

BID DOCUMENTS FOR

-	eenway Connector Project
Project Number: 17C-G-0628	
Bid Date & Time: November 18	, 2020 @ 11:00 a.m.
BIDDER IDENTIFICATION:	
Name:	
Address:	
License Number:	Expiration Date:
Classification:	License Limit:
SUBCONTRACTORS:Plumbing (if applicable):	
	Expiration Date:
Classification:	
 HVAC (if applicable): 	
	Expiration Date:
Classification:	
Electrical (if applicable):	
	Expiration Date:
Classification:	
Masonry (if applicable):	
	Expiration Date:
Classification:	
	has complied with the instructions to bidders and
has fully completed all bid forms with	

BID PROPOSAL CITY OF KNOXVILLE, TENNESSEE

Northwest Greenway Connector Project No. 17C-G-0628

TO THE PURCHASING AGENT CITY OF KNOXVILLE, TENNESSEE

hereby propos	e(s) to	furnish	all material	, labo	r, and
appliances and do all work required to complete the Contract for the No	orthwe	est Greer	nway Connec	ctor P	roject,
Project No. 17C-G-0628, located in the City of Knoxville, Tennesse	ee, in	a worki	manlike mai	nner a	and in
accordance with the plans of the Department of Engineering and specific	ations	herewith	attached.		

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

ITEM			TOTAL	PRICE	TOTAL PRICE
NO.	DESCRIPTION	UNITS	QUANTITY	PER UNIT	PER ITEM
1.10	Mobilization of Forces, Supplies				
	and Equipment	LS	1 -		
2.20	Tree Removal	LS	1 _		
3.10	Removal of Structures and				
	Obstructions	LS	1		
3.20	Relocation of Fire Department				
	Warning Signal	LS	1		
4.20	Common Excavation	CY	4,972		
5.10	Mineral Aggregate Base, Class A,		-		
	Grade D	TON	927		
5.30	Maintenance Stone (4" Depth)	TON	292	<u> </u>	
5.40	No. 57 Stone	TON	175		
7.10	Tack Coat	GAL	214		
9.20	Bituminous Plant Mix,		•		
	Grading B-M	TON	360		
9.30	Bituminous Plant Mix,		•		
	Grading C	TON	9		
9.50	Bituminous Plant Mix,		_		
	Grading C-S	TON	170		
10.30	Saw Cutting Asphalt Pavement	LF	1,030		

ITEM NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	PRICE PER UNIT	TOTAL PRICE PER ITEM
12.62	6" Concrete Combined Curb &		070		
12 10	Gutter, Type 6-30	LF	970		
13.10	Concrete Sidewalks (4")	SF	1,800		
13.15	Concrete Curb Ramps	SF	343		
13.16	Cast-In-Place Tactile Warning System	EA	2		
13.20	Concrete Driveways (6")	SF	760		
13.21	Concrete Driveways (6"),	SF	700 -		<u> </u>
13.21	High Early Strength	SF	760		
20.14	18" R.C.P.	LF	390		
20.15	18" C.M.P.	LF	60		
20.16	24" R.C.P.	LF	690		
22.12	No. 12 Catch Basin, >4' - 8' Depth		-	,	
	, 1	EA	7		
22.33	"U" Type Endwall for 18" R.C.P.	EA	3		
22.40	Junction Box (60" Round)	EA	1		
22.42	Adjustment of Existing Structure		-		
	(Drop Inlet)	EA	1		
22.43	Straight Type Endwall for 18"		_		
24.10	R.C.P.	EA	2 -		
24.10	Adjustment of Sanitary Sewer Structure (Manhole)	EA	1		
24.20	Adjustment of Sanitary Sewer	EA	1 -	,	
24.20	Lateral	EA	10		
25.10	Rip Rap, Class A-1	TON	1,689		
25.30	Rip Rap, Class A-3	TON	151		
26.10	Top Soil (Placing and Spreading,	101	-		
	4" Thick)	SY	7,435		
26.15	Top Soil (Furnishing and		_		
	Spreading, 4" Thick)	SY	2,330		
27.10	Permanent Seeding (With Mulch)	SY	8,000		
27.15	Permanent Seeding				
	(Without Mulch)	SY	290		
27.20	Temporary Seeding (With Mulch)	SY	16,000		
28.10	Sodding	SY	1,600		
29.10	Erosion Control Blanket	CS7	200		
20.11	(TDOT Type I)	SY	290		
30.11	Root Pruning Tree Protection Females	LS	1 -		
30.12	Tree Protection Fencing	LF	740		
31.10	Temporary Slope Drains (8")	LF	53		

ITEM			TOTAL	PRICE	TOTAL PRICE
NO.	DESCRIPTION	UNITS	QUANTITY	PER UNIT	PER ITEM
31.20	Silt Barriers (Silt Fences)	LF	1,373		
31.21	Silt Barriers		7 - · -		
	(Silt Fences With Backing)	LF	114		
31.22	Silt Barriers (12" Sediment Tube)	LF	802		
31.23	Silt Barriers (18" Sediment Tube)	LF	2,211		
31.70	Catch Basin Protection, Type B	EA	1		
31.72	Catch Basin Protection, Type D	EA	7		
33.10	Guard Rail - W-Beam	LF	380		
33.45	Terminal Anchor TDOT Type 13	EA	6		
33.55	Terminal Anchor TDOT Type 21	EA	1		
33.65	GR Terminal (In-Line)		•		
	MASH TL3	EA	2		
34.20	Flexible Drums (Channelizing)	EA	106		
34.30	Signage (Construction)	SF	179		
34.40	Temporary Barricades (Type III)	LF	21		
36.50	Geotextile Fabric for Erosion				
	Stabilization	SY	1,691		
63.10	Permanent Signage	LS	1		
64.10	Box Tube Safety Rail				
	(Powder Coat Black)	LF	1,302		
81.10	Redi-Rock Retaining Wall	SF	1,845		
		TOTAL B	ID	\$	

