



Date of Council Meeting: October 24, 2016

**TOWN OF LEESBURG
TOWN COUNCIL WORK SESSION**

Information Only

Subject: Bid Documents for Capital Projects

Staff Contact: Renée M. LaFollette, P.E., Director of Public Works & Capital Projects
Thomas H. Brandon, P.E., Manager, Capital Projects
Octavia Andrew, Chief Procurement Officer
Barbara Notar, Town Attorney

Council Action Requested: None at this time.

Staff Recommendation: None at this time. Information only.

Commission Recommendation: Not applicable.

Fiscal Impact: None. If the Town were to go to an electronic bidding platform, there would be a fiscal impact that is unknown at this time.

Work Plan Impact: Not evaluated at this time.

Executive Summary: At the October 11, 2016 Council meeting, a petitioner discussed and questioned the Town's bidding process and bid forms. Council subsequently requested information on the Town's construction contract bidding forms.

Background: The Department of Public Works and Capital Projects was asked to provide information to Town Council related to the bid forms used for Capital Construction projects. The bid process, procedure, and all forms, were overhauled in 2001. This process was completed in coordination with the Finance Department's Chief Procurement Officer. At that time, the bid documents transitioned from all lump sum contracting to unit price contracting for horizontal, roadway type projects to be in line with Department of Transportation-type projects. At the same time, the written instructions and general conditions were re-written to move away from the Joint Engineers Contracts that favored design engineers and contractors to a document written by Town staff, with legal consultation, that more equally distributes risk to both contractor and Town. In 2011, we stopped providing hard copies of the bid documents (Instructions to Bidders, General Conditions and Plans) and began using the bid board with an FTP site for the contractors to download the documents. This provided a savings and an efficiency to the department.

All of the bid documents and forms that we use are created in Word format. The entire document is then posted to the Town's bid board as a PDF document (Attachment 'A'), and the bid form is also posted as a Word document.

Six bids that have been let by the Town recently have been for significantly large projects, including: South King Street Widening Phase I; South King Street Widening Phase II; the Phase II re-bid; Sycolin Road Widening Phase III; Hope Parkway extension; and the Battlefield Parkway – Greenway to 15 project. All of these projects have utilized the same bid document format. The attached table (Attachment 'B') shows how many bid items were involved in each project and how many bidders had errors in their bids utilizing our current bidding format.

Up to the receipt and review of the Battlefield Parkway – Greenway to 15 project, we have not had any issue, significant or otherwise, with our forms or our process. We have reached out to other localities of similar size and larger to see how they procure their capital construction projects, and have found that there is a mixture of how the capital construction projects are bid. For example, Fairfax County is all paper; bidders must pick up a hard copy of the plans and bid documents and submit a paper copy of their bid, while Loudoun County has their bid form documents available online as an unprotected Excel file and at submission is a hard copy bid. Other jurisdictions are similar to Leesburg where the plans and bid documents are available online and a hard copy bid must be submitted. The bid documents that are available online range from unprotected Word bid forms, unprotected or protected Excel bid forms, and writeable PDF forms. There are very few jurisdictions that have an electronic bidding system and those that do are the larger county and cities. The Virginia Department of Transportation's (VDOT's) electronic bidding is through a secure portal where contractors can download directly from their estimating software into the VDOT bid form. This electronic bidding system took VDOT years to get online and was very expensive.

While our system is not perfect, we have found that we are in line with what other jurisdictions our size are doing for their capital construction bids. In review of the last several large projects that the Town has bid and awarded, we have not had any significant issues with our process.

- Attachments:** 1.) Copy of the bid form for the Battlefield Parkway – Greenway to 15 project – Attachment 'A'
2.) Table showing bid results of last six large projects – Attachment 'B'

**TOWN OF LEESBURG, VIRGINIA
OFFICE OF CAPITAL PROJECTS
25 WEST MARKET STREET
LEESBURG, VIRGINIA 20176
IFB NO. 07315-FY17-01**

**BID FORM, PAGE 7 THRU 37
SUBMIT A SIGNED BID FORM BY MAIL OR IN PERSON TO
TOM BRANDON, MANAGER
OFFICE OF CAPITAL PROJECTS**

FORMAL BIDS WILL BE DUE NO LATER THAN **3:30 p.m., Thursday, August 11, 2016**

**CONSTRUCTION OF THE PLANS TITLED
BATTLEFIELD PARKWAY PHASE III
SOUTH KING STREET TO DULLES GREENWAY**

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME):

IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER _____ WAS ISSUED ON THE _____ DAY OF _____, _____. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AT THE FOLLOWING PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

STIPULATED PRICE ITEMS: THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE STIPULATED PRICES SHOWN. USE OF THESE ITEMS WILL BE THE SOLE DISCRETION OF THE ENGINEER.

<u>ITEM</u>	<u>UNIT</u>	<u>UNIT PRICE</u>
TRENCH ROCK EXCAVATION	CY	\$50.00
CRUSHER RUN VDOT #25 OR APPROVED EQUAL	CY	\$40.00

ROCK IS DEFINED AS ANY SOLID MATERIAL OR BOULDERS THAT CANNOT BE REMOVED FROM THE GROUND BY EXCAVATION EQUIPMENT WITHOUT THE USE OF A HOE RAM OR BLASTING METHODS.

<u>SUBMITTED BY:</u>	
VENDOR NAME:	
ADDRESS:	
CITY/STATE/ZIP:	
AUTHORIZED SIGNATURE:	
PRINT NAME AND TITLE:	
TELEPHONE NO:	FACSIMILE NO.:
STATE CORPORATION COMMISSION ID#	
TAX ID NUMBER (FIN/SSN):	VA. CONTRACTOR LICENSE #:
THIS FIRM IS A: (INSERT NAME OF STATE): _____	
<input type="checkbox"/> CORPORATION <input type="checkbox"/> GENERAL PARTNERSHIP <input type="checkbox"/> LTD LIABILITY COMPANY	<input type="checkbox"/> LIMITED PARTNERSHIP <input type="checkbox"/> UNINCORPORATED ASSOC. <input type="checkbox"/> SOLE PROPRIETORSHIP
E-MAIL ADDRESS:	LEESBURG BPOL #:

ADDENDA

Bidder acknowledges receipt of the following ADDENDA, which have been considered in the preparation of this bid.

