CONTRACT DOCUMENTS

PREPARED FOR

CITY OF KEY WEST

FOR THE CONSTRUCTION OF

EAST FRONT STREET FLOOD MITIGATION

DR-1539-047-R ITB #14-016

PEREZ ENGINEERING
& DEVELOPMENT, INC

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Key West, Fl. 33040
305-293-9440

Bid Documents June 2014

CITY OF KEY WEST

BID DOCUMENTS

For

EAST FRONT STREET FLOOD MITIGATION PROJECT

****

CONSISTING OF: BID DOCUMNETS
CONTRACT FORMS
CONDITIONS OF THE CONTRACT
TECHNICAL SPECIFICATIONS
DRAWINGS

****

KEY WEST, FLORIDA

JUNE 2014

DR-1539-047-R

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PART 1

BIDDING REQUIREMENTS

INVITATION TO BID

Sealed bids for the City of Key West East Front Street Flood Mitigation, addressed to the City of Key West, will be received at the Office of the City Clerk, City of Key West, 3126 Flagler Avenue, Key West Florida, 33040 until**, July 9th, 3:00 p.m., local time,** and then will be publicly opened and read. Any bids received after the time and date specified will not be considered.

Please submit two (2) originals and four USB Drives with one single PDF file of the entire bid package on each CD-ROM. Bid package is to be enclosed in a sealed envelope, clearly marked on the outside "**BID FOR East Front Street Flood Mitigation ITB #14-016"** addressed and delivered to the City Clerk at the address noted above.

The project proposes improvements to the East Front Street drainage system in Key West, Florida to reduce flooding and pre-treat stormwater run-off. The project consists of the general construction and furnishing of all materials, equipment and labor for the construction of five (5) stormwater gravity injection wells, abandonment of an existing outfall, and a new 24-inch outfall; including but not limited to; triple chamber treatment boxes, storm sewer pipe, catch basins with inlets, concrete /asphalt pavement removal & replacement, earthwork, dewatering, silt removal boxes for approved dewatering discharges, utility adjustments, utility conflict boxes, tide valves, environmental protection, site restoration, sidewalk improvements, site clean up, and all necessary appurtenances and record drawings, surveys, well testing, and incidental work to provide a complete and serviceable project identified as:

Drawings and Specifications may be obtained from Demand Star by Onvia. Please contact Demand Star at www.demandstar.com or call 1-800-711-1712 or at CKWwebsite@www.keywestcity.com

A Mandatory Pre-bid Conference will be held on **June 18th, 2014, 10:00 am** at the City of Key West Old City Hall, 510 Greene Street, Key West, Florida 33040.

Each Bid must be submitted on the prescribed form and accompanied by bid security as prescribed in the Instructions to Bidders, payable to the City of Key West, Florida, in an amount not less than (5) five percent of the amount of the bid.

The contractor shall be a licensed contractor by the State of Florida and submit proof of such with the bid.

The successful Bidder will be required to furnish the necessary additional bond(s) for the faithful performance of the Contract, as prescribed in the Bidding Documents. The Bidder will also be required to furnish documentation showing that he is in compliance with the licensing requirements of the State and the provisions of Chapter 66 section 87 of the Code of Ordinances of the City of Key West. Compliance with these provisions is required before the Contractor can enter into the agreement contained in the Contract Documents.

The Bidder shall furnish documentation showing that he is in compliance with the licensing requirements of the provisions of Chapter 66 Section 87 of the Code of Ordinances of the City of Key West; within 10 days the following the Notice of Award and well drilling documentation;

A. City of Key West Tax License Receipt
B. A valid Certificate of Competency issued by the Chief Building Official of Key West, Florida.
C. City of Key West Well Driller Certification.
D. Copy of Well Drillers License

All bid bonds, contract bonds, insurance contracts, and certificates of insurance shall be either executed by or countersigned by a licensed resident agent of the Surety or Insurance Company having his place of business in the State of Florida, and in all ways complying with the insurance laws of the State of Florida. Further, the said Surety or Insurance Company shall be duly licensed and qualified to do business in the State of Florida.

Before a Contract will be awarded for the work contemplated herein, the CITY will conduct such investigation as is necessary to determine the performance record and ability of the apparent low Bidder to perform the size and type of work specified under this Contract. Upon request, the Bidder shall submit such information as deemed necessary by the CITY to evaluate the Bidder's qualifications.

For information concerning the proposed work, or for appointment to visit the site of the proposed work, contact the designated Engineer by the General Services and Utilities Department of the City of Key West.

As stated above at the time of the bid submittal the Bidder must provide satisfactory documentation of State Licenses. The Bidder shall furnish documentation showing that he is in compliance with the licensing requirements of County, and City licenses as would be required within ten days of the award. The successful Bidder must also be able to satisfy the City Attorney as to such insurance coverage and legal requirements as may be demanded by the Bid in question. The City may reject bids for any and/or all of the following reasons: (1) for budgetary reasons, (2) if the bidder misstates or conceals a material fact in its bid, (3) if the bid does not strictly conform to the law or is non-responsive to the bid requirements, (4) if the bid is conditional, or (5) if a change of circumstances occurs making the purpose of the bid unnecessary to the City. The City may also waive any minor formalities or irregularities in any bid, (6) if such rejection is in the best interest of the City. The City may also waive any minor formalities or irregularities in any bid.

Dated this_____ day of_____, 200___.

CITY OF KEY WEST

By_____
Bob Vitas, City Manager

* * * * * *

INSTRUCTIONS TO BIDDERS

1. CONTRACT DOCUMENTS

A. FORMAT

The Contract Documents are divided into parts, divisions, and sections for convenient organization and reference. Generally, there has been no attempt to divide the Specification sections into work performed by the various building trades, work by separate subcontractors, or work required for separate facilities in the project.

B. DOCUMENT INTERPRETATION

The separate sections contained within these Contract Documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the proposed work.

Should there be any doubt as to the meaning or intent of said Contract Documents, the Bidder should request of the Engineer, in writing (at least 6 working days prior to bid opening) an interpretation thereof. Any interpretation or change in said Contract Documents will be made only in writing in the form of Addenda to the Documents which will be furnished to all registered holders of Contract Documents. Bidders shall submit with their Proposals, or indicate receipt of, all Addenda. The CITY will not be responsible for any other explanation or interpretations of said Documents.

C. DRAWINGS

Details of construction are bound into the Contract Documents.

2. GENERAL DESCRIPTION OF THE PROJECT

A general description of the work to be done is contained in the Invitation to Bid. The scope is specified in applicable parts of these Contract Documents.

3. QUALIFICATION OF CONTRACTORS

The prospective Bidders must meet the statutorily prescribed requirements before award of Contract by the CITY. Bidders must hold or obtain all licenses and/or certificates as required by the State and Local Statutes in order to bid and perform the work specified herein. Licenses required may include Excavation/Underground Utilities, Well Drilling or other authorized License/Certificate.

4. BIDDER'S UNDERSTANDING

Each Bidder must inform himself of the conditions relating to the execution of the work, and it is assumed that he will inspect the site and make himself thoroughly familiar with all the Contract Documents. Failure to do so will not relieve the successful Bidder of his obligation to enter into a Contract and complete the contemplated work in strict accordance with the Contract Documents. It shall be the Bidder's obligation to verify for himself and to his complete satisfaction all information concerning site and subsurface conditions.

The CITY will make available to prospective Bidders upon request and at the office of the Engineer, prior to bid opening, any information that he may have as to subsurface conditions and surface topography at the worksite.

Information derived from inspection of topographic maps, or from Drawings showing location of utilities and structures will not in any way relieve the Contractor from any risk, or from properly examining the site and making such additional investigations as he may elect, or from properly fulfilling all the terms of the Contract Documents.

Each Bidder shall inform himself of, and the Bidder awarded a Contract shall comply with, federal, state, and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, nondiscrimination in the employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and non-burning requirements, permits, fees, and similar subjects.

5. TYPE OF PROPOSAL

A. UNIT PRICE

The Proposal for the work is to be submitted on a unit price basis. Unit prices shall be submitted for all items of work set forth in the Proposal. All items required to complete the work specified or shown on the Drawings but not included in the Proposal shall be considered incidental to those set forth in the Proposal. The estimate of quantities of work to be done is tabulated in the Proposal and, although stated with as much accuracy as possible, is approximate only and is assumed solely for the basis of calculation upon which the award of Contract shall be made. Payment to the Contractor will be made on the measurement of the work actually performed by the Contractor as specified in the Contract Documents.

6. PREPARATION OF BIDS

A. GENERAL

All blank spaces in the BID form must be filled in, as required, preferably in BLACK ink. All price information shall be shown in both words and figures where required. No changes shall be made in the phraseology of the forms. Written amounts shall govern in case of discrepancy between the amounts stated in writing and the amounts stated in

figures. In case of discrepancy between unit prices and extended totals, unit prices shall prevail.

Any BID shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, or which in any manner shall fail to conform to the conditions of the published Invitation to Bid.

Only one BID from any individual, firm, partnership, or corporation, under the same or different names, will be considered. Should it appear to the CITY that any Bidder is interested in more than one Proposal for work contemplated; all Proposals in which such Bidder is interested will be rejected.

B. SIGNATURE

The Bidder shall sign his BID in the blank space provided therefore. If Bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign Contracts on behalf of the corporation. If Bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign Contracts in behalf of the partnership. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a notarized power-of-attorney must be on file with the CITY prior to opening of Proposals or submitted with the Proposal, otherwise the Proposal will be regarded as not properly authorized.

C. SPECIAL BIDDING REQUIREMENTS

The Bidder's attention is brought to the hiring practices and licenses and permits of the City of Key West. These are defined in the addition to Article 6.09, ORDINANCES, PERMITS, AND LICENSES, as set forth in the Supplementary Conditions.

The Bidder shall submit with his Bid his experience record showing his experience and expertise in installation, repair, and replacement of storm and sanitary sewers. Such experience record shall provide at least five current or recent projects of similar work, preferably within Florida or the southeastern United States. For each project the following information shall be provided:

1. Description and location of work.
2. Contract amount.
3. Dates work was performed.
4. Owner.
5. Name of Owner's contact person and phone number.
6. Engineer.
7. Name of Engineer's contact person and phone number.

The bidder shall submit with his bid a list of items to be performed by his own labor and

that performed by subcontractors or others.

D. ATTACHMENTS

Bidder shall complete and submit the following forms with his bid:

1. Anti-Kickback Affidavit
2. Public Entity Crimes Form
3. Key West Indemnification Form
4. DISCLOSURE OF LOBBYING ACTIVITIES
5. NON-COLLUSION DECLARATION AND COMPLIANCE WITH 49 CFR §29.
6. FLORIDA TRENCH SAFETY ACT COMPLIANCE
7. Pre-Bid Resolution
8. Cone of Silence
9. Equal Benefits for Domestic Partners
10. SUSPENSION AND DEBARMENT CERTIFICATION

E. PUBLIC ENTITY CRIMES FORM

Pursuant to the requirements of Chapter 287.133, Laws of Florida, pertaining to the sworn statement on Public Entity Crimes and the Convicted Vendor List, all Bidders shall submit a signed and notarized statement with their Bid on the form provided herein.

F. FLORIDA TRENCH SAFETY ACT

The Bidder's attention is directed to the enactment of the Florida Trench Safety Act which incorporates OSHA Standards 29 CFR s. 1926.650, Subpart P, as the state's trench excavation safety standards. The Bidder shall list separately in the Proposal the cost of compliance with these standards on a lineal footage basis and the method of compliance. The Bidder shall determine if special shoring requirements are needed. Special shoring shall be identified and priced on a square footage basis in the Proposal. The Successful Bidder is fully responsible for cost of and the design of the trench safety system and the compliance with the applicable standards for the project.

7. STATE AND LOCAL SALES AND USE TAXES

Unless the Supplementary Conditions contains a statement that the CITY is exempt from state sales tax on materials incorporated into the work due to the qualification of the work under this Contract, the Contractor, as required by the laws and statutes of the state and its political subdivisions, shall pay all state and local sales and use taxes. Prices quoted in the Proposal shall include all nonexempt sales and use taxes, unless provision is made in the Proposal form to separately itemize the tax.

8. SUBMISSION OF BIDS

All BIDS must be submitted not later than the time prescribed, at the place, and in the manner set forth in the Invitation to Bid. BIDS must be made on the BID forms provided herewith, **submit two (2) originals and four (4) USB drives with one single PDF file of the entire bid package** must be submitted intact with the volume containing the Bidding Requirements, Contract Forms, Contract Specifications, and Conditions of the Contract.

Each BID must be submitted in a sealed envelope, so marked as to indicate the Bidder's name and its contents (project name and number) without being opened, and addressed in conformance with the instructions in the Invitation to Bid.

9. MODIFICATION OR WITHDRAWAL OF BIDS

Prior to the time and date designated for receipt of BIDS, any BID submitted may be withdrawn by notice to the party receiving BIDS at the place designated for receipt of BIDS. Such notice shall be in writing over the signature of the Bidder or by telegram. If by telegram, written confirmation over the signature of the Bidder shall be mailed and postmarked on or before the date and time set for receipt of BID. No BID may be withdrawn after the time scheduled for opening of BIDS, unless the time specified in paragraph AWARD OF CONTRACT of these Instructions to Bidders shall have elapsed.

10. BID SECURITY

BIDS must be accompanied by cash, a certified check, or cashier's check drawn on a bank in good standing, or a bid bond issued by a Surety authorized to issue such bonds in the state where the work is located, in the amount of five (5) percent of the total amount of the Proposal submitted. This bid security shall be given as a guarantee that the Bidder will not withdraw his BID for a period of sixty (60) days after bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Contract and furnish properly executed Performance and Payment Bonds, each in the full amount of the Contract price within the time specified. Agent and Surety phone numbers must be provided.

The Attorney-in-Fact who executes this bond in behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond. Where State Statute requires, certification by a resident agent shall also be provided.

If the Bidder elects to furnish a Bid Bond, he shall use the Bid Bond form bound herewith, or one conforming substantially thereto in form and content.

11. RETURN OF BID SECURITY

Within 15 days after the award of the Contract, the CITY will return the bid securities to all Bidders who's BIDS are not to be further considered in awarding the Contract. Retained bid securities will be held until the Contract has been finally executed, after which all bid securities, other than Bidders' bonds and any guarantees, which have been forfeited, will be returned to the respective Bidders whose Proposals they accompanied.

12. AWARD OF CONTRACT

Within sixty (60) calendar days after the opening of Proposals, the CITY will accept one of the Proposals or will act in accordance with the following paragraphs. The acceptance of the Proposal will be by written notice of award, mailed to the office designated in the Proposal, or delivered to the Bidder's representative. In the event of failure of the lowest responsive, responsible Bidder to sign the Contract and provide an acceptable Performance Bond, Payment Bond, insurance certificate(s) and evidence of holding required licenses and certificates, the Owner may award the Contract to the next lowest responsive, responsible Bidder. Such award, if made, will be made within seventy-five (75) days after the opening of Proposals.

The CITY reserves the right to accept or reject any or all Proposals, and to waive any informalities and irregularities in said Proposals.

13. BASIS OF AWARD

The award will be made under one contract by the Owner on the basis of the BID from the lowest responsible BIDDER. The owner may award entire bid or selected items based on the City's best interest and available funds at the time of the Award.

14. EXECUTION OF CONTRACT

The successful Bidder shall, within ten (10) working days after receiving Notice of Award, sign and deliver to the CITY a Contract and six copies in the form hereto attached, together with the insurance certificate examples of the bonds as required in the Contract Documents and evidence of holding required licenses and certificates. Within 10 working days after receiving the signed Contract from the successful Bidder, the City's authorized agent will sign the Contract. Signature by both parties constitutes execution of the Contract.

15. CONTRACT BONDS

A. PERFORMANCE AND PAYMENT BONDS

The successful Bidder shall file with the CITY, at the time of delivery of the signed Contract, a Performance Bond and Payment Bond on the form bound herewith, each in the full amount of the Contract price in accordance with the requirements of Florida Statutes Section 255.05 or 713.23, as applicable, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the construction of the work, and to cover all guarantees against defective workmanship or materials, or both, during the warranty period following the date of final acceptance of the work by the CITY. The Surety furnishing this bond shall have a sound financial standing and a record of service satisfactory to the CITY, shall be authorized to do business in the State of Florida, and shall be listed on the current U.S. Department of Treasury Circular Number 570, or amendments thereto in the Federal Register, of acceptable Sureties for federal projects.

B. POWER-OF-ATTORNEY

The Attorney-in-Fact (Resident Agent) who executes this Performance and Payment Bond in behalf of the Surety must attach a notarized copy of his power-of-attorney as evidence of his authority to bind the Surety on the date of execution of the bond.
All Contracts, Performance and Payment Bonds, and respective powers-of-attorney will have the same date.

16. FAILURE TO EXECUTE CONTRACT AND FURNISH BOND

The Bidder who has a Contract awarded to him and who fails to promptly and properly execute the Contract or furnish the required Bonds shall forfeit the bid security that accompanied his bid, and the bid security shall be retained as liquidated damages by the CITY, and it is agreed that this said sum is a fair estimate of the amount of damages the CITY will sustain in case the Bidder fails to enter into a Contract or furnish the required Bonds. Bid security deposited in the form of cash, a certified check, or cashier's check shall be subject to the same requirement as a Bid Bond.

17. PERFORMANCE OF WORK BY CONTRACTOR

The Contractor shall perform on the site and with his own organization, labor equivalent to at least forty (40) percent of the total amount of the work to be performed under this Contract. If, during the progress of the work hereunder, the Contractor requests a reduction of such percentage, and the Engineer determines that it would be to the client's advantage, the percentage of the labor required to be performed by the Contractor's own organization may be reduced; PROVIDED prior written approval of such reduction is obtained by the contractor from the Engineer.

Each Bidder must furnish with his Proposal a list of the items that he will perform with his own forces and the estimated total cost of these items.

18. TIME OF COMPLETION

The time of completion of the work to be performed under this Contract is the essence of the Contract. Delays and extensions of time may be allowed in accordance with the provisions stated in the General Conditions.

When the Contractor receives a Notice to Proceed, he shall commence work as soon as possible and shall complete all work within the number of calendar days stipulated in this Contract.

* * * * * *

NOTE TO BIDDER: Use BLACK ink for completing this BID form.

BID FORM

To: The City of Key West

Address: 3126 Flagler Avenue, Key West, Florida 33040

Project Title: East Front Street Flood Mitigation

Bidder's person to contact for additional information on this BID:

Name: _____

Telephone: _____

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this BID are those named herein, that this BID is, in all respects, fair and without fraud, that it is made without collusion with any official of the CITY, and that the BID is made without any connection or collusion with any person submitting another Proposal on this Contract.

The Bidder further declares that he has carefully examined the Contract Documents for the construction of the project, that he has personally inspected the site, that he has satisfied himself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Contract Documents, and that this BID is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Proposal.

The Bidder further agrees that he has exercised his own judgment regarding the interpretation of subsurface information and has utilized all data, which he believes pertinent from the Engineer, CITY, and other sources in arriving at his conclusions.

The Bidder further agrees, as evidenced by signing the BID that if awarded a Contract, the Florida Trench Safety Act and applicable trench safety standards will be complied with.

The Bidder further agrees that the CITY may “non-perform” the work in the event that the low bid is in excess of available funding. Non-performance will be determined prior to NOTICE OF AWARD.

CONTRACT EXECUTION AND BONDS

The Bidder agrees that if this BID is accepted, he will, within 10 days, not including Sundays and legal holidays, after Notice of Award, sign the Contract in the form annexed hereto, and will at that time, deliver to the CITY examples of the Performance Bond and Payment Bond required herein, and evidence of holding required licenses and certificates, and will, to the extent of his Proposal, furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all the materials necessary to complete all work as specified or indicated in the Contract Documents.

CERTIFICATES OF INSURANCE

Bidder agrees to furnish the CITY, before commencing the work under this Contract, the certificates of insurance as specified in these Documents.

START OF CONSTRUCTION AND CONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 10 calendar days after the date of the Notice to Proceed and to fully complete all work under this contract within 200 calendar days.

This Contract will automatically expire and be terminated on final acceptance by the CITY.

LIQUIDATED DAMAGES

In the event the Bidder is awarded the Contract and fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, the Owner and Bidder agree that as liquidated damages for delay (not as a penalty) Bidder shall pay Owner $2,000 per day for each day that expires after the completion date.

Owner will recover such liquidated damages by deducting the amount owed from the final payment or any retainage held by the Owner.

ADDENDA

The Bidder hereby acknowledges that he has received Addenda No's._____

(Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his BID(s) includes all impacts resulting from said addenda.

SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated bid prices for the work.

UNIT PRICE ITEMS

The Bidder further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. The Bidder agrees that the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these Contract Documents. The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

UNIT PRICE BID SCHEDULE

Item No.	Description	Estimated Qty	Unit	Bid Unit Price	Extended Bid Unit Price
1	Performance/ Payment Bond	1	LS		
2a	Mobilization/Field/Envir/Constr	1	LS		
2b	Demobilization	1	LS		
2c	General and Supplementary Cond.	1	LS		
2d	MOT	1	LS		
2e	Certified Auto Cad As-Builts/surveyer	1	LS		
3	**Trench Excavation, Backfill, and Storm Pipe**				
3a	18" Storm	850	LF		
3b	24" Storm	1350	LF		
3c	42" Storm	30	LF		
3d	48" Storm	20	LF		
3e	Exfiltration Trench	15	LF		
4	Asphalt Restoration	3,120	SY		
5	Temporary Striping - 20 Mils	350	LF		
6	Final Striping - 70 Mils Thermoplastic	350	LF		
7	**Concrete**				
7a	Sidewalk (4-inch)	11,925	SF		
7b	Sidewalk/Driveway (6-inch)	250	SF		
7c	FDOT Type F Curb and Gutter, Type D, and Valley Gutter	1,810	LF		

Item No.	Description	Estimated Qty	Unit	Bid Unit Price	Extended Bid Unit Price
8	**Catch Basins and Inlets**				
8a	Ditch Bottom Inlets	3	EA		
8b	Type P5 - Including Bottom	13	EA		
8c	Type P6 - Including Bottom	8	EA		
8d	Type P5 - Top Only	24	EA		
8e	Type P6 - Top Only	7	EA		
9	Removal and Disposal of Existing Structures	8	EA		
10	Storm Manhole	5	EA		
11	**Adjustments and Connections**				
11a	Water Main Relocation	200	LF		
11b	Connection to Existing Storm System	5	EA		
12	**Triple Chamber Baffle Box**				
12a	Baffle Box With Well	5	EA		
12b	Baffle Box On Outfall (No Well)	1	EA		
13	**Pipe Zone**				
13a	Geotextile Fabric	8,500	SY		
13b	Foundation Stabilization	450	CY		
14	Abandon Existing Storm Pipe	380	LF		
15	**Brick Pavers**				
15a	Pavers - Mallory Square	4,000	SF		

Item No.	Description	Estimated Qty	Unit	Bid Unit Price	Extended Bid Unit Price
15b	Pavers - Road Surface	2,000	SF		
15c	Pavers - Detectable Warning Surface	125	SF		
16	Soft Digs	5	EA		
17	Hydrostatic Testing of Storm Pipe and Structures	1	LS		
18	Sign Removal and Reinstallation	20	EA		
19	Tree Removal	5	EA		
20	**Diversion Structures**				
20a	Angela Street	1	EA		
20b	Fleming Street	1	EA		
20c	Eaton Street	1	EA		
21	Water Service Removal and Replacement	5	EA		
22	Sanitary Sewer Service Removal and Replacement	5	EA		
23	Backwater Valve	1	EA		
24	Submersible Storm Pump	4	EA		
25	Florida Trench Safety Act Compliance	2,265	LF		
26	Dewatering	1	LS		

Total of All Extended Bid Unit Prices **$_____**

Contingency Allowance **$ 200,000.00**
Building Permit Allowance **$ 10,000.00**
Keys Energy Service Allowance **$ 15,000.00**

TOTAL BID (Base + Allowance) **$_____**

Add Alternate No. 1 – Accelerated Schedule:
The Contractor shall complete the project within 210 calendar days versus the 290 calendar days the based bid is based on. The Contractor shall accomplish by utilizing addition crews, equipment, manpower, etc. For every day beyond the 210 day period that is not met, the add alternate figure shall be reduced at a level equal to the add alternate sum divided by 40 up to 250 days. If the contractor cannot meet the 250 day period, than no add alternate funds would be awarded. The following represents the cost above and beyond the base bid value to accomplish the project at the accelerated schedule:

Add Alternate No. 1 **$_____**

I_____ certify to the Owner and Hereby Acknowledge that I have reviewed the Bid Documents, Drawings, including the Specifications, Measurement and Payment in its entirety and agree with the above quantities required to perform the work. I have requested information from the owner on any item that required clarification. I, therefore, accept that I can perform the scope of work in this contract in compliance with the terms of the Contract. I further certify that the unit costs in my bid are reflective of the true cost to perform the work noted in the bid and Measurement and Payment section 01025.

Contractor signature: _____

Sworn and subscribed before me this _____day of _____, 20___.

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses will be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

Portion of Work _____

Name_____

_____, _____, _____, _____
Street City State Zip

Portion of Work _____

Name_____

_____, _____, _____, _____
Street City State Zip

Portion of Work_____

Name_____

_____, _____, _____ , _____
Street City State Zip

Portion of Work _____

Name_____

_____, _____, _____ , _____
Street City State Zip

SURETY

_____ Whose address is:

_____, _____ , _____, _____
Street City State Zip

BIDDER

The name of the Bidder submitting this BID is

_____ doing business at

_____, _____, _____ , _____
Street City State Zip

which is the address to which all communications concerned with this BID and with the Contract shall be sent?

The names of the principal officers of the corporation submitting this BID, or of the Partnership, or of all persons interested in this Proposal as Principals are as follows:

_____ _____

_____ _____

<u>If Sole Proprietor or Partnership</u>

IN WITNESS hereto the undersigned has set his (its) hand this _____ day of _____ 20___.

_____
Signature of Bidder

_____
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this _____ day of _____ 20____.

(SEAL)

_____
Name of Corporation

By _____

Title_____

Attest _____
Secretary

EXPERIENCE OF BIDDER

The Bidder states that he is an experienced Contractor and has completed similar projects within the last 5 years.

(List similar projects, with types, names of clients, construction costs, and references with phone numbers. Use additional sheets if necessary.)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

_____

_____

_____

FLORIDA BID BOND

BOND NO. _____

AMOUNT: $_____

KNOW ALL MEN BY THESE PRESENTS, that _____

_____

hereinafter called the PRINCIPAL, and _____

_____

a corporation duly organized under the laws of the State of _____

having its principal place of business at _____

_____ in the State of _____, and

authorized to do business in the State of Florida, as SURETY, are held and firmly bound unto _____

_____

hereinafter called the OBLIGEE, in the sum of_____

DOLLARS ($_____) for the payment for which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these present.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL is herewith submitting his or its Bid Proposal for EAST FRONT STREET FLOOD MITIGATION, said Bid Proposal, by reference thereto, being hereby made a part hereof.

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a bid to the OBLIGEE for the furnishing of all labor, materials (except those to be specifically furnished by the CITY), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Proposal and the detailed Drawings and Specifications, entitled:

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check, certified check, or bid bond in the amount of 5 percent of the base bid be submitted with said bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the CITY for the performance of said Contract, within 10 working days after written notice having been given of the award of the Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the PRINCIPAL within 10 consecutive calendar days after written notice of such acceptance, enters into a written Contract with the OBLIGEE and furnishes the Performance and Payment Bonds, each in an amount equal to 100 percent of the base bid, satisfactory to the CITY, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the OBLIGEE and the Surety herein agrees to pay said sum immediately upon demand of the OBLIGEE in good and lawful money of the United States of America, as liquidated damages for failure thereof of said PRINCIPAL.

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

_____
PRINCIPAL

By_____

_____
SURETY

By _____
Attorney-In-Fact

* * * * * *

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA)
: SS
COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: _____

Sworn and subscribed before me this _____day of _____, 20___.

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

* * * * * *

SWORN STATEMENT UNDER SECTION 287.133(3) (A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

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

1. This sworn statement is submitted with Bid or Proposal for EAST FRONT STREET FLOOD MITIGATION, CITY OF KEY WEST, FLORIDA
_____

2. This sworn statement is submitted by_____
(name of entity submitting sworn statement)

whose business address is _____

_____and (if applicable) its Federal

Employer Identification Number (FEIN) is_____

(If the entity has no FEIN, include the Social Security Number of the individual signing this

sworn statement _____

3. My name is _____
(Please print name of individual signing)

and my relationship to the entity named above is _____

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any bid or contract for goods or services to be provided to any public or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo-contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

   a. A predecessor or successor of a person convicted of a public entity crime; or

   b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

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

   ____Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

   _____There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

   _____The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

_____The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

_____
(signature)

_____
(date)

STATE OF_____

COUNTY OF_____

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

_____who, after first being sworn by me, affixed his/her
(name of individual signing)

signature in the space provided above on this_____ day of_____ , 20___.

My commission expires:

_____
NOTARY PUBLIC

CITY OF KEY WEST INDEMNIFICATION FORM

The Contractor shall indemnify and hold harmless the City of Key West, its officers, and employees, from liabilities, damages, losses and costs, including, but not limited to reasonable attorney's fees, to the extent caused by the negligence, recklessness or intentional wrongful misconduct of Contractor and persons employed or utilized by Contractor in the performance of this agreement. Except as specifically provided herein, this agreement does not require Contractor to indemnify the City of Key West, its employees, officers, directors, or agents from any liability, damage, loss, claim, action or proceeding.

These indemnifications shall survive the term of this agreement. In the event that any action or proceeding is brought against the City of Key West by reason of such claim or demand, Contractor shall, upon written notice from the City of Key West, resist and defend such action or proceeding by counsel satisfactory to the City of Key West.

The indemnification provided above shall obligate Contractor to defend at its own expense to and through appellate, supplemental or bankruptcy proceeding, or to provide for such defense, at the City of Key West's option, any and all claims of liability and all suits and actions of every name and description covered above which may be brought against the City of Key West whether performed by Contractor, or persons employed or utilized by Contractor.

The Contractor's obligation under this provision shall not be limited in any way by the agreed upon Contract Price as shown in this agreement, or the Contractor's limit of or lack of sufficient insurance protection.

CONTRACTOR: _____ SEAL:

_____
Address

_____
Signature

_____
Print Name

_____
Title

DATE: _____

BIDDER'S CHECKLIST

(Note: The purpose of this checklist is to serve as a reminder of major items to be addressed in submitting a bid and is not intended to be all inclusive. It does not alleviate the Bidder from the responsibility of becoming familiar with all aspects of the Contract Documents and proper completion and submission of his bid.)

1. All Contract Documents thoroughly read and understood. [ ]
2. All blank spaces in BID filled in, using black ink. [ ]
3. Total and unit prices added correctly. [ ]
4. Addenda acknowledged. [ ]
5. Subcontractors are named as indicated in the BID. [ ]
6. Experience record included. [ ]
7. BID signed by authorized officer. [ ]
8. Bid Bond completed and executed, including power-of-attorney dated the same date as Bid Bond. [ ]
9. Bidder familiar with federal, state, and local laws, ordinances, rules and regulations affecting performance of the work. [ ]
10. Bidder, if successful, able to obtain and/or demonstrate possession of required licenses and certificates within (10) ten calendar days after receiving a Notice of Award. [ ]
11. BID submitted intact with the Bidding Requirements, as stated in the invitation to bid. [ ]
12. Bid Documents submitted in sealed envelope and addressed and labeled in conformance with the instructions in the Invitation to Bid. [ ]
13. Bidder has reviewed, understood and signed pre-bid resolution and enclosed a signed copy with the bid. [ ]
14. Bidder must provide satisfactory documentation of State Licenses. [ ]

CONE OF SILENCE AFFIDAVIT

STATE OF _____)
: SS
COUNTY OF _____)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of _____ have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

Sworn and subscribed before me this

_____ day of _____, 20___.

_____
NOTARY PUBLIC, State of _____ at Large

My Commission Expires: _____

Sec. 2-773. Cone of Silence

(a) Definitions. For purposes of this section, reference to one gender shall include the other, use of the plural shall include the singular, and use of the singular shall include the plural. The following definitions apply unless the context in which the word or phrase is used requires a different definition:

1) *Competitive Solicitation* means a formal process by the City of Key West relating to the acquisition of goods or services, which process is intended to provide an equal and open opportunity to qualified persons and entities to be selected to provide the goods or services. Completive Solicitation shall include request for proposals ("RFP"), request for qualifications ("RFQ"), request for letters of interest ("RFLI"), invitation to bid ("ITB") or any other advertised solicitation.

2) *Cone of Silence* means a period of time during which there is a prohibition on communication regarding a particular Competitive Solicitation.

3) *Evaluation or Selection Committee* means a group of persons appointed or designated by the City to evaluate, rank, select, or make a recommendation regarding a Vendor or the Vendor's response to the Competitive Solicitation. A member of such a committee shall be deemed a city official for the purposes of subsection (c) below.

4) *Vendor* means a person or entity that has entered into or that desires to enter into a contract with the City of Key West or that seeks an award from the City to provide goods, perform a service, render an opinion or advice, or make a recommendation related to a Competitive Solicitation for compensation or other consideration.

5) *Vendor's Representative* means an owner, individual, employee, partner, officer, or member of the board of directors of a Vendor, or a consultant, lobbyist, or actual or potential subcontractor or sub consultant who acts at the behest of a Vendor in communicating regarding a Competitive Solicitation.

(b) Prohibited Communications: A Cone of Silence shall be in effect during the course of a Competitive Solicitation and prohibit:

1) Any communication regarding a particular Competitive Solicitation between a potential Vendor or Vendor's Representative and the City's administrative staff including, but not limited to, the city manager and his or her staff;

2) Any communication regarding a particular Competitive Solicitation between a potential Vendor or Vendor's Representative and the Mayor, City Commissioners, or their respective staff;

3) Any communication regarding a particular Competitive Solicitation between a potential Vendor or Vendor's Representative and any member of a City evaluation and/or selection committee therefore; and

4) Any communication regarding a particular Competitive Solicitation between the Mayor, City Commissioners, or their respective staff, and a member of a City evaluation and/or selection committee therefore.

(c) Permitted Communications: Notwithstanding the foregoing, nothing contained herein shall prohibit:

1) Communication between members of the public who are not Vendors or a Vendor's representative and any city employee, official or member of the City Commission;

2) Communications in writing at any time with any city employee, official or member of the City Commission, unless specifically prohibited by the applicable Competitive Solicitation.

(A) However, any written communication must be filed with the City Clerk. Any City employee, official or member of the City Commission receiving or making any written communication must immediately file it with the City Clerk.

(B) The City Clerk shall include all written communication as part of the agenda item when publishing information related to a particular Competitive Solicitation.

3) Oral communications at duly noticed pre-bid conferences;

4) Oral presentations before publically noticed evaluation and/or selection committees;

5) Contract discussions during any duly noticed public meeting;

6) Public presentations made to the City Commission or advisory body thereof during any duly noticed public meeting;

7) Contract negotiations with city staff following the award of a Competitive Solicitation by the City Commission; or

8) Purchases exempt from the competitive process pursuant to section 2-797 of these Code of Ordinances.

(d) Procedure

1) The Cone of Silence shall be imposed upon each Competitive Solicitation at the time of Public Notice of such solicitation as provided by section 2-826 of this Code. Public notice of the Cone of Silence shall be included in the notice of the Competitive Solicitation. The city manager shall issue a written notice of the release of each Competitive Solicitation to the affected departments, with a copy thereof to each Commission member, and shall include in any public solicitation for goods and services a statement disclosing the requirements of this ordinance.

2) The Cone of Silence shall terminate at the time the City Commission or other authorized body makes final award or gives final approval of a contract, rejects all bids or responses to the Competitive Solicitation, or takes other action which ends the Competitive Solicitation.

3) Any City employee, official or member of the City Commission that is approached concerning a Competitive Solicitation while the Cone of Silence is in effect shall notify such individual of the prohibitions contained in this section. While the Cone of Silence is in effect, any City employee, official or member of the City Commission who is the recipient of any oral communication by a potential Vendor or Vendor's Representative in violation of this section shall create a written record of the event. The record shall indicate the date of such communication, the persons with whom such communication occurred, and a general summation of the communication.

(e) Violations/penalties and procedures.

1) A sworn complaint alleging a violation of this ordinance may be filed with the City Attorney's office. In each such instance, an initial investigation shall be performed to determine the existence of a violation. If a violation is found to exist, the penalties and process shall be as provided in section 1-15 of this Code.

2) In addition to the penalties described herein and otherwise provided by law, a violation of this ordinance shall render the Competitive Solicitation void at the discretion of the City Commission.

3) Any person who violates a provision of this section shall be prohibited from serving on a City of Key West advisory board, evaluation and/or selection committee.

4) In addition to any other penalty provided by law, violation of any provision of this ordinance by a City of Key West employee shall subject said employee to disciplinary action up to and including dismissal.

5) If a Vendor is determined to have violated the provisions of this section on two more occasions it shall constitute evidence under City Code section 2-834 that the Vendor is not properly qualified to carry out the obligations or to complete the work contemplated by any new Competitive Solicitation. The City's Purchasing Agent shall also commence any available debarment from city work proceeding that may be available upon a finding of two or more violations by a Vendor of this section.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:	**2. Status of Federal Action:**	**3. Report Type:**
☐ a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	☐ a. bid/offer/application b. initial award c. post-award	☐ a. initial filing b. material change **For Material Change Only:** year_____ quarter_____ date of last report_____

4. Name and Address of Reporting Entity:	**5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:**
☐ Prime ☐ Subawardee Tier _____, *if known:* **Congressional District,** *if known:*	**Congressional District,** *if known:*
6. Federal Department/Agency:	**7. Federal Program Name/Description:** CFDA Number, *if applicable:* _____
8. Federal Action Number, *if known:*	**9. Award Amount,** *if known:* **$**
10. a. Name and Address of Lobbying Entity *(if individual, last name, first name, MI):*	**b. Individuals Performing Services** *(including address if different from No. 10a)*

(attach Continuation Sheet(s)	*(last name, first name, MI):* *SF-LLLA, if necessary)*
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.	**Signature:** _____ _____ **Print Name:** _____ _____ **Title:** _____ _____ **Telephone No.:** _____**Date:** _____

Federal Use Only:	Authorized for Local Reproduction Standard Form – LLL (Rev 7 – 97)

Form DEP 55-221 (01/01)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. **Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.**

2. **Identify the status of the covered Federal action.**

3. **Identify the appropriate classification of this report. If this is a follow up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by the reporting entity for this covered Federal action.**

4. **Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.**

5. **If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.**

6. **Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.**

7. **Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.**

8. **Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan**

award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

11. The certifying official shall sign and date the form, print his/her name, title and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

Form DEP 55-221 (01/01)

NON-COLLUSION DECLARATION AND
COMPLIANCE WITH 49 CFR §29.

ITEM/SEGMENT NO.:_____
F.A.P. NO.:
PARCEL NO.:
COUNTY OF:
BID LETTING OF:_____ ,_____

I, _____, hereby
(NAME)
declare that I am_____ of_____
(TITLE) (FIRM)
Of_____
(CITY AND STATE)
and that I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid on this State Project.

I further declare that:

1. The prices(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition with any other contractor, bidder or potential bidder.

2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.

3. No attempt has been made or will be made to solicit, cause or induce any other firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.

4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.

5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.

6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.

7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this Declaration.

8. As required by Section 337.165, Florida Statutes, the firm has fully informed the Department of Transportation in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(l)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

9. I certify that, except as noted below, neither my firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default..

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS:

(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action.

Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: (Seal)

BY:_____ WITNESS:_____
NAME AND TITLE PRINTED

BY:_____ WITNESS:_____
SIGNATURE

Executed on this_____ day of_____, _____

FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE

FLORIDA TRENCH SAFETY ACT COMPLIANCE
Trench Excavation Safety System and Shoring

CERTIFICATION

All excavation, trenching, and related sheeting, bracing, etc. on this project shall conform to the requirements of the Florida Trench Safety Act (90-96, CS/SB 2626), which incorporates by reference, OSHA's excavation safety standards, 29 CFR 1926.650 Subpart P including all subsequent revisions or updates to the these standards.

By submission of this bid and subsequent execution of this Contract, the undersigned certifies compliance with the above mentioned standards and further stipulates that all costs associated with this compliance are detailed below as well as included in their lump sum bid amount.

Summary of Costs:

Trench Safety Measure	Units	Quantity	Unit Cost	Extended Cost
A._____	_____	_____	_____	_____
B._____	_____	_____	_____	_____

_____
Signature
_____
Date

STATE OF _____

COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

_____, who, after first being sworn by me affixed his /her signature in the space,

provided above on the _____ day of _____, 20___.

_____
Notary Public (Seal)

My Commission expires:_____

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

Bidder shall certify that if awarded a Contract pursuant to this IFB, said Bidder shall provide benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses. Approved certification shall be in the form of the Equal Benefits for Domestic Partners Affidavit attached hereto, and shall be signed by an authorized officer of the contractor. If notified of intended award, the Bidder shall and deliver a description of the contractor's employee benefits plan, to the City's procurement director prior to entering a contract.

Failure to comply with this section may result in bid rejection, or the termination of any contract and all monies due or to become due under the contract may be retained by the City.

STATE OF _____)
: SS
COUNTY OF _____)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of _____ have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-799 Equal Benefits for Domestic Partners.

Sworn and subscribed before me this

_____ day of _____, 20___.

_____
NOTARY PUBLIC, State of _____ at Large

My Commission Expires: _____

City Ordinance Sec. 2-799
Requirements for City Contractors to Provide Equal Benefits for Domestic Partners

(A) Definitions. For purposes of this section only, the following definitions shall apply:

(1) Benefits means the following plan, program or policy provided or offered by a contractor to its employees as part of the employer's total compensation package: sick leave, bereavement leave, family medical leave, and health benefits.

(2) Bid shall mean a competitive bid procedure established by the city through the issuance of an invitation to bid, request for proposals, request for qualifications, or request for letters of interest.

(3) Cash equivalent means the amount of money paid to an employee with a domestic partner in lieu of providing benefits to the employee's domestic partner. The cash equivalent is equal to the employer's direct expense of providing benefits to an employee for his or her spouse.

(B) Equal benefits requirements.

(1) Except where otherwise exempt or prohibited by law, a Contractor awarded a covered contract pursuant to a bid process shall provide benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses.

(2) All bid requests for covered contracts which are issued on or after the effective date of this section shall include the requirement to provide equal benefits in the procurement specifications in accordance with this section.

(3) The city shall not enter into any covered contract unless the contractor certifies that such contractor does not discriminate in the provision of benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees.

(4) Such certification shall be in writing and shall be signed by an authorized officer of the contractor and delivered, along with a description of the contractor's employee benefits plan, to the city's procurement director prior to entering into such covered contract.

(5) The city manager or his/her designee shall reject a contractor's certification of compliance if he/she determines that such contractor discriminates in the provision of benefits or if the city manager or designee determines that the certification was created, or is being used for the purpose of evading the requirements of this section.

(6) The contractor shall provide the city manager or his/her designee, access to its records for the purpose of audits and/or investigations to ascertain compliance with the provisions of this section, and upon request shall provide evidence that the contractor is in compliance with the provisions of this section upon each new bid, contract renewal, or when the city manager has received a complaint or has reason to believe the contractor may not be in compliance with the provisions of this section. This shall include but not be limited to providing the city manager or his/her designee with certified copies of all the contractor's records pertaining to its benefits policies and its employment policies and practices.

