City of West Palm Beach

CONSTRUCTION CONTRACT

FOR



ITB # 14-15-134

PROJECT # - VARIOUS

GENERAL ROADWAY AND MISCELLANEOUS CONSTRUCTION

CITY OF WEST PALM BEACH
PUBLIC WORKS DEPARTMENT
KHANH UYEN DANG, PE - SENIOR PROJECT ENGINEER
401 CLEMATIS STREET, 4TH FLOOR
WEST PALM BEACH, FL 33401
(561) 494-1040



City of' West Palm Beach CONSTRUCTION CONTRACT Work Orders

Bid No. 14-15-134

Project: General Roadway and Miscellaneous Construction

Contract No. 16393

THIS CONTRACT is made and entered into by and between the CITY OF WEST PALM BEACH, a municipal corporation of the State of Florida whose address is 401 Clematis Street, West Palm Beach, Florida 33401 (the "Owner") and M&M ASPHALT MAINTENANCE, INC., d/b/a ALL COUNTY PAVING, a corporation of the State of Florida, whose principal address is 1180 SW 10TH Street, Delray Beach, Florida 33444 ("Contractor").

WHEREAS, the Owner caused to be prepared specification, drawings and other contract documents for certain work and issued an Invitation to Bid for the above-described project, which is incorporated into this Contract by this reference; and

WHEREAS, the Contractor submitted its Bid in response; and

WHEREAS, the Owner determined that the Contractor's Bid represents the best value to Owner and wishes to contract with Contractor under the terms and conditions contained in the Invitation to Bid;

NOW THEREFORE, in consideration of the promises and mutual covenants and obligations herein contained, and subject to the terms and conditions herein stated, the Owner and Contractor understand and agree as follows:

SCOPE OF WORK.

- 1.1 If issued a Work Order, the Contractor shall furnish all necessary labor, materials, equipment and supplies, and shall execute and complete, to the satisfaction of Owner and in accordance with the terms and conditions of this Contract all work described and shown in the applicable Work Order for small roadway and miscellaneous construction projects, in accordance with the technical specifications and drawings specified for such Work Order.
- 1.2 Owner will issue Work Orders on an as-needed basis. Each Work Order will be on Owner's form and detail the specific project scope of work, project schedule for completion and compensation. All terms and conditions of this Contract, the General Conditions and the Contract Documents will be applicable to each Work Order.
- 1.3 No work is authorized until a work order is fully executed by the Owner. Any amendment to a work order is not effective and not authorized until such amendment is fully executed by the Owner.
- 1.4 A comprehensive project shall not be broken into small related segments/projects in order to fall within the limitations of this Contract. Contractor shall not execute any such Work Order.
- 1.5 Work Orders shall be completed within the time indicated for each Work Order. Time is of the essence of each Work Order. Contractor shall proceed with the work and shall conform to the schedule for each Work Order. Work shall commence on the date indicated in the Notice to Proceed issued by Owner and be substantially complete and then fully complete in accordance with the Work

Order schedule and the General Conditions, with such extensions of time as are provided in the General Conditions.

- 1.6 No Work Order may be issued for work to be completed after the expiration of this Contract. The form of Owner's Work Order is attached to this Contract.
- 1.7 No work order(s) or minimum amount of work or compensation is guaranteed under this Contract.
- 2. <u>PRICES</u>. Contractor shall perform the work for the prices set forth on Contractor's Bid. If specific circumstances require additional work of materials not listed in Exhibit B, the parties shall negotiate a price which shall be detailed in the Work Order.
- 3. <u>PAYMENT AND INVOICES</u>. Payment for Work Orders shall be made in accordance with the General Conditions of this Contract. Contractor acknowledges that if a construction bond is required, payments under Work Order(s) shall not be made until consent of surety is received by Owner. Contractor shall submit individual invoices for each Work Order. Along with each invoice, Contractor will provide a copy of the Work Order, the appropriate completed Small Business participation form and any updated insurance documents (when applicable).

CONTRACT TERM.

- 4.1 <u>Term of Contract.</u> Subject to the termination rights of the Owner, this Contract shall have a term of three (3) years, commencing as of the date of execution by the Owner. The Owner shall execute this Contract last.
- 4.2 <u>Renewal.</u> At the sole option of the Owner, this Contract may be renewed for up to two additional twelve (12) month periods. Contract renewal will only be effective upon a written contract amendment executed by both parties. Renewal terms and conditions for this Contract shall be unchanged.
- 5. <u>LIQUIDATED DAMAGES.</u> The actual damages Owner and the public may suffer as a result of the failure to complete work under a Work Order within the scheduled time are not ascertainable at the time of this Contract. If said work under any Work Order is not substantially and then fully completed within the time established by the Work Order and the General Conditions, as may be adjusted, the Contractor shall be liable and hereby agrees to pay to the Owner as liquidated damages, and not as a penalty, a sum per calendar day for each and every day or part of a day thereafter that said work remains incomplete. Unless a Work Order specified otherwise, Contractor shall pay to Owner the sum of Two Hundred Dollars (\$200) per calendar day as liquidated damages.
- 6. <u>CONSTRUCTION BOND(S).</u> If the estimated amount of any Work Order is \$200,000 or more, then prior to the commencement of the work under such Work Order, Contractor shall record a public construction bond, in an amount not less than the total cost of such Work Order, on Owner approved forms, with the Clerk of the Court in the Public Records of Palm Beach County and provide a certified copy of the recorded bond(s) prior to commencing work and submittal of first invoice, in accordance with the General Conditions. The City shall be an obligee under such bond(s). The bond shall incorporate by reference the terms of the Contract Documents in their entirety.

SPECIAL TERMS.

8. <u>SMALL BUSINESS PROGRAM.</u>

- 8.1 Compliance. Article IX of Chapter 66 of the City of West Palm Beach Code of Ordinances relating to the Small Business Program is incorporated in this Contract by this reference. The Contractor agrees to comply in all respects with its commitment to use the certified small businesses identified in Contractor's Bid in the manner and proportions set forth in the Bid. In the event that it is impossible or impracticable to engage or procure materials from one or more of the identified certified small businesses, the Contractor shall so notify the City's Small Business Division promptly in writing and shall thereafter ensure that that firm or firms are duly replaced by other certified small businesses unless written approval to the contrary is granted by the City.
- 8.2 Records. The Contractor agrees to maintain in an orderly fashion all relevant records and information that document its compliance with the Small Business Program and the utilization of and payment to certified small businesses under this Contract; and shall make said records available to the City for inspection during reasonable business hours. Copies of all contracts between the Contractor and firms engaged by it in connection herewith shall be submitted to the City upon the City's request.
- 9. <u>CONTRACTOR'S UNDERSTANDING</u>. It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of the equipment and facilities needed preliminary to and during the prosecution of the work, and the general and local conditions. Execution of this Contract by the Contractor is a representation that the Contractor has visited the site, reviewed any design criteria furnished by Owner, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents. Contractor deems both his inspection of the site and review of information furnished by Owner to be an adequate investigation. Contractor represents that the plans and specifications are consistent, practical, feasible and constructible within the scheduled construction time. Contractor affirmatively covenants that Contractor has observed no defects or discrepancies in the plans, specifications or site and that if during construction any discrepancies, defects, etc., are discovered by or made known to Contractor, Contractor shall immediately communicate same to the Owner.
- 10. <u>ETHICS</u>. Contractor acknowledges, agrees and commits that it shall comply with all applicable state and city rules and regulations.
- 11. <u>CONTRACT DOCUMENTS</u>. Contractor agrees to complete all work in accordance with the Contract Documents. The term "Contract" and or "Contract Documents" shall include all the terms and conditions and Project requirements contained in this Contract and the following documents, all of which taken together are incorporated herein and form the Contract Documents. For convenience sake, some of the documents may not be attached to this Contract, but the listed documents make up the Contract Documents, whether or not they are attached.
 - a. Each Work Order and all associated Documents
 - b. Special Terms
 - c. Contractor's Bid
 - d. Schedule of Bid Items
 - e. Substitution Sheet
 - f. Schedule of Subcontractors
 - g. Contractor License Verification Form
 - Affidavit of Prime Bidder

- i. **Drug Free Certification**
- Trench Safety Compliance Form, j.
- Small Business Subcontractors Listing k.
- Small Business Statement of Small Business Participation l.
- m. Small Business - Letter of Intent
- n. Contractor's Material Suppliers
- Public Construction Bond and Related Power of Attorney and Surety Certificate O.
- p. Insurance Certificates
- q. General Conditions
- r. Technical Specifications and Drawings
- s. Invitation to Bid

This Contract shall be executed in two (2) original sets by Owner and Contractor. The Contract Documents are complementary, and wherever possible the provisions of the documents shall be construed in such manner as to avoid conflicts between provisions of the various documents.

IN WITNESS WHEREOF, the parties execute this Contract through their duly authorized representatives.

ATTEST: **CITY OF WEST PALM BEACH** By: Geraldine Muojo, Mayor Date: CITY ATTORNEY'S OFFICE Approved as to form and legality

ATTEST:

Corporate Secretary

Print Name: Jeffrey Cohen

Contractor:

M&M ASPHALT MAINTENANCE, INC d/b/a ALL COUNTY PAVING

Title: President



CITY OF WEST PALM BEACH GENERAL ROADWAY CONSTRUCTION

Work Order No. ____

Contract No. 16393.

Contractor: M&M Asphalt Maintenance, Inc., d/b/a All County Paving	
Project / Work Title:	
Work: A detailed scope of work to be performed under this Work Order is attached as Exhibit A. (check if applicable) Technical specifications and drawings for the Project prepared dated, project number (the "Contract Drawing describe the work and are Contract Documents for this Work Order.	
Schedule: Time is of the essence of this Work Order. The Contractor shall commence Work un this Work Order on the date indicated in the Notice to Proceed and fully complete said Work accordance with Exhibit Substantial Completion shall be: days from Notice to Proceed.	de i
3. <u>Work Order Price</u> . The total amount to be paid to the Contractor by the Owner under this Work Order sum	0
subject only to adjustment as provided in the General Conditions. Payments shall be made accordance with the General Conditions. Contractor acknowledges that if a construction bond is require final payment under this Work Order shall not be made until consent of surety is received by Own Contractor shall submit individual invoices for each Work Order. Along with each invoice, Contractor provide a copy of the Work Order, the appropriate completed Small Business participation form and a updated insurance documents. [Check if applicable] A detailed schedule of values is attached as Exhibit	ed er wil
(check if applicable) Contingency. Owner and Contractor agree the project budget should be utilized in accordance with the General Conditions, sunthe amount of \$	ım
 Liquidated Damages. In accordance with the Contract Documents, Contractor shall be liable an nereby agrees to pay to the Owner as liquidated damages for each and every calendar day or part of day that the work remains incomplete, the sum of	

	etion Bond. Unless indicated below, Contractor will record the required public construction ner forms, with the Clerk of the Court in the Public Records of Palm Beach County and tiffied copy of the recorded bond prior to commencing work under this Work Order and test invoice.
□ \$200,	(check if applicable) Construction bond <u>not</u> required and Work Order Price is less than 000.
6. Special T	<u>erms</u> .
5101000	Contractor agrees to correct all Work found by Owner to be defective or not in with the Contract Documents for a period of one year from the final certificate of occupancy (or if no certificate of occupancy to be issued, within one year of substantial completion) or periods of time as may be set forth with respect to specific warranties contained in the
compliance wi	siness: The small business commitment for this Work Order is%. ees to maintain in an orderly fashion all relevant records and information that evidence the Small Business program, including the utilization of, and payment to, certified small der this Contract.
9. Insura the Contract arthe date of this	nce: Contractor hereby confirms that it maintains the insurance coverages required under and that certificates of insurance evidencing current policies are on file with the Owner as of Work Order.
10. <u>Contract F</u> within the mas dated named above (Reference: This Work Order shall be performed under the terms and conditions described ter contract titled Master Contract for General Roadway and Miscellaneous Construction, by and between the Owner of West Palm Beach and the Contractor "Contract").
11. <u>Contract I</u> Documents, regardless of w	Documents. Contractor agrees to complete all work in accordance with the Contract The following documents are Contract Documents with respect to this Work Order, hether they are attached:
	Technical Specifications and Construction Drawings and specifications identified above. Scope of Work Contractor's Bid and Schedule of Values Construction Schedule Special Terms Grant Requirements Substitution Sheet Contractor's Material Suppliers List Schedule of Subcontractors – including suppliers
ā	Trench Safety Compliance Form

Small Business – Stateme The following Contract Do Owner's Approved Materia Owner's Engineering Stan	ent of Small Business Participation ocuments may be found at <u>www.cityofwpb.org/engineering/</u> . als List ndard Details
CONTRACTOR: M&M ASPHALT MAINTENANCE, INC. d/b/a ALL COUNTY PAVING	CITY OF WEST PALM BEACH
Ву:	By: Geraldine Muoio, Mayor
Print Name:	Date: 20
	ATTEST:City Clerk
	OWNER ATTORNEY'S OFFICE Approval as to form and legality By:



SECTION 2 - SPECIAL TERMS

1. Pre-Bid Conference

A pre-bid conference is scheduled to provide potential bidders the opportunity to ask questions and receive clarification concerning the project and to emphasize safety factors, hazards, or potential interference of other projects. If a pre-bid conference is scheduled, attendance is strongly encouraged. If a site inspection is scheduled it will be the only opportunity to inspect the site and attendance is recommended as no individual

Date: N/A Time: N/A Place: N/A

Please bring your copy of the Invitation to Bid to the pre-bid conference.

In accordance with the Americans with Disabilities Act, any person who believes he or she has a disability requiring the use of a special accommodation at either the scheduled site inspection, pre-bid conference or bid opening should contact the Procurement Division at 561-822-2100, at least five (5) days prior to the event to advise of his/her special requirements.

- 2. <u>Time of Completion and Liquidated Damages</u>. The work to be performed under this project shall commence on the date of Notice to Proceed. The work shall be substantially completed within 120 ONE HUNDRED TWENTY) calendar days after the date of such notice, and fully completed within 180 (ONE HUNDRED EIGHTY) calendar days, with such extensions of time as are provided for in the General Terms and Conditions. If said work is not substantially completed within the specified times, the Contractor shall be liable and hereby agrees to pay to the Owner as liquidated damages, and not as a penalty, the sum of ONE THOUSAND TWO HUNDRED (\$1,200) per calendar day for each and every day or part of a day thereafter that
- 3. Permits and Fees. In accordance with the Public Bid Disclosure Act, the Contractor will be required to make payment to the City of West Palm Beach for following permits or licenses, impact, inspection or other fees for this Project under the Contract: (F.S. 218.80)

(Permit)

(Fee/Amount or calculation)

Right-of-Way Permit

See City website (www.cityofwpb.org)

Parking Permit (Bagging of Meters)

See City website (www.cityofwpb.org)

Refer to City Website (wpb.org) for current permit fees.

- 4. <u>Licenses</u> The Bidder will be required to have at the time of bid submittal, the following current license(s):
 - State of Florida General Contractor's License or Paving Contractor's License

The Bidder will also be required, at the time of contract execution, to have a business tax receipt or certificate of registration in accordance with the following:

 No person, contractor or subcontractor may conduct business within the City without a business tax receipt or certificate of registration.

- A contractor who holds a valid countywide contractor's license, in addition to a county business tax receipt shall register with the City.
- Any person engaging in any business, occupation or profession within the City without a
 permanent business location or branch office in the City, but holding a valid and currently
 effective business tax receipt issued by the county or another incorporated municipality, shall be
 issued a certificate of registration upon registering with the business tax official.
- 5. <u>Small Business Participation</u>. In accordance with the Small Business Ordinance, the goal for Small Business participation under the contract resulting from this Invitation to Bid is <u>15%</u> of the total contract value.
- 6. Construction Bond. If required, please refer to General Condition 11.

Required Yes Not Required

- 7. <u>Insurance</u> Please refer to General Condition 13 for insurance requirements, unless a modification to such requirements is listed below:
- 8. Equal Benefits Ordinance. Section 66-9 of the City's Code of Ordinances provides that, with limited exceptions, when contracting for goods, services or construction in an amount of \$50,000 or more, with persons or businesses with five or more employees that also provide benefits to employees' spouses and dependents, the city shall contract only with those persons or businesses that provide equal benefits to employees' domestic partners. Each proposer shall submit an Equal Benefits certification with its proposal/bid

9. Other Special Conditions:

METHOD OF AWARD

The City intends to award to a Primary and Secondary Vendor(s). The award of the Primary and Secondary bidder will be determined in order of responsiveness, lowest price, and consideration of bidder's bid package with reference to conforming of bid, deviations (if any,) bidder's notes, materials proposed, along with bidder's qualifications, adequate organization, and personnel to ensure prompt and efficient performance of work to the City. If the Primary bidder is not able to supply the product/material in question, the City will contact the Secondary bidder accordingly.



401 Clematis Street, 5th Floor West Palm Beach, FL 33401 Telephone: (561) 822-2100

Telefax: (561) 822-1564

Addendum 1 ITB 14-15-134 July 17, 2015

General Roadway and Miscellaneous Construction

Each recipient of this Addendum acknowledges all of the provisions set forth in the Invitation to Bid (ITB) and agrees to be bound by the terms thereof.

This addendum shall modify, clarify, change or add information and become part of the above referenced ITB.

This Addendum shall provide the following information:

- Questions and Answers
- Revised schedule of bid items
- Revised technical specifications

The following documents are included with this addendum:

- Addendum 1 ITB 14-15-134
- Addendum 1 ITB 14-15-134 Revised Schedule of Bid Items

Questions and Answers

Question 1: Do contractors have to provide pricing on all items or can items be marked N/A if the the contractor is not providing a quote?

Answer

Pricing must be provided for all items.

Question 2: How will the City determine the low bid as there is no total of bid items?

Answer

This is a line item bid and the City's award decisions are based on the response or responses determined to be the best value.

Question 3: How will the award decision be made if not based on lowest bid?

Answer

Depending on the number of responses and bid prices multiple awards may be made. Awards will be based on the best value to the City as determined by review and analysis of the submitted prices for each line item.

Question 4: How will the City award work from the annual contract?

Answer

Work Orders will be issued for this contract.

Question 5: Please clarify line item 88 – Root Removal/Pruning. Is this one tree or all possible trees?

Answer

The line item refers to all trees.

Question 6: Please clarify line item 95 - Adjust Irrigation.

Answer

The line item is to adjust irrigation system in existing planter boxes or tree grates.

Question 7: Has the City reduced the required paperwork for work orders and pay requests? How many forms are required for work orders and pay requests for this project?

Answer

For the typical work order the pay request includes the following items:

- 1. Work order form
- 2. Scope of work
- 3. Fee proposal
- 4. Statement of small business participation form
- 5. Letter of intent
- 6. Schedule of contractors
- 7. Drug free certificate
- 8. Contractor's materials suppliers
- 9. Certificate of insurance
- 10. Bond

Per Section 10.5 in the GC and the subcontractor utilization report.

- 10.5 <u>Initial Payment</u>. Prior to submittal of its initial payment request, Contractor shall have submitted the following items to the Engineer/Architect and Owner:
 - Certified copies of the Performance and Payment bonds, or Public Construction bond, recorded in the public records.
 - List of subcontractors and suppliers
 - 3. Project schedule
 - 4. Schedule of values
 - All current certificates of insurance
 - 6. Designation of Contractor's Project Manager

The following section is removed from the Technical Specifications

X ASPHALTIC CONCRETE PAVEMENT (BY THICKNESS AND TYPE S-1, S-3 OR SUPERPAVE)

Method of Measurement. The quantity to be paid for under this Section shall be per square yard (SY) of asphalt surface course and shall include all labor, material, and equipment required to construct the base layer and the final surface course as shown on the plan view and detail drawings. The unit prices shall include compensation for multiple mobilizations, labor, materials, and equipment required to construct the new asphalt concrete base and surface courses. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. This unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, milling existing asphalt at tie-ins, tack complete the work.

01025-39

2 Basis of Payment: Payment shall be at the Contract Unit Price per square yard of pavement installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

10" LIMEROCK BASE

- Method of Measurement. The quantity to be paid for under this Section snall be per square yard (SY) for limerock base installed and accepted. The Contract Unit Price shall include compensation for all labor, materials, and equipment required to construct the new lime rock base, including prime coat in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to correct all defective surfaces and deficient thicknesses and to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. The Contractor may, at no additional cost to the City of West Paim Beach, substitute 10- inch crushed concrete in tieu of limerock provided that the minimum LBR 100 is achieved.
- 2 Basis of Payment: Payment shall be at the Contract Unit Price per square yard of limerock base installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

All of the other information remains the same.

Proposers must acknowledge receipt of this Addendum 1 in the space provided below. This Addendum forms an integral part of the ITB documents and therefore must be executed. <u>Fallure to return this addendum with your proposal submittal may be cause for disqualification.</u>

Issued By:

City of West Palm Beach

Procurement Division

July 17, 2015

Signed By:

Patricia D. Armstrong Sr. Purchasing Agent

PROPOSER: Mam Asplat Maintenance,

Albla All County Paying

Signed By:

Print Name:

itle: President

Date: 7-27-15

End of Addendum 1



City of West Palm Beach

(B3)

Schedule of Bid Items

ITB 14-15-134 PROJECT TITLE: General Roadway and Miscellaneous Construction

ltem No.	item Description	Unit Cost	Units
	GENERAL	Unit Cost	Units
1	Mobilization		
2	Maintenance of Traffic		LS
3	Bonding		<u>LS</u>
4	Insurance		LS
5	Construction Permits (Allowance)		LS
6	Vehicle Towing (Allowance)	· · · · · · · · · · · · · · · · · · ·	AL
	ROADWAY		AL
7	Reclaimed Asphalt Base Course (Up to 10")		
8	Asphalt Emulsion for Reclamation (Asphalt Treated Base)		SY
9	Saw Cut Existing Concrete/Pavement up to 12" deep		GAL
10	Concrete Road Base Removal up to 12" deep		LF
11	Excavation, Removal & Disposal of excess material		SY
	Mill Existing Asphalt (up to 2")		CY
13	Mill Existing Asphalt (2"-4")		SY
	Asphalt & Base Removal, up to 24"		SY
	2" Compacted, Stabilized Subbase		ŞY
	-DOT Optional Base Group 4		SY
	DOT Optional Base Group 6		Ton
- 1	DOT Optional Base Group 9		Ton
19	ype SP-9.5 Asphaltic Concrete		Ton
	ype SP-12.5 Asphaltic Concrete		Ton
	temoval and Disposal of Old Guardrail		Ton
	eset Guardrail		LF
23 F	urnish & Install Guardrail, Steel Beam, Double Face, Incl Hardware		LF
24 F	urnish & Install Guardrail, Steel Beam, Straight Panel, Incl Hardware		LF
25 F	urnish & Install Aluminum Handrail per FDOT Specification		<u>L</u> F
	The state of the s		LF

	Utilities	
26	Adjust Existing Manhole Top to Grade	TEA
27	Install New Manhole Top with Ring and Cover to Grade (remove and dispose of existing)	EA EA
28	Adjust Type "A" Inlet to Grade	EA
29	Remove and Replace Type "A" Inlet	EA -
30	Install New Type "A" Inlet	EA
31	Adjust type "C" Inlet to Grade	↓ EA
32	Remove and Replace Type "C" Inlet	EA
33	Install New "C" Inlet	↓ EA
34	Remove and Replace Type P-5 (FDOT) Inlet	 EA
35	Remove and Replace Type P-6 (FDOT) Inlet	EA
36	New Type P-5 FDOT Inlet	EA EA
37	New Type P-6 FDOT Inlet	EA
38	install New Water Valve box (remove and dispose of existing)	EA
39	Adjust Water Valve Box	EA
40	Remove and Replace Water Meter Box, Single (City standard)	EA
41	Remove and Replace Water Meter Box, Double (City standard)	EA
42	Remove and Replace Electrical Pull Boxes with "New Basis" Model PBC111812T02 or an Approved Equivalent	EA
43	install Electrical Pull Boxes, "New Basis" Model PBC111812T02 or an Approved Equivalent	EA
44	Remove & Replace Traffic Signal Loops/Wiring (Per PBC Standard)	 At Cost
45	Stamped, Colored Concrete (6" thick)	SY
46	Paver Brick (traffic rated)	SY
47	Remove and Replace Paver Brick (traffic rated)	SY
48	Speed Humps, Stamped Asphalt(up to 100SY), primed and painted	SY
	CONCRETE	
49	Concrete Removal up to 6" thick	SY
50	4" Concrete Sidewalk	SY
51	6" Concrete Pathway/Driveway	SY
52	Concrete ADA Curb Ramp with detectable warning surface (FDOT standard)	EA
53	6" ADA Compliant Detectable Warning Pavers Ramp	EA
54	6" ADA Compliant Ramp with Armor-Tile Tactile System or an approved equivalent	EA
55	Remove Concrete Curb All Type include asphalt restoration and sawcut	LF
56	Concrete Curb Type "D"	LF
57	Concrete Curb Type "F"	LF
58	Concrete Header Curb (up to 12" X12")	LF
59	Modified Concrete Curb	LF
60	Concrete Valley Gutter	LF

	STRIPING & SIGNAGE		
61	6" Solid White Thermoplastic Striping		Tie
62	6" Skip White Thermoplastic Striping		LF
63	6" Solid Yellow Thermoplastic Striping		LF LF
64	6" Skip Yellow Thermoplastic Striping		LF LF
65	6" Double Yellow Thermoplastic Striping		LF (E
66	12" Solid White Thermoplastic Striping		LF
67	18" Solid White Thermoplastic Striping		LF
68	18" Solid Yellow Thermoplastic Striping		LF LF
69	24" Solid White Thermoplastic Striping		LF
70	Special Pavement Message: ARROW (single and double) Thermoplastic		LF
71	Special Pavement Message: MERGE, ONLY, R/R, SCHOOL, SHARROW, Thermoplastic		EA
72	Furnish and Install Single Sign Post		EA
73	Relocate Sign and Post		AS
74	6" White Temporary Striping Paint		AS
75	6" White Temporary Striping Plastic Tape		<u>LF</u>
76	6" Yellow Temporary Striping Paint		<u>LF</u>
77	6" Yellow Temporary Striping Plastic Tape		<u>LF</u>
78	Retro-Reflective Pavement Markers (RPMs) All colors		<u>LF</u>
	LANDSCAPING		EA
79	Bio-Barrier (12" wide)	T	1.5
80	Bio-Barrier (19.5" wide)		<u>LF</u>
81	Sodding (Floratam)		LF
82	Sodding (Bahia)		SY
83	Top Soil (3" Thick)		SY
84	Red Designer Mulch (3")		SY
85	Root Removal/Pruning		SY
86	Tree Removal (up to 12" Diameter)		AL
37	Seeding		EA
38	Stump Removal up to 18" Diameter, Including Roots		SY
	Stump Removal up to 36" in Diameter, Including Roots		EA EA
90	Tree Removal up to 18" in Diameter, Incl. Roots		EA EA
)1	Tree Removal up to 36" in Diameter, Incl. Roots		
	Adjust Irrigation		EA
3	Regrade Swales		AL

Bidder Company Name:

	Signature of Official authorized to bind Bidder
Print Name	
Title	
Date	

Failure to fully complete and sign this Bid Form may result in rejection of the Bid

*BIDDERS: THE CITY HAS PROVIDED AN ELECTRONIC SPREADSHEET FOR BID ITEM TABULATION. IT IS MANDATORY THAT ALL BIDDERS PROVIDE BOTH A SIGNED PAPER BID TABULATION AND ELECTRONIC BID TABULATION. THE ELECTRONIC BID TABULATION SHALL BE SUBMITTED WITH THE PAPER BID TABULATION BY MEANS OF COMPACT DISC, FLASH DRIVE, OR OTHER DIGITAL DATA STORAGE DEVICE. PAPER BID TABULATION AND ELECTRONIC BID TABULATION SHALL BE MATERIALLY CONSISTENT AND CONTAIN THE SAME INFORMATION. IN CASE OF DISCREPANCY, THE SIGNED PAPER BID TABULATION SHALL PREVAIL. FAILURE TO SUBMIT AN ELECTRONIC COPY/VERSION OF THE PROVIDED BID TABULATION MAY BE CAUSE FOR REJECTION OF THE BID.



401 Clematis Street, 5th Floor West Palm Beach, FL 33401 Telephone: (561) 822-2100

Telefax: (561) 822-1564

Pointiasing Department

Addendum 2 ITB 14-15-134 July 22, 2015

General Roadway and Miscellaneous Construction

Each recipient of this Addendum acknowledges all of the provisions set forth in the Invitation to Bid (ITB) and agrees to be bound by the terms thereof.

This addendum shall modify, clarify, change or add information and become part of the above referenced ITB.

This Addendum shall provide the following information:

- Questions and Answers
- Revised Section 2 Special Terms
- Revised Form B2

The following documents are included with this addendum:

- Addendum 2 ITB 14-15-134
- Addendum 2 ITB 14-15-134 Revised Section 2 Special Terms
- Addendum 2 ITB 14-15-135 Revised Form B2

Questions and Answers

Question 1: Is a bid bond required for this project?

Answer

No, a bid bond is not required. Bonding may be required for work orders issued for this contract.

Question 2: Regarding Section 2 – Special Terms, Item 1, Time of Completion and Liquidated Damages. How will the contract time and fines be applied to the contract?

Answer

The time of completion dates are removed from the bid documents. Timing for substantial and final completion will be included on the work orders issued for individual projects. Liquidated damages will be calculated at 25% of each work order amount.

Question 3: What dollar amount is to be used on Form B2?

Answer

No dollar amount is expected as this is a line item bid. There is a note on the form to refer to the list of bid items on Form B3.

Question 4: What dollar amount is to be used on the list of subcontractors on Form B5?

Answer

No dollar amount is expected at this time and the field can be completed with TBD. The dollar amount will be included on the work order issued for a specific project.

Question 5: How should suppliers for materials and dollar amounts be listed on Form B15?

Answer

Form B15 can be left blank or marked TBD at this time; the information will be completed when a work order is issued for a specific project.

Question 6: How should contractors respond to the allowance items on Form B? Should they be left blank or marked TBD?

Answer

The allowance items and lump sum items can be marked TBD for the bid response.

Question 7: How should contractors provide SBE percentages when the quantities and value of the project(s) are unknown?

Answer

Include the names of your SBE team and mark the percentage fields as TBD. Contractors will be expected to meet the SBE goal for the projects assigned via work order.

All of the other information remains the same.

Proposers must acknowledge receipt of this Addendum 1 in the space provided below. This Addendum forms an integral part of the ITB documents and therefore must be executed. Failure to return this addendum with your proposal submittal may be cause for disqualification.

Issued By:

City of West Palm Beach

Procurement Division

July 22, 2015

Signed By:

Patricia D./Armstrong

Sr. Purchasing Agent

PROPOSER: Note Asphalt Maintenance, Signed By:

Lnc. Print Name:

Alba All County Paving Title: Pres

Date: 1-27-15

End of Addendum 2



SECTION 2 - SPECIAL TERMS

1. Pre-Bid Conference

A pre-bid conference is scheduled to provide potential bidders the opportunity to ask questions and receive clarification concerning the project and to emphasize safety factors, hazards, or potential interference of other projects. If a pre-bid conference is scheduled, attendance is strongly encouraged. If a site inspection is scheduled it will be the only opportunity to inspect the site and attendance is recommended as no individual appointments will be made.

Date: N/A Time: N/A Place: N/A

Please bring your copy of the Invitation to Bid to the pre-bid conference.

In accordance with the Americans with Disabilities Act, any person who believes he or she has a disability requiring the use of a special accommodation at either the scheduled site inspection, pre-bid conference or bid opening should contact the Procurement Division at 561-822-2100, at least five (5) days prior to the event to advise of his/her special requirements.

- 2. <u>Time of Completion and Liquidated Damages</u>. The work to be performed under this project shall commence on the date of Notice to Proceed. The work shall be substantially completed within 120 ONE HUNDRED TWENTY) TBD calendar days after the date of such notice, and fully completed within 180 (ONE HUNDRED EIGHTY) TBD calendar days, with such extensions of time as are provided for in the General Terms and Conditions. If said work is not substantially completed within the specified times, the Contractor shall be liable and hereby agrees to pay to the Owner as liquidated damages, and not as a penalty, the sum of ONE THOUSAND TWO HUNDRED (\$1,200) TBD per calendar day for each and every day or part of a day thereafter that said work remains incomplete.
- 3. Permits and Fees. In accordance with the Public Bid Disclosure Act, the Contractor will be required to make payment to the City of West Palm Beach for following permits or licenses, impact, inspection or other fees for this Project under the Contract: (F.S. 218.80)

(Permit)

(Fee/Amount or calculation)

Right-of-Way Permit Parking Permit (Bagging of Meters)

See City website (www.cityofwpb.org)

arking Permit (Bagging of Meters) See City website (<u>www.cityofwpb.org</u>)

Refer to City Website (wpb.org) for current permit fees.

- 4. <u>Licenses</u>. The Bidder will be required to have at the time of bid submittal, the following current license(s):
 - State of Florida General Contractor's License or Paving Contractor's License

The Bidder will also be required, at the time of contract execution, to have a business tax receipt or certificate of registration in accordance with the following:

 No person, contractor or subcontractor may conduct business within the City without a business tax receipt or certificate of registration.

- A contractor who holds a valid countywide contractor's license, in addition to a county business tax receipt shall register with the City.
- Any person engaging in any business, occupation or profession within the City without a permanent business location or branch office in the City, but holding a valid and currently effective business tax receipt issued by the county or another incorporated municipality, shall be issued a certificate of registration upon registering with the business tax official.
- 5. <u>Small Business Participation</u>. In accordance with the Small Business Ordinance, the goal for Small Business participation under the contract resulting from this Invitation to Bid is <u>15%</u> of the total contract value.
- Construction Bond. If required, please refer to General Condition 11.

Required Yes

Not Required

- Insurance. Please refer to General Condition 13 for insurance requirements, unless a modification to such requirements is listed below:
- 8. Equal Benefits Ordinance. Section 66-9 of the City's Code of Ordinances provides that, with limited exceptions, when contracting for goods, services or construction in an amount of \$50,000 or more, with persons or businesses with five or more employees that also provide benefits to employees' spouses and dependents, the city shall contract only with those persons or businesses that provide equal benefits to employees' domestic partners. Each proposer shall submit an Equal Benefits certification with its proposal/bid
- Other Special Conditions:

METHOD OF AWARD

The City intends to award to a Primary and Secondary Vendor(s). The award of the Primary and Secondary bidder will be determined in order of responsiveness, lowest price, and consideration of bidder's bid package with reference to conforming of bid, deviations (if any,) bidder's notes, materials proposed, along with bidder's qualifications, adequate organization, and personnel to ensure prompt and efficient performance of work to the City. If the Primary bidder is not able to supply the product/material in question, the City will contact the Secondary bidder accordingly.

City of West Palm Beach

(B2)

BID

ITB 14-15-134
Proposal of:
(Bidder Company Name)
Bid Amount: \$N/A
See Bid Items 1 – 96 on Form B3 – Schedule of Bid Items
(Write Dollar Figure Here)
Bidder agrees to furnish, unless otherwise provided, all implements, machinery, equipment, transportation, tools materials, supplies, labor and other things necessary for the performance and completion of the work for the amount indicated above.
The undersigned Bidder hereby declares that:
1. <u>No Lobbying</u> . Proposer acknowledges that contact by a Proposer, or anyone representing a Proposer, regarding this ITB with the Mayor, any City Commissioner, officer, City employee, other than an employee of the West Palm Beach Procurement Division, is grounds for disqualification.
This bid is made in good faith, without collusion or fraud and is fair and competitive in all respects.
 The Bidder has carefully and to his full satisfaction examined the attached Scope of Work, Special Terms, General Conditions, technical specifications, and form of bonds, if applicable, together with the accompanying plans, and Bidder has read all issued addenda issued.
4. Bidder has made a full examination of the site and is familiar with the site conditions that may impact its performance.
5. There is enclosed a bid guarantee consisting of five percent (5%) of bid price in the amount of N/A
6. Upon receipt of a Notice of Intent to Award the contract the Bidder shall: 1) commence obtaining a Performance Bond, Labor and Material Bond, and Certificate(s) of Insurance immediately after receiving a Notice of Intent to Award, and 2) immediately obtain a Certificate of Registration for engaging in business from the City, as such documents will be required prior to execution of a Contract.
7. Bidder understands that the contract time starts on the date of Notice to Proceed

- Bidder furthermore agrees that, in case of failure on his part to execute a Contract and provide all required documents within ten (10) calendar days of receipt of the Contract for execution, the City may withdraw the offer and contract with another bidder and the check, bond, or other security accompanying his bid and the money payable thereon, shall become the property of the City, by forfeit as agreed and liquidated damages.
- The Bidder states that this bid is the only bid for this project in which Bidder is interested; and Bidder shall not be a subcontractor or subcontractor on this project.
- Substantial completion shall be within One Hundred and Twenty (120) TBD calendar days. Final completion shall be in One Hundred Eighty (180) TBD calendar days.
- Liquidated damages for delay are agreed to be \$1,200.00 TBD per calendar day. 11.
- 12. Small Business participation for this project is 15%.

13. buildir Depar	Bidder shall be ng, the City shall tment.	responsible for all permitting fed be responsible for plan and	es and utility service connection fees. For description of the permit review fees through its Constitutions.	
14, standa	All debris is to bards.	e legally disposed of at a licens	sed disposal site in accordance with city,	state, and federal
15.	The City reserve	s the right to select and include	e one or more alternates in the Project an	d work
16.				
	Name	Address	and its also all employee of the City of W	est Palm Beach:
17. 10% or	The following em		alm Beach hold, either directly or indirec	ctly, an interest of
	Name	Address		
20. accurat 21. accurat	By signing and se. Bidder acknowle or if forms are	submitting this Bid, Bidder redges that the Bid may be reported by properly author	have by authorized officer of Bidder. represents that all Bid Forms are fully rejected if all Bid Forms are not fully rized signatures where required.	/ complete and
Bidder (Company Name: _			_
Busines	s Address: (Street	, City, State, Zip Code)		contained with city, state, and federal sin the Project and work. The of the City of West Palm Beach: The original of the City of West Palm Beach: The original of the Work have stated by the State of Florida The have been RECEIVED of Bidder. The forms are fully complete and the required.
State of	Incorporated:	Telephone:	Fax:	_ _
BIDDER	:			
Signatu	re of Official auti	norized to bind Bidder.	**************************************	
Print Nai	me:			
Title:			-	
Date:				

Failure to fully complete and sign this Bid Form may result in rejection of the Bid.

13. Bidder shall be responsible for all permitting fees and utility service connection fees. For construction, the City shall be responsible for plan and permit review fees through its Construction Department.	ruction of a
14. All debris is to be legally disposed of at a licensed disposal site in accordance with city, state, a standards.	and federal
15. The City reserves the right to select and include one or more alternates in the Project and work	
16. The following officer, director or agent of the Bidder is also an employee of the City of West Palr	
Name Address	
None	
17. The following employee(s) of the City of West Palm Beach hold, either directly or indirectly, an 10% or more of Bidder or its affiliates or subsidiaries:	interest of
Name Address	
None	
within the 36 months immediately preceding the date of this Bid. 19. Bidder acknowledges that ADDENDA NO(S) 18.2	f Florida
and an ATTACHED HERETO and are signed by a duly authorized officer of Bidder.	
21. Bidder acknowledges that the Bid may be rejected if all Bid Forms are not fully complacturate or if forms are not signed by properly authorized signatures where required.	lete, not
Bidder Company Name: M & M Asphalt Maintenance, Inc. d/b/a All County Paying	
Business Address: (Street, City, State, Zip Code)1180 SW 10th Street	•
All debris is to be legally disposed of at a licensed disposal site in accordance with city, state, and federal andards. The City reserves the right to select and include one or more alternates in the Project and work. The following officer, director or agent of the Bidder is also an employee of the City of West Palm Beach: Name Address Bidder and all affiliates, suppliers, subcontractor or consultants who will perform the Work have to been placed on the Public Entity Crimes convicted vendor list maintained by the State of Florida thin the 36 months immediately preceding the date of this Bid. Bidder acknowledges that ADDENDA NO(S). 1 8.2 have been RECEIVED at are ATTACHED HERETO and are signed by a duly authorized officer of Bidder. By signing and submitting this Bid, Bidder represents that all Bid Forms are fully complete and curate. By signing and submitting this Bid, Bidder represents that all Bid Forms are not fully complete, not curate or if forms are not signed by properly authorized signatures where required. Bidder acknowledges that the Bid may be rejected if all Bid Forms are not fully complete, not curate or if forms are not signed by properly authorized signatures where required. Bidder acknowledges that the Bid may be rejected if all Bid Forms are 561-588-0949 Fax: 561-588-2140	
All debris is to be legally disposed of at a licensed disposal site in accordance with city, state, and federal adards. The City reserves the right to select and include one or more alternates in the Project and work. The following officer, director or agent of the Bidder is also an employee of the City of West Palm Beach: Name Address The following employee(s) of the City of West Palm Beach hold, either directly or indirectly, an interest of or more of Bidder or its affiliates or subsidiaries: Name Address Bidder and all affiliates, suppliers, subcontractor or consultants who will perform the Work have been placed on the Public Entity Crimes convicted vendor list maintained by the State of Florida in the 36 months immediately preceding the date of this Bid. Bidder acknowledges that ADDENDA NO(S). 1 & 2 have been RECEIVED are ATTACHED HERETO and are signed by a duly authorized officer of Bidder. By signing and submitting this Bid, Bidder represents that all Bid Forms are fully complete and rate. Bidder acknowledges that the Bid may be rejected if all Bid Forms are not fully complete, not rate or if forms are not signed by properly authorized signatures where required. Formany Name: M & M Asphalt Maintenance, Inc. d/b/a All County Paving ess Address: (Street, City, State, Zip Code) 1180 SW 10th Street Delray Beach, FL 33444 of Incorporated: FL Telephone: 561-588-0949 Fax. 561-588-2140	
BIDDER:	
Signature of Official authorized to bind Bidder.	
Print Name: Kenneth Goldberg	
Title: President	
Date: _ <u>7-27-15</u>	

Failure to fully complete and sign this Bid Form may result in rejection of the Bid.

ITB 14-15-134



City of West Palm Beach

(B3)

Schedule of Bid Items

ITB 14-15-134

PROJECT TITLE: General Roadway and Miscellaneous Construction

item No.	item Description	Unit Cost	Units
	GENERAL	T Gint Gogs	010
1	Mobilization	тво	LS
2	Maintenance of Traffic	TBD	LS
3	Bonding	TBD	LS
4	Insurance	ТВО	LS
5	Construction Permits (Allowance)	TBD	AL
6	Vehicle Towing (Allowance)	TBD	AL
	ROADWAY		<u> AL</u>
7	Reclaimed Asphalt Base Course (Up to 10")	\$12.90	SY
8	Asphalt Emulsion for Reclamation (Asphalt Treated Base)	\$2.50	
9	Saw Cut Existing Concrete/Pavement up to 12" deep	\$2.00	GAL LF
10	Concrete Road Base Removal up to 12" deep	\$11.00	
11	Excavation, Removal & Disposal of excess material	\$25.00	
12	Mill Existing Asphalt (up to 2")	\$25.00	CY SY
13	Mill Existing Asphalt (2"-4")		
14	Asphalt & Base Removal, up to 24"	\$3.10	SY
15	12" Compacted, Stabilized Subbase	\$11.85 \$5.00	SY
16	FDOT Optional Base Group 4	\$40.00	SY
17	FDOT Optional Base Group 6	\$40.00	Ton
18	FDOT Optional Base Group 9	\$40.00	Ton
19	Type SP-9.5 Asphaltic Concrete	\$110.00	Ton
20	Type SP-12.5 Asphaltic Concrete	\$110.00	Ton
21	Removal and Disposal of Old Guardrail	\$5,95	Ton
22	Reset Guardrail	\$11.00	LF
23	Furnish & Instail Guardrail, Steel Beam, Double Face, Incl Hardware	\$38.50	LF
	-urnish & Install Guardrail, Steel Beam, Straight Panel, Incl Hardware		LF
	Furnish & Install Aluminum Handrail per FDOT Specification	\$27.50 \$85.00	LF LF

26	Adjust Existing Manhole Top to Grade		<u> </u>
27	Install New Manhole Top with Ring and Cover to Grade (remove and dispose of existing)	\$500.0	
28	Adjust Type "A" Inlet to Grade	\$750.0	0 [
29	Remove and Replace Type "A" injet	\$2,500.0	0 E
30	Install New Type "A" Inlet	\$5,500.00	0 E
31	Adjust type "C" Inlet to Grade	\$4,200.00	O E
32	Remove and Replace Type "C" Inlet	\$2,500.00) <u>E</u>
33	Install New "C" Inlet	\$5,800.00) <u>E</u>
34	Remove and Replace Type P-5 (FDOT) Inlet	\$4,500.00) E
35	Remove and Replace Type P-6 (FDOT) Inlet	\$7,700.00	<u> </u>
36	New Type P-5 FDOT Inlet	\$7,500.00	E
37	New Type P-6 FDOT Inlet	\$6,200.00	
38	Install New Water Valve box (remove and dispose of existing)	\$6,000.00	-
39	Adjust Water Valve Box	\$500.00	1
40	Remove and Replace Water Meter Box, Single (City standard)	\$350.00	E
41	Remove and Replace Water Meter Box, Double (City standard)	\$500.00	E
	Remove and Replace Electrical Pull Boxes with "New Basis" Model PBC111812T02 or an	\$600.00	E
42	Applio 100 Equivalent	\$1,500.00	_
43	Install Electrical Pull Boxes, "New Basis" Model PBC111812T02 or an Approved Equivalent	\$1,100.00	
44	Remove & Replace Traffic Signal Loops/Wiring (Per PBC Standard)		At C
	Stamped, Colored Concrete (6" thick)	\$72.00	S'
	Paver Brick (traffic rated)	\$30.00	<u>_</u>
	Remove and Replace Paver Brick (traffic rated)	\$35.00	S`
48	Speed Humps, Stamped Asphalt(up to 100SY), primed and painted	\$188.00	S)
	CONCRETE	\$ 100.00	
- 1	Concrete Removal up to 6" thick	\$10.15	SY
	4" Concrete Sidewalk	\$34.50	SY
	5" Concrete Pathway/Driveway	\$42.50	SY
52 (Concrete ADA Curb Ramp with detectable warning surface (FDOT standard)	\$575.00	EA
53 6	" ADA Compliant Detectable Warning Pavers Ramp	\$1,200.00	EA
54 E	" ADA Compliant Ramp with Armor-Tile Tactile System or an approved equivalent	\$975.00	EA
55 F	Remove Concrete Curb All Type include asphalt restoration and sawcut	\$4.50	LF
	Concrete Curb Type "D"	\$11.50	LF
	Concrete Curb Type "F"	\$20.00	LF
	oncrete Header Curb (up to 12" X12")	\$20.00	LF
9 N	fodified Concrete Curb	\$20,00	
0 0	oncrete Valley Gutter	\$20.00	LF LF

0.4	STRIPING & SIGNAGE		
61	6" Solid White Thermoplastic Striping	\$0.8	00
62	6" Skip White Thermoplastic Striping		-
63	6" Solid Yellow Thermoplastic Striping	\$0.8	
64	6" Skip Yellow Thermoplastic Striping	\$0.8	
65	6" Double Yellow Thermoplastic Striping	\$0.8	 -
66	12" Solid White Thermoplastic Striping	\$1.7	
67	18" Solid White Thermoplastic Striping	\$1.6	
68	18" Solid Yellow Thermoplastic Striping	\$2.2	_
69	24" Solid White Thermoplastic Striping	\$2.2	
70	Special Pavement Message: ARROW (single and double) Thermoplastic	\$3.3	
71	Special Pavement Message: MERGE, ONLY, R/R, SCHOOL, SHARROW, Thermoplastic	\$99.0	
72	Furnish and Install Single Sign Post	\$121.00	+
73	Relocate Sign and Post	\$292	2 <i>A</i>
74	6" White Temporary Striping Paint	\$192.00) <i>P</i>
75	6" White Temporary Striping Plastic Tape	\$0.33	3 <u>L</u>
	6" Yellow Temporary Striping Paint	\$0.66	L
	6" Yellow Temporary Striping Plastic Tape	\$0.33	L
	Retro-Reflective Pavement Markers (RPMs) All colors	\$0.66	L
	LANDSCAPING	\$4.40	_ =
79	Bio-Barrier (12" wide)		
- 7	Bio-Barrier (19.5" wide)	\$15.00	L
7	Sodding (Floratam)	\$18.00	L
	Sodding (Bahia)	\$3.50	S
	Top Soil (3" Thick)	\$3.20	S'
1	Red Designer Mulch (3")	\$16.50	S'
	Root Removal/Pruning	\$21.00	S
	ree Removal (up to 12" Diameter)	TBD	Al
	eeding	\$1,000.00	E/
	tump Removal up to 18" Diameter, Including Roots	\$10.00	S\
	tump Removal up to 36" in Diameter, Including Roots	\$750.00	E/
	ree Removal up to 18" in Diameter, Incl. Roots	\$850.00	EΑ
	ree Removal up to 36" in Diameter, Incl. Roots	\$1,500.00	EA
	djust Irrigation	2,000.00	ΕA
	egrade Swales	TBD	AL
	Highlighted items will not be evaluated	\$13.50	SY

Bidder Company Name: M& M Asphat Maintenance, Inc. Wola All County	Parisa
	raving
Signature of Official authorized to bind Bidder	
Print Name Kemeth Goldberg	
Title President	
Date 7 - 27 - 15	
· · · · · · · · · · · · · · · · · · ·	

Failure to fully complete and sign this Bid Form may result in rejection of the Bid

*BIDDERS: THE CITY HAS PROVIDED AN ELECTRONIC SPREADSHEET FOR BID ITEM TABULATION. IT IS MANDATORY THAT ALL BIDDERS PROVIDE BOTH A SIGNED PAPER BID TABULATION AND ELECTRONIC BID TABULATION. THE ELECTRONIC BID TABULATION SHALL BE SUBMITTED WITH THE PAPER BID TABULATION BY MEANS OF COMPACT DISC, FLASH DRIVE, OR OTHER DIGITAL DATA STORAGE DEVICE. PAPER BID TABULATION AND ELECTRONIC BID TABULATION SHALL BE MATERIALLY CONSISTENT AND CONTAIN THE SAME INFORMATION. IN CASE OF DISCREPANCY, THE SIGNED PAPER BID TABULATION SHALL PREVAIL. FAILURE TO SUBMIT AN ELECTRONIC COPY/VERSION OF THE PROVIDED BID TABULATION MAY BE CAUSE FOR REJECTION OF THE BID.

