



CITY OF TAMPA

Bob Buckhorn, Mayor

CONTRACT ADMINISTRATION DEPARTMENT

David L. Vaughn, AIA, Director

ADDENDUM NO. 2

DATE: July 2, 2014

Contract 14-C-00035; Citywide Roadway Improvements FY 14

Bidders on the above referenced project are hereby notified that the following addendum is made to the Contract Documents. BIDS TO BE SUBMITTED SHALL CONFORM TO THIS NOTICE.

- Item 1: The time for completion of this project, referred in Article 4.01 of the Agreement, shall be 365 consecutive calendar days. The period for performance shall start from the date indicated in the Notice To Proceed. This Contract is renewable at the same terms, prices and conditions for an additional 365 days upon mutual agreement between the City and the Contractor.
- Item 2: Replace Proposal pages P-3 through P-11 with the attached Proposal pages P-3R through P-13R.
- Item 3: Replace Specific Provisions pages S-1 through S-19 with the attached Specific Provisions pages SP-1R through SP-20R.

All other provisions of the Contract Documents and Specifications not in conflict with this Addendum shall remain in full force and effect. Questions are to be e-mailed to ContractAdministration@tampagov.net.

Jim Greiner

Jim Greiner, P.E., Contract Management Supervisor

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
DPW TRANSPORTATION						
102-99	Portable Chargeable Message Sign - Temporary	ED	50		\$	\$
102-14	Traffic Control Officer (Off Duty Law Enforcement)	MH	40		\$	\$
104-4	Mowing	AC	5		\$	\$
104-10-3	Sediment Barrier	L.F.	250		\$	\$
104-11	Floating Turbidity Barrier	L.F.	1,000		\$	\$
104-12	Staked Turbidity Barrier	L.F.	1,000		\$	\$
104-13	Staked Slit Fence (Type III)	L.F.	3,000		\$	\$
104-15	Soil Tracking Device	EA.	20		\$	\$
104-18	Inlet Protection System	EA.	10		\$	\$
110-4	Removal of Existing Pavement	S.Y.	2,000		\$	\$
110-1-1	Cleaning and Grubbing	AC	5		\$	\$
120-1	Regular Excavation	C.Y.	3,000		\$	\$
120-2	Barrow Excavating Truck Measure	C.Y.	200		\$	\$
120-3	Commercial Material for D/W	L.F.	100		\$	\$
120-4	Subsoil Excavation	C.Y.	300		\$	\$
120-6	Embankment	C.Y.	1,000		\$	\$
121-70	Flowable Fill	C.Y.	3.0		\$	\$
160-4-1	12" Thick Type B Stabilization (LBR-40)	S.Y.	5,000		\$	\$
160-5-2	Subbase, 12" Type "C" Stabilization	S.Y.	5,000		\$	\$
161-1-0	12" thick Type b Stabilization for non traffic Base	S.Y.	5,000		\$	\$
162-1-11	Finish Soil Layer 6" Thick (Landscaping)	S.Y.	1,000		\$	\$
173-77-1	Subsurface Pressure Grouting	C.Y.	10		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
285-701	Base Group 1	S.Y.	5,000		\$	\$
285-703	ABC-3 10" Thick	TN	25		\$	\$
285-704	Optional Base (Base Group 04)	S.Y.	500		\$	\$
285-705	Base Optional (Base Group 05)	S.Y.	3,000		\$	\$
285-706	Asph. Base Concrete 5" Thick Type III (incl. Bituminous Layer)	S.Y.	3,000		\$	\$
285-707	Base Optional Base (Base Group 07)	S.Y.	3,000		\$	\$
285-709	Base Optional (Base Group 09)	S.Y.	5,000		\$	\$
285-711	Base Optional (Base Group 11)	S.Y.	1,500		\$	\$
285-717	6" (Crushed Concrete Base)	S.Y.	1,000		\$	\$
327-70-1	Milling Existing Pavement 1" Th. Ave	S.Y.	5,000		\$	\$
327-70-2	Milling Existing Pavement 3 -1/2" Th. Ave.	S.Y.	3,000		\$	\$
327-70 -10	Milling Existing Pavement 5" Ave Th.	S.Y.	5,000		\$	\$
331-2	Asphalt Concrete S-1	S.Y.	3,000		\$	\$
334-1-11	Superpave Asphaltic Concrete Traffic A	TN	100		\$	\$
334-1-12	Superpave Asphaltic Concrete Traffic B	TN	50		\$	\$
334-1-13	Superpave Asphaltic Concrete Traffic C	TN	50		\$	\$
334-1-14	Superpave Asphaltic Concrete Traffic D	TN	50		\$	\$
334-1-15	Superpave Asphaltic Concrete Traffic E	TN	100		\$	\$
337-7-22	Asphaltic Concrete Friction Course including Bituminous/Rubber FC 9.5 Rubber 1" Thick	TN	100		\$	\$
337-7-23	Asphaltic Concrete Friction FC - 12.5 - 1-1/2" Thick	TN	100		\$	\$
337-7-40	Asphalt Concrete FC-9.5 Type B	TN	100		\$	\$
337-7-41	Asphalt Concrete FC-12.5 Type B	TN	100		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
337-7-54	Asphalt Concrete FC-9.5 Type C	TN	100		\$	\$
337-7-55	Asphalt Concrete FC-12.5 Type C	TN	100		\$	\$
350-1-3	Plain Cement Concrete Pavement 8" Thick	S.Y.	1,000		\$	\$
339-1	Miceallaneous Asphalt Pavement	TN	10		\$	\$
400-0	Concrete Class NS	C.Y.	10		\$	\$
400-1	Concrete Class 1	C.Y.	80		\$	\$
400-2	Concrete Class II	C.Y.	20		\$	\$
400-3	Concrete Class III	CY	20		\$	\$
400-4	Concrete Class IV	CY	50		\$	\$
415-1	Reinforcing Steel Misc.	LB	20,000		\$	\$
425-1-203	FDOT Curb Inlet Type P-9 <10'	EA.	8		\$	\$
425-1-711	FDOT Curb Inlet Type V <10'	EA.	4		\$	\$
425-1-461	FDOT Curb Inlet Type J-6 <10'	EA.	5		\$	\$
425-1-910	City Std. Curb Inlet Type '1'	EA.	20		\$	\$
425-1-917	City Std. Concrete Inlet Type 'T'	EA.	5		\$	\$
425-1-918	City Std. Grate Inlet Type 'E'	EA.	10		\$	\$
425-1-1351	FDOT Curb Inlet Type P-5 <10'	EA.	4		\$	\$
425-1-1-1361	FDOT Manhole Type P-6 <10'	EA.	3		\$	\$
425-2-41	Standard Manhole (P-7T, <10')	EA.	5		\$	\$
425-2-42	Std. M.H. (P-7 > 10' Ht.)	EA.	2		\$	\$
425-2-61	Manhole (P-8)	EA.	6		\$	\$
425-2-71	Manhole (J-7T, <10')	EA.	10		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
425-2-72	FDOT Manhole (J-7 >10')	EA.	3			
425-2-73	Manhole (J-7 Partial)	EA.	5		\$	\$
425-2-101	City Std. Manhole (Conflict) < 10' Ht.	EA.	4		\$	\$
425-3-43	Modify Existing Inlet to Type P Manhole	EA.	5		\$	\$
425-5	Manhole Adjust	EA.	10		\$	\$
425-6	Adjust Water valve	EA.	10		\$	\$
425-72-1	Conversion of Inlet to Manhole	EA.	4		\$	\$
430-174-224	Pipe Culvert Elliptical/Arch. 24"	L.F.	50		\$	\$
430-175-115	RCP Culvert (15" Dia.)	L.F.	50		\$	\$
430-175-118	RCP Culvert (18" Dia.)	L.F.	200		\$	\$
430-175-124	RCP Culvert (24" Dia.)	L.F.	300		\$	\$
430-175-130	RCP Culvert (30" Dia.)	L.F.	100		\$	\$
430-175-136	RCP Culvert (36" Dia.)	L.F.	100		\$	\$
430-175-215	Elliptical RCP (12"x18")	L.F.	400		\$	\$
430-175-224	Elliptical RCP (19"x30")	L.F.	200		\$	\$
430-175-230	Elliptical RCP (24"x38")	L.F.	80		\$	\$
430-175-236	Elliptical RCP (29"x45")	L.F.	80		\$	\$
430-175-260	Elliptical RCP(48"X76")	L.F.	60		\$	\$
430-1-152	RCP Culvert (15") (CLIV)	L.F.	150		\$	\$
430-1-154	RCP Culvert (24") (CL IV)	L.F.	160		\$	\$
430-1-155	RCP Culvert (36") (CL IV)	L.F.	100		\$	\$
430-141-101	Elliptical RCP (12"x18") (CL IV)	L.F.	300		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
430-984-123	Mitered End Section (SD) (15")	EA.	6		\$	\$
430-984-125	Mitered End Section (SD) (18")	EA.	8		\$	\$
430-984-623	Mitered End Section (SD) (12"x18")	EA.	10		\$	\$
514-71-1	Plastic Filer Fabric (Subsurface Drainage)	S.Y.	2,000		\$	\$
515-1 -1	Pipe Handrail (Steel)	L.F.	150		\$	\$
515-1-2	Pipe Handrail (Aluminium)	L.F.	100		\$	\$
515-2-211	Pedestrian/Bicycle Railing Steel 42" Ht.	L.F.	50		\$	\$
515-2-311	Pedestrian/Bicycle Aluminum 42" Ht.	L.F.	50		\$	\$
520-1-7	Standard Concrete Curb Type 'E'	L.F.	100		\$	\$
520-1-10	Standard Concrete Curb and Gutter Type 'F'	L.F.	1,000		\$	\$
520-2	Concrete Curb Ribbon Curb Flush 1' wide	L.F.	200		\$	\$
520-2-4	Standard Concrete Curb Type 'D'	L.F.	300		\$	\$
520-2-5	Standard Concrete Curb Type 'RA'	L.F.	50		\$	\$
520-3	Vally Gutter Concrete	L.F.	100		\$	\$
520-5-11	Concrete Traffic Separator Type 1, (4' Wide)	L.F.	100		\$	\$
520-5-41	Concrete Traffic Separator (Type IV)(4'Wide)	L.F.	500		\$	\$
520-7-	Concrete Traffic Separator special Variable Width	SY	200		\$	\$
522-1	Concrete Sidewalk (4" Thick)	S.Y.	2,000		\$	\$
