



OFFICE OF COUNTY MAYOR GLENN JACOBS

Procurement Division, 1000 N. Central Street, Suite 100, Knoxville, TN 37917

Knox County Procurement Division Addendum I to Invitation for Bids 3512 Coward Mill Road Improvements – Phase 2

Addendum Date: January 29, 2024

Buyer: Brian Hubbs

Opening Date: February 6, 2024 at 4:00 PM

Total Page(s): Twenty-One (21)

This addendum shall become a part of the project plans and specifications and shall be acknowledged on the bid form.

QUESTIONS:

Question 1 Doesn't West Knox Utility District install/provide meter box and setter? If not, what meter box do they use?

Answer 1 New meter box, lid, yokes, etc. are to be furnished and installed by the Contractor. Since these are existing water services, the existing meter shall be relocated by the Contractor to a the new box once completed and WKUD's inspector approves.

- a) Meter yokes shall be Ford $\frac{3}{4}$ " Coppersetter 70 Series, Mueller B2404-R-2, or approved equal. Shall also meet NSF 61 requirements.
- b) Meter box shall be 12"x17"x18" deep plastic box type similar to NDS model "D1800" or approved equal.
- c) Meter lid shall be cast iron type similar to Sigma Model "LC-233T" (but without antenna hole) or approved equal.

Question 2 Are all the MJ fittings domestic?

Answer 2 Per Section 02510, Part 2.01.D, ductile iron fittings shall be manufactured in the United States.

Question 3 The bridge plans do not include a pay item for foundation preparations or coffer dams. Bent 1 will likely require shoring against Beaver Creek. Where should this be accounted for?

Answer 3 An item number or Foundation Preparation has been added to the plans and include the note "See Section 204 of the Standard Specifications. If it is determined that cofferdams are required, they shall be in accordance with Section 204.09 of the Standard Specifications."



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- Question 4 The standards called out for pavement at bridge ends appear to be the original versions of STD-10-2 & STD-10-3. New details include possible over excavation, geotextiles and geogrid layers. Is it the intention of the County to use the old or new standard? If it is the new, will the relative items be added to the bid form?
- Answer 4 The intent is to use the new Standard Drawings. Plans have been updated to reflect that. Item No's. 303-10.04, 704-10.04 and 740-07.04 have been added to the Roadway Plans.
- Question 5 Will a copy of the overhead electrical and communication relocation plans be made available for information prior to the bid? If those entities would provide a schedule, it would be very helpful when considering the time constraints prior to bid.
- Answer 5 Contractors shall coordinate with the various utilities in order to obtain the necessary information.
- Question 6 Will a copy of the Powell-Clinch relocation plans be made available for information prior to the bid? If those entities would provide a schedule, it would be very helpful when considering time constraints prior to bid.
- Answer 6 Contractors shall coordinate with the various utilities in order to obtain the necessary information.
- Question 7 Has there been any arrangements made with Magnolia Pointe Subdivision for replacement of landscaping impacted by work near their entrance?
- Answer 7 The existing landscaping located at the entrance to Magnolia Pointe Subdivision is currently within the current right-of-way. No quantities or measures have been included for replacing the existing landscaping. The Contractor shall make out the present right-of-way and all construction activities shall be within the present right-of-way.
- Question 8 At this time, does the County know who will be responsible for QC inspections on this project (i.e., County rep. or third party)?
- Answer 8 At this time, there have not been any decisions made on how this project will be inspected.



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Question 9 #203-05 Undercutting: Does this include both excavation and replacement of material?

Answer 9 Yes.

ADDITIONS AND REVISIONS:

ITEM No. 2 SPECIAL PROVISIONS

- A. Special Provision SP1 – Added “The project, from beginning of Phase 2 to the Reagan Road intersection, is to be substantially complete and open to traffic by August 1, 2024.” **SEE ATTACHED REVISED SP1.**

ITEM No. 3 ROADWAY BID FORM ADDITIONS

- A. Item No. 303-10.04 (MINERAL AGGREGATE (SIZE 68) has been added to the Bid Form with a quantity of **665 TONS**.
- B. Item No. 704-10.04 (GEOTEXTILE (TYPE IV) (STABILIZATION)) has been added to the Bid Form with a quantity of **281 S.Y.**
- C. Item No. 705-06.11 (GR TERMINAL (IN-INLINE) MASH TL3) has been added to the Bid Form with a quantity of **1 EACH**.
- D. Item No. 713-16.32 (SIGNS (W1-8 18” X 24”)) has been added to the Bid Form with a quantity of **28 EACH**.
- E. Item No. 713-16.33 (SIGNS (W13-1P 18” X 18”)) has been added to the Bid Form with a quantity of **2 EACH**.
- F. Item No. 740-07.04 (GEOGRID REINFORCEMENT TYPE 2) has been added to the Bid Form with a quantity of **1854 S.Y.**
- G. Item No. 801-03 (WATER (SEEDING & SODDING) has been added to the Bid Form with a quantity of **55 M.G.**

ITEM No. 4 BRIDGE PLANS BID FORM ADDITIONS

- A. Item No. 204-10.01 (FOUNDATION PREPARATION (BENT 1, STA. 161+43.00)) has been added to the Bid Form with a quantity of **1 LS**.



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ITEM No. 5 ROADWAY PLANS ESTIMATED ROADWAY QUANTITIES ADDITIONS

- A. Item No. 303-10.04 (MINERAL AGGREGATE (SIZE 68)) has been added to the Roadway Plans with a quantity of **665 TONS**.
- B. Item No. 704-10.04 (GEOTEXTILE (TYPE IV) (STABILIZATION)) has been added to the Roadway Plans with a quantity of **281 S.Y.**
- C. Item No. 713-16.32 (SIGNS (W1-8 18" X 24")) has been added to the Roadway Plans with a quantity of **28 EACH**.
- D. Item No. 713-16.33 (SIGNS (W13-1P 18" X 18")) has been added to the Roadway Plans with a quantity of **2 EACH**.
- E. Item No. 740-07.04 (GEOGRID REINFORCEMENT TYPE 2) has been added to the Roadway Plans with a quantity of **1854 S.Y.**

ITEM No. 6 BRIDGE PLANS ESTIMATED BRIDGE QUANTITIES ADDITIONS

- A. Item No. 204-10.01 (FOUNDATION PREPARATION (BENT 1, STA. 161+43.00)) has been added to the Bridge Plans with a quantity of **1 LS.**

ITEM No. 7 ROADWAY PLANS MODIFICATIONS

- A. Sheet No. 2 – Added Item Nos. 303-10.04, 704-10.04, 713-16.32, 713-16.33 and 740-07.04.
- B. Sheet No. 18D – Added W13-1p sign.
- C. Sheet No. 18E – Added W1-8 signs.
- D. Sheet No. 18F – Added W13-1P sign.

ITEM No. 8 BRIDGE PLANS MODIFICATIONS

- A. Sheet No. BR.02 – Updated Standard. Structure Drawings. and General Notes.
- B. Sheet No. BR.03 – Added Item No. 204-10.01 with Footnote.



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NOTE: BIDDERS ARE TO USE THE ATTACHED REVISED BID FORM WITH REVISION DATE 01/29/24 WHEN SUBMITTING YOUR BID.

Attachments:

**SP1 – Special Revision Regarding Project Completion and Liquidated Damages
Section 00300 – Bid Form**

Plans Sheet No. 2 – Estimated Roadway Quantities

Plans Sheet No. 18D – Signing and Pavement Marking Plan Sta. 144+00 to Sta. 155+00

Plans Sheet No. 18E – Signing and Pavement Marking Plan Sta. 155+00 to Sta. 167+00

Plans Sheet No. 18F – Signing and Pavement Marking Plan Sta. 167+00 to Sta. 177+00

Plans Sheet No. BR.02 – General Notes and List of Bridge Drawings

Plans Sheet No. BR.03 – Estimated Bridge Quantities

End of Addendum I.

A handwritten signature in blue ink, appearing to read "B. Hubbs".

Brian Hubbs
Construction and Contract Specialist
Knox County Procurement Division

SP1

**SPECIAL PROVISION
REGARDING
PROJECT COMPLETION AND LIQUIDATED DAMAGES**

The project is to be complete on or before **seven hundred and thirty (730) calendar days** from the date of issuance of the Notice to Proceed.

The project, from beginning of Phase 2 to the Reagan Road intersection, is to be substantially complete and open to traffic by August 1, 2024.

