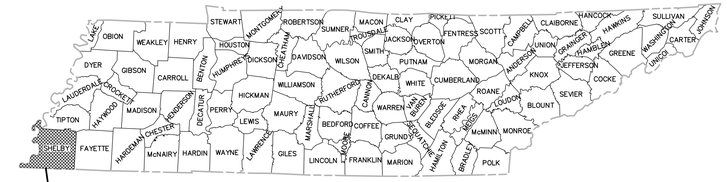
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

INDEX OF SHEETS

SEE SHEET 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

TENN.	YEAR	SHEET NO.
	2013	1
FED. AID PROJ. NO.	STP-M-7900(29)	
STATE PROJ. NO.	79946-2455-54	



SHELBY COUNTY
CONSTRUCTION

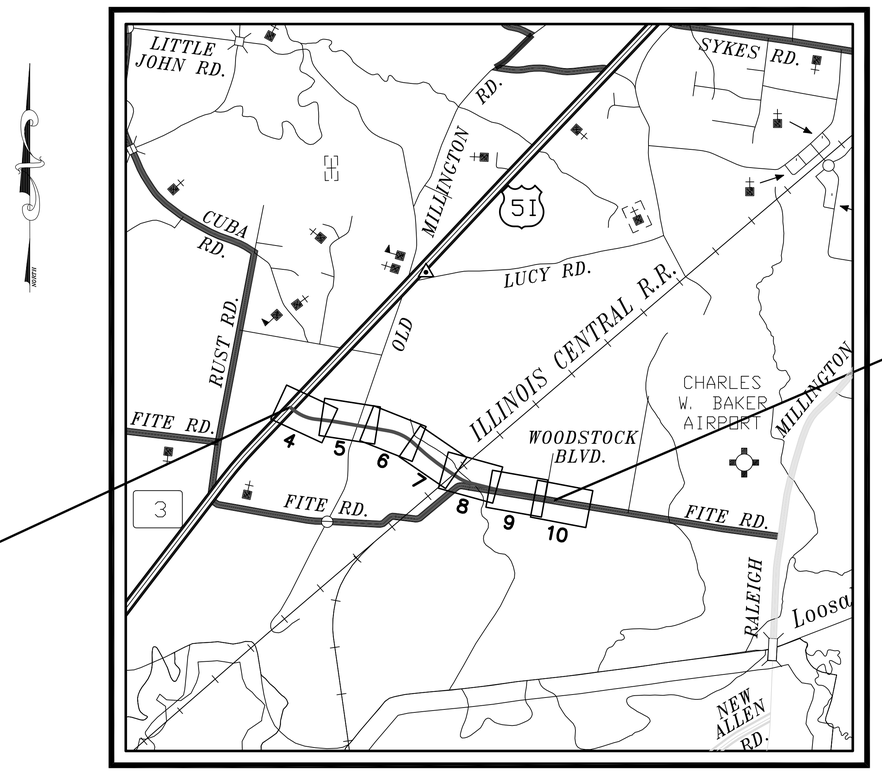
FITE ROAD

FROM S.R. 3 (U.S. HWY. 51) TO WOODSTOCK BOULEVARD

LOCALLY MANAGED PROJECT
PIN 043071.00
PE# 79946-1455-54
CONST. STP-M-7900(29)

NO EXCLUSIONS

EQUATION	
DESCRIPTION	NET EFFECT ON ENUMERATION
STA. 102+87.51 BK. = STA. 103+00.00 AH.	-12.49'



END CONST. PROJECT NO. STP-M-7900(29) (CONST.)
STA. 100+57.60

BEGIN CONST. PROJECT NO. STP-M-7900(29)
STA. 26+92.13

VICINITY MAP

0 2000 4000 6000
SCALE

CONST. LENGTH = 1.395 MI

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TRAFFIC DATA	
ADT 2013	2960
ADT 2033	4450
DHV 2033	510
D	65-35
T(ADT)	12%
T(DHV)	8%
V	45 MPH

APPROVED:

COUNTY ENGINEER

DATE:

4/15/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	1A

INDEX

DESCRIPTION	SHT.
TITLE SHEET	1
ROADWAY INDEX AND STANDARD DRAWINGS	1A – 1B
ESTIMATED BRIDGE QUANTITIES AND BRIDGE INDEX	2
ESTIMATED ROADWAY QUANTITIES	2A-2B
TYPICAL SECTIONS AND PAVING SCHEDULE	2C – 2H
MISCELLANEOUS DETAILS	2-I
GENERAL NOTES AND SPECIAL NOTES	2J – 2L
TABULATED QUANTITIES	2M – 2N
RETAINING WALL DETAILS	2-O – 2X
GRADING DETAIL	2Y
RAILROAD CROSS SECTIONS	2Z – 2BB
SANITARY SEWER DETAILS	2CC – 2DD
PROPERTY MAPS AND RIGHT-OF-WAY ACQUISITION TABLES	3 – 3B
PRESENT LAYOUTS	4 – 13
PROPOSED LAYOUTS – FITE ROAD	4A – 10A
PROPOSED LAYOUT – U.S. 51	11A
PROPOSED LAYOUT – U.S. 51 (INTERSECTION DETAIL)	11C
PROPOSED PLAN & PROFILE – OLD MILL ROAD	12A
PROPOSED LAYOUTS – CUL-DE-SAC	13A
PROPOSED PROFILE – DETOUR ROAD	14-14A
PROPOSED PLAN & PROFILE – CLANCY RD	14B
PROPOSED PROFILES – FITE ROAD	4B – 10B
PROPOSED PROFILES – U.S. 51	11B
R.O.W. DETAIL	4C – 9C, 13B
DRIVEWAY PROFILES	15 – 15A
DRAINAGE MAP	16
CULVERT SECTIONS	17 – 17E
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLANS	18 – 18AA
PROPOSED CONTOURS	18BB – 18EE
RIPARIAN BUFFER PLAN	18FF
PROPOSED SANITARY SEWER PLAN AND PROFILE	19
TRAFFIC CONTROL PLANS WITH CONST. PHASING NOTES	20 – 20-Q
SIGNING & MARKING PLANS	21 – 21H
SIGN SCHEDULE	21-I – 21J
PROPOSED SIGNAL LAYOUTS	22 – 22A
PROPOSED SIGNALIZATION DETAILS	22B
BRIDGE PLANS	23 – 23M
ROADWAY CROSS SECTIONS – FITE ROAD	24 – 72
ROADWAY CROSS SECTIONS – U. S. HWY. 51	73 – 77
ROADWAY CROSS SECTIONS – OLD MILLINGTON ROAD	78 – 79
ROADWAY CROSS SECTIONS – DETOUR ROAD 1	80 - 83
ROADWAY CROSS SECTIONS – DETOUR ROAD 2	84 - 90
ROADWAY CROSS SECTIONS – CLANCY ROAD	91 - 92
ROADWAY CROSS SECTIONS – FITE ROAD CUL-DE-SAC	93

STANDARD ROADWAY DRAWINGS

DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7		STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-TS-1	10-15-02	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD01-TS-6A	01-24-12	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER
DRAINAGE - CULVERTS AND ENDWALL		
D-PB-1	04-15-07	STANDARD DETAILS CLASS "B" BEDDING AND CULVERT EXCAVATION
D-PE-4	07-19-10	STANDARD WINGWALLS HORIZONTAL OVAL CONCRETE PIPES.
D-PE-18A		18" CONCRETE ENDWALL CROSS DRAIN
D-PE-18B		18" CONCRETE ENDWALL CROSS DRAIN
D-PE-24A		24" CONCRETE ENDWALL CROSS DRAIN
D-PE-24B		24" CONCRETE ENDWALL CROSS DRAIN
D-PE-30A		30" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE
D-PE-30B		30" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE
D-PE-36A		36" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE
D-PE-36B		36" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE
D-PE-42A		42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE
D-PE-42B		42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE
D-SEW-1A	01-10-13	SIDE DRAIN CONCRETE ENDWALL WITH STEEL PIPE GRATE
D-SEW-12D	04-20-12	CONCRETE ENDWALL TYPE "SD" WITH STEEL PIPE GRATE (FOR 15" AND 18" PIPES) – (12:1 SLOPE)
DRAINAGE-CATCH BASINS AND MANHOLES		
D-CB-14P	09-24-12	STANDARD PRECAST RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-42S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN
D-JBS-1	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 JUNCTION BOX
D-JBS-4	08-01-12	STANDARD 7' X 7' SQUARE CONCRETE NO. 4 JUNCTION BOX
D-MH-5	08-01-12	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 3 MANHOLE
ROADWAY AND PAVEMENT APPURTENANCES		
RP-D-15	07-15-08	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-NMC-10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS.
SAFETY APPURTENANCES AND FENCE		
S-F-10B	05-14-10	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-GR-11	11-26-07	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL ALTERNATES
S-GR-12	05-27-03	W-BEAM BARRIER POST DETAILS AND SPECIFICATIONS
S-GR-13	05-27-03	BARRIER RAIL MOUNTING POST BLOCK-OUTS WITH VERTICAL ADJUSTMENT HOLES
S-GR-13A		BARRIER RAIL MOUNTING POST FOR PLASTIC BLOCK-OUTS WITH HORIZONTAL ADJUSTMENT HOLES
S-GR-14	04-17-12	W-BEAM BARRIER FASTENING HARDWARE AND BRIDGE APPROACH DELINEATORS
S-GR-15	06-30-05	W-BEAM BARRIER TERMINAL ELEMENT DETAILS
S-GR-18	05-15-08	GUARDRAIL TERMINAL (TYPE IN-LINE) AND SHOULDER LINE DETAIL
S-GR-19	06-01-09	GUARDRAIL TERMINAL ANCHORS, TYPE 12 AND TYPE 13
S-GR-19C		GUARDRAIL TERMINAL ANCHOR, TYPE 13 ALTERNATE
S-GR-21	06-30-09	LENGTH OF NEED AND TERMINAL REQUIREMENTS IN FILLS
S-GR-23	09-11-02	GUARDRAIL ATTACHMENT TO STRUCTURES AND PROTECTIVE GUARDRAIL AT BRIDGE END DETAILS
S-GR-24	05-15-08	GUARDRAIL END TERMINALS AT BRIDGE ENDS
S-GR-26	03-15-08	SLOTTED GUARDRAIL TERMINAL ANCHOR (TYPE 21)
S-GR-27	05-27-03	GUARDRAIL TERMINAL ANCHOR (TYPE 21) ELEMENT ASSEMBLY DETAILS
S-GR-28	06-30-05	GUARDRAIL TERMINAL ANCHOR (TYPE 21) POST AND ASSEMBLY DETAILS
S-GR-38	06-30-09	DETAILS FOR CONSTRUCTION OF EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINAL
S-GR-38A	06-30-05	DETAILS FOR CONSTRUCTION OF ALTERNATE EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINALS
S-GR-39	05-27-01	DETAILS FOR CONSTRUCTION OF EARTH PAD FOR TYPE 21 GUARDRAIL END TERMINALS
S-GR-43		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) POST LAYOUT AND ERECTION DETAILS
S-GR-44		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) (2 TUBE) GUARDRAIL ELEMENT POST AND ASSEMBLY DETAILS
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-L-1	02-15-07	STANDARD LIGHTING FOUNDATION DETAILS
T-L-1SA	07-29-04	STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS

JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102355
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX AND STANDARD DRAWINGS

4/17/2013
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TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

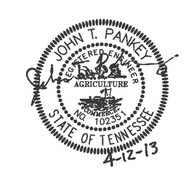
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	1B

TRAFFIC CONTROL APPURTENANCES CONT'D

T-L-1TM		STANDARD LIGHTING DETAILS TENON MOUNTED OFFSET LIGHTING SUPPORTS
T-L-2	09-11-03	FOUNDATION DETAIL FOR LUMINAIRE MOUNTED ON A CONCRETE MEDIAN BARRIER
T-L-3	04-15-96	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	05-25-11	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-12-12	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-S-9	11-01-11	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	05-27-01	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-17	10-26-96	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-29-91	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-SG-1	11-01-11	WOOD POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	11-11-04	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A		ALTERNATE DETECTION DETAILS
T-SG-4		SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-5	07-29-04	CONTROLLER CABINET DETAILS
T-SG-7	11-01-11	SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
T-SG-7A	11-01-11	TYPICAL SIGNAL HEAD PLACEMENT
T-SG-8	11-01-11	STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-9	11-16-07	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A		MISCELLANEOUS SIGNAL DETAILS
T-SG-10	01-05-10	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-29-04	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	11-01-11	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-01-09	FLASHING BEACON DETAIL
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-2	05-14-10	SEDIMENT FILTER BAG
EC-STR-3B	04-01-08	SILT FENCE
EC-STR-3C	04-01-08	SILT FENCE WITH WIRE BACKING
EC-STR-3D	04-01-08	ENHANCED SILT FENCE
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-4A	01-01-10	ENCHANCED SILT FENCE CHECK (V-DITCH)
EC-STR-6	04-01-08	ROCK CHECK DAM
EC-STR-6A		ENHANCED ROCK CHECK DAM
EC-STR-7	04-01-08	SEDIMENT TRAP WITH CHECK DAM
EC-STR-8		FILTER SOCK
EC-STR-11	04-01-08	CULVERT PROCTECTION TYPE 1
EC-STR-11A		CULVERT PROCTECTION TYPE 2
EC-STR-12	04-01-08	ROCK SEDIMENT DAM
EC-STR-13	04-01-08	ROCK AND EARTH SEDIMENT EMBANKMENT
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	04-01-08	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	04-01-08	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-31	04-01-08	TEMPORARY DIVERSION CHANNEL
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN
EC-STR-32	04-01-08	TEMPORARY DIVERSION CULVERTS
EC-STR-33	04-01-08	SUSPENDED PIPE DIVERSON (DOWNSTREAM)
EC-STR-33A	04-01-08	SUSPENDED PIPE DIVERSON (UPSTREAM)
EC-STR-34	04-01-08	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-35	04-01-08	FILTER BERMS
EC-STR-36	04-01-08	TURF REINFORCEMENT MAT FOR CHANNEL INSTALLATION
EC-STR-37	04-01-08	SEDIMENT TUBE
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX AND STANDARD DRAWINGS

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	
CONST.	2013	STP–M–7900(29)	2

REVISIONS			
NO.	DATE	DESCRIPTION	BY

ESTIMATED BRIDGE QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	BENT NO. 1	BENT NO. 2	ABUT. NO. 2
2	204–02.01	DRY EXCAVATION (BRIDGES)	CY	418	–	70	139	139	70
6	303–01.02	GRANULAR BACKFILL (BRIDGES) (CLASS A GRADING D)	TON	44	–	22	–	–	22
	604–02.03	EPOXY COATED REINFORCING STEEL	LB	85961	80855	2553	–	–	2553
7	604–03.01	CLASS "A" CONCRETE (BRIDGES) (4000 PSI)	CY	298	–	65	84	84	65
	604–03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB	58797	2387	8102	20103	20103	8102
1	604–03.04	PAVEMENT AT BRIDGE ENDS (4500 PSI)	SY	315	315	–	–	–	–
	604–03.09	CLASS "D" CONCRETE (BRIDGE DECK) (4500 PSI)	CY	320	320	–	–	–	–
	604–04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	SY	1022	988	17	–	–	17
	604–05.31	BRIDGE DECK GROOVING (MECHANICAL)	SY	1075	1075	–	–	–	–
	606–09.01	TEST PILES (PRECAST PRESTRESSED CONC. SIZE I)	LF	305	–	95	65	60	85
	606–09.02	LOAD TEST (PRECAST PRESTRESSED CONC. SIZE I)	EA	1	–	–	1	–	–
	606–09.03	PRECAST PRESTRESSED CONCRETE PILES SIZE I)	LF	3775	–	720	1265	1150	640
5	606–12.01	PILE ANCHORAGE SYSTEM (SEISMIC)	EA	66	–	9	24	24	9
3	615–01.03	PRESTRESSED CONCRETE I–BEAM (TYPE III)	LF	933	933	–	–	–	–
	620–05	CONCRETE PARAPET WITH STRUCTURAL TUBING (STD–11–1)	LF	388	388	–	–	–	–
	709–04	REINFORCED CONCRETE SLOPE PAVEMENT	CY	262	–	136	–	–	126
8	710–04	FILTER CLOTH UNDERDRAIN (WITH 4" PIPE)	LF	240		120			120
4	710–09.01	6" PERFORATED PIPE W/VERTICAL DRAIN SYSTEM	LF	180	–	90	–	–	90
	710–09.02	6" PIPE UNDERDRAIN	LF	210	–	105	–	–	105

1 PRIOR TO CONSTRUCTION OF THE PAVEMENT AT BRIDGE ENDS, THE CONTRACTOR SHALL SUBMIT A PROPOSED BILL OF STEEL TO THE ENGINEER FOR APPROVAL. SEE STD–1–5 FOR DETAILS, MODIFIED AS SHOWN ON SHEET NO. 57.

2 EXCAVATION BASED ON EXISTING GROUND.

3 COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID ITEM FOR PRESTRESSED BEAM.

4 COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.

5 COST OF PREPARATION OF THE TOP OF PILE FOR SEISMIC REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606–12.01. SEE STANDARD DRAWING STD–6–1 FOR DETAILS. THE PILE AND TEST PILE LENGTHS SHOWN ON THE PLANS DO NOT INCLUDE THE 2 FEET REQUIRED FOR SEISMIC ATTACHMENT. PILES IN WING DO NOT REQUIRE SEISMIC ATTACHMENT.

6 GRANULAR BACKFILL SHALL BE CLASS "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD–10–1.

7 THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 52 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604–03.01, CLASS "A" CONCRETE (BRIDGES).

8 COST OF FILTER CLOTH, PIPE, AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR FILTER CLOTH UNDERDRAIN.

THOMAS J. SAUNDERS
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
NASHVILLE
NO. 108320
4/12/13
STATE OF TENNESSEE

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ESTIMATED BRIDGE QUANTITIES AND BRIDGE INDEX

U–23–113

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	L.S.	1
	201-01	CLEARING AND GRUBBING	L.S.	1
	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	1
(1)	203-03.10	SELECT GRANULAR MATERIAL	TON	7,000
	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	5,000
(2)	203-05	UNDERCUTTING	C.Y.	20,000
	203-06	WATER	M.G.	2,500
(3)	203-10	EMBANKMENT (COMPACTED IN PLACE)	C.Y.	340,706
	204-08	FOUNDATION FILL MATERIAL	C.Y.	388
	204-08.01	BACK FILL MATERIAL (FLOWABLE FILL)	C.Y.	200
	209-02.03	8" TEMPORARY SLOPE DRAIN	L.F.	1,700
	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	500
	209-05	SEDIMENT REMOVAL	C.Y.	1,000
	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	14,000
	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	11,495
	209-08.07	ROCK CHECK DAM PER	EACH	24
	209-08.08	ENHANCED ROCK CHECK DAM	EACH	49
	209-09.01	SANDBAGS	BAG	6,500
	209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	22
	209-10.20	TEMPORARY SEDIMENT TRAP	C.Y.	300
	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	5,000
	209-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH	2
	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	2
	209-40.34	CATCH BASIN PROTECTION (TYPE E)	EACH	4
	209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EACH	2
	209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	650
	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	7,800
	303-02	MINERAL AGGREGATE, TYPE B BASE, GRADING D	TON	7,460
	303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	4,121
	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	900
(4)	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	5,212
(4)	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	5,277
(4)	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	347
(4)	307-02.02	ASPHALT CEMENT (PG70-22) (BPMB-HM) GRADING A-S	TON	9
(4)	307-02.03	AGGREGATE (BPMB-HM) GRADING A-S	TON	268
(4)	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	341
(4)	309-01.01	MINERAL AGGREGATE (A-CBC)	TON	10,164
(4)	309-01.02	PORTLAND CEMENT (A-CBC)	TON	497
(4)	309-02	BITUMINOUS MATERIAL (A-CBC)	TON	31
(4)	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	66
(4)	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	28
(5)	407-02.13	REMOVAL & DISPOSAL OF EXISTING ASPHALT PAVEMENT	S.Y.	345
(4)	411-01.07	ACS MIX(PG64-22) GRADING E SHOULDER	TON	488
(4)	411-01.10	ACS MIX(PG64-22) GRADING D	TON	2,667
(4)	411-02.10	ACS MIX(PG70-22) GRADING D	TON	167
(4)	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	500
(7)	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	347
(7)	604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	55,830
	604-02.01	CLASS A CONCRETE (BOX BRIDGES)	C.Y.	755
	604-02.02	STEEL BAR REINFORCEMENT (BOX BRIDGES)	LB.	117,790
(8)	604-07.01	RETAINING WALL (WALL NO. 1)	S.F.	4,421
(8)	604-07.02	RETAINING WALL (WALL NO. 2)	S.F.	9,631
(8)	604-07.03	RETAINING WALL (WALL NO. 3)	S.F.	5,896
(6)	604-09.10	CLASS A CONCRETE (GENERAL USE)	C.Y.	100
	606-24.10	SHEET PILES	S.F.	1,800
	606-24.12	TEMPORARY SHEET PILES	S.F.	3,750
(9)	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	449
(9)	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	324
(9)	607-05.03	24" CONCRETE PIPE CULVERT (CLASS IV)	L.F.	244
(9)	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	68
(9)	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	69
(9)	607-08.02	42" CONCRETE PIPE CULVERT (CLASS III)	L.F.	67
(9)	607-09.02	48" CONCRETE PIPE CULVERT (CLASS III)	L.F.	50
(9)	607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	92
(9)	607-39.02	24" PIPE CULVERT (SIDE DRAIN)	L.F.	70
(9)	607-57.04	REINFORCED CONCRETE PIPE ARCH (44"X27")	L.F.	41
(10)	610-07.03	18" PIPE DRAIN (BRIDGE DRAIN)	L.F.	295

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(11)	611-01.20	ADJUSTMENT OF EXISTING MANHOLE	EACH	8
	611-02.10	JUNCTION BOX, TYPE 1	EACH	1
	611-02.13	JUNCTION BOX, TYPE 4	EACH	1
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	36.4
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	3,091
	611-07.03	STRUCTURAL STEEL (PIPE ENDWALLS)	LB.	1,837
	611-14.02	CATCH BASINS, TYPE 14, > 4' - 8' DEPTH	EACH	4
	611-42.01	CATCH BASINS, TYPE 42, 0' - 4' DEPTH	EACH	1
	611-42.02	CATCH BASINS, TYPE 42, >4' - 8' DEPTH	EACH	1
	620-01	ALUMINUM RAILING (RETAINING WALLS)	L.F.	757
(26)	621-01.10	TEMPORARY STRUCTURE (2-84"PIPES)	L.S.	1
	621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	30
	621-03.03	24" TEMPORARY DRAINAGE PIPE	L.F.	70
	621-03.04	30" TEMPORARY DRAINAGE PIPE	L.F.	100
	621-03.06	42" TEMPORARY DRAINAGE PIPE	L.F.	30
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	7
	703-01	CEMENT CONCRETE DITCH PAVING	C.Y.	70
	705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	108
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	4,514
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	1
	705-04.04	GUARDRAIL TERMINAL (TYPE 21)	EACH	5
	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	10
	705-04.09	EARTH PAD FOR TYPE 38 GR END TREATMENT	EACH	10
	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	8
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	1,000
(10)	709-01.01	RUBBLE STONE RIP-RAP	C.Y.	11
	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	5,705
	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	3,224
	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	1,512
	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	2,555
	710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	1,100
	710-05	LATERAL UNDERDRAIN	L.F.	120
	710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	5
	712-01	TRAFFIC CONTROL	L.S.	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	1,360
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	400
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	134
	712-06	SIGNS (CONSTRUCTION)	S.F.	1,590
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	220
	712-08.03	ARROW BOARD (TYPE C)	EACH	2
	713-11.01	"U" SECTION STEEL POSTS	LB.	1,400
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	690
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	220
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	225
	713-16.07	END OF ROADWAY SIGN AND SUPPORT	EACH	4
	713-16.20	SIGN (R3-5R RIGHT TURN ONLY)	EACH	3
	713-16.21	SIGN (R3-5L LEFT TURN ONLY)	EACH	3

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2A

REVISIONS

DATE: 7/24/2013
REVISED QUANTITIES FOR THE FOLLOWING ITEMS:
209-08.02, 209-08.08, 209-09.01, 209-09.03, 209-65.03, 303-01, 307-01.08, 402-01. 403-01, 411-01.10 604-07.02, 621-01.10, 709-05.08

ADDED THE FOLLOWING PAY ITEMS:
303-02, 309-01.01, 309-01.02 AND 309-02

REVISED FOOTNOTE NO. 3

ADDED FOOTNOTE NO. 26

FOOTNOTES:

(1) TO BE USED WITH GEOTEXTILE TYPE IV FOR STABILIZATION AS NECESSARY AND AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVES.

(2) UNDERCUTTING SHALL ONLY BE USED WHEN DIRECTED BY THE OWNER OR HIS REPRESENTATIVES. UNDERCUTTING SHALL BE PAID FOR BY THE CONTRACT UNIT PRICE PER C.Y. AND NOT AS PER SP205A.

(3) SEE SPECIAL PROVISION 205A REGARDING PLACEMENT OF EMBANKMENT MATERIAL. "THE CONTRACTOR SHALL ABIDE BY THE FILL PLACEMENT RECOMMENDATIONS SET FORTH IN THE LETTER FROM DR. ASHRAF ELSAYED DATED FEBRUARY 15, 2012 WHICH IS INCLUDED IN THE BID BOOK (BOOKMARKED AS "FILL PLACEMENT RECOMMENDATIONS", PGS. 552-554). THE INITIAL RATE OF EMBANKMENT PLACEMENT SHALL NOT EXCEED 1 TO 2 FEET PER WEEK. THE EMBANKMENT FILL RATE SHALL BE DETERMINED BASED ON MONITORING OF THE SETTLEMENT AND DISSIPATION OF PORE PRESSURE. SETTLEMENT MONITORING SHALL BE PERFORMED USING SETTLEMENT PLATES OR OTHER APPROPRIATE SURVEYING METHODS. DISSIPATION OF EXCESS PORE PRESSURE CAN BE MONITORED BY INSTALLATION OF VIBRATING WIRE (VW) PIEZOMETERS. "THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE APPROPRIATE MEANS TO MONITOR BOTH SETTLEMENT AND PRESSURE. THE COST OF THESE ITEMS WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM NO. 203-10, EMBANKMENT (COMPACTED IN PLACE)."

(4) SEE TABULATED PAVING QUANTITIES, SHEET 2N.

(5) SEE TRAFFIC CONTROL PHASE 4A, SHEET 20-Q.

(6) TO BE USED TO FILL CONCRETE PIPES AND STRUCTURES WHERE REQUIRED BY THE ENGINEER.

(7) TO BE USED IN BOX CULVERTS.

(8) SEE SHEET NO'S. 2-O - 2X FOR DETAILS.

(9) BEDDING MATERIAL PER STD DWG. D-PB-1 SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PIPE.

(10) STD. DWG STD-1-7 IS TO BE USED FOR BURIAL OF THE OUTLET PIPE AND FOR END TREATMENT DETAILS.

(11) SEE SANITARY SEWER MANHOLE ADJUSTMENTS, SHEET 2N.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
7/24/13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

7/24/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2B

REVISIONS:
DATE: 7/24/13
REVISED FOOTNOTE NOS. 13, 21
AND ADDED NOTE NO. 26

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	713-16.21	SIGN (R3-5L LEFT TURN ONLY)	EACH	3
	713-16.22	SIGN (D3-3 HWY 51)	EACH	1
	713-16.23	SIGN (D3-3 FITE ROAD)	EACH	2
	713-16.24	SIGN (R10-10L LEFT TURN SIGNAL)	EACH	1
(23)	716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	93
(23)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	305
(23)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	20
	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	65
	716-02.10	PLASTIC PAVEMENT MARKING (6" LINE)	L.M.	2.4
	716-02.12	PLASTIC PAVEMENT MARKING (8" LINE)	L.M.	0.2
(23)	716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	8
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	4
	716-05.02	PAINTED PAVEMENT MARKING (8" LINE)	L.F.	6,320
	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.F.	423
	716-06.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	8,239
	716-08.02	REMOVAL OF PAVEMENT MARKING (8" BARRIER LINE)	L.F.	5,888
	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	1.3
	716-12.04	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN DOTTED LINE)	L.F.	45
	716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	127
	716-13.06	SPRAY THERMO PVMT. MRKNG (40 mil) (4IN LINE)	L.M.	4.7
(22)	717-01	MOBILIZATION	L.S.	1
(12),(14)	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	6
(12),(14)	730-02.30	SIGNAL HEAD ASSEMBLY (130A3 WITH BACKPLATE)	EACH	1
	730-03.21	INSTALL PULL BOX (TYPE B)	EACH	6
(13)	730-05.01	ELECTRICAL SERVICE CONNECTION	ALLOW.	$10,000
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	590
	730-08.05	SIGNAL CABLE - 12 CONDUCTOR	L.F.	280
	730-08.07	SIGNAL CABLE - 16 CONDUCTOR	L.F.	230
(16)	730-09.01	SPAN WIRE ASSEMBLY(20,800 LBS.MIN.BRK STRENGTH)	L.F.	508
	730-10.01	TETHER WIRE ASSEMBLY - 1/4" DIAMETER	L.F.	508
	730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	900
	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	40
	730-12.03	CONDUIT 3" DIAMETER (PVC)	L.F.	30
	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	90
	730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	EACH	7
(15)	730-13.06	VEHICLE DECTOR (OPTICALLY ACTIVATED PRIORITY CONTROL)	EACH	1
	730-14.01	SHIELDED DETECTOR CABLE	L.F.	1,550
	730-14.02	SAW SLOT	L.F.	920
	730-14.03	LOOP WIRE	L.F.	2,500
(21)	730-15.07	CABINET EIGHT PHASE BASE MOUNTED	EACH	1
(17)	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(18) (20)	730-23.02	STEEL STRAIN POLE (SIGNAL SUPPORT POLES #1-4)	EACH	4
(18) (20)	730-23.03	STEEL STRAIN POLE (OVERHEAD SIGN POLES - 30)	EACH	2
	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	9,746
(19)	740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	10,000
	740-11.02	TEMPORARY SEDIMENT TUBE (12 INCH)	L.F.	19,000
	740-11.04	TEMPORARY SEDIMENT TUBE (20IN)	L.F.	1,000
	797-05.30	30 IN DUCTILE IRON PIPE GRAVITY SEWER (6FT-12FT) DEPTH	L.F.	360
	797-11.38	BY-PASS PUMPING	L.S.	1
	797-06.97	OPEN CUT 42 IN STEEL CASING PIPE	L.F.	360
	797-07.27	72 IN MANHOLE 10FT-12FT DEPTH	EACH	1
	797-07.29	72 IN MANHOLE 14FT-16FT DEPTH	EACH	1
	801-01	SEEDING (WITH MULCH)	UNIT	219
(24)	801-01.05	SEEDING (SPECIAL MIXTURE - SHADE MIX)	UNIT	31
(24)	801-01.06	SEEDING (SPECIAL MIXTURE - SUN MIX)	UNIT	31
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	35
(24)	801-01.10	SEEDING (WITH BONDED FIBER MATRIX)	UNIT	61
(6)	801-01.13	BONDED FIBER MATRIX HYDROMULCH (WITHOUT SEED)	UNIT	61
	801-01.34	GRASS SEED MIX (RIPZN/FLPL)	UNIT	81
	801-02	SEEDING (WITHOUT MULCH)	UNIT	622
	801-02.08	TEMPORARY SEEDING (WITHOUT MULCH)	UNIT	35
	801-03	WATER (SEEDING & SODDING)	M.G.	50
	802-12.07	BETULA NIGRA (RIVER BIRCH SEEDLNG B.R.)	EACH	89
	802-12.33	QUERCUS MICHAUXII (SWMP CHSTNT OAK SEEDLNG B.R.)	EACH	89
	802-12.35	QUERCUS NIGRA (WATER OAK SEEDLNG B.R.)	EACH	131
	802-12.36	QUERCUS NUTTALLII (NUTTALL OAK SEEDLNG B.R.)	EACH	131
	802-12.42	TAXODIUM DISTICHUM (BALD CYPRESS SEEDLNG B.R.)	EACH	89
	802-12.59	PRUNUS AMERICANA (AMERICAN PLUM SEEDLING B.R.)	EACH	131
	803-01	SODDING (NEW SOD)	S.Y.	25,010
(24)	805-01.03	TURF REINFORCEMENT MAT (CLASS III)	S.Y.	6,680
	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	76,566

FOOTNOTES CONTINUED:

(12) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE.

(13) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE LOCAL UTILITY TO PROVIDE ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THE CHARGES BY THE UTILITY COMPANY SHALL BE PAID BY THE CONTRACTOR. THE CONTRACTOR SHALL THEN BE REIMBURSED FOR THE CONNECTION CHARGES INCURRED. WORK REQUIRED BY THE CONTRACTOR (LABOR AND MATERIALS) BETWEEN THE PROPOSED CABINET AND THE MLG&W POINT OF CONNECTION SHALL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE CONSIDERED INCIDENTAL TO OTHER PROPOSED TRAFFIC SIGNAL ITEMS FOR WHICH THIS WORK IS RQUIRED.

(14) SIGNAL HEAD TO INCLUDE SWIVEL BALANCE ADJUSTER.

(15) PROVIDE AN OPTICOM 700 SERIES MODEL PRIORITY CONTROL SYSTEM OR APPROVED EQUAL. SYSTEM TO INCLUDE 1-4 CHANNEL PHASE SELECTOR, 3 INFRARED DETECTORS WITH CONFIRMATION LAMPS, 550 L.F. OF OPTICAL DETECTOR CABLE, 400 L.F. OF 3 CONDUCTOR CABLE, POLE MOUNTED BEACONS, CARD RACKS, POWER SUPPLY UNIT, ALL OTHER CABLING, CONNECTIONS, HARDWARE, AND SOFTWARE NECESSARY TO RENDER A FULLY FUNCTIONAL PRIORITY CONTROL SYSTEM.

(16) SPAN WIRE CONNECTION SIZES SHOWN IN DETAIL "B" OF STD. DWG. NOS. T-SG-4 AND T-SG-8 SHALL BE A MINIMUM. THE CONTRACTOR SHALL PROVIDE A CONNECTION ASSEMBLY APPROPRIATE FOR THE SPAN WIRE MINIMUM BREAKING STRENGTH SHOWN.

(17) CONTROLLER TO BE EAGLE EPAC OR APPROVED EQUAL.

(18) THE COST OF ALL FOOTING MATERIALS AND INSTALLATION SHALL BE INCLUDED IN THE BID FOR STEEL POLES.

(19) TO BE USED ONLY AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVES.

(20) SEE SHEET 22A FOR STRAIN POLE MOMENT CAPACITY AND FOOTING DEPTH.

(21) CABINET SHALL MEET THE CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS AND THIS ITEM TO INCLUDE A CONCRETE WORKING PAD. (SEE DETAIL ON SHEET NO. 22A). A BATTERY BACK SYSTEM WILL NOT BE REQUIRED.

(22) CONTRACTOR SHALL BE PAID FOR MOBILIZATION OF FORCES, SUPPLIES, AND EQUIPMENT PER SECTION 717 OF THE TDOT STANDARD SPECIFICATIONS.

(23) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.

(24) TO BE USED ON 2:1 SLOPES ALONG FITE ROAD.

(25) A $300,000 ALLOWANCE FOR CONTRACTOR'S UP-FRONT PAYMENT REQUIRED BY IC RAILROAD FOR PROVIDING RR FLAGMEN. CONTRACTOR TO COORDINATE PAYMENT TO IC RAILROAD AND SUBMIT SUPPORTING DOCUMENTATION TO SHELBY COUNTY FOR REIMBURSEMENT. SEE RAILROAD SPECIAL PROVISION IN BID BOOK FOR REQUIREMENTS TO WORK IN THE IC RAILROAD R.O.W.

(26) SEE NOTE ON SHEET NO. 18

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STATE OF TENNESSEE
7/24/13

COORDINATE VALUES ARE NAD/83(1995)
AND ARE DATUM ADJUSTED BY THE FACTOR
0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

7/24/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

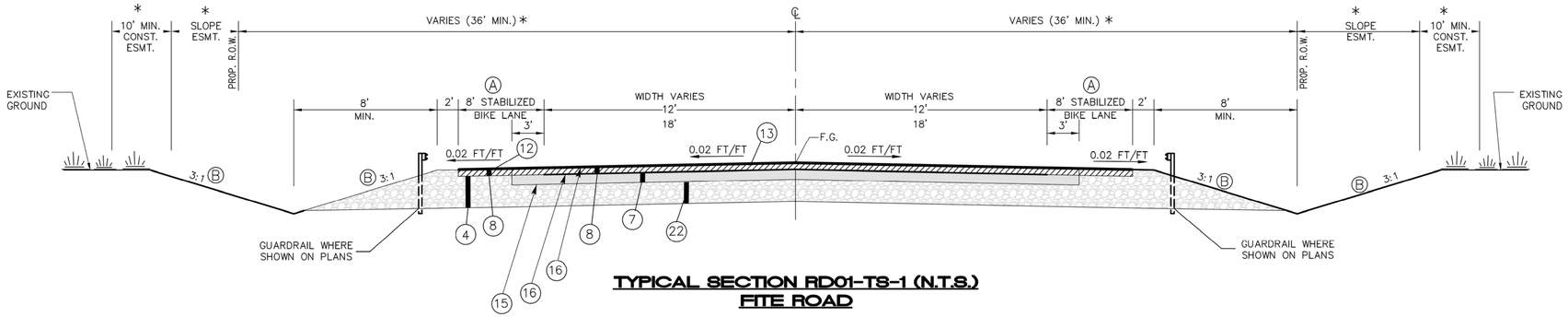
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2
CONST.	2013	STP-M-7900(29)	2C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED TYPICALS TO SHOW VARYING R.O.W. AND ADDED NOTE.

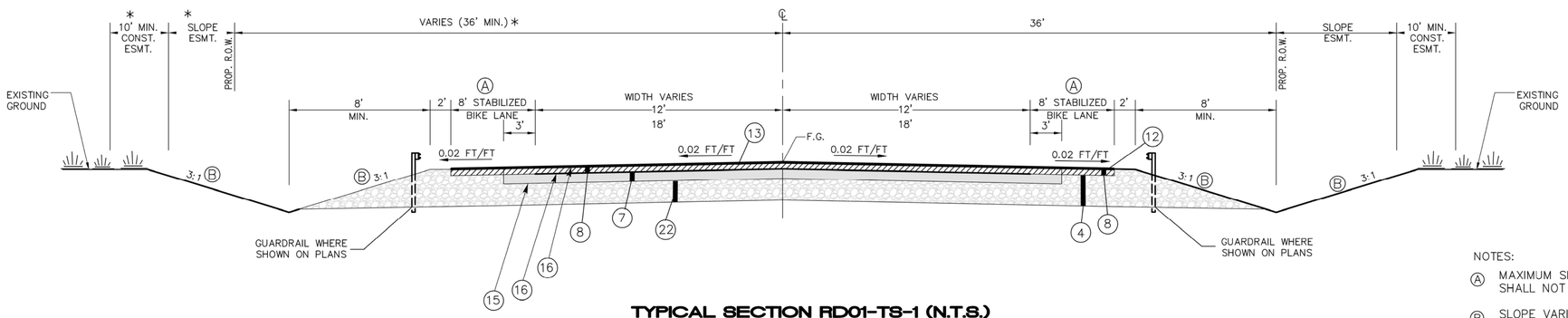
DATE: 07/24/2013
REVISED PAVEMENT SCHEDULE TO ADD ITEMS 303-02 AND 309-01



* SEE R.O.W. DETAIL SHEETS

TYPICAL SECTION RD01-TS-1 (N.T.S.)
FITE ROAD

18' LANE - STA. 26+92.13 TO STA. 50+86.20 *
12' LANE - STA. 54+91.20 TO STA. 84+00.00 *



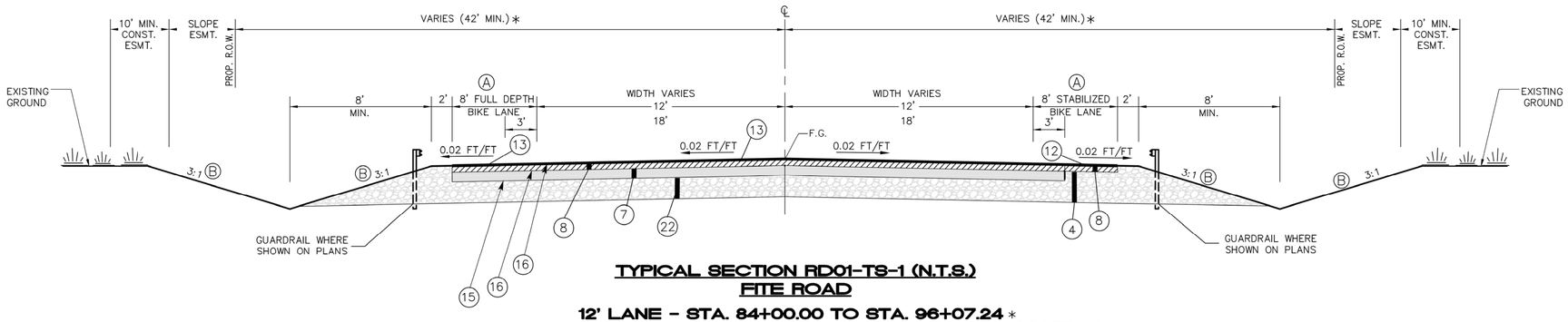
TYPICAL SECTION RD01-TS-1 (N.T.S.)
FITE ROAD

18' TO 12' LANE - STA. 50+86.20 TO STA. 54+91.20 *

NOTES:

(A) MAXIMUM SLOPE IN BIKE LANE SHALL NOT EXCEED 2%.

(B) SLOPE VARIES BETWEEN 2:1 AND 3:1. SEE ROADWAY CROSS SECTIONS SLOPES TO BE SEEDED WITH MULCH UNLESS OTHERWISE SHOWN ON PLANS



TYPICAL SECTION RD01-TS-1 (N.T.S.)
FITE ROAD

12' LANE - STA. 84+00.00 TO STA. 96+07.24 *
12' TO MATCH EXIST (11.50'±) - STA. 96+07.24 TO STA. 96+57.24 *

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

7/24/2013
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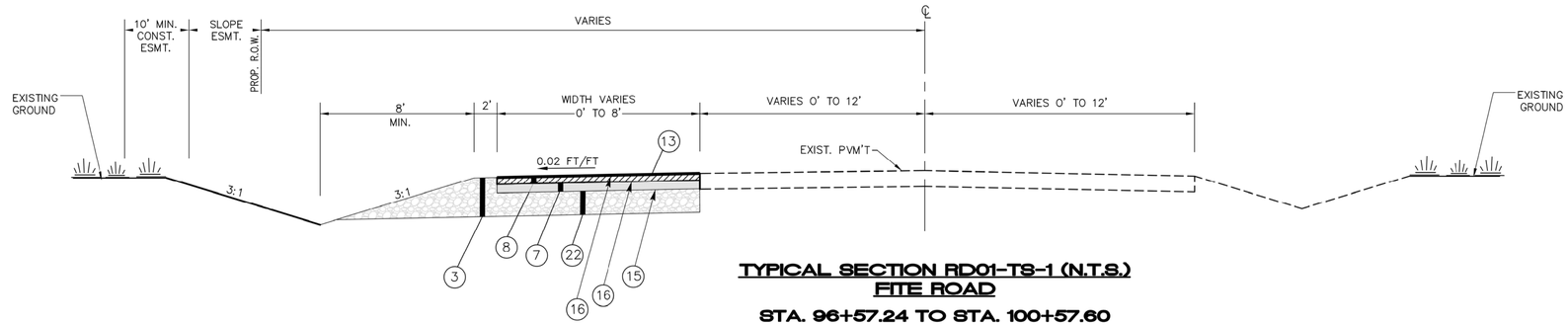
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2A
CONST.	2013	STP-M-7900(29)	2D

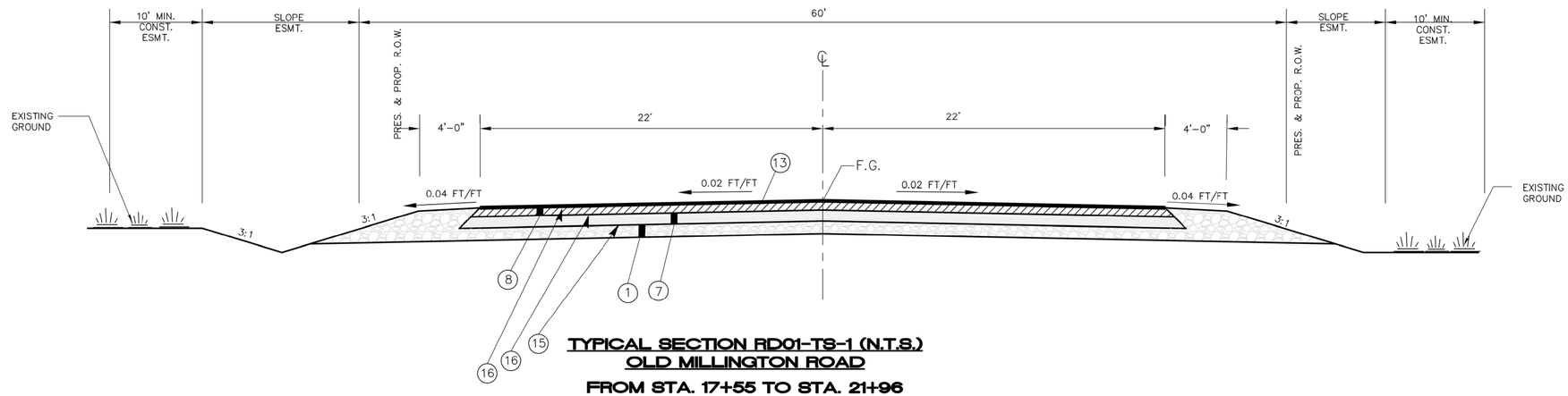
REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

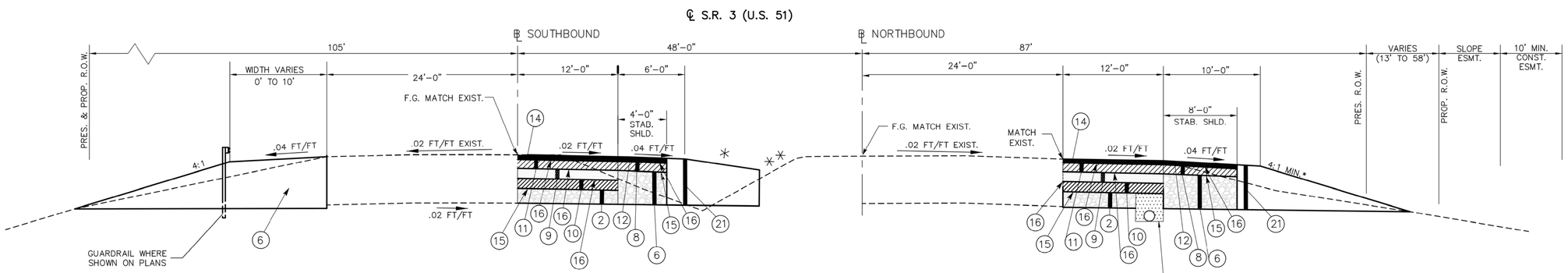
DATE: 07/24/2013
REVISED PAVEMENT SCHEDULE TO ADD ITEMS 303-02 AND 309-01



TYPICAL SECTION RD01-TS-1 (N.T.S.)
FITE ROAD
STA. 96+57.24 TO STA. 100+57.60
(TEMP. FULL DEPTH TAPER)



TYPICAL SECTION RD01-TS-1 (N.T.S.)
OLD MILLINGTON ROAD
FROM STA. 17+55 TO STA. 21+96



NOTES

* SLOPE VARIES FROM 4:1 TO 5:1 (SEE CROSS SECTIONS)

** SLOPE VARIES FROM 4:1 TO 8:1 (SEE CROSS SECTIONS)

TYPICAL SECTION RD01-TS-2A (N.T.S.)
S.R. 3 (US 51)
FROM STA. 15+00 TO STA. 25+50
FROM STA. 18+50 TO STA. 22+51 (LT. SHOULDER)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
7/24/13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

7/24/2013
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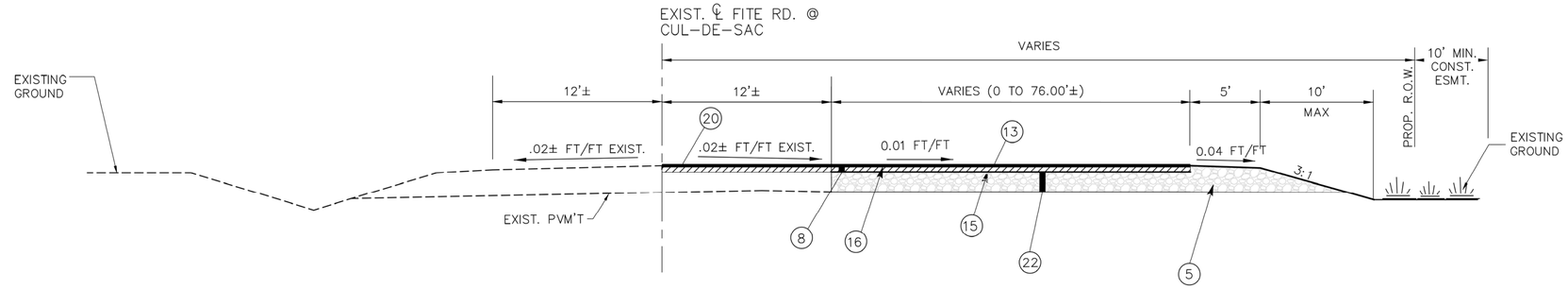
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2B
CONST.	2013	STP-M-7900(29)	2E

REVISIONS:

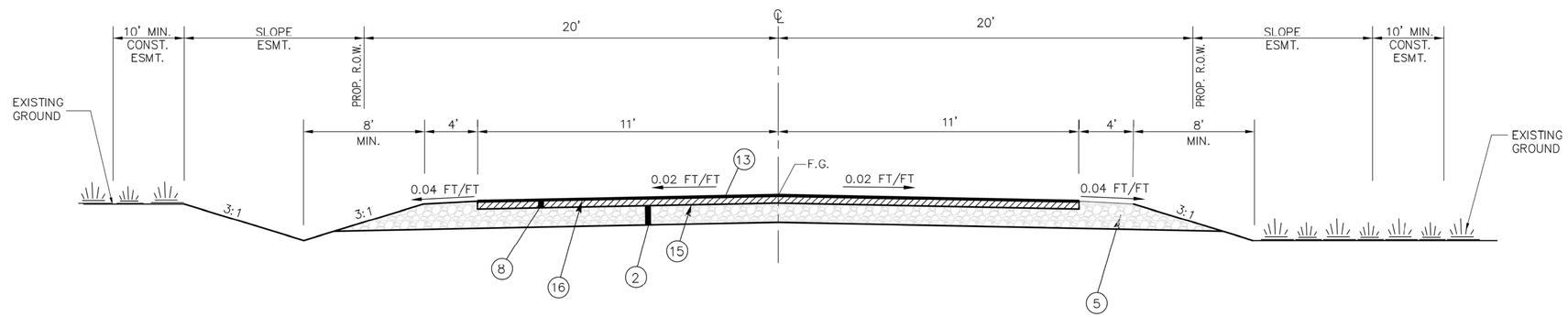
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 07/24/2013
REVISED PAVEMENT SCHEDULE TO ADD ITEMS 303-02 AND 309-01

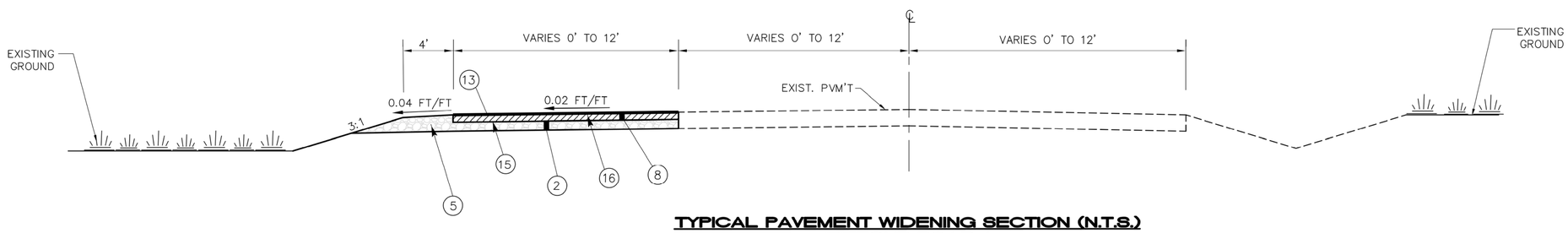


TYPICAL SECTION (N.T.S.)
FITE ROAD CUL-DE-SAC

STA. 10+58.65 FITE ROAD TO STA. 11+98.79 FITE ROAD
(SEE SHEET 13A FOR PAVEMENT SECTION DETAIL)



TYPICAL SECTION RD01-TS-1 (N.T.S.)
DETOUR ROAD 2
STA. 21+88.68 TO STA. 28+04.19
CLANCY ROAD
STA. 23+00 TO STA. 26+91.92



TYPICAL PAVEMENT WIDENING SECTION (N.T.S.)
DETOUR ROAD 1
STA. 10+64.41 TO STA. 12+55.44
STA. 18+62.04 TO STA. 20+26.57

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

7/24/2013
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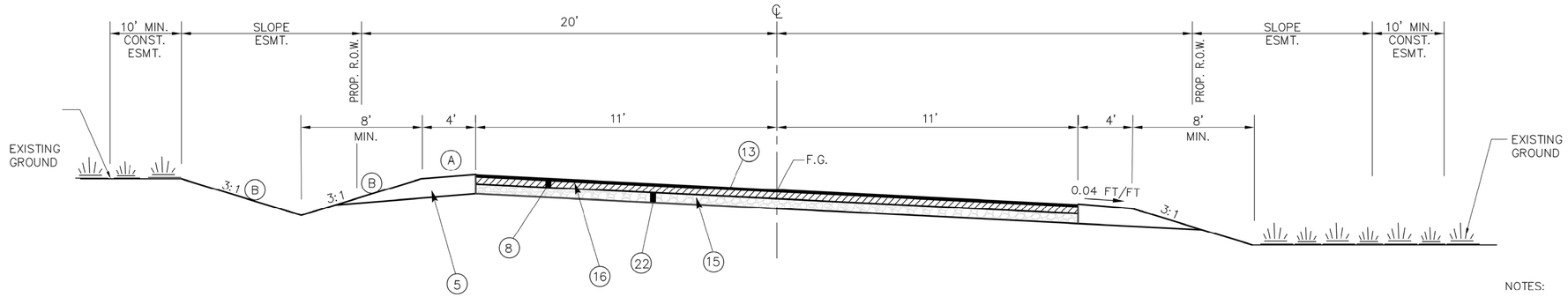
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2C
CONST.	2013	STP-M-7900(29)	2F

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 07/24/2013
REVISED PAVEMENT SCHEDULE TO ADD ITEMS 303-02 AND 309-01



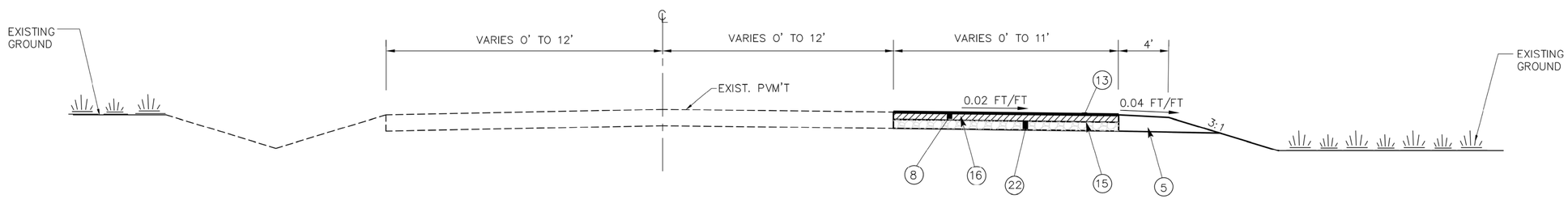
SUPERELEVATED SECTION RD01-TS-1 (N.T.S.)
DETOUR ROAD 2

STA. 28+04.19 TO STA. 29+14.05
(FROM N.C. TO MATCH EXIST. FITE RD.)

NOTES:

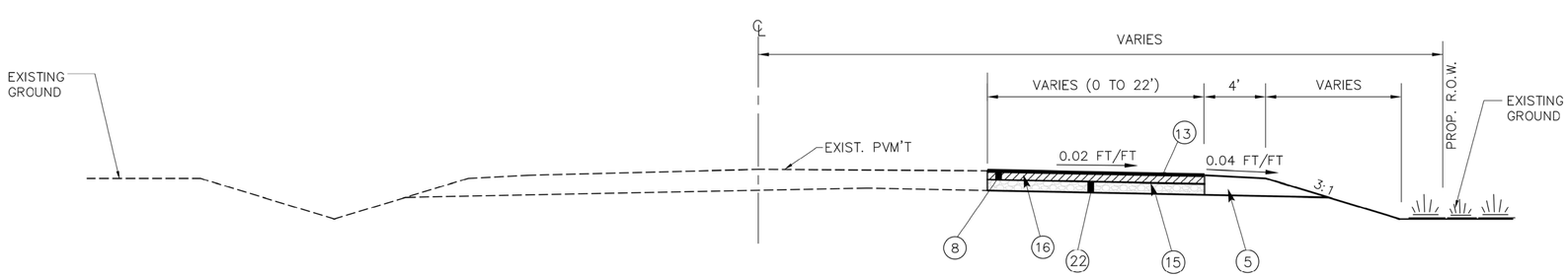
(A) ALGEBRAIC DIFFERENCE SHALL NOT EXCEED 7%.

(B) SLOPE VARIES BETWEEN 2:1 AND 3:1. SEE ROADWAY CROSS SECTIONS SLOPES TO BE SEEDED WITH MULCH UNLESS OTHERWISE SHOWN ON PLANS



TYPICAL PAVEMENT WIDENING SECTION (N.T.S.)
DETOUR ROAD 2

STA. 20+00 TO STA. 21+88.68



TYPICAL PAVEMENT WIDENING SECTION (N.T.S.)
DETOUR ROAD 2

STA. 29+14.05 TO STA. 35+79.69

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

7/24/2013
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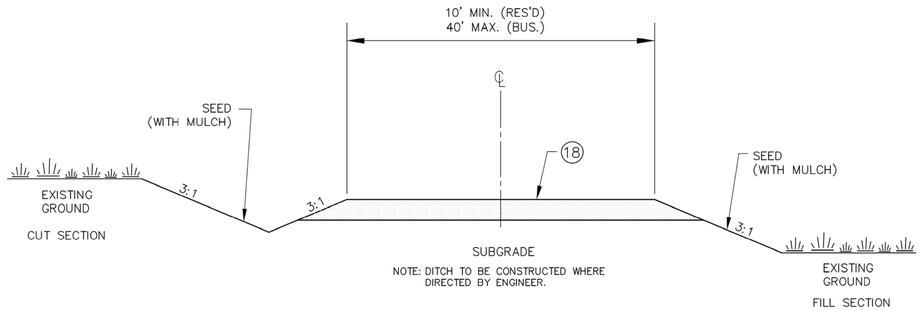
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2D
CONST.	2013	STP-M-7900(29)	2G

REVISIONS:

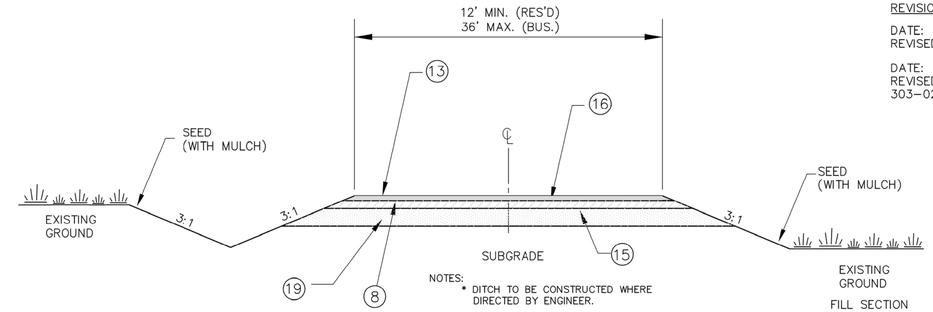
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 07/24/2013
REVISED PAVEMENT SCHEDULE TO ADD ITEMS 303-02 AND 309-01



GRAVEL DRIVEWAY

WIDTH		LOCATION
11'	–	RT STA. 64+00 FITE ROAD
12'	–	RT STA. 51+40 FITE ROAD
40'	–	RT STA. 91+46 FITE ROAD
20'	–	RT STA. 21+08.71 OLD MILLINGTON ROAD



ASPHALT DRIVEWAY

WIDTH		LOCATION
12'	–	RT STA. 30+45 FITE ROAD
12'	–	LT STA. 30+75 FITE ROAD
20'	–	LT STA. 44+25 FITE ROAD
20'	–	RT STA. 44+25 FITE ROAD
20'	–	LT STA. 61+60 FITE ROAD
20'	–	LT STA. 17+65.26 OLD MILLINGTON RD.

PROPOSED PAVEMENT SCHEDULE

COMMON PAVING

1	MINERAL AGGREGATE BASE – 6" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	11	307-02.08 BITUMINIOUS PLANT MIX BASE (HOT MIX) (GRADING "B-M2") 2" THICK (226LBS/SQ.YD) (PG 70-22)	21	MINERAL AGGREGATE BASE – 19 1/4" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"
2	MINERAL AGGREGATE BASE – 10" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	12	411-01.07 ASPHALTIC CONCRETE SURFACE (GRADING "E" SHOULDERS)– 1-1/4" THICK (129LBS/SQ.YD.) (PERFORMANCE GRADE PG 64-22)	22	CEMENT TREATED BASE 309-01.01 AGGREGATE-CEMENT BASE COURSE 6" THICK (634±LBS/SQ.YD.) 309-01.02 PORTLAND CEMENT (A-CBC) 309-02 BITUMINOUS MATERIAL (A-CBC)
3	MINERAL AGGREGATE BASE – 12-1/4" THICK 303-02 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	13	411-01.10 ASPHALTIC CONCRETE SURFACE (GRADING "D" ROADWAY)– 1-1/4" THICK (133LBS/SQ.YD.) (PERFORMANCE GRADE PG 64-22)		
4	MINERAL AGGREGATE BASE – 9" THICK 303-02 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	14	ASPHALTIC CONCRETE SURFACE (ROADWAY)– 1-1/4" THICK (133±LBS/SQ.YD.) 411-02.10 ASPHALTIC CONCRETE SURFACE (PERFORMANCE GRADE PG 70-22)		
5	MINERAL AGGREGATE BASE – 9-1/4" THICK 303-02 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	15	PRIME COAT 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (0.30 GAL/SQ.YD.)		
6	MINERAL AGGREGATE BASE – 16" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	16	TACK COAT 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.07 GAL/SQ.YD.)		
7	BITUMINOUS PLANT MIX BASE (HOT MIX) 3" THICK (345LBS/SQ.YD.) 307-01.01 PG64-22 BASE MIXES (GRADING A)	17	BITUMINOUS BINDER-2" THICK (226±LBS/SQ.YD.) 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2		
8	BITUMINOUS BINDER-2" THICK (226±LBS/SQ.YD.) 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	18	MINERAL AGGREGATE BASE – 5" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"		
9	307-02.01 BITUMINIOUS PLANT MIX BASE (HOT MIX) (GRADING "A") 3" THICK (345LBS/SQ.YD) (PG 70-22)	19	MINERAL AGGREGATE BASE – 4" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"		
10	307-02.02 BITUMINIOUS PLANT MIX BASE (HOT MIX) (GRADING "A-S") 3" THICK (270LBS/SQ.YD) (PG 70-22)	20	415-01.02 COLD PLANING BITUMINOUS PAVEMENT (1-1/2" MIN. TO 2" MAX.) (SY)		

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

7/24/2013
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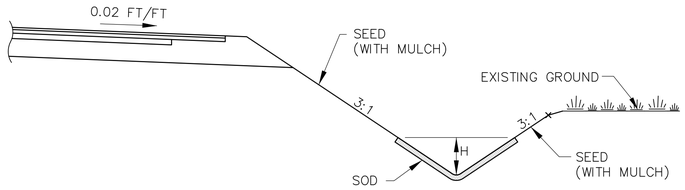
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2E
CONST.	2013	STP-M-7900(29)	2H

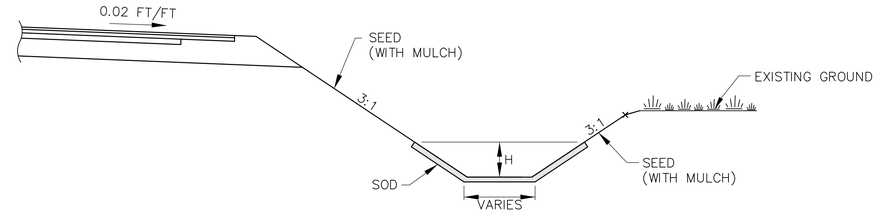
REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



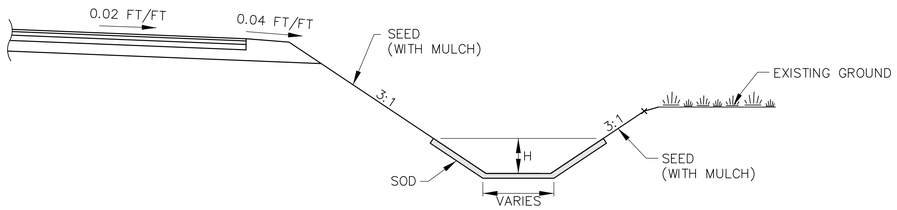
SPECIAL DITCH

STA.	ROADWAY	LOCATION	H (FT.)
28+00 TO 46+00	FITE ROAD	LT.	1.5±
48+00 TO 50+50	FITE ROAD	LT.	1.5
63+50 TO 76+00	FITE ROAD	RT.	1.5
78+00 TO 89+00	FITE ROAD	RT.	1.5
85+50 TO 97+00	FITE ROAD	LT.	2.0
89+50 TO 91+00	FITE ROAD	RT.	1.5
92+00 TO 97+00	FITE ROAD	RT.	1.5



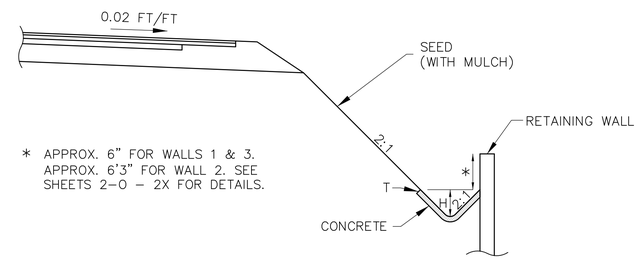
SPECIAL DITCH

STA.	ROADWAY	LOCATION	BOTTOM WIDTH (FT)	H (FT)
50+50 TO 54+00	FITE ROAD	LT.	2.0	1.5±
56+00 TO 62+00	FITE ROAD	LT.	2.0	2.0
62+00 TO 66+00	FITE ROAD	LT.	2.0	2.2
66+00 TO 77+00±	FITE ROAD	LT.	2.0	2.6



SPECIAL DITCH

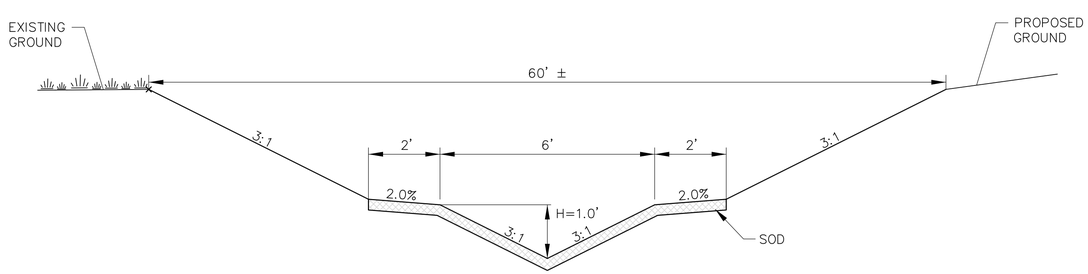
STA.	ROADWAY	LOCATION	BOTTOM WIDTH (FT)	H (FT)
17+50 TO 19+00	OLD MILLINGTON RD.	LT.	2.0	3.1
20+70± TO 22+00	OLD MILLINGTON RD.	LT.	2.0	2.5



* APPROX. 6" FOR WALLS 1 & 3.
APPROX. 6'3" FOR WALL 2. SEE
SHEETS 2-O – 2X FOR DETAILS.

SPECIAL DITCH

STA.	ROADWAY	LOCATION	H (FT.)	W (FT.)	T (FT.)
15+00.00 TO 17+98.37	RET. WALL 1	LT./RT.	1.00	4.0	0.33
20+00.00 TO 25+87.27	RET. WALL 2	RT.	1.00	4.0	0.33
10+14.41 TO 13+28.00	RET. WALL 3	LT./RT.	1.00	4.0	0.33



CHANNEL CHANGE

STA.	ROADWAY	LOCATION	BOTTOM WIDTH (FT)	H (FT)
79+06.56 TO 85+16.43±	FITE ROAD	LT.	0	1.0'

NOTE(S):

1. SEE SHEET NO. 18FF, RIPARIAN BUFFER PLAN FOR ADDITIONAL PLANTING DETAILS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL DITCH SECTIONS

4/12/2013
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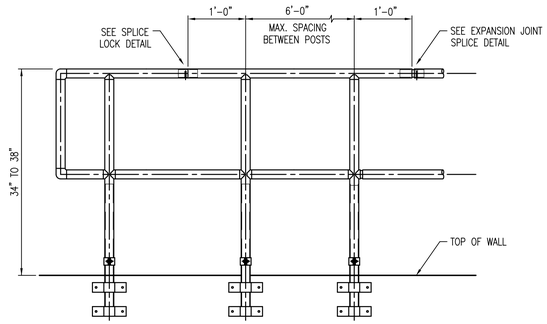
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

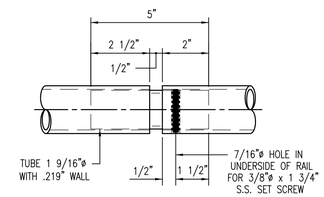
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2F
CONST.	2013	STP-M-7900(29)	2-I

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

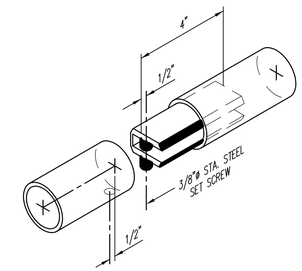


HANDRAIL



EXPANSION JOINT SPLICE

LOCATED AT 60'-0" MAXIMUM INTERVALS



SPLICE LOCK

STANDARD BUILDING CODE AND BOCA DESIGN SPECIFICATIONS FOR FACTORY-INDUSTRIAL APPLICATIONS

1. Handrail shall be the product of a company normally engaged in the manufacture of pipe railing. Railing shall be shop assembled in lengths not to exceed 24 feet for field erection.

2. Handrails shall be designed to withstand a 200# concentrated load applied in any direction at any point on the top rail. Handrails shall also be designed to withstand a load of 50#/ft applied horizontally to the top rail. The 200# load will not be applied simultaneously with the 50#/ft load. In addition, the handrails shall be designed to withstand a load of 100#/ft applied vertically downward to the top rail and simultaneously with the 50#/ft horizontal load.

3. The manufacturer shall submit calculations to the Engineer for approval. Testing of base castings or base extrusions by an independent lab or manufacturer's lab (if manufacturer's lab meets the requirements of the Aluminum Association) will be an acceptable substitute for calculations. Calculations will be required for approval of all other design aspects.

4. Post spacing shall be a maximum of 6'-0". Posts and railings shall be a minimum of 1-1/2" Schedule 40 aluminum pipe alloy 6105-T5, ASTM-B-429 or ASTM-B-221. The handrail manufacturer shall show that their posts are of adequate strength to meet the loading requirements. If the manufacturer's posts are not of adequate strength, the manufacturer may reduce the post spacing or add reinforcing dowels or may do both in order to meet the loading requirements.

5. The handrail shall be made of pipes joined together with component fittings. Samples of all components, bases, toe plate and pipe must be submitted for approval. ***Components that are pop-riveted or glued at the joints will not be acceptable.*** All components must be mechanically fastened with stainless steel hardware.

6. Posts shall not interrupt the continuation of the top rail at any point along the railing, including corners and end terminations (OSHA 1910.23). The top surface of the top railing shall be smooth and shall not be interrupted by projected fittings.

7. The midrail at a corner return shall be able to withstand a 200# load without loosening. The manufacturer is to determine this dimension for their system. Provide physical tests from a laboratory to confirm compliance.

8. Expansion bolts shall be spaced 10d apart and 5d edge distance for no reduction in pullout strength. A safety factor of 4 shall be used on expansion bolt pullout values published by the manufacturer. Expansion bolts shall be stainless steel type 18-8 wedge bolts and shall be furnished by the handrail manufacturer.

9. Toe plate shall conform to OSHA standards. Toe plate shall be a minimum of 4" high and shall be an extrusion that attaches to the posts with clamps which will allow for expansion and contraction between posts. Toe plates shall be set 1/4" above the walking surface. Toe plates shall be provided on handrails as required by OSHA and/or as shown on drawings. Toe plates shall be shipped loose in stock lengths with pre-manufactured corners for field installation.

10. Finish shall be Aluminum Association M10-C22-A41 (215-R1). The pipe shall be plastic-wrapped. The plastic wrap is to be removed after erection.

11. Aluminum surfaces in contact with concrete, grout or dissimilar metals will be protected with a coat of bituminous paint, mylar isolators or other approved material.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102350
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MISC. DETAILS

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2J

GENERAL NOTES

GRADING

(1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE 0F THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

(2) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.

(3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

(1) ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREA THAT ARE TO BE ABANDONED SHALL BE SCARIFIED, OBLITERATED, TOPSOILED AND SEEDED. SCARIFYING AND OBLITERATING THE PAVEMENT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS. TOPSOIL, IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEMS 203-04 AND/OR 203-07. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM 801-01.

(2) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.

(3) ITEM NOS. 801-01.05 & 801-01.06 SHALL BE USED ON SLOPES 3:1 OR STEEPER AND OTHER AREAS AS INDICATED IN THE PLANS THAT ARE INACCESSIBLE FOR MOWING.

(4) ITEM NO. 801-01, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

GUARDRAIL

(1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(2) THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(3) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

(4) GUARDRAIL IS TO BE COMPLETE IN PLACE BEFORE THE MAINLINE ROADWAY IS OPENED TO TRAFFIC.

DRAINAGE

(1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(2) EXCAVATION FOR CULVERT EXCAVATION WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).

(3) CULVERT EXCAVATION FOR CONCRETE BOX OR SLAB TYPE CULVERTS OR BRIDGES WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(4) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.

(5) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

UTILITIES

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

FENCING

(1) THE CONTRACTOR SHALL GIVE THE AFFECTED PROPERTY OWNERS TWO WEEKS NOTICE PRIOR TO CUTTING FENCES.

MISCELLANEOUS

(1) ALL DETOUR, ACCESS, SERVICE AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.

(2) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES WHERE AND AS DIRECTED BY THE ENGINEER.

(3) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

ROAD CLOSURE

(1) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.\

RIGHT - OF - WAY

(1) SEE SHEET 3.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

(2) WIDE (8 INCH) TEMPORARY PAVEMENT MARKING LINE WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02 PAINTED PAVEMENT MARKING (8" BARRIER LINE), LIN. FT.

FINAL PAVEMENT MARKING IF 4" SPRAY THERMOPLASTIC (40 mil) IS USED

(3) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" SPRAY THERMOPLASTIC (40 mil) INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-13.06, SPRAY THERMO PVMT MRKNG (40 mil) (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

PAVEMENT

PAVING

(1) THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.

(2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SPECIAL NOTES

4/19/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 General Notes.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2K

RIPRAP

(1) MACHINED RIPRAP SHALL BE IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY THIS NOTE. MACHINED RIPRAP SHALL BE CLEAN SHOT ROCK CONTAINING NO SAND, DUST, OR ORGANIC MATERIALS AND SHALL VARY IN SIZE FROM 2" TO 1'- 3". THE STONE SIZES SHALL BE DISTRIBUTED UNIFORMLY THROUGHOUT THE SIZE RANGE WITH NO MORE THAN 20% OF THE MATERIAL (BY WEIGHT) LESS THAN 4". THE THICKNESS OF THE STONE LAYER SHALL BE 1'-6" (+/-3") AND THE SIZE GRADATION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE LAYER THICKNESS AND FROM TOP TO BOTTOM OF THE SLOPE.

UPON COMPLETION OF THE PROJECT, A VISUAL INSPECTION SHALL REVEAL THAT APPROXIMATELY 50% OF THE SURFACE AREA CONSISTS OF STONES 4" OR LARGER. PAYMENT WILL BE MADE UNDER ITEM 709-05.10 MACHINED RIPRAP (DESCRIPTION), C.Y., AND QUANTITIES WILL BE BASED ON THE AVERAGE THICKNESS OF 1'- 6".

(2) RIPRAP SHALL CONSIST OF FURNISHING AND PLACING EITHER RUBBLE STONES BY HAND OR MACHINED. RUBBLE STONE SHALL MEET THE REQUIREMENTS OF SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE CLEAN (FREE FROM ORGANIC MATTER), DURABLE, ANGULAR WITH FRACTURED FACES, NEARLY RECTANGULAR IN SHAPE WITH A BREADTH OR THICKNESS AT LEAST ONE-THIRD ITS LENGTH.

IF THE CONTRACTOR ELECTS TO USE MACHINED RIPRAP, IT SHALL BE IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY THIS NOTE. MACHINED RIPRAP SHALL BE CLEAN SHOT ROCK CONTAINING NO SAND, DUST, OR ORGANIC MATERIALS, AND SHALL VARY IN SIZE FROM 3" TO 2'- 6". THE STONE SIZES SHALL BE DISTRIBUTED UNIFORMLY THROUGHOUT THE SIZE RANGE WITH NO MORE THAN 20% OF THE MATERIAL (BY WEIGHT) LESS THAN 6". THE THICKNESS OF THE STONE LAYER SHALL BE 2'- 6" (+/-3") AND THE SIZE GRADATION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE LAYER THICKNESS AND FROM TOP TO BOTTOM OF THE SLOPE. UPON COMPLETION OF THE PROJECT, A VISUAL INSPECTION SHALL REVEAL THAT APPROXIMATELY 50% OF THE SURFACE AREA CONSISTS OF STONES 6" OR LARGER. PAYMENT WILL BE MADE UNDER ITEM 709-05.08 AND QUANTITIES WILL BE BASED ON A THICKNESS OF 2'- 6".

SIGNING

(1) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUTOUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND. THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL EXTRUDED PANEL SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE, AS OUTLINED IN THE STANDARD SPECIFICATIONS. ALL SHIELDS ON GUIDE SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE AS OUTLINED IN THE STANDARD SPECIFICATIONS.

(2) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE LENGTHS WERE COMPUTED FROM THE CROSS-SECTIONS CONTAINED IN THE CONSTRUCTION PLANS. IN THE EVENT THE SUPPORT LENGTHS ARE 2 FEET SHORTER OR LONGER THAN SHOWN ON THE PLANS, THE ENGINEER SHALL VERIFY THE SUPPORT TYPE WITH THE DESIGN DIVISION, SIGNING AND MARKING SECTION, TELEPHONE NO. (615)-741-0982. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ORDERING MATERIAL.

(3) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.

(4) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.

(5) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1000, J. K. POLK BUILDING, NASHVILLE, TN 37243-0350.

(6) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.

(7) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.

(8) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND.

(9) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

(10) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

SIGNALIZATION

(1) EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE TDOT "SPECIAL PROVISIONS REGARDING SECTION 730M-TRAFFIC SIGNALS."

(2) IF RESURFACING IS INCLUDED IN THE PROJECT, SIGNAL DETECTION LOOPS SHALL BE INSTALLED BEFORE THE FINAL SURFACE IS APPLIED.

(3) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.

(4) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.

(5) LOOPS SHALL BE INSTALLED IN THE LEVELING COURSE IF A LEVELING COURSE IS PROVIDED.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.

(2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

(3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

(4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

(5) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(6) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE.. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

EROSION PREVENTION AND SEDIMENT CONTROL

(1) SEE SHEET 18

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SPECIAL NOTES

4/16/2013
W:\6513\Transportation\Drawings\Plans\Construction Plans\6513 General Notes.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2L

SPECIAL NOTES

PAVEMENT

RESURFACING

(1) TRAFFIC WILL BE ALLOWED TO TEMPORARILY DRIVE ON THE MILLED SURFACE OF THE ROADWAY UNDER THE FOLLOWING CONDITIONS ONLY:

A. THE MILLED SURFACE IS FINE TEXTURED. THE FINE TEXTURE SHALL BE OBTAINED BY A MILLING MACHINE UTILIZING A MILLING HEAD WITH TEETH SPACING 3/8" OR LESS OPERATING AT LESS THAN 80 FEET PER MINUTE.

B. THE SURFACE SHALL BE SWEPT AND CLEANED OF ALL LOOSE MATERIALS.

C. THE DIFFERENCE IN ELEVATION BETWEEN THE MILLED SURFACE AND THE ADJACENT LANE SHALL NOT EXCEED 1 1/2 INCHES.

D. THE MILLED SURFACE SHALL BE PAVED WITHIN 48 HOURS

E. RAIN OR INCLEMENT WEATHER IS NOT EXPECTED OR FORECASTED WITHIN 48 HOURS AFTER MILLING.

F. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (TN-64) PLACED IN ADVANCE OF ANY MILLED AREAS.

G. IF RAVELING OR DETERIORATION OF THE MILLED SURFACE IS OCCURRING WHILE TRAFFIC IS DRIVING ON THE MILLED SURFACE, THEN THIS PRACTICE WILL NOT BE ALLOWED AND PAVING SHALL BE COMPLETED IMMEDIATELY AFTER MILLING.

H. ONLY ONE LANE IN EACH DIRECTION SHALL HAVE A MILLED SURFACE AT ONE TIME.

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL

(1) SEE SHEET NO. 20

SIGNALIZATION

(1) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, CURRENT EDITION.

(2) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

(3) CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENTED VIEW.

(4) ARROW INDICATIONS SHALL MEETING "ITE VTCSH-3 LED ARROW SPECIFICATION" FOR EXPANDED/EXTENEDED VIEW.

(5) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

(6) COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.

(7) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE YEAR WARRANTY FOR OPERATION OF THE UNIT.

(8) ALL SIGNAL HEADS SHALL INCLUDE SWIVEL BALANCE ADJUSTERS TO MAINTAIN THE PROPER VISIBILITY. COSTS OF ADJUSTERS TO BE INCLUDED IN COST OF SIGNAL HEADS.

(9) THE ATTACHMENT OF THE TETHER WIRE TO THE POLE SHALL BE LOCATED BELOW THE LOWEST ELEVATION OF THE SIGNAL HEADS.

(10) THE CONTRACTOR SHALL CONTACT THE CITY OF MEMPHIS AT 528-2844 AT LEAST 48 HOURS PRIOR TO POURING CONCRETE FOR FOUNDATIONS.

(11) THE CONTRACTOR SHALL DELIVER THE CONTROLLER TO THE CITY OF MEMPHIS TRAFFIC SIGNAL SHOP 30 DAYS PRIOR TO SIGNAL TURN ON.

(12) THE TRAFFIC CONTROLLER INSTALLATION ALONG WITH ALL AUXILIARY EQUIPMENT TO BE INSTALLED IN THE CABINET SHALL BE EQUIPMENT TO BE INSTALLED IN THE CABINET SHALL BE MANUFACTURED, SUPPLIED, AND INSTALLED IN ACCORDANCE WITH THE LATEST CITY OF MEMPHIS TRAFFIC SIGNAL CONTROLLER AND CABINET SPECIFICATIONS. THE CONTRACTOR SHALL REFER TO THE CITY OF MEMPHIS "DESIGN STANDARDS" FOR INSTALLATION DETAILS (SHEETS TS1- THROUGH TS-10).

(13) THE TRAFFIC SIGNAL CONTROLLER SHALL BE AN EAGLE EPAC 370-8M52 8-PHASE KEYBOARD UNIT OR APPROVED EQUIVALENT. THE TRAFFIC SIGNAL CONTROLLER SHALL HAVE BUILT IN STRETCH AND DELAY FEATURES FOR EACH PHASE, AS APPROVED BY THE CITY.

(14) CABLE SPLICING SHALL BE ACCOMPLISHED IN THE BASE OF EACH POLE IN ACCORDANCE WITH STANDARD CITY OF MEMPHIS SPLICING STANDARDS AND DETAILS.

(15) CONTRACTOR SHALL CONTACT TRAFFIC ENGINEERING DEPARTMENT AT 567-6710 AT LEAST 48 HOURS PRIOR TO POURING CONCRETE FOR POLE FOUNDATIONS AS WELL AS INSTALLING LOOP SEALANT.

EROSION PREVENTION AND SEDIMENT CONTROL

(1) SEE SHEET 18

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SPECIAL NOTES

4/16/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 General Notes.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2M

CROSS DRAIN TABULATION

STATION	RCP CLASS III FILL HEIGHT < OR = 18 FT. 18"	24"	30"	36"	42"	48"	RCP CLASS IV AND < OR = 24 FT. 18"	24"	30"	36"	48"	SKEW	RIP-RAP 709-05.08 (TON)	RIP-RAP 709-05.09 (TON)	END TREATMENT INLET TYPE	INLET DRAWING NO.	OUTLET TYPE	OUTLET DRAWING NO.	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)	REMARKS
45+74.00					67							90°	52	-	U	D-PE-42(A) D-PE-42(B)	U	D-PE-42(A) D-PE-42(B)	6.06	522	296	GRATE REQ'D
50+50.00			68									90°	22	-	U	D-PE-30(A) D-PE-30(B)	U	D-PE-30(A) D-PE-30(B)	3.68	348		GRATE NOT REQ'D BEHIND GUARDRAIL
97+50.43				*											U	D-PE-36(A) D-PE-36(B)			2.43	219	132	GRATE REQ'D
TOTALS	0	0	68	0	67	0	0	0	0	0	0		74	0					12.17	1089	428	

* EXISTING 36" RCP TO REMAIN. ENDWALL TO BE ADDED TO UPSTREAM END ONLY.

BOX CULVERT TABULATION

	STATION	LOCATION	SPAN	HEIGHT	LENGTH	SKEW	DRAINAGE AREA ACRES	BOX CULVERT BOX CLASS "A" CONC. CU. YD.	BOX REINF. STEEL LBS.	APRON CLASS "A" CONC. CU. YD.	APRON WIRE FABRIC LBS.	APRON STEEL BAR REINF. LBS.	CULVERT EXC. CU. YD.	DRAWING NO.	BACKFILLING ITEM 303-01.01 DWG. STD-10-1 TONS	FOUNDATION FILL MATERIAL CU. YD.
	37+63.00	FITE ROAD	66.77	10	6	81°30'00"	159.5	76.0	14315.0	N/A	N/A	N/A	*	STD-15-38	339.0	41.0
	70+79.49	FITE ROAD	207.03	8	6	75° LT	93	271.0	41515.0	N/A	N/A	N/A	*	STD-15-37	853.0	111.0
**	85+55.53	FITE ROAD	236.2	20	10	66°45'30"	910±	755	117791	N/A	N/A	N/A	*	STD-15-58	2929.0	236.0
	TOTALS							1102	173621	0	0	0	0.00		4121.0	388.0

* INCLUDED IN THE COST OF THE STRUCTURE.
** BOX BRIDGE

BRIDGE DRAIN PIPE

SHEET NO.	LOCATION	STATION	RUBBLE-STONE RIP-RAP 709-01.01 (CU. YD.)	18" PIPE DRAIN (BRIDGE DRAIN) 610-07.03 (L.F.)	REMARKS
8A	FITE ROAD	76+22.28	2.6	19	
8A	FITE ROAD	76+35.68	2.6	125	
8A	FITE ROAD	78+52.28	2.6	79	
8A	FITE ROAD	78+52.59	2.6	72	
TOTALS			10.4	295	

SIDE DRAIN TABULATION

STATION	LOCATION LT	RT	DESCRIPTION	SURFACE WIDTH (L.F.)	RCP CLASS III FILL HEIGHT < OR = 10 FT. 18"	24"	30"	36"	48"	RCAP 607-57.04 27" X 44"	END TREATMENT TYPE	DRAWING NO.	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)	REMARKS
30+75.00	X		FITE ROAD	12	32						-		-	-	N/A	NO E/W REQUIRED
44+25.00	X		FITE ROAD	20		40					-		-	-	N/A	NO E/W REQUIRED
61+60.00	X		FITE ROAD	20		30					-		-	-	N/A	NO E/W REQUIRED
91+46.00		X	FITE ROAD	40	60						-		-	-	N/A	NO E/W REQUIRED
17+65.26	X		OLD MILLINGTON RD	20						41	SEW	D-PE-42A	5.50	464	284	42" EQUIVALENT Ⓐ
TOTALS					92	70	0	0	0	41			5.50	464	284	

Ⓐ QUANTITIES ESTIMATED FROM 42" EQUIVALENT. ENDWALL ONLY ON UPSTREAM END.

CATCH BASINS AND MANHOLES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	PAY ITEMS TYPE 14 611-14.02 4' - 8'	TYPE 42 611-42.01 0' - 4'	TYPE 42 611-42.02 4' - 8'
4A	HWY 51	21+00.00	-72.00	1	263.00	42		4.85	D-CB-42S			1
8A	FITE ROAD	76+22.28	25.00	15	276.53	14		4.05	D-CB-14P	1		
8A	FITE ROAD	76+35.68	-25.00	16	276.63	14		4.05	D-CB-14P	1		
8A	FITE ROAD	78+52.28	25.00	17	276.69	14		4.05	D-CB-14P	1		
8A	FITE ROAD	78+65.68	-25.00	18	276.60	14		4.05	D-CB-14P	1		
8A	CLANCY	20+00	-24.21	4	232.25	42		3.26	D-CB-42S		1	
TOTALS										4	1	1

JUNCTION BOXES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	OUTSIDE TOP ELEV.	STRUCTURE TYPE	DEPTH (FT.)
4A	HWY 51	18+39.92	67.70	1	257.54		15.51
8A	FITE ROAD	77+97.04	44.19	2	234.77		5.37

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	OUTLET ELEV.	TO CODE	INLET ELEV.	% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.) 18"	24"	30"	36"	48"	RIP-RAP 709-05.06 (TON)
4A	EW3	261.15	EW2	258.17	2.04	146					-
4A	EW4	262.44	1/42	259.25	4.62		69				-
4A	1/42	259.00	1/JB	252.37	2.60		255				-
4A	1/JB	243.34	EW1	242.91	0.86					50	-
8A	2/P	230.94	2/JB	230.60	0.52		*66				-
8A	2/JB	230.50	EW11	229.69	0.46		*178				-
8A	4/42	229.30	B2	227.79	0.60	252					-
8A	EW12	231.75	B3	228.50	4.35				69		-
8A	EW13	231.75	EW14	231.15	1.18	51					-
TOTALS						449	324	0	69	50	0

*CLASS IV PIPE

STORM DRAINAGE ENDWALLS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	STRUCTURE TYPE	STANDARD DRAWING	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)
4A	HWY 51	18+32.44	120.92	1	U	D-PE-48A&B	4.83	420	203
4A	FITE ROAD	27+14.78	87.12	2	12D	D-SEW-12D	2.84	253	461
4A	FITE ROAD	27+07.55	-58.91	3	12D	D-SEW-12D	2.84	253	461
4A	FITE ROAD	27+75.13	-163.93	4	SEW	D-PE-24A	2.26	215	N/A
8A	FITE ROAD	78+42.91	-127	11	U	D-PE-4	1.76	20	N/A
8A	FITE ROAD	86+00.00	-97.50	12	U	D-PE-36A&B	2.43	219	N/A
8A	CLANCY RD	24+50.00	-24.60	13	U	D-PE-18A&B	0.87	79	N/A
8A	CLANCY RD	24+50.00	26.37	14	U	D-PE-18A&B	0.87	79	N/A
TOTALS							18.7	1538	1125

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STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

4/16/2013
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TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2N

REVISION 07/24/2013 ADDED 303-02 AND 309 TO PAVEMENT QUANTITIES TABLE AND REVISED PAVEMENT QUANTITIES TO REFLECT ADDITION OF THOSE ITEMS.

PAVEMENT QUANTITIES

LOCATION	PAY ITEMS															
	303-01 (TON)	303-02 (TON)	307-01.01 (TON)	307-01.08 (TON)	307-02.01 (TON)	307-02.02 (TON)	307-02.03 (TON)	307-02.08 (TON)	309-01.01 (TON)	309-01.02 (TON)	309-02 (TON)	411-02.10 (TON)	402-01 (TON)	403-01 (TON)	411-01.10 (TON)	411-01.07 (TON)
FITE RD		6650.0	4802.0	3922.0					8503.0	415.0	25.0		48.0	21.5	1863.0	446.0
OLD MILLINGTON RD	1315.0		410.0	270.0									3.3	1.6	159.0	
HWY 51	2870.0			74.0	347.0	9.0	268.0	341.0				167.0	3.6	2.2		42.0
DETOUR ROAD 1		270.0		90.0									1.3	0.4	53.0	
DETOUR ROAD 2		340.0		390.0					1044.0	51.0	4.0		4.7	1.2	228.0	
CLANCY DR		200.0		230.0					617.0	31.0	2.0		2.8	0.7	136.0	
OM DET	705.0			91.0											52.0	
ASPHALT D/W	1710.0			114.0									1.4	0.3	106.0	
GRAVEL D/W	590.0															
CUL-DE-SAC	610.0			96.0									1.2	0.3	70.0	
TOTALS	**7800.0**	**7460.0**	**5212.0**	**5277.0**	**347.0**	**9.0**	**268.0**	**341.0**	**10164.0**	**497.0**	**31.0**	**167.0**	**66.3**	**28.2**	**2667.0**	**488.0**

PROPOSED GUARDRAIL

SHEET NO.	LOCATION	SIDE		STATION		GUARDRAIL					TERMINAL ANCHORS					REMARKS
		LT	RT	FROM	TO	BRIDGE ENDS 705-01.01 (L.F.)	BRIDGE PIERS 705-01.02 (L.F.)	METAL BEAM GUARD 705-01.04 (L.F.)	SINGLE TYPE 2 705-02.02 (L.F.)	MEDIAN TYPE 2 705-03.03 (L.F.)	TYPE 12 705-04.02 (EACH)	TYPE 13 705-04.03 (EACH)	TYPE 21 705-04.04 (EACH)	TYPE IN-LINE 705-04.05 (EACH)	TYPE 38 705-04.07 (EACH)	
4A	HWY 51	X		19+25.00	21+26.00				151			1			1	
4A	FITE RD		X	35+16.00	39+35.00				319						2	SEE S-GR-22
5A	FITE RD	X		35+70.00	40+10.00				340						2	SEE S-GR-22
5A	FITE RD		X	44+60.00	18+97.00 *				122				1		1	
5A	FITE RD	X		44+60.00	21+14.00 *				165				1		1	
7A	FITE RD	X		71+00.00	76+68.71	27			467						1	
7A	FITE RD		X	71+00.00	76+57.25	27			480						1	
8A	FITE RD	X		78+30.71	88+92.32	27			985						1	
8A	FITE RD		X	78+19.25	25+36.00**	27			1125				1			S-GR-23A
8A	CLANCY RD		X	20+15.00	24+25.00				360				2			
TOTALS						**108**	**0.00**	**0**	**4514**	**0**	**0**	**1**	**5**	**0**	**10**	

* OLD MILLINGTON ROAD
** CLANCY ROAD

SANITARY SEWER MANHOLE ADJUSTMENTS

	SHEET NO.	LOCATION	STATION	OFFSET (FT.)	SMH CODE	EX. GRATE/TOP ELEV.	TEMP. GRATE/TOP ELEV.	PROP. GRATE/TOP ELEV.	RAISE (FT.)	LOWER (FT.)	REMARKS
	5A	OLD MILLINGTON	18+08.54	19.42' LT	SMH 1	241.90		242.60	0.70		
	5A	OLD MILLINGTON	22+02.02	17.38' LT	SMH 1A	244.02		244.05			NO CHANGE
	8A	FITE ROAD	77+07.97	275.60' LT	SMH 1B						SEE SHT. NO. 19
*	8A	FITE ROAD	76+14.50	72.43' RT	SMH 2	236.66		238.57			SEE SHT. NO. 19
	8A	FITE ROAD	79+00.48	154.35' RT	SMH 2A						NO CHANGE
	8A	FITE ROAD	79+95.37	189.16' RT	SMH 2B						NO CHANGE
	8A	FITE ROAD	83+15.94	110.81' RT	SMH 3						NO CHANGE
	8A	FITE ROAD	86+65.30	81.79' RT	SMH 4						NO CHANGE
	9A	FITE ROAD	90+07.97	53.79' RT	SMH 5						NO CHANGE
**	9A	FITE ROAD	93+72.48	28.02' RT	SMH 6	244.96	243.98	238.00		6.96	
**	9A	FITE ROAD	96+31.44	23.51' RT	SMH 7	238.69	243.99	239.01	0.32		

* NEW MANHOLE
** SMH TOP WILL HAVE TO BE ADJUSTED MULTIPLE TIMES.
INITIALLY FOR TEMP. DETOUR AND ULTIMATELY TO THE FINAL PROPOSED GRADE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

7/24/2013
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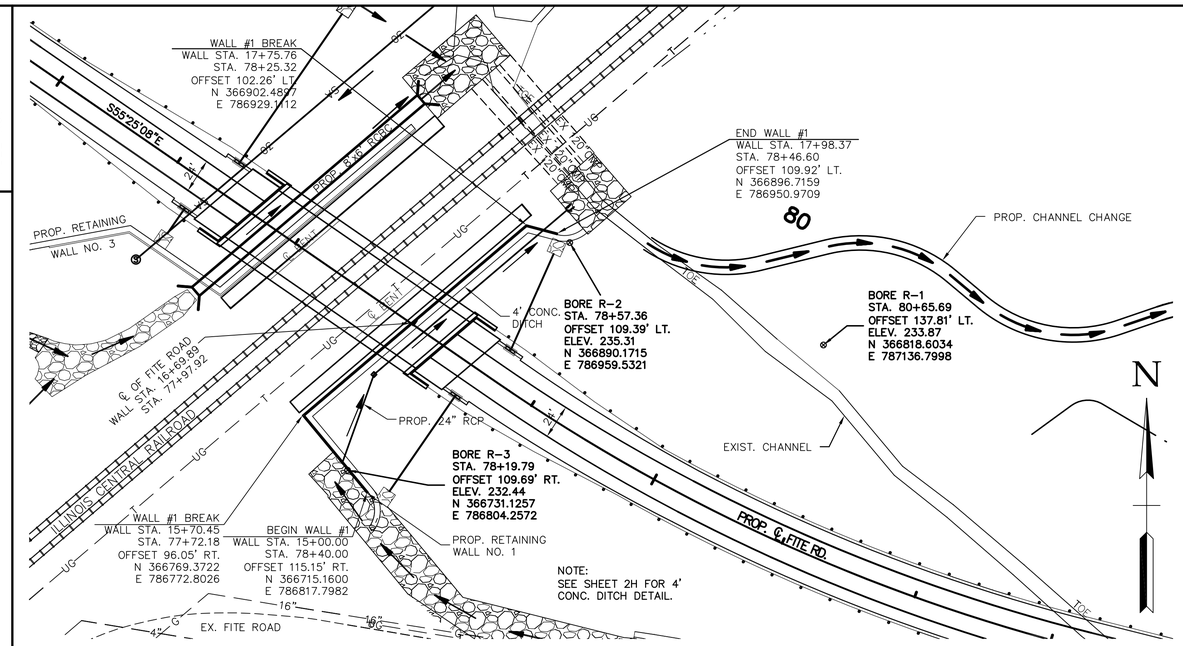
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

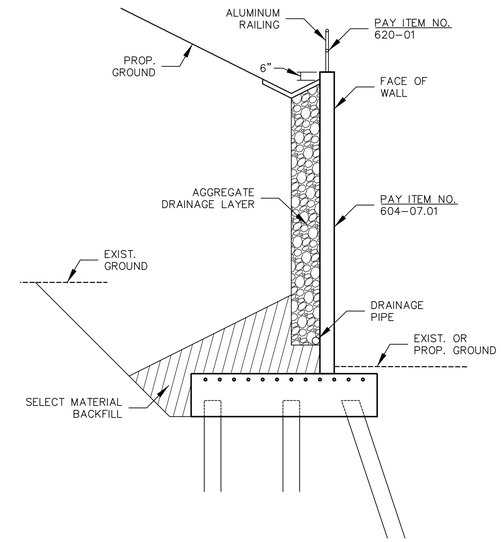
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2G
CONST.	2013	STP-M-7900(29)	2-O

REVISIONS:

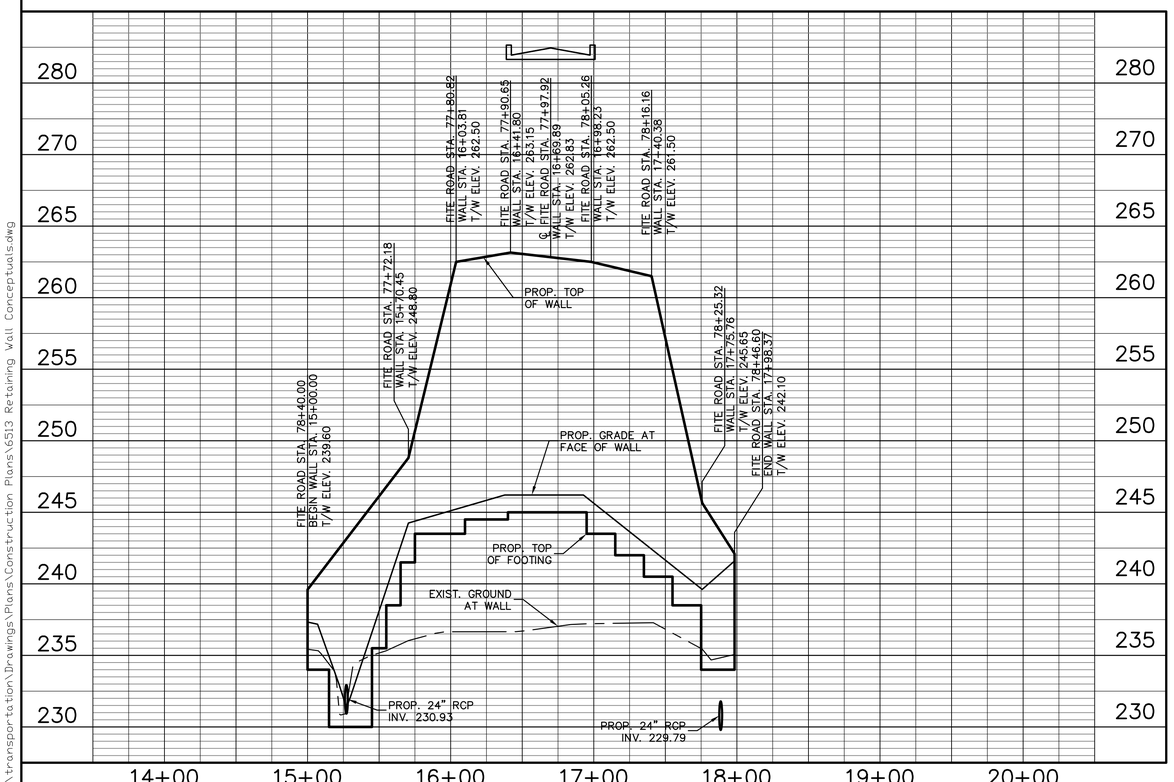
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



PLAN VIEW - RETAINING WALL #1



PAY ITEMS - RETAINING WALL #1



PROFILE VIEW - RETAINING WALL #1

RETAINING WALL 1 QUANTITIES

	PAY ITEM NO.	DESCRIPTION	(2) QUANTITY
(1)	604-07.01	RETAINING WALL 1	4,421 S.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. COST TO INCLUDE ALL MATERIALS SUCH AS CONCRETE AND STEEL IN FOOTINGS AND STEM, ANY PILES OR ALTERNATE MEANS OF FOUNDATION SUPPORT, SELECT MATERIAL BACKFILL, AGGREGATE DRAINAGE LAYER, DRAINAGE PIPE, ETC.