522-1-1	Reinforced Concrete Pad 4" Thick	S.Y.	1,000		\$	\$
522-2	Concrete Sidewalk (6")	S.Y.	500		\$	\$
523-1	Patterned Pavement Vehicular Areas	S.Y.	50		\$	\$
524-1-2	Concrete Ditch Pavement 4" Thick	S.Y.	100		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
524-1-29	Concrete Ditch Pavement 4" with reinforcement	S.Y.	100		\$	\$
530-1	Rip Rap Sand-Cement)	C.Y.	40		\$	\$
530-74	Bedding Stone	TN	5		\$	\$
550-210-222	6' Ht. FDOT Type 'B' Fence (Galvanized Steel)	L.F.	300		\$	\$
560-10-212	8'x6' Fence Gate Type 'B' (Galvanized Steel)	EA.	2		\$	\$
550-60-223	16'x6' Fence Gate Type 'B' (Galvanized Steel)	EA.	2		\$	\$
551-1-1	Directional Bore < 6"	L.F.	100		\$	\$
551-1-2	Directional Bore (6" to 12")	L.F.	300		\$	\$
570-5	Fertilizer	TN	2.50		\$	\$
575-1	Sodding (Argentine Bahia)	S.Y.	5,000		\$	\$
575-2	Sodding (St. Augustine)	S.Y.	5,000		\$	\$
SIGNALIZATION						
630-1-11	Conduit (Above Ground)	L.F.	500		\$	\$
630-1-12	Conduit (Under Ground)	L.F.	700		\$	\$
630-1-13	Conduit (Under Pavement)	L.F.	700		\$	\$
630-1-13A	Additional Conduit (Under Pavement)	L.F.	300		\$	\$
630-1-14	Conduit (Directional Bore)	L.F.	300		\$	\$
632-6-1	Signal Cable	L.F.	500		\$	\$
632-7-1	Signal Cable	PL	5		\$	\$
632-8-111	Cable (Interconnect) (Aerial)	L.F.	1,000		\$	\$
632-8-212	Cable (Interconnect) (Underground) 12 Pairs	L.F.	400		\$	\$
633-1-121	Fiber Optic Cable (F & I) under ground 2-12 fibers	L.F.	500		\$	\$
634-6-1	Message Wire	L.F.	150		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
635-1-11	Pullbox	EA.	15		\$	\$
635-1-12	Aerial Junction Box	EA.	6		\$	\$
635-1-16	Pull & Junction Boxes Pull Box (24x30")	EA.	10		\$	\$
639-1-111	Electrical Power Service (Overhead)	AS	3		\$	\$
639-1-122	Electrical Power Service (Underground) (F&I)	AS	6		\$	\$
639-2-1	Electrical Service Wire	L.F.	500		\$	\$
639-3-11	Electrical Service Disconnect (Pedestal Mount)	EA	2		\$	\$
641-1-12	Concrete Strain Pole (F&I Direct Burial) Type N-II Service Pole 12')	EA.	2		\$	\$
643-125	Strain Pole Wood Furnish & Install 25'	EA.	2		\$	\$
643-130	Strain Pole Wood Furnish & Install 30'	EA.	2		\$	\$
649-31-101	Mast Arm Assembly Single Arm without Luminaire-36, wind Speed 150 MPH	EA.	2		\$	\$
649-31-201	Mast Arm Assembly Single Arm wind Speed 130MPH without Luminaire-36	EA.	2		\$	\$
649-31-203	Mast Arm Assembly Single Arm, wind speed 130 MPH, without Luminaire-60	EA.	2		\$	\$
649-31-306	Mast Arm Assembly (F&I) Single Arm, wind speed 110 MPH with Luminaire-36	EA.	2		\$	\$
649-31-311	Mast Arm Assembly (Double Arms without Luminaire) 36' & 46'	EA.	4		\$	\$
650-1-1311	Traffic Signal (3-Section, 1 Way) Aluminium	AS	8		\$	\$
650-1-1314	Traffic Signal, 3-Section, 1 Way Programable	AS	8		\$	\$
650-1-513	Traffic Signal, (5-Sections, 1 Way) Programable	EA.	4		\$	\$
650-1-514	Traffic Signal, (5-Section, 1 Way Special) Programable	EA	8		\$	\$
653-181	Pedestrian signal, LED, (1 Way)	AS	8		\$	\$
653-191	Pedestrian Signal, LED-Count Down (1-Way)	AS	8		\$	\$
653-192	Pedestrian Signal, LED-Count Down (2-Way)	AS	4		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
659-101	Signal Head Rerofit Auxiliary (F &I) (Black Plate, 3 section)	EA	4		\$	\$
659-106	Signal Head Auxiliary (12" LED Module Std.)	EA.	40		\$	\$
659-107	Signal Head Auxiliaries (8" LED Module energy Signal)	EA.	8		\$	\$
660-1-103	Loop Detector (Type 3)	EA.	8		\$	\$
660-1-104	Inductive Detector (Type 4) 2- Channel.	EA.	4		\$	\$
660-109	Loop Assembly Type '9'	EA.	4		\$	\$
660-2-102	Loop Assembly Type B	AS	10		\$	\$
660-311	Vehicle Detector Assembly. Microwave Cabinate euipment	EA.	4		\$	\$
665-1-11	Pedestrian Detector (F&I) STD.	EA.	8		\$	\$
670-5-111	TrafficController Assembly (NEMA)	AS	2		\$	\$
670-5-112	Traffic Controller Assembly (F&I) NEMA Two Preemptions Plans	AS	2		\$	\$
685-120	Telemetry Transceiver (F. & I.)	EA.	2		\$	\$
685-143	System Auxiliaries, Vedio Monitor	EA	8		\$	\$
690-10	Remove Traffic Signal Assembly	EA.	12		\$	\$
690-20	Signal Pedestrian Assembly, Removal	EA.	4		\$	\$
690-32-1	Remove poles (Shallow Direct Burial)	EA.	4		\$	\$
690-32-2	Remove Poles (Shallow Bolt on Attachment)	EA.	4		\$	\$
690-34-1	Complete Pole Removal Deep	EA.	2		\$	\$
690-50	Remove Controller Assembly	EA.	2		\$	\$
690-70	Remove Detector Pedestrian Assembly	EA.	8		\$	\$
690-80	Remove Span Wire Assembly	EA.	4		\$	\$
690-90	Remove Cabling and Conduit	PI.	4		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
690-91	Remove Existing Interconnect Cable	L.F.	1,000		\$	\$
690-100	Remove Miscellaneous Signal Equipment	PI.	3		\$	\$
699-1-11	Internally Illuminated Sign (F&I)	EA.	10		\$	\$
SIGNING & PAVEMENT MARKING					\$	\$
700-1-40	Install Single Post Sign	AS	20		\$	\$
700-1-50	Relocate Existing Single Post Sign	AS	20		\$	\$
700-1-60	Remove Existing Single Post Sign	AS	30		\$	\$
700-5-21	Illuminated Internally Name Sign (F & I) up to 12 SF	EA.	15		\$	\$
700-12-11	Sign Flashing Beacon	AS	2		\$	\$
705-11-1	Delineator Flexible Tublar	EA.	500		\$	\$
705-11-2	Delineator nonFlexible	EA	200		\$	\$
706-3	Retro-Reflective Pavement Markers	EA.	500		\$	\$
710-17	Remove Existing Marking Paintd Pavement marking	S.F.	250		\$	\$
710-11-121	Painted Pavement Markings	L.F.	500		\$	\$
711-11-16	Pavement Messages, Thermoplastic	EA.	10		\$	\$
711-11-17	Directional Arrows (Thermoplastic)	EA.	10		\$	\$
711-11-231	Skip Traffic Stripe 6" Yellow (Thermoplastic)	L.F.	1,000		\$	\$
711-11-111	Solid Traffic Stripe 6" White (Thermoplastic)	L.F.	2,000		\$	\$
711-11-122	Solid Traffic Stripe 8" White (Thermoplastic)	L.F.	1,000		\$	\$
711-11-123	Solid Traffic Stripe 12" White (Thermoplastic)	L.F.	1,000		\$	\$
711-11-124	Solid Traffic Stripe 18" White (Thermoplastic)	L.F.	200		\$	\$
711-11-125	Solid Traffic Stripe 24" White (Thermoplastic)	L.F.	300		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
711-11-211	Solid Traffic Stripe 6" Yellow (Thermoplastic)	L.F.	2,500		\$	\$
711-11-224	Solid Traffic Stripe 18" Yellow (Thermoplastic)	L.F.	400		\$	\$
711-11-421	Thermoplastic Std. Blue Solid 6"	L.F.	100		\$	\$
711-11-460	Thermoplastic Std. Blue Message Sign	EA.	3		\$	\$
711-17	Thermoplastic Removal	S.F.	1,000		\$	\$
715-1-11	Conductor (F&I) (Insulated) (No.10)	L.F.	200		\$	\$
715-1-12	Conductor (F&I) (Insulated) (No.8 to No. 6))	L.F.	1,000		\$	\$
715-14-12	Pull Box (F&I) (Sidewalk)	EA.	6		\$	\$
715-19-1	Surge Protector (Pole Base) (F&I)	EA.	4		\$	\$
SP-2.14	Videography (DVD)	L.S./EA.	10		\$	\$
SP-7.02	Relocation/Const. Sanitary Sewer House Lateral	EA.	5		\$	\$
SP-9.05	Asphalt Leveling Course	TN	10		\$	\$
SP-9.09	Pedestrian Ramp	EA.	8		\$	\$
SP-9.13	Removal of Brick Pavement	S.Y.	100		\$	\$
SP-9.14-1	Brick Pavement (Install Only)	S.Y.	500		\$	\$
SP-9.14-2	Brick Pavement (Remove & Reinstall)	S.Y.	500		\$	\$
SP-10.02.1	Tree Removal 5 to 12"	EA.	10		\$	\$
SP-10.02.2	Tree Removal >12 to 18"	EA.	10		\$	\$
SP-10.04	Root Pruning	L.F.	1,000		\$	\$
SP-10.07	Tree Barricade	L.F.	200		\$	\$
SP-11.05	Water for Dust Control	1,000 Gal	500		\$	\$
SP-11.07	Removal & Relocate Existing 6' Ht. Chain Link Fence	L.F.	200		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price	Total Computed Price
					Sub Total	\$
101-1	Mobilization (10% of Sub Total)	L.S.	1		\$	\$
102-1	Maintenance of Traffic (10% of Sub Total)	L.S.	1		\$	\$
SP-11.16	Contingency Allowance	L.S.	1	Two Hundred Fifty Thousand Dollars and No Cents	\$ 250,000	\$ 250,000
					Total	\$
					Grand Total	\$

