ADDENDUM NO. 5

DATE: July 31, 2017

TO: All Bidders

FROM: Boyce W. Evans, Purchasing Agent

SUBJECT: Addendum No. 5 – Grainger Avenue Bridge Project

BIDS TO BE OPENED: August 2, 2017, at 11:00:00 a.m. Eastern Time

This addendum is being published to respond to questions asked by potential bidders regarding the Grainger Avenue Bridge Project. This addendum becomes a part of the Contract Document and modifies the original specifications as noted.

Questions

Question #1: We are planning to quote the handrail (Sheet 5). The design calls for 2" OD x .134" wall. After searching I cannot find but .125" wall as the thickest wall in A500. Can .125" wall be used? If not, I would offer 2" pipe (sch 40) which would have a 2 3/8" OD as an option.

Response: ASTM A500 Grade B, 2" O.D. x 0.125" wall tube is acceptable.

Question #2: Bid Form on Addendum #4 shows the Item 716-13.01 at 0 L.M. Is that correct?

Response: No. The quantity for Item 716-13.01 is 0.2 L.M. and a new BD-6 is attached to this addendum.

Clarification

In response to question #2 on Addendum #4, Item 716-02.01, Plastic Pavement Marking was added. As part of this Addendum, that item is being replaced with Item 716-10.01, Preformed Plastic Pavement Marking (4IN Line) and the quantity has been increased to 120 LF. A new BD-6 is attached to this addendum.

BID PROPOSAL CITY OF KNOXVILLE, TENNESSEE

Grainger Avenue Bridge Project Project No. 14A-B-0571

CITY OF I	KNO.	XVI	LLI	E, TEN	INESSEE											
									hereby p	ropo	se(s)	to furnis	h all mat	terial, la	bor, ar	ıd
appliances	and	do	all	work	required	to	complete	the	Contract	for	the	Grainger	Avenue	Bridge	Projec	it,

Project No. 14A-B-0571, located in the City of Knoxville, Tennessee, in a workmanlike manner and in accordance with the plans of the Department of Engineering and specifications herewith attached.

TO THE PURCHASING AGENT

Bidder further agrees that in case of failure to sign a delivered contract within thirty (30) days, the certified check or bid bond accompanying this bid and the proceeds thereof shall be the property of the City of Knoxville if the City chooses to retain said bid bond or check.

BID SCHEDULE

		TOTAL	PRICE	TOTAL PRICE
DESCRIPTION	UNITS	QUANTITY	PER UNIT	PER ITEM
ESTIMATED	ROADV	WAY QUANT	ITIES	
Construction Stakes, Lines and				
Grades	LS	1		
Clearing & Grubbing	LS	1		
Removal of Structures &				
Obstructions	LS	1		
Road & Drainage Excavation				
•	CY	150		
Borrow Excavation (Unclassified)	CY	580		
Placing & Spreading Topsoil	CY	100		
Water	MG	7		
Furnishing & Spreading Topsoil	CY	20		
Channel Excavation (Unclassified)	CY	700		
Sediment Removal	CY	30		
Temporary Silt Fence (with Backing)	LF	400		
Sediment Filter Bag (15' x 10')	EA	2		
Curb Inlet Protection (Type 4)	EA	10		
Catch Basin Protection (Type D)	EA	1		
Temporary In Stream Diversion	LF	450		
	Construction Stakes, Lines and Grades Clearing & Grubbing Removal of Structures & Obstructions Road & Drainage Excavation (Unclassified) Borrow Excavation (Unclassified) Placing & Spreading Topsoil Water Furnishing & Spreading Topsoil Channel Excavation (Unclassified) Sediment Removal Temporary Silt Fence (with Backing) Sediment Filter Bag (15' x 10') Curb Inlet Protection (Type 4) Catch Basin Protection (Type D)	Construction Stakes, Lines and Grades LS Clearing & Grubbing LS Removal of Structures & Obstructions LS Road & Drainage Excavation (Unclassified) CY Borrow Excavation (Unclassified) CY Placing & Spreading Topsoil CY Water MG Furnishing & Spreading Topsoil CY Channel Excavation (Unclassified) CY Sediment Removal CY Temporary Silt Fence (with Backing) LF Sediment Filter Bag (15' x 10') EA Curb Inlet Protection (Type 4) EA Catch Basin Protection (Type D) EA	ESTIMATED ROAD WAY QUANT Construction Stakes, Lines and Grades LS 1 Clearing & Grubbing LS 1 Removal of Structures & Obstructions LS 1 Road & Drainage Excavation (Unclassified) CY 150 Borrow Excavation (Unclassified) CY 580 Placing & Spreading Topsoil CY 100 Water MG 7 Furnishing & Spreading Topsoil CY 20 Channel Excavation (Unclassified) CY 30 Sediment Removal CY 30 Temporary Silt Fence (with Backing) LF 400 Sediment Filter Bag (15' x 10') EA 2 Curb Inlet Protection (Type 4) EA 10 Catch Basin Protection (Type D) EA 1	DESCRIPTION UNITS QUANTITY PER UNIT ESTIMATED ROADWAY QUANTITIES Construction Stakes, Lines and Grades LS 1 Clearing & Grubbing LS 1 Per Unit Removal of Structures & Obstructions LS 1 Per Unit Removal of Structures & Obstructions LS 1 Per Unit Removal & Drainage Excavation CY 150 Per Unit Borrow Excavation (Unclassified) CY 580 Per Unit Water MG 7 Per Unit Water MG 7 Per Unit Furnishing & Spreading Topsoil CY 700 Sediment Removal CY 30 Per Unit Sediment Removal CY 30 Per Unit Temporary Silt Fence (with Backing) LF 400 Sediment Filter Bag (15' x 10') EA 2 Curb Inlet Protection (Type 4) EA 10 Catch Basin Protection (Type D) EA 1

