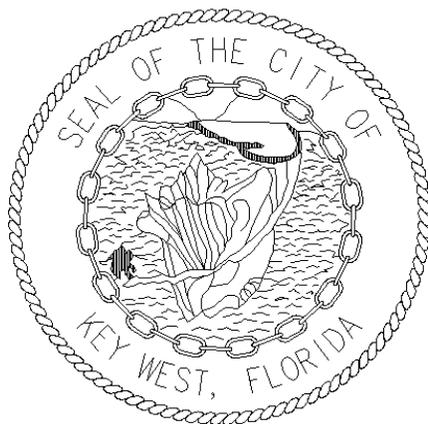


CONTRACT DOCUMENTS FOR:



GRAVITY INJECTION WELLS Phase V ST 0902 Bid Documents

MAYOR: CRAIG CATES

COMMISSIONERS:

BARRY GIBSON

BILLY WARDLOW

JIMMY WEEKLY

CLAYTON LOPEZ

MARK ROSSI

TERI JOHNSTON

PREPARED BY:
City Of Key West
Utilities/General Services Department / Perez Engineering

COPY NO. _____

CITY OF KEY WEST
KEY WEST, FLORIDA

CONTRACT DOCUMENTS

For

Gravity Injection Wells Phase V /

CONSISTING OF: BID DOCUMENTS
CONTRACT FORMS
CONDITIONS OF THE CONTRACT
SPECIFICATIONS
DRAWINGS

KEY WEST, FLORIDA

October 2009

Project No. ST 0902

Copy No. _____

Table of Contents

	<u>Page No.</u>
PART 1 - <u>BIDDING REQUIREMENTS</u>	
INVITATION TO BID.....	6
INSTRUCTIONS TO BIDDERS	8
PROPOSAL	16
FLORIDA BID BOND.....	30
ANTI-KICKBACK AFFIDAVIT.....	32
PUBLIC ENTITY CRIMES FORM.....	33
CITY OF KEY WEST INDEMNIFICATION FORM	36
BIDDERS CHECK LIST	37
DISCLOSURE OF LOBBYING ACTIVITIES FORM	38
NON-COLLUSION DECLARATION AND COMPLIANCE FORM.....	42
FLORIDA TRENCH SAFETY ACT COMPLIANCE	45
SUSPENSION AND DEBARMENT CERTIFICATION	46
STATEMENT OF NO PROPSAL	47
PART 2 - <u>CONTRACT FORMS</u>	
CONTRACT	48
FLORIDA PERFORMANCE BOND	50
FLORIDA PAYMENT BOND.....	52
MISCELLANEOUS FORMS	55
PART 3 - <u>CONDITIONS OF THE CONTRACT</u>	
TABLE OF CONTENTS-CONDITIONS OF THE CONTRACT	66
SUPPLEMETARY CONDITIONS.....	94
PART 4 - <u>SPECIFICATIONS</u>	
DIVISION 1 - GENERAL REQUIREMENTS	
00830 DAVIS-BACON WAGE DETERMINATION	157
01001 GENERAL REQUIREMENTS	165
01014 PROTECTION OF THE ENVIRONMENT	176
01025 MEASUREMENT AND PAYMENT	180
01050 FIELD ENGINEERING	191
01300 SUBMITTALS	195
01500 TESTING SERVICES	203
DIVISION 2 - SITE WORK	

01010	SUMMARY OF WORK.....	209
02221	TRENCH EXCAVATION & BACKFILL.....	211
02246	SILT SCREEN	220
02575	SURFACE RESTORATION	222
02581	DRILLING OF DRAINAGE WELLS.....	232
02582	STEP DOWN PUMPING TEST	243
02721	CATCH BASINS AND INLETS.....	248
02724	STORM SEWER.....	252
02726	MANHOLE AND MISCELLANEOUS CONCRETE CONSTRUCTION... ..	258
02900	GENERAL TREE PLANTING AND MAINTENANCE.	267
02930	FINISH GRADING AND GRASSING	270
03002	CONCRETE CURBS, CONCRETE PLACEMENT AND SIDEWALKS	273

ATTACHMENTS

	WELL DRILLERS FDEP PERMIT APPLICATION CLASS V WELL.....	281
	PRE-BID RESOLUTION	285
	CITY OF KEY WEST WELL DRILLERS CERTIFICATION FORM.....	288
	CERTIFIED PAYROLL MISCELLANEOUS FORMS	290

NOTE: PRE-BID RESOLUTION SHALL BE SUBMITTED WITH BID PACKAGE!

PART 5 – DRAWINGS (BOUND SEPARATELY)

PART 1

BIDDING REQUIREMENTS

INVITATION TO BID

Sealed bids for the City of Key West Stormwater Gravity Injection Wells Phase V, addressed to the City of Key West, will be received at the Office of the City Clerk, City of Key West, 525 Angela St., Key West Florida, 33040 until **November 18, 2009, 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 twelve (12) CD-ROMS 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 CONSTRUCTION OF GRAVITY INJECTION WELLS Phase V”** addressed and delivered to the City Clerk at the address noted above.

The project proposes improvements to the drainage system in Key West, Florida to reduce flooding and pre-treat stormwater run-off. The project consists the installation of Ten (10) gravity injection wells, with triple chamber baffle boxes, catch basins, drainage pipes, pavement and curb restoration, ADA compliant sidewalk restoration, and all related work. **Work is to be completed by July 30, 2010; calendar days to be determined in the Award letter.**

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

A Mandatory Pre-bid Conference will be held on **November 9, 2009, 2:00 p.m.** at the City of Key West Old City Hall, 2nd Floor, 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. Specifically, Bidder shall demonstrate that he holds, as a minimum, the following licenses and certificates required by State Statute and local codes.

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 FIVE (5) PERCENT OF THE AMOUNT BID.

THE BIDDER MUST BE A LICENSED CONTRACTOR BY THE STATE OF FLORIDA AND SUBMIT PROOF OF SUCH WITH THE BID.

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 _____
Jim Scholl, 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.

The words “**additional**”, shown in the drawings and on the bidders proposal, means that those activities will only be executed if the prices allow the City to pay for it, and a work order specifying it is executed.

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.

Investigations conducted by the Engineer of subsurface conditions were made for the purpose of study and design, and neither the CITY nor the Engineer assumes any responsibility whatever in respect to the sufficiency or accuracy of borings, or of the logs of test borings, or of other investigations that have been made, or of the interpretations made thereof, and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations are representative of those existing throughout such area, or any part thereof, or that unforeseen developments may not occur.

Logs of test borings, geotechnical reports, or topographic maps showing a record of the data obtained by the Engineer's investigations of surface and subsurface conditions that are made available shall not be considered a part of the Contract Documents, said logs representing only the opinion of the Engineer as to the character of the materials encountered by him in his investigations, and are available only for the convenience of the Bidders.

Information derived from inspection of logs of test borings, or pits, geotechnical reports, 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 successful Bidder shall maintain a yard and office within the Lower Keys (west of the Seven-Mile Bridge). All equipment required for the work shall be available at that site. If the Contractor does not have this equipment at his yard he may obtain it by lease, rent, subcontract, or from another site within his company as required by Work Order as long as the equipment is available within 7 calendar days after receiving notice to do the work.

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:

Anti-Kickback Affidavit
Public Entity Crimes Form
Key West Indemnification Form
DISCLOSURE OF LOBBYING ACTIVITIES
NON-COLLUSION DECLARATION AND COMPLIANCE WITH 49 CFR §29.
FLORIDA TRENCH SAFETY ACT COMPLIANCE
Pre-Bid Resolution
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 twelve (12) CD-ROMS with one single PDF file of the entire bid package on each CD-ROM** 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.

19. MBE and WBE Requirements

Contractors are required to solicit subcontractors that are MBE and WBE. Attached are the USEPA Supplementary Conditions. We want to draw the contractor's attention to this included section and ensure the contractors understand the requirements they must adhere to regarding MBE and WBE. The CITY is contacting the Minority Business Development Agency (MBDA) and the Small Business Administration (SBA) in regards to solicitations of MBE and WBE contractors and subcontractors for this project. Likewise, all contractors that are bidding for the project are required to solicit subcontractors that are MBE and WBE. The contract documents have a list of suggestions that the contractor should accomplish to solicit work from MBE and WBE companies. The contractor that gets the project will have additional paperwork that needs to be filled out and submitted to EPA. The contractor needs to be sure they document efforts accomplished that they tried to acquire MBE and WBE subcontractors. The percentage of total hours worked for MBE and WBE for this type of project is listed in the Contract Document Addendum provided in this addendum. MBE and WBE Suppliers of materials can be used as part of the percentage. The contract documents list 10% MBE and 11% WBE for construction projects in Florida. The contractor has to document the effort accomplished in trying to obtain a MBE and WBE for subcontracting work on this project. The contractor should take advantage of the websites and other resources that are listed in the contract documents.

* * * * *

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

BID

To: The City of Key West

Address: 525 Angela Street, Key West, Florida 33040

Project Title: Gravity Injection Wells Phase V

Project No.: ST -0902

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 as soon as possible after the date of the Notice to Proceed and to fully complete the construction of the ten (10) wells August 15, 2010 and 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, liquidated damages shall be paid to the Owner based on the FDOT Standard Specifications (2007) Section 8-10 until the work has been satisfactorily completed as provided by the Contract Documents. Sundays and legal holidays shall be included in determining days in default. FDOT 8-10 Code requirements govern, and herewith made a part of the Contract.

Original Contract Amount	Daily Charge Per Calendar Day
\$50,000 and Under	\$313
Over \$50,000 but less than \$250,000	\$580
\$250,000 but less than \$500,000	\$715
\$500,000 but less than \$2,500,000	\$1,423
\$2,500,000 but less than \$5,000,000	\$2,121
\$5,000,000 but less than \$10,000,000	\$3,057

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 BIDI(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.

GRANT REQUIREMENTS

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.

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.

The intersection name is listed below.

1. Intersection of Emma Street and Truman Avenue
2. Intersection of Florida Street and Newton Street
3. Intersection of Washington Street and William Street
4. Intersection of Margaret & Eaton
5. Intersection of 2nd & Staples
6. Intersection of Caroline & Elizabeth
7. Intersection of Harriett & 15 th
8. Intersection of Von Phister & George
9. Intersection of Von Phister and Ashby
10. Intersection of William and Catherine/Louisa

BID SCHEDULE 10 Gravity Injections Wells
Gravity Injection Well Phase V Storm systems and piping throughout Key West

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt.</u>
1. PERFORMANCE AND PAYMENT BONDS,					
01	LS	\$	_____		
2. <u>MOBILIZATION / DEMOBILIZATION, GENERAL & SUPPLEMENTARY CONDITIONS</u> <u>ENVIROMENTAL AND EROSION CONTROL, MOT, CERTIFIED</u> <u>AUTOCAD AS-BUILTS, GRANT REQUIREMENTS AND WELL PERMIT APPICATION)</u>					
a. <u>Mobilization (paid 25%, then on a percentage basis)</u>					
01	LS	\$	_____		
b. <u>Demobilization / Contract Close Out (paid at completion of final punch completion)</u>					
01	LS	\$	_____		
c. <u>General & Supplementary Conditions, (paid 25%, then on a percentage basis)</u>					
01	LS	\$	_____		
d. <u>OT, (paid 25%, then on a percentage basis)</u>					
01	LS	\$	_____		
e. <u>Certified AutoCAD As-Builts / Surveyor (paid at completion of final punch completion)</u>					
01	LS	\$	_____		
3. <u>TRENCH EXCAVATION, BACKFILL AND STORM PIPE</u>					
a. <u>18" Storm pipe (0 - 6 feet Deep)</u>					
200	LF	\$	_____		
b. <u>18" Storm pipe (6 - 10 feet Deep)</u>					
940	LF	\$	_____		
c. <u>18" Storm pipe (10- 12 feet Deep)</u>					
100	LF	\$	_____		

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt.</u>
				d. <u>24" Storm pipe (0-6 feet Deep)</u>	
80		LF	\$	_____	
				e. <u>24" Storm pipe (6-10 feet Deep)</u>	
400		LF	\$	_____	
				f. <u>24" Storm pipe (>10 feet Deep)</u>	
260		LF	\$	_____	
				g. <u>Dewatering per intersection</u>	
10		EA	\$	_____	
				h. <u>Florida Trench Safety Act Compliance</u>	
2500		LF	\$	_____	
				i. <u>Trench Safety Special Shoring Requirements (System and quantity of LF to be identified by Bidder and submitted with bid:</u>	
1		LS	\$	_____	
4. <u>PAVEMENT</u>					
				a. <u>Pavement Restauration S-1 (2") for F curb installation (4 foot wide from edge of curb)</u>	
1500		SY	\$	_____	
				b. <u>Pavement Replacement over Trenches S-1 (2") as per detail in drawings</u>	
35000		SY	\$	_____	
5. <u>TEMP PAVEMENT 20 MILS STRIPING</u>					
				a. <u>Stop Bars</u>	
30		EA	\$	_____	
				b. <u>"STOP" (word)</u>	
30		EA	\$	_____	

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt.</u>
6. <u>FINAL PAVEMENT 70 MILS THERMOPLASTIC STRIPING</u>					
				a. <u>Stop Bars</u>	
30	EA	\$	_____		
				b. <u>“STOP” (word)</u>	
30	EA	\$	_____		
				c. <u>6 inch white or yellow line (crosswalks-double striping – etc.)</u>	
2000	LF	\$	_____		
7. <u>CONCRETE</u>					
				a. <u>Sidewalk Restoration (4” depth)</u>	
8150	SF	\$	_____		
				b. <u>Driveway Restoration (6” depth)</u>	
2500	SF	\$	_____		
				c. <u>Curb Restoration (FDOT type D)</u>	
75	LF	\$	_____		
				d. <u>Curb Restoration (FDOT type F)</u>	
1775	LF	\$	_____		
				e. <u>Valley Gutter (Modified FDOT Index 300 with 6 inch thick center)</u>	
400	LF	\$	_____		
				f. <u>Clean out Box replacement (per City Sewer Requirements)</u>	
20	EA	\$	_____		
				g. <u>Water Meter box replacement (Per FKAA Requirements)</u>	
20	EA	\$	_____		

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt</u>
-------------	-----------------	-------------	-----------------	-------------------	-----------------------

CATCH BASIN AND INLETS

a. FDOT TYPE 5 Inlets (0-6 feet deep)

5 EA \$ _____

b. FDOT TYPE 5 Inlets (>6 Feet Deep)

9 EA \$ _____

c. FDOT TYPE 6 Inlets (>6 Feet Deep)

12 EA \$ _____

d. FDOT TYPE G Inlets (0-6 feet deep)

12 EA \$ _____

e. FDOT TYPE G Inlets (>6 feet deep)

10 EA \$ _____

f. FDOT TYPE D Inlets (0-6 feet deep)

02 EA \$ _____

g. FDOT TYPE D Inlets (>6 feet deep)

02 EA \$ _____

8. REMOVAL AND DISPOSAL OF EXISTING INLETS/MANHOLES/ Grout Shallow Wells

All Types MH-inlets

06 EA \$ _____

Shallow wells grout

06 EA \$ _____

9. MANHOLES

Conflict MH 6-foot diameter (Complete)

01 EA \$ _____

Stormwater MH 5-foot diameter (Complete >6 feet deep)

06 EA \$ _____

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt</u>
-------------	-----------------	-------------	-----------------	-------------------	-----------------------

Sewer MH 6-foot diameter with liner (Margret and Eaton "Complete")

1	EA	\$	_____		
---	----	----	-------	--	--

Manhole - Liner repair invert sewer manhole (Margret and Eaton)

1	EA	\$	_____		
---	----	----	-------	--	--

10. ADJUSTMENTS AND CONNECTIONS

a. Waterline Relocation (4 to 8 Inches)

15	EA	\$	_____		
----	----	----	-------	--	--

b. Waterline Relocation (10 to 12 Inches)

1	EA	\$	_____		
---	----	----	-------	--	--

c. Connection to Existing storm system (Truman and Emma as per drawing detail)

1	LS	\$	_____		
---	----	----	-------	--	--

d. Sewer Force main relocation (same requirements as the WM / pipe C-905)

5	EA	\$	_____		
---	----	----	-------	--	--

11. TRIPLE CHAMBER BAFFLE BOX WITH INJECTION WELL

Install Gravity Injection Well with Triple Chamber Baffle Box, with 60 feet minimum from casing invert to bottom 24" PVC Schedule 80 casing, and 60 foot open hole. (All metal components inside the well structure shall be 316 Stainless)

a. > 10 Feet Deep

10	EA	\$	_____		
----	----	----	-------	--	--

b. Well Testing (Section 02582 Step Drawdown Pumping Test)

10	EA	\$	_____		
----	----	----	-------	--	--

12. FINISH GRADING; PEA STONE AND GRASSING

a. SOD

2500	SF	\$	_____		
------	----	----	-------	--	--

b. PEA ROCK (3" depth)

500	SY	\$	_____		
-----	----	----	-------	--	--

13. PIPE ZONE GEOTEXTILE FABRIC

50,000	SY	\$	_____		
--------	----	----	-------	--	--

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt</u>
14. <u>FOUNDATION STABILIZATION</u>					
100	CY	\$			_____
15. <u>CUT AND CAP GROUT EXISTING STORM PIPE (8-24 inches)</u>					
200	LF	\$			_____
16. <u>BRICK PAVERS WITH ADAAG DETECTABLE WARNING SYSTEM</u>					
600	SF	\$			_____
17. <u>PRE-DIG FOR UTILITY LOCATION</u>					
02	EA	\$			_____
18. <u>HYDROSTATIC TESTING OF STORMWATER PIPES AND STRUCTURES.</u>					
10	EA	\$			_____
19. <u>SIGN REMOVAL AND REINSTALLATION</u>					
40	EA	\$			_____
20. <u>TRANSPLANT EXISTING TREE (0-10" DIA.) INCLUDES ALL LABOR, MATERIALS, EQUIPMENT & MAINTENANCE.</u>					
01	EA	\$			_____
21. <u>PLANT NEW TREE (0-10" DIA.) INCLUDES ALL LABOR, MATERIALS, EQUIPMENT & MAINTENANCE.</u>					
01	EA	\$			_____
22. <u>TRANSPLANT EXISTING TREE (OVER 10" IN DIA.) INCLUDES ALL LABOR, MATERIALS, EQUIPMENT & MAINTENANCE.</u>					
01	EA	\$			_____

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>UP (Fig)</u>	<u>UP (Words)</u>	<u>Ext. Total Amt</u>
23.				<u>PLANT NEW TREE (over 10" DIA.) INCLUDES ALL LABOR, MATERIALS, EQUIPMENT & MAINTENANCE.</u>	
01	EA		\$	_____	
24.				<u>TREE REMOVAL (including root structure) (0 - 10" DIA.); INCLUDES ALL LABOR, MATERIALS, and EQUIPMENT & DISPOSAL.</u>	
01	EA		\$	_____	
25.				<u>TREE REMOVAL (including root structure) (over 10" DIA.) INCLUDES ALL LABOR, MATERIALS, and EQUIPMENT & DISPOSAL.</u>	
01	EA		\$	_____	

ALL EXTENDED UNIT PRICE ITEMS LISTED ABOVE FROM SCHEDULE

Base SCH \$ _____

Allowance \$ **200,000.00**

TOTAL BID (Base + Allowance) \$ _____

NOTE: THIS TOTAL WILL BE USED AS PART OF THE BASIS FOR EVALUATING LOW BIDDER AND AWARD PROCESS.

