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

Index Of Sheets

SEE INDEX SHEET 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

S.R. 33 (MAYNARDVILLE HIGHWAY) FROM AFTON DRIVE TO EMORY ROAD;
AND S.R. 71 (NORRIS FREEWAY), FROM EMORY ROAD TO S.R. 33

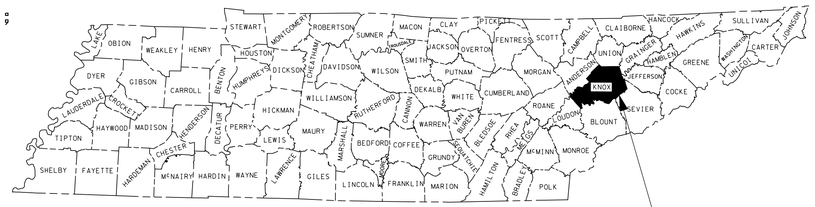
KNOX COUNTY

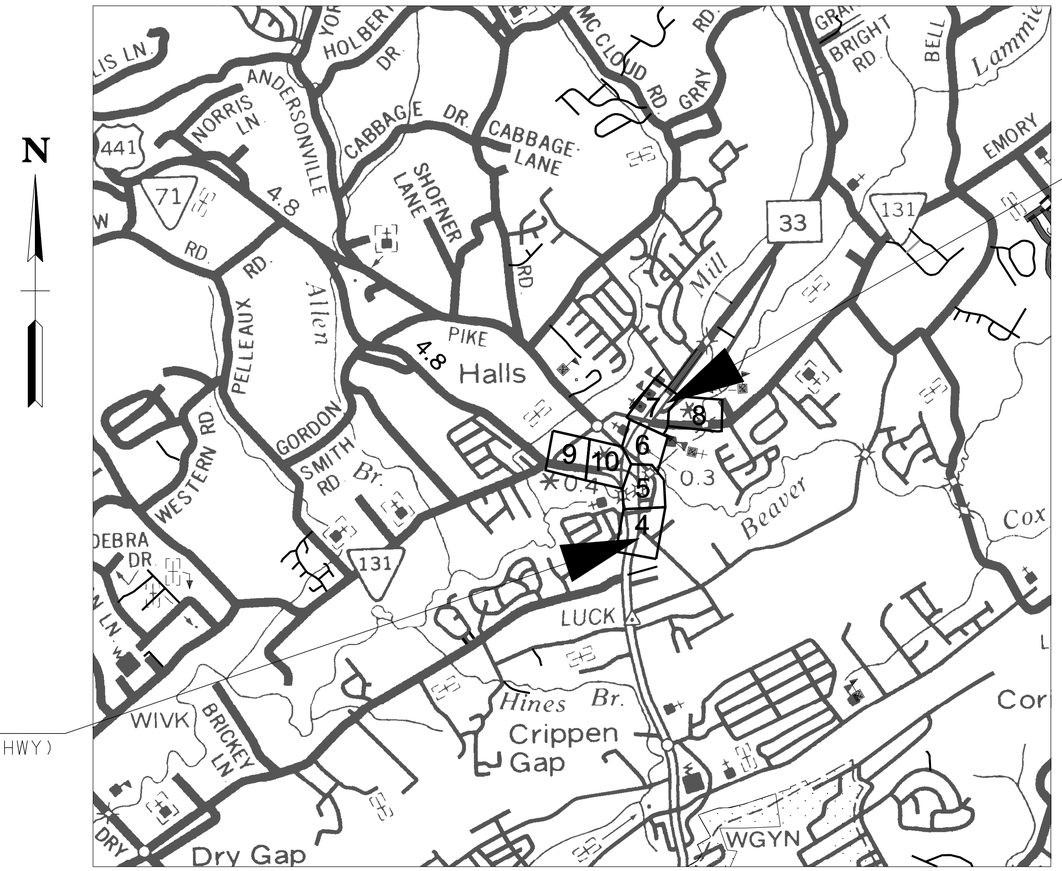
GRADE, DRAIN, BASE, PAVE, BRIDGE, SIGNALIZATION, & PAVEMENT MARKINGS

STATE HIGHWAY NO. S.R.33 F.A.H.S. NO. S.R.33

TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	HSIP-33(116)	
STATE PROJ. NO.	47016-3222-94	

KNOX COUNTY
LOCALLY MANAGED PROJECT





47016-3222-94
END PROJECT HSIP-33(116) (CONST.)
STA.49+50.00 ℄ S.R. 33 (MAYNARDVILLE HWY)

47016-3222-94
BEGIN PROJECT HSIP-33(116) (CONST.)
STA.12+28.97 ℄ S.R. 33 (MAYNARDVILLE HWY)

ROADWAY LENGTH (SR33)	0.678 MILES
BRIDGE LENGTH	0.027 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	0.705 MILES

NO EXCLUSIONS
NO EQUATIONS

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

UNOFFICIAL SET
NOT FOR BIDDING

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

ORIGINAL SURVEY 2009
UPDATED SURVEY 2013

TRAFFIC DATA	
ADT (2014)	45,750
ADT (2034)	56,410
DHV (2034)	5,641
D	60 - 40
T (ADT)	2 %
T (DHV)	1 %
V	45 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

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.

DEPUTY DIRECTOR, KNOX COUNTY
ENGINEERING AND PUBLIC WORKS JIM SNOWDEN, P.E.

DESIGNED BY CDM SMITH

DESIGNER KATHLEEN C. HOLMES, P.E. CHECKED BY DOUG PARKER, P.E.

P.E. NO. 97147-1227-04 (DESIGN)

PIN NO. 112790.00

8:59:40 AM
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NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS	

STANDARD CULVERT DRAWING

DWG. NO	REV.	DESCRIPTION
STD-17-51	05-01-14	BOX BRIDGE, 1 BARREL AT 6', CLEAR HTS, 3'-6", O-60' FULL

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	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-UD-3	09-05-96	UNERDRAIN DETAILS
RD-UD-4	05-27-01	UNDERDRAIN LATERAL DETAILS
RD-UD-9	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES
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-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD01-SD-4		INTERSECTION SIGHT DISTANCE 5-LANE AND 4-LANE UNDIVIDED ROADWAYS
RD01-SD-5		INTERSECTION SIGHT DISTANCE 4-LANE DIVIDED HIGHWAYS
RD01-SE-2	10-15-02	URBAN SUPERELEVATION DETAILS
RD01-TS-2	10-15-02	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
RD01-TS-3C	10-15-02	DESIGN STANDARDS 4 AND 6 LANE ARTERIAL HIGHWAYS WITH FLUSH MEDIANS
RD01-TS-6	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITH SHOULDER
RD01-TS-6A	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER

STANDARD ROADWAY DRAWINGS

DRAINAGE - CULVERTS AND ENDWALL

DWG. NO	REV.	DESCRIPTION
D-PB-1	01-02-13	STANDARD DETAILS CLASS "B" BEDDING AND CULVERT EXCAVATION
D-PE-4	01-15-13	STRAIGHT CONCRETE ENDWALL
D-PE-9	04-25-90	CONCRETE ENDWALLS TYPE "B" (FOR ROUND & SIDE TAPERED INLETS, PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES)
D-PE-9A	10-25-82	GENERAL DIMENSION QUANTITIES ROUND PIPE CONCRETE ENDWALLS TYPE "B" (PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES)
D-PE-9C		BILL OF STEEL (SHEET 1 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLET, PIPE SIZE 15" - 78", ALL SKEW, 2:1 SLOPE)
D-PE-9E		BILL OF STEEL (SHEET 3 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR STEEL ROUND AND SIDE TAPERED INLET, PIPE SIZE 15" - 78", ALL SKEWS, 2:1 SLOPE)
D-PE-18A	06-14-13	18" CONCRETE ENDWALL CROSS DRAIN
D-PE-18B		18" CONCRETE ENDWALL CROSS DRAIN
D-PE-24A	06-14-13	24" CONCRETE ENDWALL CROSS DRAIN
D-PE-24B		24" CONCRETE ENDWALL CROSS DRAIN
D-PE-30A	06-14-13	30" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-30B		30" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-36A	06-14-13	36" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-36B		36" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE

DRAINAGE-CATCH BASINS AND MANHOLES

D-CD-12B	03-11-14	STANDARD RECTANGULAR BRICK NO. 12 CATCH BASIN
D-CB-12LP	08-01-12	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 12LP CATCH BASIN
D-CB-12P	03-11-14	STANDARD PRECAST RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12RA	03-11-14	STANDARD PRECAST 48" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-12RB	03-11-14	STANDARD PRECAST 60" AND 72" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-12RC	03-11-14	STANDARD PRECAST 84" THRU 120" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-12S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-14B	03-11-14	STANDARD RECTANGULAR BRICK NO. 14 CATCH BASIN
D-CB-14P	03-11-14	STANDARD PRECAST RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 14RB CATCH BASIN
D-CB-14S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 14 CATCH BASIN
D-CB-25P	03-11-14	STANDARD PRECAST RECTANGULAR CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-25B	03-11-14	STANDARD RECTANGULAR BRICK NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB
D-CB-25LP	08-01-12	STANDARD LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 25LP CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-25RA	03-11-14	STANDARD PRECAST 48" CIRCULAR NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-25RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-25S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	1A

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NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX & STANDARD DRAWINGS

N.T.S.

DWG. NO	REV.	DESCRIPTION
D-CB-25SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-25SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-25SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)

DWG. NO	REV.	DESCRIPTION
D-CB-26P	03-11-14	STANDARD PRECAST RECTANGULAR CONCRETE NO. 26 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-26S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 26 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-42RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 42 CATCH BASIN
D-CB-42S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-44SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 44 CATCH BASIN
D-CB-99	06-07-13	MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES
D-CB-99R	03-11-14	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-CB-99RA	03-19-14	BILL OF STEEL FOR ROUND CATCH BASINS
D-CBB-12A	05-27-01	TYPE "B" IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 25, 26 AND 27 TYPE CATCH BASINS
D-CBB-12B	05-27-01	TYPE "B" CAST IRON, GRATE & 6" MOUNTABLE INLET DETAILS FOR NOS. 25,26 AND 27 TYPE CATCH BASINS
D-CBB-42	05-27-01	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS
D-MH-2	08-01-12	STANDARD MASONRY & PRECAST NO. 3 MANHOLE
D-SLD-1	05-27-01	SLOTTED DRAINS
D-SLD-2	05-27-01	SLOTTED DRAINS
D-SLD-3	05-27-01	SLOTTED DRAINS

ROADWAY AND PAVEMENT APPURTENANCES

RP-D-15	07-15-08	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	07-15-08	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-DHO-1	10-26-93	MEDIAN OPENINGS ON 4-LANE DIVIDED HIGHWAY
RP-H-3	06-04-13	HANDICAP RAMP AND TRUNCATED DOME SURFACE DETAIL
RP-H-4	06-04-13	PERPENDICULAR CURB RAMP
RP-H-5	06-04-13	PARALLEL CURB RAMP
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-MC-2	02-28-02	STANDARD 6" SLOPING (MOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC-10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC-11	02-28-02	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS
RP-S-7	06-04-13	DETAILS FOR STANDARD CONCRETE SIDEWALKS

DWG. NO	REV.	DESCRIPTION

SAFETY APPURTENANCES AND FENCE

S-CZ-1		CLEAR ZONE CRITERIA
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-2		SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
S-PL-3		SAFETY PLAN: MINIMUM INSTALLATION AT BRIDGE ENDS
S-GR31-1		W-BEAM GUARDRAIL
S-GRS-2		SPECIAL CASE: GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GRS-3		SPECIAL CASE GUARDRAIL FOOTING
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL

DWG. NO	REV.	DESCRIPTION
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-3		TYPE 21 GUARDRAIL TERMINAL
S-GRT-3D		TYPE 21 GUARDRAIL TERMINAL (DETAILS)
S-GRT-3P		EARTH PAD FOR TYPE 21 TERMINAL
S-GRT-4		TYPE 13 GUARDRAIL TERMINAL (TRAILING END)
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 12, 13 AND IN-LINE TERMINALS

TRAFFIC CONTROL APPURTENANCES

T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	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-6	02-12-91	STANDARD MOUNTING DETAILS – BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
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	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-14	08-17-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A	11-01-11	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS

DWG. NO	REV.	DESCRIPTION
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	02-14-14	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS
T-S-19	07-19-13	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-S-23C	07-19-13	BREAKAWAY U-POST SIGN SUPPORTS
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-4		SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-5	12-04-13	CONTROLLER CABINET DETAILS

DWG. NO	REV.	DESCRIPTION
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	12-04-13	STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-9	12-04-13	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	12-04-13	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	12-04-13	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-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-16	03-13-09	LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-19	04-02-12	MEDIAN CROSS-OVER DETAIL ON DIVIDED HIGHWAYS
T-WZ-20	12-18-99	GEOMETRIC MEDIAN CROSS-OVER DETAIL ON DIVIDED HIGHWAYS
T-WZ-36	04-02-12	LANE CLOSURE ON LOW-VOLUME 2-LANE HIGHWAY

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-2	08-01-12	SEDIMENT FILTER BAG
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-6A	08-01-12	ENHANCED ROCK CHECK DAM
EC-STR-11	08-01-12	CULVERT PROCTECTION TYPE 1
EC-STR-11A	08-01-12	CULVERT PROCTECTION TYPE 2
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-31	08-01-12	TEMPORARY DIVERSION CHANNEL
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSON (DOWNSTREAM)

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY STANDARD DRAWINGS

N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	1C

KNOX COUNTY
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DWG. NO	REV.	DESCRIPTION
EC-STR-34	08-01-12	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-39	08-01-12	CURB INLET PROTECTION TYPE 1 & 2
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3&4
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)
EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS

DWG. NO	REV.	DESCRIPTION
EC-STR-43		CATCH BASIN FILTER ASSEMBLY (TYPE 3)
EC-STR-43A		CATCH BASIN FILTER ASSEMBLY (TYPE 3) SLIPCOVER DETAILS
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS
EC-STR-45		CATCH BASIN FILTER ASSEMBLY (TYPE 5)
EC-STR-45A		CATCH BASIN FILTER ASSEMBLY (TYPE 5) SLIPCOVER DETAILS
EC-STR-46		CATCH BASIN FILTER ASSEMBLY (TYPE 6)
EC-STR-46A		CATCH BASIN FILTER ASSEMBLY (TYPE 6) SLIPCOVER DETAILS
EC-STR-47		CATCH BASIN FILTER ASSEMBLY (TYPE 7)
EC-STR-47A		CATCH BASIN FILTER ASSEMBLY (TYPE 7) SLIPCOVER DETAILS
EC-STR-48		CATCH BASIN FILTER ASSEMBLY (TYPE 8)
EC-STR-48A		CATCH BASIN FILTER ASSEMBLY (TYPE 8) SLIPCOVER DETAILS

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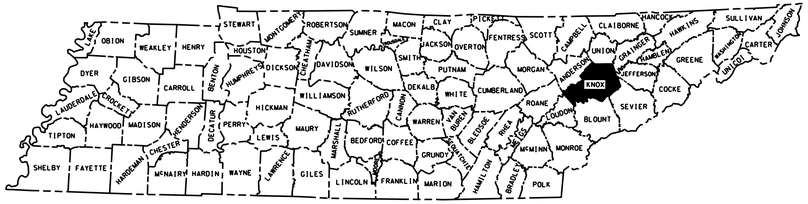
ROADWAY STANDARD DRAWINGS

N.T.S.

CONSTRUCTION NO. 47016-3222-94

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2



KNOX COUNTY

X081

STATE ROUTE 33
OVER BEAVER CREEK

CONTINUOUS
PRECAST PRESTRESSED
CONCRETE BOX BEAM
WITH COMPOSITE
CONCRETE DECK SLAB

5 SPAN BRIDGE
TOTAL LENGTH
= 144'-11½"
SPAN 1 = 28'-9⅛"
SPAN 2 = 28'-6⅛"
SPAN 3 = 28'-4⅛"
SPAN 4 = 28'-7⅛"
SPAN 5 = 30'-9⅛"

ROADWAY VARIES
FROM 118'-6⅞"
TO 118'-10¾"
WITH VARYING MEDIAN
FROM 4'-0" TO
9'-10⅜" AND
TWO STD-7-1 RAILS

84° 13' 10" SKEW
LAYOUT DRAWING NO.
U-70-125

ESTIMATED BRIDGE QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202-04.01	REMOVAL OF STRUCTURES (STA. 25+45.02)	1	L.S.
204-02.01	DRY EXCAVATION (BRIDGES)	368	C.Y.
204-03.01	WET EXCAVATION (BRIDGES)	965	C.Y.
204-04.01	ROCK EXCAVATION (BRIDGES)	56	C.Y.
204-05	ROCK DRILLING (BRIDGES)	72	L.F.
204-10.01	FOUNDATION PREPARATION (PIER NO. 1)	1	L.S.
204-10.02	FOUNDATION PREPARATION (PIER NO. 2)	1	L.S.
204-10.03	FOUNDATION PREPARATION (PIER NO. 3)	1	L.S.
204-10.04	FOUNDATION PREPARATION (PIER NO. 4)	1	L.S.
303-01.02	GRANULAR BACKFILL (BRIDGES)	42	TON
604-02.03	EPOXY COATED REINFORCING STEEL	117,825	LB.
604-03.01	CLASS "A" CONCRETE (BRIDGES)	967	C.Y.
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	313,984	LB.
604-03.35	CLASS "L" CONCRETE	406	C.Y.
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	1,066	S.Y.
604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	703	S.Y.
604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	1,166	S.Y.
604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	10	S.Y.
604-10.50	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	40	S.Y.
606-02.03	STEEL PILES (10 INCH)	236	L.F.
606-02.06	PILE TIPS (STEEL PILES,10 INCH)	10	EACH
615-02.52	PRESTRESSED CONCRETE BOX BEAM(14"X 36")	1,359	L.F.
620-06	CONCRETE RAILING	332	L.F.
710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	146	L.F.
710-09.02	6" PIPE UNDERDRAIN	30	L.F.
712-02.47	BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL	145	L.F.

FOOTNOTE: SEE DWG. NO. U-70-127

LIST OF DRAWINGS

	DWG. NO.	LAST REV. DATE
LAYOUT OF BRIDGE WIDENING THRU FINAL FOUNDATION DATA	U-70-125 THRU U-70-141	

REFERENCE DRAWINGS

ORIGINAL DRAWINGS (1934): A-0-10, A-14-63, B-2-50, B-2-51, B-3-75 AND D-7-148
BRIDGE WIDENING DRAWINGS (1997): M-356-15 THRU M-356-35 (TO BE PRINTED WITH PLANS)

LIST OF STANDARD DRAWINGS

	DWG. NO.	LAST REV. DATE
STEEL SLIDER PLATE ASSEMBLIES FOR CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS	STD-1-2	3-28-08
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL	STD-2-1	11-01-10
VERTICAL PANEL DETAILS	STD-2-2	
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-1	4-08-05
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	STD-4-2	4-08-05
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-3	3-02-02
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS	STD-4-4	6-10-96
STANDARD PILE DETAILS	STD-5-1	10-25-93
STANDARD PILE DETAILS	STD-5-2	5-1-14
STANDARD SEISMIC DETAILS	STD-6-1	11-01-10
STANDARD SEISMIC DETAILS	STD-6-2	11-07-94
STANDARD CONCRETE BRIDGE RAIL	STD-7-1	11-01-10
REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD-9-1	10-07-08
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	STD-10-1	4-08-05
STANDARD DETAILS FOR PRESTRESSED BOX BEAMS	STD-14-3	10-15-08

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR.
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 025951
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED BRIDGE QUANTITIES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	2A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	1	LS
	201-01	CLEARING AND GRUBBING	1	LS
(1)	203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	81,280	CY
	203-02.02	BORROW EXCAVATION (GRADED SOLID ROCK)	1,316	CY
	203-03	BORROW EXCAVATION (UNCLASSIFIED)	7,082	CY
	203-04	PLACING AND SPREADING TOPSOIL	7,741	CY
	203-05	UNDERCUTTING	1,079	CY
	203-06	WATER	625	MG
(2)	204-08	FOUNDATION FILL MATERIAL	128	CY
	209-02.03	8" TEMPORARY SLOPE DRAIN	505	L.F.
(4)	209-05	SEDIMENT REMOVAL	679	CY
	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	9,553	LF
	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	13,221	LF
	209-09.01	SANDBAGS	2,500	EACH
	209-09.03	SEDIMENT FILTER BAG (15'X15')	14	EACH
	209-09.43	CURB INLET PROTECTION (TYPE 4)	149	EACH
	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	78	SY
	209-40.30	CATCH BASIN PROTECTION (TYPE A)	39	EACH
	209-40.31	CATCH BASIN PROTECTION (TYPE B)	14	EACH
(3)	209-40.33	CATCH BASIN PROTECTION (TYPE D)	70	EACH
	209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	70	EACH
	209-40.42	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	8	EACH
	209-40.43	CATCH BASIN FILTER ASSEMBLY (TYPE 3)	19	EACH
	209-40.44	CATCH BASIN FILTER ASSEMBLY (TYPE 4)	12	EACH
	209-40.45	CATCH BASIN FILTER ASSEMBLY (TYPE 5)	5	EACH
	209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	3	EACH
	209-40.47	CATCH BASIN FILTER ASSEMBLY (TYPE 7)	79	EACH
	209-40.48	CATCH BASIN FILTER ASSEMBLY (TYPE 8)	2	EACH
	209-65.03	TEMPORARY DIVERSION CHANNEL	375	LF
(5)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	59,839	TON
(6)	303-01.01	GRANULAR BACKFILL (ROADWAY)	1,108	TON
(3)(7)	303-10.01	MINERAL AGGREGATE (SIZE 57)	576	TON
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	1,090	TON
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	2,153	TON
	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	10,378	TON
	307-02.02	ASPHALT CEMENT (PG70-22) (BPMB-HM) GRADING A-S	228	TON
	307-02.03	AGGREGATE (BPMB-HM) GRADING "A-S" MIX	6,794	TON
	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	6,798	TON
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	107	TON
	402-02	AGGREGATE FOR COVER MATERIAL (PC)	422	TON
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	162	TON
	411-01.07	ACS MIX (PG64-22) GRADING "E" SHOULDERS	299	TON
	411-01.10	ACS MIX(PG64-22) GRADING D	1,350	TON
	411-02.10	ACS MIX(PG70-22) GRADING D	4,351	TON
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	5,509	SY
(8)	604-01.01	CLASS A CONCRETE (ROADWAY)	206	CY
(9)	604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	45,858	LB
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	7,749	LF
	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	750	LF
	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	750	LF
	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	250	LF
	607-37.02	18" CORRUGATED METAL PIPE CULVERT	70	LF
	607-39.02	18" PIPE CULVERT (SIDE DRAIN)	157	LF
	607-39.03	24" PIPE CULVERT (SIDE DRAIN)	155	LF
	607-45.02	18" SLOTTED DRAIN PIPE	2	LF
	611-01.02	MANHOLES TYPE 3, > 4' - 8' DEPTH	3	EA.
	611-01.03	MANHOLES TYPE 3, > 8' - 12' DEPTH	3	EA.
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	9	C.Y.
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	725	LB.
	611-07.54	18IN ENDWALL (CROSS DRAIN) 3:1	1	EA
	611-07.55	18IN ENDWALL (CROSS DRAIN) 4:1	2	EA
	611-07.57	24IN ENDWALL (CROSS DRAIN) 3:1	2	EA
	611-07.61	30IN ENDWALL (CROSS DRAIN) 4:1	1	EA
	611-07.65	36IN ENDWALL (CROSS DRAIN) 6:1	1	EA
	611-09.02	REWORK CATCHBASIN	3	EA
	611-09.03	CAPPING EXISTING CATCHBASIN	5	EA
	611-10.01	CATCHBASINS, TYPE 10, DEPTH 0' - 4'	1	EA
	611-10.02	CATCHBASINS, TYPE 10, DEPTH > 4' - 8'	2	EA
	611-12.01	CATCHBASINS, TYPE 12, DEPTH 0' - 4'	21	EA
	611-12.02	CATCHBASINS, TYPE 12, DEPTH > 4' - 8'	33	EA
	611-12.03	CATCHBASINS, TYPE 12, DEPTH > 8' - 12'	6	EA
	611-12.04	CATCHBASINS, TYPE 12, DEPTH > 12' - 16'	1	EA
	611-12.05	CATCHBASINS, TYPE 12, DEPTH > 16' - 20'	2	EA
	611-14.02	CATCHBASINS, TYPE 14, DEPTH > 4' - 8'	6	EA
	611-14.06	CATCHBASINS, TYPE 14, DEPTH > 20'-24'	2	EA
	611-25.02	CATCHBASINS, TYPE 25, DEPTH > 4' - 8'	16	EA
	611-25.03	CATCHBASINS, TYPE 25, DEPTH > 8' - 12'	2	EA
	611-26.01	CATCHBASINS, TYPE 26, DEPTH 0' - 4'	2	EA
	611-26.02	CATCHBASINS, TYPE 26, DEPTH > 4' - 8'	3	EA
	611-26.03	CATCHBASINS, TYPE 26, DEPTH > 8' - 12'	1	EA
	611-42.01	CATCHBASINS, TYPE 42, DEPTH 0' - 4'	2	EA
	611-42.02	CATCHBASINS, TYPE 42, DEPTH >4' - 8'	2	EA
	611-43.01	CATCHBASINS, TYPE 43, DEPTH 0' - 4'	1	EA
	611-44.03	CATCHBASINS, TYPE 44, DEPTH > 8' - 12'	1	EA
	621-03.04	30" TEMPORARY DRAINAGE PIPE	45	LF
	621-03.08	54" TEMPORARY DRAINAGE PIPE	47	LF

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	701-01.01	CONCRETE SIDEWALK (4")	2,903	SF
	701-02	CONCRETE DRIVEWAY (6")	292	SF
	701-02.03	CONCRETE HANDICAP RAMP	297	SF
(10)	701-03	CONCRETE MEDIAN PAVEMENT	65	CY
	702-01	CONCRETE CURB	505	CY
	702-03	CONCRETE COMBINED CURB & GUTTER	660	CY
	705-01.01	GUARDRAIL AT BRIDGE ENDS	108	LF
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	850	LF
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	1	EA
	705-04.04	GUARDRAIL TERMINAL (TYPE 21)	1	EA
(15)	705-04.07	TAN ENERGY ABSORBING TERMINAL (NCHRP 350, TL3)	6	EA
	705-08.10	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-2	6	EA
(3)	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	5,214	LF
(3)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	1,001	TON
(23)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	6,017	TON
(22)	709-05.08	MACHINED RIP-RAP (CLASS B)	1,188	TON
	705-05.09	MACHINED RIP-RAP (CLASS C)	91	TON
(11)	710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	15,911	LF
	710-05	LATERAL UNDERDRAIN	206	LF
	710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	3	EA
	712-01	TRAFFIC CONTROL	1	LS
(4)	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	2,000	LF
(4)	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	1,100	EA
(12)	712-05.01	WARNING LIGHTS (TYPE A)	34	EA
	712-05.03	WARNING LIGHTS (TYPE C)	30	EA
	712-06	SIGNS CONSTRUCTION	1,110	SF
	712-06.01	VERTICAL PANELS	200	SF
	712-07.03	TEMPORARY BARRICADES (TYPE III)	487	LF
	712-08.03	ARROW BOARD (TYPE C)	8	EA
	713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	1	CY
	713-01.02	STEEL BAR REINFORCEMENT (FOUNDATION FOR SIGN SUPPORTS)	201	LB
	713-06	STEEL I-BEAMS & WF BEAMS	390	LB
	713-11.01	"U" SECTION STEEL POST	705	LB
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	4,536	LB
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.08" THICK)	890	SF
	713-13-03	FLAT SHEET ALUMINUM SIGNS (0.10" THICK)	519	SF
	713-14	EXTRUDED ALUMINUM PANEL SIGNS	21	SF
(16)	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	1	LS
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	4	EA
	716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	26	LF
	716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	2,877	SY
	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	886	LF
	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROWS)	73	EA
	716-02.07	PLASTIC PAVEMENT MARKING (24 INCH BARRIER LINE)	366	LF
	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	369	LF
	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	77	LF
	716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	2	EA
	716-04.01	PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)	3	EA
	716-04.03	PLASTIC PAVEMENT MARKING (4" DOTTED LINE)	1,818	LF
	716-04.04	PLASTIC PAVEMENT MARKING (TRANSVERSE SHOULDER)	371	LF
	716-04.05	PLASTIC PAVEMENT MARKING (STRAIGHT ARROW)	17	EA
	716-04.12	PLASTIC PAVEMENT MARKING (YIELD LINE)	16	SF
	716-04.14	PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW)	2	EA
	716-05.01	PAINTED PAVEMENT MARKING (4 IN LINE)	13.6	LM
	716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	1,000	LF
	716-05.03	PAINTED PAVEMENT MARKING (CROSS-WALK)	26	LF
	716-05.04	PAINTED PAVEMENT MARKING (CHANNELIZATION STRIPING)	2,877	SY
	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	1,160	LF
	716-05.06	PAINTED PAVEMENT MARKING (TURN LANE ARROW)	94	EA
(13)	716-05.07	PAINTED PAVEMENT MARKING (24" BARRIER LINE)	366	LF
	716-05.09	PAINTED PAVEMENT MARKING (STRAIGHT-TURN ARROW)	5	EA
	716-05.11	PAINTED PAVEMENT MARKING (STRAIGHT ARROW)	37	EA
	716-05.21	PAINTED PAVEMENT MARKING (4" DOTTED LINE)	2,203	LF
	716-05.22	PAINTED PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	77	LF
	716-06.01	PAINTED WORD PVMT MARKING (ONLY)	2	EA
	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	7.9	LM
	717-01	MOBILIZATION	1	LS
	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	4	S.F.
(21)	730-01.03	MODIFICATION OF EXISTING TRAFFIC SIGNAL EQUIPMENT	1	EACH
	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	35	EACH
	730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE)	9	EACH
(17)	730-02.30	SIGNAL HEAD ASSEMBLY (130 A2 WITH BACKPLATES)	1	EACH
	730-02.31	SIGNAL HEAD ASSEMBLY (130 A3 WITH BACKPLATES)	14	EACH
	730-02.32	SIGNAL HEAD ASSEMBLY (140 A1 WITH BACKPLATES)	2	EACH
	730-03.20	INSTALL PULL BOX (TYPE A)	27	EACH
	730-03.21	INSTALL PULL BOX (TYPE B)	12	EACH
	730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	6	EACH
	730-03.24	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	5	EACH
(18)	730-05.01	ELECTRICAL SERVICE CONNECTION	5	EACH
	730-05.02	SERVICE CABLE (2 CONDUCTOR, # 8 AWG)	250	EACH
	730-08.01	SIGNAL CABLE - 3 CONDUCTOR	750	L.F.
	730-08.02	SIGNAL CABLE - 5 CONDUCTOR	2,500	L.F.
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	5,000	L.F.
	730-08.32	INTERCONNECT CABLE (Fiber Cable Hybrid 6sm/6mm)	8,800	L.F.
	730-08.33	INTERCONNECT CABLE (6-Fiber Drop Cable)	250	L.F.
	730-09.01	SPAN WIRE ASSEMBLY(16,500 LBS.MIN.BRK STRENGTH)	3,150	L.F.
	730-10.02	MESSENGER CABLE - 1/4" DIAMETER	3,150	L.F.

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	730-12.01	CONDUIT 1" DIAMETER (PVC)	550	L.F.
	730-12.02	CONDUIT 2" DIAMETER (PVC)	12,710	L.F.
	730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	69	L.F.
	730-14.01	SHIELDED DETECTOR CABLE	16,505	EACH
	730-14.02	SAW SLOT	12,300	L.F.
	730-14.03	LOOP WIRE	30,550	L.F.
	730-15.11	MODIFY CABINET (Install F.O. Telemetry)	2	L.F.
	730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	4	L.F.
(19)	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	4	EACH
	730-18.01	MASTER CONTROLLER	1	EACH
(20)	730-23.01	STEEL STRAIN POLE (SIGNAL SUPPORT)	20	EACH
	730-24.07	FOUNDATION (PEDESTRIAN POLE,_____)	1	EACH
	730-24.08	FOUNDATION (Cabinet)	1	EACH
(14)	740-10.03	GEOTEXTILE (TYPE III, EROSION CONTROL)	13,363	SY
(14)	740-11.03	TEMPORARY SEDIMENT TUBE (18 INCH)	4,742	LF
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	1,000	UNIT
(4)	801-02	SEEDING (WITHOUT MULCH)	1,768	UNIT
	801-03	WATER (SEEDING & SODDING)	160	MG
	803-01	SODDING (NEW SOD)	9,692	SY
	805-01.01	TURF REINFORCEMENT MAT (CLASS I)	1,748	SY
	805-12.02	EROSION CONTROL BLANKET (TYPE II)	64,558	SY

(1) INCLUDES 6,830 CY FOR TEMPORARY BERM.

(2) INCLUDES 114 CY FOR 6'X5' BOX CULVERT EXTENSION AND 14 CY FOR 6'X6' BOX CULVERT EXTENSION.

(3) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.

(4) MAY BE INCREASED OR DECREASED BY THE T.D.O.T. SUPERVISOR.

(5) INCLUDES 1000 TONS FOR MAINTENANCE OF TRAFFIC.

(6) INCLUDES 946 TONS FOR 6'X5' BOX CULVERT EXTENSION AND 162 TONS FOR 6'X6' BOX CULVERT EXTENSION.

(7) FOR EROSION CONTROL.

(8) INCLUDES 176 CY FOR 6'X5' BOX CULVERT EXTENSION AND 30 CY FOR 6'X6' BOX CULVERT EXTENSION.

(9) INCLUDES 39,669 LB. FOR 6'X5' BOX CULVERT EXTENSION AND 6189 LB. FOR 6'X6' BOX CULVERT EXTENSION.

(10) TO BE USED IN RAISED MEDIANS WHERE THE WIDTH IS 4' OR LESS. SEE PROPOSED LAYOUTS FOR LOCATIONS.

(11) WHERE UNDERDRAIN TIES TO PROPOSED DRAINAGE SYSTEM, THE COST WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT THE COST SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 710-02, AGGREGATE UNDERDRAIN (WITH PIPE)

(12) TWO TYPE "A" WARNING LIGHTS TO BE MOUNTED ON EACH "ROAD CLOSED" SIGN.

(13) FOR TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS OF PAVEMENT AND FOR MAINTENANCE OF TRAFFIC.

(14) FOR EROSION CONTROL.

(15) THIS ITEMS SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN IN THE MANUFACTURER'S DRAWINGS.

(16) REMOVE SIGN AND SUPPORT ON 105+ SIGNS.

(17) COST OF SIGNAL HEADS SHALL INCLUDE MOUNTING HARDWARE.

(18) CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL SERVICE AND ANY ASSOCIATED FEES.

(19) CONTROLLER SHALL BE AN 8-PHASE.

(20) ANY COST ASSOCIATED WITH THE FOUNDATION AND POLE DESIGN SHALL BE INCLUDED IN THIS ITEM. ITEM INCLUDES FOUNDATION AND POLE INSTALLATION.

(21) MODIFICATION IS THE RELOCATION OF A PEDESTAL POLE AND CABINET.

(22) INCLUDES 1,108 TONS AT BRIDGE ABUTMENTS AND 80 TONS AT PIPE OUTLETS.

(23) INCLUDES 74 TONS AT PIPE OUTLETS AND 5,943 TONS FOR EROSION CONTROL.

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES

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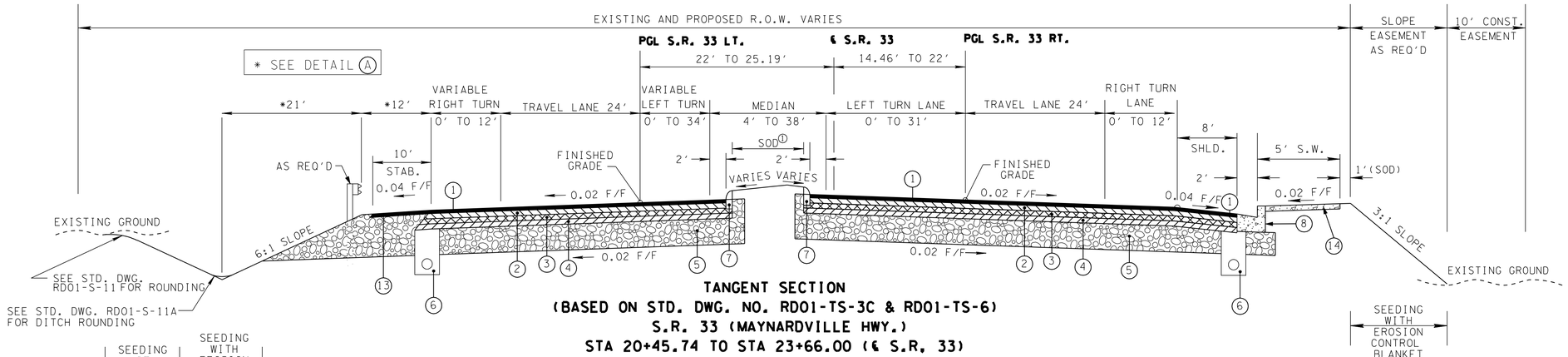
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2
CONST.	2014	HSIP-33(116)	2B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

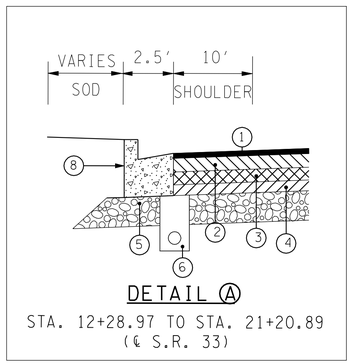


TANGENT SECTION
(BASED ON STD. DWG. NO. RD01-TS-3C & RD01-TS-6)
S.R. 33 (MAYNARDVILLE HWY.)
STA 20+45.74 TO STA 23+66.00 (℄ S.R. 33)
STA 44+66.38 TO STA 49+01.41 (℄ S.R. 33)

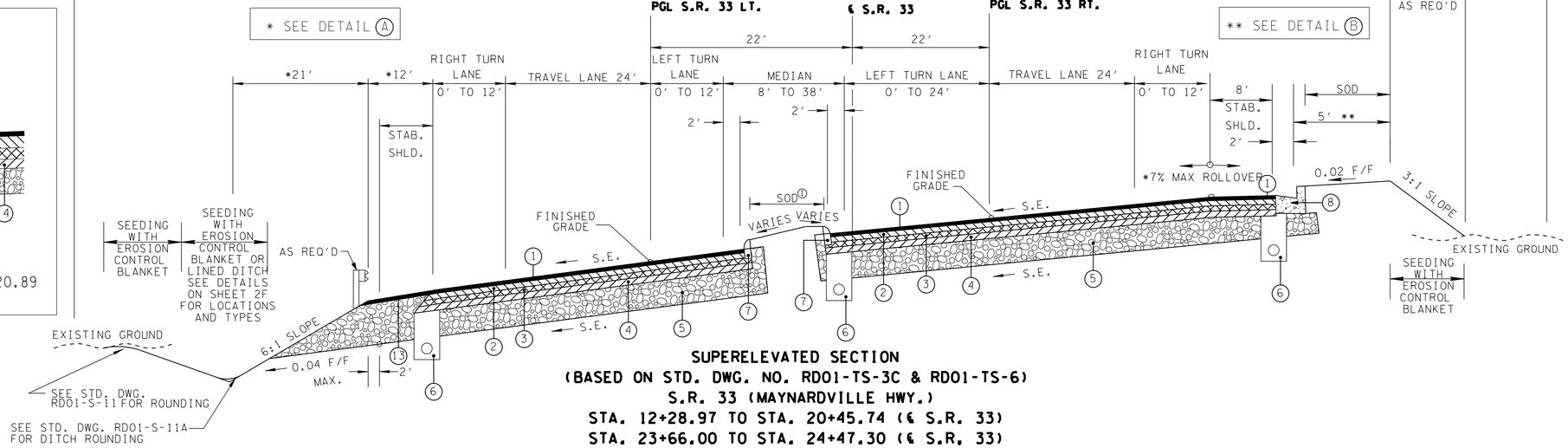
① **IN LOCATIONS WHERE THE MEDIAN WIDTH IS 4' OR LESS, USE ITEM 701-03, CONCRETE MEDIAN PAVEMENT.**

* THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGERAIC DIFFERENCE OF 0.07.

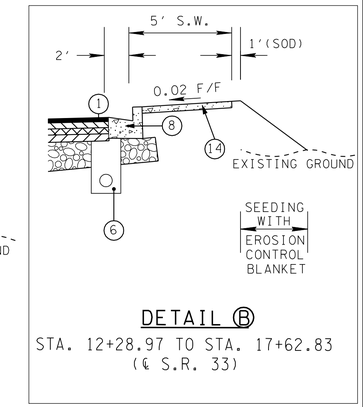
UNOFFICIAL SET
NOT FOR BIDDING



DETAIL (A)
STA. 12+28.97 TO STA. 21+20.89
(℄ S.R. 33)



SUPERELEVATED SECTION
(BASED ON STD. DWG. NO. RD01-TS-3C & RD01-TS-6)
S.R. 33 (MAYNARDVILLE HWY.)
STA. 12+28.97 TO STA. 20+45.74 (℄ S.R. 33)
STA. 23+66.00 TO STA. 24+47.30 (℄ S.R. 33)
STA. 35+34.32 TO STA. 44+66.38 (℄ S.R. 33)



DETAIL (B)
STA. 12+28.97 TO STA. 17+62.83
(℄ S.R. 33)

PROPOSED PAVEMENT SCHEDULE

(1) BITUMINOUS SURFACING (ROADWAY) @ 1-1/4" THICK (APPROX. 132.5 LBS/Sq Yd)
411-02.10 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING D
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 Gal / Sq Yd)

(2) BITUMINOUS BINDER (ROADWAY) @ 2" THICK (APPROX. 226 LBS/Sq Yd)
307-02.08 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 Gal / Sq Yd)

(3) BITUMINOUS BASE (ROADWAY) @ 3" THICK (APPROX. 460 LBS/Sq Yd)
307-02.01 ASPHALT CEMENT (PG70-22) (BPMB-HM) GRADING A
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 Gal / Sq Yd)

(4) BITUMINOUS BASE (ROADWAY) @ 3" THICK (APPROX. 270 LBS/Sq Yd)
307-02.02 ASPHALT CEMENT (PG70-22) (BPMB-HM) GRADING A-S
307-02.03 AGGREGATE (BPMB-HM) GRADING "A-S" MIX
402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (0.30 - 0.35 Gal / Sq Yd)
402-02 AGGREGATE FOR COVER MATERIAL (PC) (8-12 Lbs. / Sq Yd)

(5) MINERAL AGGREGATE BASE - 12" DEPTH (ROADWAY) (FULL DEPTH UNDER SHOULDERS)
303-01 MINERAL AGGREGATE, TYPE "A" BASE GRADING "D"

(6) UNDERDRAIN
710-02 AGGREGATE UNDERDRAIN (WITH PIPE) DETAIL "A" (CURB & GUTTER), DETAIL "B"(SHOULDER) STD. DWG. RD-UD-3

(7) CONCRETE CURB
702-01 CONCRETE CURB 6" DETACHED (MOUNTABLE) TYPE B (STD DWG RP-NMC-2)

(8) TYPE 6-30 NONMOUNTABLE CONCRETE COMBINED CURB AND GUTTER
702-03 CONCRETE COMBINED CURB & GUTTER (D=9") SEE STD. DWG. RP-NMC-10

(8A) TYPE 6-30 NONMOUNTABLE CONCRETE COMBINED CURB AND GUTTER
702-03 CONCRETE COMBINED CURB & GUTTER (D=8") SEE STD. DWG. RP-NMC-10

(9) BITUMINOUS SURFACING (ROADWAY) @ 1-1/4" THICK (APPROX. 132.5 LBS/Sq Yd)
411-01.10 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING D
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 Gal / Sq Yd)

(10) BITUMINOUS BINDER (ROADWAY) @ 2" THICK (APPROX. 226 LBS/Sq Yd)
307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 Gal / Sq Yd)

(11) BITUMINOUS BASE (ROADWAY) @ 3" THICK (APPROX. 373.75 LBS/Sq Yd)
307-01.01 ASPHALT CEMENT (PG70-22) (BPMB-HM) GRADING A
402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (0.30 - 0.35 Gal / Sq Yd)
402-02 AGGREGATE FOR COVER MATERIAL (PC) (8-12 Lbs. / Sq Yd)

(12) MINERAL AGGREGATE BASE - 10" DEPTH (ROADWAY) (FULL DEPTH UNDER SHOULDERS)
303-01 MINERAL AGGREGATE, TYPE "A" BASE GRADING "D"

(13) BITUMINOUS SURFACING (SHOULDERS) @ 1-1/2" THICK (APPROX. 154.5 LBS/Sq Yd)
411-01.07 ASPHALT CONCRETE MIX (PG64-22) GRADING "E" SHOULDER
402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (0.30 - 0.35 Gal / Sq Yd)

(14) CONCRETE SIDEWALK
701-01.01 4" CONCRETE SIDEWALK

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
No. 106.255
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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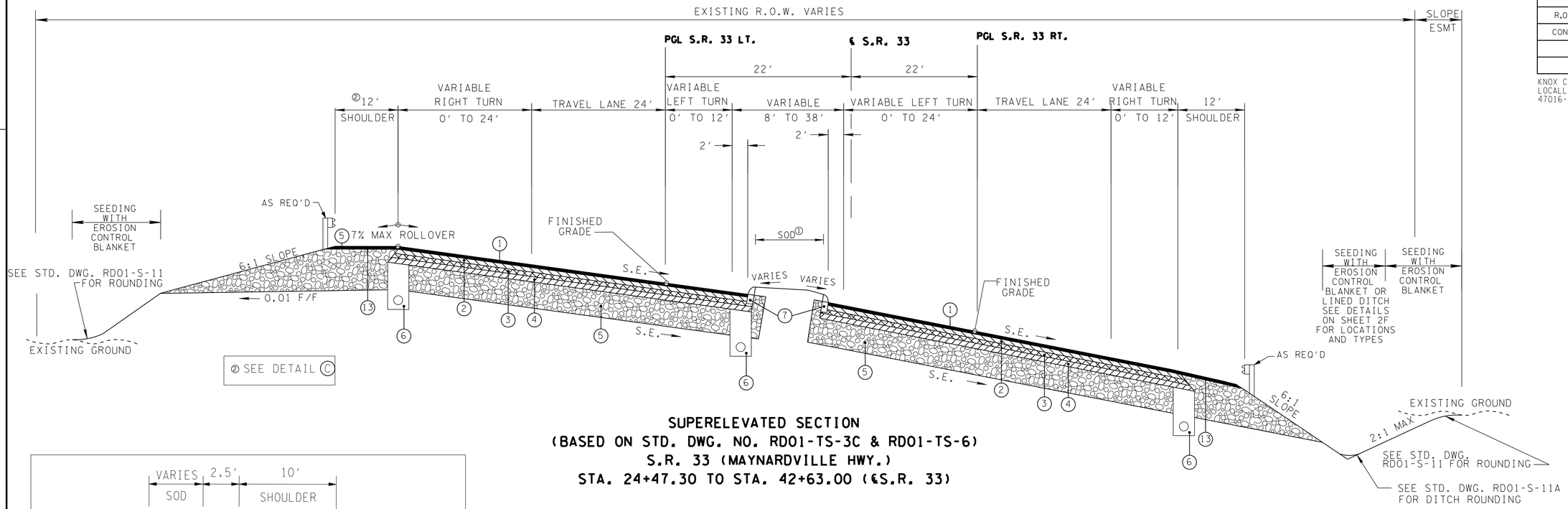
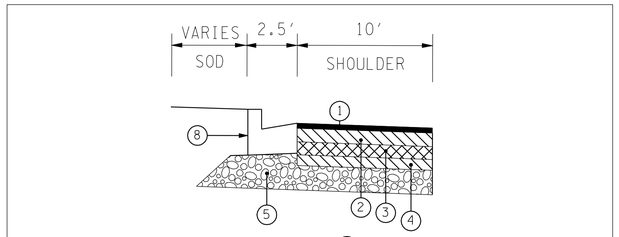
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2A
CONST.	2014	HSIP-33(116)	2C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

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



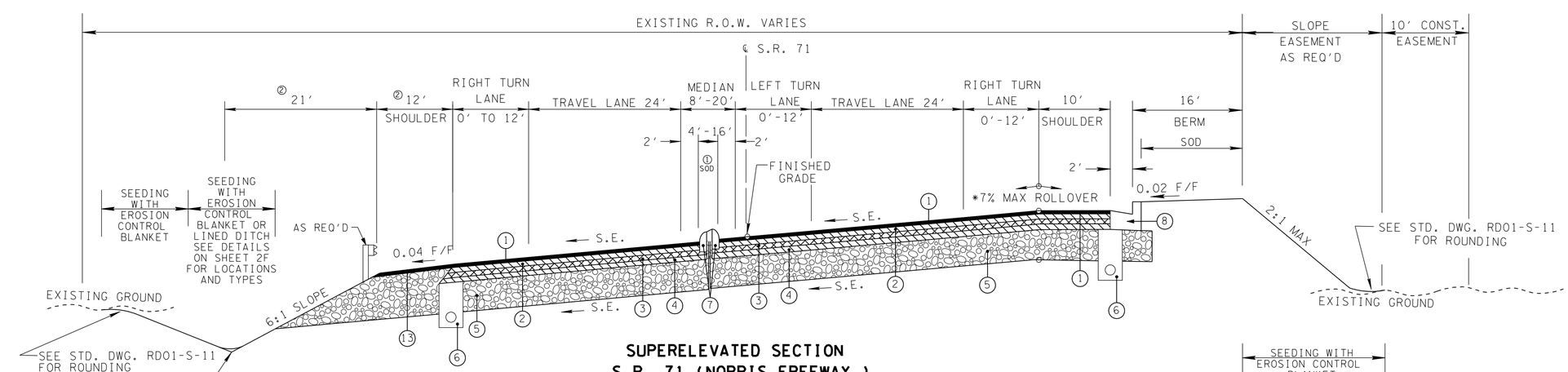
SUPERELEVATED SECTION
(BASED ON STD. DWG. NO. RD01-TS-3C & RD01-TS-6)
S.R. 33 (MAYNARDVILLE HWY.)
STA. 24+47.30 TO STA. 42+63.00 (℄S.R. 33)



DETAIL Ⓒ
STA. 44+95.08 LT. TO STA. 43+75.00 LT. (℄S.R. 33)
STA. 27+00.00 TO STA. 31+16.76 (℄ S.R. 71 - NORRIS FREEWAY)

① IN LOCATIONS WHERE THE MEDIAN WIDTH IS 4' OR LESS, USE ITEM 701-03, CONCRETE MEDIAN PAVEMENT.

* THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGERAIC DIFFERENCE OF 0.07.



SUPERELEVATED SECTION
S.R. 71 (NORRIS FREEWAY.)
(BASED ON STD. DWG. NO. RD01-TS-3C & RD01-TS-6)
STA. 27+00.00 TO STA. 36+91.44

UNOFFICIAL SET
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SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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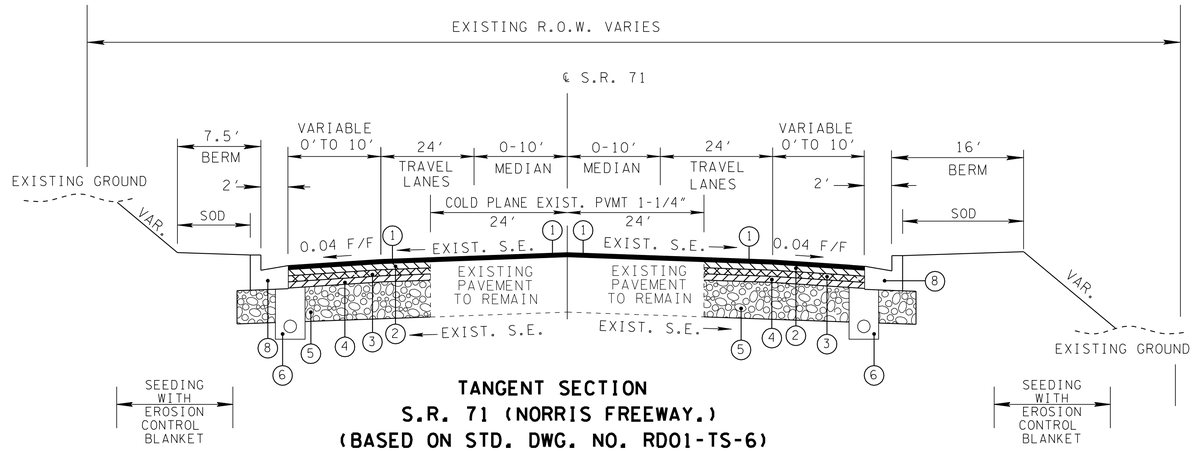
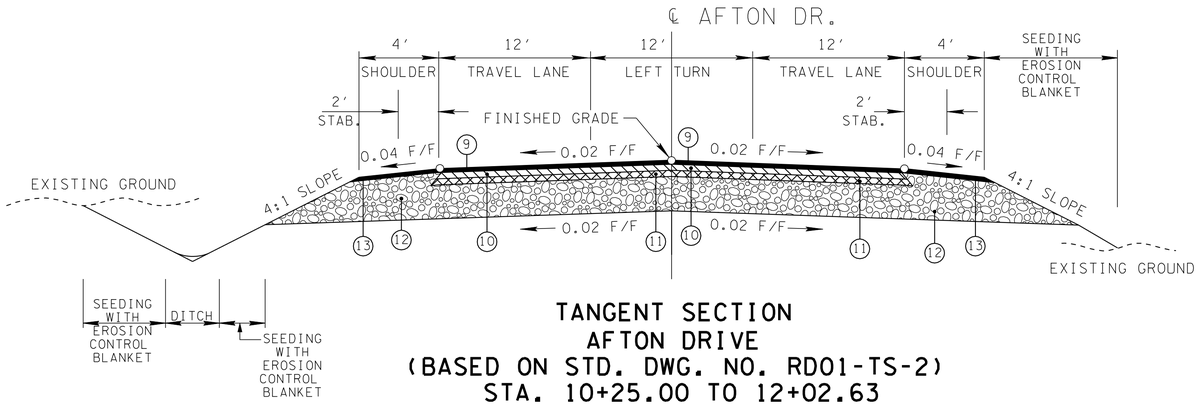
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2B
CONST.	2014	HSIP-33(116)	2D

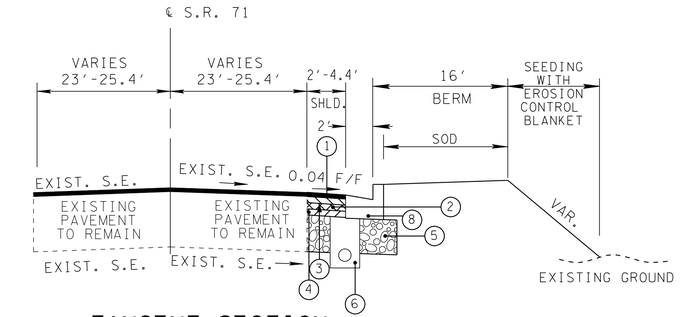
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



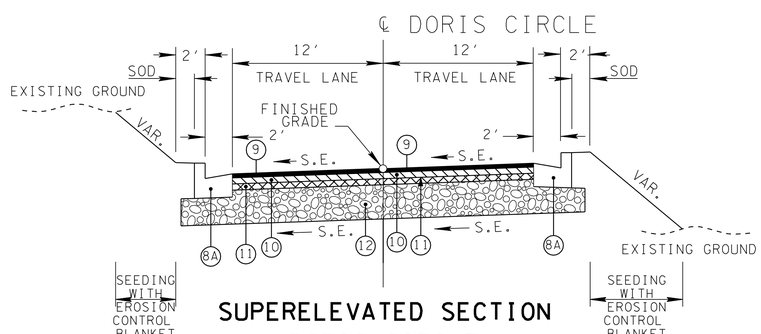
TANGENT SECTION
S.R. 71 (NORRIS FREEWAY.)
(BASED ON STD. DWG. NO. RD01-TS-6)
STA. 17+87.34 TO STA. 27+00.00



TANGENT SECTION
AFTON DRIVE
(BASED ON STD. DWG. NO. RD01-TS-2)
STA. 10+25.00 TO 12+02.63



TANGENT SECTION
S.R. 71 (NORRIS FREEWAY)
(BASED ON STD. DWG. NO. RD01-TS-6)
STA. 14+80.40 TO STA. 17+87.34



SUPERELEVATED SECTION
DORIS CIRCLE
(BASED ON STD. DWG. NO. RD01-TS-6A)
STA. 10+43.26 TO STA. 11+57.40 (END CONST.)

* THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGERAIC DIFFERENCE OF 0.07.

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
No. 109588
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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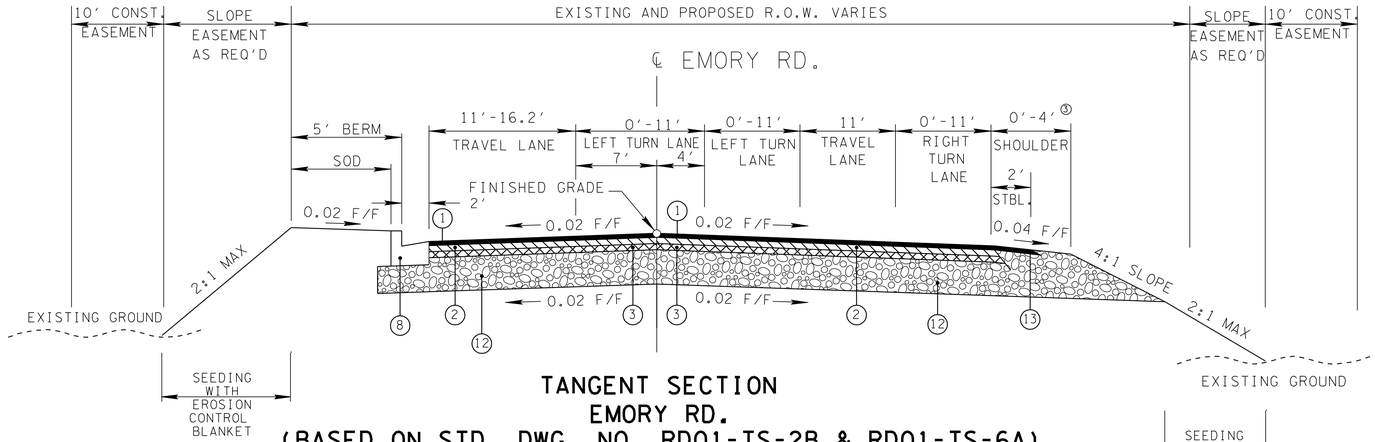
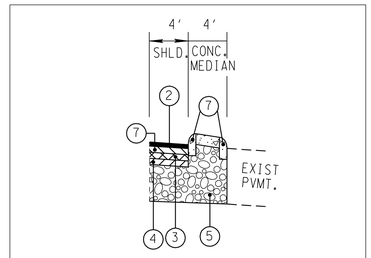
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2C
CONST.	2014	HSIP-33(116)	2E

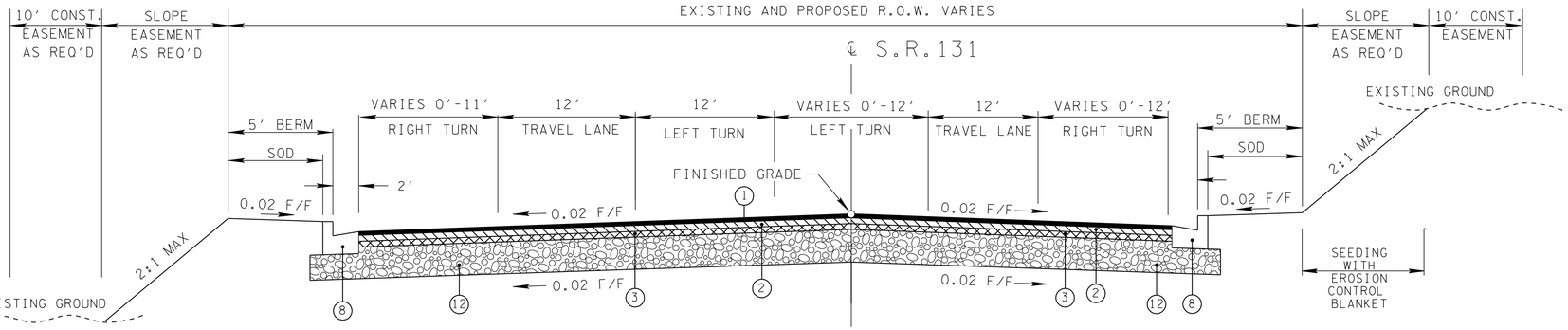
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



TANGENT SECTION
EMORY RD.
(BASED ON STD. DWG. NO. RD01-TS-2B & RD01-TS-6A)
STA 10+00.00 TO STA. 15+40.97

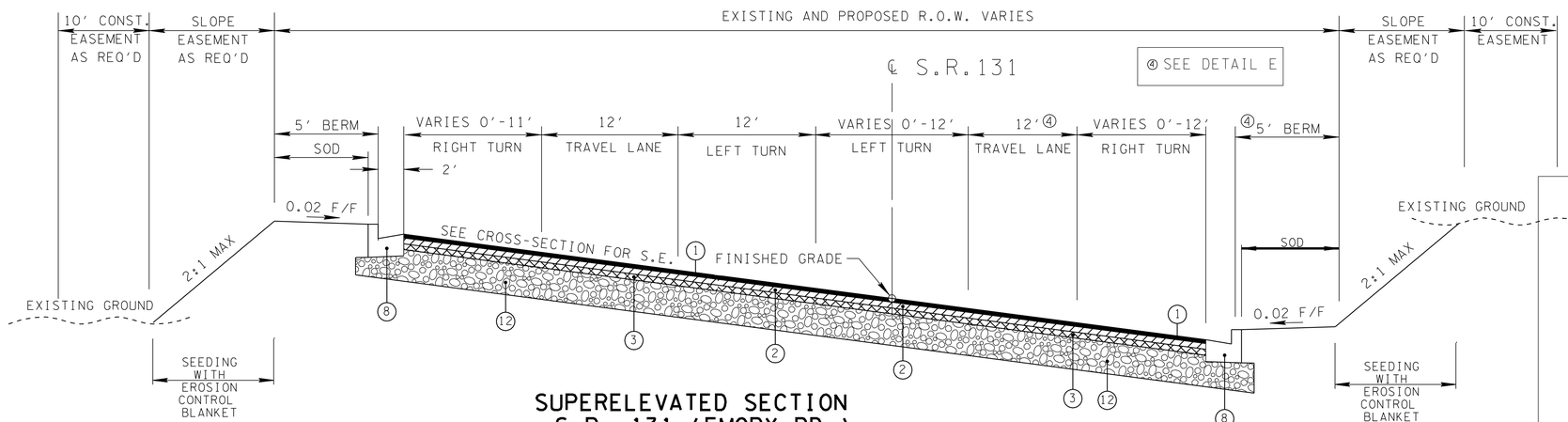


DETAIL Ⓓ
S.R. 131 (EMORY RD.)
STA.10+31.76 RT TO STA.12+95.03 RT

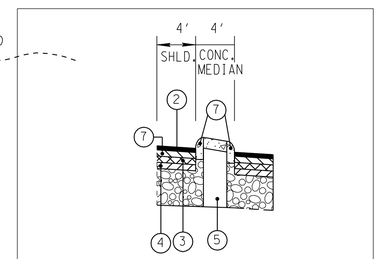


TANGENT SECTION
S.R. 131 (EMORY RD.)
(BASED ON STD. DWG. NO. RD01-TS-6A)
STA. 19+28.00 TO STA. 25+79.74

THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGERAIC DIFFERENCE OF 0.07.



SUPERELEVATED SECTION
S.R. 131 (EMORY RD.)
(BASED ON STD. DWG. NO. RD01-TS-6A)
STA. 16+35.99 TO STA. 19+28.00
STA. 25+79.74 TO STA. 26+33.75



DETAIL Ⓔ
S.R. 131 (EMORY RD.)
STA.16+35.99 TO STA.17+02.38

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109551
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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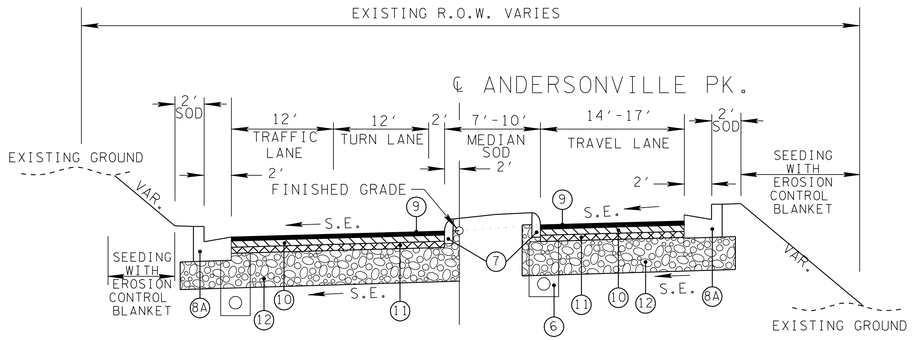
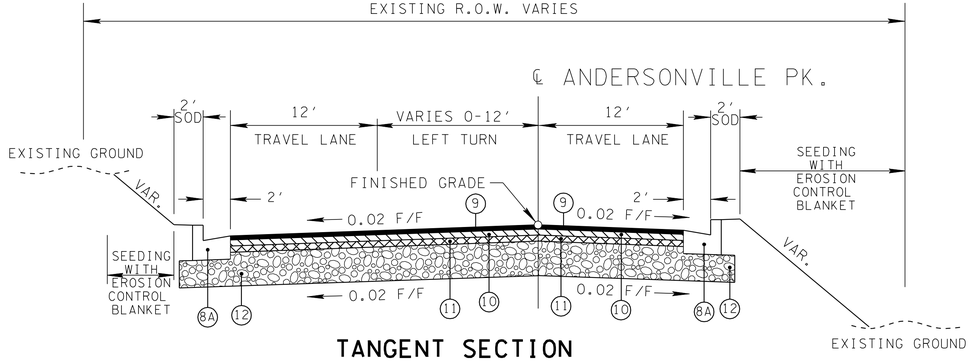
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2D
CONST.	2014	HSIP-33(116)	2F

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

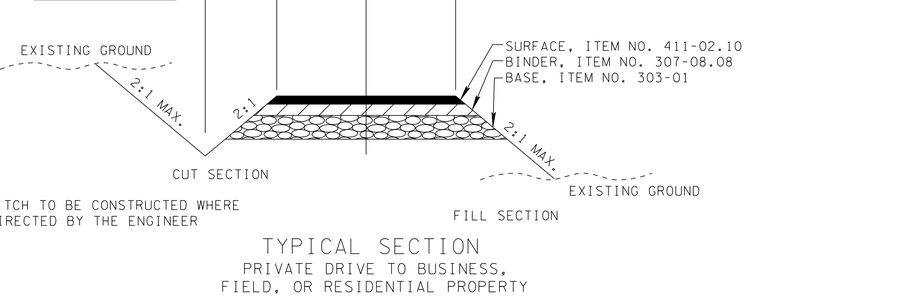


SUPERELEVATED SECTION
ANDERSONVILLE PIKE
℄ STA. 21+45.89 S.R. 33
(BASED ON STD. DWG. NO. RD01-TS-6A)
STA. 10+52.34 (BEGIN CONST.) TO STA. 11+42.00

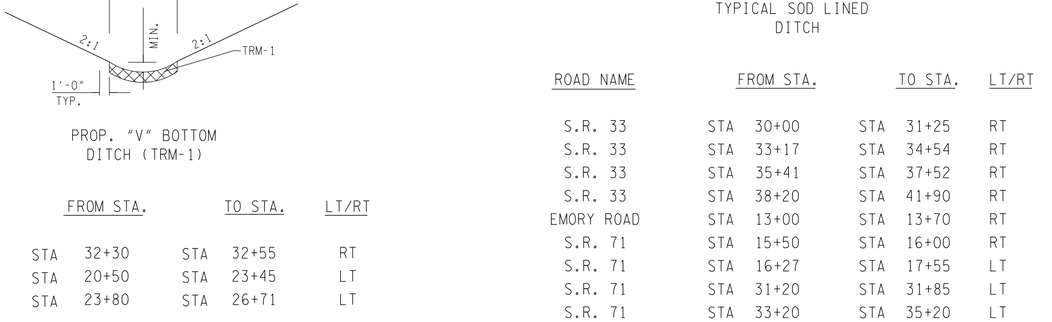


TANGENT SECTION
ANDERSONVILLE PIKE
℄ STA. 35+55.58 S.R. 33
(BASED ON STD. DWG. NO. RD01-TS-6A)
STA. 21+08.15 (BEGIN CONST.) TO STA. 24+74.10

UNOFFICIAL SET
NOT FOR BIDDING



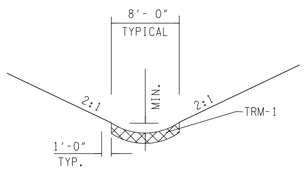
SUPERELEVATED SECTION
ANDERSONVILLE PIKE
℄ STA. 21+45.89 S.R. 33
(BASED ON STD. DWG. NO. RD01-TS-6A)
STA. 11+42.00 TO STA. 14+22.97 (END CONST.)



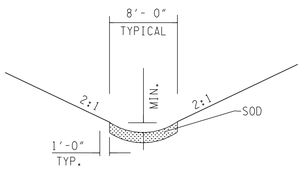
SUPERELEVATED SECTION
ANDERSONVILLE PIKE
(BASED ON STD. DWG. NO. RD01-TS-3 & RD01-TS-6A)
STA. 25+94.59 TO STA. 28+75.83

NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER

TYPICAL SECTION
PRIVATE DRIVE TO BUSINESS,
FIELD, OR RESIDENTIAL PROPERTY



PROP. "V" BOTTOM
DITCH (TRM-1)



TYPICAL SOD LINED
DITCH

ROAD NAME	FROM STA.	TO STA.	LT/RT
S.R. 33	STA 32+30	STA 32+55	RT
EMORY RD	STA 20+50	STA 23+45	LT
EMORY RD	STA 23+80	STA 26+71	LT

ROAD NAME	FROM STA.	TO STA.	LT/RT
S.R. 33	STA 30+00	STA 31+25	RT
S.R. 33	STA 33+17	STA 34+54	RT
S.R. 33	STA 35+41	STA 37+52	RT
S.R. 33	STA 38+20	STA 41+90	RT
EMORY ROAD	STA 13+00	STA 13+70	RT
S.R. 71	STA 15+50	STA 16+00	RT
S.R. 71	STA 16+27	STA 17+55	LT
S.R. 71	STA 31+20	STA 31+85	LT
S.R. 71	STA 33+20	STA 35+20	LT

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 108565
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

N.T.S.

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2G-A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

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

(3) ITEM NO. 801-02, SEEDING (WITHOUT MULCH) AND EROSION CONTROL BLANKET , SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AS WELL AS LOCATIONS DIRECTED BY THE ENGINEER.

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) 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.

(3) 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 CATCH BASINS, MANHOLES, PIPES, AND ENDWALLS 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) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).

(5) 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.

(6) 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.

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

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.

(3) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" ENHANCED FLATLINE THERMOPLASTIC 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. 716-12.01, ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE), LM. 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 COST ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(4) THE PAVEMENT MARKING ON THE LANE SHIFTS FOR S.R. 33 AND S.R 71 WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, LIN. MI.

PAVEMENT

PAVING

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

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) 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.

(3) 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 1300, J. K. POLK BUILDING, NASHVILLE, TN 37243-1402.

(4) 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.

(5) 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.

SIGNALIZATION

(1) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.

(2) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF THE (KNOX COUNTY DEPT. OF ENGINEERING AND PUBLIC WORKS) AND SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE ENGINEER FOR PICKUP BY THE COUNTY.

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

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

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

(6) THE PROJECT ENGINEER SHALL NOTIFY THE LOCAL GOVERNMENTAL AGENCY RESPONSIBLE FOR TRAFFIC CONTROL MAINTENANCE AT LEAST ONE DAY IN ADVANCE OF THE COLD PLANING ACTIVITY AT SIGNALIZED INTERSECTIONS WHERE DETECTOR LOOPS ARE ON THE PAVEMENT. THE MAINTAINING AGENCY WILL THEN BE RESPONSIBLE FOR DISCONNECTING THE LOOP DETECTORS AND MAKING ANY NECESSARY TIMING ADJUSTMENTS IN THE SIGNAL CONTROLLER PRIOR TO THE CONSTRUCTION.

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

(8) LOOP REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.

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.

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

N.T.S.

9:00:00 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

GENERAL NOTES (CONT.)

(1) 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.

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

(3) 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

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 MULCHED, SEEDED WITH MULCH, 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. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. 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.

(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.

(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 2-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.

(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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2G-B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106202
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

N.T.S.

9:00:00 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

GENERAL NOTES (CONT.)

(1) THE TDOT 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 TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

MATERIALS

(2) 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

(3) 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.

(4) 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 TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, DESIGN 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.

(5) 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.

(6) 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 BREIF 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.

(7) 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.

(8) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION 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.

(9) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION 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.

(10) 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.

(11) 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

(12) 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.

(13) 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 NOTES

GRADING

(1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.

(2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.

(3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVILLE, TN.

(4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

(5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

(6) SCARIFICATION TO BE PAID FOR UNDER ITEM NO. 203-01, ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED).

(7) TOPSOIL IS TO BE REMOVED FROM ALL AREAS OF TEMPORARY WETLAND IMPACTS AND STOCKPILED PRIOR TO CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, TEMPORARY HAUL ROADS ARE TO BE REMOVED. EXCAVATED MATERIAL FROM THE HAUL ROADS IS TO BE DISPOSED OF AS DIRECTED BY THE ENGINEER. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL TEMPORARY WETLAND IMPACT AREAS ARE TO BE RESTORED TO PRE-CONSTRUCTION CONTOURS AND THE STOCKPILED WETLAND TOPSOIL SPREAD TO RESTORE THESE AREAS TO PRE-CONSTRUCTION ELEVATIONS.

(8) THE AREA OF TEMPORARY WETLAND IMPACT SHALL BE RESTORED TO PRE-CONSTRUCTION ELEVATION AND RESEED AS SOON AS POSSIBLE FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2G-C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

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.

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, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.

(2) THE TRAFFIC SIGNAL SUPPORT POLES SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRIES, AND TRAFFIC SIGNALS (CURRENT EDITION WITH ADDENDA). WIND LOADS SHALL BE BASED ON A BASIC WIND SPEED OF 90 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY I. FATIGUE LOADS ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 OF THE SUBJECT AASHTO DOCUMENT AND THE FOLLOWING LOADS:

GALLOPING – NO DESIGN NECESSARY. VIBRATION DAMPENERS SHALL BE USED ON ALL CANTILEVERED ARMS THAT ARE 50' OR LONGER.

VORTEX SHEDDING – NOT APPLICABLE ON TRAFFIC SIGNAL SUPPORTS WITH A TAPER OF AT LEAST 0.14 IN/FT.

NATURAL WIND GUSTS – THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS SHALL BE 11.2 MPH.

THE TRAFFIC SIGNAL SUPPORT POLES SHALL BE POLES WITH CURVED CANTILEVERED ARM(S) IN ACCORDANCE WITH METRO PUBLIC WORKS. FOR POLE AND ARM DETAILS, CONTACT MIKE HIRTZER AT 615-880-3261.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 18Y, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

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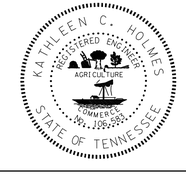

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SPECIAL NOTES

N.T.S.

9:00:01 AM M:\Knox County\Halls Connector\Sheets\02G-GeneralNotes.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2G-D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

ENVIRONMENTAL

ECOLOGY

(1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE WILL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING CONCERNING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR DESIGNATED CONSULTANT WILL NEED TO BE ON-SITE FOR WORK BEING DONE WHICH COULD AFFECT THE STREAM OR SPECIES.

(2) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE WILL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED BRIDGE WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS WHICH MUST BE FOLLOWED.

(3) ALL BRIDGE PROJECTS WITH THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT IDENTIFIED MUST HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER THE STREAM.

SCOPE OF WORK

(1) THIS PROJECT INCLUDES THE GRADING, DRAINAGE, BASE, PAVEMENT, BRIDGE, AND GUARDRAIL ON S.R. 33 (MAYNARDVILLE HWY) FROM AFTON DRIVE TO EMORY ROAD AND S.R. 71 (NORRIS FREEWAY) FROM EMORY ROAD TO S.R. 33 IN KNOX COUNTY TO THE LINES AND GRADES AS INDICATED ON THE TYPICAL CROSS-SECTIONS AND PLAN AND PROFILE SHEETS OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

(2) THIS PROJECT INCLUDES THE CONSTRUCTION OF A 6'X5' BOX CULVERT EXTENSION ON S.R. 33 AND A 6'X6' BOX CULVERT EXTENSION ON S.R. 71.

(3) CONSTRUCTION OF THE BRIDGE WIDENING OVER BEAVER CREEK ON S.R. 33 AS INDICATED IN THE PLANS OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

(4) CONSTRUCTION OF A COMPLETE DRAINAGE SYSTEM INCLUDING CATCH BASINS AND STORM DRAINS AS INDICATED ON THE PLANS OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

(5) CONSTRUCTION OF ALL SIDE ROADS, PRIVATE DRIVES AND BUSINESS ENTRANCES TO LINES AND GRADES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

(6) CONSTRUCTION OF ALL DITCHES, APPLICATION OF EROSION CONTROL DEVICES, INSTALLATION OF GUARDRAIL, TRAFFIC CONTROL DEVICES, PAVEMENT MARKINGS, SIGNING, SEEDING, AND OTHER DESIGN FEATURES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

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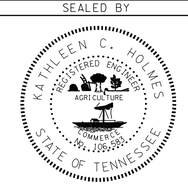

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL NOTES AND SCOPE OF WORK
N.T.S.

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2H

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

DRAINAGE STRUCTURES

SHT. NO.	NO.	STRUCTURE LOCATION: LOCATION	STRUCTURE LOCATION: STATION	ROAD NAME	TYPE OF STRUCTURE	TOP OR GRATE ELEV.	INVERT ELEV.	STR. HEIGHT	ADJUST EXIST. C.B.	CAP EXIST. C.B.	CATCH BASINS DEPTH/EACH: NO. 10 0'-4'	NO. 10 4'-8'	NO. 10 8'-12'	NO. 10 12'-16'	NO. 10 16'-20'	NO. 12 0'-4'	NO. 12 4'-8'	NO. 12 8'-12'	NO. 12 12'-16'	NO. 12 16'-20'	NO. 14 4'-8'	NO. 25 0'-4'	NO. 25 4'-8'	NO. 25 8'-12'	NO. 26 0'-4'	NO. 26 4'-8'	NO. 26 8'-12'	NO. 42 0'-4'	NO. 42 4'-8'	NO. 43 0'-4'	NO. 44 8'-12'	S.D. 18"	NO. 3 MANHOLE DEPTH/EACH 4'-8'	NO. 3 MANHOLE DEPTH/EACH 8'-12'	PIPE ENDWALLS: TYPE	CL. A CONC. (C.Y.)	REINF. STEEL (LB.)	STRUCT. STEEL (LB.)	18" EW 4:1 6ll-07.55 EACH	36" EW 6:1 6ll-07.65 EACH	DRAWING NUMBER	REMARKS
4D	1	34.00 RT	12+48.00	PGL S.R. 33R	No. 12 C.B.	1034.22	1030.34	3.88									I																						D-CB-12P	
4D	2	28.00 RT	13+77.93	PGL S.R. 33R	Existing CB	1031.41				I																														Existing CB to be Capped
4D	3	34.00 RT	15+60.00	PGL S.R. 33R	No. 12 C.B.	1028.66	1023.75	4.91										I																				D-CB-12P	
4D	4	2.00 LT	15+60.00	PGL S.R. 33R	No. 25 C.B.	1028.05	1024.08	3.97																														D-CB-25P	
4D	5	26.65 RT	16+78.33	PGL S.R. 33R	Existing CB	1025.57				I																													Existing CB to be Capped
4D	6	2.00 LT	17+36.00	PGL S.R. 33R	No. 25 C.B.	1024.43	1020.55	3.88																														D-CB-25P	
4D	7	34.00 RT	17+42.00	PGL S.R. 33R	No. 12 C.B.	1024.94	1020.22	4.72										I																				D-CB-12P	
4D	8	27.72 RT	10+79.00	DORIS CIRCLE	No. 14 C.B.	1024.20	1019.80	4.40														I																D-CB-14P	
4D	9	11.28 LT	11+54.97	DORIS CIRCLE	No. 12 C.B.	1024.57	1020.69	3.88									I																					D-CB-12RA	
4D	10	9.50 LT	14+30.45	ENT. STA. 1099 RT.	No. 12 C.B.	1024.70	1019.41	5.29										I																				D-CB-12RB	
4D	12	1.32 LT	18+43.00	PGL S.R. 33R	No. 25 C.B.	1023.44	1017.39	6.05																I														D-CB-25RB	
4D	13	4.17 LT	18+78.17	PGL S.R. 33R	No. 26 C.B.	1023.30	1017.14	6.16																			I											D-CB-26P	
4D	14	7.74 LT	19+13.00	PGL S.R. 33R	No. 25 C.B.	1023.32	1016.61	6.71																I														D-CB-25SB	
4D	15	54.87 RT	20+09.80	PGL S.R. 33R	Existing CB	1023.81			I																														Adjust Exist. CB Top
4D	16	36.55 LT	17+78.43	PGL S.R. 33R	Manhole	1022.54	1017.83	4.71																												I		D-MH-2	
4D	13A	6.06 LT	18+96.00	PGL S.R. 33R	No. 25 C.B.	1023.29	1016.98	6.31																I														D-CB-25SB	
4D	16D	36.00 LT	16+00.00	PGL S.R. 33L	No. 12 C.B.	1024.51	1020.63	3.88									I																					D-CB-12P	
4D	16E	36.00 LT	18+00.00	PGL S.R. 33L	No. 12 C.B.	1020.63	1016.58	4.05										I																				D-CB-12P	
4D	16F	36.00 LT	18+12.00	PGL S.R. 33L	No. 12 C.B.	1020.53	1016.31	4.22										I																				D-CB-12P	
4D	16G	36.00 LT	18+47.00	PGL S.R. 33L	No. 14 C.B.	1020.35	1015.84	4.51														I																D-CB-14P	
4D	16H	36.00 LT	18+82.00	PGL S.R. 33L	No. 12 C.B.	1020.68	1015.53	5.15										I																				D-CB-12P	
4D	16I	36.00 LT	18+94.00	PGL S.R. 33L	No. 12 C.B.	1020.86	1015.43	5.43										I																				D-CB-12P	
4D	6A	5.80 LT	17+49.00	PGL S.R. 33L	Existing CB	1022.51	1020.36	2.15		I																													Existing CB to be Capped
5D	11	24.53 LT	21+39.88	PGL S.R. 33R	Manhole	1024.96	1015.50	9.46																												I		D-MH-2	
5D	17	14.00 RT	25+17.00	PGL S.R. 33L	No. 26 C.B.	1025.74	1021.86	3.88																		I											D-CB-26P	
5D	18	3.21RT	27+72.00	PGL S.R. 33L	No. 25 C.B.	1026.26	1022.38	3.88																														D-CB-25P	
5D	19	7.88 RT	26+78.00	PGL S.R. 33L	No. 25 C.B.	1025.91	1022.03	3.88																														D-CB-25P	
5D	20	14.00 RT	30+26.00	PGL S.R. 33L	No. 26 C.B.	1027.33	1023.45	3.88																		I											D-CB-26P	
5D	21	14.00 RT	30+85.00	PGL S.R. 33L	No. 25 C.B.	1027.82	1023.00	4.82																I														D-CB-25P	
5D	33	4.00 LT	36+48.00	S.R. 71	No. 25 C.B.	1028.28	1024.40	3.88																														D-CB-25SB	
5D	36	1.54 LT	34+35.00	S.R. 71	No. 25 C.B.	1028.11	1021.13	6.98																I														D-CB-25P	
5D	40	4.00 LT	36+29.00	S.R. 71	No. 25 C.B.	1028.36	1017.80	10.56																			I											D-CB-25RB	Attach to Prop. 30" RCP Crossdrain
5D	41	4.00 LT	36+00.00	S.R. 71	No. 26 C.B.	1028.48	1019.38	9.10																				I										D-CB-26P	
5D	50	25.99 LT	13+30.00	ANDERSONVILLE PK.	No. 12 C.B.	1021.07	1017.02	4.05										I																				D-CB-12P	
5D	51	19.30 LT	14+20.00	ANDERSONVILLE PK.	No. 12 C.B.	1020.15	1016.27	3.88									I																					D-CB-12RA	
5D	52	99.59 LT	14+98.56	ANDERSONVILLE PK.	Pipe End		1015.93																																Connect to Exist. CB
5D	53	20.00 LT	12+87.00	ANDERSONVILLE PK.	No. 12 C.B.	1021.39	1017.51	3.88									I																				D-CB-12P	
5D	55	28.40 RT	10+96.00	ANDERSONVILLE PK.	No. 12 C.B.	1023.72	1014.50	9.22											I																			D-CB-12P	Const. on Exist. 24" Pipe
5D	57	34.90 LT	11+54.60	ANDERSONVILLE PK.	Existing CB	1022.88			I																													Adjust Exist. CB Top
5D	58	28.00 LT	11+04.50	ANDERSONVILLE PK.	Existing CB	1024.02																																	Const. No. 12 CB Top on Existing CB
5D	59	73.60 LT	10+91.71	ANDERSONVILLE PK.	Existing CB	1023.90			I																														Adjust Exist. CB Top
5D	127	64.27 RT	36+42.00	S.R. 71	No. 12 C.B.	1027.94	1017.29	10.65											I																			D-CB-12RB	Attach to Prop. 30" RCP Crossdrain
5D	11A	24.31RT	21+38.90	PGL S.R. 33L	Pipe End		1015.40																																Stub into Exist. RCBC
5D	16A	36.00 LT	20+68.00	PGL S.R. 33L	No. 12 C.B.	1023.21	1013.74	9.47											I																			D-CB-12P	
5D	16B	59.98 LT	22+23.70	PGL S.R. 33L	Manhole	1022.00	1012.80	9.20																												I		D-MH-2	
5D	16C	21.00 LT	22+33.71	PGL S.R. 33L	Pipe End		1011.00																																Stub into Prop. RCBC
5D	17A	65.23 LT	25+17.00	PGL S.R. 33L	EW		1020.75																													B	1.07	153			D-PE-9.9A	
5D	18A	5.53 RT	27+25.00	PGL S.R. 33L	No. 25 C.B.	1025.97	1021.78	4.19																I														D-CB-25P	
5D	18B	6.78 RT	27+00.00	PGL S.R. 33L	No. 25 C.B.	1025.93	1021.40	4.53																I														D-CB-25P	
5D	19A	64.00 LT	27+00.00	PGL S.R. 33L	EW		1018.00																													B	1.07	153			D-PE-9.9A	
5D	55A	33.50 RT	11+66.33	ANDERSONVILLE PK.	No. 12 C.B.	1022.95	1019.00	3.95									I																					D-CB-12P	
6D	22	13.00 RT	31+46.60	PGL S.R. 33L	No. 26 C.B.	1028.51	1019.60	8.91																			I											D-CB-26P	
6D	25	2.00 RT	32+88.50	PGL S.R. 33L	No. 25 C.B.	1031.48	1027.43	4.05																I														D-CB-25P	
6D	26	2.00 RT	35+10.00	PGL S.R. 33L	No. 25 C.B.	1035.77	1031.65	4.12																I														D-CB-25P	
6D	27	14.00 RT	36+42.00	PGL S.R. 33L	No. 26 C.B.	1037.46	1032.67	4.79																			I											D-CB-26P	
6D	28	14.00 RT	38+20.00	PGL S.R. 33L	No. 25 C.B.	1039.65	1033.97	5.68																I														D-CB-25P	
6D	29	13.10 RT	39+70.00	PGL S.R. 33L	No. 25 C.B.	1041.53	1034.87	6.66																I														D-CB-25P	
6D	60	26.00 LT	22+92.00	ANDERSONVILLE PK.	No. 12 C.B.	1031.71	1027.83	3.88									I																					D-CB-12P	
6D	61	24.50 LT	22+25.00	ANDERSONVILLE PK.	No. 12 C.B.	1027.80	1023.78	4.02										I																				D-CB-12P	
6D	62	14.00 RT	22+30.00	ANDERSONVILLE PK.	No. 12 C.B.	1028.31	1023.27	5.04										I																				D-CB-12P	
6D	63	14.00 RT	21+64.50	ANDERSONVILLE PK.	No. 12 C.B.	1024.46	1016.53	7.93										I																				D-CB-12P	
6D	64	34.50 RT	21+64.5	ANDERSONVILLE PK.	Pipe End		1013.84																																Stub into Exist. CB
6D	65	14.00 RT	21+12.00	ANDERSONVILLE PK.	No. 12 C.B.	1021.28	1017.19	4.09										I																				D-CB-12P	
6D	66	18.29 LT	21+12.00	ANDERSONVILLE PK.	No. 12 C.B.	1021.51	1017.63	3.88									I																				D-CB-12P	
6D	127	67.00 RT	34+80.00	PGL S.R. 33L	EW		1028.49																													U					D-PE-24A	
6D	128	48.00 RT	35+80.00	PGL S.R. 33L	No. 12 C.B.	1033.33	1029.20	4.13										I																				D-CB-12RB	
6D	129	48.00 RT	36+50.00	PGL S.R. 33L	No. 12 C.B.	1034.50	1030.45	4.05										I																				D-CB-12P	
6D	130	48.00 RT	38+27.50	PGL S.R. 33L	No. 12 C.B.	1037.45	1033.40	4.05										I																				D-CB-12P	
6D	131	48.00 RT	39+00.00	PGL S.R. 33L	No. 12 C.B.	1038.66	1034.78	3.88									I																					D-CB-12P	
6D	27A	14.00 RT	37+32.00	PGL S.R. 33L	No. 25 C.B.	1038.57	1033.35	5.22																I														D-CB-25P	
7D	30	2.00 RT	41+73.00	PGL S.R. 33L	No. 25 C.B.	1045.14	1038.80	6.34																I														D-CB-25P	
7D	72	16.67 LT	12+00.00	EMORY ROAD	No. 12 C.B.	1041.97	1033.45	8.52											I																			D-CB-12SB	
7D	73	21.00 LT	13+72.00	EMORY ROAD	No. 12 C.B.	1044.98	1032.29	12.69												I																		D-CB-12SB	
7D	74	25.21LT	14+95.00	EMORY ROAD	No. 12 C.B.	1048.75	1030.27	18.48													I																	D-CB-12RB	
7D	75	67.00 LT	15+11.50	EMORY ROAD	No.44 C.B.	1041.20	1032.17	9.03															I															D-CB-44SE	
7D	76	26.05 LT	45+80.00	PGL S.R. 33L	No. 12 C.B.	1051.33	1033.50	17.83													I																	D-CB-12RB	
7D	77	36.00 RT	45+99.00	PGL S.R. 33L	No. 25 C.B.	1052.32	1040.48	11.84																	I													D-CB-25RB	
7D	78	33.00 LT	17+75.00	EMORY ROAD	No. 12 C.B.	1047.38	1043.50	3.88									I																					D-CB-12P	
7D	82	47.00 LT	17+77.00	EMORY ROAD	No. 42 C.B.	1047.20	1043.21	3.99																					I									D-CB-42S	Connect to Exist. 15" Pipe
7D	92	15.63 LT	11+63.00	EMORY ROAD	No. 10 CB	1042.11	1038.00	4.11					I																									D-CB-10S	
7D	94	158.00 RT	14+30.00	EMORY ROAD	Manhole	1034.50	1028.15	6.35																												I		D-MH-2	
7D	95	50.00 LT	17+47.00	EMORY ROAD	No. 42 C.B.	1046.90	1042.02	4.88																					I									D-CB-42SB	Connect to Exist. 15" Pipe
7D	99	16.10 LT	11+79.00	EMORY ROAD	No. 10 CB	1042.08	1037.60	4.48					I																									D-CB-10S	
7D	100	59.68 LT	16+86.00	EMORY ROAD	No. 12 C.B.	1050.08	1041.44	8.64											I																			D-CB-12RB	
7D	101	0.00 RT	49+50.00	S.R. 33	No. 42 C.B.	1055.70	1052.70	3.00																					I									D-CB-42S	
7D	106	48.00 RT	42+77.00	PGL S.R. 33R	No. 14 C.B.	1045.14	1041.09	4.05														I																D-CB-14P	
7D	107	2.00 RT	42+85.00	PGL S.R. 33L	No. 25 C.B.	1047.08	1040.05	7.03																I														D-CB-25P	
7D	108	38.00 LT	13+00.00	EMORY ROAD	No. 42 C.B.	1040.30	1033.40	6.90																					I									D-CB-42SB	
7D	109	19.46 LT	13+00.00	EMORY ROAD	No. 12 C.B.	1043.14	1032.80	10.34											I																			D-CB-12P	
7D	108A	24.75 LT	13+00.00	EMORY ROAD	Manhole	1043.71	1033.10	10.61																												I		D-MH-2	
7D	108B	15.72 RT	10+98.00	EMORY ROAD	No. 12 C.B.	1042.64	1038.55	4.09										I																				D-CB-12P	
7D	108C	19.38 RT	11+79.00	EMORY ROAD	No. 14 C.B.	1042.01	1037.63	4.38														I																D-CB-14P	
7D	108D	20.33 RT	12+00.00	EMORY ROAD	No. 12 C.B.	1042.03	1037.36	4.67										I																				D-CB-12P	
7D	75A	49.50 LT	46+73.00	PGL S.R. 33L	Manhole	1047.00	1041.83	5.17																												I		D-MH-2	Connect MH to Exist. 15" CPP
7D	92A	15.18 LT	11+47.00	EMORY ROAD	No. 10 CB	1042.18	1038.30	3.88					I																									D-CB-10S	
7D	92B	34.20 LT	11+38.10	EMORY ROAD	Existing CB	1042.50				I																													Existing CB to be Capped
7D	94A	180.00 RT	14+26.00	EMORY ROAD	EW		1027.86																													U				I	D-PE-36A	
8D	80	44.00 RT	18+88.00	EMORY ROAD	No. 12 C.B.	1046.57	1041.50	5.07										I																				D-CB-12P	

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DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
ARCHITECTURE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	21

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

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

DRAINAGE STRUCTURES

SHT. NO.	NO.	STRUCTURE LOCATION: LOCATION	STRUCTURE LOCATION: STATION	ROAD NAME	TYPE OF STRUCTURE	TOP OR GRATE ELEV.	INVERT ELEV.	STR. HEIGHT	ADJUST EXIST. C.B.	CAP EXIST. C.B.	CATCH BASINS DEPTH/EACH NO. 10 0'-4'	NO. 10 4'-8'	NO. 10 8'-12'	NO. 10 12'-16'	NO. 10 16'-20'	NO. 12 0'-4'	NO. 12 4'-8'	NO. 12 8'-12'	NO. 12 12'-16'	NO. 12 16'-20'	NO. 14 4'-8'	NO. 25 0'-4'	NO. 25 4'-8'	NO. 25 8'-12'	NO. 26 0'-4'	NO. 26 4'-8'	NO. 26 8'-12'	NO. 42 0'-4'	NO. 42 4'-8'	NO. 43 0'-4'	NO. 44 8'-12'	S.D. 18"	NO. 3 MANHOLE DEPTH/EACH 4'-8'	NO. 3 MANHOLE 8'-12'	PIPE ENDWALLS TYPE	PIPE ENDWALLS CL. A CONC. (C.Y.)	PIPE ENDWALLS REINF. STEEL (LB.)	STRUCT. STEEL (LB.)	18" EW 4:1 611-07.55 EACH	36" EW 6:1 611-07.65 (LB.)	DRAWING NUMBER	REMARKS
8D	81	31.00 LT	18+65.00	EMORY ROAD	No. 12 C.B.	1046.55	1040.59	5.96									1																								D-CB-12P	
8D	83	62.00 RT	19+28.00	EMORY ROAD	Slotted Drain	1044.40	1042.00	2.40																								1									D-SLD-1	30 LF-18" Slotted Drain Pipe
8D	84	31.00 LT	19+30.00	EMORY ROAD	No. 12 C.B.	1045.63	1039.81	5.82									1																								D-CB-12P	
8D	85	31.00 LT	19+37.00	EMORY ROAD	No. 12 C.B.	1045.53	1039.53	6.00									1																								D-CB-12P	Connect to Exist. 15" Pipe
8D	86	20.25 LT	21+97.00	EMORY ROAD	No. 12 C.B.	1039.95	1034.87	5.08									1																								D-CB-12P	
8D	87	44.00 RT	21+96.00	EMORY ROAD	No. 12 C.B.	1039.51	1035.63	3.88								1																									D-CB-12P	
8D	88	19.75 LT	24+49.00	EMORY ROAD	No. 12 C.B.	1031.23	1026.82	4.41									1																								D-CB-12P	
8D	89	18.87 RT	24+50.00	EMORY ROAD	No. 12 C.B.	1031.21	1027.33	3.88								1																									D-CB-12P	
8D	90	14.55 LT	26+18.00	EMORY ROAD	No. 12 C.B.	1025.40	1022.00	3.40								1																									D-CB-12LP	
8D	91	12.37 RT	26+18.00	EMORY ROAD	No. 12 C.B.	1025.64	1021.89	3.75								1																									D-CB-12LP	
8D	96	26.20 RT	26+18.30	EMORY ROAD	Pipe End		1021.63																																			Connect to Exist. CB
8D	97	31.00 LT	20+15.00	EMORY ROAD	No. 12 C.B.	1044.28	1038.62	5.66									1																								D-CB-12P	
8D	105	49.00 LT	19+00.00	EMORY ROAD	Slotted Drain	1047.10	1045.10	2.00																								1									D-SLD-1	30 LF-18" Slotted Drain Pipe
9C	110	44.59 LT	20+50.00	S.R. 71	No. 12 C.B.	1031.36	1027.48	3.88								1																									D-CB-12P	
9C	111	46.00 LT	21+00.00	S.R. 71	No. 12 C.B.	1030.26	1026.21	4.05									1																								D-CB-12P	
9C	116A	48.00 RT	21+00.00	S.R. 71	No. 12 C.B.	1031.20	1027.32	3.88								1																									D-CB-12P	
9C	116B	40.84 RT	16+00	S.R. 71	No. 12 C.B.	1034.32	1030.44	3.88								1																									D-CB-12P	
9C	116C	67.00 RT	16+00	S.R. 71	EW		1030.24																												U				1		D-PE-18A	
9C	116D	52.00 LT	16+09	S.R. 71	Existing CB	1030.00	1026.00	4.00		1																																Existing CB to be Capped
9C	116E	56.00 LT	16+23.00	S.R. 71	No. 43 C.B.	1030.50	1026.60	3.90																						1											D-CB-43SB	
9C	116F	116.80 RT	19+65	S.R. 71	No. 14 C.B.	1027.20	1021.20	6.00													1																				D-CB-14P	
9C	116G	130.00 RT	19+95	S.R. 71	EW		1021.00																												U				1		D-PE-18A	
10C	31	8.00 LT	29+70.00	S.R. 71	No. 25 C.B.	1022.64	1018.76	3.88																																	D-CB-25P	
10C	32	61.00 LT	29+92.50	S.R. 71	EW		1018.00																												B	1.07	153				D-PE-9,9A	
10C	37	6.11 RT	33+25.00	S.R. 71	No. 26 C.B.	1026.97	1022.35	4.62																		1															D-CB-26P	
10C	38	7.28 RT	32+99.00	S.R. 71	No. 25 C.B.	1026.62	1022.74	3.88																																	D-CB-25P	
10C	39	8.00 LT	31+20.00	S.R. 71	No. 25 C.B.	1024.64	1020.15	4.49															1																		D-CB-25P	
10C	42	37.00 LT	28+33.00	S.R. 71	Pipe End		1013.50																																			Stub Into Exist. 6' X 6' RCBC
10C	43	20.00 RT	1+93.60	ENT. STA 2912 LT.	Existing CB	1022.50																																				Stub Into Exist. CB and Adjust Grate
10C	44	20.00 RT	2+30.00	ENT. STA 2912 LT.	No. 12 C.B.	1021.70	1017.82	3.88								1																									D-CB-12P	
10C	45	48.00 LT	29+92.50	S.R. 71	No. 12 C.B.	1023.51	1018.09	5.42									1																								D-CB-12SB	
10C	46	8.00 LT	29+93.00	S.R. 71	No. 25 C.B.	1022.93	1018.43	4.50															1																		D-CB-25P	
10C	47	36.10 LT	28+56.00	S.R. 71	No. 12 C.B.	1021.67	1017.00	4.67									1																								D-CB-12P	
10C	48	35.00 LT	28+38.50	S.R. 71	Pipe End		1013.00																																			Stub Into Exist. 6' X 6' RCBC
10C	112	46.00 LT	24+00.00	S.R. 71	No. 12 C.B.	1022.43	1018.38	4.05									1																								D-CB-12P	
10C	113	46.00 LT	26+00.00	S.R. 71	No. 12 C.B.	1020.06	1016.01	4.05									1																								D-CB-12P	
10C	114	46.00 LT	27+00.00	S.R. 71	No. 12 C.B.	1019.67	1014.87	4.80									1																								D-CB-12P	
10C	116	46.00 RT	24+00.00	S.R. 71	No. 12 C.B.	1022.71	1018.83	3.88								1																									D-CB-12P	
10C	117	46.00 RT	26+50.00	S.R. 71	No. 12 C.B.	1020.15	1016.10	4.05									1																								D-CB-12P	
10C	118	46.00 RT	27+16.00	S.R. 71	No. 12 C.B.	1019.67	1015.62	4.05									1																								D-CB-12P	
10C	119	46.00 RT	27+58.00	S.R. 71	No. 14 C.B.	1019.45	1015.07	4.38													1																				D-CB-14P	
10C	120	46.00 RT	27+99.00	S.R. 71	No. 12 C.B.	1019.56	1014.55	5.01									1																								D-CB-12P	
10C	121	45.00 RT	28+45.00	S.R. 71	Pipe End		1012.50																																			Stub Into Exist. 6' X 6' RCBC
10C	122	45.00 RT	28+51.00	S.R. 71	Pipe End		1012.50																																			Stub Into Exist. 6' X 6' RCBC
10C	123	46.00 RT	28+63.00	S.R. 71	No. 12 C.B.	1019.97	1016.09	3.88								1																									D-CB-12P	
10C	125	52.08 RT	31+10.00	S.R. 71	No. 12 C.B.	1022.33	1018.45	3.88								1																									D-CB-12P	
10C	126	86.00 RT	31+21.00	S.R. 71	EW		1018.00																												B	1.07	153				D-PE-9,9A	
							TOTALS		3	5	1	2				21	33	6	1	2	6		16	2	2	3	2	2	2	1	1	2	3	3		4	612		2	1		

CONCRETE BOX CULVERT AND BOX BRIDGE EXTENSION

LOCATION	STATION	EXIST. CONC. BOX CULV. SPAN	HT.	LGTH.	SKEW	EXTENSION LEFT SPAN	HT.	LGTH.	EXTENSION RIGHT SPAN	HT.	LGTH.	CLASS A CONC. (C.Y.) (ROADWAY) 604-01.01	STEEL BAR REINF. (LB.) (ROADWAY) 604-01.02	CLASS A CONC. (C.Y.) (BOX BRIDGES) 604-02.01	STEEL BAR REINF. (LB.) (BOX BRIDGES) 604-02.02	FOUNDATION FILL MATERIAL(C.Y.) 204-08	MIN. AGG. BACKFILL (TON) 303-01.01	CHANNEL EXC.(UNCL.) (C.Y.) 203-08	DRAWING NUMBER	REMARKS
S.R. 71	28+41	6'	6'	92.0'	81°RT				6'	6'	33'	30	6,189			14	162		STD-17-51	
S.R. 33	21+53	6'	5'	92.0'	90°		5'	270'				176	39,669			114	946		STD-17-51	
						6'														
TOTALS												206	45,858			128	1108			

CROSS DRAIN TABULATION

STATION	RCP CLASS III (LF) Fill Height ≤ 18 ft. 18"	24"	30"	36"	48"	54"	Skew	Rip-Rap Class "A-1" 709-05.06 (Ton)	Rip-Rap Class B 709-05.08 (Ton)	End Treatment: Inlet Type	Inlet DRAWING NO.	Outlet Type	Outlet DRAWING NO.	18" Endwall 3:1 611-07.54 (EA)	24" Endwall 3:1 611-07.57 (EA)	30" Endwall 4:1 611-07.61 (EA)	Class A Conc. 611-07.01 (CY)	Reinf. Steel 611-07.02 (LB)	Struct. Steel 611-07.03 (LB)	REMARKS
36+30 (S.R. 71)			178				78°		31	''A''	D-PE-1	''U''	D-PE-30A			1	4	73		
31+49 (2 BARREL) (S.R. 33)		388					90°	26	10	''U''	D-PE-24A	''U''	D-PE-24A		2					2 - 24" RCP @ 192 LF EACH
24+09 (ANDERSONVILLE PK.)	79						68°	6		''STR''	D-PE-4	''U''	D-PE-18A	1			1.16	40		
TOTALS	79	388	178					32	41					1	2	1	5.16	113		

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DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2J

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET
NOT FOR BIDDING

STORM DRAINAGE PIPE CULVERTS

FROM NO.	FROM ELEV.	TO NO.	TO ELEV.	GRADE %	SIZE & LENGTH C.M.P. 18"	REINFORCED CONC. PIPE CL. III 18"	24"	30"	36"		REMARKS
1	1030.34	3	1023.92	2.06%		312					
4	1024.08	3	1023.92	0.50%		32					
3	1023.75	7	1020.39	1.85%		182					
6	1020.55	7	1020.39	0.50%		32					
7	1020.22	8	1019.97	0.89%		28					
9	1020.69	10	1020.15	0.79%		68					
8	1019.80	10	1019.58	0.39%		56					
10	1019.41	12	1018.49	1.05%		88					
16	1017.83	12	1017.49	0.50%				68			
12	1017.39	13	1017.24	0.50%				30			
13	1017.14	13A	1017.08	0.50%				12			
13A	1016.98	14	1016.71	1.93%				14			
16D	1020.63	16E	1016.75	2.00%		194					
16E	1016.58	16F	1016.48	1.25%		8					
16F	1016.31	16G	1016.17	0.54%		26					
16G	1015.84	16H	1015.70	0.47%		30					
16H	1015.53	16I	1015.43	1.25%		8					
14	1016.61	11	1015.50	0.50%				224			
11	1015.50	11A	1015.40	1.25%				8			
16-I	1014.76	16A	1013.91	0.50%			170				
16A	1013.74	16B	1012.97	0.50%			154				
16B	1012.80	16C	1011.00	4.74%			38				
17	1021.86	17A	1020.75	1.42%		78					
18	1022.38	18A	1021.95	0.98%		44					
18A	1021.78	18B	1021.57	0.95%		22					
19	1022.03	18B	1021.57	2.30%		20					
18B	1021.40	19A	1018.00	4.86%		70					
20	1023.45	21	1023.18	0.50%		54					
37	1022.35	36	1021.30	0.99%		106					
33	1024.40	40	1024.20	1.25%		16					
41	1019.38	40	1019.20	0.75%		24					
36	1021.13	41	1019.55	0.99%		160					
53	1017.51	50	1017.19	0.84%		38					
50	1017.02	51	1016.27	0.87%		86					
51	1016.27	52	1015.93	0.30%		112					
55A	1019.00	55	1018.30	0.97%		72					
21	1023.00	22	1022.72	0.50%		56					
25	1027.43	22	1024.29	2.31%		136					
26	1031.65	25	1027.60	1.86%		218					
27	1032.67	26	1031.82	0.66%		128					
27A	1033.35	27	1032.84	0.61%		84					
28	1033.97	27A	1033.52	0.54%		84					
29	1034.87	28	1034.14	0.49%		148					
30	1038.80	29	1035.04	1.88%		200					
60	1027.83	61	1023.95	6.06%		64					
61	1023.78	62	1023.44	1.00%		34					
62	1023.27	63	1020.58	4.34%		62					
65	1017.19	63	1016.70	0.98%		50					
63	1016.53	64	1013.84	13.45%		20					
66	1017.63	65	1017.36	0.96%		28					
131	1034.78	130	1033.57	1.78%		68					
130	1033.40	129	1030.62	1.64%		170					
129	1030.45	128	1029.41	1.58%		66					
128	1029.20	127	1028.49	0.72%		98					
107	1040.05	30	1038.97	1.00%		108					
108B	1038.55	108C	1037.96	0.78%		76					
108C	1037.63	108D	1037.53	0.63%		16					
108D	1037.36	72	1037.00	1.12%		32					
99	1037.60	72	1037.50	0.56%		18					
109	1032.80	73	1032.46	0.50%		68					
73	1032.29	74	1031.70	0.49%		120					
75	1032.17	74	1030.70	3.68%					40		
75B	1041.83	75	1032.51	8.32%		112					
76	1033.50	75	1032.51	2.25%				44			
77	1040.48	76	1039.89	0.98%				60			
100	1041.44	77	1040.69	1.29%				58			
101	1052.70	77	1048.32	1.22%		358					
78	1043.50	82	1043.38	0.86%		14					
92A	1038.30	92	1038.20	0.71%		14					
74	1030.27	94	1028.36	1.01%					190		
94	1028.15	94A	1027.86	1.45%					20		
82	1043.21	95	1042.96	0.96%		26					
92	1038.00	99	1037.80	1.43%		14					
95	1042.02	100	1041.65	0.69%				54			
106	1041.09	107	1040.21	1.00%		88					
108	1033.40	108A	1033.10	3.00%		10					
108A	1033.10	109	1032.97	3.25%		4					
72	1033.45	109	1032.97	0.49%		98					
85	1039.53	97	1038.79	1.00%		74					
83	1042.00	80	1041.67	0.97%	34						
80	1041.50	81	1040.76	1.00%		74					
105	1045.10	84	1041.75	9.31%	36						
81	1040.59	84	1039.98	0.98%		62					
84	1039.81	85	1039.70	2.75%		4					
87	1035.63	86	1035.04	0.98%		60					
97	1038.62	86	1036.07	1.43%		178					
86	1034.87	88	1027.35	3.03%		248					
89	1027.33	88	1026.99	1.00%		34					
TOTALS (THIS SHEET)					70	5,590	362	572	250		

STORM DRAINAGE PIPE CULVERTS

FROM NO.	FROM ELEV.	TO NO.	TO ELEV.	GRADE %	SIZE & LENGTH C.M.P. 18"	REINFORCED CONC. PIPE CL. III 18"	24"	30"	36"		REMARKS
88	1026.82	90	1022.00	2.90%		166					
90	1022.00	91	1021.89	0.46%		24					
91	1021.89	96	1021.63	2.17%		12					
110	1027.48	111	1026.38	2.39%		46					
116B	1030.44	116C	1030.24	0.77%		26					
116E	1026.60	116D	1026.00	5.00%		12					
116F	1021.20	116G	1021.00	0.59%		34					
45	1018.09	32	1018.00	0.75%		12					
38	1022.74	37	1022.52	1.00%		22					
114	1014.87	42	1013.50	1.02%		134					
44	1017.82	43	1017.65	0.47%		36					
46	1018.43	45	1018.26	0.47%		36					
31	1018.76	46	1018.60	0.80%		20					
39	1020.15	46	1018.44	1.36%		126					
47	1017.00	48	1013.00	25.00%		16					
111	1026.21	112	1018.55	2.57%		298					
112	1018.38	113	1016.18	1.11%		198					
113	1016.01	114	1015.04	0.99%		98					
116A	1027.32	116	1018.83	2.87%		296					
116	1018.83	117	1016.27	1.05%		244					
117	1016.10	118	1015.79	0.50%		62					
118	1015.62	119	1015.40	0.61%		36					
119	1015.07	120	1014.72	0.97%		36					
120	1014.55	121	1012.50	4.66%		44					
123	1016.09	122	1012.50	35.90%		10					
125	1018.45	126	1018.00	1.25%		36					
TOTALS (THIS SHEET)						2,080					
TOTALS					70	7,670	362	572	250		

ITEMIZED PAVING QUANTITIES

ITEM NO.	DESCRIPTION	S.R. 33 (MAYNARDVILLE HWY)	DORIS CIRCLE	AFTON DRIVE	ANDERSONVILLE PIKE (1)	S.R. 71 (NORRIS FWY)	ANDERSONVILLE PIKE (2)	EMORY ROAD	DRIVEWAYS	MAINTENANCE	TOTAL QUANTITY	UNIT
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	33,973.0	388.5	962.0	1,316.7	12,319.1	1,887.1	5,370.6	2,622.2	1,000.0	59,839.3	TON
307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A		87.7	156.3	365.8		479.9				1,089.8	TON
307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2		57.4	102.4	239.6		314.4		1,439.5		2,153.4	TON
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	6,477.9				2,494.6		1,405.4			10,377.9	TON
307-02.02	ASPHALT CEMENT (PG70-22) (BPMB-HM) GRADING A-S	164.8				63.4					228.2	TON
307-02.03	AGGREGATE (BPMB-HM) GRADING "A-S" MIX	4,904.9				1,888.8					6,793.8	TON
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	4,243.5				1,634.1		920.7			6,798.3	TON
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	61.7	0.8	1.4	3.2	22.9	4.2	12.4			106.6	TON
402-02	AGGREGATE FOR COVER MATERIAL (PC)	244.2	3.1	5.7	12.7	90.6	16.7	49.1			422.1	TON
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	102.4	0.6	1.1	2.6	41.9	3.4	9.9			161.9	TON
411-01.07	ACS MIX (PG64-22) GRADING "E" SHOULDERS	243.3		3.5		49.7	0.1	2.8			299.5	TON
411-01.10	ACS MIX(PG64-22) GRADING D		33.7	60.0	140.5		184.3		931.9		1,350.4	TON
411-02.10	ACS MIX(PG70-22) GRADING D	2,487.9				1,323.0		539.8			4,350.7	TON
415-01.02	COLD PLANING BITUMINOUS PAVEMENT					5,509.1					5,509.1	SY
701-01.01	CONCRETE SIDEWALK (4")	2,578.1				325.0					2,903.1	SF
701-02	CONCRETE DRIVEWAY								292.0		292.0	SF
701-02.03	CONCRETE HANDICAP RAMP	166.4				130.0					296.4	SF
701-03	CONCRETE MEDIAN PAVEMENT	24.0				32.7		7.9			64.5	CY
702-01	CONCRETE CURB	326.1	2.9		6.8	136.4	8.3	24.4			504.9	CY
702-03	CONCRETE COMBINED CURB & GUTTER	215.1	4.9	5.0	30.7	227.3	45.8	131.4			660.1	CY
710-02	AGGREGATE UNDERDRAIN (WITH PIPE)	9,657.0				5,539.4	715.0				15,911.4	L.F.
710-05	LATERAL UNDERDRAIN	146.0				60.0					206.0	LF
710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	3.0									3.0	EA

TABULATED GUARDRAIL QUANTITIES

SHEET NO.	LOCATION	SIDE LT	SIDE RT	STATION FROM	STATION TO	GUARDRAIL SINGLE TYPE 2 705-02.02 (LF)		GUARDRAIL BRIDGE ENDS 705-01.01 (LF)	TERMINAL ANCHORS TYPE 38 705-04.07 (EACH)	TERMINAL ANCHORS TYPE 13 705-04.03 (EACH)	TERMINAL ANCHORS TYPE 21 705-04.04 (EACH)	REMARKS
5B	SR33	X		22+58	25+41	206.1		26.9	1			TIE TO BRIDGE END
5B	SR33		X	24+81	25+58			26.9	1			TIE TO BRIDGE END
5B	SR33	X		26+81	27+95	33.1		26.9	1			TIE TO BRIDGE END
5B	SR33		X	27+11	29+09	121.1		26.9	1			TIE TO BRIDGE END
6B-7B	SR33	X		40+47	43+90	310.6			1	1		
7B	EMORY-SR33	X		14+06	46+60	179			1		1	
TOTALS:						**849.9**		**107.6**	**6**	**1**	**1**	

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109581
STATE OF TENNESSEE

SEALED BY

DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 103505
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2K

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

SIDE DRAIN TABULATION

STATION	LOCATION LT	LOCATION RT	DESCRIPTION	SURFACE WIDTH (L.F.)	RCP CLASS III OR CMP 16 GA. OR HDPE (L.F.) FILL HEIGHT < OR = 10 FT. 18"	24"	30"	PAVEMENT 303-01 MIN. AGG. 4" (TON)	307-01.08 BM-2 1-3/4" (TON)	411-01.10 ASPHALT D MIX 1-1/2' (TON)	701-02 CONCRETE DRIVEWAY 6" (TON)	END TREATMENT TYPE	DRAWING NO.	CLASS A CONC. 611-07.02 (LB)	REINF. STEEL 611-07.02 (LB.)	STRUCT. STEEL 611-07.03 (LB.)	REMARKS
15+89		X	BUSINESS ENTRANCE	33.8				28.3	12.4	10							
17+12		X	BUSINESS ENTRANCE	35				21.4	9.4	7.6	202						
11+00		X	BUSINESS ENTRANCE	14				5.7	2.5	2							DORIS CIRCLE
10+99	X		BUSINESS ENTRANCE	19				15.5	6.8	5.5							DORIS CIRCLE
19+06		X	BUSINESS ENTRANCE	29				46.9	20.6	16.6							
19+85		X	BUSINESS ENTRANCE	40				43.2	19	15.3							
20+68		X	BUSINESS ENTRANCE	39				44	19.3	15.5							
11+42		X	BUSINESS ENTRANCE	35				22.9	10.1	8.1							ANDERSONVILLE PIKE
11+55	X		BUSINESS ENTRANCE	39				17	7.5	6							
13+72		X	BUSINESS ENTRANCE	22				8	3.5	2.9							
22+47		X	BUSINESS ENTRANCE	40				48.6	21.3	17.2							
23+47		X	BUSINESS ENTRANCE	16				21.2	9.3	7.5							
24+52		X	BUSINESS ENTRANCE	22				63.2	27.7	22.3							
29+51		X	BUSINESS ENTRANCE	26				81.2	35.6	28.7							
32+00		X	BUSINESS ENTRANCE	24		60		33.3	14.6	11.8							NO E/W REQUIRED
32+80		X	BUSINESS ENTRANCE	24		60		31.6	13.9	11.2							NO E/W REQUIRED
34+07	X		BUSINESS ENTRANCE	30	92			108.9	47.7	38.4							NO E/W REQUIRED
22+67	X		BUSINESS ENTRANCE	36				89.4	39.2	31.5							ANDERSONVILLE PIKE
28+41	X		BUSINESS ENTRANCE	38				34.1	15	12							ANDERSONVILLE PIKE
28+46		X	BUSINESS ENTRANCE	43				25.1	11	8.9							ANDERSONVILLE PIKE
37+99		X	BUSINESS ENTRANCE	24	65			55.2	24.2	19.5							NO E/W REQUIRED
40+60	X		BUSINESS ENTRANCE	18				169.5	74.3	59.8							
3+01		X	BUSINESS ENTRANCE	20				39.2	17.2	13.8							DRIVEWAY OFF 40+60 SR33 RT
42+50		X	BUSINESS ENTRANCE	36				60.4	26.5	21.3							
47+49		X	BUSINESS ENTRANCE	30				40.5	17.8	14.3							
11+34	X		BUSINESS ENTRANCE	28				37.9	16.6	13.4							EMORY ROAD
11+30		X	BUSINESS ENTRANCE	40				31	13.6	11							EMORY ROAD
13+17	X		BUSINESS ENTRANCE	24				47.9	21	16.9							EMORY ROAD
18+96	X		BUSINESS ENTRANCE	35				16.8	7.4	5.9							EMORY ROAD
19+36		X	BUSINESS ENTRANCE	51				81.3	35.7	28.7							EMORY ROAD
19+90	X		BUSINESS ENTRANCE	11				5.2	2.3								EMORY ROAD
22+35		X	BUSINESS ENTRANCE	37				46.1	20.2	16.3							EMORY ROAD
23+50	X		BUSINESS ENTRANCE	11		35		5.3	2.4		90						EMORY ROAD; NO E/W REQ'D
21+42	X		BUSINESS ENTRANCE	34				74.8	32.8	26.4							
21+42		X	BUSINESS ENTRANCE	24				212.9	93.3	75.1							
29+12	X		BUSINESS ENTRANCE	36				109.1	47.9	38.5							EXIST. 36" CMP TO REMAIN
TOTALS					157	155		2622.2	1439.5	931.9	292						

EARTHWORK BALANCE COMPUTATIONS

ROAD AND DRAINAGE EXCAVATION (CUT)	=		69,266	CY
PLUS EXCAVATION FOR TEMPORARY BERM	=		6,830	CY
PLUS TOPSOIL STRIPPED FROM EMBANKMENT AREAS	=	+	5,184	CY
TOTAL EXCAVATION (UNCLASSIFIED)	=		81,280	CY
ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	=		81,280	CY
LESS TOPSOIL FROM CUTS	=	-	2,556	CY
LESS TOPSOIL FROM FILLS	=	-	5,184	CY
LESS UNSUITABLE MATERIAL (EXIST. PVMT)	=	-	22,744	CY
ROAD AND DRAINAGE EXCAVATION AVAILABLE FOR EMBANKMENT (ADJUSTED FOR 5% SHRINKAGE)	=		48,377	CY
EMBANKMENT REQUIRED (FILL)	=		49,937	C.Y.
PLUS TOPSOIL STRIPPED FROM EMBANKMENT AREAS	=	+	5,184	C.Y.
TOTAL EMBANKMENT REQUIRED	=		55,121	C.Y.
TOTAL EMBANKMENT REQUIRED	=		55,121	C.Y.
LESS ROAD AND DRAINAGE EXCAVATION AVAILABLE FOR EMBANKMENT	=	-	48,377	C.Y.
BORROW EXCAVATION (UNCLASSIFIED)	=		-7,082	C.Y.

UNOFFICIAL SET
NOT FOR BIDDING

DITCHES

STATION FROM	STATION TO	SIDE LT.	SIDE RT.	WIDTH (L.F.)	TRM (CLASS I)	SODDING (S.Y.)	REMARKS
30+00	31+25		X	8		111	S.R. 33
32+30	32+55		X	8	22	22	S.R. 33
33+17	34+54		X	8		122	S.R. 33
35+41	37+52		X	8		188	S.R. 33
38+20	41+90		X	8		329	S.R. 33
13+00	13+70		X	8		62	EMORY ROAD
20+50	23+45	X		8	262	262	EMORY ROAD
23+80	26+71	X		8	259	259	EMORY ROAD
15+50	16+00		X	8		44	S.R. 71
16+27	17+55	X		8		114	S.R. 71
31+20	31+85	X		8		58	S.R. 71
33+20	35+20	X		8		178	S.R. 71
			TOTALS:		543	1748	

ESTIMATED GRADING QUANTITIES

ROADNAME	ROAD & DRAINAGE EXCAVATION (UNCL.) CY	UNDERCUT CY	EMBANKMENT CY	BORROW EXCAVATION GRADED SOLID ROCK CY	REMARKS
SR33	37,644	587	24,772	682	
Doris Circle	182		3		
Afton Drive	719		14		
Andersonville Pike (APK1)	1,191		26		
SR 71	10,462	492	14,583	634	
Andersonville Pike (APK2)	2,460		391		
Emory Road	4,941		2,014		
Pvmt Scarification outside limits	4,270		0		
Erosion Control	6,830		6,830		
Driveways	567		1,304		
TOTALS	**69,266**	**1,079**	**49,937**	**1,316**	

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2E
CONST.	2014	HSIP-33(116)	2L

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

N

10 15 20 25 30 35

MATCH LINE STA. 26+00 SEE SHEET NO. 2G

CURVE SR71-2
PI 26+34.25
N 643,229.1880
E 2,580,082.2926
Δ 7° 17′ 11″ (RT)
D 1° 08′ 45″
R 4,999.99
L 635.86
T 318.36
SE MATCH EXIST.
DESIGN SPEED 45 MPH

CURVE SR71-3
PI 31+22.17
N 643,120.1692
E 2,580,558.7498
Δ 14° 30′ 00″ (RT)
D 7° 38′ 22″
R 750.00
L 189.80
T 95.41
SE 0.0382 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 125

CURVE SR71-4
PI 34+93.20
N 642,949.0193
E 2,580,889.0999
Δ 30° 05′ 49″ (LT)
D 7° 38′ 22″
R 750.00
L 393.97
T 201.64
SE 0.039 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 125

CURVE SR33L-2
PI 37+87.27
N 643,806.2847
E 2,581,094.1934
Δ 38° 25′ 24″ (RT)
D 2° 21′ 56″
R 2,422.00
L 1,624.23
T 843.98
SE 0.039 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 197

PT 29+51.75
PC 30+26.76
PT 32+16.56
PC 32+91.56
CURVE SR71-3
S 77° 06′ 43″ E
S 62° 36′ 43″ E
S.R. 71
CURVE SR71-4
PC 29+43.29
PT 36+85.53
N 87° 17′ 28″ E
SEE SHEET NO. 2F

STA. 18+00.00 & S.R. 33 (MAYNARDVILLE HIGHWAY)=
STA. 10+00.00 DORIS CIRCLE
N 641816.971
E 2581207.668

CURVE SR33L-1
PI 16+20.96
N 641,638.6069
E 2,581,201.2619
Δ 15° 34′ 44″ (LT)
D 2° 24′ 25″
R 2,380.41
L 647.24
T 325.63
SE 0.039 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 197

STA. 10+00.00
N 641028.7847
E 2581082.6316
STA. 12+26.33
N 641251.1576
E 2581116.6308
N 12° 22′ 41″ E
PC 12+95.33
N 12° 48′ 28″ E
S.R. 33 (MAYNARDVILLE HWY)
PC 12+95.64
CURVE SR33L-1
CURVE SR33-1
CURVE SR33R-1
PC 10+22.67
S 89° 16′ 09″ E
STA. 12+26.32
N 641247.6114
E 2581141.0273
N 13° 53′ 06″ E
PC 12+94.34

CURVE SR33-1
PI 16+23.78
N 641,637.0401
E 2,581,220.9107
Δ 15° 34′ 15″ (LT)
D 2° 23′ 14″
R 2,400.00
L 652.23
T 328.14
SE 0.039 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 197

CURVE SR33R-1
PI 16+25.37
N 641,634.9700
E 2,581,236.9005
Δ 15° 36′ 26″ (LT)
D 2° 22′ 19″
R 2,415.47
L 657.97
T 331.03
SE 0.039 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 197

STA. 10+00.00
N 642132.5650
E 2580942.3491
N 83° 14′ 15″ E
AFTON DRIVE
PT 19+42.57
PT 19+47.87
PT 19+52.31
PC 11+50.33
N 83° 14′ 15″ E

STA. 21+45.89 & S.R.33(MAYNARDVILE HWY) =
STA. 10+00.00 ANDERSONVILLE PIKE =
STA. 12+54.97 AFTON DRIVE
N 642162.589
E 2581195.547

N 2° 45′ 47″ W
S.R. 33 (MAYNARDVILLE HWY)
N 2° 45′ 47″ W
N 2° 45′ 47″ W
CURVE SR33L-2
CURVE SR33-2
CURVE SR33R-2
PC 29+48.58
PC 29+53.02
STA. 33+00
MATCH LINE

STA. 29+45.93 & S.R. 33 (MAYNARDVILLE HWY)=
STA. 37+52.07 S.R.71(NORRIS FREEWAY)
N 642961.693
E 2581156.980

PT 11+57.40
DORIS CIRCLE
CURVE DORIS-1
S 37° 48′ 16″ E

CURVE DORIS-1
PI 10+94.96
N 641,815.7603
E 2,581,302.6207
Δ 51° 27′ 53″ (RT)
D 38° 11′ 50″
R 150.00
L 134.73
T 72.29
SE 0.039 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH 95

STA. 12+87.79
N 641,656.1711
E 2581416.8604

CURVE APK1-1
PI 12+34.00
N 642,190.1433
E 2,581,427.9157
Δ 58° 18′ 12″ (LT)
D 38° 11′ 50″
R 150.00
L 152.64
T 83.67
SE 0.039 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH 95

PT 13+02.97
CURVE APK1-1
N 24° 56′ 03″ E
ANDERSONVILLE PIKE
STA. 15+89.91
N 642326.7035
E 2581584.1533

CURVE SR33R-2
PI 37+74.49
N 643,785.9247
E 2,581,139.2272
Δ 38° 06′ 53″ (RT)
D 2° 24′ 34″
R 2,378.00
L 1,581.91
T 821.48
SE 0.039 FT/FT
DESIGN SPEED 45 MPH
TRANS. LENGTH 197

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 105.087
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOMETRIC LAYOUT

Sta. 10+00 TO Sta. 33+00
S.R. 33 (Maynardville Hwy.)
Sta. 26+00 TO Sta. 3752.07
S.R. 71 (Norris Freeway)
SCALE: 1"=100'

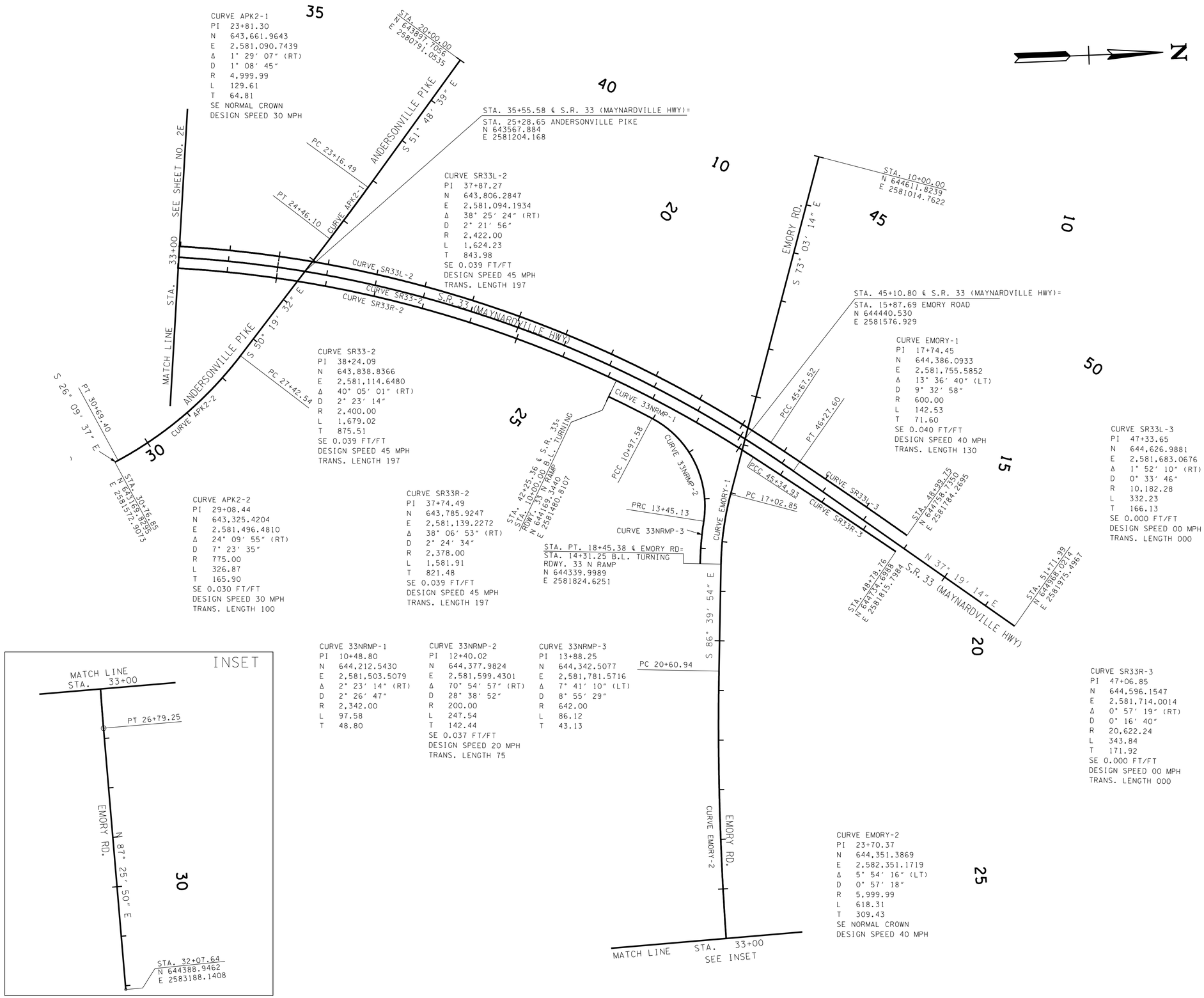
9:00:11 AM
M:\Knox County\Halls Connector\Sheets\02L_GeometricLayout.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2F
CONST.	2014	HSIP-33(116)	2M

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; DELETED ALIGNMENTS ENRMP AND SR33RMP.