Addendum No. _____
Addendum No. _____
Addendum No. _____
Addendum No. _____
Addendum No. _____

Dated: _____
Dated: _____
Dated: _____
Dated: _____
Dated: _____

BID FORM

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
	Miscellaneous				
1	Mobilization / Demobilization	LS	1		
2	Construction Survey	LS	1		
3	Allaying dust using water truck	DY	35		
4	5'x4' Project Sign, complete as detailed in "Instructions to Bidders/Contract Items of Work".	EA	5		
5	Retaining wall, complete as per plan details and specifications Including Excavation & Backfill	LF	350		
6	Install Wood Rail Fence, per plan details and specifications	LF	1,825		
7	Install St'd 12' FE-G Double Swing Wood Gate, per plan details and specifications	EA	1		
8	Install Wood wire Fence, per plan details and specifications	LF	30		
9	Utility Duct Bank, complete as per plan details and specifications Including Excavation & Backfill	LF	550		
10	Field Office, VDOT Type II, complete as detailed in "Instructions to Bidders/Contract Items of Work".	LS	1		
	Sub-Total Miscellaneous				\$ -
	Clearing, Erosion & Sediment Controls				
11	Clearing & Grubbing Including but not limited to 27 trees 0-12' dia, 19 trees 12"-18" dia, 7 trees 18"-24" and 8 trees larger than 24" dia. As well as stump removal and disposal	LS	1		
12	Air tool investigation / Root Pruning complete as required incl. Cambistat (Performed by certified arborist)	LF	3,400		
13	Tree Branch/Limbs Pruning , complete as directed by Town Arborist	EA	5		
14	Monitoring by Certified Arborist When Requested by Town	HR	20		
15	Construction Entrance Including Wash Rack, Complete in Place Incl. Maintenance & Removal	EA	2		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
16	Safety Fence Complete in Place Incl. Maintenance & Removal	LF	3,500		
17	Silt Fence Complete in Place Incl. Maintenance & Removal	LF	3,000		
18	Tree Protection Complete in Place Incl. Maintenance & Removal	LF	5,900		
19	Check Dam Complete in Place Incl. Maintenance & Removal	EA	35		
20	Inlet Protection Complete in Place Incl. Maintenance & Removal	EA	130		
21	Outlet Protection Complete in Place Incl. Maintenance & Removal	EA	10		
22	Culvert Inlet Protection, Complete in Place Incl. Maintenance & Removal	EA	25		
23	Diversion Dike, Complete in Place Incl. Maintenance & Removal	LF	8,000		
24	Temporary Sediment Basin #1, per plans and specifications and complete modification of SWM including silt removal & sediment cleanout	LS	1		
25	Temporary Sediment Basin #2, per plans and specifications and complete modification of SWM including silt removal & sediment cleanout	LS	1		
26	Temporary Sediment Basin #3, per plans and specifications and complete modification of SWM including silt removal & sediment cleanout	LS	1		
27	Sediment Trap #1 (unclassified excavation), complete as per plans and specifications	LS	1		
28	Sediment Trap #2 (unclassified excavation), complete as per plans and specifications	LS	1		
29	Sediment Trap #3 (unclassified excavation), complete as per plans and specifications	LS	1		
30	Sediment Trap #4 (unclassified excavation), complete as per plans and specifications	LS	1		
31	Sediment Trap #5 (unclassified excavation), complete as per plans and specifications	LS	1		
32	Ditch 'A', Complete in Place per plan details including excavation & grading	LF	2,350		
33	Ditch 'B', Complete in Place per plan details including excavation & grading	LF	3,400		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
34	Ditch 'D', Complete in Place per plan details including excavation & grading	LF	320		
35	Ditch 'E', Complete in Place per plan details including excavation & grading	LF	760		
36	Ditch 'F', Complete in Place per plan details including excavation & grading	LF	220		
37	SWM-1 Pond work other than excavation Including but not limited to: * Emergency Spillway Incl.. EC-3 & St'd PG-3 CL I Type II Slope Protection * Sediment Forebays Spillway per plan details & Specifications * 4' deep Cut-off Trench backfilled with clay per the project geotechnical report * Maintenance Access * 8" DIP	LS	1		
38	SWM-2 Pond work other than excavation Including but not limited to: * Emergency Spillway Incl.. EC-3 & St'd PG-3 CL I Type II Slope Protection * Sediment Forebays Spillway per plan details & Specifications * 8" DIP * Gabions (30') * Planting	LS	1		
39	SWM-3 Pond work other than excavation Including but not limited to: * Sediment Forebays Spillway per plan details & Specifications * 4' deep Cut-off Trench backfilled with clay per the project geotechnical report * Maintenance Access & Aquatic Bench	LS	1		
	18" Low Permeable Liner per Geotech Recommendations, Complete in place incl. excavation	SF	180,000		
40	Class I Rip Rap Complete in Place incl. excavation, fabric and installation	TN	870		
41	Class A1 Rip Rap Complete in Place incl. excavation, fabric and installation	TN	100		
42	Temp. Seeding & Mulching	SY	15,000		
43	Permanent Seeding & Mulching Incl. Lime and Fertilizer	SY	25,000		
	<i>Sub-Total Clearing, Erosion & Sediment Controls</i>				\$ -