TOTAL BID (In Words):

INDEX

TITLE	SHEET NO.
TITLE SHEET	1
INDEX AND STANDARD ROADWAY DRAWINGS	1A
ESTIMATED QUANTITIES AND SIGN SCHEDULE	2
GENERAL NOTES	2A
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B
DRAINAGE STRUCTURES AND QUANTITIES	2C
PROPERTY MAP	3, 3A - 3E
PRESENT LAYOUT	4 - 9
PROPOSED LAYOUT AND PROFILE	4A - 9A
RETAINING WALL NOTES , DETAILS & PROFILE	10, 11, 11A, 11E
EROSION CONTROL PLAN	12 - 13E
TRAFFIC CONTROL PLAN	14, 15 - 15B
CROSS SECTION SHEETS	16 - 34

CITY OF KNOXVILLE STANDARD CONSTRUCTION DRAWINGS

DWG. NO.	REV. DATE	TITLE
COK-1	05-05-06	AREA DRAIN
COK-5		STORM PIPE BEDDING AND BACKFILL
COK-6	03-26-08	CONCRETE SIDEWALKS
COK-10	03-19-15	TYPE 'B' CAST IRON FRAME, GRATE, AND INLET FOR COK-9 AND FOR TDOT CATCH BASINS, Nos. 10, 12, 14, 16 AND 17
COK-13	12-29-16	CURB CUTS AND TACTILE WARNING SYSTEMS

TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD ROADWAY DRAWINGS

02-20-20 STANDARD LEGEND

DESCRIPTION

SEDIMENT CONTROL

STANDARD ABBREVIATIONS

02-20-20 STANDARD LEGEND FOR EROSION PREVENTION AND

DWG. NO. REV.

