents		
54	5' Wide Concrete Sidewalk (4" Thick)	LF	50	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
55	5' Wide Paver Brick Sidewalk W/ Concrete Border	LF	100	Dollars	\$	\$
				Cents		
56	Type F Curb	LF	105	Dollars	\$	\$
				Cents		
57	Concrete Valley Gutter	L.F.	95	Dollars	\$	\$
				Cents		
58	SiGN Relocation(if need to be Relocate) (CHURCH MONUMENT SIGN)	LS	1	Dollars	\$	\$
				Cents		
59	Swale Grading and Sodding	SY	7	Dollars	\$	\$
				Cents		

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
60	SIGNING AND PAVEMENT MARKING	LS	1	Dollars	\$	\$
				Cents		
TOTAL EVALUATED BASE BID BID ITEMS 21 through 60 (in numbers)						\$
				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.)

Form 7 – Genuine Bid

By signing this Form 7, Genuine Bid, Bidder confirms this Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or a corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over the City; no City official nor any City employee has a direct or indirect interest in said bid, in the supplies or work to which it relates, to any person associated with the firm performing the work, or to the profits resulting from the work.

Firm Name: _____

Street Address: _____

Mailing Address (if different from Street Address): _____

Telephone Number(s): _____

Fax Number(s): _____

Email Address: _____

Federal Identification Number: _____

Signature Date

Printed Name and Title

Form 8 – Bid Guaranty

The undersigned Bidder agrees to the following:

The Bid Bond submitted in response to this ITBC shall be forfeited by the Bidder if Bidder is the successful Bidder, and (1) the undersigned Bidder shall fail to execute the Agreement within the specified time period; (2) the undersigned Bidder shall fail to furnish security and/or performance bond(s) as required in the Agreement and in the time period specified; and/or (3) the undersigned Bidder shall fail to furnish insurance certificates as required in the Agreement and within the time specified. Otherwise, said certified check, cashier's check or bid bond will to be returned as provided herein. NOTE: Bidder must use the Bid Bond forms on the following pages.

Accompanying this Bid is a

- Certified check;
- Cashier's check; or
- Bid bond

meeting the requirements of this ITBC. Bid Bond is 5% of the Total Bid Price in the amount of _____

(\$ _____) payable to the City of Delray Beach.

Firm Name (print)

Signature

Date

Printed Name and Title

BID BOND

STATE OF FLORIDA)
) SS
COUNTY OF _____)

KNOW ALL MY BY THESE PRESENTS that _____
as Principal, and _____ as surety, are held and firmly bound
unto the City of Delray Beach, Florida, hereinafter called the City in the penal sum of _____
_____ dollars (\$ _____) lawful money of the
United States, for the payment of which sum will and truly to be made, we bind ourselves, our
heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas the Principal has
submitted the accompanying bid, dated _____, for project titled:

**ITBC No. 2017-012
SW 10th Ave Sidewalk and
Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

NOW, THEREFORE,

- (a) It is a condition precedent to the submission of said bid that a certified check, cashier's check or bid bond in the amount of five percent (5%) of the base bid be submitted with said bid as a guarantee that Bidder would, if awarded the contract, enter into a written contract with the City for the completion of the Work specified in the Contract Documents for the amount indicated in the Bid.
- (b) If the Principal shall not withdraw said bond within (90) days after date of the same, and shall within fifteen (15) days after the prescribed forms are presented to him for signature, enter into a written contract with the City in accordance with the bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligation shall be void and of no effect, otherwise the sum herein stated shall be due and payable to the City and the surety herein agrees to pay said sum immediately upon demand of the City in good and lawful money of the United States of America as liquidated damages for failure thereof of said principal.

IN WITNESS WHEREOF, the above-bounded parties executed this instrument under their several seals, this _____ day of _____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

I _____ (person), on behalf of
_____ (surety)
_____ (surety company) have read
and examined the Performance and Payment Bonds attached to Bid 2016-130.

Signature

Date: _____

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required). (If Corporation, Secretary Only will attest and affix seal)

WITNESSES:

By: _____

Printed Name: _____

By: _____

Printed Name: _____

PRINCIPAL

(firm name)

By: _____
(Signature of Authorized Officer)

Print Name: _____

Title: _____

Business Address:

CORPORATE SEAL:

SURETY:

WITNESSES:

By: _____

Print Name: _____

By: _____

Print Name: _____

(Surety firm name)

By: _____

(Signature, Attorney-in-Fact)

Printed Name: _____

Business Address:

Name of Local Insurance Agency

Form 9 - CONE OF SILENCE

The Palm Beach County Lobbyist Registration Ordinance (Sections 2-351 through 2-357 of the Palm Beach County Code of Ordinances) is applicable in the City of Delray Beach. Section 2-355 of the Palm Beach County Lobbyist Registration Ordinance includes a "Cone of Silence" provision that limits communication during the City's procurement process in regard to this ITBC, which provides as follows:

Sec. 2-355. Cone of silence.

- (a) Cone of silence means a prohibition on any communication, except for written correspondence, regarding a particular request for proposal, request for qualification, bid, or any other competitive solicitation between:
 - (3) Any person or person's representative seeking an award from such competitive solicitation; and
 - (4) Any county commissioner or commissioner's staff, any member of a local governing body or the member's staff, a mayor or chief executive officer that is not a member of a local governing body or the mayor or chief executive officer's staff, or any employee authorized to act on behalf of the commission or local governing body to award a particular contract.
- (b) For the purposes of this section, a person's representative shall include but not be limited to the person's employee, partner, officer, director, consultant, lobbyist, or any actual or potential subcontractor or consultant of the person.
- (c) The cone of silence shall be in effect as of the deadline to submit the proposal, bid, or other response to a competitive solicitation. The cone of silence applies to any person or person's representative who responds to a particular request for proposal, request for qualification, bid, or any other competitive solicitation, and shall remain in effect until such response is either rejected by the county or municipality as applicable or withdrawn by the person or person's representative. Each request for proposal, request for qualification, bid or any other competitive solicitation shall provide notice of cone of silence requirements and refer to this article.
- (d) The provisions of this article shall not apply to oral communications at any public proceeding, including pre-bid conferences, oral presentations before selection committees, contract negotiations during any public meeting, presentations made to the board or local municipal governing body as applicable, and protest hearings. Further, the cone of silence shall not apply to contract negotiations between any employee and the intended awardee, any dispute resolution process following the filing of a protest between the person filing the protest and any employee, or any written correspondence at any time with any employee, county commissioner, member of a local municipal governing body, mayor or chief executive officer that is not a member of the local municipal governing body, or advisory board member or selection committee member, unless specifically prohibited by the applicable competitive solicitation process.
- (e) The cone of silence shall not apply to any purchases made in an amount less than the competitive bid threshold set forth in the county purchasing ordinance (County Code, chapter 2, article III, division 2, part A, section 2-51 et seq.) or municipal ordinance as applicable.
- (f) The cone of silence shall terminate at the time the board, local municipal governing body, or a county or municipal department authorized to act on behalf of the board or local municipal governing body as applicable, awards or approves a contract, rejects all bids or responses, or otherwise takes action which ends the solicitation process.**
- (g) Any contract entered into in violation of the cone of silence provisions in this section shall render the transaction voidable.

By signing below, Bidder agrees to abide by the restrictions in this Cone of Silence.

Signature: _____

Date: _____

Printed Name: _____

Title: _____

Form 10 – Non-Collusion Affidavit

STATE OF FLORIDA

)

COUNTY OF _____)

_____ being first duly sworn, deposes and states that:

(Name)

(1) He / She is the _____,
(Owner, Partner, Officer, Representative or Agent)

(2) He / She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representative, employees or parties in interest, including this affidavit, have 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 Contract for which the attached Bid has been submitted; or to refrain from bidding in connection with such Contract; or have in any manner, directly or indirectly, sought by agreement or collusion, or communications, or conference with any 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 (Recipient), or any person interested in the proposed Contract;

(5) The price of items quoted are fair and proper and are not tainted by collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any other of its agents, representatives, owners, employees or parties in interest, including this affidavit.

By: _____

Print Name: _____

Subscribed and sworn to before me this _____ day of _____, 20_____ .

Signature and Stamp of Notary Public
My Commission Expires: _____

Form 11 - INFORMATION REQUIRED OF BIDDER

BIDDER'S GENERAL INFORMATION:

Bidder shall furnish the following information. Failure to comply with this requirement will render Bid non-responsive and may cause its rejection. Additional sheets shall be attached as required.

(1) Bidder's full and complete legal name including any dba and address:

(2) Bidder's telephone number: _____

(3) Bidder's Representative and contact for this ITBC:
Name: _____
Phone: _____
Email: _____

(4) Number of years as a Contractor in this type of work: _____

(5) Names and titles of all officers of Bidder's firm:

(6) Name, address, and telephone number of surety company and agent who will provide the required bonds on this contract:

(7) Principal Materials Manufactures and Subcontractors. This proposal is being submitted by the hereinafter stated Contractor who proposes to perform work specified and shown on the Drawings. The Bid Proposal shown on the preceding page(s) has been calculated and tabulated using basic material prices. The following is a list of material manufactures and subcontractors whose materials and services said Contractor proposes to furnish

and utilize if the awarded an Agreement for the work specified herein and shown on the Plans. It is understood that the following list is not complete but includes the names of manufactures of the principal components and subcontractors supplying principal services to said project. It is also understood that if awarded a Contract, the Contractor will furnish the materials of the manufactures and utilize the services of the subcontractors stated herein and that if for any reason whatsoever Contractor wishes to substitute materials or subcontractors he shall request permission in writing from the City stating fully the reason for making such a request prior to ordering same.

All of said manufactures or their authorized vendors have been made aware of all the appropriate portions of the Contract Documents and agree that their materials will meet all of the requirements stated therein and that deliveries will be scheduled so as not to impede the progress of the work.

<u>Materials:</u>	Manufacturer
_____:	_____
_____:	_____
_____:	_____

<u>Subcontractors:</u>	
Name	Duties
_____	_____
_____	_____
_____	_____

Bidder: _____

By: _____

Print Name: _____

[Remainder of page intentionally left blank]

Form 12 - QUESTIONNAIRE

The undersigned guarantees the truth and accuracy of all statements and answers herein contained.

1. How many years has Bidder's organization been in business in the State of Florida as a Contractor?
2. Identify the most recent project for sidewalk work and most recent project for alley/road work similar to the work described in this ITBC that Bidder has completed (meaning acceptance has been made by owner and final payment has been made) Provide the project name, date completed, owner's name, owner's contact phone number and email address, and the project location.
3. Has Bidder failed to complete work on an awarded project in the last ten years for any reason. If yes, identify the project, where it was located, and provide an explanation why Bidder did not complete the work.
4. Provide three client references, either individuals or corporations, for which Bidder has performed work and who are agreeable to respond to the City's request for feedback.

Client Reference 1

Client Name:

Work Performed:

Contact Name:

Contact Telephone:

Contact Email:

Client Reference 2

Client Name:

Work Performed:

Contact Name:

Contact Telephone:

Contact Email:

Client Reference 3

Client Name:

Work Performed:

Contact Name:

Contact Telephone:

Contact Email:

- 5. List the following information concerning all contracts on hand as of the date of submission of this proposal. (In case of co-venture, list the information of all co-venturers).

		TOTAL CONTRACT VALUE	CONTRACTED DATE OF COMPLETION	% OF COMPLETION TO DATE
NAME OF PROJECT	OWNER			

- 6. Has Bidder personally inspected the proposed work site and conditions?
- 7. Does Bidder have a complete plan for its performance?
- 8. Will Bidder subcontract any part of this work? If yes, provide details of which portions will be subcontracted.

9. What equipment does Bidder own that is available for the work under this ITBC? (Attach additional sheets as necessary).

Item	Description
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

10. What equipment does Bidder propose to purchase for the work under this ITBC? (Attached additional sheets as necessary).

Item	Description
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

11. What equipment does Bidder propose to rent for the work under this ITBC? (Attached additional sheets as necessary).

Item	Description
1	
2	
3	
4	
5	
6	
7	
8	

(If Sole Ownership or Partnership, two Witnesses required. If Corporation, Secretary Only will attest and affix seal)

WITNESSES:

By: _____

Printed Name: _____

By: _____

Printed Name: _____

Corporate Seal

BIDDER

(Bidder name)

By: _____
(Signature of Authorized Officer)

Printed Name: _____

Title: _____

Appendix A General Terms and Conditions

[Remainder of page intentionally left blank]

Appendix A
 General Terms and Conditions
 City of Delray Beach
 ITBC 2017-012
 SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
 Project Nos. 2014-002 and 2009-006

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GENERAL TERMS AND CONDITIONS

These General Terms and Conditions are standard for Agreements for construction related projects issued through the City. The City may delete, supersede, or modify any of these General Terms and Conditions by indicating such change within the Agreement itself or in the Invitation to Bid (ITB) or other solicitation and contractual documents.

1. DEFINITIONS:

The City will use the following definitions in these General Terms and Conditions:

- A. ADDENDA - Written or graphic instruments, explanations, interpretations, changes, corrections, additions, deletions or modifications of the Agreement Documents issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Agreement Documents.
- B. AGREEMENT – The words Agreement and Contract may be used interchangeably in these General Terms and Conditions and shall mean the written agreement between the City and Contractor covering the Work to be performed. When other Documents are attached to the Agreement, they shall become a part of the Agreement.
- C. AGREEMENT DOCUMENTS - The Advertisement for Bids, Instructions to Bidders, Proposal, Bid Bond, Agreement, Payment Bond, Performance Bond, Certificate of Insurance, Notice of Tentative Award, Notice to Proceed, Certificate of Substantial Completion, Warranty of Title, Final Receipt - Release of Lien, General Conditions, Supplemental General Conditions, Technical Specifications, Contract Drawings, Addenda and Change Orders executed pursuant to the Agreement Documents.
- D. APPLICATION FOR PAYMENT - The form accepted by Consultant which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the Agreement Documents.
- E. BONDS - Bid, Performance and Payment bonds and other instruments which protect against loss due to inability, failure or refusal of Contractor to perform the work specified in the Agreement Documents.
- F. CALENDAR DAY - A calendar day of 24 hours measured from midnight to the next midnight, including Saturdays, Sundays and holidays and regardless of the weather.
- G. CHANGE ORDER - A document recommended by Consultant which is signed by Contractor and the City which authorizes an addition, deletion, or revision in the work, or an adjustment in the Contract Price or Contract Time, issued on or after the execution of the Agreement. Change Orders must be in writing and verbal agreements of any matter are expressly excluded from any definition.
- H. CONTRACTOR – Successful Bidder who is awarded a Purchase Order or Agreement, to provide goods or services and/or to furnish the Work called for in the Agreement Documents and shall include Contractor's representatives, agents, employees, officers, directors and all others affiliated therewith.
- I. CONSTRUCTION SUPERINTENDENT - The construction superintendent shall be in attendance at the project site during performance of the Work and shall represent Contractor. Communications given to the construction superintendent or decisions

made by the construction superintendent shall be as binding as if given to or made by Contractor. Important communications or decisions shall be confirmed in writing. Other communications or decisions shall be similarly confirmed by written request in each case.

- J. CONSULTANT(S) - City of Delray Beach Environmental Services Department, Engineering Division or its authorized agents, inspectors or representatives acting within the scope of duties entrusted to them by the City.
- K. CONTRACT PRICE - The total monies payable by the City to Contractor under the terms and conditions of the Agreement Documents which can be modified only by written change order.
- L. CONTRACT TIME - The number of successive calendar days stated in the Agreement Documents for the completion of the Work.
- M. DEFECTIVE WORK - Work determined by the City or Consultant to be unsatisfactory, faulty, or deficient; or that does not conform to the Agreement Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Agreement Documents; or Work that has been damaged prior to Consultant's recommendation of final payment.
- N. DRAWINGS - The drawings, plans, maps, profiles, diagrams, and other graphic representations which show character, location, nature, extent and scope of the Work, which have been prepared or approved by Consultant and which are considered part of the Agreement Documents.
- O. EFFECTIVE DATE OF THE AGREEMENT - The date indicated in the Agreement, but if no such date is indicated it means the date on which the Agreement is signed by the last of the two parties to sign the Agreement.
- P. FIELD ORDER - A written order by Consultant that does not impact the cost or time of performance of the Work and for which no increase in Contract Sum or Contract Amount shall be permitted.
- Q. GENERAL REQUIREMENTS - Division 1 of the Technical Specifications.
- R. LAWS AND REGULATIONS; LAWS OR REGULATIONS - Laws, rules, codes, regulations, ordinances and/or orders promulgated by a lawfully constituted body authorized to issue such Laws and Regulations.
- S. NOTICE OF TENTATIVE AWARD - The official written notice by the City to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein within the time specified, the City may enter into an Agreement for the price specified in the Bid.
- T. NOTICE TO PROCEED - The written notice issued by the City, or its agents, to Contractor requiring Contractor to proceed with the Work and establishing the date of commencement of the Contract Time.
- U. PARTIAL UTILIZATION - Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.
- V. PAYMENT REQUEST - means a request for payment for construction services which conforms with all statutory requirements and with all requirements specified by the City to which the payment request is submitted.

- W. PROJECT - The entire construction to be performed as provided in the Agreement Documents.
- X. PROPER INVOICE - means an invoice which conforms with all statutory requirements and with all requirements that have been specified by the City to which the invoice is submitted.
- Y. PURCHASE - means the purchase of goods, services, or construction services; the purchase or lease of personal property; or the lease of real property by the City.
- Z. RESIDENT PROJECT REPRESENTATIVE (RPR) - The resident project representative shall be in attendance at the project site during performance of the Work and shall represent the City directly or through Consultant. Responsibilities of the RPR are further defined in these General Terms and Conditions.
- AA. SHOP DRAWINGS - All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.
- BB. SPECIFICATIONS - (Same definition as for Technical Specifications hereinafter).
- CC. SUBCONTRACTOR - An individual, firm, or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- DD. SUBSTANTIAL COMPLETION - The Work (or a specified part thereof) has progressed to the point where, in the opinion of Consultant as evidenced by Consultant's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Agreement Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof. When the entire Project is considered to be Substantially Complete, this does not constitute Final Acceptance or Final Completion of the entire Project. Substantial Completion cannot occur in the absence of Consultant's express written approval of such.
- EE. SUPPLEMENTARY CONDITIONS - The part of the Agreement Documents which amends or supplements these General Conditions.
- FF. SUPPLIER - A manufacturer, fabricator, supplier, distributor, material man or vendor.
- GG. SURETY - Any person, firm or corporation who is bound by bid or contract bond with and for Contractor.
- HH. TECHNICAL SPECIFICATIONS - Those portions of the Agreement Documents consisting of the General Requirements and written technical descriptions of products and execution of the Work.
- II. UNDERGROUND FACILITIES - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water supply or distribution, sewage and drainage removal, traffic or other control systems.

- JJ. UNIT PRICE WORK - Work to be paid for on the basis of unit prices rather than on a lump-sum basis.
- KK. WORK – The totality of any and all obligations, duties and responsibilities necessary to the successful completion of the Project assigned to or undertaken by Contractor under the Agreement Documents, whether completed or partially completed, including all labor, materials, equipment and other incidentals and the furnishing thereof.
- LL. WORK DIRECTIVE CHANGE - A written directive to Contractor, issued on or after the Effective Date of the Agreement and signed by the City and recommended by Consultant, ordering an addition, deletion or revision in the Work, or which references an emergency or unforeseen physical conditions under which the Work is to be performed. A Work Directive Change may not change the Contract Price or the Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time.
- MM. WRITTEN AMENDMENT - A written amendment of the Agreement Documents, signed by the City and Contractor on or after the Effective Date of the Agreement and normally dealing with the non-engineering or nontechnical rather than strictly Work-related aspects of the Agreement Documents.

2. ORDER OF PRECEDENCE:

Any and all Terms and Conditions contained in this solicitation that may be in variance or conflict with these General Conditions shall have precedence over these General Conditions.

3. COMPLIANCE TO SPECIFICATIONS, LATE DELIVERIES/PENALTIES:

Items offered may be tested for compliance to bid specifications. Items delivered which do not conform to bid specifications may be rejected and returned at Contractor's expense. Any violation resulting in contract termination for cause or delivery of items not conforming to specifications, or late delivery may also result in:

- A. Bidders name being removed from the City ' s bidder' s mailing list for a specified period and Bidder will not be recommended for any award during that period.
- B. All City Departments being advised to refrain from doing business with the Bidder.
- C. All other remedies in law or equity.

4. DELIVERY:

Time will be of the essence for any orders or agreements resulting from this ITB. The City reserves the right to cancel any orders or contracts, or part thereof, without obligation if delivery is not made in accordance with the schedule specified by the Bidder and accepted by the City.

When the Contractor delivers the signed Agreements to the City, the Contractor shall also deliver to the City such Bonds and Insurance Policies, Certificates or other documents as the Contractor may be required to furnish in accordance with the Contract Documents.

5. **PAYMENT TERMS AND CASH DISCOUNTS:**

Payment terms, unless otherwise stated in this ITB, will be considered to be net 45 days after the date of satisfactory delivery at the place of acceptance and receipt of correct invoice at the office specified, whichever occurs last. Bidder may offer cash discounts for prompt payment but they will not be considered in determination of award. If a Bidder offers a discount, it is understood that the discount time will be computed from the date of satisfactory delivery, at the place of acceptance, and receipt of correct invoice, at the office specified, whichever occurs last.

6. **PAYABLE INTEREST:**

The City shall not be liable for interest for any reason, whether as prejudgment interest or for any other purpose, and in furtherance thereof Bidder waives, rejects, disclaims and surrenders any and all entitlement it has or may have to receive interest in connection with a dispute or claim based on or related to the bid. Rate of Interest. In any instance where the prohibition or limitations herein are determined to be invalid or unenforceable, the annual rate of interest payable by the City, whether as prejudgment interest or for any other purpose, shall be .025 percent simple interest (uncompounded).

7. **ACCEPTANCE, CONDITION, AND PACKAGING:**

The material delivered in response to ITB award shall remain the property of the Proposer until a physical inspection is made and the material accepted to the satisfaction of the City. The material must comply fully with the terms of the ITB, be of the required quality, new, and the latest model. All containers shall be suitable for storage and shipment by common carrier, and all prices shall include standard commercial packaging. The City will not accept un-authorized substitutes of any kind. Any substitutes or material not meeting specifications will be returned at the Bidder's expense. Payment will be made only after City receipt and acceptance of materials or services.

8. **SAFETY STANDARDS:**

All manufactured items and fabricated assemblies shall comply with applicable requirements of the Occupational Safety and Health Act of 1970 as amended, and be in compliance with Florida Statutes, Chapter 442. Any toxic substance listed in Section 38F- 41.03 of the Florida Administrative Code delivered as a result of any order must be accompanied by a completed Safety Data Sheet (SDS).

9. **ASBESTOS STATEMENT:**

All material supplied must be 100% asbestos free. Bidder, by virtue of bidding, certifies that if awarded any portion of the ITB the bidder will supply only material or equipment that is 100% asbestos free.

10. **VERBAL INSTRUCTIONS PROCEDURE:**

No negotiations, decisions, or actions shall be initiated or executed by Contractor as a result of any discussions with any City employee. Only those communications which are in writing from an authorized City representative may be considered. Only written communications from Contractors, which are assigned by a person designated as authorized to bind Contractor, will be recognized by the City as duly authorized expressions on behalf of Contractors.

11. **INDEPENDENT CONTRACTOR:**

Contractor is an independent Contractor under this Agreement. Personal services provided by the Proposer shall be by employees of Contractor and subject to supervision by Contractor, and not as officers, employees, or agents of the City. Personnel policies, tax responsibilities, social security, health insurance, employee benefits, procurement policies unless otherwise stated in this ITB, and other similar administrative procedures applicable to services rendered under this contract shall be those of Contractor.

12. **TERMINATION FOR CAUSE:**

If, through any cause, Contractor shall fail to fulfill in a timely and proper manner its obligations under this Agreement, or if Contractor shall violate any of the provisions of this Agreement, the City may upon fifteen days written notice to Contractor terminate the right of Contractor to proceed under this Agreement, or with such part or parts of the Agreement as to which there has been default, and may hold Contractor liable for any damages caused to the City by reason of such default and termination. In the event of such termination, any completed services performed by Contractor under this Agreement shall, at the option of the City, become the City's property and Contractor shall be entitled to receive equitable compensation for any work completed to the satisfaction of the City. Contractor, however, shall not be relieved of liability to the City for damages sustained by the City by reason of any breach of the Agreement by Contractor, and the City may withhold any payments to Contractor for the purpose of setoff until such time as the amount of damages due to the City from Contractor can be determined.

13. **TERMINATION FOR CONVENIENCE:**

The City reserves the right, in its best interest as determined by the City, to cancel this agreement by giving written notice to Contractor thirty (30) days prior to the effective date of such cancellation.

14. **CANCELLATION FOR UNAPPROPRIATED FUNDS:**

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

15. **RECORDS/AUDIT:**

Contractor shall maintain during the term of the contract all books of account, reports and records in accordance with generally accepted accounting practices and standards for records directly related to this contract for the duration of the contract and for three years after the final payment, or until all pending audits, investigations or litigation matters relating to the contract are closed, whichever is later. Contractor agrees to make available to the City or designee, during normal business hours all books of account, reports and records relating to any agreement as a result of this bid.

16. **PERMITS, TAXES, LICENSES:**

The successful Contractor shall, at their own expense, obtain all necessary permits, pay all licenses, fees and taxes, required to comply with all local ordinances, state and federal laws, rules and regulations applicable to business to be carried out under this contract.

17. **LAWS/ORDINANCES:**

Contractor shall observe and comply with all federal, State, local and municipal laws, ordinances, rules and regulations that would apply to this contract.

18. **UNUSUAL CIRCUMSTANCES:**

If during a contract term where costs to the City are to remain firm or adjustments are restricted by a percentage or CPI cap, unusual circumstances that could not have been foreseen by either party of the contract occur, and those circumstances significantly affect Contractor's cost in providing the required prior items or services, then Contractor may request adjustments to the costs to the City to reflect the changed circumstances. The circumstances must be beyond the control of Contractor, and the requested adjustments must be fully documented. The City may, after examination, refuse to accept the adjusted costs if they are not properly documented, increases are considered to be excessive, or decreases are considered to be insufficient. In the event the City does not wish to accept the adjusted costs and the matter cannot be resolved to the satisfaction of the City, the City will reserve the following options:

- A. The contract can be canceled by the City upon giving thirty (30) days written notice to Contractor with no penalty to the City or Contractor. Contractor shall fill all City requirements submitted to Contractor until the termination date contained in the notice.
- B. The City requires Contractor to continue to provide the items and services at the firm fixed (non- adjusted) cost until the termination of the contract term then in effect.
- C. If the City, in its interest and in its sole opinion, determines that Contractor in a capricious manner attempted to use this section of the contract to relieve them of a legitimate obligation under the contract, and no unusual circumstances had occurred, the City reserves the right to take any and all action under law or equity. Such action shall include, but not be limited to, declaring Contractor in default and disqualifying him for receiving any business from the City for a stated period of time.

If the City does agree to adjusted costs, these adjusted costs shall not be invoiced to the City until Contractor receives notice in writing signed by a person authorized to bind the City in such matters.

19. **PATENTS AND ROYALTIES:**

Contractor, without exception, shall indemnify and save harmless the City and its employees from liability of any nature and kind, including cost and expenses for or on account of any copyrighted, patented or un-patented invention, process, or article manufactured or used in the performance of the contract, including its use by the City. If Contractor uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

20. **ASSIGNMENT:**

Contractor shall not transfer or assign the performance required by this ITB without the prior written consent of the City which consent may be withheld for any reason. Any award issued pursuant to this ITB, and the monies, which may become due hereunder,

are not assignable except with the prior written approval of the City Commission or the City Manager or City Manager ' s designee, depending on original award approval.

21. **UNDEFINED GENERAL ALLOWANCE:**

A undefined general allowance may be included as part of the Schedule of Bid Prices. This allowance is included to cover contract item identified in Section 01020 - Undefined general allowances. Prior to the initiation of any expenditure of any undefined general allowance, an executed formal Change Order is necessary for the utilization of allowance funds. The method for computing Change Order dollar amounts shall be as specified in the General Conditions.

ADDITIONAL GENERAL TERMS AND CONDITIONS¹

SECTION 1 – THE WORK

Contractor shall perform all of the Work required by the Agreement Documents and shall provide materials, supplies, tools, equipment, labor, and services directly related to the Work, and shall perform the Work in a good and workmanlike manner with sufficient manpower to perform the Work in accordance with the time requirements set forth in the Agreement Documents, and shall perform all other acts and supply all other things necessary to complete the Work in strict accordance with the Agreement Documents.

When completed the Work shall conform to the requirements of the Agreement Documents and be completely ready for occupancy and finally completed.

Contractor represents and warrants that it will comply with all federal, state and local government laws, rules regulations and building codes relating to its responsibilities as set forth in the Agreement Documents.

1. DELIVERY OF DOCUMENTS

When Contractor delivers the signed Agreements to the City, Contractor shall also deliver to the City such Bonds and Insurance Policies, Certificates or other documents as Contractor may be required to furnish in accordance with the Agreement Documents.

2. COPIES OF DOCUMENTS

The City shall furnish to Contractor five copies (unless otherwise specified in the Supplementary Conditions) of the Agreement Documents or as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

3. COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED

The Contract Time will commence to run on the day indicated in any Notice to Proceed. A Notice to Proceed may be given at any time within ninety days after the Effective Date of the Agreement.

4. STARTING THE PROJECT

Contractor shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract time commences to run.

5. BEFORE STARTING CONSTRUCTION

5.01 Before undertaking each part of the Work, Contractor shall carefully study and compare the Agreement Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall promptly report in writing to Consultant any conflict, error, ambiguity or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Consultant before proceeding with any Work affected thereby; Contractor shall have a continuing obligation to promptly report any conflicts, errors, ambiguities or discrepancies in the Agreement Documents to Consultant over the duration of the Project.

5.02 Contractor and Subcontractor have fully examined and compared all Drawings, Specifications and other Agreement Documents and have compared and reviewed all general and specific details on the Drawings and the various technical and administrative requirements of the Specifications.

5.03 With respect to all construction materials, labor, methods, means, techniques and sequence of procedures required to carry out the Work or safety precautions and programs required in connection with carrying out the Work, all conflicts, discrepancies, errors and omissions that Contractor is aware of as a result of the examination and comparison of the Agreement Documents have been either corrected or clarified to the satisfaction of Contractor prior to execution of this Construction Contract.

5.04 The Contract Sum is reasonable compensation and represents the total lump sum cost for the Work and that all systems and Work shall be functional and in accordance with the requirements of the Agreement Documents.

5.05 The Contract Time is adequate for the performance of the Work.

5.06 Contractor is responsible for all means, methods, techniques and sequencing of construction.

5.07 If, after execution of this Construction Contract, Contractor detects a conflict, discrepancy, error or omission in the Agreement Documents then it shall immediately notify Consultant and City prior to proceeding with the specific portion of the Work.

5.08 Contractor shall have a continuing duty to read, examine, review, compare and contrast each of the documents which make up this Contract and shall immediately give written notice to the City and Consultant of any conflict, ambiguity, error or omission which Contractor may find with respect to these documents before proceeding with the affected Work.

5.09 In the event of a conflict among the Agreement Documents, the most stringent requirement to Contractor shall control.

6. **PRECONSTRUCTION CONFERENCE**

At the preconstruction conference, Contractor shall submit to Consultant for review:

- A. A proposed progress schedule indicating the starting and completion dates of the various stages of the Work; and
- B. A preliminary schedule of Shop Drawing submissions and those shop drawings necessary to begin the work; and
- C. A preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by Contractor at the time of submission; and,
- D. Preconstruction video tapes if required by the technical specifications.

7. **COMMENCEMENT OF WORK**

Contractor shall not commence construction operations until the construction progress schedule, schedule of values and the shop drawing submission schedule described above have been reviewed by Consultant for general conformance with the Agreement Documents. Failure of Contractor to timely submit the required documents for Consultant's review shall not entitle Contractor to an extension of time or additional compensation under any circumstances. After review of the schedules, no deviation shall be made without prior written acceptance by the City for general conformance with the Agreement Documents.

8. **PRECONSTRUCTION CONFERENCE**

After the Effective Date of the Agreement, but before Contractor starts Work at the site, a conference attended by Contractor, Consultant and others as deemed appropriate by the City, Consultant, or Contractor will be held to discuss the schedules referred to in paragraph 6, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work. Nothing herein shall relieve Contractor from the responsibility of contacting local utilities and any other necessary agencies.

9. **FINALIZING SCHEDULES**

At least ten days before submission of the first Application for Payment a conference attended by Contractor, City, Consultant and others as appropriate will be held to finalize the schedules submitted in accordance with these Terms and Conditions. The finalized progress schedule will be acceptable to the City as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on the City responsibility for the progress or scheduling of the Work nor relieve Contractor from full responsibility therefore. The finalized schedule of Shop Drawing submissions will be acceptable to the City as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to the City as to form and substance.

SECTION 2 - AGREEMENT DOCUMENTS, INTENT, AMENDING; REUSE

10. **AGREEMENT DOCUMENTS**

The Agreement Documents comprise the entire agreement between the City and Contractor concerning the Work. The Agreement Documents are complementary: what is called for by one is as binding as if called for by all. The Agreement Documents will be construed in accordance with the laws of the State of Florida with venue in Palm Beach County, Florida.

11. **INTENT**

It is the intent of the Agreement Documents to describe a functionally complete Project (or part thereto) to be constructed in accordance with the Agreement Documents. Any Work, materials or equipment that may reasonably be inferred from the Agreement Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening

of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Agreement Documents) shall be effective to change the duties or responsibilities of the City, Contractor or Consultant or any of their consultants, agents or employees from those set forth in these Agreement Documents, nor shall it be effective to assign to Consultant's, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of these General Terms and Conditions. Clarifications and interpretations of the Agreement Documents shall be issued by Consultant as provided herein.

11.1 If, during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Agreement Documents, Contractor shall immediately notify Consultant, in writing. Contractor shall obtain a written interpretation or clarification before proceeding with the Work affected.

11.2 The captions or subtitles of the articles and divisions of these Agreement Documents constitute no part of the context hereof, but are only labels to assist in locating and reading the provisions herein.

12. **AMENDING AND SUPPLEMENTING AGREEMENT DOCUMENTS**

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

- A. A formal Written Amendment;
- B. A Change Order (pursuant to Paragraph 58); or
- C. A Work Directive Change

33.1 Agreement Price and Agreement Time may only be changed by a Change Order or by a Written Amendment. In addition, the requirements of the Agreement Documents may be supplemented and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

- A. A Field Order;
- B. Consultant's approval of a Shop Drawing or sample; or
- C. Consultant's written interpretation or clarification

13. **REUSE OF DOCUMENTS**

Neither Contractor nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the City shall have or acquire any title to or ownership rights in any of the Agreement Documents, drawings, technical specifications or other documents used on the work; and, they shall not reuse any of them on extensions of the Project or any other project without prior written consent of the City and Consultant.

SECTION 3 - AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

14. **AVAILABILITY OF LANDS**

The City shall furnish, as indicated in the Agreement Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto and such other lands which are designated for the use of Contractor. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the City, unless otherwise provided in the Agreement Documents. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

15. **OCCUPYING PRIVATE LAND**

Contractor shall not (except after written consent from the proper parties) enter or occupy with workers, tools, equipment or materials, any land outside the rights-of-way or property of the City. A copy of the written consent shall be given to the City.

15.01 Work in State, County and City Rights-of-Way and Easements: When the Work involves the installation of sanitary sewers, storm sewers, drains, water mains, manholes, underground structures, or other disturbances of existing features in or across street, rights-of-way, easements, or other property, Contractor shall (as the Work progresses) promptly back-fill, compact, grade and otherwise restore the disturbed area to a basic condition which will permit resumption of pedestrian or vehicular traffic and any other critical activity or function consistent with the original use of the land. Unsightly mounds of earth, large stones, boulders, and debris shall be removed so that the site presents a neat appearance.

15.02 Work Adjacent to Telephone, Power, Cable TV and Gas Company Structures: In all cases where Work is to be performed near telephone, power, water, sewer, drainage, cable TV, or gas company facilities, Contractor shall provide written notification to the respective companies of the areas of which Work is to be performed, prior to the actual performance of any Work in these areas.

15.03 Use of Public Streets: The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other vehicular and non-vehicular traffic. Any earth or excavated material spilled from trucks shall be removed by Contractor and the streets cleaned to the satisfaction of the City, Consultant, the Florida Department of Transportation, or other agency or governmental entity having jurisdiction, as applicable.

16. **PHYSICAL CONDITIONS: STRUCTURES, DIFFERING CONDITIONS; ADJUSTMENTS**

16.01 Explorations and Reports: Where applicable, reference is made in the technical specifications, for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by Consultant in preparation of the Agreement Documents. Contractor may rely upon the accuracy of the technical data contained in such reports, but not upon nontechnical data, interpretations, or opinions contained therein or for the completeness for Contractor's purposes, including, but not

limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto. Except as indicated otherwise, Contractor shall have full responsibility with respect to subsurface conditions at the site.

16.02 Existing Structures: Where applicable, reference is made to the technical specifications, for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities referred to in Paragraph 17) which are at or contiguous to the site that have been utilized by Consultant in preparation of the Agreement Documents. Contractor may rely upon the general accuracy of the technical data contained in such drawings, but not for the completeness thereof for Contractor's purposes including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto. Except as indicated in the immediately preceding sentence and in paragraph 5.3, Contractor shall have full responsibility with respect to physical conditions in or relating to such structures. However, where the dimensions and locations of existing structures are of critical importance in the installation or connection of new work, Contractor shall verify such dimensions and locations in the field before the fabrication of any materials or equipment which is dependent on the correctness of such information. There shall be no additional cost to the City for Contractor's failure to verify such dimensions and locations, or for inaccurate verifications by Contractor.

16.03 Report of Differing Conditions: If Contractor believes that:

- A. Any technical data on which Contractor is entitled to rely is inaccurate, or
- B. Any physical condition uncovered or revealed at the site differs materially from that indicated, reflected or referred to in the Agreement Documents, Contractor shall, promptly after becoming aware thereof and before performing any Work in connection therewith (except in an emergency as permitted herein) notify the City and Consultant in writing about the inaccuracy or difference. Should Contractor fail to notify the City and Consultant within five (5) calendar days of discovering such differing site condition, it waives its right to seek additional time or compensation for such deficiency and is precluded from seeking a change order for such work under any circumstances.

16.04 Consultant's Review: Consultant will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise the City in writing (with a copy to Contractor) of Consultant's findings and conclusions.

16.05 Possible Document Change: If Consultant concludes that there is a material error in the Agreement Documents or that because of newly discovered conditions a change in the Agreement Documents is required, a Work Directive Change or a Change Order will be issued as provided herein to reflect and document the consequences of the inaccuracy or difference.

16.06 Possible Price and Time Adjustments: In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any

such inaccuracy or difference. If the City and Contractor are unable to agree as to the amount or length thereof, a claim may be made therefore as provided herein.

17. PHYSICAL CONDITIONS - UNDERGROUND FACILITIES

17.01 The information and data shown or indicated in the Agreement Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to the City or Consultant by the owners of such Underground Facilities or by others.

17.02 The City and Consultant shall not be responsible for the accuracy or completeness of any such information or data; AND,

Contractor warrants that it has examined the information and data presented and that it is accurate and free from any and all defects, inconsistencies, errors and omissions. Further, Contractor shall be responsible for locating all Underground Facilities whether or not shown or indicated in the Agreement Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof as provided herein, and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

17.03 All water pipes, sanitary sewers, storm drains, force mains, gas mains, or other pipe, telephone or power cables or conduits, pipe or conduit casings, curbs, sidewalks, service lines and all other obstructions, whether or not shown, shall be temporarily removed from or supported across utility line excavations. Where it is necessary to temporarily interrupt services, Contractor shall notify the owner or occupant of such facilities both before the interruption and again immediately before service is resumed. Before disconnecting any pipes or cables, Contractor shall obtain permission from their owner, or shall make suitable arrangements for their disconnection by their owner. Contractor shall be responsible for any damage to any such pipes, conduits or cables, and shall restore them to service promptly as soon as the Work has progressed past the point involved. Approximate locations of known water, sanitary, drainage, natural gas, power, telephone and cable TV installations along the route of new pipelines or in the vicinity of new work are shown, but are to be verified in the field by Contractor prior to performing the work. Contractor shall uncover these pipes, ducts, cables, etc., carefully, by hand prior to installing his Work. Any discrepancies or differences found shall be immediately brought to the attention of Consultant in order that necessary changes may be made to permit installation of the Work.

17.04 If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown, nor located by the facilities owner and which Contractor could not reasonably have been expected to be aware of, Contractor shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 22.01), identify the owner of such Underground Facility and give written notice thereof to that owner and to the City and Consultant. Consultant will promptly review the Underground Facility to determine the extent to which the Agreement Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Agreement Documents will be amended or supplemented to the extent necessary. During such

time, Contractor shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 32.5.

17.05 Contractor is expressly limited to an extension of the Contract Time to the extent that they are attributable to the existence of any such Underground Facility Contractor could not reasonably have been expected to have been aware of. Consultant, in its sole discretion, shall determine whether to award an extension of time under such circumstances. Furthermore, should Contractor fail to provide the City and Consultant with written notice of the error, omission or discrepancy in the Underground Facility within five (5) calendar days of discovering such, it waives its right to a time extension for such error, omission or discrepancy.

18. REFERENCE POINTS

The City shall provide engineering surveys to establish reference points for construction which in Consultant's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the City. Contractor shall report to Consultant whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

SECTION 4 - BONDS AND INSURANCE

19. BONDS

Contractor shall upon delivery of the executed Agreement to the City furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Agreement Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as otherwise provided by Law or Regulation or by the Agreement Documents. Contractor shall also furnish such other Bonds as are required by the Supplementary Conditions. Each Bond shall be furnished in an amount equal to 100% of the amount of the Contract award. The form and conditions of the Bonds and the Surety shall be acceptable and satisfactory to the City and Surety shall be a nationally recognized Surety Company acceptable to the City, listed on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, vs. Treasury Department, for projects not exceeding (\$500,000) five hundred thousand dollars and meet the other requirements of Florida Statutes Section 287.0935 (2001). For projects exceeding five hundred thousand dollars, all bonds shall be placed with sureties with a Best Rating of no less than A-VII. Bonds shall be executed and issued by a resident agent, licensed and having an office in Florida, representing such corporate sureties. If Contractor is a partnership, the Bond should be signed by each of the individuals who are partners; if a corporation, the Bond should be signed in the correct corporate name by duly authorized officer, agent or attorney-in-fact. There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts in the Contract. Each executed bond should be accompanied by (a) appropriate acknowledgment of the respective parties; (b)

appropriate duly certified copy of Power-of-Attorney or other certification of authority where bond is executed by agent, officer or other representative of Contractor or Surety; (c) duly certified extract from by-laws or resolutions of Surety under which Power-of-Attorney, or other certificate of Authority of its agent, officer or representative was issued.

If the surety on any Bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the state of Florida or it ceases to meet the requirements of Paragraph 19, Contractor shall within five days thereafter substitute another Bond and Surety, both of which must be in conformance with Paragraph 19. Contractor's failure to timely furnish a substitute surety shall constitute a material breach of the Contract and shall give the City the immediate right to terminate Contractor for cause in accordance these General Terms and Conditions.

20. CONTRACTOR'S INSURANCE

Contractor shall purchase and maintain such comprehensive general liability and other insurance as is appropriate for the Work being performed and furnished and as such will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the Work and Contractor's other obligations under the Agreement Documents, whether it is to be performed or furnished by Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable. Before starting and during the term of this Contract, Contractor shall procure and maintain insurance of the types and to the limits specified in the Agreement.

SECTION 5 – CONTRACTOR'S RESPONSIBILITIES

21. SUPERVISION AND SUPERINTENDENCE

Contractor has the obligation to deliver to the City the completed job in a good and workmanlike condition in accordance with the requirements of the Agreement Documents. Contractor shall supervise and direct the Work completely and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Agreement Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, Contractor shall be responsible to see that the finished Work complies accurately with the Agreement Documents. Contractor shall bear all losses resulting on account of the weather, fire, the elements, or other acts of God or causes of every kind or nature prior to Final Acceptance. The supervision of the execution of this contract is vested wholly in Contractor.

The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.

22. LABOR, MATERIALS AND EQUIPMENT; HOURS OF WORK

22.01 Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Agreement Documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or

adjacent thereto, and except as otherwise indicated in the Agreement Documents, all Work at the site shall be performed during regular working hours, and Contractor will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without the City's written consent (which shall not be unreasonably withheld) given after prior written notice to Consultant. Contractor is hereby informed, and understands that unless otherwise approved by the City, the City restricts the work between the hours of 5:00 p.m. and 8:00 a.m., unless emergency conditions exist that are endangering life or property as may be determined by the City. If Contractor is authorized to operate equipment twenty-four (24) hours per day, the engines shall be provided with residential type silencers approved by the City.

22.02 Contractor shall receive no additional compensation for overtime work. However, additional compensation will be paid to Contractor for overtime work only in the event extra work is ordered by Consultant and the change order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by Contractor for overtime work of a similar nature in the same locality.

22.03 All costs of inspection and testing performed by the City during overtime work by Contractor which is allowed solely for the convenience of Contractor shall be borne by Contractor. The City shall have the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to Contractor.

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

22.05 All materials and equipment shall be of good quality and new, except as otherwise provided in the Agreement Documents. If required by Consultant, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Agreement Documents; but no provision of any such instructions will be effective to assign to the City, Consultant, or any of the City's or Consultant's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 54.3 or 54.4.

23. ADJUSTING PROGRESS SCHEDULE

Contractor shall submit to Consultant for review and comment (to the extent indicated in paragraph 9) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

24. SUBSTITUTES OR "OR-EQUAL" ITEMS

24.01 The technical specifications shall govern the use of substitute or "or-equal" items. Consultant shall be solely responsible for determining whether to permit the proposed substitution and Contractor expressly agrees to be bound by Consultant's decision. The procedure for review by Consultant will include the following as supplemented in the technical specifications. Requests for review of substitute items of material and equipment will not be accepted by Consultant from anyone other than Contractor. If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make written application to Consultant for acceptance thereof, certifying that the proposed substitute will perform equally or better the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Agreement Documents (or in the provisions of any other direct contract with the City for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by Consultant in evaluating the proposed substitute. Consultant may require Contractor to furnish at Contractor's expense additional data about the proposed substitute.

24.02 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Agreement Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Consultant, if Contractor submits sufficient information to allow Consultant to determine that the substitute proposed is equal or better to that indicated or required by the Agreement Documents. The procedure for review by Consultant will be governed by the procedure provided in paragraph 24.01 as applied by Consultant and as may be supplemented in the Technical Specifications.

24.03 Substitution requests must include Contractor's waiver of its right to additional compensation or time for the failure of the proposed substitution to properly perform.

24.04 In order for a substitution to be considered, one or more of the following conditions must be met:

- A. The substitution request must be timely, fully documented and properly submitted.
- B. The request is directly related to an "or equal" clause in the Agreement Documents.
- C. The product or method prescribed in the Agreement Documents is no longer available.
- D. There is a substantial advantage offered to the City in terms of cost, time, energy conservation or other considerations of merit.

24.05 Consultant will be allowed a reasonable time within which to evaluate each proposed substitute. Consultant will be the sole judge of acceptability, and no substitute

will be ordered, installed or utilized without Consultant's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The City may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

25. CONCERNING SUBCONTRACTORS, SUPPLIERS AND OTHERS

25.01 Contractor shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to the City and Consultant as indicated herein whether initially or as a substitute, against whom the City or Consultant may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom Contractor has reasonable objection.

25.02 If the Technical Specifications or Agreement Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) shall be submitted to the City for acceptance by the City and Consultant, and if Contractor has submitted a list thereof, the City or Consultant's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Agreement Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case Contractor shall submit an acceptable substitute. If after bid opening and prior to the award of the contract, the City objects to certain suppliers or subcontractors, the City may permit Contractor to submit an acceptable substitute so long as there is no change in the contract price or contract time. If the contract price or contract time is increased, the City may return the bid bond and award the contract to the next qualified, competent bidder. If after the award of the contract, the City objects to certain suppliers or subcontractors, the City shall permit Contractor to make an appropriate and acceptable substitution which is also acceptable to the City. No acceptance by the City or Consultant of any such Subcontractor, supplier or other person or organization shall constitute a waiver of any right of the City or Consultant to reject defective Work.

25.03 Contractor shall be fully responsible to the City and Consultant for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work on the Project just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Agreement Documents shall create any contractual relationship between the City or Consultant and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of the City or Consultant to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

25.04 The divisions and sections of the Technical Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

25.05 All Work performed for Contractor by a Subcontractor will be pursuant to an appropriate agreement between Contractor and the Subcontractor which specifically

binds the Subcontractor to the applicable terms and conditions of the Agreement Documents for the benefit of the City and Consultant.

26. PATENT FEES AND ROYALTIES

Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Agreement Documents for use in the performance of the Work and if to the actual knowledge of the City or Consultant its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to other, the existence of such rights shall be disclosed by the City in the Agreement Documents. Contractor shall indemnify and hold harmless the City and anyone directly or indirectly employed by the City from and against all claims, damages, losses and expenses (including attorney's fees and court costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Agreement Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

27. PERMITS

Contractor shall obtain and pay for all construction permits and licenses. The City shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for prosecution of the Work, which are applicable at the time of opening of Bids. There will be no cost for permits issued by the City. Contractor shall pay all charges of utility for connections to the Work, and the City shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

28. LAWS AND REGULATIONS

28.01 Contractor shall give all notices and comply with all laws, ordinances, rules regulations and building codes applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable laws, ordinances, rules and regulations, neither the City nor Consultant shall be responsible for monitoring Contractor's compliance with any Laws, ordinances, rules or regulations. In addition, Contractor shall be responsible for ensuring the compliance of all subcontractors, suppliers or other entities furnishing labor, services or materials on the Project with all laws, ordinances, rules, regulations and building codes. Contractor's failure to comply with any of the applicable laws, ordinances, rules, regulations or building codes shall constitute a material breach of the Contract.

28.02 If Contractor observes that the Specifications or Drawings are at variance with any laws, ordinances, rules or regulations, Contractor shall give City and Consultant prompt, written notice thereof, and any necessary changes will be authorized by one of the methods indicated herein. If Contractor performs any Work knowing or having reason to know that it is contrary to such laws, ordinances, rules or regulations, and

without such notice to the City and Consultant, Contractor shall bear all costs arising there from.

28.03 Contractor shall comply with all public records laws in accordance with Chapter 119, Fla. Stat. In accordance with state law, Contractor agrees to:

- A. Keep and maintain all records that ordinarily and necessarily would be required by the City.
- B. Provide the public with access to public records on the same terms and conditions that the City would provide for the records and at a cost that does not exceed the costs provided in Chapter 119, Fla. Stat. or as otherwise provided by law.
- C. Ensure that public records that are exempt or confidential and exempt from public records disclosure are not disclosed except as authorized by law.
- D. Meet all requirements for retaining public records and transfer, at no cost, to the City all records in possession of Contractor at the termination of the contract and destroy any public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the City in a format that is compatible with the information technology systems of the City. All records shall be transferred to the City prior to final payment t being made to Contractor.
- E. If Contractor does not comply with this section, the City shall enforce the contract provisions in accordance with the contract and may unilaterally cancel this contract in accordance with state law.

29. TAXES

Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by Contractor in accordance with the laws, ordinances and regulations of the place of the Project which are applicable during the performance of the Work.

30. USE OF PREMISES

30.1 Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the project site and land and areas identified in and permitted by the Agreement Documents and other land and areas permitted by laws, ordinances, and regulations, rights-of-way, permits and easements, and shall not reasonably encumber the premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against the City or Consultant by any such owner or occupant because of the performance of the Work, Contractor shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim. Contractor shall, to the fullest extent permitted by laws and regulations, indemnify and hold the City and Consultant harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against the City or Consultant to the extent based on a claim arising out of Contractor's performance of the Work or the Work of its subcontractor, suppliers, material men or other entities performing Work under the supervision of Contractor on the Project.

30.2 During the progress of the Work, Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by the City. Contractor shall restore to original condition all property not designated for alteration by the Agreement Documents. Contractor shall comply with all statutory requirements related to waste disposal and safety precautions as required by all Federal, state of Florida and local ordinances.

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

31. RECORD DOCUMENTS

Contractor shall maintain in accordance with the Technical Specifications in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Directive Changes, Field Orders, and written interpretations and clarifications in good order and annotated to show all changes made during construction. The record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to Consultant for reference. Upon completion of the Work, these record documents, samples, and Shop Drawings will be delivered to Consultant for the City.

32. SAFETY AND PROTECTION

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

- A. All employees on the Work and other persons and organizations who may be affected thereby; and
- B. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.
- D. All damage which may occur to the 'existing to remain', equipment, building features or other related property of the City during demolition. The City may elect to repair, or have repaired, any damage caused by the Contractor, and charge the Contractor with those costs associated with such repairs.

32.2 Contractor shall comply with all applicable laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or

to protect them from damage, injury or loss on or off the Work and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to this General Terms and Conditions, caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work for anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of the City or Consultant or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor). Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Consultant has issued a notice to the City and Contractor in accordance with the provisions of these General Terms and Conditions that the Work is acceptable (Except as otherwise expressly provided in connection with Substantial Completion).

32.3 The safety provisions of applicable laws and building and construction codes shall be observed and Contractor shall take or cause to be taken such additional safety and health measures as the Local Public Agency involved may determine to be reasonably necessary Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" as published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable law.

32.4 Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of, and in the course of employment on Work under the Contract. Contractor shall promptly furnish the Local Public Agency with reports concerning these matters.

32.5 Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to the City.

33. EMERGENCIES AND PRECAUTIONS DURING ADVERSE WEATHER

33.1 In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto. Contractor, without special instruction or authorization from Consultant or the City, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Consultant prompt written notice if Contractor believes that any significant changes in the Work or variations from the Agreement Documents have been caused thereby. If Consultant determines that a change in the Agreement Documents is required because of the action taken in response to an emergency, a Work Directive Change Order or Change Order will be issued to document the consequences of the changes or variations.

33.2 During adverse weather, and against the possibility thereof, Contractor shall take all necessary precautions to ensure that the Work shall be done in a good and

workmanlike condition and is satisfactory in all respects. When required, protection shall be provided by the use of tarpaulins, wood and building paper shelters, or other acceptable means. Contractor shall be responsible for all changes caused by adverse weather, including unusually high winds and water levels and he shall take such precautions and procure such additional insurance as he deems prudent. Consultant may suspend construction operations at any time when, in his judgment, the conditions are unsuitable or the proper precautions are not being taken, whatever the weather or water level conditions may be, in any season.

34. SHOP DRAWINGS AND SAMPLES

34.1 After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, Contractor shall submit to Consultant for review in accordance with the accepted schedule of Shop Drawing submissions, ordinances, rules and all Shop Drawings which will bear the stamp that Contractor has satisfied Contractor's responsibilities under the Agreement Documents with respect to the review of the submission. All submissions will be identified as Consultant may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable Consultant to review the information as required.

34.2 Contractor shall also submit to Consultant for review and approval with such promptness as to cause no delay in Work, all samples required by the Agreement Documents. All samples will have been checked by and accompanied by a specific written indication that Contractor has satisfied Contractor's responsibilities under the Agreement Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

34.3 Before submission of each Shop Drawing or sample Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Agreement Documents.