SPECIFIC PROVISIONS

SP-1.01 DPW TECHNICAL SPECIFICATIONS:

Florida Department of Transportation Standard Specifications for Road and Bridge Construction dated 2013 or latest shall be incorporated for construction and materials, unless otherwise specified.

In the case of apparent conflict with the project plans or specifications, these Specific Provisions shall govern.

SP-1.02 PURPOSE:

The purpose of this contract is to provide the City with a flexible means of constructing various intersection and roadway-related improvements throughout the contract duration. Written Work Orders with project plans or maps, and quantity of project pay items will be issued by the City of Tampa, Department of Public Works, for each project location.

Bidders are advised that the quantity of individual items used may significantly vary from those listed in the proposal. Some items may not be used at all.

SP-1.03R MOBILIZATION

All work shall meet the requirements of Section 101 of the FDOT Standard Specifications for Road and Bridge Construction.

The cost of mobilization for each project will be paid as 10% of the construction cost. The 'construction cost' is the cost of the project pay items actually used to complete the project, except the cost for M.O.T.

In case, if the project/WO cost less than \$22,500.00, the Contractor will get paid \$2,500.00 for the Mobilization.

SP-2.01 BID ITEMS:

It is the intent of these Contract Documents that any items of work and all costs for which compensation is not directly provided by a bid item but are incidental to various project items of work, shall be prorated and included in the bid item for which they are required. Failure of the Contractor to follow this procedure shall be basis for rejection of its bid.

SP-2.02 WORK DIRECTIVE CHANGE:

A Work Directive Change is a written directive to the Contractor, issued on or after the date of the execution of the Agreement, and signed by the Engineer on behalf of the City, ordering an addition, deletion or revision in the work, or responding to an emergency. A Work Directive Change will not change the contract price or the time for completion, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the contract price or the time of completion.

Without invalidating the Agreement, certain additions, deletions or revisions in the work may, at any time or from time to time, be authorized by a Change Order or a Work Directive Change. Upon receipt of any such document, the Contractor shall promptly proceed with the work involved.

SP-2.03 LINES AND GRADES:

The General Provisions Section G-8.02 is revised to read as follows:

G-8.02 Surveys:

The Contractor shall furnish and maintain, with no additional payment, stakes and other such material as may be required for setting reference marks; and shall, with no additional payment, establish all working or construction lines and grades as required from the reference marks set by a Florida Registered Professional Surveyor and Mapper hired and/or employed by the Engineer, and shall be solely responsible for the accuracy thereof. The Contractor shall, however, be subject to the check and review of a Florida Registered Professional Surveyor and Mapper hired and/or employed by the Engineer.

Project pay items requiring survey information, such as embankment or excavation, shall be documented by a Florida Registered Professional Surveyor and Mapper. In addition, plotted cross sections and quantity computations must be supplied and certified. All surveys shall be in accordance with the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

SP-2.04 REQUIREMENTS FOR CONTROL OF THE WORK:

Prior to the start of a project, an on-site Preconstruction meeting will be held by the Engineer to be attended by the Contractor and representatives of the various utilities and others for the purpose of establishing a schedule of operations which will coordinate the project work to be done under this contract with all related work to be done by others within the limits of the project. The Contractor shall be prepared for this meeting and shall present a comprehensive construction schedule for all items of work to be accomplished, which will be used as the basis for the development of an overall operational schedule and a list of subcontractors and material suppliers to be used on the project.

All items of work on the project shall be coordinated so that progress on each related work item will be continuous from week to week. The progress of the work will be reviewed by the Engineer at the end of each week, and if the progress on any item of work during that week is found to be unsatisfactory, the Contractor shall be required to adjust the rate of progress on that item or other items as directed by the Engineer.

The Contractor shall conduct operations in such a manner that will result in the minimum of inconvenience to occupants of adjacent homes and business establishments and shall provide temporary access as directed or as conditions in any particular location may require.

Access to adjacent residential, public and commercial properties shall be provided at all times during the project duration.

The Contractor shall restore to its previous condition as directed by the Engineer any private property, City property, or utilities damaged by its construction. No payment shall be made to the Contractor for any required restoration of private property, City property or utilities, unless otherwise noted.

SP-2.05 REFERENCE STAKES:

Add the following paragraph to General Provision Section G-8.03:

The Contractor shall, with no additional payment, furnish and install reference stakes at all even and half-stations along the project survey baseline.

These stakes shall be maintained for the project duration for the purpose of the Engineer's reference.

SP-2.06 CONTRACTOR'S WEEKLY SCHEDULE:

In order that the Contract Administration Department personnel may be advised of the work to be performed on the project, the Contractor may be required to submit weekly to the Engineer of its designated representative a project schedule indicating the proposed work plan for the forthcoming two weeks.

SP-2.07 MONTHLY CONSTRUCTION ESTIMATES AND CERTIFICATION OF PAYMENTS TO SUBCONTRACTORS:

For each project, the Contractor shall prepare on or about the first day of each month an estimate of the work completed in the preceding month. Said estimate shall be prepared on standard forms provided by the Engineer, and three (3) signed originals shall be provided by the Contractor. Any disputed quantities shall be adjusted as directed by the Engineer prior to each partial payment, as provided for in Article 10.05 of the Agreement.