(2) ALL QUANTITIES ARE APPROXIMATE. ACTUAL QUANTITIES TO BE MEASURED IN THE FIELD PER TDOT SPECIFICATIONS.

RETAINING 1 WALL FOOTING ELEVATIONS

WALL STA.	TOP OF FOOTING ELEV.	WALL STA.	TOP OF FOOTING ELEV.
15+00.00	234.00	16+40.00	244.50
15+15.00	234.00	16+40.00	245.00
15+15.00	230.00	16+95.00	245.00
15+45.00	230.00	16+95.00	243.50
15+45.00	235.50	17+15.00	243.50
15+55.00	235.50	17+15.00	242.00
15+55.00	238.50	17+35.00	242.00
15+65.00	238.50	17+35.00	240.50
15+65.00	241.50	17+55.00	240.50
15+75.00	241.50	17+55.00	238.50
15+75.00	243.50	17+75.00	238.50
16+10.00	243.50	17+75.00	234.00
16+10.00	244.50	17+98.37	234.00

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 1 FITE ROAD

STA. 78+40.00 TO 78+46.60
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/15/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2H
CONST.	2013	STP-M-7900(29)	2P

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

1. RECOMMENDED WALL TYPES

The different types of earth retaining structures listed below are considered suitable for the site:

- Cast-in-Place Reinforced Concrete Wall
- Precast Concrete Wall
- MSE Wall

2. EXCAVATION AND BACKFILL

Temporary construction slopes should have a maximum allowable slope of 1V:1H. The contractor shall ensure that these temporary back slopes are not and do not become unstable. If a slope is unstable, becomes unstable, or is unacceptable for other reasons, then temporary shoring shall be used. All walls must follow the design guidelines established in the TDOT Earth Retaining Structures Manual (available version at the time of letting).

The 1V:1H temporary construction slope should be backfilled with select backfill as specified later in this report. Refer to the Select Backfill Material table presented in the subsequent section for engineering properties. The engineer shall approve potential backfill materials before use. The backfill should extend vertically to the full height of the wall.

The backfill is to be placed in accordance with TDOT's *Standard Specifications for Road and Bridge Construction* (March 1, 2006). Prior to fill placement, the foundation soil and areas receiving fill shall be observed by the engineer. Any soft zones or unsuitable materials shall be removed and the resulting excavation backfilled with approved fill materials.

3. RECOMMENDED SOIL PARAMETERS

Recommended soil parameters to be used in the design are provided in the following table.

Select Backfill						
Material	Undrained Condition (Short Term)			Drained Condition (Long Term)		
	ϕ(°)	Cohesion (psf)	Density (pcf)	ϕ(°)	Cohesion (psf)	Density (pcf)
Coarse-grained (select) Backfill	34	0	-	34	0	-
Fine-grained Backfill	0	1000	120	28	0	120

The sliding coefficient values shall be as follows:

Fine-grained material: 0.35
Select granular material: 0.50

The select fill shall conform to the specifications outlined in Item 4.5 of Section F, Chapter 3 of the TDOT Earth Retaining Structures Manual (available version at the time of letting). It should also be reasonably free (maximum of 0.1%) from organic and otherwise deleterious materials. To utilize the angle of internal friction (ϕ) of the select backfill, the backfill must extend behind the wall for a minimum zone formed by a 1V:1H slope behind the back edge of footing or reinforced zone. The unit weight of the select backfill is to be determined by the contractor/wall designer depending upon the actual backfill material used.

4. FACTORS OF SAFETY

The following safety factors should be incorporated the wall design.

Mode of Failure	Minimum Safety Factors	
	Non-Seismic Condition	Seismic Condition
Sliding	1.5	1.2
Overturning	2.0	1.5
Bearing Capacity	2.5 For MSE Walls	1.9
	3.0 For All Other Types	2.3

5. BEARING CAPACITY RECOMMENDATIONS

The maximum allowable bearing pressure is as follows:

Length of Wall = 1200 psf
(based on ultimate bearing pressure of 3700 psf and a Factor of Safety of 3.0)

It is recommended that the geotechnical engineer be present to observe the excavation of the footings for the retaining structures. If the observed bearing conditions are not sufficient to support the wall, soil improvement will be necessary.

6. SETTLEMENT MITIGATION

A relatively large magnitude of settlement is expected. This can be mitigated by either staging the fill placement or by using soil reinforcement. Staging the fill consists of placing the fill at a controlled rate to allow the in situ soils to gain strength and stiffness. Settlement should be monitored using settlement plates or other appropriate means. Construction of the roadway can only commence after the settlement due to fill placement is complete.

Soil improvement by other means, such as stone columns or rammed aggregate piers, can be utilized to mitigate settlement. Such systems are proprietary and are typically provided on a design/build basis.

7. BEARING CAPACITY IMPROVEMENT

The allowable bearing capacity can be increased by means of soil reinforcement techniques, such as stone columns or rammed aggregate piers. Such systems can increase bearing capacity to 4000 or 4500 psf.

8. MITIGATION OF GLOBAL STABILITY

The preliminary analysis indicated insufficient factors of safety against global stability failure. Mitigation can be accomplished by utilizing a soil reinforcement technique, using a sheet pile wall system or by placing the fill at a controlled rate (staged construction) to increase the strength of the foundation soils. If this approach is utilized, additional global stability analyses should be performed to evaluate the stability at each stage.

9. SPECIFIC DESIGN REQUIREMENTS

The wall shall have a drainage gutter at the top designed to carry surface runoff to either or both ends of the walls. Actual details are to be provided in the contractor's wall design plans. If a concrete cantilever wall is used, the wall designer must provide for a drainage layer behind the wall stem with adequate drainage provided via weep holes.

10. SPECIAL NOTE REGARDING RETAINING WALL

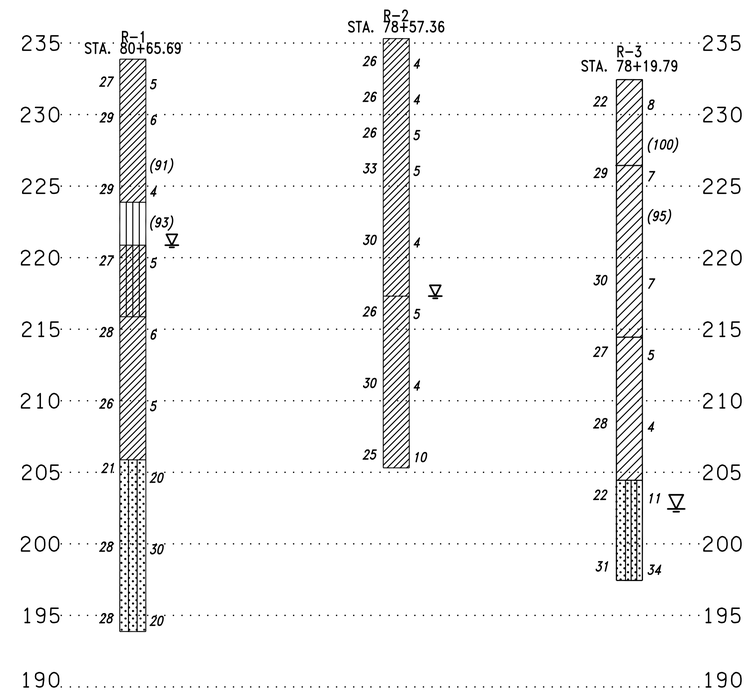
Unless specifically stated otherwise in the contract plans, the bidding for, the design of and the construction of retaining walls shown in the plans shall be governed by the TDOT Earth Retaining Structures Manual (available version at the time of letting). This manual is available on the TDOT web site under the Information for Contractors link. The TDOT manual shall be considered as one of those documents which the bidder/contractor has examined and made himself familiar with as described in Section 102.04 – Examination of the Site, the Work, the Plans, and the Specifications in the TDOT Standard Specifications for Road and Bridge Construction.

11. SPECIAL NOTE REGARDING STRUCTURES UNDER RETAINING WALLS

The design of the retaining wall footings shall include necessary accommodations for structures such as box culverts under and through retaining walls. Details of construction including pile locations, joints, steel, etc. must be provided in retaining wall shop drawings.

12. PILES FOR RETAINING WALLS

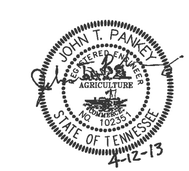
It is anticipated that piles or alternate means of foundation support will be required for larger retaining walls. Pre-cast piles will be used unless piles are within 50-feet of a utility or structure. Cast-in-place piles will be used for piles within 50-feet of a utility or structure. Piles or alternate means of foundation support will not be measured directly for payment but will be included in the square foot price of the wall.



GEOTECHNICAL INFORMATION
SCALE: 1"=5'V

LEGEND

CLAY
SILT
SILTY CLAY
SILTY SAND
SAND WITH SILT



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL
CONCEPTUAL DRAWING
WALL NO. 1
FITE ROAD
STA. 78+40.00 TO 78+46.60

SCALE: AS SHOWN

4/12/2013
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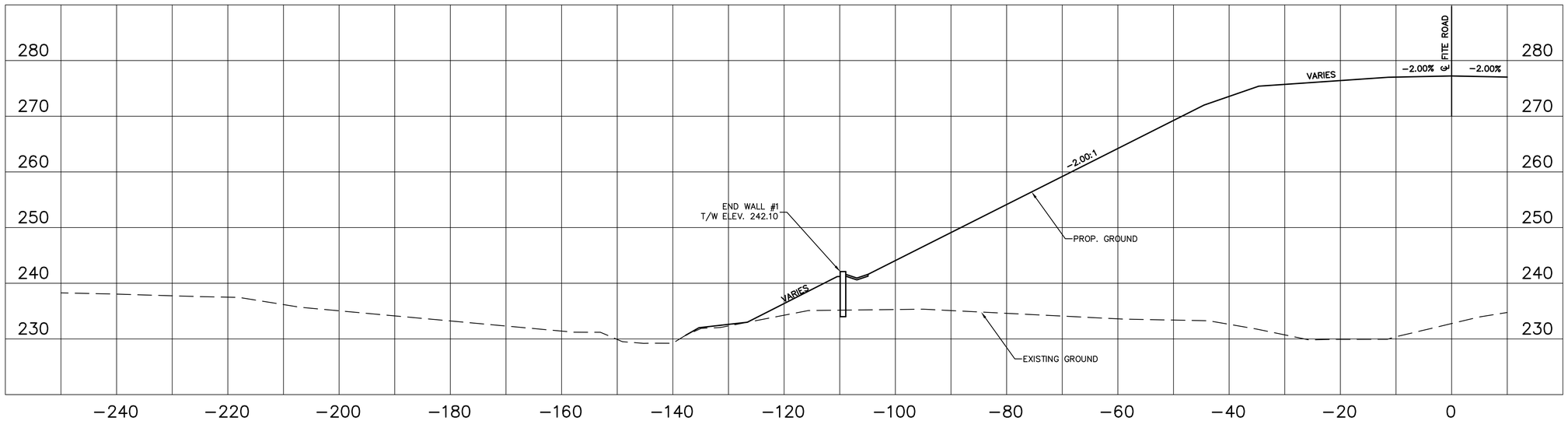
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

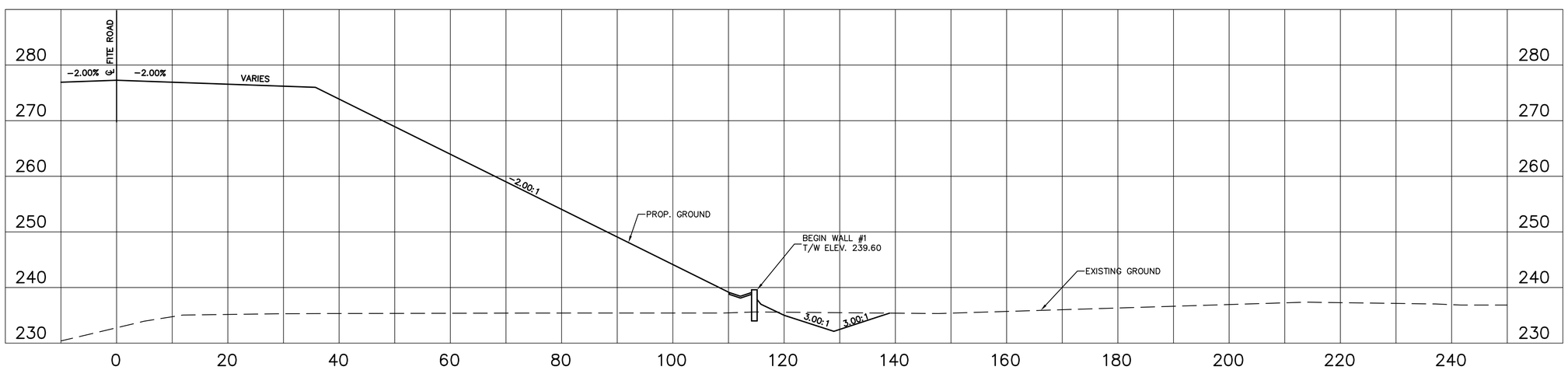
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2H
CONST.	2013	STP-M-7900(29)	2-Q

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



FITE ROAD STA. 78+46.60
END RETAINING WALL #1 17+98.37



FITE ROAD STA. 78+40.00
BEGIN RETAINING WALL #1 15+00.00

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL
CONCEPTUAL DRAWING
WALL NO. 1
FITE ROAD

BEGIN/END CROSS SECTIONS

SCALE: 1"=10'

4/12/2013
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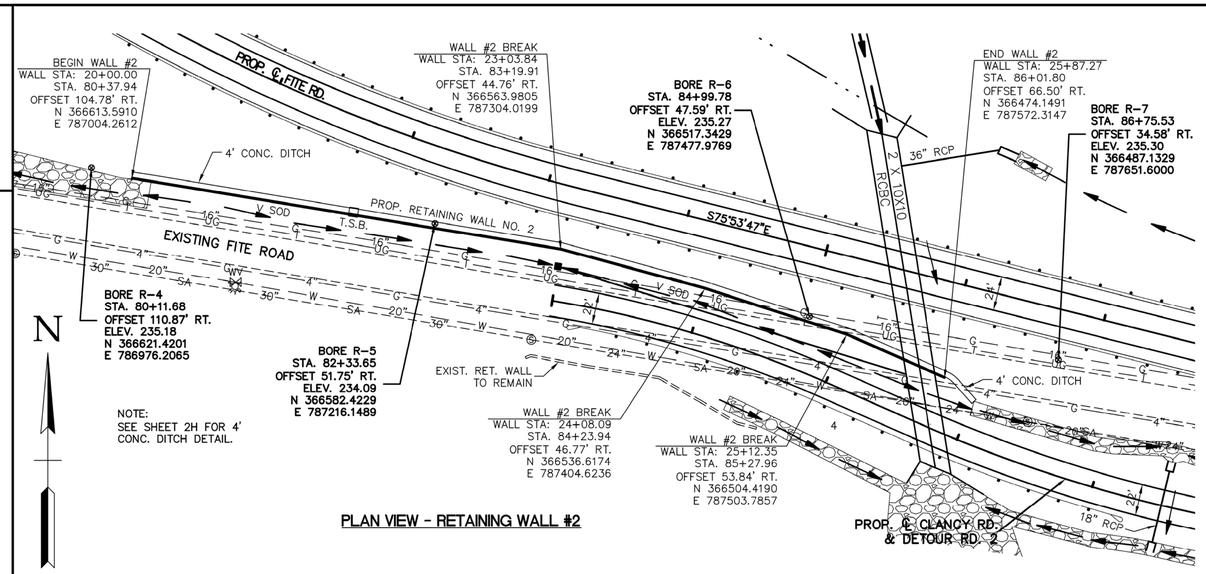
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2-I
CONST.	2013	STP-M-7900(29)	2R

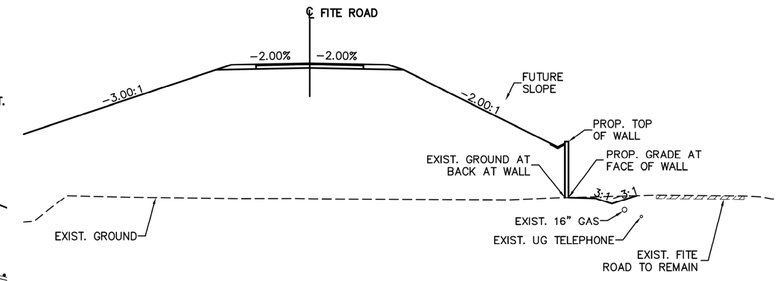
REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 07/24/2013
REVISED WALL HEIGHT



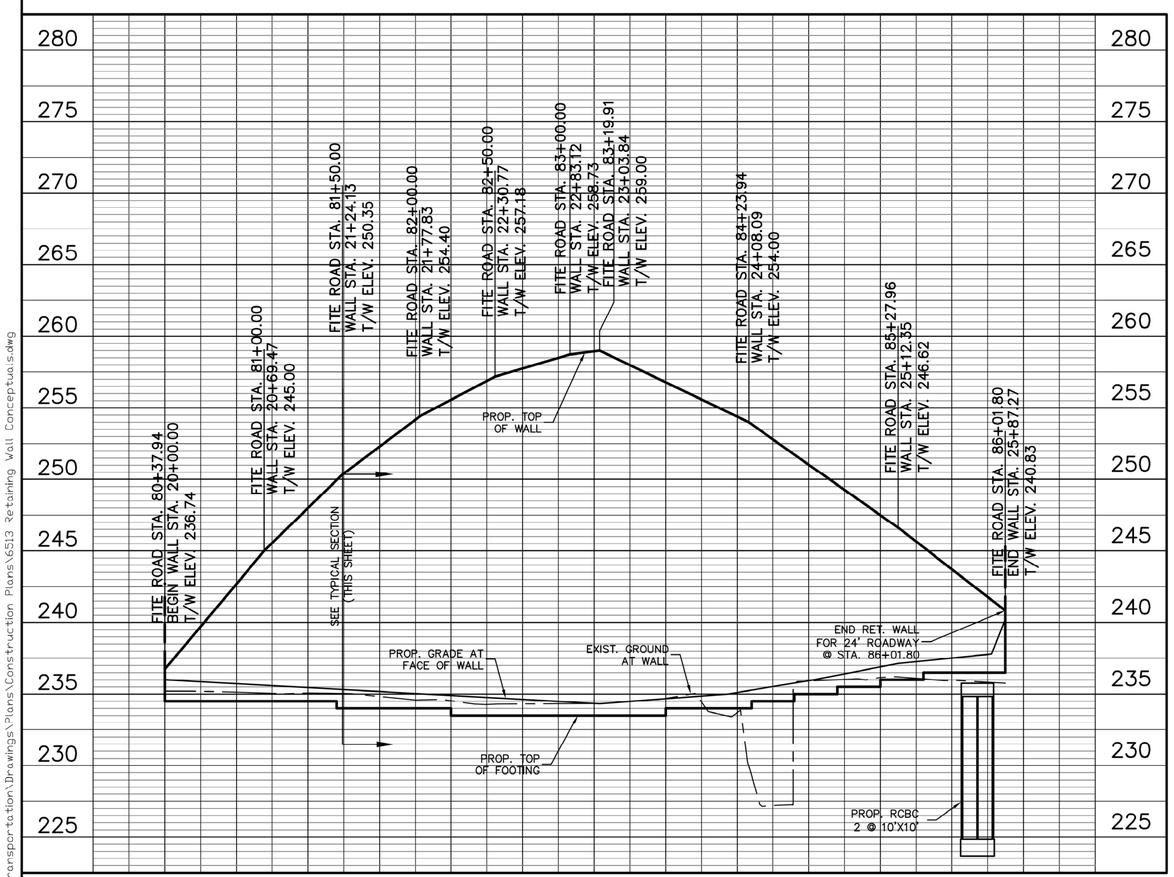
PLAN VIEW - RETAINING WALL #2



TYPICAL SECTION - RETAINING WALL #2 (STA. 81+50)
SCALE: 1" = 20'

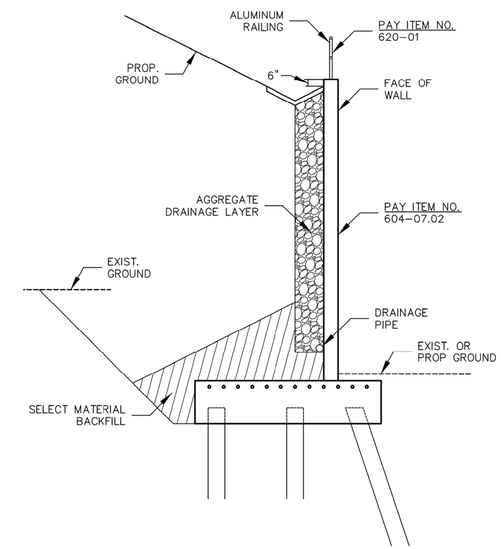
RETAINING WALL 2 QUANTITIES			
	PAY ITEM NO.	DESCRIPTION	(2) QUANTITY
(1)	604-07.02	RETAINING WALL 2	9,631

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. COST TO INCLUDE ALL MATERIALS SUCH AS CONCRETE AND STEEL IN FOOTINGS AND STEM, ANY PILES OR ALTERNATE MEANS OF FOUNDATION SUPPORT, SELECT MATERIAL BACKFILL, AGGREGATE DRAINAGE LAYER, DRAINAGE PIPE, ETC.
(2) ALL QUANTITIES ARE APPROXIMATE. ACTUAL QUANTITIES TO BE MEASURED IN THE FIELD PER TDOT SPECIFICATIONS.

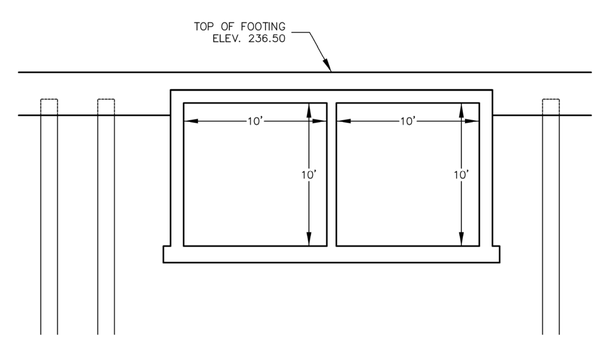


PROFILE VIEW - RETAINING WALL #2

RETAINING 2 WALL FOOTING ELEVATIONS			
WALL STA.	TOP OF FOOTING ELEV.	WALL STA.	TOP OF FOOTING ELEV.
20+00.00	234.50	24+40.00	234.50
21+20.00	234.50	24+40.00	235.00
21+20.00	234.00	24+70.00	235.00
22+00.00	234.00	24+70.00	235.50
22+00.00	233.50	25+00.00	235.50
23+50.00	233.50	25+00.00	236.00
23+50.00	234.00	25+30.00	236.00
24+10.00	234.00	25+30.00	236.50
24+10.00	234.50	25+87.27	236.50



PAY ITEMS - RETAINING WALL #2



DETAIL - 2-10'x10' R.C.B.C. AT WALL #2 (STA. 25+67.87)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 108391
STATE OF TENNESSEE
7/24/13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL
CONCEPTUAL DRAWING
WALL NO. 2
FITE ROAD

STA. 80+37.94 TO 86+01.80
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

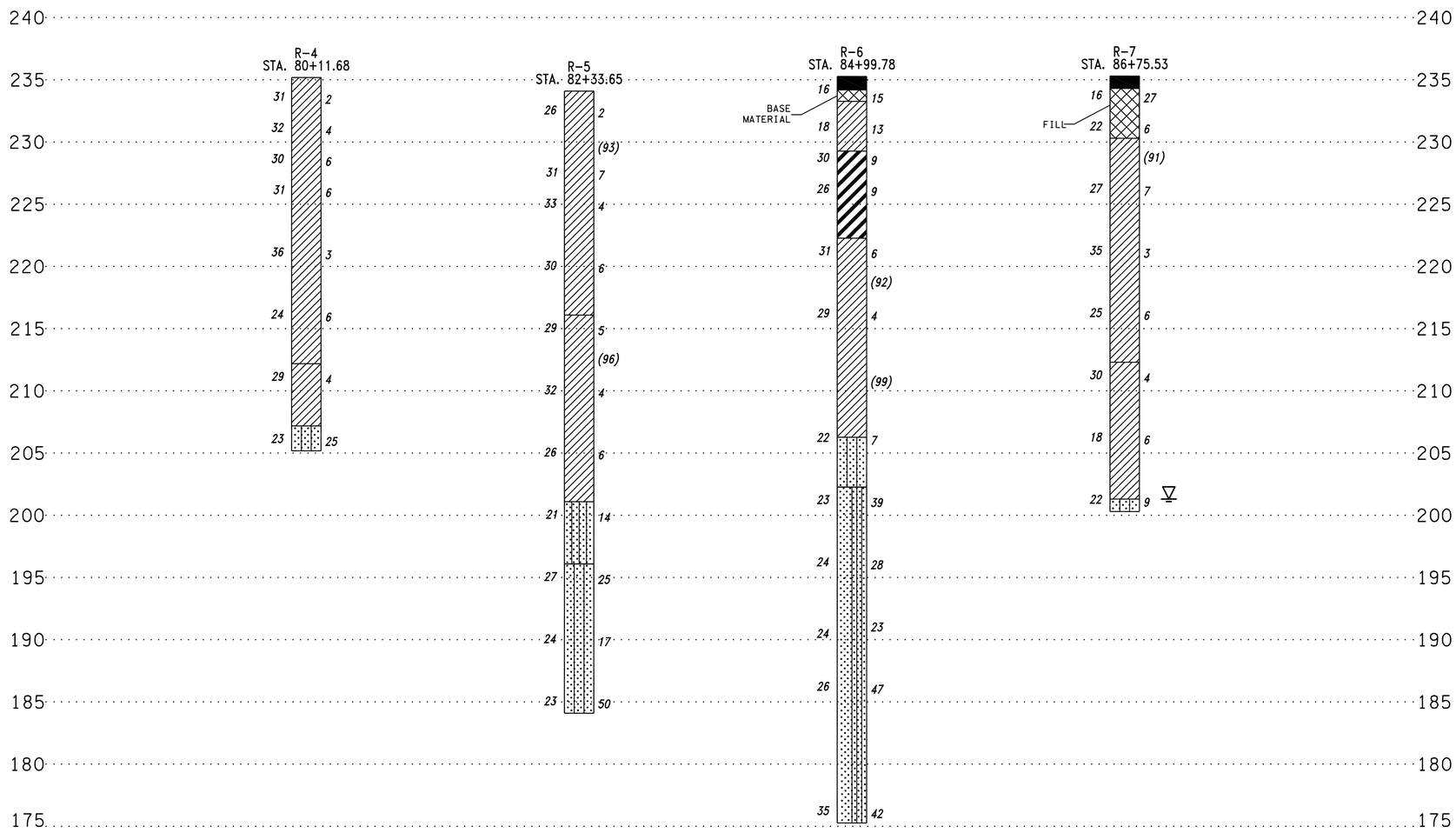
7/24/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Retaining Wall Conceptual.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2J
CONST.	2013	STP-M-7900(29)	2S

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

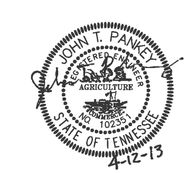


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

LEGEND

- CLAY
- SAND WITH SILT
- SILTY SAND
- SANDY SILT
- ASPHALT
- BASE MATERIAL OR FILL
- FAT CLAY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL
CONCEPTUAL DRAWING
WALL NO. 2
FITE ROAD

STA. 80+37.94 TO 86+01.80

SCALE: AS SHOWN

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Retaining Wall Conceptuals.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

1. RECOMMENDED WALL TYPES

The different types of earth retaining structures listed below are considered suitable for the site:

- Cast-in-Place Reinforced Concrete Wall
- Precast Concrete Wall
- MSE Wall

2. EXCAVATION AND BACKFILL

Temporary construction slopes should have a maximum allowable slope of 1V:1H. The contractor shall ensure that these temporary back slopes are not and do not become unstable. If a slope is unstable, becomes unstable, or is unacceptable for other reasons, then temporary shoring shall be used. All walls must follow the design guidelines established in the TDOT Earth Retaining Structures Manual (available version at the time of letting).

The 1V:1H temporary construction slope should be backfilled with select backfill as specified later in this report. Refer to the Select Backfill Material table presented in the subsequent section for engineering properties. The engineer shall approve potential backfill materials before use. The backfill should extend vertically to the full height of the wall.

The backfill is to be placed in accordance with TDOT's *Standard Specifications for Road and Bridge Construction* (March 1, 2006). Prior to fill placement, the foundation soil and areas receiving fill shall be observed by the engineer. Any soft zones or unsuitable materials shall be removed and the resulting excavation backfilled with approved fill materials.

3. RECOMMENDED SOIL PARAMETER

Recommended soil parameters to be used in the design are provided in the following table.

Select Backfill						
Material	Undrained Condition (Short Term)			Drained Condition (Long Term)		
	ϕ(°)	Cohesion (psf)	Density (pcf)	ϕ(°)	Cohesion (psf)	Density (pcf)
Coarse-grained (select) Backfill	34	0	-	34	0	-
Fine-grained Backfill	0	1000	120	28	0	120

The sliding coefficient values shall be as follows:

Fine-grained material: 0.35
select granular material: 0.50

The select fill shall conform to the specifications outlined in Item 4.5 of Section F, Chapter 3 of the TDOT Earth Retaining Structures Manual (available version at the time of letting). It should also be reasonably free (maximum of 0.1%) from organic and otherwise deleterious materials. To utilize the angle of internal friction (ϕ) of the select backfill, the backfill must extend behind the wall for a minimum zone formed by a 1V:1H slope behind the back edge of footing or reinforced zone. The unit weight of the select backfill is to be determined by the contractor/wall designer depending upon the actual backfill material used.

4. FACTORS OF SAFETY

The following safety factors should be incorporated the wall design.

Mode of Failure	Minimum Safety Factors	
	Non-Seismic Condition	Seismic Condition
Sliding	1.5	1.2
Overturning	2.0	1.5
Bearing Capacity	2.5 For MSE Walls	1.9
	3.0 For All Other Types	2.3

5. BEARING CAPACITY RECOMMENDATIONS

The maximum allowable bearing pressure is as follows:

Length of Wall = 1300 psf
(based on ultimate bearing pressure of 4000 psf and a Factor of Safety of 3.0)

It is recommended that the geotechnical engineer be present to observe the excavation of the footings for the retaining structures. If the observed bearing conditions are not sufficient to support the wall, soil improvement will be necessary.

6. SETTLEMENT MITIGATION

A relatively large magnitude of settlement is expected. This can be mitigated by either staging the fill placement or by using soil reinforcement. Staging the fill consists of placing the fill at a controlled rate to allow the in situ soils to gain strength and stiffness. Settlement should be monitored using settlement plates or other appropriate means. Construction of the roadway can only commence after the settlement due to fill placement is complete.

Soil improvement by other means, such as stone columns or rammed aggregate piers, can be utilized to mitigate settlement. Such systems are proprietary and are typically provided on a design/build basis.

7. BEARING CAPACITY IMPROVEMENT

The allowable bearing capacity can be increased by means of soil reinforcement techniques, such as stone columns or rammed aggregate piers. Such systems can increase bearing capacity to 4000 or 4500 psf.

8. LIQUEFACTION MITIGATION

Additional liquefaction analysis should be performed based on the actual fill placement and the final wall configurations. Liquefaction hazard mitigation can be achieved by several ground improvement methods such as densification and reinforcement techniques (compaction grouting, stone columns, vibration methods, or compaction piles), grouting and mixing techniques (such as permeation grouting, jet grouting, or soil mixing), or drainage techniques (not recommended). Placement of fill as planned can also mitigate liquefaction. Mitigation can also be accomplished by driving large displacement piles (precast concrete piles or pipe piles driven closed-ended). If liquefaction hazard mitigation is to be considered, Geotechnology should be contacted for further recommendations.

9. MITIGATION OF GLOBAL STABILITY

The preliminary analysis indicated insufficient factors of safety against global stability failure. Mitigation can be accomplished by utilizing a soil reinforcement technique, using a sheet pile wall system or by placing the fill at a controlled rate (staged construction) to increase the strength of the foundation soils. If this approach is utilized, additional global stability analyses should be performed to evaluate the stability at each stage.

10. SPECIFIC DESIGN REQUIREMENTS

The wall shall have a drainage gutter at the top designed to carry surface runoff to either or both ends of the walls. Actual details are to be provided in the contractor's wall design plans. If a concrete cantilever wall is used, the wall designer must provide for a drainage layer behind the wall stem with adequate drainage provided via weep holes.

11. SPECIAL NOTE REGARDING RETAINING WALL

Unless specifically stated otherwise in the contract plans, the bidding for, the design of and the construction of retaining walls shown in the plans shall be governed by the TDOT Earth Retaining Structures Manual (available version at the time of letting). This manual is available on the TDOT web site under the Information for Contractors link. The TDOT manual shall be considered as one of those documents which the bidder/contractor has examined and made himself familiar with as described in Section 102.04 – Examination of the Site, the Work, the Plans, and the Specifications in the TDOT Standard Specifications for Road and Bridge Construction.

12. SPECIAL NOTE REGARDING STRUCTURES UNDER RETAINING WALLS

The design of the retaining wall footings shall include necessary accommodations for structures such as box culverts under and through retaining walls. Details of construction including pile locations, joints, steel, etc. must be provided in retaining wall shop drawings.

13. PILES FOR RETAINING WALLS

It is anticipated that piles or alternate means of foundation support will be required for larger retaining walls. Pre-cast piles will be used unless piles are within 50-feet of a utility or structure. Cast-in-place piles will be used for piles within 50-feet of a utility or structure. Piles or alternate means of foundation support will not be measured directly for payment but will be included in the square foot price of the wall.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2K
CONST.	2013	STP-M-7900(29)	2T

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL
CONCEPTUAL DRAWING
WALL NO. 2
FITE ROAD
STA. 80+37.94 TO 86+01.80

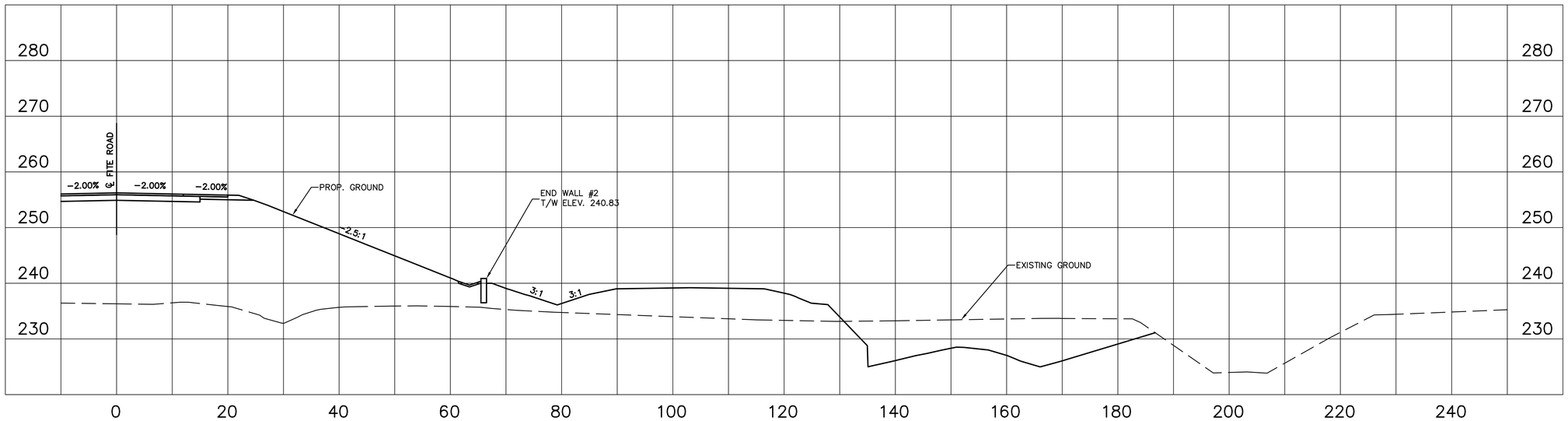
4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Retaining Wall Conceptuals.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

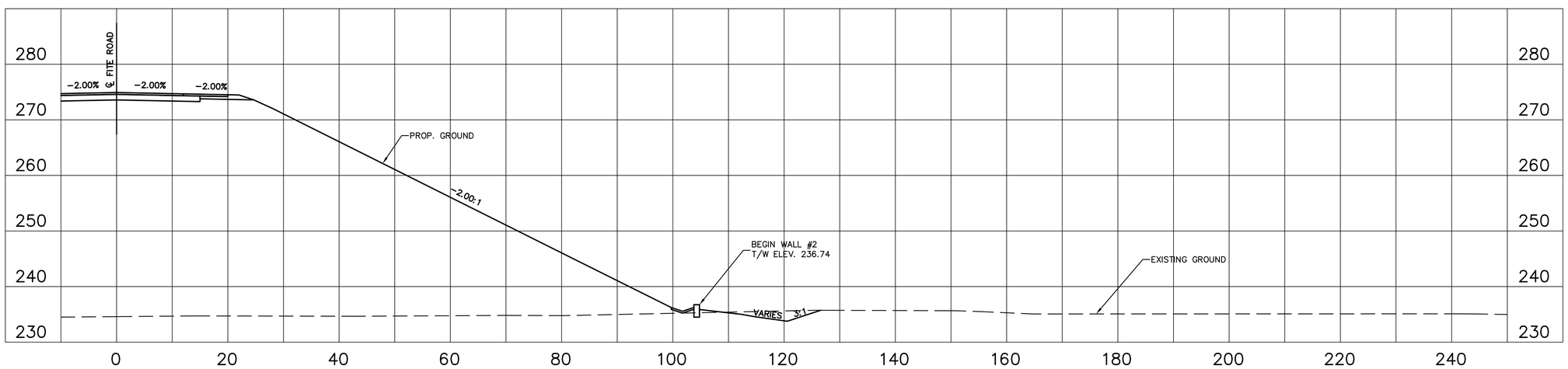
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	
CONST.	2013	STP-M-7900(29)	2U

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



FITE ROAD STA. 86+01.80
END RETAINING WALL #2 25+87.27



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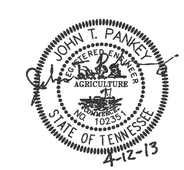
BEGIN RETAINING WALL #2 20+00.00



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 2 FITE ROAD

BEGIN/END CROSS SECTIONS

SCALE: 1"=10'

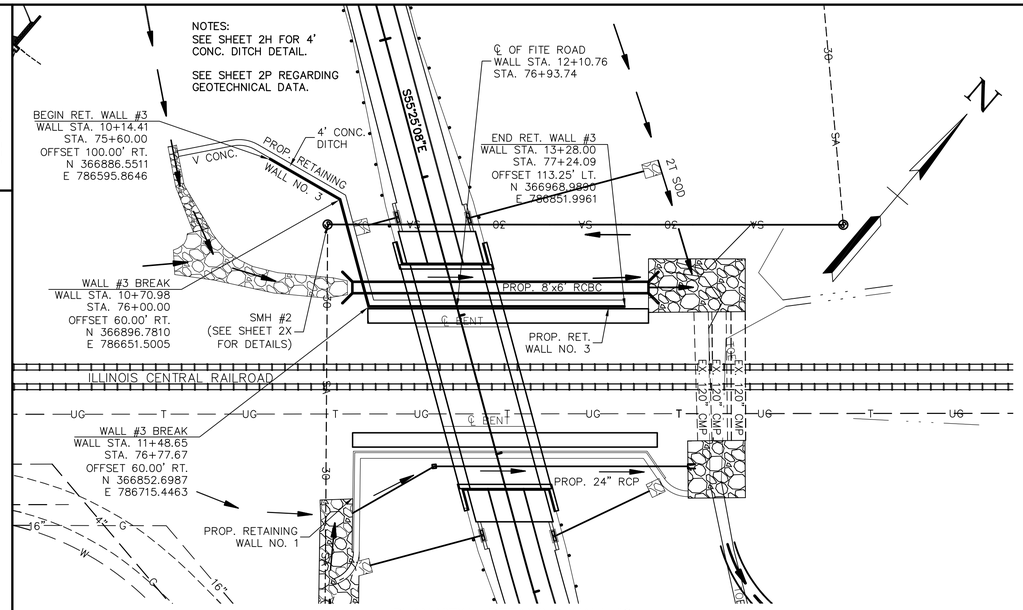
4/15/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Retaining Wall Conceptuals.dwg

TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

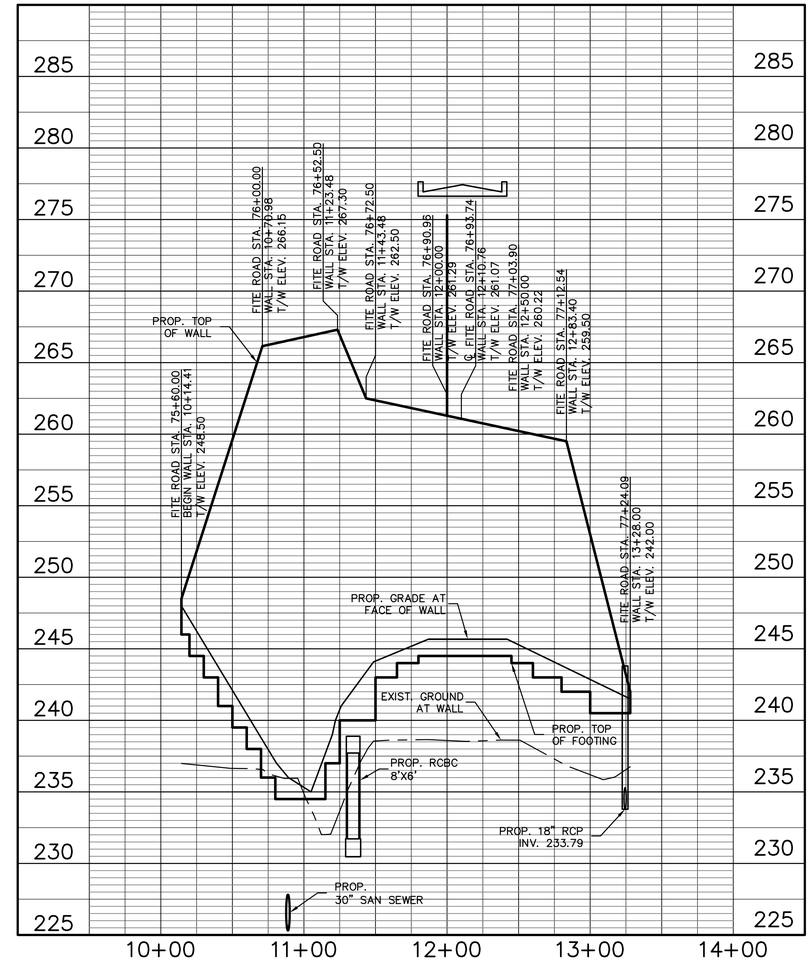
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2L
CONST.	2013	STP-M-7900(29)	2V

REVISIONS:

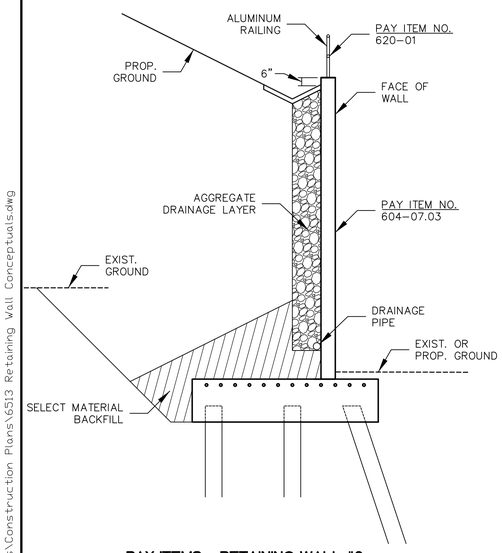
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



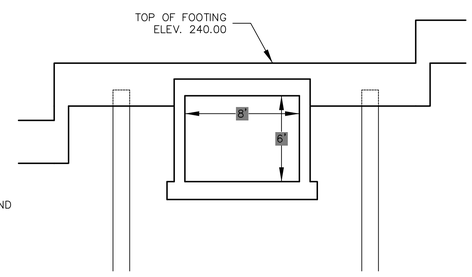
PLAN VIEW - RETAINING WALL #3



PROFILE VIEW - RETAINING WALL #3



PAY ITEMS - RETAINING WALL #3



DETAIL - 8'x6' R.C.B.C. AT WALL #3 (STA. 11+34.39)

RETAINING 3 WALL FOOTING ELEVATIONS

WALL STA.	TOP OF FOOTING ELEV.	WALL STA.	TOP OF FOOTING ELEV.
10+14.41	246.00	11+25.00	237.00
10+20.00	246.00	11+25.00	240.00
10+20.00	244.50	11+50.00	240.00
10+30.00	244.50	11+50.00	243.00
10+30.00	243.00	11+65.00	243.00
10+40.00	243.00	11+65.00	244.00
10+40.00	241.00	11+80.00	244.00
10+50.00	241.00	11+80.00	244.50
10+50.00	239.50	12+45.00	244.50
10+60.00	239.50	12+45.00	244.00
10+60.00	238.00	12+60.00	244.00
10+70.00	238.00	12+60.00	243.00
10+70.00	236.00	12+80.00	243.00
10+80.00	236.00	12+80.00	242.00
10+80.00	234.50	13+00.00	242.00
11+15.00	234.50	13+00.00	240.50
11+15.00	237.00	13+28.00	240.50

RETAINING WALL 3 QUANTITIES

	PAY ITEM NO.	DESCRIPTION	(2) QUANTITY
(1)	604-07.03	RETAINING WALL 3	5,896 S.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. COST TO INCLUDE ALL MATERIALS SUCH AS CONCRETE AND STEEL IN FOOTINGS AND STEM, ANY PILES OR ALTERNATE MEANS OF FOUNDATION SUPPORT, SELECT MATERIAL BACKFILL, AGGREGATE DRAINAGE LAYER, DRAINAGE PIPE, ETC.

(2) ALL QUANTITIES ARE APPROXIMATE. ACTUAL QUANTITIES TO BE MEASURED IN THE FIELD PER TDOT SPECIFICATIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 3 FITE ROAD

STA. 75+60 TO 77+24.09
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
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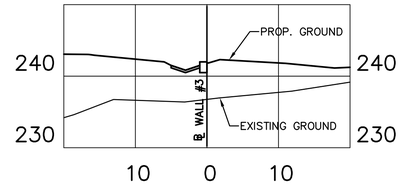
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

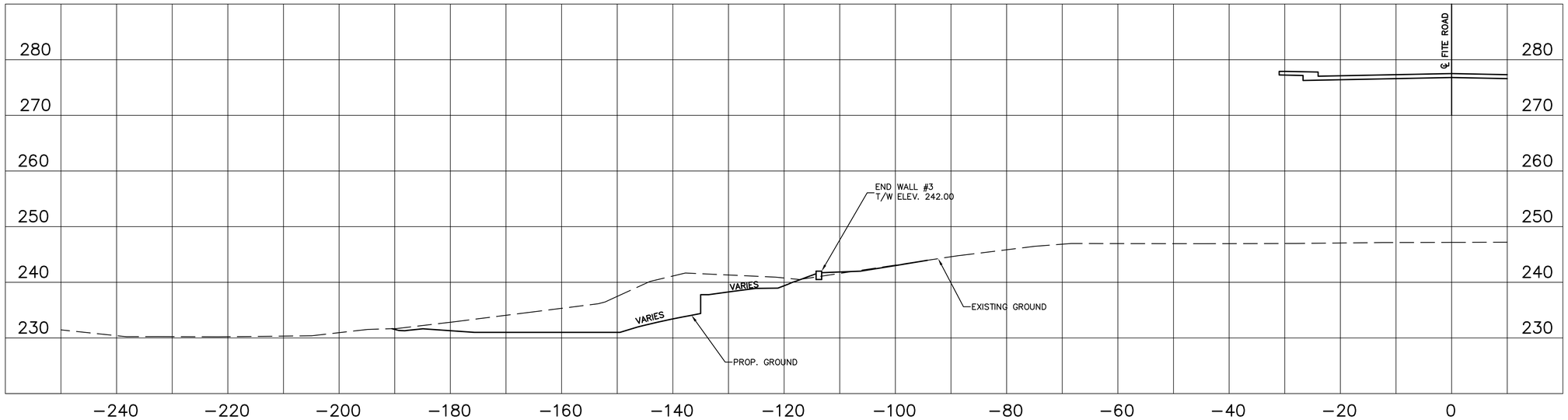
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	
CONST.	2013	STP-M-7900(29)	2W

REVISIONS:

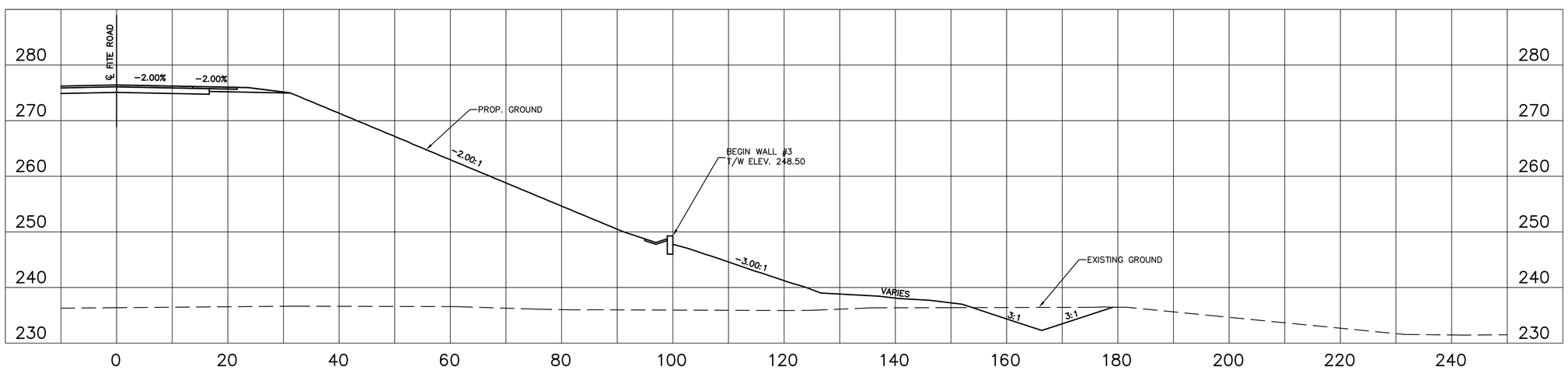
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



STA. 13+28.00 RETAINING WALL #3



FITE ROAD STA. 77+24.09
END RETAINING WALL #3 13+28.00



FITE ROAD STA. 75+60.00
BEGIN RETAINING WALL #3 10+14.41

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL
CONCEPTUAL DRAWING
WALL NO. 3
FITE ROAD

BEGIN/END CROSS SECTIONS

SCALE: 1"=10'

4/15/2013
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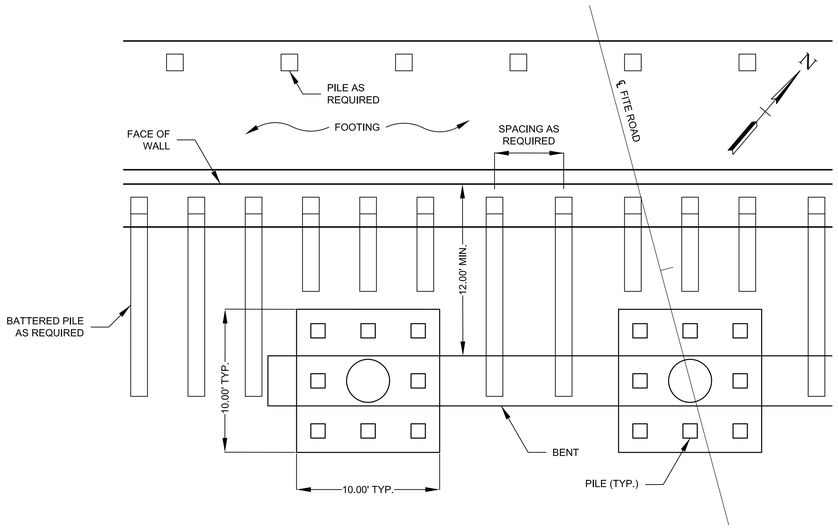
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2M
CONST.	2013	STP-M-7900(29)	2X

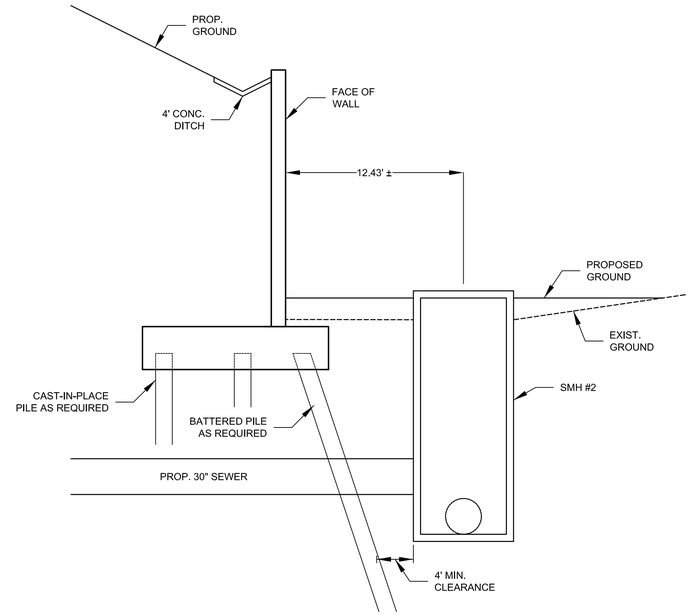
REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

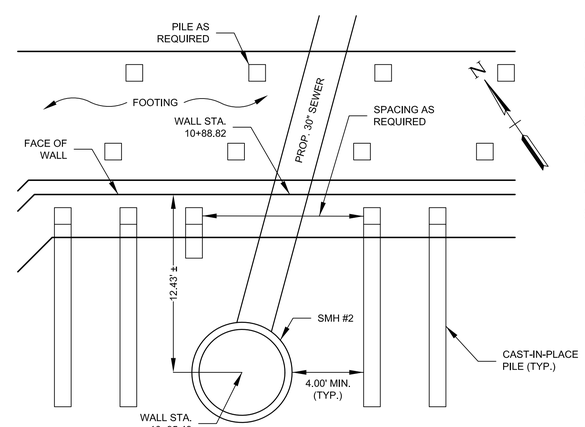


PILE DETAIL 1
RETAINING WALLS #1 AND #3 (AT BRIDGE)

NOTE:
CONTRACTOR SHALL TAKE SPECIAL CARE WHEN INSTALLING ANY BATTERED PILES FOR THE RETAINING WALLS NEAR BENT FOUNDATIONS TO ENSURE NO CONFLICT WITH THE BRIDGE PILES SUPPORTING THE BENTS.



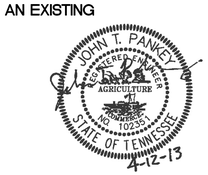
PILE DETAIL 2
RETAINING WALL #3 (AT SMH #2)



PILE DETAIL 3
RETAINING WALL #3 (AT SMH #2)

NOTES:
CONTRACTOR SHALL TAKE SPECIAL CARE WHEN INSTALLING ANY BATTERED PILES FOR THE RETAINING WALLS NEAR STRUCTURES, INCLUDING SEWER MANHOLES AND SEWER PIPES.

RETAINING WALLS THAT REQUIRE A PILE SUPPORTED FOUNDATION SHALL BE CONSTRUCTED WITH "CAST-IN-PLACE" PILES IF WITHIN 50' OF AN EXISTING STRUCTURE.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RETAINING WALL
CONCEPTUAL DRAWING
WALLS NO. 1 & 3
FITE ROAD
STA. 76+93.74 & 77+97.92
SCALE: 1"= 5'

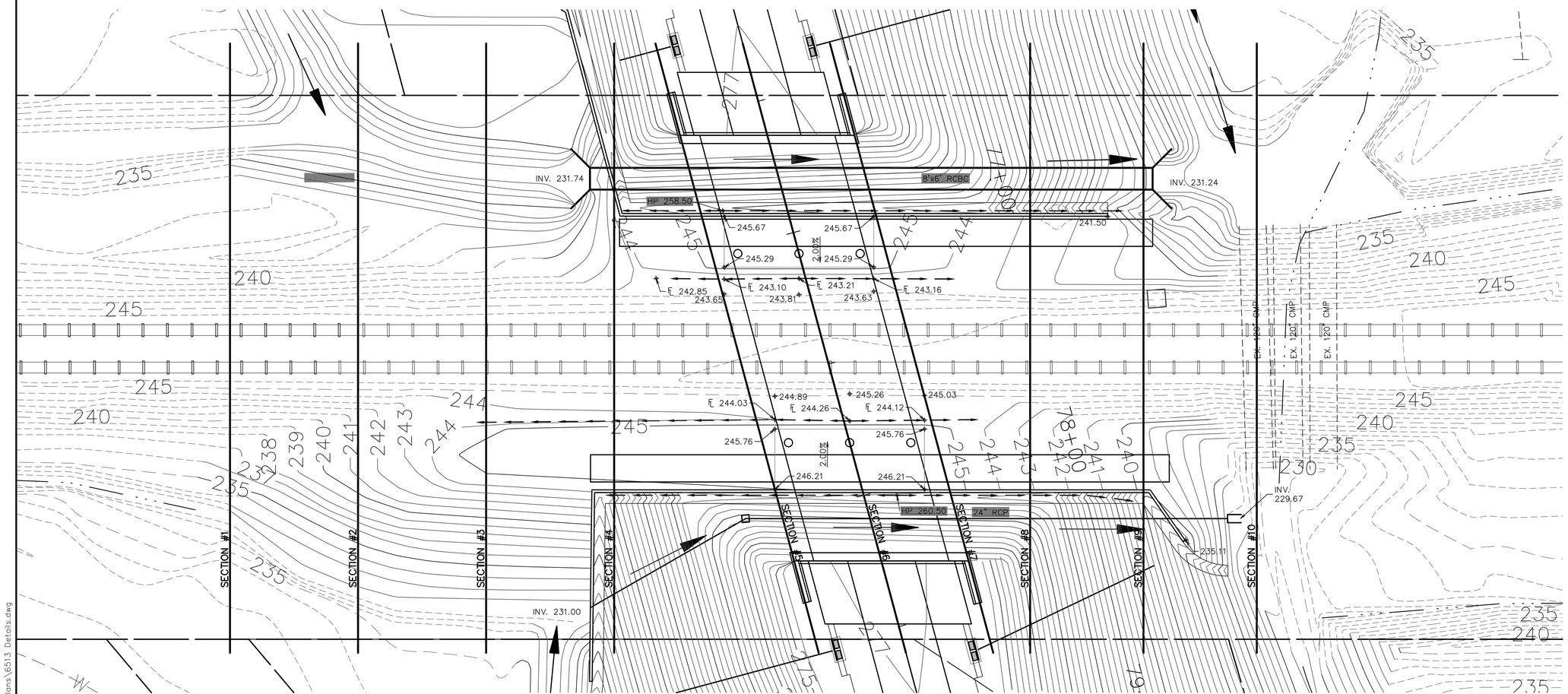
4/12/2013
W:\6513\transportation\Drawings\Plans\Retaining Wall Pile Details.dwg

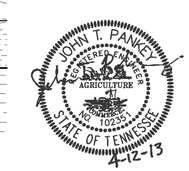
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2M
CONST.	2013	STP-M-7900(29)	2Y

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.





COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING DETAIL

SCALE: 1"= 20'

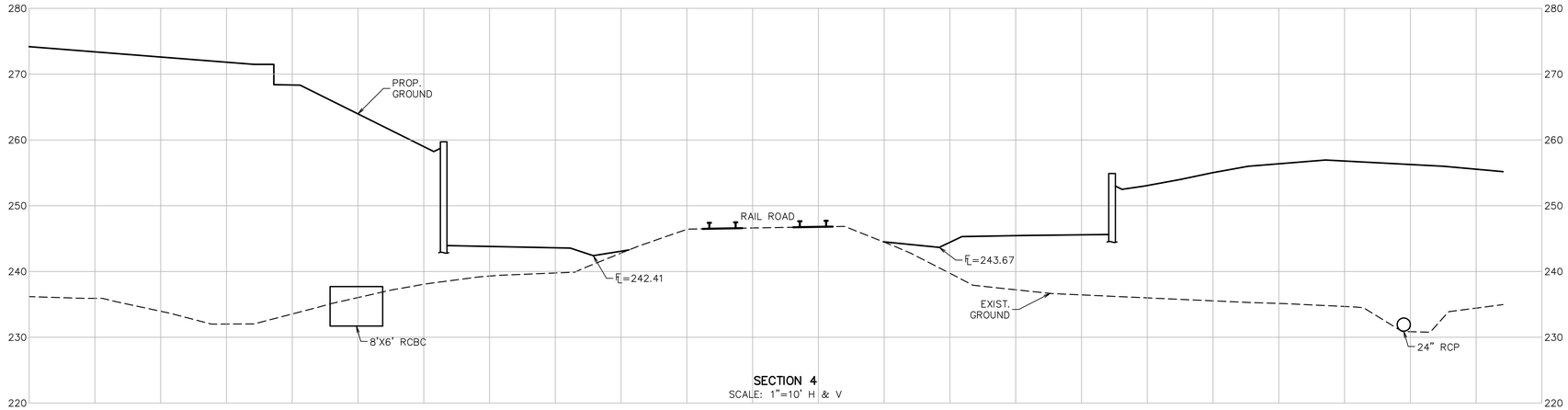
4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Details.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

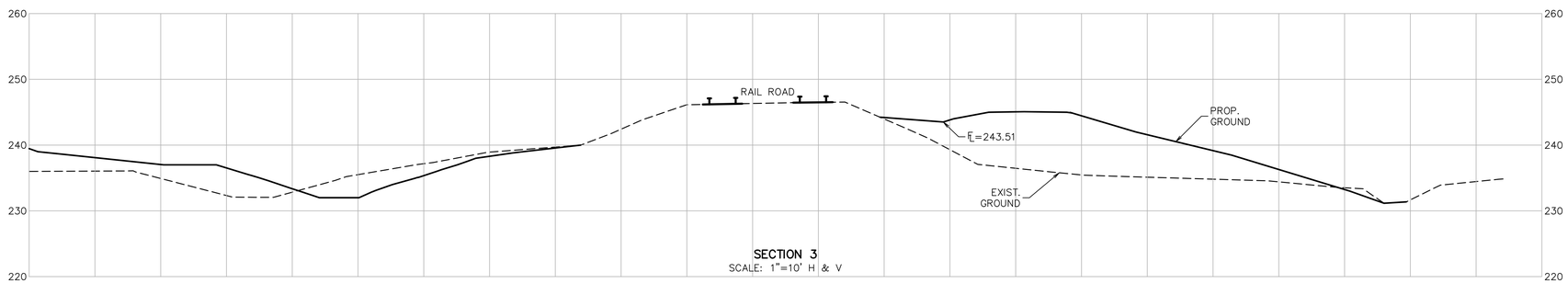
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2N
CONST.	2013	STP-M-7900(29)	2Z

REVISIONS:

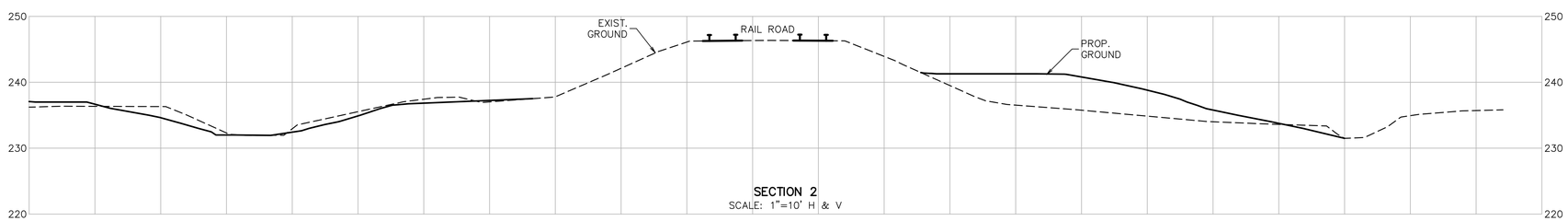
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



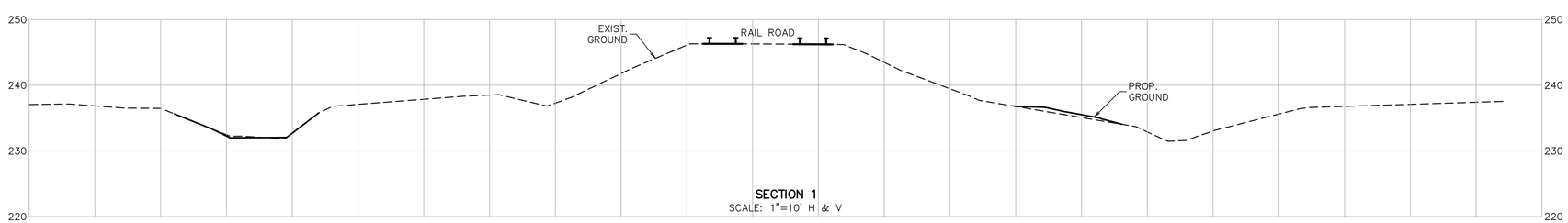
SECTION 4
SCALE: 1"=10' H & V



SECTION 3
SCALE: 1"=10' H & V



SECTION 2
SCALE: 1"=10' H & V



SECTION 1
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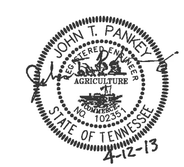

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAILROAD CROSS SECTIONS

SCALE: 1"= 10'

4/12/2013
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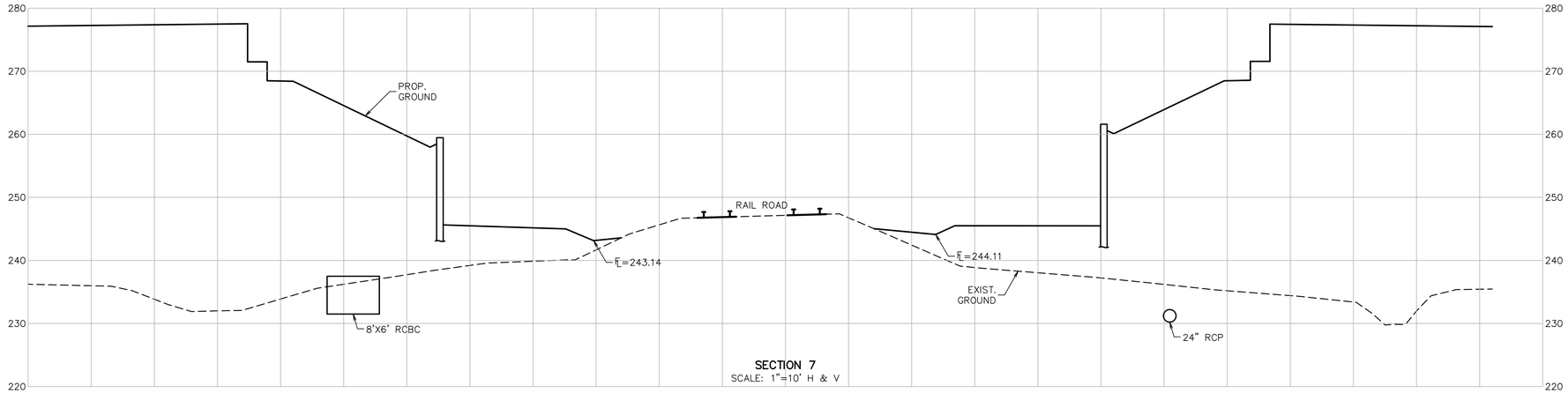
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

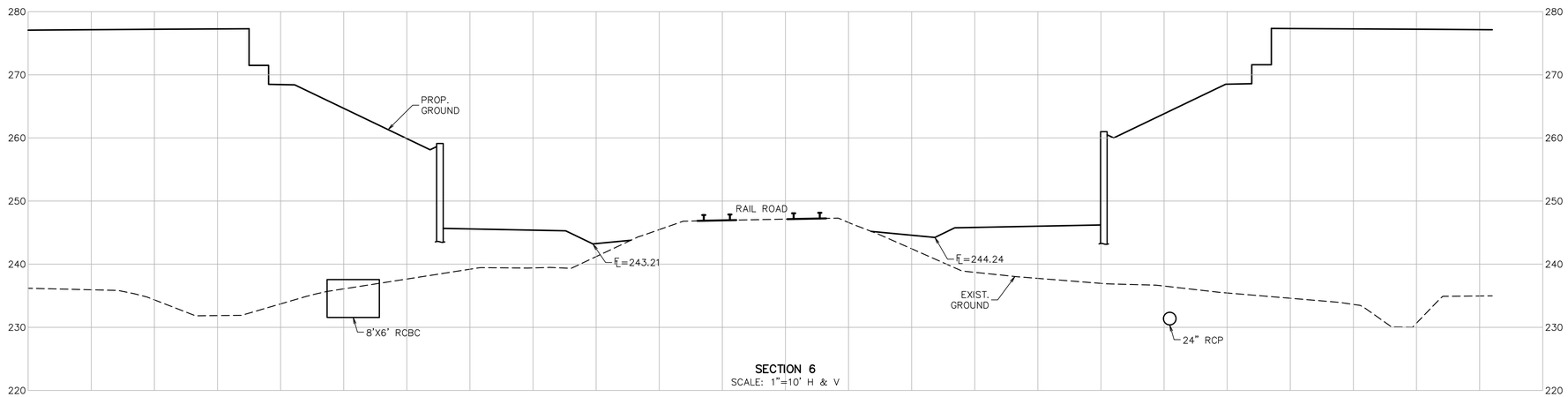
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2-O
CONST.	2013	STP-M-7900(29)	2AA

REVISIONS:

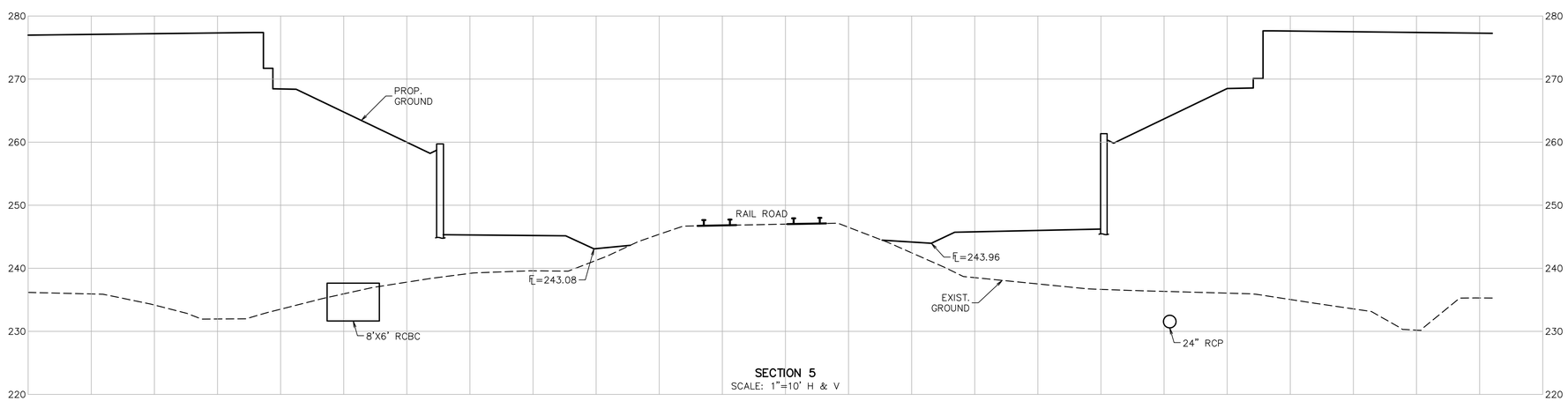
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



SECTION 7
SCALE: 1"=10' H & V



SECTION 6
SCALE: 1"=10' H & V



SECTION 5
SCALE: 1"=10' H & V

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAILROAD CROSS SECTIONS

SCALE: 1"= 10'

4/12/2013
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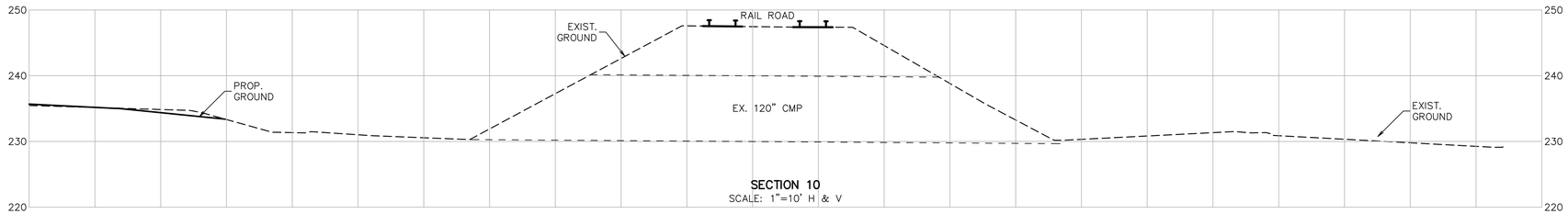
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

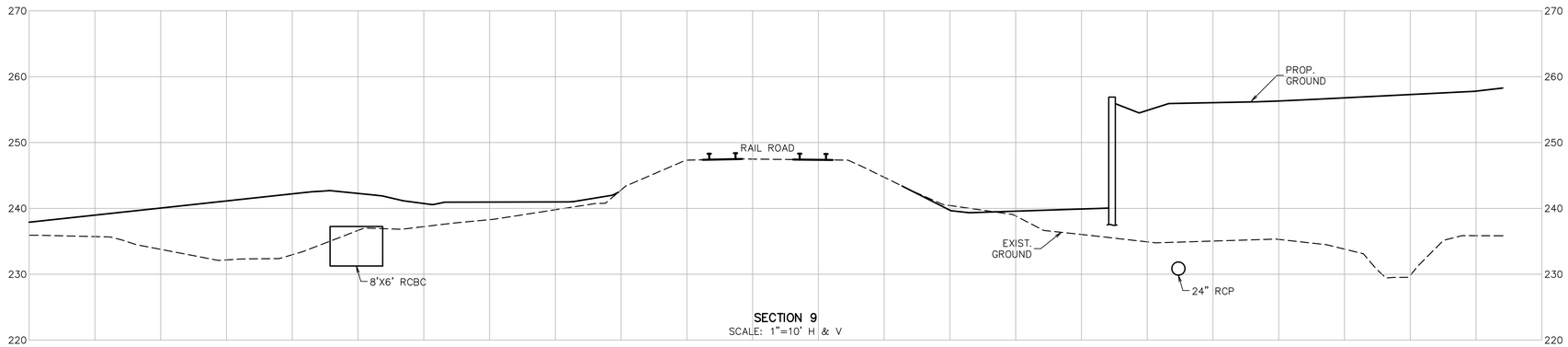
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	2P
CONST.	2013	STP-M-7900(29)	2BB

REVISIONS:

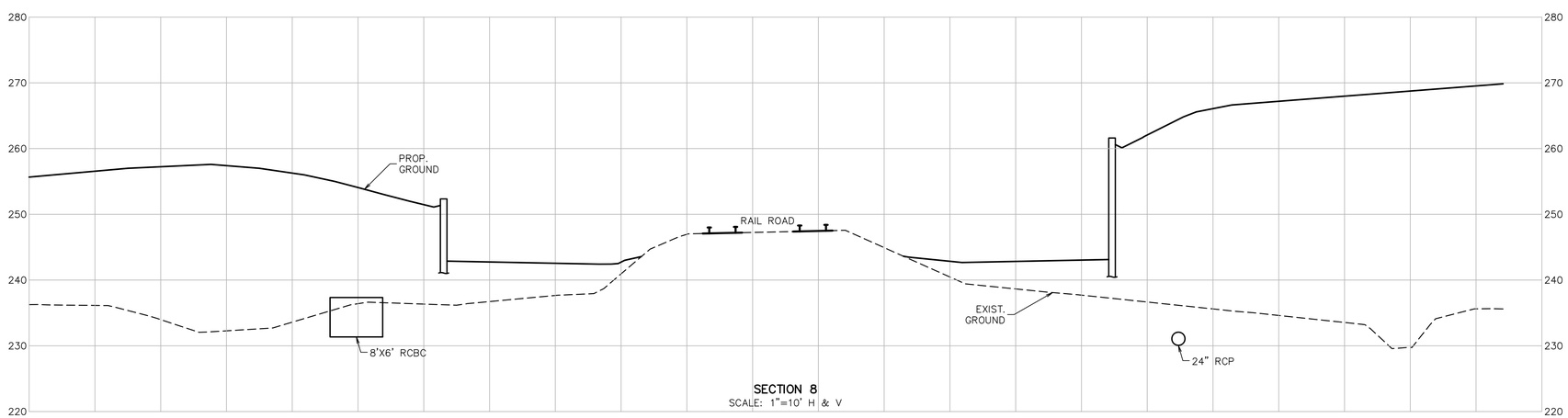
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



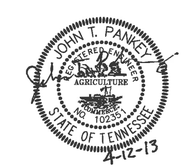
SECTION 10
SCALE: 1"=10' H & V



SECTION 9
SCALE: 1"=10' H & V



SECTION 8
SCALE: 1"=10' H & V



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAILROAD CROSS SECTIONS

SCALE: 1"= 10'

4/12/2013
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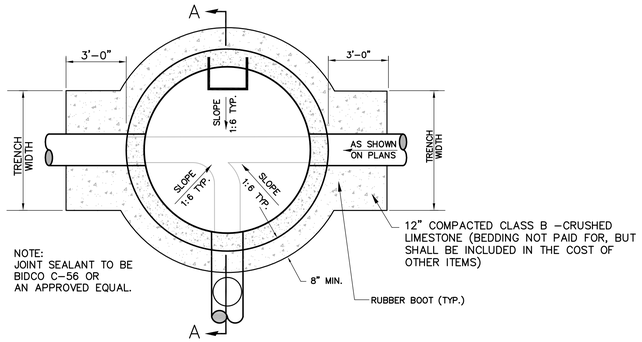
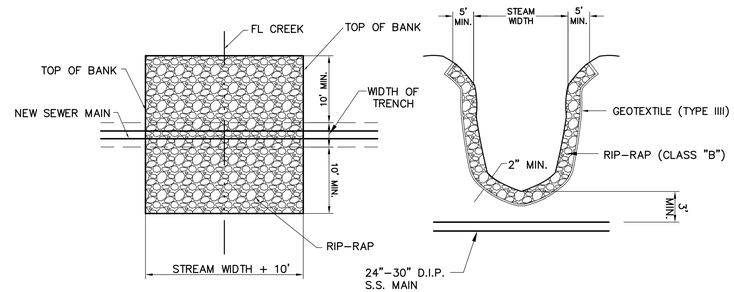
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2CC



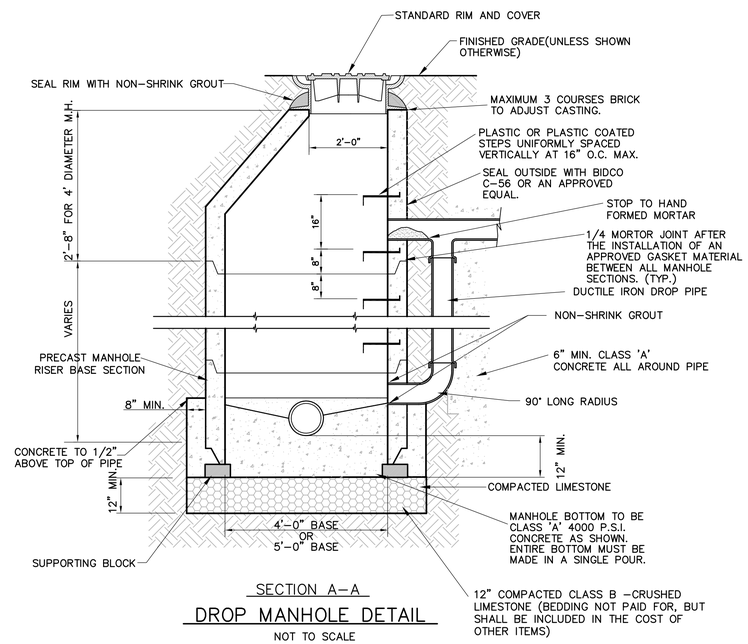
NOTE:
JOINT SEALANT TO BE BIDCO C-56 OR AN APPROVED EQUAL.

TOP VIEW



STREAM CROSSING DETAIL

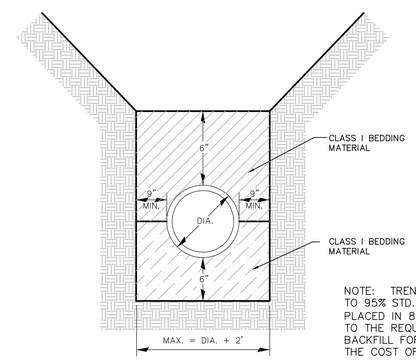
N.T.S.



SECTION A-A

DROP MANHOLE DETAIL

NOT TO SCALE



NOTE: TRENCH BACKFILL SHALL BE COMPACTED TO 95% STD. PROCTOR. BACKFILL SHALL BE PLACED IN 8" LIFTS MAX. AND HAND TAMPED TO THE REQUIRED COMPACTION. BEDDING AND BACKFILL FOR SEWER PIPE WILL BE INCLUDED IN THE COST OF THE PIPE.

SPECIAL GRAVITY SEWER BEDDING AND BACKFILL DETAIL FROM: SMH #1B TO SMH #2

N.T.S.

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SANITARY SEWER DETAILS

4/15/2013
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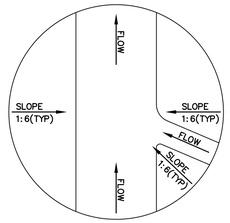
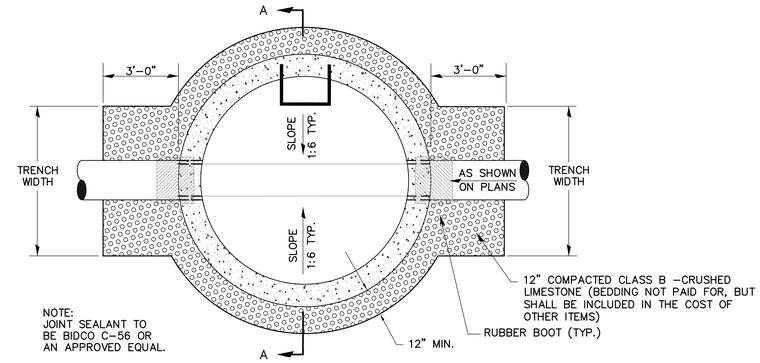
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	2DD

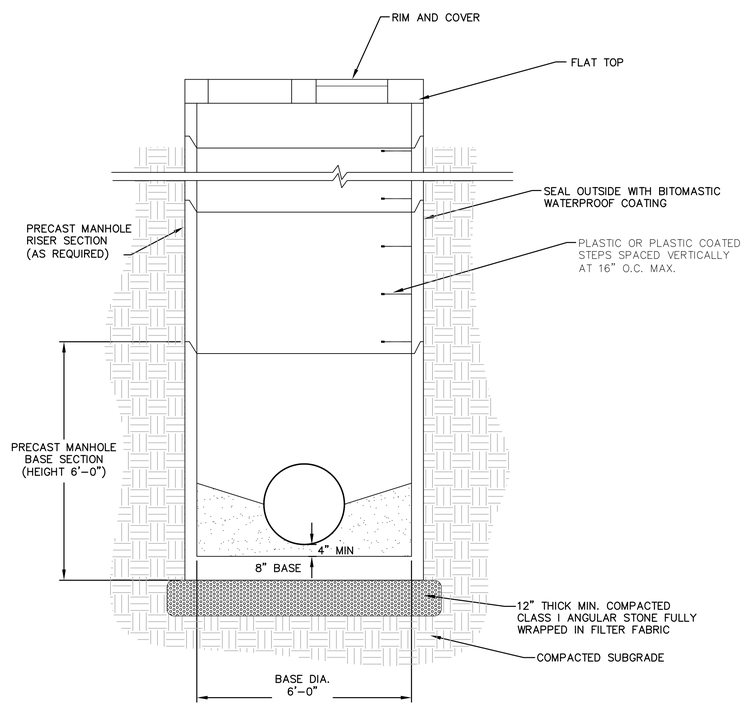


TOP VIEW-FULLY DEVELOP INVERTS FOR ALL PIPE

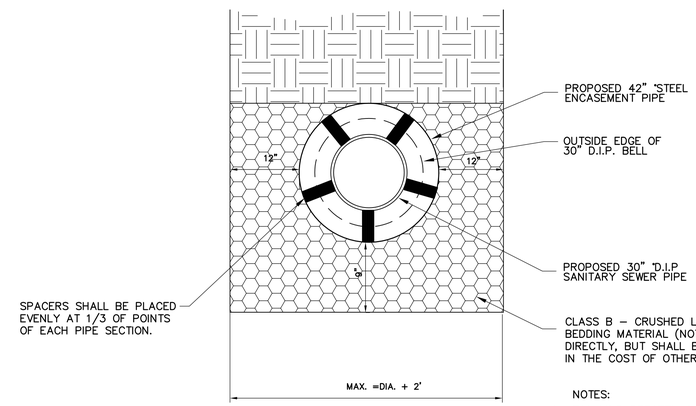


NOTE:
JOINT SEALANT TO BE BIDCO C-56 OR AN APPROVED EQUAL.

PLAN
NOT TO SCALE



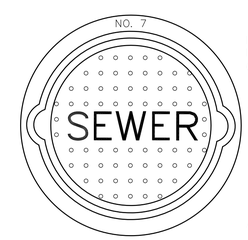
SANITARY SEWER MANHOLE DETAIL
SECTION A-A
N.T.S.



30" D.I.P. ENCASEMENT DETAIL
N.T.S.

NOTES:

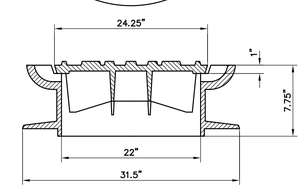
1. FILL VOID BETWEEN CASING PIPE AND SAN. SEWER PIPE WITH GROUT INWARD 2 FEET FROM ENDS OF CASING PIPE.
2. INSTALL CASING SPACERS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. USE ADVANCE PRODUCTS AND SYSTEMS' CASING SPACERS OR EQUAL.
3. GROUT AND SPACERS NOT PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS



MANUFACTURED BY:
MEMPHIS MACHINE WORKS
OR APPROVED EQUIVALENT

WEIGHT: COVER 69 lbs.
RIM 132 lbs.

MEMPHIS NO. 7 MANHOLE RIM AND COVER, TENNESSEE NO. 3 MANHOLE CASTING WITH TYPE 'B' COVER OR APPROVED EQUIVALENT.



STANDARD MANHOLE RIM AND COVER
NOT TO SCALE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SANITARY SEWER DETAILS

4/15/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	3
CONST.	2013	STP-M-7900(29)	3

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. & EASEMENTS LT. ON TRACT 2 AND LT. & RT. ON TRACT 7.
ADDED TRACTS 10S AND 11S.
REMOVED TRACTS 8002 & 8007.

R.O.W. ACQUISITION TABLE

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)			
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE BK.	DEED DOCUMENT REFERENCE PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	PERM. SLOPE	CONST.	PERM. SEWER
1	LEE M. MOORE	D1-35	156	FS	1356	1.383		1.383	25 S.F.		25 S.F.	1.382			339	514	
2	E. I. DUPONT DE NEMOURS AND COMPANY	D1-35	472	Z7	4753	1.903	74.907	76.810	1.903	0.503	2.406	0 S.F.	74.404	0.128 AC	0.379 AC	0.290 AC	
		D1-35	472	BT	1741												
3	B & J MACHINE WORKS, A GENERAL PARTNERSHIP	D1-36	90C	GR	0273	8.982	0.185	9.167	0.996	0.185	1.181	7.986		1932	0.674 AC	0.469 AC	
3A	B&J MACHINE WORKS, A TENNESSEE CORPORATION	D1-36	91	0607	1445	2899 S.F.	8.659	8.726	2899 S.F.	0.880	0.947		7.779	3834	0.673 AC	0.684 AC	
4	ARCADIAN FERTILIZER, L.P.	D1-36	261C	CV	2812	100.021		100.021	57 S.F.		57 S.F.	100.020			243	2637	
5	W.R. GRACE & CO.	D1-36	211	5879	362	124.149	56.506	180.655	2.960	2.595	5.555	121.189	53.911	780	6.717 AC	1.385 AC	
6	ILLINOIS CENTRAL RAILROAD	D1-36	-	313	435 / 437									2.296 AC			
7	CITY OF MEMPHIS	D1-36	63	3216	153	3.413	1.784	5.197	3.413	1.784	5.197		0 S.F.				
8	CITY OF MEMPHIS	D1-36	118	4050	208		32.930	32.930		0.864	0.864		32.066			0.120 AC	0.174 AC
9	TIMMINCO CORPORATION	D1-36	62	GZ	8508	94.803	0.152	94.955	0.902	0.152	1.054	93.901		1.050 AC	0.284 AC	0.257 AC	
10	BUZZI UNICEM READY MIX LLC.	D1-36	257	0802	0920		10.000	10.000		0.676	0.676		9.324			0.392 AC	
10S	BUZZI UNICEM READY MIX LLC.	D1-36	257	0802	0920		9.342	9.342					9.342		451		
11	JIMMY R. GRINDER/RICHARD N. GRINDER PARTNERSHIP	D1-36	276	0816	1728		82.920	82.920		0.399	0.399		82.521	1696		0.426 AC	
11S	JIMMY R. GRINDER/RICHARD N. GRINDER PARTNERSHIP	D1-36	276	0816	1728		82.521	82.521					82.521		370		
12	THE JIMMY R. GRINDER AND RICHARD N. GRINDER PARTNERSHIP	D1-36	251	GV	4182		19.270	19.270		0.446	0.446		18.824				
~~13~~	~~BLAND FARMS LLC~~	~~D1-36~~	~~179C~~	~~0203~~	~~8068~~		~~53.280~~	~~53.280~~		~~0.840~~	~~0.840~~		~~52.440~~	~~0.122 AC~~	~~0.393 AC~~	~~0.366 AC~~	
14	ROBERT D. POOLE AND GLORIA M. POOLE	D1-36	180	0322	1467		59.920	59.920		0.275	0.275		59.645			3186	
15	K & L HOLDINGS LLC	D1-36	88C	0416	2212	5.720		5.720				5.720			36	407	
16	JAMES E. LAMB	D1-36	92	0515	0285		1.297	1.297					1.297			757	

UTILITY OWNERS

UTILITY	OWNER	PHONE NO.	CONTACT	ADDRESS	CITY	STATE	ZIP CODE
TELEPHONE	AT&T	(901) 797-3501	ERIC GANT	3855 OUTLAND ROAD	MEMPHIS	TN	38118
TELEPHONE	VERIZON BUSINESS	(901) 251-7470	RAY EBNER	240 SOUTH HOLLYWOOD	MEMPHIS	TN	38104
WATER	MEMPHIS LIGHT, GAS & WATER DIVISION	(901) 528-4186	TOM WORD	P.O. BOX 430	MEMPHIS	TN	38101
GAS	MEMPHIS LIGHT, GAS & WATER DIVISION	(901) 528-4186	TOM WORD	P.O. BOX 430	MEMPHIS	TN	38101
POWER	MEMPHIS LIGHT, GAS & WATER DIVISION	(901) 528-4186	TOM WORD	P.O. BOX 430	MEMPHIS	TN	38101
FIBER OPTIC	360 NETWORK, INC.	(256) 352-8591	WALTER SARZYNSKI	105 COUNTY ROAD # 668	HANCEVILLE	AL	35077

R.O.W. NOTES:

EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN-KIND TO A TOUCHDOWN POINT.

WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN-KIND TO A TOUCHDOWN POINT.

ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.

IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT, BE REMOVED IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE DESIGN MANAGER, DESIGN DIVISION (AND DESIGN MANAGER, REGIONAL DESIGN OFFICE, IF PLANS ARE BEING DEVELOPED IN THE REGIONAL OFFICE) IS/ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION ON PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION, AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 10235
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

4/12/2013
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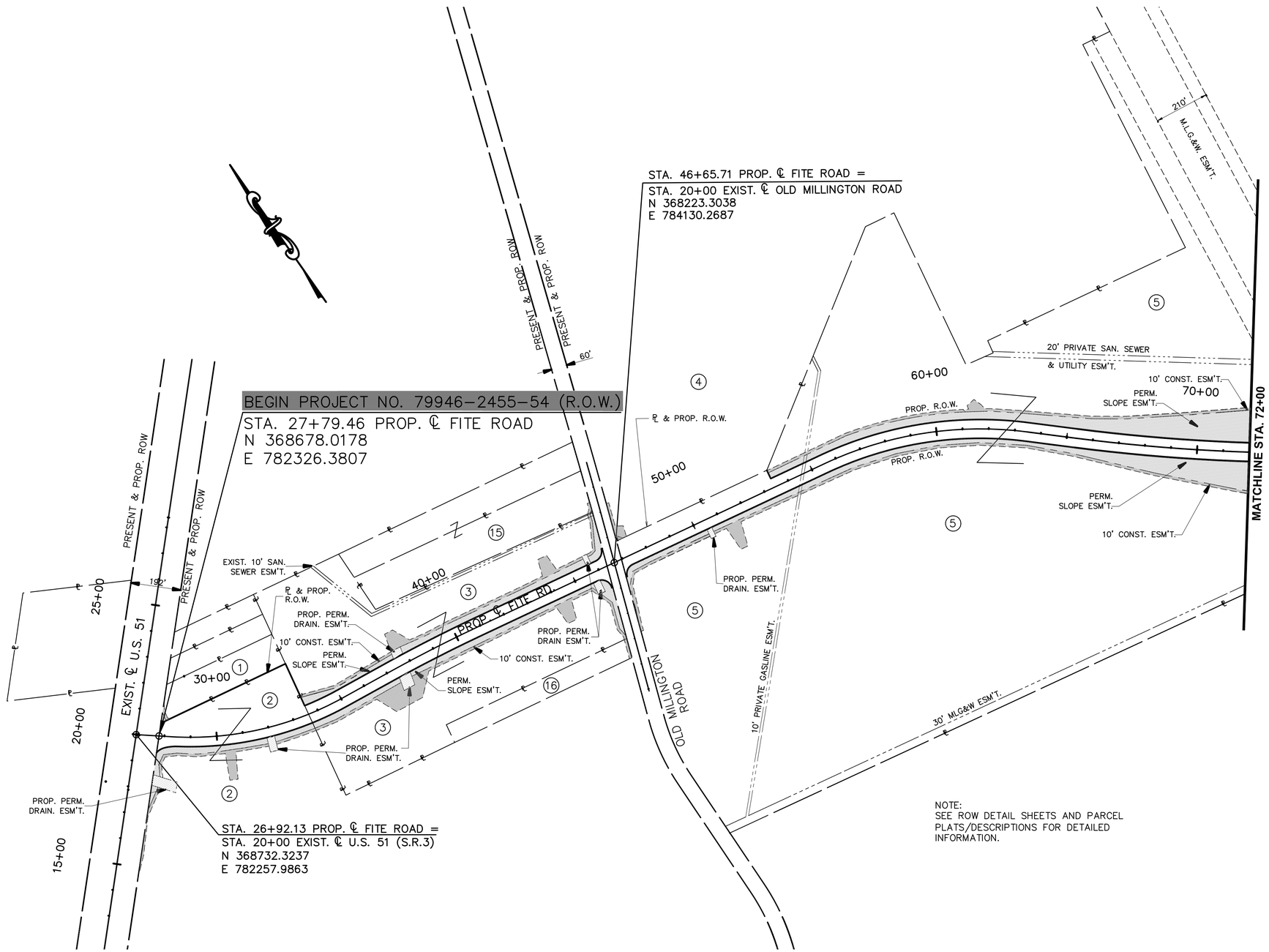
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	3A
CONST.	2013	STP-M-7900(29)	3A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. ON TRACT 2. REMOVED TRACT 8002.