****NOTE SEE Measurement and Payment****

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:

If Sole Proprietor or Partnership

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

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 GRAVITY INJECTION WELLS PHASE IV, 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 GRAVITY INJECTION WELLS
PHASE V, CITY OF KEY 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. []

DISCLOSURE OF LOBBYING ACTIVITIES

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

<p>1. Type of Federal Action:</p> <p><input type="checkbox"/></p> <p>a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance</p>	<p>2. Status of Federal Action:</p> <p><input type="checkbox"/></p> <p>a. bid/offer/application b. initial award c. post-award</p>	<p>3. Report Type:</p> <p><input type="checkbox"/></p> <p>a. initial filing b. material change</p> <p>For Material Change Only:</p> <p>year _____ quarter _____ date of last report _____</p>
<p>4. Name and Address of Reporting Entity:</p> <p><input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known:</p> <p>Congressional District, if known:</p>	<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p>Congressional District, if known:</p>	
<p>6. Federal Department/Agency:</p>	<p>7. Federal Program Name/Description:</p> <p>CFDA Number, if applicable: _____</p>	
<p>8. Federal Action Number, if known:</p>	<p>9. Award Amount, if known:</p> <p>\$ _____</p>	
<p>10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):</p>	<p>b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):</p>	

<p><i>(attach Continuation Sheet(s))</i></p>	<p><i>SF-LLLA, if necessary)</i></p>	
<p>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.</p>	<p>Signature: _____</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Telephone No.: _____ Date: _____</p>	
<p>Federal Use Only:</p>		<p>Authorized for Local Reproduction Standard Form – LLL (Rev 7 – 97)</p>

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
declare that I am _____ of _____
Of _____
(NAME) (TITLE) (FIRM)
(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: _____

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: ST 0902, GRAVITY INJECTION WELLS V,
Office of the City Clerk
City of Key West P.O. Box 1409
Key West, FL. 33041-1409

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 _____ 2009,

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 GRAVITY INJECTION WELLS PHASE V, Key West, Florida to the extent of the Proposal made by the Contractor, dated the _____ day of _____ 2009, all in full compliance with the Contract Documents referred to herein.

The CONTRACT DOCUMENTS, including the signed copy of the BID DOCUMENTS, the CONTRACT FORMS, GRANT ATTACHMENTS, CONTRACT SPECIFICATIONS DIVISION I, PERFORMANCE and PAYMENT BONDS, and PRE-BID RESOLUTION.

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 the stated number of consecutive calendar days from the date the Notice to Proceed is issued..

In the event the Contractor fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid to the Owner based on the current FDOT Standard Specifications Section 8-10 until the work has been satisfactorily completed as provided by the Contract Documents. Sundays and legal holidays shall be included in determining days in default. FDOT 8-10 Code requirements govern, and herewith made a part of the Contract.

Original Contract Amount	Daily Charge Per Calendar Day
\$50,000 and Under	\$313
Over \$50,000 but less than \$250,000	\$580
\$250,000 but less than \$500,000	\$715
\$500,000 but less than \$2,500,000	\$1,423
\$2,500,000 but less than \$5,000,000	\$2,121
\$5,000,000 but less than \$10,000,000	\$3,057

It is agreed the Contract, Base of the BID, shall be fully complete by July 31, 2010. Calendar day to be determined in the Notice of award.

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

_____ day of _____, A.D., 2009.

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 BUSINESS LICENSE TAX RECEIPT

1. A City of Key West Business License Tax Receipt is required for this Project. Contractor must be general contractor or building contractor or engineering contractor.
2. A City of Key West Business License Tax Receipt also is required as for sub-contracting landscaping contractor, engineering services, and professional surveying.
3. A Business License Tax Application can be found on the City's web site.

<http://www.keywestcity.com/egov/docs/1162843921181.htm>

Business License Tax Application

City of Key West
City Hall Annex
PO Box 1409
Key West, FL 33041

Date Applied _____

License # _____
Phone 305-809-3955
Fax 305-809-3978

Business Type: _____

Business Name: _____

Business Location: _____

Business Owner: _____

State Licensed Qualifier (if applicable): _____

Mailing Address: _____

EIN / SS # _____ Phone # _____

Applicant name (printed)

Applicant signature

Date

State of Florida
County of Monroe

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by _____.

Signature of Notary Public (stamp or seal). Personally known ____
Produced id _____

Sales Tax number 3106 Flagler Ave 292-6735 City utility acct _____

Commercial garbage Waste Mgmt 296-8297 _____

Lease or deed

State License DBPR 850-487-1395 / Dept Ag 305-470-6900

Home occupation application

Fictitious Name registration Previous use _____

Corporate or LLC registration

Liability / Worker's Comp Zoning _____

Fire Inspector 292-8179

CO / final inspection on any permits Category _____ Fee \$ _____

Monroe County or local licensing

Licensed in accordance with Chapter 66, Key West Code of Ordinances

Approved _____ Denied / Reason _____

Licensing Official

Date

Licensing Division

P.O. Box 1409, Key West, FL 33041
305.809.3955 305.809.3978 (FAX)

REQUIREMENTS FOR STATE CERTIFIED CONTRACTOR REGISTERING TO WORK IN KEY WEST LESS THAN 30 DAYS PER FISCAL YEAR

1. NEED STATE OF FLORIDA CERTIFIED CONTRACTOR LICENSE.
2. BUSINESS LICENSE TAX RECEIPT FROM BASE LOCATION.
3. LIABILITY INSURANCE AND WORKER'S COMPENSATION (WITH THE CITY OF KEY WEST CERTIFICATE HOLDERS) SET AT STATE STATUTE REQUIREMENTS.
4. FEDERAL I.D. NUMBER /SOCIAL SECURITY (IF NOT INCORPORATED).
5. LETTER OF INTENT STATING THE FOLLOWING:

BUSINESS NAME

JOB SITE

DAYS INTENDING ON WORKING IN THE CITY

PLEASE FAX DOCUMENTS TO THE TELEPHONE NUMBER LISTED BELOW, OR MAIL TO CAROLYN WALKER / KIM PITA, CITY OF KEY WEST LICENSE DIVISION, P.O. BOX 1409, KEY WEST, FLORIDA 33041.



City of Key West

P.O. Box 1409

Key West, FL 33041

Notice of Award

Date

Project Number: ST 0902

File: II F

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: **Gravity Injection Wells V**

Dear:

At a meeting of the City of Key West Commission held on_____, 2009, **COMPANY NAME** was awarded the contract for **the Gravity Injection Wells V**. 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,

Gary Bowman
General Services Director
cc: Cheri Smith, City Clerk
Project File

GW5

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: Gravity Injection Wells V

Project No. ST 0902

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: **Gravity Injection Wells IV / Triple Chamber Outfall Structure Installation**
Project No. **ST 0901**

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__

Project No: _____

Contractor: _____

Address: _____

Project: **Gravity Injection Wells V / Triple Chamber Outfall Structure Installation**
Project No. **ST 0902**

You are hereby notified to commence work on _____, 20____ for the Schedule "A" four (4) wells and Schedule "B: five (5) triple chamber outfall structures 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 400
Key West, FL 33040

PAYMENT APPLICATION AND CERTIFICATE

Date: _____

Application No.: ____ of ____

Sheet: ____ of ____

Period From: _____ to _____, 20__.

Project: Gravity Injection Wells

Project No.: _____

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:

Page: 1 of 2

Payment Application No. _____

Period From: _____ to _____

Project: **Gravity Injection Wells V**

Project No. **ST 0902**

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

<u>Article</u>	<u>Page</u>	<u>Article</u>	<u>Page</u>
<u>1.0 DEFINITIONS</u>	70	<u>4.0 THE CONTRACTOR & HIS EMPLOYEES</u> ...	77
1.1. AS APPROVED		4.1. CONTRACTOR, AN INDEPENDENT AGENT	
1.2. AS SHOWN, AND AS INDICATED		4.2. (a) ASSIGNMENT OF CONTRACT	
1.3. BIDDER		4.3. SUBCONTRACTING	
1.4. CONTRACT DOCUMENTS		4.4. INSURANCE AND LIABILITY	
1.5. CONTRACTOR		A. GENERAL	
1.6. CONTRACT COMPLETION		B. CONTRACTOR & SUBCONTRACTOR INSURANCE	
1.7. DAYS		C. COMPENSATION & EMPLOYER'S LIABILITY INSURANCE	
1.8. DRAWINGS		D. GENERAL LIABILITY INSURANCE (INCLUDING AUTOMOBILE)	
1.9. ENGINEER		E. BUILDER'S RISK ALL RISK INSURANCE	
1.10. NOTICE		F. NO PERSONAL LIABILITY OF PUBLIC OFFICIALS	
1.11. OR EQUAL		4.5. INDEMNITY	
1.12. OWNER		4.6. EXCLUSION OF CONTRACTOR CLAIM	
1.13. PLANS		4.7. TAXES AND CHARGES	
1.14. SPECIFICATIONS		4.8. REQUIREMENTS OF STATE LAW FOR PUBLIC WORKS PROJECTS	
1.15. NOTICE TO PROCEED		4.9. CODES, ORDINANCES, PERMITS, AND LICENSES	
1.16. SUBSTANTIAL COMPLETION		4.10. SUPERINTENDENCE	
1.17. WORK		4.11. RECEPTION OF ENGINEER'S COMMUNICATIONS	
<u>2.0 CONTRACT DOCUMENTS</u>	72	4.12. SAFETY	
2.1. INTENT OF CONTRACT DOCUMENTS		4.13. PROTECTION OF WORK AND PROPERTY	
2.2. DISCREPANCIES & OMISSIONS		4.14. RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY	
2.3. CHANGES IN THE WORK		4.15. MATERIALS AND APPLIANCES	
2.4. EXAMINATIONS AND VERIFICATION OF CONTRACT DOCUMENTS		4.16. CONTRACTORS' AND MANUFACTURES' COMPLIANCE WITH STATE SAFETY, OSHA, AND OTHER CODE REQUIREMENTS	
2.5. DOCUMENTS TO BE KEPT ON THE JOBSITE		4.17. SUBSTITUTION OF MATERIALS	
2.6. ADDITIONAL CONTRACT DOCUMENTS		4.18. TESTS, SAMPLES, AND OBSERVATIONS	
2.7. OWNERSHIP OF CONTRACT DOCUMENTS		4.19. ROYALTIES AND PATENTS	
<u>3.0 THE ENGINEER</u>	74	4.20. CONTRACTOR'S RIGHT TO TERMINATE CONTRACT	
3.1. AUTHORITY OF THE ENGINEER		4.21. CORRECTION OF DEFECTIVE WORK DURING WARRANTY PERIOD	
3.2. DUTIES & RESPONSIBILITIES OF THE ENGINEER			
3.3. LIMITATIONS ON ENGINEER'S RESPONSIBILITIES			
3.4. REJECTED WORK			
3.5. LINES AND GRADES			
3.6. SUBMITTALS			
3.7. DETAIL DRAWINGS AND INSTRUCTIONS			

<u>Article</u>	<u>Page</u>	<u>Article</u>	<u>Page</u>
<u>5.0 PROGRESS OF THE WORK</u>	84	6.3. CLAIMS FOR EXTRA WORK	
5.1. BEGINNING OF THE WORK		6.4. RELEASE OF LIENS OR CLAIMS	
5.2. SCHEDULES AND PROGRESS REPORTS		6.5. FINAL PAYMENT	
5.3. PROSECUTION OF THE WORK		6.6. NO WAIVER OF RIGHTS	
5.4. OWNER’S RIGHT TO RETAIN IMPERFECT WORK		6.7. ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE	
5.5. OWNER’S RIGHT TO DO WORK		<u>7.0 SPECIAL GRANT CONDITIONS</u>	95
5.6. OWNER’S RIGHT TO TRANSFER EMPLOYMENT		7.1 SUPPLEMENTAL GENERAL CONDITIONS FOR FEDERALLY ASSISTED CONSTRUCTIONS CONTRACTS ATTACHMRNTS A-J	
5.7. DELAYS AND EXTENSIONS OF TIME		<u>8.0 SUPPLEMENTARY CONDITIONS</u>	149
5.8. DIFFERING SITE CONDITION		<u>REVISIONS AND ADDITIONS TO THE GENERAL CONDITIONS.</u>	
5.9. LIQUIDATED DAMAGES		ARTICLE 1.5.1 “REFERENCE POINTS	ARTICLE
5.10. OTHER CONTRACTS		1.5.2 “CONTRACTOR’S LIABILITY	
5.11. USE OF PREMISES		INSURANCE	
5.12. SUBSTANTIAL COMPLETION DATE		ARTICLE 1.5.4 “SURETY AND INSURER QUALIFICATIONS	
5.13. PERFORMANCE TESTING		ARTICLE 1.12 “OWNER”	
5.14. OWNER’S USE OF PORTION OF THE WORK		ARTICLE 4.5 “INDEMNITY”	
5.15. CUTTING AND PATCHING		ARTICLE 4.8 “REQUIREMENTS OF STATE LAW FOR PUBLIC WORKS PROJECTS”	
5.16. CLEANING UP		ARTICLE 4.9 “CODES, ORDINANCES, PERMITS AND LICENSES”	
<u>6.0 PAYMENT</u>	89	PUBLIC WORKS COMPLIANCE ACT	
6.1. CHANGE ORDERS		DEWATERING PERMIT	
A. UNIT PRICE		ARTICLE 4.12 “SAFETY	
B. LUMP SUM		ARTICLE 4.14 RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY	
C. COST REIMBURSEMENT WORK		ARTICLE 4.21 “CORRECTION OF DEFECTIVE WORK DURING WARRANTY PERIOD	
6.2. PARTIAL PAYMENTS		ARTICLE 6.2.E “PAYMENT	
A. GENERAL		ARTICLE 6.5 "FINAL PAYMENT"	
B. ESTIMATE			
C. DEDUCTION FROM ESTIMATE			
D. QUALIFICATIONS FOR PARTIAL PAYMENT FOR MATERIALS DELIVERED			
E. PAYMENT			

1.0 DEFINITIONS

Whenever in the Contract Documents the following terms are used, the intent and meaning shall be interpreted as follows:

1.1. AS APPROVED

The words "as approved", unless otherwise qualified, shall be understood to be followed by the words "by the Engineer for conformance with the Contract Document".

1.2. AS SHOWN, AND AS INDICATED

The words "as shown" and "as Indicated" shall be understood to be followed by the words "on the Drawings".

1.3. BIDDER

The person or persons, partnership, firm, or corporation submitting a BID for the work contemplated.

1.4. CONTRACT DOCUMENTS

The "Contract Documents" consist of the Bidding Requirements, Contract Forms, Conditions of the Contract, Specifications, Drawings, all modifications thereof incorporated into the Documents before their execution, Change Orders, and all other requirements incorporated by specific reference thereto. These form the Contract.

1.5. CONTRACTOR

The person or persons, partnership, firm, or corporation who enters into the Contract awarded him by the CITY.

1.6. CONTRACT COMPLETION

The "Contract Completion" is the date the CITY accepts the entire work as being in compliance with the Contract Documents, or formally waives nonconforming work to extent of nonconformity, and issues the final payment in accordance with the requirements set forth in Article, "Final Payment" of these General Conditions.

1.7. DAYS

Unless otherwise specifically stated, the term "days" will be understood to mean calendar days. Business day or working day means any day other than Saturday, Sunday, or legal holiday.

1.8. DRAWINGS

The term "Drawings" refers to the official Drawings, profiles, cross sections, elevations, details, and other working drawings and supplementary drawings, or reproductions thereof, signed by the Engineer, which shows the location, character, dimensions, and details of the work to be performed. Drawings may either be bound in the same book as the balance of the Contract Documents, or bound in separate sets, and are a part of the Contract Documents, regardless of the method of binding.

1.9. ENGINEER

The person or organization identified as such in the Contract Documents. The Term "Engineer" means the Engineer of Record identified on the signed construction plans and Contract Documents or his authorized representative.