Certification that all subcontractors have been paid for the previous month's work shall be submitted with each partial payment request on forms provided by the Engineer.

An update of each project schedule shall be submitted with each Monthly Construction Estimate.

SP-2.08 CONTRACTOR'S REPRESENTATIVE:

Add to Article 8.02 of the Agreement:

"The Contractor shall submit in writing to the Construction Engineer the name of its duly authorized representative who will be present on the job during all work activities and is authorized to make decisions for the Contractor. Any change in the contractor's representative shall require written notification to the Construction Engineer prior to such change".

SP-2.10R CONTRACTOR'S FIELD OFFICE:

The Contractor will not be required to provide a Contractor's field office however, the Contractor shall have Contract Documents, the latest approved working drawings, standard drawing and a representative of the Contractor available at the project site during regular working days.

SP-2.11R ENGINEERING'S FIELD OFFICE:

An Engineering field office shall not be required for these projects.

SP-2.12 DAMAGE TO ADJACENT STREETS:

Any streets (including detour routes) consisting of travel lanes, curbs, gutters and shoulders, outside the project area (not designated for construction), which are determined by the Engineer to have been damaged due to negligent construction related operations and/or equipment, shall be restored by the Contractor to its original or better condition without any cost to the City and to the satisfaction of the Engineer.

SP-2.13 PROJECT PHOTOGRAPHS:

The Contractor will not be required to furnish photographs of the project; however, the Engineer may or may not take photographs of the area immediately prior to and after completion of the construction for record and information. To assure that there will not be any conflict with this photography, the Contractor shall not perform clearing operations or actions which will disturb any street or area within the project until the Engineer has been advised thereof and has had adequate opportunity to perform the desired photography.

SP-2.14R PROJECT VIDEOGRAPHY:

Prior to commencing work on a project, the Contractor shall submit to the Engineer for approval, a DVD containing a continuous color video recording including complete coverage of pre-construction conditions of all surface features within the construction's zone of influence, (including detour routes) simultaneously produced audio commentary and electronic display of time and date. The video recording shall be sufficient to fulfill the technical and forensic requirements of the project and provide continuous unedited coverage, establishing locations and viewer orientation with clear, bright, steady and sharp video images with accurate colors free of distortion or other imperfections. The DVD must be accompanied by a detailed log of its contents including date, locations, video counter numbers and features. No work shall be allowed until the completed DVD and log are approved by the Engineer.

Construction Engineer will make decision that project videography is needed or not for the assigned project.

Payment for this work shall be made under:

SP-2.14 Preconstruction Video LS/EA

SP-2.15R PROJECT CLEAN-UP:

Clean-up on the project, is extremely important and the Contractor will be responsible for keeping the construction sites and adjacent properties neat and clean with debris being removed regularly as the work progresses or as directed by the Engineer.

If project cleanliness and/or dust control reaches an unacceptable level in the opinion of the Engineer, the Engineer will notify the Contractor in writing. If the Contractor does not act to correct the situation within 4 hours in the case of dust control or within 24 hours in the case of general cleanliness, the Engineer may call upon outside forces to provide the appropriate services. Cost of all such activities shall be charged to the Contractor via contract change order.

SP-2.16R CITY PERMITS:

The Contractor shall be responsible for obtaining all applicable City permits for these projects. These can include but may not be limited to: Right-of-way permit(s), tree removal/site clearing permit(s), and drainage/earthwork permit(s). The Contractor shall supply any required plans or other information to the issuing department.

The time required to prepare, submit, review, and issue the permits shall be included in the contract time and no payment shall be made for any delay incurred by this process.

Cost associated with obtaining City permits shall be included in the lump sum cost for Mobilization (Item No. 101-1), and no separate payment shall be made. Right-of-way permit fee shall be waived by the City.

All subcontractors working on the project shall obtain their own, separate permits as above.

SP-2.17 AS-BUILT PLANS:

The Contractor shall provide the Engineer with project "As-Built" plans, as follows:

1. All as-built information shall be annotated a Florida Registered Professional Surveyor and Mapper on a separate layer of an AutoCAD drawing provided on diskette by the City, or fully depicted in the form of a new AutoCAD drawing prepared by a Florida Registered Professional Surveyor and Mapper. Annotation or new drawing shall be performed according to City DPW drafting standards, as well as in accordance with the Minimum Technical Standards set forth by the

Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

Settings shall be as follows: Color: Red, Linetype: Continuous, Font: Romans, Layer Name: AS-BUILT, AutoCAD Menu Name: ACAD.MNU, File Format: AutoCAD Release 12.

2. All surveys shall be completed by a Florida Registered Professional Surveyor and Mapper in accordance with the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

Survey data shall be submitted by a Florida Registered Professional Surveyor and Mapper, either hired by the Contractor, or in the employ of the Contractor, as electronic data (CAiCE or AutoCAD). ASCII files of digital raw survey data, closure reports, adjustment reports and/or copies of any hand written supporting field notes or sketches will be included in the Drawing submittal

3. "As-built" or "Record" surveys, as may be required by contract, or agreement, will collect and delineate all constructed improvements within the construction site or corridor (or right of way), so that all constructed improvements may be compared to and contrasted with the design plans and/or construction drawings. All improvements shall be deemed to include, but are not limited to, all roads, pavement, pipes, inverts, ponds, ditches, canals, manholes, hand holes, valves, hydrants, poles (utility, telephone, power and otherwise), slabs, inlets, landscaped area, curbs, gutters, traffic controls, utilities, water meters, sidewalks, right of way lines, and other similar items. Specific items may be addressed as part of contract (expressed or waived) or by written agreement from the Engineer.

If Station and Offset delineation is used on the Construction drawings all locations of constructed improvements, as outlined above shall be depicted in similar fashion so that any discrepancy or deviation can be clearly and readily identified.

4. The Contractor shall comply with the above requirements and shall return one check print set of the plans at the same scale as the construction plans and annotated diskette(s) to the Engineer for review within three weeks of substantial completion of the project as well as applicable ASCII files of digital raw survey data, closure reports, adjustment reports and/or copies of any hand written supporting field notes or sketches. The project will not be considered to be complete and final payment for the project shall not be made until the as-built information is received and approved by the Engineer. Upon approval, the Contractor shall provide the final project construction plans on disk. No separate payment for meeting the above as-built requirements shall be made.

SP-3.01R STREET CLOSURE AND MAINTENANCE OF TRAFFIC:

The Contractor shall be required to provide the City maintenance of traffic plan for each project location detailing the placement of all necessary signs, temporary curb or barrier wall, temporary pavement markings, barricades, lights and flagman necessary to control traffic and provide for the safety of the public. The plans shall be submitted to the Engineer for approval prior to the start of construction. No additional payment shall be made for devising maintenance of traffic plan.

A City of Tampa permit for construction and maintenance operations within public Rights of Way will be required for every street, lane, or sidewalk closure within City of Tampa Rights of Way.

A State of Florida Department of Transportation Permit will be required for every street, lane, or sidewalk closure within State of Florida Rights of Way. The City of Tampa as the organization performing the work will secure these permits.

These permits will establish the requirements for the closure related to number of lanes and/or time of day lanes or street may be closed. The Contractor shall adhere to the requirements as described in the permit(s).

The Contractor shall furnish and maintain all necessary signs, temporary curb-alternate #1 as per FDOT Index 600, temporary pavement markings, barricades, lights, and flagmen necessary to control traffic and provide for safety of the public, all in compliance with the current Florida Department of Transportation Roadway and Traffic Design Standards and the FHWA Manual on Uniform Traffic Control Devices.

The Contractor shall observe traffic movements through the work site and inspect all traffic control devices on a regular basis to ensure that all devices are properly installed and functioning as intended.

In cases of closure for street, lane, or sidewalk on the City of Tampa Functionally Classified Network (collectors, minor arterials, and principal arterials), including all State Roads, the Contractor shall provide a maintenance of traffic plan to the City of Tampa, Transportation Division. This plan shall be provided at least seventy-two hours in advance of the closure (excluding weekends) and shall contain the following:

1. Proposed detour routes.
2. Signing of the complete construction area and detour routes.

No additional payment will be made for maintenance of traffic to complete project.

Item No. 102-1	Maintenance of Traffic	10% of Construction Cost
----------------	------------------------	--------------------------

SP-3.03R PROJECT SIGN:

The Contractor shall furnish 2 project sign for each project, which shall conform to the general configuration and dimensions as per page SIGN-1 which is made a part of these specifications. The sign(s) shall be located as directed by the Engineer and shall be capable of easily being relocated so the signs can be transferred from project to project. They shall be maintained in good condition until the completion of the contract.