NOTE:
SEE ROW DETAIL SHEETS AND PARCEL PLATS/DESCRIPTIONS FOR DETAILED INFORMATION.

JOHN T. PANKEY JR.
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

B.O.P. TO STA. 72+00
SCALE: 1"=200'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 Property Map.dwg

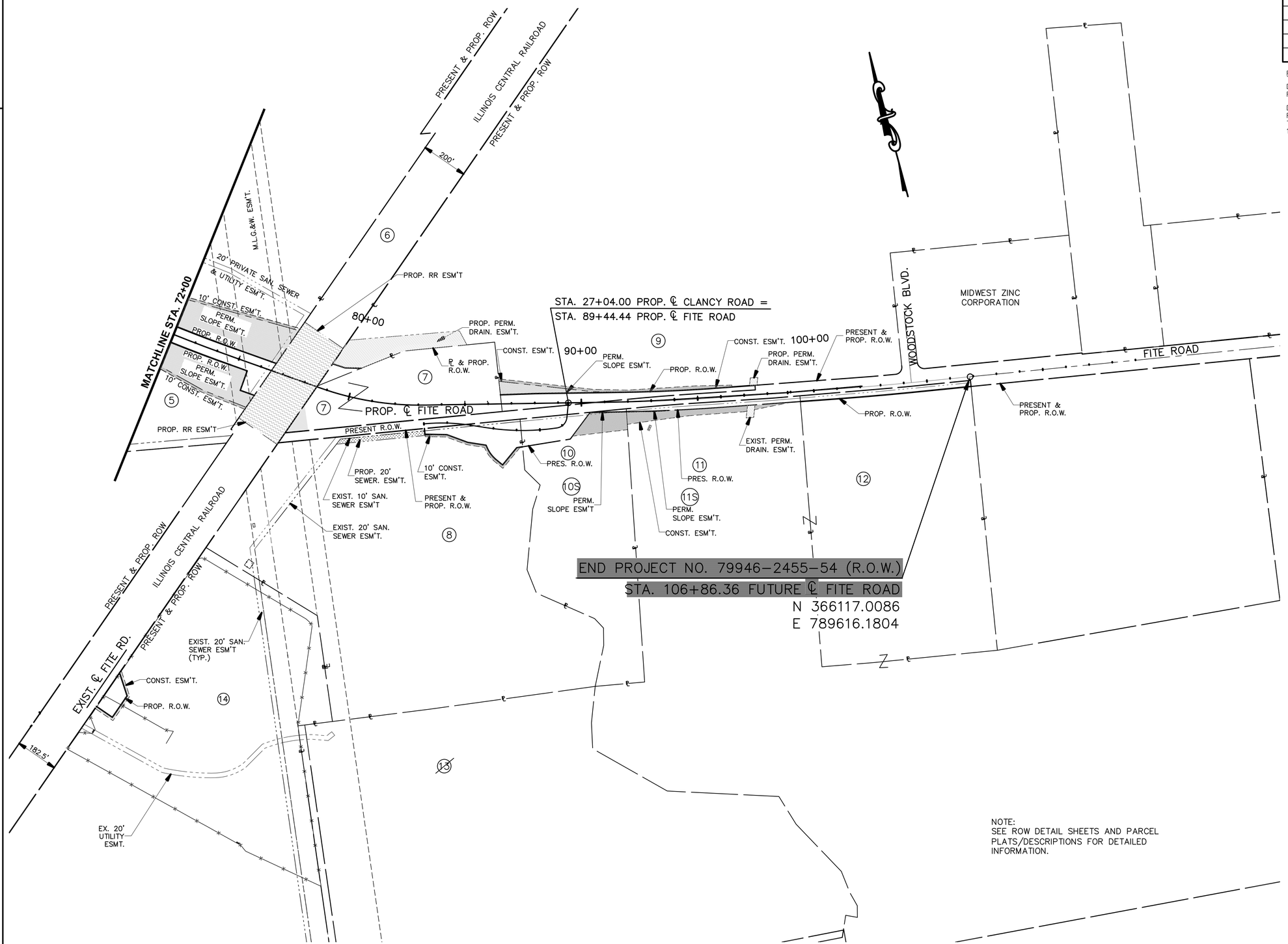
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	3B
CONST.	2013	STP-M-7900(29)	3B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. & RT. ON TRACT 7. REMOVED TRACT 8007. ADDED TRACTS 10S & 11S.



NOTE:
SEE ROW DETAIL SHEETS AND PARCEL PLATS/DESCRIPTIONS FOR DETAILED INFORMATION.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 72+00 TO E.O.P.

SCALE: 1"=200'

4/12/2013
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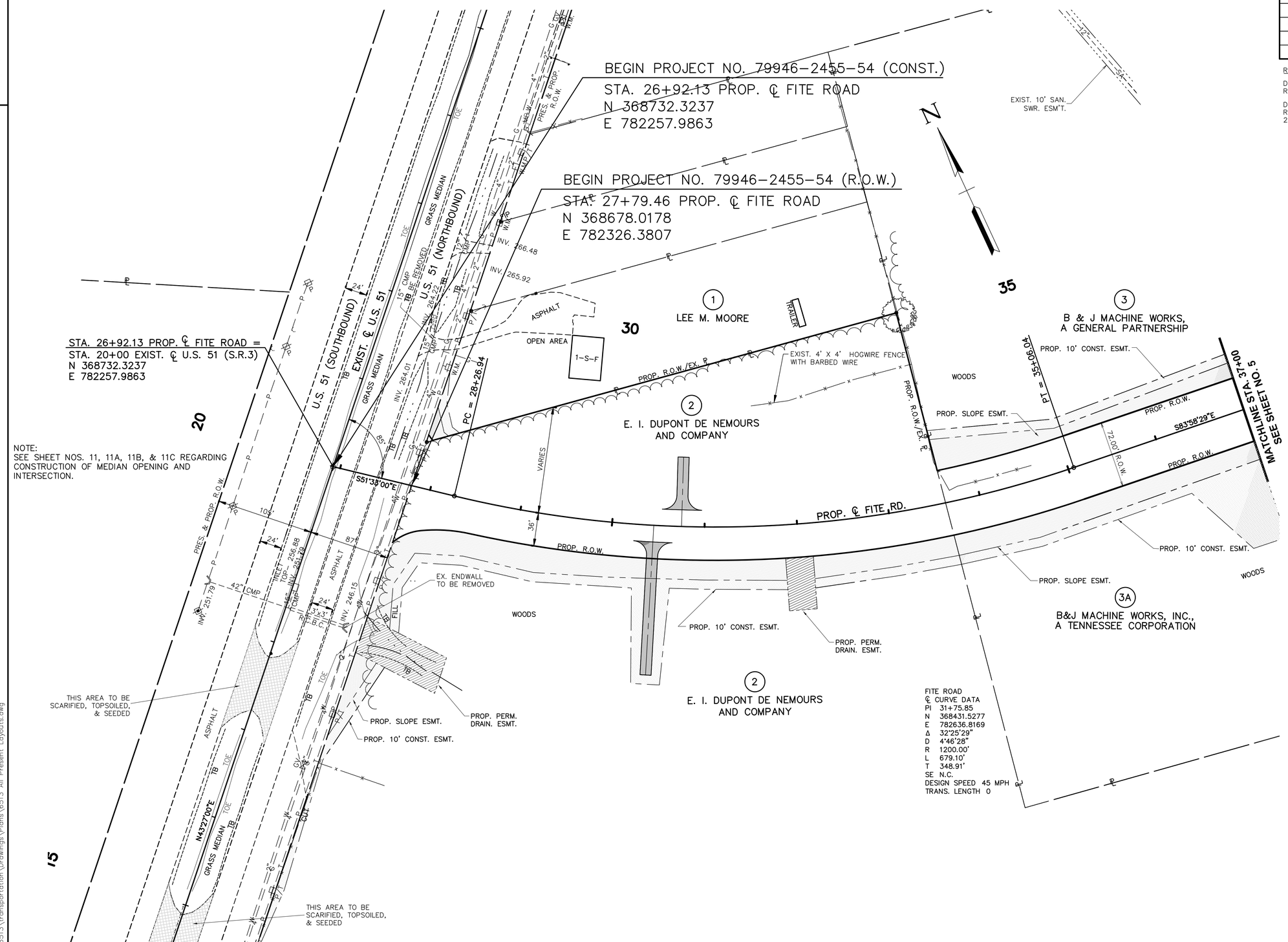
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	4
CONST.	2013	STP-M-7900(29)	4

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. ON TRACT 2. REMOVED TRACT 8002.



JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
B.O.P. TO STA. 37+00
SCALE: 1" = 50'

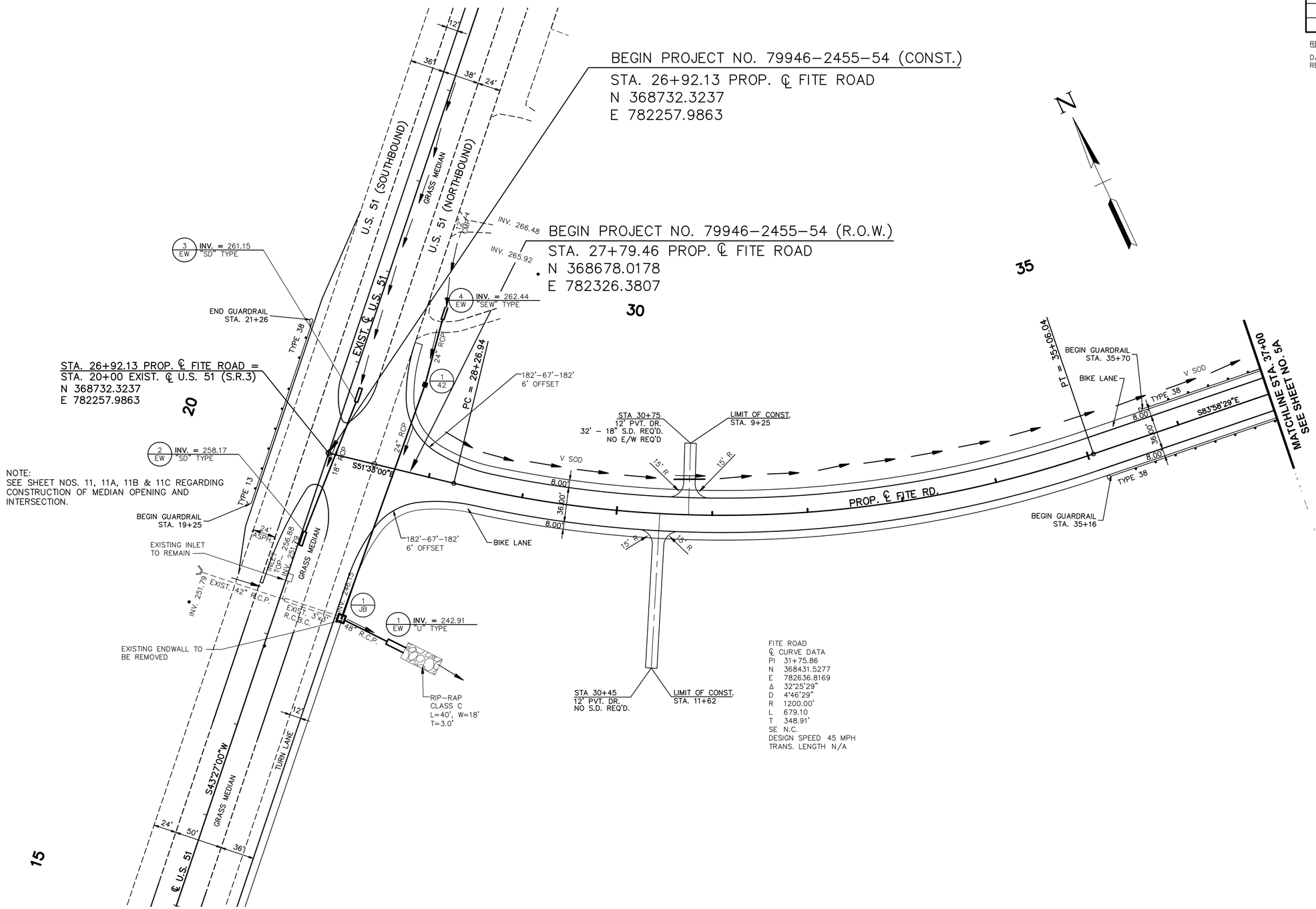
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Present Layouts.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	4A
CONST.	2013	STP-M-7900(29)	4A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



FITE ROAD
℄ CURVE DATA
PI 31+75.86
N 368431.5277
E 782636.8169
Δ 32°25'29"
D 4°46'29"
R 1200.00'
L 679.10
T 348.91'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
B.O.P. TO STA. 37+00
SCALE: 1" = 50'

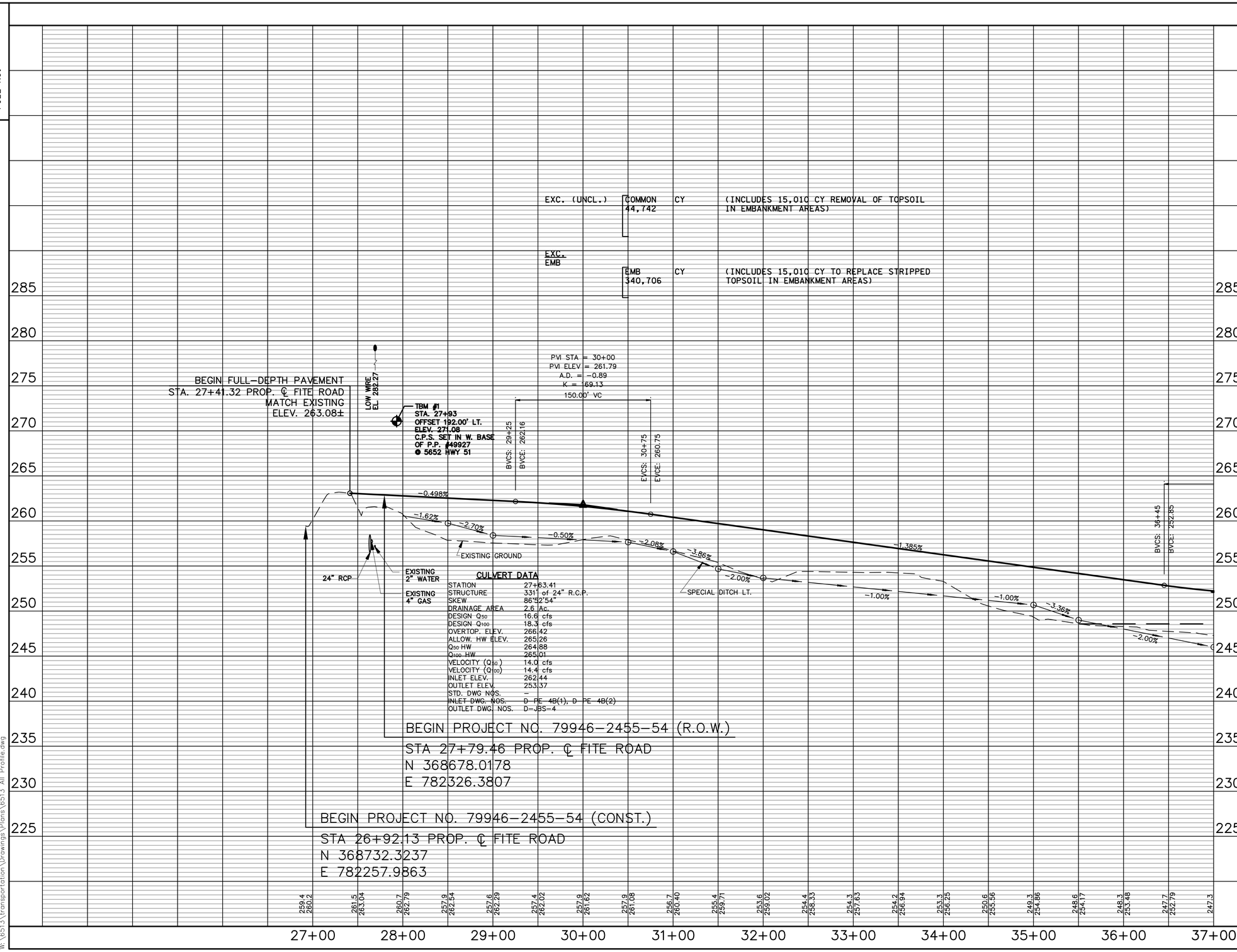
4/16/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	4B
CONST.	2013	STP-M-7900(29)	4B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

FITE ROAD

B.O.P. TO STA. 37+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Profile.dwg

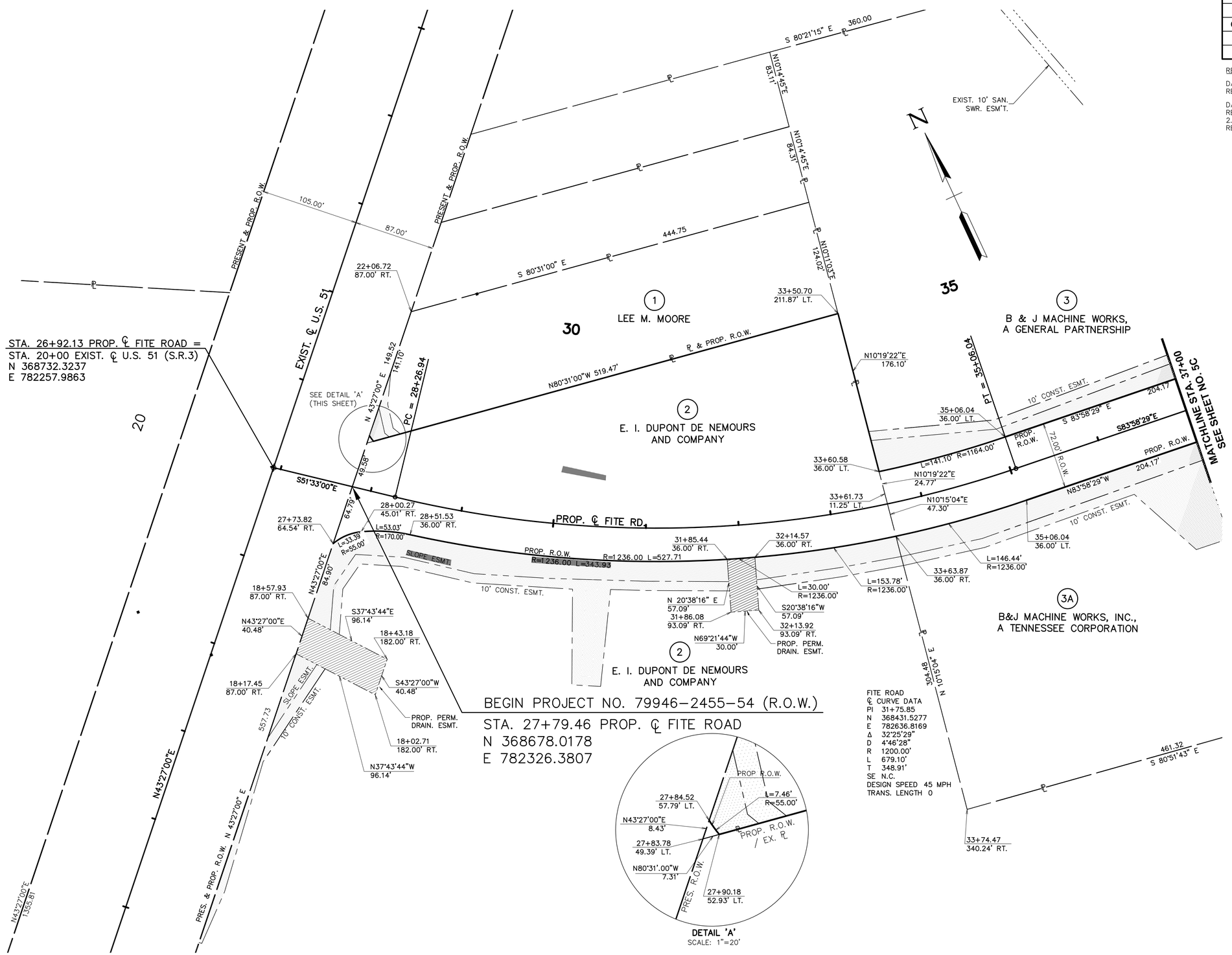
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	4C
CONST.	2013	STP-M-7900(29)	4C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. ON TRACT 2.
REMOVED TRACT 8002.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
B.O.P. TO STA. 37+00
SCALE: 1" = 50'

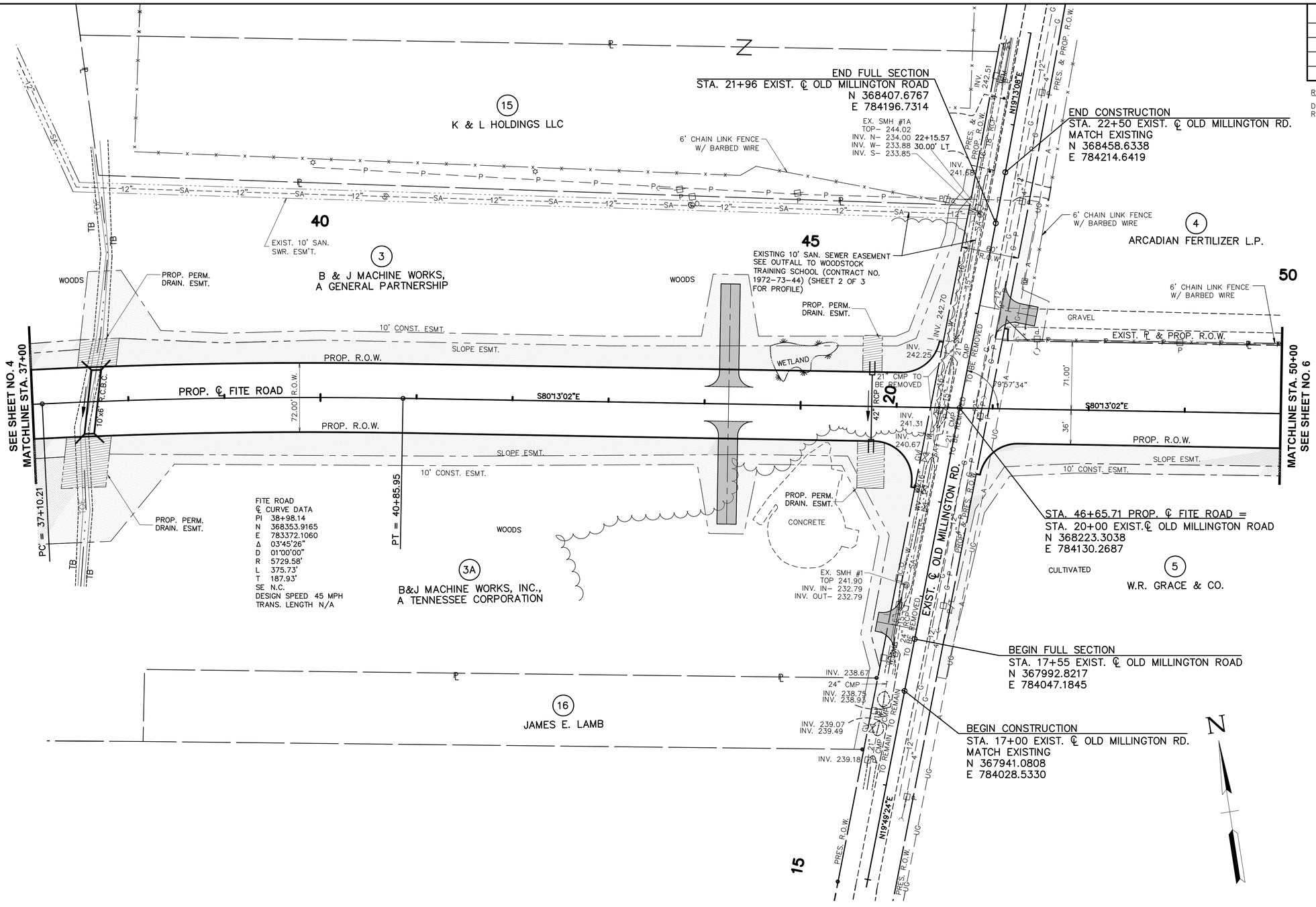
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 ROW Detail.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	5
CONST.	2013	STP-M-7900(29)	5

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
STA. 37+00 TO STA. 50+00
SCALE: 1" = 50'

JOHN T. PANKEY III
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

4/12/2013
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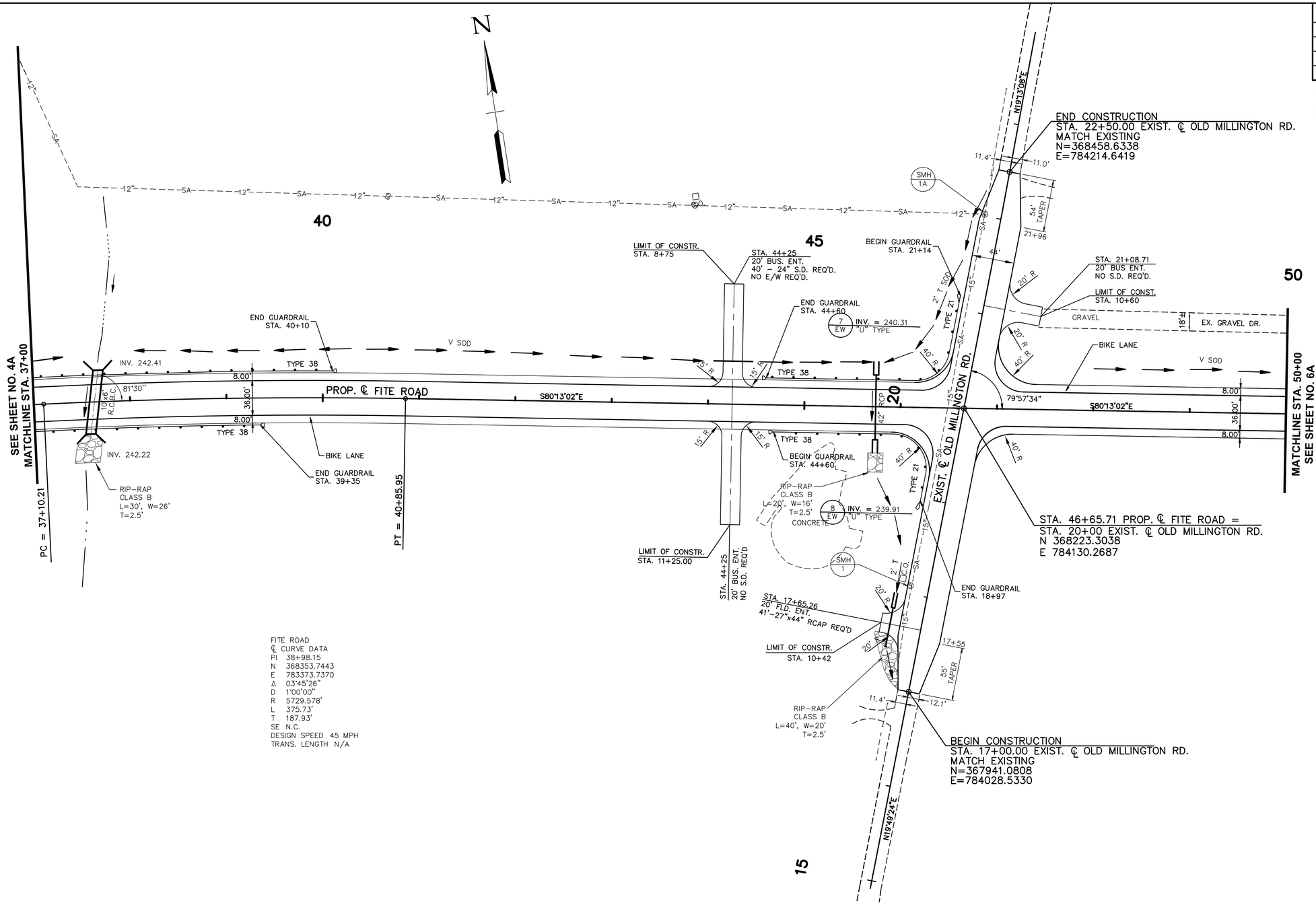
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	5A
CONST.	2013	STP-M-7900(29)	5A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



FITE ROAD
℄ CURVE DATA
PI 38+98.15
N 368353.7443
E 783373.7370
Δ 03°45'26"
D 1°00'00"
R 5729.578'
L 375.73'
T 187.93'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 10230
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
STA. 37+00 TO STA. 50+00
SCALE: 1" = 50'

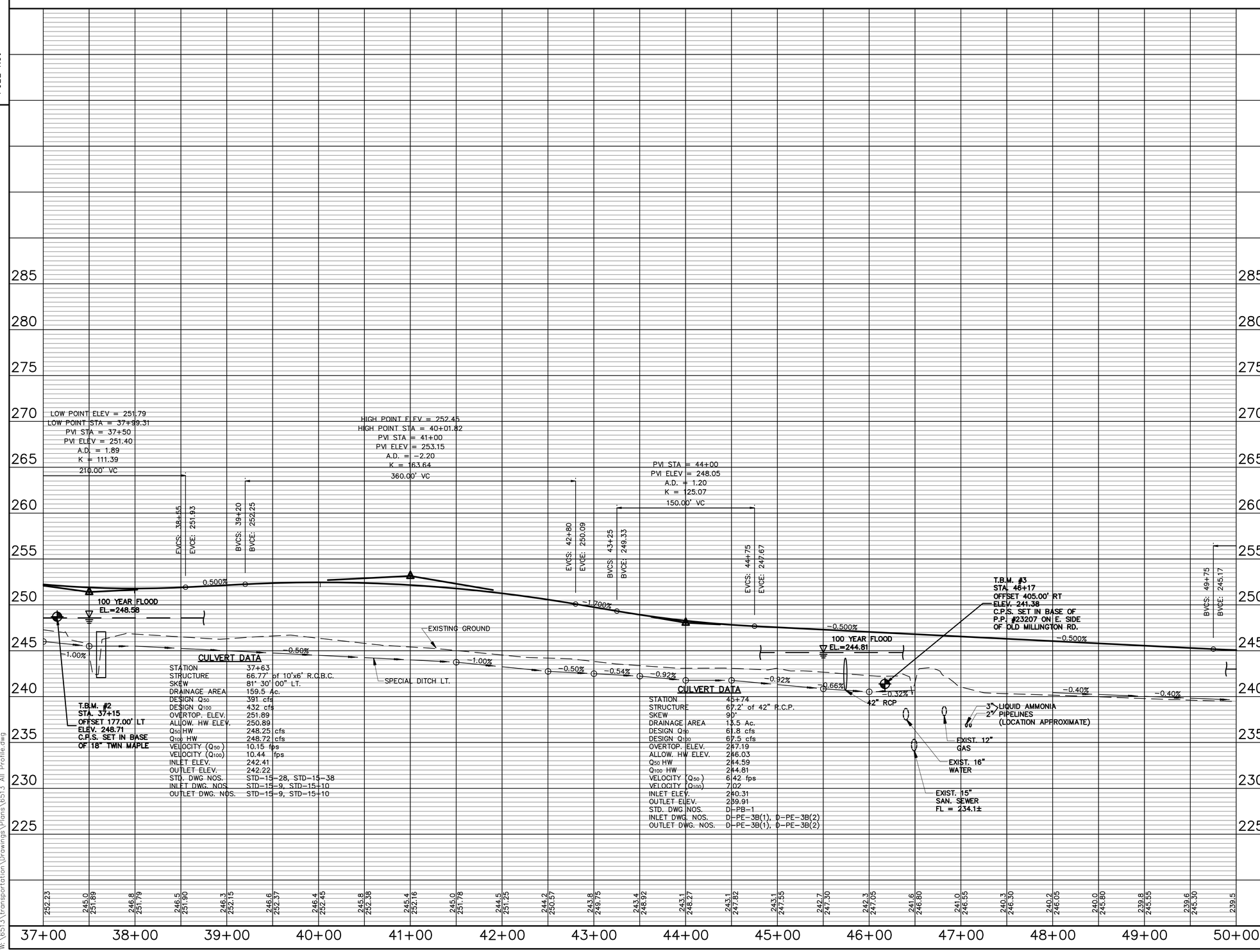
4/15/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	5B
CONST.	2013	STP-M-7900(29)	5B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



CULVERT DATA

STATION	37+63
STRUCTURE	66.77' of 10'x6' R.C.B.C.
SKEW	81° 30' 00" LT.
DRAINAGE AREA	159.5 Ac.
DESIGN Q_{50}	391 cfs
DESIGN Q_{100}	432 cfs
OVERTOP. ELEV.	251.89
ALLOW. HW ELEV.	250.89
Q_{50} HW	248.25 cfs
Q_{100} HW	248.72 cfs
VELOCITY (Q_{50})	10.15 fps
VELOCITY (Q_{100})	10.44 fps
INLET ELEV.	242.41
OUTLET ELEV.	242.22
STD. DWG NOS.	STD-15-28, STD-15-38
INLET DWG. NOS.	STD-15-9, STD-15-10
OUTLET DWG. NOS.	STD-15-9, STD-15-10

CULVERT DATA

STATION	45+74
STRUCTURE	67.2' of 42" R.C.P.
SKEW	90°
DRAINAGE AREA	13.5 Ac.
DESIGN Q_{50}	61.8 cfs
DESIGN Q_{100}	67.5 cfs
OVERTOP. ELEV.	247.19
ALLOW. HW ELEV.	246.03
Q_{50} HW	244.59
Q_{100} HW	244.81
VELOCITY (Q_{50})	6.42 fps
VELOCITY (Q_{100})	7.02
INLET ELEV.	240.31
OUTLET ELEV.	239.91
STD. DWG NOS.	D-PB-1
INLET DWG. NOS.	D-PE-3B(1), D-PE-3B(2)
OUTLET DWG. NOS.	D-PE-3B(1), D-PE-3B(2)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 10235
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

FITE ROAD
STA. 37+00 TO STA. 50+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
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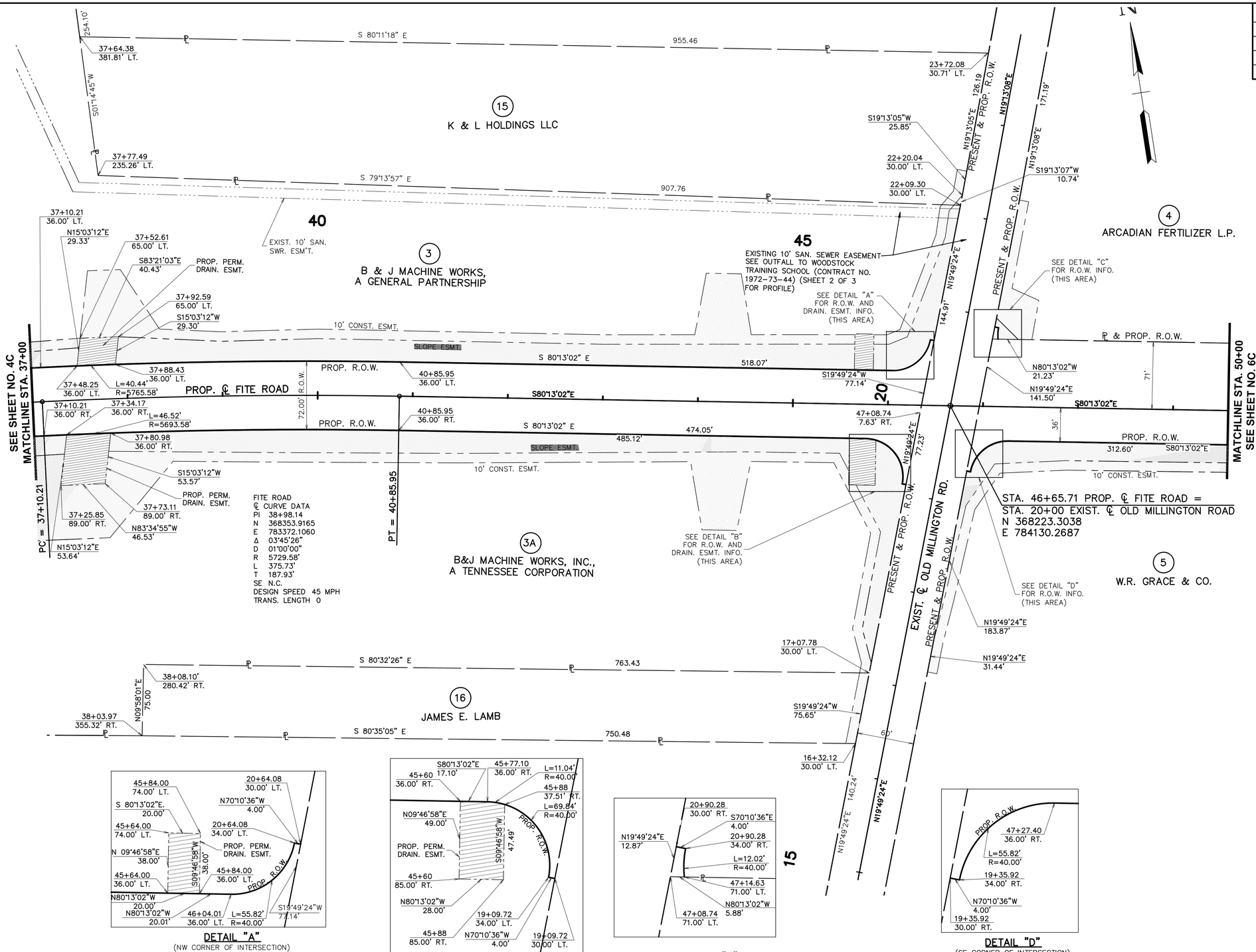
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	5C
CONST.	2013	STP-M-7900(29)	5C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



DETAIL "A"
(NW CORNER OF INTERSECTION)
SCALE: 1"=30'

DETAIL "B"
(SW CORNER OF INTERSECTION)
SCALE: 1"=30'

DETAIL "C"
(NE CORNER OF INTERSECTION)
SCALE: 1"=20'

DETAIL "D"
(SE CORNER OF INTERSECTION)
SCALE: 1"=20'

JOHN T. PANKEY III
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
STA. 37+00 TO STA. 50+00
SCALE: 1" = 50'

4/12/2013
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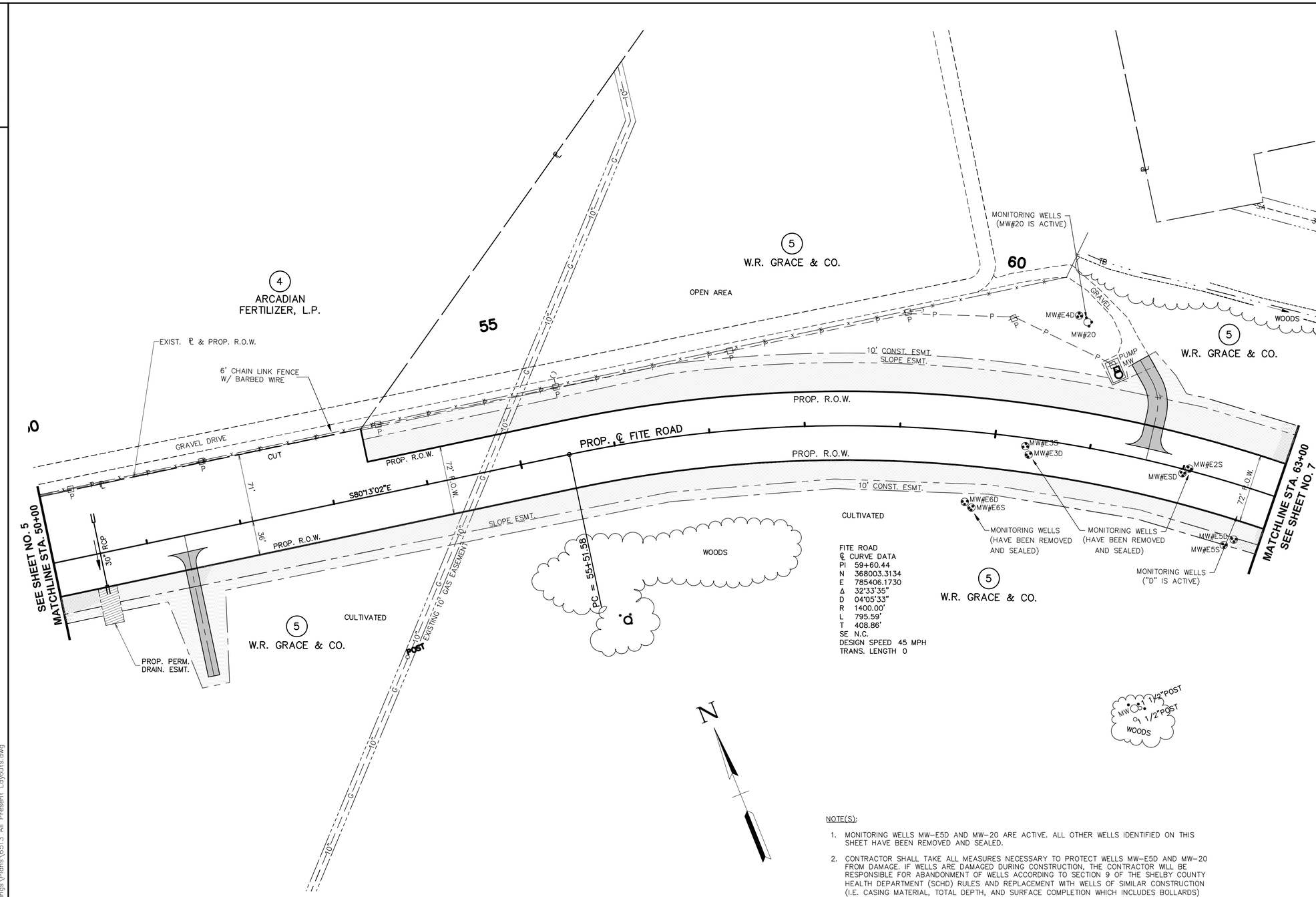
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	6
CONST.	2013	STP-M-7900(29)	6

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 5/09/2012
REVISED DITCH BETWEEN STA. 50+50 AND STA. 59+00.



NOTE(S):

1. MONITORING WELLS MW-E5D AND MW-20 ARE ACTIVE. ALL OTHER WELLS IDENTIFIED ON THIS SHEET HAVE BEEN REMOVED AND SEALED.
2. CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT WELLS MW-E5D AND MW-20 FROM DAMAGE. IF WELLS ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR ABANDONMENT OF WELLS ACCORDING TO SECTION 9 OF THE SHELBY COUNTY HEALTH DEPARTMENT (SCHD) RULES AND REPLACEMENT WITH WELLS OF SIMILAR CONSTRUCTION (I.E. CASING MATERIAL, TOTAL DEPTH, AND SURFACE COMPLETION WHICH INCLUDES BOLLARDS) AT HIS OWN COST.
3. THE FOLLOWING INDIVIDUALS SHALL BE CONTACTED BY THE CONTRACTOR IF A WELL IS DAMAGED AND/OR PRIOR TO ANY ABANDONMENT OR REPLACEMENT OF SAID WELL:

   BOB MEDLER (W.R. GRACE) 901-820-2024
   DYLAN CROUCH (URS) 615-771-2480
4. THE CONTRACTOR SHALL REVIEW THE REQUIREMENTS OF THE SPECIAL PROVISION REGARDING ENVIRONMENTAL CONCERNS INCLUDED IN THE BID BOOK PRIOR TO COMMENCING ANY WORK ON THE W.R. GRACE SITE.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
STA. 50+00 TO STA. 63+00
SCALE: 1" = 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Present Layouts.dwg

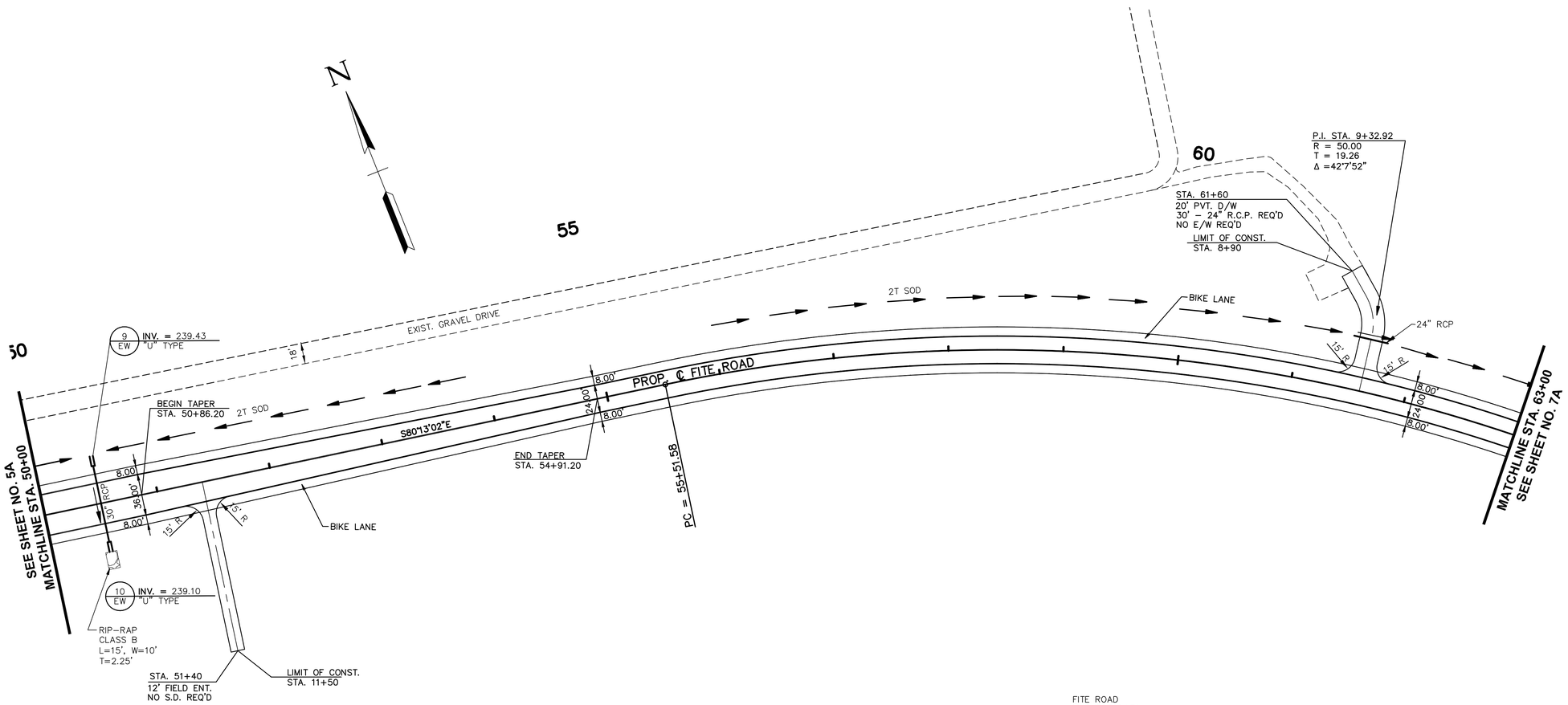
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	6A
CONST.	2013	STP-M-7900(29)	6A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 5/09/2012
REVISED DITCH BETWEEN STA. 50+50 AND STA. 59+00.



FITE ROAD
℄ CURVE DATA
PI 59+60.44
N 368003.3134
E 785406.1730
Δ 32°33'35"
D 4°05'33"
R 1400.000'
L 795.585'
T 408.855'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
STA. 50+00 TO STA. 63+00
SCALE: 1" = 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

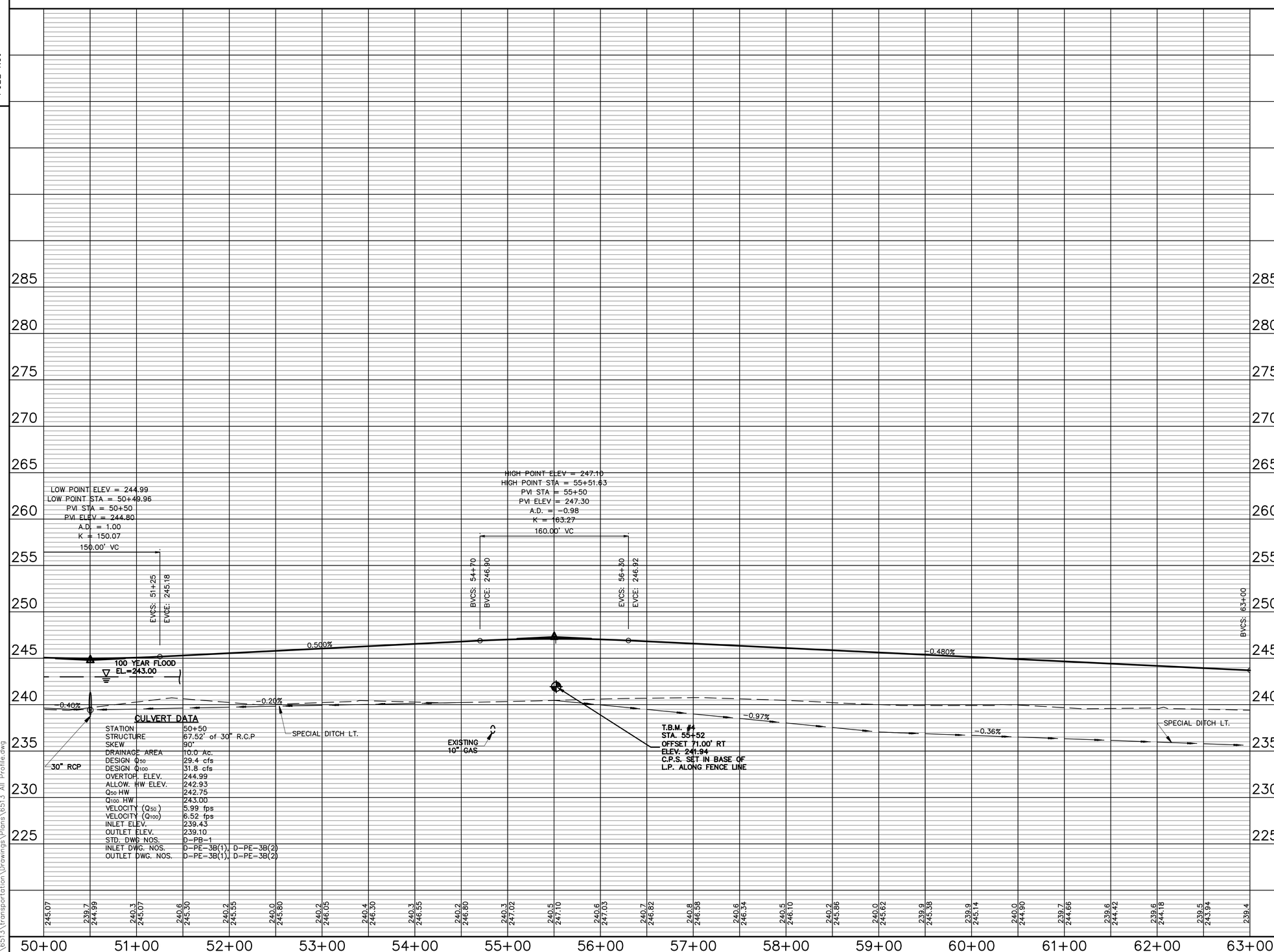
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	6B
CONST.	2013	STP-M-7900(29)	6B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 5/09/2012
REVISED DITCH BETWEEN STA. 50+50 AND STA. 59+00.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

FITE ROAD

STA. 50+00 TO STA. 63+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
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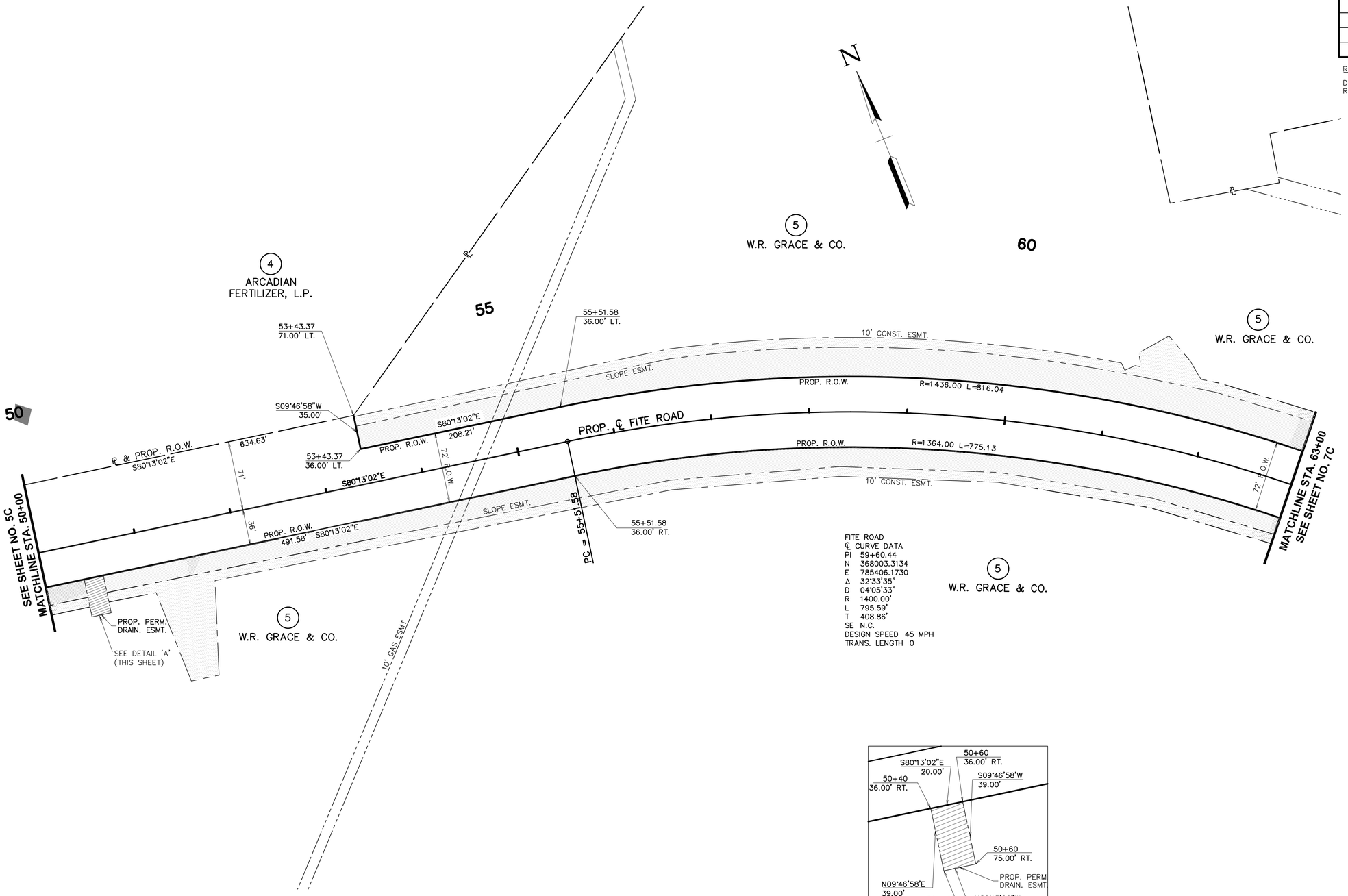
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

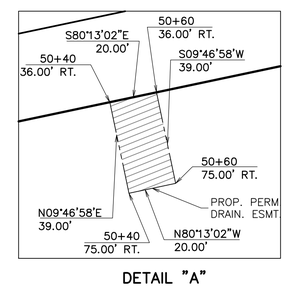
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	6C
CONST.	2013	STP-M-7900(29)	6C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



FITE ROAD
℄ CURVE DATA
PI 59+60.44
N 368003.3134
E 785406.1730
Δ 32°33'35"
D 04°05'33"
R 1400.00'
L 795.59'
T 408.86'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH 0



DETAIL "A"

SCALE: 1"=30'

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
STA. 50+00 TO STA. 63+00
SCALE: 1" = 50'

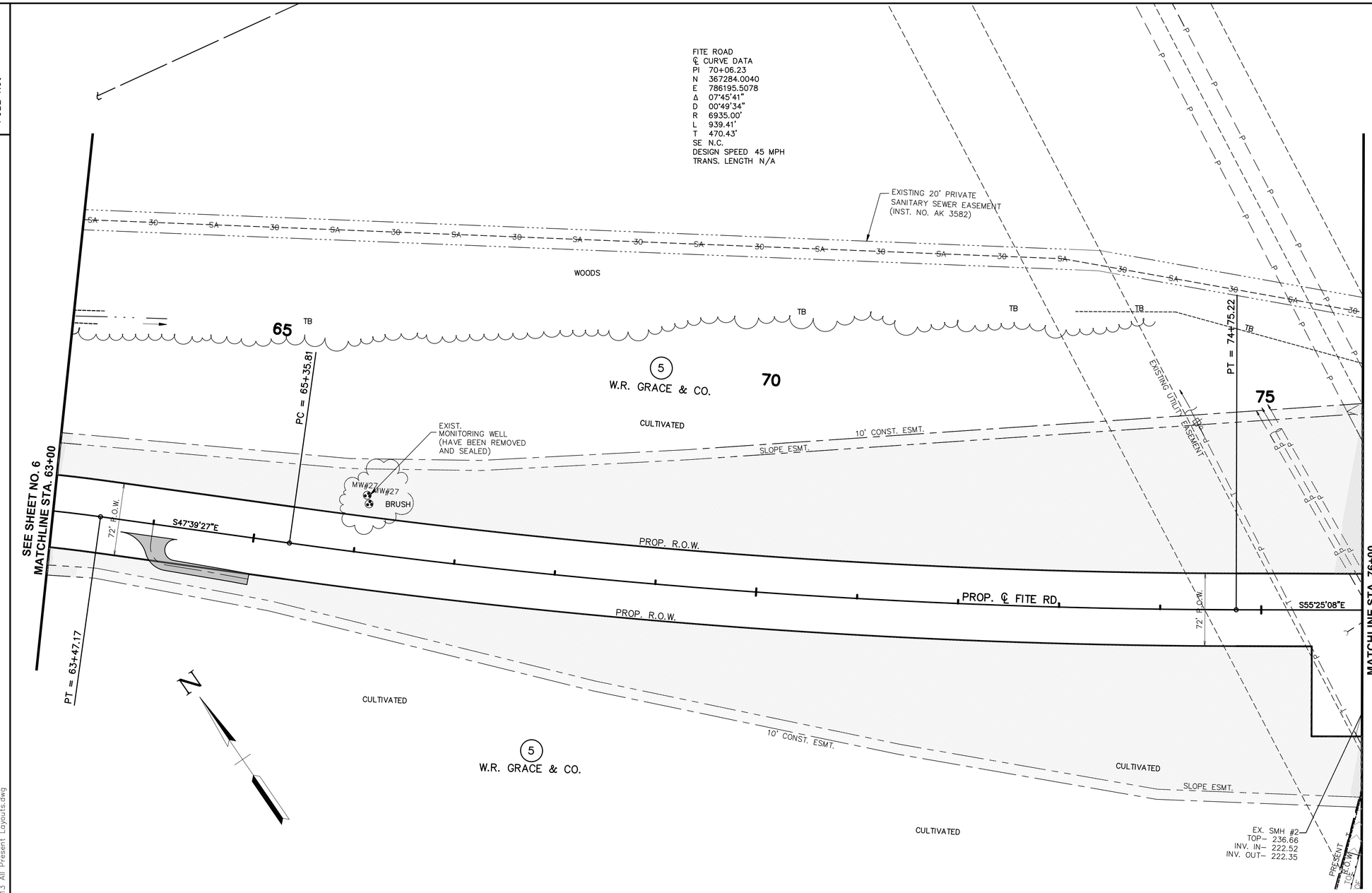
4/12/2013
W:\6513\transportation\Drawings\Plans\6513_ROW Detail.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	7
CONST.	2013	STP-M-7900(29)	7

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
STA. 63+00 TO STA. 76+00
SCALE: 1" = 50'

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

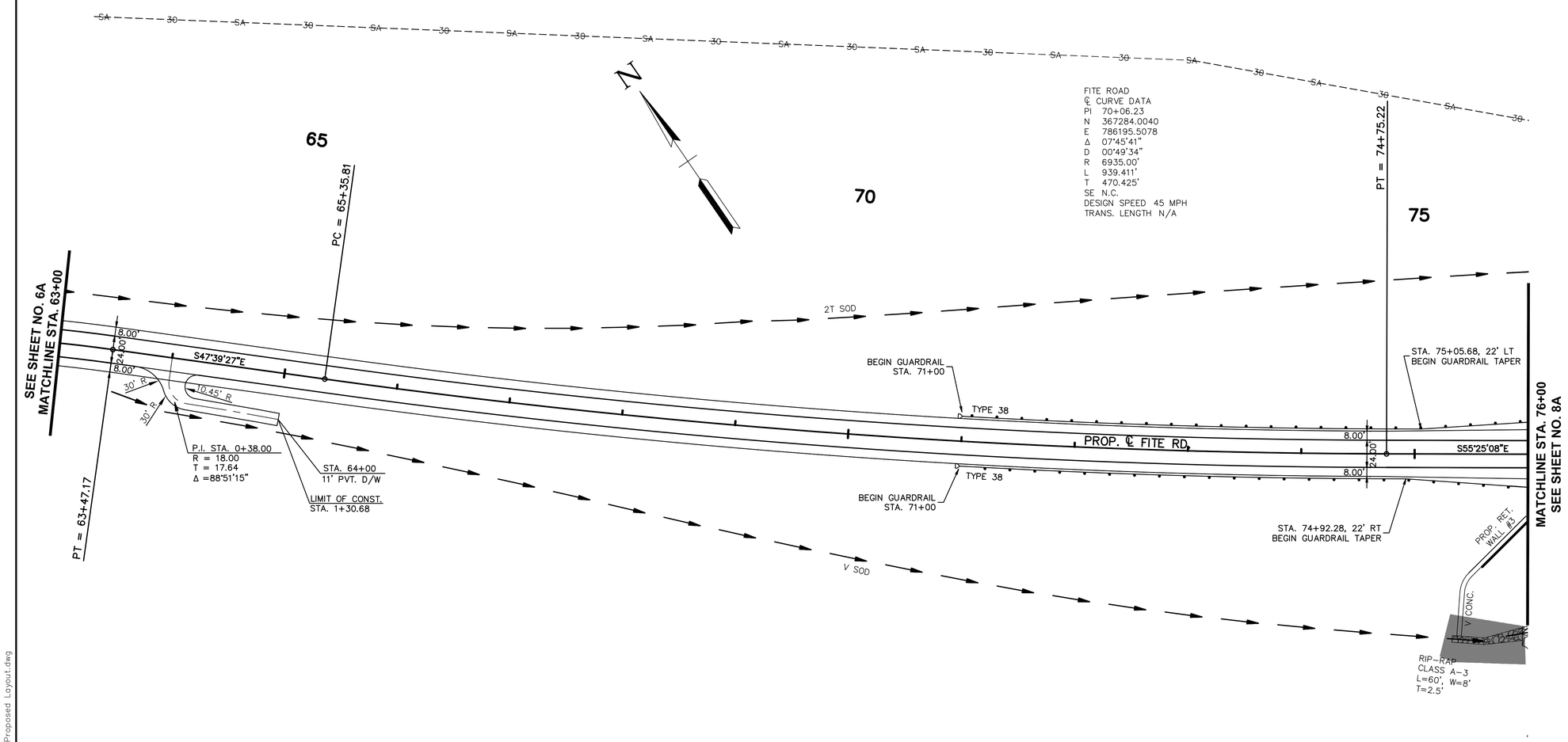
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Present Layouts.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	7A
CONST.	2013	STP-M-7900(29)	7A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
STA. 63+00 TO STA. 76+00
SCALE: 1" = 50'

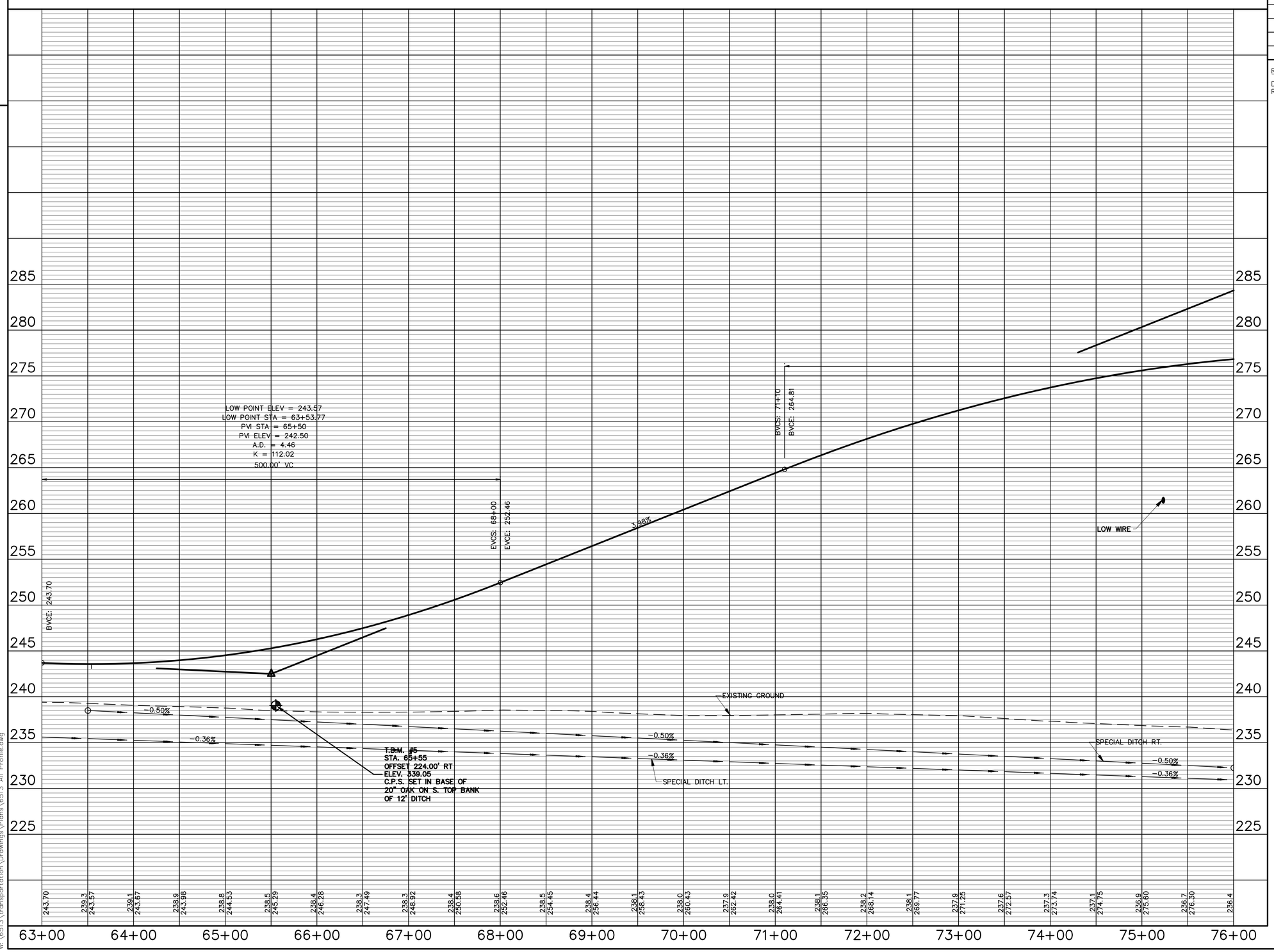
4/15/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

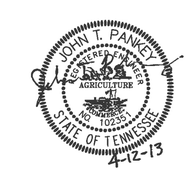
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	7B
CONST.	2013	STP-M-7900(29)	7B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.





STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

FITE ROAD

STA. 63+00 TO STA.76+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

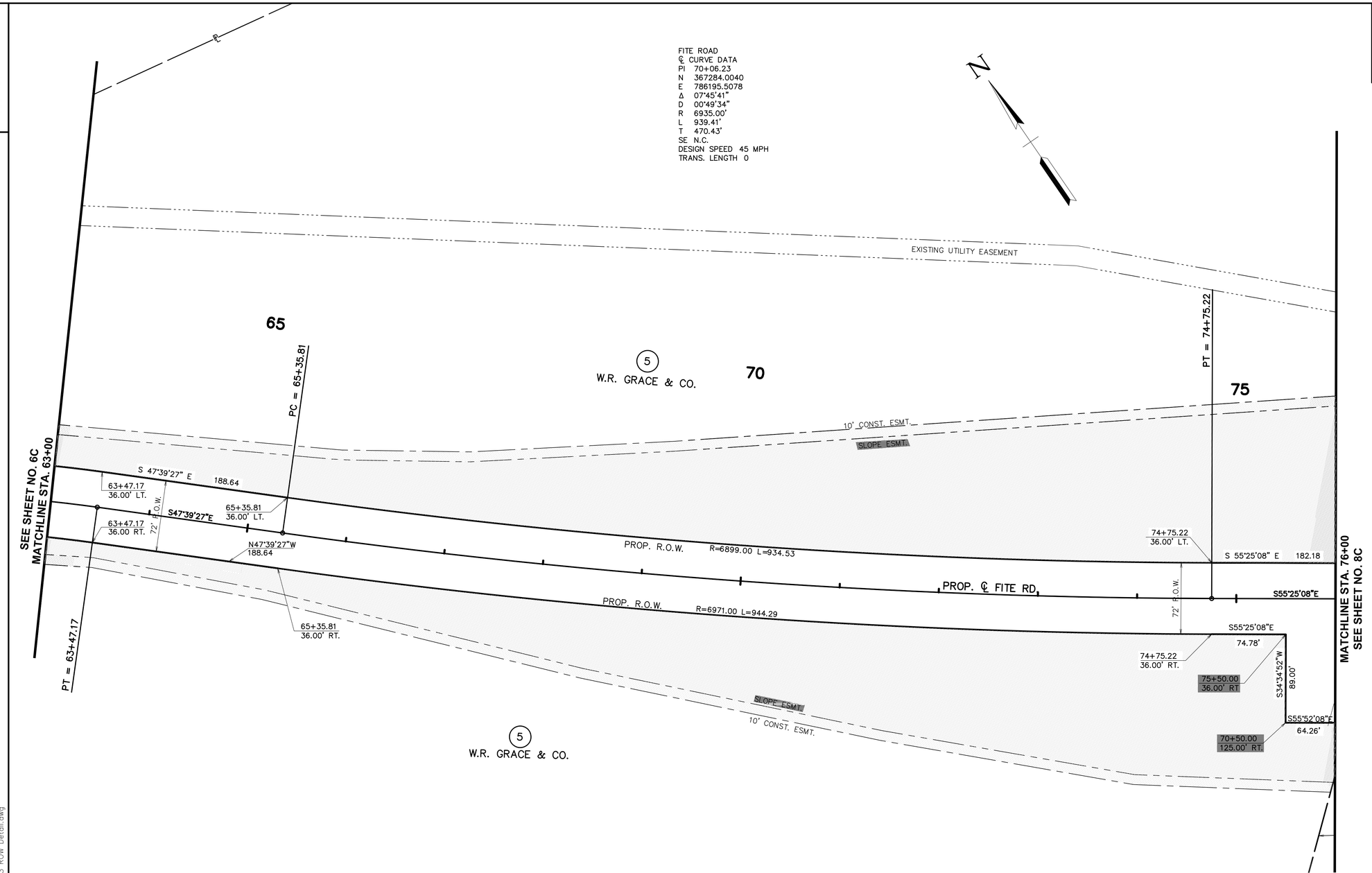
4/16/2013
W:\6513\transportation\Drawings\Plans\6513 All Profile.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	7C
CONST.	2013	STP-M-7900(29)	7C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
STA. 63+00 TO STA. 76+00
SCALE: 1" = 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 ROW Detail.dwg

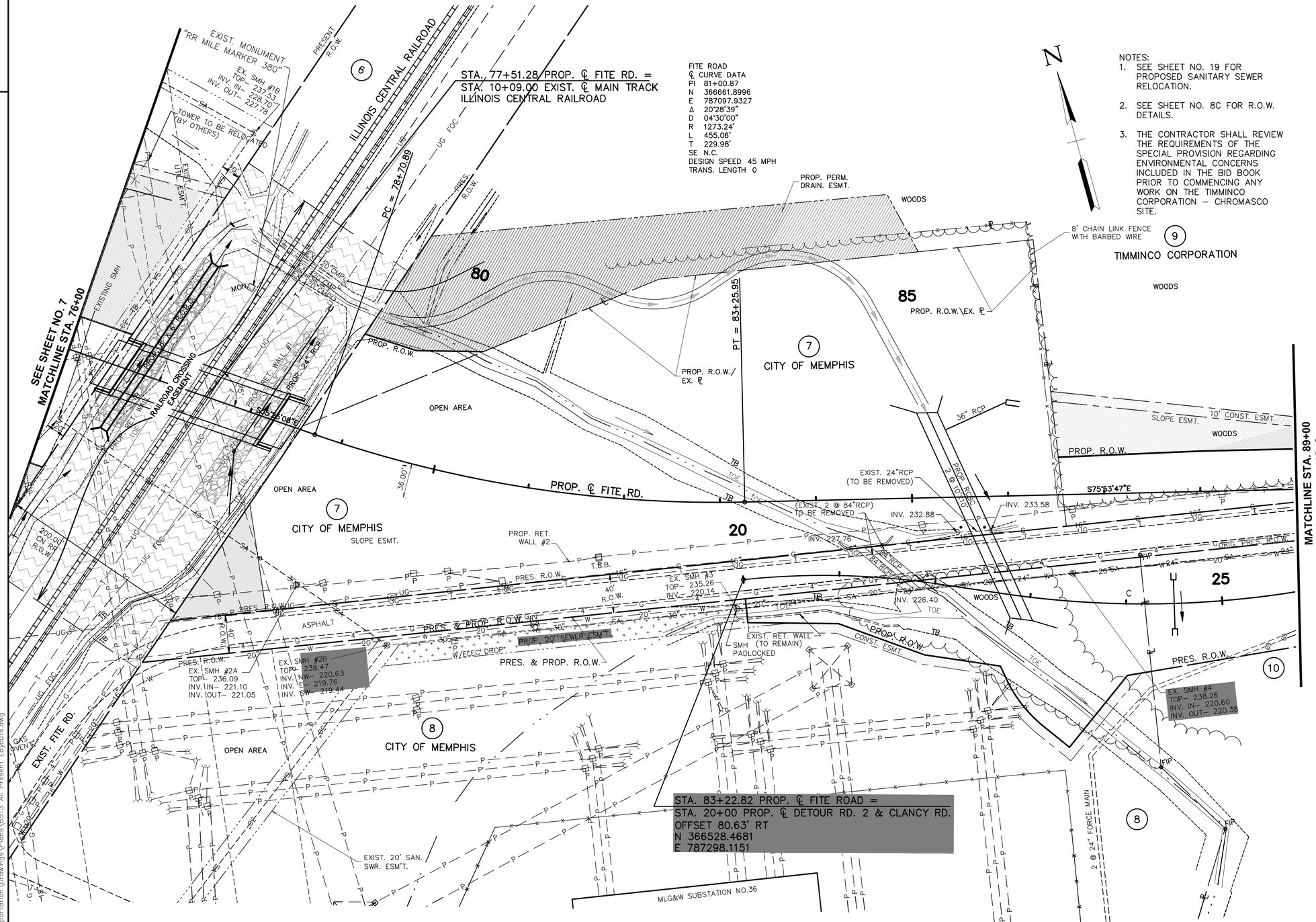
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	8
CONST.	2013	STP-M-7900(29)	8

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. & RT. ON TRACT 7.
REMOVED TRACT 8007.



JOHN T. PANELLI
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
STA. 76+00 TO STA. 89+00
SCALE: 1" = 50'

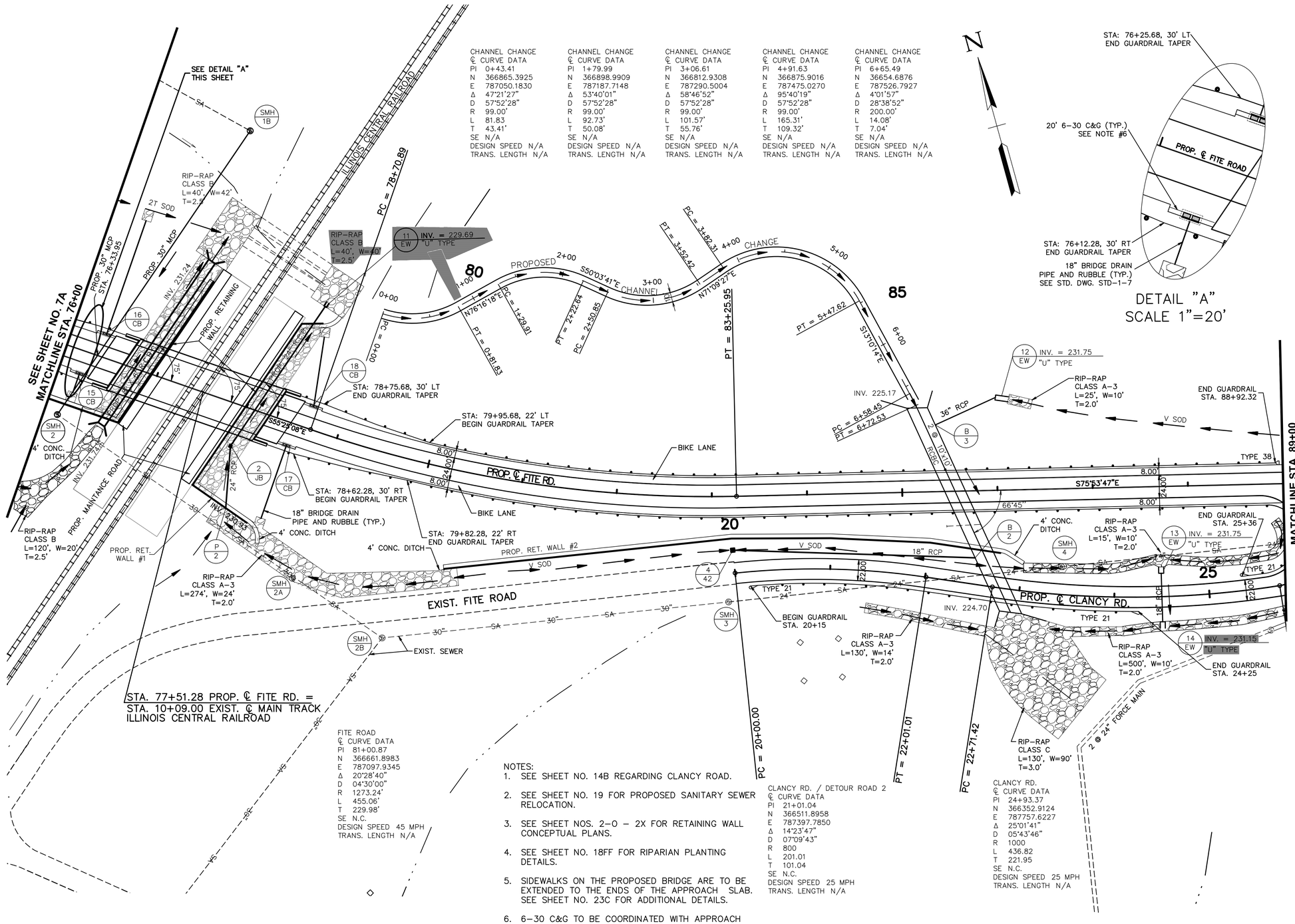
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Present Layouts.dwg

TENNESSEE D.O.T.	
DESIGN DIVISION	
FILE NO.	

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	8A
CONST.	2013	STP-M-7900(29)	8A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



CHANNEL CHANGE
℄ CURVE DATA
PI 0+43.41
N 366865.3925
E 787050.1830
Δ 47°21'27"
D 57°52'28"
R 99.00'
L 81.83
T 43.41'
SE N/A
DESIGN SPEED N/A
TRANS. LENGTH N/A

CHANNEL CHANGE
℄ CURVE DATA
PI 1+79.99
N 366898.9909
E 787187.7148
Δ 53°40'01"
D 57°52'28"
R 99.00'
L 92.73'
T 50.08'
SE N/A
DESIGN SPEED N/A
TRANS. LENGTH N/A

CHANNEL CHANGE
℄ CURVE DATA
PI 3+06.61
N 366812.9308
E 787290.5004
Δ 58°46'52"
D 57°52'28"
R 99.00'
L 101.57'
T 55.76'
SE N/A
DESIGN SPEED N/A
TRANS. LENGTH N/A

CHANNEL CHANGE
℄ CURVE DATA
PI 4+91.63
N 366875.9016
E 787475.0270
Δ 95°40'19"
D 57°52'28"
R 99.00'
L 165.31'
T 109.32'
SE N/A
DESIGN SPEED N/A
TRANS. LENGTH N/A

CHANNEL CHANGE
℄ CURVE DATA
PI 6+65.49
N 366654.6876
E 787526.7927
Δ 4°01'57"
D 28°38'52"
R 200.00'
L 14.08'
T 7.04'
SE N/A
DESIGN SPEED N/A
TRANS. LENGTH N/A

FITE ROAD
℄ CURVE DATA
PI 81+00.87
N 366661.8983
E 787097.9345
Δ 20°28'40"
D 04°30'00"
R 1273.24'
L 455.06'
T 229.98'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A

NOTES:

1. SEE SHEET NO. 14B REGARDING CLANCY ROAD.
2. SEE SHEET NO. 19 FOR PROPOSED SANITARY SEWER RELOCATION.
3. SEE SHEET NOS. 2-O – 2X FOR RETAINING WALL CONCEPTUAL PLANS.
4. SEE SHEET NO. 18FF FOR RIPARIAN PLANTING DETAILS.
5. SIDEWALKS ON THE PROPOSED BRIDGE ARE TO BE EXTENDED TO THE ENDS OF THE APPROACH SLAB. SEE SHEET NO. 23C FOR ADDITIONAL DETAILS.
6. 6-30 C&G TO BE COORDINATED WITH APPROACH SLAB AND LOCATED 25' OFF ℄ TO FACE OF CURB. CURB HEIGHT TO TRANSITION FROM 6" AT INLET TO 0" AT END OF C&G TO MATCH FITE ROAD TYPICAL.

CLANCY RD. / DETOUR ROAD 2
℄ CURVE DATA
PI 21+01.04
N 366511.8958
E 787397.7850
Δ 14°23'47"
D 07°09'43"
R 800
L 201.01
T 101.04
SE N.C.
DESIGN SPEED 25 MPH
TRANS. LENGTH N/A

CLANCY RD.
℄ CURVE DATA
PI 24+93.37
N 366352.9124
E 787757.6227
Δ 25°01'41"
D 05°43'46"
R 1000
L 436.82
T 221.95
SE N.C.
DESIGN SPEED 25 MPH
TRANS. LENGTH N/A

JOHN T. PANKEY III
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
STA. 76+00 TO STA. 89+00
SCALE: 1" = 50'

4/15/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

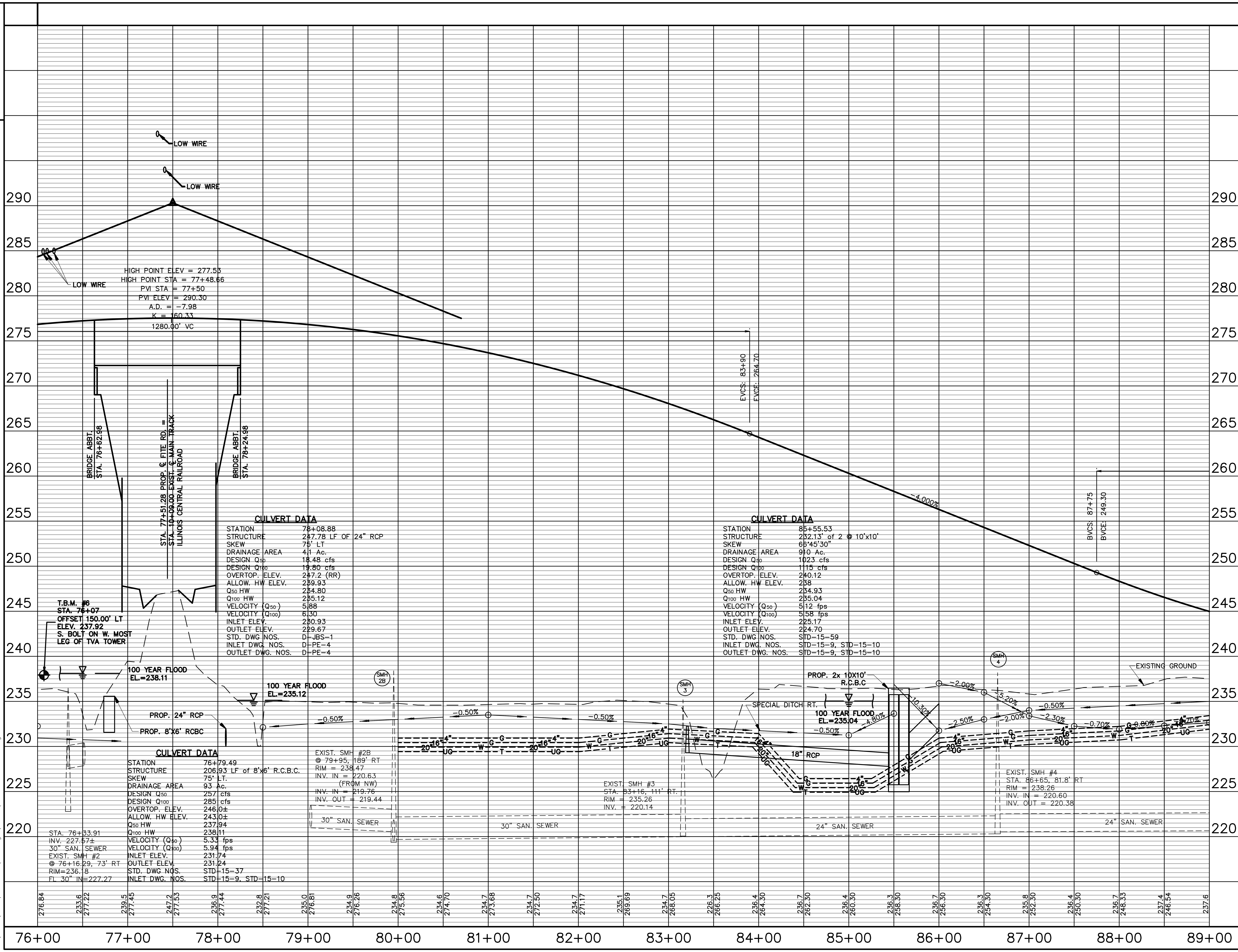
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	8B
CONST.	2013	STP-M-7900(29)	8B

REVISIONS:

DATE: 10/18/2010
REVISED GRADING AND DRAINAGE UNDER BRIDGE AND ADDED RETAINING WALLS.

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



CULVERT DATA

STATION	76+79.49
STRUCTURE	206.93 LF of 8'x6' R.C.B.C.
SKEW	75' LT.
DRAINAGE AREA	93 Ac.
DESIGN Q_{50}	257 cfs
DESIGN Q_{100}	285 cfs
OVERTOP. ELEV.	246.0±
ALLOW. HW ELEV.	243.0±
Q_{50} HW	237.94
Q_{100} HW	238.11
VELOCITY (Q_{50})	5.33 fps
VELOCITY (Q_{100})	5.94 fps
INLET ELEV.	231.74
OUTLET ELEV.	231.24
STD. DWG NOS.	STD-15-37
INLET DWG. NOS.	STD-15-9, STD-15-10

CULVERT DATA

STATION	78+08.88
STRUCTURE	247.78 LF OF 24" RCP
SKEW	75' LT
DRAINAGE AREA	4.1 Ac.
DESIGN Q_{50}	18.48 cfs
DESIGN Q_{100}	19.80 cfs
OVERTOP. ELEV.	247.2 (RR)
ALLOW. HW ELEV.	239.93
Q_{50} HW	234.80
Q_{100} HW	235.12
VELOCITY (Q_{50})	5.88
VELOCITY (Q_{100})	6.30
INLET ELEV.	230.93
OUTLET ELEV.	229.67
STD. DWG NOS.	D-JBS-1
INLET DWG. NOS.	D-PE-4
OUTLET DWG. NOS.	D-PE-4

CULVERT DATA

STATION	85+55.53
STRUCTURE	232.13' of 2 @ 10'x10'
SKEW	66°45'30"
DRAINAGE AREA	910 Ac.
DESIGN Q_{50}	1023 cfs
DESIGN Q_{100}	1115 cfs
OVERTOP. ELEV.	240.12
ALLOW. HW ELEV.	238
Q_{50} HW	234.93
Q_{100} HW	235.04
VELOCITY (Q_{50})	5.12 fps
VELOCITY (Q_{100})	5.58 fps
INLET ELEV.	225.17
OUTLET ELEV.	224.70
STD. DWG NOS.	STD-15-59
INLET DWG. NOS.	STD-15-9, STD-15-10
OUTLET DWG. NOS.	STD-15-9, STD-15-10

JOHN T. PANKEY REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 102351 STATE OF TENNESSEE 4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

FITE ROAD
STA. 76+00 TO STA. 89+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
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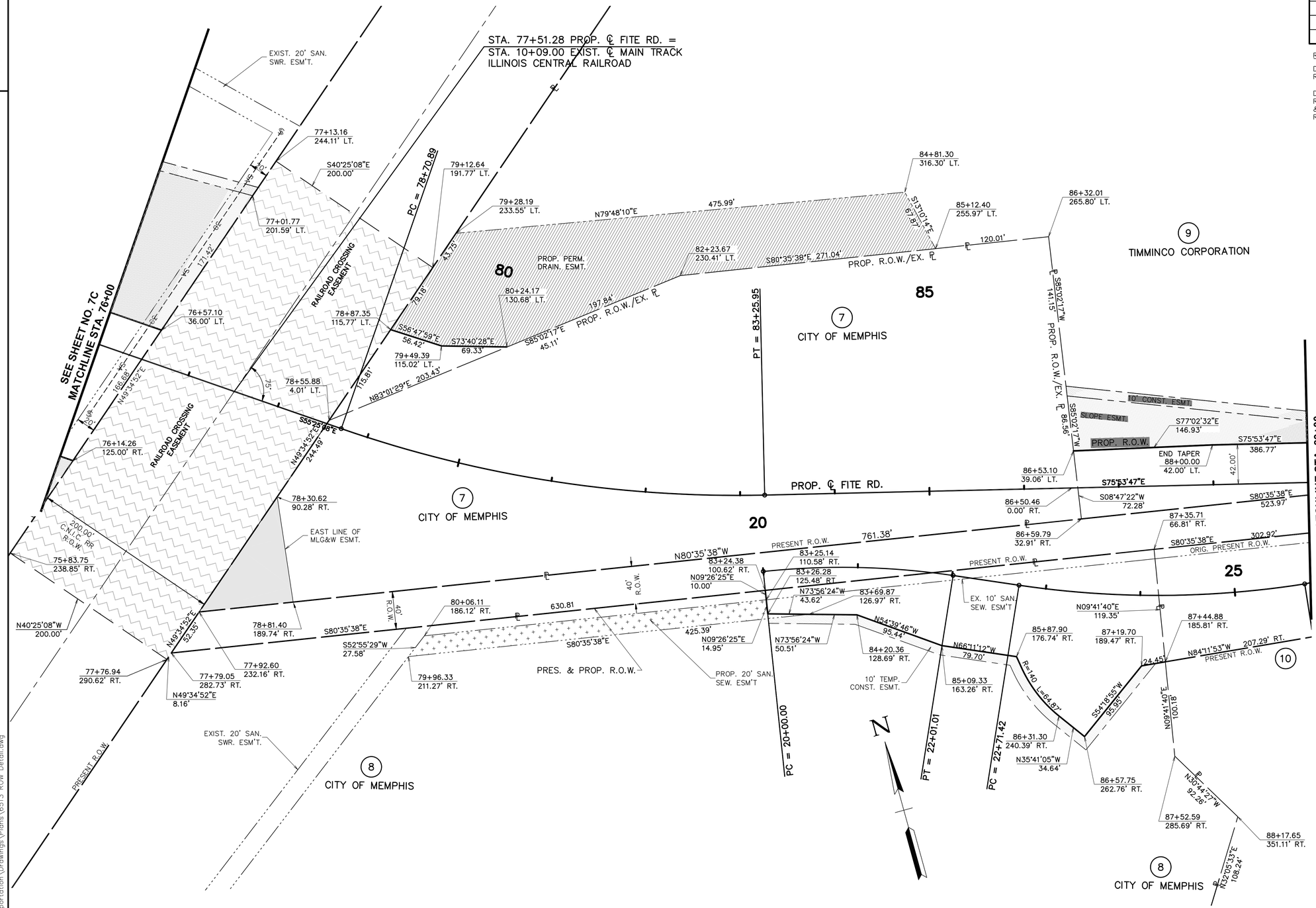
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	8C
CONST.	2013	STP-M-7900(29)	8C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS ON TRACTS 10 & 11. ADDED TRACT 10S AND 11S. REMOVED TRACT 8007.



JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
No. 10235
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
STA. 76+00 TO STA. 89+00
SCALE: 1" = 50'

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

NOTES:

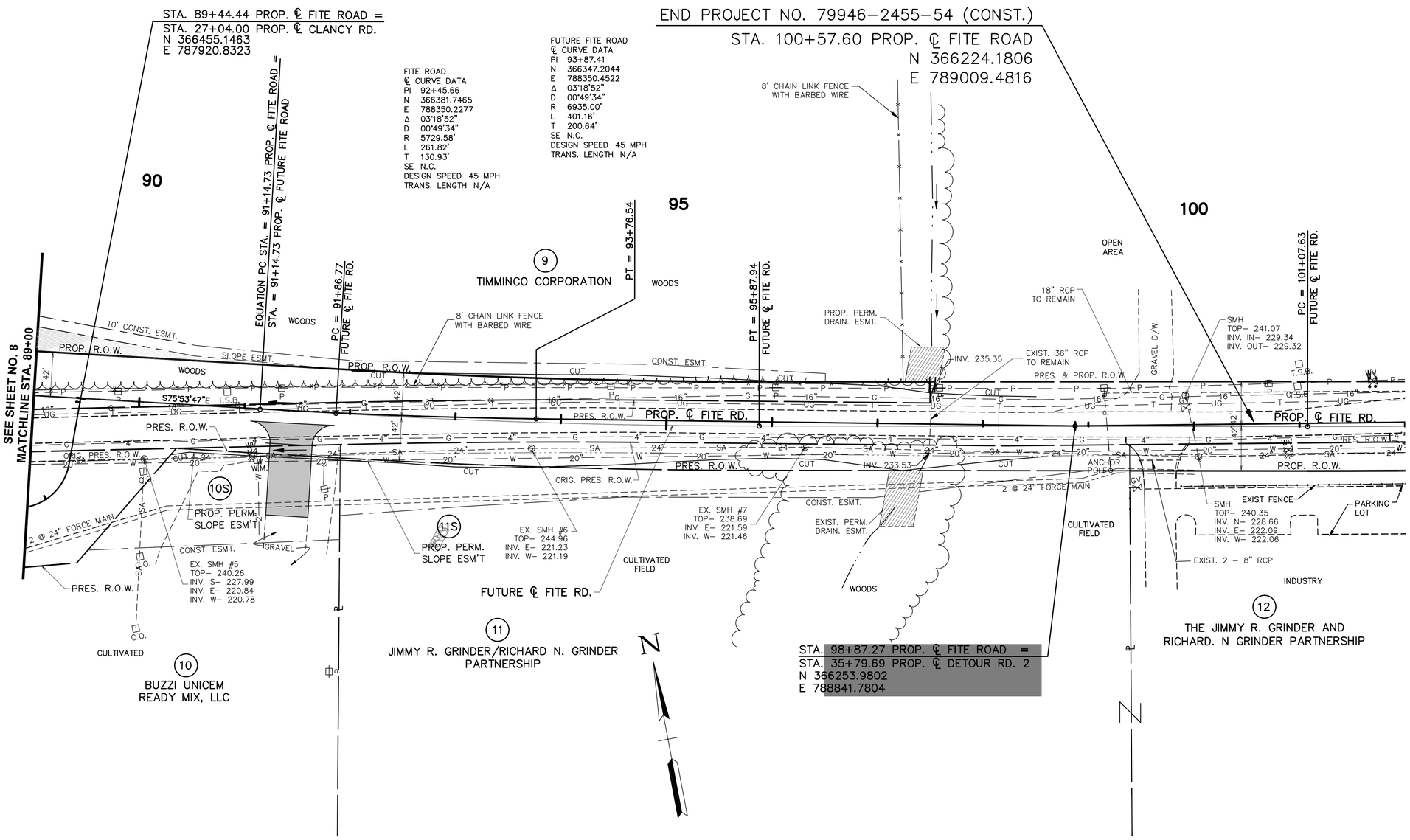
THE CONTRACTOR SHALL REVIEW THE REQUIREMENTS OF THE SPECIAL PROVISION REGARDING ENVIRONMENTAL CONCERNS INCLUDED IN THE BID BOOK PRIOR TO COMMENCING ANY WORK ON THE TIMMINCO CORPORATION – CHROMASCO SITE.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	9
CONST.	2013	STP–M–7900(29)	9

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED CUT/FILL LINES FOR TRACTS 10 & 11.
ADDED TRACTS 10S & 11S.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 10235
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
STA. 89+00 TO STA. 102+00
SCALE: 1" = 50'

4/12/2013
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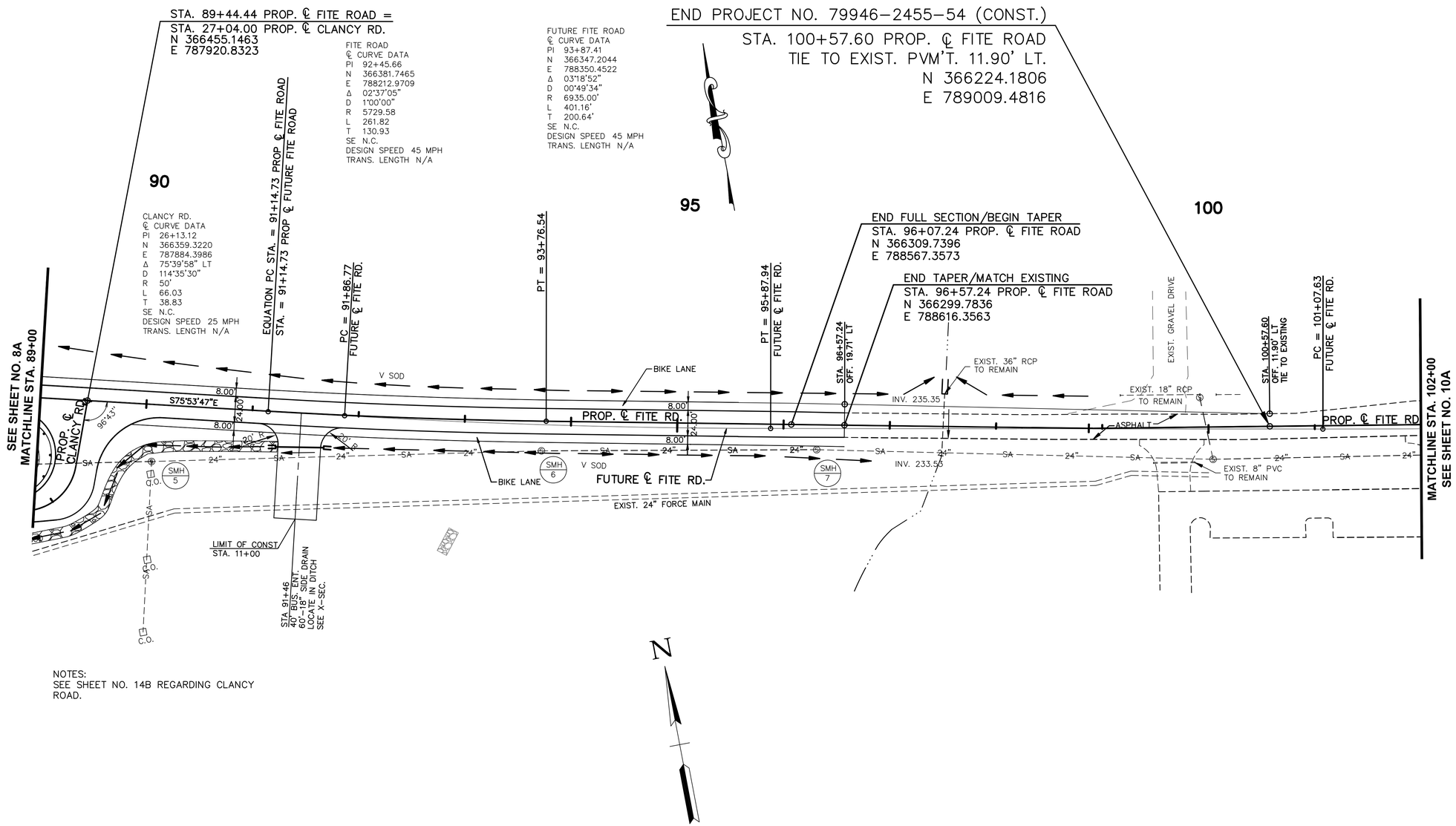
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	9A
CONST.	2013	STP-M-7900(29)	9A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



NOTES:
SEE SHEET NO. 14B REGARDING CLANCY ROAD.

