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

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SEE SHEET NO. 1A FOR INDEX

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

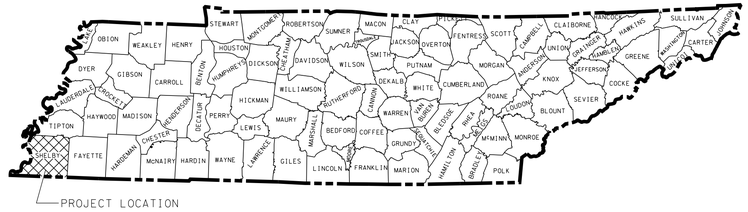
SHELBY COUNTY

INTERSTATE 240
FROM: NORTH OF S.R. 385 (SOUTH OF POPLAR AVE.)
TO: NORTH OF WALNUT GROVE ROAD

CONSTRUCTION

STATE HIGHWAY NO. 240 F.A.H.S. NO. 240

TENN.	YEAR	SHEET NO.
	2010	1
FED. AID PROJ. NO.	STP-I-240(290)	
STATE PROJ. NO.	79006-3190-14	

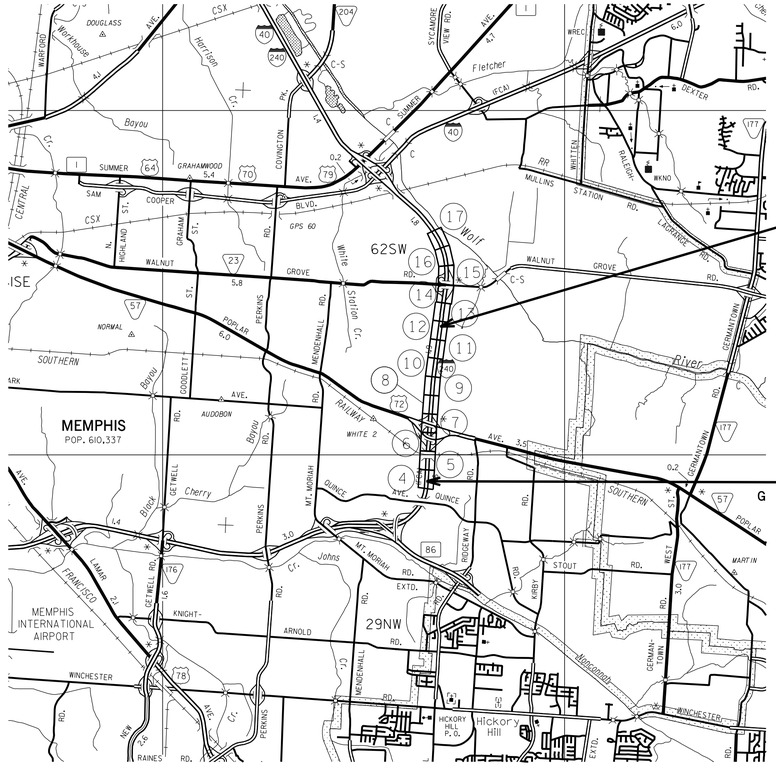


REVISIONS

DATE: 1/29/2009
ADDED LIGHTING LAYOUTS TO INDEX.

DATE: 9/30/2009
ADDED SHEET 20I TO INDEX.

NO EXCLUSIONS
NO EQUATIONS



SCALE: 1"= 1 MILE

0 1 2 3 MI.

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00

BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00

APPROVED: Paul D. Degges
CHIEF ENGINEER

DATE:

APPROVED: Gerald Nicely
COMMISSIONER

JOHN T. PANKEY — REGISTERED ENGINEER — DEPARTMENT OF AGRICULTURE — NO. 102259 — STATE OF TENNESSEE — 3-23-10

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

ROADWAY LENGTH	3.070 MILES
BRIDGE LENGTH	0.000 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	3.070 MILES

TRAFFIC DATA	
ADT (2010)	212,681
ADT (2030)	343,404
DHV (2030)	34,340
D	52 - 48
T (ADT)	6 %
T (DHV)	4 %
V	60 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

TDOT DESIGN MANAGER 1: JERRY HUGHES, SR.

DESIGNED BY: FISHER & ARNOLD, INC.
DESIGNER: JOHN PANKEY
CHECKED BY: CHARLES CARVER

P.E. NO. 79006-1179-04
PIN NO. 100331.00

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	1A

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ENGLISH STANDARD ROADWAY DRAWINGS

SHEETS 1 - 5

STANDARD ROADWAY DRAWINGS

ROADWAY DESIGN STANDARDS

DWG. NO	REV.	DESCRIPTION
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	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7		STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-S-11	03-31-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD-S-11A	03-31-03	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD-SA-1	03-31-03	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN & SLOPE PROTECTION
RD-SE-2	10-26-95	URBAN SUPERELEVATION DETAILS
RD-SE-3	10-26-95	RURAL SUPERELEVATION DETAILS
RD-TS-2	03-31-03	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
RD-TS-4	03-31-03	DESIGN STANDARDS 1 & 2 LANE RAMPS
RD-TS-5	03-31-03	DESIGN STANDARDS FREEWAYS WITH DEPRESSED MEDIANS
RD-UD-3	09-05-96	UNDERDRAIN DETAILS
RD-UD-4	05-27-01	UNDERDRAIN LATERAL DETAILS
RD-UD-7	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD-UD-9	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES

DRAINAGE - CULVERTS AND ENDWALL

DWG. NO	REV.	DESCRIPTION
D-FLU-1		FLUME DETAILS
D-PB-1	04-15-07	STANDARD DETAILS CLASS "B" BEDDING AND CULVERT EXCAVATION
D-PE-1	02-12-76	TYPE "A" CONCRETE ENDWALL 2:1 SLOPE, 36" TO 78"
D-PE-3B(1)	07-17-07	CONCRETE ENDWALL TYPE "U" WITH STEEL PIPES GRATE (FOR 18" THRU 48" PIPES) (3:1 SLOPE)
D-PE-3B(2)	05-27-01	CONCRETE ENDWALL TYPE "U" WITH STEEL PIPE GRATE FOR 18" THRU 48" PIPES 3:1 SLOPE
D-PE-4	01-19-97	STRAIGHT, "L" AND "U" TYPE CONCRETE ENDWALL
D-PE-4B(1)	03-30-00	CONCRETE ENDWALL TYPE "U" WITH STEEL PIPE GRATE FOR 18" THRU 48" PIPES 4:1 SLOPE
D-PE-4B(2)	07-17-07	CONCRETE ENDWALL TYPE "U" WITH STEEL PIPE GRATE FOR 18" THRU 48" PIPES 4:1 SLOPE
D-PE-6B(1)	03-30-00	CONCRETE ENDWALL TYPE "U" WITH STEEL PIPE GRATE FOR 18" THRU 48" PIPES 6:1 SLOPE
D-PE-6B(2)	07-17-07	CONCRETE ENDWALL TYPE "U" WITH STEEL PIPE GRATE FOR 18" THRU 48" PIPES 6:1 SLOPE
D-PG-3	04-15-97	FERROUS AND ALUMINUM CORRUGATED METAL PIPE
D-PG-4	07-29-94	FERROUS AND ALUMINUM CORR. METAL PIPE-ARCHES
D-SEW-12D	05-27-01	CONCRETE ENDWALL TYPE "SD" WITH STEEL PIPE GRATE FOR 15" AND 18" PIPES - 12:1 SLOPE

DRAINAGE-CATCH BASINS AND MANHOLES

DWG. NO	REV.	DESCRIPTION
D-CB-10LPC	07-29-04	LOW PROFILE LOWERED CURB 32" X 26" RECTANGULAR CONCRETE NO. 10LPC CATCH BASIN
D-CB-28B	07-29-02	STANDARD RECTANGULAR BRICK NO. 28 CATCH BASIN (FOR USE WITH 4" MOUNTABLE CURB)
D-CB-28LP	07-29-04	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 28LP CATCH BASIN (FOR USE WITH 4" MOUNTABLE CURB)
D-CB-28P	07-29-02	STANDARD PRECAST RECTANGULAR CONCRETE NO. 28 CATCH BASIN (FOR USE WITH 4" MOUNTABLE CURB)
D-CB-28RA	05-27-01	STANDARD PRECAST 48" CIRCULAR NO. 28 CATCH BASIN (FOR USE WITH 4" MOUNTABLE CURB)
D-CB-28RB	05-27-01	STANDARD PRECAST CIRCULAR NO. 28 CATCH BASIN (FOR USE WITH 4" MOUNTABLE CURB)
D-CB-28S	07-29-02	STANDARD RECTANGULAR CONCRETE NO. 28 CATCH BASIN (FOR USE WITH 4" MOUNTABLE CURB)
D-CB-31R	10-26-03	STANDARD PRECAST CIRCULAR NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-31SD	09-11-02	STANDARD 7' X 7' SQUARE CONCRETE NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-31SE	02-13-04	STANDARD 9' X 9' SQUARE CONCRETE NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-32LP	06-30-03	STANDARD 80" X 32" RECTANGULAR CONCRETE NO. 32 CATCHBASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-38RB	09-05-04	STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN
D-CB-38S	07-29-02	STANDARD 32" X 32" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SB	09-05-04	STANDARD 4' X 4' SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SC	09-05-04	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-39RB	05-27-01	STANDARD PRECAST CIRCULAR NO. 39 CATCH BASIN
D-CB-39S	07-29-02	STANDARD 4' X 4' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SC		STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SD	09-11-02	STANDARD 7' X 7' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SE	02-13-04	STANDARD 9' X 9' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-40S	07-29-02	STANDARD 4' X 8' RECTANGULAR CONCRETE NO. 40. CATCH BASIN
D-CB-40SE	05-05-05	STANDARD 9' X 9' SQUARE CONCRETE NO. 40. CATCH BASIN
D-CB-41LP	07-29-04	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 41LP CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41P	07-29-02	STANDARD 4' X 3' PRECAST RECTANGULAR CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)

JOHN T. PANKEY
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STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX AND STANDARD DRAWINGS

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TENNESSEE D.O.T.
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FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	1B

D-CB-41RB	05-27-01	STANDARD PRECAST CIRCULAR NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41S	07-29-02	STANDARD 4' X 3' RECTANGULAR CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SB	07-29-02	STANDARD 4' X 4' SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SC	09-11-02	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SD	09-11-02	STANDARD 7' X 7' SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SE	05-05-05	STANDARD 9' X 9' SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-42RB	05-27-01	STANDARD PRECAST CIRCULAR NO. 42 CATCH BASIN
D-CB-42S	01-19-05	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SB	07-29-04	STANDARD 4' X 4' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SC		STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SD	09-11-02	STANDARD 7' X 7' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-51SC	09-11-02	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 51 CATCH BASIN (FOR USE IN FRONT OF CONCRETE RETAINING WALL)
D-CB-51SD		STANDARD 7' X 7' SQUARE CONCRETE NO. 51 CATCH BASIN (FOR USE IN FRONT OF CONCRETE RETAINING WALL)
D-CB-51SE		STANDARD 9' X 9' SQUARE CONCRETE NO. 51 CATCH BASIN
D-JBS-1	07-29-02	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 JUNCTION BOX
D-JBS-2	07-29-02	STANDARD 4' X 4' SQUARE CONCRETE NO. 2 JUNCTION BOX
D-JBS-4	09-11-02	STANDARD 7' X 7' SQUARE CONCRETE NO. 4 JUNCTION BOX
D-JBS-5	09-11-02	STANDARD 9' X 9' SQUARE CONCRETE NO. 5 JUNCTION BOX
D-MH-3	04-15-00	STANDARD PRECAST CIRCULAR LID DETAILS FOR NO. 3 MANHOLE
D-MH-6	09-11-02	STANDARD 7' X 7' SQUARE CONCRETE NO. 3 MANHOLE
D-MH-7	09-11-02	STANDARD 9' X 9' SQUARE CONCRETE 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
D-TD-1		TRENCH DRAIN

ROADWAY AND PAVEMENT APPURTENANCES

RP-J-1	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-3	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-5	07-01-01	TYPICAL ACCELERATION AND DECELERATION LANE JOINT TYPES AND SPACING FOR CONCRETE RAMPS
RP-J-7	10-26-00	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J-9	01-19-02	CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT
RP-J-11	07-29-96	3/4" AND 1-3/4" EXPANSION AND EDGE PAVEMENT JOINTS
RP-J-13	03-20-91	3/4" AND 1-3/4" ELASTOMERIC COMPRESSION JOINT SEALS
RP-J-15	01-19-02	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS
RP-J-17	10-26-00	DOWEL ASSEMBLY DEVICES
RP-J-18	10-21-05	DOWEL ASSEMBLY DEVICES
RP-J-19	10-21-05	DOWEL ASSEMBLY DEVICES
RP-MC-1	02-28-02	STANDARD 4" SLOPING (MOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS

SAFETY APPURTENANCES AND FENCE

S-F-10	01-24-08	STANDARD RIGHT-OF-WAY STOCK FENCE
S-F-10A	01-24-08	STANDARD RIGHT-OF-WAY STOCK FENCE WITH TIMBER POSTS
S-F-10B	05-27-01	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10C		RIGHT-OF-WAY FENCE AT BRIDGES AND BOX CULVERTS
S-F-10D		RIGHT-OF-WAY FENCE LOCATIONS AT INTERCHANGES
S-FG-11	01-24-08	STANDARD STOCK FENCE GATE
S-GR-11	11-26-07	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL ALTERNATES
S-GR-13	05-27-03	BARRIER RAIL MOUNTING, POST BLOCK-OUTS WITH VERTICAL ADJUSTMENT HOLES
S-GR-13A		BARRIER RAIL MOUNTING POST FOR PLASTIC BLOCK-OUTS WITH HORIZONTAL ADJUSTMENT HOLES
S-GR-14	09-05-98	W-BEAM BARRIER FASTENING HARDWARE AND BRIDGE APPROACH DELINEATORS
S-GR-15	06-30-05	W-BEAM BARRIER TERMINAL ELEMENT DETAILS
S-GR-16	05-27-01	GUARDRAIL BARRIER TREATMENT FOR PIERS IN MEDIAN
S-GR-17	09-11-02	BRIDGE END PROTECTION IN MEDIAN FOR DUAL BRIDGE
S-GR-19	10-06-06	GUARDRAIL TERMINAL ANCHORS, TYPE 12 AND TYPE 13
S-GR-19C		GUARDRAIL TERMINAL ANCHOR, TYPE 13 ALTERNATE
S-GR-20	05-27-01	MEDIAN DIVIDER GUARDRAIL AND GUARDRAIL TERMINAL ANCHORS
S-GR-21	06-02-08	LENGTH OF NEED AND TERMINAL REQUIREMENTS IN FILLS
S-GR-24	05-15-08	GUARDRAIL END TERMINALS AT BRIDGE ENDS
S-GR-26	03-15-08	SLOTTED GUARDRAIL TERMINAL ANCHOR (TYPE 21)
S-GR-27	05-27-03	GUARDRAIL TERMINAL ANCHOR (TYPE 21) ELEMENT ASSEMBLY DETAILS
S-GR-28	06-30-05	GUARDRAIL TERMINAL ANCHOR (TYPE 21) POST AND ASSEMBLY DETAILS
S-GR-38	05-15-08	DETAILS FOR CONSTRUCTION OF EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINAL
S-GR-38A	06-30-05	DETAILS FOR CONSTRUCTION OF ALTERNATE EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINALS
S-GR-43		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) POST LAYOUT AND ERECTION DETAILS
S-GR-44		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) (2 TUBE) GUARDRAIL ELEMENT POST AND ASSEMBLY DETAILS
S-MB-3	10-26-99	STANDARD CONCRETE GLARE SCREEN MEDIAN BARRIER
S-MB-3A	10-26-99	STANDARD CONCRETE GLARE SCREEN MEDIAN BARRIER
S-MB-4	05-27-01	STANDARD CONCRETE GLARE SCREEN MEDIAN BARRIER (BRIDGE PIER PROTECTION)
S-MB-7		STANDARD DETAILS FOR CONCRETE BARRIER WALL INCLUDING GUARDRAIL ATTACHMENT
S-MB-8		STANDARD DETAILS FOR CONCRETE BARRIER WALL AT BRIDGE BENTS INCLUDING GUARDRAIL ATTACHMENT
S-RP-2	01-19-99	STANDARD CONCRETE RIGHT-OF-WAY MARKERS
S-SSMB-1		32" SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-2		51" SINGLE SLOPE CONCRETE BARRIER WALL

TRAFFIC CONTROL APPURTENANCES

T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-L-1	02-15-07	STANDARD LIGHTING FOUNDATION DETAILS
T-L-1TM		STANDARD LIGHTING DETAILS TENON MOUNTED OFFSET LIGHTING SUPPORTS
T-L-3	04-15-96	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	07-29-04	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
T-M-5	09-05-04	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-6	07-29-98	MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-7	10-10-06	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	10-10-06	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-9	11-30-04	MARKING DETAILS FOR RAMP INTERSECTIONS
T-PBR-1	02-22-04	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	10-10-06	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	05-27-03	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	05-27-03	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-11	05-27-01	DELINEATOR AND MILEPOST DETAILS
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	05-27-01	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-14	05-27-01	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-16	10-23-06	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A		GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	10-26-96	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	05-27-01	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS

JOHN T. PANKEY JR.
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
8-23-10
NO. 102...
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	1C

T-S-19	07-29-91	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	05-27-01	SIGN DETAILS
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-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-12	03-13-09	ONE LANE CLOSURE DETAIL FOR BRIDGES 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

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-2	04-01-08	SEDIMENT FILTER BAG
EC-STR-3B	04-01-08	SILT FENCE
EC-STR-3C	04-01-08	SILT FENCE WITH WIRE BACKING
EC-STR-3D	04-01-08	ENHANCED SILT FENCE
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-4A	04-01-08	ENCHANCED SILT FENCE CHECK (V-DITCH)
EC-STR-6	04-01-08	ROCK CHECK DAM
EC-STR-6A		ENHANCED ROCK CHECK DAM
EC-STR-11	04-01-08	CULVERT PROCTECTION TYPE 1
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	04-01-08	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	04-01-08	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-31	04-01-08	TEMPORARY DIVERSION CHANNEL
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN
EC-STR-37	04-01-08	SEDIMENT TUBE
EC-STR-39	04-01-08	CURB INLET PROTECTION TYPE 1 & 2
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
EC-STR-43		CATCH BASIN FILTER ASSEMBLY (TYPE 3)
* EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS

JOHN T. PANKEY
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STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS

* NOTE: TO BE PRINTED WITH PLANS

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2A

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
	201-01	CLEARING AND GRUBBING	LS	1
	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
(46)	202-03.03	REMOVAL OF ASPHALT PAVEMENT	C.Y.	1800
	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	255187
	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	21842
	203-06	WATER	M.G.	2025
	204-08	FOUNDATION FILL MATERIAL	C.Y.	2239
	204-08.01	BACKFILL MATERIAL (FLOWABLE FILL)	C.Y.	374
(20)	209-02.03	8" TEMPORARY SLOPE DRAIN	L.F.	55
(20)	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	30
(20)	209-02.07	18" TEMPORARY SLOPE DRAIN	L.F.	50
(20)	209-05	SEDIMENT REMOVAL	C.Y.	6000
(20)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	11000
(20)	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	12400
(20)	209-08.05	ENHANCED SILT FENCE CHECK (V-DITCH)	EACH	110
(20)	209-08.07	ROCK CHECK DAM	EACH	25
(20)	209-08.08	ENHANCED ROCK CHECK DAM	EACH	37
(20)	209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	5
	209-09.20	POLYMER FLOCCULENT	LB.	500
(20)	209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	105
	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	125
(20)	209-40.30	CATCH BASIN PROTECTION (TYPE A)	EACH	14
(20)	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	13
(20)	209-40.34	CATCH BASIN PROTECTION (TYPE E)	EACH	18
(20)	209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	19
(20)	209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	5
(20)	209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EACH	53
(20)	209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	132
	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	80403
(28)	303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	6831
(42)	303-01.09	MINERAL AGGREGATE, TYPE A BASE,GRADING D LIMESTONE	TON	7743
(20)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	490
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	3303
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	8684
	307-02.02	ASPHALT CEMENT (PG70-22)(BPMB-HM) GRADING A-S	TON	219
	307-02.03	AGGREGATE (BPMB-HM) GRADING A-S MIX	TON	6517
	307-03.01	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A	TON	17206
	307-03.02	PERF. GRADE ASPH. CEMENT(PG76-22)GRADING AS	TON	543
	307-03.03	AGGREGATE(BPMB-HM) GRADING AS	TON	16011
	307-03.08	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2	TON	12152
	309-01.01	MINERAL AGGREGATE (A-CBC)	TON	18075
	309-01.02	PORTLAND CEMENT (A-CBC)	TON	744
	309-02	BITUMINOUS MATERIAL (A-CBC)	TON	46
	313-03	TREATED PERMEABLE BASE	S.Y.	29485
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	262
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	20
	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	3923
(29)	411-03.10	ACS MIX(PG76-22) GRADING D	TON	17812
	411-12.01	SCORING SHOULDERS (CONTINUOUS) (16IN WIDTH)	L.M.	12.3

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	37600
(27)	501-01.03	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"	S.Y.	27576
	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	57
	604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	9813
	606-24.10	SHEET PILES	S.F.	4400
	607-02.02	15" CONCRETE PIPE CULVERT(CLASS III)	L.F.	212
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	10043
	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	1673
	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	1767
	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	580
	607-08.02	42" CONCRETE PIPE CULVERT (CLASS III)	L.F.	17
	607-09.02	48" CONCRETE PIPE CULVERT (CLASS III)	L.F.	48
	607-11.03	60" CONCRETE PIPE CULVERT (CLASS III)	L.F.	54
	611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	3
	611-02.10	JUNCTION BOX, TYPE 1	EACH	18
	611-02.11	JUNCTION BOX, TYPE 2	EACH	2
	611-02.13	JUNCTION BOX, TYPE 4	EACH	3
	611-02.14	JUNCTION BOX, TYPE 5	EACH	2
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	121
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	11090
	611-07.03	STRUCTURAL STEEL (PIPE ENDWALLS)	LB.	1622
	611-10.01	CATCH BASINS, TYPE 10, 0' - 4' DEPTH	EACH	1
	611-28.01	CATCH BASINS, TYPE 28, 0' - 4' DEPTH	EACH	11
	611-28.02	CATCH BASINS, TYPE 28, > 4' - 8' DEPTH	EACH	17
	611-31.02	CATCH BASINS, TYPE 31, > 4' - 8' DEPTH	EACH	33
	611-31.03	CATCH BASINS, TYPE 31, > 8' - 12' DEPTH	EACH	4
	611-31.05	CATCH BASINS, TYPE 31, > 16' - 20' DEPTH	EACH	1
	611-32.01	CATCH BASINS, TYPE 32, > 0' - 4' DEPTH	EACH	5
	611-32.02	CATCH BASINS, TYPE 32, > 4' - 6' DEPTH	EACH	8
	611-38.02	CATCH BASINS, TYPE 38, > 4' - 8' DEPTH	EACH	5
	611-39.02	CATCH BASINS, TYPE 39, > 4' - 8' DEPTH	EACH	1
	611-39.03	CATCH BASINS, TYPE 39, > 8' - 12' DEPTH	EACH	1
	611-40.02	CATCH BASINS, TYPE 40, > 4' - 8' DEPTH	EACH	1
	611-41.01	CATCH BASINS, TYPE 41, 0' - 4' DEPTH	EACH	3
	611-41.02	CATCH BASINS, TYPE 41, > 4' - 8' DEPTH	EACH	1
	611-41.03	CATCH BASINS, TYPE 41, > 8' - 12' DEPTH	EACH	1
	611-42.01	CATCH BASINS, TYPE 42, 0' - 4' DEPTH	EACH	1
	611-42.02	CATCH BASINS, TYPE 42, > 4' - 8' DEPTH	EACH	4
	611-42.04	CATCH BASINS, TYPE 42, > 12' - 16' DEPTH	EACH	1
	611-51.02	CATCH BASINS, TYPE 51, > 4' - 8' DEPTH	EACH	40
	611-51.03	CATCH BASINS, TYPE 51, > 8' - 12' DEPTH	EACH	25
	611-51.04	CATCH BASINS, TYPE 51, > 12' - 16' DEPTH	EACH	7
(21)	621-01.01	TEMPORARY STRUCTURE (JB TYPE 1 - DETOUR RAMP 15A STA. 10+25.01, 2.12' RT.)	LS	1
(21)	621-01.02	TEMPORARY STRUCTURE (TYPE 42 CB - DETOUR RAMP 15A STA. 10+24.94, 17' RT.)	LS	1
(21)	621-01.03	TEMPORARY STRUCTURE (TYPE 42 CB - DETOUR RAMP 15F STA. 7+83.34, 17' RT.)	LS	1
(21)	621-01.04	TEMPORARY STRUCTURE (JB TYPE 1 - I-240 STA. 563+50.00, 69' RT)	LS	1
(21)	621-01.05	TEMPORARY STRUCTURE (TYPE 42 CB - DETOUR RAMP 15E STA. 9+61.22, 2' RT.)	LS	1
(21)	621-01.06	TEMPORARY STRUCTURE (TYPE 42 CB - DETOUR RAMP 15H STA. 11+00.00, 8' RT)	LS	1
(21)	621-01.07	TEMPORARY STRUCTURE (TYPE 38S CB - DETOUR RAMP 17A STA. 8+50.00, 12.40' RT)	LS	1
(21)	621-01.08	TEMPORARY STRUCTURE (TYPE 42 CB - DETOUR RAMP 17B STA. 6+00.00, 12' RT.)	LS	1
(21)	621-01.09	TEMPORARY STRUCTURE (JB TYPE 1 - DETOUR RAMP 17B STA. 6+30.00, 3.70' RT.)	LS	1
(21)	621-01.10	TEMPORARY STRUCTURE (TYPE 42S CB - DETOUR RAMP 17E STA. 15+00.00, 9' RT.)	LS	1
(21)	621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	994
(30)	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	245

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

8/25/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2B

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	703-01	CEMENT CONCRETE DITCH PAVING	C.Y.	631
(19)	703-02	CEMENT CONCRETE DITCH PAVING (REINFORCED)	C.Y.	12
	705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	565
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	3891
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	3
	705-04.04	GUARDRAIL TERMINAL (TYPE 21)	EACH	1
	705-04.05	GUARDRAIL TERMINAL (TYPE-IN-LINE)	EACH	1
	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	17
	705-08.13	PERMANENT IMPACT ATTENUATOR NCHRP350 TL-3	EACH	6
(23)	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	22
	706-01	GUARDRAIL REMOVED	L.F.	6350
	707-01.11	CHAIN LINK FENCE (6 FOOT)	L.F.	20
	707-01.13	GATE - CHAIN-LINK FENCE-6 FOOT (WALK GATE) (4' x 6')	EACH	1
	707-01.51	END & CORNER POST ASSEMBLY (CHAIN-LINK FENCE 6')	EACH	2
	708-02.01	MARKERS (CONCRETE R.O.W. POSTS)	EACH	5
	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	450
(20)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	1500
	709-05.07	MACHINED RIP-RAP (CLASS A-2)	TON	290
	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	326
	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	195
	710-04	FILTER CLOTH UNDERDRAIN (WITH PIPE)	L.F.	45000
	710-05	LATERAL UNDERDRAIN	L.F.	11000
	710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	60
	710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	15
	710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	EACH	135
	711-04.01	CONCRETE GLARE SCREEN MEDIAN BARRIER @ BRIDGE PIERS	L.F.	480
	711-04.05	CONCRETE GLARE SCREEN (MEDIAN BARRIER CAP)	L.F.	16210
	711-05.01	REMOVAL & DISPOSAL OF CONCRETE MEDIAN BARRIER	L.F.	316
	711-05.70	SINGLE SLOPE MEDIAN BARRIER WALL	L.F.	11059
	712-01	TRAFFIC CONTROL	LS	1
	712-01.02	LANE CLOSURE	EACH	2
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	44025
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	224
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	224
	712-06	SIGNS (CONSTRUCTION)	S.F.	1414
	712-06.01	VERTICAL PANELS	S.F.	1234
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	225
(43)	712-08.03	ARROW BOARD (TYPE C)	EACH	6
	712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.	85459
	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	136064
	712-09.05	REMOVABLE PAVEMENT MARKING (ARROW)	EACH	6
(44)	712-09.33	MODIFY EXISTING OVERHEAD SIGNS	EACH	3
	713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	17
	713-01.02	STEEL BAR REINFORCEMENT(FOUNDATION FOR SIGN SUPPORTS)	LB.	4675
	713-02.04	DELINEATOR (MILE MARKER) & STEEL POST	EACH	3
(32)	713-02.14	FLEXIBLE DELINEATOR (WHITE)	EACH	102
(32)	713-02.15	FLEXIBLE DELINEATOR (YELLOW)	EACH	31
	713-05	STEEL HOLLOW SQUARE POST (BREAKAWAY) SIGN SUPPORTS	LB.	200
	713-06	STEEL I-BEAMS & WF-BEAMS(BREAKAWAY) SIGN SUPPORT	LB.	12300
	713-09.01	STEEL OVERHEAD SIGN STRUCTURE (SPAN 114'-0")	EACH	1
	713-09.02	STEEL OVERHEAD SIGN STRUCTURE (SPAN 54'-0")	EACH	1
	713-09.03	STEEL OVERHEAD SIGN STRUCTURE (SPAN 54'-0")	EACH	1
	713-09.04	STEEL OVERHEAD SIGN STRUCTURE (SPAN 57'-6")	EACH	1
	713-09.05	STEEL OVERHEAD SIGN STRUCTURE (SPAN 69'-0")	EACH	1

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	713-09.06	STEEL OVERHEAD SIGN STRUCTURE (SPAN 95'-0")	EACH	1
	713-09.07	STEEL OVERHEAD SIGN STRUCTURE (SPAN 83'-0")	EACH	1
	713-09.08	STEEL OVERHEAD SIGN STRUCTURE (SPAN 100'-0")	EACH	1
	713-09.09	STEEL OVERHEAD SIGN STRUCTURE (SPAN 83'-2")	EACH	1
	713-09.10	STEEL OVERHEAD SIGN STRUCTURE (SPAN 73'-0")	EACH	1
	713-09.11	STEEL OVERHEAD SIGN STRUCTURE (SPAN 70'-0")	EACH	1
	713-09.12	STEEL OVERHEAD SIGN STRUCTURE (SPAN 73'-0")	EACH	1
	713-09.13	STEEL OVERHEAD SIGN STRUCTURE (SPAN 125'-0")	EACH	1
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	209
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	1015
	713-13.04	FLAT SHEET ALUMINUM SIGNS (0.125" THICK)	S.F.	90
	713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	5005
(31)	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
(41)	713-16.20	SIGNS (W/ 1.5" x 1.5" SQ. TUBE)	EACH	33
(41)	713-16.21	SIGNS (W/ 3" x 3" SQ. TUBE)	EACH	4
	713-17.02	INSTALL AUXILIARY SUPPORT FOR EXIT NUMBER PANEL	EACH	4
(41)	713-17.60	SIGN MOUNTED ON CONCRETE MEDIAN BARRIER (W/ 12" x 12" BASE)	EACH	3
(41)	713-17.62	SIGN MOUNTED ON CONCRETE MEDIAN BARRIER (W/ SADDLE BASE)	EACH	14
(1)	714-03	JACKED OR BORED CONDUIT	L.F.	1265
	714-03.01	DIRECT BURIAL CONDUIT (2" PVC, SCHEDULE 40)	L.F.	31310
(2)	714-04.02	CONDUIT (STRUCTURES - 2" RGS)	L.F.	1300
(33)	714-04.03	CONDUIT (CONDUIT GRADE MODIFICATION)	L.F.	3650
	714-05.04	PULL BOXES (TYPE C)	EACH	3
(2)	714-05.05	PULL BOXES (6" x 6")	EACH	12
(3)	714-05.06	PULL BOXES (MEMPHIS STANDARD)	EACH	86
	714-06.05	CABLE (1/C # 6 AWG)	L.F.	20600
	714-06.06	CABLE (1/C # 4 AWG)	L.F.	54200
	714-06.07	CABLE (1/C # 2 AWG)	L.F.	122200
	714-06.08	CABLE (# 6 COPPER SOFT DRAWN BARE) (GROUND)	L.F.	49000
(4)	714-08.09	LIGHT STANDARDS (45')	EACH	94
(5)	714-08.10	LIGHT STANDARDS (RETAINING/NOISE WALL MOUNTED)	EACH	87
(6)	714-08.11	LIGHT STANDARDS (150' HIGH MAST)	EACH	1
(7)	714-08.12	LIGHT STANDARDS (150' HIGH MAST)	EACH	2
(8)	714-08.13	LIGHT STANDARDS (150' HIGH MAST)	EACH	3
(9)	714-08.14	LIGHT STANDARDS (150' HIGH MAST)	EACH	6
(10)	714-08.20	FOUNDATION (ONLY) FOR LIGHT STANDARD	EACH	96
(11)	714-08.30	REMOVE & RELOCATE LIGHT STANDARD	EACH	2
(12)	714-08.32	REMOVAL OF LIGHT STANDARD & FOUNDATION	EACH	251
	714-08.46	FOUNDATION (ONLY) FOR HIGH MAST LIGHT STANDARD	EACH	12
(13)	714-09.03	LUMINAIRES (250 WATT)	EACH	181
(14)	714-09.06	LUMINAIRES (1000 WATT - HIGH MAST)	EACH	100
(15)	714-09.09	LUMINAIRES (150 WATT UNDERPASS)	EACH	19
(16)	714-12.01	CONTROL CENTER (NO. 1)	LS	1
(16)	714-12.02	CONTROL CENTER (NO. 2)	LS	1
(16)	714-12.03	CONTROL CENTER (NO. 3)	LS	1
(16)	714-12.04	CONTROL CENTER (NO. 4)	LS	1
(16)	714-12.05	CONTROL CENTER (NO. 5)	LS	1
(16)	714-12.06	CONTROL CENTER (NO. 6)	LS	1
(17)	714-12.09	CONTROL CENTER (REMOVE)	LS	1
(18)	714-25	ELECTRICAL CONNECTION	EACH	6
	716-01.02	RAISED PAVEMENT MARKERS (TYPE 2)	EACH	1276
	716-01.05	TEMPORARY RAISED PAVEMENT MARKER	EACH	102
	716-01.22	Snwplwble Pvmt Mrkrs (Mono-Dir)(1 Color)	EACH	1734
	716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	1050
	716-02.07	PLASTIC PAVEMENT MARKING (24" BARRIER LINE)	L.F.	4080