The cost for furnishing, relocating and maintaining the sign shall be included in the MOT pay item.

SP-3.05 NIGHT WORK:

Contractor shall anticipate that night work will occur on all projects. Contractor shall address night work in the project maintenance of traffic plan.

All night work shall meet the requirements of Subarticle 8-4.1 from the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2007 edition.

An additional 10% of the total cost of the pay items, used to complete the project at night and authorized by Construction Engineer, will be paid to Contractor.

SP-3.06R TEMPORARY TRAFFIC STRIPING:

Temporary traffic striping used by the Contractor in locations and configurations as shown on the plans and placed on surfaces which will remain as exposed roadway may be traffic paint which meets the requirements of Section 710 of the FDOT Standard Specifications for Road and Bridges Construction.

Temporary traffic striping used by the Contractor in locations other than the final traffic striping and on surfaces which will later be covered with additional asphalt layers or on surfaces which will be later removed shall be traffic paint which meets the requirements of Section 710 of the FDOT Standard Specifications for Road and Bridge Construction.

Temporary traffic striping used by the Contractor in locations other than the final traffic striping and on surfaces which will remain as exposed roadway shall be an approved removable traffic striping tape.

Payment shall be included under pay Item No. 102-1 Maintenance of Traffic.

SP-4.02R STABILIZATION:

Type "B" stabilization shall obtain a minimum Limerock Bearing Ratio (LBR) of 40.

Type "C" stabilization shall obtain a minimum Florida Bearing Value (FBV) of 75 p.s.i.

Payment shall be under project pay item:

160-4-1 12" Thick Type B Stabilization (LBR-40)

160-5-2 Subbase, 12" Type "C" Stabilization

SP-4.04 TEMPORARY STOCKPILING:

For temporary stockpiling of the excavated material within project limits (and anywhere within City limits) the Contractor shall follow the following procedure:

1. Public Right of Way

- a. The Contractor will not be allowed to stockpile suitable, excavated material within right-of-way for a period in excess of 30 calendar days. Unsuitable excavated material shall not be stockpiled within public right-of-way for a period in excess of 7 calendar days.

2. Location other than Public Right-of-Way

b. The Contractor shall:

1. Obtain the permission (in writing) from the owner of the property where stockpiling is desired.
2. At its own expense present the above letter and a contour plan of the site to the DPW Construction Engineer for approval of stockpiling site.
3. At the conclusion of the stockpiling activity, the Contractor shall obtain a signed letter of release from the property owner that he/she is completely satisfied with the stockpiling operation and with the restoration of their property. A copy of the letter shall be furnished to the Engineer.

The time periods of stockpiling shall be specified by the Contractor in writing.

Upon removal of stockpiled material, the Contractor shall clean up and grade the site to its original contours and conditions.

The City of Tampa shall not be a party to any agreement between the Contractor and private property owner(s).

Regardless of the location of stockpiling, it shall be the Contractor's responsibility to make sure that stockpiling in no way constitutes a public hazard, nuisance, and does not interfere with the natural surface runoff in the area.

SP-4.05R DEWATERING:

Any dewatering related to these projects will not be a separate bid item. The cost shall be included in the project pay items(s) associated with the work requiring the dewatering.

SP-5.01 UTILITY PROTECTION CONSIDERATIONS:

The Contractor shall protect all utilities and other facilities within and adjacent to the construction as covered in Section G- 1.03, unless a utility firm has conclusively indicated, or such is shown on the plans, that the certain adjustment, removal, reconstruction, or protection of the utility's facility will be performed by that respective utility.

The Contractor shall make every effort to protect all water mains. If the main is damaged or lost, the Contractor shall replace the affected line in strict accordance with the City of Tampa Water Department Specifications and Construction Standards, latest edition, at no extra cost to the City, and he shall assure that service is maintained at all times.

The Contractor shall make every effort to protect all sanitary sewer lines. If the main is damaged or lost, the Contractor shall replace the affected line in strict accordance with the City of Tampa Wastewater Department Specifications and Construction Standards, latest edition, at no extra cost to the City.

It will be the Contractor's responsibility to preserve all existing sanitary sewer services without interruption during the construction of storm sewers or the repairs or reconstruction of sanitary sewers.

When the construction of storm sewers, repair or reconstruction of sanitary sewers has been completed, all temporary connections shall be removed. Sewers shall be cleaned of all settled solids.

The cost of handling sanitary sewers during construction, including cost of all labor, materials, and equipment or other items incidental to completing the job, shall be included in the contract price as bid for the contract items and no separate payment shall be made.

It will be the Contractors responsibility to preserve all existing ditches, swales, force main, gravity main, laterals, etc., and other stormwater appurtenances and facilities pertaining thereto whether owned or controlled by City, other governmental bodies or privately owned by individuals, firms or corporations.

Any temporary measures constructed shall first be approved by the Engineer. The cost of such temporary measures shall be included in the contract price bid for storm sewer items and no separate payment shall be made.

The Contractor shall furnish, install, and remove sheeting and shoring and other protective measures as may be necessary to satisfactorily accomplish the construction of this project. The cost of such sheeting and shoring and other protective measures shall be included in the unit prices as bid for the storm sewer items and no separate payment shall be made.

SP-5.02R ADJUSTMENT OF UTILITIES AND PUBLIC SERVICE INSTALLATIONS:

Storm and sanitary sewer manhole covers, valve covers or boxes, water meter boxes, and vaults located within the limits of construction of the pavement or sidewalk area to be constructed, reconstructed or overlaid shall be relocated or adjusted by the Contractor to conform with the new pavement or sidewalk elevation as a part of the work of constructing or reconstructing the pavement or sidewalk. The payment of Manholes and Water Valves will be paid separately, under pay items of Manhole and Valve adjustment pay items.

Appurtenances of other utilities will be relocated or adjusted by the utility company owning or having jurisdiction over the respective utility.

SP-5.03 REMOVAL OR ADJUSTMENT OF PUBLIC UTILITIES:

The City will make necessary arrangements with public utility owners, other than City of Tampa Water and Sanitary Sewers, for removal or adjustments of existing utilities, whether shown or not shown on the plans, where such removal or adjustment is determined by the Engineer to be essential to the performance of the required construction, provided normal construction procedures are used by the Contractor.

Relocations or adjustments requested by the Contractor on the basis of the use of a particular method of construction or a particular type of equipment shall not be considered as being essential to the construction of the project if other commonly used methods or equipment could be employed without the necessity of relocating or adjusting the utility. The Engineer will determine the responsibility for any such adjustment of utilities.

Relocations or adjustments requested for the Contractor's convenience or because of delivery of materials to the job site shall be the responsibility of and at the expense of the Contractor.

The Contractor shall be required to coordinate its activities with relocation work by the utilities. A relocation work plan will be provided to the Contractor at the project pre-construction meeting. This schedule may be adjusted to "fit" the Contractor's proposed schedule, but it will include periods during which the Contractor's ability to perform work in the relocation area will be limited, with no additional compensation.

SP-6.01 USE OF CITY WATER SYSTEM:

Contractor shall obtain and utilize a Tampa Water Department portable meter when obtaining water from the City system.

SP-7.02 SANITARY SEWER HOUSE LATERAL EXTENSION:

The Contractor furnish all materials and equipment, construct, test, and maintain sanitary sewer house lateral extensions as shown on the Plans, specified, and directed by the Engineer.

The work includes all excavation, backfill, sheeting, shoring, bracing, dewatering, removal of sidewalks driveways, curbs, curb and gutter, permanent pavement, piping, fittings and adapters, PVC or brass cleanouts (one per extension) disposal of surplus excavated material, protection or repair of utilities, house services, trees and shrubs, culverts and other storm sewage facilities, and all other work incidental to the sanitary sewer house lateral relocation, complete in place, as shown on the Plans, specified and directed by the Construction Engineer.

The number of sanitary sewer lateral extensions to be measured for payment will be the actual number of sanitary sewer house laterals extended.

Payment shall be made under:

Item No. SP-7.02	Sanitary Sewer House Lateral Extension	EA
------------------	-------------------------------------------	----

SP-8.04 REINFORCED CONCRETE PIPE/BOX:

All reinforced concrete pipe, reinforced concrete arch culverts, storm drain, and sewer pipe, all reinforced concrete elliptical pipe and all pre-cast reinforced concrete box sections shall be inspected and accepted by a testing laboratory approved by the Engineer.

Each pipe/box shall bear the stamp of acceptance of the testing laboratory and the Engineer shall be supplied with a copy of each inspection report, including a certification of "D-load", absorption test and conformance to the

dimensional and all other designations of ASTM specifications. The cost of such inspection services shall be included in the unit prices for the respective pipe/box items.