JOHN T. PANKEY
LICENSED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
STA. 89+00 TO STA. 102+00
SCALE: 1" = 50'

4/15/2013
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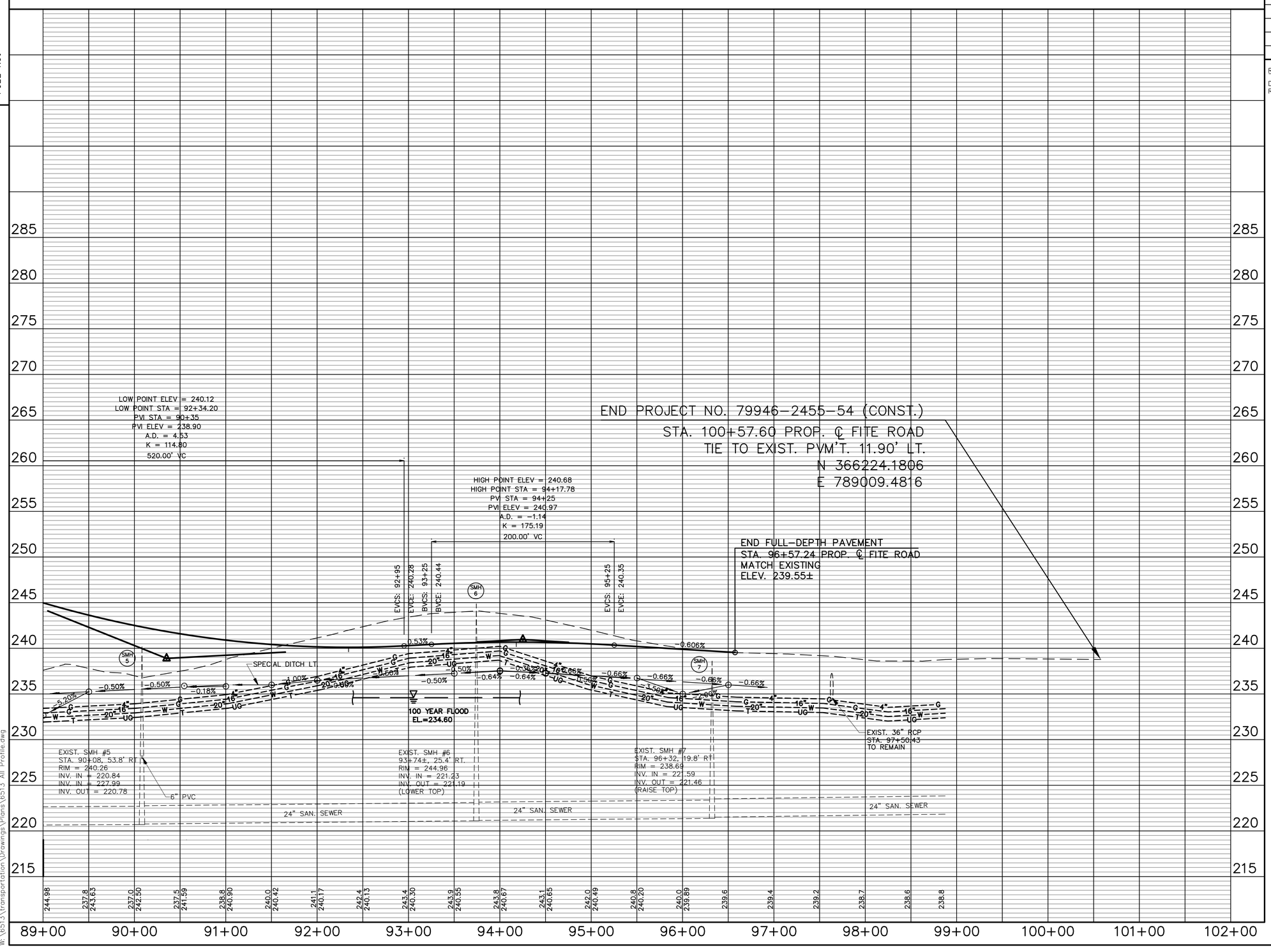
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	9B
CONST.	2013	STP-M-7900(29)	9B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

FITE ROAD

STA. 89+00 TO STA. 102+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/16/2013
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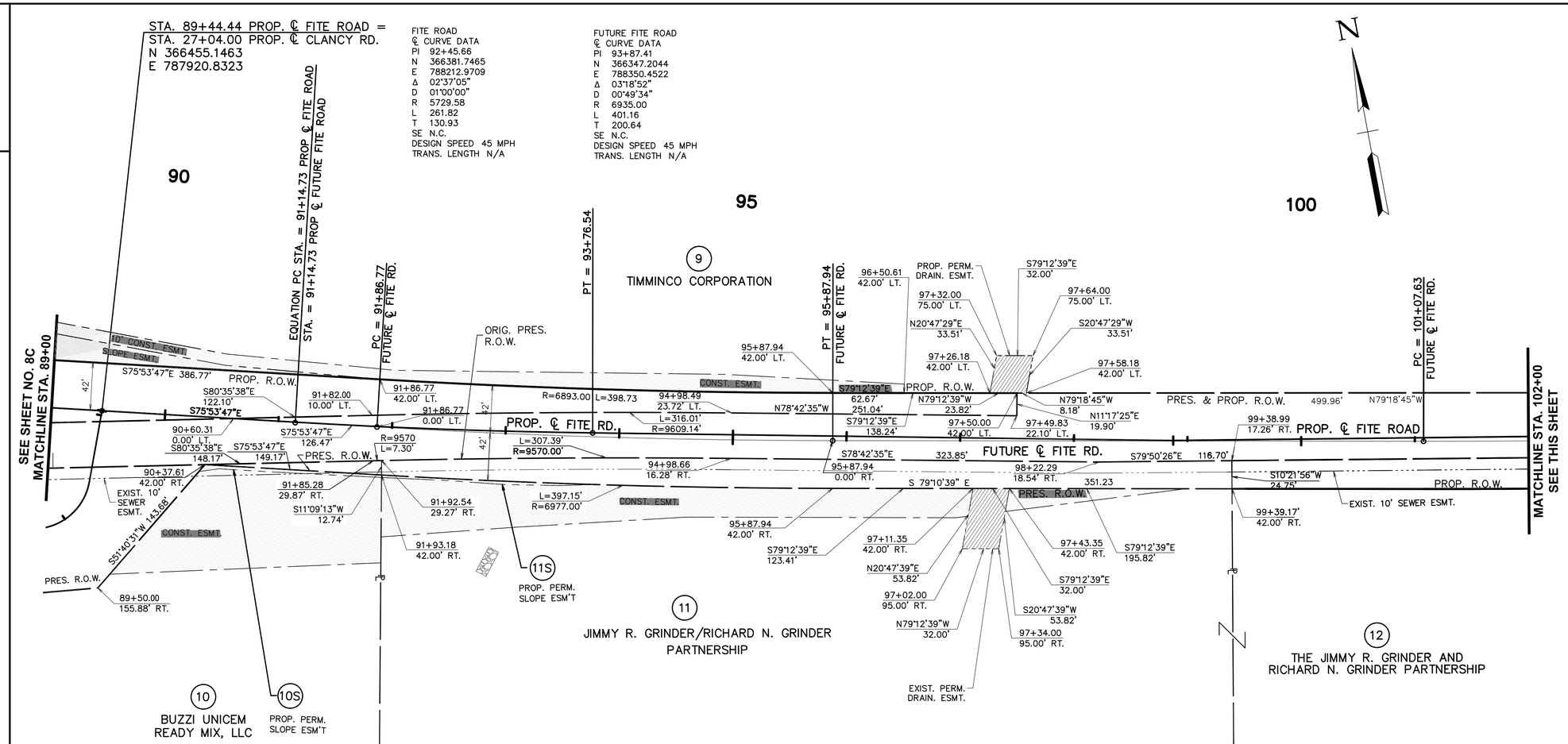
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

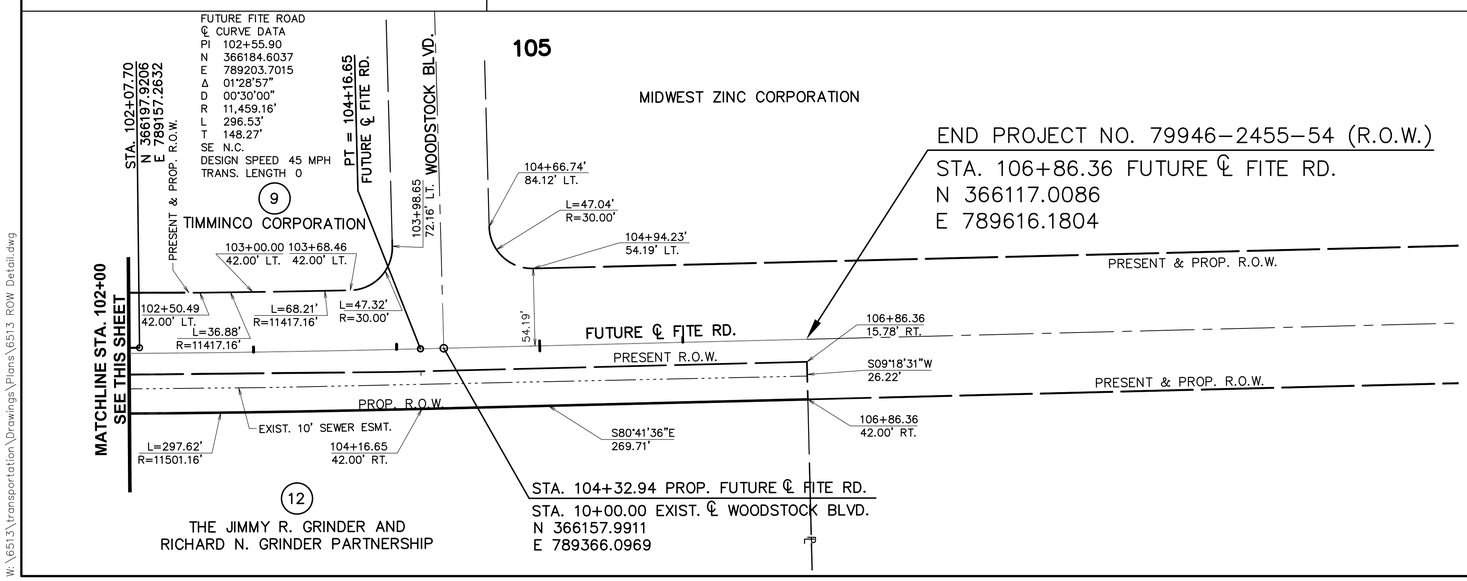
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	9C
CONST.	2013	STP-M-7900(29)	9C

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS ON TRACTS 10 & 11. ADDED TRACTS 10S AND 11S.





NOTE:
STATION OFFSETS BEYOND STA. 91+14.73
ARE REFERENCED FROM PROP. FUTURE ℄ FITE RD.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
STA. 89+00 TO 106+86.36
SCALE: 1" = 50'

4/12/2013
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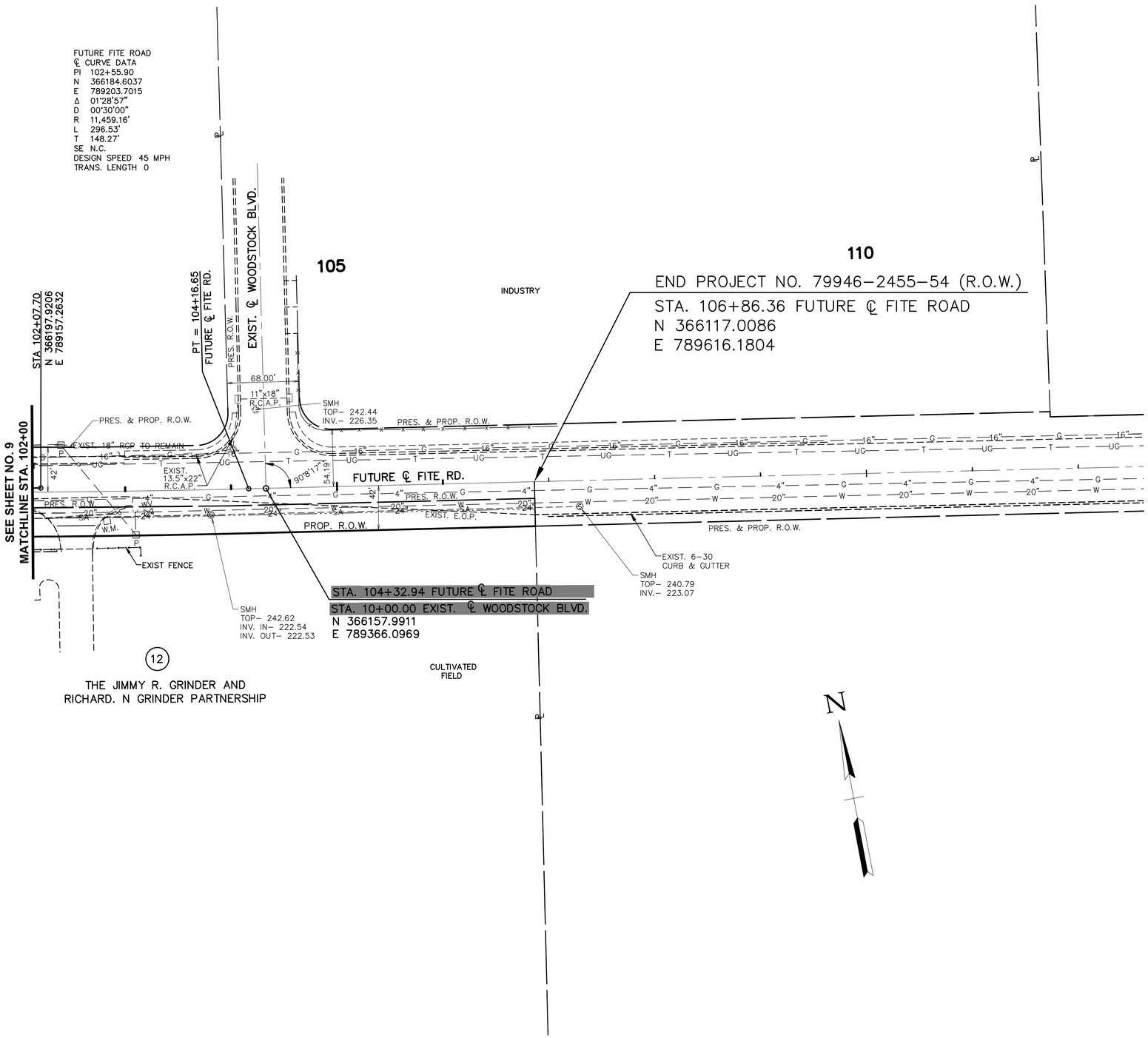
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	10
CONST.	2013	STP-M-7900(29)	10

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



COORDINATE VALUES ARE NAD/83(1995)
AND ARE DATUM ADJUSTED BY THE FACTOR
0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD
STA. 102+00 TO E.O.P.
SCALE: 1" = 50'

4/12/2013
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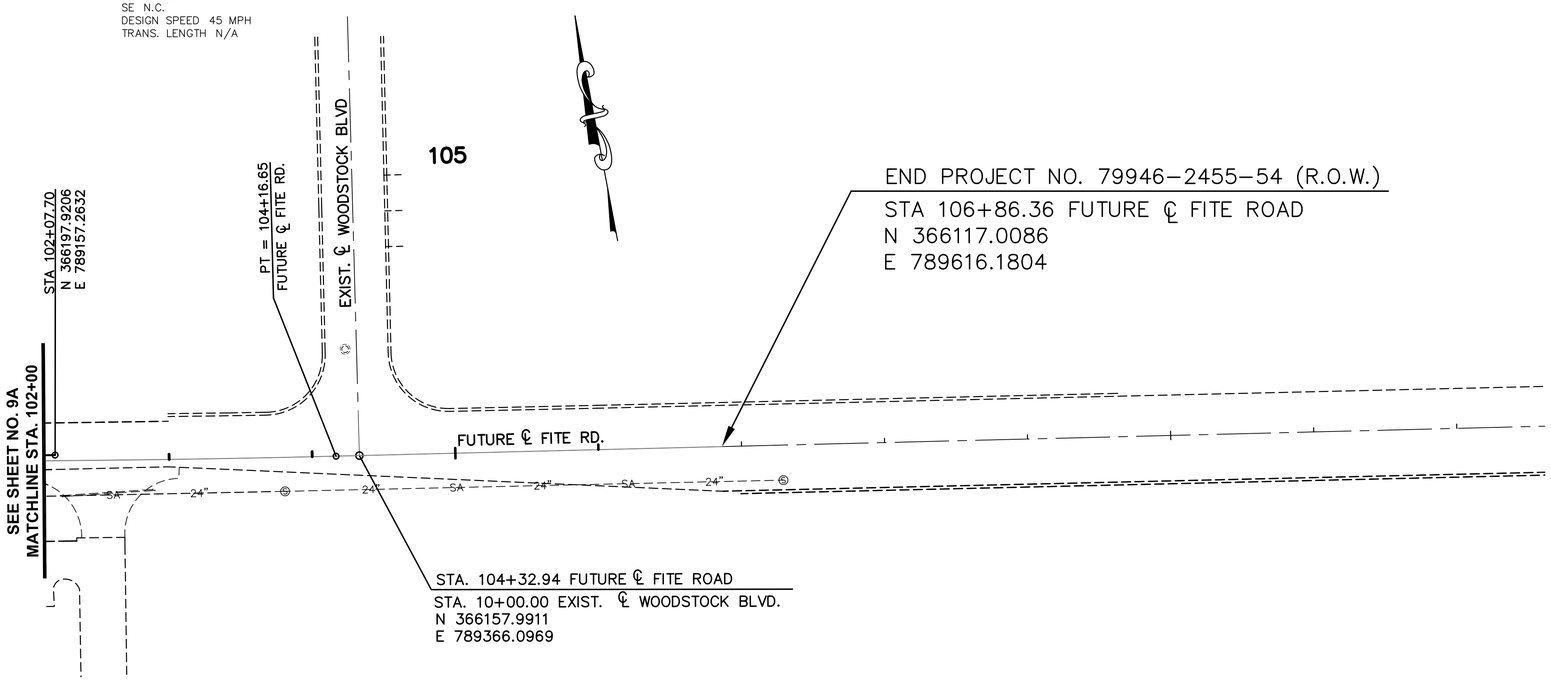
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

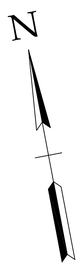
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	10A
CONST.	2013	STP-M-7900(29)	10A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

FUTURE FITE ROAD
℄ CURVE DATA
PI 102+55.90
N 366184.6037
E 789203.7015
Δ 01°28'57"
D 00°30'00"
R 11,459.16'
L 296.53'
T 148.27'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A





STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD
STA. 102+00 TO STA. 106+86.36
SCALE: 1" = 50'

4/12/2013
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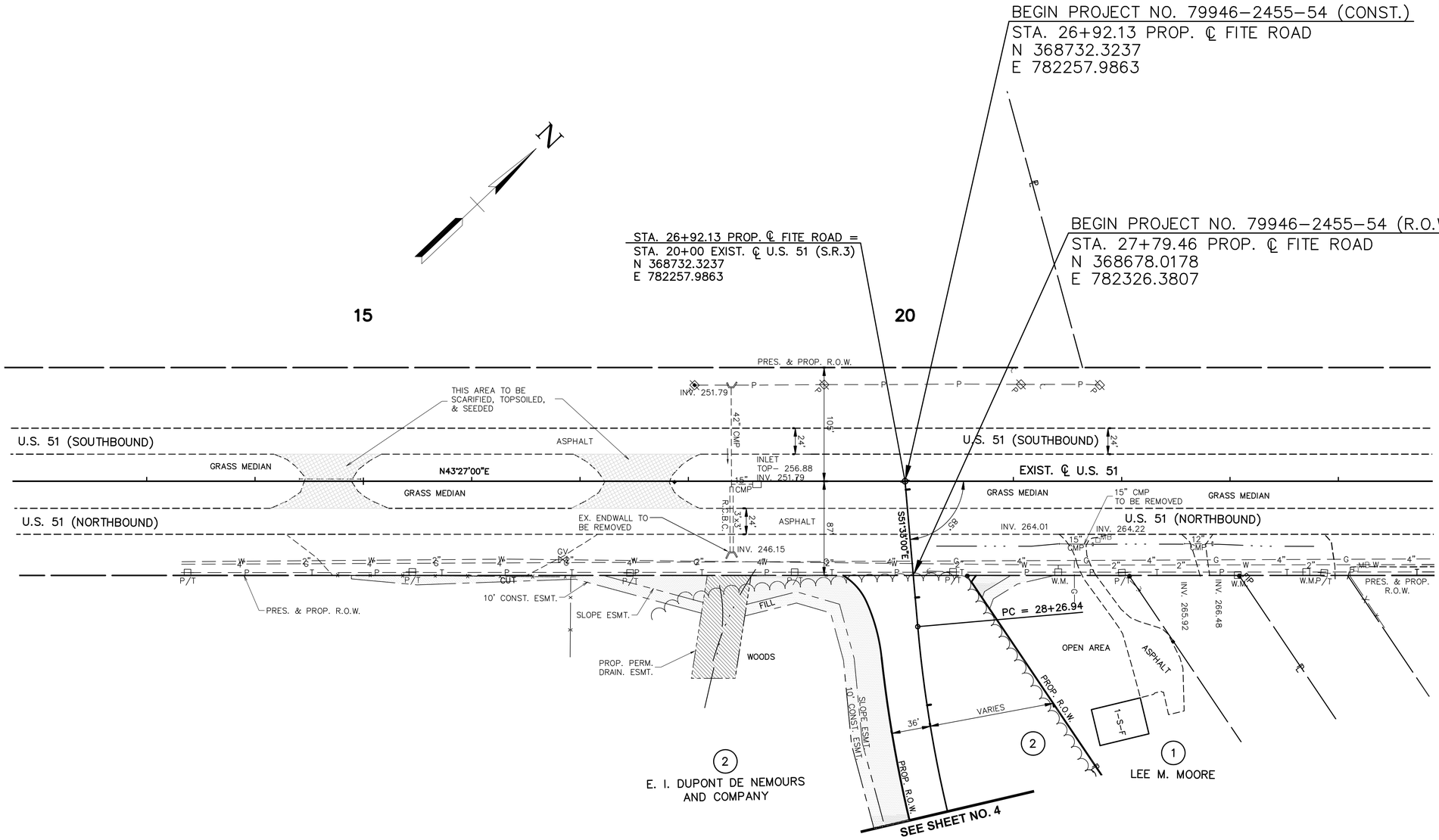
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	11
CONST.	2013	STP-M-7900(29)	11

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. ON TRACT 2.
REMOVED TRACT 8002.



NOTE:
SEE SHEET NO. 11C FOR INTERSECTION DETAILS.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

US HIGHWAY 51
STA. 13+50 TO STA. 26+50
SCALE: 1" = 50'

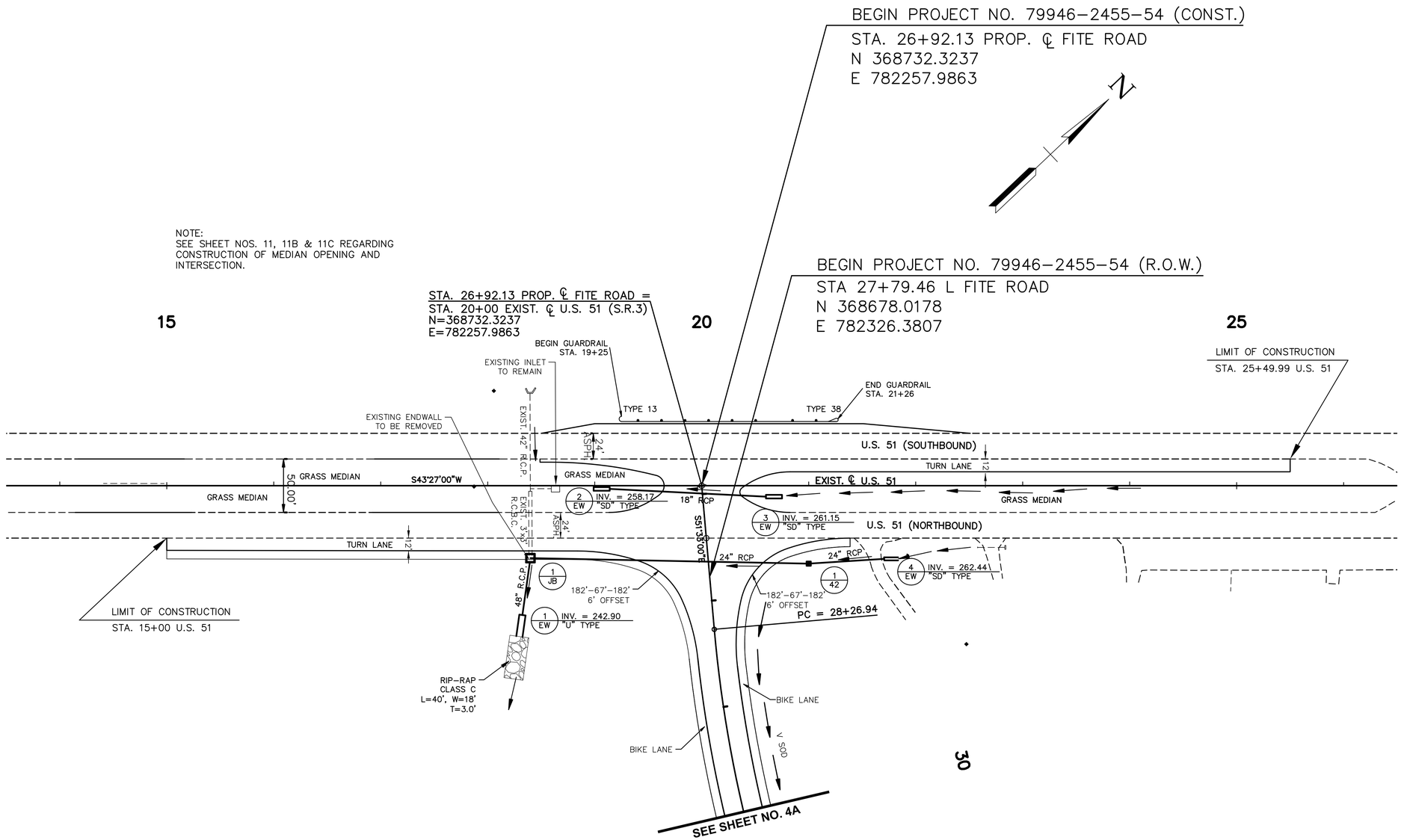
4/15/2013
W:\6513\transportation\Drawings\Plans\6513 All Present Layouts.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	11A
CONST.	2013	STP-M-7900(29)	11A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

US HIGHWAY 51
STA. 13+50 TO STA. 26+50
SCALE: 1" = 50'

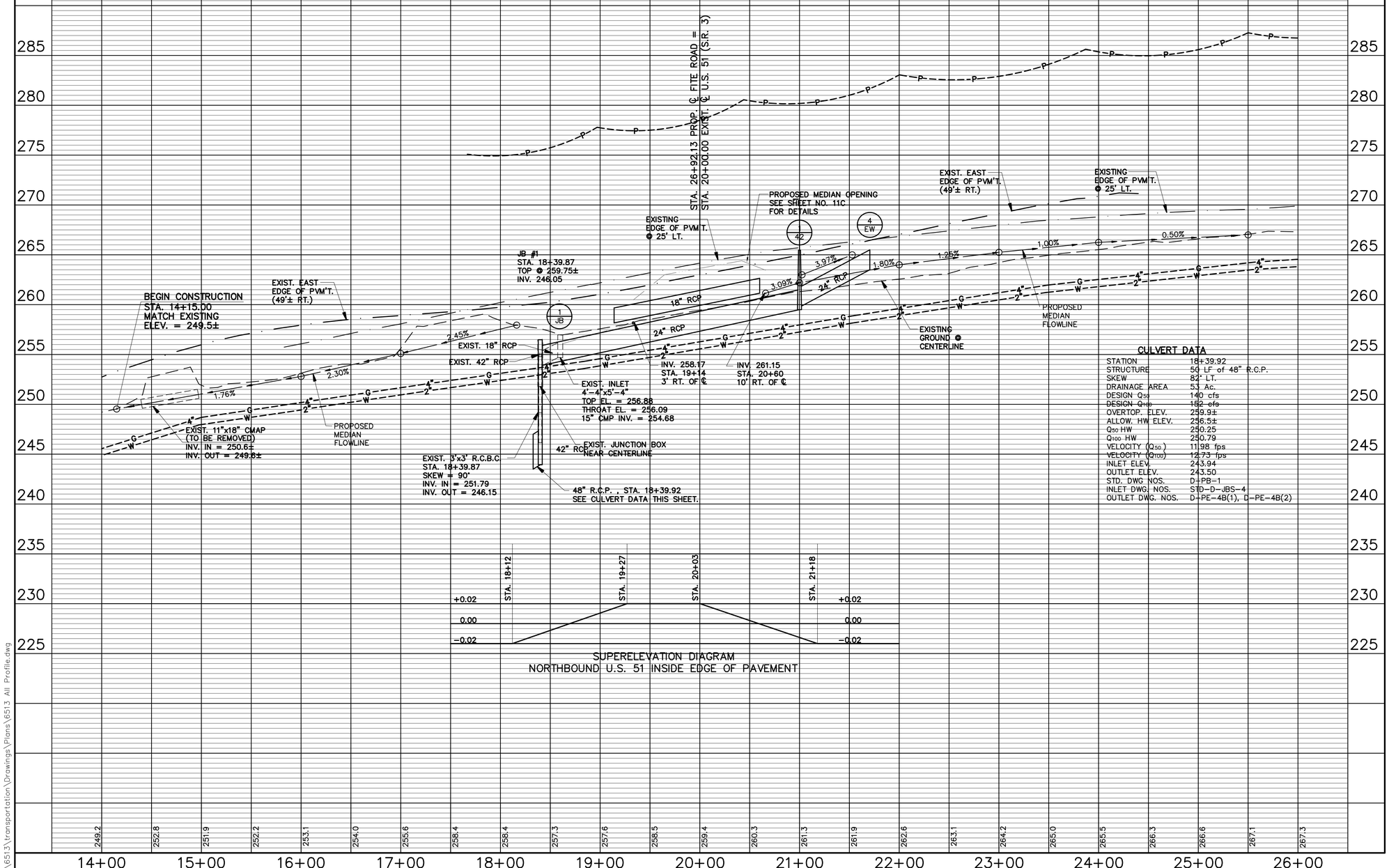
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	11B
CONST.	2013	STP-M-7900(29)	11B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



CULVERT DATA

STATION	18+39.92
STRUCTURE	50 LF of 48" R.C.P.
SKEW	82° LT.
DRAINAGE AREA	53 Ac.
DESIGN Q_{50}	140 cfs
DESIGN Q_{100}	152 cfs
OVERTOP. ELEV.	259.9±
ALLOW. HW ELEV.	256.5±
Q_{50} HW	250.25
Q_{100} HW	250.79
VELOCITY (Q_{50})	11.98 fps
VELOCITY (Q_{100})	12.73 fps
INLET ELEV.	243.94
OUTLET ELEV.	243.50
STD. DWG. NOS.	D-PB-1
INLET DWG. NOS.	STD-D-JBS-4
OUTLET DWG. NOS.	D-PE-4B(1), D-PE-4B(2)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

HIGHWAY 51

STA. 14+00 TO STA. 26+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
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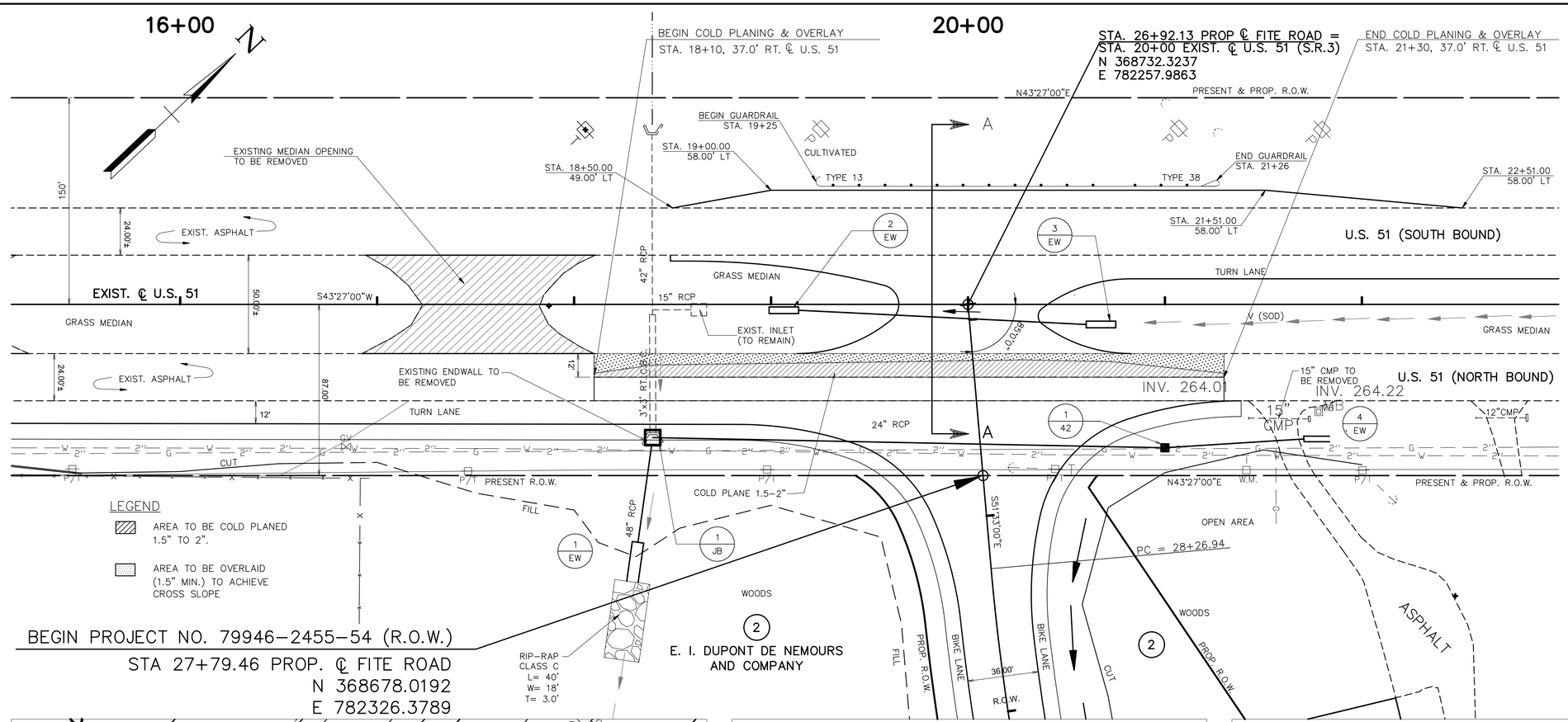
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

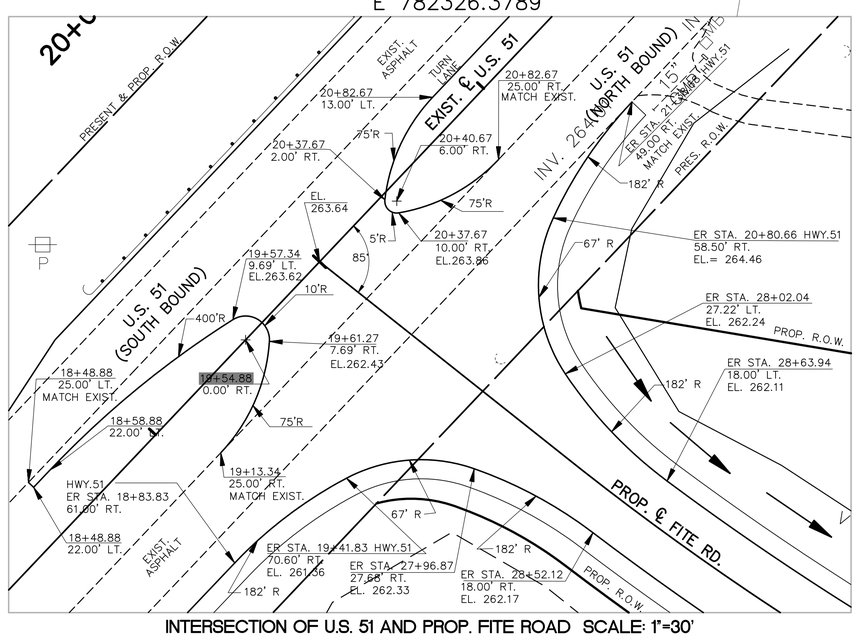
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	11C
CONST.	2013	STP-M-7900(29)	11C

REVISIONS:

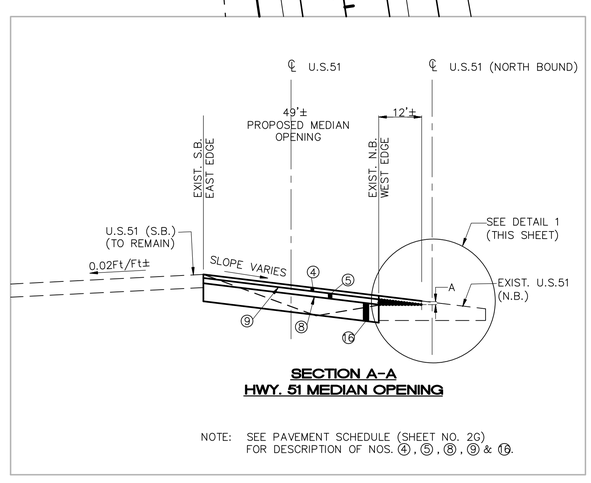
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 11/16/2012
REVISED R.O.W. AND EASEMENTS LT. ON TRACT 2.
REMOVED TRACT 8002.



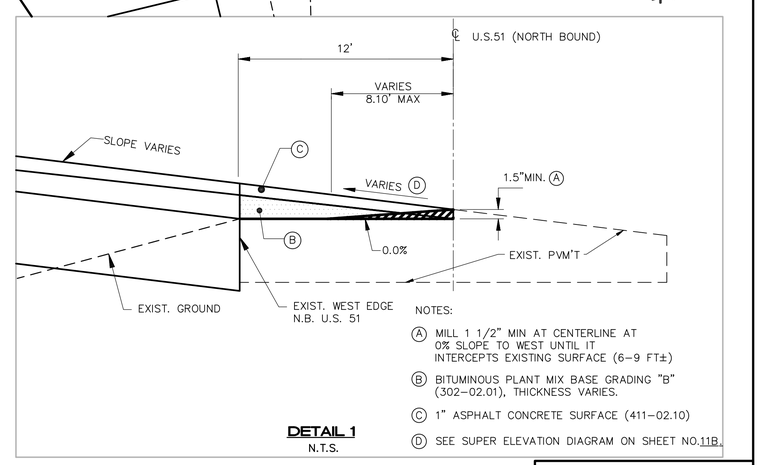


INTERSECTION OF U.S. 51 AND PROP. FITE ROAD SCALE: 1"=30'



SECTION A-A
HWY. 51 MEDIAN OPENING

NOTE: SEE PAVEMENT SCHEDULE (SHEET NO. 2G) FOR DESCRIPTION OF NOS. ④, ⑤, ⑧, ⑨ & ⑯.



NOTES:

Ⓐ MILL 1 1/2" MIN AT CENTERLINE AT 0% SLOPE TO WEST UNTIL IT INTERCEPTS EXISTING SURFACE (6-9 FT±)

Ⓑ BITUMINOUS PLANT MIX BASE GRADING "B" (302-02.01), THICKNESS VARIES.

Ⓒ 1" ASPHALT CONCRETE SURFACE (411-02.10)

Ⓓ SEE SUPER ELEVATION DIAGRAM ON SHEET NO.11B.

DETAIL 1
N.T.S.

NOTE:
SEE SHEET NO. 22B FOR THE PROPOSED SIGNAL LAYOUT PLAN FOR FITE ROAD @ HWY. 51.

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4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL

FITE ROAD AT HWY. 51

SCALE: 1"= 30'

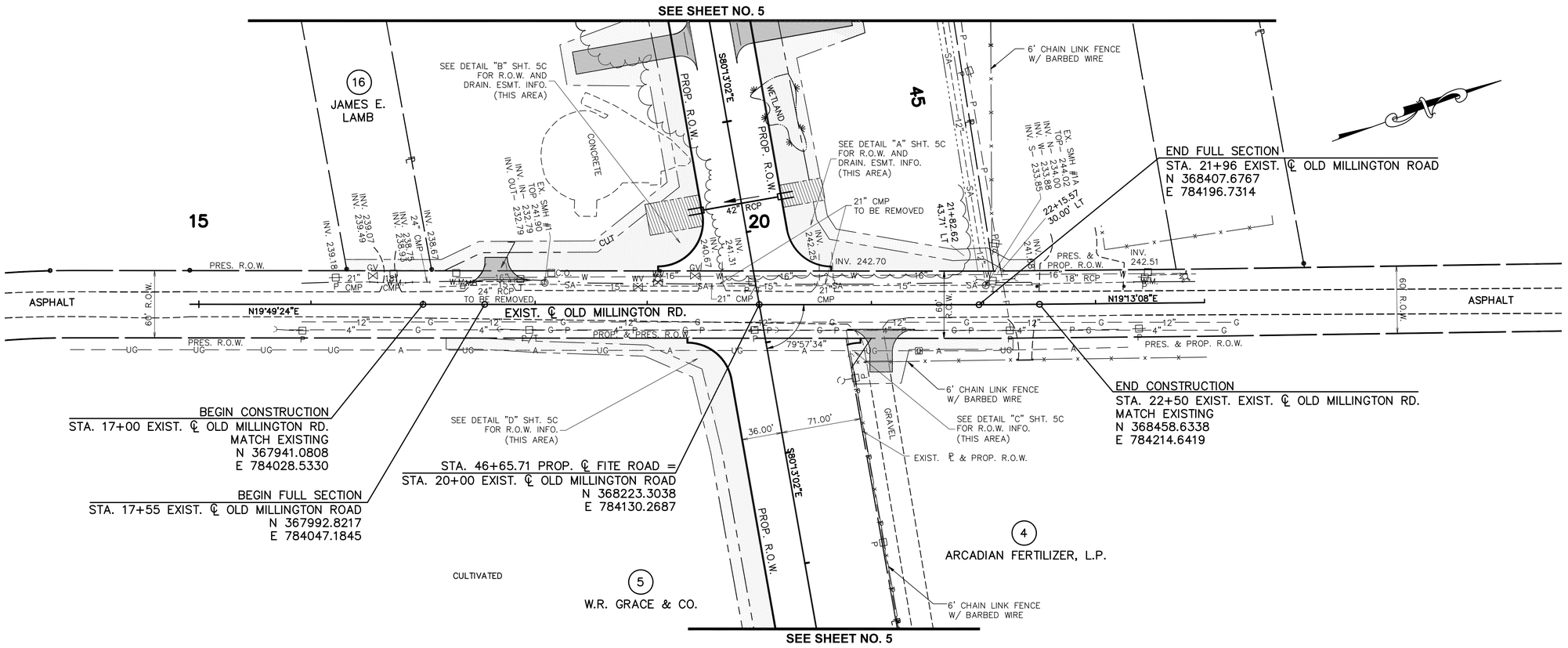
4/12/2013
W:\6513\transportation\Drawings\Plans\51 intersection details.dwg

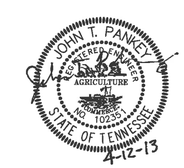
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	12
CONST.	2013	STP-M-7900(29)	12

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.





COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

OLD MILLINGTON ROAD
B.O.P. TO STA.
SCALE: 1" = 50'

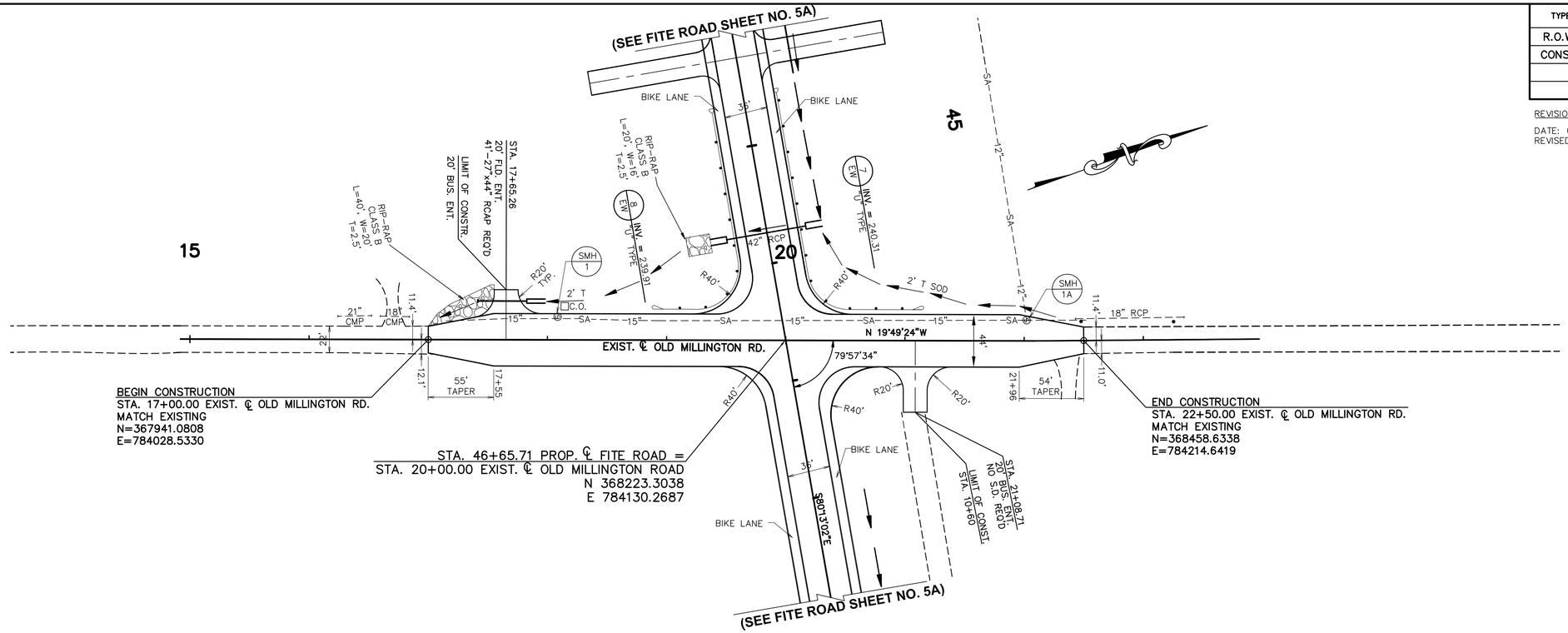
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Present Layouts.dwg

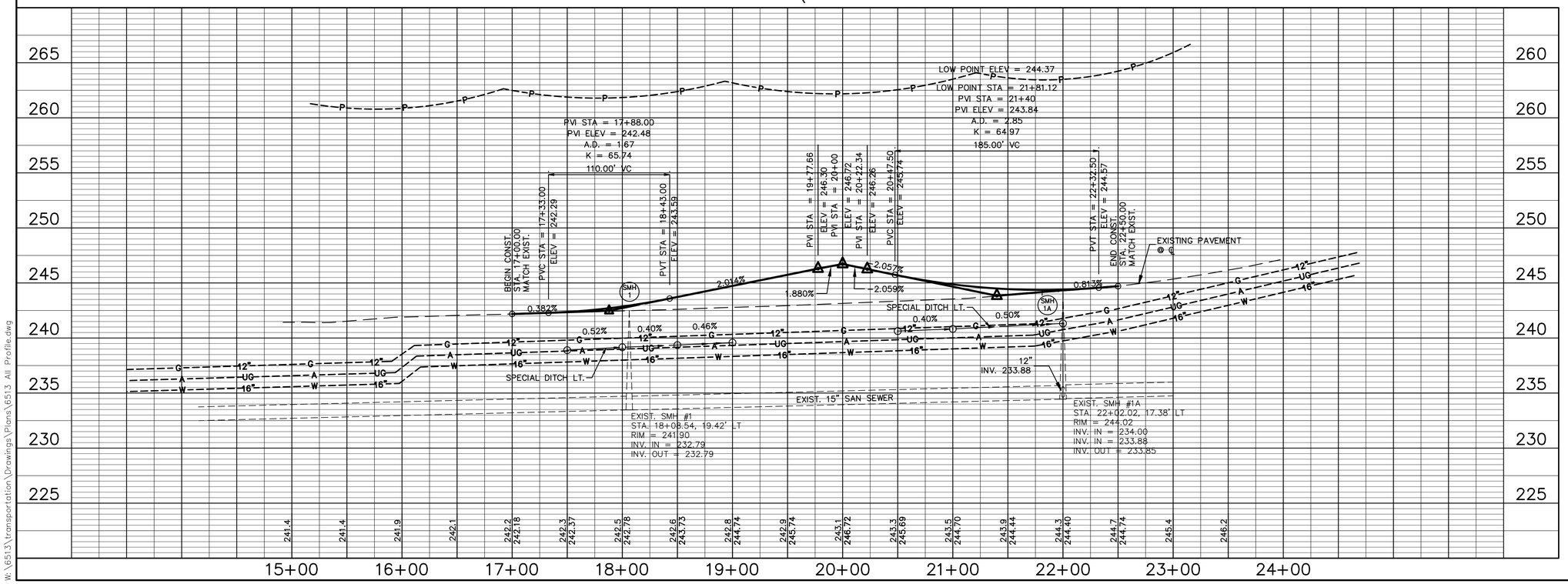
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	12A
CONST.	2013	STP-M-7900(29)	12A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.





STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE

OLD MILLINGTON ROAD

STA. 17+55 TO STA. 21+96

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

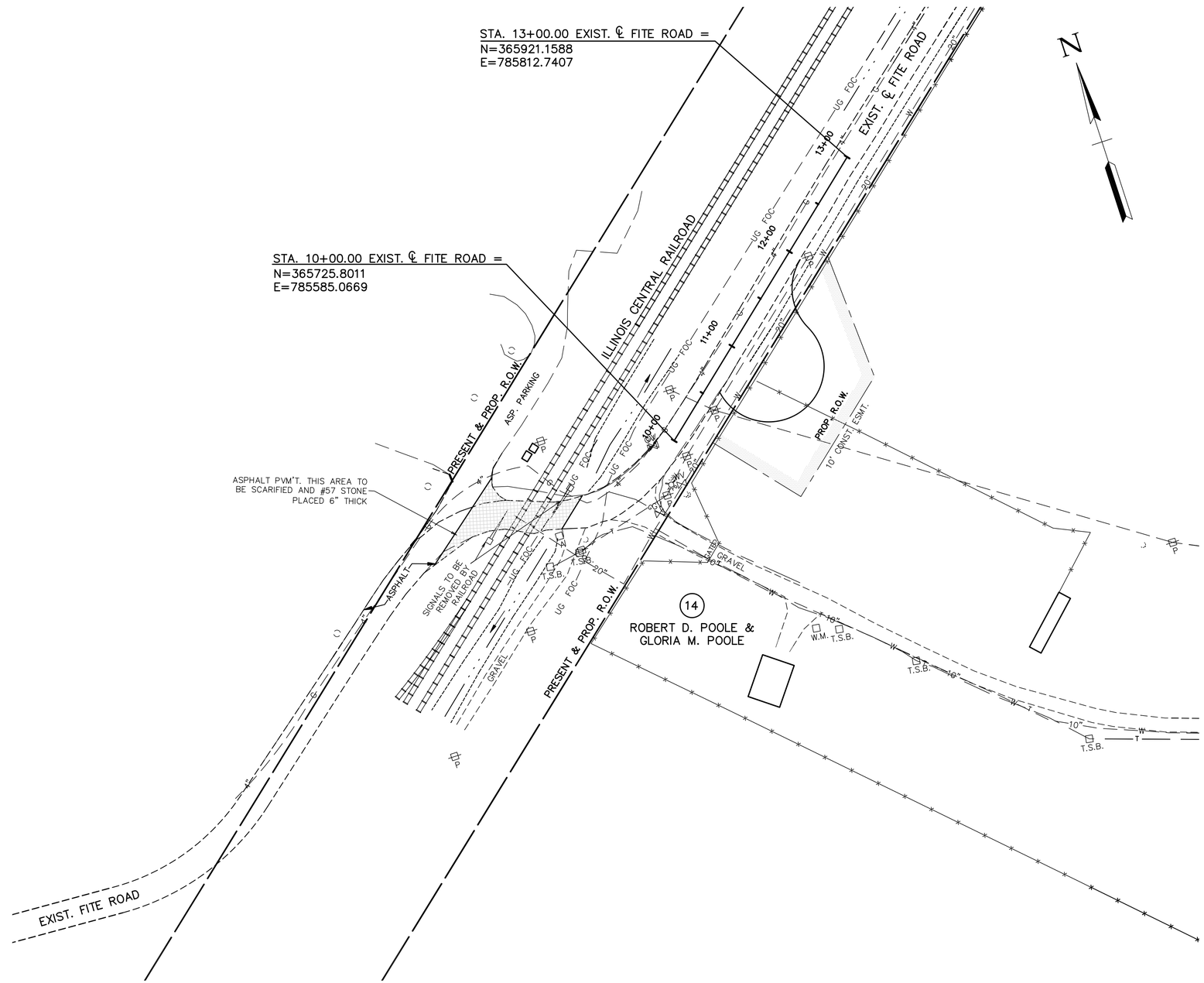
4/16/2013
W:\6513\transportation\Drawings\Plans\6513 All Profile.dwg

TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	13
CONST.	2013	STP-M-7900(29)	13

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

FITE ROAD CUL-DE-SAC
& ROAD CLOSURE AT R.R.

SCALE: 1" = 50'

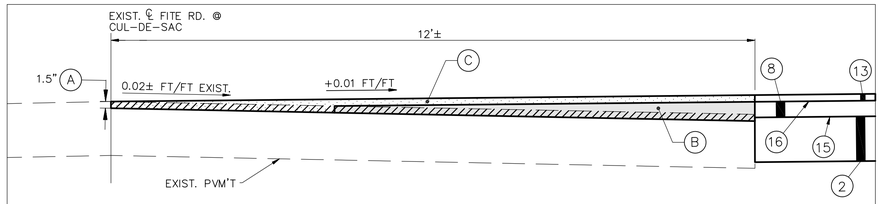
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 All Proposed Layout.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	13A
CONST.	2013	STP-M-7900(29)	13A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



NOTES:

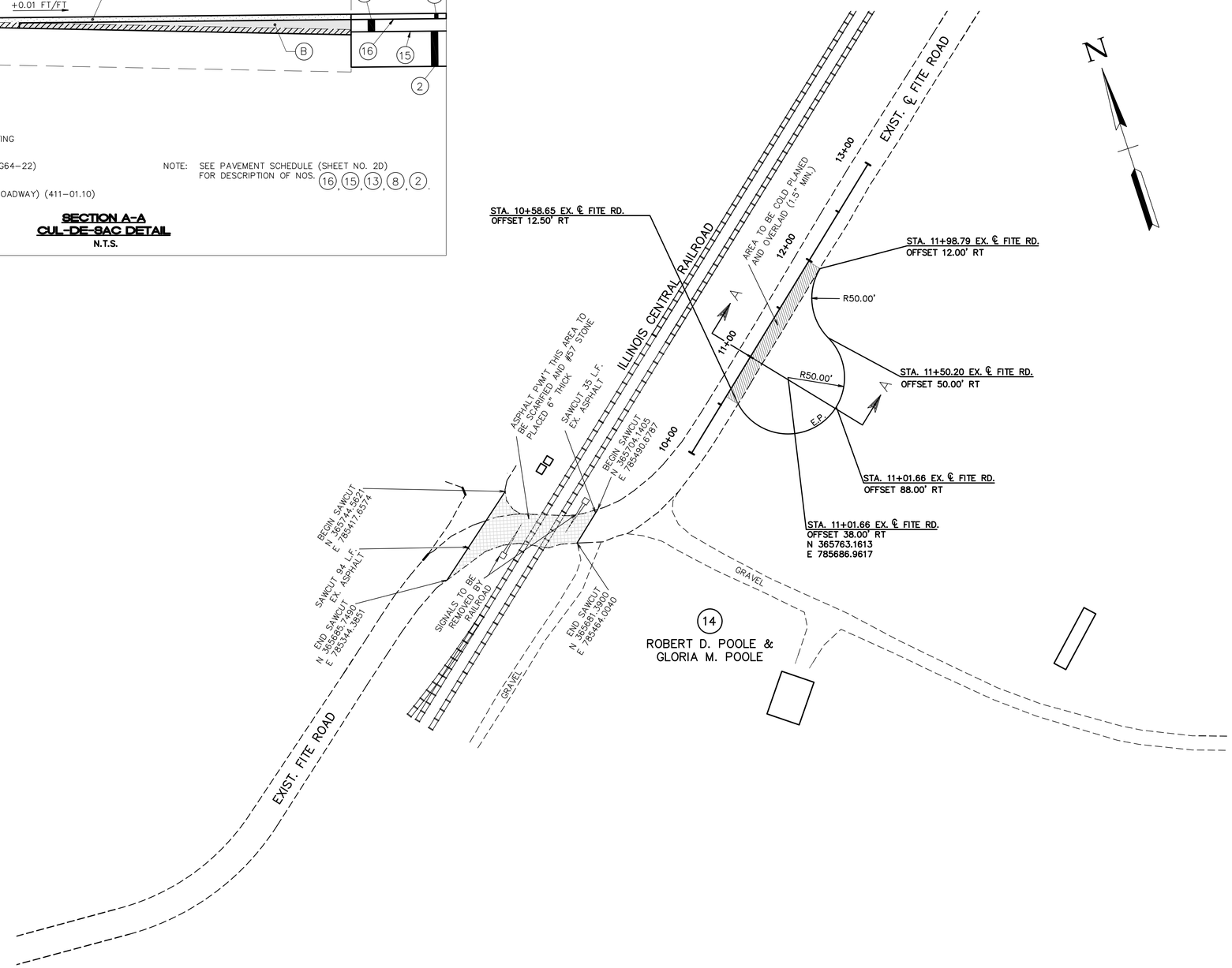
(A) COLD PLANE 1.5" AT CENTERLINE ACROSS EXISTING SURFACE TO EAST EDGE (12± FT)

(B) BITUMINOUS BINDER ASPHALT CONCRETE MIX (PG64-22) (307-01.08), THICKNESS VARIES. (2.0" MIN.)

(C) ASPHALTIC CONCRETE SURFACE (GRADING "D" ROADWAY) (411-01.10) THICKNESS VARIES. (1.25" MIN.)

NOTE: SEE PAVEMENT SCHEDULE (SHEET NO. 2D) FOR DESCRIPTION OF NOS. (16), (15), (13), (8), (2).

SECTION A-A
CUL-DE-SAC DETAIL
N.T.S.



JOHN T. PANKEY
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

FITE ROAD CUL-DE-SAC
& ROAD CLOSURE AT R.R.

SCALE: 1" = 50'

4/12/2013
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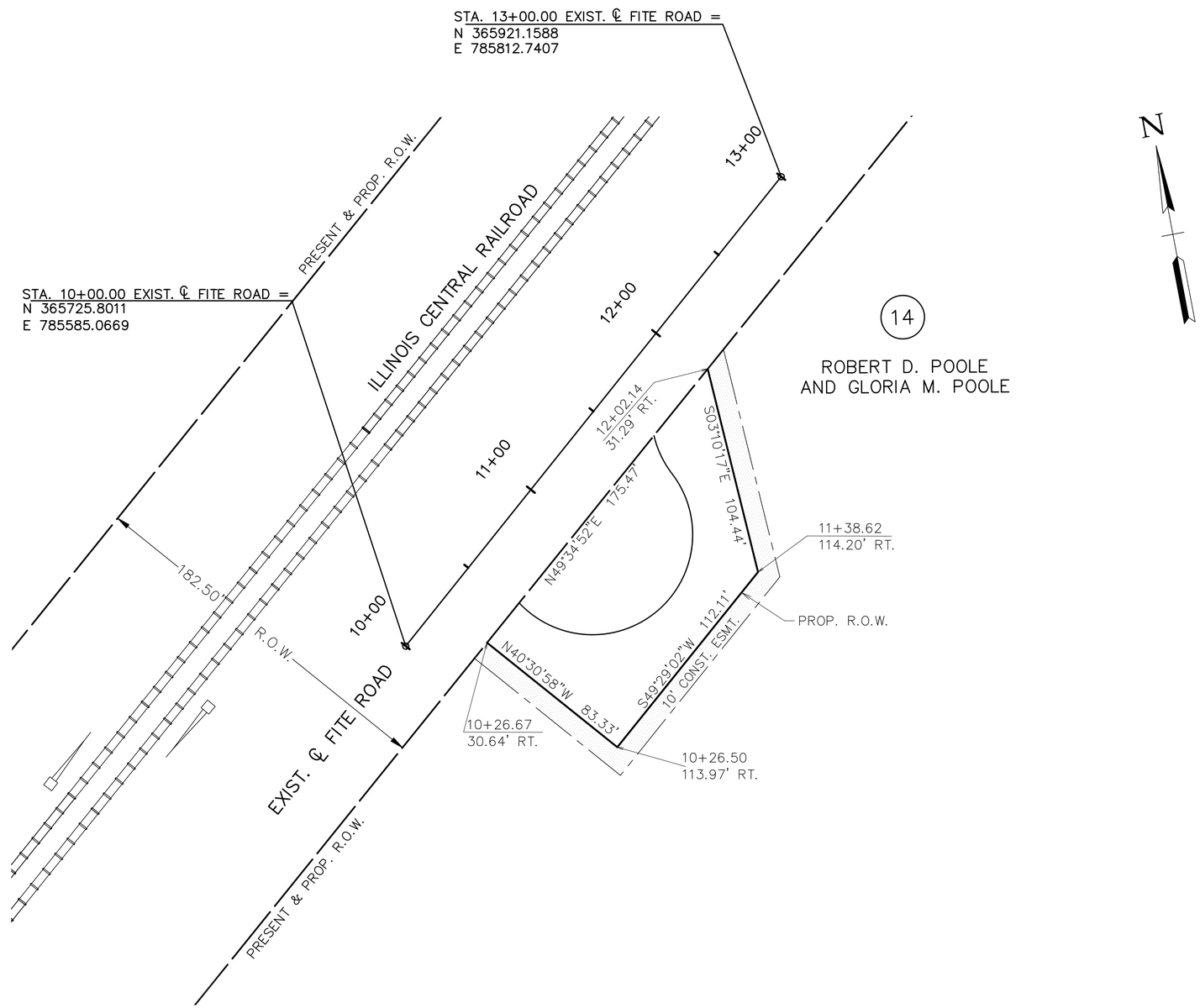
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	13B
CONST.	2013	STP-M-7900(29)	13B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

FITE ROAD
CUL-DE-SAC
SCALE: 1" = 30'

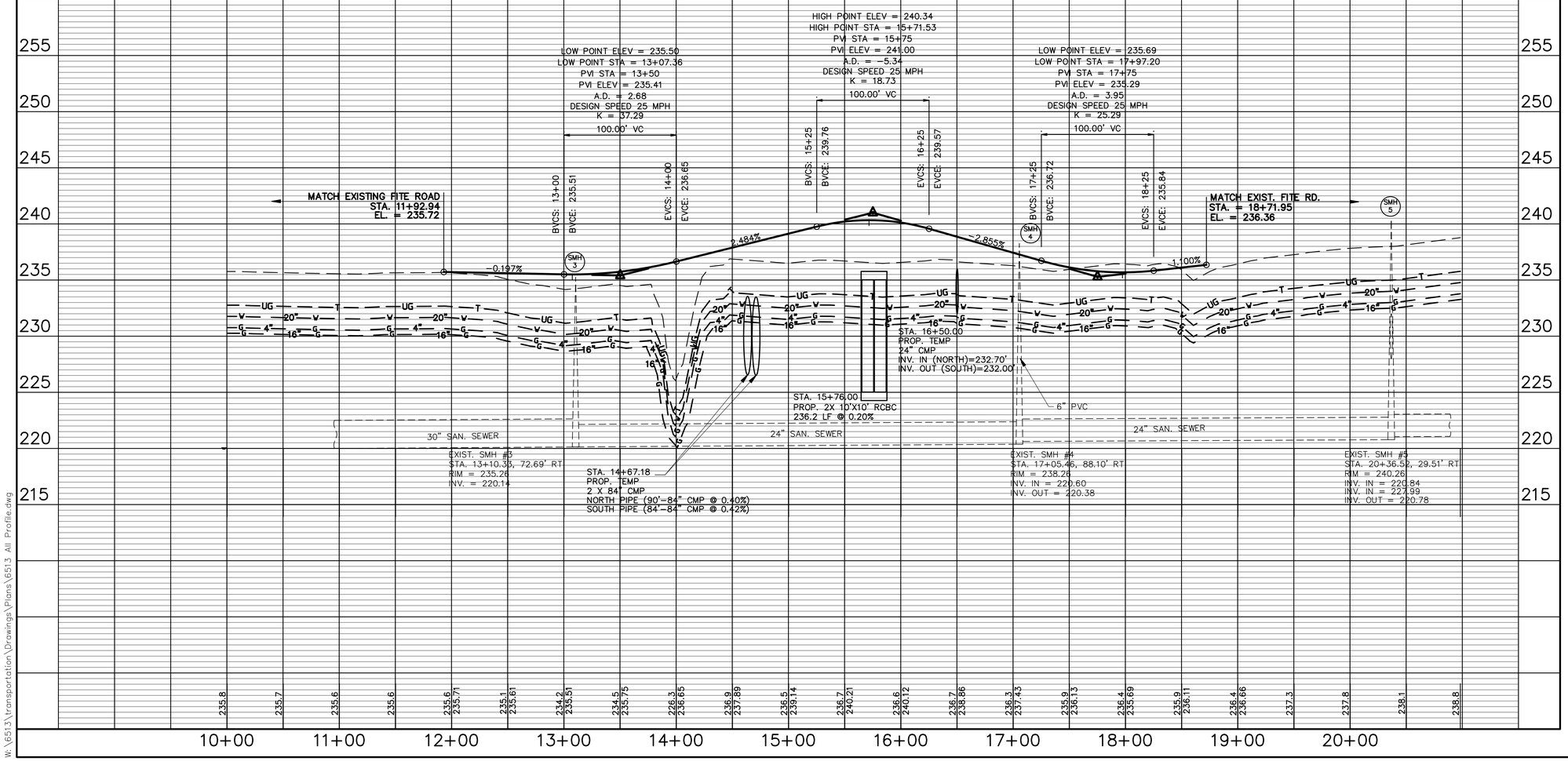
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 ROW Detail.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	14
CONST.	2013	STP-M-7900(29)	14

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

DETOUR ROAD 1

STA. 10+64.41 TO 20+26.57

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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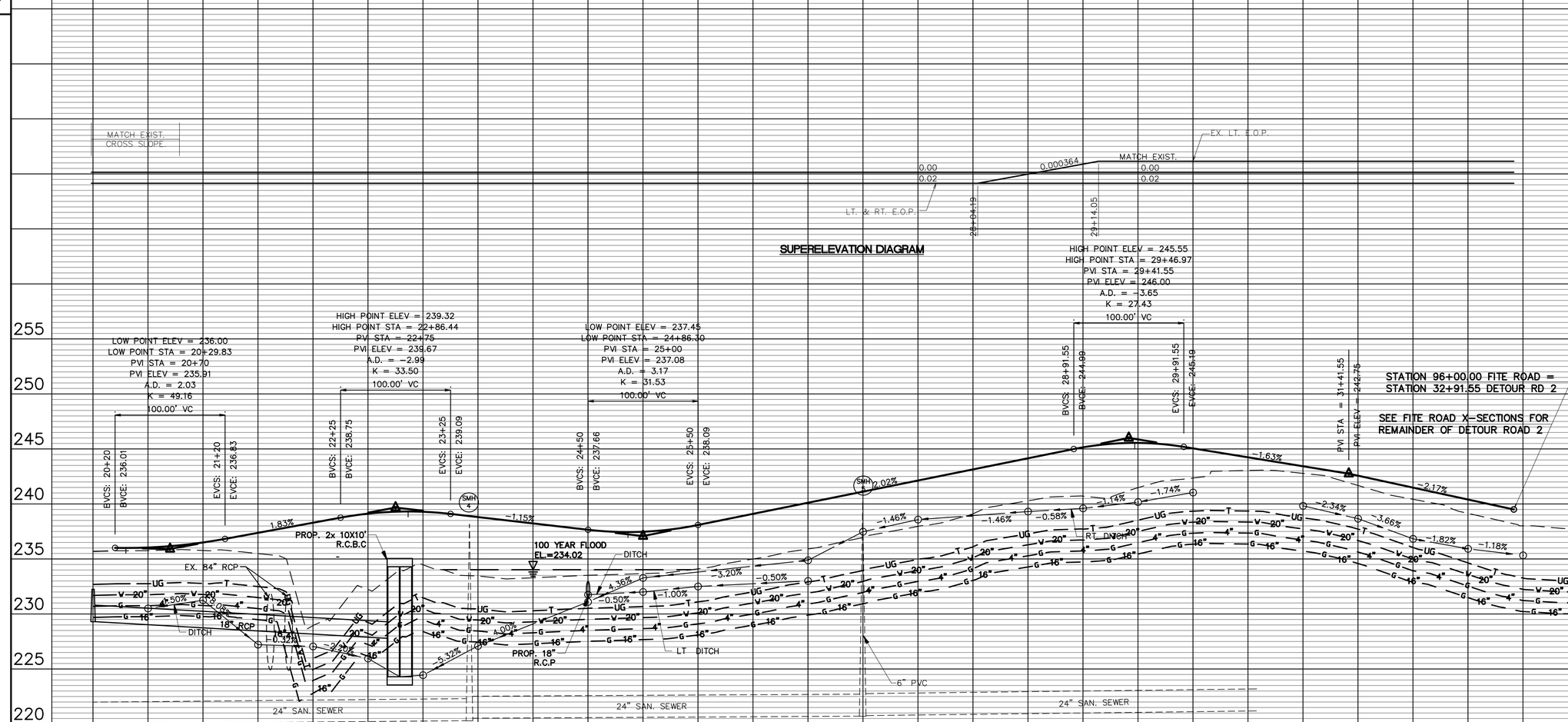
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	14A
CONST.	2013	STP-M-7900(29)	14A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



CULVERT DATA

STATION	22+78.82
STRUCTURE	2X 10X10' R.C.P.
SKEW	SEE FITE ROAD PROFILE

CULVERT DATA

STATION	24+50
STRUCTURE	60' RT of 18" R.C.P.
SKEW	90°00'00"
DRAINAGE AREA	1.5 Ac.
DESIGN Q_{50}	7.4 cfs
DESIGN Q_{100}	8.6 cfs
OVERTOP. ELEV.	236.50
ALLOW. HW ELEV.	234.06
Q_{50} HW	233.78
Q_{100} HW	234.02
VELOCITY (Q_{50})	4.19
VELOCITY (Q_{100})	4.87
INLET ELEV.	231.75
OUTLET ELEV.	231.15
STD. DWG NOS.	–
INLET DWG. NOS.	D-PE-3B(1)
OUTLET DWG. NOS.	D-PE-3B(1)

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4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

DETOUR ROAD 2
STA. 20+00 TO STA. 29+14.05
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

4/12/2013
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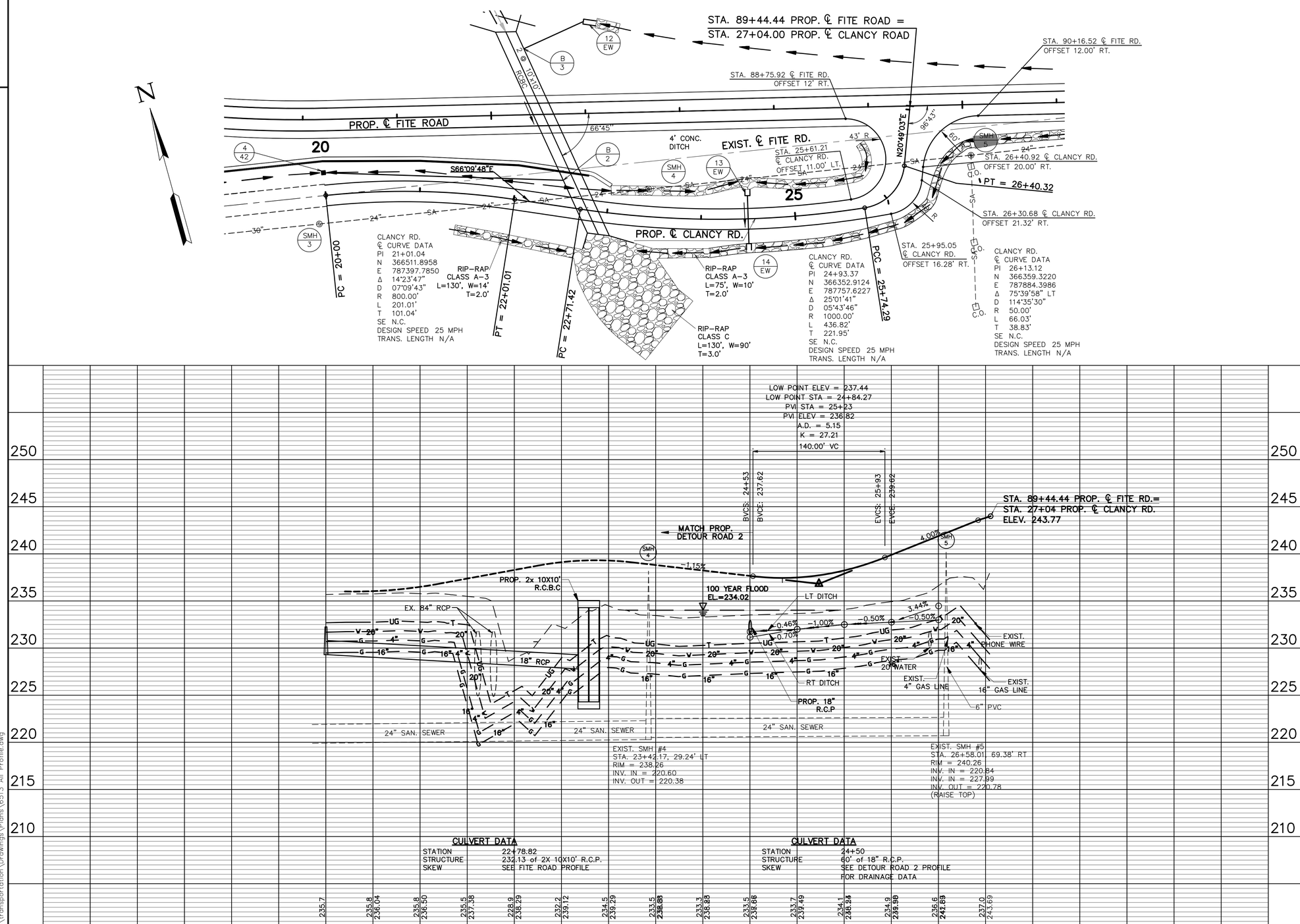
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	14B
CONST.	2013	STP-M-7900(29)	14B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE

CLANCY RD.

STA. 23+00 TO STA. 27+04

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

JOHN T. PANKEY
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NO. 102351
STATE OF TENNESSEE
4-12-13

4/12/2013
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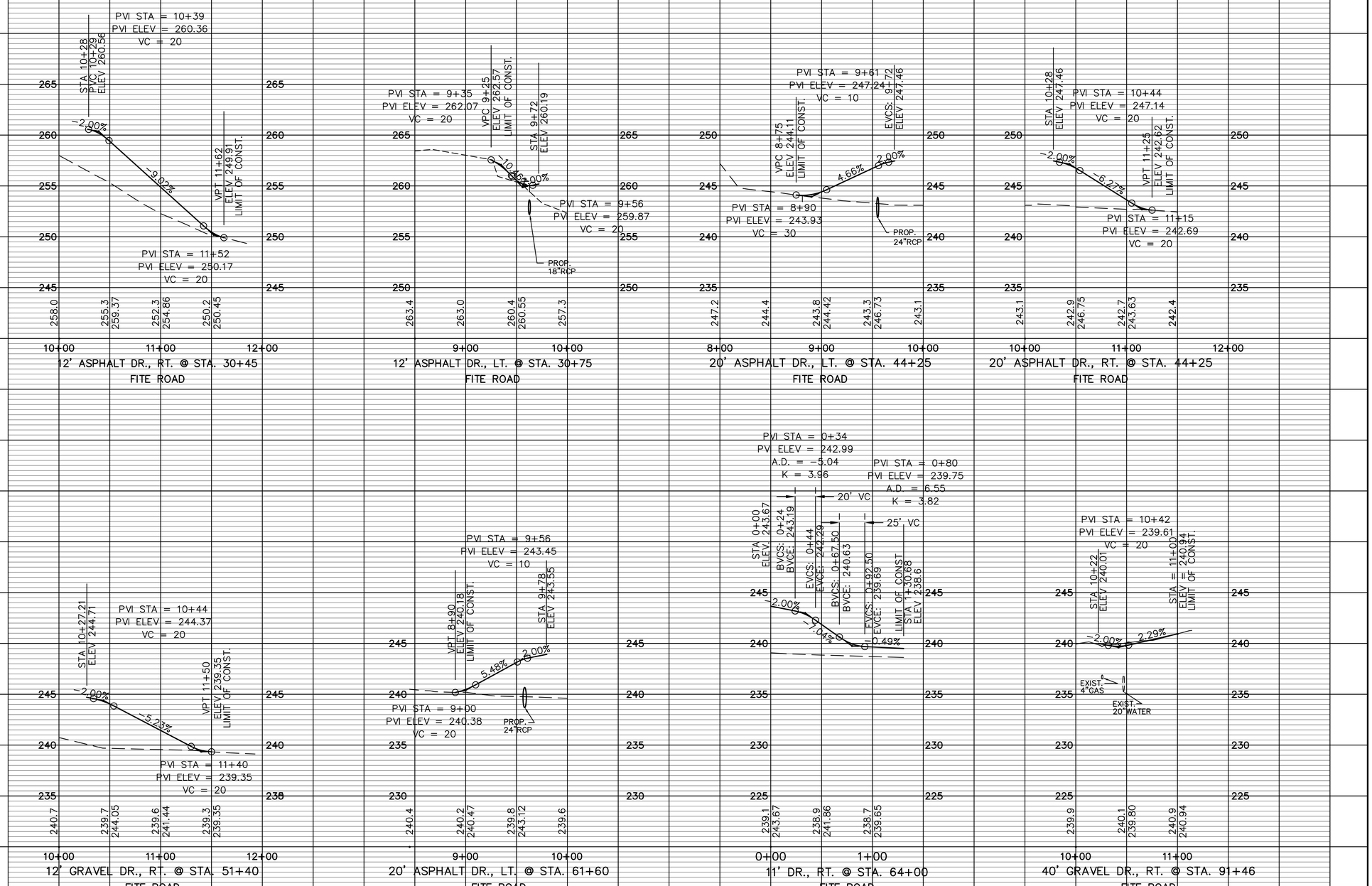
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	15
CONST.	2013	STP-M-7900(29)	15

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRIVEWAY PROFILES

FITE ROAD

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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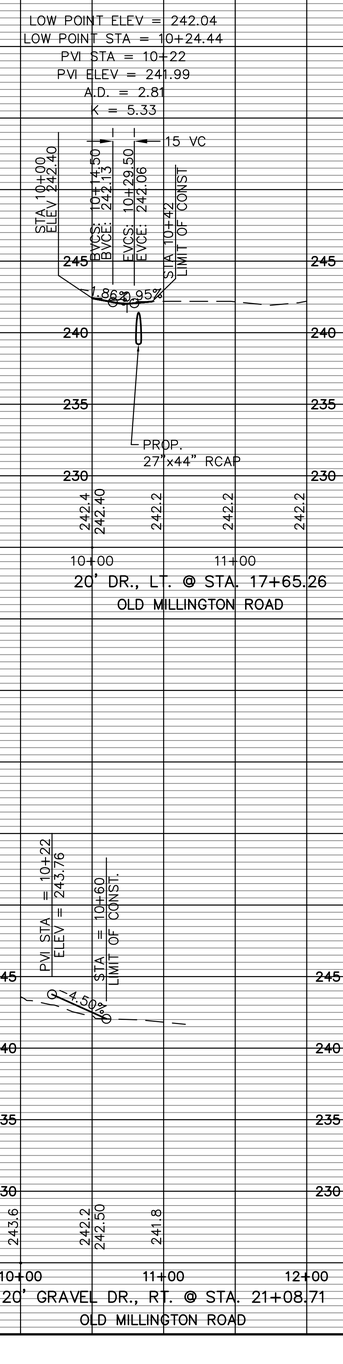
W:\6513\transportation\Drawings\Plans\6513 Driveway Profiles.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	15A
CONST.	2013	STP-M-7900(29)	15A

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRIVEWAY PROFILES

OLD MILLINGTON ROAD

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

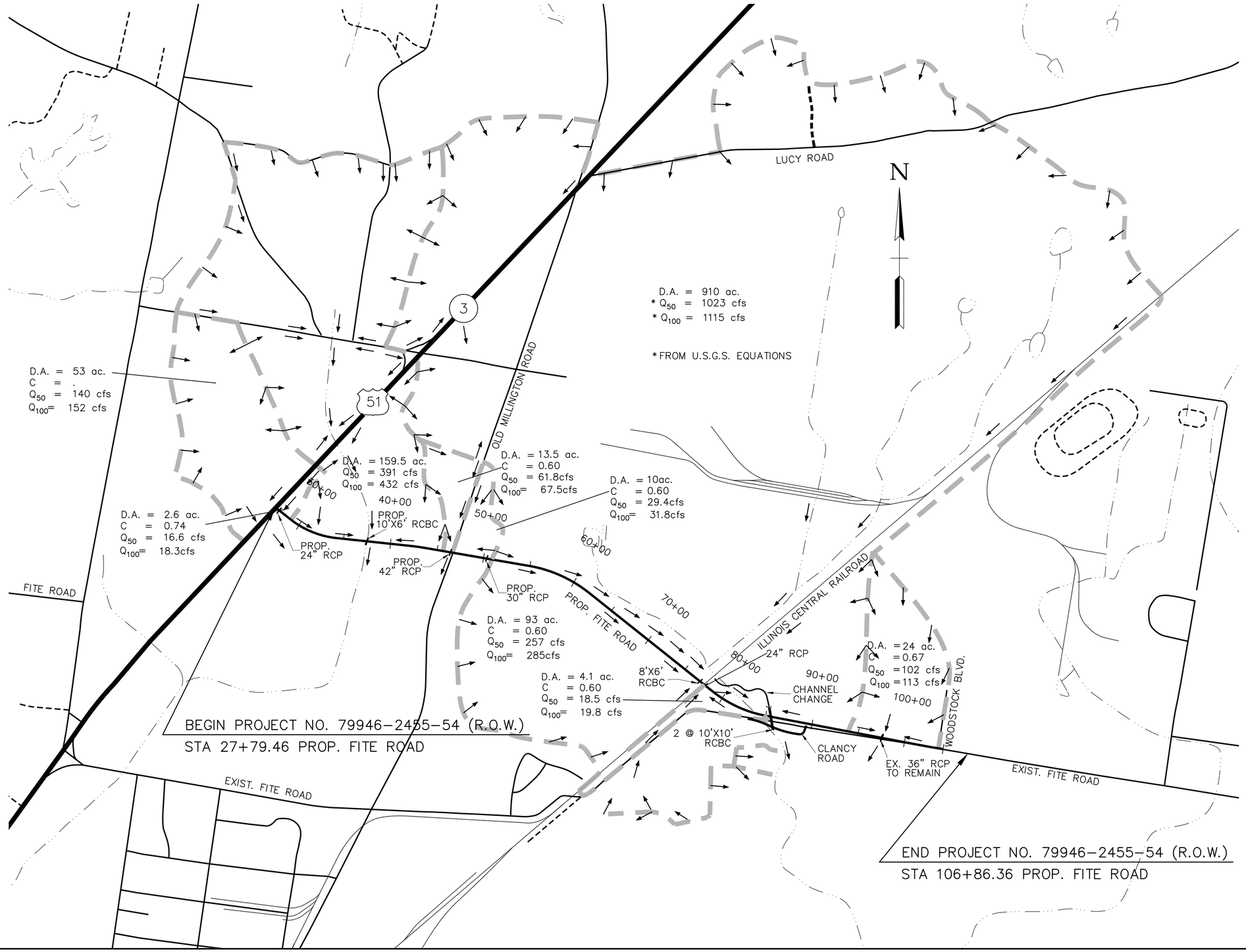
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 Driveway Profiles.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	16
CONST.	2013	STP-M-7900(29)	16

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



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STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

SCALE: 1"= 500'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 Drainage Map.dwg

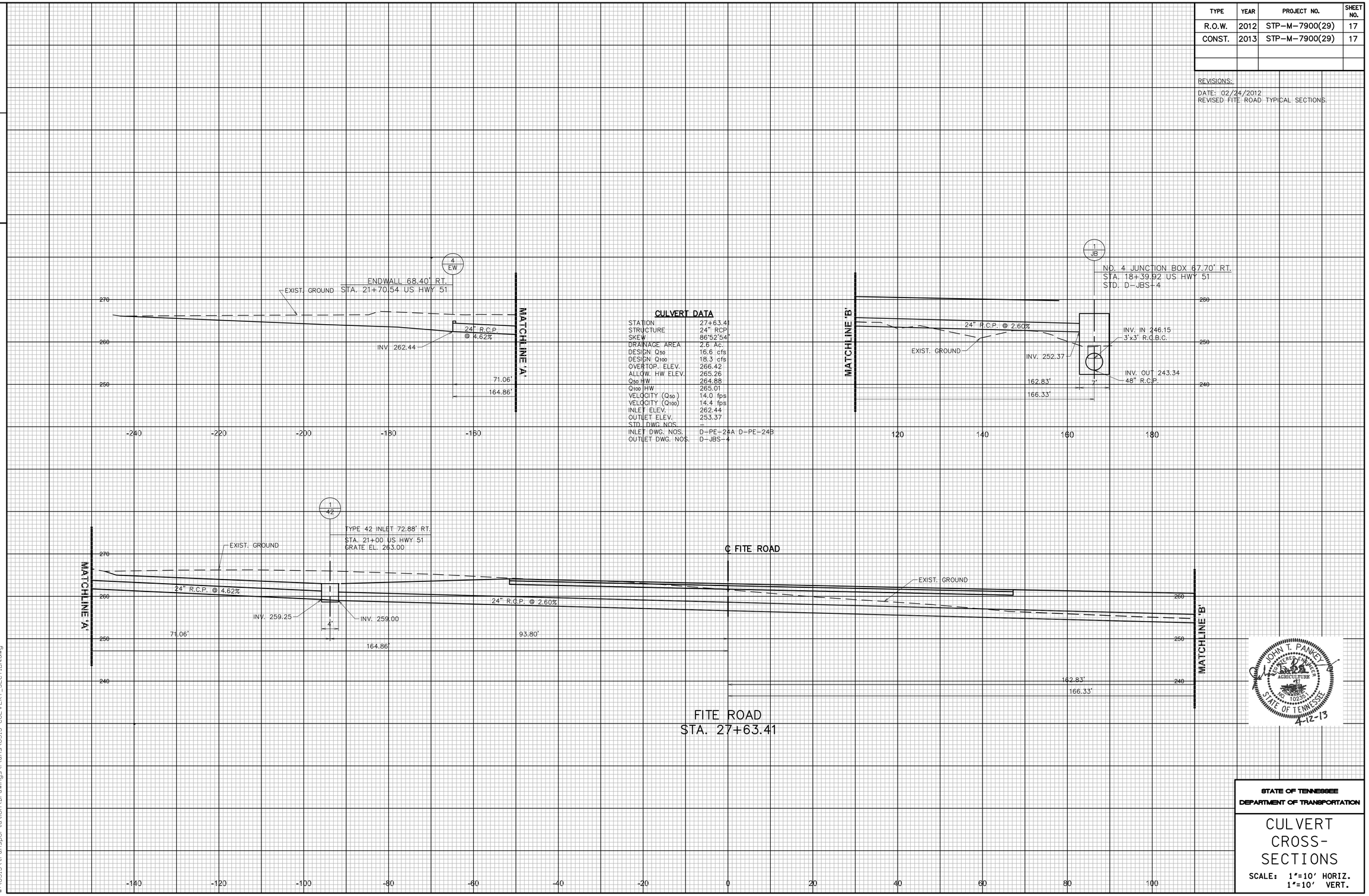
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	17
CONST.	2013	STP-M-7900(29)	17

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



CULVERT DATA

STATION	27+63.41
STRUCTURE	24" RCP
SKEW	86°52'54"
DRAINAGE AREA	2.6 Ac.
DESIGN Q_{50}	16.6 cfs
DESIGN Q_{100}	18.3 cfs
OVERTOP. ELEV.	266.42
ALLOW. HW ELEV.	265.26
Q_{50} HW	264.88
Q_{100} HW	265.01
VELOCITY (Q_{50})	14.0 fps
VELOCITY (Q_{100})	14.4 fps
INLET ELEV.	262.44
OUTLET ELEV.	253.37
STD. DWG. NOS.	–
INLET DWG. NOS.	D-PE-24A D-PE-24B
OUTLET DWG. NOS.	D-JBS-4

JOHN T. PANKEY
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

4/12/2013
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	17A
CONST.	2013	STP-M-7900(29)	17A

REVISIONS:

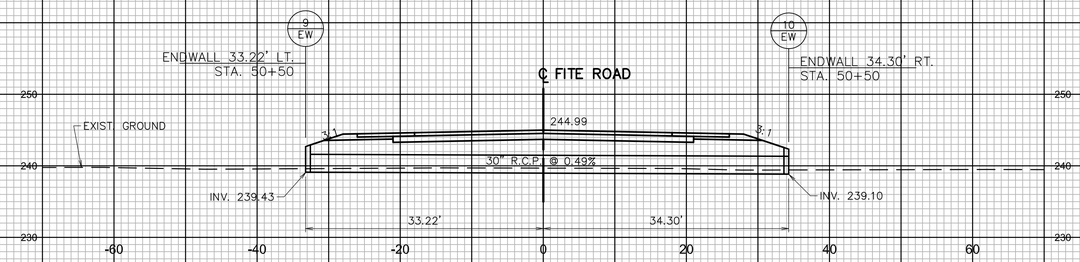
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

CULVERT DATA

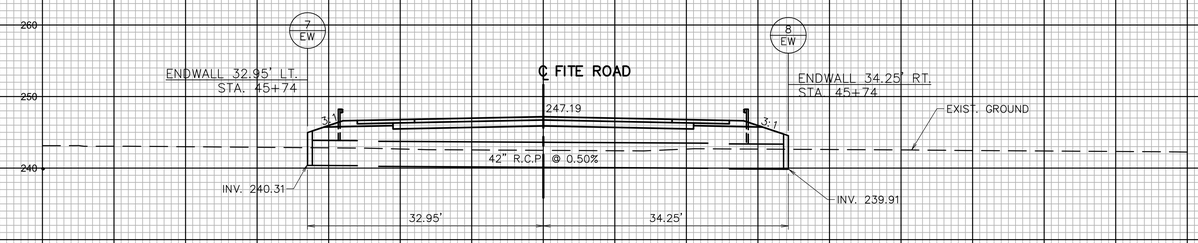
STATION	50+50
STRUCTURE	67.52' of 30" R.C.P.
SKEW	90°
DRAINAGE AREA	10.0 Ac.
DESIGN Q_{50}	29.4 cfs
DESIGN Q_{100}	31.8 cfs
OVERTOP. ELEV.	244.99
ALLOW. HW ELEV.	242.93
Q_{50} HW	242.43
Q_{100} HW	242.68
VELOCITY (Q_{50})	5.99 fps
VELOCITY (Q_{100})	6.52 fps
INLET ELEV.	239.43
OUTLET ELEV.	239.10
STD. DWG NOS.	D-PB-1
INLET DWG. NOS.	D-PE-30A, D-PE-30B
OUTLET DWG. NOS.	D-PE-30A, D-PE-30B



FITE ROAD
STA. 50+50

CULVERT DATA

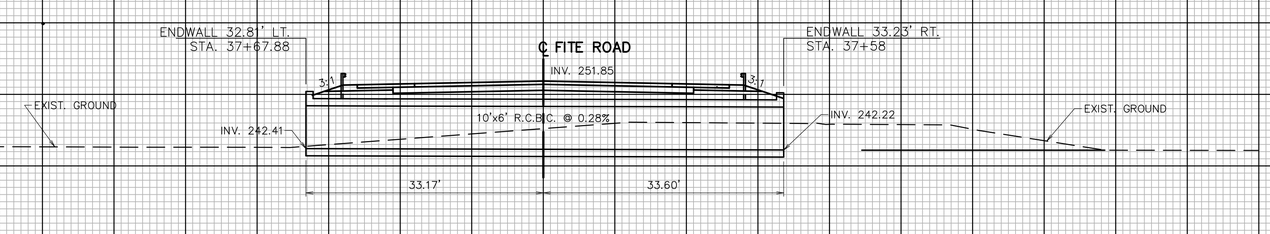
STATION	45+74
STRUCTURE	67.2' of 42" R.C.P.
SKEW	90°
DRAINAGE AREA	13.5 Ac.
DESIGN Q_{50}	61.8 cfs
DESIGN Q_{100}	67.5 cfs
OVERTOP. ELEV.	247.19
ALLOW. HW ELEV.	246.03
Q_{50} HW	244.59
Q_{100} HW	244.81
VELOCITY (Q_{50})	6.42 fps
VELOCITY (Q_{100})	7.02 fps
INLET ELEV.	240.31
OUTLET ELEV.	239.91
STD. DWG NOS.	D-PB-1
INLET DWG. NOS.	D-PE-42A D-PE-42B
OUTLET DWG. NOS.	D-PE-42A D-PE-42B



FITE ROAD
STA. 45+74

CULVERT DATA

STATION	37+63
STRUCTURE	66.77' of 10'x6' R.C.B.C.
SKEW	81°30'00" LT.
DRAINAGE AREA	159.5 Ac.
DESIGN Q_{50}	391 cfs
DESIGN Q_{100}	432 cfs
OVERTOP. ELEV.	251.89
ALLOW. HW ELEV.	250.89
Q_{50} HW	248.25
Q_{100} HW	248.72
VELOCITY (Q_{50})	10.15 fps
VELOCITY (Q_{100})	10.44 fps
INLET ELEV.	242.41
OUTLET ELEV.	242.22
STD. DWG NOS.	STD-15-28, STD-15-38
INLET DWG. NOS.	STD-15-9, STD-15-10
OUTLET DWG. NOS.	STD-15-9, STD-15-10



FITE ROAD
STA. 37+63

JOHN T. PANKEY
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4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT
CROSS-
SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

4/16/2013
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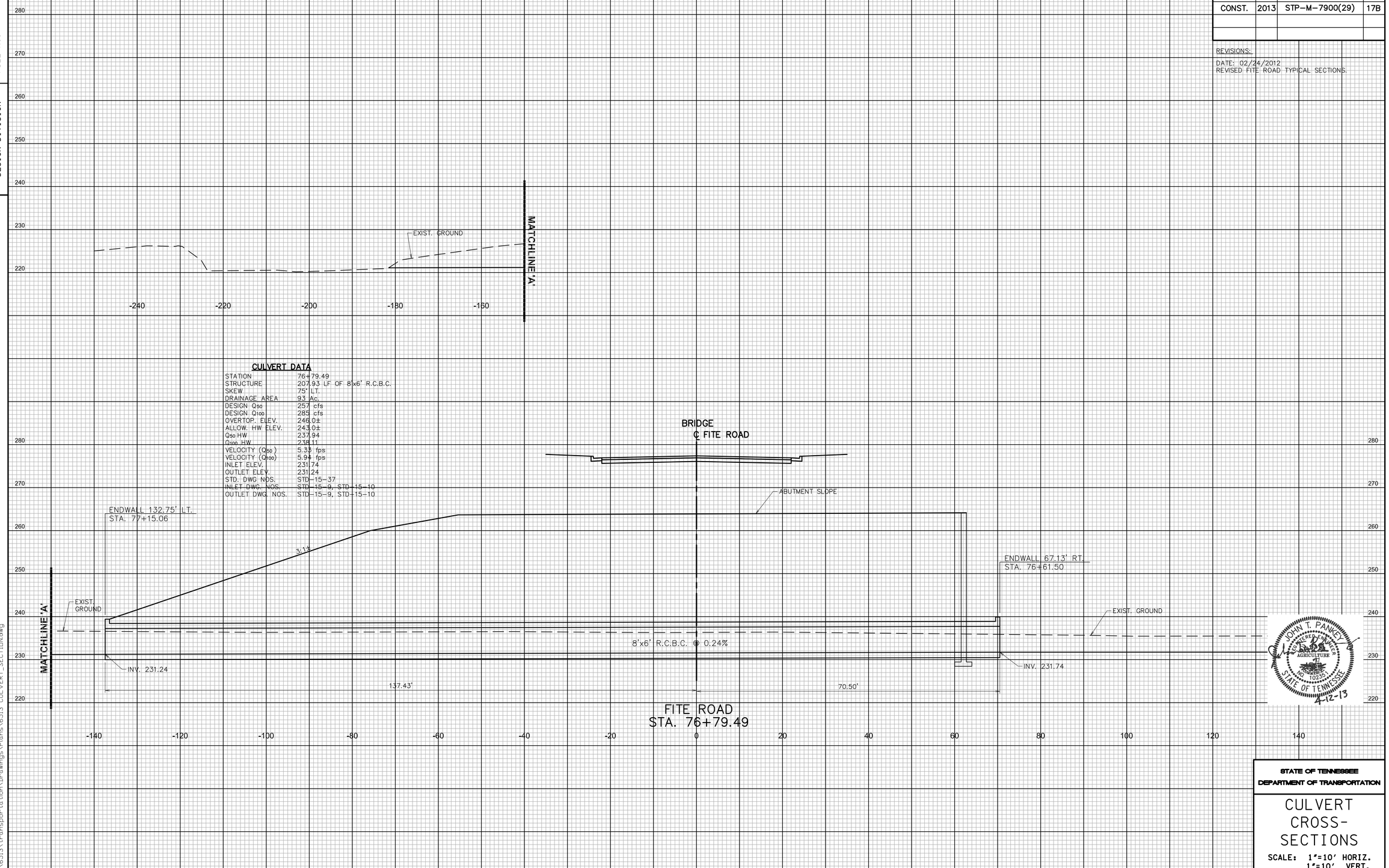
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	17B
CONST.	2013	STP-M-7900(29)	17B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



CULVERT DATA

STATION	76+79.49
STRUCTURE	207.93 LF OF 8'x6' R.C.B.C.
SKEW	75° LT.
DRAINAGE AREA	93 Ac.
DESIGN Q_{50}	257 cfs
DESIGN Q_{100}	285 cfs
OVERTOP. ELEV.	246.0±
ALLOW. HW ELEV.	243.0±
Q_{50} HW	237.94
Q_{100} HW	238.11
VELOCITY (Q_{50})	5.33 fps
VELOCITY (Q_{100})	5.94 fps
INLET ELEV.	231.74
OUTLET ELEV.	231.24
STD. DWG NOS.	STD-15-37
INLET DWG. NOS.	STD-15-9, STD-15-10
OUTLET DWG. NOS.	STD-15-9, STD-15-10

JOHN T. PANKEY
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STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

4/12/2013
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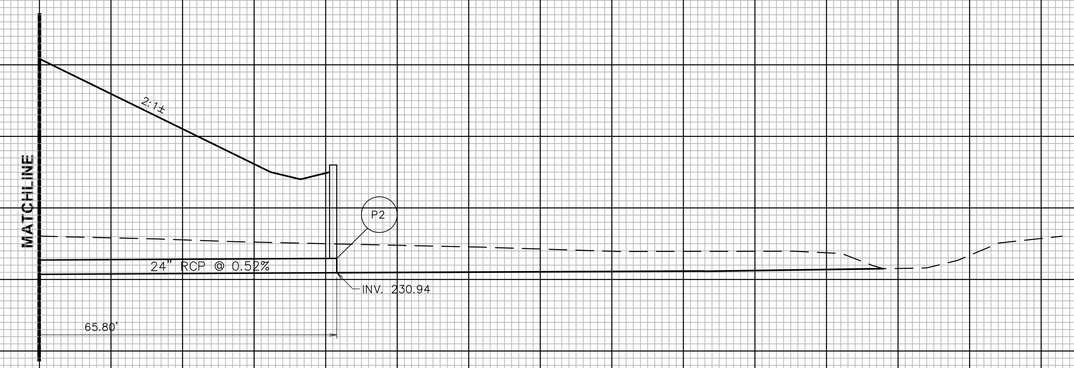
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	17C
CONST.	2013	STP-M-7900(29)	17C

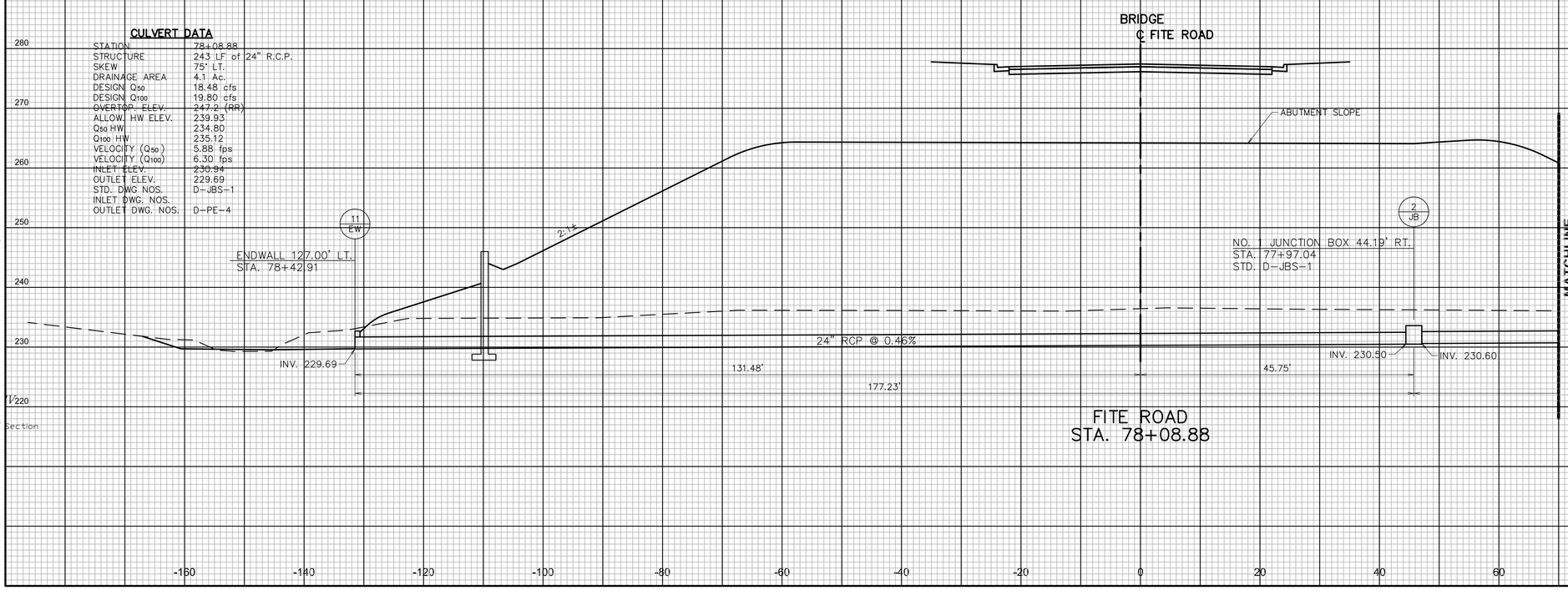
REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.