34.4 At the time of each submission, Contractor shall give Consultant specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Agreement Documents, and, in addition shall cause a specific notation to be made on each Shop Drawing submitted to Consultant for review of each such variation.

34.5 Consultant will review within ten days of receipt thereof, Shop Drawings and samples but Consultant's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Agreement Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Agreement Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions. Contractor shall

make corrections required by Consultant, and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Consultant on previous submittals. Consultant will review one (1) re-submittal for each shop drawing or product data. All costs of reviewing additional submittals shall be at Contractor's expense.

34.6 Consultant's review of Shop Drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the Agreement Documents unless Contractor has in writing called Consultant's attention to each such variation at the time of submission as required in these General Terms and Conditions and Consultant has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any review by Consultant relieve Contractor from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions herein.

34.7 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to Consultant's review and acceptance of the pertinent submission will be the sole expense and responsibility of Contractor.

35. CONTINUING THE WORK

Contractor shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with the City. No Work shall be delayed or postponed pending resolution of any disputes or disagreements. While a change order request is pending, Contractor is still obligated to fully perform all work in accordance with the Agreement Documents and as directed by Consultant.

SECTION 6 – OTHER WORK

36. RELATED WORK AT SITE

36.1 The City may perform other work related to the Project at the site by the City's own forces, let other direct contracts therefore which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Agreement Documents, written notice thereof will be given to Contractor prior to starting any such other work; and, if Contractor believes that such performance will involve additional time and the parties are unable to agree as to the extent thereof, Contractor may make a claim therefore as provided herein; Contractor, however, shall not be entitled to any additional compensation under such circumstances and is limited to making a claim for an extension of time. If the performance of additional Work by other Contractor or the Owner is noted in the Agreement Documents, no additional adjustment of time or compensation shall be considered.

36.2 Contractor shall afford the City and other contractors who are a party to such a direct contract (or the City, if the City is performing the additional work with the City's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not

endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the City and Consultant and the others whose work will be affected. The duties and responsibilities of Contractor under this paragraph are for the benefit of the City and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between the City and other contractors.

36.3 If any part of Contractor's Work depends for proper execution or results upon the work of any such other Contractor (or the City), Contractor shall inspect and promptly report to Consultant in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for such proper execution and results of Contractor's work. Contractor's failure to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work and Contractor shall not be entitled to any additional time or compensation therefore.

37. COORDINATION

37.1 If the City contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Technical Specifications and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided in the Technical Specifications. Unless otherwise provided in the Technical Specifications, neither the City nor Consultant shall have any authority or responsibility in respect of such coordination.

SECTION 7 - THE CITY'S RESPONSIBILITIES

38. COMMUNICATIONS

38.1 The City shall issue all communications to Contractor through Consultant.

38.2 In case of termination of the employment of Consultant, the City shall appoint a consultant whose status under the Agreement Documents shall be that of the former Consultant.

39. PAYMENTS

The City shall furnish the data required of the City under the Agreement Documents promptly and shall make payments to Contractor promptly after they are due as provided herein.

40. ACCESS

The City's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth herein. Paragraph 17 refers to the City's identifying and making available to Contractor copies of all reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by Consultant in preparing the Drawings and Specifications.

41. CHANGE ORDERS

The City may execute Change Orders as indicated herein if recommended by Consultant. Consultant's decision, however, is not binding upon the City, who may

decide, in its sole discretion, to reject a Change Order submitted by Contractor where it determines that such is in the City's best interests.

42. WORK STOPPAGE

In connection with the City's right to stop Work or suspend Work. Paragraph 94 deals with the City's right to terminate services of Contractor.

SECTION 8 – CONSULTANT'S STATUS DURING CONSTRUCTION:

43. CITY REPRESENTATIVE

Consultant will be the City's representative during the construction period. The duties and responsibilities and the limitations of authority of Consultant and the City's representative during construction are set forth in the Agreement Documents and shall not be extended without written consent of the City and Consultant.

44. VISITS TO SITE:

After written notice to proceed with the work, Consultant shall make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Agreement Documents; he will not be responsible for the construction means, methods, procedures, techniques and sequences of construction, for which Contractor is solely responsible, and he will not be responsible for Contractor's failure to perform the construction Work in accordance with the Agreement Documents; he will not be responsible for safety precautions and procedures in connection with the Work; and during such visits and on the basis of his on-site observations, as an experienced and qualified design professional, he will keep the City informed of the progress of the work, will endeavor to guard the City against defects and deficiencies in the Work of Contractor and may reject Work as failing to conform to the Agreement Documents and require Contractor to repair or replace all defective work at no additional cost to the City.

45. PROJECT REPRESENTATION:

45.1 A Resident Project Representative may be assigned to assist Consultant in carrying out his responsibilities to City at the site. Resident Project Representative is Consultant's agent at site, will act as directed by and under the supervision of Consultant, and will confer with Consultant regarding Resident Representative's actions. Resident Project Representative's dealing in matters pertaining to the on-site work shall in general be with Consultant and Contractor keeping the City advised as necessary. Resident Project Representative's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. Resident Project Representative shall generally communicate with the City with the knowledge of and under the direction of Consultant.

45.2 Resident Project Representative shall where applicable:

- A. Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by Contractor and consult with Consultant concerning its general acceptability.
- B. Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
- C. Working principally through Contractor's superintendent, assist Consultant in serving as the City's liaison with Contractor, when Contractor's operations affect the City's on-site operations.
- D. Assist in obtaining from the City additional details or information, when required for proper execution of the Work.
- E. Record date of receipt of Shop Drawings and samples.
- F. Receive samples which are furnished at the site by Contractor, and notify Consultant of availability of samples for examination.
- G. Advise Consultant and Contractor of the commencement of any Work requiring a Shop Drawing if the submittal has not been approved by Consultant.
- H. Conduct on-site observations of the Work in progress to assist Consultant in determining if the Work is, in general, proceeding in accordance with the Agreement Documents.
- I. Report to Consultant whenever Residential Project Representative believes that any Work is unsatisfactory, faulty or defective or does not conform to the Agreement Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Consultant of Work that Resident Project Representative believes should be uncovered for observation, or requires special testing, inspection or approval. Nothing herein shall relieve Contractor or Consultant from the duties imposed by contract.
- J. Verify that tests, equipment and systems startups, and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; and observe, record and report to Consultant appropriate details relative to the test procedures and startups.
- K. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Consultant.
- L. Report to Consultant when clarifications and interpretations of the Agreement Documents are needed and transmit to Contractor clarifications and interpretations as issued by Consultant.
- M. Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with Resident Project Representative's recommendations to Consultant. Transmit to Contractor decisions as issued by Consultant.
- N. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Agreement Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, Consultant's clarifications and interpretations of the Agreement Documents, progress reports, and other Project related documents.
- O. Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Consultant.

- P. Record all names, addresses and telephone numbers of Contractor, all subcontractors and major suppliers of material and equipment.
- Q. Furnish Consultant periodic reports as required of progress of the Work of Contractor's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.
- R. Consult with Consultant in advance of schedule major tests, inspections or start of important phases of the Work.
- S. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from Contractor and recommend to Consultant, Change Orders, Work Directive Changes, and Field Orders.
- T. Report immediately to Consultant and the City upon the occurrence of any accident.
- U. Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Consultant, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.
- V. During the course of the work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Agreement Documents, and have this material delivered to Consultant for review and forwarding to City prior to final payment for the Work.
- W. Before Consultant issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- X. Conduct final inspection in the company of Consultant, the City and Contractor and prepare a final list of items to be completed or corrected.
- Y. Observe that all items on final list have been completed or corrected and make recommendations to Consultant concerning acceptance.

45.3 The Resident Project Representative shall not:

- A. Authorize any deviation from the Agreement Documents or substitution of materials or equipment.
- B. Exceed limitations of Consultant's authority as set forth in the Agreement Documents.
- C. Undertake any of the responsibilities of Contractor, subcontractors, or Contractor's superintendent.'
- D. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Agreement Documents.
- E. Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
- F. Accept Shop Drawing or sample submittals from anyone other than Contractor.
- G. Authorize the City to occupy the Project in whole or in part.
- H. Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by Consultant.

46. CLARIFICATIONS AND INTERPRETATIONS:

Contractor expressly agrees that Consultant is the sole judge of the requirements of the Agreement Documents and the judge of Contractor's performance there under and thus agrees that all decisions made by Consultant regarding such issues shall be binding

upon Contractor and the City. Consultant will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Agreement Documents (in the form of Drawings or otherwise) as Consultant may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Agreement Documents.

47. AUTHORIZED VARIATIONS OF WORK

Consultant may authorize minor variations in the Work from the requirements of the Agreement Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Agreement Documents. These may be accomplished by a field Order and will be binding on the City, and also on Contractor who shall perform the Work involved promptly. As such Field Orders involve minor variations to the Work, Contractor shall not be entitled to any additional time or compensation for performing such work and is precluded from submitting change order requests for furnishing such work.

48. REJECTION OF WORK

Consultant will have authority to disapprove or reject Work which Consultant believes to be defective or believes to be in nonconformance with the intent of the Agreement Documents, and will also have authority to require special inspection or testing of the Work as provided herein, whether or not the Work is fabricated, installed or completed.

49. SHOP DRAWINGS

In connection with Consultant's responsibility for Shop Drawings and samples, see paragraph 34, subparagraphs 34.1 through 34.7 inclusive.

50. CHANGE ORDERS

In connection with Consultant's responsibilities as to Change Orders, see Sections 9, 10 and 13.

51. PAYMENTS

In connection with Consultant's responsibilities in respect of Applications for Payment, Section 15.

52. DETERMINATIONS FOR UNIT PRICES:

Consultant will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Consultant will review with Contractor Consultant's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Consultant's written decisions thereon will be final and binding upon the City or Contractor unless, within ten days after the date of any such decision, either the City or Contractor delivers to the other party to the Agreement and to Consultant written notice of intention to appeal from such a decision.

53. DECISIONS ON DISPUTES:

53.1 As Consultant is the interpreter of the requirements of the Agreement Documents and judge of the acceptability of Contractor's Work there under, claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Agreement Documents pertaining to the performance and furnishing of the Work and claims in respect of changes in the Contract Price or Contract Time will be referred to Consultant in writing with a request for a formal decision in accordance with this paragraph, which Consultant will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered by the claimant to Consultant and the other party to the Agreement promptly (but in no event later than ten days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to Consultant and the other party within thirty days after such occurrence unless Consultant allows an additional period of time to ascertain more accurate data in support of the claim.

53.2 When functioning as interpreter and judge under this Agreement, Consultant will not show partiality to the City or Contractor. The rendering of a decision by Consultant with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by the City or Contractor of such rights or remedies as either may otherwise have under the Agreement Documents or by Laws or Regulations in respect of any such claim, dispute or other matter. Contractor's failure to timely submit a claim to Consultant in accordance with the requirements of the Agreement Documents constitutes a waiver of its claim.

54. LIMITATIONS ON CONSULTANT'S RESPONSIBILITIES

54.1 Neither Consultant's authority to act under this Paragraph 54 or elsewhere in the Agreement Documents nor any decision made by Consultant either to exercise or not exercise such authority shall give rise to any duty or responsibility of Consultant or Contractor, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

54.2 Whenever in the Agreement Documents the term "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives of the like effect or import are used to describe a requirement, direction, review or judgment of Consultant as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Agreement Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to Consultant any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions these Terms and Conditions.

54.3 Consultant will not be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and Consultant will not be responsible to Contractor for Contractor's failure to perform or furnish the Work in accordance with the Agreement Documents.

54.4 Consultant will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

SECTION 9 - CHANGES IN THE WORK

55. CHANGE ORDER:

A "Change Order" is defined, for purposes of the Agreement Documents, as a written order to Contractor executed by the City and Consultant after execution of the Contract, directing a change in the Work and may include a change in the Contract Price or the time for Contractor's performance, or any combination thereof.

56. ADDITIONS AND DELETIONS:

Without invalidating the Agreement and without notice to any surety, the City may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Written Amendment, a Change Order, or a Work Directive Change. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Agreement Documents (except as otherwise specifically provided). If the City and Contractor are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change, a claim may be made therefore as provided herein.

57. CONTRACT PRICE

Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Agreement Documents as amended, modified and supplemented except in the case of an emergency and in the case of uncovering Work as provided herein.

58. CHANGE ORDER EXECUTION

58.1 The City and Contractor shall execute appropriate Change Orders (or Written Amendments) covering:

- A. Changes in the work which are ordered by the City that are required because of acceptance of defective Work or correcting defective Work, or are agreed to by the parties.
- B. Changes in the Contract Price or Contract time which are agreed to by the parties
- C. Changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by Consultant; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provision of the Agreement Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the progress schedule as provided herein.

58.2 Execution of a Change Order by Contractor constitutes conclusive evidence of Contractor's agreement to the ordered changes in the Work and the change in the Contract Price and the time for performance by Contractor. Contractor, by executing the Change Order, waives and forever releases any claim against the City for additional time

or compensation for issues or matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order.

58.3 All Change Orders and adjustments shall be in writing and executed by Contractor and City; otherwise, no claim for additional compensation or time will be permitted.

58.4 All Change Orders in which Contractor seeks additional time must include a Time Impact Analysis which includes an analysis of how the change shall be incorporated into the construction schedule; the status of construction at that time; and the start/finish dates of all affected activities utilizing the dates included in the latest construction schedule. Where Contractor fails to append a Time Impact Analysis to the Change Order, it agrees that the delay has no effect on Contract Time.

58.5 It is distinctly agreed and understood that any changes made in the Agreement Documents for this Work (whether such changes increase or decrease the amount thereof) or any change in the manner or time of payments or time of performance made by the City to Contractor shall in no way annul, release or affect the liability and surety on the Bonds given by Contractor. If notice of any change affecting the general scope of the Work or the provisions of the Agreement Documents (including, but not limited to, Contract Price or contract Time) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

58.6 Notwithstanding, anything to the contrary contained within the Agreement Documents, all change orders involving additional cost or extensions of time, shall be governed by City Ordinance.

SECTION 10 - CHANGE OF CONTRACT PRICE

59.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the Contract Price.

59.2 The Contract Price may only be changed by a Change Order or by a Written Amendment. Although Contractor acknowledges the "no damages for delay" provision set forth in the Agreement, should it be entitled to any claim for additional compensation under any circumstances, any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to Consultant promptly (but in no event later than ten (10) days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within thirty (30) days after such occurrence (unless Consultant allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined solely by Consultant in accordance with these Terms and Conditions if the

City and Contractor cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 59.2. Failure by Contractor to strictly comply with such notice requirements shall constitute a complete waiver by Contractor of any claim for additional compensation. Furthermore, should Contractor be entitled to an increase in the Contract Sum, it shall be strictly limited to the direct cost of labor and materials incurred by Contractor at the jobsite and shall in no event include indirect costs, overhead, lost profits or consequential damages incurred by Contractor. Furthermore, the City shall not be liable to Contractor for claims of third parties including, but not limited to, subcontractors, suppliers, laborers, etc.

59.3 The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

- A. Where the Work involved is covered by unit prices contained in the Agreement Documents, by application of unit prices to the quantities of the items involved (subject to the provisions herein).
- B. By mutual acceptance of a lump sum (which shall include an allowance for overhead and profit as provided for herein).
- C. On the basis of the Cost of the Work (determined as provided herein) plus a Contractor's Fee for overhead and profit (determined as provided herein).

60. COST OF THE WORK:

60.1 The term Cost of the Work means the sum of all costs necessary incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by the City, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 60:

- A. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classification agreed upon by the City and Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays shall be included in the above to the extent authorized by the City.
- B. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless the City deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to the City. All trade discounts, rebates and refunds and all

returns from sale of surplus materials and equipment shall accrue to the City, and Contractor shall make provisions so that they may be obtained.

- C. Payments made by Contractor to the Subcontractors for Work performed by Subcontractors. If required by the City, Contractor shall obtain competitive bids from Subcontractors acceptable to Contractor and shall deliver such bids to the City who will then determine, with the advice of Consultant, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as Contractor's Cost of Work. All subcontracts shall be subject to the other provisions of the Agreement Documents insofar as applicable.

60.5 Supplemental costs include the following:

- A. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and tools not owned by the workers, which are consumed in the performance of Work, and cost less market value of such items used but not consumed which remain the property of Contractor;
- B. Rentals of all construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by the City with the advice of Consultant, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof--all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work. For special equipment and machinery such as power driven pumps, concrete mixers, trucks, front end loaders, backhoes, and tractors, or other equipment, required for the economical performance of the authorized Work, Contractor shall receive payment based on the weekly rate divided by 40 to arrive at an hourly cost. The weekly rate shall be from the latest edition of the Rental Rate blue book for Construction Equipment, published by Equipment Guide Book Co., reduced by 25 percent. Equipment cost shall be calculated based upon the actual time the equipment is used in the Work. If said Work required the use of machinery not on the Work or not to be used on the Work, the cost of transportation, not exceeding a distance of one hundred (100) miles, of such machinery to and from the Work shall be added to the fair rental rate; provided, however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract;
- C. Sales, consumer, use or similar taxes related to the work and for which Contractor is liable, imposed by laws and regulations;
- D. Royalty payments and fees for permits and licenses;
- E. The site costs of utilities, fuel and sanitary facilities; and
- F. Cost of premiums for additional bonds and insurance required because of changes in the Work.

60.6 The term Cost of the Work shall not include any of the following:

- A. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects,

estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in Contractor's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 58.1, subparagraph A, which are to be considered administrative costs covered by Contractor's Fee.

- B. Expenses of Contractor's principal and branch offices other than Contractor's office at the site. Contractor expressly agrees that Home Office Overhead is not included within the costs of the work.
- C. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- D. Cost of premiums for all Bonds and for all Insurance whether or not Contractor is required by the Agreement Documents to purchase and maintain the same (except for the cost of premiums covered by Paragraph 60.5, subparagraph F.
- E. Costs due to the negligence or intentional acts of Contractor, any Subcontractor, or anyone whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.
- F. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 60.1.

61. CONTRACTOR'S FEE

61.1 Contractor's Fee allowed to Contractor for overhead and profits shall be determined as follows:

- A. A mutually acceptable fixed fee; or if none can be agreed upon,
- B. A fee based on the following percentages of the various portions of the Cost of the Work:
 - i. The cost allowance for overhead and profit shall not exceed fifteen percent (15%) of the new cost. If the Work is done by a Subcontractor, he may add ten percent (10%) of his net cost for overhead and profit and Contractor may add five percent (5%) of the net cost for overhead and profit. If all the Work is done by Contractor, he may add fifteen percent (15%) of the net cost for overhead and profit.
 - ii. No fee shall be payable on the basis of costs itemized under paragraphs 60.5 and 60.6;
 - iii. The amount of credit to be allowed by Contractor to the City for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in Contractor's Fee by an amount equal to ten percent of the net decrease; and
 - iv. When both additions and credits are involved in any one change, the adjustment in Contractor's Fee shall be computed on the basis of the net change in accordance with paragraph 61.1, subparagraphs B, items ii through iii.

61.2 Whenever the cost of any Work is to be determined pursuant to paragraph 60.1 or paragraph 60.6, Contractor will submit in form acceptable to Consultant an itemized cost breakdown together with supporting data.

62. UNDEFINED GENERAL CASH ALLOWANCES

62.1 It is understood that Contractor has included in the Contract Price all undefined general allowances so named in the Agreement Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within the limit of the undefined general allowances as may be acceptable to Consultant, Contractor agrees that:

62.2 The undefined general allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the undefined general allowances to be delivered at the site, and all applicable taxes; and

62.3 Contractor's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the undefined general allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any such Contractor costs will be valid.

62.4 Prior to final payment, an appropriate Change order will be issued as recommended by Consultant to reflect actual amounts due Contractor on account of Work covered by undefined general allowances, and the Contract Price shall be correspondingly adjusted.

63. UNIT PRICE WORK

63.1 Where the Agreement Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Consultant in accordance with these Terms and Conditions.

63.2 Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

64. OMITTED WORK

The City may at any time, by written order, without Notice to the Sureties, require omission of such contract work as it may find necessary or desirable. An order for omission of work shall be valid only by an executable change order. All work so ordered must be omitted by Contractor. The amount by which the contract price shall be reduced shall be determined as follows:

A. By such applicable unit prices, or rates for work of a similar nature or character as set forth in the contract; or,

- B. By the appropriate lump sum price set forth in the Contract; or,
- C. By the reasonable and fair estimated cost of such omitted work as determined by Contractor and Consultant, and approved by the City.

SECTION 13 - TIME AND DELAYS

65. TIME

All time in the Agreement Documents is calculated on a consecutive calendar day basis.

65.1 Time is of the essence in this Contract, and any breach of same shall go to the essence hereof, and Contractor, in agreeing to complete the Work within the time herein mentioned, has taken - into consideration and made allowances for all reasonable hindrances and delays incident to his work

65.2 Contractor agrees to commence the Work when directed by Owner and to diligently and continuously perform such Work and to coordinate the Work with other Work being performed on the Project by other trades so that the Owner shall not be delayed by any act or omission of Contractor in completion of the Project within the time specified above.

65.3 Contractor shall make payments promptly to its vendors, subcontractors, suppliers and for labor, material and equipment used by it in the performance of his work.

66. DELAYS

Contractor shall not be entitled to any claim for damages on account of hindrance or delays from any cause whatsoever; but if caused by any act of God or active interference on the part of the Owner, such act, hindrance, or delay may only entitle Contractor to receive an extension of time as its sole and exclusive remedy.

66.1 Adverse weather such as rain is not to be considered to be an Act of God unless it exceeds the ten (10) year average as published by the National Weather Service (or equivalent organization acceptable to the Owner at its sole discretion) for that time of year in Palm Beach County.

66.2 An extension of time to complete the Work shall be determined by the Owner provided that Contractor provides the Owner with notice in writing of the cause of said act, hindrance or delay within twenty (20) days after its occurrence.

66.3 In the event the request for extension is not made in writing within that twenty (20) day time period, Contractor acknowledges and agrees it has forever waived any and all rights to such an extension.

66.4 All extensions of time shall be authorized only by a written change order executed by the Owner and Project Consultant.

66.5 This "no damage for delay" clause, also set forth herein, will encompass any damages for delay or disruption even if Contractor completes construction of the Work in a timely fashion in accordance with this Contract.

66.6 Damages as referenced in this "no damage for delay" shall include any type of damages that are or could be awarded by any court or arbitration panel such as, by way of general example, but not limitation, tort, contract, strict liability, consequential damages, liquidated damages and/or punitive damages.

66.7 By way of specific example but not limitation, damages as referenced within this clause includes loss of use, loss of profits, labor inefficiency, loss of bonding capacity, overhead and repair costs, costs of capital replacement, loss of wages, pain and suffering, loss of production costs to replace facilities, equipment and/or product loss, increased and/or extended home office overhead, increased general conditions, costs of mobilization and demobilization, decrease in value, and/or any other damage or loss.

66.8 Contractor recognizes and specifically acknowledges the terms and the "no damage for delay" clause upon execution of this Contract.

SECTION 14 - WARRANTY AND GUARANTEE: TESTS AND INSPECTIONS, CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK:

67. WARRANTY

Contractor warrants and guarantees to the City and Consultant that all Work will be constructed in accordance with the Agreement Documents and that all materials and equipment incorporated into any Work covered by the Agreement Documents shall be new and, where not specified, of the most suitable grade of their respective kinds for their intended use, and all workmanship shall be in accordance with construction practices acceptable to the City and Consultant. Prompt notice of all defects shall be given to Contractor. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided herein. The guarantee shall remain in effect for one year from the date of final acceptance unless a longer period is specified. The City shall give notice of observed defects with reasonable promptness. Un-remedied defects identified for correction during the guarantee period but remaining after its expiration shall be considered as part of the obligations of the guarantee. Defects in material, workmanship or equipment which are remedied as a result of obligations of the guarantee shall subject the remedied portion of the work to an extended guarantee period of one year after the defect has been remedied. The Surety shall be bound with and for Contractor in Contractor's faithful observance of the guarantee. However, nothing contained in this Section shall affect or hinder the City's ability to collect on Contractor's Performance Bond within a five (5) year period.

68. ACCESS TO WORK:

Consultant's and Consultant's representatives, other representatives of the City, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. Contractor shall provide proper and safe conditions for such access.

69. TESTS AND INSPECTIONS

69.1 Contractor shall give Consultant timely notice of readiness of the Work for all required inspections, tests or approvals.

69.2 If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish Consultant the required certificates of inspection, testing or approval. Contractor shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the City's or Consultant's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

69.3 All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to the City (or by Consultant if so specified).

69.4 If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of Consultant, it must, if requested by Consultant, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Consultant timely notice of Contractor's intention to cover the same and Consultant has not acted with reasonable promptness in response to such notice.

69.5 Neither observations by Consultant nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligation's to perform the Work in accordance with the Agreement Documents.

70. UNCOVERING WORK

70.1 If any Work is covered contrary to the request of Consultant, it must, if requested by Consultant, be uncovered for Consultant's observation and replaced, at Contractor's expense.

70.2 If Consultant considers it necessary or advisable that covered Work be observed by Consultant or inspected or tested by others, Contractor, at Consultant's request shall uncover, expose or otherwise make available for observation, inspection or testing as Consultant may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and the City shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided herein. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and if the parties

are unable to agree as to the amount or extent thereof. Contractor may make a claim therefore as provided herein.

70.3 City may stop the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Agreement Documents, the City may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the City to stop the Work shall not give rise to any duty on the part of the City to exercise this right for the benefit of Contractor or any other party.

71. CORRECTION OR REMOVAL OF DEFECTIVE WORK

If required by Consultant, Contractor shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Consultant, remove it from the site and replace it with non-defective Work. Contractor shall bear all direct, indirect, and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

72. ONE YEAR CORRECTION PERIOD

72.1 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Agreement Documents or by any specific provision of the Agreement Documents, any Work is found to be defective, Contractor shall promptly, without cost to the City and in accordance with the City's written instructions, either correct such defective Work, or, if it has been rejected by the City, remove it from the site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instructions or in an emergency where delay would cause serious risk of loss or damage, the City may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by Contractor. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment. Nothing herein shall be deemed a waiver of the statute of limitations as provided in Florida Law.

72.2 If instead of requiring correction or removal and replacement of defective Work, the City (and prior to Consultant's recommendation of final payment) prefers to accept it, the City may do so. Contractor shall bear all direct, indirect and consequential costs attributable to the City's evaluation of and determination to accept such defective Work (such costs to be approved by Consultant as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to Consultant's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Agreement Documents with respect to the Work; and the City shall be entitled to an appropriate decrease in the Contract Price to be determined by Consultant. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to the City.

72.3 City may correct defective work if Contractor fails within thirty days (30) after written notice of Consultant to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by Consultant in accordance with these Terms and Conditions or if Contractor fails to perform the Work in accordance with the Agreement Documents, or if Contractor fails to comply with any other provision of the Agreement Documents, the City may, after seven days written notice to Contractor, correct and remedy any such deficiency. In exercising the rights and remedies under this Paragraph the City shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the City may exclude Contractor from all or part of the site, take possession of all or part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the site and incomplete in the Work all materials and equipment stored at the site or for which the City has paid Contractor but which are stored elsewhere. Contractor shall allow the City, the City's representative, agents and employees such access to the site as may be necessary to enable the City to exercise the rights and remedies under this Paragraph. All direct, indirect and consequential costs of the City in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Consultant, and a Change Order will be issued incorporating the necessary revisions in the Agreement Documents with respect to the Work; and the City shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, the City may make a claim therefor as provided in these General Terms and Conditions. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of other destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of the City's rights and remedies hereunder.

SECTION 15 - PAYMENTS TO CONTRACTOR AND COMPLETION

73. PROGRESS PAYMENTS

The schedule of values established as provided in paragraph 9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Consultant. The schedule of values shall be presented with such detail, and supported with whatever information the City or Consultant reasonably requests. Contractor shall not imbalance its schedule of values or artificially inflate any element thereof. Progress payments on account of Unit Price Work will be based on the number of units completed.

74. APPLICATION FOR PROGRESS PAYMENTS

74.1 Unless otherwise prescribed by law, at the end of each month, Contractor shall submit to Consultant for review, an Application for Progress Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accomplished by such supporting documentation as is required by the Agreement Documents.

74.2 The Application for Progress Payment shall identify, as a subtotal, the amount of Contractor's Total Earnings to Date, plus the Value of Materials Stored which have not yet

been incorporated in the Work, less a deductive adjustment for materials stored which have been installed which were not previously incorporated in the Work, but for which payment was allowed.

74.3 The Net Payment Due to Contractor shall be the above- mentioned subtotal from which shall be deducted the amount of retainage specified in the Contract, and the total amount of all previous approved Applications for Progress Payment submitted by Contractor. Retainage shall be calculated based upon the above-mentioned subtotal.

74.4 The above calculation in tabular form is as follows:

Total Earnings to Date	\$
Value of Materials Stored	\$
Less Value of Materials Stored for which payment was allowed and which have been installed	(\$)
Sub Total	\$
Less Retainage (based on sub total)	(\$)
Less total of all previous approved Applications for Progress Payment	(\$)
NET PAYMENT DUE:	\$

74.5 The Value of Materials Stored shall be an amount equal to the specified percent of the value of same as set forth in the Agreement or Schedule of Values. Said amount shall be based upon the value of all acceptable materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing; provided, each such individual item has a value of more than \$5,000 and will become a permanent part of the Work and is planned for installation within the following thirty (30) days. The Application for Progress Payment shall also be accompanied by a Bill of Sale, paid invoice, or other documentation warranting that Contractor has received the materials and equipment free and clear of all liens, charges, security interests, and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the City's interest therein, all of which shall be satisfactory to the City. Contractor warrants and represents that, upon payment of the pay request submitted, title to all work included in such payment shall be vested in the City.

75. CONTRACTOR'S WARRANTY OF TITLE

Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to the City no later than the time of payment free and clear of Liens.

76. REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT:

76.1 The agent identified within the payment procedures herein must review the payment request or invoice. Payment is due 25 business days after the date on which the payment request or invoice is stamped as received. The City may reject the payment

request or invoice within 20 business days after the date on which the payment request or invoice is stamped as received. The rejection must be written and must specify the deficiency in the payment request or invoice and the action necessary to make the payment request or invoice proper. If a payment request or an invoice is rejected and Contractor resubmits a corrected payment request or invoice which corrects the deficiency specified in writing by the City, the corrected payment request or invoice must be paid or rejected on the later of:

- A. Ten business days after the date the corrected payment request or invoice is stamped as received; OR
- B. The first business day after the next regularly scheduled meeting of the governing body held after the corrected payment request or invoice is stamped as received.

76.2 Contractor may send the City an overdue notice. If the payment request or invoice is not rejected within 4 business days after delivery of the overdue notice, the payment request or invoice shall be deemed accepted, except for any portion of the payment request or invoice that is fraudulent or misleading.

76.3 If a dispute between the City and Contractor cannot be resolved, the dispute must be resolved in accordance with the provisions of the Florida Prompt Payment Act Florida Statue 218.70.

76.4 When a Contractor receives payment from the City for labor, services, or materials furnished by subcontractors and suppliers hired by Contractor, Contractor shall remit payment due to those subcontractors and suppliers within 10 days after Contractor's receipt of payment.

76.5 When a subcontractor receives payment from a Contractor for labor, services, or materials furnished by subcontractors and suppliers hired by the subcontractor, the subcontractor shall remit payment due to those subcontractors and suppliers within 7 days after the subcontractor's receipt of payment.

76.6 Nothing herein shall prohibit a Contractor or subcontractor from disputing, pursuant to the terms of the relevant contract, all or any portion of a payment alleged to be due to another party if Contractor or subcontractor notifies the party whose payment is disputed, in writing, of the amount in dispute and the actions required to cure the dispute. Contractor or subcontractor must pay all undisputed amounts due within the time limits imposed by this section.

76.7 Consultant will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to the City, or return the Application to Contractor indicating in writing Consultant's reasons for refusing to recommend payment. In the latter case, Contractor may make necessary corrections and resubmit the Application. Twenty business days after receipt of the Application for Payment by the City with Consultant's recommendation, the amount recommended will (subject to the provisions herein) become due and when due will be paid by the City to Contractor.

76.8 Consultant's recommendation of any payment requested in the application for payment shall not prohibit the City from withholding payment or prohibit the City from paying

additionally sums regarding other matters or issues between the parties. In addition, payment precludes Contractor from requesting additional compensation for work for which it has been paid.

76.9 Consultant's recommendation of final payment will constitute an additional representation by Consultant to the City that the conditions precedent to Contractor's being entitled to final payment as set forth herein have been fulfilled.

76.10 Consultant may refuse to recommend the whole or any part of any payment if, in Consultant's opinion, it would be incorrect to make such representations to the City. Consultant may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in Consultant's opinion to protect the City from loss, including but not limited to:

- A. The Work is defective, or completed Work has been damaged requiring correction or replacement.
- B. The Contract Price has been reduced by Written Amendment or Change Order.
- C. The City has been required to correct defective Work or complete Work in accordance with these General Terms and Conditions, or
- D. Of Consultant's actual knowledge of the occurrence of any of the events enumerated in subparagraph 94.1, items A through I inclusive.
- E. Liquidated damages that have accrued against Contractor;
- F. For claims filed by Subcontractors, suppliers or other third parties;
- G. Contractor's failure to carry out any of its obligations under the Agreement Documents;
- H. Contractor's failure to make proper payments to Subcontractors or other third parties;
- I. Damage to the City or another Contractor;
- J. Punch list items unremedied;
- K. Failure to comply with any and all insurance requirements;
- L. Reasonable evidence that the Work will not be completed on or before the Substantial Completion or Final Completion date.

76.11 The City may refuse to make payment of the full amount recommended by Consultant because claims have been made against the City on account of Contractor's performance or furnishing of the Work, or there are other items entitling the City to credit against the amount recommended, but the City must give Contractor written notice (with a copy to Consultant) stating the reasons for such action.

77. SUBSTANTIAL COMPLETION

77.1 When Contractor considers the entire Work ready for its intended use, Contractor shall notify the City and Consultant in writing that the Work is substantially complete and request that Consultant prepare a Certificate of Substantial Completion. Within a reasonable time thereafter, the City, Consultant and Contractor shall make an inspection of the Work to determine the status of completion. If Consultant does not consider the Work substantially complete, Consultant shall notify Contractor in writing giving the reasons therefor. If Consultant considers the Work to be substantially complete, Consultant will prepare and deliver to the City for its execution and recordation the Certificate of Substantial Completion signed by Consultant and Contractor, which shall fix the Date of Substantial Completion.

77.2 Before requesting an inspection for certification of Substantial Completion, Contractor must have completed the following:

- A. All air conditioning, ventilation, security systems, fire alarms, fire sprinklers and other life safety systems must be completed, tested, approved and demonstrated.
- B. Air Conditioning systems must be completed, tested and approved by Consultant.
- C. Landscaping must be installed and in the event of ball fields, the grass must have grown to such an extent to be useable. Landscape irrigation systems must be completed, tested, approved and demonstrated.
- D. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the Work. Include supporting documentation for completion as indicated in these Agreement Documents and a statement showing an accounting of changes to the Contract Sum.
- E. Advise City of pending insurance changeover requirements.
- F. Prepare specific warranties, workmanship bonds, maintenance agreements, final certifications and all required closeout submittals.
- G. Obtain and submit releases enabling the City unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
- H. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys and similar final record information.
- I. Make final changeover of permanent locks and transmit master and grand master keys to the City.
- J. Advise the City's personnel of pending changeover in security provisions.
- K. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups and similar elements.
- L. Complete final cleanup requirements, including touch-up painting.
- M. Touch-up and otherwise repair and restore marred exposed finishes.

78. PUNCH-LIST ITEMS

78.1 The City shall develop a single "punch list" within 30 days of Contractor reaching substantial completion. The "punch list" shall cover the entire project and shall be released to Contractor within 5 days of the development of said punch-list. Contractor shall have a minimum of 30 days after the delivery of the list of items to complete the punch list.

78.2 Upon completion of the "punch list" items Contractor may submit a request for all retainage held by the City. If there is a dispute as to the completion of a "punch list" item the City shall be allowed to retain 150% of the cost for the item until such dispute is resolved.

78.3 The City shall have the right to exclude Contractor from the Work after the date of Substantial Completion, but the City shall allow Contractor reasonable access to complete or correct items on the "punch list". All items of work must be installed and completed per the Agreement Documents. If the City fails to comply with its responsibilities to develop the list required as defined in the contract, within the time limitations provided Contractor may submit a payment request for all remaining retainage withheld by the City pursuant to this section. The City need not pay or process any payment request for

retainage if Contractor has, in whole or in part, failed to cooperate with the City in the development of the list or failed to perform its contractual responsibilities, if any, with regard to the development of the punch list. If the punch list is not provided to Contractor by the agreed upon date for delivery of the list, the contract time for completion must be extended by the number of days the City exceeded the delivery date. Damages may not be assessed against a Contractor for failing to complete a project within the time required by the contract, unless the contractor failed to complete the project within the contract period as extended under this Paragraph.

78.4 The failure to include any corrective work or pending items not yet completed on the punch list does not alter the responsibility of Contractor to complete all the construction services purchased pursuant to the contract. Payment of any remaining undisputed contract amount, less any amount withheld pursuant to the contract for incomplete or uncorrected work, must be paid within 20 business days after receipt of a proper invoice or payment request. If the City has provided written notice to Contractor specifying the failure of Contractor to meet contract requirements in the development of the list of items to be completed, the City need not pay for or process any payment request for retainage if Contractor has, in whole or part, failed to cooperate with the City in the development of the list or to perform its contractual responsibilities, if any, with regards to the punch list.

79. PARTIAL UTILIZATION

79.1 Use by the City of any finished part of the Work, which has specifically been identified in the Agreement Documents, or which the City, Consultant and Contractor agree constitutes a separately functioning and useable part of the Work that can be used by the City without significant interference with Contractor's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all Work subject to the following:

79.2 The City at any time may request Contractor in writing to permit the City to use any such part of the Work which the City believes to be ready for its intended use and substantially complete. If Contractor agrees, Contractor will certify to the City and Consultant that said part of the Work is substantially complete and request Consultant to issue a certificate of Substantial Completion for that part of the Work. Contractor at any time may notify the City and Consultant in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Consultant to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, the City, Contractor and Consultant shall make an inspection of that part of Work to determine its status of completion. If Consultant does not consider that part of the Work to be substantially complete, Consultant will notify the City and Contractor in writing giving the reasons therefor. If Consultant considers that part of the Work to be substantially complete, the provisions of subparagraph 77.1 and paragraph 78 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

79.3 The City may at any time request Contractor in writing to permit the City to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Consultant and within a reasonable time thereafter the City, Contractor and Consultant shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of items remaining to be completed or corrected

thereon before final payment. If Contractor does not object in writing to the City and Consultant that such part of the Work is not ready for separate operation by the City, Consultant will finalize the list of items to be completed or corrected and will deliver such list to the City and Contractor together with a written recommendation as to the division of responsibilities pending final judgment between the City and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon the City and Contractor at the time when the City takes over such operation (unless they shall have otherwise agreed in writing and so informed Consultant). During such operation and prior to Substantial Completion of such part of the Work, the City shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

79.4 If Consultant's inspection discloses any item, whether or not included on Contractor's list, which is not in accordance with the Agreement Documents and which would precluded beneficial occupancy and would render the Work not Substantially Complete, Contractor shall immediately correct such item at no additional cost to the City.

79.5 The City, upon notification from Consultant that the Work, or a portion thereof, may be substantially complete, and all project closeout submittals pertaining to the Work have been approved and forwarded to the City, will direct the City to schedule and coordinate the City's Substantial Completion Inspection. If Consultant finds that the work is substantially complete, it shall issue Contractor a Certificate of Substantial Completion. Should Consultant deny substantial completion, Contractor shall promptly correct all deficiencies noted which caused the denial of substantial completion. Upon the correction of such deficiencies, Contractor shall notify Consultant that such deficiencies are ready for re-inspection at which time Consultant shall re-conduct a substantial completion inspection.

80. FINAL INSPECTION

Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Consultant will make a final inspection with the City and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete, defective, or not in accordance with the Agreement Documents. Contractor shall immediately take such measures as are necessary to remedy such deficiencies at no additional cost to the City.

90. FINAL APPLICATION FOR PAYMENT

After Contractor has completed in writing all such corrections to the satisfaction of Consultant and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents--all as required by the Agreement Documents, and after Consultant has indicated in writing that the Work is acceptable and has been completed in conformance with the drawings and specifications and any approved changes thereto, Contractor may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Agreement Documents.

91. FINAL PAYMENT AND ACCEPTANCE

91.1 Upon receipt of written notice from Contractor that the Work has been completed in conformity with the Drawings and Specifications and any approved changes thereto, and receipt of the Final Application for Payment and accompanying documentation, the City's Consultant shall promptly examine the Work and, making such tests as he may deem proper and using all of the care and judgment normally exercised in the examination of completed Work by a properly qualified and experienced Professional Consultant, shall satisfy himself that Contractor's statement appears to be correct and Contractor's other obligations under the Agreement Documents have been fulfilled. Contractor shall then inform the City in writing that he has examined the Work and that it appears, to the best of his knowledge and belief, to conform to the Contract Drawings, Specifications and any approved Change Orders, that Contractor's other obligations under the Agreement Documents have been fulfilled, and that he therefore recommends acceptance of the Work for ownership and Final Payment to Contractor. However, it is agreed by the City and Contractor that such statement by the City's Consultant does not in any way relieve Contractor from his responsibility to deliver a fully completed job in a good and workmanlike condition, and does not render Consultant or the City liable for any faulty Work done or defective materials or equipment used by Contractor. In addition, payment to Contractor by the City does not constitute acceptance of Contractor's defective Work or release Contractor from its obligation to repair or replace all defective and deficient work.

91.2 Consultant will then make a final estimate of the value of all Work done and will deduct there from all previous payments which have been made. Consultant will report such estimate to the City together with his recommendation as to the acceptance of the Work or his findings as to any deficiencies therein. After receipt and acceptance by the City of the properly executed Final Warranty of Title and after approval of Consultant's estimate and recommendation to the City, the City will make final payment to Contractor of the Amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the Agreement Documents, including, but not limited to, Liquidated Damages, as applicable.

91.3 All prior estimates are subject to correction in the final estimate. Thirty days after approval by the City of the application for final payment, the amount recommended by Consultant shall become due and will be paid to Contractor.

92. CONTRACTOR'S CONTINUING OBLIGATION

Contractor's obligation to perform and complete the Work in accordance with the Agreement Documents shall be absolute. Neither recommendation of any progress or final payment by Consultant, nor the issuance of a Certificate of Substantial Completion, nor any payment by the City to Contractor under the Agreement Documents, nor any use or occupancy of the Work or any part thereof by the City, nor any act of acceptance by the City nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by Consultant pursuant to these Terms and Conditions, nor any correction of defective Work by the City will constitute an acceptance of Work not in accordance with the Agreement Documents or a release of Contractor's obligation to perform the Work in accordance with the Agreement Documents.

SECTION 16 - SUSPENSION OF WORK AND TERMINATION

93. CITY MAY SUSPEND WORK

The City may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to Contractor and Consultant which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. In the event of a suspension of the Work, Contractor is expressly limited to seeking an extension of time in accordance with these General Terms and Conditions and is expressly precluded from seeking any additional compensation in such circumstance.

94. CITY MAY TERMINATE

94.1 City may termination upon the occurrence of any one or more of the following events:

- A. If Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such timing relating to the bankruptcy or insolvency;
- B. If a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
- C. If Contractor makes a general assignment for the benefit of creditors;
- D. If a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors;
- E. If Contractor admits in writing an inability to pay its debts generally as they become due;
- F. If Contractor fails to perform the Work in accordance with the Agreement Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established herein and as revised from time to time);
- G. If Contractor disregards Laws or Regulations of any public body having jurisdiction;
- H. If Contractor disregards the authority of Consultant; or
- I. If Contractor otherwise violates any provisions of the Agreement Documents; the City may, after giving Contractor and Surety seven days written notice of any default and to the extent permitted by Laws and Regulations, terminate the services of Contractor, exclude Contractor from the site and take possession of the Work and of all Contractor's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which the City has paid Contractor but which are stored elsewhere, and finish the Work as the City may deem expedient. In such case Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the expense of completing the work including compensation for additional managerial and administrative services, plus the City's direct, indirect and consequential losses, damages and costs because of Contractor's default (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and court costs) such excess will be paid to Contractor. If such expenses and costs plus the City's losses and damages exceed such unpaid balance, Contractor shall pay the difference to the City promptly on demand. Such costs incurred by the City will be approved as to reasonableness by Consultant and incorporated in a

Change Order, but when exercising any rights or remedies under this Paragraph the City shall not be required to obtain the lowest price for the work performed. In addition, failure of the City to comply with the seven days' notice provision to the surety does not render the termination improper, render the termination one for convenience or in any way release surety from liability under its performance bond.

94.2 Where Contractor's services have been so terminated by the City, the termination will not affect any rights or remedies of the City against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by the City will not release Contractor from liability.

94.3 The City may terminate this Contract without cause by giving seven (7) days prior written notice to Contractor, and in such event, the City will pay Contractor for that portion of the Contract Sum, less the aggregate of previous payments, allocable to the Work completed as of the Date of Termination, plus reasonable termination expenses. The City also will reimburse Contractor for all costs necessarily incurred for organizing and carrying out the stoppage of the Work and paid directly by Contractor, not including overhead, general expenses or profit. The City will not be responsible to reimburse Contractor for any continuing contractual commitments to subcontractors or material men or for penalties or damages for canceling such contractual commitments, (with the exception that the City shall reimburse Contractor for major materials or equipment purchased before termination if Contractor can show proof of said purchases prior to notice of termination) inasmuch as Contractor shall make all subcontracts and other commitments subject to this provision. In the event of termination by the City, the City may require Contractor promptly to assign to it all or some subcontracts, construction, plant, materials, tools, equipment, appliances, rental agreements, and other commitments which the City, in its sole discretion, chooses to take by assignment, and in such event Contractor shall promptly execute and deliver to the City written assignments of the same.

95. CONTRACTOR MAY STOP WORK OR TERMINATE

If, through no act or fault of Contractor, the Work is suspended for a period of more than ninety (90) days by the City or under an order of court or other public authority, or Consultant fails to act on any Application for Payment within thirty (30) days after it is submitted, or the City fails for ninety (90) days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven (7) days written notice to the City and Consultant, terminate the Agreement and the City will pay Contractor for that portion of the Contract Sum, less the aggregate of previous payments, allocable to the work completed as of the Date of Termination plus reasonable termination expenses. The City will not be responsible to reimburse Contractor for any continuing contractual commitments for canceling such contractual commitments inasmuch as Contractor shall make all subcontracts and other commitments subject to this provision. The City may require Contractor promptly to assign to it all or some subcontracts, construction, plant, materials, tools, equipment, appliances, rental agreements, and any other commitments which the City, in its sole discretion, chooses to take by assignment, and in such event Contractor shall promptly execute and deliver to the City written assignments of the same. In addition and in lieu of terminating the Agreement, if Consultant has failed to act on an Application for Payment or the City has failed to make any payment as aforesaid, Contractor may upon seven days written notice to the City and Consultant stop the Work until payment of all amounts then due. The provisions of this Paragraph shall not relieve Contractor of the

obligations to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with the City.

SECTION 17 - MISCELLANEOUS

96. GIVING NOTICE

Whenever any provision of the Agreement Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

97. COMPUTATION OF TIME

When any period of time is referred to in the Agreement Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

98. NO LIMITATION OF RIGHTS AND REMEDIES

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon Contractor herein and all of the rights and remedies available to the City and Consultant thereunder, are in addition to , and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Agreement Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Agreement Documents in connection with each particular duty obligation, right and remedy to which they apply. All representations warranties and guarantees made in the Agreement Documents will survive final payment and termination or completion of the Agreement.

99. ACCIDENT AND PREVENTION

99.1 The safety provisions of applicable laws and building and construction codes shall be observed and Contractor shall take or cause to be taken such additional safety and health measures as the Local Public Agency involved may determine to be reasonably necessary. Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" as published by the Associated General Contractors of America, Inc. to the extent that such provisions are not in conflict with applicable laws. Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on Work under the Contract. Contractor shall promptly furnish the Local Public Agency with reports concerning these matters.

99.2 In the event the City is prevented from proceeding with any or all of this Work as stated in this Contract, due to a declaration of war, or national emergency, by the United States government, whereas the construction of the type contracted for herein is specifically prohibited by statute or governmental edict, or due to the stoppage of construction caused by any governmental agency, State, City, Town, or County regulations, orders, restrictions, or due to circumstances beyond the City's control, then the City herein reserves the right to either suspend the Work to be done for an indefinite period of time or to cancel this Agreement outright by giving notice by registered mail of such intention to Contractor herein. In the event of any conditions above mentioned occurring after the Work herein has already been commenced, then the City herein shall be liable for only the cancellation or suspension without the addition of prospective profits or other changes whatsoever.

100. FLORIDA PRODUCTS AND LABOR

Contractor's attention is called to Section 255.04, Florida Statutes, which requires that on public building contracts, Florida products and labor shall be used wherever price and quality are equal.

101. EMPLOYEES

101.1 All labor described in these specifications or indicated on the Drawings and the Work specified or indicated shall be executed in a thoroughly substantial and workmanlike manner by mechanics skilled in the applicable trades.

101.2 Any person employed on the Work who fails, refuses or neglects to obey the instructions of Contractor in anything relating to this Work or who appears to the City to be disorderly, intoxicated, insubordinate, or incompetent, shall upon the order of the City, be at once discharged and not again employed in any part of the Work. Any interference with, or abuse or threatening conduct toward the City, Consultant or their inspectors by Contractor or his employees or agents, shall be authority for the City to annul the Contract and re-let the Work. No intoxicating substance shall be allowed on the Work site.

102. NON-DISCRIMINATION

Contractor shall not discriminate against employees or applicants for employment because of race, creed, color, religion, sex, age, handicapped status, disabilities, or national origin. Contractor will endeavor to ensure that applicants are employed and that employees are treated during employment, without regard to their race, creed, color, religion, sex, age, handicapped status, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. These provisions apply to all subcontractors and it is the responsibility of the subcontractor compliance.

103. DRUG-FREE WORKPLACE

Contractor shall comply with Florida Statutes Section 287.087 which gives preference to businesses with drug-free workplace programs.

104. ASSIGNMENT

This Agreement, nor any monies due hereunder, or any part thereof, shall not be assigned, or transferred, by Contractor, nor shall the City be liable to any assignee or transferee, without the written consent of the City, to the assignment, or transfer. The City shall not release or discharge Contractor from any obligation hereunder. The City shall not approve an assignment or transfer unless the Surety on the Contract Performance and Payment Bonds has informed the City in writing that it consents to the assignment or transfer.

105. VENUE

This Agreement shall be governed by the laws of the State of Florida as now and hereafter in force. The venue for actions arising out of this Agreement is fixed in Palm Beach County, Florida.

106. ASBESTOS

If Contractor during the course of the Work observes the existence of asbestos in any structure, building or facility, Contractor shall promptly notify the City and Consultant. The City shall consult with Consultant regarding removal or encapsulation of the asbestos material and Contractor shall not perform any Work pertinent to the asbestos material prior to receipt of special instructions from the City through Consultant.

107. RIGHT TO AUDIT

If Contractor submits a claim to the City for additional compensation, the City shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit Contractor's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which claim has been submitted. The right to audit shall include the right to inspect Contractor's plants, or such parts thereof, as may be or have been engaged in the performance of the Work. Contractor further agrees that the right to audit encompasses all subcontracts and is binding upon all subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the City deems desirable during Contractor's normal business hours at the office of Contractor. The accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the City.

108. APPRENTICES

In the event this Contract is in excess of \$25,000.00, the apprentice employment requirements of Chapter 446.011(3), Florida Statutes are hereby incorporated and Contractor agrees to the following:

- A. That Contractor will make a diligent effort to hire for the performance of the Contract a number of apprentices in each occupation which bears to the average number of the journeyman in that occupation to be employed in the performance of the Contract, the ratio of at least one apprentice to every five journeymen.
- B. That Contractor will, when feasible, assure that twenty-five percent of such apprentices are in their first year of training, except when the number of apprentices to be hired is fewer than four. Feasibility here involves a consideration of the availability of training opportunities for first-year apprentices, the hazardous nature of the work for beginning

workers and excessive unemployment of the apprentices in their second and subsequent years of training.

- C. That, during the performance of the Contract, Contractor will make diligent efforts to employ the number of apprentices necessary to meet requirements of subparagraphs A and B above.
- D. To return records of employment by trade of the number of apprentices and apprentices by first year of training and of journeymen and the wages paid and hours of work of such apprentices and journeymen, on a form as prescribed by the Bureau of Apprenticeship of the Division of Labor and Employment Opportunities at three-month intervals. Submission of duplicate copies of forms submitted to the United States Department of Labor shall be sufficient compliance with the provisions of this section.
- E. To supply to the Bureau of Apprenticeship of the Division of Labor and Employment Opportunities, at three-month intervals, a statement describing steps taken toward making a diligent effort and containing a breakdown by craft of hours worked and wages paid for first-year apprentices, other apprentices and journeymen.
- F. To insert in any subcontract under this Contract the requirements contained in this section. The term 'Contractor', as used in such clauses and any subcontract, shall mean the subcontractor.

109. FLORIDA TRENCH SAFETY ACT - COMPLIANCE

In the event this contract requires trench excavation, the requirement of Florida Statutes 553.60, et seq., shall be adhered to Contractor.

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**APPENDIX B-SPECIFICATIONS
TECHNICAL SPECIFICATIONS**

DIVISION 1

GENERAL REQUIREMENTS FOR

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01010 SUMMARY OF WORK
01020 ALLOWANCE
01025 MEASUREMENT AND PAYMENT
01041 PROJECT COORDINATION
01045 CUTTING AND PATCHING
01050 FIELD ENGINEERING
01090 REFERENCE STANDARDS
01152 APPLICATION FOR PAYMENT
01153 CHANGE ORDER PROCEDURES
01200 PROJECT MEETINGS
01310 CONSTRUCTION SCHEDULES
01340 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES
01370 SCHEDULE OF VALUES
01380 CONSTRUCTION PHOTOGRAPHS
01410 TESTING LABORATORY SERVICES
01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS
01505 CONSTRUCTION CONSIDERATIONS
01506 CONTROL OF WORK
01510 TEMPORARY UTILITIES
01525 PROTECTION OF EXISTING FACILITIES
01530 BARRIERS
01570 TRAFFIC CONTROL
01580 PROJECT IDENTIFICATION SIGN
01600 MATERIAL AND EQUIPMENT
01630 SUBSTITUTIONS AND PRODUCT OPTIONS
01700 CONTRACT CLOSE-OUT
01720 PROJECT RECORD DOCUMENTS
01740 WARRANTIES AND BONDS

DIVISION 2 - SITE WORK

02010 SUBSURFACE INVESTIGATION
02050 DEMOLITION
02110 CLEARING AND GRUBBING
02140 DEWATERING
02210 EXCAVATION AND SWALE GRADING
02211 SITE GRADING
02220 TRENCHING, BACKFILLING AND COMPACTING
02235 LIMEROCK, BASE, PRIMED
02260 FINISH GRADING
02367 SHEET PILES
02511 CONCRETE SIDEWALKS
02513 ASPHALT CONCRETE PAVING
02516 MILLING OF EXISTING ASPHALT PAVEMENT
02520 CONCRETE CURBS AND HEADERS
02546 FINAL ASPHALTIC CONCRETE SURFACE COURSE
02570 MILLING OF EXISTING ASPHALT PAVEMENT
02574 PAVEMENT REMOVAL AND REPLACEMENT
02580 PAVEMENT MARKINGS AND SIGNING
02645 VALVES, COCKS, HYDRANTS AND APPURTENANCES
02680 TESTING PIPE SYSTEMS
02720 STORM DRAINAGE SYSTEM

02775 MANHOLES AND VAULTS
02934 SODDING

DIVISION 3 - CONCRETE
03300 CONCRETE

SECTION 01010 SUMMARY OF WORK

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work covered by these specifications comprises, in general, the furnishing of all labor, equipment, materials, and performing all operations to construct new pavement section, curbing, parking spaces, drainage piping and inlets, water mains, gravity sanitary sewers, swale grading and sodding, sidewalk construction and driveway restoration 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, the Contractor shall 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.
- C. The Contractor shall comply with all codes, ordinances, rules, regulations, orders and other legal requirements of the City of Delray Beach.