Unless specified otherwise on plans, or directed by the Engineer, all storm sewer and culvert pipes shall be ASTM Class III, B wall thickness. All steel shall be grade 60.

All joints in elliptical concrete pipe and round R.C.P. shall be provided with filter fabric or concrete jacket as per D.O.T. Standard Index No. 280 and as directed by the Engineer. Filter fabric shall be provided at all joints, except the last two joints not supported by a structure; these joints shall be provided with a concrete collar.

The cost of the filter fabric jackets and concrete collars shall be included in the unit cost of pipe. No extra payment will be paid for such jackets or collars.

All round and elliptical reinforced concrete pipe and all pre-cast concrete box sections shall be manufactured and installed without lift holes. The Contractor shall install the pipe/box with the use of slings, hooks or other methods approved by the Engineer.

All round and elliptical reinforced concrete pipe shall be manufactured without visible corrugations on the internal wall. Any pipe with visible corrugations on the internal wall shall be rejected.

SP-8.06R DRAINAGE STRUCTURES:

1. All inlets and manholes shall, unless otherwise directed by the Engineer, be constructed as per design plans and applicable design standards. All manholes shall be Traffic Bearing type. It shall be the responsibility of the Contractor to assure that the designated sizes of the drainage structures meet the following criteria:
 - a. The minimum distance from the top of the opening for the highest pipe to the bottom of the top slab shall be ten inches (10"); 12" + from top of pipe to bottom of top slab, before "stack" is used.
 - b. The minimum diameter for stacks shall be as follows:

Twenty-four inches (24") for four feet (4') heights, Thirty-six inches (36") for four feet (4') to six feet (6') heights, and Forty-eight inches (48") for heights over six feet (6').

The stacks shall be symmetrical about the openings, five inches (5") minimum wall thickness, reinforced, and keyed (unless constructed of brick) as per the appropriate FDOT standard.
 - c. The minimum distance between pipe openings shall be nine inches (9").
 - d. For four-sided structures having openings in one or more corners, individual shop drawings must be submitted for prior approval.
2. If warranted by field conditions and directed by the Engineer, the Contractor shall, at such locations, construct rectangular brick drainage structures (in place of concrete drainage structures), according to the standards specified below:

Brick construction shall be as follows:

- a. Wall thickness minimum eight inches (8") up to eight feet (8') height, unless specified otherwise.
- b. Wall thickness minimum twelve inches (12") up to twelve feet (12') height, unless specified otherwise.
- c. Brick shall be laid in 1:2 (Portland cement-sand) mortar.

- d. Before laying the bricks in mortar, the bricks shall be thoroughly sprinkled with clean water (not to saturation extent).
 - e. Brick for manhole and inlet structures shall be laid in stretcher courses, with every sixth course a header course.
 - f. All brick structures shall be plastered smooth inside and outside with 1/2" thick, 1:2 (Portland cement-sand) mortar.
 - g. No "unsound" brick shall be used. As a test, if a light hammer blow, with the brick held lightly in hand, does not produce a uniform crisp ringing sound, the brick shall be construed to have crack(s), or otherwise unsound and shall be rejected.
 - h. All bricks shall be solid clay.
- 3. No additional compensation shall be paid for brick structures.
- 4. For all types of manholes, the top and bottom slabs shall be as per applicable D.O.T. standards, even if brick is allowed to be used in the manhole walls. The following criteria shall apply to slab thicknesses and steel reinforcements:
 - a. Top and bottom slabs shall have the same thicknesses and reinforcements in any manhole structure.
 - b. The minimum slab thickness and reinforcement shall be: 8" thick and #6 bars at 6" centers both ways.
 - c. 4'x6' or larger manholes including circular manholes with inside diameter of 5.0' or larger shall have 10" thick slabs with #7 bars at 6" centers both ways.
 - d. Unless specified on the plans, four sided structures with both inside dimensions in excess of 8.0' and circular structures with inside diameter in excess of 8.0' shall not be covered by D.O.T. and the above criteria.
- 5. All grate inlets shall conform to the City of Tampa design standards.
- 6. Grates on inlets, as well as all other structures, shall be Traffic Bearing Type, unless specified otherwise, and subject to approval of the Engineer. All grate inlets shall be fitted with an approved metal frame at the top to seat the grates.
- 7. All Type-P manholes shall be bid at one average unit price regardless of size and shape. Similarly, all Type-J manholes will be bid at one average unit price regardless of size and shape unless indicated otherwise in the proposal.
- 8. Vertical support columns (one in case of Type 5 inlet) shall be constructed by the contractor, as a part of the D.O.T. Type 5 and 6 curb inlets, where and as directed by the Engineer.
- 9. The Contractor, if so directed by the Engineer in order to better meet site requirements, shall construct B-S-1, B-R-2, B-V-1, or B-R-1 type curb inlets in lieu of D.O.T. Type 5 and 6 curb inlets and vice-versa without additional cost to the City. P-5 and P-6 inlets shall have 3'-6" x 3'-6" substructures unless oversize pipe is to be accommodated or otherwise directed by the Engineer.

Side openings in curb and grate type inlets may be specified in the plans to meet site conditions. The Contractor shall provide such opening without any additional cost.

10. When precast drainage structures are requested as substitutions for poured in place concrete structures, Contractor shall meet the following additional requirements:
- a. Minimum height of the base structure (manhole or inlet barrel) unless restricted by design, shall be 5'-0" before extending the structure height by another precast "barrel". The minimum height of the top (extension) precast "barrel" shall be 1'-6". "Barrel" extensions of less than 1'-6" height shall be cast in place with continuous reinforcement.
 - b. Four-side structures may be considered as an alternate to circular structures, but not the reverse.
 - c. For City type curb inlets, unless specified otherwise, directed by the Engineer, or to accommodate larger pipes, the Contractor may use 3'x4' (inside dimensions) substructures. This structure shall have same slab and wall thicknesses and steel reinforcing as specified for "Type E" grate inlet.
 - d. When circular structures are precast in accordance with ASTM C478, the following limitations will apply:
 - (i) Maximum inside diameter shall not exceed 96".
 - (ii) Minimum wall thickness for 42" and 48" diameter substructures shall be 6"; 7" for 72" diameter, 8" for 84" and 96" diameters.
 - (iii) Vertical reinforcement in walls shall be equal in area to the required circumferential reinforcement area. Reinforcement spacing shall not exceed 12" O.C. in either direction.
 - e. The location of the pipe holes and adequate basic substructures height, unless directed otherwise by the Engineer, shall be the responsibility of the Contractor.
 - f. Contractor shall submit shop drawings only as specified below:
 - (i) One each-typical for different type of structures.
 - (ii) For structures directed by the Engineer, and/or requiring change with respect to design plans, or as otherwise required by these specifications.
 - g. No compensation shall be paid to the Contractor for precast drainage structures which are unusable due to site conditions or changes in plans.
 - h. Provide material testing acceptance reports by a licensed private laboratory verifying:
 - (i) That the structures were constructed in accordance with detail shown on the plans and/or typical Drawings.
 - (ii) Specific reference shall be made to the exact design criteria adhered to; if more than one, identify which criteria applies to which structures.
 - (iii) Identify the project title, project number, file number, date cast, structure, plan sheet number and station.
 - (iv) Reinforcement size, spacing, amount and cover.

- (v) Concrete placement, curing and strength.
 - (vi) The testing laboratory stamp shall be placed on each structure prior to shipment.
11. All manhole and inlet structures shall be set on a minimum of a 12-inch thick layer of compacted number 57 size coarse aggregate unless noted otherwise in the plans or specifications or unless the Engineer determines a thicker layer is required due to soil and/or water conditions.
- Payment for the 12-inch thick layer of stone shall be included in the price of the structure. Payment for thicker layers of stone shall be from the Selected Bedding Material (Stone) pay item, if available, or as extra work.
12. When inlets are to be constructed on a curve, inlet tops shall be cast-in-place to match the radius of the curve.

SP-8.07R RIP-RAP:

Bags made from synthetic fiber or material shall not be used for sand-cement rip-rap. The preferred bag material is jute.

Filter fabric shall be placed behind (adjacent to the soil) wherever rip rap is constructed.

Payment shall be made under:

Item No. 530-1	Rip Rap (Sand-Cement)	C.Y.
----------------	-----------------------	------

SP-8.10 EROSION CONTROL PLAN:

In addition to the requirements of Section 104, the Contractor shall be required to submit a project erosion control plan to the Engineer at the project preconstruction meeting. The erosion control plan shall indicate in detail all measures proposed by the Contractor to meet its erosion control obligations, including all items required to meet permitting conditions for the project. Any phasing of the project erosion control plan shall also be shown.

The cost of providing, revising and updating the project erosion control plan shall be included in the costs of the various project pay items and no separate payment shall be made.