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOMETRIC LAYOUT

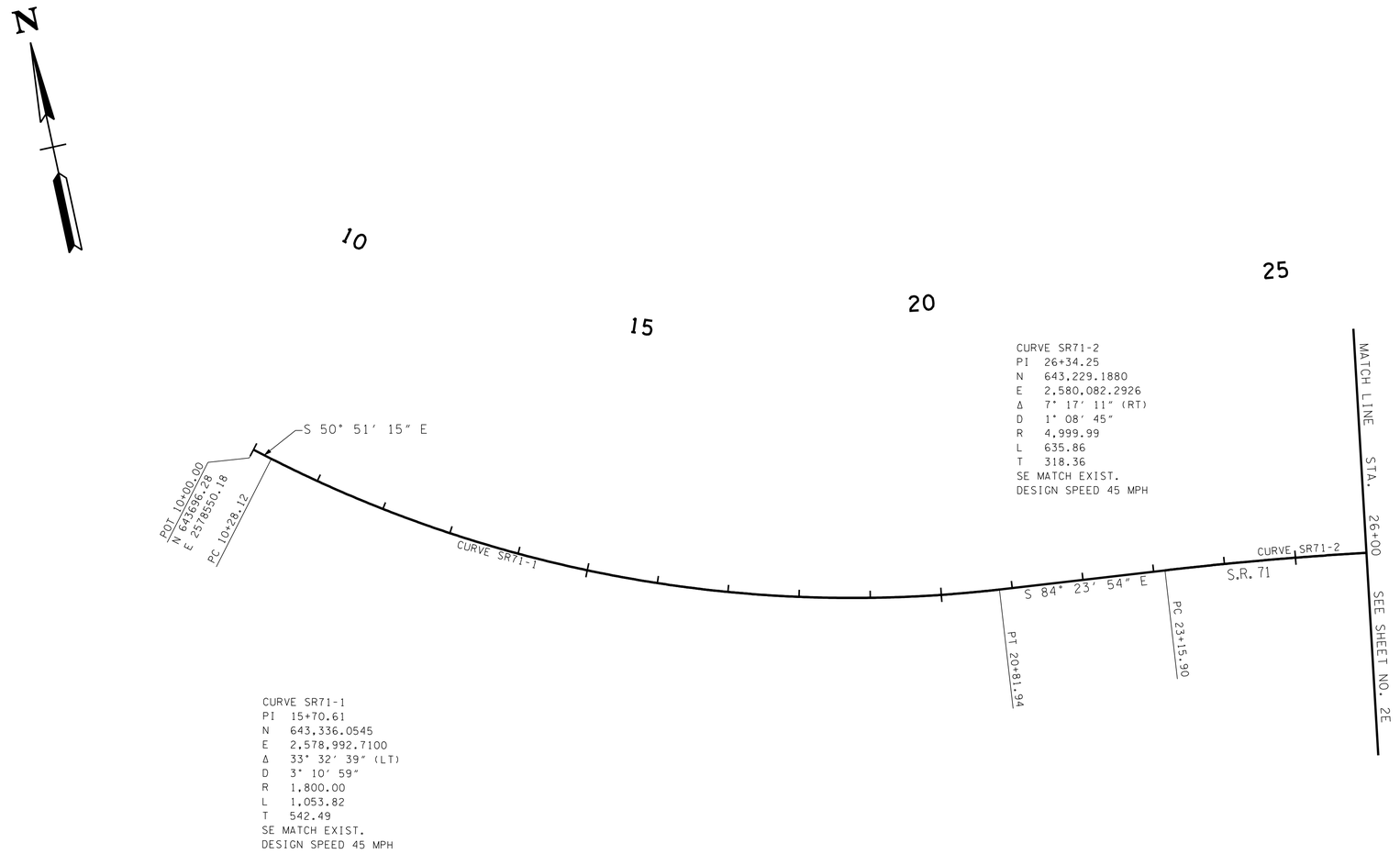
Sta. 33+00 to Sta. 51+71.99
S.R. 33 (Maynardville Hwy.)
Sta. 10+00 to Sta. 27+00
Emory Road
SCALE: 1"=100'

9:00:12 AM
M:\Knox County\Halls Connector\Sheets\02MGeometricLayout.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2G
CONST.	2014	HSIP-33(116)	2N

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



CURVE SR71-1
PI 15+70.61
N 643,336.0545
E 2,578,992.7100
Δ 33° 32′ 39″ (LT)
D 3° 10′ 59″
R 1,800.00
L 1,053.82
T 542.49
SE MATCH EXIST.
DESIGN SPEED 45 MPH

CURVE SR71-2
PI 26+34.25
N 643,229.1880
E 2,580,082.2926
Δ 7° 17′ 11″ (RT)
D 1° 08′ 45″
R 4,999.99
L 635.86
T 318.36
SE MATCH EXIST.
DESIGN SPEED 45 MPH

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOMETRIC LAYOUT

Sta. 10+00 to Sta. 26+00
S.R. 71 (Norris Freeway)

SCALE: 1"=100'

9:00:14 AM
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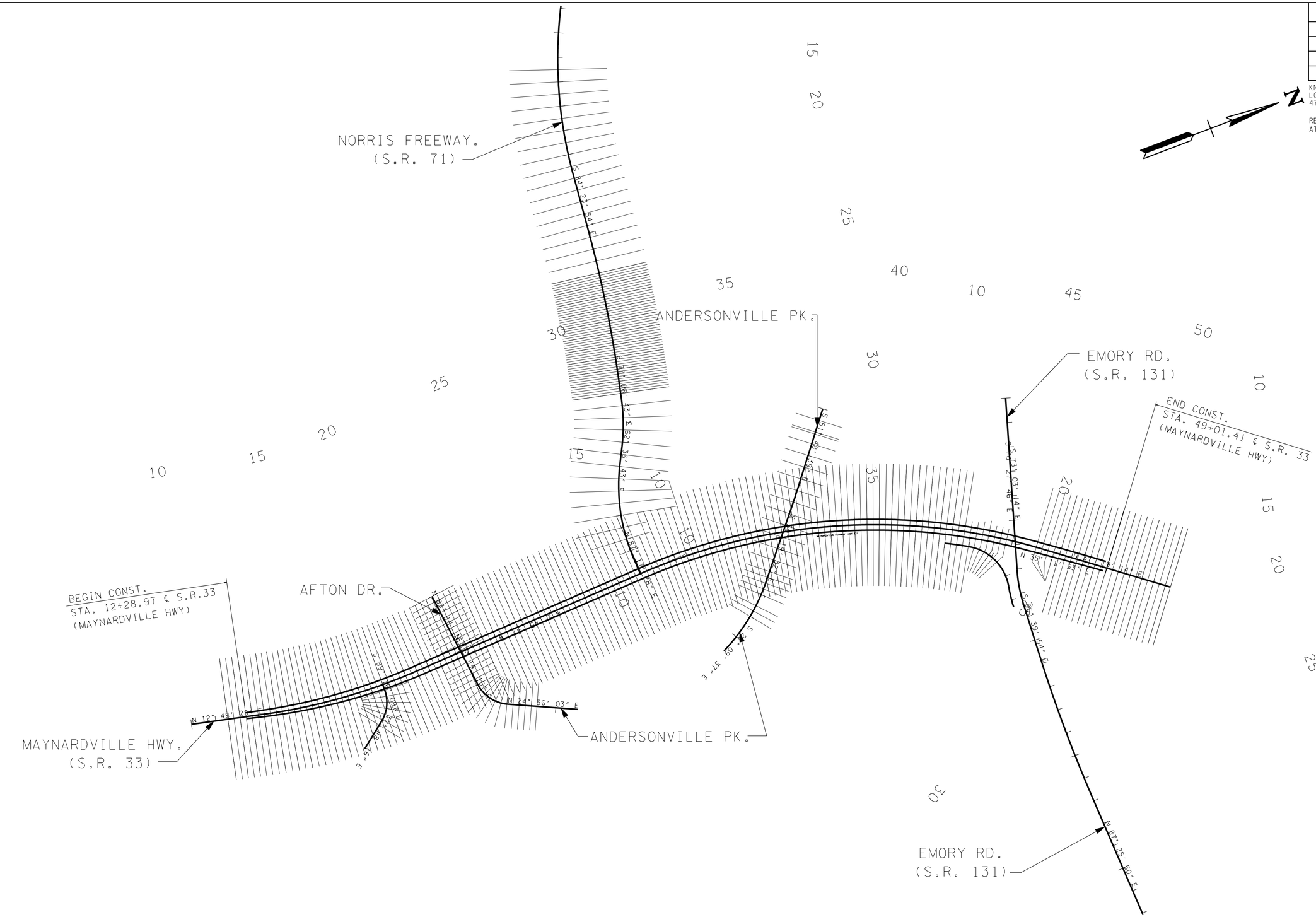
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	2H
CONST.	2014	HSIP-33(116)	2-0

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; UPDATED PATTERN LAYOUT AT SR33 AND EMORY RD INTERSECTION.



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 105,282
STATE OF TENNESSEE

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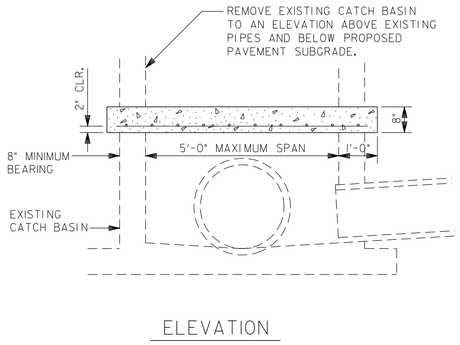
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PATTERN LAYOUT

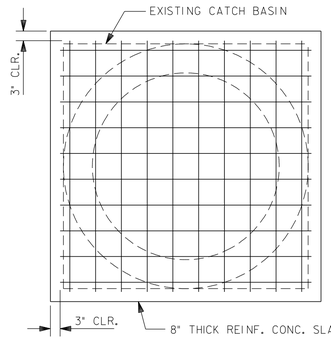
SCALE: 1"= 200'

9:00:16 AM
M:\Knox County\Halls Connector\Sheets\020_PatternLayout.dgn

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



ELEVATION



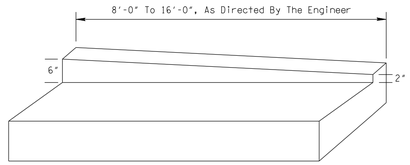
PLAN

NOTES:

1. CONCRETE TO BE CLASS "A".
2. REINFORCEMENT TO BE #5 DEFORMED STEEL BARS, 2" FROM BOTTOM OF SLAB AND SPACED 8" O.C. BOTH LONGITUDINALLY AND TRANSVERSELY.
3. PAYMENT FOR CAPPING EXISTING CATCH BASINS SHALL BE ITEM 611-09.03 CAPPING EXISTING CATCH BASINS, EACH.
4. THE PRICE BID PER EACH UNIT ACCEPTABLY COMPLETED SHALL BE FULL COMPENSATION FOR PERFORMING ALL OPERATIONS INCIDENTAL THERETO, AND FOR FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

DETAIL FOR CAPPING EXISTING CATCH BASIN

N. T. S.



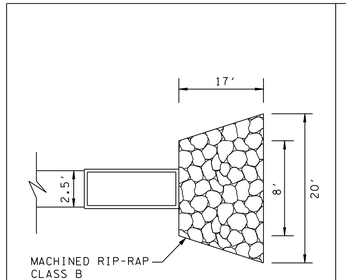
CURB TRANSITION DETAIL

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	2P

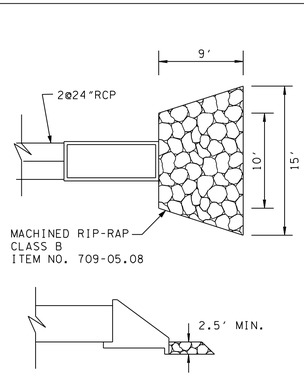
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

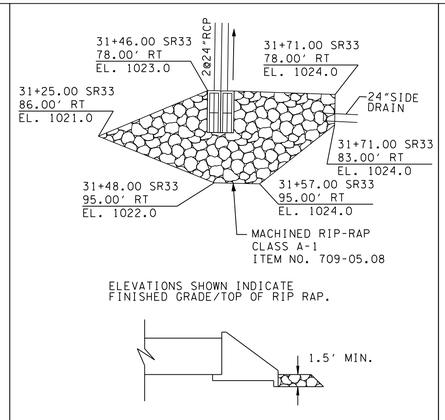
NOT FOR BIDDING



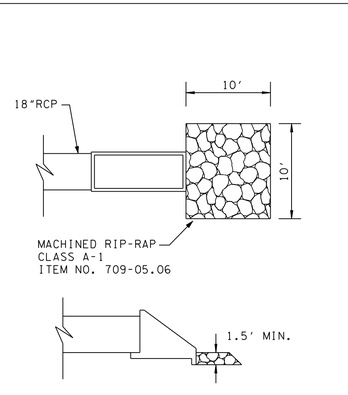
RIP-RAP APRON AT PIPE OUTLET
STA. 36+30 RT. (S.R. 71)
N.T.S.



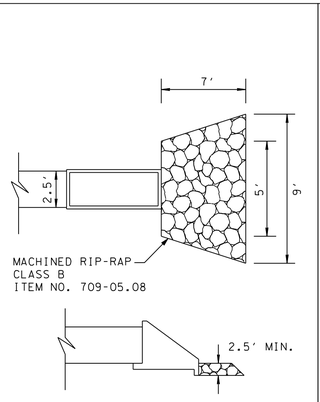
RIP-RAP APRON AT PIPE OUTLET
STA. 31+49 LT. (S.R. 33)
N.T.S.



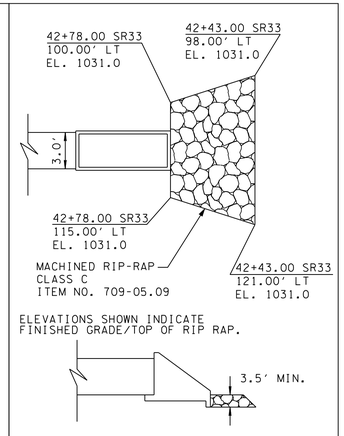
RIP-RAP APRON AT PIPE INLET
STA. 31+49 RT. (S.R. 33)
N.T.S.



RIP-RAP APRON AT PIPE OUTLET
STA. 33+50 LT (S.R. 33)
STA. 24+09 LT. (ANDERSONVILLE PIKE 2)
STA. 20+04 RT. (S.R. 71)
N.T.S.

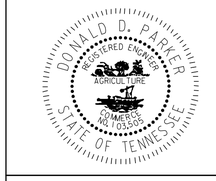


RIP-RAP APRON AT PIPE OUTLET
STA. 34+66 RT. (S.R. 33)
N.T.S.



RIP-RAP APRON AT PIPE OUTLET
STA. 42+75 LT. (S.R. 33)
N.T.S.

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

9:00:18 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

RIGHT - OF – WAY NOTES

(1) 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 THERE FROM 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 CIVIL ENGINEERING MANAGER 2, ROADWAY DESIGN DIVISION IS TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

(2) ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF 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.

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

(4) 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.

(5) 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.

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

(7) TRACT REMAINDERS NOT HAVING AN EXISTING DRIVEWAY WILL BE PROVIDED ONE 50-FOOT OPENING IN THE ACCESS CONTROL FENCE AND A DRIVEWAY WILL BE CONSTRUCTED UNLESS ACCESS IS PROVIDED FROM AN INTERSECTING ROAD OR BASED ON PHYSICAL CONDITIONS AND/OR CONFLICTS WITH OTHER DESIGN CONSIDERATIONS WHICH PREVENT AN ACCESS OPENING. PAVING OF THESE NEW DRIVEWAYS WILL BE IN ACCORDANCE TO THE 7 PERCENT CRITERIA PREVIOUSLY MENTIONED FOR EXISTING DRIVEWAYS.

(8) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

(9) ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(10) ON PROJECTS WITH CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT. AFTER THE PERMIT HAS BEEN GRANTED, THE DEPARTMENT WILL CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE THROUGH THE CURB AND SIDEWALK, PROVIDED THE CURB AND SIDEWALK HAVE NOT BEEN CONSTRUCTED. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE FROM BACK OF SIDEWALK TO TOUCHDOWN POINT FOR ANY ADDITIONAL DRIVEWAYS OR FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(11) 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.

UTILITY NOTES

(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.

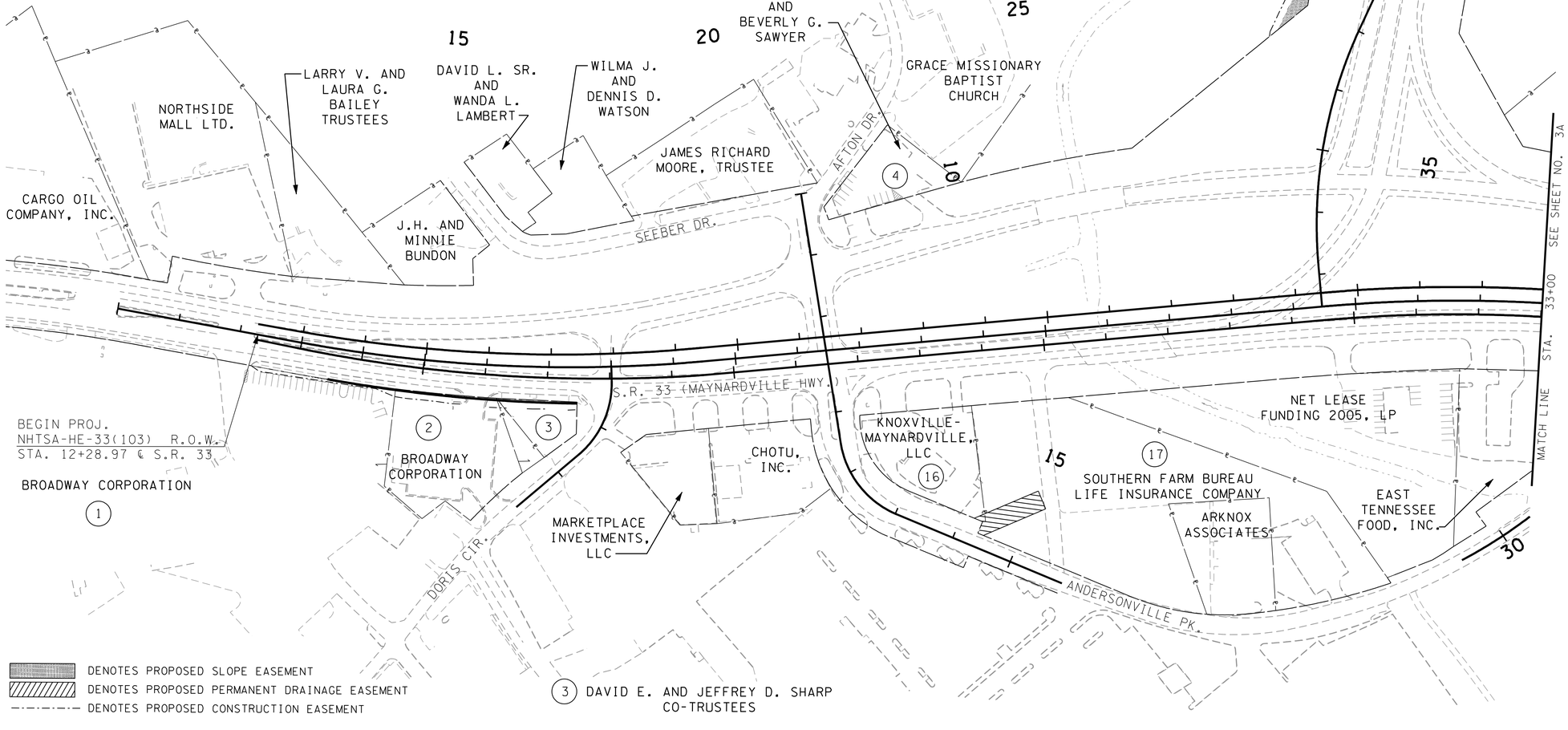
(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES 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.

(6) 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.



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	3
CONST.	2014	HSIP-33(116)	3

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; UPDATED CONST. EASEMENT ON TRACT 1. ELIMINATED SLOPE AND CONST. EASEMENT ON TRACT 4. ADDED ARKNOX ASSOCIATES PROPERTY BOUNDARY BASED ON KGIS.

REV. 08-12-2014; REVISED SLOPE AND CONST. EASEMENT ON TRACT 3.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
SUMMER
No. 109585
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 12+28.97 TO STA. 33+00.00

SCALE: 1"=100'

9:00:21 AM M:\Knox County\Halls Connector\Sheets\03_PropertyMap.dgn

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

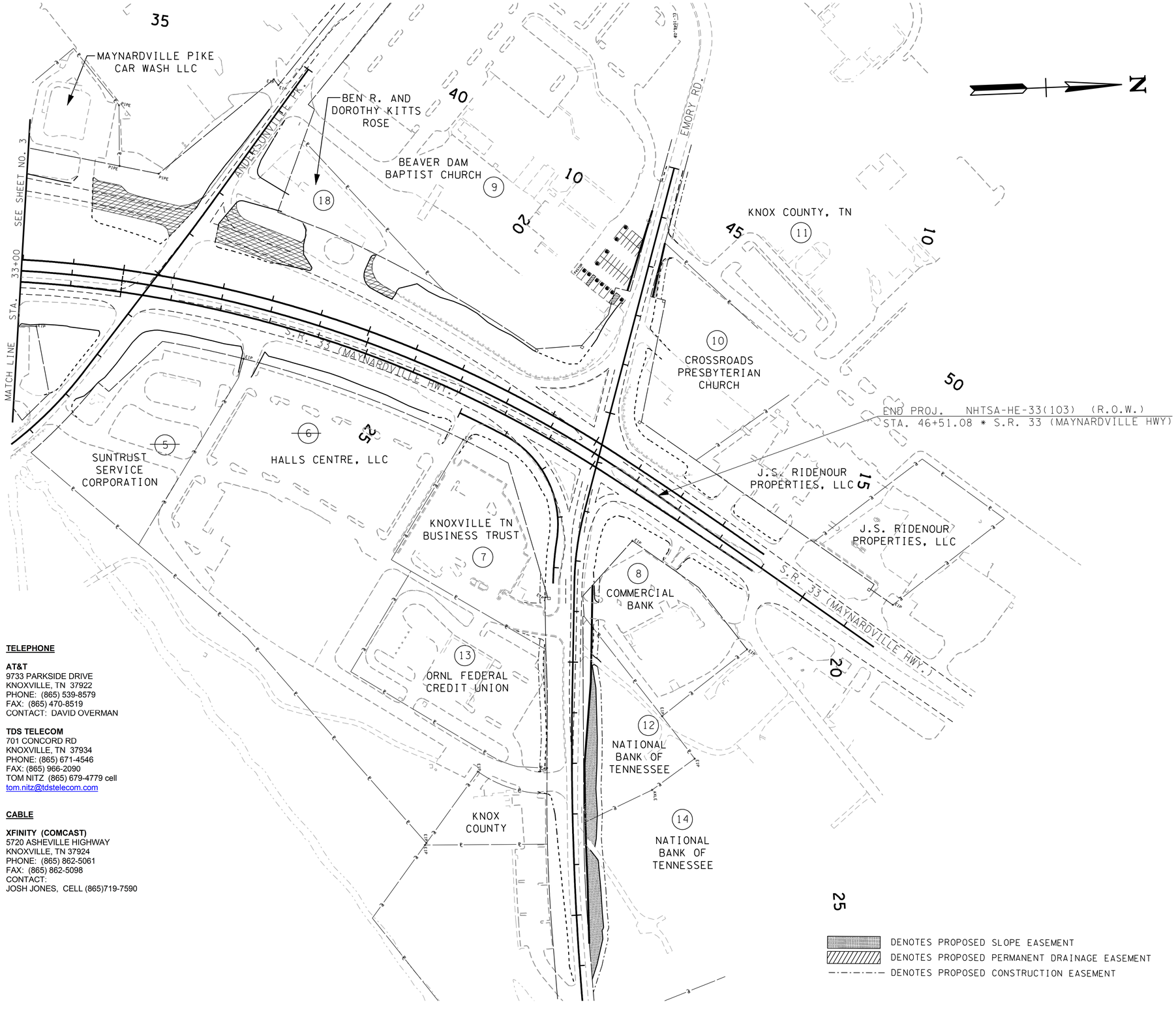
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	3A
CONST.	2014	HSIP-33(116)	3A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; UPDATED UTILITY OWNERS. REVISED CONST. EASEMENT ON TRACT 6.

REV. 05-15-2014; REVISED OWNER NAMES ON TRACTS 12 AND 14.

REV. 08-12-2014; REVISED PROPOSED RIGHT OF WAY AND SLOPE AND CONST. EASEMENTS ON TRACT 9. ELIMINATED SLOPE AND CONST. EASEMENTS ON TRACTS 5 AND 6.



DENOTES PROPOSED SLOPE EASEMENT
DENOTES PROPOSED PERMANENT DRAINAGE EASEMENT
DENOTES PROPOSED CONSTRUCTION EASEMENT

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 33+00.00 TO STA. 46+51.08

SCALE: 1"=100'

UTILITY OWNERS

ELECTRIC

KNOXVILLE UTILITIES BOARD
P. O. BOX 59017
4505 MIDDLEBROOK PIKE 37921-5599
KNOXVILLE, TN 37950-9015
PHONE: (865) 524-2911
FAX: (865) 558-2436
EMAIL: www.kub.org
CONTACT:
GABRIEL J. BOLAS, (865) 558-2100
JIM SYKES, (865) 558-2679

GAS

KNOXVILLE UTILITIES BOARD
P. O. BOX 59017
4505 MIDDLEBROOK PIKE 37921-5599
KNOXVILLE, TN 37950-9017
PHONE: (865) 524-2911
FAX: (865) 558-2436
Email: www.kub.org
CONTACT:
GABRIEL BOLAS, (865) 558-2100
MIKE BOWDEN

WATER AND SEWER

HALLSDALE POWELL UTILITY DISTRICT
P.O.BOX 5199
3745 CUNNINGHAM ROAD (37918)
KNOXVILLE, TN 37928-0199
PHONE: (865) 922-7547
FAX: (865) 922-8428
DARREN CARDWELL (865) 925-3953 cell
(865) 388-1401 dcardwell@hpud.org

TELEPHONE

AT&T
9733 PARKSIDE DRIVE
KNOXVILLE, TN 37922
PHONE: (865) 539-8579
FAX: (865) 470-8519
CONTACT: DAVID OVERMAN

TDS TELECOM
701 CONCORD RD
KNOXVILLE, TN 37934
PHONE: (865) 671-4546
FAX: (865) 966-2090
TOM NITZ (865) 679-4779 cell
tom.nitz@tdstelecom.com

CABLE

XFINITY (COMCAST)
5720 ASHEVILLE HIGHWAY
KNOXVILLE, TN 37924
PHONE: (865) 862-5061
FAX: (865) 862-5098
CONTACT:
JOSH JONES, CELL (865)719-7590

9:00:26 AM
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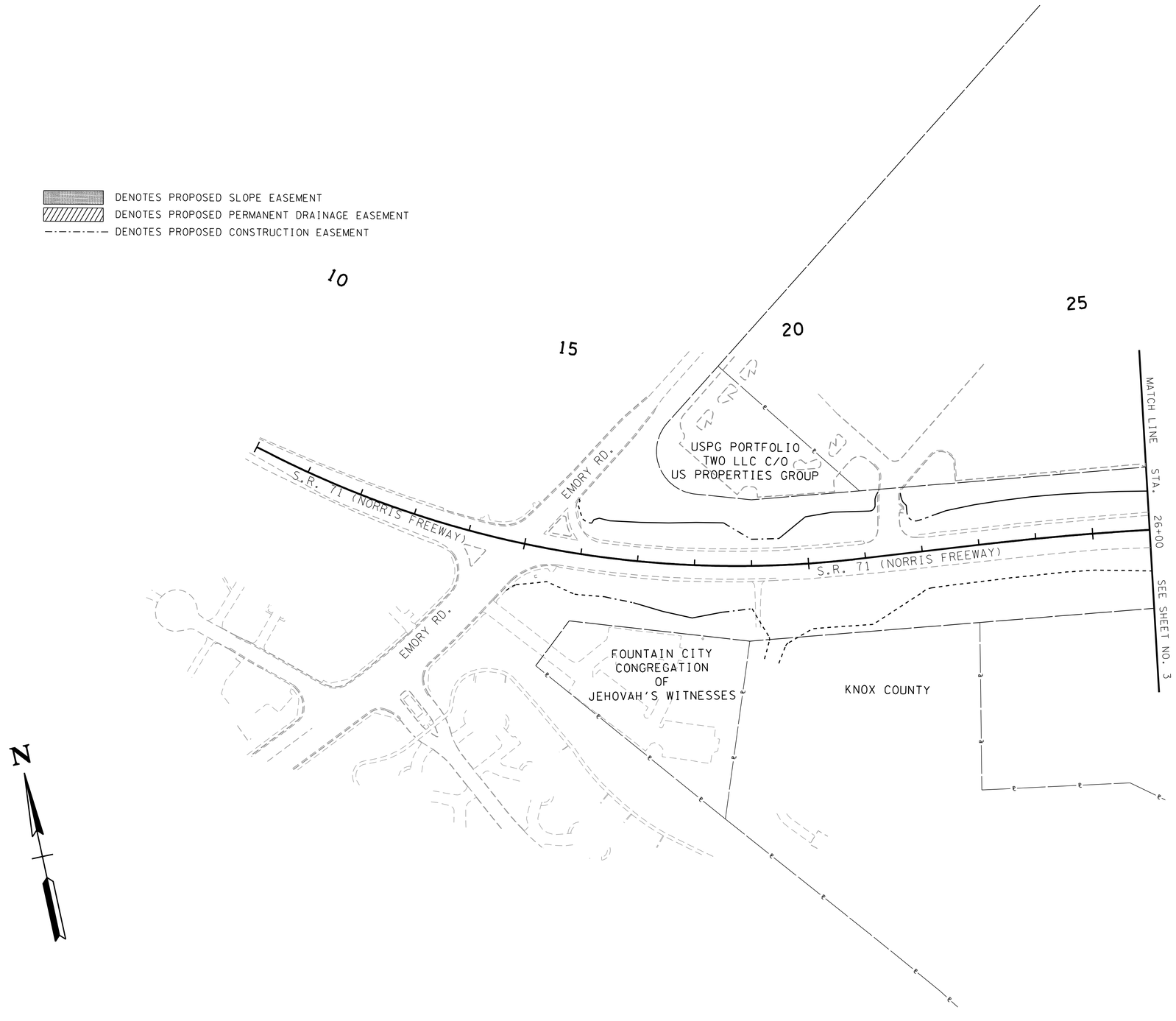
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	3B
CONST.	2014	HSIP-33(116)	3B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

S.R. 71 (NORRIS FREEWAY)
STA. 15+80.46 TO
STA. 26+00.00

SCALE: 1"=100'

9:00:30 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	3C
CONST.	2014	HSIP-33(116)	3C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED CONST. EASEMENT AREA FOR TRACTS 1 & 6. ADDED TRACT 18. REMOVED SLOPE AND CONST. EASEMENT AREAS FOR TRACT 4.

REV. 05-15-2014; REVISED OWNER NAMES AND INSTRUMENT NUMBERS FOR TRACTS 12 AND 14.

REV. 08-12-2014; REVISED AREA TO BE ACQUIRED, AREA REMAINING AND SLOPE AND CONST. EASEMENT AREAS FOR TRACT 9. REVISED SLOPE AND CONST. EASEMENT AREAS FOR TRACTS 3, 5 AND 6.

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./PG. - INST. NO.	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST. (2)
1	BROADWAY CORPORATION	38L A	30.10	1225 / 403		16.480	16.480		109 S.F.	109 S.F.		16.478		203	880
2	BROADWAY CORPORATION	38L A	30.02	1225 / 403		0.790	0.790		417 S.F.	417 S.F.		0.780		95	1151
3	DAVID E. AND JEFFREY D. SHARP CO-TRUSTEES	38L A	30.01	201106220073349		0.166	0.166		412 S.F.	412 S.F.		0.157		46	500
(1) 4	JAMES EDWARD AND BEVERLY G. SAWYER	38F A	14	1800 / 784	0.342		0.342				0.342				
~~5~~	~~SUNTRUST SERVICE CORPORATION~~	~~38~~	~~135~~	~~200004250027399~~		~~1.908~~	~~1.908~~					~~1.908~~			
~~6~~	~~HALLS CENTRE, LLC~~	~~38~~	~~135.02~~	~~200808060008956~~		~~6.941~~	~~6.941~~					~~6.941~~			
7	KNOXVILLE TN BUSINESS TRUST	38	135.01	2279 / 747		1.630	1.630					1.630		46	556
8	COMMERCIAL BANK	38	116	2124 / 751		1.365	1.365		1043 S.F.	1043 S.F.		1.341		70	597
9	BEAVER DAM BAPTIST CHURCH	38	108	N2 / 193, 1489 /962	11.000		11.000	465 S.F.		465 S.F.	10.989				
10	CROSSROADS PRESBYTERIAN CHURCH	38	109	1251 / 903	1.077		1.077	220 S.F.		220 S.F.	1.072			368	808
11	KNOX COUNTY, TN	38	107	1765 / 119	30.000		30.000				30.000			6	1107
12	NATIONAL BANK OF TENNESSEE	38	117	201304150067268		1.100	1.100		3662 S.F.	3662 S.F.		1.016		0.132 AC	3460
13	ORNL FEDERAL CREDIT UNION	38	134	200306030111504		2.010	2.010					2.010		952	2386
14	NATIONAL BANK OF TENNESSEE	38	118	201304150067268		3.430	3.430		804 S.F.	804 S.F.		3.412		0.151 AC	3652
15	HALLSDALE-POWELL UTILITY DISTRICT	38F A	13	201202160045282	12.000		12.000				12.000			1247	1177
16	KNOXVILLE-MAYNARDVILLE, LLC	38	137.01	200308070016100		0.569	0.569					0.569	122		
17	SOUTHERN FARM BUREAU LIFE INSURANCE COMPANY	38	137	1996 / 275		19.720	19.720					19.720	3262		
(1) 18	BEN J. AND DOROTHY KITTS ROSE	38	136	1790 / 481	0.590		0.590				0.590				

(1) FOR DAMAGES ONLY
(2) FOR WORKING ROOM AND EPSC

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

9:00:31 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION AND CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-1 EXCEPT AT PERMITTED AREAS.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 4A FOR R.O.W. DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	4
CONST.	2014	HSIP-33(116)	4

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; UPDATED TOPO FOR IHOP AND REVISED CONST. EASEMENT ON TRACT 1. LOCATED SIGN FOR TRACT 3. ADDED WETLAND 1 DELINEATION AND ENVIRONMENTAL FEATURES.

REV. 08-12-2014; ADDED DRIVEWAY ON TRACT 3 AT STA. 16+50 RT SR 33. REVISED SLOPE AND CONST. EASEMENT ON TRACT 3.

LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.05 AC.
	VOLUME OF PERMANENT IMPACT = 104 CY

STA. 18+00.00 ℄ S.R. 33 (MAYNARDVILLE HIGHWAY)=
STA. 10+00.00 DORIS CIRCLE
N 641816.971
E 2581207.668

STA. 10+00.00
N 641028.937
E 2581062.316

CARGO OIL COMPANY, INC.

NORTHSIDE MALL LTD.

DAVID L. SR. AND WANDA L. LAMBERT

WILMA J. AND DENNIS D. WATSON

JAMES RICHARD MOORE, TRUSTEE

J.H. AND MINNIE BUNDON

LARRY V. AND LAURA G. BAILEY TRUSTEES

BROADWAY CORPORATION (1)

BEGIN PROJ. NHTSA-HE-33(103) R.O.W.
STA. 12+28.97 ℄ S.R. 33

S.R. 33 (MAYNARDVILLE HWY)

EXIST. R.O.W.

PROP. R.O.W.

EXIST. AND PROP. R.O.W.

FILL SLOPE

CUT SLOPE

MANHOLE PAVED OVER. LOACTION BASED ON SOUNDING

0.05 AC PERMANENT IMPACT

MATCH LINE STA. 20+25.00

SEE SHEET NO. 5

SEEBER DRIVE

DORIS CIRCLE

ADVANCE AUTO PARTS 1-S-BL (2)

IHOP 1-S-BL

STANZER ELECTRIC 1-S-MTL

NORWOOD CLEANERS 1-S-BL (1)

LEANERS SIGN

MARKETPLACE INVESTMENTS, LLC

CHOTU, INC.

WAFFLE HOUSE 1-S-BR

REGAL 1-S-MTL

HALLS CENTER 1-S-BR

FIRST MORTGAGE LENDERS 2-S-BL

DAVID E. AND JEFFREY D. SHARP CO-TRUSTEES (3)

BROADWAY CORPORATION (1)

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

AREA TO BE SCARIFIED, RESHAPED, AND SEEDED

Keymap

	7	8
	6	
9	10	5
		4

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
TOMMY C. GEE
NO. 109585
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 12+28.97 TO STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

UNOFFICIAL SET
NOT FOR BIDDING

9:00:35 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	4A
CONST.	2014	HSIP-33(116)	4A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; CREATED INSET FOR ROW DETAILS FOR TRACTS 1, 2 AND 3. REVISED CONST. EASEMENT ON TRACT 1.

REV. 08-12-2014; ADDED DRIVEWAY ON TRACT 3 AT STA. 16+50 RT SR 33. REVISED SLOPE AND CONST. EASEMENT ON TRACT 3.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

N

EIP
N69°27'54"E
96.90'
EIP
N14°53'24"W
222.69'
PIPE
N52°37'05"E
170.04'
N52°37'05"E
131.60'
N52°39'38"E
37.87'
N80°14'16"E
286.35'
N69°07'11"E
380.92'

CARGO OIL COMPANY, INC.

NORTHSIDE MALL LTD.

STA. 10+00.00
N 641028.7847
E 2581042.6316

A=252.70'
R=2,344.83'
Ch=S9°44'53"W
252.58'

FIP

S12°10'33"W
30.63'

A=195.85'
R=2,141.26'
Ch=S11°51'59"W
195.78'

S77°09'10"E
43.62'

EIP

S6°38'27"W
180.31'

N31°09'38"W
150.88'

PIPE

N54°55'45"E
130.24'

S36°45'37"E
34.94'

S89°38'54"E
42.96'

LARRY V. AND LAURA G. BAILEY TRUSTEES
EXIST. AND PROP. R.O.W.

A=111.17'
R=1,834.86'
Ch=S2°39'31"W
111.15'

N53°21'27"E
209.58'
108.59'

15

J.H. AND MINNIE BUNDON

STA. 18+00.00 ℄ S.R. 33 (MAYNARDVILLE HIGHWAY)=
STA. 10+00.00 DORIS CIRCLE
N 641816.971
E 2581207.668

DAVID L. SR. AND WANDA L. LAMBERT

EIP
N54°53'20"E
70.10'
EIP
N31°13'23"W
96.59'
EIP
N31°09'38"W
81.85'
S54°55'45"W
109.55'
EIP
N54°58'21"E
50.35'
EIP
S35°30'02"E
48.89'
EIP
N54°58'15"E
20.69'
S31°46'23"E
25.88'
EIP
S44°03'05"W
36.71'
S0°37'58"W
66.64'

WILMA J. AND DENNIS D. WATSON

N62°40'30"E
73.99'
N60°21'43"E
65.31'
N59°56'56"E
20.02'

JAMES RICHARD MOORE, TRUSTEE

PIPE
N30°46'43"W
110.89'
S59°56'56"W
11.62'
EIP
N31°12'32"W
97.29'
PIPE
N30°13'05"W
74.68'

20

S7°51'32"E
303.56'

NAIL
EXIST. AND PROP. R.O.W.
S8°49'41"E
111.60'

A=14.37'
R=79.22'
Ch=S25°01'34"W
14.35'

MATCH LINE STA. 20+25.00

SEE SHEET NO. 5A

PGL LT.
℄ S.R. 33
PGL RT.

S.R. 33 (MAYNARDVILLE HWY)

N12°41'42"E
235.56'
EXIST. R.O.W.

A=385.85'
R=2,238.63'
Ch=N7°53'37"E
385.37'

BROADWAY CORPORATION
1

BEGIN PROJ. NHTSA-HE-33(103) R.O.W.
STA. 12+28.97 ℄ S.R. 33

A=110.33'
R=2,917.79'
Ch=N10°19'26"E
110.33'

EIP

A=186.67'
R=2,917.79'
Ch=N11°04'24"E
186.64'

A=162.59'
R=2,917.79'
Ch=N7°38'39"E
162.57'

16+17.82
52.78
2"PIPE

EXIST. R.O.W.
N5°00'00"E
129.93'

PROP. R.O.W.

N81°04'18"W
157.24'

A=113.54'
R=848.50'
Ch=S40°18'21"E
113.45'

2

BROADWAY CORPORATION

EIP
S43°04'06"W
80.05'
S35°02'21"E
46.86'
S40°19'39"W
51.34'

EXIST. AND PROP. R.O.W.

S86°07'00"E
51.28'
S3°58'00"E
63.85'
N53°21'36"E
122.33'
S32°43'09"E
126.82'
N73°03'00"E

3

1

DORIS CIRCLE

FILL SLOPE

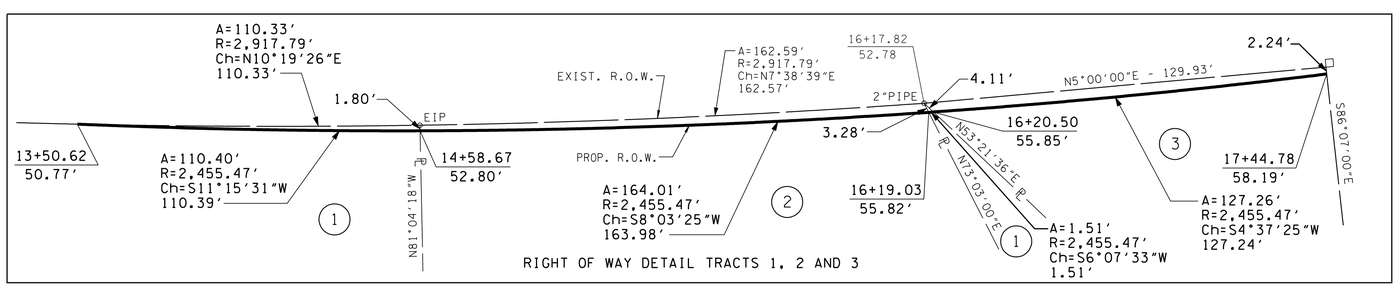
EIP
N2°36'49"W
50.24'
EIP
N3°17'35"W
100.19'
EIP
N3°06'26"W
164.70'

EXIST. AND PROP. R.O.W.
MARKETPLACE INVESTMENTS, LLC

N87°03'22"E
153.50'
S52°53'36"W
151.05'
S00°00'00"E
59.09'
EIP
S5°05'12"E
131.81'

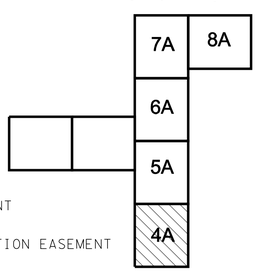
CHOTU, INC.

3 DAVID E. AND JEFFREY D. SHARP
CO-TRUSTEES



RIGHT OF WAY DETAIL TRACTS 1, 2 AND 3

Keymap



DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

STA. 12+28.97 TO
STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:00:39 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	4B
CONST.	2014	HSIP-33(116)	4B

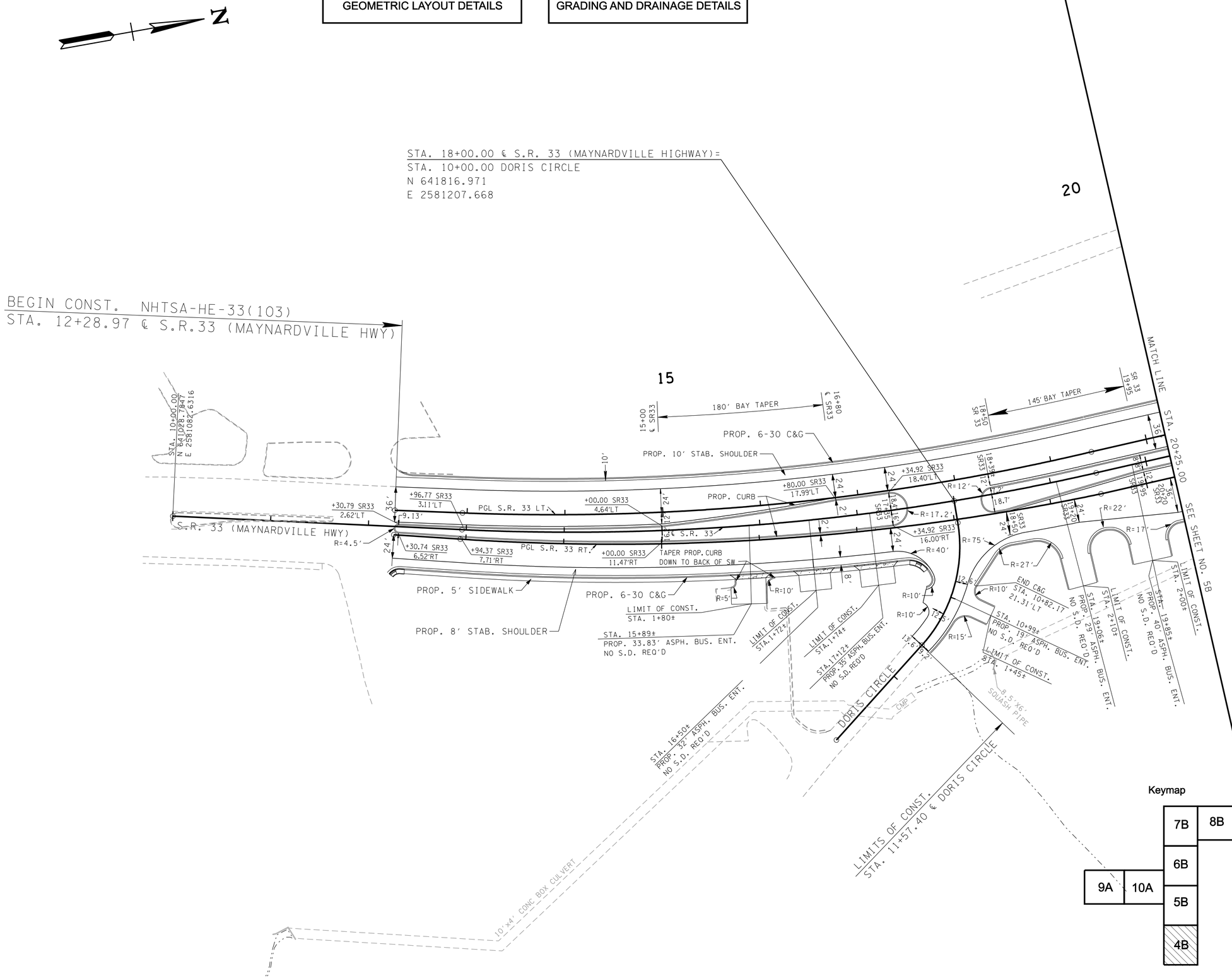
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED CURB AND GUTTER ON DORIS CIRCLE AT TRACT 3. ADDED WETLAND 1 DELINEATION AND ENVIRONMENTAL FEATURES.

REV. 08-12-2014; ADDED DRIVEWAY ON TRACT 3 AT STA. 16+50 RT SR 33.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 4D FOR GRADING AND DRAINAGE DETAILS



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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,585
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 12+28.97 TO
STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:00:42 AM
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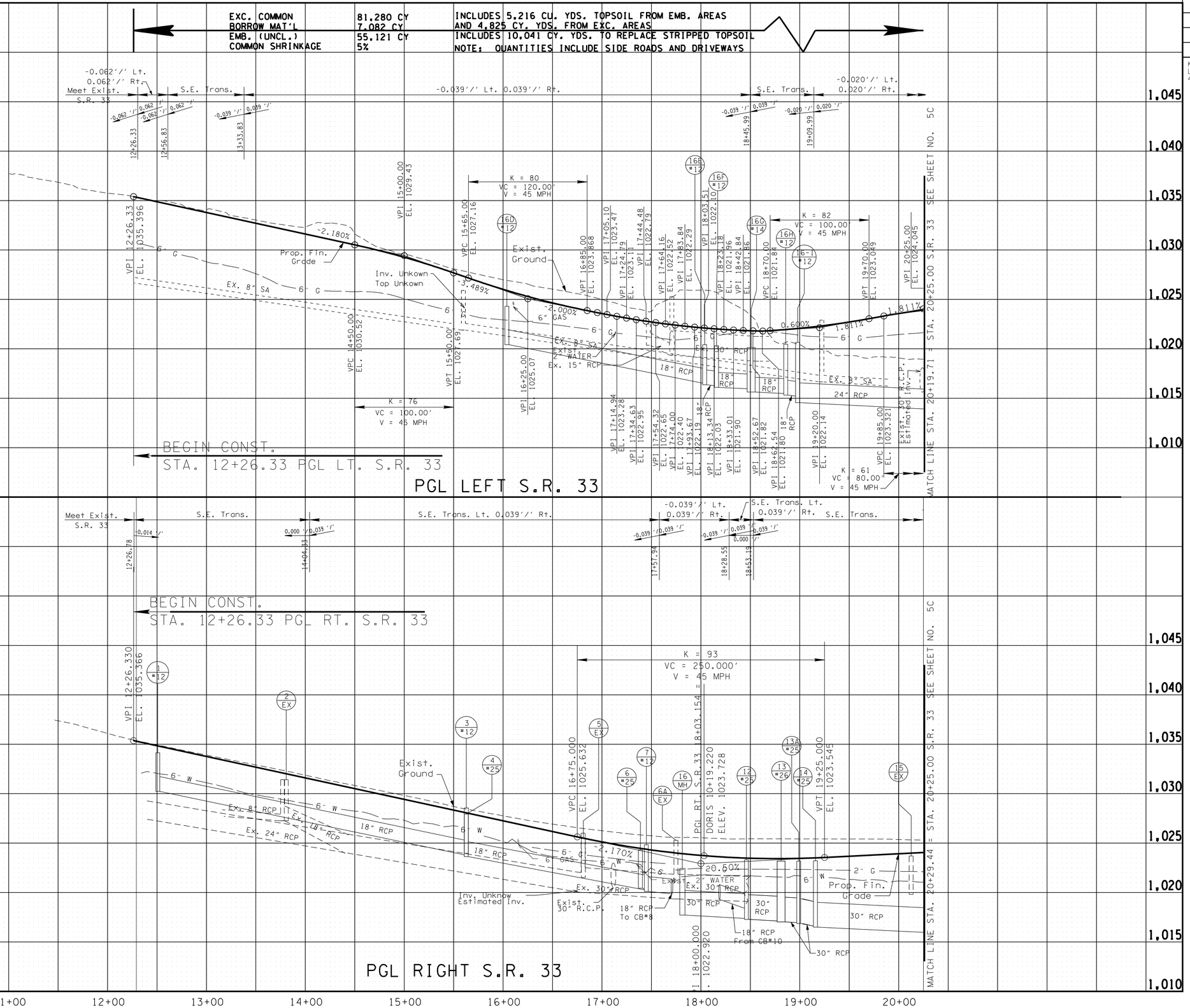
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	4C
CONST.	2014	HSIP-33(116)	4C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

EXC. COMMON	81,280 CY	INCLUDES 5,216 CU. YDS. TOPSOIL FROM EMB. AREAS AND 4,825 CY. YDS. FROM EXC. AREAS
BORROW MAT'L	7,082 CY	
EMB. (UNCL.)	55,121 CY	INCLUDES 10,041 CY. YDS. TO REPLACE STRIPPED TOPSOIL
COMMON SHRINKAGE	5%	NOTE; QUANTITIES INCLUDE SIDE ROADS AND DRIVEWAYS



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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

BEGIN CONST. TO STA. 20+25 S.R. 33

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

9:00:44 AM
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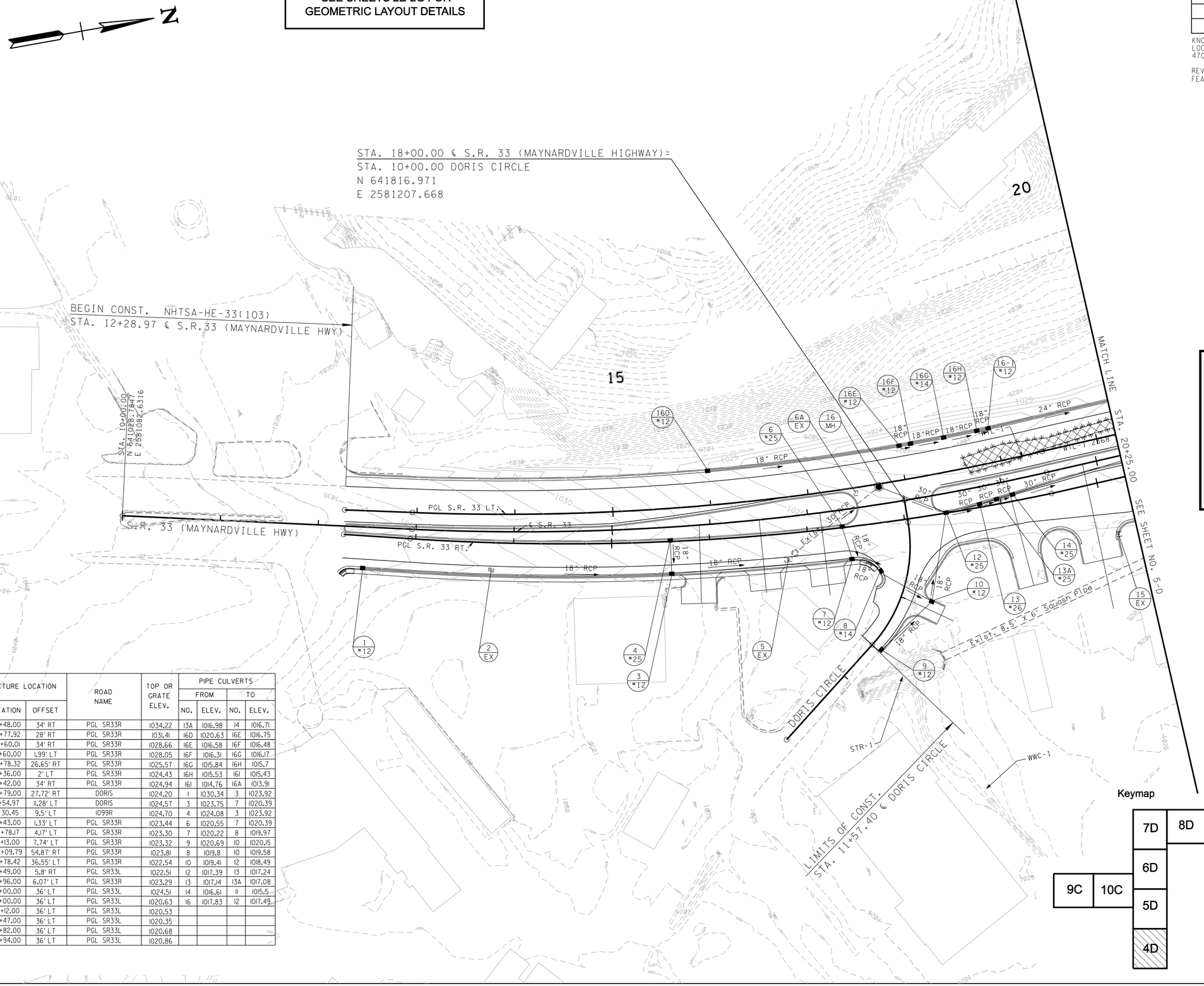
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	4-D
CONST.	2014	HSIP-33(116)	4-D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED ENVIRONMENTAL FEATURES.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS



STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
1	12+48.00	34' RT	PGL SR33R	1034.22	13A	1016.98	14	1016.71
2	13+77.92	28' RT	PGL SR33R	1031.41	16D	1020.63	16E	1016.75
3	15+60.01	34' RT	PGL SR33R	1028.66	16E	1016.58	16F	1016.48
4	15+60.00	1.99' LT	PGL SR33R	1028.05	16F	1016.31	16G	1016.17
5	16+78.32	26.65' RT	PGL SR33R	1025.57	16G	1015.84	16H	1015.7
6	17+36.00	2' LT	PGL SR33R	1024.43	16H	1015.53	16I	1015.43
7	17+42.00	34' RT	PGL SR33R	1024.94	16I	1014.76	16A	1013.91
8	10+79.00	27.72' RT	DORIS	1024.20	1	1030.34	3	1023.92
9	11+54.97	11.28' LT	DORIS	1024.57	3	1023.75	7	1020.39
10	1+30.45	9.5' LT	1099R	1024.70	4	1024.08	3	1023.92
12	18+43.00	1.33' LT	PGL SR33R	1023.44	6	1020.55	7	1020.39
13	18+78.17	4.17' LT	PGL SR33R	1023.30	7	1020.22	8	1019.97
14	19+13.00	7.74' LT	PGL SR33R	1023.32	9	1020.69	10	1020.15
15	20+09.79	54.87' RT	PGL SR33R	1023.81	8	1019.8	10	1019.58
16	17+78.42	36.55' LT	PGL SR33R	1022.54	10	1019.41	12	1018.49
6A	17+49.00	5.8' RT	PGL SR33L	1022.51	12	1017.39	13	1017.24
13A	18+96.00	6.07' LT	PGL SR33R	1023.29	13	1017.14	13A	1017.08
16D	16+00.00	36' LT	PGL SR33L	1024.51	14	1016.61	11	1015.5
16E	18+00.00	36' LT	PGL SR33L	1020.63	16	1017.83	12	1017.49
16F	18+12.00	36' LT	PGL SR33L	1020.53				
16G	18+47.00	36' LT	PGL SR33L	1020.35				
16H	18+82.00	36' LT	PGL SR33L	1020.68				
16I	18+94.00	36' LT	PGL SR33L	1020.86				

Keymap

	7D	8D
	6D	
9C	10C	5D
		4D

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
NUMBER 103505
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

STA. 12+28.97 TO
STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

12:01:35 PM
M:\Knox County\Halls Connector\Sheets\04D_G&D.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	5
CONST.	2014	HSIP-33(116)	5

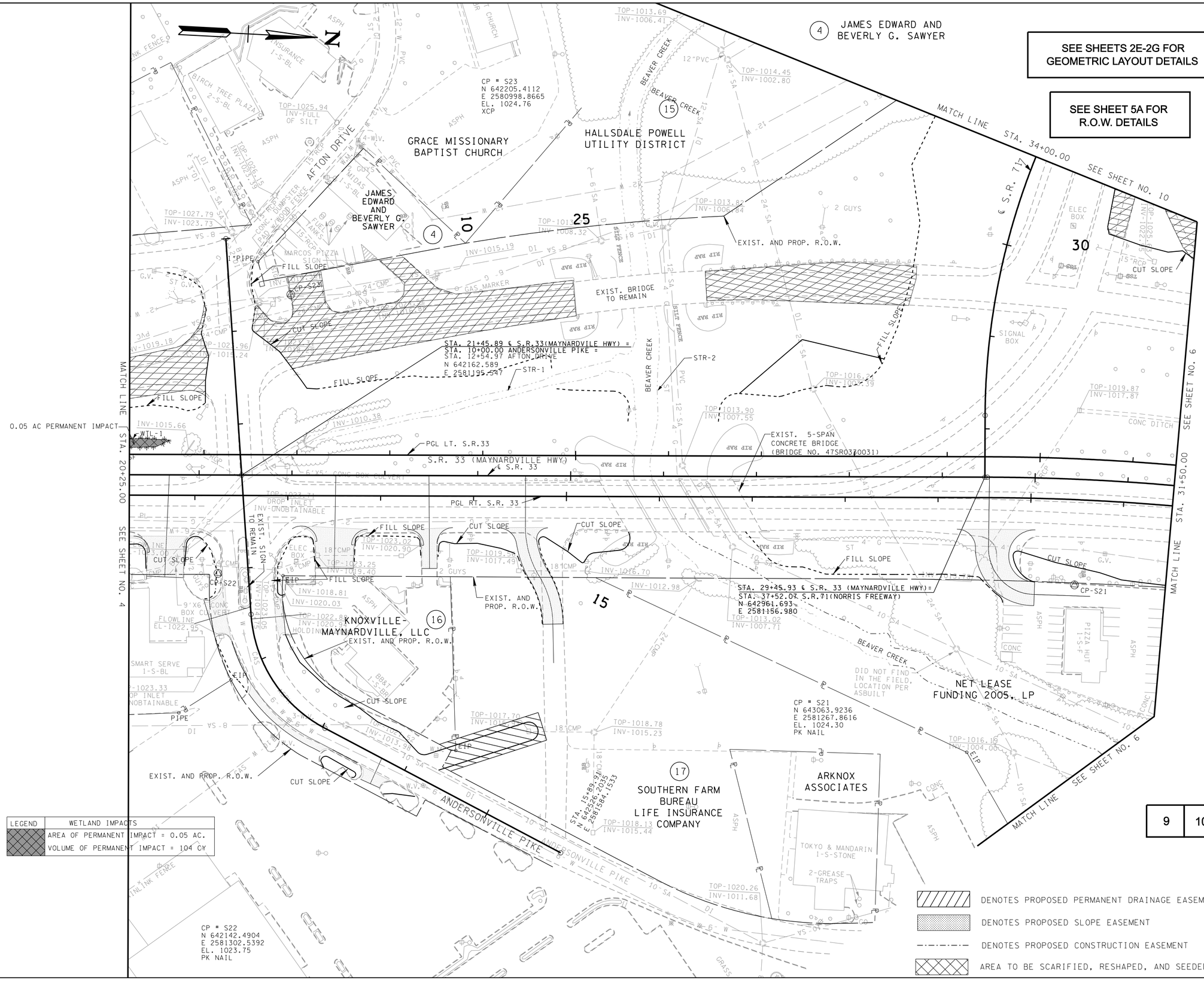
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014: LOCATED DUMPSTER PAD, PARKING STALLS AND SIGN FOR TRACT 4. ELIMINATED SLOPE & CONST. EASEMENT ON TRACT 4. REVISED DRIVEWAY AT STA. 24+52± SR 33, PER TDOT. ADDED ARKNOX ASSOCIATES PROPERTY BASED ON KGIS MAPPING, ADDED PARKING SPACES FOR PIZZA HUT. REVISED DRIVEWAY AT STA. 29+51±. ADDED ENVIRONMENTAL FEATURES.

REV. 08-12-2014: ADDED DRIVEWAY ON TRACT 4 AT STA. xx+xx AFTON DR.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 5A FOR R.O.W. DETAILS



LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.05 AC.
	VOLUME OF PERMANENT IMPACT = 104 CY

Keymap

	7	8
	6	
9	10	5
		4

DENOTES PROPOSED PERMANENT DRAINAGE EASEMENT

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED CONSTRUCTION EASEMENT

AREA TO BE SCARIFIED, RESHAPED, AND SEEDED

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
SUMMERS
No. 109.001
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

UNOFFICIAL SET
NOT FOR BIDDING

9:00:57 AM
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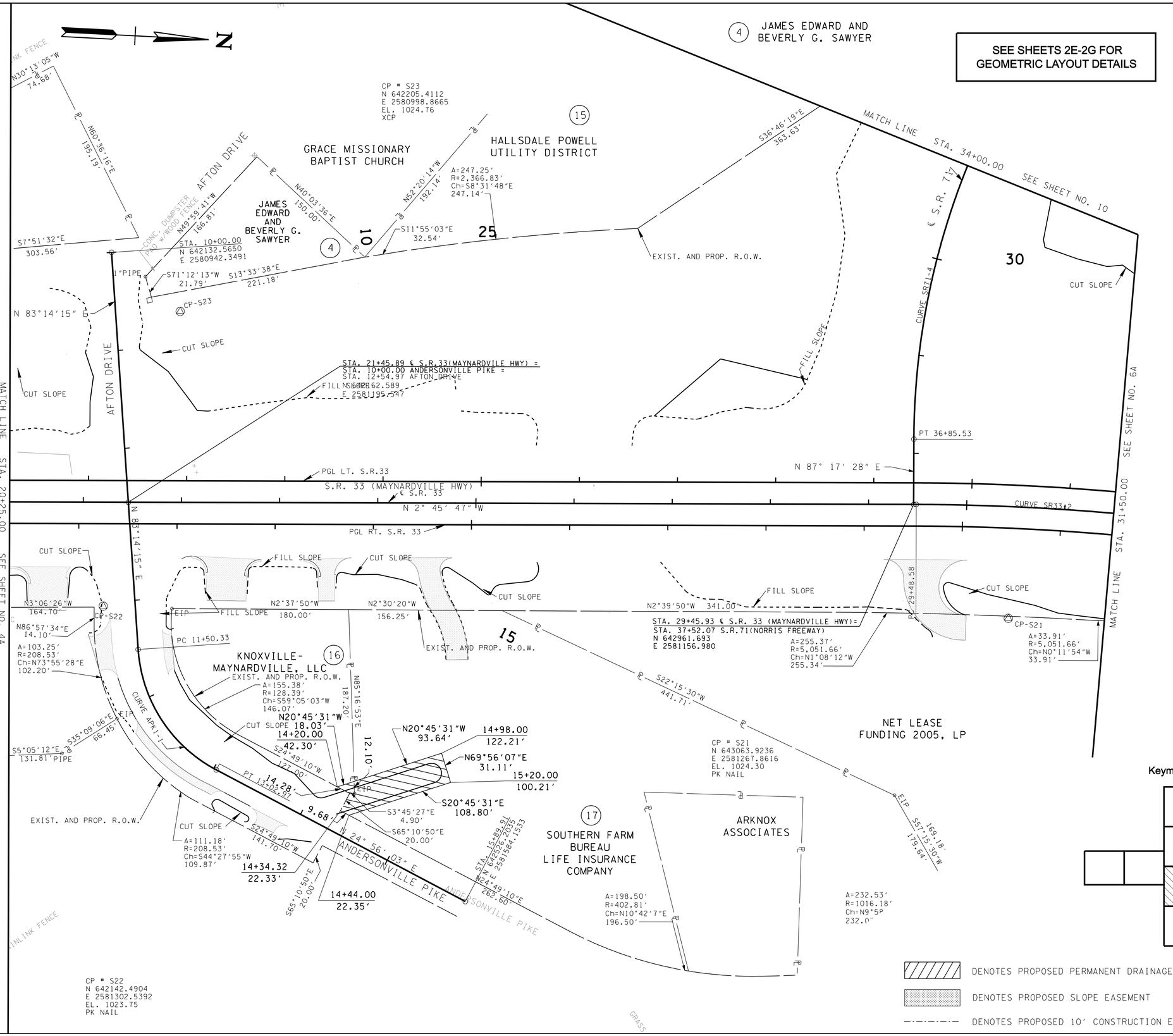
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	5A
CONST.	2014	HSIP-33(116)	5A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; PER TDOT: ADDED ARKNOX ASSOCIATES PROPERTY BASED ON KGIS MAPPING. ELIMINATED SLOPE AND CONST. EASEMENT ON TRACT 4. ADDED ENVIRONMENTAL FEATURES.

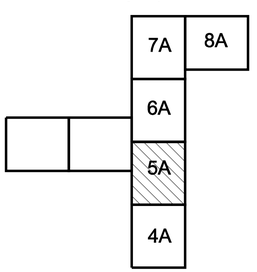
REV. 08-12-2014; ADDED DRIVEWAY ON TRACT 4 AT STA. xx+xx AFTON DR.



UNOFFICIAL SET

NOT FOR BIDDING

Keymap

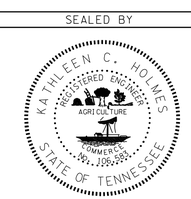


DENOTES PROPOSED PERMANENT DRAINAGE EASEMENT

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

9:01:03 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	5B
CONST.	2014	HSIP-33(116)	5B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

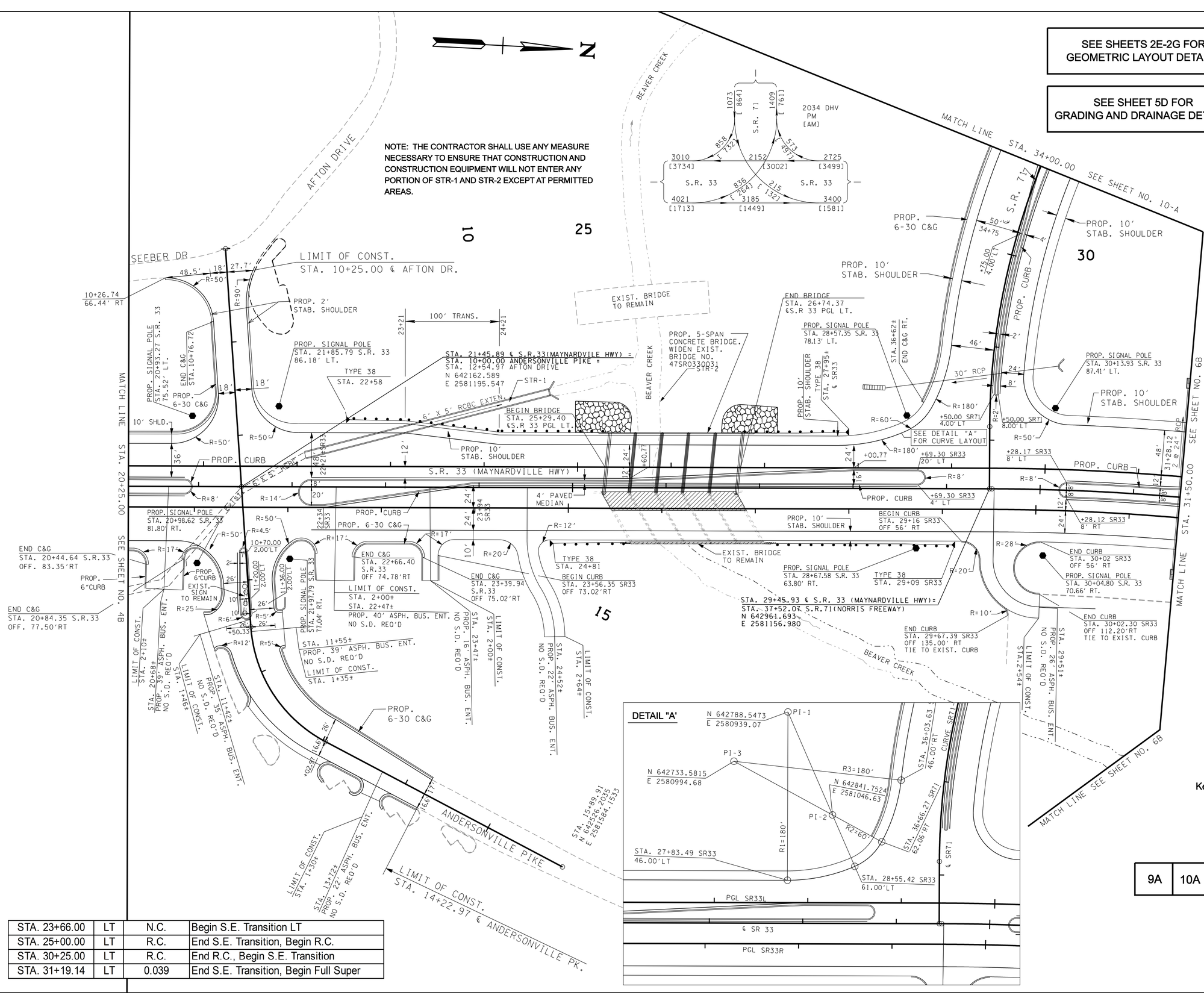
REV. 05-09-2014; REVISED DRIVEWAYS AT STA. 24+52± AND STA. 29+51±. ADDED ENVIRONMENTAL FEATURES.

REV. 08-12-2014; REVISED ANDERSONVILLE PIKE LAYOUT TO ADD MEDIAN AROUND EXIST.SIGN.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 5D FOR GRADING AND DRAINAGE DETAILS

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION AND CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-1 AND STR-2 EXCEPT AT PERMITTED AREAS.



STA. 23+66.00	LT	N.C.	Begin S.E. Transition LT
STA. 25+00.00	LT	R.C.	End S.E. Transition, Begin R.C.
STA. 30+25.00	LT	R.C.	End R.C., Begin S.E. Transition
STA. 31+19.14	LT	0.039	End S.E. Transition, Begin Full Super

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

Keymap

9A	10A	7B / 8B / 6B / 5B / 4B

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

9/10/07 AM
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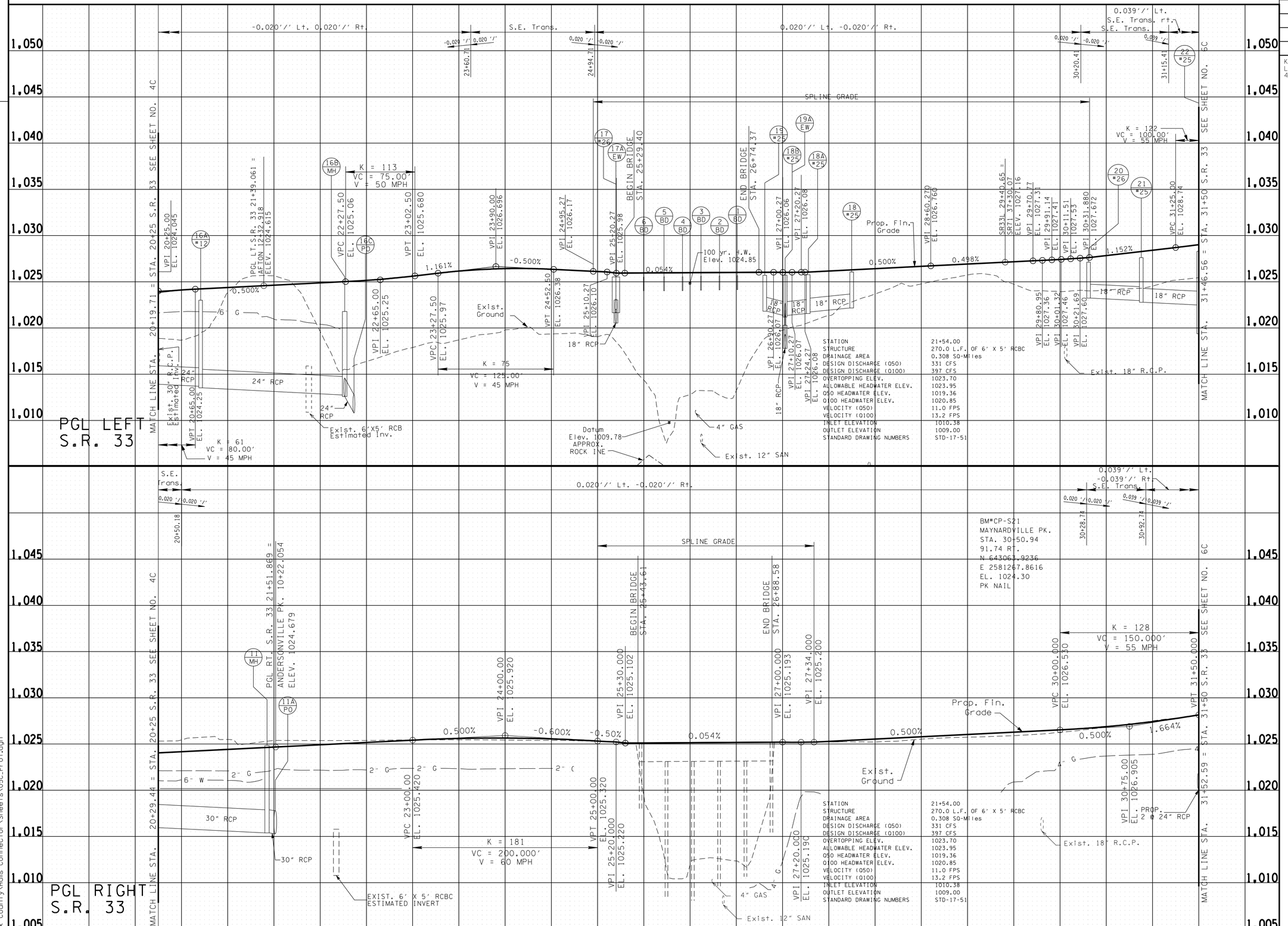
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	5C
CONST.	2014	HSIP-33(116)	5C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 100
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 20+25 TO STA. 31+50
S.R. 33

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

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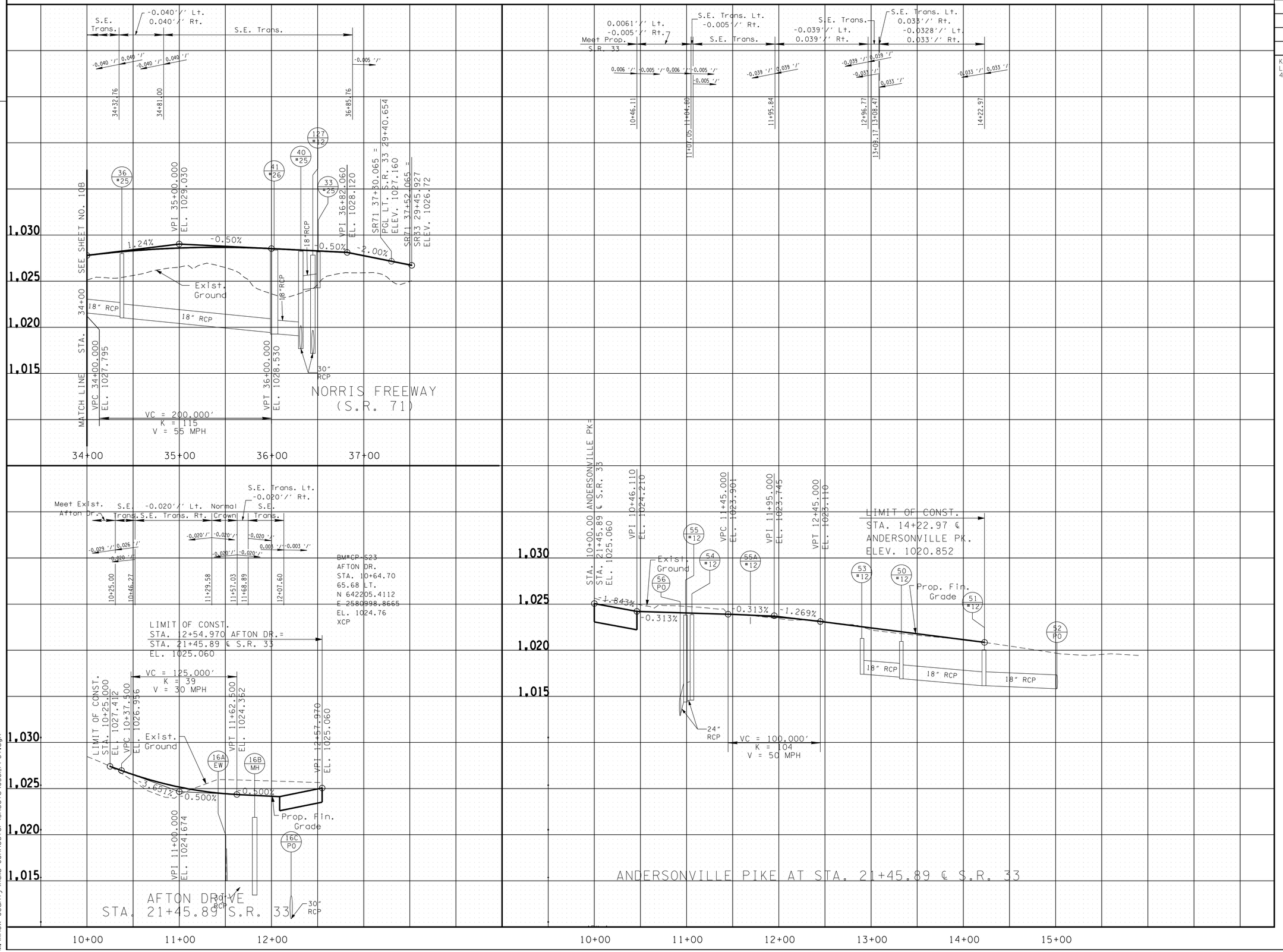
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

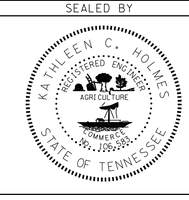
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	5C1
CONST.	2014	HSIP-33(116)	5C1

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

S.R. 71
STA.34+00 TO 37+30.065
AFTON DRIVE
STA. 10+25 TO STA. 12+57.97
ANDERSONVILLE PK.
STA. 10+00 TO STA. 14+22.97
1"= 5' VERT.
SCALE: 1"= 50' HORIZ.

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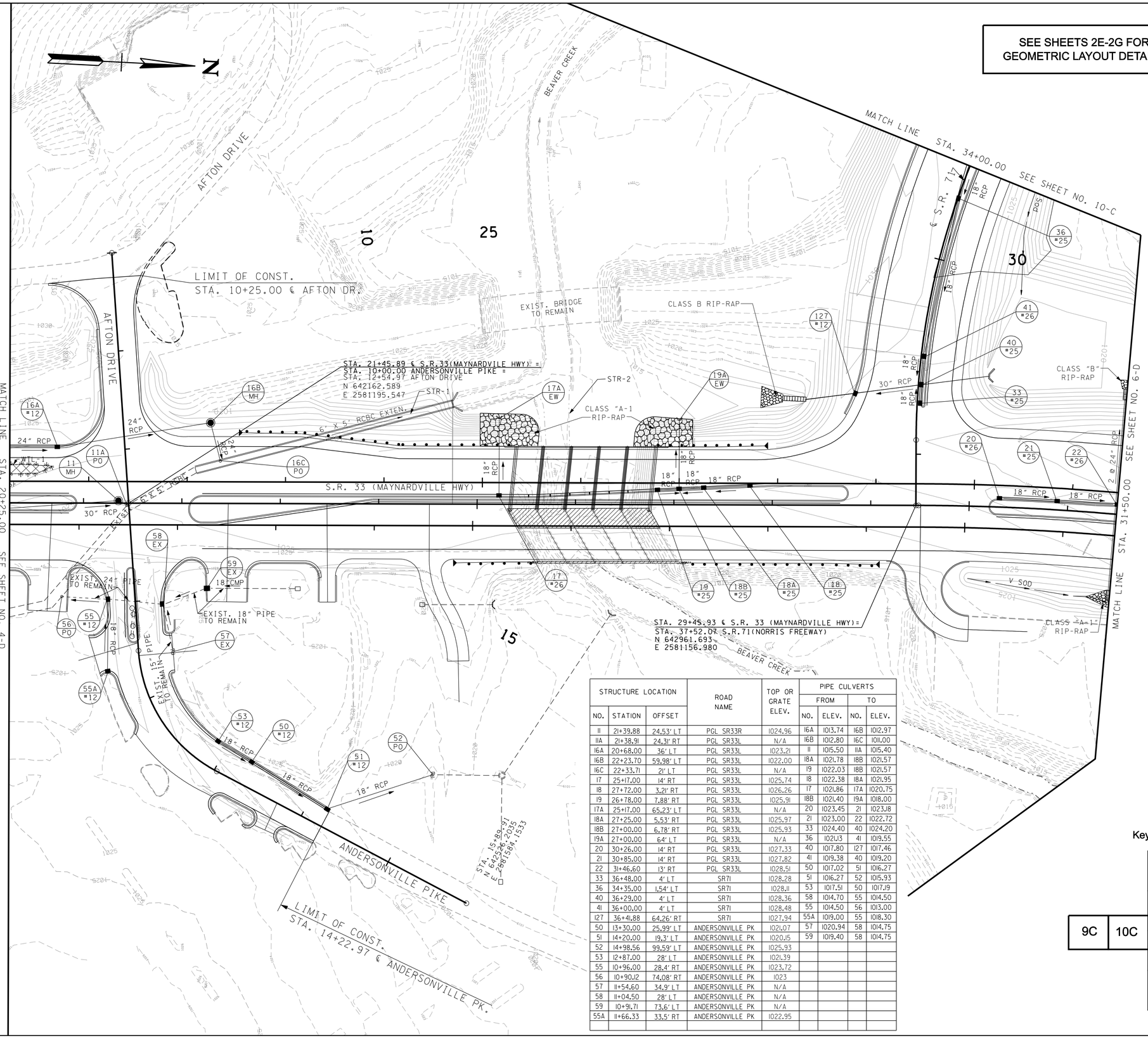
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	5-D
CONST.	2014	HSIP-33(116)	5-D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

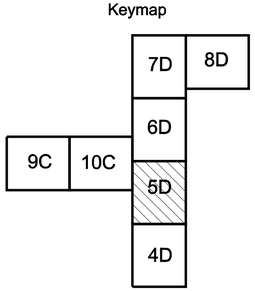
REV. 05-09-2014; REVISED DRIVEWAYS AT STA. 24+52± AND STA. 29+51±. ADDED ENVIRONMENTAL FEATURES.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS



STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
11	21+39.88	24.53' LT	PGL SR33R	1024.96	16A	1013.74	16B	1012.97
11A	21+38.91	24.31' RT	PGL SR33L	N/A	16B	1012.80	16C	1011.00
16A	20+68.00	36' LT	PGL SR33L	1023.21	11	1015.50	11A	1015.40
16B	22+23.70	59.98' LT	PGL SR33L	1022.00	18A	1021.78	18B	1021.57
16C	22+33.71	21' LT	PGL SR33L	N/A	19	1022.03	18B	1021.57
17	25+17.00	14' RT	PGL SR33L	1025.74	18	1022.38	18A	1021.95
18	27+72.00	3.21' RT	PGL SR33L	1026.26	17	1021.86	17A	1020.75
19	26+78.00	7.88' RT	PGL SR33L	1025.91	18B	1021.40	19A	1018.00
17A	25+17.00	65.23' LT	PGL SR33L	N/A	20	1023.45	21	1023.18
18A	27+25.00	5.53' RT	PGL SR33L	1025.97	21	1023.00	22	1022.72
18B	27+00.00	6.78' RT	PGL SR33L	1025.93	33	1024.40	40	1024.20
19A	27+00.00	64' LT	PGL SR33L	N/A	36	1021.13	41	1019.55
20	30+26.00	14' RT	PGL SR33L	1027.33	40	1017.80	127	1017.46
21	30+85.00	14' RT	PGL SR33L	1027.82	41	1019.38	40	1019.20
22	31+46.60	13' RT	PGL SR33L	1028.51	50	1017.02	51	1016.27
33	36+48.00	4' LT	SR71	1028.28	51	1016.27	52	1015.93
36	34+35.00	1.54' LT	SR71	1028.11	53	1017.51	50	1017.19
40	36+29.00	4' LT	SR71	1028.36	58	1014.70	55	1014.50
41	36+00.00	4' LT	SR71	1028.48	55	1014.50	56	1013.00
127	36+41.88	64.26' RT	SR71	1027.94	55A	1019.00	55	1018.30
50	13+30.00	25.99' LT	ANDERSONVILLE PK	1021.07	57	1020.94	58	1014.75
51	14+20.00	19.3' LT	ANDERSONVILLE PK	1020.15	59	1019.40	58	1014.75
52	14+98.56	99.59' LT	ANDERSONVILLE PK	1025.93				
53	12+87.00	28' LT	ANDERSONVILLE PK	1021.39				
55	10+96.00	28.4' RT	ANDERSONVILLE PK	1023.72				
56	10+90.12	74.08' RT	ANDERSONVILLE PK	1023				
57	11+54.60	34.9' LT	ANDERSONVILLE PK	N/A				
58	11+04.50	28' LT	ANDERSONVILLE PK	N/A				
59	10+91.71	73.6' LT	ANDERSONVILLE PK	N/A				
55A	11+66.33	33.5' RT	ANDERSONVILLE PK	1022.95				

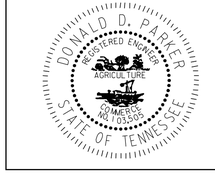
Keymap



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

12/02/19 2:19 PM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

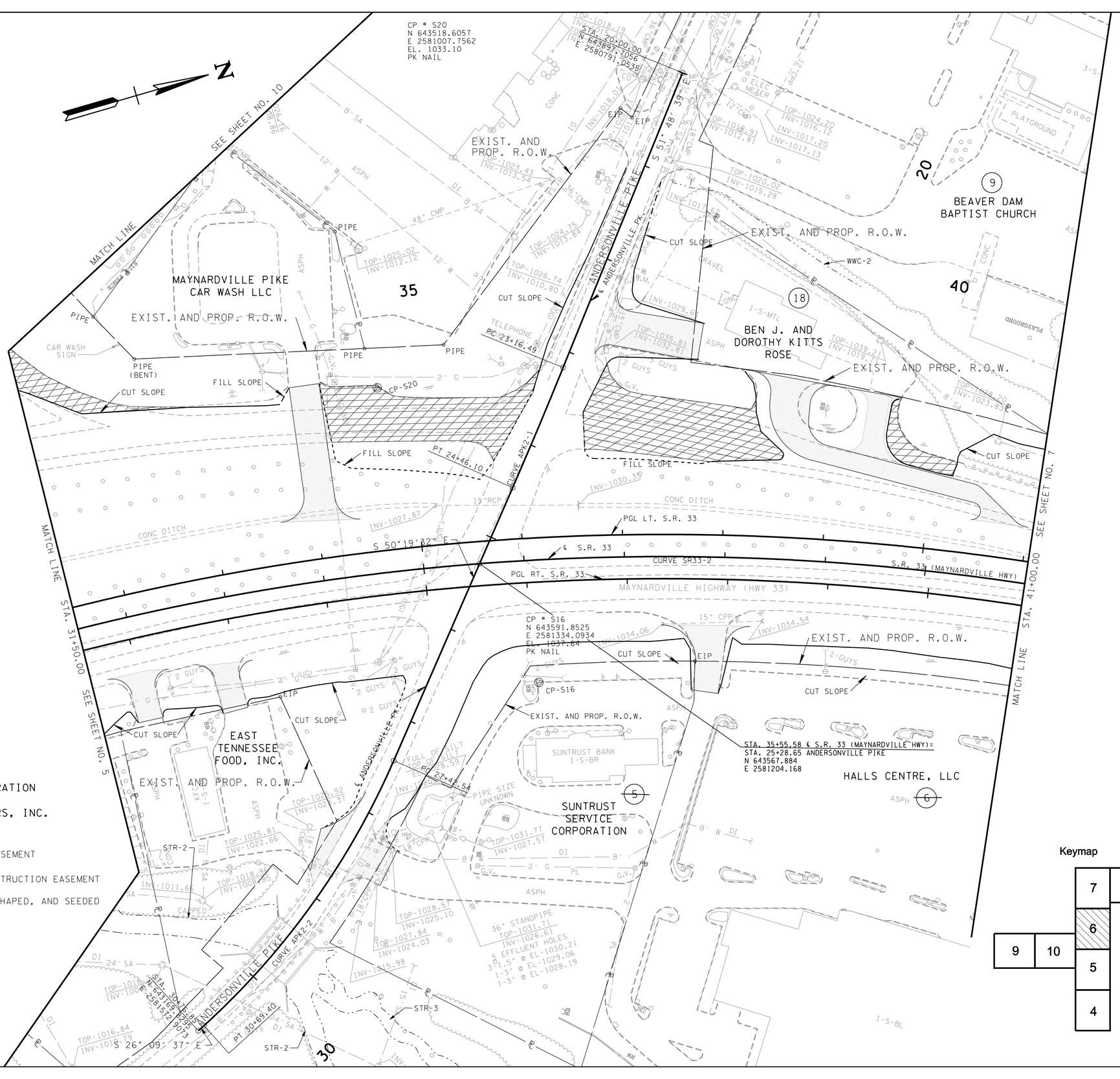
SEE SHEET 6A FOR R.O.W. DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	6
CONST.	2014	HSIP-33(116)	6

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; LOCATED CAR WASH SIGN. ADDED TRACT 18. ADDED DRIVEWAY ON SR 33 TO TRACT 18. REVISED CONST. EASEMENT ON TRACT 6. ADDED ENVIRONMENTAL FEATURES.

REV. 08-12-2014; REVISED SLOPE LIMITS, ELIMINATED SLOPE AND CONST. EASEMENTS ON TRACT 5 AND 6. ADDED DWY AT STA. 3+01 RT. OFF DWY 40+60 RT. SR33 INTO TRACT 18.



5 SUNTRUST SERVICE CORPORATION

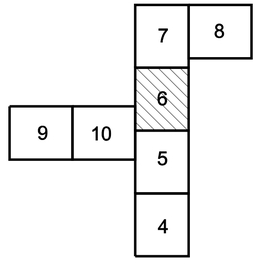
6 FIVE OAKS OUTLET CENTERS, INC.

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

AREA TO BE SCARIFIED, RESHAPED, AND SEEDED

Keymap



SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

UNOFFICIAL SET
NOT FOR BIDDING

9:01:28 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

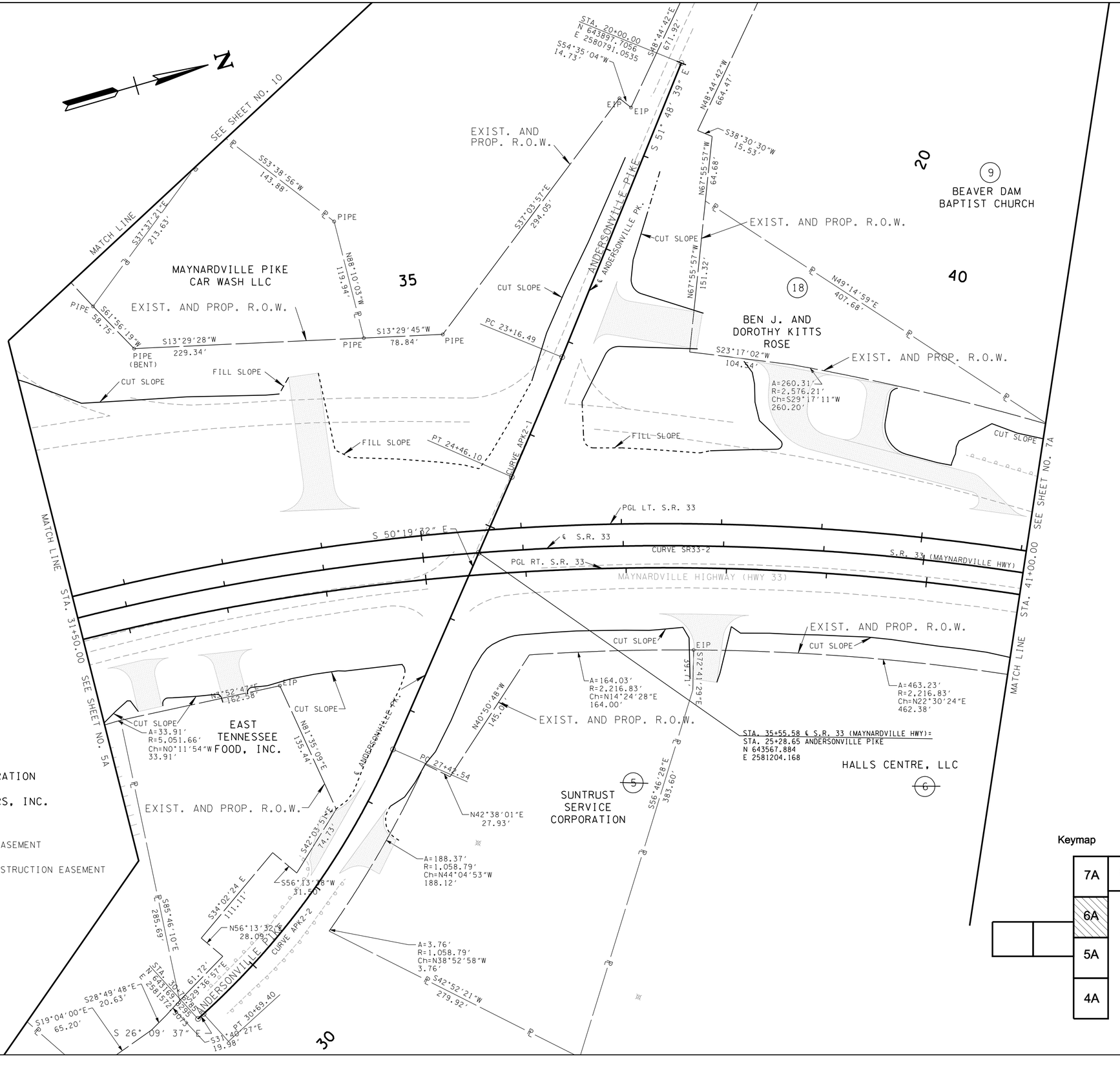
SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	6A
CONST.	2014	HSIP-33(116)	6A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED TRACT 18. REVISED CONST. EASEMENT ON TRACT 6.

REV. 08-12-2014; REVISED SLOPE LIMITS, AND ELIMINATED SLOPE AND CONST. EASEMENTS ON TRACT 5 AND 6. ADDED DWY AT STA. 3+01 RT. OFF DWY 40+60 RT. SR33 INTO TRACT 18.

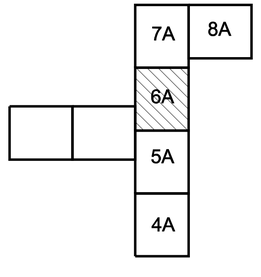


5 SUNTRUST SERVICE CORPORATION
6 FIVE OAKS OUTLET CENTERS, INC.

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

Keymap



UNOFFICIAL SET

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SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

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

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

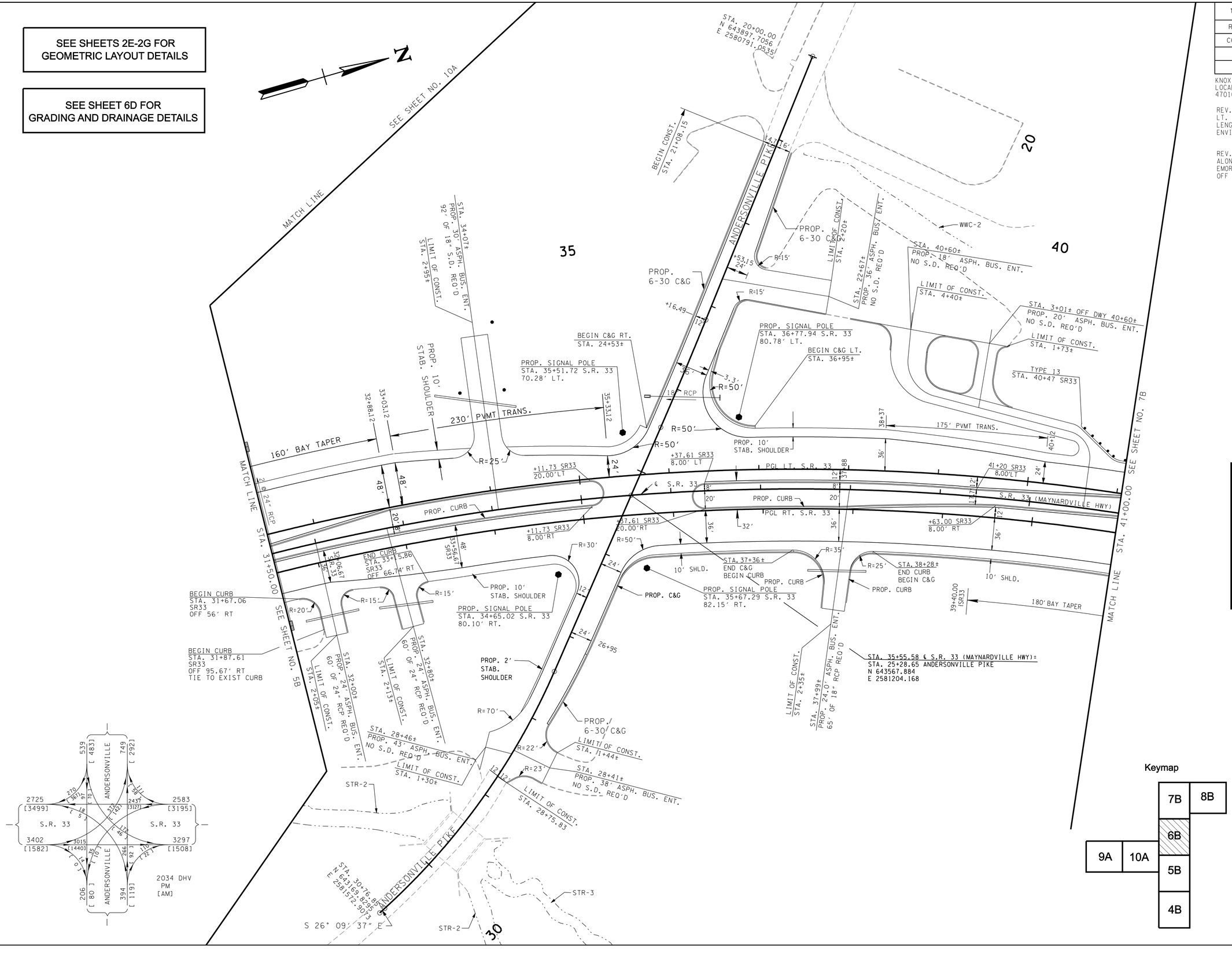
SEE SHEET 6D FOR GRADING AND DRAINAGE DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	6B
CONST.	2014	HSIP-33(116)	6B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED DWY AT STA. 40+60± LT. SR 33. REVISED RIGHT TURN LANE LENGTH AT STA. 38+37. ADDED ENVIRONMENTAL FEATURES.

REV. 08-12-2014; ADDED CURB AND GUTTER ALONG SR33 RT FROM ANDERSONVILLE PIKE TO EMORY ROAD. ADDED DWY AT STA. 3+01 RT. OFF DWY 40+60 RT SR33 INTO TRACT 18.



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

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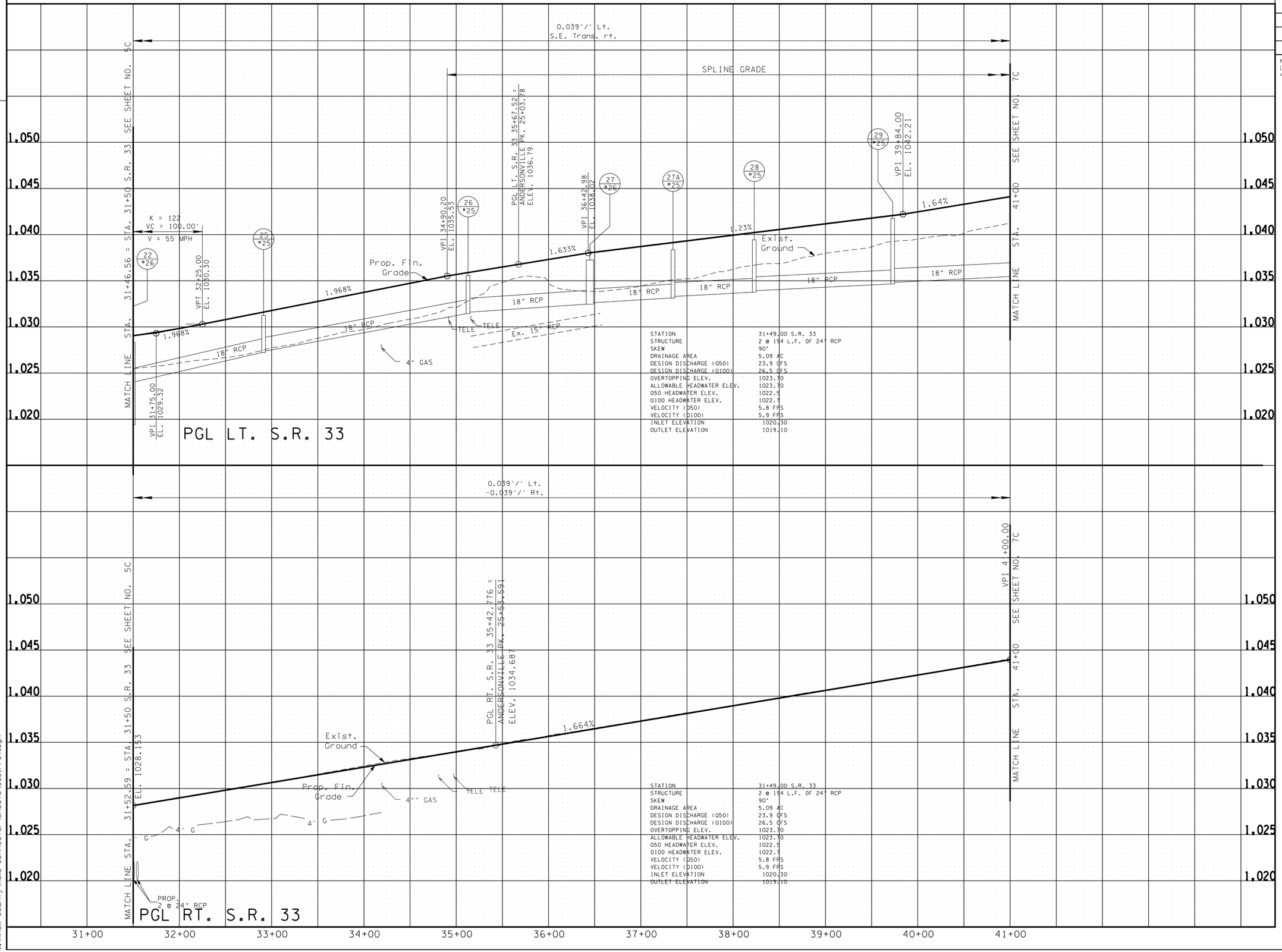
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	6C
CONST.	2014	HSIP-33(116)	6C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 31+50 TO STA. 41+00

S.R. 33

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

9:01:42 AM
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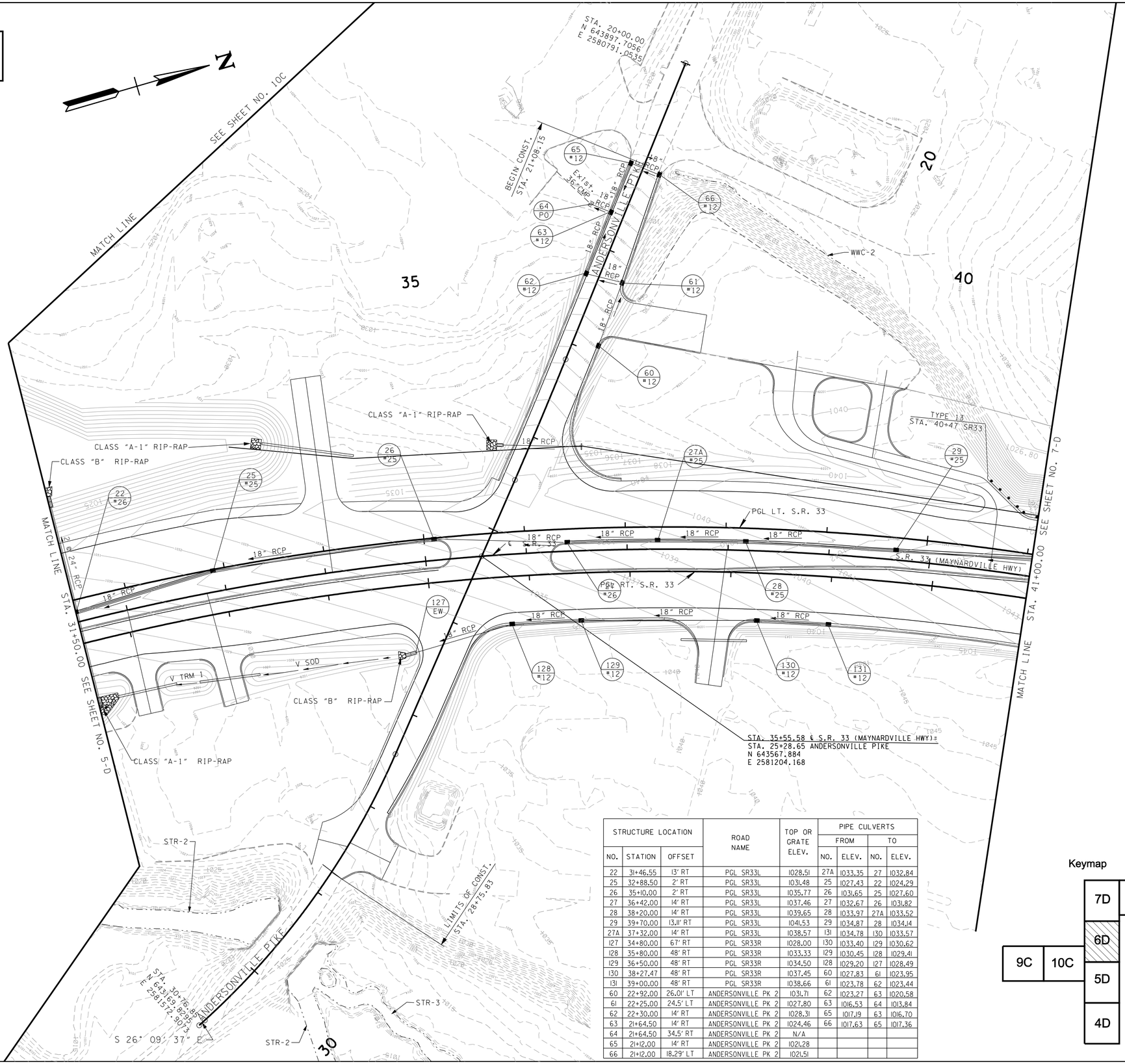
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	6-D
			6-D

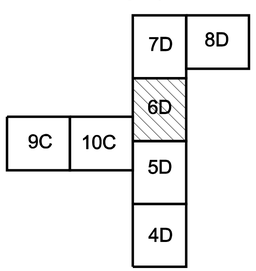
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED DWY AT STA. 40+60± LT. SR 33. REVISED RIGHT TURN LANE LENGTH AT STA. 38+37. UPDATED PROP. CONTOURS. ADDED ENVIRONMENTAL FEATURES.



STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
22	31+46.55	13' RT	PGL SR33L	1028.51	27A	1033.35	27	1032.84
25	32+88.50	2' RT	PGL SR33L	1031.48	25	1027.43	22	1024.29
26	35+10.00	2' RT	PGL SR33L	1035.77	26	1031.65	25	1027.60
27	36+42.00	14' RT	PGL SR33L	1037.46	27	1032.67	26	1031.82
28	38+20.00	14' RT	PGL SR33L	1039.65	28	1033.97	27A	1033.52
29	39+70.00	13.11' RT	PGL SR33L	1041.53	29	1034.87	28	1034.14
27A	37+32.00	14' RT	PGL SR33L	1038.57	131	1034.78	130	1033.57
127	34+80.00	67' RT	PGL SR33R	1028.00	130	1033.40	129	1030.62
128	35+80.00	48' RT	PGL SR33R	1033.33	129	1030.45	128	1029.41
129	36+50.00	48' RT	PGL SR33R	1034.50	128	1029.20	127	1028.49
130	38+27.47	48' RT	PGL SR33R	1037.45	60	1027.83	61	1023.95
131	39+00.00	48' RT	PGL SR33R	1038.66	61	1023.78	62	1023.44
60	22+92.00	26.01' LT	ANDERSONVILLE PK 2	1031.71	62	1023.27	63	1020.58
61	22+25.00	24.5' LT	ANDERSONVILLE PK 2	1027.80	63	1016.53	64	1013.84
62	22+30.00	14' RT	ANDERSONVILLE PK 2	1028.31	65	1017.19	63	1016.70
63	21+64.50	14' RT	ANDERSONVILLE PK 2	1024.46	66	1017.63	65	1017.36
64	21+64.50	34.5' RT	ANDERSONVILLE PK 2	N/A				
65	21+12.00	14' RT	ANDERSONVILLE PK 2	1021.28				
66	21+12.00	18.29' LT	ANDERSONVILLE PK 2	1021.51				

Keymap



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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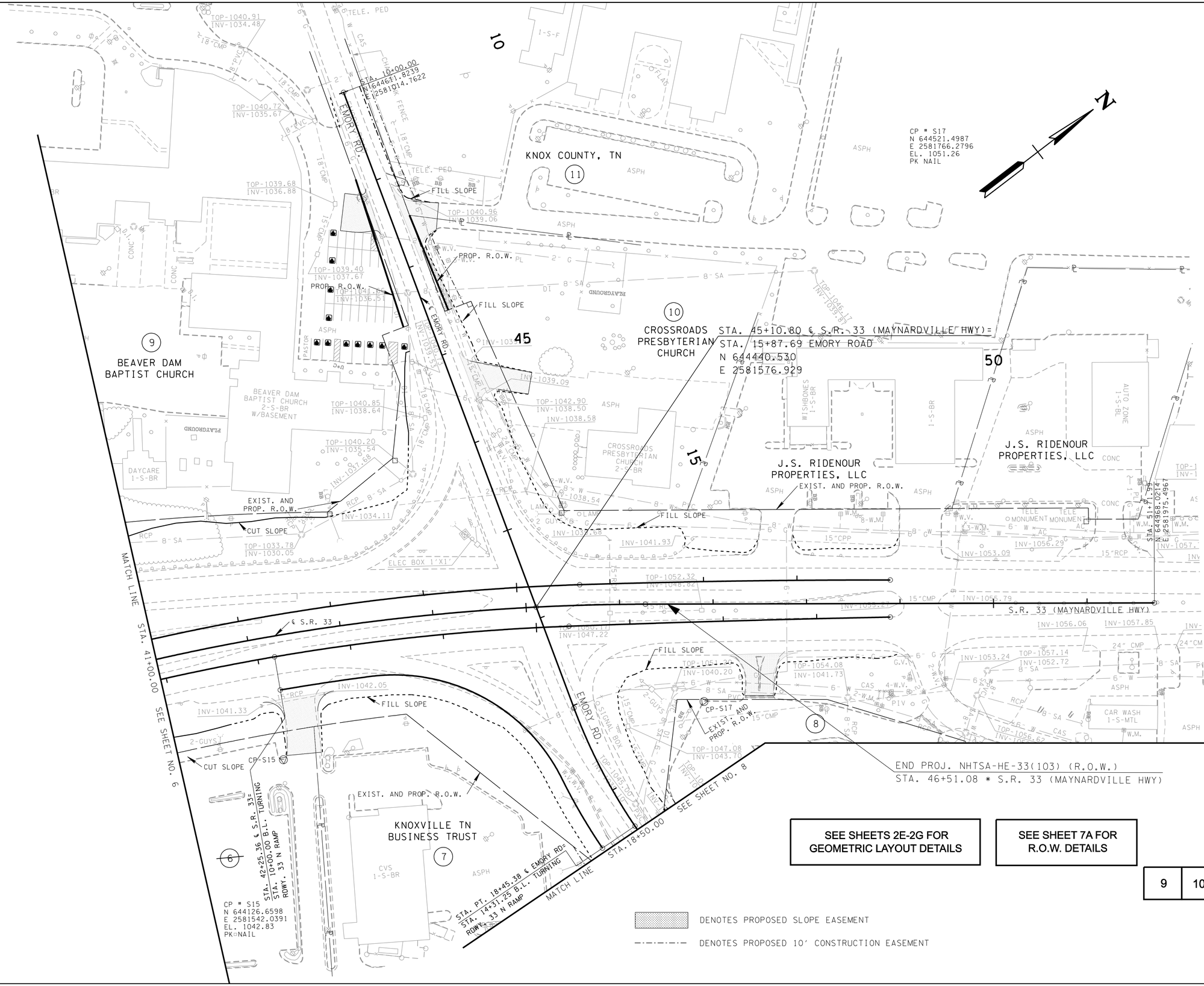
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	7
CONST.	2014	HSIP-33(116)	7

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; LOCATED PARKING STALLS FOR TRACT 9. REVISED CONST. EASEMENT ON TRACT 6.

REV. 08-12-2014; REVISED PROPOSED RIGHT OF WAY AND SLOPE AND CONST. EASEMENT ON TRACT 9. ADDED DWY AT STA. 11+30 RT EMORY RD. REVISED SLOPE LIMITS AND ELIMINATED SLOPE AND CONST. EASEMENT ON TRACT 6.



SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 7A FOR R.O.W. DETAILS

Keymap

	7	8
	6	
9	10	5
		4

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

9:01:54 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	7A
CONST.	2014	HSIP-33(116)	7A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED CONST. EASEMENT ON TRACT 6.

REV. 08-12-2014; REVISED PROPOSED RIGHT OF WAY AND SLOPE AND CONST. EASEMENT ON TRACT 9. ADDED DWY AT STA. 11+30 RT EMORY RD. REVISED SLOPE LIMITS AND ELIMINATED SLOPE AND CONST. EASEMENT ON TRACT 6.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

CP = S17
N 644521.4987
E 2581766.2796
EL. 1051.26
PK NAIL

KNOX COUNTY, TN
(11)

(10)
CROSSROADS PRESBYTERIAN CHURCH

(9)
BEAVER DAM BAPTIST CHURCH

STA. 45+10.80 ℄ S.R. 33 (MAYNARDVILLE HWY)=
STA. 15+87.69 EMORY ROAD
N 644440.530
E 2581576.929

EXIST. R.O.W.
STA. 10+00.00
N 644611.8239
E 2581014.1622
EXIST. EMORY RD.
S72°22'08"E
120.78'

10+91.63
20.49'
S72°23'46"E
311.42'
N70°27'47"W
166.16'
165.95'
22.39'
12+57.57
5.61'
S72°54'26"E
55.00'
S46°50'17"E
80.28'
S2°02'21"E
90.30'
EXIST. AND PROP. R.O.W.
A=214.54'
R=2,576.21'
Ch=S34°34'00"W
214.48'
CUT
FILL

FILL SLOPE
11+47.70
19.94'
N72°42'08"W
109.49'
S74°48'04"E
109.50'
PROP. R.O.W.
12+57.15
23.28'
S16°25'39"W
30.00'
12+57.19
19.27'
45
℄ EMORY RD.
FILL
N76°30'43"W
244.94'

PROP. R.O.W.
12+57.62
28.00'
S16°25'39"W
30.00'

MATCH LINE STA. 41+00.00 SEE SHEET NO. 6A

A=463.23'
R=2,216.83'
Ch=N22°30'33"E
462.38'
CP-S15
EIP
CUT
FILL
STA. 42+25.36 ℄ S.R. 33 B.L. TURNING RDWY. 33 N RAMP
STA. 10+00.00 B.L. TURNING RDWY. 33 N RAMP
A=99.73'
R=2,216.83'
Ch=N29°45'29"E
99.72'
EXIST. AND PROP. R.O.W.
N75°50'13"E
276.59'
S56°44'02"E
276.50'
CP = S15
N 644126.6598
E 2581542.0391
EL. 1042.83
PK NAIL

KNOXVILLE TN BUSINESS TRUST
(7)

STA. PT. 18+45.38 ℄ EMORY RD=
STA. 14+31.25 B.L. TURNING RDWY. 33 N RAMP
MATCH LINE STA. 18+50.00

J.S. RIDENOUR PROPERTIES, LLC
EXIST. AND PROP. R.O.W.
S37°10'57"W
132.00'
N37°10'44"E
282.78'
FILL

J.S. RIDENOUR PROPERTIES, LLC
N38°08'51"E
200.41'
N34°53'09"W
85.00'
N35°12'09"W
184.98'
S37°11'21"W
146.04'
N53°43'10"W
11.97'
53.13'
S37°22'51"W
S35°27'09"E
278.67'
STA. 47+71.99
N 644968.0214
E 2581975.4967

S.R. 33 (MAYNARDVILLE HWY)
℄ S.R. 33

FILL
EXIST. AND PROP. R.O.W.
EIP
N37°26'37"E
CP-S17
160.76'
N45°46'17"W
146.57'
18+47.46
36.00'
N54°18'08"E
154.70'
EIP
(8)
EMORY RD.
SEE SHEET NO. 8A
PROP. R.O.W.

END PROJ. NHTSA-HE-33(103) (R.O.W.)
STA. 46+51.08 ℄ S.R. 33 (MAYNARDVILLE HWY)

(6)

DENOTES PROPOSED SLOPE EASEMENT
DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

Keymap

7A	8A	
6A		
5A		
4A		

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

UNOFFICIAL SET
NOT FOR BIDDING

9:02:00 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	7B
CONST.	2014	HSIP-33(116)	7B

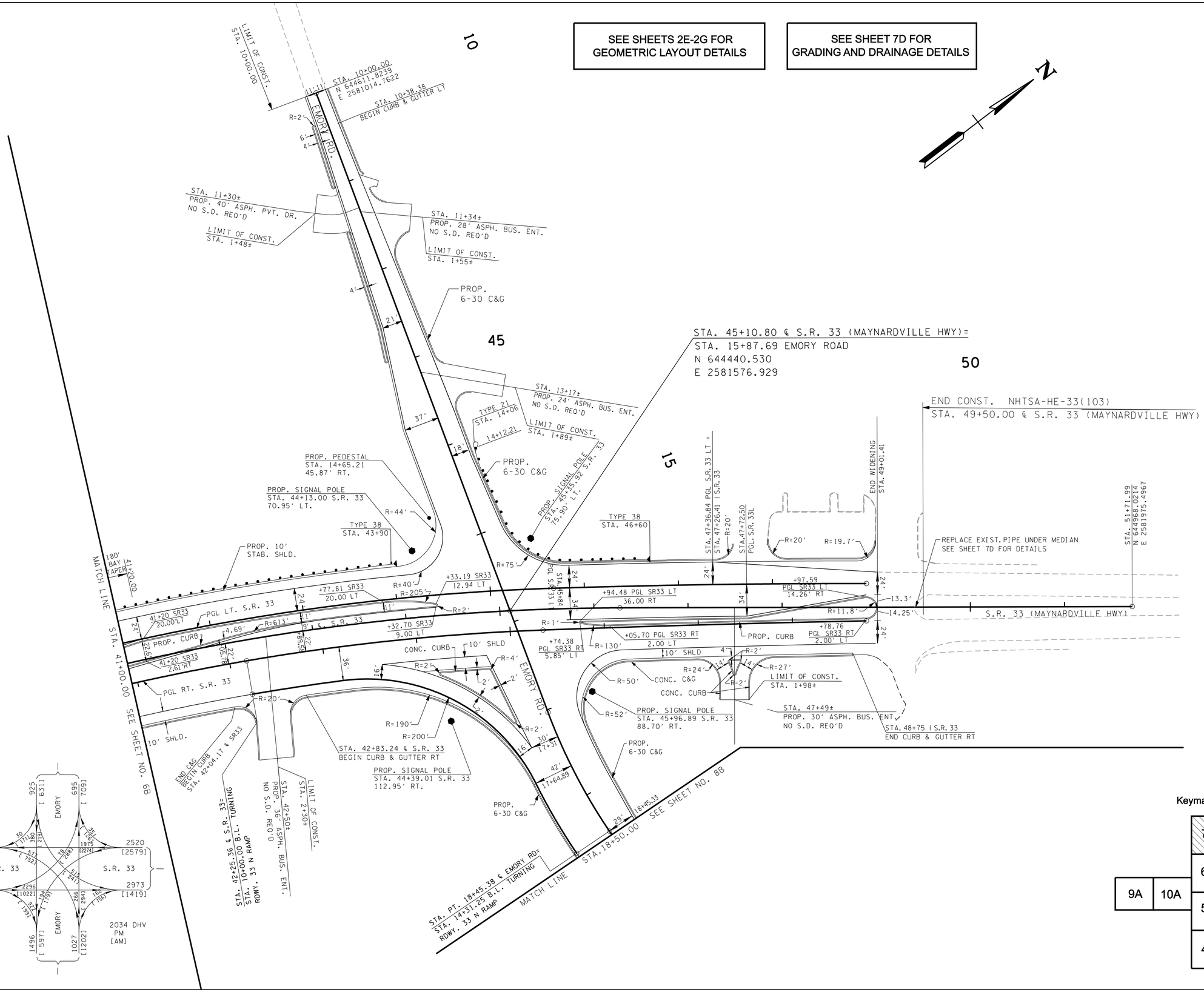
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED RIGHT TURN LANES ON EMORY EAST AND WEST TO SR 33.