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
<i>Demolition / Relocation</i>					
44	Remove / Dispose - 12" CMP Pipe, Incl. End Sections (EX25-26, EX31-32, EX33-34, EX35-36)	LF	100		
45	Remove / Dispose - 15" CMP Pipe, Incl. End Sections (EX9-10, EX11-12, EX27-28, EX80-81, EX81-82)	LF	290		
46	Remove / Dispose -18" CMP Pipe, Incl. End Sections (EX29-30, EX37-38,)	LF	125		
47	Remove / Dispose - 12" RCP Pipe, Incl. End Sections (EX25-26)	LF	22		
48	Remove / Dispose - 15" RCP Pipe, Incl. End Sections (EX13-14, EX9-20, EX21-22-23-24, EX72-73)	LF	220		
49	Remove / Dispose - 18" RCP Pipe, Incl. End Sections (EX55-56)	LF	225		
50	Remove / Dispose - 30"X19" RCP Pipe, Incl. End Sections (EX17-18)	LF	45		
51	Remove / Dispose - Existing Timber Retaining Wall	LF	105		
52	Remove & Dispose of Existing Storm Structure (EX81)	EA	1		
53	Clean Existing Storm Pipe (EX39-40, EX56-57, EX56-58)	LF	205		
54	Plug and Abandon Pipe (EX15-16, EX56 to 80')	LS	1		
55	Relocate Sign "School Speed limit - When Flashing" and Equipment to New Pole	EA	1		
56	Remove & Dispose of Sign & Post	EA	21		
57	Relocate Existing Sign & Post	EA	1		
58	Remove / Relocate Fence @ 230 Masons Ln	LF	150		
59	Remove / Dispose of Existing Fence	LF	1,965		
60	Reset Existing Fence, complete in place including excavation and backfill	LF	20		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
61	Reset Existing Bollards, complete in place including excavation and backfill	EA	2		
62	Remove and Reset Mail Boxes	EA	6		
63	Demo & Dispose of up to 10" Thick Flexible Pavement (within proposed Median)	SY	1,000		
64	Saw Cut Asphalt Concrete	LF	6,500		
	Sub-Total Demolition / Relocation				\$ -
	Maintenance of Traffic (MOT)				
65	Short Term Traffic Control	HR	2,000		
66	Type D CL I or II, Solid 4" White Line (3,700' MOT PH 1, 7500' MOT PH 2, 500' MOT PH3)	LF	11,700		
67	Type D CL I or II, Solid 4" Double Yellow Line with 4" Spacing (1,500' MOT PH 1, 5500' MOT PH 2)	LF	7,000		
68	Type D CL I or II, Solid 4" Yellow Line (1500' MOT PH 3)	LF	1,500		
69	Type D CL I or II, Dashed 4" White Line 2' long, 4' Space (300' MOT PH 700' MOT PH 2, 1000' MOT PH3)	LF	2,000		
70	Type D CL I or II, 24" Wide White Line 20' Spacing @ 45° (150' MOT PH 1250' MOT PH 2)	LF	1,400		
71	Type D CL I or II, 24" Wide White Line Stop Bar (120' MOT PH 180' MOT PH 2)	LF	300		
72	Supply, Install, Relocate & Remove R1-1 "Stop" 36"x36" Sign Incl. Post/Stand (MOT PH 2)	EA	1		
73	Supply, Install, Relocate & Remove R11-4 "Road Close to Through Traffic" 60"x30" Sign Incl. Post/Stand (MOT PH 2)	EA	1		
74	Supply, Install, Relocate & Remove W3-1 30"x30" Sign Incl. Post/Stand (MOT PH 2)	EA	1		
75	Supply, Install, Relocate & Remove W1-1aL 48"x48" Sign Incl. Post/Stand (MOT PH 2)	EA	2		
76	Supply, Install, Relocate & Remove W1-1aR 48"x48" Sign Incl. Post/Stand (MOT PH 2)	EA	2		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
77	Supply, Install, Relocate & Remove W13-1 30"x30" Sign Incl. Post/Stand (MOT PH 2)	EA	2		
78	Supply, Install, Relocate & Remove W1-6L Sign Incl. Post/Stand (MOT PH 2)	EA	1		
79	Supply, Install, Relocate & Remove W1-6R Sign Incl. Post/Stand (MOT PH 2)	EA	1		
80	Supply, Install, Relocate & Remove W1-4R 30"X30" Sign Incl. Post/Stand (MOT PH 2)	EA	1		
81	Supply, Install, Relocate & Remove R11-2 48"x30" "Road Closed" Sign Incl. Post/Stand (1EA MOT PH 1, 11EA MOT PH 2)	EA	12		
82	Pavement Message Mark "Elongated Arrow"	EA	10		
83	Pavement Message Mark "ONLY" Solid White 6' Long Type B CL I	EA	5		
84	Supply, Install, Relocate & Remove R2-1 "Speed Limit 25" 48"x60" Sign Incl. Post/Stand (4EA MOT PH 2)	EA	4		
85	Supply, Install, Relocate & Remove W4-2L " " Sign Incl. Post/Stand (MOT PH 3)	EA	1		
86	Supply, Install, Relocate & Remove W9-3L "Left Lane Closed Ahead" 48"x48" Sign Incl. Post/Stand (MOT PH 3)	EA	1		
87	Supply, Install, Relocate & Remove W9-2R "Lane Ends Merge Right" 48"x48" Sign Incl. Post/Stand (MOT PH 3)	EA	1		
88	Supply, Install, Relocate & Remove W4-V7R "Keep Right" 48"x48" Sign Incl. Post/Stand (MOT PH 3)	EA	1		
89	Supply, Install, Relocate & Remove W20-1 "Road Work Ahead" 48"x48" Sign Incl. Post/Stand (6EA MOT PH 1)	EA	6		
90	Supply, Install, Relocate & Remove W21-4 "Road Under Construction" 48"x48" Sign Incl. Post/Stand (4EA MOT PH 1)	EA	4		
91	Supply, Install & Remove W21-5aR "Right Shoulder Closed" 48"x48" Sign Incl. Post/Stand (2EA MOT PH 1, 2EA MOT PH 2)	EA	2		
92	Relocate & Remove W21-5aR "Right Shoulder Closed" 48"x48" Sign Incl. Post/Stand (from MOT PH 1 to MOT PH 2)	EA	2		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
93	Supply, Install & Remove W21-5bR "Right Shoulder Closed Ahead" 48"x48" Sign Incl. Post/Stand (2EA MOT PH 1, 2EA MOT PH 2)	EA	2		
94	Relocate & Remove W21-5bR "Right Shoulder Closed Ahead" 48"x48" Sign Incl. Post/Stand (from MOT PH1 to MOT PH2)	EA	2		
95	Supply, Install & Remove Additional Construction Sign 48"x48" (required but not in the project plans)	EA	10		
96	Relocate, Reset & Remove Construction Sign 48"x48"	EA	20		
97	Supply, Install, Relocate & Remove G20-2V "End Road Work" 48"x24" Sign Incl. Post/Stand (5EA MOT PH 1)	EA	5		
98	Group II Channelization Devices (100EA MOT PH 1, 250EA MOT PH 2, 50EA MOT PH 3)	EA	400		
99	Supply, Install, Relocate & Remove Concrete Traffic Barrier Service (MOT PH 1)	LF	3,000		
100	Supply, Install, Relocate & Remove Impact Attenuator (MOT PH 1)	EA	4		
101	Repair / Replace Temporary Impact Attenuator	EA	2		
102	Arrow Board	DY	125		
103	Portable Message Board	DY	125		
104	Supply, Install, Relocate Type III Barricade (7EA MOT PH 1, 20EA MOT PH 2)	EA	27		
	Sub-Total Maintenance of Traffic				\$ -
	Storm Sewer				
105	15" RCP CL III Pipe, Completed in place including Excavation, Bedding & Backfill	LF	4,307		
106	15" RCP CL IV Pipe, Completed in place including Excavation, Bedding & Backfill	LF	1,074		
107	15" Casketed RCP CL III Pipe with Concrete Cradle per plan details, Completed in place including Excavation, Bedding & Backfill	LF	50		
108	15" Casketed RCP CL III Pipe with Concrete Cradle & Drainage Blanket per plan details, Completed in place including Excavation, Bedding & Backfill	LF	44		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
109	18" RCP CL III Pipe, Completed in place including Excavation, Bedding & Backfill	LF	682		
110	18" RCP CL IV Pipe, Completed in place including Excavation, Bedding & Backfill	LF	23		
111	21" RCP CL III Pipe, Completed in place including Excavation, Bedding & Backfill	LF	180		
112	21" RCP CL IV Pipe, Completed in place including Excavation, Bedding & Backfill	LF	213		
113	24" RCP CL III Pipe, Completed in place including Excavation, Bedding & Backfill	LF	539		
114	30" RCP CL III Pipe, Completed in place including Excavation, Bedding & Backfill	LF	50		
115	30" RCP CL IV Pipe, Completed in place including Excavation, Bedding & Backfill	LF	19		
116	30" Casketed RCP CL III Pipe with Concrete Cradle & Drainage Blanket per plan details, Completed in place including Excavation, Bedding & Backfill	LF	107		
117	36" RCP CL III Pipe, Completed in place including Excavation, Bedding & Backfill	LF	689		
118	36" RCP CL IV Pipe, Completed in place including Excavation, Bedding & Backfill	LF	135		
119	48" RCP CL III, Completed in place including Excavation, Bedding & Backfill	LF	521		
120	19"X30" RCP CL IV, Completed in place including Excavation, Bedding & Backfill	LF	79		
121	53"X34" RCP CL III, Completed in place including Excavation, Bedding & Backfill	LF	95		
122	53"X34" RCP CL IV, Completed in place including Excavation, Bedding & Backfill	LF	645		
123	15" ADS HP Storm (Polypropylene) pipe or approved equal, Completed in place per manufacturer specifications including Excavation, Bedding & Backfill (Pipe run 9.E1-9.E5, 9.20-9.21, 9E2-9.E3, 9.E4-9.E5, 9.E1-9.E6) See Instructions to Bidders - Items of Work for HP Storm Pipe Standard Trench Installation	LF	179		
124	18" ADS HP Storm (Polypropylene) pipe or approved equal, Completed in place per manufacturer specifications including Excavation, Bedding & Backfill (Pipe run 9.8-9.9, 9.8-9.21, 9.21-9.E2, 9.E2-9.E5) See Instructions to Bidders - Items of Work for HP Storm Pipe Standard Trench Installation	LF	476		
125	STR 3.1, DI-3B (H=4.1', L=4'), Complete in place including excavation & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
126	STR 3.2, MOD DI-3B (H=3.6', L=4'), Complete in place including excavation & backfill	EA	1		
127	STR 3.3, 18" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
128	STR 3.4, DI-3C (H=3.78', L=10'), Complete in place including excavation, bedding & backfill	EA	1		
129	STR 3.5, SWM FILTER 8'X16', Complete in place including excavation, bedding & backfill	EA	1		
130	STR 3.6, DI-3B (H=4.1', L=4'), Complete in place including excavation & backfill	EA	1		
131	STR 3.7, DI-3B (H=4.1', L=10'), Complete in place including excavation & backfill	EA	1		
132	STR 3.8, St'd MH 1 or 2 (H=6.1') with Frame & Cover, Complete in place including excavation, bedding & backfill	EA	1		
133	STR 4.1, DI-3B (H=4.0', L=4'), Complete in place including excavation & backfill	EA	1		
134	STR 4.2, DI-3B (H=4.6', L=6'), Complete in place including excavation & backfill	EA	1		
135	STR 4.3, DI-3B (H=4.0', L=4'), Complete in place including excavation & backfill	EA	1		
136	STR 4.4, DI-3B (H=4.6', L=6'), Complete in place including excavation & backfill	EA	1		
137	STR 5.1, DI-3B (H=4.1', L=6'), Complete in place including excavation & backfill	EA	1		
138	STR 5.2, DI-3B (H=4.1', L=4'), Complete in place including excavation & backfill	EA	1		
139	STR 5.3, DI-3B (H=4.7', L=6'), Complete in place including excavation & backfill	EA	1		
140	STR 5.4, DI-3B (H=4.5', L=6'), Complete in place including excavation & backfill	EA	1		
141	STR 5.5, DI-3B (H=4.2', L=8'), Complete in place including excavation, bedding & backfill	EA	1		
142	STR 5.6, DI-3B (H=4.0', L=6'), Complete in place including excavation & backfill	EA	1		
143	STR 6.1, DI-3B (H=5.7', L=6'), Complete in place including excavation & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
144	STR 6.2, 30" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
145	STR 6.3, DI-5 (H=3.7') with Type III Grate, Complete in place including excavation, bedding & backfill	EA	1		
146	STR 6.5, DI-3B (H=4.0', L=4'), Complete in place including excavation & backfill	EA	1		
147	STR 6.6, DI-3B (H=4.1', L=6'), Complete in place including excavation & backfill	EA	1		
148	STR 6.7, DI-3B (H=6.4', L=6'), Complete in place including excavation & backfill	EA	1		