(7) The contractor may not set up or use its contracting entity for the purpose of evading the requirements imposed by this section.

(C) Mandatory contract provisions pertaining to equal benefits. Unless otherwise exempt, every covered contract shall contain language that obligates the contractor to comply with the applicable provisions of this section. The language shall include provisions for the following:

(1) During the performance of the covered contract, the contractor certifies and represents that it will comply with this section.

(2) The failure of the contractor to comply with this section will be deemed to be a material breach of the covered contract.

(3) If the contractor fails to comply with this section, the city may terminate the covered contract and all monies due or to become due under the covered contract may be retained by the city. The city may also pursue any and all other remedies at law or in equity for any breach.

(4) If the city manager or his designee determines that a contractor has set up or used its contracting entity for the purpose of evading the requirements of this section, the city may terminate the covered contract.

(D) Enforcement. If the contractor fails to comply with the provisions of this section:

(1) The failure to comply may be deemed to be a material breach of the covered contract; or

(2) The city may terminate the covered contract; or

(3) Monies due or to become due under the covered contract may be retained by the city until compliance is achieved; or

(4) The city may also pursue any and all other remedies at law or in equity for any breach;

(5) Failure to comply with this section may also subject contractor to the procedures set forth in Division 5 of this Section, entitled "Debarment of contractors from city work."

(E) Exceptions and waivers. The provisions of this section shall not apply where:

(1) The contractor does not provide benefits to employees' spouses.

(2) The contractor is a religious organization, association, society or any non-profit charitable or educational institution or organization operated, supervised or controlled by or in conjunction with a religious organization, association or society.

(3) The contractor is a governmental entity.

(4) The sale or lease of city property.

(5) The provision of this section would violate grant requirement, the laws, rules or regulations of federal or state law (for example, The acquisition services procured pursuant to Chapter 287.055, Florida Statutes known as the "Consultants' Competitive Negotiation Act").

(6) Provided that the contractor does not discriminate in the provision of benefits, a contractor may also comply with this section by providing an employee with the cash equivalent of such benefits, if the city manager or his/her designee determines that either: The contractor has made a reasonable yet unsuccessful effort to provide equal benefits. The contractor shall provide the city manager or his/her designee with sufficient proof of such inability to provide such benefit or benefits which shall include the measures taken to provide such benefits or benefits and the cash equivalent proposed, along with its certificate of compliance, as is required under this section.

(7) The city commission waives compliance of this section in the best interest of the city, including but not limited to the following circumstances:

a. The covered contract is necessary to respond to an emergency.

b. Where only one bid response is received.

c. Where more than one bid response is received, but the bids demonstrate that none of the bidders can comply with the requirements of this section.

(F) City's authority to cancel contract. Nothing in this section shall be construed to limit the city's authority to cancel or terminate a contract, deny or withdraw approval to perform a subcontract or provide supplies, issue a non-responsibility finding, issue a non-responsiveness finding, deny a person or entity prequalification, or otherwise deny a person or entity city business.

(G) Timing of application. This section shall be applicable only to covered contracts awarded pursuant to bids which are after the date when this section becomes effective.

SUSPENSION AND DEBARMENT CERTIFICATION

CERTIFICATION REGARDING DEBARMENTS, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION-LOWER TIER FEDERALLY FUNDED TRANSACTIONS

1. The undersigned hereby certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. The undersigned also certifies that it and its principals:
(a) Have not within a three-year period preceding this certification been convicted of or had a civil judgment rendered
against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
(b) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 2.(a) of this Certification; and
(c) Have not within a three-year period preceding this certification had one or more public transactions (Federal, State or local) terminated for cause or default.

3. Where the undersigned is unable to certify to any of the statements in this certification, an explanation shall be attached to this certification.

Dated this day of, 20 .
By_____
Authorized Signature/Contractor

_____
Typed Name/Title

_____
Contractor's Firm Name

_____
Street Address

_____
Building, Suite Number

_____
City/State/Zip Code

_____
Area Code/Telephone Number

STATEMENT OF NO BID

Note: If you do not intend to submit a BID, please return this form ONLY.

TO: East Front Street Flood Mitigation
Office of the City Clerk
3126 Flagler Avenue
Key West, FL. 33040

We, the undersigned, have declined to submit a BID on the above-noted Invitation to Bid for the following reasons:

_____Insufficient time to respond to the Invitation to BID

_____Do not offer this Product

_____Our schedule will not permit us to perform

_____Unable to meet specifications

_____Specifications unclear (Please explain below)

_____Remove us from the City of Key West's, "Bidder's Mailing List"

_____Other (Please specify below)

REMARKS: _____

_____

_____

We understand that if a "no bid" statement is not returned, our name may be removed from the bidder's list of the City of Key West.

COMPANY NAME: _____

SIGNATURE: _____

DATE: _____ TELEPHONE: _____

PART 2

CONTRACT FORMS

CONTRACT

This Contract, made and entered into this _____ day of _____ , 20__,

by and between the City of Key West, hereinafter called the "Owner", and_____

_____

hereinafter called the "Contractor";

WITNESSETH:

The Contractor, in consideration of the sum to be paid him by the Owner and of the covenants and agreements herein contained, hereby agrees at his own proper cost and expense to do all the work and furnish all the materials, tools, labor, and all appliances, machinery, and appurtenances for EAST FRONT STREET FLOOD MITIGATION, Key West, Florida to the extent of the Proposal made by the Contractor, dated the _____ day of_____ , 20__, all in full compliance with the Contract Documents referred to herein.

The CONTRACT DOCUMENTS, including the signed copy of the BID, the CONTRACT FORMS, CONDITIONS OF THE CONTRACT, CONTRACT SPECIFICATIONS, PERFORMANCE and PAYMENT BONDS, and the DRAWINGS.

In consideration of the performance of the work as set forth in these Contract Documents, the Owner agrees to pay to the Contractor the amount bid in the Proposal as adjusted in accordance with the Contract Documents, or as otherwise herein provided, and to make such payments in the manner and at the times provided in the Contract Documents.

The Contractor agrees to complete the work within the time specified in the Contract and to accept as full payment hereunder the amounts computed as determined by the Contract Documents and based on the said BID.

The Contractor agrees to remedy all defects appearing in the work or developing in the materials furnished and the workmanship performed under this Contract during the warranty period after the date of final acceptance of the work by the Owner, and further agrees to indemnify and save the Owner harmless from any costs encountered in remedying such defects.

It is agreed that the Contract, based upon the BID, shall be fully complete within 200 consecutive calendar days from the date the Notice to Proceed is issued.

In the event the Bidder is awarded the Contract and fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, the Owner and Bidder agree that as liquidated damages for delay (not as a penalty) Bidder shall pay Owner $2,000 per day for each day that expires after the completion date.

Owner will recover such liquidated damages by deducting the amount owed from the final payment or any retainage held by the Owner.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribe the same this

_____ day of _____, A.D., 20__.

CITY OF KEY WEST

By_____

Title_____

CONTRACTOR

By_____

Title_____

APPROVED AS TO FORM

_____
Attorney for Owner

* * * *

PERFORMANCE BOND

BOND NO.
AMOUNT: $

KNOW ALL MEN BY THESE PRESENTS, that in accordance with Florida Statutes Section 255.05, _____
with offices at _____
hereinafter called the CONTRACTOR (Principal), and
_____
with offices at _____
a corporation duly organized and existing under and by virtue of the laws of the State of Florida, hereinafter called the SURETY, and authorized to transact business within the State of Florida, as SURETY, are held and firmly bound unto **CITY OF KEY WEST,** represented by its _____, hereinafter called the CITY (Obligee), in the sum of:

_____DOLLARS ($_____), lawful money of the United States of America, for the payment of which, well and truly be made to the CITY, the CONTRACTOR and the SURETY bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract hereto attached, with the CITY, dated _____, 20___, to furnish at his own cost, charges, and expense all the necessary materials, equipment, and/or labor in strict and express accordance with said Contract and the Contract Documents as defined therein, all of which is made a part of said Contract by certain terms and conditions in said Contract more particularly mentioned, which Contract, consisting of the various Contract Documents is made a part of this Bond as fully and completely as if said Contract Documents were set forth herein;

NOW THEREFORE, the conditions of this obligation are such that if the above bounden CONTRACTOR:

1. Shall in all respects comply with the terms and conditions of said Contract and his obligation there under, including the Contract Documents (which include the plans, drawings, specifications, and conditions as prepared by the CITY, invitation to bid, instructions to bidders, the CONTRACTOR'S bid as accepted by the above CITY, the bid and contract performance and payment bonds, and all addenda, if any, issued prior to the opening of bids), being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and

2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying PRINCIPAL with labor, materials, or supplies, used directly or indirectly by PRINCIPAL in the prosecution of the work provided for in the contract; and

3. Pays CITY all losses, costs, expenses, damages, attorney's fees, including appellate proceedings, injury or loss of whatever kind and however arising including, without limitation, delay damages to which said CITY may be subject by reason of any wrongdoing, misconduct, want of care or skill, negligence, failure of performance, breach, failure to petition within the prescribed time, or default, including patent infringements, on the part of said CONTRACTOR, his agents or employees, in the execution or performance of said Contract; and

4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this obligation shall be void; otherwise, to remain in full force and effect for the term of said Contract.

AND, the said Surety for value received, hereby stipulates and agrees that no change involving any extension of time, or addition to the terms of the Contract Documents, or to the work to be performed, or materials to be furnished there under shall affect said obligation of said Surety on this Bond, and the said Surety does hereby waive notice of any such changes, extension of time, alterations, or additions of the terms of the Contract Documents, or to the work.

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.

IN WITNESS WHEREOF, the above parties bonded together have executed this instrument this day of _____, 20___, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By: _____

(SEAL)

ATTEST

SURETY

By: _____

(SEAL)

ATTEST

PAYMENT BOND

BOND NO.
AMOUNT: $

KNOW ALL MEN BY THESE PRESENTS, that in accordance with Florida Statutes Section 255.05, _____
with offices at _____
hereinafter called the CONTRACTOR, (Principal), and
_____
with offices at _____
a corporation duly organized and existing under and by virtue of the laws of the State of _____ , hereinafter called the SURETY, and authorized to transact business within the State of Florida, as SURETY, are held and firmly bound CITY OF KEY WEST**,** represented by its _____, hereinafter called the City (Obligee), in the sum of: _____DOLLARS ($_____), lawful money of the United States of America, for the payment of which, well and truly be made to the CITY, and the CONTRACTOR and the SURETY bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract for _____ attached hereto, with the CITY, dated _____, 20_____, to furnish at his own cost, charges, and expense the necessary materials, equipment, and/or labor in strict and express accordance with said Contract and the plans, drawings (if any), and specifications prepared by the CITY, all of which is made a part of said Contract by certain terms and conditions in said Contract more particularly mentioned, which Contract, consisting of the various Contract Documents specifically mentioned herein and relative hereto, is made a part of this Bond as fully and completely as if said Contract Documents were set forth herein.

NOW THEREFORE, the conditions of this obligation are such that if the above bounden CONTRACTOR shall in all respects comply with the terms and conditions of said Contract and his obligation thereunder, including the Contract Documents (which include the plans, drawings, specifications, and conditions prepared by the CITY, invitation to bid, instructions to bidders, the CONTRACTOR'S bid as accepted by the CITY, the bid and contract and payment bonds, and all addenda, if any, issued prior to the opening of bids), and further that if said CONTRACTOR shall promptly make payments to all persons supplying materials, equipment, and/or labor, used directly or indirectly by said CONTRACTOR or subcontractors in the prosecution of the work for said contract is accordance with Florida Statutes, Section 255.05 or Section 713.23, then this obligation shall be void; otherwise to remain in full force and effect for the term of said contract, including and all guarantee periods as specifically mentioned in said Contract Documents.

AND, the said SURETY for value received, hereby stipulates and agrees that no change involving any extension of time, or addition to the terms of the Contract or to the work to be performed, or materials to be furnished thereunder, or in the Contract Documents and specifications accompanying the said contract shall affect said obligation of said SURETY on this Bond, and the said SURETY does hereby waive notice of any such changes, extension of time, alternations, or additions of the terms of the Contract, or to the work, to the Contract Documents, or to the specifications.

Claimant shall give written notice to the CONTRACTOR and the SURETY as required by Section 255.05 or Section 713.23, Florida Statutes. Any action instituted against the CONTRACTOR or SURETY under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2) or Section 713.23, Florida Statutes.

IN WITNESS WHEREOF, the above parties bounded together have executed this instrument this day of _____, 20_____, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By:_____

(SEAL)

ATTEST

SURETY

By:_____

(SEAL)

ATTEST

City of Key West
P.O. Box 1409
Key West, FL 33041

Notice of Award

Date

Owner City of Key West
Company City of Key West
Address Office of the City Clerk
Address City of Key West P.O. Box 1409
Key West, Fl 33041-1409

Project Name: **East Front Street Flood Mitigation**

Dear:

At a meeting of the City of Key West Commission held on_____**,** 20__**.COMPANY NAME** was awarded the contract for **East Front Street Flood Mitigation.** The total Contract amount shall not exceed $ _____.

Enclosed please find three copies of the Contract Documents for your execution. Please complete the necessary pages, affixing signatures, notary and / or corporate seals, etc. where necessary and return to this office by **DATE**. Also, you need to be mobilized on **DATE**, and remit a bill to the City of Key West by **DATE**.

The Certificate of Insurance must be attached to the documents; one original and two copies are acceptable.

Powers – of – Attorney must be submitted in each bond document, an original and two copies are permissible.

A copy of your City of Key West Business License Tax Receipt, Well Drillers Certification, and Well Drillers License must be attached, (subcontractors City Of Key West Business License Tax Receipt) and one copy in PDF on disc.

Sincerely,

Jay Gewin
Utilities Manager
cc: Cheri Smith, City Clerk
Project File

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: **East Front Street Flood Mitigation**

DATE OF ISSUANCE _____

_____

CITY _____

CITY'S CONTRACT NO._____

CONTRACTOR_____ ENGINEER_____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

TO:_____

CITY

And To _____

CONTRACTOR

The Work to which this Certificate applies has been inspected by authorized representatives of CITY, CONTRACTOR, AND ENGINEER 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 no alter the responsibility of the 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 the above date of Substantial Completion.

EJCDC No. 1910-8-D (1990 Edition)
Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Associated General Contractors of America

CERTIFICATE OF FINAL COMPLETION

Project: **East Front Street Flood Mitigation**

Date of Issuance:_____

CITY_____

Contractor _____ **Engineer**_____

This Certificate of Completion applies to all Work under the Contract Documents.

The Work to which this Certificate applies has been inspected by authorized representatives of CITY and ENGINEER, and that Work is hereby declared to be complete in accordance with the Contract Documents on

_____
DATE OF COMPLETION

Executed by ENGINEER on_____ , (Date)

_____
ENGINEER

By:_____
(Authorized Signature)

CONTRACTOR accepts this Certificate of Completion on _____,
(DATE)

_____
CONTRACTOR

By:_____

CITY accepts this Certificate of Completion on_____,
(DATE)

_____
CITY

By:_____
(Authorized Signature)

NOTICE TO PROCEED

Date: _____, 20___

Contractor: _____

Address: _____

_____

Project: **East Front Street Flood Mitigation**

You are hereby notified to commence work on _____, 20_____ for the East Front Street Flood Mitigation project and all related work, as designated by the City in accordance with the Contract made with the City of Key West on the _____day of _____, 20____. The amount of time to complete the work is two hundred (200) consecutive calendar days and should be fully completed on or before_____.

Sincerely,

_____

Project Manager

Receipt of this NOTICE TO PROCEED is hereby acknowledged this,
the ____ day of_____, 20_____.

CONTRACTOR: _____

By: _____

Title: _____ Date: _____

Please return one (1) copy of this notice to:

Perez Engineering & Development, Inc.
1010 Kennedy Drive, Suite 201
Key West, FL 33040

PAYMENT APPLICATION AND CERTIFICATE

Date: _____

Application No.: _____of ___

Sheet: _____ of _____

Period From: _____ to _____, 20___.

Project: **East Front Street Flood Mitigation**

Contractor: _____

1. Original Contract Sum $ _____
2. Contract Modifications Approved in Previous Applications

   Additions $ _____ Deductions: $ _____
3. Contract Modifications Approved this Period (List Contract Modifications Nos.____)

   Additions $ _____ Deductions: $ _____
4. Net Change by Contract Modifications (sum of lines 2 and 3) $ _____
5. Revised Contract Amount (Sum of Lines 1 and 4) $ _____
6. Total Value of Work to Date (Estimate Attached) $ _____
7. Percent Project Complete (Line 6 / Line 5 x 100) =_____%
8. Total Materials on Hand (Listing Attached) $ _____
9. Subtotal – Work Completed and Stored (Sum of Lines 6 and 8) $ _____
10. Total Retainage (_____% x Line 9) $ _____
11. Total Earned to Date, Less Retainage (Line 9 less Line 10) $ _____
12. Less Previous Certificates for Payments (item 11 from Previous Application) $ _____
13. Current Payment Due (Line 11 less Line 12) $ _____
14. Amount paid to Subcontractors Previous Pay Application $ _____

The undersigned Contractor certifies that the Work covered by this Application for Payment has been completed in accordance with the Contract Documents that the current payment shown herein is now due, and that title for all Work, materials, and equipment covered in this Application will pass to the CITY free and clear of all liens at the time of payment.

_____ _____ _____

Contractor By Date

I hereby acknowledge that the material and labor involved on the above estimate is correct to the best of my knowledge, information and belief, and payment on same is due Contractor.

_____ _____

Project Manager Date

CITY OF KEY WEST

Construction Compliance Certification with Specifications and Plans

Project Number

Date

PO Number

Monthly ☐

Final ☐

Gravity Injection Wells Phase V

Prime Contractor for the above referenced contract hereby verifies based on personnel knowledge or reasonable investigation and good faith belief, all Quality Control functions and Quality Control sampling and test results are in substantial compliance with the pertinent specification requirements for this project The represents work completed between _____ and _____. Exceptions are listed below.

(add addition sheets as required)

Item No.

Exception:

A false statement or omission made in connection with this certification is sufficient cause for suspension, revocation, or denial of qualification to bid, and a determination of non-responsibility, and may subject the person and /or entity making the false statement to any civil and criminal penalties available pursuant to applicable State and Federal Law.

Contractor:_____ date;_____

State of Florida

County of:

Sworn to and subscribed before me this _____ day

of _____,_____

By_____

(print name of person signing certification)

Notary Public

Commission Expires

Certificate of Final Payment

Date:

Payment Application No. _____

Period From: _____ to _____

Project: **East Front Street Flood Mitigation**

Contractor: _____

I Hereby Acknowledge that this contract has been completed in substantial compliance with the items of the agreement, Specifications and Plans, as-builts, work change directives and field orders. I, therefore, request acceptance of the work and processing of this final estimate as showing the total amount of money due in compliance with the terms of the Contract.

I_____ certify to the Owner that the Contractor met the Grant requirements provided in the contract documents

Contractor: _____

Address:_____

_____

With the acceptance of this final payment, we, the Contractor, release the Owner and the Engineer and their agents, from all claims and liability to us, the Contractor, for all things done or furnished in connection with the Work, and every act of the Owner and others relating to, or arising, out of the Work.

_____ _____

Signature Date

_____

Title

Sworn and subscribed before me this_____day of _____, 2009

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

ACCEPTED BY:

_____ _____
Project Manager Date

Owner

By: _____ _____
Date

PART 3

CONDITIONS OF THE CONTRACT

STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By

ACEC
American Council of Engineering Companies

National Society of Professional Engineers
Professional Engineers in Private Practice

ASCE American Society of Civil Engineers

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

This document has been approved and endorsed by

The Associated General Contractors of America

Knowledge for Creating and Sustaining the Built Environment

Construction Specifications Institute

Copyright ©2002

National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Council of Engineering Companies
1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

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

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*--A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the

Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*--The individual or entity named as such in the Agreement.

20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *Schedule of Values*--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

45. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

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

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive 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 Times.

1.02 *Terminology*

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. *Intent of Certain Terms or Adjectives*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to

supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents, or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise

specified in the General Requirements), Contractor shall submit to Engineer for timely review**:**

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility

inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's

sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings 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; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown

or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument 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 or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings 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; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is

or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall 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 Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or

insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order .

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to

obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 *Labor; Working Hours*

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

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, 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 performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be

submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified , and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or-equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner'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 Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued . No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any

contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the 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.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer,, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work 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 Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to 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 Contract Documents.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work.

However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 *Use of Site and Other Areas*

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas 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 adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* 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.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

A. Contractor shall be solely 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:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements,

roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; 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 other 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.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or 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 Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:* Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly 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 Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various

aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the

performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph

13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract 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 in Paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) 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. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,

2. approve the Claim, or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim.

Except as otherwise may be agreed to in writing by Owner, 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 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. 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' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. 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 Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any 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 and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the 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.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

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

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

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

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

11.03 *Unit Price Work*

A. Where the Contract 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 unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. 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 Engineer subject to the provisions of Paragraph 9.07.

C. 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.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. 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 Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

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

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. 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.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefore as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner 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 incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

A. 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 Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 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.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and , will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract 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 under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. 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),

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

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

F. If and to the extent that Contractor has provided a performance bond under the provisions of

Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. 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

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

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

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

REVISIONS AND ADDITIONS TO THE GENERAL CONDITIONS

The General Conditions are hereby revised as follows:

ARTICLE 1.01.A.19 "Engineer"

Add the following:

Wherever in these Documents the word "Engineer" appears, it shall be understood to mean Perez Engineering & Development, Inc. and their authorized representatives, acting either directly or indirectly as authorized agents of the Owner.

ARTICLE 1.01.A.30 "Owner"

Add the following:

Wherever in these Documents the word "Owner" appears, it shall be understood to mean the City of Key West whose address is 3140 Flagler Avenue, Key West, Florida 33040.

SC-1.01.A.43. Supplement paragraph 1.01.A.43 of the General Conditions as follows: Substantial Completion is further defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide Owner the full time, uninterrupted, and continuous beneficial operation of the Work; and (ii) all required functional, performance and acceptance or startup testing has been successfully demonstrated for all components, devices, equipment, and instrumentation and control to the satisfaction of Engineer in accordance with the requirements of the Specifications.

SC-1.01.A.51. Add a new paragraph immediately following paragraph 1.01.A.50 of the General Conditions as follows:

1.01.A.51. Specialist—The term Specialist refers to a person, partnership, firm, or corporation of established reputation (or if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workers skilled in either (as applicable) manufacturing or fabricating items required by the Contract Documents, or otherwise performing Work required by the Contract Documents. Where the Specifications require the installation by a Specialist, that term shall also be deemed to mean either the manufacturer of the item, a person, partnership, firm, or corporation licensed by the manufacturer, or a person, partnership, firm, or corporation who will perform the Work under the manufacturer's direct supervision.

SC-2.03.A. Delete the third sentence of paragraph 2.03.A Commencement of Contract Times: Notice to Proceed of the General Conditions in its entirety.

ARTICLE 4.05 "REFERENCE POINTS"

Add the following:

It will be the Contractor's responsibility to layout the work and to transfer elevations from benchmarks. Where new construction connects to existing facilities, the Contractor shall check and establish the exact location prior to construction of the facilities.

The Contractor shall furnish all surveys, labor, and equipment, including setting all alignment and gradient, grade stakes, batter boards, and everything necessary to lay out his work. The Contractor shall be responsible for maintaining and re-establishing at his expense, all control points. After completion of his construction, he shall reset all permanent monuments at their original locations and elevations.

All layout work may be checked by the Engineer, and the Contractor shall furnish all necessary labor, equipment, and materials, and shall cooperate and assist the Engineer in making such checks.

The dimensions for lines and elevations for grades of the structures, appurtenances, and utilities will be shown on Drawings, together with other pertinent information required for laying out the work. If site conditions vary from those indicated, the Contractor shall notify the Engineer immediately, who will make any minor adjustment as required.

ARTICLE 5.04 "CONTRACTOR'S LIABILITY INSURANCE"

Add the following:

Provide Employer's Liability Insurance in an amount not less than $1,000,000.

ARTICLE 5.04 "CONTRACTOR'S LIABILITY INSURANCE"

Add the following:

CONTRACTOR insurance/indemnity language

Insurance

CONTRACTOR is to secure, pay for, and file with the City of Key West, prior to commencing any work under the Contract, all certificates for workers' compensation, public liability, and property damage liability insurance, and such other insurance coverages as may be required by specifications and addenda thereto, in at least the following minimum amounts with specification amounts to prevail if greater than minimum amounts indicated. Notwithstanding any other provision of the Contract, the CONTRACTOR shall provide the minimum limits of liability insurance coverage as follows:

Auto Liability	$1,000,000	Combined Single Limit
General Liability	$2,000,000	Aggregate (Per Project)
	$2,000,000	Products Aggregate
	$1,000,000	Any One Occurrence
	$1,000,000	Personal Injury
	$ 300,000	Fire Damage/Legal
Additional Umbrella Liability	$_,000,000	Occurrence / Aggregate

CONTRACTOR shall furnish an original Certificate of Insurance indicating, and such policy providing coverage to, City of Key West named as an additional insured on a PRIMARY and NON CONTRIBUTORY basis utilizing an ISO standard endorsement at least as broad as CG 2010 (11/85) or its equivalent, (combination of CG 20 10 07 04 and CG 20 37 07 04, providing coverage for completed operations, is acceptable) including a waiver of subrogation clause in favor of City of Key West on all policies. CONTRACTOR will maintain the General Liability and Umbrella Liability insurance coverages summarized above with coverage continuing in full force including the additional insured endorsement until at least 3 years beyond completion and delivery of the work contracted herein.

Notwithstanding any other provision of the Contract, the CONTRACTOR shall maintain complete workers' compensation coverage for each and every employee, principal, officer, representative, or agent of the CONTRACTOR who is performing any labor, services, or material under the Contract. Further, CONTRACTOR shall additionally maintain the following minimum limits of coverage:

Bodily Injury Each Accident	$1,000,000
Bodily Injury by Disease Each Employee	$1,000,000
Bodily Injury by Disease Policy Limit	$1,000,000

If the work is being done on or near a navigable waterway, CONTRACTOR's workers compensation policy shall be endorsed to provide USL&H Act (WC 00 01 06 A) and Jones Act (WC 00 02 01 A) coverage if specified by the City of Key West. CONTRACTOR shall provide the City of Key West with a Certificate of Insurance verifying compliance with the workman's compensation coverage as set forth herein and shall provide as often as required by the City of Key West such certification which shall also show the insurance company, policy number, effective and expiration date, and the limits of workman's compensation coverage under each policy.

CONTRACTOR's insurance policies shall be endorsed to give 30 days written notice to the City of Key West in the event of cancellation or material change, using form CG 02 24, or its equivalent.

Certificates of Insurance submitted to the City of Key West will not be accepted without copies of the endorsements being requested. This includes additional insured endorsements, cancellation/material change notice endorsements, and waivers of subrogation. Copies of USL&H Act and Jones Act endorsements will also be required if necessary. PLEASE ADVISE YOUR INSURANCE AGENT ACCORDINGLY.

CONTRACTOR will comply with any and all safety regulations required by any agency or regulatory body including but not limited to OSHA. CONTRACTOR will notify City of Key West immediately by telephone at (305) xxx-xxxx any accident or injury to anyone that occurs on the jobsite and is related to any of the work being performed by the CONTRACTOR.

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A :	
INSURED **Contractor Sample**	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$1,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$300,000
	CLAIMS-MADE X OCCUR	X	X				MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$1,000,000
							GENERAL AGGREGATE	$2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$2,000,000
	POLICY X PRO-JECT LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS	X	X				BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$,000,000
	EXCESS LIAB CLAIMS-MADE	X	X				AGGREGATE	$,000,000
	DED X RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X WC STATU-TORY LIMITS / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N (Mandatory in NH)	N/A	X				E.L. EACH ACCIDENT	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

City of Key West
P.O. Box 1409
Key West, FL 33041-1409

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. **Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EARLIER NOTICE OF CANCELLATION PROVIDED BY US

Number of Days Notice 30

For any statutorily permitted reason **other than nonpayment of premium**, the number of days required for notice of cancellation is increased to the number of days shown in the Schedule above.

If this policy is cancelled by us we will send the Named Insured and any party listed in the following schedule notice of cancellation based on the number of days notice shown above.

Schedule

Name of Person or Organization

Mailing Address

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph **8. Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions:**

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

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WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective Policy No. Endorsement No.
Insured Premium

Insurance Company Countersigned by_____

© 1983 National Council on Compensation Insurance.

The following **Indemnification Agreement** shall be made a provision of the contract:

> ***Contractor agrees to protect, defend, indemnify, save and hold harmless The City of Key West, all Departments, Agencies, Boards and Commissions, its officers, agents, servants and employees, including volunteers, from and against any and all claims, debts, demands, expense and liability arising out of injury or death to any person or the damage, loss of destruction of any property which may occur or in any way grow out of any act or omission of the Contractor, its agents, servants, and employees, or any and all costs, expense and/or attorney fees incurred by the Contractor as a result of any claim, demands, and/or causes of action except of those claims, demands, and/or causes of action arising out of the negligence of The City of Key West, all Departments, Agencies, Boards and Commissions, its officers, agents, servants and employees. The Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit at its sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false or fraudulent. This shall not in anyway abrogate the City's right to the defense of sovereign immunity.***

In addition, it is understood if at any time any of the policies required by City shall become unsatisfactory to the City as to form or substance, or if a company issuing any such policy shall become unsatisfactory to the City, the Contractor shall obtain an new policy, submit the same to the City for approval and submit a certificate of insurance as which may be required by the contract. It is understood that upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, the contract at the election of the City may be declared suspended, discontinued or terminated. Further, failure of the Contractor to take out and/or maintain any required insurance shall not relieve the Contractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification.

ARTICLE 5.04 "CONTRACTOR'S LIABILITY INSURANCE"

Add the following Article:

SURETY AND INSURER QUALIFICATIONS

All bonds, insurance contracts, and certificates of insurance shall be either executed by or countersigned by a licensed resident agent of the Surety or insurance company, having his place of business in the State of Florida, and in all ways complying with the insurance laws of the State of Florida. Further, the said Surety or insurance company shall be duly licensed and qualified to do business in the State of Florida.

ARTICLE 5.04 "CONTRACTOR'S LIABILITY INSURANCE"

Include the City of Key West and Perez Engineering & Development, Inc. as additional insureds.

6.03. Add the following new paragraphs immediately after Paragraph 6.03.C:

6.03.D. Domestic Products:

6.03.D.1. Contractor agrees to use materials, supplies, and products manufactured, mined, processed, or produced in the United States or its territories, if products are available at reasonable and competitive prices and are not contrary to any sole source specification. If Agreement to use domestic products is breached and domestic products are not used, there shall be a downward adjustment in Contract price equal to any realized savings or benefits to Contractor.

6.03.D.2. Contractor agrees to use steel produced within the United States when specifications require the use of steel and do not limit its supply to a sole source specification. Owner has right to waive this requirement in the event of national emergency, national strike, or other cause. If Agreement to use domestic steel is breached and domestic steel is not used, there shall be a downward adjustment in Contract price equal to any realized savings or benefits to Contractor.

6.03.E. Grant Requirements:

6.03.E.1. The Contractor shall assist the grants administrator in meeting the reporting requirements set forth in Section 1512 and all other applicable provisions of the American Recovery and Reinvestment Act of 2009 (ARRA), also referred to as the Recovery Act, by providing information requested by the grants administrator in a timely manner. Other applicable provisions include, but are not limited to, Section 1605, Buy America and Section 1606, Davis-Bacon Prevailing Wage Rates.

ARTICLE 6.08 "PERMITS"

Add the following:

PERMIT FOR WORK WITHIN LOCAL RIGHTS-OF-WAY

The Contractor shall obtain from the City of Key West or Monroe County, as appropriate, the necessary permits for work within the rights-of-way. The Contractor shall abide by all regulations and conditions, including maintenance of traffic.

The Owner will obtain the utility installation permit for any improvements to be constructed within Florida Department of Transportation rights-of-way. The Contractor shall abide by all regulations and conditions of this permit including maintenance of traffic, restoration, etc.

ADMINISTRATION

Administration of the apprenticeship program for this Contract will be under the designated area field office of the Bureau of Apprenticeship.

DEWATERING

A dewatering permit may be required from the South Florida Water Management District (SFWMD). The Contractor is responsible for verifying and obtaining that permit and paying fees required. The City has applied for and will obtain an Environmental Resource Permit from the SFWMD.

ARTICLE 6.09 "LAWS AND REGULATIONS"

Add the following:

The Contractor shall comply with the City of Key West Noise Ordinance.

ARTICLE 6.09 "LAWS AND REGULATIONS"

Add the following subarticles:

Within 10 days of Notice of Award, the successful Bidder must represent that he holds all applicable state, county, and City of Key West licenses and permits required to do business as a contractor with respect to the work described in the Contract Documents.

Further, the successful Bidder must, within 10 days of Notice of Award, furnish documentation showing that, as a minimum, he has complied with the provisions of Chapter 91 of the Code of Ordinances of the City of Key West in order to enter into the Agreement contained in the Contract Documents.

Specifically, within 10 days after Notice of Award, the successful Bidder must demonstrate that he holds, as a minimum, the following licenses and certificates:

A. All licenses or certificates required by federal, state, or local statutes or regulations.

B. Holds a valid Certificate of Competency issued by the Public Service Director of the Building and Zoning Department which shall be valid throughout the Contract time.

C. Holds a valid occupational license issued by the City of Key West.

FOLLOWING ARTICLE 6.09 "LAWS AND REGULATIONS"

Add the following Article:

HISTORIC PRESERVATION

The Contractor shall comply with Florida's Archives and Historic Act (Florida Statutes, Chapter 267) and the regulations of the local historic preservation board as applicable and protect against the potential loss or destruction of significant historical or archaeological data, sites, and properties in connection with the project.

ARTICLE 6.13 "SAFETY AND PROTECTION"

Add the following Subarticle:

OCCUPATIONAL SAFETY AND HEALTH

The Contractor shall observe and comply with all applicable local, state, and federal occupational safety and health regulations during the prosecution of work under this Contract. In addition, full compliance by the Contractor with the U.S. Department of Labor's Occupational Safety and Health Standards, as established in Public Law 91-596, will be required under the terms of this Contract.

ARTICLE 6.20 "INDEMNIFICATION"

Add the following:

The obligation of the Contractor under this Article shall be limited to the contractual liability as specified in the Supplementary Conditions, Article Insurance and Liability.

ARTICLE 13.03 “TESTS AND INSPECTIONS”

SC-13.03.B Delete 13.03.B in its entirety and insert the following:

Contractor shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents.

SC-13.03.D. Supplement paragraph 13.03.D of the General Conditions as follows:

Tests required by Contract Documents to be performed by Contractor that require test certificates be submitted to Owner or Engineer for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required, testing laboratories or agencies shall meet following applicable requirements:

13.03.D.1. “Recommended Requirements for Independent Laboratory Qualification,” published by the American Council of Independent Laboratories.

13.03.D.2. Basic requirements of ASTM E329, “Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction” as applicable.

13.03.D.3. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards or accepted values of natural physical constants.

13.07 Correction Period

13.07.A. Change the first sentence from “If within one year after the date of Substantial Completion…” TO “If within five years after the date of Substantial Completion…”

13.07.D. Change the sentence from "…will be extended for an additional period of one year after such corrections or removal…" TO "…will be extended for an additional period of five years after such correction or removal…"

ARTICLE 14 "PAYMENTS TO CONTRACTOR AND COMPLETION"

Add the following to the end of Subarticle 14.02.B.1:

Add the following subarticles:

14.02.B1.1 The Owner will deduct from the estimate, and retain as part security, 10 percent of the amount earned for work satisfactorily completed. A deduction and retainage of 10 percent will be made on the estimated amount earned for approved items of material delivered to and properly stored at the jobsite but not incorporated into the work.

14.02.B1.2 After deducting the retainage and the amount of all previous partial payments made to the Contractor from the amount earned, the amount due will be made payable to the Contractor. Recommendations for payment received by the Owner less than 40 days prior to the scheduled day for payment will not be processed or paid until the following month.

ARTICLE 17 "MISCELLANEOUS"

Add the following new Article 18, Federal Grant Requirements to the end of Subarticle 17.5:

"ARTICLE 18 FEDERAL GRANT REQUIREMENTS"

This Project is funded in part by federal grant money. The Contractor shall comply with the federal grant requirements.

18.1 Access to Records: Authorized representatives of the Owner, the Florida Department of Environmental Protection, other state agencies associated with the grant and the United States Agency responsible for this grant shall have access to, for the purpose of inspection, any books, documents, papers, and records of the Contractor that are pertinent to this Agreement/Contract. The Contractor shall retain all books, documents, papers, and records pertinent to this Agreement/Contract for a period of three years after receiving and accepting final payment under his Agreement/Contract.

18.2 Access to Work Sites: Authorized representatives of the Owner, the Florida Department of Environmental Protection (FDEP), other state agencies associated with this grant, and the United States Agency responsible for this grant shall have access to the Work site(s) at any reasonable time. The Contractor shall cooperate (including making available working copies of documents and supplementary materials) during Work site inspections conducted by the Owner and state and federal agencies.

18.3 Debarment and Suspension (Executive Order 12549):

18.3.1 If the price of this Agreement/Contract equals or exceeds $25,000, the Owner shall not award this Agreement/Contract, nor permit any lower-tier goods or services (including construction) subcontract with a price equaling or exceeding $25,000 to be awarded, to any party that is debarred or suspended or is otherwise excluded from, or ineligible for participation in, Federal assistance programs under Executive Order 12549 (Debarment and Suspension).

18.3.2 The attention of all bidders or prospective contractors (including the Contractor) is directed to the certification/clause entitled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," which has been extracted from Appendix B to 40 CFR Part 32 and included as Appendix A to these Supplementary Conditions. The certification/clause entitled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," is applicable to this Agreement/Contract if the price of this Agreement/Contract equals or exceeds $25,000.

18.3.3 If bidders or prospective contractors (including the Contractor), or any prospective subcontractors at any tier, intend to let any lower-tier goods or services (including construction) subcontracts for any portion of the Work, they shall physically include the certification/clause entitled Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions, which is included as Appendix A to these Supplementary Conditions, in all lower-tier goods and services (including construction) subcontracts with a price equaling or exceeding $25,000 and in all solicitations for such subcontracts.

18.4 Minority Owned Business Enterprise: Utilization of minority and Women-Owned firms and enterprises is encouraged."

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

Note: This certification/clause has been extracted from Appendix B to 40 CFR Part 32 and is applicable to all goods and services (including construction) contracts and subcontracts with a price equaling or exceeding $25,000 and in all solicitations for such contracts and subcontracts.

Instructions for Certification:

1. By signing and submitting this Proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this Proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this Proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this Proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this Proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

SUPPLEMENTS

A. The supplements listed below, following "END OF SECTION," are part of this Specification.

1. Attachment A Executive Order 11246 – Equal Employment Opportunity
2. Attachment B Program Statutes and Regulations
3. Attachment C Convict Produced Material – U.S. Code, Title 23 Chapter 1 § 114
4. Attachment D Certification Compliance with Equal Employment Opportunity (EEO) Provisions on Federal Aid Contracts
5. Attachment E Certification Disbursement of Previous Periodic Payment to Subcontractors
6. Attachment F Title VI and Related Statues Nondiscrimination Agreement
7. Attachment G Certification of Sublet Work
8. Attachment H Certification Regarding Debarment Suspension, Ineligibility, and Voluntary Exclusion
9. Attachment I Construction Compliance with Specifications and Plans

Appendix, City of Key West, Pre-Bid Grant Information

END OF SECTION

Attachment A

Executive Order 11246 - Equal Employment Opportunity

SOURCE: The provisions of Executive Order 11246 of Sept. 24, 1965, appear at 30 FR 12319, 12935, 3 CFR, 1964-1965 Comp., p.339, unless otherwise noted.

Under and by virtue of the authority vested in me as President of the United States by the Constitution and statutes of the United States, it is ordered as follows:

Part I - Nondiscrimination in Government Employment

[Part I superseded by EO 11478 of Aug. 8, 1969, 34 FR 12985, 3 CFR, 1966-1970 Comp., p. 803]

Part II - Nondiscrimination in Employment by Government Contractors and Subcontractors

Subpart A - Duties of the Secretary of Labor

SEC. 201. The Secretary of Labor shall be responsible for the administration and enforcement of Parts II and III of this Order. The Secretary shall adopt such rules and regulations and issue such orders as are deemed necessary and appropriate to achieve the purposes of Parts II and III of this Order.

[Sec. 201 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, l978 Comp., p. 230]

Subpart B - Contractors' Agreements

SEC. 202. Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

"During the performance of this contract, the contractor agrees as follows:

"(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

"(2) The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

"(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the

agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

"(4) The contractor will comply with afl provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

"(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

"(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

"(7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor win take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States." [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 203. Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

> (b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.
> (c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include

such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the Secretary of Labor as part of its Compliance Report and shall set forth what efforts he has made to obtain such information.
(d) The Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with

supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this Order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the order. In the event that the union, or the agency shall refuse to execute such a statement, the Compliance Report shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the Secretary of Labor may require.

[Sec. 203 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684; EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 204. The Secretary of Labor may, when he/she deems that special circumstances in the national interest so require, exempt a contracting agency from the requirement of including any or all of the provisions of Section 202 of this Order in any specific contract, subcontract, or purchase order. The Secretary of Labor may, by rule or regulation, also exempt certain classes of contracts, subcontracts, or purchase orders (1) whenever work is to be or has been performed outside the United States and no recruitment of workers within the limits of the United States is involved; (2) for standard commercial supplies or raw materials; (3) involving less than specified amounts of money or specified numbers of workers; or (4) to the extent that they involve subcontracts below a specified tier. The Secretary of Labor may also provide, by rule, regulation, or order, for the exemption of facilities of a contractor which are in all respects separate and distinct from activities of the contractor related to the performance of the contract: Provided, That such an exemption will not interfere with or impede the effectuation of the purposes of this Order: And provided further, That in the absence of such an exemption, all facilities shall be covered by the provisions of this Order.

Subpart C - Powers and Duties of the Secretary of Labor and the Contracting Agencies

SEC. 205. The Secretary of Labor shall be responsible for securing compliance by all Government contractors and subcontractors with this Order and any implementing rules or regulations. All contracting agencies shall comply with the terms of this Order and any implementing rules, regulations, or orders of the Secretary of Labor. Contracting agencies shall cooperate with the Secretary of Labor and shall furnish such information and assistance as the Secretary may require.
[Sec. 205 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 206. The Secretary of Labor may investigate the employment practices of any Government contractor or subcontractor to determine whether or not the contractual provisions specified in Section 202 of this Order have been violated. Such investigation shall be conducted in accordance with the procedures established by the Secretary of Labor.

(b) The Secretary of Labor may receive and investigate complaints by employees or prospective employees of a Government contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Section 202 of this Order.

[Sec. 206 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 207. The Secretary of Labor shall use his/her best efforts, directly and through interested Federal, State, and local agencies, contractors, and all other available instrumentalities to cause any labor union engaged in work under Government contracts or any agency referring workers or providing or supervising apprenticeship or training for or in the course of such work to cooperate in the implementation of the purposes of this Order. The Secretary of Labor shall, in appropriate cases, notify the Equal Employment Opportunity Commission, the Department of Justice, or other appropriate Federal agencies whenever it has reason to believe that the practices of any such labor organization or agency violate Title VI or Title VII of the Civil Rights Act of 1964 or other provision of Federal law.