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2C

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	2
	716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	L.F.	64000
	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	11
	716-08.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	95600
	716-08.02	REMOVAL OF PAVEMENT MARKING (8" BARRIER LINE)	L.F.	88002
	716-08.04	REMOVAL OF PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	9670
	716-10.02	PREFORMED PLASTIC PAVEMENT MARKING (8" BARRIER LINE)	L.F.	2250
	716-10.15	PREFORMED PLASTIC PAVEMENT MARKING (6" LINE)	L.M.	1.5
	716-10.16	PREFORMED PLASTIC PAVEMENT MARKING (6" DOTTED LINE)	L.F.	6224
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	21
	716-12.03	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE)	L.F.	11090
	716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	2341
	717-01	MOBILIZATION	LS	1
	719-02	REMOVAL AND DISPOSAL OF LITTER	L.M.	3.1
	725-04.16	RDS COMM CABLE	L.F.	3380
(38)	725-04.18	HIGHWAY ADVISORY RADIO	EACH	1
	725-04.21	CONDUIT BANK TYPE 1	L.F.	765
	725-04.24	CONDUIT BANK TYPE 4	L.F.	5885
	725-04.25	DMS CONDUIT BANK	L.F.	100
	725-04.29	2" STRUCTURE CONDUIT	L.F.	75
	725-04.32	CONDUIT BANK TYPE 2 BORED	L.F.	270
	725-04.34	CONDUIT BANK TYPE 4 BORED	L.F.	195
	725-04.36	2" CONDUIT BORED W/ BANK	L.F.	270
	725-04.37	CABLE MARKER	EACH	15
	725-04.38	PULL BOX (TYPE D)	EACH	2
	725-04.39	PULL BOX (TYPE E)	EACH	4
(34-37)	725-04.40	FO CABLE, 60F	L.F.	11725
(34)	725-04.41	FO DROP CABLE, 4F	L.F.	500
	725-04.42	FO CLOSURE, 12F	EACH	1
	725-04.44	FO SPLICE, FUSION	EACH	132
(35)	725-09.96	RADAR DETECTION SYSTEM RELOCATION	EACH	6
(36)	725-09.97	VIDEO DETECTION SYSTEM RELOCATION	EACH	1
(45)	725-09.98	DYNAMIC MESSAGE SIGN RELOCATION	EACH	1
	725-09.99	FOUNDATION FOR DYNAMIC MESSAGE SIGN	EACH	1
	730-03.25	INSTALL PULL BOX (29" X 21")	EACH	2
(39)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	2
	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	50
	730-14.02	SAW SLOT	L.F.	840
	730-14.03	LOOP WIRE	L.F.	3740
(40)	730-15.07	CABINET	EACH	2
(20)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	2725
(20)	740-11.02	TEMPORARY SEDIMENT TUBE 12IN (EROSION CONTROL)	L.F.	17500
(20)	740-11.04	TEMPORARY SEDIMENT TUBE 20IN (EROSION CONTROL)	L.F.	325
(20)	740-11.05	TEMPORARY SEDIMENT TUBE 24IN (EROSION CONTROL)	L.F.	800
	801-01	SEEDING (WITH MULCH)	UNIT	500
(20)(22)	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	2560
	801-02	SEEDING (WITHOUT MULCH)	UNIT	100
(24)	801-03	WATER (SEEDING & SODDING)	M.G.	270
	801-07	SEED (SUPPLEMENTAL APPLICATION)	LB.	113
	801-08	FERTILIZER (SUPPLEMENTAL APPLICATION)	TON	1
	803-01	SODDING (NEW SOD)	S.Y.	32800
(26)	806-02.03	PROJECT MOWING	CYCL	4

FOOTNOTES:

(1) SHALL BE 2" SEAMLESS POLYETHYLENE PIPE.

(2) TO BE USED AT BRIDGES FOR UNDERPASS LIGHTING. SHALL BE STRAPPED TO BRIDGE. INCLUDES ALL APPURTENANCES REQUIRED FOR THE COMPLETE INSTALLATION.

(3) SEE SHEET 25DD AND 25EE FOR MLGW PULL BOX STANDARDS.

(4) SHALL BE 45' ROUND TAPERED ALUMINUM POLE. INCLUDES THE COST OF THE TENON ARM AND BREAKAWAY BASE.

(5) POLE HEIGHT TO BE DETERMINED BY CONTRACTOR.

(6) SHALL HAVE FOUR (4) LUMINAIRES.

(7) SHALL HAVE SIX (6) LUMINAIRES.

(8) SHALL HAVE EIGHT (8) LUMINAIRES.

(9) SHALL HAVE TEN (10) LUMINAIRES.

(10) SHALL BE CLASS 'A' CONCRETE FOUNDATION, SEE TDOT STD. DWG. T-L-1.

(11) INCLUDED FOR RELOCATION OF LIGHT STANDARDS LP 42 AND LP 43.

(12) INCLUDED FOR REMOVAL OF 251 LIGHT STANDARDS.

(13) OFFSET LUMINAIRE SHALL BE AMERICAN ELECTRIC MULTI-MOUNT SERIES 285, 250W CLEAR HPS, TYPE III, MEDIUM SEMI-CUTOFF, CATALOGUE NUMBER 285 25S MR MT2 R3 DA, OR EQUIVALENT. BASED ON AMERICAN ELECTRIC PHOTOMETRIC DATA FILE, AE4173.IES; TOTAL LUMENS = 27,500.

(14) HIGH MAST LUMINAIRE SHALL BE HOLOPHANE HMST, 1000W CLEAR HPS, TYPE V, NON-CUTOFF, CATALOGUE NUMBER HMSTC10HP00S1, OR EQUIVALENT. BASED ON HOLOPHANE PHOTOMETRIC DATA FILE, 36357.IES; TOTAL LUMENS = 140,000.

(15) UNDERPASS LUMINAIRE SHALL BE AMERICAN ELECTRIC UNDERPASS SERIES 681, 150 CLEAR HPS, CATALOGUE NUMBER U681 15SCTMT2 NC 6YAR9386, OR EQUIVALENT. BASED ON AMERICAN ELECTRIC PHOTOMETRIC DATA FILE, AE2081.IES; TOTAL LUMENS = 16,000.

(16) INCLUDES THE COST OF THE 100 AMP DISCONNECT AND THE 10' X 10' FENCE ENCLOSURE. ALSO INCLUDES THE COSTS ASSOCIATED WITH THE CONNECTION OF THE CONTROL CENTER TO THE POWER SUPPLY SOURCE.

(17) INCLUDES REMOVAL AND DISPOSAL OF SIX (6) EXIST. CONTROL CENTERS (CC14 THRU CC18 & CP1). ALSO INCLUDES REMOVAL OF THE EXISTING FENCE ENCLOSURE.

(18) THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE CONTROL CENTER(S). THESE CHARGES SHALL BE INCLUDED IN THE BID FOR THIS ITEM. ALSO, INCLUDES THE COST OF THE STEEL CONDUIT RISER ASSEMBLY AND PROPOSED POWER CABLE OVERHEAD AS REQUIRED.

(19) FLUME LT. STA. 539+75.02 (SEE CULVERT SECTION).

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

(21) QUANTITY IS BASED ON MINIMUM CALCULATED LENGTH. ACTUAL LENGTH REQUIRED WILL BE DETERMINED BASED ON FIELD CONDITIONS ENCOUNTERED. THE BIDDER IS RESPONSIBLE FOR VERIFYING ESTIMATED LENGTHS PRIOR TO SUBMITTING THEIR BID. ADDITIONAL LENGTH, IF ANY, REQUIRED BY ACTUAL FIELD MEASUREMENTS WILL BE INSTALLED AT NO ADDITIONAL COST. ALL COSTS SHALL BE INCLUDED IN THE BID PRICE FOR THESE ITEMS.

(22) FOR EROSION PREVENTION AND SEDIMENT CONTROL.

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

(24) INCLUDES 230 THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.

(25) OMITTED

(26) ITEM INCLUDES LITTER AND TRASH REMOVAL. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE COST OF ITEM NO. 806-02.03, PROJECT MOWING, CYCL.

(27) FOR USE ON INTERCHANGE RAMPS ONLY.

FOOTNOTES CONT.:

(28) INCLUDES 367 TONS FOR BOX CULVERTS.

(29) INCLUDES 5216 TONS FOR LANE WIDENING, EXTRA LANES, TAPERS, AND SHOULDER STABILIZATION.

(30) 4" SLOPING CONCRETE COMBINED CURB & GUTTER.

(31) REMOVE SIGNS, SUPPORTS AND FOOTINGS ON 40+- EXISTING GROUND MOUNTED SIGNS. REMOVE SIGNS AND SUPPORTS ON 35+- EXISTING MEDIAN BARRIER WALL SIGNS. REMOVE SIGN FACESONLY ON 4+- EXISTING OVERHEAD AND BRIDGE MOUNT SIGNS. REMOVE 3 EXISTING OVERHEAD SIGNS, STRUCTURES AND FOOTINGS. REMOVE 2 EXISTING CANTILEVER SIGNS, STRUCTURES AND FOOTINGS. REMOVE 2 OVERHEAD BRIDGE MOUNT SIGNS AND STRUCTURES. REMOVE THESE SIGNS AND ANY OTHER CONFLICTING SIGNS OR AS DIRECTED BY THE ENGINEER.

(32) TO BE USED TO THE END TERMINI ON ALL RAMPS OR AS DIRECTED BY THE ENGINEER.

(33) ITEM # IS FOR ADJUSTING THE DEPTH OF CONDUIT TO 24" BELOW PROPOSED SUB GRADE ELEVATION. THIS ALSO INCLUDES THE LOWERING OF REQUIRED PULL BOXES ALONG CONDUIT ROUTE AS WELL. PROPOSED AREAS SHOWN IN PLANS.

(34) ITEM NUMBER INCLUDES THE INSTALLATION OF FIBER IN EXISTING AND NEW CONDUIT.

(35) ITEM NUMBER INCLUDES THE REMOVAL OF RADAR DETECTION EQUIPMENT, INCLUDING THE TYPE A CABINET AND REINSTALLING THE EQUIPMENT AT THE NEW PROPOSED LIGHT POLE. ITEM NUMBER ALSO INCLUDES ALL LABOR, MATERIAL AND INCIDENTALS NECESSARY TO INSTALL, TEST AND OPERATE THE RDS AND MEET SPECIFICATIONS AS OUTLINED IN MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 12.

(36) ITEM NUMBER INCLUDES THE REMOVAL OF VIDEO DETECTION EQUIPMENT, INCLUDING THE TYPE B CABINET AND REINSTALLING THE EQUIPMENT ONTO THE NEW PROPOSED STATIC SIGN STRUCTURE. ITEM NUMBER ALSO INCLUDES ALL LABOR, MATERIAL AND INCIDENTALS NECESSARY TO INSTALL, TEST AND OPERATE THE VIDEO DETECTION SYSTEM AND MEET SPECIFICATIONS AS OUTLINED IN MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 13.

(37) ITEM NUMBER ALSO INCLUDES THE TESTING OF THE FIBER OPTIC CABLE AS OUTLINED IN MEMPHIS SMARTWAY SYSTEM TSP SECTION 4.3.12.

(38) ITEM IS FOR ONLY THE REMOVAL AND REPAIR OF THE EXISTING GROUNDING SYSTEM ON HAR #14.

(39) ITEM INCLUDES THE ELECTRICAL SERVICE SUPPLIED TO THE WEATHERHEAD BY THE LOCAL UTILITY, ALL NECESSARY MATERIALS AND LABOR FOR CONNECTION OF THE ELECTRICAL SERVICE FROM THE COUNTER CABINET TO THE WEATHERHEAD, THE WIRING OF THE CABINET AND ALL INDICENTALS NECESSARY TO RENDER A COMPLETE AND OPERABLE SYSTEM EXCEPT FOR THE TRAFFIC COUNTER AND MODEM. (PLEASE SEE SPECIAL TRAFFIC COUNTER SPECIFICATIONS NOTES FOR MORE INFORMATION.) ANY COSTS CHARGED BY THE LOCAL UTILITY TO PROVIDE ELECTRICAL SERVICE WILL BE INCLUDED IN THIS ITEM. (IF SERVICE DROP IS INSTALLED UNDERGROUND, THIS ITEM WILL ALSO INCLUDE 2: CONDUIT INSTALLED FOR TELECOMMUNICATIONS. THIS CONDUIT SHALL BE INSTALLED ALONGSIDE THE ELETRICAL SERVICE CONDUIT. THIS CONDUIT SHALL ALSO INCLUDE A PULL WIRE THAT WILL BE USED BY OTHERS.

(40) MINIMUM SIZE OF CABINET SHALL BE 41" TALL, 25" WIDE AND 18" DEEP. ITEM INCLUDES COMPLETE INSTALLATION PER SPECIAL TRAFFIC COUNTER SPECIFICATION NOTES CONCERNING THE COUNTER CABINET. ITEM INCLUDES THE 4" GALVANIZED, RIGID CONDUIT POLE THAT THE CABINET IS TO BE MOUNTED ONTO.

(41) SEE DETAILS ON SHEETS 24S THRU 24V.

(42) UNDER CONCRETE PAVEMENT FOR RAMPS.

(43) TO BECOME THE PROPERTY OF TDOT UPON COMPLETION OF PROJECT.

(44) INCLUDES NONE FOR PHASE 1, 4 FOR PHASE 2, 27 FOR PHASE 3 AND 25 FOR PHASE 4.

(45) ITEM NUMBER INCLUDES THE REMOVAL AND RELOCATION OF EXISTING DMS, CONTROL CABINET AND ALL ASSOCIATED EQUIPMENT, WIREING AND CONDUIT. ITEM NUMBER ALSO INCLUDES THE REMOVAL OF EXISTING FOUNDATION IF REQUIRED. ITEM NUMBER INCLUDES ALL LABOR, MATERIAL AND INCIDENTALS NECESSARY TO INSTALL, TEST AND OPERATE THE DMS AND MEET THE INSTALLATION AND TESTING SPECIFICATIONS AS OUTLINED IN MEMPHIS SMARTWAY SYSTEM TSP 725 SECTIONS 11.3.1 AND 11.3.5 PARAGRAPHS 4 AND 5.

(46) THIS ITEM IS FOR THE REMOVAL OF TEMPORARY DETOUR RAMPS: 15A, 15E, 15F, 15G, 15H, 17A, 17B, 17C, 17E, AND 17G ONLY.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

8/25/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2D

PROPOSED PAVEMENT SCHEDULE

(1) BITUMINOUS SURFACE, 1¼" THICK (132.5 LB. ±/SQ. YD.)
411-03.10 ACS MIX (PG76-22) GRADING D

(2) BITUMINOUS BINDER, 2 " THICK (226 LB. ±/SQ. YD.)
307-03.08 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2

(3) BITUMINOUS BINDER, 7 " THICK (805 LB. ±/SQ. YD.)
307-03.01 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A

(4) BITUMINOUS BINDER, 3½" THICK (315 LB. ±/SQ. YD.)
307-02.02 ASPHALT CEMENT (PG76-22) (BPMB-HM) GRADING A-S
307-02.03 AGGREGATE (BPMB-HM) GRADING A-S MIX

(5) BITUMINOUS SURFACE, 1¼" THICK (128.75 LB. ±/SQ. YD.)
411-01.07 ASPHALT CONCRETE MIX (PG64-22) (ACS) GRADING E (SHOULDER)

(6) CONCRETE SURFACE, 10 " THICK
501-01.03 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"

(7) TREATED PERMEABLE BASE, 4" THICK
313-03 TREATED PERMEABLE BASE

(8) BITUMINOUS BINDER, 2 " THICK (226 LB. ±/SQ. YD.)
307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMP-HM) GRADING B-M2

(9) MINERAL AGGREGATE BASE, 6" THICK
303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D

(9A) MINERAL AGGREGATE BASE, 6" THICK
303-01.09 MINERAL AGGREGATE, TYPE A BASE, GRADING D LIMESTONE

(10) MINERAL AGGREGATE BASE, VARIABLE THICKNESS
303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D

(11) BITUMINOUS BINDER, 3 " THICK (345 LB. ±/SQ. YD.)
307-03.01 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A

(12) BITUMINOUS BINDER, 3 " THICK (270 LB. ±/SQ. YD.)
307-03.02 PERF. GRADE ASPH. CEMENT (PG76-22) GRADING AS
307-03.03 AGGREGATE (BPMB-HM) GRADING AS

(13) CEMENT TREATED BASE
309-01.01 AGGREGATE-CEMENT BASE COURSE, 6" THICK (634 LB. ±/SQ. YD.)
MINERAL AGGREGATE (A-CBC)
309-01.02 PORTLAND CEMENT (A-CBC)
309-01.03 AGGREGATE CEMENT PROCESS

(14) CEMENT TREATED BASE
309-01.01 AGGREGATE-CEMENT BASE COURSE, 5" THICK (529 LB. ±/SQ. YD.)
MINERAL AGGREGATE (A-CBC)
309-01.02 PORTLAND CEMENT (A-CBC)
309-01.03 AGGREGATE CEMENT PROCESS

(15) TACK COAT
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 GAL./SQ. YD.)

(16) PRIME COAT
402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (0.35 GAL./SQ. YD.)
402-02 AGGREGATE FOR COVER MATERIAL (PC) (12 LB. ±/SQ. YD.)

(17) UNDERDRAIN (SEE STD. RD-UD-3)
710-04 FILTER CLOTH UNDERDRAIN (WITH PIPE)

(18) COLD PLANING (1¼" DEPTH)
415-01.01

(19) COLD PLANING (6¾" DEPTH)
415-01.01

(20) BITUMINOUS BINDER, 3 " THICK (345 LB. ±/SQ. YD.)
307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A

(21) BITUMINOUS BINDER, 4 " THICK (460 LB. ±/SQ. YD.)
307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A

(22) CONCRETE COMBINED CURB AND GUTTER
702-03 4" SLOPING CONCRETE COMBINED CURB AND GUTTER
(STD. DWG. RP-MC-1)

(23) SODDING
803-01 (NEW SOD)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND PAVEMENT SCHEDULE

8/20/2010
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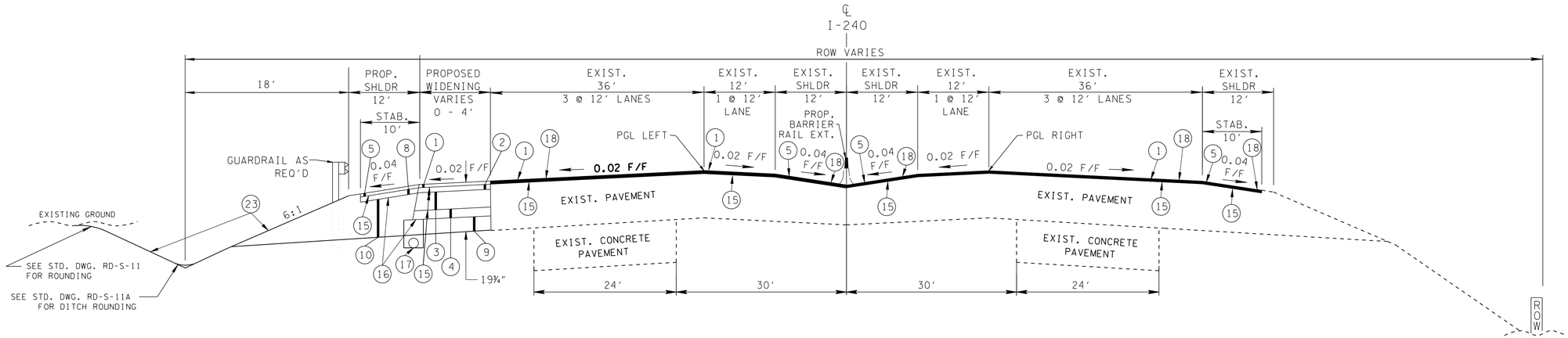
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2
CONST.	2010	STP-I-240(290)	2E



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

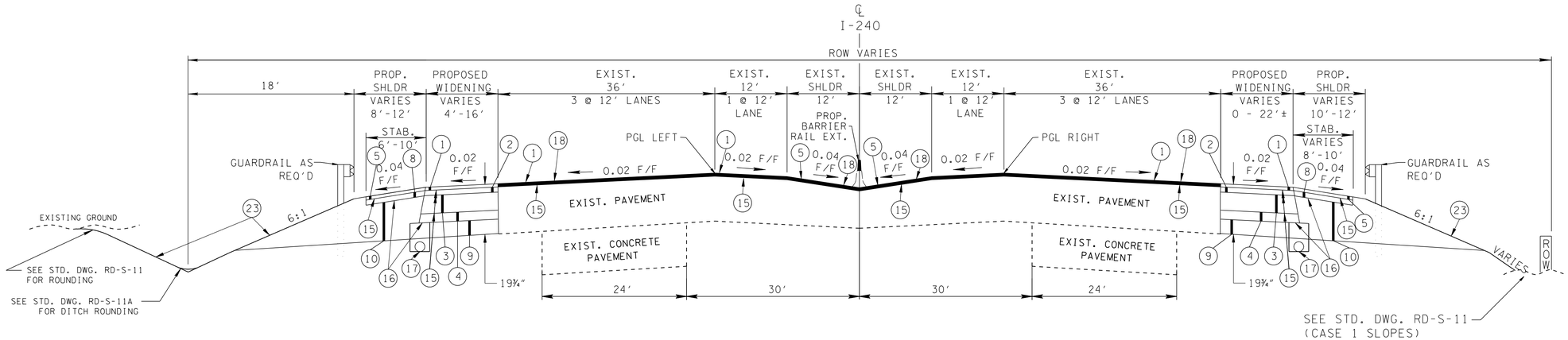
FROM STA. 521+50.00 TO STA. 523+25.00

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 523+25.00 TO STA. 529+49.84

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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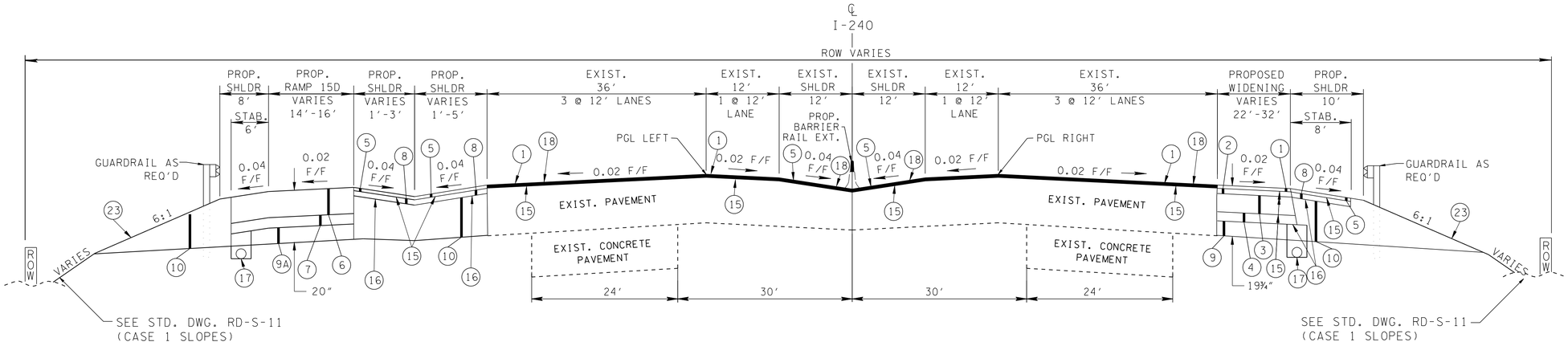
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2A
CONST.	2010	STP-I-240(290)	2F



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

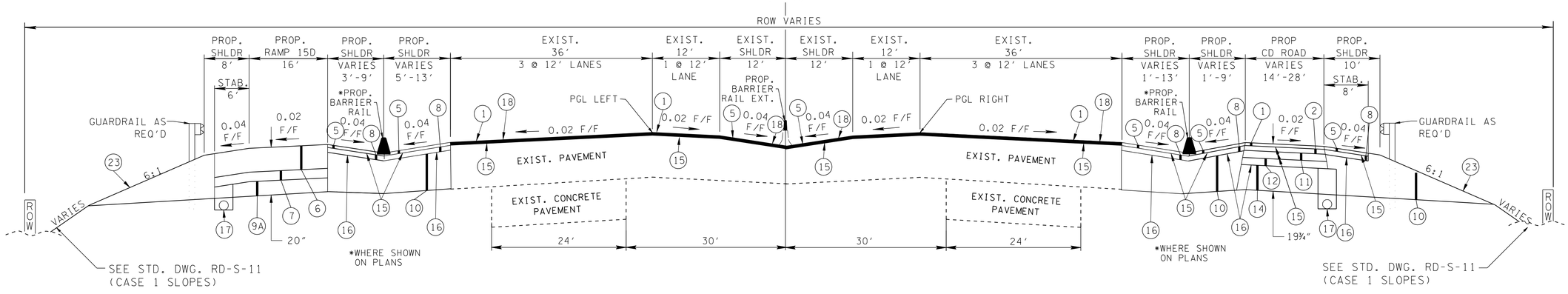
FROM STA. 529+49.84 TO STA. 533+38.49

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.