In the event the project is not completed within the specified timeframe, the Contractor will be charged as per Section 108.09 of the Tennessee Department of Transportation, Standard Specifications for Road and Bridge Construction, current edition, per calendar day not as a penalty but as liquidated damages for failure to complete the project in its entirety.

SECTION 00300 – BID FORM

Project Identification: Construction of Coward Mill Road Improvements – Phase 2
Knox County, Tennessee
Bid No. 3512

This Bid is Submitted to: Knox County Procurement Division
1000 North Central Street
Suite 100
Knoxville, TN 37917

Bid Opening Date: February 6, 2024 at 4:00 PM
Knox County Procurement Division

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the Owner in the form included in the bidding Documents to perform all Work as specified or indicated in the Contract Documents for the prices and within the time indicated in this Bid and in accordance with the other terms and conditions of these documents.

The Bidder accepts all terms and conditions contained in the Contract Documents. The Bid will remain subject to acceptance for a period of sixty (60) days after the Bid opening or for a longer period of time if agreeable to both parties in writing.

In submitting this Bid, the Bidder represents the following as set forth in the Agreement:

- A. Bidder has examined and carefully studied the Contract Documents, other related data referenced in the Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No. _____ Addendum Date _____

Addendum No. _____ Addendum Date _____

Addendum No. _____ Addendum Date _____

Addendum No. _____ Addendum Date _____

Addendum No. _____ Addendum Date _____

- B. Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect costs(s), progress and the performance of the Work;
- C. Bidder is familiar with and is satisfied as to all Federal, State and local laws and regulations that may affect cost(s), progress and the performance of work;
- D. Bidder has obtained and carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface features at or contiguous to the Site including underground utilities.
- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, exploration tests, studies and data concerning the conditions (surface and subsurface) at or contiguous to the Site which may

SECTION 00300 – BID FORM

affect cost, progress or performance of Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be used by the Bidder, including applying specific means, methods, techniques, sequences and procedures of construction expressly required by the Contract Documents to be used by the Bidder, and safety precautions and programs incident thereto;

- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for the performance of the Work at the price(s) and within the times and in accordance with the other terms and conditions of the Contract Documents;
- G. Bidder is aware of the general nature of the work to be performed by the Owner and others at the Site that relates to the Work as indicated in the Contract Documents;
- H. Bidder has correlated the information known to the Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents;
- I. Bidder has given the Engineer written notice of all conflicts, errors, ambiguities or discrepancies that the Bidder has discovered in the Contract Documents, and the written resolution thereof by the Engineer is acceptable to the Bidder;
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and the Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over the Owner.

The Bidder acknowledges and accepts the Owner's right to waive any and all Bid requirements and formalities.

Bidder will complete the Work in accordance with the Contract Documents for the following compensation:

SECTION 00300 – BID FORM

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
ROADWAY BID ITEMS					
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1		
201-01	CLEARING AND GRUBBING	LS	1		
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	45940		
203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	100		
203-05	UNDERCUTTING	C.Y.	6400		
203-06	WATER	M.G.	45		
203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	6064		
209-05	SEDIMENT REMOVAL	C.Y.	600		
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	584		
209-08.07	ROCK CHECK DAM PER	EACH	43		
209-08.08	ENHANCED ROCK CHECK DAM	EACH	17		
209-30	CULVERT PROTECTION	EACH	7		
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	6		
209-40.43	CURB INLET PROTECTION (TYPE 4)	EACH	3		
209-50	TEMPORARY CONSTRUCTION EXT	EACH	4		
KC303-01.01	MINERAL AGGREGATE, TYPE A BASE, GRADING D (D= 8 INCHES)	S.Y.	14313		
KC303-01.02	MINERAL AGGREGATE, TYPE A BASE, GRADING D (D= 4 INCHES)	S.Y.	5263		
303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	5000		
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	750		
303-10.04	MINERAL AGGREGATE (SIZE 68)	TON	665		
303-10.10	MINERAL AGGREGATE (SIZE 57) PLUS TOPSOIL	C.Y.	350		
KC307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	S.Y.	14313		
KC307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	S.Y.	14313		
KC402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	S.Y.	16525		
KC403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	S.Y.	31734		
KC411-01.10	ACS MIX (PG64-22) (ACS) GRADING D (D= 1 1/4")	S.Y.	17421		
KC411-01.11	ACS MIX (PG64-22) (ACS) GRADING D (D= 1 1/2")	S.Y.	2236		
607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	384		
607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	40		
607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	48		
607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	99		
607-39.01	15" PIPE CULVERT (SIDE DRAIN)	L.F.	297		
607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	173		
611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	1		
611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	15.66		
611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	L.B.	550		
611-07.31	18IN ENDWALL (SIDE DRAIN)	EACH	1		
611-07.54	18IN ENDWALL (CROSS DRAIN) 3:1	EACH	4		
611-07.74	18IN ENDWALL (CROSS DRAIN) "L" TYPE	EACH	1		
611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	1		
611-12.01	CATCH BASINS, TYPE 12, 0' - 4' DEPTH	EACH	3		
701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	26577		
701-02	CONCRETE DRIVEWAY	S.F.	1307		
701-02.03	CONCRETE CURB RAMP	S.F.	933		
702-01	CONCRETE CURB	C.Y.	23		
702-01.01	EXTRUDED SLOPING CURB	L.F.	1442		

SECTION 00300 – BID FORM

ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL PRICE
704-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	281		
705-06.01	W BEAM GR (TYPE 2) MASH TL-3	L.F.	325		
705-06.11	GR TERMINAL (IN-INLINE) MASH TL3	EACH	1		
705-06.26	THRIE BEAM BRIDGE TRANSITION MASH TL-2	EACH	4		
705-06.30	GR TERMINAL (ENERGY ABSORBING) MASH TL-2	EACH	4		
706-06.03	RADIUS RAIL	L.F.	75		
707-01.03	GATE - CHAIN-LINK FENCE - 4 FOOT (STA.601+86.26, RIGHT)	EACH	1		
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	613		
709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	141		
709-05.08	MACHINED RIP-RAP (CLASS B)	TON	234		
710-04	FILTER CLOTH UNDERDRAIN (WITH PIPE)	L.F.	4155		
710-05	LATERAL UNDERDRAIN	L.F.	270		
710-06.11	LATERAL UNDERDRAIN ENDWALL (2:1)	EACH	19		
710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	1		
712-01	TRAFFIC CONTROL	LS	1		
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	4000		
712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	6		
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	40		
712-05.01	WARNING LIGHTS (TYPE A)	EACH	8		
712-05.03	WARNING LIGHTS (TYPE C)	EACH	20		
712-06	SIGNS (CONSTRUCTION)	S.F.	540.5		
712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	70		
713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1		
713-16.20	SIGNS (R1-1 36" X 36")	EACH	6		
713-16.21	SIGNS (W14-1A 36" X 8")	EACH	6		
713-16.22	SIGNS (S1-1 36" X 36")	EACH	4		
713-16.23	SIGNS (W16-9P 24" X 12")	EACH	2		
713-16.24	SIGNS (W16-7P 24" X 12")	EACH	2		
713-16.25	SIGNS (R2-1 30" X 36")	EACH	2		
713-16.26	SIGNS (W14-2A 36" X 8")	EACH	2		
713-16.27	SIGNS (W1-5 36" X 36")	EACH	2		
713-16.28	SIGNS (W10-1)	EACH	2		
713-16.29	SIGNS (R15-1)	EACH	2		
713-16.30	SIGNS (OM4-3 18" X 18")	EACH	6		
713-16.31	SIGNS (R11-2 48" X 30")	EACH	2		
713-16.32	SIGNS (W1-8 18" X 24")	EACH	28		
713-16.33	SIGNS (W13-2 48" X 30")	EACH	2		
713-16.41	RELOCATE SIGN	EACH	3		
716-02.03	PLASTIC PAVEMENT MARKING(CROSS-WALK)	L.F.	220		
716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	15		
716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	130		
716-02.09	PLASTIC PAVEMENT MARKING(LONGITUDINAL CROSS-WALK)	L.F.	75		
716-03.02	PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	2		
716-04.06	PLASTIC PAVEMENT MARKING (WRONG WAY ARROW)	EACH	6		
716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	5		
716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	5		
717-01	MOBILIZATION	LS	1		