[Sec. 207 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 208. The Secretary of Labor, or any agency, officer, or employee in the executive branch of the Government designated by rule, regulation, or order of the Secretary, may hold such hearings, public or private, as the Secretary may deem advisable for compliance, enforcement, or educational purposes.

(b) The Secretary of Labor may hold, or cause to be held, hearings in accordance with Subsection of this Section prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this Order. No order for debarment of any contractor from further Government contracts under Section 209(6) shall be made without affording the contractor an opportunity for a hearing.

Subpart D - Sanctions and Penalties

SEC. 209. In accordance with such rules, regulations, or orders as the Secretary of Labor may issue or adopt, the Secretary may:

> (1) Publish, or cause to be published, the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this Order or of the rules, regulations, and orders of the Secretary of Labor.
> (2) Recommend to the Department of Justice that, in cases in which there is substantial or material violation or the threat of substantial or material violation of the contractual provisions set forth in Section 202 of this Order, appropriate proceedings be brought to enforce those provisions, including the enjoining, within the limitations of applicable law, of organizations, individuals, or groups who prevent directly or indirectly, or seek to prevent directly or indirectly, compliance with the provisions of this Order.
> (3) Recommend to the Equal Employment Opportunity Commission or the Department of Justice that appropriate proceedings be instituted under Title VII of the Civil Rights Act of

1964.
(4) Recommend to the Department of Justice that criminal proceedings be brought for the furnishing of false information to any contracting agency or to the Secretary of Labor as the case may be.
(5) After consulting with the contracting agency, direct the contracting agency to cancel, terminate, suspend, or cause to be cancelled, terminated, or suspended, any contract, or any portion or portions thereof, for failure of the contractor or subcontractor to comply with equal employment opportunity provisions of the contract. Contracts may be cancelled, terminated, or suspended absolutely or continuance of contracts may be conditioned upon a program for future compliance approved by the Secretary of Labor.
(6) Provide that any contracting agency shall refrain from entering into further contracts, or extensions or other modifications of existing contracts, with any noncomplying contractor, until such contractor has satisfied the Secretary of Labor that such contractor has established and will carry out
personnel and employment policies in compliance with the provisions of this Order.
(b) Pursuant to rules and regulations prescribed by the Secretary of Labor, the Secretary shall make reasonable efforts, within a reasonable time limitation, to secure compliance with the contract provisions of this Order by methods of conference, conciliation, mediation, and persuasion before proceedings shall be instituted under subsection (a)(2) of this Section, or before a contract shall be cancelled or terminated in whole or in part under subsection (a)(5) of this Section.

[Sec. 209 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 210. Whenever the Secretary of Labor makes a determination under Section 209, the Secretary shall promptly notify the appropriate agency. The agency shall take the action directed by the Secretary and shall report the results of the action it has taken to the Secretary of Labor within such time as the Secretary shall specify. If the contracting agency fails to take the action

directed within thirty days, the Secretary may take the action directly.

[Sec. 210 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p 230]

SEC. 211. If the Secretary shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless the bidder or prospective contractor has satisfactorily complied with the provisions of this Order or submits a program for compliance acceptable to the Secretary of Labor.

[Sec. 211 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 212. When a contract has been cancelled or terminated under Section 209(a)(5) or a contractor has been debarred from further Government contracts under Section 209(a)(6) of this Order, because of noncompliance with the contract provisions specified in Section 202 of this Order, the Secretary of Labor shall promptly notify the Comptroller General of the United States.

[Sec. 212 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart E - Certificates of Merit

SEC. 213. The Secretary of Labor may provide for issuance of a United States Government Certificate of Merit to employers or labor unions, or other agencies which are or may hereafter be engaged in work under Government contracts, if the Secretary is satisfied that the personnel and employment practices of the employer, or that the personnel, training, apprenticeship, membership, grievance and representation, upgrading, and other practices and policies of the labor union or other agency conform to the purposes and provisions of this Order.

SEC. 214. Any Certificate of Merit may at any time be suspended or revoked by the Secretary of Labor if the holder thereof, in the judgment of the Secretary, has failed to comply with the provisions of this Order.

SEC. 215. The Secretary of Labor may provide for the exemption of any employer, labor union, or other agency from any reporting requirements imposed under or pursuant to this Order if such employer, labor union, or other agency has been awarded a Certificate of Merit which has not been suspended or revoked.

Part III - Nondiscrimination Provisions in Federally Assisted Construction Contracts

SEC. 301. Each executive department and agency, which administers a program involving Federal financial assistance shall require as a condition for the approval of any grant, contract, loan, insurance, or guarantee thereunder, which may involve a construction contract, that the applicant for Federal assistance undertake and agree to incorporate, or cause to be

incorporated, into all construction contracts paid for in whole or in part with funds obtained fromthe Federal Government or borrowed on the credit of the Federal Government pursuant to such grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the provisions prescribed for Government contracts by Section 202 of this Order or such modification thereof, preserving in substance the contractor's obligations thereunder, as may be approved by the Secretary of Labor, together with such additional provisions as the Secretary deems appropriate to establish and protect the interestof the United States in the enforcement of those obligations. Each such applicant shall also undertake and agree (1) to assist and cooperate actively with the Secretary of Labor in obtaining the compliance of contractors and subcontractors with those contract provisions and with the rules, regulations and relevant orders of the Secretary, (2) to obtain and to furnish to the Secretary of Labor such information as the Secretary may require for the supervision of such compliance, (3) to carry out sanctions and penalties for violation of such obligations imposed upon contractors and subcontractors by the Secretary of Labor pursuant to Part II, Subpart D, of this Order, and (4) to refrain from entering into any contract subject to this Order, or extension or other modification of such a contract with a contractor debarred from Government contracts under Part II, Subpart D, of this Order.

[Sec. 301 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 302. "Construction contract" as used in this Order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

(b) The provisions of Part II of this Order shall apply to such construction contracts, and for purposes of such application the administering department or agency shall be considered the contracting agency referred to therein.
(c) The term "applicant" as used in this Order means an applicant for Federal assistance or, as determined by agency regulation, other program participant, with respect to whom an application for any grant, contract, loan, insurance, or guarantee is not finally acted upon prior to the effective date of this Part, and it includes such an applicant after he/she becomes a recipient of such Federal assistance.
SEC. 303. The Secretary of Labor shall be responsible for obtaining the compliance of such applicants with their undertakings under this Order. Each administering department and agency is directed to cooperate with the Secretary of Labor and to furnish the Secretary such information and assistance as the Secretary may require in the performance of the Secretary's functions under this Order.
(b) In the event an applicant fails and refuses to comply with the applicant's undertakings pursuant to this Order, the Secretary of Labor may, after consulting with the administering department or agency, take any or all of the following actions: (1) direct any administering department or agency to cancel, terminate, or suspend in whole or in part the agreement, contract or other arrangement with such applicant with respect to which the failure or refusal occurred; (2) direct any administering department or agency to refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received by the Secretary of Labor from such applicant; and (3) refer the case to the Department of Justice or the Equal Employment Opportunity Commission for appropriate law enforcement or other proceedings.
(c) In no case shall action be taken with respect to an applicant pursuant to clause (1) or (2) of subsection (b) without notice and opportunity for hearing.

[Sec. 303 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 304. Any executive department or agency which imposes by rule, regulation, or order requirements of nondiscrimination in employment, other than requirements imposed pursuant to this Order, may delegate to the Secretary of Labor by agreement such responsibilities with respect to compliance standards, reports, and procedures as would tend to bring the administration of such requirements into conformity with the administration of requirements imposed under this Order: Provided, That actions to effect compliance by recipients of Federal financial assistance with requirements imposed pursuant to Title VI of the Civil Rights Act of 1964 shall be taken in conformity with the procedures and limitations prescribed in Section 602 thereof and the regulations of the administering department or agency issued thereunder.

Part IV - Miscellaneous

SEC. 401. The Secretary of Labor may delegate to any officer, agency, or employee in the Executive branch of the Government, any function or duty of the Secretary under Parts II and III of this Order.

[Sec. 401 amended by EO 12086 of Oct. 5, l978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 402. The Secretary of Labor shall provide administrative support for the execution of the program known as the "Plans for Progress."

SEC. 403. Executive Orders Nos. 10590 (January 19, 1955), 10722 (August 5, 1957), 10925 (March 6, 1961), 11114 (June 22, 1963), and 11162 (July 28, 1964), are hereby superseded and the President's Committee on Equal Employment Opportunity established by Executive Order No. 10925 is hereby abolished. All records and property in the custody of the Committee shall be transferred to the Office of Personnel Management and the Secretary of Labor, as appropriate.

(b) Nothing in this Order shall be deemed to relieve any person of any obligation assumed or imposed under or pursuant to any Executive Order superseded by this Order. All rules, regulations, orders, instructions, designations, and other directives issued by the President's Committee on Equal Employment Opportunity and those issued by the heads of various departments or agencies under or pursuant to any of the Executive orders superseded by this Order, shall, to the extent that they are not inconsistent with this Order, remain in full force and effect unless and until revoked or superseded by appropriate authority. References in such directives to provisions of the superseded orders shall be deemed to be references to the comparable provisions of this Order.

[Sec. 403 amended by EO 12107 of Dec. 28, 1978, 44 FR 1055, 3 CFR, 1978 Comp., p, 264]

SEC. 404. The General Services Administration shall take appropriate action to revise the standard Government contract forms to accord with the provisions of this Order and of the rules and regulations of the Secretary of Labor.

SEC. 405. This Order shall become effective thirty days after the date of this Order.

End of Attachment A

ATTACHMENT B

Program Statutes and Regulations

The parties to this Agreement and the Hazard Mitigation Grant Program (HMGP) are generally governed by the following statutes and regulations:

(1) The Robert T. Stafford Disaster Relief and Emergency Assistance Act;

(2) 44 CFR Parts 7, 9, 10, 13, 14, 17, 18, 25, 206, 220, and 221, and any other applicable FEMA policy memoranda and guidance documents;

(3) State of Florida Administrative Plan for the Hazard Mitigation Grant Program;

(4) Hazard Mitigation Long-term Recovery Guidance; and

(5) All applicable laws and regulations delineated in Attachment C of this Agreement

In addition to the above statues and regulations, the Recipient must comply with the following:

The Recipient shall fully perform the approved hazard mitigation project, as described in the Application and Attachment A (Budget and Scope of Work) attached to this Agreement, in accordance with the approved scope of work indicated therein, the estimate of costs indicated therein, the allocation of funds indicated therein, and the terms and conditions of this Agreement. Recipient shall not deviate from the approved project and the terms and conditions of this Agreement. Recipient shall comply with any and all applicable codes and standards in performing work funded under this Agreement, and shall provide any appropriate maintenance and security for the project.

Any development permit issued by, or development activity undertaken by, the Recipient and any land use permitted by or engaged in by the Recipient, shall be consistent with the local comprehensive plan and land development regulations prepared and adopted pursuant to Chapter 163, Part II, Florida Statutes. Funds shall be expended for, and development activities and land uses authorized for, only those uses which are permitted under the comprehensive plan and land development regulations. The Recipient shall be responsible for ensuring that any development permit issued and any development activity or land use undertaken is, where applicable, also authorized by the Water Management District, the Florida Department of Environmental Protection, the Florida Department of Health, the Florida Game and Fish Commission, and any federal, state, or local environmental or land use permitting authority, where required. Recipient agrees that any repair or construction shall be in accordance with applicable standards of safety, decency, and sanitation, and in conformity with applicable codes, specifications and standards.

Recipient will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the completed work conforms with the approved plans and specifications and will furnish progress reports and such other information to HMGP as may be required.

If the hazard mitigation project described in Attachment A includes an acquisition or relocation project, then Recipient shall ensure that, as a condition of funding under this Agreement, the owner of the affected real property shall record in the public records of the county where it is located the following covenants and restrictions, which shall run with and apply to any property acquired, accepted, or from which a structure will be removed pursuant to the project:

1. The property will be dedicated and maintained in perpetuity for a use that is compatible with open space, recreational, or wetlands management practices;

2. No new structure will be erected on property other than:
   (a) a public facility that is open on all sides and functionally related to a designated open space;
   (b) a restroom; or
3. A structure that the Director of the Federal Emergency Management Agency approves in writing before the commencement of the construction of the structure;
4. After the date of the acquisition or relocation no application for disaster assistance for any purpose will be made to any Federal entity and no disaster assistance will be provided for the property by any Federal source; and
5. If any of these covenants and restrictions is violated by the owner or by some third party with the knowledge of the owner, fee simple title to the Property described herein shall be conveyed to the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida without further notice to the owner, its successors and assigns, and the owner, its successors and assigns shall forfeit all right, title and interest in and to the property.

HMGP Contract Manager will evaluate requests for cost overruns and submit to the Regional Director written determination of cost overrun eligibility. Cost overruns shall meet Federal regulations set forth in 44CFR 206.438(b).

The National Environmental Policy Act (NEPA) stipulates that additions or amendments to a HMGP Recipient Scope of Work (SOW) shall be reviewed by all State and Federal agencies participating in the NEPA process. You are reminded that no construction may occur in this phase, that a full environmental review must be completed prior to funding Phase II.

As a reminder, the Recipient must obtain prior approval from the State, before implementing changes to the approved project Scope of Work (SOW). Per the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments:

1. For construction projects, the grantee must “obtain prior written approval for any budget revision which result in a need for additional funds” (44 CFR 13 (c));
2. A change in the scope of work must be approved by FEMA in advance regardless of the budget implications; and
3. The Recipient must notify the State as soon as significant developments become known, such as delays or adverse conditions that might raise costs or delay completion, or favorable conditions allowing lower cost or earlier completion. Any extensions of the period of performance must be submitted to FEMA 60 days prior to the project expiration date.

STATEMENT OF ASSURANCES

The Recipient assures that it will comply with the following statues and regulations, to the extent applicable:

1) 53 Federal Register 8034
2) Federal Acquisition Regulations 31.2 and 0931.2
3) Section 1352, Title 31, US Code

4) OMB Circulars A-21, A-87, A-110, A-122
5) Chapter 473, Florida Statutes
6) Chapter 215, Florida Statutes
7) Section 768.28, Florida Statutes
8) Chapter 119, Florida Statutes
9) Section 216.181(6), Florida Statutes
10) Cash Management Improvement Act Of 1990
11) American with Disabilities Act
12) Section 112.061, Florida Statutes
13) Immigration and Nationality Act
14) Section 286.011, Florida Statutes
15) E.O. 12372 and Uniform Administrative Requirements for Grants and Cooperative Agreements 28 CFR, Part 66, Common rule,
16) Uniform Relocation Assistance and Real Property Acquisitions Act of 1970
17) Title I of the Omnibus Crime Control and Safe Streets Act of 1968,
18) Juvenile Justice and Delinquency Prevention Act, or the Victims of Crime Act
19) 28 CFR applicable to grants and cooperative agreements
20) Omnibus Crime Control and Safe Streets Act of 1968, as amended,
21) 42 USC 3789(d), or Victims of Crime Act (as appropriate);
22) Section 504 of the Rehabilitation Act of 1973, as amended;
23) Subtitle A, Title II of the Americans with Disabilities Act (ADA) (1990);
24) 28 CFR Part 42, Subparts C,D,E, and G
25) Department of Justice regulations on disability discrimination, 28 CFR Part 35 and Part 39.

To the extent the following provisions apply to this Agreement, the Recipient certifies that:

(a) It possesses legal authority to enter into this Agreement, and to carry out the proposed program;

(b) Its governing body has duly adopted or passed as an official act a resolution, motion or similar action authorizing the execution of the hazard mitigation agreement with the Division of Emergency Management (DEM), including all understandings and assurances contained in it, and directing and authorizing the Recipient's chief administrative officer or designee to act in connection with the application and to provide such additional information as may be required;

(c) No member of or delegate to the Congress of the United States, and no Resident Commissioner, shall receive any share or part of this Agreement or any benefit. No member, officer, or employee of the Recipient or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of the locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year after, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds, for work be performed in connection with the program assisted under this Agreement. The Recipient shall incorporate, in all contracts or subcontracts a provision prohibiting any interest pursuant to the purpose state above;

(d) All Recipient contracts for which the State Legislature is in any part a funding source, shall contain language to provide for termination with reasonable costs to be paid by the Recipient for eligible contract work completed prior to the date the notice of suspension of

funding was received by the Recipient. Any cost incurred after a notice of suspension or termination is received by the Recipient may not be funded with funds provided under this Agreement unless previously approved in writing by the Division. All Recipient contracts shall contain provisions for termination for cause or convenience and shall provide for the method of payment in such event;

(e) It will comply with:

(1) Contract Work Hours and Safety Standards Act of 1962, 40 U.S.C. 327 et seq., requiring that mechanics and laborers (including watchmen and guards) employed on federally assisted contracts be paid wages of not less than one and one-half times their basic wage rates for all hours worked in excess of forty hours in a work week; and

(2) Federal Fair Labor Standards Act, 29 U.S.C. Section 201 et seq., requiring that covered employees be paid at least the minimum prescribed wage, and also that they be paid one and one-half times their basic wage rates for all hours worked in excess of the prescribed work-week.

(f) It will comply with:

(1) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), and the regulations issued pursuant thereto, which provides that no person in the United States shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance and will immediately take any measures necessary to effectuate this assurance. If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Recipient, this assurance shall obligate the Recipient, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits;

(2) Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975, as amended (42 U.S.C.: 6101-6107) which prohibits discrimination on the basis of age or with respect to otherwise qualified handicapped individuals as provided in Section 504 of the Rehabilitation Act of 1973;

(3) Executive Order 11246 as amended by Executive Orders 11375 and 12086, and the regulations issued pursuant thereto, which provide that no person shall be discriminated against on the basis of race, color, religion, sex or national origin in all phases of employment during the performance of federal or federally assisted construction contracts; affirmative action to insure fair treatment in employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff/termination, rates of pay or other forms of compensation; and election for training and apprenticeship;

(g) It will establish safeguards to prohibit employees from using positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties pursuant to Section 112.313 and Section 112.3135, FS;

(h) It will comply with the Anti-Kickback Act of 1986, 41 U.S.C. Section 51 which outlaws and prescribes penalties for "kickbacks" of wages in federally financed or assisted construction activities;

(i) It will comply with the provisions of 18 USC 594, 598, 600-605 (further known as the Hatch Act) which limits the political activities of employees;

(j) It will comply with the flood insurance purchase and other requirements of the Flood Disaster Protection Act of 1973 as amended, 42 USC 4002-4107, including requirements regarding the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area having special flood hazards. The phrase "Federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance;

(k) It will require every building or facility (other than a privately owned residential structure) designed, constructed, or altered with funds provided under this Agreement to comply with the "Uniform Federal Accessibility Standards," (AS) which is Appendix A to 41 CFR Section 101-19.6 for general type buildings and Appendix A to 24 CFR Part 40 for residential structures. The Recipient will be responsible for conducting inspections to ensure compliance with these specifications by the contractor;

(l) It will, in connection with its performance of environmental assessments under the National Environmental Policy Act of 1969, comply with Section 106 of the National Historic Preservation Act of 1966 (U.S.C. 470), Executive Order 11593, 24 CFR Part 800, and the Preservation of

Archaeological and Historical Data Act of 1966 (16 U.S.C. 469a-1, et seq.) by:

(1) Consulting with the State Historic Preservation Office to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to adverse effects (see 36 CFR Section 800.8) by the proposed activity; and

(2) Complying with all requirements established by the State to avoid or mitigate adverse effects upon such properties.

(3) Abiding by the terms and conditions of the **"Programmatic Agreement Among the Federal Emergency Management Agency, the Florida State Historic Preservation Office, the Florida Division of Emergency Management and the Advisory Council on Historic Preservation, (PA)"** which addresses roles and responsibilities of Federal and State entities in implementing Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. 470f, and implementing regulations in 36 CFR part 800.

(4) When any of Recipient's projects funded under this Agreement may affect a historic property, as defined in 36 CFR 800. (2)(e), the Federal Emergency Management Agency (FEMA) may require Recipient to review the eligible scope of work in consultation with the State Historic Preservation Office (SHPO) and suggest methods of repair or construction that will conform with the recommended approaches set out in the **Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings 1992**

(Standards), the **Secretary of the Interior's Guidelines for Archeological Documentation (Guidelines)** (48 Federal Register 44734-37), or any other applicable Secretary of Interior standards. If FEMA determines that the eligible scope of work will not conform with the **Standards**, Recipient agrees to participate in consultations to develop, and, after execution by all parties, to abide by, a written agreement that establishes mitigation and recondition measures, including but not limited to, impacts to archeological sites, and the salvage, storage, and reuse of any significant architectural features that may otherwise be demolished.

(5) Recipient agrees to notify FEMA and the Division if any project funded under this Agreement will involve ground disturbing activities, including, but not limited to: subsurface disturbance; removal of trees; excavation for footings and foundations; and installation of utilities (such as water, sewer, storm drains, electrical, gas, leach lines and septic tanks) except where these activities are restricted solely to areas previously disturbed by the installation, replacement or maintenance of such utilities. FEMA will request the SHPO's opinion on the potential that archeological properties may be present and be affected by such activities. The SHPO will advise Recipient on any feasible steps to be accomplished to avoid any National Register eligible archeological property or will make recommendations for the development of a treatment plan for the recovery of archeological data from the property.

If Recipient is unable to avoid the archeological property, develop, in consultation with the SHPO, a treatment plan consistent with the **Guidelines** and take into account the Advisory Council on Historic Preservation (Council) publication "Treatment of Archeological Properties". Recipient shall forward information regarding the treatment plan to FEMA, the SHPO and the Council for review. If the SHPO and the Council do not object within 15 calendar days of receipt of the treatment plan, FEMA may direct Recipient to implement the treatment plan. If either the Council or the SHPO object, Recipient shall not proceed with the project until the objection is resolved.

(6) Recipient shall notify the Division and FEMA as soon as practicable: (a) of any changes in the approved scope of work for a National Register eligible or listed property; (b) of all changes to a project that may result in a supplemental DSR or modify an HMGP project for a National Register eligible or listed property; (c) if it appears that a project funded under this Agreement will affect a previously unidentified property that may be eligible for inclusion in the National Register or affect a known historic property in an unanticipated manner. Recipient acknowledges that FEMA may require Recipient to stop construction in the vicinity of the discovery of a previously unidentified property that may be eligible for inclusion in the National Register or upon learning that construction may affect a known historic property in an unanticipated manner. Recipient further acknowledges that FEMA may require Recipient to take all reasonable measures to avoid or minimize harm to such property until FEMA concludes consultation with the SHPO. Recipient also acknowledges that FEMA will require, and Recipient shall comply with, modifications to the project scope of work necessary to implement recommendations to address the project and the property.

(7) Recipient acknowledges that, unless FEMA specifically stipulates otherwise, it shall not receive funding for projects when, with intent to avoid the requirements of the PA or the NHPA, Recipient intentionally and significantly adversely affects

a historic property, or having the legal power to prevent it, allowed such significant adverse affect to occur.

(m) It will comply with Title IX of the Education Amendments of 1972, as amended (20 U.S.C.: 1681-1683 and 1685 - 1686) which prohibits discrimination on the basis of sex;

(n) It will comply with the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, (42 U.S.C. 4521-45-94) relating to nondiscrimination on the basis of alcohol abuse or alcoholism;

(o) It will comply with 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records;

(p) It will comply with Lead-Based Paint Poison Prevention Act (42 U.S.C.: 4821 et seq.) which prohibits the use of lead based paint in construction of rehabilitation or residential structures;

(q) It will comply with the Energy Policy and Conservation Act (P.L. 94-163; 42 U.S.C. 6201-6422), and the provisions of the state Energy Conservation Plan adopted pursuant thereto;

(r) It will comply with the Laboratory Animal Welfare Act of 1966, 7 U.S.C. 2131-2159, pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by an award of assistance under this agreement;

(s) It will comply with Title VIII of the Civil Rights Act of 1968, 42 U.S.C. 2000c and 42 3601-3619, as amended, relating to non-discrimination in the sale, rental, or financing of housing, and Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color or nation origin;

(t) It will comply with the Clean Air Act of 1955, as amended, 42 U.S.C. 7401-7642;

(u) It will comply with the Clean Water Act of 1977, as amended, 42 U.S.C. 7419-7626;

(v) It will comply with the Endangered Species Act of 1973, 16 U.S.C. 1531-1544;

(w) It will comply with the Intergovernmental Personnel Act of 1970, 42 U.S.C. 4728-4763;

(x) It will assist the awarding agency in assuring compliance with the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 270;

(y) It will comply with environmental standards which may be prescribed pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321-4347;

(z) It will assist the awarding agency in assuring compliance with the Preservation of Archeological and Historical Preservation Act of 1966, 16 U.S.C. 469a, et seq;

(aa) It will comply with the Rehabilitation Act of 1973, Section 504, 29 U.S.C. 794, regarding non-discrimination;

(bb) It will comply with the environmental standards which may be prescribed pursuant to the Safe Drinking Water Act of 1974, 42 U.S.C. 300f-300j, regarding the protection of underground water sources;

(cc) It will comply with the requirements of Titles II and III of the Uniform Relocation Assistance and Property Acquisition Policies Act of 1970, 42 U.S.C. 4621-4638, which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs;

(dd) It will comply with the Wild and Scenic Rivers Act of 1968, 16 U.S.C. 1271-1287, related to protecting components or potential components of the national wild and scenic rivers system;

(ee) It will comply with the following Executive Orders: EO 11514 (NEPA); EO 11738 (violating facilities); EO 11988 (Floodplain Management); EO 11990 (Wetlands); and EO 12898 (Environmental Justice);

(ff) It will comply with the Coastal Barrier Resources Act of 1977, 16 U.S.C. 3510;

(gg) It will assure project consistency with the approved State program developed under the Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464; and

(hh) It will comply with the Fish and Wildlife Coordination Act of 1958; 16 U.S.C. 661-666.

(ii) With respect to demolition activities, it will:

1. Create and make available documentation sufficient to demonstrate that the Recipient and its demolition contractor have sufficient manpower and equipment to comply with the obligations as outlined in this Agreement.

2. Return the property to its natural state as though no improvements had ever been contained thereon.

3. Furnish documentation of all qualified personnel, licenses and all equipment necessary to inspect buildings located in Recipient's jurisdiction to detect the presence of asbestos and lead in accordance with requirements of the U.S. Environmental Protection Agency, the Florida Department of Environmental Protection and the County Health Department.

4. Provide documentation of the inspection results for each structure to indicate:
   a. Safety Hazards Present
   b. Health Hazards Present
   c. Hazardous Materials Present

5. Provide supervision over contractors or employees employed by Recipient to remove asbestos and lead from demolished or otherwise applicable structures.

6. Leave the demolished site clean, level and free of debris.

7. Notify the Division promptly of any unusual existing condition which hampers the contractors work.

8. Obtain all required permits.

9. Provide addresses and marked maps for each site where water wells and septic tanks are to be closed along with the number of wells and septic tanks located on each site. Provide documentation of closures.

10. Comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

11. Comply with all applicable standards, orders, or requirements issued under Section 112 and 306 of the Clean Air Act (42 U.S.C. 1857 (h), Section 508 of the Clean Water Act (33 U.S. 1368), Executive Order 11738, and the U.S. Environmental Protection Agency regulations (40 CFR Part 15 and 61). This clause shall be added to any subcontracts.

12. Provide documentation of public notices for demolition activities.

END OF ATTACHMENT B

ATTACHMENT C

CONVICT PRODUCED MATERIAL
U.S. Code, Title 23 Chapter 1 § 114

(b) Convict Labor and Convict Produced Materials.—

(1) Limitation on convict labor.— Convict labor shall not be used in construction of highways or portions of highways located on a Federal-aid system unless it is labor performed by convicts who are on parole, supervised release, or probation.

(2) Limitation on convict produced materials.— Materials produced after July 1, 1991, by convict labor may only be used in such construction—

(A) if such materials are produced by convicts who are on parole, supervised release, or probation from a prison; or

(B) if such materials are produced by convicts in a qualified prison facility and the amount of such materials produced in such facility for use in such construction during any 12-month period does not exceed the amount of such materials produced in such facility for use in such construction during the 12-month period ending July 1, 1987.

(3) Qualified prison facility defined.— As used in this subsection, "qualified prison facility" means any prison facility in which convicts, during the 12-month period ending July 1, 1987, produced materials for use in construction of highways or portions of highways located on a Federal-aid system.

End of Attachment C

ATTACHMENT D

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

Form 700-011-13
CONSTRUCTION
06/05

CERTIFICATION
COMPLIANCE WITH EQUAL EMPLOYMENT OPPORTUNITY (EEO) PROVISIONS ON FEDERAL AID CONTRACTS

DATE _____

FIN PROJECT I.D. _____ CONTRACT NO. _____

_____

_____

_____

_____, prime contractor

for the above referenced contract, hereby certifies that this company and all of it's subcontractors have made every Good Faith Effort to comply with the EEO provisions of FHWA Form-1273 (Section II. Nondiscrimination and Section III. Nonsegregated facilities) on this contract.

Exception:
The following subcontractor(s) have been found to be in noncompliance with the provisions stated above. Attached is notification sent to the respective subcontractor(s) explaining their noncompliance with these provisions.

Subcontractor Name	Subcontractor Name
Street Address	Street Address
City/State/Zip	City/State/Zip

State of Florida
County of _____
Sworn to and subscribed before me this _____ day
of _____, _____, by _____
(Print name of person signing Certication)

A false statement or omission made in connection with this certification is sufficient cause for suspension, revocation, or denial of qualification to bid, and a determination of nonresponsibiity, and may subject the person and/or entity making the false statement to any and all civil and criminal penalties available pursuant to applicable Federal and State law.

_____
Notary Public

_____
Contractor

_____
Commission Expires

_____
By

Personally Known ☐ OR Produced Identification ☐

_____
Title

Type of Identification Produced _____

Instructions:

1. Attach copy of any notifications of noncompliance sent to each applicable subcontractor.
2. List the subcontractors found not in compliance at the time of this certification.
3. A separate certification is required for each contract.
4. To be signed by an officer or director of the Contractor with the authority to bind the Contractor and notarized.
5. To avoid delay in payment, certification must be submitted to the Project Engineer no later than the Friday before the monthly estimate cutoff date (generally the 3rd Sunday of the month).

ATTACHMENT E

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

700-010-38
CONSTRUCTION
03/03

CERTIFICATION
DISBURSEMENT OF PREVIOUS PERIODIC PAYMENT TO SUBCONTRACTORS

(As required by Florida Transportation Code, Section 337.11, Subsection (10)(a), F.S.)

DATE _____

FIN PROJ. I.D. _____ CONTRACT NO. _____

_____ TO RELEASE MONTHLY PAYMENT FOR _____

_____

_____

_____, prime contractor for the above referenced contract, hereby certifies that all subcontractors, except for those noted below, having interest in this contract have received their pro rata share of all previous periodic payments made to date by the Department for all work, materials and equipment furnished under the contract. The term "subcontractor", as used herein, shall also include persons or firms furnishing materials, services or equipment incorporated into the work or stockpiled in the vicinity of the project for which partial payment has been made by the Department and work done under equipment-rental agreements.

EXCEPTION:
The following subcontractors have not been paid and a copy of the notification sent to each, explaining the good cause why payment has not been made, is attached to this form:

_____ Subcontractor name	_____ Subcontractor name
Street Address	_____ Street Address
_____ City State Zip	_____ City State Zip

State of Florida
County of _____
Sworn to and subscribed before me this _____ day
of _____, _____, by _____
(Print name of person signing Certification)

A false statement or omission made in connection with this certification is sufficient cause for suspension, revocation, or denial of qualification to bid, and a determination of non-responsibility, and may subject the person and/or entity making the false statement to any and all civil and criminal penalties available pursuant to applicable Federal and State Law.

Notary Public

_____
Commission Expires

Personally Known _____ OR Produced Identification

Type of Identification Produced _____

Contractor

By

Title

Instructions:

1. Attach copy of the notification good cause sent to each applicable subcontractor.
2. List the subcontractors which have not been paid the proportionate share of payments received by the contractor and the date listed as exception.
3. A separate certification is required for each contract.
4. To be signed by an officer or director of the Contractor with the authority to bind the Contractor and notarized.
5. To avoid delay in payment, certification must be submitted to the Project Engineer no later than the Friday before the monthly estimate cutoff date (generally the 3rd Sunday of the month).

ATTACHMENT F

TITLE VI AND RELATED STATUES NONDISCRIMINATION AGREEMENT

Bidders shall meet the following requirements for the grant; All prime contractor contracts with subcontractor(s) must be in writing and must physically contain form FHWA 1273 and minimum wage rates; just referring to them is not acceptable. Additionally all subcontracts $10,000 and over are required to comply with Title VI programs, and must contain the statement:

The sub recipient or contractor, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-7 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non discrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, disability in consideration for an award.

ATTACHMENT G

~~STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION~~

CERTIFICATION OF SUBLET WORK

700-010-36
CONSTRUCTION
10/07

~~TO: THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION~~

Date:	
Request No.:	
FAP No.:	
Fin. Proj. ID:	
Cont. No.:	
County:	

General Info
Prime Contractor
F.E.I.D. #

_____ (Seal)
Contractor

By: _____
IF CORPORATION, AFFIX SEAL

_____
Address

_____

Total Contract Amount
Total Work

Change	Subcontractor Name	Tier	FEID #	Subcontract to Whom	Work Description	Partial	Total Amt Sublet	DBE/ NON DBE
					Total			

All pertinent provisions and requirements of the prime contract including but not limited to Required Contract Provisions Federal-Aid Construction Contracts (FHWA-1273) and Special Provisions - Specific Equal Opportunity Responsibilities (Per 23 CFR-633B of Federal-Aid Policy Guide) will be part of the subcontract. It is agreed that an Executed or a certified copy of the subcontract will be submitted upon request, to the State of Florida Department of Transportation. All sublets will be in continued compliance with all Contract provisions and that the Contractor will continue to perform the minimum percentage of Contract work with its own organization, as required by said Contract. It is recognized and agreed that, as prime contractor, the undersigned remains responsible for the proper performance of all requirements of said contract does not relieve or release the undersigned and his surety or either of them of any liability under the contract bond. The Contractor shall send a copy of this form to the subcontractor/ subordinate (with a copy of FHWA-1273 on Federal-Aid Projects) and the Surety Company. The Prime certify that firms or individuals, debarred or suspended by the FHWA or the Department, are not being used as subcontractors.

A false statement or omission made in connection with this certification is sufficient cause for suspension, revocation, or denial of qualification to bid, and a determination of non-responsibility, and may subject the person and/or entity making the false statement to any and all civil and criminal penalties available pursuant to applicable Federal and State Law.

State of Florida
County of _____

Sworn to and subscribed before me this _____ day
of _____, _____, by _____
(Print name of person signing Certification)

_____
Notary Public

_____
Commission Expires

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

Instructions for Form:

The contractor must provide enough information through a Schedule "A" spreadsheet to determine which pay-item(s) are being sublet, the amounts, and cost. For sublet calculations, the amount will be calculated based on the actual contract unit price(s) unless there is a partial sublet. For partial sublets, use the unit prices from the actual sub-contract.

1) Enter the Date of the certification of sublet work was prepared.
2) Enter the sequential number of the request starting with number 1.
3) Enter the Federal Aid Project number for the Prime Contractor if any.
4) Enter the Financial Project Identification number of the Contract.
5) Enter the Contract number of the Contract with the Department.
6) Enter the County name where the work is being performed.
7) Enter the Name of the Prime Contractor.
8) Enter the FEID number of the Prime Contractor.
9) Enter the Original Contract dollar amount (round to nearest whole dollar).
10) Enter a "Y" in the space marked Change if any information on the line has changed since the previous certification of sublet work was prepared. Otherwise, leave blank.
11) Enter the Subcontractor names. Enter all the subcontractor(s) regardless of their tier.
12) Enter the tier number for the subcontractor. If the subcontractor works directly for the Prime Contractor, enter a "1". If he works one level below, enter a "2" and so on.
13) Enter the FEID number of the Subcontractor(s).
14) Enter the name of the pertinent Contractor or Subcontractor that hired subcontractor.
15) Enter a short description of the work to be performed.
16) Enter a "P" if any pay-item for the sublet is a partial sublet.
17) Enter the DBE status for the subcontractor: "D" for DBE, "N" for non-DBE.
18) The Department may require subcontractor to be prequalified with the Department as described in the Special Provisions and the Bid Solicitation Notice whenever construction projects contain certain classes of work that require specific expertise.
19) One (1) copy of this form shall be submitted to the District Office by the contractor.
20) To be signed by principal of the firm or someone with the delegated authority and notarized.

ATTACHMENT H

Attachment H

Certification Regarding
Debarment, Suspension, Ineligibility
And Voluntary Exclusion

Contractor Covered Transactions

(1) The prospective contractor of the Recipient, _____, certifies, by submission of this document, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the Recipient's contractor is unable to certify to the above statement, the prospective contractor shall attach an explanation to this form.

CONTRACTOR:

_____

By:_____
Signature

_____
Recipient's Name

_____
Name and Title

_____
Division Contract Number

_____
Street Address

_____
City, State, Zip

_____
Date

End of Attachment H

ATTACHMENT I

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION COMPLIANCE WITH SPECIFICATIONS AND PLANS

700-020-02
CONSTRUCTION
04/09
Page 1 of 2

FIN PROJECT I.D.(s) _____

_____

_____

_____

DATE: _____

CONTRACT NO: _____

Monthly: ☐

Final: ☐

_____, Prime Contractor for the above referenced contract, hereby verifies based on personal knowledge or reasonable investigation and good faith belief, all work done and all Quality Control functions and Quality Control sampling and testing results are in substantial compliance with the pertinent specification requirements and the approved Quality Control Plan for this project. This includes the input of test results into the Department's LIMS database within 24 hours of results being received. This represents work done between _____ and _____. Exceptions to these requirements are listed below.

1.) Item No.: _____
Exception:

_____

_____

_____

_____

2.) Item No.: _____
Exception:

_____

_____

_____

_____

3.) Item No.: _____
Exception:

_____

_____

_____

_____

4.) Item No.: _____
Exception:

_____

_____

_____

_____

5. Item No.: _____
Exception:

_____

_____

_____

_____

6.) Item No.: _____
Exception:

_____

_____

_____

_____

A false statement or omission made in connection with this certification is sufficient cause for suspension, revocation, or denial of qualification to bid, and a determination of non-responsibility, and may subject the person and/or entity making the false statement to any and all civil and criminal penalties available pursuant to applicable Federal and State Law.

State of Florida
County of _____
Sworn to and subscribed before me this _____ day
of _____, _____, by _____
(Print name of person signing Certification)

_____
Notary Public

_____
Commission Expires

Personally Known _____ or Produced Identification _____
Type of Identification Produced _____

_____
Quality Control Manager

_____
By

_____
Company

State of Florida
County of _____
Sworn to and subscribed before me this _____ day
of _____, _____, by _____
(Print name of person signing Certification)

_____
Notary Public

_____
Commission Expires

Personally Known _____ or Produced Identification _____
Type of Identification Produced _____

_____
Contractor

_____
By

_____
Company

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

INSTRUCTION PAGE

700-020-02
CONSTRUCTION
09/09

Financial Project Number(s): List all financial project numbers on the contract.

Date: Show the date the certification is completed.

Contract No.: Show the contract number the certification represents.

Monthly/Final: Indicate which type of estimates this certification represents, monthly or final.

Prime Contractor: In this field, show the Prime Contractor's full company name.

Date Began: Show the beginning the certification represents. For a monthly or progress estimate, show the beginning date the estimates corresponds to. For a final certification, show the date the contract work began.

Date Ended: Show the ending dates the estimate corresponds to. For final certification, show the final acceptance date.

Item No.: Show the pay item number the exception is associated with.

Exceptions: For the monthly certification, list the following:

1. QC samples that did not compare with VT samples and had VT results upheld by RT samples.
2. Any samples that had Engineering Analysis Report or Delineation Test(s) performed.
3. Any failed QC samples.
4. Any QC samples that do not have results entered into LIMS.
5. Any QC samples that were performed by unqualified technicians or laboratories.
6. Any materials placed without an approval QC Plan or when the QC Plan is suspended.
7. Any materials provided from an unapproved producer or supplier.

The following **would not be listed as an exception** on the subject form:

1. QC samples that have been tested but not verified.
2. QC samples that have been tested and had verification test results that did not compare.

When exceptions listed on the monthly have been resolved, provide the proper documentation for those items.

For the final certification, all unresolved issues to QC sampling and testing must be shown on the certification.

Notary Information: The Notary of the Public completes this section. This certification must be notarized.

Quality Control Manager: Signature of the Quality Control Manager signing the certification.

By: Type or print the name represented by the signature in "Quality Control Manager" section.

Title: Type or print the title of the person signing the certification.

Contractor: To be signed by an officer or director of the Contractor with an authority to bind the Contractor.

By: Type or print the name represented by the signature in "Contractor:" section.

Title: Type or print the title of the person signing the certification.

It is not the Department's intent for Contractor's to list as exceptions samples and results for which they are not responsible, such as verification and independent verification samples and test results. Additionally, the Department will accept printouts of the Sample Status Progress Report in LIMS, as an attachment to assist in documenting the status of samples.

End of Attachment I

City of Key West

Pre-Bid Grant Information

Presented by:
Carolyn Sheldon
City of Key West, Grants Administrator

Funding Source:

- This project is being funded in part with federal funding from the Federal Emergency Management Agency (FEMA)

- The Florida Division of Emergency Management (FDEM) is the pass-through agency for the FEMA funding.

Major Applicable Federal Regulations:

- Davis-Bacon and Related Acts

  Not applicable to this project. Therefore, prevailing wages, certified payrolls, employee interviews, etc. are **NOT** required.

- The Robert T. Stafford Diaster Relief and Emergency Assistance Act

  Signed into law on November 23, 1988 (amended the Disaster Relief Act of 1974). This Act constitutes the statutory authority for most Federal disaster responses activities especially as they pertain to FEMA and FEMA programs like the Hazard Mitigation Grant Program, which is the source of funding for this project.

- FEMA policy memoranda and guidance documents including but not limited to 44 CFR Parts 7, 9, 10, 13, 14, 17, 18, 25, 206, 220, and 221.

- State of Florida Administrative Plan for the Hazard Mitigation Grant Program

- Hazard Mitigation Long-Term Recovery Guidance

Major Applicable Federal Regulations (contd):

- Contract Work Hours and Safety Standards Act of 1962

  Requires that mechanics and laborers (including watchmen and guards) employed on federally assisted contacts be paid wages of not less than one and one-half times their basic wage rates for all hours worked in excess of forty (40) hours in a work week. Also prohibits unsanitary, hazardous, or dangerous working conditions on federal and federally financed and assisted construction projects.

- Federal Fair Labor Standards Act of 1938

  Established a national minimum wage, guaranteed time-and-a-half for overtime in certain jobs, and prohibited most employment of minors in "oppressive child labor."

- Title VI of the Civil Rights Act of 1964 and related Statutes

  No person should be excluded participation in, denied benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the grounds of: race, color, national origin, sex, age, disability, religion, or familial status.

- Other program statutes and regulations apply (for details, see contract documents)

Other grant requirements:

- Access to records:

  All books, documents, papers and records pertinent to the project shall be retained for five (5) years and access to such records shall be given to authorized representatives of the Owner, the United States Agency responsible for the federal grant, and other state agencies associated with the grant.