1.02 SILTATION AND BANK EROSION

- A. The Contractor shall take adequate precautions to minimize siltation and bank erosion in the vicinity of canals or ditches, in discharging well point systems or during other construction activities.

1.03 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 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.

1.04 PRESERVATION OF PROPERTY

- A. The Contractor shall preserve from damage all property along the line of the work, or which is in the vicinity of 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.

1.05 CLEAN UP

- A. The Contractor shall 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. The Contractor shall also remove, when no longer needed, all temporary structures and equipment used in his operation. 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.

1.06 PUBLIC SAFETY AND CONVENIENCE

- A. The Contractor shall at all times so conduct his 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 other 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, public telephones, 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. All open excavation within the roadway shall be backfilled

and a temporary asphalt patch applied prior to darkness each day. A cold asphalt patch is acceptable.

1.07 SAFETY AND OSHA COMPLIANCE

- A. The Contractor shall 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. The Contractor shall comply in all respects with the applicable Workman's Compensation Law.

1.08 CONTRACTOR'S USE OF 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 any stored Products, under Contractor's control, which interfere with operations of the Owner or separate Contractor.

END OF SECTION

SECTION 01020 ALLOWANCE

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

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

1.02 RELATED REQUIREMENTS

Conditions of the Contract.

1.04 CONTINGENCY ALLOWANCE

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

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

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 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 conflict 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 Video Recording Allowance and the Unforeseen Conditions Allowance will be credited to the Owner by Change Order.

END OF SECTION

01020-1

ALLOWANCE

SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 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.

1.02 PAYMENT

- A. Payment shall be made for the items listed on the Bid Form on the basis of the work actually performed and completed, such work including but not limited to, the 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. 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 asphalt trench repair at the time of construction shall be arranged for and paid by the Contractor. Testing will be performed by an independent testing laboratory. Frequency of testing: two tests per each lift of trench line. See Typical Backfill Detail GU 2.1 for compaction requirements.

PART 2 - MATERIALS

Not used.

PART 3 - EXECUTION

BASE BID

General Conditions

3.01 MAINTENANCE OF TRAFFIC - Bid Item No. 1 and 21

- A. The quantity of traffic control to be considered for payment shall be equivalent to the percentage of the project determined by the Engineer 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 actually constructed and not on the percent of the Contract price completed.
- B. Payment for traffic control shall be made on the basis of a percentage (as determined in 'A' above) of the Lump Sum Price. The Contractor shall at all times so conduct his work as to ensure the least possible obstruction to traffic of inconvenience to the general public and business owners within the vicinity of work. The Contractor shall be responsible for those temporary measures required to maintain access to all properties at all times within the work area. The contract unit price shall include compensation for required labor, materials, and equipment necessary to keep roadways and property accesses in service during construction activities in accordance with the Contract Documents.
- C. This item includes maintenance of traffic plan, traffic control, flagman, portable changeable (variable) message signs, detour signs, barricades, advance warning arrow panels, **construction and removal of temporary access driveways to businesses and/or residential properties, commercial material for driveway maintenance**, etc. in order to provide safety and traffic access in accordance with local and state requirements.

3.02 MOBILIZATION/DEMobilIZATION - Bid Item No. 2 and 22

- A. Payment for mobilization/demobilization, permits, bonds, insurance, scheduling and temporary facilities and utilities will be made at the contract lump sum price bid for the item, which price shall be full compensation for all materials, labor, equipment, tools, excavation, masonry and all other incidentals necessary to complete this item.

- B. **Payment item for mobilization shall not exceed five percent (5%) of the base bid contract price and shall be paid in increments in proportion to the total work completed. Should the price for Site Mobilization exceed 5% of the Contract amount, any amount over the 5% will be paid with the Contractor's payment application.**

3.03 CLEARING AND GRUBBING - Bid Item No. 3, 29, and 48

- 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 alley rights-of-way and parking lot, 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. The Contractor shall cut, remove and legally dispose of all bushes, trees, stumps, roots, and other such protruding objects, structures, drainage structures, appurtenances, fences, existing pavement, sidewalks, driveways (this includes removing shellrock and limestone where applicable), asphalt drive aprons, concrete drive aprons, concrete curbing or any other facilities to prepare the area within the project limits for the construction of the proposed improvements.
- C. This item shall include the cost of the relocation and/or replacement of any existing fencing. The determination of whether the fence may be relocated or replaced will be on a case by case basis, however, the fence needs to be replaced in kind and the resulting fence shall be equal to or better than the existing fence condition.
- D. This item shall include the cost of any relocation of existing mailboxes, irrigation piping, and irrigation heads that conflict with the proposed improvements.
- E. Any areas disturbed by the clearing and grubbing operations, construction of the project as outlined in the construction drawings and specifications, or disturbed by actions of the Contractor or his subcontractors shall be fine graded and sodded. As the disturbed areas are dependent on the actions and/or operations of the Contractor and project personnel, the cost of the fine grading and sodding shall be included in the lump sum cost for clearing and grubbing and no additional compensation will be allowed. Sod type shall match the existing grass adjacent to the disturbed areas.
- F. This item does not include removal and/or relocation of power poles.

3.04 AS-BUILT RECORD DRAWINGS – Bid Item No. 4 and 23

- A. Payment for this item shall be on a Lump Sum (LS) Basis. One set of full size design drawings on reproducible material and an electronic file of the design drawings on compact disk will be furnished to the Contractor by the City. The Contractor shall maintain full size (22" x 34") 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 AutoCAD 2012 or latest version. **The As-built data shall be in State Plane Coordinates and NGVD 29. No final payment will be made for "as-built" drawings until both the reproducible and electronic files are received and accepted by the City.**
-
- B. This item does not include surveying work required for layout and alignment of utility improvements.
- C. The signed and sealed As-Built drawings prepared by professional surveyor are required to be submitted with each pay request. Measurement for payment for providing and furnishing As-Built drawings shall be based upon percent of project complete.
- D. All survey work shall be performed by an independent third party surveyor, licensed to practice in the State of Florida. The surveyor shall be retained by the Contractor and approved by the City.

3.05 NPDES PERMIT/EROSION CONTROL – Bid Item No. 5 and 24

- A. Payment for Contractor required NPDES Permit application (Notice of Intent and Notice of Termination), reporting and associated erosion protection measures including turbidity abatement for dewatering procedures will be made at the Contract Lump Sum (LS) Price Bid for this item. The percent completion of the project shall be based on the percent of the total project actually constructed and not on the percent of the Contract price completed.

- B. Payment for NPDES Permit/Erosion Protection Measures shall be made on the basis of 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 for complying with the NPDES Permit and providing Erosion Protection Pay item includes NPDES Inspections per the permit conditions and all inlet protection and all silt fencing required.
- C. Measures during construction activities in accordance with the Contract Documents.

3.06 INDEMNIFICATION – Bid Item No. 6 and 25_

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

3.07 VIDEO RECORDING ALLOWANCE – Bid Item No. 7 and 26_

- A. Payment under this pay item shall be Lump Sum (LS) made as stipulated in Specifications Section 0120 - Allowances

Site General Conditions

3.08 PROJECT IDENTIFICATION SIGN – Bid Item No. 8 and 27_

- A. Payment for project identification sign shall be made at the contract unit price at a Lump Sum (LS) value and shall include furnishing and maintaining the sign throughout the project duration.
- B. Refer to Technical Specification 01580 – Project Identification Sign.

3.09 UNFORESEEN CONDITION ALLOWANCE – Bid Item Nos. 9, 28, and 47

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

Roadway

3.10 2" TYPE S-I ASPHALT CONCRETE SURFACE COURSE (TWO -LIFTS) - Bid Item No. 10

- A. Payment for installing new 2” Type S-1(Two-lifts) asphalt concrete where indicated on the plans shall be made at the Contractor’s unit price per square yard (SY) for Type S-III asphalt pavement and shall include all labor, material, and equipment required to construct 2” Type S-1asphaltic concrete as shown on the civil and detail drawings. The unit price shall include compensation for labor, materials, and equipment required to construct the new asphaltic concrete surface.

- B. This unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, tack coating, compaction, rolling, brooming, and any other work required to complete the work.

3.11 1-1/2" TYPE S-III ASPHALT CONCRETE SURFACE COURSE(TWO - 3/4" LIFTS) - Bid Item No. 32 and 49

- A. Payment for installing new 1-1/2" Type S-III (Two-3/4" lifts) asphalt concrete where indicated on the plans shall be made at the Contractor's unit price per square yard (SY) for Type S-III asphalt pavement and shall include all labor, material, and equipment required to construct 1-1/2" Type S-III asphaltic concrete as shown on the civil and detail drawings. The unit price shall include compensation for labor, materials, and equipment required to construct the new asphaltic concrete surface.
- B. This unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, tack coating, compaction, rolling, brooming, and any other work required to complete the work.

3.12 LIMEROCK BASE (8") (LBR 100) - Bid Item No.11, 33, and 50

- A. Payment for installing new 8-inch limerock base (LBR 100) including primer where indicated on the plans shall be made at the Contractor's unit price per square yard (SY) for limerock base installed and accepted.
- B. The Contract Unit Price shall include compensation for labor, materials, and equipment required to construct the new limerock base, including primer in accordance with the plans and specifications.

3.13 STABILIZED SUBGRADE (12") (LBR 40) - Bid Item No.12, 34, and 51

- A. The unit price bid per square yard (SY) for the stabilized compacted subgrade (12" thick, LBR 40 or 75 psi FVB) shall include all labor, material, and equipment required to construct the subgrade as shown on the detail drawings. The unit price shall include all excavation, line cutting of existing pavement, preparation of subgrade, fine grading, placement of subgrade material, compaction, rolling, brooming, and other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and City of Delray Beach specifications.

3.14 MILL 1" ASPHALT & OVERLAY 1" TYPE S-III ASPHALT - Bid Item No. 31

- A. Payment for 1-inch milling and installing new 1" Type S-III asphalt overlay, where indicated on the plans shall be made at the Contractor's unit price per Square Yard (SY) for 1-inch milling and Type S-III asphalt overlay and shall include all labor, material, and equipment required to mill 1-inch of existing asphalt and construct 1" Type S-III asphaltic concrete overlay as shown on the plan view and detail drawings. The unit price shall include compensation for multiple mobilizations, labor, materials, and equipment required to mill existing pavement and to construct the new Type S-III asphaltic surface overlay with tack coat.
- B. This unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, tack coating, compaction, rolling, brooming, and any other work required to complete the work.

3.15 REMOVE EXISTING 2-INCH WATER MAIN – Bid Item No. 30

- A. Payment for this item shall be on a Linear Foot (LF) Basis. The Contractor's unit price shall include full compensation for labor, materials and equipment for properly restraining, plugging, cutting, removing, hauling away, legally disposing of removed pipe from locations as indicated on the plans, and open-cut pavement trench repair.
- B. The Contractor shall cut, remove and legally dispose of all removed 2-inch water mains as indicated on the plans. This pay item includes all restoration associated with the removal of the 2-inch water main.

3.16 INLET, TYPE C, E, - Bid Item No. 13 and 45

- A. The number of drainage Inlets shall be determined by the count of units installed and accepted.
- B. Payment for furnishing and installing drainage catch basin structures shall be made at the Contractor's unit price per each structure installed and accepted. The Contract Unit Price shall include compensation for labor, material and equipment required to install the drainage structures, frames, grates, lids in accordance with the plans and specifications, including excavation of any type (including rock or muck), sheeting, shoring, dewatering, backfilling and appurtenances to complete the work. This includes all restoration (sod, irrigation repair, maintenance of balance of irrigation zones, etc.) to complete the work.

3.17 REINFORCED CONCRETE PIPE -Bid Item No. 14 and 43

- A. The quantity of concrete pipe shall be determined by Linear Foot(LF) of the unites installed and accepted. Measurement shall be made along the centerline of the pipe from center of structure to center of structure.
- B. Payment for furnishing and installing slotted and solid reinforced concrete pipe, shall be made at the Contractor's unit price per lineal foot of the pipe and shall include all necessary labor and materials for furnishing and laying of the pipe, dewatering if required, excavation of any including rock, excavation and removal of muck, back filling, clean-up, and appurtenances in accordance with the plans and specifications. All pipe material and installation to meet latest edition of the FDOT standard specifications for road and bridge construction

3.18 EXFILTRATION TRENCH -Bid Item No. 15 and 44

- A. The quantity of exfiltration trench shall be determined by measurement of the system installed and accepted. Measurement shall be made along the centerline of the pipe from center of structure to center of structure.
- B. Payment for furnishing and installing exfiltration trench of various sizes, shall be made at the Contractor's unit price per lineal foot of exfiltration trench and shall include all necessary labor and materials for furnishing, for construction of the exfiltration trench as indicated in the detail drawing on the plans and shall include all costs of the filter fabric, perforated pipes, gravel, washed aggregate, laying of the pipe ,dewatering if required, excavation and staging of any type including rock, excavation and removal of muck,backfill, testing, and clean-up, and appurtenances in accordance with the plans and specifications. All pipe material and installation to meet latest edition of the FDOT standard specifications for road and bridge construction..

3.19 DRAINAGE MANHOLES – Bid Item No. 46

- A. The number of drainage manholes shall be determined by the count of Each (EA) unit installed and accepted.
- B. Payment for furnishing and installing inside diameter and conflict drainage manhole structures shall be made at the Contractor's unit price per each structure installed and accepted. The Contact unit price shall include compensation for labor, materials, and equipment required to install the manholes, castings, lids, bedding, and appurtenances in accordance with the plans and specifications. All drainage structures and installation to meet latest edition of the FDOT Standard Specifications for Road and Bridge Construction.

3.20 5' WIDE CONCRETE SIDEWALK - Bid Item No. 16, 36, and 54

- A. Payment for sidewalks where indicated on the plans shall be made at the Contractor's unit price per lineal foot of sidewalk installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to install the sidewalk in accordance with the plans and specifications, including hauling away concrete from sidewalks to be replaced.
- B. Payment shall be made for sidewalks constructed or replaced by authorization of the Engineer. Any sidewalk that is broken incidental to construction shall be replaced at the Contractor's expense.

3.21 CONCRETE DRIVEWAY APRON – Bid Item No. 35

- A. Payment for driveways where indicated on the plans shall be made at the Contractor's unit price per square yard of 6" thick 3000 psi concrete driveway installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to install the driveway in accordance with the plans and specifications, including hauling away concrete from driveways to be replaced.
- B. Payment shall be made for driveways constructed or replaced by authorization of the Engineer. Any driveway that is broken incidental to construction shall be replaced at the Contractor's expense.

3.22 TACTILE SURFACE DETECTABLE WARNINGS - Bid Item No. 17, 38, and 53

- A. Payment for detectable warning surfaces where indicated on the plans shall be made at the Contractor's unit price per warning surface location installed and accepted. The Contractor's unit price shall include full compensation for furnishing and installing the provision of yellow, surface applied truncated dome panels per FDOT Index 304 at the locations shown on the Drawings. The curb ramps shall be in accordance with the plans, details, and specifications.
- B. This item includes preparation of the concrete and the furnishing and installation of the mat in accordance with manufacturer's recommendations.
- C. The mat product shall be included on the FDOT's Qualified Products List.

3.23 CONCRETE VALLEY GUTTER - Bid Item No. 18, 39, and 57

- A. The quantity of concrete valley gutter shall be determined by measurement of the units installed and accepted.
- B. Payment for furnishing and installing concrete valley gutters shall be made at the

contract unit price per linear foot of gutter installed and accepted. The contract unit price shall include all labor, materials, and equipment necessary to prepare the sub-base and install the concrete curbs and/or gutter in accordance with the plans and specifications.

3.24 TYPE D,F CURB - Bid Item No. 19 and 56

- A. The quantity of Type D,C Curb shall be determined by measurement of the units installed and accepted.
- B. Payment for furnishing and installing Type D, C Curb shall be made at the contract unit price per linear foot of curb installed and accepted. The contract unit price shall include all labor, materials, and equipment necessary to prepare the sub-base and install the concrete curbs and/or gutter in accordance with the plans and specifications.

3.25 EXISTING SIDEWALK JOINT CUTTING – Bid Items Nos. 37 and 52

- A. Payment for sidewalk joint cutting where indicated on the plans and specifications per City Detail – RT 9.1, shall be made at the Contractor's unit price per Linear Foot (LF) of sidewalk joint cut installed and accepted. The Contract Unit Price shall include full compensation for labor, material, and equipment required to install the sidewalk joint cuts in accordance with the plans and specifications.
- B. Payment shall be made for sidewalk joint cutting constructed or replaced by authorization of the Engineer. Any sidewalk or driveway that is broken incidental to construction of the joint cuts shall be replaced at the Contractor's expense.

3.26 CURB RAMPS W/ TACTILE SURFACE PAVERS – Bid Item Nos. 53

- A. Payment for this item shall be made at the Contractor's unit price for Each (EA) curb ramp installed and accepted. The Contractor's unit price shall include full compensation for furnishing and installing the curb ramps including the provision of white truncated dome paver brick located at tactile surface locations. Ramp slopes and dimensions shall be constructed per FDOT Index 304 at the locations shown on the Drawings. The curb ramps shall be in accordance with the plans, details, and specifications.
- B. The paver brick color selection shall be as indicated on the plans and as approved by the City during the shop drawing process.
- C. The Contract Unit Price shall also include adjustment of existing paver bricks to proposed grades including provision of additional sand or adjustments to the subgrade in order to match proposed back of curb elevations or in order to relocate curb ramps.

D. Refer to “Detectable Warning Ramp in Paver Sidewalk Detail” on sheet C-6.

3.27 5’ WIDE PAVER BRICK SIDEWALK W/ CONCRETE BORDER – Bid Item No.55_

A. Payment for sidewalks where indicated on the plans and specifications per City Detail – RT 10.1a, shall be made at the Contractor's unit price per Linear Foot (LF) of sidewalk installed and accepted. The Contract Unit Price shall include full

3.28 CONCRETE BOLLARDS – Bid Item No. 40_

A. Payment for this item shall be made on a Unit Price Basis. The Contractor's unit price shall include full compensation for furnishing and installing the decorative bollards at the location shown on the drawings. The work shall include provision and installation of the bollard, concrete deadman, reinforcement, grout and all necessary equipment and appurtenances for a complete installation in accordance with the details.

B. Refer to “Bollard Detail” on sheet C-5.

3.23 SWALE GRADING AND SODDING – Bid Item Nos. 42 and 59

A. Payment for this item shall be made on a Square Yard (SY) basis. The Contractor's unit price shall include full compensation for all swale grading and sodding within the road right of way as indicated on the plans.

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.

3.29 PAVEMENT MARKINGS AND SIGNAGE - Bid Item No. 20,41, and 60

A. The lump sum (LS) bid price shall include all labor, material, and equipment required to stripe and sign all the parking stalls shown on the plans and detail drawings. All pavement marking shall be paint. The lump sum price shall include all materials, equipment, preparation, and other miscellaneous work required to complete the work in accordance with the City of Delray Beach specifications.

3.30 SIGN RELOCATION (CHURCH MONUMENT SIGN) – Bid Item No. 58

- A. The lump sum (LS) bid price shall include all labor, materials, and equipment to relocate the St Paul Baptist Missionary monument sign. The unit price shall also include the labor, materials and work to modify the existing electrical service, construct a new foundation and testing.

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. [The] [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 01340: Shop Drawings, Product Data and Samples.
- D. 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 contractor[s] 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 to 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. Prepare Coordination Drawings as required to resolve conflicts and to assure coordination of the work of, or affected by, mechanical and electrical trades, or by special equipment requirements.

- 1. Submit to Engineer.

2. Reproduce and distribute copies to concerned parties after Engineer review.
- D. 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 01045 CUTTING AND PATCHING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall be responsible for all cutting, fitting and patching, including related excavation and backfill, required to complete the Work or to:
 - 1. Make its several parts fit together properly.
 - 2. Uncover portions of the Work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirement of Contract Documents.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01630: Substitutions and Product Options.
- C. Section 02220: Trenching, Backfilling and Compacting.

1.03 SUBMITTALS

- A. Submit a written request to Engineer well in advance of executing and cutting or alteration which affects:
 - 1. Work of the Owner or any separate contractor.
 - 2. Structural value or integrity of any element of the project.
 - 3. Integrity or effectiveness of weather-exposed or moisture-resistant element or systems.
 - 4. Efficiency, operational life, maintenance or safety of operational elements.
 - 5. Visual qualities of sight-exposed elements.

- B. Request shall include:
1. Identification of the Project.
 2. Description of affected work.
 3. The necessity for cutting, alteration or excavation.
 4. Effect on work of Owner or any separate contractor, or on structural or weatherproof integrity of Project.
 5. Description of proposed work:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Trades who will execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
 6. Alternative to cutting and patching.
 7. Cost proposal, when applicable.
 8. Written permission of any separate contractor whose work will be affected.
- C. Should conditions of Work or the schedule indicate a change of products from original installation, contractor shall submit request for substitution as specified in Section 01630 - Substitutions and Product Options.
- D. Submit written notice to Engineer designating the date and the time the Work will be uncovered.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.

- B. After uncovering work, inspect conditions affecting installation of Products, or performance of work.
- C. Report unsatisfactory or questionable conditions to Engineer in writing; do not proceed with work until Engineer has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of work.
- B. Provide devices and methods to protect other portions of Project from damage.
- C. Provide protection from elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- C. Employ original Installer or Fabricator to perform cutting and patching for:
 - 1. Weather-exposed or moisture-resistant elements.
 - 2. Sight-exposed finished surfaces.
- D. Execute fittings and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- E. Restore work which has been cut or removed; install new products to provide completed work in accord with requirements of Contract documents.
- F. Fit work airtight to pipes, sleeves, ducts, conduit or other penetrations through surfaces.
- G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes;
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01050 FIELD ENGINEERING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide and pay for field engineering services required for 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 indicated on the Drawings, as required.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract.
- B. Section 01010: Summary of Work.
- C. Section 01700: Contract Closeout.

1.03 QUALIFICATIONS OF SURVEYOR OR ENGINEER

- A. Qualified engineer or land surveyor, registered in the State of Florida.

1.04 SURVEY REFERENCE POINTS

- A. Existing basic horizontal and vertical control points for the Project are those designated on Drawings.
- B. Locate and protect control points prior to starting site work, and preserve all permanent reference points during construction.
 - 1. Make no changes or relocations without prior written notice to Engineer.
 - 2. Report to Engineer when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace project control points which may be lost or destroyed.
 - a. Establish replacements based on original survey control.

1.05 PROJECT SURVEY REQUIREMENTS

- A. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means:
 - 1. Site improvements
 - a. Stakes for grading, fill and topsoil placement.
 - b. Utility slopes and invert elevations.
 - 2. Batter boards for structures.
 - 3. Building foundation, column locations and floor levels.
 - 4. Controlling lines and levels required for mechanical and electrical trades.
- B. From time to time, verify layouts by same methods.
- C. Locate and mark all known underground utilities prior to entrance of any equipment on the site. All such utilities shall be protected from heavy traffic. Establish and maintain barricades around all manholes, drains, and similar underground items. Immediately notify the owner of any conflict between operations and any in ground item to remain.
- D. Reestablish permanent control points.

1.06 RECORDS

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

1.07 SUBMITTALS

- A. Submit name and address of registered surveyor and Professional Engineer to Engineer.
- B. On request of Engineer, submit documentation to verify accuracy of field engineering work.
- C. Submit certificate signed by registered engineer or surveyor certifying that elevations and locations of improvements are in conformance, or non-conformance, with Contract Documents.

PART 2 - PRODUCTS Not used.

PART 3 - EXECUTION Not used.

END OF SECTION

SECTION 01090 REFERENCE STANDARDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Abbreviation 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.

1.03 ABBREVIATIONS, NAMES, AND ADDRESSES OR ORGANIZATIONS

- A. Obtain copies of referenced standards direct from publication source, when needed for proper performance of Work, or when required for submittal by Contract Documents.

AA	Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AABC	Associated Air Balance Council 1000 Vermont Avenue, N.W. Washington, DC 20005
AASHTO	American Association of State Highway & Transportation Officials 444 North Capitol Street, N.W. Washington, DC 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 16th Street, N.W. Washington, DC 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
ARI	Air-Conditioning and Refrigeration Institute 1815 North Fort Myer Drive Arlington, VA 22209
ASHRAE	American Society of Heating, Refrigerating & Conditioning Engineers 345 East 47th Street New York, NY 10017
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASPA	American Sod Producers Association Association Building Ninth and Minnesota Hastings, NE 68901
ASTM	American Society of Testing & Materials 1916 Race Street Philadelphia, PA 19103

AWWA	American Water Works Association 6666 W. Quincy Avenue Denver, CO 80235
AWI	Architectural Woodwork Institute 2310 South Walter Reed Drive Arlington, VA 22206
AWPA	American Wood-Preserver's Association 7735 Old Georgetown Road Bethesda, MD 20014
AWS	American Welding Society 2501 NW 7th Street Miami, FL 33125
CDA	Cooper Development Association 57th Floor, Chrysler Building 405 Lexington Avenue New York, NY 10017
CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue Washington, DC 20036
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
MF	Factory Mutual System 1151 Boston Providence Turnpike Norwood, MA 02062
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197 Washington, DC 20407
GA	Gypsum Association 1603 Orrington Avenue Evanston, IL 60201
MIL	Military Specification Naval Publications and Forms Center

5801 Tabor Avenue
Philadelphia, PA 19120

MLSFA	Metal Lath/Steel Framing Association 221 North LaSalle Street Chicago, IL 60601
NAAMM	National Association of Architectural Metal Manufacturers 221 North LaSalle Street Chicago, IL 60601
NEBB	National Environmental Balancing Bureau 8224 Old Courthouse Road Vienna, VA 22180
NEMA	National Electrical Manufacturer's Association 2101 L Street, N.W. Washington, DC 20037
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NFPA	National Forest Products Association 1619 Massachusetts Avenue, N.W. Washington, DC 20036
NTMA	National Terrazzo and Mosaic Association 3166 Des Plains Avenue Des Plains, IL 60018
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, DC 20203
RCSHSB	Red Cedar Shingle & Handsplit Shake Bureau 515 116th Avenue Bellevue, WA 98004

SDI	Steel Deck Institute Box 3812 St. Louis, MO 63122
SDI	Steel Door Institute 712 Lakewood Center North Cleveland, OH 44107
SIGMA	Sealed Insulating Glass Manufacturers Association 111 East Wacker Drive Chicago, IL 60601
SJI	Steel Joist Institute 1703 Parham Road, Suite 204 Richmond, VA 23229
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association 8224 Old Court House Road Vienna, VA 22180
TAS	Technical Aid Series Construction Specifications Institute 1150 Seventeenth Street, N.W. Washington, DC 20036
TCA	Tile Council of America, Inc. Box 326 Princeton, NJ 08540
UL	Underwriter's Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01152 APPLICATION FOR PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to Engineer in accordance with the schedule established by Conditions of the Contract and herein.

1.02 RELATED REQUIREMENTS

- A. Agreement Between Owner and Contractor: Lump Sum and Unit Price.
- B. Conditions of the Contract: Progress Payments, Retainage and Final Payment.
- C. Section 01020: Allowances.
- D. Section 01153: Change Order Procedures.
- E. Section 01370: Schedule of Values.
- F. Section 01700: Contract Closeout.

1.03 FORMAT AND DATA REQUIRED

- A. Submit applications in the form required by Owner, with itemized data typed on 8-1/2 inch x 11 inch white paper continuation sheets.
- B. Provide itemized data on continuation sheet:
 - 1. Format, schedules, line items and values: Those of the Schedule of 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 date of submittal of application.
 - 2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
 - 3. Execute certification with signature of a responsible officer of Contract firm.
- 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 times stipulated.
- B. Number: Four (4) copies of Application.
- C. When Engineer finds 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 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. General conditions and Supplementary Conditions.
- C. Conditions of the Contract:
 - 1. Methods of determining cost or credit to Owner resulting from changes in Work made on a time and material basis.
 - 2. Contractor's claims for the additional cost.
- D. Section 01020: Allowances.
- E. Section 01152: Application for Payment.
- F. Section 01310: Construction Schedules.
- G. Section 01370: Schedule of Values.

- H. Section 01630: Substitutions and Product Options.
- I. Section 01700: Contract Closeout.

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:
 - 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 change 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 authorization 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, and will designate the method of determining any change in the Contract Sum and any change in Contract Time.
- C. Owner and Engineer will sign and date the Construction Change Authorization as authorization for the Contractor to proceed with the changes.
- D. Contractor shall sign and date the Construction Change Authorization to indicate agreement with the terms therein.

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 computations:
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required.
 - a. Recommended sources of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance and 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 additional information:
 - 1. Name of Owner's authorized agent who ordered the work, and date of the order.

2. Dates and times work was 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 of quantities.
 - c. Subcontractors.
- D. Document requests for substitutions for Products as specified in Section 01630.

1.07 PREPARATION OF CHANGE ORDERS

- A. Engineer will prepare each Change Order.
- B. Owner's Form, per example provided by the Engineer.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the 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 responsive Proposal as mutually agreed 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's 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 amounts of the unit prices to 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 herein.
 - D. When quantities of the items cannot be determined prior to start of the work:
 1. Engineer or Owner will issue a construction change authorization directing Contractor to proceed with the change on the basis of 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 process 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 the Change Order to establish the change in Contract Sum and in Contract Time.
 4. Owner and Contractor will sign and date the 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 this 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. 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. Periodically revise the Construction Schedule to reflect each change in Contract Time.
 - 1. Revise subschedules 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 meeting, periodic progress meetings, and specially called meetings throughout progress of the Work.
 - 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 significant proceedings and decisions.
 - 6. Reproduce and distribute copies of minutes within three days after each meeting.
 - a. To participants in the meeting.
 - b. To parties affected by decisions made at the meeting.
- B. Representatives of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: Pre-Bid Conferences.
- B. Section 01340: Shop Drawings, Product Data and Samples.
- C. 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 his 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.

1.04 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 01310 CONSTRUCTION SCHEDULES

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 subschedules 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.

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. Foundation work.
 - d. Structural framing.
 - e. Subcontractor work.
 - f. Equipment installations.
 - g. Delivery of O & M Manuals.
 - h. Finishings.
 - i. Start-up
- 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 subschedules 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 the effective date 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

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

1.02 RELATED REQUIREMENTS

- A. Definitions and Additional Responsibilities of Parties: Conditions of the Contract.
- B. Section 01700: Contract Closeout.

1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and Thorough manner.
 - 1. Details shall be identified by reference of sheet and detail or schedule.
- B. Minimum sheet size: 8½ X 11 inches.

1.04 PRODUCT DATA

- A. Preparation
 - 1. Clearly mark each copy to identify pertinent products or models.
 - 2. Show performance characteristics and capacities.
 - 3. Show dimensions and clearances required.
 - 4. Show wiring or piping diagrams and controls.
- B. Manufacture's standard schematic drawings and diagrams:
 - 1. Modify drawings and diagrams by deleting information which is not applicable to the work.
 - 2. 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.
- B. Determine and verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with specifications.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the contract Documents.
- E. 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.
- B. Number of submittals required:
 - 1. Shop Drawings and Product Data: Submit seven (7) copies.
 - 2. Samples: Submit the quantity stated in each specification section.
- C. 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:
 - a. Contractor
 - b. Supplier
 - c. 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.
- B. Shop Drawings and Product Data:
 1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
 2. Indicate any changes which have been made other than those suggested by the Engineer.
- C. 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

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

1.02 RELATED REQUIREMENTS

- A. Section 01020: Allowances
- B. Section 01152: Application for Payment
- C. Section 01600: Material and Equipment.

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. 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 Contractor's 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.

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

1.04 SUBSCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a subschedule of unit costs and quantities for:
 - 1. Products specified under a unit cost allowance in Section 01020.
 - 2. Products on which progress payments will be requested for stored products.
- B. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item in the Schedule of Values.
- C. The unit quantity for bulk materials shall include an allowance for normal waste.
- D. 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 01380 CONSTRUCTION PHOTOGRAPHS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Employ professional photographer to take construction record photographs periodically during course of the Work.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work
- B. Section 01020: Allowances.
- C. Section 01152: Application for Payment.
- D. Section 01700: Contract Closeout.

1.03 PHOTOGRAPHY REQUIRED

- A. Provide photographs taken on cutoff date for each scheduled Application for Payment.
- B. Views and Quantities Required:
 - 1. At each specified time, photograph Project from twelve to twenty different views, as approved by Engineer.
 - 2. Provide 8 x 10 inch prints of each view. Two (2) copies of each print shall be provided.
- C. Negatives:
 - 1. Submit to Engineer with prints.

1.04 COSTS OF PHOTOGRAPHY

- A. Pay costs for specified photography and prints.
- B. Parties requiring additional photography or prints will pay photographer directly.

PART 2 - PRODUCTS

2.01 PRINTS

- A. Color:
 - 1. Paper; Single weight, neutral black image tone, white base.
 - 2. Finish: Smooth surface, glossy.
- B. Identify each print on back, listing:
 - 1. Name of Project.
 - 2. Orientation of view.
 - 3. Date and time or exposure.
 - 4. Name and address of photographer.
 - 5. Photographer's numbered identification of exposure.

PART 3 - EXECUTION

3.01 TECHNIQUE

- A. Factual presentation
- B. Correct exposure and focus.
 - 1. High resolution and sharpness.
 - 2. Maximum depth-of-field.
 - 3. Minimum distortion.

3.02 VIEWS REQUIRED

- A. Photograph from locations to adequately illustrate condition of construction and state of progress.
 - 1. At successive periods of photography, take at least one photograph from the same overall view as previously.
 - 2. Consult with engineer at each period of photography for instructions concerning views required.

3.03 DELIVERY OF PRINTS

- A. Deliver prints to Engineer to accompany each Application for Payment.

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 laboratory to facilitate the execution of its required services.

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 tests.
 - 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 so as to least encumber the performance of Work.
- B. The Owner will authorize the cost of one (1) series of tests only, on the area 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 Work.

1.02 RELATED REQUIREMENTS

- 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.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- 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.
- B. Install circuit and branch wiring, with 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 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 finishes 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 ACCESS ROAD AND PARKING

A. Site Access Roads:

1. Construct new temporary access roads over designated easements from public thoroughfare to site entrance.

B. 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:

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 suit- able 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 earth work 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. Comply with applicable requirements specified in Division 15 - Mechanical, and 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.
 - 1. Prior to final inspection, remove temporary lamps and install new lamps.

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 elevations, and clean up the area.

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

Traffic regulation shall be in accordance with F.D.O.T. Roadway and Traffic Design Standards Series 600, 1991 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 FLAGMEN

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

1.06 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.

1.07 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.

1.08 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.

1.09 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.
- 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.



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8.00'

4.00'

01580-3

PROJECT IDENTIFICATION & SIGNS





CITY of DELRAY BEACH
BLOCK 8 ALLEY IMPROVEMENT
SW 10TH AVE SIDEWALK
PROJECT NO. 2014-002 AND 2009-006

<u>CITY COMMISSIONERS</u>		<u>CRA BOARD OF COMMISSIONERS</u>	
CARY GLICKSTEIN	- MAYOR	REGINALD A. COX	- BOARD CHAIR
AL JACQUET	- VICE MAYOR	JOSEPH BERNADEL	- VICE CHAIR
JORDANA L. JARJURA	- DEPUTY VICE MAYOR	CATHY BALESTRIERE	- FIRST VICE CHAIR
SHELLY PETROLIA	- COMMISSIONER	HERMAN STEVENS, JR.	- TREASURER
MITCH KATZ	- COMMISSIONER	PAUL ZACKS	- CRA COMMISSIONER
DONALD B. COOPER	- CITY MANAGER	DANIEL ROSE	- CRA COMMISSIONER
JOHN MORGAN	- DIRECTOR E.S. DEPT.	DEDRICK STRAGHN	- CRA COMMISSIONER
MAURICIO LARA P.E.	- ASST. ESD DIRECTOR	JEFF COSTELLO	- EXECUTIVE DIRECTOR

8.00'

4.00'




CITY of DELRAY BEACH

BLOCK 20 ALLEY IMPROVEMENTS

PROJECT NO. 2014-002 AND 2009-006

CITY COMMISSIONERS

CARY GLICKSTEIN	- MAYOR
AL JACQUET	- VICE MAYOR
JORDANA L. JARJURA	- DEPUTY VICE MAYOR
SHELLY PETROLIA	- COMMISSIONER
MITCH KATZ	- COMMISSIONER
DONALD B. COOPER	- CITY MANAGER
JOHN MORGAN	- DIRECTOR E.S. DEPT.
MAURICIO LARA P.E.	- ASST. ESD DIRECTOR

CRA BOARD OF COMMISSIONERS

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DANIEL ROSE	- CRA COMMISSIONER
DEDRICK STRAGHN	- CRA COMMISSIONER
JEFF COSTELLO	- EXECUTIVE DIRECTOR

01580-3

PROJECT IDENTIFICATION & SIGNS

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: Allowances.
- 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 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 02010 SUBSURFACE INVESTIGATION

PART 1 - GENERAL

1.01 RESPONSIBILITY

- A. Subsurface explorations have been made and copies of the results are included herein for information only. Data on indicated subsurface conditions is not intended as representative or a warranty of accuracy or continuity between soil borings. It is expressly understood that Owner and Engineer will not be responsible for interpretations or conclusions drawn by Contractor from the soils investigation report. Data is made available only for convenience of Contractor. No claim for extra compensation or for extension of time will be allowed on account of subsurface conditions inconsistent with the data shown. Additional test borings and other exploratory operations may be performed by Contractor, at the Contractor's option; however, no change in the Contract Sum will be authorized for such additional exploration.

- B. Data in the soft-dig reports was used for the basis of design and is available to the Contractor for information only. Conditions are not intended as representations or warranties of accuracy or continuity of pot-hole locations. The Owner and Engineer will not be responsible for interpretations or conclusions drawn from this data by Contractor. The Contractor is required to provide pot-holing in order to field verify location of all utility crossings, including paralleling of utilities, prior to construction of the proposed work.

PART 2 - PRODUCTS

2.01 SOIL BORINGS

- A. Copies of the following are included herein:
 - 1. Soil boring data.

- B. Copies of the following are included herein:
 - 1. Underground utility "soft dig" data.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 02110 CLEARING AND GRUBBING

PART 1 - GENERAL

1.01 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 by burning or otherwise.

1.02 REFERENCES

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

PART 2 - MATERIALS

2.01 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

3.01 SCHEDULE

- A. CONTRACTOR shall schedule the clearing or clearing and grubbing work at a satisfactory distance in advance of the pipe laying operations.

3.02 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.

3.03 CLEARING

- A. Clear the area of all objectionable materials. Trees unavoidably falling outside the specified limits must be cut up, removed, and disposed of in a satisfactory manner. Preserve and protect from injury all trees not to be removed. 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.

3.04 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 02140 DEWATERING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work covered by this Section consists of furnishing all permits, labor, equipment, appliances and materials, and performing all operations required for dewatering excavations as required to ensure that all work is performed in the dry.
- B. The Contractor shall not discharge water from dewatering operations in any manner that will:
 - 1. Adversely affect the water quality of adjoining water bodies.
 - 2. Violate federal, state or local laws and regulations.
 - 3. Allow discharge to flow onto private property.
 - 4. Hamper the movement of traffic.
 - 5. Damage portions of the work previously constructed.
- C. **Furnish the services of a licensed professional engineer registered in the State of Florida, to prepare the dewatering system design and submittals.**

1.02 STATUTORY REQUIREMENTS

- A. All State and local permits associated with the dewatering are the responsibility of the Contractor. Obtain and pay for all permits required for temporary dewatering systems.
- B. Original permits shall be prominently displayed on the site prior to constructing dewatering systems.

1.03 SUBMITTALS

- A. Administrative Submittals: Discharge permits.
- B. **Shop Drawings: Water Control Plan, including dewatering pumps, stilling basin, and means of sound attenuation. Dewatering operations shall not commence until Owner and Engineer have reviewed and approved this plan.**

1.04 WATER CONTROL PLAN

- A. As a minimum, include descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment, methods, standby equipment and power supply, pollution control facilities, discharge locations to be utilized, and provisions for immediate temporary water supply as required by this Section.

PART 2 - PRODUCTS

2.01 PUMP DRIVERS

- A. Sound attenuated pumps as manufactured by Thompson Pumps with "Silent Knight" canopy, shall be used for all dewatering activities that require a pumping system. Contractor shall demonstrate, measure and record the dB levels at the time of initial set-up. The Contractor shall record the dB levels weekly.

PART 3 - EXECUTION

- A. The Contractor's proposed method for dewatering pipe trenches and manhole excavations shall be reviewed by the Engineer prior to instituting any such operations. Methods may include wellpoints, horizontal sock, sump pumps, bedding rock or other methods approved by the Engineer. If a dewater sock method is used, the sock must be grouted in place when work is complete. Wellpoint holes must be grouted or sand wash backfilled. The Contractor is responsible for means and methods of construction dewatering activities.
- B. **In areas of deep trench where dewatering and maintenance of vehicular traffic is required, the Contractor shall bench down the sides of the trench in order to cover the dewatering well point heads with temporary steel plating.**
- C. The Contractor shall provide all labor, materials, tools and equipment necessary to properly control the quality of the discharge from dewatering operations. The Contractor shall comply with all applicable laws, rules and regulations governing the discharge of water from dewatering operations. The Contractor shall obtain all necessary permits from South Florida Water Management District for dewatering operation.
- D. The impact of anticipated subsurface soil/water conditions shall be considered when selecting methods of excavation and temporary dewatering and drainage systems. Where groundwater levels are above the proposed bottoms of excavations, a pumped dewatering system is expected for pre-drainage of the soils prior to excavation to final grade and for maintenance of the lowered groundwater level until construction has been completed to such an extent that the foundation, structure, pipe, conduit, or fill will not be floated or otherwise damaged. Type of

dewatering system, spacing of dewatering units and other details of the work are expected to vary with soil/water conditions at a particular location.

- E. The Contractor is responsible for controlling the bacteriological quality of well point discharges into existing bodies of water. The maximum allowable level for fecal coliform in the wellpoint discharge is a mean MPN of 14 per 100 ML with not more than ten percent (10%) of the samples exceeding an MPN of 43 per 100 ML.
- F. Protection of Property - Contractor shall make an assessment for dewatering induced settlement and shall provide devices or systems, including but not limited to re-injection wells, infiltration trenches and cutoff walls, necessary to prevent damage to existing facilities, completed Work and adjacent facilities.
- G. Control surface water and groundwater such that excavation to final grade is made in the dry, and bearing soils are maintained undisturbed. Prevent softening, or instability of, or disturbance to, the sub-grade due to water seepage.
- H. Provide protection against flotation for all work.
- I. Wellpoints shall not be set in such a way that undermines or jeopardizes paved areas; if the setting of wellpoints undermines or impacts paved areas, the impacted areas shall be removed and restored equal to or better than their original condition at the expense of the Contractor.
- J. Pipe and conduit shall not be installed in water or allowed to be submerged prior to backfilling. Pipe and conduit which becomes submerged shall be removed and the excavation dewatered and restored to proper conditions prior to reinstalling the pipe and conduit.
- K. Collect and properly dispose of all discharge water from dewatering and drainage systems in accordance with State and local requirements and permits. As a minimum, no discharge or run-off of groundwater or surface water that is contaminated with any petroleum products (gasoline, diesel fuel, oil, grease, hydraulic fluid, etc.) and/or sanitary waste shall be made to surface water systems such as lakes, rivers, streams, the Intracoastal Waterway or "on-site" retention ponds that secondarily discharge to these surface water systems.
- L. Dewatering systems shall be designed to allow for localized variations in the depths of the excavations.
- M. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of sub-grades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.
- N. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rainwater and water removed from excavations to

collecting or runoff areas. Do not use trench excavations as temporary drainage ditches.

- O. As the wellpoints are withdrawn, the locations of the voided areas shall backfilled by jetting approved backfill material (flowable fill) into the voids within 24 hours until they are completely filled. These restored wellpoint voids are subject to random density verification testing. Flowable fill for backfull of wellpoints shall not be measured for payment.
- P. Comply with City's Noise Ordinance.

END OF SECTION

SECTION 02210
EXCAVATION AND SWALE GRADING

PART 1 - GENERAL

1.01 SCOPE

- A. This item shall consist 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.

1.02 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

3.01 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 this 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 shall 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 shall be responsible for and shall take all necessary precautions to protect and preserve or provide temporary services. When such facilities are encountered, the CONTRACTOR shall, 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.

3.02 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 to the required cross section and shall be kept free from debris or obstructions until the project is accepted.

3.03 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

1.01 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 roadways, walks, curbs, gutters, parking areas, landscaped areas and as shown on the Drawings.

1.02 RELATED WORK

- A. Section 02110: Clearing and Grubbing.
- B. Section 02210: Excavation and Swale Grading.
- C. Section 02220: Trenching, Backfilling and Compacting.
- D. Section 02260: Finish Grading.
- E. Section 02513: Asphaltic Concrete Paving.

1.03 EXISTING CONDITIONS

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

1.04 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 appurtenance which are to remain.
- D. Repair any damage, at no cost to Owner.

PART 2 - PRODUCTS

2.01 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

3.01 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.

3.02 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.

3.03 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.

3.04 SURPLUS MATERIAL

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

END OF SECTION

SECTION 02220
TRENCHING, BACKFILLING AND COMPACTING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Excavate for all underground piping.
- B. Place and compact granular beds and fills over pipelines to rough grade elevations.
- C. Dewater excavations as required.

1.02 SITE COMPACTION TESTING

- A. Testing of compacted fill materials will be performed in accordance with F.D.O.T. and A.A.S.H.T.O. specifications.
- B. If, during progress of Work, tests indicate that compacted materials do not meet specified requirements, remove defective work, replace and retest as directed by ENGINEER.
- C. Ensure compacted fills are tested before proceeding with placement of surface materials.

1.03 PROTECTION

- A. Protect trees, shrubs, lawn, areas to receive planting, rock outcropping and other features remaining as part of final landscaping.
- B. Protect bench marks and existing structures, roads, sidewalks, paving and curbs against damage from vehicular or foot traffic. Install and maintain proper bridging, planking and cants to provide access to buildings.
- C. Protect excavations by shoring, bracing, sheet piling underpinning, or by other methods, as required to prevent cave-ins or loose dirt from falling into excavations in accordance with Trench Safety Act.
- D. Underpin or otherwise support adjacent structure(s) which may be damaged by excavation work. This includes other utility lines, power poles and pipe runs.
- E. Notify ENGINEER of any unexpected sub-surface conditions. Discontinue work in the area until ENGINEER provides notification to resume work.

PART 2 - PRODUCTS

2.01 PRODUCTS

- A. Bedding Materials: Pipe shall be placed on dry, undisturbed earth.
- B. Selected Backfill: After pipe joints have been inspected and given preliminary approval, and sufficient time has elapsed for setting of joints if necessary, backfilling shall be performed, together with tamping until fill has progressed to an elevation at least one foot above the top of the pipe bell. During this initial stage of backfilling, approved granular materials or loose soil free from lumps, clods, or stones shall be deposited in layers approximately 6-inches thick and compacted by manually operated machine tampers actuated by compressed air, or other suitable means. Tampers and machines shall be suitable for the work, and subject to approval by ENGINEER.
- C. Backfill Material: Excavated material, free from roots, rocks larger than 3½ inches in size and building debris.
- D. Fill under landscaped areas: Free from alkali, salt, and petroleum products. Use sub-soil excavated from site only if conforming to specified requirements.

PART 3 - EXECUTION

3.01 PREPARATION AND LAYOUT

- A. Establish extent of excavation by area and elevation. Designate and identify datum elevation.
- B. Set required lines and levels.
- C. Maintain bench marks, monuments and other reference points.

3.02 UTILITIES

- A. Before starting excavation, establish the location and extent of underground utilities occurring in the work area.
- B. Notify ENGINEER if utility lines which are in the way of excavation are uncovered.
- C. Protect active utility services uncovered by excavation.

- D. Remove abandoned utility service lines from areas of excavation. Cap, plug or seal such lines and identify at grade.
- E. Accurately locate and record abandoned and active utility lines re-routed or extended on Project Record Documents.

3.03 TRENCHING

- A. Ensure trenching does not interfere with normal 45 degree bearing splay of any foundation.
- B. Excavate in accordance with lines and grades.
- C. Cut trenches sufficiently wide to enable proper installation of pipe and to allow for inspection. Trim and shape trench bottom and leave free of irregularities, lumps and projections.
- D. Do not disturb soil within branch spread of existing trees or shrubs that are to remain. If it is necessary to excavate through roots, perform work by hand and cut roots with a sharp axe.
- E. When complete, request ENGINEER to inspect excavations. Correct unauthorized excavation as directed, at no cost to OWNER.
- F. Remove excess or unsuitable excavated sub-soil from site.

3.04 DEWATERING

- A. Keep trenches dry. Provide necessary equipment including pumps, piping and temporary drains.
- B. Do not discharge drainage water into municipal sewers without municipal approval. Ensure water discharge does not contain silt held in suspension.
- C. Direct surface drainage away from excavated areas.
- D. Control the grading in and adjacent to excavations to prevent water running into excavated areas or onto adjacent properties or public thoroughfares.
- E. Furnish and operate suitable pumps on a 24 hour basis to keep excavations free of water until piping has been placed and backfilling has been completed.
- F. No water shall be allowed to rise over masonry or mortar until the concrete or mortar has set at least 24 hours.

- G. The Contractor is responsible for acquiring all necessary dewatering permits at no cost to the Owner.

3.05 BACKFILLING

- A. Do not start backfilling until piping has been inspected.
- B. Ensure trenches are free of building debris, wood, rocks over 3½ inches in diameter and water.
- C. Backfill systematically and as early as possible to allow maximum time for natural settlement and compaction.
- D. After backfill has reached a point one foot above the top of the pipe, a variation in the procedure as to manner of placing and amount of compaction to fill will be allowed, depending upon the location of the work and danger from subsequent settlement, as follows:
 - 1. For backfilling in unimproved areas (along utility easements and in parkway strip beyond the edge of driveways and graveled parking areas), from an elevation of one foot above top of pipe to the surface of the ground, backfill may be deposited by equipment. Depositing in layers, or tamping will not be required. Sufficient surplus excavated material shall be neatly rounded over the trench, to compensate for settlement. All surplus excavated materials beyond that indicated above shall be disposed of by Contractor.
 - 2. For backfilling beneath driveways and parking areas, alleys, and streets where non-rigid type surfacing is to be replaced. This shall also include dirt, gravel or asphalt driveways and alleys.
 - a. The backfill material shall be carefully deposited in uniform layers not to exceed 12-inches in thickness and each layer shall be compacted to 98% of maximum density in accordance with AASHTO T-180 with manually operated machine tampers.
 - b. In lieu of the foregoing compaction method, the backfill material and procedure used may be that as specified under Method 3, below.
 - 3. For backfilling across and beneath driveways, sidewalks, parking areas or streets where a rigid type paving is to be replaced (concrete and asphaltic concrete and brick surfaces).
 - a. All backfill material shall be approved granular material of high weight and density. The material shall be carefully deposited in uniform layers not to exceed 12-inches thick (loose measure), and each layer shall be compacted by ramming or tamping with tools

approved by ENGINEER in a manner that does not disturb the pipe. Where necessary, granular base material of the type and thickness specified shall be used for the last layer prior to surfacing.

END OF SECTION

SECTION 02235
LIMEROCK BASE, PRIMED

PART 1 - GENERAL

1.01 SCOPE

- A. This item shall consist of the construction of a base course composed of limerock including the application of a bituminous prime coat. It shall be constructed on the prepared subgrade in accordance with these specification and shall conform to the dimensions, lines, grades and cross sections shown on the plans.

1.02 REFERENCES

Standards applicable to this Specification shall be:

- A. American Association of State Highway and Transportation Officials Standard Specifications (AASHTO).
1. AASHTO T49-80 - Standard Method of Test for Penetration of Bituminous Materials.
 2. AASHTO M81-75 (Latest Edition) - Standard Specification for Cut-Back Asphalt (Rapid-Curing Type).
 3. AASHTO T180-74 (Latest Edition) - Standard Method of Tests for Moisture-Density Relations.
- B. Florida Department of Transportation Standard Specifications (F.D.O.T.).
1. FDOT Section 200, Limerock Base Latest edition
 2. FDOT Section 300, Prime and Tack Latest edition
 3. FDOT Section 911, Limerock Material for Base and Stabilized Base Latest edition

1.03 SUBMITTALS

- A. The contractor will, at least ten days prior to start of work, submit in writing the source of all materials to be used.
- B. The Contractor will, without additional compensation, submit such tests as may be required by the Engineer.

1.04 MEASUREMENT AND PAYMENT

- A. Method of Measurement: The quantity to be paid for under this Section shall be the area, in square yards, of limerock base, primed, completed and accepted.
- B. Basis of Payment: The quantity of limerock base primed, determined as provided above, shall be paid for at the contract unit price per square yard for Limerock Base primed, completed and accepted. Such price and payment shall be full compensation for all the work specified in this Section, including correcting all defective surface and deficient thickness.

PART 2 - MATERIALS

2.01 LIMEROCK

Except as might be specifically shown otherwise, all limerock material and the sources thereof shall be furnished by the Contractor. Any limerock material occurring in State furnished borrow areas shall not be used by the Contractor in constructing the base, unless permitted by the plans or other contract documents.

- A. Composition - The minimum percentage of carbonates of calcium and magnesium in the limerock material shall be 70. The maximum percentage of water-sensitive clay mineral shall be 3%. Determination shall be at the option of the Engineer.
- B. Liquid Limit and Plasticity Requirements
 - 1. Material for Limerock Base: The liquid limit shall not exceed 35 and the material shall be non-plastic.
 - 2. Material Used in Limerock Stabilized Base: The liquid limit shall not exceed 35 and the plastic index shall not exceed 10.
- C. Mechanical Requirements
 - 1. Deleterious Material - Limerock material shall not contain cherty or other extremely hard pieces, or lumps, balls or pockets of sand or clay size material in sufficient quantity as to be detrimental to the proper bonding, finishing, or strength of the limerock base.
 - 2. Gradation and Size Requirements
 - a) For Limerock Base - At least 97 percent (by weight of the material shall pass a 3-1/2 inch sieve and the material shall be graded uniformly down to dust. The fine material shall consist entirely of dust of fracture. All crushing or breaking-up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.