ITEM NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	PRICE PER UNIT	TOTAL PRICE PER ITEM
303-01	Mineral Aggregate, Type A Base,				
303-01	Grading D	TON	810		
303-10.01	Mineral Aggregate (Size 57)	TON	16		***************************************
307-01.08	Asphalt Concrete Mix (PG64-22) (BPMB-HM) Grading B-M2	TON	190		
307-01.15	ASC Mix (PG64-22) (BPMLC-HM)				**************************************
	Grading CS	TON	10		
402-01	Bituminous Material for Prime Coat				
400.00	(PC)	TON	2 .		
402-02	Aggregate for Cover Material (PC)	TON	9 -		**************************************
403-01	Bituminous Material for Tack Coat (TC)	TON	4		
407-02.13	Removal & Disposal of Existing Asphalt Pavement	SY	300		
407-20.05	Saw Cutting Asphalt Pavement	LF	200		
411-01.10	ACS Mix (PG64-22) Grading D	TON	100		The second secon
411-01.11	ACS Mix (PG64-22) Grading E Rdwy	TON	25		
415-01.02	Cold Planing Bituminous Pavement	SY	100		
604-20.11	Painted Metal Handrail	LF	96	***************************************	
607-03.02	18" Concrete Pipe Culvert (Class III)		-		
607-05.02	24" Concrete Pipe Culvert (Class III)	LF	240		
607-07.02	36" Concrete Pipe Culvert (Class III)	LF	32		
611-01.03	Manholes, > 8' - 12' Depth	LF	96		
611-07.01	Class A Concrete	EA	1 -		
011 07.01	(Pipe Endwalls)	CY	6		
611-07.02	Steel Bar Reinforcement		- 44		
	(Pipe Endwalls)	LB	100		
611-10.03	Catch Basins, Type 10, > 8' - 12' Depth	EA	1		
611-12.02	Catch Basins, Type 12, > 4' - 8' Depth	EA	 7		
611-14.02	Catch Basins, Type 14, > 4' - 8' Depth	EA	1	***************************************	
611-14.03	Catch Basins, Type 14, > 8' - 12' Depth		-		
701-01.01	Concrete Sidewalk (4")	EA	2 200		
701-01.01	Concrete Driveway	SF	3,200		
701-02.03	Concrete Curb Ramp	SF	900		***************************************
701-02.03	Concrete Curb	SF	500		
707-01.11	Chain Link Fence (6 Foot)	LF	620		
707 01.11	Chain Link I choc (0 I 000)	LF	45		