CULVERT DATA

STATION	78+08.88
STRUCTURE	243 LF of 24" R.C.P.
SKEW	75° LT.
DRAINAGE AREA	4.1 Ac.
DESIGN Q_{50}	18.48 cfs
DESIGN Q_{100}	19.80 cfs
OVERTOP. ELEV.	247.2 (RR)
ALLOW. HW ELEV.	239.93
Q_{50} HW	234.80
Q_{100} HW	235.12
VELOCITY (Q_{50})	5.88 fps
VELOCITY (Q_{100})	6.30 fps
INLET ELEV.	230.94
OUTLET ELEV.	229.69
STD. DWG NOS.	D-JBS-1
INLET DWG. NOS.	
OUTLET DWG. NOS.	D-PE-4

1/220
Section

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4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

4/16/2013
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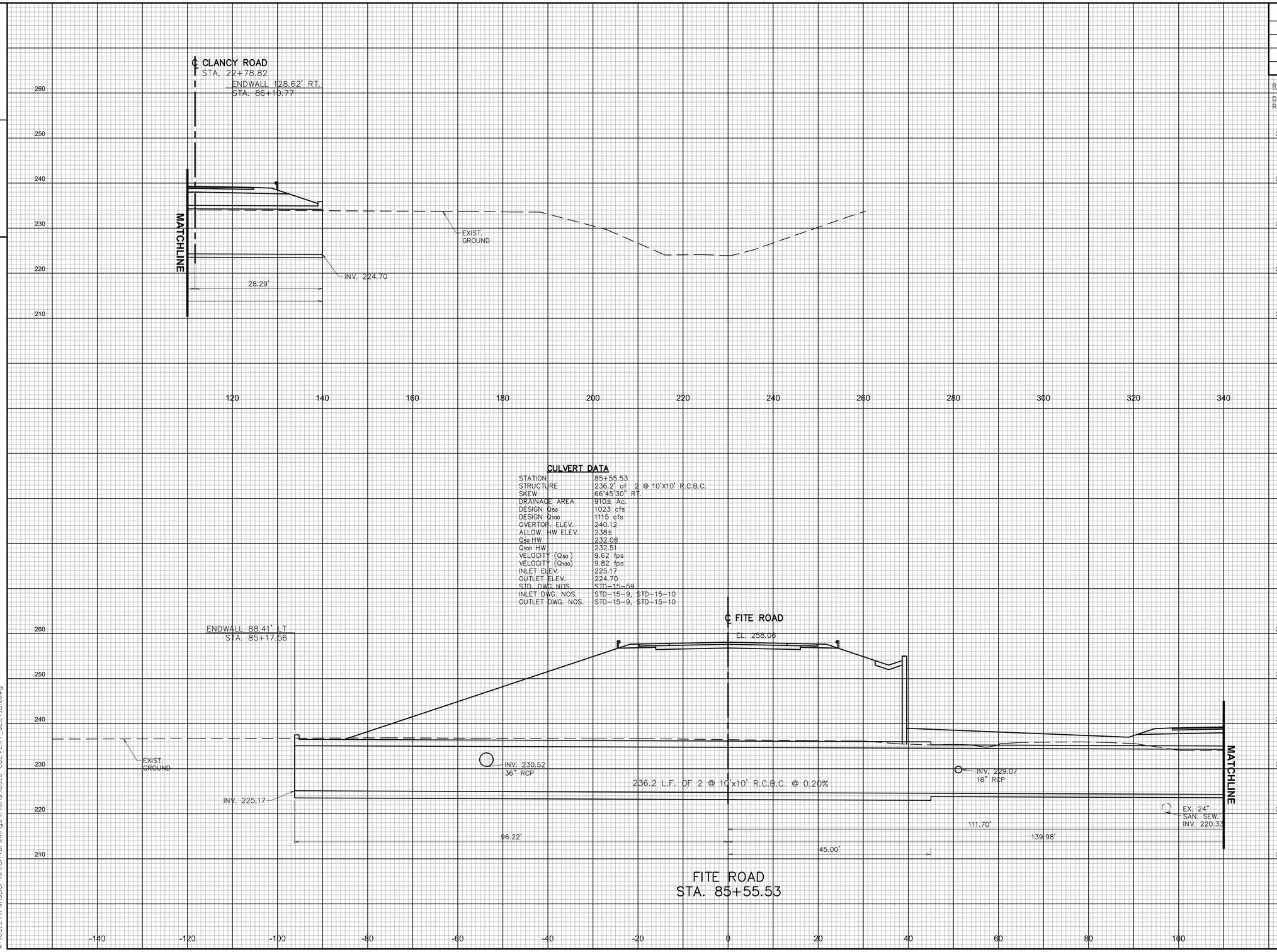
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	17D
CONST.	2013	STP-M-7900(29)	17D

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



CULVERT DATA

STATION	85+55.53
STRUCTURE	236.2' of 2 @ 10'X10' R.C.B.C.
SKEW	66°45'30" RT.
DRAINAGE AREA	910± Ac.
DESIGN Q_{50}	1023 cfs
DESIGN Q_{100}	1115 cfs
OVERTOP. ELEV.	240.12
ALLOW. HW ELEV.	238±
Q_{50} HW	232.08
Q_{100} HW	232.51
VELOCITY (Q_{50})	9.62 fps
VELOCITY (Q_{100})	9.82 fps
INLET ELEV.	225.17
OUTLET ELEV.	224.70
STD. DWG. NOS.	STD-15-59
INLET DWG. NOS.	STD-15-9, STD-15-10
OUTLET DWG. NOS.	STD-15-9, STD-15-10

FITE ROAD
STA. 85+55.53

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

4/16/2013
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	17E
CONST.	2013	STP-M-7900(29)	17E

REVISIONS:

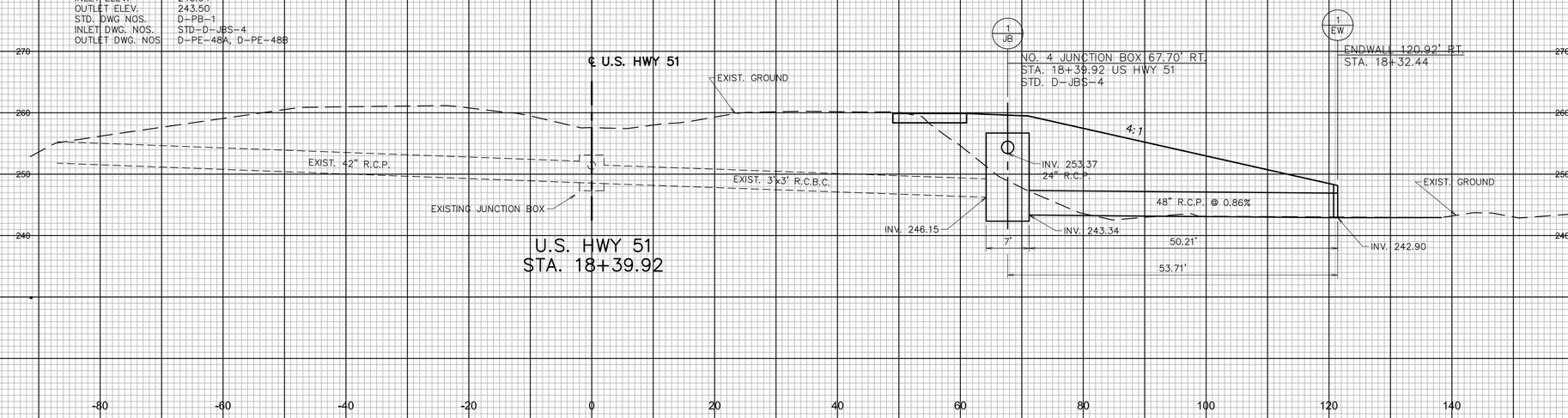
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

CULVERT DATA

STATION	18+39.92 HWY 51
STRUCTURE	50 LF of 48" R.C.P.
SKEW	82° LT.
DRAINAGE AREA	53 Ac.
DESIGN Q_{50}	140 cfs
DESIGN Q_{100}	152 cfs
OVERTOP. ELEV.	259.9±
ALLOW. HW ELEV.	256.5±
Q_{50} HW	250.25
Q_{100} HW	250.79
VELOCITY (Q_{50})	11.98 fps
VELOCITY (Q_{100})	12.73 fps
INLET ELEV.	243.94
OUTLET ELEV.	243.50
STD. DWG NOS.	D-PB-1
INLET DWG. NOS.	STD-D-JBS-4
OUTLET DWG. NOS.	D-PE-48A, D-PE-48B



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

4/16/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18
CONST.	2013	STP-M-7900(29)	18

REVISIONS:

DATE: 7/24/2013

REVISED QUANTITIES FOR THE FOLLOWING ITEMS: 209-08.02, 209-08.08, 209-09.03, 209-65.03, 740-11.02, AND 621-03.03

ADDED FOOTNOTE (1)

REVISED ITEM NUMBER 621-01.10 TO "2-84"PIPES"

INDEX OF DRAWINGS

SHEET NO.	SHEET DESCRIPTION
18-18C	EROSION CONTROL NOTES & LEGEND
18D-18K	PHASES 1, 1A, & 1B
18L-18T	PHASES 2, 2A, 2B, & 2C
18U-18AA	PHASES 3
18BB-18EE	PROPOSED CONTOURS
18FF	RIPARIAN BUFFER PLAN

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	209-02.03	6" TEMP. SLOPE DRAIN	L.F.	1700
	209-02.05	12" TEMP. SLOPE DRAIN	L.F.	500
	209-05	SEDIMENT REMOVAL	C.Y.	1000
	209-08.02	TEMP. SILT FENCE (WITH BACKING)	L.F.	14000
	209-08.03	TEMP. SILT FENCE (WITHOUT BACKING)	L.F.	11495
	209-08.07	ROCK CHECK DAM	EACH	24
	209-08.08	ENHANCED ROCK CHECK DAM	EACH	49
	209-09.03	SEDIMENT FILTER BAG	EACH	22
	209-10.20	SEDIMENT TRAP	C.Y.	300
	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	5000
	209-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH	2
	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	2
	209-40.34	CATCH BASIN PROTECTION (TYPE E)	EACH	4
	209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EACH	2
	209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	650
	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	900
	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	650
	709-05.06	MACHINED RIP-RAP (CLASS A-1)	S.Y.	3224
	740-10.03	GEOTEXTILE (TYPE III) EROSION CONTROL	S.Y.	9746
	740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	L.F.	1000
	740-11.02	TEMPORARY SEDIMENT TUBE (12 INCH)	L.F.	19000
	740-11.04	TEMPORARY SEDIMENT TUBE (20IN)	L.F.	1000
(1)	621-01.10	TEMPORARY STRUCTURE (2-84"PIPES)	L.S.	1
	621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	30
	621-03.03	24" TEMPORARY DRAINAGE PIPE	L.F.	70
	621-03.04	30" TEMPORARY DRAINAGE PIPE	L.F.	100
	621-03.06	42" TEMPORARY DRAINAGE PIPE	L.F.	30
	801-01	SEEDING (WITH MULCH)	UNIT	219
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	1.4
	801-02	SEEDING (WITHOUT MULCH)	UNIT	622
	801-02.08	TEMPORARY SEEDING (WITHOUT MULCH)	UNIT	35
	803-01	SODDING (NEW SOD)	S.Y.	25010
	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	69099

EROSION CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
SF SEDIMENT FILTER BAG	SEDIMENT FILTER BAG	EC-STR-2
* SF * SF * SF *	SILT FENCE	EC-STR-3B
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
>	ENHANCED SILT FENCE CHECK (V-DITCH)	EC-STR-4A
<	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	ENHANCED ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6A
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	SEDIMENT TRAP WITH CHECK DAM	EC-STR-7
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	CULVERT PROTECTION (TYPE 2)	EC-STR-11A
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
TCF	TEMPORARY CONSTRUCTION FORD	EC-STR-25
TCC	TEMPORARY CULVERT CROSSING	EC-STR-25
	TEMPORARY SLOPE DRAIN WITH TEMPORARY BERM	EC-STR-27
	TEMPORARY DIVERSION CHANNEL	EC-STR-31
	EROSION CONTROL BLANKET	EC-STR-34
* TUBE * * TUBE * *	SEDIMENT TUBE	EC-STR-37
1	CATCHBASIN FILTER ASSEMBLY(TYPE 1)	EC-STR-41

NOTES

THE HEIGHT OF ALL ROCK CHECK DAMS ARE 1.5' UNLESS THE PLANS INDICATE OTHERWISE.

FOOTNOTES:

(1) THIS ITEM SHALL CONSIST OF TEMPORARILY EXTENDING TWO EX. 84" RCPS WITH 84" CMPS. TOTAL LENGTH OF TEMP. 84" CMP REQ'D IS 103 LINEAR FEET (1 @ 48' AND 1 @ 55'). SEE PLAN SHEET NO. 18J.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL NOTES

7/24/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18A
CONST.	2013	STP-M-7900(29)	18A

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

DISTURBED AREA

(1) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

(2) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.

(3) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

(4) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.

(5) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

(6) NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT. OFF-SITE BORROW OR WASTE AREAS ARE TO BE INCLUDED IN THE TOTAL DISTURBED AREA IF THE BORROW OR WASTE AREA IS EXCLUSIVE TO THE PROJECT PER TDOT'S WASTE AND BORROW MANUAL.

SEDIMENT CONTROL

(7) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

(8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT. ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES OVER TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ON ALL PROJECTS.

(9) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM. CONSTRUCTION SHALL BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS AND SHALL BE PHASED FOR PROJECTS THAT HAVE OVER 50 ACRES OF SOIL DISTURBANCE. NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION PROJECT, UNLESS APPROVED IN WRITING BY THE ENVIRONMENTAL DIVISION.

(10) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.

(11) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 5-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

(12) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.

(13) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.

(14) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

STREAM/WETLAND

(15) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.

(16) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.

(17) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.

(18) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP/401, SECTION 404 PERMIT(S) AND/OR TVA26(A), IF APPLICABLE. ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.

(19) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.

(20) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSINGS MUST BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES MUST BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK MUST BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS MUST BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO THEIR PREEXISTING ELEVATION. ALL TEMPORARY CROSSINGS MUST BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.

(21) HEAVY EQUIPMENT WORKING IN WETLANDS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT MUST BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED.

(22) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.

SPECIES

(23) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).

INSPECTION, MAINTENANCE, REPAIR

(24) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.

(25) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.

(26) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

(27) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.

(28) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.

(29) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL NOTES

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18B
CONST.	2013	STP-M-7900(29)	18B

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

INSPECTION, MAINTENANCE, REPAIR CONT.

(30) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.

(31) THE COUNTY PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE COUNTY PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

(32) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

SWPPP, PERMITS, PLANS, RECORDS

(33) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.

(34) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE COUNTY PROJECT SUPERVISOR. THE ENVIRONMENTAL DIVISION AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.

(35) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.

(36) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

(37) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(38) THE SWPPP SHALL BE UPDATED BY THE COUNTY WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

(39) THE SWPPP SHALL BE UPDATED BY THE COUNTY WHENEVER A CHANGE IN CHEMICAL TREATMENT METHODS IS MADE INCLUDING USE OF A DIFFERENT CHEMICAL, DIFFERENT DOSAGE OR APPLICATION RATE, OR A DIFFERENT AREA OF APPLICATION.

(40) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.

(41) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

(42) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.

(43) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

SPECIAL EPSC NOTES

STREAM/WETLAND

(44) ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI-BARREL CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS, EC-STR-32 FOR SINGLE BARREL CULVERT CONSTRUCTION.

(45) A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

(46) FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, AN OUTFALL IN A DRAINAGE AREA OF 5 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT.

(47) FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, A 60 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM WITH THIS DESIGNATION SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

NPDES

(48) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.

(49) THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.

(50) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:

A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL NOTES

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18C
CONST.	2013	STP-M-7900(29)	18C

SPECIAL EPSC NOTES

NPDES CONT.

(51) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NONERODIBLE SURFACE.

(52) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

(53) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP.

(54) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

UTILITY RELOCATION

(55) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(56) SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY.

(57) UTILITY CROSSINGS FOR PERENNIAL STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO UTILITIES IN THIS PROJECT IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC). THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP).

(58) IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.

(59) FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.

(60) IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK.

(61) TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.

(62) FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.

(63) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).

(64) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT PROJECT ENGINEER BEFORE COMMENCING WORK.

LITTER, DEBRIS, WASTE, PETROLEUM

(65) THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND COMPREHENSIVE EROSION PREVENTION AND SEDIMENT CONTROL PLAN TO PREVENT ROADWAY AND/OR CONSTRUCTION SEDIMENT OR DEBRIS AND ANY PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, PAINTS OR COATINGS ETC. FROM FALLING ONTO THE RAILROAD'S RIGHTS-OF-WAY AND/OR FROM ENTERING THE DRAINAGE DITCHES OR DRAINAGE STRUCTURES OF THE RAILROAD, AND ANY SEDIMENT OR DEBRIS OR PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, ETC. THAT DO ENTER SUCH DRAINAGE AREAS OF THE RAILROAD'S RIGHTS-OF-WAY ARE TO BE REMOVED IN ACCORDANCE WITH RULES SET FORTH BY ILLINOIS CENTRAL RAILROAD (CANADIAN NATIONAL) AND AT THE CONTRACTOR'S EXPENSE.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL NOTES

4/12/2013
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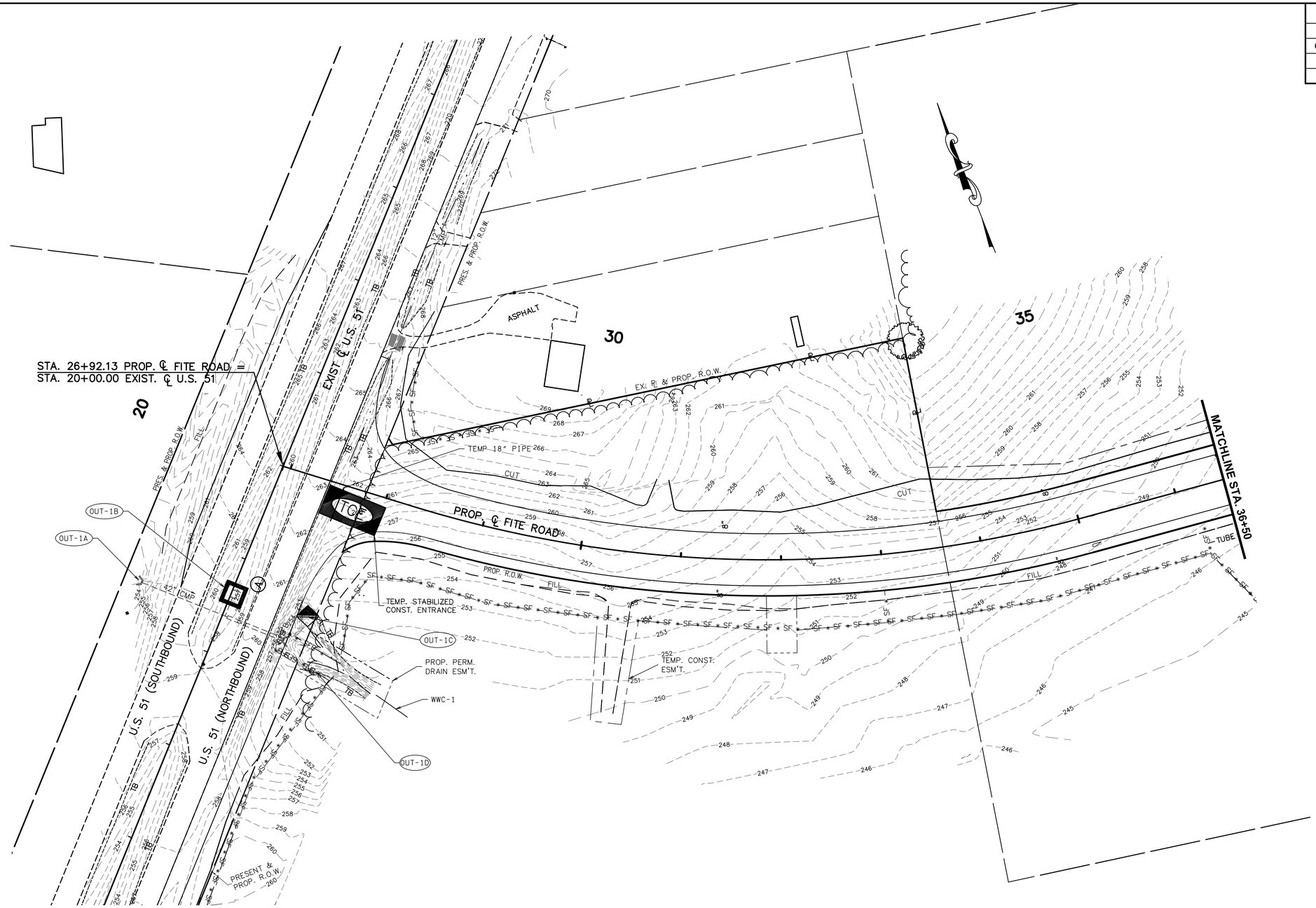
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18D
CONST.	2013	STP-M-7900(29)	18D



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1

B.O.P. TO STA. 36+00

SCALE: 1"= 50'

4/12/2013
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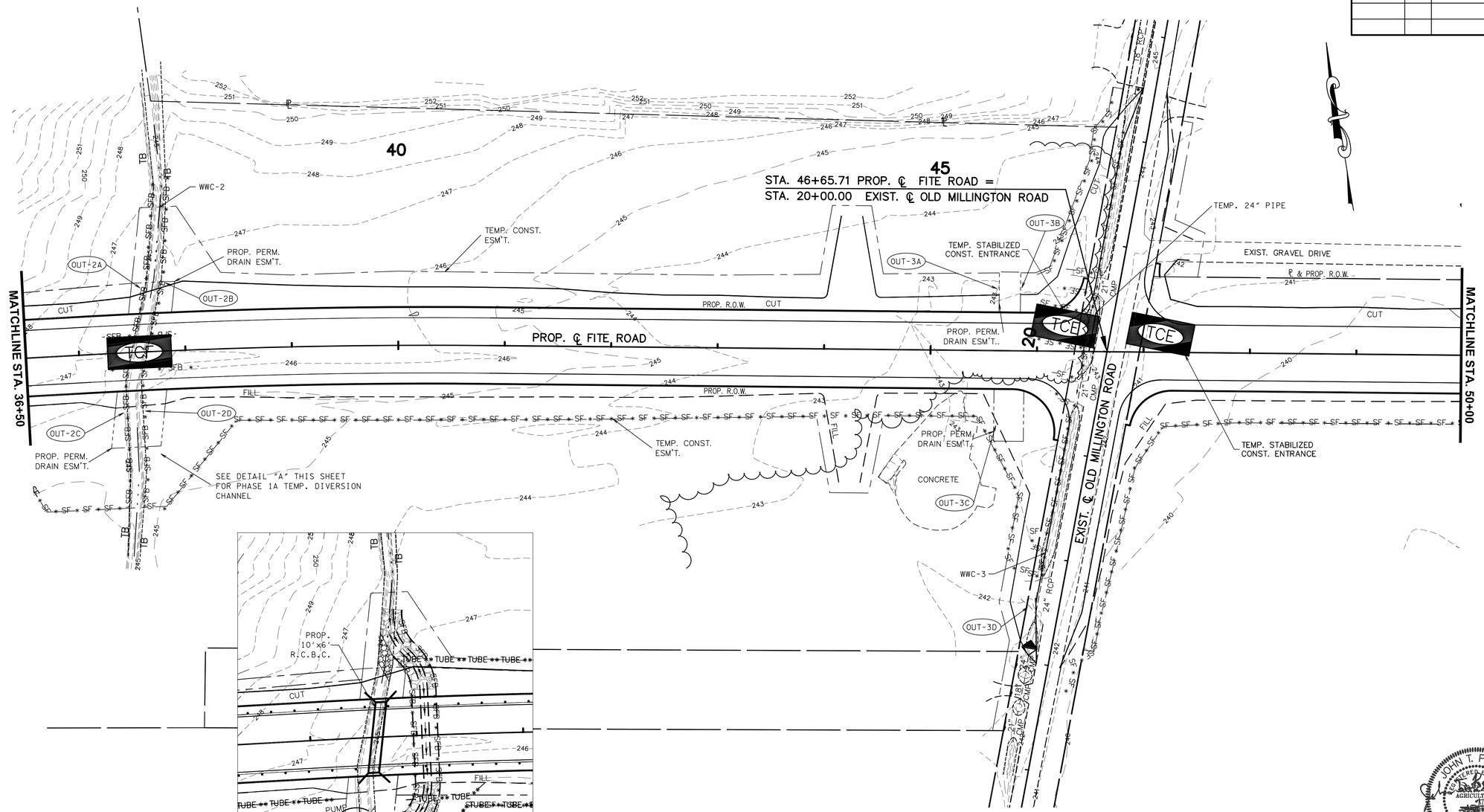
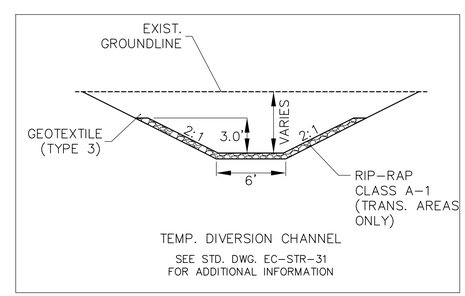
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18E
CONST.	2013	STP-M-7900(29)	18E



DETAIL "A"



TEMP. DIVERSION CHANNEL

SEE STD. DWG. EC-STR-31 FOR ADDITIONAL INFORMATION

JOHN T. PANKEY
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4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1/1A

STA. 36+50 TO STA. 50+00

SCALE: 1"= 50'

4/12/2013
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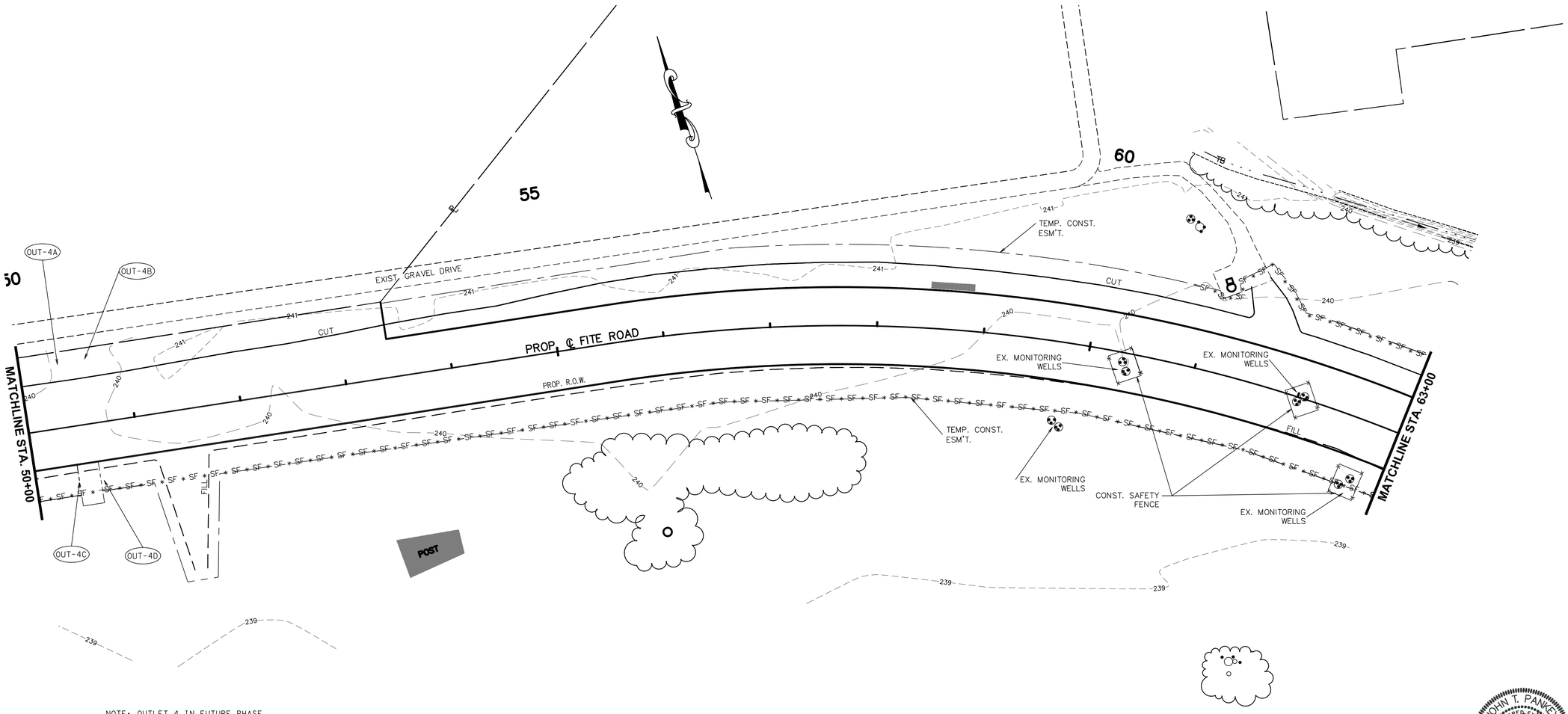
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18F
CONST.	2013	STP-M-7900(29)	18F



NOTE: OUTLET 4 IN FUTURE PHASE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1

STA. 50+00 TO STA. 63+00

SCALE: 1"= 50'

4/12/2013
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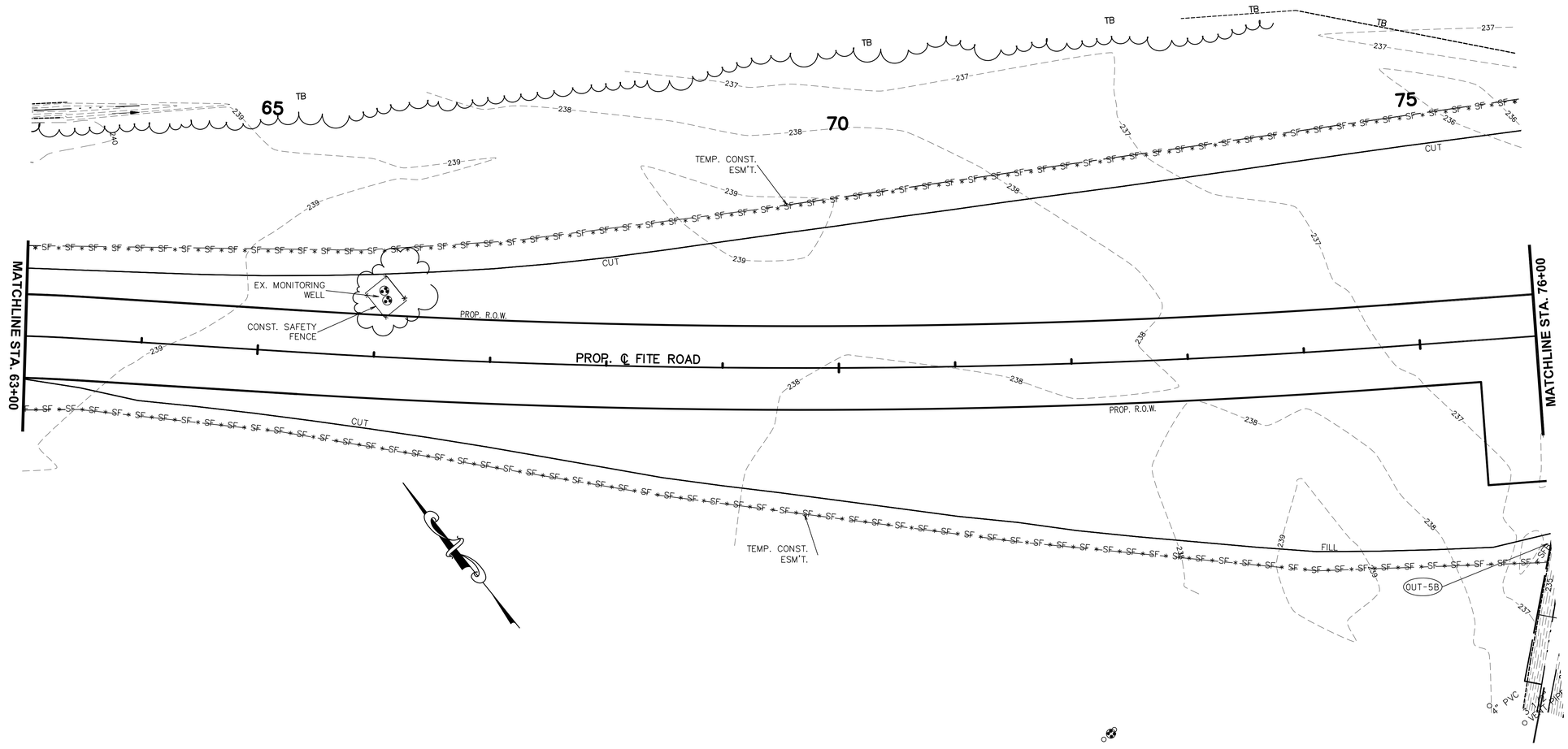
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18G
CONST.	2013	STP-M-7900(29)	18G



JOHN T. PANKEY III
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1

STA. 63+00 TO STA. 76+00

SCALE: 1"= 50'

4/12/2013
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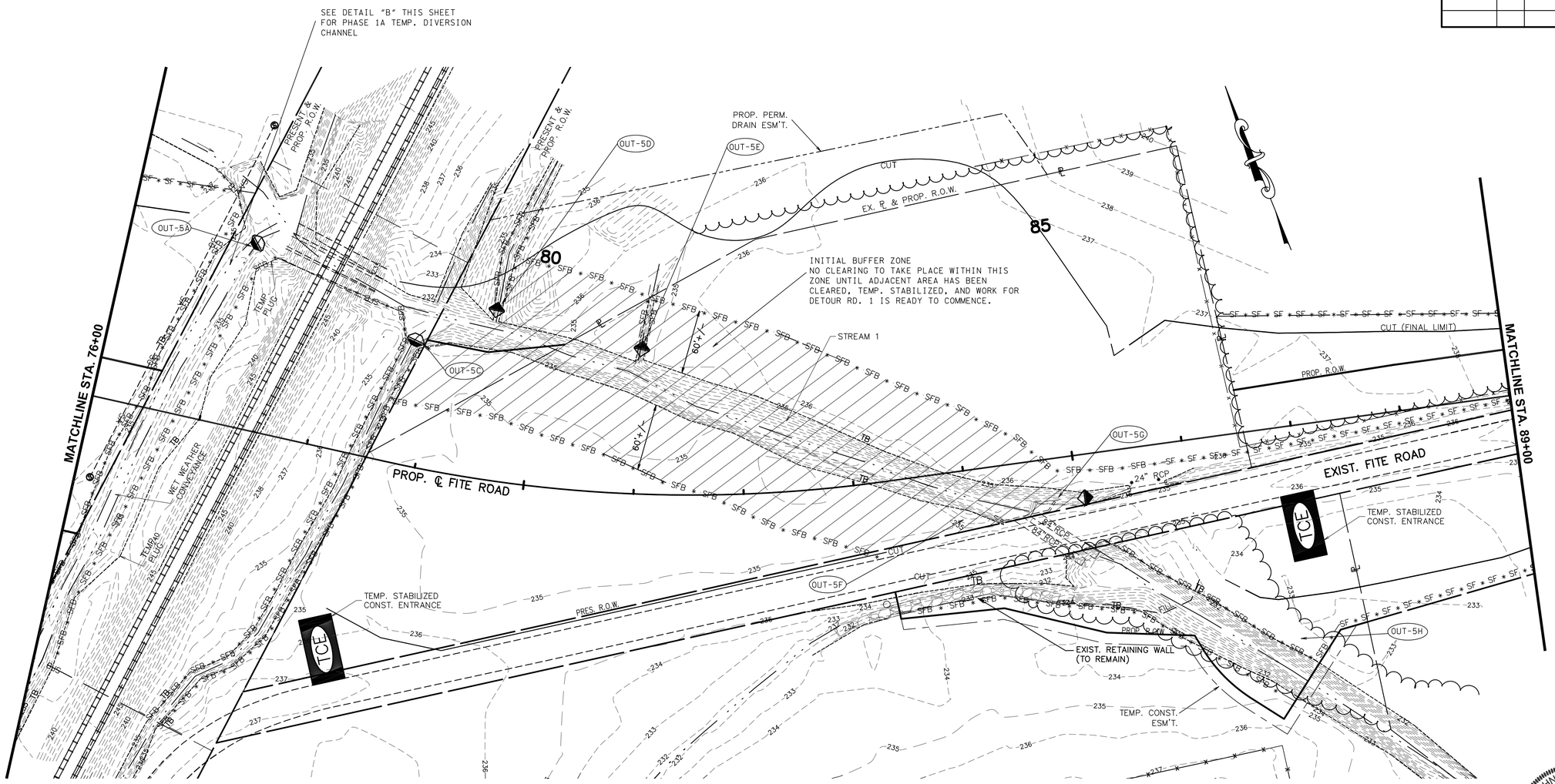
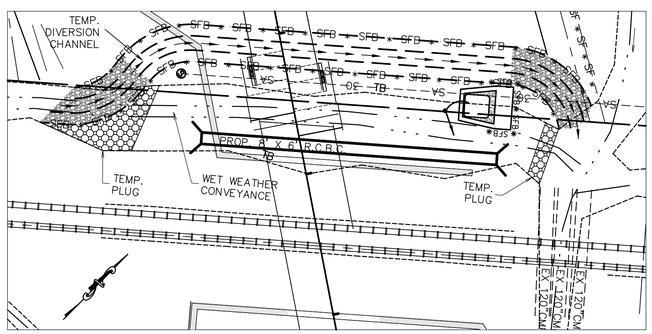
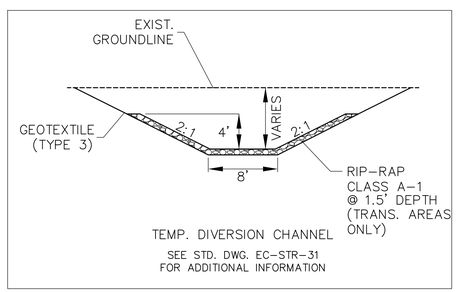
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18H
CONST.	2013	STP-M-7900(29)	18H





DETAIL "B"



TEMP. DIVERSION CHANNEL

SEE STD. DWG. EC-STR-31 FOR ADDITIONAL INFORMATION

JOHN T. PANKEY
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1

STA. 76+00 TO STA. 89+00

SCALE: 1"= 50'

4/12/2013
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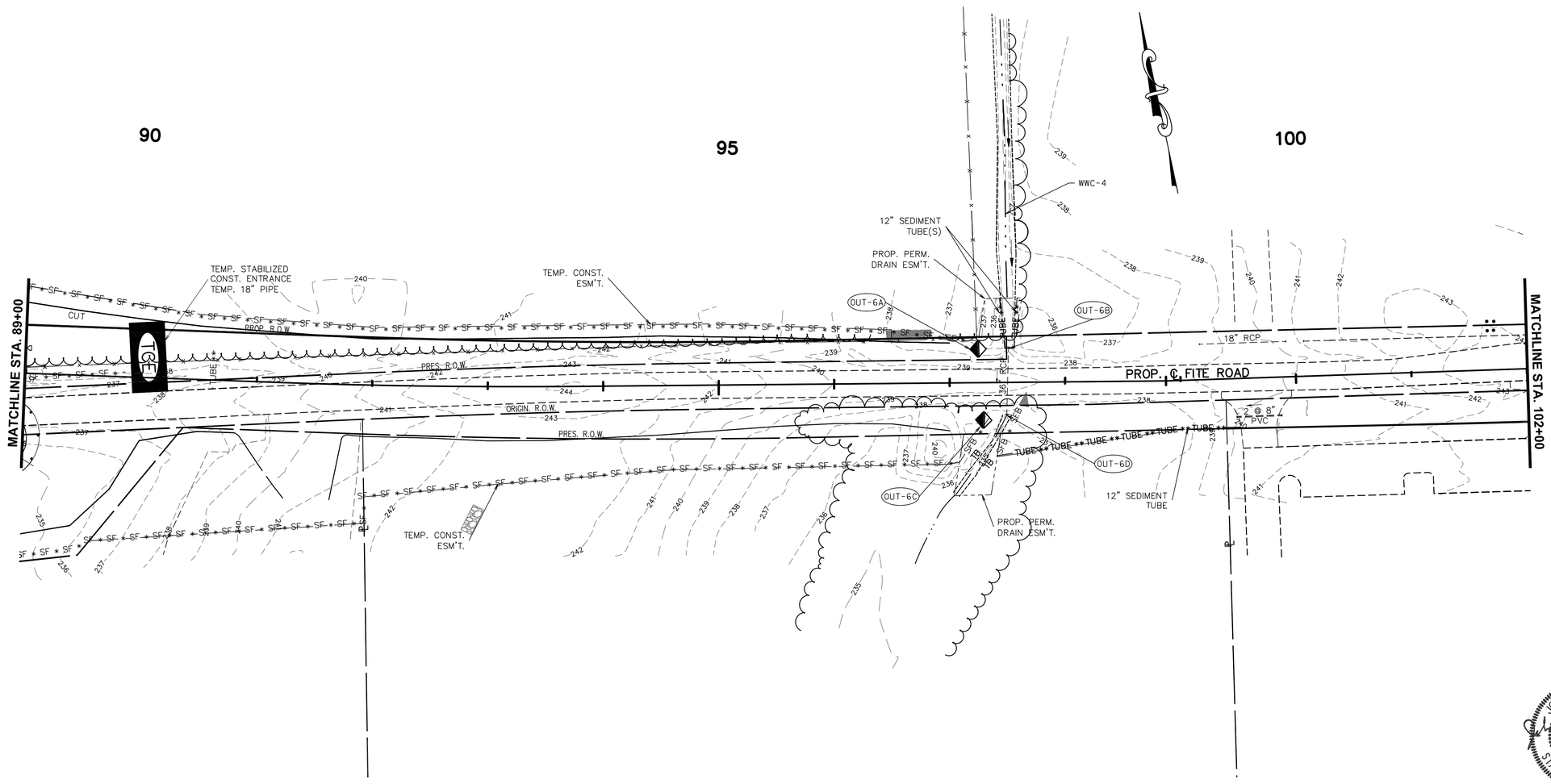
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18-I
CONST.	2013	STP-M-7900(29)	18-I



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1

STA. 89+00 TO STA. 102+00

SCALE: 1"= 50'

4/12/2013
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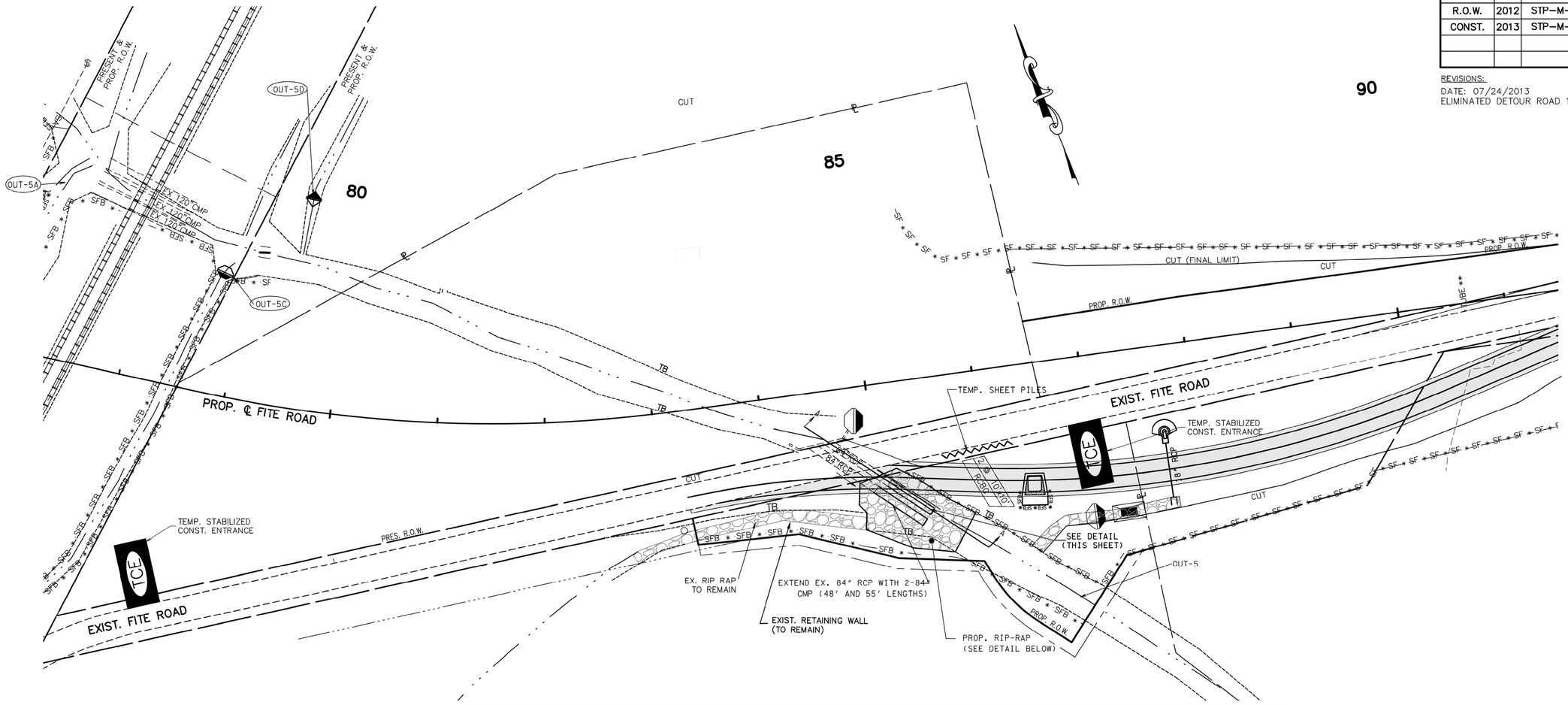
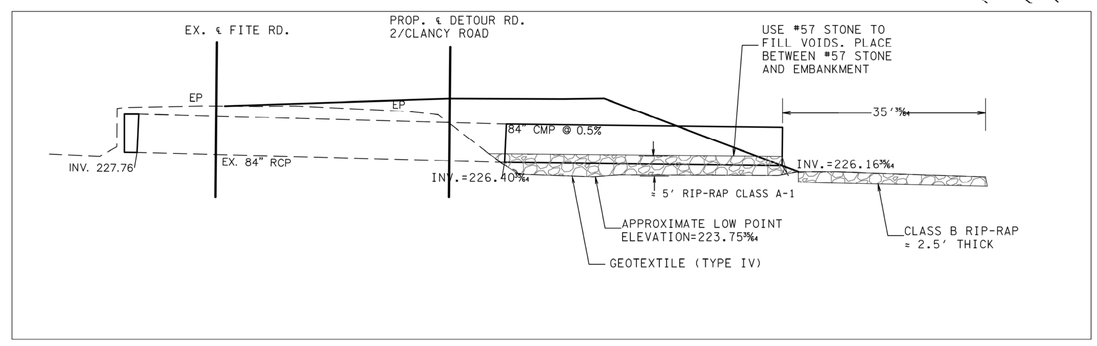
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18J
CONST.	2013	STP-M-7900(29)	18J

REVISIONS:
DATE: 07/24/2013
ELIMINATED DETOUR ROAD 1





SECTION A-A
N.T.S.

CONSTRUCTION SEQUENCE
1) CLEAR GRUB AREA DEPICTED IN PLAN VIEW.
2) INSTALL GEOTEXTILE (TYPE IV)
3) INSTAL 5' OF CLASS A-1 RIP-RAP
4) FILL VOIDS IN RIP-RAP WITH #57 STONE
5) INSTALL GEOTEXTILE (TYPE IV) OVER #57 STONE
6) PLACE AND CAMPACT EMBANKMENT
7) EXTEND THE 2-84" RCPS WITH 2-84" CMPS. THE COST OF PIPE COLLARS TO BE INCLUDED IN THE COST OF THE TEMP. 84" CMP.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1A

STA. 76+00 TO STA. 102+00
SCALE: 1"= 50'

7/24/2013
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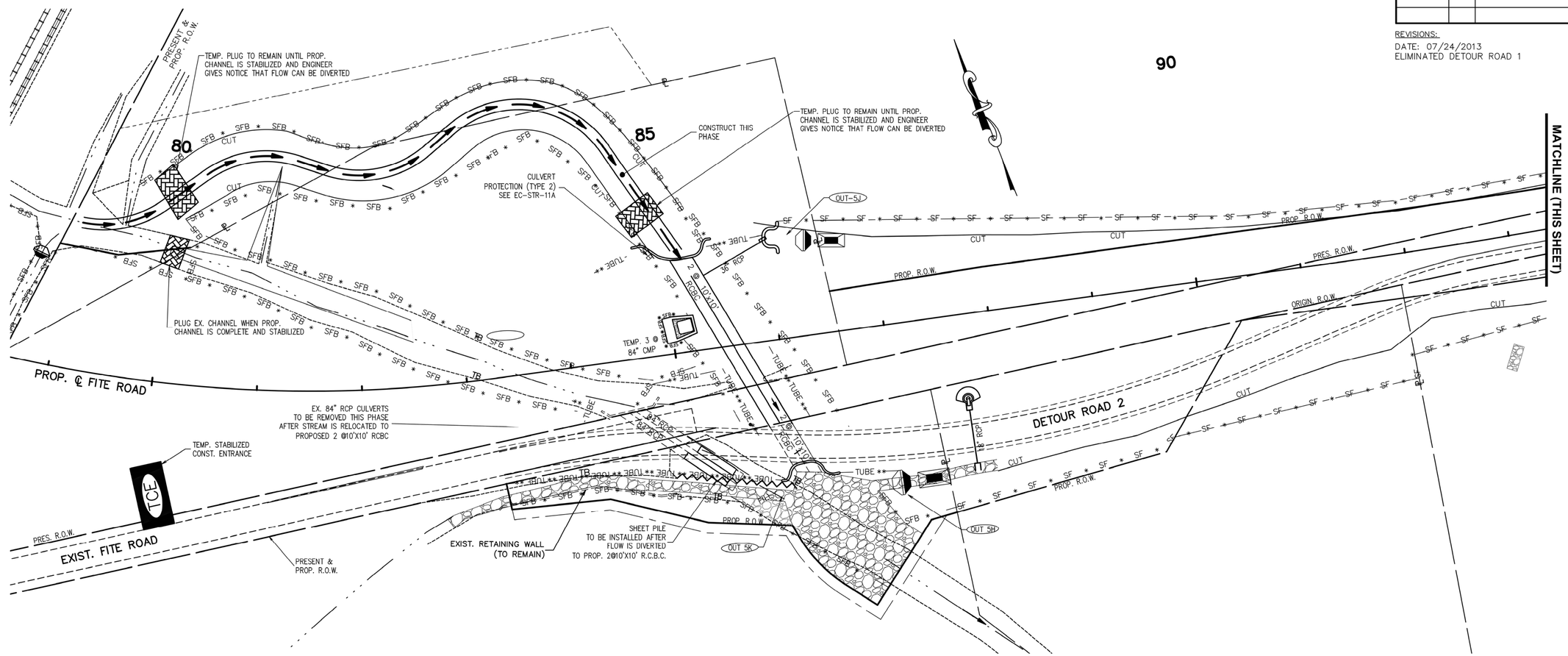
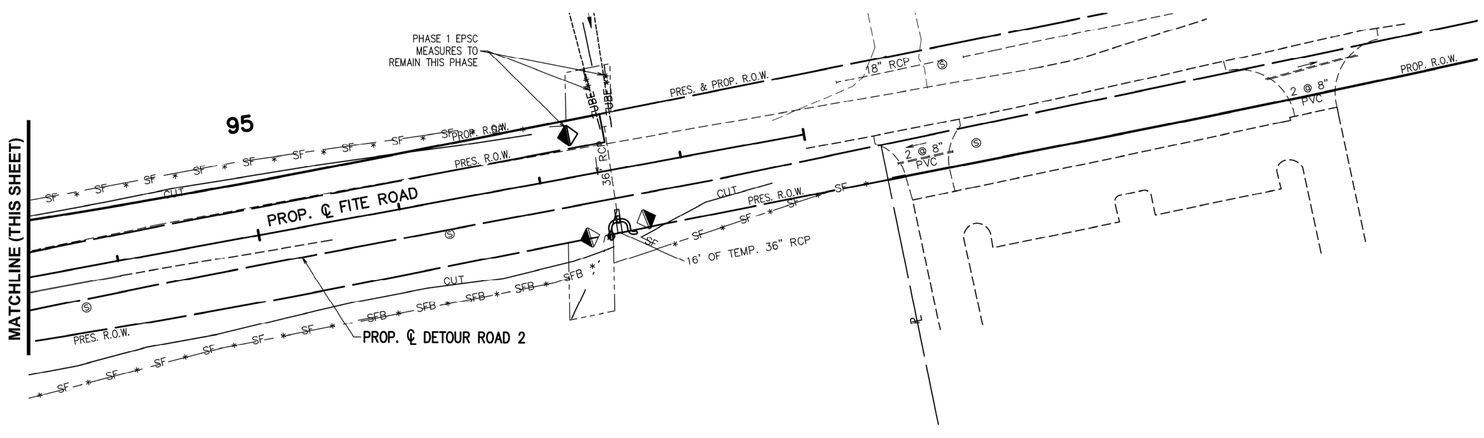
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18K
CONST.	2013	STP-M-7900(29)	18K

REVISIONS:
DATE: 07/24/2013
ELIMINATED DETOUR ROAD 1





CONSTRUCTION SEQUENCE

1) COMMENCE WITH CONSTRUCTION OF REMAINING NORTH PORTION OF 2 @ 10' X 10' RCBC WHEN TRAFFIC IS MOVED TO DETOUR ROAD 2.
2) CONSTRUCT PROP. CHANNEL RELOCATION.
3) DIVERT CHANNEL FLOW IN RELOCATED CHANNEL.
4) REMOVE TEMP. 2-84" CMPS AND EX. 2-84" RCPS WHEN TRAFFIC IS SHIFTED TO PROP. FIT ROAD I

SUBSEQUENT PHASES.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 1B

SCALE: 1"= 50'

7/24/2013
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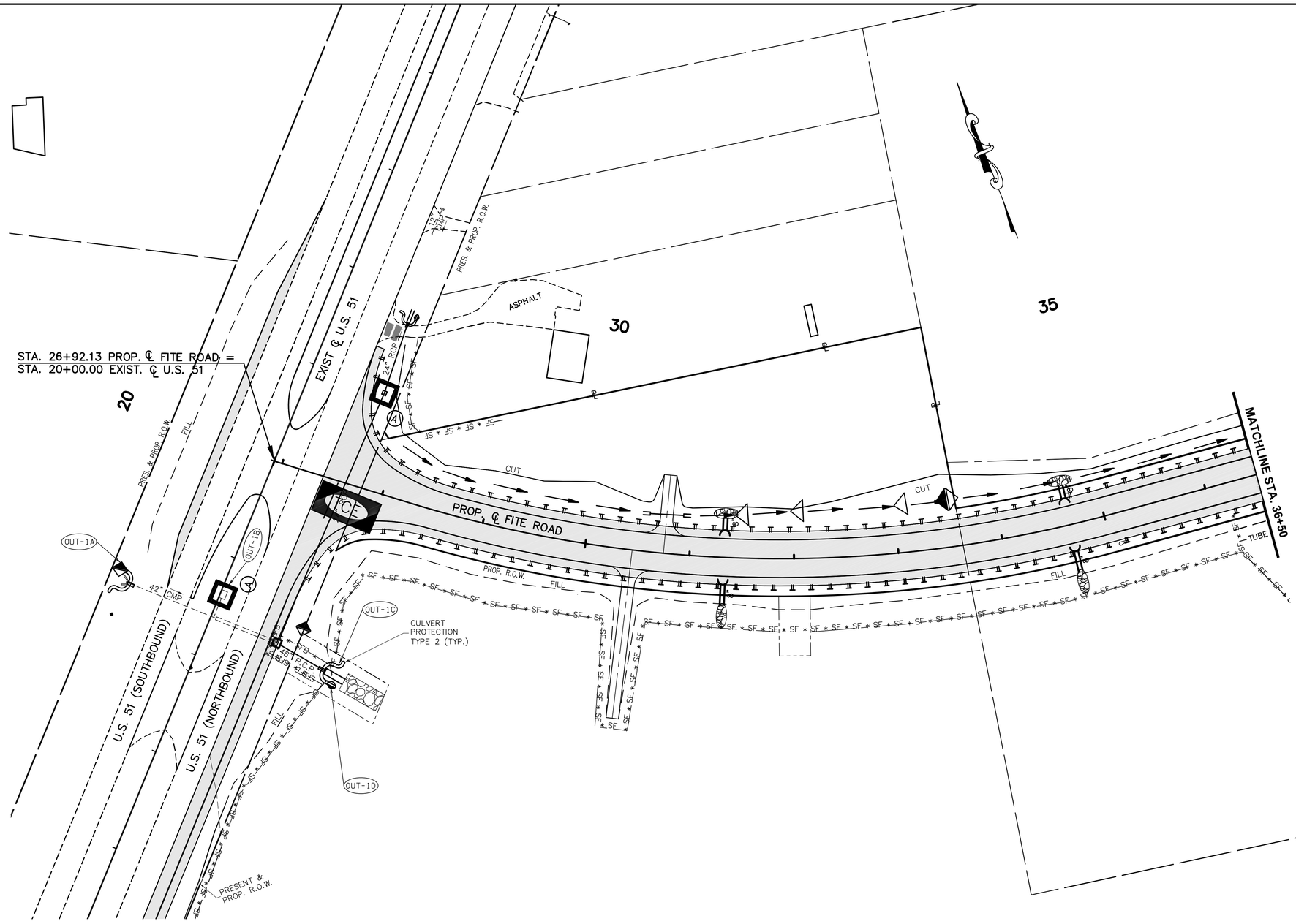
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18L
CONST.	2013	STP-M-7900(29)	18L



SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2

B.O.P. TO STA. 36+50

SCALE: 1"= 50'

4/12/2013
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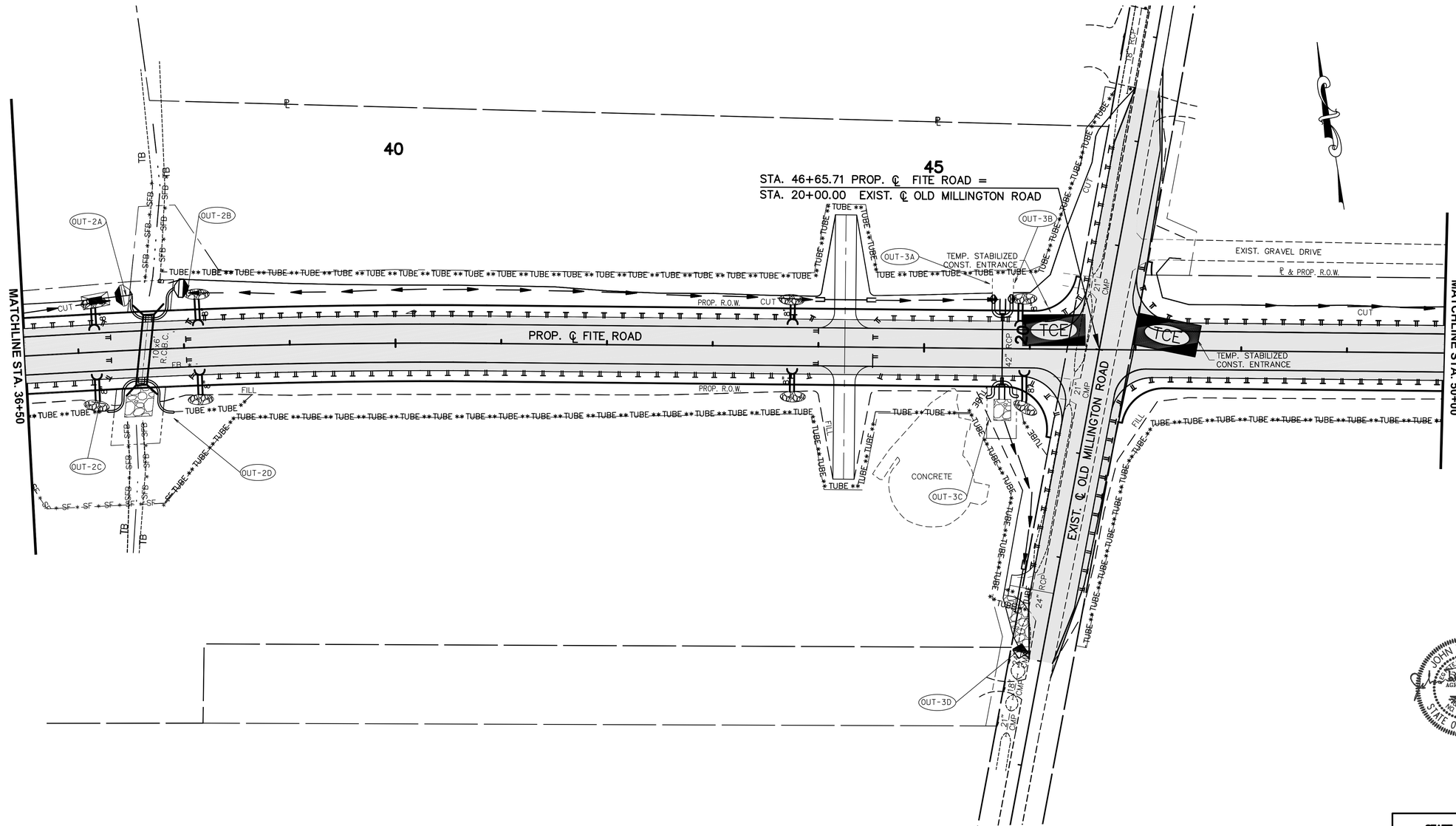
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18M
CONST.	2013	STP-M-7900(29)	18M



SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

JOHN T. PANKEY
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2

STA. 36+50 TO STA. 50+00
SCALE: 1"= 50'

4/12/2013
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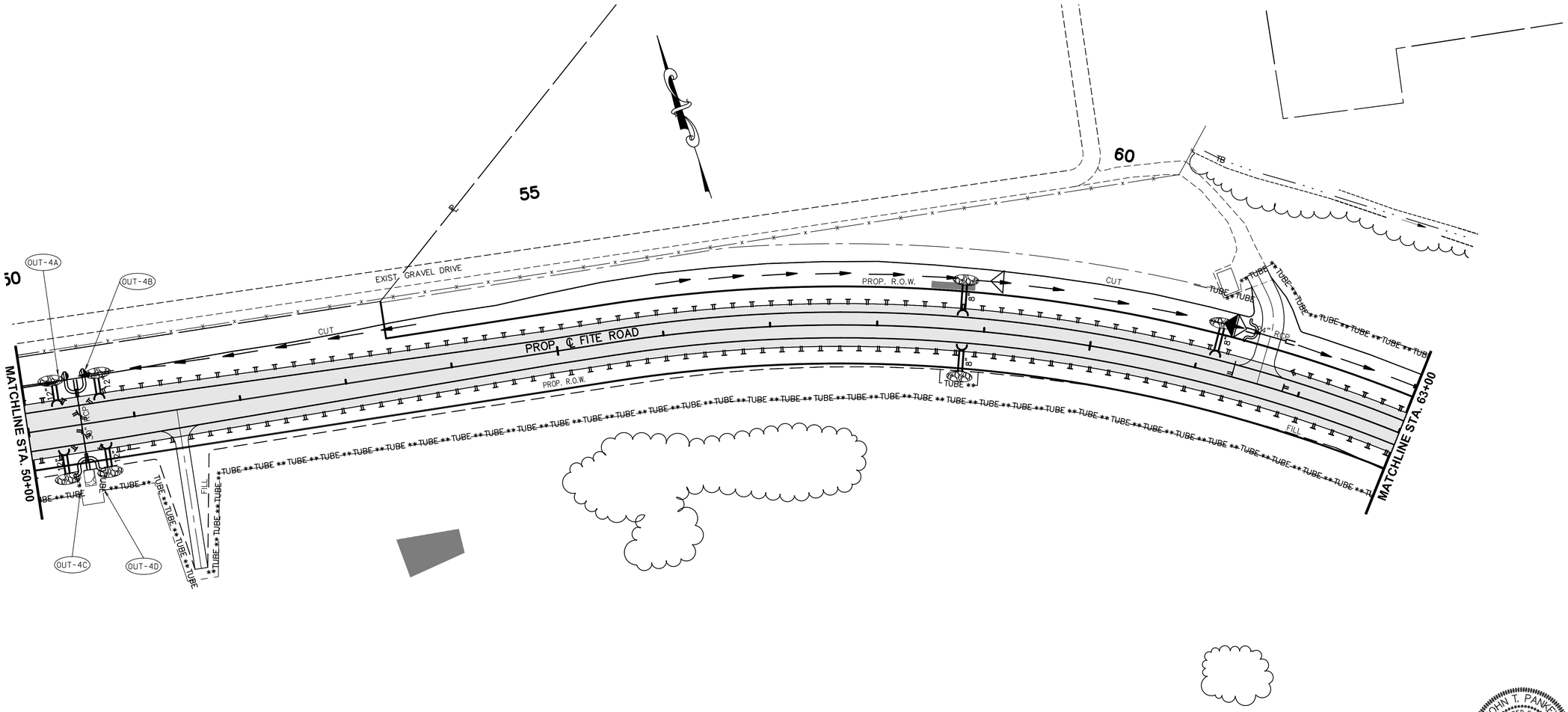
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18N
CONST.	2013	STP-M-7900(29)	18N



SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

JOHN T. PANKEY III
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2

STA. 50+00 TO STA. 63+00
SCALE: 1"= 50'

4/12/2013
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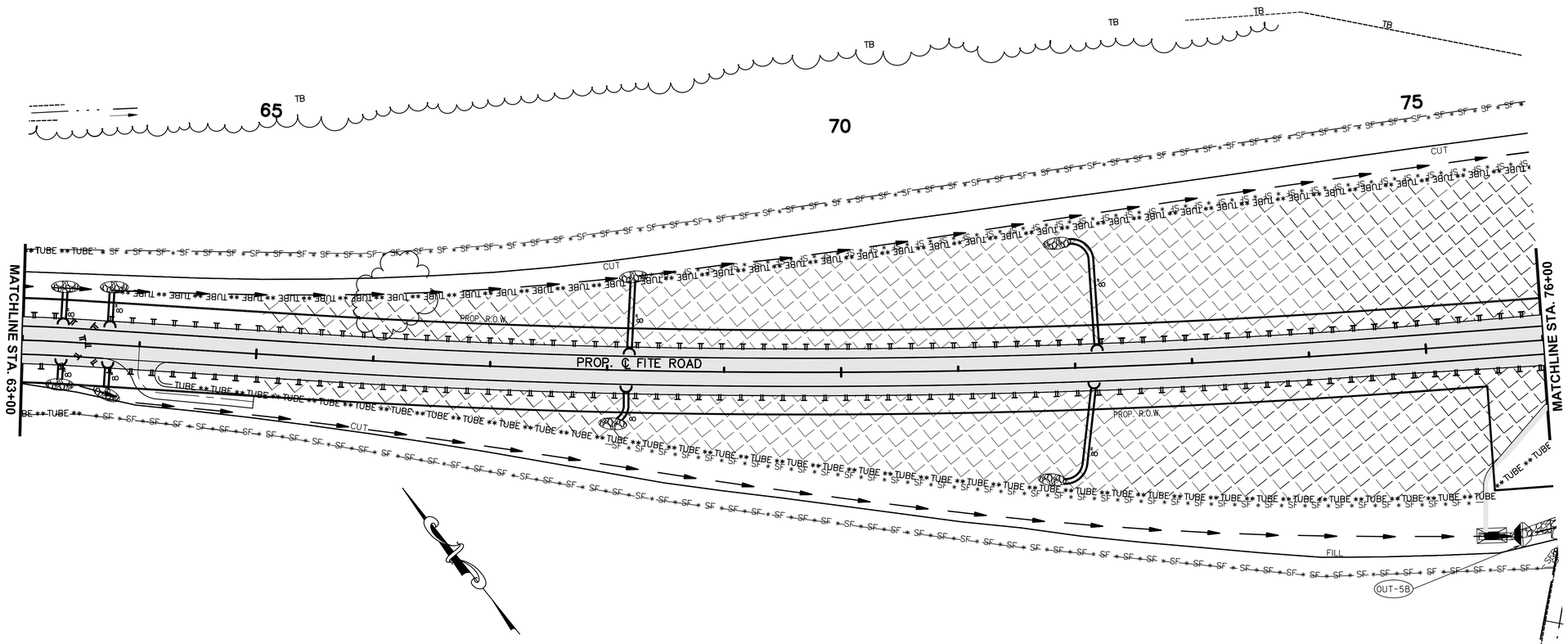
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18-O
CONST.	2013	STP-M-7900(29)	18-O



NOTE
ALL TUBES SHOWN ON THIS SHEET
SHALL BE 12" SEDIMENT TUBES
UNLESS THE PLANS INDICATE OTHERWISE

SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2

STA. 63+00 TO STA. 76+00
SCALE: 1"= 50'

4/12/2013
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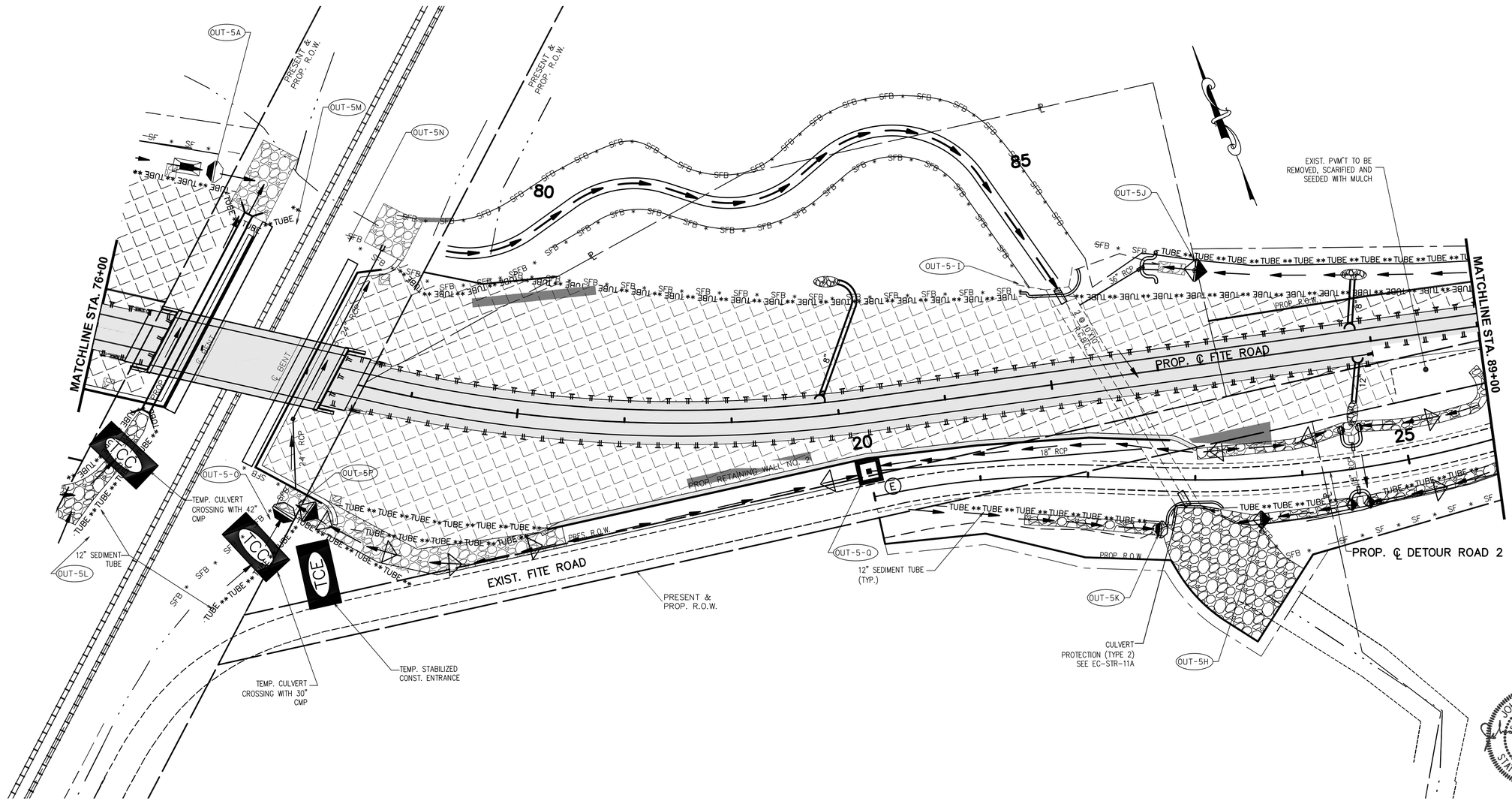
TENNESSEE D.O.T.	
DESIGN DIVISION	
FILE NO.	

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18P
CONST.	2013	STP-M-7900(29)	18P



NOTES
THE SIZE OF ALL SEDIMENT TUBE IS 18"
UNLESS THE PLANS INDICATE OTHERWISE.

SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2

STA. 76+00 TO STA. 89+00

SCALE: 1"= 50'

4/12/2013
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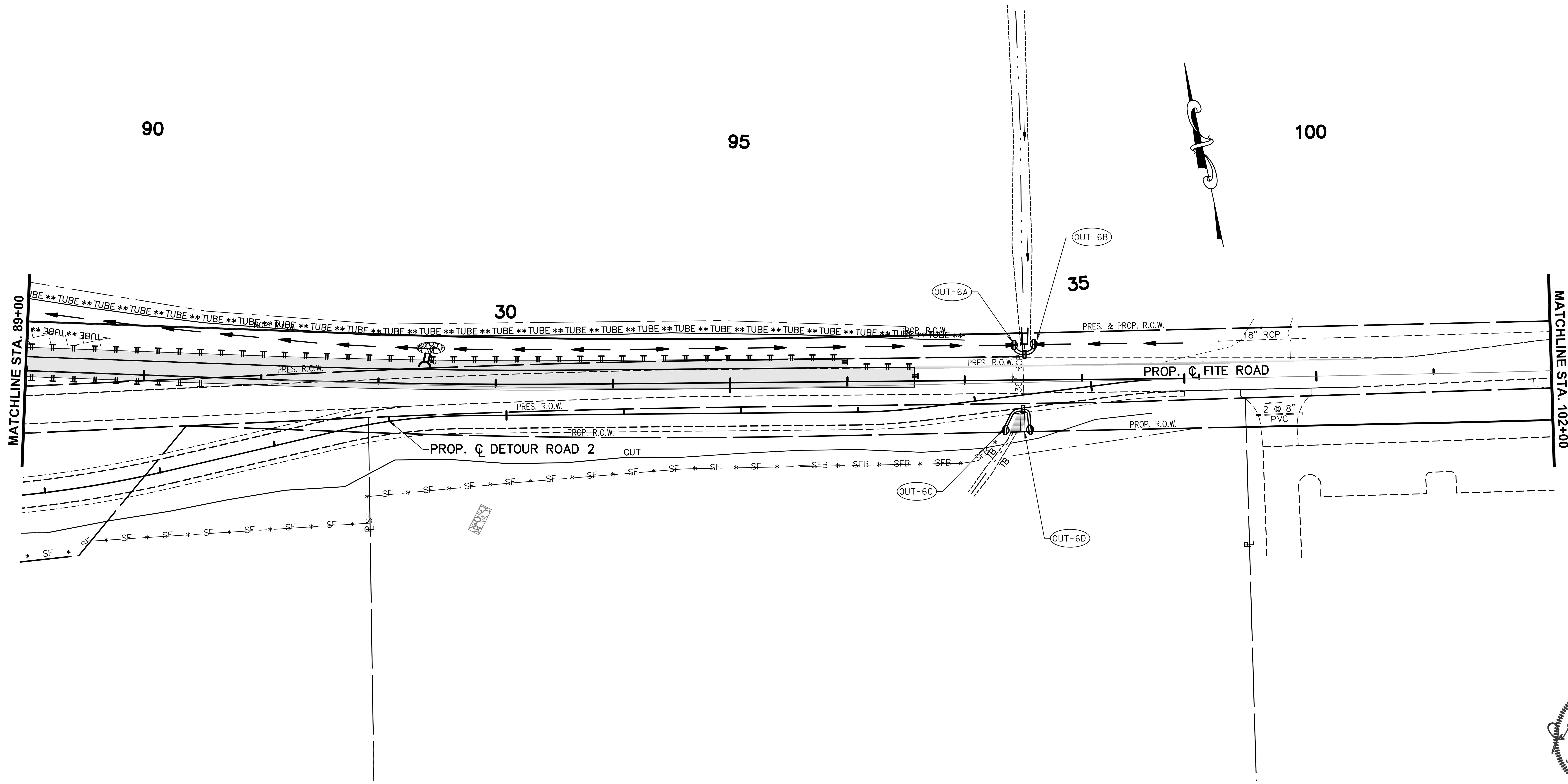
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18-Q
CONST.	2013	STP-M-7900(29)	18-Q



SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

JOHN T. PANKEY
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NO. 102351
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2

STA. 89+00 TO STA. 102+00
SCALE: 1"= 50'

4/12/2013
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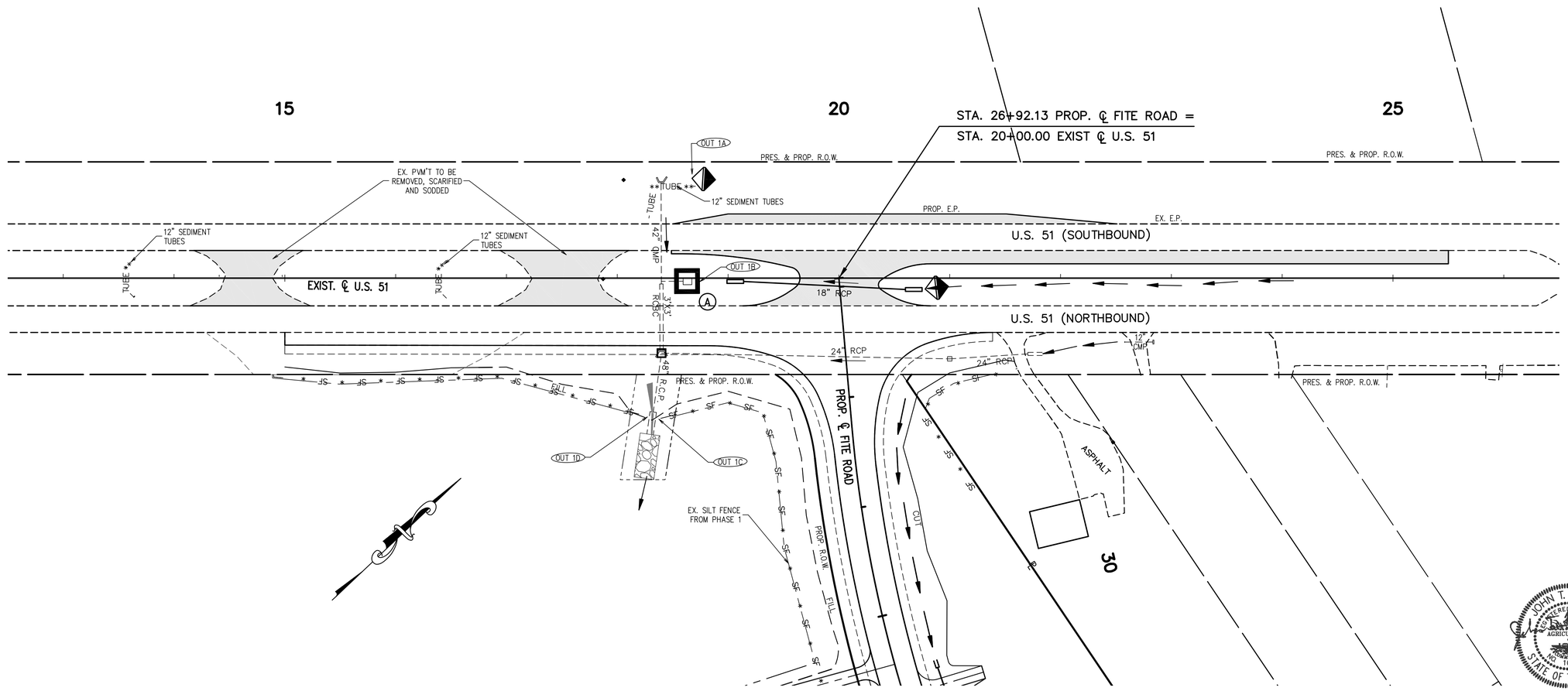
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18R
CONST.	2013	STP-M-7900(29)	18R



SPECIAL NOTE(S):
ALL SLOPE SURFACES WILL BE ROUGHENED PER TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2A

U.S. 51 @ FITE ROAD
SCALE: 1"= 50'

4/12/2013
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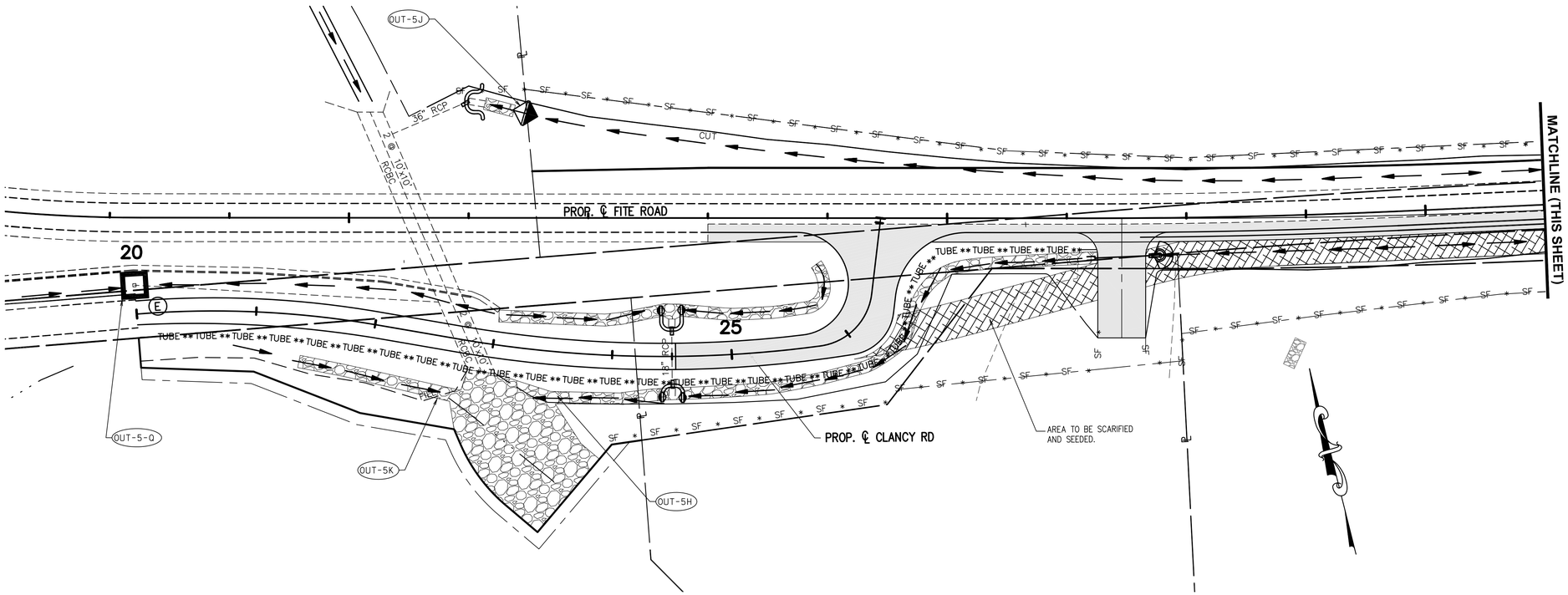
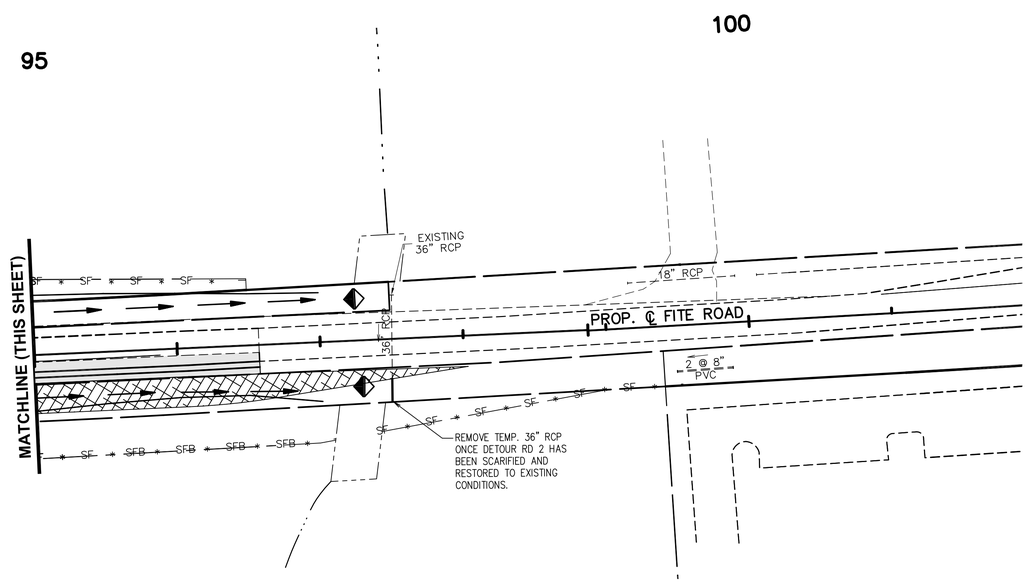
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18S
CONST.	2013	STP-M-7900(29)	18S





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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2B

SCALE: 1"= 50'

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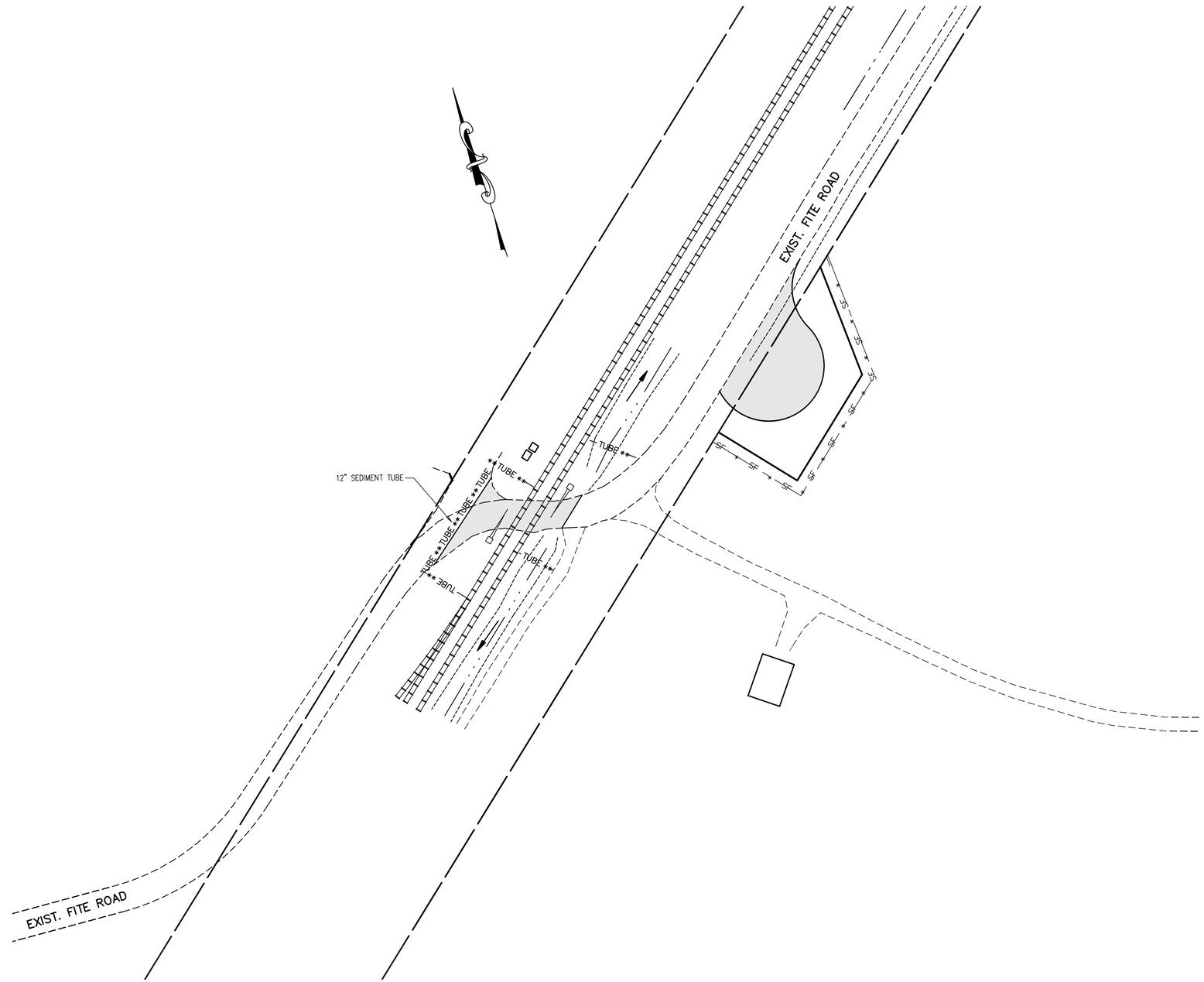
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18T
CONST.	2013	STP-M-7900(29)	18T



JOHN T. PANKEY
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STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 2C

ROAD CLOSURE AT R.R.