- Access to work sites:

  Access to the work site at any reasonable time shall be given to authorized representatives of the Owner, the United States Agency responsible for the federal grant, and other state agencies associated with the grant.

- Suspension and debarment:

  The owner shall not award this contract to any party that is debarred or suspended or is otherwise excluded from, or ineligible for participation in, Federal assistance programs

In addition to other monthly certifications, this form is required by FEMA:

Attachment H

Certification Regarding
Debarment, Suspension, Ineligibility
And Voluntary Exclusion

Contractor Covered Transactions

(1) The prospective contractor of the Recipient, City of Key West , certifies, by submission of this document, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the Recipient's contractor is unable to certify to the above statement, the prospective contractor shall attach an explanation to this form.

CONTRACTOR:

_____

By_____
Signature

_____
Name and Title

_____
Street Address

_____
City, State, Zip

_____
Date

City of Key West
Recipient's Name

11HM-3B-11-54-02-002
Division Contract Number

Reminder:

The information contained in this presentation is not all-inclusive. It is meant to be a summary of the major grant requirements that the Contractor will be held accountable for. It is the Contractor's responsibility to thoroughly examine and become familiar with all of the various parts of the contract documents, including grant requirements. Failure to do so shall not release the Contractor from the obligations of the Contract.

Contact:

Carolyn Sheldon

(305) 809-3741

csheldon@keywestcity.com

For any grant-related questions

PART 4

SPECIFICATIONS

SECTION 01001
GENERAL REQUIREMENTS

1. PROJECT DESCRIPTION

1.1 GENERAL

A. The following information though not all-inclusive, is given to assist Contractors in the evaluation of the work required to meet the project objectives.

B. A brief description of the work is stated in the Invitation to Bid. To determine the full scope of the project or of any particular part of the project, coordinate the applicable information in the several parts of these Contract Documents.

1.2 FDOT SPECIFICATIONS

A. Portions of The Florida Department of Transportation Standard Specifications for Road and Bridge Construction and their Roadway and Traffic Design Standards, hereinafter referred to as the DOT Specifications, are referred to herein and amended, in part, and the same are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein. Such reference shall mean the current edition, including all supplements. In case of a conflict in the requirements of the DOT Specifications and the requirements stated herein, the requirements herein shall prevail.

2. SEQUENCE OF OPERATIONS

2.1 MOBILIZATION AND DEMOBILIZATION

A. Contractor shall be responsible for mobilization and demobilization of labor, materials and equipment. Payment for mobilization and demobilization will be included in the unit price indicated in the BID.

B. DAILY REPORTS
   1) The CONTRACTOR shall submit daily reports of construction activities for each site, including non-work days. The report shall include:
      a) Manpower, number of men by craft
      b) Quality Control
      c) Equipment on the Project;
      d) Major deliveries
      e) Activities worked with reference to the CPM schedule activity numbers
      f) New problems
      g) Other pertinent information
   2) A similar report shall be submitted for/by each Subcontractor.
   3) The reports shall be submitted to the ENGINEER each month.

2.2 SCHEDULING

A. Plan the work and carry it out with minimum interference to the operation of the existing facilities. Prior to starting the work, confer with the Engineer and Owner's representative to develop an approved work schedule, which will permit the facilities to function as normally as practical. It may be necessary to do certain parts of the work outside normal working hours in order to avoid undesirable conditions. The Contractor shall do this work at such times and at no additional cost to the Owner.

SPECIAL EVENTS: Contractor may be asked to stop work during special events and holidays. All material and equipment shall be totally off all streets by 5:00 P.M. the day before these dates:

B. Year 2014-2015

Date	Notes	Event
July 4-5	No Work	Independence Day
July 10-12	No Work	Mel Fisher Days
August 7-10	No Work	Lobster Fest
August 30-Sep 1	No Work	Labor Day
Sep 18-21	No Work	Key West Poker Run
Oct. 19-26	No Work	Fantasy Fest
Nov. 7-9	No Work	Super Boat Races
Nov. 27-29	No Work	Thanksgiving
Dec. 6	No Work	Holiday Parade
Dec. 25-27	No Work	Christmas
Dec. 28-Jan 1	No Work	New Year's Eve and Day
Jan. 19	No Work	Martin Luther King Events
Jan. 20-25	No Work	Quantum Key West Race/Food and Wine
Feb. 21-22	No Work	Old Island Days
March 14	No Work	St. Patrick's Day Bar Stroll
May 22	No Work	Cuban/American Heritage Festival
May 23-25	No Work	Memorial Day

2.3 COORDINATION

A. Contractors shall cooperate in the coordination of their separate activities in a manner that will provide the least interference with the Owner's operations and other contractors and utility companies working in the area, and in the interfacing and connection of the separate elements of the overall project work.

B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the Engineer.

2.4 WORK TO BE PERFORMED BY OTHERS

A. During the construction period for this project, the Owner (either with his own forces or under a separate contract) may be performing work that may require the cooperation of the Contractors in scheduling and coordination to avoid conflicts.

B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the Engineer.

C. All Contractors working on this site are subject to this requirement for cooperation, and all shall abide by the Engineer's decision in resolving project coordination problems without additional cost to the Owner.

3. SITE CONDITIONS

3.1 SITE INVESTIGATION AND REPRESENTATION

A. The Contractor acknowledges satisfaction as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, and tide stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the prosecution of the work, and all other matters which can any way affect the work or the cost thereof under this Contract.

B. The Contractor further acknowledges satisfaction as to character, quality, and quantity of surface and subsurface materials to be encountered from his inspection of the site and from reviewing any available records of exploratory work furnished by the Owner or included in these Documents. Failure by the Contractor to become acquainted with the physical conditions of the site and all available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of successfully performing the work.

C. The Contractor warrants that as a result of examination and investigation of all the aforesaid data, the contractor can perform the work in a good and workmanlike manner and to the satisfaction of the Owner.

D. The Owner assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this Contract, unless (1) such representations are expressly stated in the Contract, and (2) the Contract expressly provides that the responsibility therefore is assumed by the Owner.

3.2 INFORMATION ON SITE CONDITIONS

A. General: Any information obtained by the Engineer regarding site conditions, subsurface information, water level, existing construction of site facilities as applicable, and similar data will be available for inspection at the office of the Engineer upon request. Such information is offered as supplementary information only. Neither the Engineer nor the Owner assumes any responsibility for the completeness or interpretation of such supplementary information.

3.3 DIFFERING SUBSURFACE CONDITIONS

A. The Engineer shall investigate such conditions promptly and following this investigation, the Contractor shall proceed with the work, unless otherwise instructed by the Engineer. If the Engineer finds that such conditions do so materially differ and cause an increase or decrease

in the cost of, or in the time required for performing the work, the Engineer will recommend to the Owner the amount of adjustment in cost and time he considers reasonable. The Owner will make the final decision on all Change Orders to the Contract regarding any adjustment in cost or time for completion.

3.4 UTILITIES

A. During excavation the Contractor shall be responsible for determining, at his cost, the locations of all known utilities in the project area.

3.5 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

A. Where the Contractor's operations could cause damage or inconvenience to, telegraph, telephone, television, gas, water, sewer, or irrigation systems, the operations shall be suspended until all arrangements necessary for the protection of these utilities and services have been made by the Contractor.

B. Notify all utility offices, which are affected by the construction operation at least 48 hours in advance. Under no circumstances expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, locate, expose, and provide temporary support for all existing underground utilities.

C. The Contractor shall be solely and directly responsible to the Owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract

D. Neither the Owner nor its Officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.

E. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is granted.

F. In the event the Contractor encounters water service lines that interfere with trenching, he may, by obtaining prior approval of the property owner, Water Department, or Fire Department as applicable, and the Engineer, cut the service dig through, and restore service with similar and equal materials at the Contractor's expense.

G. The Contractor shall replace, at his own expense, all existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract Documents or ordered by the Engineer.

4. TEMPORARY CONSTRUCTION UTILITIES AND FACILITIES

4.1 TEMPORARY WATER

A. The Contractor shall make his own arrangements to obtain suitable water for any need and shall pay all costs.

4.2 TEMPORARY ELECTRIC POWER

A. The Contractor shall make his own arrangements to obtain and pay for electrical power used until final acceptance by the Owner.

4.3 SAFETY REQUIREMENTS FOR TEMPORARY ELECTRIC POWER

A. Temporary electric power installation shall meet the construction Safety requirements of OSHA, State, and other governing agencies.

4.4 SANITARY FACILITIES

A. The Contractor shall provide and maintain sanitary facilities for his employees and his subcontractor's employees that will comply with the regulations of the local and State Departments of Health and as directed by the Owner.

4.5 STORAGE OF MATERIALS

A. Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. When considered necessary, they shall be placed on wooden platforms or other clean hard surfaces and not on the ground. Stored materials shall be located so as to facilitate prompt inspection. Materials shall not be stored where access to any structure, plot, or road is blocked. Any material the Contractor wishes to store on the site must be approved by the Engineer or his designee, and must be stored at the location designated by him.

B. Delicate instruments and materials subject to vandalism shall be placed under lock cover and, if necessary, provided with temperature control as recommended by the manufacturer.

5. SAFETY AND CONVENIENCE

5.1 CONSTRUCTION SAFETY PROGRAM

A. The Contractor shall develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions. The Contractor shall appoint an employee who is qualified and authorized to supervise and enforce compliance with the safety program.

B. The duty of the Engineer to conduct construction review of the Contractor's performance is not intended to include a review or approval of the adequacy of the Contractor's safety supervisor, the safety program or any safety measures taken in, on, or near the construction site.

C. The Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities, or unramped grade changes in pedestrian sidewalk or roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work.

D. The performance of all work and all completed construction, particularly with respect to ladders, platforms, structure openings, scaffolding, shoring, lagging, machinery guards and the like, shall be in accordance with the applicable governing safety authorities.

E. During construction, the Contractor shall construct and at all times maintain satisfactory and substantial temporary chain link fencing, solid fencing, railing, barricades or steel plates, as applicable at all openings, obstructions, or other hazards in streets, sidewalks, floors, roofs, and walkways. All such barriers shall have adequate warning lights as necessary, or required for safety. Also all barriers shall have a lower horizontal continuous frame member at a maximum of 17" above grade.

5.2 ACCIDENT REPORTS

A. If death or serious injuries or serious damages are caused; the Contractor must promptly report by telephone or messenger to the Engineer. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of or in connection with, the performance of the work whether on, or adjacent, to the site, giving full details and statements of witnesses.

B. If a claim is made against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

5.3 TRAFFIC MAINTENANCE AND SAFETY

A. Provide and obtain approval of a traffic maintenance plan where required by federal, state, county, or local agencies having jurisdiction.

B. Comply with all rules and regulations of the state, county, and city authorities regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by express permission of the owner. Conduct the work so as to assure the least possible obstruction to traffic and normal commercial pursuits. Protect all obstructions within traveled roadways by installing approved signs, barricades, and lights where necessary for the safety of the public. The convenience of the general public and residents adjacent to the project and the protection of persons and property are of prime importance and shall be provided for in an adequate and satisfactory manner.

C. Maintenance of Traffic shall be maintained at all construction sites until the work is either completed or any open trenches have been properly covered and all equipment is properly stored. Contractor shall maintain MOT signs in good repairs and required MOT lights should be operative at all times. The city inspector shall stop work if MOT is not properly maintained; there shall not be any additional cost to the city for this downtime.

D. When flagmen and guards are required by regulation, permits, or when deemed necessary for safety, they shall be furnished with approved orange wearing apparel and other regulation traffic-control devices. Flaggers shall be certified by State approved agency.

5.4 STREET MAINTENANCE

A. CONTRACTOR shall notify all residents and proprietors adjacent to construction site of work to be performed, more specifically the notice shall state the day and time construction will begin, the name and phone number of the

B. CONTRACTOR, the City Project Coordinator's name and phone number, and the reason for construction. Notice shall be given a minimum of 72 hours in advance of construction and testing. Additional Notice shall be given for each phase of work in the intersection, if no work has been performed for more than two weeks in the intersection. (I.E. Well Drilling; Well Structure / Catch basins pipe installation; pavement) Submittal: Notice; for approval.

C. CONTRACTOR shall post "NO PARKING" signs, supplied by the City of Key West, in every legal parking space needed for construction and testing. Signs shall be posted on barricades a minimum of 24 hours in advance. Contractor shall post signs to ensure that parking meters are still available for use that are outside the limits of the construction and storage of materials.

5.5 FIRE PREVENTION AND PROTECTION

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

5.6 HURRICANE PREPAREDNESS PLAN

A. Within 30 days of the date of Notice to Proceed, the CONTRACTOR shall submit to the ENGINEER and City Representative a Hurricane Preparedness Plan. The plan should outline the necessary measures which the CONTRACTOR proposes to perform at no additional cost to the OWNER in case of a hurricane warning.

B. In the event of inclement weather, or whenever City Representative shall direct, CONTRACTOR will, and will cause Subcontractors to protect carefully the Work and materials against damage or injury from the weather. If, in the opinion of City Representative, any portion of Work or materials shall have been damaged or injured by reason of failure on the part of CONTRACTOR or any Subcontractors to so protect the Work, such Work and materials shall be removed and replaced at the expense of

6. PRESERVATION, RESTORATION AND CLEANUP

6.1 SITE RESTORATION AND CLEANUP:

A. At all times during the work keep the premises clean and orderly and upon completion of daily work repair all damage caused by equipment and leave the project free of rubbish or excess materials of any kind.

B. Stockpile excavated materials in a manner that will cause the least damage to adjacent lawns, grassed areas, gardens, shrubbery, or fences regardless of whether these are on private property, or state county, or city rights-of-way. Remove all excavated materials from grassed and planted areas, and leave these surfaces in a condition equivalent to their original condition. Excavated material shall not be placed or stockpiled on streets or sidewalks.

6.2 FINISHING OF SITE, BORROW, AND STORAGE AREAS

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

6.3 AREA CLEANUP DURING CONSTRUCTION

A. Thoroughly clean all spilled dirt, gravel, sand, concrete, or other foreign materials caused by the construction operations from all streets and roads, grass, pathways, or concrete walkways and from adjacent areas at the conclusion of each day's operation. Wet concrete is not to be stored, dumped, or placed on the ground or other structures on any City property at any time. Truck or equipment wash down is not to be performed on City Property.

6.4 DUST PREVENTION

A. Give all unpaved areas used in the construction area an approved dust-preventive treatment or periodically water to prevent dust during construction. Applicable environmental regulations for dust prevention shall be strictly enforced.

7. CONTRACT CLOSEOUT

A. Comply with requirements stated in the General Conditions of the construction Contract and in Specifications for administrative procedures in closing out the Work.

B. RELATED REQUIREMENTS

a. Standard General Conditions of the Construction Contract and Supplementary Conditions.
b. Cleaning.
c. Project Record Documents.
d. Warranties and Bonds.
e. The respective sections of Specifications: Closeout Submittals Required of Trades.

C. PARTIAL UTILIZATION

a. When CONTRACTOR considers all the work at each recharge well to be Complete, submit to the ENGINEER a written notice that the portion of the Work is Substantially Complete or ready for Partial Utilization by the OWNER. At this time ENGINEER and OWNER will schedule an inspection of the recharge well. During the inspection, ENGINEER and OWNER will prepare a list of items (punch list) that are incomplete, or not in conformance with the Contract requirements. Upon

completion of the punch list, OWNER or ENGINEER will issue a written Acceptance or certificate indicating that OWNER accepts the recharge well as Complete and assumes Partial Utilization. At that time, CONTRACTOR's responsibility to operate and maintain the recharge well will cease.

D. SUBSTANTIAL COMPLETION

a. When CONTRACTOR considers the entire Work will be Substantially Complete, he shall submit to the ENGINEER:
b. A written notice that the Work is Substantially Complete.
c. A list of items to be completed or corrected.
d. Within a reasonable time after receipt of such notice, the ENGINEER and City Representative will make an inspection to determine the status of completion.
e. If the ENGINEER determines that the Work is not Substantially Complete:
f. The ENGINEER will promptly notify the CONTRACTOR in writing, giving the reasons therefore.
g. CONTRACTOR shall remedy the deficiencies in the Work, and send a second written notice of Substantial Completion to the ENGINEER.
h. The ENGINEER and OWNER will re-inspect the Work.
i. When the ENGINEER finds that the Work is Substantially Complete, he will: Prepare and deliver to OWNER a tentative Certificate of Substantial Completion, with a tentative list of items to be completed or corrected before final payment. After consideration of any objections made by the OWNER as provided in Conditions of the Contract, and when the ENGINEER considers the Work Substantially Complete, he will execute and deliver to the OWNER and the CONTRACTOR a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.
j. Request the CONTRACTOR to initiate closeout submittals.

E. FINAL INSPECTION

a. When CONTRACTOR considers the Work complete, submit written certification that:
b. Contract Documents have been reviewed.
c. Work has been inspected for compliance with Contract Documents.
d. Work has been completed in accordance with Contract Documents.
e. Equipment and systems have been tested in the presence of the OWNER's representative and are fully operational and operating at design specifications.
f. Work is completed and ready for final inspection.
a. The ENGINEER and City Representative will make an inspection within ten (10) days to verify the status of completion with reasonable promptness after receipt of such certification.
b. Should the ENGINEER consider that the Work is incomplete or defective:
c. The ENGINEER will promptly notify the CONTRACTOR in writing, listing the incomplete or defective work.
d. CONTRACTOR shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the ENGINEER that the Work is complete.
e. The ENGINEER will re-inspect the Work.

F. CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

a. When the ENGINEER finds that the Work is acceptable under the Contract Documents, he shall request the CONTRACTOR to complete any remaining closeout submittals.
b. Evidence of compliance with requirements of governing authorities.
c. Project Record Documents: Certified as-builts. All elevations and coordinates shall be verified by a licensed surveyor. The surveyor shall certify the as-builts.
d. Operating and Maintenance Data, Instructions to OWNER's Personnel: Warranties and Bonds:
e. Spare Parts and Maintenance Materials Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
f. Certificate of Insurance for Products and Completed Operations.

G. FINAL ADJUSTMENT OF ACCOUNTS

a. Submit a final statement of accounting to the ENGINEER.
b. Statement shall reflect all adjustments to the Contract Sum:
c. The original Contract Sum.
d. Additions and deductions resulting from:
e. Previous Change Orders.
f. Allowances.
g. Unit Prices.
h. Deductions for uncorrected Work.
i. Penalties and Bonuses.
j. Deductions for liquidated damages.
k. Other adjustments.
l. Total Contract Sum, as adjusted.
m. Previous payments.
n. Sum remaining due.

H. FINAL APPLICATION FOR PAYMENT

CONTRACTOR shall submit the final Application for Payment in accordance with procedures and requirements stated in the Standard General Conditions of the Construction Contract.

8 PAYMENT

8.1 GENERAL

A. Payment for the work in this section will be included as part of the Contract Unit Bid Prices amount stated in the BID. No separate payment shall be paid.

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SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL:

1.1 DESCRIPTION

A. Work Included: The general construction and furnishing of all materials, equipment and labor for the construction of five (5) stormwater gravity injection wells, abandonment of an existing outfall, and a new 24-inch outfall; including but not limited to; triple chamber treatment boxes, storm sewer pipe, catch basins with inlets, concrete /asphalt pavement removal & replacement, earthwork, dewatering, silt removal boxes for approved dewatering discharges, utility adjustments, utility conflict boxes, tide valves, environmental protection, site restoration, sidewalk improvements, site clean up, and all necessary appurtenances and record drawings, surveys, well testing, and incidental work to provide a complete and serviceable project identified as:

EAST FRONT STREET FLOOD MITIGATION

B. Related requirements in other parts of the Contract Documents: General Conditions of the Contract for Construction.

C. Contractor's Duties:

1. In addition to provisions stipulated in other portions of the Contract Documents, the Contractor shall:

a. Secure permits as necessary for proper execution and completion of the work.

b. Give required notices.

D. The Contractor shall be totally responsible for all permits required and shall ensure that construction complies with all applicable local, state, and federal codes.

E. Provide an experienced, qualified, and competent Superintendent to oversee the Work and perform quality assurance inspections. Prior to starting construction, the proposed Superintendent's qualifications shall be submitted in writing to the City for approval. The approved Superintendent shall be expected to remain for the duration of the Project, unless the City or Engineer deem him/her inadequate and requests his/her removal or the Contractor cannot continue his services to the Project for a reason or reasons that shall be communicated in writing to the City.

F. A replacement Superintendent shall be required to follow the same approval process as required for the original. The Superintendent shall provide to the City Inspector Construction Reports for each day of construction, the reports shall be in English, legible, and signed. Contractor shall provide PDF copies monthly. Reports shall include quantity control checks done daily

G. It shall be the Contractor's responsibility to request approval for entrance to the site for work on Saturdays, Sundays, holiday, and weekday hours other than 7:00 am until 7:00 PM. No construction can commence before 8:00 AM on weekdays.

H. The Contractor shall provide material safety data sheets (2 copies) for chemicals, paints, coatings and materials used on-site prior to initiation of work.

I. The Contractor shall submit a site Safety and Health Plan as per OSHA 1910.120.

1.2 CONTRACTOR'S USE OF PREMISES

A. Work shall be scheduled as to not interfere with on-going area activities.

B. Coordinate use of premises and requirements for security under direction of City.

C. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.

D. Obtain and pay for the use of additional storage or work areas needed for operation.

E. Contractor shall provide drinking water and toilet facilities for construction personnel; The City will not provide.

1.3 MAINTENANCE OF EXISTING UTILITIES OPERATION

A. Provide at least three weeks notice prior to interruption of utility services for temporary or permanent connections.

B. Keep interruption of utility services, and utility outages during disconnection, moving, and reconnection to a minimum.

C. Keys Energy shall be notified two weeks in advance in writing by the contractor for any KEYS support equipment required by the Contractor during any excavation. (e.g., Power poles next to excavations requiring support, etc.) No additional payment will be paid for this coordination.

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SECTION 01014
PROTECTION OF THE ENVIRONMENT

PART 1 GENERAL

A. The Contractor shall maintain all work areas within and outside the project boundaries free from environmental pollution, which would be in violation to any federal, state, or local regulations.

B. The work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as necessary.

C. Temporary erosion controls include, but are not limited to, grassing, mulching, setting, watering, and reseeding on-site surfaces and spoil and borrow area surfaces and providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the OWNER.

D. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the OWNER.

E. CONTRACTOR is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

PART 2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Submit erosion and sedimentation control plans and drawings to the owner.

B. Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and working drawings. Hay bales which deteriorate and filter stone which is dislodged shall be replaced

1) SEDIMENTATION CONTROL

a) Bales - clean, seed free cereal hay type.

b) Netting - fabricated of material acceptable to the OWNER.

c) Filter stone - crushed stone conforming to Florida Department of Transportation specifications.

d) Concrete block - hollow, non-load-bearing type.

e) Concrete - exterior grade not less than one inch thick.

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C. Should any of the temporary erosion and sediment control measures employed by the CONTRACTOR fail to produce results which comply with the requirements of the State of Florida, CONTRACTOR shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

PROTECTION OF SEWERS

A. Take adequate measures to prevent the impairment of the operation of the existing sewer system. Prevent construction material, pavement, concrete, earth, or other debris from entering a storm sewer or sewer structure.

PART 3 PROTECTION OF WATERWAYS

A. The Contractor shall observe the rules and regulations of the State of Florida and agencies of the United States Government prohibiting the pollution of waters by the dumping of any refuse, rubbish, or debris therein.

B. All sewage flow, including stormwater flow, interfering with construction and requiring diversion, shall be diverted to sewers leading to water pollution control plants and shall not be directed to any waterway. The Contractor shall not cause or permit any action to occur which would cause an overflow to an existing waterway. Prior to commencing excavation and construction, the Contractor shall submit for approval, and obtain Owner's approval thereof, of detailed plans showing how he intends to handle and dispose of sanitary, groundwater, and storm water flow. By approving the plan, the Owner does not accept any responsibility for the adequacy thereof or for any damages to public or private property resulting there from, such responsibilities remaining with the Contractor.

C. The Contractor shall be responsible for providing holding ponds or an approved method which will handle, carry through, or divert around his work all flows, including storm flows, so as to prevent excessive silting of waterways of flooding damage to the property.

PART 4 DEWATERING

A. GENERAL

Unless specifically authorized by the Owner, all pipe, and structures shall be installed "in the dry". The contractor shall dewater trench excavation as required for the proper execution of the work, using one or more of the following approved methods: well point system, and or pumps with silt box and filtering system.

Contractor shall design and provide a 920 GPM ground water treatment system plan comprised of the following:

- A large settling tank (silt box) with baffles for the removal of large solids and free product
- Sock Bag filters shall be attached to the discharge hose into the settling tank and sewer manholes for the removal of suspended solids. Contractor responsible for determining

number of discharge hose's required from the settling tank to the manhole to maintain adequate flow.

Well point systems must be efficient enough to lower the water level in advance of the excavation and maintain it continuously in order that the trench bottom and sides shall remain firm and reasonably dry. The well points shall be designed especially for this type of service, and the pumping unit used shall be capable of maintaining a high vacuum, and at the same time, of handling large volumes of air as well as of water.

Pumps shall be capable of handling the water the contractor need removed to perform the work. Sock filters shall be provided on the pump discharge at the silt box and manhole discharge. Filter cloth draped in manhole shall not be used except for temporary basis of less than 4 hours.
Silt boxes shall be capable of handling the water the contractor needs removed to perform the work. Silt box discharged into the sewer systems shall have filter socks on the discharge hose. The contractor shall provide multiple discharge hose with filtering sock if required to remove the water from the silt box. Silt boxes shall be cleaned daily. Socks shall be replaced as needed. Sock(s) with holes or cuts shall be replaced immediately.

The Contractor shall be responsible for disposing into the city sewer system of all water resulting from trench dewatering operations, and shall dispose of the water without damage or undue inconvenience to the work, the surrounding area, or the general public. He shall not dam, divert, or cause water to flow in excess in existing gutters, pavements or other structures: and to do this he may be required to conduct the water to a suitable place of discharge may be determined by the Owner.

The contractor shall not dewater into the permitted stormwater gravity injection well at the project site.

The contractor shall be responsible for payment to the city for the clean up of the sewers system and any repairs that are determined to have been caused by the project dewatering.

PART 5 PROTECTION OF AIR QUALITY

A. The air pollution likely to occur due to construction operations shall be minimized by wetting down bare soils during windy periods, requiring the use of properly operating combustion emission control devices on construction vehicles and equipment used by contractors, and by encouraging the shutdown of motorized equipment not actually in use.

B. Trash burning will not be permitted on the construction site.

C. Contractor shall provide dust control for any asphalt / concrete removal and during the asphalt milling operations.

PART 6 CONSTRUCTION NOISE CONTROL

6.1 GENERAL

A. The Contractor shall conduct all his work, use appropriate construction methods and equipment, and furnish and install acoustical barriers, all as necessary so that no noise

emanating from the process or any related tool or equipment will exceed legal noise levels, as set forth in the Code of Ordinances, City of Key West, Florida.

6.2 MITIGATION OF CONSTRUCTION NOISE IMPACT

A. The Contractor shall submit to the Engineer his plans to mitigate the construction noise impacts and to comply with the noise criteria specified herein, including the method of construction, the equipment to be used, and acoustical treatments if necessary.

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SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 GENERAL

A. The CONTRACTOR shall receive and accept the compensation as provided in the BID and the Contract in full payment for performing all operations necessary to complete the work under the Unit Price and Lump Sum portions of this Contract, and also in full payment for all loss or damages arising from the nature of the work, until the final acceptance by the OWNER.

B. The Unit prices stated and Lump Sums stated in the BID include all costs and expenses for performing and completing the work as ordered and as shown on Contract Drawings, details, technical specifications, and specified herein. Measurement and payment for an item at a Unit Price or Lump Sum shown in the Proposal shall be in accordance with the description of the item in this section.

C. The CONTRACTOR'S attention is called to the fact that the quotations for various items of work are intended to establish a total price for completing the work in its entirety. Should the CONTRACTOR feel that the cost for an item has not been established in the BID, or this section, he shall include the cost for that work in an applicable BID item, so that this bid reflects his total Unit Prices and Aggregate Sums for completing the work in its entirety. It is the intent of this Contract that the CONTRACTOR provide a completed operating system, and any item required to accomplish this shall be included to establish a total cost.

D. The quantities for payment under this Contract shall be determined by actual measurement of completed items, in-place, and ready for service and accepted by the OWNER, in accordance with the applicable method of payment therefore contained herein. The CONTRACTOR shall designate and provide a representative to be present at, to witness, and to assist in the making of field measurement of payment.

1.2 MEASUREMENT–GENERAL

A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.

B. Whenever pay quantities of material are determined by weight, the material shall be weighed on scales furnished by CONTRACTOR and certified accurate by the state agency responsible. A weight or load slip shall be obtained from the weigher and delivered to the OWNER'S representative at the point of delivery of the material.

C. If material is shipped by rail, the car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff, and provided further that car weights will not be acceptable for material to be passed through

mixing plants.

D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by ENGINEER. Each vehicle shall bear a plainly legible identification mark.

E. All materials which are specified for measurement by the cubic yard "measured in the vehicle" shall be hauled in vehicles of such type and size that the actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. All vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting the above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.

F. Units of measure shown on the Proposal shall be as follows unless specified otherwise.

Item	**Method of Measurement**
CY	Cubic Yard: Field Measure by ENGINEER within the limits specified or shown
EA	Each: Field Count by ENGINEER
LF	Linear Foot: Field Measure by ENGINEER
LS	Lump Sum: Unit is one; no measurement will be made
SF	Square Foot
SY	Square Yard

1.3 PAYMENT

A. General: Progress payments will be made monthly on the date established at the preconstruction meeting.

B. Payment for all Work shown or specified in the Contract Documents is included in the Contract Price. No measurement or payment will be made for individual items except as itemized herein as unit price items or lump sum.

1.4 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

A. Payment will not be made for following:

1. Loading, hauling, and disposing of rejected material.

2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
3. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provisions of Contract Documents.
4. Material not unloaded from transporting vehicle.
5. Defective Work not accepted by OWNER.
6. Material remaining on hand after completion of Work.

1.5 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

A. Partial Payment: No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings are acceptable to ENGINEER and materials are properly stored at a site as agreed to by the OWNER.

B. Final Payment: Will be made only for products incorporated in Work; remaining products, for which partial payments have been made, shall revert to CONTRACTOR unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

PART 2 DESCRIPTION OF PROPOSAL ITEMS

2.1 **BID SCHEDULE**

A. Bonds, BID Item No.1:

Paid on request with copy of invoice provided to city.

B. Mobilization / Demobilization, General & Supplementary Conditions Environmental and Erosion Control , MOT, Certified AutoCAD as-Builts, Grant Requirements and FDEP class V well permits- Proposal Item No.2:

1. Payment for these Items will be made on a lump sum basis as stated.
a.) Mobilization 25 percent following providing pre-construction videos of project site and initiation of construction, remaining balance paid based on percentage complete on each following pay application.
b.) Demobilization / Contract Close out paid on completion of final punch.
c.) General & Supplementary Conditions including environmental and erosion control; Gravity Well Class V Permitting; paid on Mobilization 25 percent, remaining balance paid based on percentage complete on each following pay application.
d.) MOT; paid on Mobilization 25 percent, remaining balance paid based on percentage complete on each following pay application. Item shall not be paid if MOT signs are not in good repair and lighted at all times.
e.) Certified AutoCAD AS-Builts/ Surveyor; paid on completion of as-builts following acceptance by the engineer and city.

Note: The CONTRACTOR'S lump sum prices shall include full compensation for all BID Items No.1 and 2; including mobilization, demobilization, cleanup, bonds, insurance, permits, including Class V Well permits, Maintenance of Traffic, all conditions listed in General & Supplementary Conditions, producing certified AutoCAD As-Builts,

and health and safety provisions. It shall include all notes for construction noted on the drawings not otherwise provided for in unit bid prices. It shall include all temporary facilities required by the CONTRACTOR for the duration of construction including the movement of all equipment and materials to and from the site and acceptable cleanup of the project area upon completion of the work. It shall include the complete cost of pre-construction videos of project site.

C. Trench Excavation, Backfill and Storm Pipe – BID Item No.3:

1. Payment for PVC and ADS storm sewer pipe will be based upon the unit prices per linear foot as stated in the Proposal. Payment for pipe will be based on the actual number of feet installed.

2. The unit price per linear foot shall constitute full payment for the pipe, in-place, including but not limited to, removal and proper disposal of old pipe, cleaning, and inspection, backfill material for pipe bedding and pipe zone, backfill material to fill the difference of the existing and new pipe invert elevations, and all other work specified.

3. Payment for work specified in this section will be made at the unit prices per linear foot stated in the BID and shall be included under the following items.

4. Payment for trench excavation and backfill will be on a linear foot basis for the depth of the trench from the original ground surface to the invert elevation of the pipe. The payment per linear foot will be the amount stated in the BID. The depth of trench will be measured from the ground surface at the centerline of the trench to the invert of the pipe. The depth of trench will be measured at intervals of 25 feet along the centerline of the trench, and the depth of each measuring point will be the depth used for computing the depth of trench for a distance of 25 feet ahead of the point of measurement. The depth figures indicated in the Proposal are inclusive to the nearest 0.1 foot; that is, a trench depth measured as 11.9 feet will be paid for at the unit price for excavation 10 to 12 feet deep. A trench depth measured as 12.0 feet will be paid for at the unit price for excavation 12 to 14 feet deep. The length of trench will be measured horizontally from center-to-center of structures. Payment for trench excavation and backfill shall cover all materials, including lime rock backfill, sheeting left in-place, and all work specified herein, or not specifically paid for in other sections, except foundation and pipe zone geotextile fabric stabilization, which will be paid for as a separate item. Payment will include the cost for required compaction testing.

5. No separate payment will be made for preparation of right-of-way, disposal of waste material, removal of obstructions, pavement, curb and sidewalk removal, replacement of damaged storm sewer pipe and structures, water distribution service, shoring, sheeting and bracing of trenches, control and removal of ground water, location of excavated materials, brick removal, or temporary trench pavement, removal and disposal of existing pipe, bypass pumping, traffic control, but will be considered incidental and all costs thereof shall be included in the unit prices stated in the Proposal.

6. No payment for TRENCH EXCAVATION AND BACKFILL will be made unless all required backfill requirements are met.

7. Contractor shall perform Lamping of all the installed stormwater pipes prior to establishing flow to the associated gravity injection well. No Final payment for the pipe installation shall be made until lamping is complete. The contractor shall supply all the equipment necessary for the lamping (i.e. lamps, ladders).

8. Payment shall included in this line item for the final acceptance and final structure to structure inspection by the ENGINEER of the storm sewers system, completely flush or clean all parts of the system. Remove all accumulated construction debris, rocks, gravel, and other foreign material from the storm sewers system at or near the closest downstream manhole. If necessary, use mechanical rodding equipment to remove accumulated mud, silt, and all other deposits from the storm sewer system at no additional cost to the OWNER.

D. Asphalt Restoration - BID Item No. 4:

1. Asphalt restoration payment and pavement replacement over trenches will be based on the unit price as stated in the BID. Field measurements of areas will be made by the CONTRACTOR, City Inspector and reviewed with the ENGINEER. Payment shall include all labor and materials for milling (dust control), new base preparation and material, testing, placement, traffic control, adjusting utility control boxes, and inlet tops.

2. Asphalt shall be as noted in the drawings and installed as per the standard specifications and drawings.

E. Temp Striping 20 MILS – BID Item No. 5:

1. Asphalt temporary striping shall be based on the unit price as stated in the Proposal. Field measurements of areas will be made by the CONTRACTOR and reviewed with the City Inspector. Payment shall include all labor and materials for placement of, painting traffic stripes and markings. Contractor shall use FDOT Sections 710; 711; 713 for the application of Striping. Asphalt temporary striping shall be installed within 24 hours of paving. Asphalt temporary striping shall be maintained by the contractor until the installation of the Asphalt final striping.

F. Final Striping 70 MILS Thermoplastic -BID Item No. 6:

1. Asphalt final striping shall be based on the unit price as stated in the BID. Field measurements of areas will be made by the CONTRACTOR and reviewed with the City Inspector. Payment shall include all labor and materials for placement of the thermo-plastic at 70 MILS; painting traffic stripes and markings. Contractor shall use FDOT Section 710; 711; 713 for the application of Final Striping.

G. Concrete – BID Item No. 7:

1. Payment for work necessary to construct sidewalks, curbs and gutters, and concrete boxes replacement will be included in the Unit Price per each stated in the BID. Payments shall include excavation, backfill, removal and disposal of existing related concrete-asphalt items, and all labor and materials to complete the work. Cost shall include new base as per the details and specification requirements.

I. Catch Basins and Inlets – BID Item No. 8:

1. Payment for work necessary to construct and install inlet boxes will be included in the Unit Price per each stated in the BID for inlet boxes in the respective depth increments. Payments shall include excavation and backfill and all labor and materials to complete the work including the required number of connections of the new storm pipe to the inlet. Cost shall include modification of the box as required meeting the existing and or new road elevation. See detail in attachments. Contractor shall ensure modifications do not void any manufacture warranties.

2. Inlet boxes depths will be measured from top of inlet frame and grate to the bottom of the structure. Depth will be to the nearest foot. Payment will include compensation for a complete inlet, <u>including concrete apron</u>, base, frame, grate, extensions, channels, removal and disposal of existing inlet boxes, connections to new incoming pipes, flowable fill, Flexible Bollards, and for over excavating and placing the compacted 6-inch layer of base rock under concrete base. All grates shall be H20 Traffic rated. Cost shall include modifying the gate top to match new or existing road elevations as per the detail. Contractor shall provide written certification that the method used does not void any warranties.

J. Removal and Disposal of Existing Inlets/Manholes/Grout Shallow Wells – BID Item No. 09:

1. Payment will include compensation for removal and disposal of existing shallow wells, manhole and/or inlets, cutting and capping incoming pipes, backfill, temporary pavement, and traffic control. This pay item is specific to shallow wells, inlets and manholes which are to be removed and not replaced. The cost for removing existing structures being replaced with new structures shall be included in the cost of the new structures.

K. Storm Manhole - BID Item No. 10:

1. Payment for work necessary to construct manholes will be included in the unit price each stated in the BID for manholes. Payment shall include excavation and backfill and all labor and materials to complete the work including the required number of connections of the new storm-sewer pipe to the manhole and removal of existing manhole.

2. Payment will include compensation for a complete manhole including base, frame and cover, ring extensions, benches, channels, removal and disposal of existing manhole, connections to new storm sewer, and incoming pipes, temporary pavement, and for over excavating and placing the compacted 6-inch layer of base rock under concrete-base.

L. Adjustments and Connections - BID Item No. 11:

1. Payment for sewer FM / water main relocations shall be at the unit price for each installation for the size piping being relocated as stated in the BID. Payment will be made only when indicated on the Drawings, a predig shows a relocation is necessary, or when the ENGINEER directs the CONTRACTOR to complete the relocation. Payment shall include all excavation and backfill, cutting and removing existing pipe, providing up to 75 feet of new pipe, six 45-degree fittings, up to two solid sleeve couplings, restrained joints, disinfection, and temporary pavement restoration, complete. Payment will only be made for the relocation of water mains 4 inches in diameter and larger. Water mains relocations smaller than 4 inches in diameter shall be considered incidental to the installation of the new pipes and structures and relocated at the sole cost of the CONTRACTOR

2. Payment for connection to existing storm system connection as stated in the BID and in accordance with the drawings. Payment will constitute full compensation for all wok and materials required to make each connection include ADS "T" and ring and cover and all related material, complete.

M. Triple Chamber Baffle Box with Injection Well – Proposal Item No. 12:

1. Payment for work necessary to construct and install triple chamber baffle boxes will be included in the Unit Price per each stated in the Proposal for each box in the respective depth increments. Payments shall include excavation and backfill and all labor and materials to complete the work including the required number of connections of the new storm pipe to the structure, and equipment required to install structure. All internal metal components shall be stainless steel 316.

2. Baffle box depths will be measured from top of manhole frame and grate to the bottom of the bottom slab. Depth will be to the nearest foot. Payment will include compensation for a complete baffle box, including base, frames, grates, extensions, connections to new incoming pipes, skimmers, screens, hydrocarbon boom, turbulence deflectors, well screen, hatches, manhole covers, in-lets as indicated, flowable fill, and for over excavating and placing the compacted 6-inch layer of base rock under the concrete base.

3. This item includes payment for all labor and materials to install the drainage wells and conduct step draw down tests. The unit price includes drilling, dewatering, grouting, and all related site work. The price include sufficient casing for 60 LF of casing from the bottom of the structure into the well.

4. **Epoxy Coated Rebar is not required to be used in the pre-cast structures. The rebar must be oxidation free. A submittal from the pre-cast company that the rebar is oxidation free is required.**

N. Pipe Zone - BID Item No. 13:

1. Payment for geotextile material will be made at the unit price per square yard as stated in the Proposal. Measurement for payment will be made by the ENGINEER

and in accordance with the maximum dimensions shown on the Drawings or actual, whichever is less. The amount of geotextile material was determined by the estimated depth of the pipe zone in the trench, plus width of trench and overlap on top of trench, and estimated for the bottom of all structures. Payment shall include all materials, equipment and labor.

2. Payment for foundation stabilization will be based on the unit price per cubic yard stated in the BID. Measurement for payment shall be limited to the maximum trench width shown on Drawings or actual width, whichever is less, and the depth as measured by the ENGINEER. Payment for this item shall constitute full compensation for all materials, labor, equipment, and incidentals necessary to furnish materials at trench side and for placing and compacting it in the trench and for the extra depth of trench excavation required below the pipe base grade to provide for a stable base for the pipe. This item is to provide for unstable base encountered in the progress of the work and shall be used only under the direction of the ENGINEER and the depth as measured by the ENGINEER

O. Abandon Existing Storm Pipe - BID Item No. 14:

1. Payment will include compensation for cutting and capping and grout of existing storm pipe, backfill, temporary pavement, and traffic control. This pay item is specific to storm pipes which are not being replaced or removed. The cost for removing existing storm pipe being replaced with new pipe shall be included in the cost of the new pipe.

P. Brick Pavers – BID Item No. 15:

1. Payment will include compensation for cutting and replacement of the existing brick pavers, back fill and surface restoration of the disturbed area. The cost for removing existing brick pavers being replaced with new ones shall be included in the cost of the new brick pavers.

Q. Soft Dig for Utility Locations - BID Item No. 16:

1. Payment will include compensation for contractor to pre-dig only at the intersections as shown on the drawings or as approved by the Engineer in writing to locate and verify the utilities that are in the direct area for proposed work. The line item is to include mobilization, maintenance of traffic, excavation, and surface restoration of the disturbed area.

R. Hydrostatic Testing of Stormwater Pipes and Structures - BID Item No. 17:

1. Payment will include compensation for contractor to conduct hydrostatic testing of the stormwater pipes and structures. The hydrostatic test is to be conducted on all new stormwater pipes and structures installed. The test will start at the baffle box and the first length of pipe; then the second inlet and the associated length of pipe, and then the third inlet and length of pipe until the entire new stormwater pipe and structures have been tested.

2. Procedure-

A. All pipe and stormwater structures shall by hydrostatically tested.
B. Isolate section of piping and structures that the test is going to be completed on by plugging structure inlets and outlets as necessary.
D. The testing medium is clean water. The test section should be filled with water to THE TOP OF THE MANHOLE RING AND COVER.
E. Leakage into or out of each structure or pipe section shall not exceed 0.1 gallon per hour per foot of head above the invert.
F. Repair structures, pipes, and pipe joints that do not meet the leakage test, or do not meet specified requirements for visual inspection.