RD-A-1

RD-L-1

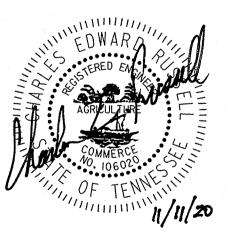
02-20-20

SEDIMENT CONTROL			OLDIMEIAL OCIALIOE
D-CB-12LP 02-20-20	RD-L-6	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
CATCH BASIN (FOR USE WITH 6" NON-MOUNTABLE CURB) D-CB-12RB 02-20-20 STANDARD PRECAST 60" AND 72" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB) D-CB-12S 02-20-20 STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB) D-CB-42S 02-20-20 STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN D-CB-99 02-20-20 MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES D-CB-99R 02-20-20 MISCELLANEOUS DETAILS FOR ROUND STRUCTURE D-CB-99RA 02-20-20 BILL OF STEEL FOR ROUND CATCH BASIN LIDS D-PE-1 06-28-19 TYPE "A" CONCRETE ENDWALLS FOR ROUND PIPE D-PE-4 06-28-19 STRAIGHT CONCRETE ENDWALLS FOR ROUND PIPE D-PE-18A 06-28-19 STRAIGHT CONCRETE ENDWALL FOR 18" PIPE, BIL OF STEEL AND PRECAST NOTES D-JBS-2 02-20-19 STANDARD 4" X 4" SQUARE CONCRETE NO. 2 JUNCTION BOX RP-D-15 01-07-19 DETAILS OF STANDARD CONCRETE DRIVEWAYS RP-D-16 01-07-19 DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS RP-SC-1 06-28-19 G" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS 6" AND DEPTH S-F-1 06-28-19 HIGH VISIBILITY FENCE MM-CR-1 06-28-19 DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT INTERSECTION CROSSINGS FOR SHARED-USE PAT BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-11 06-28-19 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-14 06-28-19 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-16 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-16 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-17 GO-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GR31-10 G-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GR31-10 G-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL	RD-L-7	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
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D-JBS-2 02-20-19 STANDARD 4' X 4' SQUARE CONCRETE NO. 2 JUNCTION BOX RP-D-15 01-07-19 DETAILS OF STANDARD CONCRETE DRIVEWAYS RP-D-16 01-07-19 DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS RP-SC-1 06-28-19 6" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS RP-VC-11 06-28-19 VERTICAL CONCRETE CURBS AND GUTTERS 6" AND DEPTH S-F-1 06-28-19 HIGH VISIBILITY FENCE MM-CR-1 06-28-19 DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT MM-BPR-1 BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1A 06-28-19 GUARDRAIL DETAILS S-GR31-1B GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	D-PE-4	06-28-19	STRAIGHT CONCRETE ENDWALLS (PIPE SIZES 18" TO 30")
JUNCTION BOX RP-D-15 01-07-19 DETAILS OF STANDARD CONCRETE DRIVEWAYS RP-D-16 01-07-19 DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS RP-SC-1 06-28-19 6" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS RP-VC-11 06-28-19 VERTICAL CONCRETE CURBS AND GUTTERS 6" AND DEPTH S-F-1 06-28-19 HIGH VISIBILITY FENCE MM-CR-1 06-28-19 DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT MM-BPR-1 BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1 06-28-19 GUARDRAIL DETAILS S-GR31-1B GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P 06-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	D-PE-18A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE, BILL OF STEEL AND PRECAST NOTES
RP-D-16 01-07-19 DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS RP-SC-1 06-28-19 6" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS RP-VC-11 06-28-19 VERTICAL CONCRETE CURBS AND GUTTERS 6" AND DEPTH S-F-1 06-28-19 HIGH VISIBILITY FENCE MM-CR-1 06-28-19 DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1 06-28-19 GUARDRAIL DETAILS S-GR31-1B GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P 06-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	D-JBS-2	02-20-19	
DRIVEWAYS RP-SC-1 06-28-19 6" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS RP-VC-11 06-28-19 VERTICAL CONCRETE CURBS AND GUTTERS 6" AND DEPTH S-F-1 06-28-19 HIGH VISIBILITY FENCE MM-CR-1 06-28-19 DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT MM-BPR-1 BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1 06-28-19 GUARDRAIL DETAILS S-GR31-1A 06-28-19 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P 06-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	RP-D-15	01-07-19	DETAILS OF STANDARD CONCRETE DRIVEWAYS
CURBS AND GUTTERS RP-VC-11 06-28-19 VERTICAL CONCRETE CURBS AND GUTTERS 6" AND DEPTH S-F-1 06-28-19 HIGH VISIBILITY FENCE MM-CR-1 06-28-19 DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT MM-BPR-1 BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1 06-28-19 GUARDRAIL DETAILS S-GR31-1B GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1C GUARDRAIL FASTENING HARDWARE S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P 06-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	RP-D-16	01-07-19	
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CURB RAMPS MM-PM-1 SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PAT MM-BPR-1 BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1 O6-28-19 GUARDRAIL DETAILS S-GR31-1A O6-28-19 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1C GUARDRAIL FASTENING HARDWARE S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P O6-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 O6-28-19 TYPE 21 GUARDRAIL END TERMINAL	S-F-1	06-28-19	HIGH VISIBILITY FENCE
INTERSECTION CROSSINGS FOR SHARED-USE PAT MM-BPR-1 BIKE AND PEDESTRIAN SAFETY RAIL S-GR31-1 O6-28-19 GUARDRAIL DETAILS S-GR31-1A O6-28-19 GUARDRAIL AND BLOCK-OUT DETAILS S-GR31-1B GUARDRAIL FASTENING HARDWARE S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P O6-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 O6-28-19 TYPE 21 GUARDRAIL END TERMINAL	MM-CR-1	06-28-19	
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S-GR31-1C GUARDRAIL GENERAL NOTES AND POST DETAILS S-GRT-2P 06-28-19 EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL S-GRT-3 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	S-GR31-1A	06-28-19	GUARDRAIL AND BLOCK-OUT DETAILS
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S-GRT-3 06-28-19 TYPE 21 GUARDRAIL END TERMINAL	S-GR31-1C		GUARDRAIL GENERAL NOTES AND POST DETAILS
	S-GRT-2P	06-28-19	EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL
S-GRA-4 06-28-19 IN-LINE GUARDRAIL ANCHOR	S-GRT-3	06-28-19	TYPE 21 GUARDRAIL END TERMINAL
	S-GRA-4	06-28-19	IN-LINE GUARDRAIL ANCHOR

TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD TRAFFIC OPERATIONS DRAWINGS

DWG.	REV.	DESCRIPTION
T-S-9	06-10-14	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-16	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-11-17	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-11-17	STANDARD STEEL SIGN SUPPORTS
T-S-20	07-11-17	SIGN DETAILS

	P	KOJECI N	0.	YEAR	SHEET NO.
, N	1	7C-G-062	3	2020	1A
		,		REVISIONS	
	No.	DATE	BY	BRIEF DE	ESCRIPTION
	1	11/11/20	CR	ADDED SHEET 118	3. ADDED RP-VC-11.
			- 1	DELETED RP-VC-1	0 & MM-BPR-2.
		-			
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CITY OF KNOXVILLE
DEPARTMENT OF ENGINEERING
DESIGNED: CR