SECTION 00300 – BID FORM

ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL PRICE
740-07.04	GEOGRID REINFORCEMENT TYPE 2	S.Y.	1854		
740-11.04	TEMPORARY SEDIMENT TUBE 20IN	L.F.	13250		
801-02	SEEDING (WITHOUT MULCH)	UNIT	304		
801-03	WATER (SEEDING & SODDING)	M.G.	55		
803-01	SODDING (NEW SOD)	S.Y.	2500		
805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	33812		
BRIDGE BID ITEMS					
204-05	ROCK DRILLING	L.F.	12		
204-10.01	FOUNDATION PERPARATION (BENT1, STA. 161+43.00)	LS	1		
204-11	BRIDGE EXCAVATION UNCLASSIFIED	C.Y.	390		
303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	38		
604-02.03	EPOXY COATED REINFORCING STEEL	LB.	57592		
604-03.01	CLASS "A" CONCRETE (BRIDGES)	C.Y.	298		
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	55469		
604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	152		
604-03.09	CLASS "D" CONCRETE (BRIDGE DECK)	C.Y.	207		
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	739		
606-03.03	STEEL PILES (12 INCH)	L.F.	248		
606-03.06	PILE TIPS (STEEL PILES, 12 INCH)	EACH	16		
615-01.11	PRESTRESSED CONCRETE BULB TEE BEAM (6" WEB)(BT-63)	L.F.	796		
620-05	CONCRETE PARAPET WITH STRUCTURAL TUBING	L.F.	239		
620-05.01	CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	239		
709-05.08	MACHINED RIP-RAP (CLASS B)	TON	403		
710-09.01	6" PERF. PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	114		
710-09.02	6" PIPE UNDERDRAIN	L.F.	39		
ROADWAY AND BRIDGE SUBTOTAL					

WEST KNOX UTILITY DISTRICT WATER LINE RELOCATION					
ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL PRICE
795-01.03	6IN DIP RESTRAINED JOINT WATER LINE	LF	129		
795-01.05	8IN DIP RESTRAINED JOINT WATER LINE	LF	2853		
795-02.01	2IN PVC WATER LINE	LF	896		
795-06.04	CONNECT TO 6IN WATER LINE	EA	2		
795-06.05	CONNECT TO 8IN WATER LINE	EA	2		
795-06.34	CUT AND CAP 8IN WATER LINE	EA	4		
795-08.04	6IN GATE VALVE ASSEMBLY	EA	3		
795-08.05	8IN GATE VALVE ASSEMBLY	EA	7		
795-09.01	3/4IN WATER SERVICE METER ASSEMBLY	EA	6		
795-09.09	RELOCATE/RECONNECT SERVICE ASSEMBLY	EA	3		
795-09.28	3/4IN COPPER SERVICE PIPE	LF	475		
795-10.03	1IN AUTO AIR RELEASE VALVE ASSEMBLY & MANHOLE	EA	1		
795-11.01	BLOW-OFF ASSEMBLY	EA	1		
795-11.02	FIRE HYDRANT ASSEMBLY	EA	2		
795-11.12	RETIRE IN PLACE EXISTING WATER MAIN	LF	3950		
795-12.09	REMOVE FIRE HYDRANT	EA	1		

SECTION 00300 – BID FORM

ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL PRICE
795-21.02	RETIRE WATER VALVES	EA	4		
795-30.07	16IN HDPE CASING PIPE OPEN CUT METHOD	LF	200		
795-70.03	POLYETHYLENE PIPE PROTECT - WATER SERVICE PIPE (LONG SIDE ONLY)	LF	475		
204-06.01	FLOWABLE FILL	CY	30		
801-01	SEEDING (WITH MULCH)	SY	200		
	WKUD SUBTOTAL				

KNOXVILLE UTILITIES BOARD GAS LINE RELOCATION					
1000	Mobilization (Limited to Unit Price Bid or 8.25% of Project Bid Total, Whichever is Less)	LS	1		
1005	Erosion and Pollution Control				
	h. Erosion Control Plan & Implementation (Including SWPPP and ARAP)	LS	1		
1010	Traffic Control				
	c. Work Zone Traffic Control & Control Plans	LS	1		
1015	Pre-Construction Site Video Recording	LS	1		
4000	MDPE Gas Main Installation - Open Cut , exclusive of road boring, includes trench excavation providing no less than required minimum cover up to 8' maximum trench depth, pipe, fittings, bedding, testing and purging as required by section 15720 (The CONTRACTOR will furnish all gas line materials required for the gas line installation including tracer wire.).				
	b. 8" MDPE gas main, SDR 13.5	LF	2060		
	d. 4" MDPE gas main, SDR 11.5	LF	450		
	e. 2" MDPE gas main, SDR 11	LF	360		
	f. 1.25" MDPE gas main, SDR 10	LF	600		
	g. Adder for full clean stone backfill of trench with compaction per Section 02321 for areas in or within 3' of pavement	LF	400		
4005	Polyethylene Gas Tee & Valve Installation (complete all labor and installation of tees, couplings, reducers, other fittings as needed, valves, valve boxes, tracer wire, asphalt/concrete restoration, cleanup/restoration, pressure test as required by section 15720)				
	e. 8" Polyethylene Main on New 8" Polyethylene Main Per KUB Fig. 15720-b8	EA	1		
	a.1. 2" Polyethylene Main on New 8" Polyethylene Main Per KUB Fig. 15720-k8	EA	1		
	r.1. 2" Polyethylene Main on New 8" Polyethylene Main Per KUB Fig. 15720-r8	EA	1		
4010	Tie-ins to Existing Gas Main / New Mains Tie-Ins & Valve Assemblies (complete all labor and installation for tie-ins to existing gas main including the installation of tees, couplings, reducers, valves, valve boxes, other fittings as needed, tracer wire, pressure test, backfill, asphalt/concrete restoration, cleanup/restoration as required by section 15720).				
	b. 2" Polyethylene Straight Tie-In to 2" Polyethylene Main Per KUB Fig. 15720-w2	EA	1		
	c. 2" Polyethylene Straight Tie-In to 1 1/4" Polyethylene Main Per KUB Fig. 15720-x	EA	1		
	e. 4" Polyethylene Straight Tie-In to 4" Polyethylene Main Per KUB Fig. 15720-z4	EA	3		
	g. 8" Polyethylene Straight Tie-In to 8" Polyethylene Main Per KUB Fig. 15720-z8	EA	3		
	g.2. 2" Polyethylene Tie-In to Existing 4" Polyethylene Main w/Valve Per KUB Fig. 15720-uu4	EA	1		
	i.2. 2" Polyethylene Tie-In to Existing 8" Polyethylene Main w/Valve Per KUB Fig. 15720-uu8	EA	1		
	s. 4" Polyethylene Tee Tie-In to Existing 4" Polyethylene Main w/Valves Per KUB Fig. 15720-ee4	EA	1		

SECTION 00300 – BID FORM

4015	Gas Valve Installation (complete installation per KUB standard drawings. Additional valves, if required, shall be installed at the direction of the OWNER's Resident Project Representative). The installation includes valve, valve box, including bedding, valve box installation, pipe connections, backfill as required, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications required by Section 15720.				
	b. 8" IPS, MDPE Gas Valve Installation	EA	1		
	d. 4" IPS, MDPE Gas Valve Installation	EA	2		
	e. 2" IPS, MDPE Gas Valve Installation	EA	1		
4020	Gas Service Reconnection- Short Side Service: The following unit prices will be utilized for the reconnection/interception of existing gas services where the point of connection is on the same side of the road as the gas main including pipe from the main to the property line/back of KUB Easement or edge of pavement/curb, tapping tee, valve, valve box, EFV, couplings, tracer wire, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345.				
	a. 1/2" IPS & 1" IPS Polyethylene Residential Service on Polyethylene Main Per KUB Section 15345	EA	1		
4025	Gas Service Reconnection - Long Side Service: The following unit prices will be utilized for the reconnection/interception of existing gas services where the point of connection is on the opposite side of the road as the gas main including the road bore, pipe from the main to the long side property line, tapping tee, valve, valve box, EFV, tracer wire, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345.				
	a. 1/2" IPS & 1" IPS Polyethylene Residential Service on Polyethylene Main Per KUB Section 15345	EA	1		
4030	Gas Service Installation- Short Side Service: The following unit prices will be utilized for the installation/full replacement of new or existing services for properties on the same side of the road as the gas main including up to 150' of pipe from the main to the meter location, tapping tee, valve, valve box, EFV, riser, couplings, tracer wire, tracer wire clip, riser protective sleeve, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345.				
	c. 1" IPS Residential Service Line with a 3/4" Riser on Polyethylene Main Per KUB Fig. 15345-c	EA	4		
4035	Gas Service Installation- Long Side Service: The following unit prices will be utilized for the installation/full replacement of new or existing gas services for properties on the opposite side of the road as the gas main including the road bore, bore pipe, up to 150' of pipe from the longside property line to the meter location, tapping tee, valve, valve box, EFV, riser, tracer wire, tracer wire clip, riser protective sleeve, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345.				
	c. 1" IPS Residential Service Line with a 3/4" Riser on Polyethylene Main Per KUB Fig. 15345-c	EA	10		
4040	Gas Services Installation (in Excess of 150' of Pipe): The following unit prices will be utilized for the reconnection/interception of existing services or the installation of new services in excess of 150' of pipe, including, pipe, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test, tracer wire, and service card as required by Section 15345.				
	a. Installation for Service Lines 1/2" to 1" Service Installation beyond 150 Feet	LF	3000		
	b. Trenchless Installation for Service Lines 1/2" to 1" Service Installation beyond 150 Feet (Use only with prior approval by OWNER)	LF	1000		
4050	Condemn Existing Gas Facilities: Condemn gas facilities, to include but not be limited to, the disconnecting, purging and sealing of existing facilities as indicated on the drawings, removal of valve boxes no longer in service and any above ground appurtenances, backfill, asphalt/concrete restoration, & cleanup/restoration.				
	a. Condemn Existing Gas Facilities	LS	1		
4055	Gas Main Bore				
	b. 2" Road Bore	EA	1		
	c. 1.25" Road Bore	EA	1		