- b) For Limerock Stabilized Base - For this use the limerock material shall meet the requirements of 911-5.21 except that 97 percent shall pass the 1-1/2 inch sieve.
- D. Limerock Bearing Ratio Requirements - Limerock material used in construction of limerock base shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

2.02 PRIME COAT MATERIAL (300-2 Latest Edition)

- A. The material used for prime coat shall be cut-back Asphalt Grade RC-70 or RC-250 meeting the requirements of (FDOT 916-2) Emulsified Asphalt Grades SS-1 or CSS-1, SS-1H or CSS-1H diluted in equal proportion with water; Asphalt Emulsified Asphalt Grade AE-60, AE-90, AE-150 or AE-200 diluted at the ratio of 6 parts emulsified asphalt to 4 parts water; special MS-Emulsion diluted at the ratio of 6 parts emulsified asphalt to 4 parts water; Asphalt Emulsion Prime (AEP) meeting the requirements, Emulsion Prime (RS type) meeting the requirements of (FDOT 916-4), or other types and grades of bituminous material which may be called for in the plans or Special Provisions.

The Contractor may select any of the specified bituminous materials unless the plans or Special Provisions indicate the use of a specific material. Types and Grades of bituminous material other than those specified above may be allowed if it can be shown that the alternate material will properly perform the function of prime coat material.

- B. Cover Material for Prime Coat - If an emulsified asphalt is used for prime coat, the Engineer may require that cover material be hot-asphalt coated (mix to contain from two to four percent asphalt-cement) if necessary to achieve a prime coat which will remain reasonably intact until the surface course is placed.

If material other than emulsified asphalt is used for the prime coat, the cover material shall be either sand (bare or hot-asphalt coated) or screenings, at the Contractor's option. The sand shall be nonplastic and free from any appreciable amount of silt, clay balls and root particles, and from any noticeable sticks, trash, vegetation or other organic matter. Screening shall be as specified in FDOT 902.5.

PART 3 - EXECUTION

3.01 TRANSPORTING LIMEROCK

The limerock shall be transported to the point where it is to be used, over rock previously placed if practicable, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when these operations will not be detrimental to the base as determined by the Engineer.

3.02 EQUIPMENT

- A. Limerock Base - The rock shall be spread by mechanical rock spreaders, equipped with a device which strikes off the rock uniformly to laying thickness, and capable of producing an even distribution of the rock. For crossovers, intersections and ramp areas; for roadway widths of 20 feet or less; for the main roadway area when forms are used and for any other areas where the use of a mechanical spreader is not practicable; spreading may be done by bulldozers or blade graders.
- B. Pressure Distributor - The pressure distributor shall be equipped with pneumatic tires having a sufficient width of rubber in contact with the road surface to avoid breaking the bond or forming a rut in the surface. The distance between the centers of openings of the outside nozzles of the spray bar shall be equal to the width of the application required, within an allowable variation two (2) inches.

The outside nozzle at each end of the spray bar shall have an area of opening not less than 25 percent nor more than 75 percent, in excess of the other nozzles. All other nozzles shall have uniform openings. When the application covers less than the full width, the normal opening of the end nozzle at the junction line may remain the same as those of the interior nozzles. less than the full width, the normal opening of the end nozzle at the junction line may remain the same as those of the interior nozzles.

3.03 SPREADING LIMEROCK

- A. Method of Spreading - The limerock shall be spread uniformly with equipment as specified in 3.02 A. above. All segregated areas of fine or coarse rock shall be removed and replaced with properly graded rock.
- B. Number of Courses - When the specified compacted thickness of the base is greater than six inches, the base; shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional to bear the weight of the construction equipment without disturbing the subgrade.

3.04 COMPACTING AND FINISHING BASE

- A. Single-Course Base - For single-course base, after the spreading is completed the entire surface shall be scarified and then shaped so as to produce the required grade and cross section after compaction.

- B. Double-Course Base - For double-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made and the Engineer shall have determined that the required compaction has been obtained. After the spreading of the material for the final course is completed, its surface shall be finished and shaped so as to produce the required grade and cross section after compaction, and free of scabs and laminations.
- C. Moisture Content - When the material does not have the proper moisture content to insure the required density, wetting or drying will be required. When water is added it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted.
- D. Density Requirements - As soon as proper conditions of moisture are attained the material shall be compacted to a density of not less than 98 percent of maximum density as determined by AASHTO T 180. The minimum density which will be acceptable at any location outside the traveled roadway (such as intersections, crossovers, turnouts, etc) shall be 95 percent of such maximum. Limerock base for shoulder pavement shall be compacted to a density not less than 95 percent of the maximum density as determined under AASHTO T 180.
- E. Density Test - At least three density determinations shall be made on each day's final compaction operations on each course, and the density determinations shall be made at more frequent intervals if deemed necessary by the Engineer.

During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.

- F. Correction of Defects
 - 1. Contamination of Base Material - If, at any time, the subgrade material should become mixed with the base course material, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.
 - 2. Cracks and Checks - If cracks or checks appear in the base, either before or after priming, which, in the opinion of the Engineer, would impair the structural efficiency of the base, the Contractor shall remove the cracks or checks by rescarifying, reshaping, adding base material where necessary, and recompacting.

3.05 PRIMING

- A. Preparation - The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90 percent of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur.

Before any bituminous material is applied, all loose material, dust, dirt, caked clay and other foreign material which might prevent proper bond with the existing surface shall be removed for the full width of the application. Particular care shall be taken in cleaning the outer edges of the strip to be treated, to insure that the prime or tack coat will adhere.

When the prime or tack coat is applied adjacent to curb and gutter, valley gutter or any other concrete surfaces, such concrete surfaces (except where they are to be covered with a bituminous wearing course) shall be covered with heavy paper, or otherwise protected while the prime or tack coat is being applied. Any bituminous material deposited on such concrete surfaces shall be removed.

The temperature of the prime material shall be between 100 degrees Fahrenheit and 150 degrees Fahrenheit. The actual temperature shall be that which will insure uniform distribution. The material shall be applied by means of a pressure distributor. The amount to be applied will be dependent on the character of the surface and shall be sufficient to coat the surface thoroughly and uniformly, with no excess.

- B. Rate of Application - The rate of application shall be not less than 0.10 gallon per square yard, unless a lower rate is approved by the Engineer.
- C. Sprinkling - If so required by the Engineer the base shall be lightly sprinkled with water and rolled with a traffic roller, in advance of the application of the prime.
- D. Sanding - The primed base shall be covered by a light uniform application of cover material. If considered necessary for proper distribution of spread, the cover material shall be lightly dragged with a drag broom, after which it shall be rolled with a traffic roller, for at least ten passes over the entire area.
- E. Sampling Device on Transport Tanks - All transport tanks delivering bituminous materials for use on the project shall be equipped with an approved spigot-type sampling device.

- F. Temperature Sensing Device on Transport Tanks - All transport tanks delivering bituminous materials for use on the Department's projects shall be equipped with an approved dial type thermometer.

The thermometer shall have a temperature range from 50 degrees Fahrenheit to 500 degrees Fahrenheit in 25 degrees Fahrenheit increments with a minimum dial diameter of two inches.

The thermometer shall be located near the midpoint in length and within the middle third of the height of the tank and be enclosed in a well with a protective window or by other means as necessary to keep the instrument clean and in the proper working condition.

3.06 QUALITY CONTROL

- A. Testing Surface - The finished surface of the base course shall be checked with a templet cut to the required crown and with a 15-foot straightedge laid parallel to the centerline of the road. All irregularities greater than 1/4 inch shall be corrected by scarifying and removing or adding rock as required, after which the entire area shall be recompacted as specified hereinbefore. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.

B. Thickness Requirements

1. Measurements - Thickness of base shall be measured at intervals of not more than 200 feet. Measurements shall be taken at various points on the cross section, through holes not less than three inches in diameter.
2. Areas Requiring Correction - Where the compacted base is deficient by more than 1/2 inch from the thickness called for in the plans, the Contractor shall correct such areas by scarifying and adding rock. The base shall be scarified and rock added for a distance of 100 feet in each direction from the edge of the deficient area. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross section.
3. Deficient Areas Left in Place - As an exception to the requirement for correcting areas of base which show a thickness deficiency exceeding the allowable 1/2 inch, if so approved in writing by the Engineer. Any of such areas in which the extent of the deficiency might be considered as not sufficient to seriously impair the required strength of the base may be left in place. No payment, however, will be made for such deficient areas left in place and not corrected.

3.07 MAINTENANCE

The Contractor will be responsible for assuring that the true crown and templet are maintained, with no rutting or other distortion, and that the base meets all the requirements, at the time the surface course is applied.

END OF SECTION

SECTION 02260 FINISH GRADING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall, under this Section, 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.

1.02 RELATED WORK

- A. Section 02210: Excavation and Swale Grading.
- B. Section 02211: Site Grading.
- C. Section 02220: Trenching, Backfilling and Compacting.
- D. Section 02800: Irrigation.
- E. Section 02900: Landscaping.
- F. Section 02934: Sodding.

1.03 PROTECTION

- A. The Contractor shall 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

2.01 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

3.01 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., in excess of 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).

3.02 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.

3.03 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 02367 SHEET PILES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This section covers the work necessary for the temporary sheet piles and cells, complete.
- B. The cost of sheet piles, if required, will be incidental to drainage facilities and sanitary sewer system installation.

1.02 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Society for Testing and Materials (ASTM):
 - a. A36, Structural Steel.
 - b. A183, Carbon Steel Track Bolts and Nuts.
 - c. A123, Zinc (Hot-Dip Galvanized) Coating on Iron and Steel Products.
 - d. A153, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware (R 1987).
 - e. A307, Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
 - f. A328, Steel Sheet Piling.
 - g. A572, High-Strength Low-Alloy Columbium-Vanadium Steels of Structural Quality.
 - h. Comply with all OSHA Standards.

1.03 DEFINITIONS

- A. Elevations: Referenced to NGVD 1929.
- B. Obstruction: Sudden and significant increase of penetration resistance and deviation of pile out of tolerance resulting from encountering a subsurface or physical condition.
- C. Practical Refusal: Penetration resistance of at least 120 blows per foot for 3 continuous feet, 200 blows per foot for 1 foot, or 50 blows per inch for 2-consecutive inches, whichever comes first, and to continue driving pile would be

impractical. These criteria apply only for hammer sizes and operation as specified.

- D. Rated Hammer Energy:
 - 1. Diesel Hammers: Product of rated stroke times ram weight.
 - 2. Air Hammers: Rated energy from manufacturer's literature.
- E. Refusal: Zero rate of penetration for 10 seconds during pile driving.
- F. Set: Pile penetration in inches per blow.
- G. Sweep: Deviation from straightness measured along two perpendicular faces of pile while not subject to bending forces.
- H. Termination Penetration Resistance: Penetration resistance exceeding 60 blows per foot at which driving may be terminated.

1.04 SUBMITTALS

- A. Administrative Submittals: Pile driving schedule.
- B. Shop Drawings: Indicate tie rods and accessories, number of piles required, fabricated comers, and detail dimensions.
- C. Quality Control Submittals:
 - 1. Manufacturer's product data prior to ordering piles.
 - 2. Written sequence of setting and driving operation
 - 3. Drilling: Manufacturer's literature on equipment and operation procedures.
 - 4. Hammers: Manufacturer's specifications and catalog information. Show data necessary for computing bearing value of piles driven.
 - 5. Installer qualifications.
- D. If installed as sheet-piled cells, submit revised wet well sections including antiflotation calculations proposed by a Florida Professional Engineer.

1.05 QUALIFICATIONS

- A. Piling Installer: Minimum of 5 years of past successful experience on 10 projects of sheet pile installation (submit project list to Engineer).

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Sheet Piles: Lift and handle so that maximum bending stresses shall not exceed 22,500 pounds per square inch.

1.07 SPECIAL TOOLS

- A. Tool checking interlock dimensions.

PART 2 - PRODUCTS

2.01 SHEET PILES

- A. Minimum size and wall thickness shown manufactured to ASTM A572, Grade 50.
- B. Sections: Continuously interlocking type, structural characteristics as follows:

Section Designation	Nominal Web Thickness/In.	Weight Per SF-Pounds	Sect. Modulus Per LF/Cu.In.
PZ38	3/8 by 1/2	38.0	46.8
PZ32	3/8 by 1/2	32.0	38.3
PZ27	3/8	27.0	30.2
PDA27	3/8	27.0	10.7
PMA22	3/8	22.0	5.4
PSA23	3/8	23.0	2.4
PSA28	1/2	28.0	2.5
PS28	3/8	28.0	1.9
PS32	1/2	32.0	1.9
PSX32	29/64	32.0	2.4

- C. Section Modulus: Base on individual whole piece, not dependent on the interlock friction between pile sections to secure the required section modulus.
- D. Pulling (Handling) Holes: Manufacturer's standard, additional will not be allowed.
- E. Tolerances: Weight per square foot may not vary by more than 2-1/2 percent over or under that specified.

2.02 ACCESSORIES

- A. Tie Rod Assembly: Adjust spacing, size, plate dimensions, and length of tie rods if piling sections are of different proportions.
 - 1. Tie Rods:
 - a. Fabricated Steel: ASTM A36, upset ends, threaded American Standard Free Fit, Class 2.
 - b. Coat with grease and wrap for protection from rust and physical damage while in transit.
 - 2. Turnbuckles:
 - a. Forged steel with American Standard Class 2 fit threads, takeup, and other dimensions as shown in American Institute of Steel Construction, Manual of Steel Construction.
 - b. Finished with parts properly shaped and free from fins, cracks, flaws, seams, and other injurious defects.
 - c. Screw Threads: True to form, clean cut, and free from injurious defects.
 - d. Nuts: Standard hexagon, American Standard Class 2 fit threads.
- B. Steel Shapes, Plates, Bars, and Washers:
 - 1. General: ASTM A36, provide cut washers for each bolt head and nut.
 - 2. Bolts: ASTM A307, of length to finish 1/4 inch outside the nut and have additional thread to retighten.
 - 3. Hardware: Hot-dip galvanize, ASTM A123.

PART 3 - EXECUTION

3.01 DRIVING EQUIPMENT

- A. Air or Steam Hammer: Minimum manufacturers' rated capacity of 24,000 foot-pounds of energy per blow.
 - 1. Pressure Gauge: Locate near hammer for measuring air or steam pressure.
- B. Diesel Hammers:
 - 1. Ram Weight: Not less than 3,600 pounds.
 - 2. Energy Developed: Exceed 13,000 foot-pounds per blow.

- C. Sonic Hammers: Use of adequate size and type. Demonstrate capability prior to approval for pile driving.
- D. Drop Hammer or Combination of Water Jets and Hammer:
 - 1. Drop Hammers:
 - a. Weight:
 - 1) Piles 50 Feet Long or Less: Minimum 3,000 pounds.
 - 2) Piles Over 50 Feet Long: Minimum 4,000 pounds.
 - b. Drop Height: Maximum 10 feet.
 - c. Hammer Head: Certified, weight stamped.

3.02 PILE LENGTHS

- A. Lengths shown are those required below cutoff as shown on the shop drawings. Furnish sheet piling with sufficient extra length to provide for fresh heading and to reach from the cutoff elevation up to position of driving equipment.

3.03 DRIVING GUIDES

- A. Position sheet piles using temporary guide wales support and anchor guide wales to form rigid structures during the sheet pile setting and driving operation.
- B. Guide Wales: Stationary (not moveable) with fluctuating water stage.

3.04 SETTING

- A. Clean pile, inspect for defects and proper interlock dimensions.
- B. Allow pile sufficient clearance in the interlocks to slide, under its own weight, in the interlock of the sheet pile previously placed until the top of existing ground is reached by the tip of the sliding pile. Do not use vibratory or drive hammer to force the interlocking of piles.

3.05 DRIVING

- A. Before driving is started. check sheet piles for position and alignment. Locate pile top within 2 inches of location shown.
- B. Drive sheet piles to the tip elevations shown. Drive down piles which are raised during the process of driving adjacent piles.
- C. If refusal is reached before driving to the specified tip elevation, an impact hammer or controlled jetting may be used. Perform jetting on both sides of sheet pile simultaneously with driving.

- D. Remove and replace sheet pile driven out of interlock.
- E. Driving Tolerances:
 - 1. Not more than 1/8 inch per foot from the vertical in all directions. Furnish plumb line or other device for checking vertical alignment.
 - 2. Not more than 1 percent from vertical or 2 percent from batter shown.

3.06 PILE CUTOFF

- A. Cut square at required elevation with tools that will not damage area below cut surface.
- B. Tolerance: Plus or minus 1/2 inch.

3.07 CUTTING AND SPLICING PILES

- A. Extend to required grade by welding on additional full length piles driven below grade, and piles with damaged heads which have been cut off to permit further driving.
- B. Pile Splicing: Butt weld, making full penetration of the web. Piles adjoining spliced piles shall be full length piles.

3.08 WALES AND CAPS

- A. After driving sheet piling, install channel wales. Bolt splices in wales with field bolts. Set wales horizontal.
- B. Installation:
 - 1. Weld Splices using a single bevel butt joint, welded on one side on backing structure.
 - 2. Space wales within 1/4 inch for welded splices. Fabricate accessories by welding or as otherwise shown.

3.09 TIE ROD ASSEMBLIES

- A. Installation:
 - 1. Hand backfill tie rods to 6-inch depth above rods.
 - 2. Support tie rods in straight line from bulkhead to anchor wall.
 - 3. Maintain tie rod support until such time as rod is tensioned.

- B. Use sandfill or wood cribbing to maintain tie rod alignment.
- C. Tension tie rods with turnbuckles in ENGINEER's presence. Lubricate turnbuckles with graphite prior to tensioning.

3.10 TIE ROD HOLES .

- A. Neatly cut through sheet piles by mechanical means. Flame cutting shall not be used.
- B. Spacing may vary up to 4 inches to avoid cutting sheet pile interlocks.
- C. Variations in Spacing: Prevent an accumulative variation of more than 4 inches.

3.11 SITE RESTORATION

- A. **Sheet piles to be removed.**

END OF SECTION

SECTION 02511 CONCRETE SIDEWALKS

PART 1 - GENERAL

1.01 SCOPE

- A. The work specified in this section consists of the construction of concrete sidewalks, in accordance with these specifications, and in conformity with the lines, grades, dimensions and notes shown on the plans.

1.02 REFERENCES

- A. City of Delray Beach Standards RT 5.1.
- B. FDOT Standard Specifications for Road and Bridge Construction, latest edition

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The concrete mix shall produce standard weight concrete with the following properties to be verified by the use of the appropriate listed test methods.
 - 1. Compressive strength: 3,000 psi at 28 days - tested according to ASTM designation C31 (AASHTO T23)
 - 2. Slump Range: 2-4 inches - tested according according to ASTM designation C143 (AASHTO T119)
- B. Joint materials shall be in accordance with FDOT Specification Section 932.

2.02 FORMS

- A. Forms for this work shall be made of either wood or metal and shall have a depth equal to the plan dimensions for the depth of concrete being deposited against them. They shall be straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without deviation from line and grade. Forms shall be cleaned each time they are used and shall be oiled or saturated with water prior to placing the concrete.

PART 3 - EXECUTION

3.01 SUB-GRADE

- A. Excavation shall be made to the required depth, and the sub-grade or base upon which the sidewalk is to be set shall be compacted to a firm, even surface, true to grade and cross-section, by means of watering, rolling or tamping. The sub-grade For sidewalk to be used as driveway pavement shall be compacted as directed by the City Engineer. The sub-grade shall be moist at the time the concrete is placed.

3.02 JOINTS

- A. Expansion Joints between the sidewalk and the curb or driveway or at fixed objects and sidewalk intersections shall be 1/2 inch joints, formed with a preformed joint filler.
- B. Preformed Filler shall meet the requirements of AASHTO M-153 or M-213, or cellulose fiber types meeting all the requirements of AASHTO M-213 except the asphalt content are acceptable provided they contain minimums of 0.2 percent copper pentachlorophenate as a preservative and 1.0 percent waterproofing wax. For AASHTO M-153, unless a particular type is specified, either type I, type II, or type III may be used
- C. Contraction Joints may be of the open type, or may be sawed.
 - 1. Open type contraction joints shall be formed by staking a metal bulkhead in place and depositing the concrete on both sides. After the concrete has set sufficiently to preserve the width and shape of the joint, the bulkhead shall be removed. After the sidewalk has been finished over the joint, the slot shall be edged with a tool having a 1/2" radius.
 - 2. If the Contractor elects to saw the contraction joints, a slot approximately 3/16" wide and not less than 1-1/2" deep shall be cut with a concrete saw after the concrete has set and within the following periods of time: Joints at not more than 30' intervals - 12 hrs after finishing, and remaining joints - within 96 hrs after finishing.

3.03 PLACING

- A. The concrete shall be placed in the forms to the required depth, and shall be tamped and spaded until mortar entirely covers its surface.

3.04 FINISHING

- A. **SCREEDING:** All surplus water, laitance and inert material shall be worked off the surface of the concrete with a ten (10) foot straight edge, or by some other method equally as satisfactory and so approved by the City Engineer.

- B. FLOATING; SURFACE REQUIREMENTS: The concrete shall be given a wooden float finish. The surface variations shall not be more than three-sixteenths ($3/16$) inch under a ten (10) foot straight edge, nor more than one-eighth ($1/8$) inch on a five (5) foot transverse section. The edge of the sidewalk shall be carefully finished with an edging tool having a radius of one-half ($1/2$) inch.

3.05 THICKNESS

- A. Concrete sidewalks shall be four (4) inches thick except at driveways where sidewalks shall be six (6) inches thick.

END OF SECTION

SECTION 02513
ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Prepare sub-grade to receive base course.
- B. Place stabilizing base courses, work and compact.
- C. Prime base course, place asphalt pavement.
- D. Prepare existing asphalt pavement for overlay course(s), place asphalt pavement overlay.

1.02 RELATED WORK

- A. Section 01410: Testing Laboratory Services.
- B. Section 02211: Site Grading.
- C. Section 02580: Pavement Marking.

1.03 REFERENCE STANDARDS

- A. ASTM D1557 - Tests for Moisture - Density Relationship of Soils using 10 lb. Rammer in 18 inch Drop.
- B. AASHTO M-81 - Penetration Graded Asphalt Cement.
- C. AASHTO M-140 - Emulsified Asphalt.
- D. FDOT Road and Bridge Construction - Section 200 - Rock Base.
- E. FDOT Road and Bridge Construction - Section 204 – Graded Aggregate Base.
- F. FDOT Road & Bridge Construction - Section 230 - Limerock Stabilized Base
- G. FDOT Road and Bridge Construction - Section 283 - Reclaimed Asphalt Pavement Base
- H. FDOT Road & Bridge Construction - Section 300 – Prime and Tack Coats for Base Courses

- I. FDOT Road & Bridge Construction - Section 320 – Hot Bituminous Mixtures – Plant, Methods and Equipment
- J. FDOT Road & Bridge Construction – Section 327 – Milling of Existing Asphalt Pavement.
- K. FDOT Road and Bridge Construction - Section 330 - Hot Bituminous Mixtures General Construction Requirements.
- L. FDOT Road and Bridge Construction – Section 337 – Asphalt Concrete Friction Courses.
- M. FDOT Road and Bridge Construction – Section 901-5 – Reclaimed Portland Cement Concrete.
- N. FDOT Road and Bridge Construction - Section 911 - Limerock Material for Base and Stabilized Base.
- O. FDOT Road and Bridge Construction – Section 913 - Shell Material.

1.04 TESTING AND INSPECTION

- A. Testing and inspection of asphalt pavement mixes and testing of placed stabilizing base course and asphalt pavement will be performed by an independent testing laboratory, in accordance with Section 01410-Testing Lab Services. Testing and inspection will be performed so as to minimize disruption to work.
- B. Allow testing laboratory access to the mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in the preparation of asphalt concrete mix.
- C. When and if required, the testing laboratory will perform laboratory tests on proposed asphalt pavement mixes to determine conformity with requirements.
- D. The testing laboratory will perform one series of compaction tests for stabilizing base course and for asphalt pavement. The contractor shall pay for costs of additional testing as required due to improper performance of work.
- E. When stabilizing base course or portion thereof has been placed and compacted in accordance with requirements, notify the testing laboratory to perform density and bearing value tests. Do not place asphalt pavement until results have been verified and base course installation approved.
- F. If compaction tests indicate that stabilizing base course or asphalt paving do not meet specified requirements, remove defective work, replace and retest at Contractor's expense.

PART 2 - MATERIALS

2.01 LIMEROCK

- A. Composition - The minimum percentage of carbonates of calcium and magnesium in the limerock material shall be 70. The maximum percentage of water-sensitive clay mineral shall be 3 percent. Limerock material shall not contain cherty or other extremely hard pieces, or lumps, balls or pockets of sand or clay size material in sufficient quantity as to be detrimental to the proper bonding, finishing, or strength of the limerock base.
- B. Gradation and Size Requirements - At least 97 percent (by weight of the material shall pass a 3½ inch sieve and the material shall be graded uniformly down to dust. The fine material shall consist entirely of dust of fracture. All crushing or breaking-up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.
- C. Limerock Bearing Requirements - Limerock material used in construction of limerock base shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

2.02 CRUSHED CONCRETE

- A. Composition - The minimum percentage of carbonates of calcium and magnesium in the material shall be 70. All foreign material such as metal fragments, organic matter, etc. shall be removed from the material before delivery to the job site.
- B. Gradation - 100 percent (by weight) of the material shall pass a 3 inch sieve, with 40 percent to 70 percent passing the number 10 sieve. Not more than 20 percent, by dry weight, of the material shall pass the 200 sieve by washing. all crushing or breaking up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.
- C. Bearing Requirements - The Crushed Concrete Base shall have an average Limerock Bearing Ration (LBR) of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.
- D. Crushed Concrete may be substituted for Limerock as base material by adding 2 inches to the specified thickness.

2.03 PRIME COAT

- A. Prime coat shall be one of the following and conform to FDOT Standard Specification for Road and Bridge Construction, Section 300:
 - 1. Cutback Asphalt, Grade RC-70 or RC-250 shall meet the requirements of AASHTO Specification M-81.
 - 2. Emulsified Asphalt Grade SS-1 or SS1H shall meet the requirements of AASHTO Specifications M-140 and/or M-280.

2.04 TACK COAT

- A. Tack coat shall be one of the following and conform to FDOT Standard Specification for Road and Bridge Construction, Section 300:
 - 1. Asphalt Cement, Penetration Grade 85-100 shall meet the requirements of AASHTO Specification M-20.
 - 2. Emulsified Asphalt, Grade RS-2 shall meet the requirements of AASHTO Specification M-140.

2.05 ASPHALTIC CONCRETE

- A. Type S-III asphaltic concrete placed as indicated on the Drawings, in accordance with Sections 330-9 Preparation of Application Surfaces, 330-10 Placing Mixture, 330-11 Compacting Mixture and 331 Type S Asphaltic Concrete of FDOT Standard Specification, 2000 edition.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Subgrade shall be stabilized per Section 160 - Stabilizing, of the FDOT Standard Specifications, 2000 edition.
- B. Bearing Value Requirements for subgrade stabilization
 - 1. Limerock Bearing Ratio - Minimum LBR 40 under paved and curbed areas, and minimum LBR 30 in shoulder and swale areas.
 - 2. Florida Bearing Value - Minimum FBV 75 pounds per square inch (psi) under paved and curbed areas, and minimum FBV 50 psi in shoulder and swale areas.

- C. Installation and quality control of the asphaltic concrete pavement shall be in conformance with FDOT Standards for Road and Bridge Construction, 2010 edition, Section 330 – Hot Bituminous Mixtures – General Construction Requirements.

3.02 TRANSPORTING BASE COURSES

- A. The limerock shall be transported to the point where it is to be used, over rock previously placed if practicable, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when these operations will not be detrimental to the base as determined by the Engineer.

3.03 EQUIPMENT

- A. Base Course - The rock shall be spread by mechanical rock spreaders, equipped with a device which strikes off the rock uniformly to laying thickness, and capable of producing an even distribution of the rock.
- B. Pressure Distributor - The pressure distributor shall be equipped with pneumatic tires having a sufficient width of rubber in contact with the road surface to avoid breaking the bond or forming a rut in the surface. The distance between the centers of openings of the outside nozzles of the spray bar shall be equal to the width of the application required, within an allowable variation two (2) inches.

3.04 SPREADING BASE COURSE

- A. Method of Spreading - The limerock shall be spread uniformly with equipment as specified in 3.03 above. All segregated areas of fine or coarse rock shall be removed and replaced with properly graded rock.
- B. Number of Courses - When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional to bear the weight of the construction equipment without disturbing the subgrade.

3.05 COMPACTING AND FINISHING BASE

- A. Dynamic Compactor with vibratory rollers shall not be used on this project and shall not be permitted at the job site. The contractor is responsible for all damages caused by compaction operations.

- B. Single-Course Base - For single-course base, after the spreading is completed the entire surface shall be scarified and then shaped so as to produce the required grade and cross section after compaction.
- C. Double-Course Base - For double-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made and the Engineer shall have determined that the required compaction has been obtained. After the spreading of the material for the final course is completed, its surface shall be finished and shaped so as to produce the required grade and cross section after compaction, and free of scabs and laminations.
- D. Moisture Content - When the material does not have the proper moisture content to insure the required density, wetting or drying will be required. When water is added it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted.
- E. Density Requirements - As soon as proper conditions of moisture are attained the material shall be compacted to a density of not less than 98 percent of maximum density as determined by AASHTO T-180. The minimum density which will be acceptable at any location outside the traveled roadway.
- F. Density Test - At least three density determinations shall be made on each day's final compaction operations on each course, and the density determinations shall be made at more frequent intervals if deemed necessary by the Engineer.
 - 1. During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.
- G. Correction of Defects:
 - 1. Contamination of Base Material - If, at any time, the subgrade material should become mixed with the base course material, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.
 - 2. Cracks and Checks - If cracks or checks appear in the base, either before or after priming, which, in the opinion of the Engineer, would impair the structural efficiency of the base, the Contractor shall remove the cracks or checks by rescarifying, reshaping, adding base material where necessary, and recompacting.

- H. Surface Testing - The finished surface of the base course shall be checked with a templet cut to the required crown and with a 15 foot straightedge laid parallel to the center line of the road. All irregularities greater than ¼ inch shall be corrected by scarifying and removing or adding base course material as required, after which the entire area shall be recompacted.

3.06 PRIMING

- A. Preparation - The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90 percent of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur.
1. Before any bituminous material is applied, all loose material, dust, dirt, caked clay and other foreign material which might prevent proper bond with the existing surface shall be removed for the full width of the application. Particular care shall be taken in cleaning the outer edges of the strip to be treated, to insure that the prime or tack coat will adhere.
 2. When the prime or tack coat is applied adjacent to curb and gutter, valley gutter or any other concrete surfaces, such concrete surfaces (except where they are to be covered with a bituminous wearing course) shall be covered with heavy paper, or otherwise protected while the prime or tack coat is being applied. Any bituminous material deposited on such concrete surfaces shall be removed.
 3. The temperature of the prime material shall be between 100 degrees Fahrenheit and 150 degrees Fahrenheit. The actual temperature shall be that which will insure uniform distribution. The material shall be applied by means of a pressure distributor. The amount to be applied will be dependent on the character of the surface and shall be sufficient to coat the surface thoroughly and uniformly, with no excess.
- B. Rate of Application - The rate of application shall be not less than 0.10 gallon per square yard, unless a lower rate is approved by the Engineer.
- C. Sprinkling - If so required by the Engineer the base shall be lightly sprinkled with water and rolled with a traffic roller, in advance of the application of the prime.
- D. Sanding - The primed base shall be covered by a light uniform application of cover material. If considered necessary for proper distribution of spread, the cover material shall be lightly dragged with a drag broom, after which it shall be rolled with a traffic roller.

- E. Sampling Device on Transport Tanks - All transport tanks delivering bituminous materials for use on the project shall be equipped with an approved spigot-type sampling device.
- F. Temperature Sensing Device on Transport Tanks - All transport tanks delivering bituminous materials shall be equipped with an approved dial type thermometer. The thermometer shall have a temperature range from 50 degrees Fahrenheit to 500 degrees Fahrenheit in 25 degrees Fahrenheit increments with a minimum dial diameter of two inches.

3.07 QUALITY CONTROL

- A. Testing Surface - The finished surface of the base course shall be checked with a templet cut to the required crown and with a 15-foot straightedge laid parallel to the centerline of the road. All irregularities greater than $\frac{1}{4}$ inch shall be corrected by scarifying and removing or adding rock as required, after which the entire area shall be recompactd as specified hereinbefore. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.
- B. Thickness Requirements:
 - 1. Measurements - Thickness of base shall be measured at intervals of not more than 200 feet. Measurements shall be taken at various points on the cross section, through holes not less than three inches in diameter.
 - 2. Areas Requiring Correction - Where the compacted base is deficient by more than $\frac{1}{2}$ inch from the thickness called for in the plans, the Contractor shall correct such areas by scarifying and adding rock. The base shall be scarified and rock added for a distance of 100 feet in each direction from the edge of the deficient area. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross section.
 - 3. Deficient Areas Left in Place - As an exception to the requirement for correcting areas of base which show a thickness deficiency exceeding the allowable $\frac{1}{2}$ inch, the deficiency might be considered as not sufficient to seriously impair the required strength of the base and may be left in place. No payment, however, will be made for such deficient areas left in place and not corrected.

3.08 MAINTENANCE

- A. The Contractor will be responsible for assuring that the true crown and template are maintained, with no rutting or other distortion, and that the base meets all the requirements, at the time the surface course is applied.

3.09 PROTECTING ADJACENT WORK

- A. Provide adequate protection for all adjacent construction, whatever it may be, against bituminous spraying. Spraying of bituminous material on work, other than base course, will not be accepted.

3.10 TRANSPORTATION OF THE ASPHALT

- A. The surface course shall be transported in tight vehicles previously cleaned of all foreign material. The inside surface of the truck bodies shall be only thinly coated with soapy water or an approved emulsion containing not over 5 percent oil. Kerosine, gasoline or similar products shall not be used. After coating and before loading, the truck bodies shall be raised and drained of all excess liquids.

3.11 INSTALLATION OF FINAL ASPHALTIC CONCRETE SURFACE COURSE

- A. The Contractor shall install Type S-III asphaltic concrete surface course over the entire project in a final $\frac{3}{4}$ inch lift.
- B. Mechanical spreading and screeding equipment shall be of an approved type that is self-propelled and can be steered. It shall be equipped with a receiving and disbursing hopper and a mechanical screed or strike-off member capable of adjustment to regulate the depth of material being spread. Tandem Type 5 to 12 ton steel- wheeled rollers shall be used for sealing. Self- Propelled, pneumatic-tired traffic rollers equipped with at least 7b smooth tread, low pressure tires, having a total weight of 6 to 10 tons shall be used for final rolling.

3.12 FIELD QUALITY CONTROL

- A. The final surface course of all pavements will be required to be checked by a rolling straightedge. The finished surface shall not vary more than $\frac{3}{16}$ inch from the straightedge applied parallel to the centerline of the pavement. The straightedge shall have an effective length of 15 feet.

END OF SECTION

SECTION 02520 CONCRETE CURBS AND HEADERS

PART 1 - GENERAL

1.01 SCOPE

- A. The work covered by this section of the specifications consists of furnishing all plant, labor, equipment, appliances and materials and performing all operations in connection the construction of concrete curbs and headers, complete and in place, in strict accordance with these specifications and the applicable drawings and subject to the terms and conditions of this contract.

1.02 REFERENCES

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, (latest edition)

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The concrete mix shall produce standard weight concrete with the following properties to be verified by the use of the appropriate listed test methods.
- *Compressive strength:* 3,000 psi at 28 days - tested according to ASTM designation C31 (AASHTO T23)
 - *Slump Range:* 2-4 inches - tested according to ASTM designation C143 (AASHTO T119)
- B. Joint materials shall be in accordance with FDOT Specification Section 932

PART 3 - EXECUTION

3.01 CONSTRUCTION METHODS

Concrete curbs and headers shall be constructed of the type and in the locations as shown on the plans.

- A. **FORMS:** Forms for this work shall be made of either wood or metal. They shall be straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without springing. If made of wood, they shall

be of two (2) inch surfaced plank; if made of metal, they shall be of approved section and shall have a flat surface on top.

- B. CONSTRUCTION: Excavation shall be made to the required depth; and the sub-grade or base upon which the curb or header is placed shall be compacted to 98% AASHTO T-180.
1. The concrete shall be placed in the forms to the depth specified, and tamped and spaded to prevent honeycomb and until the top of the structure can be floated smooth and the edges rounded to the radius shown on the plans.
 2. Contraction joints shall be placed at intervals of ten feet except where a lesser interval is required for closure, but no section shall be less than four feet in length.
 3. Contraction joints shall be created while the concrete is still plastic by using a grooving tool or by inserting a premolded filler strip, or a groove may be saw cut into the concrete soon after it has hardened. Curb with irregular cracks due to late contraction joint construction will not be accepted.
 4. Expansion joints shall be constructed at all radius points and at other locations indicated on the plans. They shall be located at intervals of 500 feet between other expansion joints, or ends of a run. The joint shall be 1/2 inch in width.
 5. The forms shall be removed within twenty-four (24) hours after the concrete has been placed, and minor defects then filled with mortar composed of one (1) part of Portland Cement and two (2) parts of fine aggregate. Plastering shall not be permitted on the face of the curb; and all rejected curb, or header shall be removed and replaced without additional compensation. The curb top, face and/or header top shall be given a surface finish while the concrete is still green. A brush finish will be required unless noted otherwise; however, additional finishing may be required in areas considered too rough or with minor defects.
 6. After the concrete has been rubbed smooth, it shall be rubbed again until a uniform color is produced, using a thin grout composed of one (1) part of Portland Cement and one (1) part of fine aggregate.
 7. After concrete has set sufficiently, the spaces in front and back of the curb shall be refilled to the required elevation with suitable material, which shall be placed and thoroughly compacted in layers of not more than six (6) inches in thickness.

END OF SECTION

SECTION 02546

FINAL ASPHALTIC CONCRETE SURFACE COURSE

PART 1 - GENERAL

1.01 SCOPE

The work to be performed under this item shall include the selling, delivering and installing of final asphaltic concrete surface courses as herein specified.

1.02 REFERENCES

Standards applicable in this Specification shall be:

- A. Florida Department of Transportation - Standard Specifications for Road and Bridge Construction (Latest Edition).
 - 1. Section 300 - Prime and Tack Coats for Base Courses. Subsections (1, 2.3, 3, 4, 5, 7).
 - 2. Section 320 - Hot Bituminous Mixtures - Plant, Methods and Equipment. Subsections (1, 2.1, 2.5 to 2.13, 3, 4, 5).
 - 3. Section 330 - Hot Bituminous Mixtures - General Construction Requirements. Subsections (1, 3 to 13).
 - 4. Section 334 - Type S-1 or SP-12.5, Asphaltic Concrete.

1.03 SUBMITTALS

- A. Manufacturer's Data - Prior to fabrication or installation of the final asphaltic concrete surface course, the Contractor shall furnish to the Engineer, for review and approval the following:
 - 1. Certification from the manufacturer that their plant meets the requirements of Section 320 above.
 - 2. Formula for job mix.

PART 2 - MATERIALS

2.01 TACK COAT

Unless otherwise specified by the Engineer, the material used for the tack coat shall be Emulsified Asphalt, Grade RS-2, Section 300-2.3 F.D.O.T. Standard Specification for Road and Bridge Construction.

2.02 FINAL ASPHALTIC SURFACE COURSES

The material used shall be Type S-III or SP-9.5 asphaltic concrete conforming to Section 334 of the F.D.O.T. Standard Specifications for Road and Bridge Construction.

PART 3 - EXECUTION

3.01 CLEANING SURFACES

Prior to the laying of the surface courses, the surface of the pavement or base to be covered shall be cleaned of all loose and deleterious material by the use of power brooming or hand brooming where necessary. All such material shall be collected and disposed of by the Contractor.

3.02 PATCHING AND LEVELING COURSES

Where a surface course is to be constructed on an existing paved surface which is irregular, said surface shall be brought to proper grade and cross section by the application of patching or leveling courses.

3.03 APPLICATION OF TACK COAT

The material shall be heated to a suitable temperature and applied in a thin, uniform layer at a rate of between 0.02 and 0.08 gallons per square yard. The tack coat shall be applied sufficiently in advance of the surface course laying to permit drying but not so far in advance as to lose its adhesiveness as a result of being covered with dust. The tack coat shall be kept free from traffic until the surface course has been laid.

3.04 TRANSPORTATION OF THE ASPHALT

The surface course shall be transported in tight vehicles previously cleaned of all foreign material. The inside surface of the truck bodies shall be only thinly coated with soapy water or an approved emulsion containing not over 5% oil. Kerosine, gasoline or similar products shall not be used. After coating and before loading, the truck bodies shall be raised and drained of all excess liquids.

3.05 INSTALLATION OF FINAL ASPHALTIC CONCRETE SURFACE COURSE

Prior to final acceptance, or as directed by the Engineer, the Contractor shall install a 1-inch layer of Type S-1 Final Asphaltic Concrete Surface course over the entire street width as directed by the Engineer. A leveling course as indicated on

the storm drainage plan sheets shall be placed prior to the final asphaltic concrete surface course under this item. All other placement of pavement shall be as shown on the "Restoration Detail" for non state-owned public pavement.

Mechanical spreading and screeding equipment shall be of an approved type that is self-propelled and can be steered. It shall be equipped with a receiving and disbursing hopper and a mechanical screed or strike-off member capable of adjustment to regulate the depth of material being spread. Tandem Type 5 to 12 ton steel- wheeled rollers shall be used for sealing. Self- Propelled, pneumatic-tired traffic rollers equipped with at least 7b smooth tread, low pressure tires, having a total weight of 6 to 10 tons shall be used for final rolling.

3.06 FIELD QUALITY CONTROL

The final surface course of all pavements will be required to be checked by a rolling straightedge. The finished surface shall not vary more than 3/16 inch from the straightedge applied parallel to the centerline of the pavement. The straightedge shall have an effective length of 15 feet.

END OF SECTION

SECTION 02570 MILLING OF EXISTING ASPHALT PAVEMENT

PART 1 - GENERAL

1.10 WORK INCLUDED

The work specified in this Section consists of removing existing asphaltic concrete pavement by milling to improve the rideability of the finished pavement, to lower the finished grade adjacent to existing curb prior to resurfacing, or to completely remove existing pavement.

When milling to improve rideability, an average depth of cut will be specified in the plans.

Unless otherwise specified, the milled material becomes the property of the Contractor.

1.02 REFERENCES

Florida Department of Transportation - Standard Specification for Road and Bridge Construction (Latest Edition)

PART 2 - EQUIPMENT

2.01 MILLING MACHINE

The milling machine shall be capable of maintaining a depth of cut and cross slope that will achieve the results specified in the plans and specifications. The overall length of the machine (out to out measurement excluding the conveyor) shall be a minimum of 18 feet. The minimum cutting width shall be six feet.

The milling machine shall be equipped with a built-in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results.

Any commercially manufactured milling machine meeting the above requirements will be approved to start the project. If it becomes evident after milling has started that the milling machine cannot consistently produce the specified results, the milling machine will be rejected for further use.

When milling to lower the grade adjacent to existing curb or other areas where it impractical to use the above described equipment, the use of a smaller milling machine will be permitted.

The milling machine shall be equipped with means to effectively limit the amount of dust escaping the removal operation. For complete pavement removal, the use of alternate

removal and crushing equipment, in lieu of the equipment specified above, may be approved by the Engineer.

PART 3 - EXECUTION

3.01 CONSTRUCTION

When milling to improve rideability, the existing pavement shall be removed to the average depth specified in the plans, in a manner that will restore the pavement surface to a uniform cross section and longitudinal profile. The Project Engineer may require the use of a stringline to ensure maintaining the proper alignment.

The contractor may elect to make multiple cuts to achieve the required pavement configuration or depth of cut.

The milling machine shall be operated to effectively minimize the amount of dust being emitted from the machine. Prewetting of the pavement may be required.

If traffic is to be maintained on the milled surface prior to the placement of the new asphaltic concrete, the pattern of striations shall be such as to produce an acceptable riding surface.

Prior to opening an area which has been milled to traffic, the pavement shall be thoroughly swept with a power broom or other approved equipment to remove to the greatest extent practicable, fine material which will dust under traffic. This operation shall be conducted in a manner so as to minimize the potential for creation of a traffic hazard and to minimize air pollution.

Sweeping of the milled surface with a power broom will be required prior to placing asphaltic concrete.

In urban and other sensitive areas where dust would cause a serious problem, the Contractor shall use a street sweeper (using water) or other equipment capable of removing and controlling dust. Approval of the use of such equipment is contingent upon its demonstrated ability to do the work.

To prevent, to the greatest extent practicable, the infiltration of milled material into the storm sewer system when the milling operation is within the limits of and adjacent to a municipal curb and gutter or a closed drainage system, the sweeping operation shall be performed immediately after the milling operations or as directly by the Engineer.

END OF SECTION

SECTION 02574 PAVEMENT REMOVAL AND REPLACEMENT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work included under this Section consists of cutting, removing, protecting and replacing existing pavements of the various types encountered, roadways, driveways, sidewalks, curb and combination curb and gutter.
- B. Protection of Existing Improvements: The Contractor shall be responsible for the protection of all pavements, sidewalks 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 as described herein, shall be repaired by the Contractor at his expense.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Refer to Section 02513 Asphaltic Concrete Paving.

PART 3 - EXECUTION

3.01 PREPARATION

- A. *Pedestrian or school crossings:* Where the work crosses or interferes with school or pedestrian crossings, extreme care shall be taken by the contractor to insure the safety of school children or other pedestrians.

3.02 PERFORMANCE

- A. Removals:
 - 1. *Pavement Removal:* Where existing pavement is to be removed, the surfacing shall be mechanical saw cut prior to trench excavation, leaving a uniform and straight edge, with minimum disturbance to the remaining adjacent surfacing. The width of cut for this phase of existing pavement removal shall be minimal.

2. *Sidewalk, Drive, and Curb Removal:* Concrete sidewalks, curbs, combination curb and gutter, walks, drive ribbons, or driveways shall be removed by initially sawing the structure, with a suitable power saw, as specified above for pavement. When a formed joint in the concrete exists within 3 feet of the proposed saw cut and parallels the proposed saw cut, the removal line shall be extended to the formed joint. After sawing, the material shall be removed.

B. Restorations:

1. *General:* Street or roadway pavement cut and removed in connection with trench excavation shall be replaced or restored in equal or better condition than the original and as shown on the Drawings. The Drawings indicate minimum requirements.
2. *Pavement Restoration - Asphalt:*
 - a. Limerock base course shall be compacted for its full thickness to not less than 98 percent of maximum density as determined by AASHTO T-180.
 - b. Construction methods and equipment shall generally meet the requirements therefore as established in the FDOT Specifications, but shall be modified to meet the relatively narrow strip construction conditions. Any such modifications shall be approved by the Engineer prior to their use.
 - c. Joints with existing surface and base shall be straight and neat. If necessary to obtain a straight net joint, the Contractor shall cut out sufficient existing material and replace it with new material.
 - d. The upper surface of the completed base course shall be compacted to an elevation to permit the full depth of the surface course to be of the pavement surface. The completed surface shall match the line and grade of the existing surface. When pavement is removed to the edge of the roadway, the replaced base course shall extend not less than 6-inches beyond the edge of the surfacing constructed without deviating from the grade
3. *Driveway Restoration - Asphalt:* Driveway pavement with limerock base cut and removed in connection with trench excavation shall be replaced or restored as specified above for street or roadway pavement, except the new limerock base course shall equal the existing base course in thickness, except that in no case shall new driveway base course be less than 6-inches in thickness. Muck or unsuitable material found under existing driveway construction will not be removed and replaced.

4. Concrete, Sidewalk, Walkway, Driveway Ribbon and Curb Restoration.
 - a. Concrete sidewalks, walkways, driveways, driveway ribbons and curbs required to be removed for the installation of facilities under this Contract shall be restored. Class B concrete shall be used in all cases.
 - b. Replaced portions of these items shall conform to the lines, grades and cross sections of the removed portions. Concrete sidewalks and walkways shall be of 4-inch thickness; concrete driveways and driveway ribbons shall be 6-inch thickness. Replaced concrete curb and/or gutter shall joint neatly to the remaining section.
5. *Pavement Restoration - Concrete:* Rigid pavement shall be replaced in kind with Class B concrete, using high early strength cement.

END OF SECTION

SECTION 02580 PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work included in this Section consists of applying pavement markings as required to restore disturbed pavement areas. Work shall adhere to all City and FDOT standards.

1.02 RELATED REFERENCES

- A. All markings shall conform to the requirements of the Manual of Uniform Traffic Control Devices, and FDOT Roadway and Traffic Design Standards.
- B. Thermoplastic shall conform to the requirements of the Florida D.O.T. Standard Specifications for Road and Bridge Construction (Section 711) latest edition.

PART 2 - PRODUCTS

2.01 THERMOPLASTIC

- A. All markings to be Alkyd thermoplastic only.

2.02 TEMPORARY MARKINGS

- A. Temporary markings on final asphalt shall be only for backed construction tape. Lower asphalt lifts may be marked with paint or any other approved marking material.

2.03 REFLECTIVE PAVEMENT MARKERS (RPM'S)

- A. RPM'S shall meet FDOT Class B Specifications, and shall be installed per Palm Beach County Typical T-P-10-001.

PART 3 - EXECUTION

3.01 APPLICATION

- A. Thermoplastic shall not be installed on roadway until five (5) calendar days after final lift of asphalt has been completed, with the exception of friction course which shall be thirty (30) days.
- B. If existing marking material is not compatible with Alkyd thermosplastic, it shall be removed prior to installation of new markings.

END OF SECTION

SECTION 02645
VALVES, COCKS, HYDRANTS AND APPURTENANCES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Gate valves
- B. Tapping sleeves
- C. Sampling cocks and hose bibbs
- D. Air release valves
- E. Valve boxes
- F. Valve vaults
- G. Hydrants
- H. Service saddles
- I. Polyethylene tubing
- J. Corporation stops
- K. Curb stops
- L. Tie rods
- M. Valve identification systems
- N. Corporation Cocks

1.02 RELATED WORK

Section 02661: Water Mains

1.03 REFERENCES

- A. AWWA - American Waterworks Association.
- B. ASTM - American Society for Testing Materials

- C. FS - Federal Specification.

1.04 SHOP DRAWINGS

- A. Submit copies of valve ordering schedule for approval before ordering valves.
- B. Submit detailed Shop Drawings in accordance with Section 01340. Clearly indicate make, model, location, type, size and pressure rating.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Provide valves and operators of same manufacturer throughout, where possible.
- B. Provide valves with manufacturer's name and pressure rating clearly marked on outside of body.
- C. Acceptable Manufacturers as noted herein. Substitutions in accordance with Section 01630.

2.02 GATE VALVES

- A. Gate valves 3 inches and larger in size shall be of the non-rising stem type and shall conform to AWWA C500, latest revision, with handwheel or wrench nut, extension stems and other appurtenances as required. Valves shall be rated for 150 pounds per square inch (psi) working pressure.
 - 1. Shall open counter clockwise.
 - 2. Shall be iron body, fully bronze mounted, double disk, parallel seat; non-rising stem valves with O-ring seals and with end connection as called for in the Drawings.
 - 3. Shall be as manufactured by Clow, Mueller Co., Crane Co., or equal.
- B. *Exterior Valve Coatings:* All exterior surfaces of iron body gate valves shall be clean, dry and free from rust and grease before coating. For buried service, the exterior ferrous parts of all valves shall be coated at the factory with an asphaltic coating in accordance with ANSI/AWWA C151 latest revisions. Prior to backfilling, all uncoated nuts, bolts, glands, rods and other parts of joints shall be coated in the field with coal tar epoxy equal to Koppers Bitumastic No. 300-M.

2.03 CORPORATION COCKS

- A. Corporation cocks for connection to cast-iron, ductile iron or steel piping shall be all brass or bronze suitable for 150 psi operating pressure and similar to Mueller Co. H-10046 or equal by Clow Corp., and shall be of sizes required and/or noted on the Drawings.

2.04 TAPPING SLEEVES

Tapping sleeves shall conform to the requirements of AWWA C110/A21.10 latest revision.

2.05 SAMPLING COCKS AND HOSE BIBBS

Sampling cocks and hose bibbs shall be provided and installed where indicated on the drawings and shall be ¾-inch bronze body, rubber composition disc, garden hose valves.

2.06 AIR RELEASE VALVE

- A. A water main shall have air release valve assemblies installed where indicated on the Drawings. The locations indicated are approximate. The actual locations shall be determined in the field during construction and approved by the Engineer prior to construction of the assemblies.
- B. The Contractor shall submit to the Engineer, for approval, a profile of the water main in the vicinity of the high point indicated. The profile shall extend a minimum of 200 linear feet each side of the high point of the water main as installed during construction. Elevations of the high point and the top of the pipe at 50-foot intervals within the 400-foot area described above shall be submitted.
- C. The air release valves shall be of the type that will release air, manually from the line when pressurized and keeps air from entering the line when not pressurized. The air release valves shall have a 2-inch valve inlet, corporation stop, saddle, galvanized steel pipe and fittings and gate valve. Valves, fittings and piping shall be rated for a working pressure of 150 psi for below ground installation.
- D. Air release valves shall be the APCO Model 200-A or approved equal, for water. Air release valves shall be installed at all high points and shall be located in approved vault structures. Air release valves shall be attached to an approved saddle with 2-inch Mueller Corporation stop or Ford ball-corp (2-inch with tee head adapter). Air release valves will be checked for proper operation during the hydrostatic testing of the water main to two times rated working pressure.

2.07 VALVE BOXES

- A. Furnish, assemble, and place a valve box over the operating nut for each buried valve. The valve box shall be designed so as to prevent the transmission of surface loads directly to the valve or piping.
- B. Valve boxes shall be of the adjustable slide-type of suitable length with an interior diameter of not less than 5 inches. The valve boxes shall be manufactured of cast iron and shall be adjustable for elevation and shall be set to allow equal movement above and below finished grade. The castings shall be manufactured clean, even grain, gray cast iron conforming to ASTM A48 Class 30B for Gray Iron Castings; and shall be smooth, true to pattern, free from blow holes, sand holes, projections and other harmful defects. The seating surfaces of both the cover and the top section shall be machined so that the cover will not rock after it has been seated. The valve boxes shall be coated inside and outside with an asphaltic coating prior to machining, so that the machined seating surfaces will be free of any coating. Cast iron valve box assemblies shall be Clow Corp. No. F-2452, Tyler Corp. Series 6855 or 6865 approved equal.
- C. Valve extension stems shall be provided for all buried valves when operating nut is deeper than 3 feet below final grade.

2.08 EXTENSION STEMS

- A. Extension stems shall be provided and installed on all valves in buried locations and where indicated on the Drawings.
- B. Extension stems shall be fabricated from solid steel shafting not smaller in diameter than the stem of the valve or from galvanized steel pipe having an internal diameter not smaller than the diameter of the valve stem.
- C. Stem couplings shall be both threaded and keyed to the coupled stems and shall be of approved design and construction. Pipe couplings will not be acceptable.
- D. Extension stems for buried valves shall extend to within six inches of the surface of the ground. Each extension stem shall be connected to the valve operator with a suitable universal joint type of coupling. All connections shall be pinned.
- E. Each extension stem shall be provided with spacers which will center the stem in a valve box having an inside diameter of 6 inches, and shall be equipped with a standard AWWA wrench nut as described in Section 20 of AWWA C500 except where handwheels are indicated on the Drawings.