INDEX OF SHEETS AND STANDARD ROADWAY DRAWINGS

NORTHWEST GREENWAY CONNECTOR PROJECT

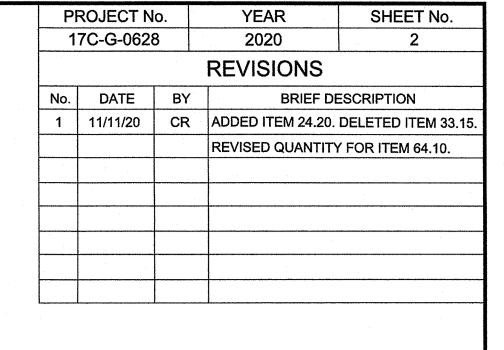
1.10 MOBILIZATION OF FORCES, SUPPLIES AND EQUIPMENT L.S. 2.20 TREE REMOVAL L.S. 3.10 REMOVAL OF STRUCTURES AND OBSTRUCTIONS L.S. 3.20 RELOCATION OF FIRE DEPARTMENT WARNING SIGNAL L.S. 4.20 COMMON EXCAVATION C.Y. 5.10 MINERAL AGGREGATE BASE, CLASS A, GRADE D TON 5.30 MAINTENANCE STONE (4" DEPTH) TON 5.40 NO. 57 STONE TON 7.10 TACK COAT GAL 9.20 BITUMINOUS PLANT MIX, GRADING B-M TON 9.30 BITUMINOUS PLANT MIX, GRADING C TON 9.30 BITUMINOUS PLANT MIX, GRADING C TON 9.50 BITUMINOUS PLANT MIX, GRADING C-S TON 10.30 SAW CUTTING ASPHALT PAVEMENT L.F. 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE CURB RAMPS EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") S.F. 13.22 CONCRETE DRIVEWAYS (6") L.F. 20.14 18" RCP L.F. 20.15 18" CMP L.F. 20.16 24" RCP L.F. 22.21 NO. 12 CATCH BASIN, >4" -8" DEPTH EACH 22.23 "U" TYPE ENDWALL FOR 18" RCP EACH 22.24 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 22.24 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 22.24 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 25.30 RIP RAP, CLASS A-1 TON 26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) S.Y. 27.15 PERMANENT SEEDING (WITH MULCH) S.Y.	TEM NO.	DESCRIPTION	UNIT	QUANTITY
2.20 TREE REMOVAL L.S. 3.10 REMOVAL OF STRUCTURES AND OBSTRUCTIONS L.S. 3.20 RELOCATION OF FIRE DEPARTMENT WARNING SIGNAL L.S. 4.20 COMMON EXCAVATION C.Y. 5.10 MINERAL AGGREGATE BASE, CLASS A, GRADE D TON 5.30 MAINTENANCE STONE (4" DEPTH) TON 5.40 NO. 57 STONE TON 7.10 TACK COAT GAL 9.20 BITUMINOUS PLANT MIX GRADING B-M TON 9.30 BITUMINOUS PLANT MIX GRADING C TON 9.50 BITUMINOUS PLANT MIX GRADING C TON 10.30 SAW CUTTING ASPHALT PAVEMENT L.F. 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") S.F. 20.14 18" RCP L.F. 20.15 18" CMP L.F. 20.15 18" CMP L.F. 22.12 NO. 12 CATCH BASIN, >4" - 8" DEPTH EACH 22.23 "U" TYPE ENDWALL FOR 18" RCP EACH 22.24 ADJUSTMENT OF ENSTING STRUCTURE (DROP INLET) EACH 22.24 ADJUSTMENT OF ENSTING STRUCTURE (DROP INLET) EACH 22.24 ADJUSTMENT OF SANITARY SEWER LATERAL EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.20 ADJUSTMENT OF SANITARY SEWER LATERAL EACH 25.10 RIP RAP, CLASS A-3 TON 26.10 TOPSOIL (FLACING AND SPREADING) (4" THICK) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.20 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.20 TEMPORARY SEEDING (WITH MULCH) S.Y.	TEM NO.			
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5.40 NO. 57 STONE TON 7.10 TACK COAT GAL 9.20 BITUMINOUS PLANT MIX, GRADING B-M TON 9.30 BITUMINOUS PLANT MIX, GRADING C TON 9.50 BITUMINOUS PLANT MIX, GRADING C-S TON 10.30 SAW CUTTING ASPHALT PAVEMENT L.F. 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.15 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.16 CONCRETE CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.15 CONCRETE CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.16 CONCRETE CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.17 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.16 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.17 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.16 CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 1	5.10	MINERAL AGGREGATE BASE, CLASS A, GRADE D	TON	927
7.10 TACK COAT GAL 9.20 BITUMINOUS PLANT MIX, GRADING B-M TON 9.30 BITUMINOUS PLANT MIX, GRADING C TON 9.50 BITUMINOUS PLANT MIX, GRADING C-S TON 10.30 SAW CUTTING ASPHALT PAVEMENT L.F. 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") (HIGH EARLY STRENGTH) S.F. 20.14 18" RCP L.F. 20.15 18" CMP L.F. 20.16 24" RCP L.F. 22.12 NO. 12 CATCH BASIN, >4" - 8" DEPTH EACH 22.33 "U" TYPE ENDWALL FOR 18" RCP EACH 22.40 JUNCTION BOX (60IN ROUND) EACH 22.41 ADJUSTMENT OF EXISTING STRUCTURE (DROP INLET) EACH 22.42 ADJUSTMENT OF EXISTING STRUCTURE (MANHOLE) EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.20 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 25.30 RIP RAP, CLASS A-I TON 26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.20 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.20 TEMPORARY SEEDING (WITH MULCH) S.Y. 28.10 SODDING S.Y.	5.30	MAINTENANCE STONE (4" DEPTH)	TON	292