149	STR 6.8, DI-3B (H=5.4', L=4'), Complete in place including excavation & backfill	EA	1		
150	STR 6.9, DI-3B (H=5.0', L=4'), Complete in place including excavation & backfill	EA	1		
151	STR 6.10, 36" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
152	STR 6.11, DI-3B (H=4.0', L=8'), Complete in place including excavation, bedding & backfill	EA	1		
153	STR 6.12, DI-3B (H=4.1', L=6'), Complete in place including excavation & backfill	EA	1		
154	STR 6.13, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
155	STR 6.14, SWM Drainage Structure, Complete in place including excavation, bedding & backfill	EA	1		
156	SWM #3 - Trash Rack & Debris Rack, Complete in place per plan details	EA	1		
157	STR 7.1, DI-3B (H=4.2', L=6'), Complete in place including excavation & backfill	EA	1		
158	STR 7.3, DI-3B (H=4.6', L=4'), Complete in place including excavation & backfill	EA	1		
159	STR 7.4, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
160	STR 7.5, St'd EW-6S, Complete in place including excavation, bedding & backfill	EA	2		
161	STR 7.6, DI-3B (H=5.0', L=4'), Complete in place including excavation & backfill	EA	1		
162	STR 7.7, DI-3B (H=5.6', L=4'), Complete in place including excavation & backfill	EA	1		
163	STR 7.8, 24" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
164	STR 7.9, MOD DI-3B (H=3.8', L=4'), Complete in place including excavation & backfill	EA	1		
165	STR 7.10, DI-3C (H=3.3', L=6'), Complete in place including excavation, bedding & backfill	EA	1		
166	STR 7.11, MOD DI-3B (H=3.0', L=4'), Complete in place including excavation & backfill	EA	1		
167	STR 7.12, DI-3B (H=4.1', L=6'), Complete in place including excavation & backfill	EA	1		
168	STR 7.13, MOD DI-3B (H=3.2', L=4'), Complete in place including excavation & backfill	EA	1		
169	STR 7.14, DI-3C (H=2.7', L=6'), Complete in place including excavation, bedding & backfill	EA	1		
170	STR 7.15, MOD DI-3B (H=2.4', L=4'), Complete in place including excavation & backfill	EA	1		
171	STR 7C.1, 19"x30" ES-1A, Complete in place including excavation, bedding & backfill	EA	2		
172	STR 7G.1, 53"x34" EW-1A, Complete in place including excavation, bedding & backfill	EA	1		
173	STR 7G.2, St'd MH 1 or 2 (H=3.9') with Frame & Cover, Complete in place including excavation, bedding & backfill	EA	1		
174	STR 8.1, 30" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
175	STR 8.2, DI-3B (H=10.0, L=4') St'd JB-1 , Complete in place including excavation, bedding & backfill	EA	1		
176	STR 8.3, DI-7 (H=4.2') Type III Grate, Complete in place including excavation, bedding & backfill	EA	1		
177	STR 8.4, St'd MH 1 or 2 (H=5.3') with Frame & Cover, Complete in place including excavation, bedding & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
178	STR 8.5, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
179	STR 8.6, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
180	STR 8.7, DI-3BB (H=9.5', L=6'), Complete in place including excavation & backfill	EA	1		
181	STR 8.8, DI-3BB (H=9.2', L=4'), Complete in place including excavation & backfill	EA	1		
182	STR 8.9, SWM Drainage Structure, Complete in place including excavation, bedding & backfill	EA	1		
183	SWM #1 - Trash Rack & Debris Rack, Complete in place per plan details	EA	1		
184	STR 8.11, DI-3B (H=9.2, L=4') St'd JB-1 , Complete in place including excavation, bedding & backfill	EA	1		
185	STR 8.12, DI-4A (H=9.1'), Complete in place including excavation, bedding & backfill	EA	1		
186	STR 8.13, DI-4A (H=8.9'), Complete in place including excavation, bedding & backfill	EA	1		
187	STR 8.14, DI-7 (H=3.4'), Complete in place including excavation, bedding & backfill	EA	1		
188	STR 8.6, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
189	STR 9.1, MOD DI-3B (H=3.0', L=4'), Complete in place including excavation & backfill	EA	1		
190	STR 9.2, MOD DI-3C (H=2.7', L=6'), Complete in place including excavation, bedding & backfill	EA	1		
191	STR 9.3, MOD DI-3B (H=3.2', L=4'), Complete in place including excavation & backfill	EA	1		
192	STR 9.4, SWM Drainage Structure, Complete in place including excavation, bedding & backfill	EA	1		
193	SWM #2 - Trash Rack & Debris Rack, Complete in place per plan details	EA	1		
194	STR 9.5, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
195	STR 9.6, DI-7 (H=3.0'), Complete in place including excavation, bedding & backfill	EA	1		
196	STR 9.7, DI-3B (H=4.1', L=6'), Complete in place including excavation & backfill	EA	1		
197	STR 9.8, DI-3B (H=5.3', L=4'), Complete in place including excavation & backfill	EA	1		
198	STR 9.9, DI-4B (H=7.4', L=6'), Complete in place including excavation, bedding & backfill	EA	1		
199	STR 9.10, EW-2, Complete in place including excavation & backfill	EA	1		
200	STR 9.11, DI-4A (H=8.8'), Complete in place including excavation, bedding & backfill	EA	1		
201	STR 9.12, DI-3B (H=4.0', L=6'), Complete in place including excavation & backfill	EA	1		
202	STR 9.13, DI-4A (H=8.3'), Complete in place including excavation, bedding & backfill	EA	1		
203	STR 9.14, DI-3B (H=4.1', L=8'), Complete in place including excavation & backfill	EA	1		
204	STR 9.15, DI-7 (H=3.1'), Complete in place including excavation, bedding & backfill	EA	1		
205	STR 9.16, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
206	STR 9.17, DI-3B (H=4.0', L=4'), Complete in place including excavation & backfill	EA	1		
207	STR 9.18, DI-3BB (H=8.8', L=4'), Complete in place including excavation & backfill	EA	1		
208	STR 9.19, 21" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
209	STR 9.20, DI-7 (H=3.0'), Complete in place including excavation, bedding & backfill	EA	1		
210	STR 9.21, DI-3B (H=5.0', L=4'), Complete in place including excavation & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
211	STR EX 19, MOD DI-3B (H=2.6', L=8'), Complete in place including excavation & backfill	EA	1		
212	STR 9C.1, DI-3B (H=2.6', L=10'), Complete in place including excavation & backfill	EA	1		
213	STR 9C.2, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
214	STR 9E.1, DI-3B (H=4.3', L=6'), Complete in place including excavation & backfill	EA	1		
215	STR 9E.2, DI-3B (H=4.6', L=4'), Complete in place including excavation & backfill	EA	1		
216	STR 9E.3, DI-7 (H=3.0'), Complete in place including excavation, bedding & backfill	EA	1		
217	STR 9E.4, DI-7 (H=3.0'), Complete in place including excavation, bedding & backfill	EA	1		
218	STR 9E.5, DI-3B (H=4.4', L=4'), Complete in place including excavation & backfill	EA	1		
219	STR 9E.6, DI-7 (H=3.0'), Complete in place including excavation, bedding & backfill	EA	1		
220	STR 9E.8, 18" ES-1, Complete in place including excavation, bedding & backfill	EA	2		
221	STR 9E.9, 15" ES-1, Complete in place including excavation, bedding & backfill	EA	1		
222	STR 10.2, DI-3B (H=4.2', L=6'), Complete in place including excavation & backfill	EA	1		
223	STR 10.3, DI-3B (H=4.0', L=6'), Complete in place including excavation & backfill	EA	1		
224	STR 10.4, DI-3B (H=4.2', L=4'), Complete in place including excavation & backfill	EA	1		
225	STR 10.5, DI-3B (H=4.2', L=4'), Complete in place including excavation & backfill	EA	1		
226	STR 10.6, DI-3B (H=4.8', L=4'), Complete in place including excavation & backfill	EA	1		
227	STR 10.7, DI-3B (H=4.1', L=12'), Complete in place including excavation & backfill	EA	1		
228	STR 10.8, DI-3B (H=2.6', L=6'), Complete in place including excavation & backfill	EA	1		
229	STR 10.9, DI-3B (H=2.8', L=6'), Complete in place including excavation & backfill	EA	1		
230	STR 10.10, DI-3B (H=4.2', L=4'), Complete in place including excavation & backfill	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
231	STR 10.11, DI-3B (H=4.1', L=6'), Complete in place including excavation & backfill	EA	1		
232	Install VDOT St'd HR-1 Type II Complying with Town DCSM 5-237 (5' STR 6.2, 6' STR 6.10, 45' STR 7.5, 4' STR 7.8, 13' STR 7G.1, 5' STR 8.1 & 10' STR 9.10)	LF	88		
233	VDOT EW-12, complete in place incl. excavation	EA	3		
234	Underdrain UD-4, Complete in place including excavation, fabric, bedding, tie-in & backfill	LF	11,500		
235	Underdrain UD-2, Complete in place including excavation, fabric, bedding, tie-in & backfill	LF	5,000		
236	UD Standard Outlet Pipe, Complete in place including excavation, fabric, bedding, tie-in & backfill	LF	800		
	Sub-Total Storm Sewer				\$ -
	Sanitary Sewer and Water Line				
237	8" PVC for Future Sanitary Sewer Crossing, Complete installation including excavation, bedding, backfill and all incidentals	LF	250		
238	8" PVC Cap, Complete installation including excavation, bedding and backfill	EA	2		
239	Adjust Sewer Clean-out, Complete installation including excavation and backfill	EA	1		
240	Adjust Existing Sanitary MH, Complete installation including excavation and backfill.	EA	1		
241	Modify Existing Sanitary MH, Complete installation including excavation and backfill.	EA	1		
242	1 1/2" PVC Sanitary Force Main, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	LF	410		
243	2" PVC Sanitary Force Main, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	LF	300		
244	4" PVC Sanitary Force Main, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	LF	10		
245	1 1/2" x 2" Increaser, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
246	2" x 4" Increaser, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	1		
247	Sewer Clean-out, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	3		
248	1 1/2" Ball Valve & Box, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	1		
249	1 1/4" Ball Valve & Box, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	4		
250	1 1/2" x 1 1/4" TEE, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	2		
251	2" x 1 1/4" TEE, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	2		
252	45° Bend, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	1		
253	Connect to Existing MH, Complete installation per plan details & specification including excavation, bedding, backfill and all incidentals	EA	1		
254	Remove / Dispose of Existing Force Main	LF	714		
255	Abandon Existing Force Main per Town DCSM Standard SS-31	LF	10		
256	8" D.I.P CL 52, Waterline for Future Crossing, Complete installation including excavation, bedding, backfill and all incidentals	LF	450		
257	8" DIP Cap, Complete installation including excavation, bedding and backfill	EA	4		
258	Relocate Fire Hydrant, complete in place including excavation, bedding and backfill	EA	1		
259	Adjust Water valve / Valve Tops	EA	7		
	Sub-Total Sanitary Sewer and Water Line				\$ -