REV. 08-12-2014; ADDED DWY AT STA. 11+30 RT EMORY RD. ADDED CURB AND GUTTER ALONG SR33 RT FROM ANDERSONVILLE PIKE TO EMORY ROAD.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 7D FOR GRADING AND DRAINAGE DETAILS



Keymap

	7B	8B
9A	10A	6B
		5B
		4B

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

9:02:04 AM
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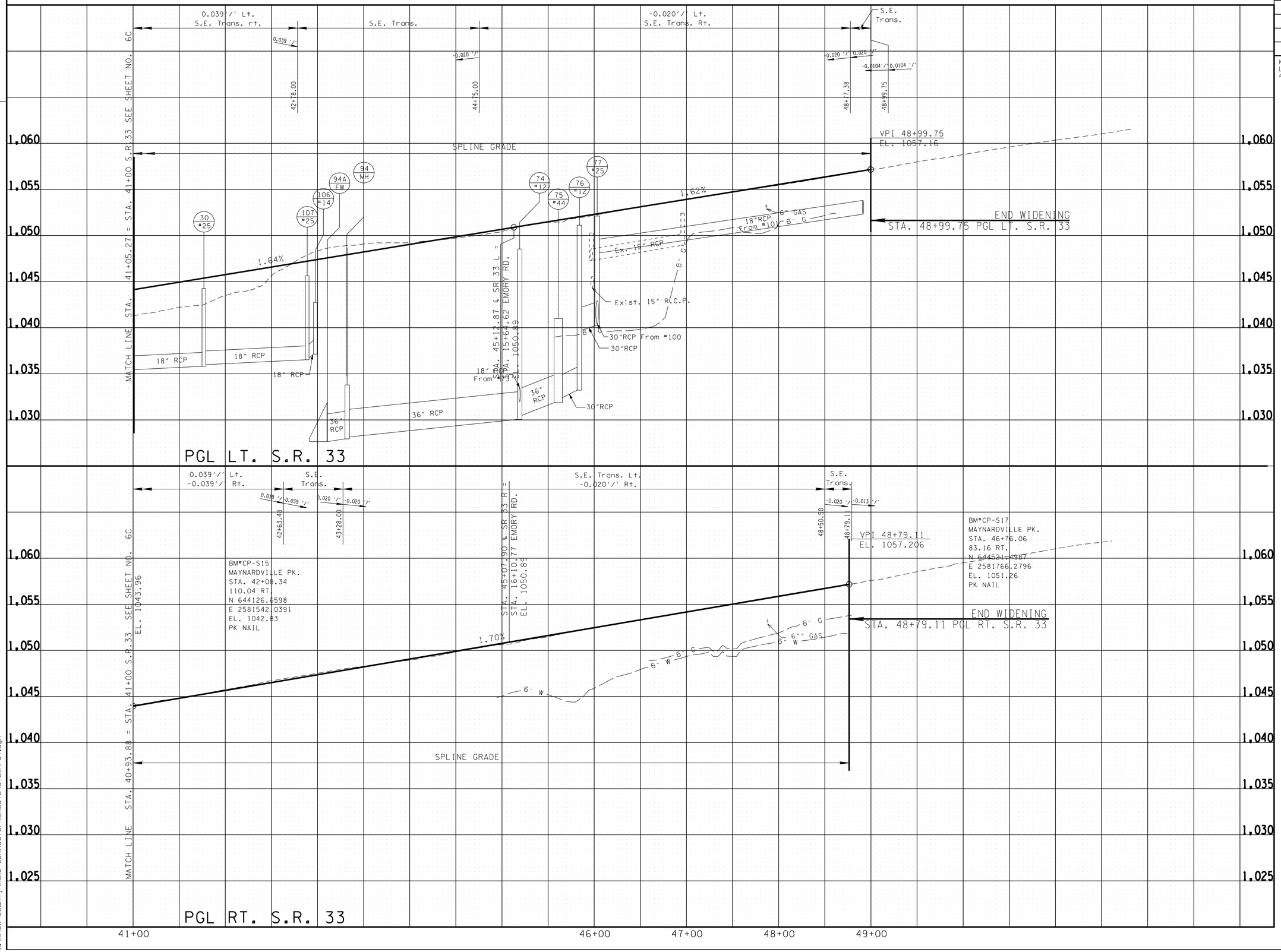
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	7C
CONST.	2014	HSIP-33(116)	7C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 41+00 TO END PROJECT
S.R. 33

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

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

STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
30	41+73.00	2' RT	PGL SR33L	1045.14	106	1041.09	107	1040.21
106	42+77.00	48' RT	PGL SR33R	1045.14	107	1040.05	30	1038.97
107	42+85.00	2' RT	PGL SR33L	1047.08	30	1038.80	29	1035.04
72	12+00.00	16.67' LT	EMORY	1041.97	75A	1041.83	75	1032.51
73	13+72.00	21' LT	EMORY	1044.98	92	1038.00	99	1037.80
74	14+95.00	25.21' LT	EMORY	1048.75	95	1042.02	100	1041.65
75	15+11.50	67' LT	EMORY	1041.20	100	1041.44	77	1040.69
76	45+80.00	26.05' LT	PGL SR33L	1051.33	109	1032.80	73	1032.46
77	45+99.00	36' RT	PGL SR33L	1052.32	108	1033.40	108A	1033.30
78	17+75.00	33' LT	EMORY	1047.38	78	1043.50	82	1043.38
82	17+77.00	47' LT	EMORY	1047.20	82	1043.21	95	1042.96
92	11+63.00	15.63' LT	EMORY	1042.11	101	1052.70	77	1048.32
94	14+30.40	158' RT	EMORY	1034.50	92A	1038.30	92	1038.20
95	17+47.00	50' LT	EMORY	1046.90	108A	1033.10	109	1032.97
99	11+79.00	16.1' LT	EMORY	1042.08	108B	1038.55	108C	1037.96
100	16+86.00	59.68' LT	EMORY	1050.08	108C	1037.63	108D	1037.53
101	49+50.00	0'	SR33	1055.70	108D	1037.36	72	1037.00
108	13+00.00	38' LT	EMORY	1040.30	72	1033.45	109	1032.97
109	13+00.00	19.46' LT	EMORY	1043.14	73	1032.29	74	1031.70
75A	46+73.00	49.5' LT	PGL SR33L	1047.00	74	1030.27	94	1028.36
92A	11+47.00	15.18' LT	EMORY	1042.18	75	1032.17	74	1030.70
92B	11+38.10	34.2' LT	EMORY	1042.50	76	1033.50	75	1032.51
94A	14+26.00	180' RT	EMORY	N/A	77	1040.48	76	1039.89
108A	13+00.00	24.75' LT	EMORY	1043.71	99	1037.60	72	1037.50
108B	10+98.00	15.72' RT	EMORY	1042.64	92B	1039.06	108A	1038.60
108C	11+79.00	19.38' RT	EMORY	1042.01	94	1028.15	94A	1027.86
108D	12+00.00	20.33' RT	EMORY	1042.03				

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	7-D
CONST.	2014	HSIP-33(116)	7-D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED RIGHT TURN LANES ON EMORY EAST AND WEST TO SR 33. ADJUSTED DRAINAGE ON EMORY EAST AND UPDATED PROP. CONTOURS.

REV. 08-12-2014; ADDED MH 75A AND TIED EXISTING 15" CPP INTO STR. 75.

STA. 10+00.00
N 644611.8239
E 2581014.1622

LIMIT OF CONST. STA. 10+00.00

EMORY RD.

Exist. 18" RCP To Remain

18" RCP

92B EX
92A #10
92 #10
99 #10
72 #12
108A MH
109 #12
108 #42
73 #12
74 #12
75 #44
75A #MH
94A EW
94 MH
107 #25
30 #25
106 #14
108C #14
108D #12
108B #12
100 #12
95 #42
82 #42
78 #12
77 #25
76 #12
101 #42

CLASS "C" RIP-RAP

36" RCP

30" RCP

EXIST. 15" CPP

EXIST. 15" CMP TO REMAIN

PGL LT. S.R. 33

℄ S.R. 33

PGL RT. S.R. 33

STA. 45+10.80 ℄ S.R. 33 (MAYNARDVILLE HWY)=
STA. 15+87.69 EMORY ROAD
N 644440.530
E 2581576.929

END WIDENING STA. 49+01.41

END CONST. NHTSA-HE-33(103)
STA. 49+50.00 ℄ S.R. 33 (MAYNARDVILLE HWY)

STA. 51+71.99
N 644968.0214
E 2581975.4967

INV-1053.09
INV-1056.29
INV-1057.
INV-1053.24

S.R. 33 (MAYNARDVILLE HWY)
SR 33 (MAYNARDVILLE HWY)

MATCH LINE STA. 41+00.00 SEE SHEET NO. 6-D

STA. 42+25.36 ℄ S.R. 33=
STA. 10+00.00 B.L. TURNING
RDWY. 33 N RAMP

STA. PT. 18+45.38 ℄ EMORY RD=
STA. 14+31.25 B.L. TURNING
RDWY. 33 N RAMP

MATCH LINE STA. 18+50.00 SEE SHEET NO. 8-D

Keymap

	7D	8D
	6D	
9C	10C	5D
		4D

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
No. 103505
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

12:03:31PM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	8
CONST.	2014	HSIP-33(116)	8

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

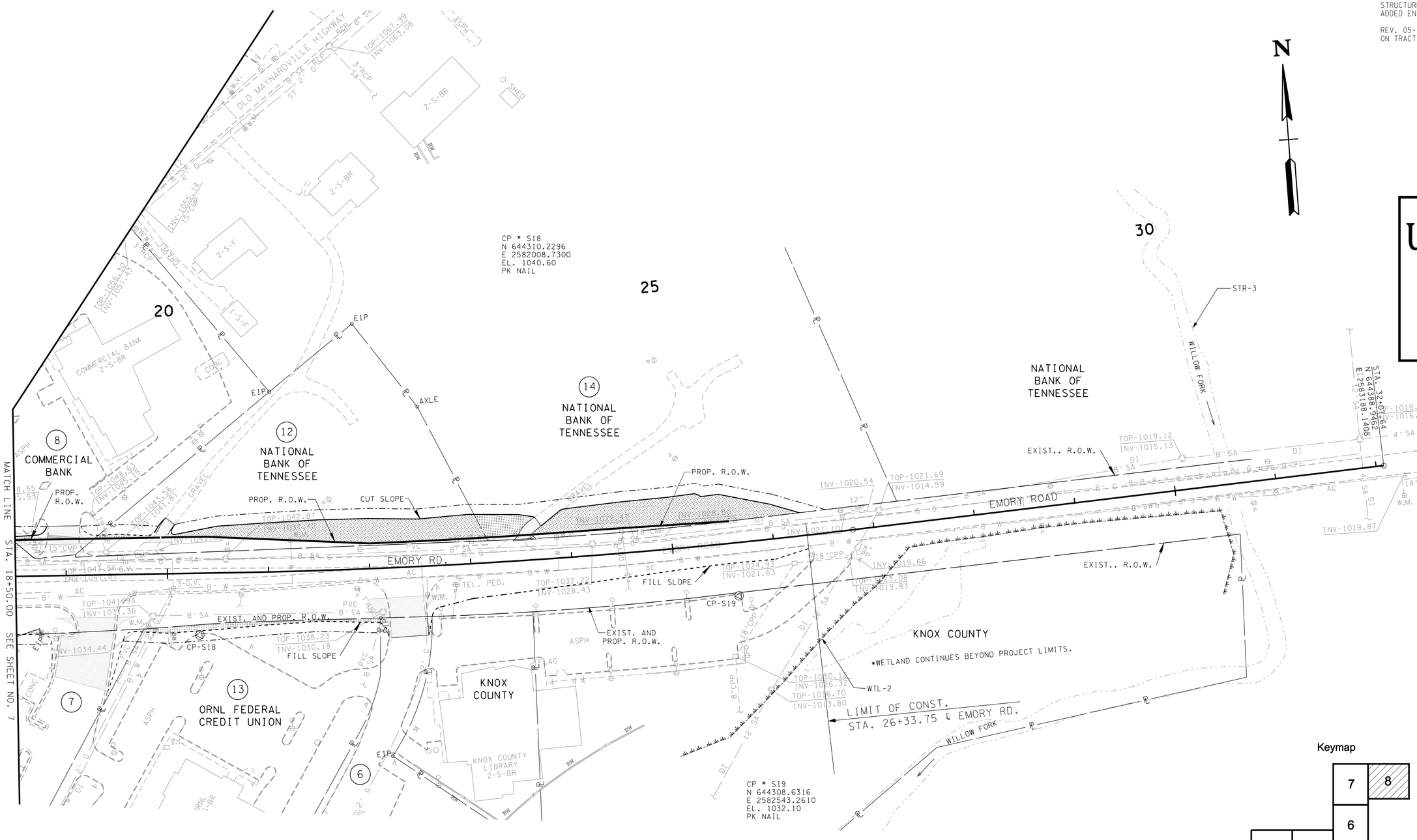
REV. 05-09-2014; REMOVED EXISTING STRUCTURES FROM TRACTS 12 AND 14. ADDED ENVIRONMENTAL FEATURES.

REV. 05-15-2014; REVISED OWNER NAMES ON TRACTS 12 AND 14.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 8A FOR R.O.W. DETAILS

UNOFFICIAL SET
NOT FOR BIDDING



Keymap

7	8		
6			
9	10	5	
		4	

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT
STA. 18+50 TO LIMIT OF CONST. EMORY RD.
SCALE: 1"= 50'

9/2/2014 9:02:17 AM
M:\Knox County\Halls Connector\Sheets\08_Pres.dgn

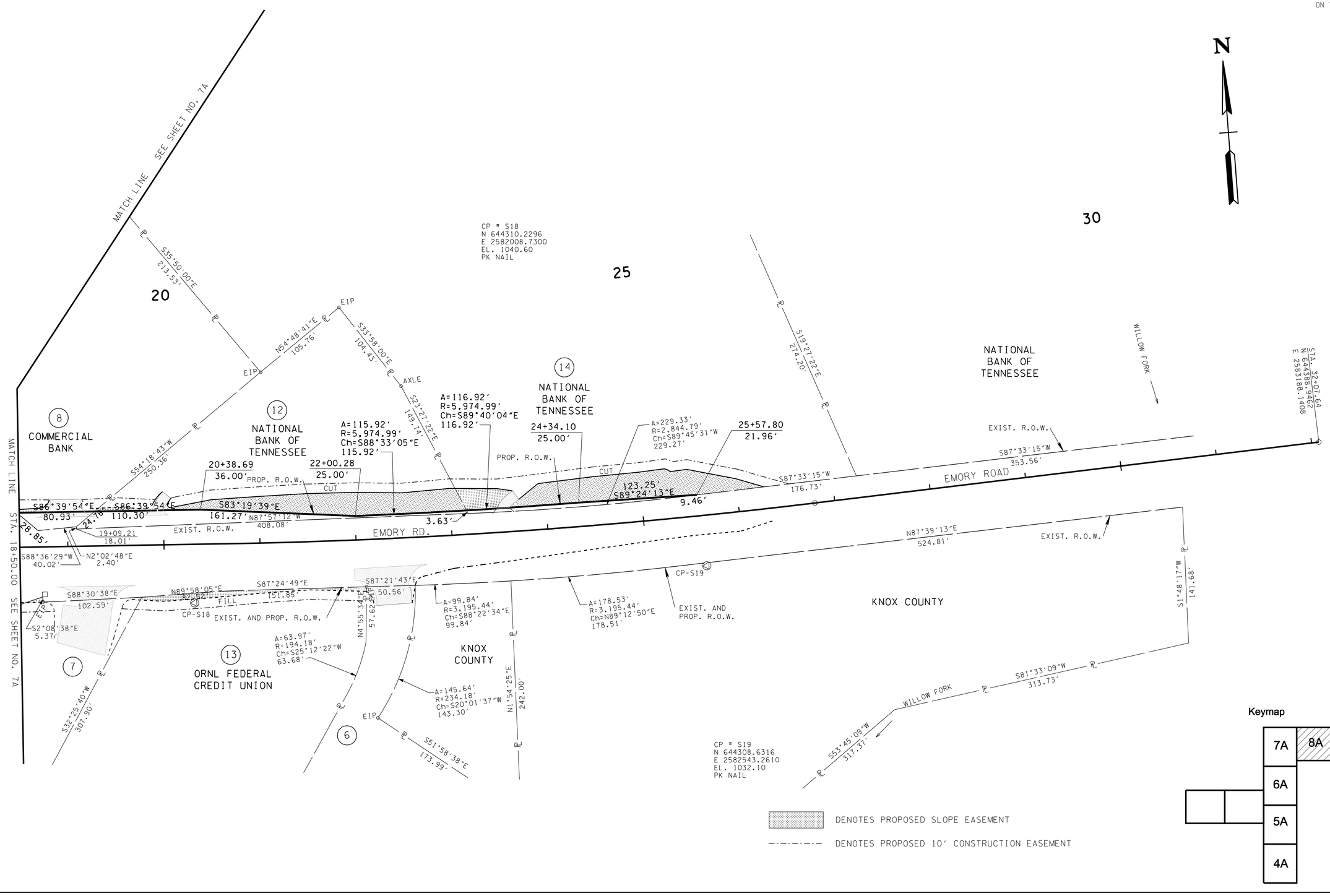
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	8A
CONST.	2014	HSIP-33(116)	8A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-15-2014; REVISED OWNER NAMES ON TRACTS 12 AND 14.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS



DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

Keymap

7A	8A
6A	
5A	
4A	

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAIL

STA. 18+50 TO LIMIT OF CONST. EMORY RD.

SCALE: 1"= 50'

9:02:21 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

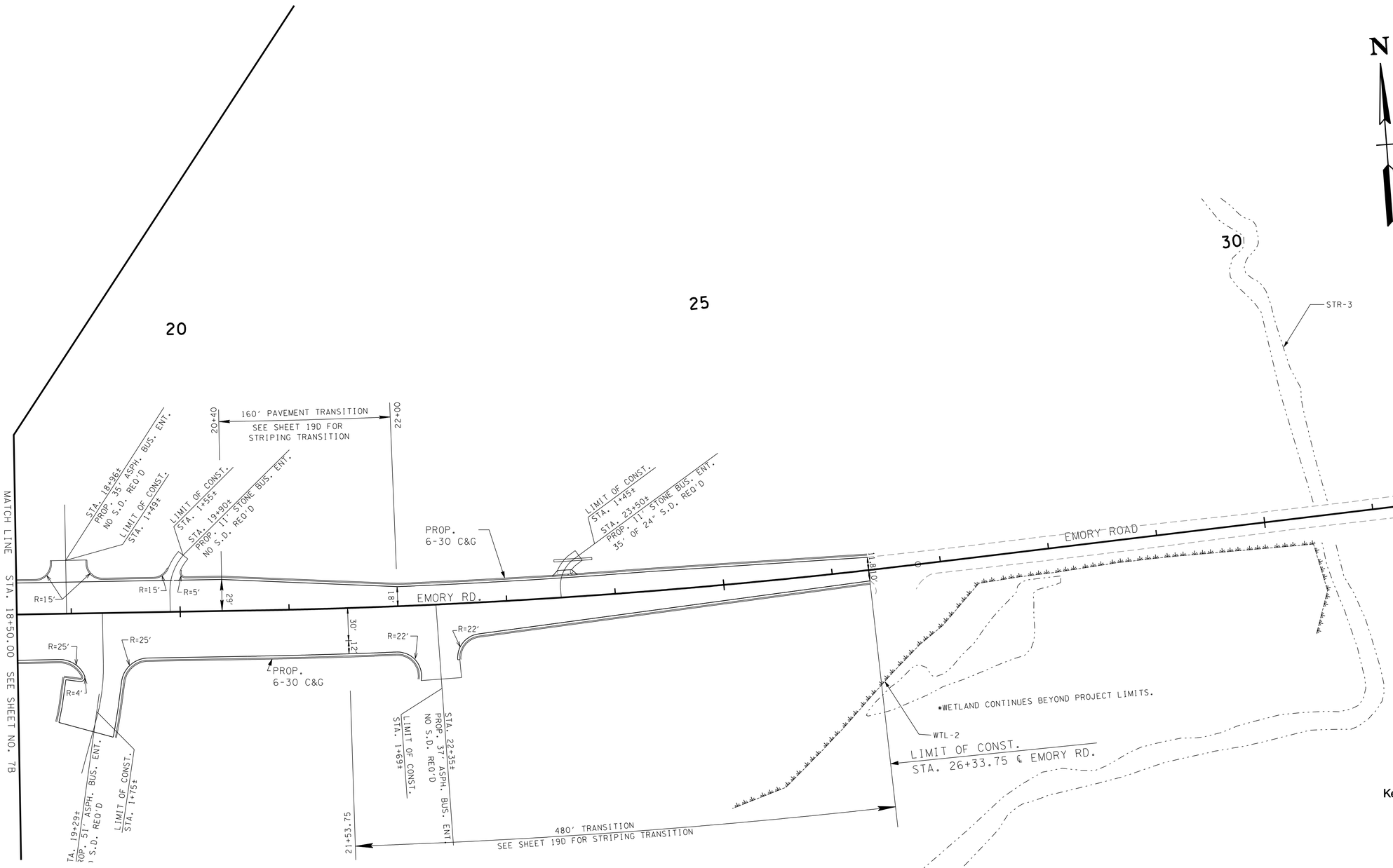
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	8B
CONST.	2014	HSIP-33(116)	8B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED ENVIRONMENTAL FEATURES.

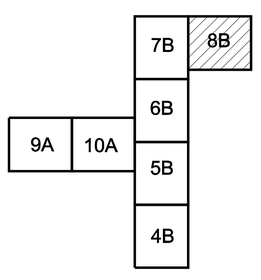
SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 8D FOR GRADING AND DRAINAGE DETAILS



UNOFFICIAL SET
NOT FOR BIDDING

Keymap



SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 18+50 TO END PROJECT
EMORY RD.

SCALE: 1"= 50'

9:02:24 AM
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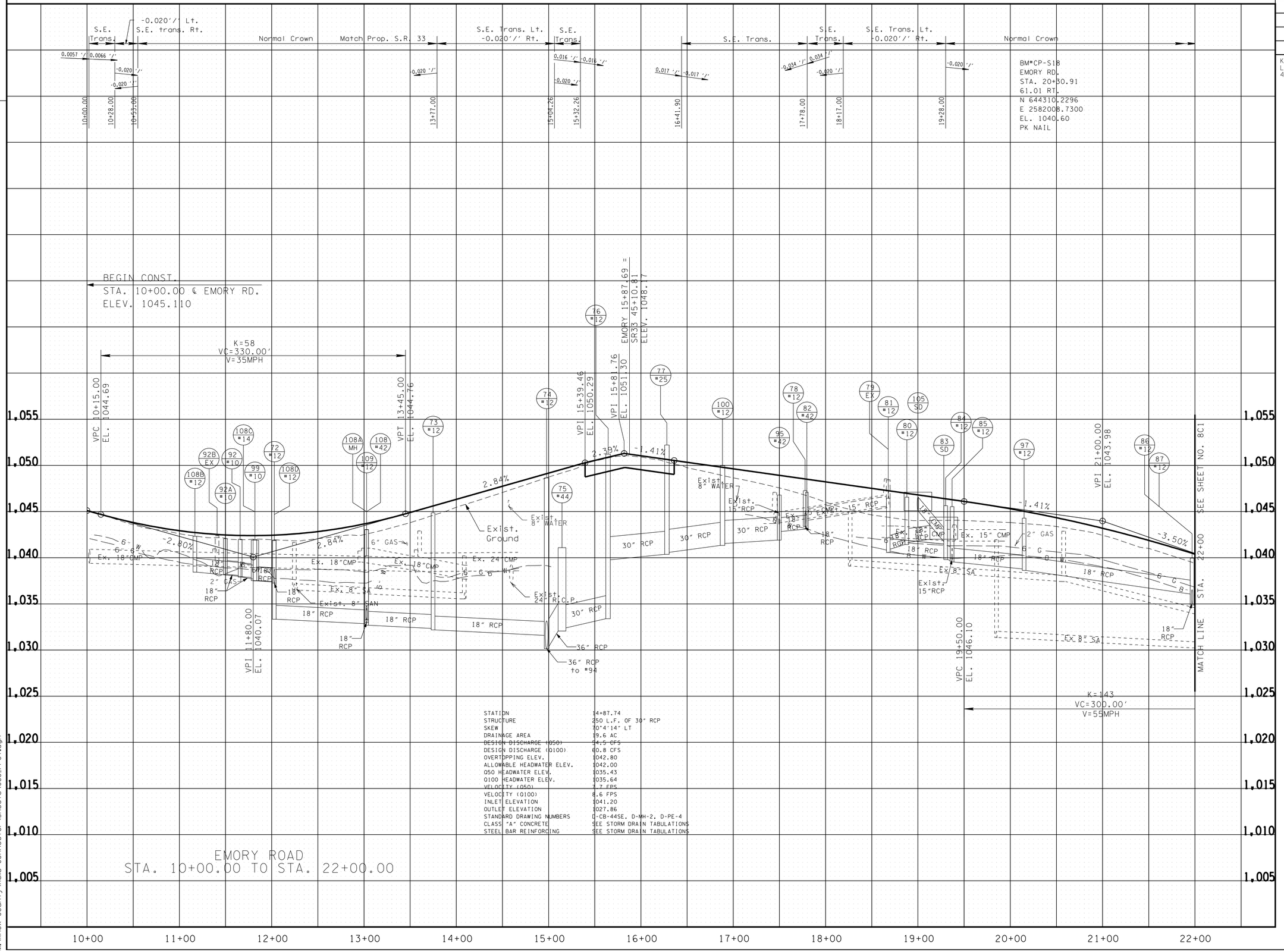
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	8C
CONST.	2014	HSIP-33(116)	8C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



STATION	14+87.74
STRUCTURE	250 L.F. OF 30" RCP
SKEW	10°4'14" LT
DRAINAGE AREA	19.6 AC
DESIGN DISCHARGE (Q50)	54.5 CFS
DESIGN DISCHARGE (Q100)	60.8 CFS
OVERTOPPING ELEV.	1042.80
ALLOWABLE HEADWATER ELEV.	1042.00
Q50 HEADWATER ELEV.	1035.43
Q100 HEADWATER ELEV.	1035.64
VELOCITY (Q50)	7.7 FPS
VELOCITY (Q100)	8.6 FPS
INLET ELEVATION	1041.20
OUTLET ELEVATION	1027.86
STANDARD DRAWING NUMBERS	D-CB-44SE, D-MH-2, D-PE-4
CLASS "A" CONCRETE	SEE STORM DRAIN TABULATIONS
STEEL BAR REINFORCING	SEE STORM DRAIN TABULATIONS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA.10+00 TO STA.22+00
EMORY RD.

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

9:02:26 AM
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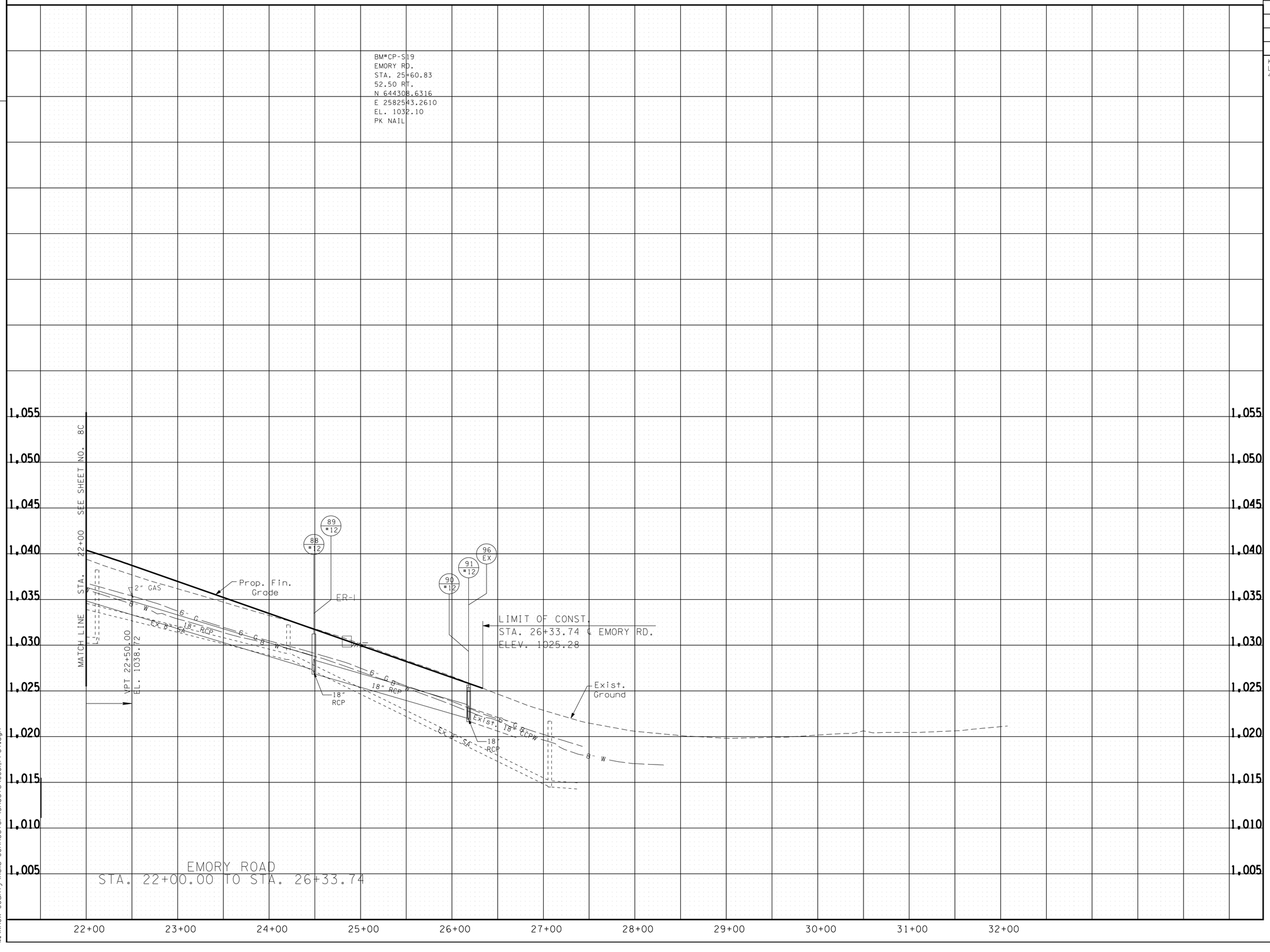
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	8C1
CONST.	2014	HSIP-33(116)	8C1

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



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SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 106,583
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA.22+00 TO LIMT OF CONST
EMORY RD.

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

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

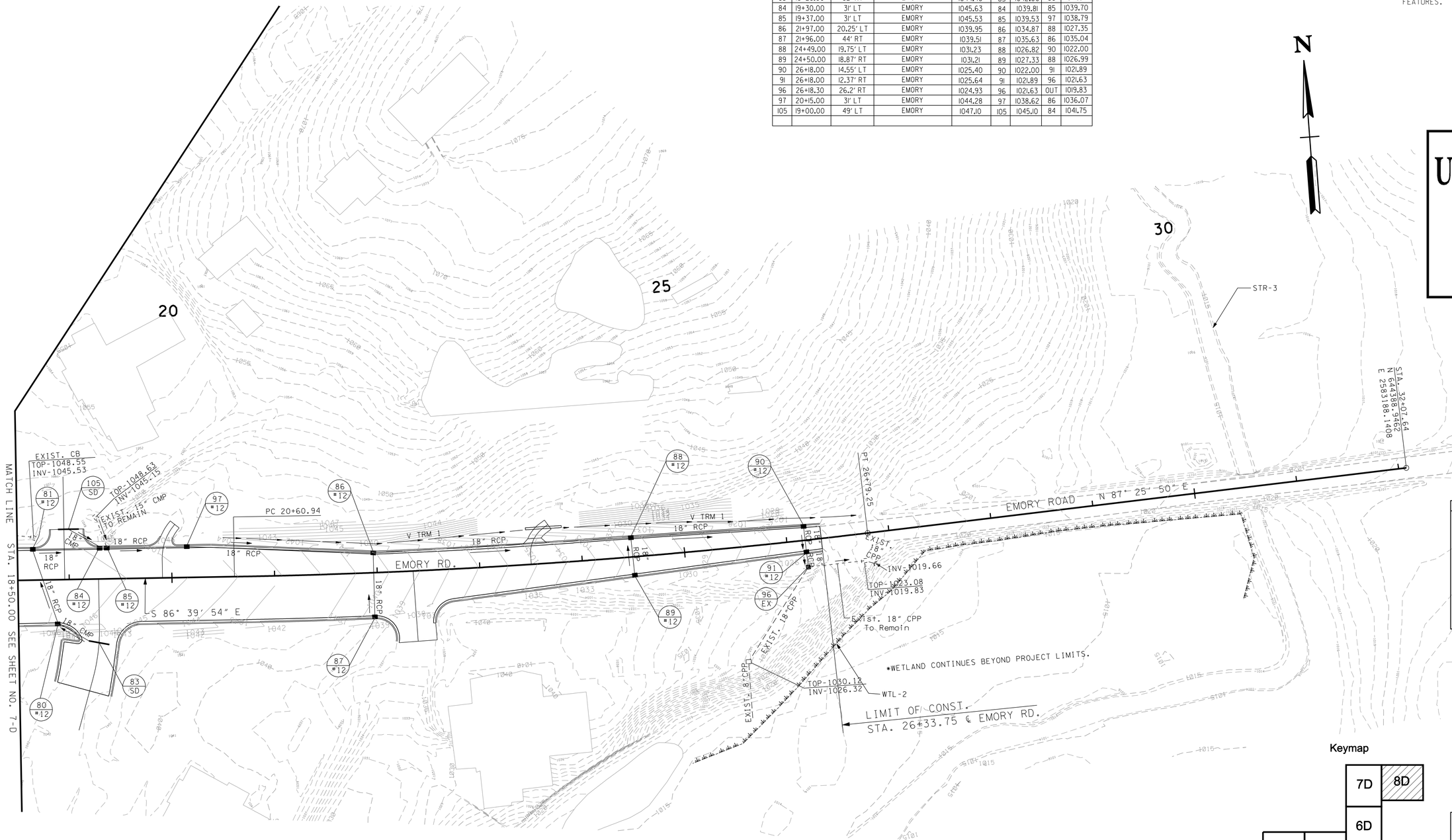
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	8-D
CONST.	2014	HSIP-33(116)	8-D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED ENVIRONMENTAL FEATURES.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
80	18+88.00	44' RT	EMORY	1046.57	80	1041.50	81	1040.76
81	18+65.00	31' LT	EMORY	1046.55	81	1040.59	84	1039.98
83	19+28.00	62' RT	EMORY	1044.40	83	1042.00	80	1041.67
84	19+30.00	31' LT	EMORY	1045.63	84	1039.81	85	1039.70
85	19+37.00	31' LT	EMORY	1045.53	85	1039.53	97	1038.79
86	21+97.00	20.25' LT	EMORY	1039.95	86	1034.87	88	1027.35
87	21+96.00	44' RT	EMORY	1039.51	87	1035.63	86	1035.04
88	24+49.00	19.75' LT	EMORY	1031.23	88	1026.82	90	1022.00
89	24+50.00	18.87' RT	EMORY	1031.21	89	1027.33	88	1026.99
90	26+18.00	14.55' LT	EMORY	1025.40	90	1022.00	91	1021.89
91	26+18.00	12.37' RT	EMORY	1025.64	91	1021.89	96	1021.63
96	26+18.30	26.2' RT	EMORY	1024.93	96	1021.63	OUT	1019.83
97	20+15.00	31' LT	EMORY	1044.28	97	1038.62	86	1036.07
105	19+00.00	49' LT	EMORY	1047.10	105	1045.10	84	1041.75



UNOFFICIAL SET
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SEALED BY
DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 103505
STATE OF TENNESSEE

Keymap

	7D	8D
	6D	
9C	10C	
	5D	
	4D	

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

STA. 18+50 TO END PROJECT
EMORY RD.
SCALE: 1"= 50'

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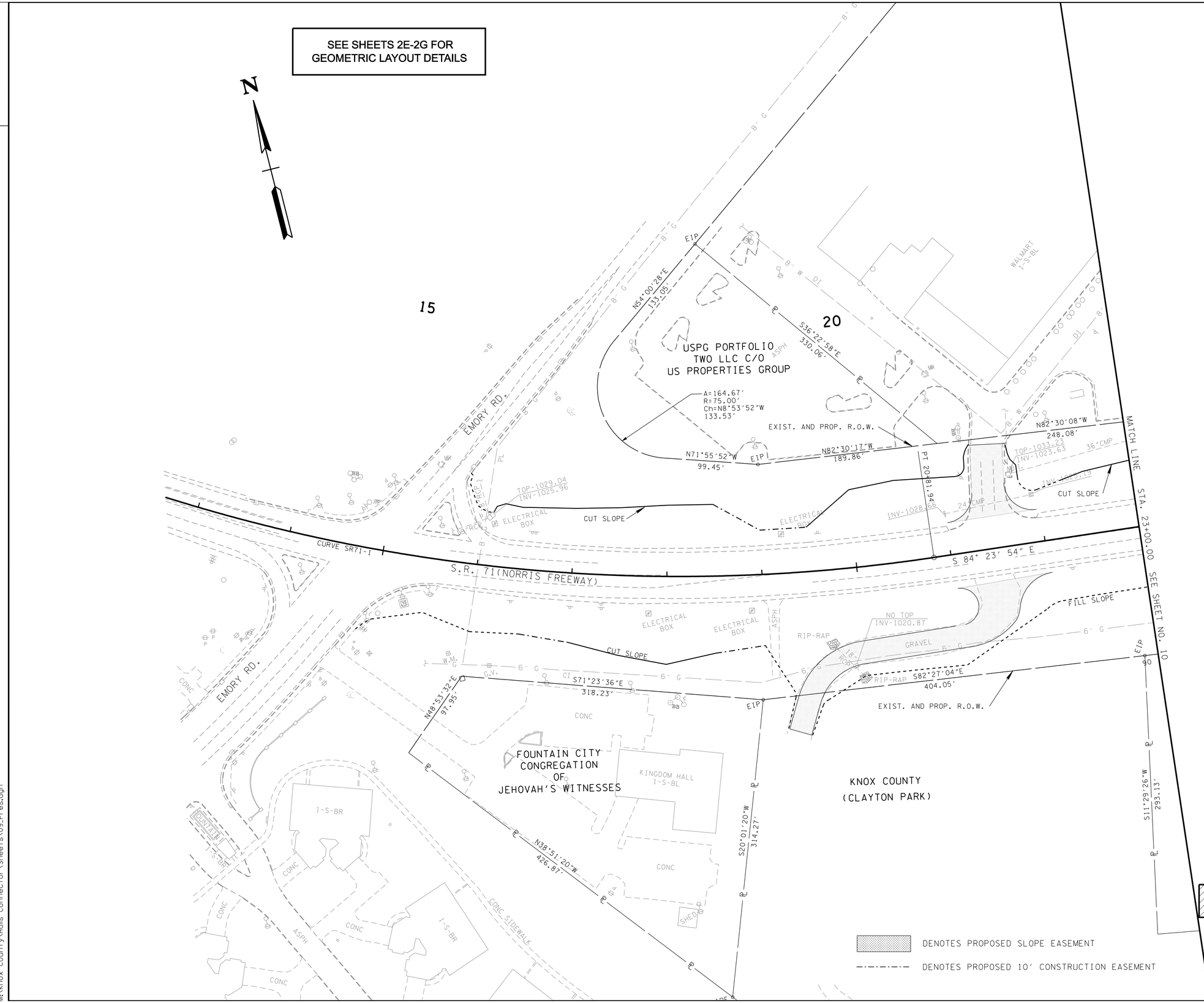
12/2014 1:11 PM

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	9
CONST.	2014	HSIP-33(116)	9

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; LOCATED NEW DRIVEWAY TO CLAYTON PARK, AND ADDED PROPOSED DRIVEWAY IN SAME LOCATION.


SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

UNOFFICIAL SET

NOT FOR BIDDING

Keymap

	7	8
	6	
9	10	5
		4

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

LIMIT OF CONST TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

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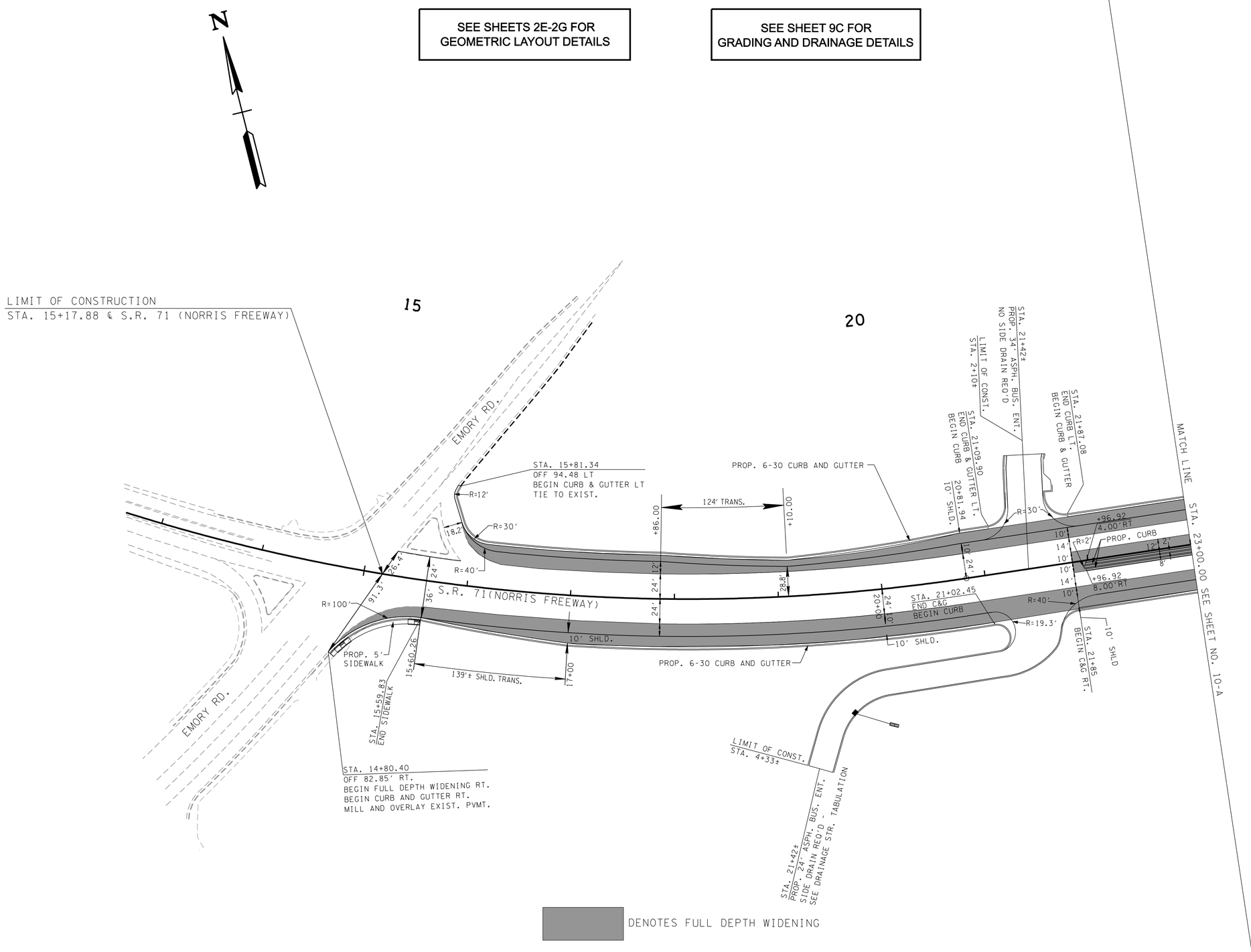
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	9-A
CONST.	2014	HSIP-33(116)	9-A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

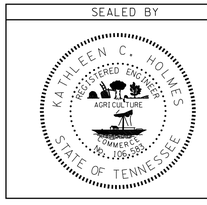
REV. 05-09-2014; REVISED PAVEMENT WIDTHS OF SR 71 FROM STA. 15+00 TO STA. 21+00 AND UPDATED LIMITS OF CONST. ADDED DWY AT STA. 21+42± RT. REVISED MEDIAN TO PROVIDE LEFT TURN LANE FOR NEW DRIVEWAY.



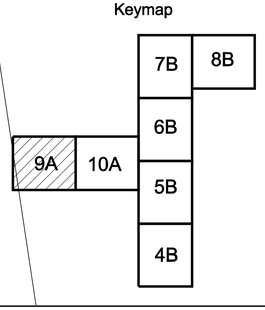
UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



Keymap



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

LIMIT OF CONST. TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)

SCALE: 1"= 50'

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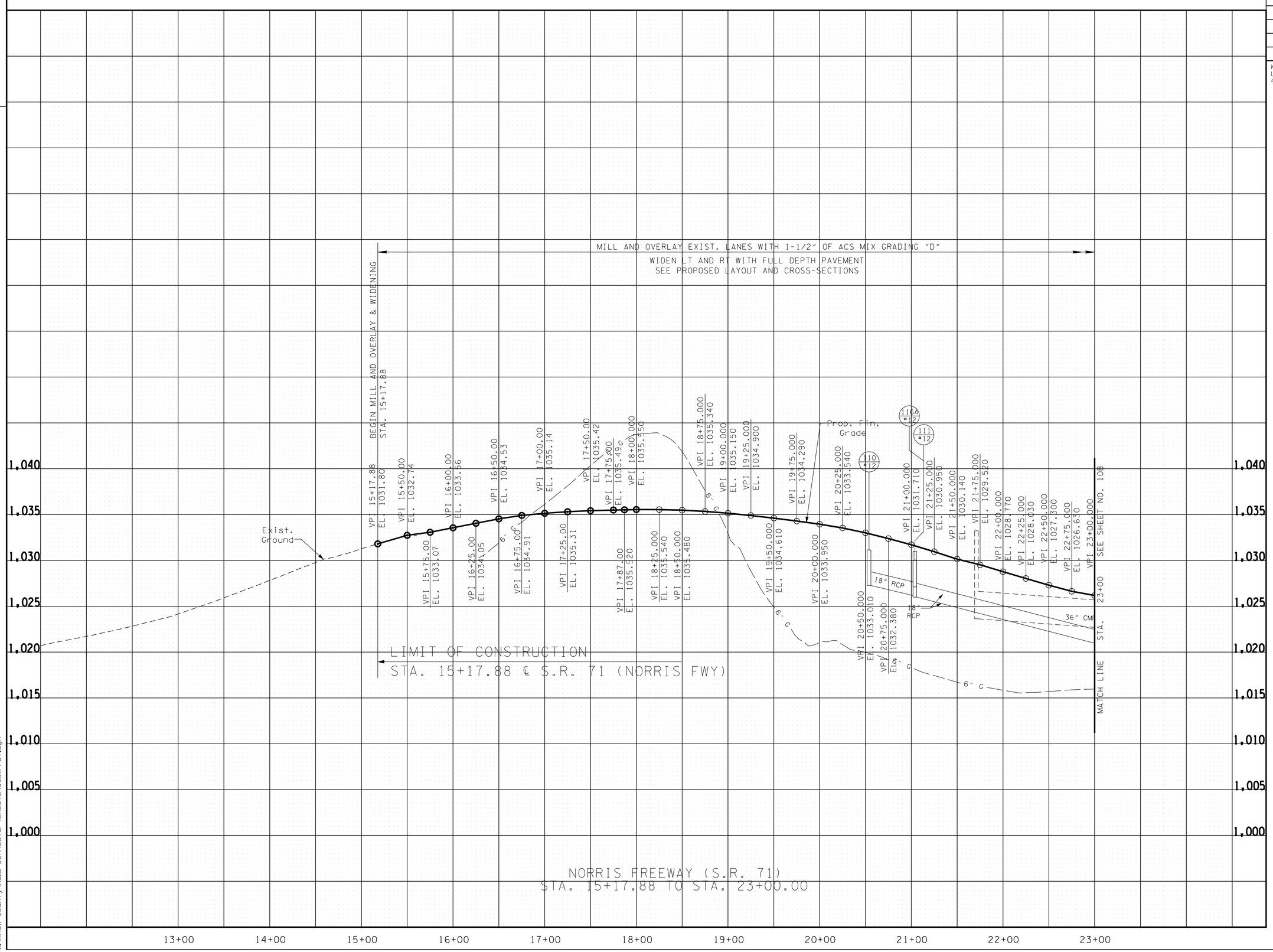
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	9B
CONST.	2014	HSIP-33(116)	9B

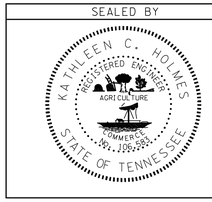
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

LIMIT OF CONST. TO STA. 23+00
S.R. 71 (NORRIS FWY)

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

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

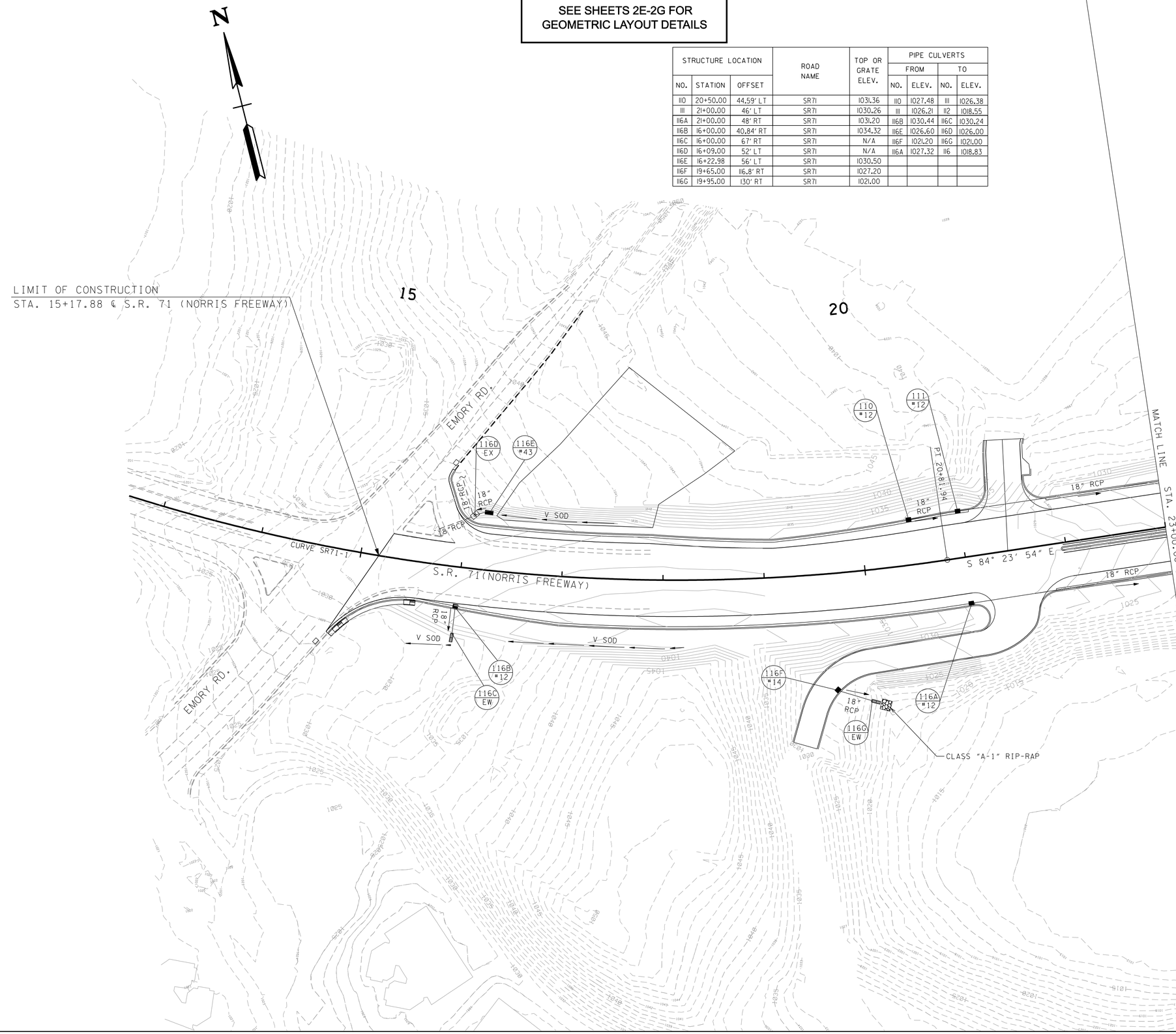
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	9-C
CONST.	2014	HSIP-33(116)	9-C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED PAVEMENT WIDTHS OF SR 71 FROM STA. 15+00 TO STA. 21+00 AND UPDATED LIMITS OF CONST. ADDED DWY AT STA. 21+42± RT. REVISED DRAINAGE ALONG SR 71 AND UPDATED PROP. CONTOURS.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
110	20+50.00	44.59' LT	SR71	1031.36	110	1027.48	111	1026.38
111	21+00.00	46' LT	SR71	1030.26	111	1026.21	112	1018.55
116A	21+00.00	48' RT	SR71	1031.20	116B	1030.44	116C	1030.24
116B	16+00.00	40.84' RT	SR71	1034.32	116E	1026.60	116D	1026.00
116C	16+00.00	67' RT	SR71	N/A	116F	1021.20	116G	1021.00
116D	16+09.00	52' LT	SR71	N/A	116A	1027.32	116	1018.83
116E	16+22.98	56' LT	SR71	1030.50				
116F	19+65.00	116.8' RT	SR71	1027.20				
116G	19+95.00	130' RT	SR71	1021.00				



UNOFFICIAL SET

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SEALED BY

DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 103508
STATE OF TENNESSEE

Keymap

	7D	8D
	6D	
9C	10C	
	5D	
	4D	

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

LIMIT OF CONST. TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

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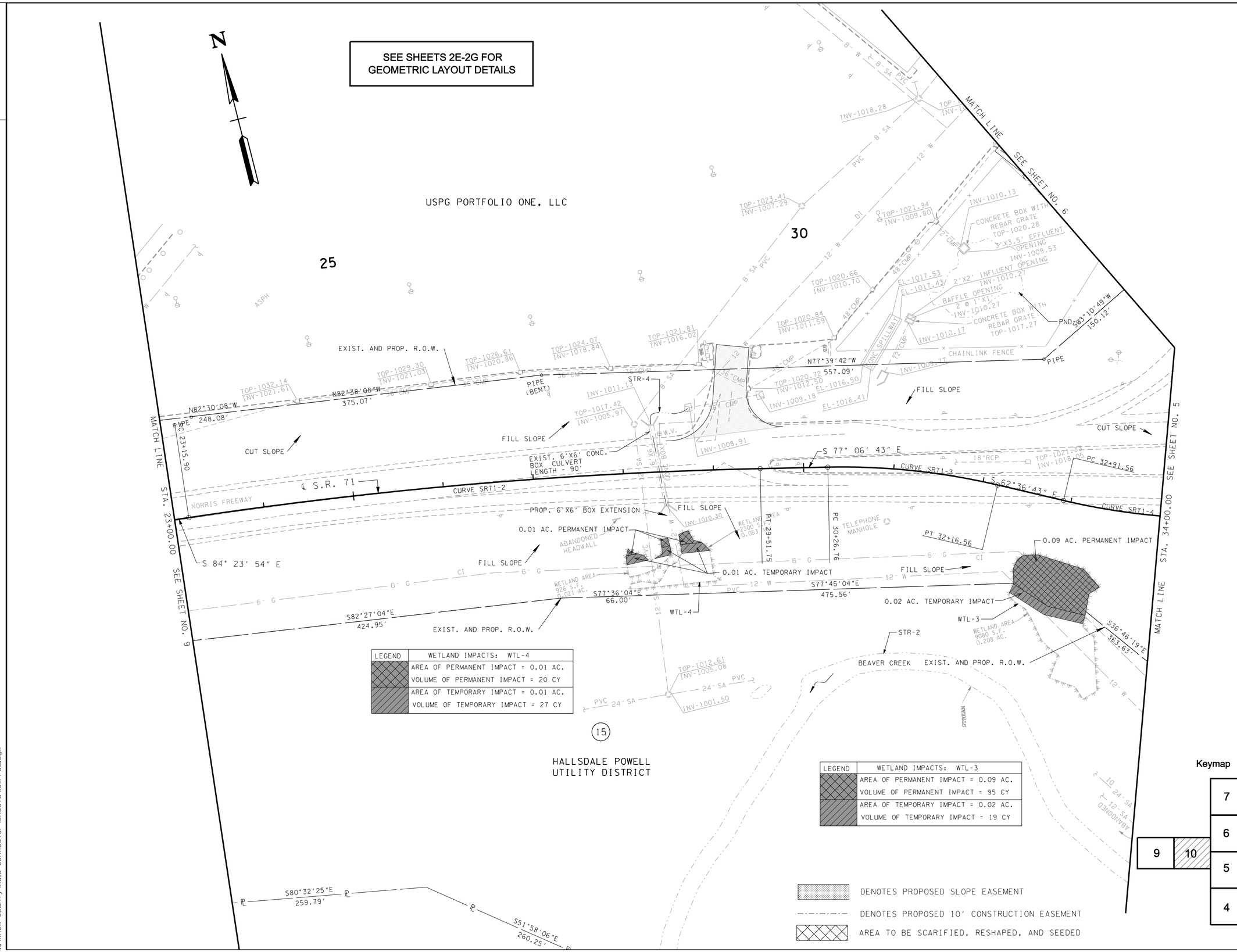
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	10
CONST.	2014	HSIP-33(116)	10

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED ENVIRONMENTAL FEATURES.



LEGEND	WETLAND IMPACTS: WTL-4
	AREA OF PERMANENT IMPACT = 0.01 AC.
	VOLUME OF PERMANENT IMPACT = 20 CY
	AREA OF TEMPORARY IMPACT = 0.01 AC.
	VOLUME OF TEMPORARY IMPACT = 27 CY

LEGEND	WETLAND IMPACTS: WTL-3
	AREA OF PERMANENT IMPACT = 0.09 AC.
	VOLUME OF PERMANENT IMPACT = 95 CY
	AREA OF TEMPORARY IMPACT = 0.02 AC.
	VOLUME OF TEMPORARY IMPACT = 19 CY

DENOTES PROPOSED SLOPE EASEMENT

DENOTES PROPOSED 10' CONSTRUCTION EASEMENT

AREA TO BE SCARIFIED, RESHAPED, AND SEEDED

Keymap

	7	8
	6	
9	10	5
		4

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	10-A
CONST.	2014	HSIP-33(116)	10-A

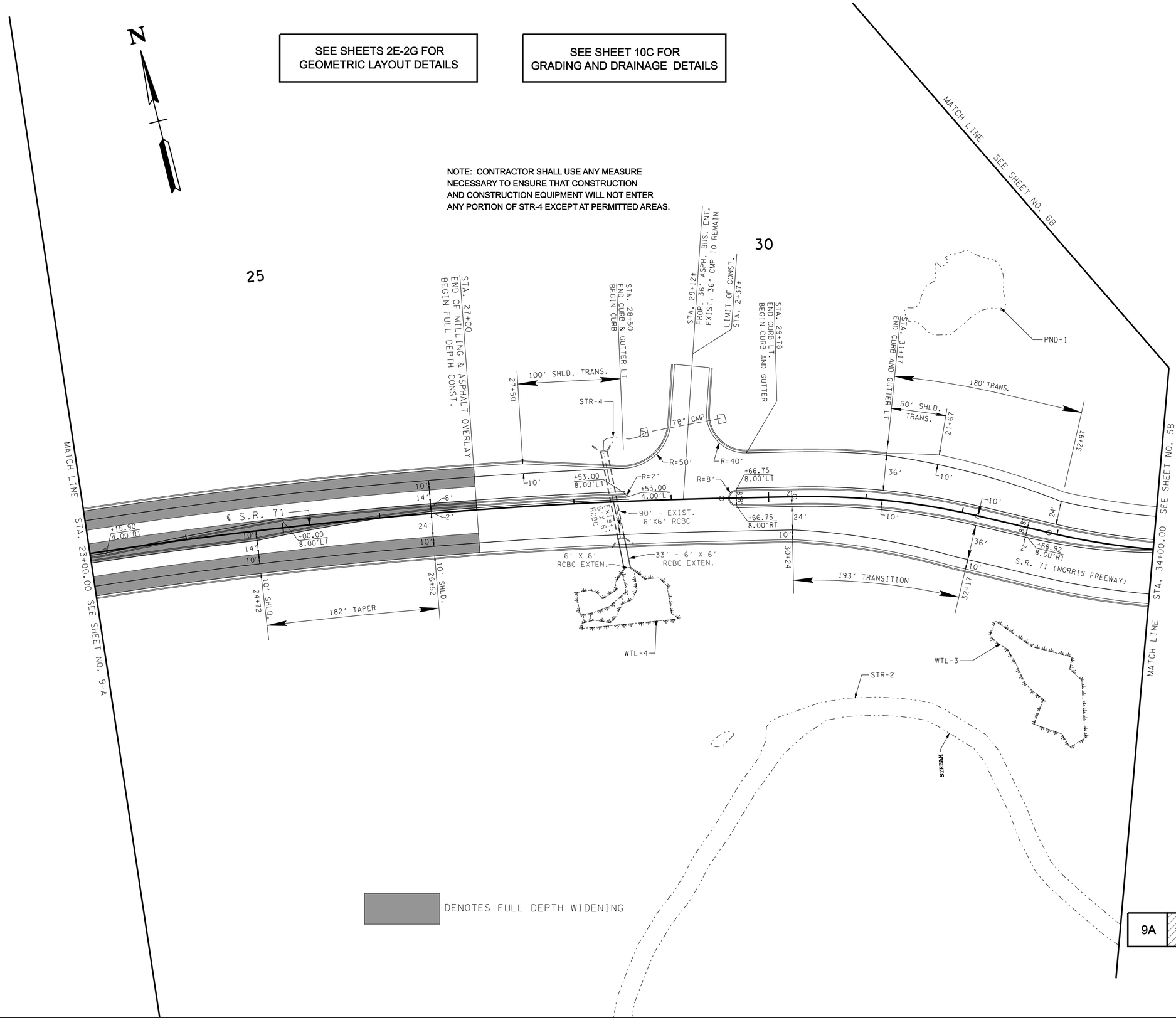
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED ENVIRONMENTAL FEATURES.

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS

SEE SHEET 10C FOR GRADING AND DRAINAGE DETAILS

NOTE: CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION AND CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-4 EXCEPT AT PERMITTED AREAS.



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SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
NO. 109.002

Keymap

9A	10A	7B
		8B
		6B
		5B
		4B

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)

SCALE: 1"= 50'

9:02:57 AM
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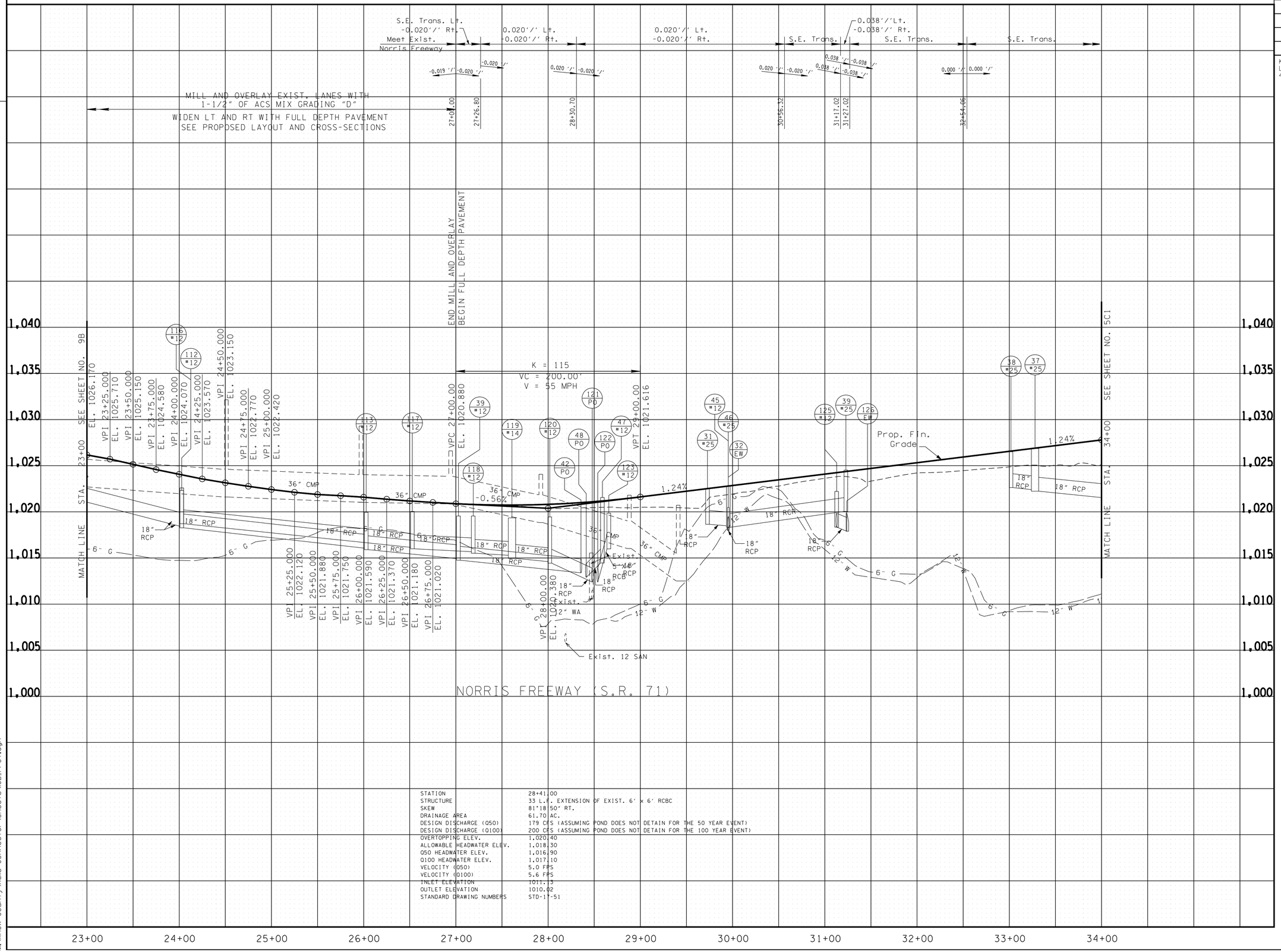
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	10B
CONST.	2014	HSIP-33(116)	10B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



STATION	28+41.00
STRUCTURE	33 L.F. EXTENSION OF EXIST. 6' x 6' RCBC
SKEW	81°18'50" RT.
DRAINAGE AREA	61.70 AC.
DESIGN DISCHARGE (Q50)	179 CFS (ASSUMING POND DOES NOT DETAIN FOR THE 50 YEAR EVENT)
DESIGN DISCHARGE (Q100)	200 CFS (ASSUMING POND DOES NOT DETAIN FOR THE 100 YEAR EVENT)
OVERTOPPING ELEV.	1,020.40
ALLOWABLE HEADWATER ELEV.	1,018.30
Q50 HEADWATER ELEV.	1,016.90
Q100 HEADWATER ELEV.	1,017.10
VELOCITY (Q50)	5.0 FPS
VELOCITY (Q100)	5.6 FPS
INLET ELEVATION	1011.3
OUTLET ELEVATION	1010.02
STANDARD DRAWING NUMBERS	STD-17-51

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FWY)

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

9:02:59 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

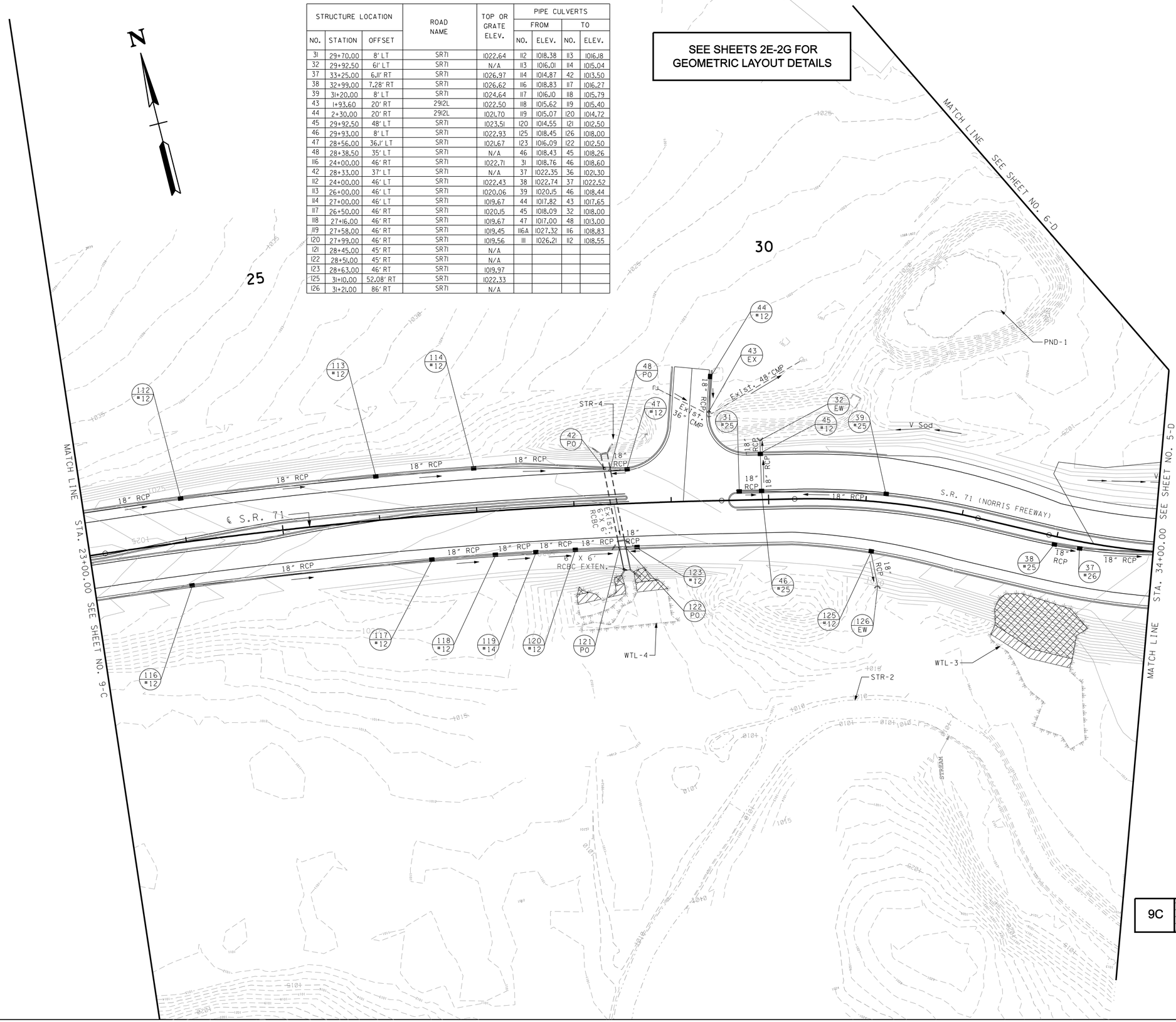
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	10-C
CONST.	2014	HSIP-33(116)	10-C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED ENVIRONMENTAL FEATURES.

STRUCTURE LOCATION			ROAD NAME	TOP OR GRATE ELEV.	PIPE CULVERTS			
					FROM		TO	
NO.	STATION	OFFSET			NO.	ELEV.	NO.	ELEV.
31	29+70.00	8' LT	SR71	1022.64	112	1018.38	113	1016.18
32	29+92.50	61' LT	SR71	N/A	113	1016.01	114	1015.04
37	33+25.00	6.11' RT	SR71	1026.97	114	1014.87	42	1013.50
38	32+99.00	7.28' RT	SR71	1026.62	116	1018.83	117	1016.27
39	31+20.00	8' LT	SR71	1024.64	117	1016.10	118	1015.79
43	1+93.60	20' RT	2912L	1022.50	118	1015.62	119	1015.40
44	2+30.00	20' RT	2912L	1021.70	119	1015.07	120	1014.72
45	29+92.50	48' LT	SR71	1023.51	120	1014.55	121	1012.50
46	29+93.00	8' LT	SR71	1022.93	125	1018.45	126	1018.00
47	28+56.00	36.1' LT	SR71	1021.67	123	1016.09	122	1012.50
48	28+38.50	35' LT	SR71	N/A	46	1018.43	45	1018.26
116	24+00.00	46' RT	SR71	1022.71	31	1018.76	46	1018.60
42	28+33.00	37' LT	SR71	N/A	37	1022.35	36	1021.30
112	24+00.00	46' LT	SR71	1022.43	38	1022.74	37	1022.52
113	26+00.00	46' LT	SR71	1020.06	39	1020.15	46	1018.44
114	27+00.00	46' LT	SR71	1019.67	44	1017.82	43	1017.65
117	26+50.00	46' RT	SR71	1020.15	45	1018.09	32	1018.00
118	27+16.00	46' RT	SR71	1019.67	47	1017.00	48	1013.00
119	27+58.00	46' RT	SR71	1019.45	116A	1027.32	116	1018.83
120	27+99.00	46' RT	SR71	1019.56	111	1026.21	112	1018.55
121	28+45.00	45' RT	SR71	N/A				
122	28+51.00	45' RT	SR71	N/A				
123	28+63.00	46' RT	SR71	1019.97				
125	31+10.00	52.08' RT	SR71	1022.33				
126	31+21.00	86' RT	SR71	N/A				

SEE SHEETS 2E-2G FOR GEOMETRIC LAYOUT DETAILS



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
NUMBER 103505
STATE OF TENNESSEE

Keymap

	7D	8D
	6D	
9C	10C	
	5D	
	4D	

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GRADING AND DRAINAGE DETAIL SHEET

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

12:05:25 PM
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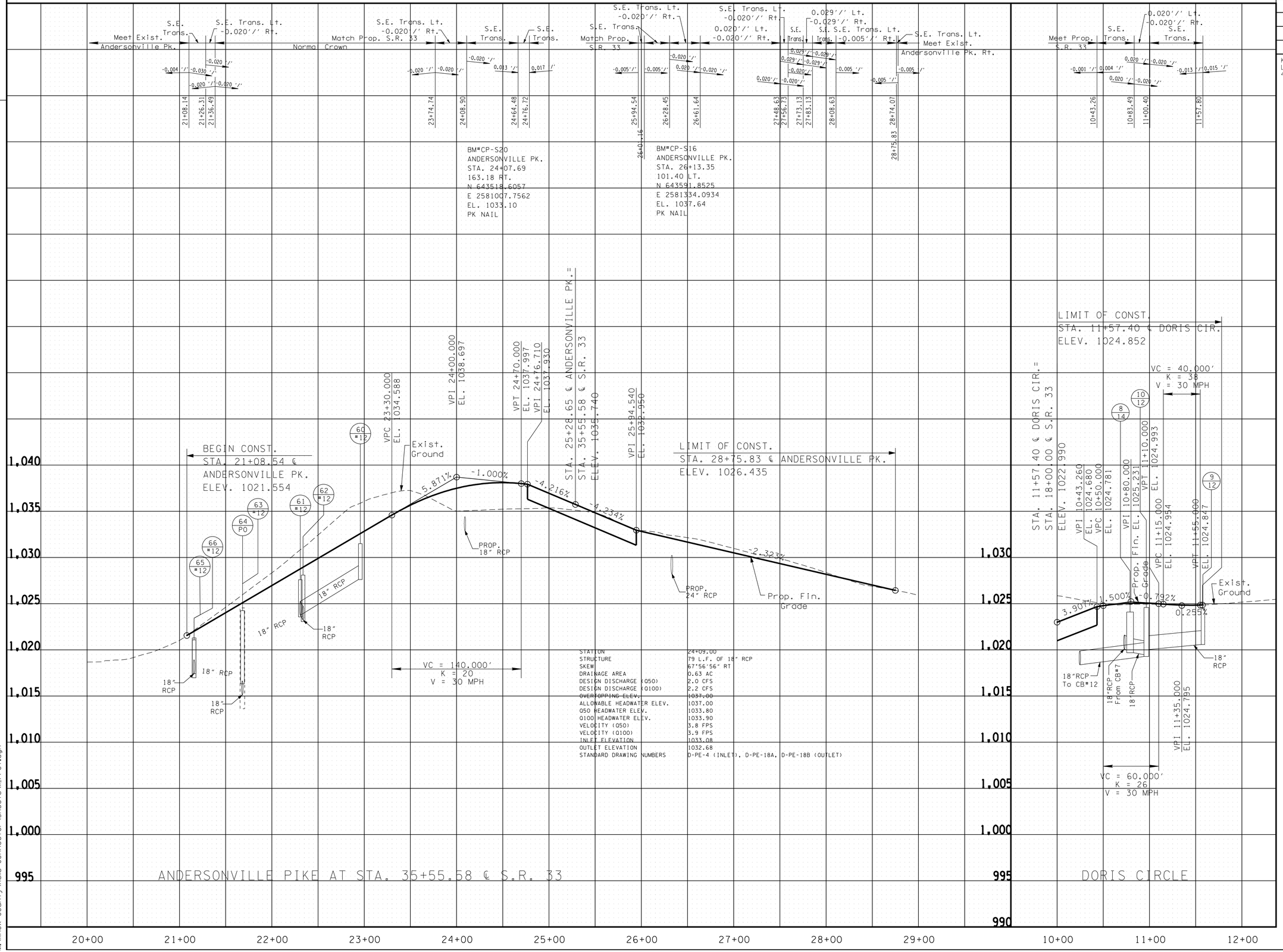
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	11
CONST.	2014	HSIP-33(116)	11

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE & INSURANCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE OF SIDE ROADS AND STREETS

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

11:05:41 AM
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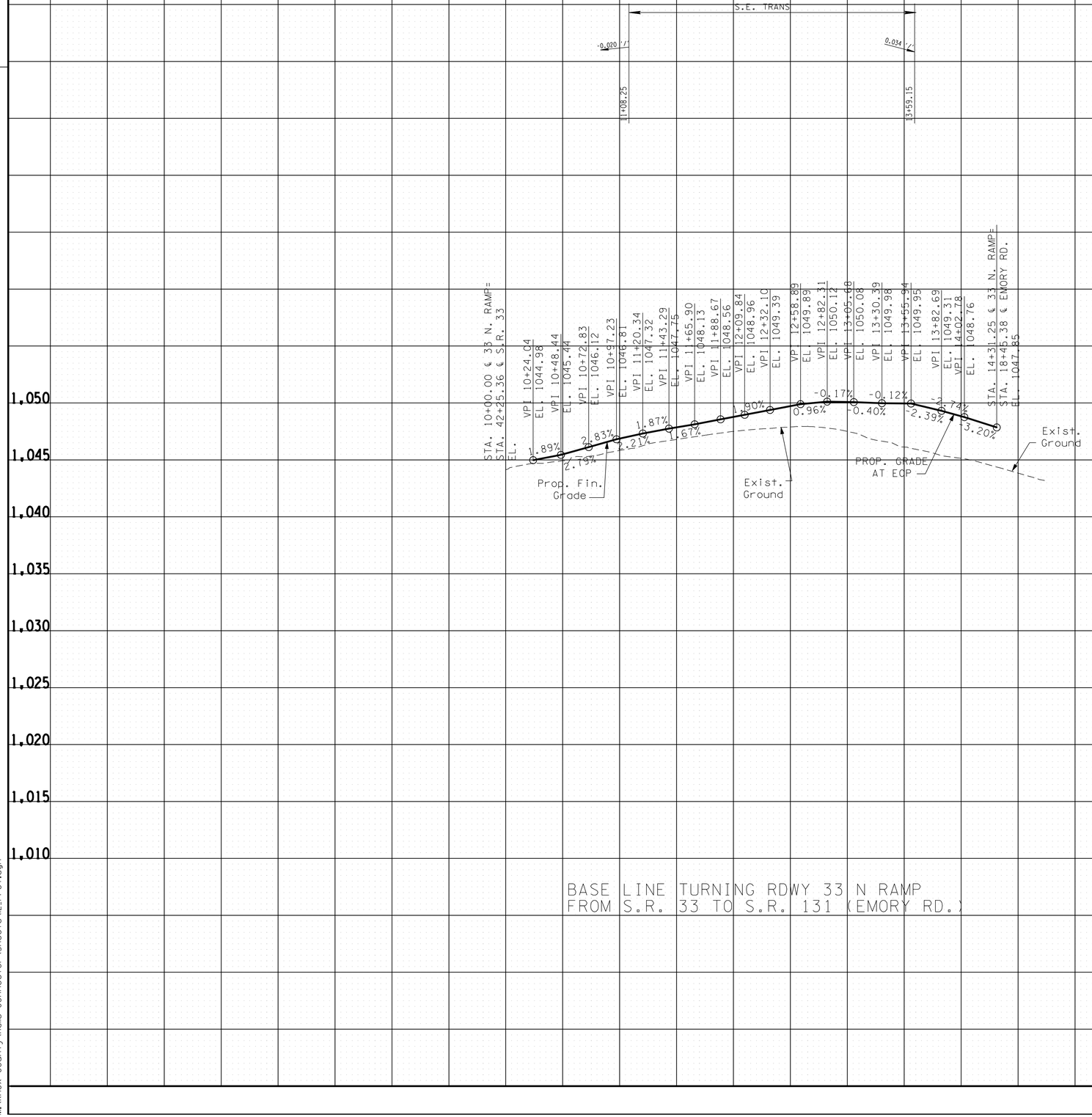
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	12
CONST.	2014	HSIP-33(116)	12

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; DELETED PROFILES FOR 33 N RAMP AND S.R. 131 RAMP.



BASE LINE TURNING RDWY 33 N RAMP
FROM S.R. 33 TO S.R. 131 (EMORY RD.)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
OMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILES OF TURNING RDWY

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

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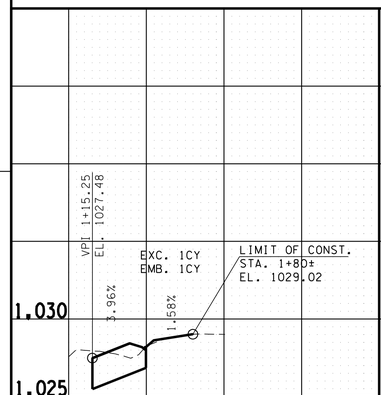
11:06:04 AM

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

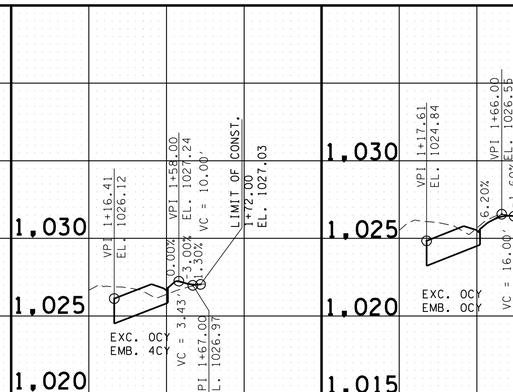
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	13
CONST.	2014	HSIP-33(116)	13

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

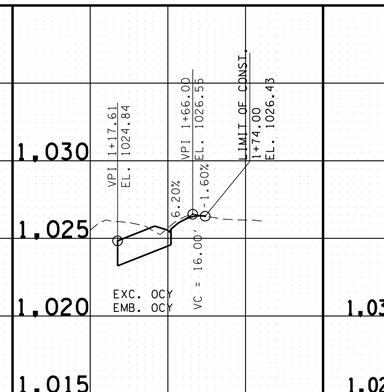
REV. 05-09-2014; DELETED PROFILES SR 33 STA. 24+77/ RT & STA. 29+73± RT. ADDED PROFILES SR 33 STA. 24+52± RT AND STA. 29+51± RT.



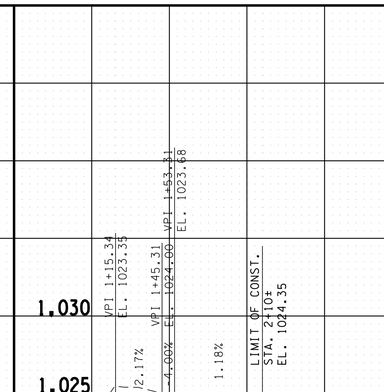
S.R. 33
TRACT NO. 2
BUS. ENT.
STA. 15+89± RT.



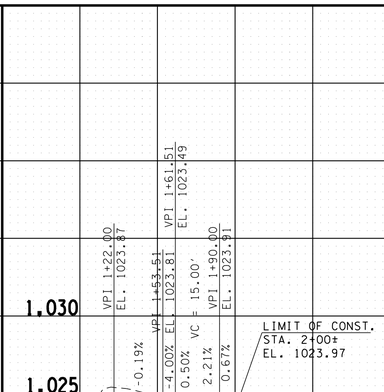
S.R. 33
TRACT NO. 3
BUS. ENT.
STA. 16+50± RT.



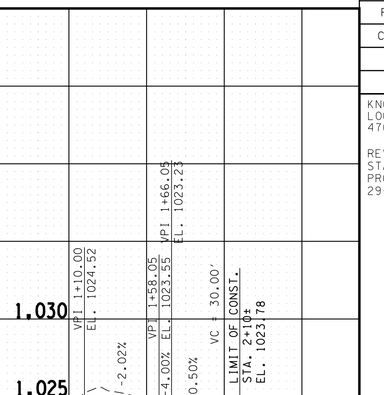
S.R. 33
TRACT NO. 3
BUS. ENT.
STA. 17+12± RT.



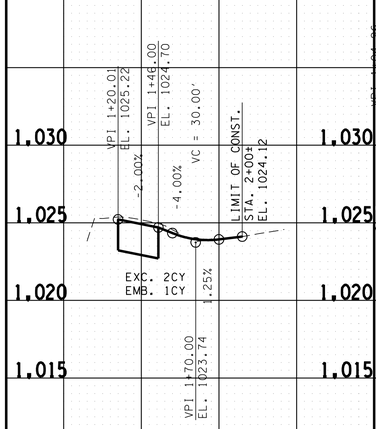
S.R. 33
MARKETPLACE
INVESTMENTS, LLC
BUS. ENT.
STA. 19+06± RT.



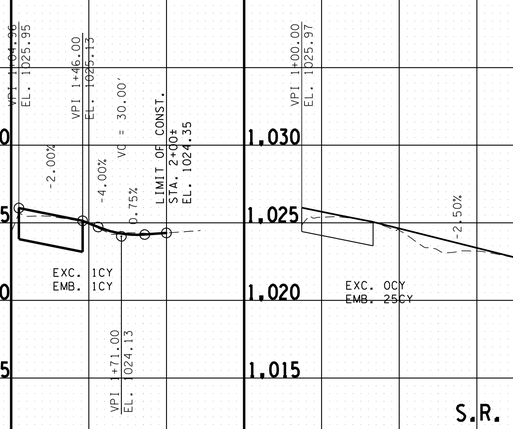
S.R. 33
CHOTU, INC.
BUS. ENT.
STA. 19+85± RT.



S.R. 33
CHOTU. INC.
BUS. ENT.
STA. 20+68± RT.

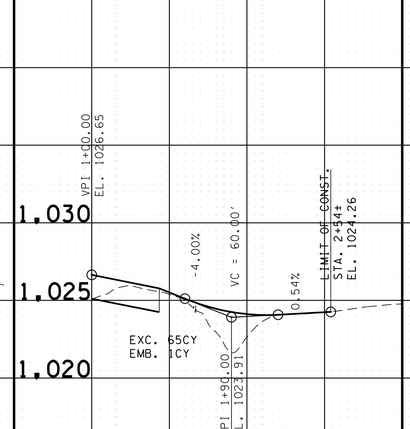


S.R. 33
TRACT NO. 16
BUS. ENT.
STA. 22+47± RT.

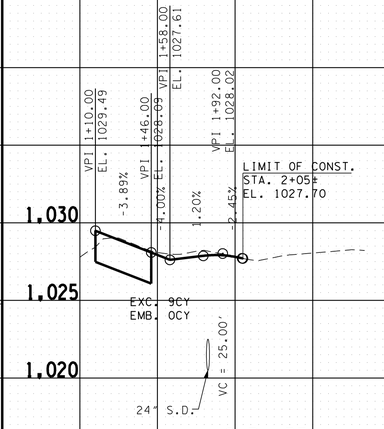


S.R. 33
TRACT NO. 16
BUS. ENT.
STA. 23+47± RT.

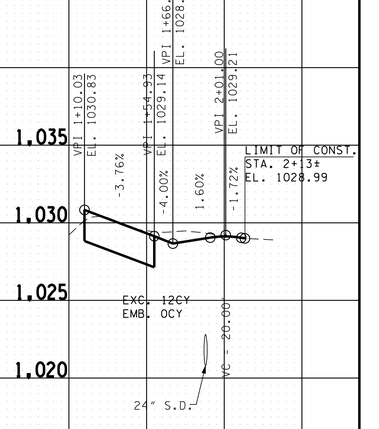
S.R. 33
NET LEASE
FUNDING 2005, LP
BUS. ENT.
STA. 24+52± RT.



S.R. 33
NET LEASE
FUNDING 2005, LP
BUS. ENT.
STA. 29+51± RT.



S.R. 33
EAST TENNESSEE
FOOD, INC.
BUS. ENT.
STA. 32+00± RT.



S.R. 33
EAST TENNESSEE
FOOD, INC.
BUS. ENT.
STA. 32+80± RT.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 105551
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE OF PRIVATE DRIVES

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

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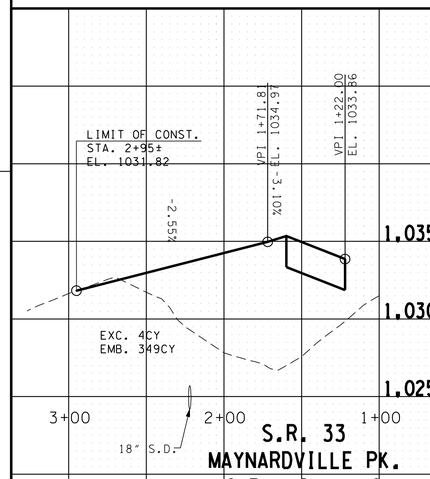
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	13A
CONST.	2014	HSIP-33(116)	13A

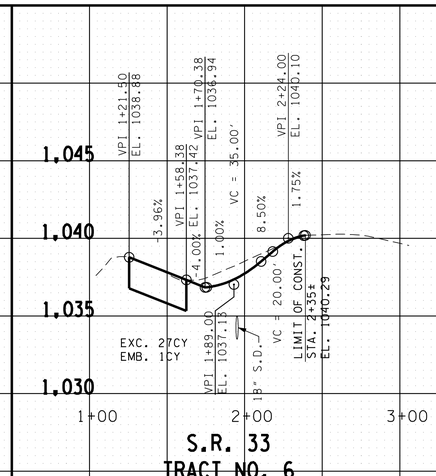
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED DRIVEWAY SR 33 STA. 40+60± LT. AND SR 71 21+42± RT.

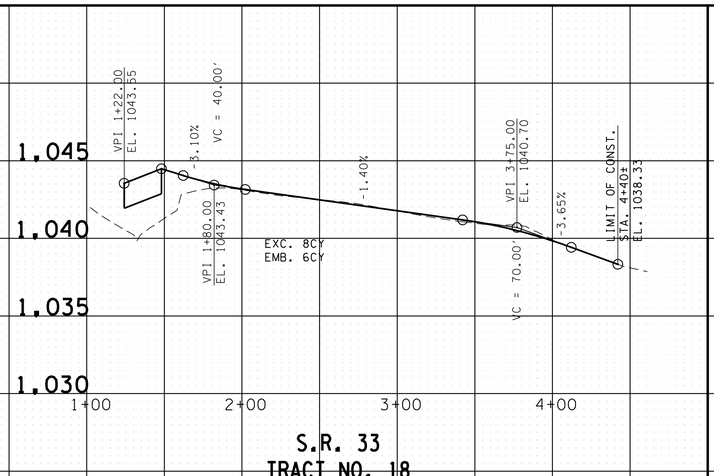
REV. 08-12-2014; ADDED DWY 3+01± RT OFF DWY 40+60± PROFILE (TRACT 18).



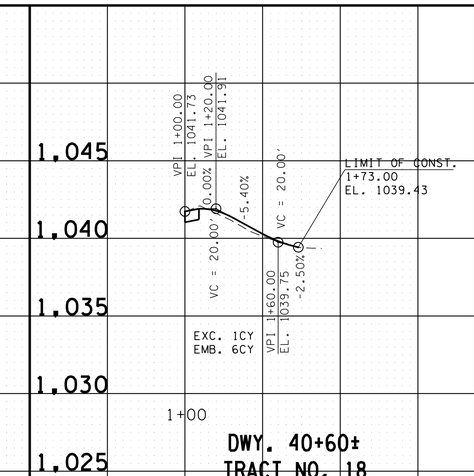
S.R. 33
MAYNARDVILLE PK.
CAR WASH, LLC
BUS. ENT.
STA. 34+07± LT.



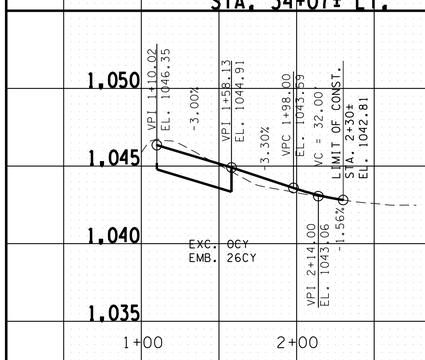
S.R. 33
TRACT NO. 6
BUS. ENT.
STA. 37+99± RT.



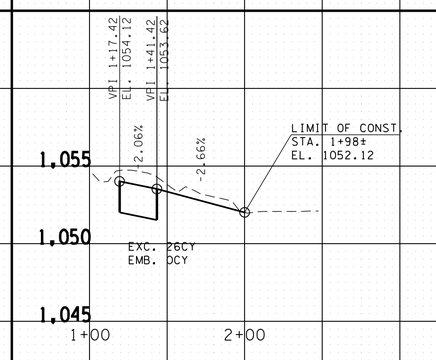
S.R. 33
TRACT NO. 18
BUS. ENT.
STA. 40+60± LT.



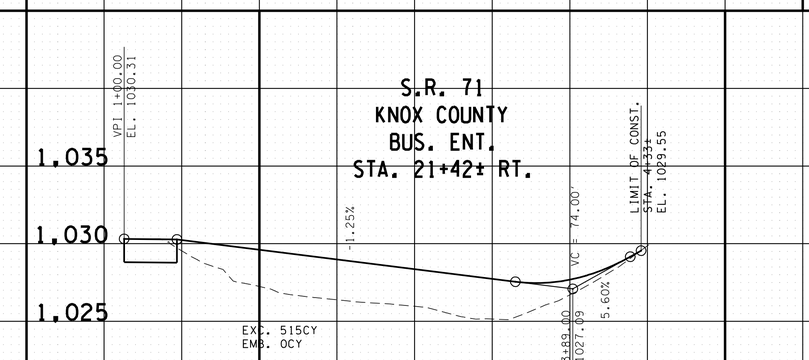
DWY. 40+60±
TRACT NO. 18
BUS. ENT.
STA. 3+01± RT.



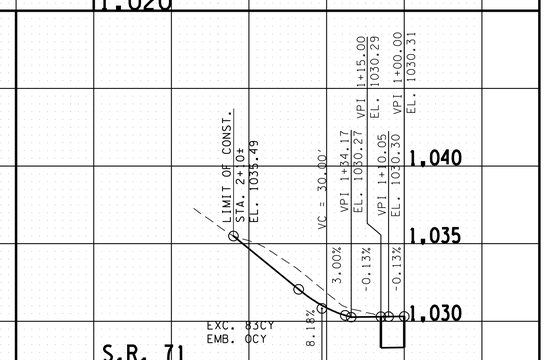
S.R. 33
TRACT NOS. 6&7
BUS. ENT.
STA. 42+50± RT.



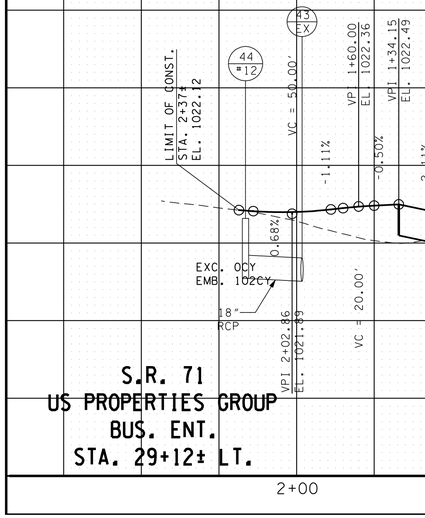
S.R. 33
TRACT NO. 8
BUS. ENT.
STA. 47+49± RT.



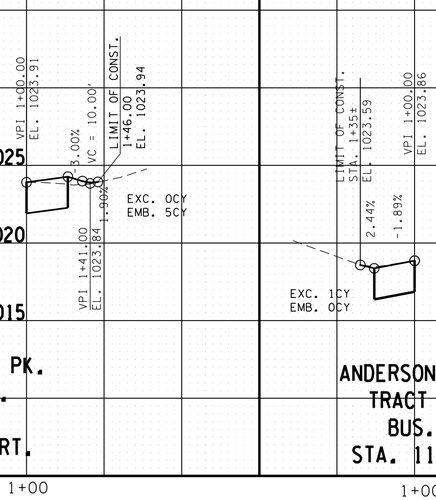
S.R. 71
KNOX COUNTY
BUS. ENT.
STA. 21+42± RT.



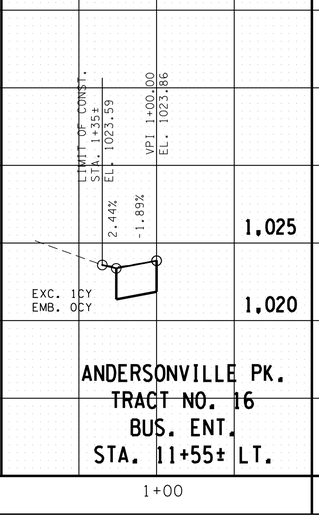
S.R. 71
US PROPERTIES GROUP
BUS. ENT.
STA. 21+42± LT.



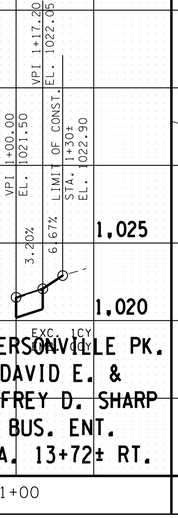
S.R. 71
US PROPERTIES GROUP
BUS. ENT.
STA. 29+12± LT.



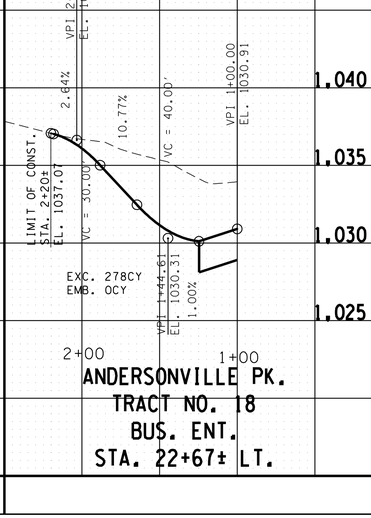
ANDERSONVILLE PK.
CHOTU, INC.
BUS. ENT.
STA. 11+42± RT.



ANDERSONVILLE PK.
TRACT NO. 16
BUS. ENT.
STA. 11+55± LT.



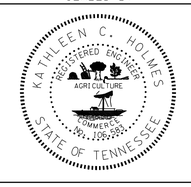
ANDERSONVILLE PK.
DAVID E. &
JEFFREY D. SHARP
BUS. ENT.
STA. 13+72± RT.



ANDERSONVILLE PK.
TRACT NO. 18
BUS. ENT.
STA. 22+67± LT.

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE OF PRIVATE DRIVES

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

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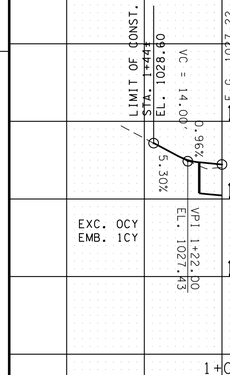
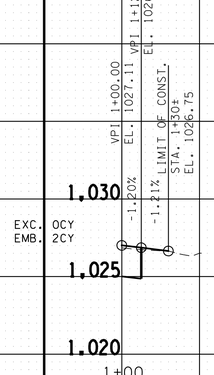
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	13B
CONST.	2014	HSIP-33(116)	13B

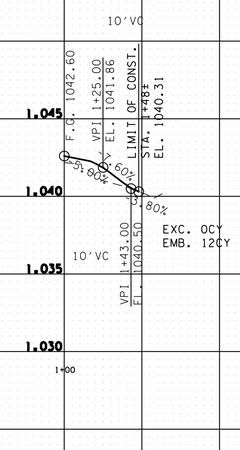
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



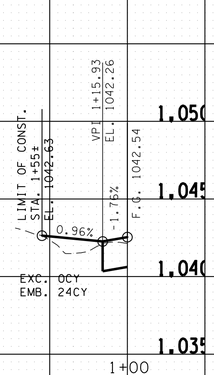
ANDERSONVILLE PK.
TRACT NO. 5
BUS. ENT.
STA. 28+41± LT.



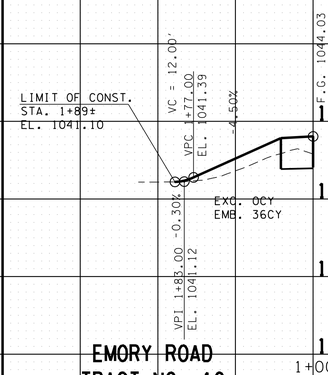
ANDERSONVILLE PK.
EAST TENNESSEE
FOOD, INC.
BUS. ENT.
STA. 28+46± RT.



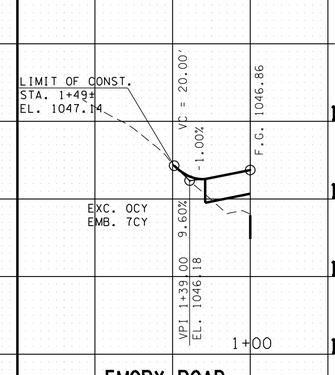
EMORY ROAD
TRACT NO. 9
PVT. DR.
STA. 11+30± RT.



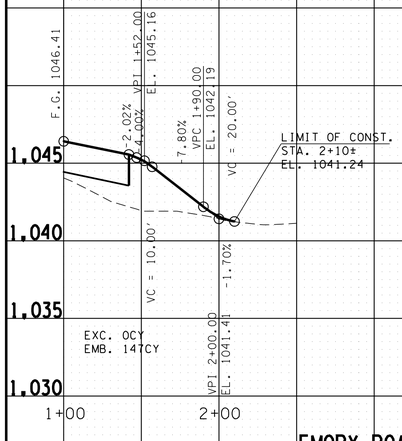
EMORY ROAD
TRACT NO. 10
BUS. ENT.
STA. 11+34± LT.



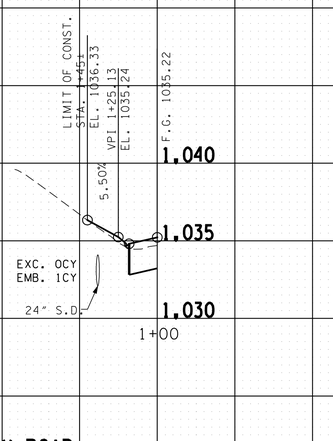
EMORY ROAD
TRACT NO. 10
BUS. ENT.
STA. 13+17± LT.



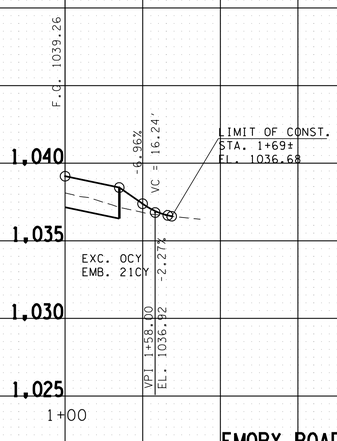
EMORY ROAD
TRACT NO. 8
BUS. ENT.
STA. 18+96± LT.



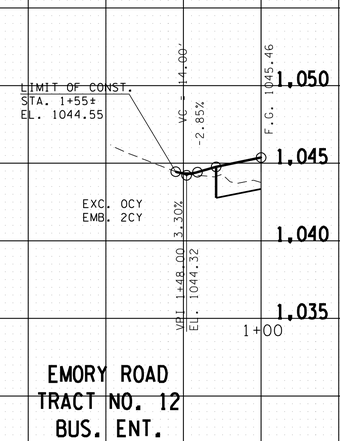
EMORY ROAD
TRACT NO. 7
BUS. ENT.
STA. 19+36± RT.



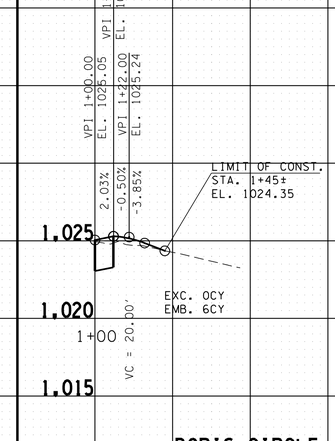
EMORY ROAD
TRACT NO. 14
BUS. ENT.
STA. 23+50± LT.



EMORY ROAD
TRACT NO. 6
BUS. ENT.
STA. 22+35± RT.



EMORY ROAD
TRACT NO. 12
BUS. ENT.
STA. 19+90± LT.



DORIS CIRCLE
MARKETPLACE
INVESTMENTS, LLC
BUS. ENT.
STA. 10+99± RT.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE OF PRIVATE DRIVES

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

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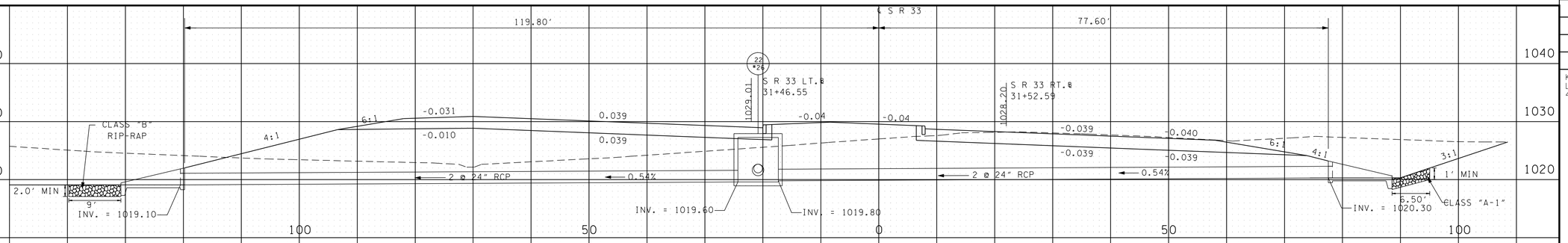
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

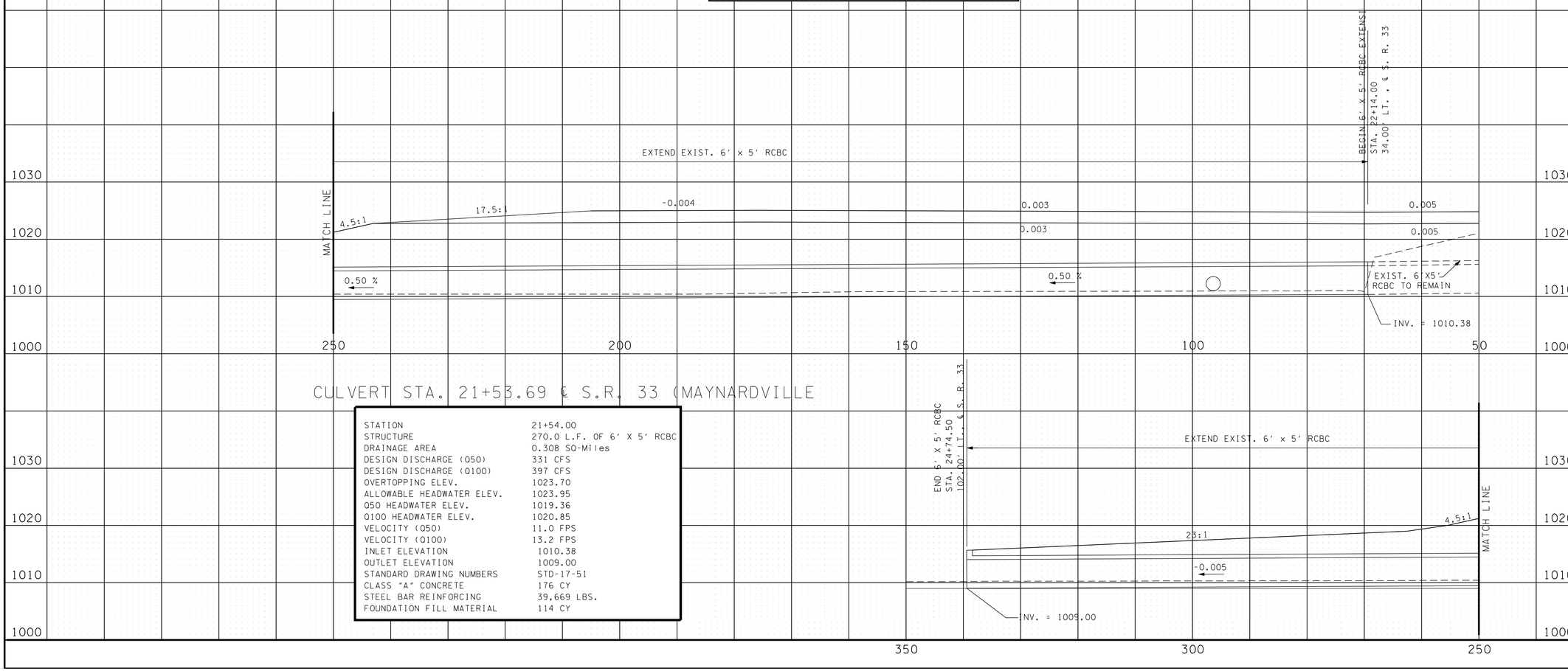
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	14
CONST.	2014	HSIP-33(116)	14

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



CULVERT STA. 31+49 ℄ S.R. 33 (MAYNARDVILLE HWY.)

STATION	31+49.00 S.R. 33
STRUCTURE	2 @ 194 L.F. OF 24" RCP
SKEW	90°
DRAINAGE AREA	5.09 AC
DESIGN DISCHARGE (Q50)	23.9 CFS
DESIGN DISCHARGE (Q100)	26.5 CFS
OVERTOPPING ELEV.	1023.70
ALLOWABLE HEADWATER ELEV.	1023.70
Q50 HEADWATER ELEV.	1022.5
Q100 HEADWATER ELEV.	1022.7
VELOCITY (Q50)	5.8 FPS
VELOCITY (Q100)	5.9 FPS
INLET ELEVATION	1020.30
OUTLET ELEVATION	1019.10
STANDARD DRAWING NUMBERS	D-PE-24A, D-PE-24B



CULVERT STA. 21+53.69 ℄ S.R. 33 (MAYNARDVILLE

STATION	21+54.00
STRUCTURE	270.0 L.F. OF 6' X 5' RCBC
DRAINAGE AREA	0.308 SQ-Miles
DESIGN DISCHARGE (Q50)	331 CFS
DESIGN DISCHARGE (Q100)	397 CFS
OVERTOPPING ELEV.	1023.70
ALLOWABLE HEADWATER ELEV.	1023.95
Q50 HEADWATER ELEV.	1019.36
Q100 HEADWATER ELEV.	1020.85
VELOCITY (Q50)	11.0 FPS
VELOCITY (Q100)	13.2 FPS
INLET ELEVATION	1010.38
OUTLET ELEVATION	1009.00
STANDARD DRAWING NUMBERS	STD-17-51
CLASS "A" CONCRETE	176 CY
STEEL BAR REINFORCING	39,669 LBS.
FOUNDATION FILL MATERIAL	114 CY

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 103505
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT SECTIONS
S.R. 33

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

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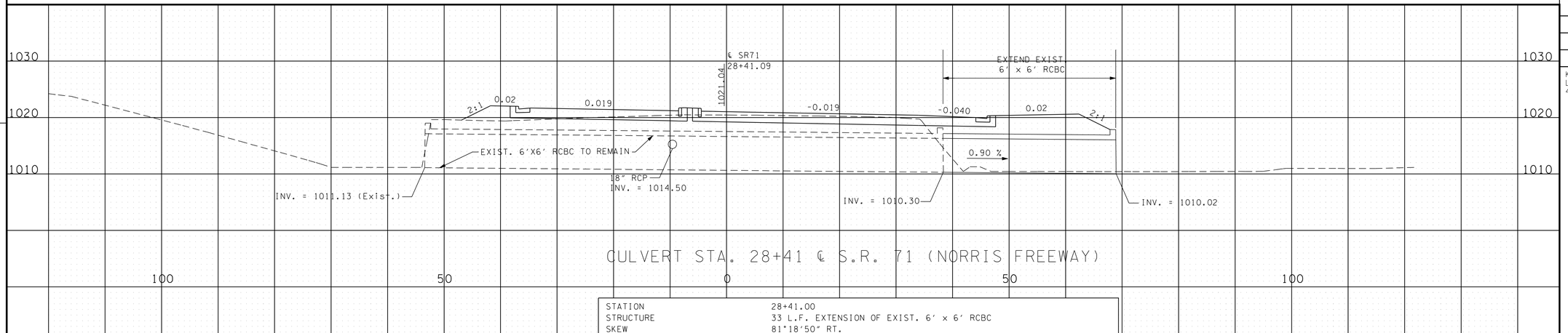
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

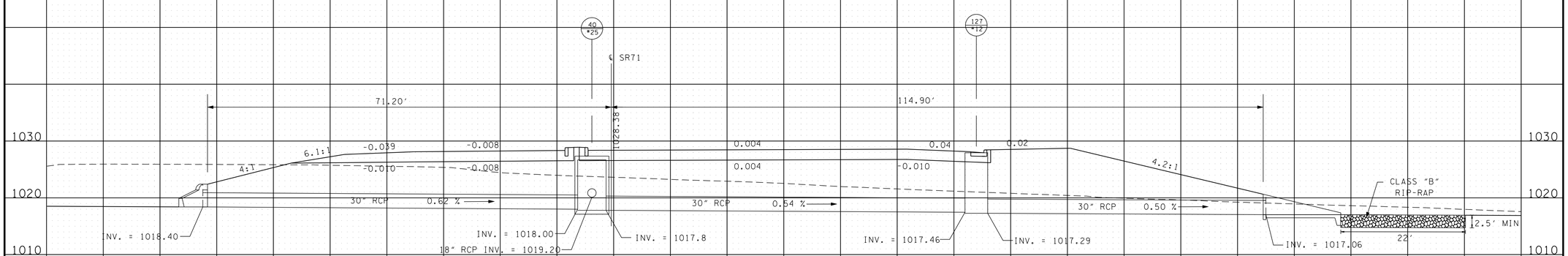
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	15
CONST.	2014	HSIP-33(116)	15

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



CULVERT STA. 28+41 ℄ S.R. 71 (NORRIS FREEWAY)

STATION	28+41.00
STRUCTURE	33 L.F. EXTENSION OF EXIST. 6' x 6' RCBC
SKEW	81°18'50" RT.
DRAINAGE AREA	61.70 AC.
DESIGN DISCHARGE (Q50)	179 CFS (ASSUMING POND DOES NOT DETAIN FOR THE 50 YEAR EVENT)
DESIGN DISCHARGE (Q100)	200 CFS (ASSUMING POND DOES NOT DETAIN FOR THE 100 YEAR EVENT)
OVERTOPPING ELEV.	1,020.40
ALLOWABLE HEADWATER ELEV.	1,018.30
Q50 HEADWATER ELEV.	1,016.90
Q100 HEADWATER ELEV.	1,017.10
VELOCITY (Q50)	5.0 FPS
VELOCITY (Q100)	5.6 FPS
INLET ELEVATION	1011.13
OUTLET ELEVATION	1010.02
STANDARD DRAWING NUMBERS	STD-17-51
CLASS "A" CONCRETE	30 CY
STEEL BAR REINFORCING	6,189 LBS
FOUNDATION FILL MATERIAL	14 CY



CULVERT STA. 36+30 ℄ S.R. 71 (NORRIS FREEWAY)

STATION	36+30.00
STRUCTURE	178 L.F. OF 30" RCP
SKEW	78°14'19" RT
DRAINAGE AREA	8.97 AC
DESIGN DISCHARGE (Q50)	28.8 CFS
DESIGN DISCHARGE (Q100)	31.8 CFS
OVERTOPPING ELEV.	1024.00
ALLOWABLE HEADWATER ELEV.	1024.00
Q50 HEADWATER ELEV.	1021.20
Q100 HEADWATER ELEV.	1021.40
VELOCITY (Q50)	8.2 FPS
VELOCITY (Q100)	8.3 FPS
INLET ELEVATION	1018.40
OUTLET ELEVATION	1017.20
STANDARD DRAWING NUMBERS	D-PE-1 (36" Inlet), D-PE-30A, D-PE-30B,(30" Outlet)
CLASS "A" CONCRETE	4.0 CY (INLET)
STEEL BAR REINFORCING	73 LBS (INLET)

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DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 103505
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT SECTIONS
S.R. 71
(NORRIS FREEWAY)

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

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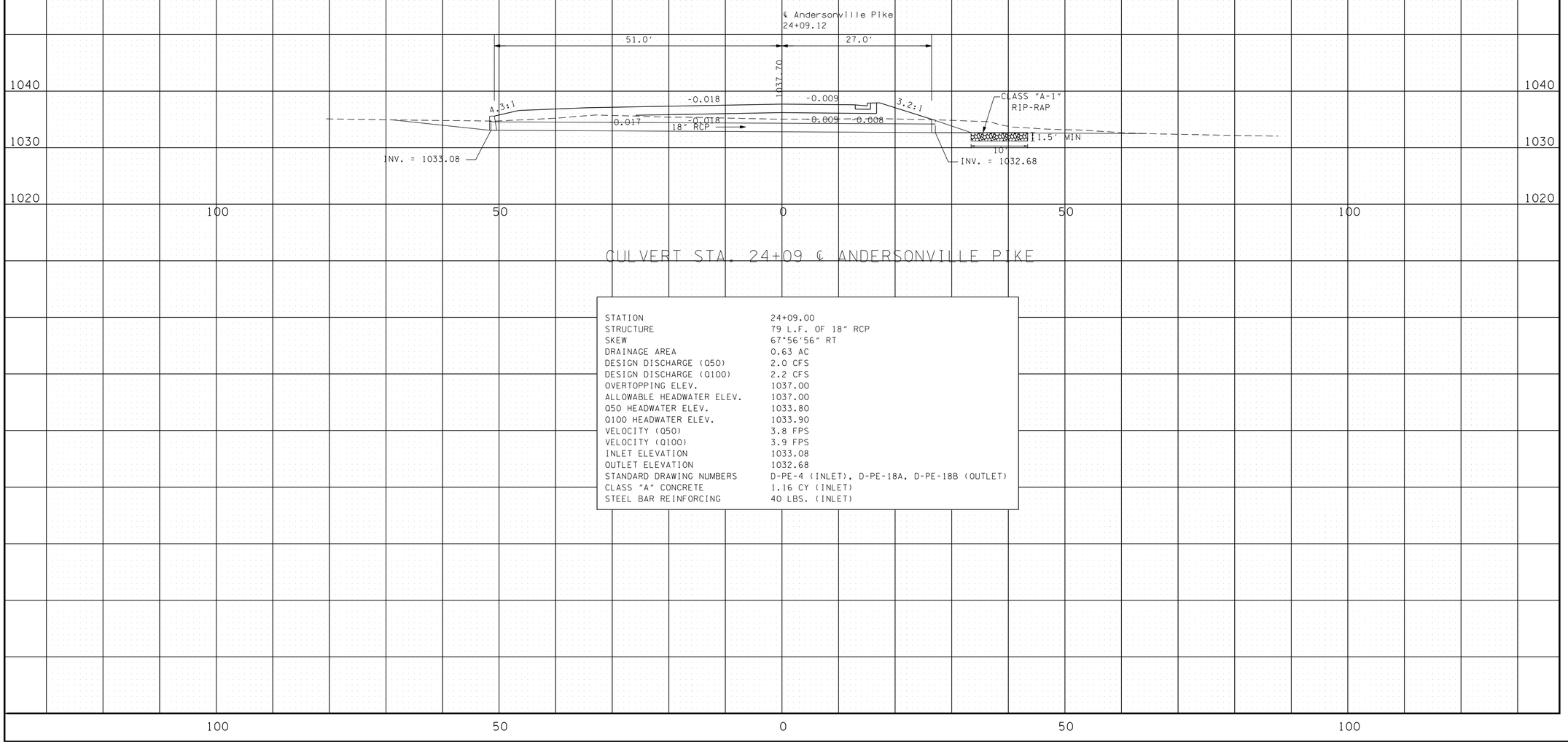
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	16
CONST.	2014	HSIP-33(116)	16

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



CULVERT STA. 24+09 ℄ ANDERSONVILLE PIKE

STATION	24+09.00
STRUCTURE	79 L.F. OF 18" RCP
SKEW	67°56'56" RT
DRAINAGE AREA	0.63 AC
DESIGN DISCHARGE (Q50)	2.0 CFS
DESIGN DISCHARGE (Q100)	2.2 CFS
OVERTOPPING ELEV.	1037.00
ALLOWABLE HEADWATER ELEV.	1037.00
Q50 HEADWATER ELEV.	1033.80
Q100 HEADWATER ELEV.	1033.90
VELOCITY (Q50)	3.8 FPS
VELOCITY (Q100)	3.9 FPS
INLET ELEVATION	1033.08
OUTLET ELEVATION	1032.68
STANDARD DRAWING NUMBERS	D-PE-4 (INLET), D-PE-18A, D-PE-18B (OUTLET)
CLASS "A" CONCRETE	1.16 CY (INLET)
STEEL BAR REINFORCING	40 LBS. (INLET)

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SEALED BY

DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 103505
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT SECTIONS

ANDERSONVILLE PIKE

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

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TENNESSEE D.O.T.

DESIGN DIVISION

FILE NO.