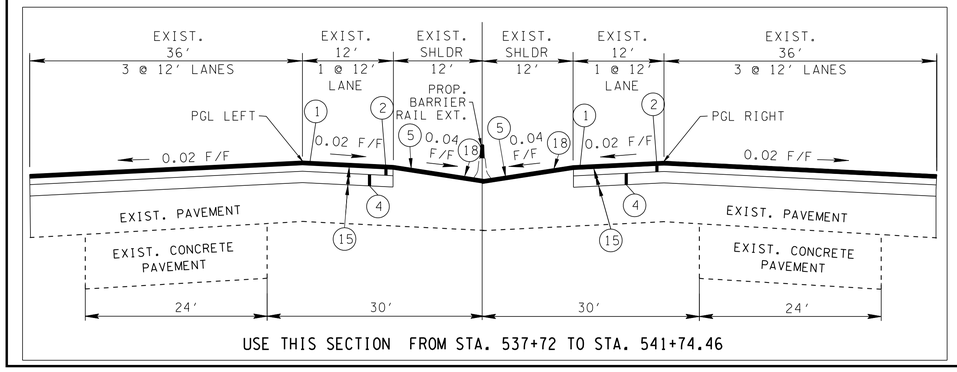
NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

4: BEGIN CONST. PAVT. FOR RAMP 15D LT. STA. 590+90



USE THIS SECTION FROM STA. 537+72 TO STA. 541+74.46

I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 533+38.49 TO STA. 541+74.46
(SEE INSET)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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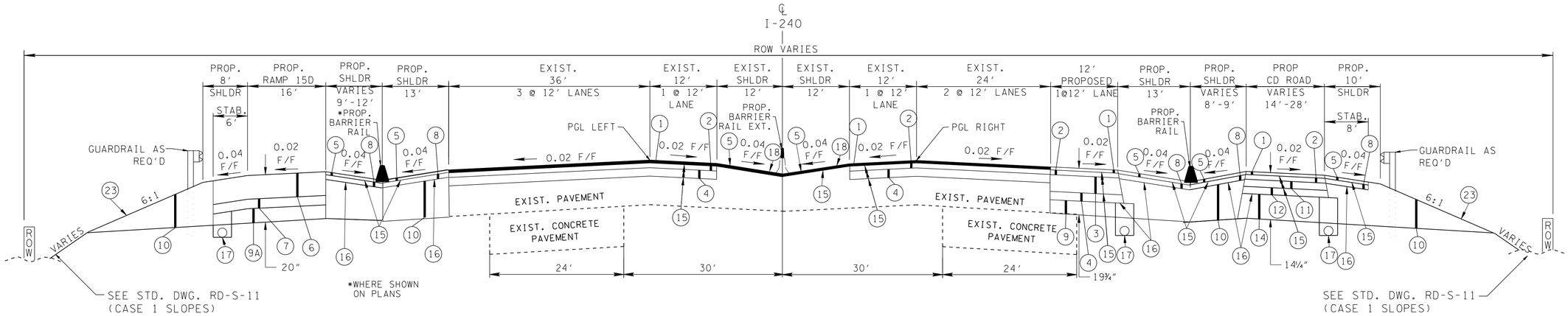
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2B
CONST.	2010	STP-I-240(290)	2G



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

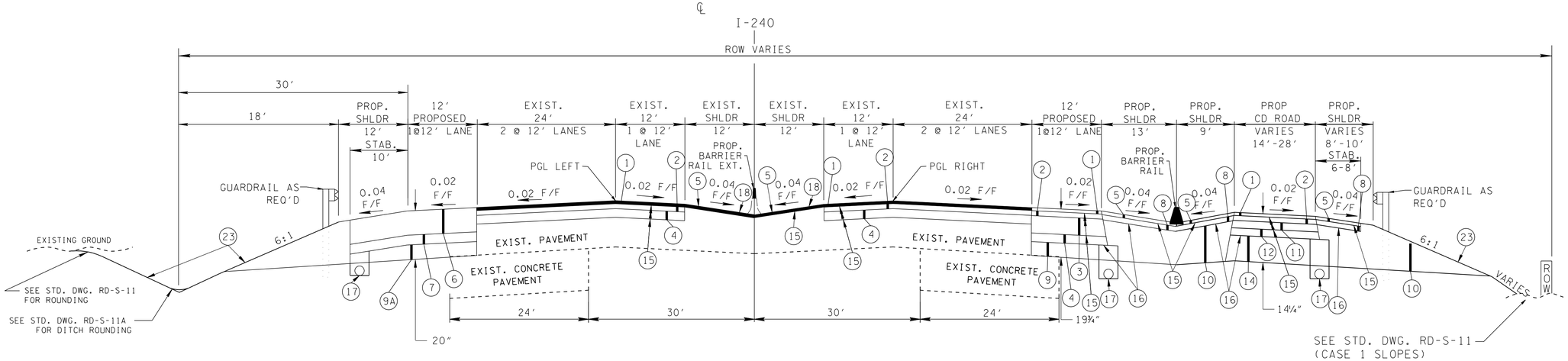
FROM STA. 541+74.46 TO STA. 547+74.89

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 547+74.89 TO STA. 551+13.01

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

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TYPICAL SECTIONS

8/20/2010
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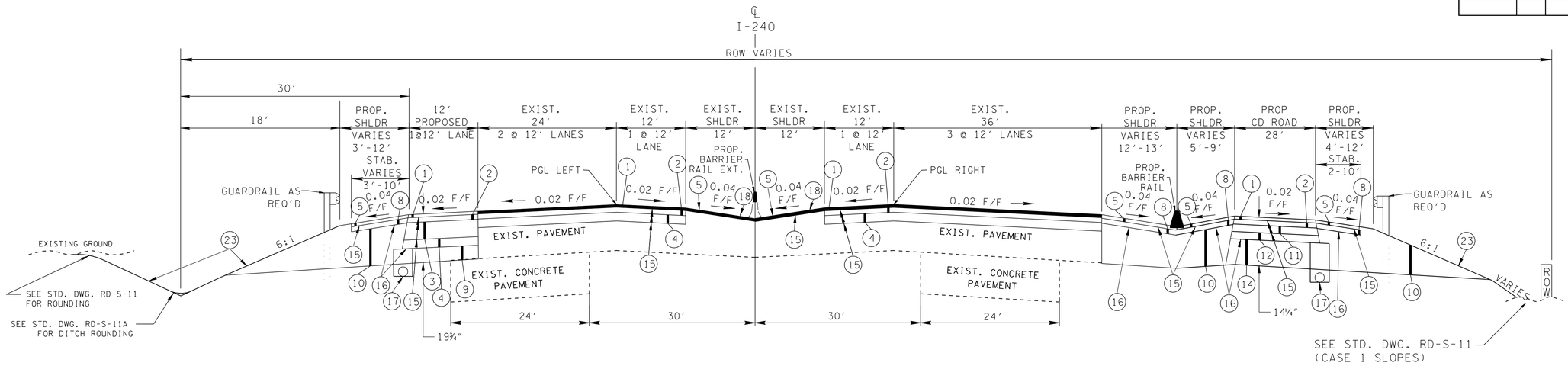
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2C
CONST.	2010	STP-I-240(290)	2H



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

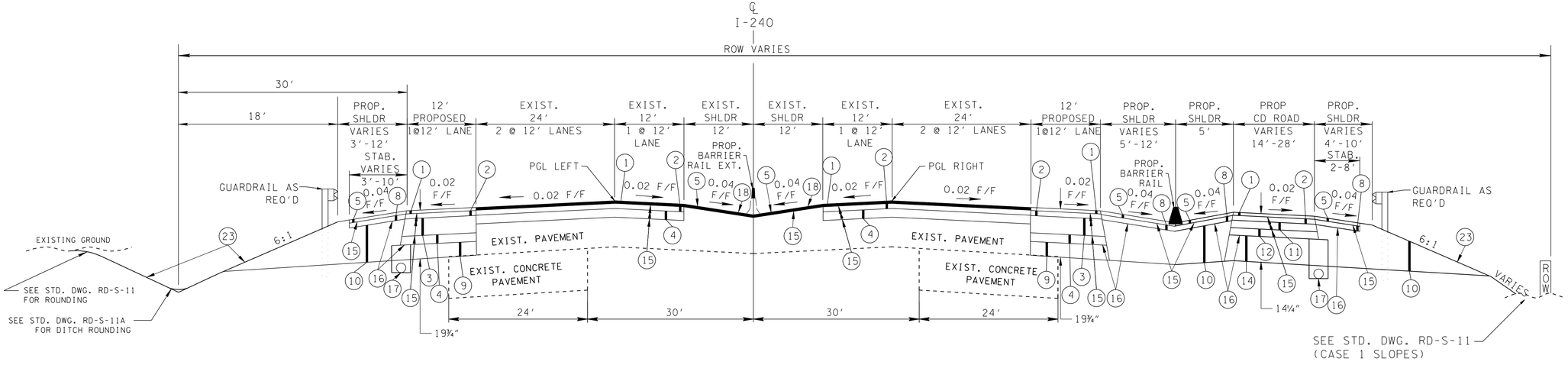
FROM STA. 551+13.01 TO STA. 554+25.99

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 554+25.99 TO STA. 564+17.52

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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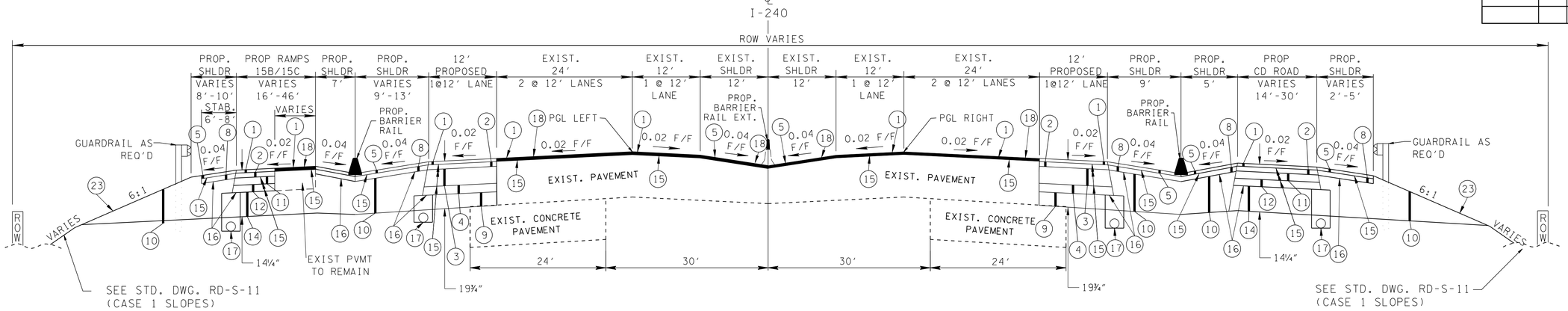
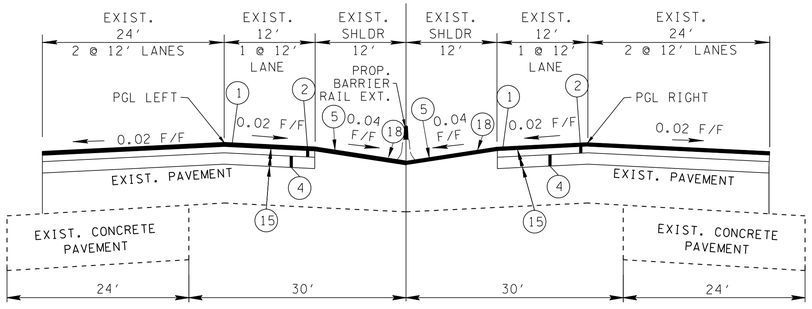
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2D
CONST.	2010	STP-I-240(290)	2-I





USE THIS SECTION FROM STA. 564+17.52 TO STA. 569+22

I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 564+17.52 TO STA. 571+77.85
(SEE INSET)

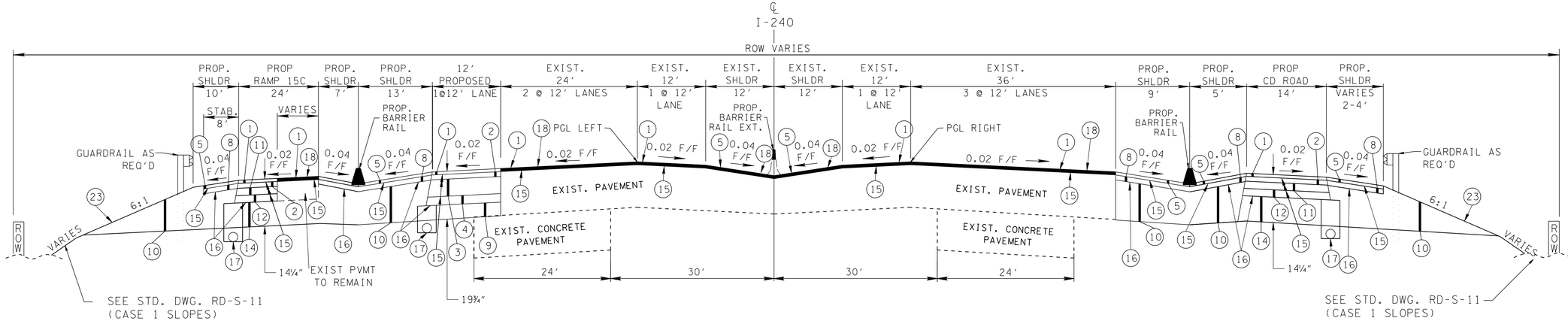
NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

NOTE: ① EXISTING TRAVEL WAY PAVEMENT FOR RAMPS 15B AND 15C TO REMAIN AND ADD RAMP WIDENING, REWORK SHOULDERS BARRIER RAIL, GUARDRAIL, RETAINING WALL AND DRAINAGE AS SHOWN ON THE PLANS LT. STA. 563+99.90 TO STA. 569+29.66. ② EXISTING TRAVEL WAY PAVEMENT FOR RAMPS 15B AND 15C TO REMAIN AS SHOWN ON THE PLANS LT. STA. 569+29.66 TO STA. 575+00.00 AND WIDEN AS NECESSARY. FROM STA. 575+00.00 AHEAD CONSTRUCT ALL NEW PAVEMENT FOR RAMP 15C.



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 571+77.85 TO STA. 575+61.98

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102361
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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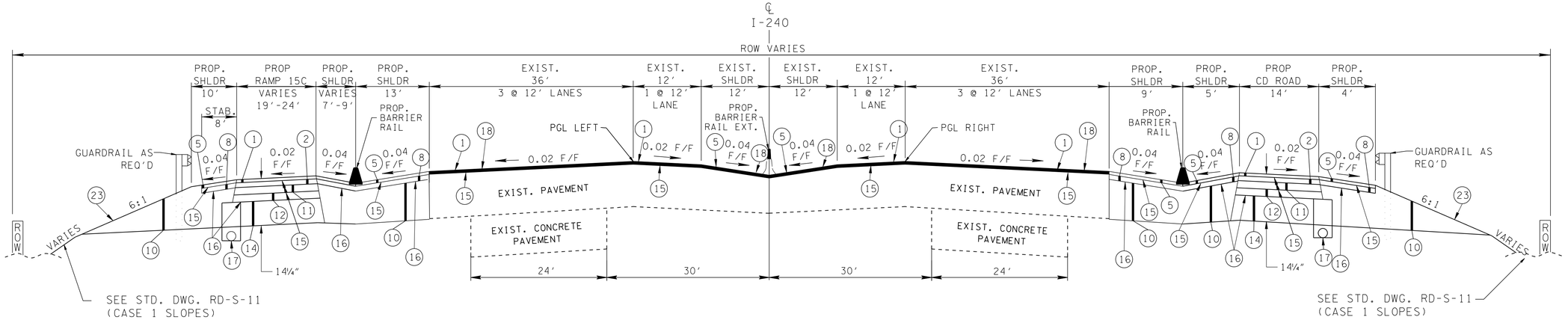
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2E
CONST.	2010	STP-I-240(290)	2J



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

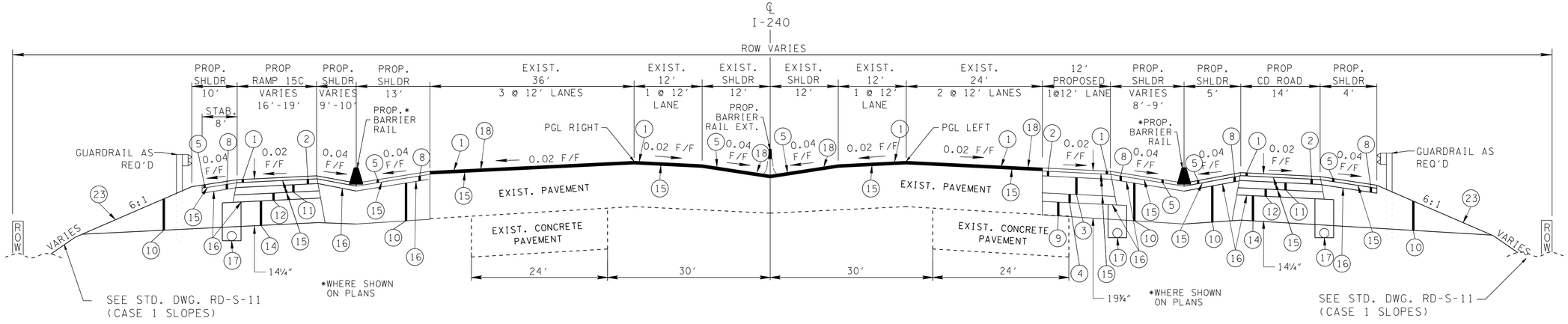
FROM STA. 575+61.98 TO STA. 581+54.04

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 581+54.04 TO STA. 583+07.08

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102510
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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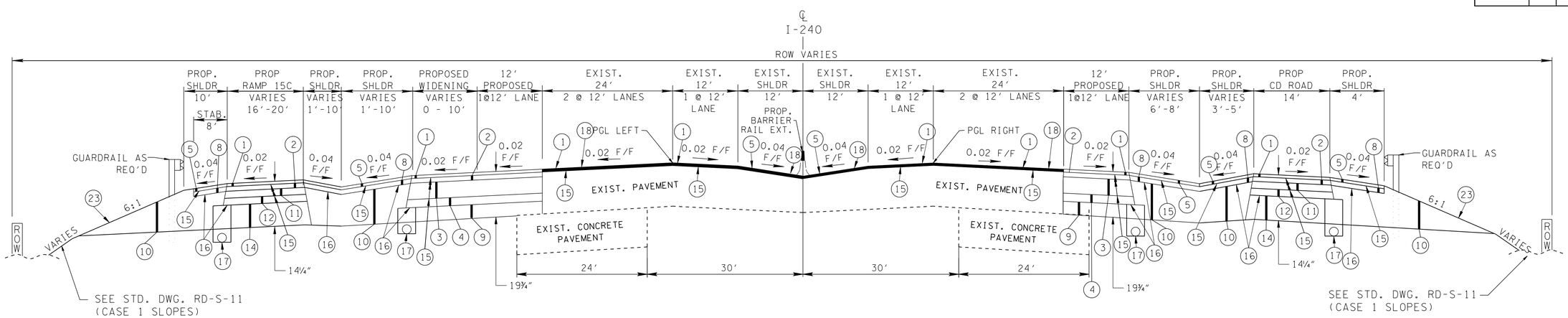
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2F
CONST.	2010	STP-I-240(290)	2K



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

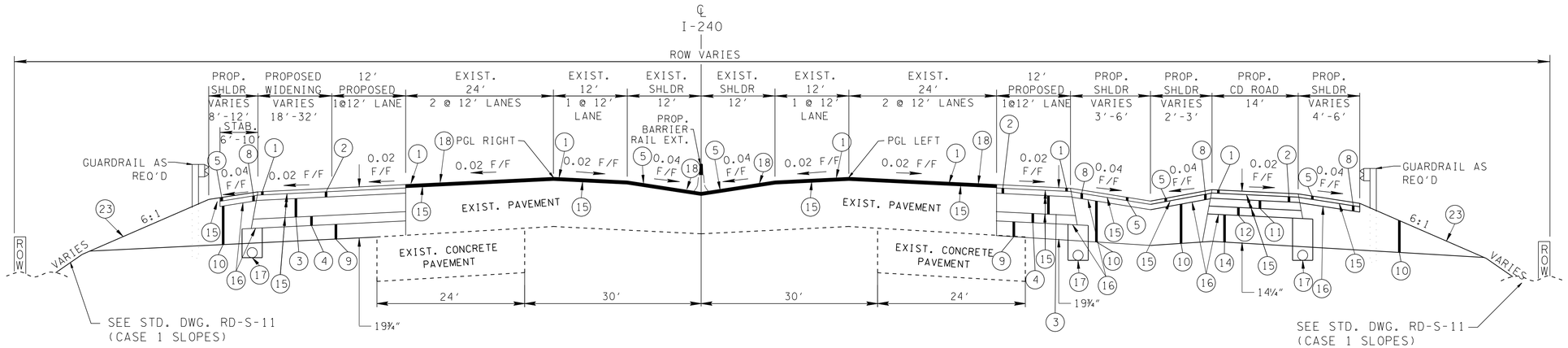
FROM STA. 583+07.08 TO STA. 585+32.45

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 585+32.45 TO STA. 588+83.29

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

JOHN T. PANKEY
REGISTERED ENGINEER
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No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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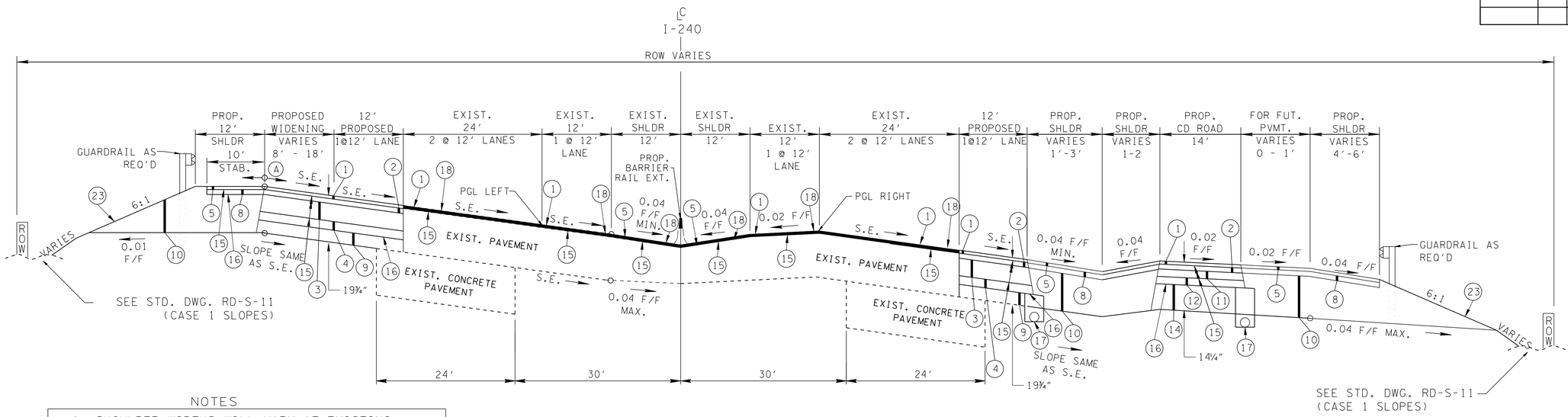
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2G
CONST.	2010	STP-I-240(290)	2L



NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

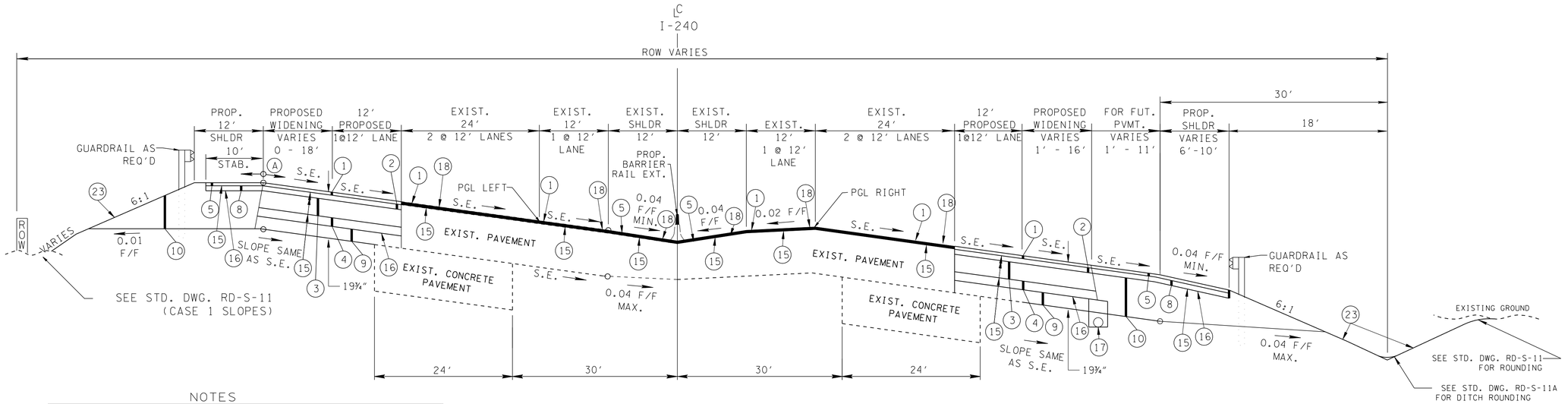
3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 588+83.29 TO STA. 590+83.59

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.



NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 590+83.59 TO STA. 598+44.81

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.

JOHN T. PANKEY JR. — REGISTERED ENGINEER — AGRICULTURE — 102.25 — NOVEMBER 3, 2010 — STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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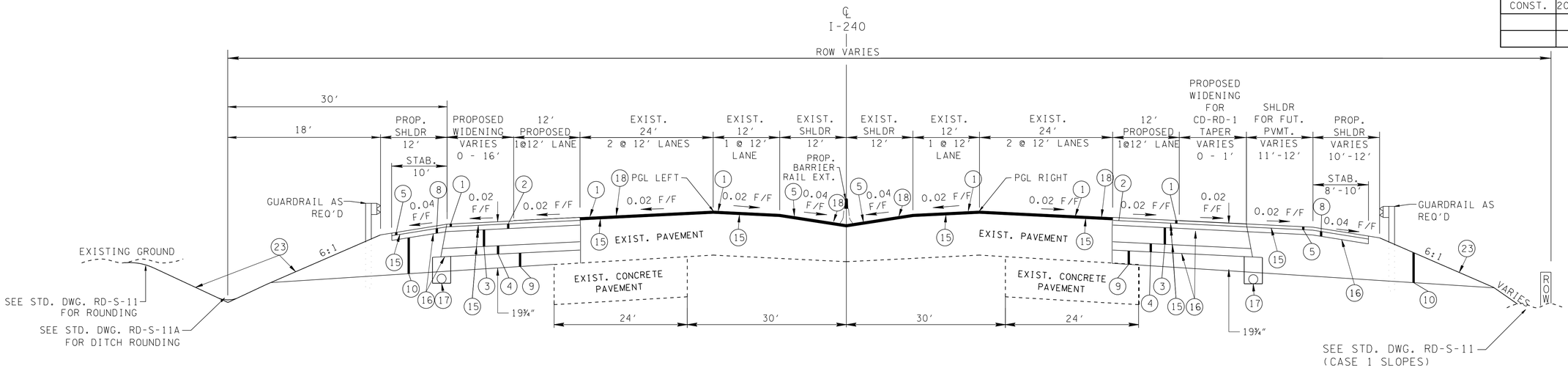
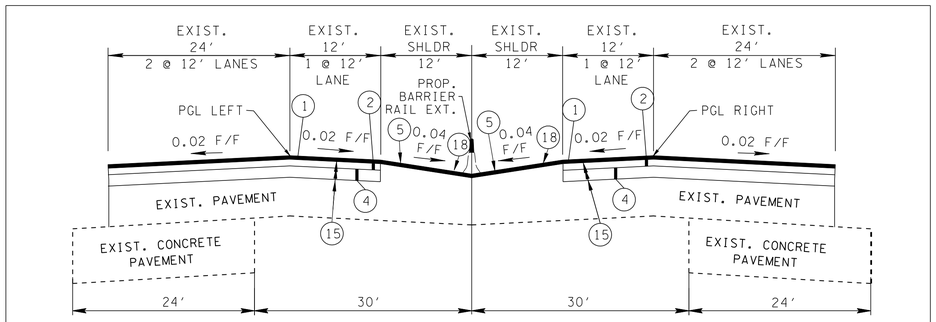
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2H
CONST.	2010	STP-I-240(290)	2M





USE THIS SECTION FROM STA. 624+15 TO STA. 626+44.11

I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

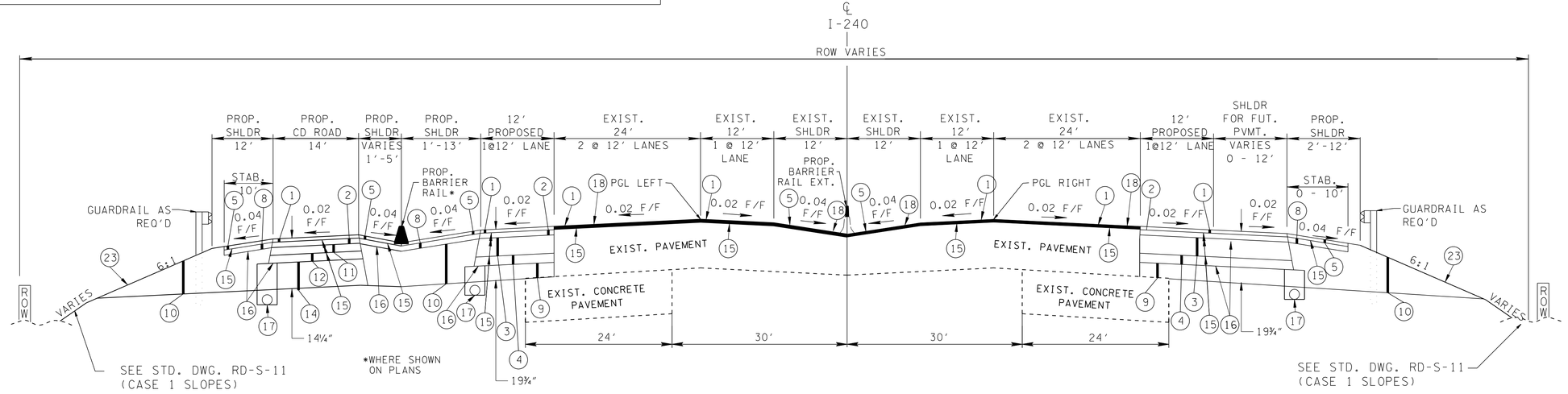
FROM STA. 598+44.81 TO STA. 626+44.11
(SEE INSET)

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 626+44.11 TO STA. 635+49.31

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

JOHN T. PANKEY
REGISTERED
ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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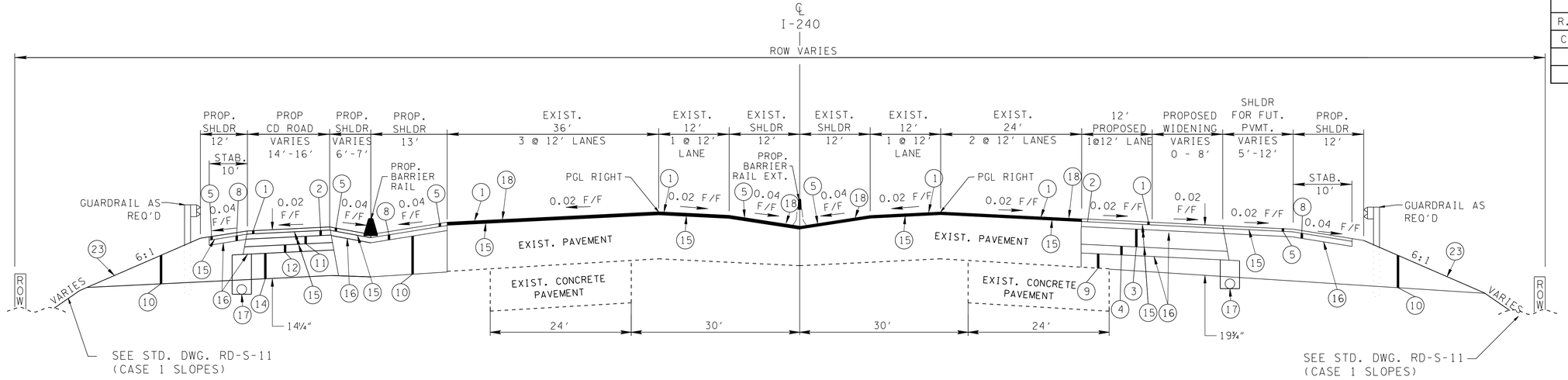
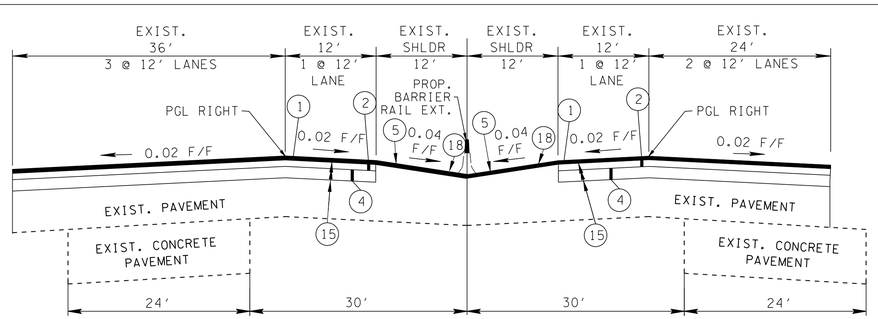
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2-I
CONST.	2010	STP-I-240(290)	2N





USE THIS SECTION FROM STA. 635+49.11 TO STA. 639+55

I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

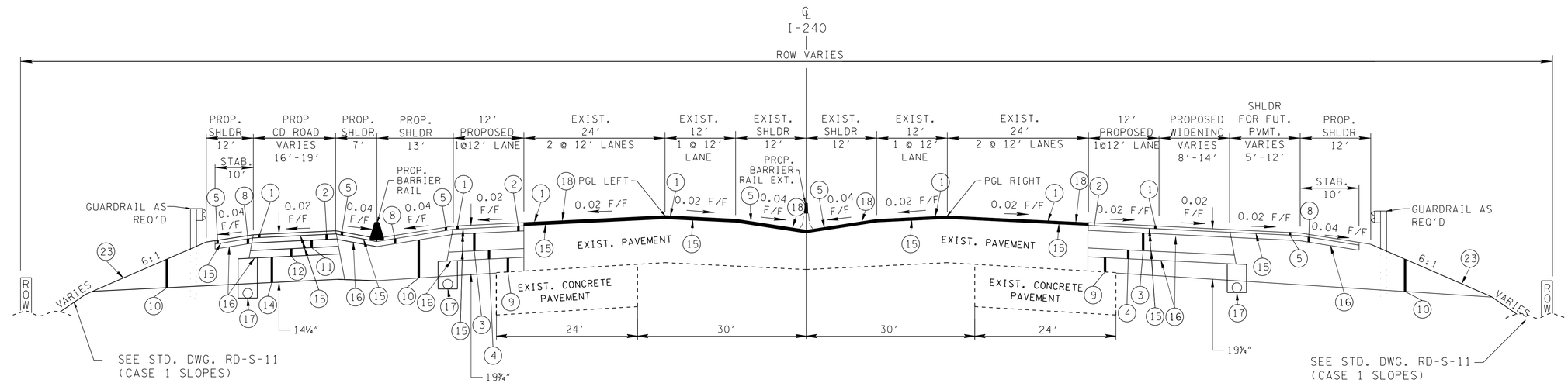
FROM STA. 635+49.11 TO STA. 642+25.57
(SEE INSET)

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 642+25.57 TO STA. 644+08.43

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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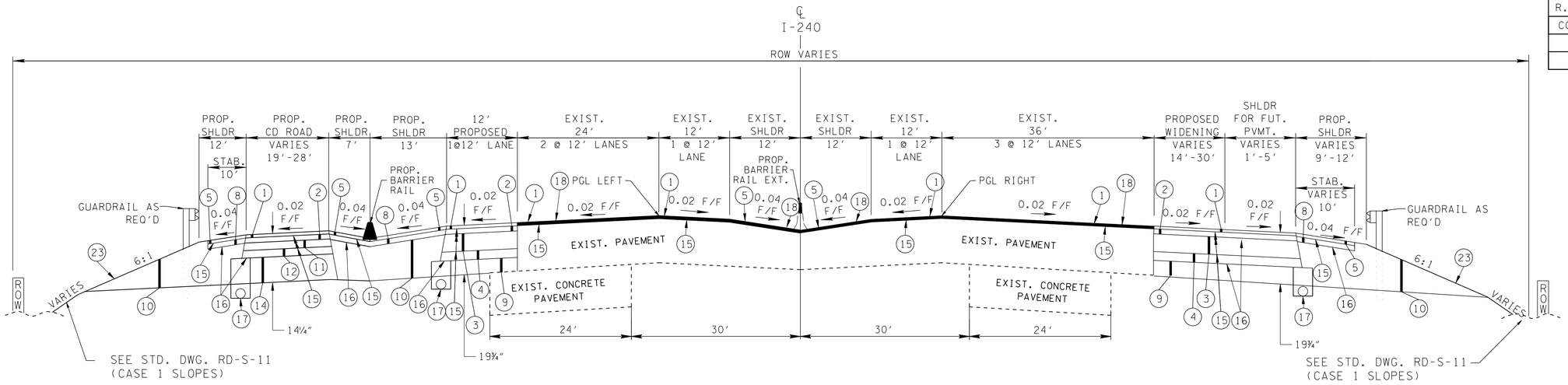
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2J
CONST.	2010	STP-I-240(290)	2-0



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

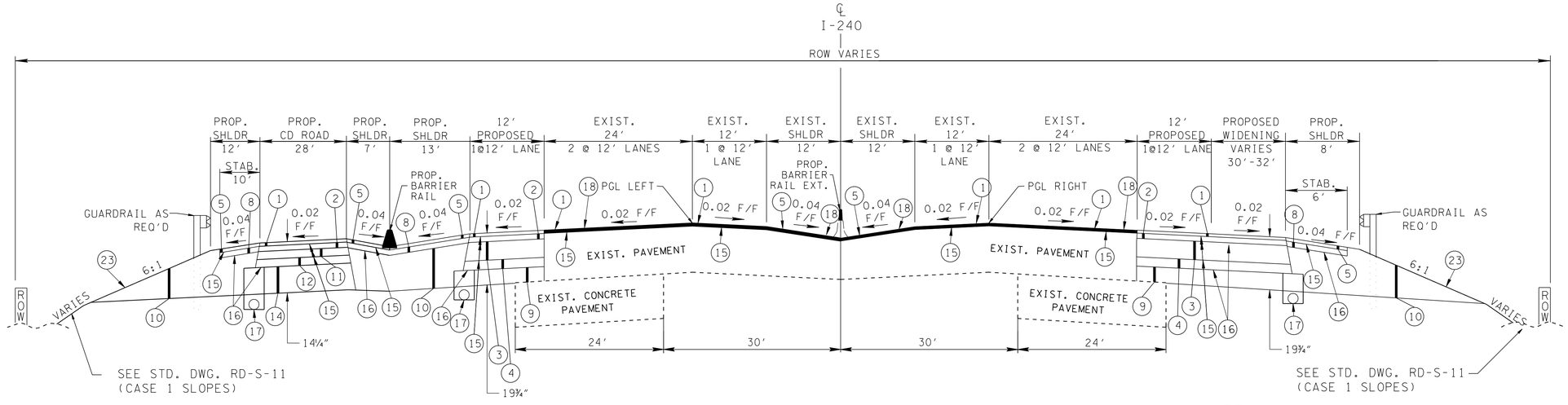
FROM STA. 644+08.43 TO STA. 648+77.97

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".