SECTION 00300 – BID FORM

4065	Temporary Gas Main Bypass (complete all labor and installation for Bypass including installation of tees, couplings, pipe, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test, NGUS and Bypass condemn once work is complete as required by section 15720.				
	a. 1" Bypass - Per KUB Fig. 15720-yy	EA	2		
6010	Removal and Replacement:				
	a. Asphalt Concrete Driveway	SY	350		
	b. Portland Cement Concrete Driveway	SY	10		
	d. Concrete Curb	LF	50		
	g. Pipeline Marker Installation (Marker Furnished by Owner)	EA	5		
6045	Cleanup Restoration & Closeout	LS	1		
8000	Miscellaneous Items				
	d. Test Station and Anode Installation	EA	3		
	e. Temporary Guying of Power Pole	EA	1		
	f. Vegetative Clearing	LS	1		
	KUB SUBTOTAL				
Total of Contract Bid					
\$					

Total Bid in Words _____

Owner reserves the right to reject any and all bids.

SECTION 00300 – BID FORM

Unit Prices have been computed in accordance with the General Conditions. Bidder acknowledges that the estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents.

Bidder agrees that the work will be substantially completed and ready for final payment in accordance with the General Conditions on or before the time frame outlined in the Summary of Work.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the time specified above, which shall be stated in the Agreement.

The terms used in this Bid with the initial capital letters have the meanings indicated in the General Conditions and Supplementary Conditions.

Submitted on this _____ day of _____, 20____.

State of Tennessee Contractor License No. _____

Classification _____ Expiration Date _____

Corporation Name: _____

State of Incorporation: _____

Business Address: _____

Phone Number _____ Email _____

Special Note: In the event of a joint Venture Submittal, each joint venture must sign.

Type (Corporation, Partnership, Limited Liability Corporation):

By: _____
(Signature of Authorized Agent - Attach Evidence of Authority)

Name (type or Print) _____ Title _____
(Corporate Seal, if applicable)

Attest _____
(Signature of Corporate Secretary, if applicable)

END OF SECTION 00300

ESTIMATED ROADWAY QUANTITIES

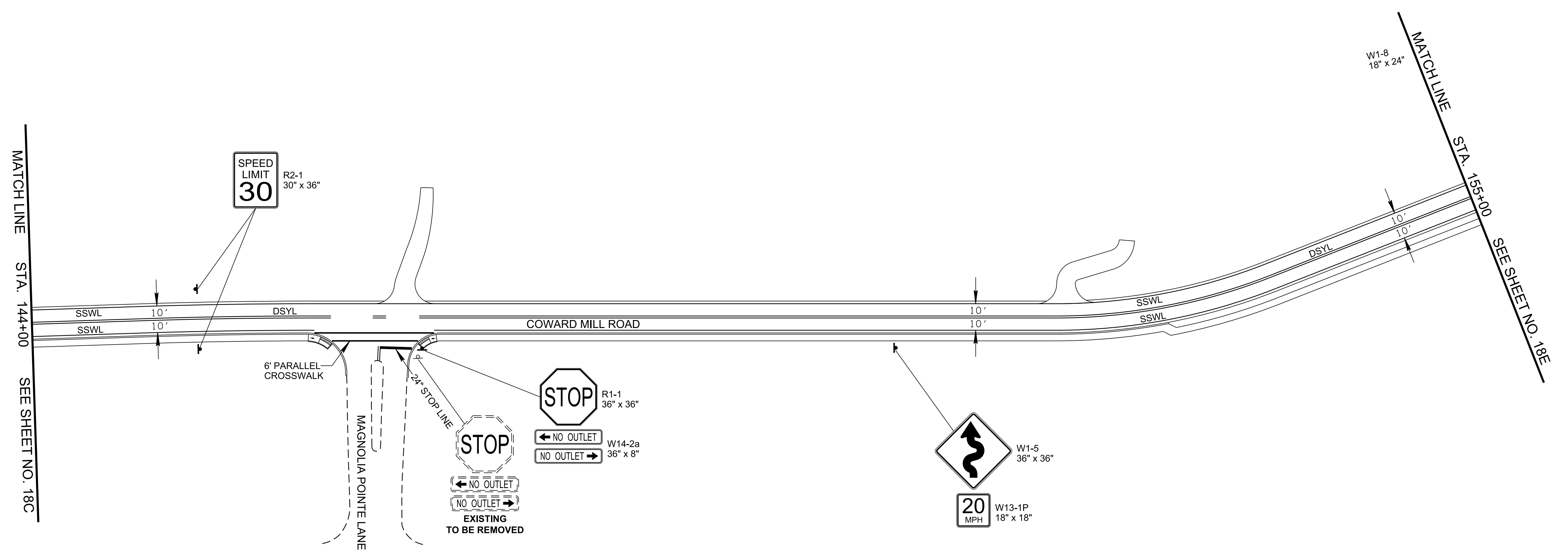
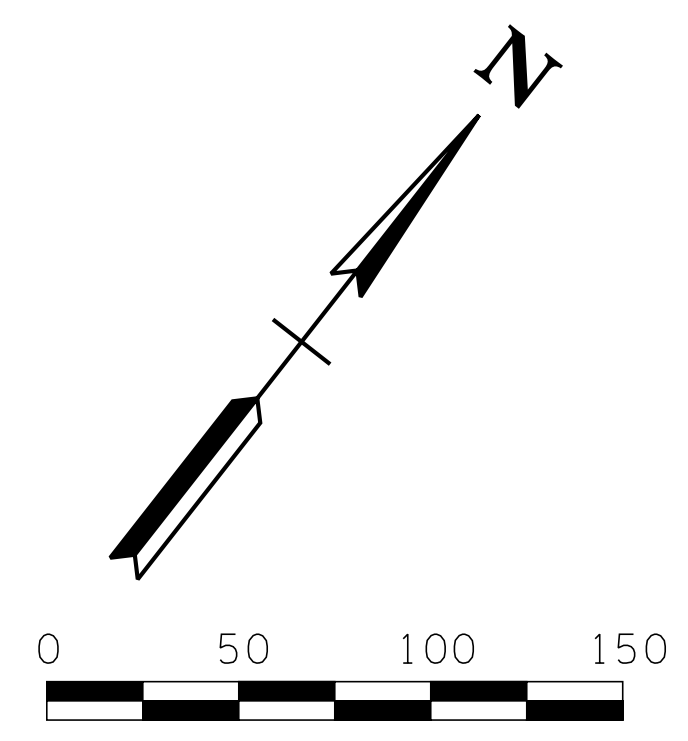
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
201-01	CLEARING AND GRUBBING	LS	1
(1) 203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	45940
203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	100
203-05	UNDERCUTTING	C.Y.	6400
203-06	WATER	M.G.	45
203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	6064
(2) 209-05	SEDIMENT REMOVAL	C.Y.	600
(2) 209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	584
(2) 209-08.07	ROCK CHECK DAM PER	EACH	43
(2) 209-08.08	ENHANCED ROCK CHECK DAM	EACH	17
(2)(3) 209-30	CULVERT PROTECTION	EACH	7
(2) 209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	6
(2) 209-40.43	CURB INLET PROTECTION (TYPE 4)	EACH	3
(2)(3) 209-50	TEMPORARY CONSTRUCTION EXIT	EACH	4
(4) KC303-01.01	MINERAL AGGREGATE, TYPE A BASE, GRADING D (D = 8 INCHES)	S.Y.	14313
(5) KC303-01.02	MINERAL AGGREGATE, TYPE A BASE, GRADING D (D = 4 INCHES)	S.Y.	5263
(6) 303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	5000
(7) 303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	750
303-10.04	MINERAL AGGREGATE (SIZE 68)	TON	665
(8) 303-10.10	MINERAL AGGREGATE (SIZE 57) PLUS TOPSOIL	C.Y.	350
(4) KC307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	S.Y.	14313
(4) KC307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	S.Y.	14313
(9) KC402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	S.Y.	16525
(10) KC403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	S.Y.	31734
(11) KC411-01.10	ACS MIX (PG64-22) (ACS) GRADING D (D= 1 1/4")	S.Y.	17421
(12) KC411-01.11	ACS MIX (PG64-22) (ACS) GRADING D (D= 1 1/2")	S.Y.	2236
(13) 607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	384
(13) 607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	40
(13) 607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	48
(13) 607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	99
(13) 607-39.01	15" PIPE CULVERT (SIDE DRAIN)	L.F.	297
(13) 607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	173
611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	1
611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	15.66
611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	L.B.	550
611-07.31	18IN ENDWALL (SIDE DRAIN)	EACH	1
611-07.54	18IN ENDWALL (CROSS DRAIN) 3:1	EACH	4
611-07.74	18IN ENDWALL (CROSS DRAIN) "L" TYPE	EACH	1
(30) 611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	1
611-12.01	CATCH BASINS, TYPE 12, 0' - 4' DEPTH	EACH	3
701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	26577
701-02	CONCRETE DRIVEWAY	S.F.	1307
(14) 701-02.03	CONCRETE CURB RAMP	S.F.	933
(15) 702-01.01	EXTRUDED SLOPING CURB	L.F.	1442
(16) 702-01	CONCRETE CURB	C.Y.	23
704-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	281
705-06.01	W BEAM GR (TYPE 2) MASH TL-3	L.F.	325
705-06.11	GR TERMINAL (IN-INLINE) MASH TL3	EACH	1
705-06.26	THREE BEAM BRIDGE TRANSITION MASH TL-2	EACH	4
705-06.30	GR TERMINAL (ENERGY ABSORBING) MASH TL-2	EACH	4
706-06.03	RADIUS RAIL	L.F.	75
(17) 707-01.03	GATE - CHAIN-LINK FENCE - 4 FOOT (STA.601+86.26, RIGHT)	EACH	1
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	613
(18) 709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	141
709-05.08	MACHINED RIP-RAP (CLASS B)	TON	234
710-04	FILTER CLOTH UNDERDRAIN (WITH PIPE)	L.F.	4,155
710-05	LATERAL UNDERDRAIN	L.F.	270
710-06.11	LATERAL UNDERDRAIN ENDWALL (2:1)	EACH	19
710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	1