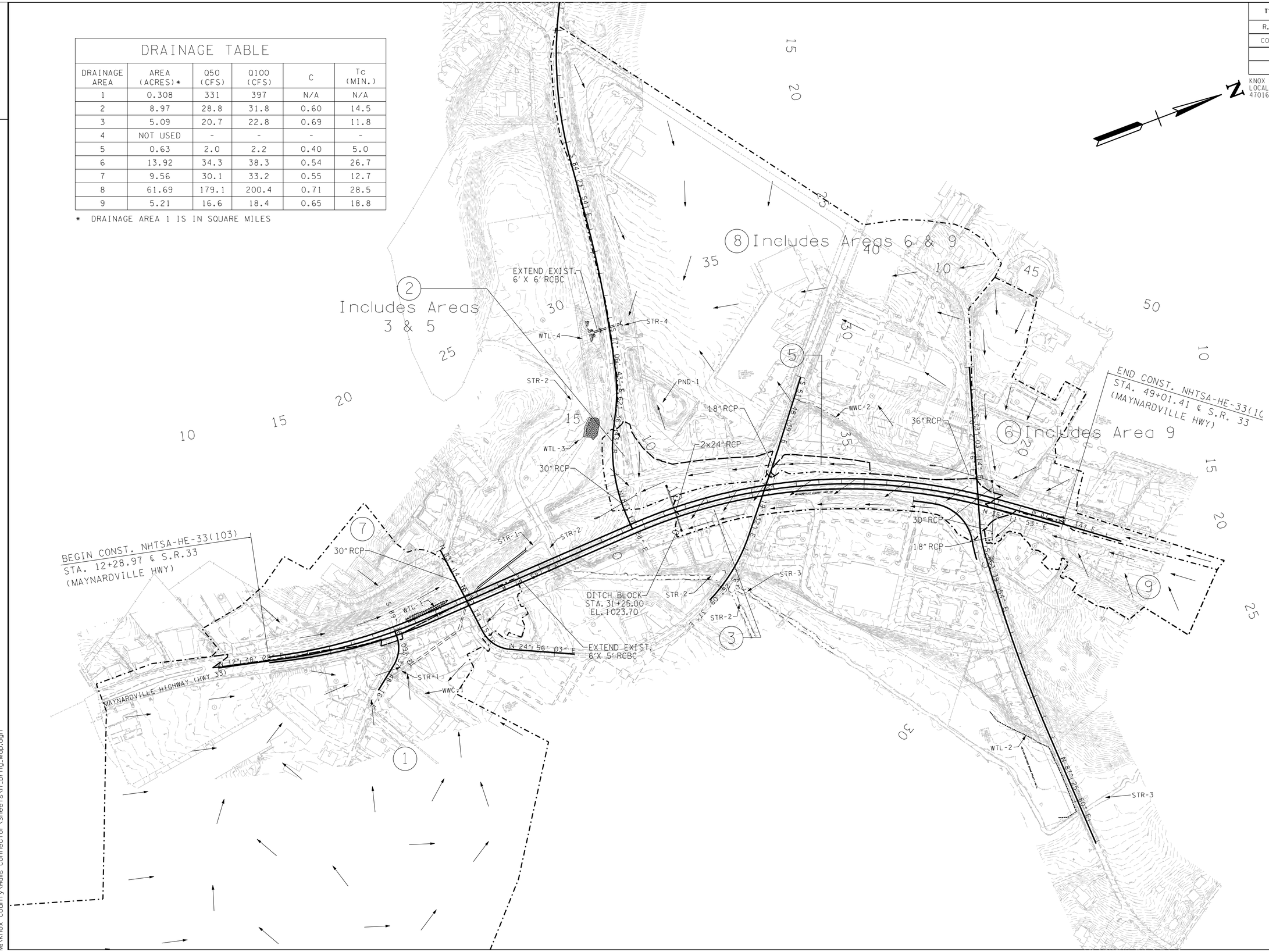
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	17
CONST.	2014	HSIP-33(116)	17

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

DRAINAGE TABLE

DRAINAGE AREA	AREA (ACRES)*	Q50 (CFS)	Q100 (CFS)	C	Tc (MIN.)
1	0.308	331	397	N/A	N/A
2	8.97	28.8	31.8	0.60	14.5
3	5.09	20.7	22.8	0.69	11.8
4	NOT USED	-	-	-	-
5	0.63	2.0	2.2	0.40	5.0
6	13.92	34.3	38.3	0.54	26.7
7	9.56	30.1	33.2	0.55	12.7
8	61.69	179.1	200.4	0.71	28.5
9	5.21	16.6	18.4	0.65	18.8

* DRAINAGE AREA 1 IS IN SQUARE MILES



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DONALD D. PARKER
REGISTERED ENGINEER
AGRICULTURE
NO. 109855
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

SCALE: 1"= 200'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18
CONST.	2014	HSIP-33(116)	18

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
1		0.26	2.7%
	1A	0.12	3.8%
	1B	0.14	4.0%
2		0.07	3.0%
3		0.05	4.0%
	4A	0.34	2.7%
	4B	0.59	2.0%
	4C	0.31	2.7%
7		0.31	1.0%
8		0.31	5.1%

STA. 18+00.00 ℄ S.R. 33 (MAYNARDVILLE HIGHWAY)=
STA. 10+00.00 DORIS CIRCLE
N 641816.971
E 2581207.668

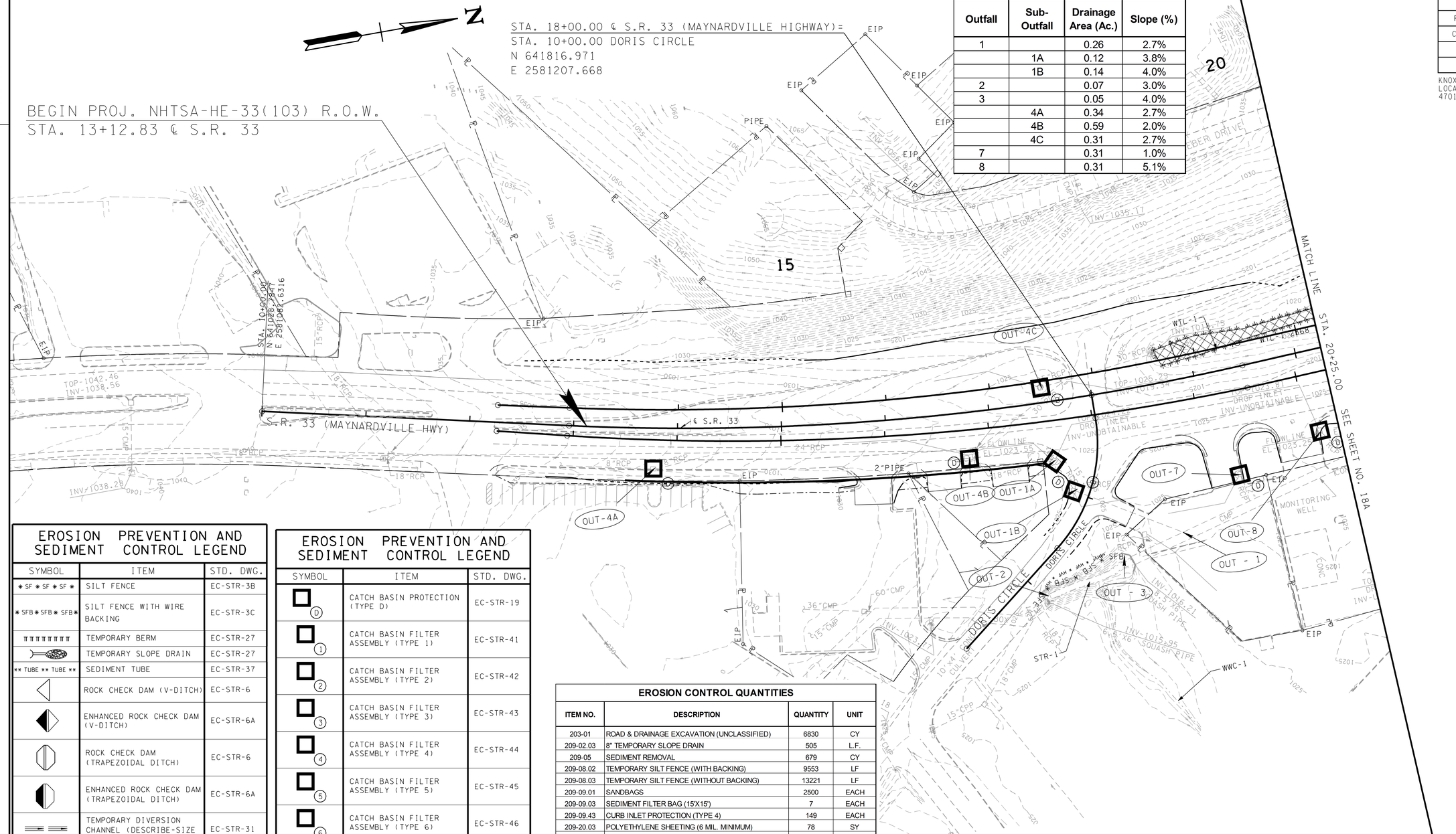
BEGIN PROJ. NHTSA-HE-33(103) R.O.W.
STA. 13+12.83 ℄ S.R. 33

STA. 10+00.00
N 641028.7847
E 2581082.6316

S.R. 33 (MAYNARDVILLE HWY)

DORIS CIRCLE

MATCH LINE STA. 20+25.00 SEE SHEET NO. 18A



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
* SF * SF * SF *	SILT FENCE	EC-STR-3B
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	TEMPORARY BERM	EC-STR-27
	TEMPORARY SLOPE DRAIN	EC-STR-27
** TUBE ** TUBE **	SEDIMENT TUBE	EC-STR-37
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6
	ENHANCED ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6A
	TEMPORARY DIVERSION CHANNEL (DESCRIBE-SIZE AND TYPE OF LINING)	EC-STR-31
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	SUSPENDED PIPE DIVERSION	EC-STR-33 EC-STR-33A
	RIPRAP	EC-STR-27
SFB SFB SFB SFB	SEDIMENT FILTER BAG	EC-STR-2
A	CATCH BASIN PROTECTION (TYPE A)	EC-STR-19
B	CATCH BASIN PROTECTION (TYPE B)	EC-STR-19

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
1	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EC-STR-41
2	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42
3	CATCH BASIN FILTER ASSEMBLY (TYPE 3)	EC-STR-43
4	CATCH BASIN FILTER ASSEMBLY (TYPE 4)	EC-STR-44
5	CATCH BASIN FILTER ASSEMBLY (TYPE 5)	EC-STR-45
6	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	EC-STR-46
7	CATCH BASIN FILTER ASSEMBLY (TYPE 7)	EC-STR-47
8	CATCH BASIN FILTER ASSEMBLY (TYPE 8)	EC-STR-48
4	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

EROSION CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	6830	CY
209-02.03	8" TEMPORARY SLOPE DRAIN	505	L.F.
209-05	SEDIMENT REMOVAL	679	CY
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	9553	LF
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	13221	LF
209-09.01	SANDBAGS	2500	EACH
209-09.03	SEDIMENT FILTER BAG (15'X15')	7	EACH
209-09.43	CURB INLET PROTECTION (TYPE 4)	149	EACH
209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	78	SY
209-40.30	CATCH BASIN PROTECTION (TYPE A)	39	EACH
209-40.31	CATCH BASIN PROTECTION (TYPE B)	14	EACH
209-40.33	CATCH BASIN PROTECTION (TYPE D)	70	EACH
209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	8	EACH
209-40.42	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	19	EACH
209-40.43	CATCH BASIN FILTER ASSEMBLY (TYPE 3)	12	EACH
209-40.44	CATCH BASIN FILTER ASSEMBLY (TYPE 4)	5	EACH
209-40.45	CATCH BASIN FILTER ASSEMBLY (TYPE 5)	3	EACH
209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	79	EACH
209-40.47	CATCH BASIN FILTER ASSEMBLY (TYPE 7)	10	EACH
209-40.48	CATCH BASIN FILTER ASSEMBLY (TYPE 8)	2	EACH
209-65.03	TEMPORARY DIVERSION CHANNEL	375	LF
303-10.01	MINERAL AGGREGATE (SIZE 57)	576	TON
621-03.04	30" TEMPORARY DRAINAGE PIPE	45	LF
621-03.08	54" TEMPORARY DRAINAGE PIPE	47	LF
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	5214	LF
709-05.05	MACHINED RIP-RAP (CLASS A-3)	1001	TON
709-05.06	MACHINED RIP-RAP (CLASS A-1)	5943	TON
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	13363	SY
740-11.03	TEMPORARY SEDIMENT TUBE (18 INCH)	4742	LF

Keymap

18C	18D	
18B		
18E	18F	18A
		18

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109555
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

BEG. PROJ. TO STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

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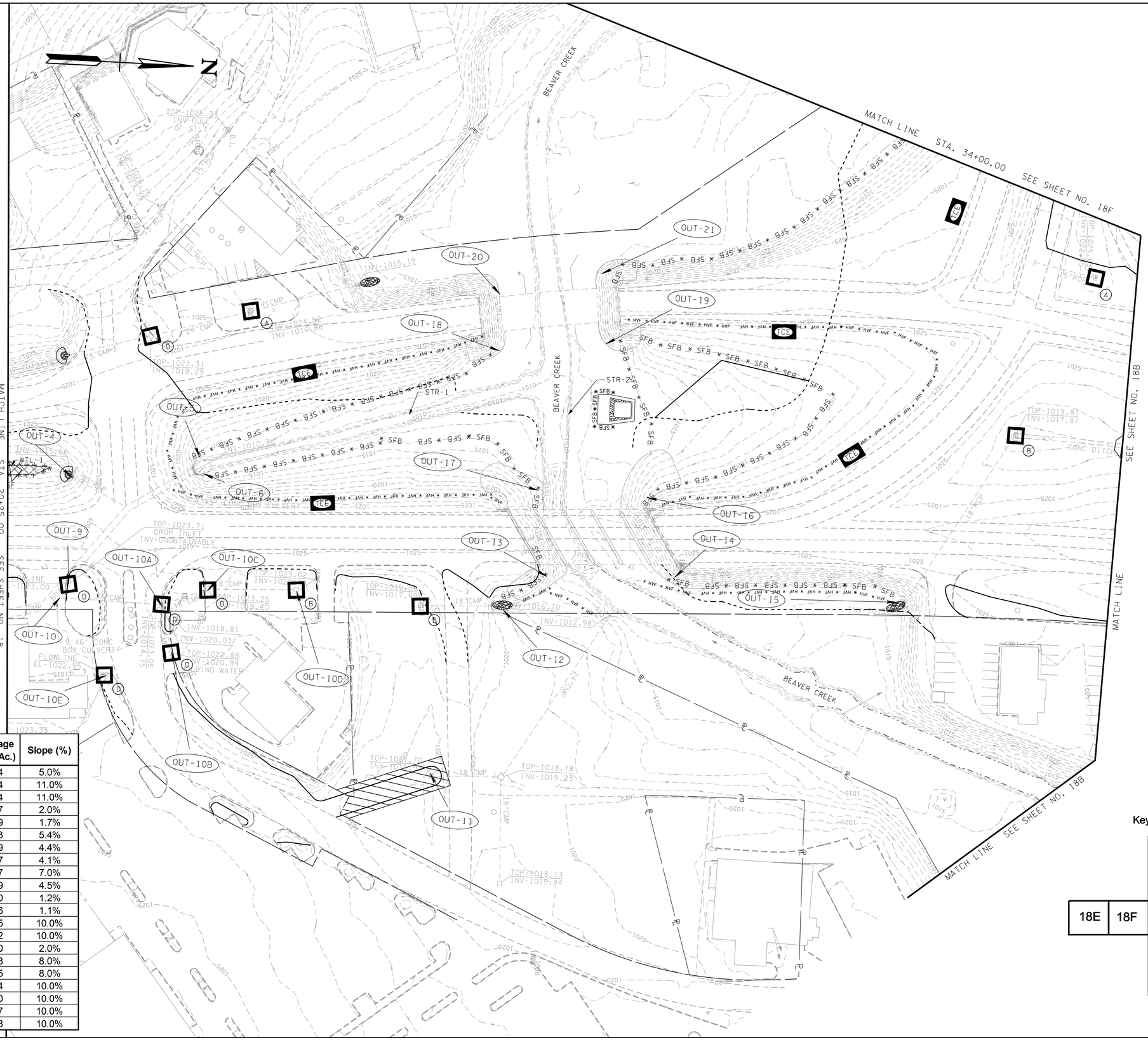
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18A
CONST.	2014	HSIP-33(116)	18A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
4		2.04	5.0%
5		0.24	11.0%
6		0.14	11.0%
9		0.27	2.0%
10		1.19	1.7%
	10A	0.18	5.4%
	10B	0.39	4.4%
	10C	0.17	4.1%
	10D	0.17	7.0%
	10E	0.29	4.5%
11		2.30	1.2%
12		0.26	1.1%
13		0.15	10.0%
14		0.42	10.0%
15		5.00	2.0%
16		0.13	8.0%
17		0.15	8.0%
18		0.14	10.0%
19		0.10	10.0%
20		0.07	10.0%
21		0.08	10.0%

Keymap

	18C	18D
	18B	
18E	18F	18A
	18	

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109951
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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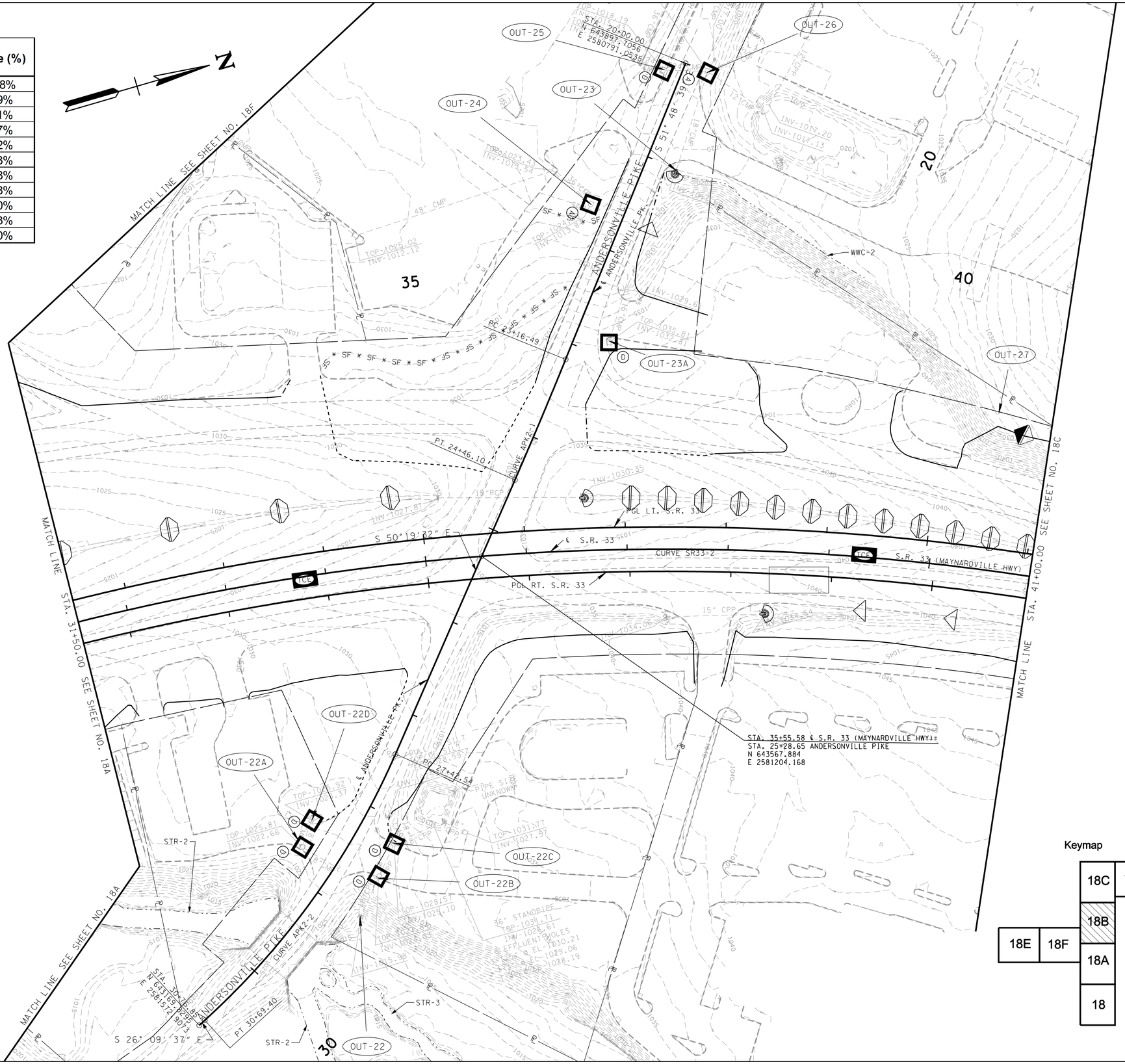
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
22		5.35	19.8%
	22A	0.29	1.9%
	22B	0.11	6.1%
	22C	0.13	5.7%
	22D	0.76	5.2%
23		18.60	9.3%
	23A	0.68	2.8%
24		0.37	6.8%
25		0.48	5.0%
26		1.37	3.8%
27		16.39	3.0%



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18B
CONST.	2014	HSIP-33(116)	18B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

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Keymap

	18C	18D
	18B	
18E	18F	18A
		18

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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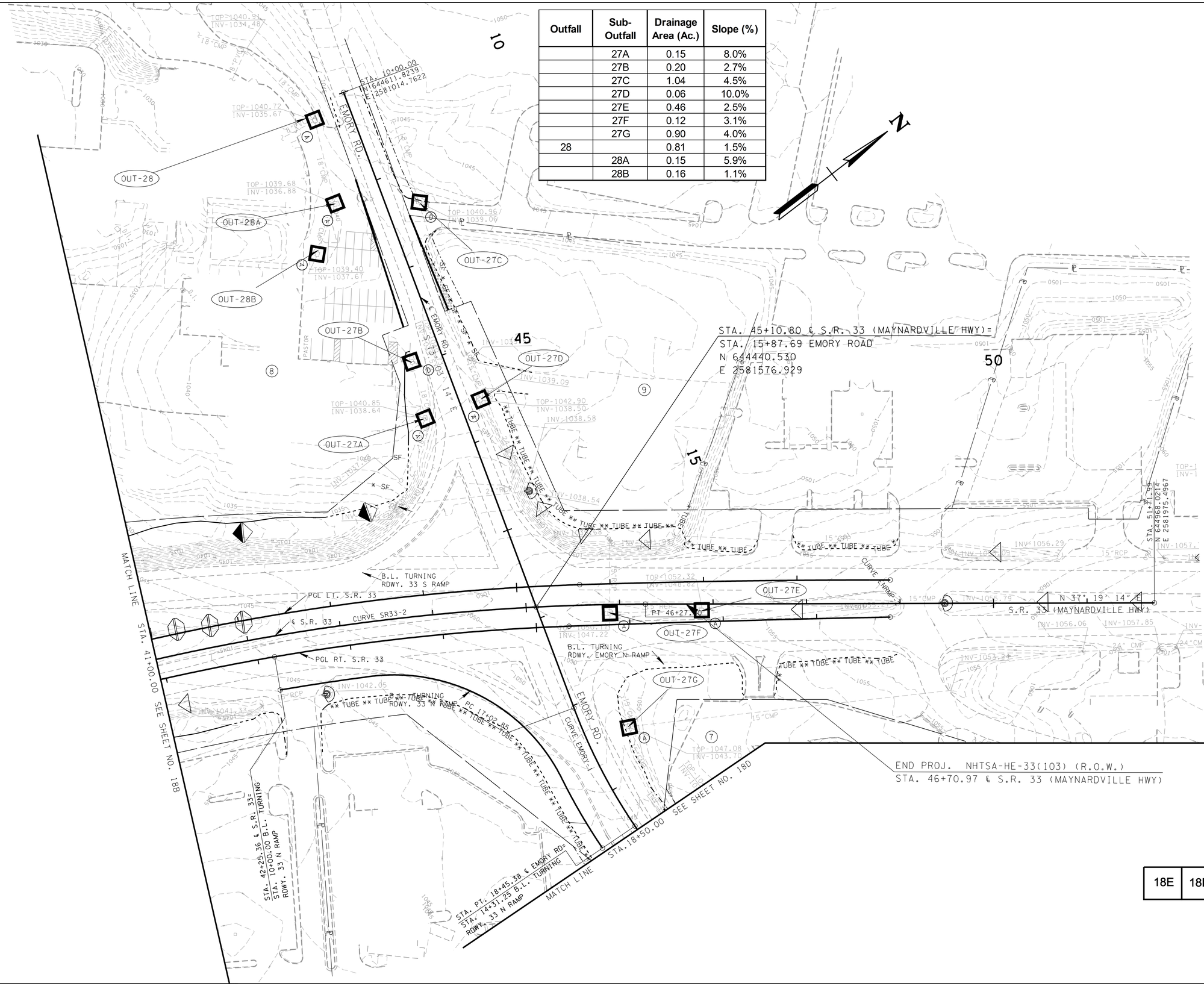
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	27A	0.15	8.0%
	27B	0.20	2.7%
	27C	1.04	4.5%
	27D	0.06	10.0%
	27E	0.46	2.5%
	27F	0.12	3.1%
	27G	0.90	4.0%
28		0.81	1.5%
	28A	0.15	5.9%
	28B	0.16	1.1%

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18C
CONST.	2014	HSIP-33(116)	18C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Keymap

	18C	18D
	18B	
18E	18F	18A
	18	

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
NO. 109283
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:05:03 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
29		6.19	2.5%
30		0.55	2.1%

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18D
CONST.	2014	HSIP-33(116)	18D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET
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Keymap

	18C	18D
	18B	
18E	18F	18A
		18

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

STA. 18+50 TO LIMIT OF CONST.
EMORY RD.
SCALE: 1"= 50'

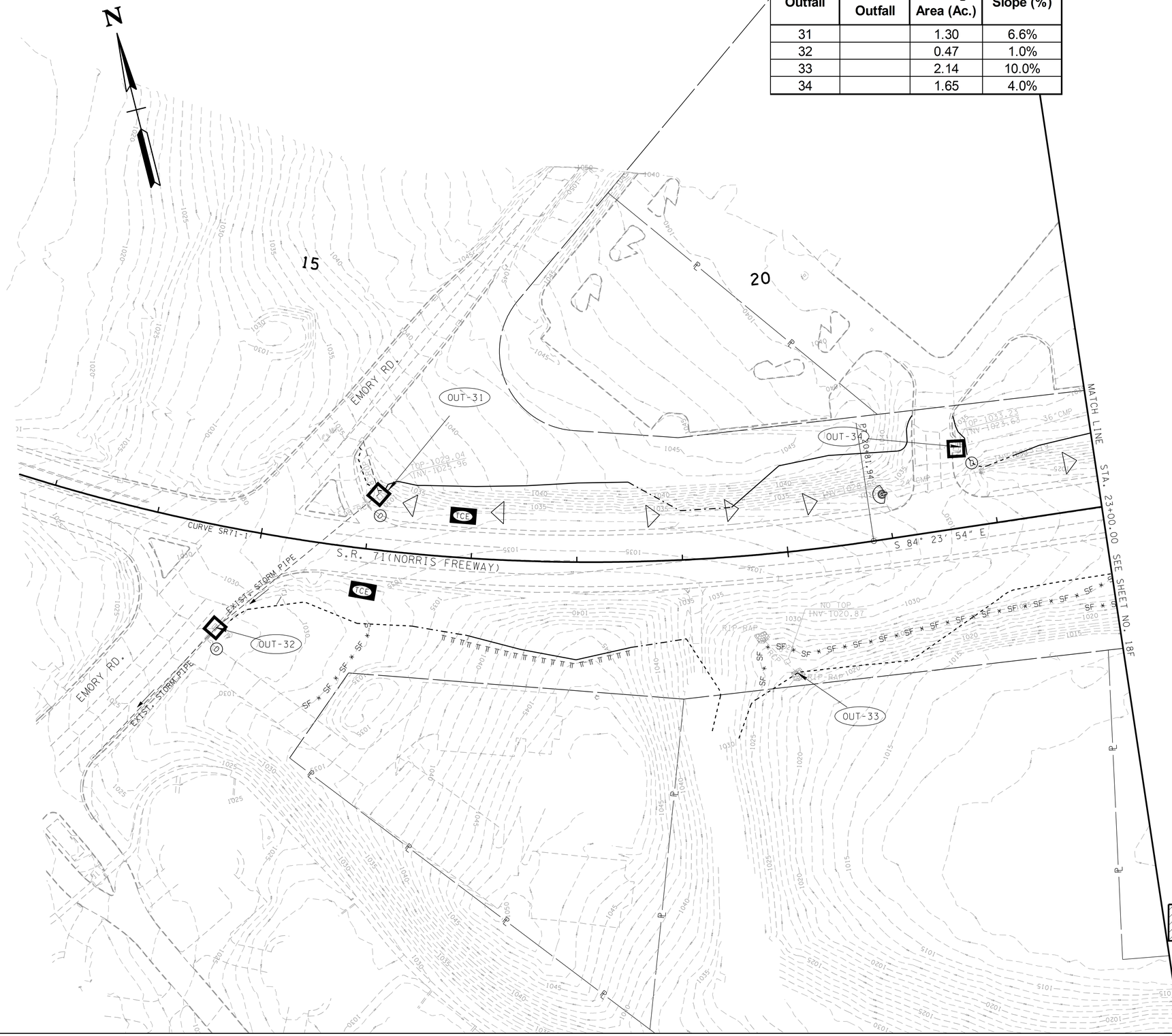
9:05:12 AM
M:\Knox County\Halls Connector\Sheets\18D_Erosion.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18E
CONST.	2014	HSIP-33(116)	18E

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
31		1.30	6.6%
32		0.47	1.0%
33		2.14	10.0%
34		1.65	4.0%



UNOFFICIAL SET

NOT FOR BIDDING

Keymap

	18C	18D
	18B	
18E	18F	18A
		18

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

LIMIT OF CONST TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

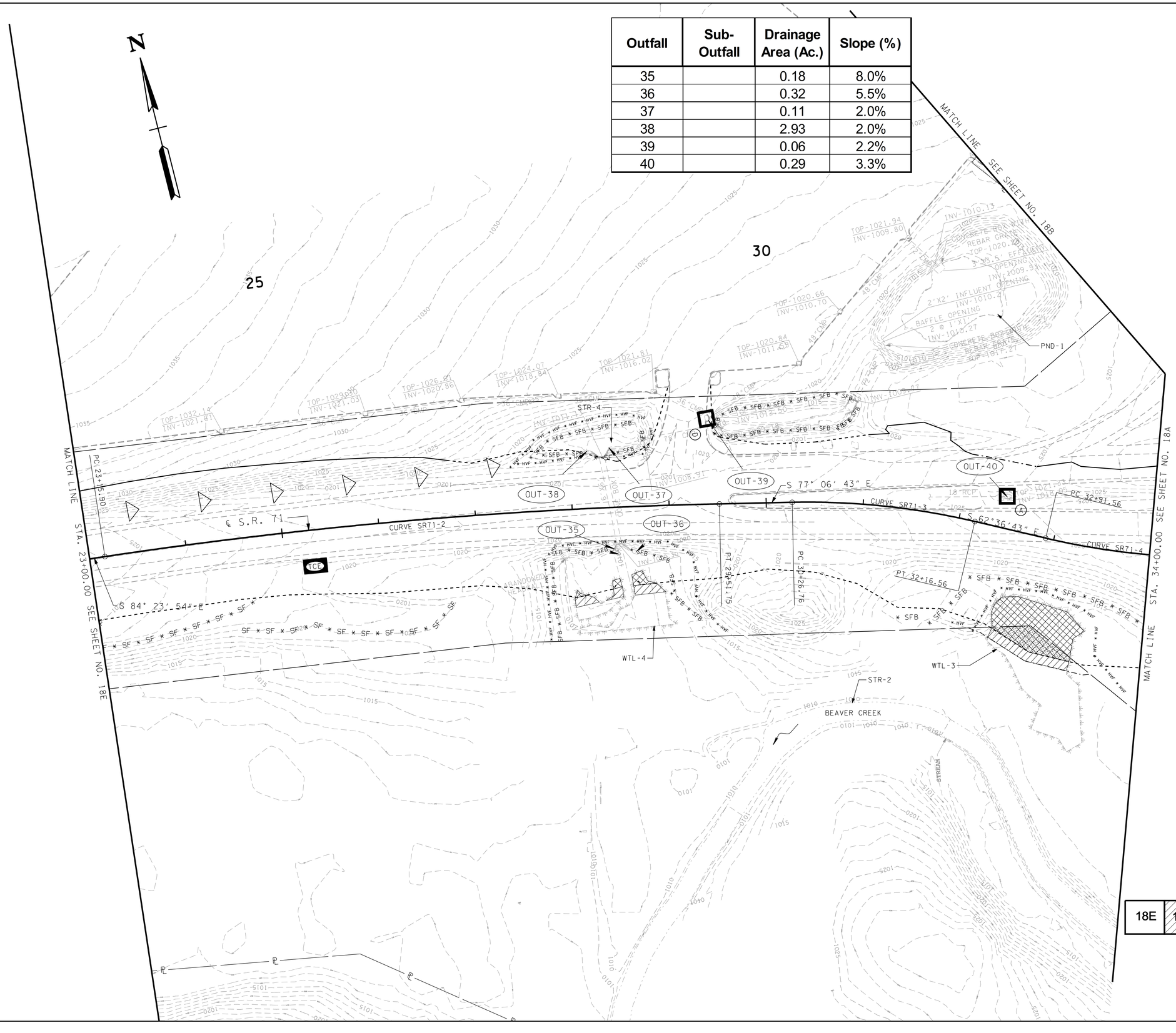
9:05:21 AM
M:\Knox County\Halls Connector\Sheets\18E_Erosion.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18F
CONST.	2014	HSIP-33(116)	18F

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
35		0.18	8.0%
36		0.32	5.5%
37		0.11	2.0%
38		2.93	2.0%
39		0.06	2.2%
40		0.29	3.3%



UNOFFICIAL SET

NOT FOR BIDDING

Keymap

	18C	18D
	18B	
18E	18F	18A
		18

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL CLEARING & GRUBBING

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)

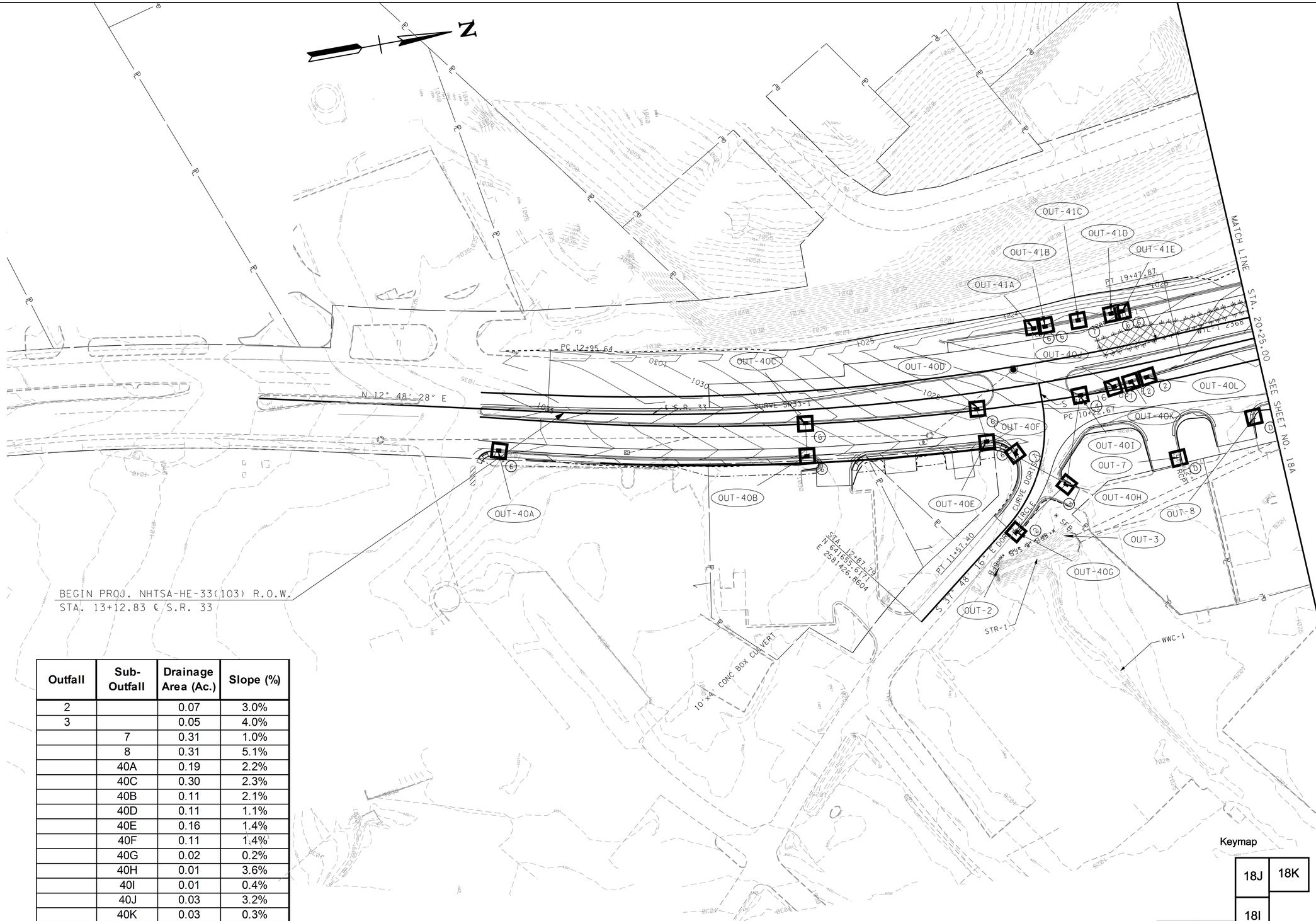
SCALE: 1"= 50'

9:05:28 AM
M:\Knox County\Halls Connector\Sheets\18F_Erosion.dgn

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

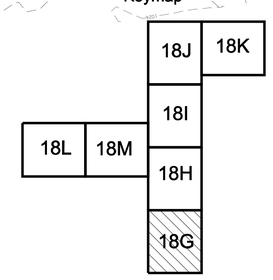
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18G
CONST.	2014	HSIP-33(116)	18G

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
2		0.07	3.0%
3		0.05	4.0%
	7	0.31	1.0%
	8	0.31	5.1%
	40A	0.19	2.2%
	40C	0.30	2.3%
	40B	0.11	2.1%
	40D	0.11	1.1%
	40E	0.16	1.4%
	40F	0.11	1.4%
	40G	0.02	0.2%
	40H	0.01	3.6%
	40I	0.01	0.4%
	40J	0.03	3.2%
	40K	0.03	0.3%
	40L	0.07	0.5%
	41A	0.46	0.9%
	41B	0.01	0.8%
	41C	0.26	0.4%
	41D	0.01	1.5%
	41E	0.35	1.6%

Keymap



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

BEG. PROJ. TO STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:05:36 AM
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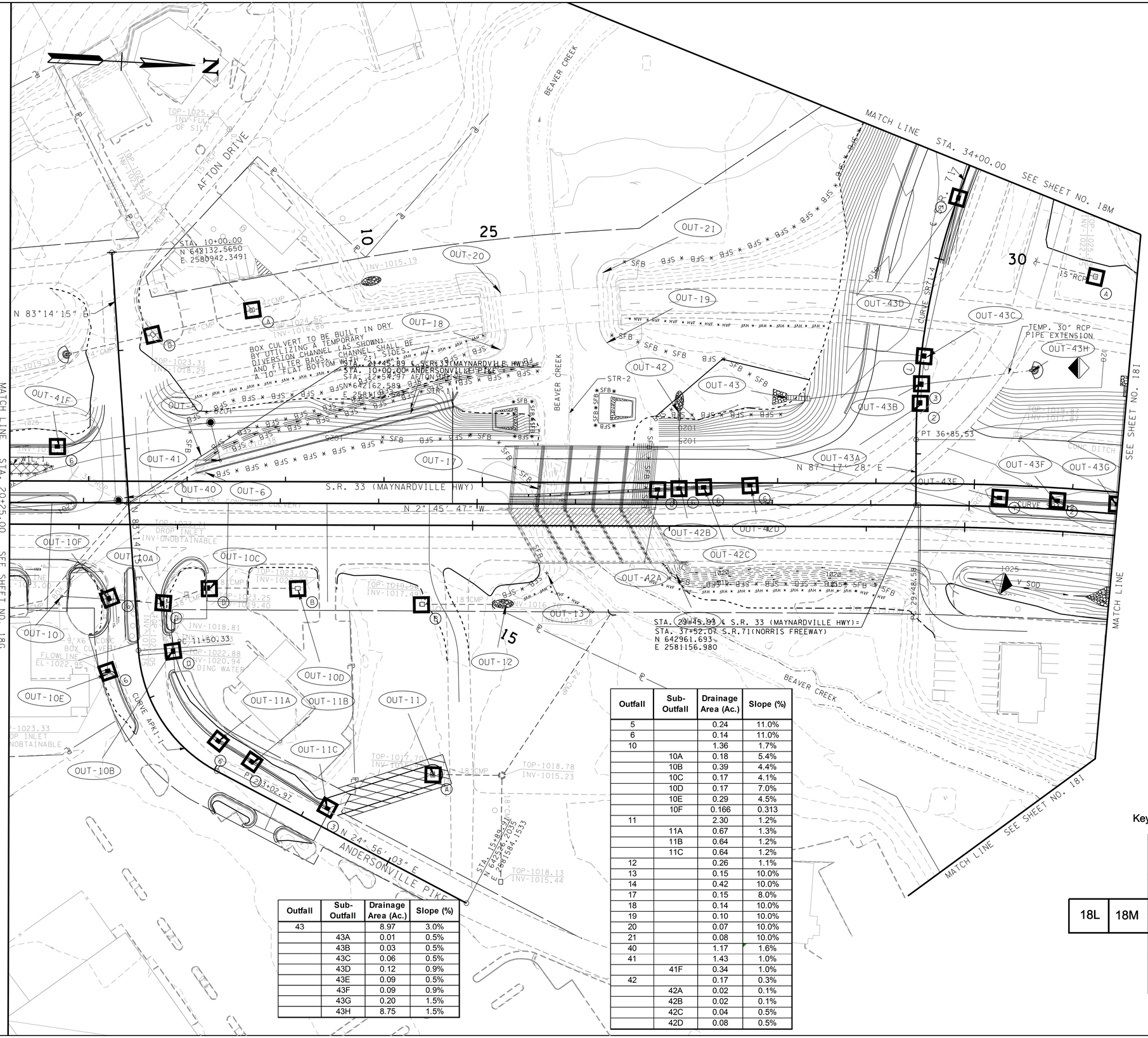
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18H
CONST.	2014	HSIP-33(116)	18H

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
43		8.97	3.0%
	43A	0.01	0.5%
	43B	0.03	0.5%
	43C	0.06	0.5%
	43D	0.12	0.9%
	43E	0.09	0.5%
	43F	0.09	0.9%
	43G	0.20	1.5%
	43H	8.75	1.5%

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
5		0.24	11.0%
6		0.14	11.0%
10		1.36	1.7%
	10A	0.18	5.4%
	10B	0.39	4.4%
	10C	0.17	4.1%
	10D	0.17	7.0%
	10E	0.29	4.5%
	10F	0.166	0.313
11		2.30	1.2%
	11A	0.67	1.3%
	11B	0.64	1.2%
	11C	0.64	1.2%
12		0.26	1.1%
13		0.15	10.0%
14		0.42	10.0%
17		0.15	8.0%
18		0.14	10.0%
19		0.10	10.0%
20		0.07	10.0%
21		0.08	10.0%
40		1.17	1.6%
41		1.43	1.0%
	41F	0.34	1.0%
42		0.17	0.3%
	42A	0.02	0.1%
	42B	0.02	0.1%
	42C	0.04	0.5%
	42D	0.08	0.5%

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
NO. 106.588
STATE OF TENNESSEE

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Keymap

	18J	18K
	18I	
18L	18M	18H
		18G

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:05:43 AM
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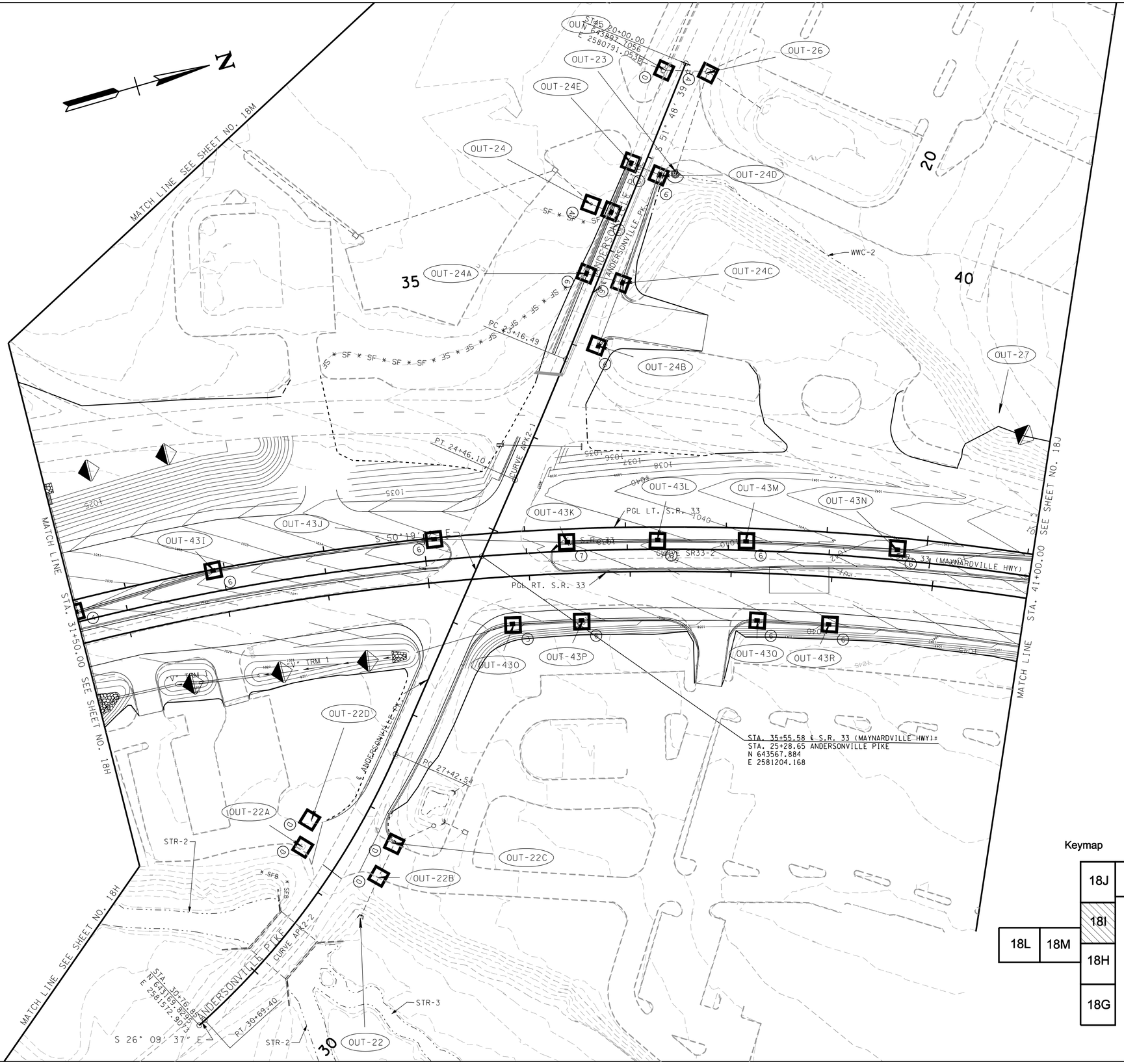
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	43I	0.23	1.968
	43J	0.01	1.63
	43K	0.11	1.63
	43L	0.11	1.23
	43M	0.18	1.23
	43N	0.21	1.23
	43O	0.15	1.66
	43P	0.48	1.66
	43Q	0.18	1.66
	43R	0.78	1.66
22		5.35	19.8%
	22A	0.29	1.9%
	22B	0.11	6.1%
	22C	0.13	5.7%
	22D	0.76	5.2%
23		18.60	9.3%
24		0.90	0.7%
	24A	0.11	5.9%
	24B	0.29	5.9%
	24C	0.21	5.9%
	24D	0.25	5.0%
	24E	0.05	6.5%
25		0.48	5.0%
26		1.37	3.8%
27		16.39	3.0%



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18I
CONST.	2014	HSIP-33(116)	18I

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

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NOT FOR BIDDING

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109.001
STATE OF TENNESSEE

Keymap

18L	18M	18J 18K
		18I
		18H
		18G

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:05:51 AM
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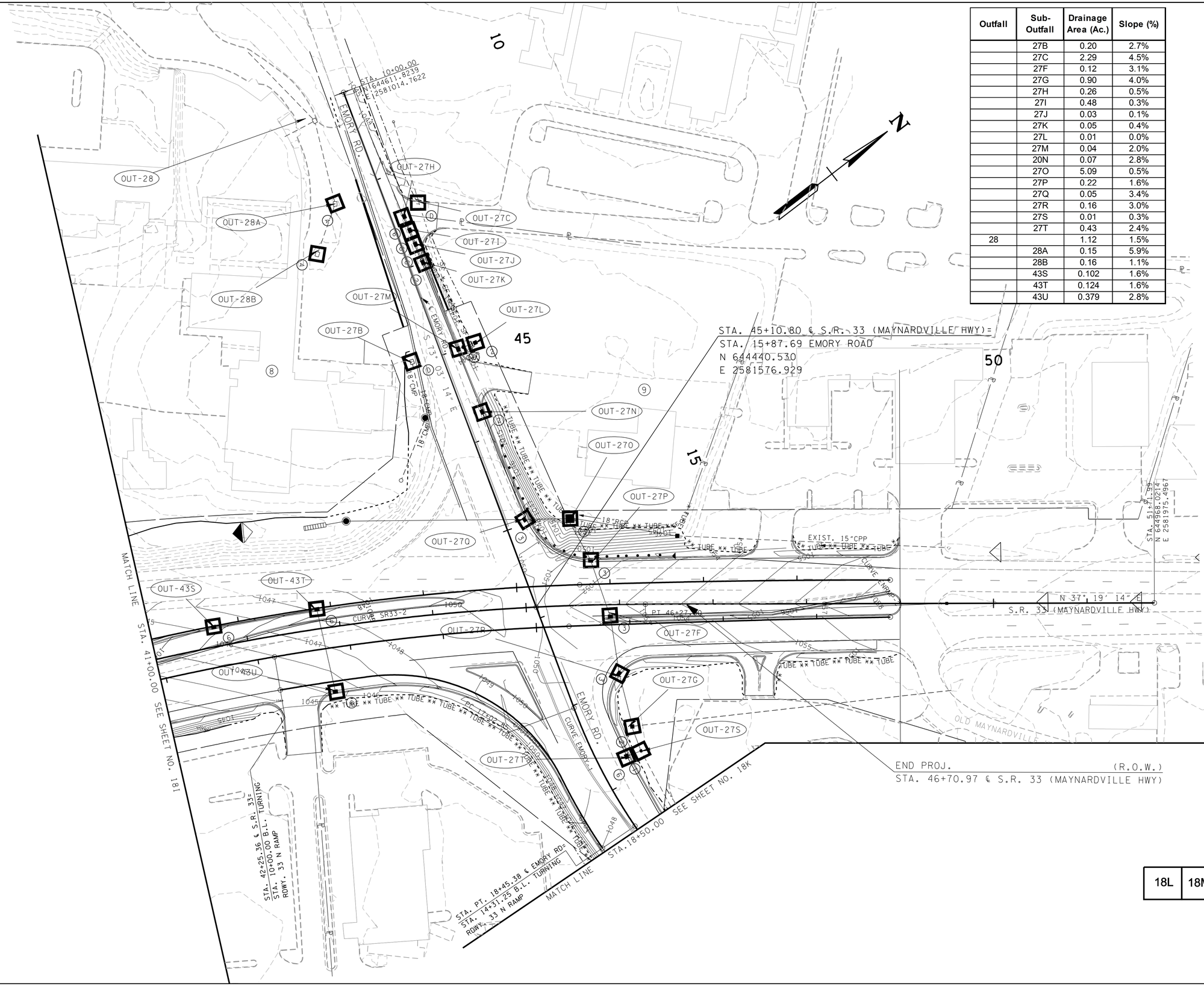
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	27B	0.20	2.7%
	27C	2.29	4.5%
	27F	0.12	3.1%
	27G	0.90	4.0%
	27H	0.26	0.5%
	27I	0.48	0.3%
	27J	0.03	0.1%
	27K	0.05	0.4%
	27L	0.01	0.0%
	27M	0.04	2.0%
	20N	0.07	2.8%
	27O	5.09	0.5%
	27P	0.22	1.6%
	27Q	0.05	3.4%
	27R	0.16	3.0%
	27S	0.01	0.3%
	27T	0.43	2.4%
28		1.12	1.5%
	28A	0.15	5.9%
	28B	0.16	1.1%
	43S	0.102	1.6%
	43T	0.124	1.6%
	43U	0.379	2.8%

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18J
CONST.	2014	HSIP-33(116)	18J

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

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Keymap

	18J	18K
	18I	
18L	18M	18H
		18G

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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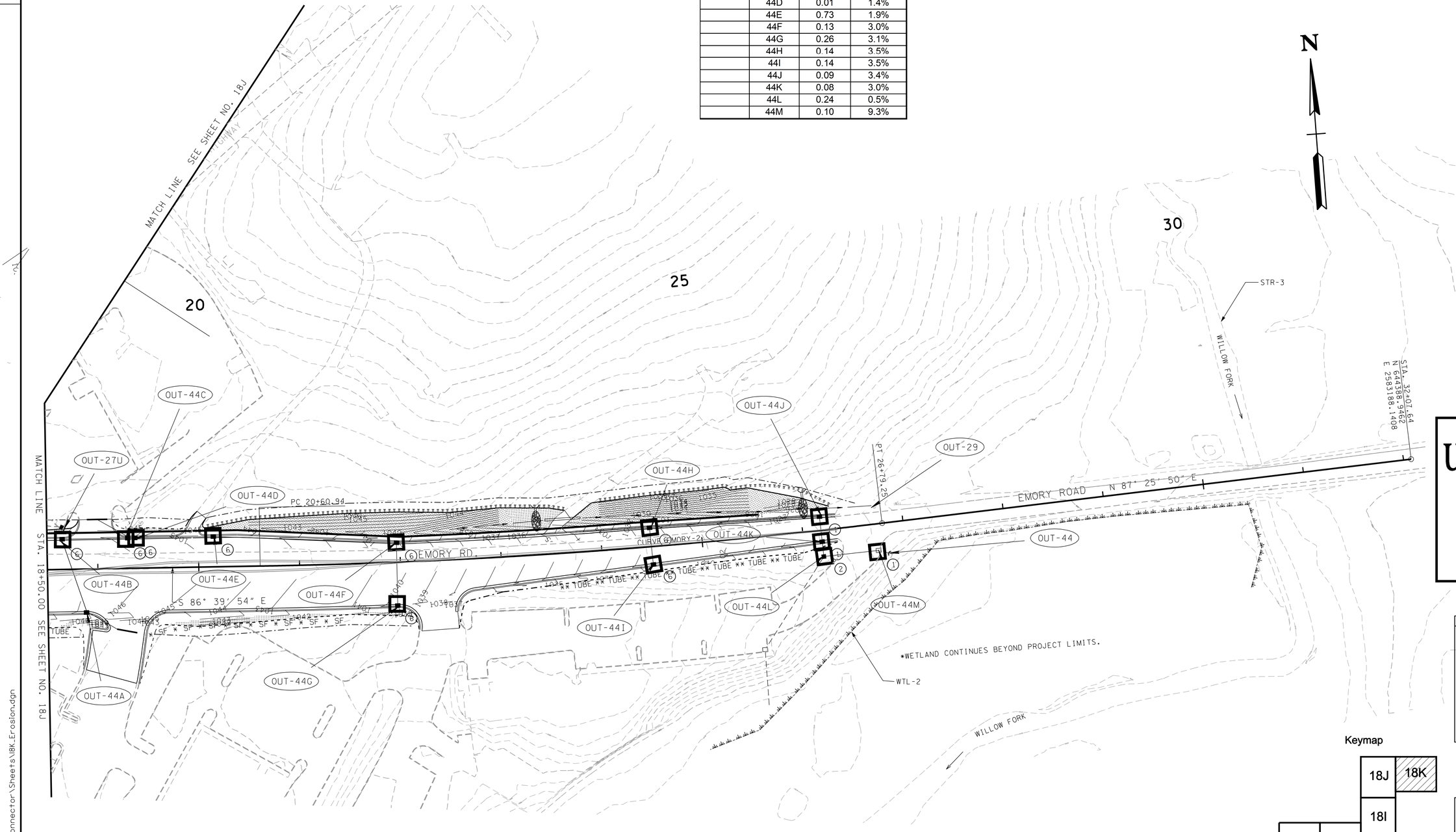
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

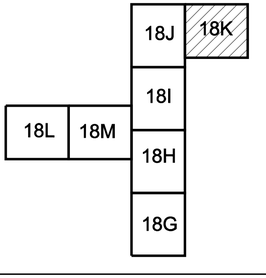
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18K
CONST.	2014	HSIP-33(116)	18K

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	27U	0.32	4.0%
29		6.19	2.5%
44		0.55	2.1%
	44A	0.06	2.9%
	44B	0.16	1.4%
	44C	0.09	2.0%
	44D	0.01	1.4%
	44E	0.73	1.9%
	44F	0.13	3.0%
	44G	0.26	3.1%
	44H	0.14	3.5%
	44I	0.14	3.5%
	44J	0.09	3.4%
	44K	0.08	3.0%
	44L	0.24	0.5%
	44M	0.10	9.3%



Keymap



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

STA. 18+50 TO LIMIT OF CONST.
EMORY RD.
SCALE: 1"= 50'

9:06:08 AM
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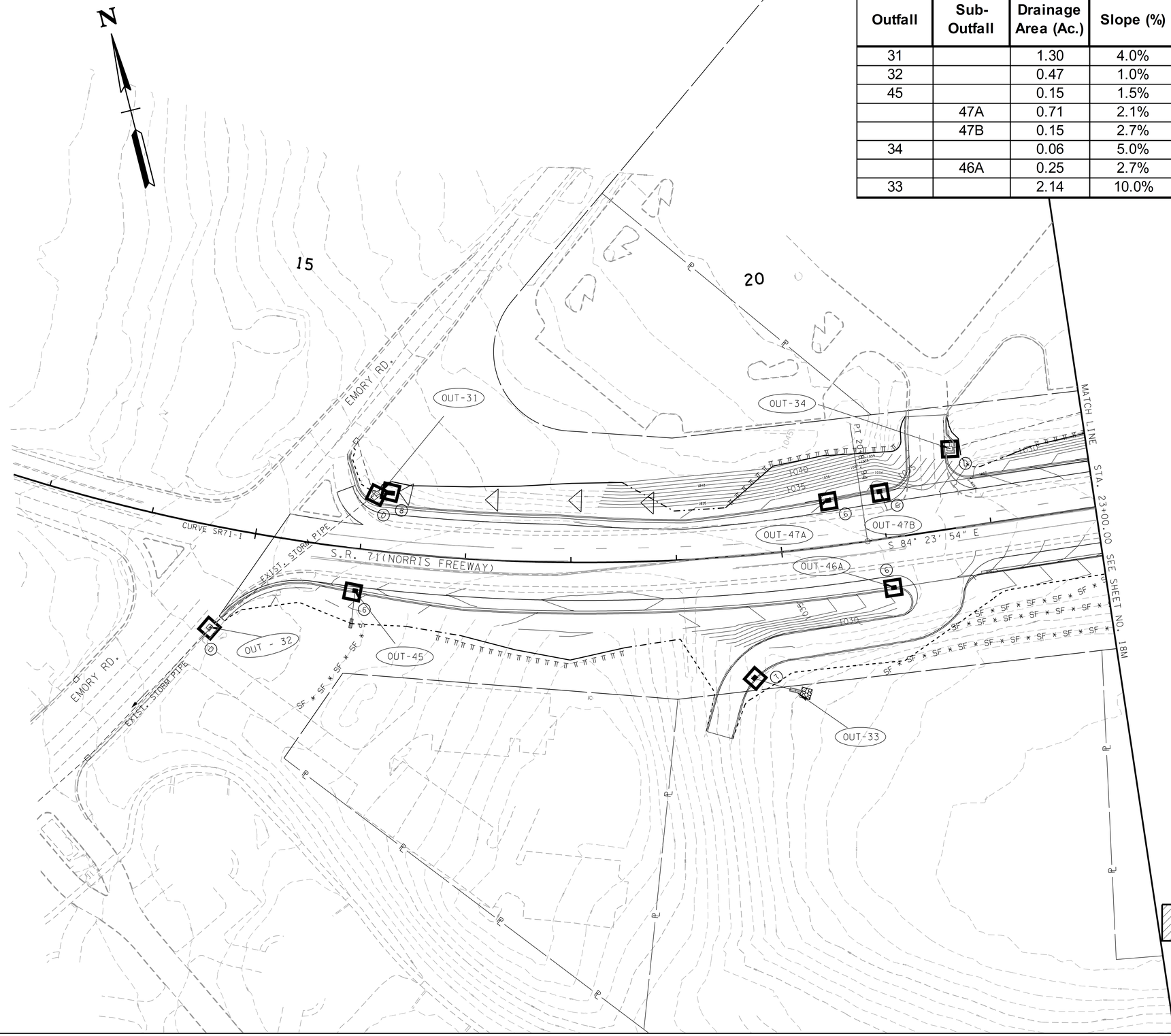
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18L
CONST.	2014	HSIP-33(116)	18L

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
31		1.30	4.0%
32		0.47	1.0%
45		0.15	1.5%
	47A	0.71	2.1%
	47B	0.15	2.7%
34		0.06	5.0%
	46A	0.25	2.7%
33		2.14	10.0%



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Keymap

	18J	18K
	18I	
18L	18M	18H
		18G

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

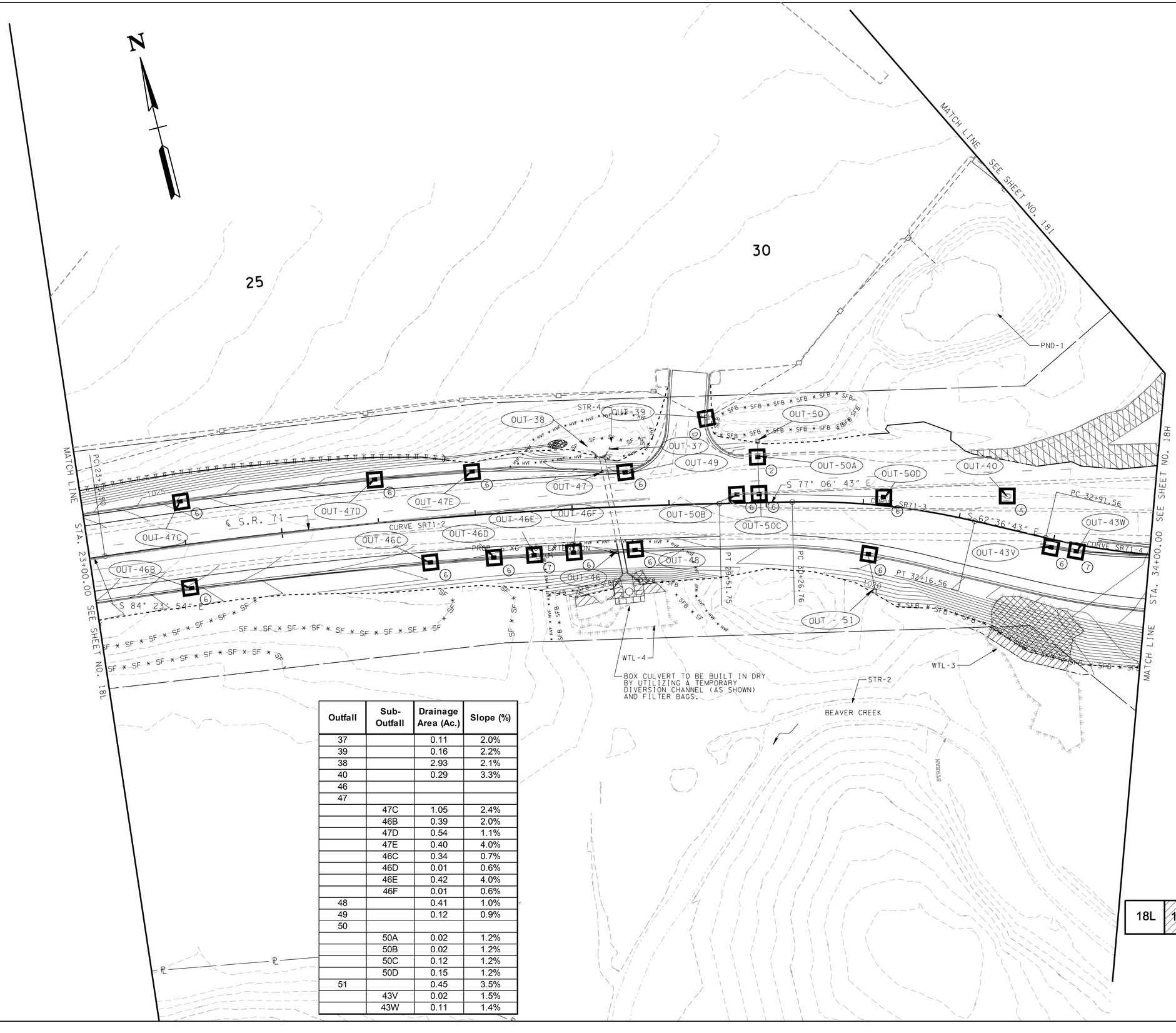
LIMIT OF CONST TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

9:06:16 AM
M:\Knox County\Halls Connector\Sheets\18L_Erosion.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18M
CONST.	2014	HSIP-33(116)	18M

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
37		0.11	2.0%
39		0.16	2.2%
38		2.93	2.1%
40		0.29	3.3%
46			
47			
	47C	1.05	2.4%
	46B	0.39	2.0%
	47D	0.54	1.1%
	47E	0.40	4.0%
	46C	0.34	0.7%
	46D	0.01	0.6%
	46E	0.42	4.0%
	46F	0.01	0.6%
48		0.41	1.0%
49		0.12	0.9%
50			
	50A	0.02	1.2%
	50B	0.02	1.2%
	50C	0.12	1.2%
	50D	0.15	1.2%
51		0.45	3.5%
	43V	0.02	1.5%
	43W	0.11	1.4%

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REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

Keymap

18J	18K	
18I		
18L	18M	
18H		
18G		

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)

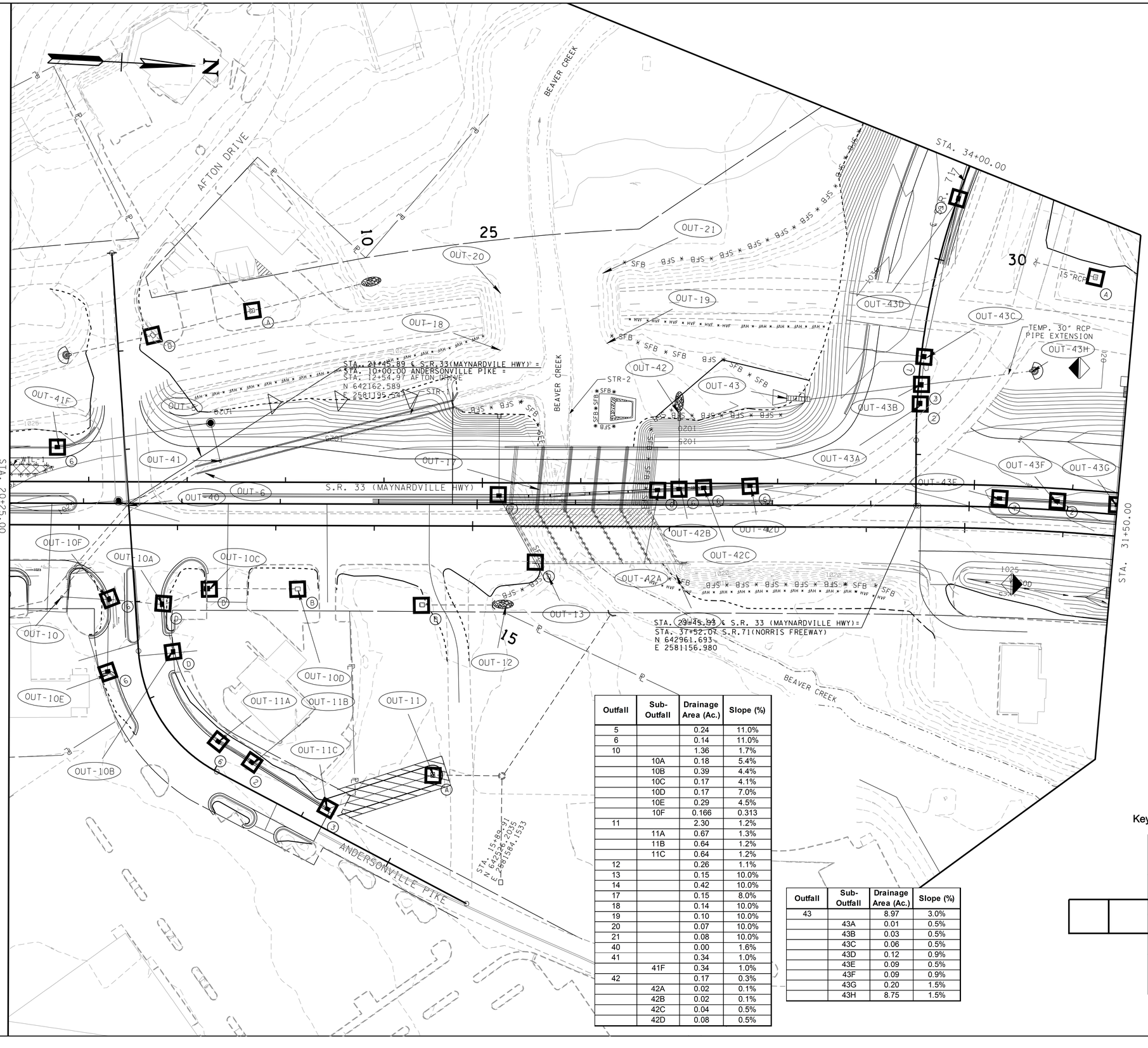
SCALE: 1"= 50'

9/06/22 AM
M:\Knox County\Halls Connector\Sheets\18M_Erosion.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18N
CONST.	2014	HSIP-33(116)	18N

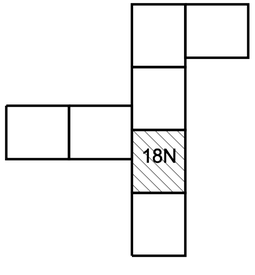
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
5		0.24	11.0%
6		0.14	11.0%
10		1.36	1.7%
	10A	0.18	5.4%
	10B	0.39	4.4%
	10C	0.17	4.1%
	10D	0.17	7.0%
	10E	0.29	4.5%
	10F	0.166	0.313
11		2.30	1.2%
	11A	0.67	1.3%
	11B	0.64	1.2%
	11C	0.64	1.2%
12		0.26	1.1%
13		0.15	10.0%
14		0.42	10.0%
17		0.15	8.0%
18		0.14	10.0%
19		0.10	10.0%
20		0.07	10.0%
21		0.08	10.0%
40		0.00	1.6%
41		0.34	1.0%
	41F	0.34	1.0%
42		0.17	0.3%
	42A	0.02	0.1%
	42B	0.02	0.1%
	42C	0.04	0.5%
	42D	0.08	0.5%

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
43		8.97	3.0%
	43A	0.01	0.5%
	43B	0.03	0.5%
	43C	0.06	0.5%
	43D	0.12	0.9%
	43E	0.09	0.5%
	43F	0.09	0.9%
	43G	0.20	1.5%
	43H	8.75	1.5%

Keymap



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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,585
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 1A

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

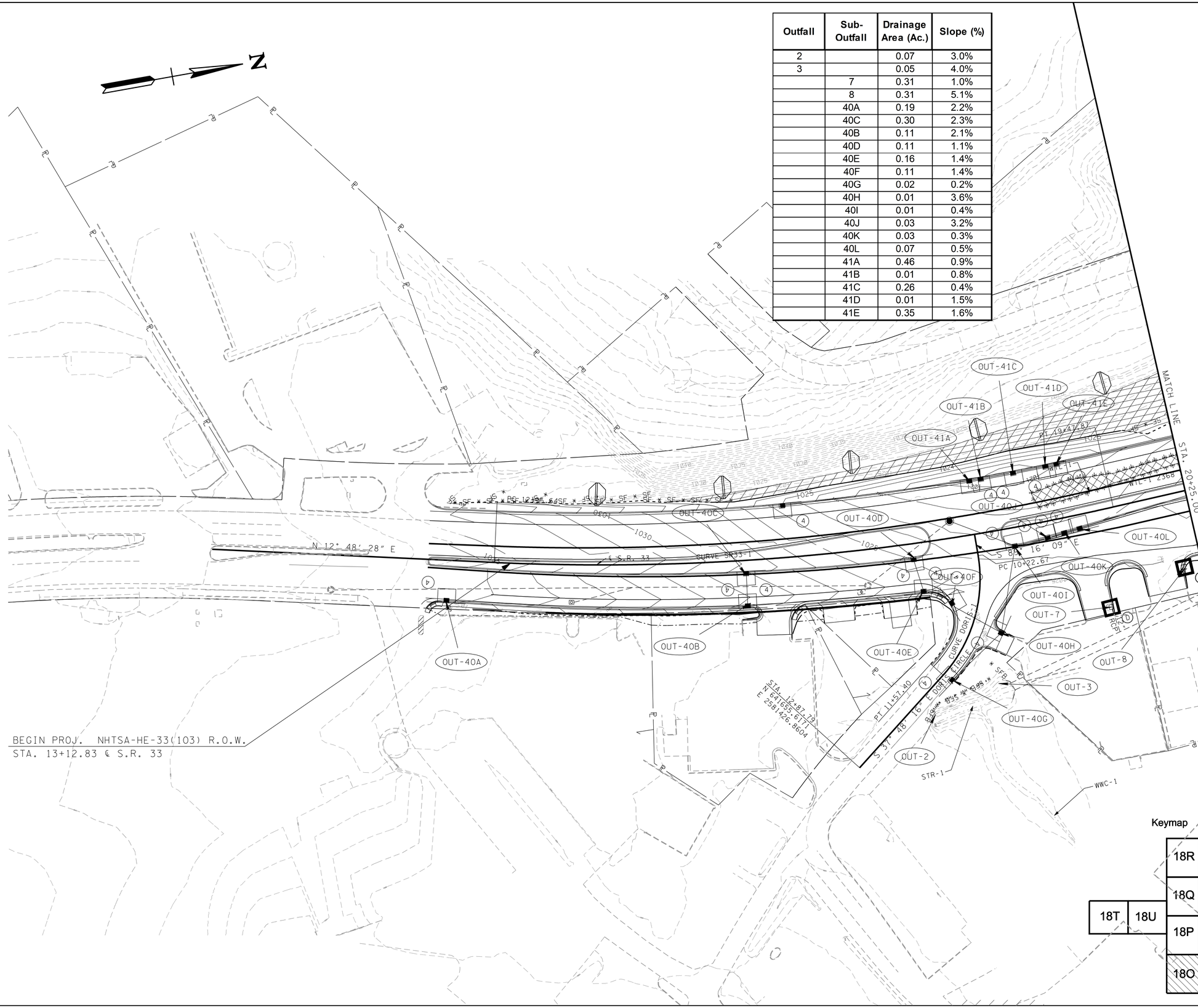
9:06:28 AM
M:\Knox County\Halls Connector\Sheets\18N_Erosion.dgn

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

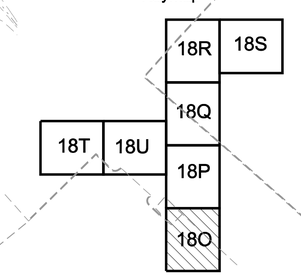
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18-O
CONST.	2014	HSIP-33(116)	18-O

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
2		0.07	3.0%
3		0.05	4.0%
	7	0.31	1.0%
	8	0.31	5.1%
	40A	0.19	2.2%
	40C	0.30	2.3%
	40B	0.11	2.1%
	40D	0.11	1.1%
	40E	0.16	1.4%
	40F	0.11	1.4%
	40G	0.02	0.2%
	40H	0.01	3.6%
	40I	0.01	0.4%
	40J	0.03	3.2%
	40K	0.03	0.3%
	40L	0.07	0.5%
	41A	0.46	0.9%
	41B	0.01	0.8%
	41C	0.26	0.4%
	41D	0.01	1.5%
	41E	0.35	1.6%



Keymap



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

BEG. PROJ. TO STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:06:35 AM
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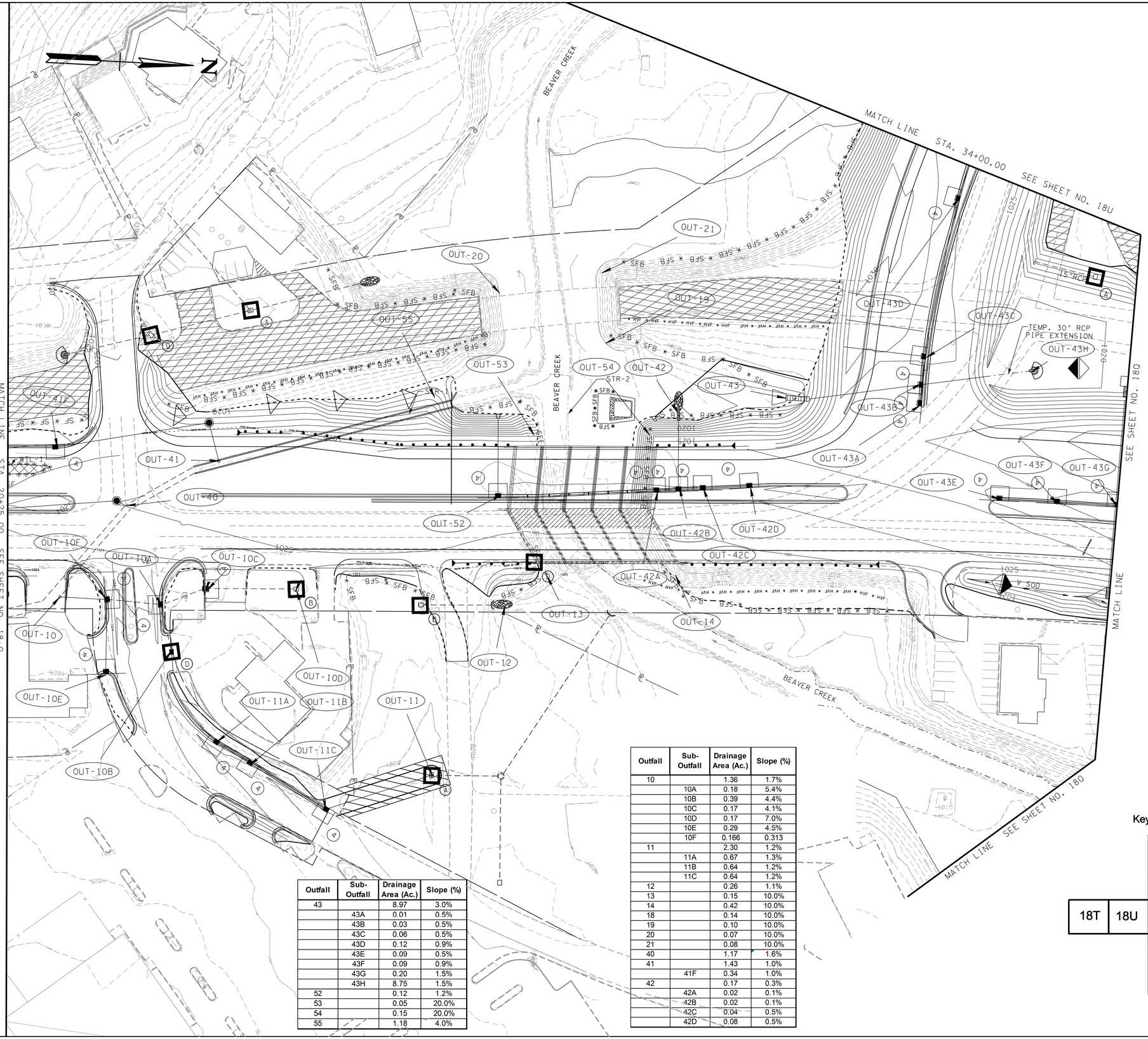
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18P
CONST.	2014	HSIP-33(116)	18P

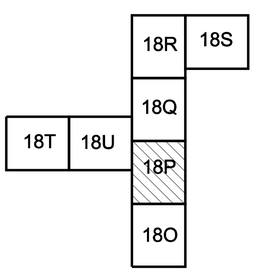
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
10		1.36	1.7%
	10A	0.18	5.4%
	10B	0.39	4.4%
	10C	0.17	4.1%
	10D	0.17	7.0%
	10E	0.29	4.5%
	10F	0.166	0.313
11		2.30	1.2%
	11A	0.67	1.3%
	11B	0.64	1.2%
	11C	0.64	1.2%
12		0.26	1.1%
13		0.15	10.0%
14		0.42	10.0%
18		0.14	10.0%
19		0.10	10.0%
20		0.07	10.0%
21		0.08	10.0%
40		1.17	1.6%
41		1.43	1.0%
	41F	0.34	1.0%
42		0.17	0.3%
	42A	0.02	0.1%
	42B	0.02	0.1%
	42C	0.04	0.5%
	42D	0.08	0.5%

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
43		8.97	3.0%
	43A	0.01	0.5%
	43B	0.03	0.5%
	43C	0.06	0.5%
	43D	0.12	0.9%
	43E	0.09	0.5%
	43F	0.09	0.9%
	43G	0.20	1.5%
	43H	8.75	1.5%
52		0.12	1.2%
53		0.05	20.0%
54		0.15	20.0%
55		1.18	4.0%

Keymap



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SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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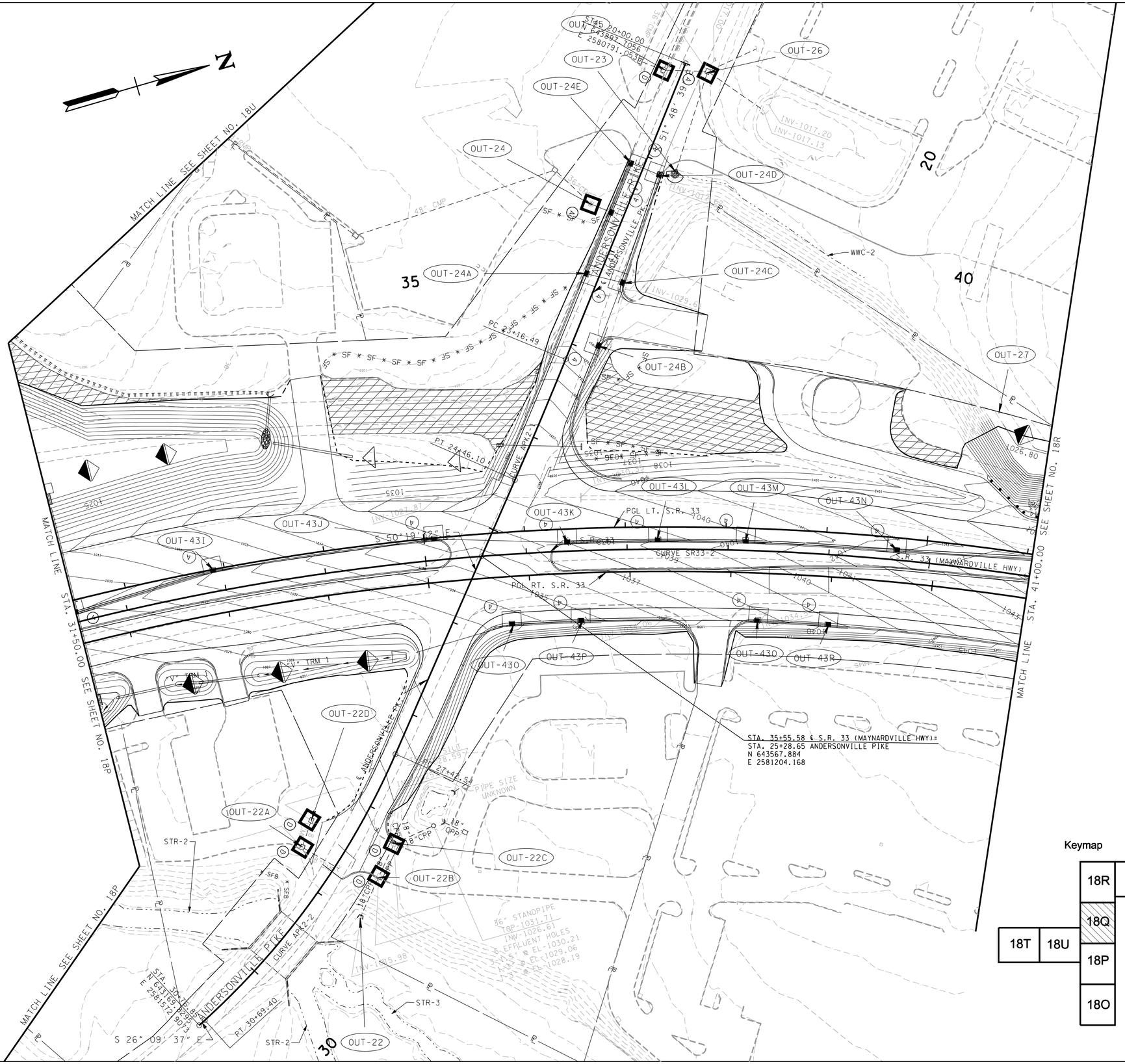
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	43I	0.23	1.968
	43J	0.01	1.63
	43K	0.11	1.63
	43L	0.11	1.23
	43M	0.18	1.23
	43N	0.21	1.23
	43O	0.15	1.66
	43P	0.48	1.66
	43Q	0.18	1.66
	43R	0.78	1.66
22		5.35	19.8%
	22A	0.29	1.9%
	22B	0.11	6.1%
	22C	0.13	5.7%
	22D	0.76	5.2%
23		18.60	9.3%
24		0.90	0.7%
	24A	0.11	5.9%
	24B	0.29	5.9%
	24C	0.21	5.9%
	24D	0.25	5.0%
	24E	0.05	6.5%
25		0.48	5.0%
26		1.37	3.8%
27		16.39	3.0%



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	180
CONST.	2014	HSIP-33(116)	180

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

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SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

Keymap

	18R	18S
	18Q	
18T	18U	18P
		18O

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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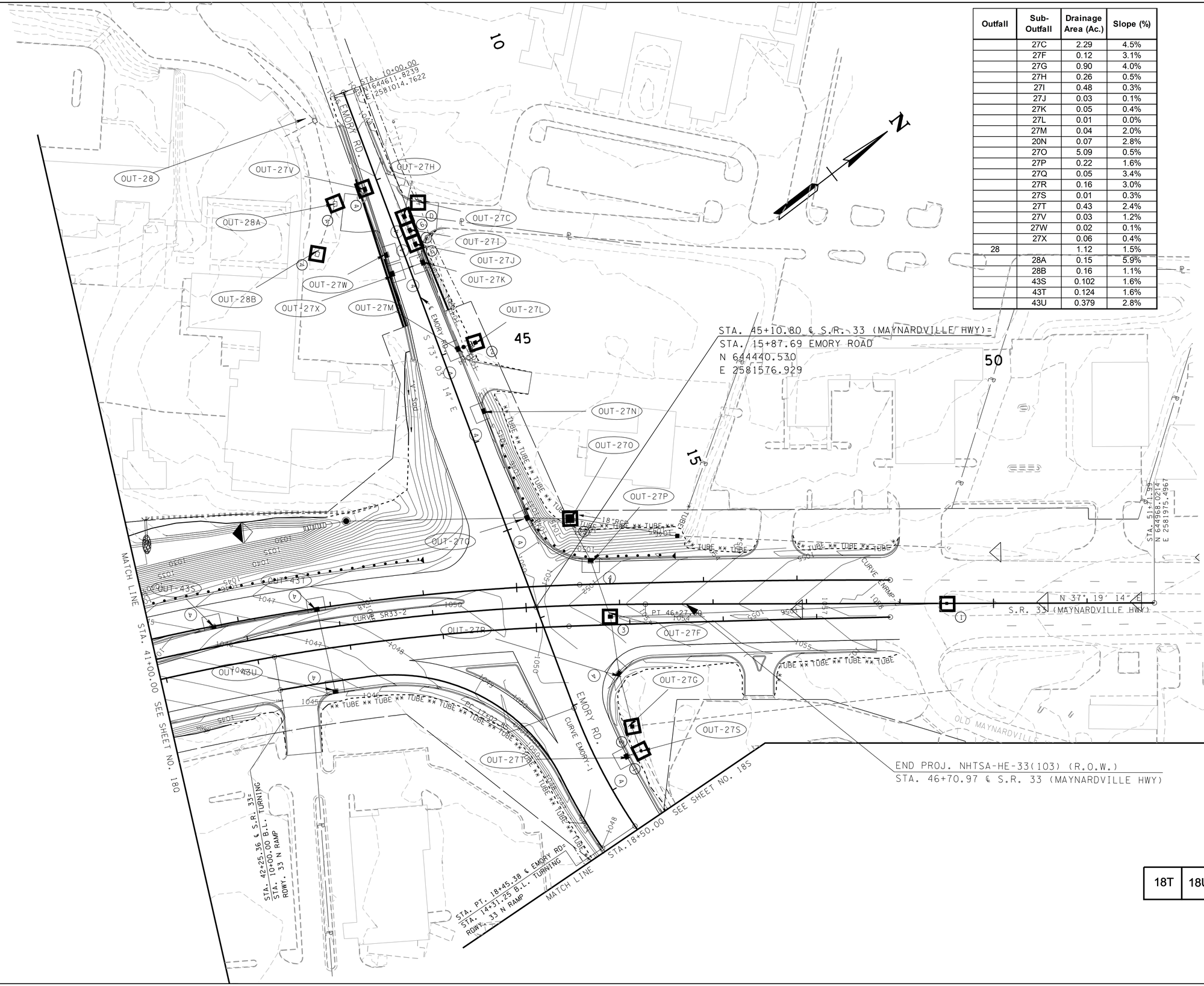
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	27C	2.29	4.5%
	27F	0.12	3.1%
	27G	0.90	4.0%
	27H	0.26	0.5%
	27I	0.48	0.3%
	27J	0.03	0.1%
	27K	0.05	0.4%
	27L	0.01	0.0%
	27M	0.04	2.0%
	20N	0.07	2.8%
	27O	5.09	0.5%
	27P	0.22	1.6%
	27Q	0.05	3.4%
	27R	0.16	3.0%
	27S	0.01	0.3%
	27T	0.43	2.4%
	27V	0.03	1.2%
	27W	0.02	0.1%
	27X	0.06	0.4%
28		1.12	1.5%
	28A	0.15	5.9%
	28B	0.16	1.1%
	43S	0.102	1.6%
	43T	0.124	1.6%
	43U	0.379	2.8%

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18R
CONST.	2014	HSIP-33(116)	18R

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

Keymap

	18R	18S
	18Q	
18T	18U	18P
		18O

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

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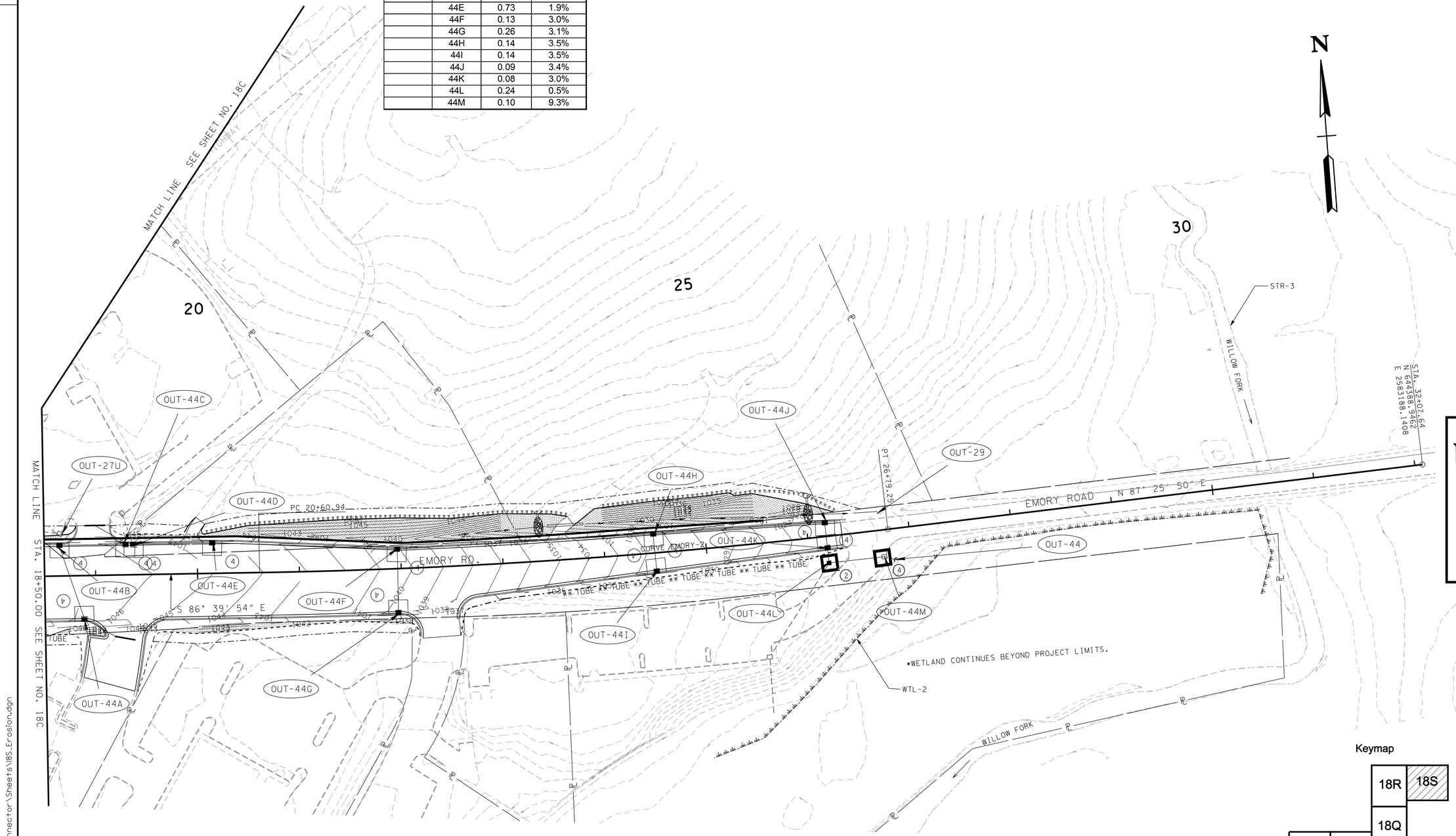
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	27U	0.32	4.0%
29		6.19	2.5%
44		0.55	2.1%
	44A	0.06	2.9%
	44B	0.16	1.4%
	44C	0.09	2.0%
	44D	0.01	1.4%
	44E	0.73	1.9%
	44F	0.13	3.0%
	44G	0.26	3.1%
	44H	0.14	3.5%
	44I	0.14	3.5%
	44J	0.09	3.4%
	44K	0.08	3.0%
	44L	0.24	0.5%
	44M	0.10	9.3%

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18S
CONST.	2014	HSIP-33(116)	18S

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
SUMMER
No. 109355
STATE OF TENNESSEE

Keymap

18R	18S	
18Q		
18T	18U	
18P		
18O		

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

STA. 18+50 TO LIMIT OF CONST.
EMORY RD.
SCALE: 1"= 50'

9:07:02 AM
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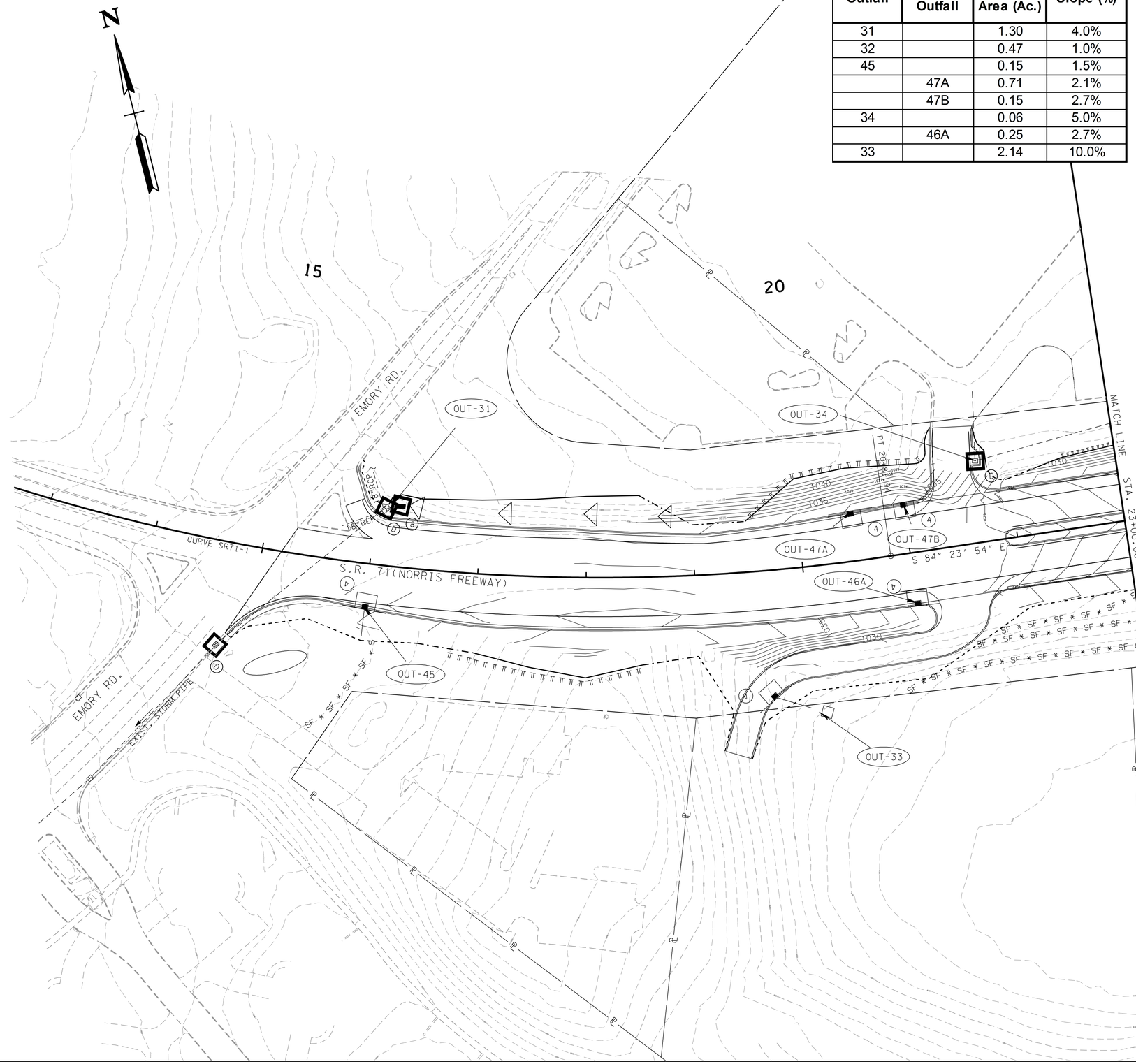
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18T
CONST.	2014	HSIP-33(116)	18T

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

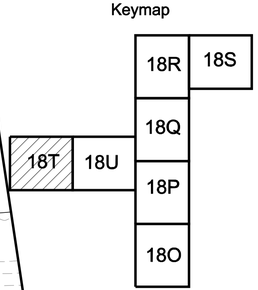
Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
31		1.30	4.0%
32		0.47	1.0%
45		0.15	1.5%
	47A	0.71	2.1%
	47B	0.15	2.7%
34		0.06	5.0%
	46A	0.25	2.7%
33		2.14	10.0%



UNOFFICIAL SET

NOT FOR BIDDING

Keymap



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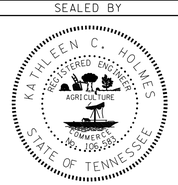

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

LIMIT OF CONST TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

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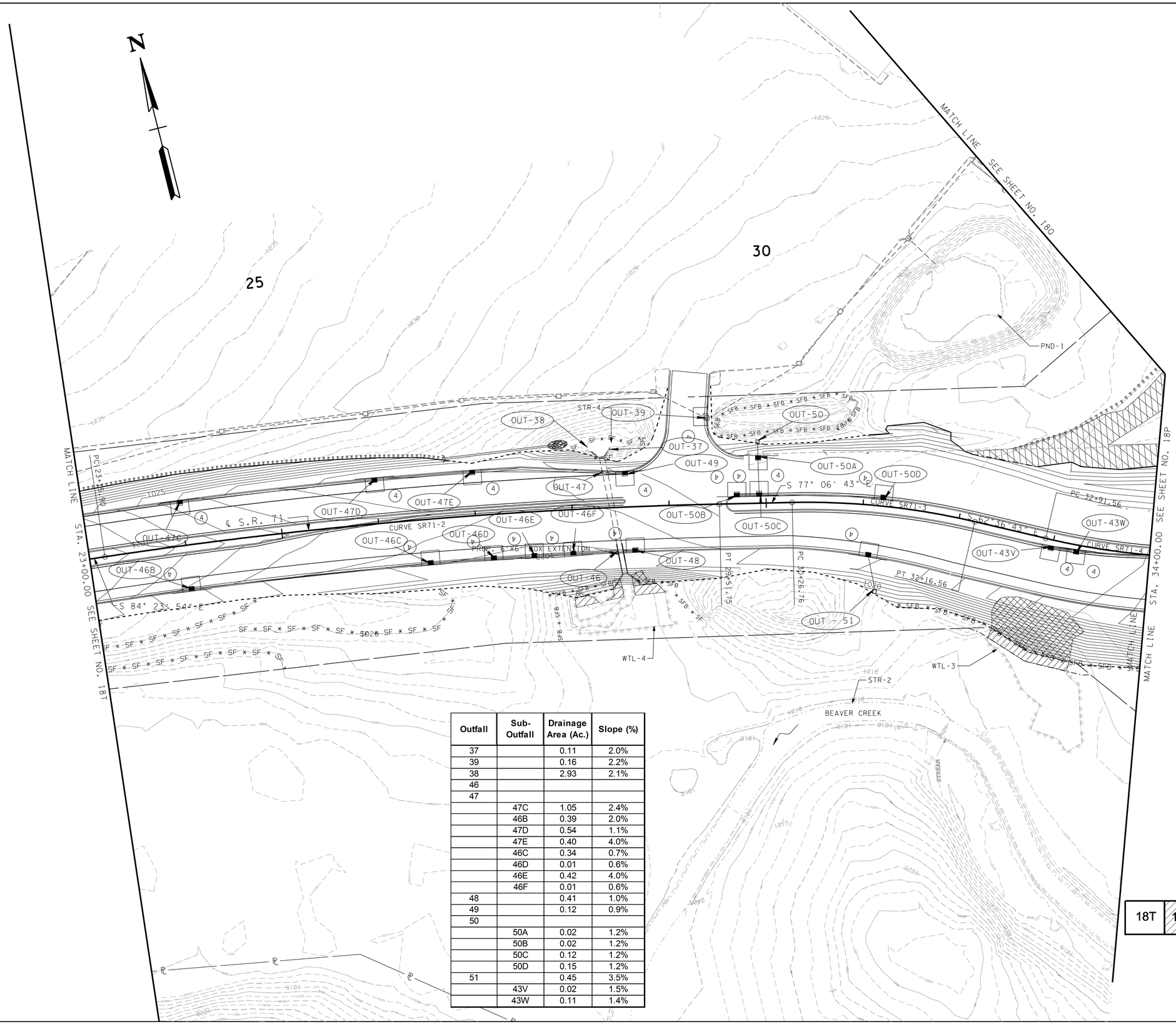
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18U
			18U

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
37		0.11	2.0%
39		0.16	2.2%
38		2.93	2.1%
46			
47			
	47C	1.05	2.4%
	46B	0.39	2.0%
	47D	0.54	1.1%
	47E	0.40	4.0%
	46C	0.34	0.7%
	46D	0.01	0.6%
	46E	0.42	4.0%
	46F	0.01	0.6%
48		0.41	1.0%
49		0.12	0.9%
50			
	50A	0.02	1.2%
	50B	0.02	1.2%
	50C	0.12	1.2%
	50D	0.15	1.2%
51		0.45	3.5%
	43V	0.02	1.5%
	43W	0.11	1.4%

UNOFFICIAL SET

NOT FOR BIDDING

Keymap

	18R	18S
	18Q	
18T	18U	18P
		18O

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KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

9:07:12 AM
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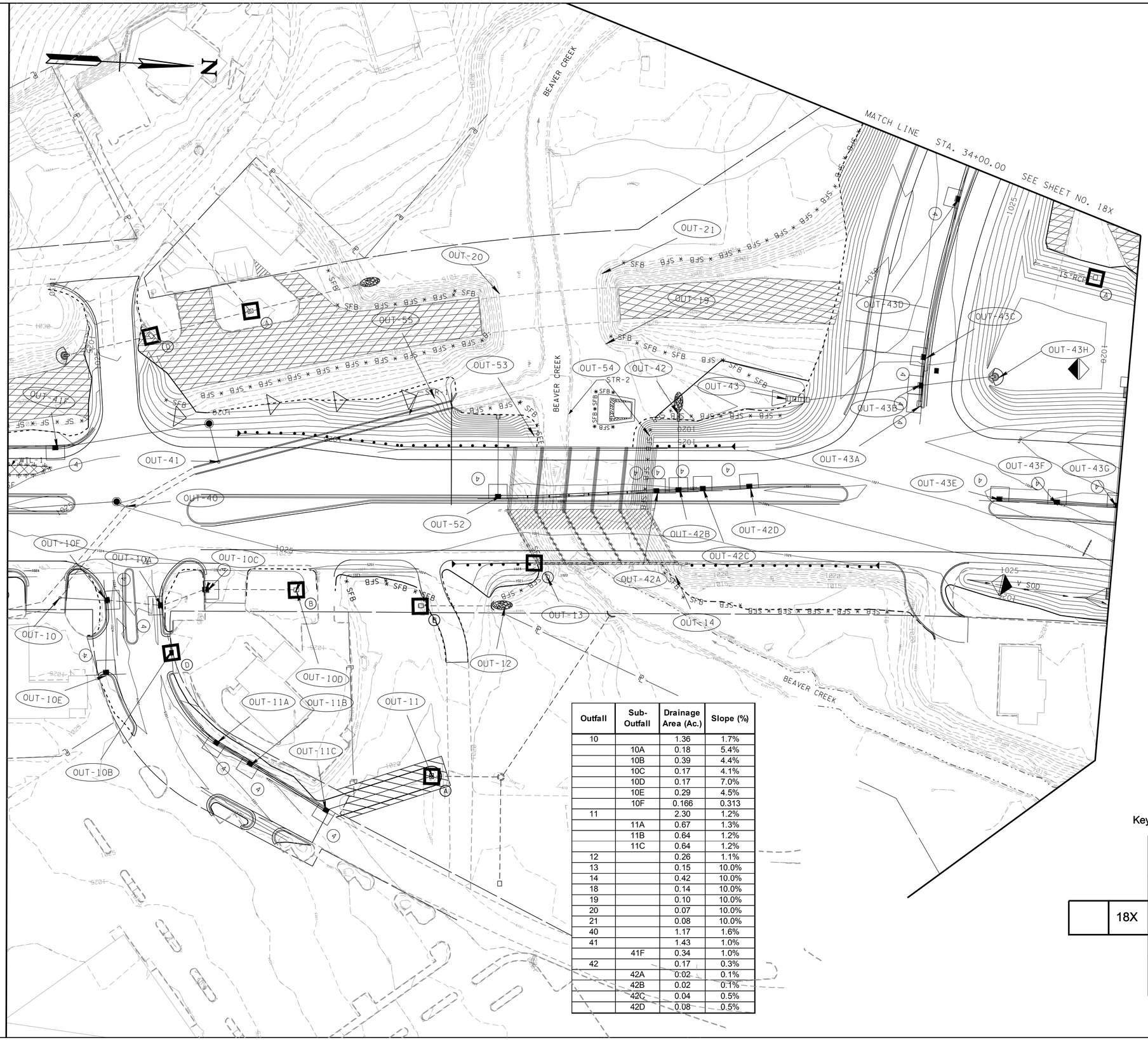
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18V
CONST.	2014	HSIP-33(116)	18V

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
10		1.36	1.7%
	10A	0.18	5.4%
	10B	0.39	4.4%
	10C	0.17	4.1%
	10D	0.17	7.0%
	10E	0.29	4.5%
	10F	0.166	0.313
11		2.30	1.2%
	11A	0.67	1.3%
	11B	0.64	1.2%
	11C	0.64	1.2%
12		0.26	1.1%
13		0.15	10.0%
14		0.42	10.0%
18		0.14	10.0%
19		0.10	10.0%
20		0.07	10.0%
21		0.08	10.0%
40		1.17	1.6%
41		1.43	1.0%
	41F	0.34	1.0%
42		0.17	0.3%
	42A	0.02	0.1%
	42B	0.02	0.1%
	42C	0.04	0.5%
	42D	0.08	0.5%

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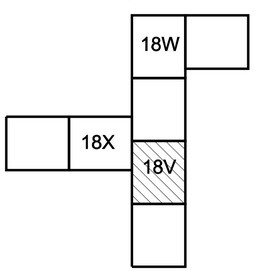
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
No. 105280
STATE OF TENNESSEE

Keymap



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2A

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:07:18 AM
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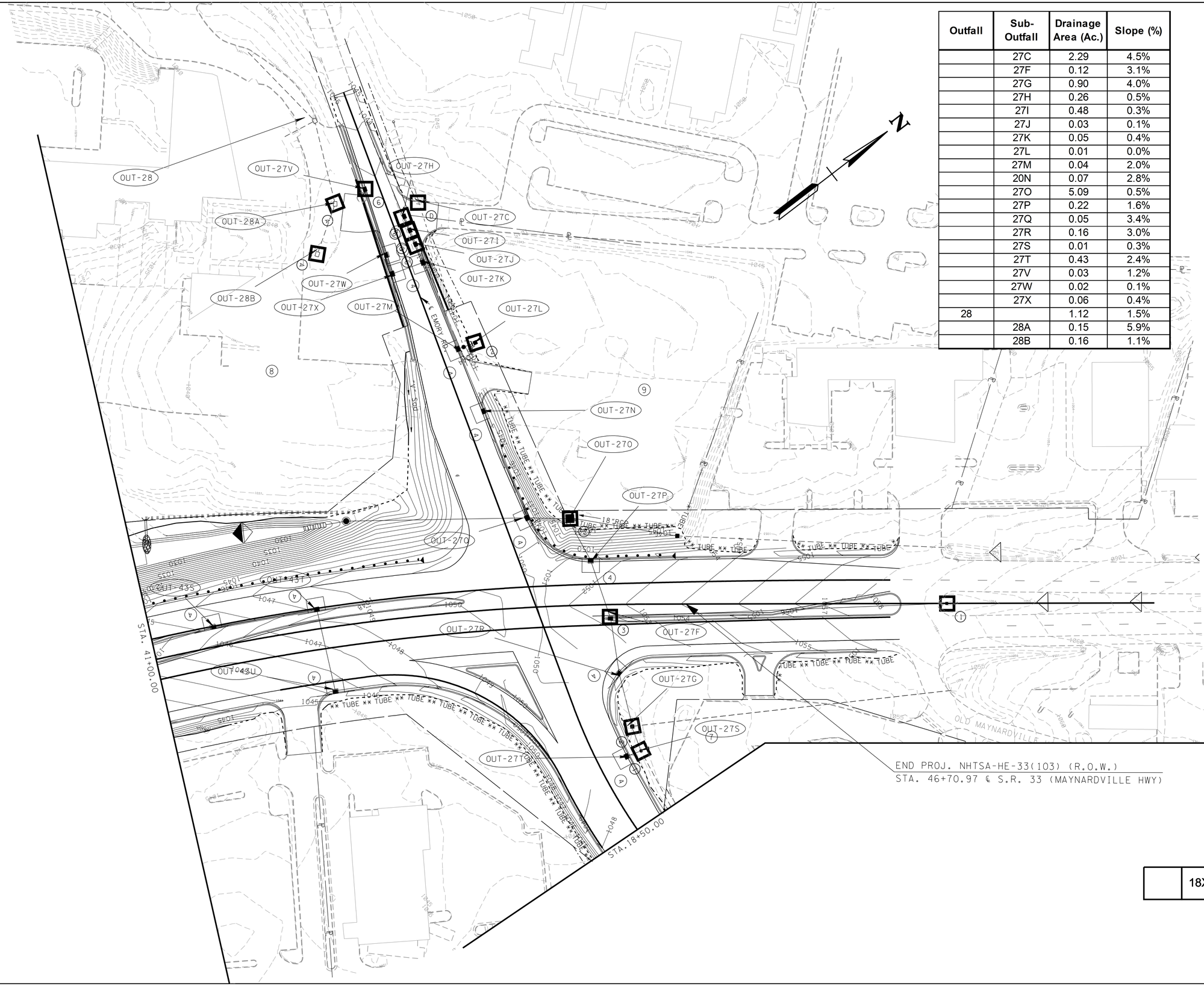
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
	27C	2.29	4.5%
	27F	0.12	3.1%
	27G	0.90	4.0%
	27H	0.26	0.5%
	27I	0.48	0.3%
	27J	0.03	0.1%
	27K	0.05	0.4%
	27L	0.01	0.0%
	27M	0.04	2.0%
	20N	0.07	2.8%
	27O	5.09	0.5%
	27P	0.22	1.6%
	27Q	0.05	3.4%
	27R	0.16	3.0%
	27S	0.01	0.3%
	27T	0.43	2.4%
	27V	0.03	1.2%
	27W	0.02	0.1%
	27X	0.06	0.4%
28		1.12	1.5%
	28A	0.15	5.9%
	28B	0.16	1.1%

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18W
CONST.	2014	HSIP-33(116)	18W

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



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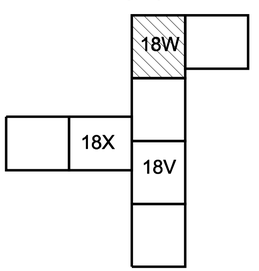
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

Keymap



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2A

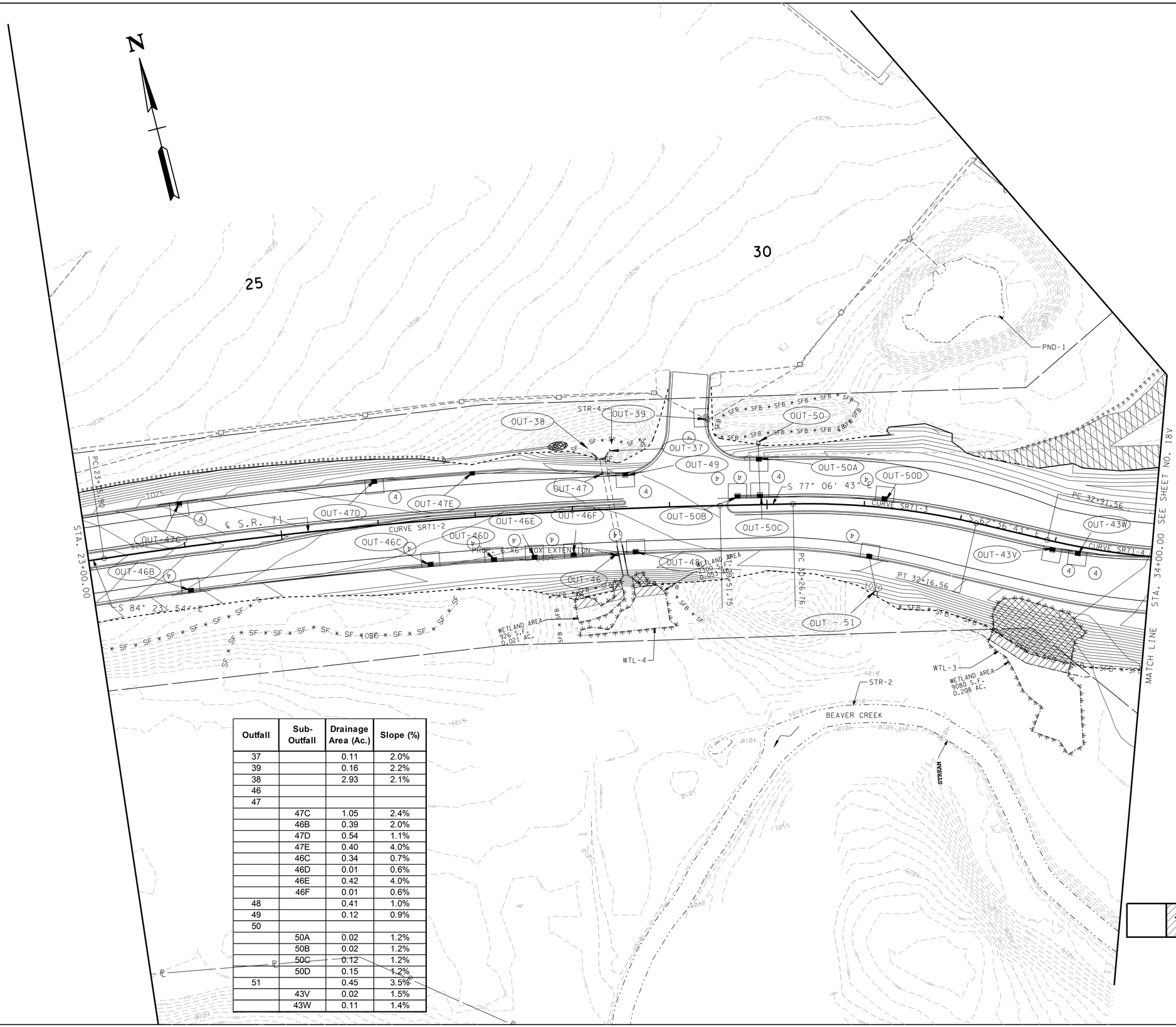
STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:07:25 AM
M:\Knox County\Halls Connector\Sheets\18W_Erosion.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18X
CONST.	2014	HSIP-33(116)	18X

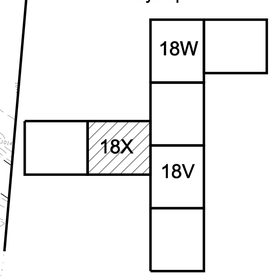
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



Outfall	Sub-Outfall	Drainage Area (Ac.)	Slope (%)
37		0.11	2.0%
39		0.16	2.2%
38		2.93	2.1%
46			
47			
	47C	1.05	2.4%
	46B	0.39	2.0%
	47D	0.54	1.1%
	47E	0.40	4.0%
	46C	0.34	0.7%
	46D	0.01	0.6%
	46E	0.42	4.0%
	46F	0.01	0.6%
48		0.41	1.0%
49		0.12	0.9%
50			
	50A	0.02	1.2%
	50B	0.02	1.2%
	50C	0.12	1.2%
	50D	0.15	1.2%
51		0.45	3.5%
	43V	0.02	1.5%
	43W	0.11	1.4%

UNOFFICIAL SET
NOT FOR BIDDING

Keymap



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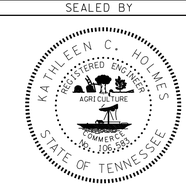

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PHASE 2A

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)

SCALE: 1"= 50'

9:07:30 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

STREAM / WETLAND

(1) 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.

(2) A 30 FOOT 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 ROADWAY 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.

KNOWN EXCEPTIONAL TENNESSEE WATERS

(3) 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 ROADWAY 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.

(4) 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 ROADWAY 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

(5) 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.

(6) 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.

(7) 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.

(8) 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 NON-ERODIBLE SURFACE.

(9) 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.

(10) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP.

(11) 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

(12) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(13) 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

(14) 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).

(15) 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.

(16) 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.

(17) 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.

(18) 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.

(19) 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.

(20) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).

(21) 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.

POLYACRYLAMIDE

(35) ENSURE POLYACRYLAMIDE (PAM) EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE AND MEET THE FOLLOWING REQUIREMENTS:

(36) MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.

(37) HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE.

(38) MIXTURE IS NON-COMBUSTIBLE.

(39) CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.

(40) PAM SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET (MSDS) REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USES CONFORMING TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.

(41) ALL VENDERS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES THAT THE PAM, PAM MIX, PAM BLEND EXHIBITS ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPA REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF PAM ARE NOT ALLOWED FOR UNDER THIS GUIDELINE DUE TO THEIR HIGH LEVELS OF TOXICITY TO AQUATIC ORGANISMS. PAM EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUR TO SURFACTANT TOXICITY. CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR USE ON THIS PROJECT.

(42) ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS SDEMONSTRATING THAT A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.

(43) EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF A TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS.

(44) PAM POWDER MAY BE APPLIED BY A HAND SPREADER OR A MECHANICAL SPREADER. MIXING PAM POWDER WITH DRY ~~DILICA~~ SILICA SAND WILL AID IN SPREADING.

(45) PREMIXING OF PAM POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.

(46) PAM LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18Y
CONST.	2014	HSIP-33(116)	18Y

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19
CONST.	2014	HSIP-33(116)	

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL SPECIAL NOTES

THIS TRAFFIC CONTROL PLAN IS PROVIDED AS A GUIDE TO THE CONTRACTOR AND IS NOT INTENDED TO SUPERSEDE OR RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH "THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", CURRENT EDITION.

THE CONSTRUCTION SIGNING PLAN IS TO SERVE AS A GUIDE ONLY: OTHER SIGN AND DEVICES MAY BE REQUIRED DURING THE DIFFERENT PHASES OF THE CONSTRUCTION.

EACH PHASE OF THE SUGGESTED SEQUENCE OF CONSTRUCTION, FOR WHICH THESE TRAFFIC CONTROL PLANS WERE DESIGNED, REQUIRES THE TIMELY COMPLETION OF THE PRECEDING PHASE. ANY VARIATION IN THE PROPOSED PHASING SHALL REQUIRE A REVIEW AND APPROVAL OF THE SIGNING AND TRAFFIC CONTROL DEVICES BY THE T.D.O.T. SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO PROVIDE PAVED DETOURS AND LANE SHIFTS WHERE NECESSARY TO ROUTE TRAFFIC AROUND CONSTRUCTION.

NO TRAFFIC SHALL BE DETOURED, OR ROAD CLOSED, ABANADONED, OR REMOVED WITHOUT THE PRIOR APPROVAL OF THE T.D.O.T. SUPERVISOR.

THE SUGGESTED CONSTRUCTION PROCEDURE DOES NOT ITEMIZE OR DISCUSS ALL ELEMENTS OF WORK REQUIRED UNDER THIS CONTRACT.

THE CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

PERMANENT SIGNS SHALL BE IN PLACE BEFORE COMPLETED ROADWAYS ARE OPENED TO TRAFFIC.

THE CONTRACTOR SHALL MAINTAIN TWO LANES OF TRAFFIC IN BOTH DIRECTIONS ON S.R. 33 AND S.R. 71 AT ALL TIMES DURING CONSTRUCTION.

TWO FLAGS ARE TO BE MOUNTED ON EACH ADVANCE WARNING SIGN. FLAGS ARE TO BE 1.5 FT X 1.5 FT AND FLUOURESCENT RED-ORANGE IN COLOR. COST OF THE FLAGS IS TO BE INCLUDED IN THE COST OF OTHER ITEMS.

W20-7a 36" X 36" | W8-11 36" X 36" | W8-9a 30" X 30"

NOTES: SHOULDER DROP-OFF, UNEVEN LANES, FLAGGER AHEAD SIGNS, AND ONE LANE ROAD AHEAD SIGNS TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT. TO BE LOCATED AS DIRECTED BY THE ENGINEER.

WHEN TRAFFIC IS RESTRICTED TO ONE LANE, THE CONTRACTOR IS TO HAVE TWO FLAGGERS ON THE PROJECT. TRAFFIC CONTROL SIGNING FOR THIS OPERATION TO BE INSTALLED IN ACCORDANCE WITH STD. DWG. T-WZ-36. COST OF THE FLAGGER IS TO BE INCLUDED IN ITEM NO. 712-01.

CONSTRUCTION SIGN SCHEDULE

SIGN CODE	DESCRIPTION	SIGN DIMENSIONS	AREA IN SQ. FT. /EA.	NO. REQ'D	AREA REQ'D SQ. FT.
W20-7a	Flagger	36"x36"	9	8	72
W8-11	Uneven Lanes	36"x36"	9	8	72
W8-9a	Shoulder Drop Off	30"x30"	6.25	8	50
W20-1	Road Work Ahead	48"x48"	16	27	432
W1-4b MOD	Lane Shift Ahead	48"x48"	16	2	32
W1-4BR	2 Lane Shift Right	48"x48"	16	2	32
G20-1	Road Work Next XX Miles	48"x24"	8	9	72
G20-2	End Road Work	48"x24"	8	13	104
W21-5L	Left Shoulder Closed	48"x48"	16	2	32
Supp. Sign	Next XX Mile	36"x18"	4.5	3	13.5
W1-4BL	2 Lane Shift Left	48"x48"	16	2	32
R11-2	Road Closed	48"x30"	10	11	110
W20-1	Road Work Ahead	36"x36"	9	4	36
W21-5R	Right Shoulder Closed	48"x48"	16	1	16
M3-3	South	24"x12"	2	2	4
M3-1	North	24"x12"	2	2	4
TN-6B	Secondary State Route	30"x24"	5	2	10
M1-4	US Highway	30"x24"	5	2	10
M5-1L	Adv. Arrow - 90 deg LT	21"x15"	2.2	2	4.4
M6-1L	Directional Arrow - LT	21"x15"	2.2	2	4.4
				TOTAL:	1109.5

TABULATION OF MAINTENANCE OF TRAFFIC DEVICES AND SIGN (CONSTRUCTION)

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
705-08.10	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-2	6	EA
712-01	TRAFFIC CONTROL	1	LS
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	2000	LF
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	1100	EA
712-05.01	WARNING LIGHTS (TYPE A)	34	EA
712-05.03	WARNING LIGHTS (TYPE C)	30	EA
712-06	SIGNS (CONSTRUCTION)	1110	SF
712-06.01	VERTICAL PANELS	200	SF
712-07.03	TEMPORARY BARRICADES (TYPE III)	487	LF
712-08.03	ARROW BOARD (TYPE C)	8	EA
716-05.01	PAINTED PAVEMENT MARKING (4 IN LINE)	13.6	LM
716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	1000	LF
716-05.03	PAINTED PAVEMENT MARKING (CROSS-WALK)	26	LF
716-05.04	PAINTED PAVEMENT MARKING (CHANNELIZATION STRIPING)	2877	SY
716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	1160	LF
716-05.06	PAINTED PAVEMENT MARKING (TURN LANE ARROW)	94	EA
716-05.07	PAINTED PAVEMENT MARKING (24" BARRIER LINE)	366	EA
716-05.09	PAINTED PAVEMENT MARKING (STRAIGHT-TURN ARROW)	5	EA
716-05.11	PAINTED PAVEMENT MARKING (STRAIGHT ARROW)	37	EA
716-05.21	PAINTED PAVEMENT MARKING (4" DOTTED LINE)	2203	LF
716-05.22	PAINTED PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	77	LF
716-06.01	PAINTED WORD PVMT MARKING (ONLY)	2	EA

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DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC NOTES AND QUANTITIES

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

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 LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), 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 LANES AND/OR SHOULDER DROP-OFF) 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 LANES AND/OR SHOULDER DROP-OFF) 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 WITH PLAQUE (W8-17 AND W8-17P). 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 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 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 LANES AND/OR SHOULDER DROP-OFF) 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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-A
CONST.	2014	HSIP-33(116)	

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PAVEMENT EDGE DROP OFF NOTES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-B
CONST.	2014	HSIP-33(116)	

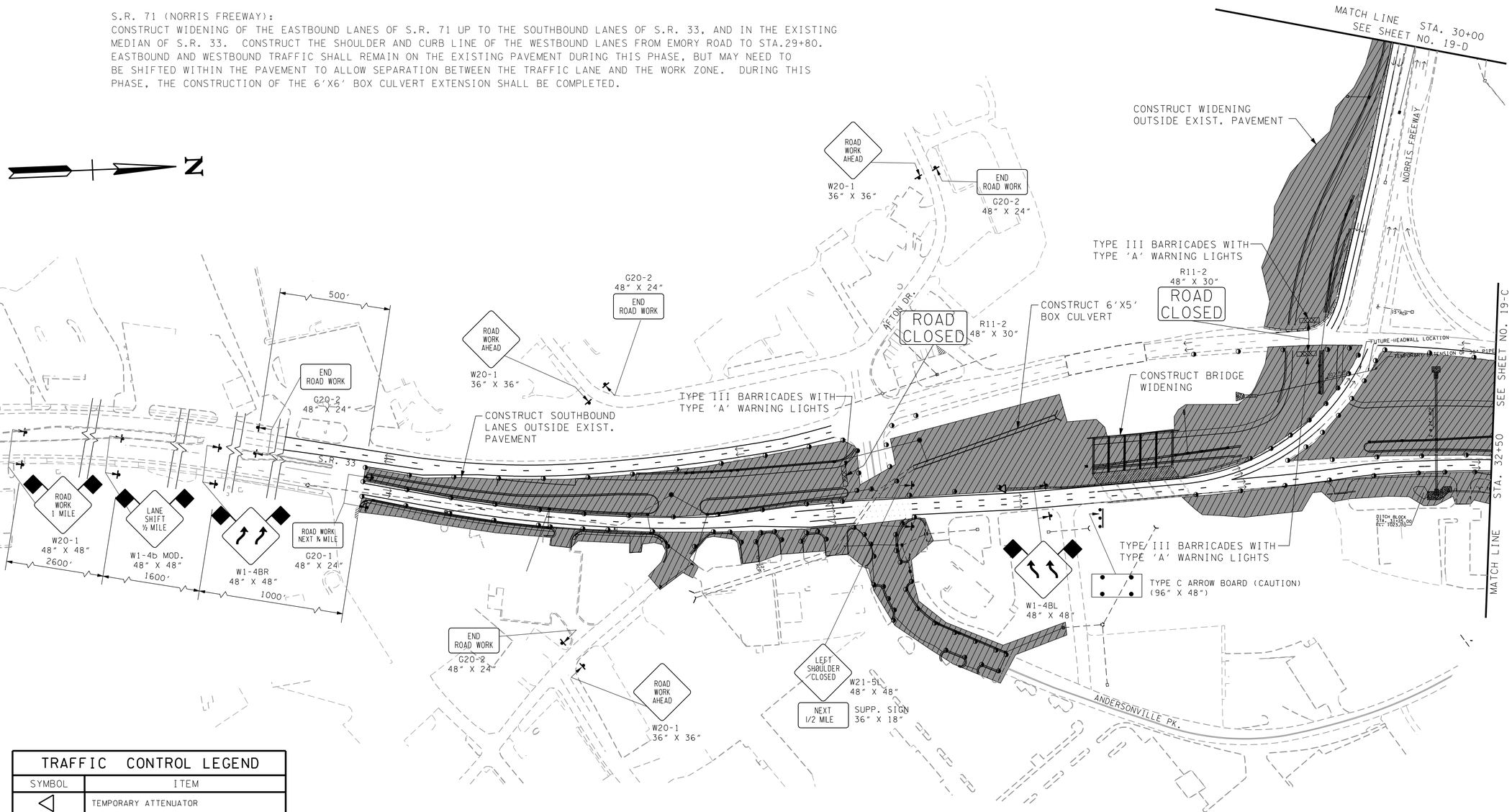
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

PHASE 1:

S.R.33 (MAYNARDVILLE HWY):
CONSTRUCT WIDENING OF SOUTHBOUND LANES AND MEDIAN OF S.R. 33. CONSTRUCT THE SHOULDER AND CURB LINE OF ON THE RIGHT SIDE OF THE NORTHBOUND LANES. SOUTHBOUND AND NORTHBOUND TRAFFIC SHALL REMAIN ON EXISTING PAVEMENT DURING THIS PHASE, BUT MAY NEED TO BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE. DURING THIS PHASE, THE WIDENING OF THE BRIDGE OVER BEAVER CREEK AND THE CONSTRUCTION OF THE 6'X5' BOX CULVERT EXTENSION SHALL BE COMPLETED.

ANDERSONVILLE PIKE:
CONSTRUCTION WIDENING AND CURB LINE ON BOTH SIDES FROM STA. 10+50 TO STA. 14+23. SHIFT TRAFFIC WITHIN EXISTING PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANES AND THE WORK ZONE.

S.R. 71 (NORRIS FREEWAY):
CONSTRUCT WIDENING OF THE EASTBOUND LANES OF S.R. 71 UP TO THE SOUTHBOUND LANES OF S.R. 33, AND IN THE EXISTING MEDIAN OF S.R. 33. CONSTRUCT THE SHOULDER AND CURB LINE OF THE WESTBOUND LANES FROM EMORY ROAD TO STA.29+80. EASTBOUND AND WESTBOUND TRAFFIC SHALL REMAIN ON THE EXISTING PAVEMENT DURING THIS PHASE, BUT MAY NEED TO BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE. DURING THIS PHASE, THE CONSTRUCTION OF THE 6'X6' BOX CULVERT EXTENSION SHALL BE COMPLETED.

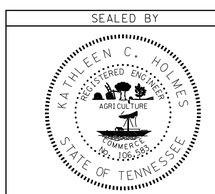


TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
◁	TEMPORARY ATTENUATOR
▬▬▬	PORTABLE BARRIER RAIL
◑	FLEXIBLE DRUMS (CHANNELIZING)
▭	TEMPORARY BARRICADE (TYPE III)
→	TRAFFIC FLOW
⊢	SIGN (CONSTRUCTION)
▨	WORK ZONE
● ●	ARROW BOARD TYPE C (CAUTION)
A	WARNING LIGHT (TYPE A) (LOW-INTENSITY FLASHING)

NOTE: MAINTAIN TRAFFIC ON EXIST. PAVEMENT IN THIS PHASE. SHIFT TRAFFIC AS NECESSARY WITHIN PAVEMENT TO ALLOW FOR SEPARATION BETWEEN TRAFFIC LANES AND WORK ZONE.

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 1

SCALE: 1"=100'

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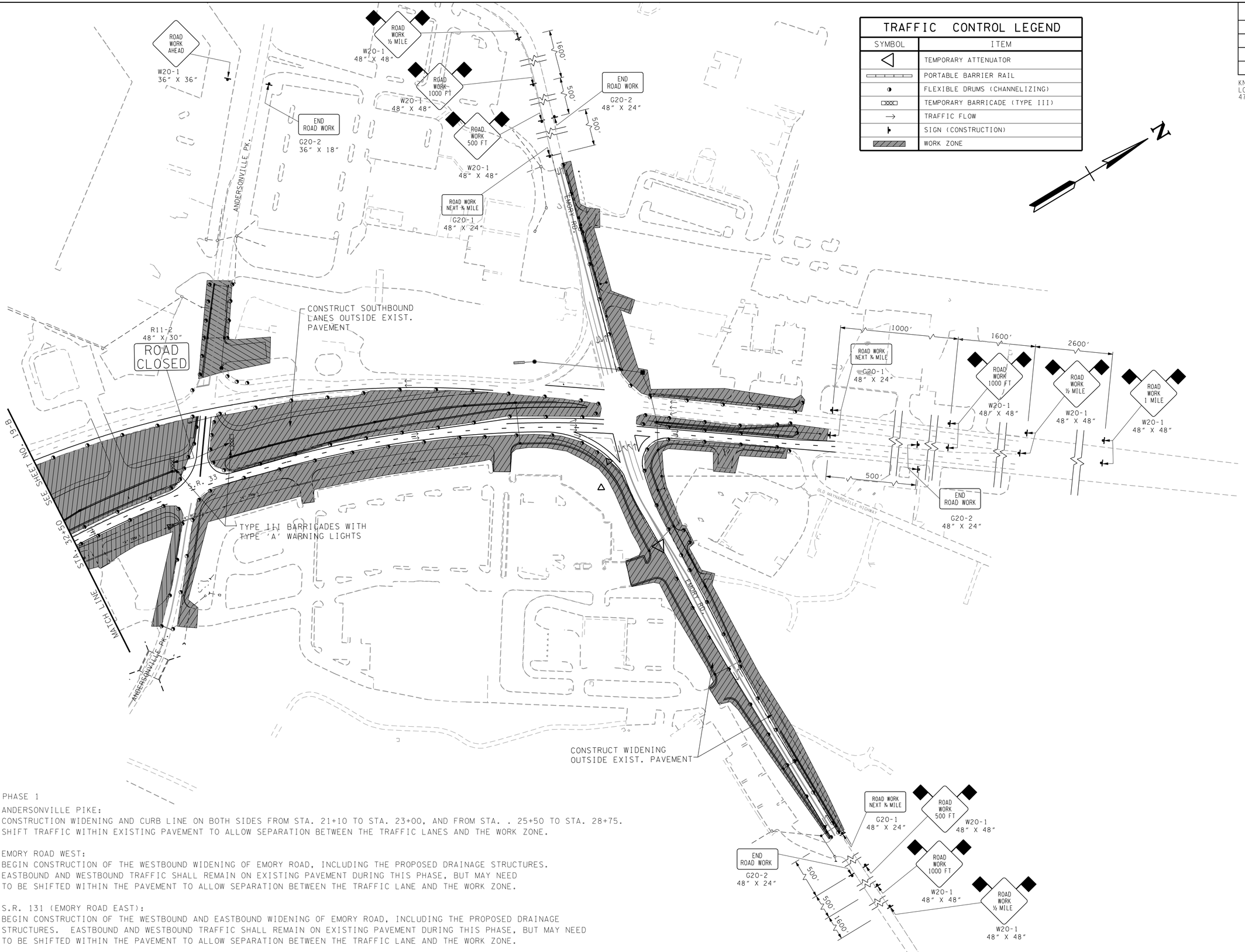
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-C
CONST.	2014	HSIP-33(116)	

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	TEMPORARY ATTENUATOR
	PORTABLE BARRIER RAIL
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	SIGN (CONSTRUCTION)
	WORK ZONE



PHASE 1

ANDERSONVILLE PIKE:
CONSTRUCTION WIDENING AND CURB LINE ON BOTH SIDES FROM STA. 21+10 TO STA. 23+00, AND FROM STA. . 25+50 TO STA. 28+75. SHIFT TRAFFIC WITHIN EXISTING PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANES AND THE WORK ZONE.

EMORY ROAD WEST:
BEGIN CONSTRUCTION OF THE WESTBOUND WIDENING OF EMORY ROAD, INCLUDING THE PROPOSED DRAINAGE STRUCTURES. EASTBOUND AND WESTBOUND TRAFFIC SHALL REMAIN ON EXISTING PAVEMENT DURING THIS PHASE, BUT MAY NEED TO BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE.

S.R. 131 (EMORY ROAD EAST):
BEGIN CONSTRUCTION OF THE WESTBOUND AND EASTBOUND WIDENING OF EMORY ROAD, INCLUDING THE PROPOSED DRAINAGE STRUCTURES. EASTBOUND AND WESTBOUND TRAFFIC SHALL REMAIN ON EXISTING PAVEMENT DURING THIS PHASE, BUT MAY NEED TO BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE.