ITB Rev. 4-08



City of West Palm Beach

(B4)

ITB 14-15-134

SUBSTITUTION SHEET

This form must be completed if Bidder proposes to deviate from any contract requirements including, but not limited to, proposed material specifications, proposed method, construction schedule, or phasing plan. Associated "Add" or "Deduct" must be provided.

DESCRIPTION OR BID ITEM NO.	MAKE SPECIFIED	PROPOSED SUBSTITUTION	ADD	DEDUCT
None			\$	\$_
			\$	<u> \$ </u>
			\$\$	<u> </u>
				
			\$	\$
				
			\$	\$
			- -	
			\$	\$
			-	
			\$	_ \$



City of West Palm Beach ITB 14-15-134

(B5)

SCHEDULE OF SUBCONTRACTORS

Failure to fully complete form may result in bid rejection.

The following is a complete list of all subcontractors utilized for this project:

		duized for this project:	Dollar amount of subcontract work
1.		Reclamation	s TBD
	(company name)	(type of work)	
	9021 Wire Rd., Zephyrhills, FL	813-455-2471	
	33540	(tel. #)	
	(zip code)	22-3787755	
		(federal I.D. #)	
2.	WM. D. Adeimy Jr., Inc.	Concrete	_s TBD
	(company name)	(type of work)	3
	1201 Omar Rd., West Palm Beach, FL	561-832-6305	
	(address)	(tel. #)	<u> </u>
		59-1927258	
	(zip code)	(federal I.D. #)	
3.	Southwide Industries, Inc.	Striping	_{\$} TBD
	(company name)	(type of work)	\$ <u></u>
	4357 Okeechobee Blvd., Ste C4	561-688-8833	
	(address)	(tel. #)	
	West Palm Beach, FL 33409	65-0857746	
	(zip code)	(federal I.D. #)	
4.	Centerline Utilities, Inc.	Drainage	* TBD
	(company name)	(type of work)	
	2180 SW Poma Drive, Palm City, FL	561-689-3917	
	(address)	(tel. #)	
	34990	65-0849488	
	(zip code)	(federal I.D. #)	
5.			•
	(company name)	(type of work)	\$
	(address)	(tel. #)	
-	(zip code)	(federal I.D. #)	<u></u>
(Total dollar amount to be awarded	I to subcontractors (this page)	s_TBD

ITB 14-15-134

SCHEDULE OF SUBCONTRACTORS (continued if necessary)

(company name)	(type of work)	\$
(address)	(tel. #)	
(zip code)	(federal I.D. #)	
(company name)	(h) ma = f	\$
	(type of work)	
(address)	(tel. #)	
(zip code)	(federal I.D. #)	
(company name)	(type of work)	\$
(address)	(tel. #)	
(zip code)	(federał I.D. #)	
(company name)	(type of work)	\$
(address)	(tei. #)	
(zip code)	(federal I.D. #)	
Total dollar a	mount to be awarded to Subcontractors	\$ TBD

Authorized Signature:

Note: The above schedule of subcontractors will become a part of the Contract documents. Changes made to the above schedule of subcontractors after the contract has been executed must be submitted in writing to the Engineering and Public Works Department for approval prior to that subcontractor performing any work.



City of West Palm Beach

(B6)

ITB 14-15-134

PRIME BIDDER:	CONTRACTOR VERIFICATION FORM					
Name of Firm: M &	M Asphalt Maintenance, Inc. d/b/a All County Paving					
Address: 1180 S	W 10th Street					
Delray	Beach, FL 33444					
Telephone:	() 561-588-0949					
Fax:	561-588-2140					
GENERAL CONTRA						
_{Name:} Micheal	M. Ritter Jr.					
Address: 1180 SW 10th Street						
Delray	Beach, FL 33444					
State License # CG						
County License #	U-21491 (ATTACH COPY)					
Type of License: Pa	ving (ATTACH COFT)					
Unlimited Yes	(yes/no)					
	at trade?					
is the General Contrac	tor a full-time employee of Prime Bidder?					
	<u>X</u> Yes No					
Will the General Contr	actor be in responsible charge of the work performed and installed under this contr	ract1				
	X YesNo					
City License: (COPY PRIOR TO CONTRAC	OF CITY REGISTRATION OR BUSINESS TAX RECEIPT -MUST BE OBTAINE TEXECUTION - Maybe obtained from City Construction Services)	ΞD				

Failure to fully or accurately complete this form may be cause for rejection of the bid.

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION CONSTRUCTION INDUSTRY LICENSING BOARD STATE OF FLORIDA

LICENSE NUMBER

CGC1509532

The GENERAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2016



RITTER, MICHAEL M JR M & M ASPHALT MAINTENANCE INC. 1302 SOUTH J STREET LAKE WORTH FL 33460 FL 33460 DISPLAY AS REQUIRED BY LAW

ISSUED: 08/26/2014

SEQ # L1408260003725



CGC1509532

STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ISSUED: 08/26/2014

CERTIFIED GENERAL CONTRACTOR RITTER, MICHAEL M JR M & M ASPHALT MAINTENANCE INC.

1,1408260003725 US CERTIFIED under the provisions of Ch. 489 FS. Expiration date: AUG 31, 2018

Detach card # from this form

51.157639

IMPORTANT!

THIS IS YOUR CERTIFICATE OF COMPETENCY PALM BEACH COUNTY, FLORIDA

PALM BEACH COUNTY CONTRACTORS CERTIFICATE OF COMPETENCY

CERTIFICATE # U-21491



EXPIRATION 09/30/2017

NAME : JEFFREY'S COHEN

FIRM : M&M ASPHALT MAINTENANCE INC

DBA : ALL COUNTY PAVING

1180 SW 10TH ST DELRAY BEACH, FL 33444

CERTIFIED CONTRACTOR PAVING

FEE: 250.00

ISSUED BY :

JCERVERAFONTEEN: 09/02/2015

ID #0502060

Signature

contractor Signature Required

1) PLEASE CHECK ALL INFORMATION TO ENSURE THAT IT IS CORRECT

2) CERTIFICATE MUST BE SIGNED

3) FOLD THE CARD WHERE INDICATED FOR EASE IN CARRYING



Anne M. Gannon

CONSTITUTIONAL TAX COLLECTOR Serving Palm Beach County

Serving you.

P.O. Box 3353, West Palm Beach, Ft 33402-3353 www.pbctax.com Tel: (561) 355-2264

LOCATED AT

1180 Southwest 10TH ST DELRAY BEACH, FL 33444

TYPE OF BUSINESS	<u> </u>					
23-0036 PAVING CONTRACTOR	OWNER	CERTIFICATION #	RECEIPT #/DATE PAID	AMT PAID	BILL#	
20-000 PAVING CONTRACTOR	COHEN JEFFREY	U21491	U15.750489 - 09/17/15	\$59,50		
This document is walted at the state of the		<u> </u>	10,777.10	Ψ53,50	B40164434	

This document is valid only when receipted by the Tax Collector's Office.

M AND M ASPHALT MAINTENANCE INC M AND M ASPHALT MAINTENANCE INC 1180 SW 10TH ST DELRAY BEACH, FL 33444 հենոներիոներ

STATE OF FLORIDA PALM BEACH COUNTY 2015/2016 LOCAL BUSINESS TAX RECEIPT

LBTR Number: 201246018 **EXPIRES: SEPTEMBER 30, 2016**

This receipt grants the privilege of engaging in or managing any business profession or occupation within its jurisdiction and MUST be conspicuously displayed at the place of business and in such a manner as to be open to the view of the public.



P.O. Box 3353, West Palm Beach, Ft. 33402-3353 www.pbctax.com Tef: (561) 355-2264

LOCATED AT

1180 Southwest 10TH ST DELRAY BEACH, FL 33444

Serving you.

TYPE OF BUSINESS	OWNED					
23 0022 CW DAVIND COURTS (07-	OWNER	CERTIFICATION #	RECEIPT #/DATE PAID	AMT PAID	BILL#	
23-0032 CW PAVING CONTRACTOR	COHEN JEFFREY	U21491	U15.750489 - 09/17/15			
This decrees the last of		GZ 181	015.730469 - 09/17/15	\$185.85	B40164433	

This document is valid only when receipted by the Tax Collector's Office.

M AND M ASPHALT MAINTENANCE INC M AND M ASPHALT MAINTENANCE INC 1180 SW 10TH ST DELRAY BEACH, FL 33444 STATE OF FLORIDA
PALM BEACH COUNTY
2015/2016 LOCAL BUSINESS TAX RECEIPT

LBTR Number: 201246019 EXPIRES: SEPTEMBER 30, 2016

This receipt grants the privilege of engaging in or managing any business profession or occupation within its jurisdiction and MUST be conspicuously displayed at the place of business and in such a manner as to be open to the view of the public.

Contractor Detail - LIVE Contractor ID U-21491 Status Active Comments PAVING	
Contractor ID U-21491 Status Active Comments PAVING Qualifier Information Qualifier COHEN JEFFREYS Use Default Address Business - 1302 S J ST	Company Information Company M & M ASPHALT MAINTENANCE INC Use Default Address Business - 1302 S J ST
City/State/Zip LAKE WORTH FL 33460 Phone Business - (561) 588-0949 Email Business - PERMITS@ALLCOUNTYPAVING.COM Birthdate SSN License Information Insurance Information Defined Fields	City/State/Zip LAKE WORTH Phone Business - (561) 588-0949 Notes 0 Escrow Info Positive balances only
License License Type UZ Q REGISTERED License Number U-21491 Issue Date Expiration Date 09/30/2017 EXI Occupation License	Registration Registration Expires State County PB COUNTY 09/30/2016
ack(Ctrl+P)	

AFFIDAVIT OF PRIME BIDDER Re Non-collusion and Public Entity Crime

(B8)

State	e of Fiorida
Cour	nty of Palm Beach
Kenne	th Goldberg
TOTAL	(Name) , being first duly sworn, disposes and says that:
1.	I am the President Of M & M Asphalt Maintenance, Inc. d/b/a All County Paving the (Title) (Name of Company) Bidder that has submitted the attached bid;
2.	I am fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such Bid;
3.	Such Bid is genuine and is not a collusive or sham Bid;
4.	Neither the Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham Bid in connection with the contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of West Palm Beach or any person interested in the proposed Contract; and
5.	The following Officer, director or agent of Bidder is also an employee of the City of West Palm Beach: None (if none, write "None").
6.	The following employees of the City of West Palm Beach own, directly or indirectly, an interest of 10% or more in Bidder firm or any of its affiliates or subsidiaries: None (if none, write "None").
7.	The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.
8.	Neither the Bidder nor any officer, director, partner, shareholder, employee, member or agent, who is active in the management of Bidder, or any affiliate or subsidiary of Bidder has been convicted of a public entity crime or action regarding antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentation with respect to any bid or contract for goods or services to be provided to any public entity, or has been listed on the state Convicted Vendor List, within thirty-six months prior to the date of Bidder's Bid. (Signed) Kenneth Goldberg
	(Title) President

before me this 1-28-15	regarding Non-Collusion and Public Entit	y Crime was acknowledged
by: Kenneth Cro	ldberg	
who is person	nally known to me or	
who has prod	uced	as identification
and who did /(did not) take an oat	th.	
TINA L. MILLER Notary Public - State of Florida My Comm. Expires Oct 30, 2018 Commission # FF 173206 Bonded through National Notary Assn.	Notary Public (p	ina Miller rint & sign name)



City of West Palm Beach

(B9)

DRUG FREE WORKPLACE CERTIFICATION

The undersigned Bidder, in accordance with Florida Statute 287.087 hereby certifies that M & M Asphalt Maintenance, Inc. d/b/a All County Paving does:

- Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violation of such prohibition.
- Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3. Give each employee engaged in providing the commodities or contractual services that are under this bid a copy of the statement specified in subsection (1).
- 4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities, or contractual services that are under bid, the employee will abide by the terms of the statement, and will notify the employer of any conviction of, or plea of guilty, or nolo contendre to any violation of Chapter 1893, or of any controlled substance law of the United States, or any State, for a violation occurring in the workplace no later than five (5) days after such conviction.
- Impose a sanction on, or require the satisfactory participation in a drug abuse assistance, or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
- 6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

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

Authorized Signature Kenneth Goldberg

Print Name

7-27-15

Date

ITB Rev. 4-08



City of West Palm Beach FLORIDA TRENCH SAFETY COMPLIANCE

(B10)

This form is required where Contractor will perform trench excavation which exceeds a depth of 5 feet.

						exposes a debition of a teel.
	×	If Not Applic	able – Check ti	his Box and s	ign below.	
In ac	cordance	with the Florida	Trench Safety	Act, F.S. 553.	63, Bidder acknow	vledaes:
1.					nd contract are eit	
	D .		e specifications		The service of the se	il t u t.
2. applio	Bidder able to the	will comply wi e Project.	th all applicabl	e trench safe	ty standards and	d any special shoring requirements
3. Trend	Include h Safety A	d in the various \ct, which costs	items of the Bi are summarize	d and in the T	otal Bid Price are	costs for complying with the Florida
Note: includ trenct	Included ing sheeti safety co	I in the variousing and shoring mpliance on Fo	s bid items on g. Costs on thi orm B3 must eq	Form B3 are s Form B10 s ual the total ar	costs for compli- shall be consisten mount for trench s	ance with trench safety standards it with Form B3. The bid items for afety compliance indicated below.
	Trench : Measure (Descrip	Safety e	Cost per Linear Foot	Linear Feet	Extended Cost	, , , , , , , , , , , , , , , , , , , ,
A.	15%					
B.						
C.				· · · · · · · · · · · · · · · · · · ·		_
	Shoring Measure (Descrip	;	Cost per Square Foot	Square Feet	Extended Cost	-
D.						
E.						_
F.			· · · · · · · · · · · · · · · · · · ·			_
	75 TO 00	1400 EZE T				-
FAILUI	RE TO CO	MPLETE THE			E BID BEING RE.	
						Inc. d/b/a All County Paving
			Authori	zed Signature		
			Date:	7-2	7-15	

Date:



Procurement Division/Small Busines s Program
401 Clematis Street, 5th Floor
West Palm Beach, Florida 33401-4702

Tel: 561-822-2100 Fax: 561-822-1564

Website: www.wpb.org/puchasing/sbiz

Form SB02

Subcontractors Listing

Bidder/Proposer's Name:	aintenance. Inc. d/b/a All County Paving	Telephone No. 561-5	88-0949
ITB or RFP Title: GENERAL ROADWA	Y AND MISCELLANEOUS CO	NSTRUCTION ITB or	RFP No.: 14-15-134
NOTE: List all subcontractors you identified on the Schedule of Subcontra Company Name	invited to hid on this project	whether they were cale	cted or not, including those al sheets if necessary. Telephone
Asphalt Paving Systems	Reclamation	Mark Rohrbach	Number 813-788-0010
_{2.} WM. D. Adeimy Jr Inc.	Concrete	Bill Adeimy	561-832-6305
Southwide Industries, Inc.	Striping	Jennifer Gingras	561-688-8833
Centerline Utilities Inc.	Drainage	Freddy Chesney Jr.	561-689-3917
5.			
6.			
7.			
8.			
9.		7000	
10.			
Print Preparer's Name Kenne	th Goldberg	Title: Presid	dent
Signature:		Date: 7-27-	15



SECTION I. General Information

Procurement Division/Small Business Program

401 Clematis Street, 5th Floor West Palm Beach, FL 33401-4702

Tel. (561) 822-2100 Fax (561) 822-1564

Website: www.wpb.org/puchasing/sbiz

(B12) Form SB01

Statement of Small Business Participation

Instructions: List all Small Businesses that will participate on this project/contract. Only City certified small businesses and Palm Beach County Office of Small Business Assistance (PBC-OSBA) certified Small Businesses can be used to meet the goal established for this project/contract. Submit this form with your bid/proposal.

Bidder or Proposer's Name: M & Preparer's Name: Kenneth (ROHAHOU, MIC.	urbra			aving
GENERAL ROA	DWAY AND MISCELLA	NEOUS	Title	Presid	dent	
ITB or RFP Title: CONSTRUCTION	ıŘi		Projec	l Number:	Variou	S
ITB or RFP Number: 14-15-134		SB Goal (if estab	lished):		15%	
Total Base Project/Contract Amount	; §TBD		·			
SECTION II. Small Business Par	ticipation					
The firm(s) listed below have	agreed to participate	in this project or c	ontrac	t.		
Subcontractor Name	item Description or Work/Service to be performed	Dollar Value	P	ercent of Do /alue/Base B		Percent of Dollar Value Total Bid
1. Southwide Industries, Inc.	Striping	_{\$} TBD			%	%
2. WM. D. Adeimy Jr., Inc.	Concrete	_{\$} TBD			<u>~</u> %	%
3.		\$				%
4.		\$			—— — %	%
5.		\$				%
6.		\$			%	%
TOTAL		\$ TBD		Ç	%	%
Preparer's Signature:			Date:	7-27-1	5	-



SECTION I.

General Information

Procurement Division/Small Business Program

401 Clematis Street, 5th Floor West Palm Beach, FL 33401-4702 Tel. (561) 822-2100 Fax (561) 822-1564

Website: www.wpb.org/puchasing/sbiz

(B13)Form SB03

Letter of Intent

Instructions: The Bidder/Proposer will complete Section I. The Small Business subcontractor will complete Sections II and III. It is the responsibility of the bidder/Proposer to verify that the undersigned is a City Certified Small Business. Only City of West Palm Beach or Palm Beach County Office of Small Business Assistance (PBC-OSBA) certified Small Businesses can be used to meet the goal established for this project/contract. This completed form will be required before contract award. Please note: This form is required for each certified Small Business selected.

Proposer's Name:	M & M Asphalt Maintenance, Inc. d	/b/a All County Pa	iving
ITB or RFP Title:	GENERAL ROADWAY AND MISCELLANEO	OUS CONSTRUCTION	
ITB or RFP Number:	14-15-134		
SECTION II. Small Bu	siness Participation		
The undersigned intend	s to perform the following work pertaining t	o the above project:	
Item No.	Item Description or Work to be P	• •	Contract Amount
61-78	Striping & Signage		\$ TBD
			\$
	,		\$
			\$
SECTION III. Information	on the Small Business		
Small Business Name	Southwide Industries, Inc.		
Preparer's Name: A	dam?Holmes	Title: VP	
Signature:	Infh.	Date: 7/28/15	

Palm Beach County Office of Small Business Assistance

Certifies That

SOUTHWIDE INDUSTRIES, INC

Vendor # VC0000114951

is a Small Business Enterprise as prescribed by section 2-80.21 -- 2-80.35 of the Palm Beach County Code for a three year period from August 23, 2014 to August 22, 2017

The following Services and/or Products are covered under this certification:

PAVEMENT MARKING SERVICES (INCLUDING REMOVAL OF MARKINGS)

Allen F. Gray, Manager

£04/1/8

Palm Beach County Board of County Commissioners

Priscilla A. Taylor, Mayor
Paulette Burdick, Vice Mayor
Hal R. Valeche
Shelley Vana
Steven L. Abrams
Mary Lou Berger
Jess R. Santamaria

County Administrator Robert Weisman Deputy County Administrator





Procurement Division/Small Business Program

401 Clematis Street, 5th Floor West Palm Beach, FL 33401-4702

Tel. (561) 822-2100 Fax (561) 822-1564

Website: www.wpb.org/puchasing/sbiz

(B13) Form SB03

Letter of Intent

Instructions: The Bidder/Proposer will complete Section I. The Small Business subcontractor will complete Sections II and III. It is the responsibility of the bidder/Proposer to verify that the undersigned is a City Certified Small Business. Only City of West Palm Beach or Palm Beach County Office of Small Business Assistance (PBC-OSBA) certified Small Businesses can be used to meet the goal established for this project/contract. This completed form will be required before contract award. Please note: This form is required for each certified Small Business selected.

Information		
M & M Asphalt Maintenance, I	nc. d/b/a All County Pa	ıving
GENERAL ROADWAY AND MISCELL	ANEOUS CONSTRUCTION	
14-15-134		
ısiness Participation		
is to perform the following work pertain	ning to the above project:	
	· •	Contract Amount
Concrete		\$ TBD
		\$
		_\$
		\$
on the Small Business		
WM. D. Adeimy, Jr. Inc	f n	
/M. D. Adeimy, Jr.	Title: President	t
Wadeiny &.	_{Date:} 7/28/15	
	M & M Asphalt Maintenance, I GENERAL ROADWAY AND MISCELL 14-15-134 Isiness Participation Its to perform the following work pertain Item Description or Work to Concrete on the Small Business WM. D. Adeimy, Jr. Inc.	M & M Asphalt Maintenance, Inc. d/b/a All County Pa GENERAL ROADWAY AND MISCELLANEOUS CONSTRUCTION 14-15-134 Isiness Participation Its to perform the following work pertaining to the above project: Item Description or Work to be Performed Concrete n on the Small Business WM. D. Adeimy, Jr. Inc. /M. D. Adeimy, Jr. Title: President

Palm Beach County Office of Small Business Assistance

Certifies That

WM. D. ADEIMY, JR., INC.

Vendor # VC0000114246

is a Small Business Enterprise as prescribed by section 2-80.21 – 2-80.35 of the Palm Beach County Code for a three year period from February 26, 2014 to February 25, 2017

The following Services and/or Products are covered under this certification:

CONSTRUCTION SIDEWALK AND DRIVEWAY (INCLUDES PEDESTRIAN AND HANDICAP RAMPS); CONSTRUCTION, CURB & GUTTER (INCLUDES MAINTENANCE, REPAIR & REMOVAL)

Allen F. Grav. Manager //

2/26/2014



Pricilla A. Taylor, Mayor Paulette Burdick, Vice Mayor Hal R. Valcohe Paulette Burdick Shelley Vana Steven L. Abrams Mary Łou Berger Jess R. Santamaria County Administrator Robert Weisman

koben Weisman Deputy County Administrator Verdenia C. Baker



City of West Palm Beach ITB 14-15-134

(B15)

CONTRACTOR'S MATERIAL SUPPLIERS

List all material suppliers that Bidder intends to use on this project. Include additional pages as required. Failure to fully and accurately complete this form may result in the disqualification of the Bid.

Name of Suppliers	Types of Material to be Provided	Total Contract Amount including Sales Tax	Total Sales Tax
Ranger Construction	Asphalt (Hot Mix)	TBD	TBD
Blacklidge Emulsions	Asphalt Emulsions & Tack	TBD	TBD
Cemex	Concrete	TBD	TBD
Old Castle	Brick Pavers	TBD	TBD

VHVI

 $ACORD_{\scriptscriptstyle
m IM}$

FRTIFICATE HOLDER

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/07/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

21105
21113
NAIC#
o):

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

isR L⊥18	TYPE OF INSURANCE	ADDL	SUBR	LIVITS SHOWN WAY HAVE BEE			MS.	·
A			WVD	POLICY NUMBER		POLICY EXP (MM/DD/YYYY)	LIMITS	
1.^		X		5439945015	04/30/2015	04/30/2016	EACH OCCURRENCE	\$1,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	s300,000
Į	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	\$15,000
							PERSONAL & ADV INJURY	\$1,000,000
	CENT ACCRECATE LINES APPLIES						GENERAL AGGREGATE	\$2,000,000
,	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-						PRODUCTS - COMP/OP AGG	\$2,000,000
	POLICY X JECT LOC AUTOMOBILE LIABILITY						Empl Ben	\$1,000,000
LB		Х		1337371056	04/30/2015	04/30/2016	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
	X ANY AUTO ALL OWNED SCHEDULED		ļ				BODILY INJURY (Per person)	\$
1	AUTOS AUTOS				,		BODILY INJURY (Per accident)	\$
I., }	X HIRED AUTOS X NON-OWNED AUTOS				!		PROPERTY DAMAGE (Per accident)	\$
-								\$
3 {	X UMBRELLA LIAB X OCCUR	Х		5811051087	04/30/2015	04/30/2016	EACH OCCURRENCE	\$10,000,000
1	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$10,000,000
	DED X RETENTION \$10000							\$
ļ	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						WC STATU- OTH- TORY LIMITS ER	
	OFFICER/MEMBER EXCLUDED?	N/A					E.L. EACH ACCIDENT	\$
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	\$
-							E.L. DISEASE - POLICY LIMIT	\$
	ļ							
L								
	RIPTION OF OPERATIONS / LOCATIONS / VEHICL							

ESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

City of West Palm Beach and the City Commission and its officers, agents, employees are additional insureds when required by written contract or agreement.

his insurance is primary to any other insurance available to the additional insured(s) with respect to laims covered under the policy.

Thirty (30)days written notice of cancellation, non-renewal, restrictions, or reduction in coverage or mits will be given, except ten (10) days for non-payment of premium.

		CANCELLATION
<u> </u>	City of West Palm Beach Attn: Purchasing Division 401 Clematis Street	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	West Palm Beach, FL 33401	AUTHORIZED REPRESENTATIVE
		CBIZ Insurance Services, Inc.

CANCELLATION

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/7/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT Erika Pfeiffer Mack, Mack & Waltz Insurance Group, Inc. PHONE (A/C, No. Ext): (954) 640-6225 E-MAIL FAX (A/C, No): (954) 640-6226 1211 S Military Trail E-MAIL ADDRESS: epfeiffer@mackinsurance.com uite 100 INSURER(S) AFFORDING COVERAGE Jeerfield Beach NAIC # FL 33442 INSURER A :FCCI Insurance Company INSURED INSURER B AGCS Marine Insurance Co. [& M Asphalt Maintenance, Inc., BA: All County Paving INSURER D : 1180 SW 10th Street INSURER E : Delray Beach 33444 OVERAGES CERTIFICATE NUMBER:CL1542832744 REVISION NUMBER: THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. ADDL SUBR TYPE OF INSURANCE POLICY EFF POLICY EXP POLICY NUMBER COMMERCIAL GENERAL LIABILITY EACH OCCURRENCE CLAIMS-MADE DAMAGE TO RENTED PREMISES (Ea occurrence) OCCUR MED EXP (Any one person) PERSONAL & ADV INJURY 3 GEN'L AGGREGATE LIMIT APPLIES PER: GENERAL AGGREGATE q POLICY PRODUCTS - COMP/OP AGG \$ OTHER: AUTOMOBILE LIABILITY COMBINED SINGLE LIMIT (Ea accident) \$ ANY AUTO BODILY INJURY (Per person) \$ SCHEDULED AUTOS NON-OWNED AUTOS ALL OWNED AUTOS BODILY INJURY (Per accident) \$ PROPERTY DAMAGE! (Per accident) HIRED AUTOS \$ \$ UMBRELLA LIAB OCCUR EACH OCCURRENCE \$ **EXCESS LIAB** CLAIMS-MADE AGGREGATE \$ OEO RETENTION \$ s. WORKERS COMPENSATION AND EMPLOYERS' LIABILITY X STATUTE ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? OFFICER/MEMORY (Mandatory in NH) E.L. EACH ACCIDENT 1,000,000 001-WC15A72204 5/1/2015 5/1/2016 E.L. DISEASE - EA EMPLOYEE \$ If yes, describe under DESCRIPTION OF OPERATIONS below 1,000,000 E.L. DISEASE - POLICY LIMIT | \$ 1,000,000 3 Inland Marine CMA277234 5/1/2015 5/1/2016 Scheduled Equipment \$2,020,953 Rented/Leased/ Deductible \$300,000/\$5000 ESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) ERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE City of West Palm Beach THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. 401 Clematis Street West Palm Beach, FL 33401 **AUTHORIZED REPRESENTATIVE** La war Greg Waltz/ERIKAP

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SECTION 5 - GENERAL CONDITIONS AND TERMS

SECTION	CAPTION
GC 1	Definitions
GC 2	Contract Documents
GC 3	Owner
GC 4	Contractor
GC 4.1	Contractor Responsibilities
GC 4.2	Contractor Review
GC 4.3	Supervision and Labor
GC 4.4	Materials and Equipment
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GC 1 <u>DEFINITIONS</u> The following definitions will apply regardless of whether the word(s) is capitalized, if the context is appropriate.

"Addenda" is a document issued prior to the opening of bids which clarifies, corrects or changes the bidding requirements or the proposed Contract Documents.

"Agreement" is the written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

"Change Order" shall mean a written order issued by the Owner and accepted by the Contractor, authorizing additions, deletions, or revisions in the Work, or an adjustment in the contract price, or contract times, issued on or after the Effective Date of the Contract.

"claim" shall mean a demand or assertion by the Owner or Contractor seeking an adjustment of the contract price or contract times, or both, or relief with respect to the terms of the Contract."

"Constructive Change Directive (CDD)" is a document issued to authorize Work when a change order is not yet issued or has not yet been agreed upon.

"Construction Drawings" or "drawings" are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

"Contract date" shall be the date on which the Contract is signed by the last of the two parties to sign and deliver.

"Contract Documents" or "Contract" consist of the Contract between the Owner and Contractor, the payment and performance bonds (or public construction bond), the General Conditions, any supplemental or special terms or conditions of the Contract, Construction Drawings, specifications, bidding documents, addenda, and other documents listed in the Contract, regardless of whether physically attached to the Contract, and any amendments or change orders issued and duly executed after execution of the Contract.

"Contractor" shall mean the entity contracting with the Owner to perform the Work or its authorized representative. Contractor shall be lawfully licensed to perform the Work.

"contract price" is the total amount payable by the Owner to Contractor for performance of the Work under the Contract Documents.

"day" shall mean calendar day, unless otherwise specifically indicated. Where the performance of any act is directed, the time shall be computed so as to exclude the first and include the last day of the prescribed period. When the last day of a period falls on a Saturday, Sunday or legal holiday (observed by the party) the period shall end on the next day that is not a Saturday, Sunday or legal holiday.

"Engineer/Architect" shall be used and shall be understood to mean the professional engineer or architect consultant retained by the Owner as the Engineer or Architect of Record, or the designated staff engineer of the Engineering & Public Works Department of the Owner.

"fifty percent completion" of the Work is defined as that point in time where 50% of the overall value of Work items incorporated and which will remain in place subsequent to Final Completion of the Work have been completed, based upon the schedule of values contained in the Contract. As such, and by way of example, the value of Contractor's mobilization, general conditions, supervision or like items which do not involve permanent incorporation of Work do not apply to the determination of "Fifty Percent Completion" of the Work for purposes of establishing entitlement to a reduction of retainage.

"Final Certification" is the document issued to Owner by the Engineer/Architect upon finding the Work acceptable under the Contract Documents and all requirements fully performed.

"Final completion" shall be deemed to have occurred when the Engineer/Architect finds the Work acceptable under the Contract Documents and that all contract requirements have been fully performed.

"Notice to Proceed" is the written notice given by Owner to Contractor fixing the date on which the Contract time will commence to run and on which Contractor shall start to perform the Work under the Contract

"Owner" or "City" is the City of West Palm Beach. The authorized representative for execution of the Contract and any amendments or change orders is the Mayor.

"project" is the total construction, of which the Work performed under the Contract Documents may be the whole or a portion; and may include construction by the Owner and/or separate contractors.

"schedule of values" shall be a Contractor prepared and maintained schedule allocating portions of the contract price to various portions of the Work and used as a basis for reviewing the Contractor's application for payment.

"shop drawings" are drawings, diagrams, illustrations, schedules and other data specially prepared for the Work by Contractor or its Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work. Shop drawings are not Contract Documents but are used to demonstrate how the Contractor proposed to conform to the design concept of the Contract Documents for those portions of the Work for which the Contract Documents require submittals.

"specifications" are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work and performance of related services.

"subcontractor" is a person or entity in direct or indirect contract with the Contractor, or with any other subcontractor, to perform a portion of the Work.

"substantial completion" shall be deemed to have occurred when the Work has progressed to the point where, in the opinion of the Engineer/Architect, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Owner can utilize the Work and the entire project for its intended purposes, including but not limited to the completion of all specified systems and items relating to life safety and regulatory use, with the exception of incidental or incomplete items except where a lack of completion of such incidental or incomplete items of Work will adversely affect the complete operation of other areas of the Work. Additional conditions (if any) needed to achieve Substantial Completion of the Work and which are project specific are set forth in the Special Terms or Supplemental Conditions.

"Supplemental Conditions" are that part of the Contract Documents which amends or supplements these General Conditions.

"Work", means the construction services required by the Contract Documents and includes all labor, equipment, materials, documents and services to be provided by the Contractor to fulfill the Contractor's obligations under the Contract. Work may refer to the whole or a portion of the project.

The terms "Owner", "Contractor", "Engineer/Architect" and "Subcontractor" are treated throughout the Contract as if each were of the singular number and masculine gender.

CONTRACT DOCUMENTS

2.1 **EXECUTION, CORRELATION AND INTENT OF DOCUMENTS:**

- The Contract Documents shall be executed in at least two original sets by Owner and Contractor. 2.1.1
- The Contract Documents are intended to include all items necessary for the proper execution and completion of the Work by the Contractor. Any labor, services, materials, equipment or documentation that may reasonably be inferred from the Contract documents or trade usage or prevailing custom as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- The Contract Documents are complementary, and wherever possible the provisions of the documents shall be construed in such manner as to avoid conflicts between provisions of the various documents. In the event of any inconsistency among the Contract Documents, where such inconsistency is not clarified by change order or addendum, the Contract Documents shall be construed according to the following priorities: First Priority: Approved Change Orders, Addendums or Amendments

Second Priority:

Specifications (quality)
Drawings (location)

Third Priority: Fourth Priority:

Supplemental Conditions or Special Terms

Fifth Priority:

General Terms and Conditions Contract

Sixth Priority: Seventh Priority Eighth Priority

Invitation to Bid Contractor's Bid

- 2.1.4 In any event of inconsistency, however, the latest, and more stringent, or technical, or the lesser quantity requirements shall control the work to be performed by Contractor, as determined by the Engineer/Architect.
- 2.1.5 Organization of the Specifications into sections or arrangements of the Construction Drawings shall not control how the Work is distributed to subcontractors or among the trades.
- 2.1.6 The Contract Documents make no attempt to fix the scope of work of any subcontractor nor the responsibilities of the subcontractors.
- 2.1.7 Unless otherwise stated in the Contract Documents, words that have well-known conventional or technical or construction-industry meanings are used in the Contract Documents in accordance with such meanings.
- 2.1.8 Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to laws or regulations, shall mean the standard, specification, manual, code, or laws, or regulations in effect at the time of bid opening or on the Contract date if there were no bids.
 - 2.1.9 The following Contract Documents may be found at www.cityofwpb.org/engineering/

Owner's Approved Materials List Owner's Engineering Standard Details Owner's Right-of-Way Construction Standards (if applicable)

2.2 <u>CONSTRUCTION DRAWINGS AND SPECIFICATIONS.</u>

- 2.2.1 The Owner through the Engineer/Architect, or the Engineer/Architect as the Owner's representative, shall furnish Construction Drawings and specifications which represent the requirements of the Work as far as practical to be performed under the Contract Documents. The Owner or Engineer/Architect will provide the Contractor with copies of all drawings and specifications, not to exceed four (4) complete sets, for the execution of the Work.
- 2.2.2 The Contractor shall, immediately upon receipt of the specifications and Construction Drawings, check all specifications and drawings furnished and shall promptly notify Owner, in writing, of any illegibility, error, omission, defect or discrepancy discovered in such specifications and drawings and shall comment as appropriate upon construction feasibility and practicality. Contractor shall obtain written interpretation or clarification from Engineer/Architect prior to proceeding with any Work affected by such illegibility, error, omission, defect or discrepancy. Contractor shall be responsible for obtaining building permits for the Work based on the specifications and Construction Drawings. The Contractor shall perform work only in accordance with the specifications and permitted Construction Drawings and any subsequent revisions thereto.
- 2.2.3 If the permit approval process requires a change to the scope of the work, the Contractor shall notify the Owner and Engineer within seven (7) days of Contractor being informed of the required change or receipt of the permitted Construction Drawings and such notification shall contain a written description of the change and its impact on the cost and schedule, if any. Failure to provide such notice within seven (7) days shall be a complete waiver by the Contractor of all additional cost and time and Contractor shall perform and additional work at its expense and complete the Work according to schedule and in no event shall Contractor recover delay or consequential damages.

2.3 OWNERSHIP AND USE OF DRAWINGS AND SPECIFICAIONS

Any and all Construction Drawings produced for the Owner become the property of the Owner. The Contract Documents, in whole or in part, are to be used by the Contractor only with respect to the project and the Work, and shall not be used by the Contractor for any other purpose without written authorization by the Owner. This prohibition shall survive completion or termination of the Contract. The Contractor may retain copies of Contract Documents for record purposes.

2.3.2 For security reasons, building plans, construction drawings, security features and technical details and specifications of City-owned facilities are not public documents. These documents may be shared by Contractor with those employees and subcontractors as needed to perform the Work. However, Contractor and its subcontractors shall not release such plans, drawings, and specifications to any other third party without Owner's prior written approval.

2.4 **ELECTRONIC DATA**

Unless specifically stated in Supplemental Conditions or Special Terms, and excepting the electronic documents referenced in GC 2.1.9, the data, specifications and drawings that may be relied upon are limited to the printed copies (hard copies). If the parties intend to transmit any data, information or documentation in digital form, with the intent of reliance on such transmission, and not solely for the convenience of the receiver, the parties to the transmissions shall establish protocols for such transmissions.

GC 3 **OWNER**

- Owner shall be responsible for obtaining any easements necessary for the Work to be performed at the indicated site.
- The furnishing of any surveys, utility locations, or other site information by the Owner does not relieve Contractor of its responsibilities under the Contract Documents. Owner makes no representation or warranty as to the accuracy of any information provided to Contractor.
- Unless otherwise provided in the Contract Documents, Owner shall provide Contractor with at least one (1) but no more than four (4) complete set(s) of Contract Documents.
- Unless otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer/Architect.
- Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the performance

OWNER'S RIGHT TO STOP WORK. 3.6

If Contractor fails to correct Work that is not in accordance with the Contract Documents, or repeatedly fails to perform Work in compliance with the Contract Documents, Owner may issue a written order to Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated or resolved.

OWNER'S RIGHT TO PERFORM WORK,

Owner reserves the right to perform or complete all or a portion of the Work in the event of Contractor's failure to perform the Work in accordance with the Contract Documents, after written notice of such failure and a five (5) day period to cure such failure(s). Owner's exercise of its right to perform the Work shall be without prejudice to any other remedies Owner may have. In such event, a change order shall be issued deducting the Owner's costs, including additional compensation to Engineer/Architect, from payments thereafter due to Contractor. The amounts deducted shall be subject to review by Engineer/Architect. If payments due to the Contractor are not sufficient to cover the amount, the Contractor shall pay the difference to Owner. GC 4

CONTRACTOR

CONTRACTOR RESPONSIBILITIES. 4.1

4.1.1 Contractor shall supervise, inspect and direct the Work, competently and efficiently, in accordance with the Contract Documents. The Contractor shall be held liable to Owner for the performance of all Work provided for under the Contract Documents.

- 4.1.2 Contractor shall employ and or subcontract with subcontractors that are qualified to successfully complete the Work and within the contract time specified.
- 4.1.3 Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, heat, utilities, travel, lodging, insurance, facilities and services necessary for the proper execution and completion of the Work.
- 4.1.4 Contractor shall be solely responsible for all construction means, methods, techniques, sequences, procedures and safety programs in connection with the performance of the Work. Contractor shall be solely responsible for the engagement, management and performance of any subcontractors used to perform any portion of the Work.
- 4.1.5 Contractor shall be liable to Owner for materials and equipment furnished. This shall include all materials and equipment whether manufactured and/or fabricated by other persons. In the event that an agent or other representative of the Owner approved the installation or erection of any item of material or equipment and the Contractor feels the same is not fabricated in good workmanlike manner, Contractor shall forthwith advise the Engineer/Architect and the Owner of such situation in writing.
- 4.1.6 Contractor shall maintain a log of daily Work activities, including manpower records, weather, delays, major decisions, etc., and provide a copy of same to Owner upon request.
- 4.1.7 Contractor shall maintain a current roster of subcontractors with name and contact telephone numbers for key personnel and provide a copy of same to the Owner at the beginning of the project and at any time the information is revised.
- 4.1.8. Contractor shall provide a safety program for the project and conduct a safety meeting prior to commencing work and at regular intervals, no less than once per month, during the prosecution of the Work.
- For street and utility construction, Contractor shall give notice of commencement of construction to all nearby properties which may be affected by the Work at least seven (7) calendar days prior to commencement of construction. Owner's project manager will assist Contractor in determining those properties requiring notice.
- 4.1.10 Contractor shall not perform any Work unless the Contractor is in compliance with GC GC 4.8.2 and GC 4,10.1.
- 4.1.11 Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

4.2 **CONTRACTOR REVIEW**

- Contractor shall carefully study and review the Construction Drawings, plans and specifications to assure itself and Owner that Contractor has observed no defects or discrepancies in the Construction Drawings or specifications and such plans are consistent, practical, feasible and constructible within the scheduled construction time. It is recognized that Contractor's review is made in Contractor's capacity as a contractor and not as a design professional, unless otherwise specifically provided in the Contract Documents.
- 4.2.2 The Contractor shall, by careful examination, satisfy itself, to the extent it deems necessary, as to the nature and location of the Work, the conformation of the ground and site, access and transportation of materials, the character, quality and quantity of the materials, storage, handling and disposal of materials, the character and storage of the equipment and facilities needed preliminary to and during the prosecution of the Work, the availability, quantity and quality of labor, water and electric power; availability and condition of roads; climatic conditions; location of underground utilities; existing site conditions, topography and ground conditions; subsurface geology, and nature and quantity of surface and subsurface materials to be encountered; the general and local conditions and all other matters which can in any way affect the performance of the Contract. Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, reviewed any design criteria furnished by Owner, become generally familiar with conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents. No change shall be made to the contract price on account of minor differences between actual field conditions and the Contract Documents.

Contractor's failure to assess the site conditions will not relieve it from the responsibility for properly estimating the costs and schedule of performing the Work.

- 4.2.3 If the Contractor, whether prior to or during construction, discovers or becomes aware of any discrepancies, defects, errors or omissions in the Construction Documents, or any issues or concerns regarding the Work site, Contractor shall immediately report them in writing to the Owner and the Engineer/Architect.
- Subsoil Conditions. Unless otherwise stipulated in the Construction Documents, no subsoil investigations have been made. The Contractor shall satisfy itself as to all subsoil conditions as necessary. Contractor shall be responsible for coordinating and scheduling geotechnical services based on Contractor's testing requirements.
- Underground Utilities and Facilities. Where applicable, Contractor shall be responsible for 4.2.5 locating all underground utilities and facilities. Owner shall not be responsible for the accuracy or completeness of any information or data provided regarding underground utilities or facilities.

4.3 SUPERVISON & LABOR

- 4.3.1 Contractor shall supervise, direct and inspect the Work using Contractor's best skill and attention. Contractor shall enforce discipline and order at the Work site. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction
- 4.3.2 <u>Project Manager</u>. To ensure that the work will be performed to the requirements of the Contract Documents, Contractor shall, at all times during the progress of the Work, assign and keep a competent Project Manager satisfactory to the Owner. The Contractor shall advise the Owner and Engineer/Architect, in writing, within ten (10) calendar days after the date of Owner's issuance of a Notice to Proceed, the name and local address of the Project Manager who will be in responsible charge of the project, together with the extent of his authority to represent and act on behalf of the Contractor, along with the Project Manager's cell phone number. In the event the Contractor must replace the Project Manager during the pendency of the Project, Contractor shall, unless otherwise impossible, give Owner at least ten (10) calendar days prior notice of such replacement and advise Owner of the name and cell phone number of the new Project Manager. The Contractor will ensure that Owner and Engineer/Architect shall be able to reach the Project Manager at his cell phone number at all working hours and during emergencies. The Project Manager shall represent the Contractor in his absence and all notices and directions given to him shall be binding as if given to the Contractor. Important directions shall be confirmed on written request in each case. At any time Owner may request and Contractor shall replace the individual performing as Project Manager with an individual acceptable to Owner.
- 4.3.3 Labor. Contractor shall employ only competent, skilled and suitably qualified personnel to perform the work. Contractor shall remove from the jobsite any personnel of Contractor or subcontractors who is unfit or not properly skilled in the tasks assigned to him, or working in violation of any provision of the Contract. Contractor and all subcontractors shall be bound by and comply with all applicable Federal, State and local laws regarding labor.
- Hours. Except as otherwise required for safety or protection of persons or the Work, or adjacent property, and except as otherwise provided in the Contract Documents, all Work at the project site shall be performed Monday through Friday, 8 am to 5 pm. If the Contract Documents specifically required work to be performed beyond normal working hours, weekends or legal holidays, or should the completion time required work to be performed at said times, or should the Contractor, with the Owner's permission, elect to perform work at said times, any additional costs resulting from working at said times are the Contractor's sole responsibility. All work performed after regular working hours, on Sundays or legal holidays, shall be performed without additional expense to Owner.

MATERIALS & EQUIPMENT. 4.4

- 4.4.1 Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, tools, equipment, services, transportation, and other facilities necessary for the execution and completion of the Work.
- 4.4.2 Unless otherwise specified, only new, unused materials, equipment and items of recent manufacture, of designated quality, free from defects, will be accepted. All workmanship will be of good quality. Contractor shall, if requested, furnish evidence satisfactory to the Owner as to the kind, quality and manufacturer

of materials. Owner will be the final authority for determining conformance of workmanship, materials, equipment and systems with the requirements of the Contract Documents.

- 4.4.3 No work defective in construction or quality, or deficient in meeting any requirement of the Contract Documents, Construction Drawings or specifications, will be acceptable regardless of Owner's failure to discover such defects during construction; nor will inspection by the Engineer/Architect relieve Contractor from ensuing the quality of the Work as required by the Contract. No payment, whether partial or final, shall be construed as an acceptance of defective or unacceptable work or improper materials and equipment.
 - Approved Materials. Owner's Approved Materials List is found at www.cityofwpb.org/engineering/
- 4.4.5 Samples. Where samples are required, samples shall be submitted by and at the expense of Contractor. Materials represented by such samples shall not be manufactured, delivered to the site or incorporated into the Work without such review. At least 21 calendar days shall be allowed for Owner's review.

4.5

- Substitutions are changes in materials, equipment, methods or sequences of construction, 4.5.1 design, structural systems, mechanical, electrical, or other requirements of the drawings or specifications. The naming of a specified product of specific manufacturers for equipment or materials in the specifications or Contract Documents shall be interpreted as establishing a minimum standard of quality and performance. It shall not be construed as eliminating the selection of other than the named equipment or materials equal to those specified, unless the equipment or materials are specifically designated as not permitting substitution. If Contractor objects to equipment or materials specifically designated as not permitting substitution as not being suitable for the Work, Contractor shall promptly notify Engineer/Architect in writing, absent which, Contractor shall be deemed to accept the suitability of such equipment or materials for the work. Contractor shall provide written justification and explanation of the objections. Upon receipt of a timely objection notice, Engineer/Architect shall review the objection and render a determination to Contractor of whether a substitute will be permitted.
- Contractor may make substitutions only with the consent of Owner, after evaluation by the Engineer/Architect, and in accordance with a change order or construction change directive. The burden of proof that such an item offered is equal in all respects to that specified shall be Contractor's. By making a request for substitution, the Contractor represents:
 - Contractor has investigated the proposed substitute item, material and/or process and determined that it is equal or superior in all respects to that specified;
 - That such item will fit into the space allocated;
 - That such item affords comparable ease of operation, maintenance and service;
 - That the appearance, longevity and suitability for the climate are comparable;
 - That by reason of costs savings, reduced construction time or similar demonstrable benefit, the substitution of such item will be in Owner's interest;
 - There will be no detrimental impact to the project schedule;
 - That the Contractor will provide the same or better warranty for the substitute item as the
 - That the cost data presented at the time of request for review is complete and includes all related costs under the Contract, including costs for review by design professionals, and Contractor waives all other claims for additional costs related to the substitution that are not presented with the request.
- All requests for substitutions shall be in writing, with supporting information, shall be submitted by and at the expense of Contractor. Contractor shall submit drawings, samples, data and additional information as may be required by Owner or Engineer/Architect. At least 30 calendar days shall be allowed for Owner's review.
- The above representations do not obligate Owner to consent to the substitution. Owner or its Engineer/Architect shall make the determination as to the acceptability of any substitution. Approval of a substitution shall not relieve Contractor from the responsibility for compliance with all requirements of the Contract. Contractor shall coordinate the change with all trades and bear the expense for any changes in other parts of the work caused by any substitution.
- 4.5.5 Contractor may make only two requests for substitution in the same category. Contractor shall be invoiced the expenses incurred by Owner for its design professionals in reviewing additional substitution requests

or in modifying any of the Contract Documents to accommodate the substitution, unless otherwise approved by

4.6 QUALITY ASSURANCE

- 4.6.1 Contractor shall develop, implement and maintain a plan for the Work with quality assurance and management and control of the construction services. Contractor shall maintain a continuous presence at the Work site and an adequate inspection system and perform such inspections as will assure that the Work performed conforms to the requirement of the Contract Documents.
- 4.6.2 Contractor shall allow the Engineer/Architect full access to the Work for inspection of the Work. When requested by Engineer/Architect, the Contractor shall meet with Engineer/Architect at reasonable times and furnish all information requested. Neither Owner nor Engineer/Architect shall be liable to Contractor for compensation or claims for delay or interference on account of any such meeting, or the supply of information, or tests or inspections. The activities of the Owner and/or the Engineer/Architect in administration of the Contract or in performing tests or inspections shall not relieve the Contractor of its obligations to perform the Work in accordance with the Contract Documents.
- 4.6.3 Warranty. Contractor warrants to Owner that the Work will conform to the requirements of the Contract Documents and will be free from defects. Work, materials or equipment not conforming to these requirements may be considered defective. Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by Contractor or subcontactors, improper or insufficient maintenance, improper operation or normal wear and tear and normal usage. Warranty by the Contractor shall not be construed as a waiver by the Owner of any other remedy.