I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 648+77.97 TO STA. 649+07.19

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

John T. Pankey Jr. 8-23-10
JOHN T. PANKEY JR.
LICENSED PROFESSIONAL ENGINEER
DEPARTMENT OF AGRICULTURE
NO. 102
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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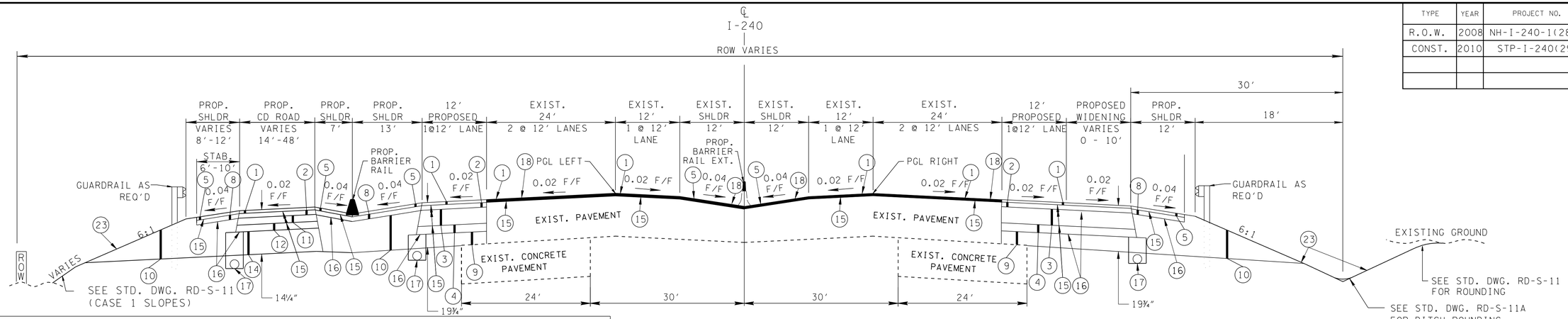
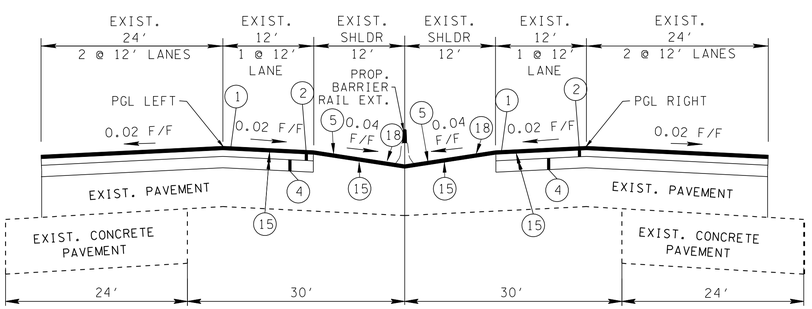
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2K
CONST.	2010	STP-I-240(290)	2P





USE THIS SECTION FROM STA. 649+07.19 TO STA. 657+52

I-240 - TANGENT SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

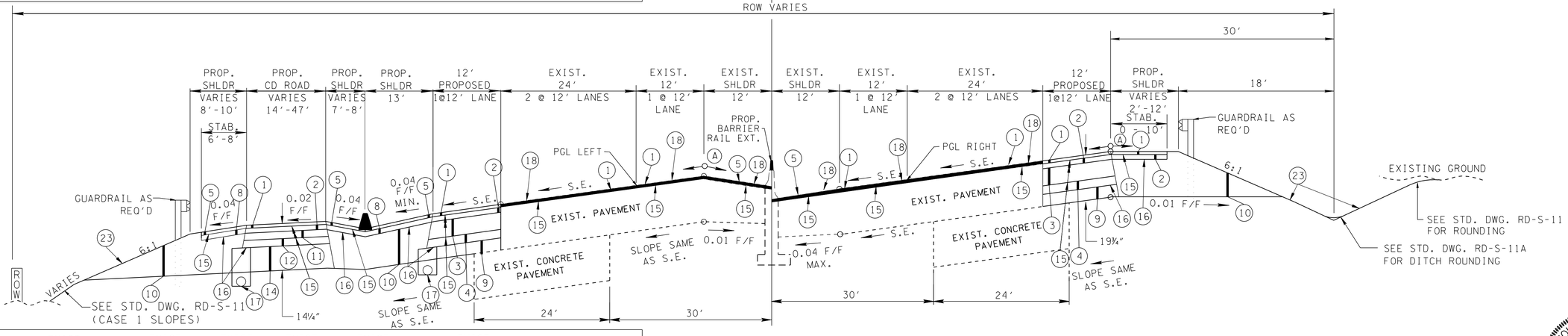
FROM STA. 649+07.19 TO STA. 660+45.34
(SEE INSET)

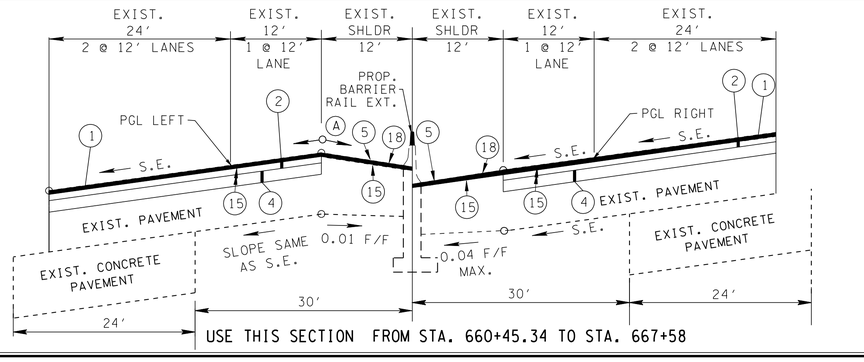
NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".





USE THIS SECTION FROM STA. 660+45.34 TO STA. 667+58

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 660+45.34 TO STA. 668+90.07
(SEE INSET)

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25".

JOHN T. PANFET
REGISTERED ENGINEER
AGRICULTURE
No. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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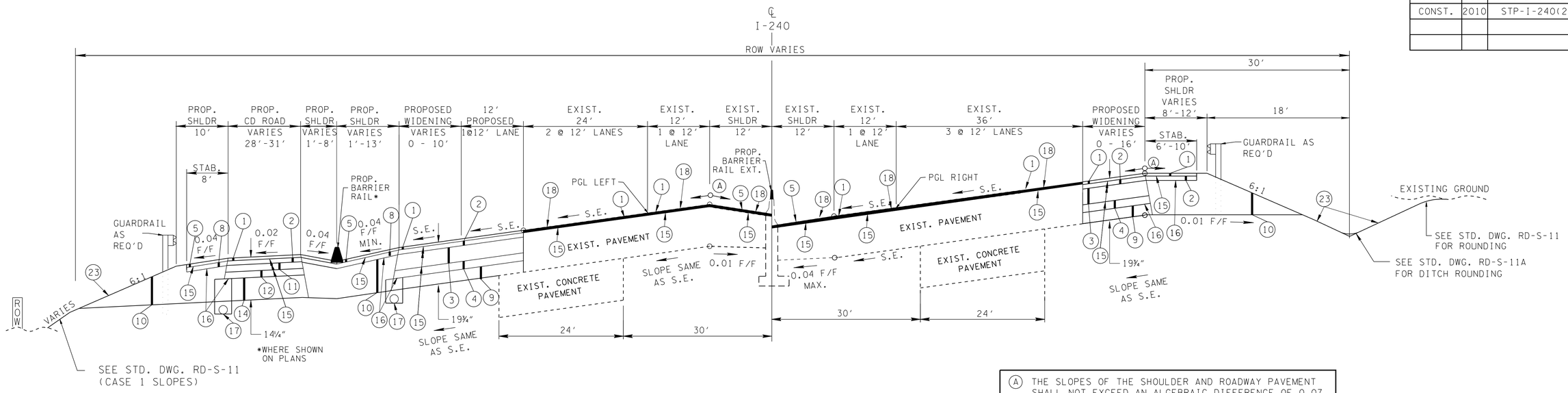
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2L
CONST.	2010	STP-I-240(290)	2Q



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

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

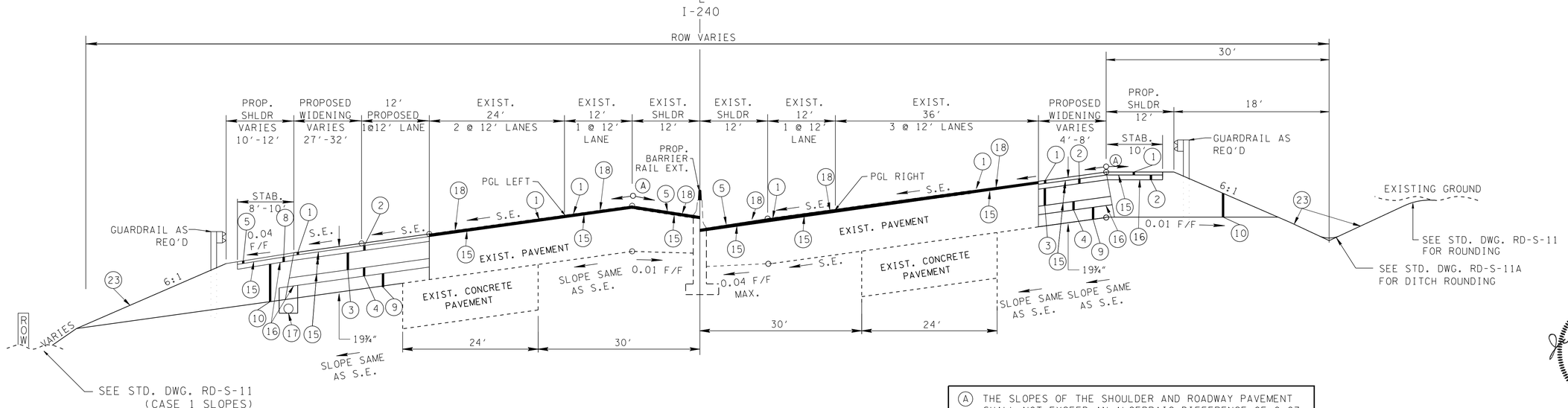
2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 668+90.07 TO STA. 672+48.04



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

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 672+48.04 TO STA. 675+45.27

JOHN T. PANKEY
REGISTERED ENGINEER
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8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
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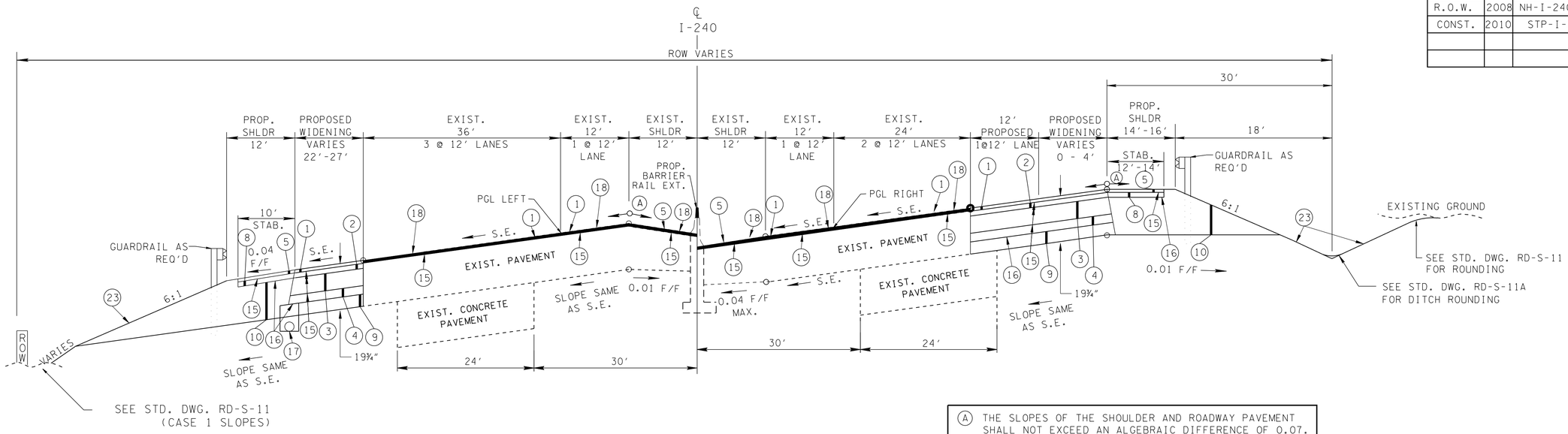
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2M
CONST.	2010	STP-I-240(290)	2R



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

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

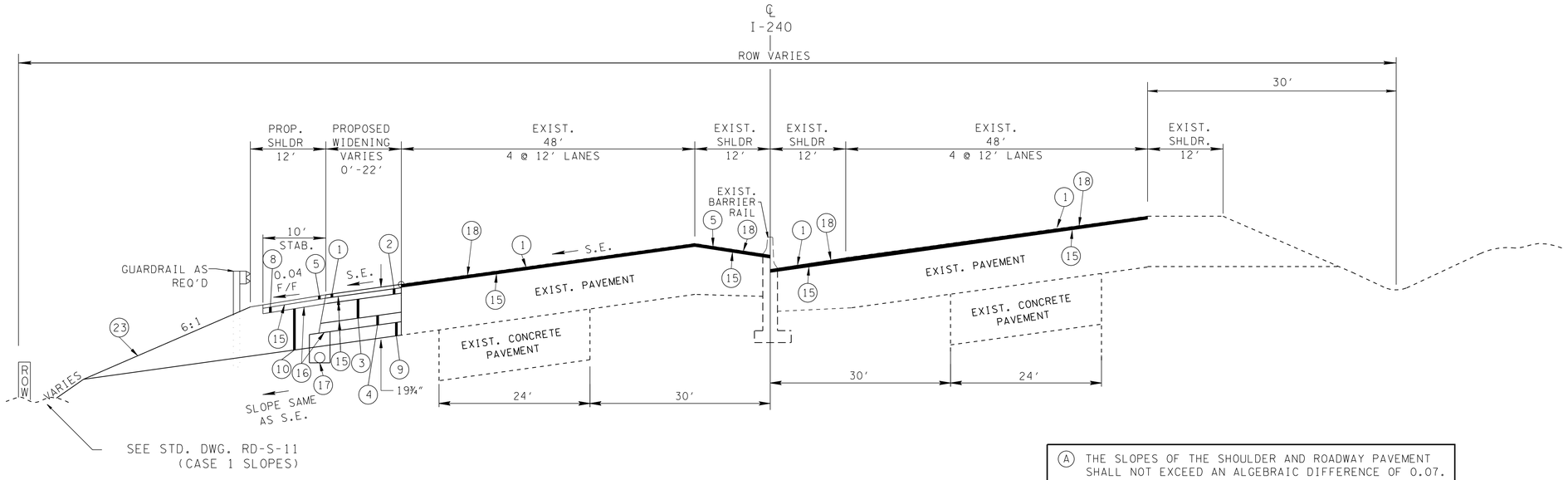
2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 675+45.27 TO STA. 678+00.00



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

NOTES

1: SHOULDER WIDTHS WILL VARY AT EXISTING PIER AND RETAINING WALL LOCATIONS.

2: MILLING DEPTH VARIES IN ORDER TO MAINTAIN A TYPICAL CROSS SLOPE.

3: ASPHALT LEVELING COURSE MAY BE REQUIRED TO PROVIDE FOR A UNIFORM OVERLAY OF 1.25″.

I-240 - SUPERELEVATED SECTION

(BASED ON STD. DWG. RD-TS-5 MOD.)

FROM STA. 678+00.00 TO STA. 683+60.00

JOHN T. PANKEY JR. REGISTERED ENGINEER AGRICULTURE 8-23-10 TENNESSEE NO. 102357 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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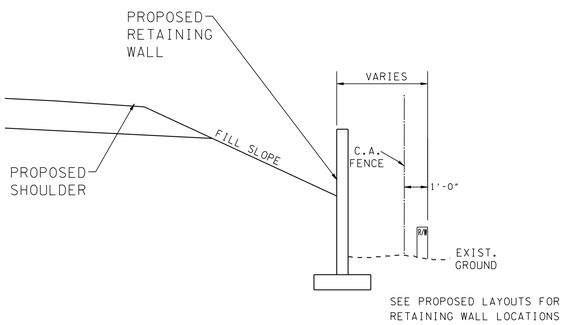
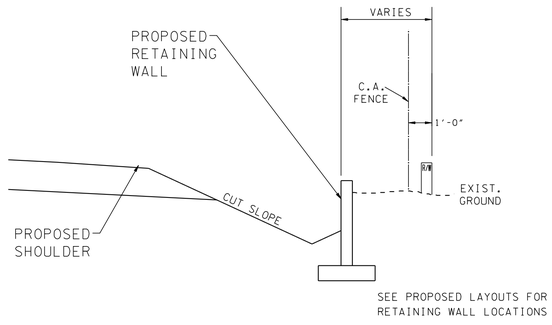
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

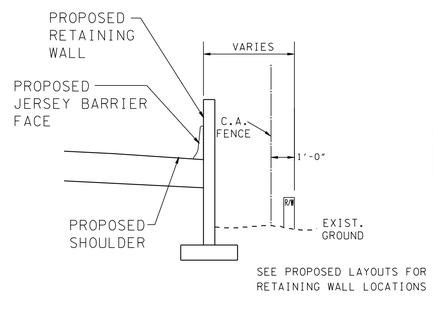
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2N
CONST.	2010	STP-I-240(290)	2S



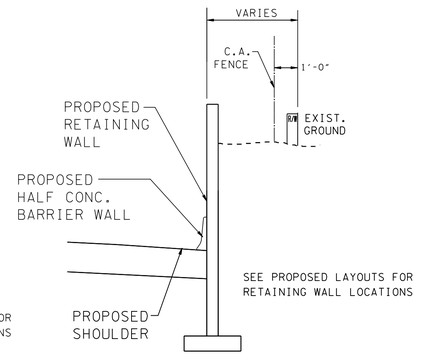
TYPICAL RETAINING WALL
IN FILL SECTION



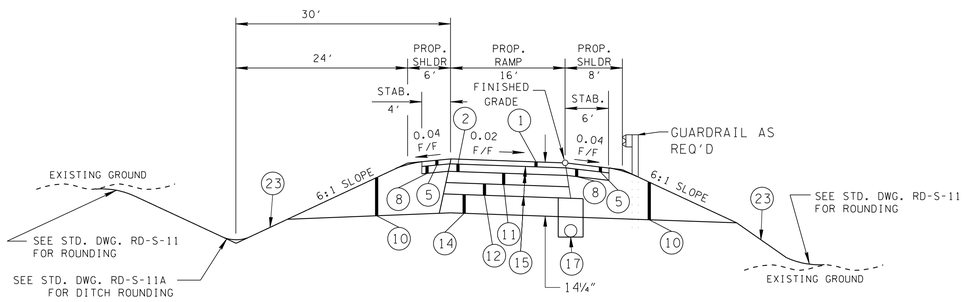
TYPICAL RETAINING WALL
IN CUT SECTION



TYPICAL RETAINING WALL
IN FILL SECTION @ SHOULDER



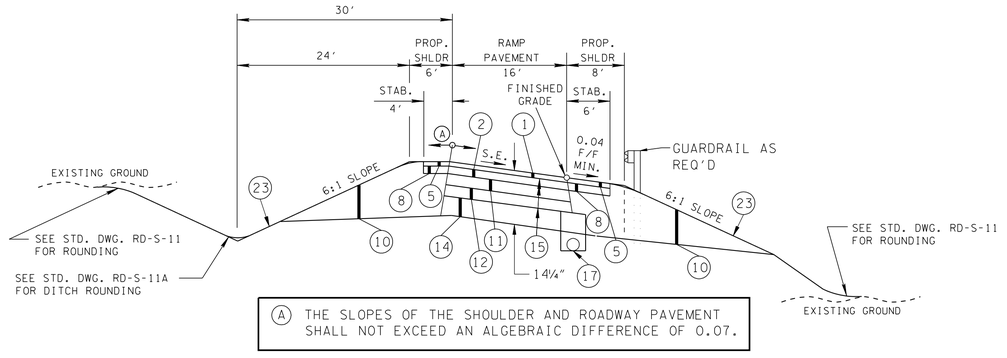
TYPICAL RETAINING WALL
IN CUT SECTION @ SHOULDER



TANGENT RAMP SECTION (WITH ASPHALT)

(BASED ON STD. DWG. RD-TS-4 MOD.)

FROM STA. 36+48.07 TO STA. 38+50.00 (RAMP 15B)
FROM STA. 17+34.15 TO STA. 35+28.08 (RAMP 15C)



SUPEREVLEVATED RAMP SECTION (WITH ASPHALT)

(BASED ON STD. DWG. RD-TS-4 MOD.)

FROM STA. 35+28.08 TO STA. 37+50.00 (RAMP 15C)

RAMP TYPICAL SECTION NOTES

1. SHOULDER WIDTHS VARY IN TIE AREAS.
2. PAVEMENT WIDTHS VARY WHERE SHOWN ON PLANS.

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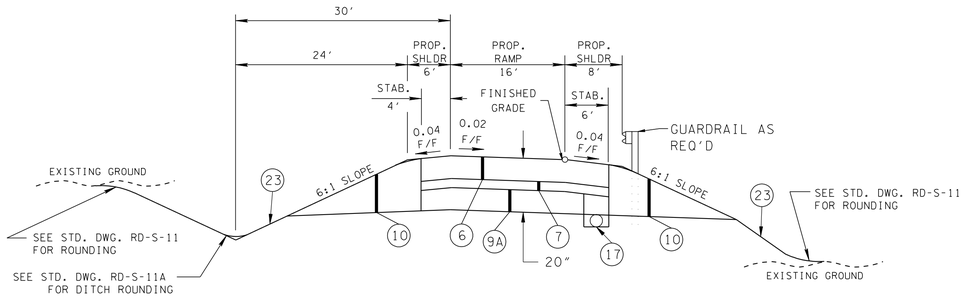
DESIGN DIVISION

FILE NO.

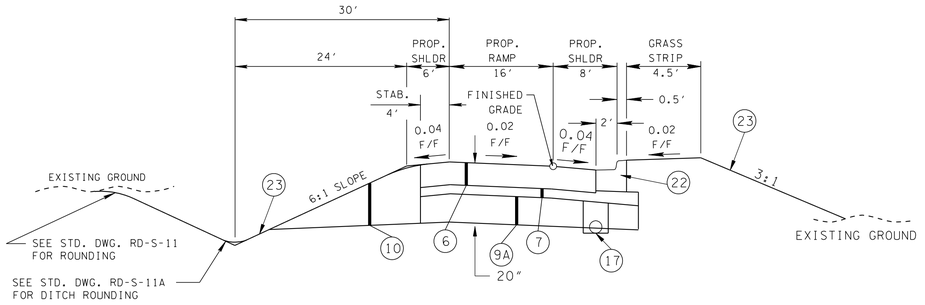
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2-0
CONST.	2010	STP-I-240(290)	2T



TANGENT RAMP SECTION (NO C&G)

(BASED ON STD. DWG. RD-TS-4 MOD.)

FROM STA. 21+71.03 TO STA. 39+02.22 (RAMP 15D)
FROM STA. 28+50.00 TO STA. 31+15.26 (RAMP 15G)



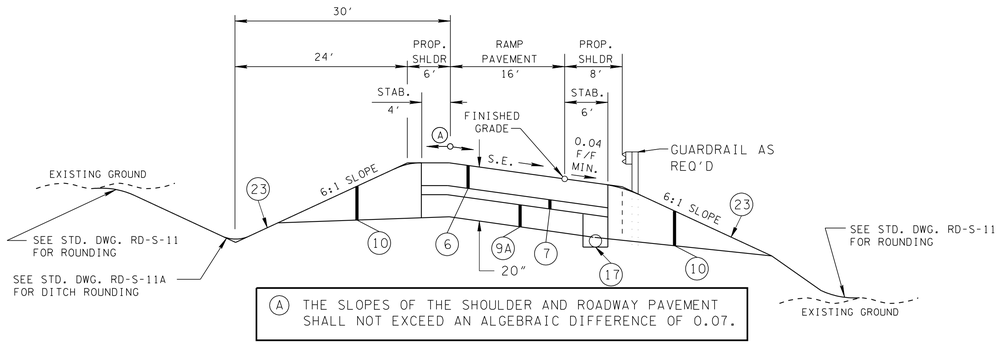
TANGENT RAMP SECTION (WITH C&G)

(BASED ON STD. DWG. RD-TS-4 MOD.)

FROM STA. 51+81.97 TO STA. 54+45.91 (RAMP 15E)
FROM STA. 35+35.67 TO STA. 35+65.00 (RAMP 15G)

RAMP TYPICAL SECTION NOTES

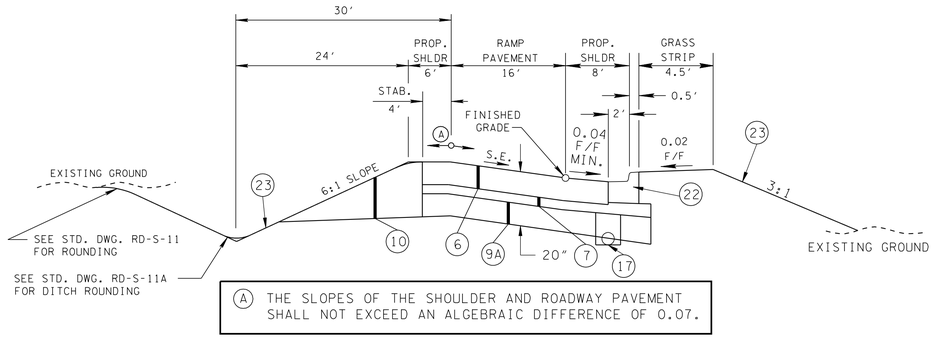
1. SHOULDER WIDTHS VARY IN TIE AREAS.
2. PAVEMENT WIDTHS VARY WHERE SHOWN ON PLANS.



SUPEREVLEVATED RAMP SECTION (NO C&G)

(BASED ON STD. DWG. RD-TS-4 MOD.)

FROM STA. 15+41.76 TO STA. 16+04.96 (RAMP 15A)
FROM STA. 15+68.07 TO STA. 21+71.03 (RAMP 15D)
FROM STA. 31+15.26 TO STA. 31+65.26 (RAMP 15G)
FROM STA. 42+22.32 TO STA. 43+24.02 (RAMP 17A)
FROM STA. 21+75.00 TO STA. 25+22.96 (RAMP 17C)
FROM STA. 15+25.00 TO STA. 18+00.30 (RAMP 17E)
FROM STA. 19+01.59 TO STA. 19+83.42 (RAMP 17G)



SUPERELEVATED RAMP SECTION (WITH C&G)

(BASED ON STD. DWG. RD-TS-4 MOD.)