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NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 1

SCALE: 1"=100'

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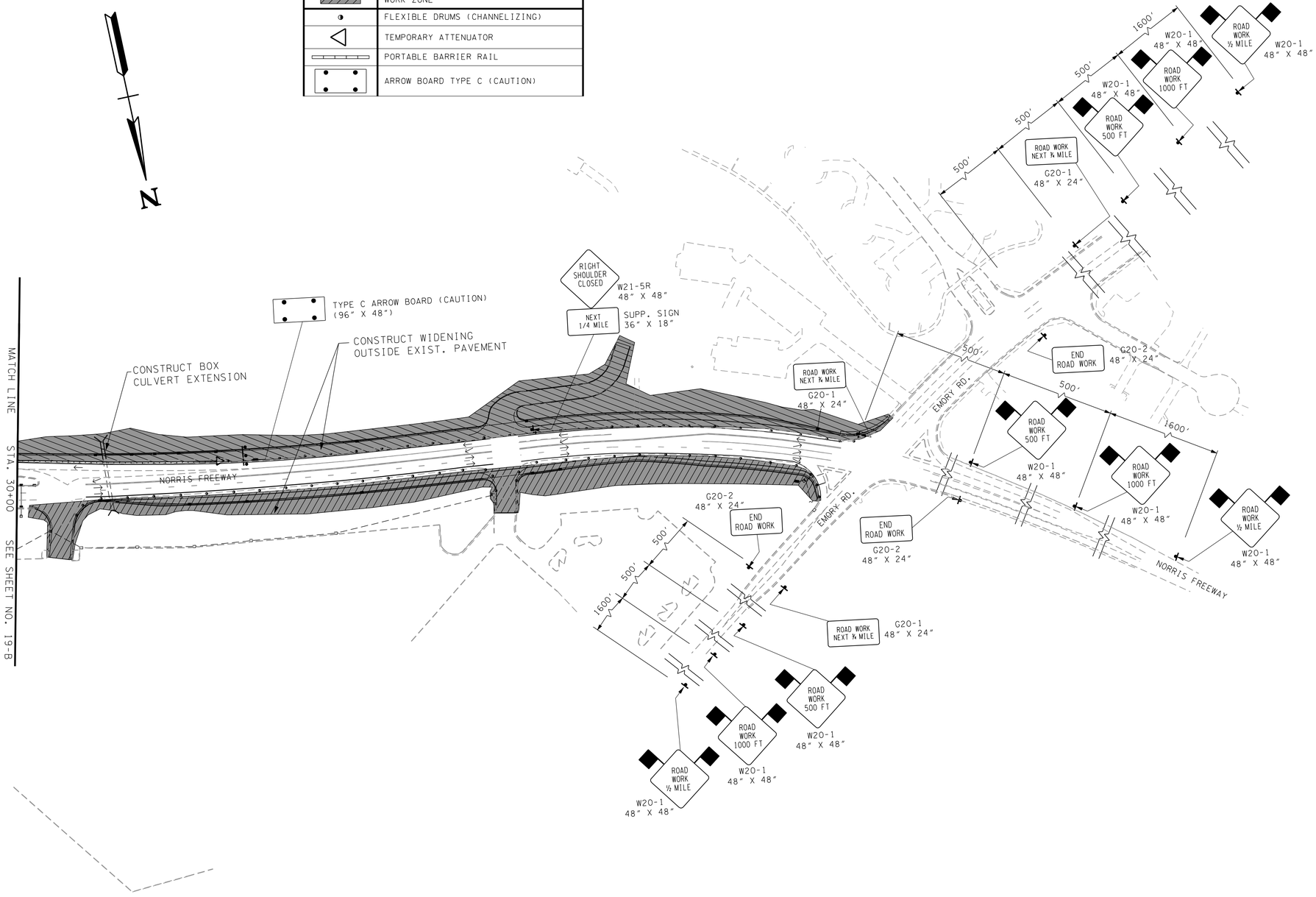
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-D
CONST.	2014	HSIP-33(116)	

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
→	TRAFFIC FLOW
	SIGN (CONSTRUCTION)
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY ATTENUATOR
	PORTABLE BARRIER RAIL
	ARROW BOARD TYPE C (CAUTION)



PHASE 1

S.R. 71 (NORRIS FREEWAY):
CONSTRUCT WIDENING OF THE EASTBOUND LANES OF S.R. 71 UP TO THE SOUTHBOUND LANES OF S.R. 33, AND IN THE EXISTING MEDIAN OF S.R. 33. CONSTRUCT THE SHOULDER AND CURB LINE OF THE WESTBOUND LANES FROM EMORY ROAD TO STA.29+80. EASTBOUND AND WESTBOUND TRAFFIC SHALL REMAIN ON THE EXISTING PAVEMENT DURING THIS PHASE, BUT MAY NEED TO BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE. DURING THIS PHASE, THE CONSTRUCTION OF THE 6'X6' BOX CULVERT EXTENSION SHALL BE COMPLETED.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 1

SCALE: 1"=100'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-E
CONST.	2014	HSIP-33(116)	

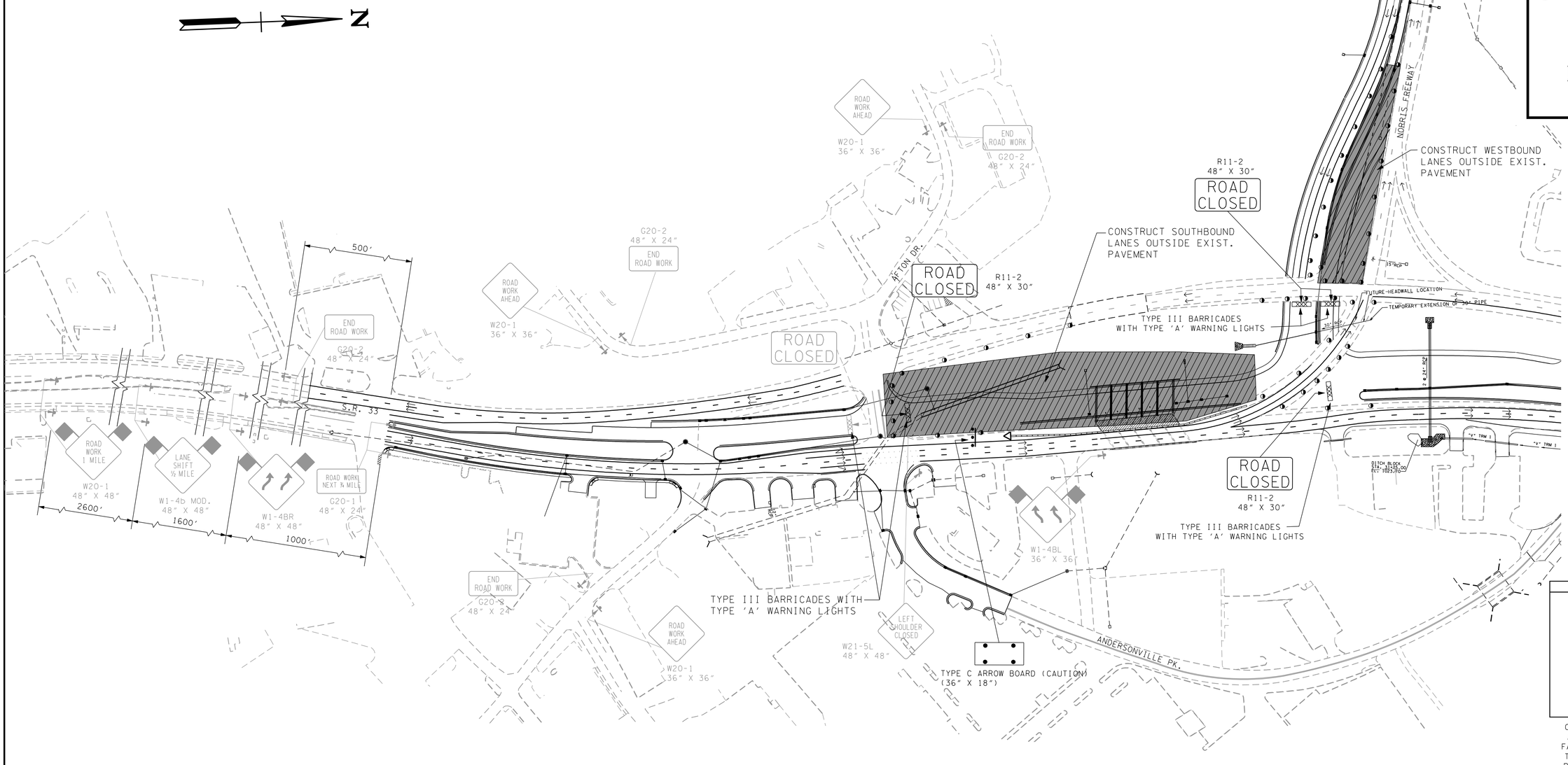
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	TEMPORARY ATTENUATOR
	PORTABLE BARRIER RAIL
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	SIGN (CONSTRUCTION)
	WORK ZONE
	ARROW BOARD TYPE C (CAUTION)



SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 108955
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 1A

SCALE: 1"=100'

PHASE 1A

S.R. 33 (MAYNARDVILLE HWY):
UPON COMPLETION OF THE 6'X5' BOX CULVERT EXTENSION, THE CONSTRUCTION OF THE SOUTHBOUND LANES AND MEDIAN OF S.R. 33 CAN BE COMPLETED BETWEEN AFTON ROAD AND BEAVER CREEK.

S.R. 71 (NORRIS FWY):
SHIFT EASTBOUND TRAFFIC TO NEW TRAFFIC LANES. CONSTRUCT WESTBOUND LANES FROM STA. 31+05± TO S.R. 33.

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-F
CONST.	2014	HSIP-33(116)	

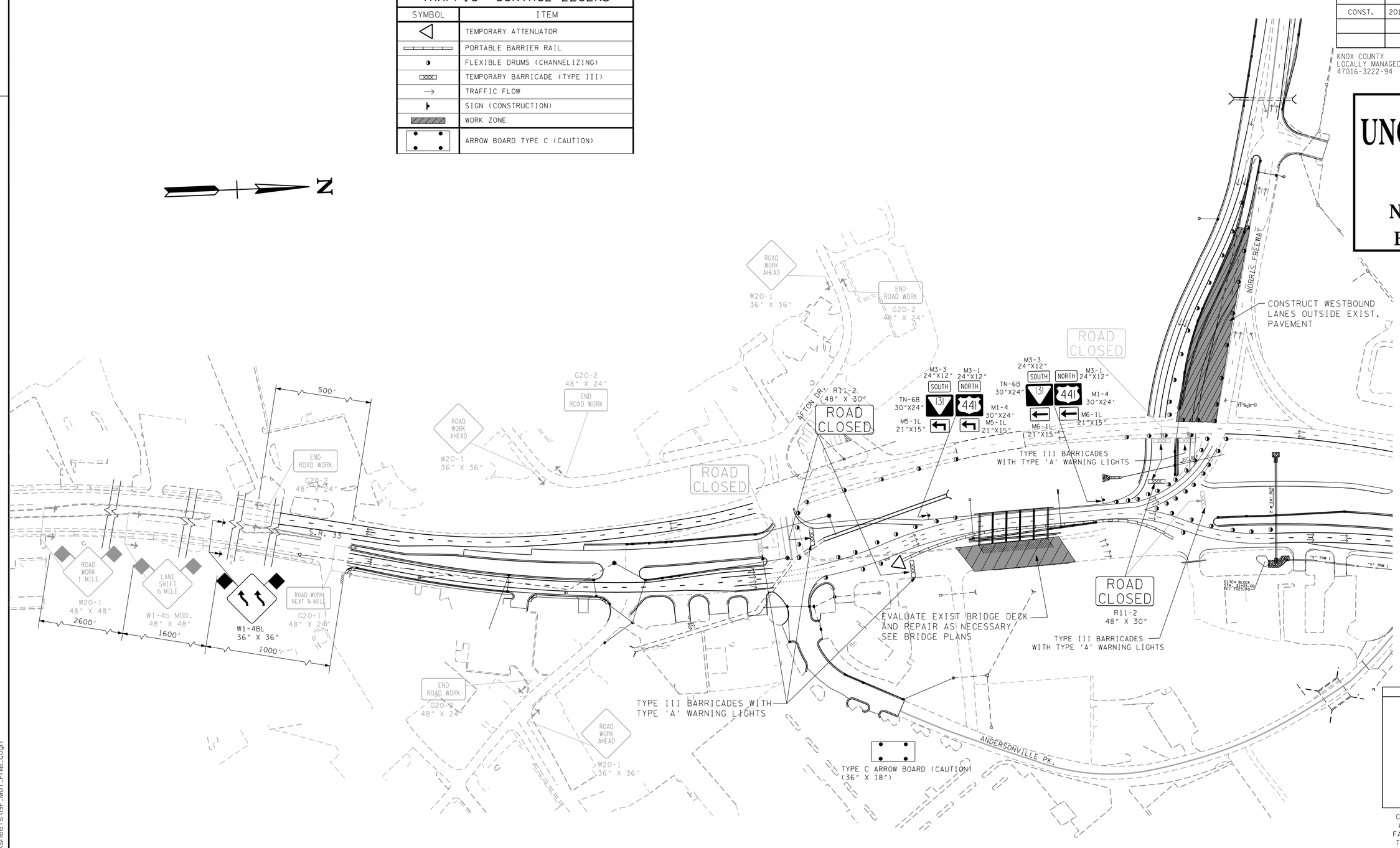
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	TEMPORARY ATTENUATOR
	PORTABLE BARRIER RAIL
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	SIGN (CONSTRUCTION)
	WORK ZONE
	ARROW BOARD TYPE C (CAUTION)



PHASE 1A
S.R. 33 (MAYNARDVILLE HWY):
UPON COMPLETION OF THE NEW BRIDGE DECK, SOUTHBOUND TRAFFIC TO BE SHIFTED ONTO THE NEWLY CONSTRUCTED NORTHBOUND LANES AND BRIDGE. THE EXISTING BRIDGE DECK IS TO BE EVALUATED AND REPAIRED AS NECESSARY (SEE BRIDGE PLANS). WORK ZONE SPEEDS TO BE REDUCED TO 25 MPH THROUGH THE SHIFT.

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 106,583
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 1A

SCALE: 1"=100'

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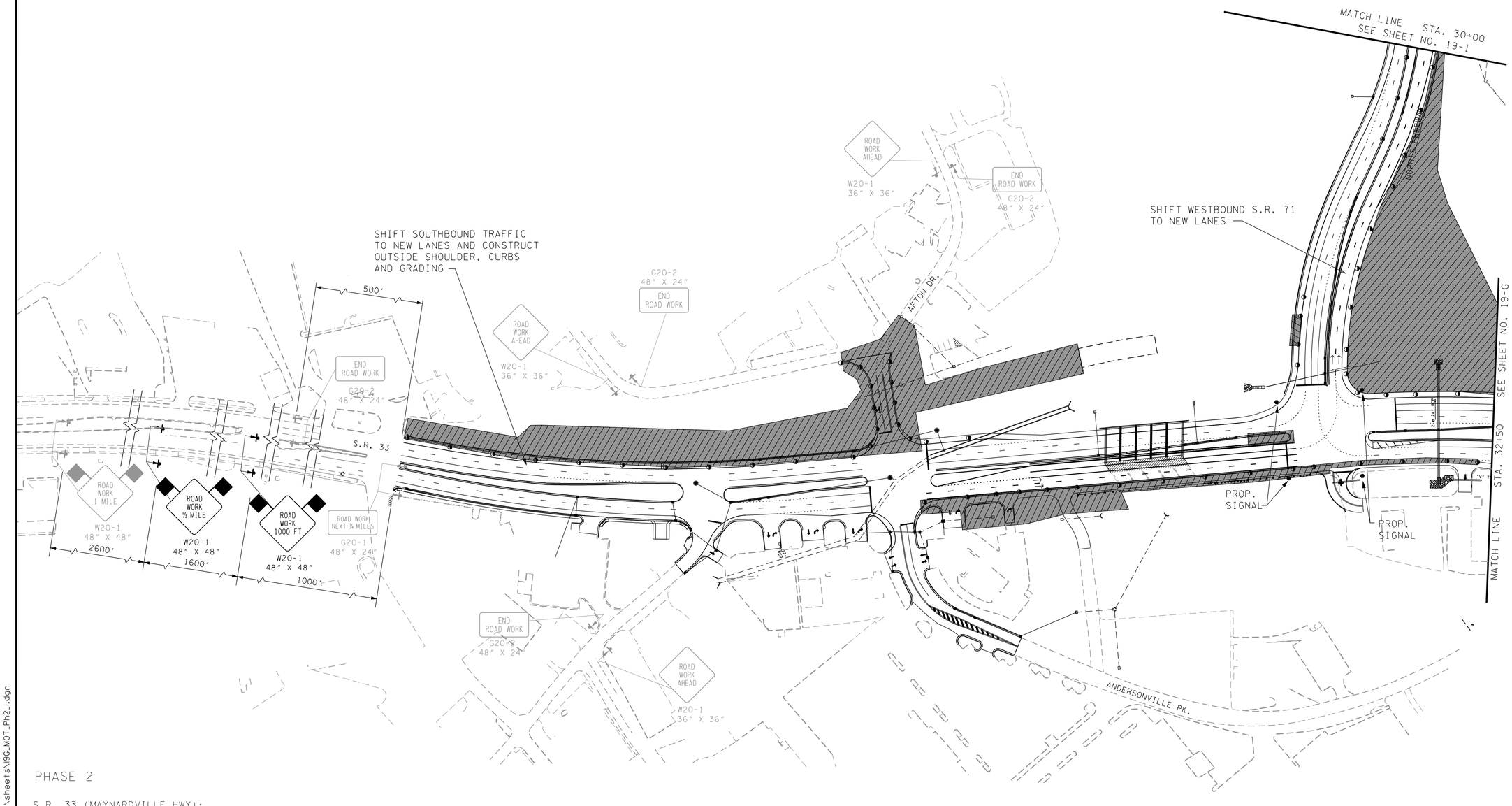
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-G
CONST.	2014	HSIP-33(116)	

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
◑	FLEXIBLE DRUMS (CHANNELIZING)
→	TRAFFIC FLOW
▶	SIGN (CONSTRUCTION)
▨	WORK ZONE



PHASE 2

S.R. 33 (MAYNARDVILLE HWY):
SHIFT SOUTHBOUND TRAFFIC TO THE NEWLY CONSTRUCTED LANES. CONSTRUCT SHOULDER AND CURB LINES OF THE OUTSIDE SOUTHBOUND TRAFFIC LANES. COMPLETE CONSTRUCTION ON AFTON DRIVE. COMPLETE CONSTRUCTION OF THE OUTSIDE SHOULDER AND CURB LINES OF THE NORTHBOUND LANES BETWEEN ANDERSONVILLE PIKE INTERSECTIONS. SHIFT NORTHBOUND TRAFFIC TO THE APPROACHING AND THROUGH THE INTERSECTION AT EMORY ROAD TO COMPLETE THE EAST SIDE OF THE INTERSECTION.

S.R. 71 (NORRIS FREEWAY):
SHIFT WESTBOUND TRAFFIC TO NEW CONSTRUCTED LANES BETWEEN STA. 31+05± AND S.R. 33. NEW TRAFFIC SIGNAL AT INERSECTION WITH S.R. 33 TO BE OPERATIONAL IN THIS PHASE. BEGIN CONSTRUCTION ON GRADING ADJACENT TO WESTBOUND LANES. WESTBOUND TRAFFIC MAY NEED TO BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE.

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 2

SCALE: 1"=100'

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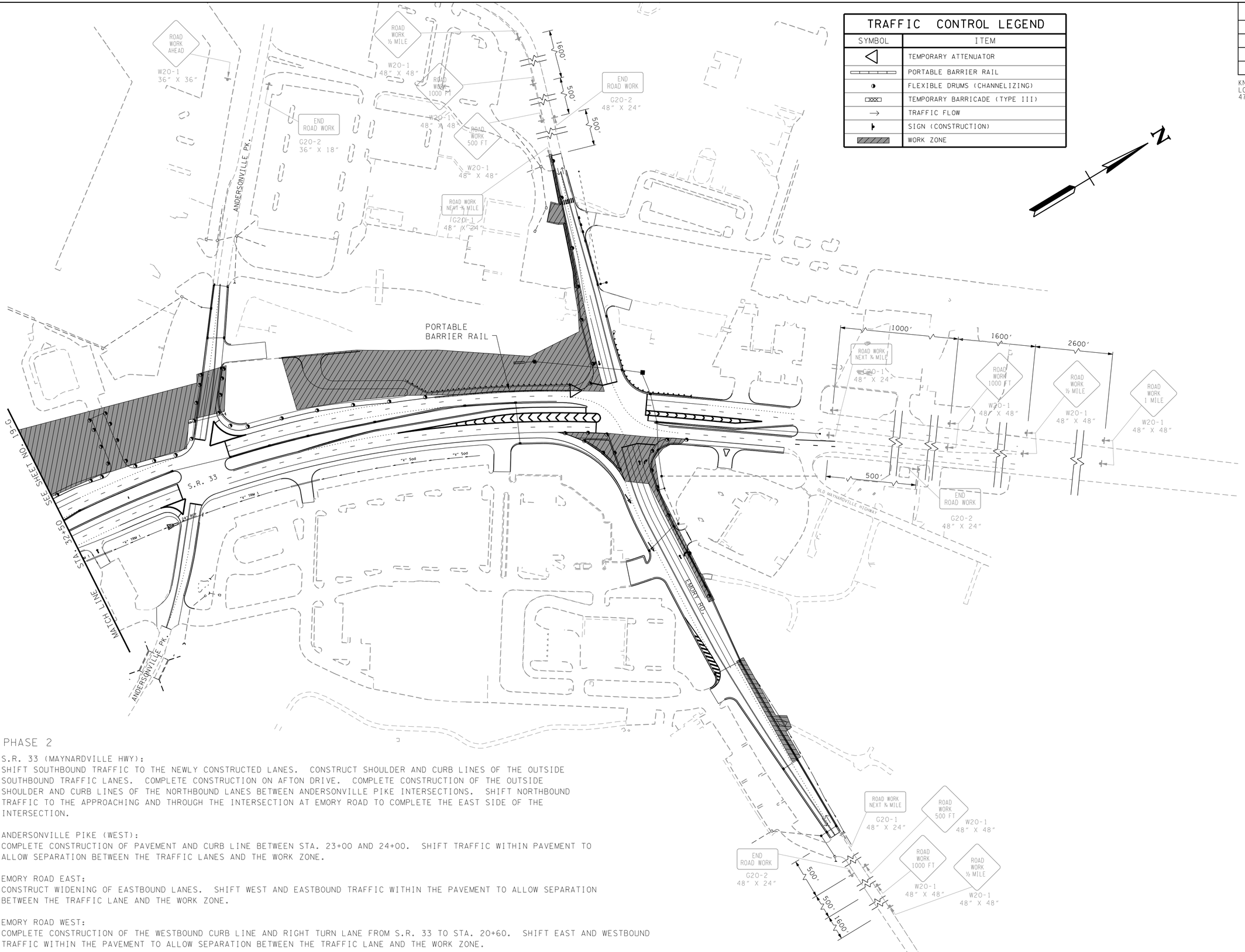
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-H
CONST.	2014	HSIP-33(116)	

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	TEMPORARY ATTENUATOR
	PORTABLE BARRIER RAIL
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	SIGN (CONSTRUCTION)
	WORK ZONE



UNOFFICIAL SET

NOT FOR BIDDING

PHASE 2

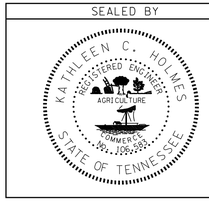
S.R. 33 (MAYNARDVILLE HWY):
SHIFT SOUTHBOUND TRAFFIC TO THE NEWLY CONSTRUCTED LANES. CONSTRUCT SHOULDER AND CURB LINES OF THE OUTSIDE SOUTHBOUND TRAFFIC LANES. COMPLETE CONSTRUCTION ON AFTON DRIVE. COMPLETE CONSTRUCTION OF THE OUTSIDE SHOULDER AND CURB LINES OF THE NORTHBOUND LANES BETWEEN ANDERSONVILLE PIKE INTERSECTIONS. SHIFT NORTHBOUND TRAFFIC TO THE APPROACHING AND THROUGH THE INTERSECTION AT EMORY ROAD TO COMPLETE THE EAST SIDE OF THE INTERSECTION.

ANDERSONVILLE PIKE (WEST):
COMPLETE CONSTRUCTION OF PAVEMENT AND CURB LINE BETWEEN STA. 23+00 AND 24+00. SHIFT TRAFFIC WITHIN PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANES AND THE WORK ZONE.

EMORY ROAD EAST:
CONSTRUCT WIDENING OF EASTBOUND LANES. SHIFT WEST AND EASTBOUND TRAFFIC WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE.

EMORY ROAD WEST:
COMPLETE CONSTRUCTION OF THE WESTBOUND CURB LINE AND RIGHT TURN LANE FROM S.R. 33 TO STA. 20+60. SHIFT EAST AND WESTBOUND TRAFFIC WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANE AND THE WORK ZONE.

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 2

SCALE: 1"=100'

9:07:56 AM
m:\knox county\halls connector\sheets\19H_MOT_Ph2_2.dgn

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

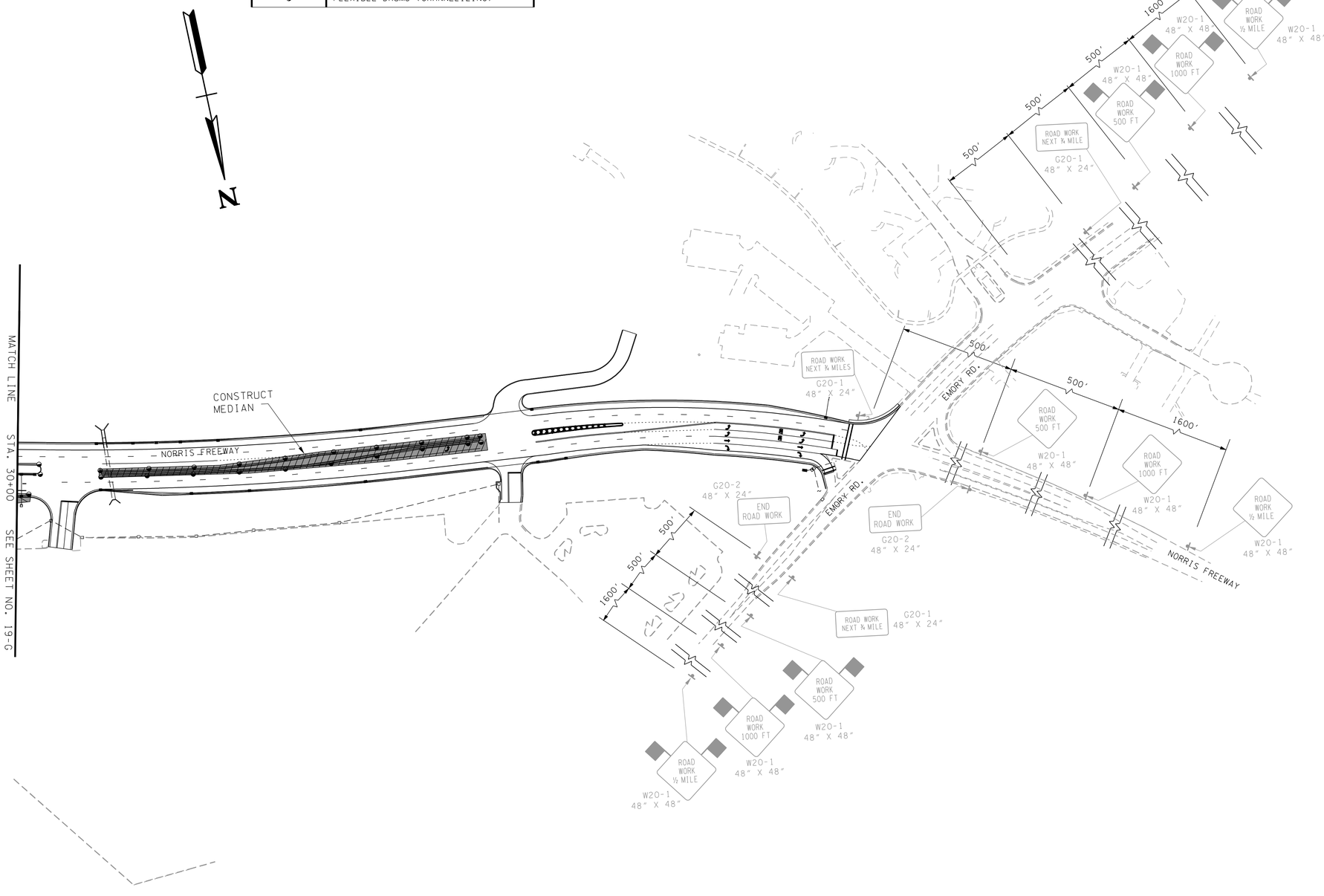
PHASE 2

S.R. 71 (NORRIS FREEWAY):
CONSTRUCT THE MEDIAN BETWEEN STA. 21+90 AND STA. 28+60.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-I
CONST.	2014	HSIP-33(116)	

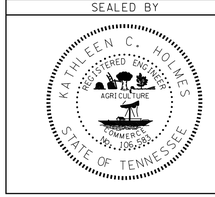
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	SIGN (CONSTRUCTION)
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 2

SCALE: 1"=100'

9:07:59 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			19-J
CONST.	2014	HSIP-33(116)	

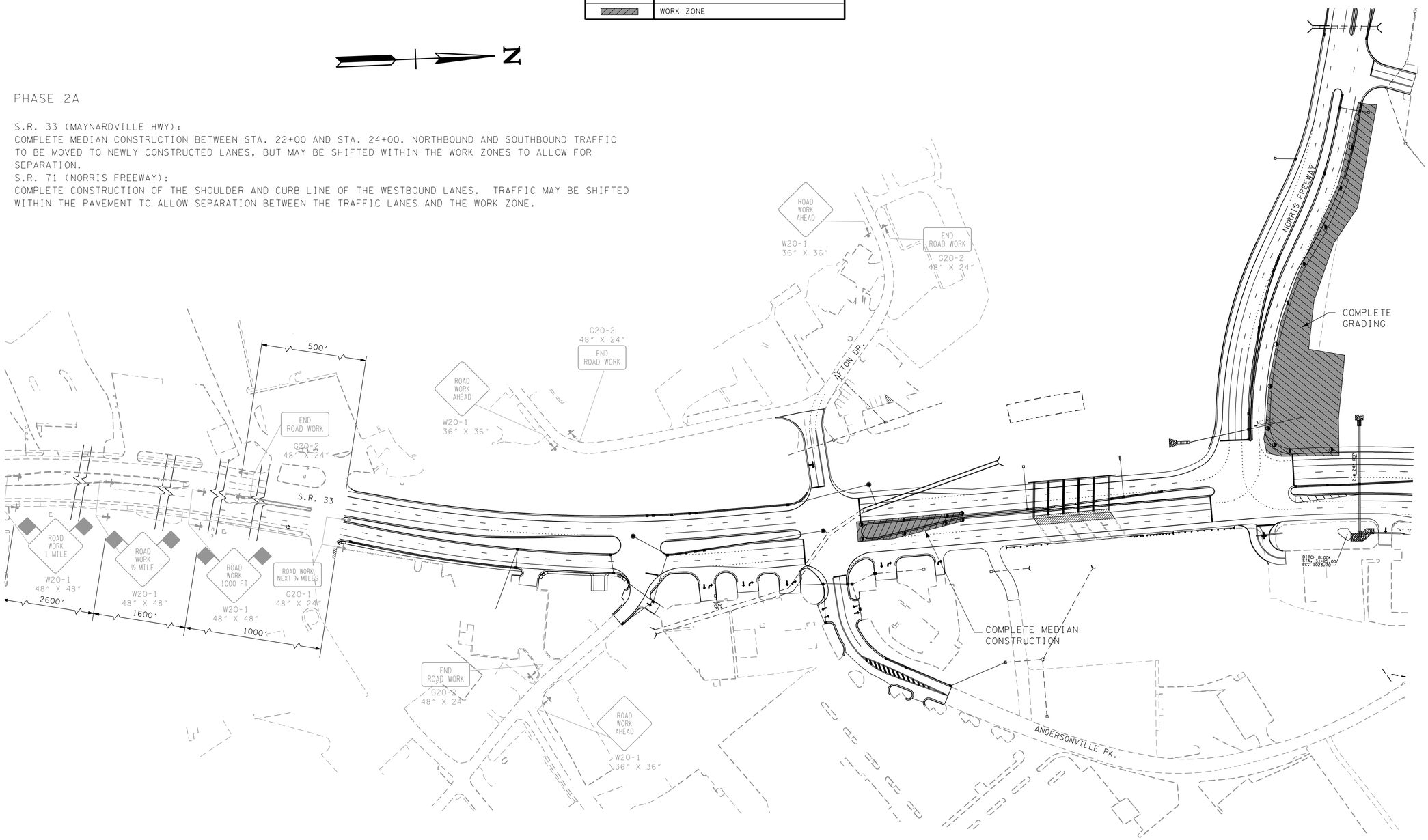
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
◑	FLEXIBLE DRUMS (CHANNELIZING)
▨	WORK ZONE

N

PHASE 2A

S.R. 33 (MAYNARDVILLE HWY):
COMPLETE MEDIAN CONSTRUCTION BETWEEN STA. 22+00 AND STA. 24+00. NORTHBOUND AND SOUTHBOUND TRAFFIC TO BE MOVED TO NEWLY CONSTRUCTED LANES, BUT MAY BE SHIFTED WITHIN THE WORK ZONES TO ALLOW FOR SEPARATION.
S.R. 71 (NORRIS FREEWAY):
COMPLETE CONSTRUCTION OF THE SHOULDER AND CURB LINE OF THE WESTBOUND LANES. TRAFFIC MAY BE SHIFTED WITHIN THE PAVEMENT TO ALLOW SEPARATION BETWEEN THE TRAFFIC LANES AND THE WORK ZONE.



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
Phase 2A

SCALE: 1"=100'

9:08:01 AM
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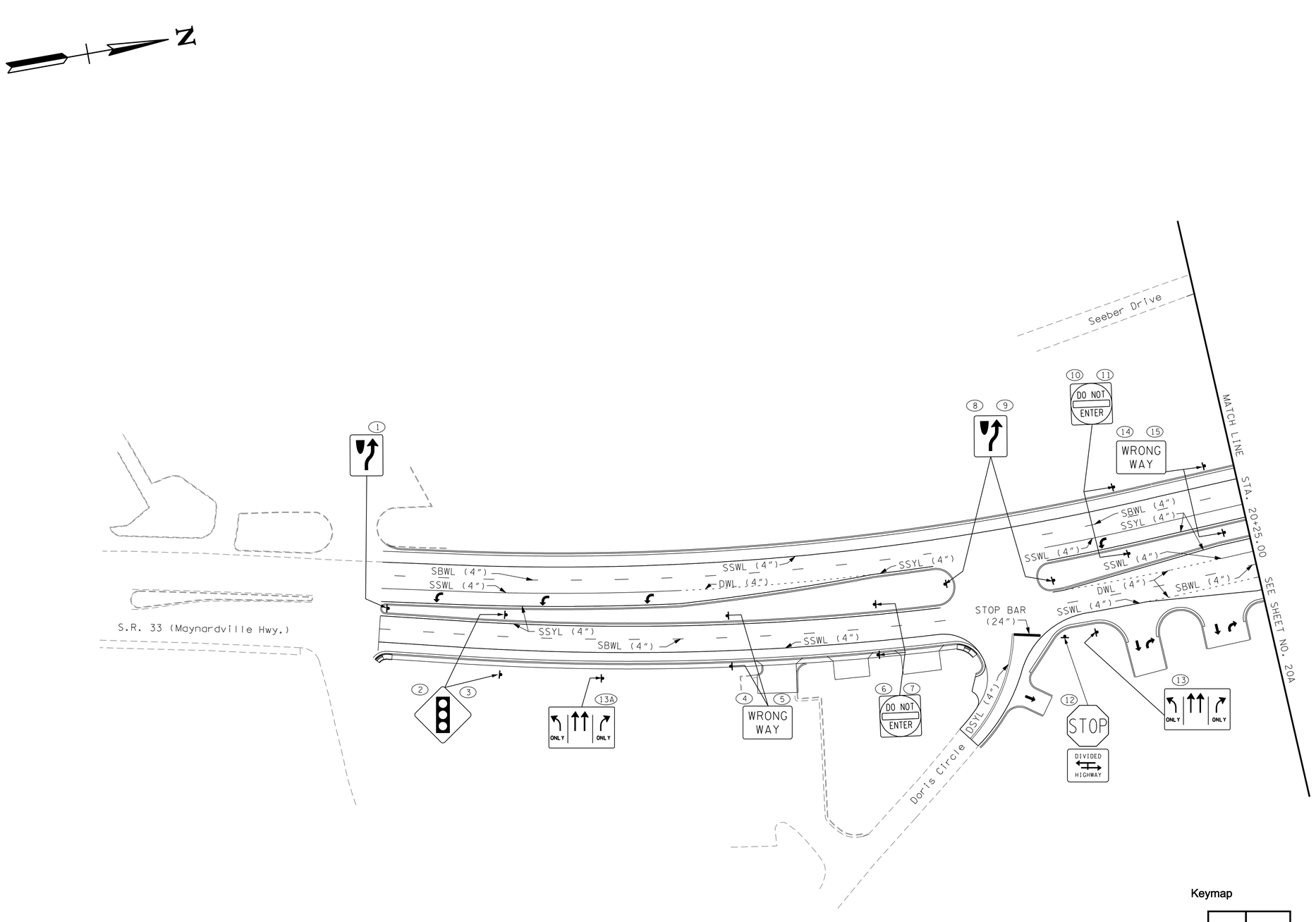
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19
CONST.	2014	HSIP-33(116)	20

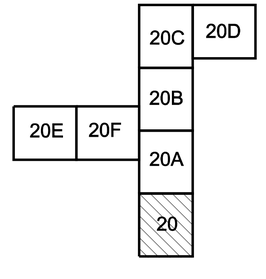
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



LEGEND

SBWL - Single Broken White Line
SSWL - Single Solid White Line
SSYL - Single Solid Yellow LIne
DSYL - Double Solid Yellow Line
DWL - Dotted White Line

Keymap



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

BEGIN PROJECT TO STA. 20+25.00
S.R. 33(MAYNARDVILLE HWY)
SCALE: 1"= 50'

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9:08:04 AM

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19A
CONST.	2014	HSIP-33(116)	20A

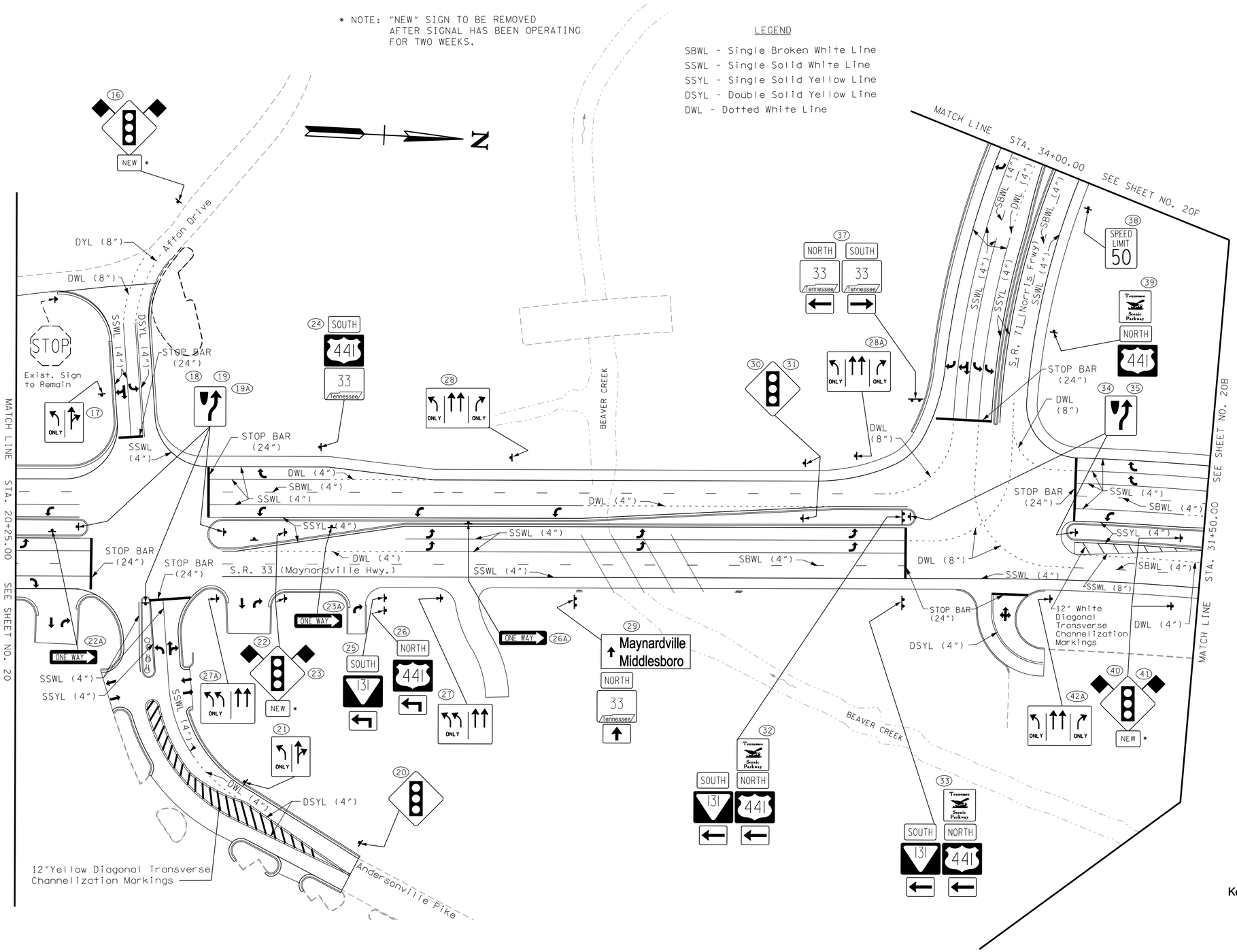
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; ADDED STRIPING FOR REVISED DRIVEWAY AT 29+51/ RT.

* NOTE: "NEW" SIGN TO BE REMOVED AFTER SIGNAL HAS BEEN OPERATING FOR TWO WEEKS.

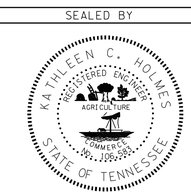
LEGEND

SBWL - Single Broken White Line
SSWL - Single Solid White Line
SSYL - Single Solid Yellow LIne
DSYL - Double Solid Yellow Line
DWL - Dotted White Line



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY



Keymap

	20C	20D
	20B	
20E	20F	
	20A	
	20	

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

STA. 20+25 TO STA. 31+50
S.R. 33 (MAYNARDVILLE HWY)

SCALE: 1"= 50'

9:08:07 AM
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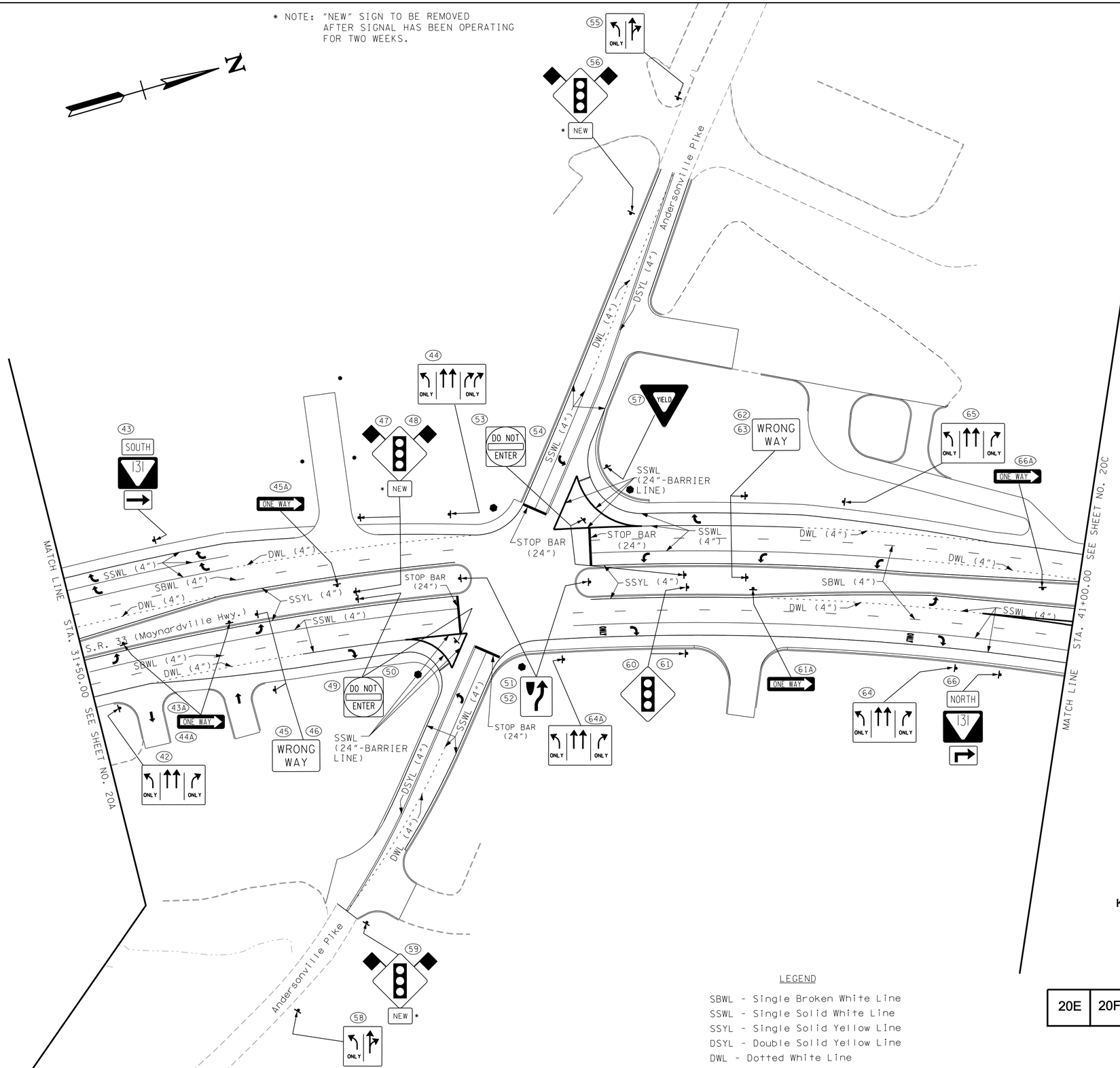
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19B
CONST.	2014	HSIP-33(116)	20B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

* NOTE: "NEW" SIGN TO BE REMOVED AFTER SIGNAL HAS BEEN OPERATING FOR TWO WEEKS.



Keymap

	20C	20D
	20B	
20E	20F	20A
		20

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109.001
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

STA. 31+50 TO STA. 41+00
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:08:10 AM
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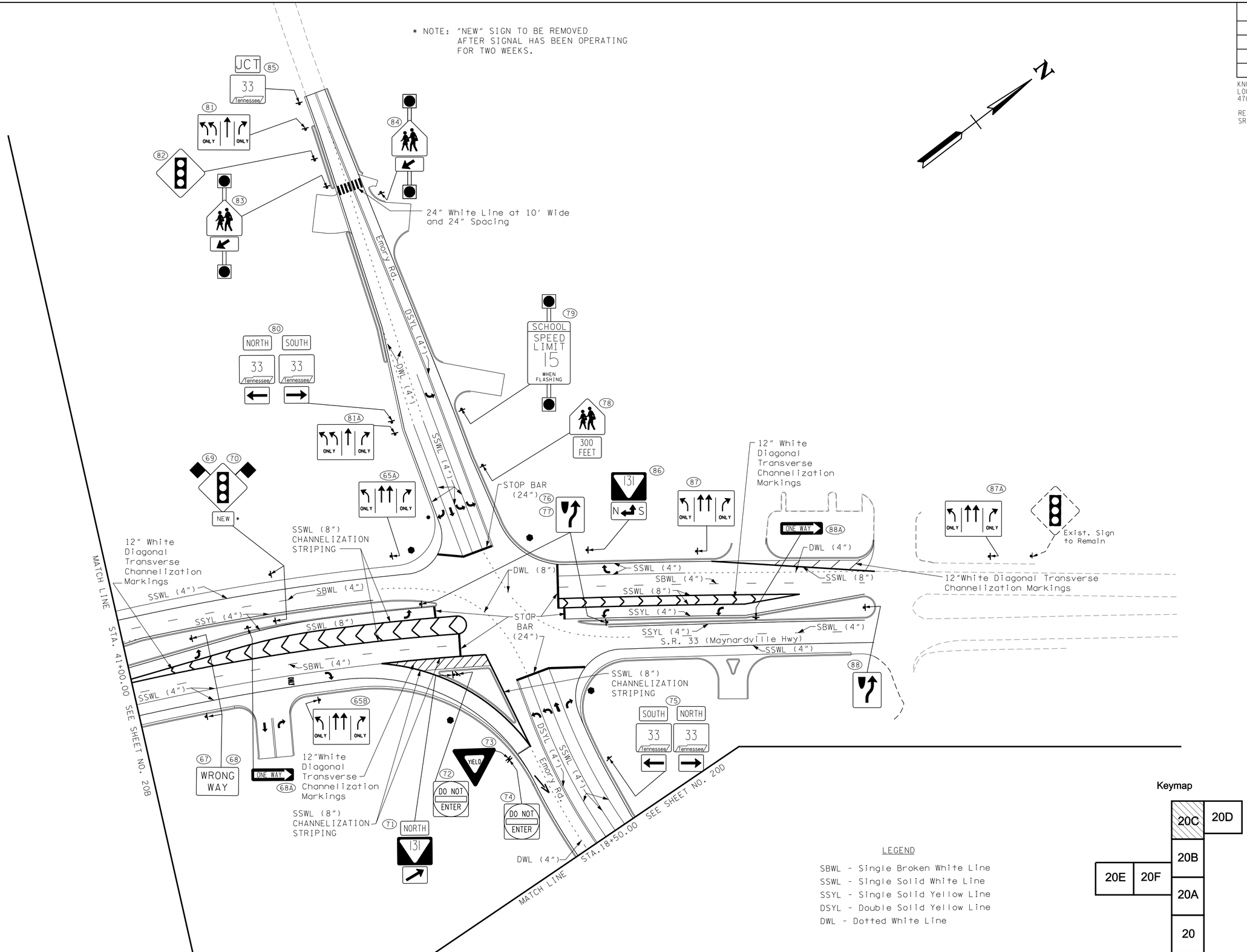
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19C
CONST.	2014	HSIP-33(116)	20C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED STRIPING AT SR 33 AND EMORY ROAD INTERSECTION.

* NOTE: "NEW" SIGN TO BE REMOVED AFTER SIGNAL HAS BEEN OPERATING FOR TWO WEEKS.



LEGEND

SBWL - Single Broken White Line
SSWL - Single Solid White Line
SSYL - Single Solid Yellow Line
DSYL - Double Solid Yellow Line
DWL - Dotted White Line

Keymap

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

STA. 41+00 TO END PROJECT
S.R. 33 (MAYNARDVILLE HWY)
SCALE: 1"= 50'

9:08:13 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

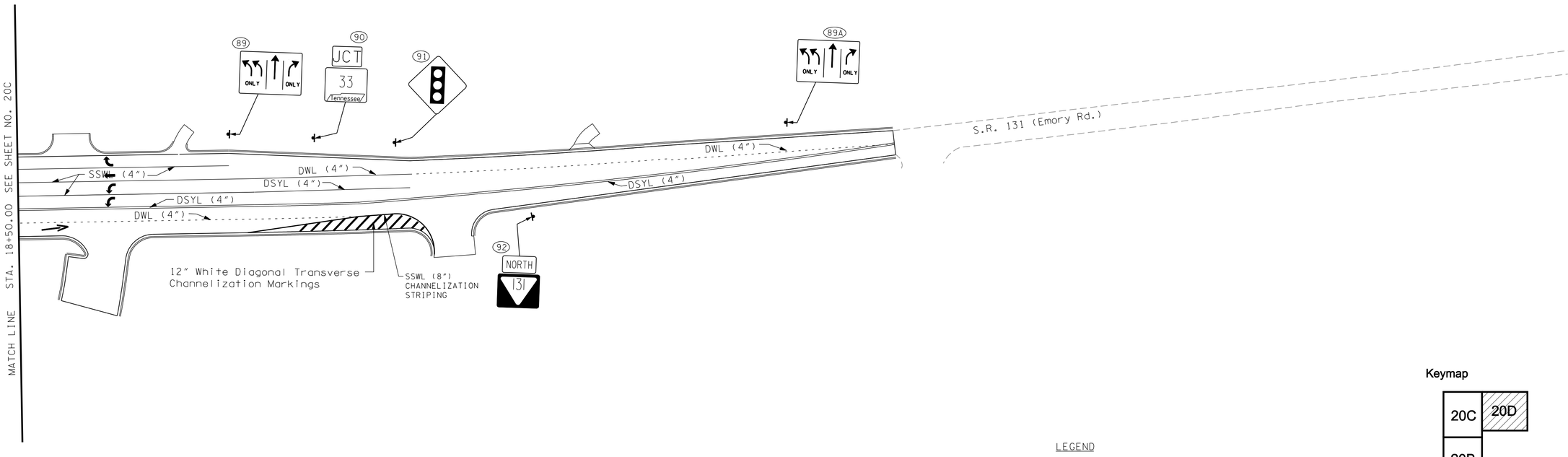
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19D
CONST.	2014	HSIP-33(116)	20D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

REV. 05-09-2014; REVISED STRIPING ON EMORY ROAD.

UNOFFICIAL SET

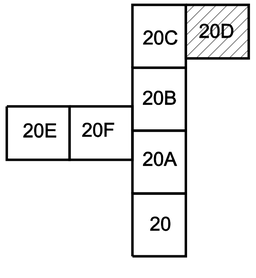
NOT FOR BIDDING



LEGEND

SBWL - Single Broken White Line
SSWL - Single Solid White Line
SSYL - Single Solid Yellow Line
DSYL - Double Solid Yellow Line
DWL - Dotted White Line

Keymap



SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

STA. 18+50 TO END PROJECT
EMORY RD.

SCALE: 1"= 50'

9:08:15 AM
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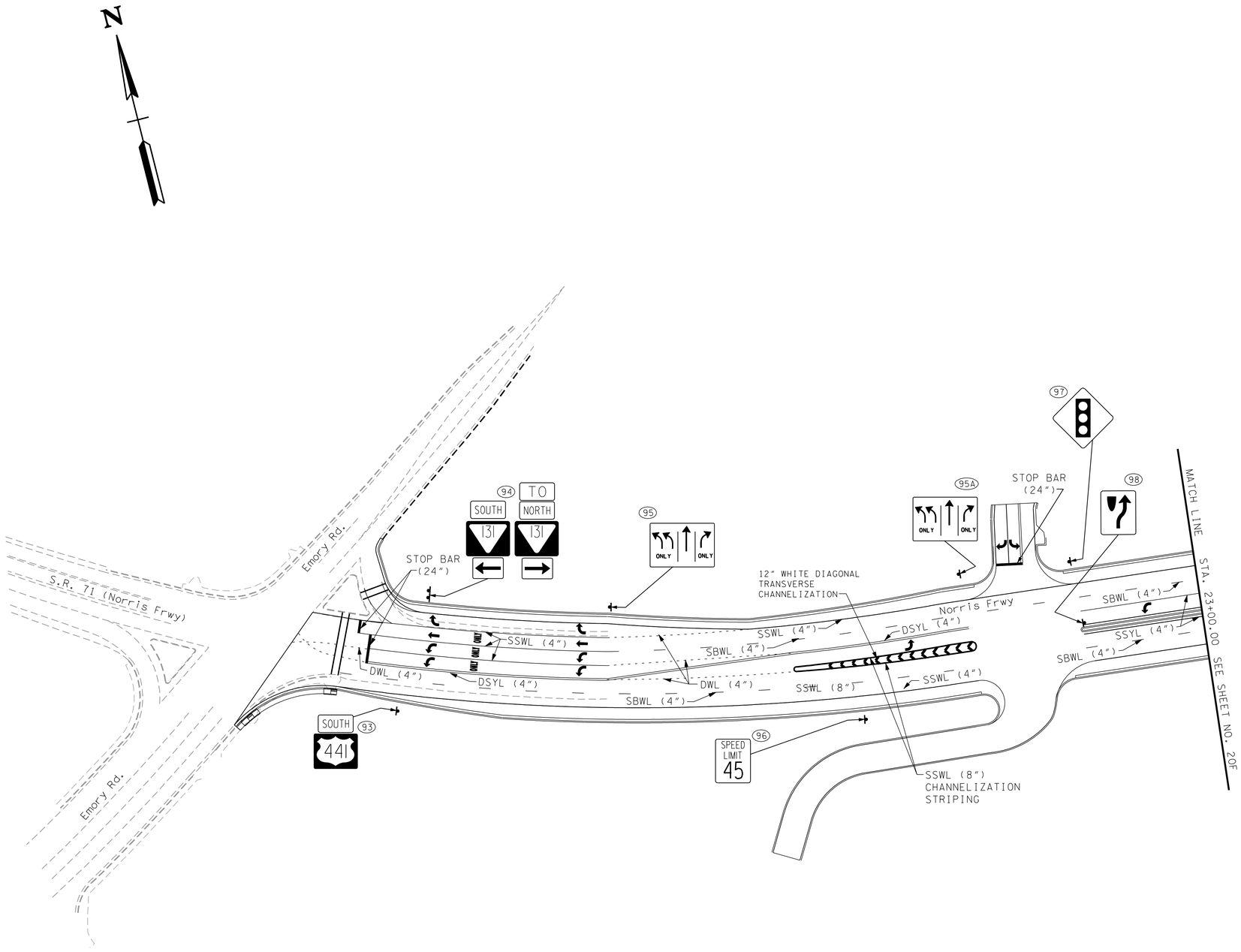
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19E
CONST.	2014	HSIP-33(116)	20E

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

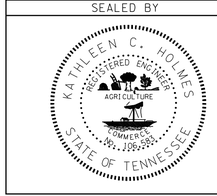
REV. 05-09-2014; REVISED STRIPING ON SR 71.



UNOFFICIAL SET

NOT FOR BIDDING

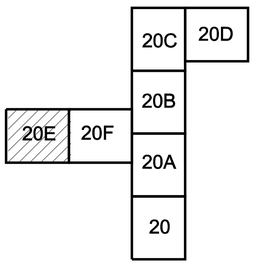
SEALED BY



LEGEND

SBWL - Single Broken White Line
SSWL - Single Solid White Line
SSYL - Single Solid Yellow Line
DSYL - Double Solid Yellow Line
DWL - Dotted White Line

Keymap



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

LIMIT OF CONST. TO STA. 23+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

9:08:17 AM
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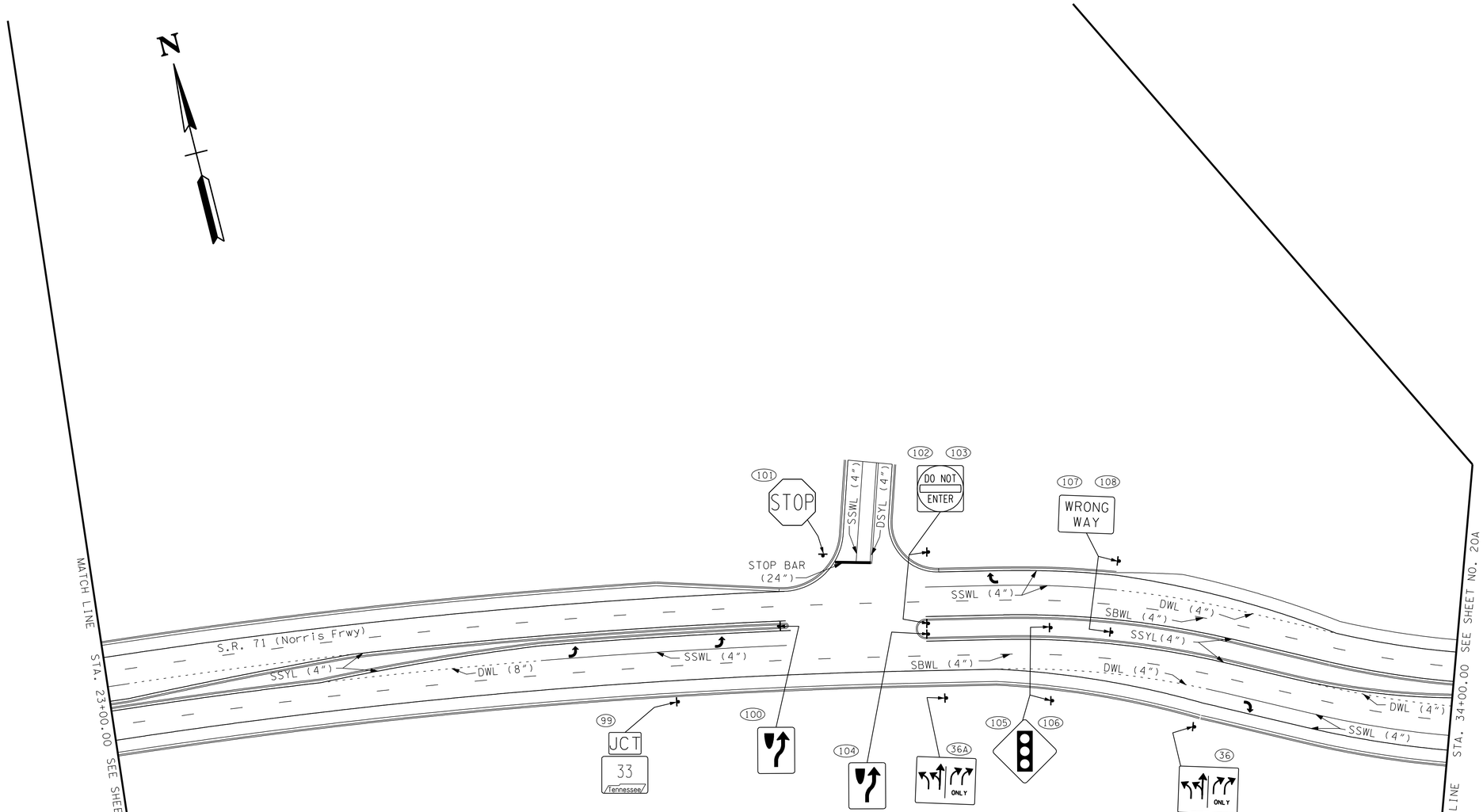
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	19F
CONST.	2014	HSIP-33(116)	20F

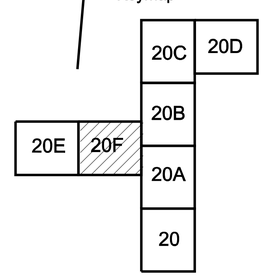
KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



LEGEND

SBWL - Single Broken White Line
SSWL - Single Solid White Line
SSYL - Single Solid Yellow LIne
DSYL - Double Solid Yellow Line
DWL - Dotted White Line

Keymap



UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING & PAVEMENT MARKINGS

STA. 23+00 TO STA. 34+00
S.R. 71 (NORRIS FREEWAY)
SCALE: 1"= 50'

9:08:18 AM
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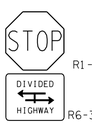
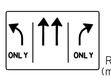
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

SIGN NO.	LEGEND	SHEET NO.	SIZE LENGTH	SIZE HEIGHT	SIZE RADIUS	SIZE BORDER WIDTH	COPY CAPITAL	COPY LOWER CASE	COPY MATERIAL	COPY SERIES	SHIELD	ARROW	SIGN FACE COPY	SIGN FACE BACKGROUND	SIGN FACE MATERIAL	STEEL DESIGN (BREAK-AWAY) SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONCRETE (CU. YDS.)	REINF. STEEL (LBS.)	MINIMUM VERTICAL CLEARANCE	REMARKS
1	R4-7	20	24"	36"									BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	U6	h=13'-0"				7'-0"	
8		20															h=13'-0"					
9		20															h=13'-0"					
18		20A															h=13'-0"					
19		20A															h=13'-0"					
19A		20A															h=13'-0"					
34		20A															h=13'-0"					
35		20A															h=13'-0"					
51		20B															h=13'-0"					
52		20B															h=13'-0"					
76		20C															h=13'-0"					
77		20C															h=13'-0"					
88		20C															h=13'-0"					
98		20E															h=13'-0"					
100		20F															h=13'-0"					
104		20F															h=13'-0"					
2	W3-3	20	36"	36"									BLACK RED (REF) GREEN (REF)	YELLOW (REF)	0.100" SHEET ALUMINUM	P8	h_1=17'-0" h_2=17'-0"				6'-0"	
3		20															h_1=17'-0" h_2=17'-0"					
20		20A															h_1=17'-0" h_2=17'-0"					
30		20A															h_1=17'-0" h_2=17'-0"					
31		20A															h_1=17'-0" h_2=17'-0"					
60		20B															h_1=17'-0" h_2=17'-0"					
61		20B															h_1=17'-0" h_2=17'-0"					
82		20C															h_1=17'-0" h_2=17'-0"					
91		20D															h_1=17'-0" h_2=17'-0"					
97		20E															h_1=17'-0" h_2=17'-0"					
105		20F															h_1=17'-0" h_2=17'-0"					
106		20F															h_1=17'-0" h_2=17'-0"					
4	R5-1A	20	42"	30"									WHITE (REF)	RED (REF)	0.080" SHEET ALUMINUM	P8	h_1=11'-6" h_2=11'-6"				7'-0"	
5		20															h_1=11'-6" h_2=11'-6"					
14		20															h_1=11'-6" h_2=11'-6"					
15		20															h_1=11'-6" h_2=11'-6"					
45		20B															h_1=11'-6" h_2=11'-6"					
46		20B															h_1=11'-6" h_2=11'-6"					
62		20B															h_1=11'-6" h_2=11'-6"					
63		20B															h_1=11'-6" h_2=11'-6"					
67		20C															h_1=11'-6" h_2=11'-6"					
68		20C															h_1=11'-6" h_2=11'-6"					
107		20F															h_1=11'-6" h_2=11'-6"					
108		20F															h_1=11'-6" h_2=11'-6"					
6	R5-1	20	36"	36"									WHITE (REF)	WHITE (REF) RED (REF)	0.080" SHEET ALUMINUM	P8	h=13'-6"				7'-0"	
7		20															h=13'-6"					
10		20															h=13'-6"					
11		20															h=13'-6"					
49		20B															h=13'-6"					
50		20B															h=13'-6"					
53		20B															h=13'-6"					
54		20B															h=13'-6"					
72		20C															h=13'-6"					
74		20C															h=13'-6"					
102		20F															h=13'-6"					
103		20F															h=13'-6"					
12	 R1-1 R6-3A	20	36" 30"	36" 24"									WHITE (REF) BLACK	RED (REF) WHITE (REF)	0.080" SHEET ALUMINUM	U6	h=14'-6"					
13	 R3-8 (mod.)	20	48"	30"									BLACK	WHITE (REF)	0.100" SHEET ALUMINUM	P8	h=13'-0"				7'-0"	
13A		20															h=13'-0"					
28		20A															h=13'-0"					
42		20B															h=13'-0"					
42A		20B															h=13'-0"					
44		20B															h=13'-0"					
64		20B															h=13'-0"					
64A		20B															h=13'-0"					
65		20B															h=13'-0"					
65A		20B															h=13'-0"					
65B		20B															h=13'-0"					
87		20C															h=13'-0"					
87A		20C															h=13'-0"					

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	20G

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

SCALE: N.T.S.

9:08:22 AM
m:\knox county\halls connector\sheets\206-20J_SignSchedule.dgn

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

SIGN NO.	LEGEND	SHEET NO.	SIZE LENGTH	SIZE HEIGHT	SIZE RADIUS	SIZE BORDER WIDTH	COPY CAPITAL	COPY LOWER CASE	COPY MATERIAL	COPY SERIES	SHIELD	ARROW	SIGN FACE COPY	SIGN FACE BACKGROUND	SIGN FACE MATERIAL	STEEL DESIGN (BREAK-AWAY) SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONCRETE (CU. YDS.)	REINF. STEEL (LBS.)	MINIMUM VERTICAL CLEARANCE	REMARKS
16	W3-3 NEW W16-15P	20A	36″ 24″	36″ 12″									BLACK RED (REF) GREEN (REF) BLACK	YELLOW (REF)	0.100″ SHEET ALUMINUM	P8	h_1=17′-0″ h_2=17′-0″				6′-0″	"NEW" SIGN, W16-15P, TO BE REMOVED AFTER SIGNAL HAS BEEN OPERATIONG FOR TWO WEEKS
22		20A															h_1=17′-0″ h_2=17′-0″					
23		20A															h_1=17′-0″ h_2=17′-0″					
40		20A															h_1=17′-0″ h_2=17′-0″					
41		20A															h_1=17′-0″ h_2=17′-0″					
47		20B															h_1=17′-0″ h_2=17′-0″					
48		20B															h_1=17′-0″ h_2=17′-0″					
56		20B															h_1=17′-0″ h_2=17′-0″					
59		20B															h_1=17′-0″ h_2=17′-0″					
69		20C															h_1=17′-0″ h_2=17′-0″					
70		20C															h_1=17′-0″ h_2=17′-0″					
17	R3-8 (mod.)	20A	30″	30″									BLACK	WHITE (REF)	0.100″ SHEET ALUMINUM	P8	h=13′-0″				7′-0″	
21		20A															h=13′-0″					
55		20B															h=13′-0″					
58		20B															h=13′-0″					
24	SOUTH M3-3 441 M1-4 33 Tennessee TN-6C	20A	24″ 30″ 30″	12″ 24″ 24″							441 30″X24″ 33 Tennessee 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h=17′-9″					
25	SOUTH M3-3 131 TN-6B M5-1L	20A	24″ 30″ 21″	12″ 24″ 15″							131 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h=17′-9″					
26	NORTH M3-1 441 M1-4 M5-1L	20A	24″ 30″ 21″	12″ 24″ 15″							441 30″X24″						h=17′-9″					
27	R3-8 (mod.)	20A	48″	30″									BLACK	WHITE (REF)	0.100″ SHEET ALUMINUM	P8	h=13′-0″				7′-0″	
27A		20A															h=13′-0″					
29	Maynardville Middlesboro NORTH M3-1 33 Tennessee TN-6C M6-3	20A	7′-0″	3′-0″	6″	1″	6″ 6″	6″ 6″		"E-MOD"		TYPE @90°	WHITE (REF) BLACK	GREEN (REF) WHITE (REF)	3-12″ ALUMINUM EXTRUSIONS 0.080″ SHEET ALUMINUM	S6X12 P6	h_1=16′-3″ h_2=16′-3″	TYPE D-1′-3″	0.18	50.1	7′-0″	
32	Tennessee Scenic Parkway TN-22B M3-3 SOUTH NORTH M3-1 131 441 TN-6B M1-4 M6-1L M6-1L	20A	24″ 24″ 30″ 21″	24″ 12″ 24″ 15″							131 30″X24″ 441 30″X24″		GREEN (REF) BLACK	WHITE (REF) WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h_1=17′-9″ h_2=19′-9″				7′-0″	
33	Tennessee Scenic Parkway TN-22B M3-3 SOUTH NORTH M3-1 131 441 TN-6B M1-4 M6-1L M6-1L	20A	24″ 24″ 30″ 21″	24″ 12″ 24″ 15″							131 30″X24″ 441 30″X24″		GREEN (REF) BLACK	WHITE (REF) WHITE (REF)	0.080″ SHEET ALUMINUM	P6						
36	R3-8 (mod.)	20A	48″	30″									BLACK	WHITE (REF)	0.100″ SHEET ALUMINUM	P8	h=13′-0″				7′-0″	
36A		20A															h=13′-0″					

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	20H

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109592
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

SCALE: N.T.S.

9:08:20 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

SIGN NO.	LEGEND	SHEET NO.	SIZE LENGTH	SIZE HEIGHT	SIZE RADIUS	COPY BORDER WIDTH	COPY CAPITAL	COPY LOWER CASE	COPY MATERIAL	COPY SERIES	SHIELD	ARROW	SIGN FACE COPY	SIGN FACE BACKGROUND	SIGN FACE MATERIAL	STEEL DESIGN (BREAK-AWAY) SUPPORT TYPE	STEEL DESIGN (BREAK-AWAY) SUPPORT LENGTH	STEEL DESIGN (BREAK-AWAY) FOOTING	STEEL DESIGN (BREAK-AWAY) CONCRETE (CU. YDS.)	STEEL DESIGN (BREAK-AWAY) REINF. STEEL (LBS.)	MINIMUM VERTICAL CLEARANCE	REMARKS
37	M3-1 NORTH / SOUTH M3-3; TN-6C 33 Tennessee / 33 Tennessee TN-6C; M6-1L M6-1R	20A	24" 30" 21"	12" 24" 15"							33 Tennessee 30"X24"		BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h_1=17'-9" h_2=17'-9"					
38 96	SPEED LIMIT 50 R2-1	20A 20E	30"	36"									BLACK	WHITE (REF)	0.100" SHEET ALUMINUM	P8	h=13'-0" h=13'-0"					
39	Tennessee Scenic Parkway TN-22B; NORTH M3-1; 441 M1-4	20A	24" 24" 30"	24" 12" 24"							441 30"X24"		GREEN (REF) BLACK	WHITE (REF) WHITE (REF)	0.080" SHEET ALUMINUM	P6	h=18'-9"					
43	SOUTH M3-3; 131 TN-6B; M6-1R	20B	24" 30" 21"	12" 24" 15"							131 30"X24"		BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h=17'-9"					
57 73	YIELD R1-2	20B 20C	36" X 36" X 36"										RED (REF)	WHITE (REF) RED (REF)	0.080" SHEET ALUMINUM	P6	h=13'-6"					
66	NORTH M3-1; 131 TN-6B; M5-1R	20B	24" 30" 21"	12" 24" 15"							131 30"X24"		BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h=17'-9"					
71	NORTH M3-1; 131 TN-6B; M6-2R	20C	24" 30" 21"	12" 24" 15"							131 30"X24"		BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h=17'-9"					
75	M3-3 SOUTH / NORTH M3-1; TN-6C 33 Tennessee / 33 Tennessee TN-6C; M6-1L M6-1R	20C	24" 30" 21"	12" 24" 15"							33 Tennessee 30"X24"		BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h_1=17'-9" h_2=17'-9"					
78	S1-1; 300 FEET W16-2P	20C	36" 24"	36" 18"									BLACK	GREEN (REF)	0.080" SHEET ALUMINUM	P8	h=15'-6"					
79	SCHOOL SPEED LIMIT 15 WHEN FLASHING S5-1	20C	36"	60"									BLACK	GREEN (REF) WHITE (REF)	0.080" SHEET ALUMINUM	P8	h=16'-0"					
80	M3-1 NORTH / SOUTH M3-3; TN-6C 33 Tennessee / 33 Tennessee TN-6C; M6-1L M6-1R	20C	24" 30" 21"	12" 24" 15"							33 Tennessee 30"X24"		BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h_1=17'-9" h_2=17'-9"					
81 81A 89 89A 95 95A	ONLY ONLY R3-8 (mod.)	20C 20C 20D 20D 20E 20E	48"	30"									BLACK	WHITE (REF)	0.100" SHEET ALUMINUM	P8	h=13'-0" h=13'-0" h=13'-0"				7'-0"	

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	20-I

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
NO. 109.000
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

SCALE: N.T.S.

9:08:21 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

SIGN NO.	LEGEND	SHEET NO.	SIZE LENGTH	SIZE HEIGHT	SIZE RADIUS	SIZE BORDER WIDTH	COPY CAPITAL	COPY LOWER CASE	COPY MATERIAL	COPY SERIES	SHIELD	ARROW	SIGN FACE COPY	SIGN FACE BACKGROUND	SIGN FACE MATERIAL	STEEL DESIGN (BREAK-AWAY) SUPPORT TYPE	STEEL DESIGN (BREAK-AWAY) SUPPORT LENGTH	STEEL DESIGN (BREAK-AWAY) FOOTING	STEEL DESIGN (BREAK-AWAY) CONCRETE (CU. YDS.)	STEEL DESIGN (BREAK-AWAY) REINF. STEEL (LBS.)	MINIMUM VERTICAL CLEARANCE	REMARKS
83 84	S1-1 W16-7P	20C 20C	36″ 24″	36″ 12″									BLACK	GREEN (REF)	0.080″ SHEET ALUMINUM	P8	h=15′-0″					
85 90 99	JCT M2-1 33 Tennessee TN-6C	20C 20D 20F	21″ 30″	15″ 24″							33 Tennessee 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h=15′-9″					
86	131 TN-6B N S M5-1L (mod.)	20C	30″ 21″	24″ 15″							131 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h=15′-9″					
92	NORTH M3-1 131 TN-6B	20D	24″ 30″	12″ 24″							131 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h=15′-9″					
93	SOUTH M3-3 441 M1-4	20E	24″ 30″	12″ 24″							441 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h=15′-9″					
94	TO M4-5 M3-3 SOUTH 131 TN-6B NORTH 131 TN-6B M3-1 M6-1L M6-1R	20E	24″ 24″ 30″ 21″	12″ 12″ 24″ 15″							131 30″X24″		BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	P6	h_1=17′-9″ h_2=18′-9″					
101	STOP R1-1	20F	36″	36″									WHITE (REF)	RED (REF)	0.080″ SHEET ALUMINUM	U6	h=12′-6″					
22A 23A 26A 43A 44A 45A 61A 66A 68A 88A	ONE WAY R6-1(R)	20A 20A 20A 20B 20B 20B 20B 20B 20C 20C	36″	12″									BLACK	WHITE (REF)	0.080″ SHEET ALUMINUM	U1	h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″ h=12′-0″				7′-0″	

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-33(116)	20J

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

KATHLEEN C. HOLMES
REGISTERED ENGINEER
AGRICULTURE
NUMBER
DATE
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

SCALE: N.T.S.

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9:08:21 AM

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	21

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

SIGNAL HEADS

NOTE: SIGNAL HEADS SHALL BE 12" DIALIGHT L.E.D.

ATTACHMENT HEIGHTS

SPAN	HEIGHT
1-2	27'
2-3	30'
3-4	27'
1-4	30'

1. POINT OF ATTACHMENT IS ELEVATION DIFFERENCE BETWEEN SPAN TIE-IN POINT ON POLE AND MAXIMUM PAVEMENT ELEVATION UNDER SPAN.
2. ACTUAL POLE PLACEMENT LOCATION MAY VARY FROM THAT SHOWN ON THESE PLANS. THEREFORE SHAFT LENGTH AND LOCATION OF SPAN TIE-IN POINT MAY ALSO VARY DEPENDING ON THE GROUND ELEVATION AT THE ACTUAL POLE PLACEMENT LOCATION. THE CONTRACTOR SHALL DETERMINE GROUND LINE ELEVATIONS, REQUIRED SHAFT LENGTHS AND REQUIRED LOCATIONS OF SPAN TIE-IN POINT PRIOR TO ORDERING POLES.
3. POLE AND ATTACHMENT HEIGHTS ARE APPROXIMATE AND BASED ON FOOTING ELEVATIONS. SIGNAL HEADS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17.5' WITH A MAXIMUM SAG OF 5% FOR THE SPAN.

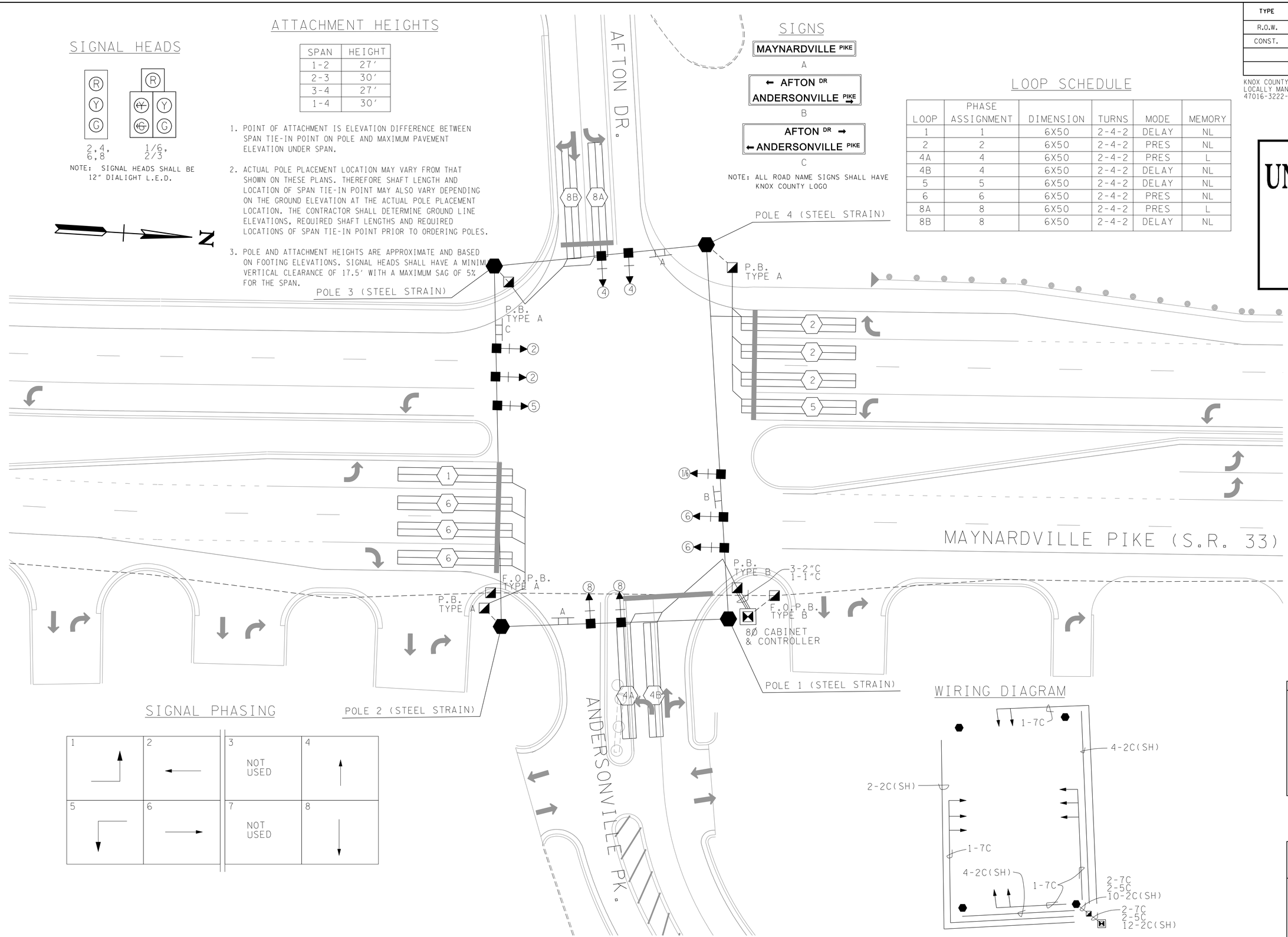
SIGNS

NOTE: ALL ROAD NAME SIGNS SHALL HAVE KNOX COUNTY LOGO

LOOP SCHEDULE

LOOP	PHASE ASSIGNMENT	DIMENSION	TURNS	MODE	MEMORY
1	1	6X50	2-4-2	DELAY	NL
2	2	6X50	2-4-2	PRES	NL
4A	4	6X50	2-4-2	PRES	L
4B	4	6X50	2-4-2	DELAY	NL
5	5	6X50	2-4-2	DELAY	NL
6	6	6X50	2-4-2	PRES	NL
8A	8	6X50	2-4-2	PRES	L
8B	8	6X50	2-4-2	DELAY	NL

UNOFFICIAL SET
NOT FOR BIDDING



SIGNAL PHASING

WIRING DIAGRAM

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL

S.R. 33 AT AFTON DR.

SCALE: 1"= 20'

10:00:08 AM
M:\Knox County\Halls Connector\Sheets\2L_Signal_Afton.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	21A

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

N

SIGNAL HEADS

NOTE: SIGNAL HEADS SHALL BE 12" DIALIGHT L.E.D.

SIGNS

MAYNARDVILLE PIKE
A

NORRIS FRWY
B

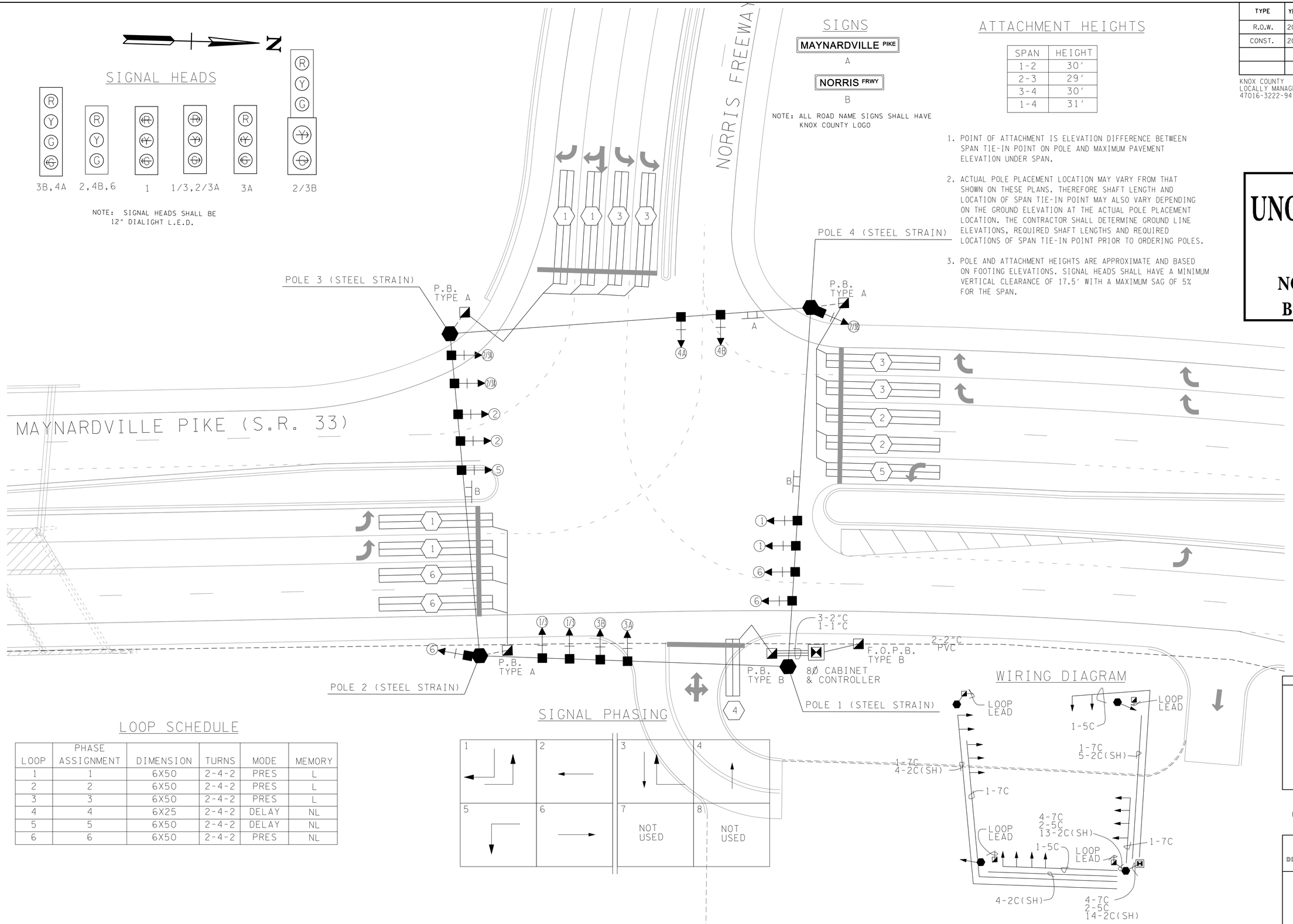
NOTE: ALL ROAD NAME SIGNS SHALL HAVE KNOX COUNTY LOGO

ATTACHMENT HEIGHTS

SPAN	HEIGHT
1-2	30'
2-3	29'
3-4	30'
1-4	31'

1. POINT OF ATTACHMENT IS ELEVATION DIFFERENCE BETWEEN SPAN TIE-IN POINT ON POLE AND MAXIMUM PAVEMENT ELEVATION UNDER SPAN.
2. ACTUAL POLE PLACEMENT LOCATION MAY VARY FROM THAT SHOWN ON THESE PLANS. THEREFORE SHAFT LENGTH AND LOCATION OF SPAN TIE-IN POINT MAY ALSO VARY DEPENDING ON THE GROUND ELEVATION AT THE ACTUAL POLE PLACEMENT LOCATION. THE CONTRACTOR SHALL DETERMINE GROUND LINE ELEVATIONS, REQUIRED SHAFT LENGTHS AND REQUIRED LOCATIONS OF SPAN TIE-IN POINT PRIOR TO ORDERING POLES.
3. POLE AND ATTACHMENT HEIGHTS ARE APPROXIMATE AND BASED ON FOOTING ELEVATIONS. SIGNAL HEADS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17.5' WITH A MAXIMUM SAG OF 5% FOR THE SPAN.

UNOFFICIAL SET
NOT FOR BIDDING



LOOP SCHEDULE

LOOP	PHASE ASSIGNMENT	DIMENSION	TURNS	MODE	MEMORY
1	1	6X50	2-4-2	PRES	L
2	2	6X50	2-4-2	PRES	L
3	3	6X50	2-4-2	PRES	L
4	4	6X25	2-4-2	DELAY	NL
5	5	6X50	2-4-2	DELAY	NL
6	6	6X50	2-4-2	PRES	NL

SIGNAL PHASING

WIRING DIAGRAM

SEALED BY

JOHN F. GOULD
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 22360
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL

S.R. 33 AT NORRIS FRWY.

SCALE: 1"= 20'

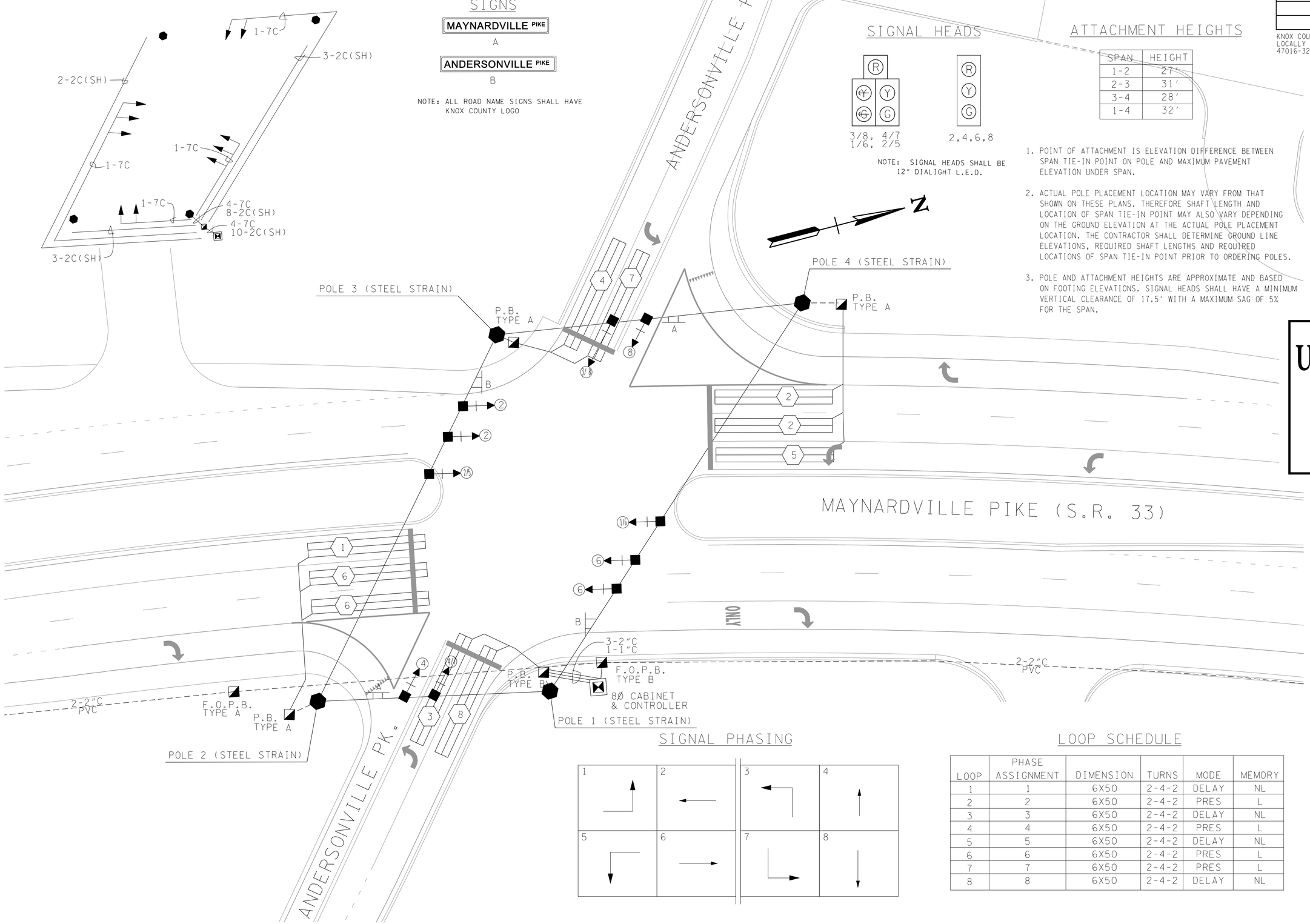
10:00:09 AM
M:\Knox County\Halls Connector\Sheets\21A_Signal_NorrisFrwy.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	21B

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

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

WIRING DIAGRAM



SIGNS

MAYNARDVILLE PIKE
A

ANDERSONVILLE PIKE
B

NOTE: ALL ROAD NAME SIGNS SHALL HAVE KNOX COUNTY LOGO

SIGNAL HEADS

NOTE: SIGNAL HEADS SHALL BE 12" DIALIGHT L.E.D.

ATTACHMENT HEIGHTS

SPAN	HEIGHT
1-2	27'
2-3	31'
3-4	28'
1-4	32'

1. POINT OF ATTACHMENT IS ELEVATION DIFFERENCE BETWEEN SPAN TIE-IN POINT ON POLE AND MAXIMUM PAVEMENT ELEVATION UNDER SPAN.
2. ACTUAL POLE PLACEMENT LOCATION MAY VARY FROM THAT SHOWN ON THESE PLANS. THEREFORE SHAFT LENGTH AND LOCATION OF SPAN TIE-IN POINT MAY ALSO VARY DEPENDING ON THE GROUND ELEVATION AT THE ACTUAL POLE PLACEMENT LOCATION. THE CONTRACTOR SHALL DETERMINE GROUND LINE ELEVATIONS, REQUIRED SHAFT LENGTHS AND REQUIRED LOCATIONS OF SPAN TIE-IN POINT PRIOR TO ORDERING POLES.
3. POLE AND ATTACHMENT HEIGHTS ARE APPROXIMATE AND BASED ON FOOTING ELEVATIONS. SIGNAL HEADS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17.5' WITH A MAXIMUM SAG OF 5% FOR THE SPAN.

UNOFFICIAL SET
NOT FOR BIDDING

SIGNAL PHASING

LOOP SCHEDULE

LOOP	PHASE ASSIGNMENT	DIMENSION	TURNS	MODE	MEMORY
1	1	6X50	2-4-2	DELAY	NL
2	2	6X50	2-4-2	PRES	L
3	3	6X50	2-4-2	DELAY	NL
4	4	6X50	2-4-2	PRES	L
5	5	6X50	2-4-2	DELAY	NL
6	6	6X50	2-4-2	PRES	L
7	7	6X50	2-4-2	PRES	L
8	8	6X50	2-4-2	DELAY	NL

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL
S.R. 33 AT ANDERSONVILLE PK.

SCALE: 1"= 20'

10:00:11 AM
M:\Knox County\Halls Connector\Sheets\21B_Signal_AndersonvillePk.dgn

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	21C

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

LOOP SCHEDULE

LOOP	LOOP ASSIGNMENT	DIMENSION	TURNS	MODE	MEMORY
1	1	6X50	2-4-2	DELAY	L
2A	2	6X50	2-4-2	PRES	NL
3	3	6X50	2-4-2	DELAY	NL
4	4	6X50	2-4-2	PRES	L
5	5	6X50	2-4-2	PRES	L
6	6	6X50	2-4-2	DELAY	NL
7A	7	6X50	2-4-2	PRES	NL
7B	7	6X50	2-4-2	PRES	L
8	8	6X50	2-4-2	PRES	L

SIGNS

MAYNARDVILLE PIKE
A

EMORY RD
B

NOTE: ALL ROAD NAME SIGNS SHALL HAVE KNOX COUNTY LOGO

SIGNAL HEADS

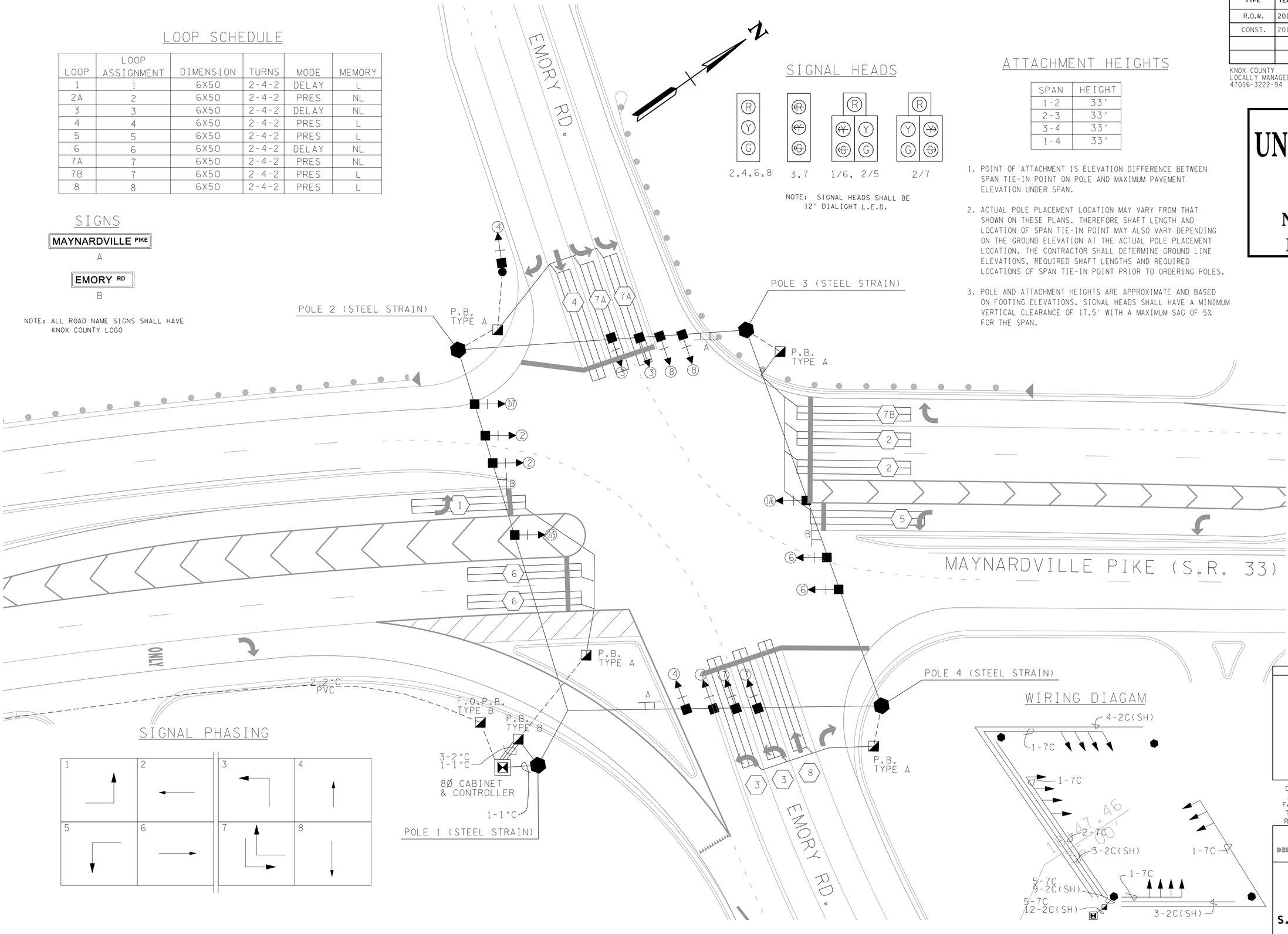
NOTE: SIGNAL HEADS SHALL BE 12" DIALIGHT L.E.D.

ATTACHMENT HEIGHTS

SPAN	HEIGHT
1-2	33'
2-3	33'
3-4	33'
1-4	33'

1. POINT OF ATTACHMENT IS ELEVATION DIFFERENCE BETWEEN SPAN TIE-IN POINT ON POLE AND MAXIMUM PAVEMENT ELEVATION UNDER SPAN.
2. ACTUAL POLE PLACEMENT LOCATION MAY VARY FROM THAT SHOWN ON THESE PLANS. THEREFORE SHAFT LENGTH AND LOCATION OF SPAN TIE-IN POINT MAY ALSO VARY DEPENDING ON THE GROUND ELEVATION AT THE ACTUAL POLE PLACEMENT LOCATION. THE CONTRACTOR SHALL DETERMINE GROUND LINE ELEVATIONS, REQUIRED SHAFT LENGTHS AND REQUIRED LOCATIONS OF SPAN TIE-IN POINT PRIOR TO ORDERING POLES.
3. POLE AND ATTACHMENT HEIGHTS ARE APPROXIMATE AND BASED ON FOOTING ELEVATIONS. SIGNAL HEADS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17.5' WITH A MAXIMUM SAG OF 5% FOR THE SPAN.

UNOFFICIAL SET
NOT FOR BIDDING



SIGNAL PHASING

WIRING DIAGAM

SEALED BY

JOHN F. GOULD
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 22840
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL

S.R. 33 AT EMORY RD.

SCALE: 1"= 20'

M:\Knox County\Halls Connector\Sheets\21C_Signal_Emory.dgn
10:00:13 AM

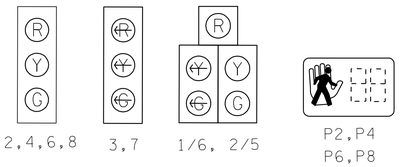
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	18D
CONST.	2014	HSIP-33(116)	21D

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

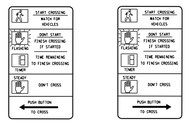
UNOFFICIAL SET
NOT FOR BIDDING

SIGNAL HEADS



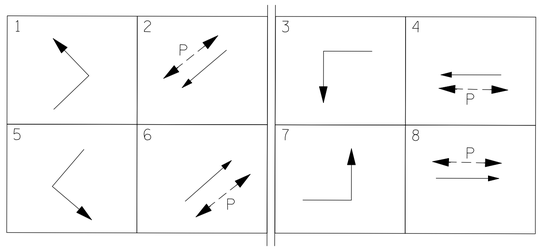
NOTES: 1. SIGNAL HEADS SHALL BE 12" DIALIGHT L.E.D.

2. PEDESTRIAN SIGNAL SHALL BE INSTALLED WITH PUSH BUTTONS WITH R10-3E (9"X12") SIGNS.

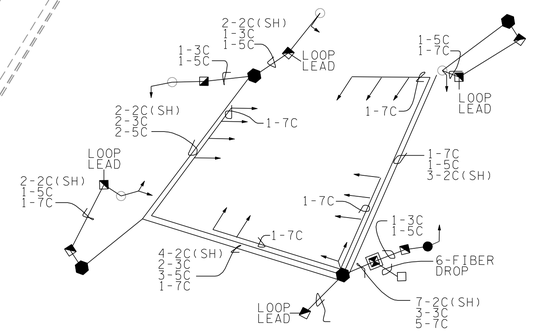


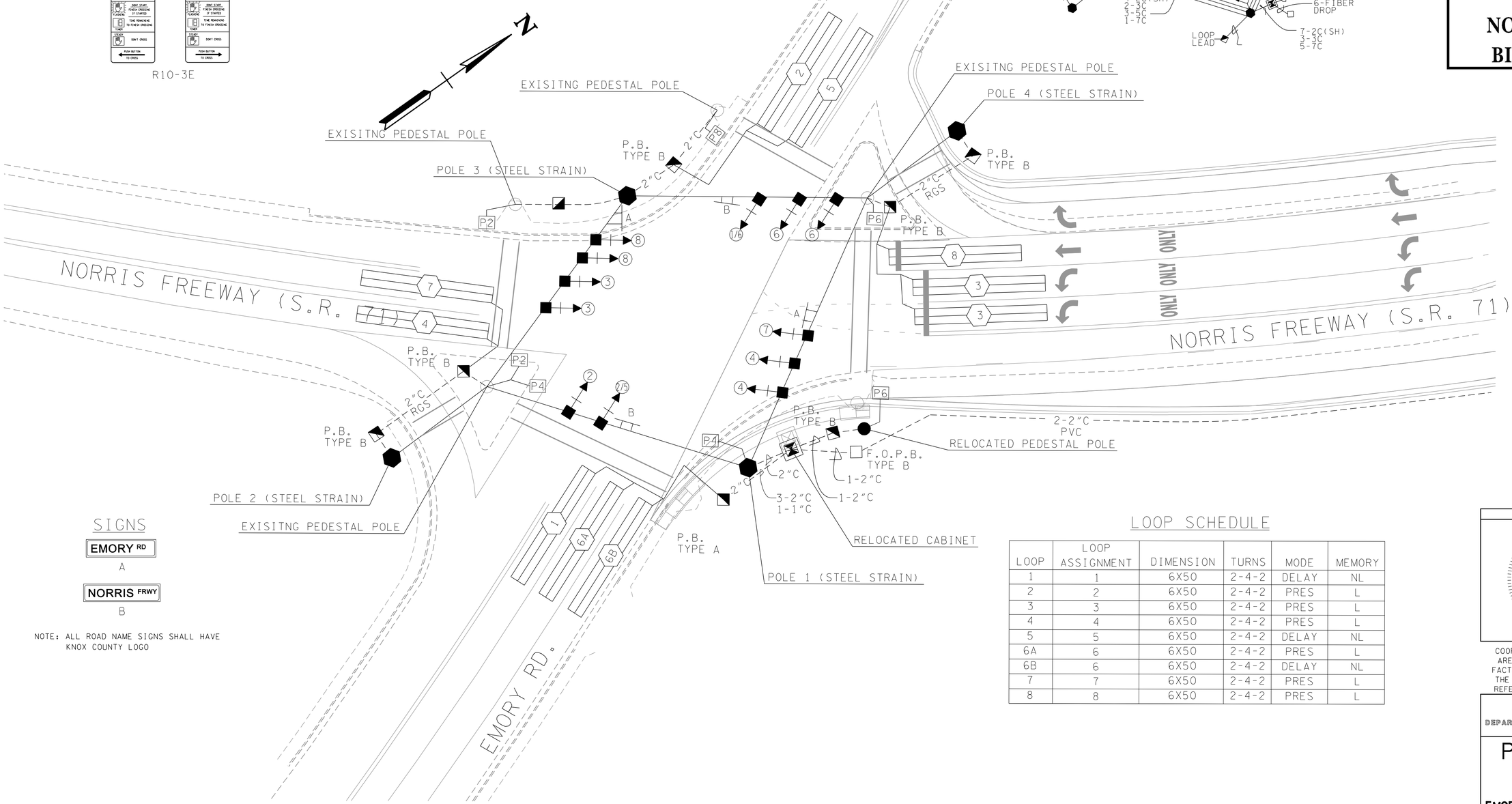
R10-3E

SIGNAL PHASING



WIRING DIAGRAM





SIGNS

NOTE: ALL ROAD NAME SIGNS SHALL HAVE KNOX COUNTY LOGO

LOOP SCHEDULE

LOOP	LOOP ASSIGNMENT	DIMENSION	TURNS	MODE	MEMORY
1	1	6X50	2-4-2	DELAY	NL
2	2	6X50	2-4-2	PRES	L
3	3	6X50	2-4-2	PRES	L
4	4	6X50	2-4-2	PRES	L
5	5	6X50	2-4-2	DELAY	NL
6A	6	6X50	2-4-2	PRES	L
6B	6	6X50	2-4-2	DELAY	NL
7	7	6X50	2-4-2	PRES	L
8	8	6X50	2-4-2	PRES	L

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL

EMORY RD. AT S.R. 71

SCALE: 1"= 20'

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TENNESSEE D.O.T.

DESIGN DIVISION

FILE NO.

COMMUNICATION NOTES

1. ALL CONSTRUCTION TO BE I ACCORDANCE WITH TDOT STANDARD SPECIFICATION NO. 730.

2. REFER TO TDOT STANDARD DRAWING NO. T-FO-2 AND 4.

3. CONDUIT SHALL BE SCH. 80 PVC WITH TRACE WIRE EXCEPT WHERE OTHERWISE DESIGNATED AND LOCATED APPROXIMATELY 12" BEHIND THE CURB.

4. FIBER-OPTIC CABLE SHALL BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS.

5. FIBER-OPTIC CABLE SHALL BE A MINIMUM OF 12-FIBER MULTI-MODE CABLE.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE FIBER-OPTIC CABLE AND COMMUNICATIONS BETWEEN SIGNALS.

7. SIGNAL CABINETS AND CONTROLLERS SHALL HAVE ANY NECESSARY DEVICES FOR FIBER-OPTIC COMMUNICATIONS.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF AN OPERATING CLOSED-LOOP SYSTEM TO THE SATISFACTION OF KNOX COUNTY.

9. CONDUCTORS IN PULL BOXES AND EQUIPMENT ENCLOSURES SHALL BE NEATLY ARRANGED AND LACED WITH APPROVED CABLE TIES. IN ACCORDANCE WITH INDUSTY STANDARD PRACTICE AND AS NOTED ON THE PLANS.

10. CONTRACTOR SHALL COIL ADDITIONAL CABLE IN THE BOTTOMS OF CABINETS AND PULL BOXES. SLACK CABLE SHALL BE A MINIMUM OF 75' FOR TYPE "B", 25' FOR TYPE "A", AND 20' FOR SIGNAL CABINETS.

11. PROVIDE 6-FIBER DROP FROM THE B FIBER-OPTIC PULL BOX TO SIGNAL CABINET.

N

F.O.P.B. TYPE A

INSTALL 2 12- FIBER HYBRID (6MM/6SM) CABLE

NORRIS FWY.

F.O.P.B. TYPE A

AFTON DR.

MAYNARDVILLE PIKE (S.R. 33)

2-2" PVC

F.O.P.B. TYPE B 8Ø CABINET & CONTROLLER

F.O.P.B. TYPE A

INSTALL 2 12- FIBER HYBRID (6MM/6SM) CABLE

F.O.P.B. TYPE B 8Ø CABINET WITH MASTER CABINET AND & CONTROLLER

ANDERSONVILLE PK.

ANDERSONVILLE PK.

F.O.P.B. TYPE B 8Ø CABINET & CONTROLLER

INSTALL 2 12- FIBER HYBRID (6MM/6SM) CABLE

2-2" PVC

MAYNARDVILLE PIKE (S.R. 33)

EMORY RD.

F.O.P.B. TYPE B 8Ø CABINET & CONTROLLER

UPGRADE CABINET AND CONTROLLER FOR FIBER OPTIC COMMUNICATIONS

MAYNARDVILLE PIKE (S.R. 33)

EMORY RD.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	21E

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

JOHN F. GOULD
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 22540
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

COMMUNICATIONS PLAN

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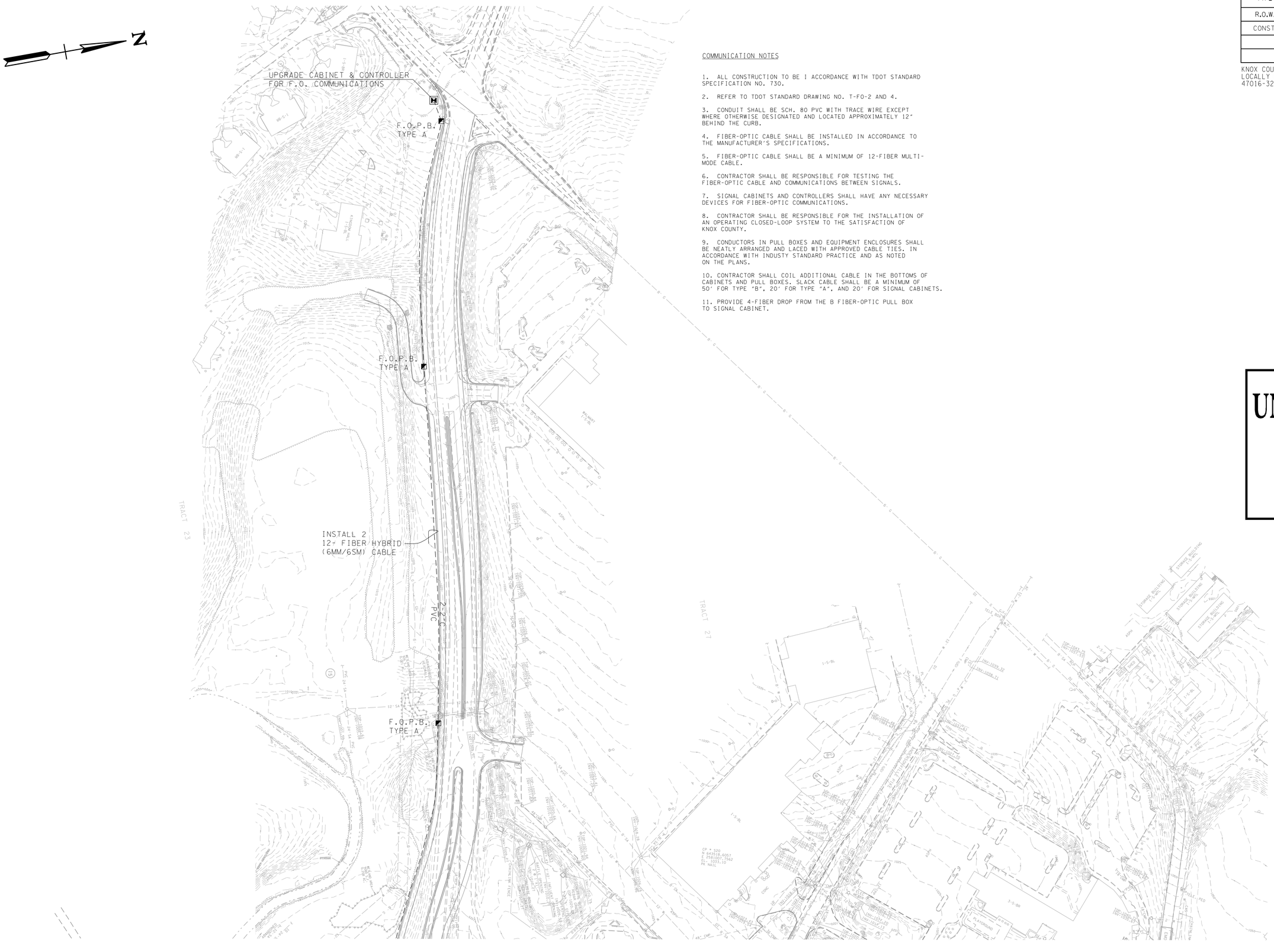
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NHTSA-HE-33(103)	
CONST.	2014	HSIP-33(116)	21F

KNOX COUNTY
LOCALLY MANAGED PROJECT
47016-3222-94



COMMUNICATION NOTES

1. ALL CONSTRUCTION TO BE I ACCORDANCE WITH TDOT STANDARD SPECIFICATION NO. 730.

2. REFER TO TDOT STANDARD DRAWING NO. T-FO-2 AND 4.

3. CONDUIT SHALL BE SCH. 80 PVC WITH TRACE WIRE EXCEPT WHERE OTHERWISE DESIGNATED AND LOCATED APPROXIMATELY 12" BEHIND THE CURB.

4. FIBER-OPTIC CABLE SHALL BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS.

5. FIBER-OPTIC CABLE SHALL BE A MINIMUM OF 12-FIBER MULTI-MODE CABLE.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE FIBER-OPTIC CABLE AND COMMUNICATIONS BETWEEN SIGNALS.

7. SIGNAL CABINETS AND CONTROLLERS SHALL HAVE ANY NECESSARY DEVICES FOR FIBER-OPTIC COMMUNICATIONS.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF AN OPERATING CLOSED-LOOP SYSTEM TO THE SATISFACTION OF KNOX COUNTY.

9. CONDUCTORS IN PULL BOXES AND EQUIPMENT ENCLOSURES SHALL BE NEATLY ARRANGED AND LACED WITH APPROVED CABLE TIES. IN ACCORDANCE WITH INDUSTY STANDARD PRACTICE AND AS NOTED ON THE PLANS.

10. CONTRACTOR SHALL COIL ADDITIONAL CABLE IN THE BOTTOMS OF CABINETS AND PULL BOXES. SLACK CABLE SHALL BE A MINIMUM OF 50' FOR TYPE "B", 20' FOR TYPE "A", AND 20' FOR SIGNAL CABINETS.

11. PROVIDE 4-FIBER DROP FROM THE B FIBER-OPTIC PULL BOX TO SIGNAL CABINET.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

JOHN F. GOULD
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 22640
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

COMMUNICATIONS PLAN

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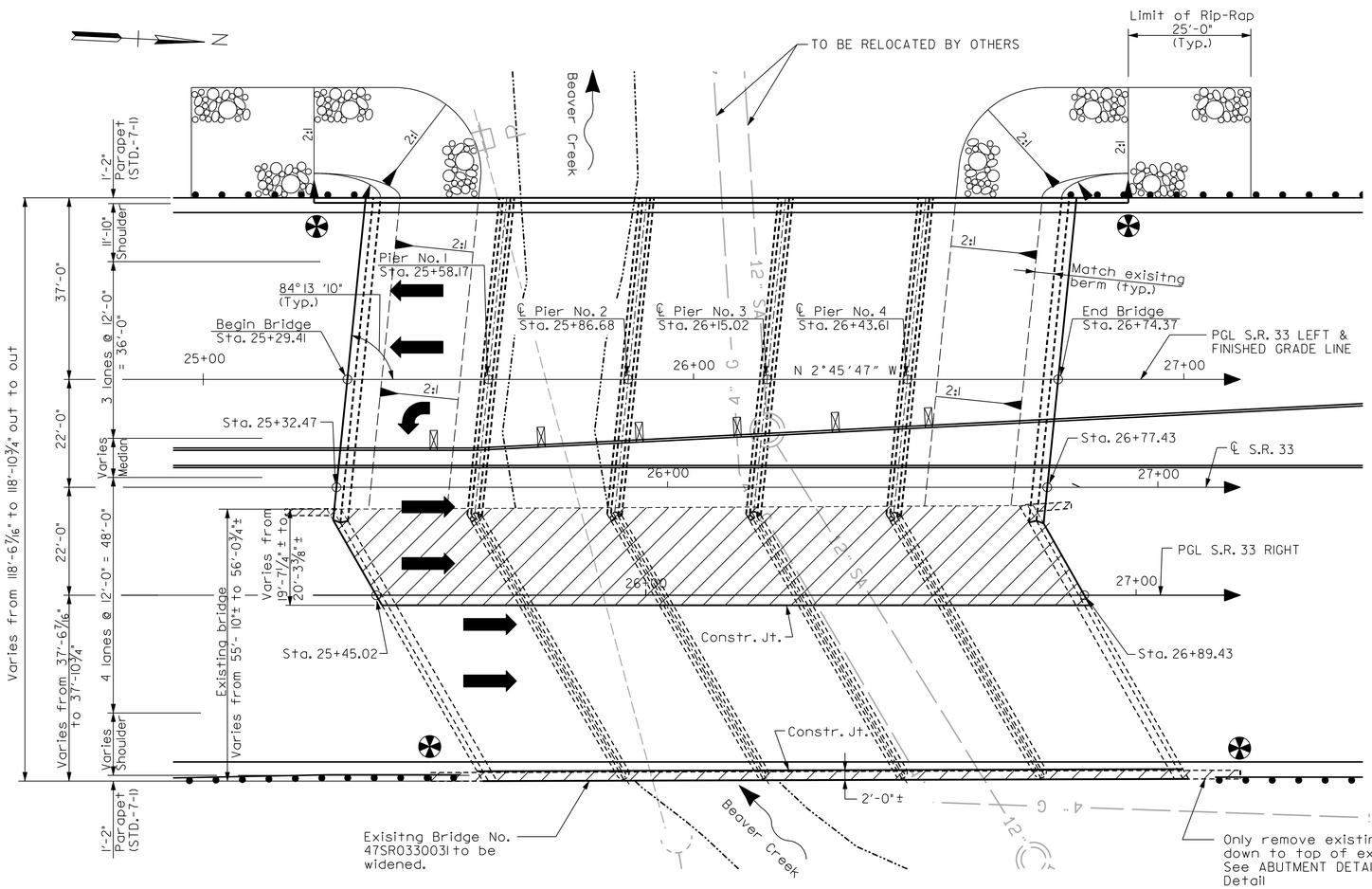
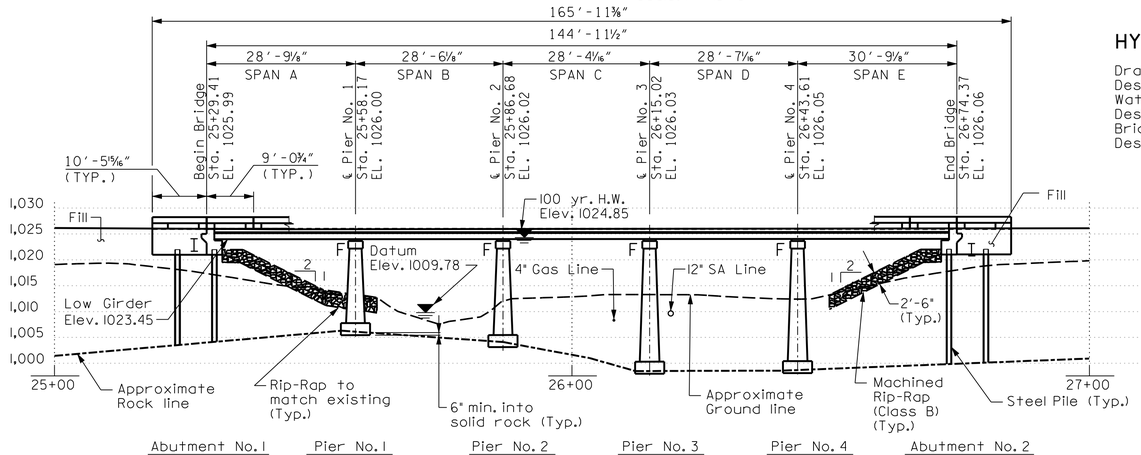


PLAN
Scale: 1" = 15'-0"

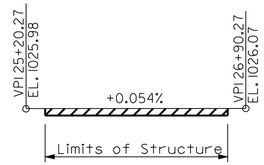


SECTION @ PGL S.R.33 LEFT
Scale: 1" = 15'-0"

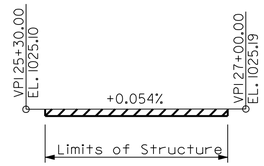
HYDRAULIC DESIGN DATA

Drainage Area = 21.25 sq. mi.
Design Dischrge (100yr.) @ H.W. Elev.1024.85 = 6890 cfs
Water Area Provided below H.W. Elev. 1024.85 = 1248.67 sq. ft.
Design Velocity (100 yr.) = 5.52 fps
Bridge Backwater (100 yr.) = -0.19 ft.
Design Discharge (500 yr.) @ H.W. Elev. 1026.61 = 9820 cfs

TRAFFIC DATA
Year 2010 ADT = 41,500
Year 2035 ADT = 61,700



VERTICAL GRADE DATA
PGL S.R. 33 LEFT



VERTICAL GRADE DATA
PGL S.R. 33 RIGHT

UNOFFICIAL SET

NOT FOR BIDDING

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

Notes:

Where underground utilities may be encountered during construction, it shall be the Contractor's responsibility to protect these lines from any damage. Where relocation or readjustment of a utility is required within the scope of this contract, it shall be done by the Contractor. Where relocation or readjustment of a utility is required outside the scope of this contract, it shall be done by the owner of the utility.

CAUTION:

Contractors attention shall be directed to the existing overhead electrical line at Pier No. 1. This line CANNOT be de-energized. Low overhead equipment may be required in this area.

F - Denotes Fixed.

I - Denotes Integral.

➡ Indicates direction of one lane of traffic.

✠ Indicates proposed guardrail attachment

⊠ Indicates Type 2 Grate Inlet drain, STD-1-2

For Roadway Data not shown, see Roadway Plans.

Design speed = 45 mph

▨ DENOTES: Portion of existing structure to be removed.

TABLE of Type 2 Grate Inlet Drains (STD-1-2)	
℄ S.R. 33 LEFT	
25+47.00	14'-0" RT. ◑
25+69.00	13'-3⅝" RT. ◑
25+89.00	12'-3⅝" RT. ◑
26+09.00	11'-3⅝" RT.
26+29.00	10'-3⅝" RT.
26+48.00	9'-4½" RT.

◑ NOTE: TO AVOID CONFLICT WITH PRESTR. BEAMS, THE OUTLET DOWNSPOUT OF THESE DRAINS SHALL BE POSITIONED UNDER THE EDGE OF TRAFFIC LANE RATHER THAN UNDER THE CONC. CURB.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE WIDENING
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B. B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F. G. Bale	DATE	5-11
CHECKED BY	B. B. Warren	DATE	5-11

INTERCONNECTED PORTABLE BARRIER RAIL (T-PBR-1)= 435 L.F.

MACHINED RIP-RAP (CLASS "B") = 1,108 TON

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-125

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LIST OF DRAWINGS	DRAWING NO.	LATEST REV. DATE
LAYOUT OF BRIDGE WIDENING	U-70-125	
GENERAL NOTES	U-70-126	
ESTIMATED QUANTITIES	U-70-127	
PHASE CONSTRUCTION	U-70-128	
SUPERSTRUCTURE DETAILS (1)	U-70-129	
SUPERSTRUCTURE DETAILS (2)	U-70-130	
PRESTRESSED BOX BEAM DETAILS	U-70-131	
ABUTMENT NO. 1 AND 2	U-70-132	
ABUTMENT DETAILS (1)	U-70-133	
ABUTMENT DETAILS (2)	U-70-134	
PIER NO. 1, 2, 3 AND 4	U-70-135	
PIER DETAILS	U-70-136	
BILL OF STEEL (1)	U-70-137	
BILL OF STEEL (2)	U-70-138	
REINFORCING STEEL BAR BENDING DETAILS	U-70-139	
SOUNDING SKETCH	U-70-140	
FINAL FOUNDATION DATA	U-70-141	

REFERENCE DRAWINGS

Original Drawings (1934) A-0-10, A-14-63, B-2-50, B-2-51, B-3-75 and D-7-148
Widening Drawings (1997) M-356-15 Thru M-356-35 (To be printed with plans)

DRAWING NO.	LATEST REVISION DATE	STANDARD DRAWING
STD-1-2	03-28-08	Steel Slider Plate Assemblies for Concrete Parapet and Bridge Deck Drain Details
STD-2-1	11-01-10	Bridge Mounted Interconnected Portable Barrier Rail
STD-2-2		Vertical Panel Details
STD-4-1	04-08-05	Standard Precast Prestr. Bridge Deck Panels General Details
STD-4-2	04-08-05	Standard Precast Prestr. Bridge Deck Panels Design Criteria
STD-4-3	03-02-02	Standard Precast Prestr. Bridge Deck Panels General Details
STD-4-4	06-10-96	Standard Precast Prestr. Bridge Deck Panels Construction Details
STD-5-1	10-25-93	Standard Pile Details
STD-5-2	05-01-14	Standard Pile Details
STD-6-1	11-01-10	Standard Seismic Details
STD-6-2	11-07-94	Standard Seismic Details
STD-7-1	11-01-10	Standard Concrete Bridge Rail
STD-9-1	10-07-08	Standard Reinforcing Bar Support Details For Concrete Slabs
STD-10-1	04-08-05	Misc. Abutment & Drainage Details
STD-14-3	10-15-08	Standard Details for Prestressed Box Beams

NOTES:

SPECIFICATIONS: Standard Road and Bridge Specifications of the Tennessee Department of Transportation (March 1, 2006 Edition).

LOADING: HL-93 Live loading: Dead load includes 35 lb/sq.ft. for future wearing surface.

DESIGN SPECIFICATIONS: AASHTO LRFD Fifth Edition, 2010, with interims, and excluding the 2009 AASHTO Guide Specifications for LRFD Seismic Bridge Design, Edition 1 (with interims). Seismic detailing included but no seismic design.

CONCRETE: To be Class "A" (Cast-in-Place) f'c = 3000 psi except as noted otherwise.

Class "L" Concrete for bridge decks shall be in accordance with section 604 of the Standard Specifications.

BRIDGE DECK SURFACE FINISH: To be in accordance with Note (C) in Article 604.22 of the Standard Specifications.

FINISHING CONCRETE SURFACES: Concrete finishing shall be in accordance with Section 604.21 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 for under item Nos. 604-04.01 and 604-04.02.

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 be 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 thru 4, STD-14-3 and Article 604.05 of the Standard Specifications.

REINFORCING STEEL: Shall be ASTM A615 grade 60 unless noted otherwise. See Section 604 and 907 of the Standard Specifications.

GROUTED BARS IN DRILLED HOLES: Horizontally drilled holes shall be drilled ½" in diameter larger than the bar, cleaned, packed with non-shrink grout, and the bar rotated (not driven) to its seat. Vertically drilled holes shall be drilled ¼" in diameter larger than the bar, cleaned, packed with epoxy grout and the bar shall be driven to its seat. All grouting material shall be approved by T.D.O.T. Materials and Test.

PILES: To be HP10x42 driven to refusal on rock or a minimum bearing of 55 tons for the abutments.

Piles shall be equipped with cast steel points. Also, see standard drawing STD-5-1 for additional notes.

NOTE: The fills at the ends of the bridge shall be in place and thoroughly compacted before any abutment piles are driven.

BRIDGE RAIL SYSTEM: Build bridge railings according to Standard Drawing STD-7-1. The railing shall be formed and cast plumb, not perpendicular to the slab. The dimensions at the traffic face shall be kept constant, with variation due to cross slope accommodated at the rear face.