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(19) 712-01	TRAFFIC CONTROL	LS	1
(20)(21) 712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	4,000
712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	6
(22) 712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	40
(20) 712-05.01	WARNING LIGHTS (TYPE A)	EACH	8
(20) 712-05.03	WARNING LIGHTS (TYPE C)	EACH	20
(20) 712-06	SIGNS (CONSTRUCTION)	S.F.	540.5
(20) 712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	70
(23) 713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
(24) 713-16.20	SIGNS (R1-1 36" X 36")	EACH	6
(24) 713-16.21	SIGNS (W14-1A 36" X 8")	EACH	6
(24) 713-16.22	SIGNS (S1-1 36" X 36")	EACH	4
(24) 713-16.23	SIGNS (W16-9P 24" X 12")	EACH	2
(24) 713-16.24	SIGNS (W16-7P 24" X 12")	EACH	2
(24) 713-16.25	SIGNS (R2-1 30" X 36")	EACH	2
(24) 713-16.26	SIGNS (W14-2A 36" X 8")	EACH	2
(24) 713-16.27	SIGNS (W1-5 36" X 36")	EACH	2
(24) 713-16.28	SIGNS (W10-1)	EACH	2
(24) 713-16.29	SIGNS (R15-1)	EACH	2
(24) 713-16.30	SIGNS (OM4-3 18" X 18")	EACH	6
(24) 713-16.31	SIGNS (R11-2 48" X 30")	EACH	2
(24) 713-16.32	SIGNS (W1-8 18" X 24")	EACH	28
(24) 713-16.33	SIGNS (W13-1P 18" X 18")	EACH	2
(25) 713-16.41	RELOCATE SIGN	EACH	3
(26) 716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	L.F.	220
(26) 716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	15
(26) 716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	130
(26) 716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	75
(26) 716-03.02	PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	2
(27) 716-04.06	PLASTIC PAVEMENT MARKING (WRONG WAY ARROW)	EACH	6
(28) 716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	5
716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	5
717-01	MOBILIZATION	LS	1
740-07.04	GEOGRID REINFORCEMENT TYPE 2	S.Y.	1854
(2) 740-11.04	TEMPORARY SEDIMENT TUBE 20IN	L.F.	13250
801-02	SEEDING (WITHOUT MULCH)	UNIT	304
801-03	WATER (SEEDING & SODDING)	M.G.	55
(29) 803-01	SODDING (NEW SOD)	S.Y.	2500
(2) 805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	33812