1.10. NOTICE

The term "notice" or the requirement to notify, as used in the Contract Documents or applicable state or federal statutes, shall signify a written communication delivered in person or by registered mail to the individual, or to a member of the firm, or to an officer of the corporation for whom it is intended. Certified or registered mail shall be addressed to the last business address known to him who gives the notice.

1.11. OR EQUAL

The term "or equal" shall be understood to indicate that the "equal" product is equivalent to or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the Engineer. Such equal products shall not be purchased or installed by the Contractor without written authorization.

1.12. OWNER

The person, organization, or public body identified as such in the Contract Documents.

1.13. PLANS (See Drawings)

1.14. SPECIFICATIONS

The term "Specifications" refers to those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the work and certain administrative details applicable thereto. Where standard specifications, such as those of ASTM, AASHTO, etc., have been referred to, the applicable portions of such standard specifications shall become a part of these Contract Documents. If referenced specifications conflict with specifications contained herein, the requirements contained herein shall prevail.

1.15. NOTICE TO PROCEED

A written notice given by the CITY to the Contractor (with a copy to the Engineer) fixing the date on which the Contract time will commence to run and on which the Contractor shall start to perform his obligation under the Contract Documents. The Notice to Proceed will be given within 30 days following the execution of the Contract by the CITY.

1.16. SUBSTANTIAL COMPLETION

"Substantial Completion" shall be that degree of completion of the project or a defined portion of the project, as evidenced by the Engineer's written notice of Substantial Completion, sufficient to provide the CITY, at his discretion, the full-time use of the project or defined portion of the project for the purposes for which it was intended. "Substantial Completion" of an operating facility shall be that degree of completion that has provided a minimum of 7 continuous days of successful, trouble-free, operation, which period shall begin after all performance and acceptance testing has been successfully demonstrated to the Engineer. All equipment contained in the work, plus all other components necessary to enable the CITY to operate the facility in a manner that was intended, shall be complete on the substantial completion date.

1.17. WORK

The word "work" within these Contract Documents shall include all material, labor, tools, and all appliances, machinery, transportation, and appurtenances necessary to perform and complete the Contract, and such additional items not specifically indicated or described which can be reasonably inferred as belonging to the item described or indicated and as required by good practice to provide a complete and satisfactory system or structure. As used herein, "provide" shall be understood to mean "furnish and install, complete in-place".

2.0 CONTRACT DOCUMENTS

2.1. INTENT OF CONTRACT DOCUMENTS

The Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all. The intent of the Documents is to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any work, materials, or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words, which have a well-known technical or trade meaning, are used to describe work, materials, or equipment, such words shall be interpreted in accordance with that meaning.

Reference to standard specifications, manuals, or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect on the first published date of the Invitation to Bid, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of CITY, Contractor, or Engineer, or any of their consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign

to Engineer, or any Engineer's consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of Article LIMITATIONS ON ENGINEER'S RESPONSIBILITIES.

2.2. DISCREPANCIES AND OMISSIONS

Any discrepancies or omissions found in the Contract Documents shall be reported to the Engineer immediately. The Engineer will clarify discrepancies or omissions, in writing, within a reasonable time.

In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

- A. CONTRACT
- B. BID
- C. SUPPLEMENTARY CONDITIONS
- D. INVITATION TO BID
- E. INSTRUCTIONS TO BIDDERS
- F. GENERAL CONDITIONS
- G. SPECIFICATIONS
- H. DRAWINGS

Addenda shall take precedence over all sections referenced therein. Figure dimensions on Drawings shall take precedence over scale dimensions. Detailed Drawings shall take precedence over general Drawings.

2.3. CHANGES IN THE WORK

The CITY, without notice to the Sureties and without invalidating the Contract, may order changes in the work within the general scope of the Contract by altering, adding to, or deducting from the work, the Contract being adjusted accordingly. All such work shall be executed under the conditions of the original Contract, except as specifically adjusted at the time of ordering such change.

In giving instructions, the Engineer may order minor changes in the work not involving extra cost and not inconsistent with the purposes of the project, but otherwise, except in an emergency endangering life and property, additions or deductions from the work shall be performed only in pursuance of an approved Change Order from the CITY, countersigned by the Engineer.

If the work is reduced by alterations, such action shall not constitute a claim for damages based on loss of anticipated profits.

2.4. EXAMINATIONS AND VERIFICATION OF CONTRACT DOCUMENTS

The Contractor shall thoroughly examine and become familiar with all of the various parts of these Contract Documents and determine the nature and location of the work, the general and local conditions, and all other matters, which can in any way affect the work under this Contract. Failure to make an examination necessary for this determination shall not release the Contractor from the obligations of this Contract. No verbal agreement or conversation with any officer, agent, or employee

of the CITY, or with the Engineer either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

2.5. DOCUMENTS TO BE KEPT ON THE JOBSITE

The Contractor shall keep one copy of the Contract Documents on the job- site, in good order, available to the Engineer and to his representatives.

The Contractor shall maintain on a daily basis at the jobsite, and make available to the Engineer on request, one current record set of the Drawings which have been accurately marked to indicate all modifications in the completed work that differ from the design information shown on the Drawings. Upon Substantial completion of the work, the Contractor shall give the Engineer one complete set of these marked up record Drawings.

2.6. ADDITIONAL CONTRACT DOCUMENTS

Copies of Contract Documents or Drawings may be obtained on request from the Engineer and by paying the actual cost of reproducing the Contract Documents or Drawings.

2.7. OWNERSHIP OF CONTRACT DOCUMENTS

All portions of the Contract Documents, and copies thereof furnished by the Engineer are instruments of service for this project. They are not to be used on other work and are to be returned to the Engineer on request at the completion of the work. Any reuse of these materials without specific written verification or adaptation by the Engineer will be at the risk of the user and without liability or legal expense to the Engineer. Such user shall hold the Engineer harmless from any and all damages, including reasonable attorneys' fees, from any and all claims arising from any such reuse. Any such verification and adaptation shall entitle the Engineer to further compensation at rates to be agreed upon by the user and the Engineer.

3.0 THE ENGINEER

3.1. AUTHORITY OF THE ENGINEER

The Engineer will be the City's representative during the construction period. His authority and responsibility will be limited to the provisions set forth in these Contract Documents. The Engineer will have the Authority to reject work that does not conform to the Contract Documents. However, neither the Engineer's authority to act under this provision, nor any decision made by him in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, their respective Sureties, any of their agents or employees, or any other person performing any of the work.

3.2. DUTIES AND RESPONSIBILITIES OF THE ENGINEER

The Engineer will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the work and to determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. He will not make comprehensive or continuous review or observation to check quality or quantity of the work, and he will not be responsible for

construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the Engineer shall not relieve the Contractor of his obligation to conduct comprehensive inspections of the work and to furnish materials and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

The Engineer will make recommendations to the CITY, in writing, on all claims of the CITY or the Contractor arising from interpretation or execution of the Contract Documents. Such recommendations will be of factual and/or technical nature, and will not include the legal interpretation of the Contract Documents. The CITY will make any necessary legal interpretation of the Contract Document. Such recommendation shall be necessary before the Contractor can receive additional money under the terms of the Contract. Changes in work ordered by the Engineer shall be made in compliance with Article CHANGES IN THE WORK.

One or more project representatives may be assigned to observe the work. It is understood that such project representatives shall have the authority to issue notice of nonconformance and make decisions within the limitations of the authority of the Engineer. The Contractor shall furnish all reasonable assistance required by the Engineer or project representatives for proper observation of the work. The above-mentioned project representatives shall not relieve the Contractor of his obligations to conduct comprehensive inspections of the work and to furnish materials and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

3.3. LIMITATIONS ON ENGINEER'S RESPONSIBILITIES

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

Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any supplier, or of any other person or organization performing or furnishing any of the work.

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

3.4. REJECTED WORK

Any defective work or nonconforming materials or equipment that may be discovered at any time prior to expiration of the warranty period, shall be removed and replaced by work which shall conform to the provisions of the Contract Documents. Any material condemned or rejected shall be removed at once from the project site.

Failure on the part of the Engineer to condemn or reject bad or inferior work or to note nonconforming materials or equipment on Contractor submittals shall not be construed to imply acceptance of such work. The CITY shall reserve and retain all of its rights and remedies at law against the Contractor and its Surety for correction of any and all latent defects discovered after the guarantee period.

3.5. LINES AND GRADES

Lines and grades shall be established as provided in the supplementary conditions. All stakes, marks, and other reference information shall be carefully preserved by the Contractor, and in case of their careless or unnecessary destruction or removal by him or his employees, such stakes, marks, and other information shall be replaced at the Contractor's expense.

3.6. SUBMITTALS

After checking and verifying all field measurements and after complying with applicable procedures specified in Division I, GENERAL REQUIREMENTS, Contractor shall submit to Engineer, in accordance with the schedule for submittals for review, shop drawings, electrical diagrams, and catalog cuts for fabricated items and manufactured items (including mechanical and electrical equipment), which shall bear a stamp or specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submittal. Contractor shall submit four (4) copies of all submittals. All submittals shall be identified as Engineer may require. The data shown shall be complete with respect to quantities, dimensions specified, performance and design criteria, materials, and similar data to enable Engineer to review the information. Contractor shall also submit to Engineer for review, with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples shall have been checked by and accompanied by a specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submission and shall be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which intended.

Before submission of each submittal, Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each submittal with other submittals and with the requirements of the work and the Contract Documents.

At the time of each submission, Contractor shall give Engineer specific written notice of each variation that the submittal may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each shop drawing submitted to Engineer for review and approval of each variation.

Engineer will review submittals with reasonable promptness, but Engineer's review will be only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions. Contractor shall make corrections required by Engineer, and shall return the required number of corrected copies of shop drawings and submit as required new samples for review.

Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

Engineer's review of submittals shall not relieve Contractor from the responsibility for any variation from the requirements of the Contract Documents unless Contractor has in writing called Engineer's attention to each such variation at the time of submission and Engineer has given written approval of each such variation by a specific written notation thereof incorporated therein or accompanying the shop drawing or sample approval; nor will any approval by Engineer relieve Contractor from responsibility for errors or omissions in the shop drawings or from responsibility for having complied with the provisions herein.

Where a shop drawing or sample is required by the specifications, any related work performed prior to Engineer's review and approval of the pertinent submission shall be at the sole expense and responsibility of the Contractor.

3.7. DETAIL DRAWINGS AND INSTRUCTIONS

The Engineer will furnish, with reasonable promptness, additional instructions by means of Drawings or otherwise, if, in the Engineer's opinion, such are required for the proper execution of the work. All such Drawings and instructions will be consistent with the Contract Documents, true developments thereof, and reasonably inferable there from.

4.0 THE CONTRACTOR AND HIS EMPLOYEES

4.1. CONTRACTOR, AN INDEPENDENT AGENT

The Contractor shall independently perform all work under this Contract and shall not be considered as an agent of the CITY or of the Engineer, nor shall the Contractor's Subcontractors or employees be subagents of the CITY or of the Engineer.

4.2 ASSIGNMENT OF CONTRACT

Assignment of any part or the whole of this Contract shall be subject to review and approval of the City Commission.

4.3. SUBCONTRACTING

Unless modified in the Supplementary Conditions, within 10 days after the execution of the Contract, the Contractor shall submit to the Engineer the names of all Subcontractors proposed for the work, including the names of any Subcontractors that were submitted with the Proposal. The Contractor shall not employ any subcontractors to which the CITY may object to as lacking capability to properly perform work of the type and scope anticipated.

The Contractor is as fully responsible to the CITY for the acts and omissions of his Subcontractors and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the CITY or Engineer.

4.4. INSURANCE AND LIABILITY

A. GENERAL

The Contractor shall provide (from insurance companies acceptable to the CITY the insurance coverage designated hereinafter and pay all costs before commencing work under this Contract. The Contractor shall furnish the CITY with certificates of insurance specified herein showing the type, amount class of operations covered, effective dates, and date of expiration of policies, and containing substantially the following statement:

"The insurance covered by this certificate shall not be canceled or materially altered, except after 30 days' written notice has been received by the CITY."

In case of the breach of any provision of this Article, the CITY, at his option, may take out and maintain, at the expense of the Contractor, such insurance as the CITY may deem proper and may deduct the cost of such insurance from any monies which may be due or become due the Contractor under this Contract.

B. CONTRACTOR AND SUBCONTRACTOR INSURANCE

The Contractor shall not commence work under this Contract until he has obtained all the insurance required hereunder and such insurance has been reviewed by the CITY, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until insurance specified below has been obtained. Review of the insurance by the CITY shall not relieve or decrease the liability of the Contractor hereunder.

C. COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE

The Contractor shall maintain during the life of this Contract the statutory amount of Workmen's Compensation Insurance, in addition, Employer's Liability Insurance in an amount as specified in the Supplementary Conditions, for each occurrence, for all of his employees to be engaged in work on the project under this Contract. In case any such work is subcontracted, the Contractor shall require the Subcontractor to provide similar Workmen's Compensation and Employer's Liability Insurance for all of the Subcontractor's employees to be engaged in such work.

D. GENERAL LIABILITY INSURANCE (INCLUDING AUTOMOBILE)

The Contractor shall maintain during the life of this Contract such general liability, completed operations and products liability, and automobile liability insurance as will provide coverage for claims for damages for personal injury, including accidental death, as well as for claims for property damage, which may arise directly or indirectly from performance of the work under this Contract. The general liability policy shall include contractual liability assumed by the Contractor under Article **INDEMNITY**. Coverage for property damage shall be on a "broad form" basis with no exclusions for "X, C & U". The amount of insurance to be provided shall be as specified in the Supplementary Conditions.

In the event a Subcontractor performs any work under this Contract, the Contractor shall be responsible for any liability directly or indirectly arising out of the work performed by the Subcontractor, to the extent such liability is not covered by the Subcontractor's insurance.

The CITY and Engineer, their officers, agents, and employees shall be named as Additional Insured's on the Contractor's and any Subcontractor's general liability and automobile liability insurance policies for any claims arising out of work performed under this Contract.

E. BUILDERS RISK ALL RISK INSURANCE

Unless otherwise modified in the Supplementary Conditions, the Contractor shall secure and maintain during the life of this Contract, Builders Risk All Risk Insurance coverage in an amount equal to the full value of the facilities under construction. Such insurance shall include coverage for earthquake, landslide, flood, collapse, loss due to the results of faulty workmanship or design, and all other normally covered risks, and shall provide for losses to be paid to the Contractor, CITY, and Engineer as their interests may appear.

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.

This insurance shall include a waiver of subrogation as to the Engineer, the CITY, the Contractor, and their respective officers, agents, employees and subcontractors.

F. NO PERSONAL LIABILITY OF PUBLIC OFFICIALS

In carrying out any of the provisions hereof in exercising any authority granted by the Contract, there will be no personal liability upon any public official.

4.5. INDEMNITY

To the maximum extent permitted by law, the Contractor shall indemnify and defend the CITY and the Engineer, and their officers, employees, agents, and sub-consultants, from all claims and losses, including attorney's fees and litigation costs arising out of property losses or health, safety, personal injury, or death claims by the Contractor, its subcontractors of any tier, and their employees, agents, or invitees regardless of the fault, breach of Contract, or negligence of the CITY or Engineer, excepting only such claims or losses that have been adjudicated to have been caused solely by the negligence of the CITY or the Engineer and regardless of whether or not the Contractor is or can be named a party in a litigation.

4.6. EXCLUSION OF CONTRACTOR CLAIMS

In performing its obligations, the Engineer and its consultants may cause expense for the Contractor or its subcontractors and equipment or material suppliers. However, those parties and their sureties shall maintain no direct action against the Engineer, its officers, employees, agents, and consultants for any claim arising out of, in connection with, or resulting from the engineering services performed or required to be performed.

4.7. TAXES AND CHARGES

The Contractor shall withhold and pay any and all sales and use taxes and all withholding taxes, whether State or Federal, and pay all Social Security charges and also all State Unemployment Compensation charges, and pay or cause to be withheld, as the case may be, any and all taxes, charges, or fees or sums whatsoever, which are now or may hereafter be required to be paid or withheld under any laws.

4.8. REQUIREMENTS OF STATE LAW FOR PUBLIC WORKS PROJECTS

When the Contract Documents concern public works of the state or any county, municipality, or political subdivision created by its laws, the applicable statutes shall apply. All parties to this Contract shall determine the contents of all applicable statutes and comply with their provisions throughout the performance of the Contract.

4.9. CODES, ORDINANCES, PERMITS AND LICENSES

The Contractor shall keep himself fully informed of all local codes and ordinances, as well as state and federal laws, which in any manner affect the work herein specified. The Contractor shall at all times comply with said codes and ordinances, laws, and regulations, and protect and indemnify the CITY, the Engineer and their respective employees, and its officers and agents against any claim or liability arising from or based on the violation of any such laws, ordinances, or regulations. All permits, licenses and inspection fees necessary for prosecution and completion of the work shall be secured and paid for by the Contractor, unless otherwise specified.

4.10. SUPERINTENDENCE

The Contractor shall keep at the project site, competent supervisory personnel. The Contractor shall designate, in writing, before starting work, a project superintendent who shall be an employee of the Contractor and shall have complete authority to represent and to act for the Contractor. Engineer shall be notified in writing prior to any change in superintendent assignment. The Contractor shall give efficient supervision to the work, using his best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, and procedures, and for providing adequate safety precautions and coordinating all portions of the work under the Contract. It is specifically understood and agreed that the Engineer, its employees and agents, shall not have control or charge of and shall not be responsible for the construction means, methods, techniques, procedures, or for providing adequate safety precautions in connection with the work under Contract. The city shall receive in electronic copies (PDF) of the contractor's daily reports; submitted monthly with the pay request.

4.11. RECEPTION OF ENGINEER'S COMMUNICATIONS

The superintendent shall receive for the Contractor all communications from the Engineer. Communications of major importance will be confirmed in writing upon request from the Contractor.