2.09 VALVE VAULTS

Valve vaults shall be constructed of precast or cast-in-place concrete with dimensions as shown on the Drawings. Concrete shall have a minimum compressive strength of 4,500 psi at 28 days. The steel reinforcement for the structures shall be designed and constructed to withstand the loads expected. The cover for the valve vault shall be as shown on the Drawings as approved by the Engineer according to Public Utility Department Standards.

2.10 HYDRANTS

- A. Fire hydrants shall be general service type, ductile iron body, fully bronze mounted, for 150 psi working pressure, complying with AWWA Standard C502, latest revision. The inlet connection shall be mechanical joint type, with accessories, for 6-inch ductile iron pipe. The hydrant foot shall have integral cast tie-cast lugs. The integral shut-off valve shall be compression type opening against water pressure, and shall open left (counter-clockwise) as viewed from the operating nut.
- B. The main hydrant valve opening shall be 5¼ inches. Valve diameter and general interior design shall be sufficient to provide head loss/flow quantity ratios less than specified in the above cited standard. The main valve seat and the threaded portion of the hydrant into which it screws shall be bronze. The stem operating threads and thrust bearing, and bronze seat ring threads shall be sealed by replaceable O-rings to protect from moisture and corrosion. Stem and seat ring threads shall be permanently greased lubricated or provided with a means for lubrication. All interior working parts of the hydrant shall be removable from the top of the hydrant to allow for repairs without removing the hydrant barrel after it has been installed. A weather shield shall be provided on the bonnet to protect the operating nut and lock nut area from dirt and water.
- C. The hose nozzles shall be bronze with American National Standard fire hose coupling screw threads, one 4½ inch pumper nozzle cap nuts shall be securely chained to hydrant barrel. Chains shall be corrosion resistant and painted to match hydrant color. The hydrants shall be "traffic" type with a frangible flange or lugs and operating stem section at ground line.
- D. Hydrants shall be furnished with a 3-foot bury body except where deeper burial depths are indicated on the plans or as designated by the Engineer.
- E. Coatings for Fire Hydrants: All ferrous metal surfaces of the hydrants shall be clean, dry and free from grease before coating as follows:
 - 1. All exposed exterior surfaces below the ground line shall be coated at the factory with coal tar epoxy equal to Koppers Bitumastic No. 300-M, for a minimum total finish dry film thickness of 20 mils.

2. All exposed interior surfaces above and below the main hydrant valve, except non-ferrous and machined ferrous surfaces shall be coated at the factory with a fusion bonded thermosetting epoxy coating in accordance with AWWA C550, latest revision. Coating shall be holiday free with a minimum thickness of 12 mils.
 3. All exposed, exterior, aboveground ferrous metal surfaces including barrel, bonnet, nozzle caps, nozzle cap chains, nuts, bolts and other fasteners shall be coated at the factory as follows:
 - a. Shop primed with one coat, 1.5 mils dry film thickness of a rust inhibitive resin primer. Primer shall be compatible with finish coating and shall be applied in accordance with the coating manufacturer's recommendation. Primer shall be Koppers Pub Primer, or approved equal.
 - b. Shop finish painted with two coats, 1.4 mils dry film thickness each coat, of a medium to long oil alkyd resin coating. Finish coating shall be applied in accordance with the coating manufacturer's recommendations. Finish coating shall be Koppers Rustarmor 500, or approved equal.
- F. Approved Fire Hydrants: Fire hydrants shall be supplied from one manufacturer for the Project. The fire hydrants supplied shall be from the approved list for general service type fire hydrants listed below:

Manufacturer	Model
American	B-84-B
Kennedy	K81A Guardian
Mueller	Centurion A-423

- G. Fire hydrants installed, but not yet in service, shall be covered with a burlap sack.
- H. Each hydrant shall be furnished with a hydrant wrench.

2.11 SERVICE SADDLES

Service saddles shall have ductile iron bodies in accordance with ASTM A536, latest revision, with double stainless steel straps. Ductile iron body shall have a fusion bonded nylon coating with a minimum thickness of 12 mils. Straps shall be Type 316 stainless steel with premium grade Type 316 stainless steel bolts and Type 316 stainless steel washers and nuts. The nuts shall be Teflon coated. The gasket material shall be an elastomeric compound resistant to degradation by oil, natural gas, acids, alkalies, most aliphatic fluids and chloramines in potable water. The outlet to the saddle shall have CC threads. Service saddles shall be Rockwell, Baker, Shur-o-Seal, Romac or an equal approved by the Engineer.

2.12 POLYETHYLENE TUBING

Service lines and jumper connections shall be polyethylene tubing conforming to ASTM D2737; SDR 9 with a minimum working pressure of 200 psi.

2.13 CORPORATION STOPS

Corporation stops shall be manufactured from cast bronze with machined fitting surfaces, and in accordance with AWWA C-800 latest, in sizes 1 inch up to including 2 inches. The inlet connection shall be AWWA standard corporation stop thread. The outlet connection shall be a packjoint outlet for copper or plastic tubing.

Corporation stops with compression joint outlets for copper or plastic tubing shall be Type FB 1102 as manufactured by Ford Meter Box Company, or approved equal.

2.14 CURB STOPS

Curb stops shall be AWWA C-800 approved ball valve, roundway, with check, with lock wing cast on stop body and operating tee cap to provide for locking the stop in closed position. Curb stops for use with copper or plastic services shall have an inlet connection with a compression joint and an outlet connection with female iron pipe thread, as manufactured by Ford Meter Box Company B41 with padlock wings, or approved equal.

2.15 TIE RODS

When prior approval is obtained from the Engineer, ductile iron pipe, fittings, and valves may be restrained using tie bolt joint restraint. All bolts, nuts, washers, tie rods and other fasteners for the joint restraint system shall be manufactured of Type 316 Stainless Steel. Tie rods shall have a minimum diameter of ¾-inch. The number of tie rods required per joint shall be as recommended by the manufacturer.

2.16 VALVE IDENTIFICATION SYSTEMS

A. Buried Valves:

1. In paved areas, tops of valve box covers shall be set flush with pavement. Following paving operations, a 30-inch square shall be neatly cut in the pavement around the box and the paving removed. The top of the box shall then be adjusted to the proper elevation and a 30-inch square by 6-inch thick concrete pad poured around the box cover. Concrete pads in traffic areas shall be reinforced with No. 4 reinforcement bars as shown on the Drawings. Concrete for the pad shall be 3,000 psi compressive strength.
2. In unpaved areas, tops of valve box covers shall be set 0.20 feet above finished grade. After the top of the box is set to the proper elevation, a

30-inch square by 6-inch thick concrete pad shall be poured around the box cover. Concrete for the pad shall be 3,000 psi compressive strength.

3. Shall have valve boxes protected by a concrete pad. The concrete pad for the valve box cover shall have a 2½-inch diameter, bronze disc embedded in the surface as shown on the Drawings. The bronze disc shall have the following information neatly stamped on it:
 - a. Size of valve, inches
 - b. Type of valve:
 - Y GV - Gate Valve
 - Y BFV - Butterfly Valve
 - c. Valve Service - "PW" for Potable Water
 - d. Number of turns to fully open
 - e. Direction to open
 - f. Year of installation

PART 3 - EXECUTION

3.01 INSTALLATION OF VALVES

- A. Valves of the size and type shown on the Drawings shall be set plumb and installed at the locations indicated on the Drawings. Valves shall be installed in accordance with manufacturer's installation instructions and with the Details shown on the Drawings.
- B. Valves shall be installed such that they are supported properly in their respective positions, free from distortion and strain. Valves shall be installed such that their weight is not borne by pumps and equipment that are not designed to support the weight of the valve.
- C. Valves shall be carefully inspected during installation; they shall be opened wide and then tightly closed and the various nuts and bolts shall be tested for tightness. Special care shall be taken to prevent any foreign matter from becoming lodged in the valve seat. Check and adjust all valves for smooth operation.
- D. Install valves with the operating stem in either horizontal or vertical position.
- E. Allow sufficient clearance around the valve operator for proper operation.
- F. Clean iron flanges before installing flanged valves. Clean carbon steel flange bolts and nuts by wire brushing, lubricate threads with oil or graphite, and tighten nuts uniformly and progressively. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.

- G. For buried valves, a valve box shall be centered accurately over the operating nut and the entire assembly shall be plumb. The tops of valve boxes shall be adjusted to the proper elevation as specified below and as shown on the Drawings.
- H. Valves shall be tested hydrostatically, concurrently with the pipeline in which they are installed. Protect or isolate any parts of valves, operators, or control and instrumentation systems whose pressure rating is less than the pressure test(s). If valve joints leak during pressure testing, loosen or remove the nuts and bolts, reseal or replace the gasket, reinstall or retighten the bolts and nuts and hydrostatically retest the joints.
- I. Following installation of buried valves or valve installed in valve vaults, repair any scratches, marks and other types of surface damage, etc., etc., with a costing equal to the original coating supplied by the manufacturer. Prior to backfilling, coat all nuts, bolts and other parts of the valve joints with coal tar epoxy equal to Koppers Bitumastic No. 300-M, for a minimum dry film thickness of 16 mils.
- J. All valves shall be wrapped with visqueen (6 mils).

3.02 INSTALLATION OF FIRE HYDRANTS

- A. Fire hydrants shall be installed at the locations shown and as detailed on the Drawings, and in accordance with the manufacturer's installation instructions, and Palm Beach County Environmental Control Rules.
- B. No fire hydrant assembly shall be backfilled until approved by the Owners Representative.
- C. Provide crushed stone drainage material and concrete thrust blocks as shown on the Drawings. Thrust blocks shall be as specified hereinabove.
- D. Barrel and operating stem extensions shall be provided for fire hydrants, if necessary, to install the hydrant at the proper elevation above finish grade, as detailed on the Drawings.
- E. After installation, the fire hydrants shall be hydrostatically tested and flushed with the line in which they are installed.

3.03 INSTALLATION OF VALVE VAULTS

- A. Concrete valve vaults shall be constructed in a workmanlike manner at locations and dimensions indicated on the Drawings. Precast concrete vaults shall be set on a foundation of crushed stone, 12 inches thick. The vaults shall be constructed such that the structure will not transmit dead or live loads to the piping. Care shall be taken to prevent earth and other material from entering vault structures.

- B. Door frames and covers for meter or vault shall be cast into the top as indicated on the Drawings. In non-paved areas, the top of the vaults shall be set a minimum of 2 inches above finished grade.

3.04 INSTALLATION OF TIE RODS

Tie rods shall be installed in strict accordance with the manufacturer's written installation requirements. Unless otherwise indicated on the Drawings, the size and number of tie rods for a joint or installation shall be as recommended by the manufacturer's design chart for a working pressure of 150 psi.

END OF SECTION

SECTION 02680 TESTING PIPE SYSTEMS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Perform specified services with Contractor's qualified personnel, or employ and pay for a qualified organization to perform specified services.
- B. Pressure Piping Systems.

1.02 RELATED REQUIREMENTS

- A. Section 02675: Disinfection of Potable Water Lines.
- B. Section 01700: Contract Closeout.

1.03 DESCRIPTION

- A. Perform testing of piping systems in accordance with AWWA C-600 and as specified below.
- B. Provide instruments required for testing of piping systems.
 - 1. Make instruments available to Engineer to facilitate spot checks during testing.
 - 2. Retain possession of instruments, remove from site at completion of services.
- C. Provide all water required for flushing and testing.
- D. Provide all necessary pumping equipment and other equipment, materials and facilities required for proper completion of the flushing and testing specified.
- E. Source and quality of water, procedure and test equipment shall be by approval of the Engineer.
- F. All tests shall be made in the presence of the Engineer. Notify Engineer at least 48 hours before any Work is to be inspected or tested.
- G. If inspection or test shows defects, the piping system(s) shall be repaired and replaced and inspection repeated, until such piping is acceptable to the Engineer.

- H. Sections of the system may be tested separately, but when so tested it shall be distinctly understood that any defect which may subsequently develop in a section already tested and accepted shall promptly be corrected and that section retested.
- I. Disposal of the water used for testing shall be subject to the approval of the Engineer.

1.04 JOB CONDITIONS

- A. Prior to start of testing of piping systems, verify that required "Job Conditions" are met:
 - 1. System or system element installation is complete.
 - 2. All required materials, water, instruments, etc. are on hand.
 - 3. All other preparations are completed.

1.05 TESTING PROCEDURES

- A. Pressure Piping Systems:
 - 1. All pressure piping shall pass a hydrostatic pressure test and a leakage test as defined below before acceptance. The pressure and leakage test shall be made after all jointing operations are completed and after backfilling is completed. All concrete reaction blocks, or other bracing and restraining facilities, shall be in place at least 24 hours before the initial filling of the line.
 - 2. The pressure and leakage tests may be applied to an individual section of line isolated between the existing line valves, or may be applied to shorter sections or line as approved by the Engineer. If shorter sections are tested, test plugs or bulkheads as required at the ends of the test section shall be furnished and installed by the Contractor at his expense, together with all anchors, braces and other devices required to withstand the hydrostatic pressure on such plug or plugs, without imposing any hydraulic thrust on the pipe line or any part thereof. The Contractor shall be solely responsible for any and all damage to the pipe line, and/or to any other facility, which may result from the failure of test plugs furnished by him or supports therefor, in any case.
 - 3. Tests:
 - a. Hydrostatic Tests:
 - 1) The section of line to be tested shall be slowly filled with water and all air expelled from the pipe. Care shall be taken that all air valves are installed and open in the section

being filled, and that the rate of filling does not exceed the venting capacity of the air valves.

- 2) Hydrostatic test pressure shall be as follows:
System Working Pressure 100 psi
- 3) After the pipe has been laid, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure at the point of testing (or 150 p.s.i., whichever is greater).
 - a) Test pressure shall:
 - i. Not be less than 1.25 times the working pressure at the highest point along the test section.
 - ii. Not exceed pipe or thrust-restraint design pressures.
 - iii. Be of at least 2-hour duration.
 - iv. Not vary by more than + 5 psi (0.35 Bar) for the duration of the test.
 - v. Not exceed twice the rated pressure of the valves or hydrants when the pressure boundary of the test section includes closed gate valves or hydrants. NOTE: Valves shall not be operated in either direction at differential pressure exceeding the rated pressure.
 - vi. Not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed resilient-seated gate valves or butterfly valves.
 - b) Each valved section of pipe shall be filled with water slowly and the specified test pressure based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge shall be applied by means of a pump connected to the pipe in a manner satisfactory to the owner. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure. It is good practice to allow the system to stabilize at the test pressure before conducting the leakage test.
- 4) Examination. Any exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damage or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired

or replaced with sound material and the test shall be repeated until it is satisfactory to the Owner.

b. *Leakage Test:*

- 1) A leakage test shall be conducted concurrently with the pressure test. A leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi (0.35 Bar) of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water. Leakage shall not be measured by a drop in pressure in a test section over a period of time.
- 2) No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{S \times D \times \sqrt{P}}{148,000} \times 1/2$$

in which L is the allowable leakage, in gallons per hour; S is the length of pipe tested in feet; D is the nominal diameter of the pipe in inches; and P is the average test pressure during the leakage test, in pounds per square inch. The leakage test shall be conducted for a period of two hours.

- a) Allowable leakage at various pressures is shown in Section 3.02.
 - b) When the testing again closed metal-seated valves, an additional leakage per closed valve of 0.0078 gal/h/in (0.0012L/h/mm) of nominal valve size shall be allowed.
 - c) When hydrants are in the test section, the test shall be made against the closed hydrant.
 - d) Acceptance of installation. Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid disclosed leakage greater than that specified in Section "b" above, the contractor shall, at his own expense, locate and make repairs as necessary until the leakage is within the specified allowance.
- 3) All visible leaks are to be repaired regardless of the amount of leakage.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

- A. Prior to testing, flush all piping systems with water to remove all debris in the system.
- B. For testing refer to the Testing Procedures above.

END OF SECTION

SECTION 02720 STORM DRAINAGE SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. The extent of the storm drainage system is shown on the drawings and/or specified.

1.02 SUBMITTALS

- A. Submit shop drawings for pipe, inlets, manholes, frames and covers.
- B. Manufacturer's certification stating that the materials meet the requirements of this Specification and the specified material standards.

1.03 REFERENCES

- A. ASTM A153-01 – Zinc Coating (Hot Dip) on Iron and Steel Hardware
- B. ASTM A307-00 – Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength
- C. ASTM A563-00 – Carbon and Alloy Steel Nuts.
- D. ASTM B745-97 – Corrugated Aluminum Pipe for Sewers and Drains.
- E. ASTM C33-01 – Concrete Aggregates.
- F. ASTM C150-00 – Portland Cement.
- G. ASTM F467-01 – Nonferrous Nuts for General Use.
- H. ASTM F468-01 – Nonferrous Bolts, Hex Cap Screws, and Studs for General Use.
- I. Florida Department of Transportation – Standard Specifications for Road and Bridge Construction, latest edition, herein after referred to as the FDOT Specification.
- J. ASTM C76-00 – Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
- K. ASTM C443-98 – Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.

PART 2 - PRODUCTS

2.01 MANHOLES AND INLETS

- A. Precast manholes and inlets shall be manufactured in accordance with Section 425 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and the Department of Transportation Road Design Standards.
- B. Manhole frames and covers, and inlet frames and grates shall be the type and duty suitable for heavy duty, truck traffic. All castings shall be true to pattern in form, have the correct dimensions and be free from faults and cracks. Bearing surfaces between frames and covers shall be machine fitted to prevent rocking.

2.02 REINFORCED CONCRETE PIPE

- A. Conforms to the requirements of ASTM C76, with modifications as noted in Section 449-4.2 of the FDOT Specifications. Class III unless noted otherwise on Drawings, with bell and spigot end joints. Pipe gaskets per ASTM C443. Gasket to be of such cross sectional area and perimeter as to properly fit the space provided in the pipe joint in which it is to be used. Prior to use, store gaskets in as cool a place as practicable. Lift holes are not allowed in pipe under 60 inches in diameter.

2.03 GROUT

- A. Dry Pack Grout: Grout shall consist of one part Portland Cement Type I conforming to ASTM C150 to two parts well graded sand conforming to ASTM C33. Mixing water shall be potable. The sand and cement shall be mixed thoroughly and then water added slowly and only in sufficient quantity to produce a mixture which has the consistency of damp earth and will hold its shape when formed into a ball in the hand.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Piping and appurtenances for sewers shall be of the type and material specified in the applicable sections of the Detailed Specifications. All pipe, fittings, jointing, materials, grates, manhole frames and covers, and other appurtenances shall be new material to be included in the work; and if not specifically described in these specifications, shall be of the best quality and entirely suitable for the service intended. All such material shall be approved by the engineer prior to installation.

- B. Pipe shall be protected during storage and handling against impact shocks, or free fall. Pipe shall be kept clean at all times and no pipe shall be used that does not conform fully with standards or specifications hereinafter described.
- C. Each pipe section shall be laid in strict conformance with the line and grade as shown on the construction plans. Three (3) batter boards and a top line shall be used when pipe is laid, unless another method of checking the inner grade is approved by the engineer. The laying of pipe in finished trenches shall commence at the lowest point with the bell end laid up grade.
- D. The contractor shall provide and maintain on the job site at all times, a gauge rod of sufficient length to reach from the invert of the pipe being laid to the top line secured on the batter boards. The gauge rod shall be graduated and numbered each foot of its entire length and shall be equipped with either a plumb line or two (2) spirit levels.
- E. Construction using any of the several type laser beam devices is generally acceptable provided same is in good repair and calibration and a level and level rod is used to check for grade at catch basins, manholes and outfalls. Use of levels and/or transits alone is discouraged and generally will not be permitted.
- F. Prior to installing the pipe, the rubber gasket shall be placed on the tongue of the pipe, in accordance with the manufacturer's recommendations, but not more than twenty-four (24) hours prior to installation of the pipe. The tongue end shall be protected at all times from the sun, blowing dust, or other deleterious agents. Gaskets shall be inspected before installation of the pipe and any loose or improperly affixed gaskets shall be removed and replaced to the satisfaction of the engineer.
- G. Pipe shall be set firmly according to the lines and grade; and preparatory to making joints for concrete pipe, all surfaces of the portion of the pipe to be jointed shall be thoroughly cleaned. The pipe shall be laid with the groove upstream. A shallow excavation shall be made underneath the pipe at the joint. Dig bell holes in the subgrade to accommodate the bells and make deep enough to insure that the bell does not bear on the bottom of the hole. Holes are not to be excessively wide in the longitudinal direction of the pipe line. When the pipes are laid, the barrels must be in contact with the foundation throughout its full length exclusive of the bell.
- H. Immediately prior to installation, the entire interior of the groove of the pipe already installed, and the rubber gasket of the pipe to be installed shall be coated with an approved vegetable soap lubricant. The groove and spigot ends shall be cleaned prior to application of the lubricant. The pipe shall then be aligned with the previously installed pipe and the joint pulled together. The joint shall be pulled by the use of interior or exterior pull jacks or winches, anchored by suitable means. The choice of method and type of equipment will depend on trench

conditions, type and size of pipe, and its ability to properly seat the gasket. If, while making the joint, the gasket becomes loose and can be seen through the exterior joint recess, when the joint is pulled up to within one (1) inch of closure, the pipe shall be removed and the joint remade to the satisfaction of the engineer.

- I. When connecting pipe to manholes or inlets, seal openings with dry pack grout.

3.02 EARTHWORK

Excavation of trenches, preparation of trench bottoms, backfilling and other earthwork in connection with installation of storm sewers shall be in accordance with the section: 02220 Trenching, Backfilling and Compacting.

3.03 RESPONSIBILITY

The contractor shall be held strictly responsible for all parts of the work that bear the load of the backfill. If structural failures in the sewers or appurtenances develop within one (1) year from the date of final acceptance of the work, the contractor shall be required to replace all faulty material at his full expense. To this end, the contractor is advised to purchase material under a guarantee from the manufacturer, guaranteeing proper service under conditions which are established by the drawings, specifications and local conditions.

END OF SECTION

SECTION 02775 MANHOLES AND VAULTS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish and install, as shown on the Drawings, manholes and vaults including:
 - 1. Precast concrete sections
 - 2. Brick
 - 3. Mortar
 - 4. Cast iron frame and lids

1.02 RELATED WORK

- A. Section 02720: Storm Drainage System
- B. Section 02730: Sanitary Sewer Pipe
- C. Section 02221: Trenching, Backfilling and Compacting
- D. Section 02513: Asphaltic Concrete Paving

1.03 REFERENCE STANDARDS

- A. ASTM C478: Precast Reinforced Concrete Manhole Sections.
- B. ASTM C443: Joints For Circular Concrete Sewer and Culvert Pipe Using Rubber Gaskets.

1.04 SUBMITTALS

- A. Submit Shop Drawings in accordance with Section 01340.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Neenah No. R-1712 with Type A Lid.
- B. Russco No. M-510 with Type C lid.

- C. Clark No. R502 with Type A lid.
- D. Substitutions: Items of same function and performance are acceptable in conformance with Section 1630.

2.02 MANHOLES

- A. Manholes shall be 48 inch diameter, unless otherwise indicated, constructed of precast ring block and/or precast concrete ring, eight inch minimum thickness construction, unless otherwise indicated on the Drawings.
- B. Concrete floor slab shall be minimum eight inches thick with #6 bar at six inch spacing each way or precast bases.
- C. Top section shall be offset cone 2 feet 8 inches high with 24 inch opening at top.
- D. Joints shall be a compression type, neoprene gasket joint conforming to ASTM C443, of a design approved by the Engineer.
- E. Lifting holes through the structures are not permitted.
- F. All grout used for sealing around pipe openings shall be of a non-shrinking type, acceptable to the Engineer, designed for use in water. All openings and joints shall be sealed water-tight.
- G. Precast manhole tops shall terminate at such elevations as will permit laying up a minimum of five inches of brick under the manhole frame to make allowance for future street grade adjustments.
- H. Drop connections, where required on precast manholes, shall be cast monolithically with the manhole elements.
- I. Inverts shall be formed of sewer pipe or of mortar and brick, as described below, to provide a smooth flowing channel of the exact shape of the sewer to which it connects. All inverts of manholes shall be shaped while the manholes are under construction. All inverts shall follow the grades of the pipe entering the manholes. Changes in direction of the sewer and entering branch or branches shall have a true curve of as large a radius as the size of the manhole will permit.
- J. Where shown on the Drawings or ordered by the Engineer, the Contractor shall provide manholes with stub lines for connection to future sewer lines. Provide the end of each stub line with a bell and close by means of an approved plug. This plug shall be removed, at some later time, without injury to the pipe. Reference each stub accurately to the center of the manhole, and record the actual invert elevation of each end.

2.03 VAULTS

- A. Vaults and similar structures shall be constructed as shown on the Drawings of size and shape indicated. The installation shall be in accordance with all other sections of this specification.
- B. Pipes entering the vault or structure shall enter through wall sleeves, except for concrete or VCP pipe entering a wet vault, wherein the pipe may be installed as follows:
 - 1. The pipe may be cast into the wall of the structure provided the first three pipe lengths outside the structure shall have minimum laying length, dependent on pipe type and size, with the first point occurring within 12 inches of the structure.
 - 2. Grout the pipe into the structure with a non-shrinking grout, acceptable to the Engineer, designed for use in water. All joints shall be sealed watertight.
 - 3. Utilize a sealing material between the pipe and structure such as Link Seal manufactured by the Thunderline Corporation, or equal when approved by the Engineer.

PART 3 - EXECUTION

3.01 LEAK PROOFING

- A. Walls shall be sealed against leakage by the application on the complete exterior surface of a plaster coat of cement mortar of approximately the same composition as mortar for masonry joints, applied not less than 1/2 inch in thickness at any point by steel trowel as the wall is built. Precast manholes shall be sealed at ring joints.
- B. Walls alternatively may be sealed against leakage by a heavy brush-coat application of an approved waterproofing compound, mixed and applied in accordance with manufacturer's recommendations. Not less than 50 pounds of compound shall be used on each 125 square feet of exterior surface area, and the coverage of block and joints shall be continuous and uniform. Joints must be struck and troweled flush, and dried for at least twenty four (24) hours under good curing conditions, before seal coat is applied.

3.02 INSTALLATION

- A. No backfilling of excavation, above elevation of top of interior concrete fill, shall be performed until waterproof coating has been cured for at least twenty four (24) hours

and inspected and approved by the Engineer. Any defective coverage shall be repaired to the satisfaction of the Engineer before backfilling is performed.

3.03 CONNECTION TO EXISTING MANHOLES

- A. Connect sewers to existing manholes at locations shown.
 - 1. Break out existing manhole bases or grouting as necessary.
 - 2. Clean all surfaces and apply a bonding agent.
 - 3. Regrout to provide smooth flow into and through existing manholes.
- B. Provide diversion facilities and perform work necessary to maintain sewage flow during connection to manholes.

END OF SECTION

SECTION 02934

SODDING

PART 1 - GENERAL

1.01 SCOPE

Provide all labor, materials and equipment necessary for complete sodding of areas affected by construction. This shall include, but not be limited to: liming, fertilizing, sodding, necessary barriers, tests and all incidentals to make the work complete.

1.02 WORK INCLUDED

- A. Testing of topsoil.
- B. Raking and leveling topsoil as required for sodding.
- C. Liming and fertilizing of topsoil.
- D. Laying and rolling of sod.
- E. Maintaining sod.

Part 2 - PRODUCTS

2.01 MATERIALS

- A. Fertilizer:
 - 1. Fertilizer shall be commercial fertilizer, as manufactured by International Chemical Company or approved equal.
 - 2. Said fertilizer shall have a 10-20-6 N.P.K. content and contain a minimum of 60 percent of organic material.
 - 3. It shall be delivered at the site in the original sealed containers.
- B. Sod:
 - 1. The sod shall be as grown by a certified turf nursery and CONTRACTOR shall inform ENGINEER as to the source of the sod to be utilized prior to ordering and delivery of sod.

2. Sod shall be furnished and installed in rectangular sod strips measuring 12 to 16-inches in width of standard lengths of not less than 2 feet and delivered on pallets.
3. After the preparation of the areas to be sodded has been approved by ENGINEER sod all previously sodded areas where no permanent construction exists. Supply and install sod which is equal to or approved equal to sod which exists at the project site. As a minimum, Type No. 1 sod composed of grasses grown from a Bahia Seed mixture shall be used for stabilization of final grade.
4. St. Augustine Floratam Sod shall be placed in areas that will be or are irrigated. Bahia sod shall be placed in areas not irrigated.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. These areas shall be fine graded to achieve the finished subgrade after compaction which shall be obtained by rolling, dragging or by an approved method which obtains an equivalent compaction to that produced by a hand roller weighing from 75 to 100 pounds per foot of width. All depressions caused by settlement or rolling shall be filled with additional existing or furnished topsoil and regraded and prepared as specified above until it presents a reasonably smooth and even finish at the required sod sub-grade. After fine grading, Contractor shall manually remove all surface stone, rock and/or debris in excess of 1/2" in diameter.
- B. All sod furnished shall be living sod containing at least 70 percent of thickly matter grasses as specified and free from noxious weeds.
- C. No broken pads or torn or uneven ends will be accepted. Standard size sections of sod shall be strong enough to support own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. Sod shall not be harvested when its moisture content (excessively wet or dry) may adversely affect its survival.
- D. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not installed within this time period shall be subject to inspection and rejection by ENGINEER, and shall be removed from the site and a fresh sod supply shall be furnished at no extra cost to OWNER.
- E. The topsoil shall not be moist at time of installation; however, it shall contain sufficient moisture so as not be powdery or dusty, both as determined by the supplier's representative.

- F. The overlapping of existing lawn with new sod along limit of work lines will not be permitted. Sod shall be laid in strips, edge to edge, with the lateral joints staggered. All minor or unavoidable openings in the sod shall be closed with sod plugs or with topsoil, as directed by ENGINEER. However, sod laid with joints determined to be too large shall be lifted and 43-laid as specified herein at no extra cost to OWNER.
- G. Immediately after the sod is laid, the sod shall be watered thoroughly by hand or mechanical sprinkling until the sod and at least 2-inch of the top soil bed have been thoroughly moistened.
- H. CONTRACTOR shall be responsible to furnish his own supply of water to the site at no extra cost. If possible, OWNER shall furnish CONTRACTOR, upon request, with a source and supply of water. Contractor shall apply for temporary meter and pay Owner for water used at current utility billing rates. However, if OWNER' water supply is not available or not functioning, CONTRACTOR shall be responsible to furnish adequate supplies at his own cost. All work injured or damaged due to the lack of, or the use of too much water, shall be CONTRACTOR's responsibility to correct.

3.02 MAINTENANCE

- A. Maintain the entire sodded areas until final acceptance at the completion of the Contract. Maintenance shall include watering as specified, weeding and removal of stones which may appear. All bare or dead spots which become apparent shall be properly prepared, limed and fertilized, and resodded at CONTRACTOR's expense as many times as necessary to secure a good growth. In the event that the sod installation is not accepted by ENGINEER, the entire area shall be maintained and cut by CONTRACTOR until final acceptance of the sod installation.
- B. Take whatever measures are necessary to protect the sod while it is developing. These measures shall include furnishing or warning signs, barriers, or any other necessary measures of protection.

END OF SECTION

SECTION 03300 CONCRETE

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This section covers all work necessary for providing, testing and placing ready mix concrete.
- B. See GENERAL CONDITIONS which contain information and requirements which apply to the Work specified herein and are mandatory for this project.

1.02 REFERENCE STANDARDS, CODES AND SPECIFICATIONS

- A. ACI 214 "Recommended Practice for Evaluation of Compressive Test Results of Field Concrete".
- B. ACI 318 "Building Code Requirement for Reinforced Concrete".
- C. ASTM C31 "Standard Method for Making and Curing Concrete Compressive and Flexure Test Specimens in the Field".
- D. ASTM C33 "Standard Specification for Concrete Aggregates".
- E. ASTM C94 "Standard Specification for Ready-Mix Concrete".

1.03 SUBMITTALS

- A. Submittals shall be in accordance with the GENERAL CONDITIONS and shall include the following:
 - 1. Concrete mix designs and trial mix laboratory reports.
 - 2. Manufacturer's certification of admixtures.
 - 3. Contractor's schedule and sequence of placement.
 - 4. All Test Results.
 - 5. Drawings showing locations of construction joints.

1.04 QUALITY ASSURANCE

- A. Submit certificates of mill reports on all foreign cements for review by ENGINEER before batching concrete.

- B. Secure the services of a reputable manufacturer for counseling regarding the use of any specified admixture, as required.
- C. The ENGINEER shall have access to and have the right to inspect all batch plants, cement mills, and supply facilities of suppliers, manufacturers, subcontractors, and contractors providing products included in these Specifications. Batch plants shall have current certification that all weighing scales have been tested and are within the tolerances as set forth in the National Bureau of Standards Handbook No. 44.

1.05 CERTIFICATION

- A. Submit batch delivery tickets to the ENGINEER in compliance with and in accordance to ASTM C94.

1.06 TESTING

- A. Performed by an acceptable Engineering Laboratory at CITY's expense. CONTRACTOR shall assist in the collection of samples. Any retests shall be within the Scope of the Contract.
- B. Criteria:
 - 1. Each test: not less than 5 cylinders; retain one after 28 days.
 - 2. One test for every 50 consecutive cubic yards of concrete cast.
 - 3. Furnish ENGINEER with 4 certified copies of tests made of 2 at 7 days, and 2 at 28 days.
- C. Questionable strength of in-place concrete:
 - 1. Additional tests may be ordered by the ENGINEER.
 - 2. Execute the core tests in accordance with ASTM C42 procedure.
 - 3. Costs of additional tests showing strength of in-place concrete conforming to design criteria are the responsibility of the CITY.
 - 4. Costs of additional tests showing noncompliance with the design criteria are the responsibility of the CONTRACTOR.
 - 5. Additional items at CONTRACTOR's expense:
 - a. Provide load tests as directed by the ENGINEER.
 - b. Reinforce structure as directed or remove and replace all Under strength concrete structure in place.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cement
 - 1. Portland cement Type I or Type II conforming to ASTM C 150. In addition, the tricalcium aluminate content of Type I cement shall not exceed 12 percent.
 - 2. Type I or Type II cement, at the Contractor's option, may be used for nonhydraulic structures, slabs on grade, sidewalks, thrust blocks and miscellaneous.
 - 3. Type II cement or Type I cement, in combination with pozzolan (fly ash) as hereinafter specified, shall be used for all precast sanitary structures.
- B. Water: potable, salt free.
- C. Fine Aggregate: salt free and clean, conforming to ASTM C33.
- D. Coarse Aggregate: salt free and clean, conforming to ASTM C33.
- E. All Aggregate: quarried/mined in fresh water only.

2.02 MIXES

- A. Slab on Grade, Thrust Blocks, sidewalks and Miscellaneous Cast-In-Place
 - 1. 28 day compressive strength: 3000 psi
 - 2. Minimum cement content: 5 ½ bags per cubic yard.
 - 3. Admixture: As required below, use only specified product.
 - 4. Slump: 2 to 3 inches.
 - 5. Air Content: (ASTM C231): 4 to 6 percent.
- B. Precast concrete:
 - 1. 28 day compressive strength: 4000 psi, minimum, or as illustrated on the Drawings.
 - 2. Minimum cement content for 4000 psi concrete: 6 bags per cubic yard.
 - 3. Admixture: As required below, use only specified products.
- C. Flowable Fill
 - 1. Cement: 200 lbs/Cy.

2. Pozzolan (Flyash): 0 to 600 lbs/Cy.
3. Fine Aggregate: 2750 lb/Cy.
4. Water: 500 lbs/Cy. (maximum)

2.03 ADMIXTURES

- A. Provide air-entraining admixture in all concrete. Admixture shall conform to ASTM C 260, except it shall be nontoxic after 30 days and shall contain no chlorides. Furnish manufacturer's compliance statement for these requirements.
- B. All concrete shall contain a water-reducing admixture. The admixture shall conform to ASTM C 494, Type A or Type D, except it shall contain no chlorides, shall be nontoxic after 30 days, and shall be compatible with the air-entraining admixtures. The amount of admixture added to the concrete shall be in accordance with the manufacturer's recommendations. Furnish a compliance statement that the admixture used satisfies all requirements of this Specification.
- C. The pozzolan to be used in combination with Type I cement, as previously specified, shall be Class C or Class F fly ash conforming to ASTM C 618-78. Furnish test data confirming that the fly ash in combination with the cement to be used meets all strength requirements, is compatible with air-entraining agents and other additives, and provides increased sulfate resistance equivalent to or better than Type II cement.

2.04 CURING COMPOUNDS

- A. Normal placement without special finish; approved products:
 1. Master Builders Company: "Masterseal".
 2. Sonneborn-Contech: "Kure-N'Seal".

2.05 DEFORMED REINFORCING BARS

- A. ASTM A615: "Standard Specification for Deformed and Plain Billet-Steel Bars for concrete Reinforcement".
 1. Grade: 60
 2. Minimum yield strength: 60,000 psi.
- B. Sizes shall be as indicated on the Drawings.

2.06 WELDED WIRE FABRIC

- A. Welded wire fabric shall conform to ASTM A185.

2.07 ACCESSORIES

- A. Tie wires shall be 16-gauge, black, soft-annealed wire.
- B. Bar supports shall be of proper type for use intended. Bar supports in beams and slabs exposed to view after stripping shall be galvanized or plastic coated. Use concrete supports for reinforcing in concrete placed on grade.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Place no concrete until all reinforcing steel, pipes, inserts, sleeves, etc., have been set in place and reviewed by the ENGINEER. Notify the ENGINEER of scheduled pours 24 hours prior to placement.

3.02 PLACING

- A. Place concrete expeditiously in clean forms that are not hot to the touch; spray forms with water just prior to placing concrete. Before placing concrete directly against earth, install vapor barrier to prevent water absorption, secure reinforcement in position, inspect, and approve before placing concrete. Do not rest runways for transporting concrete on the reinforcing steel. Deposit concrete as nearly as practical in final position; and, do not allow concrete to drop freely more than 5 feet. Place all concrete during daylight, unless otherwise authorized. Where reinforcing steel above the top of the cast is coated with concrete while placing below, remove all concrete from such reinforcing steel after the placing is complete and prior to the next cast.
- B. Place slabs-on-grade carefully to avoid damages to the vapor barrier.
- C. Concrete shall not be placed in the rain or when it looks as if it is going to rain unless specifically authorized by the ENGINEER.

3.03 CONSOLIDATION

- A. Consolidate concrete in layers by internal vibrating equipment, supplemented by hand rodding and tamping as required. Do not use vibrators to move the concrete laterally inside the forms.

- B. Maintain internal vibrators at speed of at least 5000 impulses per minute when submerged in concrete. Maintain at least 1 spare vibrator in working condition at site at all times.
- C. Limit duration of vibration to time necessary to produce satisfactory consolidation without causing segregation. In no case more than 15 seconds per square foot of exposed surface. Move the vibrator constantly and place in each specific spot only once.

3.04 JOINTS

- A. Construction joints:
 - 1. Locate as illustrated on the Drawings and as reviewed by the ENGINEER for slabs.
 - 2. Key joints.
- B. Expansion Joints. Place pre-formed expansion joints as indicated on the Drawings.

3.05 CURING

- A. Begin curing of concrete as soon as practicable after placing, but not more than 3 hours thereafter.
- B. Begin curing of the structural elements immediately after removal of forms.
- C. Apply curing compounds as specified.

3.06 FINISHES

- A. Formed surfaces:
 - 1. Patching: immediately after stripping forms, patch all defective areas with mortar similar to the concrete mix; but, without coarse aggregate. Patch minor honeycombs, bulges and other minor defects as designed by the ENGINEER, only where exposed to view. Clean, dampen, and fill all the holes with patching mortar.
 - a. Major defective areas, as judged by the ENGINEER, including those resulting from the leakage of forms, excessive honeycombs, large bulges, and large offsets at form joints: chip away to a depth of at least 1/4 inch; and, the surfaces that are to be patched coat with an epoxy-polysulfide adhesive. Press patching mortar in for a complete bond and finish to match adjacent areas.

- b. Minor defective areas, as judged by the ENGINEER, including honeycombs, air bubbles, holes resulting from removal of ties and those resulting from leakage of forms: patch with grout without resorting to chipping. Minor bulges and offsets at form joints: finish as specified herein below.
 - 2. Finishes; locations:
 - a. Rough or board finish: for all concrete surfaces not exposed to public view.
 - 3. Finishes; definitions:
 - a. Rough or board finish: reasonably true to line and plane. Tie holes and defects patched, and the fins exceeding $\frac{1}{4}$ inch rubbed down, otherwise, surfaces may be left with texture imparted by forms.
- B. Unformed surfaces (flatwork):
- 1. Finishes:
 - a. General: grade and screed slab to exact elevation, as required. After screeding, tamp mixture thoroughly to drive the coarse aggregate down from surfaces and apply finish specified hereinafter.
 - b. Broom finish: slab on grade.
 - 2. Finishes; definition:
 - a. Broom finish: finish with street type broom as soon as surface water sheen has disappeared.

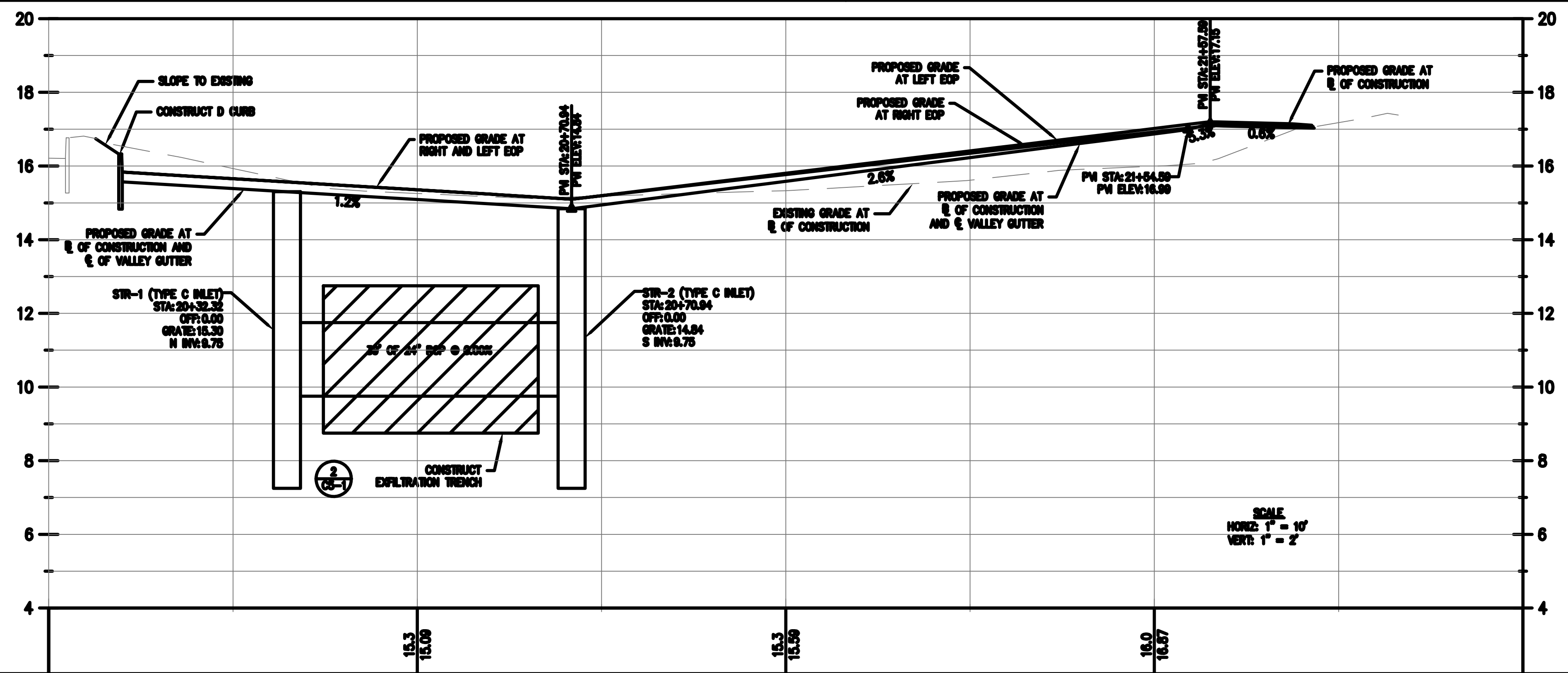
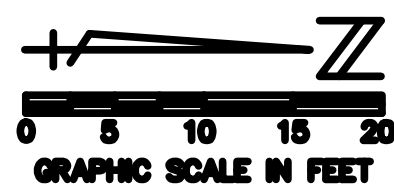
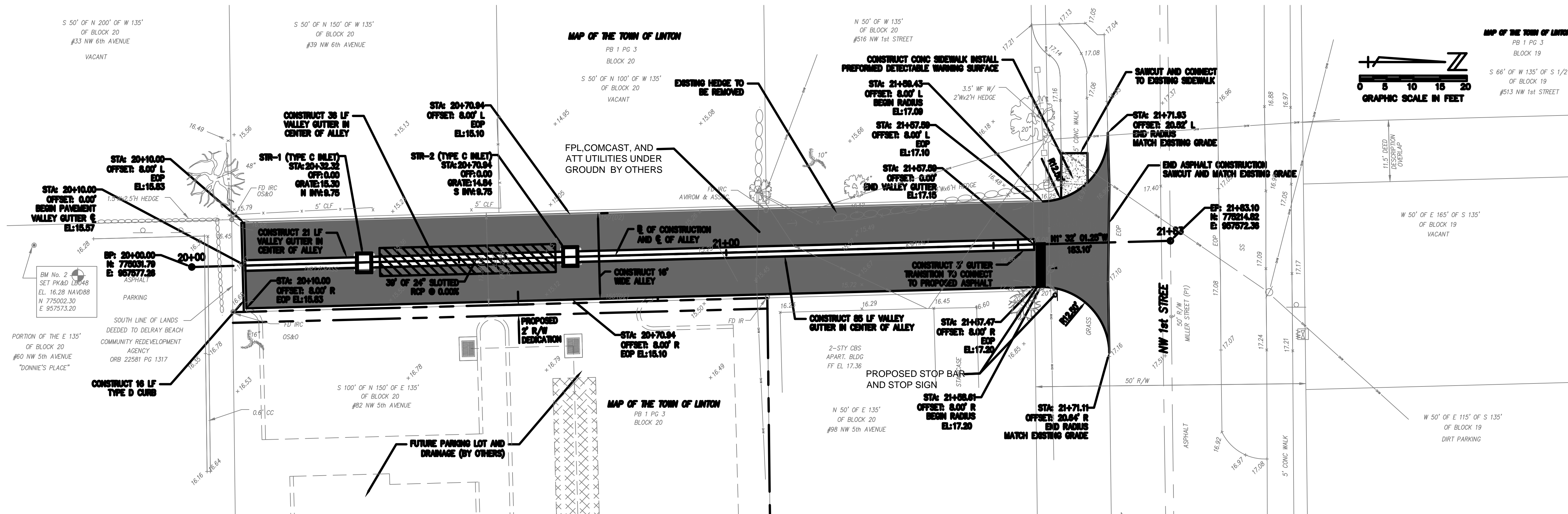
3.07 FIELD QUALITY CONTROL

- 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.
- D. Discard unused concrete older than 1-1/2 hours. Retempering is prohibited.

END OF SECTION

Appendix C
Plans

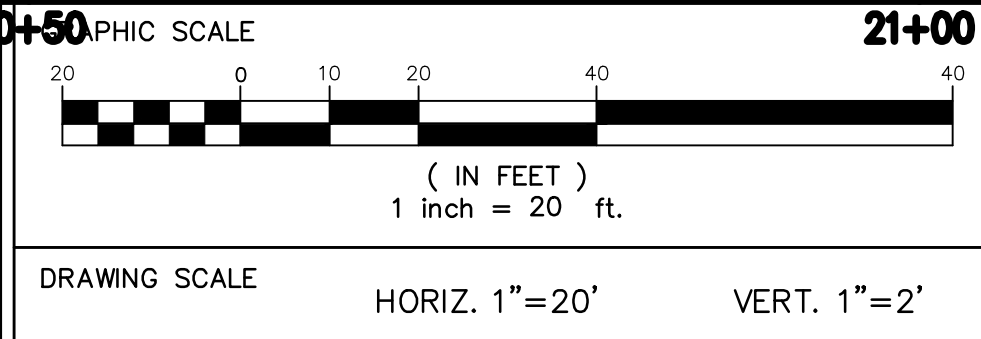
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LEGEND
 ASPHALT PAVEMENT
 CONCRETE PAVEMENT

SCALE
 HORIZ. 1" = 10'
 VERT. 1" = 2'

CITY OF DELRAY BEACH
 ENVIRONMENTAL SERVICES DEPARTMENT
 434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444
 Phone: (561) 243-7322 Fax: (561) 243-7060 www.mydelraybeach.com

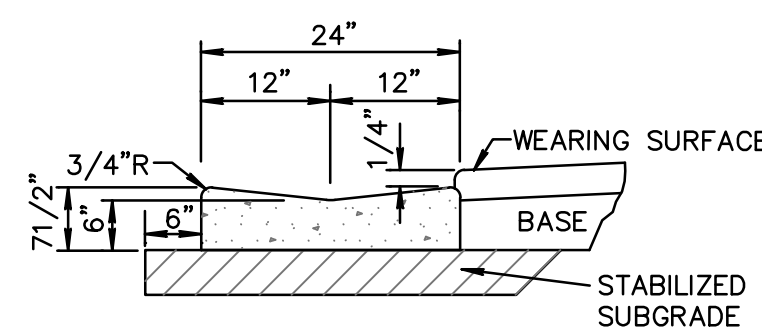


ENGINEER'S SEAL
 WILLIAM A. GRIEVE
 Lic. No. 57465

DESIGNED BY	DESIGNED	21+50		22+00
DRAWN BY	DRAWN BY			
CHECKED BY	CHECKED BY			
DATE	DATE	REVISION	DATE	DESCRIPTION

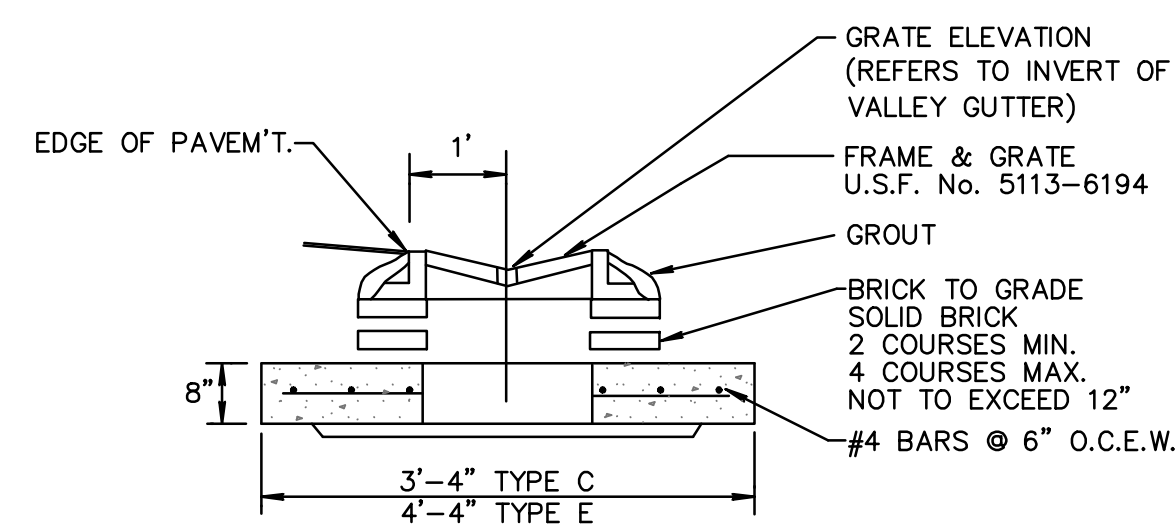
BLOCK 20
ALLEY IMPROVEMENT
PLAN SHEET AND PROFILE

PROJECT NO. 09-006
 SHEET NO. 1 OF 3
 FILE ID.

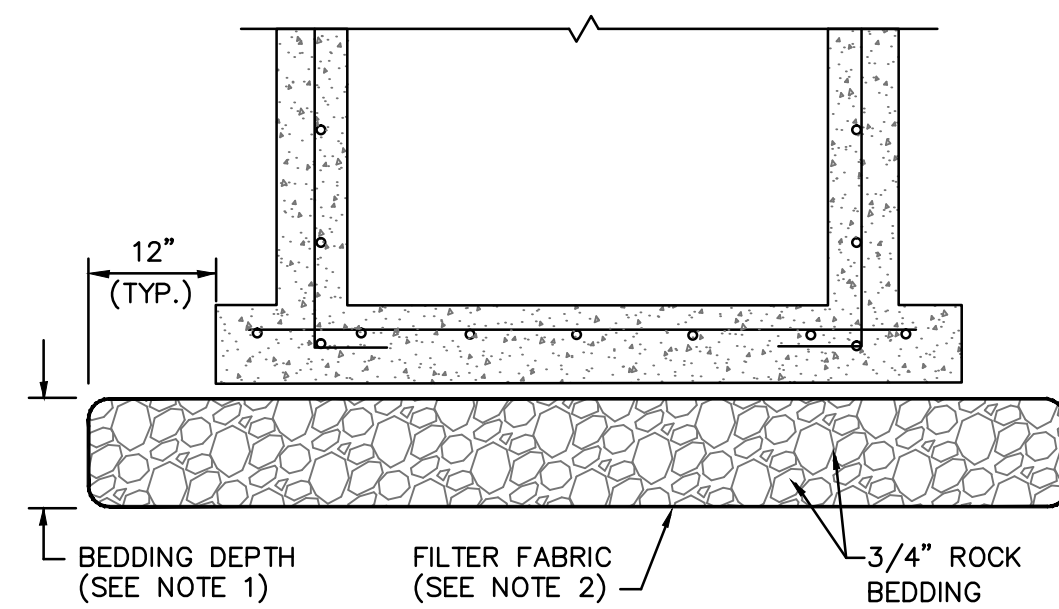


NOTES:
 1. ROADWAY SUBGRADE SHALL IN ALL CASES EXTEND BELOW CURBING.
 2. SAWCUTS AT 10' CENTERS SHALL BE MADE WITHIN 24 HOURS OF CONCRETE PLACEMENT.