Prior to final acceptance and final structure to structure inspection by the ENGINEER of the storm sewers system, completely flush or clean all parts of the system. Remove all accumulated construction debris, rocks, gravel, and other foreign material from the storm sewers system at or near the closest downstream manhole. If necessary, use mechanical rodding equipment to remove accumulated mud, silt, and all other deposits from the storm sewer system at no additional cost to the OWNER.

S. Sign Removal and Reinstallation - BID Item No. 18:

Includes all labor, materials, equipment; Contractor shall provide and maintain temporary signs required during construction (Temporary Stop Signs i.e.).

T. Tree Removal - BID Item No. 19:

Includes all labor, materials, equipment and deposal; as per section 02900.

U. Diversion Structures - BID Item No. 20:

1. Payment for work necessary to construct the diversion structures will be included in the unit price each stated in the BID. Payment shall include excavation and backfill and all labor and materials to complete the work including the required number of connections of the new and/or existing storm-sewer pipe to the structure.

2. Payment will include compensation for a complete structure including base, frame and cover, ring extensions, benches, channels, removal and disposal of existing manhole, connections to new and/or existing storm sewer, and incoming pipes, temporary pavement, and for over excavating and placing the compacted 6-inch layer of base rock under concrete-base.

V. Water Service Removal and Replacement - BID Item No. 21:

Includes all labor, materials, and equipment to temporarily remove and dispose of water service connections and the replacement of the water service connection per FKAA and City standards.

W. Sanitary Sewer Service Removal and Replacement - BID Item No. 22:

Includes all labor, materials, and equipment to temporarily remove and dispose of sanitary sewer service connections and the replacement of the sewer service connection and cleanout boxes per City standards.

X. Backwater Valve - BID Item No. 23:

Includes all labor, materials, and equipment necessary to install 18-inch backwater valves in the stormwater lines with all appurtenances.

Y. Submersible Storm Pump - BID Item No. 24:

Includes all labor, materials, and equipment necessary to install a submersible storm pump with all appurtenances including concrete vaults, hatches, excavation, backfill, piping, connection to the outfall pipe, coordination and electrical service connection.

Z. Florida Trench Safety Act - BID Item No. 25:

Payment for complying with the State of Florida Trench Safety Act (TSA) for work items associated with the installation of the pipe will be paid for at the unit price times the lineal feet of pipe installed.

AA. Dewatering - BID Item No. 26:

Item includes dewatering for trenches and excavations for structures, including mobilization and operation of the equipment for the duration of the activity.

2.2 Allowance

A. Should an allowance be set aside, this allowance shall be used only at the discretion of and as ordered by the OWNER for such items: unforeseen conditions, unforeseeable conflicts between existing elements of work and the proposed work, unit price items exceed estimated quantities, and any associated work requested by the OWNER including all labor, materials, and services for modifications or extra work to complete the project that was not anticipated in this Contract. Allowance shall be available for Schedule A and B.

B. Any portion of this allowance that remains after all authorized payments have been made will be withheld from contract payments and will remain with the OWNER.

Prices shall include all notes for construction noted on the drawings and technical specifications not otherwise noted above. It shall include all temporary facilities required by the CONTRACTOR for the duration of construction including the movement of all equipment to and from the site and acceptable cleanup of the project area upon completion of the work. It shall include the complete cost of pre-construction videos of project site.

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SECTION 01050
FIELD ENGINEERING

PART 1 GENERAL

1.01 DESCRIPTION:

A. Work Included:

1. Provide field-engineering services required for the Project, including but not limited to:

a. Survey work required in execution of the Work.
b. Civil, Structural, or other professional engineering services specified or required to execute the Contractor's construction methods.
c. Provide final as-builts signed and sealed by a Licensed Surveyor.
d. Verify existing inverts, rim, grates elevations, basic horizontal and vertical control points for the Project indicated.

B. Related Work:

1. General and Supplementary Conditions of the Contract.

2. Summary of the Work: Section 01010.

1.02 QUALITY ASSURANCE:

A. Qualifications of Surveyor or Engineer: Professional Engineer and/or Surveyor currently licensed in the State of Florida.

1.03 SUBMITTALS:

A. Submit name and address of proposed Surveyor and/or Contractor’s Engineer to the City.

B. Upon request of the City’s Engineer, submit documentation to verify accuracy of field engineering work.

C. Submit certificates signed by the Surveyor or Engineer certifying that elevations and locations of the work of this Project are in conformance, or non-conformance, with the Contract Documents.

D. PART 2 PRODUCTS

2.01 AS-BUILTS / RECORD DRAWINGS

As-Builts / Record Drawings shall include the following:

A. All pipe inverts elevations, bottom of structures elevation, pipe grade, LF of new pipe installed;
B. All rim elevations. All grate elevations.
C. Locations of Catch basins, Well structures, and Manholes.
D. Elevations of FDOT "F" curb every 10 LF. (flow line and Top of Curb)
E. Elevations of back of sidewalks every 10 LF. Elevations of ADA Ramps Top and Bottom.
F. Limits of construction.
G. Replace existing property pins removed for construction.
H. Submit record drawings (four) signed and sealed. Provide to the city three DISCS with electronic copies in AUTOCAD and PDF.

PART 3 EXECUTION

3.01 SURVEY REFERENCE POINTS:

A. Existing basic horizontal and vertical control points for the Project shall be as indicated and verified.

B. Locate and protect control points prior to starting site work. Preserve all permanent benchmarks during construction. Make no changes or relocations without prior written notice to the Engineer.

C. Require Surveyor to replace Project control points, which are lost or destroyed during construction operations. Establish replacements based on original survey control.

3.02 PROJECT SURVEY REQUIREMENTS:

A. Establish a minimum of one permanent benchmarks on the per intersection site, referenced to data by survey control points.

B. Locate and lay out by instrumentation lines and levels of:

1) Utility inverts elevations.

2) Batter boards for structures.

3) Structure locations.

4) Controlling lines and levels required for layout.

C. Periodically verify layouts and locations as the Work progresses.

D. Maintain a complete accurate log of all control and survey work as it progresses.

3.03 EXAMINATION AND PREPARATION OF SITE

A. Before starting operations, Contractor shall examine site of work to acquaint himself with conditions to be encountered.

B. Compare actual site with drawings and specifications.

C. Report discrepancies affecting work or cost thereof to the City.

D. Verify exact locations of sewers, water mains, gas mains, above or below ground electrical wires and conduits and structures which may interfere with work.

E. No extra compensation will be allowed for any extra work made necessary due to conditions or obstacles encountered during progress of work, which could have been determined by examination of site or by contacting Owners of pipelines and conduits before starting operations.

3.04 LINES AND GRADES

A. Prior to staking out work, Contractor shall verify established base line, benchmarks, and control points provided.

B. Contractor shall furnish and maintain lines and grades.

C. Contractor shall take immediate steps to correct errors or inconsistencies in lines and grades of work to be in conformity with Contract Documents.

D. Contractor shall be fully responsible for accuracy of lines and grades of work and control and checking and immediate correction of it.

3.05 RESTORATION

A. Items to remain which are disturbed, damaged, or removed when performing required work or for convenience of Contractor or to expedite his operations shall be restored, repaired, reinstalled, or replaced with new work and refinished, as appropriate, so as to be left in as good condition as existed before work commenced and such restoration shall be considered incidental to the work.

B. Any sidewalks or pavement replaced or installed shall meet ADA requirements.

C. Existing items to be altered, extended, salvaged, or relocated and reused, if found to be defective in any way, shall be reported to the City before items are disturbed.

D. Materials and workmanship used in restoring work shall conform in type and quality to original existing construction.

E. Provide As-Builts / Record Drawings.

PART 4 - PAYMENT

4.1 GENERAL

A. Payment for work specified in this section shall be included in the BID in line item #2 in the invitation to bid. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work as specified under this section

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SECTION 01300
SUBMITTALS

PART 1 GENERAL

1.01 GENERAL

A. Inquiries: Direct to ENGINEER regarding procedure, purpose, or extent of Submittal.

B. Submittal Submission Procedures: As provided in General Conditions, as specified herein, and as may otherwise be established during the preconstruction conference.

C. OWNER's Authorization: At any time, OWNER may authorize changes to procedures and requirements for Submittals, as necessary to accomplish specific purpose of each Submittal. Such authorization will be by Field Order or Work Change Directive.

D. Timeliness: Make submissions in accordance with requirements of individual Specification sections, as shown on the current accepted schedule of Submittals submissions, and in such sequence as to cause no delay in Work or in work of other contractors.

E. Identification of Submittals:

1. Complete, sign, and transmit with each Submittal package, one Transmittal of CONTRACTOR's Submittal Form attached at the end of this section.
2. Identify each Submittal with numbering and tracking system reviewed by ENGINEER:
   a. Sequentially number each Submittal.
   b. Resubmission of a Submittal will have original number with sequential alphabetic suffix.
3. Show date of submission and dates of previous submissions.
4. Show Project title and OWNER's contract identification and contract number.
5. Show names of CONTRACTOR, Subcontractor or Supplier, and manufacturer as appropriate.
6. Identify, as applicable, Contract Document section and paragraph to which Submittal applies.
7. Clearly identify revisions from previous submissions.

F. Incomplete Submittal Submissions:

1. At ENGINEER's sole discretion, ENGINEER will either (i) return the entire Submittal for CONTRACTOR's revision/correction and resubmission, or (ii) retain portions of the Submittal and request submission/resubmission
of specified items or as noted thereon.
2. Submittals which do not clearly bear CONTRACTOR's specific written indication of CONTRACTOR review and approval of Submittal or which are transmitted with an unsigned or uncertified submission form or as may otherwise be required under Contract Documents, will be returned to CONTRACTOR unreviewed for resubmission in accordance with Contract Documents.
3. Delays, resequencing or other impact to Work resulting from CONTRACTOR's submission of unchecked or unreviewed, incomplete, inaccurate or erroneous, or nonconforming Submittals, which will require CONTRACTOR's resubmission of a Submittal for ENGINEER's review, shall not constitute a basis of claim for adjustment in Contract Price or Contract Times.

F. Non-specified Submissions: Submissions not required under these Contract Documents and not shown on schedule of Submittals submissions will not be reviewed and will be returned to CONTRACTOR.

G. Transmit Submittals in accordance with current accepted schedule of Submittal submissions, and deliver as follows:

1. Submittals to: Designated Engineer by the General Services and Utilities Department of the City of Key West.

H. Disposition of Submittals, Except Shop Drawings and Samples: As specified herein for administrative Submittals. ENGINEER will review, stamp, and indicate requirements for resubmission or acceptance on Submittal as follows:

1. Reviewed and Reviewed as Noted:
   a. Reference the General Conditions for intent.
   b. CONTRACTOR may proceed to perform Submittal related Work.
   c. One copy sent to Resident Project Representative.
   d. One copy for ENGINEER’s file.
   e. Two copies returned to CONTRACTOR, one for onsite records.
2. Revise and Resubmit (Revise/Correct or Develop Replacement and Resubmit):
   a. Revise/correct in accordance with ENGINEER's comments and resubmit.
   b. One copy to ENGINEER's file.

c. One copy returned to CONTRACTOR appropriately annotated.

d. Remaining copy will be destroyed.

I. ENGINEER's Review: ENGINEER will act upon CONTRACTOR's Submittal and transmit response to CONTRACTOR not later than 30 days after receipt, unless: (i) specified otherwise or (ii) accepted by ENGINEER as set forth in Paragraph ENGINEER's Duties below and identified on current accepted schedule of Submittals submissions. Re-submittals will be subject to the same review time.

J. ENGINEER's Duties:

1. Review Submittals with reasonable promptness and in accordance with current accepted schedule of Submittals submissions.

a. No extension of Contract Times will be allowed due to ENGINEER's review of Submittals, unless all of following criteria are met:

1) CONTRACTOR has notified ENGINEER in writing that timely review of Submittal in question is critical to progress of Work, and has received ENGINEER's written acceptance to reflect such on schedule of Submittals submissions and progress schedule. Written agreement by the ENGINEER to reduce the above Submittal review time will be made only for unusual and CONTRACTOR-justified reasons. Acceptance of a progress schedule containing Submittal review times less than specified above or less than agreed to in writing by ENGINEER will not constitute ENGINEER's acceptance of the review times.

2) ENGINEER has failed to review and return first submission of a Submittal within agreed time indicated on current accepted schedule of Submittal submissions or, if no time is indicated thereon, within 30 days.

3) CONTRACTOR demonstrates that delay in progress of Work is directly attributable to ENGINEER's failure to return Submittal within time indicated and accepted by ENGINEER.

b. No extension of Contract Times will be allowed due to delays in progress of Work caused by rejection and subsequent resubmission of Submittals, including multiple resubmissions.

2. Review, return for correction, reject, or accept or approve Submittals submissions only as set forth in applicable, paragraphs of General Conditions.

3. Stamp and indicate requirements for resubmission and acceptance or approval of Submittal submission.

4. Return Submittals to CONTRACTOR for distribution or revision and resubmission.

5. Transmit to CONTRACTOR without review Submittal submissions received directly from Subcontractors, Suppliers, Manufacturers, and non-required submissions from CONTRACTOR.

1.02 ADMINISTRATIVE SUBMITTALS

A. Description: Submittals required by Contract Documents that are not Shop. Drawings or Samples, or that does not reflect quality of product or method of construction. Administrative Submittals may include, but will not be limited to those Submittals identified below.

B. Copies: Submit four. PDF documents may be submitted.

C. Applications for Payment: Meet requirements of Section 01025, MEASUREMENT AND PAYMENT.

D. Construction Photographs: In accordance with Section 01001, GENERAL REQUIREMENTS, and as may otherwise be required in the Contract Documents.

E. Progress Reports and Quantity Charts: As may be required in Section 01310, PROGRESS SCHEDULES.

F. Procedures for Scheduling and Managing Submittals: Submit CONTRACTOR's procedures and to include those of Subcontractors, manufacturers, offsite fabricators, and Suppliers, and adjust as necessary to reflect the Work.

G. Schedules:

1. General: Reference the General Conditions and Supplemental Conditions.
2. Progress Schedule(s): Meet the requirements of Section 01310, PROGRESS SCHEDULES.
3. Schedule of Values: Meet requirements of Section 01025, MEASUREMENT AND PAYMENT.
4. Schedule of Submittals Submissions:
   a. Prepare and submit as required, preliminary Submittals submissions list grouped by Contract Document article/paragraph number or Specification section number, with identification, numbering and tracking system as specified under Paragraph Identification of Submittals and as approved by ENGINEER.

   b. Include in Submittal list only these following required submissions:
      1) Shop Drawings and Samples.
      2) Certificates of inspection.
      3) Test reports.
      4) Operation and Maintenance manuals.
      5) Record documents.

6) Specifically required certificates, warranties, and service agreements.
7) Listing of Specifications and products for which substitutes or "or-equals" will be proposed.

c. Identify items for which CONTRACTOR anticipates proposing substitute or "or-equal" products or methods.

d. Coordinate with progress schedule and, utilizing Submittals list, prepare schedule of Submittals submissions to show for each clearly identified Submittal, at a minimum, the following:
1) Estimated submission date to ENGINEER.
2) Specifically requested and clearly identified review time if shorter than that set forth herein for ENGINEER, with justification for such request and critical dates Submittals will be needed from ENGINEER.
3) For first 6-month period from the date the Contract Times commence, the estimated Submittal submission date shall be week, month, and year; for Submittals submissions beyond 6-month time period, show closest month and year.

e. Submit to ENGINEER monthly (i) updated Submittals list if changes have occurred, otherwise submit a written communication confirming; existing list, and (ii) adjusted schedule of Submittals submissions reflecting Submittal submission activity planned for forthcoming 6-month time period and beyond. Coordinate with progress schedule updates.

H. Submittals Required by Laws and Regulations and Governing Agencies:

1. Submit promptly notifications, reports, certifications, payrolls, and otherwise as may be required, directly to the applicable federal, state, or local governing agency or their representative.
2. Transmit to ENGINEER for OWNER's records one copy of correspondence and transmittals (to include enclosures and attachments) between CONTRACTOR and governing agency.

1.03 SHOP DRAWINGS

A. Description: Reference the General Conditions.

B. Excessive Shop Drawing Review: Review of the first submission and two resubmissions of Shop Drawings will be performed by ENGINEER at no cost to CONTRACTOR. Subsequent additional resubmissions of that Shop Drawing will be reviewed by ENGINEER, however, ENGINEER will document work hours and other expenses required to perform such additional review(s). OWNER shall deduct these costs from Contractor's contract for reimbursement to the ENGINEER.

C. Substitute and "Or-Equal" Items: Meet requirements of General Conditions and Section 01600, MATERIAL AND EQUIPMENT.

D. Copies: Submit four and one reproducible (total of five).

E. Submit Shop Drawings to ENGINEER in accordance with the General Conditions and as specifically required by individual Specification sections for equipment and materials to be furnished under these Contract Documents.

F. Identify and Indicate:

1. Pertinent Drawing sheet(s) and detail number(s), products, units and assemblies, and system or equipment identification or tag numbers.
2. Critical field dimensions and relationships to other critical features of Work.
   a. Each deviation or variation from Contract Documents.

G. Resubmissions: Clearly identify each correction or change made.

H. Foreign Manufacturers: When proposed, include following additional information:

1. Names and addresses of at least two companies closest to Project that maintain technical service representatives.
2. Complete inventory of spare parts and accessories for each piece of equipment.

I. Preparation:

1. Format: Whenever possible, schedule for and combine Shop Drawings required for submission in each Specification section into a single Submittal package.
2. Present in a clear and thorough manner and of sufficient detail to show kind, size, arrangement, and function of components, materials, and devices and compliance with Contract Documents. Identify details by

   reference to sheet and detail, and schedule or room numbers shown on Drawings.

3. Minimum Sheet Size: 8-1/2 inches by 11 inches; preferred maximum: 11 inches by 17 inches.
4. Piping Systems: Drawn to scale.
5. Product Data: Clearly mark each copy to identify pertinent products or models and show performance characteristics and capacities, dimensions and clearances required, wiring or piping diagrams and controls, and external connections, anchorages, and supports required.
6. Equipment and Component Titles: Identical to title shown on Drawings.
7. Manufacturer's standard schematic drawings and diagrams as follows:
   a. Modify to delete information that is not applicable to Work.
   b. Supplement standard information to provide information specifically applicable to Work.

J. Disposition: ENGINEER will review, mark, and stamp Shop Drawings as appropriate and distribute marked-up copies as noted.

1. **Reviewed as Submitted (for incorporation in Work):**
   a. One copies sent to OWNER.
   b. One copy sent to Resident Project Representative.
   c. One copy retained in ENGINEER's file.
   d. Two copies will be returned to CONTRACTOR appropriately annotated.
      1) One copy to be kept on file as record document at CONTRACTOR's office at site.
      2) Remaining copies for CONTRACTOR's office file, Subcontractors, or Suppliers.
   e. CONTRACTOR may begin to implement (i) activities to incorporate specific products or (ii) construction method covered by Shop Drawing as shown on approved Shop Drawing.
2. **Reviewed as Noted (for incorporation in Work):**
   a. One copies sent to OWNER.
   b. One copy sent to Resident Project Representative.
   c. One copy retained in ENGINEER's file.
   d. Two copies will be returned to CONTRACTOR appropriately annotated.
      1) One copy to be kept on file as a record document at CONTRACTOR's office at the site.
      2) Remaining copies for CONTRACTOR's office file, Subcontractors, or Suppliers.
   e. CONTRACTOR may begin to implement (i) activities to incorporate product(s) or (ii) construction method covered by Shop Drawing and in accordance with ENGINEER's notations on Shop Drawing.
   f. Copies of Submittal data in operation and maintenance manuals shall be revised according to exceptions as noted.

3. **Revise and Resubmit:**
   a. Revise/Correct and Resubmit or Develop Replacement and Submit:
      1) One copy sent to Resident Project Representative.

2) One copy retained in ENGINEER' S file.
3) Three copies will be returned to CONTRACTOR appropriately annotated.
4) Remaining copies, if any, will be destroyed.
5) CONTRACTOR is responsible to revise, correct, and to resubmit Shop Drawing (in same manner and quantity as specified for original submission).

b. Shop Drawing is not approved.

4. **Reviewed Incomplete:**

a. Complete and Submit or Resubmit Missing Portion(s):

1) ENGINEER will retain copies of incomplete Submittal and transmit a written list of deficiencies.
2) CONTRACTOR shall submit specified item(s) to correct the incomplete Submittal.

b. Shop Drawing is not approved.

5. **Additional Submittal requirements**

a. Shop drawings and other submittals will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at times convenient to the ENGINEER and at the Contractor's expense, based on the Engineer's then prevailing rates (minimum $50.00 per additional review). The CONTRACTOR shall reimburse the OWNER for all such fees invoiced to the OWNER by the ENGINEER. Re-submittals are required until approved.

b. Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle CONTRACTOR to extension of the Contract Time.

1.04 SAMPLES

A. Copies: Submit two, unless otherwise specified in individual Specification section or in sufficient quantity and of size to enable examination as required and to establish quality or equality thereof.

B. Reference: Meet requirements of General Conditions and as otherwise specifically specified in Contract Documents.

C. Procedure: Submit in accordance with accepted schedule of Submittal submissions so as not to delay Work and with sufficient time to allow examination.

D. CONTRACTOR: Responsible for safe and proper delivery of Samples and to prepay cartage charges. Submit additional Samples as may be required.

E. Identification: Clearly indicate Specification section, source, location, date taken, by whom, certification as required and other appropriate information to facilitate ENGINEER's review.

F. Disposition: One Sample will be retained by ENGINEER and one Sample will be returned to CONTRACTOR as practical.

1.05 QUALITY CONTROL SUBMITTALS

A. Certificates:

1. Manufacturer's Certificate of Compliance:
   a. Within individual Specification sections or where products are specified to a recognized standard or code, submit prior to shipment of product or material to the site.

   b. ENGINEER may permit use of certain materials or assemblies prior to sampling and testing if accompanied by accepted certification of compliance.
   c. Signed by product manufacturer certifying that materials, manufacture, and product specified conforms to or exceeds specified requirements and intent for which product will be used. Submit supporting reference data, affidavits, and certifications as appropriate.
   d. May reflect recent or previous test results on material or product, but must be acceptable to ENGINEER.
2. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in the individual Specification sections.

B. Operation and Maintenance Manual: Required for all equipment,
C. Section 01430, OPERATION AND MAINTENANCE DATA.

D. Statements of Qualification: Evidence of qualification, certification, or registration. As required in these Contract Documents to verify qualifications of professional land surveyors, engineers, materials testing laboratories, specialty Subcontractors, trades, specialists, consultants, installers, and other professionals.

E. Field Samples: Provide as required by individual Specifications and as may be required by ENGINEER during progress of Work.

F. Written Test Reports of Each Test and Inspection: As a minimum, include the following:

1. Date of test and date issued, Project title and number, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
2. Date and time of sampling or inspection and record of temperature and weather conditions.
3. Identification of product and Specification section, location of Sample, test or inspection in the Project, type of inspection or test with referenced standard or code, certified results of test.
4. Compliance with Contract Documents, and identifying corrective action necessary to bring materials and equipment into compliance.

5. Provide an interpretation of test results, when requested by ENGINEER.

1.06 SUPPLEMENTS

A. The supplement listed below, following "END OF SECTION," is part of this Specification.

1. Forms: Transmittal of CONTRACTOR's Submittal.

PART 4 PAYMENT

A. Payment for the work in this section will be incidental

TRANSMITTAL OF CONTRACTORS SUBMITTAL
(ATTACH To EACH SUBMITTAL) DATE: _____

TO:_____
_____
_____
_____
_____
FROM:_____
Contractor
_____
_____
_____

Submittal No.: _____
New Submittal / Re-submittal
Previous Submittal No.: _____
Project: _____
Project No.: _____
Specification Section No.:_____
(Cover only one section with each transmittal)
Schedule Date of Submittal:

SUBMITTAL TYPE: Shop Drawing Administrative Sample
Quality Control Contract Closeout "Or equal"/Substitute

The following items are hereby submitted:

Number of Copies	Description of Item Submitted (Type, Size, Model Number, Etc.)	Spec. Para. No.	Drawing or Brochure Number	Contains Variation to Contract	
				No	Yes

CONTRACTOR hereby certifies that (i) CONTRACTOR has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and requirements of laws and regulations and governing agencies.

By: _____
CONTRACTOR (Authorized Signature)

SECTION 01500
TESTING SERVICES

PART 1 GENERAL

1.1 WORK INCLUDED

A. The Contractor shall employ and pay for the services of a qualified commercial independent testing laboratory acceptable to the Engineer and the Owner to perform specified services.

B. Inspection, sampling, and testing is required for:

1. Trench excavation and backfill.
2. Paving and surfacing.
3. Additional quality checks as required by the Engineer.
4. Well certification for FDEP and SFWMD
5. Well flow testing

C. Employment of a testing laboratory shall in no way relieve the Contractor of his obligation to perform work in accordance with the Contract.

PART 2 PRODUCTS

2.1 SUBMITTALS

A. Submit two copies of reports of inspections and tests to Engineer promptly upon completion of inspections and tests, including: Provide one copy in PDF.

1. Date issued.
2. Project title and Engineer's job number.
3. Testing laboratory name and address.
4. Name and signature of inspector.
5. Date of inspection or sampling.
6. Record of temperature and weather.
7. Date of test.
8. Location of inspection or test.
9. Identification of product and specification section.
10. Type of inspection or test.
11. Observation regarding compliance with the Contract Documents.

B. This report shall be signed and sealed by a Registered Professional Engineer Licensed in the State of Florida, and qualified to perform such service.

PART 3 EXECUTION

3.1 LABORATORY DUTIES - LIMITATIONS OF AUTHORITY

A. Cooperate with the Engineer and Contractor; provide qualified personnel promptly on notice.

B. Perform specified inspections, sampling, and testing of materials and methods of construction:

1. Comply with specified standards; ASTM, other recognized standards, authorized and as specified.
2. Ascertain compliance with requirements of Contract Documents.

C. Notify the Engineer and Contractor immediately of irregularities or deficiencies of work that are observed during performance of services.

D. Perform additional services as required by the Engineer.

E. Payment for TRENCH EXCAVATION AND BACKFILL and SURFACE RESTORATION will not be made until the six copies of the reports are received by the Engineer.

3.2 ON SITE TESTING

A. On site testing must be performed by certified staff, by state approved agencies and must be approved by a professional engineer.

B. Summary of testing.

MATERIAL TESTING				
Type	**Frequency**	**Paid in Line item**	**Responsibility**	**Comments**
Asphalt Density	1 per intersection-unless failure	No. 4 - Pavement	Contractor	As required by Engineer
Concrete	Every 72 CYDS	No. 7 - Concrete	Contractor	Batch ticket has to be from Batch Computer machine
Compaction test			Contractor	
INFRASTRUCTURE				
Hydrostatic Test	Every new pipe and structure	A / Hydrostatic Test / B lump sum	Contractor	
Deflection Test	Every Pipe	A/ Trench excavation, backfill and storm pipe / B lump sum	Contractor	Contractor to supply equipment for test
Lamping Test	Every Pipe	A / Trench excavation, backfill and storm pipe / B lump sum	Contractor with City Inspector	Contractor to supply equipment for test

PART 4 PAYMENT

A. Payment for the work in this section will be incidental.

* * * * *

DIVISION 2

SITE WORK

SECTION 02221
TRENCH EXCAVATION AND BACKFILL

PART 1 GENERAL

1.1 WORK INCLUDED

A. This Section covers the work necessary for the trench excavation and backfill, complete.

B. Trenches in existing paved areas shall be backfilled to the level of the bottom of the base course. Installations of base course and payment shall be as specified in Section 02575 SURFACE RESTORATION.

C. When a trench is backfilled and ready for final pavement it shall be overlaid with cold patch asphalt until milled and removed the day of final paving. The cost is as included in the unit price for TRENCH EXCAVATION AND BACKFILL.

1.2 TRENCH EXCAVATION

A. Excavation is unclassified. Complete all excavation regardless of the type of materials encountered. The CONTRACTOR shall make own estimate of the kind of extent of the various materials, which will be encountered in the excavation. It is the contractors responsibly to comply with the laws and regulations pertaining to the Florida Trench Safety Act. Any cost for any engineering, material, labor, and administrative cost shall be included in the proposal cost for that line item.

1.3 RELATIVE COMPACTION

A. "Relative compaction" is defined as the ratio, in percent, of the as-compacted field dry density to the laboratory maximum dry density as determined by ASTM D1557. Corrections for oversize material may be applied to either the as-compacted field dry density or the maximum dry density, as determined by the ENGINEER.

1.4 OPTIMUM MOISTURE CONTENT

A. "Optimum moisture content" shall be determined by the ASTM Standard specified to determine the maximum dry density for relative compaction. Field moisture content shall be determined on the basis of the fraction passing the 3/4-inch sieve.

1.5 SUBMITTALS

A. Submittals shall be made in accordance with the requirements specified in Section GENERAL REQUIREMENTS.

PART 2 PRODUCTS

2.1 FOUNDATION STABILIZATION

A. Foundation stabilization shall be 2-1/2-inch minus crushed rock, with reasonably well gradation from coarse to fine, and free from excessive dirt or other organic material with no more than 20 percent by weight passing the No. 200 sieve.

2.2 TRENCH BACKFILL

A. Backfill above the pipe zone shall be lime rock backfill meeting the requirements of Section 911 of the FDOT Specifications. Lime rock backfill may be excavated trench material if the CONTRACTOR screens or sieves the material to this Specification and maintains moisture content as specified herein. Test results will be required.

2.3 WATER FOR TRENCH BACKFILL

A. The CONTRACTOR shall make all arrangements for a source of water and bear all costs for the delivery of the water to the trench side.

2.4 COMPACTION EQUIPMENT

A. Compaction equipment shall be of suitable type and adequate to obtain the amount of compaction specified. Compaction equipment shall be operated in strict accordance with the manufacturer's instructions and recommendations and shall be maintained in such condition that it will deliver the manufacturer's rated compactive effort.

B. Plate Tamper shall be sized for maximum of 24” lifts, or sized appropriately for the lift size.

2.5 GRASSING

A. All grassed areas that have been damaged by trench excavation shall be sodded with Floratam St. Augustine Sod as specified in section 02930, FINISH GRADING AND GRASSING.

PART 3 EXECUTION

3.1 PREPARATION OF RIGHT-OF-WAY

A. The CONTRACTOR shall perform all clearing necessary for the proper installation of all utility lines, structures, and appurtenances in the locations shown on the Drawings. All utility poles or structures subject to damage resulting from excavation shall be protected during construction and restored to original condition upon completion of the work.

3.2 DISPOSAL OF CLEARED MATERIAL

A. The CONTRACTOR shall bear all costs of disposing of trees, stumps, brush, roots, limbs, and other waste materials from the clearing operation. Material shall be disposed of in such a

manner as to meet all requirements of state, county, and local regulations regarding health, safety, and public welfare.

B. In no case shall any material be left on the project, shoved onto abutting private properties, or be buried in embankments or trenches on the project.

3.3 OBSTRUCTIONS

A. This item refers to obstructions which may be removed and do not require replacement. Remove obstructions within the trench area or adjacent thereto such as tree roots, stumps, abandoned piling, buildings and concrete structures, logs, and debris of all types without additional compensation. The ENGINEER may, if requested, make changes in the trench alignment to avoid major obstructions, if such alignment changes can be made within the easement or right-of-way without adversely affecting the intended function of the facility. The CONTRACTOR shall pay all additional costs or credit the OWNER for any savings resulting from such alignment changes.

B. Dispose of obstructions removed from the excavation in accordance with Paragraph DISPOSAL OF CLEARED MATERIAL.

3.4 PAVEMENT, CURB, AND SIDEWALK REMOVAL

A. Cut all bituminous and concrete pavements, regardless of the thickness, and all curbs and sidewalks, prior to excavation of the trenches with an approved pavement saw, hydro-hammer, or approved pavement cutter. Width of the pavement cut shall be at least equal to the required width of the trench at ground surface. Pavement and concrete materials removed shall be hauled from the site and not used for trench backfill.

3.5 BRICK REMOVAL

A. Carefully remove all bricks encountered during excavation. The CONTRACTOR shall salvage all bricks and deliver them to the City at a specified site. The CONTRACTOR shall make arrangements with the City a minimum of 48 hours in advance of delivery of the bricks. This work shall be considered incidental.

3.6 TRENCH WIDTH

A. Minimum width of un-sheeted trenches in which pipe is to be laid shall be 18 inches greater than the outside diameter of the pipe or as approved. Sheeting requirements shall be independent of trench widths.

B. The maximum width at the top of the trench will not be limited, except where excess width of excavation would cause damage to adjacent structures or property.

C. Confine trench widths to dedicated rights-of-way or construction easements, unless special written agreements have been made with the affected property owner.

3.7 GRADE

A. Excavate the trench to the lines and grades shown or as established by the ENGINEER with proper allowance for pipe thickness and for pipe base or special bedding when required. If the trench is excavated below the required grade, correct any part of the trench excavated below the grade at no additional cost to the OWNER, with lime rock of the type specified for pipe bedding. Place the lime rock over the full width of trench in compacted layers not exceeding 6 inches deep to the established grade with allowance for the pipe base or special bedding.

B. It shall be the CONTRACTOR'S responsibility to make exploratory excavations as required to verify location, size, and elevation of existing utilities that may interfere with installation of the new stormwater lines. The CONTRACTOR shall perform this work well in advance of trenching and pipe laying. The CONTRACTOR shall call "48 hours before digging" the underground utilities location center at 1-800-432-4770.

3.8 SHORING, SHEETING, AND BRACING OF TRENCHES

A. Sheet and brace the trench when necessary to prevent caving during excavation in unstable materials, or to protect adjacent structures, property, workers, and the public. Increase trench widths accordingly by the thickness of the sheeting. Maintain sheeting in place until the pipe has been placed and backfilled at the pipe zone. Shoring and sheeting shall be removed, as the backfilling is done, in a manner that will not damage the pipe or permit voids in the backfill. All sheeting, shoring, and bracing of trenches shall conform to the safety requirements of the federal, state, or local public agency having jurisdiction. The most stringent of these requirements shall apply.

3.9 LOCATION OF EXCAVATED MATERIALS

A. During trench excavation, place the excavated material only within the construction easement, right-of-way, or approved working area. Do not obstruct any private or public-traveled roadways or streets. Conform to all federal, state, and local codes governing the safe loading of all trenches with excavated material.

3.10 REMOVAL OF WATER (**ALSO SEE SECTION 01014 PROTECTION OF THE ENVIRONMENT PART 4 DEWATERING**)

A. Provide and operate equipment adequate to keep all excavations and trenches free of water. Remove all water during periods when concrete is being deposited, when pipe is being laid, during the placing and compaction of backfill, and at such other times as required for efficient and safe execution of the work. Avoid settlement or damage to adjacent property. When dewatering open excavations, dewater from outside the structural limits and from a point below the bottom of the excavation when possible. Design and operate dewatering systems to prevent removal of fines from existing ground.

B. Drainage of trench water through the pipeline under construction is prohibited.

C. The CONTRACTOR shall dispose of all water removed from the dewatering systems and excavations in a manner that is acceptable to the OWNER and to all regulatory agencies. The CONTRACTOR shall be responsible to obtain at his expense all permits required for dewatering and disposal of water.

D. Prior to beginning work, the CONTRACTOR shall develop a dewatering method and submit it to the ENGINEER and the OWNER. The CONTRACTOR'S dewatering method shall take into account limitations in the existing operating conditions of the OWNER'S sewage collection and pumping facilities and storm drainage system. Final acceptance of the CONTRACTOR'S dewatering method will be based on demonstrated performance of the system to satisfy the requirements of dewatering as specified herein. If the contractor's plan does not prove adequate, the contractor shall revise his plan and provide adequate dewatering equipment at NO additional cost to the owner.

E. The CONTRACTOR shall not discharge water into the stormwater system. The CONTRACTOR shall provide an acceptable plan to receive appropriate approvals from the City of Key West and any other regulatory agencies prior to dewatering.

F. The CONTRACTOR shall be responsible and bear the cost for any breakdowns and associated repair costs if they are directly attributed to his dewatering operation.

G. The CONTRACTOR shall not discharge water into the Gravity Injection Well. If necessary the CONTRACTOR can drill a dewatering well were at a location other than the location specified for the Gravity Injection Well.

H. If the dewatering requirements are not satisfied due to inadequacy or failure of the dewatering system, then loosening of the foundation material, instability of the slopes, or damage to the foundations or structures may occur, or other additional work or handling of materials may be required of the CONTRACTOR. The supply of all labor, materials, and equipment, and the performance of all work necessary to carry out additional work resulting from such inadequacy, premature shutdown, or failure of the dewatering system shall be undertaken by the CONTRACTOR to the satisfaction of the ENGINEER, and at no additional expense to the OWNER.

I. Dewatering shall be paid as stated in the Proposal.

J. Contractor shall provide a filtering system to protect the cities sewer system, clean up of the sewer system if required will be the finical responsibility of the contractor.

3.11 FOUNDATION STABILIZATION

A. When, in the opinion of the ENGINEER, the existing material in the bottom of the trench is unsuitable for supporting the pipe, excavate below the flow line of the pipe, as directed by the ENGINEER. Backfill the trench to sub-grade of pipe base with foundation stabilization material specified herein before. Place the foundation stabilization material over the full width of the trench and compact in layers not exceeding 6 inches deep to the required grade.

3.12 PIPE BASE AND PIPE ZONE BACKFILL

A. Pipe base and pipe zone backfill are included in specification for storm drain.

3.13 TRENCH BACKFILL ABOVE PIPE ZONE

A. In trenches under all structures, sidewalks, roads, parking areas, piping, and similar facilities, except where specifically shown, deposit lime rock backfill material conforming to Paragraph 2.2 TRENCH BACKFILL in horizontal lifts not exceeding 12 inches in un-compacted thickness. Compact to not less than 95 percent relative compaction. If compaction requirements are not met, the thickness of the un-compacted horizontal lifts shall be reduced as directed by the ENGINEER. Repair any subsequent damage caused by settlement of trenches at the CONTRACTOR'S sole expense. Under no circumstances allow sharp, heavy pieces of material to drop directly onto the pipe or the tamped material around the pipe. Do not use backfill material of consolidated masses larger than 1/2 cubic foot.

B. Where backfill is placed in water, use # 57 crushed stone backfill at no additional cost to the Owner.

C. The # 57 rock must be vibrated to achieve consolidation to a point where rock does not settle.

3.14 UTILITY LINE CROSSINGS

A. # 57 crushed stone backfill shall be used under all culverts, water, gas, gravity sewer lines, force mains, buried telephone conduit, and any other miscellaneous buried pipelines that cross the excavated trench. Crushed stone backfill shall be carried a minimum of 2 feet beyond the edge of the buried utility. Crushed stone backfill beneath these facilities shall be considered incidental to the work and no additional payment will be made to the CONTRACTOR.

3.15 MAINTENANCE OF TRENCH BACKFILL

A. Maintain the backfilled trench surface between any two structures until the following operations have been completed and approved by the owner.

1. Service connections installed and backfilled.
2. Construction of manholes and appurtenances.
3. Valves, valve boxes, and hydrants installed.
4. Cleanup and restoration of all physical features.
5. Utilities restored to their original condition or better.
6. And, in general, all work required between the two control structures accomplished, with the exception of repaving.

B. This maintenance shall include, but not be limited to, the addition of crushed rock backfill material to keep the surface of backfilled trenches reasonably smooth, free from ruts and potholes, and suitable for normal traffic flow.

C. No additional payment will be made for the maintenance of the trench backfill prior to completion of the work outlined above.

D. No pavement replacement shall be undertaken until all items outlined above have been completed and approved by the ENGINEER.

3.16 DISPOSAL OF EXCESS EXCAVATED MATERIAL

A. Dispose of all excess excavated materials. Make arrangements for the disposal and bear all costs or retain any profit incidental to such disposal.

3.17 BLASTING

A. No blasting of any kind will be permitted.

3.18 SETTLEMENT

A. Any settlement noted within 5 feet from fill and within warranty period in accordance with the General Conditions will be considered to be caused by improper compaction methods and shall be corrected at no cost to the OWNER. Structures damaged by settlement shall be restored to their original condition by the CONTRACTOR at no cost to the OWNER.

3.19 MOISTURE CONTROL

A. During all compacting operations, maintain optimum practicable moisture content required for compaction purposes in each lift of fill. Maintain moisture content uniform throughout the lift. At the time of compaction, the water content of the material shall be at optimum moisture content, plus or minus 2 percentage points.

B. Insofar as practicable, add water to the material at the site of excavation. Supplement, if required, by sprinkling the fill.

C. Do not attempt to compact fill material that contains excessive moisture. Aerate material by blading, disking, harrowing, or other methods, to hasten the drying process.

3.20 TESTING

A. Field Density and Moisture Tests: The Independent Testing Laboratory will determine in-place density and moisture content by any one or combination of the following methods:

1. ASTM D2922, D1556, D2216, or other methods selected by the ENGINEER. Cooperate with this testing work by leveling small test areas as designated.

Test areas shall be backfilled at CONTRACTOR'S sole expense. One (1) field density moisture test per trench, with additional every 50 feet if found that any part of the intersection does not does not meet compaction requirements. Additionally, a Vibratory Test shall be performed every 50 feet in rock back fill, should any settlement occur testing will be performed every 10 feet. Any section found not meeting the requirements shall be removed for 10 feet on either side of the failed tests and be reinstalled in 6 inch lifts. However, any

lift of fill may be tested at any time, location, or elevation. See Section TESTING SERVICES.

PART 4 PAYMENT

4.1 GENERAL

A. Payment for work specified in this section will be made at the unit prices stated in the BID and shall be included under the following items. Computation of quantities will be as indicated for each item and will be based upon measurements made by the ENGINEER.

4.2 TRENCH EXCAVATION AND BACKFILL

A. The work under this item for storm sewer pipe will be paid for on a linear foot basis for the depth of the trench from the original ground surface to the flow line of the pipe. The payment per linear foot will be the amount stated in the BID. The depth figures indicated in the BID are inclusive to the nearest 0.1 foot; that is, a trench depth measured, as 11.9 feet will be paid for at the unit price for excavation 10 to 12 feet deep. A trench depth measured, as 12.0 feet will be paid for at the unit price for excavation 12 to 14 feet deep.

B. The length of trench will be measured horizontally from center-to-center of structures, or inlets, or to the end of the pipe, whichever is applicable. The depth of the trench will be measured from the ground surface at the centerline of the trench to the invert of the pipe. The depth of the trench will be measured at interval of 25 feet along the centerline of the trench, and the depth of each measuring point will be the depth used for computing the depth of trench for a distance 25 feet ahead of the point of measurement. Payment for this item shall cover all materials, including lime rock backfill, and all work specified herein, or not specifically paid for in other sections, except foundation stabilization, and sheeting left in place, which will be paid for as other separate items. Pipe base and pipe zone backfill will be paid for under section STORM DRAIN.

C. The price bid per linear foot shall be for any type of material to be excavated and shall include any extra excavation required to provide space for pipe base specified under section STORM DRAIN.