Tor-01.12 End & Corner Post Assembly (Chain-Link Fence 6')	ITEM NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	PRICE PER UNIT	TOTAL PRICE PER ITEM
Chain-Link Fence 6')	707-01.12	End & Corner Post Assembly				
1707-08.11 High-Visibility Construction Fence LF 300 1709-02.01 Rubble Stone Rip-Rap (Grouted) CY 25 1709-05.08 Machined Rip-Rap (Class B) TON 240 1709-10.01 Gabions (3' x 3') (PVC Coated) CY 70 1709-10.02 Aggregate Underdrains (with Pipe) LF 60 1712-01 Traffic Control LS 1 1 1 1 1 1 1 1 1		•	EA	2		
709-02.01	707-08.11	High-Visibility Construction Fence		-		
TOP-05.08 Machined Rip-Rap (Class B) TON 240 TOP-10.01 Gabions (3' x 3') (PVC Coated) CY 70 TOP-10.01 Gabions (3' x 3') (PVC Coated) CY 70 TOP-10.01 COATE Top-10.01 Traffic Control LS I TOP-10.01 Top-10.	709-02.01	Rubble Stone Rip-Rap (Grouted)		•		
Top-10.01 Gabions (3' x 3') (PVC Coated) CY 70	709-05.08	Machined Rip-Rap (Class B)		-		
712-01 Traffic Control LS 1 712-04.01 Flexible Drums (Channelizing) EA 40 712-05.01 Warning Lights (Type A) EA 20 712-06 Signs (Construction) SF 300 712-07.03 Temporary Barricades (Type III) LF 90 713-11.05 Square Tube Sign Support LB 150 713-13.03 Flat Sheet Aluminum Signs (0.100" Thick) SF 22 713-16.01 Changeable Message Sign Unit EA 2 2 716-02.03 Plastic Pavement Marking (Cross-Walk) LF 105 105 716-02.05 Plastic Pavement Marking (Stop Line) LF 55 5 716-10.01 Performed Plastic Pavement Marking (4N Line) LF 120 10 716-13.01 Spray Thermo Pavement Marking (60 ML) (4IN Line) LS 1 1 740-10.03 Geotextile (Type III) (Erosion Control) SY 350 350 740-11.02 Temporary Sed	709-10.01	Gabions (3' x 3') (PVC Coated)	CY	-		
Tile-04-01 Flexible Drums (Channelizing) EA	710-02	Aggregate Underdrains (with Pipe)	LF	60		
T12-04.01 Flexible Drums (Channelizing) EA	712-01	Traffic Control	LS	1		
T12-06 Signs (Construction) SF 300 T12-07.03 Temporary Barricades (Type III) LF 90 T13-11.05 Square Tube Sign Support LB 150 T13-13.03 Flat Sheet Aluminum Signs (0.100" Thick) SF 22 T13-16.01 Changeable Message Sign Unit EA 2 T16-02.03 Plastic Pavement Marking (Cross-Walk) LF 105 T16-02.05 Plastic Pavement Marking (Stop Line) LF 55 T16-11.01 Performed Plastic Pavement Marking (4IN Line) LF 120 T16-13.01 Spray Thermo Pavement Marking (60 MIL) (4IN Line) LM 0.2 T17-01 Mobilization LS 1 T40-10.03 Geotextile (Type III) (Erosion Control) SY 350 T40-11.02 Temporary Sediment Tube 12IN (Description) LF 800 T95-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (with Mulch) UNIT 7 801-03 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	712-04.01	Flexible Drums (Channelizing)	EA	40		***************************************
Title	712-05.01	Warning Lights (Type A)	EA	20		
T12-07.03 Temporary Barricades (Type III) LF 90 T13-11.05 Square Tube Sign Support LB 150 T13-13.03 Flat Sheet Aluminum Signs (0.100" Thick) SF 22 T13-16.01 Changeable Message Sign Unit EA 2 T16-02.03 Plastic Pavement Marking (Cross-Walk) LF 105 T16-02.05 Plastic Pavement Marking (Stop Line) LF 55 T16-10.01 Performed Plastic Pavement Marking (4lN Line) LF 120 T16-13.01 Spray Thermo Pavement Marking (60 MIL) (4lN Line) LM 0.2 T17-01 Mobilization LS 1 T40-10.03 Geotextile (Type III) (Erosion Control) SY 350 T40-11.02 Temporary Sediment Tube 12IN (Description) LF 800 T95-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 7 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking STAN	712-06	Signs (Construction)		-		