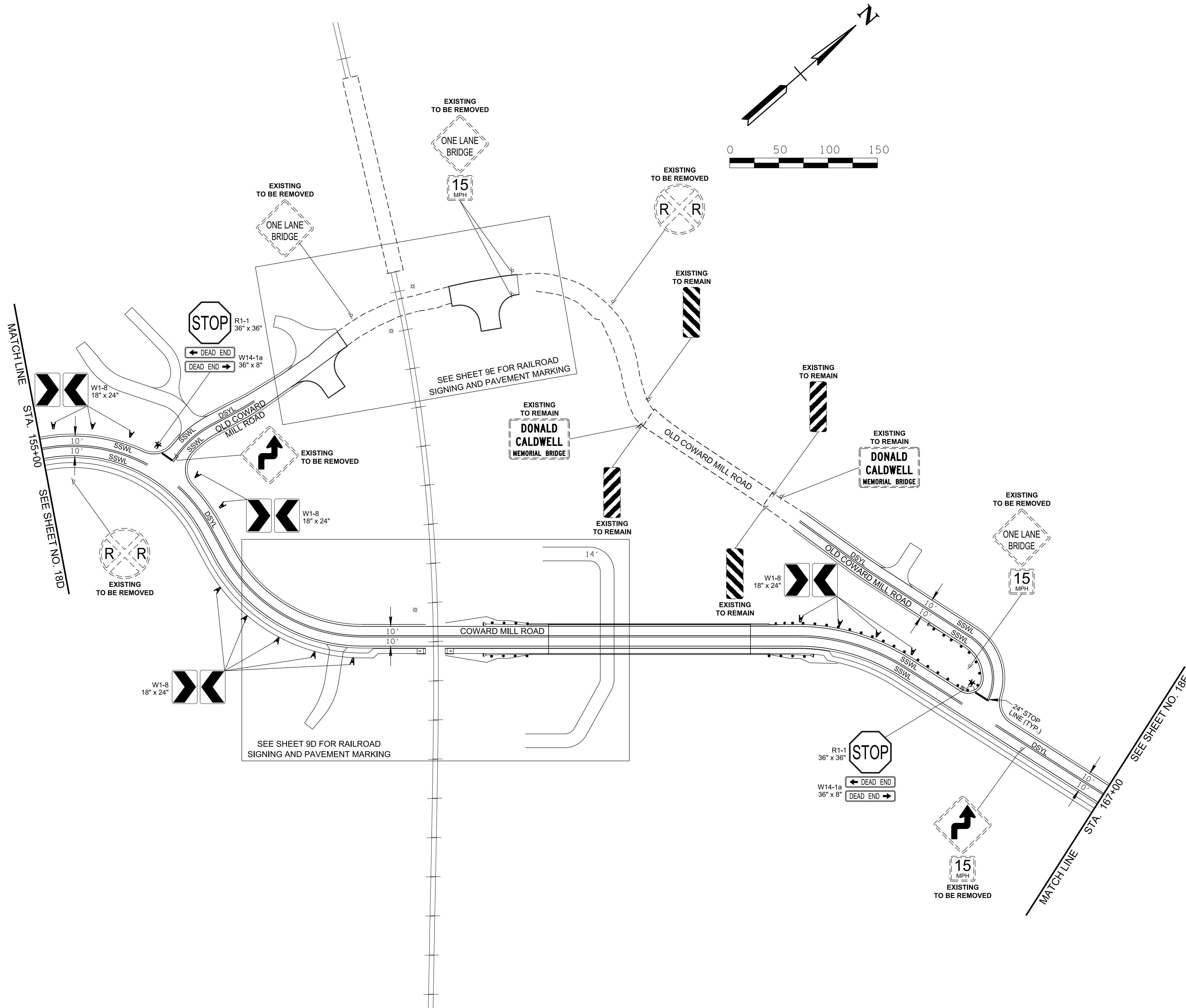
SEE SHEET 2-1 FOR FOOTNOTES

ADDED ITEM NO.:S 303-10.04, 704-10.04, 713-16.32, 713-16.33 & 740-07.04.	01-29-24
REVISIONS	DATE
 CANNON & CANNON INC TEL: 865.670.8555 10025 Investment Drive Suite 120 Knoxville, TN 37932	
CLIENT:	
KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS	
PROJECT:	
COWARD MILL ROAD IMPROVEMENTS PHASE 2	
ESTIMATED ROADWAY QUANTITIES	
	CCI PROJECT NO. 00263-0098
	DATE 01-03-2024
	P.M. RJB
	DRAWN RAH
	Q.C. RJB
2	
01/29/2024	

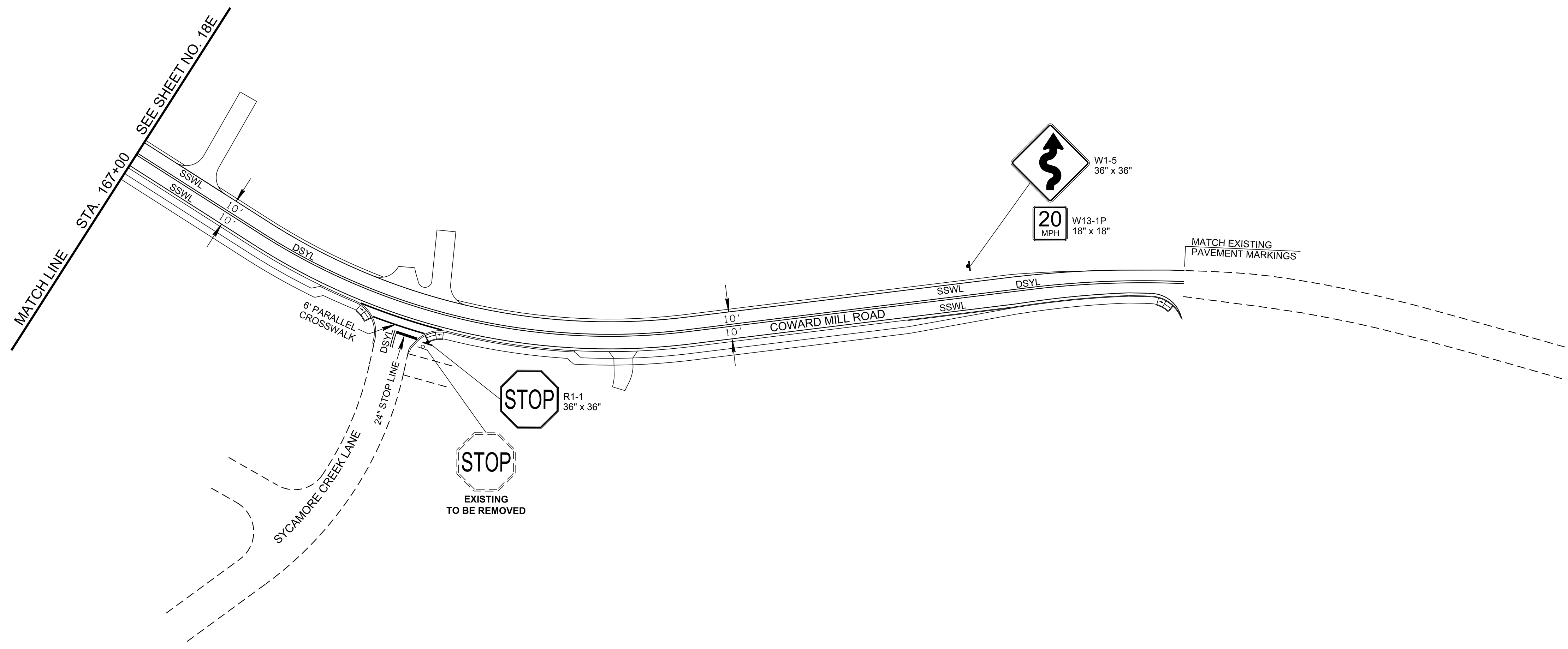
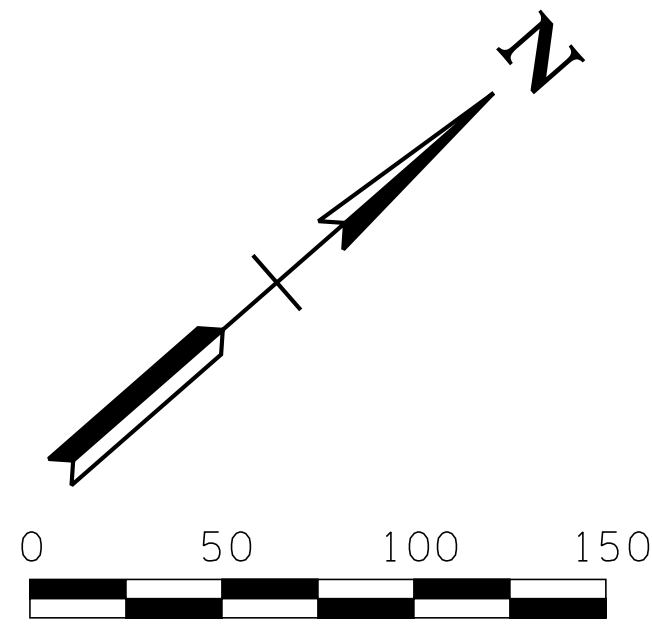


ADDED W13-1P SIGN.	01-26-24
REVISIONS	DATE
CANNON & CANNON INC TEL: 865.670.8555 10025 Investment Drive WWW.CANNON-CANNON.COM Suite 120 Knoxville, TN 37932	
CLIENT:	
KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS	
PROJECT:	
COWARD MILL ROAD IMPROVEMENTS PHASE 2	
SIGNING AND PAVEMENT MARKING PLAN STA. 144+00 TO STA. 155+00	
	CCI PROJECT NO. 00263-0098
	DATE 01-03-2024
	P.M. RJB
	DRAWN RAH
	Q.C. RJB
18D	
01/26/2024	

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ADDED W1-8 SIGNS.	01-26-24
REVISIONS	DATE
CANNON & CANNON INC TEL: 865.670.8555 10025 Investment Drive WWW.CANNON-CANNON.COM Suite 120 Knoxville, TN 37932	
CLIENT:	KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS
PROJECT:	COWARD MILL ROAD IMPROVEMENTS PHASE 2
SIGNING AND PAVEMENT MARKING PLAN STA. 155+00 TO STA. 167+00	
	CCI PROJECT NO. 00263-0098
	DATE 01-03-2024
	P.M. RJB
	DRAWN RAH
	Q.C. RJB
18E	
01/26/2024	



ADDED W13-1P SIGN.	01-26-24
REVISIONS	DATE
CANNON & CANNON INC TEL: 865.670.8555 10025 Investment Drive WWW.CANNON-CANNON.COM Suite 120 Knoxville, TN 37932	
CLIENT:	
KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS	
PROJECT:	
COWARD MILL ROAD IMPROVEMENTS PHASE 2	
SIGNING AND PAVEMENT MARKING PLAN STA. 167+00 TO STA. 177+00	
	CCI PROJECT NO. 00263-0098
	DATE 01-03-2024
	P.M. RJB
	DRAWN RAH
	Q.C. RJB
18F	
01/26/2024	

1/26/2024 12:16:20 PM
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LIST OF BRIDGE DRAWINGS