4.7 PERMITS AND FEES.

- All permits or licenses necessary for the performance of the Work or required by law or ordinance, including building permits, shall be secured, maintained, and paid for by the Contractor, unless otherwise provided in the Contract Documents. Contractor shall be responsible for all governmental fees, including but not limited to utility fees and connection fees.
- Building Construction. For construction of a building, Owner shall be responsible for all City of West Palm Beach construction plan and permit review fees
- 4.7.3 <u>Surface and Subsurface Water</u>. Contractor shall obtain all permits required from each applicable regulatory agency with respect to the control of surface and subsurface water by Contractor during the work, with copies submitted to Owner, unless otherwise provided for in Supplemental Conditions.
- Contractor shall be responsible for all inspection fees charged by Inspection Fees. regulatory/governmental agencies.
- 4.7.5 Right-of-Way Permit. For street and utility construction and as otherwise applicable, Contractor shall obtain a City of West Palm Beach right-of-way permit for each required road closure. Contractor shall submit detailed Maintenance of Traffic (MOT) plans, signed and sealed by a professional engineer, for each phase of the Work. During the times Contractor is working in the project area, Contractor shall utilize flagmen, traffic control devices and variable message boards on a full time basis, where and when needed, to facilitate the movement of traffic along and around the project Work. All MOT plans shall be reviewed and approved by Owner prior to implementation of work by Contractor. Contractor shall not close or obstruct any highway, road or other property until the necessary permits have been obtained.
- 4.7.6 Contractor shall immediately remedy any permit violations and shall be responsible for any damages, remediation, fines or penalties assessed by such agencies for permit violations.

4.8 NOTICE TO PROCEED, SCHEDULE; DELAYS

4.8.1 Notice to Proceed. Contract times will commence to run on the date indicated in the Notice to Proceed issued by Owner, unless otherwise provided in the Contract Documents.

- Commencement of Work. If a performance/payment bond(s) or public construction bond is required by the Contract Documents, Contractor may not commence any Work until Contractor has provided Owner with a certified copy of the performance/payment bond(s) evidencing that such bond(s) have been recorded with the Clerk of the Court in the Public Records of Palm Beach County.
- 4.8.3 Project Schedule. Within ten (10) calendar days after the date of the Owner's issuance of a Notice to Proceed, the Contractor shall prepare and submit to the Owner and to Engineer/Architect, for review and approval, a project schedule utilizing the Critical Path Method (CPM) graphically depicting the activities contemplated to occur as a necessary incident to performance of the work required to complete the project, showing the sequence in which the Contractor proposes for each such activity to occur and duration (dates of commencement and completion, respectively) of each such activity. The construction schedule shall be complete in all respects, covering approvals, mobilization and demobilization, construction and Owner occupancy, in addition to activities and interfaces with other contractors at the work site, offsite activities such as design, fabrication, allowance for weather delays (if appropriate), submittals, procurement and jobsite delivery of Contractor furnished material and equipment, and shall have a completion date that corresponds to the Contract Documents. By executing the Contract, Contractor confirms that it is capable of properly completing the Work within the completion date set forth in the Contract Documents. The time limit for the completion of the work as described in the Contract Documents is of the essence of the Contract.
- Contractor shall take all actions necessary to remain on schedule, at Contractor's sole cost and expense, including but not limited to:

1. Increase manpower as necessary to eliminate work backlog.

2. Increase the number of working hours per shift, shifts per working day, working days per week, construction equipment, or any combination of the foregoing to recover the schedule.

3. Reschedule the work in conformance with specification requirements.

- Testing & Inspections. Contractor must provide a minimum of five (5) calendar days prior notice for specified testing or inspections that are to be performed by Owner or separate contractors. Such notice, testing and inspections shall be included in the Contractor's schedule.
- Monthly Construction Schedule. For Projects with schedules exceeding 160 calendar days, or 4.8.6 where required by the Contract Documents for shorter duration projects, at the end of each calendar month, Contractor shall prepare a separate construction schedule, formatted to fit in a three-ring binder, to show the actual progress of the Work performed and the occurrence of all events which have affected the progress of performance of the Work already performed or will affect the progress of the performance of the Work yet to be performed, in contrast with the CPM schedule and planned progress of performance of such Work. Each such schedule shall be submitted to the Owner and Engineer/Architect. Failure of the Contractor to prepare and submit the monthly construction schedule(s) as aforesaid shall be sufficient grounds for the Owner to find the Contractor in material default and shall be sufficient cause to terminate the Contract or to withhold payment to the Contractor until a current monthly schedule is submitted.
- Notice of Delay. The Contractor agrees that whenever it becomes apparent from the progress review meeting or CPM schedule that the contract completion date will not be met, the Contractor shall notify the Owner and Engineer/Architect of the delay, in writing, within five (5) calendar days of a commencement of delay or knowledge of a potential delay. The monthly construction schedule does not constitute notice of delay. A breach and default of contract shall result from Contractor's failure to provide the Owner and Engineer/Architect with notice of the delay and failure to take all remedial actions available to recover the project schedule.

4.8.8 Delay.

Contractor shall not be entitled to an adjustment in contract time or contract price for delays within the control of, or reasonably foreseeable by, Contractor. Delays attributable to and within the control of a subcontractor or supplier shall be deemed to be delays within the control of Contractor.

Contractor may request an extension of time to the project schedule if Contractor is delayed in the progress of the Work due to causes beyond the control of Contractor and not reasonably foreseeable, including but not limited to, fire, flood, epidemic, terrorist acts, abnormal weather conditions, acts of God, delays of utility owners, any act or neglect of Owner, or by any separate contractor employed by Owner or by any changes ordered in the Work. Abnormal weather conditions are a substantial variation from seasonal average weather conditions occurring for a significant period of time and operations were necessarily affected. Contractor shall support a claim of abnormal weather conditions with local US Weather Bureau climatological report for the

period involved plus a report indicating the average weather conditions for the past 10 years from the nearest

- Contract time will not be adjusted for delay in delivery where the delivery was not properly C. scheduled or an order was not placed at an appropriate time to allow delivery or an order was improperly placed.
- No time extension will be granted for delays resulting from improper scheduling of Contractor's forces or those of separate subcontractors.
- No time extension will be granted to delays from failure to have shop drawings or samples submitted to the Engineer/Architect in ample time for a review, or from failure to schedule inspections or testing.
- Delays caused by subcontractors will be considered for time extensions only under the same conditions applicable to Contractor.
- Extension of Time. The project schedule may only be changed by an executed Change Order. In the event of a claim of delay in the work, by causes beyond Contractor's control and which could not reasonably be foreseen. Contractor must request an extension of the contract completion date in writing and must provide the following information to Engineer/Architect and Owner within five (5) calendar days of commencement
 - Confirmation whether all schedule updates, submittals and other conditions of the Contract have been met;
 - Affirmative representation that the delay is beyond the control of Contractor and 2. subcontractors and due to no direct or indirect fault of Contractor. Contractor shall include all documentation to justify the delay.
 - 3. Nature of the delay.
 - 4. Dates of commencement / anticipated end of delay.
 - Evidence that the delayed work results in a direct delay to the schedule critical 5.
 - 6. List of tasks/work affected by the delay.
 - 7. Anticipated extent of delay.
 - 8. Remedial actions taken to get back on schedule.
 - 9. Recommended action to minimize delay.
 - Confirmation that Contractor has used all the float time available for the work involved in 10. the delay request.
 - Such other supporting information as requested by Owner or Engineer/Architect. 11.

Contractor acknowledges that the evaluation of time extensions will be based on the above information.. Owner will not consider a claim for time extension which does not comply with the preceding requirements.

- 4.8.10 If Owner approves a Change Order extending the Contract time, such extension of Contract time shall extends the project construction schedule and completion date and substantial completion date for such reasonable time as Owner shall determine in the Change Order.
- 4.8.11 Contractor agrees to complete the Work and project in accordance with the agreed construction schedule, as amended by any approved and duly executed Change Orders.
- 4.8.12 Waiver. Contractor agrees that failure to timely request a time extension constitutes a waiver by Contractor of such claim for time extension.
 - 4.8.13 Float. Neither the Owner nor the Contractor shall be considered to own the schedule "float" time.
- 4.8.14 No Damages for Delay: Exclusive Remedy. Contractor expressly agrees that a Change Order for an extension of the project completion date and substantial completion date constitutes its sole and exclusive remedies for efficiency or other related time or impact-based claims (hereinafter collectively "delay") or for delay attributable to any foreseen or unforeseen condition, or for delays claimed to be the result of active, intentional, knowing or passive interference by Owner, Engineer, or agents of either, and Contractor waives claims for any and all damages which it may suffer by reason of such claims, including but not limited to, lost profits, loss or impairment of bonding capacity, destruction of business, overhead, remobilization or demobilization costs, subcontractor delay claims, supervision, extended unabsorbed home office overhead, increase insurance costs, lost profits on alternate or unperformed contracts. Contractor hereby affirms that an extension of time is Contractor's sole and exclusive remedy. Apart from extension of time, no payment of claim for damages shall be made to Contractor as compensation for damages for any delays in the work, whether such delay is avoidable or unavoidable.

4.9 SURVEY; LINES, GRADES, LEVELS AND DIMENSIONS

- 4.9.1 The Contractor shall locate and lay out all work from datum and dimension points given on the Construction Drawings. Contractor shall establish and verify lines and grades, levels, elevations and dimensions, responsible for the preservation of all lines, points, and elevations furnished and shall bear the expense of resetting same if Contractor or any of its subcontractors move or destroy or render inaccurate any such lines, points and elevations. The Contractor shall provide five (5) calendar days written notice to the Engineer/Architect as to its needs for lines, levels, elevations or dimensions.
- 4.9.2 If the Contractor, in the course of the work finds any discrepancy between the Construction Drawings and the physical conditions of the site, or any errors or omissions in the specifications or in the layout as given, Contractor shall immediately inform the Engineer/Architect and the Owner, in writing, and the Engineer/Architect will review the same and provide corrective instructions, if any are necessary. Any work done after such discovery, until authorized, will be done at the Contractor's risk.
- 4.9.3 <u>Survey.</u> Where applicable to the Work, and unless otherwise specified, the Engineer/Architect shall furnish all land survey control points, base lines and benchmarks for the location of the Work. The Contractor shall be responsible for any necessary surveying services, including construction layout and final project record drawings. All survey work shall be performed by an independent, third party surveyor licensed to practice in the State of Florida, hired by Contractor and surveys shall be signed and sealed. All elevations shall be based on State Plane Coordinates NGVD-29.
- 4.9.4 For street, utility and other horizontal construction, where Contractor-supplied drawings are required for planning or performance of the Work, such drawings shall include, but not be limited to, matchmarks, erection diagrams and other details such as field connections for installation. Such drawings shall be submitted by and at the expense of Contractor. At least 15 calendar days shall be allowed for review by Owner. If drawings show variations from the Contract requirements, the Contractor shall describe such variations in writing at the time of submission. Review and permission to proceed by Owner does not constitute acceptance or approval of design details, calculations, analyses, test methods or materials developed or selected by the Contractor and does not relieve Contractor from full compliance with the Contract Documents.

4.10 RECORD DOCUMENTS:

- 4.10.1 Record Set. The Contractor shall maintain at the work site one (1) copy of all permitted Construction Drawings and specifications, marked and kept current, to indicate all field changes, and selections made during construction. Contractor shall at all times give the Owner, the Engineer/Architect and all trades performing at the project, access thereto. The record set shall include:
 - a. Construction Drawings
 - b. Specifications
 - c. Addenda
 - d. Change orders and other modifications to the Contract
 - e. Approved shop drawings, product data, and samples
 - f. Permits
- 4.10.2 The Record set and As-Built Construction Drawings shall neatly, correctly and accurately show all changes made during construction from the Contract Documents and shall reflect surveyed information. The indicated revisions shall be neat and legible.
- 4.10.3 <u>Final As-Built Documents</u>. Prior to final inspection, Contractor shall provide Owner with "Record" or final "as-built" Construction Drawings and specifications, including all documents listed above, and which comply with the following requirements:
 - One complete set of mylar or paper marked-up as-built construction drawings with "RECORD" or "AS BUILT" clearly printed on each sheet and signed by Contractor;
 - -One complete paper set of marked-up specifications with "RECORD" or "AS-BUILT" clearly printed on the cover.
 - One electronic copy of all documents, signed and sealed drawings and specifications in ".pdf" format;
 - As-built survey, where applicable, prepared by an independent third party land surveyor registered with the State of Florida on State Plane Coordinates certifying the elevation and location of improvements;

- For street, utility and other horizontal construction, certified drawings showing horizontal and vertical locations, lines and grade of buried pipe line(s) four (4) inches or larger in diameter and exterior to buildings, and other buried facilities (e.g. valves, tanks, vaults, storm inlets, ducts, etc.) installed or discovered as a result of the Work and which comply with Owner's Final Record Drawing Requirements found at www.cityofwpb.org/engineering/.
- For street, utility and other outdoor horizontal construction, certified drawings showing building corners, sidewalks, paved areas and the location of all above ground structures within the project site.
- A list of each piece of equipment incorporated into the Work having an individual value of \$500 or greater. The list shall include, at a minimum, manufacturer, make and model number, catalog number, supplier, quantity installed, and value of equipment, and operation and maintenance manuals and warranties where appropriate for such equipment.
- 4.10.4 Final pay request and connections to any existing utility main will not be approved until final asbuilt drawings are reviewed and accepted by Engineer/Architect.

4.11 **WORK SITE**

- 4.11.1 Access. Contractor's access to the site and storage areas shall be as shown on the Construction Drawings and as designated by the Owner. Access routes may also be used by Owner and its employees and other contractors. No other access points shall be allowed unless approved by the Owner. All contractor traffic authorized to enter the site shall be experienced in the route or guided by contractor personnel. The Contractor is responsible for immediate cleanup of any debris deposited along the access route as a result of its construction traffic. In the event the Owner provides conditions or reasonable restrictions on the use or access to the lands upon which or adjacent to which the work is to be done, Contractor shall comply with all such conditions or restrictions. Any delay in the furnishing of these lands by the Owner shall be deemed proper cause for an equitable adjustment in both Contract price and time of completion.
- 4.11.2 Owner Access. Owner, and its duly authorized employees, the Engineer/Architect, and representatives of all governmental agencies having jurisdiction over Work areas or any part thereof, shall, at all reasonable times, have access to such areas and the premises used by Contractor. Contractor shall also arrange for Owner and Engineer/Architect to have access at all reasonable times to all places where equipment or materials are being manufactured, produced or fabricated for use under the Contract.
- 4.11.3 Contractor Area; Staging Area; Storage. Contractor's work area on the job site will be assigned by Owner. Contractor shall confine its office, storage, assembly, equipment and parking, as appropriate, to the areas so assigned. The Contractor shall identify, at the pre-construction meeting, proposed locations for secure storage areas for materials, equipment, employee and subcontractor parking, and, where applicable, staging areas, construction trailers, etc. The use of private property shall be at the cost of the Contractor. Contractor shall provide evidence of the property owner's agreement to use said property to the Owner. As a condition of final payment, Contractor shall provide Owner with written release from the property owner advising that the property owner has no claims against Contractor arising out of Contractor's use of the private property.
- 4.11.4 Delivery Unloading & Storage. Contractor shall, at its expense, receive, unload, and store in a secure place, all materials, plant and equipment required for the performance of the Contract. Any material and equipment to be stored outside which are subject to degradation by outside exposure shall be stored in a weather-tight enclosure provided by Contractor at its expense. Where necessary, delivery of materials, plant or equipment from off-site storage to the work site shall be at Contractor's expense.
- 4.11.5 <u>Utilities</u>. Unless otherwise provided in the Contract Documents, Contractor shall, at its expense, arrange for, develop and maintain all utilities in work areas, including, but not limited to: construction power, water as required throughout construction, and telephone service, if needed. Prior to final acceptance of the work, Contractor shall, at its expense, remove all temporary utilities.
- 4.11.6 Sanitary Facilities. Where required by the work site, Contractor shall provide and maintain daily adequate sanitary facilities for the use by the Contractor's labor force.
- 4.11.7 Fire Protection. All necessary precautions to avoid and eliminate fire hazards shall be the responsibility of the Contractor. Contractor shall provide portable fire extinguishers, properly labeled, located and compatible with the hazard of each work area and shall instruct personnel in their use.

- 4.11.8 <u>Illumination</u>. When required, Contractor shall, at its expense, provide artificial light sufficient to permit work to be carried on satisfactorily and safely.
- 4.11.9 <u>Dust Control</u>. Contractor shall, at its expense, take measures to minimize the amount of dust created by construction activities. For street, utility and other horizontal construction, this requirement applies to all excavations, roads, plant sites, borrow areas and all other work areas. Code-required or industry-accepted methods of dust control suitable for the area involved and approved by Owner will be permitted.
- 4.11.10 Noise Control. The Contractor shall make every effort to minimize noises caused by Contractor's operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with Federal, State and local laws and regulations.
- 4.11.11 Pollution Control. Contractor shall, at its expense, perform its Work so as not to discharge from any source into the atmosphere, or any body of water, or the ground or groundwater, any source, smoke, dust or other contaminants in violation of the federal, state, and local pollution laws, rules, regulations and orders (collectively, the "discharge law"). Contractor shall, at its expense, provide suitable facilities to prevent any such discharges. In the event of a discharge which results in contamination of the site or adjacent properties, Contractor shall immediately notify Owner and the appropriate governmental authority and shall take whatever action is necessary, required by discharge law or desirable to remediate the contamination at Contractor's sole expense. Contractor shall pay all fines, penalties and damages resulting from any such discharges. Contractor shall indemnify and hold harmless Owner from any expense, fine, penalty, obligation, action or liability resulting from such discharge and remedial actions.
- 4.11.12 Existing Utilities and Substructures. For street, utility and other horizontal construction, Contractor shall be responsible for locating existing utilities and facilities prior to commencement of work. Contractor shall contact all utility companies and call SUNSHINE at (800) 432-4770 at least 48 hours prior to commencement of construction work, so utilities can locate and protect facilities, if required by the utility company.
- 4.11.13 Florida Lumber. Whenever available, Contractor shall use lumber, timber and other forest products produced and manufactured in Florida provided the price, fitness and quality of such products are equal to substitute products. (F.S. 255.20(3))
- 4.11.14 Cutting and Patching. Contractor is responsible for all cutting, drilling, patching, fastening or anchoring of all new and existing construction required to complete the Work. Contractor shall not damage any portion of the Work or existing construction or work of other contractors except with the written consent of Owner and any separate contractor. Contractor shall restore all area to the conditions existing prior to the cutting, drilling, patching, fastening or anchoring, unless otherwise required by the Contract Documents.
- 4.11.15 Cleaning Up. Upon completion of any portion of the Work, Contractor shall remove at its own expense from Owner's property all temporary structures, equipment and surplus materials not required for later stages of work, rubbish, and waste materials resulting from its operations. Contractor shall clean the site and shall remove stains, spills and other foreign deposits. Contractor shall not burn waste materials at the site, shall not bury debris or excess materials and shall not discharge volatile or other harmful or dangerous materials into the environment. Contractor shall remove temporary protection devices unless otherwise directed by Owner. For street, utility or other horizontal construction, Contractor shall sweep paved areas and rake clean landscaped areas. Any costs incurred by Owner as a result of Contractor's failure to clean up shall be deducted from the contract price.
- 4.11.16 <u>Debris Disposal</u>. All debris shall be legally disposed of at licensed disposal site(s). Contractor shall make its own arrangements, at its own cost, for the lawful disposal of rubbish and waste materials. If requested by Owner, Contractor shall provide evidence of proper disposal.
- 4.11.17 Salvage. Owner reserves the right to retain any surplus or salvage materials. Contractor shall store or re-locate any materials to be retained by Owner as directed by Owner.
- 4.11.18 Water Catchment Area. The City is the owner of the Water Catchment Area located in Palm Beach county, Florida (the "Water Catchment Area"). The Water Catchment Area serves as a natural surface water supply source for the City of West Palm Beach and has been designated as a Class I portable water supply pursuant to the Special Laws of the Florida Legislature, Ch. 67-2169, as amended, and is protected by State and Federal laws. Grassy Waters Preserve and the M-Canal are part of the City's Water Catchment Area. If the work ITB 14-15-134

site is within the Water Catchment Area, Contractor's work an activities in the Water Catchment Area shall in no way be inconsistent with the Special Act or the laws and regulations governing water supply soures.

4.12 PROTECTION OF THE WORK AND PROPERTY.

- 4.12.1 The Contractor shall be solely responsible for initiating and continuously maintaining adequate protection of all work from damage, loss, theft or damage from whatever cause, and shall take all reasonable precautions to protect the property of the Owner and third parties from damage, theft, injury or loss arising in connection with this Contract. Contractor shall comply with the requirements of the Owner and its insurance carriers and all applicable laws, codes and regulations with respect to prevention of damage.
- 4.12.2 Contractor shall prepare and maintain accurate reports of incidents of loss, theft or vandalism and shall furnish these reports to Owner within three (3) calendar days of each incident.
- 4.12.3 For street, utility and other horizontal construction, Contractor shall preserve and protect all cultivated and planted areas and vegetation such as trees, plants, shrubs and grass on or adjacent to the site, which, as determined by Owner, do not reasonably interfere with the performance of the Work. Contractor shall be responsible for damage to any such areas and vegetation and for unauthorized cutting of trees and vegetation. Contractor shall leave all adjacent property in as good condition as it was prior to beginning of the Contract. Where practical, Contractor shall erect a temporary fence around the work site.
- 4.12.4 For street, utility and other horizontal construction, existing utilities and facilities shall be located prior to commencement of Work. Contractor shall video tape the existing surface conditions of the Work site and adjacent areas before commencing Work, after each discrete portion of the Work and when project is complete. Contractor shall submit two (2) copies of the video tape to the Engineer/Architect prior to submittal for final payment.
- 4.12.5. Risk of Loss. Commencing on the date of the Notice to Proceed and continuing until final acceptance of the Work by the Owner, the Contractor shall have full and complete charge and shall bear all risk of loss of, and injury or damage to, the Work performed under this Contract, or any portion thereof, including materials and equipment, and Owner-furnished supplies and equipment, from any cause whatsoever. Contractor shall rebuild, repair, restore and make good any damages, injury, or loss to the work and to the property of the Owner or third parties, except such as may be directly due to errors in the Contract Documents which the Contractor could not have discovered through due diligence, or caused by agents or employees of the Owner, unless such loss or damage would be covered by any policy of insurance maintained by the Contractor. All costs in connection with any repairs or restoration necessary or required as a result of damage shall be borne by Contractor.

4.13 CONCEALED OR UNKNOWN CONDITIONS.

- 4.13.1 If Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents, or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, or (3) are not observable prior to bidding or inferable by the type of construction, the Contractor shall promptly provide written notice to the Owner and Engineer/Architect before conditions are disturbed, and in no event more than three (3) calendar days after first observance of the conditions. The Engineer/Architect will promptly investigate such conditions and, if the Engineer/Architect determines that the conditions are a material difference which will cause an increase or decrease in the Contractor's costs or time required for performance of the Work, will recommend an equitable adjustment in the contract price or contract time, or both. Any such recommended adjustment must be approved by Owner through issuance of a Change Order to be effective. If the Engineer/Architect determines that the conditions do not materially differ from those indicated in the Contract Documents, or that no equitable adjustment is justified, the Engineer/Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Engineer/Architect's determination or recommendation, that party may proceed to mediation as provided in GC 17.7; however, the parties shall mutually agree on an independent third party professional engineer to serve as mediator.
- 4.13.2 Contractor shall not be entitled to any adjustment in the contract price or contract time if Contractor knew of the existence of such conditions at the time of submission of a bid or becoming bound under the Contract; or the existence of such condition could reasonably have been discovered or revealed as a result of ITB 14-15-134

any examination, investigation or test of the site by Contractor, as indicated in the Contract Documents, prior to making such commitment; or Contractor failed to give written notice as provided in GC 17.1.

4.13.3 If, in the course of the Work, Contractor encounters human remains or recognizes the existence of burial markers or archaeological sites not indicated in the Contract Documents, the Contractor shall immediately suspend any Work that would affect the remains or sites and shall notify the Owner and Engineer/Architect. The Owner shall take any action necessary to obtain the authorization required to resume Work. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner, but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the contract price or contract schedule arising from the existence of such remains or features may be made as provided in GC 8.2.

4.14 SAFETY

- 4.14.1 Commencing on the date of the Notice to Proceed and continuing until final acceptance of the Work by the Owner, Contractor shall take all necessary precautions for the protection of all persons involved in the Work, the public, and all employees or representatives of Owner. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor will provide to each worker on the job site the proper safety equipment for the duties being performed by the worker and will not permit any worker on the job site who fails or refuses to use the safety equipment. All work and all equipment, machinery, materials and tools shall be in compliance with and conform to all applicable laws, ordinance, rules and regulations.
- 4.14.2 For Work impacting streets and public rights-of-way, Contractor shall provide and maintain flagmen, traffic control devices, barricades, signs and variable message boards on a full time basis, where and when needed, to facilitate the movement of traffic along and around the project Work. All MOT plans shall be reviewed and approved by Owner.
- 4.14.3 If Owner or Engineer/Architect observe an unsafe or hazardous condition at the Work site, such hazard or safety condition shall be brought to the Contractor's attention. Contractor shall stop Work until such hazard or safety condition is remedied by Contractor.
- 4.14.4 Hurricane Plan. If any Work is to be performed during hurricane season, Contractor shall provide Owner with Contractor's hurricane plan prior to the commencement of any Work. The hurricane plan shall describe the actions to be taken to secure the work site(s) in the event a named tropical storm or hurricane is predicted to affect the project work area. Contractor shall abide by Owner's requirements, Required Storm Preparation Process, found at www.cityofwpb.org/engineering/.
- 4.14.5 Explosives and Hazardous Materials. Contractor shall obtain all required federal, state and local permits and licenses and shall be responsible for the safe and proper handling, transportation, storage and use of any explosive or hazardous material brought onto or encountered within the site. The Contractor will notify the Owner immediately if explosive or hazardous materials are encountered on the site. Contractor shall maintain and post as necessary, Material Hazard Data Sheets for all applicable hazardous materials used in the course of the Work. In the event that hazardous material is improperly handled or stored by the Contractor or its subcontractors, which results in contamination of the site, Contractor shall immediately notify the Owner and the appropriate governmental authority and shall take whatever action is necessary, required by law, regulation or order, or desirable to remediate the contamination at the Contractor's sole cost and expense. Contractor shall indemnify and hold harmless the Owner from any expense, fine, penalty or obligation, action or liability resulting from such contamination and remedial actions.

4.15 PROGRESS; REPORTING

- 4.15.1 Weekly Reporting: Copies of all daily reports prepared by the Contractor and his subcontractors shall be submitted to the Owner on a weekly basis for the preceding seven (7) calendar days.
- 4.15.2 Bi-Weekly Reporting: Contractor shall be required to submit to Owner, on a bi-weekly basis, two (2) copies of 8 1/2"x 11" color photographs indicating the progress of the Work over the preceding 14 days and identifying the dates that the Work shown was performed.
- 4.15.3 Progress Meetings. The Contractor shall, at its expense, attend any and all meetings called by the Owner to discuss the Work under the Contract. The Owner, or its Engineer/Architect, will distribute typed

minutes of each meeting to all attendees. Failure of Contractor to promptly object to the typed minutes shall constitute Contractor's agreement with the content of the typed minutes.

4.15.4 If at any time Contractor's actual progress is inadequate to meet the completion time requirements of the Contract and this lack of progress is the sole fault of the Contractor, Owner may so notify Contractor who shall thereupon, at its expense, take such steps as may be necessary to improve its progress to meet the approved schedule. If within a reasonable period as determined by Owner, Owner determines that Contractor is not prosecuting its work with such diligence as will assure completion with the times scheduled and Contractor fails to take reasonable actions to timely cure, Owner may declare a default of the Contract.

4.16 SHOP DRAWINGS, SAMPLES AND SUBMITTALS

- 4.16.1 Contractor shall prepare and keep current for Engineer/Architect's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Engineer/Architect reasonable time to review submittals.
- 4.16.2 Contractor shall approve and submit to the Engineer/Architect those shop drawings, product data, samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of separate contractors. Contractor shall perform no portion of the Work for which shop drawings, product data, samples or other submittals are required by the Contract Documents until such submittal has been reviewed and approved by Engineer/Architect.
- 4.16.3 Contractor represents by submitting the shop drawings, product data, samples and similar submittals that Contractor has reviewed them for conformance to the Contract Documents, and verified the materials, measurements and field criteria related thereto.
- 4.16.4 Contractor shall not be relieved of responsibility for conformance to the Contract Documents by Engineer/Architect's approval of show drawings, product data, samples or similar submittal, unless Contractor has specifically informed Engineer/Architect of such variance or deviation at the time of submittal and either: (i) the Engineer/Architect has given written approval of the specific deviation as a minor change in the Work; or (ii) a Change Order or Constructive Change Directive authorizing the deviation has been issued. Engineer/Architect's approval does not relieve Contractor of responsibility for errors or omissions in shop drawings, product data, samples or similar submittals.
- 4.16.5 Contractor shall make any corrections to the submittal required by Engineer/Architect and shall resubmit revised submittals for review. Contractor shall direct specific attention, in writing, to any revisions other than the corrections called for by Engineer/Architect on previous submittals. In the absence of such written notice, Engineer/Architect's approval does not apply to such unidentified revisions.

GC 5 **INSPECTION & TESTING**

5.1 INSPECTION.

- Access for Inspection. Owner, Engineer/Architect and their representatives shall at all times have access to the Work whenever it is in preparation or progress. Contractor shall give the Engineer/Architect timely notice of its readiness for inspection when the Contract Documents or applicable laws, ordinances, or any public regulatory entity require any Work to be inspected by the Engineer/Architect.
- Regulatory Inspection by City. Should Contractor require inspection by City staff, in its regulatory capacity, on days the City is closed for regular business or after 3:30 pm on regular work days, Contractor shall be required to reimburse the City for staff overtime or additional costs.

5.2 TESTING.

If the Contract Documents or applicable laws, ordinances, or any public regulatory entity require any Work to be specially tested or approved, Contractor shall make arrangements for such tests or inspections with an independent testing laboratory or entity acceptable to Owner and shall give the Engineer/Architect timely notice of the date fixed for such testing. Contractor shall be responsible for all costs of testing, inspections and approvals. Tests and inspections shall be made promptly to avoid delays in the Work.

- Unless otherwise provided in the Contract Documents, shop testing of material, equipment or Work shall be performed by Contractor at its expense and in accordance with the technical specifications. Contractor shall furnish samples as requested and shall provide reasonable assistance and cooperation necessary to permit tests to be performed on materials or work in place, including reasonable stoppage of Work
- 5.2.3 If any Work should be covered up prior to any required inspection or test by Owner or Engineer/Architect, it must be uncovered for inspection and properly restored at Contractor's expense. If any Work not required to be inspected or tested is covered up and Engineer/Architect specifically requests to inspect such Work, Contractor shall uncover such Work. If such Work is in accordance with the Contract Documents, the costs of uncovering and replacing the Work shall be at Owner's expense, by appropriate Change Order. If such Work is not in accordance with the Contract Documents, the costs of uncovering and correction shall be at
- 5.2.4 Should tests in addition to those required by the Contract Documents be desired by Owner, Contractor will be advised in reasonable time to permit such additional testing at Owner's expense, unless additional tests are required due to Contractor's Work or materials having failed any initial test.
- If inspection or testing reveal failure of portions of the Work to comply with the Contract Documents or applicable laws, all costs as a result of such failure, including those of repeated testings and compensation for Engineer/Architect's services and expenses shall be at Contractor's expense.
- Required certificates of testing, inspection or approval shall be secured by Contractor and delivered promptly to Engineer/Architect, unless otherwise provided by the Contract Documents.

CORRECTION OF WORK

- DEFECTIVE MATERIAL, EQUIPMENT OR WORKMANSHIP. If any material, equipment or workmanship is determined by Owner or Architect/Engineer, either during performance of the Work, during final inspection or during the warranty period, to be defective or not in compliance with the Contract Documents, Owner shall notify Contractor in writing that such material, equipment or Work is rejected and Owner reserves the right to withhold payment on any such item. Contractor shall commence correction of the Work within seven (7) calendar days of written notice by Owner. Contractor shall, at its own expense, immediately remove and replace or correct such defective material, equipment or Work by making the same strictly comply with all requirements of the Contract Documents. All costs of correcting such rejected Work, including additional testing and inspections, uncovering and replacing, and compensation for Engineer/Architect's services and expenses, material, equipment, clean up, debris removal, and safety precautions, shall be at Contractor's expense. If correction of the Work requires damaging work completed by other contractors, Contractor shall be responsible for the costs to replace such work.
- WARRANTY. Contractor further agrees to correct all Work found by Owner to be defective or not in 6.2 conformance with the Contract Documents for a period of one year from the final certificate of occupancy for the project (or if no certificate of occupancy to be issued, within one year of substantial completion) or for such longer periods of time as may be set forth with respect to specific warranties contained in the specifications. Owner or Engineer/Architect shall provide Contractor with written notice of non-conformance. If Contractor fails to correct non-conforming Work within a reasonable time after receipt of notice, the Owner may correct the Work.
- ACCEPTANCE OF NON-CONFORMING WORK. If Owner deems it inexpedient to correct Work that has been damaged or that was not performed in accordance with the Contract Documents, Owner may accept such non-confirming work and an equitable deduction from the contract price shall be made for such work. Contractor shall warrant the accepted but non-conforming work in accordance with GC 6.2.
- 6.4 The Contract Documents and the obligation of Contractor to perform corrective Work survive final completion of the Work and final payment.
- OWNER'S RIGHT TO CORRECT OR COMPLETE WORK. If Contractor should neglect to prosecute the Work diligently in accordance with the Contract Documents, or fail to correct defective or nonconforming Work, or fail to perform any provisions of the Contract Documents, Owner may, after ten (10) calendar days written notice to Contractor and opportunity to cure, make good these deficiencies and may deduct the cost thereof from payment due Contractor. A deductive Change Order shall be issued for the Owner's reasonable costs of ITB 14-15-134 50

correcting or completing the Work, including Owner's expenses and compensation for Engineer/Architect's The Change Order amount shall be subject to review and approval by Engineer/Architect. If payments due to Contractor are not sufficient to cover the Change Order, Contractor shall pay the difference to Owner. Owner's correction of the Work and acceptance of a deductive Change Order shall be without prejudice to any other remedies Owner may have.

WORK BY OTHERS AT SITE

- Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contract in connection with other portion of the Project or other construction or
- 7.2 Where the Owner is utilizing its own forces or multiple contracts for the Project, Contractor shall provide reasonable advance notice to Owner and other contractors regarding the Project Schedule and the portions for work to be performed by them. Contractor shall coordinate its construction and operations with Owners and other contractors performing work on the Project.
- If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Engineer/Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractors completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.
- Contractor shall reimburse the Owner for costs incurred by Owner payable t a separate contractor because of Contractor's delays, improperly timed activities, damage to the other contractor's work or defective construction. Owner shall be responsible to Contractor for costs incurred by Contractor because of a separate contractor's delays improperly timed activities, damage to Work or defective construction.
- If a dispute arises among Contractor and other contractors on site as to the responsibility to maintain the premises, correct work, clean up or take any other action, Owner may take the necessary action and Engineer/Architect will assess the costs to those deemed responsible by Engineer/Architect.

GC 8 **CHANGES IN THE WORK**

- Owner, without invalidating the Contract Documents may order written additions to or deductions from the 8.1 Work, the contract price being adjusted accordingly.
- REQUEST FOR CHANGE ORDER. If Contractor believes that a variation or change justifies a 8.2 modification in the contract price, Contractor may submit a request for Change Order at its expense. If a request for Change Order is made, Contractor is not authorized to vary the Work unless a written Change Order is executed by Owner or written Construction Change Directive is issued by the Engineer/Architect and executed by Owner. No Change Order shall be valid unless executed by the authorized signatory of Owner.
- NOTICE TO ENGINEER/ARCHITECT. Contractor shall notify the Engineer/Architect in writing within 8.3 seven (7) calendar days of any occurrence which, in the opinion of Contractor, entitles it to claim an adjustment of the Contract price or a time extension, absent which notice, Contractor shall have waived such claim. The Engineer/Architect will provide a response to Contractor and Owner with respect to a request for change order within a reasonable amount of time after receipt of Contractor's notice and all necessary backup information required by Engineer/Architect to formulate a response.
- 8.4 The Engineer/Architect shall not be authorized to bind Owner to change in contract price or contract time.

8.5 CHANGE ORDER.

Execution of any change order by the parties shall constitute a final settlement and release by Contractor of all matters relating to the claim or change in the Work which is the subject of the change order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments to the contract price and the contract time.

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- Any change order approved due to price change in materials shall not include a premium, profit or any other additional cost.
- 8.5.3 A bond rider from the surety shall be submitted to the Owner with each change order that increases the contract price.
- The number of change orders to the Contract submitted by Contractor may be considered by 8.5.4 Owner in considering other subsequent bids submitted by Contractor. Excessive change orders may also result in suspension from the Owner's future procurements. The determination of excessiveness shall be made solely by Owner considering the scope of work, schedule of bid items, contract price, unforeseen circumstances, and reasons for any change orders.
- CONSTRUCTIVE CHANGE DIRECTIVE. If a change order is not yet approved or cannot be agreed upon, Contractor is authorized, upon issuance of a written construction change directive (CDD) prepared by the Engineer/Architect and approved by Owner, to proceed with such change. If a construction change directive provides for an adjustment to the contract price, the adjustment shall be calculated as follows:
 - Unit prices as stated in the Contract Documents
 - Labor at the prevailing hourly basic rates plus applicable multipliers for overtime, weekend and holidays, plus applicable taxes. Mark up on labor is not permitted. Labor shall not include supervision above the project manager.

Net actual costs of materials including sales tax.

Rental costs of machinery and equipment, excepting hand tools, including fuel.

Reasonable overhead and profit, not exceeding fifteen percent (15%) inclusive of bond rider, permits, insurance, overhead and profit, supervision and general conditions.

Or by mutual acceptance of a lump sum properly itemized and supported;

Upon approval by Engineer/Architect and Owner as to any adjustments to the contract price and/or contract time for changes performed under a CDD, such approval shall be recorded by the preparation of a Change Order. Contractor shall not seek payment for work performed pursuant to a CDD until it has been converted to a Change Order. Each CDD shall have a separate change order.

- Commencing Work without a written change order or Construction Change Directive executed by Owner in advance of commencement of work waives any claim by Contractor to an adjustment to the contract price and the contract time.
- MINOR CHANGES IN WORK. Engineer/Architect shall have the authority to order minor changes in the 8.8 Work, by written direction to Contractor, which do not involve adjustment to the contract price or contract time and which are not inconsistent with the intent of the Contract Documents. A subsequent Change Order shall be executed.
- OWNER'S RIGHT. The Owner reserves the right to perform the requested changes in the Work with its 8.9 own forces, or to contract with others to perform the changes.

GC 9 COMPLETION

- REQUIREMENTS PRIOR TO SUBSTANTIAL COMPLETION. When Contractor considers the Work to be substantially complete, Contractor will submit to Engineer/Architect, the following items which shall be completed as a condition precedent to Substantial Completion and prior to notice by Contractor of Substantial Completion:
 - All general construction completed and the project components shall be clean and all A. systems fully functional.
 - All mechanical and electrical work substantially complete, fixtures in place, connected, cleaned, fully functional and ready for use.
 - All electrical circuits shall be scheduled in panels and all panels and disconnect switches C. properly labeled.
 - Project site shall be cleared of Contractor's excess equipment and/or supplies and D. material.

E. Record drawings and specifications meeting the Owner's requirements shall be delivered to Engineer/Architect.

The above are also conditions for Final Completion.

9.2 <u>NOTICE.</u> Contractor shall notice Owner and Engineer/Architect when Contractor considers the Work, or a portion thereof which Owner agrees to accept separately, is substantially complete and shall request an inspection.

9.3 SUBSTANTIAL COMPLETION.

- 9.3.1 If after inspection, the Engineer/Architect finds that the Work is substantially complete, Engineer/Architect shall issue to Owner and Contractor a Certificate of Substantial Completion that shall establish the date of Substantial Completion.
- 9.3.2 If Substantial Completion is not obtained at the inspection called by Contractor, for reasons which are the fault of Contractor, any additional cost to Owner for the Engineer/Architect for any subsequent inspections for the purpose of determining Substantial Completion shall be the responsibility and expense of Contractor and shall be assessed against the final payment application.
- 9.4 <u>INSPECTION AND PUNCH LIST</u>. Within three (3) calendar days of Substantial Completion as determined by Engineer/Architect and Owner, a walkthrough with Contractor shall be scheduled.
 - The purpose of this walkthrough is to develop a joint final punch list of items necessary to complete the Work.
 - ii. Said punch list shall be prepared, signed by Engineer/Architect and Owner and delivered to Contractor not later than three (3) calendar days after the walkthrough. Engineer/Architect and Owner shall separately list each item of the punch list required for Final Completion.
 - iii. Any dispute over punch list items shall be mediated between Owner and Contractor with Engineer/Architect acting as mediator to develop an agreed punch list signed by Owner, Contractor and Engineer/Architect no later than nine (9) days from the date of the walkthrough.
 - iv. Agreed punch list items shall be corrected and a final inspection requested by Contractor within thirty (30) days from delivery of the agreed punch list, unless a greater time is provided in the contract. All agreed punch list items shall be corrected by Contractor prior to any request for final inspection and acceptance. If the Contract provides for a multi-phased or multi-structure project, a punch list may be developed for each phase or structure.
 - v. In no event may the Contractor request payment of final retainage under Florida Statutes §218.735(7)(e) until the Contractor considers the final punch list to be 100% complete.
 - vi. Contractor acknowledges and agrees that no item contained on the final punch list shall be considered a warranty item until such time as (a) the final punch list is 100% complete, and (b) Owner has been able to operate or utilize the affected punch list item for an additional period of fifteen (15) calendar days.
 - vii. Contractor acknowledges and agrees that Engineer/Architect as representative of Owner may, at its option, during performance of the Work and prior to Substantial Completion, issue lists of identified non-conforming or corrective Work for the Contractor to address. The intent of any such Engineer/Architect generated lists prior to Substantial Completion is to attempt to streamline the punch list process upon achieving Substantial Completion, and to allow for the Contractor to address needed areas of corrective work as they may be observed by Engineer/Architect during performance of the Work.
 - viii. Contractor acknowledges and agrees that in calculating 150% of the amount which may be withheld by Owner as to any final punch list item for which a good faith basis exists as to it being complete, as provided for by Florida Statutes §218.735(7)(e), Owner may include within such percentage calculation its total costs for completing such item of work, including its administrative

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costs as well as costs to address other services needed or areas of work which may be affected in order to achieve full completion of the final punch list item. Such percentage shall in no event relate to the schedule of value associated with such Work activity, but rather total costs are based upon the value (i.e. cost) of completing such Work activity based upon market conditions at the time of final punch list completion.

- The failure to include any Work or pending items not yet completed on the punch list does not ix. alter the responsibility of the Contractor to complete all the construction services and Work purchased under the Contract.
- PUNCH LIST RETAINAGE. Following delivery of the punch list, Contractor shall list the estimated cost of completing each item each item of the punch list required for final completion, and submit the list of estimated costs to Owner for Owner's review and determination. Owner may retain a sum equal to 150% of the estimated cost of correcting and completing the unfinished punch list items, as determined by the Owner. Upon completion of all items on the punch list, Contractor may submit a payment request for all remaining retainage. If a good faith dispute, as determined by Owner, exists as to whether one or more items identified on the punch list have been completed pursuant to the Contract, Owner may continue to withhold up to 150% of the total costs to complete such items(s), as determined by Owner.
- REQUIREMENTS PRIOR TO FINAL INSPECTION. The following items shall be completed as a condition precedent to a request by Contractor for final inspection:
 - Completion of all punch list items recorded from the Substantial Completion inspection. 1.
 - Submittal of any items condition precedent to Substantial Completion that had not previously 2. been submitted.
 - Issuance of all permits and certificates, test certificates, inspections, certificates of occupancy and 3. other approvals and releases by governing authorities required for Owner's occupancy and use of
 - All sets of operation and maintenance manuals and service agreements for all equipment shall 4. have been submitted to Owner, as referenced in the technical specifications.
 - Manufacturers' certifications and warranties and any special guarantees or maintenance 5. agreements shall be delivered to Owner.
 - A complete set of "RECORD" or "AS BUILT" drawings, meeting Owner's requirements. 6. Contractor shall sign each final record drawing and note thereon that the final as-builts are complete and accurate.
 - A complete set of marked-up specifications with "RECORD" or "AS-BUILT" clearly printed on the 7. cover. Contractor shall accurately and neatly transfer all deviations from project specifications to
 - A complete set of final shop drawings. 8.
 - For street, utility and other horizontal construction, two copies of the video tape of surface 9. conditions.
 - A signed and notarized affidavit indicating that no asbestos containing materials were used or 10. installed during the course of the Work.
 - A list of each piece of equipment incorporated into the Work having an individual value of \$500 or 11. greater. The list shall include, at a minimum, manufacturer, make and model number, catalog number, supplier, quantity installed, and value of equipment.
 - All required spare parts, as well as any special devices and tools and extra stock of materials 12. shall be delivered to Owner.
 - 13, Extra stock of materials or other items paid for by Owner.
 - A deductive change order for any uncommitted contingency or allowance funds has been 14. prepared and submitted in draft.
 - All keys and blanks shall have been provided to Owner. 15.
- FINAL INSPECTION. Contractor shall certify to the Owner and Engineer/Architect in writing that all 9.7 punch list items have been completed, all requirements for Substantial and Final Completion have been met, and the Work is ready for final inspection. The Engineer/Architect will schedule such inspection with Owner and Contractor. When Engineer finds the Work acceptable under the Contract Documents, completed and all requirements fully performed, Engineer/Architect shall issue a Final Certification to Owner. Should the Engineer consider that the Work is incomplete or defective, the Engineer/Architect will promptly notify the Contractor in writing, listing the incomplete or defective work. The Contractor will take immediate steps to remedy the stated deficiencies and send a second written certification to the Engineer/Architect when the Work is complete. The

Engineer/Architect will re-inspect the Work. Should the Engineer/Architect be required to perform re-inspections due to the failure of the Work to meet Contract requirements, the Owner may deduct the additional costs to Owner from the Contractor's final payment.

- OWNER'S RIGHTS. In the event incomplete, incorrect or defective work is not completed to the Owner's satisfaction within twenty (20) calendar days of the Engineer/Architect's notice to Contractor that the Work is not acceptable, Owner may, after ten (10) calendar days written notice to Contractor and opportunity to cure, make good the deficiencies and may deduct the cost thereof from final payment due Contractor. If payments due to Contractor are not sufficient to cover the costs, Contractor shall pay the difference to Owner. Owner's correction of the Work shall be without prejudice to any other remedies Owner may have.
- FINAL AS BUILT DOCUMENTS. Prior to final inspection, Contractor shall provide Owner with "Record" or "as-built" drawings, specifications and documents which comply and Owner's Final Record Drawing Requirements found at www.cityofwpb.org/engineering/
- USE OF COMPLETED PORTIONS. Owner shall have the right to take possession of and use any substantially completed portions of the Work. Such use by Owner shall not be construed as constituting final acceptance, and shall neither relieve Contractor of any of its responsibilities under the Contract, nor act as a waiver by Owner of any Contract Documents provisions; provided that Contractor shall not be liable for any repair or maintenance required due to ordinary wear and tear resulting from such use. However, if, in the opinion of Engineer/Architect, such use increases the cost or delays the completion of remaining portions of Work, Contractor shall be entitled to an equitable adjustment under the Contract.

GC 10 PAYMENT

- SCHEDULE OF VALUES. Within ten (10) calendar days after the date of the Owner's issuance of a Notice to Proceed, Contractor shall submit for review and approval of Owner and Engineer/Architect, a schedule of values, by phases of work, to show a breakdown of the contract price for the various portions of the Work and corresponding to the payment request breakdown and progress schedule line items. The schedule of values must also show dollar value for each unit of work scheduled. Any Change Orders shall be added as separate line items. This schedule, unless objected to by Engineer/Architect, shall be the basis for reviewing Contractor's applications for payment.
- TAXES. Contractor shall pay all taxes, duties and assessments imposed by law and applicable to the Contract. Contractor is not entitled to Owner's tax exempt status and shall pay all sales taxes. The Contract price shall include all taxes.
- PAYMENT WHERE PERFORMANCE AND PAYMENT BONDS REQUIRED: If the Contract requires Contractor to provide Performance and Payment Bonds, or a Public Construction Bond, no payment shall be made by Owner to Contractor until Contractor has provided Owner with a certified copy of the Performance and Payment Bonds, or a Public Construction Bond evidencing that said bond(s) have been recorded with the Clerk of the Courts in the public records of Palm Beach County.
- PAYMENT REQUESTS. Payment requests shall be submitted on AIA Application for Payment forms and shall be signed and notarized by Contractor. Each payment request shall include the following information:
 - 1. Bid Number
 - 2. Contract Number
 - 3. Project Number
 - 4. Project Name
 - 5. Owner's representative/ project manager
 - Detailed estimate and payment request on a standard AIA form, covering the percentage 6. of the total amount of the work which has been completed from the start of the job up to and including the last day of the preceding month, together with quantity and unit prices of materials and equipment utilized.
 - The unit cost of such materials and equipment required in the permanent work as has 7. been delivered to the site and suitably protected but not as yet incorporated in the work.
 - 8. Consent of Surety
 - Verification that certified copy(s) of recorded performance/payment bonds provided to Owner

If no bonds are required:

i) Partial Release of Lien from Contractor

ii) Partial Releases of Lien from each sub-contractor on the payment request

10. Subcontractor Utilization Report.

- Release from private property owner if Contractor utilized private property for storage or 11.
- 12. Such other supporting evidence as may be required by Owner and/or the Engineer/Architect to support Contractor's payment application;
- INITIAL PAYMENT. Prior to submittal of its initial payment request, Contractor shall have submitted the 10.5 following items to the Engineer/Architect and Owner:
 - Certified copies of the Performance and Payment bonds, or Public Construction bond, 1. recorded in the public records.