9.20 BITUMINOUS PLANT MIX, GRADING B-M 9.30 BITUMINOUS PLANT MIX, GRADING C 9.50 BITUMINOUS PLANT MIX, GRADING C-S 10.30 SAW CUTTING ASPHALT PAVEMENT 10.30 SAW CUTTING ASPHALT PAVEMENT 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") 13.15 CONCRETE CURB RAMPS 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM 13.20 CONCRETE DRIVEWAYS (6") 13.21 CONCRETE DRIVEWAYS (6") 13.21 CONCRETE DRIVEWAYS (6") (HIGH EARLY STRENGTH) 13.22 CONCRETE DRIVEWAYS (6") (HIGH EARLY STRENGTH) 13.24 RCP 14.8" RCP 15.20.15 18" CMP 16.16 24" RCP 17.10 NO. 12 CATCH BASIN, >4' - 8' DEPTH 18.22.33 "U" TYPE ENDWALL FOR 18" RCP 18.24.40 JUNCTION BOX (60IN ROUND) 18.24.41 ADJUSTMENT OF EXISTING STRUCTURE (DROP INLET) 18.24.41 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) 18.25.10 RIP RAP, CLASS A-I TON 18.26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) 18.5.7. 18.70 PERMANENT SEEDING (WITH MULCH) 18.5.7. 18.71 PERMANENT SEEDING (WITH MULCH) 18.72 CASTON S.Y. 28.10 SODDING 19.72 TEMPORARY SEEDING (WITH MULCH) 18.72 CASTON S.Y. 28.10 SODDING 19.72 CASTON S.Y. 28.10 SODDING 10.72 CASTON S.Y. 28.10 SODDING 10.72 TEMPORARY SEEDING (WITH MULCH) 10.72 CASTON S.Y. 28.10 SODDING 10.72 TEMPORARY SEEDING (WITH MULCH) 10.72 CASTON S.Y. 28.10 SODDING 10.72 TEMPORARY SEEDING (WITH MULCH) 10.72 CASTON S.Y. 28.10 SODDING 10.72 TEMPORARY SEEDING (WITH MULCH) 10.73 CASTON S.Y. 28.10 SODDING 10.74 TOPSOIL (PLACING AND SPREADING) (4" THICK) 10.74 THICK) 10.75 CASTON S.Y. 28.10 SODDING 10.75 CASTON S.Y. 28.10 SODDING 10.75 CASTON S.Y.	5.40	NO. 57 STONE	TON	175
9.30 BITUMINOUS PLANT MIX GRADING C TON 9.50 BITUMINOUS PLANT MIX, GRADING C-S TON 10.30 SAW CUTTING ASPHALT PAVEMENT L.F. 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") S.F. 20.14 18" RCP L.F. 20.15 18" CMP L.F. 20.16 24" RCP L.F. 22.12 NO. 12 CATCH BASIN, >4" - 8" DEPTH EACH 22.33 "U" TYPE ENDWALL FOR 18" RCP EACH 22.40 JUNCTION BOX (60IN ROUND) EACH 22.41 STRAIGHT TYPE ENDWALL FOR 18" RCP EACH 22.42 ADJUSTMENT OF EXISTING STRUCTURE (DROP INLET) EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.20 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 25.10 RIP RAP, CLASS A-I TON 26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.10 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.10 SODDING S.Y.	7.10	TACK COAT	GAL	214
9.30 BITUMINOUS PLANT MIX GRADING C TON 9.50 BITUMINOUS PLANT MIX, GRADING C-S TON 10.30 SAW CUTTING ASPHALT PAVEMENT L.F. 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") S.F. 20.14 18" RCP L.F. 20.15 18" CMP L.F. 20.16 24" RCP L.F. 22.12 NO. 12 CATCH BASIN, >4" - 8" DEPTH EACH 22.33 "U" TYPE ENDWALL FOR 18" RCP EACH 22.40 JUNCTION BOX (60IN ROUND) EACH 22.41 STRAIGHT TYPE ENDWALL FOR 18" RCP EACH 22.42 ADJUSTMENT OF EXISTING STRUCTURE (DROP INLET) EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.20 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 25.10 RIP RAP, CLASS A-I TON 26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.10 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.10 TEMPORARY SEEDING (WITH MULCH) S.Y. 27.10 SODDING S.Y.	9.20	RITHMINIOUS PLANT MIX GRADING R-M	TON	360
9.50 BITUMINOUS PLANT MIX, GRADING C-S 10.30 SAW CUTTING ASPHALT PAVEMENT 12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30 L.F. 13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") S.F. 20.14 18" RCP L.F. 20.15 18" CMP 22.12 NO. 12 CATCH BASIN, >4" - 8" DEPTH EACH 22.33 "U" TYPE ENDWALL FOR 18" RCP EACH 22.40 JUNCTION BOX (60IN ROUND) EACH 22.42 ADJUSTMENT OF EXISTING STRUCTURE (DROP INLET) EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.20 ADJUSTMENT OF SANITARY SEWER LATERAL EACH 25.10 RIP RAP, CLASS A-1 TON 26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.20 TEMPORARY SEEDING (WITH MULCH) S.Y. 28.10 SODDING S.Y. 28.10 SODDING LIF. L.F. L.F. EACH EACH CACH				9
12.62 6" CONCRETE COMBINED CURB & GUTTER, TYPE 6-30				170
13.10 CONCRETE SIDEWALKS (4") S.F. 13.15 CONCRETE CURB RAMPS S.F. 13.16 CAST-IN-PLACE TACTILE WARNING SYSTEM EACH 13.20 CONCRETE DRIVEWAYS (6") S.F. 13.21 CONCRETE DRIVEWAYS (6") (HIGH EARLY STRENGTH) S.F. 20.14 18" RCP L.F. 20.15 18" CMP L.F. 20.16 24" RCP L.F. 22.12 NO. 12 CATCH BASIN, >4' - 8' DEPTH EACH 22.33 "U" TYPE ENDWALL FOR 18" RCP EACH 22.40 JUNCTION BOX (60IN ROUND) EACH 22.42 ADJUSTMENT OF EXISTING STRUCTURE (DROP INLET) EACH 22.43 STRAIGHT TYPE ENDWALL FOR 18" RCP EACH 24.10 ADJUSTMENT OF SANITARY SEWER STRUCTURE (MANHOLE) EACH 24.20 ADJUSTMENT OF SANITARY SEWER LATERAL EACH 25.10 RIP RAP, CLASS A-3 TON 26.10 TOPSOIL (PLACING AND SPREADING) (4" THICK) S.Y. 26.15 TOPSOIL (FURNISHING AND SPREADING) (4" THICK) S.Y. 27.10 PERMANENT SEEDING (WITH MULCH) S.Y. 27.20	10.30	SAW CUTTING ASPHALT PAVEMENT	L.F.	1030
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26.15 TOPSOIL (FURNISHING AND SPREADING) (4" THICK) 27.10 PERMANENT SEEDING (WITH MULCH) 27.15 PERMANENT SEEDING (WITHOUT MULCH) 27.20 TEMPORARY SEEDING (WITH MULCH) 28.10 SODDING S.Y.	26.10	TOPSOIL (PLACING AND SPREADING) (4" THICK)	S.Y.	7435
27.15 PERMANENT SEEDING (WITHOUT MULCH) 27.20 TEMPORARY SEEDING (WITH MULCH) 28.10 SODDING S.Y. S.Y.				2330
27.20 TEMPORARY SEEDING (WITH MULCH) S.Y. 28.10 SODDING S.Y.	27.10	PERMANENT SEEDING (WITH MULCH)	S.Y.	8000
28.10 SODDING S.Y.	27.15	PERMANENT SEEDING (WITHOUT MULCH)	S.Y.	290
	27.20	TEMPORARY SEEDING (WITH MULCH)	S.Y.	16000
29.10 EROSION CONTROL BLANKET (TDOT TYPE I) S.Y.	28.10	SODDING	S.Y.	1600
	29.10	EROSION CONTROL BLANKET (TDOT TYPE I)	S.Y.	290
30.11 ROOT PRUNING L.S.	30 11	ROOT PRUNING	10	1
30.12 TREE PROTECTION FENCING L.S.				740