SHEET NAME	SHEET NO.	LATEST REV. DATE
LAYOUT AND ELEVATION OF BRIDGE	BR.01	
GENERAL NOTES AND LIST OF BRIDGE DRAWINGS	BR.02	01-09-2024
ESTIMATED BRIDGE QUANTITIES	BR.03	
TYPICAL SECTION AND DECK PLAN	BR.04	
FRAMING PLAN	BR.05	
BENT DIAPHRAGMS	BR.06	
PRESTRESSED BEAM DETAILS - SPANS A & C	BR.07	
PRESTRESSED BEAM DETAILS - SPAN B	BR.08	
ABUTMENT NO. 1	BR.09	
ABUTMENT NO. 2	BR.10	
ABUTMENT DETAILS	BR.11	
BENT NOS. 1 AND 2	BR.12	
BENT DETAILS	BR.13	
BILL OF STEEL & BAR BENDING DETAILS	BR.14	
FINAL FOUNDATION DATA	BR.15	

STANDARD STRUCTURE DRAWINGS

DWG.	REV.	DESCRIPTION
STD-1-1SS	05-10-21	BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET
STD-1-2SS	05-10-21	STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS
STD-1-5	06-05-23	REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS
STD-4-1	04-08-05	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-2	04-08-05	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL CRITERIA
STD-4-3	03-02-02	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN DETAILS
STD-4-4	06-10-96	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS
STD-5-1		STANDARD PILE DETAILS
STD-5-2		STANDARD PIPE PILE BENT DETAILS
STD-6-1	12-08-23	STANDARD SEISMIC DETAILS
STD-6-2	11-07-94	STANDARD SEISMIC DETAILS
STD-9-1	10-07-08	STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS
STD-10-1	06-05-23	MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS
STD-10-2	06-05-23	MISC. ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS
STD-10-3	03-01-22	STANDARD FLUME DETAILS
STD-11-1	04-15-20	BRIDGE RAILING CONCRETE PARAPET WITH STRUCTURAL TUBING
STD-14-1	06-05-23	STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR BULB - TEE AND WIDE BULB-TEE BEAMS

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021 EDITION).

DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.

LOADING:
 A. HL-93 LIVE LOADING
 B. SEISMIC DESIGN CATEGORY A WITH $A_g = 0.147$, $S_{DS} = 0.268$, $S_{D1} = 0.069$, (1000 YEAR RETURN PERIOD).
 C. DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.

CONCRETE: TO BE CLASS "A" (CAST-IN-PLACE) $f_c = 3000$ PSI EXCEPT AS NOTED OTHERWISE.

BRIDGE DECKS: CLASS D CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 1 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE EITHER REMAIN-IN-PLACE STEEL OR PRECAST, PRESTRESSED CONCRETE PANELS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO MAIN STRUCTURAL MEMBERS OR REINFORCING STEEL. TEMPORARY ERECTION DIAPHRAGMS MUST BE USED AT THE ENDS OF PRECAST CONCRETE GIRDERS WHERE END DIAPHRAGMS, SUPPORT DIAPHRAGMS, OR ABUTMENT ENDWALLS ARE TO BE POURED CONCURRENTLY WITH THE DECK AND SHALL BE PROVIDED ELSEWHERE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO PREVENT GIRDER ROTATION. SEE STANDARD DRAWINGS STD-4-1 THRU 4, STD-14-1, AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTIONS 604 AND 907 OF THE STANDARD SPECIFICATIONS.

GEOTECHNICAL REPORT WILL BE AVAILABLE AT THE CONTRACTORS REQUEST FROM THE KNOX COUNTY ENGINEERING AND PUBLIC WORKS.

SPREAD FOOTINGS FOR BENTS: FOOTINGS SHALL BE EMBEDDED 6 INCHES INTO SOUND ROCK. AS AN ALTERNATE, FOOTINGS MAY BE PLACED DIRECTLY ON CLEAN, SOUND ROCK WITH #8 BARS (1'-0" EMB., 1'-0" PROJ.) SPACED AT 2'-0" MAXIMUM GRID WITH A MAXIMUM EDGE DISTANCE TO THE OUTER BARS OF 1'-6" ALONG BOTH THE LENGTH AND WIDTH OF THE FOOTINGS. AFTER EXCAVATION TO ROCK FOR FOOTING HAS BEEN COMPLETED, HOLES 6" DEEP SHALL BE DRILLED AT POINTS DESIGNATED BY THE ENGINEER. FROM THE RESULTS OBTAINED, THE ENGINEER OF STRUCTURES SHALL DETERMINE THE FINAL FOOTING ELEVATIONS. NO REINFORCING STEEL FOR BENT COLUMNS OR FOOTINGS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

END-BEARING STEEL PILES: TO BE HP12x53 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 90 TONS FOR THE ABUTMENTS. ALL PILES SHALL BE ASTM A709 GRADE 50 STEEL.

PILES TIPS: PILES SHALL BE EQUIPPED WITH CAST STEEL POINTS. ALSO, SEE STANDARD DRAWING STD-5-1 FOR ADDITIONAL NOTES.

SLAB OVERHANGS: IT IS RECOMMENDED THAT SPACING OF OVERHANG BRACKETS FOR BEAMS NOT EXCEED 2'-0" CENTER-TO-CENTER.

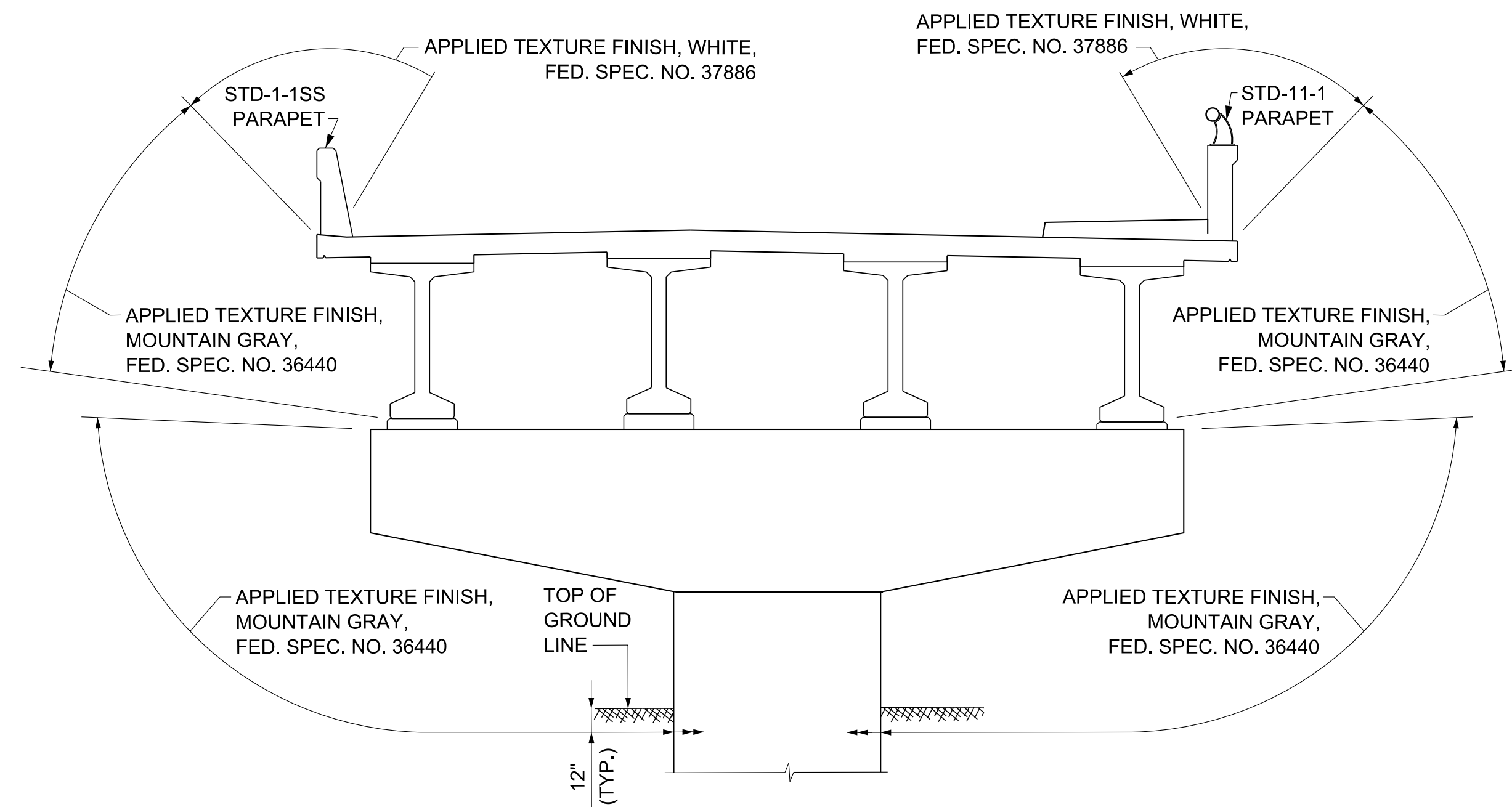
SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

PARAPET SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWINGS STD-1-1SS, AND STD-11-1. THE PARAPETS SHALL BE FORMED AND CAST PLUMB, NOT PERPENDICULAR TO THE SLAB. THE DIMENSIONS AT THE TRAFFIC FACE SHALL BE KEPT CONSTANT, WITH VARIATION DUE TO CROSS-SLOPE ACCOMMODATED AT THE REAR FACE.