1 VALLEY GUTTER
 C5-1 NTS



3 VALLEY GUTTER FRAME & GRATE
 C5-1 NTS

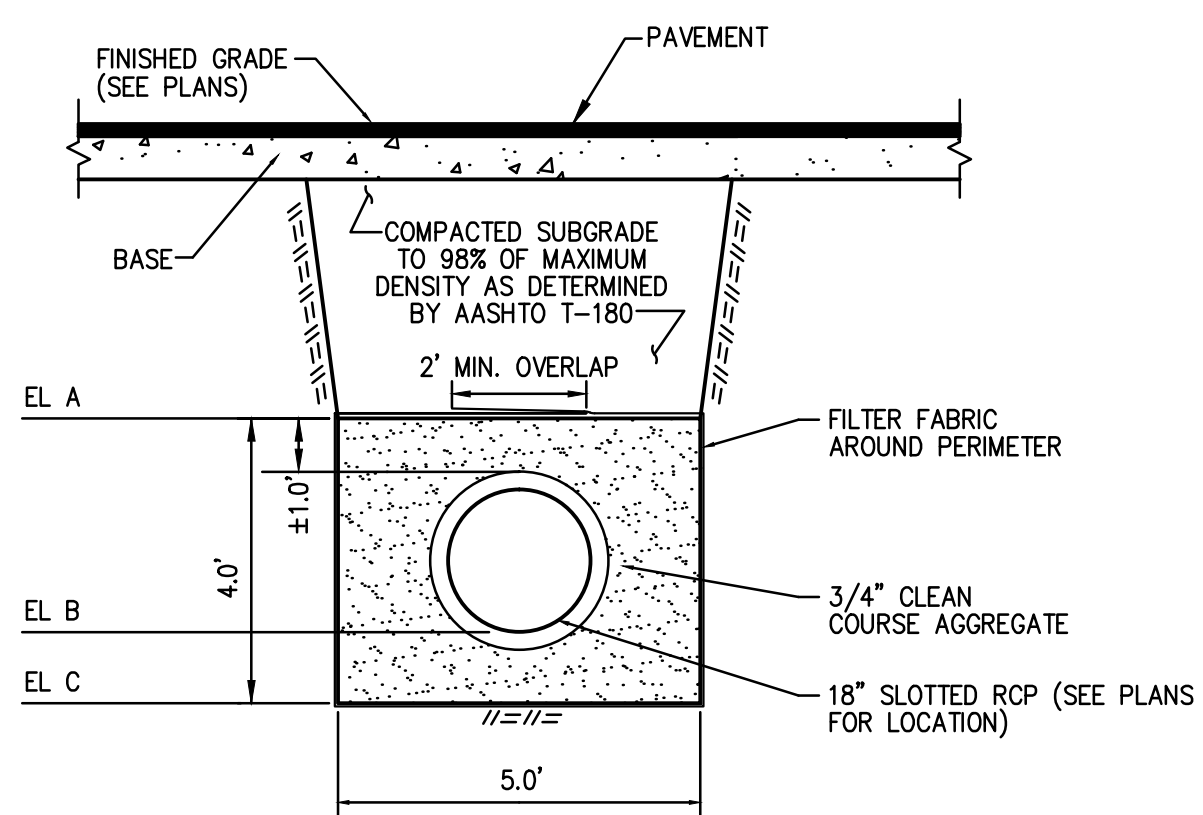


NOTES:

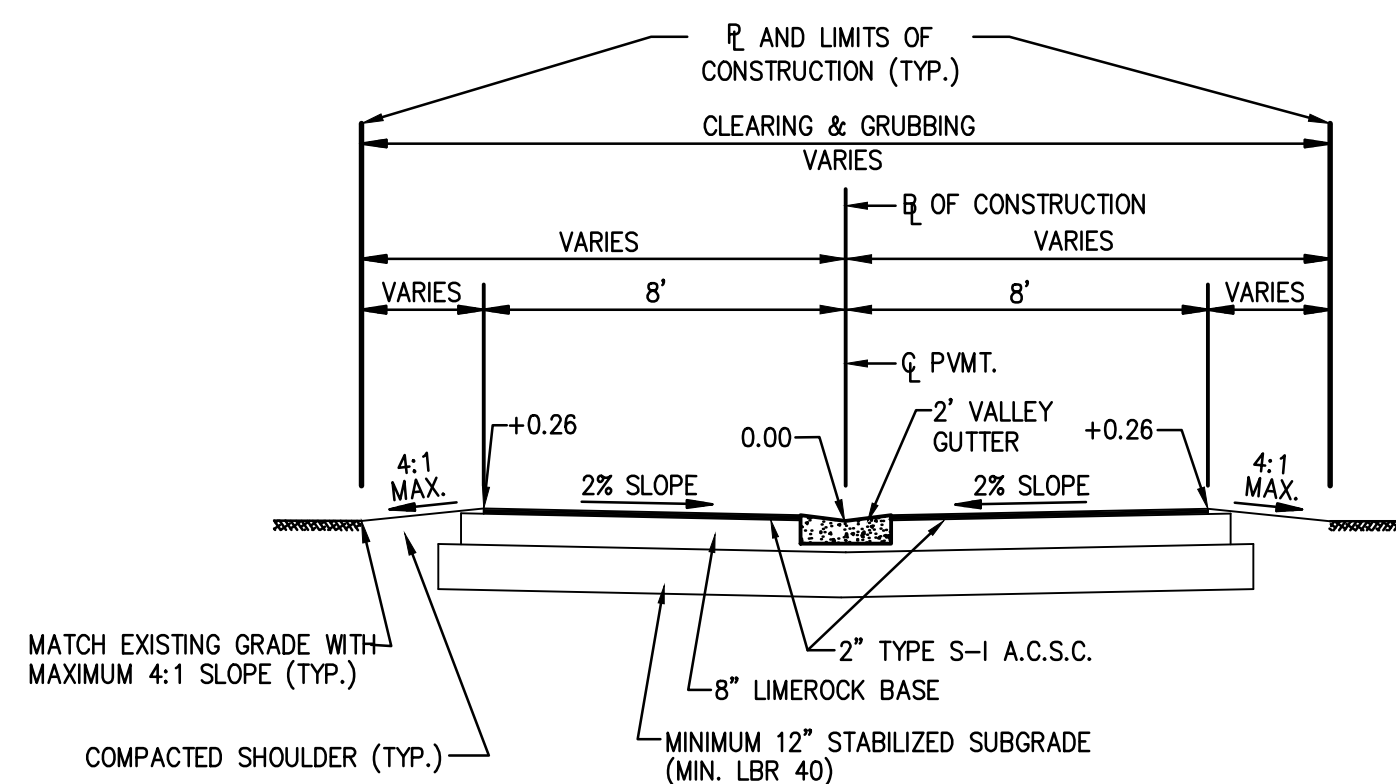
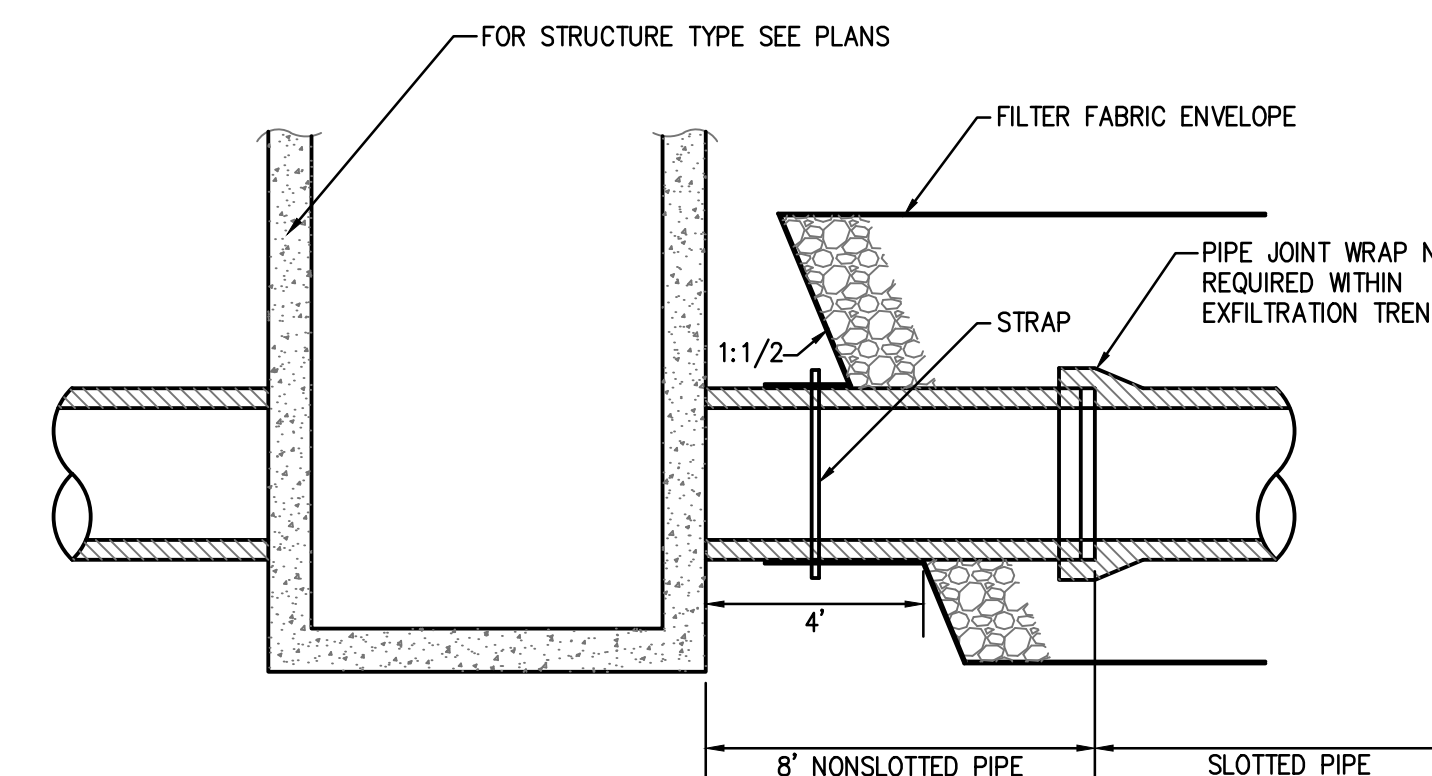
- BEDDING DEPTH SHALL BE 10" UNDER DRAINAGE STRUCTURES AND 18" UNDER SANITARY STRUCTURES.
- ROCK SHALL BE WRAPPED IN FILTER FABRIC THAT MEETS THE REQUIREMENTS OF F.D.O.T. SPECIFICATION SECTION 985.

6 STANDARD BEDDING DETAIL
 C5-1 NTS

	BLOCK 20
EL A	12.75
EL B	10.00
EL C	8.75

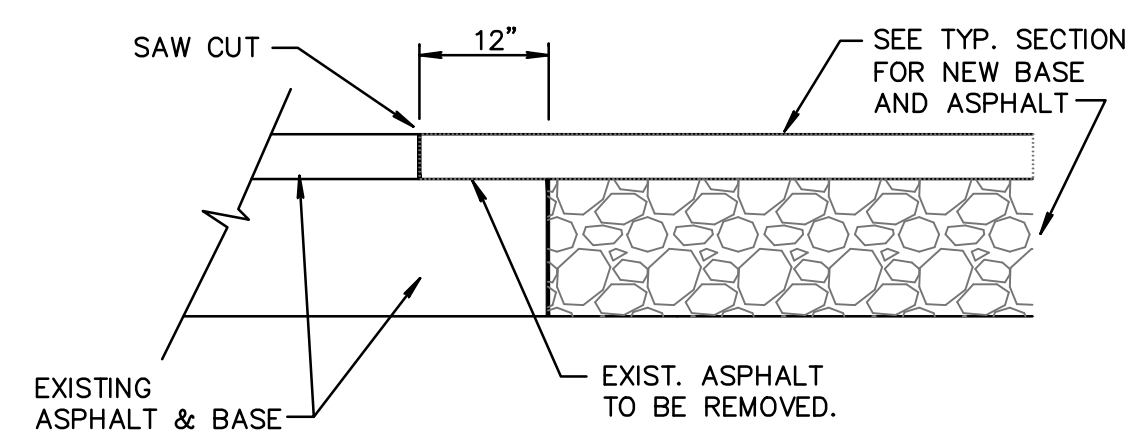


2 EXFILTRATION TRENCH
 C5-1 NTS



4 BLOCK 20 ALLEY SECTION
 C5-1 NTS

NOTES:
 COMPACT SUBGRADE AND BASE TO A MINIMUM OF 98% OF THE MAXIMUM DENSITY DETERMINED BY AASHTO T-180.

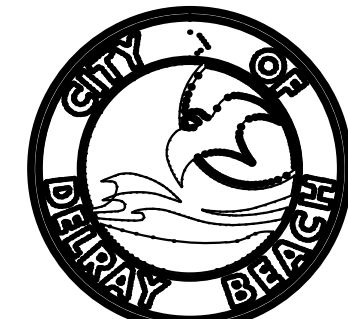


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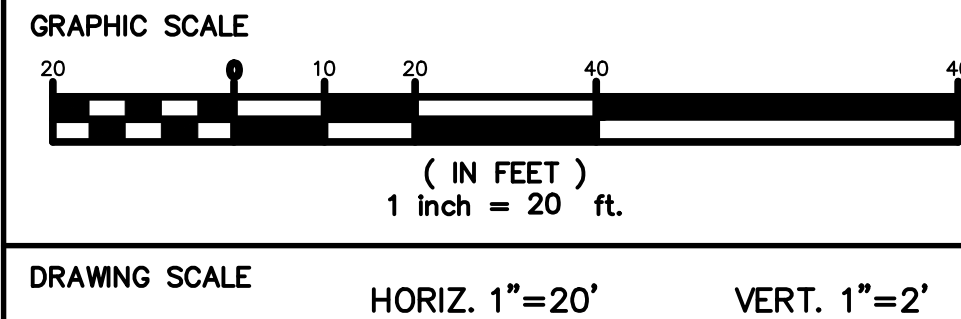
THIS METHOD OF PAVEMENT JOINT SHALL BE USED FOR ANY APPLICATION OR CONSTRUCTION WHERE PROPOSED PAVEMENT AND BASE WILL BE CONNECTED TO EXISTING PAVEMENT AND BASE.

7 PAVEMENT JOINT
 C5-1 NTS

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CITY of DELRAY BEACH
 ENVIRONMENTAL SERVICES DEPARTMENT
 434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444
 Phone: (561) 243-7322 Fax: (561) 243-7060 www.mydelraybeach.com

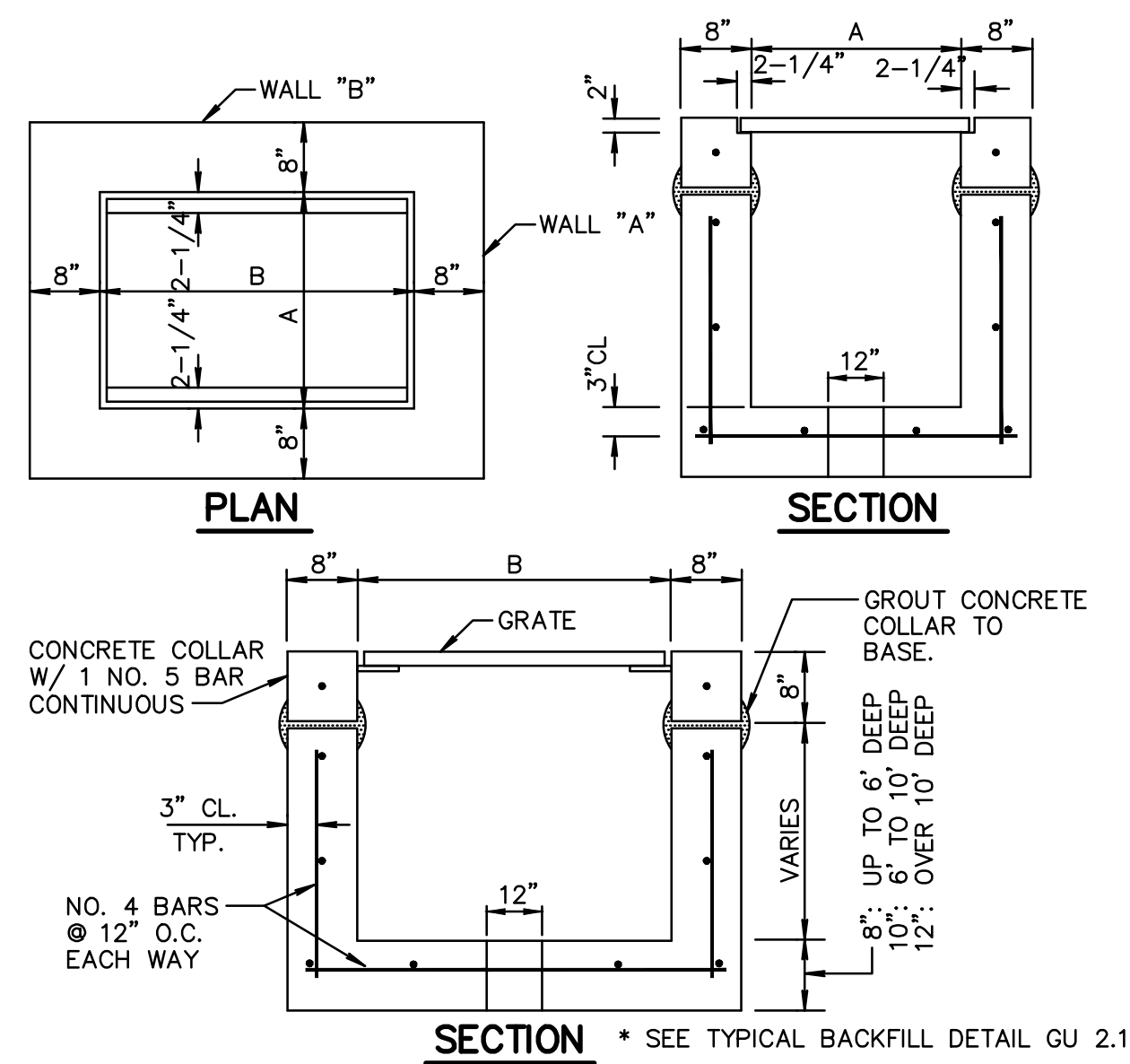


ENGINEER'S SEAL
 WILLIAM A. GRIEVE
 Lic. No. 57465

DESIGNED BY	DESIGNED BY	DATE	REVISION	DATE	DESCRIPTION	BY
DRAWN BY	DRAWN BY					
CHECKED BY	CHECKED BY					

BLOCK 20
 ALLEY IMPROVEMENT
 DETAIL SHEET

PROJECT NO.	09-006
SHEET NO.	2 OF 3
FILE ID.	



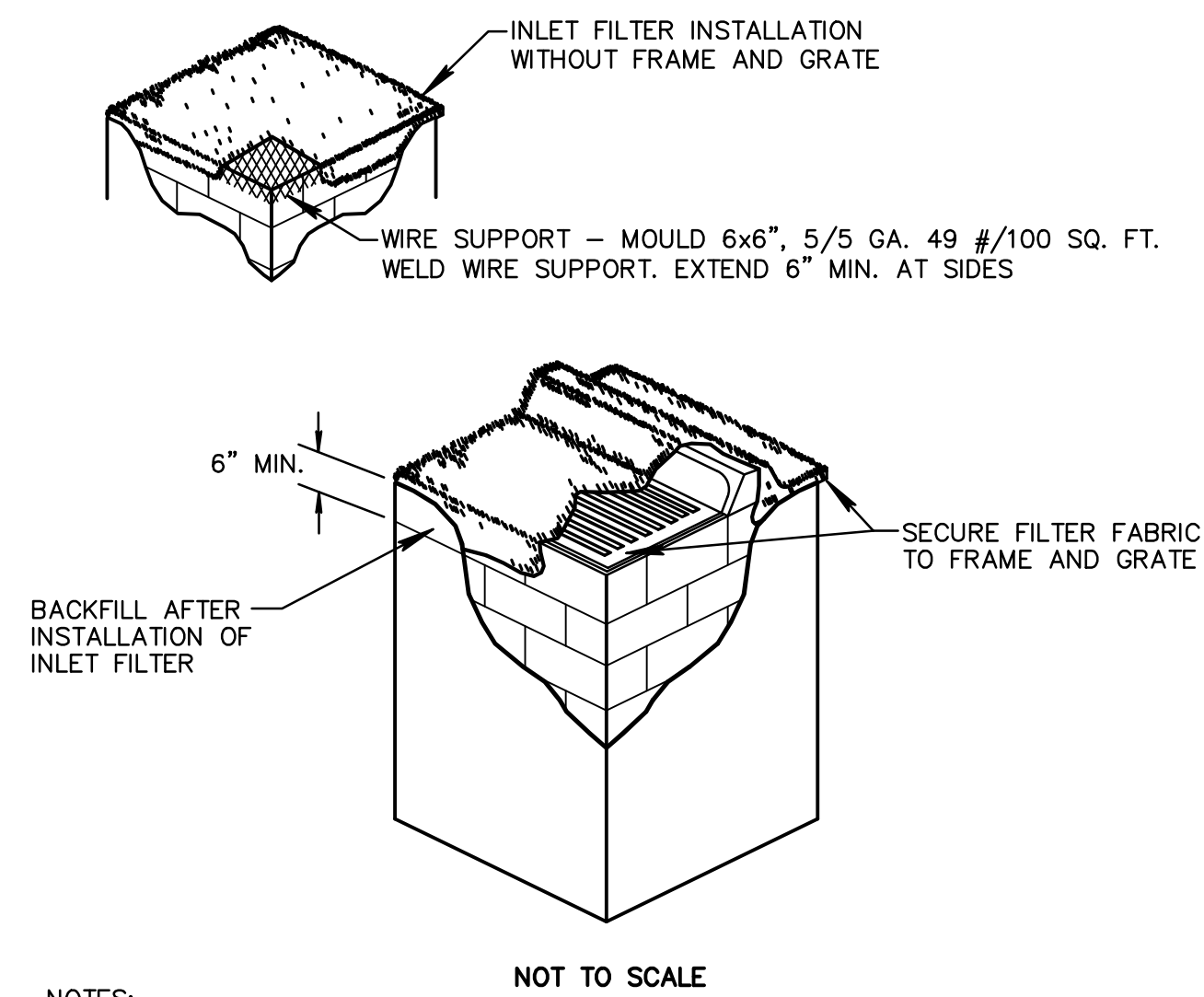
SECTION * SEE TYPICAL BACKFILL DETAIL GU 2.1

GRATE TYPE	MAX. PIPE SIZE	
	WALL A	WALL B
SEE DETAIL FOR VALLEY GUTTER	R.C.P. 15"	R.C.P. 24"
SEE DETAIL FOR VALLEY GUTTER	R.C.P. 24"	R.C.P. 36"

NOTES:

1. INLET TO BE PRECAST WITH CLASS 'A' 4000 P.S.I. CONCRETE.
2. ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".
3. 12" DIA. WEEP HOLE REQUIRED ON ALL STRUCTURES WHICH HAVE A BOTTOM ELEVATION ABOVE THE WATER TABLE.
4. 18" SUMP REQUIRED IN ALL DRAINAGE STRUCTURES.
5. SEE BEDDING DETAIL
6. INLETS PROPOSED WITHIN VALLEY GUTTER TO RECEIVE USF 5113-6194 FRAME AND GRATE

1 TYPE C & E INLET DETAIL
C5-2 NTS



NOT TO SCALE

NOTES:

1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.

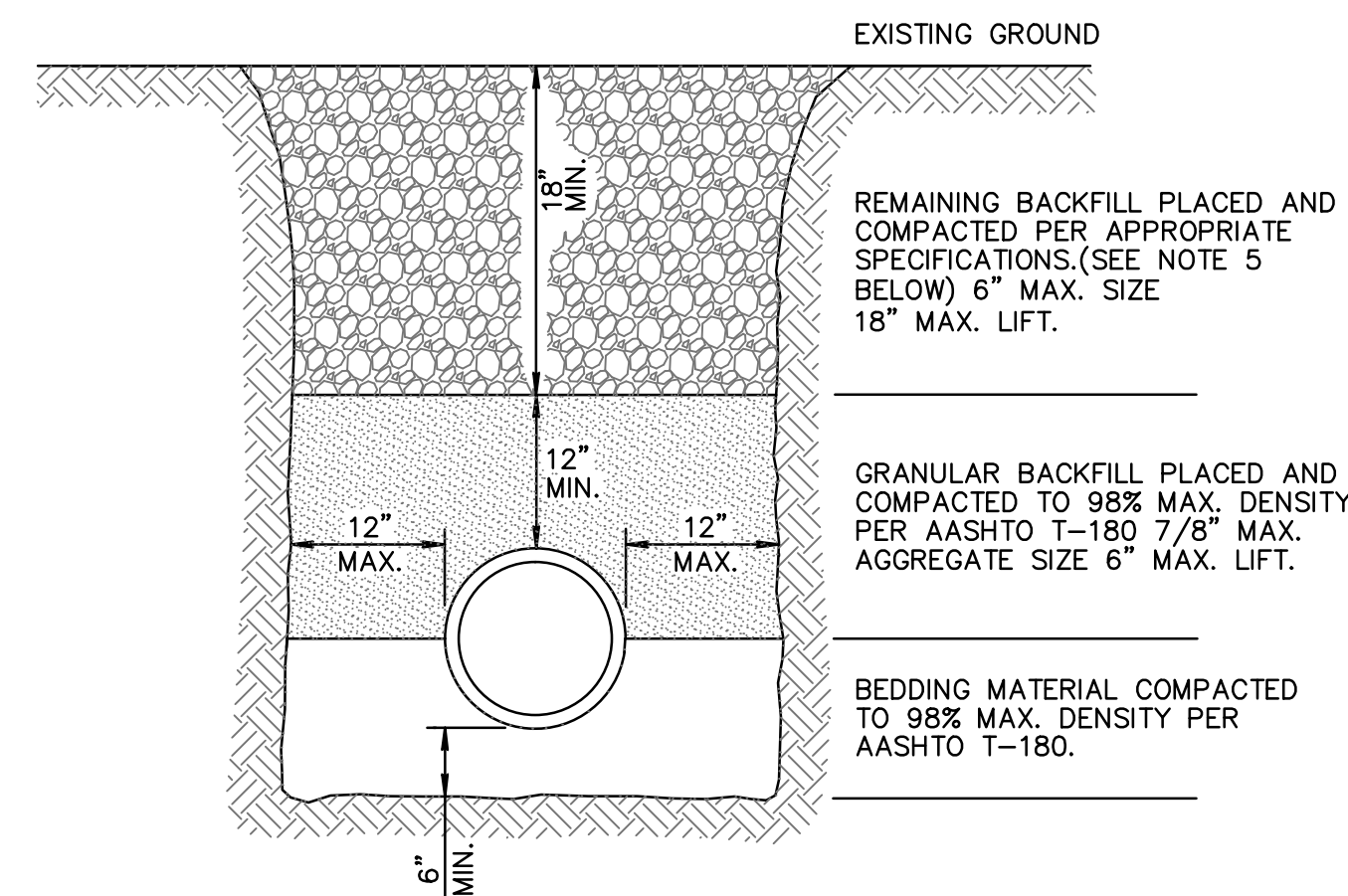
A SEDIMENT TRAP WILL BE EXCAVATED BEHIND THE CURB AT THE INLET. THE BASIN SHALL BE AT LEAST 12 TO 14 INCHES IN DEPTH, APPROXIMATELY 36 INCHES IN WIDTH, AND APPROXIMATELY 7 TO 10 FEET IN LENGTH PARALLEL TO THE CURB.

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.

2 INLET FILTER DETAIL
C5-2 NTS

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.

5 EROSION CONTROL NOTES
C5-2 NTS

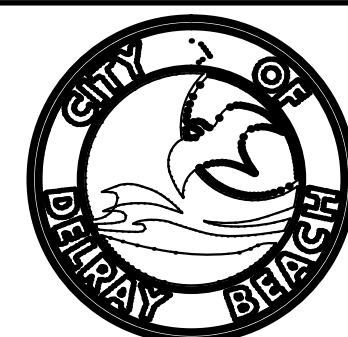


5 TYPICAL BACKFILL DETAIL
C5-2 NTS

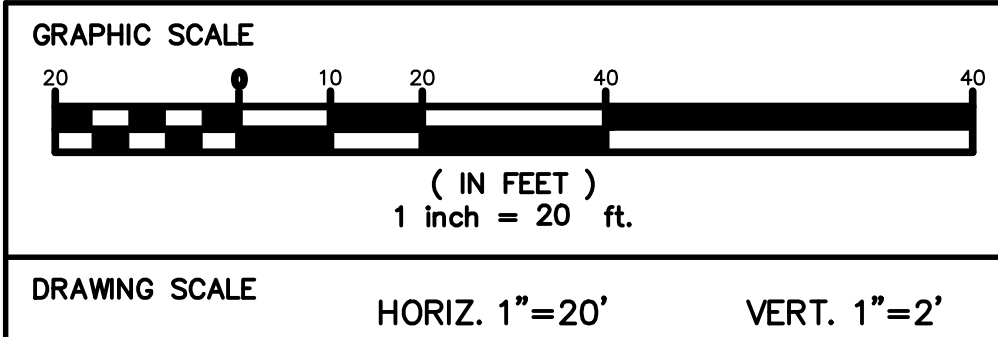
NOTES:

1. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGE ROCKS SHALL BE REMOVED; BEDDING MATERIAL AND BACKFILL CONSISTING OF WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING.
2. THE PIPE AND/OR STRUCTURE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE AND/OR STRUCTURE SHALL BE PLACED IN A DRY TRENCH.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
5. COMPACT BACKFILL TO 98% DENSITY UNDER PAVEMENT AND TO 95% DENSITY ELSEWHERE.(AASHTO T-180)
6. COMPACTION AND DENSITY TESTS SHALL BE COMPLETED DURING BACKFILL OPERATIONS. CONTRACTORS NOT FOLLOWING THIS PROCEDURE, FOR WHATEVER REASONS, SHALL BE REQUIRED TO RE-EXCAVATE THE AREA IN QUESTION, DOWN TO THE BEDDING MATERIAL, THEN BACKFILL FOLLOWING THE ABOVE PROCEDURES.

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CITY of DELRAY BEACH
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 Phone: (561) 243-7322 Fax: (561) 243-7060 www.mydelraybeach.com



ENGINEER'S SEAL
 WILLIAM A. GRIEVE
 Lic. No. 57465

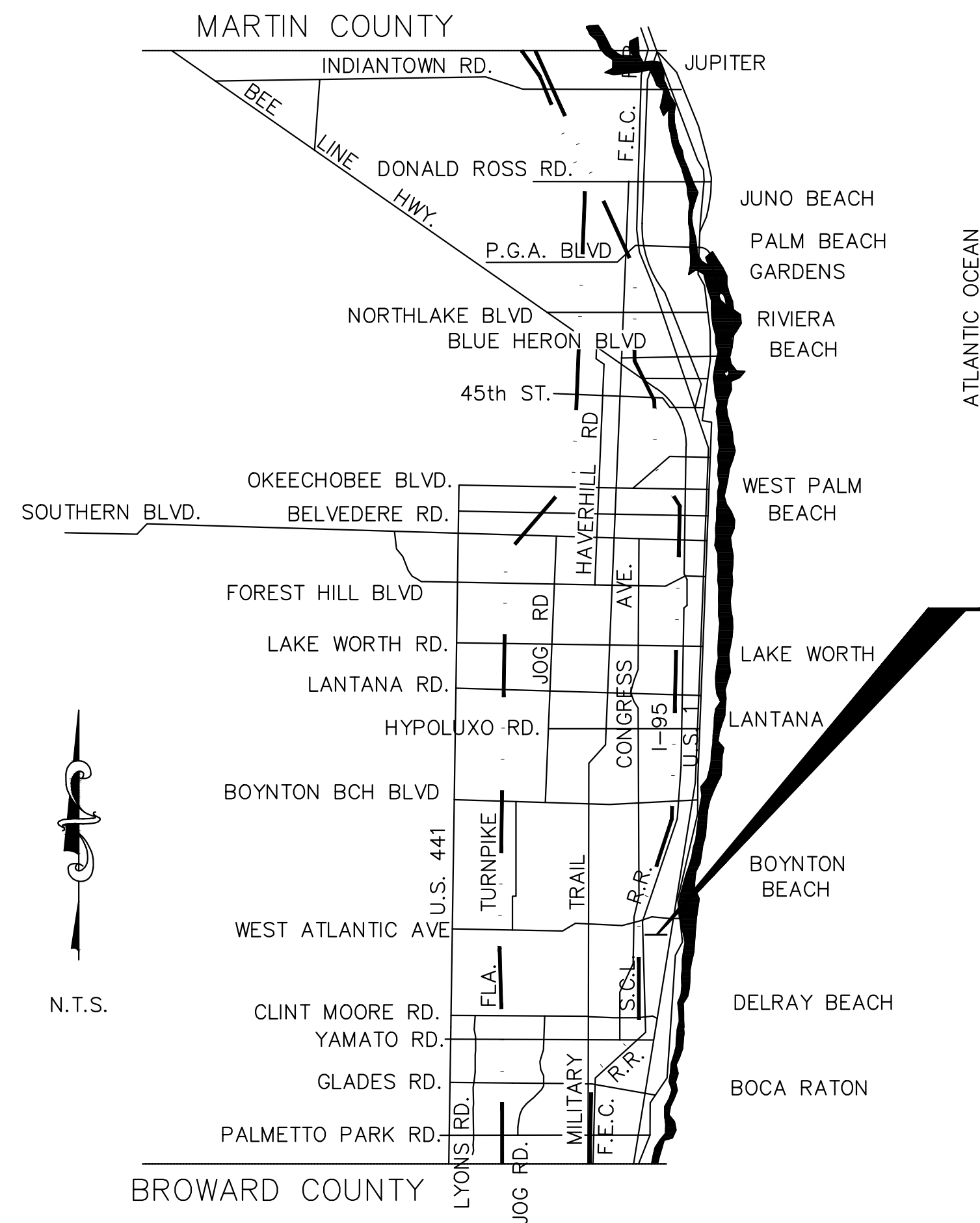
DESIGNED BY	DESIGNED BY				
DRAWN BY	DRAWN BY				
CHECKED BY	CHECKED BY				
DATE	DATE	REVISION	DATE	DESCRIPTION	BY

BLOCK 20
 ALLEY IMPROVEMENT
 DETAIL SHEET

PROJECT NO.
 09-006
 SHEET NO.
 3 OF 3
 FILE ID.

CITY OF DELRAY BEACH BLOCK 8 ALLEY IMPROVEMENTS

CITY PROJECT No. 14-002



LOCATION MAP

NO SCALE
SECTION 9, TOWNSHIP 46 SOUTH, RANGE 43 EAST

VERTICAL DATUM: NATIONAL GEODETIC
VERTICAL DATUM OF 1929 (NGVD29)

HORIZONTAL DATUM: NORTH AMERICAN
DATUM OF 1983, FLORIDA STATE
PLANES, EAST ZONE, U.S. FEET (NAD83)



Know what's below.
Call before you dig.

CITY OFFICIALS

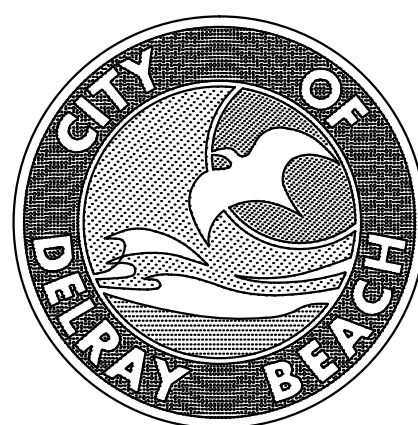
MAYOR	CARY D. GLICKSTEIN
VICE MAYOR	AL JACQUET
DEPUTY VICE MAYOR	JORDANA L. JARJURA
COMMISSIONER	SHELLY PETROLIA
COMMISSIONER	MITCHELL KATZ
CITY MANAGER	DONALD B. COOPER
DIRECTOR OF ENVIRONMENTAL SERVICES DEPARTMENT	JOHN MORGAN
CITY ENGINEER	ISAAC KOVNER, P.E.

CRA OFFICIALS

BOARD CHAIR	REGINALD A. COX
FIRST VICE CHAIR	JOSEPH BERNADEL
VICE CHAIR	CATHY BALESTRIERE
CRA COMMISSIONER	DANIEL ROSE
CRA COMMISSIONER	DEDRICK D. STRAGHN
CRA COMMISSIONER	HERMAN STEVENS
CRA COMMISSIONER	PAUL ZACKS

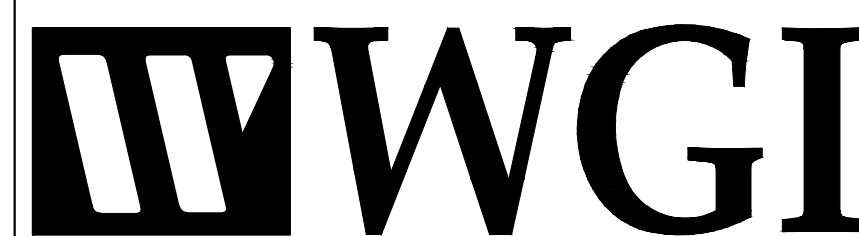
SHEET INDEX

COV	COVER SHEET
GN	GENERAL NOTES AND LEGENDS
KEY	OVERALL PROJECT MAP
C-1 - C-2	BLOCK 8 ALLEY EXISTING CONDITIONS
C-3 - C-4	BLOCK 8 ALLEY IMPROVEMENTS
C-5	SW 10TH AVENUE EXISTING CONDITIONS
C-6	SW 10TH AVENUE IMPROVEMENTS
C-7	SECTIONS
C-8	EXFILTRATION TRENCH DETAIL
C-9 - C-12	CITY OF DELRAY BEACH DETAILS



CITY of DELRAY BEACH
ENVIRONMENTAL SERVICES DEPARTMENT
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PREPARED BY:



2035 Vista Parkway
West Palm Beach, FL 33411
Phone No. 561.687.2220
Fax No. 561.687.1110
Cert No. 6091 - LB No. 7055

ENGINEERING // SURVEYING // ENVIRONMENTAL // PLANNING

ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

ISSUED FOR BID

BLOCK 8 ALLEY IMPROVEMENTS
WGI NO.: 41011004.07

GENERAL NOTES

- TERMS: CONTRACTOR – THE PRIME CONTRACTOR DIRECTLY CONTRACTED BY CITY OF DELRAY BEACH; THIS INCLUDES ALL CONTRACTORS UNDER THE RESPONSIBLE CHARGE OF THE PRIME CONTRACTOR
ENGINEER – ENGINEER OF RECORD, WANTMAN GROUP, INC. (WGI)
OWNER – CITY OF DELRAY BEACH
- REGULATIONS – ALL CONSTRUCTION SHALL BE DONE IN A WORKMAN LIKE MANNER AND SHALL CONFORM TO ALL CITY OF DELRAY BEACH, COUNTY, STATE AND FEDERAL REGULATIONS AND CODES INCLUDING BUT NOT LIMITED TO THE CURRENT PALM BEACH COUNTY AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) REGULATIONS.
- CHANGES – ALL CHANGES SHALL BE SUBMITTED IN WRITING AND APPROVED BY THE ENGINEER AND CITY OF DELRAY BEACH PRIOR TO CONSTRUCTION.
- GUARANTEE – THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIAL SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- SHOP DRAWINGS – PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL MATERIALS TO THE ENGINEER FOR APPROVAL.
- MAINTENANCE OF TRAFFIC (M.O.T.) – UNLESS OTHERWISE PERMITTED, THE CONTRACTOR SHALL MAINTAIN EXISTING PEDESTRIAN AND VEHICULAR TRAFFIC AND ACCESS AT ALL TIMES DURING CONSTRUCTION AND SHALL PROVIDE THE NECESSARY TEMPORARY PAVEMENT, BARRICADES, LIGHTING, SIGNS, FLAGMEN, ETC. FOR THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL SUBMIT M.O.T. AND A.D.A. ACCESS PLANS TO THE ENGINEER FOR REVIEW AND TO THE TOWN, COUNTY AND STATE FOR APPROVAL OF WORK TO BE DONE WITHIN THEIR RIGHTS OF WAY. M.O.T. SHALL BE IN ACCORDANCE WITH A.D.A., M.U.T.C.D. AND F.D.O.T. INDEX SERIES 600.
- ROAD CLOSURE – THE CONTRACTOR SHALL COMPLY WITH ALL CITY OF DELRAY BEACH, COUNTY AND STATE REGULATIONS PERTAINING TO THE THE CLOSING OF PUBLIC ROADS FOR USE OF TRAFFIC DURING CONSTRUCTION.
- RECORD DRAWINGS – PERIODICALLY, AS STATED IN THE CONTRACT, THE CONTRACTOR SHALL SUBMIT RECORD DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL. RECORD DRAWINGS MUST BE SIGNED AND SEALED BY A LICENSED SURVEYOR REGISTERED IN THE STATE OF FLORIDA. RECORD DRAWINGS SHALL BE PREPARED ACCORDING TO THE CITY OF DELRAY BEACH REQUIREMENTS AS WELL AS THE PERMITTING AGENCIES. STATE PLANE COORDINATES AND ELEVATIONS (NGVD 29) SHALL BE PROVIDED EVERY 50' (MAX) FOR DIRECTIONAL BORE RECORD DRAWINGS. ANY UNMARKED UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE INCORPORATED INTO THE RECORD DRAWINGS.
- RESPONSIBILITY – THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND MATERIAL OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO ANY CONSTRUCTION IN OR AROUND THAT UTILITY. CALL "SUNSHINE STATE ONE CALL" AT 1-800-432-4770 PRIOR TO ANY EXCAVATION. THE ENGINEER AND CITY SHALL BE HELD HARMLESS AGAINST ALL CLAIMS OR DAMAGES.
- RESTORATION – UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL IMMEDIATELY REPAIR AND RESTORE ALL UTILITIES AND PROPERTY DAMAGED OR ALTERED AS A RESULT OF CONSTRUCTION ACTIVITIES. THIS INCLUDES, BUT MAY NOT BE LIMITED TO, SURVEY MONUMENTS, STRUCTURES, PAVEMENT, GRADING, SOD, PIPES AND SWALES.
- NOTIFICATION – THE CONTRACTOR SHALL NOTIFY THE ENGINEER, AGENCIES AND APPLICABLE UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO SCHEDULING FIELD OBSERVATIONS AND SHALL SUPPLY ALL EQUIPMENT AND PERSONNEL NECESSARY TO INSPECT AND TEST THE COMPLETED WORK.
- TESTING – TEST RESULTS SHALL BE SUBMITTED WITH THE RECORD DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL. TESTING REQUIREMENTS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, BACKFILL DENSITY, PIPELINE INTEGRITY (HYDROSTATIC PRESSURE), PAVING MATERIALS AND ANY OTHERS REQUIRED BY THE ENGINEER, OWNER, OR PERMITTING AGENCIES.
- CLEARING – CLEARING SHALL BE LIMITED TO THE CONSTRUCTION AREA AND AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER.
- GRUBBING – ALL ORGANIC AND OTHER UNSUITABLE MATERIALS SHALL BE REMOVED TO A MINIMUM DEPTH OF 12" BELOW THE PIPELINE OR BOTTOM OF PAVEMENT SECTION.
- DEBRIS REMOVAL – ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED. WITH OWNER APPROVAL, ANY MATERIAL RETAINED ON-SITE FOR MORE THAN 30 DAYS SHALL BE STORED IN CONTAINERS APPROVED BY THE OWNER.
- STAGING – THE CONTRACTOR SHALL ACQUIRE STAGING AREA(S) AS REQUIRED AND COORDINATE WITH CITY OF DELRAY BEACH AND PROJECT MANAGER OR PRIVATE LAND OWNERS. THE CONTRACTOR SHALL VERIFY THE OWNERSHIP OF LAND TO BE USED FOR STAGING.
- OPEN TRENCHES – ALL OPEN TRENCHES AND HOLES SHALL BE PROPERLY MARKED AND BARRICADED TO INSURE THE SAFETY OF VEHICULAR AND PEDESTRIAN TRAFFIC. NO OPEN TRENCHES OR HOLES SHALL BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT EXPRESSED PERMISSION FROM THE CITY OF DELRAY BEACH. ALL TRENCHES SHALL COMPLY WITH OSHA TRENCH SAFETY ACT PROVISIONS.
- WATER SUPPLY – NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM CITY OF DELRAY BEACH.
- EXISTING WATER AND SEWER SERVICES – THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER AND SEWER SERVICES ENCOUNTERED DURING CONSTRUCTION. THESE SERVICES SHALL REMAIN OPERATIONAL OR TEMPORARY FACILITIES PROVIDED. DAMAGED SERVICES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH CITY OF DELRAY BEACH STANDARDS.
- CONSTRUCTION EASEMENTS – THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF RIGHTS OF WAY OR TEMPORARY CONSTRUCTION EASEMENTS.
- TRAFFIC CONTROL DEVICES – THE CONTRACTOR SHALL REPAIR OR PROVIDE NEW TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO, PAVEMENT MARKINGS, SIGNS, SIGNALS AND SIGNAL LOOPS WHERE EXISTING DEVICES ARE DAMAGED OR REMOVED DURING CONSTRUCTION. ALL DEVICES SHALL CONFORM TO CITY OF DELRAY BEACH, COUNTY AND STATE (2015 FDOT INDEX) REQUIREMENTS, WHERE APPLICABLE. THIS WORK SHALL BE CONSIDERED INCIDENTAL.

- PLANT REMOVAL – THE CONTRACTOR SHALL COORDINATE VEGETATION AND TREE REMOVAL WITH CITY OF DELRAY BEACH PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS AND LICENSES PRIOR TO CONSTRUCTION AND PAY ALL REQUIRED FEES ASSOCIATED WITH SAME.

SURVEY NOTES

- THIS IS A TOPOGRAPHIC SURVEY, AS DEFINED IN CHAPTER 5J-17.050(10)(a)-(K) OF THE FLORIDA ADMINISTRATIVE CODE.
- THIS SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
- ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- COPYRIGHT © 2014 BY WANTMAN GROUP, INC.
- ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, AS ESTABLISHED BY PALM BEACH COUNTY BENCHMARK "WALTER" HAVING A PUBLISHED ELEVATION OF 20.176 FEET (NGVD 29). THE CONVERSION VALUE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) IS -1.524 FEET.
- THE COORDINATE SYSTEM UTILIZED HEREON IS RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2007 ADJUSTMENT) AS ESTABLISHED USING REAL-TIME KINEMATIC GLOBAL POSITIONING SYSTEM ("RTK GPS") SURVEY METHODS.
- THIS SURVEY DOES NOT HAVE THE BENEFIT OF A CURRENT TITLE COMMITMENT, OPINION, OR ABSTRACT. DURING THE COURSE OF THE SURVEY SOME SEARCHES OF THE PUBLIC RECORDS WERE MADE, BUT THESE SEARCHES WERE NOT EXHAUSTIVE AND SHOULD NOT BE CONSIDERED A SUBSTITUTE FOR A PROPER TITLE COMMITMENT, OPINION, OR ABSTRACT OBTAINED FROM A TITLE AGENCY OR OTHER TITLE PROFESSIONAL.
- RIGHT-OF-WAY LINES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY, AND WERE CALCULATED BY MULTIPLE PLOTS RECORDED IN THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA. THERE MAYBE ADDITIONAL RIGHT-OF-WAY ADJUSTMENTS NOT SHOWN THAT COULD BE FOUND THROUGH PROPER TITLE VERIFICATION.
- UNDERGROUND IMPROVEMENTS, IF ANY, WERE NOT LOCATED EXCEPT AS SHOWN.
- INTERIOR IMPROVEMENTS, IF ANY, WERE NOT LOCATED EXCEPT AS SHOWN.
- ADJOINING PROPERTY INFORMATION WAS OBTAINED FROM THE PALM BEACH COUNTY PROPERTY APPRAISERS OFFICE.

SURVEY LEGEND

- = Piling or Post
- = Light Pole
- = Mailbox
- = Sanitary Valve
- = Sanitary Manhole
- = Water Meter
- = Sign
- = Back Flow Preventer
- = Wire Pull Box
- = Irrigation Box
- = Guy Pole
- = Multi Support Sign
- = Power Pole w/ Transformer
- = Drainage Manhole
- = Curb Inlet
- = Pedestrian Signal
- = Signal Span Wire
- = Test Hole Location

LEGEND

- EXIST. POWER POLE
- EXIST. DRAINAGE D
- EXIST. OVERHEAD LINES OH
- EXIST. SANITARY S
- EXIST. TELEPHONE BT
- EXIST. WATER MAIN W
- EXISTING CONC. SIDEWALK TO REMAIN
- EXISTING CONC. S/W TO BE REMOVED
- EXISTING DECORATIVE SIDEWALK TO REMAIN
- PROPOSED SANITARY MAIN S
- PROPOSED SANITARY SERVICE
- PROPOSED WATER MAIN W
- PROPOSED WATER SERVICE
- PROPOSED GRADE 17.14
- DRAINAGE FLOW ARROW
- DECORATIVE LIGHT POLE
- MILL AND RESURFACE
- PROPOSED ASPHALT PAVEMENT
- 5' DECORATIVE SIDEWALK

ABBREVIATIONS

CONC.	CONCRETE
DIP	DUCTILE IRON PIPE
EL.	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST, EX	EXISTING
EH	FIRE HYDRANT
HP	HIGH-POINT (GRADING)
INV	INVERT
LF	LINEAR FOOT
OH	OVERHEAD ELECTRIC
OS	OFFSET
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SAN	SANITARY
SP	SAMPLE POINT
STA	STATION
S/W	SIDEWALK
TYP	TYPICAL
WM	WATER MAIN

PAVEMENT MARKING

- Ⓐ 6" SOLID WHITE
- Ⓒ 6" SKIP WHITE (2'-4')
- Ⓓ 12" SOLID WHITE
- Ⓔ 24" SOLID WHITE
- Ⓕ 6" DOUBLE YELLOW
- Ⓖ 6" SKIP WHITE (6'-10')

Stephen Cherry S:\101004\07_Blk_8_SW_10th_Ave_8_SW_2nd_Ave_8_SW_2nd_V7_Design_Dwg\17_WB_Drawing\Chal\Block 8 Cover.dwg user Plotfile: 7/14/2016 5:16:23 PM Sheet: 7/14/2016 10:16:37 AM



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Cert. No. 6091 - LB No. 7055

WGI

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NO.	DATE	REVISIONS	DESCRIPTION	BY

CAD BLOCK	8	COVER.DWG
JOB NO.	41011004.07	DRAWN
TOTAL SHEETS	9	DESIGNED
DATE	4/30/14	CHECKED
SCALE	N/A	B/L
		JWR

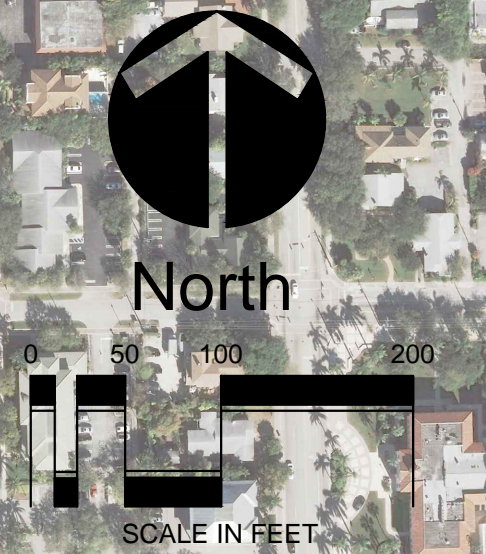
ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

PROJECT:
BLOCK 8 ALLEY IMPROVEMENTS

TASK:
GENERAL NOTES AND LEGENDS

SHEET:
GN

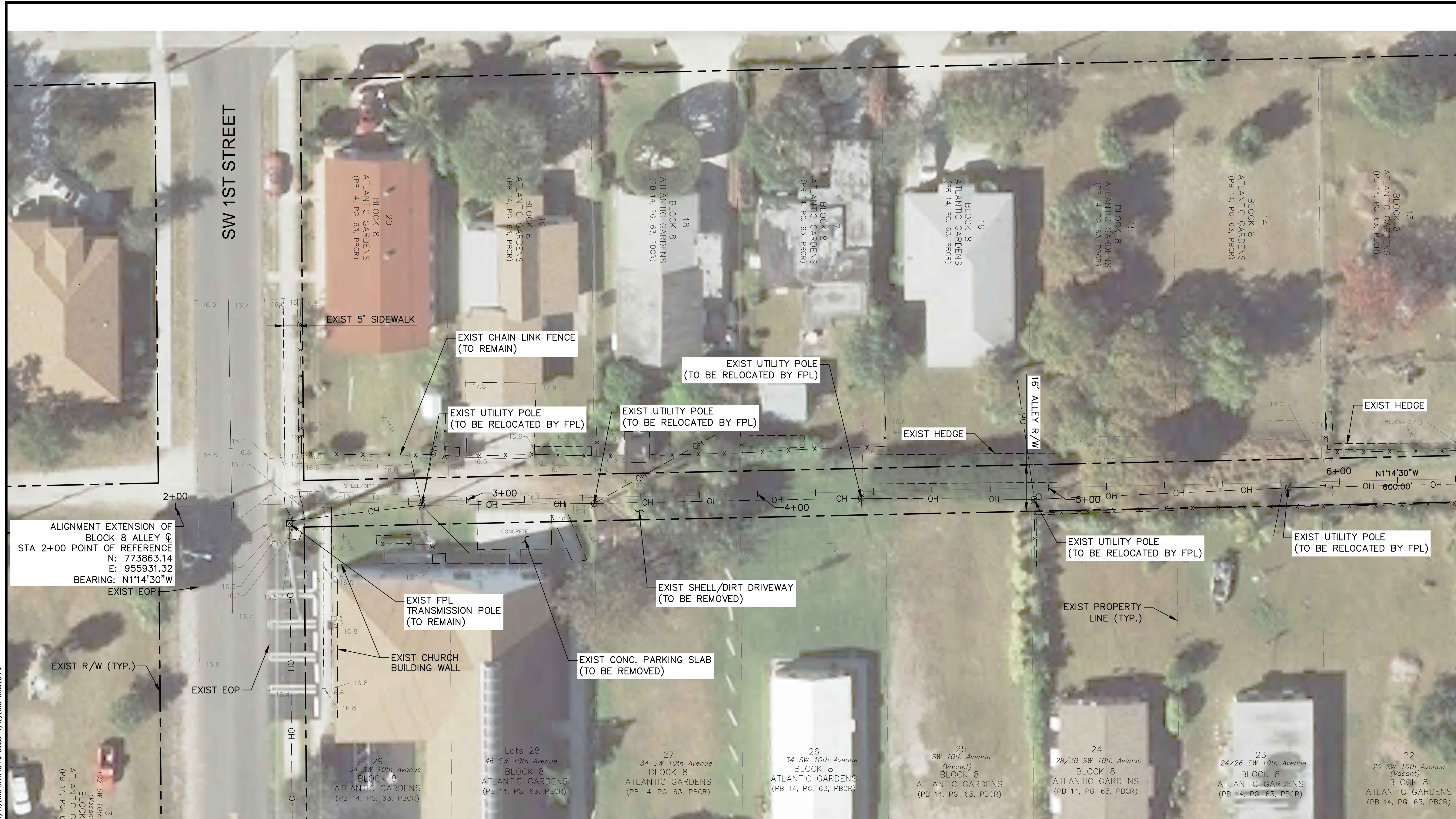
ISSUED FOR BID



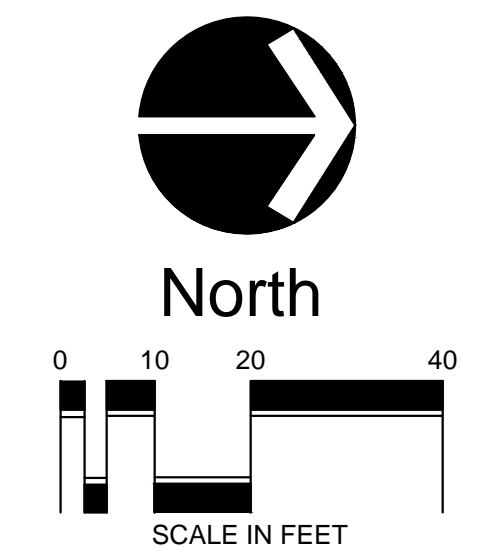
PROJECT: BLOCK 8 ALLEY IMPROVEMENTS TASK: OVERALL PROJECT MAP		ENGINEER OF RECORD BRIAN J. LAMOTTE, P.E. PE# 41074		CAD BLOCK: 8 COVER.DWG JOB NO.: 41011004.07 TOTAL SHEETS: 9 DATE: 4/30/14 SCALE: 1" = 100'		REVISIONS NO. DATE DESCRIPTION BY	
SHEET: KEY		ISSUED FOR BID		DRAWN: SCC		DESIGNED: SCC	
				CHECKED: BUL		JMR	

WGI
ENGINEERING // SURVEYING // ENVIRONMENTAL // PLANNING

2035 Vista Parkway
West Palm Beach, FL 33411
Phone No. 561.687.2220
Fax No. 561.687.1110
Cert No. 6091 - LB No. 7055



MATCHLINE STA 6+44.10



LEGEND

- EXIST. POWER POLE \bigcirc
- EXIST. DRAINAGE --- D ---
- EXIST. OVERHEAD LINES --- OH ---
- EXIST. SANITARY --- S ---
- EXIST. TELEPHONE --- BT ---
- EXIST. WATER MAIN --- W ---

ABBREVIATIONS

- | | |
|-----------|----------------------|
| CONC. | CONCRETE |
| FPL | EAST |
| ELEV. | ELEVATION |
| EOP | EDGE OF PAVEMENT |
| EXIST, EX | EXISTING |
| HP | HIGH-POINT (GRADING) |
| INV | INEVRT |
| LT | LEFT |
| N | NORTH |
| OH | OVERHEAD ELECTRIC |
| OS | OFFSET |
| RT | RIGHT |
| R/W | RIGHT-OF-WAY |
| SAN | SANITARY |
| SP | SAMPLE POINT |
| STA | STATION |
| S/W | SIDEWALK |
| TYP | TYPICAL |
| WM | WATER MAIN |

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL EXISTING TREES, SHRUBS, ASPHALT, ABOVE GROUND FEATURES, ETC. LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETELY REMOVED AND LEGALLY DISPOSED.
3. ALL STAGING AND CONSTRUCTION ACTIVITIES ARE NOT TO BE PLACED ON PRIVATE PROPERTY WITHOUT PROPER CONSENT.
4. CONTRACTOR SHALL PROVIDE PHOTO DOCUMENTATION OF ALL ADJACENT PROPERTY CONDITIONS PRIOR TO CONSTRUCTION.
5. ALL FENCES WITHIN THE BLOCK 8 ALLEY RIGHT-OF-WAY TO BE REMOVED AND RELOCATED OUTSIDE OF THE RIGHT-OF-WAY.