2. List of subcontractors and suppliers

3. Project schedule

4. Schedule of values

5. All current certificates of insurance

Designation of Contractor's Project Manager 6

The initial payment request will not be accepted unless all of the above items have been received by Engineer/Architect and Owner.

PROGRESS PAYMENTS. All payment requests are required to be submitted in draft form, at least ten 10.6 (10) calendar days in advance and not more than once each month, via email to the Owner and Engineer/Architect or Owner's agent identified in the Contract or by other written notice.

If no payment bond is recorded, original partial releases of lien from Contractor and all subcontractors included in payment request shall accompany the payment request.

If payment bond is recorded, partial consent of surety for payment shall accompany the payment request.

After review and approval of the draft, Contractor shall prepare and submit an original payment request, in duplicate: one set to the Owner's agent/Engineer/Architect and one set to City of West Palm Beach - Accounts Payable, PO Box 3366, West Palm Beach, FL 33402-3366.

The Owner will not be responsible for any delay in payment by the City if Contractor submits his estimate and invoice to any other address. Payment will be made in accordance with the Local Government Prompt Payment Act. (F.S. 218.70).

DECISION TO WITHHOLD CERTIFICATION OF PAYMENT REQUESTS. 10.7

- Engineer/Architect may withhold payment requests, in whole or in part, to the extent reasonably necessary to protect the Owner. If the Engineer/Architect is unable to certify payment in the amount of the application, the Engineer/Architect or Owner shall within twenty (20) calendar days advise Contractor of the reasons for withholding certification, in whole or in part, and the actions necessary to make the payment request proper. The Engineer/Architect will promptly certify payment of the amount which the Engineer/Architect can certify.
- 10.7.2 If Contractor takes action to make the rejected payment request proper and re-submits for approval of the whole or portion previously rejected, Engineer/Architect and Owner shall reject or accept the payment within ten (10) calendar days.
- 10.7.3 The Engineer/Architect may nullify, in whole or in part, any payment application previously certified to such extent as may be necessary, in the Engineer/Architect's opinion, to protect the Owner for loss for which the Contractor is responsible, including:

Defective work not remedied;

Failure of Contractor to make payments to subcontractors;

- Reasonable evidence that the Work cannot be completed for the unpaid balance of the contract price;
- Damage to the Owner or a separate contractor;

- Reasonable evidence that Owner will have a claim for liquidated damages and the unpaid balance of the contract price will not be adequate to cover liquidated damages or other amounts due to Owner from Contractor;
- Repeated failures to carry out the Work in accordance with the Contract Documents.

When the reasons for withholding certification are removed, certification will be made for amounts previously

10.8 RETAINAGE.

- 10.8.1 In accordance with the Local Government Prompt Payment Act, until the project is determined to have reached fifty percent completion, Owner shall withhold retainage of ten percent (10%) from each progress payment paid to Contractor based on Contractor's estimate and invoice as approved by the Éngineer/Architect.
- Upon 50% completion of the project the retainage withheld from each subsequent progress payment will be reduced to five percent (5%) as provided for by Florida Statute §218.735(8)(b). "Fifty percent completion" of the Work is defined as that point in time where 50% of the overall value of Work items incorporated and which will remain in place subsequent to final completion of the Work have been completed, based upon the schedule of values contained in the Contract. As such, and by way of example, the value of Contractors mobilization, general conditions, supervision or like items which do not involve permanent incorporation of Work do not apply to the determination of fifty percent completion of the Work for purposes of establishing entitlement to a reduction of retainage. It is agreed that the Engineer/Architect shall have the right to finally determine when fifty percent completion has been achieved. (F.S. 255.078).
- 10.8.3 After the project is determined to have reached fifty percent completion, and unless otherwise prohibited by the terms of any federal grant funding the project in whole or in part: i) Owner shall withhold retainage of five percent (5%) from each progress payment paid to Contractor based on Contractor's estimate and invoice as approved by the Engineer/Architect; and ii) Contractor may present to Owner a payment request for up to half (50%) of the retainage previously held by Owner (50% of the 50% retainage already withheld - Not 50% of total retainage). If Owner has grounds under Florida law to continue to retain all or a portion of the requested retainage, Owner may continue to hold all retainage. If the Work is not on schedule when request for payment of retainage is submitted, Owner may continue to hold all retainage.
- PAYMENT TO SUBCONTRACTORS. Contractor shall pay its subcontractors within ten (10) calendar days of receipt of payment from Owner and shall not withhold payments to sub-contractors. Should this occur for any reason, Contractor shall immediately return such monies to Owner, adjusting pay requests and project bookkeeping as required.
- FINAL PAYMENT. Upon completion of all requirements for substantial completion and final completion, issuance of a Final Certification by Engineer/Architect, compliance with all project closeout requirements (S45 and S46), and submittal of all of the following items, Contractor may submit its final payment request. The final payment request shall include the following items:
 - 1. Final Certification by Engineer/Architect
 - Certified copy of punch list stating each item has been completed or otherwise resolved 2. and accepted.
 - Final Statement of Accounting reflecting: 3.
 - original contract price a.
 - each approved Change Order (with quantity and unit prices where applicable) b.
 - C. allowances, if applicable
 - d. deductions for uncorrected work
 - e. deductions for liquidated damages
 - f, deductions for re-inspection costs
 - deductions for re-testing costs due to failed tests a.
 - h. other adjustments
 - adjusted contract price ĺ.
 - payments made
 - any pending payment requests k.
 - sum remaining due to Contractor
 - Final Change Order, if applicable, reflecting approved adjustments to the Contract price 4. not previously made by Change Order.
 - 5. Consent of surety for final payment.

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- If no payment bond is recorded, Lienor's Affidavit from Contractor that all payrolls, bills for 6. material and equipment and other indebtedness connected with the Work have been paid
- If no payment bond is recorded, original releases of lien from Contractor and all 7. subcontractors
- Certificate of Insurance evidencing continuation of any liability coverage on claims made 8. basis, which shall remain effective for five (5) years after final payment.
- Written release of claims from any private property owner for use of private property for storage or staging.
- All pre-requisites for Substantial Completion and Final Completion have been met. The making and acceptance of the final payment shall constitute a waiver and release of all claims by Contractor, except those previously made in writing and still unsettled.

If Contractor fails to submit all documents required for final payment within one year after Final Certification any amounts owed as final payment shall be forfeited. Owner shall provide written notice to Contractor at least sixty days prior to forfeiture. Forfeiture will not apply to documents that are the subject of existing claims or pending

- FINAL PAYMENT TO SUBCONTRACTORS. Final payment may be made to certain select subcontractors whose work is satisfactorily completed prior to the total completion of the Project but only upon receipt of advance written consent of Surety, or applicable releases if no performance/payment bonds.
- 10.12 ALLOWANCES. Contractor shall include in the contract price all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct.
- 10.13 CONTINGENCY FUNDS. ALL CONTINGENCY SUMS ARE OWNER'S CONTINGENCY AND REMAIN THE PROPERTY OF OWNER UNTIL EXPENSE IS APPROVED. The contract price shall not include any contingency amounts. If the Contract or schedule of values includes an agreed sum as a contingency, such amount is identified solely for budget purposes and remains the Owners' funds. Owner may approve use of contingency funds only for the purpose of defraying the expenses due to unforeseen conditions, extra work, and circumstances relating to construction, unless otherwise agreed. Such contingency funds are not for use the by Contractor to cover short falls in Contractor's bid amount, and not for use by Owner to increase the scope of work. Contractor shall obtain prior written approval from Owner prior to the expenditure of contingency funds and Contractor will be required to furnish documentation evidencing expenditures charged to contingency and/or allowances prior to the release of such funds by Owner. All uncommitted contingency funds remain the funds of
- 10.14 WITHHELD PAYMENTS. Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate of payment to such extent as may be necessary to protect Owner if:
 - Defective work or material is not remedied.
 - Claims filed or reasonable evidence indicating public filing of claims by Owner or third parties b. against Contractor.
 - Failure of Contractor to make payments to sub-contractors or for material or labor. C.
 - d. Damage to another contractor.
 - Contractor is in default of any Contract condition, including schedule. e.
 - Contractor fails to submit information required by the Contract. f.
 - Contractor consistently fails to perform work in accordance with the Contract Documents. g.
 - Owner has reasonable doubt that Contract work can be completed within the schedule or for the h. balance of the Contract price which remains unpaid.
 - i. Contractors insurance coverage lapsed.
 - j. Owner has a right to claim liquidated damages.

When the above grounds are removed or Contractor provides a Surety or Performance Bond satisfactory to Owner, which will protect Owner in the amount withheld, payment shall be made for amounts withheld because of them.

10.15 LOCAL GOVERNMENT PROMPT PAYMENT ACT. Payments shall be made in accordance with the provisions of the Local Government Prompt Payment Act, F.S. 218.70 et seq. Interest, if any, shall accrue as

GC 11 BONDS

PERFORMANCE & PAYMENT BONDS (if required) 11.1

11.1.3 Public Construction Bond. In accordance with the provisions of F.S. 255.05, or if required by the Contract Documents, Contractor shall provide, on forms furnished by Owner, a public construction bond in an amount not less than the total contract price by a surety company acceptable to Owner. The Bond shall incorporate by reference the terms of the Contract Documents in its entirety. Moreover, Contractor agrees that the following language shall be expressly included within the language of its bond:

"The Surety expressly agrees to be bound by all terms and conditions related to liquidated, delay and time or impact-related damages. Surety shall be bound by the warranty or warranties contained in the contract documents and shall be responsible for any and all warranty obligations or damages as a result of latent defects or deficiencies in the work performed under the contract. The Surety waives all rights against Owner and its agents and employees for damages or other causes of loss by the Surety's performance of its obligations under this Bond, including claims by Surety against Owner for costs it asserts were not warranted by the contract documents, excluding only such rights as the Surety shall have to proceeds of such insurance held by Owner as

The bond shall also cover payments to all claimants, as defined in Section 255.05(1), Fla. Stat., supplying Contractor with labor, materials, or supplies, used directly or indirectly in the Work provided for in the Contract.

- 11.1.3 Performance & Payment Bond. Contractor shall provide, on forms furnished by Owner, a 100% Payment Bond in an amount not less than the total contract price covering payments to all claimants, as defined in Section 255.05(1), Fla. Stat., supplying Contractor with labor, materials, or supplies, used directly or indirectly in the Work provided for in the Contract, by a Surety Company acceptable to Owner
- 11.1.4 Recording of Bond. Within ten days of receipt of the fully executed contract, Contractor shall record its bond(s) in the public records of Palm Beach County and provide a certified copy of the recorded bond to Owner. Owner will not process payment requests unless Owner has received certified copy of recorded bond(s).

11.2 SURETY.

- 11.2.1 To be acceptable to Owner, a Surety Company shall comply with the following provisions:
 - (1) The surety company shall have a currently valid Certificate of Authority, issued by the State of Florida Department of Insurance, authorizing it to write surety bonds in the State of Florida.
 - (2) The surety company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.
 - (3) The surety company shall be in full compliance with the provisions of the Florida Insurance Code.
 - (4) The surety company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid/request for proposals is issued.
 - (5) The surety company shall have at least the ratings of A-/Class V.
 - (6) The surety company shall not expose itself to any loss on any one risk in an amount exceeding ten (10%) percent of its surplus to policyholders.
- 11.2.2 If at any time the Owner shall deem any of the sureties upon such bond(s) to be unsatisfactory, or if for any reason such bond shall cease to be adequate security for the Owner, Contractor shall, within (5) days ITB 14-15-134

after notice from Owner, furnish a new or additional bond in full sum as shall be satisfactory to Owner. No payments shall be due nor made to Contractor unless and until such new or additional bond shall be furnished and approved. The premium for such new or additional bond shall be paid by Contractor.

GC 12 LIENS AND RELEASES OF LIENS. (if no recorded payment bond)

- 12.1. Where performance/payment bonds have not been recorded by the Contractor, neither the final payment nor any part of the retainage shall become due until Contractor shall deliver to Owner complete releases of all claims or liens arising out of the Contract Documents, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the release and receipts include all the labor and materials for which a lien or claim could be filed. Contractor shall use Owner's forms for all releases of liens. All releases are required to have original signatures. All values on lien releases shall be consistent with the
- Contractor may, if any sub-contractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to Owner, to indemnify Owner against any claim or lien (in cases where such payment is not already guaranteed by Surety or Performance Bond), along with a consent of surety to such payment.
- In case of disputed indebtedness or liens, Contractor may submit in lieu of evidence of payment, a surety or public construction bond satisfactory to Owner guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by a surety or bond.
- If any claim or lien remains unsatisfied after all payments are made, Contractor shall refund to Owner all moneys that Owner may be compelled to pay in discharging such a lien, including all costs and reasonable

GC 13 INSURANCE; INDEMNIFICATION

13.1 INSURANCE.

- 13.1.1 All Insurance Policies shall be issued by companies that (a) are authorized to transact business in the State of Florida, (b) have agents upon whom service of process may be made in Palm Beach County, Florida, and (c) have a best's rating of A- VI or better.
 - 13.1.2 All insurance Policies shall be endorsed to provide that:
 - i. Contractor's Insurance is primary to any other Insurance available to the additional insured(s) with respect to claims covered under the policy and:
 - ii. Contractor's insurance applies separately to each insured against who claims are made or suit is brought and that the inclusion of more than one insured shall not operate to increase the insurer's limit of liability. Self- insurance shall not be acceptable.
- 13.1.3 Additional Insured. All required insurance (except Worker's Compensation and Professional Liability) shall include an Additional Insured endorsement identifying Owner (City of West Palm Beach) and the City Commission and its officers, agents, employees as additional insureds. Additional insureds are defended and indemnified for claims to the extent caused by the acts, actions, omissions or negligence of Contractor, its employees, agents, subcontractors, and representatives, but is not defended or indemnified for the additional insured's own acts, actions, omissions, negligence. No costs shall be paid by Owner for an additional insured endorsement.
 - 13.1.4 Required Coverage: Contractor shall maintain following liability coverage, in the limits specified:

COMMERCIAL GENERAL LIABILITY: Contractor shall carry Commercial General Liability Insurance for all operations including but not limited to Contractual, Products and Completed Operations and Personal Injury with limits of not less than Three Million Dollars (\$3,000,000) (aggregate) and Two Million Dollars (\$2,000,000) per occurrence combined single limit for bodily injury and property damage. The insurance policy must include coverage that is no more restrictive than the latest edition of the commercial general liability policy, without restrictive endorsements and the policy must include coverage for premises and/or operations, independent contractors, products and/or completed operations for contracts, contractual liability, broad form contractual coverage, broad form property damage, products, completed operations, and

personal injury. Personal injury coverage shall include coverage that has the employee and contractual

BUSINESS AUTOMOBILE LIABILITY INSURANCE: Contractor shall carry business automobile liability insurance with minimum limits of Two Million Dolars (\$2,000,000) per occurrence, combined single limits bodily injury liability and property damage. The policy must be no more restrictive than the latest edition of the business automobile liability policy without restrictive endorsements and must include owned vehicles and hired and non-owned vehicles.

WORKERS' COMPENSATION: Workers' Compensation and Employer's Liability Insurance with limits of Employer's Liability Insurance not less than \$1,000,000 "each accident," \$1,000,000 "disease policy limit," and \$1,000,000 "disease each employee."

UMBRELLA OR EXCESS LIABILITY INSURANCE: Contractor may satisfy the minimum liability limits required above under an Umbrella or Excess Liability policy. There is no minimum Per Occurrence limit of liability under the Umbrella or Excess Liability; however the Annual Aggregate limit shall not be less than the highest "Each Occurrence" limit for any of the policies noted above. Contractor agrees to name and endorse the City, and the City Commission and endorse the City, and the City Commission and their officers, agents, employees and City Commission members as additional insureds. Additional insured is defended and indemnified for claims to the extent caused by the acts, actions, omissions or negligence of Contractor, its employees, agents, subcontractors, and representatives; but is not defended or indemnified for the additional insured's own acts, actions, omissions, negligence.

BUILDERS RISK: Not less than the value of the Work under construction and facilities under the "custody and control" of Contractor.

POLLUTION: Not less than \$3,000,000 IF hazardous materials, including lead, asbestos, PCBs or other pollutants may be present.(If required)

Any other or special insurance requirements will be addressed in the Contract Documents.

- Certificate of Insurance. Contractor shall provide the City Risk Manager or the City Contract Manager with a copy of the Certificate of Insurance and endorsements evidencing the types of Insurance and coverage required by this article within three (3) calendar days of Contractor's receipt of Notice of Intent to Award the contract and, at any time thereafter, upon request by the City. It is the Contractor's responsibility to ensure that the Risk Manager and the Contract Manager both have a current Insurance Certificate and endorsements at all times.
- 13.1.6 Notice. Contractor's Insurance Policies shall be endorsed to provide The City with at least thirty (30) calendar days prior written notice of cancellation, non-renewal, restrictions, or reduction in coverage or limits. Notice shall be sent to:

City of West Palm Beach Attn: Purchasing Division 401 Clematis Street West Palm Beach, Florida 33401

13.1.7 Coverage Period.

- a. If Contractor's Insurance policy is a claims made policy, then Contractor shall maintain such Insurance Coverage for a period of five (5) years after the expiration or termination of the agreement or any extensions or renewals of the agreement. Applicable coverage may be met by keeping the policies in force, or by obtaining an extension of coverage commonly known as a reporting endorsement of tail coverage.
- b. In any of Contractor's Insurance policies includes a general aggregate limit and provides that claims investigation or legal defense costs are included in the general aggregate limit, the general aggregate limit that is required shall be no more than five (5) times the occurrence limits specified above in this article.
- 13.1.8 Renewal of Insurance: Contractor shall be responsible for assuring that the insurance certificate/ endorsements required in conjunction with this section remains in force for the duration of the ITB 14-15-134 61

contractual period. If the insurance certificate/endorsements are scheduled to expire during this period, Contractor shall be responsible for submitting a new or renewed insurance certificate/ endorsements to City at a minimum of thirty (30) calendar days in advance of such expiration. In the event that expired certificate/endorsements are not replaced with a new or renewed certificate which covers the contractual period, City shall suspend this Agreement until such time as the new or renewed certificate/endorsements are received by City.

- 13.1.9 Minimum Coverage: Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor of liability in excess of such coverage, nor shall it preclude City from taking such other actions as is available to him under any other provisions of this Agreement or otherwise in law or equity.
- 13.1.10 Subcontractors. Contractor shall be entirely responsible for securing Certificates of Insurance coverage as set forth above from all subcontractors who are engaged in the Work.
- 13.1.11 The provisions of this General Condition shall survive the expiration or termination of the Contract.

13.2 INDEMNIFICATION.

Contractor shall indemnify and hold harmless the Owner, its commissioners, officers, employees and agents, from and against any and all claims, obligations, liability, expenses, losses and causes of action, including attorneys' fees and costs, to the extent the same are caused by: (i) an act, negligence, recklessness or intentional wrongful misconduct of Contractor or its subcontractors, or the commissioners, officers, employees or agents of either, while engaged in or about the performance of the Work; or while in or about the project site or premises; or (ii) arising from accident or any injury to Contractor or its subcontractors while engaged in or about the performance of the Work, or while in or about the project site or premises, not caused by act of Owner, Owner's agents, servants, or other contractors of Owner; or (iii) arising out of the violation of federal, state, county or municipal laws, ordinances or regulations by Contractor or its subcontractor; or (iv) arising from liens or claims for services rendered for labor or materials furnished in or for the performance of the Work. The extent of Contractor's indemnification shall be limited to one and one-half times the contract price or \$1 million per occurrence, whichever is greater. This paragraph shall not be construed to require Contractor to indemnify Owner for Owner's own negligence, or intentional acts of the Owner, its agents or employees. Nothing in this paragraph shall be construed as a contractual waiver by Owner of the limits of sovereign immunity under Sec 768.28, Florida Statutes. This paragraph shall survive the expiration or termination of the Contract. (725.06 F.S. and 768.28 F.S.)

GC 14 SUBCONTRACTORS AND SUPPLIERS

- LIST OF SUBCONTRACTORS AND SUPPLIERS. Unless otherwise required to be specified in Contractor's Bid, within ten (10) days after the date of the Owner's issuance of a Notice to Proceed, the Contractor shall furnish to the Owner in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) whom the Contractor will engage as sub-contractors or suppliers for the project. The Contractor shall not change such sub-contractors or suppliers without written notice to Owner, and shall not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection in writing, after such notice. The Contractor understands and agrees that the Contractor alone is responsible to the Owner for all of the Work under the Contract and that any review of subcontractors, sub-subcontractors or suppliers by the Owner or Engineer/Architect will not in any way make the Owner responsible to any subcontractor or sub-subcontractor or suppliers.
- WRITTEN SUBCONTRACTS. By appropriate written agreement, the Contractor shall require each subcontractor, to the extent of the work to be performed by the subcontractor, to be bound to the Contractor by terms of the Contract and Contract Documents, including but not limited to the insurance requirements for workers' compensation and general liability coverage. The Owner shall be named as an intended Third Party Beneficiary in all subcontractor agreements provided such naming shall not create privity of contract between Owner and subcontractor. Each subcontract agreement shall preserve and protect the rights of the Owner under the Contract Documents with respect to the work to be performed by the subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with sub-subcontractors. The Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the subcontractor will be bound, and, upon written request of the subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement

which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed sub-subcontractors. Contractor shall include in all subcontracts a provision requiring the subcontractor to consent to an assignment of the subcontract to the Owner. Contractor shall, upon request, provide copies of all subcontracts to Owner.

REQUIRED WAIVER. All subcontracts shall provide the following exact language: 14.3

> "Sub-contractor "expressly waives any claims for damages which it may suffer by reason of delay caused by events beyond its' control, including delays claimed to be caused by the Owner or its Engineer/Architect and agrees that its exclusive remedy shall be an extension of its contract time."

- CONTINGENT ASSIGNMENT OF SUBCONTRACTS. Each subcontract agreement is assigned by the Contractor to the Owner, provided that the assignment is effective only after termination of the Contract by Owner for cause and only for those subcontract agreements that the Owner accepts by giving notice to the subcontractor and Contractor in writing; and subject to the prior right of the surety, if any.
- DISPUTES. Any disputes which may arise between the Contractor and any subcontractor must be resolved between the parties concerned. The Owner will not undertake nor be in any way responsible for the resolution of such disputes between Contractor and its subcontractors.

GC 15 ENGINEER / ARCHIECT'S STATUS.

- Engineer/Architect will provide observation of the Contractor's activities and progress of the Work. The Engineer/Architect will make inspections of all construction, draft change orders, and verify and certify partial and/or final payments due to the Contractor, as provided in the Contract Documents. The Engineer/Architect may, during the life of the Contract issue additional instructions, by means of drawings, minor change orders or otherwise, necessary to illustrate changes in the Work.
- Engineer/Architect will review and take appropriate action regarding Contractor's submittals such as shop drawings and samples, but only for the limited purpose of checking for conformance with the Contract Documents. Review of such submittal is not conducted for the purpose of determining the accuracy and completeness of other details, such a dimensions and quantities of for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor pursuant to the Contract Documents. Engineer/Architect's review does not relieve Contractor of its obligations under the Contract Documents. Engineer/Architect's review does not constitute approval of, and Engineer/Architect shall not give directions regarding, any construction means, methods, techniques, sequences, procedures, assembly or safety precautions.
- Engineer/Architect shall have authority to stop the Work whenever such stoppage may be necessary to insure the proper execution of the Contract or to protect the public and/or property. Engineer/Architect shall also have authority to reject all work, materials and equipment which do not conform to the Contract Documents and to decide questions raised by Contractor which arise in the execution of the Work.
- Owner retains the sole authority to modify or extend the authority of the Engineer/Architect. 15,4
- Engineer/Architect will make decisions in writing on all claims of the Contractor, and on all other matters relating to the execution and progress of the Work or the interpretation of the Contract Documents. All such decisions of the Engineer/Architect shall be final.

GC 16 TERMINIATION OR SUSPENSION

- 16.1 OWNER'S RIGHT TO TERMINATE FOR CAUSE.
 - 16.1.1 Owner may terminate the Contract for cause if Contractor:
 - Fails to supply enough properly skilled workers or proper materials;
 - В. Fails to cure deficiencies after notice as provided in the Contract Documents;
 - Fails, except in cases for which extension of time is provided, to maintain an established C. schedule thirty (30) calendar days behind a critical path activity),
 - Fails to make prompt payments to subcontractors or for material, equipment or labor;

- E. Repeatedly disregards applicable laws, codes, ordinances, regulations or permit requirements;
 - F. Fails to perform the Work consistent with the requirements of the Contract Documents;
- G. Materially fails to comply with substantial and final completion dates as required in the Contract Documents;
 - H. Abandons or refuses to perform any portion of the Work;
 - Is otherwise in substantial breach of the Contract Documents;
- J. Files a bankruptcy petition or has a bankruptcy action commenced against it that is not discharged within thirty (30) calendar days, or make an assignment for the benefit of its creditors, or has a receiver appointed to manage Contractor's assets, or is otherwise becoming insolvent.
- 16.1.2 When any of the above reasons exist, Owner may, without prejudice to any other right or remedy, and after giving Contractor and its Surety seven (7) calendar days written notice, terminate the employment of Contractor and, subject to any prior right of the surety:
- (i) Exclude the Contractor from the site and take possession of the premises and of all materials, equipment, tools and appliances thereon owned by Contractor:
 - (ii) Accept assignment of subcontract pursuant to GC 13.2 and
 - (iii) Finish the Work by whatever reasonable means Owner deems expedient.
- 16.1.3 When Owner terminates for cause, Contractor shall not be relieved from any of its obligations under the Contract Documents, and shall not be entitled to receive any further payment until Owner's costs to complete the Work is determined. In no event shall Contractor receive any payment for Work finished by Owner.
- 16.1.4 Owner shall determine its costs incurred in completing the Work, including fees and charges to contractors, fees of Engineer/Architect, attorney and other professional fees, court costs and other damages incurred by Owner. Owner shall not be required to obtain the lowest price for the work to be performed, but the costs paid by Owner must be reasonable. If the unpaid balance of the contract price shall exceed the Owner's costs to finish the Work, the excess shall be paid to Contractor. If Owner's costs exceed the unpaid balance, Contractor shall pay the difference to Owner. This obligation for payment shall survive termination of the Contract and final payment.
- 16.1.5 Those Contract provisions which by their nature survive final acceptance shall remain in full force and effect
- 16.1.6 If Contractor's surety is directed or agrees to complete the Work, then all payments due after termination shall be made to the surety until the Work is complete and/or the Contract price has been expended. The surety shall then be responsible for all of the obligations and duties of Contractor under the Contract Documents and shall be bound by the conditions of the Contract Documents, this Contract and the Bond to fulfill all obligations of the Contract Documents for the contract price in effect as of termination. The surety may not assign those obligations without the written consent of Owner. The surety shall be responsible for the payment of all costs relating to the termination of the employment of Contractor. Contractor and its surety shall be jointly and severally liable for all costs in excess of the contract price for completion of the Work and for liquidated damages.
- 16.1.7 If, upon termination for cause it is determined that Contractor was not in default, the rights and obligations of the parties shall be as if the notice of termination has been issued for Owner's convenience.

16.2 SUSPENSION OR TERMINATION BY OWNER FOR CONVENIENCE.

- 16.2.1 <u>Suspension for Owner's Convenience.</u> Owner may, at any time, without cause, order Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as Owner may determine, for Owner's convenience. If Owner orders a suspension, the contract price and contract time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption. No adjustment shall be made to the extent that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or that an equitable adjustment is made or denied under another provision of the Contract.
- 16.2.2 <u>Termination by Owner for Convenience</u>. Owner may, at any time, without cause, order terminate all or a portion of the Contract for Owner's convenience. Upon such termination, the contract price earned to the date of termination shall be paid to Contractor, but Contractor waives any claim for damages, including loss of profits arising out of or related to the early termination. Contractor may not recover overhead or profit for work not

performed. Those Contract provisions which by their nature survive final payment shall remain in full force and effect.

- 16.3 <u>CONTRACTOR OBLIGATIONS UPON TERMINATION</u>. Upon receipt of written notice from Owner of termination, Contractor shall: (i) cease operations as directed by Owner in the notice; (ii) take actions necessary, or that Owner may direct for the protection and preservation of the Work; (iii) except for Work directed to be performed prior to the effective date of termination stated in the notice, and if directed by Owner, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders; and (iv) turn over all marked up Construction Drawings and record set documents showing progress to date. Owner may assume and become liable at is sole discretion for obligations, commitments and unsettled contractual claims that Contractor has previously undertaken or incurred in good faith in connection with said project. Owner shall reimburse Contractor for any unpaid and earned cost of the project as of the date of termination, less damages or setoffs applicable under the Contract Documents. Contractor shall, as a condition of receiving the payments referred to herein, execute and deliver all such papers and take all such steps including the legal assignment of his contractual rights, as Owner may require for the purpose of fully vesting in him the rights and benefits of Contractor under such obligations or commitments.
- 16.4 <u>TERMINATION BY CONTRACTOR</u>. The Contractor may terminate this Contract if the Work is stopped for a period exceeding 30 consecutive days, through no fault of act of Contractor or subcontractor or their suppliers or other person or entities performing Work under direct or indirect contract with Contractor, if order of a court or other pubic authority having jurisdiction requires all Work to be stopped; or an act of government, such as declaration of emergency, requires all Work to be stopped.

GC 17 UNEXCUSED DELAY; LIQUIDATED DAMAGES

- LIQUIDATED DAMAGES. If the actual completion date for substantial completion or final completion occurs later than the time indicated in the Contract Documents or later than the scheduled completion date if a duly authorized change order for time is issued, liquidated damages in the amount(s) set forth in the Contract Documents shall be paid by Contractor for unexcused delay in performance of the Work. The reasonableness of the amount is agreed. No liquidated damages shall be charged for periods of authorized delay or suspension. Contractor agrees that Owner's actual damages in the event of unexcused delay are difficult to ascertain and therefore the parties agree that the sums established in the Contract Documents are reasonably related to what damages Owner may suffer and are enforceable liquidated damages and not penalties. Notwithstanding the above, Contractor agrees that liquidated damages do not include additional costs invoiced by Engineer/Architect to Owner for extended professional services arising out of an unexcused delay, and Contractor agrees to reimburse Owner for such actual costs incurred in addition to payment by Contractor of any liquidated damages. Owner is entitled to deduct any liquidated damages to which Owner is entitled from the final payment to Contractor. If the amount of liquidated damages due to Owner exceeds the final payment amount, Contractor shall pay the difference to Owner. This obligation for payment shall survive termination of the Contract and final payment. Owner does not waive any rights or other remedies under the Contract by the collection of liquidated damages. Liquidated damages will continue to be charged to the contract in the event of Contractor's default and continuation of the Work by Owner or surety. Owner may waive any portion or all of its claim for liquidated damages upon completion of the Work.
- 17.2 NO DAMAGES FOR DELAY. Contractor expressly agrees that a Change Order for an extension of the project completion date and substantial completion date constitutes its sole and exclusive remedies for efficiency or other related time or impact-based claims (hereinafter collectively "delay") or for delay attributable to any foreseen or unforeseen condition, or for delays claimed to be the result of active, intentional, knowing or passive interference by Owner, Engineer/Architect, or agents of either, and Contractor waives claims for any and all damages which it may suffer by reason of such claims, including but not limited to, lost profits, loss or impairment of bonding capacity, destruction of business, overhead, remobilization or demobilization costs, subcontractor delay claims, supervision, extended unabsorbed home office overhead, increase insurance costs, lost profits on alternate or unperformed contracts. Contractor hereby affirms that an extension of time is Contractor's sole and exclusive remedy. Apart from extension of time, no payment of claim for damages shall be made to Contractor as compensation for damages for any delays in the Work, whether such delay be avoidable or unavoidable.

GC 18 CLAIMS AND DISPUTES

18.1 <u>NOTICE OF CLAIMS OR DISPUTE</u>. Claims or disputes by the Contractor must be initiated by written notice to Owner with a copy sent to Engineer/Architect. Unless otherwise specifically provided by law, claims ITB 14-15-134

must be initiated within twenty-one (21) calendar days after occurrence of the event giving rise to such claim or within twenty-one (21) calendar days after the Contractor first recognizes the condition giving rise to the claim, whichever is later.

- 18.2 <u>CONTINUING PERFORMANCE</u>. In the event of any claim or dispute, Contractor shall continue to diligently make progress on all Work, unless otherwise directed by Owner, and Owner shall continue to make payments in accordance with the Contract Documents. If the dispute regards payment or money, Contractor shall be obligated to proceed with all Work without waiving its claims under dispute.
- 18.3 <u>DECISIONS ON CLAIMS</u>. Engineer/Architect will make decisions in writing on all claims of the Contractor regarding performance under and requirements of the Contract Documents, and on all other matters relating to the execution and progress of the Work or the interpretation of the Contract Documents. The Engineer/Architect will review the claim and within fifteen (15) calendar days of receipt of the claim (or receipt of additional supporting information or data), take one or more of the following actions:(1) request additional information or supporting data from either party; (2) approve the claim; (3) reject the claim in whole or in part; (4) suggest a compromise; or (5) advise the parties that the Engineer/Architect is unable to resolve the claim if the Engineer/Architect lacks sufficient information to evaluate the claim, or if the Engineer/Architect concludes that it would be inappropriate for the Engineer/Architect to resolve the claim. If the Engineer/Architect requests a party to supply additional information, such party shall respond and provide any requested information within ten (10) calendar days. The Engineer/Architect's written decision shall notify the parties of any change in the Contract Time or Contract Price or both. All such decisions of the Engineer/Architect shall be final and binding, but subject to mediation.
- 18.4 <u>DECISIONS ON AESTHETICS</u>. The Engineer/Architect's decision on matters relating aesthetic effect will be final if consistent with the intent of the Contract Documents and may not be appealed, mediated or litigated.
- 18.5 <u>PAYMENT DISPUTES</u>. With respect to disputes regarding payment requests, Owner shall review the payment application with Engineer/Architect and provide an opportunity for Contractor to state its claim within forty-five (45) calendar days after the date the rejected payment request was last received by Engineer/Architect. The final decision of Owner shall be approved by the City Administrator and made within sixty (60) calendar days after the date the rejected payment request was last received by Engineer/Architect.
- 18.6 <u>SUBCONTRACTOR DISPUTES</u>. Any disputes which may arise between the Contractor and any subcontractor must be resolved between the parties concerned. The Owner will not undertake nor be in any way responsible for the resolution of such disputes between Contractor and its subcontractors.
- 18.7 <u>MEDIATION</u>. Notwithstanding any other provision, the parties agree that any unresolved dispute or claim, shall be mediated. Any claim for mediation shall be made in writing within fifteen (15) calendar days of Engineer/Architect's written decision on the matter, or shall be waived. The Engineer/Architect shall serve as the mediator; however, with respect to disputes regarding the Work, the punch list or any other requirement for final completion, if the Engineer/Architect is an employee of Owner, the parties may mutually agree to have an independent professional engineer or professional construction mediator serve as the mediator. Notwithstanding, an initial decision by the Engineer/architect shall be required as a condition precedent to mediation. The Owner and Contractor shall share the mediator's fee and any filing fees equally. The mediation shall be held in Palm Beach County. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.
- 18.8 <u>WAIVER OF ARBITRATION</u>. Owner and Contractor agree and expressly waive any and all provisions regarding arbitration, including any and all provisions regarding arbitration as a condition precedent to litigation contained elsewhere in any Contract Documents.
- 18.9 <u>LEGAL REMEDIES</u>. Owner and Contractor may exercise those legal remedies in the District Court for Palm Beach County, Florida, as may be available to them with respect to any dispute arising out of the Contract Documents for which the Engineer/Architect's decision is not final and a dispute resolution process is not otherwise described in the Contract Documents and which Owner and Contractor are unable to resolve through change order or mediation.
- 18.10 <u>Governing Law; Jurisdiction; Venue; Litigation.</u> The Contract Documents shall be construed and interpreted, and the rights of the parties hereto determined, in accordance with Florida law without regard to conflicts of law provisions. Contractor and Owner submit to the jurisdiction of Florida courts and federal courts ITB 14-15-134

located in Florida. The parties agree that proper venue for any suit concerning this Agreement shall be Palm Beach County, Florida, or the Federal Southern District of Florida. Contractor agrees to waive all defenses to any suit filed in Florida based upon improper venue or forum nonconveniens. To encourage prompt and equitable RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

- GC 19 WARRANTY INSPECTION. Prior to expiration of the warranty period(s), Contractor shall conduct, at its expense, with Owner and Engineer/Architect, a warranty inspection. Additionally, upon receipt of notice from Owner of failure of any part of the guaranteed Work, equipment or materials during the guarantee period, the defective Work, equipment parts or materials shall be replaced promptly with new equipment parts (or new equipment) and materials by Contractor, at no expense to Owner. This provision shall survive expiration or termination of the Contract.
- GC 20 ROYALTIES AND PATENTS. Contractor shall pay for all royalties and license fees. Contractor indemnifies and shall defend and hold Owner and Engineer/Architect harmless from and against all claims, obligations, losses, costs, damages and expenses, including attorney fees in connection with any claims or actions based upon infringement of any patent arising out of the use of any materials or equipment or processes furnished or employed by Contractor under the Contract, unless a particular design, process or product of a particular manufacturer is required by the Contract Documents or where copyright violations are contained in the Construction Drawings or specifications prepared by the Engineer/Architect or Owner. If Contractor has reason to believe any required design, process or product is an infringement of a copyright or patent, Contractor shall immediately provide notice to Engineer/Architect.

GC 21 LEGAL AND ETHICAL PROVISIONS

- 21.1 <u>NO VERBAL AGREEMENTS.</u> No verbal agreement or conversation with any officer, agent or employee of Owner either before or after execution of the Contract shall affect or modify any of the terms or obligations contained in any of the documents comprising said Contract. All Contract amendments or Change Orders shall be written and executed by both Owner and Contractor.
- 21.2 <u>COMPLIANCE WITH LAWS</u>. Contractor shall comply with all applicable City, State and Federal laws relating to the provision of services under this Contract, now or hereafter in effect. Contractor shall comply with all applicable City, State and Federal laws relating to wages, hours, and all other applicable laws relating to the employment or protection of employees, now or hereafter in effect. It shall not be grounds for a change order that Contractor failed to investigate the codes and regulations of all applicable government agencies with jurisdiction over the Work.
- 21.3 <u>SMALL BUSINESS REQUIREMENTS.</u> Contractor shall comply with the City of West Palm Beach's Small Business Ordinance set forth in Chapter 66 of the City Code, which is incorporated herein by reference. Contractor shall comply with the small business commitment contained in Contractor's Bid, or as approved by the Procurement Division. Contractor shall maintain all relevant records and information necessary to document compliance with the Small Business Ordinance and shall allow the Owner to inspect and audit such records.

21.4. ETHICS; CONFLICTS OF INTEREST

- a. Contractor represents that it has not given or accepted a kickback in relation to the Contract and has not solicited the Contract by payment or acceptance of a gratuity or offer of employment.
- b. Contractor represents that it has not solicited the Contract by payment of a gift or gratuity or offer of employment to any official, employee of the City or any City agency or selection committee.
- c Contractor represents that it does not employ, directly or indirectly, the mayor, members of the city commission or any official, department director, head of any City agency, or member of any board, committee or agency of the City.
- d Contractor represents that it has not knowingly given, directly or indirectly, any gift with a value greater than \$100 in the aggregate in any calendar year to the mayor, members of the city commission, any department director or head of any city agency, any employee of the city or any city agency, or any member of a board that provides regulation, oversight, management or policy-setting recommendations regarding the Contractor or its business.

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- e. Contractor represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with its performance under the Contract.
- f In the event Contractor is permitted to utilize subcontractors to perform any work under the Contract, Contractor agrees to prohibit such subcontractors, by written contract, from having any conflicts as within the meaning of this condition.
- 21.5. <u>LOBBYING CERTIFICATION</u>. Contractor certifies to the best of its knowledge and belief that no funds or other resources received from the state in connection with the Contract will be used directly or indirectly to influence legislation or any other official action by the Florida Legislature or any state agency.
- 21.6 <u>NON-COLLUSION</u>. Contractor certifies that it has not entered into any agreement to commit a fraudulent, deceitful, unlawful or wrongful act, or any act which may result in an unfair advantage over other bidders or contractors. (F.S. 838.22).
- 21.7 <u>PUBLIC ENTITY CRIMES</u>. By executing a Contract with Owner, Contractor certifies that Contractor, its affiliates, suppliers, subcontractors and consultants who will perform under the Contract have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date of the Invitation to Bid and that execution of the Contract will not violate the Public Entities Crimes Act (Sec. 287.133, Florida Statutes. Violation of this section may result in termination of this Agreement and recovery of all monies paid hereto, and may result in debarment from City's competitive procurement activities.
- 21.8 <u>SCRUTINIZED COMPANIES</u>. For Contracts over \$1 million, in accordance with Sec. 215.473 Fla. Stat., Contractor certifies that at the time of bid or contract, Contractor is not a Scrutinized Company on the Contractors with Activities in Sudan List or the Activities in the Iran Petroleum Energy Sector List and does not engage in business operations in Cuba or Syria. Violation of this section may result in termination of this Agreement and recovery of all monies paid hereto, and may result in debarment from City's competitive procurement activities.
- 21.9 <u>UNAUTHORIZED ALIENS/PATRIOT'S ACT.</u> The knowing employment by Contractor or its subcontractors of any alien not authorized to work by the immigration laws or the Attorney General of the United States is prohibited and shall be a default of the Contract. Contractor shall take all commercially reasonable precautions to ensure that it and its sub-contactors do not employ persons who are not authorized to work by the immigration laws or the Attorney General of the United States. Contractor further represents that it is not in violation of any laws relating to terrorism or money laundering, including Executive Order No. 13224 on Terrorist Financing and relating to Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism (the "Executive Order") and/or the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, as amended and reinstated (the "Patriot Act"). Contractor represents it is not a Prohibited Person under the Executive Order or Patriot Act.
- 21.10. <u>NON-DISCRIMINATION</u>. In performing under the Contract, Contractor shall not discriminate against any person because of race, color, religion, sex, gender identity or expression, genetic information, national origin, age, disability, familial status, marital status or sexual orientation.
- 21.11 <u>APPRENTICES</u>. If Contractor employs apprentices on the project, the behavior of Contractor and Owner shall be governed by the provisions of Chapter 446, Florida Statutes, and by applicable standards and policies governing apprentice programs and agreements established by the Division of Labor of the State of Florida Department of Labor and Employment Security. Contractor will include a provision similar to the foregoing sentence in each subcontract.
- 21.12 <u>AVAILABILITY OF FUNDS</u>. The Contract is expressly conditioned upon the availability of funds lawfully appropriated and available for the purposes set out herein as determined in the sole discretion of the Owner. If funding for the Contract is in multiple fiscal years, funds must be appropriated each year prior to costs being incurred. Nothing in this paragraph shall prevent the making of contracts with a term of more than one year, but any contract so made shall be executory only for the value of the work or services to be rendered or paid for in succeeding fiscal years. In the event funds to finance the Contract become unavailable, Owner may terminate the Contract upon no less than twenty-four (24) hours notice to Contractor. The Owner shall be the sole and final authority as to the availability of funds.
- 21.13 <u>RIGHT TO AUDIT</u>. Contractor shall maintain adequate records of the services for at least five (5) years ITB 14-15-134

from project occupancy. Owner, during Contractor's business hours and with at least 24 hours prior notice to Contractor, shall have the right to audit Contractor's books and records, at Owner's expense, with regard to the accounts and services provided to or on behalf of Owner under this Contract to ensure that all aspects of the Contract are being met. Contractor shall allow the Owner or its representative to interview all current or former employees to discuss matters pertinent to the Contract. If an audit inspection in accordance with this condition discloses overpricing or overcharges (of any nature) by Contractor to Owner in excess of one-half of one percent (.5%) of the total contract billings, (1) the reasonable costs of the City's Internal Audit department shall be reimbursed to the City by the Contractor and (2) a 15% penalty of the overpricing or overcharges shall be assessed. Any adjustments and/or payments which must be made as a result of the audit inspection, including any interest, audit costs and penalties shall be made by the Contractor within 45 days from presentation of City's findings to Contractor. Failure by Contractor to permit such audit shall be cause for termination of this Contract by Owner. In addition to the foregoing, Contractor consents to the Owner requesting from the insurance carriers confirmation of all fees paid to Contractor arising out or related to the City's insurance coverages during the term of the Contract.

- 21.14 <u>INSPECTOR GENERAL</u>. Contractor is aware that the Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of the Contract, and may demand and obtain records and testimony from the Contractor and its subcontractors and lower tier subcontractors. Contractor understands and agrees that in addition to all other remedies and consequences provided by law, the failure of Contractor or its subcontractor or lower tier subcontractors to fully cooperate with the Inspector General when requested may be deemed by the Owner to be a material breach of the Contract justifying its termination.
- 21.15 <u>INDEPENDENT CONTRACTOR</u>. Contractor represents that it is properly experienced, licensed, equipped and financed to perform the work. Contractor acknowledges and agrees that it is an independent contractor of Owner and is not an employee of Owner and shall maintain control over its employees, subcontractors and work methods. Contractor more specifically acknowledges that it: will not be eligible to participate in any employee benefit maintained by Owner; will not be covered by Owner's workers' compensation insurance; and will be solely and exclusively responsible for payment of all federal and state income, social security, unemployment and disability taxes due in respect of all compensation and/or other consideration paid by Owner to Contractor under the Contract.
- 21.16 <u>LIENS</u>. Contractor acknowledges that no liens may attach to the subject improvements and property as a public project. Nevertheless, Contractor agrees to keep the project, the buildings thereon and the property free of liens for or on account of any work done or materials furnished under the Contract. In the event any such lien is filed, Contractor shall, within five (5) days after written notice by Owner, discharge the lien(s) or cause a satisfaction of such lien(s) to be recorded in the Public Records of Palm Beach County, Florida, or post a bond sufficient to release the lien(s) and cause the Clerk of the Circuit Court of Palm Beach County to discharge such lien, as may be appropriate. In the event Contractor fails to so discharge or bond the lien(s), Owner shall have the right, but not the obligation, to discharge or bond the lien(s) and shall have the right to retain out of any payment then due or thereafter to become due to the Contractor, monies sufficient to discharge the amount of such lien(s) and Owner's costs and reasonable attorneys' fees incurred.
- 21.17 <u>LITIGATION</u>. In the event suit is filed to construe or enforce this Agreement, each party in such suit shall bear its own costs and expenses incurred in connection therewith, including, but not limited to, attorneys' fees and costs through trial and appeal. To encourage prompt and equitable resolution of any LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THIS CONTRACT.

GC 22 MISCELLANEOUS

22.1 <u>NOTICES</u>. All written notices and other communications required or provided for under this Contract shall be sent by certified mail, return receipt requested, postage prepaid, in the case of mailing, or by overnight or same day courier, or hand delivered to the following address and person bearing the following title for each party hereto or such other addressee or person as shall be designated by a party in a written notice given in the manner required hereby:

ITB 14-15-134 69

to Owner:

City of West Palm Beach

Attn.: Director of Engineering & Public Works

P.O. Box 3366

(401 Clematis Street (33401)) West Palm Beach, FL 33402-3366

to Contractor:

[to Contractor at the address listed on the first page of this Contract to the attention of the Project Manager]

- 22.2 <u>PUBLIC RECORDS</u>. Contractor shall comply with Chapter 119, Florida Statutes, regarding access to public records. Failure of compliance may be cause for termination by Owner.
- 22.3 <u>SPECIFIC WAIVER</u>. Any waiver issued by Owner of any provision of the Contract Documents shall only be effective if issued in writing by Owner and shall be specific, shall apply only to the particular matter concerned, and shall not apply to other similar or dissimilar matters. Either party's failure to enforce strict performance of any covenant, term, condition, promise, agreement or undertaking set forth in the Contract shall not be construed as a waiver or relinquishment of any other covenant, term, condition, promise, agreement or undertaking set forth herein, or waiver or relinquishment of the same covenant, term, condition, promise, agreement or undertaking at any time in the future.
- 22.4 <u>HEADINGS; INDEX.</u> The headings and the table of contents or index contained in these General Conditions are provided for convenience only.
- 22.5 <u>INTEGRATION</u>. The Contract constitutes the entire agreement between Contractor and Owner and supersedes all prior verbal and written agreements, understandings, negotiations and discussions between the parties hereto. The Invitation to Bid and its terms and conditions are incorporated herein and made a part of this Contract. No verbal agreement or conversation with any officer, agent or employee of Owner either before or after execution of the Contract shall affect or modify any of the terms or obligations contained in any of the documents comprising said Contract.
- 22.6 <u>SEVERABILITY</u>. The invalidity, illegality or unenforceability of any provision of the Contract shall not affect the validity, legality or enforceability or any other provision of the Contract and the Contract shall be construed and enforced in all respects as if the invalid, illegal or unenforceable provision is not contained herein.
- 22.7 <u>ASSIGNMENT</u>. Contractor shall not assign the Contract as a whole or in part without the written consent of Owner, nor shall Contractor assign any monies due or to become due to it hereunder without the previous written consent of Owner and its surety. Assigning the Contract shall not relieve Contractor or his surety from any contract obligations.