Tiling T	712-07.03	Temporary Barricades (Type III)	LF	-		
Tile	713-11.05	Square Tube Sign Support	LB	-		
Translation Changeable Message Sign Unit EA 2	713-13.03	Flat Sheet Aluminum Signs		-		
T16-02.03 Plastic Pavement Marking (Cross-Walk) LF 105		(0.100" Thick)	SF	22		
Cross-Walk LF 105	713-16.01	Changeable Message Sign Unit	EA	2		
T16-02.05 Plastic Pavement Marking (Stop Line) LF 55	716-02.03	_				
(Stop Line) LF 55 716-10.01 Performed Plastic Pavement Marking (4IN Line) LF 120 716-13.01 Spray Thermo Pavement Marking (60 MIL) (4IN Line) LM 0.2 717-01 Mobilization LS 1 740-10.03 Geotextile (Type III) (Erosion Control) SY 350 740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	716.00.07	·	LF	105		
T16-10.01 Performed Plastic Pavement Marking (4IN Line) LF 120	/16-02.05	——————————————————————————————————————	ır	E E		
(4IN Line) LF 120 716-13.01 Spray Thermo Pavement Marking (60 MIL) (4IN Line) LM 0.2 717-01 Mobilization LS 1 740-10.03 Geotextile (Type III) (Erosion Control) SY 350 740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	716-10.01	· - ·	Lř	33 -		
716-13.01 Spray Thermo Pavement Marking (60 MIL) (4IN Line) LM 0.2 717-01 Mobilization LS 1 740-10.03 Geotextile (Type III) (Erosion Control) SY 350 740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	, 10 10.01		LF	120		
717-01 Mobilization LS 1 740-10.03 Geotextile (Type III) (Erosion Control) SY 350 740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	716-13.01	Spray Thermo Pavement Marking				
740-10.03 Geotextile (Type III) (Erosion Control) SY 350 740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking			LM	0.2		
(Erosion Control) SY 350 740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	717-01	Mobilization	LS	1		
740-11.02 Temporary Sediment Tube 12IN (Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	740-10.03	` • • ·				
(Description) LF 800 795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	740 11 02		SY	350		
795-51.01 Bollard EA 2 801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	/40-11.02		LE	900		
801-01 Seeding (with Mulch) UNIT 7 801-02 Seeding (without Mulch) UNIT 4 805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	795-51.01			***		
801-02 Seeding (without Mulch) 805-12.05 Turf Reinforcement Mat (Channel Liner) SP-01 Relocate Banner Post SP-02 Plastic Pavement Marking				-		
805-12.05 Turf Reinforcement Mat (Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking						***************************************
(Channel Liner) SY 380 SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking		~ ` ` · · · · · · · · · · · · · · · · ·	UNII	farig.		
SP-01 Relocate Banner Post LS 1 SP-02 Plastic Pavement Marking	12.00		SY	380		
SP-02 Plastic Pavement Marking	SP-01	Relocate Banner Post		-		
(Diagonal Style Cross-Walk) LF 28	SP-02	Plastic Pavement Marking		· -		
		(Diagonal Style Cross-Walk)	LF	28 _		