SP-8.12R DRAINAGE STRUCTURE AND PIPE BEDDING:

The Contractor shall furnish and install a 12-inch thick foundation rock bed consisting of #57 FDOT stone under all stormwater inlets, manholes, and mitered end sections. Foundation rock shall be fully wrapped with filter fabric.

The Contractor shall furnish and install pipe bedding consisting of #57 FDOT stone or other crushed stone material as approved by the Engineer under all stormwater pipes. Bedding material shall extend below and beside the pipe as per City of Tampa Sanitary Sewer drawings and shall be fully wrapped with filter fabric.

Full compensation for all materials, equipment, labor, and any incidentals necessary for placement of the foundation rock and/or pipe bedding including the furnishing and installation of filter fabric shall be included in the unit price of the pipe pay item and no separate payment shall be made.

SP-9.01 EXISTING SIDEWALKS, DRIVEWAYS AND PARKING AREAS:

The Contractor shall match existing sidewalks, driveways and parking areas (concrete or asphalt) when possible. At locations where existing sidewalks and driveways are not at the same elevations as the new grades, the Contractor may be required to reconstruct a portion of the sidewalk or driveway as directed by the Engineer. (When existing

driveway is of asphalt type, a base of 6" thickness shall be constructed with one (1) inch thick asphaltic concrete surface course.)

Payment will be made under the applicable project pay item for concrete sidewalk 4", concrete driveway 6", 6" base, and asphaltic surface course. There will be no payment if existing sidewalks or driveways must be reconstructed due to negligence of the Contractor.

SP-9.03 PAVEMENT REPLACEMENT AND TOTAL RESTORATION:

No partial payment will be made for drainage structures, i.e., manholes, inlets, outfall structures, etc., and sanitary sewer, water or other reconstructed facilities until the total street replacement and complete restoration have been finished and accepted.

The limerock base shall be sealed and covered in accordance with F.D.O.T. Specifications, Section 300-2.2. Bare sand cover material will not be allowed unless the surface paving is scheduled and committed to be done no later than one week after the sealing. The Contractor shall keep the cover material surface in good condition and will not receive extra compensation for the cover material.

SP-9.04 CONCRETE CURB OR CURB-AND-GUTTER:

Expansion joints in concrete curb or curb-and-gutter shall be placed at all inlets, radius points, horizontal and vertical points of intersection (P.I.'s), and as otherwise directed by the Engineer. They shall be located at intervals of 100 feet between other expansion joints or ends of a run.

SP-9.05R ASPHALT LEVELING COURSE:

The Contractor shall provide Type S-I or S-III Asphaltic Concrete Leveling as directed by the Engineer. This item shall be used on an as-needed or contingency basis, and shall be furnished and installed by the Contractor.

Payment for asphalt levelling shall be made under:

Item No. SP-9.05	Asphalt Levelling Course	TN
------------------	--------------------------	----

SP-9.06 PAVEMENT MIX DESIGNS:

The Contractor shall submit to the Engineer a mix design which has been approved by the FDOT within the previous twelve months, and which has been assigned an FDOT Quality Assurance Number, for each type of asphaltic pavement to be used on the project. The Engineer may, at its discretion, approve mix designs not meeting the above stipulations.

SP-9.07 USE OF RECLAIMED ASPHALT:

Delete Subarticle 331-2.2.4 and replace with the following:

Reclaimed asphalt pavement may be used as a component material of the bituminous mixture, subject to the following restrictions:

1. The Contractor shall be responsible for the design of asphalt mixes which incorporate reclaimed asphalt pavement as a component part.

2. Reclaimed asphalt pavement shall not exceed thirty (30) percent by weight of total aggregates for asphalt base courses, nor more than twenty (20) percent by weight of total aggregates for structural and leveling courses.
3. Any reclaimed asphalt pavement exceeding the stated limits may be considered for acceptance providing all of the following criteria are confirmed:
 - a. The reclaimed asphalt pavement mix design shall be submitted two (2) weeks prior to paving.
 - b. The Contractor shall provide documentation that the proposed mix is a current approved mix by the FDOT Materials Office.
 - c. The proposed mix design must have written approval from the Engineer.
4. Acceptance of the mix shall meet all applicable requirements of Section 331, as modified by the DPW Technical Specifications.

SP-9.09 PEDESTRIAN RAMPS:

All pedestrian ramps constructed in new sidewalk under Section 522 of that Technical Specifications shall comply with F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS Index No. 304 and 310, except that Detectable Warning Strips, a.k.a., domes, for District Seven Construction and Maintenance should be either inset ceramic tiles or thermoplastic detectable warning strips. These warning surfaces shall be provided by the following vendors/manufacturers or as approved by the Engineer.

- Inline Truncated Dome EZ Tile supplied by Professional Pavement Products
- Topmark supplied by Flint Trading
- Vanguard Truncated Dom supplied by Vanguard

Payment for ramps in existing sidewalk shall be made under:

Item No. 523-1	Pedestrian Ramps	EA
----------------	------------------	----

SP-9.13 REMOVAL OF BRICK PAVEMENT

Work shall consist of all labor, equipment, materials, and incidentals required for complete removal of brick pavement where shown in the plans or ordered by the Engineer to be removed or where required to be removed because of the construction operations. Contractor shall palletize and wrap brick in plastic sheeting. Pallets of plastic wrapped bricks shall be delivered to the City of Tampa's designated facility. Contractor is responsible for loss, theft, vandalism, or careless handling from the time of removal until Final Acceptance of the work.

Payment shall be paid under:

Item No. SP-9.13	Removal of Brick Pavement	S.Y.
------------------	---------------------------	------

SP-9.14 REMOVAL AND/OR INSTALLATION OF BRICK PAVEMENT

Work shall consist of all labor, equipment, materials, and incidentals required for removal and/or installation of brick pavement, including base and leveling sand, as shown in the plans or directed by the Engineer. For installation only work the bricks shall be supplied by the City of Tampa. Contractor shall be responsible for loss, theft, vandalism, or careless handling of all on-site bricks until Final Acceptance of the work.

Subgrade:

This work consists of bringing the area to be repaved to a subgrade conforming to the required grade and cross section surface of uniform density ready to receive the base course. This is to be accomplished by excavating or backfilling as needed, shaping, and then rolling the entire area with an approved self-propelled tandem roller weighing not less than 8 tons. Shaping and rolling to continue until subgrade has been properly prepared and shows that no further compaction of any practical benefit would result from continued rolling. It shall be tested as to cross section, crown, and elevation. After being properly prepared, it shall be so maintained until the base course is constructed. A completed subgrade shall be maintained sufficiently in advance of the base course operations to permit of proper control. Any part of the subgrade area inaccessible to the roller shall be thoroughly compacted by hand or power tamping in a manner acceptable to the engineer. Subgrade shall be minimum 12" and be compacted to 98% per AASHTO T-180.

Base:

This work consists of placing 10" of crushed concrete base material atop the prepared and accepted subgrade. The base will be placed in at least two lifts. The 10" crushed concrete will have a minimum LBR of 100 and will be compacted to 98% per AASHTO T-180.

Where a base is encountered under brick pavement, it shall be restored to the same thickness with the approved crushed concrete material before relaying the brick pavement.

Sand Cushion:

A sand cushion shall be constructed on all completed bases for vitrified brick pavement. The sand cushion shall be sharp sand composed of clean sand, free from clay, loam and other foreign matter, and shall be constructed to a uniform thickness of 1-inch upon the completed crushed concrete base. The sand cushion shall be shaped to a true surface parallel to the required surface of the pavement when finished. The sand cushion shall be prepared at least 25-feet in advance of laying the brick, where possible. Care shall be exercised that the sand cushion is not disturbed or compacted until the brick are in place and ready for rolling.

Vitrified Brick Pavement:

Vitrified brick pavement shall be re-laid at locations called for by replacement schedule for street paving disturbed by construction operations, as shown on the plans. Vitrified brick pavement shall be re-laid on a completed base with a sand cushion and only clean whole, sound brick shall be used. Acceptable brick removed from the disturbed areas removed by the contractor and/or removed from the City of Tampa stock pile, will be used for this repaving and shall not be hauled or moved by the contractor for use elsewhere unless directed by the engineer.

The brick shall be laid in straight courses, flat on the prepared sand cushion, with the better side of face upward. The brick shall be laid in close contact and the joints of each course shall be uniformly staggered with respect to adjacent courses. Whole brick shall be used except in starting or finishing a course and in fitting brick pavement around manhole tops or other structures. In general, not less than one-fourth of brick shall be used in batting.

A timber straight edge shall be driven against every fourth course of brick by light blows with sledge or maul to straighten the lines and eliminate appreciable space between bricks.