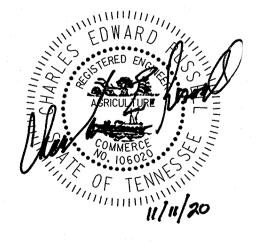
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
31.10	TEMPORARY SLOPE DRAINS (8")	L.F.	53
31.20	SILT BARRIERS (SILT FENCES)	L.F.	1373
31.21	SILT BARRIERS (SILT FENCES WITH BACKING)	L.F.	114
31.22	SILT BARRIERS (12 INCH SEDIMENT TUBE)	L.F.	802
31.23	SILT BARRIERS (18 INCH SEDIMENT TUBE)	L.F.	2211
31.70	CATCH BASIN PROTECTION, TYPE B	EACH	1
31.72	CATCH BASIN PROTECTION, TYPE D	EACH	7
33.10	GUARD RAIL - W - BEAM	L.F.	380
33.45	TERMINAL ANCHOR TDOT TYPE 13	EACH	6
33.55	TERMINAL ANCHOR TDOT TYPE 21	EACH	
33.65	GR TERMINAL (IN-LINE) MASH TL3	EACH	2
34.20	FLEXIBLE DRUMS (CHANNELIZING)	EACH	106
34.30	SIGNAGE (CONSTRUCTION)	S.F.	179
34.40	TEMPORARY BARRICADES (TYPE III)	L.F.	21
36.50	GEOTEXTILE FABRIC FOR EROSION STABILIZATION	S.Y.	1691
63.10	PERMANENT SIGNAGE	L.S.	1
64.10	BOX TUBE SAFETY RAIL (POWDER COAT BLACK)	L.F.	1302
81.10	REDI-ROCK RETAINING WALL	SF	1845

FOOTNOTES:

- (1) 15 TREES RANGING FROM 12" 36" DIAMETER TO BE REMOVED.
- (2) ITEMS TO BE REMOVED ARE INDICATED ON SHEETS NOS. 4A-9A. INCLUDES REMOVAL AND DISPOSAL OF PIPES, PAVEMENTS, SIDEWALK, CURB AND GUTTER, FENCES, AND VEGETATION.
- (3) INCLUDES AGGREGATE BASE UNDER ASPHALT DRIVEWAYS, ASPHALT REPAIR IN ROADWAY, AND CURB AND GUTTER.
- (4) TO BE USED AT DRIVEWAYS AND EDGE OF ROADWAY TO PROVIDE ACCESS AND STABILITY DURING CONSTRUCTION.
- (5) INCLUDES 2" MINERAL AGGREATE BASE.
- (6) INCLUDES 4" MINERAL AGGREATE BASE.
- (7) INCLUDES 106 TONS FOR STORMWATER DITCH, 994 TONS FOR TYPE 1 CULVERT PROTECTIONS, AND 589 TONS FOR ROCK CHECK DAMS.
- (8) TO BE USED AT TEMPORARY CONSTRUCTION EXITS.
- (9) INCLUDES THE COST OF GUARDRAIL REMOVAL.
- (10) INCLUDES 276 SY FOR TEMPORARY CONSTRUCTION EXITS, 1044 SY FOR TYPE 1 CULVERT PROTECTIONS, AND 371 SY FOR ROCK CHECK DAMS.
- (11) INCLUDES COST OF ALL MATERIALS AND LABOR TO CONSTRUCT RETAINING WALL.
- (12) INCLUDES 956 LF ALONG INDEPENDENT GREENWAY AND 346 LF ON TOP OF RETAINING WALL.