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
	<i>Pavement</i>				
260	Aggregate Base, VDOT 21-B, Complete in Place incl. fine grading	TN	16,100		
261	Base Asphalt Mix, BM-25.0A	TN	9,100		
262	Intermediate Asphalt Mix, IM-19.0A	TN	3,000		
263	Surface Asphalt Mix, SM-9.5D	TN	2,300		
264	Milling of Asphalt Pavement (Min. 11/2")	SY	500		
265	Resurface Milled Area with Surface Mix, SM 9.5D	TN	100		
266	Additional Base Asphalt BM-25.0A for Pipe Trench	TN	400		
267	Additional Intermediate Asphalt IM-19.0A for Pipe Trench	TN	150		
268	10' Asphalt Shared Use Path, Complete in place including excavation, (6") VDOT 21-B & (2") SM-9.5A Asphalt	LF	5,800		
269	4' Paved Shoulder Complete Including Excavation and (1 1/2" SM-9.5D + 3" BM-25.0 + 6" 21-B Min.)	LF	2,150		
270	8' Paved Shoulder Complete Including Excavation and (1 1/2" SM-9.5D + 2" IM-19.0 + 16" 21-B Min.)	LF	200		
271	Var. Width Paved Shoulder Complete Including Excavation and (1 1/2" SM-9.5D + 2" IM-19.0 + 16" 21-B Min.)	SF	1,000		
272	5' Concrete Side walk, Complete in place incl. excavation, VDOT 21-A & Concrete	LF	4,650		
273	Brick Pavers per plan details, Complete in place incl. excavation, VDOT 21-A & Sand	SF	3,300		
274	Curb & Gutter - CG6, Complete in place incl. excavation, stone under curb & backfill	LF	9,250		
275	Curb & Gutter - CG7, Complete in place incl. excavation, stone under curb & backfill	LF	1,550		
276	Median Strip MS-1, Complete in place incl. excavation, stone base & Backfill	SF	300		
277	Median Strip MS-1A, Complete in place incl. excavation, stone base & Backfill	SY	150		
278	Median Strip MS-2 (CG-2), Complete in place incl. excavation, stone base & backfill	LF	10,200		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
279	Median Strip MS-2 (MOD CG-3), Complete in place incl. excavation, stone base & backfill	LF	320		
280	Concrete Refuge Island, Complete in place incl. excavation, VDOT 21-A & Concrete	SF	330		
281	Standard 12' TS-10 Entrance, Complete in place including excavation & backfill	EA	2		
282	Standard 14' TS-10 Entrance, Complete in place including excavation & backfill	EA	2		
283	Standard 16' TS-10 Entrance, Complete in place including excavation & backfill	EA	1		
284	Standard 20' TS-10 Entrance, Complete in place including excavation & backfill	EA	1		
285	Standard 12' TS-20 Entrance, Complete in place including excavation & backfill	EA	5		
286	Standard 17' TS-20 Entrance, Complete in place including excavation & backfill	EA	1		
287	CG-12A, Handicap Ramp, Complete in place incl. excavation, stone base & backfill	EA	4		
288	CG-12B, Handicap Ramp, Complete in place incl. excavation, stone base & backfill	EA	8		
289	CG-12C, Handicap Ramp, Complete in place incl. excavation, stone base & backfill	EA	10		
290	CG-12 M-1, Handicap Ramp, Complete in place incl. excavation, stone base & backfill	EA	6		
291	CG-12 M-2, Handicap Ramp, Complete in place incl. excavation, stone base & backfill	EA	1		
292	CG-12 RI-1, Handicap Ramp, Complete in place incl. excavation, stone base & backfill	EA	2		
293	SWM-1, 6' FE-CL Fence, Complete in place as per plans and specifications	LF	1,250		
294	SWM-1, 12' Gravel Entrance, Complete in place as per plans and specifications incl. excavation, 6" Crusher Run	LS	1		
295	SWM-3, 6' FE-CL Fence, Complete in place as per plans and specifications	LF	700		
296	Install St'd 14' FE-CL Double Swing Gate (SWM-1 & SWM-3), Complete in place as per plans and specifications	EA	2		
	Sub-Total Pavement				\$ -