The surfaces shall be swept clean and rolled with a tandem static roller weighing not less than 5 nor more than 8 tons in a manner to firmly and uniformly embed each brick in the sand cushion so that the completed pavement shall conform to the required crown, grade, and cross section.

The joints of the vitrified brick pavement replacement shall then be filled with a 1:4 sand/cement mixture and/or pure sand. If pure sand, the pure sand must be sealed with Surebond SB-1300 Sealer or approved equal. The 1:4 sand/cement mixture of mortar grout shall be "soupy" and swept in with street brooms or may be dry mixed, swept in with street brooms, consolidated by vibratory methods, and sufficiently moistened to ensure that cement sets. If "soupy" application is used, then Contractor will blot the joints with sand after sweeping application to remove excess grout.

The application of joint filler should take place immediately after laying the brick or as soon as possible thereafter to prevent joint from filling with other foreign matter.

Payment shall be made under:

Item No. SP-9.14-1	Brick Pavement (Install Only)	S.Y.
Item No. SP-9.14-2	Brick Pavement (Remove & Reinstall)	S.Y.

SP-10.01R GRASSING AND/OR SODDING:

Lawn, road shoulders, and all areas that do not have well established grass at the time of construction and are disturbed during construction may be grassed, as directed by the Engineer. All areas shall be properly prepared by removal of construction debris and rocks, and soil preparation and fertilization or placement of topsoil as directed by the Engineer. Lawn, road shoulders, and other locations where construction shall occur that are well maintained and show healthy grass at the time of construction, or where otherwise directed by the Engineer, shall be sodded with either Pensacola or Argentine Bahia Type or St. Augustine type sod as applicable.

All areas that have a potential for being eroded by flowing surface water shall be sodded as directed by the Engineer including 2' adjacent to the new pavement edges.

Payment shall be made under:

Item No. 575-1	Solid Sod Bahia	S.Y.
Item No. 575-2	Solid Sod St. Augustine	S.Y.

SP-10.02 TREE REMOVAL:

The work included in this Section consists of removal of all trees within the area of construction with trunks 5 inches or more in diameter. Tree removal shall comply with the City of Tampa Tree Ordinance. The Contractor will be responsible for obtaining the necessary permit(s) and paying the necessary fees.

All trees with trunks less than 5 inches in diameter are not included in this section. The cost of removing trees less than 5 inches in diameter shall be included within the various contract items and no additional payment shall be made.

The diameter of the trunk shall be determined by measuring the circumference of the trunk at a point 4.5 feet above the existing ground level and dividing by 3.14.

All stumps and roots shall be removed to a depth of at least 2 feet below the finished grade.

Disposal of timber, stumps, roots or any other material resulting from the tree removal operation shall be the sole responsibility of the Contractor. Such disposal shall have the approval of the Engineer.

Payment shall be full compensation for all work, equipment, tools, labor, disposal and any incidentals required for completion of the work.

Payment shall be made under:

Item No. SP-10.02.1	Tree Removal 5" to 12"	Each
Item No. SP-10.02.2	Tree Removal >12" to 18" Diameter	Each

SP-10.04 ROOT PRUNING:

The Contractor shall make provisions for tree protection to the satisfaction of the Engineer prior to any excavation or clearing and grubbing. All applicable site inspections by the City of Tampa Parks Department and all permits required for tree work shall be obtained by the Contractor prior to commencing work.

The Contractor shall furnish all labor, materials, equipment and services necessary to prune the tree roots as shown on the plans, as specified, and as directed by the Engineer. The Contractor shall provide root pruning services only as shown on the plans and as directed by the Engineer.

All root pruning shall be performed by a qualified, licensed tree professional as approved by the Engineer. Root pruning shall be performed with a chain saw, stump grinder, trencher, Dasco root pruner or equal, as approved by the Engineer.

Root pruning along pipelines, manholes, inlets, and other underground appurtenances and structures will be included for payment under this contract item. The quantity of root pruning, in linear feet, to be measured for payment will be the actual length of root pruning performed within the limits shown on the plans, in the specifications, or as directed by the Engineer. Depth of root pruning shall be as directed by the Engineer.

All roots designated to be removed shall be severed at the perimeter of the designated protected radius leaving a smooth, uniform section at the remaining root end to prevent root damage. No excavation shall occur within the radius of the protected area.

The work includes all cutting, excavation, removal, hauling, and disposal of roots; filling, grading, mulching, barricading and other appurtenant work complete, in place. Payment shall be made under:

Item No. SP-10.04	Root Pruning	L.F.
-------------------	--------------	------

SP-10.06R REMOVAL AND RESTORATION OF LANDSCAPING:

The Contractor shall remove any shrubbery, trees less than five (5) inches in diameter, other landscaping, walkways, planters, other landscaping, and irrigation systems which are in conflict with the proposed construction. These items shall be restored, relocated, and/or reconstructed as shown in the plans or as directed by the Engineer.

Cost of removing, restoring, relocating, and reconstructing the above items shall be included in the Clearing and Grubbing project pay item, no separate payment shall be made.

SP-10.07 TREE PROTECTION:

Any existing trees shall be protected through the duration of this project as outlined in the Tree Protection Standards of the City of Tampa Site Clearing Ordinance.

Tree barricades shall be constructed and maintained at trees indicated on the plans as "to be protected" and/or as directed by the Engineer. Generally, barricades are to be placed ten (10) feet from the trunk of each protected tree.

Barricades shall be constructed of commercially available pine lumber, as follows: Vertical members shall be 2" x 2" or larger, generally spaced twelve (12) feet apart. Horizontal members shall consist of one (1) 1" x 2" board.

The Contractor shall provide the services of an approved licensed tree professional when it is necessary to trim or cut a branch from a tree.

Payment for tree protection shall be paid under:

Item No. SP10.07	Tree Barricade	LF
------------------	----------------	----

SP-10.09R TREE TRIMMING:

In addition to Tree Trimming required in the FDOT Standard Specification Section 110, the Contractor shall trim tree limbs and shrubbery to a height of 8 feet above sidewalks and to the right-of-way in the project area, and as directed by the Engineer.

Cost of trimming and disposal of these items shall be included in the project pay items and no separate payment shall be made.

SP-11.02 USE OF EXPLOSIVES:

Explosives will not be used on the work except when authorized by the Engineer. The use of same, if authorized, shall conform to laws or ordinances which may pertain to the use of same and the utmost care will be exercised by the Contractor so as not to endanger life or property. The Contractor will assume full responsibility in connection with use of any explosives even though authorized. Explosives will not be stored within the City limits.

SP-11.05 WATER FOR DUST CONTROL:

The work specified in this section consists of the application of water within the limits of construction of the project or on streets used as detour routes in connection with the project, in accordance with these specifications. All dust control operations shall be performed by the Contractor at the time, location, and in the amount ordered by the Engineer. The application of water shall be under the control of the Engineer at all times. No payment will be made for any work performed or water used to control dust where it is applied without authorization of the Engineer. Water ordered by the Engineer to be applied on Saturdays, Sundays, or legal holidays will be paid for at the contract unit price as bid for the time of dust control work involved and no additional compensation will be allowed therefore. Water used for dust control shall be free from pollution to the extent that its use will not constitute a nuisance or health hazard to anyone living in close proximity to the areas where it is used.

The quantity of water measured by an approved device or other means of determining the measurement of water as approved by the Engineer will be paid for at the contract unit price per thousand gallons for this item, which price and payment shall be full compensation for the cost of all materials, equipment and the work for watering.

Payment shall be made under:

Item No. SP-11.05	Water for Dust Control	1,000 Gal.
-------------------	------------------------	------------

SP-11.07 RELOCATION OF EXISTING FENCE:

The Contractor shall remove and relocate the existing fence as shown on the plans and as directed by the Engineer.

Payment shall be full compensation for all labor, materials, storage if necessary and equipment required to accomplish the work.

The payment shall be made under:

Item No. SP-11.07	Remove and Relocate Existing 6' Chain Link Fence	L.F.
-------------------	-----------------------------------------------------	------

SP-11.10 MAILBOX RELOCATION:

All mailboxes within the limits of construction shall be removed and reset or relocated to allow access for mail delivery as directed by the Engineer. Cost of this activity shall be included in the cost of the various contract items and no separate payment shall be made.

SP-11.12 RESTORATION OF MONUMENTATION:

The Contractor shall, with no additional payment, re-establish any permanent survey or mapping monumentation which is disturbed or destroyed in the course of the construction project.

SP-11.15 VEHICULAR TRAFFIC SIGNAL ASSEMBLIES:

All LED's incorporated in signal displays shall be manufactured with "Al InGap" technology.

SP-11.6 CONTINGENCY ALLOWANCE:

Payment from contingency allowance shall be made only at the direction of the Engineer as necessary.

Item No. SP-11.6	Contingency Allowance	L.S.
------------------	-----------------------	------