FROM STA. 46+23.17 TO STA. 51+81.97 (RAMP 15E)
FROM STA. 41+03.70 TO STA. 44+40.00 (RAMP 15F)
FROM STA. 31+65.26 TO STA. 35+35.67 (RAMP 15G)
FROM STA. 33+60.00 TO STA. 37+19.18 (RAMP 15H)
FROM STA. 37+18.00 TO STA. 42+22.32 (RAMP 17A)
FROM STA. 37+57.08 TO STA. 40+80.00 (RAMP 17B)
FROM STA. 25+22.96 TO STA. 28+25.00 (RAMP 17C)
FROM STA. 28+75.00 TO STA. 32+09.15 (RAMP 17D)
FROM STA. 19+83.42 TO STA. 24+85.00 (RAMP 17G)

JOHN T. PANKEY
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8-23-10
COMMERCE
NO. 102351
STATE OF TENNESSEE

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TYPICAL SECTIONS

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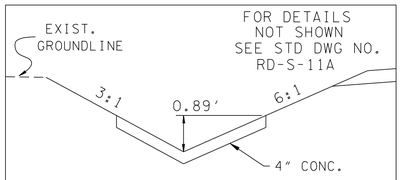
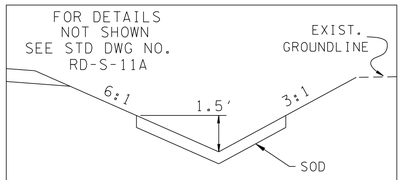
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

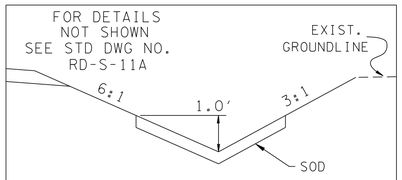
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2P
CONST.	2010	STP-I-240(290)	2U



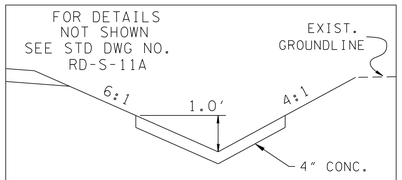
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 522+00 TO STA. 523+50



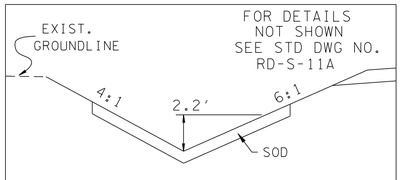
PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 528+50 TO STA. 533+50



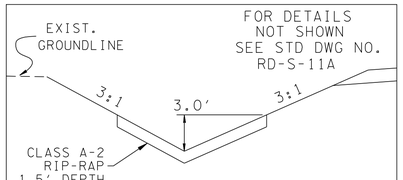
PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 547+50 TO STA. 549+00



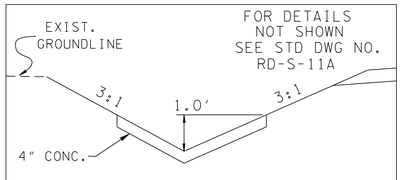
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 565+00 TO STA. 565+90



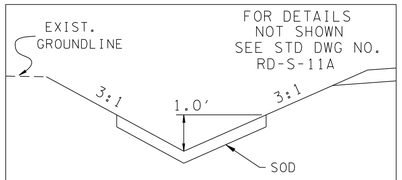
PROP. "V" BOTTOM SODDED DITCH
LEFT STA. 569+50 TO STA. 570+50



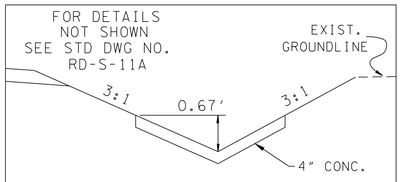
PROP. "V" BOTTOM RIP-RAP DITCH
LEFT STA. 586+00 TO STA. 594+50



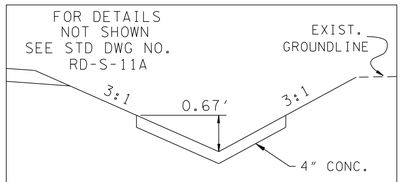
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 594+50 TO STA. 595+50
LEFT STA. 624+50 TO STA. 625+50
LEFT STA. 651+00 TO STA. 653+25



PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 595+00 TO STA. 597+50
RIGHT STA. 649+95 TO STA. 651+00



PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 597+50 TO STA. 598+50



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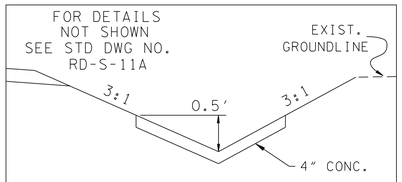
RIGHT STA. 599+50 TO STA. 602+00



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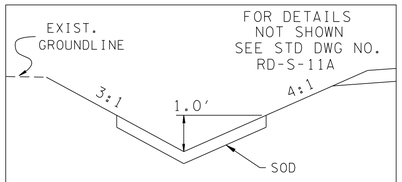
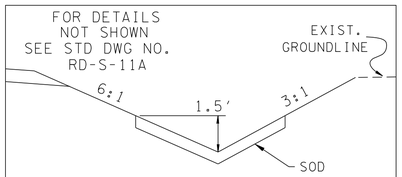
RIGHT STA. 605+00 TO STA. 608+00



PROP. "V" BOTTOM SODDED DITCH
LEFT STA. 617+00 TO STA. 620+00



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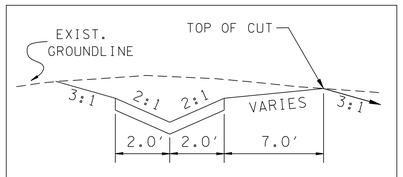
RIGHT STA. 619+00 TO STA. 624+50



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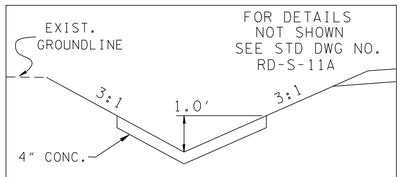
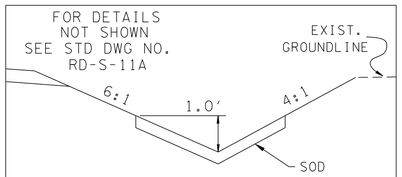
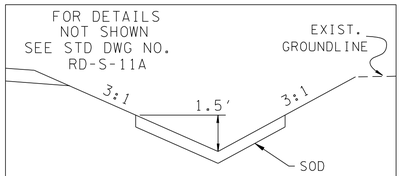
LEFT STA. 624+50 TO STA. 625+50



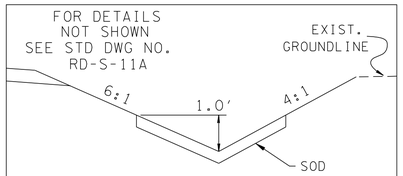
PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 649+55 TO STA. 649+95



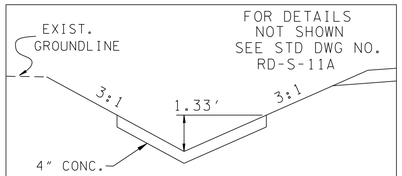
PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 654+50 TO STA. 655+00



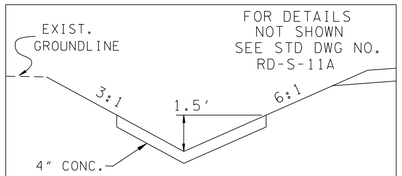
PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 625+50 TO STA. 638+00



PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 661+00 TO STA. 666+50



PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 666+50 TO STA. 668+50



PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 668+50 TO STA. 673+00

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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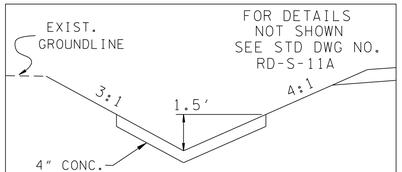
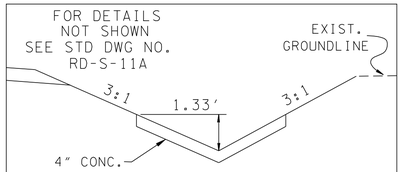
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

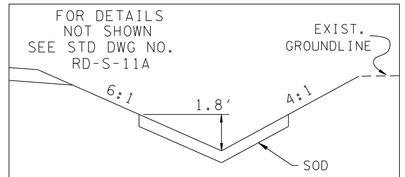
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20
CONST.	2010	STP-I-240(290)	2V



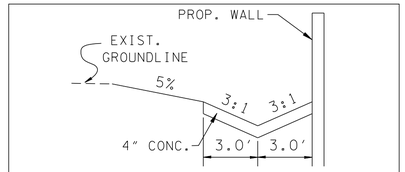
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 673+00 TO STA. 674+50



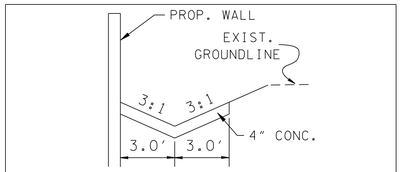
PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 672+50 TO STA. 674+50



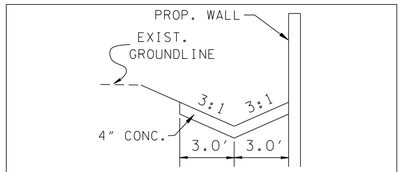
PROP. "V" BOTTOM SODDED DITCH
RIGHT STA. 667+50 TO STA. 672+50



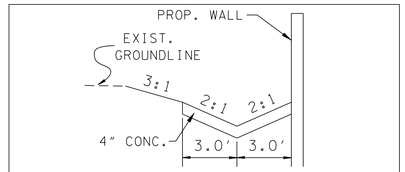
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 531+00 TO STA. 534+00



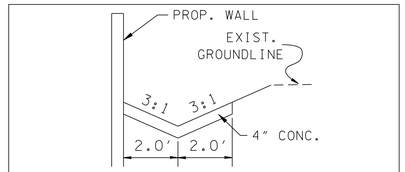
PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 534+00 TO STA. 544+50



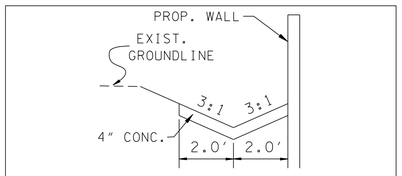
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 539+75 TO STA. 544+75



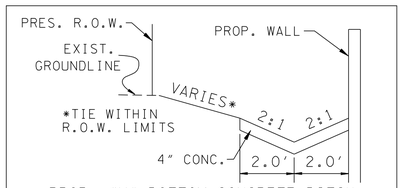
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 547+50 TO STA. 550+50



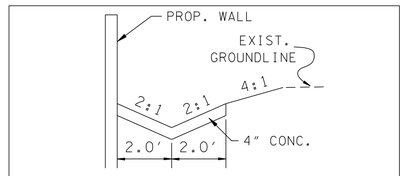
PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 554+00 TO STA. 44+40 (RAMP 15-F)



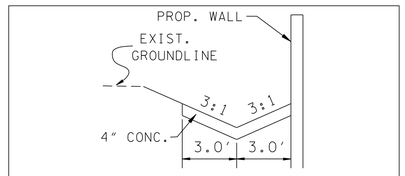
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 567+00 TO STA. 569+00



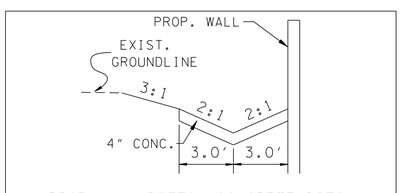
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 573+50 TO STA. 585+50



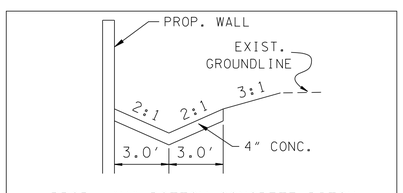
PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 564+50 TO STA. 569+00
RIGHT STA. 576+00 TO STA. 581+50



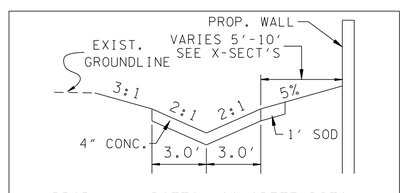
PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 601+00 TO STA. 602+00



PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 632+50 TO STA. 638+50



PROP. "V" BOTTOM CONCRETE DITCH
RIGHT STA. 13+50 TO STA. 18+00 (RAMP 15-D)



PROP. "V" BOTTOM CONCRETE DITCH
LEFT STA. 675+00 TO STA. 677+25±

JOHN T. PANTELIDIS
REGISTERED
LICENSED
AGRICULTURE
NUMBER
102.35
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

8/20/2010
w:\615\transportation\Typsect.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2W

GENERAL NOTES

GRADING

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

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

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

SEEDING AND SODDING

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

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

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

(4) 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.

DRAINAGE

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

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

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

(4) 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.

UTILITIES

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

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

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

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

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

FENCING

(1) LOCATION OF THE FENCE SHALL BE ONE FOOT INSIDE THE RIGHT-OF-WAY EXCEPT WHERE SHOWN ON THE PLANS.

(2) FENCES SHALL BE TURNED IN AT DRAINAGE STRUCTURES, STOCK PASSES AND BRIDGES WHERE DIRECTED BY THE ENGINEER SO AS TO ABUT WINGWALLS AND/OR ABUTMENTS.

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

(4) THE CONTRACTOR SHALL BE REQUIRED TO INSTALL ACCESS CONTROL FENCES PRIOR TO CUTTING EXISTING STOCK FENCES IN AREAS UTILIZED BY DOMESTIC LIVESTOCK OR OTHER AREAS AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS

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

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

ROAD CLOSURE

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

RIGHT - OF – WAY

(1) SEE SHEET 3.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, PAINTED PAVEMENT MARKING (6" LINE), L.M.

(2) 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. 716-05.02, PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.

(3) 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. 716-05.02, PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.

FINAL PAVEMENT MARKING IF 6" ENHANCED FLATLINE THERMOPLASTIC IS USED

(4) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" 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. 716-12.02, ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

FINAL PAVEMENT MARKING IF 8" ENHANCED FLATLINE THERMOPLASTIC IS USED

(5) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 8" 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. 716-12.03, ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE), L.F. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(6) THE PAVEMENT MARKING ON THE LANE LINES FOR LANE SHIFTS WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR

JOHN T. PANKEY
REGISTERED
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
3-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
AND
SPECIAL NOTES

8/20/2010
w:\615\transportation\GeneralNotes.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2X

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. 716-05.20, LIN. MI.

(7) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

PAVEMENT

PAVING

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

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

RIPRAP

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

UPON COMPLETION OF THE PROJECT, A VISUAL INSPECTION SHALL REVEAL THAT APPROXIMATELY 50% OF THE SURFACE AREA CONSISTS OF STONES 4" OR LARGER. PAYMENT WILL BE MADE UNDER ITEM 709-05.07 MACHINED RIPRAP (CLASS A-2), C.Y., AND QUANTITIES WILL BE BASED ON THE AVERAGE THICKNESS OF 1'-6".

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

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

SIGNING

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

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

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

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

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

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

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

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

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

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

TRAFFIC CONTROL DIRECTIONAL SIGNING

(1) ON ALL ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL UTILIZE ALL EXISTING DIRECTIONAL SIGNING FOR AS LONG AS POSSIBLE. THESE EXISTING SIGNS CAN BE MOVED USING TEMPORARY SUPPORTS AS NEEDED. AS SOON AS THESE EXISTING DIRECTIONAL SIGNS COME DOWN PERMANENTLY, THE CONTRACTOR SHALL HAVE UP AT LEAST ONE NEW TEMPORARY "ADVANCE GUIDE SIGN" AND ONE NEW TEMPORARY "EXIT DIRECTIONAL SIGN" AT ALL EXIT RAMPS. THESE SIGNS ARE TO BE MAINTAINED WITHIN CLEAR VIEW OF THE PUBLIC ON THE RIGHT SIDE OF THE HIGHWAY AND SHALL BE REPLACED IF DAMAGED, DURING ALL PHASES OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

(2) THE SIZE OF THESE NEW TEMPORARY SIGNS WILL BE DETERMINED BY THE MESSAGE. THE MESSAGE SHALL BE THE SAME AS THE EXISTING SIGN THAT THESE NEW TEMPORARY SIGNS WILL BE REPLACING. THE LETTER SIZE SHALL BE A MINIMUM OF 8 INCH, "D" UPPER CASE LETTER. THE DIRECTIONAL ARROW WILL BE A "B" ARROW AT A 45 DEGREE ANGLE (SAME ANGLE AS THE EXISTING ARROW). THE MATERIAL SHALL BE 0.100 INCH SHEET ALUMINUM; THE COLOR SHALL BE A REFLECTIVE GREEN BACKGROUND WITH REFLECTIVE WHITE COPY.

(3) ALL WORK AND MATERIAL TO MAKE THESE NEW TEMPORARY DIRECTIONAL SIGNS ALONG WITH ADEQUATE SUPPORTS AND TO MOVE THEM AS NEEDED DURING EACH PHASE OF CONSTRUCTION WILL BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER.

(4) SOME OF THESE DIRECTIONAL SIGNS WILL NEED AN INTERSTATE, U.S., OR A STATE HIGHWAY SHIELD, A CARDINAL DIRECTION, AND A DIRECTION ARROW TO ACCOMPANY THE DIRECTIONAL SIGN. THESE SIGNS SHALL BE MOUNTED BELOW THE DIRECTIONAL SIGN.

(5) ALL EXISTING "EMERGENCY REFERENCE MARKERS" AND "HOSPITAL SIGNS" SHALL BE MAINTAINED WITHIN FULL VIEW OF THE MOTORING PUBLIC THROUGHOUT ALL PHASES OF CONSTRUCTION. ALL WORK IN MOVING AND TEMPORARY SUPPORTS SHALL BE PAID FOR UNDER ITEM NO. 712-06.

(6) WHEN "LOGO" SIGNS ARE ON ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE SIGNS IN FULL VIEW TO THE MOTORING PUBLIC DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE TO THE DEPARTMENT FOR THE REIMBURSEMENT OF THE SIGN FACE IF IT IS DAMAGED. ALL WORK IN MOVING THESE "LOGO" SIGNS AND THE TEMPORARY SUPPORTS ARE TO BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER. THE SUPPORTS FOR THE FINAL LOCATION OF THESE SIGNS WILL BE PAID FOR UNDER OTHER ITEMS OF CONSTRUCTION.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

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

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

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

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

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

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

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

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

LIGHTING

(1) INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTIONS 714 AND 917 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED MARCH 1, 2006 AND WITH THE LATEST REVISIONS TO THE NATIONAL ELECTRIC CODE, NFPA 70.

(2) EXISTING FOUNDATIONS TO BE REMOVED A MINIMUM OF SIX INCHES BELOW GRADE.

(3) ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 714 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.

(4) LIGHT STANDARDS SHALL BE ROUND TAPERED POLES. LENGTH SHALL BE DETERMINED BY REQUIRED MOUNTING HEIGHT.

(5) STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS,

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
COMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SPECIAL NOTES

TENNESSEE D.O.T. DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2Y

LUMINARIES AND TRAFFIC SIGNALS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

(1) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 10 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.

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

(3) 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.

(4) CONSTRUCTION SHALL BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS AND SHALL BE PHASED FOR PROJECTS THAT HAVE OVER 50 ACRES OF SOIL DISTURBANCE. NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION PROJECT, UNLESS APPROVED IN WRITING BY THE ENVIRONMENTAL DIVISION.

SEDIMENT CONTROL

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

(6) 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.

(7) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. 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.

(8) 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.

(9) 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.

(10) 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.

(11) 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.

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

STREAM/WETLAND

(13) 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.

(14) 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.

(15) INSTREAM EPSC DEVICES ARE NOT APPROVED, UNLESS SPECIFIED IN WRITING BY THE ENVIRONMENTAL DIVISION.

(16) 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.

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

(18) 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. NO. 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.

(19) 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.

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

SPECIES

(21) 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

(22) 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.

(23) 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.

(24) 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.

(25) 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.

(26) 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.

(27) 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.

MATERIALS

(28) 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

(29) 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.

(30) 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.

(31) 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 AND PRECIPITATION RECORDS.

(32) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. 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.

(33) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED.

JOHN T. PANKEY REGISTERED AGRICULTURE NO. 102351 STATE OF TENNESSEE 8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SPECIAL NOTES

8/20/2010 w:\6115\transportation\GeneralNotes.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
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THE DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(34) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE 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.

(35) 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 I - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE OR EQUIVALENT COURSE. A COPY OF CERTIFICATION RECORDS FOR THIS COURSE SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

(36) 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.

(37) 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

HIGH MAST CONSTRUCTION SPECIFICATIONS

HIGH MAST POLES

(1) THE POLES SHALL BE ROUND TAPERED STEEL POLES DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 1994 EDITION OF THE STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, EXCEPT AS FURTHER PROVIDED HEREIN.

(2) POLES SHALL BE DESIGNED FOR 100 MPH WIND PRESSURE. THE DESIGN SHALL SUPPORT THE NUMBER AND TYPE OF LUMINAIRES AND MOUNTING HEAD SPECIFIED IN THE PLANS.

(3) MATERIAL USED IN THE MANUFACTURE OF STEEL HIGH MAST POLES SHALL BE:

A. ASTM A-572 GRADE 60 HIGH STRENGTH STEEL.

B. POLES SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A-123.

C. ANCHOR BOLTS SHALL CONFORM TO ASTM A-687 AND ANCHOR BOLT NUTS SHALL CONFORM TO ASTM A-563.

D. ANCHOR BOLTS SHALL BE THREADED ON END (LOWER THREADING IS FOR A PLATE NUT ATTACHMENT).

E. ANCHOR BOLTS SHALL BE GALVANIZED ON THE THREADED ENDS A MINIMUM OF 10".

F. ANCHOR BOLTS AND ANCHOR BOLT NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123.

G. AN ANCHOR BOLT CAGING METHOD TO MECHANICALLY ALIGN ANCHOR BOLTS SHALL BE PROVIDED. NO WELDING OF ANCHOR BOLTS SHALL BE PERMITTED.

(4) FABRICATION AND WELDING OF THESE POLES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AWS 01.1 SPECIFICATION.

A. ALL WELDS SHALL BE INSPECTED ACCORDING TO THE AWS STANDARDS, SECTION 6, USING DYE PENETRANT OR MAGNETIC PARTICLE INSPECTIONS.

B. THE FIRST WELDED JOINT OF EACH FULL PENETRATION TRANSVERSE WELD FOR EACH ORDER SHALL BE NONDESTRUCTIVELY EXAMINED TO VERIFY THE PREPARATION, PROCEDURES, MAINTENANCE OF UNIFORMITY, AND THAT THE WELD IS OF REQURIED QUALITY.

C. LONGITUDINAL SEAM WELDS SHALL HAVE A MINIMUM OF 60% PENETRATION AND SHALL BE VERIFIED BY POLISHING, ETCHING AND EXAMINING A TRIMMING CUT-OFF FROM SELECTED MALE TUBE ENDS.

D. THE FEMALE TUBE ENDS IN THE AREA OF TELESCOPING JOINTS SHALL BE WELDED BOTH INSIDE AND OUTSIDE TO INSURE THE INTEGRITY OF THE WELD.

E. NO TRANSVERSE WELDING SHALL BE PERMITTED TO SECURE OVERLAPPING TELESCOPING JOINTS.

(5) EACH POLE SHALL BE FURNISHED WITH A TOP MOUNTING TENON TO ACCEPT THE LUMINAIRE MOUNTING DEVICE.

(6) THE POLE, NEAR THE BASE, SHALL HAVE A HANDHOLE OPENING 10" WIDE BY 20" HIGH TO RECEIVE THE MOUNTING HEAD LOWERING MECHANISM. HANDHOLE MUST BE OVAL IN SHAPE.

A. THE OPENING SHALL BE REINFORCED ON THE INSIDE WITH A STELL SLEEVE. THE SLEEVE SHALL HAVE SUFFICIENT THICKNESS AND LENGTH TO REPLACE THE EQUIVALENT STRENGTH OF THE TUBE SECTION LOST BY THE 10" BY 20" OPENING.

B. A MOUNTING PLATE FOR ATTACHING THE LOWERING MECHANISM SHALL BE ATTACHED TO THE REINFORCING SLEEVE AND BE ACCESSIBLE THROUGH THE HANDHOLE.

C. EACH POLE SHALL HAVE A HANDHOLE COVER, ATTACHED BY FOUR STAINLESS HEX BOLTS.

(7) EACH POLE SHALL BE PROVIDED WITH A MEANS FOR GROUNDING CONSISTING OF A 1/2" UNC-2 NUT WELDED TO THE INSIDE OF THE POLE.

(8) ONLY QUALIFIED MANUFACTURERS WILL MANUFACTURE THE SPECIFIED POLES. RESPONSIBILITY FOR COMPLIANCE WITH THE SPECIFICATIONS REMAINS WITH THE CONTRACTOR. MANUFACTURER WILL SUPPLY A CERTIFICATE OF COMPLIANCE TO SPECIFICATION BY AN INDEPENDENT TESTING LABORATORY HIRED BY THE MANUFACTURER AND APPROVED BY THE STATE.

HIGH MAST LUMINAIRES

(9) LUMINAIRES SHALL BE A COMPLETE ASSEMBLY CONSISTING OF A BALLAST HOUSING REFRACTOR, BALLAST, LAMP SOCKET, AND ALL MISCELLANEOUS HARDWARE. THE BALLAST HOUSING SHALL BE CAST ALUMINUM WITH A 2" SIDE ENTRY SLIP-FITTER MOUNT. THE REFLECTOR SHALL BE SHEET ALUMINUM SPUN, OR PRESSED. REFRACTORS SHALL BE BOROSILICATE GLASS. ALL SCREWS, CLAMP BANDS, AND OTHER HARDWARE ON THE LUMINAIRE SHALL BE STAINLESS STEEL. THE LUMINAIRE SHALL BE FOR OPERATION WITH AN A.N.S.I. S52 1000 WATT HIGH PRESSURE SODIUM LAMP. THE BALLAST SHALL BE REGULATOR TYPE 240 VOLT SUPPLY VOLTAGE. EACH LUMINAIRE SHALL BE INDIVIDUALLY FUSED WITH A 5.0 AMP, 600 VOLT FUSE WITH WEATHERPROOF FUSE HOLDER. THE LUMINAIRES SHALL HAVE A TYPE V DISTRIBUTION.

HIGH MAST LUMINAIRE LOWERING SYSTEM

(10) THE LOWERING SYSTEM SHALL CONSISTS OF A HEAD FRAME, A LUMIAIRE RING, AND A WINCH AND HOISTING ASSEMBLY. THE HEAD FRAME SHALL BE GALVANIZED STEEL CONSTRUCTION, AND SHALL ATTACH TO THE POLE BY MEANS OF A SLILP-FITTER AND SET SCREWS. THE HEAD FRAME SHALL BE EQUIPPED WITH SIX CABLE SHEAVES GROOVED TO THE EXACT DIAMTER OF THE HOIST CABLES. THE HOIST CABLES SHALL BE STAINLESS STEEL, 7 X 19 STRANDED AIRCRAFT CABLES, 3/16" DIAMETER.

(11) A POWER CABLE SHEAVE SHALL BE PROVIDED AND SHALL BE EQUIPPED WITH "KEEPER" DEVICES TO PREVENT THE CABLE FROM JUMPING THE GROOVE DURING OPERATION.

(12) THREE LATCHING DEVICES SHALL BE PROVIDED IN THE HEAD FRAME TO SUPPORT THE LUMINAIRE RING ASSEMBLY WHEN THE LOWERING DEVICE IS NOT IN OPERATION. THE LATCHES SHALL ALTERNATELY LATCH AND UNLATCH UPON SUCCESSIVE ACTUATIONS OF RAISING THE LUMINAIRE RING. EACH LATCH SHALL BE EQUIPPED WITH A FLAG TO INDICATE THE LATCHED-UNLATCHED POSITIONS. ALL COMPONENTS OF THE LATCH MECHANISM MUST BE SERVICEABLE FROM THE GROUND WHEN THE RING IS LOWERED. A BOTTOM LATCHING DEVICE SHALL BE ACCEPTABLE.

(13) THE LUMINAIRE RING SHALL BE GALVANIZED STEEL CHANNEL CONSTRUCITON WITH 2" NPS GALVANIZED PIPE MOUNTING ARMS FOR THE LUMINAIRES. THE RING SHALL BE PREWIRED WITH TYPE ST. 105 DEGREE C, 600V CABLE TO A MAIN TERMINAL BLOCK MOUNTED WITHIN A WHEATHERPROOF HOUSING. A WEATHERTIGHT TWISTLOCK POWER PLUG AND RECEPTACLE, NEMA L8-20R CONFIGURATION, SHALL BE PROVIDED ON THE RING FOR TESTING THE LUMINAIRES WHILE IN THE LOWERED POSITION.

(14) WHERE LUMINAIRES ARE PLACED ON ONE SIDE OF THE RING ONLY, A COUNTER-BALANCING DEVICE OR DEVICES SHALL BE FURNISHED AND INSTALLED TO INSURE EVEN WEIGHT DISTRIBUTION AROUND THE RING AND PROPER OPERATION OF THE RING DURING RAISING AND LOWERING.

(15) THE WINCH SHALL BE A WORM GEAR, SELF-LOCKING TYPE, DESIGNED FOR HAND OPERATION OR FOR OPERATION BY A 1/2" HEAVY DUTY REVERSING DRILL MOTOR. TWO (2) PORTABLE HAND CRANKS SHALL BE FURNISHED TO THE ENGINEER.

(16) ONE COMPLETE ASSEMBLY OF A PORTABLE POWER UNIT CONSISTING OF A 1/2" HEAVY DUTY REVERSING DRILL MOTOR, A TORQUE-LIMITING SLIP CLUTCH, REMOTE CONTROL UNIT WITH A MINIMUM 15' CORD AND 480V-240V STEP-DOWN TRANSFORMER SHALL BE MOUNTED ON A SUITABLE BED PLATE AND HAVE A QUICK-CONNECT SHAFT CONNECTOR TO THE WINCH DRIVE.

(17) A 1/4" STAINLESS STEEL 7 X 19 AIRCRAFT CABLE SHALL BE PROVIDED ON THE WINCH. A NON-AUTOMATIC CIRCUIT BREAKER DISCONNECT AND A MATCHING NEMA L8-20P PLUG AND RECEPTACLE SHALL BE FURNISHED IN THE BASE OF THE POLE.

(18) ACCEPTABLE LOWERING DEVICES ARE MANUFACTURED BY GENERAL ELECTRIC, HOLOPHANE, MILLERBERND, EAGLE AND QUALITY LIGHTING.

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8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
AND
SPECIAL NOTES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2AA

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.

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.

I. THE CONTRACTOR SHALL COLD PLANE THROUGH THE B-MODIFIED LAYER AND PUT CW MIX BACK.

J. FINAL SURFACING WILL BE DONE WHEN PROJECT IS COMPLETE.

SOD

(1) SOD SHALL BE USED ON ALL SLOPES.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 21, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

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 PERSONELL OR DESIGNATED CONSULTANT WILL NEED TO BE ON-SITE FOR WORK BEING DONE WHICH COULD AFFECCT 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 PLAE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER THE STREAM.

STREAM RELOCATION

(4) ONCE WATER IS DIVERTED INTO A NEWLY CONSTRUCTED AND STABILIZED RELOCATED STREAM / CHANNEL THE ECOLOGY SECTION MUST BE NOTIFIED. THE STREAM NAME, STREAM NUMBER, AND DATE THE WATER WAS DIVERTED INTO THE STREAM / CHANNEL ARE TO BE SUPPLIED WITH THE NOTIFICATION.

LIGHTING

(1) THE GROUND WIRE SHALL BE RUN INSIDE CONDUIT WITHIN STRUCTURES, SHALL BE COLORED GREEN AND HAVE THHN INSULATION.

(2) THE OFFSET LUMINAIRES SHALL BE AMERICAN ELECTRIC MULTI-MOUNT SERIES 285, 250W CLEAR HPS, TYPE III, MEDIUM SEMI-CUTOFF, CATALOGUE NUMBER 285 25S MR MT2 R3 DA, OR EQUIVALENT. LIGHTING DESIGN BASED ON AMERICAN ELECTRIC PHOTOMETRIC DATA FILE, AE4173.IES WITH TOTAL LUMENS = 27.

(3) THE HIGH MAST LUMINAIRES SHALL BE HOLOPHANE HMST, 1000W CLEAR HPS, TYPE V, NON-CUTOFF, CATALOGUE NUMBER HMSTC10HP00S1, OR EQUIVALENT. LIGHTING DESIGN BASED ON HOLOPHANE PHOTOMETRIC DATA FILE, 36357.IES WITH TOTAL LUMENS = 140,000.

(4) THE UNDERPASS LUMINAIRES SHALL BE AMERICAN ELECTRIC UNDERPASS SERIES 681, 150 CLEAR HPS, CATALOGUE NUMBER U681 15SCTMT2 NC 6YAR9386, OR EQUIVALENT. LIGHTING DESIGN BASED ON AMERICAN ELECTRIC PHOTOMETRIC DATA FILE, AE2081.IES WITH TOTAL LUMENS = 16,000.

(5) ALL LIGHT POLES SHALL HAVE A HAND HOLE AND SHALL BE INSTALLED SO THAT THE HAND HOLE IS ORIENTED OPPOSITE THE FLOW OF TRAFFIC. SEE SHEET 25W FOR HAND HOLES IN LIGHT POLES ON RETAINING/NOISE WALLS.

(6) ALL CONDUIT SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED IN THE PLANS

TRAFFIC CONTROL

(1) THE TDOT SMART WAY MESSAGE SIGNS WILL NOT BE DOWN MORE THAN ONE WEEK.

(2) SIGN REMOVAL AND PUT BACK SHALL BE AT NIGHT.

(3) THE INSIDE LANES AND SHOULDERS SHALL BE CONSTRUCTED IN PHASE 1 AS SHOWN IN THE TRAFFIC CONTROL PLANS.

(4) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNAL ITEMS SHALL COMPLY WITH TODOT STANDARD SPECIFICATIONS, SECTION 730.

(5) DETECTION LOOPS SHALL BE INSTALLED BEFORE THE FINAL SURFACE IS APPLIED.