4.3 FOUNDATION STABILIZATION

A. Payment for this item will be based on the unit price per cubic yard stated in the Proposal. Measurement will be based upon individual trip tickets of actual truck measure furnished the ENGINEER for cubic yards used under this item. Trip tickets shall be presented to the ENGINEER for signature on the day the material is delivered. No payment will be allowed on trip tickets not so validated by the ENGINEER. Payment for this item shall constitute full compensation for all materials, labor, equipment, and incidentals necessary trench and for the extra depth of trench excavation required below the pipe base grade to provide for a stable base for the pipe. This item is to provide for unstable base encountered in the progress of the work and shall be used only under the direction of the ENGINEER

4.4 TRENCH SAFETY SYSTEMS

A. Payment for compliance with OSHA Trench Safety System will be based on the unit price per linear foot stated in the Proposal when a trench safety system is used.

B. Payment for special-shoring requirements for the trench safety system will be based on the unit price per square yard stated in the Proposal.

4.5 GRASSING

A. All grassing shall be by sodding. Payment for this item shall be based on the unit price per square foot stated in the BID.

SECTION 02246
SILT SCREEN

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General provisions of Contract, including General and Supplementary Construction and Division 1 Specification Sections apply to work of this section.

1.2 SCOPE

A. Geotextile Fabric for Silt Fence: This specification covers material and construction requirements for silt fence.

1.3 SUBMITTALS

A. Submit manufacturer's technical data and design and dimensions for installation of all silt fence items to ensure conformance with plans and specifications and Section 985 of FDOT Specification for silt fence.

PART 2 PRODUCTS

2.1 MATERIALS

A. Fabric: The geotextile fabric shall be a woven fabric consisting of long chain polymeric filaments such as polypropylene, polyethylene, polyester, polyamides, or polyvinylidenechloride and shall be in conformance with Section 985 of FDOT Specifications for silt fences.

B. Posts: Posts shall consist of 2" x 4" or 2 ½" diameter minimum Pressure Treated (P.T.) wood, or steel 1.33 ft./lb. Minimum.

PART 3 – EXECUTION

3.1 INSTALLATION

A. The silt fence (geotextile fabric and posts) shall be installed in strict accordance with plans, manufacturer's specifications and Section 985 of FDOT Specifications for silt fence

B. Silt fence shall be used and placed by the CONTRACTOR as needed and required by SFWMD and FDEP by the 2001 standard construction practice to stop the silts from moving out of the work area

PART 4 - PAYMENT

4.1 GENERAL

A. Payment for work specified in this section shall be included in the BID. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work as specified under this section

SECTION 02575
SURFACE RESTORATION

PART 1 GENERAL

1.1 WORK INCLUDED

A. This section covers the work necessary to install or replace all pavement, curbs, sidewalks, rock surfacing, and other street features damaged either directly or indirectly by the operations incidental to the construction described in other Sections of these Specifications, or required for new installations.

B. Where the materials, construction procedures, degree of compaction of materials, and the method of control and testing, as required in these Specifications differ from the FDOT requirements, the more stringent requirements shall apply.

C. Cold patch asphalt required for temporary restoration or “make safe” measures is included in TRENCH EXCAVATION AND BACKFILL.

D. Provide finished gradation and grassing in accordance with FINISH GRADING AND GRASSING.

E. Submittals are required for all products identified in this section.

F. The term "Standard Specifications" is used; such reference shall mean the most current edition of Florida Department of Transportation Standard Specification for Road and Bridge Construction. The Standard Specifications shall be considered as part of this section of the Specifications; below are Listed references for the contractor’s convenience; the contractor shall be responsible for obtaining and incorporation in the contract all of the Standard Specification’s and the most current revisions that apply to this contract scope of work. The contractor shall document in his daily reports the required Standard Specifications that are used.

G. Any reference of the following “FDOT”, “Agency” “Engineer” in the References; shall be considered to be the Owner (City of Key West) for this contract. Disregard all Basis of Payments in the FDOT specs. Payment shall be as per the Contractors Bid prices

H. Listed Reference(s):

1. 105 QC GENERAL SS1050000
2. 230 LIMEROCK STABILIZED BASE
3. 234 SUPERPAVE ASPHLAT BASE SS2340000
4. 300 PRIME AND TACK COATS FOR BASE COURSES
5. 300 SS3000203
6. 327 MILLING OF EXISTING ASPHALT
7. SUPERPAVE ASPHALT CONCRETE SS3340000
8. 700 HIGHWAY SIGNING

9. 710 PAINTED PAVEMENT MARKINGS
10. 711 THERMOPLASTIC TRAFFIC STRIPES AND MARKINGS
11. 911 LIMEROCK MATERIAL FOR BASE AND STABILIZED BASE
12. 914 MATERIALS FOR SUBGRADE STABIZATION SS9140000
13. 971 TRAFFIC MARKING MATERIALS

PART 2 PRODUCTS

2.1 GENERAL

A. All materials for replacement of existing base course and asphalt surfacing shall conform to the FDOT Specifications except as modified herein.

B. The CONTRACTOR will be responsible for furnishing satisfactory materials that meet the Specifications and shall make such tests during the course of the work as are necessary to assure that the quality of the material used meets the Specifications.

2.2 RELATIVE COMPACTION

A. "Relative compaction" is defined as the ratio, in percent, of the as-compacted field dry density to the laboratory maximum dry density as determined by ASTM D1557. Corrections for oversize material may be applied to either the as-compacted field dry density or the maximum dry density, as determined by the Engineer.

2.3 OPTIMUM MOISTURE CONTENT

A. "Optimum moisture content" shall be determined by the ASTM standard specified to determine the maximum dry density for relative compaction. Field moisture content shall be determined on the basis of the fraction passing the 3/4-inch sieve.

2.4 LIME ROCK BASE COURSE

A. Aggregate quality and gradation shall confirm to Section 911 of the FDOT Standard Specifications for Road and Bridge Construction.

2.5 IMPORTED BASE COURSE ACCEPTANCE

A. Imported base course materials specified in this section are subject to the following requirement:

1. All tests necessary for the Contractor to locate an acceptable source of imported material shall be made by the Contractor. Certification that the material conforms to the Specification requirements along with copies of the test results from a qualified commercial testing laboratory shall be submitted to the Engineer for acceptance at least 10 days before the material is required for use. All material samples shall be furnished by the Contractor at the Contractor's sole expense. Samples shall be representative and be clearly marked to show the source of the material is required for use. All material samples shall be furnished by the Contractor at the Contractor's sole expense. Samples shall be representative and be clearly marked to show the source of the material and the intended use on the project. Sampling of the material source shall be done by the

Contractor in accordance with ASTM D75. Notify the Engineer at least 24 hours proper to sampling. The Engineer may, at the Engineer's option, observe the sampling procedures. Tentative acceptance of the material source shall be based on an inspection of the source by the Engineer and/or the certified test results submitted by the Contractor to the Engineer, at the Engineer's discretion. No imported materials shall be delivered to the site until the proposed source and materials tests have been tentatively accepted in writing by the Engineer. Final acceptance will be based on tests made on samples of material taken from the completed and compacted course. The completed course is defined as a course or layer that is ready for the next layer or the next phase of construction.

2. Gradation tests by the Contractor shall be made on samples taken at the place of production prior to shipment. Samples of the finished project for gradation testing shall be taken from each 1,500 tons of prepared materials or more often as determined by the Engineer, if variation in gradation is occurring, or if the material appears to depart from the Specifications. Test results shall be forwarded to the Engineer within 48 hours after sampling.

3. If tests conducted by the Contractor or the Engineer indicate that the material does not meet Specification requirements, material placement which does not meet Specification requirements, material placement will be terminated until corrective measures are taken. Material which does not conform to the Specification requirements and is placed in the work shall be removed and replaced at the Contractor's sole expense. Sampling and testing performed by the Contractor shall be done at the Contractor's sole expense.

2.6 BITUMINOUS PRIME AND TACK COAT

A. Prime Coat: Material shall be cutback asphalt, Grade RC-70 or RC-250 meeting FDOT Specification 916-2, or other material acceptable to the ENGINEER and meeting FDOT Specifications.

B. Tack Coat: Material shall be emulsified asphalt, Grade RS-2, SS-1, or SS-1H meeting requirements of FDOT Specification 916-4.

2.7 CUTTING EXISTING PAVEMENT

A. Where new pavement abuts existing pavement, the old pavement shall be trimmed by saw cutting to a straight line. Any pavement outside the limits of the work during construction which has been damaged or which is broken and unsound or undermined shall be removed to provide a smooth, sound edge for joining new pavement at no cost to the city.

2.8 ASPHALT CONCRETE

A. The asphalt concrete shall be as per the drawings in conformance with the most current, FDOT Specifications. Modification for Key West application may be used upon acceptance by the ENGINEER.

B. Aggregate: Asphalt concrete shall meet the requirements of FDOT Specifications.

C. Submit test results from a commercial testing laboratory to the ENGINEER to show that the materials meet the quality and graduation requirements.

2.9 CONCRETE

A. Concrete shall be 3000 PSI concrete and tested every 72 cubic yards.

B. Concrete Forms: All forms for curbs and sidewalks shall be 2-inch dimensioned lumber, plywood, or metal forms. Forms on the face of the curb shall have no horizontal form joints within 7 inches of the top of the curb.

C. Curing Compound: Conforming to Section 925 of FDOT Standard Specifications for Road and Bridge Construction.

D. Reinforcing Steel: Conform to ASTM A615, Grade 60.

2.10 FLOWABLE FILL

A. If the CONTRACTOR chooses to use flow-able fill it must have a minimum / maximum bearing strength of 500 psi as specified in Section 02726, MANHOLE AND MISCELLANEOUS CONCRETE CONSTRUCTION. Placement must meet detailed drawing for trench backfill.

2.11 TRAFFIC STRIPING MARKINGS

A. All traffic striping markings (i.e., lane, edge of pavement, directional, etc.) damaged by the CONTRACTOR during construction shall be replaced with new painted items in conformance with Section 971 of the FDOT Specifications.

B. The CONTRACTOR shall place and maintain temporary striping markings throughout the course of the work until the permanent striping marking is placed on the final roadway surface. Temporary striping shall be 20 miles. As Per FDOT Section 711

C. The Contractor shall place final stripping or marking. Final striping shall be 70 miles, thermo – plastic. As Per FDOT Section 711

PART 3 EXECUTION

3.1 CONSTRUCTION PROCEDURE

A. Trench backfill shall be as specified in Section 02221 TRENCH EXCAVATION AND BACKFILL.

B. Replace all bituminous and concrete pavements damaged or removed under this Contract with asphalt concrete regardless of original type.

C. In addition to the requirements set forth herein, the work shall conform to the applicable workmanship requirements of the state highway or municipal specifications.

3.2 REMOVAL OF PAVEMENT, SIDEWALK, CURBS, AND GUTTERS

A. Removal of all pavement, sidewalks, curbs, gutters shall conform to Section 02221 TRENCH EXCAVATION AND BACKFILL and payment for removal shall be included in that section.

3.3 STREET MAINTENANCE

A. Maintain all trenches as specified under Section 02221 TRENCH EXCAVATION AND BACKFILL.

3.4 SUBGRADE

A. Backfill and compaction of trenches shall be as specified in Section 02221 TRENCH EXCAVATION AND BACKFILL. Shape sub-grade to required line, grade, and cross section. Remove all soft or otherwise unsuitable material disclosed by rolling the sub-grade and replace with suitable material from the excavation. Fill holes and depressions, which develop under the roller, to the required grade and cross sections with material from the excavation. The finished sub-grade shall be within a tolerance of plus or minus 0.08 of a foot of the grade and cross section, and shall be smooth and free from irregularities and at the density of 95 percent ASTM D1557.

3.5 CONSTRUCTION OF BASE COURSE

A. Obtain ENGINEER'S acceptance of the sub-grade prior to placing any base course material on the sub-grade. Place BASE COURSE in maximum 6-inch loose lifts and compact to not less than 98 percent relative compaction.

3.6 BASE COURSE REPAIR

A. General:

1. The base course repair work shall consist of constructing a compacted lime rock base course, of the thickness and width in accordance with the details for the respective application, as shown on the Drawings.

2. All base course repair work shall conform to the grades and cross sections of the existing pavement. The finished grade of the lime rock base shall be level with the existing base course. The lime rock for base construction shall be Miami Lime rock, in accordance with Section 911, FDOT Specifications. The base course shall be constructed in accordance with all applicable provisions of Section 200, FDOT Specifications.

3. If at any time the sub-grade material becomes mixed with the base course materials, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape, and re-compact the sub-grade and replace the materials removed with the clean rock which shall be watered and rolled until satisfactorily compacted.

3.7 DEPTH OF LAYERS

A. The base course shall be constructed in lifts of not more than 6 inches in thickness prior to compaction.

3.8 SPREADING MATERIALS

A. The base course material may be spread by any method that will result in an even distribution of the material upon the roadway without perceptible separation in gradation.

B. Should there occur during any stage of the surfacing or stockpiling, a separation of the coarser from the finer materials causing serious lack of uniformity in the grading, the CONTRACTOR shall immediately make changes in the method of handling such as will prevent separation and meet acceptance of the ENGINEER.

C. Equipment such as scrapers and other equipment essentially used for earth excavation will not be permitted.

3.9 ROLLING

A. Compaction of each layer of base shall be performed in accordance with Section 200 of the FDOT Standard Specifications for Roadway and Bridge Construction.

B. Compaction equipment shall be adequate in design to provide compaction and obtain the specified density for each layer. Water shall be applied as needed to obtain the specified densities at the CONTRACTOR'S sole expense.

C. In-place density and moisture content will be determined by any one, or combination of, the following methods: ASTM D2922, 1556, D2216, or other methods selected by the ENGINEER. Cooperate with this testing work by leveling small test areas designated. Backfill of the test areas shall be at the CONTRACTOR'S sole expense. The frequency and location of testing shall be a minimum of one test per intersection, with additional test required in the intersection if the original test fails, at the ENGINEERS direction.

D. Each layer of base course shall be placed and compacted to the specified density before a succeeding layer is placed.

E. The CONTRACTOR shall construct the base course in an orderly manner so that a reasonable length of trench will be ready for testing and a reasonable amount of time will be allowed for the ENGINEER to perform tests and obtain the test results during normal working hours.

F. Prior to testing any completed base course, the CONTRACTOR shall show reasonable proof that the completed section meets the requirements specified.

3.10 CORRECTION OF SURFACE DEFECTS

A. Should irregularities develop in any surface during or after rolling, they shall be remedied by loosening the surface and correcting the defects; after which the entire areas, including the surrounding surface, shall be re-rolled until thoroughly compacted. The finished surface shall be true to the proper grade and crown before proceeding with the surfacing.

3.11 SURFACE TOLERANCES

A. The finished surface of the base course at any point shall be within plus or minus 0.04 foot of the grade required to provide the specified pavement thickness.

3.12 MILLING OF EXISTING ASPHALT PAVEMENT

A. Milling of existing asphalt pavement should be in accordance with Section 327 of the FDOT Specifications.

3.13 BITUMINOUS PRIME AND TACK COAT

A. The provisions of FDOT Specifications shall be in effect for the construction of the prime coat.

B. The bituminous prime coat shall be applied to the lime rock base immediately prior to the placement of asphalt concrete.

C. The rate of application of the bituminous prime coat shall comply with FDOT Specifications.

D. The provisions of FDOT Specifications shall be in effect for the construction of the tack coat.

E. The bituminous tack coat shall be applied to existing asphalt surfaces prior to the placement of new asphalt, between layers of asphalt concrete surface courses, surfaces of concrete footings that will come in contact with the asphalt concrete pavement, and vertical faces of all longitudinal and transverse joints that have become compacted or cooled.

F. The rate of application for the bituminous tack cost shall comply with FDOT Specifications.

3.14 ASPHALT CONCRETE PAVEMENT REPLACEMENT

A. Preparation for Paving:

1. A prime coat shall be applied over the full length of the repsir, and asphalt concrete pavement shall not be placed until the prime coat has cured as per the manufacturer's recommendations.

2. Should any holes, breaks, or irregularities develop in the roadway surface after the prime coat has been applied, they shall be patched with asphalt concrete immediately in advance of placing the asphalt concrete.

3. After the maintenance, patching, or repair work has been completed and immediately prior to placing the asphalt concrete pavement, the surface of the prime coat shall be swept clean of all dirt, dust, or other foreign matter.

B. The proposed pavement construction schedule consists of immediately paving over storm drain, sewer line, and sewer service line trenches as soon as possible after it has been determined that sub-base and base have achieved required compactions. The base course will be brought up to the elevations indicated on the Drawings and asphalt placed to bring grade up to match existing pavement elevations.

3.15 ASPHALT CONCRETE PAVEMENT

A. Workmanship in producing, hauling, placing, compacting, and finishing asphalt concrete shall conform to the applicable portions of the FDOT Specifications.

3.16 CONNECTIONS WITH EXISTING FACILITIES

A. Where the bituminous pavement is to be connected with an existing roadway surface or other facility, the CONTRACTOR will be required to modify the existing roadway profile in such a manner as to produce a smooth riding connection to the existing facility. The CONTRACTOR shall meet existing neat lines where required.

B. Where it is necessary to remove existing asphalt surfaces or oil mat surfaces to provide proper meet lines and riding surfaces, the Contractor shall burn or chip the existing surface so that there will be sufficient depth to provide a minimum of 1 inch of asphalt concrete, and the waste material shall be disposed of to the satisfaction of the ENGINEER. Prior to placing the asphalt concrete, these areas shall be tacked. Meet lines shall be straight and the edges vertical. The edges of meet line cuts shall be painted with liquid asphalt or emulsified asphalt prior to placing asphalt concrete. After placing the asphalt concrete, the meet line shall be sealed by painting with a liquid asphalt or emulsified asphalt and immediately covered with clean, dry sand.

3.17 CONSTRUCTION OF COURSES

A. The asphalt concrete pavement shall be constructed in one or more courses as required in the FDOT Specifications.

B. Rolling shall continue until all roller marks are eliminated and the minimum percent compaction stated in the FDOT Specification has been obtained.

3.18 SURFACE TOLERANCE

A. Tests for conformity with the specified grade shall be made by the CONTRACTOR immediately after initial compression. Any variation shall be immediately corrected by the removal or addition of materials and by continuous rolling.

B. The completed surface of the pavement shall be of uniform texture, smooth, uniform as to grade, and free from defects of all kinds. The completed surface shall not vary more than 1/ 8 inch from the lower edge of a 10-foot straightedge placed on the surface along the centerline or across the trench.

C. After completion of the final rolling, the smoothness and grade of the surface shall again be tested by the CONTRACTOR.

D. When deviations in excess of the above tolerances are found, the pavement surface shall be corrected as stated in Section 330-12.4 of the FDOT Standard Specifications for Road and Bridge Construction.

E. All areas in which the surface of the completed pavement deviates more than twice the allowable tolerances described above shall be removed and replaced to the satisfaction of the ENGINEER.

F. All costs involved in making the corrections of defects described above shall be borne by the CONTRACTOR and no compensation will be made for this work.

3.19 SAMPLES

A. If directed by the ENGINEER, the CONTRACTOR shall without additional charge, provide the ENGINEER with test results of samples of asphalt concrete cut from the completed pavement or the individual courses thereof. Provide a minimum of three test cores located as directed by the ENGINEER. He shall also provide the ENGINEER with test results of samples of the uncompressed asphalt concrete mixtures, and all materials incorporated in the work.

3.20 WEATHER CONDITIONS

A. Asphalt shall not be applied to wet material. Asphalt shall not be applied during rainfall or any imminent storms that might adversely affect the construction. The ENGINEER will determine when surfaces and materials are dry enough to precede with construction.

3.22 PROTECTION OF STRUCTURES

A. Provide whatever protective coverings may be necessary to protect the exposed portions of bridges, culverts, curbs, gutters, posts, guard fences, road signs, and any other structures from splashing oil and asphalt from the paving operations. Remove any oil, asphalt, dirt, or any other undesirable matter that may come upon these structures by reason of the paving operations.

B. Where water valve boxes, manholes, catch basins, or other underground utility appurtenances are within the area to be surfaced, the resurfacing shall be level with the top of the existing finished elevation of these facilities. If they are not in accordance with the proposed finished surface elevations the CONTRACTOR shall notify the proper authority and either raise or lower the appurtenances or make arrangements with that authority and either raise or lower the appurtenances or make arrangement with that authority for having the facilities altered before proceeding with the resurfacing around the obstruction. The CONTRACTOR will be responsible for making certain that appurtenances are brought to proper grade to conform with finished surface elevations and any delays experienced from such obstructions will be considered as incidental to the paving operation. No additional payment will be made. Protect all covers during asphalt application.

3.23 EXCESS MATERIALS

A. Dispose of all excess materials in complete compliance with Federal, State and Local Statues. Make arrangements for the disposal and bear all costs or retain any profit incidental to such disposal.

3.24 CONTRACTOR'S RESPONSIBILITY

A. Settlement of replaced pavement over trenches within the 5 year warranty period shall be considered the result of improper or inadequate compaction of the sub-base or base materials. The CONTRACTOR shall promptly repair all pavement deficiencies noted during the warranty period at the CONTRACTOR’S sole expense.

3.25 SIDEWALKS AND CURBS

A. Replace concrete sidewalks and curbs to the same section width, depth, line, and grade as that removed or damaged. The minimum thickness of sidewalks shall be 4 inches. Driveways will be 6". Cut ends of existing curb to a vertical plane. Prior to replacing the sections, properly backfill, and compact the trench to prevent subsequent settlement.

B. Replace concrete sidewalks and curbs between scored joints and make replacement in a manner that will avoid a patched appearance. Provide a minimum 2-inch thick compacted leveling course of clean, crushed rock or gravel of quality herein before specified. Finish concrete surface similar to the adjacent sidewalks while meeting all current codes. Cut back sidewalks as required to ensure transition from existing to new sidewalks meets ADA code.

C. Concrete shall be a 3000 psi minimum rating.

3.26 ASPHALT DRIVEWAYS AND WALKS

A. Replace asphalt driveways and walks in accordance with the specifications.

PART 4 PAYMENT

4.1 GENERAL

A. Payment for the work under this section shall be based on the appropriate unit prices stated in the Contractor's BID. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work as specified under this section.

B. Payment for replacing sidewalks will be made at the unit price per square yard stated in the BID.

C. Payment for replacing curbs will be made at the unit price per linear foot stated in the Bid.

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SECTION 02581
DRILLING OF DRAINAGE WELLS

PART 1 GENERAL

1. General

1.1 Requirements

A. The WATER WELL CONTRACTOR must be licensed as a Florida Water Well Contractor accordance with F.A.C. 62-531. Water Well contractor must have a properly structured State Of Florida Business. The WATER WELL CONTRACTOR shall submit for the Construction / Clearance Permit Application for Class V well to the FDEP.

B. The WATER WELL CONTRACTOR shall construct each well as shown on the **Civil Construction Drawings and Details**, and perform all appurtenant work in accordance with the **Technical Specifications**. The wells shall be constructed with an open-hole completion. The wells shall be complete and operable, in accordance with Chapter 62-528, F.A.C. The Construction of the well shall be in accordance with Chapter 62-523, F.A.C.

C. Site Sound Proofing: The WATER WELL CONTRACTOR shall furnish sound proofing barriers, provide mufflers on equipment, and undertake other steps necessary during drilling, pumping, testing, and incidental operations, to ensure that noise levels conform to all applicable noise ordinances.

D. Access Control: The WATER WELL CONTRACTOR shall undertake necessary measures to limit access to drilling sites, to minimize public hazards.

E. Sequence of Work: The sequence may be changed by the ENGINEER. Change may include alternations to the order of occurrence, deletions, or additions. The WORK schedule and operations shall continue without interruption until all WORK is completed by the CONTRACTOR.

1. Preparation and Mobilization shall be completed as specified in Mobilization Section, including, but not limited to:
    a. Site and access video
    b. Clear site and establish vertical and horizontal control with reference to NGVD 1929.
    c. Install temporary services, as needed
    d. Mobilize drilling rig and provide temporary piping for water supply and disposal.
    e. Prepare Onsite staging areas and disposal sites as needed
2. Drill Bore Hole including open hole to depth of 120 feet below top of casing elevation specified on the project plans. Overdrill shall be a minimum of 6 inches greater than the outside diameter of the well casing at the casing joint.
3. Provide lithology description and casing seat request to FDEP.
4. Install Casing upon Approval from FDEP.
5. Notify FDEP in Fort Meyers (David Rhodes, P.G.) and Marathon (Steve Johnson) at least 72 hours prior to grouting.

6. Grout Casing.
7. Install temporary cap on well.
8. Process Certification for well completion. Provide AS-built drawings to Engineer
9. Attach storm water / pretreatment structures as required.
10. Clean site / demobilize.

F. Personnel Requirements

a. The WATER WELL CONTRACTOR shall furnish capable personnel, experienced in the work required to construct the Class V injection well(s).

b. The Drill Rig Operator shall work under the direct supervision of the Florida licensed WATER WELL CONTRACTOR, using equipment that is under the direct control of the Florida licensed WATER WELL CONTRACTOR. The Florida Licensed Water Well Contractor is required to be onsite to supervise the well construction operation.

c. The Drill Rig Operator shall maintain the drilling equipment, pumps, and drill pipe. The driller shall be competent in the use and application of drilling fluids and additives.

d. The Drill Rig Operator shall monitor the progress of the drilling operation, and keep the record of the rate and progress of drilling, development and pump testing operations, including well logs and reports. The daily reports shall be submitted with the water well contractor's portion of the well completion report.

e. The Drill Rig Operator shall be capable of recognizing and making ithologic classifications of the formations to be encountered during the drilling. The Drill Rig Operator shall ensure that the necessary amount of overdrill is determined and executed to ensure that the 60 feet of casing and grout below land surface is accomplished along with ensuring the required amount of casing is provided above the land surface according to the Civil Engineering Drawings.

f. The Cementing Supervisor shall have a working knowledge of down hole pumping, an understanding of displacement, volume of cement, pump pressure, bottom hole pressure, casing lift pressure. Cementing Supervisor shall ensure that casing collapse pressure is not exceeded.

1.2 Record Keeping, Well Logs, and Reports

1.2.1 General

a. The WATER WELL CONTRACTOR shall establish horizontal and vertical (top of casing elevation) control by a licensed land surveyor in the State of Florida.

b. The WATER WELL CONTRACTOR shall ensure the depth of the well as shown on the construction plans is established. The depth of the well is measured from either the actual surveyed land surface or the surveyed top of casing in a pretreatment structure if applicable.

c. Measurement of the total well depth (including open hole) shall be accomplished by using a heavy duty tape measure or cord with a weight attached to the end. The tape measure shall be lowered to the

bottom of the hole, maintaining a vertical alignment. Tape should be read or cord marked equal to the top of the casing elevation. If cord used, measure the cord length. Contractor can submit alternate method to Engineer and FDEP for approval if desired.

1.2.2. Drilling Log: The WATER WELL CONTRACTOR shall maintain the Drilling Log. The report forms shall include, at a minimum, location of well, county, TSR, street address, property owner name and address, well depth, method of drilling, lengths and numbers of drill rods used, well use, casing type, grout type used, method of installation, depth of installation, bucket assembly information , drilling additives, fluid losses, water and fluid level changes, footage drilled and formations encountered, and cementing operations, pump information, and a record of any situation encountered (well stuck, collapse of hole).

a. The Drilling Log shall detail the cutting and disposal method, listing the quantity of cuttings, storage location onsite, and transport and final disposal site. The Final Disposal site shall be approved by FDEP. A letter shall be sent to FDEP providing the site owner's permission to use the site for cutting disposal.
b. The Drilling Log shall list information relating to maintenance and repair of the drilling rig.
c. The Drilling Log shall be available on site for inspection at all times.
d. The Drill Log in this specification section can be used or a contractor log submitted to the Engineer for approval can be used. The Drilling Log does not eliminate or replace the well completion report required to be submitted to the water management district, and the certification of class five well construction completion to be submitted to FDEP. The Drilling log shall be included in the water well contractor's completion report.

1.2.3 Record Drawing: The final well description shall conform to the permit drawings and specifications, any deviations from the originally permitted design drawings shall be noted and accompanied by written approvals from FDEP. The record drawing shall show the final diameter, wall thickness, depth and length of the casing, borehole diameter, cemented casing, depth and thickness of annular seals, pretreatment structure and piping, quantity of material removed during development operations, and all other pertinent details. The Record Drawings shall be updated by the well contractor if needed with the actual constructed well information and be submitted with the Engineer's Certified Completion Report.

1.2.4 Records Required by Law: The WATER WELL CONTRACTOR shall maintain all records required by governmental agencies having jurisdiction, and shall submit such records to as may be required. Two copies of all records and submitted material shall be furnished to the ENGINEER.

1.2.5 Permits: The WATER WELL CONTRACTOR shall apply for all necessary drilling and testing permits with local and state regulatory agencies. The WATER WELL CONTRACTOR shall be required to provide certain information to the permitting agencies, in order to complete the permitting process. It is the WATER WELL CONTRACTOR's responsibility to obtain any and all other permits associated with the drilling and testing of the well.

1.2.6 Completion Report: A Well Completion Report (Form 62-528.900(4) must be filed with the permit issuing agency along with a signed copy of the well completion report from the water management district within thirty (30) days of well completion. The well completion report and the as-built drawings that the WATER WELL CONTRACTOR has updated should be submitted together. The as-built drawings of the injection well and the associated site stormwater structures are required to be reviewed, and signed and sealed by the engineer of record.

1.2.7 Grout: Samples of grout shall be collected during the cementation of all casings, with the CONTRACTOR collecting dry and mixed samples of the cement being used. Mixed cement samples shall include at least three (3) 2-inch cubes suitable for tests of compressive strength.

A. Grout samples shall be collected a minimum of three (3) times during each cement stage: Prior to pumping, at the middle and at the end of the stage. The specified slurry density shall match the specified slurry density indicated on the delivery certificate, if grout is not mixed on site.

B. Only 2-inch cubes, suitable for tests of compressive strength, will be acceptable as representative cement samples. Samples will be stored by the owner until 6 month past the five year warranty expiration date.

1.2.8 Calibration Data: Calibration records for each measuring instrument used in the construction of the well shall be submitted to the ENGINEER for review prior to the installation or use of the instruments. Calibration of instruments shall have been performed within 45 days prior to use in testing. All calibration records shall be submitted to the ENGINEER prior to use. The calibration records shall contain the following information:

A. Meters: The CONTRACTOR shall supply flowmeters and other meters for use in testing the well. The flowmeter for use in the pumping test shall have major gradations of 100 gpm and minor gradations of 10 gpm. Accuracy shall be ¼ of 1 percent of full scale.

Serial number, model number, gears, test apparatus size, meter reading and flow rate for at least three (3) steps, percent error for each step, and tester's name and title must be included in the submittal.

B. Gauges: The pressure gauges used in pressure tests shall have 0 to 50 psi scales with major gradations of 10 psi and minor gradations of 0.5 psi or smaller. Pressure gauges for use during aquifer tests, if required, shall have scales from 0 to 50 psi with 1 psi gradations. Gauge accuracy shall be ¼ of 1 percent of full scale.

The gauge's serial number, model number, scale range, meter reading and inches of mercury for at least three (3) steps covering the entire range of the gauge, percent error for each step, and tester's name and title must be included in the submittal.

1.3 Quality Assurance

1.3.1 Remedial Work: Remedial work performed prior to final acceptance, as required to meet the regulatory requirements or the **Technical Specifications**, due to defective materials, accident, loss of equipment or equipment malfunction, or any other cause directly attributable to the WATER WELL CONTRACTOR's actions or inaction, shall be performed by the WATER WELL CONTRACTOR at the WATER WELL CONTRACTOR's expense deemed as required.

In the event of a problem, the ENGINEER, and FDEP shall be notified immediately, and the following shall apply:

a. The WATER WELL CONTRACTOR shall propose a method of correcting the problem, to the ENGINEER, and FDEP. The ENGINEER, FDEP and OWNER shall review the proposed method of corrective action. Only after approval from the ENGINEER, and FDEP shall the corrective action plan be implemented.
b. All work on the well must be in accordance with the applicable local, state, and federal regulations.

c. If the well is deemed unacceptable by the ENGINEER, it shall be abandoned and backfilled by the WATER WELL CONTRACTOR, after obtaining a permit, at contractor's expense, for plugging and abandonment of the well from FDEP. The WATER WELL CONTRACTOR shall not be paid for services and work deemed incomplete or unacceptable. Reason for the well deemed unacceptable shall be provided to FDEP.

1.3.2 Repeat Work: All work repeated as a result of the WATER WELL CONTRACTOR's performance shall be furnished at the expense of the WATER WELL CONTRACTOR. No claim for additional compensation shall be made or be allowed, including all materials, labor, and equipment costs. FDEP Approval shall be obtained prior to and repeat work being done.

1.3.4 State Standards: Department of Environmental Protection Rules and Regulations for UIC Wells in Chapter 62-528, Florida Administrative Code (F.A.C.).

1.3.5 Commercial Standards: All work specified herein shall conform to or exceed the requirements of the applicable codes and standards, relating to the referenced portions of the following documents, only to the extent that the requirements therein are not in conflict with the provisions of this section. Where such documents have been adopted as a code or ordinance by the public agency having jurisdiction, such a code or ordinance shall take precedence.

Commercial Standards:

ASTM C 150	Specification for Portland Cement.
ASTM D 1784	Specification for Rigid PVC Compounds and Chlorinated PVC Compounds.
ASTM D-2564	Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems
ASTM D 2837	Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.
ASTM F 480	Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), Sch 40, and Sch 80.
AWWA A 100	Standard for Water Wells.

1.3.6 Guarantee: The WATER WELL CONTRACTOR guarantees that the workmanship, materials and equipment supplied or used in the execution of work to be free from defects and flaws. The WATER WELL CONTRACTOR further guarantees that the performance test requirements shall be fulfilled. The WATER WELL CONTRACTOR shall repair, correct, or replace all damaged work covered by failures under the guarantee, at the WATER WELL CONTRACTOR's expense, only AFTER approval from FDEP. The guarantee shall remain in effect for a period of five (5) years from the date of final acceptance by the OWNER.

1.3.7 Abandonment of Well by Contractor: If, at any time the WATER WELL CONTRACTOR voluntarily stops work, and/or fails to complete the bore hole in a satisfactory manner, in accordance with governing regulations, the bore hole will be considered abandoned. The WATER WELL CONTRACTOR shall not be paid for all or part of a bore hole declared as abandoned by the OWNER.

a. The cost of properly plugging and sealing the well or bore hole, in accordance with applicable local, state of federal regulations, shall be paid by the WATER WELL CONTRACTOR

b. All salvageable material furnished by the WATER WELL CONTRACTOR may be removed and remain his property, after approval from FDEP.
c. The WATER WELL CONTRACTOR shall propose his method of abandonment of the well or bore hole, in writing to the ENGINEER. The WATER WELL CONRACTOR shall apply for and obtain an Application for Class V Well Plugging and Abandonment Permit. The ENGINEER, and FDEP shall review the method of abandonment. The FDEP and the ENGINEER'S approval of the plan must be obtained, in writing, prior to the implementation of the abandonment plan. All work on the well must be in accordance with all applicable local, state, and federal regulations.

1.3.8 Abandonment of Well by OWNER: If information indicates that the completion of a well on the site is not warranted, the OWNER reserves the right to terminate all further work at the site. In such an event, the WATER WELL CONTRACTOR will be paid the value of work completed to that time, based on standard unit prices.

a. The WATER WELL CONTRACTOR shall be required to abandon the bore hole, as directed by the ENGINEER, in accordance with regulations formulated by governmental agencies having such jurisdiction, including Chapter 40D-3.531 F.A.C. The WATER WELL CONRACTOR shall apply for and obtain an Application for Class V Well Plugging and Abandonment Permit. Costs associated with the abandonment will be paid by the OWNER.
b. The OWNER reserves the right upon termination of work on the site to have the WATER WELL CONTRACTOR move to another location on the site selected by the OWNER to drill another bore hole. The location must be approved by the ENGINEER and FDEP. In such circumstances; The WATER WELL CONRACTOR shall apply for and obtain an Application for Class V Well Plugging and Abandonment Permit. Costs associated with the abandonment will be paid by the OWNER. FDEP shall be advised prior to relocation of the well. If deemed necessary by FDEP, a permit modification will be done at the OWNER's expense.

1.3.9 Environmental Considerations: All regulated materials, liquids and/or substances shall be stored within secondary containment, in compliance with applicable regulations of the State. It is the responsibility of the WATER WELL CONTRACTOR to obtain the regulated materials list from the appropriate State office and to provide the ENGINEER with an inventory of all regulated materials to be used on the job site. The integrity of the secondary containment area shall be demonstrated by the WATER WELL CONTRACTOR for the ENGINEER, upon request. At any time if existing contamination either is soil or water is found to be above state of federal limits; work shall be stopped and the ENGINEER and FDEP notified of the finding. Work shall only proceed with authorization from the ENGINEER and FDEP.

1.4 STORAGE AND PROTECTION OF MATERIALS

1.4.1 General: All materials shall be delivered in an undamaged condition and stored to provide protection against damage. All defective or damaged materials shall be replaced with new materials.

1.4.2 Defective Materials: Materials that are defective or damaged prior to use are unacceptable and shall be replaced with new materials, at the WATER WELL CONTRACTOR's expense.

1.4.3 Drilling Waste Disposal: Prior to beginning drilling operations, the CONTRACTOR will submit to the ENGINEER verification of his disposal site in writing from the FDEP. The CONTRACTOR shall be responsible for providing and maintaining all necessary trucks, pipe, pumps, and equipment necessary to pump and haul excess drilling fluid, drill cuttings, and produced water to a pre-determined

disposal site(s) in accordance with federal, state and local regulations, or subcontract with a firm capable of providing these services when necessary.

1.4.4 Field Relocation: During construction, it is expected that minor relocation of proposed facilities may be necessary. Field revisions will only be made at the direction of the ENGINEER. If existing structures are encountered that prevent construction as shown, the WATER WELL CONTRACTOR shall notify the ENGINEER prior to continuing work. All relocations must be communicated to FDEP prior to relocating the well. Relocations within a 10 foot radius generally will not require written FDEP approval. Relocations outside of the 10 foot radius will require approval, in writing; and some cases may require a permit modification prior to work commencing at the selected site.

1.4.5 Storage Area: The WATER WELL CONTRACTOR shall prepare an area, within the limits of a location approved by the ENGINEER, for the storage of materials required for this work.

1.4.6 Protection: The WATER WELL CONTRACTOR is responsible for protecting his own work from theft, vandalism, and unauthorized entry.

1.5 CONTRACTOR EQUIPMENT

1.5.1 General: The WATER WELL CONTRACTOR's equipment shall be clean, well maintained, and in good operating condition when delivered to the site and during the entire operation.

a. The equipment shall be of adequate size, strength, horsepower, and capacity for the project and shall be of the type successfully utilized for the construction of similar or larger wells.
b. All equipment shall be provided with safety devices, as required by governmental authorities having jurisdiction.

1.5.2 Equipment Use: Reaming and setting of casing shall be done with the same equipment. No resetting of equipment will be allowed after the bore hole is reamed.

1.5.3 Equipment Operation: All equipment shall be carefully maintained during the WATER WELL CONTRACTOR's operations. Any damage to the well or surrounding property and/or facilities, due to the WATER WELL CONTRACTOR's operations shall be repaired or replaced.

1.5.4 Safety Equipment: The WATER WELL CONTRACTOR must provide and utilize safety equipment, as required by all applicable federal and state regulations.

1.6 MOBILIZATION AND SITE RESTORATION

1.6.1 Mobilization: The WATER WELL CONTRACTOR shall mobilize its equipment and personnel to effectively commence its drilling operations, within the specified time limit.

1.6.2 Unused Materials and Equipment: During construction, the WATER WELL CONTRACTOR shall regularly remove all accumulated debris and surplus materials. Unused tools or equipment shall be stored at the WATER WELL CONTRACTOR's yard or base of operations.

1.6.3 Periodic Cleaning: The WATER WELL CONTRACTOR shall perform clean-up work on a regular basis and as requested by the ENGINEER.

a. Basic site restoration shall be accomplished immediately following installation or substantial completion, or as directed by the ENGINEER.

b. If the WATER WELL CONTRACTOR fails to perform periodic clean-up and basic restoration of the site to the ENGINEER's satisfaction, the ENGINEER may, upon five days written notice to the WATER WELL CONTRACTOR, employ such labor and equipment as he deems necessary for this purpose, at the WATER WELL CONTRACTOR's expense.

1.6.4 Protection of Water Quality: The WATER WELL CONTRACTOR shall take all necessary precautions to prevent contaminated water, gasoline, or other hazardous substances from entering the ground, either through the well or through seepage from ground surface. The WATER WELL CONTRACTOR shall maintain precautions during and after construction of the well, and until acceptance of the well by the OWNER. If the WATER WELL CONTRACTOR fails to prevent contaminants from entering the groundwater, remedial action, as required by the governing regulatory agencies shall be performed by the WATER WELL CONTRACTOR, at the sole expense of the WATER WELL CONTRACTOR. A temporary well cap shall be installed on the well casing, when the well is complete, until the baffle box is connected to the well. The Contractor shall ensure the well cap is maintained on the well.

1.6.5 Work Completion and Final Cleanup: Upon completion of work, the WATER WELL CONTRACTOR shall promptly remove all his equipment and unused materials, from the drill site, approved storage areas and approved disposal sites. He shall dismantle any temporary structures erected for his purposes that are not part of the final product. He shall promptly effect minor repairs. The WATER WELL CONTRACTOR shall thoroughly clean the drill site, and approved storage areas. All excess drilling fluids, debris, and other materials used during construction shall be removed and disposed of, by the WATER WELL CONTRACTOR. Mud sumps and other work excavations shall be filled, compacted, graded, and the site returned to a condition equal to or better than its condition at the start of the work. These requirements must be completed within one month after the completion of drilling and testing.

PART 2 PRODUCTS

Products are listed and described throughout Part 3 Execution. Products shall conform to all requirements of Part 1 General.

PART 3 EXECUTION

3.1 GENERAL

Changes from the specifications as permitted by FDEP, shall require FDEP concurrence and written approval via a permit modification if deemed necessary by FDEP. All changes from FDEP permit specifications require notification and concurrence from FDEP.

The work shall be performed by a competent crew with equipment that is adequate to complete all phases of well construction.

The depths and lengths for boreholes and casings shall be as shown on the drawings, unless otherwise determined by the ENGINEER. Payment will be based on actual quantities furnished, installed, or constructed, in accordance with the schedule of values.

All work required to be repeated, resulting from the WATER WELL CONTRACTOR's performance, or lack thereof, including all additional materials, labor and equipment required, shall be furnished at the

expense of the WATER WELL CONTRACTOR. No claim for additional compensation shall be made or allowed, except as specifically provided herein.

Well drilling shall begin after approved maintenance of traffic, if applicable.

3.2 DRILLING AND REAMING OPERATIONS

3.2.1. Drilling: The WATER WELL CONTRACTOR shall take all measures necessary to protect the top portions of the test hole from caving or raveling.

3.2.1. Centralizers: Verification of the casing to be centered shall be done. Centralizers shall be used on the pipe to ensure the alignment of the casing and an even distribution of grout around the casing. Centralizers shall be placed every 20 feet.

3.2.2. The first 60 feet, cased part of well, shall be drilled with 6" overdrill. Upon reaching 60 feet or elevation at which the casing will be seated; the open hole shall be drilled. To drill open hole the WATER WELL CONTRACTOR shall center the drill rig in the drilled hole, and drill the open hole at 22 inch diameter.