SHOP DRAWINGS: See Section 105.02 of the Standard Specifications.

SPECIAL NOTE FOR UTILITIES: It is intended that the cost of materials and labor necessary for the complete installation of utilities shall be borne by others and shall not be paid for as a part of this contract. The Contractor shall cooperate with others in the installation of utilities with no additional compensation allowed the Contractor as a result.

SPECIAL NOTE - FOOTING FOR BENTS: After excavation to rock for footing has been completed, holes 6' deep shall be drilled at points designated by the Engineer. From the results obtained, the Engineer shall determine the final footing elevations. No reinforcing steel for bent columns shall be ordered until final footing elevations have been determined.

FOUNDATION PREPARATION: See Section 204 of the Standard specifications. If cofferdams are required, they shall be in accordance with Section 204.09 of the Standard Specifications.

NOTE: The contractor shall saw cut 1 inch deep into the slab before removing concrete. All transverse reinforcing steel shall remain in place and be spliced with the new reinforcing. The contractor shall not use a hydraulic ram mounted on a backhoe (commonly called a hoe ram) or other similar heavy equipment for concrete removal. The maximum allowable hammer size is the 60 pound class.

NOTE: The contractor shall check the location of all existing substructures and verify span lengths before fabricating girders.

NOTE: The contractor shall provide 100% conventional fall protection for workers installing decking above 15 feet.

RIP-RAP: Machined rip-rap shall be Class B in accordance with Section 709 of the Standard Specifications and shall be measured and paid for under Roadway Item 709-05.08.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION:

1. The stage construction sequence may prohibit the extraction of some cofferdam sheet piling. All costs associated with sheet piling shall be included in the lump sum bid price for foundation preparation.
2. The location of longitudinal construction joints shall not be changed to accommodate remain-in-place deck forms.
3. No sheet piles or bearing piles may be driven from the existing or proposed structure.
4. 3 - 10 foot traffic lanes shall be maintained at all times.

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, the waterway opening and flood clearances may not be reduced; for grade separations, the horizontal clearances may not be reduced, nor may the vertical clearance be less than the minimum acceptable for the type facility crossed.

CONSTR. NO. 47016-3222-94

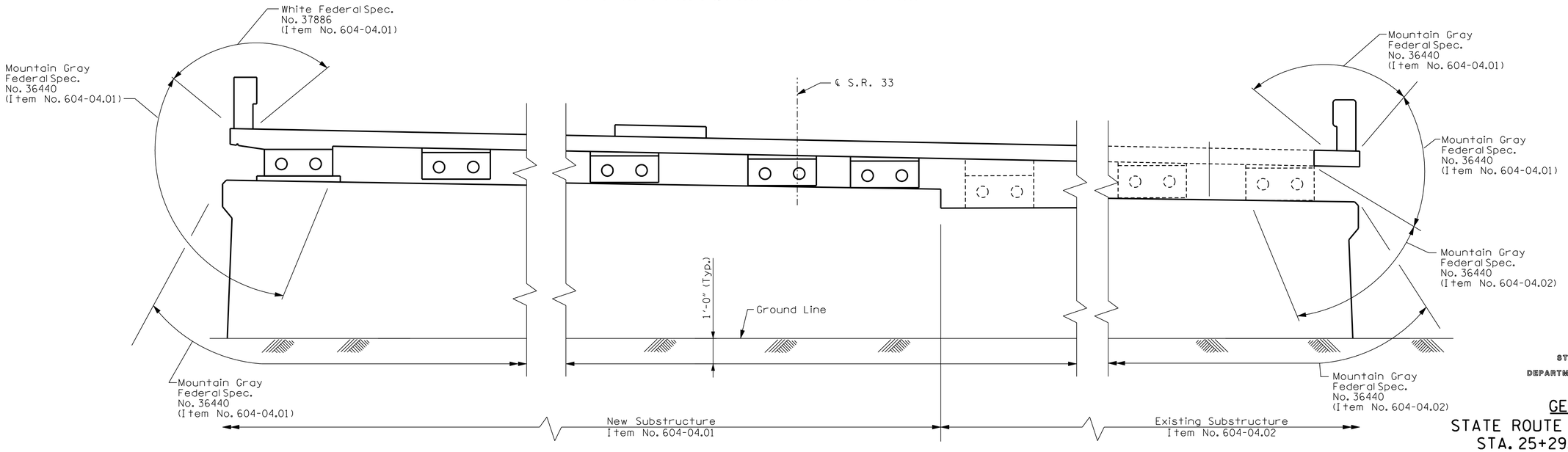
PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

UNOFFICIAL SET

NOT FOR BIDDING



DETAIL SHOWING LIMITS OF APPLIED TEXTURE FINISH

Note:
Texture Finish shall be applied to areas shown and to areas exposed to view, including Abutments and Wingwalls.
Color Numbers are referenced from Federal Standard 595b.

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCIAL NO. 082252 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-126

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① Existing bridge (No. 47SR033003I) to be widened consists of 5 concrete beam spans with a concrete deck. The substructures consist of concrete stub abutments supported by piles and solid-wall concrete piers supported by spread footings on rock. Total length is approximately 145 ft. with a total width of 55 ft. out-to-out. Remove existing east slab overhang, slab west of existing crown line, existing parapets on both east and west side and western end portions of existing abutments and wingwalls.

② NOTE: The cost of removing the exterior portion of the existing slab, portions of the existing abutment, and the bridge rail shall be included in the unit price bid for Removal of Structures, Item No. 202-04.01.

③ NOTE: Excavation based on existing ground for Piers and final profile for abutments.

④ NOTE: See Foundation Preparation note on General Notes Sheet.

⑤ NOTE: Granular backfill shall be Class "A" Grading "D" material. See Standard Drawing STD-10-1.

⑥ NOTE: The cost of all materials and labor necessary for the installation of 120 anchorbolt assemblies shall be included in the unit price bid for Item 604-03.01, Class "A" Concrete (Bridges).

⑦ NOTE: The unit price bid for the cast steel points shall include furnishing and installation to the piles.

⑧ NOTE: Cost of Rubber Bonding Cement and Elastomeric Bearing Pads to be included in unit price bid for the prestressed beam.

⑨ NOTE: Cost of 6 bridge deck drains to be included in the unit price bid for the bridge rail.

⑩ NOTE: Cost of polyethylene sheeting and all miscellaneous items necessary for installation to be included in the unit price bid for Perforated Pipe.

⑪ The cost of bituminous fiber board and all other miscellaneous joint material to be included in the unit price bid for other items.

⑫ Includes all cost for performing full depth deck repairs to existing concrete bridge deck as designated by the Engineer and shall be bid with the contingency that it may be increased, decreased or eliminated. See below for notes and details.

⑬ Includes all cost for performing partial depth deck repairs to existing concrete bridge deck as designated by the Engineer and shall be bid with the contingency that it may be increased, decreased or eliminated. See below for notes and details.

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

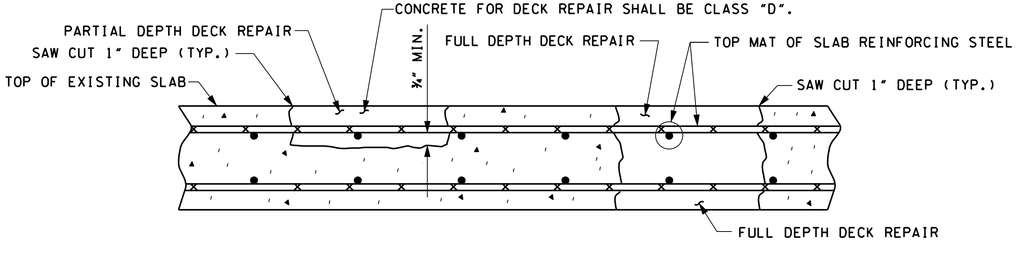
NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED QUANTITIES

BID ITEM NUMBER	202-04.01	204-02.01	204-03.01	204-04.01	204-05	204-10.01	204-10.02	204-10.03	204-10.04	303-01.02	604-02.03	604-03.01	604-03.02	604-03.35	604-04.01
ITEM / STRUCTURE	REMOVAL OF STRUCTURES (STA. 25+45.02) ①②	DRY EXCAVATION (BRIDGES) ③	WET EXCAVATION (BRIDGES) ③	ROCK EXCAVATION (BRIDGES) ③	ROCK DRILLING (BRIDGES)	FOUNDATION PREPARATION (PIER NO. 1) ④	FOUNDATION PREPARATION (PIER NO. 2) ④	FOUNDATION PREPARATION (PIER NO. 3) ④	FOUNDATION PREPARATION (PIER NO. 4) ④	GRANULAR BACKFILL (BRIDGES) ⑤	EPOXY COATED REINFORCING STEEL	CLASS "A" CONCRETE (BRIDGES) ⑥	STEEL BAR REINFORCEMENT (BRIDGES)	CLASS "L" CONCRETE	APPLIED TEXTURE FINISH (NEW STRUCTURES)
	L.S.	C.Y.	C.Y.	C.Y.	L.F.	L.S.	L.S.	L.S.	L.S.	TON	LB.	C.Y.	LB.	C.Y.	S.Y.
Superstructure	———	———	———	———	———	———	———	———	———	———	112,825	———	2,075	396	335
Abutment 1	———	31	———	———	———	———	———	———	———	21	2,500	38	4,110	5	31
Pier No. 1	———	85	76	14	18	1	———	———	———	———	———	215	73,184	———	162
Pier No. 2	———	71	296	14	18	———	1	———	———	———	———	222	75,904	———	170
Pier No. 3	———	75	296	14	18	———	———	1	———	———	———	223	75,939	———	168
Pier No. 4	———	75	297	14	18	———	———	———	1	———	———	231	78,658	———	169
Abutment 2	———	31	———	———	———	———	———	———	———	21	2,500	38	4,114	5	31
Total	1	368	965	56	72	1	1	1	1	42	117,825	967	313,984	406	1,066

ESTIMATED QUANTITIES - CONT.

BID ITEM NUMBER	604-04.02	604-05.31	604-10.30	604-10.50	606-02.03	606-02.06	615-02.52	620-06	710-09.01	710-09.02	712-02.47
ITEM / STRUCTURE	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	BRIDGE DECK GROOVING (MECHANICAL)	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB) ⑫	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) ⑬	STEEL PILES (10 INCH)	PILE TIPS (STEEL PILES, 10 INCH) ⑦	PRESTRESSED CONCRETE BOX BEAM (14"X 36") ⑧	CONCRETE RAILING ⑨	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM ⑩	6" PIPE UNDERDRAIN	BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL
	S.Y.	S.Y.	S.Y.	S.Y.	L.F.	EACH	L.F.	L.F.	L.F.	L.F.	L.F.
Superstructure	71	1,166	10	40	———	———	1,359	332	———	———	———
Abutment 1	30	———	———	———	103	5	———	———	73	15	———
Pier No. 1	139	———	———	———	———	———	———	———	———	———	———
Pier No. 2	146	———	———	———	———	———	———	———	———	———	———
Pier No. 3	144	———	———	———	———	———	———	———	———	———	———
Pier No. 4	144	———	———	———	———	———	———	———	———	———	———
Abutment 2	29	———	———	———	133	5	———	———	73	15	———
Total	703	1,166	10	40	236	10	1,359	332	146	30	145



DETAIL SHOWING FULL AND PARTIAL DEPTH DECK REPAIR

REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF ¾" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE BRIDGE REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE. DECK REPAIR WILL BE PAID FOR UNDER ITEM NO. 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB), AND ITEM NO. 604-10.30, BRIDGE DECK REPAIR (FULL DEPTH OF SLAB). DURING PARTIAL DEPTH REPAIRS, SHOULD DETERIORATED CONCRETE BE ENCOUNTERED WHICH APPEARS TO RUN FULL DEPTH IN THE SLAB, THE ENGINEER MAY DESIGNATE THESE AREAS TO BE REPAIRED UNDER ITEM NO. 604-10.30. POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL AND FULL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

1) (PARTIAL DEPTH REPAIRS) PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60 POUND CLASS SHALL NOT BE USED.
2) (FULL DEPTH REPAIRS) PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 90 POUND CLASS SHALL NOT BE USED. ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 60 POUND PNEUMATIC HAMMERS.
3) CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

NOTE: ITEM NO. 604-10.30 AND 604-10.50 SHALL BE BID WITH THE CONTINGENCY THAT THESE ITEMS MAY BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-127

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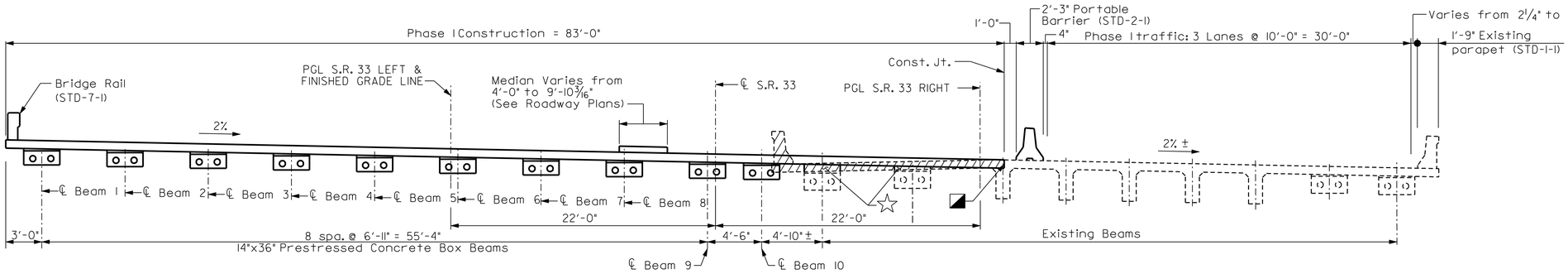
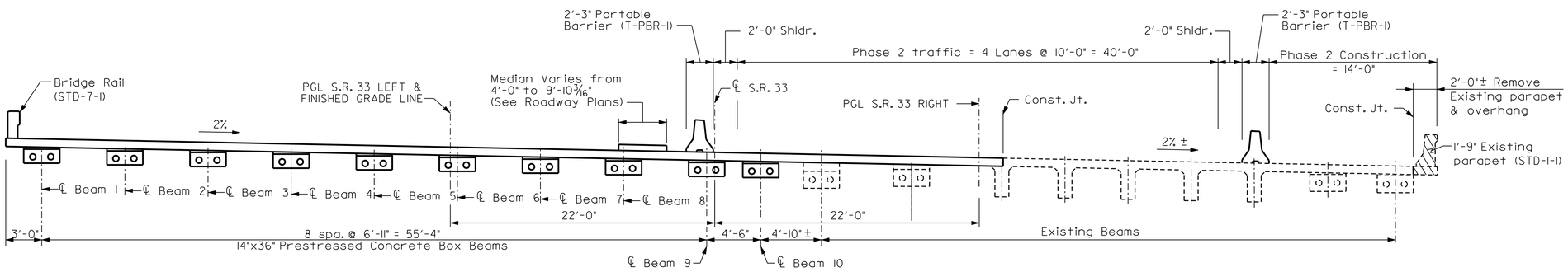
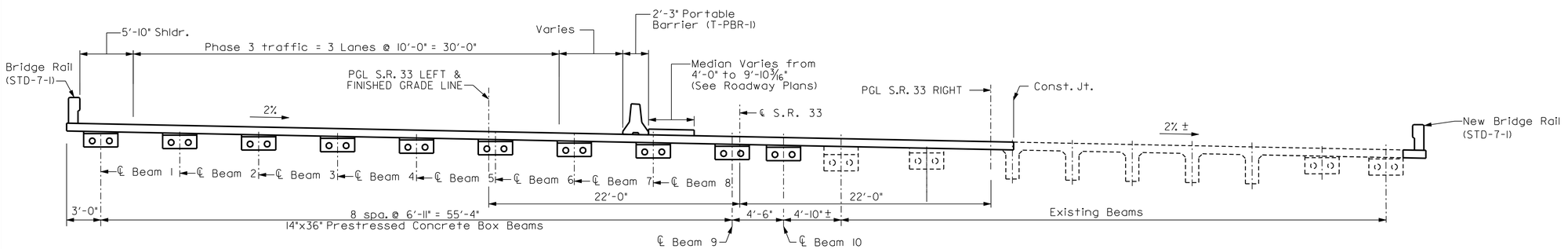


PHASE 1CONSTRUCTION
Scale : 3/16" = 1'-0"

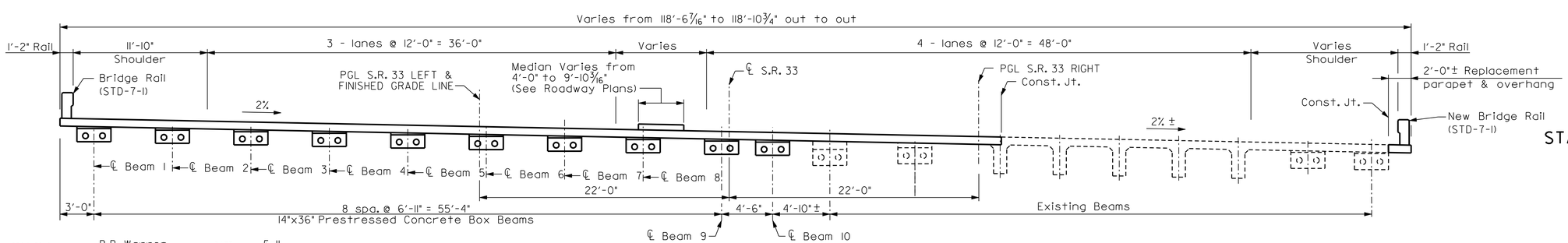


PHASE 2 CONSTRUCTION
Scale : 3/16" = 1'-0"



PHASE 3 CONSTRUCTION
Scale : 3/16" = 1'-0"

NOTE:
This Phase allows access to evaluate the condition of the existing deck and to accomplish deck repairs if necessary.



TYPICAL CROSS SECTION
Scale : 3/16" = 1'-0"

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:

The Contractor shall saw cut 1inch deep into the slab before removing concrete. All transverse reinforcing steel shall remain in place and be spliced with the new reinforcing. The contractor **SHALL NOT** use a hydraulic ram mounted on a backhoe (commonly called a hoe ram) or other similar heavy equipment for concrete removal. The maximum allowable hammer size is the 60 pound class.

☆ Extreme care shall be taken when removing existing deck concrete over existing beams to prevent any damage to the beams and projecting reinforcement. Remove existing concrete to a maximum depth of 3" below projecting reinforcement.

◪ Extreme care shall be taken when removing existing deck concrete to prevent damage to existing deck reinforcement. See "Typical Section" for limits of existing reinforcement to remain.

▨ DENOTES: Portion of existing structure to be removed.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 082559 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASE CONSTRUCTION
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-128

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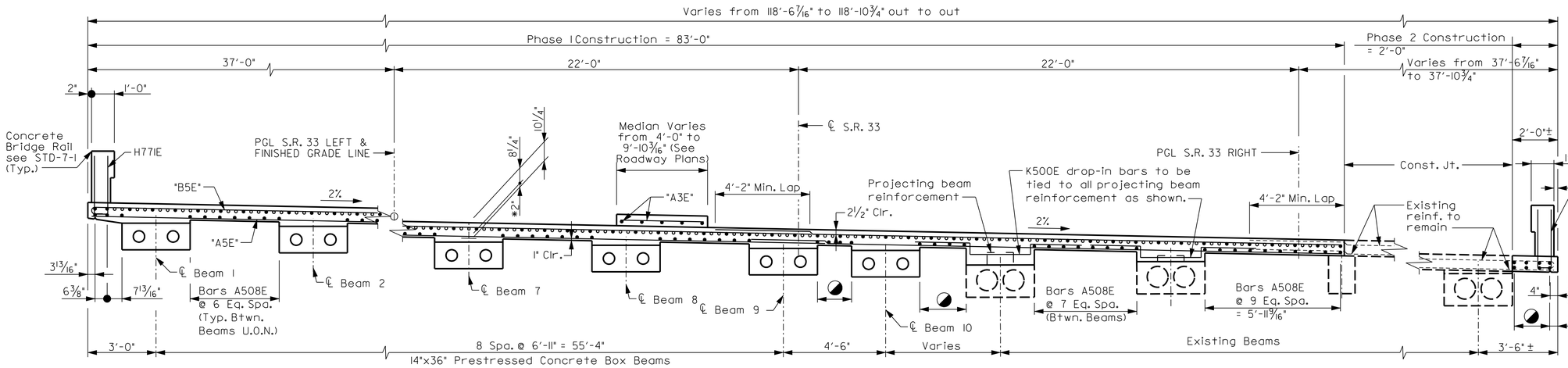


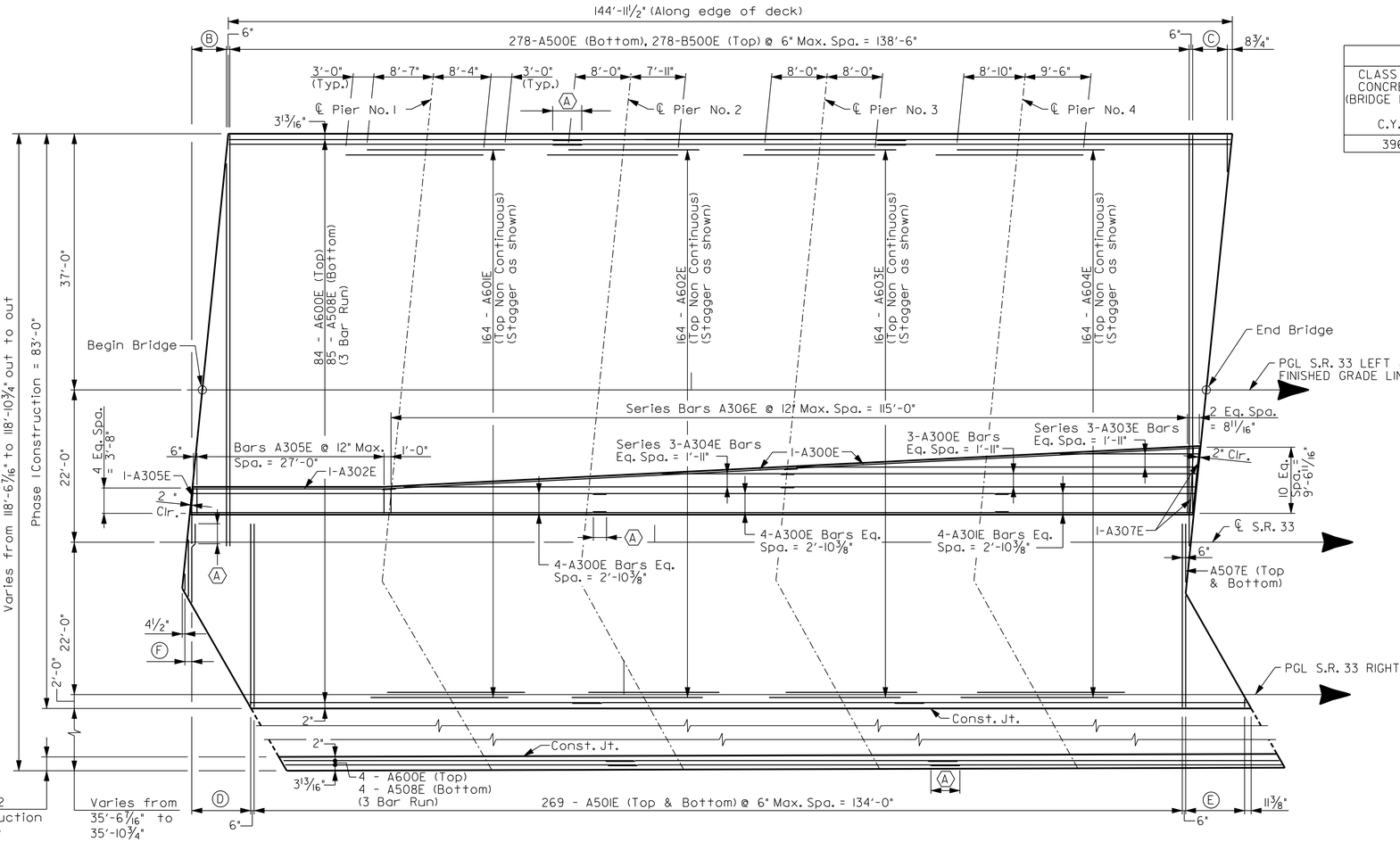
* At ℄ Bearing, varies in span to compensate for variation in camber.

- "A5" Continuous Reinforcing (Bottom)
- "A6" Continuous Reinforcing (Top)
- "A6" Non-Continuous Reinforcing (Top)

TYPICAL SECTION

Scale : 3/8" = 1'-0"

◑ - Bars A508E @ 3 Eq. Spa. (Between Beams)



PLAN

Scale : 1" = 10'-0"

ESTIMATED QUANTITIES		
CLASS "L" CONCRETE (BRIDGE DECK) C.Y.	EPOXY COATED REINFORCING STEEL LB.	STEEL BAR REINFORCEMENT (BRIDGES) LB.
396	112,825	2075

UNOFFICIAL SET

NOT FOR BIDDING

Ⓑ Series 11-A502E @ 6" Max. Spa. = 5'-0" (Top & Bottom)

Ⓒ Series 11-B501E @ 6" Max. Spa. = 5'-0" (Top)
Series 11-A503E @ 6" Max. Spa. = 5'-0" (Bottom)

Ⓓ Series 18-A504E @ 6" Max. Spa. = 8'-6" (Top & Bottom)

Ⓔ Series 18-A505E @ 6" Max. Spa. = 8'-6" (Top & Bottom)

Ⓕ Series 2-A506E @ 6" Max. Spa. = 1'-0" (Top & Bottom)

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:

NOTE: No portion of the median or bridge rail shall be poured until the entire deck slab is in place for a Phase.

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.

Note: When pouring slab, provisions shall be made for setting reinforcing steel for bridge rail. The bridge rail shall not be poured until the slab is poured and cured. Also see Standard Drawing STD-7-1.

Deck Concrete Pouring Sequence: Slab construction joints may be located at the contractor's option subject to the following:
1) No construction joint may be located closer than 10ft or further than 15ft from a support.
2) The slab in the middle section of both adjacent spans must be poured to within at least 15ft of the supports either prior to or concurrently with the slab over an interior support.

U.O.N. - Unless Otherwise Noted

Ⓐ #3 Min. Lap = 1'-11"
#5 Min. Lap = 4'-2"
#6 Min. Lap = 5'-3"

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 022508 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS (1)
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

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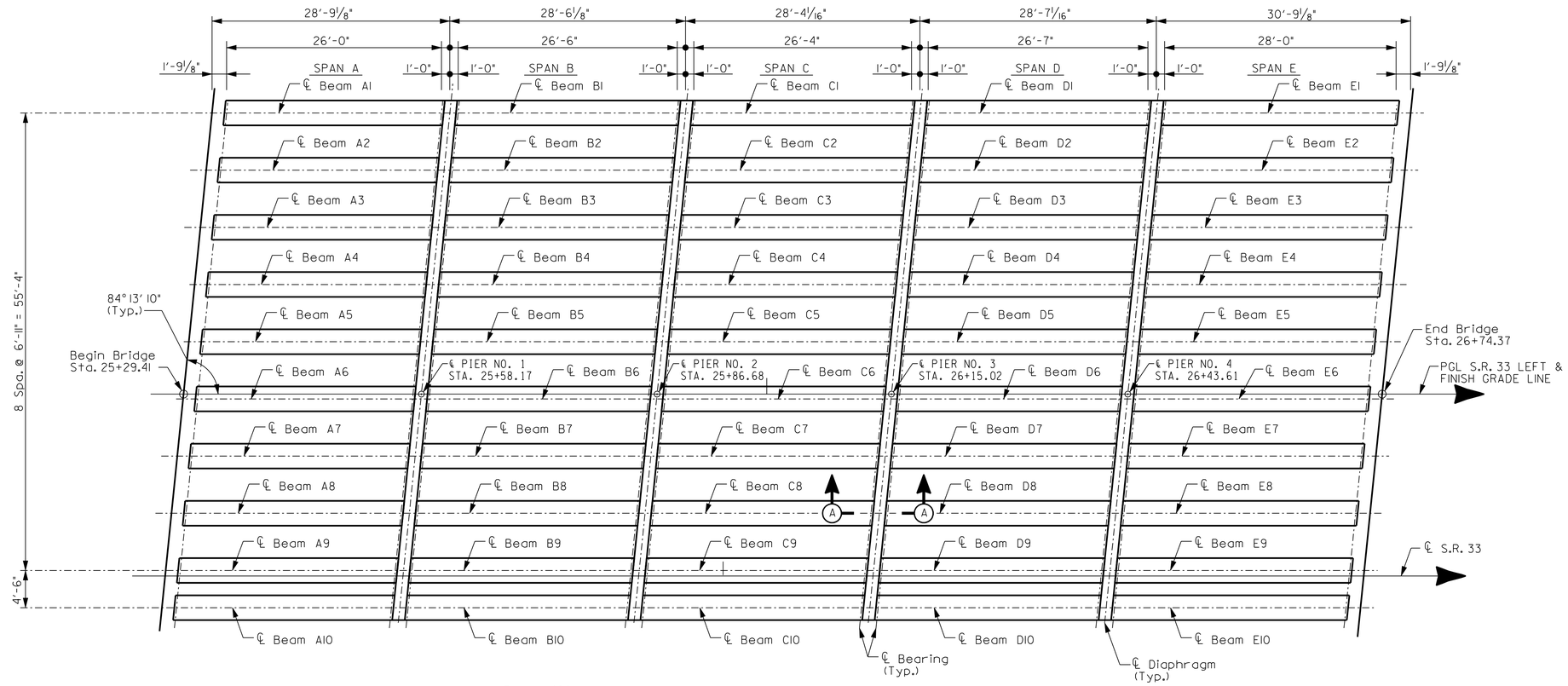
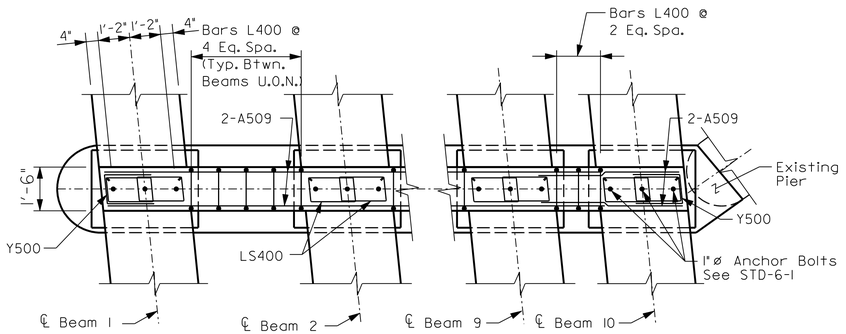


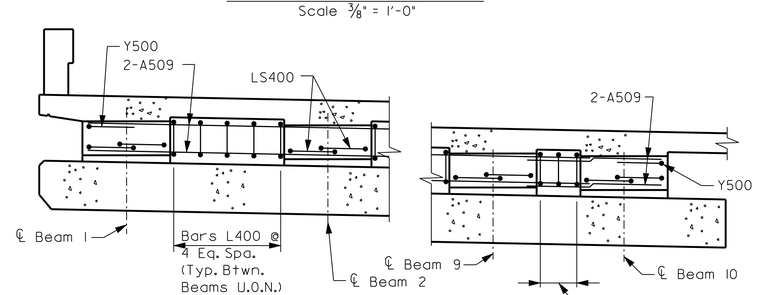
FRAMING PLAN

Scale : 1/8" = 1'-0"



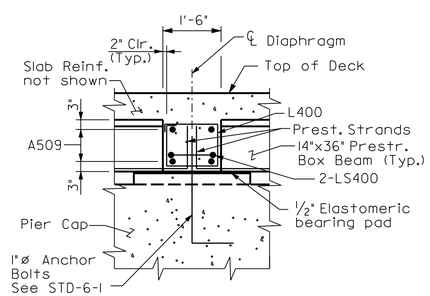
PLAN OF PIER DIAPHRAGM

Scale 3/8" = 1'-0"



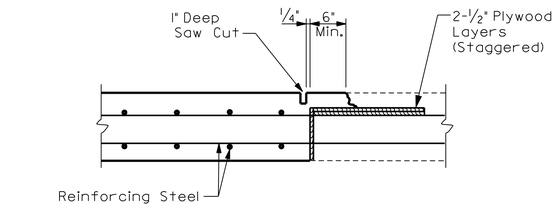
ELEVATION OF PIER DIAPHRAGM

Scale 3/8" = 1'-0"



SECTION A-A

Not To Scale



ALTERNATE "A" ALTERNATE "B"

ALTERNATE HEADER DETAILS

SLAB CONSTRUCTION JOINT

(Transverse joint shown, longitudinal joint similar)
Not To Scale

NOTE: All Slab Construction Joints shall be in accordance with the Slab Construction Detail shown above.

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

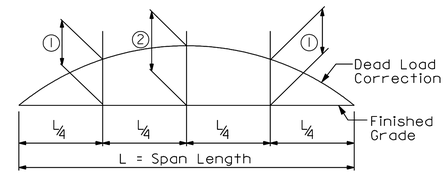
NOTES:

SPECIAL NOTE FOR ANCHOR BOLTS AT BENTS: Anchor bolt assemblies at Piers shall be in accordance with Standard Drawing STD-6-1.

DEAD LOAD CORRECTION CURVE: This curve is for dead load slab and all dead loads that are applied after slab is in place.

NOTE: 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%.

NOTE: The Support Diaphragms at the Piers shall be formed and the bottom 15 inches poured as soon as possible after the Beams have been set. The remainder of the Diaphragm shall be poured concurrently with the Deck Slab. The beams shall attain an age of at least 90 days prior to pouring the remainder of the support Diaphragms. All Diaphragm concrete shall be included in the quantity for Item 604-03.35.



DEAD LOAD CORRECTION CURVE

	SPAN A-D	SPAN E
1	1/8"	3/16"
2	3/16"	1/4"

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMISSION NO. 02-2520 STATE OF TENNESSEE

STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS (2)

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

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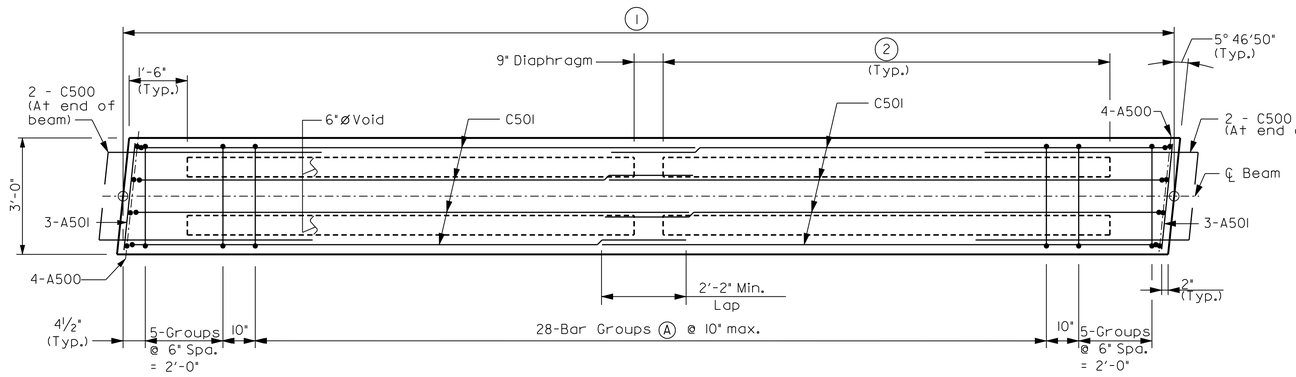


Bar Group Ⓐ consists of 2-ZA400 and 1-H400

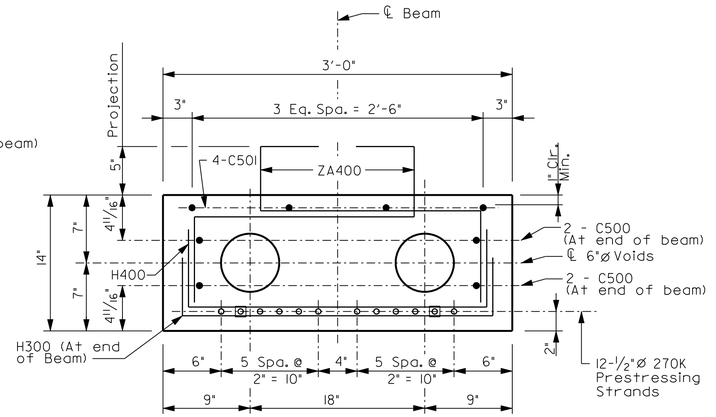
Bar Group Ⓑ consists of 2-H400

PLAN OF BOX BEAM

(Dimensions shown are along ℄ Beam unless otherwise noted)

Not To Scale

BEAM DIMENSIONS		
SPAN	LENGTH ①	VOID ②
A	26'-6"	11'-2 11/16"
B	27'-0"	11'-5 11/16"
C	26'-10"	11'-4 11/16"
D	27'-1"	11'-6 3/16"
E	28'-6"	12'-2 11/16"



TYPICAL SECTION

Not To Scale

Note:

○ - Denotes ½"ø 270K low relaxation Prestressing Strand

▣ - Denotes 3'-0" bond break from each end

● - Denotes Grade 60 Reinforcing Steel

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

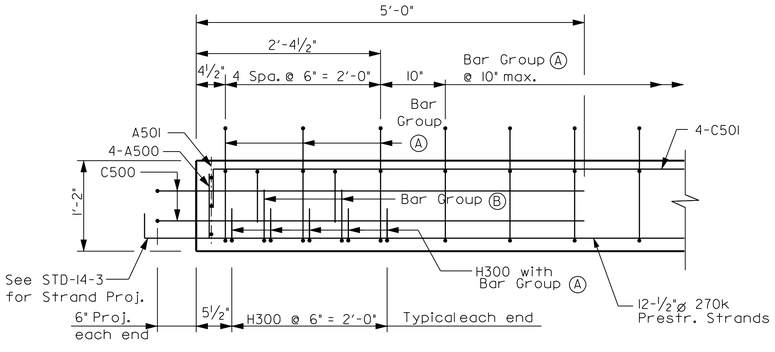
NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:

See STD-14-3 for Box Beam Standard Details, Notes and Reinforcing.

The concrete for this construction shall be of such properties as to attain a compressive strength of not less than 7,000 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 6,000 psi. See General Notes for Concrete Finishing note.

The prestressed beams shall attain an age of at least 90 days prior to pouring the support diaphragms (excluding bottom 15 inches) and deck slab.

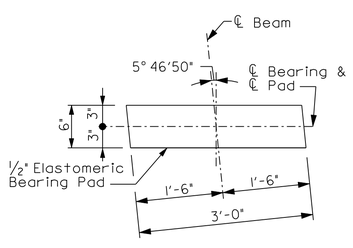


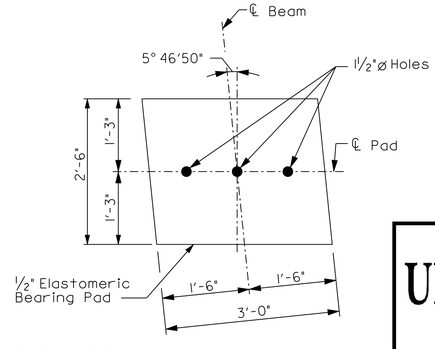
PART ELEVATION OF BOX BEAM

Not To Scale

PRESTRESSED BEAM DESIGN DATA - PER BEAM
LIVE LOAD DISTRIBUTION FACTOR : Moment = 0.777/Lanes : Shear = 0.777/Lanes
COMPOSITE DEAD LOAD: DC = 80 lb/ft
COMPOSITE DEAD LOAD: DW = 226 lb/ft
COMPOSITE SLAB DESIGN STRENGTH: f'c = 3000 psi

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.



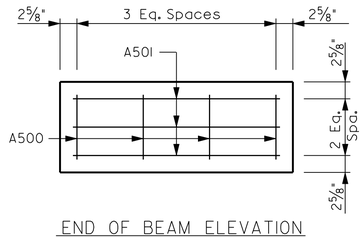


DETAIL OF ABUTMENT & PIER ELASTOMERIC BEARING PAD

Not To Scale

(10 Required at Abutment No. 1
10 Required at Abutment No. 2
40 Required at Piers)

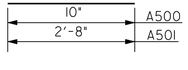
ESTIMATED QUANTITIES - PER BEAM			
SPAN	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LB.	PRESTRESSING STRANDS LB.
A	3.1	509	186
B	3.2	509	189
C	3.1	509	188
D	3.2	509	189
E	3.3	509	198

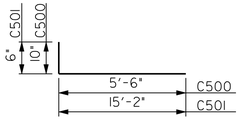


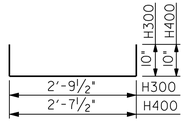
END OF BEAM ELEVATION

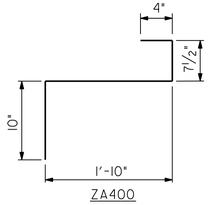
Not To Scale

BILL OF STEEL ONE BEAM			
BARS	SIZE	NO. REQ'D	LENGTH
A500	5	8	10"
A501	5	6	2'-8"
C500	5	8	6'-4"
C501	5	8	15'-8"
H300	3	10	4'-5½"
H400	4	42	4'-3½"
ZA400	4	68	3'-7½"









UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMISSION NO. 02-25201 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESTRESSED BOX BEAM DETAILS

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-131

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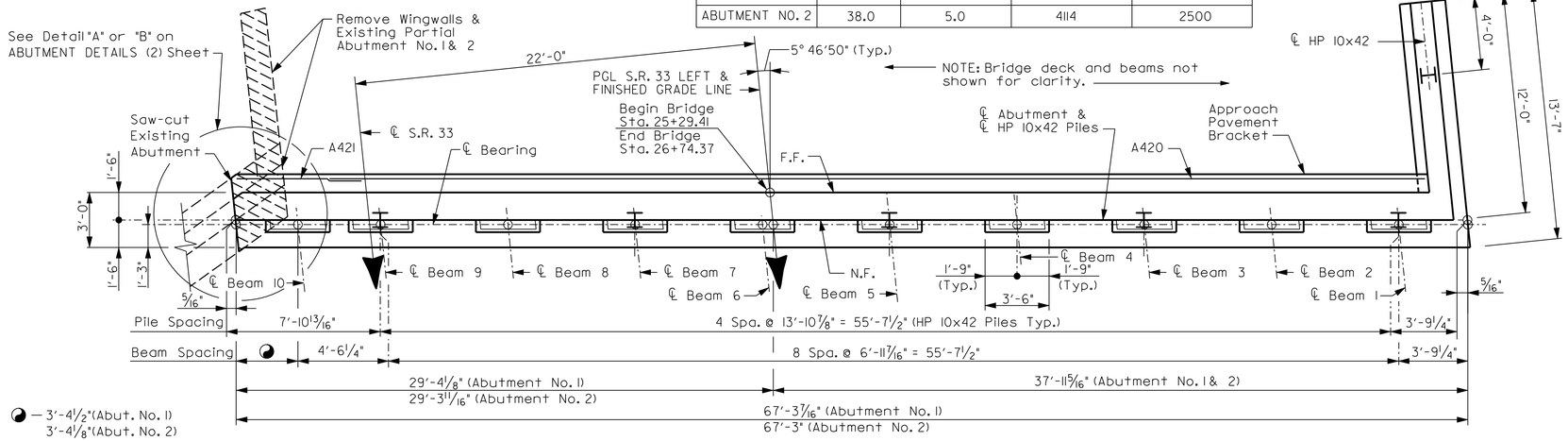
8/8/2014

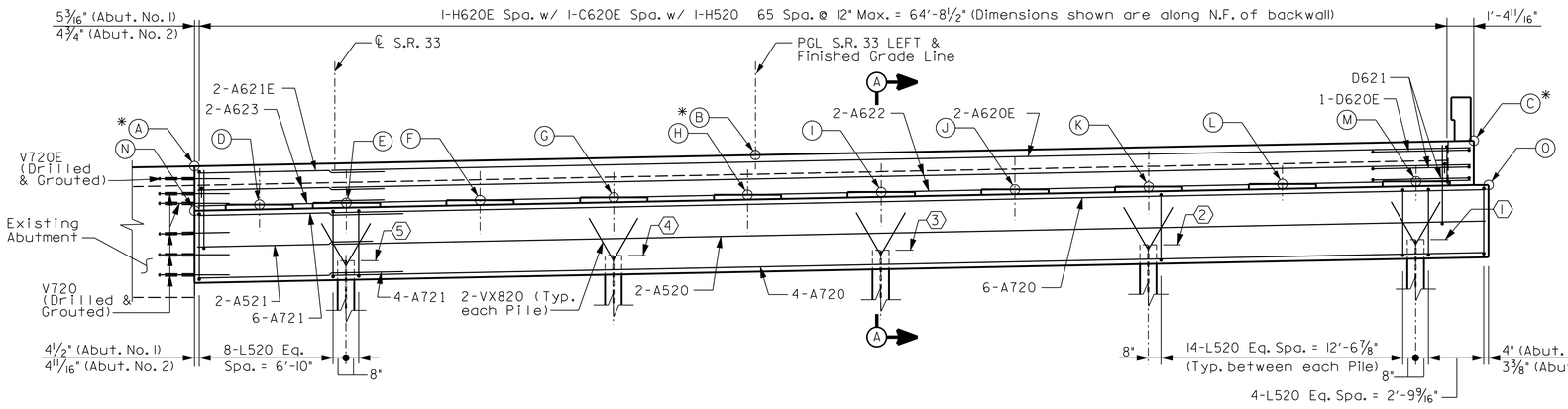
	ESTIMATED QUANTITIES			
	CLASS "A" CONCRETE (BRIDGES) C.Y.	CLASS "L" CONCRETE (BRIDGE DECK) C.Y.	STEEL BAR REINFORCEMENT (BRIDGES) LB.	EPOXY COATED REINFORCING STEEL LB.
ABUTMENT NO. 1	38.0	5.0	4110	2500
ABUTMENT NO. 2	38.0	5.0	4114	2500



PLAN

Abutment No. 1 shown
Abutment No. 2 similar

(Dimensions are along ℄ Bearing unless otherwise noted)
Scale : 1/4" = 1'-0"



ELEVATION

Abutment No. 1 Shown
Abutment No. 2 similar
(Dimensions are along ℄ Bearing unless otherwise noted)
(Abutment No. 1 - Looking back on stationing)
(Abutment No. 2 - Looking forward on stationing)
Scale : 1/4" = 1'-0"

TABLE OF ELEVATIONS			
ABUTMENT NO 1		ABUTMENT NO 2	
*Ⓐ	1025.40	*Ⓐ	1025.48
*Ⓑ	1025.99	*Ⓑ	1026.06
*Ⓒ	1026.73	*Ⓒ	1026.81
Ⓓ	1023.41	Ⓓ	1023.48
Ⓔ	1023.50	Ⓔ	1023.57
Ⓕ	1023.64	Ⓕ	1023.71
Ⓖ	1023.78	Ⓖ	1023.85
Ⓗ	1023.91	Ⓗ	1023.99
Ⓘ	1024.05	Ⓘ	1024.13
Ⓙ	1024.19	Ⓙ	1024.27
Ⓚ	1024.33	Ⓚ	1024.41
Ⓛ	1024.47	Ⓛ	1024.55
Ⓜ	1024.61	Ⓜ	1024.68
Ⓝ	1023.09	Ⓝ	1023.17
Ⓞ	1024.43	Ⓞ	1024.51

* Indicates Elev. @ Begin Bridge/End Bridge

All other Elev. are @ ℄ Bearing.

PILE CUT- OFF ELEVATIONS			
ABUTMENT NO 1		ABUTMENT NO 2	
⟨1⟩	1021.61	⟨1⟩	1021.68
⟨2⟩	1021.33	⟨2⟩	1021.41
⟨3⟩	1021.05	⟨3⟩	1021.13
⟨4⟩	1020.78	⟨4⟩	1020.85
⟨5⟩	1020.50	⟨5⟩	1020.57

Min. Lap Length ◪
Bar # 4 = 1'-9"
Bar # 5 = 2'-2"
Bar # 6 = 2'-9"
Bar # 6E = 4'-2"
Bar # 7 = 3'-9"

◪ — Typical U.O.N.

UNOFFICIAL SET

NOT FOR BIDDING

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:

N.F. - Denotes Near Face
F.F. - Denotes Far Face
E.F. - Denotes Each Face
U.O.N. - Denotes Unless Otherwise Noted

NOTE: See Std. Dwg. STD-6-1 for pile details and notes.

NOTE: 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.

NOTE: Cost of bridge rail and post is to be included in the unit price bid for the bridge rail system.

NOTE: Riser block bearing surfaces to conform to bottom of beam grade.

NOTE: Riser blocks to be poured monolithically with abutment beam.

NOTE: When Pouring wingwalls, provisions shall be made for setting reinforcing steel for wingposts and bridge rail. For details of wingposts and bridge rail, see Std. Dwg. No. STD-7-1.

Note: Not less than half of the slab in the end span shall be poured prior to, or concurrently with, placement of any part of the abutment backwall. At least the top 12 inches of the backwall shall be poured concurrently with the end of slab.

NOTE: Wingbeam piles shall be driven to the plans tip elevation or refusal. Seismic attachment is not required for wingbeam piles.

▨ Denotes portion of existing abutment and wingwall to be removed. (1'-0" to top of existing approach pavement bracket.)

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 022020 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 AND 2
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-132

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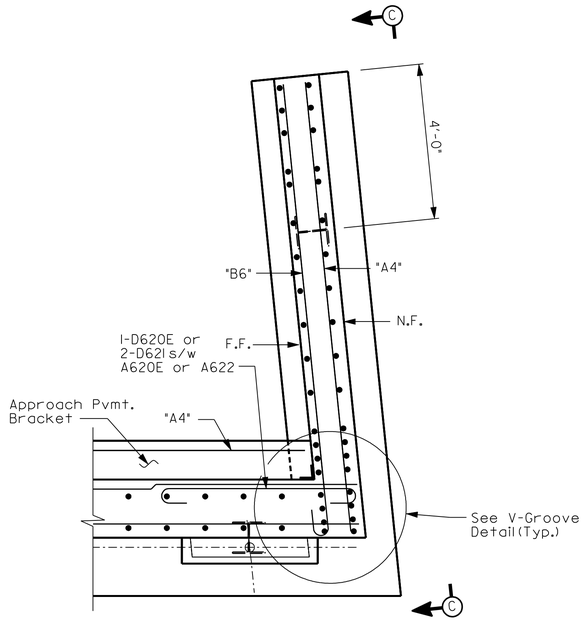
8/8/2014

CONSTR. NO. 47016-3222-94

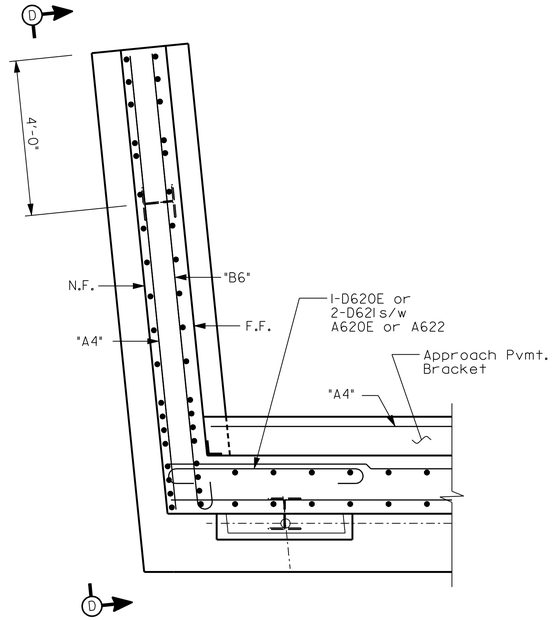
PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

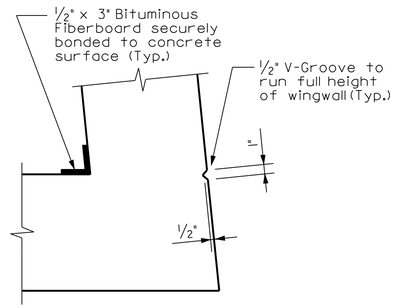
NO.	DATE	BY	BRIEF DESCRIPTION



PARTIAL PLAN - ABUTMENT NO. 1
Scale : 1/2" = 1'-0"

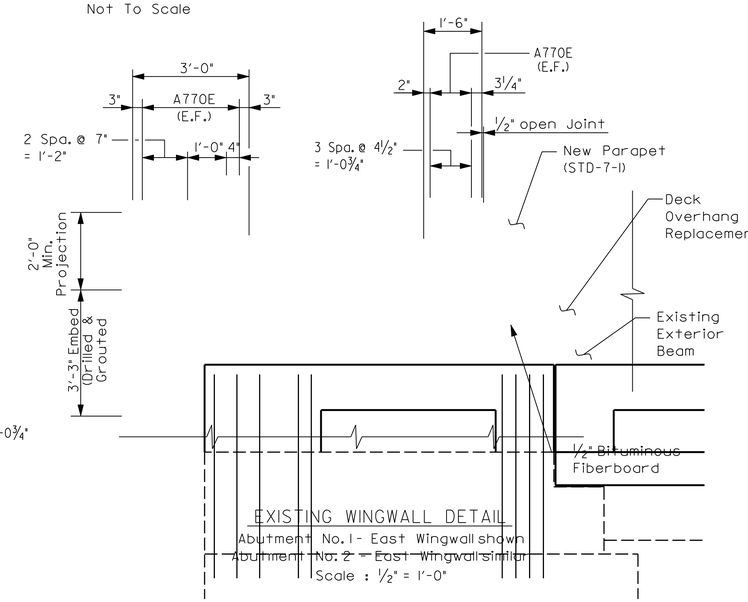


PARTIAL PLAN - ABUTMENT NO. 2
Scale : 1/2" = 1'-0"

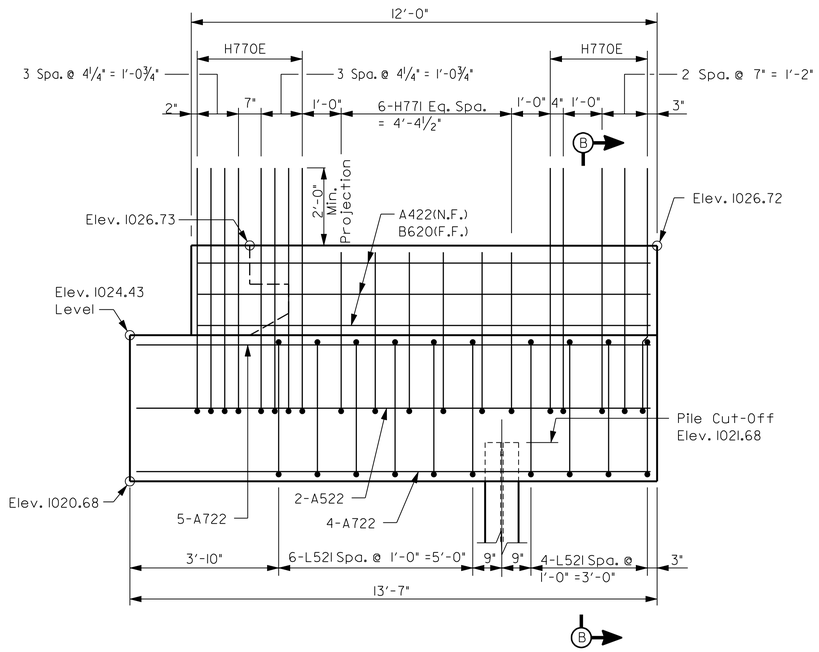


V-GROOVE DETAIL
Not To Scale

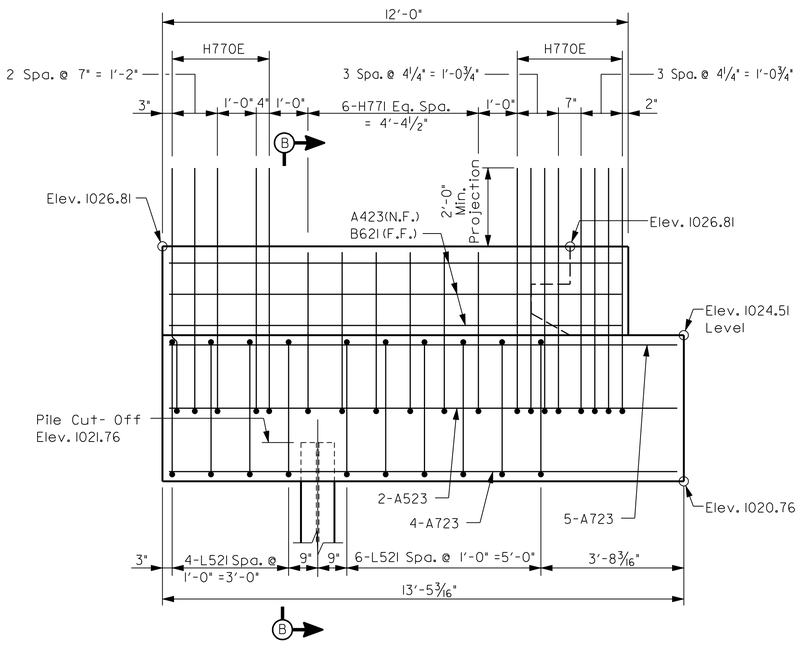
NOTES:
N.F. - Denotes Near Face
F.F. - Denotes Far Face
E.F. - Denotes Each Face
U.O.N. - Denotes Unless Otherwise Noted
s/w - Denotes Spaced With



EXISTING WINGWALL DETAIL
Abutment No. 1 - East Wingwall shown
Abutment No. 2 - East Wingwall similar
Scale : 1/2" = 1'-0"



ELEVATION C - C
Scale : 1/2" = 1'-0"



ELEVATION D - D
Scale : 1/2" = 1'-0"

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY
FRANK GILBERT BALE JR.
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 022529
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS (1)
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR0330031
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

U-70-133

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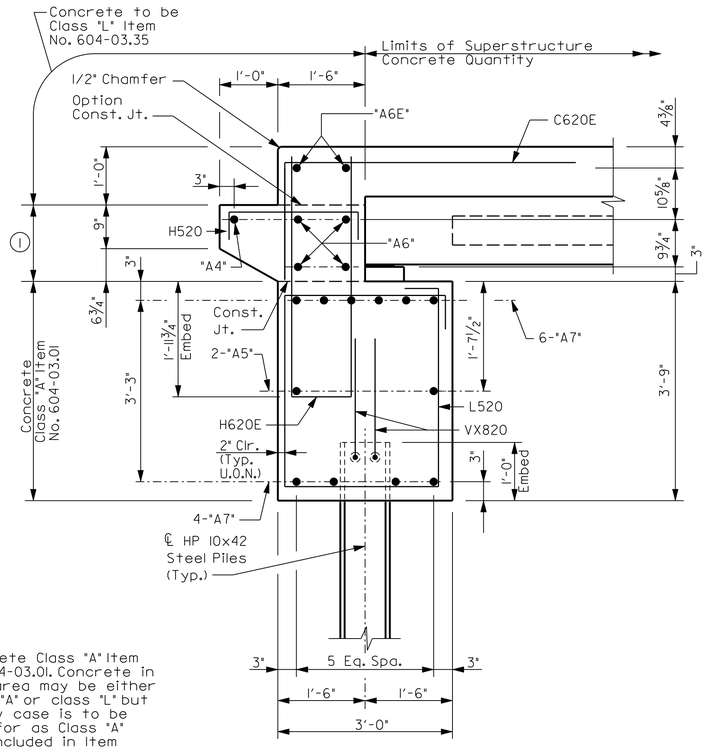
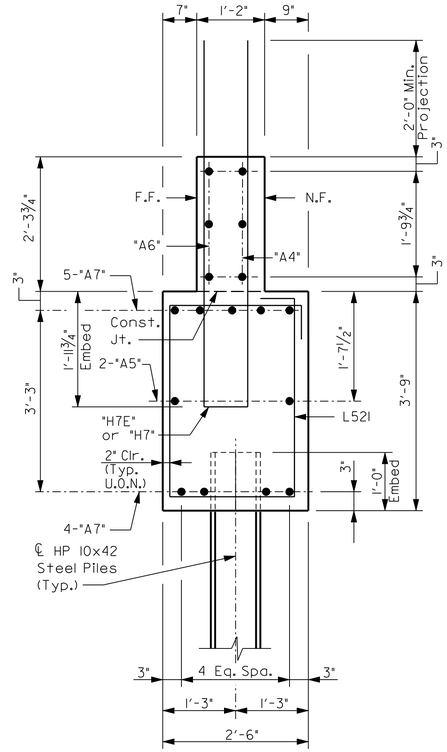


(1) Concrete Class "A" Item No. 604-03.01. Concrete in this area may be either Class "A" or class "L" but in any case is to be paid for as Class "A" and included in Item No. 604-03.01.

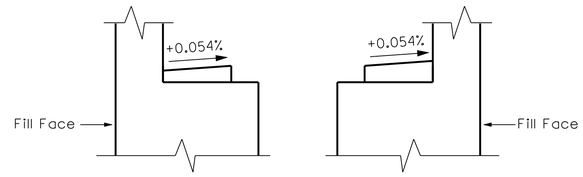
SECTION A-A

Scale : 3/4" = 1'-0"



SECTION B-B

Scale : 3/4" = 1'-0"



RISER BLOCK SLOPE DETAIL

Not To Scale

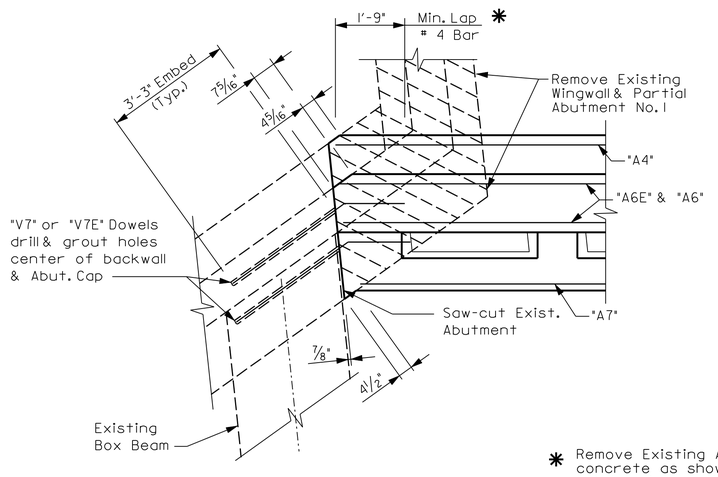
(+) Upward in direction of Stationing and along ℄ Beam.

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

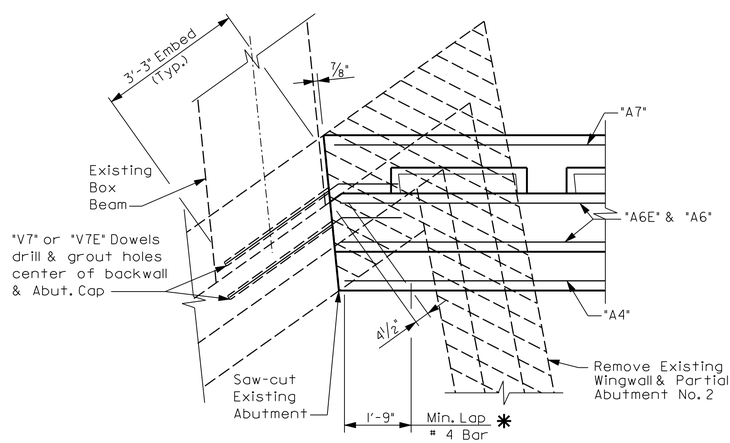
NO.	DATE	BY	BRIEF DESCRIPTION



DETAIL "A"

Abutment No. 1

Scale : 1/2" = 1'-0"



DETAIL "B"

Abutment No. 2

Scale : 1/2" = 1'-0"

* Remove Existing Approach Pavement Bracket concrete as shown in shaded area. However, leave existing horizontal Reinforcement to be field bent & encased into new Approach Pavement bracket.

DESIGNED BY	B.B. Warren	DATE	5-11
DRAWN BY	V. Dmitriev	DATE	5-11
SUPERVISED BY	F.G.Bale	DATE	5-11
CHECKED BY	B.B. Warren	DATE	5-11

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 102259 STATE OF TENNESSEE

STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS (2)

STATE ROUTE 33 OVER BEAVER CREEK

STA. 25+29.40 PGL S.R. 33 LEFT

BRIDGE ID. NO. 47SR033003I

KNOX COUNTY

2014

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-134

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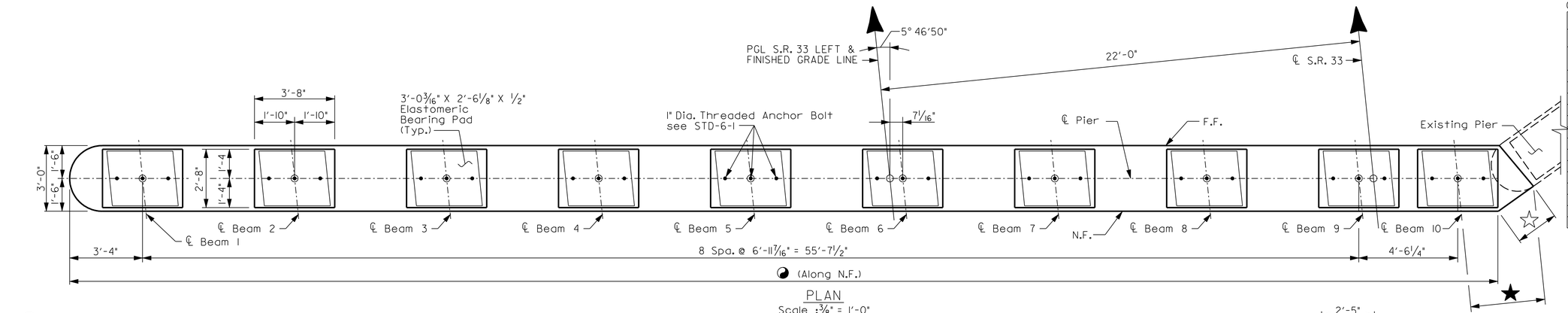
CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

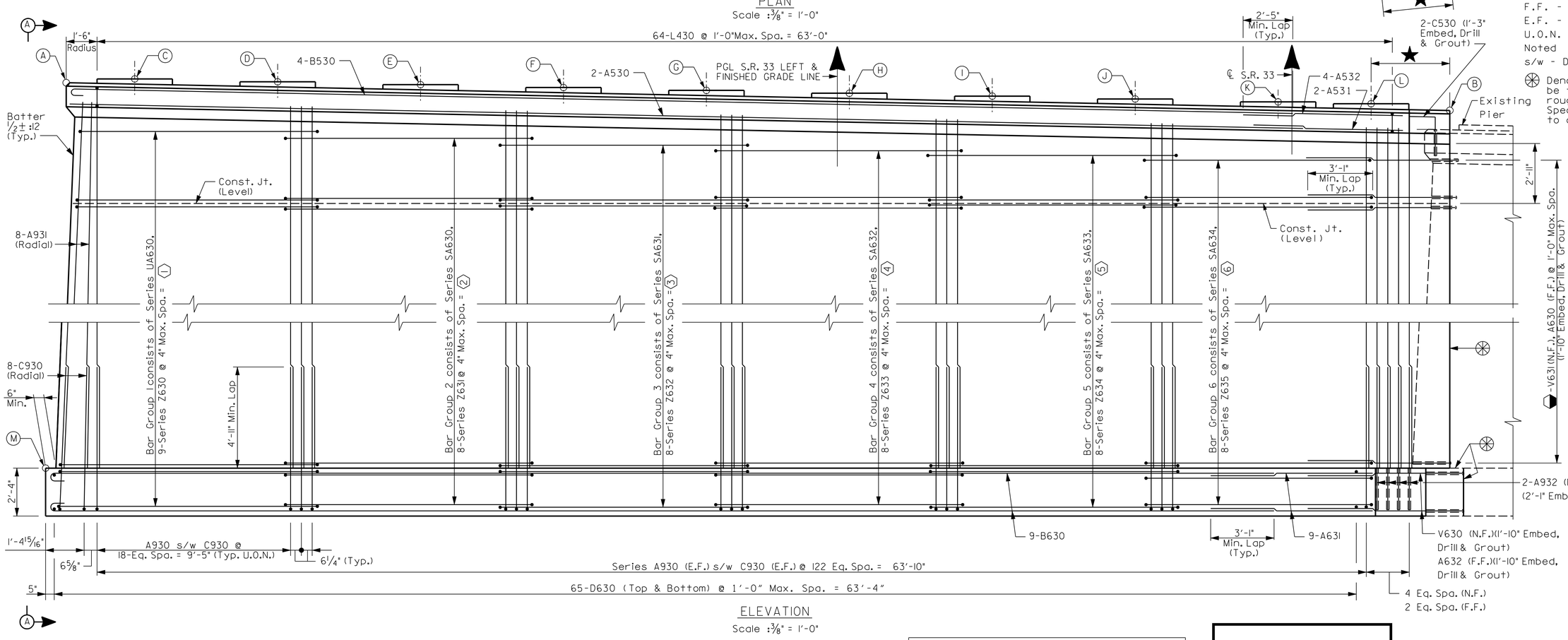
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



PLAN

Scale : 3/8" = 1'-0"



ELEVATION

Scale : 3/8" = 1'-0"

Pier No. 1 = 21 bars
Pier No. 2 = 22 bars
Pier No. 3 = 22 bars
Pier No. 4 = 23 bars

NOTES:

Column Steel to extend 9" into Cap Beam.

N.F. - Denotes Near Face
F.F. - Denotes Far Face
E.F. - Denotes Each Face
U.O.N. - Denotes Unless Otherwise Noted
s/w - Denotes Spaced With

Denotes concrete surfaces to be thoroughly cleaned and roughened per Standard Specification 604.17 prior to casting new concrete.

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 082921 STATE OF TENNESSEE

ESTIMATED QUANTITIES	CLASS "A" CONCRETE (BRIDGE) C.Y.	STEEL BAR REINFORCEMENT (BRIDGES) LB.
PIER NO. 1	215	73,184
PIER NO. 2	222	75,904
PIER NO. 3	223	75,939
PIER NO. 4	231	78,658

TABLE OF DIMENSIONS	PIER NO. 1	PIER NO. 2	PIER NO. 3	PIER NO. 4
☯	65'-7 1/8"	65'-8 1/2"	65'-7 1/8"	65'-7 1/4"
☆	1'-6 11/16"	1'-3 1/16"	1'-9"	1'-10 1/8"
★	3'-3 1/4"	3'-2 1/16"	3'-5 3/4"	3'-6 1/8"
⟨1⟩	23'-1 3/4"	24'-2"	24'-2 1/8"	25'-2 1/4"
⟨2⟩	22'-9 3/4"	23'-10"	23'-10 1/8"	24'-10 1/4"
⟨3⟩	22'-5 3/4"	23'-6"	23'-6 1/8"	24'-6 1/4"
⟨4⟩	22'-1 3/4"	23'-2"	23'-2 1/8"	24'-2 1/4"
⟨5⟩	21'-9 3/4"	22'-10"	22'-10 1/8"	23'-10 1/4"
⟨6⟩	21'-5 3/4"	22'-6"	22'-6 1/8"	23'-6 1/4"

TABLE OF ELEVATIONS	PIER NO. 1	PIER NO. 2	PIER NO. 3	PIER NO. 4
Ⓐ	1024.44	1024.45	1024.47	1024.48
Ⓑ	1023.10	1023.12	1023.13	1023.14
Ⓒ	1024.62	1024.64	1024.65	1024.67
Ⓓ	1024.48	1024.50	1024.51	1024.53
Ⓔ	1024.35	1024.36	1024.38	1024.39
Ⓕ	1024.21	1024.22	1024.24	1024.25
Ⓖ	1024.07	1024.08	1024.10	1024.11
Ⓗ	1023.93	1023.94	1023.96	1023.97
Ⓘ	1023.79	1023.81	1023.82	1023.84
Ⓙ	1023.65	1023.67	1023.68	1023.70
Ⓚ	1023.51	1023.53	1023.54	1023.56
Ⓛ	1023.42	1023.44	1023.45	1023.47
Ⓜ	1000.93	999.93	999.93	998.93

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PIER NO. 1, 2, 3 AND 4
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	6-11
DRAWN BY	V. Dmitriev	DATE	6-11
SUPERVISED BY	F.G.Bale	DATE	6-11
CHECKED BY	B.B. Warren	DATE	6-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-135

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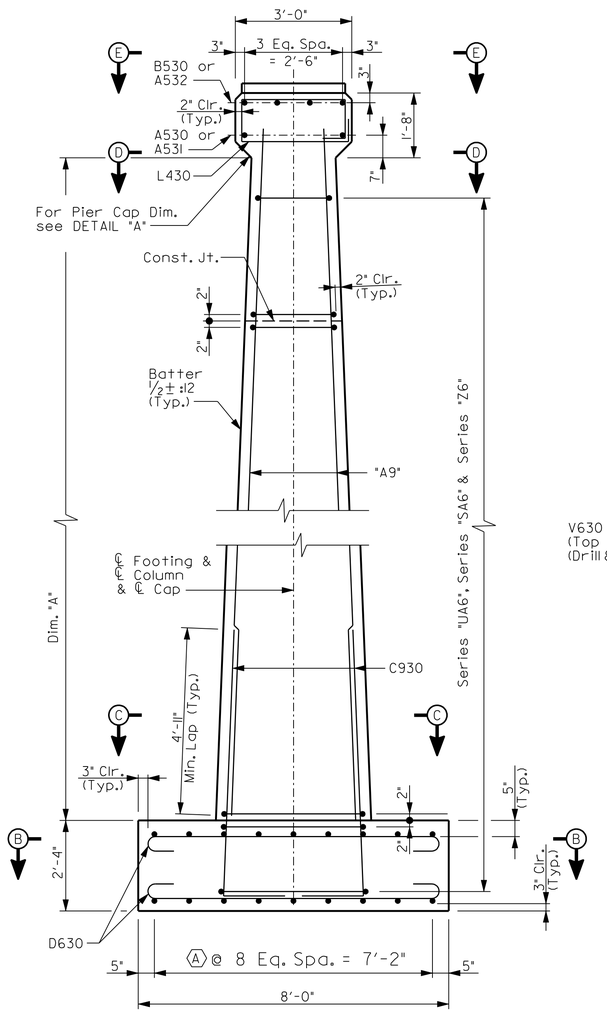
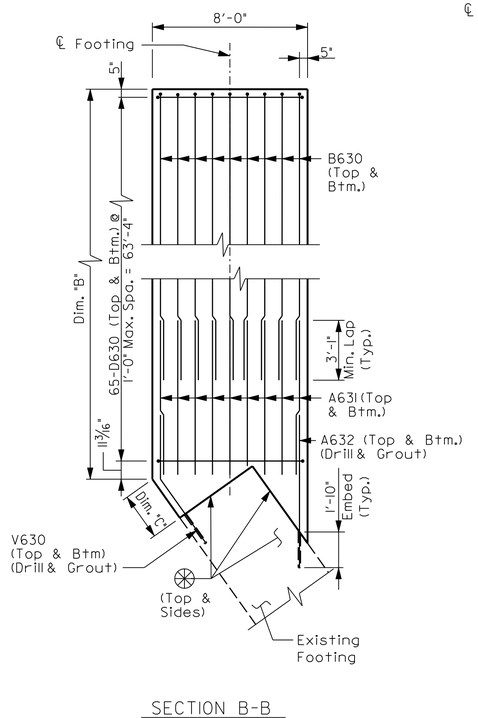


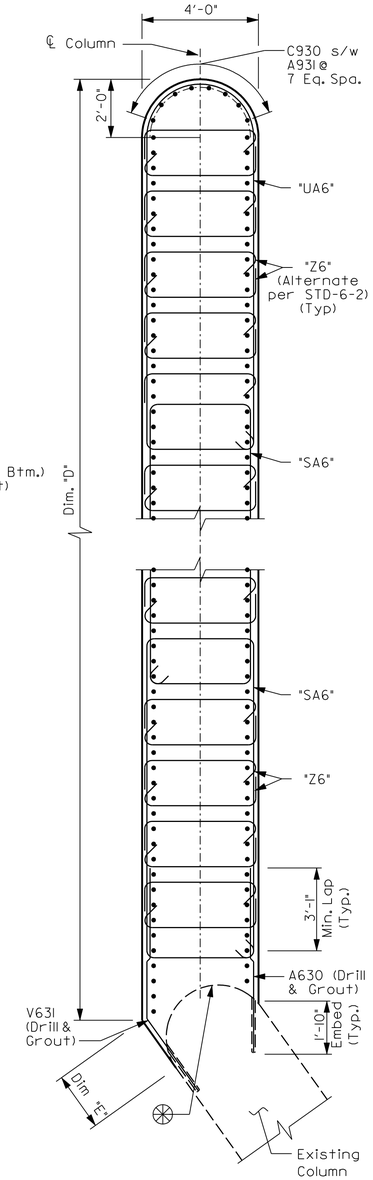
SECTION A-A

Scale : 1/2" = 1'-0"



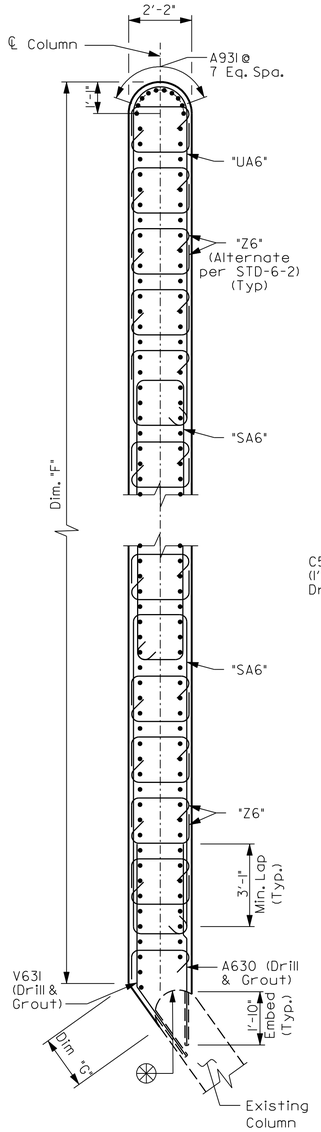
SECTION B-B

Scale : 1/4" = 1'-0"



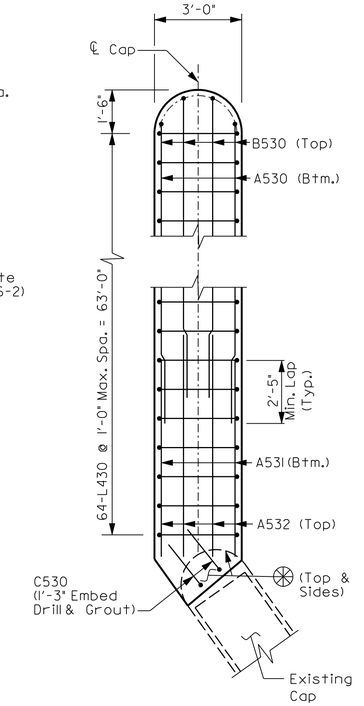
SECTION C-C

Scale : 3/8" = 1'-0"



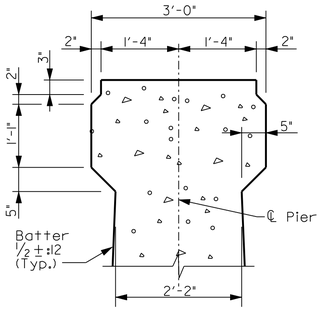
SECTION D-D

Scale : 3/8" = 1'-0"



SECTION E-E

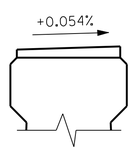
Scale : 3/8" = 1'-0"



DETAIL "A"

Scale : 3/4" = 1'-0"

Ⓐ 9-B630 s/w 9-A631 S/W
2-A632 or 2-V630



RISER BLOCK SLOPE DETAIL

Not To Scale

(+) Upward in direction of Stationing and along ℄ Beam.

TABLE OF DIMENSIONS				
	PIER NO. 1	PIER NO. 2	PIER NO. 3	PIER NO. 4
Dim. "A"	21'-10 1/16"	22'-10 1/4"	22'-10 7/16"	23'-10 5/8"
Dim. "B"	64'-11 9/16"	65'-1"	64'-11 1/2"	64'-11 1/2"
Dim. "C"	1'-10 1/16"	1'-7"	2'-0 7/16"	2'-1 5/8"
Dim. "D"	66'-4 13/16"	66'-6 1/8"	66'-4 3/4"	66'-4 7/8"
Dim. "E"	1'-8 5/8"	1'-4 3/16"	1'-9 1/2"	1'-10 5/8"
Dim. "F"	65'-2 1/4"	65'-3 5/8"	65'-2 1/4"	65'-2 3/8"
Dim. "G"	1'-5 1/16"	1'-0 11/16"	1'-6"	1'-7 1/8"

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:

When pouring cap beam provision shall be made for setting anchor bolts. Bolt projection 11". See Standard Drawing STD-6-1.

Riser blocks to be poured monolithically with cap beam.

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.

Riser block bearing pad surface to conform to bottom of beam grade.

⊛ Denotes concrete surfaces to be thoroughly cleaned and roughened per Standard Specification 604.17 prior to casting new concrete.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 025255 STATE OF TENNESSEE

STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PIER DETAILS

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	B.B. Warren	DATE	6-11
DRAWN BY	V. Dmitriev	DATE	6-11
SUPERVISED BY	F.G.Bale	DATE	6-11
CHECKED BY	B.B. Warren	DATE	6-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-136

2:29:04 PM 8/8/2014 PICKELDP m:\knox county\halls connector\structures\plans\final\U-70-136_PIER DET.dgn

MARK	T	LOCATION	SZ	NO. RQ'D	DIMENSION FT-IN a	b	c	d	e	LENGTH FT-IN	WEIGHT LBS
SUPERSTRUCTURE											
A300	E	MEDIAN	3	13	60- 0					60- 0	293
A301	E	"	3	4	28- 9					28- 9	43
A302	E	"	3	1	29- 2½					29- 3	11
A303	E	"	3	1	20- 0					20- 0	44
		@ 3 BAR SERIES		EACH	TO					TO	
					57-11					57-11	
A304	E	"	3	1	19- 0					19- 0	43
		@ 3 BAR SERIES		EACH	TO					TO	
					56- 5					56- 5	
A305	E	"	3	29	3- 8					3- 8	40
A306	E	"	3	1	3- 8⅝					3- 9	289
		@116 BAR SERIES		EACH	TO					TO	
					9- 5⅝					9- 6	
A307	E	"	3	2	9- 7¼					9- 8	7
A500	E	DECK	5	278	60- 0					60- 0	17397
A501	E	DECK	5	538	27- 5					27- 5	15384
A502	E	DECK	5	2	5-11					5-11	702
		@ 11 BAR SERIES		EACH	TO					TO	
					55- 3					55- 3	
A503	E	DECK	5	1	5- 4					5- 4	345
		@ 11 BAR SERIES		EACH	TO					TO	
					54- 9					54- 9	
A504	E	DECK	5	2	12- 4					12- 4	742
		@ 18 BAR SERIES		EACH	TO					TO	
					27- 2					27- 2	
A505	E	DECK	5	2	1- 2					1- 2	325
		@ 18 BAR SERIES		EACH	TO					TO	
					16- 2					16- 2	
A506	E	DECK	5	2	2- 5					2- 5	22
		@ 2 BAR SERIES		EACH	TO					TO	
					8- 3					8- 3	
A507	E	DECK	5	2	9- 4⅛					9- 5	20
A508	E	DECK	5	267	50-11⅛					51- 0	14203
A509		DIAPHRAGM	5	32	33- 0½					33- 1	1104
A600	E	DECK	6	264	51- 8½					51- 9	20520
A601	E	DECK	6	164	19-11					19-11	4906
A602	E	DECK	6	164	18-11					18-11	4660
A603	E	DECK	6	164	19- 0					19- 0	4680
A604	E	DECK	6	164	21- 4					21- 4	5255
B500	E	DECK	5	278	59- 5	0- 7				60- 0	17397
B501	E	DECK	5	1	5- 4	0- 7				5-11	351
		@ 11 BAR SERIES		EACH	TO					TO	
					54- 9					55- 4	
H771	E	PARAPET	7	256	0- 7	2- 0				4- 7	2398
K500	E	DROPIN	5	310	2- 5	0- 6	2- 8			8- 6	2748
L400		DIAPHRAGM	4	172	0-11	1- 2	0- 6			5- 2	594
LS400		"	4	80	1- 2	1- 2	0- 6	1- 2	0- 1⅜	5- 8	303
Y500		"	5	16	1- 2	1- 7¼	0- 2	1- 7¼		4- 5	74
*** TOTAL WEIGHT (LBS) 114900											
*** TOTAL INCLUDES 112825 LBS OF EPOXY COATED BARS											
*** TOTAL INCLUDES 2075 LBS OF NON EPOXY COATED BARS											
ABUTMENT NO. 1											
A420		APPR PVMT BKT	4	1	60- 0					60- 0	40
A421		"	4	1	6-10					6-10	5
A422		WINGWALL	4	3	11- 7					11- 7	23
A520		ABUTMENT	5	2	60- 0					60- 0	125
A521		"	5	2	9- 2					9- 2	19
A522		WINGWALL	5	2	13- 0					13- 0	27
A620	E	ABUTMENT	6	2	60- 0					60- 0	180
A621	E	"	6	2	10- 3					10- 3	31
A622		"	6	4	60- 0					60- 0	360
A623		"	6	4	10- 3					10- 3	62
A720		ABUTMENT	7	10	60- 0					60- 0	1226
A721		"	7	10	10- 5½					10- 6	215
A722		WINGWALL	7	9	13- 0					13- 0	239
A770	E	EXISTING WINGWA	7	18	5- 4					5- 4	196
B620		WINGWALL	6	3	11- 7	0- 8				12- 3	55
C620	E	ABUTMENT	6	66	6- 0	1-11				7-11	785
D620	E	"	6	1	5- 0	0- 8				6- 4	10

MARK	T	LOCATION	SZ	NO. RQ'D	DIMENSION FT-IN a	b	c	d	e	LENGTH FT-IN	WEIGHT LBS
ABUTMENT NO. 1											
D621		"	6	2	5- 0	0- 8				6- 4	19
H520		APPR. PVMNT BKT	5	66	2- 2	0-10				3-10	264
H620	E	ABUTMENT	6	66	1- 2	4- 1				9- 4	925
H770	E	WINGWALL	7	13	0-10	6- 4				13- 6	359
H771		"	7	6	0-10	4- 2				9- 2	112
L520		ABUTMENT	5	68	3- 5	2- 8	0-10			13-10	981
L521		WINGWALL	5	10	3- 5	2- 2	0-10			12-10	134
V720		ABUT (DOWEL)	7	5	3- 6¾	3- 3	2- 7¾	1-10¾		6-10	70
V721	E	"	7	1	3- 6¾	3- 3	2- 7¾	1-10¾		6-10	14
VX820		ABUTMENT	8	10	2- 6	2- 6	1- 3	2- 2		5- 0	134
*** TOTAL WEIGHT (LBS) 6610											
*** TOTAL INCLUDES 2500 LBS OF EPOXY COATED BARS											
*** TOTAL INCLUDES 4110 LBS OF NON EPOXY COATED BARS											
ABUTMENT NO. 2											
A420		APPR PVMT BKT	4	1	60- 0					60- 0	40
A421		"	4	1	6-10					6-10	5
A423		WINGWALL	4	3	11- 8					11- 8	23
A520		ABUTMENT	5	2	60- 0					60- 0	125
A521		"	5	2	9- 2					9- 2	19
A523		WINGWALL	5	2	13- 1½					13- 2	27
A620	E	ABUTMENT	6	2	60- 0					60- 0	180
A621	E	"	6	2	10- 3					10- 3	31
A622		"	6	4	60- 0					60- 0	360
A623		"	6	4	10- 3					10- 3	62
A720		ABUTMENT	7	10	60- 0					60- 0	1226
A721		"	7	10	10- 5½					10- 6	215
A723		WINGWALL	7	9	13- 1¼					13- 2	242
A770	E	EXISTING WINGWA	7	18	5- 4					5- 4	196
B621		WINGWALL	6	3	11- 8	0- 8				12- 4	56
C620	E	ABUTMENT	6	66	6- 0	1-11				7-11	785
D620	E	"	6	1	6- 0	0- 8				6- 4	10
D621		"	6	2	5- 0	0- 8				6- 4	19
H520		APPR PVMT BKT	5	66	2- 2	0-10				3-10	264
H620	E	ABUTMENT	6	66	1- 2	4- 1				9- 4	925
H770	E	WINGWALL	7	13	0-10	6- 4				13- 6	359
H771		"	7	6	0-10	4- 2				9- 2	112
L520		ABUTMENT	5	68	3- 5	2- 8	0-10			13-10	981
L521		WINGWALL	5	10	3- 5	2- 2	0-10			12-10	134
V720		ABUT (DOWEL)	7	5	3- 6¾	3- 3	2- 7¾	1-10¾		6-10	70
V721	E	"	7	1	3- 6¾	3- 3	2- 7¾	1-10¾		6-10	14
VX820		ABUTMENT	8	10	2- 6	2- 6	1- 3	2- 2		5- 0	134
*** TOTAL WEIGHT (LBS) 6614											
*** TOTAL INCLUDES 2500 LBS OF EPOXY COATED BARS											
*** TOTAL INCLUDES 4114 LBS OF NON EPOXY COATED BARS											
PIER NO. 1											
A530		PIER CAP	5	2	60- 0					60- 0	125
A531		"	5	2	7- 3⅜					7- 4	15
A532		"	5	4	7- 9⅜					7-10	33
A630		COL (DOWEL)	6	21	6-10⅝					6-11	218
A631		FOOTING	6	18	7-11½					8- 0	216
A632		" (DOWEL)	6	2	7-10⅝					7-11	24
A930		COLUMN	9	2	21- 3⅝					21- 4	18366
		@123 BAR SERIES		EACH	TO					TO	
					22- 6¾					22- 7	
A931		"	9	8	22- 7⅛					22- 8	617
A932		COL FOOT (DOWEL	9	4	7- 0					7- 0	95
B530		PIER CAP	5	4	59- 5	0- 7				60- 0	250
B630		FOOTING	6	18	59- 4	0- 8				60- 0	1622
C530		PIER CAP (DOWEL	5	2	1-10¼	1- 9⅛				3- 8	8
C930		COLUMN	9	254	6-11	1- 7				8- 6	7341
D630		FOOTING	6	130	7- 6	0- 8				8-10	1725
L430		PIER CAP	4	64	1- 1	2- 8	0- 6			8- 6	363
SA630		COL GROUP 2	6	1	12- 0⅛	1-10	0- 8			29- 1	3251
		@ 70 BAR SERIES		EACH	TO					TO	
					3- 8					32- 9	

MARK	T	LOCATION	SZ	NO. RQ'D	DIMENSION FT-IN a	b	c	d	e	LENGTH FT-IN	WEIGHT LBS
PIER NO. 1											
SA631		" GROUP 3	6	1	12- 0⅛	1-10	0- 8			29- 1	3204
		@ 69 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA632		" GROUP 4	6	1	12- 0⅛	1-10	0- 8			29- 1	3158
		@ 68 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA633		" GROUP 5	6	1	12- 0⅛	1-10	0- 8			29- 1	3111
		@ 67 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA634		" GROUP 6	6	1	10-11½	1-10	0- 8			26-11	2850
		@ 66 BAR SERIES		EACH		TO				TO	
						3- 8				30- 7	
UA630		" GROUP 1	6	1	0-11	10- 8½	0- 8			27- 6	3186
		@ 71 BAR SERIES		EACH	TO					TO	
					1-10					32- 3	
V630		FOOT (DOWEL)	6	2	3- 3¾	4- 0½	3- 3¼	2- 4⅛		7- 5	22
V631		COL (DOWEL)	6	21	5- 2⅛	3- 0⅝	2- 5⅝	1- 9⅛		8- 3	260
Z630		COL GROUP 1	6	9	1- 0	1-11⅛	0- 8			3- 8	4399
		@ 71 BAR SERIES		EACH		TO				TO	
						3- 9⅛				5- 6	
Z631		" GROUP 2	6	8	1- 0	1-11⅛	0- 8			3- 8	3855
		@ 70 BAR SERIES		EACH		TO				TO	
						3- 9⅛				5- 6	
Z632		" GROUP 3	6	8	1- 0	1-11⅛	0- 8			3- 8	3800
		@ 69 BAR SERIES		EACH		TO				TO	
						3- 9⅛				5- 6	
Z633		"GROUP 4	6	8	1- 0	1-11⅛	0- 8			3- 8	3745
		@ 68 BAR SERIES		EACH		TO				TO	
						3- 9⅛				5- 6	
Z634		"GROUP 5	6	8	1- 0	1-11⅛	0- 8			3- 8	3690
		@ 67 BAR SERIES		EACH		TO				TO	
						3- 9⅛				5- 6	
Z635		"GROUP 6	6	8	1- 0	1-11⅛	0- 8			3- 8	3635
		@ 66 BAR SERIES		EACH		TO				TO	
						3- 9⅛				5- 6	
*** TOTAL WEIGHT (LBS) 73184											
PIER NO. 2											
A530		PIER CAP	5	2	60- 0					60- 0	125
A531		"	5	2	7- 3⅜					7- 4	15
A532		"	5	4	7- 9⅜					7-10	33
A630		COL (DOWEL)	6	22	6-10⅝					6-11	229
A631		FOOTING	6	18	7-11½					8- 0	216
A632		" (DOWEL)	6	2	7-10⅝					7-11	24
A930		COLUMN	9	2	22- 3¼					22- 4	19202
		@123 BAR SERIES		EACH	TO					TO	
					23- 6⅞					23- 7	
A931		"	9	8	23- 7¼					23- 8	644
A932		COL FOOT (DOWEL	9	4	7- 0					7- 0	95
B530		PIER CAP	5	4	59- 5	0- 7				60- 0	250
B630		FOOTING	6	18	59- 4	0- 8				60- 0	1622
C530		PIER CAP (DOWEL	5	2	1-10¼	1- 9⅛				3- 8	8
C930		COLUMN	9	254	6-11	1- 7				8- 6	7341
D630		FOOTING	6	130	7- 6	0- 8				8-10	1725
L430		PIER CAP	4	64	1- 1	2- 8	0- 6			8- 6	363
SA630		COL GROUP 2	6	1	12- 0⅛	1-10	0- 8			29- 1	3251
		@ 73 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA631		" GROUP 3	6	1	12- 0⅛	1-10	0- 8			29- 1	3343
		@ 72 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA632		" GROUP 4	6	1	12- 0⅛	1-10	0- 8			29- 1	3297
		@ 71 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA633		" GROUP 5	6	1	12- 0⅛	1-10	0- 8			29- 1	3251
		@ 70 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA634		" GROUP 6	6	1	10-11½	1-10	0- 8			26-11	2980
		@ 69 BAR SERIES		EACH		TO				TO	
						3- 8				30- 7	

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06•

Note: Dimensions shown on this sheet are outside to outside of bar. Standard C.R.S.I. Hook Details shall apply, except as noted.

•LOCATION	SERIES
SUPERSTRUCTURE	00-19
ABUTMENT	20-29
PIER	30-40

Note: An "E" in the "T", Type, column indicates that the bar shall be Epoxy-Coated.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE No. 022998 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BILL OF STEEL (1)

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY B.B. Warren DATE 6-11
DRAWN BY V. Dmitriev DATE 6-11
SUPERVISED BY F.G.Bale DATE 6-11
CHECKED BY B.B. Warren DATE 6-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-137

PICKELDP
m:\knox county\halls connector\structures\plans\final\U-70-137_&_138_BILL OF STEEL.dgn
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MARK	T	LOCATION	SZ	NO. RO'D	DIMENSION FT-IN a	b	c	d	e	LENGTH FT-IN	WEIGHT LBS
PIER NO. 2											
UA630		" GROUP 1	6	1	0-11	10- 8½	0- 8			27- 6	3321
		@ 74 BAR SERIES		EACH	TO					TO	
					1-10					32- 3	
V630		FOOT (DOWEL)	6	2	3- 3¼	4- 0½	3- 3¼	2- 4⅛		7- 5	22
V631		COL (DOWEL)	6	22	5- 2⅛	3- 0⅜	2- 5⅝	1- 9⅛		8- 3	273
Z630		" GROUP 1	6	9	1- 0	1-11⅜	0- 8			3- 8	4585
		@ 74 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z631		" GROUP 2	6	8	1- 0	1-11⅜	0- 8			3- 8	4020
		@ 73 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z632		" GROUP 3	6	8	1- 0	1-11⅜	0- 8			3- 8	3965
		@ 72 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z633		" GROUP 4	6	8	1- 0	1-11⅜	0- 8			3- 8	3910
		@ 71 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z634		"GROUP 5	6	8	1- 0	1-11⅜	0- 8			3- 8	3855
		@ 70 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z635		"GROUP 6	6	8	1- 0	1-11⅜	0- 8			3- 8	3800
		@ 69 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
										*** TOTAL WEIGHT (LBS)	75904
PIER NO. 3											
A530		PIER CAP	5	2	60- 0					60- 0	125
A531		"	5	2	7- 3⅜					7- 4	15
A532		"	5	4	7- 9⅜					7-10	33
A630		COL (DOWEL)	6	22	6-10⅜					6-11	229
A631		FOOTING	6	18	7-11½					8- 0	216
A632		FOOT (DOWEL)	6	2	7-10⅜					7-11	24
A930		COLUMN	9	2	22- 3⅛					22- 4	19237
		@123 BAR SERIES		EACH	TO					TO	
					23- 7⅛					23- 8	
A931		"	9	8	23- 7½					23- 8	644
A932		COL FOOT (DOWEL	9	4	7- 0					7- 0	95
B530		PIER CAP	5	4	59- 5	0- 7				60- 0	250
B630		FOOTING	6	18	59- 4	0- 8				60- 0	1622
C530		PIER CAP (DOWEL	5	2	1-10¼	1- 9⅛				3- 8	8
C930		COLUMN	9	254	6-11	1- 7				8- 6	7341
D630		FOOTING	6	130	7- 6	0- 8				8-10	1725
L430		PIER CAP	4	64	1- 1	2- 8	0- 6			8- 6	363
SA630		COL GROUP 2	6	1	12- 0⅛	1-10	0- 8			29- 1	3390
		@ 73 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA631		" GROUP 3	6	1	12- 0⅛	1-10	0- 8			29- 1	3343
		@ 72 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA632		" GROUP 4	6	1	12- 0⅛	1-10	0- 8			29- 1	3297
		@ 71 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA633		" GROUP 5	6	1	12- 0⅛	1-10	0- 8			29- 1	3251
		@ 70 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA634		" GROUP 6	6	1	10-11½	1-10	0- 8			26-11	2980
		@ 69 BAR SERIES		EACH		TO				TO	
						3- 8				30- 7	
UA630		" GROUP 1	6	1	0-11	10- 8½	0- 8			27- 6	3321
		@ 74 BAR SERIES		EACH	TO					TO	
					1-10					32- 3	
V630		FOOT (DOWEL)	6	2	3- 3¼	4- 0½	3- 3¼	2- 4⅛		7- 5	22
V631		COLUMN	6	22	5- 2⅛	3- 0⅜	2- 5⅝	1- 9⅛		8- 3	273
Z630		" GROUP 1	6	9	1- 0	1-11⅜	0- 8			3- 8	4585
		@ 74 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z631		" GROUP 2	6	8	1- 0	1-11⅜	0- 8			3- 8	4020
		@ 73 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	

MARK	T	LOCATION	SZ	NO. RO'D	DIMENSION FT-IN a	b	c	d	e	LENGTH FT-IN	WEIGHT LBS
PIER NO. 3											
Z632		" GROUP 3	6	8	1- 0	1-11⅜	0- 8			3- 8	3965
		@ 72 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z633		"GROUP 4	6	8	1- 0	1-11⅜	0- 8			3- 8	3910
		@ 71 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z634		"GROUP 5	6	8	1- 0	1-11⅜	0- 8			3- 8	3855
		@ 70 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z635		"GROUP 6	6	8	1- 0	1-11⅜	0- 8			3- 8	3800
		@ 69 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
										*** TOTAL WEIGHT (LBS)	75939
PIER NO. 4											
A530		PIER CAP	5	2	60- 0					60- 0	125
A531		"	5	2	7- 3⅜					7- 4	15
A532		"	5	4	7- 9⅜					7-10	33
A630		COL (DOWEL)	6	23	6-10⅜					6-11	239
A631		FOOTING	6	18	7-11½					8- 0	216
A632		" (DOWEL)	6	2	7-10⅜					7-11	24
A930		COLUMN	9	2	23- 4					23- 4	20074
		@123 BAR SERIES		EACH	TO					TO	
					24- 7¼					24- 8	
A931		"	9	8	24- 7¼					24- 8	671
A932		COL FOOT (DOWEL	9	4	7- 0					7- 0	95
B530		PIER CAP	5	4	59- 5	0- 7				60- 0	250
B630		FOOTING	6	18	59- 4	0- 8				60- 0	1622
C530		PIER CAP (DOWEL	5	2	1-10¼	1- 9⅛				3- 8	8
C930		COLUMN	9	254	6-11	1- 7				8- 6	7341
D630		FOOTING	6	130	7- 6	0- 8				8-10	1725
L430		PIER CAP	4	64	1- 1	2- 8	0- 6			8- 6	363
SA630		COL GROUP 2	6	1	12- 0⅛	1-10	0- 8			29- 1	3529
		@ 76 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA631		" GROUP 3	6	1	12- 0⅛	1-10	0- 8			29- 1	3483
		@ 75 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA632		" GROUP 4	6	1	12- 0⅛	1-10	0- 8			29- 1	3436
		@ 74 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA633		" GROUP 5	6	1	12- 0⅛	1-10	0- 8			29- 1	3390
		@ 73 BAR SERIES		EACH		TO				TO	
						3- 8				32- 9	
SA634		" GROUP 6	6	1	10-11½	1-10	0- 8			26-11	3109
		@ 72 BAR SERIES		EACH		TO				TO	
						3- 8				30- 7	
UA630		" GROUP 1	6	1	0-11	10- 8½	0- 8			27- 6	3455
		@ 77 BAR SERIES		EACH	TO					TO	
					1-10					32- 3	
V630		FOOT (DOWEL)	6	2	3- 3¼	4- 0½	3- 3¼	2- 4⅛		7- 5	22
V631		COL (DOWEL)	6	23	5- 2⅛	3- 0⅜	2- 5⅝	1- 9⅛		8- 3	285
Z630		" GROUP 1	6	9	1- 0	1-11⅜	0- 8			3- 8	4771
		@ 77 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z631		" GROUP 2	6	8	1- 0	1-11⅜	0- 8			3- 8	4186
		@ 76 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z632		" GROUP 3	6	8	1- 0	1-11⅜	0- 8			3- 8	4131
		@ 75 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z633		"GROUP 4	6	8	1- 0	1-11⅜	0- 8			3- 8	4075
		@ 74 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z634		"GROUP 5	6	8	1- 0	1-11⅜	0- 8			3- 8	4020
		@ 73 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	
Z635		"GROUP 6	6	8	1- 0	1-11⅜	0- 8			3- 8	3965
		@ 72 BAR SERIES		EACH		TO				TO	
						3- 9⅜				5- 6	

MARK	T	LOCATION	SZ	NO. RO'D	DIMENSION FT-IN a	b	c	d	e	LENGTH FT-IN	WEIGHT LBS
PIER NO. 4											
										*** TOTAL WEIGHT (LBS)	78658

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06•

Note: Dimensions shown on this sheet are outside to outside of bar. Standard C.R.S.I. Hook Details shall apply, except as noted.

•LOCATION	SERIES
SUPERSTRUCTURE	00-19
ABUTMENT	20-29
PIER	30-40

Note: An "E" in the "T", Type, column indicates that the bar shall be Epoxy-Coated.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BAILE JR. REGISTERED ENGINEER AGRICULTURE COMMISSION NO. 02 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BILL OF STEEL (2)

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY B.B. Warren DATE 6-11
DRAWN BY V. Dmitriev DATE 6-11
SUPERVISED BY F.G.Bale DATE 6-11
CHECKED BY B.B. Warren DATE 6-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-138

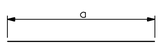
2:29:07 PM PICKELDP
8/8/2014 m:\knox county\rails connector\structures\plans\final\U-70-137.& .138_BILL OF STEEL.dgn

CONSTR. NO. 47016-3222-94

PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



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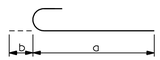

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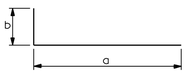

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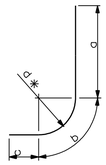

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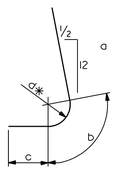

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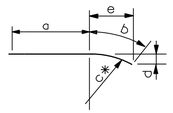

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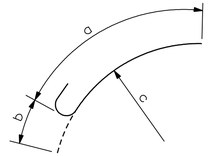

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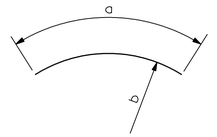

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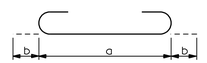

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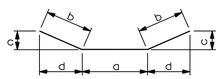

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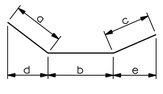

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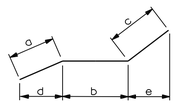

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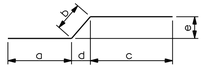

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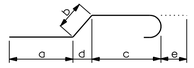

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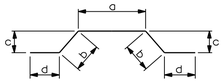

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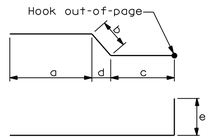

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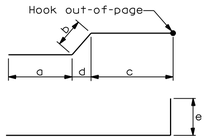

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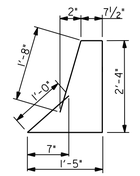

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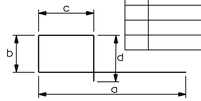

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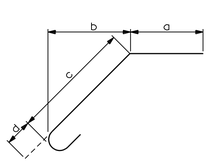

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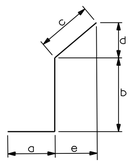

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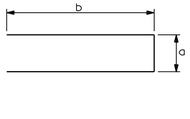

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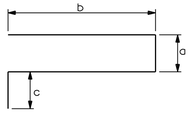

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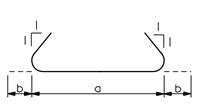

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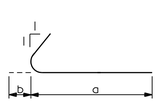

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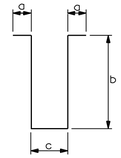

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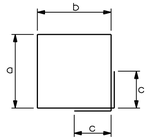

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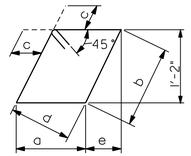

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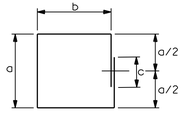

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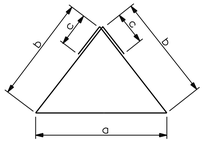

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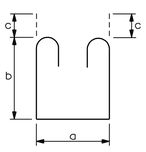

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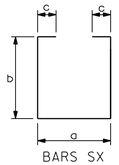

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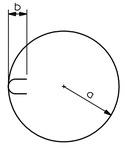

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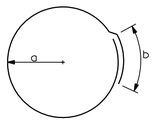

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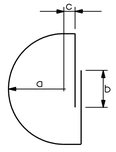

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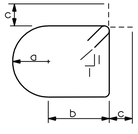

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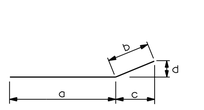

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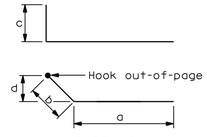

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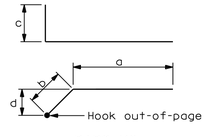

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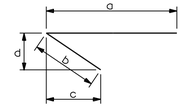

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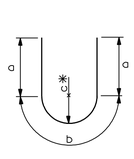

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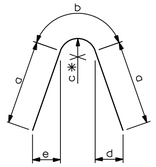

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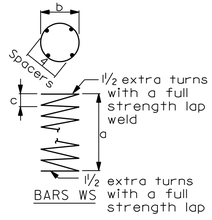

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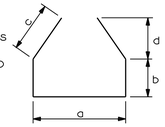
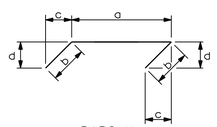


BARS X



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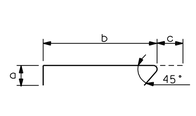
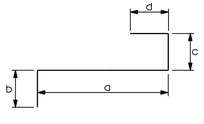
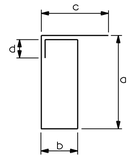


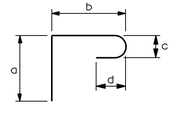
BARS Z



BARS ZA



BARS ZB



BARS ZC

Note: Spiral column ties (Bars "WS") shall conform to the requirements of either ASTM A706, A615, A82 or A496. Any splice of spiral column ties shall be made by a welded splice to develop the full strength of the wire. At each end of the spiral the wire shall terminate with 1½ turns at a closed pitch and the end of it shall be lap welded to the previous turn to develop the full strength of the wire. All welding of reinforcement shall be in accordance with ANSI/AWS D1.4.

*- Radius to inside of bar.

NOTE:
All costs associated with the special requirements for Bars WS including material selected, labor, fabrication, and all other miscellaneous incidentals shall be included in the unit price bid for Item No. 604-03.02.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

REINFORCING STEEL BAR BENDING DETAILS

STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

UNOFFICIAL SET
NOT FOR BIDDING

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

U-70-139

DESIGNED BY	B.B. Warren	DATE	6-11
DRAWN BY	V. Dmitriev	DATE	6-11
SUPERVISED BY	F.G.Bale	DATE	6-11
CHECKED BY	B.B. Warren	DATE	6-11

PICKELDP
m:\knox county\hails connector\structures\plans\final\U-70-139_REINFBARBENDDET.dgn
2:29:09 PM
8/8/2014

CONSTR. NO. 47016-3222-94

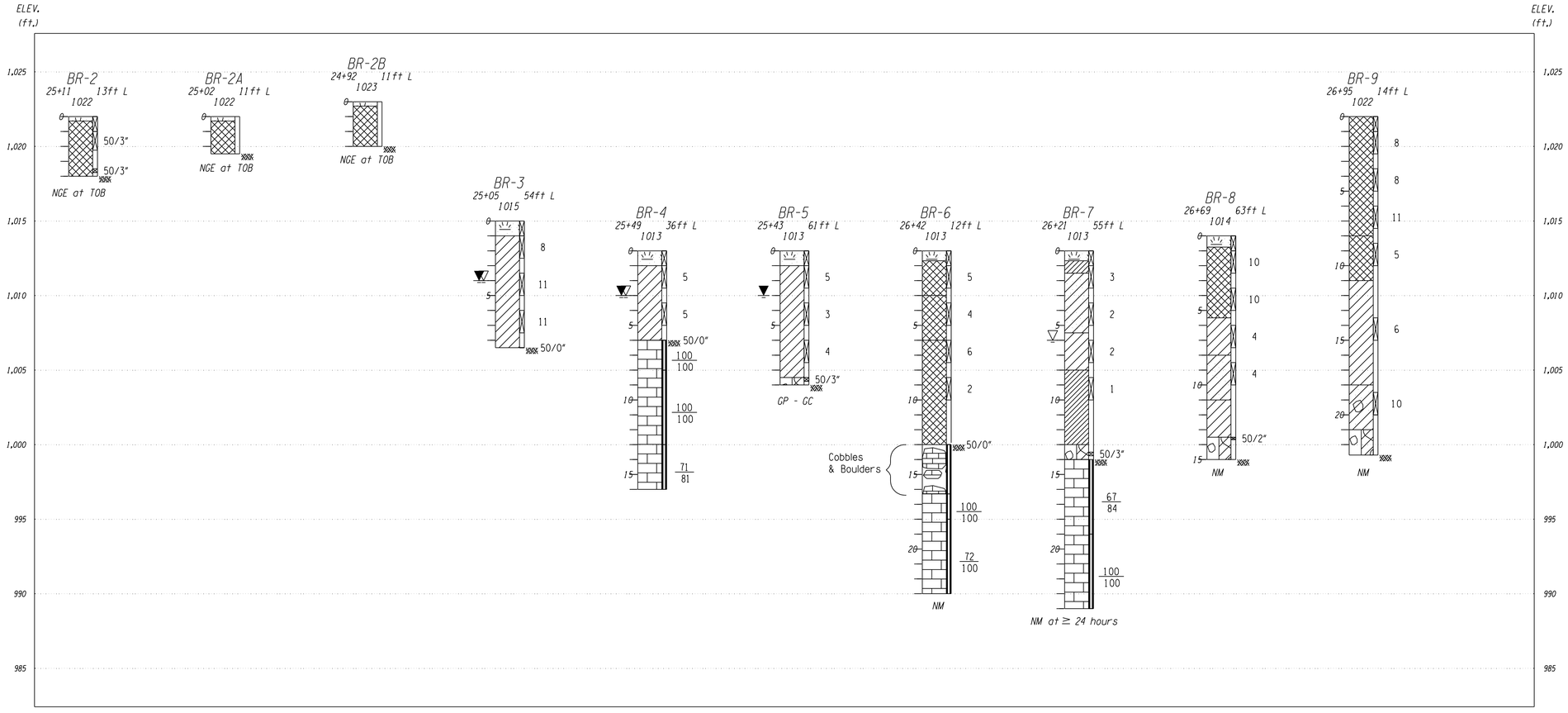
PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

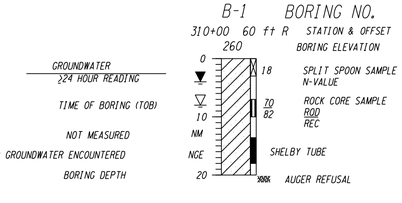
NOTE:

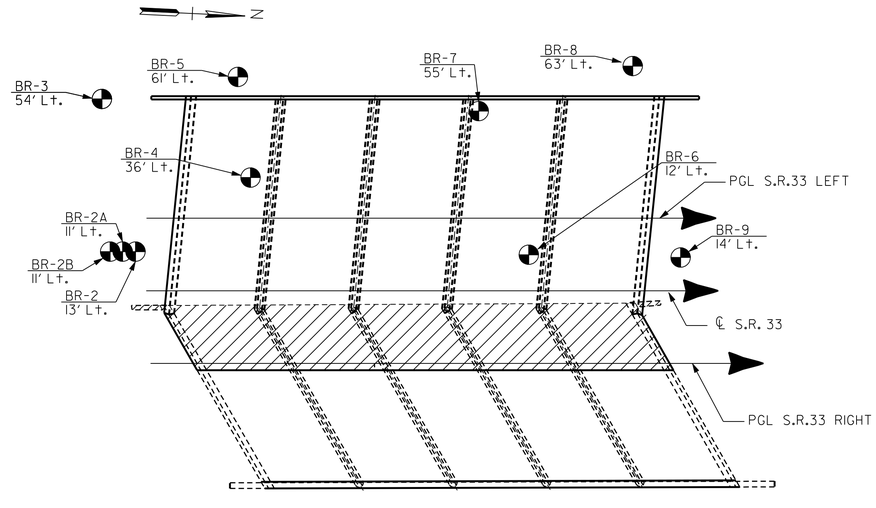
This drawing shallbe used for information relating to borings only and not for layout.



MATERIAL LAYERING CODES

Fat Clay (CH)	Elastic Silt (MH)	Concrete	Fill	Highly Weathered Rock
Lean Clay (CL)	Silty Sand (SM)	Gravel	Void/Cavity	Gravelly Clay (CL)
Sandy Clay (CL)	Clayey Sand (SC)	Asphalt	Limestone	Clayey Gravel(GC)
Silt (ML)	Poorly Graded Sand (SP)	Calcareous Shale	Dolostone	Poorly Graded Gravelwith Clay (GP-GC)
Silty Clay (CL-ML)	Well Graded Sand (SW)	Calcareous Sandstone	Calcareous Siltstone and Limestone	Sandy Clay with Gravel (CL)
Sandy Silt (ML)	Topsoil	Interbedded Calcareous Shale & Sandstone	Calcareous Siltstone	Silty Gravel(GM)





BORING LOCATION SKETCH
Not To Scale

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

JAMES L. VINSON REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 107581 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SOUNDING SKETCH
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY	J. Vinson	DATE	6-11
DRAWN BY	V. Dmitriev	DATE	6-11
SUPERVISED BY	F.G. Bale	DATE	6-11
CHECKED BY	J.L.Vinson	DATE	6-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-140

PICKELDP
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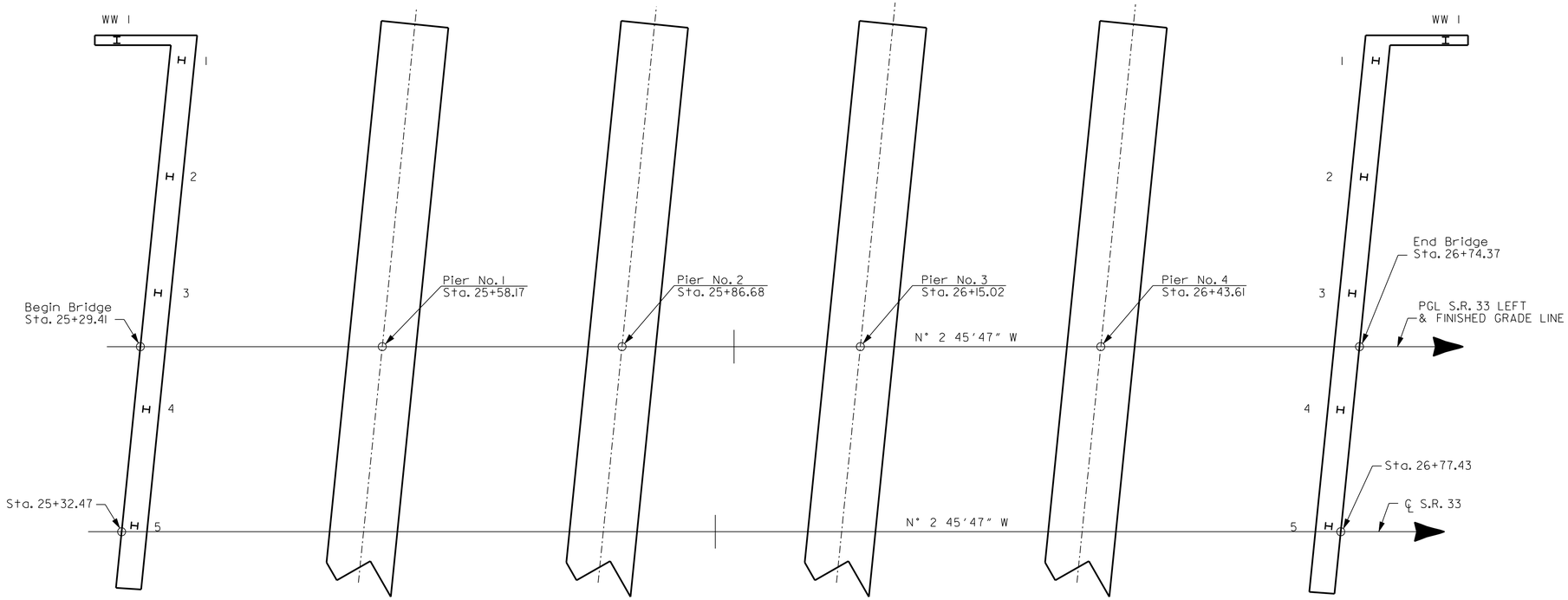
8/8/2014

CONSTR. NO. 47016-3222-94

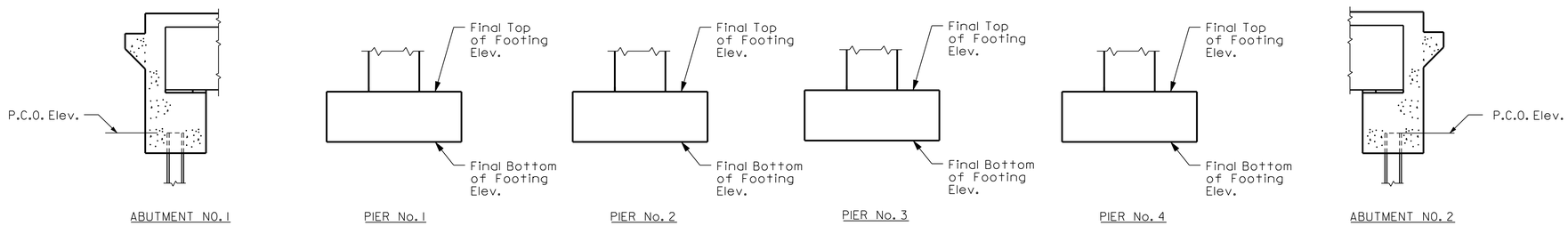
PROJECT NO.	YEAR	SHEET NO.
HSIP-33(116)	2014	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



PLAN
Scale : 1/8" = 1'-0"



ABUTMENT NO. 1 | PIER No. 1 | PIER No. 2 | PIER No. 3 | PIER No. 4 | ABUTMENT NO. 2

		WW 1	1	2	3	4	5
ABUTMENT NO. 1	PILE CUTOFF ELEV.						
	PILE TIP ELEV.						
	IN PLACE PILE LENGTH						
PIER NO. 1	FINAL TOP OF FOOTING ELEV.						
	FINAL BOTTOM OF FOOTING ELEV.						
PIER NO. 2	FINAL TOP OF FOOTING ELEV.						
	FINAL BOTTOM OF FOOTING ELEV.						
PIER NO. 3	FINAL TOP OF FOOTING ELEV.						
	FINAL BOTTOM OF FOOTING ELEV.						
PIER NO. 4	FINAL TOP OF FOOTING ELEV.						
	FINAL BOTTOM OF FOOTING ELEV.						
ABUTMENT NO. 2	PILE CUTOFF ELEV.						
	PILE TIP ELEV.						
	IN PLACE PILE LENGTH						

NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:

The blanks on this sheet are to be filled in by the construction office and/or field Engineer. After completion, it is to be sent to the Division of Structures to become part of the Final Bridge Documents.

NOTE: This drawing shall be used for pile information only and not for layout.