SCALE: 1"= 50'

4/12/2013
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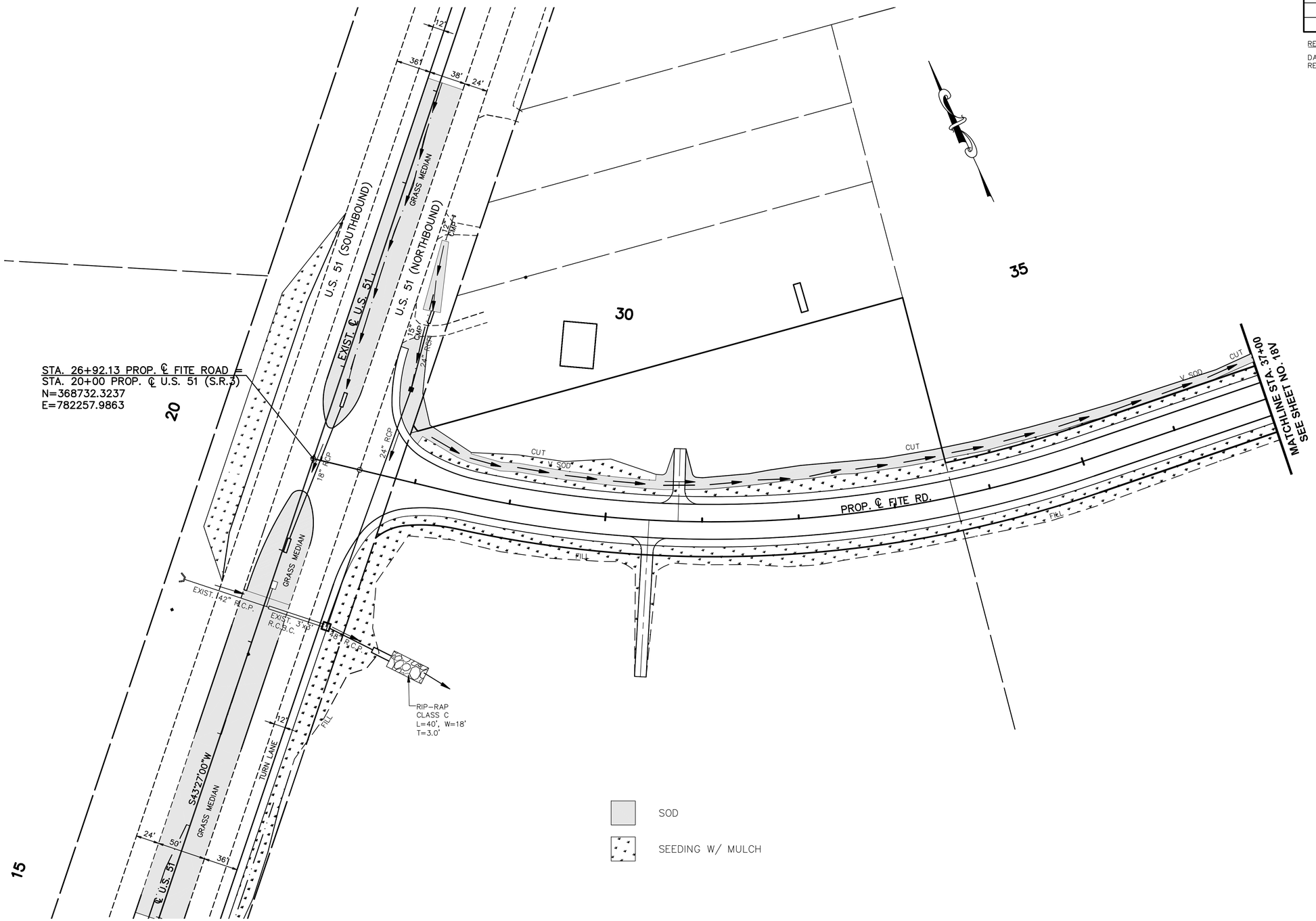
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18U
CONST.	2013	STP-M-7900(29)	18U

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
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STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

B.O.P. TO STA. 37+00

SCALE: 1" = 50'

4/12/2013
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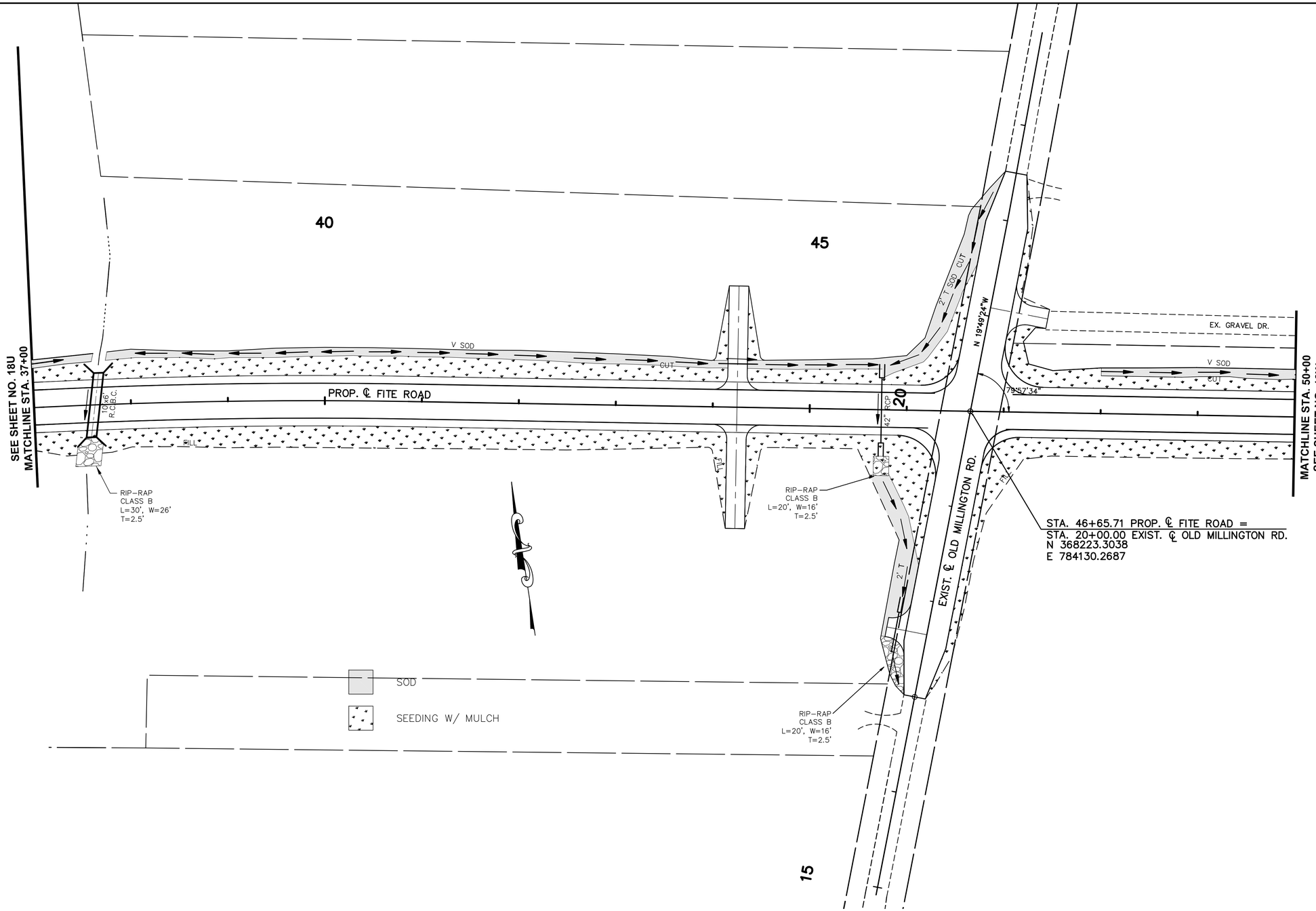
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18V
CONST.	2013	STP-M-7900(29)	18V

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
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STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

STA. 37+00 TO STA. 50+00

SCALE: 1" = 50'

4/12/2013
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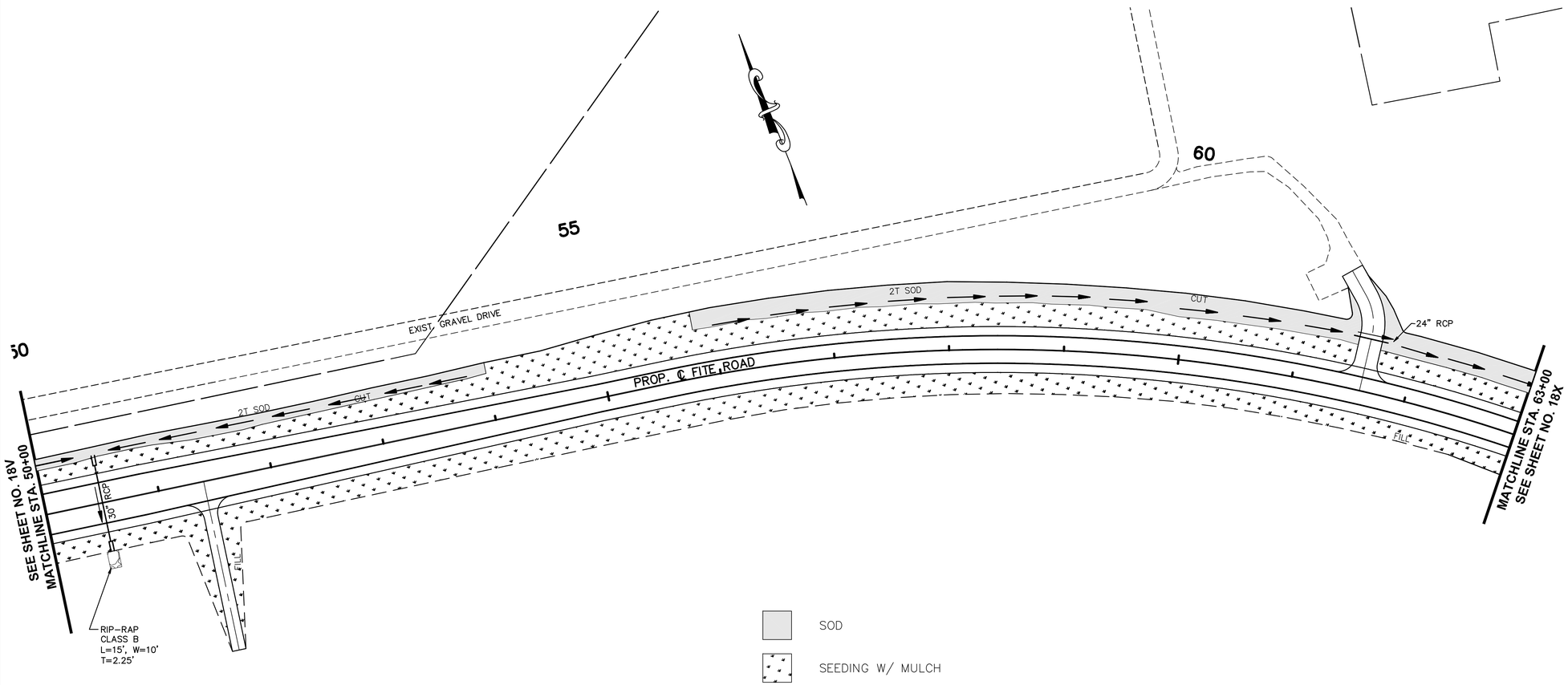
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18W
CONST.	2013	STP-M-7900(29)	18W

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

STA. 50+00 TO STA. 63+00

SCALE: 1" = 50'

4/12/2013
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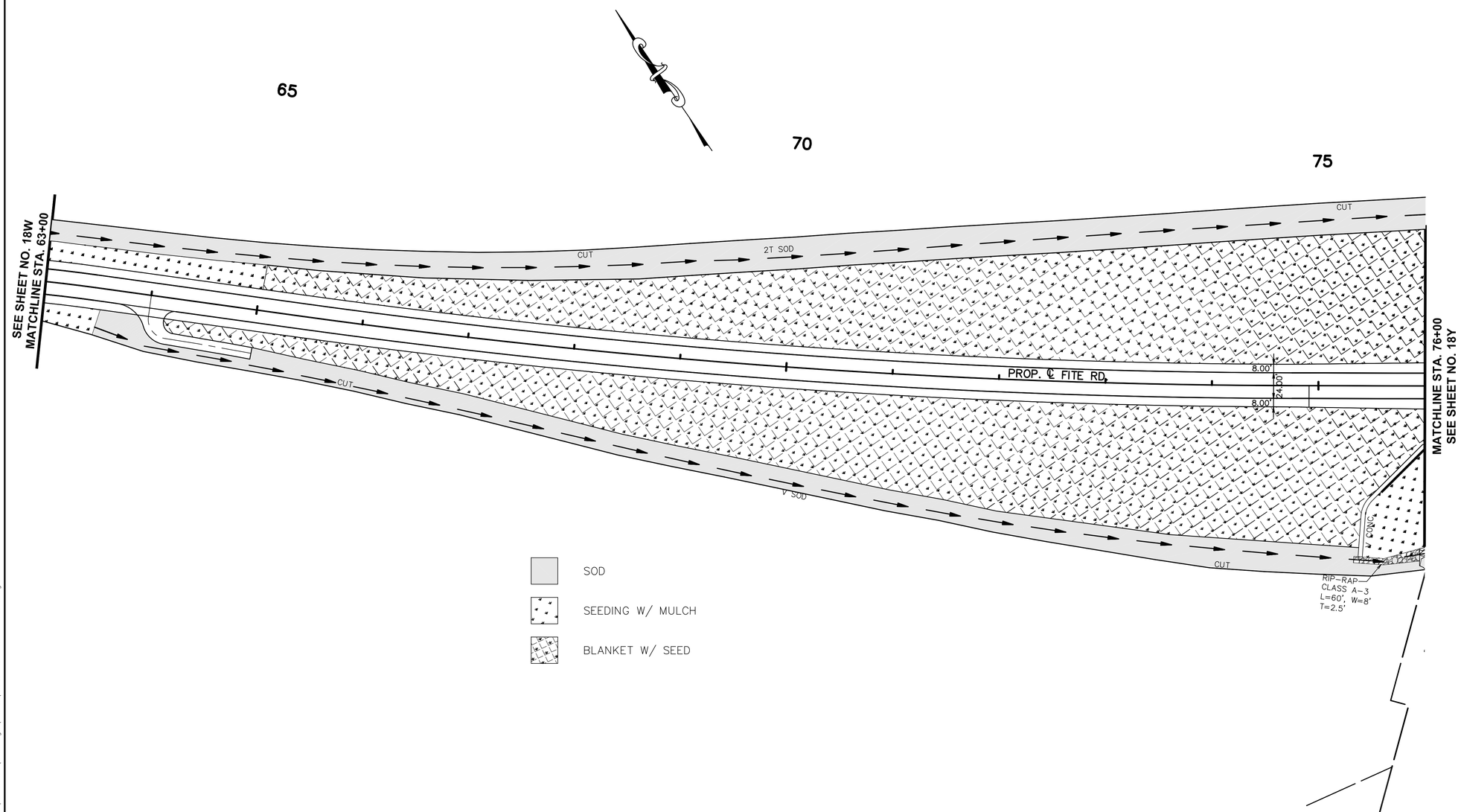
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18X
CONST.	2013	STP-M-7900(29)	18X

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

STA. 63+00 TO STA. 76+00

SCALE: 1" = 50'

4/12/2013
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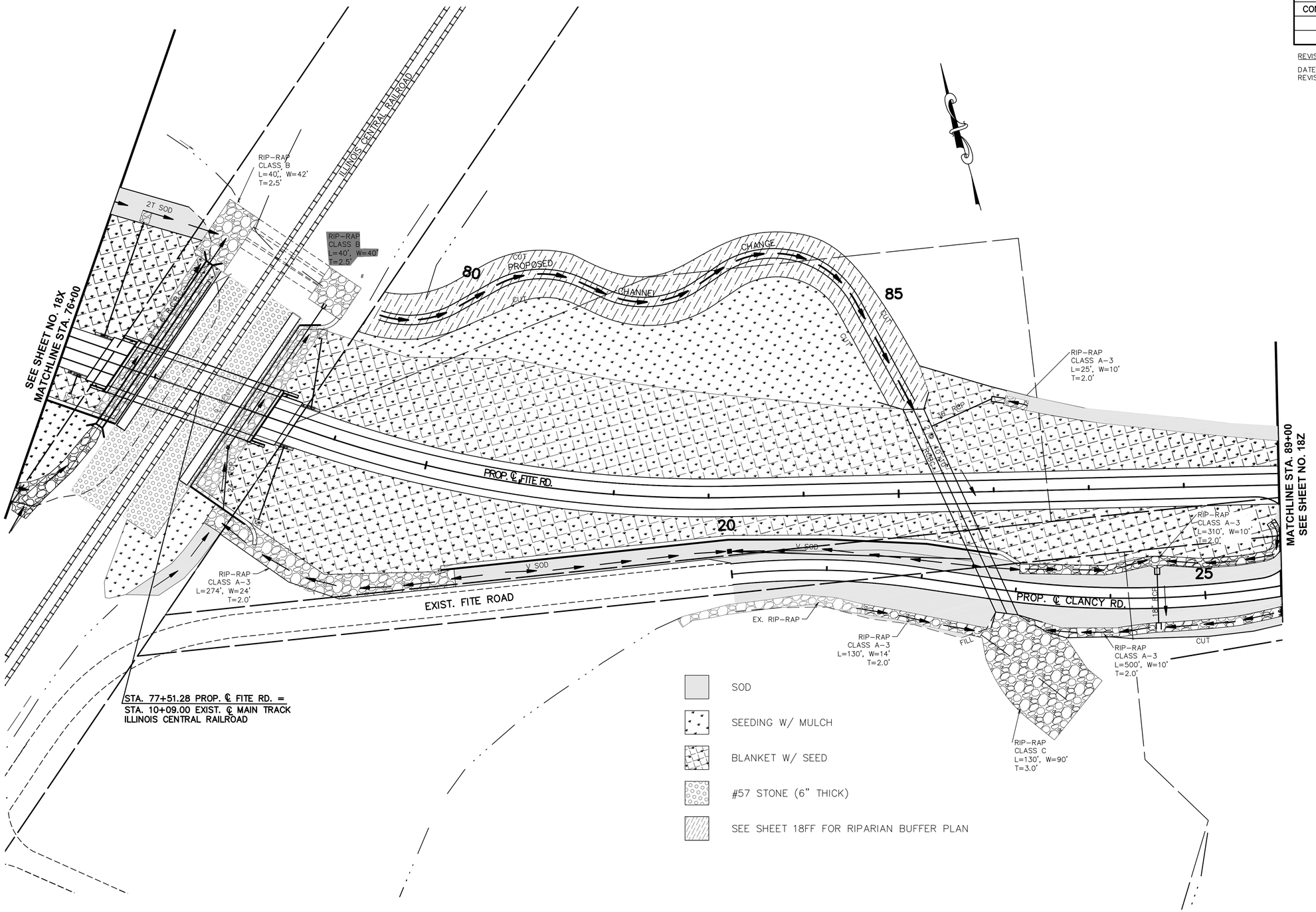
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18Y
CONST.	2013	STP-M-7900(29)	18Y

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



JOHN T. PANKEY
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STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

STA. 76+00 TO STA. 89+00

SCALE: 1" = 50'

4/12/2013
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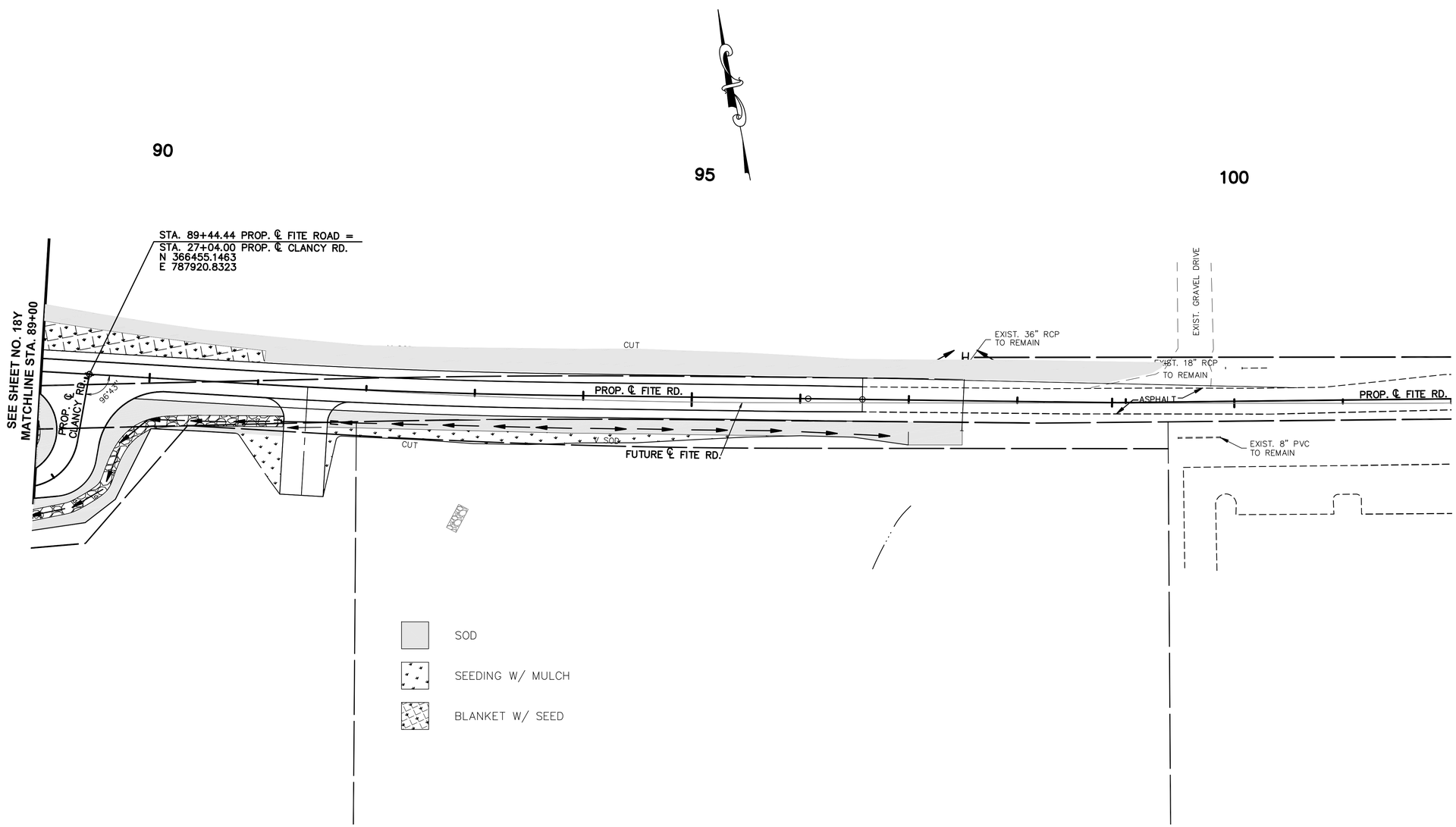
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18Z
CONST.	2013	STP-M-7900(29)	18Z

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

STA. 89+00 TO STA. 102+00

SCALE: 1" = 50'

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18AA
CONST.	2013	STP-M-7900(29)	18AA

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
AT
NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN PHASE 3

ROAD CLOSURE AT R.R.

SCALE: 1"= 50'

4/12/2013
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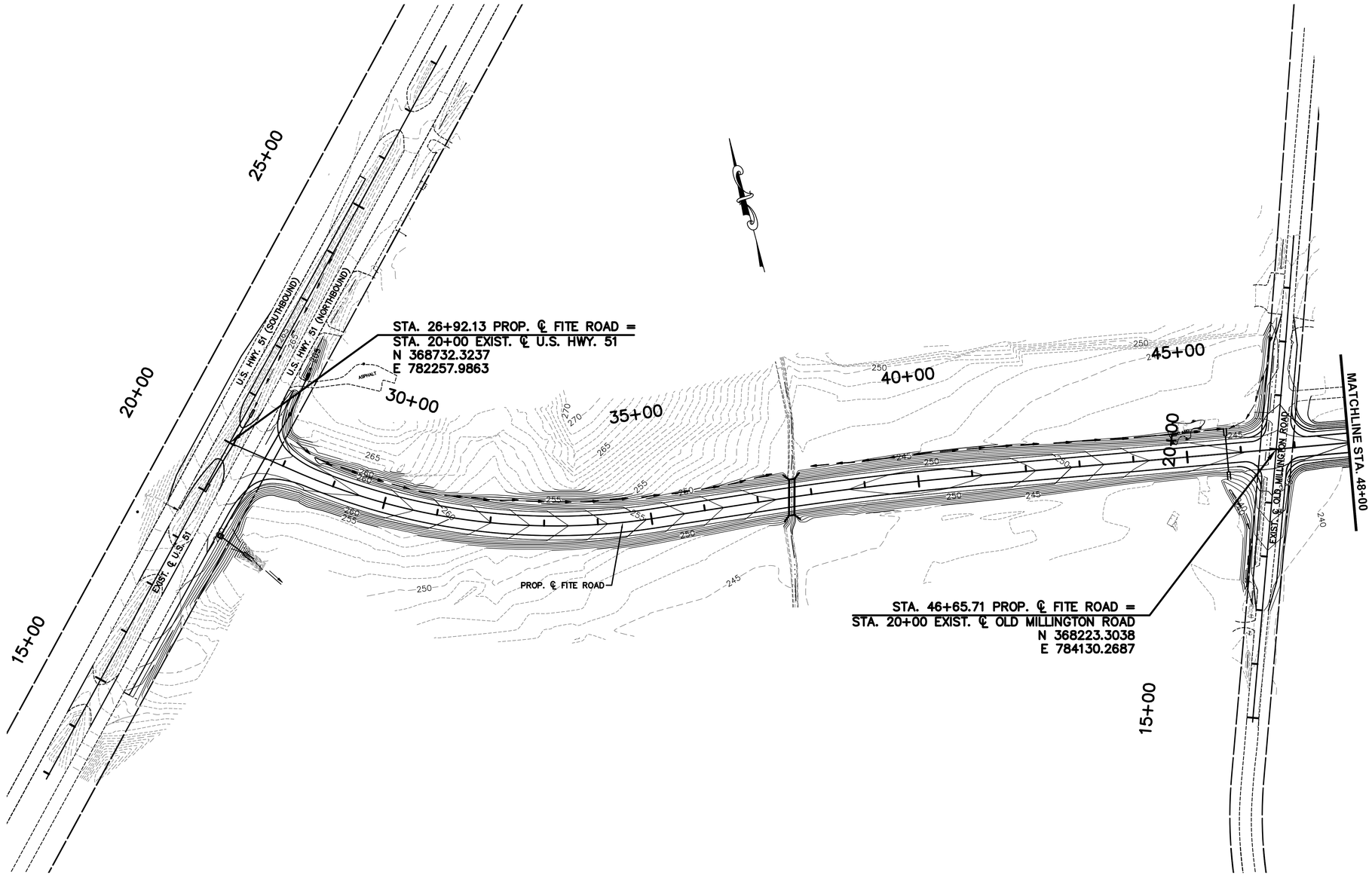
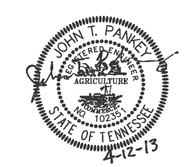
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18BB
CONST.	2013	STP-M-7900(29)	18BB





STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

B.O.P. TO STA. 48+00

SCALE: 1"= 100'

4/12/2013
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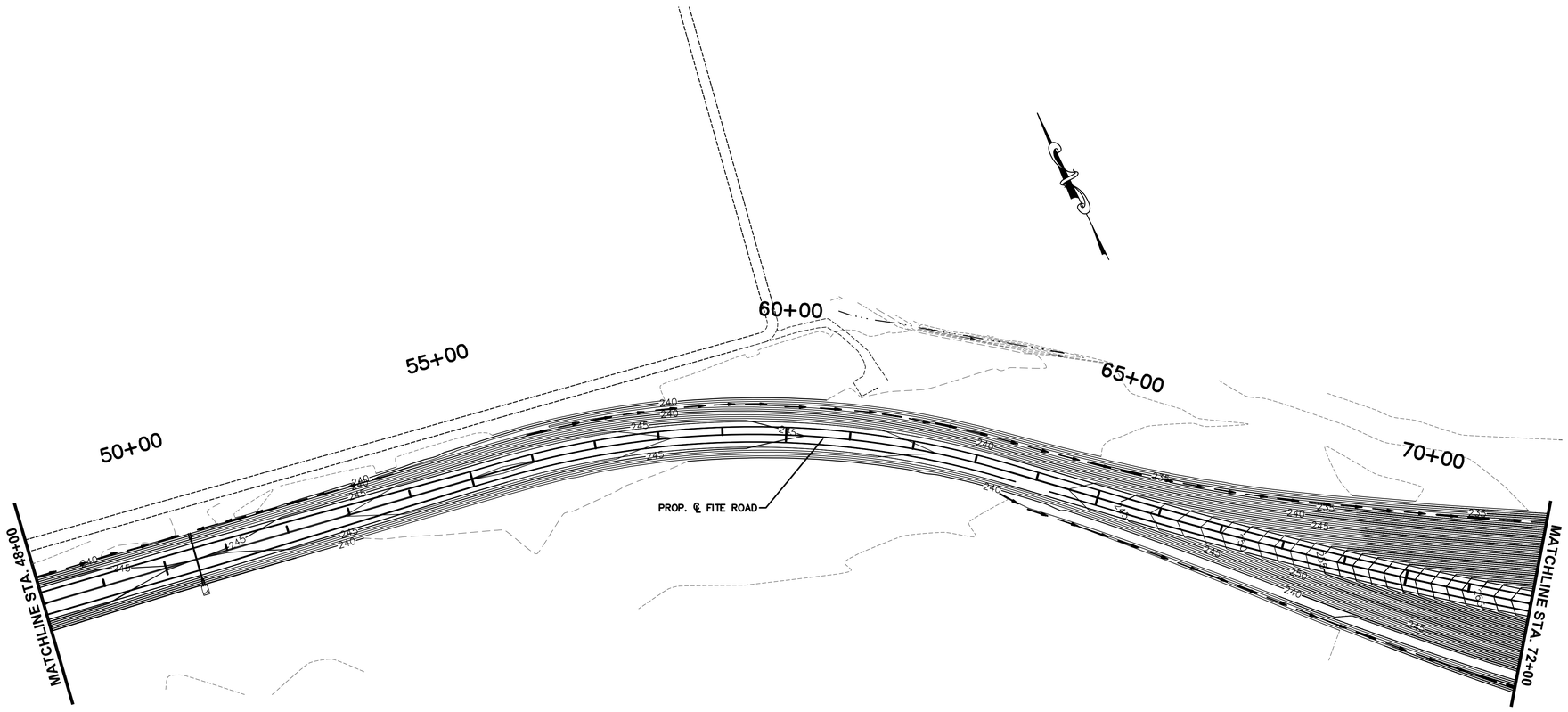
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18CC
CONST.	2013	STP-M-7900(29)	18CC



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
41
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 48+00 TO STA. 72+00

SCALE: 1"= 100'

4/12/2013
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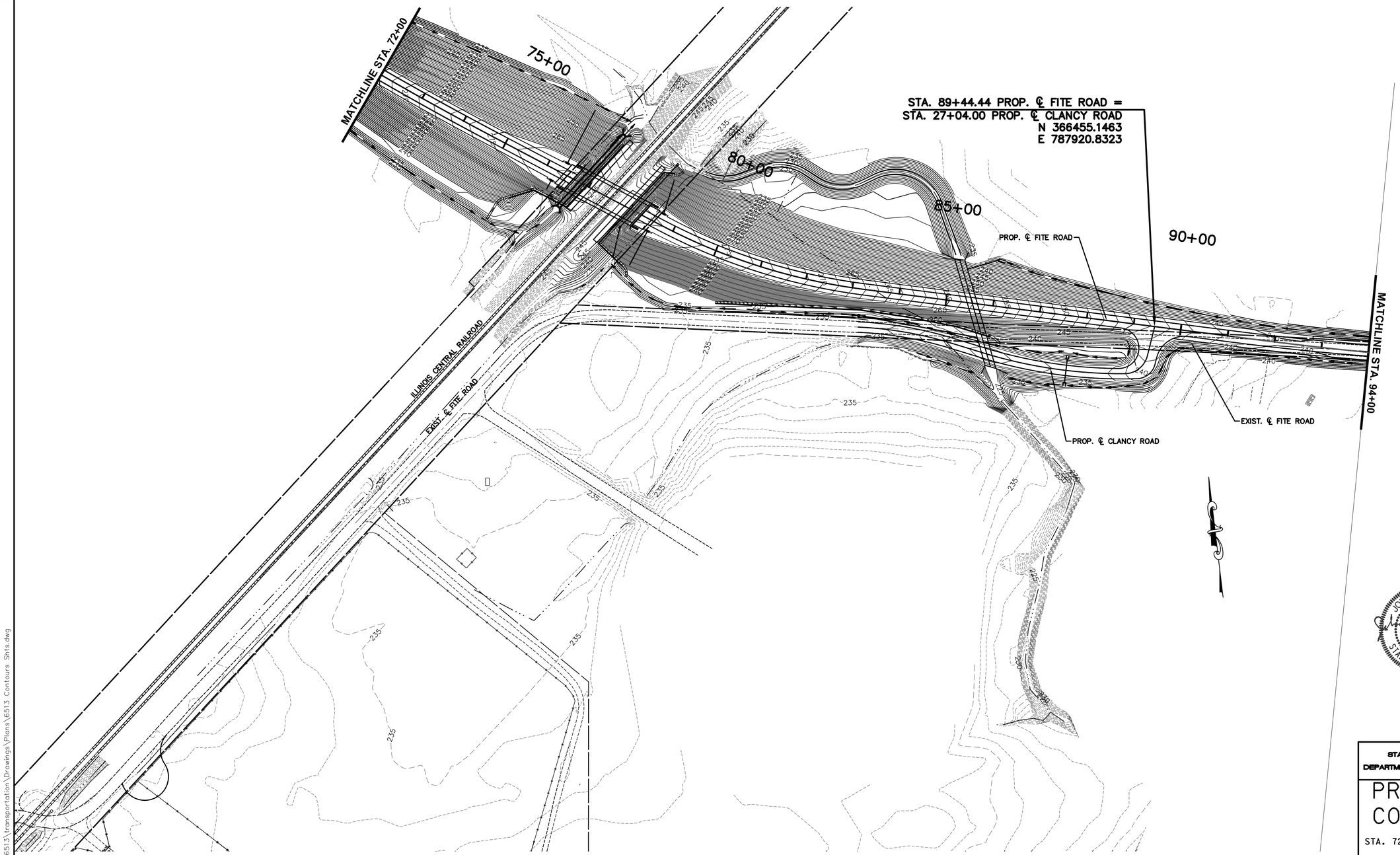
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18DD
CONST.	2013	STP-M-7900(29)	18DD



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 72+00 TO STA. 94+00

SCALE: 1"= 100'

4/12/2013
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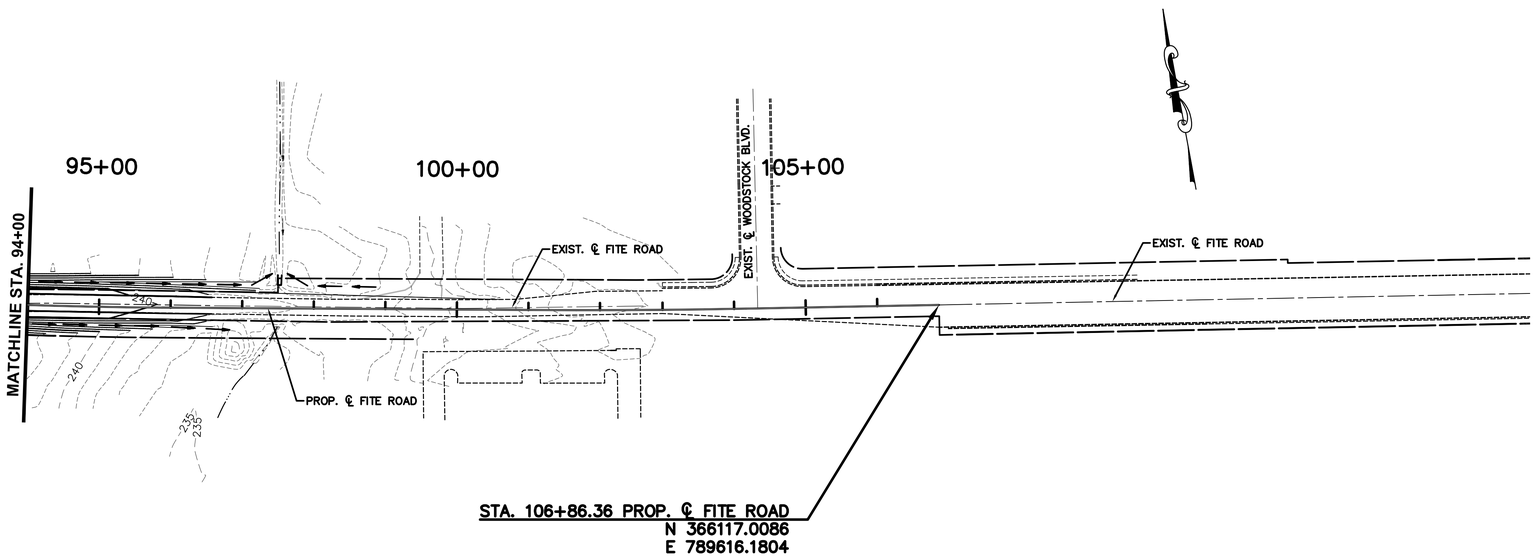
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	18EE
CONST.	2013	STP-M-7900(29)	18EE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 94+00 TO E.O.P.

SCALE: 1"= 100'

4/12/2013
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TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	18FF

GENERAL RIPARIAN PLANTING NOTES:

1. PRIOR TO ANY SOIL DISTURBING ACTIVITIES ALL NECESSARY EROSION AND SEDIMENT CONTROLS WILL BE PUT IN PLACE TO PREVENT SEDIMENT FROM DISCHARGING INTO ADJACENT WATERWAYS AND SHALL BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED.
2. DURING CONSTRUCTION, THE NEW CHANNEL SHALL NOT BE CONNECTED TO THE ACTIVE STREAM.
3. ANY EROSIONAL AREAS THAT DEVELOP ON THE BANKS SHALL BE REPAIRED AND RE-VEGETATED AS NECESSARY. SHOULD IT BE NECESSARY TO DE-WATER THE CHANNEL DURING CONSTRUCTION, THIS WATER WILL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGE, OR PUMPED INTO A TEMPORARY SEDIMENT BASIN OR PROCESSED THROUGH A FILTER BAG PRIOR TO DISCHARGE.

GENERAL RIPARIAN PLANTING NOTES:

4. THE FIRST FALL/WINTER AFTER THE HERBACEOUS PLANTING IS COMPLETED, TREES WILL BE PLANTED ALONG THE BANKS AND IN THE ADJACENT RIPARIAN AREAS.
5. ONCE SUFFICIENT VEGETATION IS ESTABLISHED TO STABILIZE THE BANKS, THE DOWNSTREAM PLUG SHALL BE REMOVED FOLLOWED BY THE UPSTREAM PLUG. THE AREAS FORMERLY OCCUPIED BY THE DOWNSTREAM AND UPSTREAM PLUGS WILL BE STABILIZED WITH SOD. PRIOR TO REMOVAL OF THE PLUGS, ANY SIGNIFICANT SEDIMENT ACCUMULATIONS IN THE NEW CHANNEL WILL BE REMOVED AND/OR STABILIZED.

SEED MIXTURE AREAS A-1, A-2, B-1, AND B-2: 64 LBS/AC **

COMMON NAME	BOTANICAL NAME	LB/AC
WHEAT	TRITICUM AESTIVUM	20
ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	20
SWITCHGRASS	PANICUM VIRGATUM	20
PARTRIDGE PEA	CHAMAECHRISTA FASTICULATA	2
ILLINOIS BUNDLE FLOWER	DESMANTHUS ILLINOIENSIS	2

** NOTES:

1. PLANTING DATES ARE MARCH 1 - JUNE 15
2. PAID FOR UNDER ITEM NO. 801-01.34
3. PROVIDE SOLID SOD ON SLOPES GREATER THAN 3:1 IN RIPARIAN AREAS

OVERALL PLANT LIST

TDOT PAY ITEM	COMMON NAME	BOTANICAL NAME	QTY.
802-12.07	RIVER BIRCH	BETULA NIGRA	89
802-12.33	SWAMP CHESTNUT OAK	QUERCUS MICHAUXII	89
802-12.35	WATER OAK	Q. NIGRA	131
802-12.36	NUTTALL OAK	Q. NUTTALLII	131
802-12.42	BALD CYPRESS	TAXODIUM DISTICHUM	89
802-12.59	CHERRYBARK OAK	QUERCUS PAGODA	131

AREA A-1 PLANT LIST

COMMON NAME	BOTANICAL NAME	QTY.
BALD CYPRESS	TAXODIUM DISTICHUM	46
RIVER BIRCH	BETULA NIGRA	46
SWAMP CHESTNUT OAK	QUERCUS MICHAUXII	46

AREA A-2 PLANT LIST

COMMON NAME	BOTANICAL NAME	QTY.
BALD CYPRESS	TAXODIUM DISTICHUM	43
RIVER BIRCH	BETULA NIGRA	43
SWAMP CHESTNUT OAK	QUERCUS MICHAUXII	43

AREA B-1 PLANT LIST

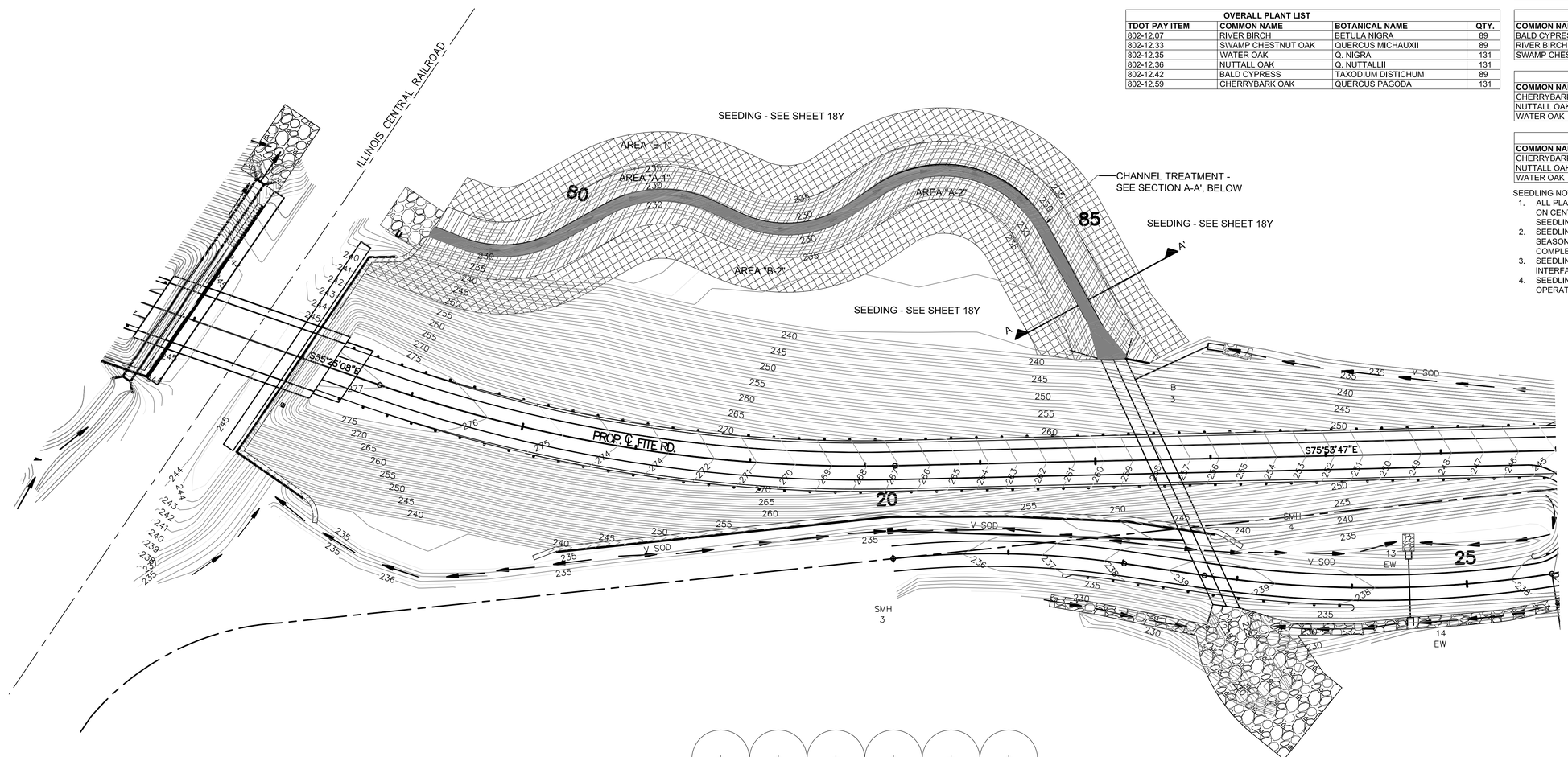
COMMON NAME	BOTANICAL NAME	QTY.
CHERRYBARK OAK	QUERCUS PAGODA	68
NUTTALL OAK	Q. NUTTALLII	68
WATER OAK	Q. NIGRA	68

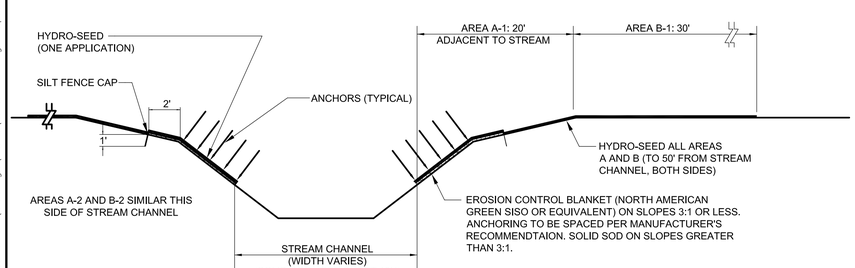
AREA B-2 PLANT LIST

COMMON NAME	BOTANICAL NAME	QTY.
CHERRYBARK OAK	QUERCUS PAGODA	63
NUTTALL OAK	Q. NUTTALLII	63
WATER OAK	Q. NIGRA	63

SEEDLING NOTES:

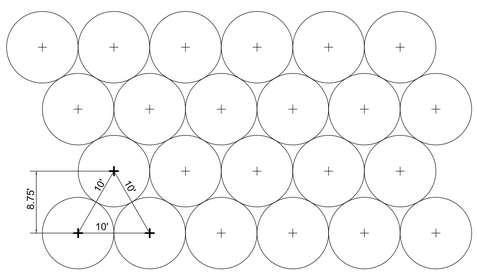
1. ALL PLANTS ARE TO BE BARE-ROOT SEEDLINGS, PLANTED 10'-0" ON CENTERS (400 PER ACRE) AS SHOWN IN DETAIL 'TYPICAL SEEDLING PLANTING PLAN (PARTIAL), BELOW.
2. SEEDLINGS SHALL BE PLANTED DURING THE FIRST PLANTING SEASON (NOVEMBER 1 THROUGH MARCH 31) AFTER CHANNEL COMPLETION.
3. SEEDLINGS SHALL BE PLANTED WITH THE ROOT-STEM INTERFACE IMMEDIATELY AT THE FINISHED LANDCAPE GRADE.
4. SEEDLINGS MUST BE KEPT MOIST THROUGHOUT THE PLANTING OPERATIONS.





CHANNEL SECTION A-A'

NOT TO SCALE



NOTE: BARE-ROOT SEEDLINGS TO BE RANDOMLY PLANTED IN ALTERNATING ROWS, 10 FEET ON CENTERS. SEE PLANT LISTS FOR SEEDLING SELECTION FOR EACH AREA.

TYPICAL SEEDLING PLANTING PLAN (PARTIAL)

NOT TO SCALE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIPARIAN BUFFER PLAN

FITE ROAD
STA. 76+00 TO STA. 89+00
SCALE: 1" = 50'

NOTES:
SEE SHEET NO. 18Y FOR EROSION AND SEDIMENT CONTROL PLAN.
SEE SHEETS 18-18C FOR EROSION CONTROL NOTES.

4/12/2013
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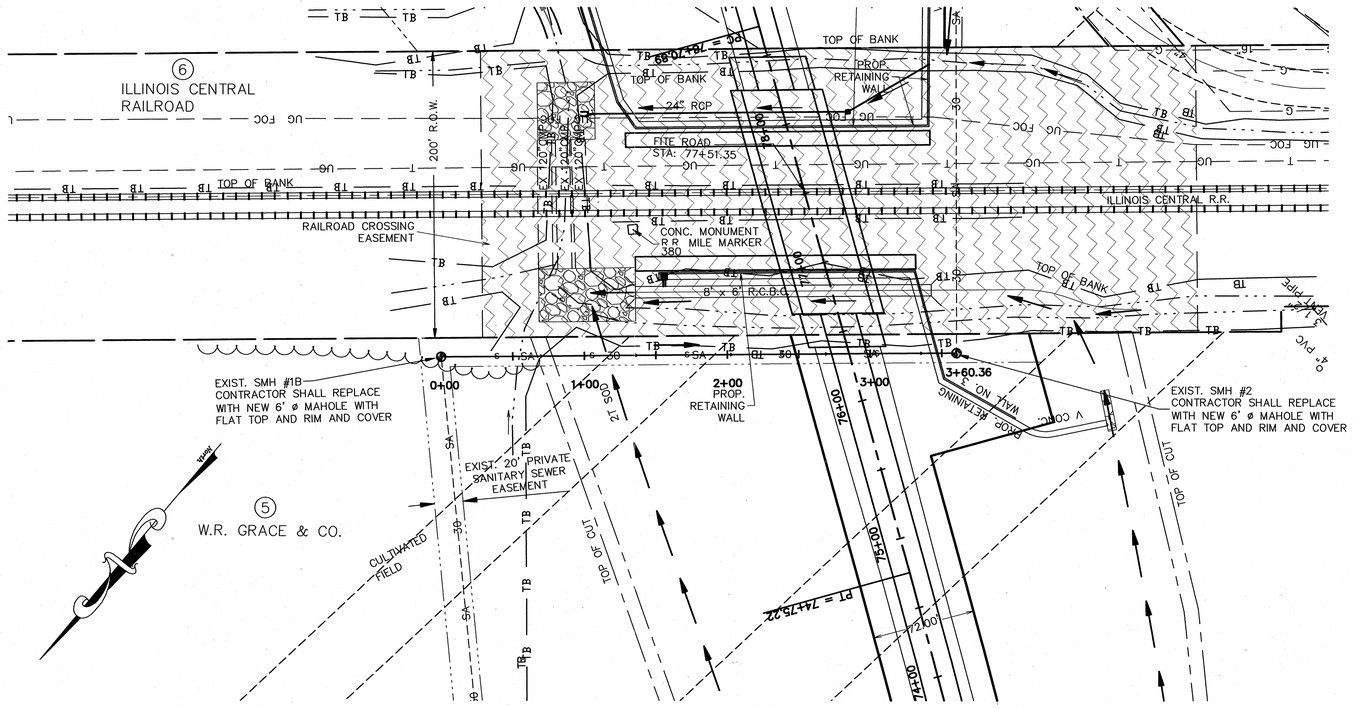
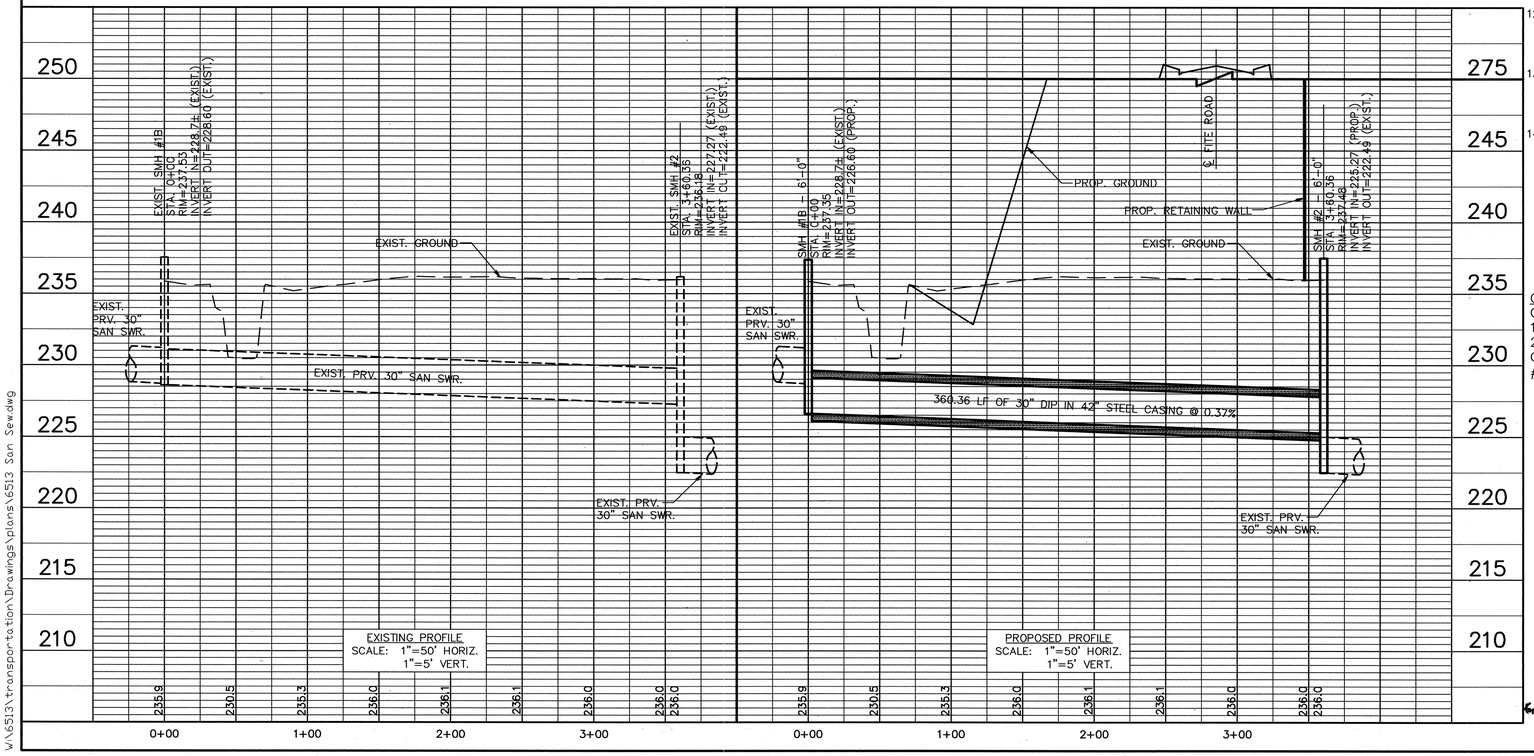
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.





EXISTING PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

PROPOSED PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

CONSTRUCTION NOTES:

1. LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND ARE NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN CONSTRUCTION PERIMETERS. FOR SITE LOCATION OF EXISTING UTILITIES INVOLVING M.L.G. &W., SOUTH CENTRAL BELL, AND/OR TEXAS GAS COMPANY, PLEASE CALL 1–800–351–1111. FOR SEWER SERVICE LOCATIONS, CALL 529–8025.
2. CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
4. CONTRACTOR SHALL NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE AT 636–2462 A MINIMUM OF 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION.
5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED AS REQUIRED TO PREVENT EROSION.
6. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
7. ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST–16.
8. ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED A MINIMUM OF 1.5" ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' FINAL GRADE.
9. ALL SANITARY SEWER, INCLUDING SERVICE CONNECTIONS, WHICH HAS LESS THAN 1.5' CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10' BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
10. PIPE SHALL CONSIST OF 30 INCH DIAMETER DUCTILE IRON PIPE SLIP–ON–JOINT, CLASS 50 IN A 42 INCH WELDED STEEL CASING PIPE, 0.625 INCHES THICK INSTALLED BY OPEN CUT. VOIDS BETWEEN CARRIER AND CASING TO BE GROUTED A MINIMUM OF 2'–0" FROM EACH END OF CASING. CHOCKS OR SKIDS SHOULD BE PLACED ON THE CARRIER PIPE TO ENSURE APPROPRIATE CENTERING WITHIN THE CASING PIPE AND TO PREVENT DAMAGE DURING INSTALLATION.
11. CASING PIPES SHALL BE INSTALLED USING EQUIPMENT THAT ENCASES THE HOLE AS THE EARTH IS REMOVED. BORING WITHOUT THE CONCURRENT INSTALLATION OF A CASING PIPE WILL NOT BE PERMITTED. ALL JOINTS IN CASE PIPE SHALL BE WELDED. CASING PIPE SHALL EXTEND THROUGHOUT THE ENTIRE FILL AND BE INSTALLED IN A MANNER THAT WILL NOT DISRUPT TRAFFIC NOR DAMAGE ROADWAY OR RAILWAY GRADE AND SURFACE. THE INTRODUCTION OF WATER INTO THE EXCAVATION IS PROHIBITED. CASING PIPE SHALL BE WELDED STEEL PIPE, NEW MATERIAL, WITH A MINIMUM YIELD STRENGTH OF 35,000 p.s.i.
12. THE CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
13. NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
14. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.

CITY OF MEMPHIS BENCHMARK #1075
CITY MONUMENT IS LOCATED ON S. SIDE OF FITE RD., 1.4 MILE W. OF RAL–MILL RD., 9.0' S. OF EDGE OF PMT., 246' E. OF GRAVEL D/WAY TO CONC. PLANT, 70.5' SW OF WOOD P/POLE # 157375, 124' SE OF WOOD P/POLE . # 87238, 30' E. OF A SMH

APPROVED FOR CONSTRUCTION

THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE CITY OF MEMPHIS DIVISION OF ENGINEERING UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER POLLUTION CONTROL. IT IS HEREBY APPROVED FOR CONSTRUCTION BY THE CITY ENGINEER AS EVIDENCED BY HIS SIGNATURE BELOW.

APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW.
THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIGNED GOALS.

CITY ENGINEER — DATE 3/21/12

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	19
CONST.	2012	STP–M–7900(29)	19

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

COORDINATE TABLE		
STRUCTURE NO.	NORTHING	EASTING
EX. SMH #1B	367111.8060	786930.8690
SMH #2	366878.3170	786656.3880

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
3/12/12

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SANITARY SEWER PLAN AND PROFILE

FITE ROAD

LOCATION:
4941 FEET EAST OF HWY 51

SCALE: 1"=50' HORIZ.
1"=5' VERT.

3/02/2012
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

   a. WARNING SIGNS, UNEVEN PAVEMENT (W8-11) AND/OR SHOULDER DROP-OFF (W8-9A), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

   a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

   b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

   c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.

   d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

   FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN (W8-9A). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

   SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

   IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING ONE MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

   WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

   THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

   SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

   1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

   2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20A

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	WORK ZONE
	TEMPORARY PAVEMENT WIDENING
	REMOVE EX. ASPHALT
	REMOVE & SCARIFY EX. ASPHALT
	SIGN (CONSTRUCTION)
	VERTICAL PANELS (1 FACE)
	PORTABLE BARRIER RAIL
	PORTABLE BARRIER RAIL (WITH SINGLE VERTICAL PANELS)
	TEMPORARY BARRICADE (TYPE III)
	FLEXIBLE DRUMS (CHANNELIZING)
A	WARNING LIGHT (TYPE A) (LOW-INTENSITY FLASHING)
C	WARNING LIGHT (TYPE C) (STEADY)
	TEMPORARY ATTENUATOR
	ARROW BOARD TYPE C
	REMOVE PAVEMENT STRIPING

THE FOLLOWING DESCRIBES THE VARIOUS PHASES AND SEQUENCE OF CONSTRUCTION FOR FITE ROAD:

PHASE 1:
ERECT ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNS AND COMMENCE CONSTRUCTION OF THE MAINLINE OF FITE ROAD PRIMARILY WEST OF THE PROPOSED BRIDGE WHERE SHOWN ON THE DRAWINGS AND THE CONSTRUCTION OF DETOUR ROAD 1. PHASE 1 CAN INCLUDE A PORTION OF THE BRIDGE AND THE RETAINING WALLS 1 AND 2. PHASE 1 CAN ALSO INCLUDE SOME OF THE EMBANKMENT ON THE EAST SIDE OF THE BRIDGE.

PHASE 1A:
CLOSE THE OUTSIDE LANES OF U.S. 51 AND COMPLETE CONSTRUCTION REQUIRED TO THE OUTSIDE LANES OF THE NORTH AND SOUTH BOUND LANES OF THE HIGHWAY.

PHASE 2:
TRAFFIC IS TO BE SHIFTED TO DETOUR ROAD 1 AND CONSTRUCTION IS TO TAKE PLACE ALONG U.S. HIGHWAY 51 AND OLD MILLINGTON ROAD. DETOUR ROAD 2 IS TO BE CONSTRUCTED IN PHASE 2 ALONG WITH WIDENING ALONG THE SOUTH SIDE OF FITE ROAD NEAR THE EAST END OF THE PROJECT. BRIDGE CONSTRUCTION CAN CONTINUE AS NEEDED IN THIS PHASE.

PHASE 2A:
CLOSE THE INSIDE LANES OF U.S. HIGHWAY 51 AND COMPLETE ALL CONSTRUCTION ADJACENT TO THE INSIDE LANES ALONG THE HIGHWAY. CONSTRUCT WEST SIDE OF OLD MILLINGTON ROAD.

PHASE 3:
TRAFFIC IS TO BE SHIFTED TO DETOUR ROAD 2 AND CONSTRUCTION OF FITE ROAD EAST OF THE BRIDGE SHALL TAKE PLACE. PHASE 3 WILL ALSO INCLUDE RETAINING WALL 3. THE THE BRIDGE MUST BE COMPLETED BY THE END OF THIS PHASE.

PHASE 4:
TRAFFIC TO BE SHIFTED TO NEW FITE ROAD. CLANCY ROAD TO BE CONSTRUCTED ALONG WITH THE EASTERN MOST SECTION OF PROPOSED FITE ROAD ALONG THE SOUTH SIDE. THE TURNAROUND ALONG OLD FITE ROAD IS TO BE CONSTRUCTED NEAR THE RR.

PHASE 4A:
TRAFFIC CONTINUES ALONG NEW FITE ROAD. CLANCY ROAD IS OPENED TO TRAFFIC. OLD FITE ROAD IS CLOSED AT THE RR TRACKS AND REMOVED.

TRAFFIC CONTROL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY PHASE 1	PHASE 2	PHASE 3	PHASE 4	REQUIRED	M.U.T.C.D. SIZE	NO.	REMARKS	QUANTITY (#) PHASE 1	PHASE 2	PHASE 3	PHASE 4	REQUIRED
	606-24.12	TEMPORARY SHEET PILES	S.F.	0	3750	0	0	3750	48X24	G20-2A	END ROAD WORK	9	9	3	2	9
	606-24.10	SHEET PILES	S.F.	0	1800	0	0	1800	48X18	M4-10L	DETOUR (ARROW LEFT)				1	1
									24X12	M4-8	DETOUR				1	1
(1)	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350	L.F.	2	3	2	1	8	24X18	M4-8A	END DETOUR				2	2
									30X24	M4-9	DETOUR (UP)				1	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	510	865	400	900	1360	30X24	M4-9L	DETOUR (LEFT)				2	2
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	140	160	60	40	400	30X24	M4-9R	DETOUR (RIGHT)				1	1
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	40	60	24	10	134	48X30	R11-2	ROAD CLOSED	5	5	2	4	7
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	132	212	16	80	220	60X30	R11-4	ROAD CLOSE TO THRU TRAFFIC				3	3
	712-08.03	ARROW BOARD (TYPE C)	EACH	2	2	0	0	2	36X48	R2-1	SPEED LIMIT	8	11	3		11
									24X24	R3-1R	MOVEMENT PROHIBITION				1	1
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	0	1.31	1.65	0	10238	24X24	W13-1P	ADVISORY SPEED (PLAQUE)	2	2		2	4
	716-05.02	PAINTED PAVEMENT MARKINGS (8" LINE)	L.F.	2944	3376	0	0	6320	48X48	W1-4L	REVERSE CURVE (LEFT)		1			1
	716-06.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	571	6238	1430	0	8239	48X48	W1-4R	REVERSE CURVE (RIGHT)		1			1
	716-08.02	REMOVAL OF PAVEMENT MARKING (8" BARRIER LINE)	L.F.	0	2944	2944	0	5888	48X30	W1-6L	ARROW WARNING (LEFT)			1		1
									48X30	W1-6R	ARROW WARNING (RIGHT)			1		1
									48X48	W20-1	ROAD WORK (1 MILE)	4	4			4
									48X48	W20-1	ROAD WORK (1/2 MILE)	4				4
									48X48	W20-1	ROAD WORK (1500 FEET)	6	2	2	2	6
									48X48	W20-1	ROAD WORK (1000 FEET)	4	4	2	2	4
									48X48	W20-1	ROAD WORK (500 FEET)	4			2	4
									48X48	W20-1	ROAD WORK (AHEAD)	1	1	1	2	2
									48X48	W20-2	DETOUR (AHEAD)				2	2
									48X48	W20-3	ROAD CLOSED (AHEAD)				2	2
									48X48	W20-5L	LEFT LANE CLOSED (1/2 MILE)		4			4
									48X48	W20-5L	LEFT LANE CLOSED (1500 FT)		4			4
									48X48	W20-5R	RIGHT LANE CLOSED (1/2 MILE)	4				4
									48X48	W20-5R	RIGHT LANE CLOSED (1500 FT)	4				4
									48X48	W24-1L	DOUBLE REVERSE CURVE (LEFT)		1	1		1
									48X48	W24-1R	DOUBLE REVERSE CURVE (RIGHT)		1	1		1
									48X48	W3-5	REDUCED SPEED LIMIT AHEAD	4	6	2		6
									48X48	W4-2L	LANE ENDS (LEFT)		4			4
									48X48	W4-2R	LANE ENDS (RIGHT)	4				4
									48X48	W8-6	TRUCK CROSSING	4				4

(1) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQURIEMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPANENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL NOTES

4/12/2013
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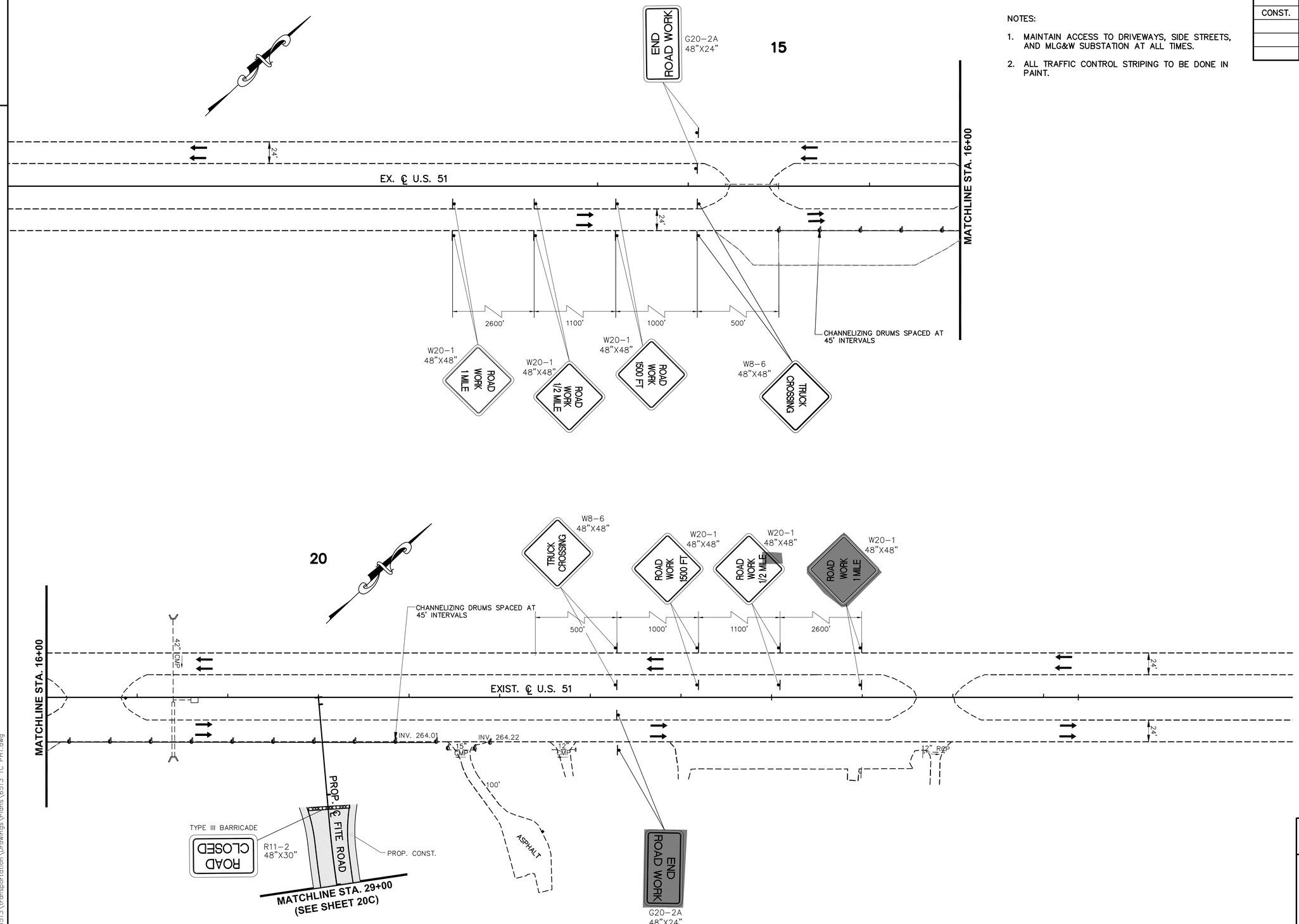
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20B

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

U.S. 51 @ FITE RD.

SCALE: 1"= 50'

U.S. 51 POSTED SPEED LIMIT = 45 MPH

4/12/2013
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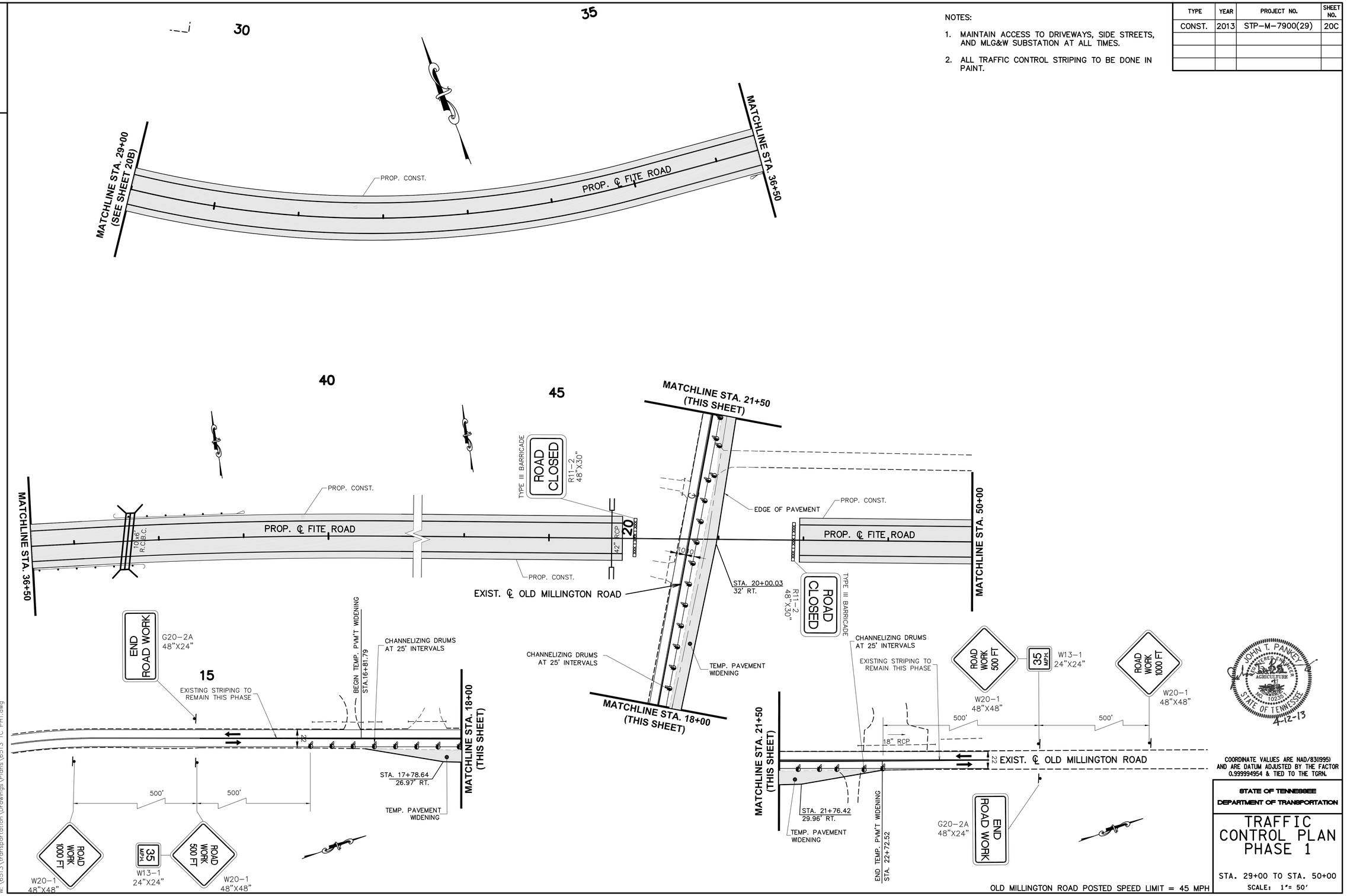
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20C

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

OLD MILLINGTON ROAD POSTED SPEED LIMIT = 45 MPH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 29+00 TO STA. 50+00

SCALE: 1"= 50'

4/12/2013
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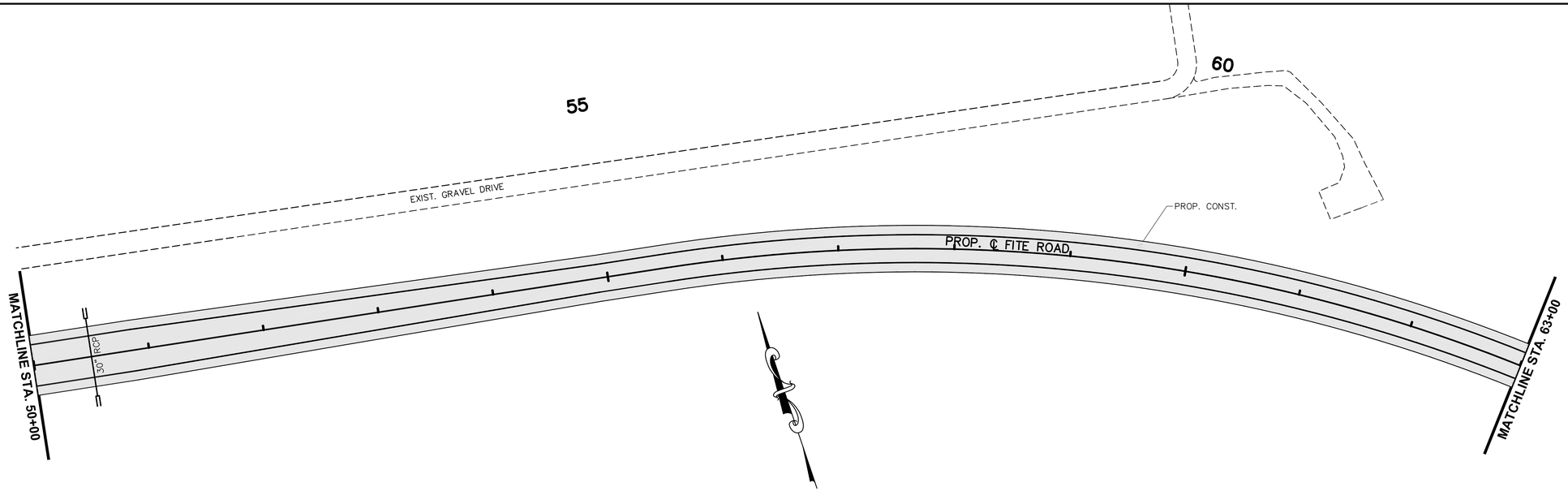
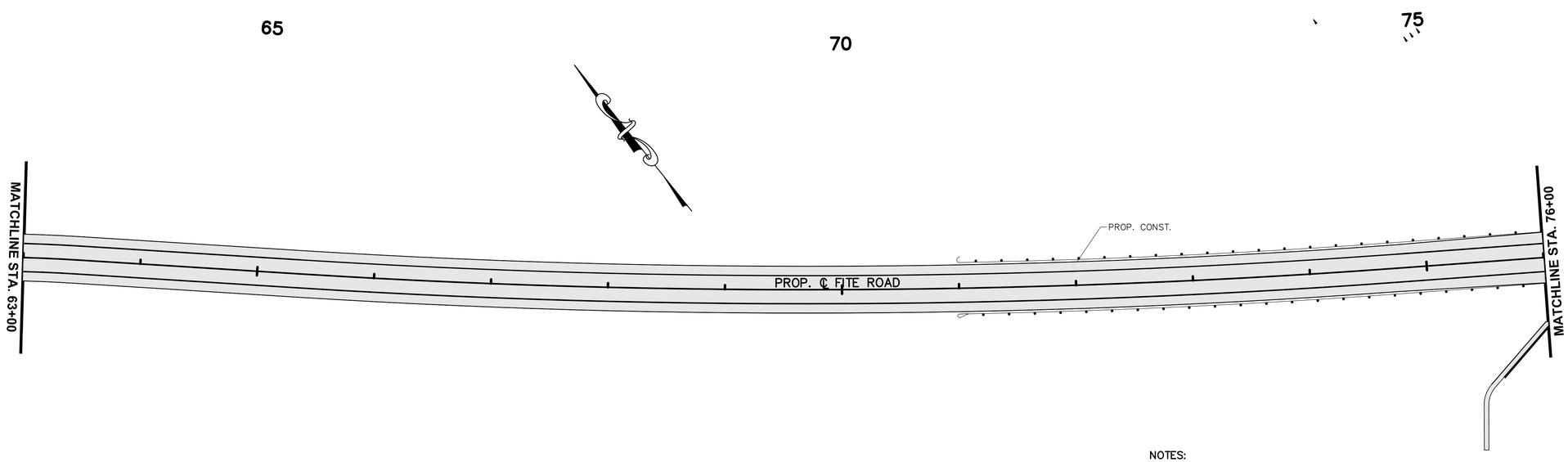
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20D





NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102350
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 50+00 TO STA. 76+00
SCALE: 1"= 50'

4/12/2013
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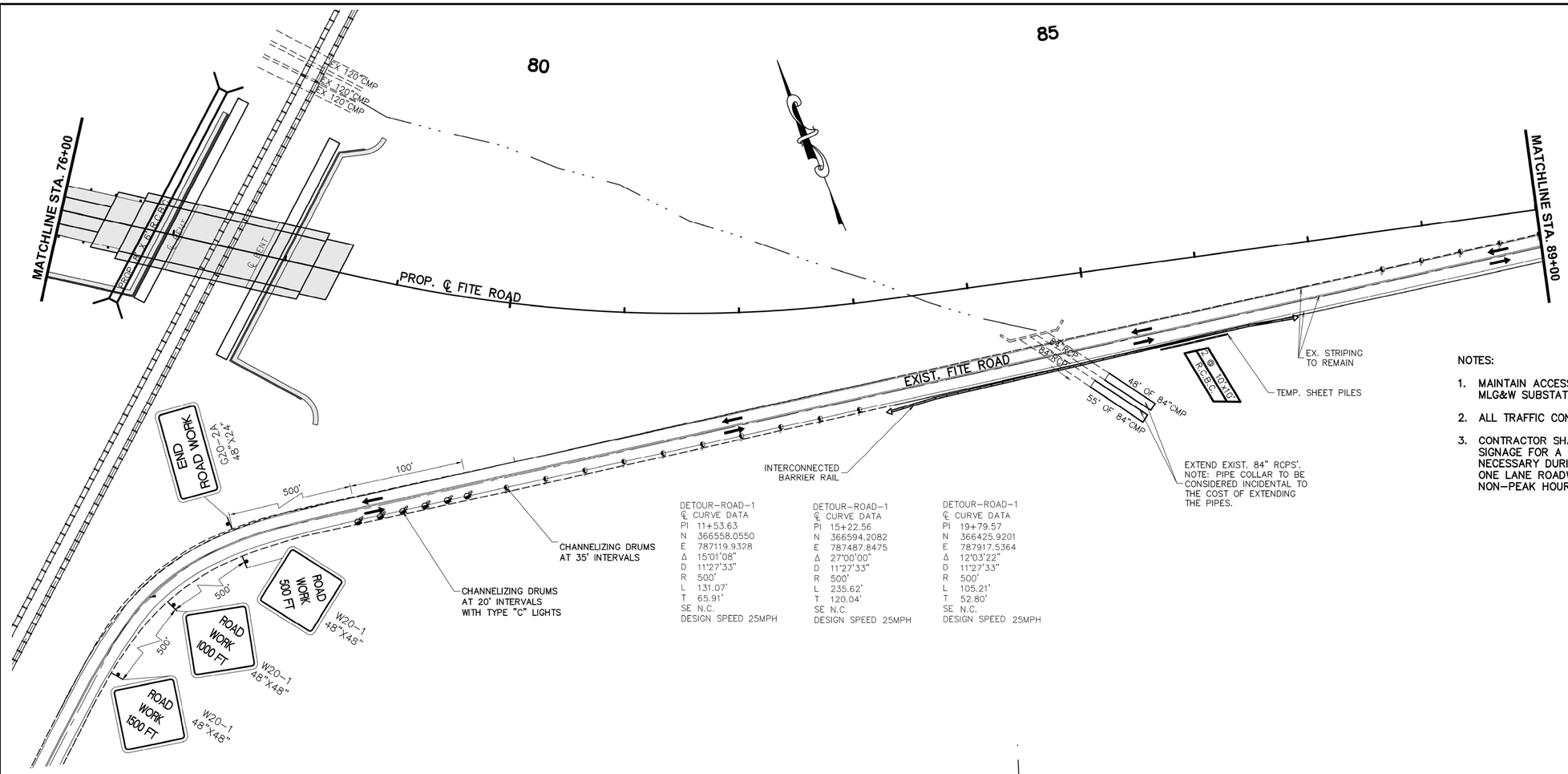
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20E

REVISION(S)

DATE: 07/24/2013
ELIMINATED DETOUR ROAD 1.



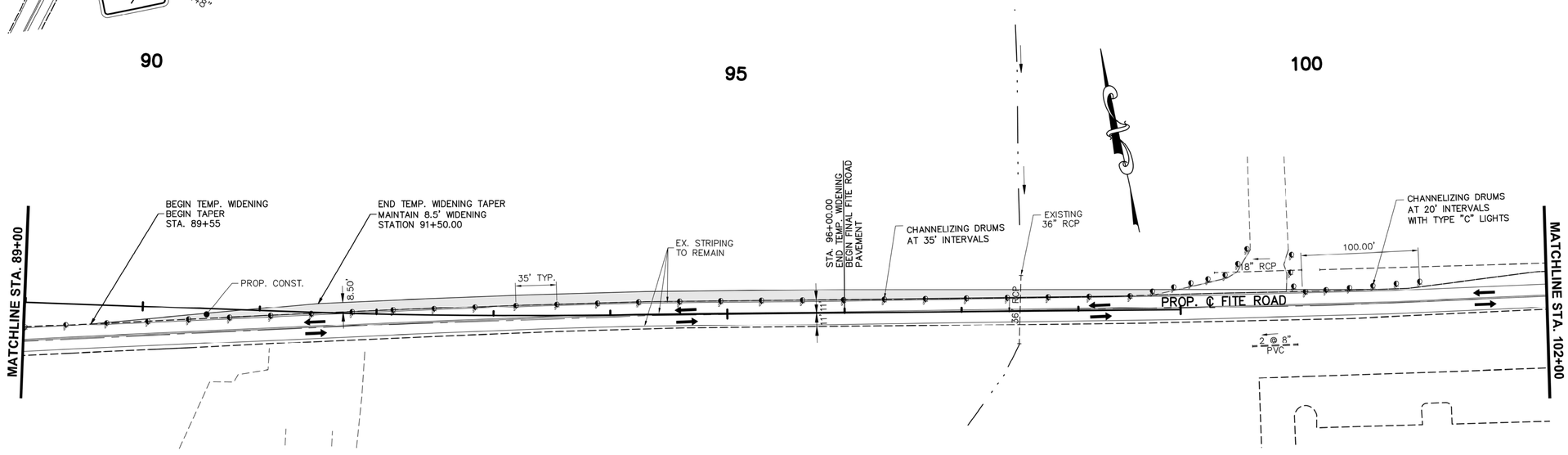
DETOUR-ROAD-1
℄ CURVE DATA
PI 11+53.63
N 366558.0550
E 787119.9328
Δ 15°01'08"
D 11°27'33"
R 500'
L 131.07'
T 65.91'
SE N.C.
DESIGN SPEED 25MPH

DETOUR-ROAD-1
℄ CURVE DATA
PI 15+22.56
N 366594.2082
E 787487.8475
Δ 27°00'00"
D 11°27'33"
R 500'
L 235.62'
T 120.04'
SE N.C.
DESIGN SPEED 25MPH

DETOUR-ROAD-1
℄ CURVE DATA
PI 19+79.57
N 366425.9201
E 787917.5364
Δ 12°03'22"
D 11°27'33"
R 500'
L 105.21'
T 52.80'
SE N.C.
DESIGN SPEED 25MPH

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.
3. CONTRACTOR SHALL UTILIZE FLAGMEN AND PROPER SIGNAGE FOR A TEMPORARY ONE LANE ROADWAY, IF NECESSARY DURING CONSTRUCTION OF TEMP. WIDENING. ONE LANE ROADWAY WILL ONLY BE UTILIZED DURING NON-PEAK HOURS OF TRAFFIC.



JOHN T. PANKEY III
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
7/24/13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 76+00 TO STA. 102+00
SCALE: 1"= 50'

7/24/2013
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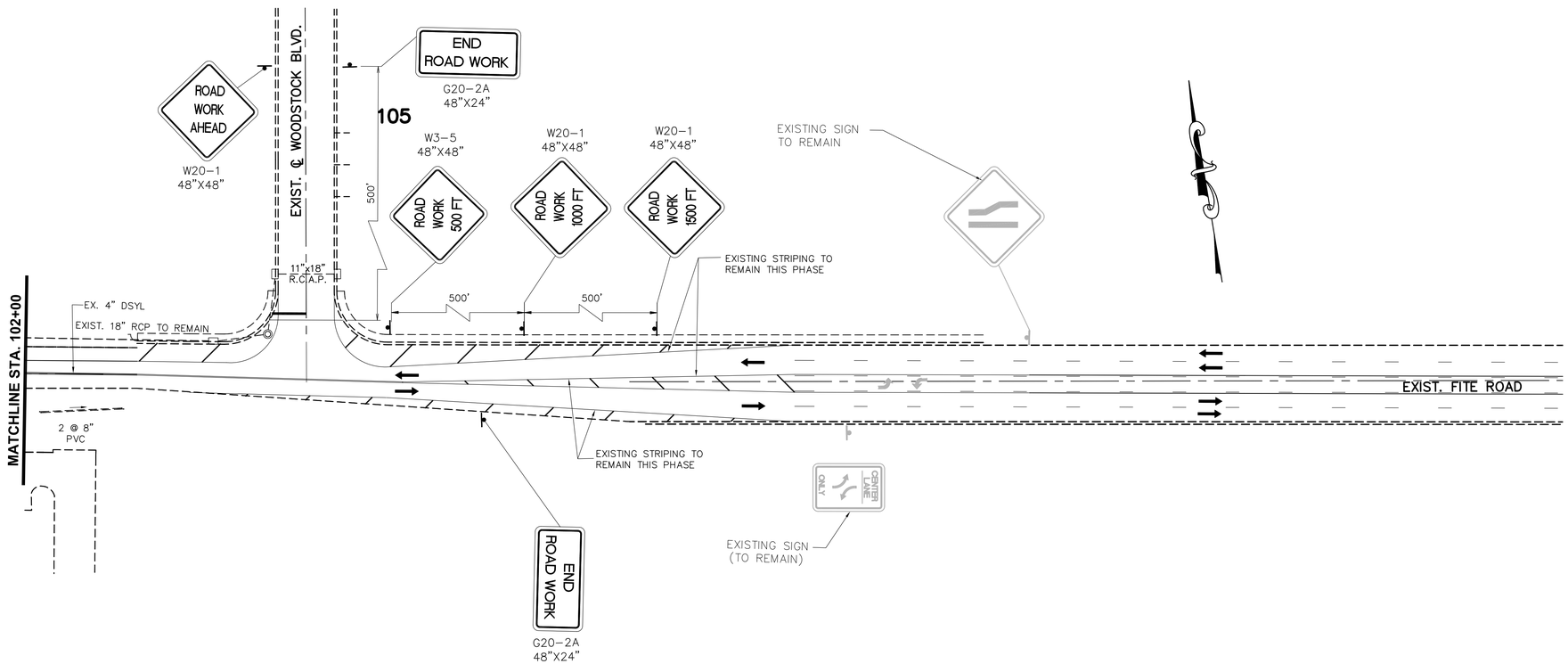
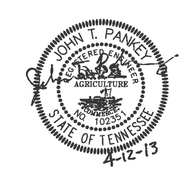
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20F

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.





COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 102+00 TO E.O.P.
SCALE: 1"= 50'

4/12/2013
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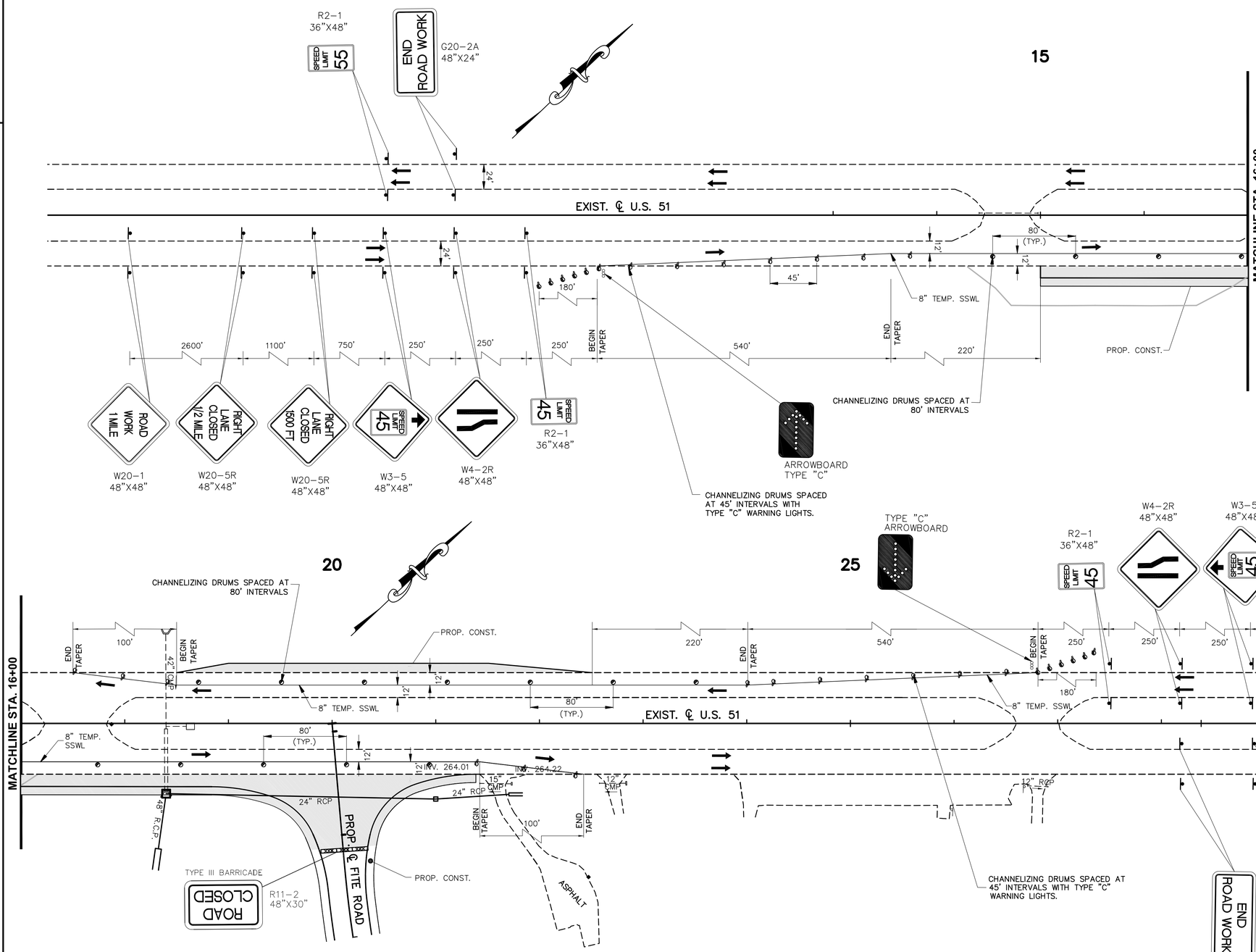
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20G



NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.
3. CONTRACTOR SHALL ONLY CLOSE LANES WHEN CONSTRUCTION ACTIVITIES ARE ADJACENT TO U.S. 51. CONTRACTOR SHALL COMPLETE ALL WORK ADJACENT TO U.S. 51 IN AN EXPEDITED MANOR AND THEN REOPEN TO TRAFFIC IN ORDER TO MINIMIZE THE DURATION OF THE LANE CLOSURE.
4. SEE STD. DWG. T-WZ-11 FOR LANE CLOSURE. SEE PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES.

JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102355
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

U.S. 51 POSTED SPEED LIMIT = 45 MPH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1A

U.S. 51 @ FITE RD.

SCALE: 1"= 50'

4/12/2013
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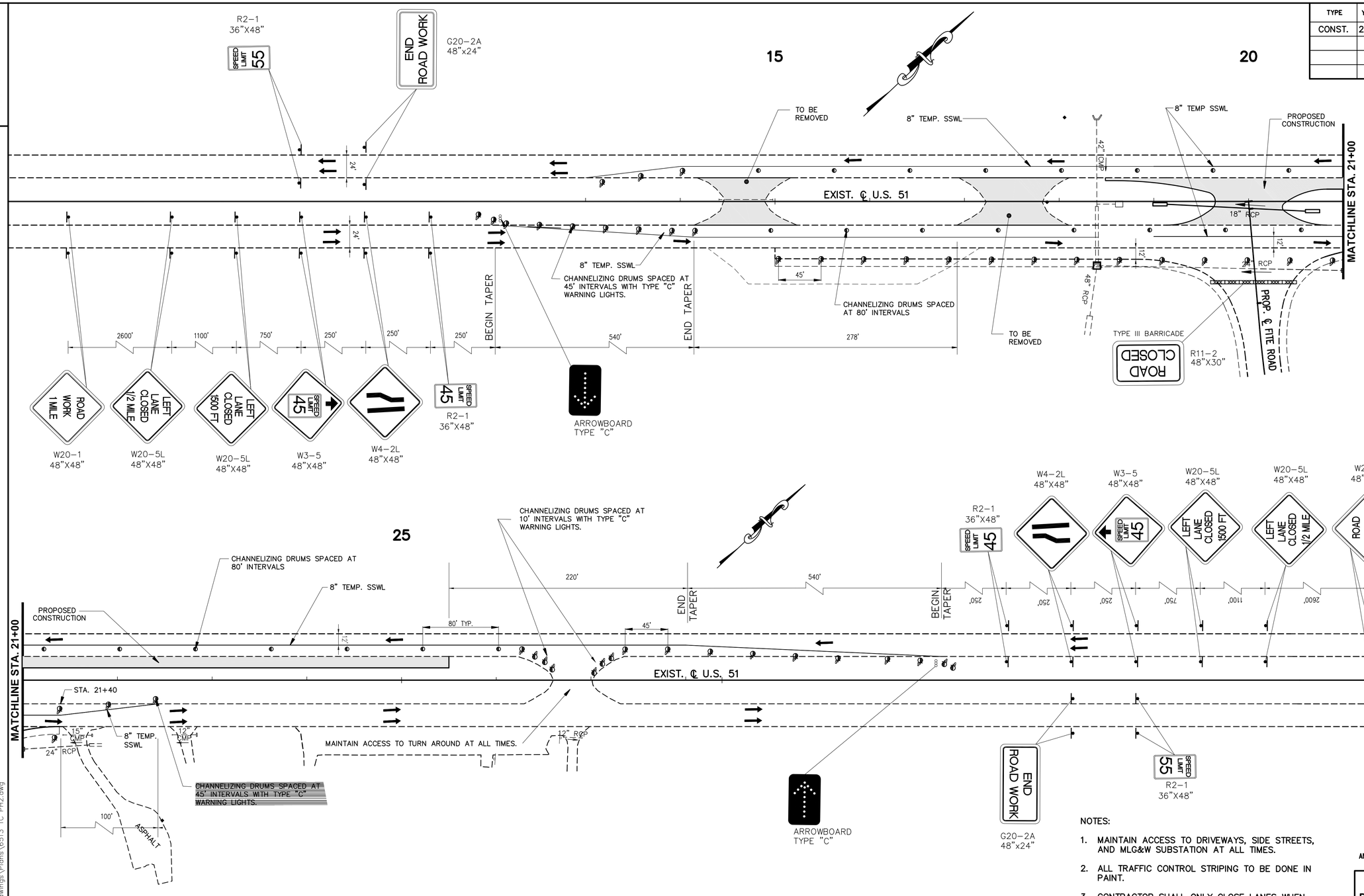
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20H



NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.
3. CONTRACTOR SHALL ONLY CLOSE LANES WHEN CONSTRUCTION ACTIVITIES ARE ADJACENT TO U.S. 51. CONTRACTOR SHALL COMPLETE ALL WORK ADJACENT TO U.S. 51 IN AN EXPEDITED MANOR AND THEN REOPEN TO TRAFFIC IN ORDER TO MINIMIZE THE DURATION OF THE LANE CLOSURE. SEE PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES.
4. SEE STD. DWG. T-WZ-11 FOR LANE CLOSURE.

U.S. 51 POSTED SPEED LIMIT = 55 MPH
U.S. 51 REDUCED SPEED = 45 MPH

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

U.S. 51 @ FITE RD.

SCALE: 1"= 50'

4/12/2013
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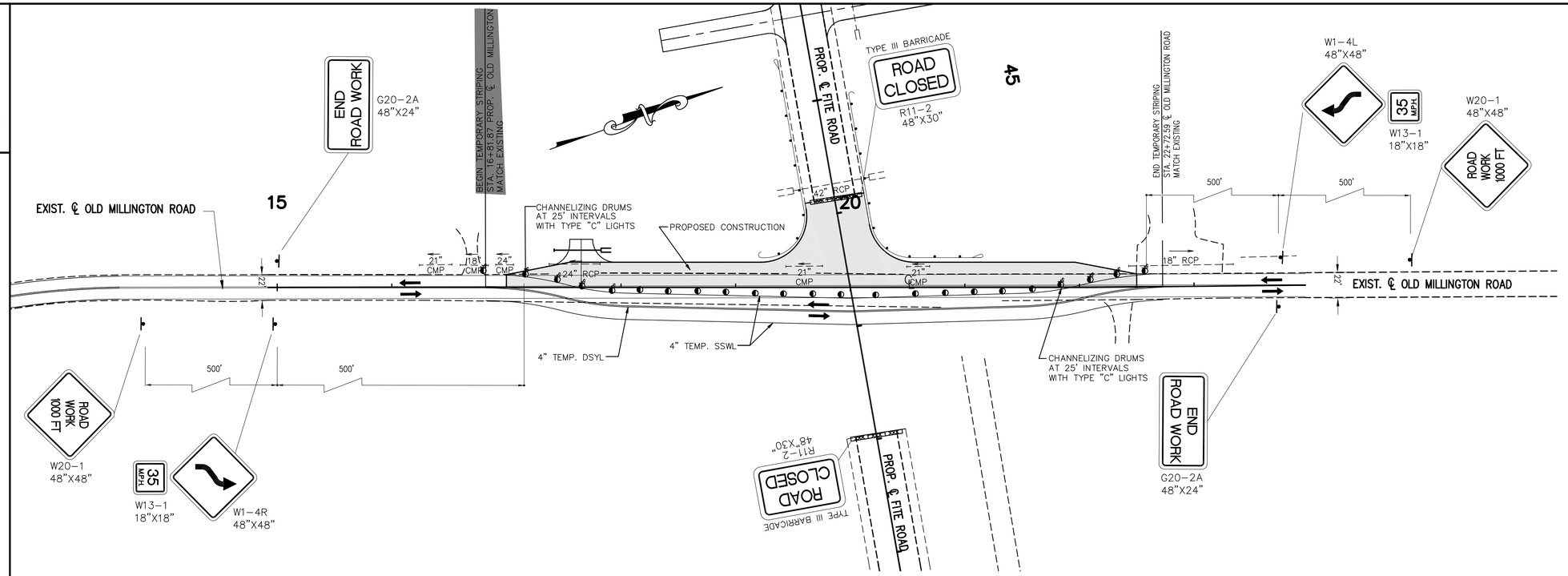
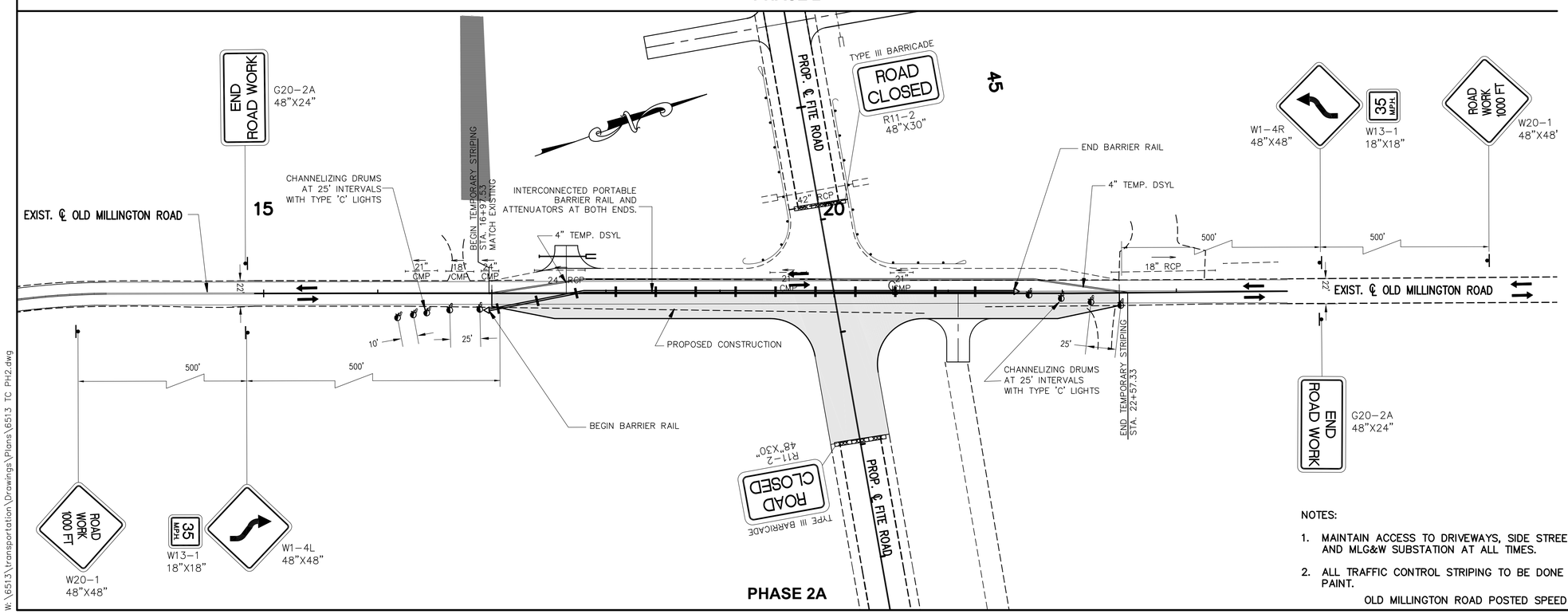
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20-I



PHASE 2



PHASE 2A

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

OLD MILLINGTON ROAD POSTED SPEED = 45 MPH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2/2A

OLD MILLINGTON RD. @ FITE RD.