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
	<i>Pavement Marking / Signs</i>				
297	Single Solid 5" White line Type B CL I	LF	8,000		
298	Single Dashed/ Dotted 5" White Line Type B CL I (10' long, 30' Skips)	LF	3,000		
299	Single Dashed / Dotted 5" White Line Type B CL I (2' long, 4' space)	LF	1,100		
300	24" Wide White Line (Stop Bar) Type B CL I	LF	700		
301	24" Wide Diagonal White Line 20' Spacing @ 45 degree (1st line to be 3' wide on each end)	LF	400		
302	Single Solid 6" White line Type B CL I	LF	2,700		
303	Single Solid 8" White line Type B CL I	LF	1,500		
304	Single Solid 5" Yellow Line Type B CL I	LF	13,500		
305	24" Wide Diagonal Yellow Line 20' Spacing @ 45 degree (1st line to be 3' wide on each end)	LF	1,800		
306	Double Solid 5" Yellow Line with 4" Spacing Type B CL I	LF	3,600		
307	Pavement Message Mark "Elongated Arrow"	EA	60		
308	Pavement Message Mark "ONLY" Solid White 6' Long Type B CL I	EA	35		
309	Single Dashed/ Dotted 8" White Line Type B CL I (3' long, 9' Skips)	LF	400		
310	Single Dashed / Dotted 6" White Line Type B CL I (2' long, 4' space)	LF	900		
311	24" Wide White Line Pedestrian Crossing Type B CL I	LF	3,300		
312	Sign R3-7R (36"X36") Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	3		
313	Sign R4-7 (24"X30") Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	7		
314	Sign R2-1 (30"X36") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	13		
315	Sign R3-8b (48"X30") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
316	Sign R5-11(V) (36"X24") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	4		
317	Sign W11-2 (36"x36") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	12		
318	Sign W16-9p (24"X12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	4		
319	Sign W16-9pL (24"X18") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	4		
320	Sign W16-9pR (24"X18") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	4		
321	Sign RI-1 (30"x30") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	3		
322	Sign R3-2 (24"X24") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	1		
323	Sign R6-1R (36"x12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	3		
324	Sign R6-1L (36"x12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
325	Sign S5-2 (24"X30") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	1		
326	Sign R5-1 (36"x36") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
327	Sign M3-3 (24"X12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
328	Sign MI-4 (24"x24") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	4		
329	Sign M6-1L (21"x15") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
330	Sign M3-1 (24"X12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
331	Sign M6-1R (21"x15") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
332	Sign M5-1L (21"x15") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	1		
333	Sign M5-1R (21"x15") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	1		
334	Sign M4-5 (24"x12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
335	Sign M4-I5 (24"x12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
336	Sign MI-V1c (30"x24") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
337	Sign D3-1 Special (36"x12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
338	Sign D3-1 Special (24"x12") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
339	Sign W14-2 (30"x30") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	2		
340	Sign IV-7 (42"x18") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	1		
340	Sign RI-1 (18"x18") Diamond Grade - Prismatic Lens, Reflective Sheeting, Complete incl. 2x2, 14 Gauge Galv Steel Post (per DCSM TS-5)	EA	1		
341	Traffic Barricade TS-22	LF	130		
	Sub-Total Pavement Marking / Signs				\$ -
	Traffic Signal				
	I- Evergreen Mill Road & Battlefield Pkwy				
342	1" Metal Conduit, Complete in place incl. excavation, bedding & backfill	LF	400		
343	1" PVC Conduit, Complete in place incl. excavation, bedding & backfill	LF	20		
344	2" PVC Conduit, Complete in place incl. excavation, bedding & backfill	LF	10		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
345	2" PVC Conduit BORED, Complete in place incl. excavation, bedding & backfill	LF	120		
346	3" PVC Conduit, Complete in place incl. excavation, bedding & backfill	LF	820		
347	4" PVC Conduit, Complete in place incl. excavation, bedding & backfill	LF	4,100		
348	4" PVC Conduit BORED, Complete in place.	LF	985		
349	14/2C (S) Conductor Cable Shielded	LF	5,150		
350	14/2C Conductor Cable	LF	9,210		
351	14/7C Conductor Cable	LF	5,950		
352	14/1 Enclosed Conductor Cable	LF	6,300		
353	1310 NM Fiber Optic Cable (Min. 8 Fibers)	LF	5,300		
354	Fiber Optic Termination and Testing	LS	1		
355	OPTICOM Cable GTT 134 and Confirmation Cable	LF	1,600		
356	Video control cable-16/3 power & 8281 Belden coax	LF	1,850		
357	GTT OPTICOM 764 Phase Selector	EA	2		
358	OPTICOM Detector Eye, complete incl. installation as per plans and specifications	EA	5		
359	CAT 5e cable & 18/2C	LF	160		
360	PTZ-Cisco 6930 series, per plans and specifications	EA	1		
361	PTZ installation to include all mounting hardware installed per plans	EA	1		
362	KUSA Managed Gigabit Ethernet switch per plans and specifications	EA	3		
363	Etherwan SE6101-00B media converter per plans and specifications	EA	2		
364	4 Port Encoder-Cisco per plans and specifications	EA	1		
365	Video Detection Cameras, complete incl. installation as per plans and specifications	EA	4		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
366	Video Detection processor shall be card rack mountable, equivalent or equal to PEEK Video Trak IQ currently in use in the Town traffic signal system with 4 video inputs, monitor and mouse, IP addressable with all communication cabling for remote access, video cameras shall be from same manufacture.	EA	1		
367	Junction Box, JB - R1, Complete in place as per plans and specifications	EA	11		
368	Junction Box, JB - R2, Complete in place as per plans and specifications	EA	2		
369	Adjust Existing Junction Box to Grade, Complete in place	EA	5		
370	Loop Detector Amplifier Complete installed as per plans & specifications	EA	20		
371	Signal Pole (1) & (3)- One 50' Mast Arm, Complete as per plans and specifications	EA	2		
372	Signal Pole (2) & (4)- One 75' Mast Arm, Complete as per plans and specifications	EA	2		
373	Traffic Signal head Section 12" LED, Complete as per plans and specifications	EA	46		
374	Concrete Foundation Signal Pole, Incl. excavation, backfill and all incidentals	EA	4		
375	Provide Power Source SE-5 (Meter / Disconnect Switch Pole), complete as per plans and specifications	LS	1		
376	Pedestrian Pole, Complete as per plans and specifications	EA	8		
377	Pedestrian Signal Head, Complete as per plans and specifications	EA	10		
378	Pedestrian Push Button " Polara Bulldog III " with Sign R10-3E, Complete as per plans and specifications	EA	10		
379	Concrete Foundation pedestal Pole, Incl. excavation, backfill and all incidentals	EA	8		
380	Replace Existing Cabinet Assembly and UPS as per plans and specifications	LS	1		
381	Remove Existing Signal Equipment	LS	1		
382	TS2 Type 2 Controller, as per plans and specifications	EA	1		
383	MMU as per plans, as per plans and specifications	EA	2		
384	<u>Temporary Signal Including but not limited to :</u> 4-40' Wood poles, 1/2" Span wire, 1/4" Tether, Signals, Left Turn Must Yield on Green Signs, Temporary Video Detection, 14/7c Conductor cable. Including repositioning signal heads as needed per traffic phasing and maintaining communication.	LS	1		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
385	Mast Arm Mounted Sign S-1 R10-12 (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	4		
386	Mast Arm Mounted Sign S-2 R3-5R (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	4		
387	Mast Arm Mounted Sign S-5 R10-16 (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	2		
388	Mast Arm Mounted Sign S-9 (24"X180"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	2		
389	Mast Arm Mounted Sign S-10 (24"X180"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	2		
390	Saw Cut Asphalt for Loop Detectors	LF	3,500		
	<i>II- Evergreen Mill Road & Tolbert Road</i>				
391	1" Metal Conduit, Complete in place incl. excavation, bedding & backfill	LF	50		
392	3" PVC Conduit, Complete in place incl. excavation, bedding & backfill	LF	100		
393	14/2C (S) Conductor Cable Shielded	LF	1,960		
394	14/2C Conductor Cable	LF	710		
395	14/7C Conductor Cable	LF	710		
396	14/1 Enclosed Conductor Cable	LF	2,450		
397	#6 Bare Copper Ground (EGC)	LF	650		
398	1310 NM Fiber Optic Cable (Min. 8 Fibers)	LF	1,400		
399	PTZ-Cisco 6930 series, per plans and specifications	EA	1		
400	PTZ installation to include all mounting hardware installed per plans	LS	1		
401	Fiber Optic Termination and Testing	LS	1		
402	UPS Cabinet and UPS & Batteries per plans and spec's	EA	1		
403	Junction Box, JB - R1, Complete in place as per plans and specifications	EA	1		
404	Remove Existing Steel Pole & Equipment Complete as per plans and specifications	EA	4		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
405	Pedestrian Pole, Complete as per plans and specifications	EA	4		
406	Pedestrian Signal Head, Complete as per plans and specifications	EA	4		
407	Pedestrian Push Button " Polara Bulldog III " with Sign R10-3E, Complete as per plans and specifications	EA	4		
408	Concrete Foundation pedestal Pole, Incl. excavation, backfill and all incidentals	EA	4		
409	Temporary Signal Including but not limited to : repositioning signal heads as needed per traffic phasing.	EA	2		
409	Mast Arm Mounted Sign S-3 R3-5L (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
410	Mast Arm Mounted Sign S-4 R3-6R (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
411	Mast Arm Mounted Sign S-5 W14-1a(L) (36"X8"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
412	Mast Arm Mounted Sign S-5 W14-1a(R) (36"X8"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
413	Mast Arm Mounted Sign S-7 (18"X84"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	2		
414	Mast Arm Mounted Sign S-8 (18"X121"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
415	Saw Cut Asphalt for Loop Detectors	LF	1,000		
	III- Dulles Toll Ramp @ Battlefield Pkwy				
416	1" Metal Conduit, Complete in place incl. excavation, bedding & backfill	LF	75		
417	3" PVC Conduit, Complete in place incl. excavation, bedding & backfill	LF	390		
418	14/2C (S) Conductor Cable Shielded	LF	4,440		
419	14/2C Conductor Cable	LF	1,750		
420	14/7C Conductor Cable	LF	1,550		
421	14/1 Enclosed Conductor Cable	LF	4,000		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
422	Video control cable-16/3 power & 8281 Belden coax	LF	750		
423	1310 NM Fiber Optic Cable (Min. 8 Fibers)	LF	1,800		
424	#6 AWG/3C	LF	640		
425	Loop Detector Amplifier Complete installed as per plans & specifications	EA	20		
426	Video Detection Cameras, complete incl. installation as per plans and specifications	EA	1		
427	Video Detection processor shall be card rack mountable, equivalent or equal to PEEK Video Trak IQ currently in use in the Town traffic signal system with 4 video inputs, monitor and mouse, IP addressable with all communication cabling for remote access, video cameras shall be from same manufacture.	EA	1		
428	PTZ-Cisco 6930 series, per plans and specifications	EA	1		
429	KUSA Managed Gigabit Ethernet switch per plans and specifications	EA	3		
430	Etherwan SE6101-00B media converter per plans and specifications	EA	2		
431	4 Port Encoder-Cisco per plans and specifications	EA	1		
432	Fiber Optic Termination and Testing	LS	1		
433	PTZ installation to include all mounting hardware installed per plans	LS	1		
434	MMU as per plans, as per plans and specifications	EA	2		
435	TS2 Type 2 Controller, as per plans and specifications	EA	1		
436	Junction Box, JB - R1, Complete in place as per plans and specifications	EA	4		
437	Junction Box, JB - R2, Complete in place as per plans and specifications	EA	2		
438	Pedestrian Pole, Complete as per plans and specifications	EA	8		
439	Pedestrian Signal Head, Complete as per plans and specifications	EA	8		
440	Pedestrian Push Button " Polara Bulldog III " with Sign R10-3E, Complete as per plans and specifications	EA	8		