SPECIAL TRAFFIC COUNTER SPECIFICATIONS

(1) CONTRACTOR SHALL SUPPLY AND INSTALL ALL RELATED EQUIPMENT SO THAT ONCE A TRAFFIC COUNTER AND MODEM ARE INSTALLED BY THE STATE'S PLANNING DIVISION'S TRAFFIC COUNTER PERSONNEL, THE COUNT STATION WILL BE FULLY OPERATIONAL. THE CONTRACTOR SHALL MAKE SURE EACH DETECTION LOOP IS OPERATIONAL AT THE COMPLETION OF THE PROJECT.

(2) COUNTER CABINET SHALL NOT TO BE PRE-WIRED FOR A TRAFFIC SIGNAL AND DOES NOT NEED TO INCLUDE A VENTILATION FAN. THE CABINET SHALL INCLUDE ONE (1) SHELVE. THE CABINET SHALL CONTAIN AN AC PLUG FOR TWO (2) RECEPTICALS.

(3) THE CABINET DOOR SHALL BE SEALED WITH A CLOSED CELL NEOPREME GASKET BONDED TO THE INSIDE OF THE DOOR WITH AN OIL RESISTENT ADHESIVE THAT WILL BE POSITIONED TO PREVENT ANYTHING FROM PENETRATING THROUGH THE CRACK BETWEEN THE DOOR AND THE CABINET WHEN THE DOOR IS CLOSED. THE CABINET SHALL BE MOUNTED SO THAT THE CABINET DOOR WILL OPEN TOWARD THE ROADWAY.

(4) THE CABINET SHALL BE POLE-MOUNTED TO A FOUR INCH (4") GALVANIZED, RIGID CONDUIT POLE WITH THE BOTTOM OF THE CABINET AT LEAST 36" ABOVE GROUND LEVEL. INSTALLATION SHALL INCLUDE AN EXTERNAL GROUND ROD AT THE BASE OF THE CABINET FOR LIGHTENING PROTECTION.

(5) A SMALL ELECTRICAL BOX HOUSING A 20 AMP CIRCUIT BREAKER SHALL BE LOCATED ON THE 4" GALVANIZED CONDUIT POLE, BETWEEN THE POWER SOURCE AND CABINET.

(6) ALL LOOPS SHALL BE FIVE FEET BY SEVEN FEET (5' X 7') AND TYPICAL IN SIZE WITH THREE (3) TURNS OF LOOP WIRE.

(7) ALL LOOP WIRES SHALL TERMINATE IN THE CABINET CONNECTED TO A TERMINAL STRIP.

(8) EACH LOOP DETECTOR LEAD-IN SHALL BE MARKED WITH LANE IDENTIFICATION, DENOTING THE LANE AND POSITION IN THE LANE FOR EACH LOOP (SUCH AS NB-1 FOR NORTHBOUND 1, ETC.).

(9) FOR QUESTIONS CONCERNING ANY OF THE INSTALLATION OF THE COUNTER EQUIPMENT, PLEASE CONTACT STANLEY DUNN AT 615-350-4571. CONTRACTOR SHALL NOTIFY STANLEY DUNN TO REPORT THAT WORK HAS BEEN COMPLETED SO HE CAN FINISH THE INSTALLATION.

(10) THE CONTRACTOR SHALL SUPPLY STANLEY DUNN WITH THE X / Y COORDINATED (BASED ON WGS COORDINATES) OF EACH PULL BOX.

SMARTWAY SYSTEM SPECIAL NOTES

(1) CAMERAS SHALL BE MOUNTED PERPENDICULAR TO THE MAIN ROADWAY AND APPROVED BY ENGINEER.

(2) ALL BASELINES SHOWN ON PLANS ARE FOR GRAPHICAL INFORMATION PURPOSES ONLY AND ARE NOT STAKED IN THE FIELD.

(3) THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS IN THE FIELD MAY BECOME NECESSARY. VARIATIONS FROM THE PROPOSED LOCATIONS MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND RECEIVE APPROVAL BY THE PROJECT ENGINEER PRIOR TO INSTALLATION OR CONSTRUCTION.

(4) THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH OTHER CONTRACTORS IN THE WORK AREA. CONFLICTS WILL BE HANDELED AT THE DISCRETION OF THE ENGINEER.

(5) THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS IN PDF FORMAT (BOTH ELECTRONIC AND HARD COPY) OF ALL EQUIPMENT PLACED AS PART OF THIS CONTRACT.

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STATE OF TENNESSEE
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GENERAL NOTES
AND
SPECIAL NOTES

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TENNESSEE D.O.T.
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(6) ALL UNPAVED AREAS WHICH ARE DISTURBED DUE TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PROVIDE TOPSOIL AND SOD TO BE INCLUDED IN COST OF ITEMS THAT THE CONTRACTOR IS WORKING ON AT THE TIME.

(7) ALL REMOVED EQUIPMENT OR MATERIALS WILL BE DISPOSED OF BY THE CONTRACTOR. COST OF DISPOSAL SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

(8) THE CONTRACTOR SHALL NOT BE ALLOWED TO STOCKPILE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THE CLEAR ZONE UNLESS SHIELDED BY BARRIER.

(9) IT SHOULD BE NOTED THAT NO SOIL BORING INFORMATION IS PROVIDED. CONTRACTOR IS RESPONSIBLE FOR ALL SOIL BORINGS TAKEN FOR FOUNDATION DESIGNS. THE COST FOR SOIL BORINGS AND TESTING SHALL BE INCLUDED IN THE COST OF THE POLES AND STRUCTURES.

(10) ALL GUARDRAIL THAT IS REMOVED TEMPORARILY FOR THE INSTALLATION OF DEVICES SHALL BE RE-INSTALLED IMMEDIATELY OR THE AREA SHALL BE PROTECTED BY BARRIER.

(11) PROPOSED CONDUIT LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY FIELD CONDITIONS UPON APPROVAL OF ENGINEER.

(12) MULTIPLE RUNS OF CONDUIT SHALL BE PLACED IN THE SAME TRENCH AS SHOWN ON TYPICAL SECTIONS.

(13) ALL ELECTRICAL WORK AND POWER SERVICE DUCT SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE "NATIONAL ELECTRICAL CODE", "NATIONAL ELECTRIC SAFETY CODE", LOCAL BUILDING CODES, AND TO THE REQUIREMENTS OF TDOT AND ALL UTILITIES INVOLVED.

CONSTRUCTION PHASE RECOMMENDATIONS FOR THE INSTALLATION OF ITS CONDUIT IN CONSTRUCTION SITE

(1) BEFORE ROADWAY CONSTRUCTION BEGINS CONTRACTOR SHOULD LOWER THE EXISTING CONDUIT FROM ITS STATION 616+00 TO APPROXIMATELY STATION 631+00 AND FROM STATION 658+00 TO APPROXIMATELY STATION 669+00 ALONG I-240. THIS INSTALLATION CONSISTS OF LOWERING THE CONDUIT AT A DEPTH THAT WILL BE 24" BELOW PROPOSED ROADWAY SUB GRADE LEVELS. THIS ALSO INCLUDES PULL BOXES THAT ARE ASSOCIATED WITH THE CONDUIT THAT IS BEING LOWERED. AS SHOWN IN THE PLANS, NEW FIBER OPTIC CABLE WILL BE INSTALLED FROM APPROXIMATELY STATION 525+00 TO STATION 630+00. THIS SHOULD TAKE PLACE DURING ROADWAY CONSTRUCTION. THIS SECTION ALSO INCLUDES THE INSTALLATION OF NEW CONDUIT AND THE USE OF EXISTING CONDUIT. THE CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT ITS EQUIPMENT IS NOT OFF LINE FOR A LONG PERIOD OF TIME. THE CONTRACTOR SHALL COORDINATE WITH TDOT REGION 4 TMC TO QUALIFY LENGTH OF DOWN TIME FOR EACH PIECE OF EQUIPMENT.

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STATE OF TENNESSEE
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GENERAL NOTES
AND
SPECIAL NOTES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2CC

BOX CULVERT TABULATION

STATION	LOCATION	SPAN	HEIGHT	LENGTH	SKEW	DRAINAGE AREA ACRES	BOX CULVERT					CULVERT EXC.	DRAWING NO.	BACKINGFILLING ITEM 303-01.01 DWG. STD-10-1	FOUNDATION FILL MATERIAL 204-08	RIP-RAP CLASS B 709-05.08	RIP-RAP CLASS C 709-05.09
							BOX		APRON								
							CLASS "A" CPMC/ 604-01.01 CU. YD.	REINF. STEEL 604-01.02 LBS.	CLASS "A" CONC. * 604-01.01 CU. YD.	WIRE FABRIC * LBS.	STEEL BAR REINF. * LBS.	CU. YD.		TONS	CU. YD.	(TON)	(TON)
598+23.09	I-240	8	6	9.71	65	195	13.39	2,485	3.56	75	29	-	STD-15-11&12	128	4.35	-	-
678+38.89	I-240	8	4	13	49	54	14.55	2,556	-	-	-	-	STD-15-11	52.8	5.7	-	-
597+35.91	I-240	8	5	22	90	195	24.28	4,743	-	-	-	-	STD-13-37&10	-	12.34	-	-
TOTALS							52.22	9,784	4	75	29	0		181	22	0	0

* NOTE: CONCRETE FOR APRON AND STEEL ONLY.

STORM DRAINAGE ENDWALLS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	STRUCTURE TYPE	STANDARD DRAWING	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)
5A	RAMP 15D	28+75.82	8.96 RT	1	PE	N/A	N/A	N/A	N/A
5A	I-240	539+00	124.53 LT	2A	U	D-PE-6B (1&2)	3.23	410	186
5A	I-240	530+50	108 LT	2C	U	D-PE-6B (1&2)	3.23	410	186
5A	I-240	534+50	117 LT	2D	U	D-PE-6B (1&2)	3.23	410	186
6B	CD ROAD 1	34+25.56	39.47 RT	14A	U	D-PE-6B (1	1.47	193	N/A
6B	CD ROAD 1	34+84.57	38.3 RT	16	U	D-PE-6B (1)	1.47	193	N/A
6B	RAMP 15D	17+06.06	55.66 LT	25	U	D-PE-6B (1)	1.47	193	N/A
7B	CD-RD-1	44+75.40	30.07 RT	30E	U	D-PE-6B (1)	1.47	193	N/A
7B	RAMP 15F	43+50	45.4 LT	33	U	D-PE-6B (1)	1.47	193	N/A
7B	CD ROAD 1	44+96	70 RT	35	U	D-PE-6B (1)	2.22	275	N/A
7B	CD ROAD 1	46+00	35 RT	36	U	D-PE-6B (1)	1.47	193	N/A
7B	CD ROAD 1	46+75.11	18.84 RT	37	U	D-PE-6B (1)	1.47	193	N/A
7B	I-240	556+90	90 LT	39	U	D-PE-6B (1)	2.22	275	N/A
7B	I-240	560+90	90 LT	41	U	D-PE-6B (1&2)	3.23	410	186
9B	RAMP 15C	16+68.50	36.26 RT	63	U	D-PE-6B (1)	4.38	524	N/A
10B	I-240	597+50	80 LT	70	U	D-PE-3B (1)	1.05	132	N/A
10B	I-240	598+65.75	131.48 RT	71	L	D-PE-4	2.90	N/A	N/A
10B	I-240	599+29.22	133.90 RT	73	L	D-PE-4	2.90	N/A	N/A
10B	I-240	600+00	118.07 RT	75E	U	D-PE-3B (1)	1.05	132	N/A
10B	I-240	602+00	109.59 RT	75	U	D-PE-3B (1)	1.05	132	N/A
10B	I-240	602+00	78 LT	77	U	D-PE-3B (1)	1.05	132	N/A
11A	I-240	617+26.25	120.26 RT	86	U	D-PE-4	1.23	20	N/A
12A	I-240	627+00.14	100.58 RT	91	U	D-PE-3B (1&2)	1.05	132	N/A
12A	I-240	631+00	108.08 RT	91A	U	D-PE-6B (1)	1.47	193	N/A
12A	I-240	633+00	106 RT	91D	U	D-PE-6B (1&2)	1.47	193	N/A
12A	I-240	627+00.28	78.48 RT	91E	PE	N/A	N/A	N/A	N/A
12A	CD ROAD 2	63+21.36	30 RT	92	U	D-PE-6B (1)	1.47	193	N/A
13A	I-240	634+00	99.04 RT	96	U	D-PE-3B (1&2)	1.05	132	N/A
13A	I-240	638+00	115 RT	102A	U	D-PE-6B (1)	2.22	275	N/A
13A	I-240	639+00	93 RT	102B	U	D-PE-4B (1)	1.74	217	N/A
14A	RAMP 17G	19+86.37	27.21 RT	115	U	D-PE-3B (1)	1.05	132	N/A
14A	RAMP 17G	21+35.31	22.16 RT	117	U	D-PE-3B (1)	1.05	132	N/A
14A	RAMP 17B	39+06.47	42.95 LT	126	U	D-PE-6B (1&2)	1.47	193	N/A
14A	I-240	649+55.21	129.49 RT	115A	U	D-PE-3B(1)	2.14	232	N/A
14A	I-240	649+15.29	126.85 RT	115B	U	D-PE-3B(1)	2.14	232	N/A
15A	I-240	658+00	94.22 RT	134A	U	D-PE-6B (1)	1.47	193	N/A
15A	RAMP 17C	26+81	38.92 LT	147B	U	D-PE-6B (1&2)	1.47	193	N/A
15A	RAMP 17C	26+67.91	17.76 RT	147C	U	D-PE-3B (1&2)	1.05	132	N/A
15A	RAMP 17C	26+00.58	9.21 LT	149	PE	N/A	N/A	N/A	N/A
15A	RAMP 17C	25+50	20.58 RT	151	U	D-PE-3B (1&2)	1.05	132	N/A
15A	CD ROAD 2	24+06.19	47.24 RT	154	U	D-PE-6B (1)	1.47	193	N/A
16A	CD ROAD 2	22+28.04	47.51 RT	155	U	D-PE-6B (1)	2.22	275	N/A
16A	I-240	675+00	93 RT	158	U	D-PE-3B (1)	1.05	132	N/A
TOTALS							71.36	8119	744

NOTE: PE (PIPE END)

JUNCTION BOXES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	OUTSIDE TOP ELEV.	STRUCTURE TYPE	DEPTH (FT.)
6B	RAMP 15D	24+06.03	6.82 LT	6B	305.67	1	5.00
6B	RAMP 15G	31+58.91	14.7 RT	9	304.77	1	4.77
6B	RAMP 15G	33+75	35 LT	14	304.92	1	3.28
6B	CD ROAD 1	35+23.32	5.39 RT	17	302.16	1	3.28
6B	I-240	550+50.27	73 RT	18B	301.25	1	3.28
6B	RAMP 15D	19+54.01	22.34 LT	21	303.87	1	3.28
6B	RAMP 15D	18+69.56	13.90 LT	23	303.63	1	3.28
6B	I-240	554+83.44	70.92 RT	30		1	
7B	CD ROAD 1	45+74.01	64.73 RT	36A	300.00	5	7.97
7B	I-240	557+10.28	90 LT	40	302.70	4	5.20
7B	I-240	561+11.61	85.46 LT	42	301.46	4	4.96
7B	I-240	562+76.20	55.88 LT	44	300.20	4	6.58
7B	I-240	563+60	60 LT	44A	301.20	1	3.28
11A	I-240	618+50.02	80 RT	88	295.28	1	3.28
12A	I-240	631+50	83 RT	91B	286.90	1	3.27
12A	I-240	632+50	83 RT	91C	286.31	1	3.27
14A	I-240	650+20.88	69.23 LT	113	277.10	5	8.13
15A	I-240	658+30.27	64.50 LT	134	270.10	2	4.42
15A	I-240	661+90.13	63.47 LT	142	266.99	2	4.42
15A	I-240	665+30.39	64.02 LT	144	265.66	1	3.28
15A	I-240	665+25.60	84.08 RT	146	264.94	1	3.78
15A	RAMP 17C	26+70.97	33.46 LT	147A	265.00	1	3.28
15A	CD ROAD 2	24+05.29	22 RT	154A	260.92	1	3.28
16A	CD ROAD 2	22+26.48	20.70 LT	156		1	
16A	I-240	675+00.15	72.66 RT	157		1	

DRAIN MANHOLES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS (INCHES)	DEPTH (FT.)	STANDARD DRAWING	PAY ITEMS					
										TYPE 3 611-01-01 0' - 4'	TYPE 3 611-01-02 4' - 8'	TYPE 3 611-01-03 8' - 12'	TYPE 3 611-01-04 12' - 16'	TYPE 3 611-01-05 16' - 20'	TYPE 3 611-01-06 20' - 24'
15A	CD ROAD 2	34+93.21	19.61 RT	132	271.75	DMH	72	5.74	D-MH-6		1				
15A	RAMP 17D	31+48.60	5.81 LT	140A	269.00	DMH	60	5.44	D-MH-6		1				
15A	I-240	658+35.61	104.39 RT	134B	272.00	DMH	96	7.20	D-MH-6		1				
TOTALS										0	3	0	0	0	0

CROSS DRAIN TABULATION

STATION	RCP CLASS III (L.F.)						(1) BEDDING MATERIAL (C.Y)	SKEW	END TREATMENT				CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)	RIP-RAP CLASS B 709-05.08 (TON)	REMARKS
									INLET		OUTLET						
	18"	24"	36"	42"	48"	60"			TYPE	DRAWING NO.	TYPE	DRAWING NO.					
522+85.64									U	D-PE-6B(1)	N/A	-	8.38	524	217	-	
539+75.03						54	35		PE	D-FLU-1		-	*			-	
569+71.92				11					U	D-PE-6B(1)	A	D-PE-1	9.76	718	284	-	
606+47.63					48				N/A	-	EW(A)	D-PE-1	6.6	100	N/A	-	
611+48.03			10						U	D-PE-4B(1)	N/A	-	3.01	382	N/A	-	
617+47.92			24						EW(U)	D-PE-4B(1)	EW(A)	D-PE-1	7.01	455	160	-	
624+87.69			37						EW(U)	D-PE-6B	EW(A)	D-PE-1	8.75	604	217	-	
649+46.76			10						A	D-PE-1	A	D-PE-1	10.32	188	N/A	-	
TOTALS	0	0	81	11	48	54	35						53.83	2971	878	0	

* NOTE: SEE FLUME TAB BLOCK THIS SHEET

SUMMARY OF FLUMES

LOCATION			FLUME		CONCRETE		
STATION TO STATION		SIDE	TYPE	HEIGHT A	BAFFLES C.Y.	FLUME C.Y.	TOTAL C.Y.
539+00	PERP	LT	F	10.15	0.67	10.70	11.31

SEE TDOT STANDARD DRAWING D-FLU-1 FOR DIMENSIONS.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
8-23-10
STATE OF TENNESSEE

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.	2010	STP-I-240(290)	2DD

CATCH BASINS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	PAY ITEMS																				
										TYPE 10 611-10.01 0' - 4'	TYPE 28 611-28.01 0' - 4'	TYPE 28 611-28.02 4' - 8'	TYPE 31 611-31.02 4' - 8'	TYPE 31 611-31.03 8' - 12'	TYPE 31 611-31.05 16' - 20'	TYPE 32 611-32.01 0' - 4'	TYPE 32 611-32.02 4' - 8'	TYPE 38 611-38.02 4' - 8'	TYPE 39 611-39.02 4' - 8'	TYPE 39 611-39.03 8' - 12'	TYPE 40 611-40.02 4' - 8'	TYPE 41 611-41.01 0' - 4'	TYPE 41 611-41.02 4' - 8'	TYPE 41 611-41.03 8' - 12'	TYPE 42 611-42.01 0' - 4'	TYPE 42 611-42.02 4' - 8'	TYPE 42 611-42.04 12' - 16'	TYPE 51 611-51.02 4' - 8'	TYPE 51 611-51.03 8' - 12'	TYPE 51 611-51.04 12' - 16'
5A	I-240	539+75.40	73 LT	2B	311.70	42		7.52	D-CB-42SD																	1				
5A	I-240	538+00	73 RT	3A	312.77	31		7.55	D-CB-31SD				1																	
5A	I-240	534+00	71.41 RT	3B	314.83	38		7.23	D-CB-38SB									1												
5A	I-240	533+75	124 RT	3C	311.60	42		2.95	D-CB-42S																1					
5A	I-240	536+00	72.74 RT	3D	313.73	38		7.32	D-CB-38SB									1												
5A	I-240	539+50	73 RT	3	311.83	31		7.66	D-CB-31SD				1																	
5A	CD ROAD 1	26+50.26	21.36 RT	4A	311.84	39		9.13	D-CB-39SE											1										
5A	CD ROAD 1	26+25.54	9.44 RT	4	311.33	51		7.47	D-CB-51SD																			1		
5A	I-240	543+00	73 LT	6A	309.89	31		6.49	D-CB-31SD				1																	
5A	I-240	542+00	73 LT	6C	310.49	31		4.96	D-CB-31SD				1																	
6B	RAMP 15D	24+06	7.96 RT	6	308.78	51		7.28	D-CB-51SC																			1		
6B	I-240	544+90.05	73 RT	7A	308.50	31		8.50	D-CB-31SD					1																
6B	I-240	544+00	73 RT	7B	309.04	31		4.96	D-CB-31SD				1																	
6B	I-240	544+55.09	73 LT	7	308.84	31		8.21	D-CB-31SD					1																
6B	RAMP 15G	31+46.30	10 RT	8	307.84	51		4.55	D-CB-51SC																			1		
6B	RAMP 15G	31+58.59	22.28 RT	10	305.50	42		4.05	D-CB-42SB																	1				
6B	RAMP 15G	32+50	6 RT	11	306.62	28		5.54	D-CB-28S			1																		
6B	RAMP 15G	33+22.26	6 RT	12	306.11	28		4.25	D-CB-28S			1																		
6B	RAMP 15G	33+75	6 RT	13	306.47	28		4.25	D-CB-28S			1																		
6B	I-240	549+25	73 RT	18A	306.26	31		4.96	D-CB-31SD				1																	
6B	I-240	551+00	73 RT	18C	305.31	31		4.96	D-CB-31SD				1																	
6B	I-240	548+80.67	73 RT	18	306.39	31		7.85	D-CB-31SD				1																	
6B	RAMP 15D	20+56.91	6.3 RT	19	306.16	51		4.30	D-CB-51SC																			1		
6B	RAMP 15D	19+54	7.7 RT	20	305.25	51		4.31	D-CB-51SC																			1		
6B	RAMP 15D	19+11.17	8.68 RT	22A	305.06	51		4.20	D-CB-51SC																			1		
6B	RAMP 15D	18+70	9.83 RT	22	304.99	51		4.41	D-CB-51SC																			1		
6B	RAMP 15D	17+15.46	15.89 RT	24	305.92	51		4.67	D-CB-51SC																			1		
6B	RAMP 15A	16+27.17	6 RT	26	306.34	51		4.55	D-CB-51SC																			1		
6B	RAMP 15H	35+18.22	8 RT	27	308.34	28		5.84	D-CB-28S			1																		
6B	RAMP 15H	36+57.60	8 RT	28	304.24	28		3.41	D-CB-28LP		1																			
6B	RAMP 15H	37+25.82	10 RT	29	304.75	28		6.71	D-CB-28S			1																		
6B	I-240	553+75	72.92 RT	30A	303.73	31		4.96	D-CB-31SD				1																	
7B	I-240	557+00	67.27 RT	30B	302.26	31		4.96	D-CB-31SD				1																	
7B	I-240	558+00	66.46 RT	30C	301.74	31		5.56	D-CB-31SD				1																	
7B	I-240	560+00	66.52 RT	30D	300.68	32		4.13	D-CB-32LP								1													
6B	RAMP 15F	42+00	8 RT	31	300.97	28		4.25	D-CB-28P			1																		
6B	RAMP 15F	42+67.96	8 RT	32	300.37	28		4.25	D-CB-28P			1																		
7B	RAMP 15F	43+50	8 RT	34	301.54	28		5.92	D-CB-28P			1																		
7B	CD ROAD 1	47+54.41	17.44 LT	38A	300.60	41		3.40	D-CB-41LP														1							
7B	I-240	560+75.63	64.79 RT	38	300.56	41		3.50	D-CB-41LP														1							
7B	I-240	563+00	68.63 RT	43A	302.09	31		5.03	D-CB-31SD				1																	
7B	I-240	563+50	69 RT	43C	302.92	32		4.25	D-CB-32LP								1													
7B	I-240	561+61.11	62.9 RT	43	300.86	41		3.47	D-CB-41LP														1							
7B	I-240	565+00	69.18 LT	45A	306.18	31		4.96	D-CB-31SD				1																	
7B	I-240	563+95	68.78 LT	45	303.78	31		4.96	D-CB-31SD				1																	
7B	I-240	567+00	69 RT	46A	310.75	31		4.96	D-CB-31SD				1																	
7B	I-240	564+73.59	69 RT	46	305.59	32		3.80	D-CB-32LP							1														
7B	RAMP 15E	50+62.54	21.5 LT	47A	304.33	41		8.11	D-CB-41P																1					
7B	I-240	563+00	107 RT	47B	302.44	42		7.35	D-CB-42SB																	1				
7B	I-240	561+98.08	154.77 RT	47C	305.18	42		12.53	D-CB-42SD																		1			
7B	RAMP 15E	50+62.54	3.55 RT	47	303.23	28		6.55	D-CB-28P			1																		
7B	RAMP 15E	50+62	20 RT	48	301.15	42		4.23	D-CB-42SB																	1				
7B	RAMP 15E	51+31.97	3.09 RT	49A	304.06	41		5.32	D-CB-41P															1						
7B	I-240	566+83.28	69.5 LT	50	310.35	32		4.28	D-CB-32LP								1													
7B	RAMP 15C	35+84.87	7.35 RT	51	309.17	51		4.32	D-CB-51SC																			1		
8B	I-240	570+16.61	71.51 LT	53	316.69	31		7.56	D-CB-31SD				1																	
8B	I-240	571+00	69 RT	54A	317.99	31		4.96	D-CB-31SD				1																	

JOHN T. PANKEY
REGISTERED
LICENSED
PROFESSIONAL
ENGINEER
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COMMERCE
AND
102251
STATE OF TENNESSEE
8-23-10

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.	2010	STP-I-240(290)	2EE

CATCH BASINS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	PAY ITEMS																				
										TYPE 10 611-10.01 0' - 4'	TYPE 28 611-28.01 0' - 4'	TYPE 28 611-28.02 4' - 8'	TYPE 31 611-31.02 4' - 8'	TYPE 31 611-31.03 8' - 12'	TYPE 31 611-31.05 16' - 20'	TYPE 32 611-32.01 0' - 4'	TYPE 32 611-32.02 4' - 8'	TYPE 38 611-38.02 4' - 8'	TYPE 39 611-39.02 4' - 8'	TYPE 39 611-39.03 8' - 12'	TYPE 40 611-40.02 4' - 8'	TYPE 41 611-41.01 0' - 4'	TYPE 41 611-41.02 4' - 8'	TYPE 41 611-41.03 8' - 12'	TYPE 42 611-42.01 0' - 4'	TYPE 42 611-42.02 4' - 8'	TYPE 42 611-42.04 12' - 16'	TYPE 51 611-51.02 4' - 8'	TYPE 51 611-51.03 8' - 12'	TYPE 51 611-51.04 12' - 16'
8B	I-240	571+75	69 RT	54B	318.72	31		4.96	D-CB-31SD				1																	
8B	I-240	569+28.40	69 RT	54	315.42	31		8.41	D-CB-31SD					1																
8B	CD ROAD 1	59+50	4 RT	55A	319.37	51		4.55	D-CB-51SC																			1		
8B	CD ROAD 1	58+60	4 RT	55B	318.72	51		4.55	D-CB-51SC																			1		
8B	CD ROAD 1	55+82.76	11.82 RT	55	314.80	51		8.47	D-CB-51SD																				1	
8B	RAMP 15C	23+07.48	20 RT	57A	312.53	40		4.25	D-CB-40S												1									
8B	RAMP 15C	23+07.48	8 RT	57B	315.25	51		7.17	D-CB-51SC																			1		
8B	RAMP 15C	21+65.03	8 RT	57	313.52	51		7.95	D-CB-51SC																			1		
8B	I-240	578+00	73 LT	58A	317.69	31		4.96	D-CB-31SD				1																	
8B	I-240	580+00	73 LT	58B	315.27	31		4.88	D-CB-31SD				1																	
9B	I-240	583+47	72.24 LT	58C	311.39	38		5.22	D-CB-38SB										1											
9B	I-240	583+97	71.91 LT	58D	310.62	38		4.93	D-CB-38SB										1											
9B	RAMP 15C	18+50	8 RT	58E	309.83	51		6.26	D-CB-51SC																			1		
9B	I-240	582+00	73 LT	58F	312.85	31		4.96	D-CB-31SD				1																	
8B	I-240	581+01.97	73 LT	58	314.04	31		4.96	D-CB-31SD				1																	
8B	I-240	576+00	69 RT	59A	319.65	31		4.96	D-CB-31SD				1																	
8B	I-240	578+00	69 RT	59B	317.85	31		4.96	D-CB-31SD				1																	
8B	I-240	580+00	69 RT	59C	315.43	31		4.96	D-CB-31SD				1																	
8B	I-240	581+90	69 RT	59D	313.14	31		7.51	D-CB-31SD				1																	
8B	I-240	581+00.12	69 RT	59	314.22	31		8.29	D-CB-31SD					1																
8B	CD ROAD 1	64+00	4 RT	60A	318.49	51		4.88	D-CB-51SC																			1		
8B	CD ROAD 1	66+00	4 RT	60B	316.14	51		4.88	D-CB-51SC																			1		
8B	CD ROAD 1	68+70	4 RT	60C	312.89	51		8.86	D-CB-51SC																				1	
9B	CD ROAD 1	69+00	4 RT	60D	312.53	51		9.79	D-CB-51SC																				1	
9B	CD ROAD 1	69+75	4 RT	60E	311.63	51		9.91	D-CB-51SC																				1	
9B	CD ROAD 1	70+50	4 RT	60F	310.74	51		10.05	D-CB-51SC																				1	
9B	CD ROAD 1	67+74.24	4 RT	60	314.03	51		8.73	D-CB-51SC																				1	
9B	CD ROAD 1	72+75	4 RT	61A	308.06	51		10.34	D-CB-51SC																				1	
9B	CD ROAD 1	72+00	4 RT	61B	308.95	51		10.21	D-CB-51SC																				1	
9B	CD ROAD 1	73+50	4 RT	61C	307.18	51		10.49	D-CB-51SC																				1	
9B	CD ROAD 1	74+00	4 RT	61D	306.57	51		10.58	D-CB-51SC																				1	
9B	CD ROAD 1	71+24.14	4 RT	61	309.85	51		10.17	D-CB-51SC																				1	
9B	RAMP 15C	17+19.50	8 RT	62	308.02	51		6.47	D-CB-51SC																			1		
9B	CD ROAD 1	77+73.32	6.72 RT	64A	302.00	51		9.58	D-CB-51SC																				1	
9B	CD ROAD 1	75+50	4.03 RT	64B	304.73	51		10.70	D-CB-51SC																				1	
9B	CD ROAD 1	76+25	4.45 RT	64C	303.82	51		10.33	D-CB-51SC																				1	
9B	CD ROAD 1	77+00	5.37 RT	64D	302.90	51		9.95	D-CB-51SC																				1	
9B	CD ROAD 1	79+00	9.29 RT	64E	300.41	51		8.75	D-CB-51SC																				1	
9B	CD ROAD 1	74+74.23	4 RT	64	305.69	51		11.12	D-CB-51SC																				1	
9B	CD ROAD 1	80+72.13	12.79 RT	65	298.29	51		8.03	D-CB-51SC																				1	
10B	CD ROAD 1	83+19.84	17.76 RT	66	296.74	51		10.08	D-CB-51SC																				1	
10B	CD ROAD 1	85+44.61	21.6 RT	68A	296.97	51		4.85	D-CB-51SC																			1		
10B	CD ROAD 1	83+86.94	19.17 RT	68	296.63	51		11.73	D-CB-51SC																				1	
10B	I-240	600+00	70 LT	69A	297.74	51		4.55	D-CB-51SC																			1		
10B	I-240	599+00	70 LT	69B	297.33	51		4.83	D-CB-51SC																			1		
10B	I-240	597+50	70 LT	69	296.90	51		5.90	D-CB-51SC																			1		
10B	I-240	604+00	82 RT	75A	299.26	51		4.56	D-CB-51SC																			1		
10B	I-240	601+99.57	82 RT	75B	298.40	51		10.37	D-CB-51SC																				1	
10B	I-240	600+00	82 RT	75C	297.53	51		9.25	D-CB-51SC																				1	
10B	I-240	599+00	82 RT	75D	297.13	51		5.33	D-CB-51SC																			1		
10B	I-240	604+00	70 LT	76A	299.41	51		4.55	D-CB-51SC																			1		
10B	I-240	602+00	70 LT	76	298.57	51		5.00	D-CB-51SC																			1		
10B	I-240	606+46.40	71.17 LT	78	300.43	51		15.12	D-CB-51SD																					1
11A	I-240	608+00	82 RT	79A	300.86	51		4.55	D-CB-51SC																			1		
10B	I-240	606+49.07	82 RT	79	300.31	51		15.61	D-CB-51SD																					1
11A	I-240	610+85.96	82 RT	82	301.25	51		14.49	D-CB-51SC																					1
11A	I-240	613+00	82 RT	85A	300.98	51		4.60	D-CB-51SC																			1		