3.2.3. Rotary Bucket Auger: The drilling fluid shall possess such characteristics as are required to adequately condition the walls of the hole to prevent caving as drilling progresses, and to permit recovery of representative samples of cuttings.

a. Only fresh water from the designated source shall be used in drilling fluids whether employed alone or in combination with drilling additives. Any other drilling additives to be used will require acceptance by the ENGINEER.
b. The WATER WELL CONTRACTOR shall maintain complete control over drilling fluid characteristics during the entire operation of well construction. If proper control of the drilling fluid is not maintained, the WATER WELL CONTRACTOR may be required, at the WATER WELL CONTRACTOR's expense, to retain or employ an experienced, qualified mud engineer on the job during all operations, to supervise and maintain drilling fluid characteristics.
c. The WATER WELL CONTRACTOR shall provide holding tanks for handling the drilling fluid. The WATER WELL CONTRACTOR shall provide adequate protection for the public at all times. Upon completion of the drilling, drilling mud and cuttings from the well shall be removed from the approved staging site and disposed of by the WATER WELL CONTRACTOR. The ground surface shall be restored to its original condition.
d. All additives shall be approved by the ENGINEER, prior to use.
e. If large boulders are encountered that are larger than the bucket, the use of common drilling tools, orange-peel bucket, or stone tongs shall be used to remove the boulder.

3.2.4. Drilling Method: The well shall be drilled using the Rotary Bucket Auger Method. Alternative methods can be submitted with the FDEP Construction permit. Alternative method has to be approved by ENGINEER also.

3.3 CASING

3.3.1Casing Installation: When the reaming operation has been completed, casing will be installed. The casing lengths will be 20 feet sections.

3.3.2 Seating Casing: Casing seat request shall be sent to FDEP (David Rhodes, Ft. Myers Office) along with lithology description. Seat request shall include the requested casing seat elevation. Casing to be set only with FDEP approval.

3.3.3 PVC Casing: The casing shall be un-plasticized PVC compounds having a minimum cell classification of 12454-B, as defined in ASTM D 1784. PVC pipe used for well construction or repair shall at a minimum meet the specifications for Standard Dimension Ratio (SDR) 21. All PVC pipe used for well casing shall be new, factory assembled in 20-foot lengths. Shorter pieces will be allowed at the end of the casing if required to ensure the 60 feet of casing is provided. Amount of casing installed shall account for the overlap of bell ends that are on the casings when joined. The CONTRACTOR shall install additional casing to account for the bell ends so that the designed depth of 60 feet is obtained**. Additional casing shall be readily available if more than 60 feet is required to seat the casing.**

3.3.4 Tension: The casing shall be suspended in tension from the surface. The bottom of the casing shall be at a sufficient distance above the bottom of the reamed hole as to insure that none of the casing will be supported from the bottom of the hole. The casings shall be lowered into the borehole open-ended, and the weight of the casing shall be supported by the drilling rig. The hook load of the drilling rig must exceed the maximum casing weight to be encountered during construction of the well. The method used to join the casings together, shall be able to withstand the tension pressures without separation during the casing installation procedure.

3.3.5 Failure to Complete: If the casing cannot be landed in the correct position or at a depth acceptable to the ENGINEER, the WATER WELL CONTRACTOR shall construct another well immediately adjacent to the original location, and complete this well in accordance with the **Civil Construction Drawings, Details**, and **Technical Specifications**. The abandoned hole shall be permitted and approved before being sealed, in accordance with all State of Florida regulations.

3.3.6 Collapsed Casing: Should the casing collapse for any reason prior to well completion, FDEP shall be notified. Casing can be withdrawn and replaced at the WATER WELL CONTRACTOR's expense only after FDEP approval.

3.4 GROUTING OF CASING

3.4.1 General: After installation of the casing, the annular space between the borehole wall and the casing shall be filled with cement grout from the bottom of the casing to the ground surface. The cement shall be pumped as a slurry of thoroughly mixed components, in stages that are designed to fill the annular space without exceeding the collapse pressure of the casing pipe to which the cement is applied. It is the WATER WELL CONTRACTOR's responsibility to conduct the cementing operations in such a manner that the burst/collapse strengths of the casing (with safety factor) are not exceeded and casing failure does not occur. Cement will be pumped or placed so that the pressure of the slurry and the pressure applied inside the casing pipe do not affect the bond.

A cement basket shall or packer assembly shall be used at the bottom of the casing to provide a seal for the grout on the bottom of the annulus.

Grout shall be placed into the annular space using the pressure grouting technique using a tremie pipe. The grout shall be pumped under pressure from the bottom of the casing. In the event the borehole collapses prior to placement of the grout seal, the WATER WELL CONTRACTOR shall take whatever steps are necessary to re-open the hole and place the seal as specified.

Material used in the casing seal shall be neat cement grout, consisting of Type I or Type III Portland cement, conforming to ASTM C-150. Neat cement grout shall contain between 5.0 and 6.0 gallons of water per 94-pound sack of cement, with a slurry density of 15.0 to 15.5 lbs/gallon. .

Additives may be added to the sealing material to speed the setting time or expand the material. Additives shall not exceed the follow:

- Not more than 2 percent, by weight, calcium chloride.
- Not more than 4 percent, by weight, bentonite.

No other additives will be allowed, unless approved by the Department, in writing, prior to use.

The WATER WELL CONTRACTOR will be responsible for adding or releasing water from the casing to maintain the required pressure.

Minimum setting time between stages is 8 hours, if more than one stage is required. The well shall remain undisturbed for at least 24-hours after cementing of the casing is complete.

3.5 PVC CASING JOINTS

3.5.1 PVC Casing Joints: Where specified, casing joints shall be attached in accordance with the requirements of ASTM F-480. Pipe shall be joined using a pipe cement that meets the requirements of ASTM D-2564. No external pipe-to-pipe restraining devices that clamp onto or otherwise damage the pipe surface as a result of point-loading shall be permitted. The CONTRACTOR is responsible for ensuring the suitability of all connections for the well casing string and associated work.

3.6 DISPOSAL

3.6.1 Water Disposal: The WATER WELL CONTRACTOR shall remove all pumped water and Spoils produced during reverse air drilling, well development, and testing, from the well site to an FDEP approved location. The WATER WELL CONTRACTOR shall design a system that protects the site from erosion. The system shall settle the discharge water so that turbidity is 0 NTU. The WATER WELL CONTRACTOR shall be responsible for meeting local, state and federal requirements for discharge of water produced during drilling, development, and testing.

a. The WATER WELL CONTRACTOR shall conform to all waste discharge requirements, and shall obtain all required permission, if necessary, to discharge waters into a flood control storm drain. All actions necessary to conform to the discharge requirements shall be performed by the WATER WELL CONTRACTOR, as a part of his scope of work and contract.
b. If necessary to avoid erosion, minimize area flooding, promote settling of turbid water, conform to County, City, State or Owner requirements, the WATER WELL CONTRACTOR shall be responsible for providing on-site tanks or a constructed basin of sufficient size and construction to accommodate development and pumped discharge from the well. The tanks or basin shall be constructed with baffles to encourage sediment settlement.
c. Discharge piping shall be equipped with an in-line meter with 6-digit, straight reading totalizer, registering in units of 100 gallons, together with a rate of flow indicator dial, which reads in units of gallons per minute, and is suitable for the expected flow range. Any necessary crossings over discharge piping shall be constructed and maintained by the WATER WELL CONTRACTOR.

3.6.2 A Cuttings, fluids and mud Disposal Plan will need to be submitted and approved by FDEP prior to construction of the wells. A letter from the property owner indicating understanding and acceptance of the materials onto the property will be required.

PART 4 PAYMENT

4.1 GENERAL

No final payment will be made until Well Certificates are submitted to applicable permitting agencies and certified as-builts are received. Payment for work specified in this section will be made per computation of quantities as indicated for each item and shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work as specified under this section.

WELL AND PUMP DATA

Location of Well

County	Township Number	Range Number	Section No.	Fraction	
Township	N or S	E or W			¼ ¼ ¼

Street Address and City or Distance and Direction from Road Intersections

Show exact location of well in section grid with an 'x'

N

S

1 mile

Sketch map of well location

Addition Name
Block Number
Lot Number

Remarks, Elevation, Source of Data, etc.

Borehole data

Formation Log	Color	Hardness	From	To

Contractor Name and Address

Name of Driller _____

State License Number _____

Property owner's name and address

Well depth

Datum point from which all measurements are taken

Method of Drilling

☐ Cable tool ☐ Hollow rod ☐ Driven ☐ Dug
☐ Direct rotary ☐ Air rotary ☐ Bucket auger ☐ _____
☐ Reverse rotary ☐ Jetted ☐ Flight auger

Use

☐ Domestic ☐ Public supply ☐ Industrial ☐ _____
☐ Irrigation ☐ Municipal ☐ Commercial
☐ Test Well ☐ Heating or cooling ☐ Monitoring

Casing Type

☐ Steel ☐ Threaded Height above/below
☐ Galv. ☐ Welded surface _____
☐ PVC ☐ Solvent welded Drive shoe? Yes ___ No ___
☐ SS

_____ in to _____ ft Wgt ____ lb/ft Sch. No. ____
_____ in to _____ ft Wgt ____ lb/ft Sch. No. ____
_____ in to _____ ft Wgt ____ lb/ft Sch. No. ____

Hole diameter
____ in to ___ ft
____ in to ___ ft
____ in to ___ ft

Intake Portion of Well

Screen type _____ or open hole from _____ ft to _____ ft
Manufacturer _____
Material _____ Dia. _____
Fittings _____ Length _____
Set between _____ ft and _____ ft Slot _____
_____ ft and _____ ft Slot _____
_____ ft and _____ ft Slot _____
Method of installation _____

Filter Pack

Source _____ Gradation _____
Method of installation _____ Composition _____
Volume used _____ Depth to top of f.p. _____

Grout

Used? ☐ Yes ☐ No Volume used _____
☐ Neat Cement ☐ Bentonite ☐ _____
Method of installation _____
Depth: from _____ ft to _____ ft
from _____ ft to _____ ft

Development

Method _____ Duration _____
Dates _____ Sand content after ___ hrs _____
Chemicals used _____

Static Water Level

_____ ft ☐ below ☐ above grade
Date measured _____

Pumping Water Level

_____ ft ☐ below ☐ above grade Date _____
After _____ hrs pumping at _____ gpm

Specific Capacity

_____ gpm/ft of drawdown at _____ hours
Date _____

Pump

Date installed _____ Type _____
Manufacturer _____ Model No. _____
H.P. _____ Volts _____ Capacity _____
Depth of pump intake setting _____ No. of stages _____
☐ Oil ☐ Water lubrication Power source _____
Material of drop pipe _____, bowls _____,
shafting _____, impellers _____ Bowl dia. _____
Column pipe dia. _____ Length _____ Modifications _____

Well Head Completion

☐ Pitless adaptor ☐ Basement offset Distance above grade _____

Nearest Sources of Possible Contamination

_____ ft Direction _____ Type _____
Well disinfected upon completion? ☐ Yes ☐ No

Geophysical Logs Run

Water Quality

Sample taken? ☐ Yes ☐ No
Where analyzed _____

Date well completed _____

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SECTION 02582
STEP DRAWDOWN PUMPING TEST

PART 1 GENERAL

1.1 WORK INCLUDED

A. This Section covers the work, materials, and equipment necessary for testing, for furnishing, setting, operating, and removing test pumps from the wells, complete including any traffic routing or other work associated with the testing and routing of the discharge water.

1.2 SUBMITTALS

A. Submit descriptions and diagrams (if necessary) of two devices for measuring discharge flows and pressures.

B. Submit proposed method of routing fluid discharge from the well to the disposal point.

PART 2 PRODUCTS

2.1 GENERAL

A. All testing equipment shall be in good operating condition at all times and operated and maintained in strict conformance with manufacturer's recommendations.

B. The CONTRACTOR shall have the appropriate equipment and trained personnel to perform the work as specified.

C. The CONTRACTOR shall be solely and directly responsible to the OWNER for any damage caused to OWNER's property by CONTRACTOR's operations.

2.2 STEP DRAWDOWN PUMPING TEST EQUIPMENT

A. Furnish, install, and operate a horizontal centrifugal or submersible test pump, driver, and discharge piping capable of pumping 1800 gpm at 80 feet of total dynamic head (TDH) from a nominal 24-inch diameter well.

B. Provide a butterfly valve, or gate valve, or equal on the discharge side of the pump for adjustment of flow rate.

C. The pumping unit prime mover (e.g. engine drive) controls, and appurtenances shall be capable of being operated without interruption for 12 hours.

D. Electrical power is not available at each well site. It shall be the responsibility of the CONTRACTOR to supply the necessary power for the pump test. Any additional wires, adapters, GFCI receptacles, etc., are the responsibility of the CONTRACTOR.

E. Provide machined orifice plate(s), piezometer tube, and calibrated (within the last 60 days) flowmeter(s) devoices capable of measuring the pump discharge within plus or minus 5 percent of true flow or flow rates from 500 gpm to 2,000 gpm. Provide at least two methods of measuring the flow. The type of devoice shall be submitted for approval by ENGINEER prior to mobilization.

F. Furnish, install, maintain, and operate discharge piping for the pump unit or sufficient size to conduct pumped water to the disposal location specified herein and as approved by the ENGINEER.

G. Provide a minimum clearance of 3 inches between the horizontal centrifugal suction pipe or submersible pump column pipe and the 24-inch well casing will allow the ENGINEER to measure water levels with a water level recorder above the well vaults.

H. The CONTRACTOR shall provide a calibrated, electric water level probe for water level measurements during testing. The unit shall be a Hemit Model 1000 by In-Situ, or approved equal.

2.3 DOCUMENTATION

A. ENGINEER shall be responsible for collecting and recording water levels (reference point, static depth to water, pumping depth to water, etc.) and SDI measurements. CONTRACTOR shall provide ENGINEER with the following additional data from each step drawdown pumping test.

1. Date and time the test was started.
2. Pressure and discharge rate at 15-minute intervals.
3. A sample data reporting form is provided at the end of this section.

PART 3 EXECUTION

3.1 STEP DRAWDOWN PUMPING TESTS

A. Perform Four Step Drawdown Pumping Tests on Each Well:

Step	Flow Rate (gpm)	Duration (Minutes)
1	600	180
2	1000	180
3	1400	180
4	1800	180

B. The ENGINEER or OWNER shall record data from each test as specified on the Sample Data Reporting Form provided at the end of this Section.|

C. For this purpose, the CONTRACTOR shall operate the pump without interruption, at no more than two percent fluctuation in the designated rates of discharge, during the full

period of the step-drawdown test as determined by the ENGINEER. If the pumping test

is started and then must be stopped due to equipment breakdown, failure of any water level recorder, or inadequate supervision by the CONTRACTOR, no extra payment shall be made for the time spent pumping before the test is restarted. If any part of the pumping equipment fails to operate properly, or impairs the proper functioning of another element or instrument involved in the test, the equipment shall be removed and repaired at the expense of the CONTRACTOR and no extra payment shall be made for the delay.

3.2 INSTALLATION OF PUMPING EQUIPMENT

A. A test pump, flow measuring devices, discharge piping, level measuring devices, and other necessary appurtenances shall be installed in the well when requested by the ENGINEER. The test pump discharge pipe, and appurtenances to be provided by CONTRACTOR shall be free of sand and other visible deleterious material from the pump assembly prior to installation.

3.3 DISPOSAL OF WATER

A. All water produced during step drawdown pumping test shall be disposed of in an appropriate manner in accordance with all applicable regulations and requirements.

B. Disposal of water shall include, but be limited to:
1. Discharge to nearby canal.
2. Discharge to storm or sanitary sewer.
3. Collection of water in storage tank for offsite disposal by CONTRACTOR.
4. Other method to be determined by the CONTRACTOR and approved by the ENGINEER and OWNER.

C. For each of these methods of disposal, it is the CONTRACTOR's responsibility to obtain written permission or approval from the responsible agency or government entity to dispose of the water.

1. Storm or Sanitary Sewer: City of Key West.
2. Disposal Offsite: Copies of manifest and/or written permission from hauling companies and disposal locations.
3. Other: CONTRACTOR to provide written permission or approval from entity accepting disposal of the water.

D. It is the CONTRACTOR's responsibility to examine each well site and develop a written plan for disposal of the water prior to pumping of any water. The plan shall include at a minimum well number(s), methods of disposal, quantity or rate limitations, location of disposal pointy, and written permission or approval from responsible agency or government or private entity. The plan shall be reviewed and approved by the ENGINEER and OWNER.

E. Provide all equipment and appurtenances necessary to dispose of the water in accordance with the requirements of the permits or appropriate responsible agency or government or private entity.

3.4 SUPPLEMENTS

A. The supplements listed below, following "END OF SECTION," are part of this Specification.

1. Step Drawdown Pump Test Data Sheet.

END OF SECTION

Step Drawdown Pump Test Data Sheet			
Well_____ Water level reference point_____ Date_____ Static Depth of Water (DTW) (feet) below reference point)_____ Time_____ Personnel_____			
Minutes	**DTW (feet)**	**GPM**	**PSI**
0			
15			
30			
45			
60			
75			
90			
105			
120			
135			
150			
165			
180			

PART 4 PAYMENT

4.1 GENERAL

A. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work as specified under this section.

SECTION 02721
CATCH BASINS AND INLETS

PART 1 GENERAL

1.1 WORK INCLUDED

A. This section covers the work necessary for the catch basins and inlets complete.

PART 2 PRODUCTS

2.1 CONCRETE

A. Concrete structures shall meet the requirements of FDOT 400; Concrete structures. All structures shall be H-20 rated.

2.2 FORMS

A. Forms shall be conformance with Section 425 of FDOT Standard Specifications for Road and Bridge Construction.

2.3 REINFORCING BARS

A. Concrete structures shall meet the requirements of FDOT 400; Concrete structures.

B. Repair damaged epoxy coating per Article 3.5 of this Section.

2.4 UNITS

A. Inlet dimensions and details of construction shall conform to FDOT Roadway and Traffic Specifications and Design Standards.

2.5 PRECAST UNITS

A. At the opinion of the Contractor, approved pre-cast units may be substituted for cast-in-place units. Pre-cast units shall conform to ASTM C478. All pre-cast units shall have epoxy-coated reinforcing bars. Submit details of proposed units to the ENGINEER for review. Concrete risers for extensions shall be a maximum of 6 inches high and of the same quality as the sections. ENGINEER shall review risers before installation.

B. Provide ADS Pipe Adapter flexible watertight Waterstop connection with pipe adapter for ADS Corrugated HDPE Pipe to storm structures, or approved equal ADS Pipe Adapters meeting the requirements of ASTM F 2510 and ASTM C 1478 for watertight flexible connections. Rapid set mortar shall be used with potable water; ground water shall not be used.

2.6 MORTAR

A. Standard premixed mortar conforming to ASTM C387, Type S, or proportion 1 part Portland cement to 2 parts clean, well-graded sand that will pass a 1/8-inch screen. Admixtures may be used not exceeding the following percentages of weight of cement: Hydrated lime, 10 percent diatomaceous earth or other inert materials, 5 percent. Consistency of mortar shall be such that it will readily adhere to the concrete.

B. DO NOT USE GROUND WATER TO MIX MORTAR, arrange for and provide potable water.

2.7 FRAMES AND GRATINGS

A. Cast iron frames and gratings for catch basins and storm drain inlets shall be as indicated. Bearing surfaces shall be clean and shall provide uniform contact. Castings shall be tough, close-grained gray iron, sound, smooth, clean, free from blisters, blowholes, shrinkage, cold shuts, and all defects, and shall conform to ASTM A48, Class 30.

B. All grates shall be H20 Traffic Rated and Galvanized coated.

2.8 BASE ROCK

A. Base rock shall be crushed gravel or crushed rock, free from dirt, clay balls, and organic material, and conforming to size No. 57 graduation as specified in the Standard Specifications or similar accepted material and shall be imported, if necessary, at the Contractor's own expense. Lime rock screenings or material resulting from trench excavation, except for lime rock that has been crushed and graded to size as specified, will not be accepted for base rock.

PART 3 EXECUTION

3.1 EXCAVATION AND BACKFILL

A. Excavation as required to accomplish the construction. Backfill shall be as specified for the adjoining pipe trench.

3.2 CONSTRUCTION OF CATCH BASINS AND INLETS

A. Construct inlets and catch basins at the locations shown and in accordance with the Drawings. Construct forms to the dimensions and elevations required. Forms shall be tight and well braced Chamfer corners of forms.

B. Prior to placing the concrete, remove all water and debris from the forms. Moisten forms just prior to placing the concrete. Handle concrete from the transporting vehicle to the forms in a continuous manner as rapidly as practical without segregation or loss of ingredients. Immediately after placing, compact concrete with a mechanical vibrator. Limit the duration of vibration to the time necessary to produce satisfactory consolidation without causing segregation.

C. Screed the top surface of exposed slabs and walls. When the initial water has been absorbed, float the surfaces with a wood float and lightly trowel with a steel trowel to a smooth finish free from marks or irregularities. Finish exposed edges with a steel-edging tool. Remove forms and patch any defects in the concrete with mortar mixed in the same proportions as the original concrete mix.

D. Cure concrete by preventing the loss of moisture for a period of 7 days. Accomplish with a membrane-forming curing compound. Apply the curing compound immediately after removal of forms or finishing of the slabs. Protect concrete from damage during the 7-day curing period.

3.3 PLACING PRECAST UNITS

A. Remove water from the excavation. Place a minimum of 6 inches of rock base and thoroughly compact with a mechanical vibrating or power tamper.

3.4 EXTENSIONS

A. Install extensions to height determined by ENGINEER. Lay risers in mortar with sides plumb and tops to grade. Joints shall be sealed with mortar, with interior and exterior troweled smooth. Prevent mortar from drying out and cure by applying a curing compound. Extensions shall be watertight.

3.5 REPAIR OF DAMAGED STRUCTURES EPOXY COATING ON REINFORCING BARS

A. Damaged STRUCTURES shall be repaired with Rapid Set Mortar Mix and REINFORCING BARS shall be repaired with epoxy coating material conforming to ASTM A775. Repair shall be done in accordance with the patching material manufacturer's recommendations.

3.6 INSTALLATION OF FRAMES AND GRATES

A. Set frames and grates at elevations indicated or as determined in the field and in conformance with the Drawings.

B. Frames may be cast in, or shall be set in mortar, they shall be H-20 rated.

C. Frames set with brick; contractor is required to submit a shop drawing with an 18 inch concrete collar 4000 PSI 1-6 inches thick. Brick shall be installed using Rapid Set Mortar Mix or equal. This cost shall be incidental to the cost of installing the structure. Masonry unit’s manufacturer shall submit six test certificates furnished to the Engineer. Such certificates shall be signed by an authorized agent of the manufacturer, and identified by project number.

3.7 CLEANING

A. Upon completion, clean each structure of all silt, debris, and foreign matter.

PART 4 PAYMENT

4.1 INLETS

A. Payment for inlets will be made at the unit price per inlet stated in the CONTRACTOR'S BID.

4.2 REMOVAL OF INLETS AND STORM MANHOLES

A. Payment for the removal of existing inlets and storm manholes, regardless of depth, will be based on the unit price stated in the CONTRACTOR’S BID. Payment shall constitute full compensation for all work required to remove each existing inlet or storm manhole, complete, as specified.

****

SECTION 02724
STORM SEWER

1 PART 1.0 GENERAL

1.1 WORK INCLUDED

A. This section covers the work necessary for the storm sewers and appurtenances, complete.

2 PART 2.0 PRODUCTS

2.1 GENERAL

A. All storm drainpipes in the project shall be ADS polyethylene or Polyvinyl Chloride (PVC)

B. Provide ADS Pipe Adapter flexible watertight Waterstop connection with pipe adapter for ADS Corrugated HDPE Pipe to storm structures, or approved equal ADS Pipe Adapters meeting the requirements of ASTM F 2510 and ASTM C 1478 for watertight flexible connections. Rapid set mortar shall be used with potable water; ground water shall not be used.

2.2 ADS POLYETHYLENE PIPE N-12 OR EQUAL

A. This Specification covers the requirement of high-density polyethylene corrugated pipe with smooth interior for storm sewer. Nominal sizes 12, 15, 18, and 24 -inch are included.

B. Material: Pipe and fittings shall be manufactured from high density polyethylene resin which shall meet or exceed the requirements of Type III, Category 4 of 5, Grade P33 or P34, Class C per ASTM D1248.

C. Pipe Dimensions: the nominal size of the pipe is based on the nominal inside diameter of the pipe. The tolerance on the specified inside diameter shall be +3 percent, -1 percent, or 1/2 inch whichever is less. Lengths shall be not less than 99 percent of the stated quantity.

D. Pipe Stiffness: The pipe shall have minimum pipe stiffness at 5 percent deflection as follows:

Diameter (Inches)	Pipe Stiffness (PSI)
12	45
15	42
18	40
24	34

E. Tests shall be in accordance with ASTM D2412 with a minimum one-diameter sample length, a loading rate of 0.5 inch/min., and readings at 5 percent deflection.

F. Hydraulics: The pipe shall have a minimum tested Manning's "n" value of 0.012.

2.3 POLYVINYL CHLORIDE (PVC) GRAVITY PIPE AND FITTING:

A. 15 inch diameter PVC sewer pipe and under for general service shall conform to ASTM D3034, standard dimension ratio not to exceed 26.

B. PVC fittings for 15 inch diameter pipe and under for general service shall conform to ASTM D3034, standard dimension ratio not to exceed 35.

C. PVC pipe for watermains 12 inches and smaller shall be AWWA C900, standard dimension. Dimension ratio not to exceed 18.

D. PVC pipe for storm and sanitary sewer pipe larger than 15 inches shall be AWWA C905, standard dimension ratio, not to exceed 26.

E. PVC additives and fillers including but not limited to stabilizers, antioxidants, lubricants, colorants, etc. shall not exceed 10 parts by weight per 100 of PVC resin in the compound.

F. Plastic pipe and fittings shall meet all the requirements of AWWA C900 and shall be PVC-1120 pipe, having a cell classification of 1245A or 1245B, in accordance with ASTM D1784. Pipe 4 inches and larger shall be pressure rated Class 150 (DR 18) with cast iron pipe equivalent OD in accordance with AWWA C900. Pipe shall be equipped with a push-on type joint with elastomeric gasket that meets the requirements of ASTM D3139. Pipe smaller than 4 inches shall be PVC Schedule 80, in accordance with ASTM D1785. Schedule 80 pipe and fittings shall be threaded joint.

2.4 PIPE JOINTS

A. ADS POLYETHYLENE PIPE JOINTS: The pipe shall be joined by split corrugated couplings at least seven corrugations wide and exceeding the soil tightness requirements of the AASHTO Standard Specification for Highway Bridges, Section 23 (2.23.3).

B. POLYVINYL CHLORIDE (PVC) GRAVITY PIPE JOINTS: Joints shall be rubber gasketed type complying in all respects to the physical requirements of ASTM D3212 for gravity pipes. Gaskets shall conform to ASTM F477. Furnish complete information on basic gasket polymer and results of test of physical properties. Lubricant for jointing as approved by the pipe manufacturer.

2.5 PIPE BEDDING AND PIPE ZONE MATERIAL

A. Pipe bedding and pipe zone material are identical and shall be free from dirt, clay balls, and organic material and forming to size No. 57 stone gradation as specified in the Standard Specifications or similar accepted material and shall be imported at the contractor's own expense. Lime rock screenings or material resulting from trench excavation, except for lime rock that has been crushed and graded to size as specified, will not be accepted for pipe bedding materials.

B. Imported pipe bedding and pipe zone materials specified in this Section are subject to the following requirements:

1. All tests necessary for the CONTRACTOR to locate an acceptable source of imported material shall be made by the CONTRACTOR. Certification that the material conforms to the Specification requirement along with copies of the test results from a qualified commercial testing laboratory shall be submitted to the ENGINEER for acceptance at least 10 days before the material is required for use. CONTRACTOR shall furnish all material samples the CONTRACTOR'S sole expense. Samples shall be representative and be clearly marked to show the source of the material and the intended use on the project. CONTRACTOR shall due sampling of the material source in accordance with ASTM D75. Also, the CONTRACTOR shall notify the ENGINEER at least 24 hours prior to sampling. The ENGINEER may, at the ENGINEER'S option, observe the sampling procedures. Tentative acceptance of the material source shall be based on an inspection of the source by the ENGINEER, and/or the certified test results submitted by the CONTRACTOR to the ENGINEER, at the ENGINEER'S discretion. No imported materials shall be delivered to the site until the proposed source and the ENGINEER has tentatively accepted the material's tests in writing. Final acceptance will be based on tests made on samples of material taken from the completed and compacted course. The completed course is defined as a course or layer that is ready for the next layer or the next phase of construction.

2. Gradation tests by the CONTRACTOR shall be made on samples taken at the place of production prior to shipment. Samples of the finished project for gradation testing shall be taken from each 1,500 tons of prepared materials or more often as determined by the ENGINEER, if variation in gradation is occurring, or if the material appears to depart from the Specifications. Test results shall be forwarded to the ENGINEER within 48 hours after sampling.

3. If tests conducted by the CONTRACTOR or the ENGINEER indicate that the material does not meet Specification requirements, material placement will be terminated until corrective measures are taken. Material that does not conform to the Specification requirements and is placed in the work shall be removed and replaced at the CONTRACTOR'S sole expense. Sampling and testing performed by the CONTRACTOR shall be done at the CONTRACTOR'S sole expense.

PART 3.0 EXECUTION

3.1 LINE AND GRADE

A. Installation of the pipe shall be in accordance with the manufacturer and either AASHTO Section 30 or ASTM Recommended Practice D2321.

B. Do not deviate from line or grade, as established by the ENGINEER, more than 1/2 inch for line and 1/4 inch for grade, provided that such variation does not result in a level or reverse sloping invert. Measure for grade at the pipe invert not at the top of the pipe because of permissible variation in pipe wall thickness.

C. All storm sewers shall be laid using a laser accepted by the ENGINEER. The beam shall be directed through the pipe. Batter boards or instrument laying will not be permitted. The laser shall be constantly shielded from the direct sun.

D. The CONTRACTOR shall set offset stakes or other accepted method of controlling alignment and grade for excavation of trenches and for pipe laying. The CONTRACTOR shall submit in writing his proposed method of establishing line and grade to the ENGINEER for acceptance.

3.2 LAYING AND JOINTING PIPE AND FITTINGS

A. Do not permit mud and foreign material to get into the pipe. During laying operations, do not permit debris, tools, clothing, or similar items to be placed in pipes.

B. Pipe laying shall proceed upgrade with ends pointing in the direction of flow. After a section of pipe has been lowered into the trench, clean the ends of the pipe. Be careful in handling pipe to prevent breakage. Remove any pipe damaged and replace at the CONTRACTOR's sole expense.

C. Make assembly of the joint in accordance with the recommendations of the manufacturer of the type of joint used. Provide all special tools and appliances required for the jointing assembly.

D. After the joint has been made, check pipe for alignment and grade. The trench bottom shall form a continuous and uniform bearing and support for the pipe at every point between joints. Apply sufficient pressure in making the joint to assure that the joint is "home," as defined in the standard installation instructions provided by the pipe manufacturer. To assure proper pipe alignment and joint makeup, place sufficient pipe zone material to secure the pipe from movement before the next joint is installed. Pipe 21 inches and smaller shall be laid so the inside joint space does not exceed 3/8 inch in width.

E. Take the necessary precautions required to prevent excavated or other foreign material from entering the pipe during the laying operation. At all times, when laying operations are not in progress, at the close of the day's work, or whenever the workmen are absent from the job, close and block the open end of the last laid section of pipe to prevent entry of foreign material or creep of the gasketed joints.

F. Take all precautions necessary to prevent the "uplift" or floating of the line prior to the completion of the backfilling operation.

3.3 BACKFILL AT THE PIPE ZONE

A. The pipe zone shall be considered to include the full width of the excavated trench from the bottom of the pipe to a point 12 inches above the outside surface of the barrel of the pipe or to elevation plus 2.5 feet NGVD, whichever is higher.

B. Pipe zone material as hereinbefore specified shall be used for the full depth of the pipe zone and for the full width of the excavated trench for all pipe.

C. Hand place the material around the pipe in horizontal 6 inch layers and thoroughly hand tamp with accepted tamping sticks supplemented by "walking in" and slicing with a shovel. Backfill the area of the pipe zone from the horizontal centerline to a point 12 inches above the top outside surface of the barrel of the pipe with pipe zone material. Use particular attention in placing material on the underside of the pipe to provide a solid backing and to prevent lateral movement during the final backfilling procedure.

D. DETECTION TAPE shall be used above every underground pipe.

3.4 MATERIALS TESTS AND INSPECTIONS

A. Deflection Test: All PVC and ADS gravity stormwater pipes shall be tested for deflection after installation and backfill by pulling a round plug equal to 95.0 percent of pipe base inside diameter, as defined in the Appendices of ASTM D3034, through the completed pipeline. The mandrel shall be of a design that provides an accurate measure of excess deflection regardless of orientation. Mandrel testing shall be performed not less than 30 days after complete pipe installation.

B. Lamping Test: City to perform Lamping test of all the installed stormwater pipes, prior to establishing flow to the associated gravity injection well, to verify the alignment and condition of the pipe. The lamp test shall be performed only after the contractor has completely cleaned the line to the satisfaction of the City. Should the lamp test indicate an alignment problem, the City shall be the sole judge of the need for replacement. The contractor shall supply all the equipment and labor necessary for the lamping (i.e. lamps, ladders).

3.5 CONNECTING TO EXISTING PIPING AND EQUIPMENT

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

B. At the time that a new connection is made to an existing pipeline, additional new piping, extending to and including the most convenient ne valve, shall be installed.

C. Where necessary or required for the purpose of making connections, the CONTRACTOR shall cut existing pipe lines in a manner to provide an approved joint. Where required, he shall weld beads, flanges or provide couplings or special pieces as needed.

D. Where connections are to be made to existing piping, or when existing piping and fittings are to be reused in the work, the pipe and fittings shall be sand blasted, cleaned and mating surfaces shall be properly prepared. CONTRACTOR may not reuse bolts, nuts, washers or gaskets, and shall instead replace with new.

3.6 FINAL STORM SEWERS CLEANING

A. Prior to final acceptance and final structure to structure inspection by the ENGINEER of the storm sewers system, completely flush or clean all parts of the system. Remove all accumulated construction debris, rocks, gravel, and other foreign material from the storm sewers system at or near the closest downstream manhole. If necessary, use mechanical rodding equipment to remove accumulated mud, silt, and all other deposits from the storm sewer system at no additional cost to the OWNER.

B. Upon the ENGINEER's final structure to structure inspection of the storm sewers system, if foreign matter and other construction debris are still prevalent in the system, reflush and clean the sections and portions of the lines as required.

PART 4 PAYMENT

4.1 GENERAL

A. Payment for the work in this section will be included as part of the unit price bid amount stated in the BID.

B. No final payment will be made until all the correspondent Certificates and test results are submitted for approval.

END OF SECTION

SECTION 02726
MANHOLE AND MISCELLANEOUS CONCRETE CONSTRUCTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Work necessary for construction of manholes, and manhole liner, baffle boxes, plugging abandoned sewers and miscellaneous concrete, complete. Manhole and baffle box details are as shown on Drawings.

B. The CONTRACTOR shall verify all existing manholes and incoming and outgoing sewer diameters and invert elevations prior to ordering new manholes and baffle boxes.

C. Manholes and baffle boxes specified shall be for storm sewers and sanitary sewers.

D. Provide Gasket ADS Pipe Adapter flexible watertight connection for ADS Corrugated HDPE Pipe to storm structures, or approved equal ADS Pipe Adapters meeting the requirements of ASTM F 2510 and ASTM C 1478 for watertight flexible connections.

1.2 SUBMITTALS

A. Unless designated an emergency the CONTRACTOR shall submit for review a detailed CAD drawing for each type of structure used on the project. All structures shall be H-20 rated. These drawings shall detail the precast structure, per the designs specified for the project, and shall show the concrete protective liner's placement on interior surfaces, across joints, at pipe connections, and at the adjustment area between manhole and casting.

1.3 SHOP DRAWINGS

A. Precast Manholes and Baffle Boxes: Details of construction.

B. Precast Base Sections: Details of construction.

C. Conflict Manholes over Existing Sewers: Plans and schedule for diverting sewage flow.

1.4 QUALITY CONTROL SUBMITTALS

A. Precast manhole and Baffle Box Sections: Manufacturer's results of tests performed on representative sections to be furnished.

PART 2 PRODUCTS

2.1 BASE ROCK

A. Base rock shall be crushed gravel or crushed rock, free from dirt, clay balls and organic material and conforming to size No. 57 stone gradation as specified in the Standard

Specifications or similar accepted material and shall be imported if necessary at the Contractor's own expense. Lime rock screenings or material resulting from trench excavation, except for lime rock, which has been crushed and graded to size, as specified, will not be accepted for base rock.

2.2 CONCRETE

A. Concrete structures shall meet the requirements of FDOT 400; Concrete structures.

B. FLOWABLE FILL

1. 28-day compressive field strength 500 psi..
2. Aggregate gradations must be submitted for review and approval. Maximum size # 4 stone.
3. Slump Range: Flowable
4. Concrete Content: 6.5 cwt / cubic yard.
5. Water Cement Ratio: 0.65 range 0.6 to 0.7.

2.2 FORMS

A. Forms shall be conformance with Section 425 of FDOT Standard Specifications for Road and Bridge Construction.

2.3 REINFORCING BARS

A. Concrete structures shall meet the requirements of FDOT 400; Concrete structures.

B. Repair damaged epoxy coating per Article 3.5 of Catch Basin Section.

2.3 MORTAR

A. Rapid Set Mortar mix or equal

2.4 REINFORCING BARS

A. Epoxy Coated Rebar is not required to be used in the pre-cast structures. The rebar must be oxidation free. A submittal from the pre-cast company that the rebar is oxidation free is required

2.5 PRECAST MANHOLE SECTIONS

A. Precast manhole sections shall be minimum 48 inches in diameter, conforming to ASTM C478. Precast sections shall meet the permeability test requirements of ASTM C14. Minimum wall thickness shall be 4 inches. All manholes shall have epoxy-coated reinforcing bars. All manholes of less than 5 feet of depth shall have either flat top covers or concentric cones. Cones shall have same wall thickness and reinforcement as manhole section. Top and bottom of all sections shall be parallel. The Contractor's attention is directed to Paragraph MORTAR herein before.

2.6 PRECAST BASE SECTIONS AND BASES

A. At the option of the Contractor, precast base sections or manhole bases may be used provided the Engineer approves all details of construction. Base sections shall have the base slab integral with sidewalls. Base slab shall be 6 inches thick with No. 4 epoxy-coated reinforcing bars, 8-inch centers, both directions in center of slab. Tie reinforcing steel to wall steel.

2.7 PRECAST BAFFLE BOX SECTIONS

A. Precast manhole sections shall size shall be as specified on the drawings, conforming to ASTM C478. Precast sections shall meet the permeability test requirements of ASTM C14. Minimum wall thickness top, bottom, and sides shall be 8 inches. All manholes shall have epoxy-coated reinforcing bars. Reinforcing bars shall be 3” minimum from the edge. Top and bottom of all sections shall be parallel. The Contractor's attention is directed to Paragraph MORTAR herein before. Baffle Boxes shall support H20 loading.

2.8 MANHOLE AND BAFFLE BOX EXTENSIONS

A. Concrete grade rings shall be H-20 rated and for extensions shall be a maximum of 6 inches high and shall be approved by Engineer before installation.

B. HDPE adjustment rings shall be H-20 Rated and shall be approved by Engineer before installation

C. Clay Brick and Shale Brick. This brick shall meet the requirements of AASHTO M 114, for Grade MW. and shall be approved by Engineer before installation

D. Concrete Brick. Concrete brick shall meet the requirements of ASTM C 55 for Grade S-I, and shall be approved by Engineer before installation

In general, manhole and baffle box extensions will be used on all manholes in roads or streets or in other locations where a subsequent change in existing grade may be likely. Extensions will be limited to a maximum height of 12 inches. Finish grade for manhole covers shall conform to finished ground or street surface unless otherwise directed by the Engineer. The Contractor will be responsible for coordinating with the Engineer and Owner to determine the finish grade for manhole and baffle box covers and will make all adjustments necessary to bring manhole covers to that grade. Extensions shall lined with polypropylene and be watertight. Extensions shall meet the H-20 load rating; brick is used contractor is required to submit a shop drawing with an 18 inch concrete collar 4000 PSI 1-6 inches thick. Brick shall be installed using Rapid Set Mortar Mix or equal. This cost shall be incidental to the cost of installing the structure. Masonry unit’s manufacturer shall submit six test certificates furnished to the Engineer. Such certificates shall be signed by an authorized agent of the manufacturer, and identified by project number.

2.9 BAFFLE BOX / MANHOLE FRAMES AND COVERS:

A. Cast iron of size and shape detailed on the Drawings. Covers shall have the word STORM SEWER, as appropriate, in 2-inch raised letters. Castings shall be tough, close-grained gray

iron, sound, smooth, clean, free from blisters, blowholes, shrinkage, cold shuts, and all defects, and shall conform to ASTM A-48, Class 30B. Plane or grind bearing surfaces to ensure flat, true surfaces. Covers shall be true and seat within ring at all points.

2.10 WATERTIGHT

A. Provide water tight manhole ring and covers, and extensions.

B. Provide ADS Pipe Adapter flexible watertight Waterstop connection with pipe adapter for ADS Corrugated HDPE Pipe to storm structures, or approved equal ADS Pipe Adapters meeting the requirements of ASTM F 2510 and ASTM C 1478 for watertight flexible connections. Rapid set mortar shall be used with potable water; ground water shall not be used.

2.11 NUTRIENT SEPARATING BAFFLE BOX

A. Nutrient Separating Baffle Box and associated cage screen, skimmer, well screen, and turbulence deflectors, shall be as manufactured by Suntree Technologies, Inc., Cocoa, Fl.

B. Hydrocarbon boom shall be Type 4 Polymer Absorbent as specified by Suntree Technologies, Inc., Cocoa, Fl. or approved equal.

C. Baffle boxes requiring catch basin – frames and grates shall be USF # 4160-6611 galvanized; cost shall be included in the bidder's proposal. Note; all grates are required to be galvanized.

PART 3 EXECUTION

3.1 EXCAVATION AND BACKFILL

A. As specified in Section 02221 TRENCH EXCAVATION AND BACKFILL.

B. Backfill around Manholes and Baffle Boxes: Use highest class of trench backfill immediately adjacent, as shown on the Drawings.

3.2 BASE ROCK

A. Remove water from the excavation.

B. Place minimum of 6 inches of rock base in conformance to Section 901.2 of the FDOT Standard Specifications for Road and Bridge Construction and thoroughly compact with a mechanical vibrating or power tamper.

3.3 EXTERIOR DAMAGE

A. The CONTRACTOR is to repair any damage to the manhole using Rapid Set Mortar Mix in accordance with the manufacturer's recommendations.

3.4 PRECAST CONCRETE BASE

A. Construct concrete base in conformance with the details shown on the applicable Work Order Drawings.

B. Vibrate to density concrete and screed so first precast manhole section to be placed has a level, uniform bearing for full circumference.

C. Deposit sufficient mortar on base to assure watertight seal between base and manhole wall, or place first precast section of manhole in concrete base before concrete has set. Properly locate and plumb first section.