Ref.	DESCRIPTION	Units	Qty.	Unit Price	Extension
441	Concrete Foundation pedestal Pole, Incl. excavation, backfill and all incidentals	EA	8		
442	PEEK 3000E Master per specifications	EA	1		
443	Replace Existing Cabinet Assembly and UPS as per plans and specifications	LS	1		
444	Mast Arm Mounted Sign S-3 R3-2 (36"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
445	Mast Arm Mounted Sign S-4 R3-1 (36"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
446	Mast Arm Mounted Sign S-5 R3-6L (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
447	Mast Arm Mounted Sign S-6 R10-10L (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	2		
448	Mast Arm Mounted Sign S-7 R3-5R (30"X36"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	2		
449	Mast Arm Mounted Sign S-8 (18"X120"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
450	Mast Arm Mounted Sign S-9 (18"X120"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
451	Mast Arm Mounted Sign S-10 (18"X120"), Diamond Grade - prismatic Lens, Reflective Sheeting, Complete incl. installation	EA	1		
452	Saw Cut Asphalt for Loop Detectors	LF	1,750		
	Sub-Total Traffic Signal				\$ -

	Earthwork				
453	Unclassified Excavation (including but not limited to Asphalt & Concrete)	CY	151,500		
454	Unclassified Excavation to haul off-site	CY	133,000		
455	Import Suitable Structural Fill Material	CY	5,000		
456	Undercut unsuitable and REPLACE with select material type I Min. CBR 30, complete incl. disposal	CY	13,000		
457	Geo grid Fabric for subgrade stabilization, complete incl. installation as per plans and specifications	SY	20,000		
458	Undercut Rock (6") & Backfill with VDOT 21-B	CY	500		
459	4% Lime treatment for top 1' of subgrade layer in accordance with VDOT guidelines for moisture control /stabilization (IF REQUIRED - to be used at the direction of the Town)	SY	5,000		
460	Rock Excavation	CY	1,500		
461	3" Respread Topsoil (other than Median)	CY	4,500		
462	3" Topsoil Class 'A' for Median, Complete incl. Supply and Spreading	CY	2,500		
	Sub-Total Earthwork				\$ -
	TOTAL				\$ -