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CITY OF WEST PALM BEACH, FLORIDA



TECHNICAL SPECIFICATIONS AND DRAWINGS

ITB No. 14-15-134

GENERAL ROADWAY AND MISCELLANEOUS CONSTRUCTION

CITY OF WEST PALM BEACH, FLORIDA PROJECT NAME: GENERAL ROADWAY AND MISCELLANELOUS CONSTRUCTION

TECHNICAL SPECIFICATIONS INDEX

SECTION 01010	SUMMARY OF WORK
SECTION 01025	MEASUREMENT AND PAYMENT
SECTION 01040	PROJECT COORDINATION
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SECTION 01090	REFERENCE STANDARDS
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SECTION 02514	FULL DEPTH RECLAMATION WITH ASPHALT EMULSION
SECTION 02514A	MILLING EXISTING ASPHALTIC PAVEMENT
SECTION 02527	CURB AND GUTTERS, SIDEWALK AND DRIVEWAY APRONS
SECTION 02618	PAVEMENT MARKING - THERMOPLASTIC

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION OF WORK:

All of the work is located in the City of West Palm Beach, Palm Beach County, Florida, as shown of the Project Drawings.

1.02 PROJECT DESCRIPTION

- A. The Contractor shall furnish all labor, materials, equipment, tools, services and incidentals to complete all work required by these specifications. This Work entails the
- B. The Contractor shall perform the work complete, in place, perform tests where applicable and ready for continuous services and shall include repairs, replacements and restoration required as a result of damages caused during this construction.
- C. The Contractor shall furnish and install all materials, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the Work, whether specifically indicated in the Contract Documents or not.

1.03 REFERENCES:

- A. Whenever reference is made to the furnishing of materials or testing thereof to conform to the standards of any technical society, organization or body, it shall be construed to mean the latest standard, code, specifications or tentative specifications adopted and published at the date of advertisement for bids, even though reference has been made to an earlier standard. The following list of specifications is hereby made a part of the Contract, the same as if herein repeated in full. In the event of any conflict between any of these specifications, standards, codes or tentative specifications and the specifications, the latter shall govern. In the event that one of the following conflict with another, the decision as to which shall govern will be decided by the Engineer-of-Record, whose judgement will be final.
- B. When no reference is made to a code, standard, or specification, the standard specifications of ASTM (American Society of Testing Materials), the ANSI (American National Standard Institute), the ASME (American Society of Mechanical Engineers), the IEEE (Institute of Electrical and Electronics Engineers, Inc.), or the NEMA (National Electrical Manufacturers Association) shall govern.

END OF SECTION

SECTION 01014

CONSTRUCTION SEQUENCE

PART 1 - GENERAL

1.01 SITE CONDITIONS

- A. Several areas of construction under this contract must be coordinated with the Plant Operating Personnel and accomplished in a logical order and to allow construction to be completed within the time allowed by the Contract Documents. CONTRACTOR will also coordinate his activities with the other contractors, if any, to allow orderly and timely completion of all the work.
- B. When access through construction areas must be disrupted, CONTRACTOR will provide alternate acceptable access for the plant operators or other contractors.
- C. CONTRACTOR is required to coordinate his activities in the interface or common areas with other contractors and the plant operators. CONTRACTOR must submit to the ENGINEER a description and schedule as to how the common areas will be utilized, recognizing the required coordination with other contractors and the plant operators.
- D. Some aspects of the work may depend on the closure of various valves and gates. Many of these valves and gates are old and may not seal properly. CONTRACTOR will coordinate with the Plant Operation Personnel prior to attempting any such closure and will provide any corrective measure or temporary facilities necessary to attain the shut-off needed to perform the work.
- E. Various interconnections within the plant may require temporary partial power shutdown. CONTRACTOR will make every effort necessary to minimize the shutdown time and will coordinate with the Plant Operating Personnel and/or utility authorities prior to attempting any such power shutdown. Furthermore, CONTRACTOR will provide any corrective measure or temporary facilities necessary to perform the work at no additional cost to the OWNER and without interrupting the plant operation. CONTRACTOR shall submit a detailed outage plan to be reviewed by the ENGINEER and OWNER.
- F. When the work requires an existing facility to be taken out of operation, temporarily or permanently, CONTRACTOR shall notify the ENGINEER and plant operators one week in advance, in writing, and shall submit a plan outlining the construction sequence, facility down-time requirements, proposed alternate facility operation methods, if applicable, and contingencies in the event of emergency conditions.
- G. During Start-Up Testing, CONTRACTOR should make available the manpower, equipment, and MANUFACTURER'S representatives required to make any necessary adjustments and training.

1.02 CONSTRUCTION CONSTRAINTS

- A. The following is a list of constraints which CONTRACTOR should consider in developing his overall plan of construction. This list is not intended to release CONTRACTOR from the responsibility to coordinate the work in any manner which will ensure project completion within the time allowed. The following areas are not necessarily listed in their required sequence of construction. A suggested sequence within each area, where necessary, is included.
 - All work shall be conducted in a manner such that plant operations are minimally interrupted. All
 areas of work shall be completed and brought on line without disturbing ongoing operations of the
 facility. All areas of work shall be completed and brought on line without disturbing ongoing
 operations of the facility.

- 2. In the event any portions of the work require existing facilities to be taken off-line, this work shall be coordinated in advance with the OWNER and ENGINEER such that operation interferences and disruptions are minimized.
- 3. The CONTRACTOR shall notify the ENGINEER and OWNER a minimum of seven (7) days in advance of taking any pumps, equipment or facilities off-line for any reason.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1. 01 BASIS FOR PAYMENTS

- A. The following explanation of Measurement and Payment for the bid items is provided; however, the omission of reference to any item shall not alter the intent of the Bid Form or relieve the Contractor of the necessity of constructing a complete project under this Contract.
- B. Work shall be paid for under each lump sum or unit price item listed in the Schedule of Bid Items submitted with the Contractors Bid proposal.
- C. The lump sum or unit prices prepared by the Contractor for the various items of work are intended to establish a total price for completion of the work in its entirety. Should the contractor believe that the cost for any particular work item has not been established by the Schedule of Bid items or this section, the Contractor shall include the cost for such work in one of the bid items so the proposal for the project reflects the total cost to complete work in its entirety.

1. 02 SCHEDULE OF BID ITEMS

- A. The quantities set forth in the Bid Form (B3) are approximate, but are believed to be reasonably accurate. Quantities shown on the Bid Form are given to establish a uniform basis for the comparison of bids and to establish an approximate extent of work to be performed during the duration of the contract.
- B. The Owner reserves the right to increase or decrease the quantity of any item or portion of the work during the progress of construction in accordance with the terms of the Contract.
- C. In the event that the actual quantity of material installed exceeds the quantity shown, the Contractor shall be paid the unit price shown for the quantity actually installed. Similarly, a credit will be provided to the Owner by the Contractor for quantities less than those shown on the Bid Form.
- D. The Schedule of Bid Items shall also serve as the basis of developing additive or deductive Change Orders.
- E. Unit prices are used as a means for computing the total bid price, for analyzing and qualifying the successful bidder, for Contract purposes, for periodic payments and for determining the value of additions or deletions.
- F. Payment shall be made for the items listed on the Bid Form on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, tools, transportation, delivery, disposal of waste and surplus material, restoration and all other appurtenances to complete the construction and installation of the work as shown on the drawings and described in the specifications.

1.03 ALLOWANCES

- A. The OWNER has specifically identified work items that are either variable or unknown in scope or extent at the time of bidding. Accordingly, those specific items will be paid for as direct reimbursement to the CONTRACTOR for cost incurred.
- B. The CONTRACTOR will be required to furnish documentation evidencing expenditures charged to these allowance accounts prior to the release of funds by the City. Furthermore, the CONTRACTOR shall obtain written approval by the City's PROJECT MANAGER before expenditure of these funds. Documentation for use of allowance accounts shall be assembled by the CONTRACTOR and provided immediately to the City's PROJECT MANAGER. No allowance funds will be released by the City without the written approval of the City's PROJECT MANAGER.
- C. The allowance accounts are not for use by the CONTRACTOR to cover shortfalls in the CONTRACTOR'S lump sum bid amount.
- D. All uncommitted or remaining allowance funds will be returned to the City by the contract at the substantial completion of the project via deductive change order.

1.04 SUBMITTALS

- A. Informational:
 - 1. Application for Payment AIA Form G-702
 - 2. Final Application for Payment Per General Conditions and Supplemental Conditions of the Construction Contract
- B. Submittals shall be in accordance with Section 01300.
- C. The Contractor may submit pay requests no more than once a month in accordance with the General Conditions and Supplemental Conditions of the Construction Contract

1.05 UN-ACCEPTABLE WORK

Contractor shall replace all Work, or portions of the Work, which do not conform to the Drawings or Technical Specifications, unless specifically approved otherwise by the Owner.

1.06 NON-PAYMENT FOR REJECTED WORK

- A. Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - Products determined as unacceptable before or after placement.
 - Products not completely unloaded from the transporting vehicle.
 - 4. Products placed beyond the lines and levels of the required Work.
 - 5. Products remaining on hand after completion of the Work.
 - 6. Loading, hauling and disposing of rejected Products.
 - 7. Used Products and Materials

PART 2 - PRODUCTS - Not used

PART 3 - EXECUTION

BASE BID - MEASUREMENT AND PAYMENT

3.01 GENERAL CONDITIONS PAY ITEMS

A. MOBILIZATION / DEMOBILIZATION / GENERAL CONDITIONS

- 1. Method of Measurement: Payment will be made at the contract lump sum (LS) price bid for the item, which price shall include full compensation for all work related to mobilization, scheduling, labor and equipment for preparatory work, temporary facilities, utilities, demobilization, and all operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, establishment of temporary provisions, survey layout, controls, permits that are required to be obtained by the contractor, compliance with permit conditions, site access control, adherence to state and local laws and regulations, utility protection and coordination, locating all existing utilities within the project area, supporting power poles, light poles, structures, underground structures, pipes, conduits and cables as may be required, maintaining service, repairing any utilities damaged by the construction. and attendance at public information meetings for the purpose of providing the general public with updates regarding the construction, and all other costs required to complete the work, tested and accepted, which are not included in other bid items. and any other related work, except for any work designated to be paid for separately or to be specifically included in the costs of other work shown within the Bid Form.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

Payments for Mobilization and General Conditions shall be made in accordance with the following schedule:

Construction Percent Complete	Allowable Percent of Lump Sum for Mobilization
10%	20%
30%	50%
60%	80%
Final Completion	100%

B. MAINTENANCE OF TRAFFIC

1. Method of Measurement: Payment under this Section shall be on a lump sum basis which shall include full compensation for all work related to the maintenance of traffic during the duration of work and/or construction of the improvements shown on the plans, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required traffic control measures to control the flow of traffic through the work area within the public rights of way during the various phases of the project. Preparation and submittal of any Maintenance of Traffic (MOT) plans to required agencies as well as coordination with those parties shall also be included in this item. All work shall be in accordance with applicable local, state, and federal requirements.

Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

C. BONDS & INSURANCE REQUIREMENTS

- Method of Measurement: Payment under this Section shall be on a lump sum basis and shall include all compensation for providing and maintaining bonds and insurance for the project duration in accordance with the Contract documents and General Conditions.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price upon submission of bonds and insurance documents required of the Contractor.

D. SURVEY, LAYOUT & RECORD DRAWINGS

- 1. Method of Measurement: Payment under this Section shall be on a Lump Sum (LS) basis and includes, laying out the proposed improvements in the field, setting temporary and permanent benchmarks, grade stakes, etc., preparation of Record Drawings, all in accordance with the project specifications and City of West Palm Beach Standards. All work (OR JUST RECORD DRAWINGS) The Record Drawings provided shall be certified by a Florida licensed land surveyor. (All survey work shall be performed by an independent third party surveyor, licensed to practice in the State of Florida, and retained by the Contractor.
- Basis of Payment: Contractor is to provide a breakdown cost for each major task –
 pre-construction controls, layout survey, working as-builts and final record drawing
 as-builts. Payment shall be made at the Contract Lump Sum Price and shall be paid
 in increments in proportion to the total work completed to date.

E. PROFESSIONAL VIDEOTAPING OF SITE CONDITIONS - PRE CONSTRUCTION

- Method of Measurement: Payment under this Section shall be on a lump sum basis for performing and providing video documentation of the existing site conditions, buildings, signs, pavement, roadway striping and markings, landscaping and above ground features and utilities.
- 2. Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

F. PROFESSIONAL VIDEOTAPING OF SITE CONDITIONS - POST CONSTRUCTION

- Method of Measurement: Payment under this Section shall be on a lump sum basis
 for performing and providing video documentation of the post-construction site
 conditions, after either substantial completion or upon final completion, as mutually
 agreed to by the City and Contractor. The video shall document finish grades,
 existing pavement, installed pavement, signs, roadway striping, sidewalks, turnouts
 and other elements as required to verify completion, construction quality or damage
 during construction.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

G. PIPELINE INTERIOR CONDITION ASSESSMENT VIDEO (BY TYPE AND DIA OF PIPE)

- Method of Measurement: Payment under this section shall be made on a per lineal foot (LF) basis for performing and providing closed circuit video documentation of the condition of pipeline interior walls, measured along a horizontal projection of the centerline of the pipe from point to point.
- Payment for this item shall be made at the contract unit price per linear foot (LF) of the pipe and shall include all necessary labor, equipment and materials for performing the video taping of the pipe and providing the Clty with a DVD plus written log of findings.

H. TRENCH SAFETY COMPLIANCE

- Method of Measurement: Payment under this Section shall be on a lump sum basis and shall include, but not be limited to, providing all OSHA required trench safety equipment, training and methods employed during the course of the project.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

1. EROSION CONTROL & ENVIRONMENTAL COMPLIANCE

- Method of Measurement: Payment under this Section shall be on a lump sum basis and shall include, but not be limited to, providing erosion control continuously during the performance of the work, and includes all labor, equipment, materials and transportation to comply with the NPDES program. This Lump Sum item also includes filing of all necessary notices, permits, maintaining field logs and records and performing corrective actions. This bit item amount will be paid in increments prorated evenly over the project duration.
- 2. Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

J. NPDES PERMITTING & COMPLIANCE

- Method of Measurement: Payment under this Section shall be on a lump sum basis and shall include all labor, equipment, materials, and transportation by the contractor to comply with the NPDES program throughout the project including, but not limited to, filing all necessary notices, field installations, maintaining and replacing erosion control materials, maintaining daily logs and reports and corrective actions.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

K. SUPPORT OF EXISTING UTILITIES & COORDINATION WITH UTILITY PROVIDERS

Method of Measurement: Payment under this Section shall be on a lump sum basis
and is limited to support and protection of existing utility lines during construction,
coordination with utility providers and includes all labor, equipment, materials
necessary to locate, support and protect existing utility lines that may be
encountered during the course of construction of the work required under the
Contract and General Conditions.

- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be made in increments proportionate to the total work completed.
- Exclusion from Payment: Repair or replacement of utility lines damaged during construction are not included as such restoration and repair shall be the responsibility of the Contractor at no cost to the Owner.

L. SFWMD DEWATERING WATER USE PERMIT AND COMPLIANCE

- 1. Method of Measurement: Payment under this Section shall be on a lump sum basis and will include all labor, materials and fees to apply for and obtain a dewatering water use permit from South Florida Water Management District for constructing the Work as presented on the plans and specifications. The lump sum price is also to include all labor and material to comply with and closeout the permit when dewatering operations are no longer needed for the Work. Payment shall be paid in increments in proportion to the total work completed.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the total work completed to date.

N. <u>TEMPORARY FENCING & ACCESS CONTROL</u>

- 1. Method of Measurement: Payment under this Section shall be on a lump sum basis OR LINEAL FOOT and will include all labor, materials to secure the work areas from entry by un-authorized persons. The work includes portable chain link fence, warning fence & posts, barricades, personnel bridges, sidewalk tunnels, steel plate and safety signage. The Contractor's lump sum UNIT PRICE reimbursement shall include full compensation for all work related to the safety of the public and the security of the work site during construction of the improvements shown on the plans, and any other related work, The work includes, but is not limited to, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required safety or security control measures to prevent access to the work area during the various phases of the project.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price UNIT PRICE and shall be paid in increments in proportion to the total work completed to date.

O. STEEL PLATE ROAD COVERING

1. Method of Measurement: Payment under this Section shall be on a lump sum basis and will include all labor, materials to temporarily cover work areas to allow pedestrian or vehicular traffic from crossing the work area. The work includes leveling, placement and removal of structural steel plate with a H20 wheel loading and safety signage. The Contractor's lump sum UNIT PRICE reimbursement shall include full compensation for all work related to the safety of the public and the security of the work site during construction of the improvements shown on the plans, and any other related work, The work includes, but is not limited to, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required temporary steel plate cover used as safety or security control measures during the various phases of the project.

Basis of Payment: Payment shall be made at the Contract Lump Sum Price UNIT PRICE and shall be paid in increments in proportion to the total work completed to date.

P. <u>LIGHT TOWER w/ GENERATOR</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per each day (DA) a light tower is needed for night time work and shall include, but not be limited to, furnishing all materials, labor, and equipment for the light tower during the night time work duration.
- Basis of Payment: Payment shall be at the Contract Unit Price per Tower per Day in use as directed by the Project Manager.

Q. RED PLASTIC WARNING FENCE

- Method of Measurement: The quantity to be paid for under this Section shall be at the Lump Sum (LS) Basis for the entire work area to be protected; and for maintenance and replacement of any fencing damaged during the duration of the project. Work shall include, but not be limited to, furnishing all materials, labor, and equipment required to install, maintain, replace and remove 36" high red plastic warning fence with wood or metal support posts at six feet on center around the active project areas.
- Basis of Payment: Payment shall be at the Contract Lump Sum Price.

R. VARIABLE MESSAGE SIGNS

- Method of Measurement: The quantity to be paid for under this Section shall be per each day (DA)) a variable message sign is in use and shall include, but not be limited to, furnishing all materials, labor, and equipment for variable message signs during the project.
- Basis of Payment: Payment shall be at the Contract Unit Price per sign per day in use as directed by the City Traffic Engineer.

S. <u>BUSINESS SIGNS</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) temporary sign installed, complete and accepted, and shall include, but not be limited to, furnishing all materials, labor, and equipment for fabrication, installation, and removal of business signs for local businesses affected by the construction of this project for the duration of the project. Temporary posts and stands for the signs, relocation of the signs during different phases of construction and replacement of damaged signs is included in this unit price.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per sign installed

3.02 SITE WORK PAY ITEMS

A. CLEARING AND GRUBBING

1. Method of Measurement: The quantity to be paid for under this Section shall be on a lump sum (LS) basis. This work shall include, but not be limited to, clearing,

grubbing, stripping, removal of trees, stumps and roots, hedges, shrubs, removal and disposal of existing vegetation and debris within the limits of the right-of-way, except such objects that are to remain or are to be removed in accordance with other sections of the contract documents. Trees to remain shall be protected from damage, and tree barriers installed to preclude equipment encroachment into the drip line. Existing vegetation and debris shall be properly disposed of off-site at no additional cost to the Owner. This work shall also include tree pruning to facilitate construction of the work. Tree pruning shall occur under the direction of a Florida licensed arborist

Basis of Payment: Payment shall be at the Contract Lump Sum cleared to the limits shown on the plans or as directed by the Engineer in the field during construction.

B. GEOTEXTILE FILTER FABRIC (TYPE D-2, D-3, D-4)

- Method of Measurement: The quantity to be paid for under this Section shall be on a square yard (SY) basis. This work shall include, but not be limited to, excavation, grading, stripping and placement of final cover.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of geotextile placed to the limits shown on the plans or as directed by the Engineer in the field during construction.

C. SAND CEMENT RIP-RAP

- Method of Measurement: The quantity to be paid for under this Section shall be on a square yard (SY) basis. This work shall include, but not be limited to, excavation, grading, stripping, mixing the sand-cement grout, geotextile containment sacks, filling of sacks, and final placement and watering of the sand-cement sacks.
- Basis of Payment: Payment shall be at the Contract Unit Price per cubic yard of sand used in the sand cement mixture, placed to the limits shown on the plans or as directed by the Engineer in the field during construction.

D. RUBBLE & BEDDING STONE

- Method of Measurement: The quantity to be paid for under this Section shall be on a
 per ton (TN) basis. This work shall include, but not be limited to, excavation,
 grading, stripping of the receiving area, and includes transport to the final location
 and placement of the rubble, whether by hand, wheelbarrow or mechanized
 equipment.
- Basis of Payment: Payment shall be at the Contract Unit Price per ton of dry material measured by truck scales and placed to the depth and extents shown on the plans or as directed by the Engineer in the field during construction.

E. EXCAVATION AND BACKFILL

 Method of Measurement: The quantity to be paid for under this Section shall be on a cubic yard (CY) basis calculated by the method of average end areas. Work shall include, but not be limited to, excavation, placement of embankment, transporting, spreading, grading and compacting soil within the site limits. No payment shall be made for excavation related to other work (ie pipe trenching, road base grading, curb placement, etc). No payment will be made for excavation or filling of areas outside the lines and grades shown on the plans.

Basis of Payment: Payment shall be made at the Contract Unit Price per cubic yard (CY) bank measure.

F. IMPORT BACKFILL

- Method of Measurement: The quantity to be paid for under this Section shall be on a
 loose volume cubic yard (CY) basis and shall include, but not be limited to
 purchasing, testing, transporting, spreading, grading and compacting clean imported
 fill material. Work includes laboratory sampling of the import material to verify
 compliance with specifications and in-place density testing after placement. No
 payment will be made for import fill placed outside the lines and grades shown on
 the plans.
- 2. Basis of Payment: Payment shall be made at the Contract Unit Price per cubic yard (CY) truck measure.

G. REMOVAL OF UNSUITABLE MATERIAL

- Method of Measurement: The quantity to be paid for under this Section shall be on a cubic yard (CY) basis on a loose volume truck load basis. Work shall include, but not be limited to, excavation, transporting, and off-site disposal of all unsuitable material encountered during the construction of the Work.
- Basis of Payment: Payment shall be made at the Contract Unit Price per cubic yard (CY) truck measure to the limits shown on the plans or as directed by the Engineer in the field during construction.

H. PIPE BEDDING

- Method of Measurement: The quantity to be paid for under this Section shall be on a cubic yard (CY) basis on a loose volume truck load basis. Work shall include, but not be limited to purchasing, transporting, spreading and grading imported pipe bedding material, #57 stone or approved equal.
- Basis of Payment: Payment shall be made at the Contract Unit Price per cubic yard (CY) truck measure to the limits shown on the plans or as directed by the Engineer in the field during construction.
- Exceptions: No payment shall be made for pipe bedding material placed by the Contractor for their convenience in reducing construction time or proper dewatering operation.

I. SITE RESTORATION

 Method of Measurement: The quantity to be paid for under this Section shall be on a lump sum basis and shall include, but not be limited to, furnishing all materials, labor, and equipment required to restore the project and staging areas to an equal or better condition than what was existing prior to the start of the project, including grassing, landscaping, mulch, planters, concrete curbing, sidewalk restoration, curb ramps, driveways, median restoration, debris removal, painting, sign replacement, sign relocation, coordination with the Owner, and any other restoration and/or clean up required for a complete project except for any work designated to be paid for separately or to be specifically included in the costs of other work under the Contract.

Basis of Payment: Payment shall be at the Contract Lump Sum Price.

J. TEMPORARY FENCING & ACCESS CONTROL

- 1. Method of Measurement: The quantity to be paid for under this Section shall be for the initial base unit of each (EA) protected area up to 100 linear feet long; and for fencing in excess of the initial 100 feet being paid for each linear foot (LF) thereafter, complete and accepted in order to secure the work areas from entry by unauthorized persons. The work includes portable chain link fence & posts, barricades and safety signage. The Contractor's price shall include full compensation for all work related to the safety of the public and the security of the work site during construction of the improvements shown on the plans, and any other related work, The work includes, but is not limited to, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required temporary fencing to prevent access to the work area during the various phases of the project.
- Basis of Payment: Payment shall be at the Contract Unit Price for each Fenced Area up to the Initial Base Quantity, plus a per linear foot cost for fence beyond the initial Base quantity installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

K. ACCESS SAFETY

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per unit per day (DA) for protective safety devises. The work includes fence & posts, barricades, personnel bridges, sidewalk tunnels, steel plate and safety signage. The Contractor's price shall include full compensation for all work related to the safety of the public and the security of the work site during construction of the improvements shown on the plans, and any other related work, The work includes, but is not limited to, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required safety or security control measures to provide safe access for workers and the public transiting the work zone during the various phases of the project.
- 2. Basis of Payment: Payment shall be made at the Contract Unit Price per day.

L. CONSTRUCTION ZONE & SECURITY FENCING

- Method of Measurement: The quantity to be paid for under this Section shall be for the initial base unit of each (EA) protected area up to 100 linear feet long; and for fencing in excess of the initial 100 feet being paid for each linear foot (LF) thereafter, complete and accepted. Work shall include, but not be limited to, furnishing all materials, labor, and equipment required to install, maintain, replace and remove 36" high red plastic warning fence with wood or metal support posts at six feet on center around the active project areas.
- Basis of Payment: Payment shall be at the Contract Unit Price for each Protected Area up to the Initial Base Quantity, plus a per linear foot cost for fence beyond the initial Base quantity to the limits shown on the plans or as directed by the Engineer in the field during construction.

M. STAKED EROSION CONTROL FABRIC FENCE

- Method of Measurement: The quantity to be paid for under this Section shall be for the initial base unit of each (EA) control area up to 100 linear feet long; and for fencing in excess of the initial 100 feet being paid for each linear foot (LF) thereafter, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install, maintain, replace and remove a 24" high geotextile fabric fence for erosion and sediment control, with wood or metal support posts at five feet on center.
- Basis of Payment: Payment shall be at the Contract Unit Price for each Control Area
 up to the Initial Base Quantity, plus a per linear foot cost for fence beyond the initial
 Base quantity installed to the limits shown on the plans or as directed by the
 Engineer in the field during construction.

N. <u>EROSION CONTROL HAY BALES OR WATTLES</u>

- Method of Measurement: The quantity to be paid for under this Section shall be for the initial base unit of each (EA) control area up to 25 linear feet long; and for control materials in excess of the initial 25 feet being paid for each linear foot (LF) thereafter, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install, maintain, replace and remove hay bales or wattles for erosion and sediment control, with wood or metal stakes at two feet on center, or sand bags to control movement of the erosion control materials.
- Basis of Payment: Payment shall be at the Contract Unit Price for each Control Area
 up to the Initial Base Quantity, plus a per linear foot cost for control materials beyond
 the initial Base quantity installed to the limits shown on the plans or as directed by
 the Engineer in the field during construction.

O. <u>ELECTRICAL CONDUIT (BY SIZE & TYPE MATERIAL)</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall by the linear foot (LF), measured along the horizontal center line of the pipe, complete and accepted, including, but not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, utility protection, temporary shoring, dewatering, for installation of electrical conduit and tracer wire in accordance with project drawings and specifications by open cut or trenchless methods, trench backfilling, compaction, density testing, replacement of base material, grading, and asphalt/concrete placement/surface material as required to repair the trench in accordance with the City of West Palm Beach requirements.
- Basis of Payment: Payment shall be made at the Contract Unit Price per linear foot installed.

P. IRRIGATION SLEEVE (BY SIZE & TYPE MATERIAL)

1. Method of Measurement: The quantity to be paid for under this Section shall by the linear foot (LF), measured along the horizontal center line of the pipe,

complete and accepted, including, but not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, utility protection, temporary shoring, dewatering, for installation of irrigation sleeves and tracer wire in accordance with project drawings and specifications by open cut or trenchless methods, trench backfilling, compaction, density testing, base material, grading, and asphalt/concrete placement/surface material as required to repair the trench in accordance with the City of West Palm Beach requirements.

Basis of Payment: Payment shall be made at the Contract Unit Price per linear foot installed.

Q. PAVEMENT REMOVAL & REPLACEMENT

This item shall be paid on a square yard (SY) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal and replacement of all existing pavement and base (existing asphalt pavement of varying thickness) within the project limits as indicated on the plans. This item includes all saw-cutting and joints at connections to existing pavement. The existing pavement and base shall be completely removed and shall be properly disposed of off-site at no additional cost to the Owner. The new asphalt pavement shall be a total depth of 2", consisting of 1" Type S-III (see Item 3.14 for Mill & Overlay) over 1" Type S-I per Trench Repair detail.

R. FENCE REMOVAL AND RE- INSTALLATION (BY HEIGHT & TYPE)

- 1. Method of Measurement: The quantity to be paid for removing and re-installation of existing fence, including fence fabric, poles, rails, stiffeners, new concrete footers and other appurtenances for temporary removal and re-installation in the same location of the miscellaneous fence encountered within the project limits by Type shall be made at the contract unit price per lineal foot (LF). The Contract Unit Price shall include compensation for all labor, material, and equipment required to remove and re-install the fence to existing or better condition. City approval is required prior to the removal and replacement of existing fence in conflict with the proposed Work. Contractor shall coordinate with City PROJECT MANAGER and/or Construction Coordinator.
- Basis of Payment: Payment shall be made at the Contract Unit Price per linear foot of fence removed and re-installed.

3.03 DEMOLITION PAY ITEMS

ASPHALT PAVEMENT AND BASE REMOVAL

 Method of Measurement: The quantity to be paid for under this Section shall be on a square yard (SY) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal of all existing pavement and base (asphalt pavement of varying thickness) within the project limits as indicated on the plans. This item includes all saw-cutting and joints at connections to existing pavement. The existing pavement shall be completely removed and shall be properly disposed of off-site at no additional cost to the Owner. Existing base material may be re-used as sub-grade or backfill material, provided that it meets the requirements for backfill, or be removed and properly disposed of off-site at no additional cost to the Owner.

Basis of Payment: Payment shall be at the Contract Unit Price per square yard of pavement and base removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

B. CONCRETE CURB REMOVAL (ALL TYPES)

- Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal of all existing concrete curb (all types), within the limits of the project as indicated on the plans. This item includes all saw-cutting and joints at connections to existing curbs. The existing curb shall be completely removed and shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of curb removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

C. CONCRETE PAVEMENT REMOVAL (ALL THICKNESSES)

- Method of Measurement: The quantity to be paid for under this Section shall be on a square yard (SY) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal of all existing concrete (except curb and/or gutters), driveways and sidewalks (varying thickness), within the limits of the project as indicated on the plans. This item includes all saw-cutting and joints at connections to existing sidewalks. The existing sidewalks and driveways within the right-of-way as indicated on the plans or to facilitate construction of underground utilities shall be completely removed and shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of concrete pavement removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

D. REMOVE FENCING

- Method of Measurement: The quantity to be paid for under this Section shall be on a
 linear foot (LF) basis. The Contractor's unit price shall include full compensation for
 all labor, materials and equipment required for removal of existing fencing, as
 indicated on the plans. This item includes fence fabric, poles, rails, stiffeners,
 concrete footers and other appurtenances. The existing fencing material shall be
 properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of fence removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

E. DRAINAGE STRUCTURE REMOVAL

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) drainage structure (manhole, catch basin, junction box, yard inlet, ditch bottom inlet) removed. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal of existing drainage catch basins and manholes (varying type & size), within the limits of the project as indicated on the plans. This item includes all saw-cutting and joints at connections to existing drainage systems. The existing drainage catch basins and manholes shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price for each drainage structure removed.

F. DRAINAGE PIPE REMOVAL (BY SIZE & TYPE MATERIAL)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for the complete removal and disposal of existing drainage pipe (varies in size) as indicated on the plans. This item includes all saw-cutting and joints at connections to existing drainage systems and the backfilling, compacting, restoration and clean-up. The existing drainage piping shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size & material, per linear foot of pipe removed.

G. SANITARY SEWER MANHOLE REMOVAL (BY SIZE & DEPTH)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) sanitary sewer manhole removed. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal of existing manholes (varying type & size), within the limits of the project as indicated on the plans. This item includes all saw-cutting and joints at connections to existing sewer systems. The existing manholes shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price per manhole removed.

H. SANITARY SEWER MANHOLE ABANDONMENT (BY SIZE & DEPTH)

1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) sanitary sewer manhole abandoned in place. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for removal and disposal of the top section and the complete filling of bottom section of existing manholes (varying type & size) with flowable fill which are to be abandoned in place, within the limits of the project as indicated on the plans. This item includes all saw-cutting and joints at connections to existing sewer systems. The top sections of abandoned-in-place existing manholes shall be properly disposed of off-site at no additional cost to the Owner.

Basis of Payment: Payment shall be at the Contract Unit Price per manhole abandoned.

I. SANITARY SEWER PIPE REMOVAL (BY DIAMETER OF PIPE & DEPTH)

- Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for capping, cutting, removal of existing sewer main pipe (varying type and size), as indicated on the plans. This item includes saw-cutting and plugs at connections to existing sewer main systems. Existing sewer main piping shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pipe removed.

J. SANITARY SEWER PIPE ABANDONMENT IN PLACE (BY DIAMETER OF PIPE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for capping, cutting, filling with flowable fill existing sewer main pipe to be abandoned in place, as indicated on the plans. This item includes all saw-cutting and plugs at connections to existing sewer main systems. Any remaining sewer pipe or fittings shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size, per linear foot of pipe abandoned and filled

K. SANITARY SEWER LATERAL PIPE REMOVAL (4" AND 6" LATERALS)

- Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for capping, cutting, removal of existing sewer lateral pipe (varying type and size), as indicated on the plans. This item includes all saw-cutting and joints at connections to existing sewer laterals and backfilling, compacting, restoration and clean-up. The existing sewer lateral piping shall be properly disposed of off-site at no additional cost to the Owner.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pipe removed.

3.04 WATER DISTRIBUTION PAY ITEMS

A. GROUT FILL EXISTING WATER MAIN (BY DIAMETER OF PIPE)

 Method of Measurement: T The quantity to be paid for under this Section shall be per linear foot (LF) of existing water main grout filled and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, trench safety, dewatering, pipe cutting and removal as required for grout ports, grout filling of existing utilities as noted on the plans, trench backfilling, compaction, density testing, and any other items required for a complete and functional system. This pay item shall also include the hauling and legal off-site disposal of debris, and the removal, handling, and delivery of items to be salvaged and returned to the City of West Palm Beach.

 Basis of Payment: Payment shall be made at the Contract Unit Price, by size, per linear foot of pipe abandoned in place and filled.

B. REMOVAL OF EXISTING WATER MAIN (BY DIAMETER OF PIPE)

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of existing water main remove and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, trench safety, dewatering, removal of existing water main, trench backfilling, compaction, density testing, and any other items required for a complete and functional system, including support of existing aboveground and below ground improvements to remain and be protected. This pay item shall also include the hauling and legal off-site disposal of debris, and the removal, handling, and delivery of items to be salvaged and returned to the City of West Palm Beach.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pipe removed.

C. BASE AND ASPHALT TRENCH REMOVAL & REPAIR (BY DIAMETER OF PIPE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of base and asphalt trench removal and repair placed and accepted. Specifically, this item shall be for all asphalt and base repair for the installation, removal, restraint or access to pipes, fittings, structures, and valves, except for any work designated to be paid for separately or to be specifically included in the costs of other work under the Contract. The Unit Price shall include full compensation for all labor, materials, and equipment necessary to perform base and asphalt trench removal and repair and shall include, but not be limited to, sawcutting, excavation, base placement, grading and compaction, density testing, asphalt placement in accordance with the plans and specifications and the City of West Palm Beach Standards, as applicable, as well as installation of temporary or permanent roadway and parking lot striping, as applicable.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pavement removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

D. CONNECTION TO EXISTING WATER MAIN (BY DIAMETER OF PIPE)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) watermain connection completed and accepted. It includes, but is not limited to, furnishing all materials, labor, and equipment required to perform the connection to the existing water main, installation of spool pieces, removal of existing water main as necessary to construct connection and as shown on plans, flushing, cleaning, pigging, pressure testing, chlorination, disinfection, coordination with affected utility owners, and any other items required for a complete and functional system.
- 2. Basis of Payment: Payment shall be made at the Contract Unit Price, by size, per

connection point.

E. TEMPORARY JUMPER CONNECTION ASSEMBLY

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) temporary jumper connection to the existing water mains installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to perform the connection to the existing water main, excavation, installation of taps, fittings, valves, spool pieces, and pipe; flushing, pressure testing, coordination with affected utility owners, trench backfilling, compaction, density testing, asphalt trench repair, and any other items required for a complete and functional temporary system, including support of existing aboveground and below ground improvements to remain and be protected. This pay item shall also include hauling and legal off-site disposal of debris.
- 2. Basis of Payment: Payment shall be made at the Contract Unit Price for each field jumper assembly.

F. WATERMAIN (BY DIAMETER OF PIPE & TYPE MATERIAL)

- Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis, measured along the horizontal center line of the pipe between the limits as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, provision of suitable pipe bedding as may be required, hauling and legal off-site disposal of debris, temporary shoring, support of existing aboveground and below ground improvements to remain and be protected, dewatering, installation of watermain in accordance with City of West Palm Beach Standards including the additional piping required to account for the vertical change in elevation, layout, joint restraint, location wire, filling, flushing, pigging, cleaning, disinfection, pressure testing, bacteriological testing, (including temporary caps/plugs for testing as may be required), trench backfilling, compaction, density testing, and any other items required for a complete and functional system. Also included is the painting of a 2" wide continuous blue line on the top of the pipe and fittings as indicated on the drawings.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size and type
 material, per linear feet of water main installed.

G. WATERMAIN FITTINGS (BY DIAMETER OF PIPE, TYPE MATERIAL AND TYPE FITTING)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) watermain fitting installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install watermain fittings as shown on the drawings including joint restraint, layout, identification painting, disinfection, flushing, testing, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size, for each fitting installed.

H. RESILIENT WEDGE GATE VALVE (BY DIAMETER OF VALVE)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) valve installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install the valve, valve box, riser rods, concrete pad for valve boxes when not under pavement, brass identification discs, bypass valves if specified for larger valves, locator wire port, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size, for each valve installed.

I. BUTTERFLY VALVE (BY DIAMETER OF VALVE)

- 3. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) valve installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install the valve, valve box, riser rods, concrete pad for valve boxes when not under pavement, brass identification discs, bypass valves if specified for larger valves, locator wire port, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size, for each valve installed.

J. TAPPING SLEEVE AND VALVE (BY DIAMETER OF PIPES)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) tapping sleeve and valve installed, complete and accepted, and shall include but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, temporary shoring, existing utility support, dewatering, installation of the tapping sleeve and valve, valve box, housekeeping pad as may be required, pressure testing, disinfection, trench backfilling, compaction, density testing, and any other items required for a complete and functional system.
- Basis of Payment: Payment under this item shall be made at the Contract Unit Price, by size, for each tapping sleeve and valve.

K. LINE STOP ASSEMBLY AND THRUST COLLAR (BY DIAMETER OF PIPE)

1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) line stop assembly and thrust collar installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris as well as the removal, handling, delivery of items to be salvaged and returned to the City of West Palm Beach, temporary shoring, support of existing utilities, dewatering, installation of the line stop assembly, concrete support base and thrust collar, additional joint restraints on the existing pipe in both directions from the line stop, activating and de-activating the line stop, backfill, compaction, density testing, subgrade material, base material, grading, and asphalt placement and/or surface material repair as required to repair the area in accordance with the City of West

Palm Beach, as applicable and any other items required for a complete and functional system.

Basis of Payment: Payment shall be at the Contract Unit Price per line stop installed.

L. RESTRAIN EXISTING WATER MAIN (BY DIAMETER OF PIPE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be for each (EA) joint of existing water main requiring joint restraint due to connection of a proposed water main or installation of fittings, and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, legal off-site disposal of debris, temporary shoring, existing utility support, dewatering, installation of bell restraint fitting(s) as required, hand excavation, trench backfilling, compaction, density testing, asphalt or other surface restoration as required and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be made at the Contract Unit Price per joint restraint installed.

M. CAST IN PLACE THRUST BLOCKS (BY DIAMETER OF PIPE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) thrust block installed on existing water main and/or existing water main fittings requiring joint restraint due to connection of a proposed water main, complete and accepted, and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, legal off-site disposal of debris, temporary shoring, existing utility support, dewatering, installation of bell restraint fitting(s) as required, trench backfilling, compaction, density testing, asphalt or other surface restoration as required and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be made at the Contract Unit Price, by size pipe, for each thrust block installed.

N. FIRE HYDRANT ASSEMBLY

- 1. Method of Measurement; The quantity to be paid for under this section shall be per each (EA) fire hydrant assembly installed including tee, valve and valve box, complete and accepted and shall include, but not necessarily limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, provision of suitable backfill, temporary shoring, support of existing utilities, dewatering, installation of the fire hydrant, including the base 90° bend, gate valve, valve box, tee from water main, joint restraints, painting of hydrant and riser components, riser sections, backfill compaction, density testing, final adjustment to finish grade, concrete pad at valve box if needed and any other items required for a complete and functional system.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per each fire hydrant assembly installed.

O. JACK AND BORE STEEL CASING (BY DIAMETER OF CASING)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of steel casing pipe bid price by diameter, which shall include the cost of shipping and furnishing all casing pipe, casing end seals, casing pipe jointing material and appurtenances, coating(s) of the interior and exterior walls of the casing pipe, installation of the casing including the cost of the jacking pits, grouting, dewatering, trenching, sheeting, backfilling, disposal of excavated material, subsurface settlement indicators, settlement markers and surface restoration, necessary permits and all other labor, equipment, and materials, necessary to install the casing pipe complete in place at the depth specified and in accordance with the plans and these specifications. Carrier pipe shall be paid as per the applicable type of pipe specifications. Welding, field coatings, galvanic anodes and carrier pipe spacers shall be considered incidental to the carrier pipe and no additional compensation will be made therefore.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size diameter, per linear foot of casing pipe installed.

P. FILL AND FLUSH CONNECTION, CHLORINATION & TESTING

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a lump sum (LS) basis and shall be full compensation for furnishing all labor, materials and equipment for installing fill and flush connection(s) as necessary or as indicated on the plans and required for filling, flushing and disinfecting the water main. This item includes flushing, pigging, pressure testing, chlorination, sampling and laboratory testing to clear the new distribution line for operation. Also included in the unit price is removing the fill and flush assembly after the water system is approved for service.
- Basis of Payment: Payment shall be at the Contract Lump Sum Price for successful filling, testing and chlorination of the completed water line(s).

Q. <u>SAMPLE POINT</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) sample point installed and successfully bacteriologically tested and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, dewatering, installation of the sample point including watermain connection, tapping saddle, collection and laboratory testing of samples until two consecutive days of successful results are obtained, removal of sample points, corporation stop plug installation, backfill, compaction, density testing, subgrade material, base material, grading, and asphalt/concrete placement/surface material repair as required to repair the trench in accordance with the City of West Palm Beach standards as applicable and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be made at the Contract Unit Price per sample point installed.

R. PERMANENT BLOW-OFF ASSEMBLY

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) permanent blow-off assembly installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install the permanent blow-off assembly, piping, valves, fittings, enclosure box, coordination with the City of West Palm Beach, concrete collar, backfill, compaction, density testing, subgrade material, base material, grading, and asphalt/concrete placement/surface material repair and final adjustment to finish grade as required to repair the trench in accordance with the City of West Palm Beach standards, as applicable and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be made at the Contract Unit Price per each permanent blow off assembly installed.

S. WATER SERVICE w/ METER BOX - FIRST 30-FEET & BEYOND 30-FEET

- 1. Method of Measurement: The quantity to be paid for under this Section shall be for each (EA) water service and line up to 30-ft long; and for each service line in excess of 30-ft long being paid for each linear foot (LF) thereafter, complete and accepted, and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling, legal off-site disposal of debris, layout, dewatering, installation of water service line piping with tracing wire, corporation stop at main, curb stop at meter, concrete meter box and fittings in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, subgrade material, base material, grading, and asphalt/concrete placement/surface material repair as required to repair the trench for a complete and functional system, including support of existing aboveground and below ground improvements to remain and be protected. This pay item shall also include the hauling and legal off-site disposal of debris, and the removal, handling, and delivery of items to be salvaged and returned to the City of West Palm Beach.
- Basis of Payment: Payment shall be made at the Contract Unit Price per each water service installed, and per each linear foot of water service line in excess of the initial base service length of 30-feet.

T. RELOCATE EXISITNG METER & CUSTOMER SERVICE (BY DIAMETER OF PIPE)

Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) relocated existing meter, meter box and service line to a new water meter box, as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling, legal off-site disposal of debris, layout, dewatering, pipe and fittings in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, subgrade material, base material, grading, and asphalt/concrete placement/surface material repair as required to repair the trench and any other items required for a complete and functional system, including support of existing aboveground and below ground improvements to remain and be protected and extending the existing service pipe to the new meter location and shall

include full compensation for all labor, materials, flushing, testing, and equipment to install the water meter and connect to the private service line

2. Basis of Payment: Payment shall be made at the Contract Unit Price for each relocated existing meter and house service

U. CONNECT EXISTING CUSTOMER WATER SERVICE TO NEW METER

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) relocated existing water service from the old meter to the new meter, including disposal of the existing meter box. City Water Operations staff will either move the existing water meter or provide the contractor with a new meter. Work includes connecting the new dual check valve to an existing customer service line of unknown material will be made on a per each (EA) unit basis for each installation completed and accepted by the City. This item includes relocating and re-installing an existing service to the new water meter box, extending the existing service pipe to the new meter location and shall include full compensation for all labor, materials, flushing, testing, and equipment to install the water meter and connect to the private service line. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be made at the Contract Unit Price for each existing service connected to a new meter.

V. PROVIDE TEMPORARY POTABLE WATER SERVICE TO EFFECTED RESIDENTS

Method of Measurement: Payment for this item shall be made at the lump sum (LS) basis for temporary potable water service to prevent outages of more than 24 hours duration. The contract price shall include full compensation for all labor, materials and equipment for providing temporary water service to effected residents. Contractor is to provide details of the methods used to provide temporary service and a cost breakdown for this item.

3.05 STORMWATER COLLECTION PAY ITEMS

A. REMOVAL OF STORM DRAIN (BY DIAMETER AND TYPE MATERIAL)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of storm pipe removed and approved and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, removal of storm pipe, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, support of existing aboveground and below ground improvements to remain and be protected, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price, by size, per linear foot of pipe removed

B. <u>REMOVAL OF STORM STRUCTURE</u>

 Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) existing storm structure removed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, removal of existing storm structures, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, including support of existing aboveground and below ground improvements to remain and be protected, and any other items required for a complete and functional system.

Basis of Payment: Payment shall be at the Contract Unit Price per structure removed.

C. STORMWATER PIPE (BY DIAMETER PIPE AND TYPE MATERIAL)

- Method of Measurement: The quantity to be paid for under this Section shall be to the nearest linear foot (LF) along the horizontal center line of the pipe between the limits as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, provision of suitable bedding, hauling and legal off-site disposal of debris, temporary shoring, dewatering, installation of stormwater pipe in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, connection of new storm drain piping to existing and proposed manholes/inlet and any other items required for a complete and functional system, including support of existing aboveground and below ground improvements to remain and be protected.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pipe installed.

D. CONCRETE COLLAR

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) concrete collar installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required for installation of new concrete collar to connect stormwater pipes of dissimilar materials in accordance with the plans and specifications, and any other items required for a complete and functional system.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per collar installed.

E. STORMWATER INLET, MANHOLE, STRUCTURE (BY TYPE & DIA OF STRUCTURE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) stormwater structure installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling, legal off-site disposal of debris, temporary shoring, dewatering, installation of new stormwater structure, installation of grate or ring and cover (as applicable), connections to existing piping, trench backfilling, compaction, density testing, additional fill, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per structure installed.

F. CONNECTION TO EXISTING STORMWATER STRUCTURE (BY DIAMETER PIPE)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) new stormwater piping connection to an existing stormwater structure, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to connect a new stormwater pipe to an existing stormwater structure as shown on the drawings, including coring and grouting the new opening, plugging other existing inverts, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be made at the Contract Unit Price per proposed connection installed

G. BYPASS PUMPING COMPLETE (STORM WATER)

- Method of Measurement: The quantity to be paid for under this Section shall be made at the lump sum (LS) basis. The price shall include full compensation for all labor, materials and equipment for providing bypass piping to maintain the systems' services/purpose. This item also includes removal of the Bypass Pumping System after the new stormwater system is complete, accepted and cleared for service.
- Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the bypass pumping completed.

H. SHEET PILING DURING EXCAVATION (BY DEPTH OF PANELS)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) length of shoring measured horizontally from the start of shoring to the end, driven and installed to the depths as indicated on the plans. The price for this item shall be full compensation of labor, equipment, and materials for all work required to furnish and install the shoring and sheeting and other approved trench safety measures and appurtenances. All shoring and sheeting calculations and drawings must be signed and sealed by a Professional Engineer registered in the State of Florida at no additional cost to the City. Also included is removal of the shoring upon completion of trenching activities.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of shoring utilized during construction.

I. TRENCH BOX OR TEMPORARY PANEL SHORING DURING EXCAVATION (BY TYPE)

- Method of Measurement: The quantity to be paid for under this Section shall be per day (DA) of on-site use of trench box or temporary shoring panels used to stabilize excavations. The price for this item shall be full compensation of labor, equipment, and materials for all work required to furnish and place boxes or panels.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per day based upon the size of the trench box utilized during construction.

J. <u>DEWATERING OPERATION DURING EXCAVATON</u>

 Method of Measurement: The quantity to be paid for under this Section shall made at the lump sum (LS) basis. The contract price shall include full compensation for providing a complete dewatering system and shall include all labor, equipment, and materials for the dewatering operation for the installation of the storm drain systems and appurtenances. This item includes a stilling basin, pump noise mitigation, providing and maintaining floating turbidity barriers at all storm sewer outfalls, and other required dewatering appurtenances. Dewatering pumps shall have mitigation measures to reduce the noise level to less than 60 dBA measured at the base of residential and/or commercial office building structures. The lump sum unit price of this item also includes installation and removal of temporary soil ramps over header pipes at driveways to allow access to properties at all times during construction.

Basis of Payment: Payment shall be made at the Contract Lump Sum Price and shall be paid in increments in proportion to the work completed.

K. <u>EXFILTRATION TRENCH (BY PIPE DIAMETER)</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of exfiltration pipe and trench installed and accepted by the City. Measurement shall be along the centerline of the pipe from inside face of structure to inside face of structure, or from end (bell or spigot) of exfiltration trench slotted pipe to inside face of structure. The contract unit price shall include all necessary labor, equipment and materials for furnishing and laying of the exfiltration trench, excavation backfilling, compacting and appurtenances in accordance with the plans and specifications, including restoration and cleanup. Work under this item includes the connection of exfiltration system piping to manholes/inlets and also includes geotextile filter fabric, rock and slotted drainage pipe.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of exfiltration pipe and trench installed.