P.C.O. Elev. = Pile Cut-off Elevation

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

FRANK GILBERT BALE JR. REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 027251 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FINAL FOUNDATION DATA
STATE ROUTE 33 OVER BEAVER CREEK
STA. 25+29.40 PGL S.R. 33 LEFT
BRIDGE ID. NO. 47SR033003I
KNOX COUNTY
2014

DESIGNED BY B.B. Warren DATE 6-11
DRAWN BY V. Dmitriev DATE 6-11
SUPERVISED BY F.G.Bale DATE 6-11
CHECKED BY B.B. Warren DATE 6-11

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

U-70-141

PICKELDP
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8/8/2014

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	22

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

BEGIN CONST. STA 12+28.97

12+25.00

CUT = 0 SF

FILL = 0 SF

EXC. = 0 CY EMB = 0 CY

12+00.00

11+75.00

11+50.00

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33

BEGIN STA. 11+50.00
END STA. 12+25.00

1060
1050
1040

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
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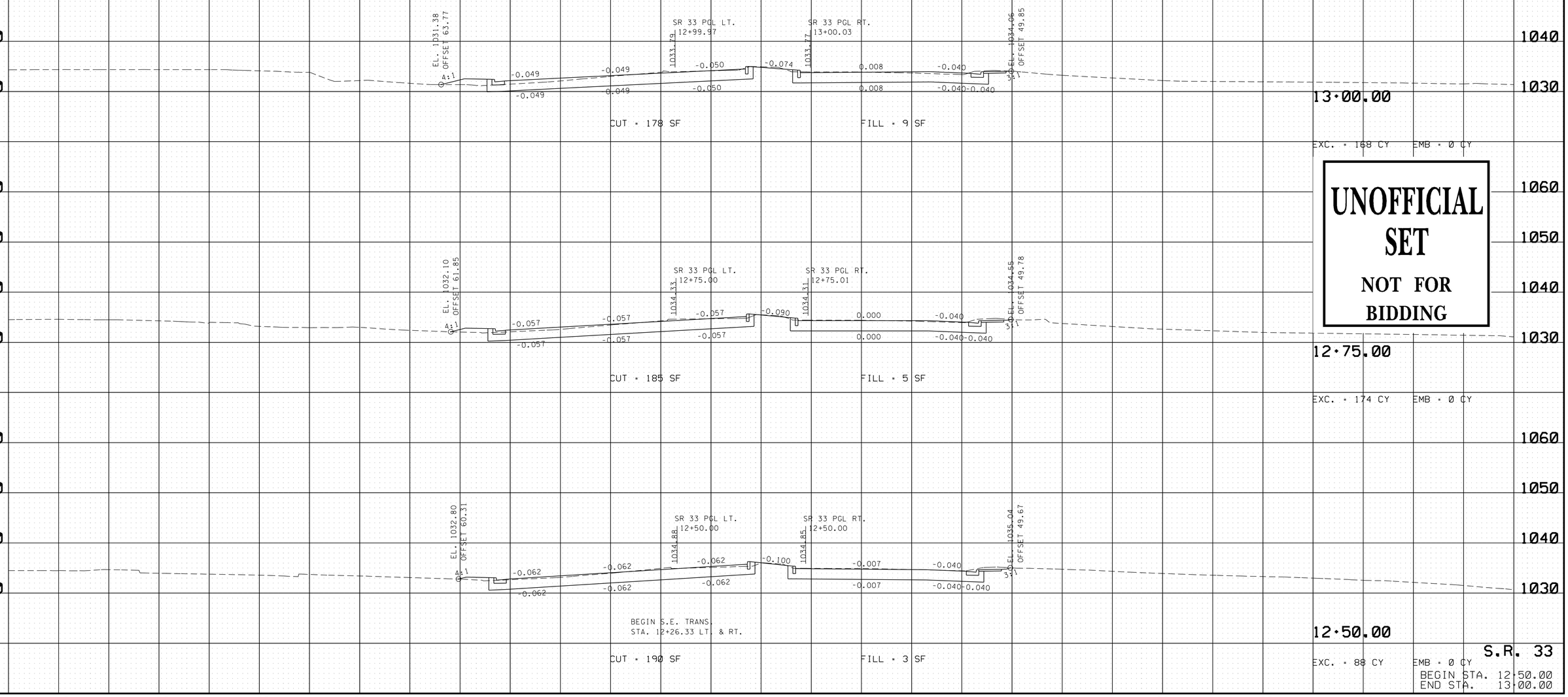
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	23

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

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8/13/2014
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	24

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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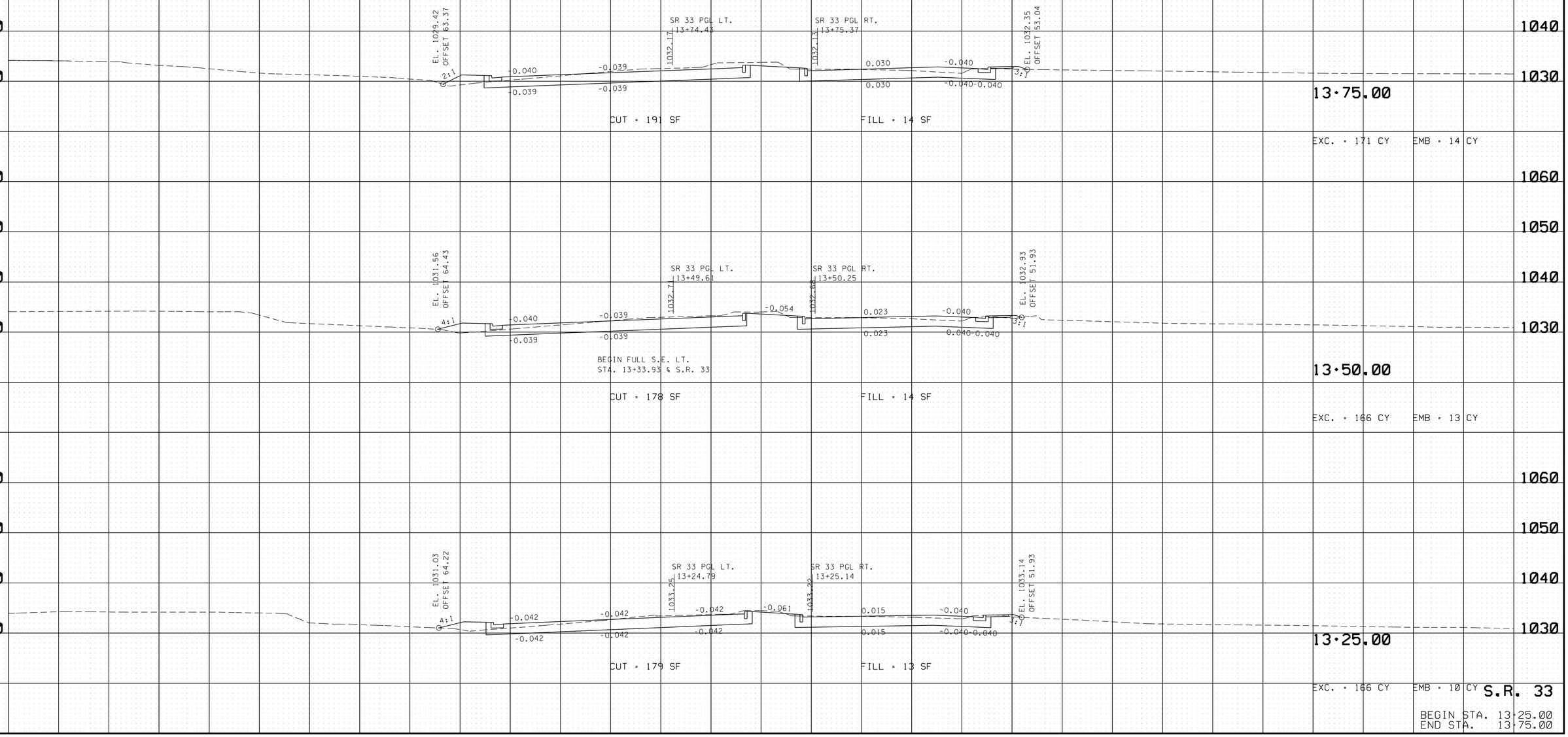
NOT FOR BIDDING



S.R. 33

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	25

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33

BEGIN STA. 14+00.00
END STA. 14+50.00

8/13/2014
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	26

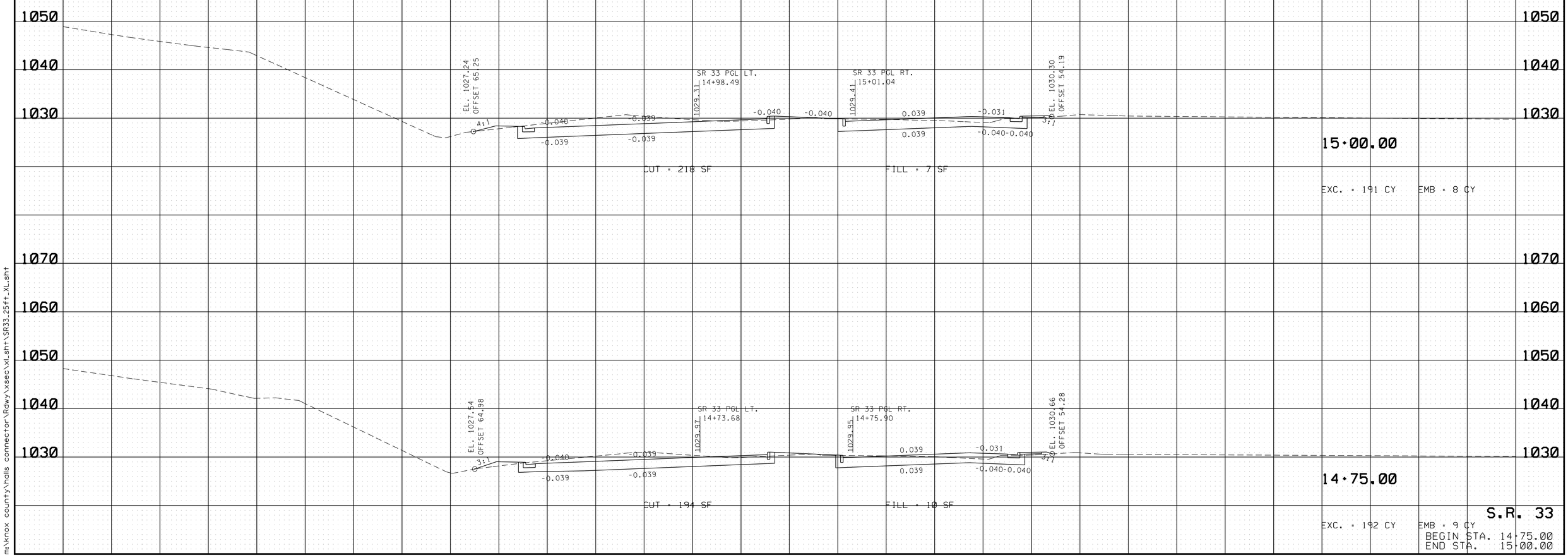
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33
BEGIN STA. 14+75.00
END STA. 15+00.00

8/13/2014
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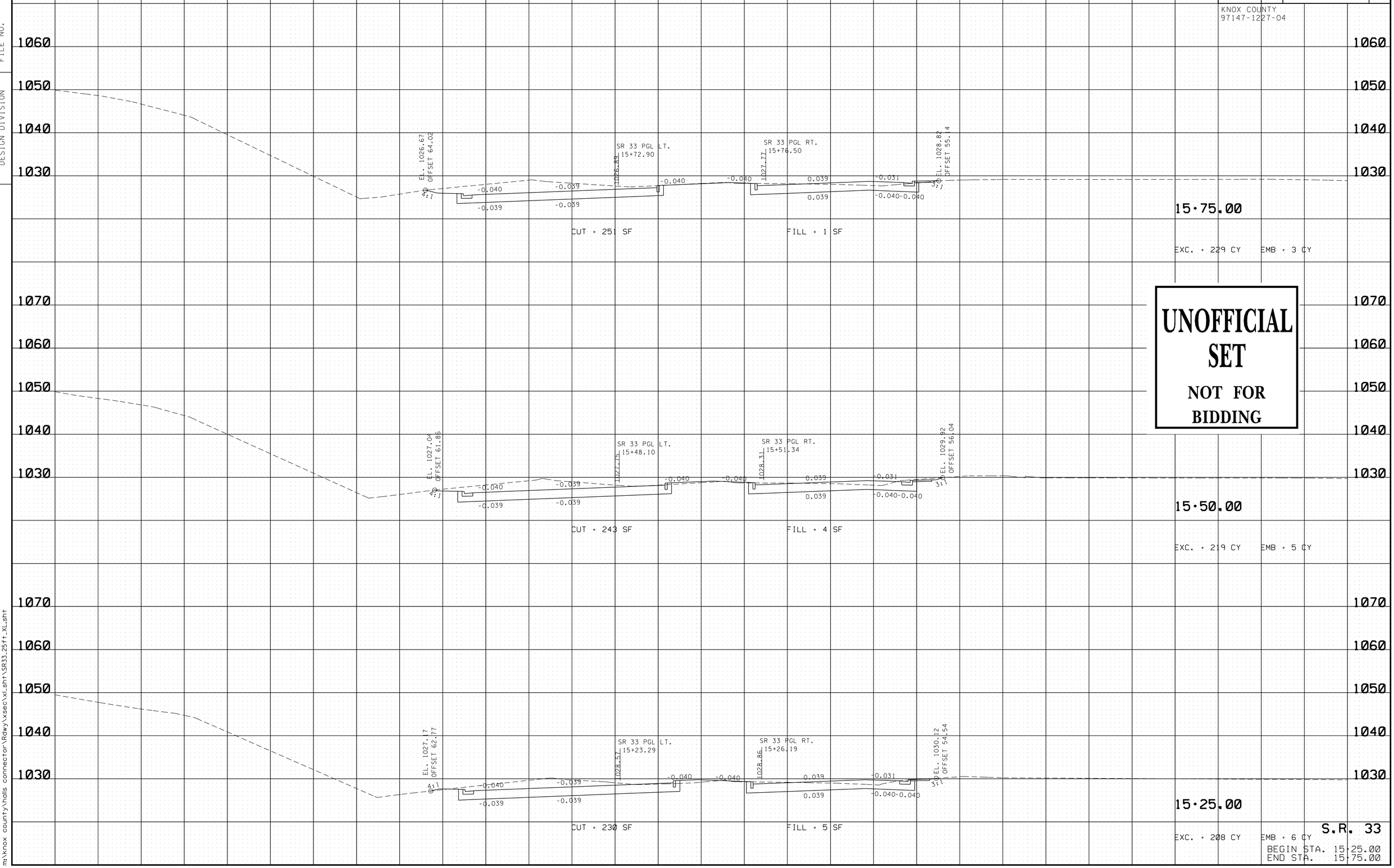
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	27

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



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NOT FOR BIDDING

S.R. 33
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END STA. 15+75.00

8/13/2014
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TENNESSEE D.O.T.
DESIGN DIVISION

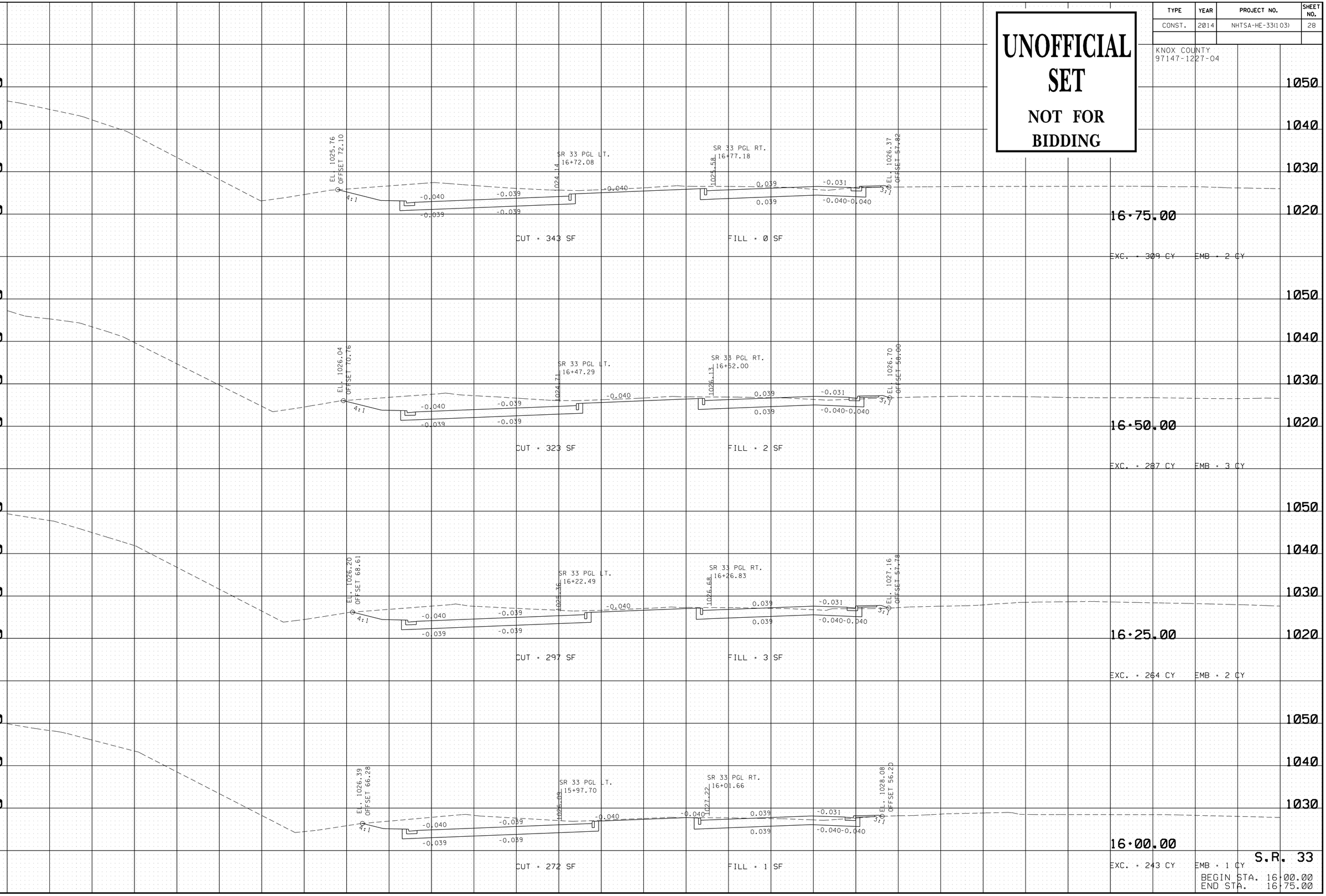
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	28

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET

NOT FOR BIDDING



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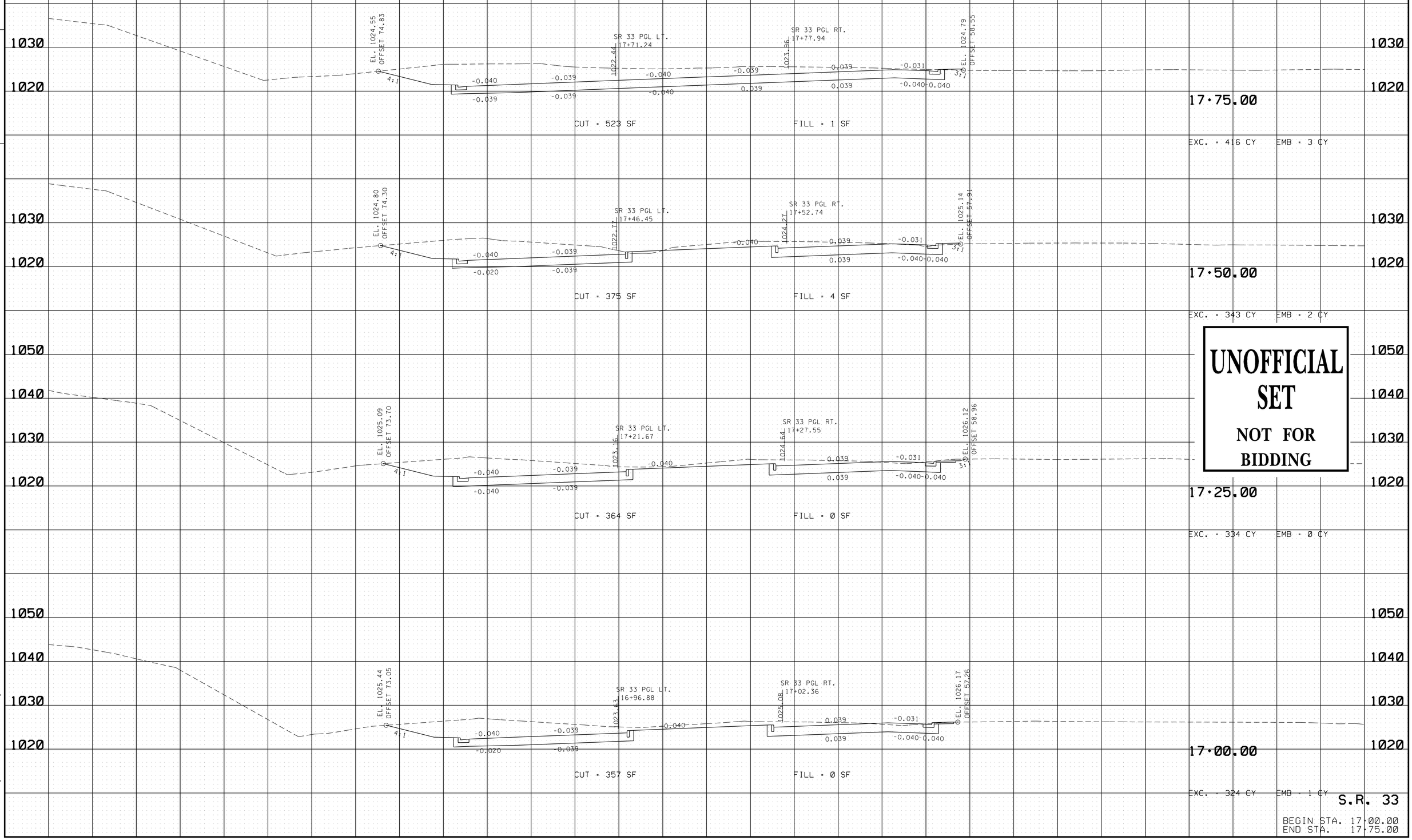
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	29

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	30

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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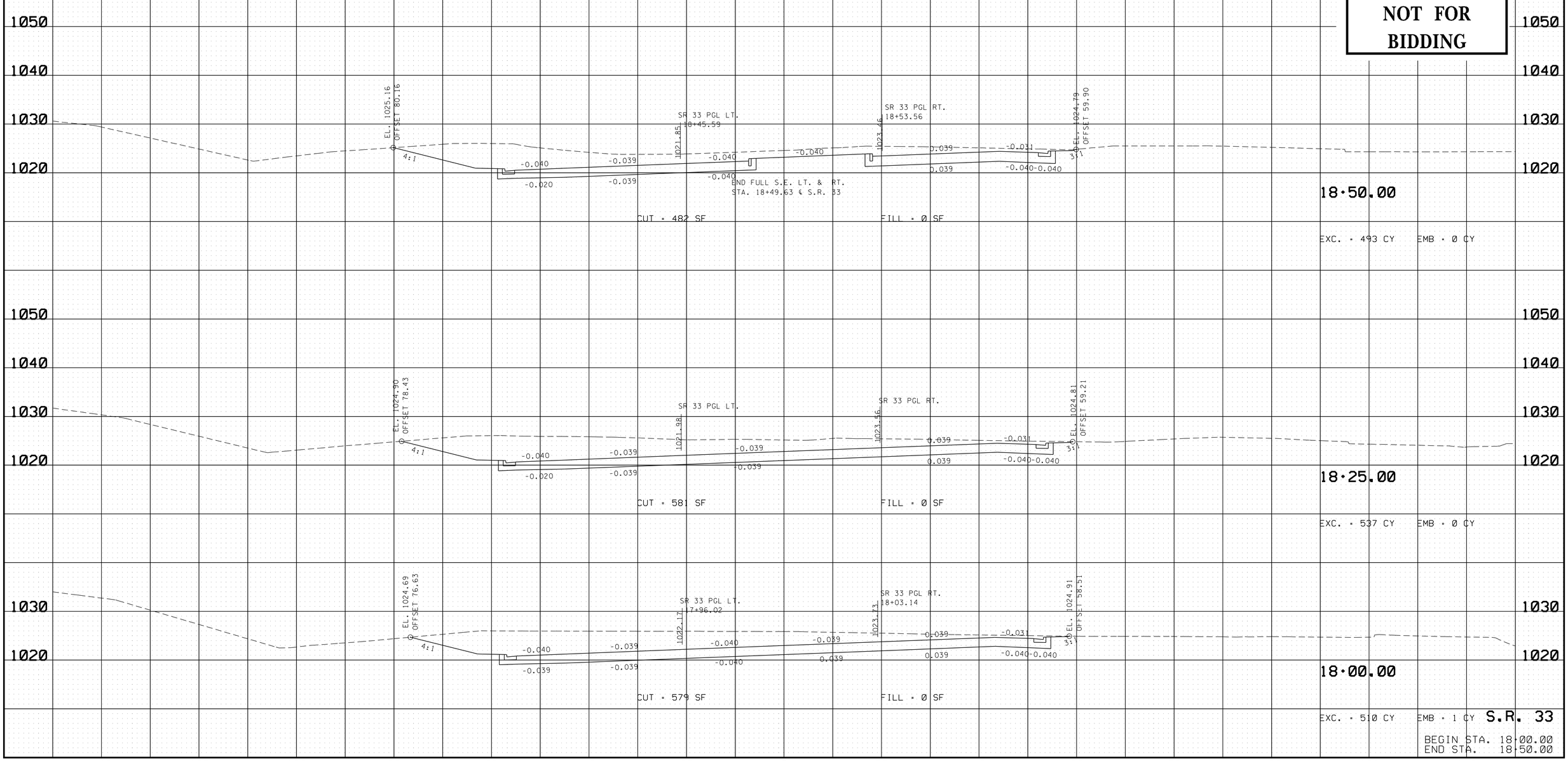
NOT FOR BIDDING



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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	31

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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NOT FOR BIDDING

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	32

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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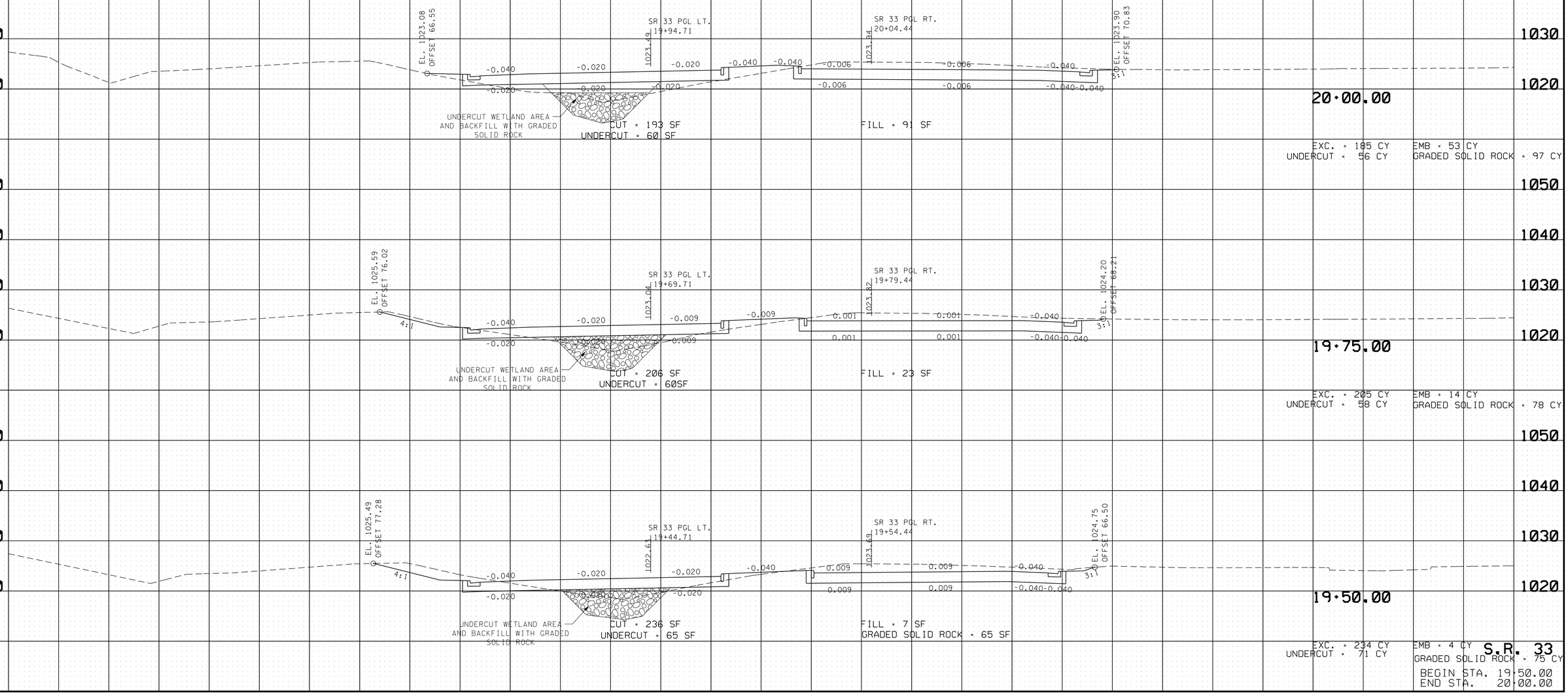

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	33

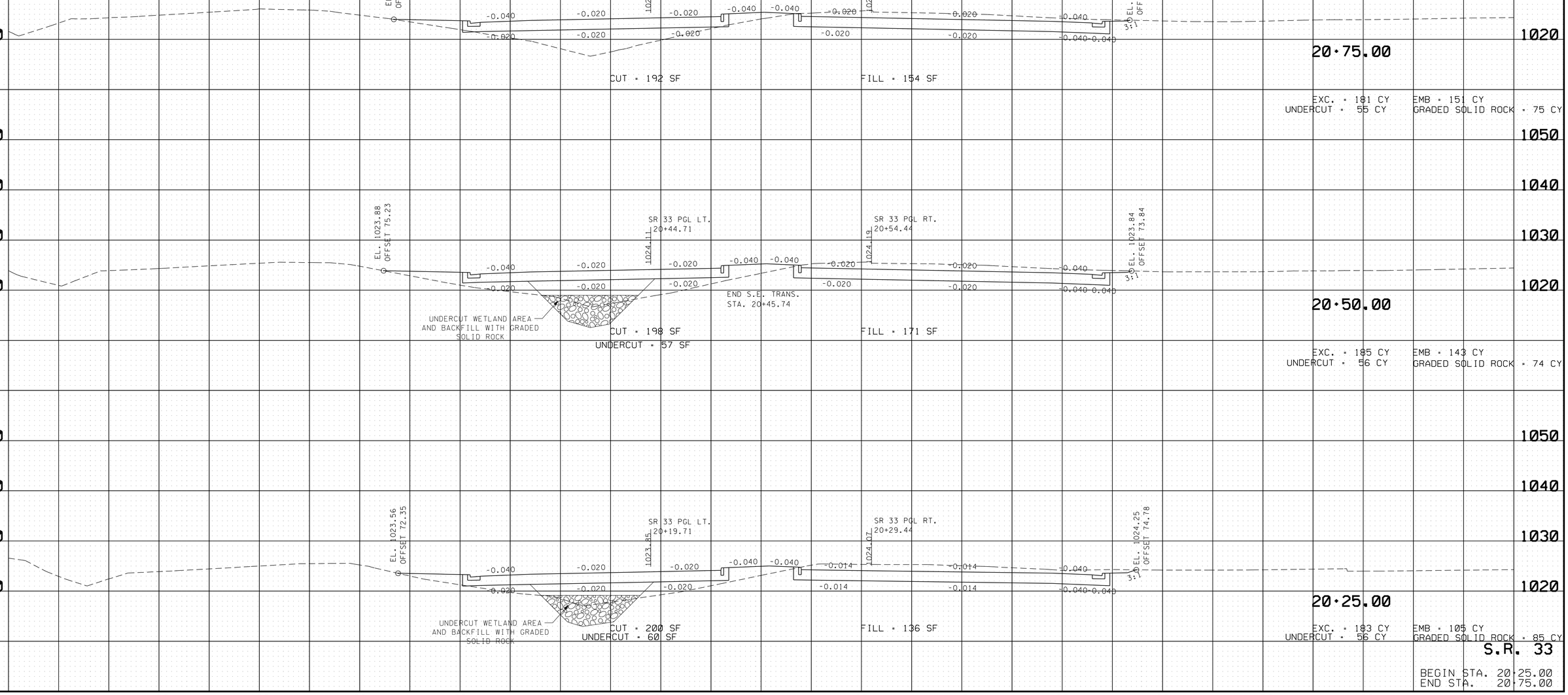
KNOX COUNTY
97147-1227-04

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

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END STA. 20+75.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	34

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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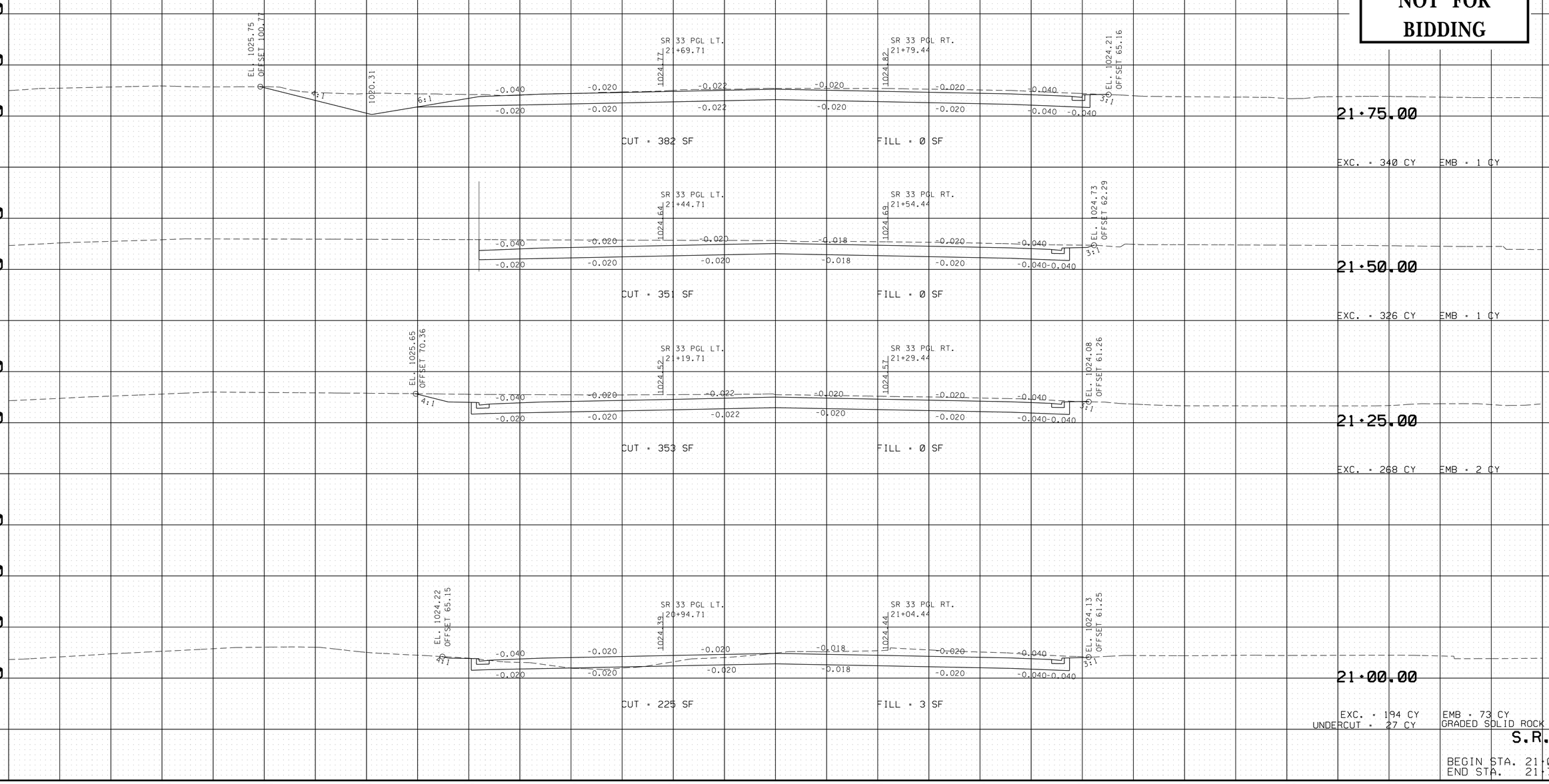
NOT FOR BIDDING



S.R. 33

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	35

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33

BEGIN STA. 22·00.00
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8/13/2014
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	36

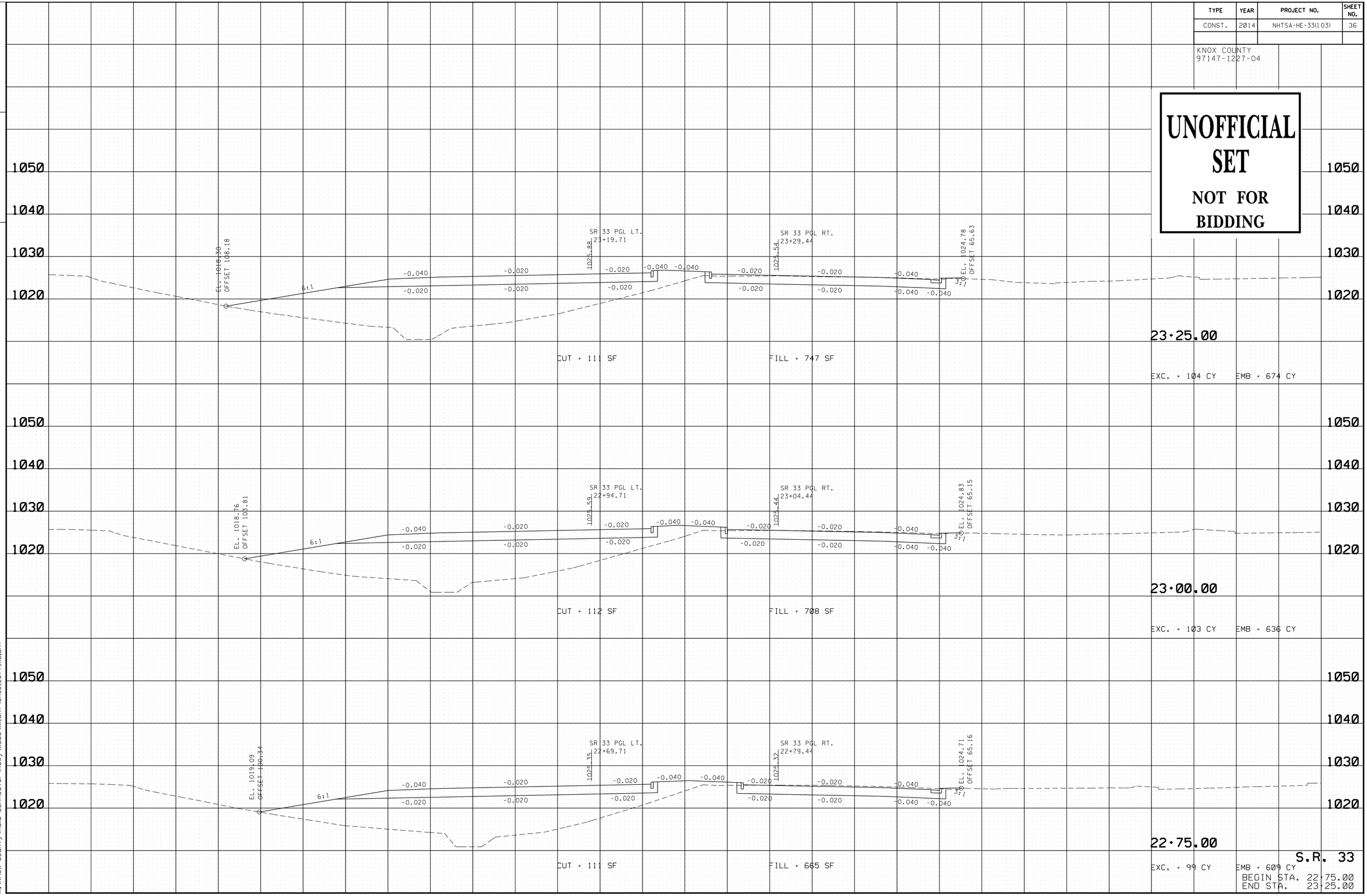
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33
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END STA. 23+25.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	37

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33
BEGIN STA. 23+50.00
END STA. 24+00.00

8/13/2014
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	38

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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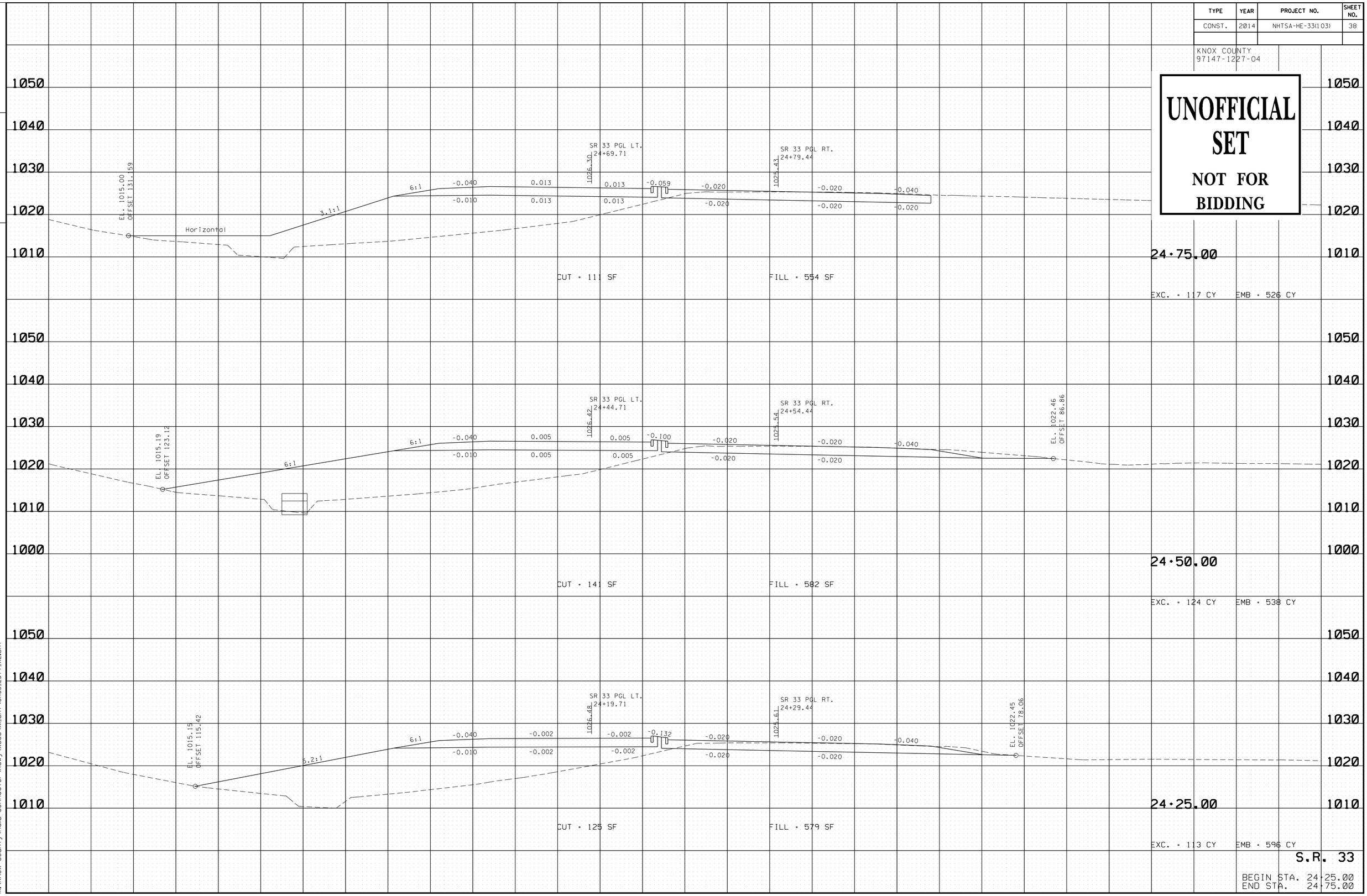

S.R. 33

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	39

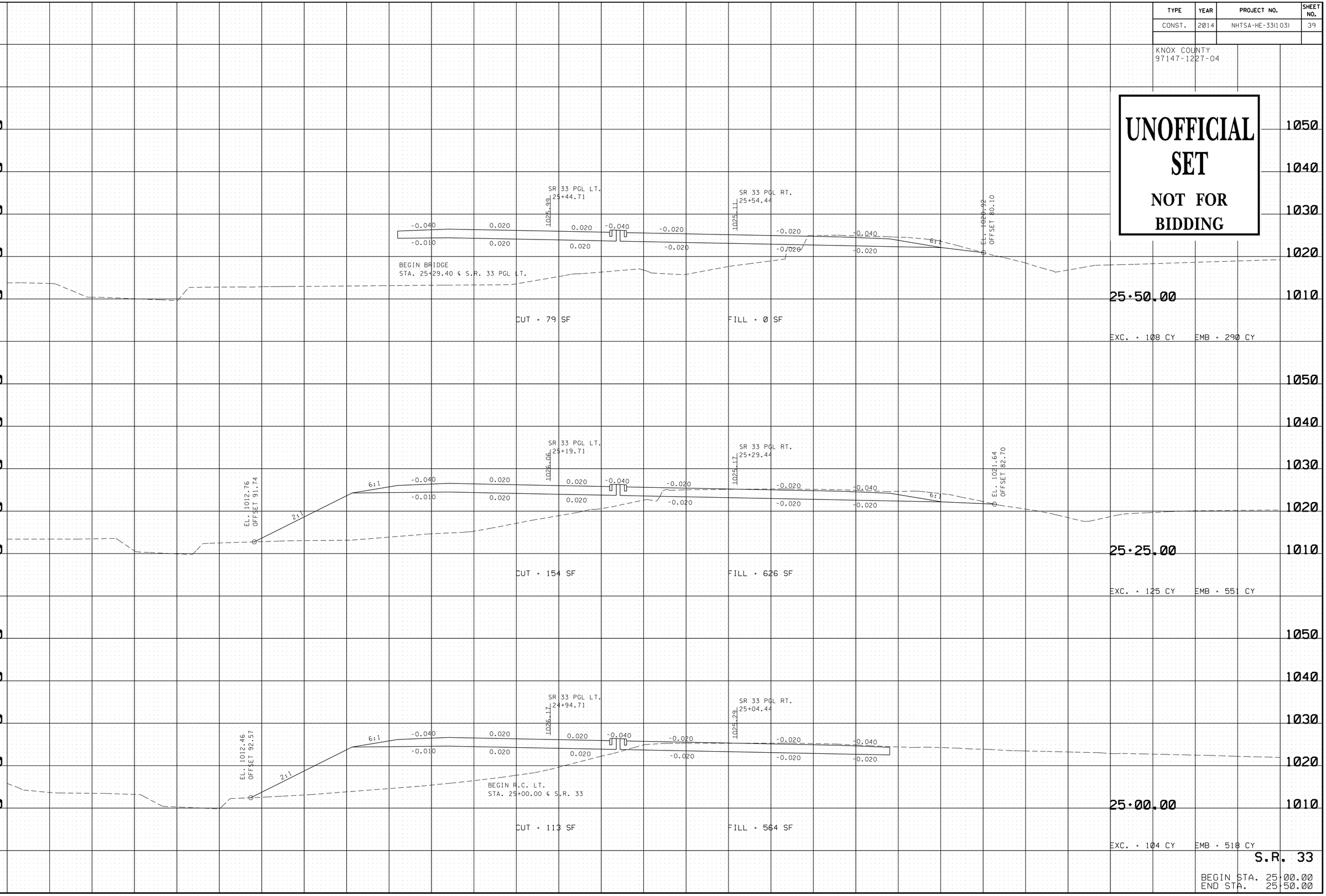
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 25+00.00
END STA. 25+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	40

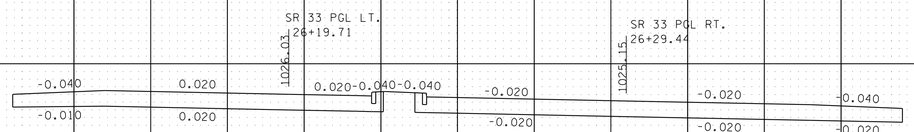
KNOX COUNTY
97147-1227-04

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET

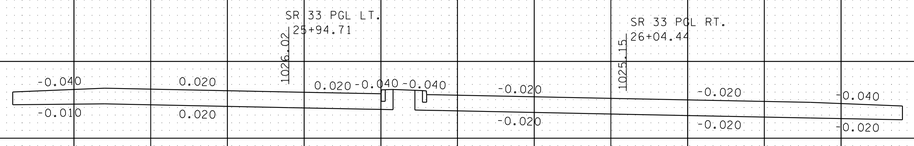
NOT FOR BIDDING



26+25.00

CUT = 0 SF FILL = 0 SF

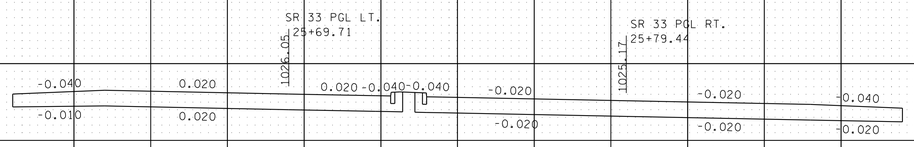
EXC. = 0 CY EMB = 0 CY



26+00.00

CUT = 0 SF FILL = 0 SF

EXC. = 0 CY EMB = 0 CY



25+75.00

CUT = 0 SF FILL = 0 SF

EXC. = 37 CY EMB = 0 CY

S.R. 33

BEGIN STA. 25+75.00
END STA. 26+25.00

8/13/2014
9:11:15 AM
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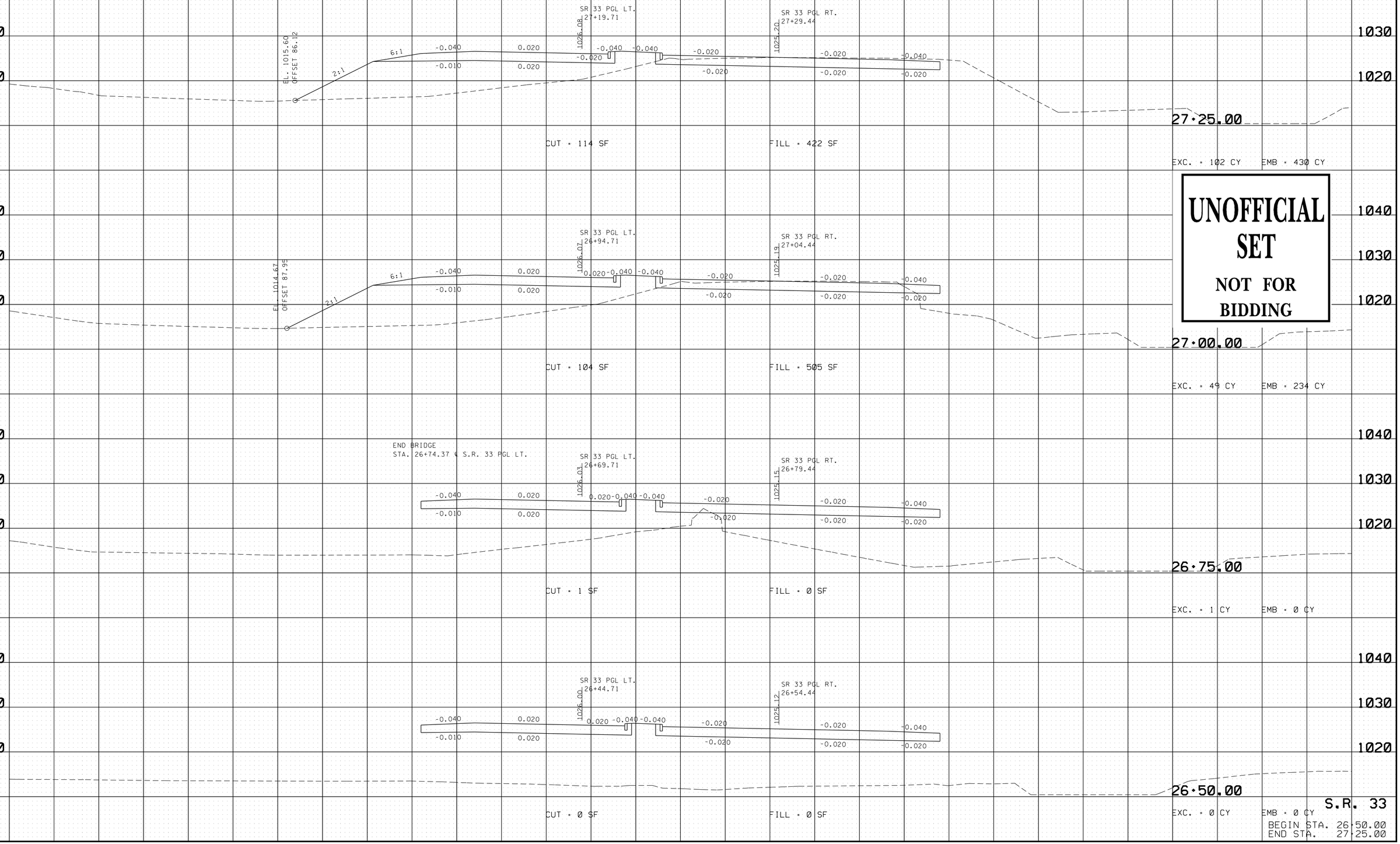
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	41

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 26+50.00
END STA. 27+25.00

8/13/2014
9:11:20 AM
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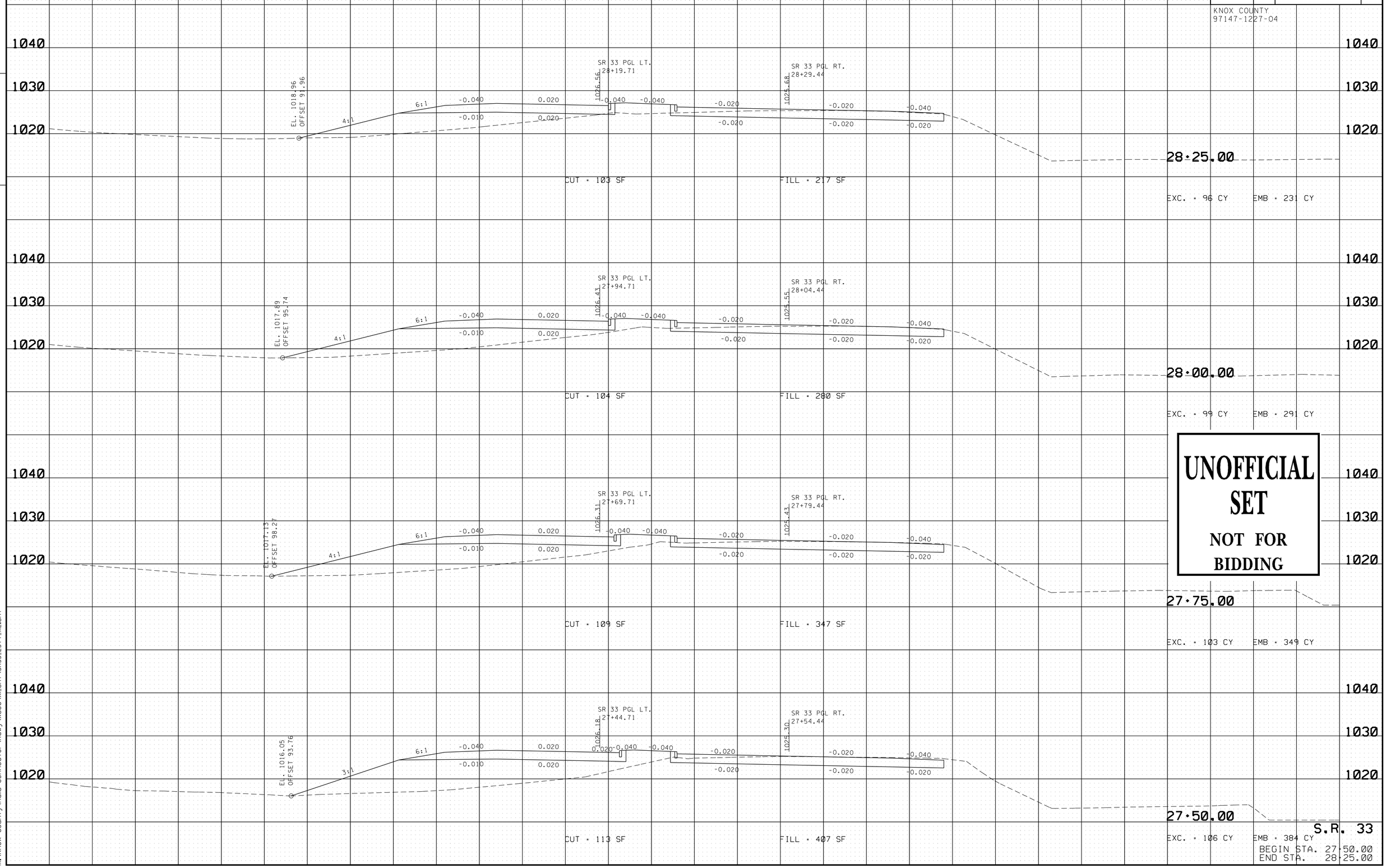
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	42

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 27+50.00
END STA. 28+25.00

8/13/2014
9:11:25 AM
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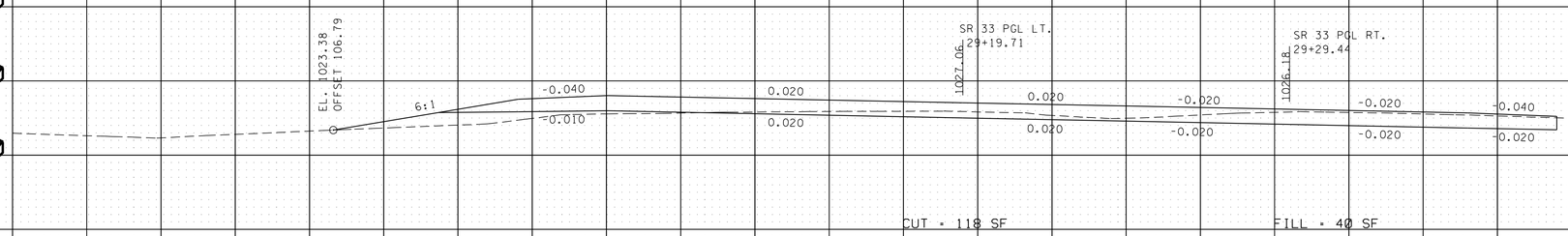
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	43

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

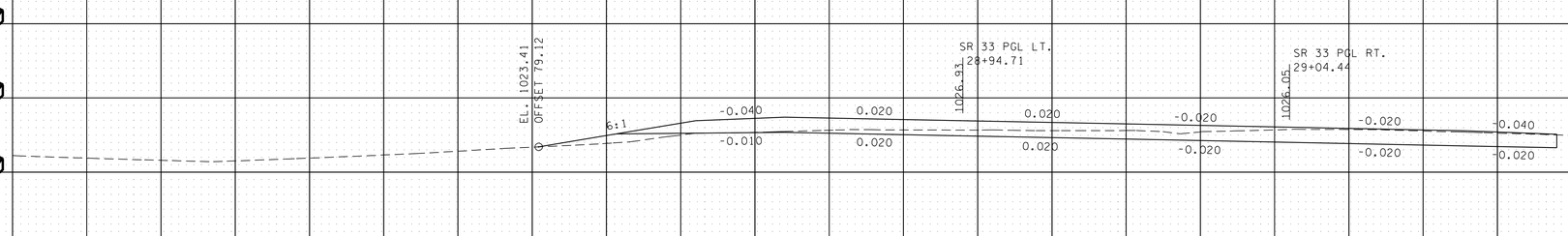
FILE NO.



CUT = 118 SF FILL = 40 SF

29+25.00

EXC. = 115 CY EMB = 25 CY



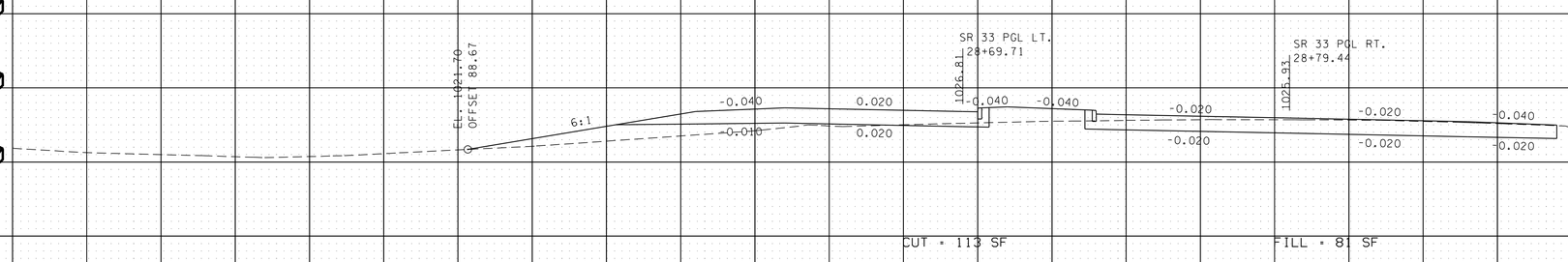
CUT = 129 SF FILL = 13 SF

29+00.00

EXC. = 113 CY EMB = 44 CY

UNOFFICIAL SET

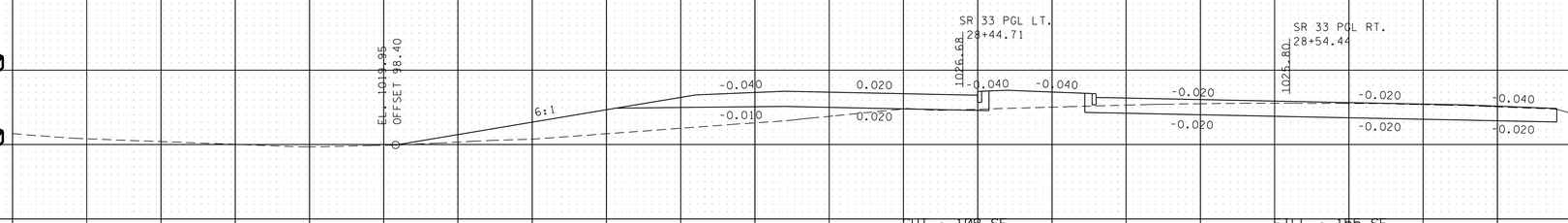
NOT FOR BIDDING



CUT = 113 SF FILL = 81 SF

28+75.00

EXC. = 103 CY EMB = 110 CY



CUT = 108 SF FILL = 155 SF

28+50.00

EXC. = 98 CY EMB = 173 CY

S.R. 33

BEGIN STA. 28+50.00
END STA. 29+25.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:11:30 AM
m:\knox county\halls connector\Rdwy\xsec\xl.sht\SR33.25ft_XL.sht

TENNESSEE D.O.T.
DESIGN DIVISION

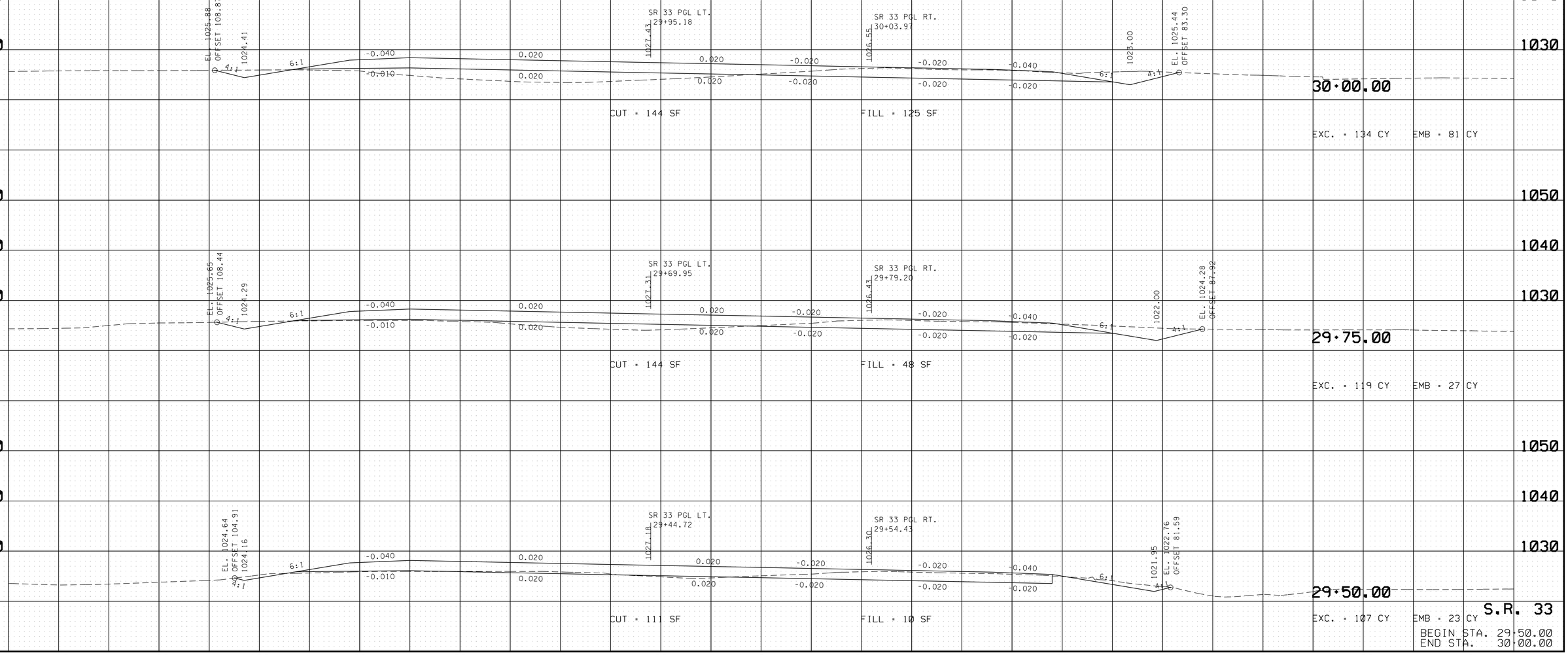
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	44

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33
BEGIN STA. 29+50.00
END STA. 30+00.00

8/13/2014
9:11:35 AM
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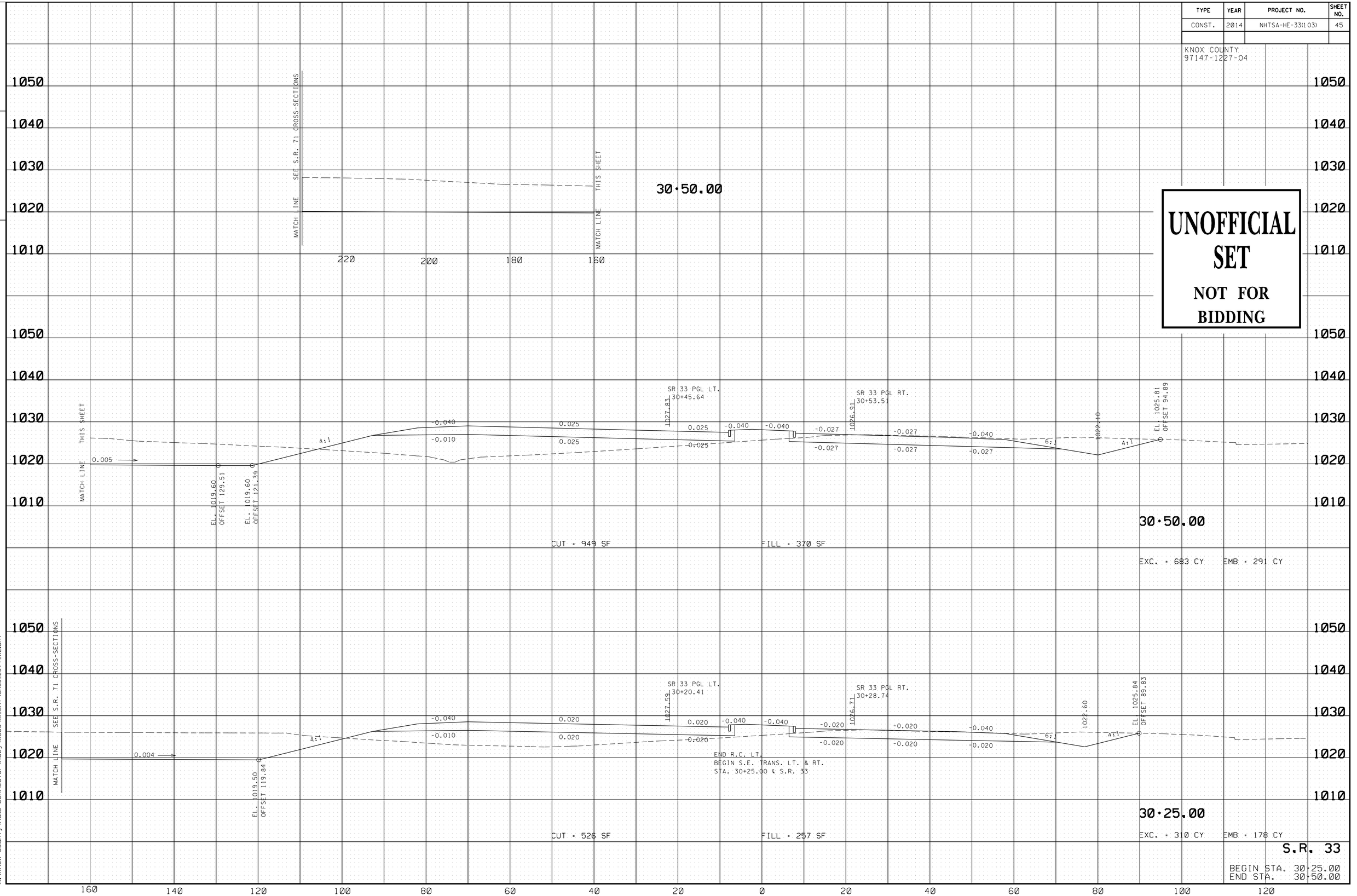
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	45

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

8/13/2014
9:11:30 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	46

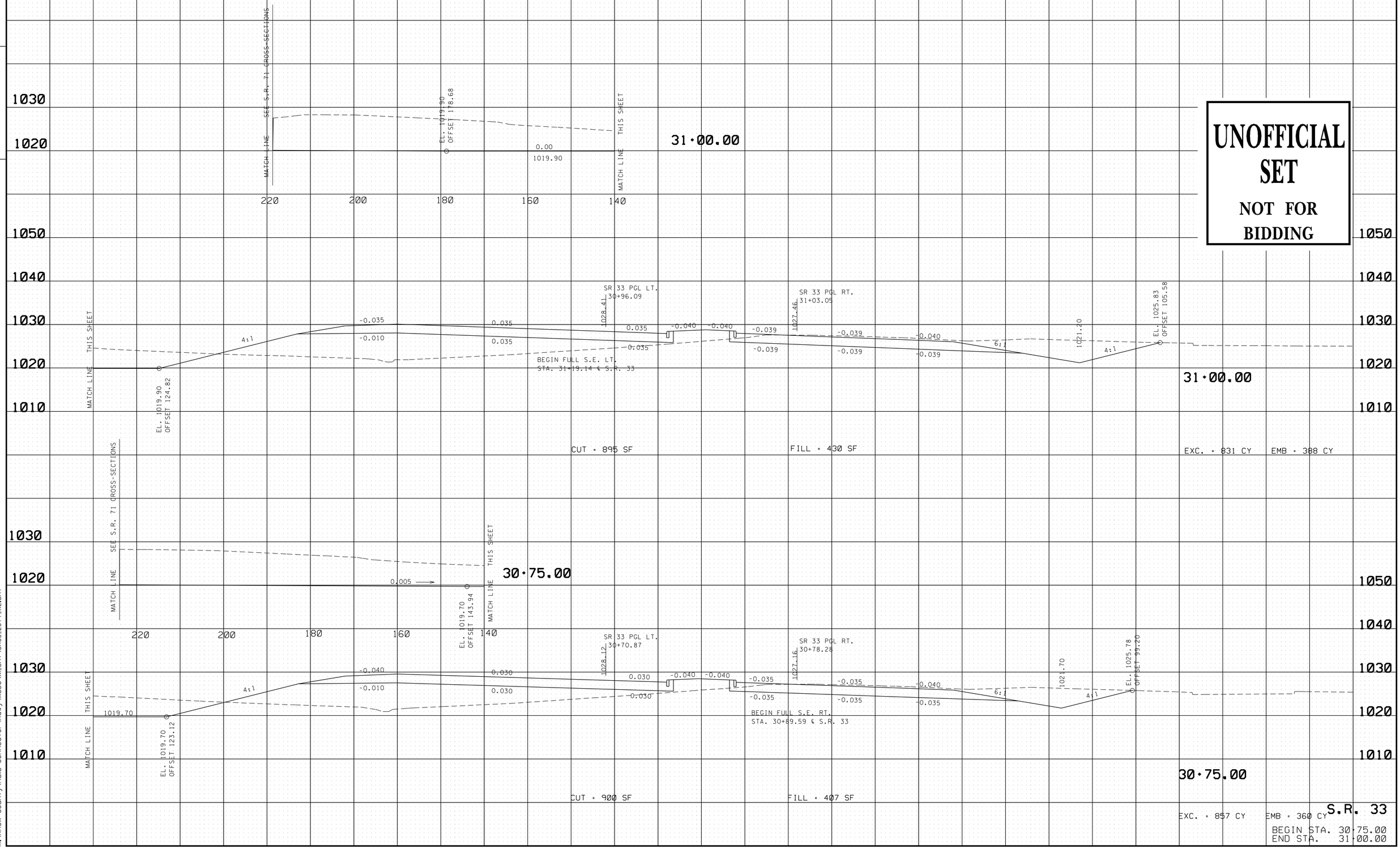
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33
BEGIN STA. 30+75.00
END STA. 31+00.00

8/13/2014
9:49:49 AM
m:\knox county\halls connector\Rdwy\xsec\xl_sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	47

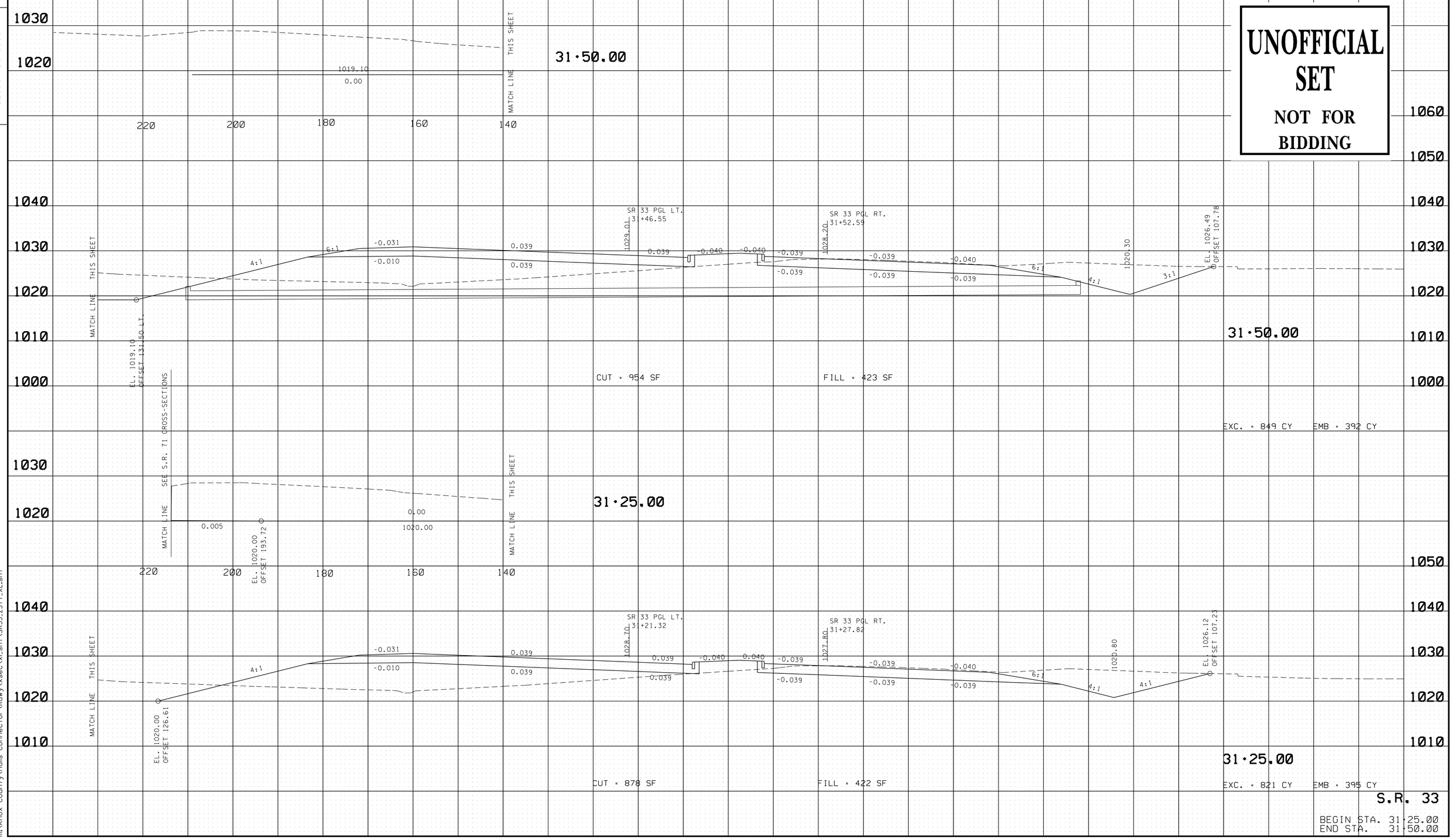
KNOX COUNTY
97147-1227-04

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 31+25.00
END STA. 31+50.00

8/13/2014
9:11:00 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	48

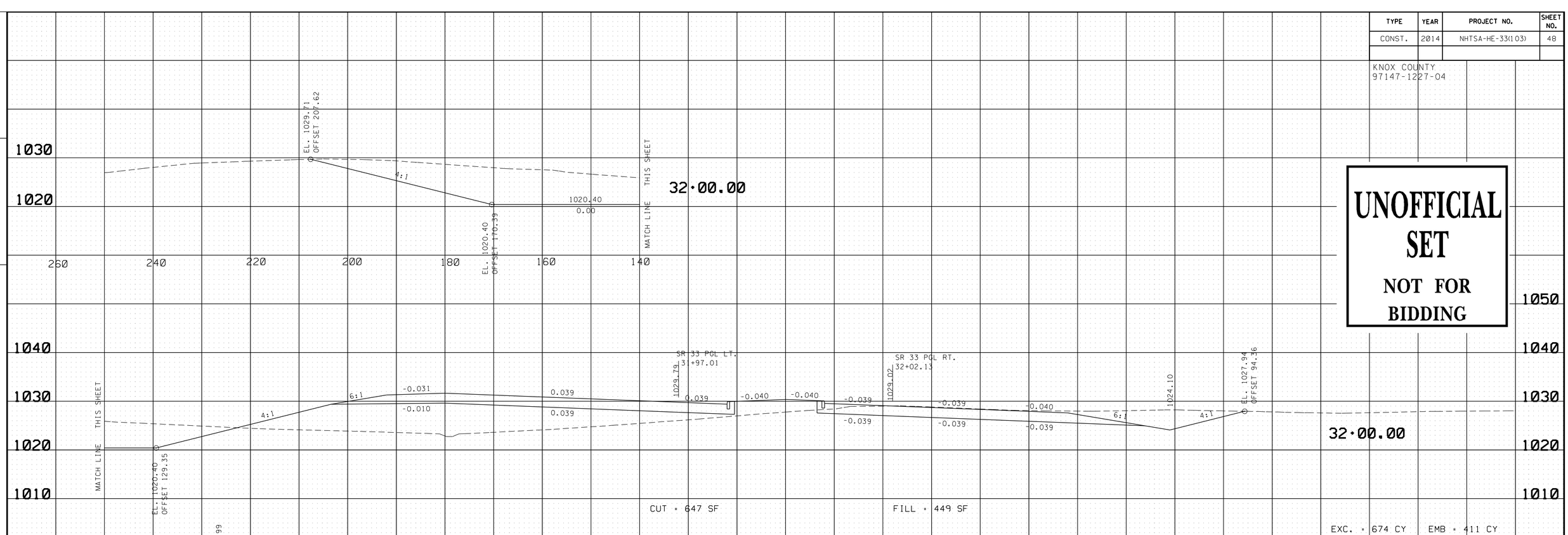
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 31+75.00
END STA. 32+00.00

8/13/2014
9:11:59 AM
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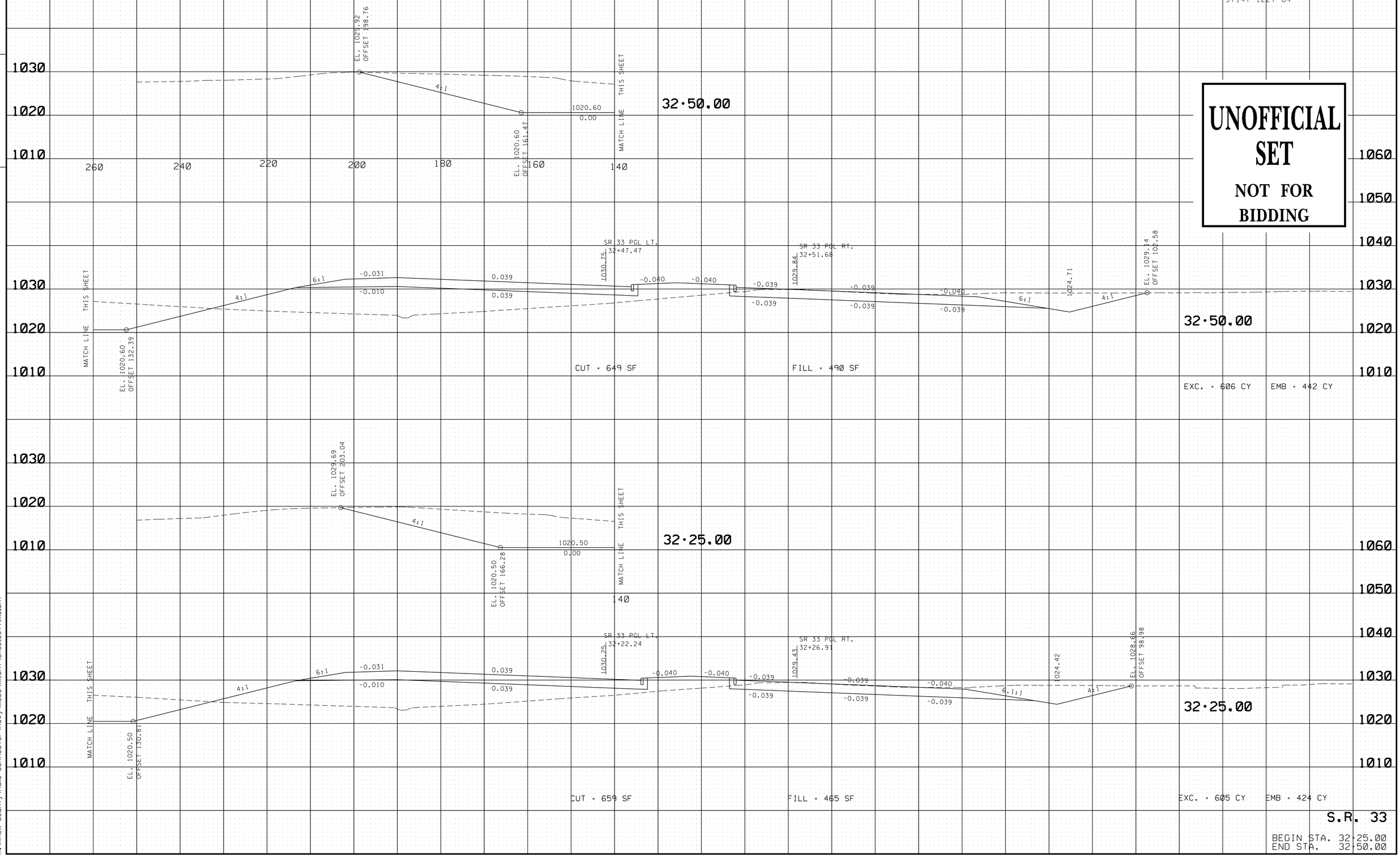
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	49

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33

BEGIN STA. 32+25.00
END STA. 32+50.00

8/13/2014
9:25:50 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	50

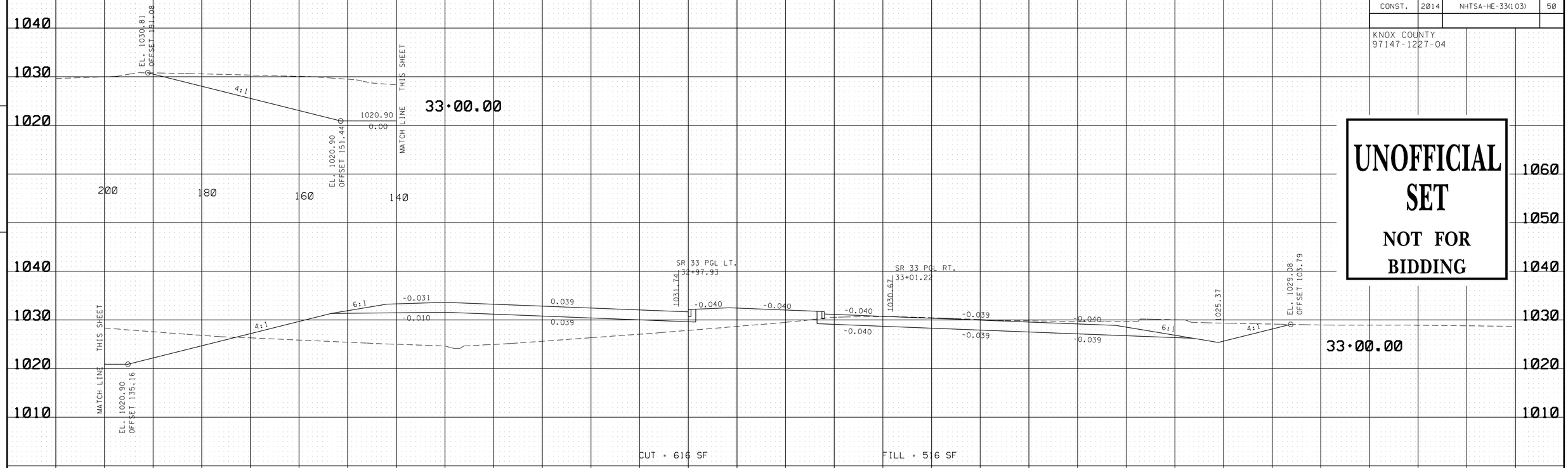
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 32+75.00
END STA. 33+00.00

8/13/2014
9:12:09 AM
m:\knox county\halls connector\Rdwy\xsec\xl.sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	51

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

33+75.00

EL. 1032.10 OFFSET 179.91
1021.20
EL. 1021.20 OFFSET 136.29
EL. 1021.20 OFFSET 132.01
MATCH LINE THIS SHEET
MATCH LINE THIS SHEET
SR 33 PGL LT. 33+73.62
SR 33 PGL RT. 33+75.53
1033.23
1031.90
1026.52
EL. 1029.20 OFFSET 101.73
6:1
4:1
-0.031
-0.010
0.039
-0.040
-0.039

CUT = 528 SF FILL = 463 SF

33+75.00
EXC. = 499 CY EMB = 443 CY

33+50.00

EL. 1031.64 OFFSET 184.20
MATCH LINE THIS SHEET
SR 33 PGL LT. 33+48.39
SR 33 PGL RT. 33+50.76
1032.74
1031.49
1026.11
EL. 1029.00 OFFSET 102.47
1021.10
EL. 1021.10 OFFSET 142.06
EL. 1021.10 OFFSET 133.27
MATCH LINE THIS SHEET

CUT = 549 SF FILL = 492 SF

33+50.00
EXC. = 527 CY EMB = 462 CY

33+25.00

EL. 1031.23 OFFSET 187.59
1021.00
0.00
EL. 1021.00 OFFSET 146.66
EL. 1021.00 OFFSET 134.47
MATCH LINE THIS SHEET
SR 33 PGL LT. 33+23.16
SR 33 PGL RT. 33+25.99
1032.24
1031.08
1025.73
EL. 1029.52 OFFSET 105.36

CUT = 588 SF FILL = 505 SF

33+25.00
EXC. = 558 CY EMB = 473 CY

S.R. 33
BEGIN STA. 33+25.00
END STA. 33+75.00

UNOFFICIAL SET
NOT FOR BIDDING

8/13/2014
9:12:09 AM
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UNOFFICIAL SET

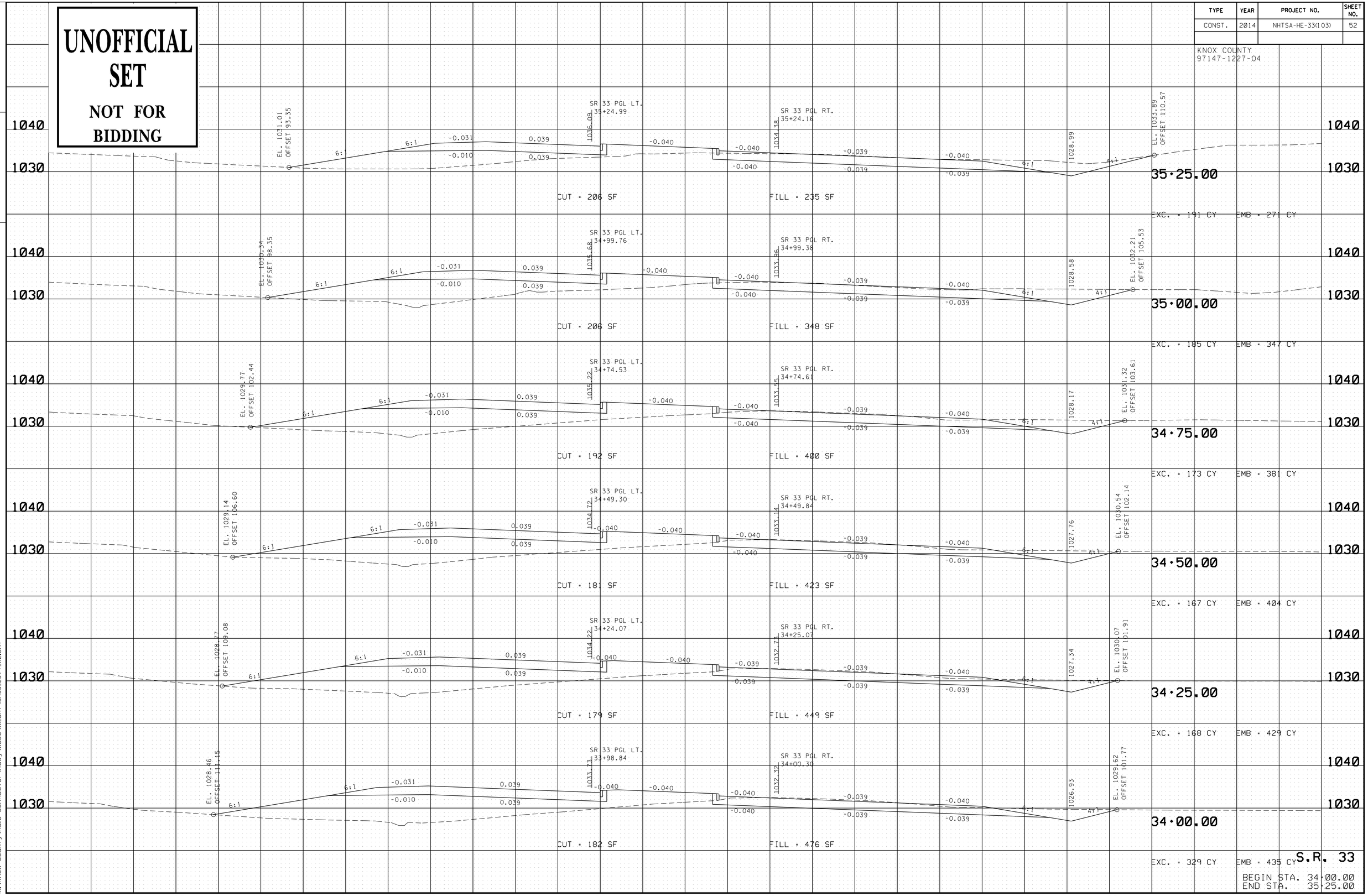
NOT FOR BIDDING

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	52

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



S.R. 33

BEGIN STA. 34+00.00
END STA. 35+25.00

8/13/2014
9:25:19 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	53

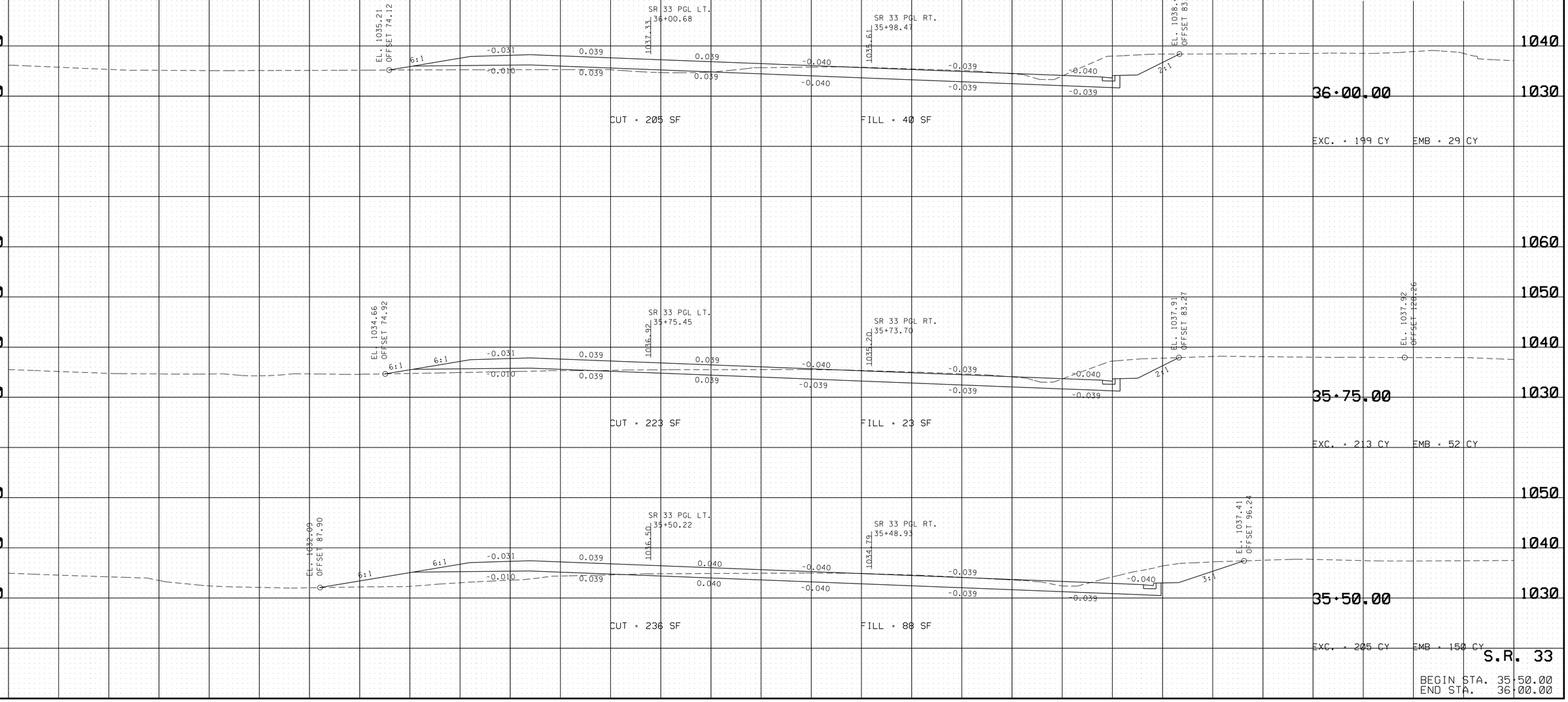
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 35+50.00
END STA. 36+00.00

8/13/2014
9:12:30 AM
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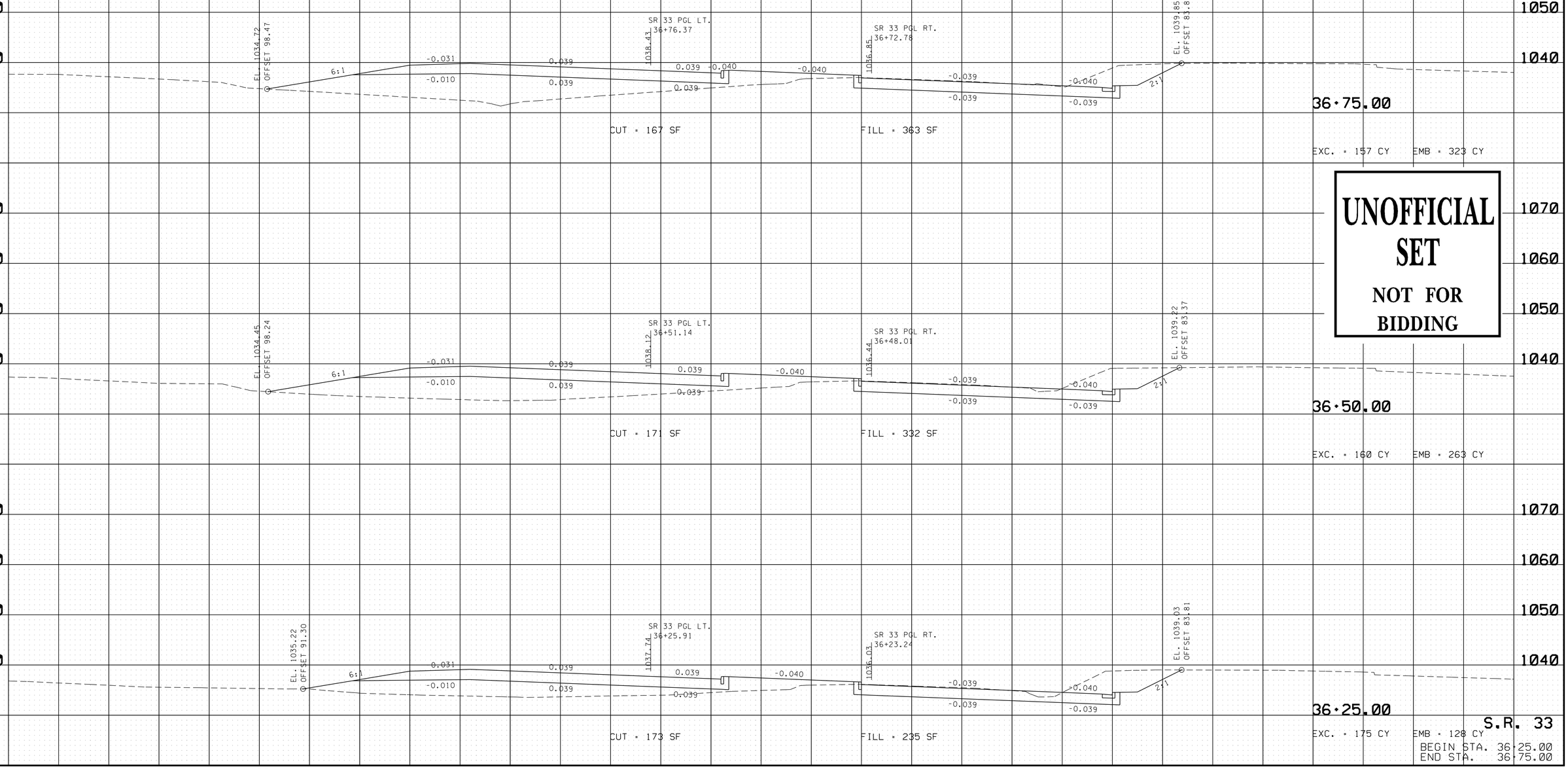
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	54

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33
BEGIN STA. 36+25.00
END STA. 36+75.00

8/13/2014
9:22:29 AM
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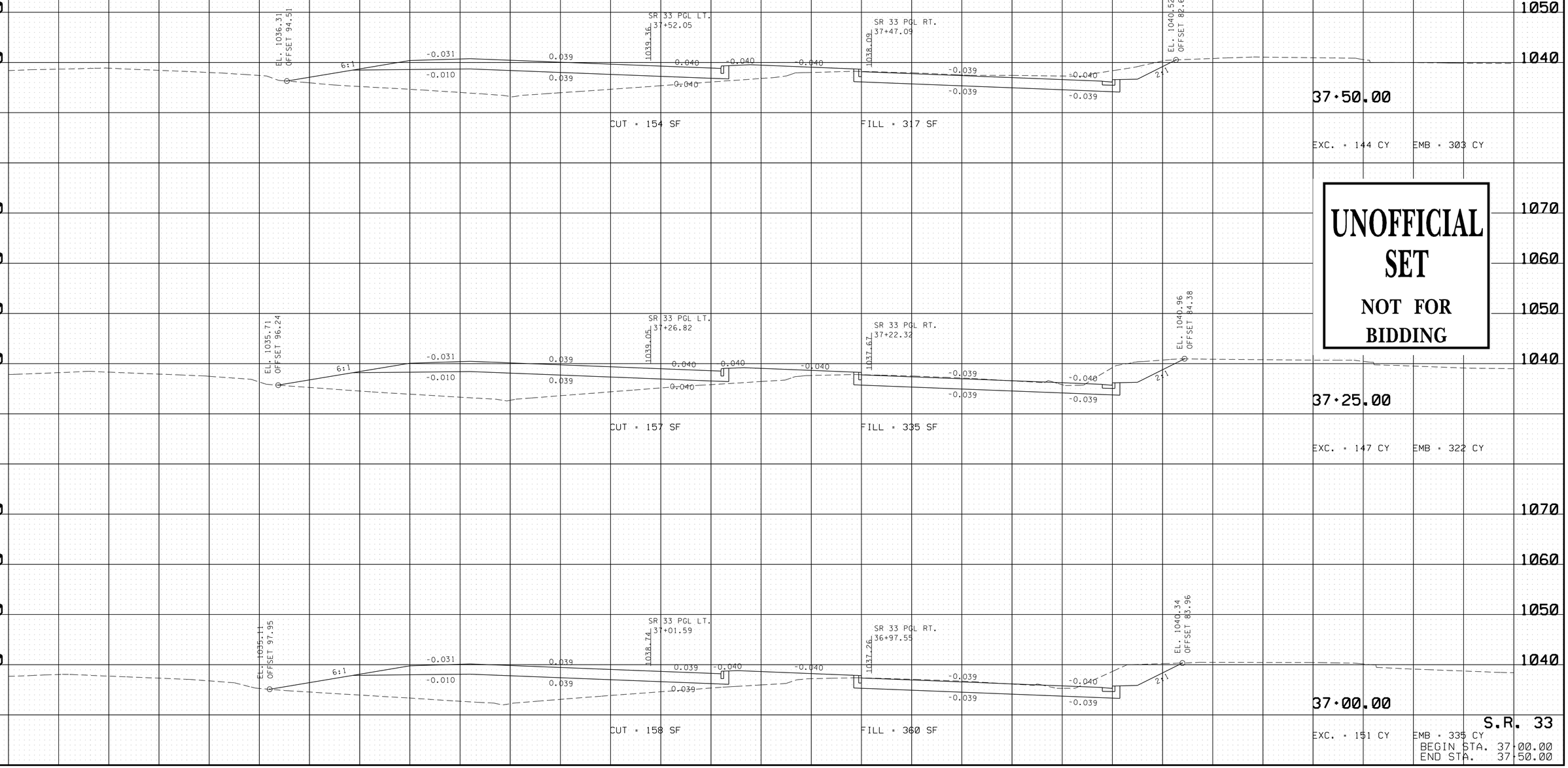
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	55

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33
BEGIN STA. 37+00.00
END STA. 37+50.00

8/13/2014
9:20:30 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	56

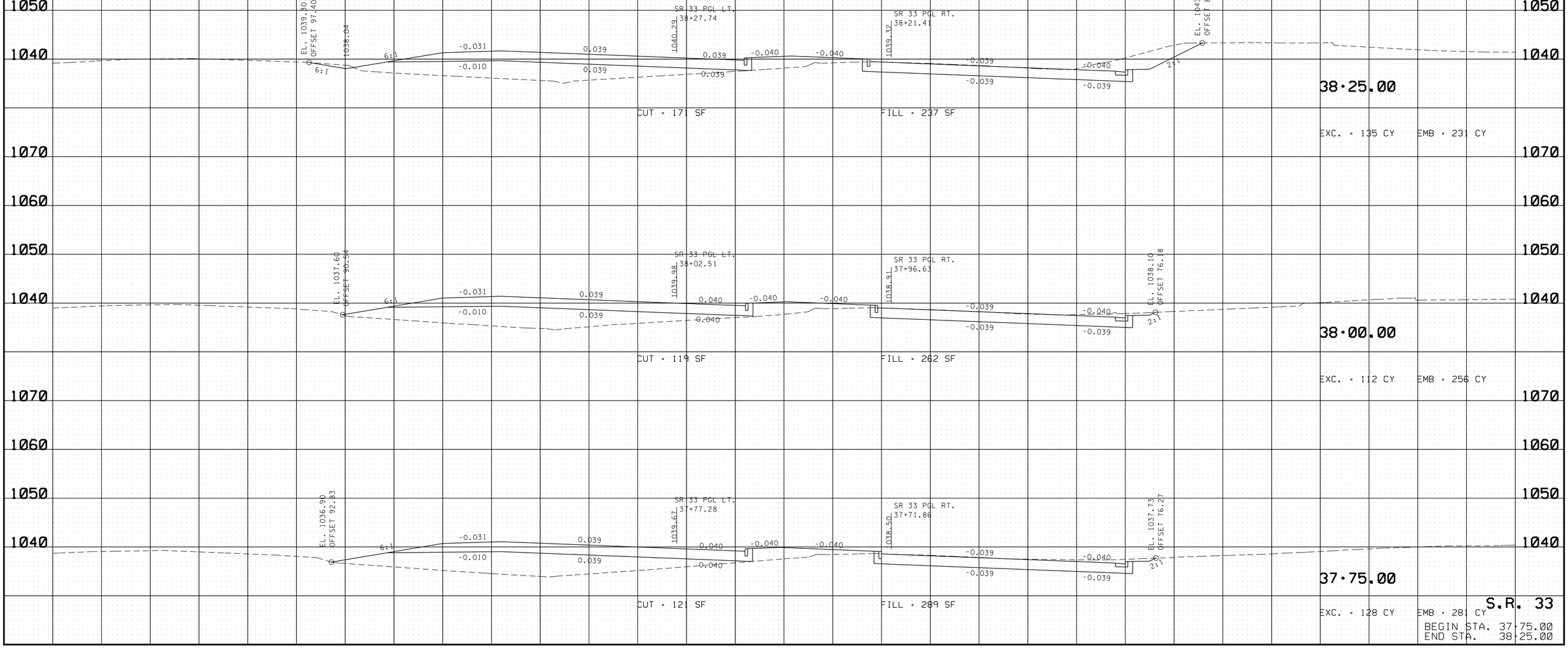
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33
BEGIN STA. 37+75.00
END STA. 38+25.00

8/13/2014
9:12:38 AM
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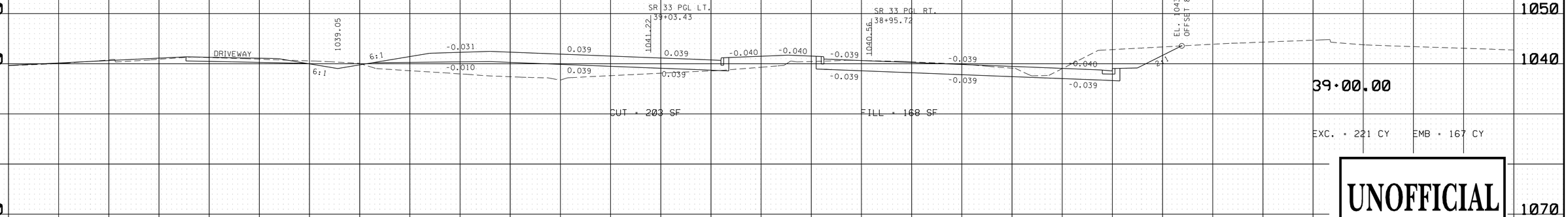
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	57

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

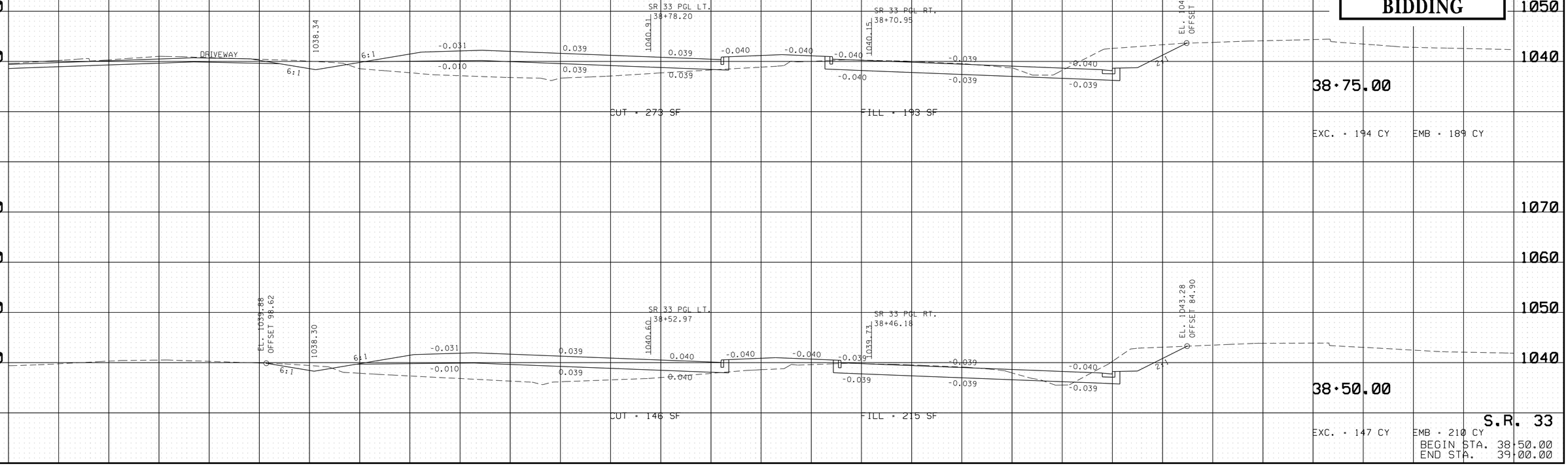


39+00.00

CUT = 203 SF FILL = 168 SF

EXC. = 221 CY EMB = 167 CY

UNOFFICIAL SET
NOT FOR BIDDING



38+75.00

CUT = 273 SF FILL = 193 SF

EXC. = 194 CY EMB = 189 CY

38+50.00

CUT = 146 SF FILL = 215 SF

EXC. = 147 CY EMB = 210 CY

S.R. 33
BEGIN STA. 38+50.00
END STA. 39+00.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:12:49 AM
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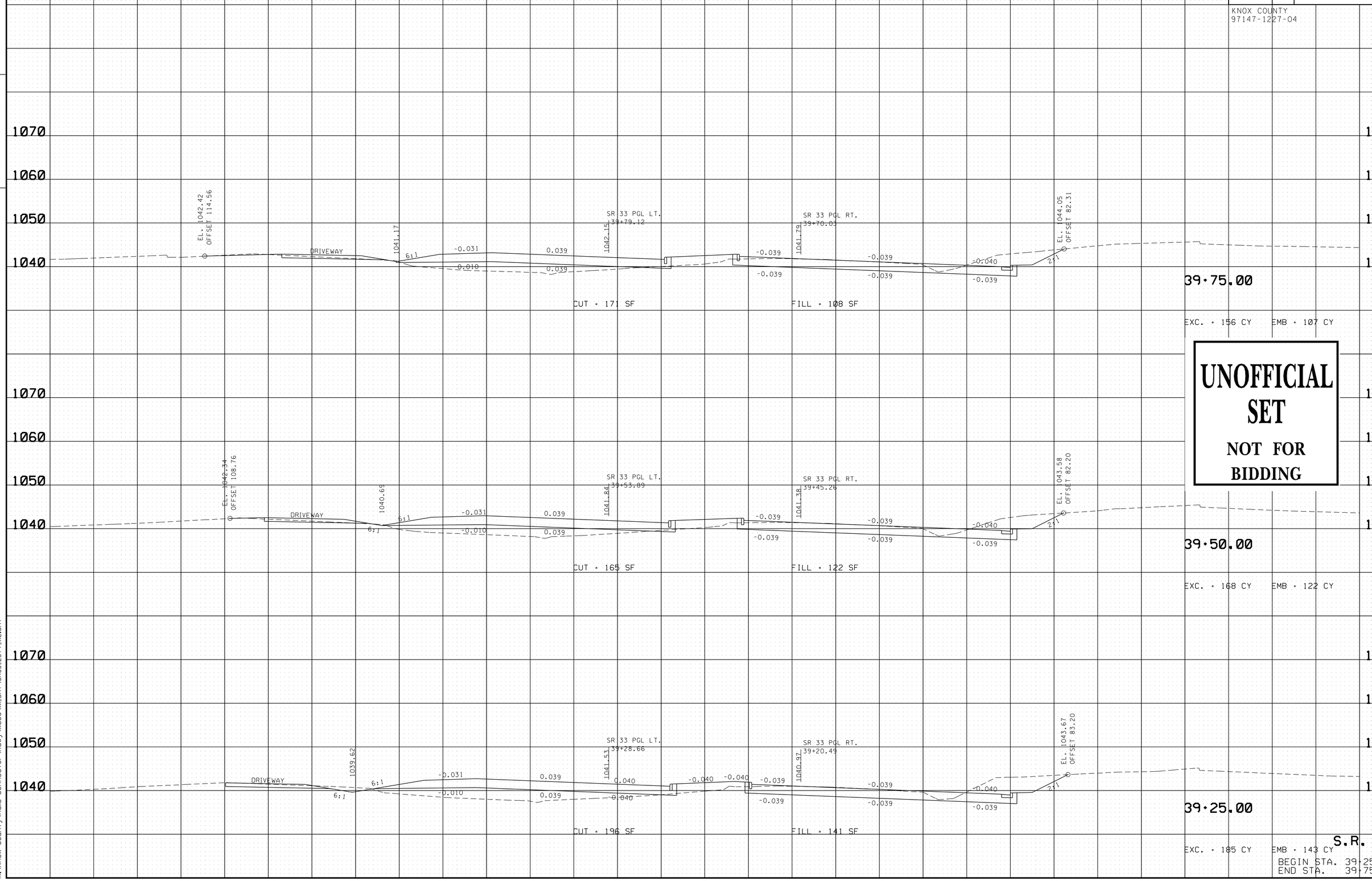
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	58

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 39+25.00
END STA. 39+75.00

8/13/2014
9:12:49 AM
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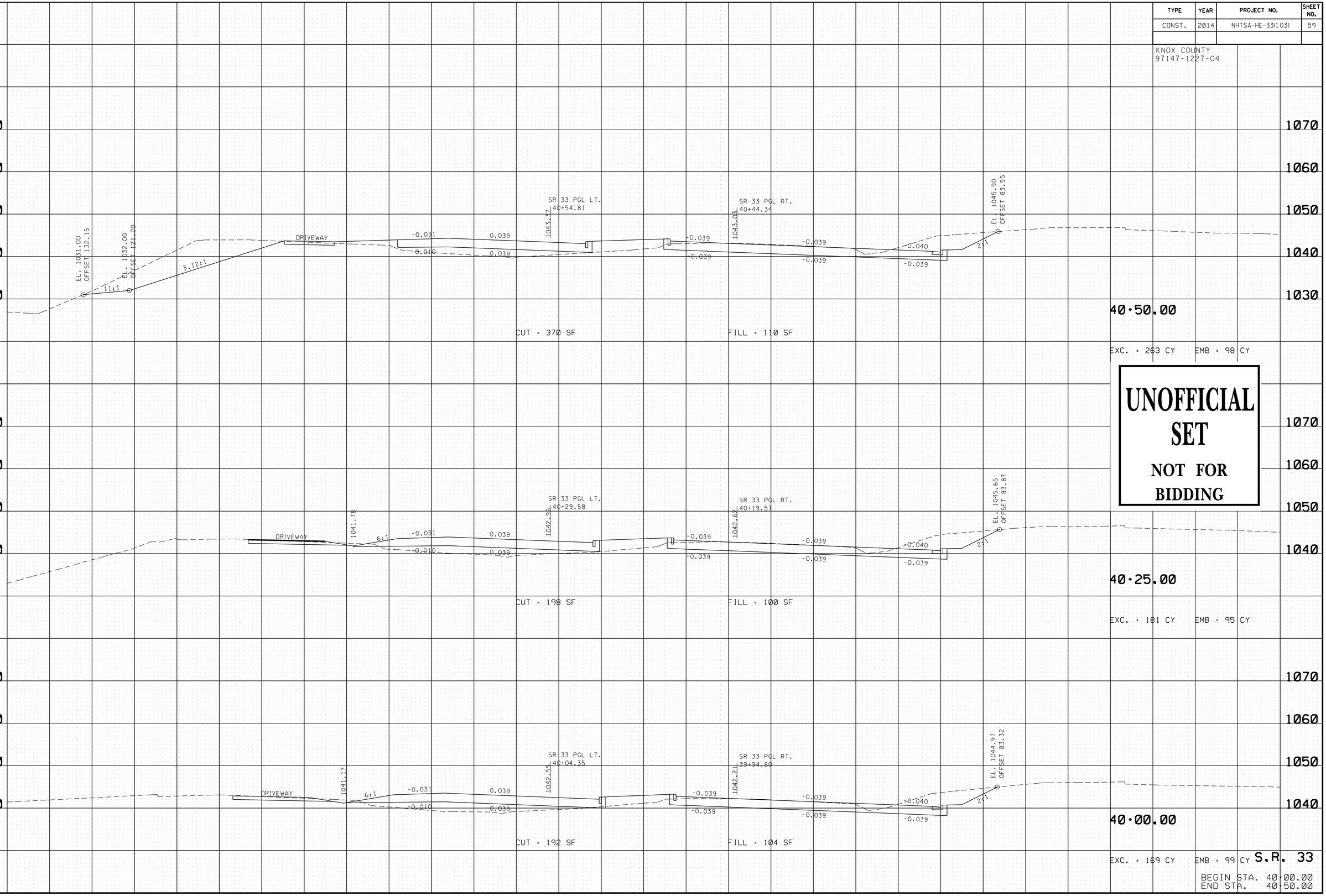
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	59

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 40+00.00
END STA. 40+50.00

8/13/2014
9:20:10 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	60

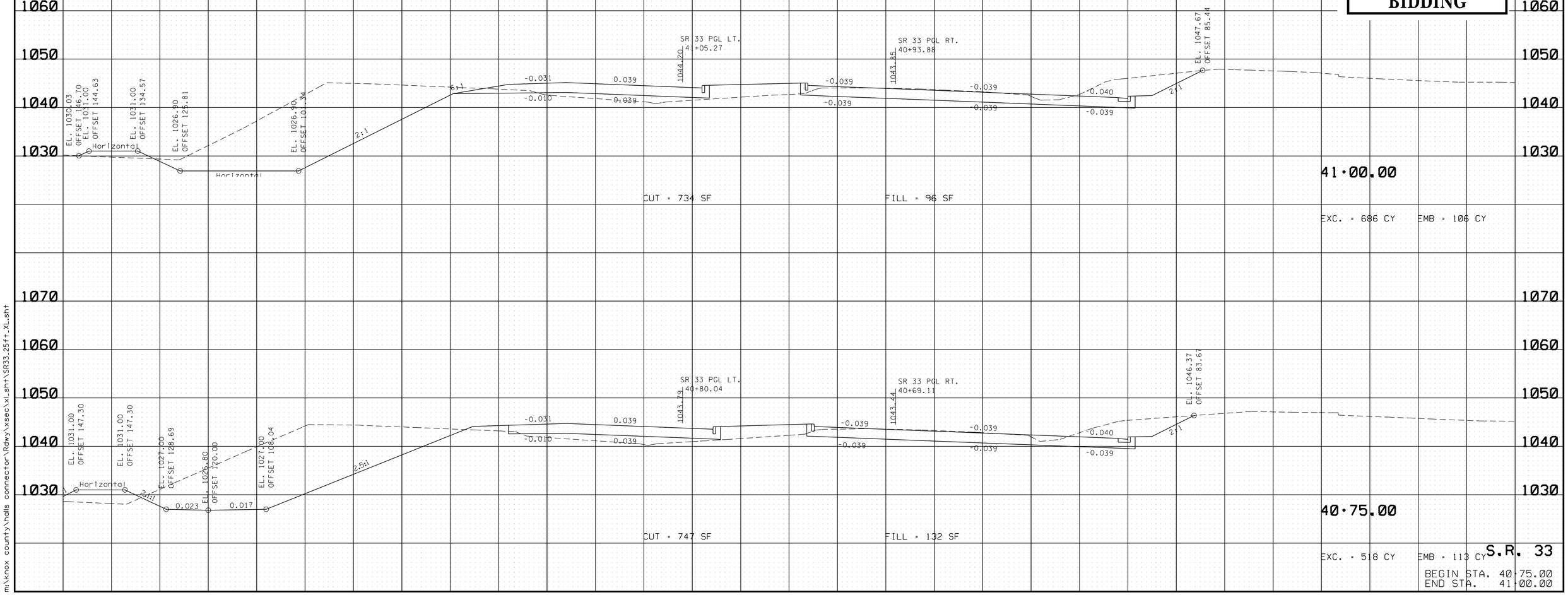
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33
BEGIN STA. 40+75.00
END STA. 41+00.00

8/13/2014
9:25:59 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	61

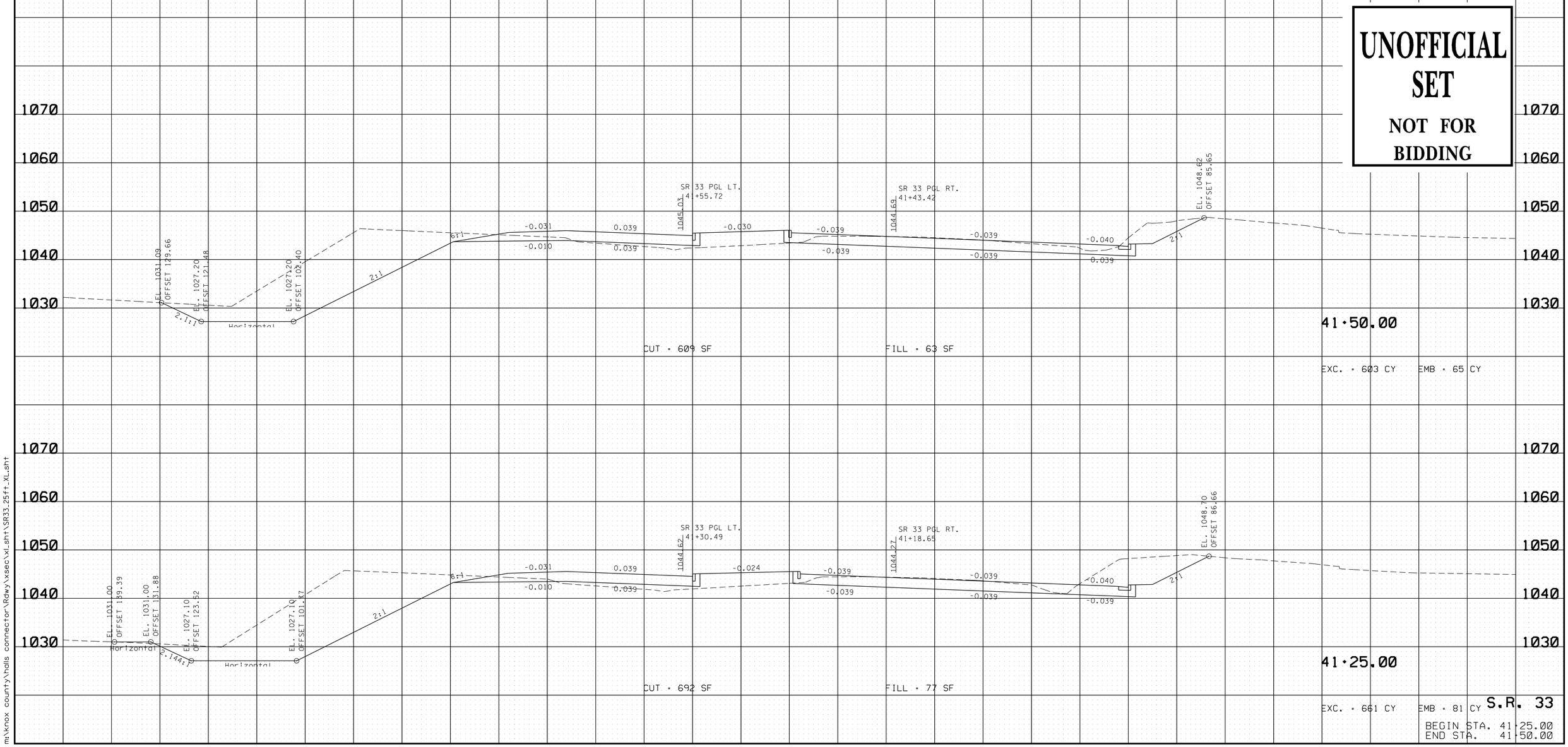
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 41+25.00
END STA. 41+50.00

8/13/2014
9:12:59 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	62

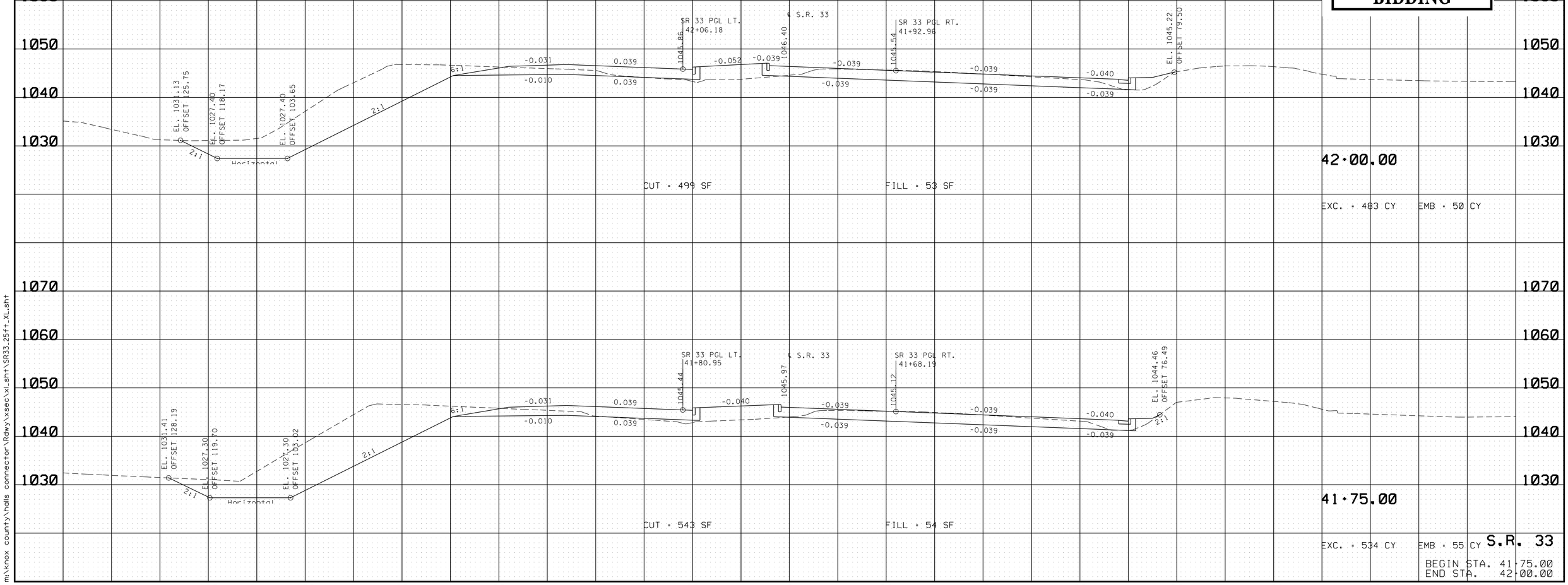
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 33

BEGIN STA. 41+75.00
END STA. 42+00.00

8/13/2014
9:13:04 AM
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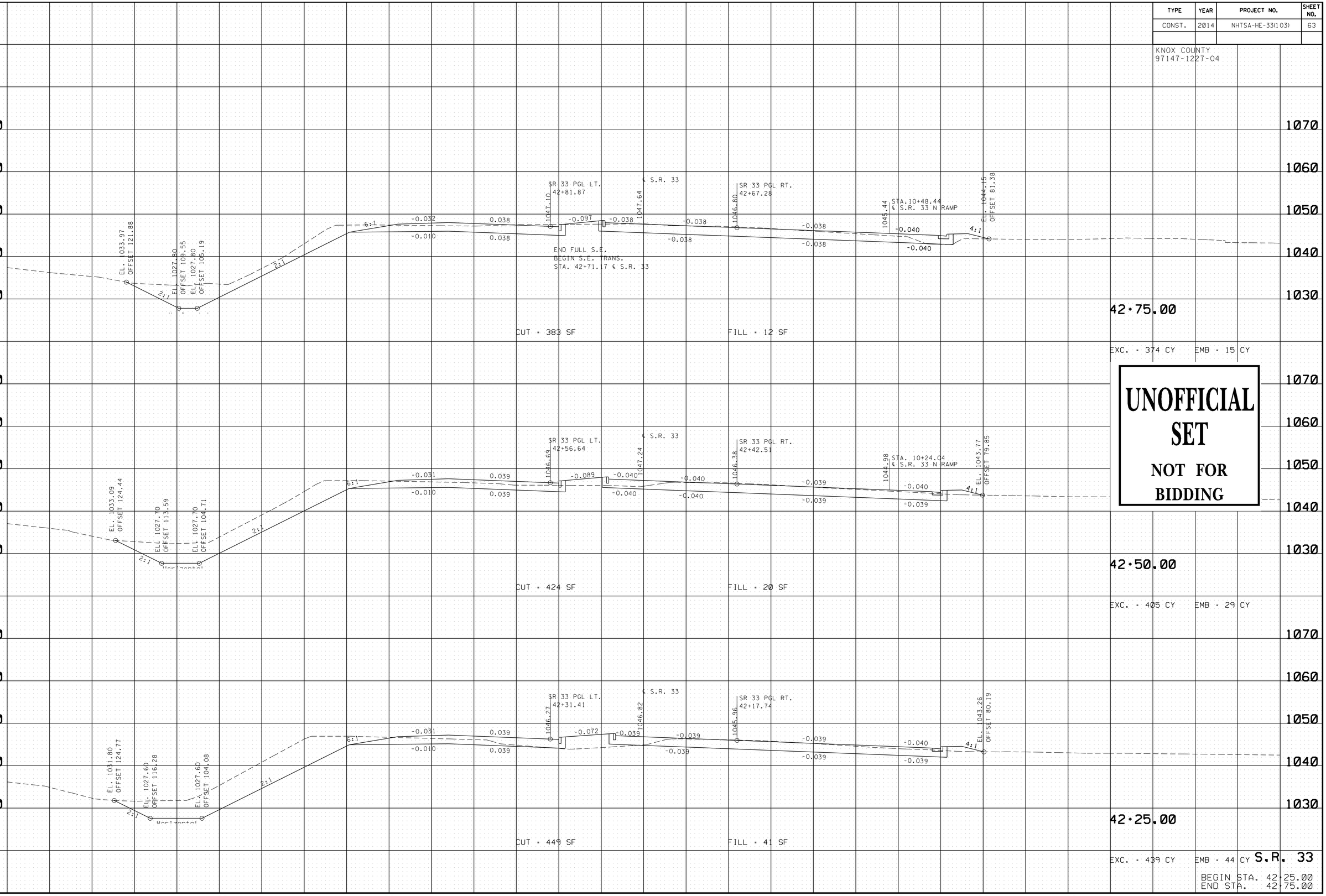
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	63

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 42+25.00
END STA. 42+75.00

8/13/2014
9:13:09 AM
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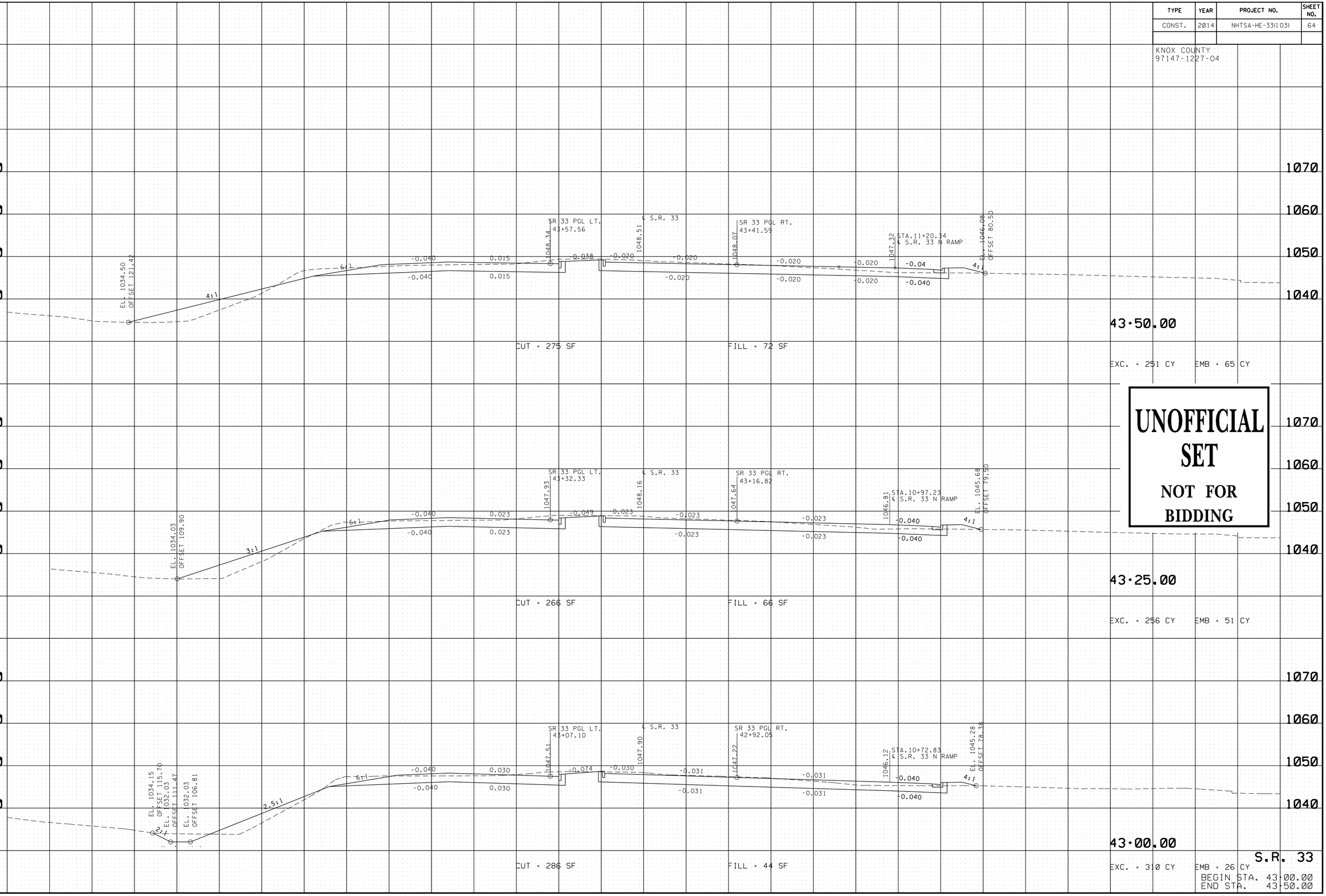
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	64

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33
BEGIN STA. 43+00.00
END STA. 43+50.00

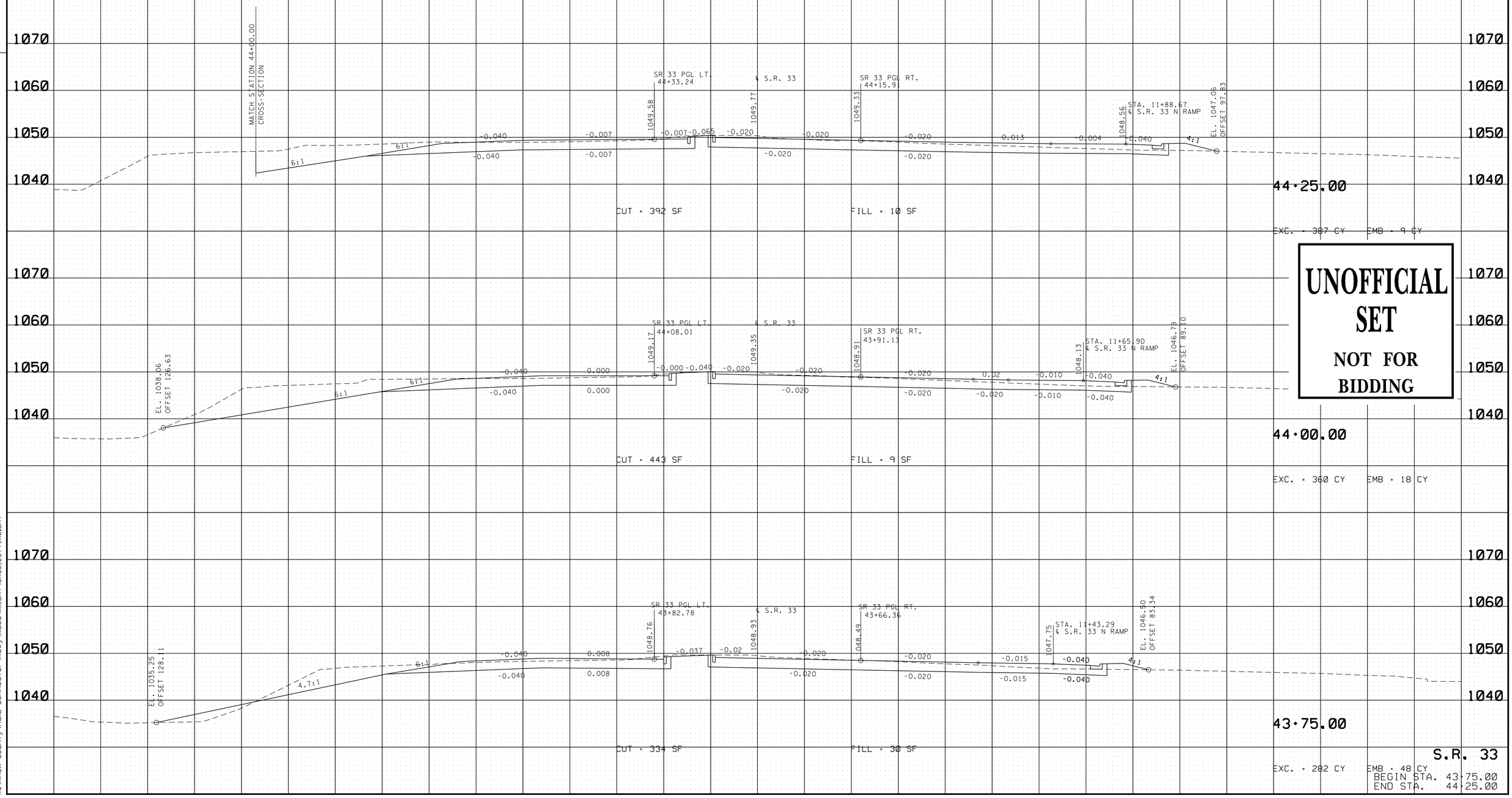
8/13/2014
9:13:14 AM
m:\knox county\halls connector\Rdwy\xsec\xl.sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	65

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 43+75.00
END STA. 44+25.00

8/13/2014
9:13:19 AM
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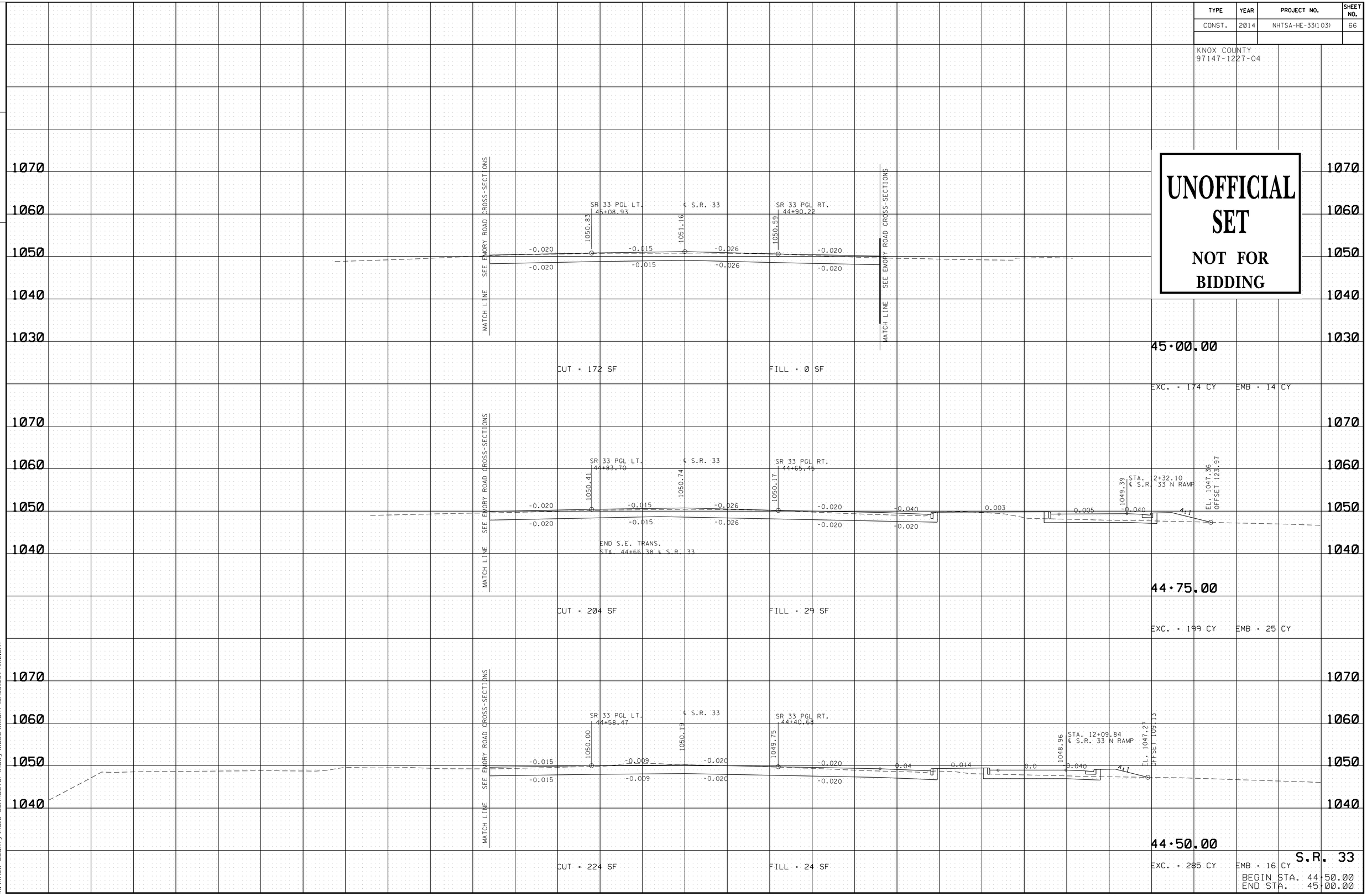
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	66

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



S.R. 33
BEGIN STA. 44•50.00
END STA. 45•00.00

UNOFFICIAL SET
NOT FOR BIDDING

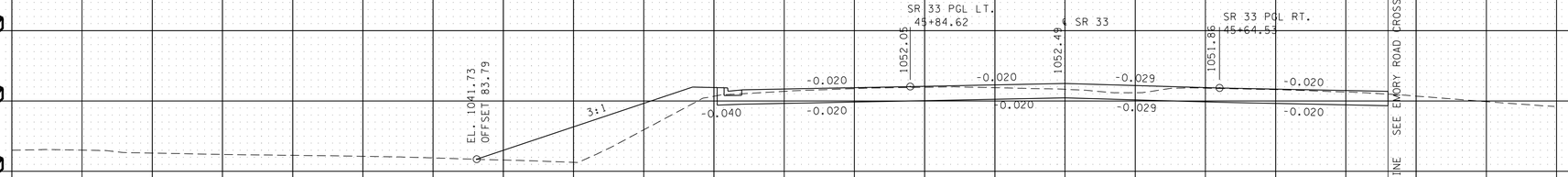
8/13/2014
9:13:24 AM
m:\knox county\halls connector\Rdwy\xsec\xl.sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	67

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

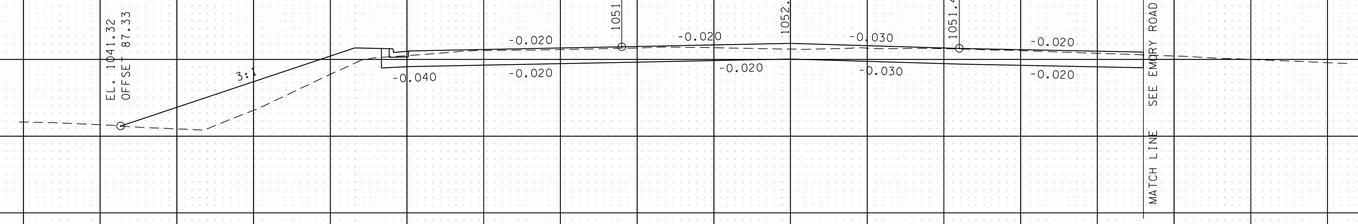
FILE NO.