UTILITY CONFLICT MATRIX		
JOB / CITY PROJECT NO.	HORIZONTAL CONTROL	
BLOCK 8 / 14-002	N: 773863.14	E: 955931.32
STATION(S), OFFSET(S)	UTILITY DESCRIPTION	ACTION
STA: 2+39.10, 6.68' RT	EXIST FPL TRANSMISSION POLE	TO REMAIN
STA: 2+84.53, 1.45' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 3+43.90, 1.91' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA 4+35.64, 2.23' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 4+94.92, 3.97' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 4+96.61, 3.04' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 5+82.40, 1.85' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL

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NO.	DATE	REVISIONS	
		DESCRIPTION	BY

JOB NO. 41011004.07	DRAWN SCC
TOTAL SHEETS 12	DESIGNED SCC
DATE 4/30/14	CHECKED BUL
SCALE 1" = 20'	QC JWR

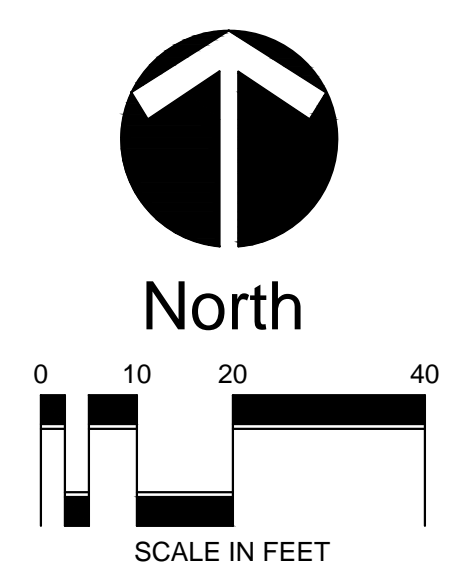
ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

PROJECT:
BLOCK 8 ALLEY IMPROVEMENTS

TASK:
BLOCK 8 ALLEY EXISTING CONDITIONS

ISSUED FOR BID

SHEET:
C-1



LEGEND

- EXIST. POWER POLE \emptyset
- EXIST. DRAINAGE --- D ---
- EXIST. OVERHEAD LINES --- OH ---
- EXIST. SANITARY --- S ---
- EXIST. TELEPHONE --- BT ---
- EXIST. WATER MAIN --- W ---

ABBREVIATIONS

- | | |
|------------|----------------------|
| CONC. | CONCRETE |
| E | EAST |
| EL., ELEV. | ELEVATION |
| EOP | EDGE OF PAVEMENT |
| EXIST, EX | EXISTING |
| HP | HIGH-POINT (GRADING) |
| INV | INVERT |
| LT | LEFT |
| N | NORTH |
| OH | OVERHEAD ELECTRIC |
| OS | OFFSET |
| RT | RIGHT |
| R/W | RIGHT-OF-WAY |
| SAN | SANITARY |
| SP | SAMPLE POINT |
| STA | STATION |
| S/W | SIDEWALK |
| TYP | TYPICAL |
| WM | WATER MAIN |

GENERAL NOTES:

- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- ALL EXISTING TREES, SHRUBS, ASPHALT, ABOVE GROUND FEATURES ETC. LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETELY REMOVED AND LEGALLY DISPOSED.
- ALL STAGING AND CONSTRUCTION ACTIVITIES ARE NOT TO BE PLACED ON PRIVATE PROPERTY WITHOUT PROPER CONSENT.
- CONTRACTOR SHALL PROVIDE PHOTO DOCUMENTATION OF ALL ADJACENT PROPERTY CONDITIONS PRIOR TO CONSTRUCTION.
- ALL FENCES WITHIN THE BLOCK 8 ALLEY RIGHT-OF-WAY TO BE REMOVED AND RELOCATED OUTSIDE OF THE RIGHT-OF-WAY.

MATCHLINE STA 6+44.10

UTILITY CONFLICT MATRIX		
JOB / CITY PROJECT NO.	HORIZONTAL CONTROL	BEARING & DISTANCE
BLOCK 8 / 14-002	N: 774363.65 E: 955744.21	N 89°32'16" W, 350.00'
STATION(S), OFFSET(S)	UTILITY DESCRIPTION	ACTION
STA: 16+27.09 TO STA: 19+19.18	EXIST 2" WM	TO BE REMOVED
STA: 16+62.31, 6.03' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 16+70.58, 0.68' LT	EX. SAN MANHOLE	RIM TO BE ADJUSTED
STA 16+86.72, 6.36' RT	EX. UTILITY DIST. POLE & JUNCTION BOX	TO BE RELOCATED BY FPL
STA: 17+78.09, 6.95' RT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 18+95.14, 3.48' LT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 19+21.52, 7.33' LT	EXIST UTILITY DISTRBUTION POLE	TO BE RELOCATED BY FPL
STA: 19+38.64, 1.12' RT	EX. SAN MANHOLE	TO REMAIN

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PROJECT: BLOCK 8 ALLEY IMPROVEMENTS
TASK: BLOCK 8 ALLEY EXISTING CONDITIONS

ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

CAD BLOCK 8.DWG
JOB NO. 41011004.07
TOTAL SHEETS 12
DATE 4/30/14
SCALE 1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION	BY

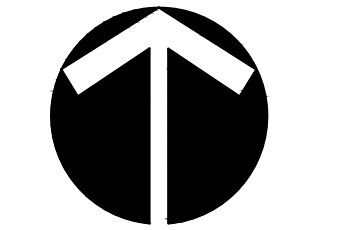
ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

SCALE 1" = 20'

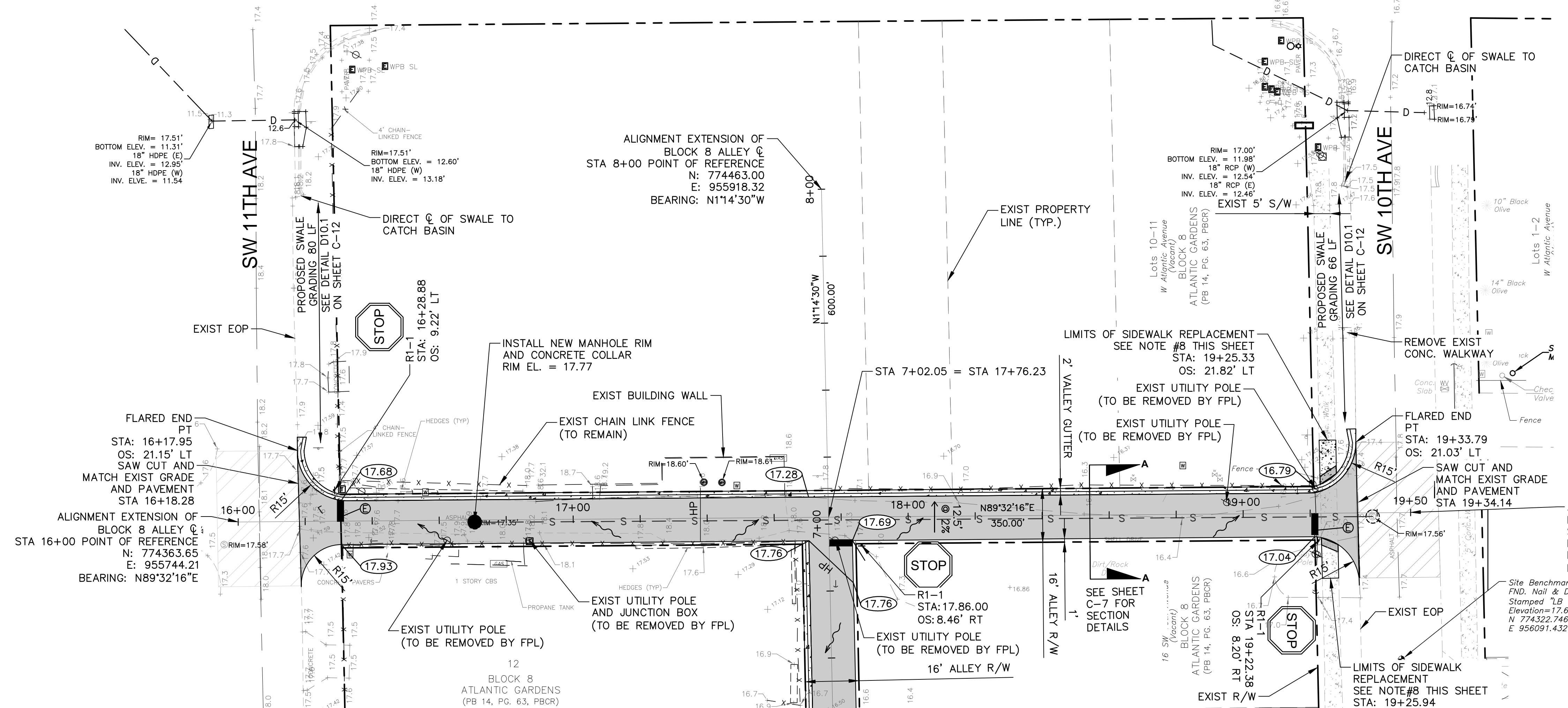
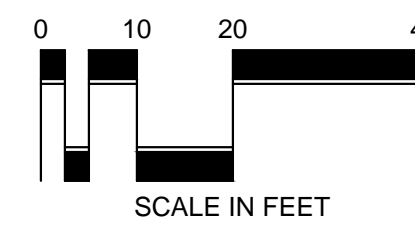
ISSUED FOR BID

SHEET:
C-2

SR-806 (W ATLANTIC AVE.)



North



LEGEND

PROPOSED ASPHALT PAVEMENT	EXIST. POWER POLE	Ø
MILL AND RESURFACE	EXIST. DRAINAGE	---
	EXIST. OVERHEAD LINES	OH ---
	EXIST. SANITARY	S ---
	EXIST. TELEPHONE	BT ---
	EXIST. WATER MAIN	W ---
	PROPOSED GRADE	(17.14)
	DRAINAGE FLOW ARROW	→
	DETECTABLE WARNING	▬

ABBREVIATIONS

CONC.	CONCRETE
E	EAST
EL., ELEV.	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST, EX	EXISTING
HP	HIGH-POINT (GRADING)
INV	INEVRT
LT	LEFT
N	NORTH
OH	OVERHEAD ELECTRIC
OS	OFFSET
RT	RIGHT
R/W	RIGHT-OF-WAY
SAN	SANITARY
SP	SAMPLE POINT
STA	STATION
S/W	SIDEWALK
TYP	TYPICAL
WM	WATER MAIN

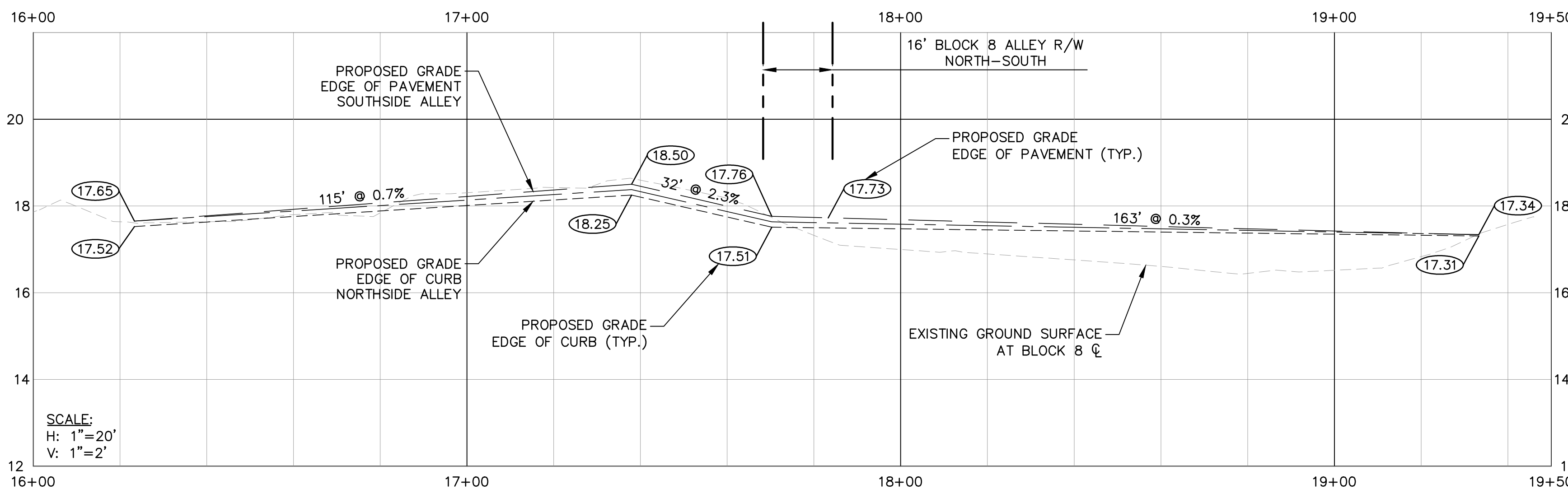
PAVEMENT MARKING

- Ⓐ 6" SOLID WHITE
- Ⓑ 6" SKIP WHITE (2'-4')
- Ⓒ 12" SOLID WHITE
- Ⓓ 24" SOLID WHITE
- Ⓔ 6" DOUBLE YELLOW
- Ⓕ 6" SKIP WHITE (6'-10')

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL EXISTING TREES, SHRUBS, ABOVE GROUND FEATURES ETC. WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED.
3. ALL STAGING AND CONSTRUCTION ACTIVITIES ARE NOT TO BE PLACED ON PRIVATE PROPERTY WITHOUT PROPER CONSENT.
4. CONTRACTOR SHALL PROVIDE PHOTO DOCUMENTATION OF ALL ADJACENT PROPERTY CONDITIONS PRIOR TO CONSTRUCTION.
5. FOR SWALE SECTIONS AND DETAILS SEE SHEET C-12.
6. ALL PAVEMENT MARKINGS SHALL COMPLY WITH THE CITY OF DELRAY BEACH STANDARD DETAILS RT8.1A & RT8.1B. IF THE CITY DETAIL IS NOT APPLICABLE, REFER TO THE LATEST EDITION OF THE MUTCD.
7. ALL TRAFFIC SIGNS SHALL COMPLY WITH THE LATEST EDITION OF THE MUTCD.
8. SIDEWALK REPLACEMENT SHALL EXTEND A MINIMUM OF 10 LF OR TO THE NEAREST JOINT.

MATCHLINE STA 6+44.10



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West Palm Beach, FL 33411
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NO.	DATE	REVISIONS	DESCRIPTION

CAD BLOCK	8.DWG
JOB NO.	41011004.07
TOTAL SHEETS	12
DATE	4/30/14
SCALE	1" = 20'
DRAWN	SCC
DESIGNED	SCC
CHECKED	BUL
OC	JWR

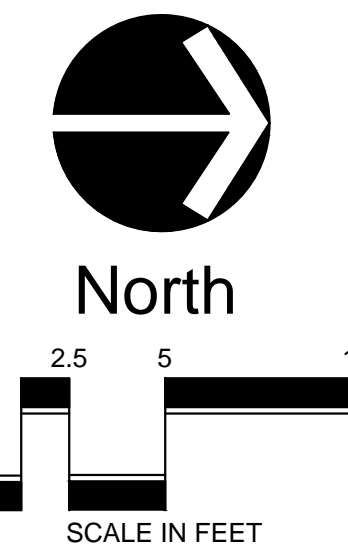
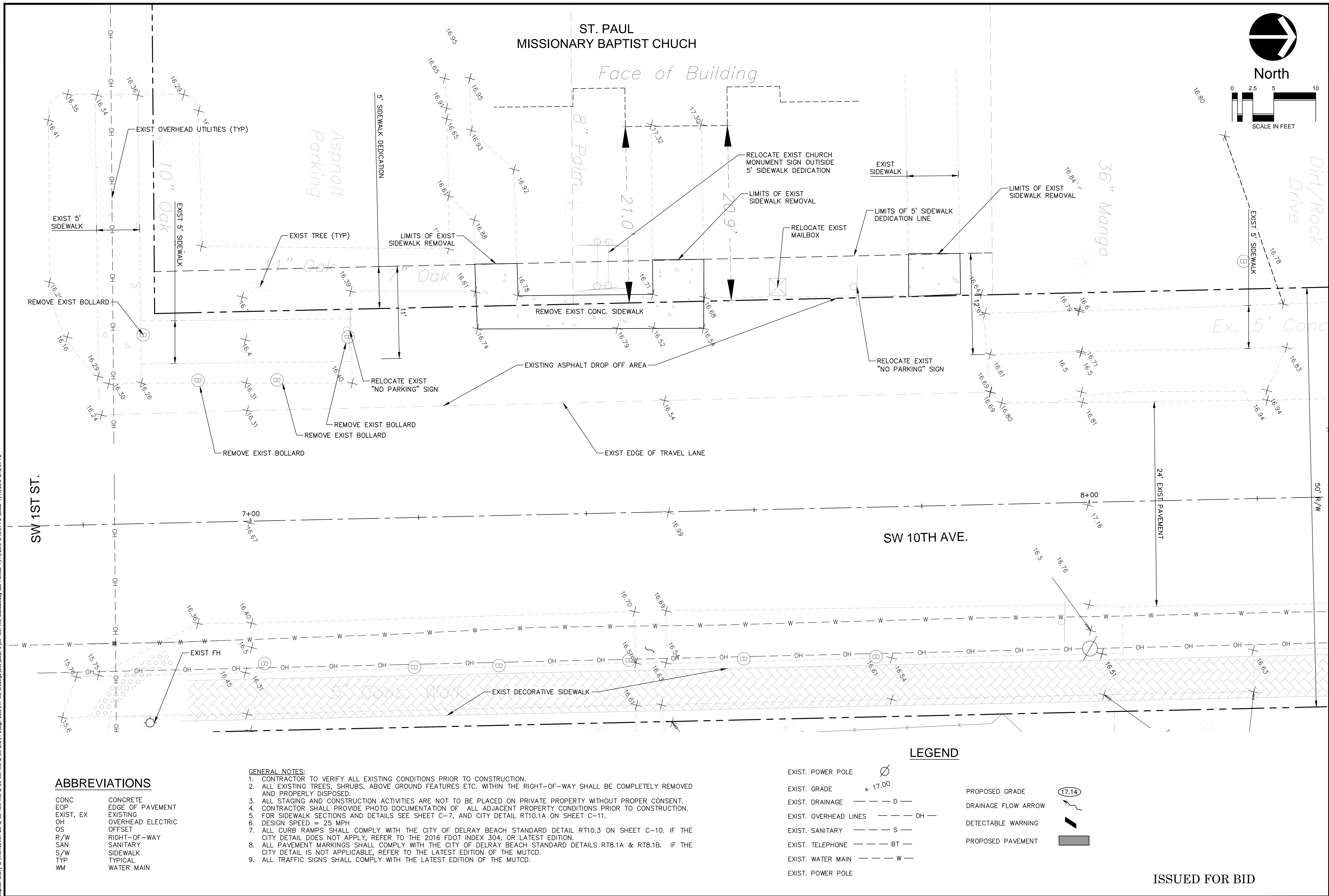
ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

PROJECT: **BLOCK 8 ALLEY IMPROVEMENTS**

TASK: **BLOCK 8 ALLEY IMPROVEMENTS**

SHEET: **C-4**

ISSUED FOR BID



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West Palm Beach, FL 33411
Phone No. 561.687.2220
Fax No. 561.687.1110
Cert. No. 6091 - L.B. No. 7055

IGWGI
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NO.	DATE	DESCRIPTION

CAO SW 10TH AVE SIDEWALK.DWG	SCALE	1" = 5'
JOB NO. 41011004.07	DRAWN	SCC
TOTAL SHEETS 12	DESIGNED	SCC
DATE 4/30/14	CHECKED	BUL
		JWR

ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

PROJECT: BLOCK 8 ALLEY IMPROVEMENTS
TASK: SW 10TH AVE EXISTING CONDITIONS

SHEET: C-5

ABBREVIATIONS

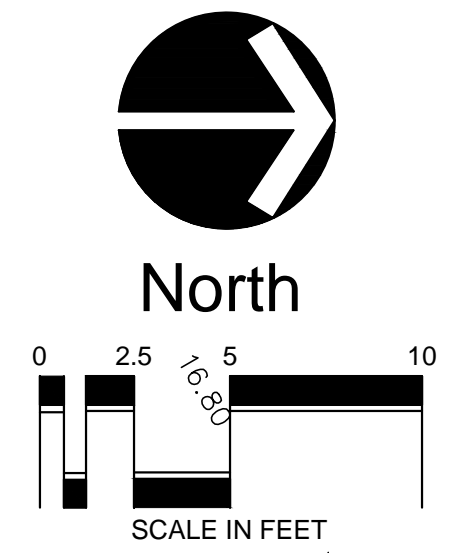
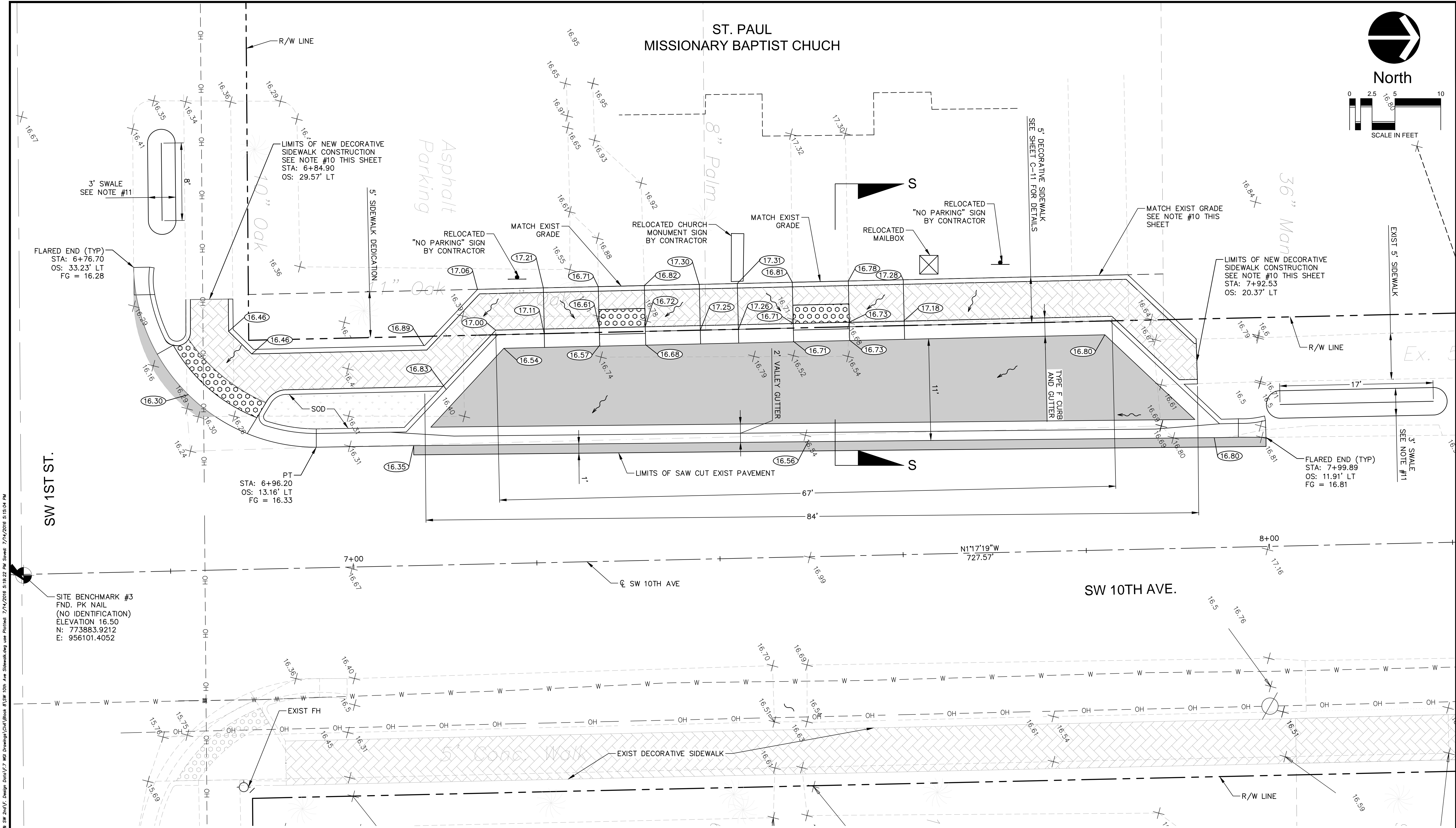
CONC	CONCRETE
EOP	EDGE OF PAVEMENT
EXIST, EX	EXISTING
OH	OVERHEAD ELECTRIC
OS	OFFSET
R/W	RIGHT-OF-WAY
SAN	SANITARY
S/W	SIDEWALK
TYP	TYPICAL
WM	WATER MAIN

- GENERAL NOTES:**
1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
 2. ALL EXISTING TREES, SHRUBS, ABOVE GROUND FEATURES ETC. WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED.
 3. ALL STAGING AND CONSTRUCTION ACTIVITIES ARE NOT TO BE PLACED ON PRIVATE PROPERTY WITHOUT PROPER CONSENT.
 4. CONTRACTOR SHALL PROVIDE PHOTO DOCUMENTATION OF ALL ADJACENT PROPERTY CONDITIONS PRIOR TO CONSTRUCTION.
 5. FOR SIDEWALK SECTIONS AND DETAILS SEE SHEET C-7, AND CITY DETAIL RT10.1A ON SHEET C-11.
 6. DESIGN SPEED = 25 MPH
 7. ALL CURB RAMP SHALL COMPLY WITH THE CITY OF DELRAY BEACH STANDARD DETAIL RT10.3 ON SHEET C-10. IF THE CITY DETAIL DOES NOT APPLY, REFER TO THE 2016 FDOT INDEX 304, OR LATEST EDITION.
 8. ALL PAVEMENT MARKINGS SHALL COMPLY WITH THE CITY OF DELRAY BEACH STANDARD DETAILS RT8.1A & RT8.1B. IF THE CITY DETAIL IS NOT APPLICABLE, REFER TO THE LATEST EDITION OF THE MUTCD.
 9. ALL TRAFFIC SIGNS SHALL COMPLY WITH THE LATEST EDITION OF THE MUTCD.

LEGEND

EXIST. POWER POLE	⊙	PROPOSED GRADE	(17.14)
EXIST. GRADE	+ 17.00	DRAINAGE FLOW ARROW	↗
EXIST. DRAINAGE	--- D ---	DETECTABLE WARNING	▬
EXIST. OVERHEAD LINES	--- OH ---	PROPOSED PAVEMENT	▬
EXIST. SANITARY	--- S ---		
EXIST. TELEPHONE	--- BT ---		
EXIST. WATER MAIN	--- W ---		
EXIST. POWER POLE			

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NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION	BY

NO.	DATE	DESCRIPTION	BY

NO.	DATE	DESCRIPTION	BY

SHEET: C-6

ISSUED FOR BID

ABBREVIATIONS

CONC	CONCRETE
EOP	EDGE OF PAVEMENT
EXIST, EX	EXISTING
OH	OVERHEAD ELECTRIC
OS	OFFSET
R/W	RIGHT-OF-WAY
SAN	SANITARY
S/W	SIDEWALK
TYP	TYPICAL
WM	WATER MAIN

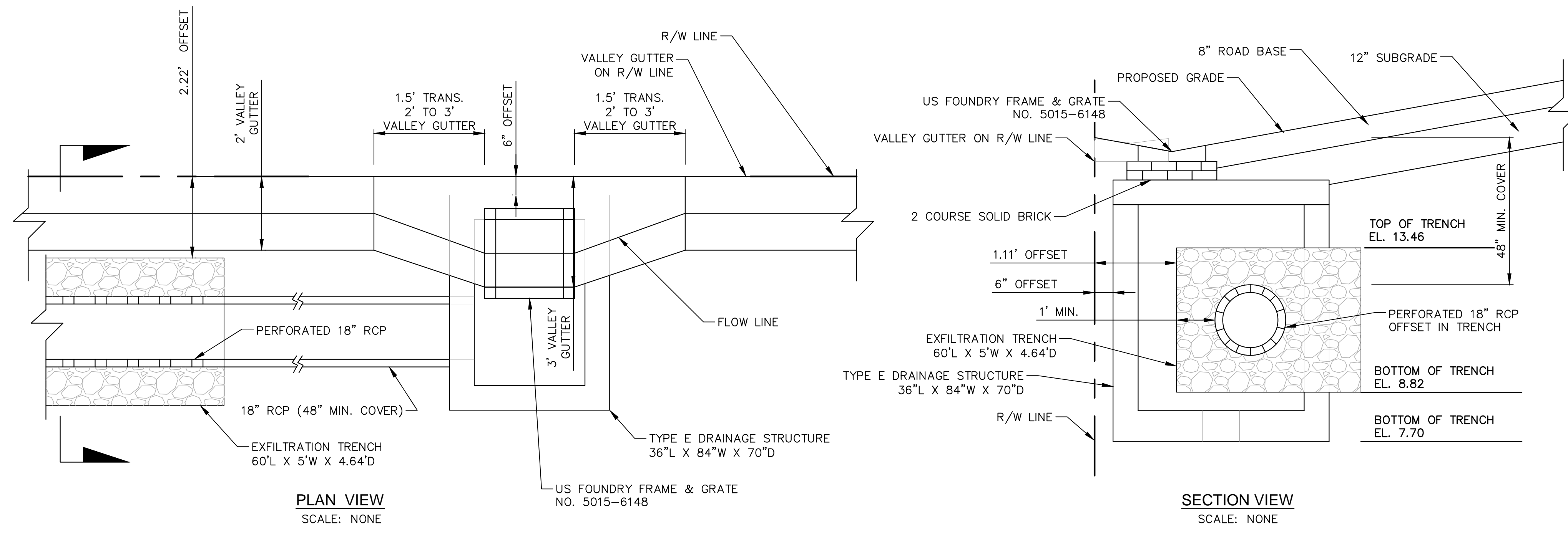
GENERAL NOTES:

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2. ALL EXISTING TREES, SHRUBS, ABOVE GROUND FEATURES ETC. WITHIN THE RIGHT-OF-WAY SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED.
3. ALL STAGING AND CONSTRUCTION ACTIVITIES ARE NOT TO BE PLACED ON PRIVATE PROPERTY WITHOUT PROPER CONSENT.
4. CONTRACTOR SHALL PROVIDE PHOTO DOCUMENTATION OF ALL ADJACENT PROPERTY CONDITIONS PRIOR TO CONSTRUCTION.
5. FOR SIDEWALK SECTIONS AND DETAILS SEE SHEET C-7, AND CITY DETAIL RT10.1A ON SHEET C-11.
6. DESIGN SPEED = 25 MPH
7. ALL CURB RAMPS SHALL COMPLY WITH THE CITY OF DELRAY BEACH STANDARD DETAIL RT10.3 ON SHEET C-10. IF THE CITY DETAIL DOES NOT APPLY, REFER TO THE 2016 FDOT INDEX 304, OR LATEST EDITION.
8. ALL PAVEMENT MARKINGS SHALL COMPLY WITH THE CITY OF DELRAY BEACH STANDARD DETAILS RT8.1A & RT8.1B. IF THE CITY DETAIL IS NOT APPLICABLE, REFER TO THE LATEST EDITION OF THE MUTCD.
9. ALL TRAFFIC SIGNS SHALL COMPLY WITH THE LATEST EDITION OF THE MUTCD.
10. EXISTING SIDEWALK REPLACEMENT TO MATCH EXISTING GRADE SHALL EXTEND A MINIMUM OF 10 LF OR TO THE NEAREST JOINT TO ENSURE ALL SIDEWALKS SHALL MEET THE MINIMUM A.D.A. REQUIREMENTS.
11. FOR SWALE SECTION SEE SHEET C-12.

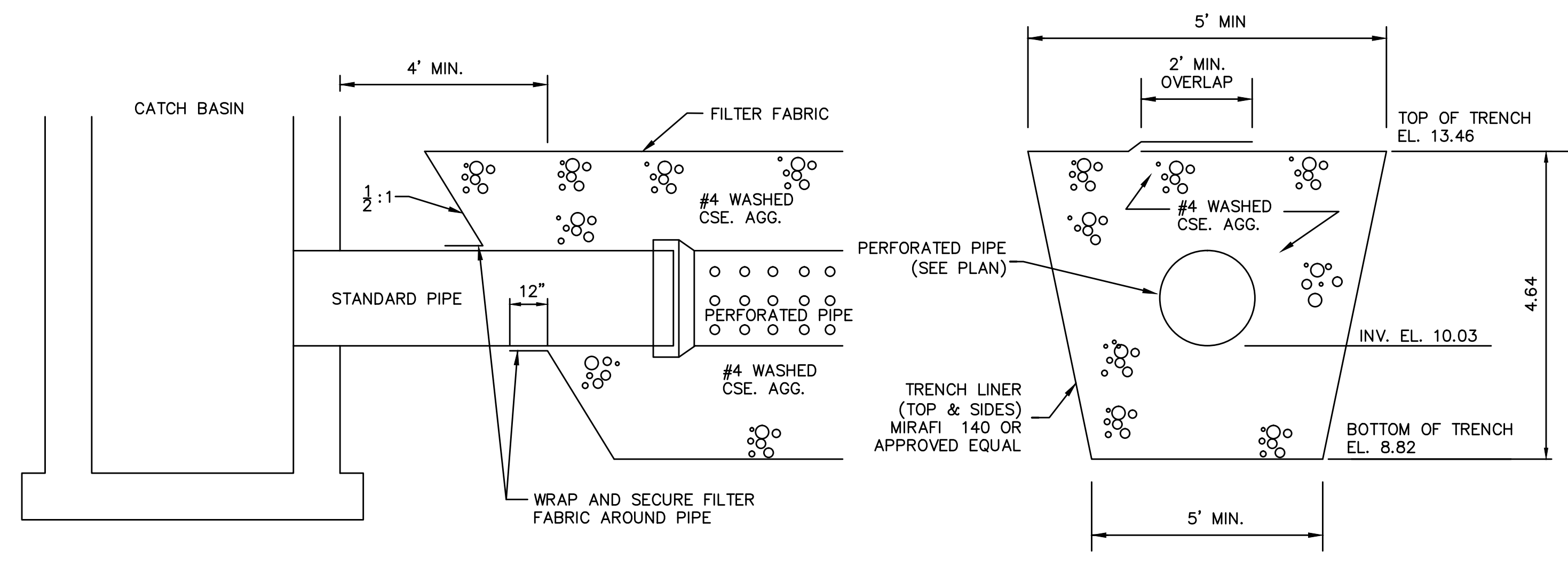
LEGEND

EXIST. POWER POLE		PROPOSED GRADE	
EXIST. DRAINAGE		DRAINAGE FLOW ARROW	
EXIST. OVERHEAD LINES		DETECTABLE WARNING	
EXIST. SANITARY		PROPOSED PAVEMENT	
EXIST. TELEPHONE			
EXIST. WATER MAIN			

Stephen Cheny S:\101004\07_Blk_8_SW 10th Ave & SW 1st St - SW 10th Ave Sidewalk.dwg User: brianj.lamotte Date: 7/14/2016 5:19:22 PM Sheet: 7/14/2016 5:19:22 PM



DRAINAGE INLET DESIGN
SCALE: NONE



EXFILTRATION TRENCH
SCALE: NONE

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NO.	DATE	REVISIONS DESCRIPTION	BY

CAD BLOCK	8	DETAILS.DWG	
JOB NO.	41011004.07	DRAWN	SCC
TOTAL SHEETS	12	DESIGNED	SCC
DATE	4/30/14	CHECKED	B/JL
SCALE	N/A	QC	JWR

ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

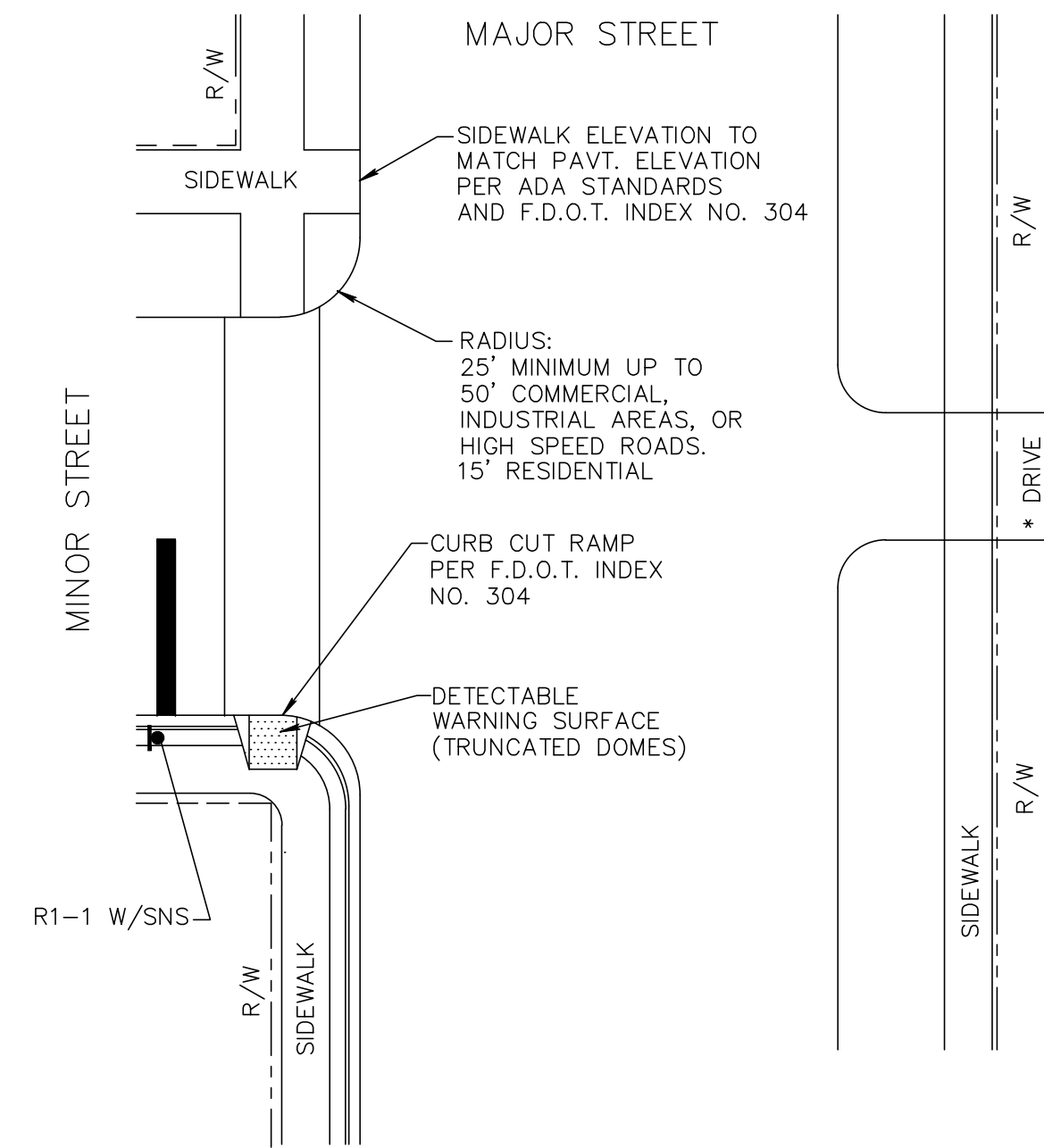
PROJECT:
BLOCK 8 ALLEY IMPROVEMENTS

TASK:
EXFILTRATION TRENCH DETAIL

SHEET:
C-8

ISSUED FOR BID

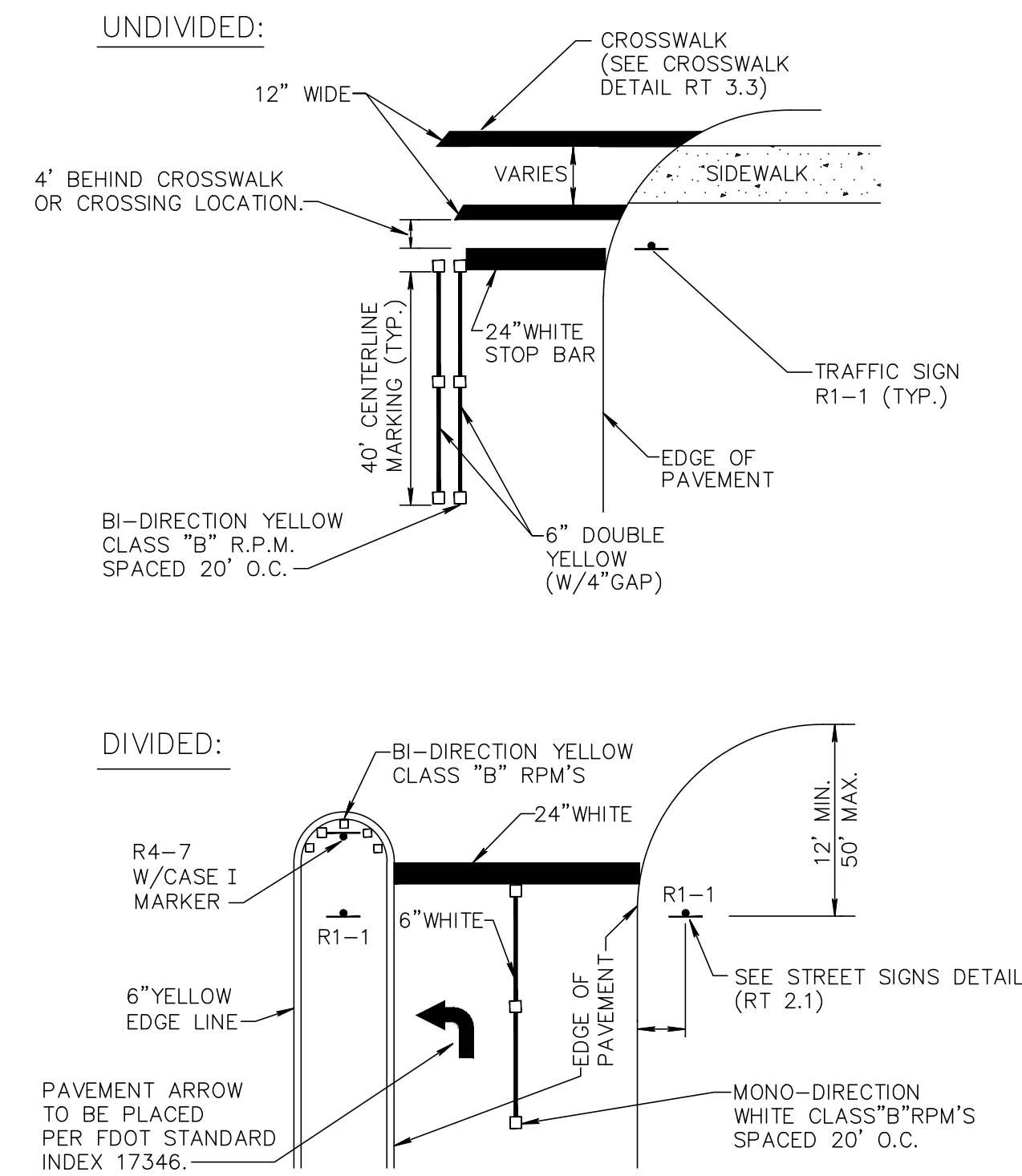
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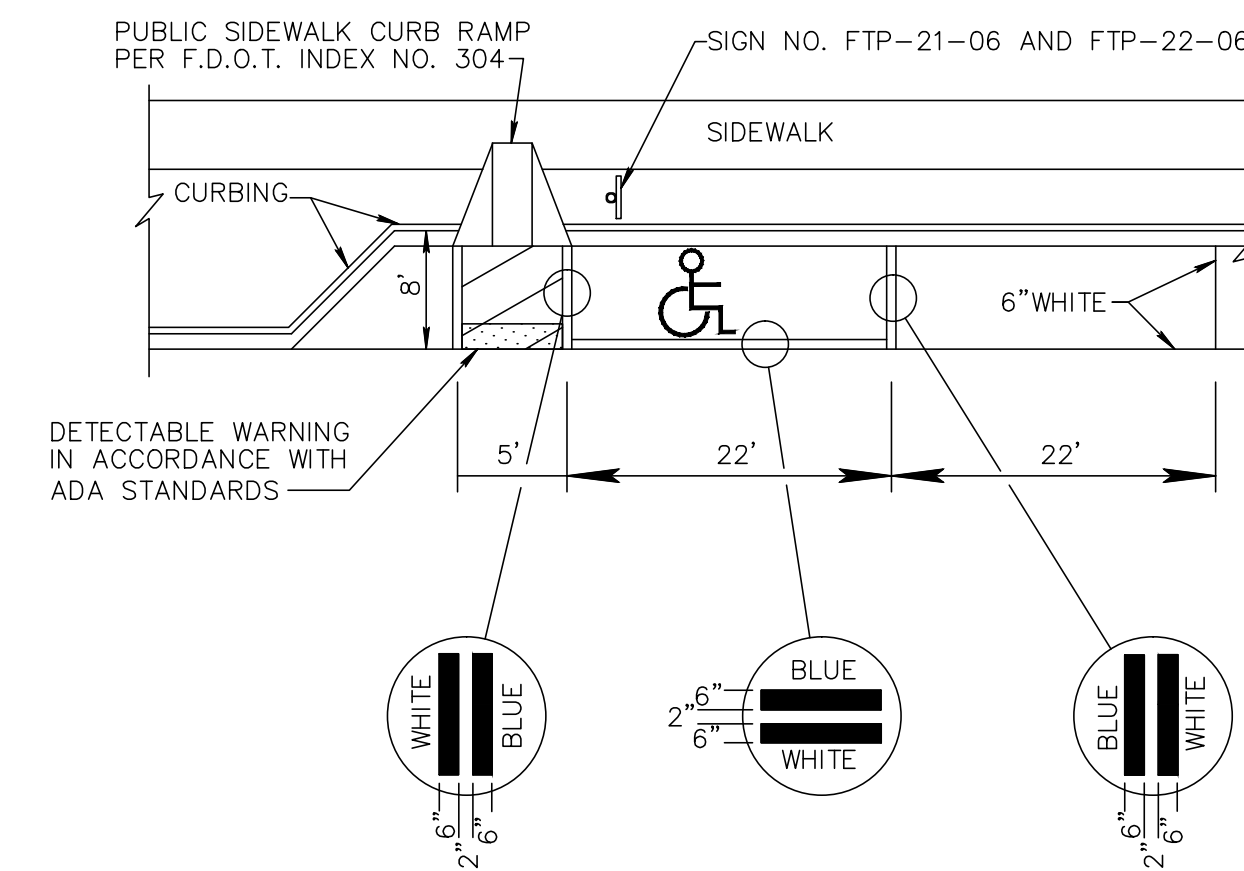
* DRIVEWAY DESIGN TO BE PER CITY LAND DEVELOPMENT REGULATIONS, FDOT STANDARD SPECIFICATIONS. ALL DESIGNS SUBJECT TO CITY ENGINEER APPROVAL.

* ALL WALKS CROSSING A VEHICULAR AREA SHALL HAVE A DETECTABLE WARNING SURFACE (TRUNCATED DOME) IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, CHAPTER II, FL. ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.

FLORIDA INTERSECTION DETAIL RT 3.1



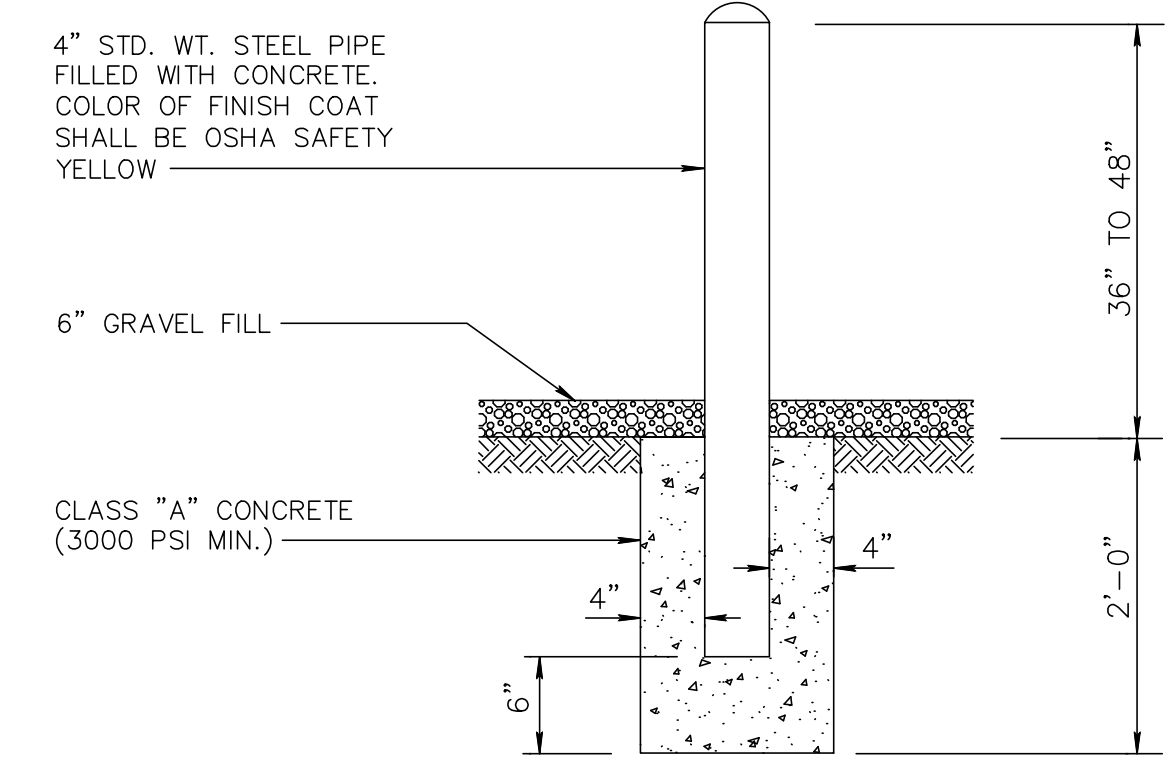
INTERSECTION TRAFFIC CONTROL STOP CONDITION DETAIL RT 3.2



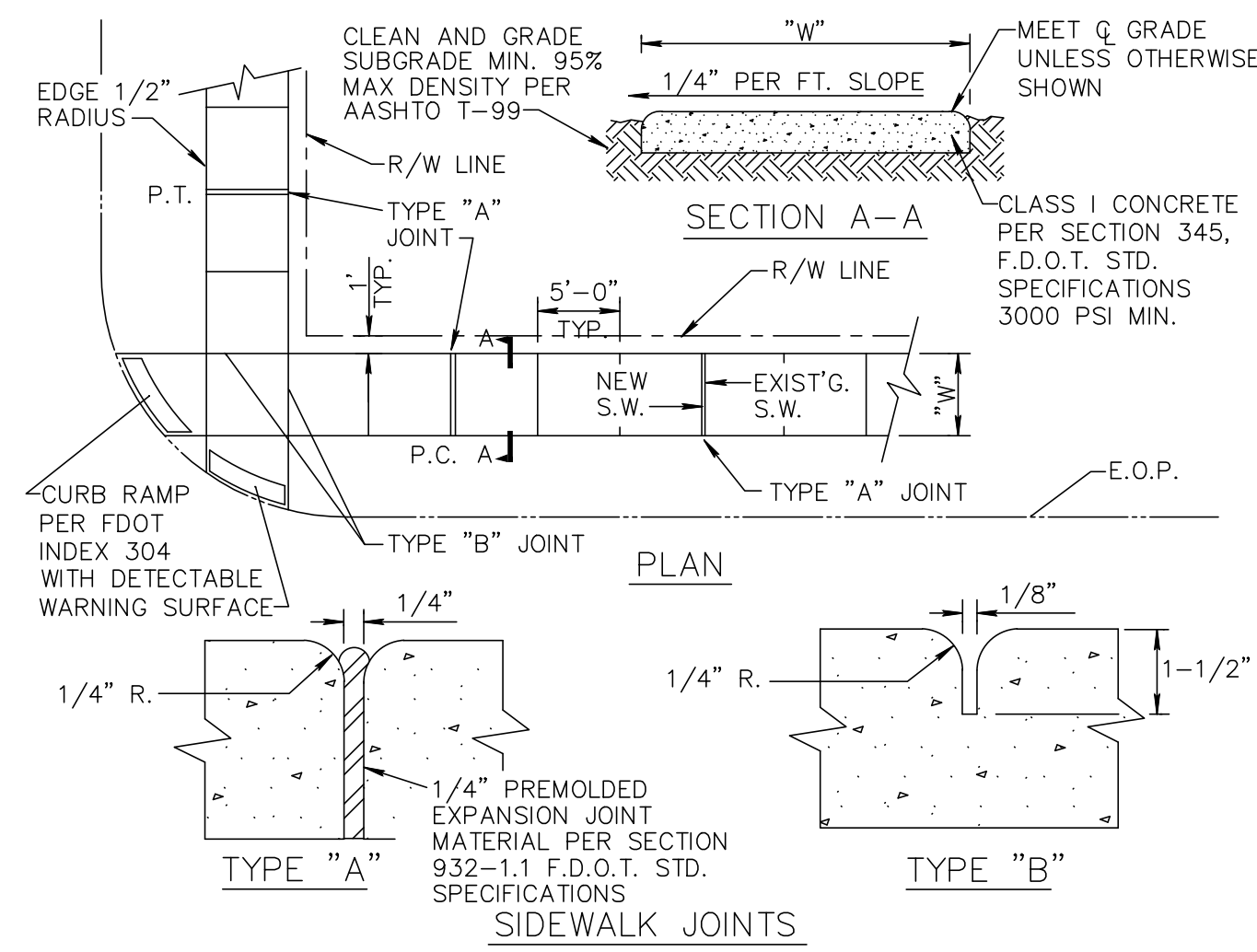
NOTE:

- HANDICAPPED PARKING SPACE MUST BE FIRST OR LAST PARALLEL PARKING SPACE IN THE ROW. ADJACENT TO LANDSCAPE ISLAND. IF SPACE IS AT THE FRONT OF PARKING ROW ACCESS PANEL MUST BE IN FRONT OF CAR AND IF SPACE IS AT THE END OF PARKING ROW ACCESS PANEL MUST BE AT THE REAR OF CAR.
- WHEN PARKING SPACE IS ADJACENT TO LANDSCAPE ISLAND SPACE MAYBE REDUCED TO 20' FROM THE STANDARD 22' LENGTH.