3.06 SANITARY SEWER SYSTEM PAY ITEMS

A. REMOVAL OF EXISTING SANITARY SEWER (BY DIAMETER AND DEPTH)

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of sanitary sewer main removed and disposed of off-site in a legal manner and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, trench safety, dewatering, removal of RCP, VCP, DIP, PVC, or other sanitary sewer material, hauling and legal off-site disposal of debris, temporary shoring, existing utility support and protection, trench backfilling, compaction, density testing, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of sanitary sewer line removed.

B. REMOVAL OF EXISTING SANITARY MANHOLE (BY SIZE AND DEPTH)

 Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) existing sanitary manhole removed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, concrete, grout, dewatering, removal of existing sanitary structure, existing utility support and protection, temporary shoring, hauling and legal

- off-site disposal of debris, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per manhole structure removed.

C. INSTALL SANITARY MANHOLE (BY SIZE AND DEPTH)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) sanitary structure installed, complete and accepted at the depths and dimensions as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, installation of new sanitary structure in accordance with City of West Palm Beach Standards, manhole ring and cover, proposed sanitary pipe connections, pipe stub-outs up to 3 LF in length as required, flexible couplings to connect to existing sanitary main to stubbed out piping as required, removal and disposal of existing piping for stub-out installation, existing utility support and protection, temporary shoring, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, surface restoration, adjustment of ring and cover to be flush with finish surfaces and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per sanitary manhole installed

D. INSTALL MANHOLE RING & COVER (BY SIZE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) manhole ring and cover installed on an existing structure, as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove any existing ring and cover, excavation of any type of surrounding material including asphalt, limerock, temporary shoring, dewatering, installation of new ring and cover in accordance with City of West Palm Beach Standards, removal and disposal of debris, trench backfilling, compaction, surface restoration, adjustment of ring and cover to be flush with finish surfaces and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per ring and cover installed

E. INSTALL SANITARY / STORM CONFLICT MANHOLE (BY SIZE AND DEPTH)

1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) conflict manhole structure installed, complete and accepted at the depths and dimensions as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, installation of new sanitary structure in accordance with City of West Palm Beach Standards, manhole ring and cover, storm pipe connections, sanitary casing and carrier pipes, pipe stub-outs up to 3 LF in length as required,

flexible couplings to connect to sanitary main as required, removal and disposal of existing piping for stub-out installation, existing utility support and protection, temporary shoring, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, surface restoration, adjustment of ring and cover to be flush with finish surfaces and any other items required for a complete and functional system.

Basis of Payment: Payment shall be at the Contract Unit Price per conflict manhole installed

F. INSTALL LIFT STATION WETWELL (BY DIAMETER) UP TO 16' DEPTH

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per vertical foot (VF) of pre-cast concrete wet well installed, complete and accepted at the depths and dimensions as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, installation of new wastewater wetwell in accordance with City of West Palm Beach Standards, wetwell top slab, base slab, reinforcing steel, influent and effluent pipe connections, flexible couplings for pipe connections, existing utility support and protection, temporary shoring, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, surface restoration, finish surfaces and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per vertical foot of wet well installed

G. INSTALL LIFT STATION WETWELL (BY DIAMETER) UP TO 24' DEPTH

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per vertical foot (VF) of pre-cast concrete wet well installed, complete and accepted at the depths and dimensions as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, installation of new wastewater wetwell in accordance with City of West Palm Beach Standards, wetwell top slab, base slab, reinforcing steel, influent and effluent pipe connections, flexible couplings for pipe connections, existing utility support and protection, temporary shoring, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, surface restoration, finish surfaces and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per vertical foot of wet well installed

H. INSTALL LIFT STAION WETWELL (BY DIAMETER) UP TO 32' DEPTH

1. Method of Measurement: The quantity to be paid for under this Section shall be per vertical foot (VF) of pre-cast concrete wet well installed, complete and accepted at the depths and dimensions as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, installation of new wastewater wetwell in accordance with City of West Palm Beach Standards, wetwell top slab, base slab, reinforcing steel, influent and effluent pipe connections, flexible couplings for pipe connections, existing utility support and protection, temporary shoring, hauling and legal off-site

disposal of debris, trench backfilling, compaction, density testing, surface restoration, finish surfaces and any other items required for a complete and functional system.

Basis of Payment: Payment shall be at the Contract Unit Price per vertical foot of wet well installed

I. SANITARY SEWER STRUCTURE INTERIOR BLASTING OR COATING (BY SIZE & TYPE MATERIAL)

- 1. Method of Measurement: The quantity to be paid for under this section shall per vertical foot (VF) OR per square foot of concrete structure blasted or coated to the extents or average mill thickness described, complete and accepted and shall include, but not be limited to, furnishing all labor, materials and equipment to blast or coat new and existing concrete structures including disposal of blast material, other surface preparation and cleaning, coating in multiple layers in accordance with manufacturers guidelines or specifications. The unit price shall also include all necessary labor, materials, and equipment to enter confined space to perform the work and any other tasks required to complete the work.
- Basis of Payment: Payment shall be at the Contract Unit Price per vertical foot OR per square foot of structure.

J. CONNECT TO EXISTING SANITARY MANHOLE (BY DIAMETER OF GRAVITY OR FORCE MAIN)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) connection to an existing manhole and shall be full compensation for furnishing all materials, labor, and equipment including excavation, dewatering, shoring, coring, cutting, adjusting, connecting, removing, and all other necessary activities required to connect the proposed gravity sewer main improvements to the existing gravity sewer main pipes as indicated on the plans.
- Basis of Payment: Payment shall be at the Contract Unit Price per point of connect completed.

K. CONNECT TO EXISTING FORCE MAIN (BY DIAMETER OF PIPE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) connection to an existing force main and shall be full compensation for furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, temporary shoring, existing utility support, dewatering, removal of fittings, cutting existing pipe, installation of sleeves, wyes, restraints on existing joints, and includes the plug valve, valve box, housekeeping pad as may be required to connect the proposed force main to the existing force main. Also included is disposal of wastewater, pressure testing, trench backfilling, compaction, density testing, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per force main connection completed.

L. CONNECT TO EXISTING FORCE MAIN BY WET TAP (BY DIAMETER OF PIPES)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) tapping sleeve and valve installed, complete and accepted, and shall include but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, temporary shoring, existing utility support, dewatering, installation of the tapping sleeve and gate valve, valve box, housekeeping pad as may be required, pressure testing, trench backfilling, compaction, density testing, and any other items required for a complete and functional system.
- Basis of Payment: Payment under this item shall be made at the Contract Unit Price, by size, for each tapping sleeve and valve.

M. INSIDE DROP ON SANITARY MANHOLE

- 1. Method of Measurement: The quantity to be paid for shall be per each (EA) inside lateral drop installed, complete and accepted and includes furnishing all materials, labor, and equipment required, including excavation, temporary shoring, dewatering, core drilling, grouting, backfill, compaction, density testing, surface restoration, pipe connections, stainless steel fittings and anchors in accordance with City of West Palm Beach standards, pipe stub-outs up to 3 LF in length as required, existing utility support and protection, hauling and legal off-site disposal of debris, surface restoration and any other items required for a complete and functional system.
- 2. Basis of Payment: Payment shall be made at the Contract Unit Price per each inside drop connection.

N. OUTSIDE DROP ON SANITARY MANHOLE

- 1. Method of Measurement: The quantity to be paid for shall be per each (EA) outside drop installed, complete and accepted and includes furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, core drilling, grouting, pipe connections, stainless steel fittings and anchors per City of West Palm Beach standards, pipe stub-outs up to 3 LF in length as required, existing utility support and protection, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, surface restoration and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be made at the Contract Unit Price per each outside drop connection.

O. SANITARY SEWER EPOXY LINED FORCE MAIN (BY DIAMETER PIPE AND TYPE MATERIAL)

1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF), to the nearest foot as measured along the horizontal center line of the pipe between the limits as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, existing utility support and protection, dewatering, removal of existing forcemain, installation of forcemain in accordance with City of West Palm Beach Standards including the additional piping.

required to account for the vertical change in elevation, layout, joint restraint, location tracing wire, cleaning, flushing, pressure testing (including temporary caps/plugs for testing as may be required), trench backfilling, compaction, density testing, hauling and legal off-site disposal of debris and any other items required for a complete and functional system. Also included is the painting of a 2" wide continuous green line on two sides of the pipe and fittings as indicated on the drawings.

Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pipe installed.

P. ABOVE GROUND EPOXY LINED FORCE MAIN (BY DIAMETER PIPE AND TYPE MATERIAL)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF), to the nearest foot as measured along the horizontal center line of the pipe between the limits as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install above ground forcemain in accordance with City of West Palm Beach Standards including flange fittings, primer and finish painting, cleaning, flushing, pressure testing (including temporary caps/plugs for testing as may be required), neoprene sleeves where pipe passes thru slabs, any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of pipe installed.

Q. FORCE MAIN EPOXY LINED FITTINGS (BY DIAMETER PIPE AND TYPE MATERIAL)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) force main fitting installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install force main fittings as shown on the drawings including joint restraint, layout, identification painting, connection to the existing force main, and any other items required for a complete and functional system
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per fitting installed.

R. PIPE SUPPORT STANDS (BY SIZE AND TYPE MATERIAL)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) pipe support stand installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install pipe support stands as shown on the drawings including design, layout, support saddles, anchor plates, anchor bolts, galvanizing, and any other items required for a complete and functional system
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per fitting installed.

S. GRAVITY SANITARY SEWER (BY DIAMETER PIPE, DEPTH AND TYPE MATERIAL)

Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF), to the nearest foot as measured along the horizontal center line of the pipe, placed at the depths and between the limits shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, layout, temporary shoring, support and protection of existing utilities, dewatering, installation of sanitary sewer main in accordance with City of West Palm Beach Standards, wye fittings as may be required, reconnection of existing laterals found in the field or connections to newly replaced laterals, trench backfilling, compaction, density testing, connection to other sanitary sewer pipes and manholes, bypass pumping as required, cleaning, flushing, pressure testing (including temporary caps/plugs for testing as may be required), closed circuit television recording (CCTV), and any other items required for a complete and functional system.

2. Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of sewer pipe installed.

T. PIPE BEDDING

- Method of Measurement: The quantity to be paid for under this Section shall be on a cubic yard (CY) basis on a loose volume truck load basis. Work shall include, but not be limited to purchasing, transporting, spreading and grading imported pipe bedding material, #57 stone or approved equal.
- Basis of Payment: Payment shall be made at the Contract Unit Price per cubic yard (CY) truck measure to the limits shown on the plans or as directed by the Engineer in the field during construction.
- Exceptions: No payment shall be made for pipe bedding material placed by the Contractor for their convenience in reducing construction time or proper dewatering operation.

U. GRAVITY SEWER LATERAL WITH CLEANOUT (BY DIAMETER & TYPE MATERIAL)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be for each (EA) sanitary lateral and cleanout installed to the lengths and depth as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, layout, temporary shoring, support of existing aboveground and below ground improvements to remain and be protected, dewatering, installation of sanitary sewer lateral, cleanouts, Fernco couplings, wyes and fittings in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, surface material restoration of any kind, and any other items required for a complete and functional system from the sewer main to the right of way and/or easement limits. Due to the proximity to the Intracoastal Waterway, the water table is high. Any necessary dewatering shall be included in the unit price of this item.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per lateral installed.

V. CLEAN OUT ON EXISTING LATERAL

 Method of Measurement: The quantity to be paid for under this Section shall be for each (EA) sanitary sewer cleanout installed as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, layout, temporary shoring, dewatering, installation of sanitary sewer cleaning out, wyes, Fernco couplings, caps and fittings in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, and any other items required for a complete and functional system, including support of existing aboveground and below ground improvements to remain and be protected.

Basis of Payment: Payment shall be at the Contract Unit Price per clean out installed.

W. GRAVITY SEWER COUPLINGS (BY DIAMETER & TYPE COUPLING)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be for each (EA) sewer coupling installed as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, layout, temporary shoring, dewatering, installation of sewer coupling in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, and any other items required for a complete and functional system, including support of existing aboveground and below ground improvements to remain and be protected.
- Basis of Payment: Payment shall be at the Contract Unit Price per coupling installed.

X. PIPE BURSTING AND INSTALLATION OF NEW HDPE PIPE (by size & type of pipes)

The quantity of sanitary sewer pipe to be replaced with" DR-17 HDPE by pipe bursting, shall be the linear feet measured of the completed sewers, taken along a horizontal projection of the centerline of the sewers from centerline to centerline of the manholes or to its connection to existing sanitary sewer pipe or to its termination point.

Payment for furnishing and installing 8" DR-17 HDPE pipe burst shall be made at the contract unit price per linear foot (LF) of the pipe and shall include all necessary labor, equipment and materials for furnishing and installation of the pipe by pipe burst method (string & fuse pipe), excavation of burst and receiving pits, backfilling, compacting, testing, lamping, fittings, wyes, restoration, clean-up and any appurtenant items for a complete and accepted system. Work under this item includes the connection of new sanitary sewer piping to existing manholes.

Y. REMOVE EXISTING SANITARY LATERAL (4" AND 6")

- 1. Method of Measurement: The quantity to be paid for under this Section shall be for each (EA) sanitary lateral removed as shown on the drawings, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, hauling and legal off-site disposal of debris, layout, temporary shoring, support of existing aboveground and below ground improvements to remain and be protected, dewatering, removal of sanitary sewer lateral, cleanouts, and fittings in accordance with City of West Palm Beach Standards, trench backfilling, compaction, density testing, and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per lateral removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

Z. ECCENTRIC PLUG VALVE BELOW GROUND (BY DIAMETER)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) eccentric plug valve installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install plug valve as shown on the drawings, including the valve, valve box, riser extensions, restrained joints, materials, layout, and any other items required for a complete and functional valve.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per valve installed.

AA. <u>ECCENTRIC PLUG VALVE ABOVE GROUND (BY DIAMETER)</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) eccentric plug valve installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install plug valve as shown on the drawings, including the valve, hand wheel, gearbox, support stands, two coats final paint, appurtenances and any other items required for a complete and functional valve.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per valve installed.

BB. CHECK VALVE ABOVE GROUND (BY DIAMETER)

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) check valve installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to install check valve as shown on the drawings, including the valve, outside weight, support stands, two coats final paint, appurtenances and any other items required for a complete and functional valve.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per valve installed.

CC. AIR RELEASE VALVE ABOVE GROUND (BY SIZE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) Air Release Valve installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to perform the connection to the force main, installation of taps, fittings, valves, spool pieces, and pipe; flushing, pressure testing, any other items required for a complete and functional system including SCH 80 PVC discharge pipe for residual liquids released from the valve to a manhole, wetwell or French drain.
- Basis of Payment: Payment shall be made at the Contract Unit Price for each air release valve installed.

DD. AIR RELEASE VALVE IN BELOW GROUND VAULT (BY SIZE)

 Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) Air Release Valve and Vault Structure installed, complete and accepted at the depths and dimensions as shown on the plans, and includes, but is not limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, temporary shoring, dewatering, installation of the vault in accordance with City of West Palm Beach Standards, manhole ring and cover(s) flexible couplings, gate and plug valves to connect to existing sanitary force main, air release valve, support stands, PVC drain discharge piping, existing utility support and protection, temporary shoring, hauling and legal off-site disposal of debris, trench backfilling, compaction, density testing, surface restoration and any other items required for a complete and functional system.

Basis of Payment: Payment shall be at the Contract Unit Price per sanitary manhole installed

EE. ROOT BARRIER

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of root barrier installed, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, installation of root barrier in accordance with project drawings, trench backfilling, compaction, density testing, and any other items required for a complete and functional system.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of barrier installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

FF. RESTRAIN EXISTING FORCE MAIN (BY DIAMETER PIPE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) joint of existing force main requiring joint restraint, complete and accepted and shall include, but not be limited to, furnishing all materials, labor, and equipment required to remove all existing surface material and protruding objects, excavation of any type of material including rock, legal off-site disposal of debris, temporary shoring, existing utility support, dewatering, installation of bell restraint fitting(s) as required, trench backfilling, compaction, density testing, asphalt, concrete, or other surface restoration as required and any other items required for a complete and functional system.
- Basis of Payment: Payment shall be at the Contract Unit Price per joint restraint installed.

GG. BYPASS PUMPING OF WASTEWATER (BY PUMP SIZE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a lump sum (LS) basis, The price shall include full compensation for all labor, materials and equipment for providing a bypass pumping and piping system to maintain un-interrupted wastewater systems' service or temporary pumps, pipes and/or pumper trucks needed to support wastewater collection and/or transmission main installation or modifications. The Contractor's price shall include full compensation to maintain upstream wastewater flow during construction of the improvements shown on the plans.
- Basis of Payment: Payment shall be at the Contract Unit Price by (LUMP SUM) for each location where bypass of wastewater flow is necessary. Work includes, but is not limited to, furnishing all labor, equipment, vehicles and materials related to the

design, logistics, setup, operation and maintenance of pumps, pipes, vacuum trucks, pumper trucks, tankers and other methods necessary required to maintain upstream flow of wastewater.

HH. BYPASS OF WASTEWATER (BY SIZE TRUCK)

- Method of Measurement: The quantity to be paid for under this Section shall be on a
 per UNIT per basis, The price shall include full compensation for all labor, materials
 and equipment for providing pumper truck(s) to maintain un-interrupted wastewater
 systems' service. The Contractor's price shall include full compensation to maintain
 upstream wastewater flow during construction of the improvements shown on the
 plans.
- Basis of Payment: Payment shall be at the Contract Unit Price by (UNIT) for each pumper truck required to provide bypass of wastewater flow. Work includes, but is not limited to, furnishing all labor, equipment, vehicles and materials related to the logistics, setup and operation of vacuum trucks, pumper trucks or tankers required to maintain upstream flow of wastewater.

II. PROVIDE TEMPORARY SANITARY SERVICE TO EFFECTED RESIDENTS

Method of Measurement: Payment for this item shall be made at the lump sum (LS) basis for temporary wastewater service to prevent outages of more than 24 hours duration. The contract price shall include full compensation for all labor, materials and equipment for providing temporary sanitary service to effected residents. Contractor is to provide details of the methods used to provide temporary service and a cost breakdown for this item.

JJ. SMOKE TESTING OF SANITARY SEWERS

Payment for this item shall be made at the lineal foot (LF) basis. The contract price shall include full compensation for providing complete smoke testing, including advance notices to homeowners and businesses, monitoring of all properties during the testing and submittal of written findings and observations.

KK. WASTEWATER LIFT STATION

- 1. Method of Measurement: The quantity to be paid for under this Section shall a lump sum for the lift station, complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to provide a fully operational wastewater pumping station including concrete wetwell, wetwell liner, wastewater pumps, pump rails, hatches, piping, valves, emergency pump connections, electric meter base, primary and secondary conductors, control floats, pressure transducers, spare parts, exterior lights, electrical control panel, electrical wiring, SCADA control panel, PLC, junction box, grounding grid, emergency generator receptacle, antennae, connection to FPL electrical point of service, concrete slabs and driveway, fences and gates, grassing, stone ground cover and, if shown on plans, an emergency generator and automatic transfer switch.
- Basis of Payment: Payment shall be at the Contract Lump Sum Price for a complete operational lift station.

LL. <u>LIFT STATION CONTROL PANEL (BY VOLTS & AMPS)</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall a lump sum for a new lift station electrical control panel complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to provide a fully operational pumping station control panel including electric meter base, primary and secondary conductors, control floats, pressure transducers, spare parts, exterior lights, electrical control panel, electrical wiring, SCADA control panel, PLC, junction box, grounding grid, emergency generator receptacle, antennae, connection to FPL electrical point of service, slabs, and stone ground cover, including temporary power or bypass pumping during transfer of service from the existing electric panel to the new control panel.
- 2. Basis of Payment: Payment shall be at the Contract Lump Sum Price for the lift station control panel.

MM. <u>LIFT STATION SUBMERSIBLE PUMP (BY HP) REPLACEMENT</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per pump for a new lift station submersible pump complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to provide a fully operational wastewater pump including impeller, min 50' long electrical conductor, spare parts, spare wear rings and connection to electrical control panel.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per pump.

NN. LIFT STATION PUMP GUIDERAIL (BY DIAMETER) REPLACEMENT

- Method of Measurement: The quantity to be paid for under this Section shall be per vertical foot (VF) for new stainless steel submersible pump guiderail complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace pump guiderails including anchors, top rail guides and concrete repair.
- Basis of Payment: Payment shall be at the Contract Unit Price per foot of guiderail, assuming two guiderails per pump.

OO. <u>LIFT STATION PUMP DISCHARGE PIPE RISER (BY DIAMETER & TYPE MATERIAL)</u> REPLACEMENT

- Method of Measurement: The quantity to be paid for under this Section shall be per vertical foot (VF) for new submersible pump discharge pipe riser complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace pump discharge pipe including reconnection at discharge plate, connectors, stiffeners, reducers and elbows.
- Basis of Payment: Payment shall be at the Contract Unit Price per foot of discharge pipe.

PP. <u>LIFT STATION PUMP DISCHARGE PIPE FITTINGS (BY DIAMETER & TYPE MATERIAL)</u>

 Method of Measurement: The quantity to be paid for under this Section shall be per fitting for new submersible pump discharge flanged pipe fittings or adapters, complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace pump discharge pipe including reconnection at discharge plate, connectors, stiffeners, reducers and elbows.

2. Basis of Payment: Payment shall be at the Contract Unit Price per foot of discharge pipe.

QQ. LIFT STATION PUMP LIFTING CHAIN (BY SIZE) REPLACEMENT

- Method of Measurement: The quantity to be paid for under this Section shall be per vertical foot (VF) for new stainless steel pump lifting chain complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace pump lifting chain pipe including reconnection at pump head, fasteners and connectors.
- Basis of Payment: Payment shall be at the Contract Unit Price per foot of lifting chain.

RR. <u>LIFT STATION PUMP DISCHARGE PIPE SUPPORT BRACKETS (BY DIAMETER & TYPE MATERIAL) REPLACEMENT</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) new stainless steel pump discharge pipe support bracket complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace pump discharge pipe support brackets including anchors, connectors, and concrete repair.
- Basis of Payment: Payment shall be at the Contract Unit Price per each support bracket.

SS. <u>LIFT STATION PUMP DISCHARGE BASEPLATE (BY DIAMETER) REPLACEMENT</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) new submersible pump discharge baseplate complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace pump discharge baseplate including anchors and concrete repair.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per each baseplate.

TT. <u>LIFT STATION PUMP CABLE HANGER BRACKET (BY NUMBER OF PUMPS)</u> REPLACEMENT

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) new stainless steel cable hanger bracket complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to remove and replace cable hanger bracket including anchors and concrete repair.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per each bracket.

UU. LIFT STATION EMERGENCY PUMP CONNECTION (BY DIAMETER)

 Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) for new lift station emergency pump connection assembly complete, operational and accepted and shall include, but is not limited to, furnishing all materials, labor, and equipment required to install above and below ground piping, flanges, interior and exterior coatings including cam lock connectors and caps, and concrete housekeeping pad.

Basis of Payment: Payment shall be at the Contract Unit Price per emergency pump connection.

VV. HATCHES AND COVERS (BY SIZE)

- Method of Measurement: The quantity to be paid for under this Section shall be on per each (EA) hatch or cover. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for fabrication and installation of hatches, covers and frames for new or existing concrete structures, including frames, handles, lift bars, stop levers, anchors and hinges.
- 2. Basis of Payment: The amount to be paid shall be the Contract Unit Price, by size, for each hatch or cover installed.

3.07 PAVING PAY ITEMS

T. TEMPORARY TRAFFIC STRIPING & MARKING ALL WIDTHS

- Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's price shall include full compensation for all work related to temporary striping and marking and the work items listed herein, and any other related work, except for any work designated to be paid for separately or to be specifically included in the costs of other work under the Contract. Work includes, but is not limited to, furnishing all materials, labor, and equipment required to install temporary traffic striping and markings with traffic rated paint as required to restore these elements as they existed prior to commencement of the project and to maintain the temporary striping during the duration of the project.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot for temporary pavement striping to the limits shown on the plans or as directed by the Engineer in the field during construction.

U. OPEN CUT PAVEMENT REPAIR

- Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) and shall include compensation for multiple mobilizations, labor, materials, and equipment required to remove, replace and repair the pavement over the pipe trench, including straight sawcuts, tack coats and two 1" lifts of S-III asphaltic concrete. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of pavement and base removed to the limits shown on the plans or as directed by the Engineer in the field during construction.

V. TRAFFIC SIGNAL INDUCTANCE LOOPS

- 1. Method of Measurement: The quantity to be paid for under this section shall per each (EA) travel or turn lane inductance loop replaced, including furnishing all labor, materials and equipment to cut, install, seal and reconnect inductance loops to existing conductors in conduits or junction boxes leading to the traffic control panel. The unit price shall also include all necessary labor, materials, and equipment to accommodate the loop installation, including traffic control and coordination with the traffic signal operations control agency. Contractor to coordinate with Palm Beach County Traffic Division (561-684-4030) prior to submitting a bid to determine the exact scope and requirements associated with any signal loop work.
- Basis of Payment: Payment shall be at the Contract Unit Price per lane inductance loop installed.

W. MILLING OF EXISTING ASPHALT SURFACE (1" MIN. THICKNESS)

- 1. Method of Measurement: The quantity to be paid for under this section shall per square yard (SY) of milled asphalt pavement with an average milled thickness of 1" complete and accepted and shall include, but not be limited to, furnishing all labor, materials and equipment to mill existing asphalt pavement including stockpiling, hauling, legal off-site disposal, sweeping, temporary pavement markings and preparing surface for asphalt resurfacing in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. The unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to accommodate the milling operation, sawcutting, transitions to existing pavement and any other tasks required to complete the work.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of pavement milled to the limits shown on the plans or as directed by the Engineer in the field during construction.

X. <u>ASPHALTIC CONCRETE PAVEMENT (BY THICKNESS AND TYPE S-1, S-3 OR SUPERPAVE)</u>

1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of asphalt surface course and shall include all labor, material, and equipment required to construct the base layer and the final surface course as shown on the plan view and detail drawings. The unit prices shall include compensation for multiple mobilizations, labor, materials, and equipment required to construct the new asphalt concrete base and surface courses. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. This unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, milling existing asphalt at tie-ins, tack coating, compaction, rolling, brooming, sawcutting and any other work required to complete the work.

2. Basis of Payment: Payment shall be at the Contract Unit Price per square yard of pavement installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

Y. 10" LIMEROCK BASE

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) for limerock base installed and accepted. The Contract Unit Price shall include compensation for all labor, materials, and equipment required to construct the new lime rock base, including prime coat in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to correct all defective surfaces and deficient thicknesses and to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. The Contractor may, at no additional cost to the City of West Palm Beach, substitute 10- inch crushed concrete in lieu of limerock provided that the minimum LBR 100 is achieved.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of limerock base installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

Z. 12" STABILIZED SUB-GRADE - LBR 40

- Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of new stabilized sub grade (LBR 40 12" thick) and shall include all labor, material, and equipment required to construct the stabilized sub grade as shown on the detail drawings. The unit price shall include all excavation, preparation of sub grade, fine grading, placement of sub grade material, stabilization and compaction, rolling, brooming, and other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of sub-grade installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

AA. RECLAIMED ASPHALT BASE COURSE (BY THICKNESS)

1. Method of Measurement: The quantity to be paid for will be the plan quantity area, in square yards, over which reclaiming is completed and accepted. Price and payment will be full compensation for all work specified in the work order, including hauling off and stockpiling or otherwise disposing of the excess reclaimed material. The depth of reclaim is specified in parentheses in the schedule of bid items and/or work order. This unit price shall include cost for grading and compaction of reclaimed or existing base (up to 12") to 98% of AASHTO T-180. The Unit prices include all items listed in the contract, including all General Conditions, Special Conditions and Technical Provisions pertaining to Full Depth Reclamation with asphalt, including all items of work described herein. No additional payment will be provided for any item

necessary for the completion of this contract as detailed in the specifications. If a pay item is listed on the Bid Form for work required in this Technical Provision, the quantity to be paid shall be as specified in the Bid Form and/or work order including all items of work described herein. Any item necessary for Full Depth Reclamation with Asphalt Emulsion or Foamed Asphalt, and not specifically listed in another item in the Bid Form, shall be included in the SY Price for Pulverization including but not limited to shaping, compacting, finish grading, prime coat, sanding prime coat.

Basis of Payment: Payment shall be at the Contract Unit Price per square yard of base course installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

BB. ASPHALT EMULSION FOR RECLAMATION (ASPHALT TREATED BASE COURSE)

Method of Measurement: The quantity to be paid for shall be on a per ton basis. The
Contractors unit price shall include full compensation for providing and applying
asphalt emulsion for reclaiming areas in accordance with the plans and
specifications. The Contractor's unit price shall include compensation for labor,
materials and equipment required to provide emulsion to reclaimed area, including
grading, mixing and compaction in accordance with the plans and specifications.

CC. FLOWABLE FILL

- Method of Measurement: The quantity to be paid for under this Section shall be on a cubic yard (CY) basis of placed flowable fill. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for the placement of flowable fill where indicated on the plans or directed for use in the field during construction.
- Basis of Payment: Payment shall be at the Contract Unit Price per cubic yard of flowable fill shown on the plans or as directed by the Engineer in the field during construction.
- Exceptions: No payment shall be made for flowable fill placed by the Contractors for their convenience in reducing construction time or when permitted by the Engineer to meet backfill compaction density requirements.

DD. 1-1/4 " OR 1-1/2" (TYPE S-1, S-3 OR SUPERPAVE) ASPHALT MILL & OVERLAY

1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of asphalt overlay and shall include all labor, material, and equipment required to mill up to 1" of existing asphalt pavement and place the asphalt concrete overlay as shown on the plan view and detail drawings. The unit price shall include compensation for multiple mobilizations, labor, materials, and equipment required to construct the new asphalt concrete base and surface courses. The contract unit price shall also include hauling off and stockpilling or otherwise properly disposing of the milled material, temporary striping of the milled surface if required and other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. This unit price shall also include all necessary labor, materials, and equipment to adjust

the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, milling, tack coating, compaction, rolling, brooming, sawcutting and any other tasks required to complete the work.

Basis of Payment: Payment shall be at the Contract Unit Price per square yard of asphalt overlay installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

EE. ASPHALT (SUPERPAVE, TYPE S-1, S-III) PLACED IN TWO 1" LIFTS

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) asphalt surface course and shall include all labor, material, and equipment required to construct two 1-inch asphalt concrete surface as shown on the plan view and detail drawings. The second and final lift being placed only after substantial completion has been achieved by the Contractor. The unit price shall include compensation for multiple mobilizations, labor, materials, and equipment required to construct the new asphalt concrete base and surface courses. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. This unit price shall also include all necessary labor, materials, and equipment to adjust the valve boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, milling, tack coating, compaction, rolling, brooming, sawcutting and any other work required to complete the work.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of asphalt pavement installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

FF. 2-INCH ASPHALT (TYPE S-1 OR SUPERPAVE)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) asphalt surface course and shall include all labor, material, and equipment required to construct asphalt concrete surface as shown on the plan view and detail drawings. The unit price shall include compensation for mobilization(s), labor, materials, and equipment required to construct the new asphalt concrete base and surface courses. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. This unit price shall also include all necessary labor, materials, and equipment to adjust the vaive boxes, manholes, rims, inlets, or other fixtures to final grade, transitions to existing pavement, milling, tack coating, compaction, rolling, brooming, sawcutting and any other work required to complete the work.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of asphalt pavement installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

GG. <u>6" COMPACTED SHOULDERS - LBR 40</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of new stabilized shoulders (LBR 40 6" thick) and shall include all labor, material, and equipment required to construct the stabilized shoulders as shown on the detail drawings. The unit price shall include all excavation, preparation of sub grade, fine grading, placement of material, stabilization and compaction, rolling, brooming, and other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of compacted shoulders completed to the limits shown on the plans or as directed by the Engineer in the field during construction.

HH. CONCRETE SIDEWALK (4" THICK)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of sidewalk installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the sidewalk in accordance with the plans and specifications. The contract unit price shall also include rough grading, 6" subgrade compaction, forms, expansion joints, fibermesh or welded wire mesh, broom finish and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of sidewalk installed to the limits shown on the plans or as directed by the Engineer in the field during construction.
- 3. Exceptions: Any sidewalk that is broken incidental to construction shall be replaced at the Contractor's expense

II. CONCRETE SIDEWALK (6" THICK)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of sidewalk installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the sidewalk in accordance with the plans and specifications The contract unit price shall also include rough grading, 10" subgrade compaction, forms, expansion joints, fibermesh or welded wire mesh, broom finish and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of sidewalk installed to the limits shown on the plans or as directed by the Engineer in the field during construction.
- 3. Exceptions: Any sidewalk that is broken incidental to construction shall be replaced at the Contractor's expense

JJ. CONCRETE FLATWORK (5" THICK)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of slab or other flatwork installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the slab in accordance with the plans and specifications The contract unit price shall also include rough grading, 10" subgrade compaction, forms, expansion joints, visqueen vapor barrier, fibermesh or welded wire mesh, broom finish and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of sidewalk installed to the limits shown on the plans or as directed by the Engineer in the field during construction.
- Exceptions: Reinforcing steel, if required, shall be paid for under a separate line item.

KK. CURB RAMPS W/ TACTILE SURFACE (ADA COMPLIANT)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) Curb Ramp installed and accepted. The contract unit price shall include full compensation for furnishing and installing the ADA ramp compliant with FDOT index 304, of the type and at the locations shown on the Drawings. The curb ramps shall be in accordance with the plans, details, and specifications. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. Curb ramps at bus stops will be paid for as a separate bid item.
- Basis of Payment: Payment shall be at the Contract Unit Price per curb ramp installed.

LL. BUS STOP RAMPS - WITH SIDE CURBS

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) Bus Stop Ramp installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the bus stop ramp in accordance with the plans and specifications. The contract unit price shall also include subgrade compaction; the Type 'D' curb and curb transitions along the edge of pavement and along each side of the ramp; the drainage side drain piping and associated concrete slabs; and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per Bus Stop Ramp installed.

MM. BUS STOP RAMPS - WITHOUT SIDE CURBS

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) Bus Stop Ramp installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the bus stop ramp in accordance with the plans and specifications. The unit price shall also include subgrade compaction; the Type 'D' curb and curb transitions along the edge of pavement; and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per Bus Stop Ramp installed.

NN. CONCRETE DRIVEWAY APRONS (BETWEEN SIDEWALK AND EDGE OF PAVEMENT

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of concrete installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the driveway in accordance with the plans and specifications. The contract unit price shall also include rough grading, 10" subgrade compaction, forms, expansion joints, fibermesh or welded wire mesh, broom finish and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of apron installed to the limits shown on the plans or as directed by the Engineer in the field during construction..

OO. ASPHALT DRIVEWAY APRONS (BETWEEN SIDEWALK AND EDGE OF PAVEMENT

- Method of Measurement: The quantity to be paid for under this Section shall be per square yard (SY) of asphalt installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the driveway in accordance with the plans and specifications. The contract unit price shall also include 12" subgrade compaction; 8" limerock base placement, compaction and prime coat; and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of apron installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

PP. REMOVE & REPLACE SPECIALTY PAVER DRIVEWAY APRONS (BETWEEN SIDEWALK AND EDGE OF PAVEMENT

1. Method of Measurement: The quantity to be paid for under this Section shall per square yard (SY) of pavers installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the pavers in accordance with the plans and specifications. The contract unit price shall also include 12" subgrade compaction; 2" sand base placement and compaction, final sand joint filling, and all other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.

Basis of Payment: Payment shall be at the Contract Unit Price per square yard of specialty paver driveway installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

QQ. ADJUST VALVE BOX TO FINAL GRADE

1. Method of Measurement: The quantity to be paid for adjusting a water valve box to be flush with a revised grade will be made at a unit basis per each (EA) adjustment completed and accepted by the City. The contract unit price shall include all labor, materials, and equipment necessary to adjust a manhole in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. Risers may not be used. Valve box must be adjusted using existing raising/lowering system. If box cannot be raised or lowered, existing box must be removed and new box (City approved) must be installed at no additional cost to the City.

RR. ADJUST MANHOLE RING AND COVER TO FINAL GRADE

1. Method of Measurement: The quantity to be paid for adjusting a manhole to be flush with a revised grade will be made at a unit basis per each (EA) adjustment completed and accepted by the City. The contract unit price shall include all labor, materials, and equipment necessary to adjust a manhole in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. Risers may not be used, unless otherwise approved by the City. If risers are approved for use, Contractor to issue credit to the City.

SS. HEADER OR VERTICAL OR MOUNTABLE CURB

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis for the concrete curb installed and accepted by the City. The contract unit price shall include all labor, materials, and equipment necessary to furnish and prepare the 12 inch deep sub-grade (LBR 100) curb pad and install the concrete curbs in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of curb installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

TT. TYPE "D" CURB

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis for the concrete curb installed and accepted by the City. The contract unit price shall include all labor, materials, and equipment necessary to furnish and prepare the 12" deep sub-grade (minimum LBR 40) curb pad and install the concrete curbs in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of curb installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

UU. TYPE "F" CURB AND GUTTER

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis for the concrete curb installed and accepted by the City. The contract unit price shall include all labor, materials, and equipment necessary to furnish and prepare the 12" deep sub-grade (minimum LBR 40) curb pad and install the concrete curbs in accordance with the plans and specifications. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of curb installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

VV. FINISHED GRADING

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a per square yard (SY) basis. The unit price bid for this item shall be full compensation for all labor, materials and equipment required for finished grading the area between the edge of pavement and sidewalk in accordance with the plans and specifications. Contract unit price bid for this item shall include removal and reinstallation of sign posts as indicated on the plans or by the specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per square yard of surface area graded to the elevations and limits shown on the plans or as directed by the Engineer in the field during construction.

WW. REMOVAL & REPLACEMENT OF SPEED TABLES

 Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) speed table to be removed and replaced to existing conditions, using the standard City of West Palm Beach Speed Table detail as guidance. This item includes all labor, material, and equipment required to re-construct the Speed Table to pre-construction condition. The unit price shall include all excavation, preparation of sub grade, placement of specialty asphalt material and stamping.

Basis of Payment: Payment shall be at the Contract Unit Price per Speed Table removed and replaced.

XX. SOD - BAHIA, ST AUGUSTINE, BERMUDA OR FLORATAM

- Method of Measurement: The quantity to be paid for under this Section shall be on a square yard (SY) basis. The unit price bid for this item shall be full compensation for all labor, materials and equipment required for soil preparation and sod placement in accordance with the drawings and specifications. The unit price bid for this item shall include all watering for planting and establishment of the sod during the contract and guarantee period.
- Basis of Payment: Payment shall be at the Contract Unit Price for the specified variety per square yard of sodding established to the limits shown on the plans or as directed by the Engineer in the field during construction.

YY. CHAIN LINK FENCE (BY HEIGHT IN FEET)

- 1. Method of Measurement: The quantity to be paid for under this Section shall be on a linear foot (LF) basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for installation of fence and posts, including fabric, corner posts, pull bars, top rails, bottom wire, line posts, terminal posts, concrete post bases, any work required to level and grade along the bottom line of the fence, clearing of vegetation or debris to allow installation of the fence and preparation of the post holes in the location indicated on the plans.
- Basis of Payment: The amount to be paid shall be the Contract Unit Price per linear foot of fence installed.

ZZ. CHAIN LINK GATE (BY SIZE)

- 3. Method of Measurement: The quantity to be paid for under this Section shall be on per each (EA) gate basis. The Contractor's unit price shall include full compensation for all labor, materials and equipment required for installation of the chain link fence gate and posts, including fabric, handles, pull bars, top and bottom rails, stretcher bars, concrete post bases, any work required to level and grade along the bottom line of the gate to allow installation of the fence and preparation of the post holes in the location indicated on the plans.
- Basis of Payment: The amount to be paid shall be the Contract Unit Price, by size, for each gate installed.

3.08 STRIPING & MARKING ITEMS

A. PAVEMENT MARKINGS (THERMOPLASTIC) FOR MINOR PROJECTS WITH LIMITED STRIPING & MARKING

Payment for this item will be made at the contract lump sum (LS) price bid, which price shall be full compensation for all materials, labor, equipment, tools and all other incidentals

necessary for completion of the pavement markings as depicted on the plans. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the Work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach Specifications.

B. 6" SOLID STRIPE - WHITE OR YELLOW (THERMOPLASTIC) FOR PAVEMENT MARKING

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of 6" thermoplastic striping installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of striping installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

C. <u>6" SKIP STRIPE - WHITE OR YELLOW (THERMOPLASTIC) FOR PAVEMENT MARKING</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of 6" yellow thermoplastic striping installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of striping installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

D. <u>6" SOLID DOUBLE STRIPE - YELLOW (THERMOPLASTIC) PAVEMENT MARKING</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of double yellow 6" thermoplastic striping installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of striping installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

E. 12" SOLID STRIPE - WHITE (THERMOPLASTIC) PAVEMENT MARKING

 Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of 12" thermoplastic striping installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications. Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of striping installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

F. 24" STOP BAR - WHITE (THERMOPLASTIC) PAVEMENT MARKING

- 1. Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of 24" thermoplastic stop bar installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications. Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of striping installed to the limits shown on the plans or as directed by the Engineer in the field during construction.
- Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of stop bars installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

G. CROSSWALK - WHITE (THERMOPLASTIC) PAVEMENT MARKING

- Method of Measurement: The quantity to be paid for under this Section shall be per linear foot (LF) of 5 foot to 8 foot wide thermoplastic crosswalk striping installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per linear foot of crosswalk striping installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

H. SHARROWS (BICYCLE SHARE THE ROAD MARKINGS) – WHITE (THERMOPLASTIC) PAVEMENT MARKING

- Method of Measurement: The quantity to be paid for under this Section shall per each (EA) of the sharrow pavement markings of thermoplastic striping installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications
- Basis of Payment: Payment shall be at the Contract Unit Price for each Sharrow marker installed.

I. ROADWAY SIGNAGE – PEDESTRIAN CROSSING, SUPPLEMENTAL WARNING SIGNS, STREET NAMES AND CASE II REFLECTORS

 Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) sign furnished, installed and accepted by the City. The unit price bid for this item shall be full compensation for all labor, materials and equipment required for furnishing and installing all Roadway Signage of the types and at the locations shown on Drawings. The contract unit price shall also include other miscellaneous work required to complete the work in accordance with the City of West Beach specifications.

Basis of Payment: Payment shall be at the Contract Unit Price per sign installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

J. REGULATORY SIGNS - SINGLE POST, LESS THAN 9 SQ FT

- 1. Method of Measurement: The quantity to be paid for under this section shall be per each (EA) sign furnished, installed and accepted by the City. The unit price bid for this item shall be full compensation for furnishing and installing each Roadway Signage of the types and at the locations shown on Drawings. The contract price shall also include miscellaneous work required to complete the work in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and the City of West Beach specifications. The bid price shall cover both standard City posts (U-Channel) and FDOT posts (solid aluminum).
- Basis of Payment: Payment shall be at the Contract Unit Price per sign installed to the limits shown on the plans or as directed by the Engineer in the field during construction.

K. REFLECTORIZED PAVEMENT MARKERS

- Method of Measurement: The quantity to be paid for under this Section shall be per each (EA) reflectorized marker installed and accepted. The unit price shall include all measurements, materials, equipment, preparation and other miscellaneous work or materials required to complete the work in accordance with Florida Department of Transportation Section 711 and City of West Palm Beach specifications.
- Basis of Payment: Payment shall be at the Contract Unit Price per each reflective marker installed.

3.09 SUPPORT EQUIPMENT

A. CCTV, JETTER, PUMPER OR VACCUM TRUCK

- Method of Measurement: The quantity to be paid for under this Section shall be per DAY (DA) OR HOUR (HR) of on-site vehicle operation. The unit price shall include an operator, helper (if needed) fuel, lubricants, materials, preparation and other miscellaneous work or materials required for the vehicle to provide and perform its support operation.
- Basis of Payment: Payment shall be at the Contract Unit Price per DAY OR HOUR of on-site vehicle operation.

B. <u>PUMPS, WELLPOINTS, COMPRESSORS AND SHORING</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per DAY (DA) OR HOUR (HR) of equipment operation. The unit price shall include transport to and from the site, an operator, fuel, lubricants, materials, preparation and other miscellaneous work or materials required for the equipment to provide and perform its support operation.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per DAY OR HOUR of on-site equipment operation.

C. CLEARING & DEMOLITION DUMPSTER (By type & Size of dumpster)

- Method of Measurement: The quantity to be paid for under this Section shall be per pull of the dumpster. The unit price shall include transport to and from the site, loading and off-site disposal and tipping fees.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per pull.

D. <u>DUMP TRUCK, WHEEL LOADER, OTHER HEAVY EQUIPMENT (BY TYPE)</u>

- Method of Measurement: The quantity to be paid for under this Section shall be per DAY (DA) OR HOUR (HR) of on-site motorized equipment operation. The unit price shall include transport to and from the site, a skilled operator, fuel, lubricants, filters, materials, preparation and other miscellaneous work or materials required for the vehicle to provide and perform its support operation.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per DAY OR HOUR of on-site vehicle operation..

E. WORK CREWS (BY TYPE & NUMBER OF PERSONNEL)

- Method of Measurement: The quantity to be paid for under this Section shall be per DAY (DA) OR HOUR (HR) of on-site work crew production. The unit price shall include transport to and from the site, hand tools, small power tools, fuel, lubricants, filters, materials, preparation and other miscellaneous work or materials required for the vehicle to provide and perform its support operation.
- 2. Basis of Payment: Payment shall be at the Contract Unit Price per DAY OR HOUR of on-site vehicle operation..

3.10 ALLOWANCE PAY ITEMS

A. PERMITS AND FEES (ALLOWANCE)

1. Method of Measurement: The quantity to be paid for under this Section shall be the actual permit and other fees charged by local governmental agencies, including, but not limited to, all license fees, business tax fees, permit fees, impact fees, or inspection fees, payable by the contractor to the unit of government that issued the permit or charged the fee for performance of the work elements. The amount to be paid under this allowance includes recording fees, parking meter fees, sign permits,

building and right of way permits and inspection fees, except that re-inspection fees resulting from inspection failure or non-compliant work shall be paid for by the Contractor.

Basis of Payment: The amount to be paid under this allowance shall be the fees
charged by approving agencies that are charged to, or required to be obtained by,
the contractor. Receipts from local governmental agencies shall be submitted as
proof of payment. All un-used allowance funds will be retained by the Owner.

B. MAINTENANCE OF TRAFFIC (ALLOWANCE) SEE ALTERNATE METHOD UNDER LUMP SUM

- Method of Measurement: The quantity to be paid for under this Section shall be based on actual costs. Only direct reimbursable costs from FDOT Certified Subcontractors for labor, equipment and materials, including rental of cones, barricades, directional and other signage will be paid for under this item. The Contractor's reimbursement shall include full compensation for all work related to the maintenance of traffic during construction of the improvements shown on the plans, and any other related work. The work includes, but is not limited to, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required traffic control measures to control the flow of traffic through the work area within the public rights of way during the various phases of the project. Preparation and submittal of Maintenance of Traffic (MOT) plans for any required agencies as well as coordination with these parties shall also be included in this item. All work shall be in accordance with applicable local, state, and federal requirements.
- No payment for Contractor's internal direct labor costs of traffic setup, flagmen or supervision will be allowed.
- Basis of Payment: Payment shall be made at actual costs and invoices submitted by qualified sub-contractors, plus 5% for Contractor's coordination. The City reserves the right to award any, all or none of the money associated with this allowance. All un-used allowance funds will be retained by the Owner.

C. TEMPORARY FENCING & ACCESS CONTROLS (ALLOWANCE)

SEE ALTERNATE METHOD UNDER LUMP SUM

- 1. Method of Measurement: The quantity to be paid for under this Section shall be based on actual costs. Only direct reimbursable costs from rental companies or staffing agencies for labor, equipment and materials, including rental of portable chain link fence, warning fence & posts, security guards, barricades, personnel bridges, sidewalk tunnels, steel plate and safety signage will be paid for under this item. The Contractor's reimbursement shall include full compensation for all work related to the safety of the public and the security of the work site during construction of the improvements shown on the plans, and any other related work, The work includes, but is not limited to, furnishing all materials, labor, and equipment required to install, maintain, and remove any and all required safety or security control measures to prevent access to the work area during the various phases of the project.
- Basis of Payment: Payment shall be made at actual costs and invoices submitted by qualified sub-contractors, plus 5% for Contractor's coordination. The City reserves the right to award any, all or none of the money associated with this allowance. All un-used allowance funds will be retained by the Owner.

D. <u>GEOTECHNICAL TESTING (ALLOWANCE)</u>

- 1. Method of Measurement: The quantity to be paid for under this Section shall be based on actual costs for materials sampling and testing performed in accordance with the current ASTM standards and as prescribed under the specifications for testing. The testing shall include sampling, transportation to a City approved laboratory facilities, sample preparation and testing and reporting on the values determined under the laboratory testing. All samples used in testing shall be stored by the testing laboratory until the City's PROJECT MANAGER provides written release to allow disposal of samples. The Contractor will be responsible to pay for all failed tests and for subsequent retesting to meet quality and standard conditions. Whenever, nonconformance is detected or determined by the City's PROJECT MANAGER as a result of the tests, the Contractor shall bear the full cost of additional tests which are ordered by the City's PROJECT MANAGER to ascertain that subsequent conformance is obtained with the contract documents.
- Basis of Payment: Payment shall be made at actual costs and invoices submitted by qualified sub-contractors, plus 5% for Contractor's coordination. The City reserves the right to award any, all or none of the money associated with this allowance. All un-used allowance funds will be retained by the Owner.