CUT = 161 SF FILL = 108 SF

45+75.00

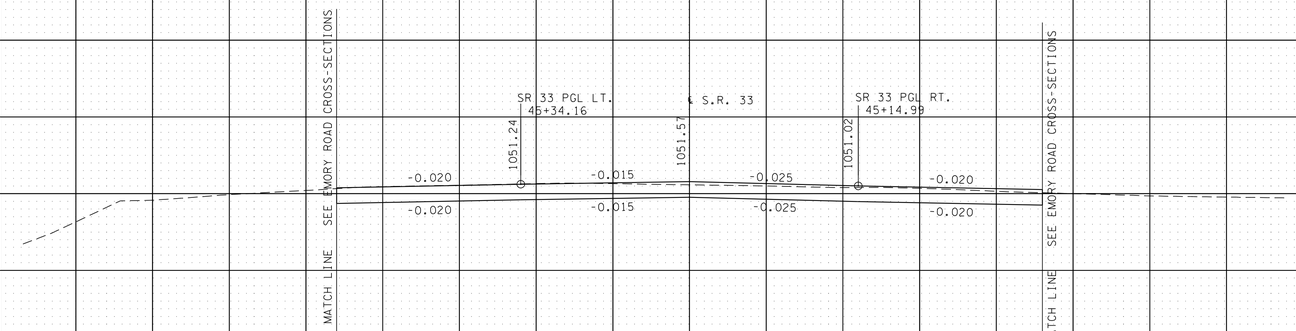
EXC. = 155 CY EMB = 93 CY



CUT = 174 SF FILL = 91 SF

45+50.00

EXC. = 161 CY EMB = 43 CY



CUT = 174 SF FILL = 0 SF

45+25.00

EXC. = 160 CY EMB = 0 CY

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33

BEGIN STA. 45+25.00
END STA. 45+75.00

8/13/2014
9:13:29 AM
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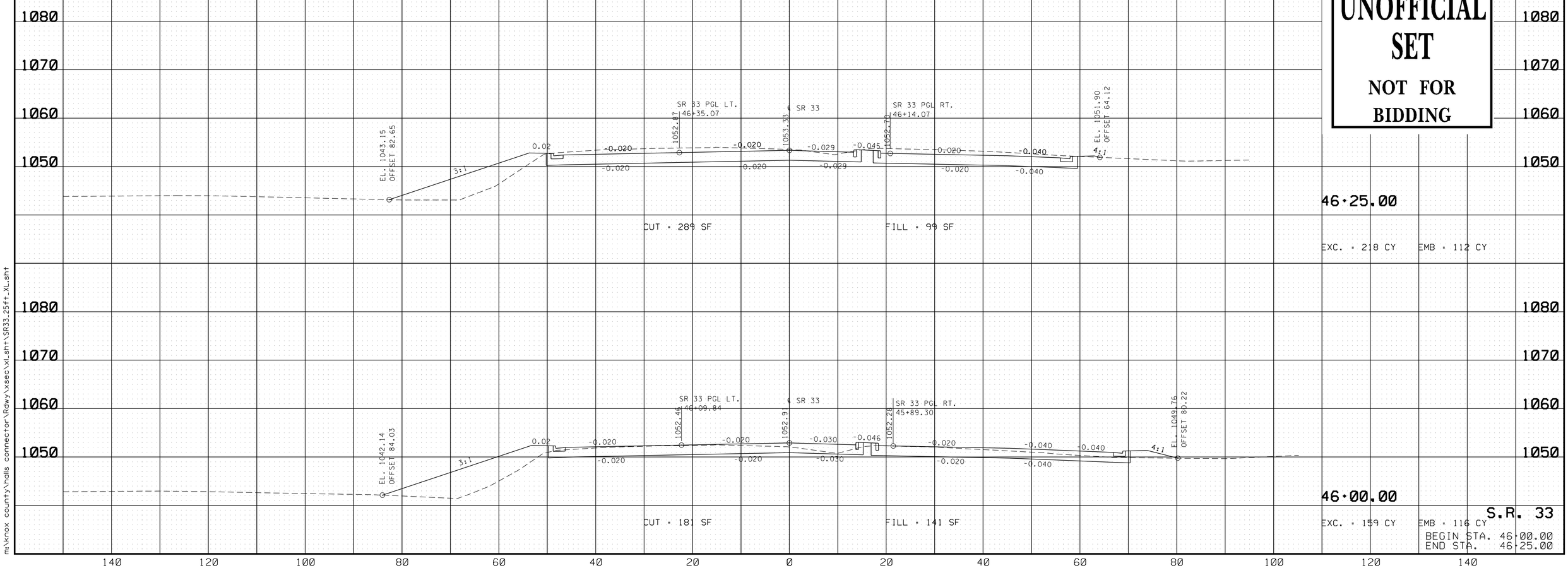
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	68

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET
NOT FOR BIDDING



S.R. 33
BEGIN STA. 46+00.00
END STA. 46+25.00

8/13/2014
9:13:34 AM
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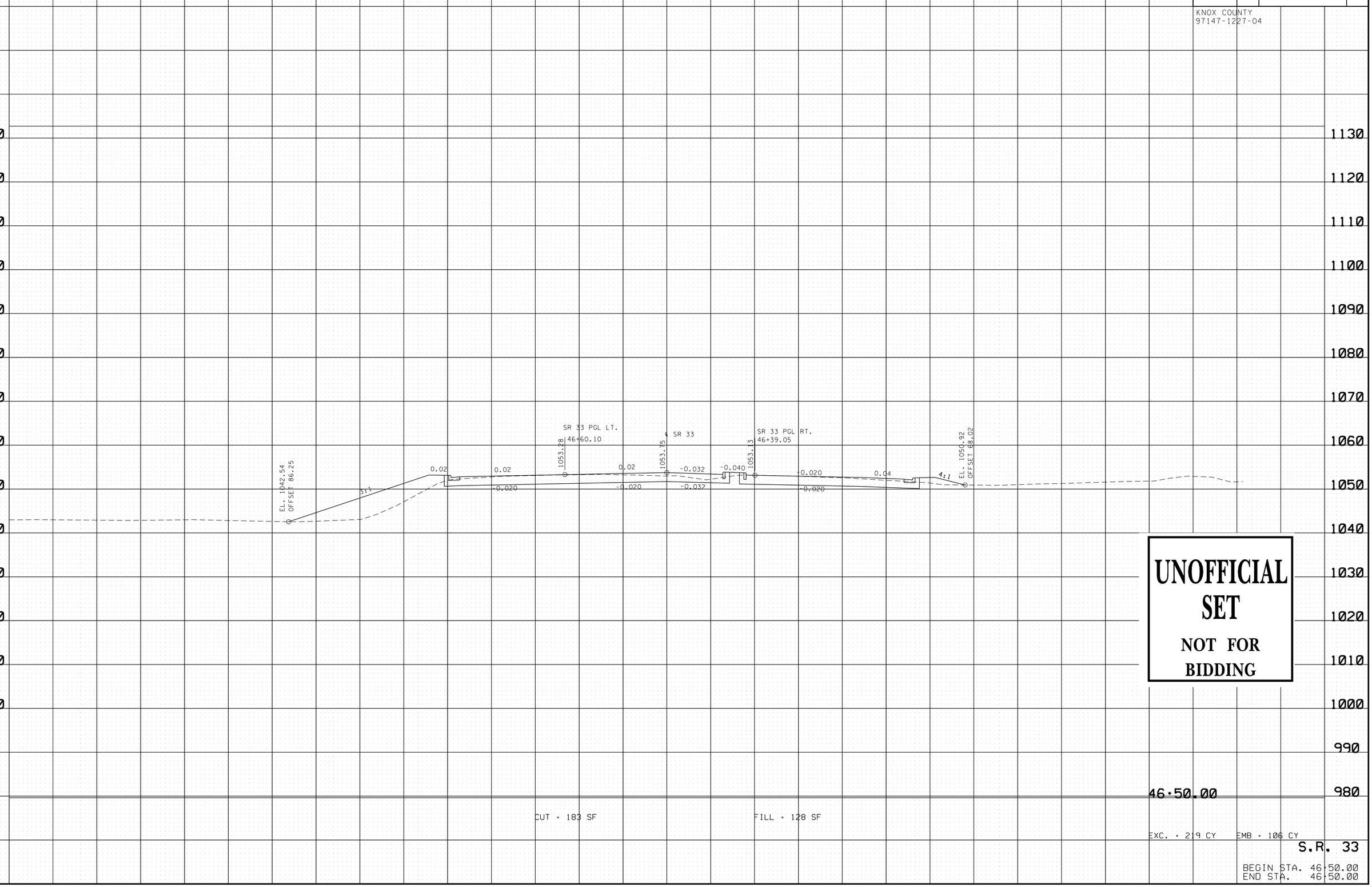
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	69

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

46+50.00

CUT = 183 SF

FILL = 128 SF

EXC. = 219 CY EMB = 106 CY

S.R. 33

BEGIN STA. 46+50.00
END STA. 46+50.00

8/13/2014
9:13:38 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	70

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 33
BEGIN STA. 46+75.00
END STA. 47+25.00

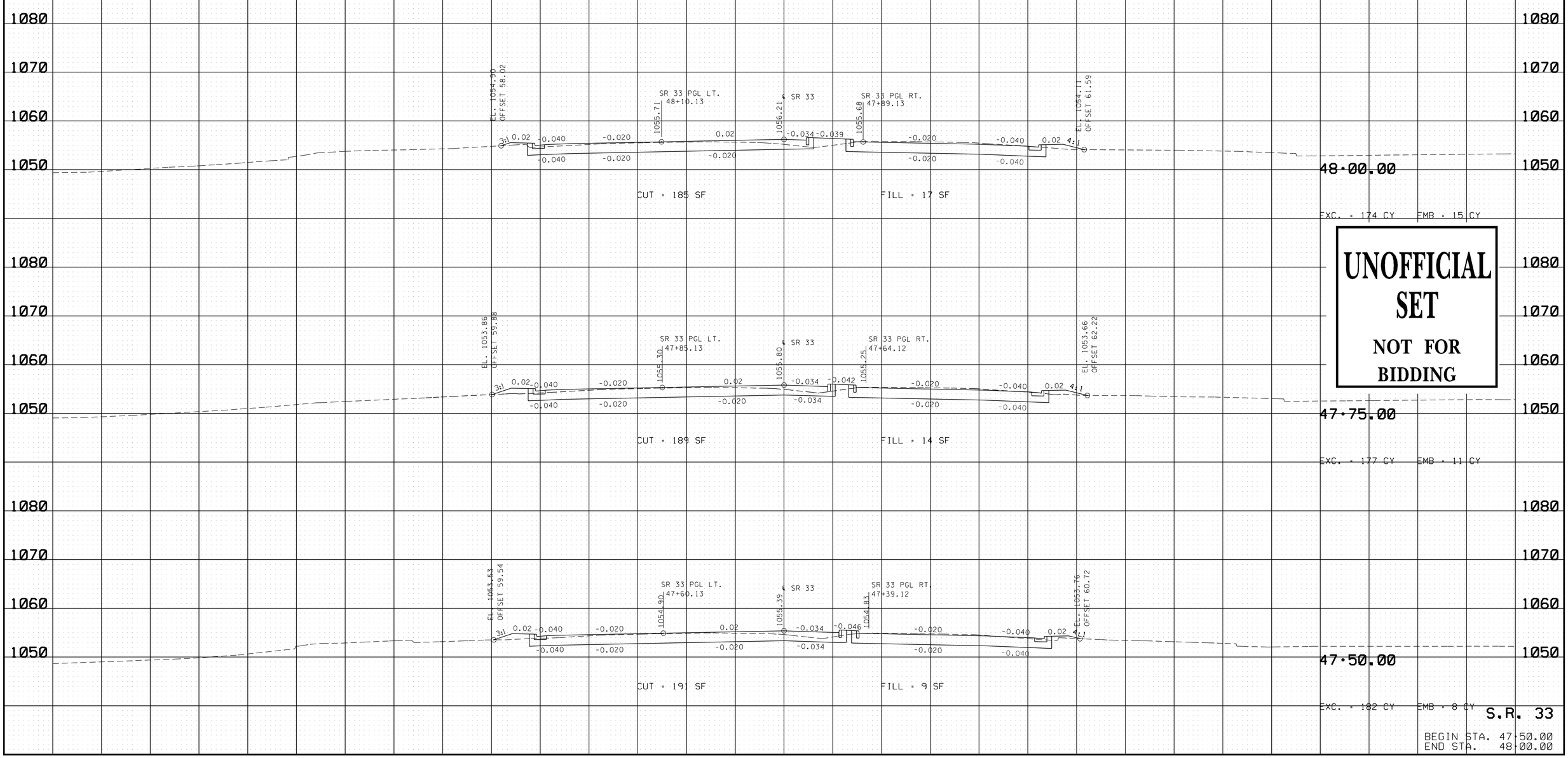
8/13/2014
9:34:43 AM
m:\knox county\halls connector\Rdwy\xsec\xl_sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	71

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 33
BEGIN STA. 47+50.00
END STA. 48+00.00

8/13/2014
9:13:48 AM
m:\knox county\halls connector\Rdwy\xsec\xl.sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	72

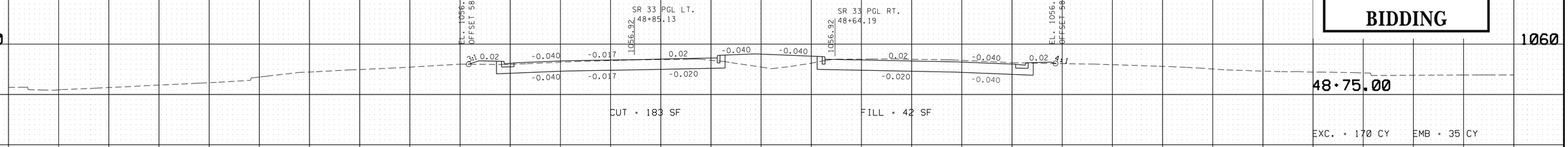
KNOX COUNTY
97147-1227-04

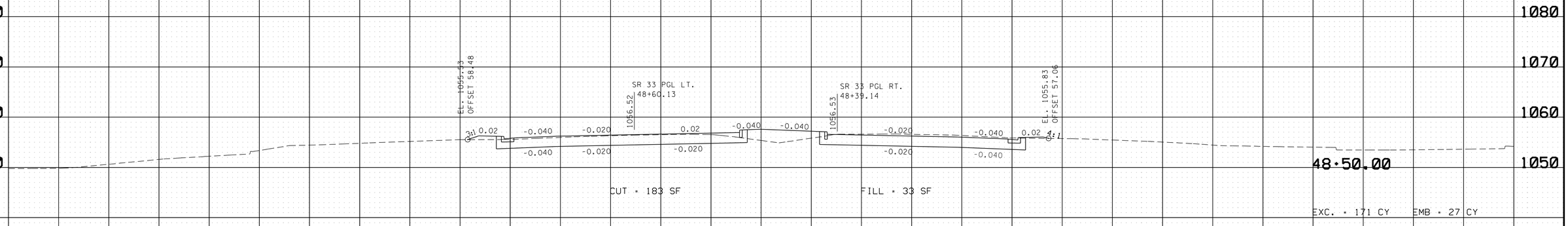
TENNESSEE D.O.T.
DESIGN DIVISION

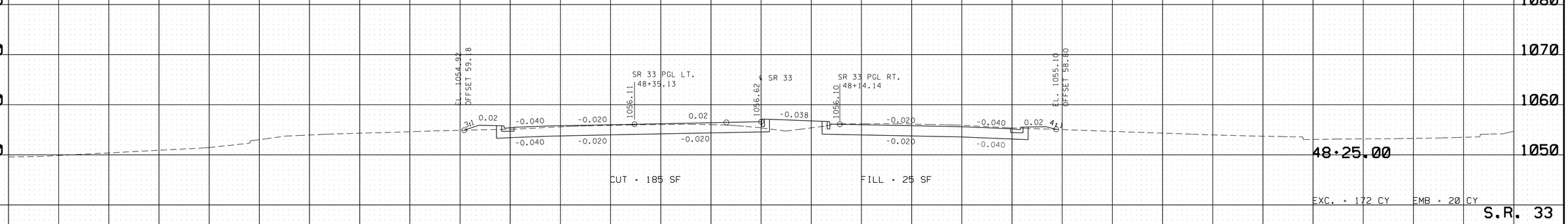
FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING







S.R. 33

BEGIN STA. 48•25.00
END STA. 48•75.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:13:53 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	73

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

1080
1070
1060

49+50.00

END CONST. STA 49+50.00

49+25.00

49+00.00

CUT - 0 SF

FILL - 0 SF

EXC. - 85 CY

S.R. 33

BEGIN STA. 49+00.00
END STA. 49+50.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:13:58 AM
m:\knox county\halls connector\Rdwy\xsec\xl.sht\SR33_25ft_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	74

KNOX COUNTY
97147-1227-04

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

1020 1030 1020 1030 1020 1030 1030 1030 1030 1030

END CONST. STA 11+57.40

Doris
11+50.00
EL. 1024.84
OFFSET 14
-0.009 0.011
-0.009 -0.009 0.011

CUT = 45 SF FILL = 1 SF

Doris
11+25.00
EL. 1024.89
OFFSET 1
0.006 -0.005
0.006 0.006 -0.005 -0.005

CUT = 44 SF FILL = 1 SF

Doris
11+00.00
1025.05
0.020 -0.020
0.020 -0.020 -0.020

CUT = 30 SF FILL = 0 SF

Doris
10+75.00
1025.04
0.016 -0.015
0.016 -0.015 -0.015

CUT = 32 SF FILL = 0 SF

Doris
10+50.00
1024.78
0.002 0.000
0.002 0.000 0.000

CUT = 43 SF FILL = 0 SF

Doris
1023.37

CUT = 0 SF FILL = 0 SF

11+75.00
EXC. = 21 CY EMB = 1 CY

11+50.00
EXC. = 42 CY EMB = 1 CY

11+25.00
EXC. = 35 CY EMB = 1 CY

11+00.00
EXC. = 29 CY EMB = 0 CY

10+75.00
EXC. = 35 CY EMB = 0 CY

10+50.00
EXC. = 20 CY EMB = 0 CY

10+25.00
EXC. = 0 CY EMB = 0 CY

UNOFFICIAL SET

NOT FOR BIDDING

DORIS CIRCLE
BEGIN STA. 10+25.00
END STA. 11+75.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:40:09 AM
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TENNESSEE D.O.T.
DESIGN DIVISION

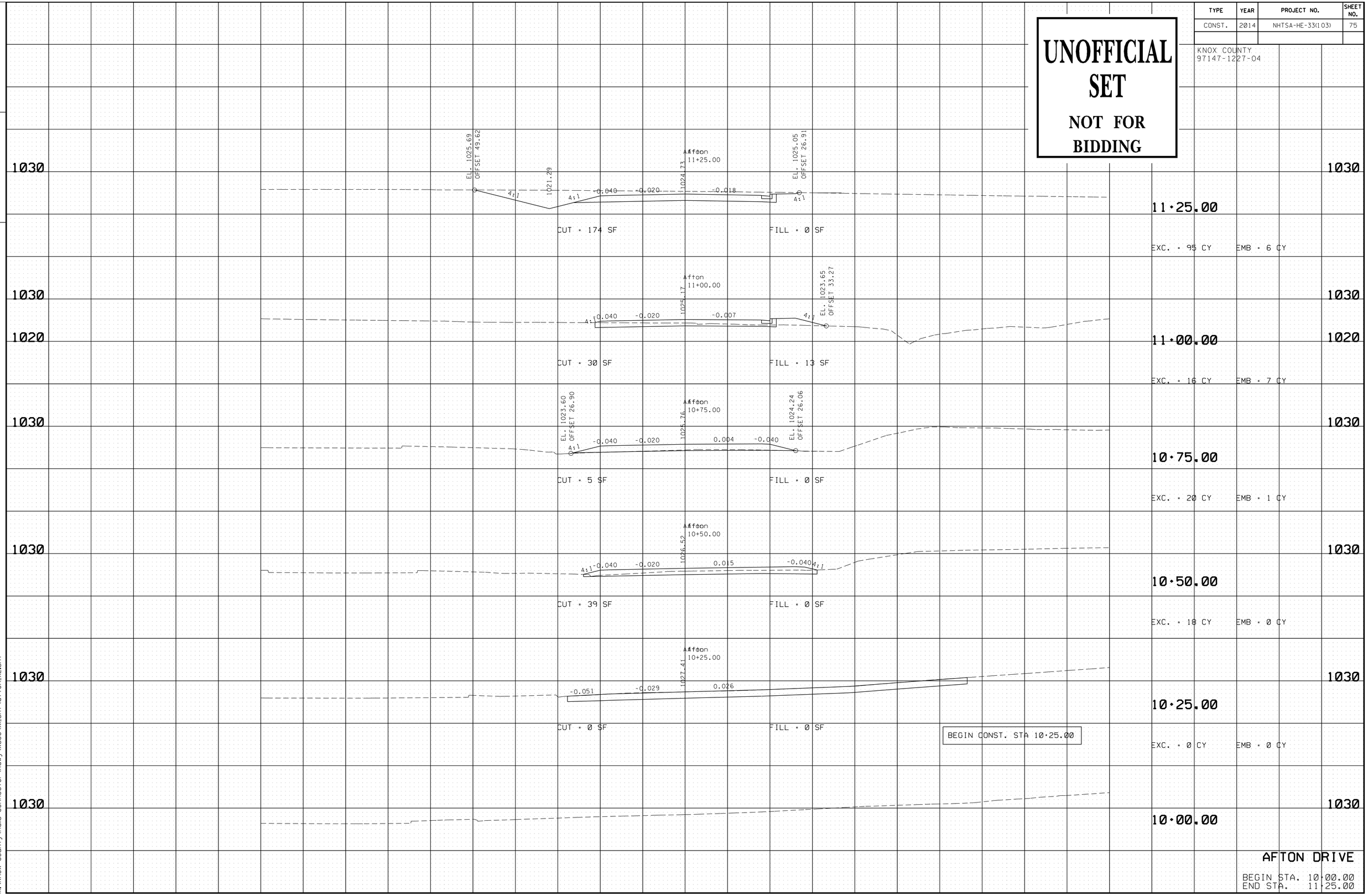
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	75

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET

NOT FOR BIDDING



AFTON DRIVE

BEGIN STA. 10+00.00
END STA. 11+25.00

8/13/2014
9:41:12 AM
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TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	76

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET
NOT FOR BIDDING

1020
1030

Afton
12+00.00
1024.17
-0.001
-0.006

CUT = 112 SF
FILL = 0 SF

12+50.00
12+00.00
EXC. = 152 CY EMB = 0 CY

EL. 1023.42
OFFSET 43.99
1021.00
5:1
4:1
Afton
11+75.00
1024.30
-0.040
-0.012
-0.017
EL. 1025.14
OFFSET 33.89
4:1

CUT = 216 SF
FILL = 0 SF

11+75.00
EXC. = 219 CY EMB = 0 CY

EL. 1024.93
OFFSET 56.52
5.6:1
1021.07
4:1
6:1
Afton
11+50.00
1024.44
-0.040
-0.020
-0.020
EL. 1026.01
OFFSET 32.00
4:1

CUT = 255 SF
FILL = 0 SF

11+50.00
EXC. = 199 CY EMB = 0 CY

AFTON DRIVE
BEGIN STA. 11+50.00
END STA. 12+50.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:14:17 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	77

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

1030
1020

Andersonville Pike
11+75.00
EL. 1023.76
-0.029
0.029
EL. 1024.29
OFFSET 40.82
CUT - 69 SF
FILL - 6 SF
EXC. - 65 CY EMB - 3 CY

Andersonville Pike
11+50.00
1023.88
-0.016
0.016
CUT - 72 SF
FILL - 0 SF
11+50.00
EXC. - 69 CY EMB - 1 CY

EL. 1024.27
OFFSET -30.20
Andersonville Pike
11+25.00
1023.96
-0.004
0.004
EL. 1023.74
OFFSET 36.72
CUT - 77 SF
FILL - 2 SF
11+25.00
EXC. - 64 CY EMB - 3 CY

EL. 1023.86
OFFSET -32.23
Andersonville Pike
11+00.00
1024.04
0.006
-0.005
EL. 1024.26
OFFSET 33.62
CUT - 61 SF
FILL - 3 SF
11+00.00
EXC. - 69 CY EMB - 4 CY

EL. 1024.43
OFFSET -46.42
Andersonville Pike
10+75.00
1024.12
0.006
-0.005
EL. 1024.38
OFFSET 39.30
CUT - 86 SF
FILL - 5 SF
10+75.00
EXC. - 76 CY EMB - 3 CY

Andersonville Pike
10+50.00
1024.20
0.006
-0.005
CUT - 77 SF
FILL - 0 SF
10+50.00
EXC. - 36 CY EMB - 0 CY

ANDERSONVILLE PIKE
BEGIN STA. 10+50.00
END STA. 11+75.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:41:29 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	78

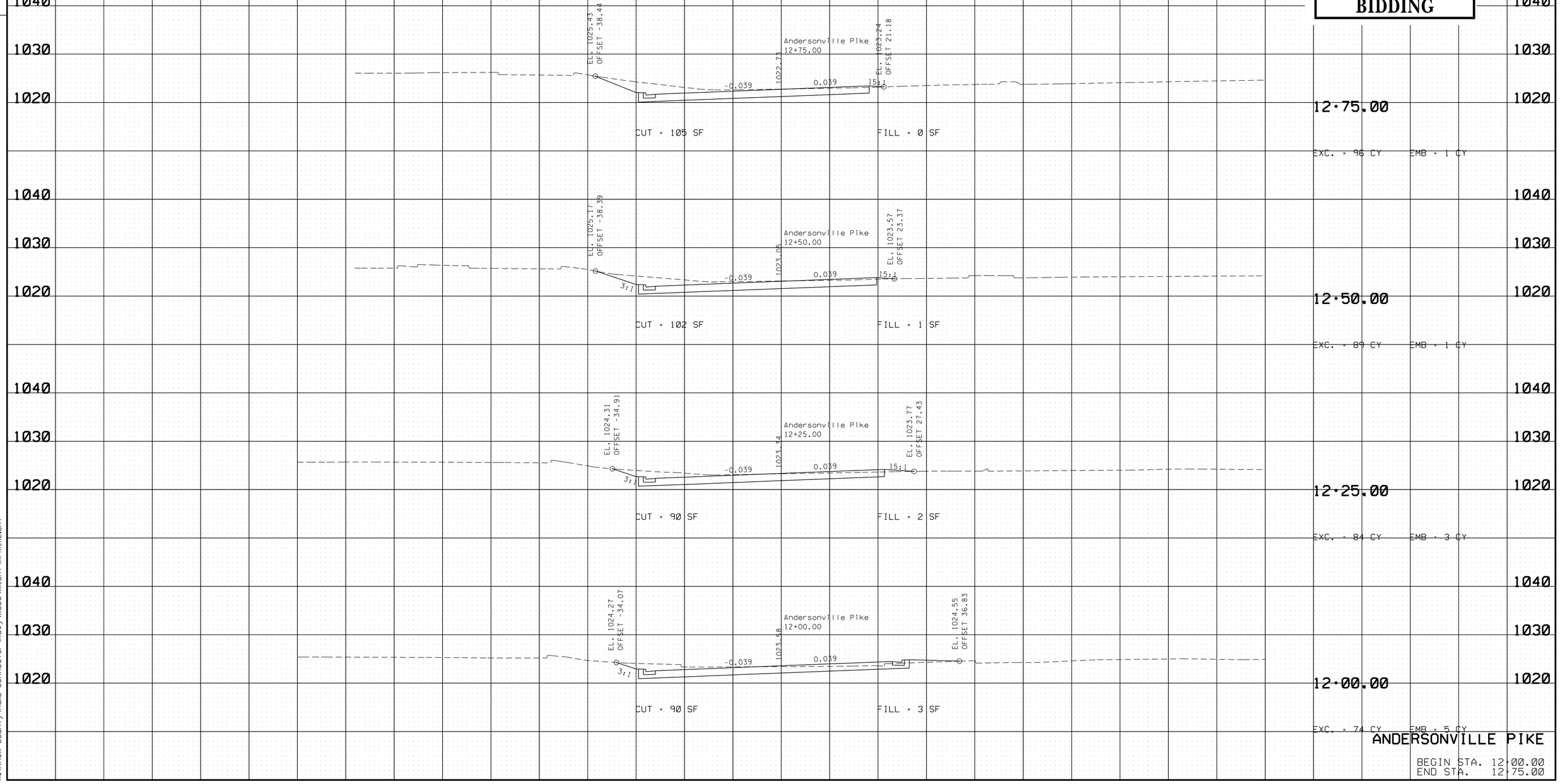
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



ANDERSONVILLE PIKE

BEGIN STA. 12+00.00
END STA. 12+75.00

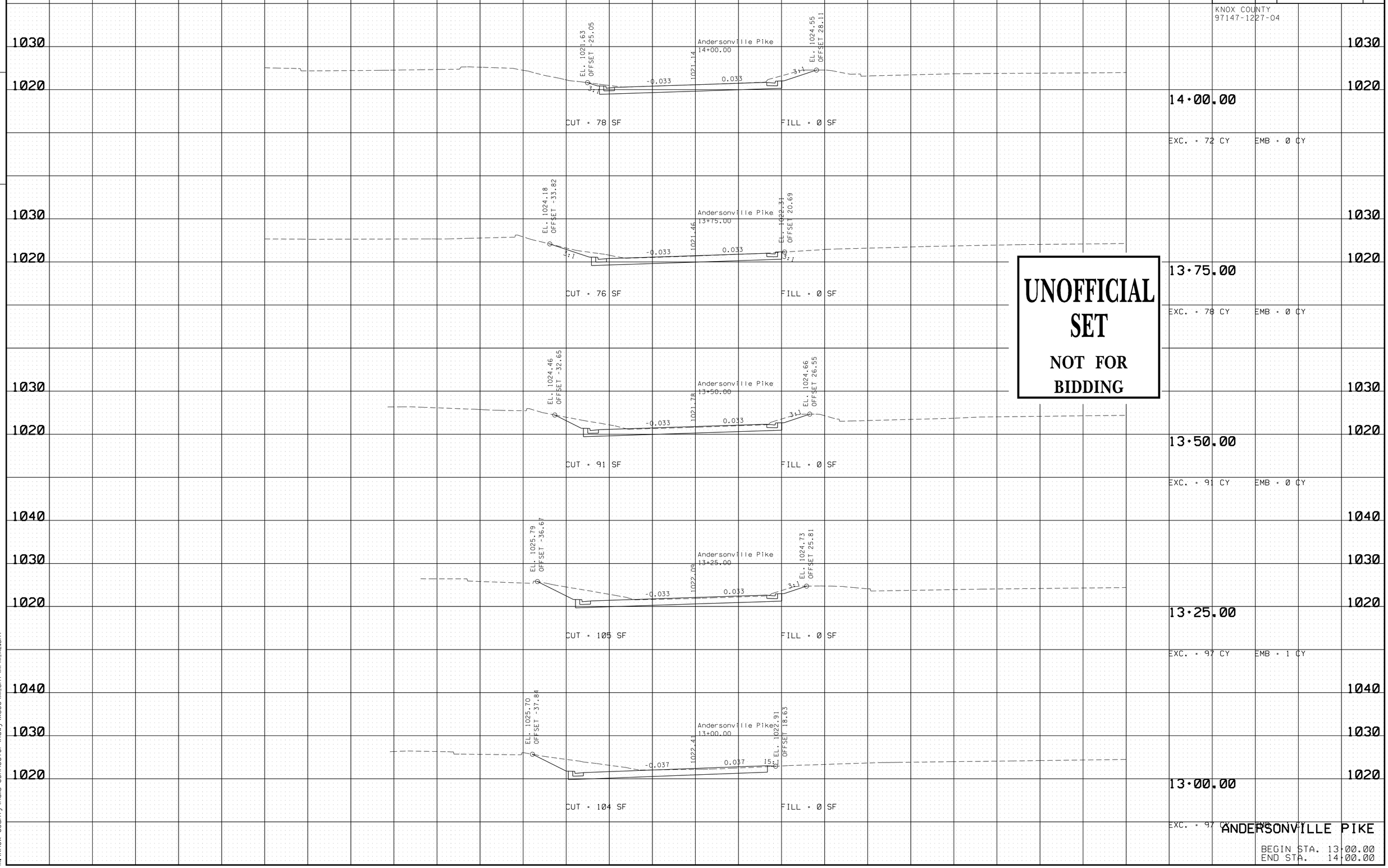
8/13/2014
9:14:29 AM
m:\knox county\hills connector\Rdwy\xsec\xl.sht\APKI_XL.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	79

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

ANDERSONVILLE PIKE

BEGIN STA. 13+00.00
END STA. 14+00.00

8/13/2014
9:14:34 AM
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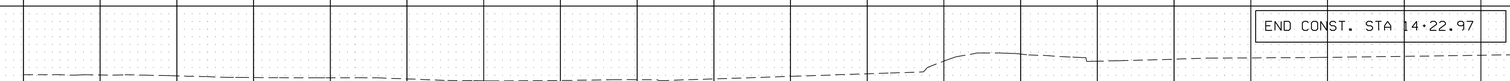
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	80

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



14+22.96
ANDERSONVILLE PIKE

CUT - 0 SF
FILL - 0 SF
EXC. - 34 CY
EMB - 0 CY
BEGIN STA. 14+22.96
END STA. 14+22.96

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

UNOFFICIAL SET

NOT FOR BIDDING

8/13/2014
9:14:39 AM
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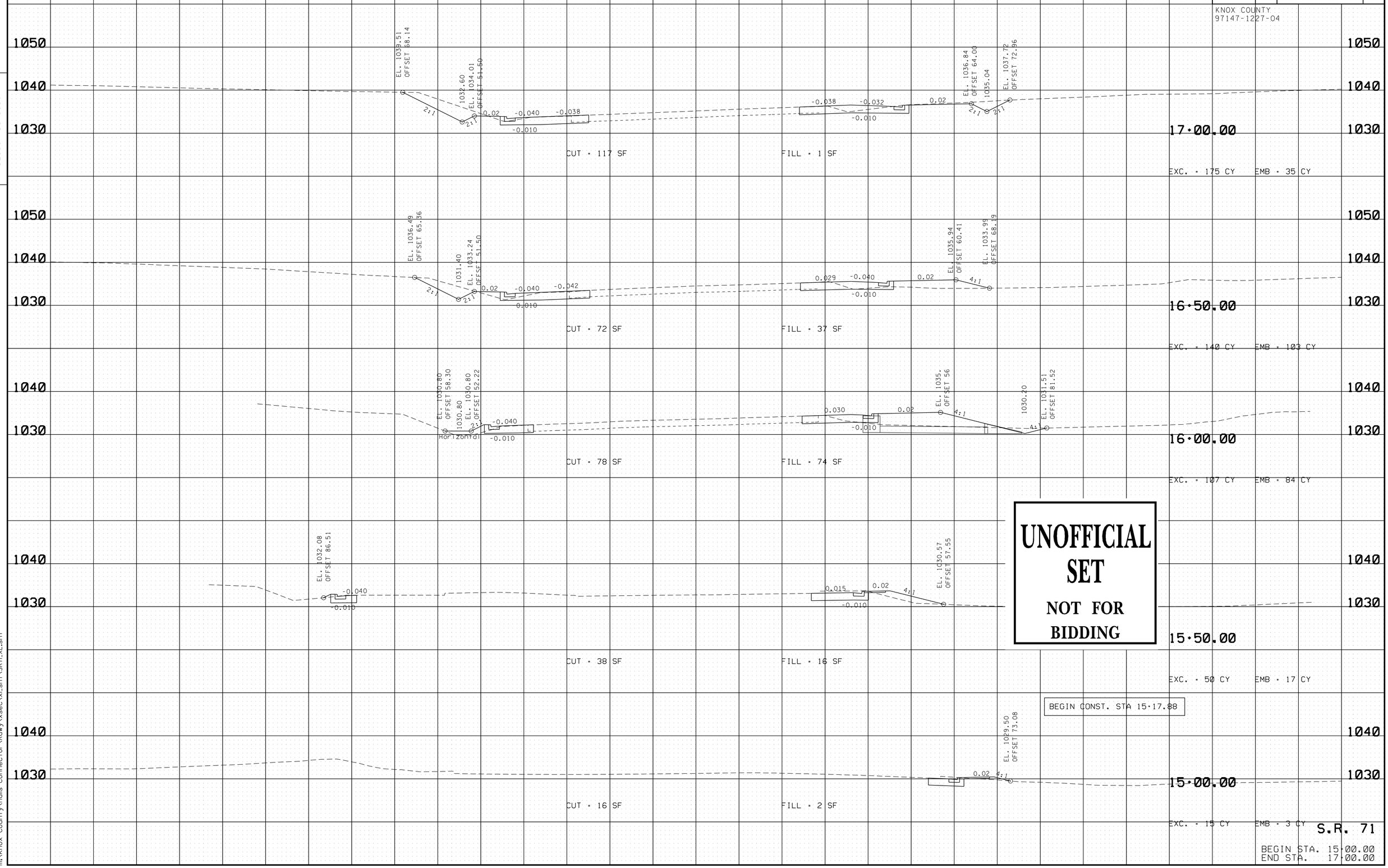
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	81

KNOX COUNTY
97147-1227-04

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 71
BEGIN STA. 15+00.00
END STA. 17+00.00

8/13/2014
9:41:48 AM
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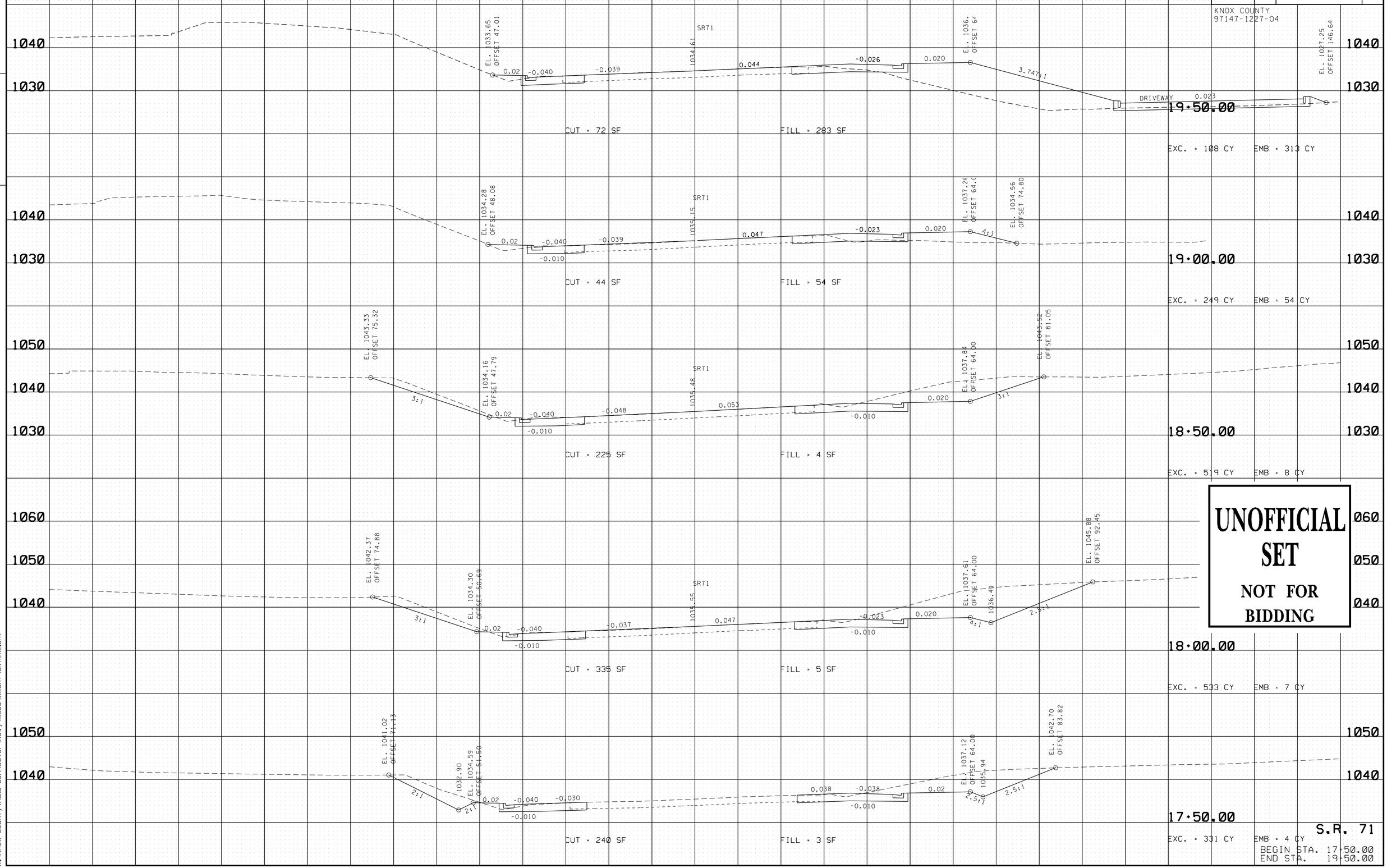
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	82

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 71
BEGIN STA. 17+50.00
END STA. 19+50.00

8/13/2014
9:45:3 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	83

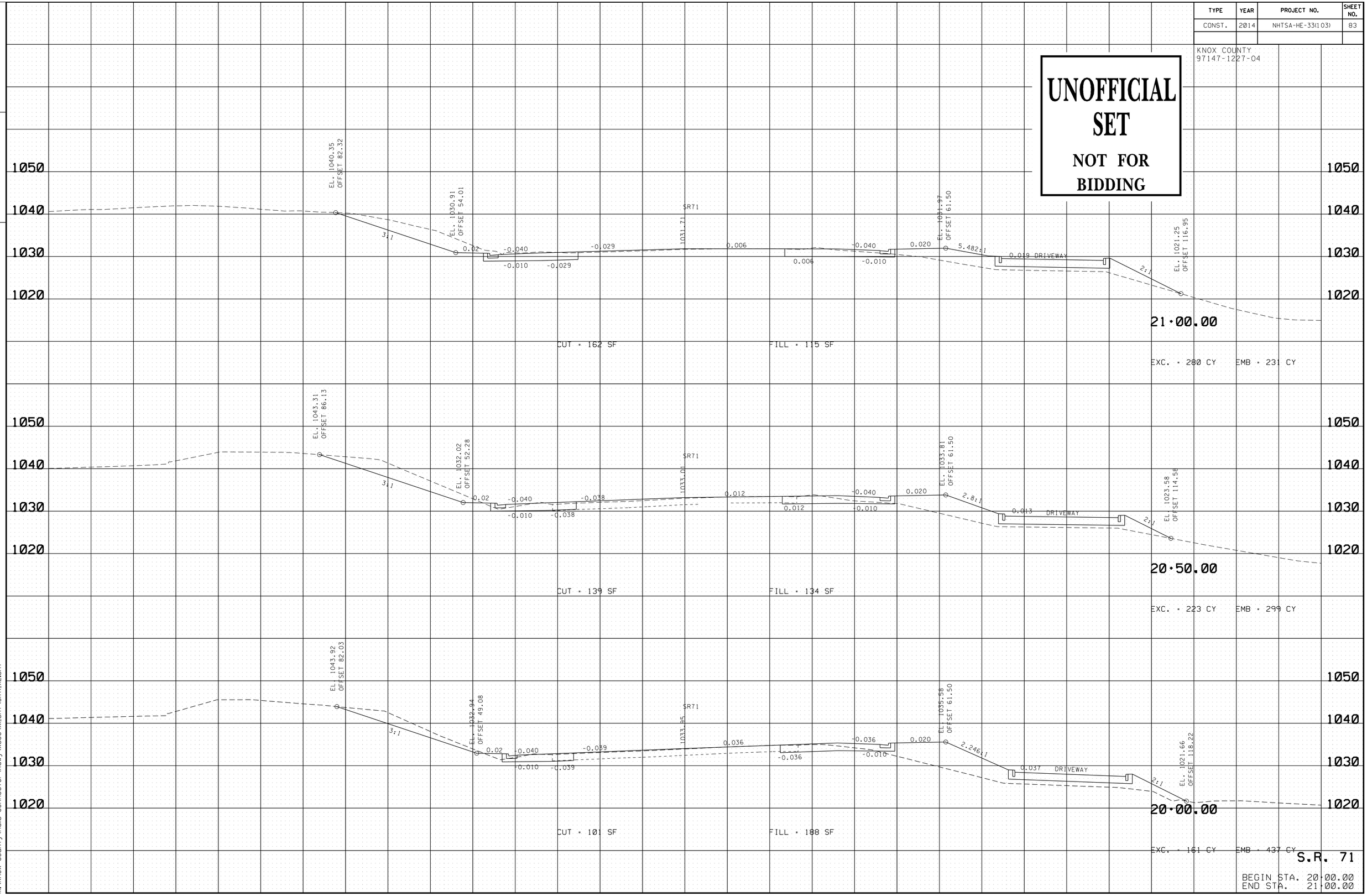
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 71

BEGIN STA. 20·00.00
END STA. 21·00.00

8/13/2014
9:14:58 AM
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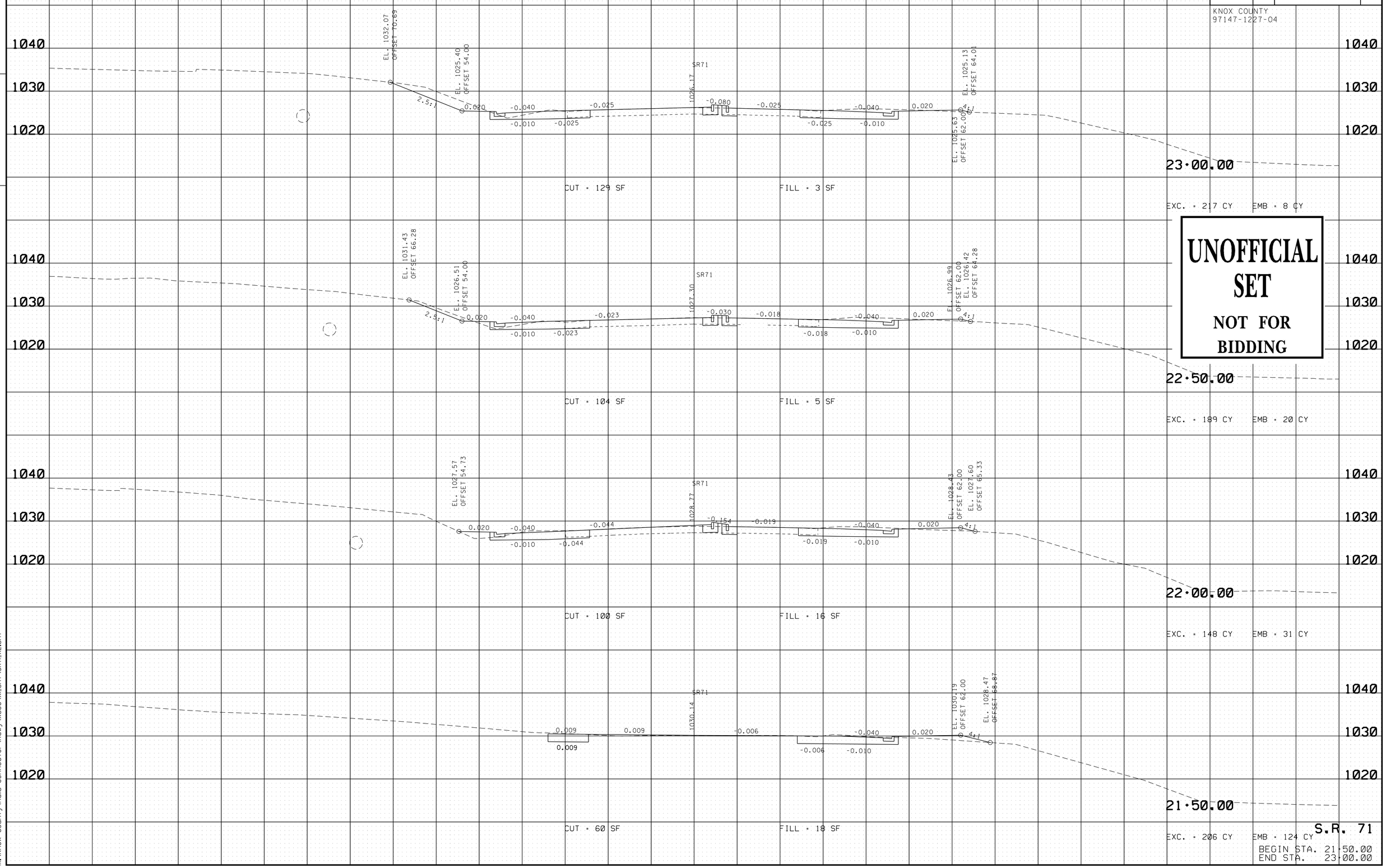
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	84

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 71
BEGIN STA. 21+50.00
END STA. 23+00.00

8/13/2014
9:15:03 AM
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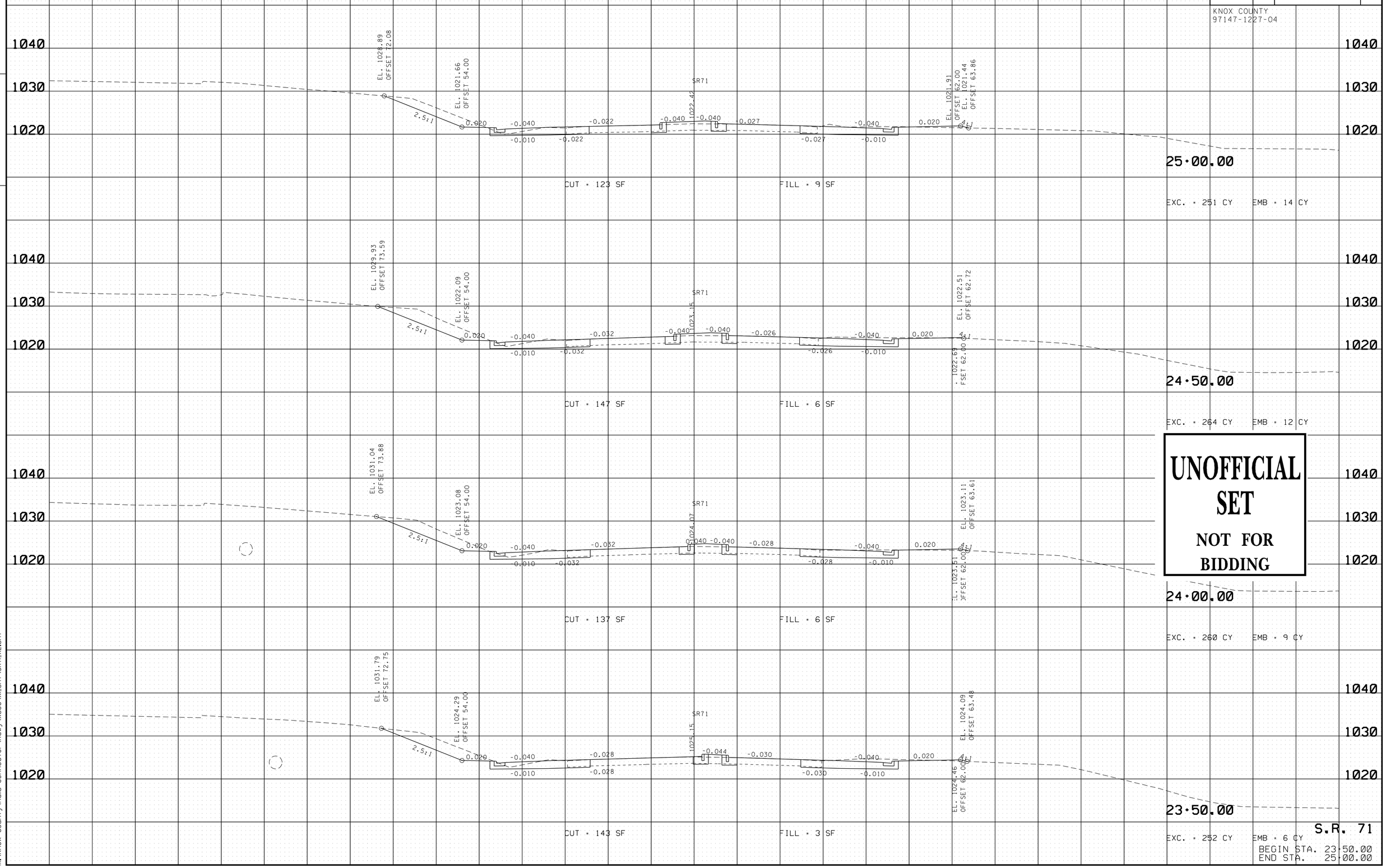
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	85

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 71
BEGIN STA. 23·50.00
END STA. 25·00.00

8/13/2014
9:15:07 AM
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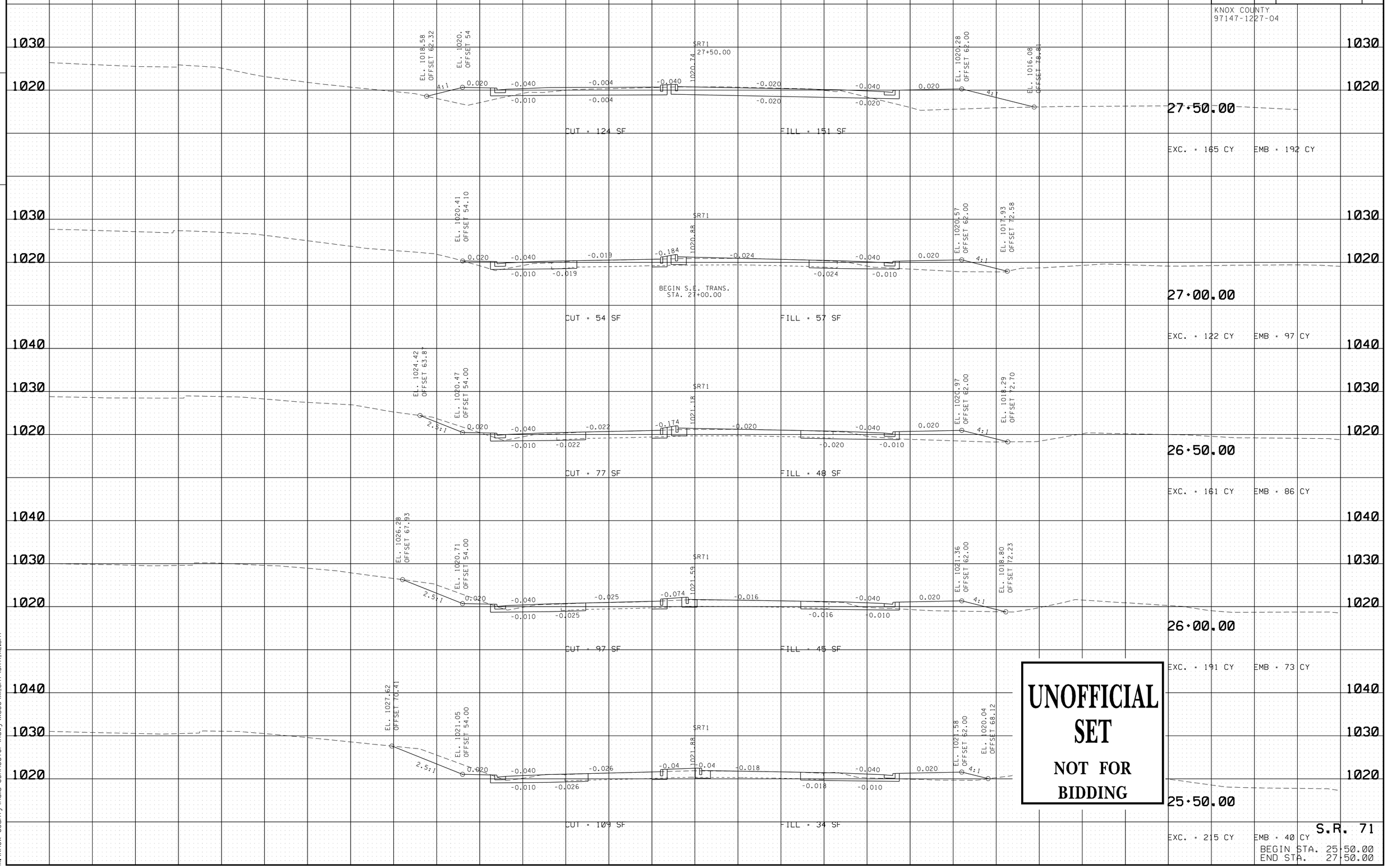
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	86

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

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END STA. 27+50.00

8/13/2014
9:15:12 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	87

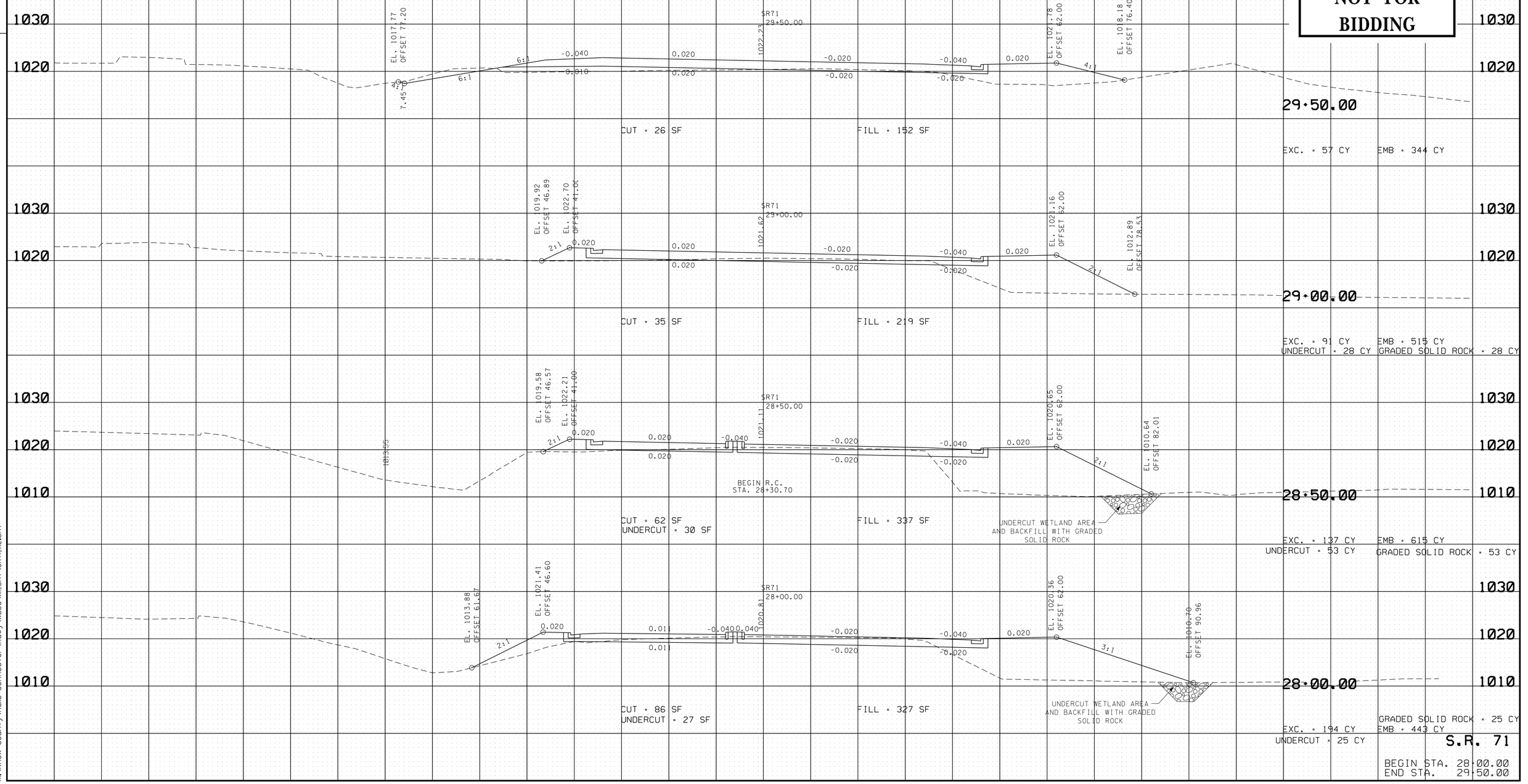
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 71

BEGIN STA. 28+00.00
END STA. 29+50.00

8/13/2014
9:51:17 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	88

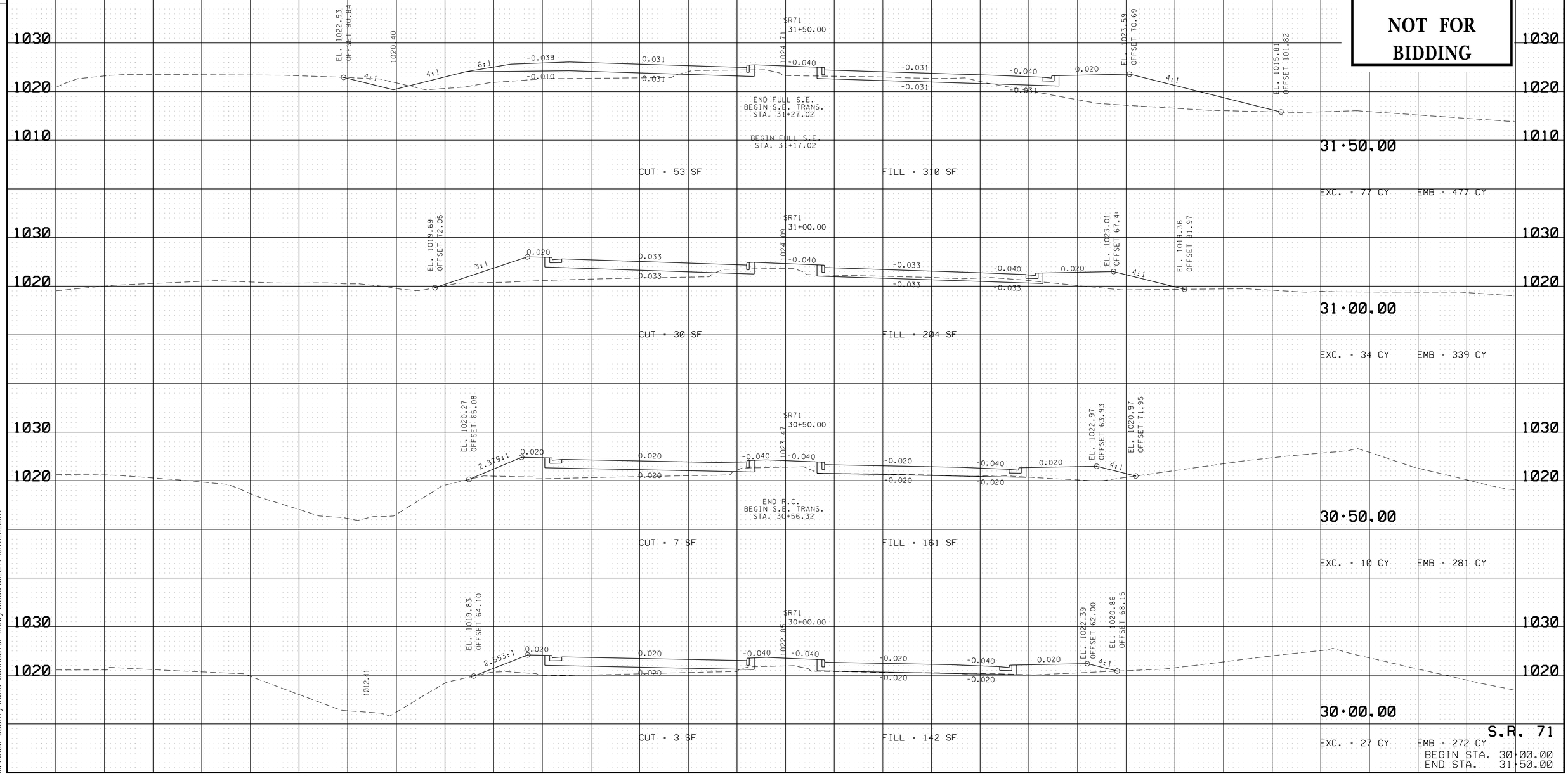
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 71
BEGIN STA. 30+00.00
END STA. 31+50.00

8/13/2014
9:15:22 AM
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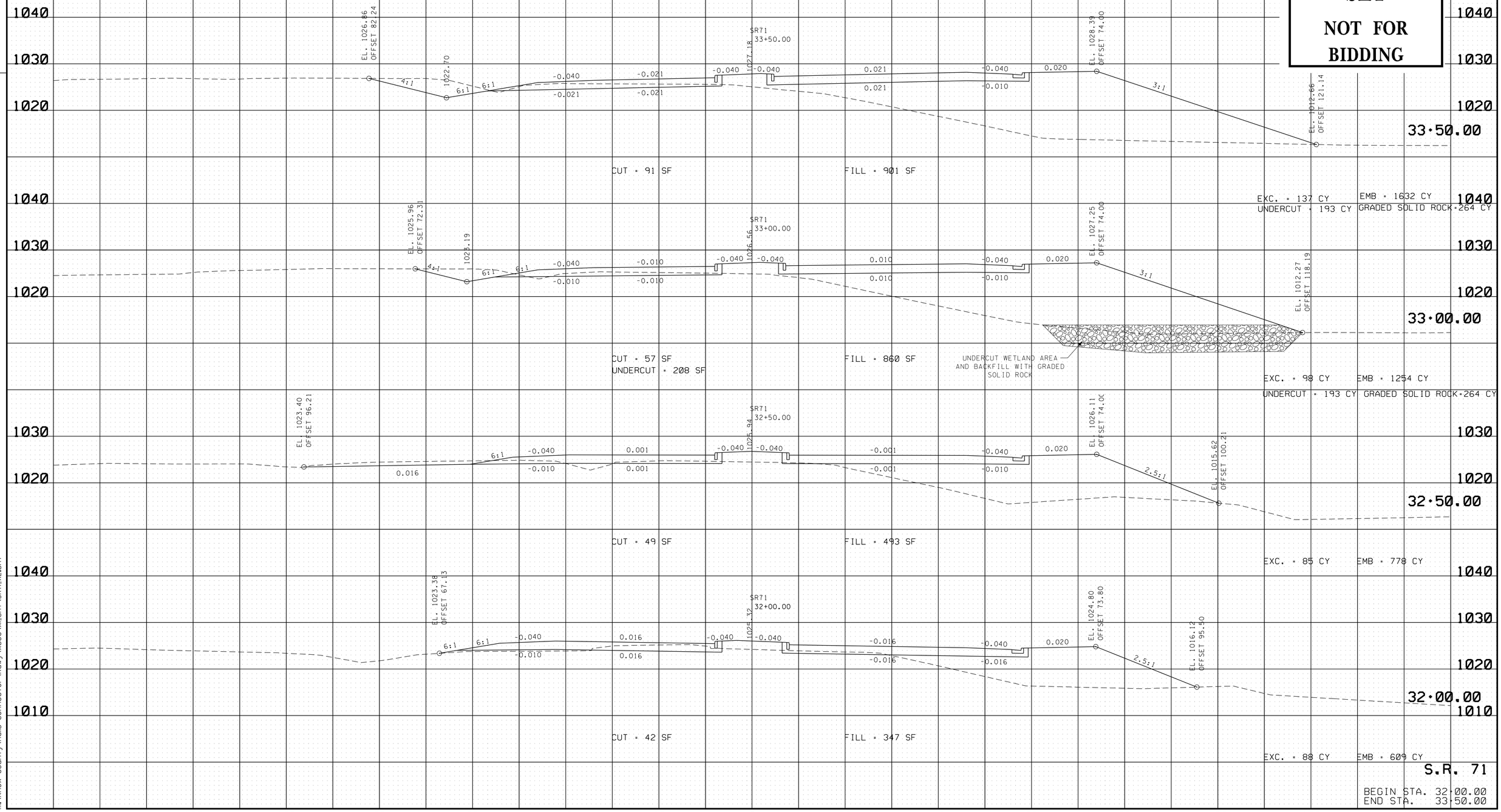
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	89

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET
NOT FOR BIDDING

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



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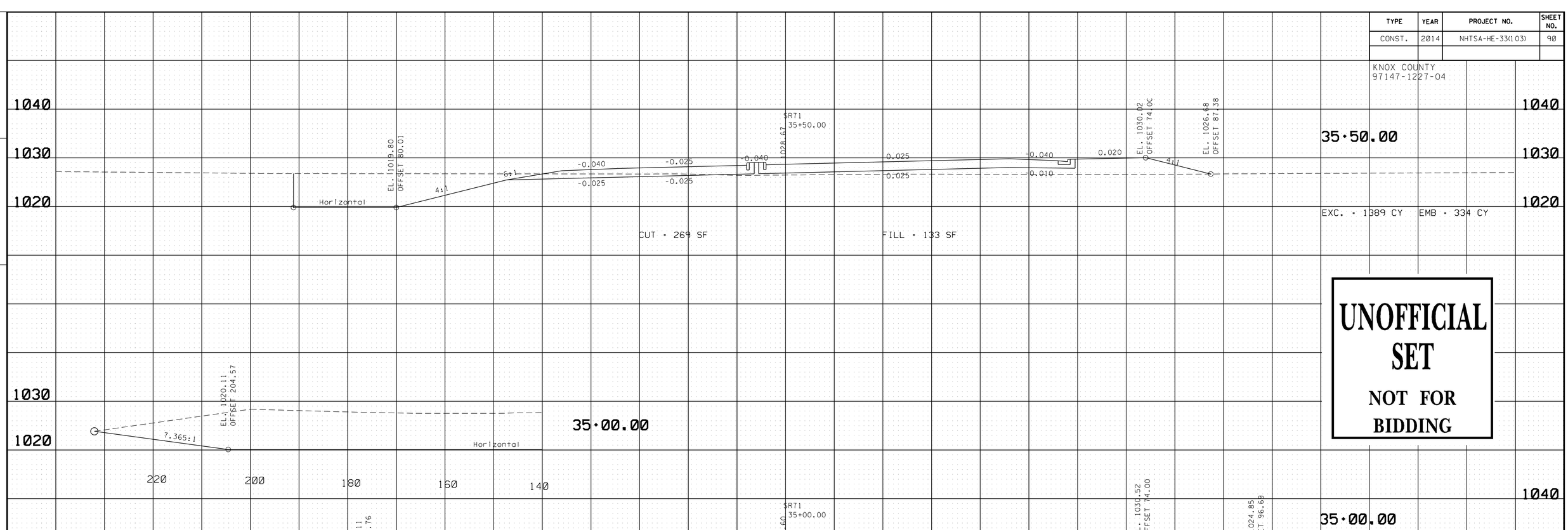
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	90

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



35+50.00

EXC. = 1389 CY EMB = 334 CY

35+00.00

EXC. = 1313 CY EMB = 712 CY

34+50.00

EXC. = 300 CY EMB = 1213 CY

34+00.00

EXC. = 210 CY EMB = 1547 CY

UNOFFICIAL SET

NOT FOR BIDDING

S.R. 71
BEGIN STA. 34+00.00
END STA. 35+50.00

8/13/2014
9:15:32 AM
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TENNESSEE D.O.T.
DESIGN DIVISION

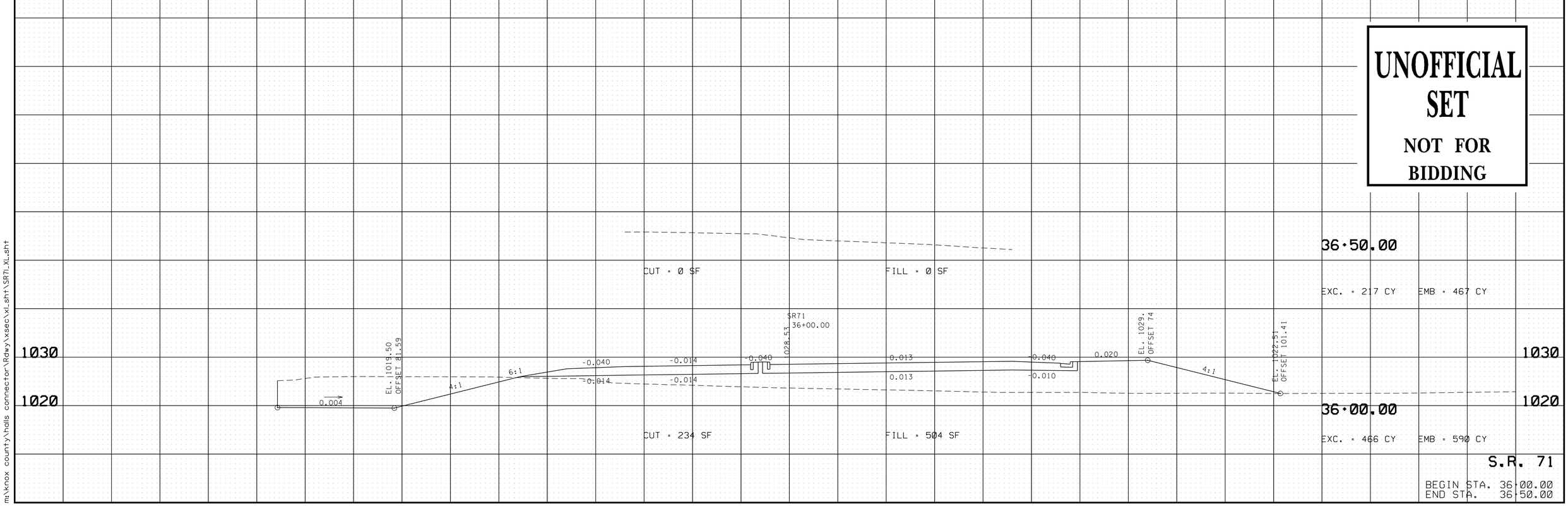
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	91

KNOX COUNTY
97147-1227-04

UNOFFICIAL SET

NOT FOR BIDDING



S.R. 71

BEGIN STA. 36+00.00
END STA. 36+50.00

8/13/2014
9:15:37 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	92

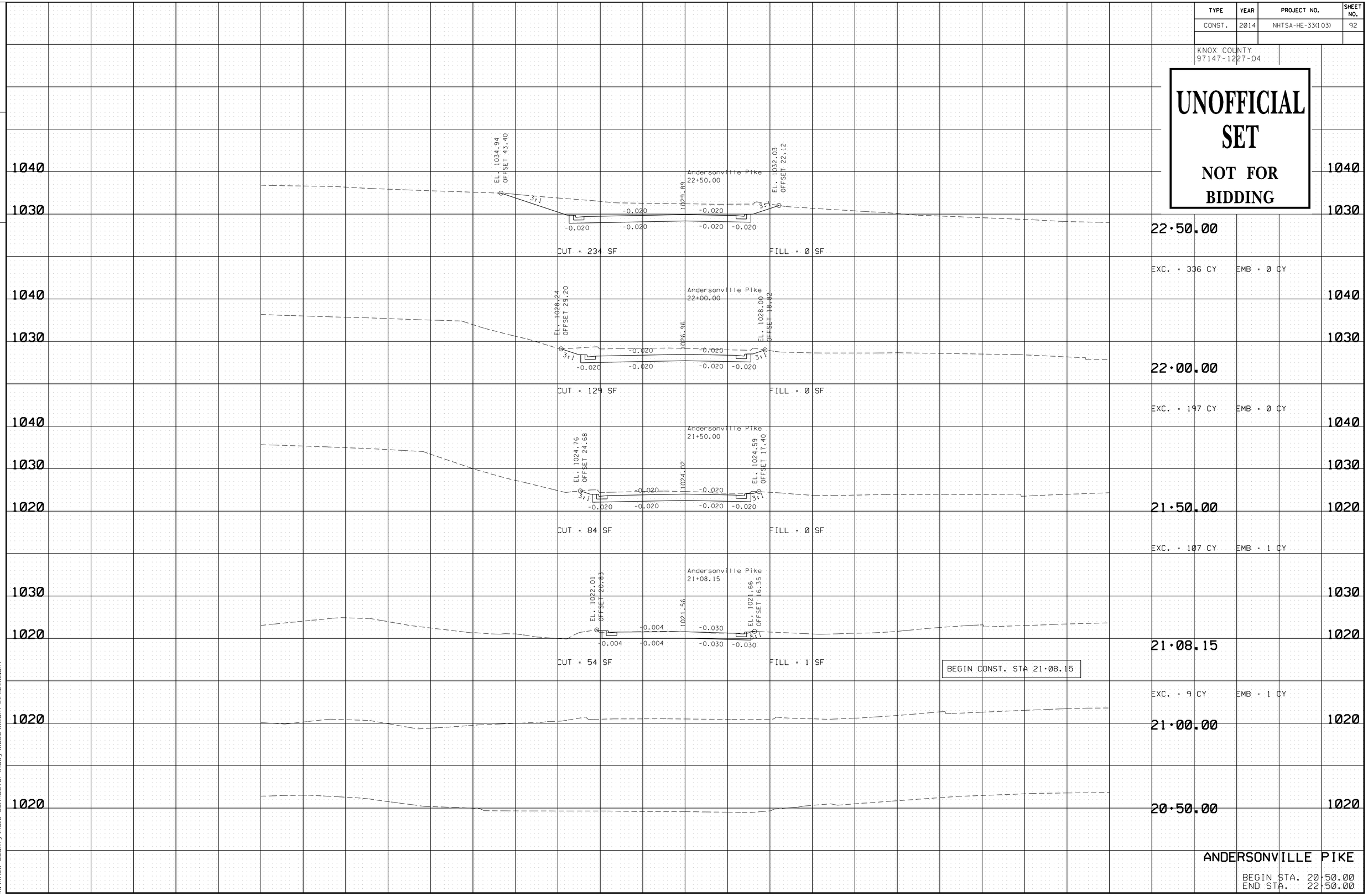
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



ANDERSONVILLE PIKE

BEGIN STA. 20·50.00
END STA. 22·50.00

8/13/2014
9:15:48 AM
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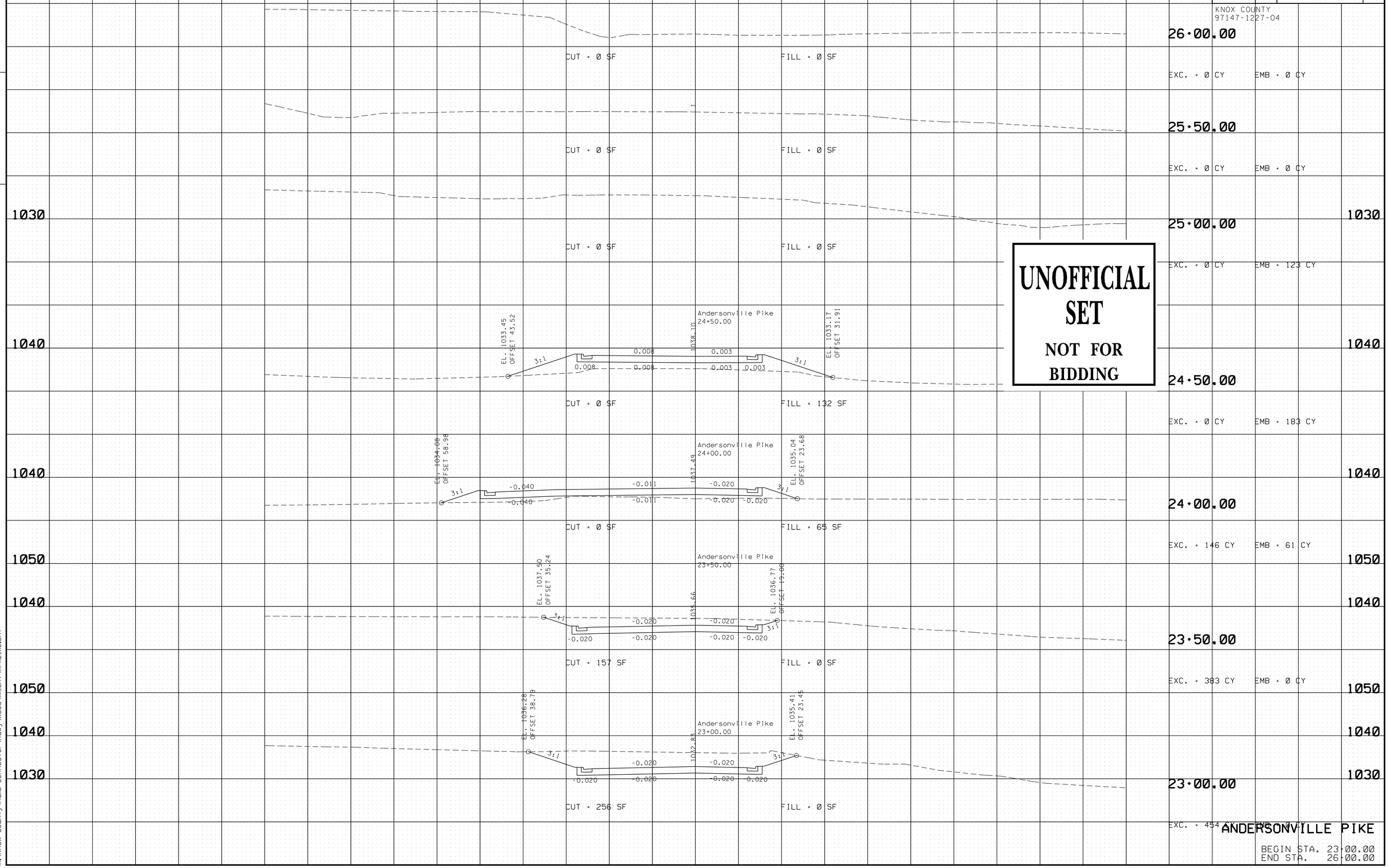
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	93

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

ANDERSONVILLE PIKE

BEGIN STA. 23+00.00
END STA. 26+00.00

8/13/2014
9:15:49 AM
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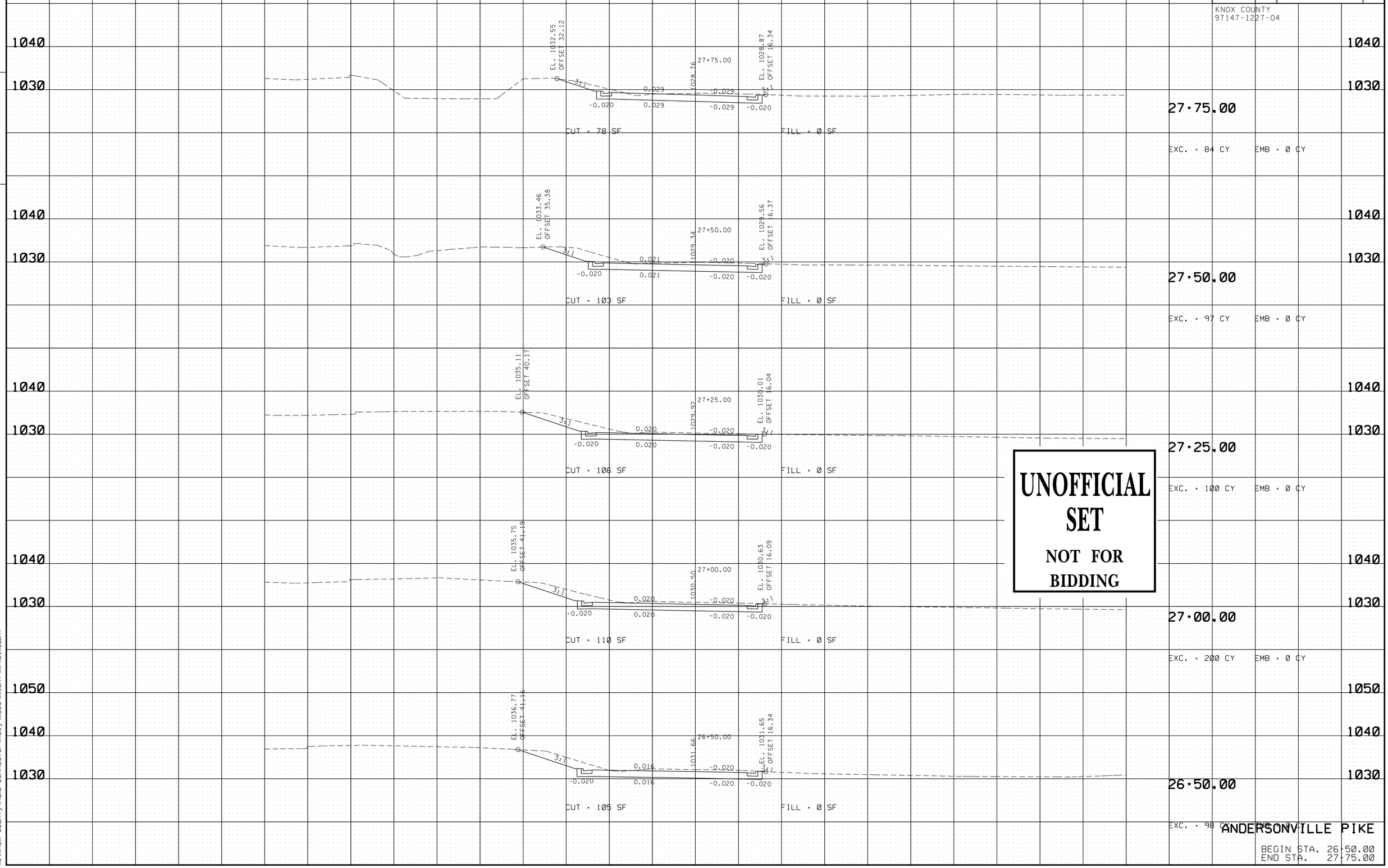
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	94

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

ANDERSONVILLE PIKE

BEGIN STA. 26+50.00
END STA. 27+75.00

8/13/2014
9:15:54 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	95

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING

END CONST. STA 28+75.83

28+73.97
1026.46
-0.004 -0.005
-0.004 -0.005
CUT = 36 SF
FILL = 0 SF
28+50.00
1027.01
0.004 -0.005
0.004 -0.005
CUT = 34 SF
FILL = 0 SF
EL. 1030.24
OFFSET 31.45
28+00.00
1028.18
0.023 -0.013
-0.020 0.023 -0.013 -0.020
EL. 1027.96
OFFSET 117.21
CUT = 48 SF
FILL = 12 SF

29+00.00

28+73.97
EXC. = 32 CY EMB = 0 CY

28+50.00
EXC. = 77 CY EMB = 11 CY

28+00.00
EXC. = 140 CY EMB = 11 CY

ANDERSONVILLE PIKE
BEGIN STA. 28+00.00
END STA. 29+00.00

1020 1030 1040

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

8/13/2014
9:15:59 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	96

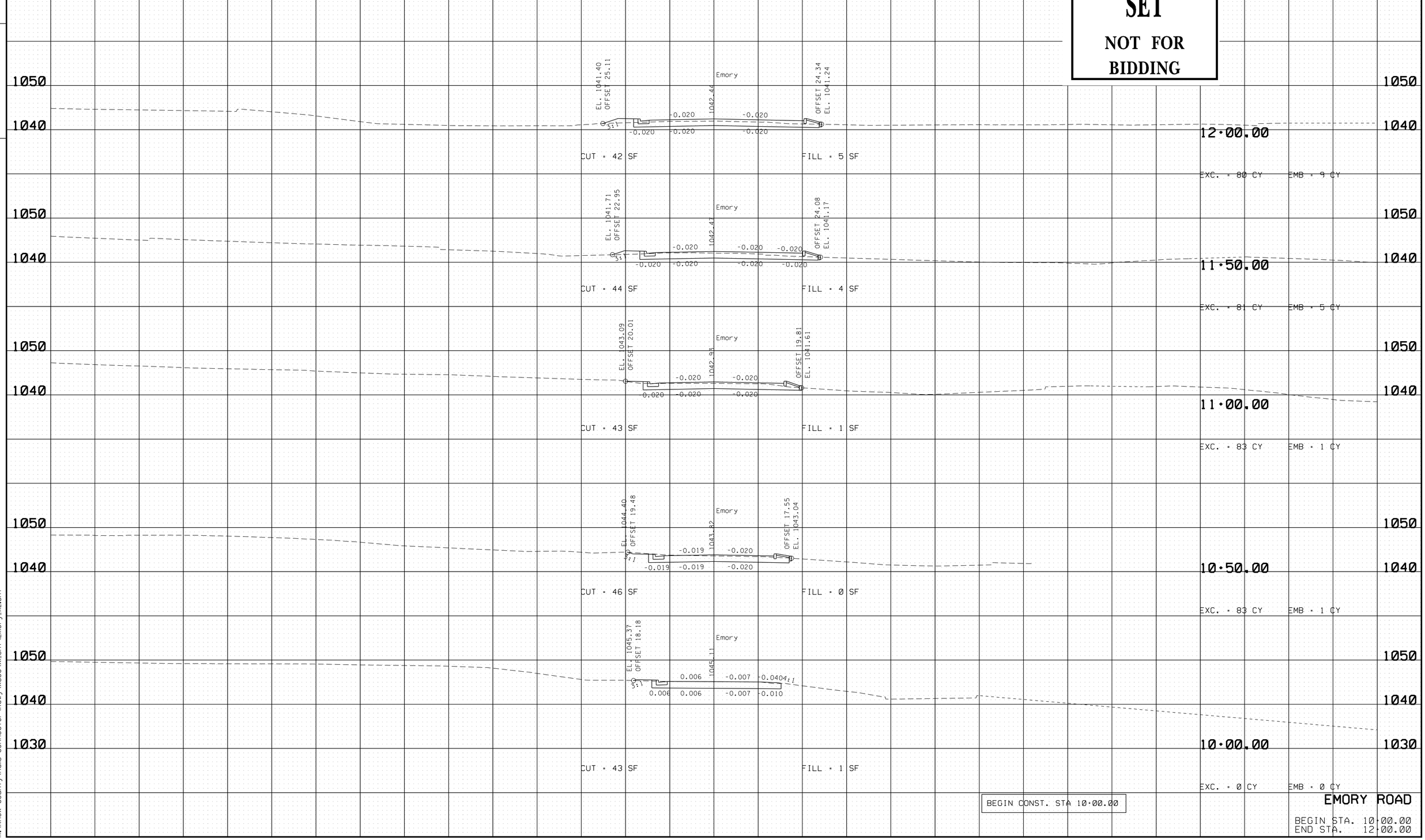
KNOX COUNTY
97147-1227-04

UNOFFICIAL SET

NOT FOR BIDDING

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



EMORY ROAD
BEGIN STA. 10+00.00
END STA. 12+00.00

8/13/2014
9:16:07 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	97

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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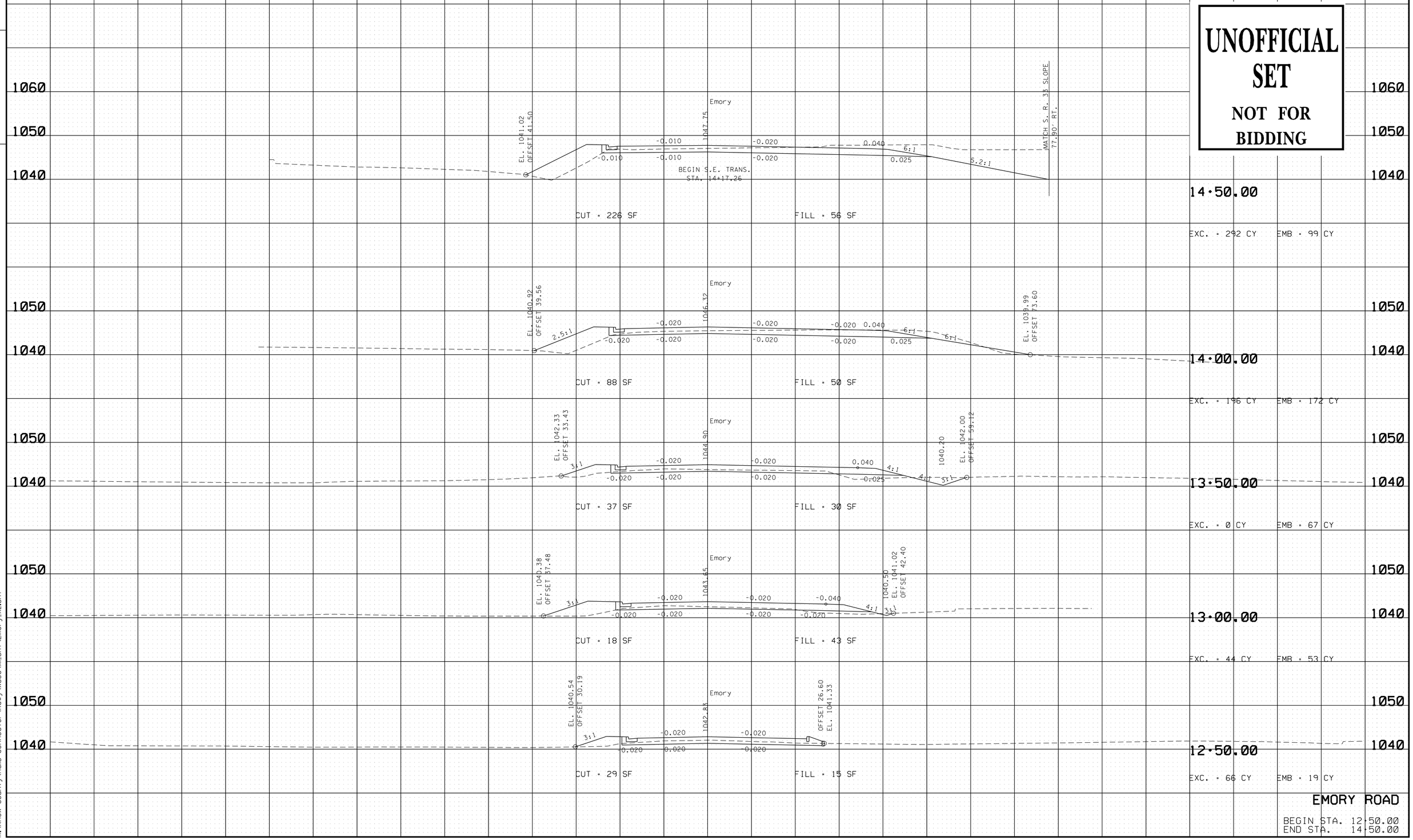
NOT FOR BIDDING



EMORY ROAD

BEGIN STA. 12+50.00
END STA. 14+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	98

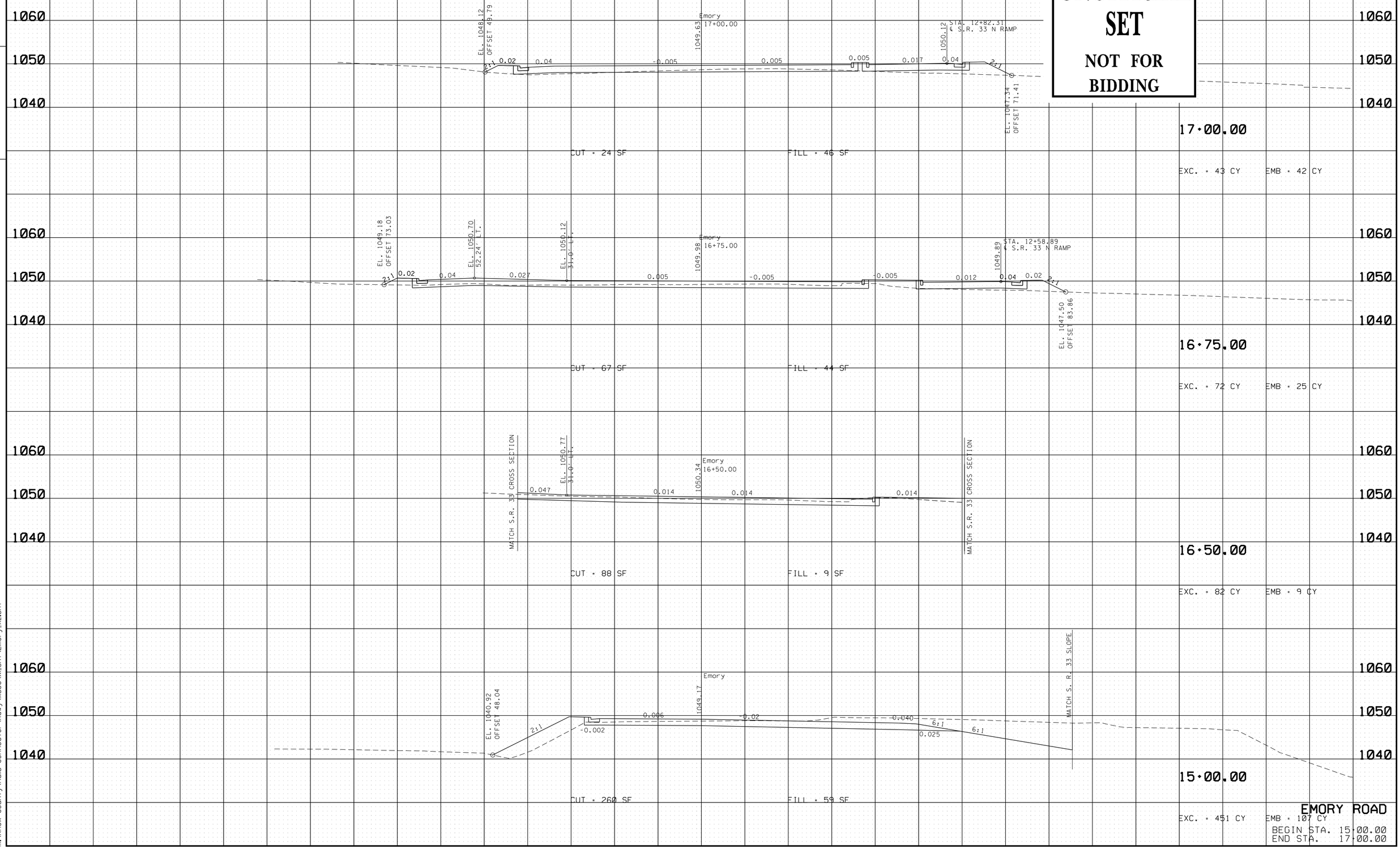
KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET

NOT FOR BIDDING



EMORY ROAD
BEGIN STA. 15+00.00
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8/13/2014
9:16:17 AM
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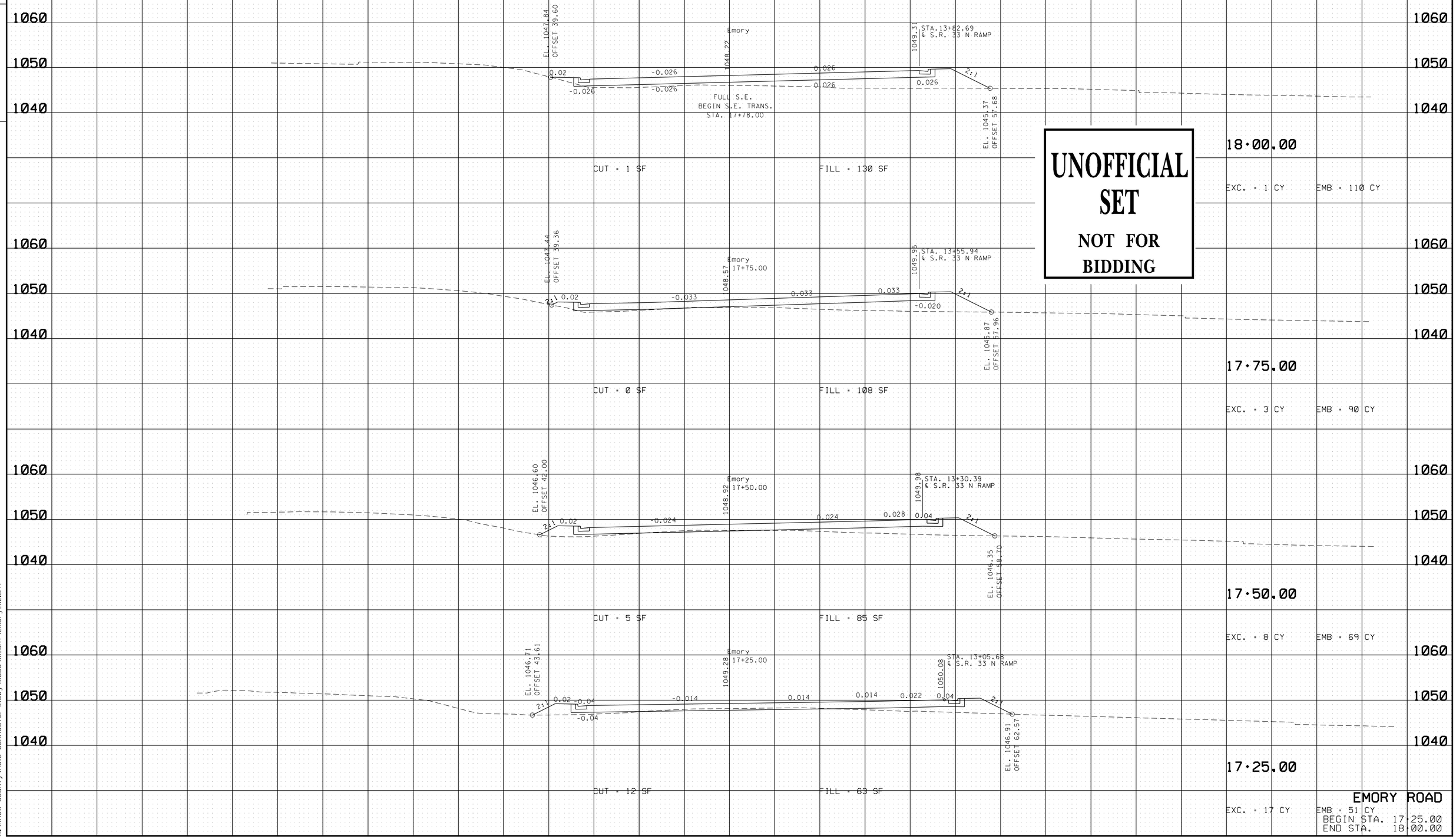
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	99

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
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8/13/2014
9:16:22 AM
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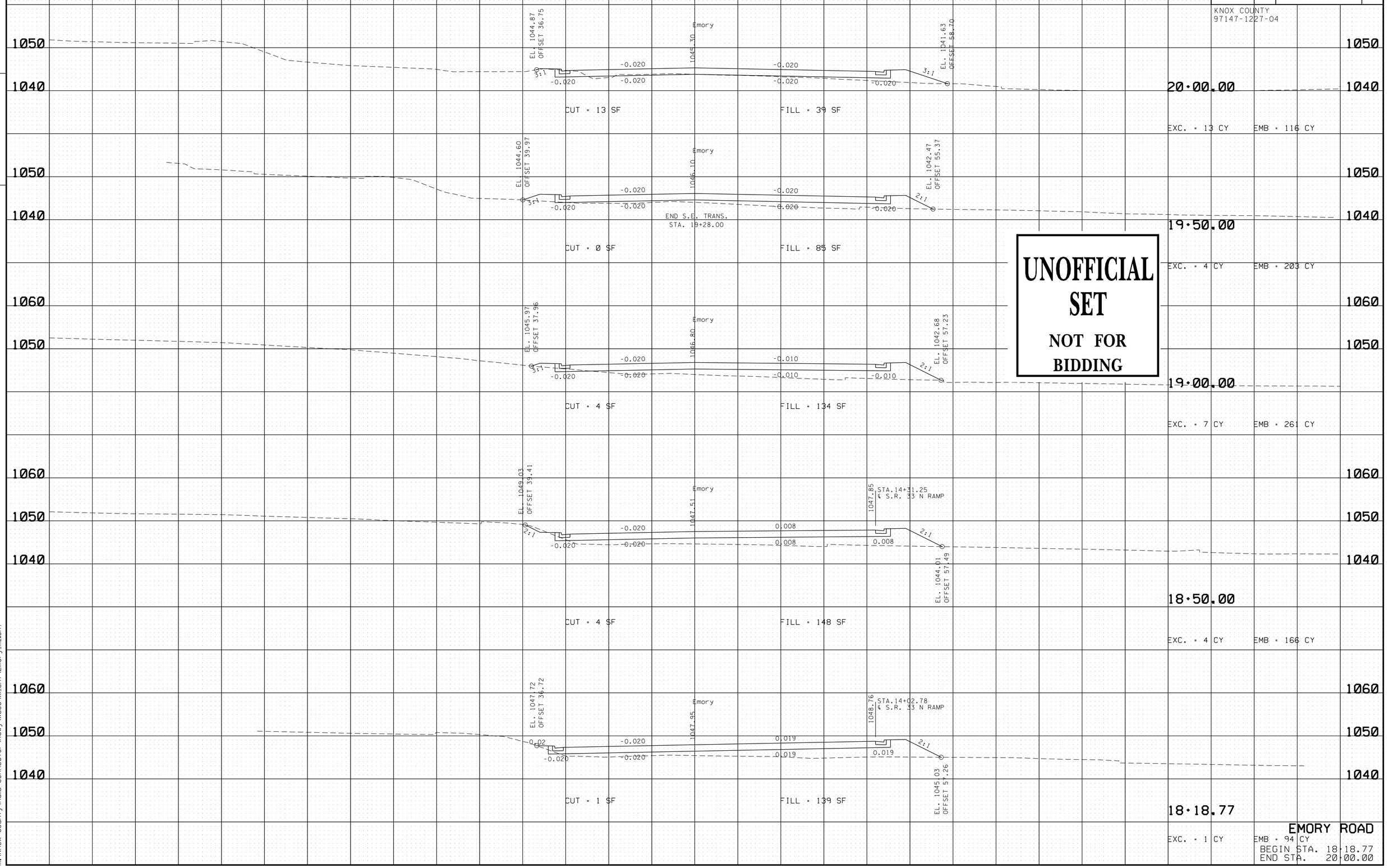
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	100

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

8/13/2014
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	101

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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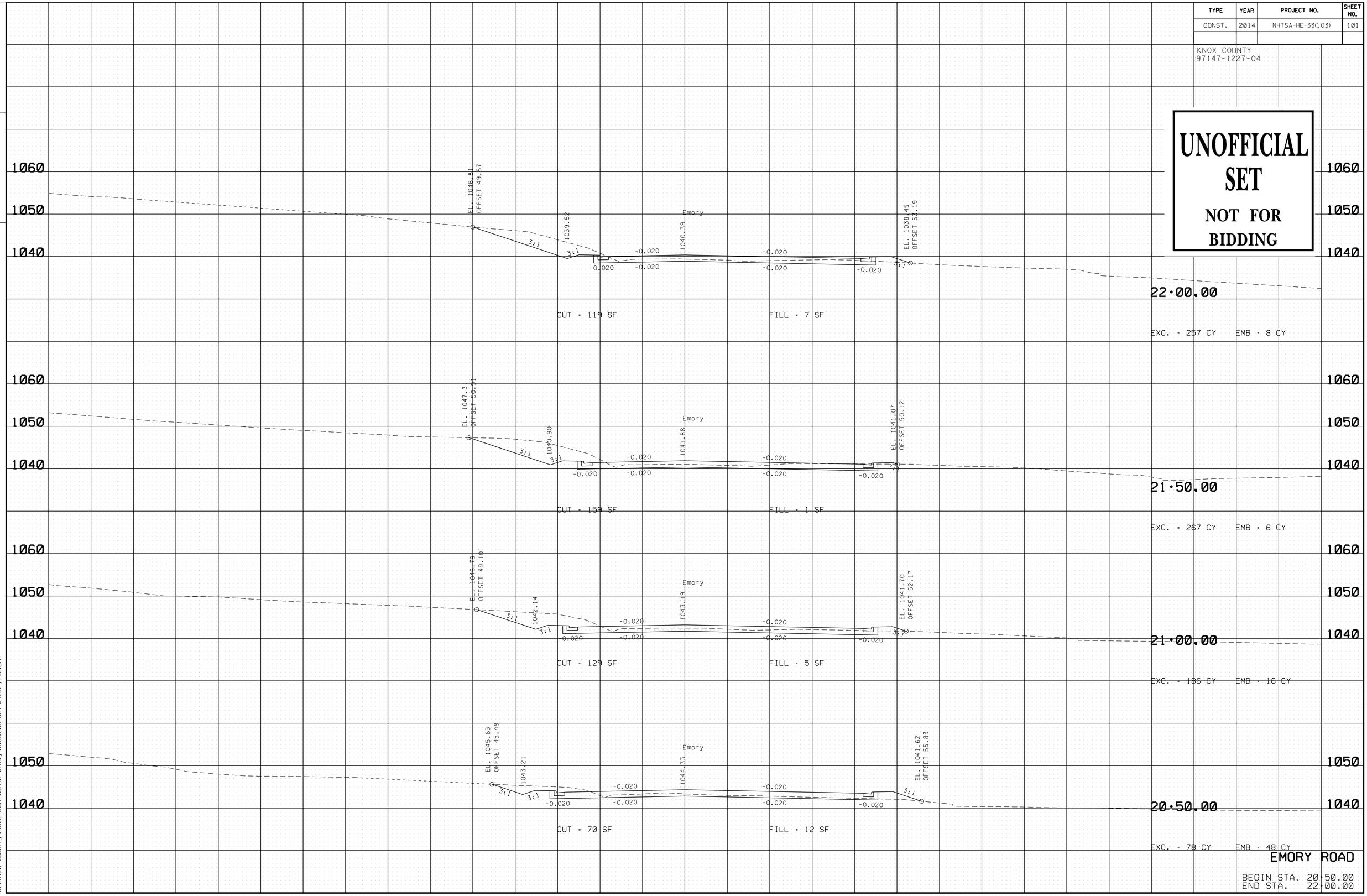

EMORY ROAD

BEGIN STA. 20+50.00
END STA. 22+00.00

8/13/2014
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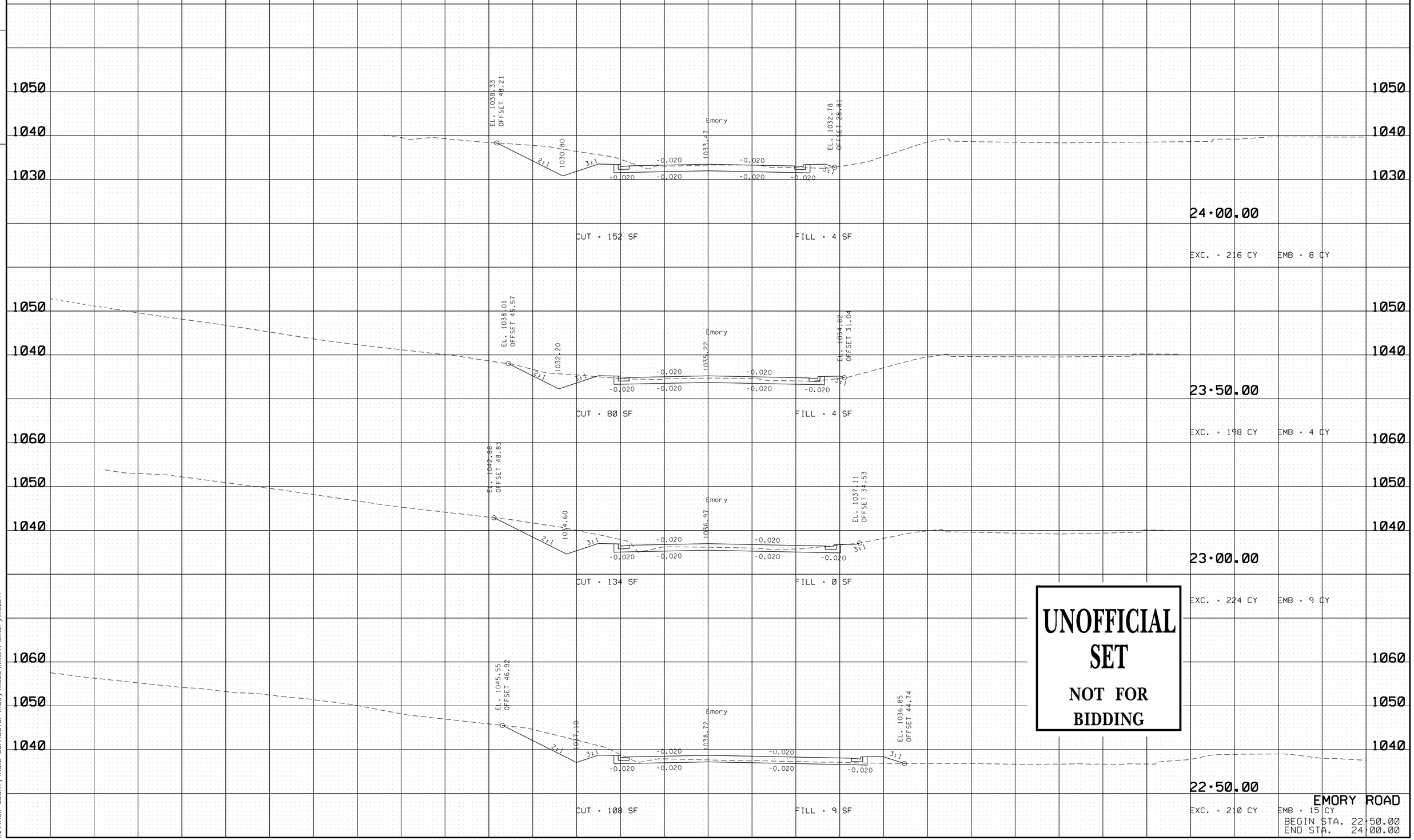
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	102

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

EMORY ROAD
BEGIN STA. 22+50.00
END STA. 24+00.00

8/13/2014
9:16:36 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	103

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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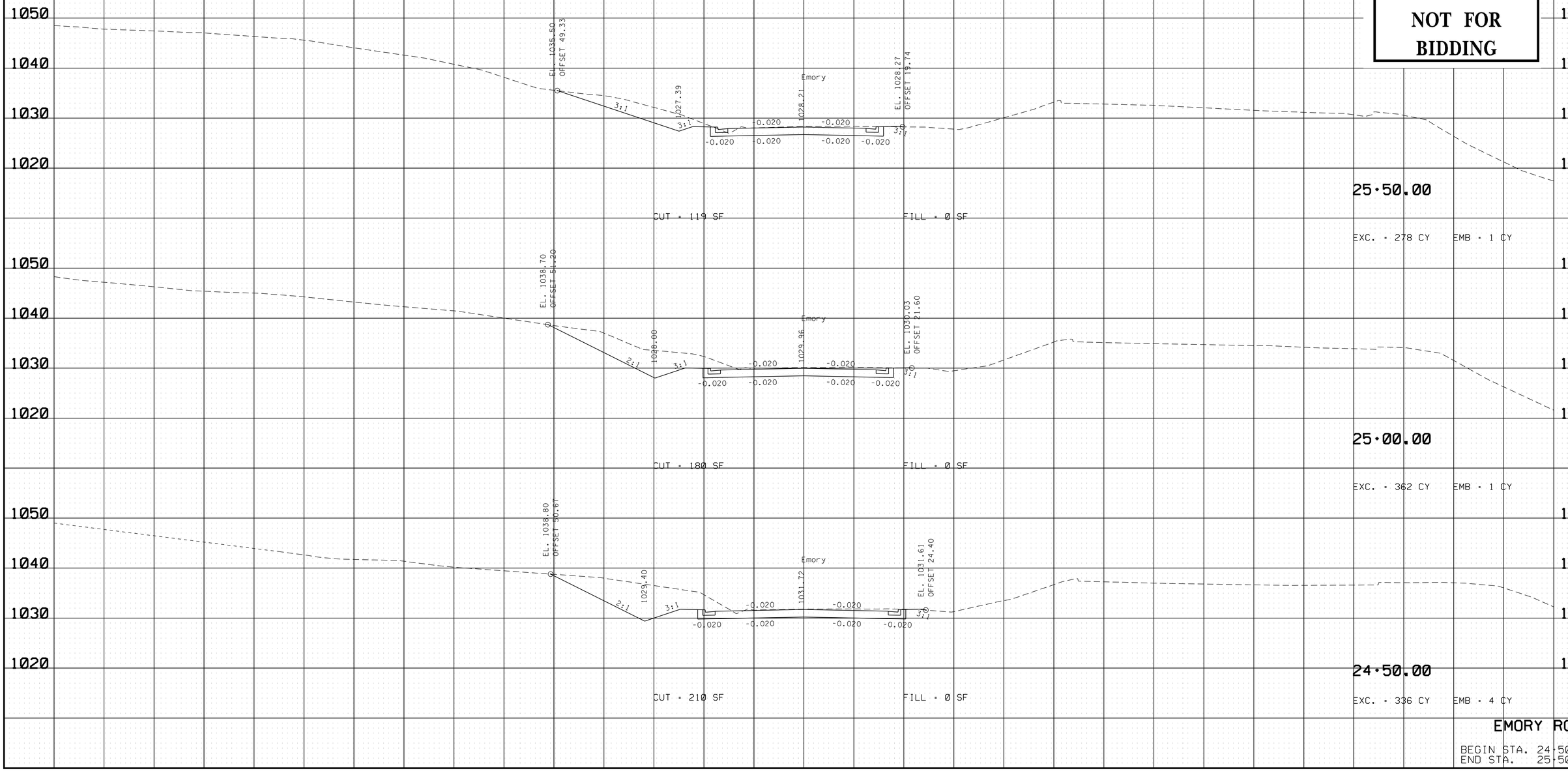

EMORY ROAD

BEGIN STA. 24+50.00
END STA. 25+50.00

8/13/2014
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(103)	104

KNOX COUNTY
97147-1227-04

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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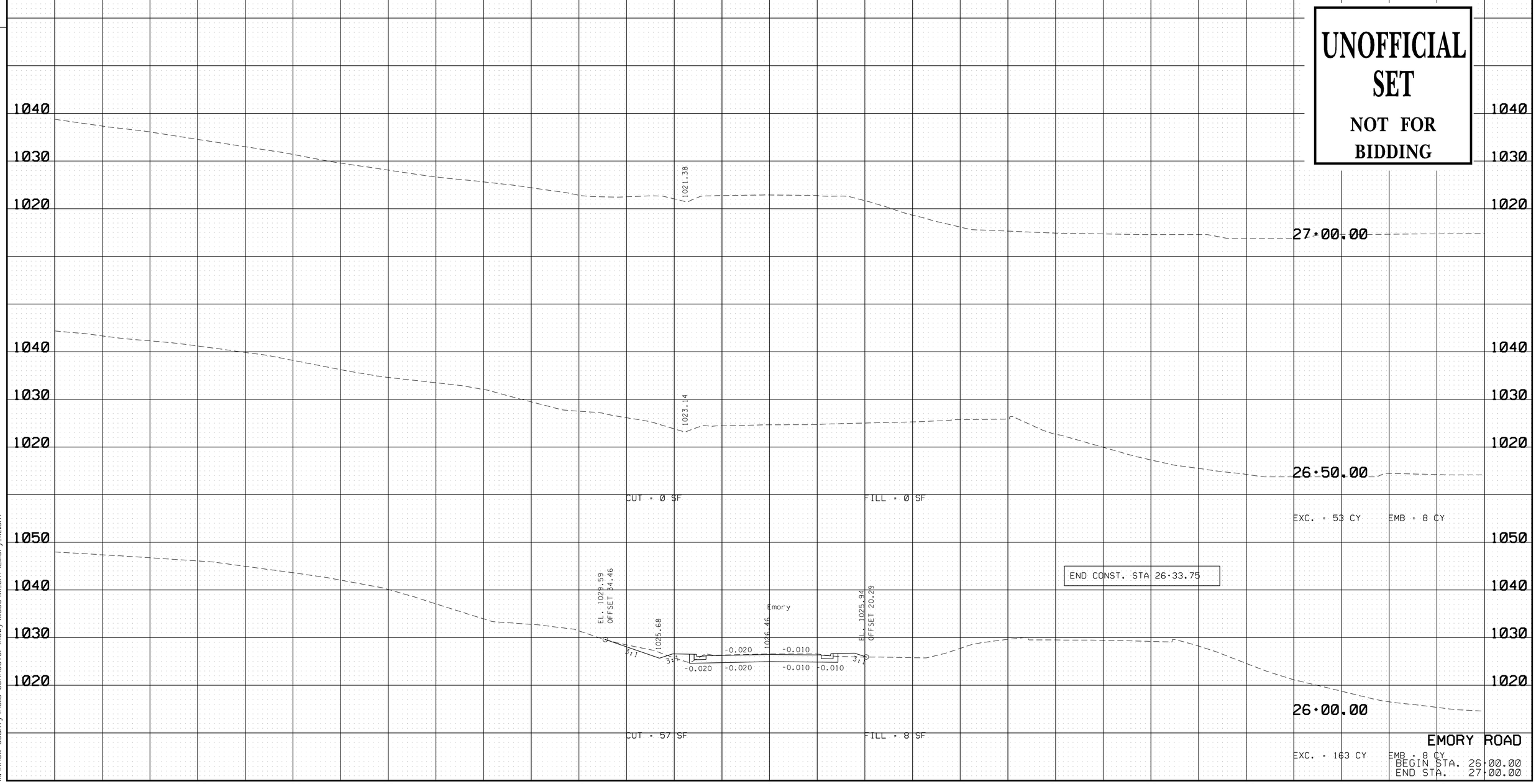

8/13/2014
9:16:48 AM
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