The Engineer may schedule project meetings for the purposes of discussing and resolving matters concerning the various elements of the work. The time and place for these meetings, and the names of

persons required to be present, shall be as determined by the Engineer. Contractor shall comply with these attendance requirements and shall also require his Subcontractors to comply.

4.12. SAFETY

The Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S. Department of Labor (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, and regulations. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth therein.

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.

The duty of the Engineer to conduct construction review of the work does not include review or approval of the adequacy of the Contractor's safety program, safety supervisor, or any safety measures taken in, on, or near the construction site.

The Contractor, as a part of his safety program, shall maintain at his office or other well-known place at the jobsite, safety equipment applicable to the work as prescribed by the aforementioned authorities, all articles necessary for giving first-aid to the injured, and shall establish the procedure for the immediate removal to a hospital or a doctor's care of persons (including employees) who may be injured on the jobsite.

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Engineer and the CITY. 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.

If a claim is made by anyone 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.

4.13. PROTECTION OF WORK AND PROPERTY

The Contractor shall at all times safely guard and protect from damage the CITY's property, adjacent property, and his own work from injury or loss in connection with this Contract. All facilities required for protection by federal, state, or municipal laws and regulations and local conditions must be provided and maintained.

The Contractor shall protect his work and materials from damage due to the nature of the work, the elements, carelessness of other contractors, or from any cause whatever until the completion and acceptance of the work. All loss or damages arising out of the nature of the work to be done under these Contract Documents, or from any unforeseen obstruction or defects which may be encountered in

the prosecution of the work, or from the action of the elements, shall be sustained by the Contractor.

4.14. RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY

In case of an emergency which threatens loss or injury of property, and/or safety of life, the Contractor shall act, without previous instructions from the CITY or Engineer, as the situation may warrant. The Contractor shall notify the Engineer thereof immediately thereafter. Any claim for compensation by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the CITY through the Engineer and the amount of compensation shall be determined by agreement.

4.15. MATERIALS AND APPLIANCES

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, heat, light, fuel, power, transportation, construction equipment and machinery, appliances, telephone, sanitary facilities, temporary facilities and other facilities and incidentals necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

In selecting and/or approving equipment for installation in the project, the CITY and Engineer assume no responsibility for injury or claims resulting from failure of the equipment to comply with applicable federal, state, and local safety codes or requirements, or the safety requirements of a recognized agency, or failure due to faulty design concepts, or defective workmanship and materials.

4.16. CONTRACTORS' AND MANUFACTURERS' COMPLIANCE WITH STATE SAFETY, OSHA, AND OTHER CODE REQUIREMENTS

The completed work shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items required by the state and federal (OSHA) industrial authorities and applicable local and national codes. Further, any features of the work subject to such safety regulations shall be fabricated, furnished, and installed (including CITY-furnished equipment) in compliance with these requirements. Contractors and manufacturers of equipment shall be held responsible for compliance with the requirements included herein. Contractors shall notify all equipment suppliers and Subcontractors of the provisions of this Article.

4.17. SUBSTITUTION OF MATERIALS

Except for CITY-selected equipment items, and items where no substitution is clearly specified, whenever any material, article, device, product, fixture, form, type of construction, or process is indicated or specified by patent or proprietary name, by name of manufacturer, or by catalog number, such specifications shall be deemed to be used for the purpose of establishing a standard of quality and facilitating the description of the material or process desired. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design, and shall be deemed to be followed by the words "or equal". The Contractor may, in such cases, submit complete data to the Engineer for consideration of another material, type, or process, which shall be substantially equal in every respect to that so indicated or specified. Substitute

materials shall not be used unless approved in writing. The Engineer will be the sole judge of the substituted article or material.

4.18. TESTS, SAMPLES, AND OBSERVATIONS

The Contractor shall furnish, without extra charge, the necessary test pieces and samples, including facilities and labor for obtaining the same, as requested by the Engineer. When required, the Contractor shall furnish certificates of tests of materials and equipment made at the point of manufacture by a recognized testing laboratory.

The CITY, Engineer, and authorized government agents, and their representatives shall at all times be provided safe access to the work wherever it is in preparation or progress, and the Contractor shall provide facilities for such access and for observations, including maintenance of temporary and permanent access.

If the Specifications, laws, ordinances, or any public authority require any work, to be specially tested or approved, the Contractor shall give timely notice of its readiness for observations. If any work should be covered up without approval or consent of the Engineer, it shall, if required by the Engineer, be uncovered for examination at the Contractor's expense.

The Engineer may order re-examination of questioned work, and, if so ordered, the Contractor shall uncover the work. If such work is found to be in accordance with the Contract Documents, the CITY will pay the cost of uncovering, exposure, observation, inspection, testing and reconstruction. If such work is found to be not in accordance with the Contract Documents, the Contractor shall correct the defective work, and the cost of reexamination and correction of the defective work shall be paid by the Contractor.

4.19. ROYALTIES AND PATENTS

The Contractor shall pay all royalty and licenses fees, unless otherwise specified. The Contractor shall defend all suits or claims for infringement of any patent rights and shall save the CITY and the Engineer harmless from any and all loss, including reasonable attorneys' fees, on account thereof.

4.20. CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

If the work should be stopped under an order of any court or other public authority for a period of more than 3 months, through no act or fault of the Contractor, its Subcontractors, or respective employees or if the Engineer should fail to make recommendation for payment to the CITY or return payment request to Contractor for revision within 30 days after it is due, or if the CITY should fail to pay the Contractor within 30 days after time specified in Article PARTIAL PAYMENTS, any sum recommended by the Engineer, then the Contractor may, upon 15 days' written notice to the CITY and the Engineer, stop work or terminate this Contract and recover from the CITY payment for all acceptable work performed and reasonable termination expenses, unless said default has been remedied.

4.21. CORRECTION OF DEFECTIVE WORK DURING WARRANTY PERIOD

The Contractor hereby agrees to make, at his own expense, all repairs or replacements necessitated by defects in materials or workmanship, provided under terms of this Contract, and pay for any damage to

other works resulting from such defects, which become evident within 1 year after the date of final acceptance of the work or within 1 year after the date of substantial completion established by the Engineer for specified items of equipment, or within such longer period as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents. Un-remedied defects identified for correction during the warranty period but remaining after its expiration shall be considered as part of the obligations of the warranty. Defects in material, workmanship, or equipment, which are remedied as a result of obligations of the warranty, shall subject the remedied portion of the work to an extended warranty period of 1 year after the defect has been remedied.

The Contractor further assumes responsibility for a similar guarantee for all work and materials provided by Subcontractors or manufacturers of packaged equipment components. The effective date for the start of the guarantee or warranty period for equipment qualifying as substantially complete is defined in Article SUBSTANTIAL COMPLETION, AND Article SUBSTANTIAL COMPLETION DATE, in these General Conditions.

The Contractor also agrees to hold the CITY and the Engineer harmless from liability of any kind arising from damage due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written order for same from the CITY. If the Contractor fails to make the repairs and replacements promptly, or in an emergency where delay would cause serious risk, or loss, or damage, the CITY may have the defective work corrected or the rejected work removed and replaced, and the Contractor and his Surety shall be liable for the cost thereof.

5.0 PROGRESS OF THE WORK

5.1. BEGINNING OF THE WORK

Following execution of the Contract, the Contractor shall meet with the CITY and Engineer relative to his arrangements for prosecuting the work.

5.2. SCHEDULES AND PROGRESS REPORTS

Prior to starting the construction, the Contractor shall prepare and submit to the Engineer, a progress schedule showing the dates on which each part or division of the work is expected to be started and finished, and a preliminary schedule for submittals. The progress schedule for submittals shall be brought up to date and submitted to the Engineer at the end of each month or at such other times the Engineer may request.

The Contractor shall forward to the Engineer, at the end of each month, an itemized report of the delivery status of major and critical items of purchased equipment and material, including shop drawings and the status of shop and field fabricated work. The progress reports shall indicate the date of the purchase order, the current percentage of completion, estimated delivery, and cause of delay, if any.

If the completion of any part of the work or the delivery of materials is behind the submitted progress schedule, the Contractor shall submit in writing a plan acceptable to the CITY and Engineer for bringing the work up to schedule.

The CITY shall have the right to withhold progress payments for the work if the Contractor fails to update and submit the progress schedule and reports as specified.

5.3. PROSECUTION OF THE WORK

It is expressly understood and agreed that the time of beginning, rate of progress, and time of completion of the work are the essence of this Contract. The work shall be prosecuted at such time, and in or on such part or parts of the project as may be required, to complete the project as contemplated in the Contract Documents and the progress schedule.

If the Contractor desires to carry on work at night or outside the regular hours, he shall give timely notice to the Engineer to allow satisfactory arrangements to be made for observing the work in progress.

5.4. OWNER'S RIGHT TO RETAIN IMPERFECT WORK

If any part or portion of the work completed under this Contract shall prove defective and not in accordance with the Drawings and Specifications, and if the imperfection in the same shall not be of sufficient magnitude or importance as to make the work dangerous or unsuitable, or if the removal of such work will create conditions which are dangerous or undesirable, the Owner shall have the right and authority to retain such work but will make such deductions in the final payment therefore as may be just and reasonable.

5.5. OWNER'S RIGHT TO DO WORK

Should the Contractor neglect to prosecute the work in conformance with the Contract Documents or neglect or refuse at his own cost to remove and replace work rejected by the Engineer, then the Owner may notify the Surety of the condition, and after 10 days' written notice to the Contractor and the Surety, or without notice if an emergency or danger to the work or public exists, and without prejudice to any other right which the Owner may have under Contract, or otherwise, take over that portion of the work which has been improperly or non timely executed, and make good the deficiencies and deduct the cost thereof from the payments then or thereafter due the Contractor.

5.6. OWNER'S RIGHT TO TRANSFER EMPLOYMENT

If the Contractor should abandon the work or if he should persistently or repeatedly refuse or should fail to make prompt payment to Subcontractors for material or labor, or to persistently disregard laws, ordinances, or to prosecute the work in conformance with the Contract Documents, or otherwise be guilty of a substantial violation of any provision of the Contract or any laws or ordinance, then the Owner may, without prejudice to any other right or remedy, and after giving the Contractor and Surety 10 days' written notice, transfer the employment for said work from the Contractor to the Surety. Upon receipt of such notice, such Surety shall enter upon the premises and take possession of all materials, tools, and appliances thereon for the purpose of completing the work included under this Contract and employ by Contract or otherwise, any qualified person or persons to finish the work and provide the materials therefore, in accordance with the Contract Documents, without termination of the continuing full force and effect of this Contract. In case of such transfer of employment to such Surety, the Surety shall be paid in its own name on estimates according to the terms hereof without any right of the Contractor to make any claim for the same or any part thereof.

If, after the furnishing of said written notice to the Surety, the Contractor and the Surety still fail to make reasonable progress on the performance of the work, the Owner may terminate the employment of the Contractor and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method he may deem expedient and charge the cost thereof to the

Contractor and the Surety. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of completing the Contract, including compensation for additional managerial and administrative services, shall exceed such unpaid balance, the Contractor and the Surety shall pay the difference to the Owner.

5.7. DELAYS AND EXTENSION OF TIME

If the Contractor is delayed in the progress of the work by any act or neglect of the Owner or the Engineer, or by any separate Contractor employed by the Owner, or by strikes, lockouts, fire, adverse weather conditions not reasonably anticipated, or acts of Nature, and if the Contractor, within 48 hours of the start of the occurrence, gives written notice to the Owner of the cause of the potential delay and estimate of the possible time extension involved, and within 10 days after the cause of the delay has been remedied, the Contractor gives written notice to the Owner of any actual time extension requested as a result of the aforementioned occurrence, then the Contract time may be extended by change order for such reasonable time as the Engineer determines. It is agreed that no claim shall be made or allowed for any damages, loss, or expense which may arise out of any delay caused by the above referenced acts or occurrences other than claims for the appropriate extension of time.

No extension of time will be granted to the Contractor for delays occurring to parts of the work that have no measurable impact on the completion of the total work under this Contract. No extension of time will be considered for weather conditions reasonably anticipated for the area in which the work is being performed. Reasonably anticipated weather conditions will be based on official records of monthly precipitation and other historical data. Adverse weather conditions, if determined to be of a severity that would impact progress of the work, may be considered as cause for an extension of Contract completion time.

Delays in delivery of equipment or material purchased by the Contractor or his Subcontractors, including Owner-selected equipment shall not be considered as a just cause for delay, unless the Owner determines that for good cause the delay is beyond the control of the Contractor. The Contractor shall be fully responsible for the timely ordering, scheduling, expediting, delivery, and installation of all equipment and materials.

Within a reasonable period after the Contractor submits to the Owner a written request for an extension of time, the Engineer will present his written opinion to the Owner as to whether an extension of time is justified, and, if so, his recommendation as to the number of days for time extension. The Owner will make the final decision on all requests for extension of time.

5.8. DIFFERING SITE CONDITIONS

The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Owner and Engineer of:

- A. Subsurface or latent physical conditions at the site which differ materially from those indicated in this contract,
- B. Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The Engineer will investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this Contract, whether or not changed as a result of the conditions, and equitable adjustment shall be made under this Article and the Contract modified in writing accordingly.

No request by the Contractor for an equitable adjustment to the Contract under this Article will be allowed, unless the Contractor has given the written notice required; provided that the time prescribed above for giving written notice may be extended by the Owner.

No request by the Contractor for an equitable adjustment to the Contract for differing site conditions will be allowed if made after final payment under this Contract.

5.9. LIQUIDATED DAMAGES

Should the Contractor fail to complete the work, or any part thereof, in the time agreed upon in the Contract or within such extra time as may have been allowed for delays by extensions granted as provided in the Contract, the Contractor shall reimburse the Owner for the additional expense and damage for each calendar day, Sundays and legal holidays included, that the Contract remains uncompleted after the Contract completion date. It is agreed that the amount of such additional expense and damage incurred by reason of failure to complete the work is the per-diem rate, as stipulated in the Proposal. The said amount is hereby agreed upon as a reasonable estimate of the costs, which may be accrued by the Owner after the expiration of the time of completion. It is expressly understood and agreed that this amount is not to be considered in the nature of a penalty, but as liquidated damages which have accrued against the Contractor. The Owner shall have the right to deduct such damages from any amount due, or that may become due the Contractor, or the amount of such damages shall be due and collectible from the Contractor or Surety.

5.10. OTHER CONTRACTS

The Owner reserves the right to let other Contracts in connection with the work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs.

If any part of the work under this Contract depends for proper execution or results upon the work of any other Contractor, utility service company or Owner, the Contractor shall inspect and promptly report to the Engineer in writing any patent or apparent defects to deficiencies in such work that render it unsuitable for such proper execution and results. The Contractor's failure to so report shall constitute and acceptance of the work by others as being fit and proper for integration with work under this Contract, except for latent or non apparent defects and deficiencies in the work.

5.11. USE OF PREMISES

The Contractor shall confine his equipment, the storage of materials and the operation of his workers to limits shown on the Drawings or indicated by law, ordinances, permits, or directions of the Engineer, and shall not unreasonably encumber the premises with his materials. The Contractor shall provide, at his own expense, the necessary rights-of-way, and access to the work, which may be required outside

the limits of the Owner's property and shall furnish the Engineer copies of permits and agreements for use of the property outside that provided by the Owner.

The Contractor shall not load nor permit any part of the 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.

5.12. SUBSTANTIAL COMPLETION DATE

The Engineer may issue a written notice of substantial completion for the purpose of establishing the starting date for specific equipment guarantees, and to establish the date that the Owner will assume the responsibility for the cost of operating such equipment. Said notice shall not be considered as final acceptance of any portion of the work or relieve the Contractor from completing the remaining work within the specified time and in full compliance with the Contract Documents. See SUBSTANTIAL COMPLETION under DEFINITIONS of these General Conditions.

5.13. PERFORMANCE TESTING

Operating equipment and systems shall be performance tested in the presence of the Engineer to demonstrate compliance with the specified requirements. Performance testing shall be conducted under the specified design operating conditions or under such simulated operating conditions as recommended or approved by the Engineer. Such testing will be scheduled with the Engineer at least one week in advance of the planned date for testing.

5.14. OWNER'S USE OF PORTIONS OF THE WORK

Following issuance of the written notice of Substantial Completion, the Owner may initiate operation of the facility. Such use shall not be considered as final acceptance of any portion of the work, nor shall such use be considered as cause for an extension of the Contract completion time, unless authorized by a Change Order issued by the Owner.

5.15. CUTTING AND PATCHING

The Contractor shall do all cutting, fitting, or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other Contractors shown upon or reasonably implied by the Drawings.

5.16. CLEANING UP

The Contractor shall, at all times, keep property on which work is in progress and the adjacent property free from accumulations of waste material or rubbish caused by employees or by the work. Upon completion of the construction, the Contractor shall remove all temporary structures, rubbish, and waste materials resulting from his operations.

6.0 PAYMENT

6.1. CHANGE ORDERS

The Owner's request for quotations on alterations to the work shall not be considered authorization to proceed with the work prior to the issuance of a formal Change Order, nor shall such request justify any delay in existing work. Quotations for alterations to the work shall include substantiating documentation with an itemized breakdown of Contractor and Subcontractor costs, including labor, material, rentals, approved services, overhead, and profit. Owner may require detailed cost data in order to substantiate the reasonableness of the proposed costs.

Any compensation paid in conjunction with the terms of a Change Order shall comprise total compensation due the Contractor for the work or alteration defined in the Change Order. By signing the Change Order, the Contractor acknowledges that the stipulated compensation includes payment for the work or alteration plus all payment for the interruption of schedules, extended overhead, delay, or any other impact claim or ripple effect, and by such signing specifically waives any reservation or claim for additional compensation in respect to the subject Change Order.