D. If material in bottom of trench is unsuitable for supporting manhole, excavate below the base as directed by Engineer, and backfill to required grade with rock, as specified in Section TRENCH EXCAVATION AND BACKFILL, Article FOUNDATION STABILIZATION. Payment to be made as Paragraph FOUNDATION STABILIZATION in Section TRENCH EXCAVATION AND BACKFILL.

E. Precast Concrete Base Sections or manhole bases shall be provided and shall conform to all details of construction approved by the ENGINEER. Base sections shall have the base slab integral with sidewalls. Base slab shall be 8 inches thick with No. 4 reinforcing bars, 8-inch centers, in both directions in center of slab. Tie reinforcing steel to wall steel.

F. Precast base shall be set and leveled at its proper location before closure of that run of pipe is made. Precast manhole shall not be moved or set into the new sewer pipe spigot end.

G. After base installation, grout the gap in the manhole between the stub-out pipe invert and the precast channel with non-shrink grout.

3.5 PLACING PRECAST MANHOLE SECTIONS

A. Section Installation:

1) Thoroughly clean ends of sections to be joined.
2) Thoroughly wet joint with water prior to placing mortar.
3) Place mortar on groove of lower section.
4) Set next section in-place.
5) Fill joint completely with mortar of proper consistency.
6) Trowel interior and exterior surfaces smooth on standard tongue-and-groove joints.
7) Prevent mortar from drying out and cure by applying an approved curing compound or comparable approved method.
8) Do not use mortar mixed for longer than 30 minutes.
9) Chip out and replace cracked or defective mortar.
10) Completed Manholes: Rigid and watertight.

B. Preformed Plastic Gaskets: Install in accordance with manufacturer's instructions and the following:

1) Carefully inspect precast manhole sections to be joined.

2) Do not use sections with chips or cracks in the tongue.
3) Use only pipe primer furnished by gasket manufacturer.
4) Install gasket material in accordance with manufacturer instructions.
5) Fusion weld top and bottom 2-inch minimum wide strip over each section joint, where required.
6) Completed Manholes: Rigid and watertight.

3.6 GRADE ADJUSTMENTS

A. Construct brick masonry on top of manhole slabs or precast concrete manhole cones to provide grade adjustment in setting manhole frames (H-20 load rating shall be maintained) .

3.7 REPAIR OF DAMAGED REINFORCING BARS

A. Damaged reinforcing bars shall be repaired with patching material conforming to ASTM A775. Repair shall be done in accordance with the patching material manufacturer's recommendations.

3.8 SETTING MANHOLE FRAMES

A. Set manhole frames and covers to conform accurately to the finished ground or pavement as shown or as directed by the Engineer. Set frames on manholes concentric with the masonry and in a full bed of mortar so that the space between the top of the manhole masonry and the bottom flanges of the frame will be completely filled and made watertight. Place a ring of mortar around the outside of the bottom flange at least 1-inch thick and pitched to shed water away from the frame. Extend mortar to the outer edge of the masonry and finish smooth and flush with the top of the flange.

3.9 FLEXIBLE JOINTS

A. Provide coupling joints in ADS and PVC pipe sewers not more than 5 feet from manhole walls. Lay pipes entering manholes on firmly compacted base rock to undisturbed earth. Base rock shall be as specified herein before.

3.10 MANHOLE EXTENSIONS

A. Install extensions in conformance with the details shown on the Drawings, and to height determined by Engineer. Lay grade rings in mortar with sides plumb and tops level. Seal joints with mortar as specified for manhole sections. Extensions shall be watertight.

3.16 MANHOLE FRAMES AND COVERS

A. Install frames and covers on top of manholes to positively prevent all infiltration of surface or groundwater into manholes. Frames shall be set in a bed of mortar with the mortar carried over the flange of the ring as shown in the Manhole Details on the Drawings. Set frames so tops of covers are flush with surface of adjoining pavement or ground surface, unless otherwise shown or directed.

3.17 BAFFLE BOX COMPONENTS

A. Cage screen, turbulence deflectors, wells screen, skimmer, and hydrocarbon boom shall be installed by Suntree Technologies representative. Contact Suntree Technologies, Cocoa, Florida (321 637-7552) to coordinate installation.

3.18 CONFLICT MANHOLES

A. Construct conflict manholes in conformance with applicable parts of these Specifications.

3.21 REMOVAL OF EXISTING MANHOLES

A. When an existing manhole is removed or abandoned and the frame and cover are removed, they will remain as the property of the City, or condemned, in which case they will be removed by the Contractor from the project site.

3.22 REMOVAL AND ABANDONMENT OF EXISTING MANHOLES

A. When an existing manhole is removed, the CONTRACTOR shall remove and properly dispose of all sections, base slab, and old sewage pipe. The frame and cover shall remain as the property of the City and delivered to a site designated by the City.

B. Abandonment of existing manholes shall be accomplished by removing and disposing of the top section to a minimum of 4 feet below grade, plugging pipe connections with non-shrink grout, backfilling and compacting the remainder of the manhole and with FDOT No. 57 stone fill.

C. All material removed shall be satisfactorily disposed of by the CONTRACTOR at their expense.

3.23 ADJUSTING EXISTING MANHOLES

A. Install extensions to finished grade. Lay grade rings in mortar with sides plumb and tops level. Seal joints with mortar as specified for manhole sections. Extensions shall be stainless steel and watertight.

3.24 TESTING

A. Hydrostatic Testing:

1. Hydrostatically test all project manholes.

2. Procedure: Plug inlets and outlets and fill manhole with water to height determined by Engineer.

3. Where practical, a manhole may be filled 24 hours prior to time of testing, if desired, to permit normal absorption into the pipe walls to take place.

4. Leakage in each manhole shall not exceed 0.1 gallon per hour per foot of head above the invert.

5. Repair manholes that do not meet the leakage test, or do not meet specified requirements for visual inspection.

PART 4 PAYMENT

4.1 MANHOLES

A. Payment for work necessary to construct manholes will be included in the Unit Price each stated in the BID for manholes in the respective depth increments. Payment shall include excavation and backfill and all labor and materials to complete the work including the required number of connections of the new storm sewer replacement pipe to the manhole.

B. Manhole depths will be measured from top of manhole frame and cover to the lowest sewer pipe invert elevation indicated for the manhole. Depth will be to the nearest foot. Payment well include compensation for a complete manhole including base, frame and cover, ring extensions, benches, channels, removal and disposal of existing manhole, connections to new sewer mains, and incoming pipes, temporary pavement and pavement replacement, and for over-excavating and placing the compacted 6-inch layer of base rock under concrete base.

C. No differentiation for payment will be made for constructing manholes over existing sewers.

4.2 BAFFLE BOXES

A. Payment for work necessary to construct baffle boxes will be included in the Unit Price each stated in the BID for Baffle Box with Injection Well in the respective depth increments. Payment shall include excavation and backfill and all labor and materials to complete the work including the required number of connections of the new storm sewer replacement pipe to the manhole.

B. Baffle Box depths will be measured from top of manhole frame and cover to the bottom of structure elevation indicated for the Baffle Box. Depth will be to the nearest foot. Payment well include compensation for a complete baffle box including base, frame and cover, ring extensions, benches, skimmers, cage screen, hydrocarbon boom, turbulence deflectors, well screen, hatches, manhole covers, channels, removal and disposal of existing manhole, connections to new sewer mains, and incoming pipes, temporary pavement and pavement replacement, and for over-excavating and placing the compacted 6 to 12-inch layer of base rock under concrete base. Internal metal components shall be stainless steel 316.

4.3 WATERTIGHT MANHOLE FRAME AND COVERS

A. Payment for the additional cost to provide watertight manhole frame is incidental.

4.4 CONFLICT MANHOLES

A. Payment for conflict manholes will include payment for all work necessary to construct the manholes, except as specifically indicated in this paragraph. Payment for conflict manholes will be based on the price stated in the Contractor's Proposal for conflict manholes 6 feet deep, plus the unit price per foot stated in the Contractor's Proposal for extra depth of conflict manholes over 6 feet, including extensions if required. No deduction will be made from the conflict manhole price for depths less than 6 feet. Manhole depths will be measured from the top of the manhole frame and cover to the manhole invert at the center of the manhole. The depth will be to the nearest foot, as measured by the Engineer. Payment shall include compensation for a complete manhole including the base, frame and cover, and ring extensions, the connections for connecting dissimilar gravity sewer pipe per the Detailed Drawings, and for over excavating and placing the compacted 6-inch layer of base rock under the concrete base. Payment for the ductile iron pipe will be made separately and will be based on the unit price in the BID for the size installed for DIP Gravity Sewer Pipe. Payment will be for the actual length installed.

4.5 REMOVAL OF EXISTING MANHOLES

A. Payment for the removal of existing manholes, regardless of depth, will be based on the unit price for each manhole removed as stated in the Contractor's Proposal. Payment shall constitute full compensation for all work required to remove each existing manhole, complete, as specified.

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SECTION 02900
GENERAL TREE PLANTING AND MAINTENANCE

PART 1 PLANTING

A. Site factors which influence long-term survivability should be considered: overhead and underground utilities, sidewalks, signage conflicts, traffic visibility, light poles etc.

B. All synthetic or non-degradable material such as nylon rope or treated burlap should be removed from the root ball prior to planting. All material including biodegradable material should be removed from the upper 1/3 of the ball. Prevent remaining pieces from extending above the soil or they can act as wicks, drying the soil.

C. If trees are planted with wire baskets around the root ball, it is recommended that the top two tiers of wire are cut and removed after the ball is set in the hole.

D. Prepare a hole at least 3-5 times the diameter of the root ball and the same depth as the root ball.

E. Position the tree in the center of the hole with the top of the soil ball even with the surrounding ground.

F. Backfill with soil from planting site if the soil is not contaminated. All large rocks should be removed. When hole is half full slowly water to saturate soil and then continue to fill the hole.

G. Water thoroughly to: remove air pockets, secure the soil around the roots, and provide nourishment.

H. Rake soil evenly around entire planting area.

PART 2 MULCHING

A. Mulch an area at least 3 times the diameter of the root ball to a depth of 2-4" with wood chips, bark mulch, shredded mulch leaves, or pine needles.

B. Replenish mulch as it decomposes.

PART 3 STAKING

A. Stake only if necessary. For example, if the tree will not stand on its own, or to prevent wind throw damage or vandalism or as directed by ENGINEER.

B. Do not use wire even if wire is inside of garden hose.

C. Use flexible materials such as strapping or commercially available ties that give as the tree diameter increases. Biodegradable material is recommended.

D. Stakes and ties should remain no longer than 1 year to avoid girdling the tree.

PART 4 PRUNING

A. At the time of planting dead, damaged, and rubbing or cross branches can be removed.

B. Remove sucker sprouts from the base of the tree.

C. Do not remove more than 1/3 of the crown at any time.

D. Corrective pruning can begin after one year of establishment in the new location.

PART 5 MAINTENANCE

A. Begin maintenance immediately after installation. Inspect trees at least once a week during the installation and establishment period. The establishment date shall commence on the date that the inspection by the City shows that the tree furnished under this contract has been satisfactory installed and shall continue for a period of 120 days.

B. Establish a regular watering schedule. Slow deep watering is recommended. Ensure to water on an as needed basis during extremely hot or dry periods. As tree growth progresses, be sure to water the surrounding soil area to promote root spread. Some species of trees or sites may need more frequent or less frequent watering. Soil moisture and tree health should be monitored and watering adjusted accordingly. Non-irrigated sites typically need to be monitored more closely.

C. Provide landscape maintenance to include fertilizing, watering, weeding, pruning and stake and guy adjusting, pesticide and nuisance control for all newly installed trees for the establishment period.

D. Final inspection and acceptance will be made upon written request from the Contractor at least ten (10) days prior to the last day of the Tree establishment period. The warranty period of two years shall begin at the establishment date.

PART 6 TREE REMOVALS

A. Completely remove trees, tree roots as directed by the city and dispose of properly.

B. PART 7 PAYMENTS / WARRANTY

A. Unit prices and payment will be full compensation for tree transplanting, new tree planting and tree removal; shall include installation of tree, all materials, equipment and labor necessary to plant the trees, and all maintenance and perform tree removal and disposal as directed. The unit price for each new tree will be determined by adding 25% to the Supplier's invoice.

B. The contractor shall replace any tree that fails to establish properly during the establishment period with 3 weeks of being notified.

C. The Contractor shall replace trees that do not survive the warranty period; replaced trees shall have the same maintenance period and new period of warranty as the original.

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SECTION 02930
FINISH GRADING AND GRASSING

PART 1 GENERAL

1.1 WORK INCLUDED

A. This section covers the work necessary for establishing a stand of grass, including furnishing and placing of grass sod, and fertilizing, watering, and maintenance of sodded areas.

B. See CONDITIONS OF THE CONTRACT and Division 1, GENERAL REQUIREMENTS, which contain information and requirements that apply to the work specified herein and are mandatory for this project.

C. Areas disturbed by the CONTRACTOR whether inside or outside the limits of the trench area shall be restored in accordance with this section. Areas outside the limits of trench shall be restored at the CONTRACTORS' sole expense.

1.2 SUBMITTALS

A. Shop Drawings: Product labels/data sheets.

B. Quality Control Submittals: Certification of sod, include source harvest date of sod and sod seed mix.

PART 2 PRODUCTS

2.1 FERTILIZER

A. Commercial Fertilizer: A complete plant food containing 12 percent nitrogen, 8 percent available phosphoric acid, and 8 percent potash at least 50 percent of the phosphoric acid shall be from normal super phosphate or an equivalent source which will have a minimum of two units of sulfur. The fertilizer shall be uniform in composition, dry, free flowing, and delivered in original, unopened containers bearing manufacture's guaranteed analysis.

2.2 SOD

A. Sod shall be grown by a certified turf nursery. The CONTRACTOR shall inform the owner as to the source of the sod to be used prior to ordering and delivery of sod.

B. Sod shall be St. Augustine Floratam, free of weeds or growth detrimental to economical maintenance, proper establishment, or appearance of completed turf. It shall be well matted with roots and certified in writing to be free of weeds and mole crickets by the supplier. Mow to height of 3 inches before lifting.

C. Dimensions: The sod shall be taken up in commercial-size rectangles, 12 inches by 24 inches or larger, except where 6-inch strip sodding is called for.

2.3 WATER

A. Water used in the grassing operations may be obtained from FKAA. The CONTRACTOR shall make all arrangements and pay for the cost of all water required for the establishment and maintenance of the grass.

2.4 TOPSOIL

A. Topsoil shall be crushed lime rock screening or tailings of a graduation similar to coarse sand.

PART 3 EXECUTION

3.1 INSTALLATION

A. These areas shall be fine graded to achieve the finished sub-grade 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 re-graded and prepared as specified above until it presents a reasonably smooth and even finish as the required sod sub-grade.

B. All sod furnished shall be living sod containing at least 70 percent of thickly matted grasses as specified and free from noxious weeds.

C. No broken pads or torn or uneven ends will be accepted. Standards 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 owner and shall be removed from the side and a fresh sod supply shall be furnished at no extra cost to the owner.

E. The sub-grade shall not be moist at time of installation; however, it should contain sufficient moisture so as not to 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 stripes, 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 the Engineer. However, sod laid with joints determined to be too large shall be lifted and 43 lay as specified herein at no extra cost to the 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 inches of the topsoil 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 should 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's 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 lack of, or the use of, too much water, shall be the CONTRACTOR'S responsibility to correct.

3.2 MAINTENANCE

A. Maintenance Period: Begin maintenance immediately after each portion of grass is planted and continued for eight (8) weeks after all planting is completed.

B. Maintenance Operations: Maintenance shall include watering as specified, weeding, and removal of any stones that may appear. All bare or dead spots which become apparent shall be properly prepared, limed, fertilized, and re-sodded at CONTRACTOR'S expense as many time as necessary to secure a good growth. Mow to 3 inches after grass reaches 4 inches in height, and mow frequently enough to keep grass from exceeding 3½ inches. Weed by local spot application of selective herbicide only after first planting season when grass is established.

C. 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.

D. If, at the end of the 8-week maintenance period, a satisfactory stand of grass has not been produced, the CONTRACTOR shall renovate and re-sod the grass or unsatisfactory portions thereof immediately.

3.3 INSPECTION FOR ACCEPTANCE

Eight weeks after the star of maintenance on the last section of completed grass and on written notice from the CONTRACTOR, the ENGINEER will, within 15 days of such a written notice, make an inspection to determine if a satisfactory stand has been produced. If a satisfactory stand has not been established, another inspection will be made after written notice from the CONTRACTOR that the grass is ready for inspection following the next growing season.

****

SECTION 03002
CONCRETE CURBS, CONCRETE PLACEMENT AND SIDEWALKS

1. SCOPE

1.1 WORK INCLUDED: This section covers all formed concrete work reinforced and non-reinforced as required by the Project indicated on the plans or specified by the Engineer. **The Contractor is responsible for all site work and construction supervision required to meet ADAAG/ADA specifications when placing concrete.**

1.2 SUBMITTALS DURING CONSTRUCTION:

A. Submittal during construction shall be made as required in PART 4 General Requirements.

1.2.1 SUBMITTALS REQUIRED FOR:

a. Concrete - Submit data sheets
b. Granular fill - Submit data sheets
c. Expansion joint fillers - Submit data sheets
d. Traffic paint - Submit data sheets
e. Asphalt concrete cold patch - submit data sheets
f. Asphalt Hot Mix – submit data sheets
g. Sod - submit data sheets
h. Stamped and Colored concrete-submit data sheets
i. Detectable Warnings System:- submit data sheets
j. Concrete Sealer **-** submit data sheets

2. MATERIALS

2.1 FORMS:

2.1.1 Materials for curb forms shall be 2-inch dressed dimension lumber, fiberglass, or metal of equal strength, free from defects which would impair the appearance or structural quality of the complete curb. Where short-radius forms are required, 1-inch dressed lumber or plywood may be used. Form material for the face of the curb shall not have any horizontal joints closer than 7-inches from the top of the curb. Provide stakes and bracing materials as required to hold forms securely in place. Metal forms shall be subject to approval by the Engineer. Forms are incidental to the Contract Price.

2.1.2 Materials for sidewalk forms shall be 2-inch dressed lumber straight and free from defects or fiberglass or standard metal forms may be used. Where short radius forms are required, 1-inch dressed lumber is required to hold forms securely in place.

2.2 GRANULAR FILL: Natural sand not having any piece of material larger than 1-inch, free from dirt, clay balls, or organic material, well graded from coarse to fine, containing sufficient finer material for proper compaction and less than ten (10) percent by weight passing the No. 200 sieve. Payment shall incidental to the concrete unit Price bid.

2.3 EARTH FILL: Earth must be free from rocks 2-inches or larger and other foreign materials. Earth fill is incidental to contract Prices. Payment shall incidental to the concrete unit Price bid.

2.4 EXPANSION JOINT FILLERS: Expansion joint fillers shall conform to F.D.O.T. Standard Specifications for Road and Bridge Construction 2004. Submit complete information regarding joint fillers for approval by the Engineer. Payment shall incidental to the concrete unit Price bid.

2.5 CONCRETE: Concrete shall be ready-mixed conforming to ASTM C 94, Alternate 2, and shall have a compressive strength of 3,000 psi at 28 days. Maximum size of aggregate shall be 1-inch to 1-1/2 inches. Slump shall between 2 and 4 inches. Submit complete information regarding mix to the Engineer for review in accordance with the requirements of the referenced ASTM Specification. Payment for completed concrete structures shall be paid as bid in the Proposal.

2.6 STAMPED CONCRETE: Stamped Concrete shall be "Increte System" or equal and color shall be "Lambert Southwest Colorhard (dust on) or equal and follow all manufacturer's instructions for installation. Payment shall be per unit price bid.

2.7 COLORED CONCRETE: Colored Concrete shall be "Lambert Southwest's Dry Cement Colors " concrete coloring systems for integral color or equal and follow all manufacturer's instructions for each installation. Payment shall be per unit Price bid.

2.8 DETECTABLE WARNING SYSTEM: Detectable Warning Systems on walking surfaces shall be "Endicott Handicap Detectable Warning Paver" or equal with raised truncated domes and specified color and must meet federal ADAAG guidelines. Payment shall be per unit Price bid.

2.9 CONCRETE SEALING: Shall be "Lambert Clear Colorseal" and "Lambert Waterban 90 Siloxane Resin" or equal and follow all manufacturers' instructions for each installation. Payment shall be per unit Price bid.

2.10 TRAFFIC MARKING PAINT: Traffic marking paint shall conform to F.D.O.T. Specifications Section 971. Paint for curbs shall be Pride Baker Paint brand traffic marking paint or approved equal. Paint and labor shall be incidental to contract price for replacement markings and the unit price bid for new markings.

2.11 ASPHALT: Cold patch asphalt. Asphalt and labor shall be incidental to the contract price for patches surrounding curbs and sidewalks.

2.12 GRASSING: See Finish Grading and Grassing. Sod shall be of the Florentine type, conforming to FDOT Division III Section 981 and Division II Section 575. Payment shall be paid as bid in the Proposal.

2.13 ACCEPTANCE OF MATERIALS: All materials shall be subject to inspection for suitability, as the Engineer may elect, Prior to or during incorporation into the work.

3. WORKMANSHIP

3.1 EXCAVATION AND BACKFILL:

3.1.1 Cut the existing sidewalk regardless of the thickness, with an approved pavement saw or approved pavement cutter wherever sidewalk edges do not follow straight lines. Saw cutting of concrete shall be wet down to reduce air borne contamination. Remove and dispose of sidewalk at the Contractor's expense.

3.1.2 Prior to excavation of the sidewalk the Contractor's superintendent and the Owner's Engineer or designee shall, together, walk the length of the site marking the limits of the excavation and marking any other pertinent information. Paint shall be supplied by the Contractor, incidental to the cost of the Contract.

3.1.3 At the time of each walk through described in Section 3.1.2, each water meter box and sewer cleanout shall be inspected for structural integrity. Those which are deemed in need of replacement at that time will be supplied by the contractor at the unit price bid or the Florida Keys Aqueduct Authority. Those which meet normal structural and functional standards, and are broken by the Contractor during the construction Process shall be replaced by the Contractor at his cost.

a) Sewer cleanout boxes shall be made from 100% homogenous polyethylene material having a minimum wall thickness of .550 inch, a compartment size of 12-inches by 20-inches with a clear opening of 10-inches by 17-inches. Provide knockouts or notches in each end sized to allow placement of a 6-inch PVC pipe inside the box. Vertical crush to exceed 20,000 pounds and sidewall loading to exceed 180 pounds per square inch. A flange shall encircle the top area for installation in concrete. Cleanout covers shall be cast of ductile conforming to ASTM A-536-84, grade 60-40-18.The meter box covers shall meet or exceed Federal specifications RR-F-621D for a minimum Proof load of 25,000 pounds on 9”x 9” area. All boxes and covers shall be manufactured by Mid- States Plastics, Mount Sterling, KY. Florida Master Distributor: Ferguson Water Works (561-844-3222) or approved equal.

b) Water meter boxes shall be Mid- States MS # 15P meter box or equal, covers shall have cast iron reading lid.

3.1.4 As directed by the Engineer remove any unsuitable material to such a depth that the addition of the sub grade and granular fill can be placed and compacted. Unsuitable material shall consist of and not be limited to top soil, wood, root matter, stumps, trunks, roots or root systems. Excavation that cannot be accomplished without endangering present structures shall be performed with hand tools.

3.2 PREPARATION OF SUBGRADE: Bring the areas on which curbs and sidewalks are to be constructed to required grade and compact to 95 percent ASTM D 1557 by sprinkling and rolling or mechanical tamping. As depressions occur, refill with approved material and recompact until the surface is at the proper grade.

3.3 PLACING GRANULAR FILL: After the sub grade for sidewalks and curbs is compacted and at the Proper grade, spread 4-inches or more of granular fill. Sprinkle with water and compact to 95 percent ASTM D 1557 by rolling or other method. Top of the compacted fill shall be at the proper level to receive the concrete. Granular fill shall be used, when needed, to raise the level of grade to allow for proper thickness of concrete. After spreading fill, compact to 95 per cent.

3.4 SETTING FORMS:

3.4.1 Construct forms to the shape, lines, grades, and dimensions as required for proper installation or as called for on the drawings or as directed by the Engineer. Stake wood or steel forms securely in place, true to line and grade.

3.4.2 Forms on the face of the curb shall not have any horizontal joints within seven (7) inches of the top of the curb. Brace forms to prevent change of shape or movement in any direction resulting from the weight of the concrete during placement. Construct short-radius forms to exact radius. Tops of forms shall not depart from grade line more than 1/8-inch when checked with a ten-foot straightedge. Alignment of straight sections shall not vary more than 1/8-inch in ten (10) feet.

3.5 CURB/GUTTER CONSTRUCTION:

3.5.1 Construct curbs to line and grade of curbs and gutters removed, as shown on plans or as established or directed by the Engineer. Curbs shall conform to F.D.O.T. type "D" or "F" or as directed by the Engineer.

3.5.2 Handicap ramps shall be constructed at locations shown on the drawings or as directed by the Engineer and in conformance with legal requirements.

3.5.3 Place preformed asphalt-impregnated expansion joints at intervals not exceeding 100 feet, at the beginning and ends of the curved portions of the curbs and at inlets.

3.5.4 Place contraction joints in the curb at intervals not exceeding fifteen (15) feet. Contraction joints shall be of the open joint type and shall be Provided by inserting a thin, oiled steel sheet vertically into the fresh concrete to force coarse aggregate away from the joint. The steel sheet shall be inserted the full depth of the curb. Place, process, finish and cure concrete in conformance with the applicable requirements of ACI 614, and this Specification. Whenever

the requirements differ, the higher shall govern. After initial set has occurred in the concrete and prior to removing the front curb form, the steel sheet shall be removed with a sawing motion. Finish top of curb with a steel trowel and finish edges with a steel edging tool.

3.5.5 As soon as the concrete has set sufficiently to support its own weight, remove the front form and finish all exposed surfaces. Finish formed face by rubbing with a burlap sack or similar device that will produce a uniformly textured surface, free of form marks, honeycombs and other defects. All defective concrete shall be removed and replaced at the Contractor's sole expense.

3.5.6 Upon completion of the curing period, backfill the curb with earth, free from rocks 2-inches and larger and other foreign materials. Tamp backfill firmly in place.

3.5.7 Finished curb shall present a uniform appearance for both grade and alignment. Remove any section of curb showing abrupt changes in alignment or grade, or which is more than 1/4-inch away from its location as staked, and construct new curb in its place at the Contractor's sole expense.

3.5.8 Upon completion of the curing period fill with asphalt any street side holes or ruts in the asphalt paving that was created by the installation of the sidewalk or the curb. When required by Engineer, saw cut, remove and replace sections as directed.

3.5.9 Where curbs that were painted for legal traffic markings (i.e., loading zones, driveways, no parking zones) prior to construction are removed, replaced, repaired or installed. These and any newly constructed curbs and sidewalks shall be repainted by the Contractor. Painting shall be performed upon completion of the curing period, but not less than seven (7) days have elapsed since pouring the concrete. Curbs are to be painted from the inside edge of the curb to the edge of the pavement.

3.6 SIDEWALK CONSTRUCTION:

3.6.1 Sidewalks shall be four-inches and driveways shall be 6 inches thick as directed by the City.

3.6.2 Place preformed expansion joints as in the adjacent curb, where the sidewalk ends at a curb, around posts, poles, concrete buildings or walls or other objects protruding through the sidewalk, and at locations shown on the Drawings.

3.6.3 Provide dummy joints transversely to the walks at locations opposite the contraction joints in the curb and at intervals not exceeding five (5) feet. These joints shall be 1/4-inch by 1-inch weakened plane joints. They shall be straight and at right angles to the surface of the walk.

3.6.4 Place, process, finish, and cure concrete in conformance with the applicable requirements of ACI 614 and this Specification. Where the requirements differ, the higher shall govern.

3.6.5 Broom the surface with a fine hair broom at right angles to the length of the walk and tool all edges, joints and markings. Mark the walks transversely at five (5) foot intervals with a jointing tool. Protect the sidewalk from damage for a period of seven (7) days.

3.6.6 Sidewalks shall be placed to slope towards the street at a maximum slope of 2% or as otherwise directed by the Engineer.

3.6.7 Where sidewalks or curbs which were painted for legal traffic markings (i.e., loading zone, driveways, no parking zones) are removed and replaced with new curb or sidewalk or repaired, the Contractor shall be responsible to paint the new portions of the curbs or sidewalks in accordance with Section CURB CONSTRUCTION 3.5.9.

3.6.8 Upon completion of the curing period fill with asphalt, any street side holes or ruts in the asphalt paving that were created by the installation of the curbs or sidewalks.

3.7 GRANITE CURB RESTORATION:

3.7.1 Granite Curb Restoration shall take place in locations as directed by the Engineer.

3.7.2 The existing granite curb shall be removed from the ground and stored in a manner to preserve their quality and quantity as specified in the General Requirements. The Contractor shall be solely and directly responsible to the Owner for any curbing removed during the contract period.

3.7.3 After curb removal excavation and backfill shall be performed as specified in Specifications Section 3.1 through 3.4.

3.7.4 Curbing shall be reset, prior to sidewalk pour, as specified in the drawings, or as otherwise directed by the Engineer.

3.7.5 Any pavement disturbed by curb restoration shall be repaired as specified in Section 3.5.8

3.7.6 Curbs that were painted with legal traffic markings (i.e., loading zones, driveways) prior to removal shall be repainted as directed by the City.

3.8 GRASSING

3.8.1 Grassing shall take place in locations as directed by the Engineer. All grassing shall be sodding.

3.8.2 Sodding: Before sod is laid, correct soft spots and inequalities in grade of prepared bed. Lay so that no voids occur and tamp or roll, brush or rake granular fill with no lumps or stones larger than 3/4-inch over sodded area, water sod thoroughly. Complete sod surface true to finished grade, even and firm.

3.8.3 Maintenance:

1. Maintenance period: Begin maintenance immediately after each portion of lawn and grass is planted and continue for 8 weeks after all lawn planting is completed.

2. Maintenance Operations: Water to keep surface soil moist. Repair washed out areas by filling with topsoil, liming, fertilizing and seeding. Mow to 3 inches after grass reaches 4 inches in height, and mow frequently enough to keep grass from exceeding 3½ inches. Weed by local spot application of selective herbicide only after first planting season when grass is established.

3.8.4 Guarantee:

1. If, at the end of the 8-week lawn maintenance period, a satisfactory stand of lawn or grass has not been produced, the Contractor shall renovate and reseed the lawn or grass or unsatisfactory portions thereof immediately.

2. A satisfactory stand is defined as a lawn or grass or section of lawn or grass that has:
   a. No bare spot larger than 3 square feet.
   b. not more than 10 percent of total area with bare spots larger than 1 square foot.
   c. Not more than 15 percent of total area with bare spots larger than 6 inches square.

3.8.5 Inspection for Acceptance: Eight weeks after the start of maintenance on the last section of completed lawn, and on written notice from the Contractor, the Engineer will, within 15 days of such written notice, make an inspection to determine if a satisfactory stand has been produced. If a satisfactory stand has not been established, another inspection will be made after written notice from the Contractor that the lawn is ready for inspection following the next growing season.

3.9 STAMPED AND COLORED CONCRETE

3.9.1 STAMPED CONCRETE: Stamped Concrete shall be "Increte Tactile Concrete" system or equal and shall use "Lambert Southwest Colorhard" (dust on) color or equal and follow all manufacturer's instructions for installation and sealing. All handicap ramps shall meet all federal ADAAG /ADA guidelines.

3.9.2 COLORED CONCRETE: Colored Concrete shall be "Lambert Southwest's Dry Cement Color" concrete coloring system for integral color or equal and follow all manufacturers' instructions for each installation and sealing. All colors listed in the Proposal shall, in the Engineer's opinion, match the colors on the manufacturer's color charts.

3.9.3 DETECTABLE WARNING SYSTEM: Detectable Warning Systems on walking surfaces shall be "Endicott Handicap Detectable Warning Pavers" or equal with raised truncated domes and specified color or equal and follow all manufacturers' instructions for installation and sealing and meet federal ADAAG guidelines.

3.9.4 CONCRETE SEALING: Shall be Lambert Colorseal and /or Lambert Waterban 90 Siloxane Resin or equal and follow all manufacturers' instructions for each installation.

4. PAYMENT:

4.1 GENERAL: Payment for the work in this section will be included as part of the applicable unit prices stated in the Contractor's BID, except where work is considered incidental to the contract price. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work specified in this contract.

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Attachments

Florida Department of Environmental Protection

Twin Towers Office Bldg., 2600 Blair Stone Road,
Tallahassee, Florida 32399-2400

DEP Form No:	62-528.900(3)
Form Title:	Construction/Clearance Permit Application for Class V Well
Effective Date:	
DEP Application No.:	(Filled in by DEP)

CONSTRUCTION/CLEARANCE PERMIT APPLICATION FOR CLASS V WELL

(Depending on the nature of proposed injection well system, the Department may require the use of Form 62-528.900(1), F.A.C., in lieu of this form.)

In compliance with Chapter 403, Florida Statutes, the undersigned water well contractor applies for a permit and approval from the Department of Environmental Protection for the installation of a Class V well on the following property owned by:

Corporation or Owner's Name

Facility Name | SIC Code

Facility Address | City | County | Zip (00000)

Latitude/Longitude | Type of Discharge

It is understood that the Department reserves the right, under the Statutes, to revoke the permit should this well at any time contaminate or otherwise affect other waters in the vicinity, or for other cause.

OWNER OR AUTHORIZED REPRESENTATIVE*(circle one)

Name and Official Title (printed or typed)

Street | City | State | Zip | Telephone No.

Owner or Authorized Representative's* Signature | Date

*Attach letter of authorization.

WATER WELL CONTRACTOR:

Water Well Contractor's Name, Title and State License Number (printed or typed)

Street | City | State | Zip | Telephone No.

Water Well Contractor' s Signature | Date

DEP Form No:	62-528.900(3)
Form Title:	Construction/Clearance Permit Application for Class V Well
Effective Date:	
DEP Application No.:	_____ (Filled in by DEP)

PROJECT DESCRIPTION

Type of Class V Injection Well: (Indicate number of each well type)

Group 1

A/C Return Flow Wells _____

Cooling Water Return Flow Wells, Closed-looped System _____

Group 2

Connector Wells _____

Recharge Wells _____

Group 3

Wells Receiving Domestic Waste _____

Group 4

Laundry Waste Wells _____

Other Non-hazardous Industrial or Commercial Disposal Wells (explain) _____

Group 6

Lake Level Control Wells _____

Stormwater Drainage Wells _____

Group 7

Aquifer Storage and Recovery Wells _____

Group 8

Swimming Pool Drainage Wells _____

Other Wells (explain) _____

Description and Use of Proposed Injection System:

(If the proposed well is to receive stormwater, a drainage plan of the area draining to the well should be included. The drainage plan should illustrate any septic tanks, landfills, farm operations or other installations and/or landscape features which could contribute to stormwater contamination.)

_____

_____

_____

Nature and Volume of Injection Fluid:

(The Department may require an analysis, including bacteriological analysis, in accordance with Rule 62-528.635, F.A.C.)

_____

_____

Proposed Pretreatment: _____

_____

Include a plot plan showing location of well(s).

Well Design and Construction Details:

(Complete for each well and for multi-casing configurations or unusual construction provisions. An elevation drawing of the proposed well should be included.)

Proposed Total Depth: _____ feet Depth of Casing(s): _____ feet

Diameter of Well: _____ inches Type of Casing:

Cement: Type _____ _____ PVC _____ Steel

Depth _____ _____ Other _____ None

Thickness _____

Water Supply Wells:

When required by Rule 62-528.635, F.A.C., attach a map section showing the locations of all water supply wells within a one-half (1/2) mile radius of the proposed well. The well depths, and casing depths should be included. When required by Rule 62-528.635, F.A.C., results of bacteriological examinations of water from all water supply wells within one-half (1/2) mile and drilled to approximate depth of proposed well should be attached.

Area of Review: (if required)

Include the proposed radius of the area of review with justification for that radius. Provide a map showing the location of the proposed injection well or well field area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water systems, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.

_____

_____

_____

DEP Form No:	62-528.900(3)
Form Title:	Construction/Clearance Permit Application for Class V Well
Effective Date:	
DEP Application No.:	_____ (Filled in by DEP)

INSPECTION REPORT ON CLASS V WELL
(for agency use only)

THE FOLLOWING REPORT OF INSPECTION TO BE COMPLETED BY: _____

_____

_____

Local Program/Water Management District

This is to certify that I have this _____ day of _____ 19___, investigated this application for a permit, and recommend (a) approval (b) disapproval for the following reasons:

_____

_____

_____

_____

_____ Date

_____ Signature

_____ Name and Title (Please Type)

EAST FRONT STREET FLOOD MITIGATION
Pre-Bid Resolution

The Contractor must read, understand, and acknowledge that the following changes and/or additions to the General Specifications for the City of Key West have been made for the East Front Street Flood Mitigation Project. This resolution must be submitted with your bid. Address any questions you have to the City.

1. Project duration; **Construction shall be complete prior to _____, 201 ;**

2. The WATER WELL CONTRACTOR shall submit for the Construction / clearance permit Application for Class V well to the FDEP.

3. The City of Key West Well Drillers Certification (attached) and along with a copy of Well Drillers License shall be completed and submitted with the conform documents upon award as stated in the invitation to bid. (If the prime contractor changes well driller, the certification and license must be completed and submitted prior to the well driller setting up equipment on any project site).

4. Contractor shall be responsible to complete all grant requirements required for the project. The contractor shall attend a grant pre-construction meeting and progress meetings with the city grant administrator every 30 days.

5. Certified payrolls are required and shall be completed and turned in to the city grant administrator. Contractor shall ensure that certified payrolls are complete and checked for accuracy. Payroll not approved by the grant administrator and returned shall be returned in 3 days. The owner shall increase retention above 10% if contractor is consistently tardy or turns in incomplete or incorrect payrolls

6. Certified payrolls must be submitted within 7 days after the contractor's regular payment date of the payroll period

7. The CONTRACTOR shall assist the grants administrator in meeting the reporting requirements set forth in Section 1512 and all other applicable provisions of the American Recovery and Reinvestment Act of 2009 (ARRA), also referred to as the Recovery Act, by providing information requested by the grants administrator in a timely manner. Other applicable provisions include (but are not limited to) Section 1605 Buy America and Section 1606 Davis-Bacon Prevailing Wage Rates.

8. The Contractor shall submit with the monthly pay application the "Construction Compliance Certificate with Specifications and Plans".

9. The CITY and Engineer, their officers, agents, and employees shall be named as additional insured's on the Contractor's and any subcontractor's Liability Insurance policies for any claims arising out of work performed under this Contract.

10. An added fixed fee of 15% for general overhead and profit shall be allowed for the Contractor (5% Subcontractor) actually executing the Cost Reimbursement work. A 5% fixed fee shall be allowed the Contractor for the administrative handling of portions of the work that are executed by an approved Subcontractor. No additional fixed fee will be

allowed for the administrative handling of work executed by a Subcontractor of a Subcontractor, unless by written permission from the Owner. Burden shall not exceed 45%.

11. Warranty shall be in effect for _____years and shall be covered by bond. During this period any leaks in the system shall be repaired using a Hydro Active Grout system or equal as approved by the city; leaks shall not be repaired using cement and hydro, this method is completely unacceptable.

12. Maintenance of Traffic shall be maintained at all construction sites until the work is either completed or any open trenches have been properly covered and all equipment is properly stored. **Contractor shall maintain MOT signs in good repairs and lighted at all times.** The city inspector shall stop work if MOT is not properly maintained; there shall not be any additional cost to the city for this downtime.

13. CONTRACTOR shall notify all residents and proprietors adjacent to construction site of work to be performed, more specifically the notice shall state the day and time construction will begin, the name and phone number of the CONTRACTOR, the City Project Coordinator's name and phone number, and the reason for construction. Notice shall be given a minimum of 72 hours in advance of construction and testing. Additional Notice shall be given for each phase of work in the intersection, if no work has been performed for more than two weeks in the intersection. (I.E. Well Drilling; Well Structure / Catch basins pipe installation; pavement) **Submittal:** Notice; for approval.

14. Contractor shall submit a detailed shop drawing for the Class V Stormwater injection Well detail, for approval by FDEP prior to drilling wells.

15. Contractor shall submit a wells spoils disposal plan, for approval by FDEP prior to drilling wells.

16. No dewatering into drainage well.

17. Contractor shall submit a dewatering plan prior to beginning work.

18. 24" PVC pipe in well.

19. Wells are 120 feet deep, 60 VF cased, from top of casing invert to bottom of well casing; contractor shall not install 60 LF and then cut to invert after installation of baffle box, there shall be 60 VF of casing after cutting for the invert.

20. Contractor is required to repair all surfaces that are damaged during the project, even if they are out of the project area (i.e. curb along street that is not planned to be replaced, but damaged due to Equipment Operation.)

21. Miscellaneous concrete and aesthetics repairs to match the new concrete to the existing property lines, planters, buildings etc. shall be incidental to Sidewalk, and Curbs installation.

22. Baffle boxes requiring catch basin grates for schedule “A” and “B” – grates shall be USF # 4160-6611 galvanized; cost shall be included in the bidder’s proposal.

23. All Stormwater manholes ring and covers shall be USF 3220 – 5660 (grate) cost shall be included in the cost of the manhole.

24. Note; all Frames and grates are required to be galvanized and H-20 Rated.

25. Submit for approval and provide ADS Pipe Adapter flexible watertight connection for ADS Corrugated HDPE Pipe to storm structures, or ADS Pipe Adapters meeting the requirements of ASTM F 2510 and ASTM C 1478 for watertight flexible connections. Components shall be salt water resistant.

I have read and understand the above listed requirements for this project

_____

Signature

_____

Name

CITY OF KEY WEST WELL DRILLER CERTIFCATION

I certify under penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I _____am a duly licensed Florida Water Well Contractor whose contracting business, equipment and employees are properly structured as required by Florida State Statute 373 into a business unit operating under my direct control and physical supervision.

Business Name; Florida Water Well Contractor License Number:

Street Name and Number:

City: State: Zip Code:

Telephone: Facsimile:

I hereby certify that I am familiar with and agree to abide by all applicable local, state, and federal regulations pertaining to repair, installation, and construction, of wells within the State of Florida for the duration of this contract. I shall abide by the applicable regulations and where occasional conflicts may occur exist between the City's bid specifications and any and all applicable local, state, and federal, regulation(s) the pertinent applicable regulation(s) shall control. These include but are not limited to the following requirements:

a. Chapter 62-528 UIC Well Regulations, Florida Administrative Code and water well construction standards.
b. Chapter 62-531 Water Well Contractor Licensing Requirements
c. Chapter62-532 Water Well Permitting and Construction Requirements
d. ASTM C150 Specifications for Portland Cement
e. AWWA A100 Standards for Water Wells.
f. These include but are not limited to the following requirements:
    - Neat Cement to be from bottom of casing to top of casing (60 feet).
    - Neat Cement to be completed in appropriate methods utilizing tremie pipe.
    - No Additives may be used in the neat cement without the FDEP permission. Based on site conditions documented by geophysical logs.

- Maintenance of geophysical logs is required.

g. Licensed Well Driller shall be on site at all times during well operations.
h. Well driller to submit FDEP well completion report with SFWMD well completion report within 2 days of completion to FDEP.

_____ _____

Signature Title

Sworn and subscribed before me this _____day of _____, 20__

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

PART 5

DRAWINGS