JOHN T. PANKEY JR. 10235 REGISTERED ENGINEER AGRICULTURE STATE OF TENNESSEE 8/20/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2FF

CATCH BASINS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	PAY ITEMS																				
										TYPE 10 611-10.01 0' - 4'	TYPE 28 611-28.01 0' - 4'	TYPE 28 611-28.02 4' - 8'	TYPE 31 611-31.02 4' - 8'	TYPE 31 611-31.03 8' - 12'	TYPE 31 611-31.05 16' - 20'	TYPE 32 611-32.01 0' - 4'	TYPE 32 611-32.02 4' - 8'	TYPE 38 611-38.02 4' - 8'	TYPE 39 611-39.02 4' - 8'	TYPE 39 611-39.03 8' - 12'	TYPE 40 611-40.02 4' - 8'	TYPE 41 611-41.01 0' - 4'	TYPE 41 611-41.02 4' - 8'	TYPE 41 611-41.03 8' - 12'	TYPE 42 611-42.01 0' - 4'	TYPE 42 611-42.02 4' - 8'	TYPE 42 611-42.04 12' - 16'	TYPE 51 611-51.02 4' - 8'	TYPE 51 611-51.03 8' - 12'	TYPE 51 611-51.04 12' - 16'
11A	I-240	615+00	82 RT	85B	300.31	51		5.51	D-CB-51SC																		1		
11A	I-240	616+50	82 RT	85C	299.53	51		5.94	D-CB-51SC																		1		
11A	I-240	617+22.45	82 RT	85D	299.07	51		12.31	D-CB-51SC																				1
11A	I-240	618+01.33	110 RT	87	294.00	38		4.00	D-CB-38SB									1											
12A	CD ROAD 2	62+69	10 RT	93	289.67	51		4.55	D-CB-51SC																		1		
13A	CD ROAD 2	59+21.62	10 RT	94	286.85	51		4.55	D-CB-51SC																		1		
12A	I-240	634+00.06	72.01 LT	95	287.81	31		4.96	D-CB-31SD				1																
13A	CD ROAD 2	55+71.90	10 RT	97	284.94	51		6.38	D-CB-51SC																		1		
13A	I-240	637+50	73 LT	98	285.57	31		4.96	D-CB-31SD				1																
13A	CD ROAD 2	53+31.50	10 LT	100	283.12	51		9.82	D-CB-51SC																			1	
13A	I-240	643+21.88	73 LT	101A	281.42	31		4.96	D-CB-31SD				1																
13A	I-240	640+09	73 LT	101	283.36	31		16.36	D-CB-31SD						1														
13A	I-240	641+04.28	82 RT	102	282.35	51		15.85	D-CB-51SC																				1
13A	CD ROAD 2	50+00	12.65 RT	103A	280.91	51		4.70	D-CB-51SC																		1		
13A	CD ROAD 2	49+00	14.64 RT	103B	280.36	51		4.84	D-CB-51SC																		1		
13A	CD ROAD 2	47+84	18.5 RT	103	280.09	51		13.94	D-CB-51SD																				1
13A	I-240	645+90.75	73 LT	104	279.73	32		4.89	D-CB-32LP								1												
13A	I-240	643+00	82 RT	105A	281.16	51		4.55	D-CB-51SC																		1		
13A	I-240	644+00	82 RT	105B	280.51	51		9.07	D-CB-51SC																			1	
13A	I-240	645+04.04	83.2 RT	105	279.88	51		14.04	D-CB-51SD																				1
13A	RAMP 17G	16+50	6 RT	106A	279.07	51		4.55	D-CB-51SC																		1		
14A	RAMP 17G	17+50	6 RT	106B	278.26	51		6.18	D-CB-51SC																		1		
14A	RAMP 17G	18+40.86	6 RT	106	277.29	51		9.02	D-CB-51SD																			1	
14A	I-240	649+00	73 LT	108	277.81	31		5.18	D-CB-31SD				1																
14A	CD ROAD 2	42+47.50	24.68 RT	110	276.60	51		7.54	D-CB-51SC																		1		
14A	I-240	650+55	73 LT	112	276.73	31		4.96	D-CB-31SD				1																
14A	RAMP 17G	19+86.37	10 RT	114	275.06	28		4.25	D-CB-28P			1																	
14A	RAMP 17G	21+35.31	10 RT	116	274.46	28		3.86	D-CB-28LP		1																		
14A	RAMP 17G	21+97.05	10 RT	118	274.47	10		3.47	D-CB-10LPC	1																			
14A	RAMP 17G	23+36.93	10 RT	119	275.35	28		3.48	D-CB-28LP		1																		
14A	I-240	652+04.21	73 LT	120	275.76	32		5.76	D-CB-32LP								1												
14A	RAMP 17A	41+43.42	8 RT	121	274.74	28		4.68	D-CB-28LP			1																	
14A	RAMP 17A	40+52.95	8 RT	122	274.14	28		3.64	D-CB-28LP		1																		
14A	RAMP 17A	39+30.80	8 RT	123	274.85	28		3.55	D-CB-28LP		1																		
14A	I-240	653+65.31	73 LT	124	274.64	32		3.40	D-CB-32LP							1													
14A	I-240	655+19.79	73 LT	125	273.60	32		3.71	D-CB-32LP							1													
14A	RAMP 17B	29+47.51	8 RT	127	272.37	28		3.40	D-CB-28LP		1																		
14A	RAMP 17B	39+07.58	8 RT	128	271.68	28		4.30	D-CB-28LP			1																	
14A	RAMP 17B	38+68.39	8 RT	129	271.41	28		4.30	D-CB-28LP			1																	
14A	I-240	656+75.13	73 LT	130	272.55	32		4.30	D-CB-32LP								1												
15A	CD ROAD 2	35+50	26 RT	131	271.38	28		4.82	D-CB-28LP			1																	
15A	I-240	658+30	73 LT	133	271.44	31		5.87	D-CB-31SD				1																
15A	CD ROAD 2	34+22	24 RT	135	271.11	28		4.02	D-CB-28LP			1																	
15A	I-240	660+32	73 LT	136	270.02	32		3.40	D-CB-32LP							1													
15A	I-240	661+87.24	73 LT	137	269.34	31		6.25	D-CB-31SD				1																
15A	CD ROAD 2	32+50	24 RT	138	269.78	28		3.74	D-CB-28LP		1																		
15A	RAMP 17D	31+74.60	8 RT	139	268.67	28		4.28	D-CB-28LP			1																	
15A	RAMP 17D	31+38.30	8 RT	140	268.21	28		4.01	D-CB-28LP			1																	
15A	RAMP 17D	30+71.84	8 RT	141	268.61	28		3.40	D-CB-28LP		1																		
15A	I-240	665+30.44	73 LT	143	266.72	32		4.66	D-CB-32LP								1												
15A	I-240	663+84.21	102.33 RT	145	265.44	39		4.75	D-CB-39S										1										
15A	RAMP 17C	27+47.18	8 RT	147	267.55	28		3.28	D-CB-28LP		1																		
15A	RAMP 17C	25+99.54	8 RT	148	263.45	28		3.62	D-CB-28LP		1																		
15A	RAMP 17C	25+49.96	8 RT	150	263.27	28		3.83	D-CB-28LP		1																		
15A	I-240	667+07.94	73 LT	152	265.53	32		3.61	D-CB-32LP							1													
15A	I-240	668+85.87	73 LT	153	264.35	32		4.21	D-CB-32LP								1												
16A	I-240	677+56.42	93.06 LT	159	258.99	51		7.99	D-CB-51SC																		1		
TOTALS										1	11	17	33	4	1	5	8	5	1	1	1	3	1	1	1	4	1	40	25	7

* NOTE: TIE TO EXISTING 6'x6' RCBC

JOHN T. PANKEY
REGISTERED
AGRICULTURE
ENGINEER
102252
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2GG

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM OUTLET ELEV.	TO CODE	TO INLET ELEV.	% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.) 15"	18"	24"	30"	36"	42"	60"	RIP-RAP 709-05.06 (TON)
5A	2C	312.55	2D	310.78	0.44				400				
5A	2A	307.58	2B	306.71	0.96				91				
5A	3C	308.65	3B	308.10	1.00		55						
5A	3B	307.60	3D	306.51	0.55			200					
5A	3D	306.41	3A	305.32	0.55			200					
5A	3A	305.22	3	304.27	0.64			148					
5A	3	304.17	4	303.96	0.70			30					
5A	4	303.86	4A	303.66	1.00			20					
5A	6C	305.53	6A	303.50	2.07		98						
6B	6	301.50	6B	300.90	5.45			11					
6B	6A	303.40	7	300.63	2.07		153						
6B	7B	304.08	7A	300.00	4.64		88						
6B	8	303.29	9	300.50	23.25		12						
6B	10	301.45	9	300.50	15.83		6						
6B	12	301.86	11	301.18	0.97		70						
6B	11	301.08	9	300.50	0.67		86						
6B	13	302.22	14	301.74	1.23		39						
6B	14	301.64	14A	300.95	1.68		41						
6B	16	299.33	17	298.98	0.70		50						
6B	18A	301.30	18B	297.97	2.71		123						
6B	18C	300.35	18B	297.97	4.96		48						
6B	19	301.86	20	301.04	0.82	99							
6B	20	300.94	21	300.69	0.89	28							
6B	22A	300.86	22	300.66	0.50	40							
6B	22	300.56	23	300.45	0.50	22							
6B	26	301.79	24	301.35	0.50		88						
6B	24	301.25	25	299.64	2.30		70						
6B	28	300.83	29	298.64	3.65		60						
6B	30A	298.77	30	298.15	0.58		106						
6B	31	296.72	32	296.22	0.60		65						
7B	30B	297.30	30C	296.28	1.04		98						
7B	30C	296.18	30E	295.50	1.39		49						
7B	32	296.12	34	295.72	0.50		80						
7B	34	295.62	33	295.31	0.59		51						
7B	35	293.80	36A	293.18	0.82		76						
7B	36	296.00	36A	295.60	1.03		39						
7B	30D	296.55	37	296.37	0.50		36						
7B	38	297.06	30D	296.65	0.49		71						
7B	38A	297.20	38	297.16	0.80		5						
7B	39	299.07	40	297.50	8.72			18					
7B	41	297.18	42	296.60	2.64				22				
7B	43C	298.67	43A	297.26	3.02		48						
7B	43A	297.06	43B	295.52	2.03		76						
7B	45A	301.22	45	298.92	2.16		103						
7B	45	298.82	44A	298.02	2.35		34						
7B	44A	297.92	44	296.12	2.20		82						
7B	46A	305.79	46	301.79	1.78		225						
* 7B	S. D.	303.26	49A	300.04	0.77		416						
7B	49A	298.74	47	296.78	2.88		68						
7B	48	296.92	47	296.78	1.00		14						
7B	47	296.68	47A	296.32	1.50		24						
7B	47A	296.22	47B	295.19	1.26		82						
7B	47B	295.09	47C	293.59	1.36		110						
8B	55	306.33	56	306.29	0.67						6		
8B	55A	314.82	55B	314.27	0.61		90						
8B	55B	314.17	54B	313.86	1.00		24						
8B	54B	313.76	54A	313.13	0.84		75						
8B	54A	313.03	54	309.04	2.38		168						
8B	57A	308.28	57B	308.18	1.00				10				
8B	57B	308.08	57	306.07	1.44				140				
8B	58A	312.73	58B	310.49	1.13		198						
8B	58B	310.39	58	309.18	1.21		100						
8B	58	309.08	57	307.07	5.45		38						
8B	57	305.57	58E	303.77	0.57					315			
8B	59A	314.69	59B	312.99	0.86		198						
8B	59B	312.89	59C	310.47	1.22		198						
8B	59C	310.47	59	307.20	3.34		98						
8B	60A	313.61	60B	311.36	1.16		198						
8B	60B	311.26	60	305.90	3.12		172						
8B	60	305.30	60C	304.13	1.26			93					
8B	59D	305.63	60C	304.13	6.82		22						
9B	58F	307.89	58C	306.37	1.10		144						

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM OUTLET ELEV.	TO CODE	TO INLET ELEV.	% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.) 15"	18"	24"	30"	36"	42"	60"	RIP-RAP 709-05.06 (TON)
9B	58F	307.89	58C	306.37	1.10		144						
9B	58C	306.17	58D	305.69	1.00		48						
9B	58D	305.69	58E	305.07	1.77		35						
9B	58E	303.57	62	301.75	1.42					128			
9B	62	301.55	63	301.05	0.89					56			
9B	60C	304.03	60D	302.84	3.97			30					
9B	60D	302.74	60E	301.82	1.24			74					
9B	60E	301.72	60F	300.79	1.26			74					
9B	60F	300.69	61	299.78	1.23			74					
9B	61	299.68	61B	298.84	1.14			74					
9B	61B	298.74	61A	297.82	1.24			74					
9B	61A	297.72	61C	296.79	1.26			74					
9B	61C	296.69	61D	296.09	1.25			48					
9B	61D	295.99	64	295.07	1.28			72					
9B	64	294.57	64B	294.13	0.59				74				
9B	64B	294.03	64C	293.59	0.59				74				
9B	64C	293.49	64D	293.05	0.86				74				
9B	64D	292.95	64A	292.52	0.60				72				
9B	64A	292.42	64E	291.76	0.53				124				
9B	64E	291.66	65	290.36	0.76				170				
9B	65	290.26	66	286.79	1.41				246				
10B	66	286.66	68	285.00	2.55				65				
10B	68	284.90	67	*281.39	2.53				139				
10B	71	281.51	72	280.00	10.07				15				
10B	73	281.50	74	280.75	15.00				5				
10B	68A	292.12	75D	291.90	0.96		23						
10B	75D	291.80	75C	290.82	1.00		98						
10B	75C	288.28	75E	284.20	12.00		34						
10B	69A	293.19	69B	292.60	0.60		98						
10B	69B	292.50	69	291.61	0.60		148						
10B	69	291.00	70	290.50	5.00		10						
10B	76A	294.86	76	293.67	0.60		198						
10B	76	293.57	77	293.50	0.88		8						
10B	75A	294.70	75B	289.27	2.74		198						
10B	75B	288.03	75	287.88	0.58		26						
10B	79A	296.31	79	287.25	6.08		149						
11A	85A	296.38	85B	294.90	0.75		198						
11A	85B	294.80	85C	293.69	0.75		148						
11A	85C	293.59	85D	288.46	7.33		70						
11A	88	292.00	87	290.10	3.45		55						
11A	87	290.00	86	286.52	4.70		74						
12A	91E	287.24	91	286.86	1.71		22						
12A	91A	284.00	91B	283.73	0.50		54						
12A	91B	283.63	91C	283.14	0.50		98						
12A	91C	283.04	91D	282.77	0.50		54						
12A	92	286.67	93	285.23	2.66		54						
12A	93	285.12	94	282.40	0.79		345						
12A	95	282.85	94	282.40	1.67		27						
13A	94	282.30	97	278.66	1.05		346						
13A	98	280.61	97	278.66	6.96		28						
13A	97	278.56	100	273.30	2.24		235						
13A	102A	277.30	102B	276.00	1.30			100					
13A	101A	276.46	103A	276.31	0.50		30						
13A	103A	276.21	103B	275.62	0.60		98						
13A	103B	275.52	103	272.91	2.33		112						
13A	105A	276.61	105B	271.54	5.17		98						
13A	105B	271.44	105	265.84	5.49		102						
13A	106A	274.52	106B	272.18	2.17		98						
14A	106B	272.08	106	269.94	2.43		88						
14A	108	272.63	113	270.47	1.83		118						
14A	112	271.77	113	270.47	4.06		32						
14A	114	270.81	115	269.43	9.20		15						
14A	119A	272.71	119	271.97	0.50		148						
14A	119	271.87	118	271.06	0.59		137						
14A	118	271.00	116	270.70	0.50		60						
14A	116	270.60	117	270.34	2.17		12						
14A	123	271.30	122	270.60	0.59		118						
14A	122	270.50	121	270.06	0.50		88						
14A	124	271.24	125	269.99	0.82		152						
14A	125	269.89	130	268.35	1.00		154						

* - SLOTTED DRAIN

JOHN T. PANIEL
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2HH

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM OUTLET ELEV.	TO CODE	TO INLET ELEV.	% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.) 15"	18"	24"	30"	36"	42"	60"	RIP-RAP 709-05.06 (TON)
14A	127	268.97	128	267.88	3.03		36						
14A	128	267.38	129	267.20	0.50			36					
14A	115A	269.01	115B	268.73	0.68				40				
15A	130	268.25	133	266.57	1.10		153						
15A	129	267.11	131	266.56	0.50			110					
15A	135	267.09	132	266.68	0.60		68						
15A	131	266.56	132	266.19	0.70			53					
15A	133	265.57	134	265.50	1.17				6				
15A	134A	268.00	134B	266.20	5.29			34					
15A	136	266.62	137	264.00	1.72		152						
15A	138	266.04	139	264.49	2.18		71						
15A	139	264.39	140A	263.92	1.88		25						
15A	141	265.21	140	264.30	1.49		61						
15A	140	264.20	140A	264.01	1.58		12						
15A	147B	261.80	147A	261.72	0.80		10						
15A	147D	261.08	147C	261.01	1.17		6						
15A	149	260.44	148	260.08	2.77	13							
15A	148	259.83	150	259.54	0.62		47						
15A	150	259.44	151	259.35	0.90		10						
15A	154A	257.64	154	257.50	0.58		24						
16A	156	256.43	155	255.62	3.38			26					
16A	157	256.10	158	255.78	2.21		19						
TOTALS						**202**	**9984**	**1673**	**1767**	**499**	**6**	**0**	**0**

PROPOSED GUARDRAIL

SHEET NO.	LOCATION	SIDE LT	SIDE RT	STATION FROM	STATION TO	GUARDRAIL BRIDGE ENDS 705-01.01 (L.F.)	GUARDRAIL BRIDGE PIERS 705-01.02 (L.F.)	GUARDRAIL SINGLE TYPE 2 705-02.02 (L.F.)	GUARDRAIL MEDIAN TYPE 2 705-03.03 (L.F.)	TERMINAL ANCHORS 705-08.13 (EACH)	TERMINAL ANCHORS TYPE 13 705-04.03 (EACH)	TERMINAL ANCHORS TYPE 21 705-04.04 (EACH)	TERMINAL ANCHORS TYPE IN-LINE 705-04.05 (EACH)	TERMINAL ANCHORS TYPE 38 705-04.07 (EACH)	REMARKS
4A	I-240	X		525+08.75	525+83.17	26.89								1	
5A	I-240	X		534+08.75	534+83.13	26.89								1	
5A	I-240		X	533+16.82	533+91.25	26.89								1	
6B	I-240		X	544+69.51	546+75.00			200.24			1		1		
6B	I-240	X		547+50.00	548+98.50	26.89		71.61						1	
6B	RAMP 15-D	X		19+01.46	21+02.21	26.89		123.86						1	
6B	RAMP 15-A		X	13+57.80	14+31.25	26.89								1	
6B	I-240		X	551+16.41	551+91.25	26.89								1	
6B	I-240	X		554+68.45	555+40.70			22.25						1	
6B	RAMP 15-G	X		36+25.00	37+60.00			110				1			
7B	I-240		X	559+56.66	560+31.25	26.89								1	
7B	RAMP 15-E		X	50+06.39	50+71.99	26.89								1	
7B	RAMP 15-E	X		49+24.84	50+00.45	26.89								1	
7B	RAMP 15-C		X	36+30.00	37+50.00	26.89		93.11			1				
8B	I-240	X		569+08.75	569+82.80	26.89								1	
9B	I-240	X		585+58.75	595+00.00	53.78		887.47							
11A	I-240	X		608+08.75	610+50.00	26.89		164.36						1	
11A	I-240		X	617+54.50	618+50.00	26.89		68.61			1				
12A	I-240		X	624+00.00	630+17.32	26.89		540.43						1	
12A	I-240		X	632+02.50	638+66.25	53.78		609.97							
14A	RAMP 17-A		X	41+49.98	42+24.32	26.89								1	
16A	I-240		X	672+00.77	682+49.02			998.25						1	
16A	I-240	X		679+58.75	680+34.29	26.89								1	
TOTALS						**564.69**	**0**	**3890.16**	**0**	**6**	**3**	**1**	**1**	**17**	

PAVEMENT QUANTITIES

LOCATION	PAY ITEMS 303-01 (TON)	303-01.01 (TON)	303-10.01 (TON)	307-01.01 (TON)	307-01.08 (TON)	307-03.01 (TON)	307-03.02 (TON)	307-03.03 (TON)	307-03.08 (TON)	309-01.01 (TON)	309-01.02 (TON)	309-02 (TON)	313-03 (SY)	402-01 (TON)	402-02 (TON)	403-01 (TON)	411-01.07 (TON)	411-03.10 (TON)	411-12.01 (LM)	501-01.03 (S.Y.)	307-02.02 (TON)	307-02.03 (TON)	303-01.09 (TON)
I-240	44000				4861	14187	458	13663	10130	10660	519	30					2769	14268					
CD ROAD 1	3989				724	1566	46	1185	1026	2437	119	8					425	601					
RAMP 15A - 15D	6969												8192							8192			1454
RAMP 15B - 15C	2658				366	543	14	415	349	829	41	3					227	370					
RAMP 15E	455												2221							2032			1031
RAMP 15F	155												2396							2396			453
RAMP 15G	585												2818							2818			797
RAMP 15H	444												1213							1073			481
CD ROAD 2	5886				880	910	25	748	647	1333	65	5					502	611					
RAMP 17A	583												1684			0.1		68		1480			757
RAMP 17B	534												947			0.1		56		1503			444
RAMP 17C	988												2099			0.13		97		2216			740
RAMP 17D	367												1012			0.1		59		894			440
RAMP 17E	484												1483							1483			324
RAMP 17G	1301												5420							3489			822
DETOUR RAMPS	11004			3303	1853					2816				24.7	102.7	1.4							
TOTALS	**80402.0**	**0.0**	**0.0**	**3303.0**	**8684.0**	**17206.0**	**543.0**	**16011.0**	**12152.0**	**18075.0**	**744.0**	**46.0**	**29485.0**	**24.7**	**102.7**	**1.83**	**3923.0**	**16130.0**	**0.0**	**27576.0**	**0.0**	**0.0**	**7743.0**

R.O.W. MARKERS

SHEET NO.	QUANTITIES "A"	"B"	"C"	TOTALS
12	1	2	2	**5**
				0
TOTALS	**1**	**2**	**2**	**5**

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102357
STATE OF TENNESSEE
8-23-2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2-II

REMOVAL OF STRUCTURES

SHEET NO.	STATION	LOCATION	DESCRIPTION	REMARKS
4	523+37	90' LT	CATCH BASIN	
5	539+75	91' RT	CATCH BASIN	
5	539+75	114' LT	CONCRETE FLUME	975 S.F.
5	539+75	73' LT	60" RCP	15 L.F.
5	539+75	88' LT	END WALL	
6	545+11	126' RT	CONCRETE DITCH	179 S.F.
6	545+20	111' RT	CATCH BASIN	
6	546+73	166' RT	CATCH BASIN	
6	546+86	142' RT	15" RCP	53 L.F.
6	546+99	118' RT	END WALL	
6	551+21	193' LT	CATCH BASIN	
6	551+39	164' LT	15" RCP	66 L.F.
6	551+56	137' LT	END WALL	
6	554+83	81' RT	CATCH BASIN	
6	554+83	76' RT	18" RCP	11 L.F.
6	555+91	131' RT	CATCH BASIN	
6	556+00	77' LT	CONCRETE DITCH	1606 S.F.
7	556+17	156' RT	15" RCP	73 L.F.
7	556+24	102' RT	24" RCP	87 L.F.
7	556+44	180' RT	CATCH BASIN	
7	556+57	74' RT	DMH	
7	557+01	196' RT	CATCH BASIN	
7	557+04	193' RT	15" RCP	7 L.F.
7	557+06	190' RT	END WALL	
7	557+86	131' RT	CATCH BASIN	
7	558+35	129' RT	24" RCP	94 L.F.
7	559+08	108' RT	24" RCP	66 L.F.
7	559+36	88' RT	CATCH BASIN	
7	560+89	83' LT	CONCRETE DITCH	595 S.F.
7	561+12	85' LT	END WALL	
7	561+25	95' RT	SLOPE PAVEMENT	? S.F.
7	562+91	60' LT	15" RCP	24 L.F.
7	563+01	52' LT	CATCH BASIN	
7	563+58	52' LT	15" RCP	114 L.F.
7	564+15	52' LT	CATCH BASIN	
7	564+74	89' RT	15" RCP	39 L.F.
7	564+74	110' RT	CATCH BASIN	
7	565+43	106' RT	15" RCP	134 L.F.
7	565+57	165' LT	CONCRETE DITCH	1637 S.F.
7	565+79	138' LT	CATCH BASIN	
7	565+81	143' LT	15" RCP	8 L.F.
7	565+83	147' LT	END WALL	
7	566+13	101' RT	CATCH BASIN	
7	567+28	96' RT	CATCH BASIN	
7	567+28	107' RT	15" RCP	18 L.F.
7	567+29	117' RT	END WALL	
7	567+34	124' LT	RETAINING WALL	74 L.F.
8	569+06	104' RT	END WALL	
8	570+48	121' LT	END WALL	
8	581+00	91' RT	END WALL	
9	588+00	85' RT	END WALL	
9	594+00	87' RT	END WALL	
9	594+00	87' RT	18" RCP	4 L.F.
10	595+30	86' LT	CONCRETE DITCH	410 S.F.
10	597+00	260' LT	BRIDGE	
10	598+22	112' RT	CONCRETE DITCH	880 S.F.
10	598+72	105' RT	WING WALLS (8'x6' RCBC)	
10	598+73	112' RT	24" RCP	13 L.F.
10	598+79	114' RT	CONCRETE DITCH	206 S.F.
10	599+11	126' RT	24" RCP	7 L.F.
10	599+28	119' RT	CONCRETE DITCH	291 S.F.
10	601+50	81' LT	CONCRETE DITCH	705 S.F.
10	601+99	100' RT	END WALL	
10	601+99	91' RT	18" RCP	18 L.F.
10	605+00	81' RT	CONCRETE DITCH	921 S.F.
10	606+18	115' RT	CONCRETE DITCH	3008 S.F.
10	606+49	100' RT	END WALL	
11	612+05	110' LT	CONCRETE DITCH	997 S.F.
11	612+25	102' LT	END WALL	
11	617+17	100' RT	END WALL	
11	617+32	110' RT	CONCRETE DITCH	1255 S.F.
11	617+75	86' LT	END WALL	
11	617+80	96' LT	CONCRETE DITCH	465 S.F.
11	618+50	80' RT	END WALL	
12	624+47	79' LT	END WALL	
12	625+33	89' RT	END WALL	
12	625+44	101' RT	CONCRETE DITCH	577 S.F.
12	625+70	159' LT	CONCRETE DITCH	2400 S.F.
12	627+00	78' RT	END WALL	
13	634+00	78' RT	END WALL	
13	638+04	110' LT	CONCRETE DITCH	746 S.F.
13	645+91	66' LT	CATCH BASIN	
13	645+91	69' LT	15" RCP	7 L.F.
14	647+44	64' LT	CATCH BASIN	
14	647+45	88' LT	15" RCP	41 L.F.
14	647+46	109' LT	END WALL	
14	648+18	74' RT	CATCH BASIN	
14	648+26	85' RT	15" RCP	28 L.F.
14	648+34	101' RT	CONCRETE DITCH	118 S.F.
14	648+39	98' RT	END WALL	
14	649+00	65' LT	CATCH BASIN	

REMOVAL OF STRUCTURES

SHEET NO.	STATION	LOCATION	DESCRIPTION	REMARKS
14	649+87	121' RT	END WALL	
14	649+89	107' RT	15" RCP	28 L.F.
14	649+91	93' RT	CATCH BASIN	
14	650+38	67' LT	15" RCP	34 L.F.
14	650+55	65' LT	CATCH BASIN	
14	650+77	122' LT	END WALL	
14	651+22	143' RT	END WALL	
14	651+25	135' RT	18" RCP	18 L.F.
14	651+27	126' RT	CATCH BASIN	
14	651+55	134' RT	18" RCP	59 L.F.
14	651+84	142' RT	CATCH BASIN	
14	652+07	69' LT	15" RCP	11 L.F.
14	652+10	64' LT	CATCH BASIN	
14	652+15	156' LT	CONCRETE DITCH	3017 S.F.
14	652+30	133' LT	15" RCP	109 L.F.
14	652+55	167' RT	18" RCP	150 L.F.
14	652+81	152' LT	CATCH BASIN	
14	653+26	193' RT	CATCH BASIN	
14	653+30	182' LT	15" RCP	113 L.F.
14	653+65	64' LT	CATCH BASIN	
14	653+78	211' LT	CATCH BASIN	
14	653+95	222' RT	15" RCP	150 L.F.
14	654+43	64' LT	15" RCP	154 L.F.
14	654+74	347' LT	CONCRETE DITCH	700 S.F.
14	655+20	64' LT	CATCH BASIN	
14	655+52	91' RT	CATCH BASIN	
14	655+81	101' LT	CATCH BASIN	
14	655+90	113' LT	15" RCP	30 L.F.
14	655+97	64' LT	15" RCP	155 L.F.
14	656+00	125' LT	CATCH BASIN	
14	656+05	192' LT	CATCH BASIN	
14	656+18	178' LT	15" RCP	38 L.F.
14	656+31	164' LT	CATCH BASIN	
14	656+41	157' LT	18" RCP	24 L.F.
14	656+51	150' LT	CATCH BASIN	
14	656+75	64' LT	CATCH BASIN	
14	656+91	83' RT	18" RCP	278 L.F.
15	657+40	132' LT	24" RCP	181 L.F.
15	657+53	64' LT	15" RCP	155 L.F.
15	658+38	70' RT	15" RCP	17 L.F.
15	658+46	66' RT	CATCH BASIN	
15	658+64	111' LT	15" RCP	71 L.F.
15	658+78	66' RT	15" RCP	64 L.F.
15	659+00	107' LT	CATCH BASIN	
15	659+10	66' RT	CATCH BASIN	
15	660+31	64' LT	CATCH BASIN	
15	661+01	111' LT	CATCH BASIN	
15	661+10	64' LT	15" RCP	158 L.F.
15	661+24	115' LT	15" RCP	46 L.F.
15	661+49	118' LT	CATCH BASIN	
15	661+62	115' LT	18" RCP	27 L.F.
15	661+84	122' LT	24" RCP	26 L.F.
15	661+92	132' LT	CATCH BASIN	
15	662+16	144' LT	18" RCP	52 L.F.
15	662+39	157' LT	CATCH BASIN	
15	663+60	64' LT	CATCH BASIN	
15	664+45	65' LT	15" RCP	168 L.F.
15	665+39	117' RT	15' RCP	71 L.F.
15	665+52	150' RT	CATCH BASIN	
15	666+00	204' LT	CATCH BASIN	
15	666+02	206' LT	15" RCP	7 L.F.
15	666+49	128' LT	END WALL	
15	666+50	132' LT	18" RCP	7 L.F.
15	666+68	193' LT	CONCRETE DITCH	1242 S.F.
15	666+76	174' LT	END WALL	
15	666+91	108' RT	CATCH BASIN	
15	666+94	119' RT	12" IRON PIPE	23 L.F.
15	666+98	130' RT	END WALL	
15	666+98	132' RT	CONCRETE DITCH	35 S.F.
15	667+04	64' LT	CATCH BASIN	
15	667+06	69' LT	15' RCP	10 L.F.
15	667+32	129' LT	CATCH BASIN	
15	667+56	122' LT	15" RCP	50 L.F.
15	667+81	115' LT	CATCH BASIN	
15	667+84	123' LT	18" RCP	17 L.F.
15	667+86	132' LT	END WALL	
15	668+68	65' LT	CATCH BASIN	
15	669+31	115' LT	END WALL	
15	669+54	76' RT	CATCH BASIN	
15	669+55	83' RT	12" RCP	15 L.F.
15	669+55	93' RT	CONCRETE DITCH	32 S.F.
15	669+56	89' RT	END WALL	
16	671+14	114' LT	END WALL	
16	671+16	61' LT	CATCH BASIN	
16	675+00	79' RT	15" RCP	12 L.F.
16	675+00	85' RT	END WALL	
16	675+24	102' RT	CONCRETE DITCH	1079 S.F.
16	677+58	91' LT	WINGWALLS (8'x4' RCBC)	

ESTIMATED GRADING QUANTITIES

STATION TO STATION	ROAD & DRAINAGE EXC. (UNCL.)		BORROW EXCAVATION		CHANNEL	EXCESS EXC.	30% SHRINK
	COMMON - C.Y.	S. ROCK - C.Y.	UNCL. - C.Y.	S. ROCK - C.Y.	EXC. C.Y.	WASTE C.Y.	EMB. C.Y.
I-240	* 233236					*** 117400	** 45725
RAMP 15D	* 1137						** 949
RAMP 15E	* 2297					1371	** 324
RAMP 15F	* 739					216	** 166
RAMP 15G	* 1234					808	** 7
RAMP 15H	* 1370					719	** 116
RAMP 17A	* 1263					490	** 155
RAMP 17B	* 1032					606	** 21
RAMP 17C	* 507					153	** 74
RAMP 17D	* 915					513	** 4
RAMP 17G	* 931					532	** 104
DETOUR RAMP 15A	* 1169						** 2669
DETOUR RAMP 15E	* 1938					1191	** 81
DETOUR RAMP 15F	* 570						** 1197
DETOUR RAMP 15G	* 785						** 2230
DETOUR RAMP 15H	* 774						** 1377
DETOUR RAMP 17A	* 651						** 269
DETOUR RAMP 17B	* 453						** 937
DETOUR RAMP 17C	* 708						** 280
DETOUR RAMP 17D	* 915						** 774
DETOUR RAMP 17E	* 608						** 846
DETOUR RAMP 17G	* 807						** 832
CONNECTOR RAMP 15F	* 119						** 57
CONNECTOR RAMP 15H	* 64					17	** 10
EROSION CONTROL	965						
TOTALS	**255187**	**0**	**0**	**0**	**0**	**124016**	**59204**

* INCLUDES REMOVAL OF TOPSOIL IN FILL AREAS
** INCLUDES REPLACEMENT OF TOPSOIL REMOVAL IN FILL AREAS. 30% SHRINKAGE
*** EXCLUDES 11,539 CY REQUIRED EMBANKMENT FOR DETOUR RAMPS 15A, 15D, 15F, 15G, 15H, 17A, 17B, 17C, 17D, 17E, 17G AND TEMP. CONNECTOR RAMP 15F.