SCALE: 1"= 50'

4/12/2013
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TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

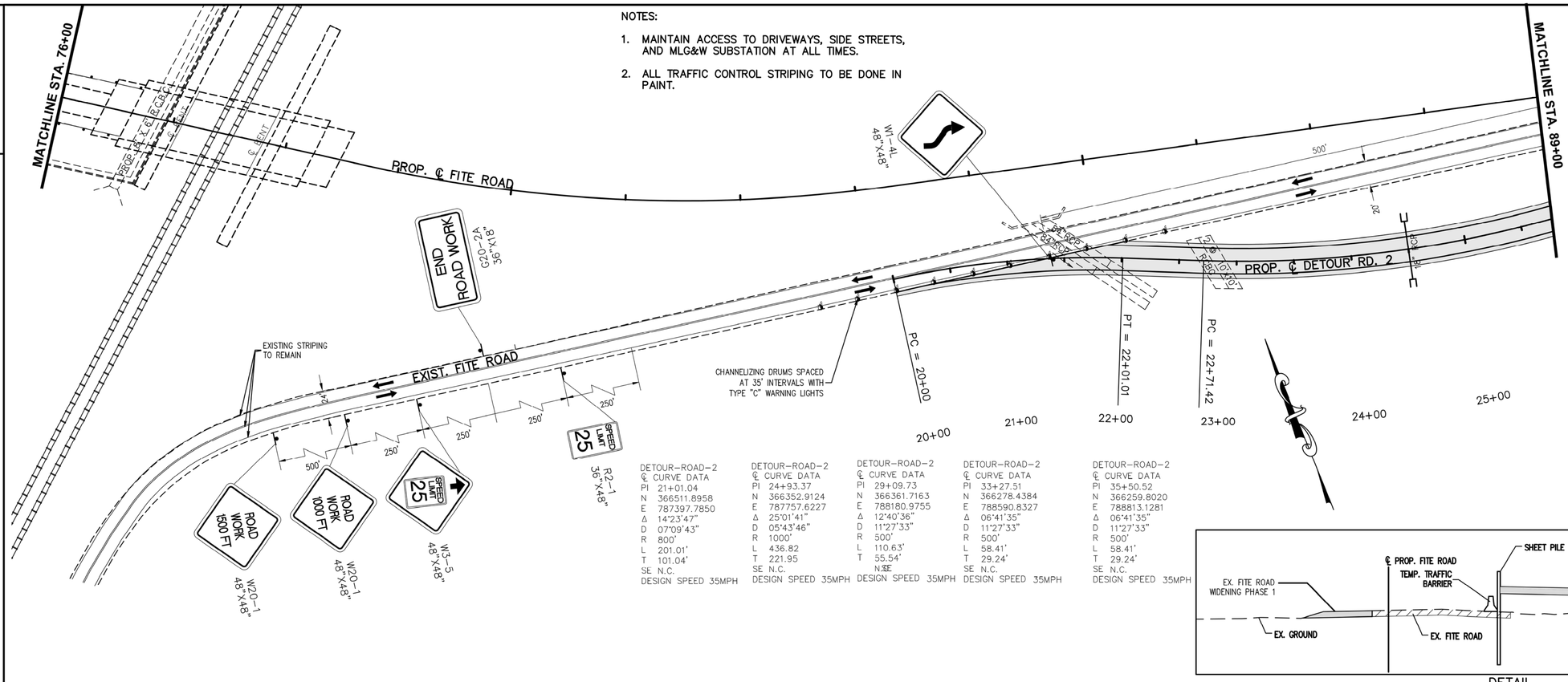
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20J

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

REVISION(S)

DATE: 07/24/2013
ELIMINATED DETOUR ROAD 1.



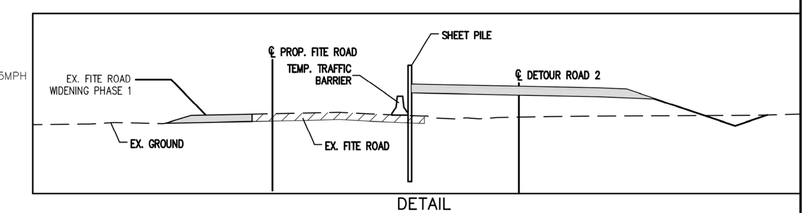
DETOUR-ROAD-2
℄ CURVE DATA
PI 21+01.04
N 366511.8958
E 787397.7850
Δ 14°23'47"
D 07°09'43"
R 800'
L 201.01'
T 101.04'
SE N.C.
DESIGN SPEED 35MPH

DETOUR-ROAD-2
℄ CURVE DATA
PI 24+93.37
N 366352.9124
E 787757.6227
Δ 25°01'41"
D 05°43'46"
R 1000'
L 436.82
T 221.95
SE N.C.
DESIGN SPEED 35MPH

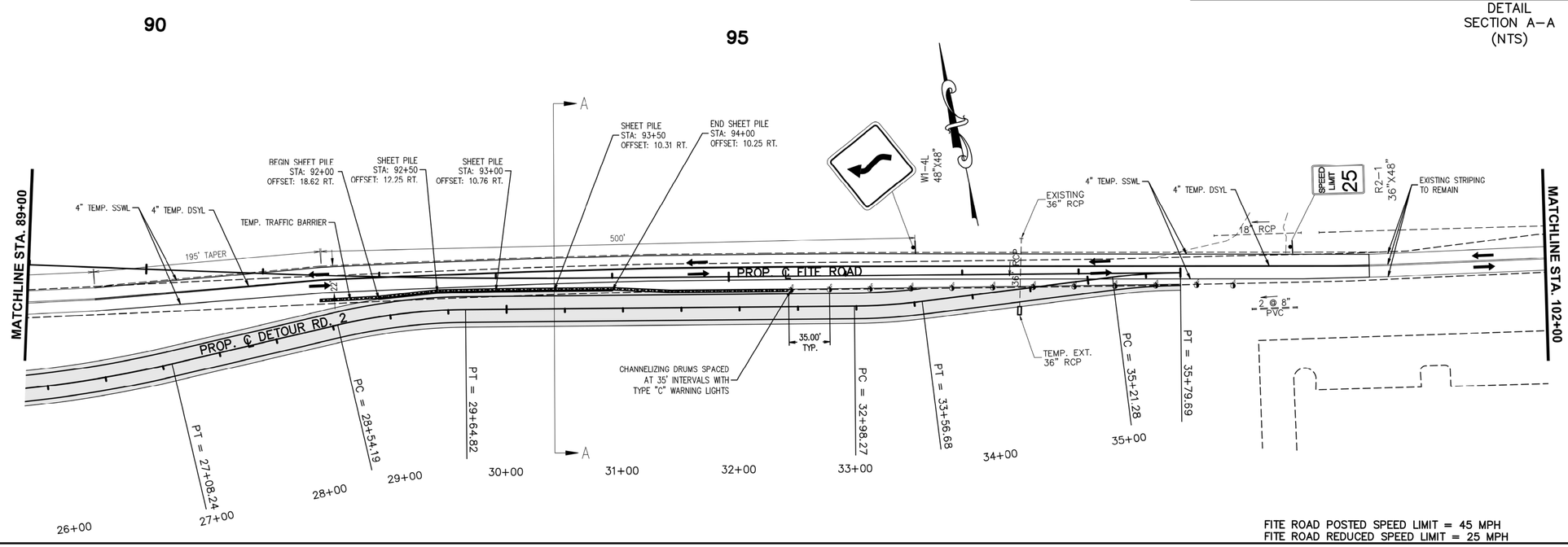
DETOUR-ROAD-2
℄ CURVE DATA
PI 29+09.73
N 366361.7163
E 788180.9755
Δ 12°40'36"
D 11°27'33"
R 500'
L 110.63'
T 55.54'
N:SE
DESIGN SPEED 35MPH

DETOUR-ROAD-2
℄ CURVE DATA
PI 33+27.51
N 366278.4384
E 788590.8327
Δ 06°41'35"
D 11°27'33"
R 500'
L 58.41'
T 29.24'
SE N.C.
DESIGN SPEED 35MPH

DETOUR-ROAD-2
℄ CURVE DATA
PI 35+50.52
N 366259.8020
E 788813.1281
Δ 06°41'35"
D 11°27'33"
R 500'
L 58.41'
T 29.24'
SE N.C.
DESIGN SPEED 35MPH



DETAIL
SECTION A-A
(NTS)



FITE ROAD POSTED SPEED LIMIT = 45 MPH
FITE ROAD REDUCED SPEED LIMIT = 25 MPH

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
AND ARCHITECTURE
NO. 102351
STATE OF TENNESSEE
7/24/13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 76+00 TO STA. 102+00
SCALE: 1"= 50'

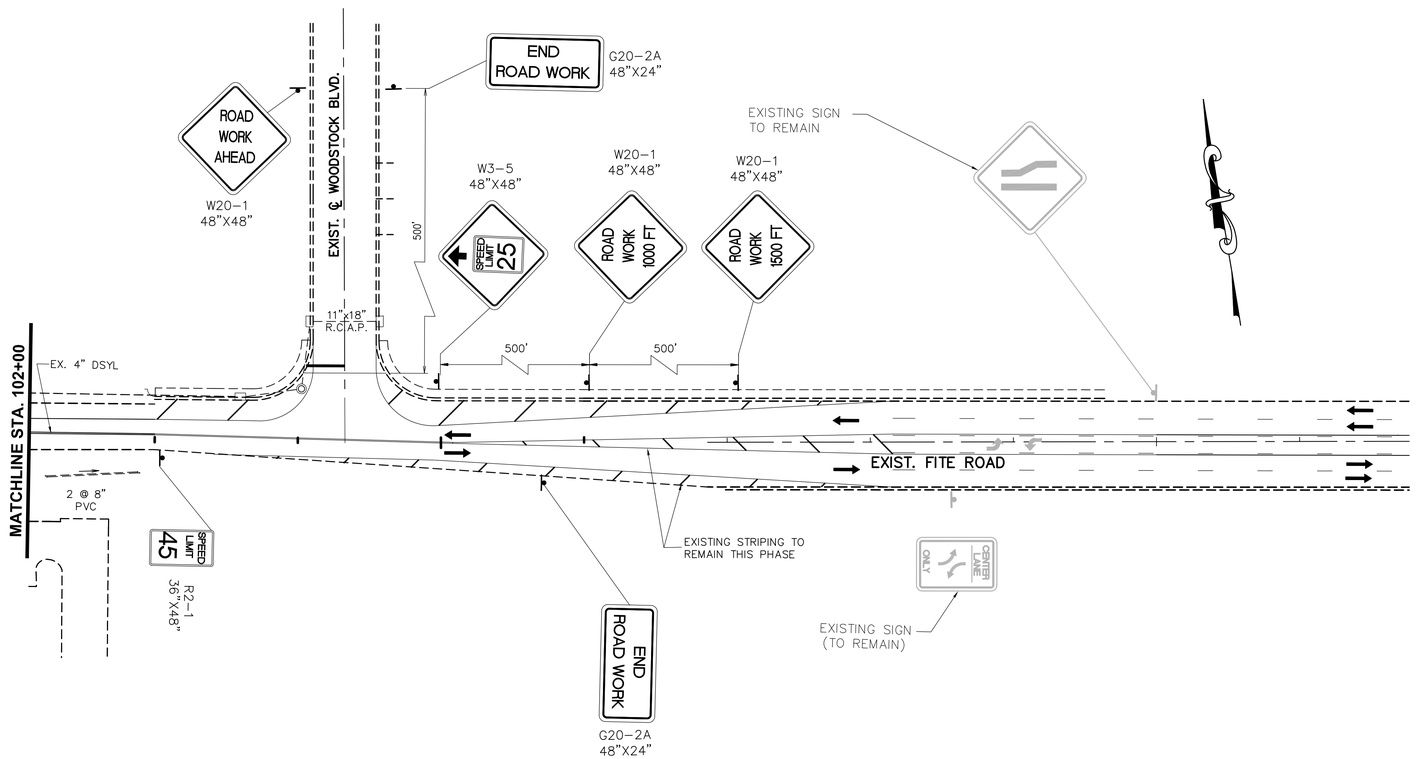
7/24/2013
W:\6513\transportation\Drawings\Plans\6513 TC PH2.dwg

TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20K

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

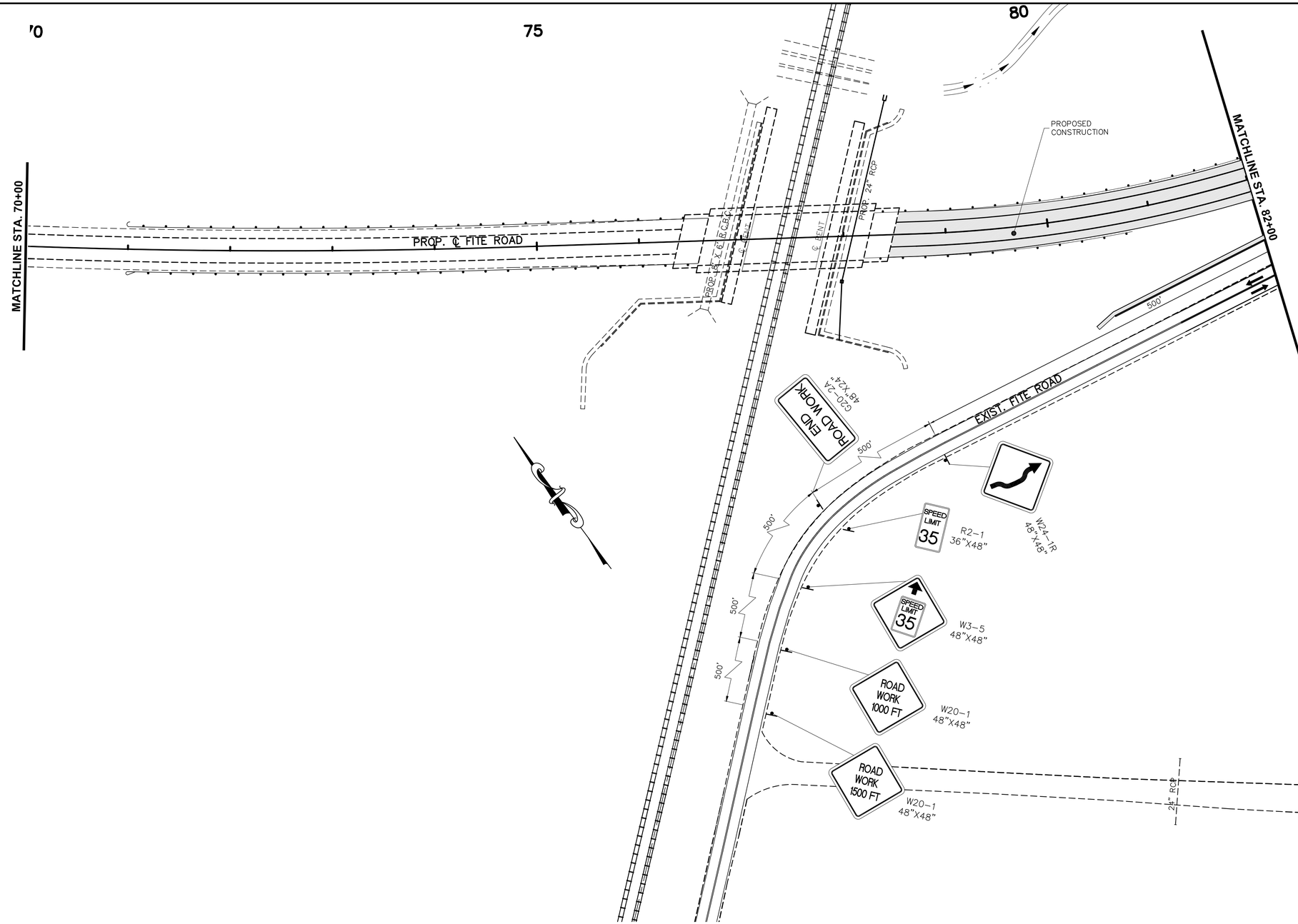
STA. 102+00 TO E.O.P.

SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513_TC_PH2.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	20K
CONST.	2013	STP-M-7900(29)	20L



NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 70+00 TO STA. 95+00
SCALE: 1"= 50'

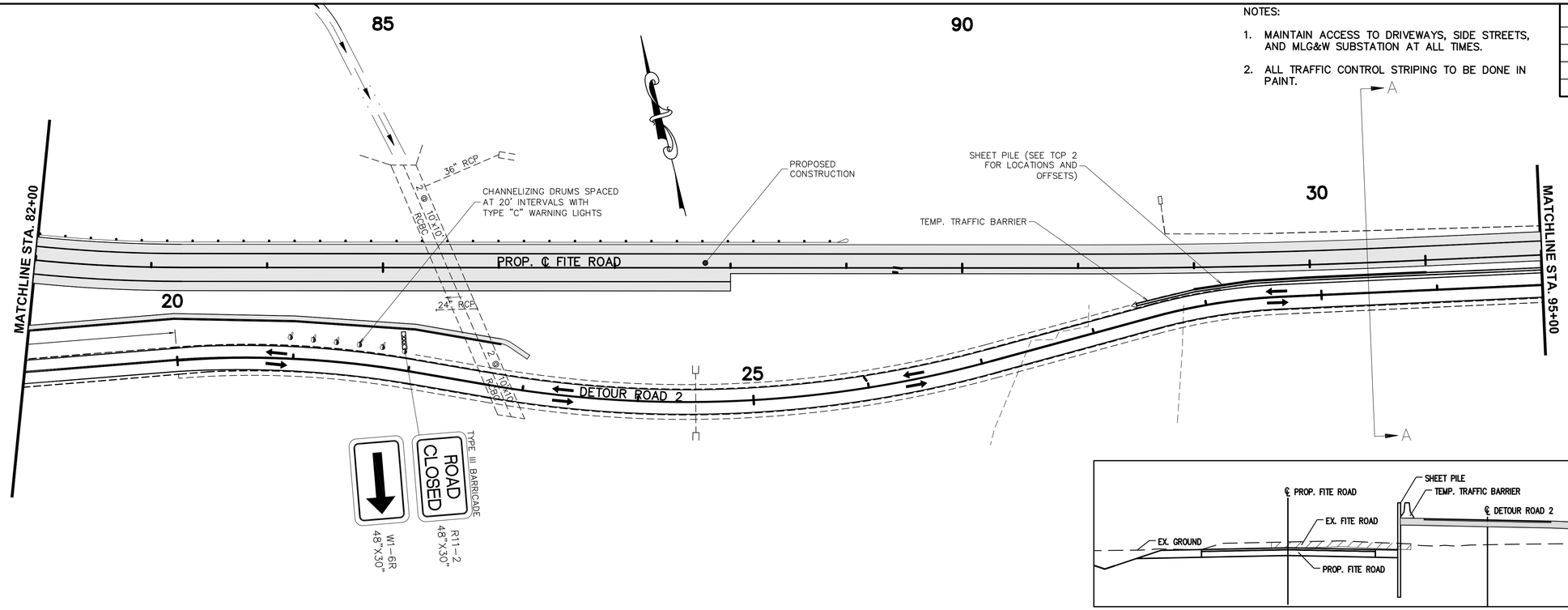
4/12/2013
W:\6513\transportation\Drawings\Plans\6513_TC_PH3.dwg

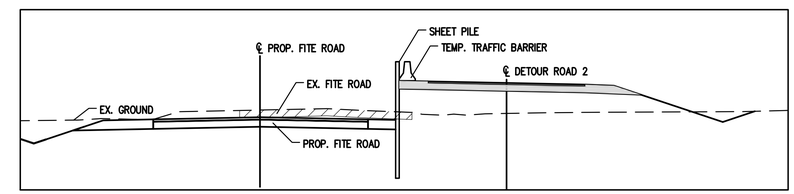
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

NOTES:

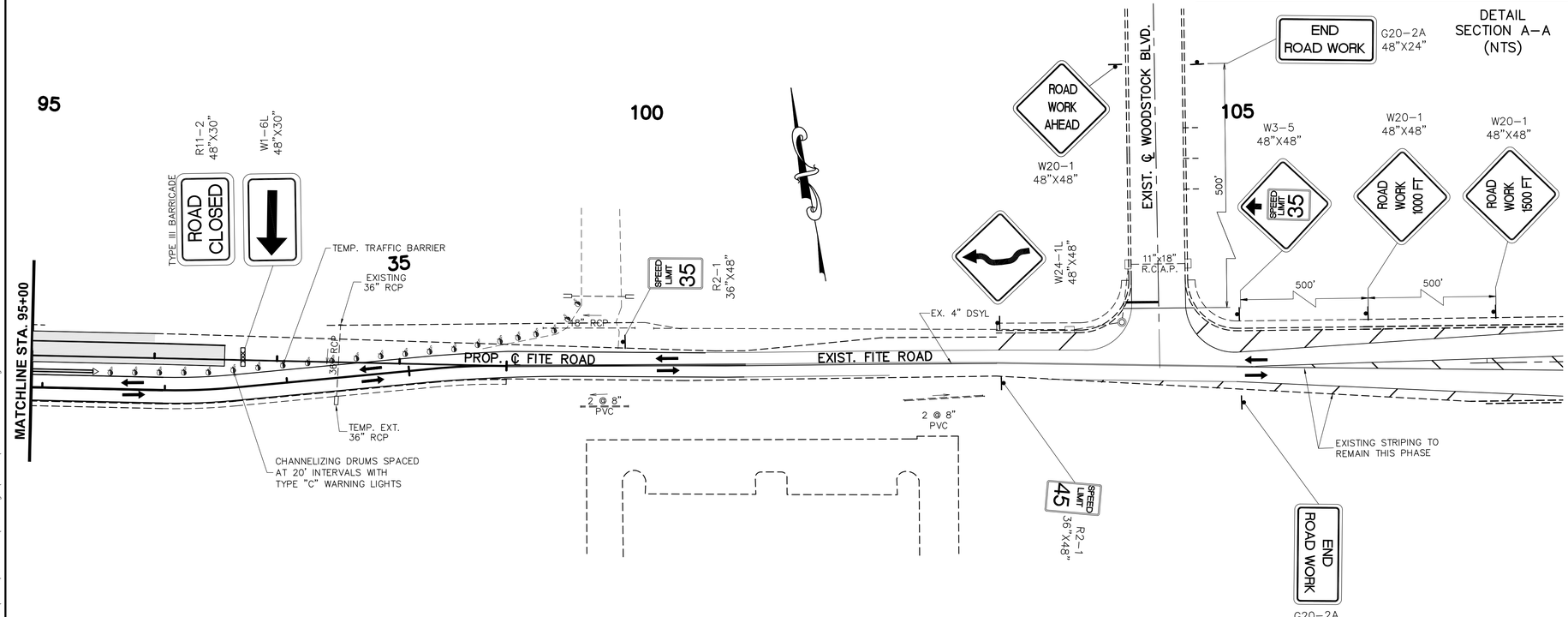
1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	20L
CONST.	2013	STP-M-7900(29)	20M





DETAIL
SECTION A-A
(NTS)



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

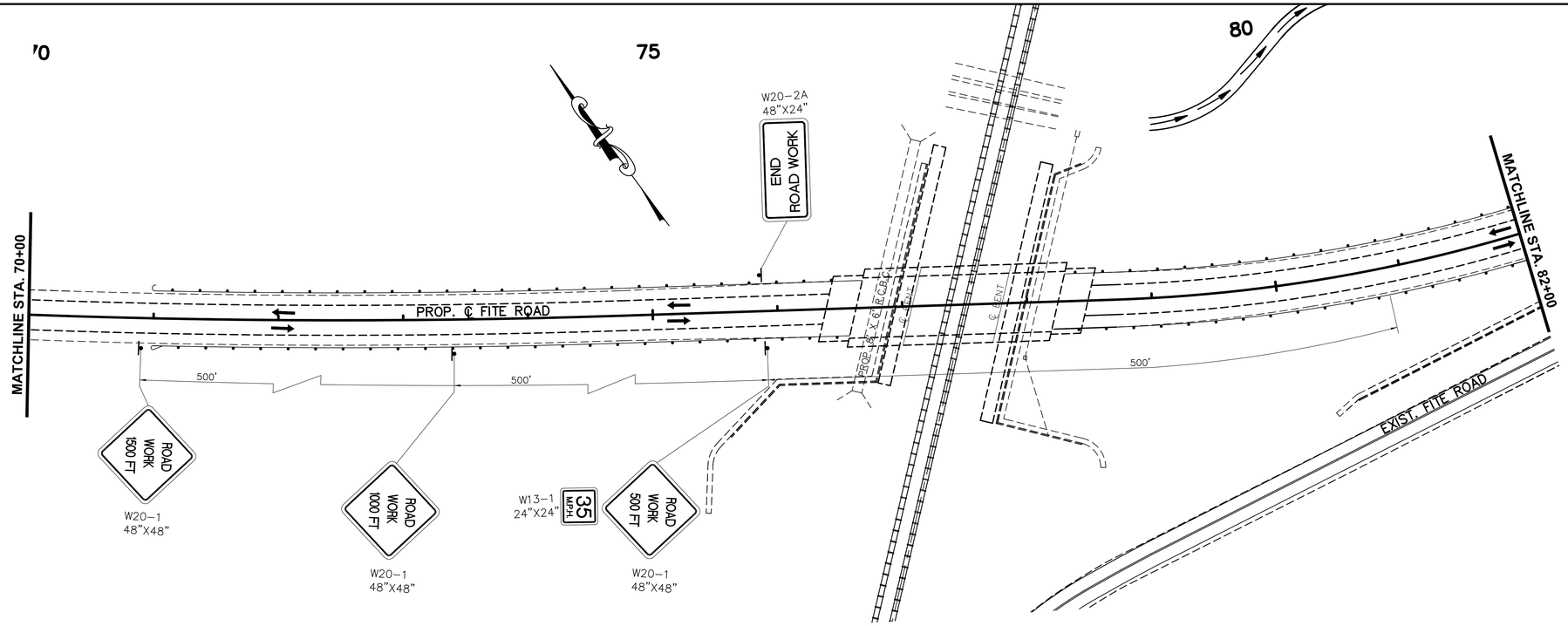
TRAFFIC CONTROL PLAN PHASE 3

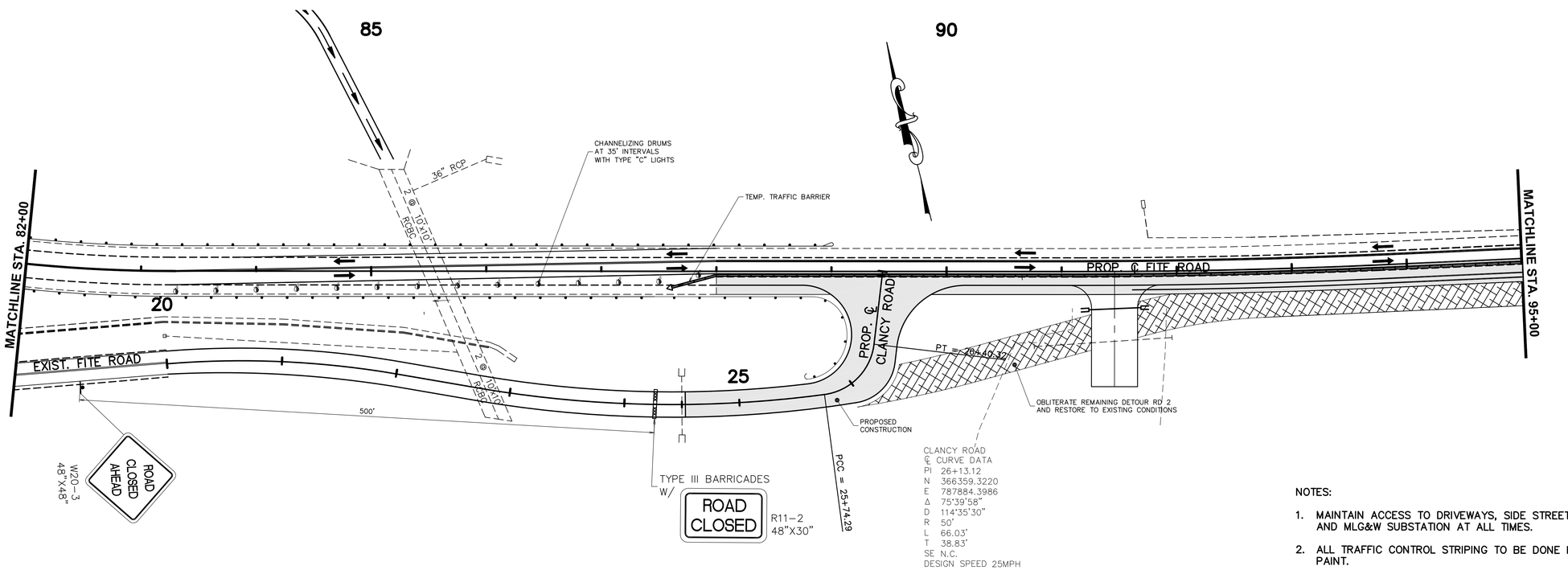
STA. 95+00 TO E.O.P.
SCALE: 1"= 50'

4/16/2013
W:\6513\transportation\Drawings\Plans\6513 TC PH3.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20N

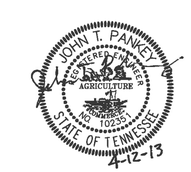




CLANCY ROAD
℄ CURVE DATA
PI 26+13.12
N 366359.3220
E 787884.3986
Δ 75°39'58"
D 114°35'30"
R 50'
L 66.03'
T 38.83'
SE N.C.
DESIGN SPEED 25MPH

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

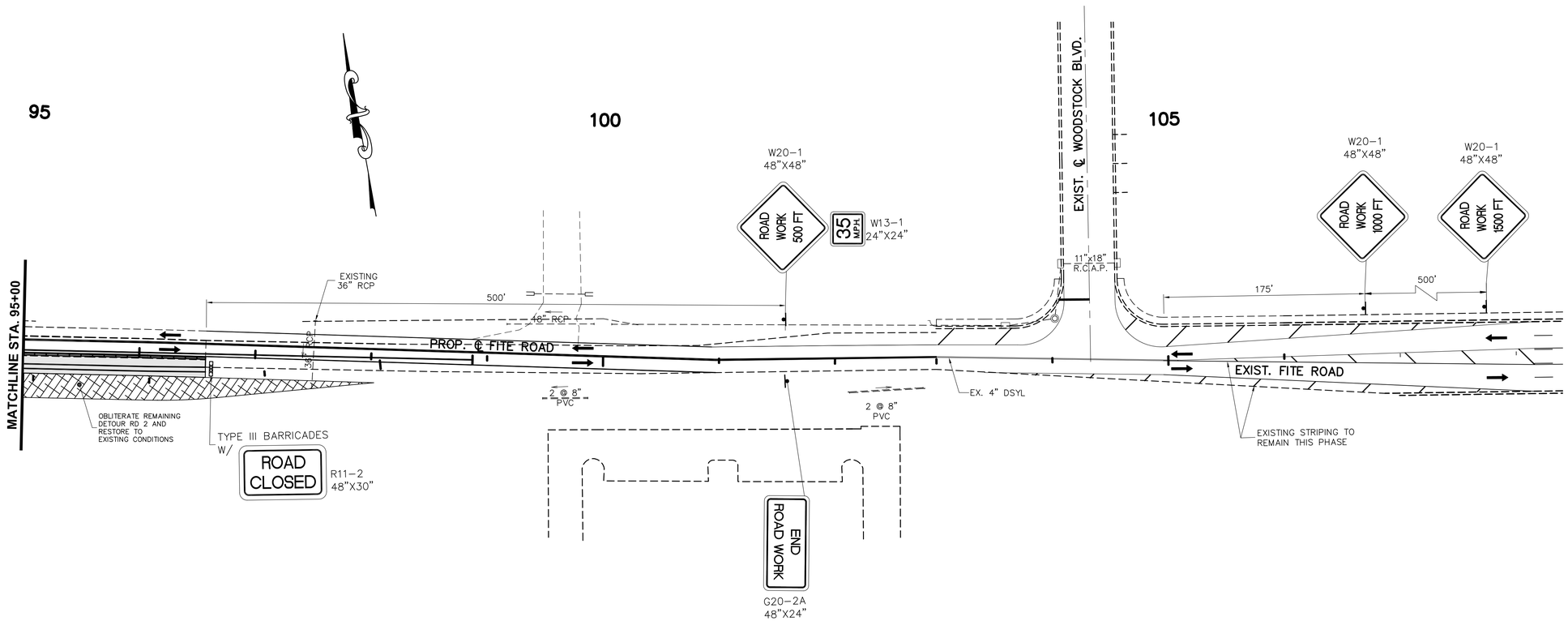
TRAFFIC CONTROL PLAN PHASE 4

STA. 70+00 TO STA. 95+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 TC PH4.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20-O



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 95+00 TO E.O.P.
SCALE: 1"= 50'

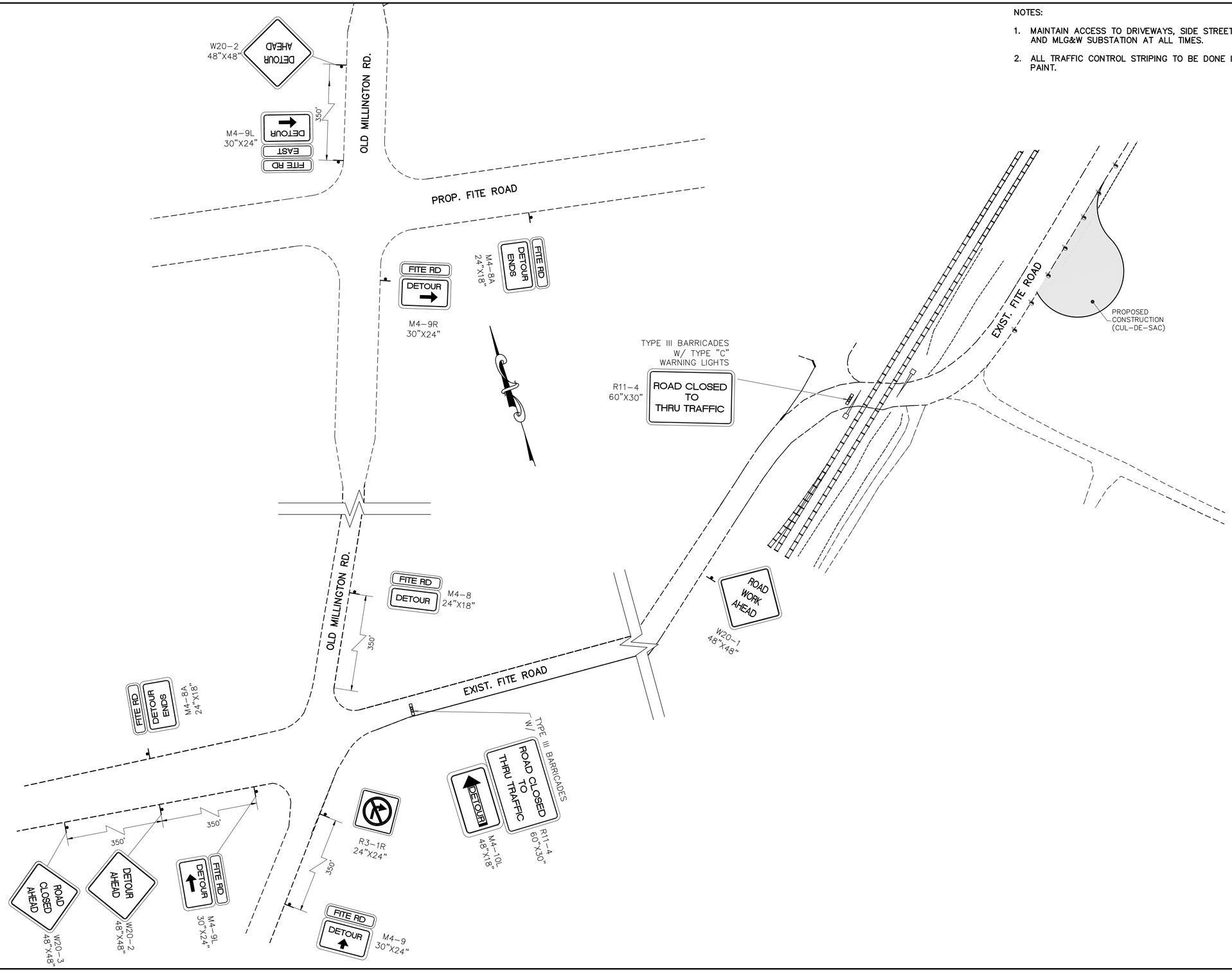
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 TC PH4.dwg

TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20P



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 10230
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

ROAD CLOSURE AT R.R.
SCALE: 1"= 50'

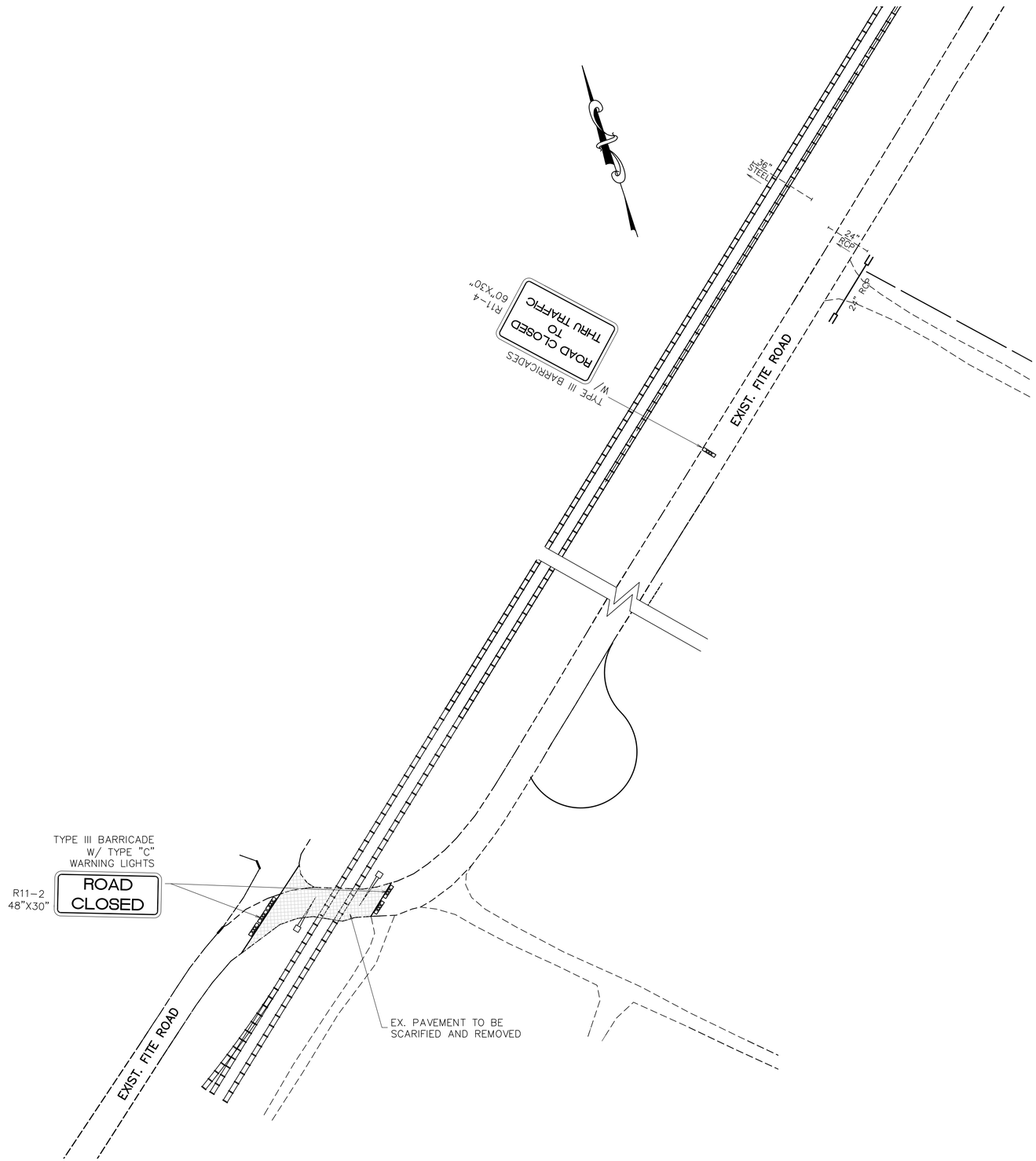
4/12/2013
W:\6513\transportation\Drawings\Plans\6513 TC PH4.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	20-Q

NOTES:

1. MAINTAIN ACCESS TO DRIVEWAYS, SIDE STREETS, AND MLG&W SUBSTATION AT ALL TIMES.
2. ALL TRAFFIC CONTROL STRIPING TO BE DONE IN PAINT.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

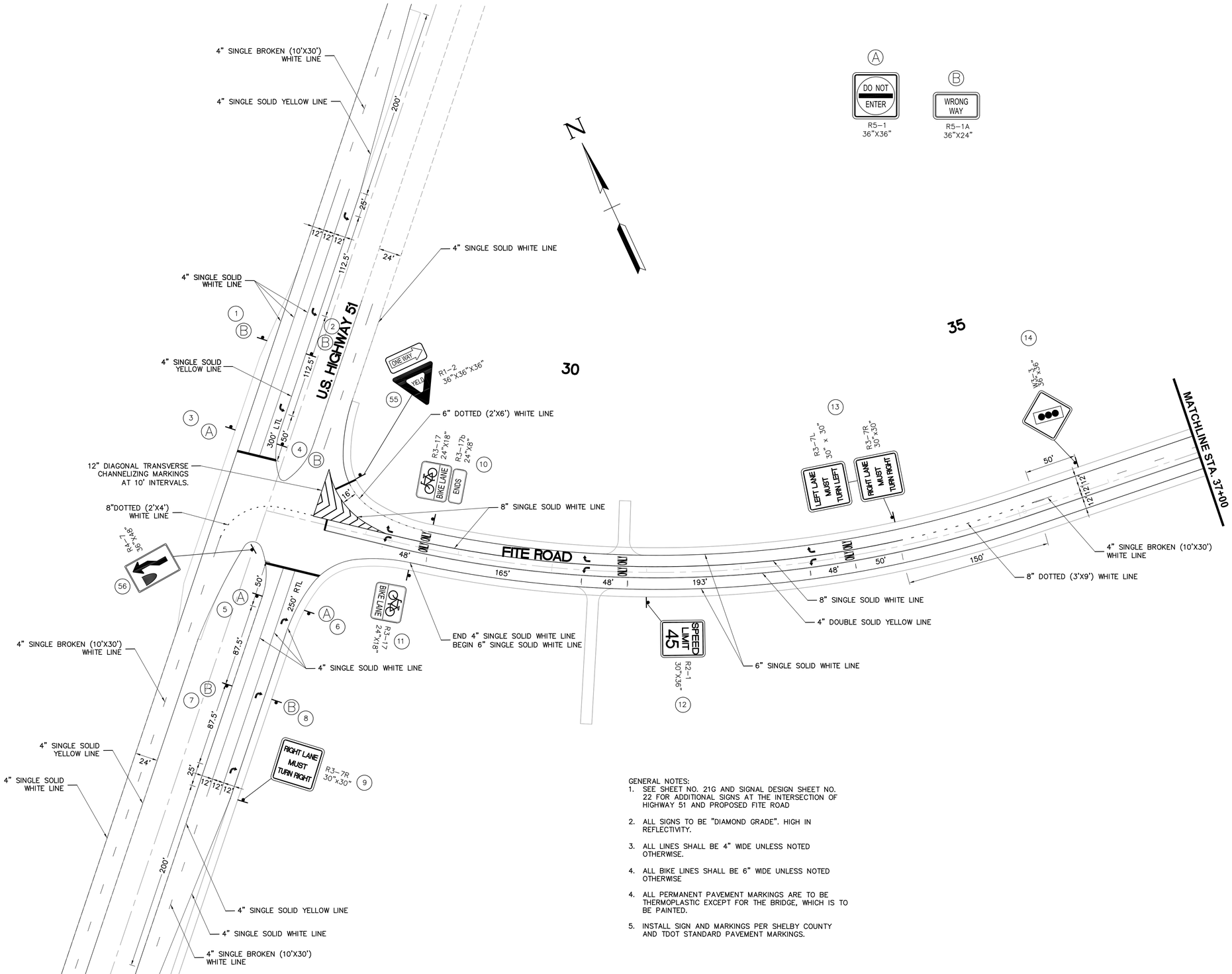
TRAFFIC CONTROL PLAN PHASE 4A

ROAD CLOSURE AT R.R.
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\6513 TC PH4A.dwg

TENNESSEE D.O.T.	
DESIGN DIVISION	
FILE NO.	

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21



GENERAL NOTES:

1. SEE SHEET NO. 21G AND SIGNAL DESIGN SHEET NO. 22 FOR ADDITIONAL SIGNS AT THE INTERSECTION OF HIGHWAY 51 AND PROPOSED FITE ROAD
2. ALL SIGNS TO BE "DIAMOND GRADE". HIGH IN REFLECTIVITY.
3. ALL LINES SHALL BE 4" WIDE UNLESS NOTED OTHERWISE.
4. ALL BIKE LINES SHALL BE 6" WIDE UNLESS NOTED OTHERWISE
4. ALL PERMANENT PAVEMENT MARKINGS ARE TO BE THERMOPLASTIC EXCEPT FOR THE BRIDGE, WHICH IS TO BE PAINTED.
5. INSTALL SIGN AND MARKINGS PER SHELBY COUNTY AND TDOT STANDARD PAVEMENT MARKINGS.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102251
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

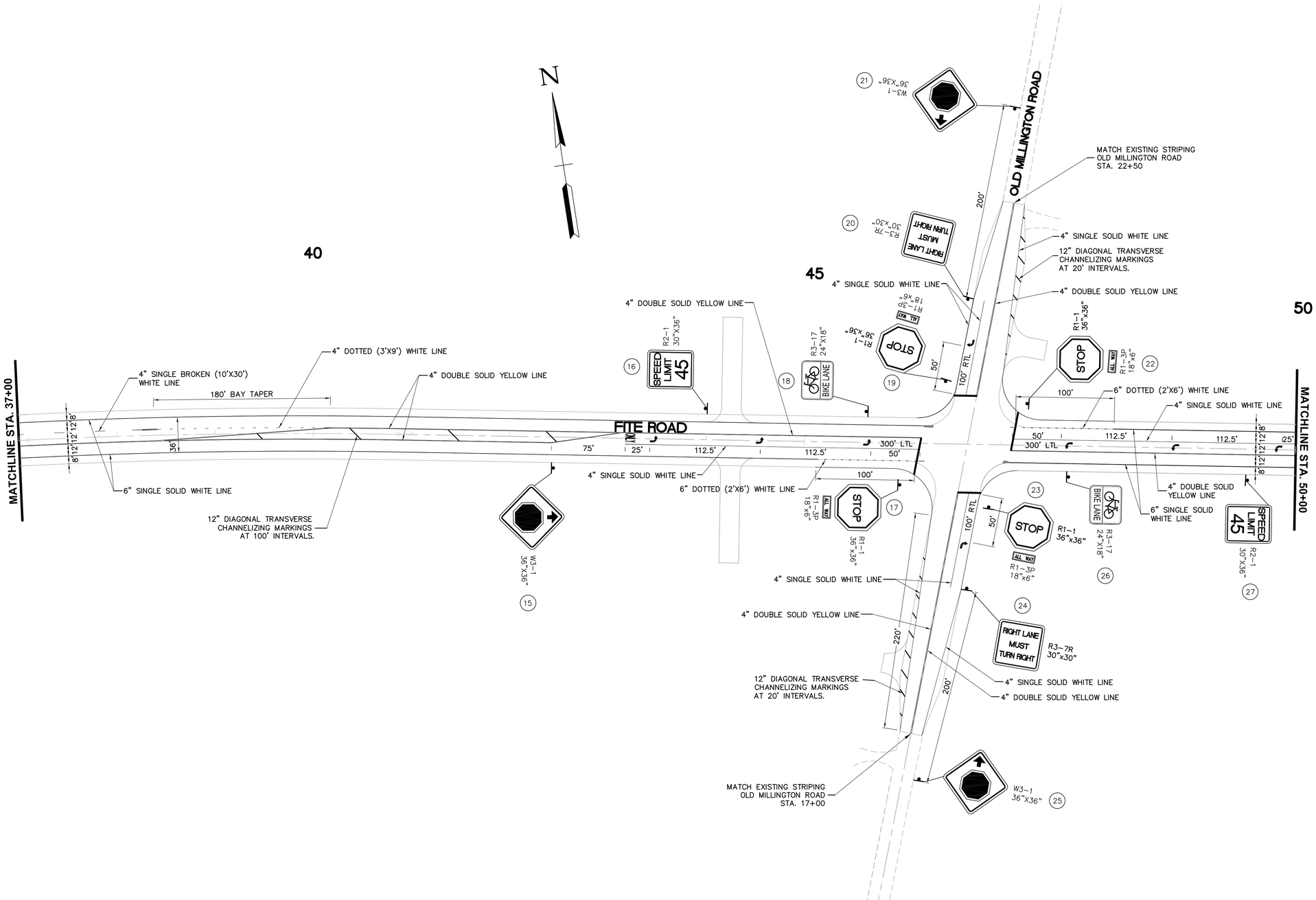
SIGNING AND PAVEMENT MARKING PLAN

FITE RD.
B.O.P. TO STA. 37+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21A



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

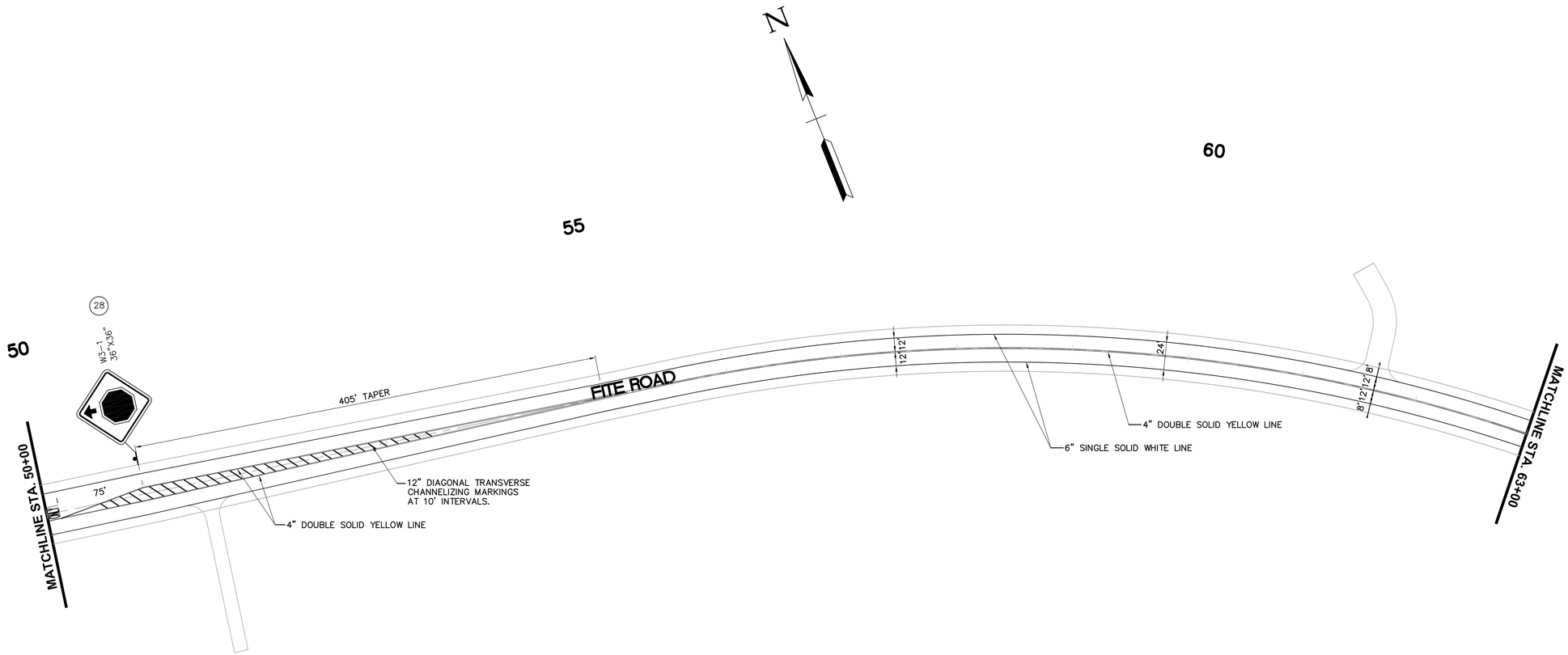
SIGNING AND PAVEMENT MARKING PLAN

FITE RD.
STA. 37+00 TO STA. 50+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21B



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

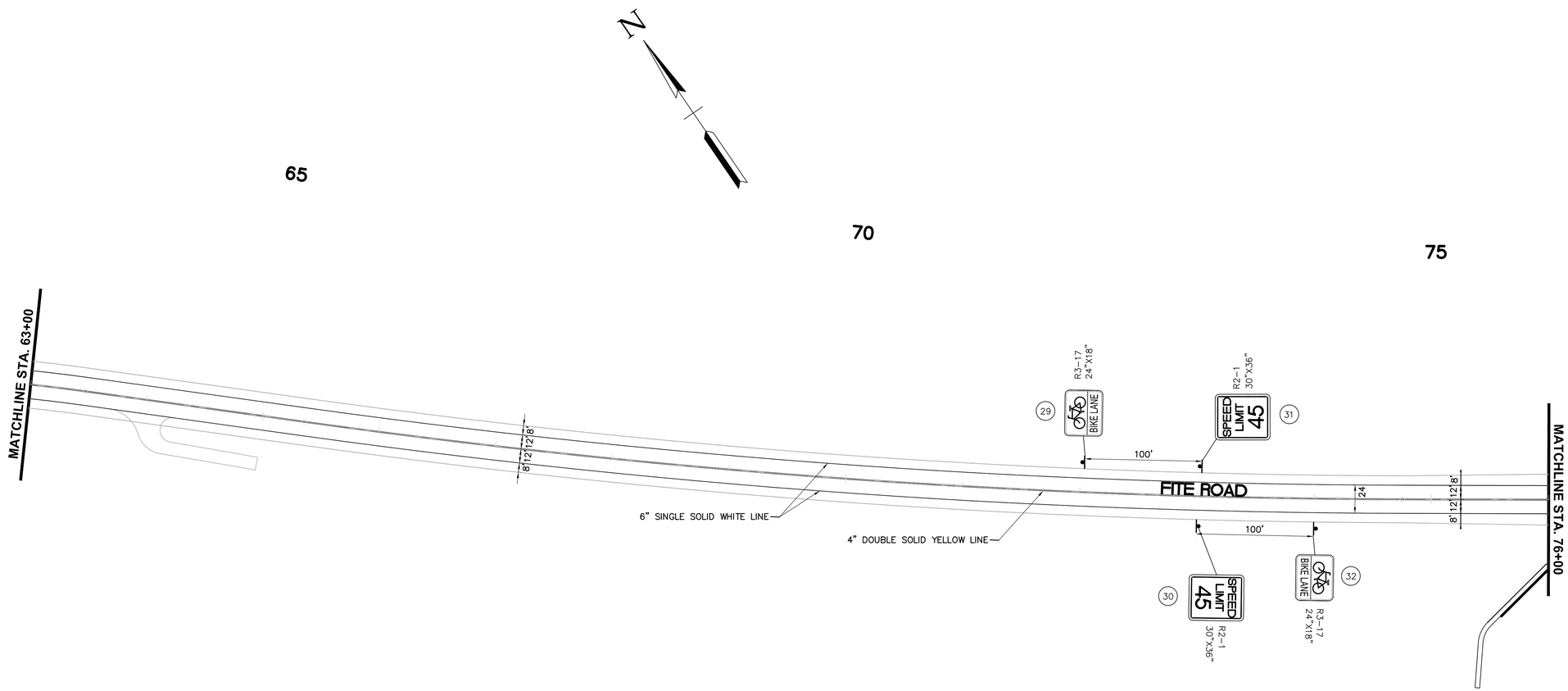
SIGNING AND PAVEMENT MARKING PLAN

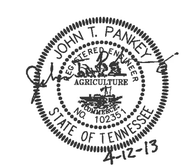
FITE RD.
STA. 50+00 TO STA. 63+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21C





COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

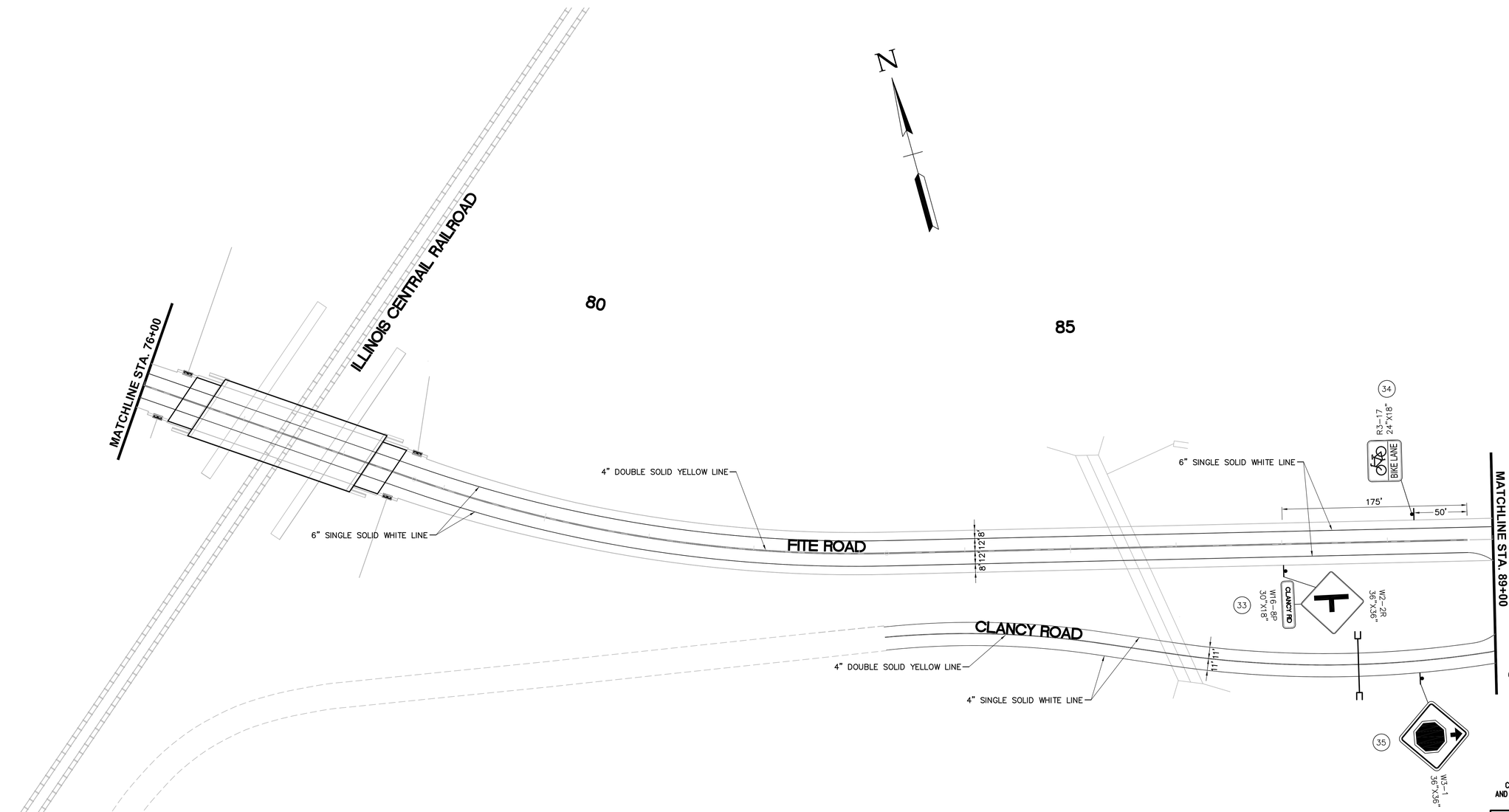
SIGNING AND PAVEMENT MARKING PLAN

FITE RD.
STA. 63+00 TO STA. 76+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21D



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102251
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

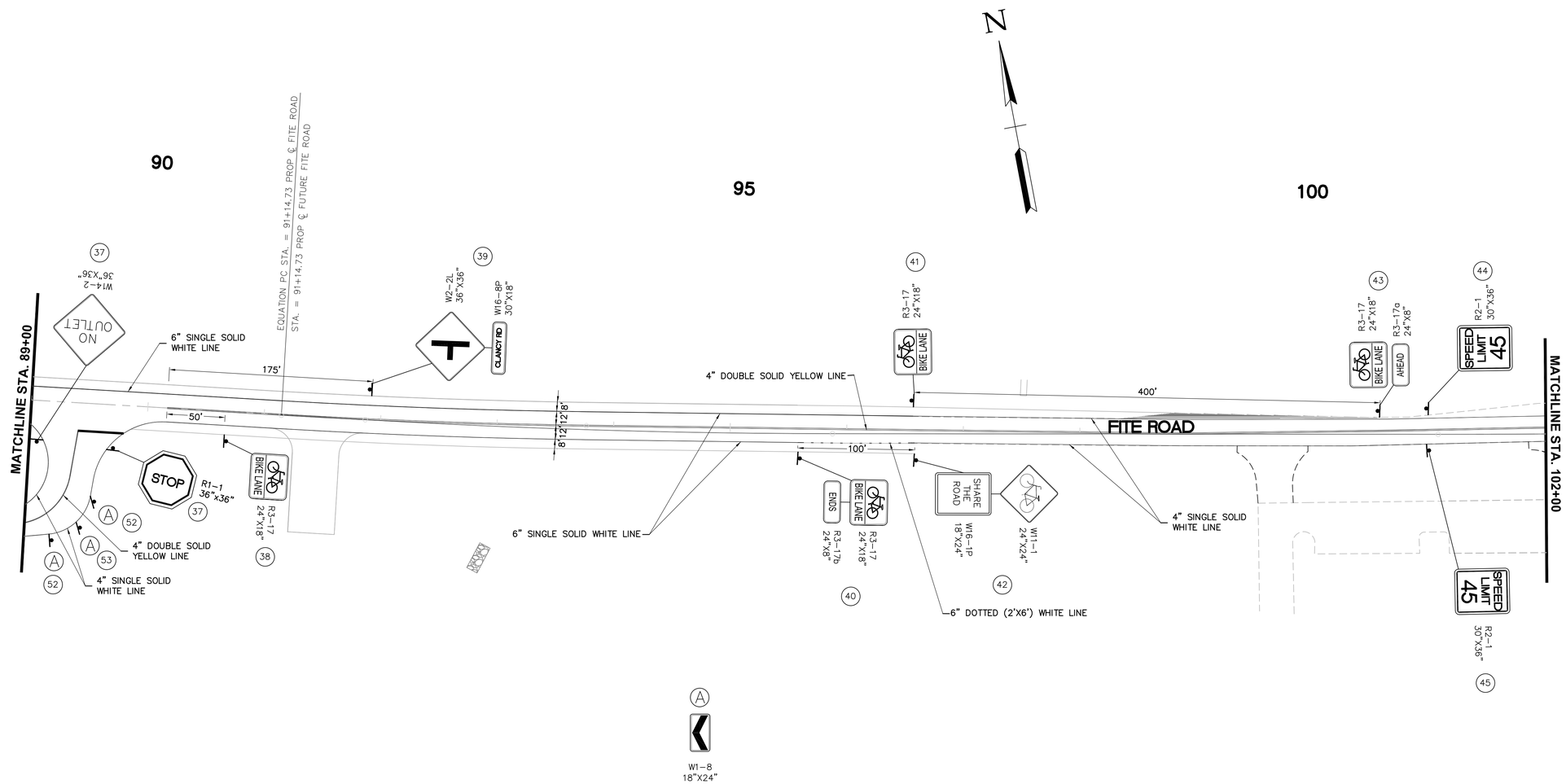
SIGNING AND PAVEMENT MARKING PLAN

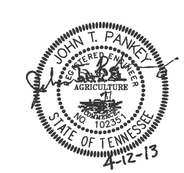
FITE RD.
STA. 76+00 TO STA. 89+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21E





COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

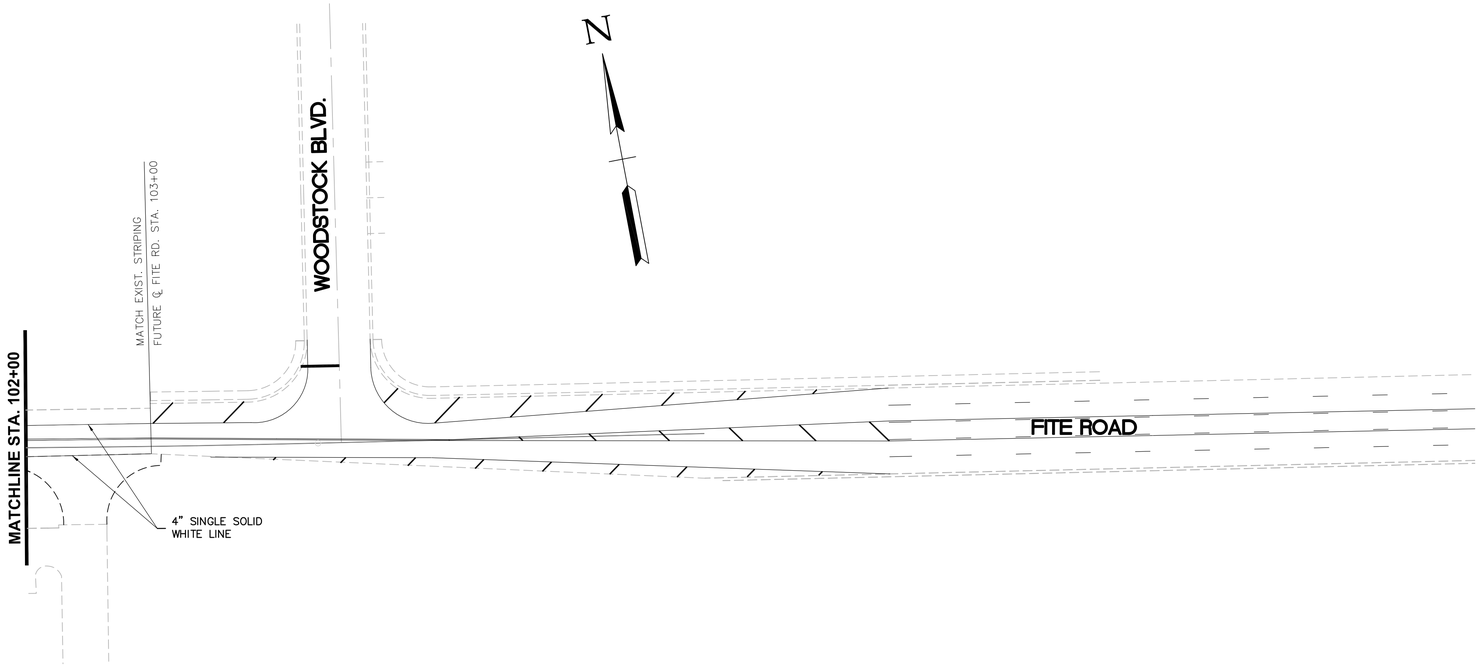
SIGNING AND PAVEMENT MARKING PLAN

FITE RD.
STA. 89+00 TO STA. 102+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21F



COORDINATE VALUES ARE NAD/83(1995)
AND ARE DATUM ADJUSTED BY THE FACTOR
0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

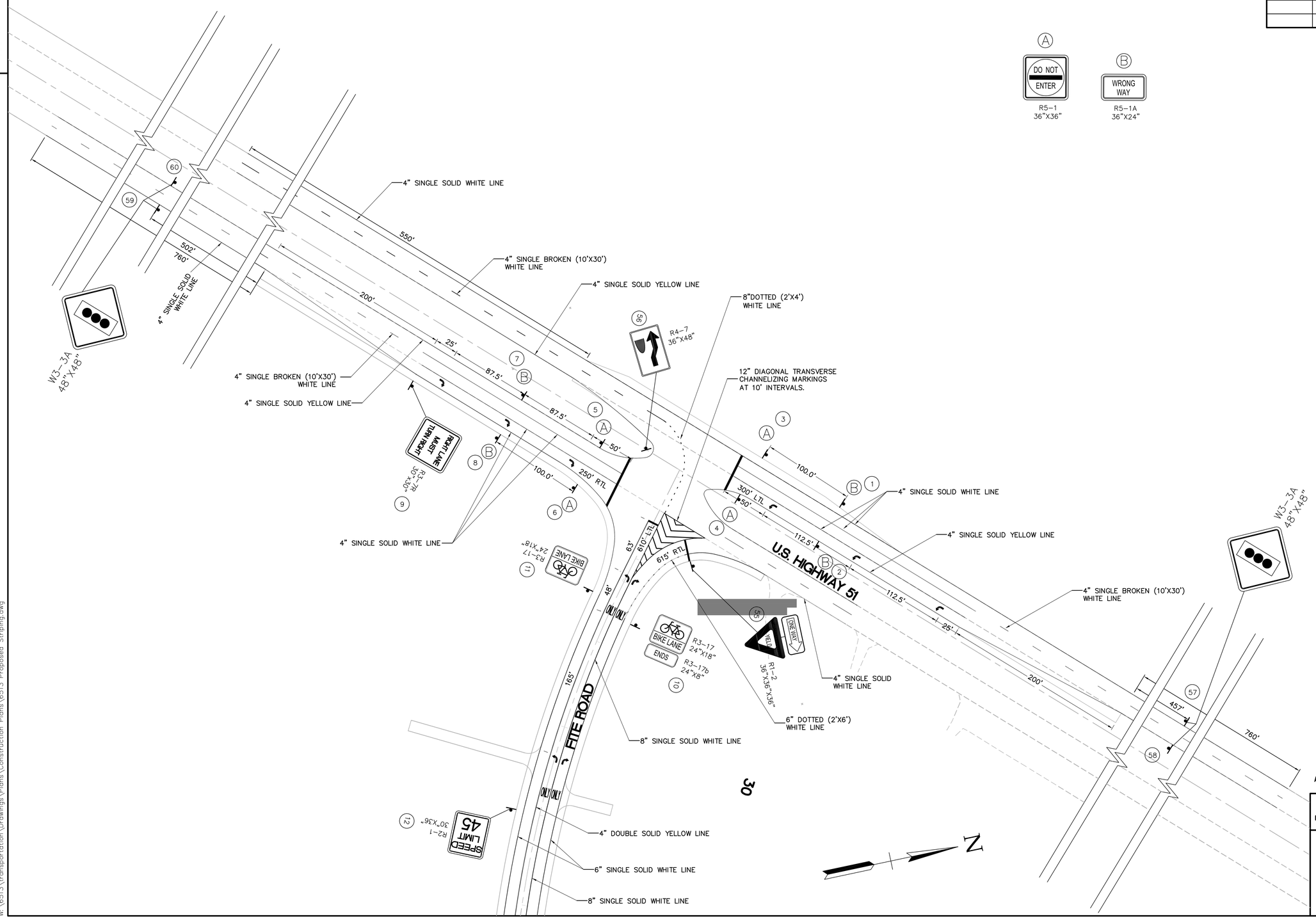
SIGNING AND PAVEMENT MARKING PLAN

FITE RD.
STA. 102+00 TO E.O.P.
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21G



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

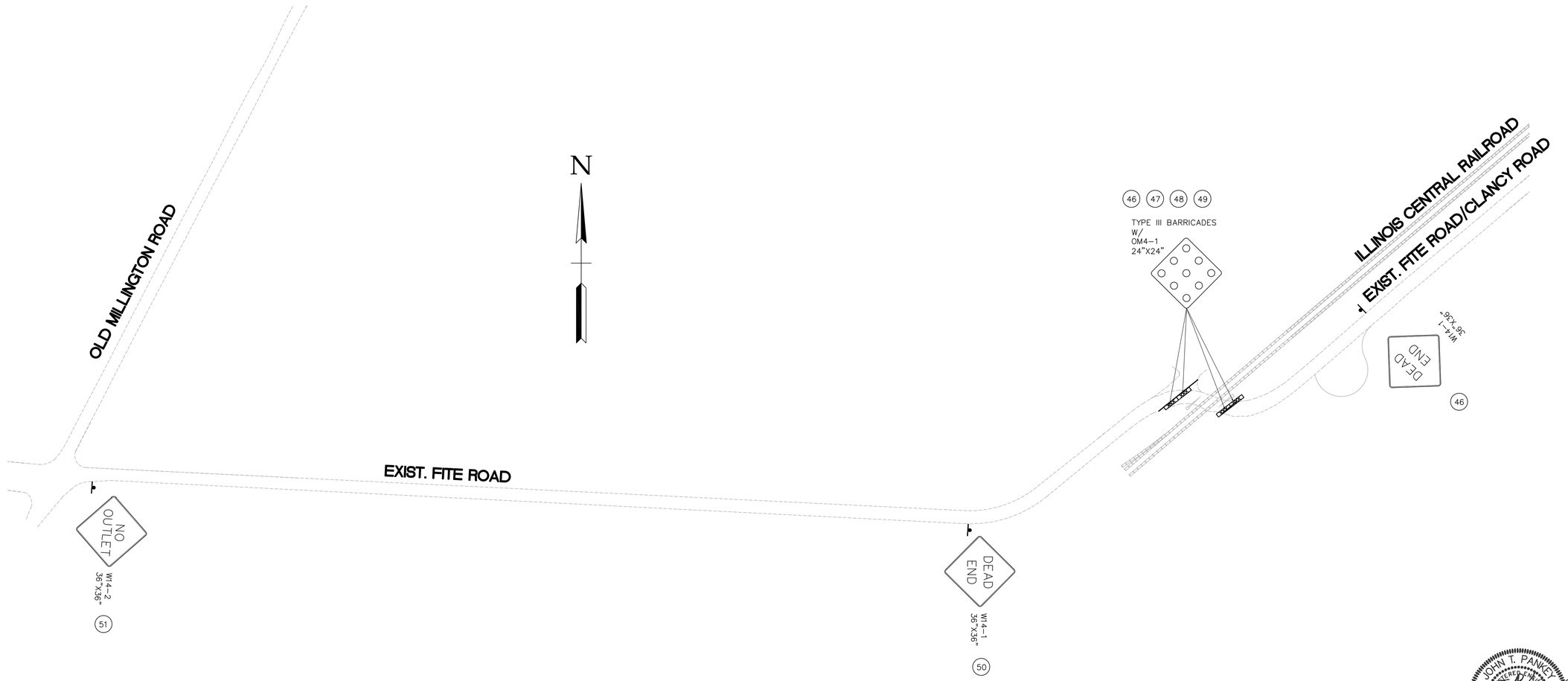
SIGNING AND PAVEMENT MARKING PLAN

HWY. 51
B.O.P. TO STA. 37+00
SCALE: 1"= 50'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21H



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

CUL-DE-SAC

SCALE: 1"= 100'

4/12/2013
W:\6513\transportation\Drawings\Plans\Construction Plans\6513 Proposed Striping.dwg

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21-I

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	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
46 47 48 49	OM4-1	21H	24"	24"					SEE STANDARD DRAWING T-S-18													TO BE PAID UNDER ITEM NO. 713-16.07
37	STOP R1-1	21E	36"	36"									WHITE (REF.)	RED (REF.)	0.080" ALUM.	P8	13'-0"				7'-0"	
17 19 22 23	STOP R1-1 ALL WAY R1-3P	21A	36" 18"	36" 6"									WHITE (REF.)	RED (REF.)	0.080" ALUM.	P8	13'-6"				6'-0"	
12 16 27 31 32 44 45	SPEED LIMIT 45 R2-1	21 21A 21C 21E	30"	36"									BLACK	WHITE (REF.)	0.080" ALUM.	U6	12'-6"				7'-0"	
21	RIGHT LANE MUST TURN RIGHT R3-7R	21	30"	30"									BLACK	WHITE (REF.)	0.080" ALUM.	U6	12'-6"				7'-0"	
9	LEFT LANE MUST TURN LEFT R3-7L RIGHT LANE MUST TURN RIGHT R3-7R	21 21	30" 30"	30" 30"									BLACK	WHITE (REF.)	0.080" ALUM.	P8	14'-0"				6'-0"	
11 18 26 29 32 34 38 41	BIKE LANE R3-17	21 21A 21C 21D 21E	24"	18"									BLACK	WHITE (REF.)	0.080" ALUM.	U6	12'-0"				7'-0"	
43	BIKE LANE R3-17 AHEAD R3-17a	21E	24" 24"	18" 8"									BLACK	WHITE (REF.)	0.080" ALUM.	U6	12'-0"				6'-0"	
10 40	BIKE LANE R3-17 ENDS R3-17b	21 21E	24" 24"	18" 8"									BLACK	WHITE (REF.)	0.080" ALUM.	U6	12'-0"				6'-0"	
3 4 5 6	DO NOT ENTER R5-1	21	36"	36"									WHITE (REF.)	RED (REF.)	0.100" ALUM.	P8	14'-0"				7'-0"	

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 10239
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

SCALE: N/A

4/12/2013
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2013	STP-M-7900(29)	21J

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	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
1 2 7 8	WRONG WAY R5-1A	21	36"	24"									WHITE (REF.)	RED (REF.)	0.100" ALUM.	2 @ U6	13'-0"				7'-0"	
52 53 54	W1-8L	21E	18"	24"									BLACK	YELLOW (REF.)	0.080" ALUM.	U1	12'-0"				7'-0"	
33	W2-2R CLANCY RD W16-8P	21D 21D	36" 30"	36" 18"									BLACK	YELLOW (FLOR.)	0.100" ALUM. 0.080" ALUM.	P8	14'-0"				6'-0"	
39	W2-2L CLANCY RD W16-8P	21E 21E	36" 30"	36" 18"									BLACK	YELLOW (FLOR.)	0.100" ALUM. 0.080" ALUM.	P8	14'-0"				6'-0"	
15 21 25 28 35	W3-1	21A 21B 21D	36"	36"									BLACK RED (REF.)	YELLOW (REF.)	0.100" ALUM.	P8	13'-0"				7'-0"	
14 57 58 59 60	W3-3	21 21G	36" 48"	36" 48"									BLACK RED (REF.) GREEN (REF.)	YELLOW (REF.)	0.100" ALUM.	P8 2 @ U3	13'-0" 14'-0" 14'-6"				7'-0" 5'-0"	
42	W11-1 SHARE THE ROAD W16-1P	21E	24" 18"	24" 24"									BLACK BLACK	YELLOW (REF.) YELLOW (REF.)	0.080" ALUM. 0.080" ALUM.	P8	13'-0"				6'-0"	
46 50	DEAD END W14-1	21H	36"	36"									BLACK	YELLOW (REF.)	0.080" ALUM.	P8	12'-0"				7'-0"	
36 51	NO OUTLET W14-2	21E 21H	36"	36"									BLACK	YELLOW (REF.)	0.100" ALUM.	P8	12'-0"				7'-0"	
55	ONE WAY R6-1R YIELD R1-2	21	36" 36"	12" 36"	36"								BLACK RED (REF.)	WHITE (REF.)	0.080" ALUM.	P8	14'-0"				5'-0"	
56	R4-7	21	36"	48"									BLACK	WHITE (REF.)	0.080" ALUM.	U3	12'-6"				5'-0"	

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102261
STATE OF TENNESSEE
4-12-13

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

SCALE: N/A

4/12/2013
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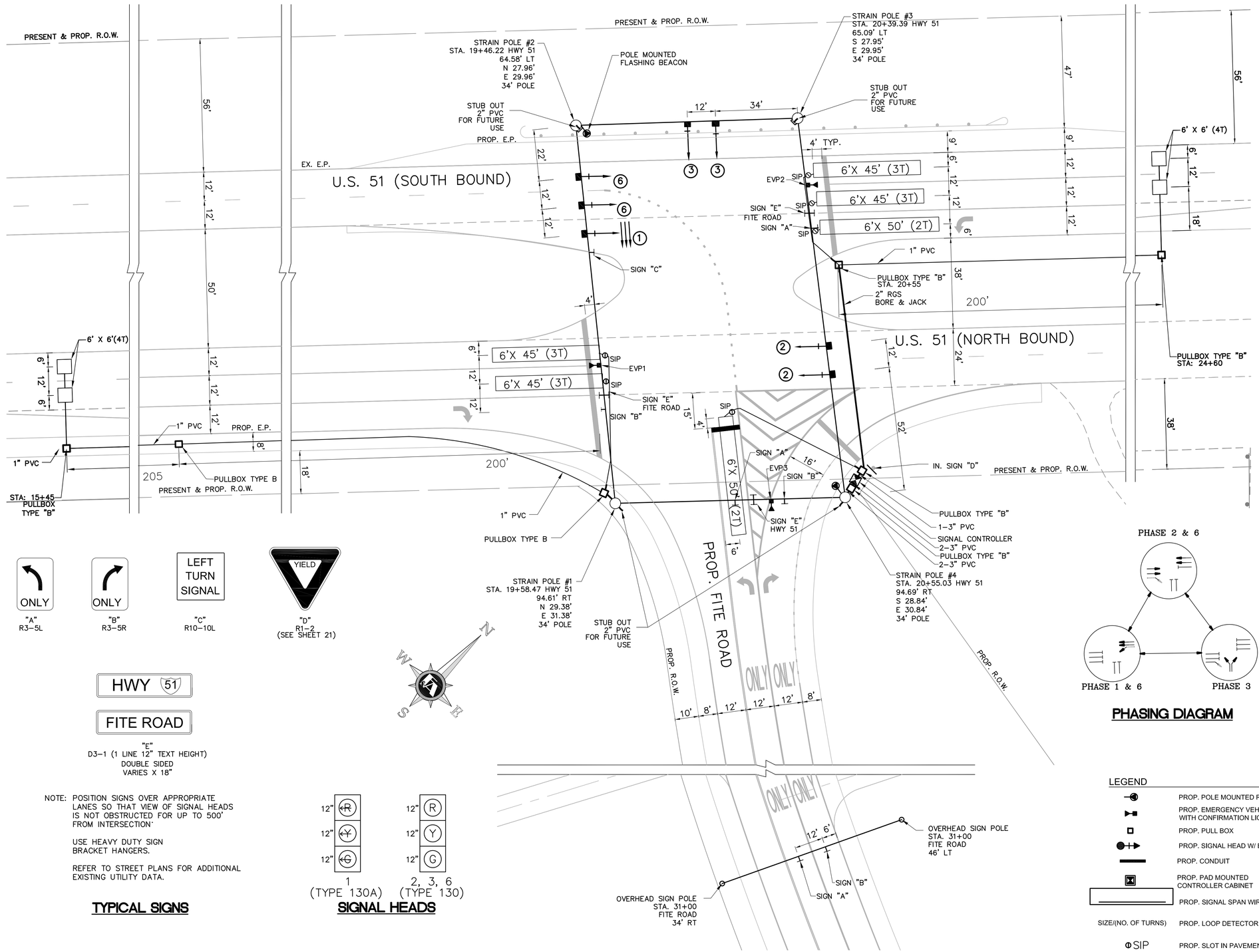
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22
CONST.	2013	STP-M-7900(29)	22

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



"A"
R3-5L

"B"
R3-5R

"C"
R10-10L

"D"
R1-2
(SEE SHEET 21)

"E"
D3-1 (1 LINE 12" TEXT HEIGHT)
DOUBLE SIDED
VARIES X 18"

NOTE: POSITION SIGNS OVER APPROPRIATE LANES SO THAT VIEW OF SIGNAL HEADS IS NOT OBSTRUCTED FOR UP TO 500' FROM INTERSECTION.

USE HEAVY DUTY SIGN BRACKET HANGERS.

REFER TO STREET PLANS FOR ADDITIONAL EXISTING UTILITY DATA.

TYPICAL SIGNS

1
(TYPE 130A)

2, 3, 6
(TYPE 130)

SIGNAL HEADS

PHASING DIAGRAM

LEGEND

	PROP. POLE MOUNTED ROTATING FLASHING BEACON
	PROP. EMERGENCY VEHICLE PREEMPTION DETECTOR WITH CONFIRMATION LIGHT
	PROP. PULL BOX
	PROP. SIGNAL HEAD W/ BACKPLATE
	PROP. CONDUIT
	PROP. PAD MOUNTED CONTROLLER CABINET
	PROP. SIGNAL SPAN WIRE
SIZE/(NO. OF TURNS)	PROP. LOOP DETECTOR
SIP	PROP. SLOT IN PAVEMENT
	PROP. SIGN (SPAN MOUNT)
	PROP. POLE

JOHN T. PANKEY
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NO. 102361
STATE OF TENNESSEE
4-12-13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL LAYOUT PLAN

U.S. 51 @ FITE RD.

SCALE: 1"=20'

4/16/2013
W:\6513\transportation\Drawings\Plans\6513 Signal Plan Layout.dwg

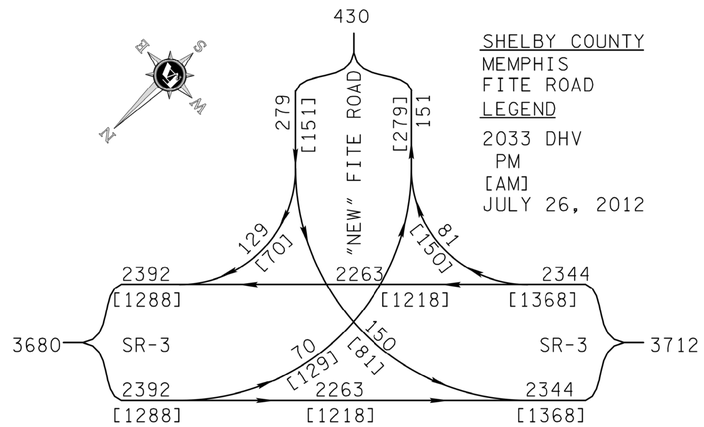
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	
CONST.	2013	STP-M-7900(29)	22A

REVISIONS:

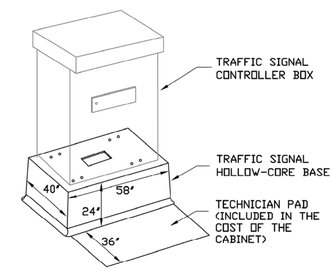
DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.

DATE: 07/24/2013
ADDED FOOTING DIAMETER TO THE SIGNAL SUPPORT POLE DATA. ADDED FOOT NOTE NO. 1



SHELBY COUNTY
MEMPHIS
FITE ROAD
LEGEND

2033 DHV
PM
[AM]
JULY 26, 2012



TRAFFIC SIGNAL CABINET BASE

SIGNAL SUPPORT POLE DATA

	POLE #	STATION (S.R. 3)	OFFSET	NORTHING	EASTING	POLE HT.	ELEV. POLE @ TOP OF FOUNDATION	PROP. GROUND ELEV. @ FOUNDATION	ATTACHMENT ELEV.	MOMENT CAPACITY FT-LBS	FOOTING DEPTH	FOOTING DIA.
(1)	1	19+58.47	94.61' RT.	368,637.1032	782,298.1085	34'	261.43'	260.41'	292.83' W	316,500	19'	3.5'
(1)	2	19+46.22	64.58' LT.	368,737.6881	782,174.1152	34'	261.84'	261.02'	292.83' E	282,400	17'	3.5'
(1)	3	20+39.39	65.09' LT.	368,805.6856	782,237.8235	34'	263.46'	262.63'	294.57' E	281,700	17'	3.5'
(1)	4	20+55.03	94.69' RT.	368,707.1547	782,364.5697	34'	263.73'	261.09'	294.57' W	290,500	17'	3.5'
*	5	31+00.00	46.00' RT.	368,545.9329	782,614.5446	30'	259.54'	259.21'	285.40'	-	10'	3'
*	6	31+00.00	34.00' RT.	368,473.6735	782,580.2139	30'	258.66'	257.84'	385.40'	-	10'	3'

* USED FOR OVERHEAD LANE DESIGNATION SIGNS

FOOTNOTES:

(1) POLES SHALL MEET THE REQUIREMENTS OF THE NEW CITY OF MEMPHIS STEEL STRAIN POLE STANDARD.

JOHN T. PANKEY
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AGRICULTURE
NO. 102351
STATE OF TENNESSEE
7/24/13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL LAYOUT PLAN
U.S. 51 @ FITE RD.
SCALE: 1"=20'

7/24/2013
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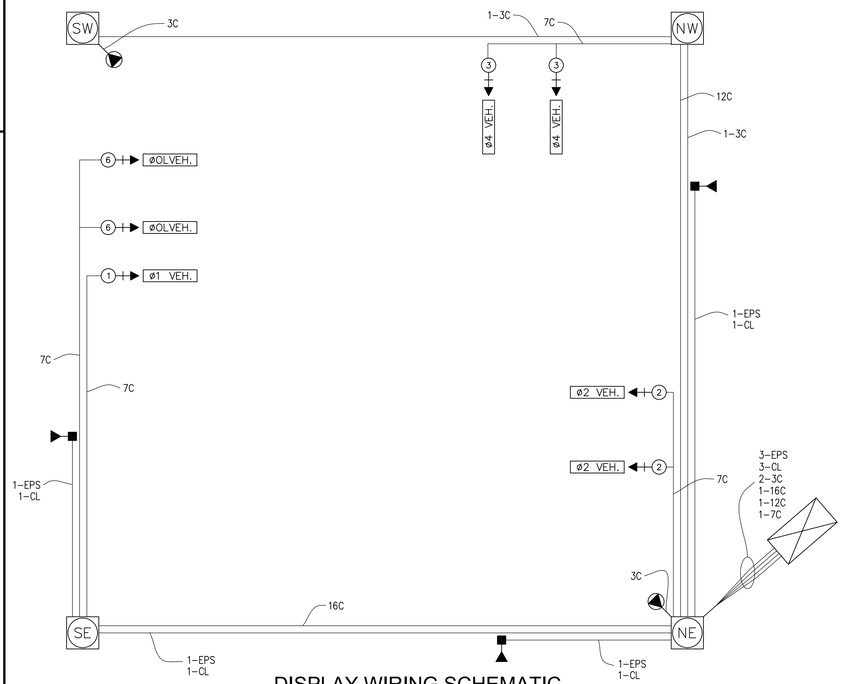
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

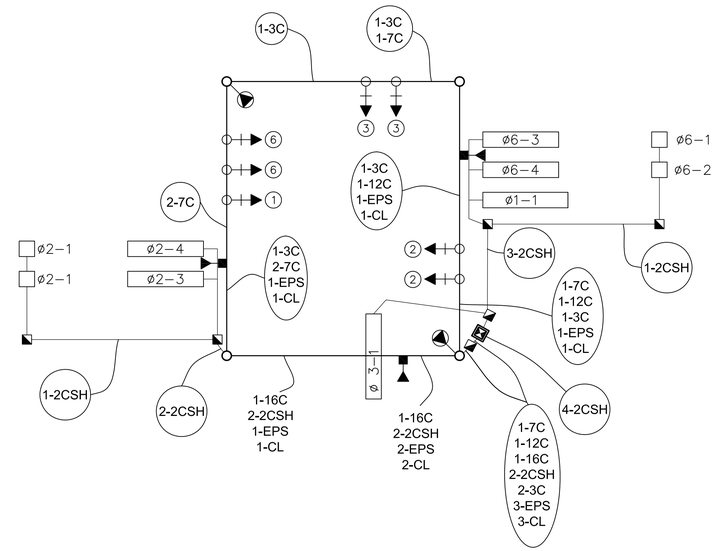
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	
CONST.	2013	STP-M-7900(29)	22B

REVISIONS:

DATE: 02/24/2012
REVISED FITE ROAD TYPICAL SECTIONS.



DISPLAY WIRING SCHEMATIC



GENERAL WIRING DIAGRAM
SIGNAL HEAD AND LOOP IDENTIFICATION

SIGNAL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1) (2)	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	6
(1) (2)	730-02.30	SIGNAL HEAD ASSEMBLY (130A3 WITH BACKPLATE)	EACH	1
	730-02.31	SIGNAL HEAD ASSEMBLY (130A3 POLE MOUNTED)	EACH	1
	730-03.21	INSTALL PULL BOX (TYPE B)	EACH	7
(3)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	590
	730-08.05	SIGNAL CABLE - 12 CONDUCTOR	L.F.	280
	730-08.07	SIGNAL CABLE - 16 CONDUCTOR	L.F.	230
(4)	730-09.01	SPAN WIRE ASSEMBLY(20,800 LBS.MIN.BRK STRENGTH)	L.F.	508
	730-10.01	TETHER WIRE ASSEMBLY - 1/4" DIAMETER	L.F.	508
	730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	900
	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	40
	730-12.03	CONDUIT 3" DIAMETER (PVC)	L.F.	30
	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	90
	730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	EACH	7
	730-13.06	VEHICLE DETECTOR (OPTICALLY ACTIVATED PRIORITY CONTROL)	EACH	1
	730-14.01	SHIELDED DETECTOR CABLE (2CSH)	L.F.	1550
	730-14.02	SAW SLOT	L.F.	920
	730-14.03	LOOP WIRE	L.F.	2500
(8)	730-15.07	CABINET EIGHT PHASE BASE MOUNTED	EACH	1
(5)	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(6) (7)	730-23.02	STEEL STRAIN POLE (SIGNAL SUPPORT POLES #1-4)	EACH	4
(6) (7)	730-23.03	STEEL STRAIN POLE (OVERHEAD SIGN POLES - 30')	EACH	2

(1) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE. SEE SPECIAL NOTES ON SHEET 2L.

(2) SIGNAL HEAD TO INCLUDE SWIVEL BALANCE ADJUSTER

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 730-05.01 FOR PAYMENT BY THE CONTRACTOR.

(4) SPAN WIRE CONNECTION SIZES SHOWN IN DETAIL "B" OF STD. DWG. NOS. T-SG-4 AND T-SG-9 SHALL BE A MINIMUM. THE CONTRACTOR SHALL PROVIDE A CONNECTION ASSEMBLY APPROPRIATE FOR THE SPAN WIRE MINIMUM BREAKING STRENGTH SHOWN.

(5) CONTROLLER TO BE EAGLE EPAC PER CITY OF MEMPHIS SPECIFICATIONS OR APPROVED EQUIVALENT.

(6) SEE SHEET 22A FOR STRAIN POLE MOMENT CAPACITY AND FOOTING DEPTH.

(7) THE COST OF ALL FOOTING MATERIALS AND INSTALLATION SHALL BE INCLUDED IN THE BID PRICE FOR STEEL POLES.

(8) CABINET SHALL MEET THE CITY OF MEMPHIS STND. CONST. SPECIFICATIONS. HOLLOW-CORE BASE AND TECHNICIAN PAD ARE INCLUDED IN THE PRICE BID FOR THE CABINET.

SIGNAL	ø1					ø2					ø3				
		CLEARANCE TO ø2+ø6		CLEARANCE TO ø3			CLEARANCE TO ø1+ø6		CLEARANCE TO ø3			CLEARANCE TO ø1+ø6		CLEARANCE TO ø2+ø6	
		1	2	1	2		1	2	1	2		1	2	1	2
1	~~G~~	~~Y~~	~~R~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~G~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~R~~	~~R~~
2	R	R	G	R	R	G	Y	R	Y	R	R	R	R	R	G
3	~~R~~	R	R	R	G	R	R	R	R	G	G	Y	R	Y	R
6	G	G	G	Y	R	G	G	G	Y	R	R	R	G	R	G

SEQUENCE DIAGRAM

AMP	LOOP	MODE
1/1	ø1-1	PRESENCE
1/2	ø6-1/2	PRESENCE
1/3	ø6-3/4	PRESENCE
2/1	ø2-1/2	PRESENCE
2/2	ø2-3	PRESENCE
2/3	ø2-4	PRESENCE
3/1	ø2-4	PRESENCE

LOOP AMP ASSIGNMENT

GENERAL NOTES

1. UNDERGROUND (U.G.) CONDUIT:

   IN GROUND - SHALL BE PVC.

   UNDER DRIVEWAYS - SCHEDULE 80 PVC CONDUIT SHALL BE USED.

   UNDER ROADWAYS - ALL CONDUITS UNDER ROADWAYS SHALL BE RGS.

2. CONTRACTOR SHALL REFER TO TENNESSEE STANDARDS FOR INSTALLATION DETAILS.

3. THE LOCATION OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY, ALL EXISTING UTILITIES IN THE PROJECT AREA MAY NOT BE SHOWN ON THE PLANS. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES INVOLVED TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES, AND SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

4. THE CONTRACTOR SHALL CONTACT THE TENNESSEE DEPARTMENT OF TRANSPORTATION TWO (2) WEEKS PRIOR TO THE FLASH AND START UP SEQUENCE.

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 0.999994954 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNALIZATION DETAILS
U.S. 51 @ FITE RD.

SCALE: N.T.S.