E. <u>SOFT DIGS (ALLOWANCE)</u>

- Method of Measurement: The quantity to be paid for under this Section shall be based on actual costs. Under the direction of the Engineer, the Contractor is to verify location and elevation of all existing utility conflicts and crossings as needed by soft digging the locations using "GroundHound" or "InfraMap" or another similar licensed locating service in the project area before proceeding with construction.
- Basis of Payment: Payment shall be made at actual costs and invoices submitted by qualified sub-contractors, plus 5% for Contractor's coordination. The City reserves the right to award any, all or none of the money associated with this allowance. All un-used allowance funds will be retained by the Owner.

F. MISCELLANEOUS FITTINGS, PARTS & MATERIAL (ALLOWANCE)

- Method of Measurement: The quantity to be paid for under this Section shall be based on actual costs. Under the direction of the Project Manager, the Contractor shall purchase site specific fittings, parts or other materials necessary to complete the work but not specifically listed elsewhere herein. The Contractor shall verify the specific items and provide the Project Manager with a list of such items prior to acquisition.
- 2. Basis of Payment: Payment shall be made at actual costs and invoices submitted by the Contractor from establish parts houses or manufacturers, plus 10% for Contractor's coordination, ordering and handling. The City reserves the right to award any, all or none of the money associated with this allowance. All un-used allowance funds will be retained by the Owner.

G. TOWING VEHICLES (ALLOWANCE)

- Method of Measurement: Payment for Contractor required towing of vehicles will be made as direct reimbursable allowance. Towing must be approved in the field by the City representative. No markup by the contractor will be allowed.
- Basis of Payment: Payment shall be made at actual costs and invoices submitted by qualified sub-contractors, plus 5% for Contractor's coordination. The City reserves the right to award any, all or none of the money associated with this allowance. All un-used allowance funds will be retained by the Owner.

H. PARKING FEE ALLOWANCE

- Method of Measurement: The quantity to be paid for under this Section shall be the actual permit cost or fees charged by agencies for parking permits, right of way permits or lost meter revenue fees.
- Basis of Payment: The amount to be paid under this allowance shall be the actual costs incurred, as documented by receipts or invoices from governmental agencies.

I. <u>UNSPECIFIED WORK (ALLOWANCE)</u>

- 1. Purpose: During the performance of the Contract it may become necessary to order work to be done, or materials and/or equipment furnished which are not classified under any of the above listed Pay Items or on the Schedule of Bid Items due to unforeseen conditions. The City PROJECT MANAGER, at a lump sum price or at a cost plus price, may order this work, materials, and equipment, when required by the use of a Field Change Directive. When a lump sum price is used, the lump sum price will be determined by negotiation and the use of material costs and labor rates. When a cost-plus price is used, compensation shall be limited to the Contractor's reasonable costs plus allowances as stipulated in Section B, Special Conditions.
- 2. Method of Payment: For equipment under the control of Contractor through direct ownership, leasing, renting or other method of acquisition not included in the Schedule of Values (or Schedule of Bid Items), the Contractor shall furnish cost data, which might assist the City PROJECT MANAGER in the establishment of an equitable rate. All equipment shall be in good working condition and suitable for the purpose for which the equipment is to be used. Rental time will not be allowed while equipment is inoperative due to breakdowns. Individual pieces of equipment or tools having a replacement value less than \$250.00 shall be considered small tools and no payment will be made therefore. When a lump sum or unit price is used, the lump sum/unit price will be determined by negotiation and require written preapproval by the Department Director. When a cost plus price is used, compensation shall be limited to the Contractor's reasonable costs plus markup percentages stipulated in this contract. The basis of the cost plus negotiated prices and subcontractor invoices will be included in pay application; copies of invoices, equipment cost estimations and other supporting documentation will be included.

The City reserves the right to award any, all or none of the money associated with this allowance.

J. LANDSCAPING REPLACMENT (ALLOWANCE)

- Payment for replacement of damaged trees, shrubs, lawns and ornamentals will be made as direct reimbursable allowance. plus 10% for Contractor's coordination, ordering and management of landscape sub-contractors. The City reserves the right to award any, all or none of the money associated with this allowance.
- City approval is required prior to the removal and replacement of ornamentals. Contractor shall coordinate with City PROJECT MANAGER and/or Construction Coordinator.

PROJECT COORDINATION

PART 1 - GENERAL

1.01 **RELATED DOCUMENTS**:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.02 **SUMMARY**:

- A. This Section specifies administrative and supervisory requirements necessary for Project coordination including, but not necessarily limited to:
 - 1. Coordination.
 - 2. Administrative and supervisory personnel.
 - 3. General installation provisions.
 - 4. Cleaning and protection.
- B. Progress meetings, coordination meetings and pre-installation conferences are included in Section "Project Meetings".
- C. Requirements for the Contractor's Construction Schedule are included in Section "Submittals".

1.03 **COORDINATION**:

- A. <u>Coordination</u>: Coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
 - 1. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
 - Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
 - Make adequate provisions to accommodate items scheduled for later installation.
 - B. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
 - 1. Prepare similar memoranda for the Owner and separate Contractors where coordination of their work is required.

- C. <u>Administrative Procedures</u>: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules.
 - 2. Installation and removal of temporary facilities.
 - Delivery and processing of submittals.
 - Progress meetings.
 - 5. Project Close-out activities.
- D. <u>Conservation</u>: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work. Refer to other sections for disposition of salvaged materials that are designated as Owner's property.

1.04 **SUBMITTALS**:

- A. Coordination Drawings: Prepare and submit coordination Drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space availability necessitates maximum utilization of space for efficient installation of different components.
 - 1. Show the interrelationship of components shown on separate Shop Drawings.
 - 2. Indicate required installation sequences.
 - Comply with requirements contained in Section "Submittals,"
- B. Staff Names: Within 15 days of Notice to Proceed, submit a list of the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities; list their addresses and telephone numbers.
 - 1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION PROVISIONS:

A. <u>Inspection of Conditions</u>: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

- B. <u>Manufacturer's Instructions</u>: Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items.
- D. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- E. Visual Effects: Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the best visual effect. Refer questionable choices to the Architect for final decision.
- F. Recheck measurements and dimensions, before starting each installation.
- G. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- H. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.
- I. Mounting Heights: Where mounting heights are not indicated, install individual components at standard mounting heights recognized within the industry for the particular application indicated. Refer questionable mounting height decisions to the Consultant for final decision.

3.02 CLEANING AND PROTECTION:

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- C. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1. Excessive static or dynamic loading.
 - 2. Excessively high or low temperatures.
 - 3. Air contamination or pollution.
 - 4. Water or ice.
 - Solvents.
 - 6. Chemicals.
 - 7. Puncture.
 - 8. Abrasion.
 - Heavy traffic.

- 10. Soiling, staining and corrosion.
- 11. Bacteria.
- 12. Combustion.
- 13. Electrical current.
- 14. Unusual wear or other misuse.
- 15. Contact between incompatible materials.
- 16. Destructive testing.
- 17. Misalignment.
- 18. Excessive weathering.
- 19. Unprotected storage.
- 20. Improper shipping or handling.
- 21. Theft.
- 22. Vandalism.

FIELD ENGINEERING

PART 1 - GENERAL

1.01 WORK INCLUDED

A. This section covers all work required for the verification of preconstruction conditions, layout of proposed utility improvements, quality control and data gathering for the preparation of post-construction record drawings.

1.02 SUBMITTALS

- A. Submit name, address and telephone number of Florida Registered Land Surveyor before starting work.
- B. Submit copies of all post-construction record drawings and certificate signed by the approved Florida Registered Land Surveyor indicating that the elevations and locations of the work are as the work was constructed.

1.03 DEFINITIONS

- Location: "As-Built" location station, offset distance and direction relative to the existing construction baseline.
- B. <u>Elevation</u>: "As-Built" elevation relative to the National Geodetic Vertical Datum of 1929 (NGVD).
- C. <u>Major Deflection</u>: Change in horizontal or vertical alignment greater than 12-inches accomplished without the use of fittings.

1.04 QUALITY ASSURANCE

- Land surveyor employed shall be registered in the State of Florida and acceptable to the ENGINEER.
- B. Where applicable, employ a professional engineer of the discipline required for specific source on project, licensed in the State of Florida.

1.05 PROJECT RECORD DOCUMENTS DATA

- Maintain a complete and accurate log of control and survey data for project record documents as project progresses.
- B. Upon completion of the project or other intervals as requested by ENGINEER, submit certified "as-built" site survey data of the project improvements. Scale shall be same as ENGINEER's drawings and may be used as a base for surveyor's field data (redline markups).
- C. The following data (as applicable to project) shall be provided as a minimum:

- Location and elevation of all pressure pipe fittings and valves.
- Locations and elevations as required to define major horizontal/vertical pipe deflections/conflicts. Data shall include beginning and end of deflection/conflicts, all changes in elevations and alignment and the location and elevation of subject conflict item.
- Location and elevation of all connections to existing systems.
- Locations and elevations at appropriate intervals along centerline of pressure pipe to limit distance between data points to no more than 100 feet.
- Locations, invert(s) and rim/grate elevations of all new sanitary manholes.
 Location to be center of manhole.
- 6. Cross sections of all repaved roadways at maximum 100 foot intervals.
- 7. Locations and elevations as required to describe all other improvements.
- D. Submit final record drawings prior to final pay application at completion of project as specified in Section 01700 – Contract Closeout.
- E. Provide in tabular form, based on the obtained applicable field data, the final "As-Built" quantities for the project. "As-Built" quantities shall be referenced to the bid items and their units of measure as indicated in the CONTRACTOR's Bid Proposal.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 EXAMINATION

 Verify locations of survey control points prior to starting work. Promptly notify ENGINEER of any discrepancies discovered.

3.02 SURVEY REFERENCE POINTS

- A. Protect survey control points prior to starting site work; preserve permanent reference points during construction. Make no changes without prior written notice to ENGINEER.
- B. Promptly report to ENGINEER the loss or destruction of any reference point or relocation required because of changes in grades or other reasons. Replace dislocated survey control points based on original survey control.
- C. Provide affidavit from approved Florida Registered Surveyor that all survey control points were re-established following completion of construction.

3.03 SURVEY REQUIREMENTS

A. ENGINEER will furnish CONTRACTOR with horizontal and vertical control information. Responsibility for construction of the Work to correct dimensions, alignment and grade shall be CONTRACTOR's. Additional control points, as applicable, shall be provided for and established by surveyor.

- B. Establish and define all baselines. Provide necessary stationing along baseline. All ends and intersections of baselines shall be tied to a minimum of two permanent features.
- C. Establish locations of right-of-way lines and property lines as applicable and locations and elevations of proposed improvements. Locate and lay out by instrumentation and similar appropriate means:
 - All utility improvements including locations and elevation.
 - 2. Major pipeline deflections/conflicts.
 - 3. The locations and elevations as applicable to valves, fitting, services and connections to existing utilities.
 - Alignment and cross section of roadway, driveway and sidewalk restorations. As applicable, roadways, driveways and sidewalks shall be reconstructed to existing horizontal and vertical dimensions, unless shown otherwise.
- Periodically verify layouts by same means indicated above.
- E. As-built information of all utilities installed within the limits of pavement must be obtained prior to initial backfilling of trench.

3.04 SURVEYS FOR MEASUREMENT AND PAYMENT

- A. Final project record drawings with "as-built" information of the installed utility systems and all bid quantities shall be submitted and approved by ENGINEER prior to application for final payment.
- B. "As-Built" quantity data shall be presented in tabular form and reference the individual bid items and their respective units of measure as given in the CONTRACTOR's Bid Proposal.
- C. "As-Built" information shall be used by CONTRACTOR to prepare his final statement of accounts as specified in Section 01700 – Contract Closeout.
- Current "as-built" information shall be available for ENGINEER's use for evaluation of partial pay requests.

GENERAL REQUIREMENTS

1.01 EXISTING UTILITIES AND STRUCTURES:

The existing utilities and facilities shown have been located from the Owner's and other records. Guaranties are not made that all existing facilities are shown or that those shown are entirely accurate. The Contractor will assure himself of any utilities, structures or facilities prior to performing any Work. Prior to the start of Work, the Contractor will request the Owner to advise him of the location of their facilities in the vicinity and will notify the Engineer of any deviation between existing conditions and the drawings. The Contractor will assume liability for damages sustained or costs incurred because of his operations in the vicinity of existing utilities or structures. The Contractor will be solely responsible for the protection and maintenance of existing utilities to provide uninterrupted service to commercial and residential customers.

1.02 PRESERVING WATER QUALITY:

The Contractor will exercise extreme care to minimize degradation of water quality at the site. All necessary provisions will be taken to insure compliance with the water quality standards of the State of Florida.

The Contractor will take steps to collect and dispose of all sewage that leaks and/or spills during the performance of this contract. Any leakage or spillage will be cleaned up to the satisfaction of the Department of Environmental Protection.

1.03 PROTECTION OF EXISTING AND ADJACENT PROPERTIES:

Unless indicated otherwise, all shrubbery, paved streets and walks, fences and walls, adjacent structures and equipment will be fully protected against damage during each stage of the project. Any damage by the Contractor will be fully restored to original condition.

1.04 RESTORATION OF DAMAGED SURFACES, STRUCTURES AND PROPERTY:

Where pavement, trees, shrubbery, fences or other property or surface structures not designated as pay items, have been damaged, removed or disturbed by the Contractor, whether deliberately or through failure to carry out the requirements of the Contract Documents, state laws, municipal ordinances or the specific direction of the Engineer, or through failure to employ usual and reasonable safeguards, such property and surface structures will be replaced or repaired at the expense of the Contractor to a condition equal to that before Work began within a time frame approved by the Engineer.

1.05 CONSTRUCTION WATER:

The Contractor will be responsible for making application for hydrant meters with backflow preventers. The City will install necessary connections and backflow preventers at locations needed by the Contractor and approved by the Engineer. Maintenance of such is the responsibility of the Contractor. All associated fees including construction water will be paid for by the Contractor, see attached fee schedule. In an event that damage to these facilities

occurs, the Contractor will be responsible for all costs associated with their replacement by the City's standard rate.

1.06 **WORKING HOURS**:

All water and sewer work on this contract shall be conducted during normal working hours (7:00 A.M. to 3:30 P.M.) on weekdays. No work shall be performed on weekends or City observed holidays. Inspection services needed beyond normal working hours will be paid for by the Contractor.

1.07 ACCESS TO THE WORK SITE:

The Contractor may use only the roads and/or easements designated by the Owner for access to the work locations. The Contractor shall be responsible for maintaining, protecting and restoring the routes to the satisfaction of the Owner and Engineer.

1.08 **SECURITY**:

The Contractor shall be fully responsible for the safety and security of the construction area including any temporary measures required to maintain its protection. The Contractor will be responsible for any damages or theft incurred to his tools, equipment, machinery, and new work in-place not yet been fully accepted by the City.

1.09 TRENCH SAFETY ACT:

All work shall conform to the Florida Trench Safety Act. Contractor shall include in his price the cost of conforming to the Trench Safety Act.

1.10 **VIDEO-TAPING:**

At least one (1) week prior to start of construction, the Contractor shall have video tapes taken of all areas where construction is to take place. Such video tapes shall be provided to the Engineer before construction commences. These video tapes shall serve as a record of the existing conditions for disputes arising from restoration, and should therefore be taken along the line of construction at sufficient detail as necessary to clearly depict details of existing conditions. The video tapes shall be standard 3/4" VHS cassette type tapes in color. The Contractor shall be responsible for providing the necessary equipment for the viewing of the video tapes at the Engineer's office for the duration of the project. All video tapes shall be indexed and catalogued in such a manner that each photographed area is readily identifiable and shall also indicate the date and time (hour, minutes & seconds) on which the photograph was made. The Contractor shall also have video tape taken of any unusual conditions encountered during construction that are not already a matter of photographic record. In any area where existing conditions cannot be determined by means of video tapes, the area shall be restored as approved by the Engineer at the Contractor's expense. All video tapes shall become the property of the Owner.

1.11 **OBSTRUCTION:**

A. The attention of the Contractor is drawn to the fact that during excavation at the project site, the possibility exists of the Contractor encountering various water, chemical, electrical, gas, or other lines not shown on the drawings. The Contractor shall exercise extreme care before and during excavation to locate and flag these

lines so as to avoid damage to the existing lines. Should damage occurs to an existing line, the Contractor shall repair the line at no cost to the City.

B. It is the responsibility of the Contractor to ensure that all utility or other poles, the stability of which may be endangered by the close proximity of excavation, are temporarily stayed in position while the work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice of any such excavation by the Contractor.

1.12 DESIGN PROFESSIONALS REPRESENTING OWNER:

Various Design Professionals (i.e. Civil, Mechanical, Electrical, Groundwater Hydrologists, etc.) as consultants to the Owner prepared the drawings and specifications for the project. The Owner may have the various Design Professionals provide services to the Owner during construction phase of the project. The Design Professionals will be representatives of the Owner and visits to the site by the Design Professionals will be on the basis of paragraph 1.22 of this section. Also paragraph 1.23 of this section includes the various Design Professionals for this project.

1.13 VISITS TO SITE BY OWNER'S REPRESENTATIVE:

The Owner's representative will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

The Owner's representative's efforts will be directed toward providing for the Owner a greater degree of confidence that the completed work will conform to the drawings and these specifications. On the basis of such visits and on-site observations, the Owner's representative will keep the Owner informed of the progress of the work and will endeavor to guard the Owner against defects and deficiencies in the work.

1.14 LIMITATIONS ON OWNER'S REPRESENTATIVE RESPONSIBILITIES:

- A. Neither the Owner's representative's authority to act under these specifications and drawings or elsewhere in other documents nor any decision made by the Owner's representative in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Owner's representative to the Contractor, any sub-Contractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the work.
- B. The Owner's representative shall not be responsible to the Contractor's means, methods, techniques, sequences or procedures of construction, or safety precautions and programs incident thereto, and the Owner's representative shall not be responsible for the Contractor's failure to perform the work in accordance with the drawings and these specifications.
- C. The Owner's representative shall not be responsible for the acts or omissions of the Contractor or of any sub-Contractors, or of any other persons at the site or otherwise performing any of the work.

1.15 WARRANTY:

The Contractor shall be responsible for defects in materials (including latent defects) or workmanship for a period of one year after the date of final acceptance of the project by the Owner. Such defects include, but not limited to, any settlement noted in backfill, fill, or in structures built over the backfill or fill during the warranty period in accordance with the GENERAL CONDITIONS will be considered to be caused by improper compaction methods and shall be corrected by the Contractor 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.

The Contractor shall furnish factory warranty on all equipment furnished for the performance and completion of the project against defects in materials and/or workmanship. The factory warranty shall become effective on the date of delivery and acceptance by the Owner. Should any defects in materials or workmanship, the Contractor shall replace at no cost to the Owner.

REFERENCE STANDARDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

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

1.02 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes establish stricter standards.
- B. Publication Date: The publication in effect on the date of issue of the Contract Documents, except when a specified publication date is specified.

1.03 ABBREVIATIONS, NAMES AND ADDRESSES OF ORGANIZATIONS

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

AASHTO American Association of State Highway and

Transportation Officials 444 North Capitol Street, N.W. Washington, D.C. 20001

ACI American Concrete Institute

Box 19150 Redford Station Detroit, MI 48219

AISC American Institute of Steel Construction

1221 Avenue of the Americas New York, N.Y. 10020

AISI American Iron and Steel Institute

1000 16th Street, N.W. Washington, D.C. 20036

ANSI American National Standards Institute

1430 Broadway

New York, N.Y. 10018

ASME American Society of Mechanical Engineers

345 East 47th Street New York, N.Y. 10017

ASTM American Society of Testing and Materials

1916 Race Street

Philadelphia, PA 19103

AWWA American Water Works Association

6666 W. Quincy Avenue Denver, CO 80235

AWS American Welding Society

2501 N.W. 7th Street Miami, FL 33125

CRSI Concrete Reinforcing Steel Institute

180 North LaSalle Street, Suite #2110

Chicago, IL 60601

FS Federal Specification

General Services Administration

Specifications and Consumer Information

Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197

Washington, D.C. 20407

MIL Military Specification

Naval Publications and Forms Center

5801 Tabor Avenue Philadelphia, PA 19120

NEMA National Electrical Manufacturer's Association

2101 "L" Street, N.W. Washington, D.C. 20037

PCA Portland Cement Association

5420 Old Orchard Road Skokie, IL 20076

PCI Prestressed Concrete Institute

20 North Wacker Drive Chicago, IL 60606 PS

Product Standard

U.S. Department of Commerce Washington, D.C. 20203

UL

Underwriter's Laboratories, Inc.

333 Pfingston Road Northbrook, IL 60062

- B. When no reference is made to a code, standard, or specification, the standard specifications of the ASTM, the ANSI, the ASME, the IEEE, or the NEMA shall govern.
- C. Contractor shall, when required, furnish evidence satisfactory to the Engineer that materials and methods are in accordance with such standards where so specified.
- D. In the event any questions arise as to the application of these standards or codes, copies shall be supplied on site by the Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PROJECT MEETINGS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The ENGINEER shall schedule and administer pre-construction meeting, periodic progress meetings, and specially called meetings throughout progress of the Work.
 - 1. Prepare agenda for meetings.
 - 2. Make physical arrangements for meetings.
 - 3. Preside at meetings.
 - 4. Record the minutes; include significant proceedings and decisions.
 - 5. Reproduce and distribute copies of minutes within fifteen (15) working days after each meeting.
 - To participants in the meeting.
 - b. To parties affected by decisions made at the meeting.
- B. Representatives of CONTRACTORS, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. The CONTRACTOR shall attend meetings to ascertain that work is expedited consistent with Contract Documents and construction schedules.

1.02 RELATED REQUIREMENTS

- A. Section 00100: Instructions to Bidders.
- B. Section 01310: Construction Schedules.
- C. Section 01340: Submittals.
- D. Section 01720: Project Record Documents

1.03 PRE-CONSTRUCTION MEETING

- A. Schedule a preconstruction meeting no later than 15 days after date of Notice to Award.
- B. Location: A central site, convenient for all parties, designated by the OWNER.
- C. Attendance:
 - 1. OWNER's Representative.
 - 2. ENGINEER and his professional consultants.
 - 3. Resident Project Representative.
 - 4. CONTRACTOR's Superintendent.
 - 5. Major Subcontractors.
 - 6. Major suppliers.
 - 7. Utilities
 - 8. Others as appropriate.

D. Suggested Agenda:

- 1. Distribution and discussion of:
 - a. List of major subcontractors and suppliers.
 - b. Projected Construction Schedules.
- 2. Critical work sequencing.
- 3. Major equipment deliveries and priorities.
- 4. Project Coordination.
 - a. Designation of responsible personnel.
- 5. Procedures and processing of:
 - a. Field decisions.
 - b. Proposal requests.
 - c. Submittals.
 - d. Change Orders.
 - e. Applications for Payment.
- 6. Adequacy of distribution of Contract Documents.
- 7. Procedures for maintaining Record Documents.
- 8. Use of premises:
 - a. Office, work and storage areas.
 - b. OWNER's requirements.
- 9. Construction facilities, controls and construction aids.
- 10. Temporary utilities.
- 11. Housekeeping procedures.

1.04 PROGRESS MEETINGS

- A. Schedule regular periodic meetings. The progress meetings will be held every 30 days with the first meeting 30 days after the pre-construction meeting or 30 days after the date of Notice to Proceed.
- B. Hold called meetings as required by progress of the Work.
- C. Location of the meetings: Project field office of CONTRACTOR or ENGINEER.
- D. Attendance:
 - 1. OWNER'S representatives.
 - 2. ENGINEER, and his professional consultants as needed.
 - 3. Subcontractors as appropriate to the agenda.
 - 4. Suppliers as appropriate to the agenda.
 - 5. Others as appropriate.

E. Suggested Agenda:

- 1. Review, approval of minutes of previous meeting.
- 2. Review of work progress since previous meeting.
- 3. Field observations, problems, conflicts.
- 4. Problems which impede Construction Schedule.
- 5. Review of off-site fabrication, delivery schedules.
- 6. Corrective measures and procedures to regain projected schedule.
- 7. Revisions to Construction Schedule.
- 8. Progress, schedule, during succeeding work period.
- 9. Coordination of schedules.
- Review submittal schedules; expedite as required.

- 11. Maintenance of quality standards.
- 12. Pending changes and substitutions.
- 13. Review proposed changes for:
 - a. Effect on Construction Schedule and on completion date.
 - b. Effect on other contracts of the Project.
- 14. Other business.
- 15. Construction schedule.
- 16. Critical/long lead items.
- F. The CONTRACTOR is to attend progress meetings and is to study previous meeting minutes and current agenda items, in order to be prepared to discuss pertinent topics such as deliveries of materials and equipment, progress of the Work, etc.
- G. The CONTRACTOR is to provide a current submittal log at each progress meeting in accordance with Section 01340.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

CONSTRUCTION SCHEDULES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly after award of the Contract and within ten (10) days after the effective date of the Agreement, prepare and submit to the ENGINEER estimated construction progress schedules for the Work, with subschedules of related activities which are essential to its progress.
- B. Submit revised progress schedules on a monthly basis.
- C. No partial payments shall be approved by the ENGINEER until there is an approved construction progress schedule on hand.
- D. The CONTRACTOR shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the CONTRACTOR shall have direct project control and complete authority to act on behalf of the CONTRACTOR in fulfilling the commitments of the CONTRACTOR's schedule.

1.02 RELATED REQUIREMENTS

- A. Section 00700: Standard General Conditions of the Construction Contract.
- B. Section 01010: Summary of Work.
- C. Section 01200: Project Meetings.
- D. Section 01340: Submittals.

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart or critical path method.
 - 1. Provide separate horizontal bar for each trade or operation within each structure or item.
 - Horizontal time scale: In weeks from start of construction and identify the first work day of each month.
 - 3. Scale and spacing: To allow space for notations and future revisions.
 - 4. Minimum sheet size: 24 x 36 inches.
- B. Format of listings: The chronological order of the start of each item of work for each structure.
- C. Identification of listings: By major specification section numbers as applicable and structure.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
 - 1. Show the complete sequence of construction by activity.

- 2. Show the dates for the beginning of, and completion of, each major element of construction in no more than a two-week increment scale.
- 3. Show projected percentage of completion for each item, as of the first day of each month.
- 4. Show projected dollar cash flow requirements for each month of construction.
- B. Submittals Schedule for Shop Drawings, and Samples in accordance with Section 01340. Show:
 - 1. The dates for CONTRACTOR's submittals.
 - 2. The dates submittals will be required for OWNER-furnished products, if applicable.
 - 3. The dates approved submittals will be required from the ENGINEER.
- C. A typewritten list of all long lead items (equipment, materials, etc.)

1.05 PROGRESS REVISIONS

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

1.06 SUBMISSIONS

- A. Submit initial schedules to the ENGINEER within 10 days after the effective date of the Agreement.
 - 1. The ENGINEER will review schedules and return review copy within 21 days after receipt.
 - 2. If required, resubmit within 7 days after return of review copy.
- B. Submit revised monthly progress schedules with that month's application for payment.
- C. Submit one reproducible transparency and five opaque reproductions.

1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
 - 1. ENGINEER.
 - 2. Job site file.
 - 3. Subcontractors.
 - 4. Other concerned parties.
 - 5. OWNER (two copies).
- B. Instruct recipients to report promptly to the CONTRACTOR, in writing, any problems anticipated by the projections shown in the schedules.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. The CONTRACTOR agrees that whenever it becomes apparent from the current monthly schedule that delays to the critical path have resulted, and hence, that the contract completion date will not be met or when so directed by the ENGINEER, he will take some or all of the following actions at no additional cost to the OWNER, submitting to the ENGINEER for approval, a written statement of the steps he intends to take to remove or arrest the delay to the critical path in the approved schedule.
 - Increased construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of the ENGINEER, the backlog of work.
 - Increase the number of working hours per shift, shifts per working days per week, the amount of
 construction equipment, or any combination of the foregoing, sufficiently to substantially
 eliminate, in the judgment of the ENGINEER, the backlog of work.
 - 3. Reschedule activities to achieve maximum practical concurrency of accomplishment of activities, and comply with the revised schedule.
 - 4. Costs incurred by the OWNER arising from such lengthening of hours, including furnishing of Inspectors, shall be the CONTRACTOR's responsibility and shall be deducted from monies due him. Failure of the CONTRACTOR to comply with the requirements of the ENGINEER may be grounds for determination by the OWNER that the CONTRACTOR is not proceeding at such rates as will ensure completion within the specified time and may result in the termination of the right of the CONTRACTOR to continue the work.

3.02 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

- A. If the CONTRACTOR desires to make changes in his method of operating which affect the approved schedule, he shall notify the ENGINEER in writing stating what changes are proposed and the reason for the change. If the ENGINEER approves these changes, the CONTRACTOR shall revise and submit for approval, without additional cost to the OWNER, all of the affected portion of the schedule. The schedule shall be adjusted by the CONTRACTOR only after prior approval of his proposed changes by the ENGINEER.
- B. Adjustments may consist of changing portions of the activity sequence and/or activity durations, division of approved activities, or other adjustments as may be approved by the ENGINEER. The addition of extraneous, non-working activities and/or activities which add unapproved restraints to the schedule shall not be approved.
- C. If the completion of any activity, whether or not critical, falls more than 100 percent behind its approved duration, the CONTRACTOR shall submit for approval a schedule adjustment showing each such activity divided into two activities reflecting completed versus uncompleted work.
- D. Shop drawings which are not approved on the first submittal or within the scheduled time shall be immediately rescheduled, as well as pipelines and tanks which do not pass leak tests.
- E. The contract completion time will be adjusted only for causes specified in this contract. In the event the CONTRACTOR requests an extension of any contract completion date, he shall furnish such justification and supporting evidence as the ENGINEER may deem necessary for a determination as to whether the CONTRACTOR is entitled to an extension of time under the provisions of this contract. ENGINEER will, after receipt of such justification and supporting evidence make findings of fact and will advise the CONTRACTOR in writing thereof. If the ENGINEER finds that the CONTRACTOR is entitled to any extension of any contract completion date under the provisions of this contract, the

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ENGINEER's determination as to the total number of days extension shall be based upon the currently approved schedule and on all data relevant to the extension. Such data shall be included in the next monthly updating of the schedule. The CONTRACTOR acknowledges and agrees that actual delays in activities which, according to the schedule, do not affect any contract completion date shown by the critical path in the schedule do not have any effect on the contract completion date or dates, and therefore, will not be the basis for a change therein.

- F. From time to time it may be necessary for the contract schedule and/or completion time to be adjusted by the ENGINEER to reflect the effects of job conditions, weather, technical difficulties, strikes, unavoidable delays on the part of the OWNER or his representatives, and other unforeseeable conditions which may indicate schedule adjustments and/or completion time extension. Under such conditions, the CONTRACTOR shall reschedule the work and/or contract completion time to reflect the changed conditions, and the CONTRACTOR shall revise his schedule accordingly. No additional compensation shall be made to the CONTRACTOR for such schedule changes except for unavoidable overall contract time extensions beyond the actual completion of all unaffected work in the contract, in which case the CONTRACTOR shall take all possible action to minimize any time extension and any additional cost to the OWNER. It is specifically pointed out that the use of available float time in the schedule may be used by the OWNER as defined by the ENGINEER, as well as by the CONTRACTOR. Float time is defined as the amount of time between the early start date, and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule.
- G. The OWNER controls the float time in the approved schedule and, therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the schedule, the OWNER may initiate changes to the contract work that absorb float time only. OWNER-initiated changes that affect the critical path on the approved schedule shall be the sole grounds for extending (or contracting) said completion dates. CONTRACTOR initiated changes that encroach on the float time identified in the approved schedule may be accomplished with the OWNER's concurrence. Such changes, however, shall give way to OWNER-initiated changes competing for the same float time.

3.03 COORDINATING SCHEDULES WITH OTHER CONTRACT SCHEDULES

A. Where work is to be performed under this contract concurrently with and/or contingent upon work performed on the same facilities or area under other contracts, the CONTRACTOR's schedule shall be coordinated with the schedules of the other contracts. The CONTRACTOR shall obtain the schedules of the other appropriate contracts from the ENGINEER for the preparation and updating of his schedule and shall make the required changes in his schedule when indicated by changes in corresponding schedules.

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 <u>SECTION INCLUDES:</u>

- A. Temporary Utilities: Electricity, lighting, telephone service and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, protection of the Work and water control.
- C. Construction Facilities: Access roads, parking, progress cleaning, project signage and temporary buildings.

1.02 RELATED SECTIONS:

A. Section 01570 -Traffic Regulation.

1.03 TEMPORARY ELECTRICITY:

A. Cost: By Contractor; provide and pay for any required temporary power service.

1.04 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES:

A. Provide and maintain lighting for construction operations as necessary.

1.05 TEMPORARY VENTILATION:

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity and to prevent accumulation of dust, fumes, vapors or gases.

1.06 <u>TELEPHONE SERVICE</u>:

 Provide, maintain and pay for telephone service to field office at time of project mobilization.

1.07 <u>TEMPORARY SANITARY FACILITIES:</u>

A. Provide and maintain required temporary restroom facilities and enclosures for field crews.

1.08 BARRIERS:

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations maintaining access to public rights-of-way and existing buildings and driveways. Maintain access to fire hydrants.
- B. Provide protection for vegetation designated to remain. Replace damaged plant life.
- C. Protect vehicular traffic, stored materials, site and structures from damage.

1.09 <u>FENCING</u>:

A. Construction: At Contractor's option, construct temporary commercial grade chain link fence 6 foot high. Contractor is responsible for cost of any fencing.

1.10 WATER CONTROL:

- A. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment. Contractor responsible for obtaining any required South Florida Water Management District dewatering permits.
- B. Protect site from puddling or running water.

1.11 TEMPORARY BYPASSING FACILITIES:

A. Contractor to provide all pumps, labor and materials required to bypass the flow of sewage during sewer main replacement and manhole work.

1.12 PROTECTION OF INSTALLED WORK:

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. control activity in immediate work area to prevent damage.

1.13. SECURITY:

A. Provide security and facilities to protect Work, existing facilities and Owner's operations from unauthorized entry, vandalism or theft.

1.14 PROGRESS CLEANING AND WASTE REMOVAL:

- A. Maintain areas free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.
- Collect and remove waste materials, debris and rubbish from site daily and dispose off-site.

1.15 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS:

- A. Remove temporary utilities, equipment, facilities and materials prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing (and permanent) facilities used during construction to original condition.

1.16 TEMPORARY WATER SERVICES:

A. Responsibility shall be upon the contractor to provide and maintain, at his own expense, an adequate supply of water for his use for construction and domestic consumption, and to install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be approved by the Owner. Before final acceptance, temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Owner.

The Contractor may request through the city of West Palm Beach Utilities, Operations and Maintenance facility a 3' hydrant meter, which shall be installed with a backflow preventer attached.

The method of request is to have an authorized agent come to the Operations and Maintenance Complex with the proper adjustable hydrant wrench, make out a hydrant meter permit, have said permit hand-delivered to Utilities Customer Service, located on the first floor of City Hall, 200 Second Street with a \$150.00 deposit, an installation fee of \$30.00 and a mailing address. This must be done at least two days prior to the need to use the hydrant meter. This 3" hydrant meter will be billed monthly for the following services: service charge of \$65.02, water usage at the current rates schedule and 10% tax. These costs are subject to change by City Commission Resolution.

PART 2 PRODUCTS

NOT APPLICABLE

PART 3 EXECUTION

NOT APPLICABLE

MAINTENANCE OF TRAFFIC

1.01 DESCRIPTION:

Provide all labor, material and services to perform all operations required for the maintenance and protection of vehicular and pedestrian traffic in conformance to all applicable F.D.O.T. laws and regulation and subject to approval and permits by City, Palm Beach County (if applicable), and F.D.O.T. (if applicable).

1.02 SUBMITTAL:

Submit Traffic Control Plans and Construction Schedule to the City, Palm Beach County (if applicable), and the F.D.O.T. (If applicable) for review and approval at least 30 days prior to the start of construction.

1.03 SIGNS AND DEVICES:

- a. Traffic Control and Informational Signs.
- b. Traffic Cones and Drums, and Lights.
- c. Flagman Equipment.

1.04 CONSTRUCTION PARKING CONTROL:

Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles and Owner's operations.

1.05 FLAGPERSONS:

Provide trained and equipped flagpersons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

1.06 LIGHTS:

Use lights during hours of low visibility to delineate traffic lanes and to guide traffic.

1.07 TRAFFIC SIGNS AND DEVICES:

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed, to direct construction and affected public traffic. The contractor shall submit traffic control through work zone plans based on F.D.O.T. Roadway and Traffic Design Standards, 1995 Edition; Index No. 620 for work within intersections, and F.D.O.T. Index No. 621 and 625 for work requiring the closure of a traffic lane.
- B. Relocate as Work progresses, to maintain effective traffic control.

1.08 REMOVAL:

- A. Remove equipment and devices when no longer required.
- B. Repair damage caused by installation.

1.09 SPECIFICATIONS BY REFERENCE:

- State of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Section 102, 1996 Edition.
- B. State of Florida Manual of Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.
- C. The Manual of Uniform Traffic Control Devices, latest edition.

1.10 SPECIFIC TRAFFIC CONTROL:

- A. Contractor shall maintain through traffic on all public roads at all times unless stated otherwise herein.
- B. Contractor shall maintain access to all vehicular driveways (public or private) at all times. Contractor shall backfill and install temporary rock base as necessary in order to provide safe and functional access to all driveways.
- C. Contractor shall coordinate with the Police and Fire Departments for whom the Contractor will provide satisfactory access at all times.
- D. Contractor shall maintain, at the minimum, one travel lane, each direction, when performing work within the Palm Beach County Right-of-Way.

1.11 EXECUTION:

The Contractor shall arrange his work to cause minimum disturbance to normal pedestrian and vehicular traffic; and shall be held responsible for providing and maintaining suitable means of access (including emergencies) to all public and private properties during all stages of the construction.

If it becomes necessary to block off an entire street to vehicular traffic during construction (other than for an emergency situation), the Contractor must contact the City for approval prior to completely blocking off the street.

CLEARING AND GRUBBING

1.01 SCOPE OF WORK:

Work under this section of the specifications includes clearing and grubbing as necessary for the construction and the disposal of materials and debris resulting from the clearing and grubbing operations, and the replacement of ornamentals damaged on or removed from abutting property. The Contractor is expected to visit the site of the work and determine for himself from visual inspection the extent of clearing and grubbing that is necessary for his operations.

1.02 <u>DOT STANDARD SPECIFICATIONS:</u>

Unless otherwise specified herein, all work under this section shall conform with Florida DOT Standard Specifications, Section 100 - Clearing and Grubbing.

1.03 CLEARING:

Clear and remove obstructions within the City's right-of-way only as required to provide adequate work space to accomplish the specified construction. Clearing consists of the removal of all trees, living or dead, stumps, down timber, brush, rubbish and all other objectionable debris from the area to be cleared unless indicated otherwise. The removal of trees or permanent structures within the aforementioned areas will be done only as indicated on drawings. Should the removal of valuable trees or shrubs be required, this work is to be done in cooperation with the City in order that they may be replanted, if so desired. Protect other trees and shrubs which are to remain from damage during the construction period.

1.04 GRUBBING:

Grubbing will be performed where required, including, but not limited to, areas where fill will be placed, structures erected, or where other installations are required. It shall include the complete removal of all obstructions resting on or protruding from the surface of the existing ground to a depth of eighteen inches (18") below finished grade or surface of ground. Holes caused by grubbing operations shall be filled to the level of adjacent ground. Where excavation is done, all stumps, roots and deleterious material thereby exposed must be removed to a depth of eighteen inches (18") minimum below the excavated surface.

1.05 PRIVATE PROPERTY:

Where working room is restricted, the contractor must provide protection for privately owned trees, shrubs, and structures bordering the right-of-way. The contractor shall take full responsibility for any damage done to private property.

1.06 DAMAGES:

The contractor shall replace with plants of a like size and type in growing conditions, all grass, shrubbery, plants and other ornamental plants or planting on abutting private property which he removed or damaged due to his construction operations.

1.07 PAYMENT:

All costs involved in the work under this section shall be made at the contract lump sum price under the payment item for Clearing and Grubbing.

LANDSCAPE AND SOD

I. PART 1 GENERAL

1.1 DESCRIPTION OF WORK

The work includes furnishing all plants, materials, equipment, and labor necessary for the procurement and installation of plant and materials indicated on the drawing(s); and \ or in the specifications.

1.2 RELATED SECTIONS

Section 02100 – Site Clearing Section 02200 – Earthwork Section 02810 – Exterior Irrigation Work

1.3 QUALITY ASSURANCE

- a. The landscape contractor is to be regularly engaged in the installation of living plant material. Labor crews shall be controlled and directed by a landscape foreman well versed in landscape installation, plant materials, reading blueprints and coordination between the job and nursery. The landscape contractor shall carry any necessary insurance and protect the Owner against all liabilities claims or demands for injuries or damage to any person or property growing out of the performance of the work under this contract and all of his workers shall be covered by Workmen's Compensation Insurance.
- b. The landscape contractor and irrigation contractor must coordinate scheduling and layout prior to commencement of material installation. If necessary, the landscape contractor and irrigation contractor may agree to minor adjustments in sprinkler layout, head type or quantity, in response to specific plant needs. The landscape architect must be notified 48 hours prior to commencing field changes in order to review and approve of any such changes.

II. PART 2 PRODUCTS

2.1 PLANT MATERIAL

 a. All plant materials shall be nurseries grown unless otherwise noted. Abbreviations on plant list:

CW = clear wood OA = overall height
G = gallon OC = on center
GW = greywood HT = height
SPR = spread D = diameter
CT = clear trunk

b. Quality and Size: Plants shall have a habit of growth that is normal for the species and shall be healthy, vigorous and equal or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Plants shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at the time of planting. Requirements for measurements, branching, grading, quality, balling and burlapping of plants in the plant list generally follow the code of standards currently recommended by the American Association of Nursery Stock. In all cases, plant materials shall be Florida Grade No. 1 or better (as defined by the February, 1998 edition of Grades and Standards). Plants that meet the requirements specified, but do not have normal balance of heights and spread

typical for the respective plant, shall not be accepted. All plants shall be free of weeds or any other objectionable vegetation. All trees are to have a single main leader, unless specified otherwise.

- c. Quantities: All quantities indicated on the plant list are intended as a guide for the bidders and does not relieve the bidder of his responsibility to do a comprehensive plant take off. If a discrepancy occurs between the bidder's take off and the plant list quantity, the Landscape Architect is to be notified for clarification prior to the submittal of bid.
- d. Substitution: Plant substitution requests by the Contractor will be considered by the Landscape Architect only upon submittal of conclusive proof that any plant is not obtainable in the type and size specified. The Landscape Architect shall determine the nearest equivalent replacement in an obtainable size and variety. The unit price of the substitute item shall not exceed the bid item replaced, without approval of the Owner.

e. Sabal Palms:

- Hurricane cut: All Sabal Palms, if designated on plant list to be hurricane cut, shall be dug and have all fronds removed as standard to good horticultural practices, within 24 hours or transporting to site or transplanting on site.
- Sabal Palms with fronds: All Sabal Palms, if designated on the plant list to be installed with fronds, shall have the palm head trimmed up and have a minimum of seven (7) fronds per head. See specification 3.2,e.

2.2 COMMERCIAL FERTILIZER

- a. Commercial granular fertilizer shall be an organic fertilizer from NURSERYMEN'S SURE-GRO ph (561) 770-0462 as follows: 6-8-10 for flowering shrubs, 8-8-8 for other shrubs & fruit trees, 12-4-12 for palms & trees. Each fertilizer will contain nitrogen, phosphoric acid and potash available plant food by weight. Nitrogen shall be not less than 50% from an organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate. Fertilizers shall be delivered to the site unopened in original containers, each bearing the manufacturers guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged shall not be acceptable. Fertilizer will be applied at the planting as per manufacturer's specifications.
- Planting tablets shall be tightly compressed, long lasting, slow release Agriform fertilizer tablets weighing 21 grams, with a potential acidity of not more than 5% by weight and having an analysis of 20-10-5, respectively.

2.3 PEAT

Peat shall be horticultural peat composed of not less than 60% decomposed organic matter by weights, on any over-dried basin. Peat shall be delivered to the site in a workable condition free from lumps.

2.4 PLANTING SOIL

Planting soil shall be 1/3 clean sand, 1/3 peat, 1/3 topsoil (by volume). Planting soil shall be free of clay, stones, plants, roots, and other foreign materials, which might be a hindrance to planting operations, or be detrimental to good plant growth. Soil shall be delivered in a loose friable condition and applied in accordance with the Planting Specifications.

2.5 MULCH

- a. Fibrous Mulch: All mulch material shall be a fibrous, non-floating, shredded Grade "A" Eucalyptus mulch or as per plant and materials list on plans if listed differently, installed 3" deep (prior to compacting), and moistened at installation to prevent wind dispersement.
- b. Mulches shall not contain sticks larger than ½ inch in diameter or 3" long, stones, or other foreign material that will prevent the eventual decay of the mulch necessary for its complete effectiveness.

2.6 WATER

- a. Water for planting will be available at the site and will be provided by the Owner. The Landscape Contractor shall not assume that the irrigation system will be operational at the time of planting. It is the responsibility of the Landscape Contractor to provide all the required water necessary to maintain the plant material in a healthy growing condition. The watering may include deep watering of trees and the watering of shrub and ground cover areas. Any plant materials that die or that is not in a healthy growing condition due to lack of water shall be replaced at no additional cost to the Owner.
- b. If water is not available on site, the Landscape Contractor will coordinate with the Owner to determine who will provide the water. The Landscape Contractor will apply the water to all planting areas using a water truck. (Note: Landscape Contractor shall comply with all State, County & Municipal codes for traffic safety, etc.) It is the responsibility of the Landscape Contractor to apply all the required water necessary to maintain the plant material in a healthy growing condition. The watering includes deep watering of trees, palms, shrubs, ground covers and sod. Any plant material that die or that is not in a healthy growing condition due to lack of water shall be replaced at no additional cost to Owner. Minimum watering schedule for the first year by watering truck is: three (3) times per week for months 1 & 2; two (2) times per week for month 3 through month 12. NOTE: Contractor is to observe all code restrictions, if applicable, pertaining to watering of new plantings and advise the Owner/Landscape Architect of any concerns for the plant material in advance.

III. PART 3 EXECUTION

3.1 PROTECTION OF PLANTS:

a. Root Protection:

- Balled and Burlapped Plants: Plants designated "B & B" (balled and burlap) shall be dug with firm natural balls of earth of sufficient diameter and depth to encompass to fibrous and feeding root system, necessary for full recovery of plant. Balls shall be firmly wrapped with natural burlap or similar materials and bound with twine, cord, or wire mesh. All collected plants shall be balled and burlap.
- 2. Container Grown Plants: Plants grown in containers will be accepted as "B & B", providing that all other specified requirements are met. Container grown plants shall meet plant sizes as specified on the plant list and on the Drawings, and shall not be governed by container sizes. Minimum root balls of container grown material shall be no more than 25% less proportionately in size than that stated in "Grades & Standards" for nursery plants. These plants shall have been grown in the container for a maximum of two years prior to installation and shall exhibit a fully developed root system when removed from the container.

- b. Protection During Transporting: All plant material shall be protected from possible bark injury on breakage of branches. All plants transported by open trucks shall be adequately covered to prevent windburn, drying, or damage to plants.
- c. Protection After Delivery: Plants, which cannot be planted immediately on delivery to the site, shall be covered with moist soil, mulch, or other protection from drying by wind and/or sun exposure. All plants shall be watered as necessary until planted. Plant storage period shall not exceed forty-eight (48) hours.
- d. Protection of Palms (if applicable): Only a minimum of fronds shall be removed from the crown of the palm trees to facilitate moving and handling, except for "Hurricane Cut" Sabal Palms, if specified.
- e. Clear trunk shall be as specified after the minimum of fronds has been removed. Clear trunk shall be measured from the top of root ball to where the mature trunk joins the immature or green portions of the trunk. All palms shall have a sufficient ball size for rapid growth and acclimation. All palm trunks be shall straight and true unless otherwise specified, and be free of damage and scars. Sabal Palms shall have no burn marks on trunks. Sabal Palms designated to have fronds at installation shall be tied with a biodegradable twine to be left in place until the tree is well established at which time the Contractor is to remove the twine if necessary.
- f. Protection During Planting: Trees and palms moved by chain, strap, winch, or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, wood battens or other approved methods. Trees and palms with damaged or girdled trunks will be rejected and will be replaced as per specified prior to final acceptance by the Owner/Landscape Architect.

3.2 PLANTING OPERATIONS

- A. Layout: Location for plants and outline of areas to be planted are indicated on the drawings. The contractor, to the satisfaction of the Landscape Architect shall stake all plant locations in the field. Where construction or utilities below ground or overhead are encountered, or where changes have been made in the construction, necessary adjustments will be approved by the Landscape Architect.
- B. Soil Preparation: Apply tow (2) applications of the pre-planting herbicide Round-up or equal. Soil used shall be as herein before specified under "Planting Soil", thoroughly mixed with peat to produce 33% peat by volume. The soil should be in a relatively dry state and mixed thoroughly by hand or rotary mixer. All planting areas shall be treated with an approved pre-emergent according to the manufacturer's specifications (Ronstar, Eptam, or equal). All chemicals used that are subject to safe environmental applications based on industry standards by licensed professionals using all safety precautions recommended.
- C. Excavation for Planting: Excavation of plant pits shall be circular in outline and shall extend to the required subgrades as specified hereunder. The minimum depth of plant pits specified below shall be measured from the finish grade. Mass planting beds shall be stripped of all vegetation prior to planting. Use acceptable excess excavated topsoil to form 6" height 3' diameter watering berms around plants; use 25% of the excavated material and mix with topsoil for backfill. Remove all excess material to dump site as directed by Owner. If an on site dump area has not been designated by the Owner, remove excess material off-site. Excavated material in excess of the 6" temporary water berm above is not to mound around the base of each plant. The 6" water berm material is to be removed from site and the resulting area is to be mulched/sodded as required after the transplant acclimation period is complete to form a 3" diameter circular mulch ring centered around the base of the plant.