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)										SEE STD. DWG. NO. T-S-19				
SIGN NO		SHEET	SIZE					SIGN F	ACE	STEEL DESIGN (BREAK-AWAY)				
	LEGEND '	NO	LENGTH	HEIGHT	RADIUS	BORDER WIDTH	COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC.	REIN STEEL LBS.
1	W1-1L	5A	18"	18″		_	BLACK	YELLOW (REF.)	O.080″ SHEET ALUMINUM	P8	H = 9'-6"	_	_	_
2		6A	18"	18"			BENOK							
3	W1-1R	6A	18″	18″	-	-	BLACK	YELLOW (REF.)	0.080″ SHEET ALUMINUM	P8	H = 10'-0"	_	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	-
4	W2-4	9A	18″	18″	_	-	BLACK	YELLOW (REF.)	0.080″ SHEET ALUMINUM	P8	H = 10'-0"	_	_	-



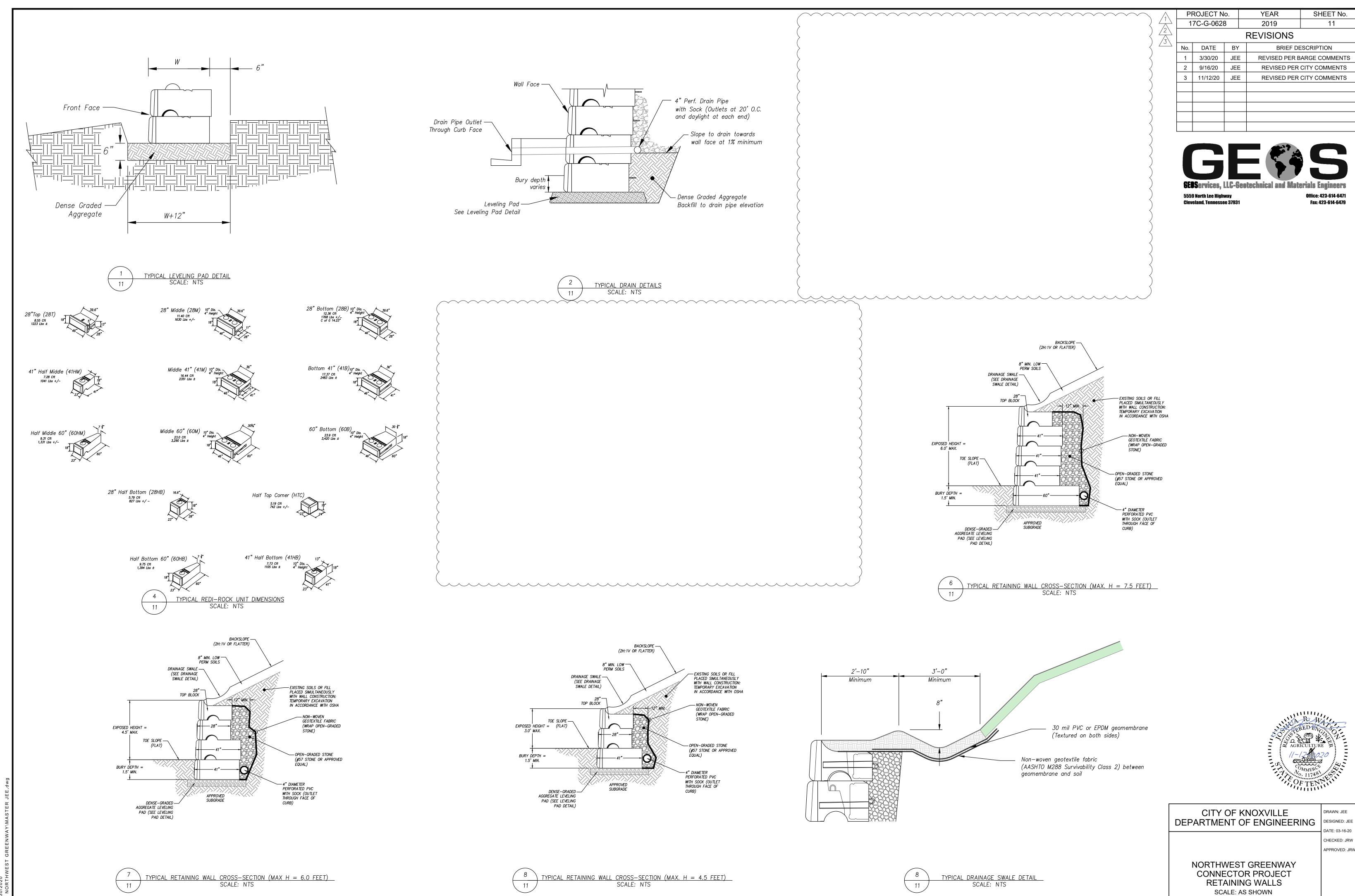


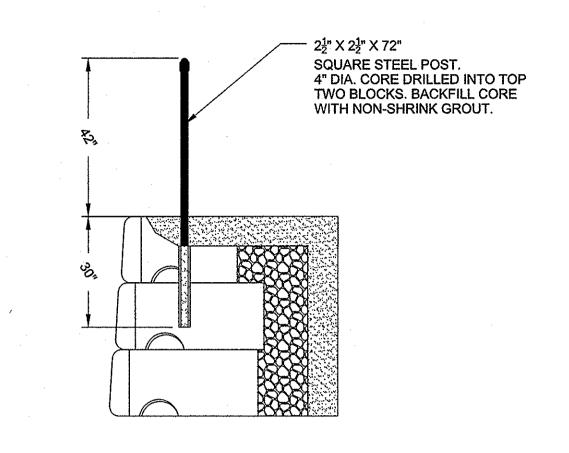
CITY OF KNOXVILLE
DEPARTMENT OF ENGINEERING
DESIGNED: CR
DATE: 10-05-202

ESTIMATED QUANTITIES AND SIGN SCHEDULE