TYPICAL PARKING SPACES (3 OF 3) DETAIL RT 4.2c



BOLLARD DETAIL PW 5.2



NOTE:

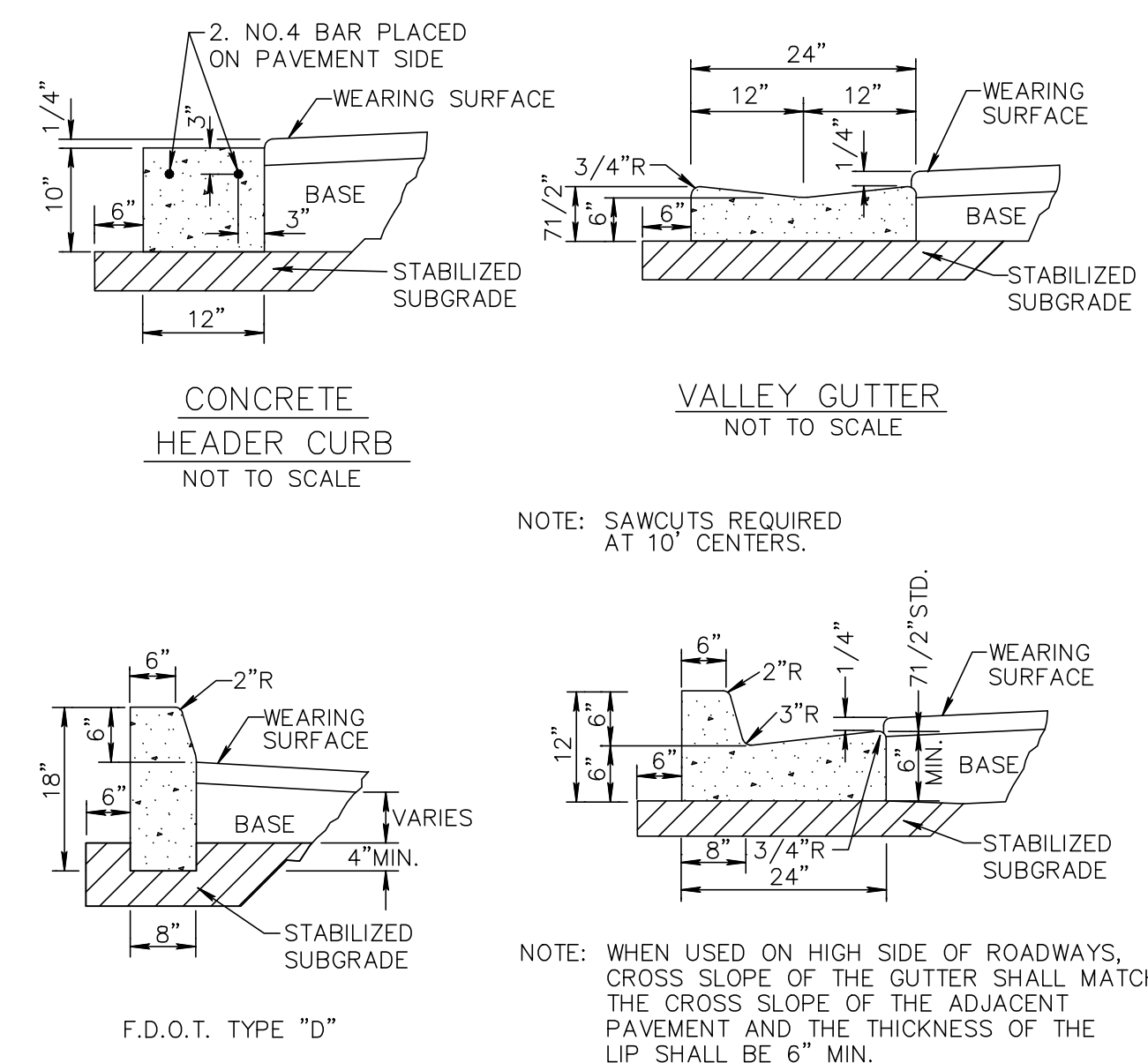
- ALL SIDEWALKS SHALL BE CONSTRUCTED THRU DRIVEWAYS.
- ALL SIDEWALKS SHALL INCLUDE ADA COMPLIANT RAMPS @ INTERSECTIONS.
- ALL SIDEWALKS SHALL INCLUDE CROSS SLOPE AND RUNNING SLOPE IN ACCORDANCE WITH ADA REQUIREMENTS.
- CURB RAMP DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH OF THE RAMP AND 24\"/>

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.

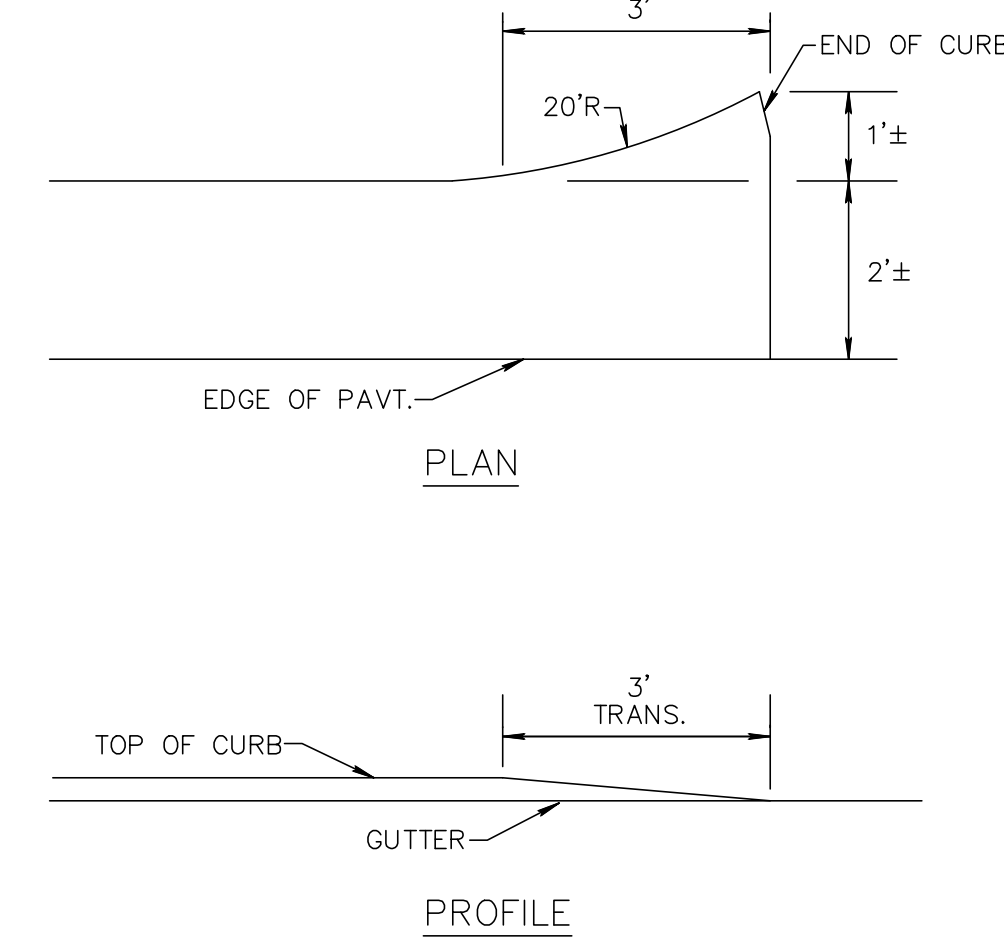
SIDEWALK CONSTRUCTION RT 5.1



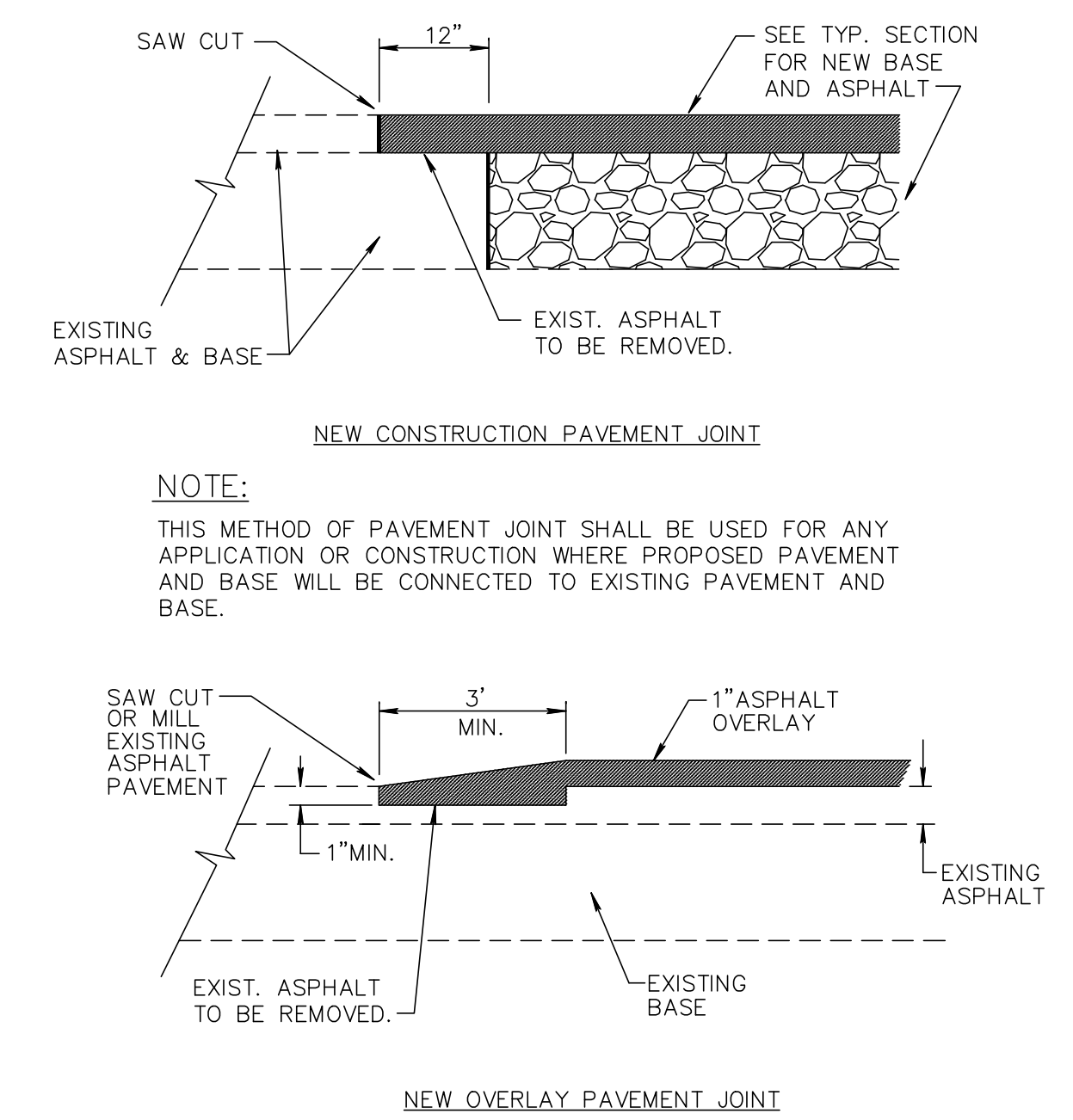
CURB AND GUTTER SECTIONS RT 6.1

NOTES:

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



FLARED END FOR CURB AND GUTTER DETAIL RT 6.2



PAVEMENT JOINT DETAIL RT 7.1

ISSUED FOR BID



NO.	DATE	REVISIONS DESCRIPTION

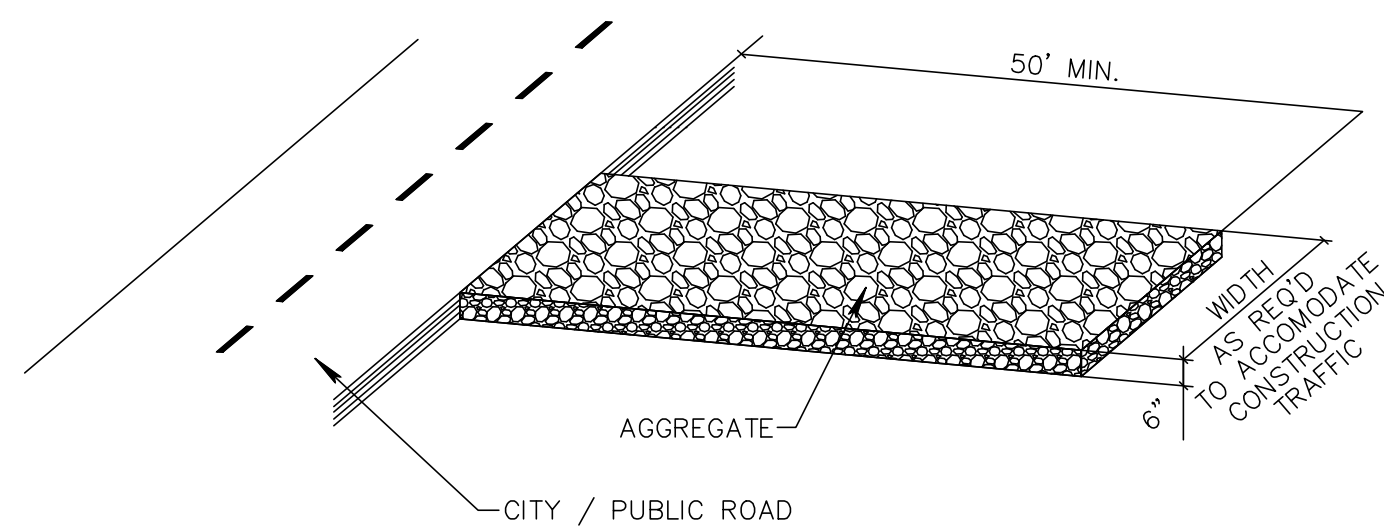
CAD BLOCK	8 DETAILS.DWG	SCALE	N/A	QC	JWR
JOB NO.	41011004.07	DRAWN	SCC		
TOTAL SHEETS	12	DESIGNED	SCC		
DATE	4/30/14	CHECKED	BUL		

ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

PROJECT:
BLOCK 8 ALLEY IMPROVEMENTS

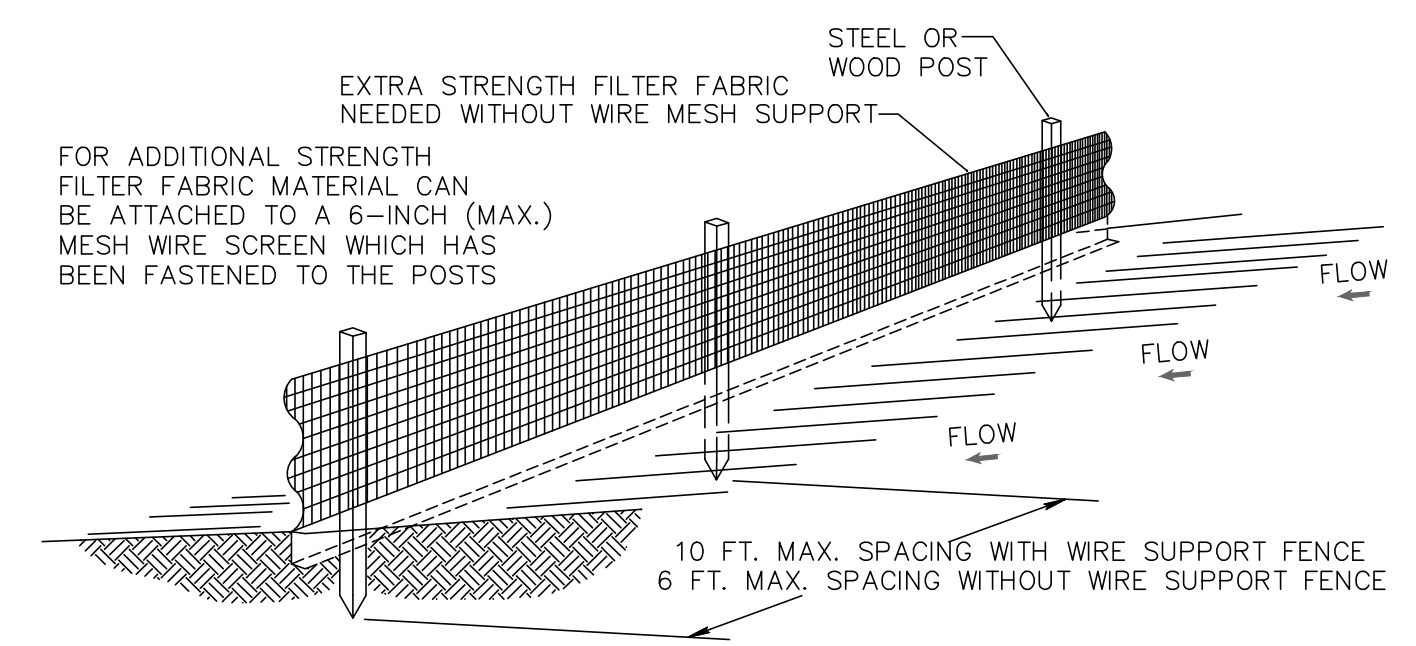
TASK:
CITY DELRAY BEACH DETAILS

SHEET:
C-9



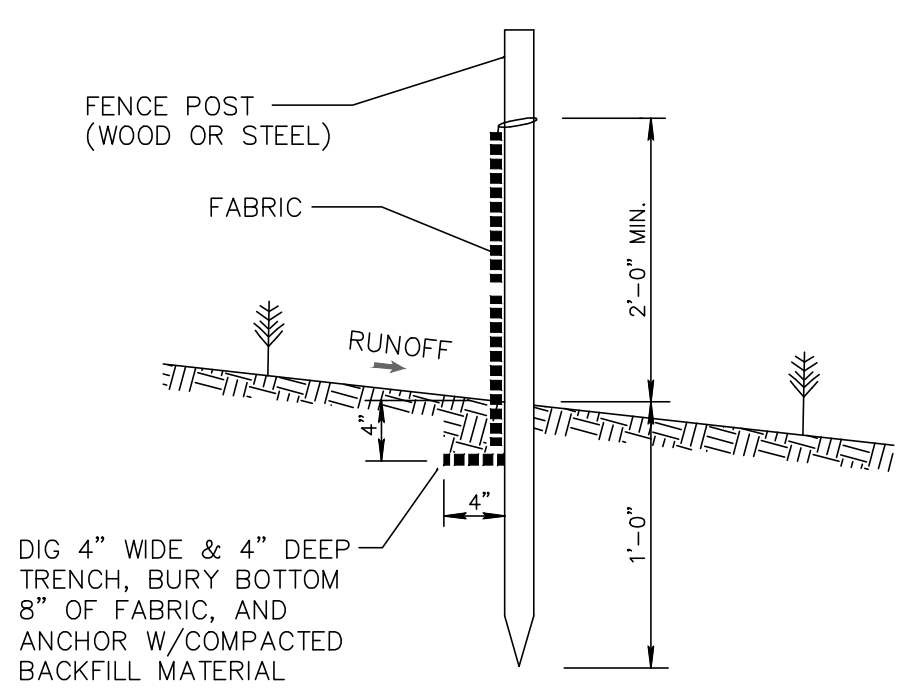
NOTE:
A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AND CONTAIN AN AGGREGATE LAYER (FDOT AGGREGATE NO.1), AT LEAST 6-INCHES THICK. IT MUST EXTEND TO THE WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA.

STABILIZED CONSTRUCTION ENTRANCE DETAIL D9.1C

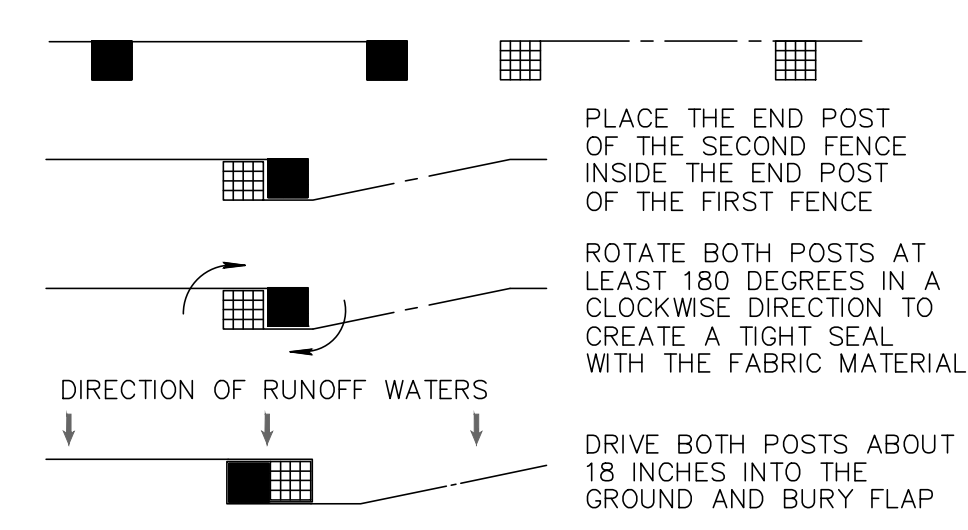


- NOTES:**
1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (90 CM).
 2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
 3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3 M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY 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 FDEP.

SILT FENCE INSTALLATION DETAIL D 9.1a
Sheet 1 of 2

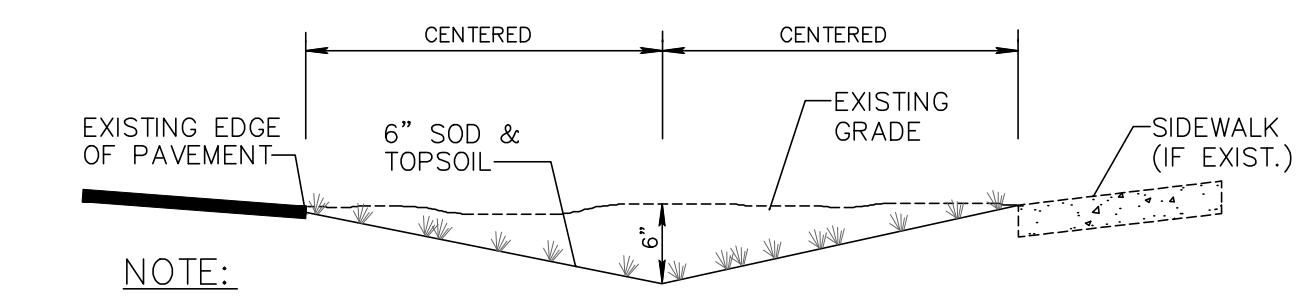


SILT FENCE SECTION
NOT TO SCALE



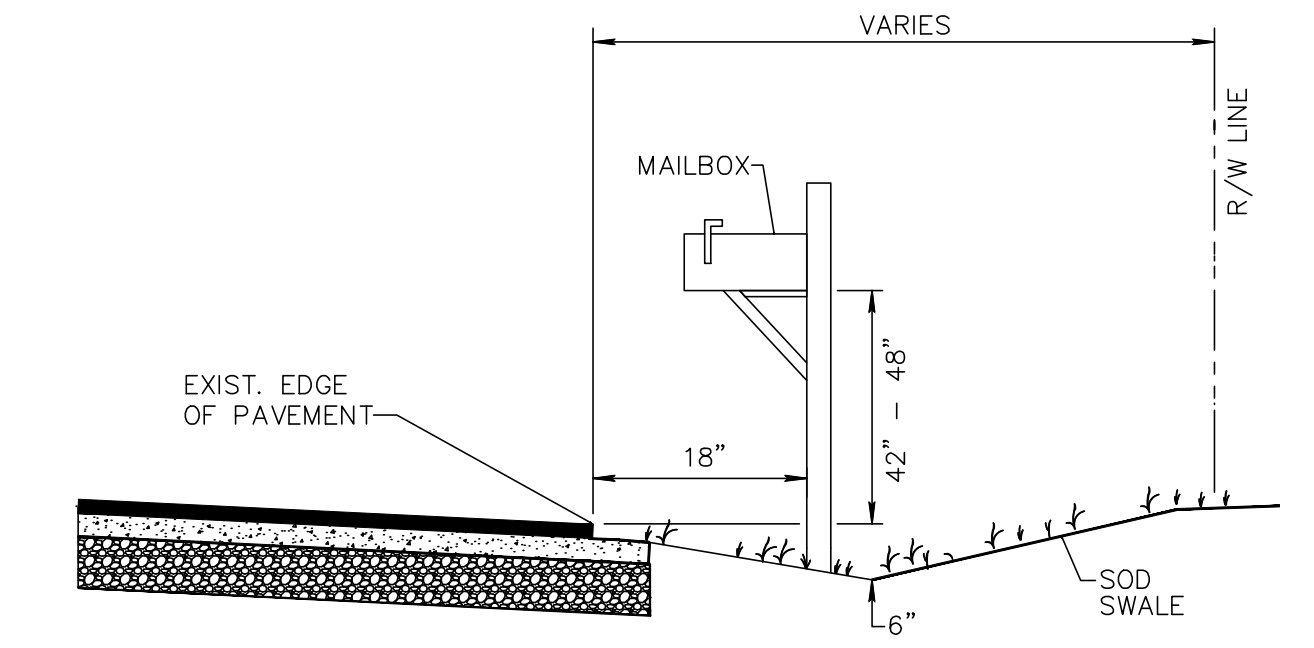
ATTACHING TWO SILT FENCES
NOT TO SCALE

SILT FENCE INSTALLATION DETAIL D 9.1b
Sheet 2 of 2



- NOTE:**
1. CONTRACTOR TO REPLACE ALL IRRIGATION, TREES & SHRUBBERY IN SWALES DAMAGED DURING CONSTRUCTION.

SWALE REPLACEMENT DETAIL D10.1



NOT TO SCALE
TYPICAL MAIL BOX RELOCATION AND 6" SODDED SWALE DETAIL D 10.2

2035 Vista Parkway
West Palm Beach, FL 33411
Phone No. 561.687.2220
Fax No. 561.687.1110
Cert. No. 6091 - LB No. 7055

WGI
ENGINEERING // SURVEYING // ENVIRONMENTAL // PLANNING

NO.	DATE	REVISIONS DESCRIPTION	BY

CAD BLOCK	8	DETAILS.DWG	JOB NO.	41011004.07	DRAWN	SCC	TOTAL SHEETS	12	DESIGNED	SCC	DATE	4/30/14	CHECKED	BUL	SCALE	N/A	QC	JWR

ENGINEER OF RECORD
BRIAN J. LAMOTTE, P.E.
PE# 41074

PROJECT:
BLOCK 8 ALLEY IMPROVEMENTS
TASK:
CITY OF DELRAY BEACH DETAILS

SHEET:
C-12

ISSUED FOR BID

Stephen Cherry S:\101004\07_Blk_8_SW_10th_Ave_&_3rd_2nd_V7_Design_Draft_V7_WG_Drawing\Civil\Block_8_Details.dwg use Plotter: 7/14/2016 5:26:27 PM Saved: 7/14/2016 10:14:08 AM

**APPENDIX D
SAMPLE AGREEMENT**

[Remainder of page intentionally left blank]

SAMPLE

**APPENDIX D
SAMPLE AGREEMENT**

THIS AGREEMENT is dated as of the _____ day of _____, 20____, by and between the City OF DELRAY BEACH, FLORIDA, hereinafter called the City, and _____, hereinafter called Contractor.

OWNER and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK.

Contractor shall complete all Work as specified or indicated in the Contract Documents. For the project entitled:

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

Article 2. Consultant.

The Project has been designed by Wantman Group, Inc., who is hereinafter called Consultant and who will assume all duties and responsibilities and will have the rights and authority assigned to Consultant in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. ENTIRE AGREEMENT.

This Construction Contract, along with the Contract Documents consisting of the Agreement, M/WBE Program Requirements, Documents contained in the Project Manual, General and Supplementary Conditions, Addenda, Drawings, Specifications and modifications issued after execution of the Contract embodies the entire agreement between City and Contractor and supersedes all other writings, oral agreements or representations. The parties shall not be bound by or be liable for any statement, representation, promise, inducement or understanding of any kind or nature not set forth herein. NO CHANGES, AMENDMENTS OR MODIFICATIONS OF ANY OF THE TERMS OR CONDITIONS OF THE CONTRACT SHALL BE VALID UNLESS REDUCED TO WRITING AND SIGNED BY BOTH PARTIES.

Article 4. CONTRACT SUM.

The City shall pay, and the Contractor shall accept, as full and complete payment for the Contractor's timely performance of its obligations hereunder, the fixed price of _____, which shall constitute the Contract Price, which shall not be modified except by Change Order or by Unit Prices, if any, as provided in the Contract Documents.

[remainder of page left blank intentionally]

Article 5. CONTRACT TIME; LIQUIDATED DAMAGES.

- 5.1 The work will be substantially completed within ninety days from the date of the issuance of the Notice to Proceed, and completed and ready for final payment in accordance with the General Conditions within thirty calendar days from the date of Substantial Completion.
- 5.2 Liquidated Damages. The City and Contractor recognize that time is of the essence of this Agreement and that the City will suffer financial loss if the Work is not completed within the times specified in paragraph 5.1 above, plus any extensions thereof allowed in accordance with the General Conditions.

They also recognize that the actual loss suffered by the City if the Work is not completed on time is not readily ascertainable at the time of entering this Contract. Accordingly, instead of requiring any such proof, the City and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay the City five hundred dollars (\$500.00) for each day that expires after the time specified in Article 5, paragraph 5.1 for substantial completion until the Work is substantially complete. After Substantial Completion if Contractor shall neglect, refuse or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by the City, Contractor shall pay the City five hundred dollars (\$500.00) for each day that expires after the time specified in Article 5, paragraph 5.1 for completion and readiness for final payment. Contractor expressly acknowledges that such sum is not payable as a penalty but as liquidated damages representing a reasonable estimate of delay damages, inconvenience and additional overhead and costs likely to be sustained by the City, estimated at the time of executing the Contract. If the City reasonably believes in its discretion that Substantial Completion will be delayed, it shall be entitled, but not required to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. Partial use or occupancy of the Work shall not result in the Work deemed substantially completed, and such partial use or occupancy shall not be evidence of Substantial Completion.

Article 6. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with the General Conditions. Applications for Payment will be processed by the **Construction Management Technician** as provided in the General Conditions.

**Environmental Services Department
Main Administration Building
434 South Swinton Avenue
Delray Beach, Florida 33444**

Attention: Construction Management Technician

- 6.1 Progress Payments. The City shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Consultant, on or about the First day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values established in the General Conditions and in the case of Unit Price Work based on the number of units completed or, in the event there is no schedule of values, as provided in the General Requirements.
 - 6.1.1 Prior to Substantial Completion progress payments will be made in an amount equal to 90% of the work completed until 50% of the work has been completed and installed, then payment may be made in an amount equal to 95% of the work

completed, but in each case, less the aggregate of payments previously made and less such amounts as Consultant shall determine, or the City may withhold, in accordance with the General Conditions.

6.0.2. Prior to Substantial Completion, progress payments for materials and equipment not incorporated in the Work but delivered and suitably stored and accompanied by documentation satisfactory to the City, as provided in the General Conditions, will be made in an amount equal to **0%** as established by the schedule of values.

6.0.3 The City is entitled to withhold amounts due Contractor for any defective or non-conforming work or for liquidated damages.

6.2 Final Payment. Upon final completion and acceptance of the Work in accordance with the General Conditions, the City shall pay the remainder of the Contract Price as recommended by Consultant as provided in said paragraph 15.13.

Article 7. SUBCONTRACTS.

No more than 40% of dollar value of the total contract work may be accomplished by subcontractors. Balance of work must be accomplished by selected Contractor's own forces.

Article 8. Contractor's REPRESENTATIONS.

In order to induce the City to enter into this Agreement Contractor makes the following representations:

8.1 Contractor has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

8.2 Contractor has obtained at his/her own expense and carefully studied, or assumes responsibility for obtaining and carefully studying, soil investigations, explorations, and test reports which pertain to the subsurface conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as Contractor considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.

8.3 Contractor has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of the General Conditions

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

- 8.5 Contractor has given Consultant written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by Consultant is acceptable to Contractor.

Article 9. NO DAMAGES FOR DELAY.

- 9.1 All time in the Contract Documents is calculated on a consecutive calendar day basis.
- 9.2 Time is of the essence in this Contract, and any breach of same shall go to the essence hereof, and Contractor, in agreeing to complete the Work within the time herein mentioned, has taken into consideration and made allowances for all reasonable hindrances and delays incident to his work.
- 9.3 Contractor agrees to commence the Work when directed by the City and to diligently and continuously perform such Work and to coordinate the Work with other Work being performed on the Project by other trades so that the City shall not be delayed by any act or omission of Contractor in completion of the Project within the time specified above.
- 9.4 Contractor shall not be entitled to any claim for damages on account of hindrance or delays from any cause whatsoever, but if caused by any act of God or active interference on the part of the City, such act, hindrance or delay may only entitle the Contractor to receive an extension of time as its sole and exclusive remedy, as set forth in the General Conditions.
- 9.4.1 And extension of time to complete the Work shall be determined by the Consultant provided the Contractor provides Consultant and City with notice in writing of the cause of said act, hindrance or delay within twenty (20) days after its occurrence.
- 9.4.2 In the event the request for extension is not made in writing within that twenty day time period, Contractor acknowledges and agrees it has forever waived any and all rights to such an extension.
- 9.4.3 All extensions of time shall be authorized only by a written change order executed by the City, Consultant and Contractor; in the absence of a written and fully executed change order, Contractor shall not be entitled to any claim for additional time.
- 9.4.4 This "no damage for delay" provision shall encompass any damages for delay or disruption even if the Contractor completes construction of the Work in a timely fashion in accordance with this Contract.
- 9.4.5 Damages as referenced in this "no damage for delay" provision shall include any type of damages that are or could be awarded by any court or arbitration panel such as, by way of general example, but not limitation, tort, contract, strict liability, consequential damages, liquidated damages and/or punitive damages.
- 9.4.6 The Contractor recognizes and specifically acknowledges the terms and conditions of this "no damage for delay" clause upon execution of this Contract.

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

- 10.20. Addenda number ___ to ___, inclusive.
- 10.21. Documentation submitted by Contractor prior to Notice of Tentative Award (pages _____ to _____, inclusive).
- 10.22. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Agreement Documents pursuant to the General Conditions.
- 10.23. The documents listed in paragraph 10.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above). There are no Contract Documents other than those listed above in this Article 10. The Contract Documents may only be amended, modified or supplemented as provided in the General Conditions.

Article 11. INDEMNITY.

In consideration of Ten Dollars (\$10.00) in hand paid and other valuable consideration, receipt of which is hereby acknowledged, Contractor agrees to defend, indemnify and hold harmless the City, their agents and employees in accordance with the General Conditions which is incorporated herein and made a part hereof as if fully set forth herein. It is the specific intent of the parties hereto that the foregoing indemnification complies with Florida Statutes 725.06, as amended. It is further the specific intent and agreement of said parties that all of the Contract Documents on this Project are hereby amended to include the foregoing indemnification and the "Specific Consideration" therefore.

Article 12. REIMBURSEMENT OF Consultant EXPENSES.

Should the completion of this Contract be delayed beyond the specified or adjusted time limit, Contractor shall reimburse the City for all expenses of CONSULTING and inspection incurred by the City during the period between said specified or adjusted time and the actual date of final completion. All such expenses for CONSULTING and inspection incurred by the City will be charged to Contractor and be deducted from payments due Contractor as provided by this Contract. Said expenses shall be further defined as Consultant charges associated with the construction contract administration, including resident project representative costs.

Article 13. MISCELLANEOUS.

- 13.1. Terms used in this Agreement which are defined in of the General Conditions will have the meaning indicated in the General Conditions.
- 13.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may

become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

13.3. The City and Contractor each binds itself, its partners, its successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

13.4 The agreement shall be void if not signed by both the City and the Contractor.

Article 14. City PROVISIONS.

None Provided.

[Remainder of this page left blank intentionally]

SAMPLE

IN WITNESS WHEREOF, the City and Contractor have caused this Agreement to be executed the day and year shown below.

This Agreement will be effective on _____.

City OF DELRAY BEACH, FLORIDA

Contractor

By: _____
Cary D. Glickstein, Mayor

By: _____
(signature)

(type or print)

(type or print)

(Corporate Seal)

ATTEST:

City Clerk of the
City of Delray Beach

Approved as to Form and
Legal Sufficiency:

City Attorney

Address for giving notice
to the City:

Environmental Services Dept.
Engineering Division
434 S. Swinton Ave.
Delray Beach, FL 33444

Address for giving notices:
(Type or Print Clearly)

License No.

Agent for service of process:

(If Contractor is a corporation, or Partnership
attach evidence of authority to sign.)

CORPORATE ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, by _____ (name of officer or agent, title of officer or agent), of _____ (name of corporation acknowledging), a _____ (state or place of incorporation) corporation, on behalf of the corporation. He/She is (personally known to me) (or has produced identification) _____ (type of identification).

Signature and Stamp of Notary Public

ACKNOWLEDGMENT IF PRINCIPAL IS AN INDIVIDUAL

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, by _____ (name of person acknowledged), who is personally known to me or has produced _____ (type of identification) as identification.

Signature and Stamp of Notary Public

ACKNOWLEDGMENT IF PARTNERSHIP

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____ (name of acknowledging partner or agent) of _____, partner (or agent) on behalf of _____ (name of partnership), a partnership. He/She is (personally known to me) (or has produced identification) _____ (type of identification) (as identification).

Signature and Stamp of Notary Public

CERTIFICATE
(if Corporation)

STATE OF FLORIDA)
) SS
COUNTY OF)

I HEREBY CERTIFY that a meeting of the Board of Directors of _____, a corporation under the laws of the State of _____ held on _____, 20__ the following resolution was duly passed and adopted:

"RESOLVED", that _____, as _____ of the corporation, be he/she is hereby authorized to execute the Agreement dated _____, 20__, between the City of Delray Beach, Florida and this corporation, and that his execution thereof, attested by the Secretary of the corporation and with corporate seal affixed, shall be the official act and deed of this corporation".

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the corporation this _____ day of _____, 20__.

(Secretary)

(Corporate Seal)

SURETY PERFORMANCE AND PAYMENT BOND

Bond No _____

By this Bond, We _____, as Principal, whose principal business address and phone number are _____, as Contractor under the contract dated _____, 20____ between Principal and the City of Delray Beach, whose principal address and phone number are _____ for the construction of Project No. _____, more particularly described as _____ and located at _____ (hereinafter referred to as "Contract") the terms of which Contract are incorporated by reference in its entirety into this Bond and _____, as Surety, whose principal business address and telephone number are _____ the sum of (U.S. dollars) \$ _____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that Principal:

1. Performs, all the work under the Contract, including but not limited to guarantees, warranties and the curing of latent defects, said Contract being made a part of this bond by reference, and in the times and in the manner prescribed in the Contract, including any and all damages for delay; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1) Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract and
3. Pays City all losses, damages, including damages for delay, expenses, costs and attorneys fees, including appellate proceedings, that City sustains because of a default by Principal under the Contract, including but not Limited to a failure to honor all guarantees and warranties or to cure latent defects in its work or materials within 5 years after completion of the work under the Contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the Contract, including all warranties and curing all latent defects within 5 years after completion of the work under the Contract;

then this bond is void; otherwise it remains in full force. In the event that Principal shall fail to comply fully with, carry out and perform the terms and conditions of the Contract the Surety, following receipt of a written demand by the Obligee to correct Principal's default(s), and having failed to correct such default

(s) within a reasonable time , shall be deemed to be in default fifteen days after receipt of an additional written demand by the Obligee to correct the Principal's default, and the Obligee shall be entitled to enforce any remedy against Surety available to the Obligee including, but not limited to recovery of damages for the Surety's delay.

If no specific periods of warranty are stated in the Contract for any particular item or work, material or equipment, the warranty shall be deemed to be a period of one (1) year from the date of final acceptance by the City. This Bond does not limit the City's ability to pursue suits directly with the Principal seeking damages for latent defects in materials or workmanship, such actions being subject to the limitations found in Section 95.11(3)(c), Florida Statutes.

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

Any changes in or under the Contract Documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this Bond.

IN WITNESS WHEREOF, the above bounden parties have caused this Bond to be executed by their appropriate officials as of the ___ day of _____ 20__.

Contractor

(Contractor Name)

BY: _____
(President) (Managing Partner or Joint
Venturer)

(SEAL)

COUNTERSIGNED BY RESIDENT
FLORIDA AGENT OF SURETY:

SURETY:

Name:

(Copy of Agent's current Identification
Card as issued by State of Florida
Insurance Commissioner must be
Attached)

(CORPORATE SEAL)

By: _____
Name
Attorney-in-Fact

LIMITED POWER OF ATTORNEY

and

(Principal)

(Surety)

hereby grants the City Clerk of the City of Delray Beach Power of Attorney to insert the date of execution on the contract, surety bonds to the contract and agreement entitled, _____

In Witness Whereof, we have hereunto set our hand and seal this _____ day of _____, 20__.

Principal (SEAL)

Witnesses:

Surety (SEAL)

Print Name: _____

Print Name: _____

CORPORATE ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____ (name of officer or agent, title of officer or agent), of _____ (name of corporation acknowledging), a _____ (state or place of incorporation) corporation, on behalf of the corporation. He/She is (personally known to me) (or has produced identification) _____ (type of identification) (as identification).

Signature and Stamp of Notary Public

Failure to comply with these conditions within the time specified will entitle the City to consider your bid abandoned, to annul this Notice of Tentative Award and to declare your Bid Security forfeited.

Within forty five (45) days after you comply with those conditions, if the contract is approved by the City Commission, the City will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

City of Delray Beach

By: _____
Donald Cooper
City Manager

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF TENTATIVE AWARD is hereby acknowledged

By: _____

this the _____ day of _____, 20_____.

By: _____

Title: _____

Copy to: City of Delray Beach
(Use Certified Mail,
Return Receipt Requested)

NOTICE TO PROCEED

DATE: _____

TO: _____
(contractor)

ADDRESS: _____

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

You are notified that the Contract time under the above contract will commence to run on _____ by that date, you are to start performing your obligations under the Contract Documents. In accordance with the Agreement the dates of Substantial Completion and Final Completion are _____ and _____ respectively.

City of Delray Beach, Florida

By: _____
Print Name _____
Title _____

Copy to _____
(Use Certified Mail,
Return Receipt Requested)

cc: Purchasing Manager
Project file (E)

CERTIFICATE OF SUBSTANTIAL COMPLETION

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

Contractor: _____

CONTRACT DATE: _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

TO: City of Delray Beach, Florida

AND TO: _____
(Contractor)

The Work to which this Certificate applies has been inspected by authorized representatives of the City, Contractor and Consultant, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on:

(Date of Substantial Completion)

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of Contractor to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by Contractor within _____ days of Substantial Completion.

The responsibilities between the City and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as follows:

RESPONSIBILITIES:

City: _____

Contractor: _____

The following documents are attached to and made a part of this Certificate:

This certificate does not constitute an acceptance of Work not in accordance with the Contract documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Consultant on _____, 20__.

By: _____

Title: _____

Contractor accepts this Certificate of Substantial Completion on:

_____, 20__.

By: _____

Title: _____

The City accepts this Certificate of Substantial Completion on:

_____, 20__

By: _____

Title: _____

SAMPLE

WARRANTY OF TITLE
(For Periodic Progress Payments)

STATE OF FLORIDA)
) SS Contractor: _____
COUNTY _____)

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

BEFORE ME, the undersigned authority, personally appeared _____
(the "Affiant"), who after being duly sworn, says that he is the "Contractor", pursuant to a Contract (the
"Contract") dated _____, 20__, with the City OF DELRAY BEACH, FLORIDA, (the
"OWNER"), for the supply of certain labor and/or materials (the "Work"), to certain property, as shown and
described in the Contract Documents, subsequent Addenda or Change Orders, and on behalf of the
Contractor makes the following warranties:

- I. The Contractor warrants that it has fully completely in accordance with the plans and specifications therefore, that portion of the Work, pursuant to the Contract (the "Completed Work") covered by the attached Periodic Progress Payment Request.

- II. The Contractor further warrants and represents that:
 - 1. All subcontractors, vendors, material men, suppliers and other parties of whatever kind of nature who are entitled to payment from the Contractor for providing labor and/or materials to the Contractor pursuant to the Contract as of the date in the last previous request for payment have been paid in full and therefore have delivered to the Contractor validly executed Partial Release of claims with respect thereto.

 - 2. Title to all materials and equipment covered by the attached Periodic Pay Request for Payment dated _____, 20__, passes to the City at the time of payment free and clear of all liens.

(Contractor) _____

(Signature) _____

(Title) _____

SWORN TO AND SUBSCRIBED before me this _____ day of _____, 20__.

Signature and Stamp of Notary Public

FINAL RECEIPT

STATE OF FLORIDA
COUNTY OF _____

_____ being first duly sworn, deposes and says as follows:

1. He/she is _____ of _____
(Title) (Name of Corporation or Firm)
a _____ corporation which is named in Construction Contract dated the
_____ day of _____, 20__, between said corporation as the Contractor and the City OF
DELRAY BEACH, FLORIDA (the City) as the City for the construction of:

**Invitation to Bid Construction No. 2017-012
SW 10th Ave Sidewalk and Block 8 and 20 Alley Improvements
Project Nos. 2014-002 and 2009-006**

2. Contractor has fully completed all construction and work under the Contract and Title to all work, materials and equipment under the Contract passes to the City at the time of final payment, free and clear of all liens, and all labors, and material men and subcontractors have been paid in full for performing or furnishing the work, labor or materials under the Contract.

3. Receipt by Contractor of the final payment from City in the amount \$_____ shall constitute a full release and discharge by Contractor to the City of all claims or liens of Contractor against City arising out of, connected with, or resulting from performance of the Contract, including full payment for all extra work and material furnished by the undersigned in the construction of said improvements.

4. The undersigned further certifies that all non-exempt taxes imposed by Chapter 212, Florida Statutes (Sales and Use Tax Act), as amended, have been paid and discharged.

5. This statement under oath is given in compliance with Sections 713.05 and 713.06, Florida Statutes.

Signed and sealed in
the presence of :

Affiant Contractor

By: _____
Print Name: _____
Title: _____

Sworn to and subscribed before me this _____ day of _____, 20__.

Signature and Stamp of Notary Public

Form 6
Schedule of Pricing

[Remainder of page intentionally left blank]

4. Bidder will complete the Work for the following prices:

BID "1"

BLOCK 20

SCHEDULE OF BID PRICES

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
GENERAL CONDITIONS						
1	Maintenance of Traffic	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
2	Mobilization/Demobilization	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
3	Clearing and Grubbing	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
4	As-Built Record and Drawings	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
5	NPDES Permit / Erosion Control	L.S.	1	Dollars	\$	\$
				Cents		
6	Indemnification	L.S.	1	Ten Dollars	\$ 10.00	\$ 10.00
				No Cents		
7	Video Recording Allowance	L.S.	1	Five Hundred Dollars	\$ 500.00	\$ 500.00
				No Cents		
8	Project Identification Sign	E.A.	1	Dollars	\$	\$
				Cents		
9	Unforeseen Condition Allowance	L.S.	1	Five Thousand Dollars	\$ 5,000.00	\$ 5,000.00
				No Cents		
10	Asphalt Concrete Surface Course (2" T Two Lifts	S.Y.	320	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
11	Limerock Base (8") (LBR 100)	S.Y.	360	Dollars	\$	\$
				Cents		
12	Stabilized Subgrade (12") (LBR 40)	S.Y.	380	Dollars	\$	\$
				Cents		
13	Type C Inlet	EA.	2	Dollars	\$	\$
				Cents		
14	Reinforced Concrete Pipe (24")	L.F.	41	Dollars	\$	\$
				Cents		
15	Exfiltration Trench (24")	L.F.	41	Dollars	\$	\$
				Cents		
16	5' Wide Concrete Sidewalk (4" Thick)	S.Y.	15	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
17	Tactile Surface Detectable Warnings	EA.	2	_____ Dollars _____ Cents	\$ _____	\$ _____
18	Concrete Valley Gutter	L.F.	621	_____ Dollars _____ Cents	\$ _____	\$ _____
19	Type D Curb	L.F.	20	_____ Dollars _____ Cents	\$ _____	\$ _____
20	Marking and Signing Striping, 24" White (Thermo) Stop Bar Stop Sign	LS	1	_____ Dollars _____ Cents	\$ _____	\$ _____
TOTAL EVALUATED BID BID ITEMS 1 through 20 (in numbers)					\$ _____	\$ _____
TOTAL EVALUATED BID BID ITEMS 1 through 20 (in words)					_____ Dollars _____ Cents	

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
Bid "2"						
BLOCK 8						
SW 10TH AVE SIDEWALK						
GENERAL CONDITIONS						
21	Maintenance of Traffic	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
22	Mobilization/Demobilization	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
23	As-Built Record and Drawings	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
24	NPDES Permit / Erosion Control	L.S.	1	_____ Dollars _____ Cents	\$ _____	\$ _____
25	Indemnification	LS	1	_____ Dollars _____ Cents	\$ 10.00	\$ 10.00

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
26	Video Recording Allowance	LS	1	Five Hundred Dollars	\$ 500.00	\$ 500.00
				Cents		
	BLOCK 8					
	SITE GENERAL CONDITIONS				\$	\$
				Dollars		
				Cents		
27	Project Identification Sign	L.S.	1		\$	\$
				Dollars		
				Cents		
28	Unforeseen Condition Allowance	L.S.	1	Fifteen Thousand Dollars	\$ 15,000.00	\$ 15,000.00
				No		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
DEMOLITION						
29	Clearing and Grubbing	L.S.	1	_____	\$ _____	\$ _____
				Dollars	_____	
				Cents	_____	
30	Remove Existing 2" WM	LF	310	_____	\$ _____	\$ _____
				Dollars	_____	
				Cents	_____	
ROADWAY						
31	1" Mill and Resurface	S.Y.	340	_____	\$ _____	\$ _____
				Dollars	_____	
				Cents	_____	
32	1 1/2" Type S-3 Asphalt Incl Tack Coat Two 2 3/4" Lifts	S.Y.	1,210	_____	\$ _____	\$ _____
				Dollars	_____	
				Cents	_____	
33	Limerock Base (8") (LBR 100) Incl Tack Coat	S.Y.	1,445	_____	\$ _____	\$ _____
				Dollars	_____	
				Cents	_____	

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
34	Stabilized Subgrade (12") (LBR 40)	SY	1,550		\$	\$
				Dollars		
				Cents		
35	Concrete Driveway Apron (6" Thick)	SF	225		\$	\$
				Dollars		
				Cents		
36	5' Wide Concrete Sidewalk (4" Thick)	LF	45		\$	\$
				Dollars		
				Cents		
37	Existing Sidewalk Joint Cutting	LF	22		\$	\$
				Dollars		
				Cents		
38	Curb Ramps with Detactable Warning Surface	EA	4		\$	\$
				Dollars		
				Cents		
39	Concrete Valley Gutter	LF	855		\$	\$
				Dollars		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
40	Concrete Bollards	EA	25	Dollars	\$	\$
				Cents		
41	Marking and Signing(ALLEY) Striping, 24" White (Thermo) Stop Bar Stop Sign	LS	1	Dollars	\$	\$
				Cents		
42	Swale Grading and Sodding	SY	258	Dollars	\$	\$
				Cents		
DRAINAGE						
43	Reinforced Concrete Pipe (18")	LF	325	Dollars	\$	\$
				Cents		
44	Exfiltration Trench (18")	LF	65	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
45	Type E Drainage Inlet	EA	2		\$	\$
				Dollars		
				Cents		
46	4' Dia Storm Manhole	EA	1		\$	\$
				Dollars		
				Cents		
	SW 10TH AVE SIDEWALK SITE GENERAL CONDITIONS					
47	Unforeseen Condition Allowance	LS	1	Five Thousand	\$ 5,000.00	\$ 5,000.00
				Dollars		
				Cents		
	DEMOLITION					
48	Clearing and Grubbing	LS	1		\$	\$
				Dollars		
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
ROADWAY						
49	1 1/2" Type S-3 Asphalt Incl Tack Coat Two 2 3/4" Lifts	S.Y.	110	Dollars	\$	\$
				Cents		
50	Limerock Base (8") (LBR 100) Incl Tack Coat	S.Y.	115	Dollars	\$	\$
				Cents		
51	Stabilized Subgrade (12") (LBR 40)	S.Y.	120	Dollars	\$	\$
				Cents		
52	Existing Sidewalk Joint Cutting	LF	25	Dollars	\$	\$
				Cents		
53	Curb Ramps with Tactile(PAVER) Surface	EA	2	Dollars	\$	\$
				Cents		
54	5' Wide Concrete Sidewalk (4" Thick)	LF	50	Dollars	\$	\$
				Cents		

Form 6 - Schedule of Pricing

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
55	5' Wide Paver Brick Sidewalk W/ Concrete Border	LF	100	Dollars	\$	\$
				Cents		
56	Type F Curb	LF	105	Dollars	\$	\$
				Cents		
57	Concrete Valley Gutter	L.F.	95	Dollars	\$	\$
				Cents		
58	SiGN Relocation(if need to be Relocate) (CHURCH MONUMENT SIGN)	LS	1	Dollars	\$	\$
				Cents		
59	Swale Grading and Sodding	SY	7	Dollars	\$	\$
				Cents		

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
60	SIGNING AND PAVEMENT MARKING	LS	1	Dollars	\$	\$
				Cents		
TOTAL EVALUATED BASE BID BID ITEMS 21 through 60 (in numbers)						\$
				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.)