- D. Balled and Burlapped Plants: After final pit preparation, loosen burlap wrapping and fold burlap down exposing the top 1/3 of the root ball, leaving the ball unbroken. Remove excessive amount of burlap to eliminate voids, which may be caused upon decomposition. Remove all twine, rope, wire, etc., at the base of trunk upon installation to prevent the choking or girdling of the root system as the plant matures.
- E. Container Grown Plants: Container grown plants shall, when delivered, have sufficient growth to hold earth intact when removed from container and shall not be root bound. Plant pits for container materials shall be formed flat on the bottom and compacted to avoid air pockets at the bottom of root balls and container shall be removed carefully to prevent damage to plant or root system. Plants with circular root systems will not be accepted and will be replaced by Contractor prior to final acceptance.
- F. Testing for Drainage: Test fill all tree pits with water before planting to assure proper drainage percolation is available. Pits, which are found not to be adequately draining, shall be excavated to a depth sufficient for drainage and backfilling with gravel or crushed rock. No allowances will be made for lost plants due to improper drainage.
- G. Pit Sizes: Minimum diameter (width) and depth of planting pits for balled and burlapped, and container grown plants, shall be as follows:
 - 1. Diameter Trees & Palms: 18" 24" greater than diameter of ball or spread of roots.
 - 2. Diameter Shrubs: 8" 12" greater than diameter of ball or spread of roots.
 - Depth Trees and Palms: The center of each pit shall be dug to the depth of the
 root ball. The root ball shall sit tilled to existing subgrade.* The perimeter of each pit
 shall be 6" greater than depth of ball to provide 6" of planting soil backfill to enhance
 downward growth of roots. (Also see 3.2 I & 3.2)J
 - * (If subgrade soils at the bottom of each pit are detrimental to plant growth, each pit is to be dug 6" deeper than root balls and the root ball is to sit on 6" of properly compacted specified planting soil mix to prevent settling)
 - 4. Depth Shrubs: The center of each pit shall be dug to the depth of the root ball. The root ball shall sit on tilled existing subgrade.* The perimeter of each pit shall be 4" greater in depth than the root ball to provide 4" of planting soil backfill to enhance downward root growth. * (Also see 4. I)
 - 5. Depth Vine Ground Covers: Pits shall conform to accepted nursery practice for the particular species and equal the plant pot depth plus three (3) inches.
- H. Backfilling: When the plant pit has been excavated as specified above and the plant has been set, the pit shall be backfilled with planting soil at the following minimum rates:

One-quarter cubic yard per one (1) tree
One cubic yard per twenty-five (25) – 7G (lerio cans / equal)
One cubic yard per fifty (50) – 3G shrubs
One cubic yard per one hundred (100) – 1G (ground covers, etc.)

- I. Setting Trees and Shrubs: Unless otherwise specified, all trees and shrubs shall be planted in pits, centered, and set on existing tilled subgrade soil* to such depths that the finished grade level of the plant shall be the same as that at which the plant was grown. They shall be planted upright and faced to give the best appearance or relationship to adjacent structures. No burlap shall be pulled out from under the balls and the burlap shall be folded down to expose the top 1/3rd of the ball. Platforms, wire, and surplus binding from top and sides of the balls shall be removed. All broken or frayed roots shall be cut off cleanly. Planting Soil mix (1/3 clean sand, 1/3 peat, 1/3 topsoil) shall be placed and compacted thoroughly, avoiding injury and shall be settled by watering. No filing around trunks will be permitted. After the ground settles, additional soil shall be filled in the level of the finished grade allowing for three inches (3") of mulch after the granular fertilizer has been applied. All air pockets will be removed by alternately watering and adding soil as required. Form a shallow saucer around each plant by placing a berm of soil along the edge of the plant pit. This berm shall be six inches (6") high for all trees and three inches (3") high for all shrubs.
- J. Setting Palms: All palms shall be planted in pits, centered, and set on existing tilled subgrade soil* to such depths that the finished grade level of the palm is the same as it was grown. They shall be planted upright (unless specified to lean), and faced to give the best appearance or relationship to adjacent structures or views. All broken or frayed roots shall be cut off cleanly. Except for Sabal Palms which are to be backfilled with sand, thoroughly washed in during planting operations, all palms shall be backfilled with planting soil mix of 1/3 clean sand, 1/3 peat, 1/3 topsoil, placed and compacted thoroughly, avoiding injury and shall be settled by watering. After settling, additional planting soil shall be used to fill in to finished grade allowing for three inches (3") for mulch to be applied after granular fertilizer has been applied. A shallow saucer shall be formed around each palm by placing a berm of soil along the edge of each planting pit. This berm is to be a minimum of six inches (6") high
- K. Fertilizing: When setting trees, palms and shrubs placed in each plant hole with Agriform Planting Tablets, 20-10-5 formula, 21 gram, according to the following:

Tablets application:

Granular application: Application of granular fertilizer by NURSERYMEN'S SURE-GRO fertilizer will be as per NURSERYMEN'S SURE-GRO application rate specifications.

Correct Placement of Tablets: Position the plant in the hole and backfill no higher than halfway up the root ball. Place the recommended number of tablets evenly spaced around the perimeter of, and immediately adjacent to, the root ball at the depth which is between the middle and the bottom of the root ball. Complete backfilling as described above under setting trees, palms and shrubs.

L. Pruning: Remove dead and broken branches from all plant material. Prune to retain typical growth habit of individual species with as much height and spread as is practical. Make all pruning cuts with a sharp instrument flush with trunk or adjacent branch, in such a manner as to ensure elimination of stubs. "Head back" cuts, right angle to line of growth, will not be permitted and trees will not be poled or topped. Paint all cuts ½" in diameter and larger with approved waterproof antiseptic tree paint and remove trimmings from site. Trees and paims incorrectly pruned will be rejected.

M. Guying and Staking:

- 1. Guy all trees 1" to 4 ½" in caliper in three (3) directions with double strands of No. 12 galvanized wire attached to approved wood braces equally spaced and driven below grade per details. When securing wires to trees, cover all wires which may come in contact with any part of tree with new 2-ply reinforced rubber or plastic hose of ¾" in diameter or greater. Place guys not less than 1/3 of the heights of tree above finished grade and above first substantial branches. All hoses shall be interlocked around tree trunk. Place anchors so that guys are equally spaced.
- 2. Guy all SMALL TREES (less than 2 ½" in caliper) as indicated above and stake with three (3) 2" x 2" x 9' wood braces, equally spaced, 18" to 24" from trunk, pounded 24" below grade.
- 3. Guy all MEDIUM TREES (2 ½" to 4 ½" in caliper) as addressed above and stake with 3-2" x 4" x 4" wood braces, equally spaced around tree, pounded 36" below grade. Each guy wire shall angle from the tree at a 45° angle to horizontal. Keep guys tight until project completion by the use of a galvanized steel turnbuckle placed midway between trunk and ground. Each wire shall have a yellow or white surveyor's tape located just above the turnbuckle. Each wood braced to have a ½" notch and the guy wire wrapped around the brace 3 times at the notch to prevent slipping.
- N. In staking palms and large broadleaf trees (4 ¾" caliper and up) no nails or other fasteners will directly penetrate the trunks. Wood 2 x 4 battens, 12 inches (12") long, separated by a minimum of five (5) layers of burlap can be attached to the trunk of the palms/trees with metal banding. Stakes can only be nailed to the wooden battens. Stakes are to be sized according to the size, weight, and exposure of the tree/palm with a minimum of 2 x 4's up to 6 x 6's or greater as required. Stakes are to be removed by the Contractor when appropriate after maintenance period is complete subject to the species, root formation, and the Contractor's acceptance of the stability of the tree/palm. All trees and palms that lean or fall during the guarantee period will be straightened and properly reset at no charge to the Owner.
- O. Mulching: All trees and shrub beds shall be mulched immediately after planting, to a three inch (3") depth, with the mulch as specified in the plant and materials list or as per these specifications. Prevent wind displacement of mulch by thoroughly wetting the mulch down.
- P. Excess Excavated Soil: the Contractor at no additional expense to the Owner shall dispose of Excess excavated soil off site. If the excavated soil is clean and free of debris, it may be used for other on site earthwork if needed, unless specified otherwise. (See 2.B)

3.3 SOD AND SEED (when applicable)

- A. Soil: The Contractor shall submit a unit price per cubic yard for the supply and distribution of planting soil as herein before specified, to be applied at a compacted depth of one inch (1") to all areas receiving sod. (The use of this item in the Contract shall be at the discretion of the Landscape Architect after evaluation of the existing soil on the site.) Payment for this item will be determined by a square foot in place measurement of the installed sod area after sod installation is complete, multiplied by the specified depth of one inch (1"), to determine cubic yards of soil used.
- B. Grades: It shall be the responsibility of the Contractor to finish (fine) grade all landscape areas, eliminating all bumps, depressions, sticks, stones and other debris to the satisfaction of the Landscape Architect prior to the application of sod. If supplemental topsoil is to be spread, no sod shall be laid until the depth of this soil has been approved.

- C. The sod shall be as called for on the Landscape Drawings. Sod shall be of firm tough texture having a compact growth of grass with good root development, and shall contain only the species of grasses specified and no weeds or any other objectionable vegetation. The soil embedded in the sod shall be 2" of good earth, free from stones and debris and all sod shall be free from fungus, vermin and other diseases.
- D. Before being cut and lifted, the sod shall have been mowed at least three times with a lawn mower, with the final mowing not more than seven (7) days before the sod is cut. The sod shall be carefully cut into uniform dimensions.
- E. Solid sod shall be laid by the Contractor with closely abutting joints with a tamped or rolled, even surface. It shall be the responsibility of the Contractor to bring the sod edge in a neat, clean manner in straight lines or smooth radii as per plans to the edge of all paving, buildings, trees, palms, shrubs, etc., and bed areas or mulch rings. Sod installation, if subcontracted, is to be supervised by the Contractor to insure proper laying and proper bed lines per plans. Improper sod installations will be removed and re-laid as necessary. Sod is to be "cut-in" to match the elevation of adjacent areas to develop a finished appearance and to avoid unevenness or tripping hazards. If, in the opinion of the Landscape Architect, top-dressing is necessary after rolling, clean sand will be evenly applied over the entire surface and thoroughly washed in at no additional cost to the Owner.

F. Seed (if applicable)

- Landscape Contractor shall remove all rocks larger than one inch (1") in diameter and all vegetation from the areas to be seeded, scarify the area, then apply 10-10-10 fertilizer at a rate of 500 lbs. per acre.
- Application: Argentine Bahia grass seed shall be applied at a rate of 80 lbs. per acre, mixed with common Hulled Bermuda Seed – 20 lbs. per acre, and 30 lbs. per acre of suitable cover crop (millet seed or winter rye seed) depending upon the season of installation.
- Roll immediately after seeding with a minimum 500-pound roller avoiding damage to site utilities and improvements by surveying and marking them as necessary. Then apply straw mulch at a rate of 2.5 tons per acre.
- 4. Apply approved fertilizer at the rate of 150 pounds per acre, 45 days after seeding.

3.4 CLEAN-UP

Any soil, peat or similar material that has been brought onto any paved areas shall be removed promptly keeping these areas clean as the work progresses. Upon completion of the planting, all excess soil, stones and debris that has not been previously cleaned up shall be removed from the site.

3.5 MAINTENANCE

A. Maintenance shall begin immediately after each plant is planted and shall continue during installation and until all planting has passed final inspection and acceptance. Maintenance shall include watering, weeding cultivating, removal of dead materials, resetting plants to proper grades or upright positions and restoration of the planting sauces and any other necessary operations. Proper protection to lawn areas shall be provided and any damage resulting from planting operations shall be repaired promptly.

- B. All trees shall be deep watered for a period of 90 days after planting. Saucer berms shall be removed on all plant material 30 days after acceptance, except for all replacement materials.
- C. In the event of the threat of serious damage resulting from insects or disease prior to final acceptance, the plants shall be treated by preventative or remedial measures approved for good horticultural practice at no additional cost to the Owner.
- D. The Contractor shall furnish the Owner with a written and detailed description for the care and maintenance of all plant material at the time of final inspection. The Owner agrees to execute the instructions for such care and maintenance.

3.6 INSPECTION AND ACCEPTANCE

- A. Inspection: Inspection of work to determine completion of contract, exclusive of the possible replacement of plants, will be made by the Owner and/or Landscape Architect at the conclusion of all planting and at the written request of the Contractor.
- B. Acceptance: After inspection, the Contractor will be notified by the Owner and/or Landscape Architect of the acceptance of all plant material and workmanship, exclusive of the possible replacement of plants subject to guarantee.

3.7 GUARANTEE AND REPLACEMENT

- A. Guarantee: The Contractor, as part of this Contract, shall furnish a written guarantee warranting all materials, workmanship and plant materials, except sod, for a period of one (1) year from the time of completion and acceptance. All plant materials shall be alive and in satisfactory condition and growth for each specific kind of plant at the end of the guarantee period. Where vandalism is agreed to by the Landscape Architect as the cause for replacement, the Contractor shall not be responsible for replacement during the one (1) year guarantee after final acceptance.
- B. Sod shall be guaranteed for a two month period dating from final acceptance and any lawn care that becomes necessary during the completion period will be the responsibility of the Owner to ensure a vigorous stand of grass.

3.8 TREE PROTECTION (when applicable)

- A. Protection and care of existing trees, palms, shrubs, and ground cover to remain, to include all aspects of protection, fertilization and watering.
- B. Tree, palms, shrubs, and ground cover to remain are designated on the drawings or as directed by the Landscape Architect.
- C. Snow fence detail, when included in plans, will be installed prior to beginning construction activity on project site as part of base bid for contract.

3.9 TREE RELOCATION (when applicable)

- A. Prepare and relocate trees and palms designated for relocation to include all aspects of preparation, protection, fertilization and watering.
 - Trees and palms to be relocated on site are designated on the drawings or as directed by the Landscape Architect.

- Diameter used herein shall mean diameter measured at breast high (DBH) of dicot or a conifer tree as measured four and one half feet 4 ½') above ground. The diameter of a monocot is measured at one foot (1') above ground.
- 3. All dicot trees, specifically Quercus Virginiana (Native Florida Live Oaks), shall be root pruned between 90-120 days before being relocated.
- 4. All monocot trees shall be dug with a Vermeer or similar type tree spades equipment and moved to its permanent location in one move. Monocots shall be watered before the move, installed with a complete watering system and maintained under full irrigation for a period adequate to establish the tree.
- 5. Plans are not complete for bid or construction unless accompanied by written letter/plan format C.S.I. landscape specifications.

B. Tree Preparation

- 1. Excavate the total circumference of the root zone with a minimum eighty (80") inch diameter ball, cut to a depth of not less than thirty inch (30") depth and one foot wide, to get all roots that are necessary to the support of the tree in relocation. The cut trench shall be backfilled with loose friable soil (1/3, 1/3, 1/3 mixes) and Eucalyptus mulch (unless otherwise specified in plant and materials list on plans) and should be placed under constant watering until the time of the move. The tree shall be watered before the move, installed with a complete watering system and maintained under full irrigation for a sufficient period of time adequate to establish the tree.
- 2. At the time of root pruning, the oak trees shall also have their canopies selectively trimmed out to form a well shaped tree with a broad spread and a high canopy. Thin out all interior branches and cut the perimeter branches back to the one inch diameter limb size. The intent is to reduce the foliar mass but keep plenty of small limbs and branches so that the new growth will emerge in the spring that the root system can support. Cut no limbs larger than one inch diameter except interior branches to be removed.
- 3. Six months after the tree is established in its new location, remove stakes, bands, and battens unless they are still needed for bracing the tree.
- 4. Coordinate the orientation of trees before they are set and as they are being set to avoid conflict with branch structure of trees adjacent to either the other trees, the building walls and any other overhead or underground utilities.
- Excavate holes in scale with root ball of tree as it is dug so tree will be set to grow at the same grade as it was originally growing.

C. Watering

1. This contract includes the responsibility to provide a constant supply of water to the tree to be relocated, from the day they are root pruned, throughout the holding period, to the new locations when they are moved, and for the final locations shown on plans. Coordinate with the irrigation installer and the Contractor to utilize the existing water source(s) and the new irrigation water meter(s), so no period of the time occurs that water is not always available to the trees to avoid stress or loss of trees.

- While hand watering, keep all upper branches moistened. Continue any selective pruning that may be needed to adjust to the new planting locations.
- 3. Maintain supplementary hand watering throughout all phases of construction.
- 4. Form and maintain tree well for water retention in the root zone.

D. Staking

- Brace with 2 x 4, 4 x 4, or 6 x 6 wooden stakes depending on the tree size or at the landscape contractor's discretion after root pruning in place and after tree relocation. The landscape contractor is fully responsible to reset trees at no additional cost, if required. All work, care, and follow-up are to be included in the base bid.
- 2. Burlap, battens and bands shall be used to protect bark from damage while rigging to lift trees by crane. No nails in trees.

E. Utilities

The installing contractor shall be responsible to coordinate with all construction plans and schedules, and all appropriate utility location service companies in the project area and the local agencies to provide locations for all overhead and underground utilities.

F. Mulching

- The installing contractor shall be responsible to coordinate with all construction plans and provide mulch to minimum 3" depth and incorporate the tree(s) with the rest of the new plantings.
- 2. Root hormones, fungicide and similar chemicals may be applied at the contractor's discretion.

G. Soil

Backfill the trees with a 1/3, 1/3 mix of planting soil. Construct a tree well unless curbing or planter areas provide necessary well requirements.

H. Fertilization

Fertilize tree with Agriform tablets outside the root zone to encourage root growth.

I. Guarantee

 Equivalent replacement. A tree (or trees) which due to its classification (based on the table of tree evaluation established by the International Society of Arboriculture) in the case of dicot or conifer condition size, and location, is determined by the city/ county/ state Landscape Architect/Urban Forester to be the equivalent to the tree (or trees) which it replaces. In making this determination, the city/ county/ state Landscape Architect/Urban Forester shall be guided by the standards established by the International Society of Arboriculture.

- 2. Equivalent value is an amount of money, which reflects the cost of replacing a dicot or conifer tree, determined by multiplying the cross sectional diameter of the tree (measured in square inches) by the values based on the cost of obtaining an equivalent replacement according to the classifications of tree as listed in the table of tree evaluation established by the International Society of Arboriculture.
- 3. Any tree or paim that dies or is deemed in unacceptable condition for one year following relocation shall be removed by the Contractor including root ball, and backfilling of pit, at no cost to the Owner and the tree will be replaced with a new tree or palm of the same size and species, and installed to meet these specifications.
- 4. Acknowledging the nature of tree and palm relocation, the Contractor shall not be responsible for survival of trees and palms if it is deemed by the Landscape Architect or Owner that all possible measures have been taken by the Contractor to insure the tree(s) survivability. If, however, it is deemed by the Landscape Architect or Owner that the tree or palm mortality is a product of negligence by the Contractor or failure to follow these specifications, the Contractor shall provide and install at no additional cost to the Owner a tree or palm of same size and species.

END OF SECTION

SECTION 02510

ASPHALTIC PAVEMENT AND BASE

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Perform all work associated with Asphaltic Concrete Pavement and Base as shown and as specified herein including all labor, materials, equipment supplies, and facilities associated with providing a finished product satisfying all the requirements of the Contract Documents.
- B. See GENERAL CONDITIONS which contain information and requirements that apply to the Work specified herein and are mandatory for this project.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

<u>Commercial Standards</u>: References in these specifications to "Standard Specifications" shall mean the "Standard Specifications for Road and Bridge Construction," Florida Department of Transportation, Latest Revision.

1.03 SUBMITTALS

- A. Submit, in writing, materials testing reports, job-mix formulas, and other pertinent information acceptable to the ENGINEER demonstrating that materials and methods proposed for use will comply with the provisions of this Section, in accordance with the GENERAL CONDITIONS.
- B. <u>Suitability Tests of Proposed Materials:</u> Tests for conformance with the Specifications shall be performed prior to start of the work. The samples shall be identified to show the name of the material, aggregate source, name of the supplier, contract number, and the segment of the WORK where the material represented by the sample is to be used. Results of all tests shall be submitted to the ENGINEER for review. Materials to be tested shall include aggregate base, coarse and fine aggregate for paving mixtures, mineral filler, and asphalt cement.
- C. <u>Trial Batch:</u> Before placing any paving material, a testing laboratory acceptable to the ENGINEER shall prepare a trial batch of asphalt concrete for each job-mix formula to be used for the Work. The trial batch shall be prepared using the aggregates and asphalt cement proposed, and acceptable to the ENGINEER. The compacted trial batch shall provide a basis for computing the voids ratio, provide an indication of the optimum asphalt content, and establish a basis for controlling compaction during construction. The cost of not more than two laboratory trial batch tests will be borne by the CITY but the CONTRACTOR shall furnish the materials at no cost. Any additional trial batch testing required shall be performed at the expense of the CONTRACTOR within the Scope of the Contract.

1.04 QUALITY CONTROL

Testing by an independent testing firm will be required to verify proper placement and compaction of the subbase, base and pavement sections.

PART 2 - PRODUCTS

2.01 LIMEROCK BASE

Materials for limerock base shall be as specified in Section 911 of the Standard FDOT Specifications.

2.02 PRIME COAT

Prime coat material shall be RC-70 liquid asphalt applied to the pavement base at a uniform rate of 0.25 gallons per square yard. Sand cover shall be applied over prime coat if traffic will be using area before final paving is laid.

2.03 TACK COAT

Tack coat material shall be as specified in Section 300-2.3 of the Standard FDOT Specifications.

2.04 ASPHALTIC CONCRETE

- A. Type S-I Asphaltic Concrete conforming to all applicable requirements of Sections 320, 330 and 311 of the Standard FDOT Specifications.
- B. Where indicated by drawings, Type S-III Asphaltic Concrete conforming to all applicable requirements of Sections 320, 330 and 333 of the Standard FDOT Specifications, may be used.

2.05 TRAFFIC CONTROL MARKINGS

- A. Thermoplastic stripes and markings shall be as specified in Section 711 of the Standard FDOT Specifications.
- B. Reflective pavement markers shall be as specified in Section 706 of the Standard FDOT Specifications.
- C. Signing shall be as specified in Section 700 of the Standard FDOT Specifications.

PART 3 - EXECUTION

3.01 SUBGRADE PREPARATION

The subgrade shall be prepared as shown on the drawing details and as applicable to roadways and embankments. The surface of the subgrade after compaction shall be hard, uniform, smooth and true to grade and cross-section. Subgrade for pavement shall not vary more than 0.02 foot from the specified grade and cross section. Subgrade for base material shall not vary more than 0.04 foot from the specified grade and cross section. Compaction on Subgrade shall be 98% of the maximum density as determined by AASHTO T180 in the upper 12 inches.

3.02 LIMEROCK BASE

- A. Aggregate base shall be provided where shown and to the thickness shown. Imported aggregate bases shall be delivered to the job site as uniform mixtures and each layer shall be spread in one operation. Segregation shall be avoided and the base shall be free of pockets of coarse or fine material. Where the required thickness is 6 inches or less, the base materials may be spread and compacted in one course. Where the required thickness is more than 6 inches, the base material shall be spread and compacted in two or more courses of approximately equal thickness and the maximum compacted thickness of anyone course shall not exceed 8 inches. The relative compaction of each course of aggregate base shall be not less than 98 percent of maximum density at optimum moisture content when measured in accordance with ASTM D 1557. The compacted surface of the finished aggregate shall be hard, uniform, smooth and at any point shall not vary more than 0.02 feet from the specified grade or cross section.
- B. Requirements for limerock base other than those above shall be as specified by Section 200 of the Standard Specifications.

3.03 MILLING OF EXISTING ASPHALT PAVEMENT

- A. Removing existing asphaltic concrete pavement by milling at all locations indicated on the Drawings shall be as specified in Section 327 of the standard specifications.
- B. CONTRACTOR shall be responsible for the removal and disposal of the milled material off to an authorized site approved by the ENGINEER.
- C. The depth of cut for the mill width shall be tapered from an average depth of cut of 3/4-inch at the edge of pavement or curb.

3.04 PRIME COAT

- A. Prime coat shall be applied when the limerock base meets the specified density requirements and the moisture content of the top half of the base does not exceed 90 percent of the optimum moisture of the base material. At the time of priming, the limerock base shall be firm, unyielding and in such a condition that no undue distortion will occur.
- Prime coat shall be applied according to Section 300 of the Standard Specifications.

3.05 TACK COAT

- A. A tack coat shall be applied to the base and to the contact surfaces of all cold pavement joints, curbs, gutters, manholes and the like before the asphalt pavement is placed. Care shall be taken to prevent the application of tack coat material to surfaces that will not be in contact with the new asphaltic concrete pavement.
- B. Tack coat shall be applied in accordance with Section 300-7 of the Standard Specifications.

3.06 ASPHALTIC CONCRETE

- A. Paving shall be as specified in Section 330 of the Standard Specifications and the specifications herein.
- B. At the time of delivery to the Work site, the temperature of mixture shall be within \pm 25° F of the mix temperature.
- C. Asphalt concrete shall not be placed when the atmospheric temperature is below 40 degrees F or during unsuitable weather.
- D. The asphaltic concrete shall be evenly spread upon the subgrade or base to such a depth that, after rolling, it will be of the specified cross section and grade of the course being constructed.
- E. The depositing, distributing, and spreading of the asphalt concrete shall be accomplished in a single, continuous operation by means of a self-propelled mechanical spreading and finishing machine designed specially for that purpose. The machine shall be equipped with a screed or strike-off assembly capable of being accurately regulated and adjusted to distribute a layer of the material to a definite pre-determined thickness. When paving is of a size or in a location that use of a self-propelled machine is impractical the ENGINEER may waive the self-propelled requirement.
- F. Spreading, once commenced, must be continuous without interruption.
- G. The mix shall be compacted immediately after placing. Initial rolling with a steel-wheeled tandem roller, steel three-wheeled roller, vibratory roller, or a pneumatic-tired roller shall follow the paver as closely as possible. If needed, intermediate rolling with a pneumatic-tired roller shall be done immediately behind the initial rolling, final rolling shall eliminate marks from previous rolling. In areas too small for the roller a vibrating plate compactor or a hand tamper shall be used to achieve thorough compaction.
- H. Upon completion, the pavement shall be true to grade and cross-section. When a 10-foot straightedge is laid on the finished surface parallel to the center of the roadway, the surface shall not vary from the edge of the straightedge more than 1/8 inch except at intersections or changes of grade. In the transverse direction, the surface shall not vary from the edge of the straightedge more than 1/4 inch.
- I. The relative density after compaction shall be 98 percent of the density obtained by using ASTM D 1188 or D 2726. A properly calibrated nuclear asphalt testing device may be used for determining the field density of compacted asphalt concrete, or slabs or cores shall be laboratory tested in accordance with ASTM D 1188.

3.07 ASPHALTIC LEVELING COURSE

The requirements for the placement of an asphaltic leveling course over existing pavement in order to bring the existing pavement surface to proper grade and cross-section shall be in accordance with Section 330 in general, and specifically Sections 330-8.2, 330-9.3 and 330-10.1.7 of the Standard Specifications.

3.08 TRAFFIC CONTROL MARKING RESTORATION

- A. CONTRACTOR shall be responsible for restoring all traffic striping, reflective markers, signalization systems and signage which are damaged or disturbed during construction.
- B. CONTRACTOR shall submit pavement marking plans in accordance with the requirements of the applicable right-of-way authority. Plans shall be at a scale suitable to indicate the dimensional requirements of the pavement markings. Plan shall receive approval of ENGINEER, and the applicable right-of-way authority prior to implementation.
- C. The intent is to restore traffic control to the plan and markings existing prior to construction, or as indicated by the Drawings.
- Restoration shall conform with all applicable requirements of Sections 706, 710 and 711 of the Standard Specifications.

END OF SECTION

FULL DEPTH RECLAMATION WITH ASPHALT EMULSION SPECIFICATIONS 02514

This work shall consist of the preparation of a stabilized base course composed of a mixture of the existing bituminous concrete pavement, existing base course material and emulsified asphalt and other additives. The manufacturing of the stabilized base course shall be done by in-place pulverizing and blending of the existing pavement and base materials, and the introduction of asphalt emulsion and additives if called for in the Special Conditions or design mix formula. The process which results in a stabilized base course shall be accomplished in accordance with these specifications and conform to the lines and grades established by the engineer.

Existing asphalt pavement shall be pulverized by a method that does not damage the material below the plan depth as shown on the appropriate roadway section.

Materials:

RAP: Materials must meet all requirements specified in the 2010 Florida Department of Transportation Standard Specifications for Road and Bridge Construction 283-2, except that 98% of all material is required to pass through a 50 mm (2 inch) sieve.

Additional Base Materials: Additional base materials may be needed for adjusting grade elevations as directed by the engineer, or for widening. When such additional material is required it shall be among those bases listed in FDOT Design Standards as General Use Optional Base Materials and meet applicable FDOT requirements for such.

Asphalt Emulsion: When asphalt emulsion treatment is specified, asphalt emulsion, type CSS-1h or CMS-2h mod., meeting the requirements of ASTM D2397-98, shall be utilized.

Water: The water for the base course compaction and foaming additive shall be clean and free from sewage, oil, acid, strong alkalies, or vegetable matter and it shall be in sufficient supply for mixing and curing. Water of questionable quality shall be tested in accordance with the requirements of AASHTO T 26.

Soil: The soil base to be reclaimed shall be evaluated by a professional geotechnical engineering laboratory to determine suitability in the stabilization process. The soil shall be free of roots, sod, weeds, and shall not contain gravel or stone retained on a 1-inch (25 mm) sieve, or more than 45% retained on a No. 4 (4.75 mm) sieve, as determined by ASTM C 136.

Equipment:

Road Reclaimer: Shall be originally designed for pavement reclaiming of a size equal to or larger than a Caterpillar Model RM-350B with comparable specifications including horsepower and rotor size. The reclaimer shall be capable of pulverizing and mixing pavement, base materials, and subgrade soil to depth of 16 inches. It shall have the capability of introducing and metering additives uniformly and accurately and that positive displacement pumps accurately meter the planned amount of water and cement material into the mixture. The reclaiming machine shall mix the emulsified or foamed asphalt additive thoroughly with the RAP and soil materials. The pump shall be mechanically or electronically interlocked with the ground speed of the machine. The asphalt metering system and water metering system shall be capable of continuously monitoring (GPM) flow, and totaling the quantity of water and asphalt applied into the mixing chamber. Additives shall be uniformly distributed and mixed with the pulverized material, any existing underlying material as specified.

Motor Grader: Shall be of sufficient size and horsepower to adequately rough grade the pulverized base and rough and finish grade the mixed and compacted base. The equipment shall be in good working order free from leaks and capable of maintaining an accurate grade and cross-slope.

Rollers: Shall be in good working order free from leaks and capable of compacting the mix to the requirements of this specification: Vibratory rollers shall be a minimum of 10 tons and capable of rolling in either vibratory or static mode. Three wheel static rollers shall be a minimum of 11 tons. Pneumatic tire rollers shall have a minimum of 9 oscillating wheels with smooth, low pressure tires (pressure shall be equally matched in all tires within 5 PSI) and weigh at least 20 tons. Initial compaction shall be accomplished by either single or dual drum vibratory or three wheel roller static rollers.

Additional equipment: Additional equipment will be needed to complete the operations required by this technical provision. All equipment necessary for the successful completion of projects governed by this technical provision shall be included in the unit costs associated herein. Availability of quality assurance devices (such as a 15' straight edge) shall be the responsibility of the Contractor.

Experience:

All contractors and their subcontractors shall be FDOT prequalified. Bidders must demonstrate a minimum of 5 years of experience with the Full Depth Reclamation (emulsion stabilization) process under the current company name. Bidders may be required to submit detailed information regarding the staff that they propose for this project. Contractor shall be capable of meeting all the requirements of this specification at the time of the bid. County staff shall have the option to inspect the Contractor's equipment and if found deficient, it shall be the basis for rejection of Contractor's bid.

Construction:

Layout: The Contractor will be responsible for the string lining and lay out of the roadway prior to paving. Elevations of the existing road must be referenced at sufficient intervals to ensure the roadway elevation is not changed in any location after final surface is placed. Method for layout and line and elevation reference must be approved by the engineer prior to beginning work. It is imperative that roadway elevations remain unchanged except cross slope correction or as approved by the engineer.

Weather and Seasonal limitations: The base shall not be mixed or placed while the atmospheric temperature is below 35 F (2 C) or when conditions indicate that the temperature may fall below 35 F (2 C) within 24 hours, or when the weather is foggy or rainy, or when the soil or sub grade is frozen.

Mix Design: Prior to base course construction, a minimum of one (1) core sample must be taken for every 5,000 square yards of the roadway. Representative samples of the RAP material, underlying base material and virgin materials, where applicable, shall be supplied to a nationally accredited laboratory for preliminary testing to determine the optimum moisture content and proportions of asphalt emulsion or foamed asphalt needed to produce a finished base course with a mix design target of 300 PSI and a final in place base compressive strength of 200 to 400 PSI. Laboratory tests of material to be reclaimed and virgin materials for use as base shall be performed to determine compliance with 3-day and 7-day minimum compressive strength requirements of the mixture and the quantity of asphalt emulsion or foamed asphalt required in the mix. Test specimens containing various amounts of asphalt emulsion or foamed asphalt are to be compacted in accordance with ASTM D558, and the optimum moisture for each amount of either is to be determined. Actual application quantities for the additives will be derived from the mix design. The minimum compressive strength requirements of the mixture shall be determined by the engineer. The mix design and laboratory testing shall be performed by a geotechnical engineering laboratory and all reports sealed by a professional engineer.

Mix Design Performance Criteria				
100 mm specimens shall be prepared in a Superpave Gyratory compactor. The mixture should meet the following criteria at the selected design asphalt emulsion content:				
Property	Criteria	Purpose		
Compaction effort, Superpave Gyratory Compactor AASHTO T312	1.25° angle, 600 kPa stress, 30 gyrations	Density Indicator		
Density, ASTM D2726 or equivalent	Report	Compaction Indicator		
Gradation for Design Millings, ASTM C117	Report			
*Marshall stability, ASTM D6926, D6927, 40°C	1,250 lb min.	Stability Indicator		
**Resistance of Compacted Bituminous Mixture to Moisture Induced Damage AASHTO T283 - Retained stability based on cured stability	70 % min.	Ability to withstand moisture damage		
* Cured stability tested on compacted specimens after 60°C (140°F) curing to constant weight.				
**Vacuum saturation of 55 to 75 percent, water bath 25°C 23 hours, last hour at 40°C water bath				

Widening: When the existing base is to be widened, the Contractor shall excavate the shoulder from the edge of the existing pavement to at least 6 inches beyond the planned new width of the base prior to pulverization. All costs involved in collecting, hauling, and disposing of these materials shall be borne by the Contractor.

The bottom of the trench shall be kept free of loose soil and vegetation. Approved base material (those bases listed in FDOT Design Standards as General Use Optional Base Materials) shall be placed in the excavation uniformly and without loss or contamination. The Contractor shall correct all areas of irregular grade or deficient thickness and shall remove and replace material contaminated with soil, organic material, or debris.

After the final pass of the reclaimer, soil shall be drawn up against the widening material to close the excavation, and the shoulder shall be graded and compacted to produce a firm, even surface.

Additional Material: When additional material is to be added to correct cross slope deficiencies or change elevation as directed by the engineer, approved base material (those bases listed in FDOT Design Standards as General Use Optional Base Materials) shall be placed on the roadway prior to final pass for pulverization and mixed uniformly with the existing material.

Pulverization: The existing pavement and base material shall be pulverized and blended to the depth required so the entire mass of material shall be uniformly graded to the following gradation:

SIEVE SIZE	PERCENT PASSING	
2"	98 - 100	
1-1/2"	95	

Material gradation may vary due to local aggregates and conditions. Multiple passes of the reclaimer may be necessary to achieve the required gradation.

The asphalt emulsion or asphalt and water (to produce a foamed asphalt) shall be introduced into the mix through the reclaimer uniformly and accurately and metered such that areas are of equal consistency and moisture content. The reclaimed material and additives shall be combined in place to meet the requirements specified in such proportions that the reclaimed mixture is of acceptable composition and stability. Before the start and at the end of each day's work and at any time requested, the engineer must be permitted access to the mixing equipment in order to read the meter to verify the quantity of asphalt emulsion applied during the day's work. Field adjustments shall be made as necessary to the recommended mix design under the guidance of a knowledgeable and competent technician or superintendent to obtain a satisfactory reclaimed mixture of consistent composition and stability throughout the Project.

After the material has been processed, it shall be compacted to the lines, grades, and depth required. Water may be applied to ensure optimum moisture content at the time of mixing and compaction.

Compaction: Commence rolling with self propelled rollers as required by this technical provision at the low side of the course, except leave 3 to 6 inches from any unsupported edge or edges unrolled initially to prevent distortion. Density readings shall be taken by Contractor's licensed nuclear gauge operator and witnessed by the Engineer/inspector. A control strip of not less than 500 feet shall be constructed to develop proper rolling/compaction patterns and methods to obtain desired density. Whenever there is a change in the reclaimed material or compaction method, equipment or unacceptable results occur, a new control strip shall be constructed, tested and analyzed.

Rollers shall move at a uniform speed that shall not exceed 8 km/hour (5 miles/hour). For static rollers, the drive drum normally shall be in the forward position or nearest to the paver. Vibratory rollers shall be operated at the speed, frequency and amplitude required to obtain the required density and prevent defects in the mat.

The number, weight and type of rollers furnished shall be sufficient to obtain the required compaction of the reclaimed material. The field density of the compacted mixture shall be at least 95 percent of the maximum density of laboratory specimens prepared from samples of the base material taken from the material in place. The specimens shall be compacted in accordance with ASTM D 558. The in-place field density shall be determined in accordance with ASTM D 2922.

Any pavement shoving or other unacceptable displacement shall be corrected. The cause of the displacement shall be determined and corrective action taken immediately and before continuing rolling. Care shall be exercised in rolling the edges of the reclaimed mixture so the line and grade of the edge are maintained.

At the end of each day's production, a transverse construction joint shall be formed by a header or by cutting back into the compacted material to form a true vertical face free of loose material. The protection provided for construction joints shall permit the placing, spreading, and compacting of base material without injury to the work previously laid. Where it is necessary to operate or turn any equipment on the completed base course, sufficient protection and cover shall be provided to prevent damage to the finished surface. A supply of mats or wooden planks shall be maintained and used as approved and directed by the Engineer.

Finishing: Finishing operations shall be completed and the base course shall conform to the required lines, grades, and cross section. If necessary, the surface shall be lightly scarified to eliminate any imprints made by the compacting or shaping equipment. The surface shall then be recompacted to the required density. Correct all irregularities greater than ½" over ten feet to the satisfaction of the engineer.

Protection and Curing: After the base course has been finished as specified herein, it shall be protected against drying for a period of 5 to 7 days by the application of a prime coat as specified in FDOT Standard Specifications section 300 at a rate of not less than 0.15 gal/sy. The curing method shall begin as soon as possible, but no later than 24 hours after the completion of finishing operations. The finished base course shall be kept moist continuously until the curing material is placed.

At the time the prime coat is applied, the surface shall be dense, free of all loose and extraneous material, and shall contain sufficient moisture to prevent penetration of the bituminous material. Water shall be applied in sufficient quantity to fill the surface voids immediately before the bituminous curing material is applied.

The curing material shall be maintained and re-applied as needed by the Contractor during the 7-day protection period so that all of the soil-cement will be covered effectively during this period. Finished portions of soil-cement that are used by equipment in constructing an adjoining section shall be protected to prevent equipment from marring or damaging the completed work.

When the air temperature may be expected to reach the freezing point, sufficient protection from freezing shall be given the soil-cement for 7 days after its construction and until it has hardened.

Thickness: The average thickness of the base constructed during one day shall be within 1/2 inch (12 mm) of the thickness required, except that the thickness of any one point may be within 3/4 inch (19 mm) of that required. Where the average thickness shown by the measurements made in one day's construction is not within the tolerance given, the Engineer shall evaluate the area and determine if, in his/her opinion, it shall be reconstructed at the Contractor's expense or the deficiency deducted from the total material in place.

Sampling and Testing:

Control Testing for Full Depth Reclamation Field Sampling and Testing					
Type of Test	Method	Frequency	Size and Location		
RAP and Soil Cement Base Gradation	ASTM D-136	Each 3000 SY (not less than once per day)	20 lb min sampled from hopper		
Moisture Density Relationship of Soil Cement Mixtures	ASTM D-558	Each 1000 SY (not less than once per day)	33 lb min sampled from pulverized base		
Compressive Strength of Molded Soil Cement Cylinders	ASTM D-1633	Each 3000 SY (not less than once per day)	33 lb min sampled from pulverized and mixed base		
In-place Field Density	ASTM D-2922	Each 250 SY (not less than once per day)	Random locations after spreading and compacting		

The depth of Reclaimed Bituminous Base Course shall be determined by measuring uncompacted reclaimed material immediately behind the screed in conjunction with measuring the milling depth prior to placement of reclaimed material. One depth measurement for each 250 square yards of completed base course shall be made. Any section deficient by 0.5 in (12 mm) or more from the specified depth shall be removed and satisfactorily replaced by the contractor at no additional cost. At the county's option, cores may be taken by the engineer in the finished product to further ensure base thickness meets requirements.

All delivery tickets and notes regarding any materials brought to the project site to complete this Contract must be given to the Engineer/Inspector upon delivery to the project site.

Additional sampling and testing may be required if major changes in RAP characteristics are observed, such as a much coarser or finer gradation or a noticeable difference in asphalt content, or when considerable variability is occurring in the field test results.

SECTION 02514 A

MILLING OF EXISTING ASPHALT PAVEMENT

PART 1 GENERAL

1.01 DESCRIPTION:

A. Work Included:

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

- B. The finish grade, after resurfacing, will be specified in the plans.
- C. Unless otherwise specified, the milled material becomes the property of the Contractor.

PART 2EQUIPMENT

2.01 DESCRIPTION:

- A. The milling machine shall be capable of maintaining a depth of cut and cross slope that will achieve the results specified in the plans and specifications. The minimum cutting width shall be six feet.
- B. The milling machine shall be equipped with a built-in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results.
- C. Any commercially manufactured milling machine meeting the above requirements will be approved to start the project. If it becomes evident after milling has started that the milling machine cannot consistently produce the specified results, the milling machine will be rejected for further use.
- D. When milling to lower the grade adjacent to existing curb or other areas where it is impractical to use the above described equipment, the use of a smaller milling machine will be permitted.
- E. The milling machine shall be equipped with means to effectively limit the amount of dust escaping the removal operation.
- F. For complete pavement removal, the use of alternate removal and crushing equipment, in lieu of the equipment specified above, may be approved by the Engineer.

PART 3EXECUTION

3.01 CONSTRUCTION:

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

- B. The longitudinal profile of the milled surface shall be established on the side of the cut nearest the centerline of the road. The cross slope of the milled surface shall be established by a second sensing device near the outside edge of the cut or by an automatic cross slope control mechanism. The plans may waive the requirement for automatic grade or cross slope controls where the situation warrants such action.
- C. The Contractor may elect to make multiple cuts to achieve the required pavement configuration or depth of cut.
- D. The milling machine shall be operated to effectively minimize the amount of dust being emitted from the machine. Prewetting of the pavement may be required.
- E. If traffic is to be maintained on the milled surface prior to the placement of the new asphaltic concrete, the pattern of striations shall be such as to produce an acceptable riding surface. The Contractor will control the traveling speed of the milling machine to produce a texture that will provide an acceptable riding surface.
- F. Prior to opening an area which has been milled to traffic, the pavement shall be thoroughly swept with a power broom or other approved equipment to remove to the greatest extent practicable, fine material which will dust under traffic. This operation shall be conducted in a manner so as to minimize the potential for creation of a traffic hazard and to minimize air pollution. Temporary traffic markings will be placed in order to maintain safe traffic control.
- G. Sweeping of the milled surface with a power broom will be required prior to placing asphaltic concrete.
- H. In urban and other sensitive areas where dust would cause a serious problem, the Contractor shall use a street sweeper (using water) or other equipment capable of removing and controlling dust. Approval of the use of such equipment is contingent upon its demonstrated ability to do the work.
- The Contractor is to prevent the infiltration of milled material into the storm sewer system when the milling operation is within the limits of, and adjacent to a municipal curb and gutter or a closed drainage system, the sweeping operation shall be performed immediately after the milling operations.
- J. This operation shall also include the thorough removal of all milled material from the gutter in such a manner as to protect the curb from damage and to prevent the material being swept into the inlet openings or inlet grates.

3.02 FINAL SURFACE CONDITIONS:

- A. The milled surface shall have a reasonably uniform texture and shall be within ¼ inch of a true profile grade and shall have no deviation in excess of ¼ inch from a straightedge applied to the pavement perpendicular to the centerline. The variation of the longitudinal joint between multiple cut areas shall not exceed ¼ inch. Areas varying from a true surface in excess of the above stated tolerance may be accepted without correction if the Engineer determines that they were caused by a pre-existing condition which could not have reasonably been corrected by the milling operation. Any unsuitable texture or profile, as determined by the Engineer, shall be corrected by the Contractor at no additional compensation.
- B. The Engineer may require remilling of any area where a surface lamination causes a non-uniform texture to occur.

3.03 METHOD OF MEASUREMENT:

The quantity to be paid for under this Section shall be the area over which milling is acceptably

completed, calculated as specified in Florida Department of Transportation, Section 9-1.3.

3.04 BASIS OF PAYMENT:

- A. The quantity, determined as provided in Part 4, shall be paid for at the contract unit price for Milling Existing Asphalt Pavement per square yard.
- B. The price and payment for Milling Existing Asphalt Pavement shall be full compensation for all work specified in this Section, including hauling off and stockpiling or otherwise disposing of the milled material.

END OF SECTION

SECTION 02527

CURBS AND GUTTERS, SIDEWALKS AND DRIVEWAY APRONS

PART 1 GENERAL

1.01 DESCRIPTION:

Work covered by this section consists of furnishing all plant, labor, equipment, appliances and material, and performing all operations required to install the specified curb and gutter, sidewalk and driveway aprons, as detailed on the applicable drawings.

1.02 **QUALITY ASSURANCE**:

- A. Applicable Standards: The specifications, standards and publications (latest editions) listed below are to be considered a part of these specifications to the extent required by the references thereto:
 - American Society for Testing and Materials (ASTM) A615 Standard Specifications for Deformed and Plain Billet Steel Bars C33 Standard Specifications for Concrete Aggregates C150 Standard Specification for Portland Cement.
- B. All construction shall conform to all applicable standards of the Florida Department of Transportation, Sections 520 and 522, and as shown on the applicable drawings as specified herein.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. All materials shall conform to the appropriate portion of the referenced specifications.
- B. Concrete:
 - Concrete for sidewalks shall be four (4) inches thick and 3,000 psi concrete.
 - 2. Driveway aprons, sidewalks at driveway
- C. Joint Filler:

Joint filler for all expansion joints shall be an approved suitable elastic waterproof premolded compound which will not become soft and push out in hot weather, nor become hot and brittle and chip out in cold weather. Filler shall not be more than $\delta^{"}$ thick and shall extend the full depth and width of the concrete work involved.

PART 3 EXECUTION

3.01 EXPANSION JOINTS:

A. Curbs and Gutters:

Provide expansion joints with filler as specified hereinbefore, on 20 ft. maximum centers, and at other locations indicated.

B. Driveway Aprons:

Provide expansion joints with filler as specified hereinbefore, at each end of all aprons where they abut the curb and gutter.

C. Concrete Sidewalk:

Provide expansion joints with filler as specified hereinbefore, where sidewalk abuts curb and gutter, driveway and other locations.

3.03 FINISHING:

- A. After the concrete has been brought to required grade with a strike board and sufficiently tampered to bring the mortar to the surface, finish it as specified below.
 - Finish surface with trowel and float to and approximately true plane with light broom finish.
 - 2. Do not apply neat cement to any concrete surface to hasten its hardening.

END OF SECTION

SECTION 02618

PAVEMENT MARKING - THERMOPLASTIC

PART I GENERAL

1.01 SCOPE OF WORK:

- A. Work Included:
 - 1. Thermoplastic painted stripes
 - 2. Thermoplastic signs
 - 3. Thermoplastic arrows
 - 4 Thermoplastic letters

1.02 DESIGN REQUIREMENTS:

Pavement marking shall be in accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 1991 Edition, Section 711.

1.03 QUALITY ASSURANCE:

- A. Perform work in accordance with the Contract Documents in a neat and accurate manner.
- B. Equipment shall be of a type and design which will readily obtain the required uniformity of application of the pavement markings both as to thickness of coating and as to alignment.
- C. Applicable Publication: Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 1991 Edition.

1.04 STANDARDS:

Where reference is made herein to the FDOT Specifications delete therefrom the basis of payment and other pay measurement requirements. Payment is to be a lump sum amount for the entire project.

PART II PRODUCTS

2.01 MATERIALS:

- A. Thermoplastic Paint: In accord with requirements as indicated in Section 711 of the FDOT Specifications.
- B. Color: White and yellow, as shown on the drawings. All handicapped related markings are to be painted blue.

PART III EXECUTION

3.01 CORRECTIVE MEASURES:

A. Markings which fail to meet the guidelines, including the permissible tolerances and the appearance requirements, or are marred or damaged by traffic or from any other cause shall be corrected at no cost to the Owner. Drips and spattered paint shall be removed. Whenever it is necessary to remove paint it shall be done by means which will not damage the underlying surface of the pavement. When necessary to correct a deviation which exceeds the permissible tolerance in alignment, that portion of the stripe affected shall be removed and repainted in accordance with these guidelines.

B. Corrective Devices: Misalignment, defective surfaces, and the like, shall be corrected by sandblasting or by any other type of mechanical device which will effectively remove the thermoplastic without damage to the pavement surface.

3.02 <u>DIMENSION AND ALIGNMENT TOLERANCE</u>:

- A. Dimensions: No marking shall be less than the indicated width. No marking shall exceed the indicated width by more than ½ inch.
- B. Corrective Rates: Corrections of variation in the width of, and the alignment of stripes shall not be made abruptly but the stripes should be returned to the design width of the rate of at least 10 feet for each ½ inch of correction.

END OF SECTION