At the Owner's option, payment or credit for any alterations covered by a Change Order shall be determined by one or a combination of the methods set forth in A, B, or C below, as applicable: **SUBMITTAL**: Contractor shall provide a submittal with crew and equipment cost for additional work for city acceptance that will be used for the duration of the contract.

A. UNIT PRICES

Those unit prices stipulated in the Proposal shall be utilized where they are applicable. In the event the Change Order results in a change in the original quantity that is materially and significantly different from the original bid quantity, a new unit price shall be negotiated upon demand of either party. Unit prices for new items included in the Change Order shall be negotiated and mutually agreed upon.

B. LUMP SUM

A total lump sum for the work negotiated and mutually acceptable to the Contractor and the Owner.

Lump sum quotations for modifications to the work shall include substantiating documentation with an itemized breakdown of Contractor and Subcontractor costs, including labor, material, rentals, approved services, overhead, and profit, all calculated as specified under "C" below.

C. COST REIMBURSEMENT WORK

The term "cost reimbursement" shall be understood to mean that payment for the work will be made on a time and expense basis, that is, on an accounting of the Contractor's forces, materials, equipment, and other items of cost as required and used to do the work.

If the method of payment cannot be agreed upon prior to the beginning of the work, and the Owner directs by written Change Order that the work be done on a cost reimbursement basis, then the Contractor shall furnish labor, and furnish and install equipment and materials necessary to complete the work in a satisfactory manner and within a reasonable period of time. For the work performed,

payment will be made for the documented actual cost of the following:

1. Labor including foremen for those hours they are assigned and participating in the cost reimbursement work (actual payroll cost, including wages, fringe benefits as established by negotiated labor agreements, labor insurance, and labor taxes as established by law). No other fixed labor burdens will be considered, unless approved in writing by the Owner.
2. Material delivered and used on the designated work, including sales tax, if paid by the Contractor or his Subcontractor.
3. Rental, or equivalent rental cost of equipment, including necessary transportation for items having a value in excess of \$100.
4. Rental or equivalent rental cost will be allowed for only those days or hours during which the equipment is in actual use. Rental and transportation allowances shall not exceed the current rental rates prevailing in the locality. The rentals allowed for equipment will, in all cases, be understood to cover all fuel, supplies, repairs, and renewals, and no further allowances will be made for those items, unless specific agreement to that effect is made.
5. Additional bond, as required and approved by the owner.
6. Additional insurance (other than labor insurance) as required and approved by the Owner.

In addition to items 1 through 6 above, 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. The crew burden cost shall not exceed 45%.

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.

The added fixed fees shall be considered to be full compensation, covering the cost of general supervision, overhead, profit, and any other general expense. The Contractor's records shall make clear distinction between the direct costs of work paid for on a cost reimbursement basis and the costs of other work. The Contractor shall furnish the Engineer report sheets in duplicate of each day's cost reimbursement work no later than the working day following the performance of said work. The daily report sheets shall itemize the materials used, and shall cover the direct cost of labor and the charges for equipment rental, whether furnished by the Contractor, Subcontractor or other forces. The daily report sheets shall provide names or identifications and classifications of workers, the hourly rate of pay and hours worked, and also the size, type, and identification number of equipment and hours operated.

Material charges shall be substantiated by valid copies of vendors' invoices. Such invoices shall be submitted with the daily report sheets, or, if not available, they shall be submitted with subsequent daily report sheets. Said daily report sheets shall be signed by the Contractor or his authorized agent.

The Owner reserves the right to furnish such materials and equipment as he deems expedient and the Contractor shall have no claim for profit or added fees on the cost of such materials and equipment. To

receive partial payments and final payment for cost reimbursement work, the Contractor shall submit to the Engineer, detailed and complete documented verification of the Contractor's and any of his Subcontractors' actual costs involved in the cost reimbursement work. Such costs shall be submitted within 30 days after said work has been performed.

6.2. PARTIAL PAYMENTS

A. GENERAL

Nothing in this Article shall be construed to affect the right, hereby reserved, to reject the whole or any part of the aforesaid work, should such work be later found not to comply with the provisions of the Contract Documents. All estimated quantities of work for which partial payments have been made are subject to review and correction on the final estimate. Payment by the Owner and acceptance by the Contractor of partial payments based on periodic estimates of quantities of work performed shall not, in any way, constitute acceptance of the estimated quantities used as a basis for computing the amounts of the partial payments.

B. ESTIMATE

At least 30 days before each progress payment falls due, as specified in the Supplementary Conditions, the Contractor shall submit to the Engineer a detailed estimate of the amount earned during the preceding month for the separate portions of the work, and request payment. As used in this Article, the words "amount earned" means the value, on the date of the estimate for partial payment, of the work completed in accordance with the Contract Documents, and the value of approved materials delivered to the project site suitable stored and protected prior to incorporation into the work.

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

Engineer may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations to Owner. Engineer may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such an extent as may be necessary in Engineer's opinion to protect the Owner from loss because:

1. The work is defective, or completed work has been damaged requiring correction or replacement.
2. Written claims have been made against Owner or Liens have been filed in connection with the work.
3. The Contract Price has been reduced because of Change Orders.
4. Owner has been required to correct defective work or complete the work in accordance with Article OWNER'S RIGHT TO DO WORK;

5. Of Contractor's unsatisfactory prosecution of the work in accordance with the Contract Documents; or
6. Contractor's failure to make payment to Subcontractors or for labor, materials, or equipment.

C. DEDUCTION FROM ESTIMATE

Unless modified in the Supplementary Conditions, deductions from the estimate will be as described below:

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. When the work is 50 percent complete, the Owner may reduce the retainage to 5 percent of the dollar value of all work satisfactorily completed to date provided the Contractor is making satisfactory progress and there is no specific cause for a greater retainage. The Owner may increase retainage by 50% of cost of construction of the intersection if not completed; defined as final paving and grading completed; within 60 days since start of construction. Start of construction defined as field notes that show ground breaking. The Owner may reinstate the retainage up to 10 percent if the Owner determines, at his discretion, that the Contractor is not making satisfactory progress or where there is other specific cause for such withholding.

D. QUALIFICATION FOR PARTIAL PAYMENT FOR MATERIALS DELIVERED

Unless modified in the Supplementary Conditions, qualification for partial payment for materials delivered but not yet incorporated into the work shall be as described below:

1. Materials, as used herein, shall be considered to be those items that are fabricated and manufactured material and equipment. No consideration shall be given to individual purchases of less than \$200 for any one item.
2. To receive partial payment for materials delivered to the site, but not incorporated in the work, it shall be necessary for the Contractor to include a list of such materials on the Partial Payment Request. At his sole discretion, the Engineer may approve items for which partial payment is to be made. Partial payment shall be based on 80% Contractor's actual cost for the materials as evidenced by invoices from the supplier. Proper storage and protection shall be provided by the Contractor, and as approved by the Engineer. Final payment shall be made only for materials actually incorporated in the work and, upon acceptance of the work, all materials remaining for which advance payments had been made shall revert to the Contractor, unless otherwise agreed, and partial payments made for these items shall be deducted from the final payment for the work.
3. 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 at the time of payment free and clear of all liens, claims, security interests, and encumbrances.

4. If requested by the Engineer, the Contractor shall provide, with subsequent pay requests, invoices received by the supplier showing payment in full has been made.

E. PAYMENT

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 9 days prior to the scheduled day for payment will not be processed or paid until the following month.

6.3. CLAIMS FOR EXTRA WORK

In any case where the Contractor deems additional time or compensation will become due him under this Contract for circumstances other than those defined in Article DELAYS AND EXTENSION OF TIME, the Contractor shall notify the Engineer, in writing, of his intention to make claim for such time or compensation before he begins the work on which he bases the claim, in order that such matters may be settled, if possible, or other appropriate action taken. The notice of claim shall be in duplicate, in writing, and shall state the circumstances and the reasons for the claim, but need not state the amount. If such notification is not given, or if the Engineer is not afforded proper facilities by the Contractor for keeping strict account of actual cost, then the Contractor hereby agrees to waive the claim for such additional time or compensation. Such notice by the Contractor, and fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim.

No extension of time will be granted to the Contractor for delays resulting from extra work that have no measurable impact on the completion of the total Work under this Contract. Claims for additional time or compensation shall be made in itemized detail and submitted, in writing, to the Owner and Engineer within 10 days following completion of that portion of the work for which the Contractor bases his claim. Failure to make the claim for additional compensation in the manner and within the time specified above shall constitute waiver of that claim. In case the claim is found to be just, it shall be allowed and paid for as provided in Article **PAYMENT FOR CHANGE ORDERS**.

6.4. RELEASE OF LIENS OR CLAIMS

The Contractor shall indemnify and hold harmless the Owner from all claims for labor and materials furnished under this Contract. Prior to the final payment, the Contractor shall furnish to the Owner, as part of his final payment request, a certification that all of the Contractor's obligations on the project have been satisfied and that all monetary claims and indebtedness have been paid. The Contractor shall furnish complete and legal effective releases or waivers, satisfactory to the Owner, of all liens arising out of or filed in connection with the work. No Final payment will be made without lien releases.

6.5. FINAL PAYMENT

Upon completion of all the work under this Contract, the Contractor shall notify the Engineer, in writing, that he has completed his part of the Contract and shall request final payment. Upon receipt of such notice the Engineer will inspect and, if acceptable, submit to the Owner his recommendation as to acceptance of the completed work and as to the final estimate of the amount due the Contractor. Upon approval of this final estimate by the Owner and compliance by the Contractor with provisions in Article **RELEASE OF LIENS OR CLAIMS**, and other provisions as may be applicable, the Owner

shall pay to the Contractor all monies due him under the provisions of these Contract Documents.

6.6. NO WAIVER OF RIGHTS

Neither the inspection by the Owner, through the Engineer or any of his employees, nor any order by the Owner for payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the Owner or Engineer, nor any extension of time, nor any possession taken by the owner or its employees, shall operate as a waiver of any provision of this Contract, or any power herein reserved to the Owner, or any right to damages herein provided, nor shall any waiver of any breach in this Contract be held to be a waiver of any other or subsequent breach. Acceptance or final payment shall not be final and conclusive with regards to latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under the warranty.

6.7. ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE

The acceptance by the Contractor of the final payment shall release the Owner and the Engineer, as representatives of the Owner, from all claims and all liability to 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 except claims previously made in writing and still unsettled. No payment, however, final or otherwise, shall operate to release the Contractor or his Sureties from obligations under this Contract and the Performance Bond, Payment Bond, and other bonds and warranties, as herein provided.

SPECIAL GRANT CONDITIONS

SUPPLEMENTAL GENERAL CONDITIONS
FOR
FEDERALLY ASSISTED CONSTRUCTION CONTRACTS
Attachments A-J

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, 1978 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 from the 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 interest of 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.

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, 1978, 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

DBE / MBE / WBE provisions

For the purposes of the project, the City of Key West is following the Environmental Protection Agency's (EPA) DBE Program.

Please refer to the following pages in this attachment for information regarding DBE / MBE / WBE, including EPA Forms 6100-2, 6100-3 and 6100-4.

Excerpt from Executive Order 11625:

The opportunity for full participation in our free enterprise system by socially and economically disadvantaged persons is essential if we are to obtain social and economic justice for such persons and improve the functioning of our national economy.

EPA Office of Small Business Programs (OSBP) - Small Business Vendor Profile System (SBVPS)

The OSBP Small Business Vendor Profile System contains information of number of small and disadvantaged companies that have registered with this office. The information is provided by the individual companies. The intended purpose of this database is to aid large prime contractors to find small and disadvantaged companies to team with the conduction of their business endeavors. This office does not validate the data within database and can not insure that the information contained in the database is current or correct.

Website:

<http://cfpub.epa.gov/sbvps/>

MBE/WBE Certification
“Maintaining the Integrity of the Program”

Program Comparison

Old MBE/WBE Program	New DBE Program
MBEs and WBEs self-certify their status.	MBEs and WBEs must be certified by EPA, SBA, DOT, or by state, local, Tribal, or private entities whose certification criteria match EPA's. *States are not required to develop or implement a new certification program.
Self-certified MBEs and WBEs can be counted toward a recipient's MBE/WBE accomplishments when reporting on EPA Form 5700-52A	MBEs and WBEs must be certified in order to be counted toward a recipient's MBE/WBE accomplishments.

What Are DBEs, MBEs and WBEs?

- **Disadvantaged Business Enterprises (DBEs) are**
 - entities owned and/or controlled by a socially and economically disadvantaged individuals as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d) (8% statute), respectively;
 - a Small Business Enterprise (SBE);
 - a Small Business in a Rural Area (SBRA);
 - a Labor Surplus Area Firm (LSAF); or
 - a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.
- **Minority Business Enterprises (MBEs)** are entities that are at least 51% owned and/or controlled by a socially and economically disadvantaged individual as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note), and Public Law 102-389 (42 U.S.C. 4370d), respectively.
- **Women's Business Enterprises (WBEs)** are entities that are at least 51% owned and/or controlled by women (under the 10% and 8% statutes).

Who is responsible for certifying MBE and WBE firms?

EPA OSBP Headquarters will be responsible for implementing and processing the certification of MBE/WBE firms. Regional DBE coordinators will assist by providing forms to interested firms and fielding general questions. The states have no responsibility to implement or maintain a certification program for EPA.

Does EPA accept other certifications?

Yes. Under the new DBE Program entities can no longer self-certify. EPA will accept certifications from:

- The Small Business Administration(SBA) (**both SBA 8(a) program certifications and SBA Small Disadvantaged Business (SDB) Program self-certifications**);

- The Department of Transportation's state implemented DBE Certification Program (with U.S. citizenship);
- Tribal, State and local governments, as long as their standards for certification meet or exceed our own; and
- Independent private organization certifications as long as their standards for certification meet or exceed our own.

If an entity holds one of these certifications, it is considered acceptable for establishing MBE or WBE status under EPA's DBE Program, and application for EPA certification is not needed.

What are the EPA MBE/WBE certification requirements?

- In order to be certified by EPA, an entity must first attempt to be certified by SBA or DOT, or a Tribal, State, or local government, or by an independent private organization, and be unsuccessful in that attempt.
- To qualify as a MBE or WBE under EPA's programs an entity must establish that it is at least 51% owned and/or controlled by socially and economically disadvantaged individuals who are of good character and are citizens of the United States.
- An individual claiming economic disadvantaged status must have an initial and continued personal net worth of less than \$750,000.

What does the certification process entail?

- Applications are filed with EPA OSBP. Applications can be obtained from EPA OSBP, from regional DBE Coordinators, and from EPA OSBP's website, www.epa.gov/OSBP. The application includes the following:
 - An attestation to the accuracy and truthfulness of the information on the application form by sworn affidavit, or an unsworn declaration executed under penalty of perjury of the laws of the United States.
 - The application must include evidence demonstrating that the entity is owned and/or controlled by one or more individuals claiming disadvantaged status, along with certifications or narratives regarding the disadvantaged status of such individuals.
 - The application must include documentation of a denial of certification by a Federal agency, State government, local government, Indian Tribal government, or independent private organization, if applicable.
- Once applications are filed, EPA OSBP will advise each applicant within 15 days, whether the application is complete and suitable for evaluation and, if not, what additional information or action is required.
- EPA OSBP will make its certification decision within 30 days of receipt of a complete and suitable application package.

How does Certification affect a firm's participation in the overall DBE program?

- In order for a firm to be counted towards a recipient's Minority Business Enterprise and Women Business Enterprise utilization, a firm must be certified.

The Six Good Faith Efforts and Contract Administration Requirements
They Keys to Outreach and Opportunity

3.

Program Comparison

Old MBE/WBE Program

New DBE Program

Following the “Six Affirmative Steps” under 40 CFR Part 31, and the Six Positive Efforts under 40 CFR Part 30 were required by all grantees.	The “Six Good Faith Efforts” combine the “Six Affirmative Steps” and the “Six Positive Efforts” and are still required by all grantees. The substance of the efforts has not changed.
No protections for DBE Subcontractors	Several mechanisms are in place to protect DBE Subcontractors: <ul style="list-style-type: none"> • 30 day payment provision, notifications of DBE terminations, and continuing the Six Affirmative Steps after termination of a DBE. • Completion of 3 new forms to prevent “bait and switch” tactics. None of these new forms are completed, or submitted by the grant recipient. These forms are filled out by the recipient’s prime contractors and subcontractors.
No mechanism for recipients to develop and maintain their own list of DBEs	Recipients are now required to create and maintain a bidders list. There is a \$250K exemption for this requirement.

What is the Purpose of the Six Good Faith Efforts?

The Good Faith Efforts are required methods implored by all EPA financial assistance agreement recipients to ensure that all disadvantaged business enterprises (DBEs) have the opportunity to compete for procurements funded by EPA financial assistance dollars.

What are the Six Good Faith Efforts?

- Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

- Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
- If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

What are the New Contract Administration Requirements?

There are a number of new provisions designed to prevent unfair practices that adversely affect DBEs. Those provisions are as follows:

- A recipient must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient.
- A recipient must be notified in writing by its prime contractor prior to any termination of a DBE subcontractor for convenience by the prime contractor.
- If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts if soliciting a replacement subcontractor.
- A recipient must require its prime contractor to employ the six good faith efforts even if the prime contractor has achieved its fair share objectives.

What Are the New Forms Associated With the New Contract Administration Provisions?

- EPA Form 6100-2 - DBE Program Subcontractor Participation Form. This form gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the prime contractor, how much the DBE subcontractor was paid and any other concerns the DBE subcontractor might have.
- EPA Form 6100-3 - DBE Program Subcontractor Performance Form. This form captures an intended subcontractor's description of work to be performed for the prime contractor and the price of the work submitted to the prime.
- EPA Form 6100-4 – DBE Program Subcontractor Utilization Form. This form captures the prime's intended use of an identified DBE subcontractor, and the estimated dollar amount of the subcontract.