RIP-RAP: MACHINED RIP-RAP SHALL BE CLASS B IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEM NO. 709-05.08, MACHINED RIP-RAP (CLASS B), TON.

VALUE ENGINEERING ALTERNATE BRIDGE DESIGN CRITERIA: ALTERNATE BRIDGE DESIGN PROPOSALS MAY NOT DIMINISH THE FUNCTIONAL OR STRUCTURAL EQUIVALENCY OF THE BRIDGE AND MUST MEET OR EXCEED THE CAPACITIES OF THE CONTRACT PLANS STRUCTURE AT ALL LIMIT STATES IN AASHTO TABLE 3.4.1-1. ADDITIONALLY, THE WATERWAY OPENING AND FLOOD CLEARANCES MAY NOT BE REDUCED. FOR GRADE SEPARATIONS, THE HORIZONTAL CLEARANCES MAY NOT BE REDUCED, NOR MAY THE VERTICAL CLEARANCES BE LESS THAN THE MINIMUM ACCEPTABLE FOR THE TYPE FACILITY CROSSED.


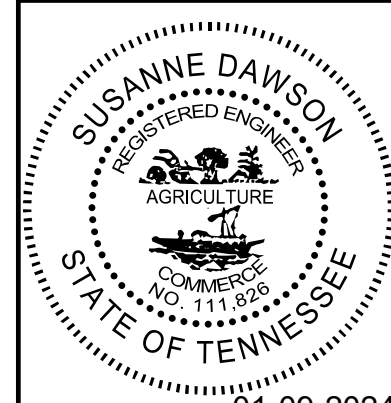
FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. THE APPLIED TEXTURE FINISH SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 604-04.01, APPLIED TEXTURE FINISH (NEW STRUCTURES), S.Y.



APPLIED TEXTURE FINISH DETAILS
NOT TO SCALE

TEXTURE COATING SHALL BE APPLIED AS SHOWN TO AREAS OF SUPERSTRUCTURE AND TO SUBSTRUCTURE ELEMENTS EXPOSED TO VIEW, INCLUDING ABUTMENTS, WINGWALLS, AND EXTERIOR OF EXTERIOR BEAMS.

COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO. 604-04.01.


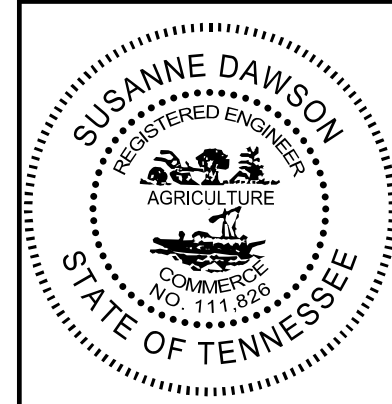
<p>UPDATED STD. STRUCTURE DWGS. AND GENERAL NOTES 01-09-2024</p>	
REVISIONS	DATE
 <p>1100 MARION STREET, SUITE 300 KNOXVILLE, TN 37921 865-963-4300</p>	
<p>CLIENT: KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS</p>	
<p>PROJECT: COWARD MILL ROAD WIDENING PHASE 1</p>	
<p>COWARD MILL ROAD BRIDGE GENERAL NOTES AND LIST OF BRIDGE DRAWINGS</p>	
	<p>CCI PROJECT NO. 00263-0098 DATE 04-16-21 P.M. PTB DRAWN DPP Q.C. SD</p>
<p>BR.02 01-09-2024</p>	

ESTIMATED BRIDGE QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	BENT 1	BENT 2	ABUT. NO. 2
204-05	ROCK DRILLING	L.F.	12			6	6	
① ⑬	204-10.01 FOUNDATION PREPARATION (BENT 1, STA. 161+43.00)	LS	1			1		
①	204-11 BRIDGE EXCAVATION UNCLASSIFIED	C.Y.	390		86	142	69	93
⑥	303-01.02 GRANULAR BACKFILL (BRIDGES)	TON	38		19			19
⑫	604-02.03 EPOXY COATED REINFORCING STEEL	LB.	57,592	54,174	1,709			1,709
③ ⑧ ⑩	604-03.01 CLASS "A" CONCRETE (BRIDGES)	C.Y.	298	32	53	84	76	53
	604-03.02 STEEL BAR REINFORCEMENT (BRIDGES)	LB.	55,469	1,403	5,585	22,748	20,148	5,585
⑪	604-03.04 PAVEMENT @ BRIDGE ENDS	S.Y.	152	152				
	604-03.09 CLASS "D" CONCRETE (BRIDGE DECK)	C.Y.	207	203	2			2
	604-04.01 APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	739	476	57	76	73	57
⑨	606-03.03 STEEL PILES (12 INCH)	L.F.	248		112			136
④ ⑦	606-03.06 PILE TIPS (STEEL PILES, 12 INCH)	EACH	16		8			8
	615-01.11 PRESTRESSED CONCRETE BULB TEE BEAM (6" WEB)(BT-63)	L.F.	796	796				
②	620-05 CONCRETE PARAPET WITH STRUCTURAL TUBING	L.F.	239	239				
	620-05.01 CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	239	239				
⑤	709-05.08 MACHINED RIP-RAP (CLASS B)	TON	403		251			152
	710-09.01 6" PERF. PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	114		57			57
	710-09.02 6" PIPE UNDERDRAIN	L.F.	39		19			20

FOOTNOTES:

- ① EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND AT BENTS.
- ② COST OF 1 BRIDGE DECK DRAIN AND 1 PARAPET DRAIN TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET.
- ③ THE COST OF THE BITUMINOUS FIBERBOARD AND ALL MISCELLANEOUS JOINT MATERIALS TO BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "A" CONCRETE.
- ④ COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN UNIT PRICE BID FOR THE PRESTRESSED BEAM.
- ⑤ COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.
- ⑥ GRANULAR BACKFILL SHALL BE CLASS "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.
- ⑦ INTERMEDIATE DIAPHRAGMS SHALL BE PAID FOR IN ACCORDANCE WITH STANDARD DRAWING STD-14-1.
- ⑧ THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 24 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "A" CONCRETE (BRIDGES), ITEM NO. 604-03.01.
- ⑨ THE UNIT PRICE BID FOR THE CAST STEEL POINTS SHALL INCLUDE FURNISHING AND INSTALLATION TO THE PILES.
- ⑩ THE QUANTITY FOR THE SUPERSTRUCTURE INCLUDES ALL SIDEWALK CONCRETE INCLUDING THOSE PORTIONS OF THE SIDEWALK ON THE APPROACH PAVEMENTS.
- ⑪ PRIOR TO CONSTRUCTION OF THE PAVEMENT AT BRIDGE ENDS, THE CONTRACTOR SHALL SUBMIT A PROPOSED BILL OF STEEL TO THE ENGINEER FOR APPROVAL
- ⑫ THE QUANTITY FOR THE SUPERSTRUCTURE INCLUDES ALL SIDEWALK REINFORCING INCLUDING THOSE PORTIONS OF THE SIDEWALK ON THE APPROACH PAVEMENTS.
- ⑬ FOUNDATION PREPARATION: SEE SECTION 204 OF THE STANDARD SPECIFICATIONS. IF IT IS DETERMINED THAT COFFERDAMS ARE REQUIRED, THEY SHALL BE IN ACCORDANCE WITH SECTION 204.09 OF THE STANDARD SPECIFICATIONS.

ADDED ITEM NO. 204-10.01 WITH FOOTNOTE		01-29-2024
REVISIONS		DATE
 <small>1100 MARION STREET, SUITE 300 KNOXVILLE, TN 37921 865-963-4300</small>		
CLIENT: KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS		
PROJECT: COWARD MILL ROAD WIDENING PHASE 1		
COWARD MILL ROAD BRIDGE		
ESTIMATED BRIDGE QUANTITIES		
	CCI PROJECT NO.	00263-0098
	DATE	04-16-21
	P.M.	PTB
	DRAWN	DPP
	Q.C.	SD
BR.03		
01-29-2024		