4/16/2013
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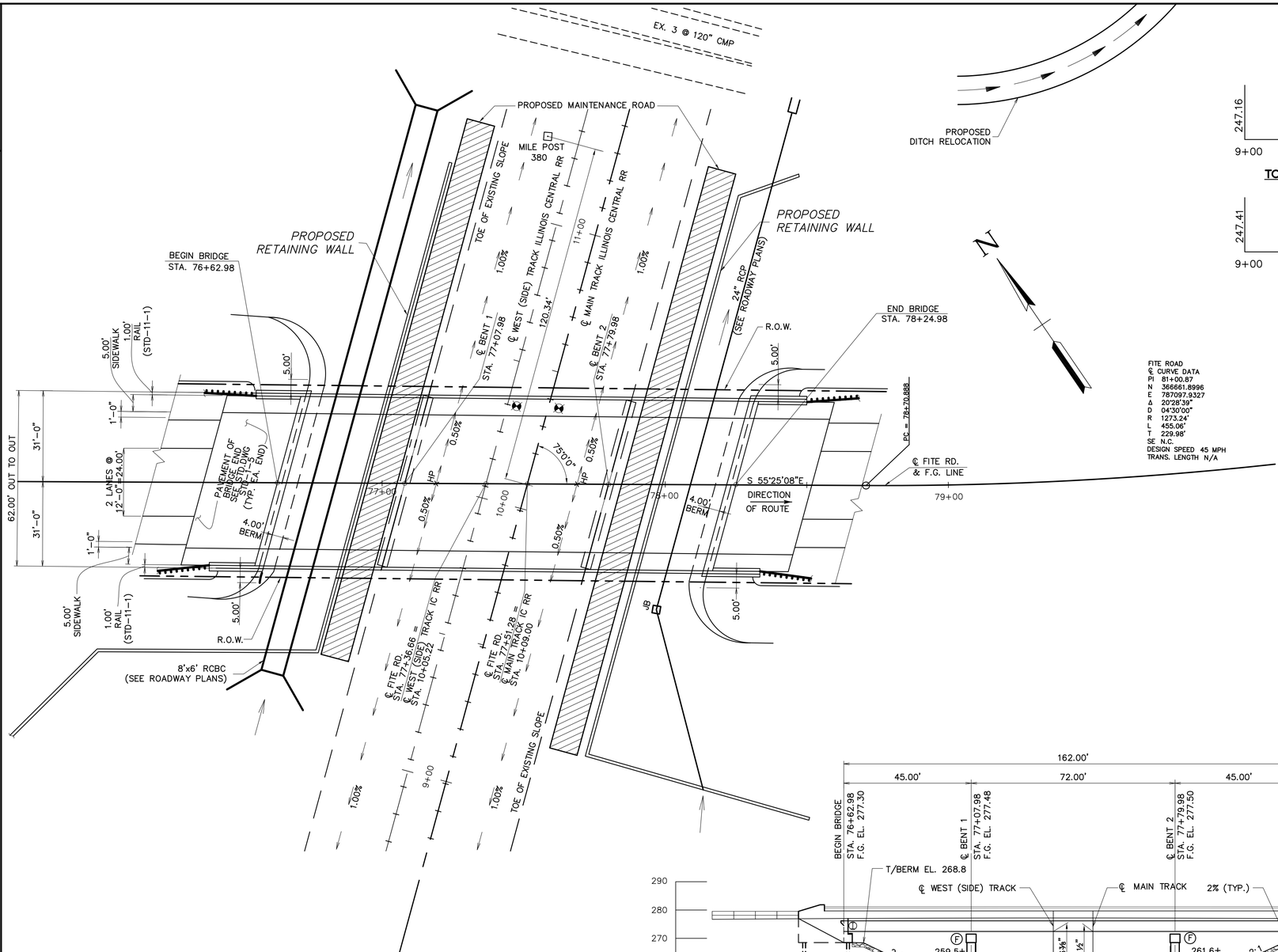
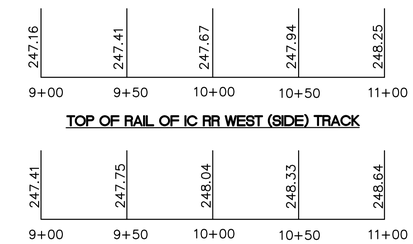
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22
CONST.	2013	STP-M-7900(29)	23

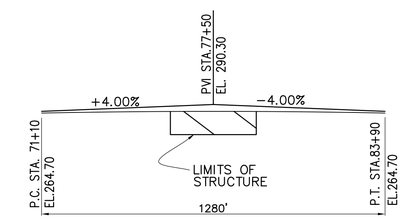
REVISIONS			
NO.	DATE	DESCRIPTION	BY





HYDRAULIC DATA
NOT REQUIRED

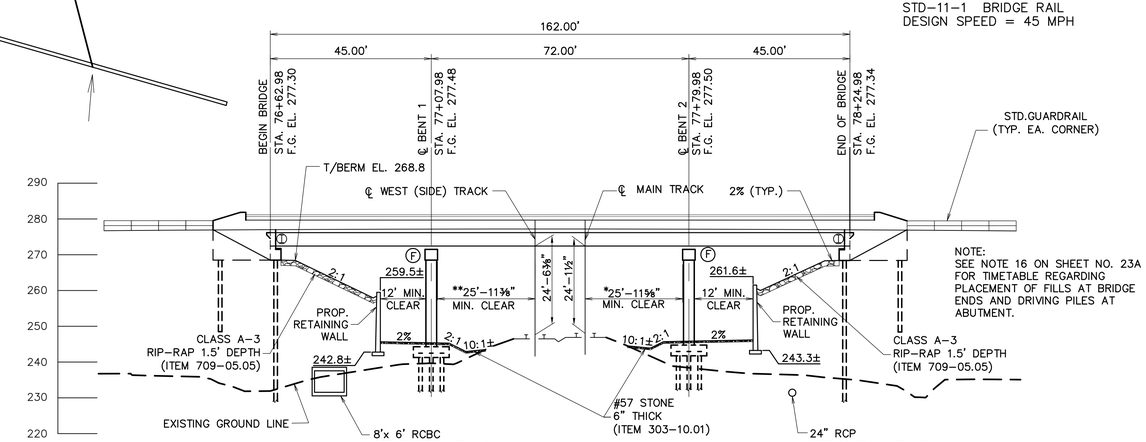
FITE ROAD
℄ CURVE DATA
PI 81+00.87
N 366661.8996
E 787097.9327
Δ 20°28'39"
D 04°30'00"
R 1273.24'
L 455.06'
T 229.98'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A



FITE ROAD EXTENSION FINISH GRADE LINE

2019 ADT =
48' ROADWAY WITH 6'-0" SIDEWALK AND
STD-11-1 BRIDGE RAIL
DESIGN SPEED = 45 MPH

PLAN VIEW
SCALE: 1" = 20'



NOTE:
SEE NOTE 16 ON SHEET NO. 23A FOR TIMETABLE REGARDING PLACEMENT OF FILLS AT BRIDGE ENDS AND DRIVING PILES AT ABUTMENT.

ELEVATION VIEW
SCALE: 1" = 20'

* DIMENSIONS ARE NORMAL TO C.L. MAIN TRACK IC RR
** DIMENSIONS ARE NORMAL TO C.L. WEST (SIDE) TRACK IC RR

LEGEND:

(F)	FIXED
(I)	INTEGRAL
U.N.O.	UNLESS NOTED OTHRWISE
✥	POINT OF MINIMUM VERTICAL CLEARANCE

BENCHMARK
T.B.M. ELEVATION = 242.12
RAILROAD SPIKE IN POWER POLE AT
STA. 96+04, 36.5' LT.

Survey & Design Division

THOMAS L. SALINDER JR.
REGISTERED ENGINEER
AGRICULTURE
CAMBRIDGE
No. 108890
4/12/13
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE LAYOUT

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U-23-111

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

LIST OF SPECIAL PROVISIONS	PROV. NO.	LATEST REV. DATE
APPROVAL OF SHOP DRAWINGS	105A	03–06–95

LIST OF STANDARD DRAWINGS	DWG. NO.	LATEST REV. DATE
SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION	RD–SA–1	10–15–2002
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS – 1995	STD–1–5	06–01–2011
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS – 1992	STD–4–1	04–08–2005
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA – 1992	STD–4–2	04–08–2005
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS – 1992	STD–4–3	03–02–2002
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS – 1992	STD–4–4	06–10–1996
STANDARD PILE DETAILS – 1990	STD–5–1	10–25–1993
STANDARD SEISMIC DETAILS – 1990	STD–6–1	11–01–2010
STANDARD SEISMIC DETAILS – 1992	STD–6–2	11–07–1994
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD–9–1	10–07–2008
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS – 1971	STD–10–1	04–08–2005
BRIDGE RAILING CONCRETE PARAPET WITH STRUCTURAL TUBING – 1988	STD–11–1	08–13–2002
STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR I–BEAMS – 1995	STD–14–2	11–01–2010

GENERAL NOTES

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (MARCH 1996 EDITION).
2. LOADING: HS 20–44
3. DESIGN SPECIFICATIONS: AASHTO 1998 EDITION WITH ADDENDA INCLUDING THE STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES. SEISMIC PERFORMANCE CATEGORY C WITH ACCELERATION COEFFICIENT 0.25.
4. CONCRETE TO BE CLASS "A" (CAST IN PLACE.) F'c= 4000 PSI. EXCEPT AS NOTED OTHERWISE.
5. CLASS "D" CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS (4500 PSI).
6. BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH NOTE C IN ARTICLE 604.23 OF THE STANDARD SPECIFICATIONS.
7. 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 BACKWALLS ARE TO BO POURED CONCURRENTLY WITH THE DECK AND SHALL BE PROVIDED ELSEWHERE IN ACCORDANCE WITH THE SPECIFICATIONS TO PREVENT GIRDER ROTATION. SEE STANDARD DRAWINGS STD–4–1, STD–4–2, STD–4–3, STD–4–4, STD–14–2 AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS.
8. BRIDGE RAIL SYSTEM: BUILD BRIDGE RAILINGS ACCORDING TO STANDARD DRAWING STD–11–1.
9. REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTION 604 AND 907 OF THE STANDARD SPECIFICATIONS.
10. FRICTION PILES: TO BE SIZE I. AFTER EXCAVATION TO THE PROPOSED FOOTING ELEVATIONS, A TEST PILE SHALL BE DRIVEN AT EACH SUBSTRUCTURE AT THE LOCATION DESIGNATED ON SHEET NUMBER 64. A LOAD TEST WILL THEN BE APPLIED TO THE TEST PILE IN BENT NO. 1. FROM THE RESULTS OF THE LOAD TEST, THE ENGINEER OF STRUCTURES WILL DETERMINE APPROXIMATE PILE TIP ELEVATIONS AND THE REQUIRED MINIMUM BEARING FOR THE PRODUCTION PILES UP TO A MAXIMUM OF 150 TONS BASED ON DRIVING EQUATION. THE CONTRACTOR SHALL DRIVE PRODUCTION PILES TO THE LENGTH ORDERED BY THE ENGINEER UNLESS EXCESSIVELY HARD DRIVING IS ENCOUNTERED WHICH MIGHT DAMAGE THE PILE.

    THE PILE LOAD TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIFICATIONS. THE PILE LOAD TEST APPARATUS FOR APPLYING LOADS AND MEASURING MOVEMENT SHALL MEET THE REQUIREMENTS OF ASTM D– 1143, STANDARD METHOD OF TESTING PILE UNDER STATIC AXIAL COMPRESSIVE LOAD. WHEN INSUFFICIENT CLEARANCE IS AVAILABLE WITHIN AN EXCAVATION, THE CLEARANCE REQUIREMENTS IN ARTICLE 4.1.1. MAY BE REDUCED, BUT ONLY WITH PRIOR APPROVAL OF THE ENGINEER. FOR PILE DESIGN LOADS AND CUT–OFF ELEVATIONS, SEE TABLE ON SHEET NUMBER 55.
11. ALTERNATE PILES: THE CONTRACTOR MAY USE PILING OF DIFFERENT MATERIAL OR CONFIGURATION FROM THAT SHOWN ON THE PLANS PROVIDED THE SUBSTITUTION MEETS MINIMUM DESIGN STANDARDS AND SPECIFICATIONS, AND IS APPROVED BY THE ENGINEER.
12. SHOP DRAWINGS: SEE SPECIAL PROVISION NO. 105A.
13. 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 BOTH THE SERVICE LEVEL AND ULTIMATE CAPACITIES OF THE CONTRACT PLANS STRUCTURE. ADDITIONALLY, 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.
14. FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATION. 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 UNDER ITEM 640–04.01
15. ALL FILL SHALL BE IN PLACE PRIOR TO EXCAVATING FOR BENT FOOTINGS. AFTER CONSTRUCTING THE BENT, EXTREME CARE SHALL BE TAKEN WHEN BACKFILLING SO AS NOT TO DAMAGE OR MISALIGN THE BENT.
16. THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE PLACED AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN. THE FILLS AT THE BRIDGE ENDS SHALL BE PLACED IN TWO (2) STAGES. THE INITIAL STAGE SHALL BE COMPRISED OF INDIVIDUAL LIFTS TOTALING NO MORE THAN 20 FEET. SETTLEMENT PLATES SHALL BE INSTALLED TO MONITOR SETTLEMENT OF FILL. THIS INITIAL FILL SHALL BE ALLOWED TO STAND FOR A SETTLING PERIOD UNTIL THE FILL HAS REACHED 50% CONSOLIDATION (SEE SOILS REPORT BY ETS/PSI).

    AFTER THE SETTLING PERIOD, THE REMAINING FILL MAY BE PLACED. AFTER THE REMAINING FILL IS PLACED, IT SHALL BE ALLOWED TO STAND FOR ANOTHER SETTLING PERIOD UNTIL THE FILL HAS REACHED 90% CONSOLIDATION (SEE SOILS REPORT BY ETS/PSI). AFTER THE SECOND SETTLING PERIOD, THE PILES AT THE ABUTMENTS MAY BE DRIVEN.
17. BRIDGE DECK DRAINS: DECK DRAINS NOT REQUIRED

SPECIAL NOTES FOR RAILROAD

1. THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE RAILROAD'S TRACKS AND PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS STIPULATED BY EACH OF THE ILLINOIS CENTRAL RAILROAD, SO AS TO MAINTAIN MINIMUM CONSTRUCTION CLEARANCES, AS LISTED IN THE SPECIAL PROVISION 105C OF THE LOCAL GOVERNMENT AGENCY'S CONTRACT PROPOSAL BOOKLET, AND TO NOT INTERRUPT TRAIN TRAFFIC IN ANY MANNER.
2. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DETAILED AND COMPREHENSIVE PLAN AND PROCEDURE FOR REVIEW AND APPROVAL BY THE RAILROAD (SEE CONTACT ADDRESS BELOW), FOR THE FOLLOWING TASKS IN THE RAILROADS' RIGHTS–OF–WAY:

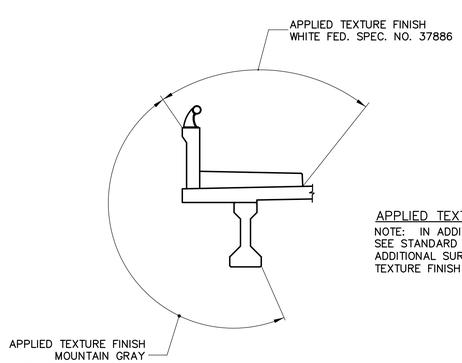
    A. CONSTRUCTION METHODS BEING USED AND SEQUENCING THEREOF OF THE OVERHEAD BRIDGE CONSTRUCTION.

    B. ERECTION OF BRIDGE BEAMS, INCLUDING CRANE SIZES BEING USED.

    C. PAINT PREPARATION AND PAINTING/TEXTURE COATING OF THE SUBSTRUCTURE AND/OR SUPERSTRUCTURE OF THE NEW BRIDGE.

    ILLINOIS CENTRAL RAILROAD CONTACT ADDRESS:
    MR. JOHN W. DINNING
    MANAGER OF PUBLIC WORKS – SOUTHERN REGION
    ILLINOIS CENTRAL RAILROAD
    2151 NORTH MILL STREET
    JACKSON, MS 39202
    PHONE: (601) 914–2658
    FAX: (601) 592–1815
    CELL: (601) 594–2859
    E–MAIL: JOHN.DINNING@CN.CA

3. DURING CONSTRUCTION OF THE NEW OVERHEAD HIGHWAY BRIDGE STRUCTURE, THE CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO PREVENT DEBRIS FROM FALLING ON TO THE RAILROAD'S TRACK RIGHTS–OF–WAY. COMPLETE AND FULL ENCLOSURE OF STRUCTURE CONSTRUCTION WITHIN ALLOWABLE CLEARANCES, AS LISTED IN THE SPECIAL PROVISION 105C, WILL BE REQUIRED. COST OF REMOVING AND DISPOSING OF ANY CONSTRUCTION RUNOFF AND/OR CONSTRUCTION DEBRIS SHALL BE INCLUDED IN THE COST OF OTHER UNIT ITEMS BID ON.
4. NO WORK BY THE CONTRACTOR, THAT MAY INFRINGE UPON THE RAILROAD'S ALLOWABLE CONSTRUCTION CLEARANCES, MAY BE DONE WITHOUT THE PRESENCE AND PERMISSION OF AN AUTHORIZED FLAGGER FROM THE RAILROAD AND/OR ITS DESIGNATED RAILROAD FLAGGING PROVIDER. IT IS ANTICIPATED THAT FULL TIME FLAGGING SERVICES WILL BE REQUIRED FOR ALL WORK IN THE BRIDGE SPANS DIRECTLY OVER OR WITHIN 25–FT OF THE RAILROAD'S TRACK RIGHTS–OF–WAY, AND ALSO WHERE THERE IS THE POTENTIAL FOR A CONSTRUCTION CRANE BOOM TO SWING OUT OVER THE EXISTING RAILROAD LINE, AND IN ANY CASE, FLAGGING SERVICES MAY BE REQUIRED AT ANY TIME IF DETERMINED NECESSARY BY THE RAILROAD.



APPLIED TEXTURE FINISH SKETCH

NOTE: IN ADDITION TO THE SURFACES SHOWN SEE STANDARD SPECIFICATIONS SECTION 604.22 FOR ADDITIONAL SURFACES REQUIRED TO RECEIVE AN APPLIED TEXTURE FINISH (MOUNTAIN GRAY, FED. SPEC. NO. 36640).

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22A
CONST.	2013	STP–M–7900(29)	23A

REVISIONS

NO.	DATE	DESCRIPTION	BY

THOMAS L. SANDERS REGISTERED ENGINEER AGRICULTURE COMMERCE No. 106331 STATE OF TENNESSEE 4/12/13

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

STD. DRAWINGS & GENERAL NOTES

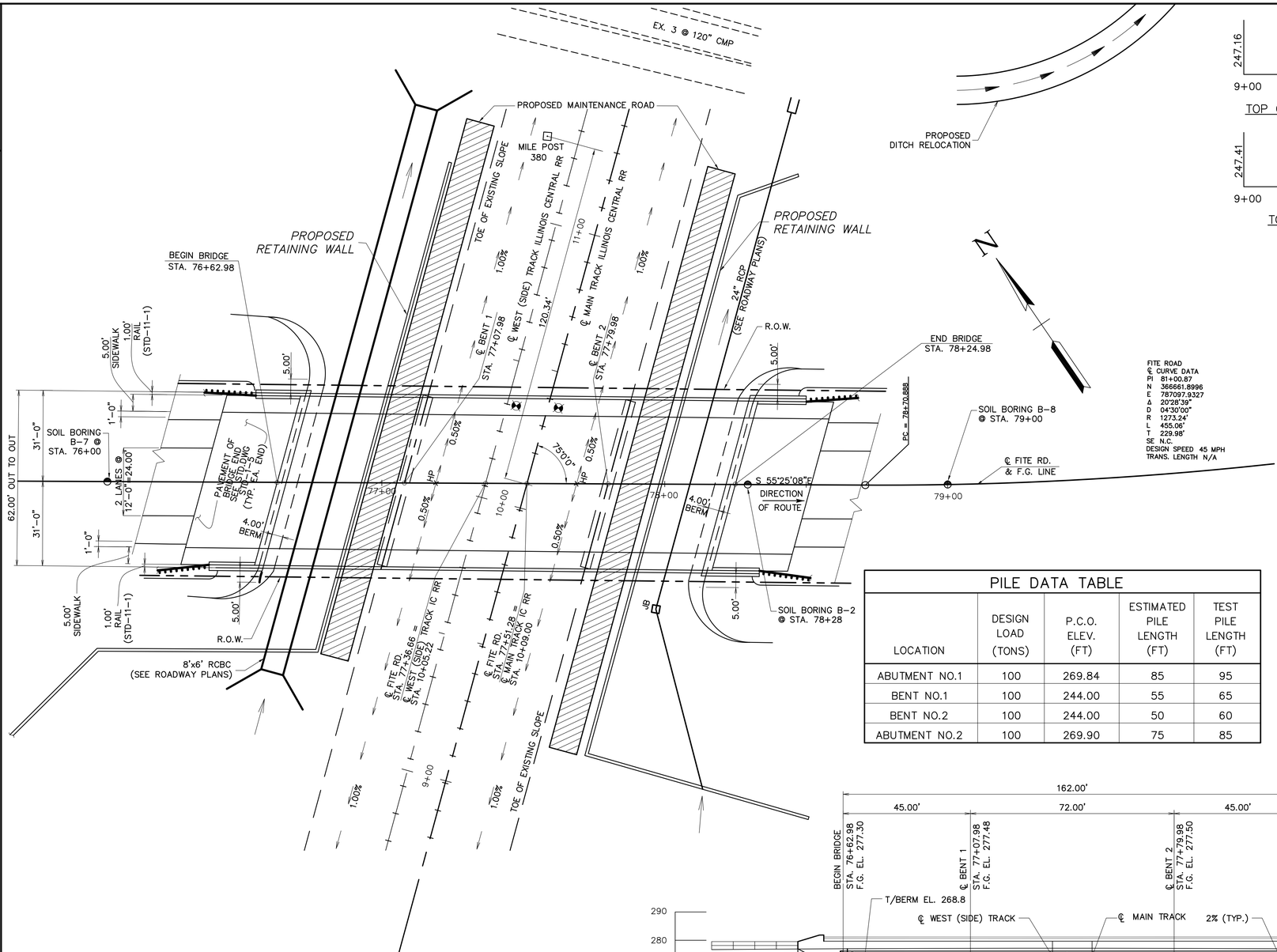
FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U–23–112

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

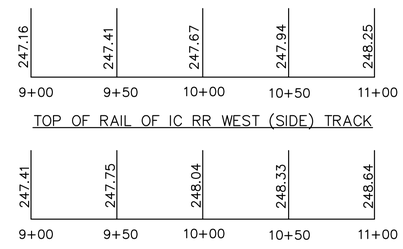
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22B
CONST.	2013	STP-M-7900(29)	23B

REVISIONS			
NO.	DATE	DESCRIPTION	BY

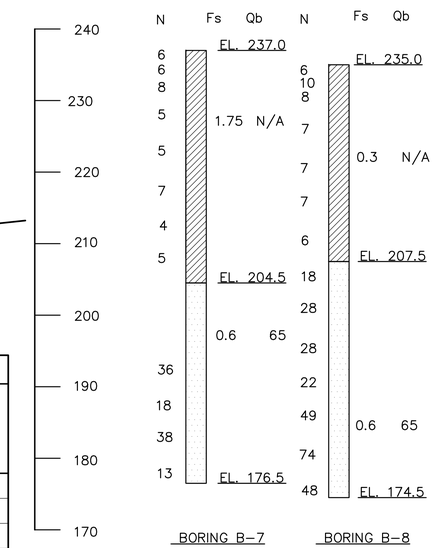


PLAN VIEW
SCALE: 1" = 20'

FITE ROAD
℄ CURVE DATA
PI 81+00.87
N 366661.8996
E 787097.9327
Δ 20°28'39"
D 04°30'00"
R 1273.24'
L 455.06'
T 229.98'
SE N.C.
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A



HYDRAULIC DATA
NOT REQUIRED



CLAYEY SILT

SAND

N= NUMBER
DF= BLONS/FOOT
Fs= TONS/SF
Qb= TONS/SF

PILE DATA TABLE

LOCATION	DESIGN LOAD (TONS)	P.C.O. ELEV. (FT)	ESTIMATED PILE LENGTH (FT)	TEST PILE LENGTH (FT)
ABUTMENT NO.1	100	269.84	85	95
BENT NO.1	100	244.00	55	65
BENT NO.2	100	244.00	50	60
ABUTMENT NO.2	100	269.90	75	85

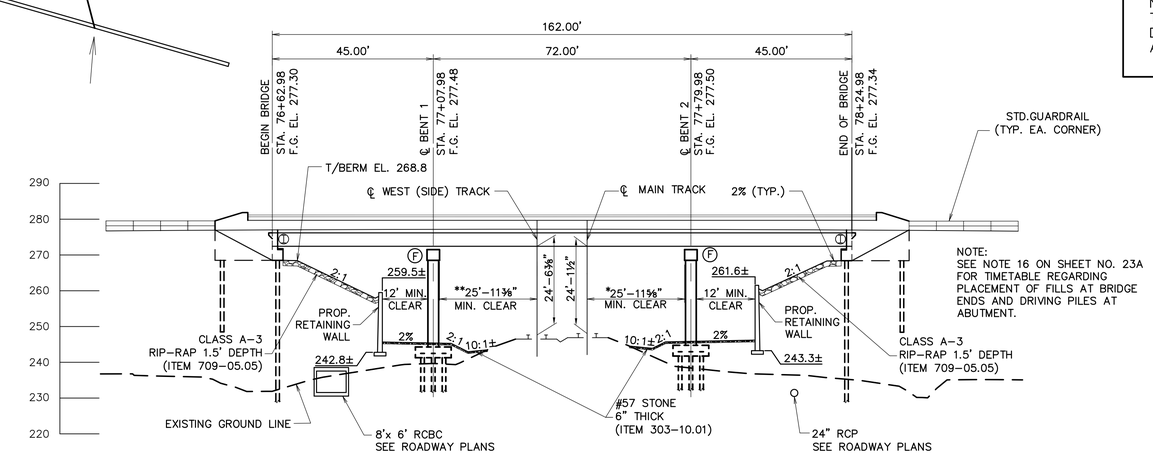
NOTE:
THIS DRAWING IS FOR FOUNDATION DATA ONLY AND IS NOT TO BE USED AS A BRIDGE LAYOUT.

2030 ADT = 8200 VPD
48' ROADWAY WITH 6'-0" SIDEWALK AND STD-11-1 BRIDGE RAIL
DESIGN SPEED = 45 MPH

BENCHMARK
T.B.M. ELEVATION = 242.12
RAILROAD SPIKE IN POWER POLE AT STA. 96+04, 36.5' LT.

LEGEND:

Ⓕ FIXED
Ⓘ INTEGRAL
U.N.O. UNLESS NOTED OTHRWISE
POINT OF MINIMUM VERTICAL CLEARANCE



ELEVATION VIEW
SCALE: 1" = 20'

NOTE:
SEE NOTE 16 ON SHEET NO. 23A FOR TIMETABLE REGARDING PLACEMENT OF FILLS AT BRIDGE ENDS AND DRIVING PILES AT ABUTMENT.

* DIMENSIONS ARE NORMAL TO C.L. MAIN TRACK IC RR
** DIMENSIONS ARE NORMAL TO C.L. WEST (SIDE) TRACK IC RR

THOMAS L. SANDERS
REGISTERED ENGINEER
AGRICULTURE
NUMBER 106980
STATE OF TENNESSEE
4/12/13

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE FOUNDATION DATA

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

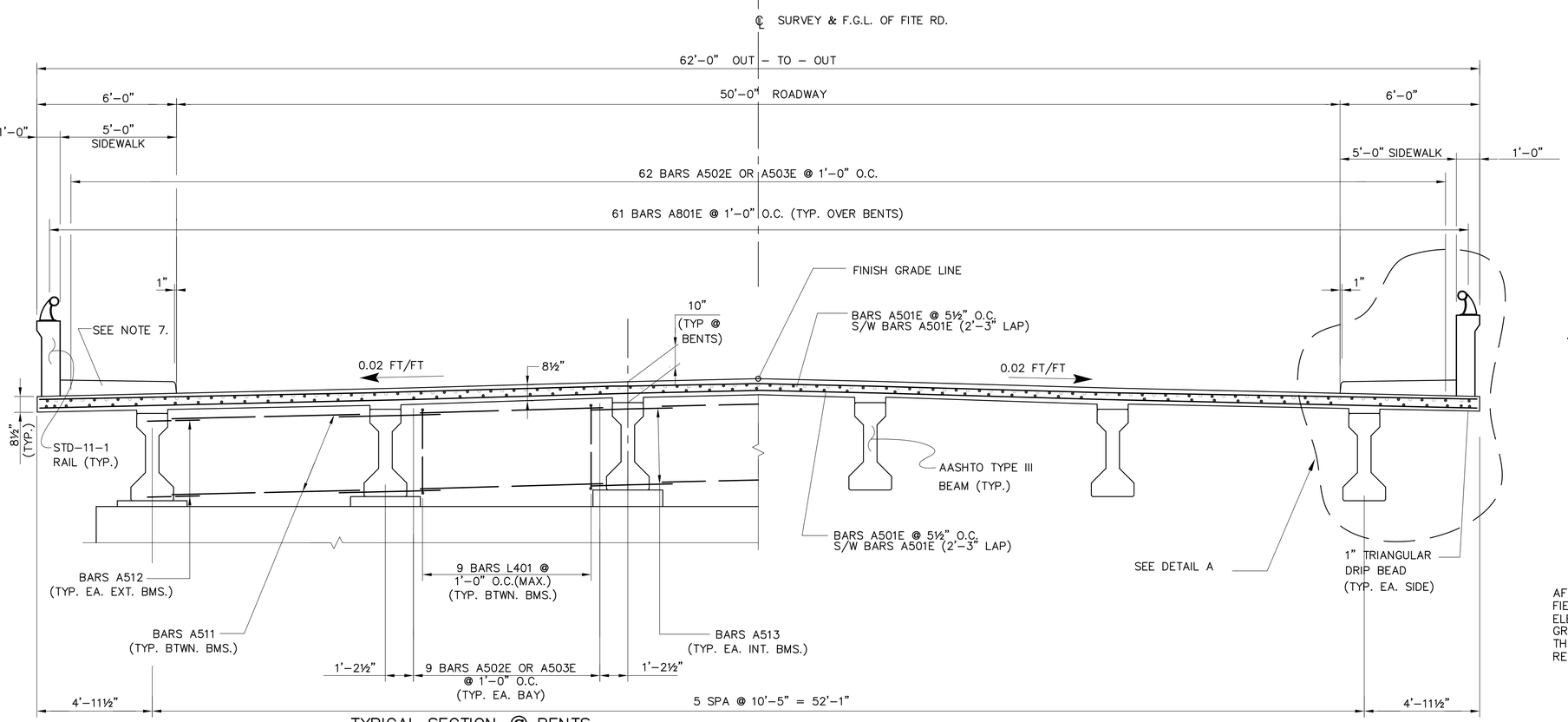
U-23-114

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22C
CONST.	2013	STP–M–7900(29)	23C

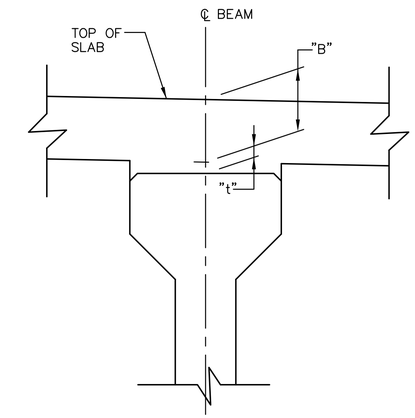
REVISIONS

NO.	DATE	DESCRIPTION	BY



TYPICAL SECTION @ BENTS
(LOOKING AHEAD)
SCALE: 3/8"=1'–0"

TYPICAL SECTION
(LOOKING AHEAD)

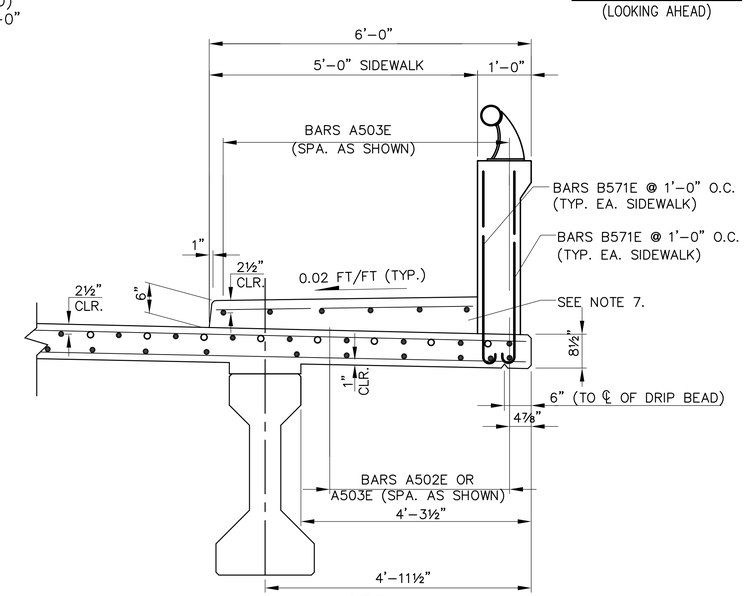


AFTER THE BEAMS ARE IN PLACE, THE CONTRACTOR SHALL FIELD MEASURE THE TOP OF BEAM ELEVATIONS. THESE ELEVATIONS SUBTRACTED FROM THE FINISH GRADE ELEVATIONS MINUS THE SLAB THICKNESS "B" PLUS THE ALGEBRAIC DEAD LOAD DEFLECTIONS EQUAL THE REQUIRED THICKNESS "t".

FILLET DETAIL
SCALE: N.T.S.

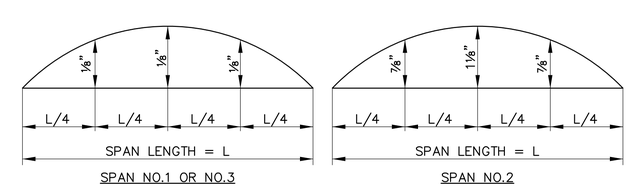
GENERAL NOTES

1. NO PORTION OF THE BRIDGE RAIL SHALL BE POURED UNTIL THE SIDEWALK IS IN PLACE.
2. WHEN POURING THE SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR THE SIDEWALK. THE SIDEWALK SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. SEE SHEET NO. 23D.
3. WHEN POURING THE SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR THE BRIDGE RAIL. POUR SIDEWALK AFTER THE RAIL HAS BEEN POURED. SEE DRAWING NO. STD–11–1 FOR BRIDGE RAIL REINFORCING STEEL.
4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SUPPORTING THE BEAMS TO PREVENT DAMAGE DUE TO TWISTING OR OVERTURNING DURING ALL PHASES OF CONSTRUCTION. IT IS STRONGLY RECOMMENDED THAT THE TEMPORARY ERECTION DIAPHRAGMS BE INSTALLED PRIOR TO PLACING ANY LOADS ON THE GIRDERS. HOWEVER, TEMPORARY ERECTION DIAPHRAGMS MUST BE IN PLACE IN THE SPAN AT THE TIME THE SLAB IS POURED IN SAID SPAN.
5. MIN. LAP SPLICE: #4 BAR: 1'–8"
   #5 BAR: 2'–2"
   #6 BAR: 2'–9"
6. SUPPORT DIAPHRAGMS AT BENTS SHALL BE POURED WITH THE DECK SLAB AND INCLUDED IN THE QUANTITY FOR ITEM 604–03.09.
7. SIDEWALKS ON THE PROPOSED BRIDGE ARE TO BE EXTENDED TO THE ENDS OF THE APPROACH SLAB. COORDINATE ROADWAY 6–30 C&G SECTION WITH APPROACH SLAB.



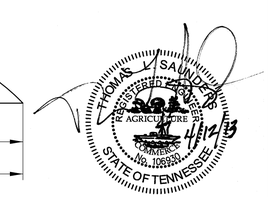
DETAIL A
SCALE: 3/4"=1'–0"

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QTY.
604–03.09	CLASS "D" CONCRETE (BRIDGE DECK)	CY	320
604–02.03	EPOXY COATED REINF. STEEL	LBS	80855
604–03.02	STEEL BAR REINF. (BRIDGES)	LBS	2387



DEAD LOAD CORRECTION CURVE

THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE AND SHOULD BE CORRECTED TO COMPENSATE FOR THE EFFECTS DUE TO VERTICAL CURVE. IF PRESTRESSED DECK PANELS ARE USED AND THE BEAMS ARE PROFILED AFTER PANELS ARE IN PLACE, REDUCE THE DEAD LOAD CORRECTION VALUES SHOWN BY 25%.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TYPICAL BRIDGE SECTION

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U–23–115

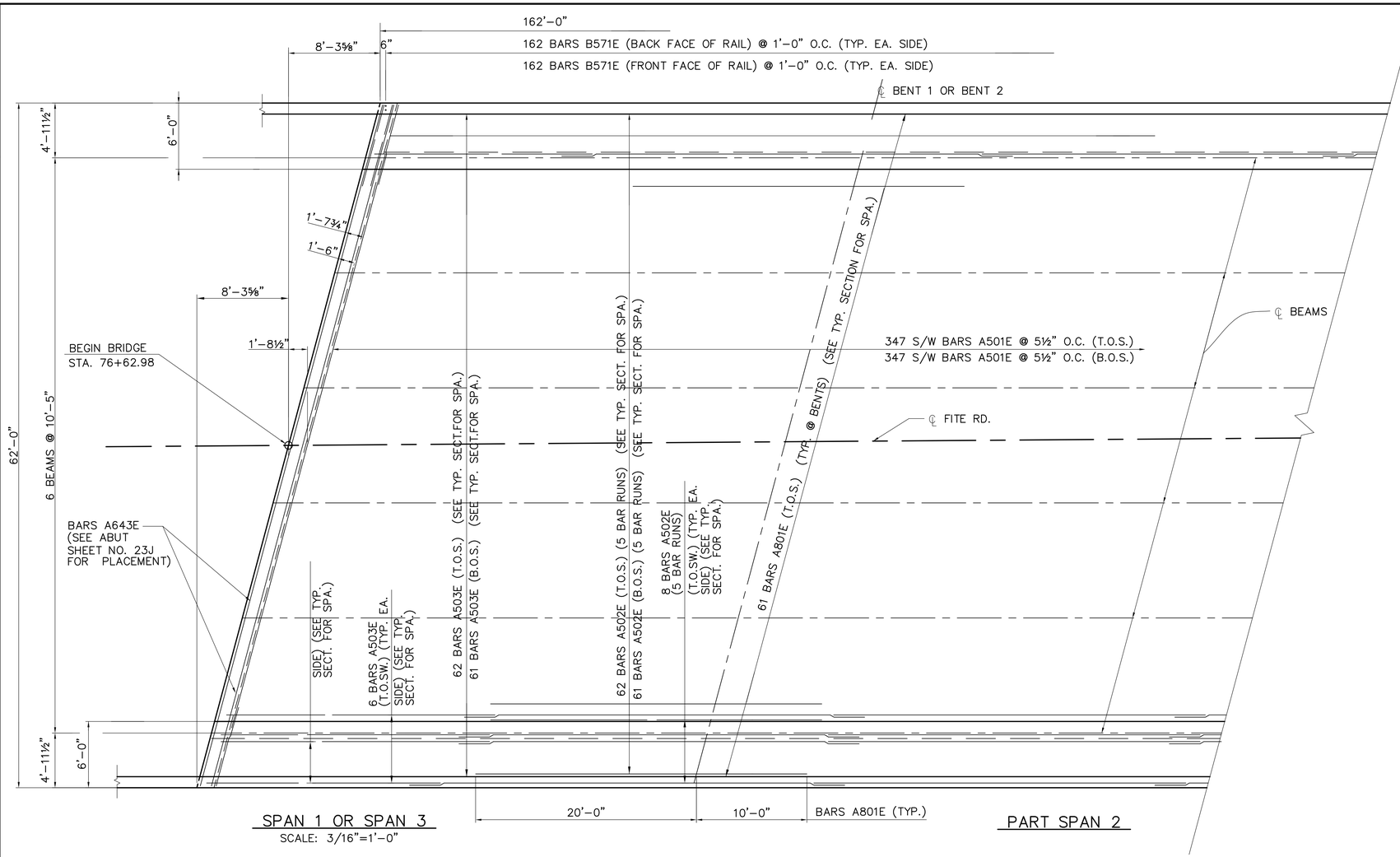
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22D
CONST.	2013	STP-M-7900(29)	23D

REVISIONS

NO.	DATE	DESCRIPTION	BY



LEGEND

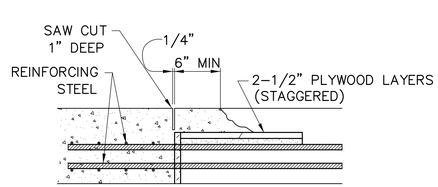
T.O.S.	TOP OF SLAB
B.O.S.	BOTTOM OF SLAB
T.O.SW.	TOP OF SIDEWALK
B.O.SW.	BOTTOM OF SIDEWALK

NOTES

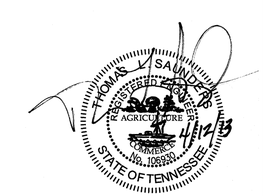
1. NOTES ON SHEET NO. 23C APPLY TO THIS SHEET.
2. SEE SHEET NO. 23C FOR TYPICAL SECTION.
3. DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:

   A) NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEET OR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.

   B) THE SLAB IN THE MIDDLE SECTION OF BOTH ADJACENT SPANS MUST BE POURED TO WITHIN AT LEAST 15 FEET OF THE SUPPORTS EITHER PRIOR TO OR CONCURRENTLY WITH THE SLAB OVER AN INTERIOR SUPPORT.



SLAB CONSTRUCTION JOINT



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE SLAB PLAN

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U-23-116

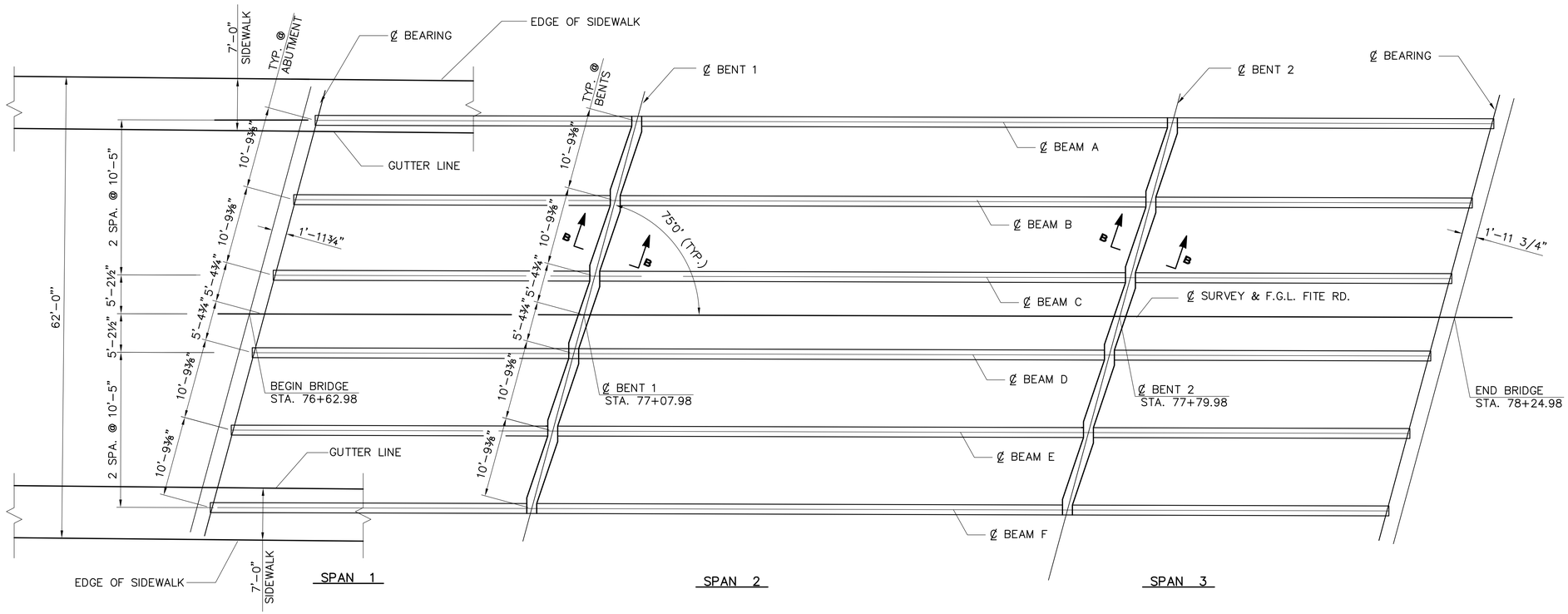
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

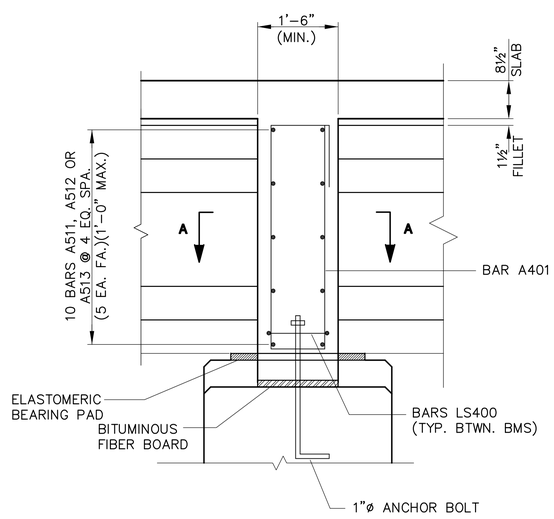
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22E
CONST.	2013	STP-M-7900(29)	23E

REVISIONS

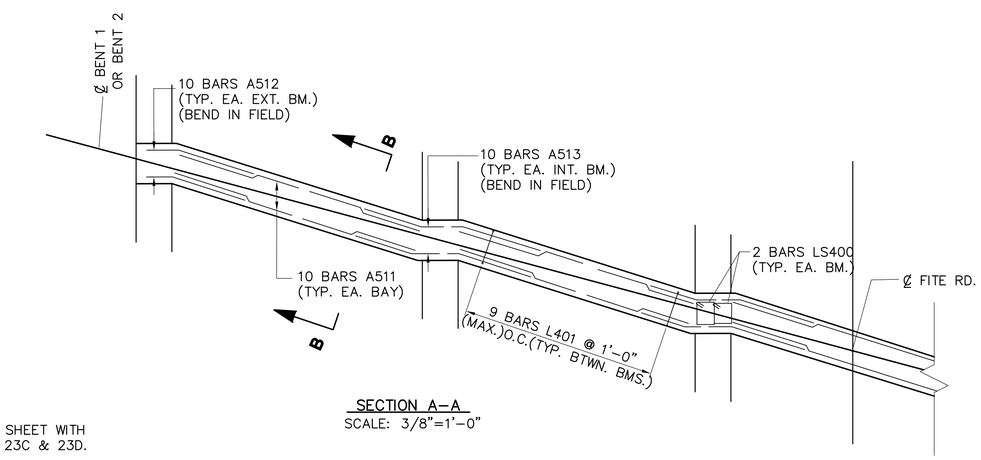
NO.	DATE	DESCRIPTION	BY



FRAMING PLAN
SCALE: 1/8"=1'-0"



SECTION B-B
SCALE: 3/4"=1'-0"



SECTION A-A
SCALE: 3/8"=1'-0"

NOTES :

1. WORK THIS SHEET WITH SHEET NO. 23C & 23D.

SPECIAL NOTE FOR ANCHOR BOLTS AT BENTS:
ANCHOR BOLT ASSEMBLIES AT BENTS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING STD-6-1.

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE FRAMING PLAN AND DETAILS

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

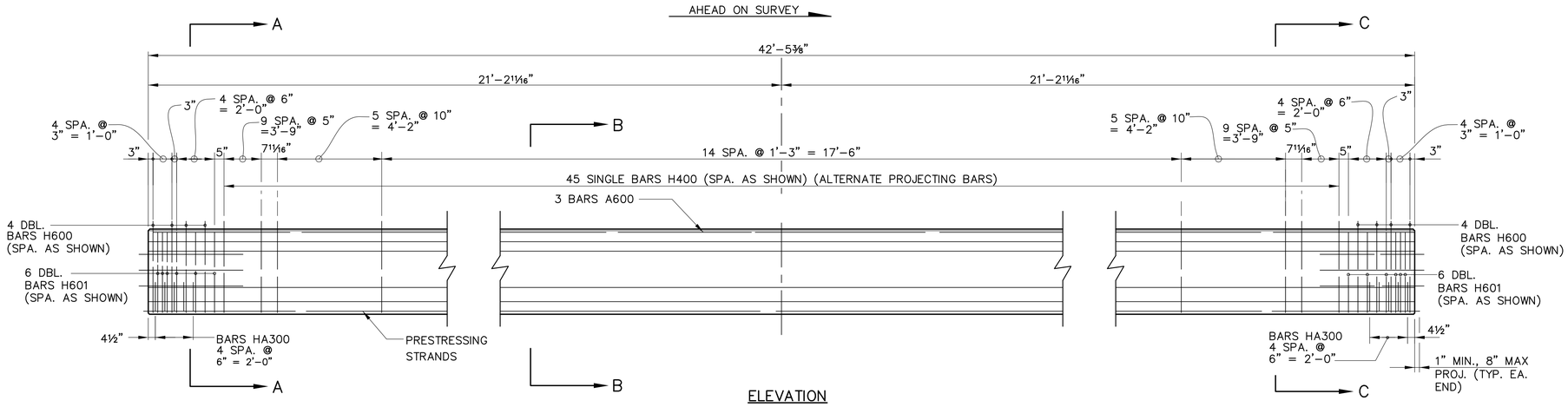
U-23-117

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22F
CONST.	2013	STP–M–7900(29)	23F

REVISIONS

NO.	DATE	DESCRIPTION	BY



ELEVATION

BEARING DATA		
	ABUT. NO.1 & NO.2	BENT NO.1 & NO.2
DL	44.5 k	82.5
LL	----	73.5
△	0	0
θ	0.0008	0.0032

△ DENOTES TOTAL ONE WAY MOVEMENT

θ DENOTES ANGULAR ROTATION (RADIANS)

ESTIMATED QUANTITIES (PER BEAM)			
NO. REQ'D.	CLASS 'A' CONCRETE CY	STEEL BAR REINFORCING LBS	PRESTRESSING STRANDS (LOW RELAXATION) LBS
6 (SPAN 1)	6.11	700	281
6 (SPAN 3)	6.11	700	281

NOTE: COST TO INCLUDE ELASTOMERIC BEARING PADS AND RUBBER BONDING CEMENT.

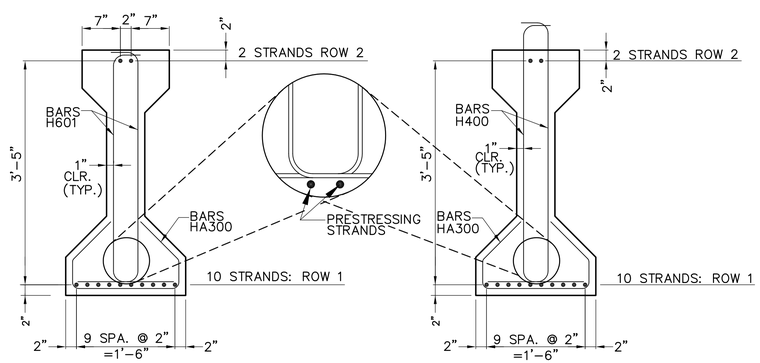
NOTES :

1. SEE STDM–14–2 FOR I–BEAM STANDARD DETAILS, NOTES, AND REINFORCING.
2. ALL BEAMS ARE AASHTO – PCI STANDARD TYPE III.
3. THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 5,000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4,000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.
4. ELASTOMERIC BEARING PADS TO BE 1'–10" x 6" x 1/2" AT ABUTMENT ENDS. AND 2'–6" x 1'–10" x 1/2" @ BENT ENDS. SEE STANDARD DWG. STD–14–2 FOR DETAILS.
5. SEE STANDARD DWG. NO. STD–14–2 FOR BAR BENDS.
6. SEE SHEET NO. 23E FOR BEAM LOCATIONS.

PRESTRESSED BEAM DESIGN DATA – PER BEAM

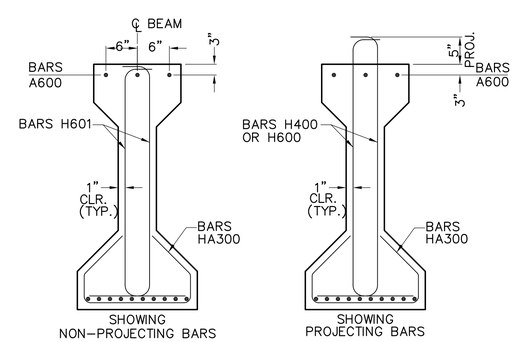
LIVE LOAD DISTRIBUTION FACTOR: 1.636 WHEELS
COMPOSITE DEAD LOAD: 0.644 k/FT
COMPOSITE SLAB DESIGN STRENGTH: 4,500 PSI (3000 PSI FOR DESIGN)

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.



SECTION A–A
END PRESTRESSING
STRAND PATTERN
12–1/2" DIA., 270 ksi
LOW RELAXATION STRANDS
SCALE 3"=1'–0"

SECTION B–B
CENTER PRESTRESSING
STRAND PATTERN
12–1/2" DIA., 270 ksi
LOW RELAXATION STRANDS
SCALE 3"=1'–0"



SECTION C–C
SCALE 3"=1'–0"

BILL OF STEEL (PER BEAM)			
BAR	SIZE	NO. REQ'D.	LENGTH
A500	5	6	5'–6"
A600	6	3	42'–1"
H400	4	45	5'–4"
H600	6	16	5'–4"
H601	6	24	4'–9"
HA300	3	10	4'–3"

THOMAS J. SAUNDERS REGISTERED ENGINEER AGRICULTURE No. 105931 STATE OF TENNESSEE 4/12/13

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESTRESSED BEAM (TYPE III) DETAILS SPAN NO. 1 & 3

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

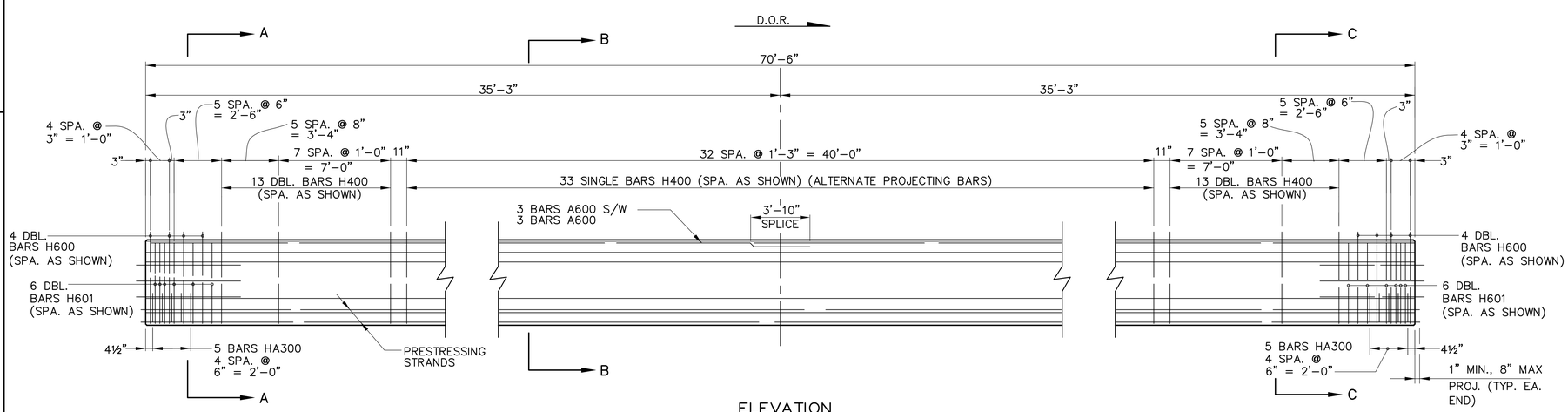
U–23–118

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

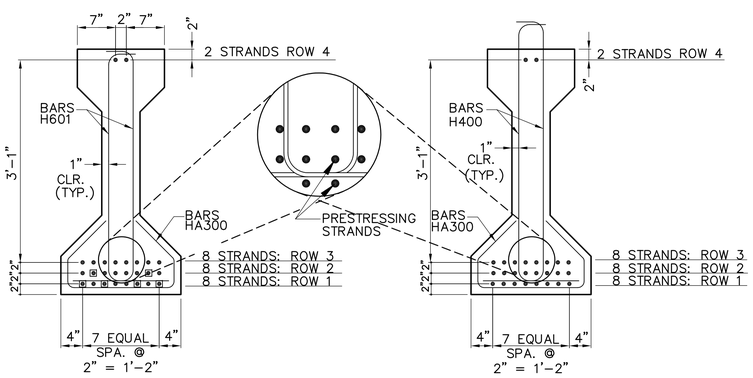
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22G
CONST.	2013	STP–M–7900(29)	23G

REVISIONS

NO.	DATE	DESCRIPTION	BY



ELEVATION

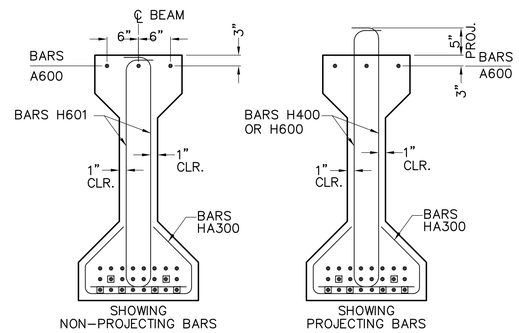


SECTION A–A
END PRESTRESSING
STRAND PATTERN

26– 1/2" DIA., 270 ksi LOW RELAXATION STRANDS
▣ – DENOTES DEBONDED STRANDS
LENGTH OF DEBOND FROM END OF BEAM:
ROW 1: 14'–0"
ROW 2: 14'–0"

SECTION B–B
CENTER PRESTRESSING
STRAND PATTERN

26– 1/2" DIA., 270 ksi LOW RELAXATION STRANDS



SECTION C–C

NOTES

1. SEE STD–14–2 FOR I–BEAM STANDARD DETAILS, NOTES, AND REINFORCING.
2. ALL BEAMS ARE AASHTO – PCI STANDARD TYPE III.
3. THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 5000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.
4. SEE STANDARD DWG. NO. STD–14–2 FOR BEARING PAD DETAILS.

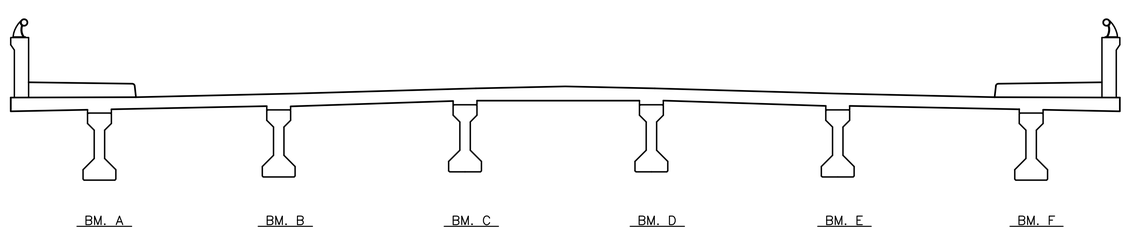
PRESTRESSED BEAM DESIGN DATA – PER BEAM

LIVE LOAD DISTRIBUTION FACTOR: 1.630 WHEELS
COMPOSITE DEAD LOAD: 0.644 k/FT
COMPOSITE SLAB DESIGN STRENGTH: 3000 PSI

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

BILL OF STEEL
(PER BEAM)

BAR	SIZE	NO. REQ'D.	LENGTH
A500	5	6	5'–6"
A600	6	6	37'–0"
H400	4	85	5'–4"
H600	6	16	5'–4"
H601	6	24	4'–9"
HA300	3	10	4'–3"

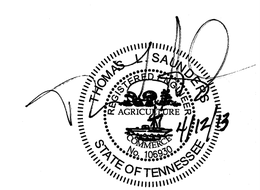


TYPICAL SECTION
LOOKING AHEAD

ESTIMATED QUANTITIES
(PER BEAM)

NO. REQ'D.	CLASS 'A' CONCRETE CY	STEEL BAR REINFORCING LBS	PRESTRESSING STRANDS (LOW RELAXATION) LBS
6 (SPAN 2)	10	985	984

NOTE:
COST TO INCLUDE ELASTOMERIC BEARING PADS AND RUBBER BONDING CEMENT.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESTRESSED BEAM (TYPE III) DETAILS SPAN NO. 2

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U–23–119

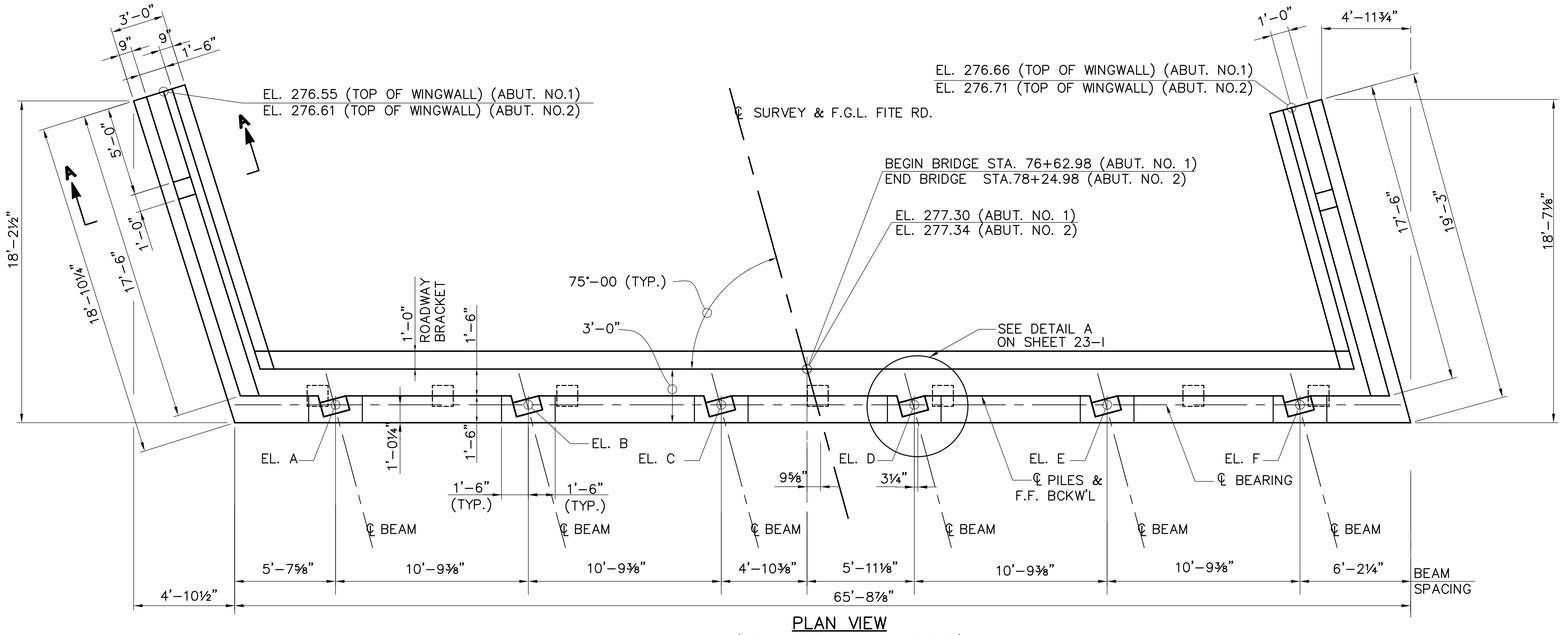
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

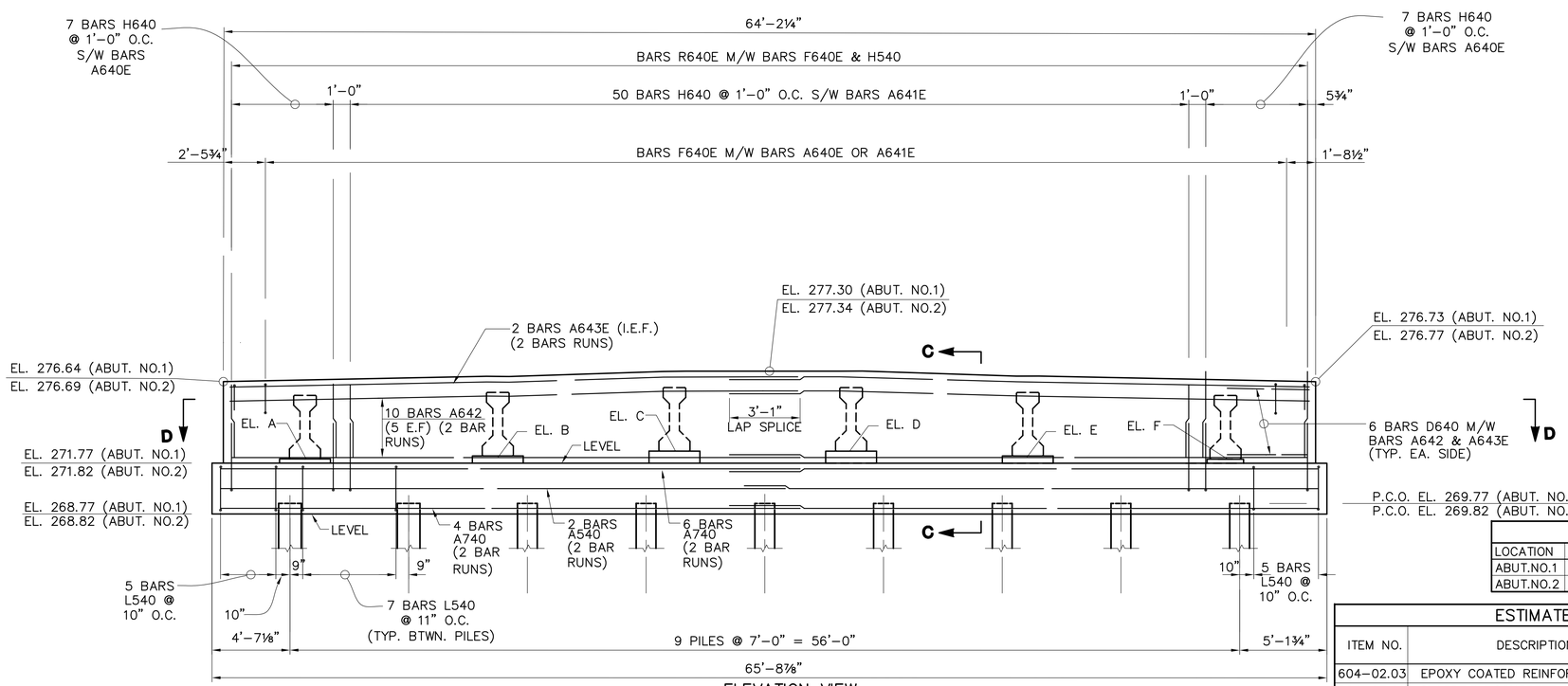
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22H
CONST.	2013	STP–M–7900(29)	23H

REVISIONS

NO.	DATE	DESCRIPTION	BY



PLAN VIEW
(ABUTMENT NO. 1 LOOKING BACK)
(ABUTMENT NO. 2 LOOKING AHEAD)
SCALE: 1/4" = 1'–0"



ELEVATION VIEW
SCALE: 1/4" =1'–0"

NOTES

1. RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.
2. WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAIL OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD–11–1.
3. NOT LESS THAN HALF OF THE SLAB SHALL BE POURED PRIOR TO, OR CONCURRENTLY WITH, PLACEMENT OF ANY PART OF THE ABUTMENT BACKWALLS. AT LEAST THE TOP 12 INCHES OF THE BACKWALL SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.
4. RISER BLOCK BEARING PAD SURFACES TO BE LEVEL. ELEVATION SHOWN ARE AT CENTER LINE BEARING.
5. COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE BRIDGE RAIL SYSTEM.
6. ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.
7. SEE STANDARD DRAWING STD–6–1 FOR PILE DETAILS AND NOTES.
8. WINGBEAM PILES (MAXIMUM LENGTH OF 20 FEET) SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.
9. SEE SHEET NO. 23–I FOR SECTIONS A–A AND D–D.
10. SEE SHEET NO. 23J FOR SECTION C–C, AND RISER BLOCK DETAIL.
11. BAR SPLICE:

    #4 BAR 1'–8"
    #5 BAR 2'–5"
    #6 BAR AS SHOWN
    #7 BAR 4'–2"

TABLE OF ELEVATIONS

LOCATION	A	B	C	D	E	F
ABUT.NO.1	272.02	272.34	272.58	272.58	272.40	272.20
ABUT.NO.2	272.08	272.40	272.62	272.64	272.44	272.24

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
			ABUT NO.1	ABUT NO.2
604–02.03	EPOXY COATED REINFORCING STEEL	LBS	2553	2553
604–03.01	CLASS "A" CONCRETE (BRIDGES)	CY	65	65
604–03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LBS	8102	8102

THOMAS L. SAUNDERS
REGISTERED ENGINEER
AGRICULTURE
CAMBRIA
No. 106890
4/12/13
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

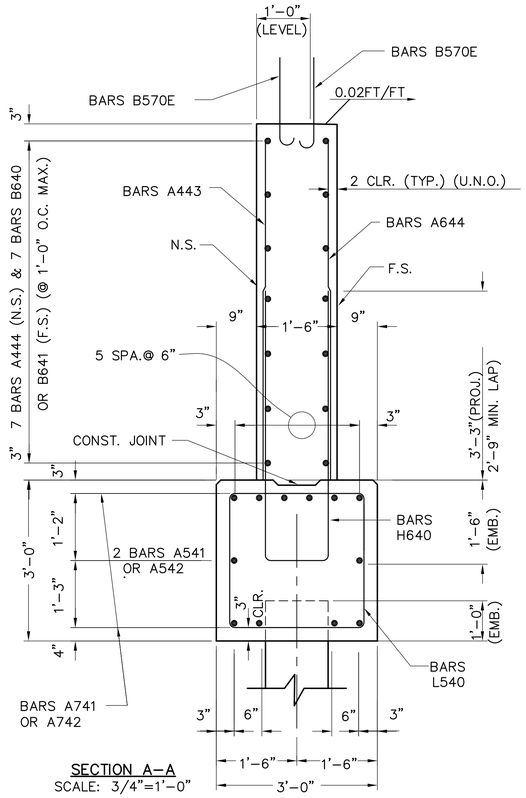
BRIDGE ABUTMENT NO. 1 & 2 LAYOUT

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U–23–120

Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



SECTION A-A
SCALE: 3/4"=1'-0"

NOTES

1. SEE SHEET NO. 23J FOR ELEVATION A-A, SECTION C-C, AND RISER BLOCK DETAIL.
2. NOTES ON SHEET NO. 23H APPLY TO THIS SHEET.

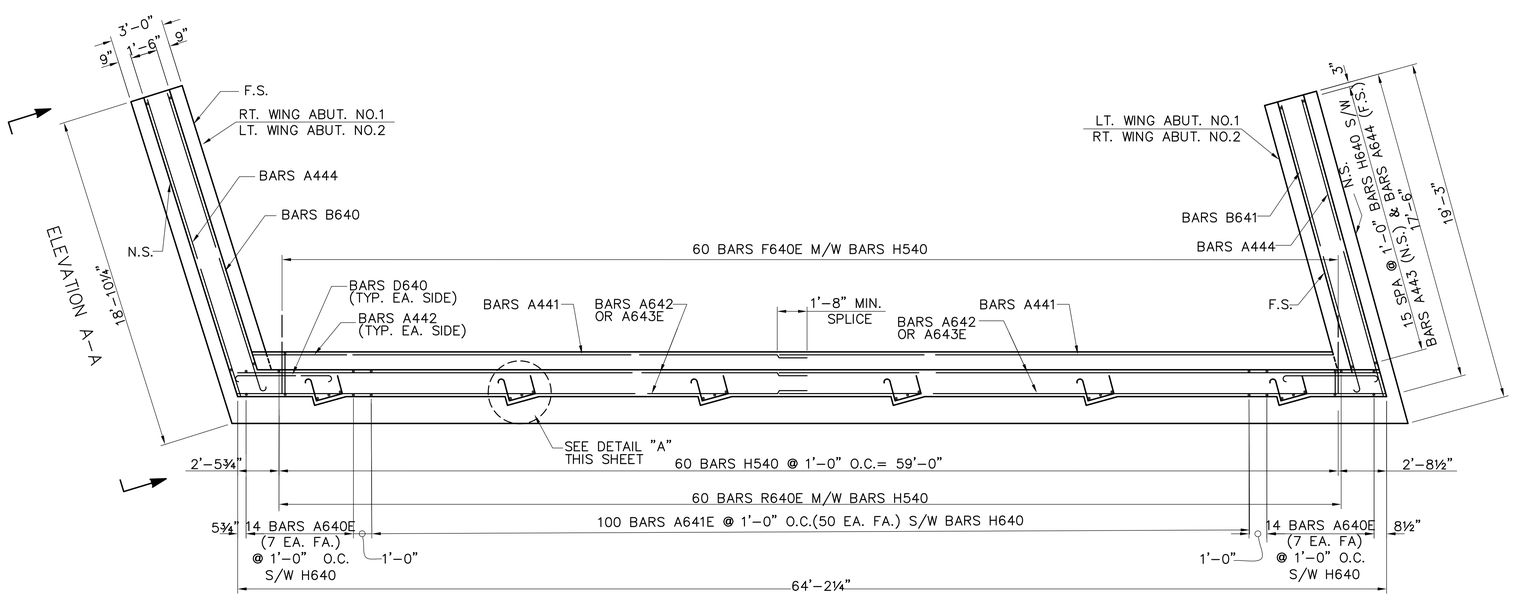
LEGEND

F.S. FAR SIDE
N.S. NEAR SIDE

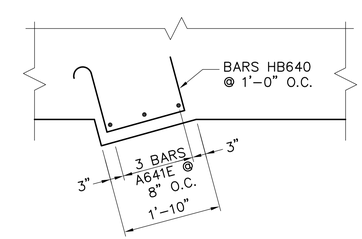
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22-I
CONST.	2013	STP-M-7900(29)	23-I

REVISIONS

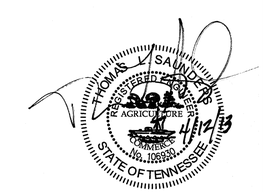
NO.	DATE	DESCRIPTION	BY



SECTION D-D
SCALE: 1/4"=1'-0"



DETAIL A
SCALE: 3/4"=1'-0"



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE ABUTMENT NO. 1 & 2 LAYOUT

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U-23-121

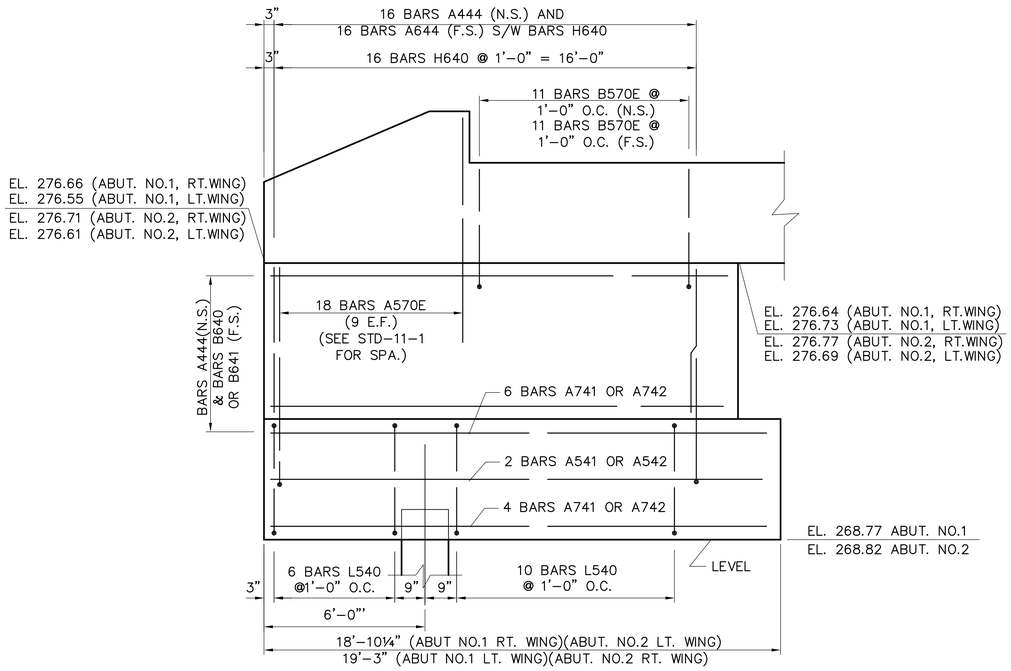
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

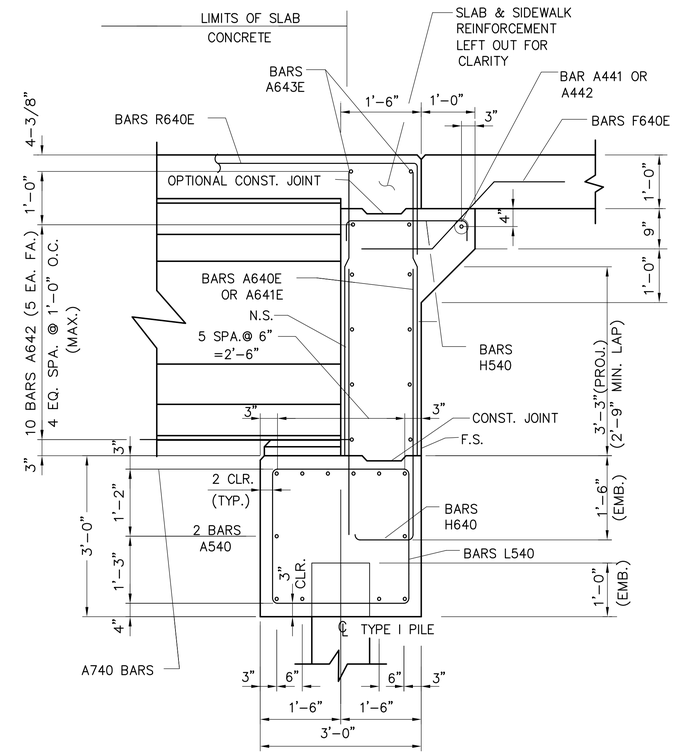
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22J
CONST.	2013	STP-M-7900(29)	23J

REVISIONS

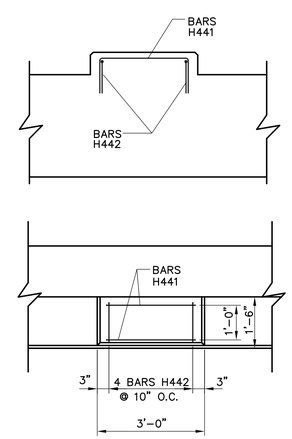
NO.	DATE	DESCRIPTION	BY



ELEVATION A-A
SCALE: 3/8"=1'-0"



SECTION C-C
SCALE: 3/4"=1'-0"



RISER BLOCK DETAIL
SCALE: 1/2" =1'-0"

LEGEND
F.S. FAR SIDE
N.S. NEAR SIDE

NOTE:
NOTES ON SHEET NO. 23H APPLY TO THIS SHEET.

THOMAS L. SAUNDERS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 108331
STATE OF TENNESSEE
4/12/13

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

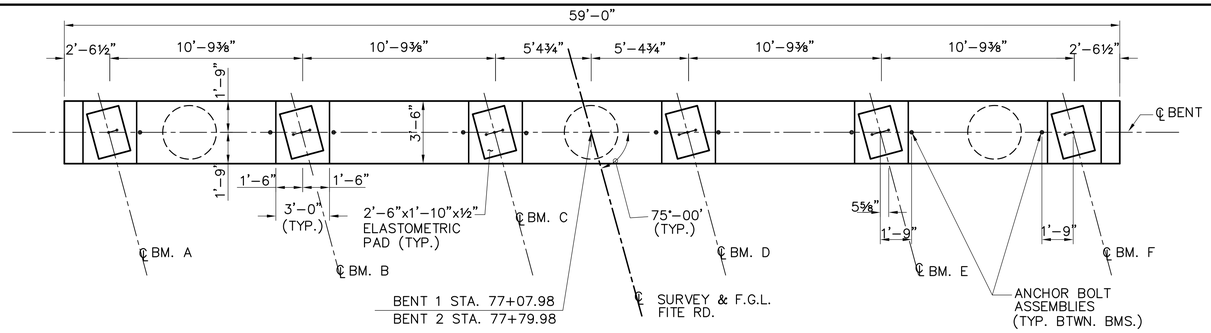
BRIDGE ABUTMENT DETAILS

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U-23-122

Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



BENT LAYOUT
(BENT 1 OR BENT 2)
SCALE: 1/4"=1'-0"

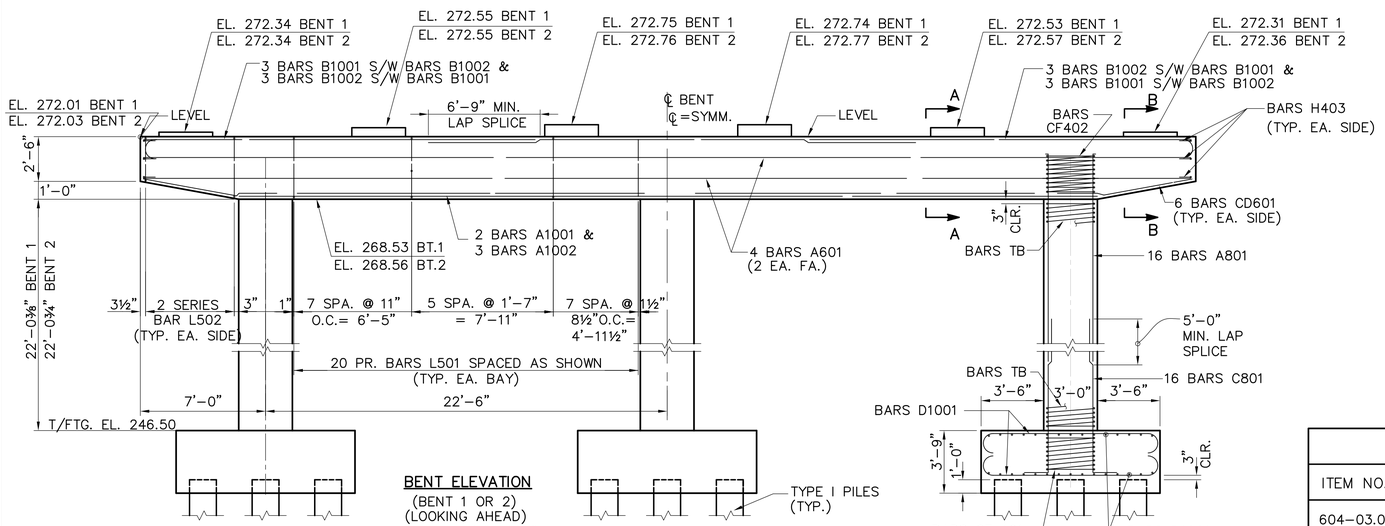
NOTES

1. WHEN POURING CAP BEAMS, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. SEE STANDARD DRAWING STD-6-1. BOLT PROJECTION 11".
2. RISER BLOCKS TO BE POURED MONOLITHICALLY WITH CAP BEAM.
3. ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS ON CONCRETE. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.
4. RISER BLOCK BEARING SURFACE TO BE LEVEL.
5. COLUMN STEEL TO EXTEND 2'-9" INTO CAP BEAM.
6. SEE STANDARD DRAWING STD-6-1 FOR PILE DETAILS AND NOTES.
7. SEE STANDARD DRAWING STD-6-2 FOR SPIRAL REINFORCEMENT DETAILS AND NOTES.
8. SEE SHEET NO. 23A FOR ADDITIONAL DETAILS.
9. FOR PILE CUT-OFF ELEVATIONS SEE SHEET NO. 23B

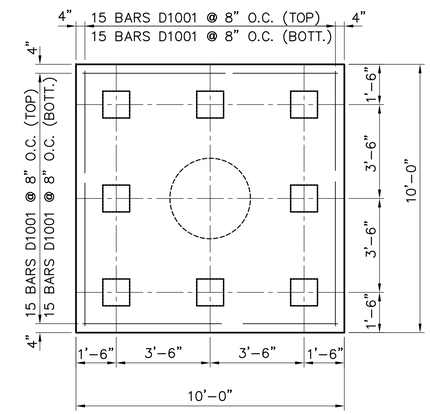
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP-M-7900(29)	22K
CONST.	2013	STP-M-7900(29)	23K

REVISIONS

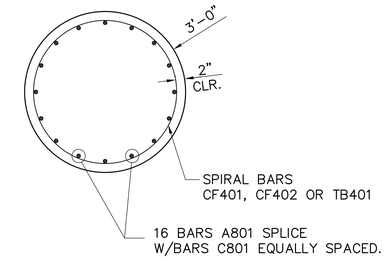
NO.	DATE	DESCRIPTION	BY



BENT ELEVATION
(BENT 1 OR 2)
(LOOKING AHEAD)
SCALE: 1/4"=1'-0"

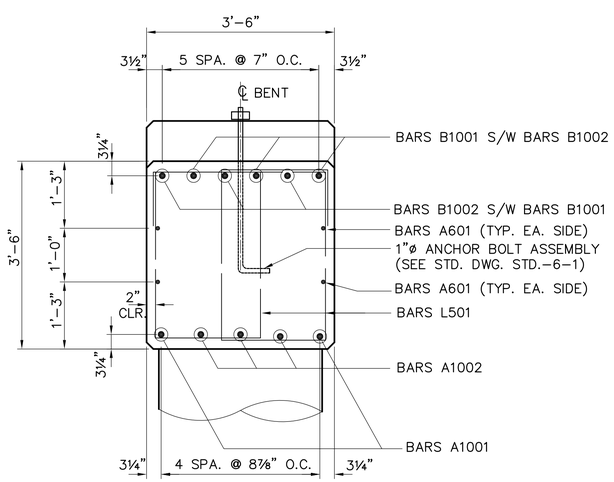


FOOTING PLAN
SCALE: 3/8"=1'-0"

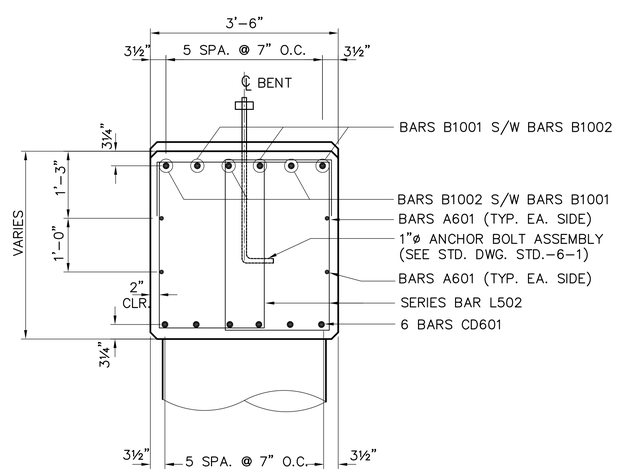


COLUMN SECTION
SCALE: 3/4"=1'-0"

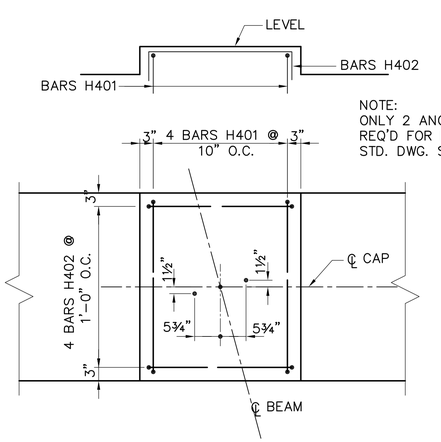
ESTIMATED QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	BENT 1	BENT 2
604-03.01	CLASS "A" CONC. (BRIDGE)	C.Y.	84	84
604-03.02	STEEL BAR REINF. (BRIDGE)	LB.	20103	20103



SECTION A-A
SCALE: 3/4"=1'-0"



SECTION B-B
SCALE: 3/4"=1'-0"



NOTE:
ONLY 2 ANCHOR BOLT ASSEMBLIES REQ'D FOR EXTERIOR BEAMS (SEE STD. DWG. STD-14-2)

RISER BLOCK DETAIL
SCALE: 3/4"=1'-0"

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE BENT LAYOUT AND DETAILS

FITE RD. / CN RR
STA. 774+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U-23-123

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22L
CONST.	2013	STP–M–7900(29)	23L

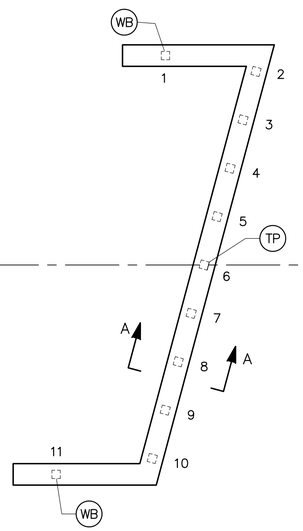
REVISIONS			
NO.	DATE	DESCRIPTION	BY

NOTE: TO CONTRACTOR AND CONSTRUCTION OFFICE:

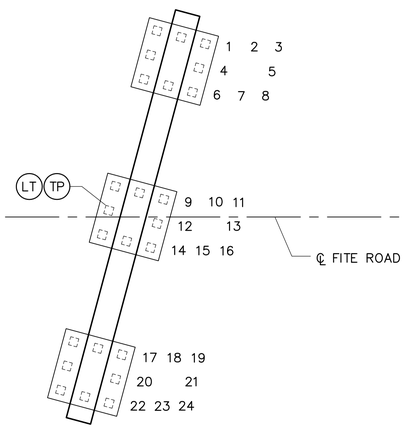
THE BLANKS ON THIS SHEET ARE TO BE FILLED IN BY THE CONSTRUCTION OFFICE AND/OR FIELD ENGINEER GIVING AS BUILT CONDITION. AFTER COMPLETION IT IS TO BE SENT TO THE DIVISION OF STRUCTURES TO BECOME PART OF FINAL BRIDGE DOCUMENTS.

TABLE SHOWING PILE NUMBERS AND PILE LENGTHS

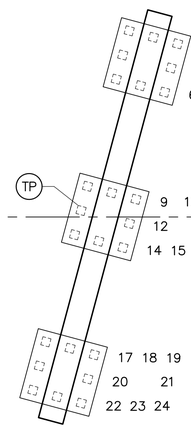
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ABUTMENT NO. 1	PILE TIP ELEVATION																								
	IN PLACE PILE LENGTH																								
ABUTMENT NO. 2	PILE TIP ELEVATION																								
	IN PLACE PILE LENGTH																								
BENT NO. 1	PILE TIP ELEVATION																								
	IN PLACE PILE LENGTH																								
BENT NO. 2	PILE TIP ELEVATION																								
	IN PLACE PILE LENGTH																								



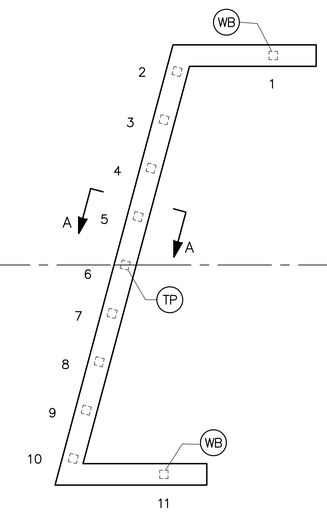
ABUTMENT NO. 1
P.C.O. EL 269.84



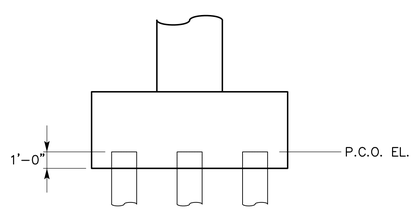
BENT 1
P.C.O. EL 244.00



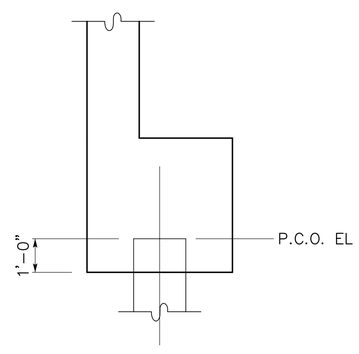
BENT 2
P.C.O. EL 244.00



ABUTMENT NO. 2
P.C.O. EL 269.90



DETAIL "A"



SECTION A–A

LEGEND

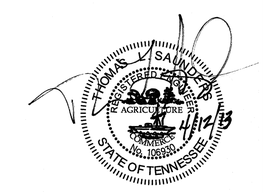
P.C.O. EL. DENOTES PILE CUT–OFF ELEVATION

(TP) DENOTES TEST PILE

(LT) DENOTES LOAD TEST

(WB) DENOTED 20 FT. WING BEAM PILE

NOTE:
PILE TO BE LOAD TESTED SHALL BE ALLOWED TO SIT FOR THREE DAYS AFTER DRIVING BEFORE LOAD TEST IS CONDUCTED



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE FINAL FOUNDATION DATA

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U–23–124

Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP–M–7900(29)	22M
CONST.	2013	STP–M–7900(29)	23M

REVISIONS

NO.	DATE	DESCRIPTION	BY

BILL OF STEEL

SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS A	B	C	D	LENGTH (FT
A501E	SLAB	5	1388	33'–10"				33'–10"
A502E	SLAB	5	729	30'–0"				30'–0"
A503	SLAB	5	127	23'–2"				23'–2"
A511	BENT DIAPHRAGM	5	100	8'–6"				8'–6"
A512	BENT DIAPHRAGM	5	40	3'–9"				3'–9"
A513	BENT DIAPHRAGM	5	80	7'–3"				7'–3"
A801E	SLAB	8	152	33'–0"				33'–0"
L401	BENT DIAPHRAGM	4	90	1'–2"	1'–0"	3'–9"		10'–10"
LS400	BENT DIAPHRAGM	4	24	1'–2"	1'–2"			5'–5"
B571E	SIDEWALK	5	648	2'–9"	0'–7"			3'–4"

BENT NO.1 OR NO.2

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS A	B	C	D	LENGTH (FT
A601	BENT CAP	6	4	58'–8"				58'–8"
A801	COLUMN	8	48	16'–4"				16'–4"
A1001	BENT CAP	10	2	48'–0"				48'–0"
A1002	BENT CAP	10	6	19'–6"				19'–6"
B1001	BENT CAP	10	6	21'–11"				23'–4"
B1002	BENT CAP	10	6	43'–6"				44'–11"
C801	COLUMN	8	48	16'–0"				17'–4"
CD601	BENT CAP	6	12	5'–5"	1'–9"	1'–8¼"		7'–2"
CF401	FOOTING	4	3	2'–8"	0'–3½"	1'–9½"		61'–5"
CF402	BENT CAP	4	3	2'–8"	0'–3½"	2'–5"		79'–8"
D1001	FOOTING	10	180	9'–6"				12'–4"
H401	BENT CAP	4	24	3'–2"	1'–6"			6'–2"
H402	BENT CAP	4	24	2'–8"	1'–6"			5'–8"
H403	BENT CAP	4	6	3'–2"	2'–0"			7'–2"
L501	BENT CAP	5	80	2'–0"	1'–0"	3'–2"		11'–4"
L502	BENT CAP	5	4	2'–0"	1'–0"	*SEE BELOW		82'–4"
TB401	COLUMN	4	3	2'–8"	0'–3½"	21–7"		641'–4"

ABUTMENT NO. 1 OR 2

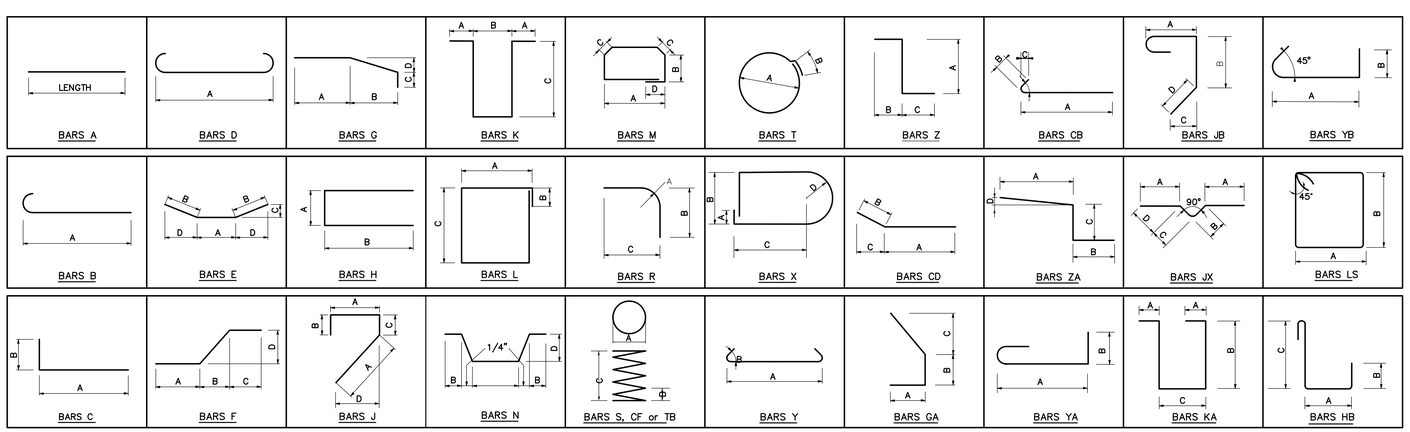
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS A	B	C	D	LENGTH (FT)	
A441	ROADWAY BRACKET	4	2	25'–8"				25'–8"	
A442	ROADWAY BRACKET	4	2	4'–3"				4'–3"	
A443	WING WALL	4	32	5'–5"				5'–5"	
A444	WING WALL	4	14	17'–1"				17'–1"	
A541	WING BM.	5	2	18'–6"				18'–6"	
A542	WING BM.	5	2	18'–10"				18'–10"	
A640E	BACKWALL	6	28	5'–6"				5'–6"	
A641E	BACKWALL	6	118	4'–9"				4'–9"	
A642	BACKWALL	6	20	33'–6"				33'–6"	
A643E	BACKWALL	6	4	33'–6"				33'–6"	
A644	BACKWALL	6	32	5'–5"				5'–5"	
A740	ABUTMENT BM.	7	28	34'–10"				34'–10"	
A741	WING BM.	7	10	18'–6"				18'–6"	
A742	WING BM.	7	10	18'–10"				18'–10"	
B640	WING WALL	6	7	17'–2"				17'–10"	
B641	WING WALL	6	7	16'–9"				17'–5"	
D640	BACKWALL	6	12	5'–0"				6'–4"	
F640E	BACKWALL	6	60	1'–1"	1'–3"	1'–1"	1'–3"	3'–11¼"	
H441	RISER BLOCK	4	12	2'–8"	1'–6"			5'–8"	
H442	RISER BLOCK	4	24	1'–2"	1'–6"			4'–2"	
H540	BACKWALL & RDWY BRACKET	5	60	2'–2"	0'–5"			3'–0"	
H640	ABUT. & WING BM.	6	96	1'–2"	4'–9"			10'–8"	
HB640	BACKWALL	6	30	1'–6"	0'–10"	1'–2"		4'–2"	
L540	ABUT. & WING BM.	5	98	2'–8"	1'–0"	2'–7"		11'–6"	
R640E	BACKWALL	6	60	0'–3"	2'–0"	4'–0"		6'–0"	
ZA541E	BACKWALL	5	4	6'–9"	2'–6"	0'–9"	0'–1½"	10'–0"	
ZA401	APPROACH SLAB	4	32	4'–8"	1'–8"	0'–11"	0'–1"	7'–3"	**
ZA601E	APPROACH SLAB	6	48	5'–3"	2'–9"	0'–11"	0'–1½"	8'–11"	**
A570E	WING WALL	5	36	5'–0"				5'–0"	
B570E	WING WALL	5	44	2'–9"	0'–7"			3'–4"	

NOTES

OUTSIDE OF BAR. STANDARD C.R.S.I. HOOK DETAILS SHALL APPLY, EXCEPT AS NOTED.

2. THE SUFFIX 'E' FOR BARS SO MARKED DENOTES EPOXY COATED REINFORCEMENT.

3. FOR WELDED SPLICE OF TB BARS SEE STD. DWG. STD–6–2.



*SERIES BARS:

BAR L502: DIMENSION "C" VARIES FROM 2'–2i" TO 3'–1" IN 1i" INCREMENTS (8 BARS/SET)

** COST OF BARS ZA401 AND ZA601 SHALL BE INCLUDING IN THE UNIT PRICE BID FOR ITEM 604–03.04, PAVEMENT AT BRIDGE ENDS.

THOMAS L. SAUNDERS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 108331
4/12/13
STATE OF TENNESSEE

Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

BRIDGE BILL OF STEEL

FITE RD. / CN RR
STA. 77+51.28
BR. ID. NO. 79054590001
SHELBY COUNTY
2013

U–23–125