Form	Requirement	Provided By:	Completed By:	Submitted To:
EPA Form 6100-2	Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	EPA DBE Coordinator
EPA Form 6100-3	Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	Recipients as part of a bid or proposal package
EPA Form 6100-4	Recipients required to have prime contractors complete the form	Recipients	Prime Contractors	Recipients as part of a bid or proposal package

What is the New Bidders List Requirement?

The purpose of a bidders list is to provide the recipient and entities receiving identified loans who conduct competitive bidding with as accurate of a database as possible about the universe of MBE/WBE and non-MBE/WBE prime and subcontractors.

- A recipient of a Continuing Environmental Program Grant or other annual grant must create and maintain a bidders list.
- A recipient of an EPA financial assistance agreement to capitalize a revolving loan fund also must require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding requirements.
- The list must include all firms that bid or quote on prime contracts, or bid or quote subcontracts on EPA assisted projects, including both MBE/WBEs and non-MBE/WBEs.
- The bidders list must only be kept until the grant project period has expired and the recipient is no longer receiving EPA funding under the grant. For entities receiving identified loans, the bidders list must only be kept until the project period for the identified loan has ended.

What Information Must Be Retained on the Bidders List?

- (1) Entity's name with point of contact;
- (2) Entity's mailing address, telephone number, and email address;
- (3) The procurement on which the entity bid or quoted, and when; and
- (4) Entity's status as an MBE/WBE or non-MBE/WBE.

What Are There Exemptions From The Bidders List Requirements?

- A recipient of an EPA financial assistance agreement in the amount of \$250,000 or less for any single assistance agreement, or of more than one financial assistance agreement with a combined total of \$250,000 or less in any one fiscal year, is exempt from the requirement to create and maintain a bidders list.
- A recipient under the CWSRF, DWSRF, or BCRLF Program is not required to apply the bidders list requirement to an entity receiving an identified loan in an amount of \$250,000 or less, or to an entity receiving more than one identified loan with a combined total of \$250,000 or less in any one fiscal year.
- These exemptions are limited to the bidders list requirements only.



Environmental
Protection Agency

OMB Control No: 2090-0030
Approved: 05/01/2008
Approval Expires: 01/31/2011

**Disadvantaged Business Enterprise Program
DBE Subcontractor Participation Form**

NAME OF SUBCONTRACTOR ¹	PROJECT NAME
ADDRESS	CONTRACT NO.
TELEPHONE NO.	EMAIL ADDRESS
PRIME CONTRACTOR NAME	

Please use the space below to report any concerns regarding the above EPA-funded project (e.g., reason for termination by prime contractor, late payment, etc.).

CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SERVICES RECEIVED FROM THE PRIME CONTRACTOR	AMOUNT SUBCONTRACTOR WAS PAID BY PRIME CONTRACTOR

Subcontractor Signature

Title/Date

¹Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

EPA FORM 6100-2 (DBE Subcontractor Participation Form)



Environmental
Protection Agency

OMB Control No: 2090-0030
Approved: 05/01/2008
Approval Expires: 01/31/2011

Disadvantaged Business Enterprise Program DBE Subcontractor Participation Form

The public reporting and recordkeeping burden for this collection of information is estimated to average fifteen (15) minutes. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA DBE Subcontractor Participation Form to this address.

EPA FORM 6100-2 (DBE Subcontractor Participation Form)



Environmental
Protection Agency

OMB Control No: _____
Approved: _____
Approval Expires: _____

**Disadvantaged Business Enterprise Program
DBE Subcontractor Performance Form**

NAME OF SUBCONTRACTOR ¹		PROJECT NAME
ADDRESS		BID/PROPOSAL NO.
TELEPHONE NO.		E-MAIL ADDRESS
PRIME CONTRACTOR NAME		
CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SERVICES BID TO PRIME	PRICE OF WORK SUBMITTED TO PRIME CONTRACTOR
Currently certified as an MBE or WBE under EPA's DBE Program? _____ Yes _____ No		
_____ Signature of Prime Contractor		_____ Date
_____ Print Name		_____ Title
_____ Signature of Subcontractor		_____ Date
_____ Print Name		_____ Title

¹Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

EPA FORM 6100-3 (DBE Subcontractor Performance Form)



Environmental
Protection Agency

OMB Control No: _____
Approved: _____
Approval Expires: _____

Disadvantaged Business Enterprise Program DBE Subcontractor Performance Form

The public reporting and recordkeeping burden for this collection of information is estimated to average fifteen (15) minutes. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA DBE Subcontractor Performance Form to this address.



Environmental
Protection Agency

OMB Control No: _____
Approved: _____
Approval Expires: _____

**Disadvantaged Business Enterprise Program
DBE Subcontractor Utilization Form**

BID/PROPOSAL NO.	PROJECT NAME
NAME OF PRIME BIDDER/PROPOSER	E-MAIL ADDRESS
ADDRESS	
TELEPHONE NO.	FAX NO.

The following subcontractors ¹ will be used on this project:			
COMPANY NAME, ADDRESS, PHONE NUMBER, AND E-MAIL ADDRESS	TYPE OF WORK TO BE PERFORMED	ESTIMATE D DOLLAR AMOUNT	CURRENTLY CERTIFIED AS AN MBE OR WBE?

I certify under penalty of perjury that the forgoing statements are true and correct. In the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302(c).

Signature Of Prime Contractor

Date

Print Name

Title

¹Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



Environmental
Protection Agency

OMB Control No: _____
Approved: _____
Approval Expires: _____

Disadvantaged Business Enterprise Program DBE Subcontractor Utilization Form

The public reporting and recordkeeping burden for this collection of information is estimated to average fifteen (15) minutes. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA DBE Subcontractor Utilization Form to this address.

End of attachment B / page blank

ATTACHMENT C

Buy American

Section 1605 of the Recovery Act requires that projects, funded by the Recovery Act, for the construction, alteration, maintenance, or repair of a public building or public work use American iron, steel, and manufactured goods in the project unless one of the specified exemptions applies. The Act provides that this requirement be applied in a manner consistent with U.S. obligations under international agreements. Definitions of “manufactured good,” “public building and public work,” and other terms as they pertain to the Buy American guidance in 2 CFR part 176 are found in 176.140 and 176.160 (included below).

Title 2: Grants and Agreements

[PART 176—AWARD TERMS FOR ASSISTANCE AGREEMENTS THAT INCLUDE FUNDS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009, PUBLIC LAW 111-5](#)

[Subpart B—Buy American Requirement Under Section 1605 of the American Recovery and Reinvestment Act of 2009](#)

§ 176.140 Award term—Required Use of American Iron, Steel, and Manufactured Goods—Section 1605 of the American Recovery and Reinvestment Act of 2009.

When awarding Recovery Act funds for construction, alteration, maintenance, or repair of a public building or public work that does not involve iron, steel, and/or manufactured goods covered under international agreements, the agency shall use the award term described in the following paragraphs:

(a) *Definitions.* As used in this award term and condition—

(1) *Manufactured good* means a good brought to the construction site for incorporation into the building or work that has been—

(i) Processed into a specific form and shape; or

(ii) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

(2) *Public building and public work* means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

(3) *Steel* means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Domestic preference.* (1) This award term and condition implements Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) (Pub. L. 111-5), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States except as provided in paragraph (b)(3) and (b)(4) of this section and condition.

(2) This requirement does not apply to the material listed by the Federal Government as follows:

[Award official to list applicable excepted materials or indicate “none”]

(3) The award official may add other iron, steel, and/or manufactured goods to the list in paragraph (b)(2) of this section and condition if the Federal Government determines that—

(i) The cost of the domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the cost of the overall project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of Section 1605 of the Recovery Act.* (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(3) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(3) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, and/or manufactured goods material shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods is noncompliant with section 1605 of the American Recovery and Reinvestment Act.

(d) *Data.* To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the Recipient shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Items Cost Comparison

Description	Unit of measure	Quantity	Cost (dollars)*
<i>Item 1:</i>			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____
<i>Item 2:</i>			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____

[List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

*[*Include all delivery costs to the construction site.]*

§ 176.160 Award term—Required Use of American Iron, Steel, and Manufactured Goods (covered under International Agreements)—Section 1605 of the American Recovery and Reinvestment Act of 2009.

When awarding Recovery Act funds for construction, alteration, maintenance, or repair of a public building or public work that involves iron, steel, and/or manufactured goods materials covered under international agreements, the agency shall use the award term described in the following paragraphs:

(a) *Definitions.* As used in this award term and condition—

Designated country—(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom;

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or

(3) A United States-European Communities Exchange of Letters (May 15, 1995) country: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and United Kingdom.

Designated country iron, steel, and/or manufactured goods—(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a manufactured good that consist in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different manufactured good distinct from the materials from which it was transformed.

Domestic iron, steel, and/or manufactured good—(1) Is wholly the growth, product, or manufacture of the United States; or

(2) In the case of a manufactured good that consists in whole or in part of materials from another country, has been substantially transformed in the United States into a new and different manufactured good distinct from the materials from which it was transformed. There is no requirement with regard to the origin of components or subcomponents in manufactured goods or products, as long as the manufacture of the goods occurs in the United States.

Foreign iron, steel, and/or manufactured good means iron, steel and/or manufactured good that is not domestic or designated country iron, steel, and/or manufactured good.

Manufactured good means a good brought to the construction site for incorporation into the building or work that has been—

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

Public building and public work means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Iron, steel, and manufactured goods.* (1) The award term and condition described in this section implements—

(i) Section 1605(a) of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111–5) (Recovery Act), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States; and

(ii) Section 1605(d), which requires application of the Buy American requirement in a manner consistent with U.S. obligations under international agreements. The restrictions of section 1605 of the Recovery Act do not apply to designated country iron, steel, and/or manufactured goods. The Buy American requirement in section 1605 shall not be applied where the iron, steel or manufactured goods used in the project are from a Party to an international agreement that obligates the recipient to treat the goods and services of that Party the same as domestic goods and services. This obligation shall only apply to projects with an estimated value of \$7,443,000 or more.

(2) The recipient shall use only domestic or designated country iron, steel, and manufactured goods in performing the work funded in whole or part with this award, except as provided in paragraphs (b)(3) and (b)(4) of this section.

(3) The requirement in paragraph (b)(2) of this section does not apply to the iron, steel, and manufactured goods listed by the Federal Government as follows:

[*Award official to list applicable excepted materials or indicate “none”*]

(4) The award official may add other iron, steel, and manufactured goods to the list in paragraph (b)(3) of this section if the Federal Government determines that—

(i) The cost of domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, and/or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the overall cost of the project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.* (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(4) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(4) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, or manufactured goods shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other appropriate actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods.. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods other than designated country iron, steel, and/or manufactured goods is noncompliant with the applicable Act.

(d) *Data*. To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the applicant shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Items Cost Comparison

Description	Unit of measure	Quantity	Cost (dollars)*
<i>Item 1:</i>			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____
<i>Item 2:</i>			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____

[List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[*Include all delivery costs to the construction site.]

End of Attachment C

ATTACHMENT D

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 D

ATTACHMENT E

FHWA-1273 Electronic version -- March 10, 1994

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS (REV 3-10-94) (7-00)

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Payment of Predetermined Minimum Wage
- V. Statements and Payrolls
- VI. Record of Materials, Supplies, and Labor
- VII. Subletting or Assigning the Contract
- VIII. Safety: Accident Prevention
- IX. False Statements Concerning Highway Projects
- X. Implementation of Clean Air Act and Federal Water Pollution Control Act
- XI. Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion
- XII. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

- A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

I. GENERAL

- 1 These Contract provisions shall apply to all work performed on the Contract by the Contractor's own organization and with the assistance of workers under the Contractor's immediate superintendence and to all work performed on the Contract by piecework, station work, or by subcontract.
- 2 Except as otherwise provided for in each section, the Contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.
- 3 A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the Contract.
- 4 A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the DOL, or the Contractor's employees or their representatives.

6. Selection of Labor: During the performance of this Contract, the Contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction Contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the Contractor's project activities under this Contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this Contract. In the execution of this Contract, the Contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The Contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the Contract.

b. The Contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: 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, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The Contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active Contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's EEO policy and Contractual responsibilities to provide EEO in each grade and

classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the Contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the Contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the Contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the Contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The Contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the Contractor for employment consideration.

b. In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO Contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the Contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The Contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The Contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The Contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The Contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The Contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with his obligations under this Contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The Contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the Contractor's work force requirements and as permissible under Federal and State regulations, the Contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this Contract, this subparagraph will be superseded as indicated in the special provision.

c. The Contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the Contractor either directly or through a Contractor's association acting as agent will include the procedures set forth below:

a. The Contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The Contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The Contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the Contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these Specifications, such Contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The Contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The Contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this Contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the Contractor enters into pursuant to this Contract. The Contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The Contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The Contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of 3 years following completion of the Contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the Contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The Contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and nonminority group employees currently engaged in each work classification required by the Contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the Contractor will be required to collect and report training data

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction Contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this Contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction Contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this Contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The Contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction Contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b) (2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for

the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than 1 classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this Contract.

2. Classification:

a. The SHA Contracting officer shall require that any class of laborers or mechanics employed under the Contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The Contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the Contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the Contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting officer or will notify the Contracting officer within the 30-day period that additional time is necessary.

d. In the event the Contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the Contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting officer or will notify the Contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the Contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any

employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the Contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. **Helpers:**

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the Contractor or subcontractor under this Contract or any other Federal Contract with the same Prime Contractor, or any other Federally-assisted Contract subject to Davis-Bacon prevailing wage requirements which is held by the same Prime Contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the Contract, the SHA Contracting officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the Contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under Contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the Contractor or subcontractor under any such Contract or any other Federal Contract with the same Prime Contractor, or any other Federally-assisted Contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction Contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1 Compliance with Copeland Regulations (29 CFR 3):

The Contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2 Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the Contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the Contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of

contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian Contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the Contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each Contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the Contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The Contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the Contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid Contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification Contracts, and Contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the Contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this Contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the Contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the Prime Contractor's option, either a single report covering all Contract work or separate reports for the Contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The Contractor shall perform with its own organization Contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the Contract) of the total original Contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original Contract price before computing the amount of work required to be performed by the Contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the Prime Contractor and equipment owned or rented by the Prime Contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the Prime Contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of Contracting organizations qualified and expected to bid on the Contract as a whole and in general are to be limited to minor components of the overall Contract.

2. The Contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the Contractor under the Contract provisions.

3. The Contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the Contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the Contract.

4. No portion of the Contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the Contractor of any responsibility for the fulfillment of

the Contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the Prime Contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this Contract the Contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The Contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the Contract.

2. It is a condition of this Contract, and shall be made a condition of each subcontract, which the Contractor enters into pursuant to this Contract, that the Contractor and any subcontractor shall not permit any employee, in performance of the Contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this Contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of Contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by Engineers, Contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in 1 or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

“Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any

statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more that \$10,000 or imprisoned not more than 5 years or both.

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this Contract, or subcontract, as appropriate, the bidder, Federal-aid construction Contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of Contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. 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 department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary 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 entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction,” provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that 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 portion of the “Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs” (Nonprocurement List) which is compiled by the General Services Administration.

i. 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 participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

Except for transactions authorized under paragraph f 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 may terminate this transaction for cause or default.

* * * * *

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION—LOWER TIER COVERED TRANSACTIONS

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement 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 antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. 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 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had 1 or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. 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.

c. 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 by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "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.

e. 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.

f. 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 Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that 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.

h. 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 participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e 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.

* * * * *

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION—LOWER TIER COVERED TRANSACTIONS

- 1 The prospective lower tier participant certifies, by submission of this proposal, 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 prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction Contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal Contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal Contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

2. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A EMPLOYMENT PREFERENCE FOR APPALACHIAN CONTRACTS

(Applicable to Appalachian contracts only.)

1. During the performance of this Contract, the Contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the GW5

SUPPLEMENTARY CONDITIONS

labor area as designated by the DOL wherein the Contract work is situated, or the sub region, or the Appalachian counties of the State wherein the Contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the Contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the Contract work.

c. For the obligation of the Contractor to offer employment to present or former employees as the result of a lawful collective bargaining Contract, provided that the number of nonresident persons employed under this subparagraph 1c shall not exceed 20 percent of the total number of employees employed by the Contractor on the Contract work, except as provided in subparagraph 4 below.

2. The Contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the Contract work, (b) the number of employees required in each classification, (c) the date on which he estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the Contract work, the information submitted by the Contractor in the original job order is substantially modified, he shall promptly notify the State Employment Service.

3. The Contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The Contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within 1 week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the Contractor, or less than the number requested, the State Employment Service will forward a certificate to the Contractor indicating the unavailability of applicants. Such certificate shall be made a part of the Contractor's permanent project records. Upon receipt of this certificate, the Contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph 1c above.

5. The Contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

End of Attachment E

ATTACHMENT F (this document reduced do not use for monthly submittal)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
CERTIFICATION
COMPLIANCE WITH EQUAL EMPLOYMENT OPPORTUNITY (EEO)
PROVISIONS ON FEDERAL AID CONTRACTS

Form 700-011-13
 CONSTRUCTION
 06/05

FIN PROJECT I.D. _____ DATE _____
 _____ 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 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 nonresponsibility, 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 <input type="checkbox"/> OR Produced Identification <input type="checkbox"/>	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).