ITEM		TOTAL	PRICE	TOTAL PRICE
NO.	DESCRIPTION	UNITS QUANTI	TY PER UNIT	PER ITEM

	ESTIMATE	D BRIDG	E QUANTII	ries
203-40.17	Rock Dowel	LF	550	
204-11	Bridge Excavation (Unclassified)	CY	2,700	
204-04.01	Rock Excavation (Bridges)	CY	100	
204-05	Rock Drilling (Bridges)	LF	36	
303-01.02	Granular Backfill (Bridges)	TON	5,500	
604-01.32	Class A Concrete (Leveling)	CY	100	
604-02.03	Epoxy Coated Reinforcing Steel	LB	44,530	
604-03.01	Class A Concrete (Bridges)	CY	455	440444444444444444444444444444444444444
604-03.02	Steel Bar Reinforcement (Bridges)	LB	55,870	
604-03.09	Class D Concrete (Bridge Deck)	CY	114	
604-04.01	Applied Texture Finish			
	(New Structure)	SY	510	
610-10.45	Deck Drains	EA	8	
615-02.19	Prestressed Concrete Box Beam (24" x 36")	LF	371	
620-05	Concrete Parapet with Structural	101	511	
	Tubing	LF	110	
710-09.01	6" Perforated Pipe with Vertical		•	
	Drain System	LF	190	
710-09.02	6" Pipe Underdrain	LF	60	
	ESTIMATED	GAS MA	IN QUANT	ITIES
4000e	2" MDPE Gas Main, SDR 11	LF	250	***************************************
4000f	Adder for Full Clean Stone Backfill in or within 3' of Pavement per			
	Section 02321	LF	100	
4005q.1	2" Gas PE Tee with Single Valve on	Lr	100	
.0054.1	Tap Line per KUB Fig. 18-15305-t2	EA	1	
4010c	2" PE Straight Tie-In to 2" PE Main		•	
	per KUB Fig. 2-15320-b1	EA	2	
4015e	2" IPS, MDPE Gas Valve Installation	EA	2	
4020a	1/2" CTS PE Residential Service on PE Main per KUB Fig. 1-15345-a	EA	1	
4025a	Installation for Service Lines 1/2" to	*****	· ,	
	1" Service Installation Beyond 50 Ft	LF	50	
4030a	3/4" Riser	EA	1	
4035a	Condemn Existing Gas Facilities	LS	1	
4050d	2" MDPE Gas Main with 4" MDPE		•	
	Casing Pipe Installed by HDD	LS	1	**************************************

ITEM NO.	DESCRIPTION	******	TOTAL	PRICE	TOTAL PRICE
110.	DESCRIPTION	UNITS	QUANTITY	PER UNIT	PER ITEM
6010g	Pipeline Marker Installation				
	(Marker Furnished by Owner)	EA	2		
6005a	1 man = man and a copular,		-		
	Base Course + Surface Course	LF	30		
6010b	Portland Cement Concrete Driveway	SY	25		
6010d	Concrete Curb	LF	75		
6010e	Concrete Sidewalk	SY	30		T-1011-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
6045	Cleanup, Restoration & Closeout	LS	1		
	ESTIMATED SA	NITARY	SEWER QUA	NTITIES	
2635	Concrete for Encasement	CY	220		
2700	Excavation (Unclassified)	CY	3,000		
2800	Full Stone Backfill	TON	2,400		
	ESTIMATED V			TITIES	
3000f	8" Water Line (DIP 350) Under		· · · · · · · · · · · · · · · · · · ·		
	Pavement or Within 3' of Edge of				
	Pavement per Section 02321	LF	300		
3010d	8" Gate Valve	EA	2		
3015a	2" Blow-Off Valve Assembly	EA	1		
3015g	Reset Existing Fire Hydrant		_		
2020	Assembly	EA	1		
3020a	New 8" DI Water Main Tie-In to				
3025a	Existing 8" Cast Iron Water Main	EA	2		
3023a	Reconnection (Service Tap) - 1" and Smaller	T 4	_		
3025h	Meter Well and Lid, Meter Horn, and	EA	1		
	Associated Fittings - 1" and Smaller	EA	1		
3025o	3/4" Copper Service Pipe	LF	20		
3030a	Abandon Existing Mains	LS			
3100a	8" Water Line (DIP 350) On Bridge	LF	1		
3100b	8" Water Line Bridge Abutment	rı.	55		
	Penetration	EA	2		
3100c	8" Dia. Water Line Support	EA	- 9		
3100d	8" Dia. Dresser Model 63 Expansion	1211	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
	Joint	EA	1		
	Т	OTAL BI	ID \$		