NORTHWEST GREENWAY CONNECTOR PROJECT

11/11/2020 F:\36\36123\3612302\04 CAD\CLVL\PLOT\02 OuantitesSi





RAIL INSTALLATION DETAIL

NOTE:

1. IF POST SPACING IS SUCH THAT THE POST IS IN AN AIR VOID, GROUT AS PER REDIROCK SPECIFICATIONS.

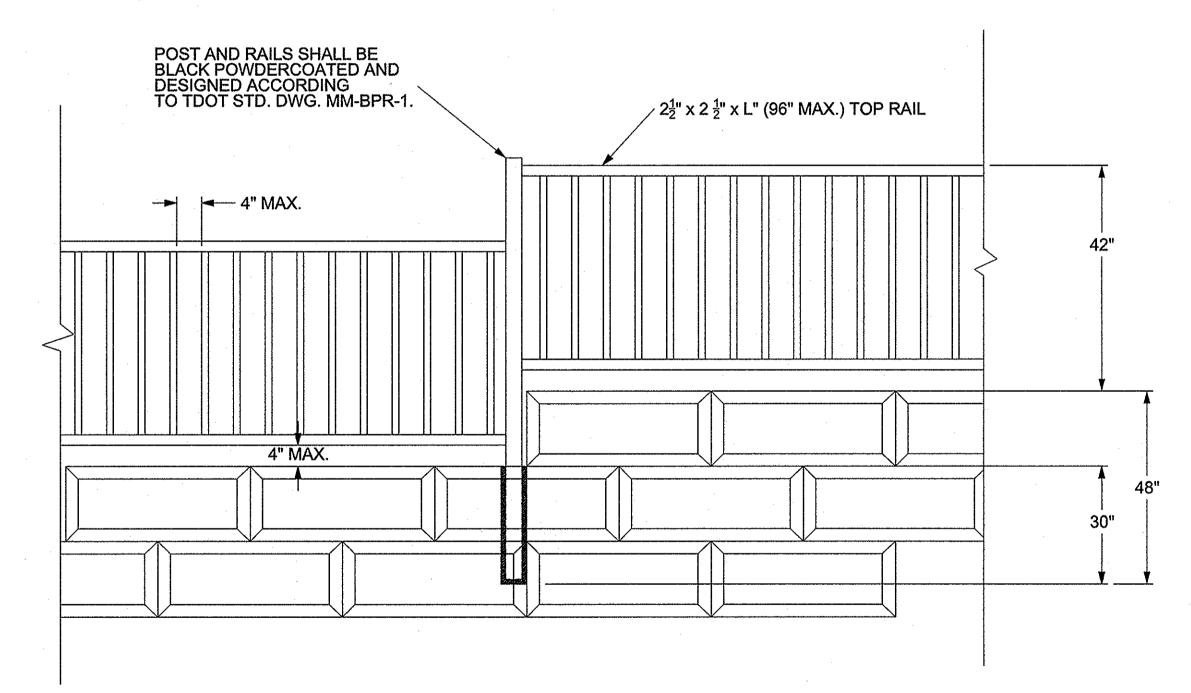
2. AT THE FOUR ENDS, THE POST SHALL BE CENTERED ON THE HTC BLOCK.

3. FOR WALL #1, BEGIN AT STATION 0+03.

COBBLESTONE.

4. WALL TEXTURE SHALL BE

5. SEE DETAIL BELOW FOR RAIL INSTALLATION AT WALL STEP-UP.



RAIL DETAIL AT WALL STEP-UP



CHECKED: ARH

APPROVED: ARH

SHEET No.

11B

BRIEF DESCRIPTION

PROJECT No.

17C-G-0628

No. DATE BY

11/11/20 | CR | ADDED SHEET.

YEAR 2020

REVISIONS

TAILS

RETAINING WALL
RAIL DETAILS

CITY OF KNOXVILLE DEPARTMENT OF ENGINEERING

NORTHWEST GREENWAY
CONNECTOR PROJECT