[This form is to be completed monthly and submitted with your monthly pay application.](http://www.dot.state.fl.us/proceduraldocuments/)
[See FDOT website for blank form: http://www.dot.state.fl.us/proceduraldocuments/](http://www.dot.state.fl.us/proceduraldocuments/)

End of Attachment F

Attachment G (this document reduced don not use for monthly submittal)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
CERTIFICATION
DISBURSEMENT OF PREVIOUS PERIODIC PAYMENT TO SUBCONTRACTORS
 (As required by Florida Transportation Code, Section 337.11, Subsection (10)(a), F.S.)

700-010-38
 CONSTRUCTION
 03/03

FIN PROJ. I.D. _____

DATE _____
 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	Contractor
Commission Expires _____	
Personally Known _____ OR Produced Identification _____	By _____
Type of Identification Produced _____	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).

[This form is to be completed monthly and submitted with your monthly pay application.](#)
[See FDOT website for blank form: http://www.dot.state.fl.us/proceduraldocuments/](http://www.dot.state.fl.us/proceduraldocuments/)

End of Attachment G

TITLE VI AND RELATED STATUTES 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.

End of Attachment H

ATTACHMENT J

FEDERAL GRANT REQUIREMENTS

This Project is funded by Federal Grant Money. The Contractor and Subcontractors shall comply with the Federal Grant Requirements.

1. Access to Records: Authorized representatives of the OWNER and other State and Federal agencies associated with the 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 five years after receiving and accepting final payment under his Agreement/Contract.
2. Access to Work Sites: Authorized representatives of the OWNER and other State and Federal agencies associated with the 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.
3. Debarment and Suspension (Executive Order 12549) Refer to Bidding Requirements section.
4. If the price of this Agreement/Contract equals or exceeds \$25,000, the OWNER shall not award this
5. 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).
6. 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." Refer to Bidding Requirements section.
7. 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.

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 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 whom 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 Non-procurement 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.

Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion – Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this Proposal, 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 prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Proposal.
3. The Prospective Lower-Tier Participant Also Certifies that it and its Principals:
 - a) Have not within a three-year period preceding this Proposal been convicted of or had a civil judgment rendered against them. SUPPLEMENTARY CONDITIONS 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 indicated 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 (3)(a) of this certification; and

- c) Have not within a three-year period preceding this Proposal had one or more public transactions (Federal, State or local) terminated for cause or default. Where the prospective lower-tier participant is unable to certify to any of the above, such prospective participant shall attach an explanation to this Proposal.

Reference Bidding Requirements section for certification form

1. Equal Employment Opportunity: Reference Attachment A: Executive Order 11246
2. The Contractor, Sub Recipient or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.
3. Disadvantaged Business Enterprise: Reference Attachment B: DBE Program
4. Buy America/Foreign Contractor and Supply Restrictions: Reference Attachment C
5. Prohibition Against Convict Produced Materials: Reference Attachment D
6. FHWA 1273: Reference Attachment E
7. Lobbying: Reference Bidding Requirements section: Disclosure of Lobbying Activities
8. Non-Collusion Provision: Reference Bidding Requirements section: Non-Collusion Declaration
9. Prevailing Minimum Wage Compliance: Reference Division 1 (Section 00830): Davis-Bacon Wage Determination
10. Standardized Change Condition Contract Clauses: Standardized Changed Conditions per 23 CFR 635.109 apply to this Contract.

SUPPLEMENTARY CONDITIONS

REVISIONS AND ADDITIONS TO THE GENERAL CONDITIONS

The General Conditions are hereby revised as follows:

ARTICLE 1.5. "CONTRACTOR"

Add the following: 1.5.1 "REFERENCE POINTS"

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, equipments, 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 1.5. "CONTRACTOR"

Add the following: 1.5.2 "CONTRACTOR'S LIABILITY INSURANCE"

Provide Employer's Liability Insurance in an amount not less than **\$1,000,000**.

ARTICLE 1.5. "CONTRACTOR"

Add the following: 1.5.3 "CONTRACTOR'S LIABILITY INSURANCE"

- A. Workers' Compensation: Insurance covering all employees meeting Statutory Limits in compliance with the applicable state and federal laws. The coverage must include Employer's Liability with a limit of **\$1,000,000** each accident.
- B. Comprehensive General Liability: Coverage shall have a minimum limit of \$1,000,000 Per Occurrence, Combined Single Limit for Bodily Injury Liability and Property Damage Liability. This shall include Premises and/or Operations; Independent Contractors;

Products and/or Completed Operations; Broad Form Property Damage, XCU and a Contractual Liability endorsement. **Aggregate \$2,000,000.**

- C. Business Auto Liability: Shall have a minimum limit of \$1,000,000 Per Occurrence, Combined Single Limit for Bodily Injury Liability and property Damage Liability. This shall include: Owned Vehicles, Hired and Non-Owned Vehicles and Employees Non-Ownership.
- D. Excess/Umbrella Liability shall have minimum limits of **\$3,000,000** per occurrence/aggregate.
- E. It shall be the responsibility of the CONTRACTOR to ensure that all subcontractors comply with the same insurance requirements that he is required to meet.
- F. Certificates of insurance meeting the required insurance provisions shall be forwarded to Engineer, OWNER'S and Risk Management. A copy of Sample Form is attached.

ARTICLE 1.5. "CONTRACTOR"

Add the following: 1.5.4 "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 1.5. "CONTRACTOR"

Add the following:

Include the City of Key West and the designated Engineer by the General Services and Utilities Department of the City of Key West as additional insured's.

ARTICLE 1.12. "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 525 Angela Street, Key West, Florida 33040.

ARTICLE 4.5. "INDEMNITY"

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 4.8. "REQUIREMENTS OF STATE LAW FOR PUBLIC WORKS PROJECTS"

Add the following: "LAWS AND REGULATIONS"

The CONTRACTOR shall comply with the City of Key West Noise Ordinance.

THE CONTRACTOR MUST BE A LICENSED CONTRACTOR BY THE STATE OF FLORIDA AND SUBMIT PROOF OF SUCH WITH THE BID.

The Bidder shall 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; within 10 days the following notice of award;

- 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. Well Drillers License
- D. Well Drillers Certification

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 4.9 "CODES, ORDINANCES, PERMITS AND LICENSES"

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.

PUBLIC WORKS COMPLIANCE ACT
GENERAL

If the Contract amount exceeds \$25,000, the CONTRACTOR shall abide by the requirements of the State Public Works Compliance Act, Section 446.101 Florida Statutes. The Act generally requires the CONTRACTOR to:

Participate in registered training programs with the State of Florida.

Hire for the duration of the Contract, a ratio of at least one registered apprentice or trainee to every five journeymen working on the project.

Prior to the commencement of the work, submit a letter of intent to the Bureau of Apprenticeship and to others as required by the Act.

Prepare and submit quarterly to the Bureau of Apprenticeship records of employment on report form BAP-500.

ADMINISTRATION

Administration of the apprenticeship program for this Contract will be under the designated area field office of the Bureau of Apprenticeship.

DEWATERING PERMIT

A dewatering permit is required from the South Florida Water Management District (SFWMD). The CONTRACTOR is responsible for obtaining that permit and paying fees required. The engineer will assist the contractor with this process.

ARTICLE 4.12. "SAFETY "

Add the following: 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 4.14 RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY

Add to the Article

The city shall pay no additional compensation for hurricane and or any other acts of nature.

CLEANUP PROCEDURES FOR HURRICANE WARNINGS AND HURRICANE WATCH

In the event the owner or National Oceanographic and Atmospheric Administration(NOAA) issues a Tropical Storm Watch or a Hurricane Watch for the Keys the Engineer will Contact the Contractor informing him that the Watch has been established. Within 4 hours of the notice the Contractor shall provide the Engineer with a written plan and schedule describing how and when the Contractor will remove all unnecessary items from the work area and tie down all necessary supplies and barricades in the event a Tropical Storm Warning or a Hurricane Warning is issued. The Contractor shall remove all unnecessary items from work areas and shall tie down all movable objects (under 200 lbs.) The Engineer will determine "necessary" items. The Owner shall not be liable for any financial hardship or delays caused as a result of demobilization or remobilization of work due to the above.

ARTICLE 4.21. “CORRECTION OF DEFECTIVE WORK DURING WARRANTY PERIOD”

Change the sentence from “If within one year after the date of Substantial Completion...” TO “If within five years after the date of Substantial Completion...” 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.

Change in the tenth line from “...to an extended warranty period of 1 year...” TO “...an extended warranty period of five years...”

ARTICLE 6.2.E. “PAYMENT”

Add the following: “PAYMENTS TO CONTRACTOR AND COMPLETION”

E.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.

E.2 After deducting the retainage (10%) 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.

E.3 Payment for overlay of streets shall be made on a monthly basis. Sewer lines that have been installed to the OWNER’S satisfaction shall receive pavement overlay before the next month’s payment request. If pavement overlay was not satisfactorily

completed for the past month's sewer lines, the OWNER will not process the following month's payment request.

ARTICLE 6.5 "FINAL PAYMENT"

Add the following;

A. Acceptance and Final Payment.

Whenever the Contractor has completely performed the work provided for under the Contract and the Engineer has performed a final inspection and made final acceptance and subject to the terms of the Engineer will prepare a final estimate showing the value of the work as soon as the Engineer makes the necessary measurements and computations. The Engineer will correct all prior estimates and payments in the final estimate and payment. The OWNER will pay the estimate, less any sums that the OWNER may have deducted or retained under the provisions of the Contract, as soon as practicable after final acceptance of the work, provided the Contractor has met the requirements of (1) through (8) below.

- 1 The Contractor has agreed in writing to accept the balance due or refund the overpayment, as determined by the OWNER, as full settlement of his account under the Contract and of all claims in connection therewith, or the Contractor, accepted the balance due or refunded the overpayment, as determined by the OWNER, with the stipulation that his acceptance of such payment or the making of such refund does not constitute any bar, admission, or estoppel, or have any effect as to those payments in dispute or the subject of a pending claim between the Contractor and the OWNER. To receive payment based on a FINAL PAYMENT CERTIFICATE, The Contractor further agrees, by submitting a FINAL PAYMENT CERTIFICATE that any pending or future arbitration claim or suit is limited to those particulars, including the itemized amounts, defined in the original FINAL PAYMENT CERTIFICATE, and that he will commence with any such arbitration claim or suit within 15 calendar days from and after the time of final PAYMENT of the work and that his failure to file a formal claim within this period constitutes his full acceptance of the Engineer's final estimate and payment. The overpayment refund check from the Contractor, if required, will be considered a part of any Acceptance Letter executed.
- 2 The Contractor has properly maintained the project, as specified hereinbefore.
- 3 The Contractor has furnished a sworn affidavit to the effect that the Contractor has paid all bills and no suits are pending (other than those exceptions listed, if any) in connection with work performed under the Contract and that the Contractor has not offered or made any gift or gratuity to, or made any financial transaction of any nature with, any employee of the OWNER in the performance of the Contract.
- 4 The surety on the Contract bond consents, by completion of their portion of the affidavit and surety release subsequent to the Contractor's completion of his portion, to final payment to the Contractor and agrees that the making of such payment does not relieve the surety of any of its obligations under the bond.

- 5 The Contractor has complied with and settled all requirements pertaining to any wage-rate provisions.
- 6 The Contractor has furnished all required mill tests and analysis reports to the Engineer.
- 7 The Contractor shall certify to the owner in writing, that the Contractor has met the grant requirements

END OF SECTION

PART 4

SPECIFICATIONS

DIVISION 1

GENERAL REQUIREMENTS

**SECTION 00830
DAVIS-BACON WAGE DETERMINATION**

PART 1 GENERAL

The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number).

The contractor shall use the most current Davis-bacon Wage Determination for this project at the award date.

1.0 Heavy Construction- Heavy construction includes those projects that are not properly classified as either building, residential, or highway and is a catchall nature. Such heavy projects may some times be distinguished on the basis of their individual characteristics and separate schedules issued (e.g., dredging, water and sewer line, dams, flood control, etc.) generally the heavy wage determination shall be used for all site utility distribution, rough site development and grading, sewage treatment plant work other than buildings and contaminated soil removal and replacement and associated work.

GENERAL DECISION: FL20080094 02/08/2008 FL94

Date: February 8, 2008

General Decision Number: FL20080094 02/08/2008

Superseded General Decision Number: FL20070097

State: Florida

Construction Types: Heavy

Counties: De Soto, Glades, Hardee, Hendry, Highlands, Monroe and Okeechobee Counties in Florida.

HEAVY CONSTRUCTION PROJECTS (including Sewer & Water Line Construction & Drainage Projects.)

Modification Number	Publication Date
0	02/08/2008

SUFL1994-008 10/01/1994

	Rates	Fringes
Carpenter.....	\$ 12.00	
Electrician.....	\$ 14.50	
Laborers:		
Pipelayers.....	\$ 9.00	
Unskilled.....	\$ 7.81	

Pipefitter.....\$ 10.00

Power equipment operators:

Backhoe.....\$ 12.00
Grader.....\$ 12.00
Loader.....\$ 12.00
Tractor.....\$ 12.00
Trenching Machine.....\$ 13.50

Truck Driver.....\$ 10.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
=====

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates
listed under the identifier do not reflect collectively
bargained wage and fringe benefit rates. Other designations
indicate unions whose rates have been determined to be
prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can
be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on
a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests
for summaries of surveys, should be with the Wage and Hour
Regional Office for the area in which the survey was conducted
because those Regional Offices have responsibility for the
Davis-Bacon survey program. If the response from this initial
contact is not satisfactory, then the process described in 2.)
and 3.) should be followed.

With regard to any other matter not yet ripe for the formal
process described here, initial contact should be with the
Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

GENERAL DECISION: FL20080035 07/24/2009 FL35

Date: July 24, 2009

General Decision Number: FL20080035 07/24/2009

Superseded General Decision Number: FL20070035

State: Florida

Construction Type: Highway

Counties: Charlotte, De Soto, Glades, Hardee, Hendry, Highlands, Monroe and Okeechobee Counties in Florida.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels; Building structures in rest area projects; railroad construction; bascule, suspension and sprandrel arch bridges designed for commercial navigation; bridges involving marine construction; other major bridges)

Modification Number	Publication Date
0	02/08/2008
1	07/24/2009

	Rates	Fringes
Bricklayer/Brickmason.....	\$ 9.50	
CARPENTER.....	\$ 12.00	
Concrete Finisher.....	\$ 9.34	
ELECTRICIAN.....	\$ 11.85	
FENCE ERECTOR.....	\$ 7.45	
Form Setter.....	\$ 8.61	
Ironworkers:		
Reinforcing.....	\$ 13.83	
Structural.....	\$ 12.94	
Laborers:		
Asphalt Raker.....	\$ 7.80	
Unskilled.....	\$ 7.25	
PAINTER.....	\$ 7.92	
Power equipment operators:		
Asphalt Distributor.....	\$ 8.01	
Asphalt Paving Machine.....	\$ 9.28	
Asphalt Screed.....	\$ 8.48	
Backhoe.....	\$ 8.92	
Boom-Auger.....	\$ 7.95	
Bulldozer.....	\$ 10.30	
Crane, Derrick, Dragline....	\$ 12.56	
Earthmover.....	\$ 7.75	
Forklift.....	\$ 7.50	
Front End Loaders:		
1 cu. yard and under.....	\$ 7.91	
over 1 cu. yard.....	\$ 7.94	
Gradall.....	\$ 9.00	
Grademan.....	\$ 7.25	
Guardrail Erector.....	\$ 7.25	
Guardrail Post Driver.....	\$ 7.50	
Mechanic.....	\$ 10.14	
Milling Machine Grade		
Checker.....	\$ 7.25	
Milling Machine.....	\$ 9.00	
Motor Grader.....	\$ 10.56	
Mulching Machine.....	\$ 7.25	
Oiler, Greaseman.....	\$ 7.73	
Pavement Striping Machine...	\$ 8.26	
Paving Striping Machine		
Nozzleman.....	\$ 7.25	
Pile Driver.....	\$ 10.50	
Piledriverman.....	\$ 10.00	
Power Subgrade Mixer.....	\$ 7.94	
Rollers:		
Finish.....	\$ 8.41	

Rough.....	\$ 8.01
Self-Prop. Rubber Tire.....	\$ 8.16
Scraper/Pan.....	\$ 8.11
Small Tool Operator.....	\$ 7.25
Tractor, Light.....	\$ 7.52
Trenching Machine.....	\$ 8.12
Widening Spreader Machine...	\$ 8.00
SIGN ERECTOR.....	\$ 7.63
Traffic Controller	
TRAFFIC CONTROL SPECIALIST..	\$ 7.50
TRAFFIC SIGNALIZATION INSTALLER.....	\$ 9.79
TRAFFIC SIGNALIZATION MECHANIC.....	\$ 13.16
Truck drivers:	
Lowboy.....	\$ 8.11
Multi-Rear Axle.....	\$ 8.06
Single-Rear Axle.....	\$ 7.80

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial

contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

3.0 Building Construction N/A

4.0 Residential Construction N/A

5.0 Demolition Work N/A

WAGE CLASSIFICATION NOT INCLUDED IN THE ABOVE DETERMINATION

- 1) Each Wage Determination (W/D) stands alone on the basis of the type of work being performed. The type of work covered by each W/D is listed above for items Heavy and Highway Construction and in general terms at the beginning of each determinations (3/4/5) at: <http://www.gpo.gov/davisbacon/fl.html>

- 2) There may be cases where the same classification is listed interchangeably between the types of construction. That is to say, an unskilled laborer under the highway W/D, may not be used at the minimum highway rate for that same classification of work under the building W/D, which has a higher minimum rate for the same unskilled laborer classification.
- 3) If a classification is listed in one W/D, covering a certain portion of work, but is required in another portion of the work covered by a W/D which does not include the same classification, then a SF-1444 must be submitted to establish the minimum rate under the appropriate W/D. An example might be that a backhoe Operator is listed under the heavy construction W/D but not under the Building W/D, however, a Backhoe Operator may be required under a portion of the work covered by the building W/D. In this case a separate W/D must be established.
- 4) For classifications of work not specifically listed in a W/D, but for which there a significant labor is required in that portion of the project, the contractor shall submit a proposed wage rate using the standard Form 1444, Request for Authorization of Additional Classification and Rate. This form will be completed by the contractor after contract award and submitted to the City for concurrence and forwarding to the department of Labor for final approval.
- 5) When the applicable W/D, appropriate for the specific Division of work, cannot be determined by the contractor or is in questioned as to its appropriateness by the City and or their representative, a final determination will be made by the City.
- 6) With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

- 7) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

- 8) The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.
- 9) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

All decisions by the Administrative Review Board are final.