ESCROW OF RETAINED FUNDS

In accordance with Section 2.2-4334 of the Virginia Public Procurement Act (VPPA), any Contract valued at \$200,000.00 or more for construction of highways, roads, streets, bridges, parking lots, demolition, clearing, grading, excavating, paving, pile driving miscellaneous drainage structures, and the installation of water, gas, sewer lines and pumping stations where portions of the Contract price are to be retained, at the time of submitting a bid, the CONTRACTOR shall have the option to indicate preference for using the escrow account procedure for utilization of the Town retained funds by so indicating in the space provided in the proposal documents. In the event the successful Contract elects to use the escrow account procedure, the "Escrow Agreement" included in the Contract documents shall be executed and submitted to the Director, Department of Capital Projects within 15 days after receipt of the Notice to Award. If the "Escrow Agreement" form is not submitted, the CONTRACTOR shall forfeit his rights to the use of the escrow account procedure within the 15-day period.

In order to have retained funds paid to an escrow agent, the CONTRACTOR, the escrow agent, and the surety shall execute the "Escrow Agreement" furnished by the TOWN, and submit same to the Department of Capital Projects for approval. The CONTRACTOR's escrow agent shall be a trust company, approved bank or savings and loan institution with its principal office located in the Commonwealth of Virginia. The "Escrow Agreement" shall contain the complete address of the escrow agent and surety, and the executed "Escrow Agreement" will be authority for the TOWN to make payment of retained funds to the escrow agent. After approving the agreement, the TOWN will pay to the escrow agent the funds retained as provided herein, except that funds retained for lack of progress or other deficiencies on the part of the CONTRACTOR will not be paid to the escrow agent. The escrow agent may, in accordance with the stipulations contained in the "Escrow Agreement", invest the funds paid into the escrow account and pay earnings on such investments to the CONTRACTOR, or release the funds to the CONTRACTOR, provided such funds are fully secured by approved securities.

Retained funds invested, and securities held as collateral for retainage may be released only as and when directed by the Director, Office of Capital Projects. When the final estimate is released for payment, the Director, Office of Capital Projects will direct the escrow agent to settle the escrow amount by paying the CONTRACTOR or the TOWN monies due them as determined by the Director, Office of Capital Projects. The TOWN reserves the right to recall retained funds and to release same to the surety upon receipt of written request from the CONTRACTOR or in the event of default.

- We elect to use the escrow account procedure for the deposit of retained funds.

- We elect not to use the escrow account procedure for the deposit of retained funds.

END OF SECTION

Attachment B

PROJECT	No of Bid Items	No. of Bidders	No. of Bidders with Errors	Bidder 1 Bid Total	Bidder 1 Corrected Total	Variance	Bidder 2 Bid Total	Bidder 2 Corrected Total	Variance	Bidder 3 Bid Total	Bidder 3 Corrected Total	Variance
S. King Street Widening Phase I	326	8	2	\$ 4,498,188.60	\$ 4,498,080.60	\$ (108.00)				\$ 5,049,197.87	\$ 5,049,626.40	\$ 428.53
S. King Street Widening Phase II (1)	285	3	0									
S. King Street Widening Phase II (2)	300	6	0									
Sycolin Road Phase III	183	4	2	\$ 3,684,824.87	\$ 3,863,303.50	\$ 178,478.63				\$ 4,321,399.19	\$ 4,315,770.25	\$ (5,628.94)
Oaklawn Hope Parkway Segments 1 & 2	144	7	2	\$ 1,759,980.33	\$ 1,759,980.33	\$ -	\$ 1,838,648.36	\$ 1,838,632.44	\$ (15.92)			
Battlefield Parkway - Route 15 to Dulles Greenway	467	3	1	\$ 11,797,697.56	\$ 13,075,451.74	\$ 1,277,754.18						

Bidder withdrew bid, due to missing entire section of the bid