**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.

B. SPECIAL EVENTS: Contractor may be asked to stop work during special events. No work will be allowed for intersections (TBD) on days corresponding to the events and schedule listed below. All material and equipment shall be totally off all streets by 5:00 P.M. the day before these dates:

C. Year 2009-20010

<u>Date</u>	<u>Notes</u>	<u>Event</u>
July 4	No Work	Independence Day
Sep 1	No Work	Labor Day
Oct. 24-25	No Work	Fantasy Fest
Nov. 27	No Work	Thanksgiving
Dec. 25	No Work	Christmas
Dec. 31- Jan 1	No Work	New Year's Eve and Day

Year 2009 and beyond dates when published by the CITY for the above list of special events will also be included for this list of wells. The Contractor is responsible for adjusting work schedule around these events if the above dates for these events are changed.

No work shall be allowed to interfere on Roads and Streets with the city precincts open on election days.

MONROE COUNTY PRECINCTS (as of February 2006)

- Prec. #1 Jaycee Clubhouse, 3825 Flagler Avenue, Key West
- Prec. #2 Teen Center, 3465 S. Roosevelt Blvd., Key West
- Prec. #3 **Indigenous Park, 1801 White St. Key West**
- Prec. #4 Martin Luther King Community Pool, 300 Catherine St., Key West
- Prec. #5 Old City Hall, 510 Greene Street, Key West
- Prec. #6 St. Mary's Convent, 724 Truman Avenue, Key West
- Prec. #7 Moose Club, 700 Eisenhower Drive, Key West
- Prec. #8 Glad Tiding Tabernacle Assembly of God 1209 United St (Georgia St Entrance)
Key West
- Prec. #9 Senior Citizens Plaza Auditorium (Rear Entrance), 1400 Kennedy Dr., Key West
- Prec. #10 Church of Jesus Christ of Latter Day Saints, 3424 Northside Dr., Key West

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, 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 in 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. Stored materials in the right-of-way shall be fully barricaded, with bottom height of 47" or lower and top height of 36" min., also they must be fitted and should have lights at night. Private property shall not be used for storage purposes without the written permission of the owner or lessee. 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. 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.
- B. 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.
- C. 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.

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 on NSPE Form 1910-8-D, 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.
- 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.

- I. Warranty shall be in effect for five years and shall be covered by bond.

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.

**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.

- 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 or 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 cost of dewatering shall be a lump sum price for each intersection as stated in the proposal.

- B. The contractor shall not dewater into the permitted stormwater gravity injection well at the project site.
- C. 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.

PART 7 PAYMENT

7.1 GENERAL

- A. Payment for the work in this section will be included as part of the applicable unit prices stated in line item #2 in the BID for work items performed that effects the environment.

* * * * *

**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.

<u>Item</u>	<u>Method of Measurement</u>
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

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-Built, 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, Construction trailer setup and initiation of construction, remaining balance paid based on percentage complete on each following pay application. Including a NEXTEL (and or equal as used by the contractor) phone with Radio to be provided to the City Inspector with the contractors contacts provided.
 - 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 a Nextel Phone with the Contractors contact pre-programmed and or other compatible system that is in use by the contractor and acceptable to the city. 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. 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.
8. Payment for providing all labor, materials, and equipment for installing square footage of special shoring required for this project regardless of type, will be paid for from the lump sum amount established by the CONTRACTOR for this purpose. Such an amount represents the amount the CONTRACTOR feels is necessary to provide special shoring that complies with the Trench Safety Act. Any portion of this fund remaining after all payments have been made will remain with the CONTRACTOR. Conversely, no requests for additional reimbursement will be approved. Payment made under this item will be a monthly percentage corresponding to the percentage of work completed and paid for under this item. It is the contractor's responsibility 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 considered included in the proposal cost for this line item.
9. Contractor shall perform Lamping of all the installed stormwater pipes prior to establishing flow to the associated gravity injection well. No 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).
10. Payment shall be 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.

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, **including concrete apron**, 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. 10:

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. Stormwater - Sewer Manholes (with liner) - 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 detailed drawings C-17 #5. Payment will constitute full compensation for all work 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. Finish Grading; Pea Stone and Grassing – BID Item No. 13:

1. Payment for the work in this section will be based on the unit price per linear foot as stated in the Proposal. Payment for Pea Stone shall be made for the restoration of Pea Stone parking areas disturbed by the construction. City Inspector shall provide this the area of replacement to the contractor. Pea Stone shall be replaced at a 3" minimum depth. Payment for finish grading and grassing (sod) will be made where trench excavation occurs in grassed areas and as required for new sidewalks. Payment shall include grading, all materials, equipment and labor. Incidental finish grading; pea stone and grassing required to restore areas damaged by the CONTRACTOR'S

activities outside of trench areas are not included in this item and are to be repaired at the CONTRACTOR'S sole expense.

O. Pipe Zone Geotextile Fabric - BID Item No. 14:

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.

P. Foundation Stabilization - BID Item No. 15:

1. Payment for foundation stabilization will be based on the unit price per cubic yard stated in the Proposal. 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

Q. Cut and Cap Grout Existing Storm Pipe - BID Item No. 16:

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.

S. Brick Pavers with ADAAG Detectable Warning System – BID Item No. 17:

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.

T. Pre-Dig for Utility Locations - BID Item No. 18:

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.

U. Hydrostatic Testing of Stormwater Pipes and Structures - BID Item No. 19:

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 be 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.

W. Sign Removal and Reinstallation - BID Item No. 20:

Includes all labor, materials, equipment; Contractor shall provide and maintain temporary signs required during construction (Temporary Stop Signs i.e.).

X. Transplant Existing Tree (0-10" DIA.) - BID Item No. 21:

Includes all labor, materials, equipment and maintenance; as per section 02900.

Y. Plant New Tree (0-10" DIA) - BID Item No. 22:

Includes all labor, materials, equipment and maintenance; as per section 02900.

Z. Transplant Existing Tree (over 10" DIA) - BID Item No. 23:

Includes all labor, materials, equipment and maintenance; as per section 02900.

AA Plant New Tree (over 10" DIA) - BID Item No. 24:

GW5

MEASUREMENT AND PAYMENT

Includes all labor, materials, equipment and maintenance; as per section 02900.

BB. Tree Removal (0- 10" DIA) - BID Item No. 25:
Includes all labor, materials, equipment and deposal; as per section 02900.

CC. Tree Removal (over 10" DIA) - BID Item No. 26:
Includes all labor, materials, equipment and deposal; as per section 02900.

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.

**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

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

PE & D, Inc.

TRANSMITTAL OF CONTRACTORS SUBMITTAL
(ATTACH To EACH SUBMITTAL)

DATE: _____

TO: _____

Submittal No.: _____

New Submittal / Re-submittal

Previous Submittal No.: _____

Project: _____

Project No.: _____

Specification Section No.: _____

FROM: _____

Contractor

(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	Line item unit is Each Intersection.
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 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 ten (10) stormwater gravity injection wells; including but not limited to; triple chamber treatment boxes, PVC 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, site clean up, and all necessary appurtenances and record drawings, surveys, well testing, refund of state forms and incidental work to provide a complete and serviceable project identified as:

KEY WEST STORMWATER GRAVITY INJECTION WELLS PHASE V

- 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.

**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 the 5-year 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 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 1/2" 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 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

**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. Where directed by the ENGINEER, final overlay paving shall be provide either full width or partial with of street and placed at end of construction as directed by the ENGINEER.
- D. Cold patch asphalt required for temporary restoration or “make safe” measures is included in TRENCH EXCAVATION AND BACKFILL.
- E. Provide finished gradation and grassing in accordance with FINISH GRADING AND GRASSING.
- F. Submittals are required for all projects identified in this section.

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 Type S-I in conformance with Section 331, FDOT Specifications. Modification for Key West application may be used upon acceptance by the ENGINEER.
- B. Asphalt concrete for leveling shall be Type S-I in conformance with Section 331, DOT Specifications.
- C. Aggregate: Asphalt concrete shall meet the requirements of FDOT Specifications.
- D. 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 striping 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 roadway, 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 FDOT mix w/ 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.

SECTION 02581
DRILLING OF DRAINAGE WELLS

CLASS V STORMWATER DISPOSAL INJECTION WELL CONSTRUCTION TECHNICAL SPECIFICATIONS

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. Install Casing.
4. Notify FDEP in Fort Meyers (David Rhodes, P.G.) and Marathon (Steve Johnson) at least 72 hours prior to grouting.
5. Grout Casing.
6. Process Certification for well completion. Provide AS-built drawings to Engineer
7. Attach storm water / pretreatment structures as required.
8. 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 lithologic 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.

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 $\frac{1}{4}$ 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 Insurance

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 or 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 CONTRACTOR 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 CONTRACTOR 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 CONTRACTOR 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 local authority. 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.

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. 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.

3.3 CASING

3.3.1 Casing Installation: When the reaming operation has been completed, casing will be installed. The casing lengths will be 20 feet sections.

3.3.2 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.

3.3.3 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.

3.3.4 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.

3.3.5 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 WATER DISPOSAL

3.7.1 Water Disposal: The WATER WELL CONTRACTOR shall remove all pumped water produced during reverse air drilling, well development, and testing, from the well site to an ENGINEER 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.

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.

THE REST OF THIS PAGE BLANK.

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) devices 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 device 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 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 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 do 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 Boxed 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 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 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 will 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.

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.

**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 site 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 relaid 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 times 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 start 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.

Attachments



**Florida Department of
Environmental Protection**
Twin Towers Office Bldg., 2600 Blair Stone Road,
Tallahassee, Florida 32399-2400

DEP Form No:	62-528.900(31)
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 00000
City County Zip

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

PROJECT DESCRIPTION

Type of Class V Injection Well: (Indicate number of each well type)

Group 1		Group 2	
A/C Return Flow Wells	_____	Connector Wells	_____
Cooling Water Return Flow Wells, Closed-looped System	_____	Recharge Wells	_____
Group 3		Group 4	
Wells Receiving Domestic Waste	_____	Laundry Waste Wells	_____
		Other Non-hazardous Industrial or Commercial Disposal Wells (explain)	_____
Group 6		Group 7	
Lake Level Control Wells	_____	Aquifer Storage and Recovery Wells	_____
Stormwater Drainage 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.)

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)

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)

**City of Key West Gravity Injection Well Project V / Triple Chamber Outfall Structure
Installation
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 Gravity Injection Well 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 July 31, 2010;**
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 Five 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. 57 Stone will be used for backfill not 89.
21. 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.)

22. 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.
23. 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.
24. All Stormwater manholes ring and covers shall be USF 3220 – 5660 (grate) cost shall be included in the cost of the manhole.
25. Note; all Frames and grates are required to be galvanized and H-20 Rated.
26. 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 resistance.
27. The contractor shall verify all elevation on the outfall plans; outfall drawings were not surveyed and the engineer’s design elevations were provided with temporary bench marks using existing city manholes.
28. Testing required
- a. Water Tightness
 - b. Well Step Down Pumping Test (well step down testing shall be performed within limitations of the city sewer system)

I have read and understand the above listed requirements for this project

Signature

Name

CITY OF KEY WEST WELL DRILLER CERTIFICATION

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: **Gravity Injection Wells V** for the City of Key West. 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. Chapter 62-532 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:

CERTIFIED PAYROLL MISCELLANEOUS FORMS AND
INSTRUCTION

Sample Certified Payroll Form. Any form can be used as long as the proper information is included in accordance with Federal requirements.

Date _____

I, _____ (Name of Signatory Party) _____ (Title) do hereby state:

(1) That I pay or supervise the payment of the persons employed by _____ (Contractor or Subcontractor) on the _____ (Building or Work) that during the payroll period commencing on the _____ day of _____ and ending the _____ day of _____ all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____ (Contractor or Subcontractor) from the full

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967, 76 Stat. 357, 40 U.S.C. § 3145), and described below.

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That: (a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS -- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

-- Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR THE CONTRACTOR TO FEDERAL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

INSTRUCTIONS FOR COMPLETING PAYROLL FORM, WH-347

[\[WH-347 \(PDF\)\]](#)

OMB Control No. 1215-0149, Expires 12/31/2011.

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

General: Form WH-347 has been made available for the convenience of contractors and subcontractors required by their federal or federally-aided construction-type contracts and subcontracts to submit weekly payrolls. Properly filled out, this form will satisfy the requirements of Regulations, Parts 3 and 5 (29 C.F.R., Subtitle A), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related Acts.

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Under the Davis-Bacon and related Acts, the contractor is required to pay not less than prevailing wage, including fringe benefits, as predetermined by the Department of Labor. The contractor's obligation to pay fringe benefits may be met either by payment of the fringe benefits to bona fide benefit plans, funds or programs or by making payments to the covered workers (laborers and mechanics) as cash in lieu of fringe benefits.

This payroll provides for the contractor to show on the face of the payroll all monies to each worker, whether as basic rates or as cash in lieu of fringe benefits, and provides for the contractor's representation in the statement of compliance on the payroll (as shown on page 2) that he/she is paying for fringe benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.

Address: Fill in your firm's address.

Payroll No.: Beginning with the number "1", list the payroll number for the submission.

For Week Ending: List the workweek ending date.

Project and Location: Self-explanatory.

Project or Contract No.: Self-explanatory.

Column 1 - Name and Individual Identifying Number of Worker: Enter each worker's full name and an individual identifying number (e.g., last four digits of worker's social security number) on each weekly payroll submitted.

Column 2 - No. of Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement of Regulations, Part 3 and 5.

Column 3 - Work Classifications: List classification descriptive of work actually performed by each laborer or mechanic. Consult classification and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. An individual may be shown as having worked in more than one classification provided an accurate breakdown of hours worked in each classification is maintained and shown on the submitted payroll by use of separate entries.

Column 4 - Hours worked: List the day and date and straight time and overtime hours worked in the applicable boxes. On all contracts subject to the Contract Work Hours Standard Act, enter hours worked in excess of 40 hours a week as "overtime".

Column 5 - Total: Self-explanatory

Column 6 - Rate of Pay (Including Fringe Benefits): In the "straight time" box for each worker, list the actual hourly rate paid for straight time worked, plus cash paid in lieu of fringe benefits paid. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate. For example, "\$12.25/.40" would reflect a \$12.25 base hourly rate plus \$0.40 for fringe benefits. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. When overtime is worked, show the overtime hourly rate paid plus any cash in lieu of fringe benefits paid in the "overtime" box for each worker; otherwise, you may skip this box. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standard Act of 1962 if the prime contract exceeds \$100,000. In addition to paying no less than the predetermined rate for the classification which an individual works, the contractor must pay amounts predetermined as fringe benefits in the wage decision made part of the contract to approved fringe benefit plans, funds or programs or shall pay as cash in lieu of fringe benefits. See "FRINGE BENEFITS" below.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of a worker's weekly wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the Federal or Federally assisted project and then the gross amount earned during the week on all projects, thus "\$163.00/\$420.00" would reflect

the earnings of a worker who earned \$163.00 on a Federally assisted construction project during a week in which \$420.00 was earned on all work.

Column 8 - Deductions: Five columns are provided for showing deductions made. If more than five deduction are involved, use the first four columns and show the balance deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deduction(s) contained in the "Other" column. All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 C.F.R., Part 3. If an individual worked on other jobs in addition to this project, show actual deductions from his/her weekly gross wage, and indicate that deductions are based on his gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Totals - Space has been left at the bottom of the columns so that totals may be shown if the contractor so desires.

Statement Required by Regulations, Parts 3 and 5: While the "statement of compliance" need not be notarized, the statement (on page 2 of the payroll form) is subject to the penalties provided by 18 U.S.C. § 1001, namely, a fine, possible imprisonment of not more than 5 years, or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

Items 1and 2: Space has been provided between items (1) and (2) of the statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "*See Deductions column in this payroll.*" *See "FRINGE BENEFITS"* below for instructions concerning filling out paragraph 4 of the statement.

Item 4 FRINGE BENEFITS - Contractors who pay all required fringe benefits: If paying all fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor, show the basic cash hourly rate and overtime rate paid to each worker on the face of the payroll and check paragraph 4(a) of the statement on page 2 of the WH-347 payroll form to indicate the payment. Note any exceptions in section 4(c).

Contractors who pay no fringe benefits: If not paying all fringe benefits to approved plans, funds, or programs in amounts of at least those that were determined in the applicable wage decision of the Secretary of Labor, pay any remaining fringe benefit amount to each laborer and mechanic and insert in the "straight time" of the "Rate of Pay" column of the payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the application wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, check paragraph 4(b) of the statement on page 2 the payroll form to indicate the payment of fringe benefits in cash directly to the workers. Note any exceptions in section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the covered worker as cash in lieu of fringe benefits. Enter any exceptions to section 4(a) or 4(b) in section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid each worker as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor must pay an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in section 4(c) to each such individual for all hours worked (unless otherwise provided by applicable wage determination) on the Federal or Federally assisted project. Enter the rate paid and amount of cash paid in lieu of fringe benefits per hour in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Public Burden Statement: We estimate that it will take an average of 55 minutes to complete this collection of information, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

PART 5

DRAWINGS