JOHN T. PANKEY
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NO. 102451
STATE OF TENNESSEE
8-25-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

8/25/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	2R
CONST.	2010	STP-I-240(290)	2JJ

GPS MONUMENT NO.	STATION	OFFSET	NORTHING (FT.)	EASTING (FT.)	ELEVATION (FT.)
79-240-05	511+54.62	79.43' RT.	298451.0306	810812.1633	314.891
79-240-06	518+93.22	78.49' RT.	299192.8251	810955.0912	322.777
79-240-07	525+64.48	79.44' RT.	299864.6994	810994.3142	319.039
79-240-08	533+92.94	77.36' RT.	300692.0399	811037.3220	314.634
79-240-09	542+09.25	80.54' RT.	301506.9668	811084.9295	310.196
79-240-10*	543+99.07	150.59' LT.	301709.0861	810864.4756	-
79-240-11	548+96.35	81.05' RT.	302193.0248	811123.0420	304.608
79-240-12*	552+30.84	234.56' RT.	302518.6764	811294.4892	-
79-240-13	556+04.23	75.39' RT.	302900.1353	811155.9343	302.574
79-240-14	563+48.84	67.45' RT.	303642.7096	811193.5327	303.916
79-240-15	562+03.61	141.79' RT.	303493.1091	811257.7842	312.060
79-240-16	572+45.15	83.59' RT.	304535.4279	811274.2129	319.480
79-240-17	592+15.66	66.89' RT.	306500.4942	811402.1011	300.550
79-240-18	602+54.64	67.12' RT.	307528.2671	811531.7656	298.935
79-240-19	609+37.25	65.33' RT.	308204.8458	811622.3664	301.475
79-240-20	619+49.71	65.27' RT.	309207.9967	811759.3157	297.900
79-240-21	626+39.24	65.17' RT.	309891.1980	811852.5215	293.335
79-240-22	635+03.10	73.02' RT.	310746.0490	811977.1984	285.625
79-240-23	644+87.78	78.06' RT.	311720.9926	812115.4455	279.595
79-240-24	645+01.77	67.52' RT.	312628.0272	812228.5992	274.742
79-240-25*	659+48.45	548.37' RT.	313104.7730	812778.9206	-
79-240-26	662+41.57	71.11' RT.	313461.5403	812344.1255	269.022

* MONUMENT DESTROYED

JOHN T. PANKEY
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8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GPS CONTROL POINTS

8/20/2010
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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	3
CONST.	2010	STP-I-240(290)	3

N

BEGIN PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 525+26.23
N = 299830.8266
E = 810912.9069

JACK T. HOEHN, JR. ET AL

T. V. A.

CITY OF MEMPHIS

(11)

SLOPE EASEMENT

15' CONST. EASEMENT

DRAINAGE EASEMENT

PRES. & PROP. R.O.W.

PRESENT & PROP. R.O.W. & C.A. FENCE

PRESENT & PROPOSED R.O.W. & C.A. FENCE

(17)

(13)

CONST. EASEMENT

510 515 520 525 530 535 540 545 550 555

SURVEY ℄ I-240

PARK AVENUE

RAILROAD

POPLAR AVENUE (EASTBOUND)

SLOPE EASEMENT

CONST. EASEMENT

(1)

MATCH LINE STA. 557+00 SEE SHT. NO. 3A

LYNNFIELD OFFICE PROJECT L.L.C.

LYNNFIELD ROAD

(19)

THE 5821 PARK AVENUE PARTNERSHIP

~~W.L. REID, JR. FAMILY LIMITED PARTNERSHIP~~

THE ROBERT F. FOGELMAN REVOCABLE TRUST

HH HPTCW II PROPERTIES, L.L.C.

BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00
N 299455.1548
E 810892.4304

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
3-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

B.O.P. TO STA. 557+00

SCALE: 1"=200'

8/20/2010
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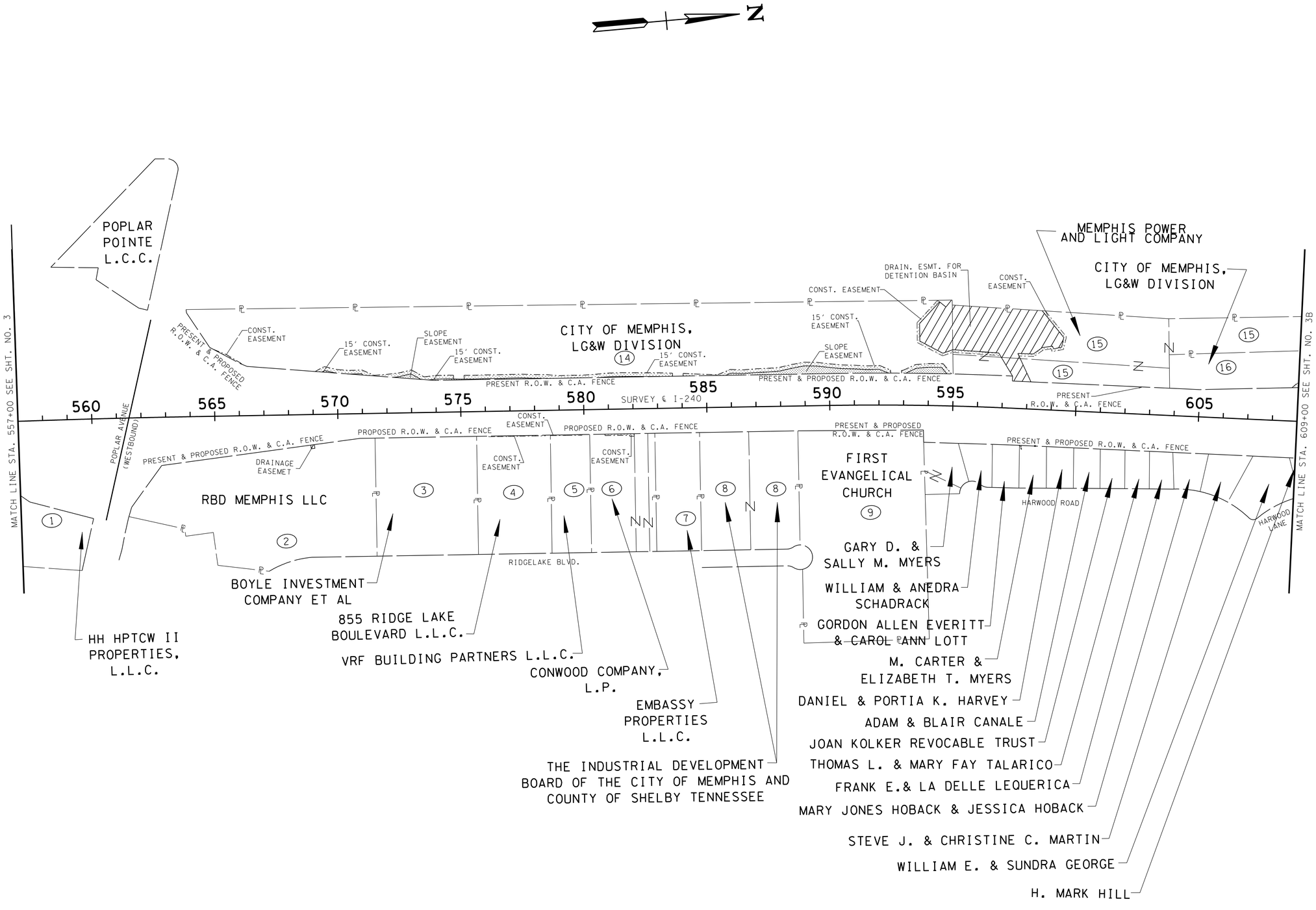
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	3A
CONST.	2010	STP-I-240(290)	3A

REVISIONS

DATE: 1/23/2009
CORRECTED MATCH LINE TEXT.



JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
10251
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 557+00 TO STA. 609+00
SCALE: 1"=200'

8/20/2010
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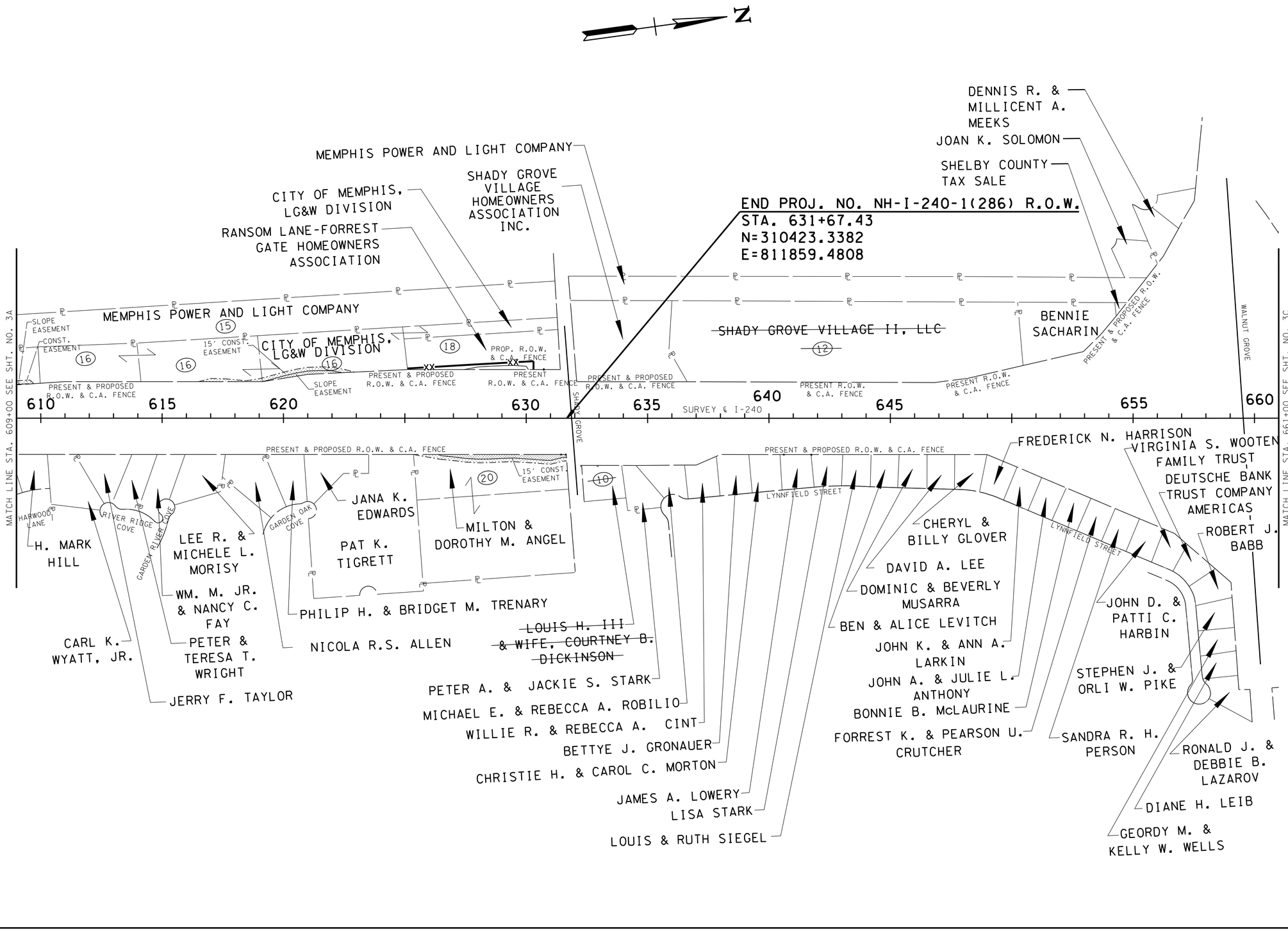
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	3B
CONST.	2010	STP-I-240(290)	3B

REVISIONS

DATE: 1/23/2009
CORRECTED MATCH LINE TEXT.

DATE 3/05/2010
REVISED TRACT 20



JOHN T. PANKEY
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COMMERCE
102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 609+00 TO STA. 661+00
SCALE: 1"=200'

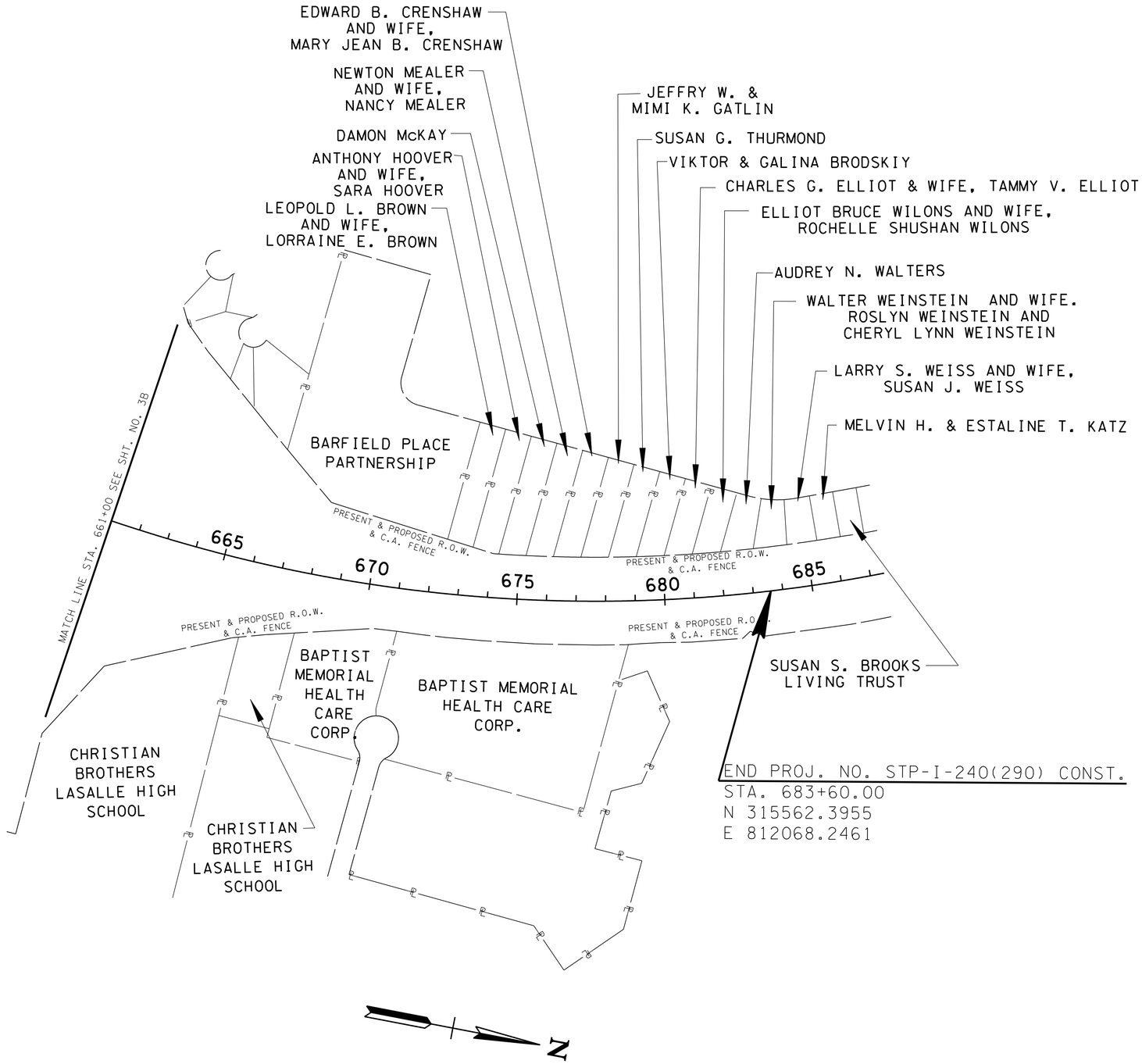
8/20/2010
w:\6ij5\transportation\prop_map03.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	3C
CONST.	2010	STP-I-240(290)	3C

REVISIONS

DATE: 1/23/2009
CORRECTED MATCH LINE TEXT.



END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANKEY
REGISTERED
LANDSCAPE ARCHITECT
AGRICULTURE
No. 102571
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 661+00 TO E.O.P.
SCALE: 1"=200'

8/20/2010
w:\6li5\transportation\prop_map04.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	3D
CONST.	2010	NH-I-240-1(286)	3D

REVISIONS

DATE: 1/23/2009
IDENTIFIED PURPOSES OF CONSTRUCTION EASEMENTS.
UPDATED RIGHT-OF-WAY NOTES.
ADDED DEED DOCUMENTS TO TRACTS 11, 14, AND 15.

DATE: 3/05/2010
REVISED TRACT 20 AND CHANGED PARCEL NUMBER

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 BK.	DEED DOCUMENT PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.	
1	HH HPTCW II PROPERTIES, L.L.C.	153O	081001 00001C	05029292			4.617	4.617					4.617		70	654	(1)
2	RBD MEMPHIS LLC	153J	080023 A00020	07075921			8.791	8.791					8.791	225			
~~3~~	~~BOYLE-889 RLB PARTNERSHIP, ET AL~~	~~153J~~	~~080023 J00001~~	~~KP~~	~~1181~~		~~4.545~~	~~4.545~~					~~4.545~~				
4	855 RIDGE LAKE BOULEVARD, L.L.C.	153J	080023 A00022	05115016			3.300	3.300					3.300			609	(1)
5	VRF BUILDING PARTNERS, L.L.C.	153J	080023 A00021	04054497			1.767	1.767					1.767			354	(1)
6	CONWOOD COMPANY L P	153J	080023 A00024	Z7	8281		2.920	2.920					2.920			783	(1)
		153G	080023 A00023	Z7	8281												
		153G	080023 A00027	Z7	8281												
~~7~~	~~EMBASSY PROPERTIES, L.L.C.~~	~~153G~~	~~080023 A00025C~~	~~05211269~~			~~2.002~~	~~2.002~~					~~2.002~~				
~~8~~	~~INDUSTRIAL DEVELOPMENT BOARD OF THE~~	~~153G~~	~~080023 A00012~~	~~JX~~	~~9765~~		~~4.398~~	~~4.398~~					~~4.398~~				
	~~CITY OF MEMPHIS & THE COUNTY OF SHELBY, TN~~	~~153G~~	~~080023 A00013~~	~~JX~~	~~9765~~												
~~9~~	~~FIRST EVANGELICAL CHURCH~~	~~153G~~	~~080023 00081~~	~~H9~~	~~6726~~		~~9.957~~	~~9.957~~					~~9.957~~				
~~10~~	~~LOUIS H. DICKINSON, III & WIFE, COURTNEY B. DICKINSON~~	~~142O~~	~~080002 00041~~	~~GU~~	~~9774~~		~~0.549~~	~~0.549~~					~~0.549~~				
11	CITY OF MEMPHIS	168B	067102 00010	2541	362	14.575		14.575				14.575		810	0.321 AC	0.413 AC	(2)
~~12~~	~~SHADY GROVE VILLAGE II, L.L.C.~~	~~142J~~		~~223~~	~~049~~	~~10.680~~		~~10.680~~				~~10.680~~					
13	JACK T. HOEHN, JR. ET AL	153O	056064 00025	AS	6493	1.930		1.930				1.930		631	28	1033	(1) (3)
14	CITY OF MEMPHIS, LG&W DIVISION	153J	056055 00031	2541	362	19.842		19.842				19.842		0.489 AC	0.412 AC	0.877 AC	(1) (2) (4)
15	MEMPHIS POWER & LIGHT COMPANY	153G	056055 00029	4077	458	15.036		15.036				15.036		1.873 AC		0.131 AC	(4)
		153G	056055 00030														
		153B	056055 00024														
16	CITY OF MEMPHIS, LG&W DIVISION	153B	056055 00028	E2	4886	8.682		8.682				8.682			3247	0.208 AC	(2)
		153B	056055 00058	F2	8674												
		153B	056055 00057	F2	8673												
		142O	056055 00056	F2	8672												
		142O	056055 00025	F2	8672												
~~17~~	~~T.V.A.~~	~~153O~~	~~056064 00024~~			~~1.416~~		~~1.416~~				~~1.416~~					
18	RANSOM LANE - FOREST GATE HOMEOWNERS ASSOCIATION	142O	056055 00026	JZ	2887	2.116		2.116	0.235		0.235	1.881					
~~19~~	~~W.L. REID, JR. FAMILY LTD. PARRTNERSHIP~~	~~153O~~	~~081003 00004~~	~~GG~~	~~8632~~		~~2.681~~	~~2.681~~					~~2.681~~				
20	MILTON ANGEL & WIFE DOROTHY M. ANGEL	142O	080023 00001	H4	1883		7.341	7.341					7.341		0.196 AC	0.205 AC	

(1) SLOPE AND/OR CONSTRUCTION EASEMENTS FOR CONSTRUCTION OF SLOPES BEHIND RETAINING WALLS.
(2) SLOPE AND/OR CONSTRUCTION EASEMENTS FOR CONSTRUCTION OF SLOPES.
(3) SLOPE AND/OR CONSTRUCTION EASEMENTS FOR ACCESS TO PERMAMENT DRAINAGE EASEMENT(S).
(4) SLOPE AND/OR CONSTRUCTION EASEMENTS FOR CONSTRUCTION OF AND ACCESS TO PROPOSED DETENTION BASIN.

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

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

UTILITY OWNERS:

ELECTRICAL

MEMPHIS LIGHT GAS AND WATER
220 SOUTH MAIN STREET
MEMPHIS, TENNESSEE 38101
(TOM WORD) (901) 528-4186

WATER

MEMPHIS LIGHT GAS AND WATER
220 SOUTH MAIN STREET
MEMPHIS, TENNESSEE 38101
(TOM WORD) (901) 528-4186

SEWER

CITY OF MEMPHIS
125 N. MAIN SUITE 639
MEMPHIS, TENNESSEE 38103
(GARY VADEN) (901) 576-6725

GAS

MEMPHIS LIGHT GAS AND WATER
220 SOUTH MAIN STREET
MEMPHIS, TENNESSEE 38101
(TOM WORD) (901) 528-4186

TELEPHONE

BELL SOUTH
315 EAST COLLEGE STREET
JACKSON, TENNESSEE 38301
(DON ROE) (731) 423-5037

CABLE

TIME-WARNER COMMUNICATIONS
5450 WINCHESTER ROAD
MEMPHIS, TENNESSEE 38115
(REX MORRIS) (901) 365-1770

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE AND
102359
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	4
CONST.	2010	STP-I-240(290)	4

BEGIN PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 525+26.23
N 299830.8266
E 810912.9069

N

CITY OF MEMPHIS (11)

520

525

TRAIL

GRASS

SC 517+60.67

ST 521+10.67

521+10.69
150.00'

STA. 47+01.94 RAMP 15-D =
STA. 521+50.00, 60.00' LT. I-240
N 299458.4180
E 810832.5190

TRANSMISSION TOWER

10" G

EXIST. CA FENCE

PRES. & PROP R.O.W. (CA & FENCE)

PP

SLOPE ESMT.

CONST ESMT.

TOP OF CUT

S03°07'10"W 3174.52'

N03°07'10"E 1985.84'

EXIST. CA FENCE

F (UG)

FENCE

FUSE STATION

PULL BOX

SIGN

CONC.DITCH

INV-315.15

TOP-317.63
INV-313.94

45

40

S 1°58' 25" W

PROP ℄ RAMP 15-D

EXIST. EDGE OF PVM'T

EXIST. JERSEY BARRIER WALL

PROP ℄ I-240

TOP-322.71

TOP-322.05

EXISTING MEDIAN BARRIER

PROP ℄ I-240 N 3° 07' 12" E

TOP-318.52

TOP-318.58
INV-311.78

18"RCP

30"RCP

36"RCP

OH.SIGN

PROP ℄ CD ROAD-1

PC 16+20.00

N 5° 07' 12" E

10

15

CP-S6

CP-S7

INV-314.64

INV-314.74

INV-312.65

523+88.15
150.00' RT.

R=3165.67'
L=144.25'

P (UG)

INV-312.45

INV-310.94

CURB

RW

DMH

EXIST. CA FENCE

2-S-GLASS OFFICE BLDG

ASPH. PARKING

N86°39'43"W
276.68'

S03°07'10"W
794.51'

STA. 10+00.00 CD ROAD-1 =
STA. 523+25.00, 60.00' RT. I-240
N 299626.6300
E 810961.8660

LYNNFIELD OFFICE PROJECT LLC

N03°23'20"E
782.43'

S03°19'03"W
794.53'

BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00
N 299455.1548
E 810892.4304

MATCH LINE STA. 530+00 SEE SHT. NO. 5

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102450
STATE OF TENNESSEE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

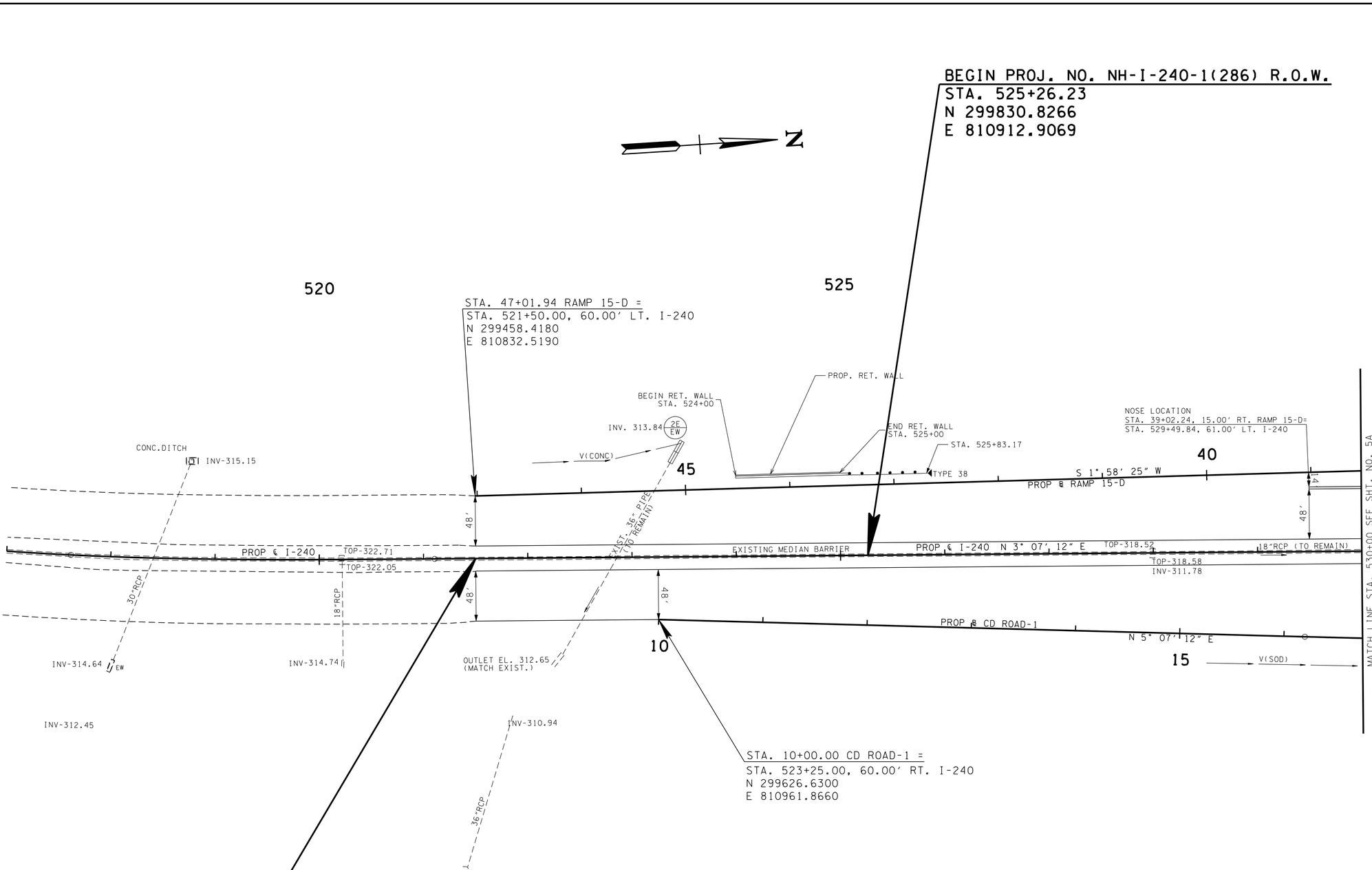
B.O.P. TO STA. 530+00

SCALE: 1"= 50'

8/20/2010
w:\6li5\transportation\PRES04.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	4A
CONST.	2010	STP-I-240(290)	4A



JOHN T. PANKEY
REGISTERED
LANDSCAPE
ARCHITECT
AGRICULTURE
COMMERCE
10251
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

B.O.P. TO STA. 530+00

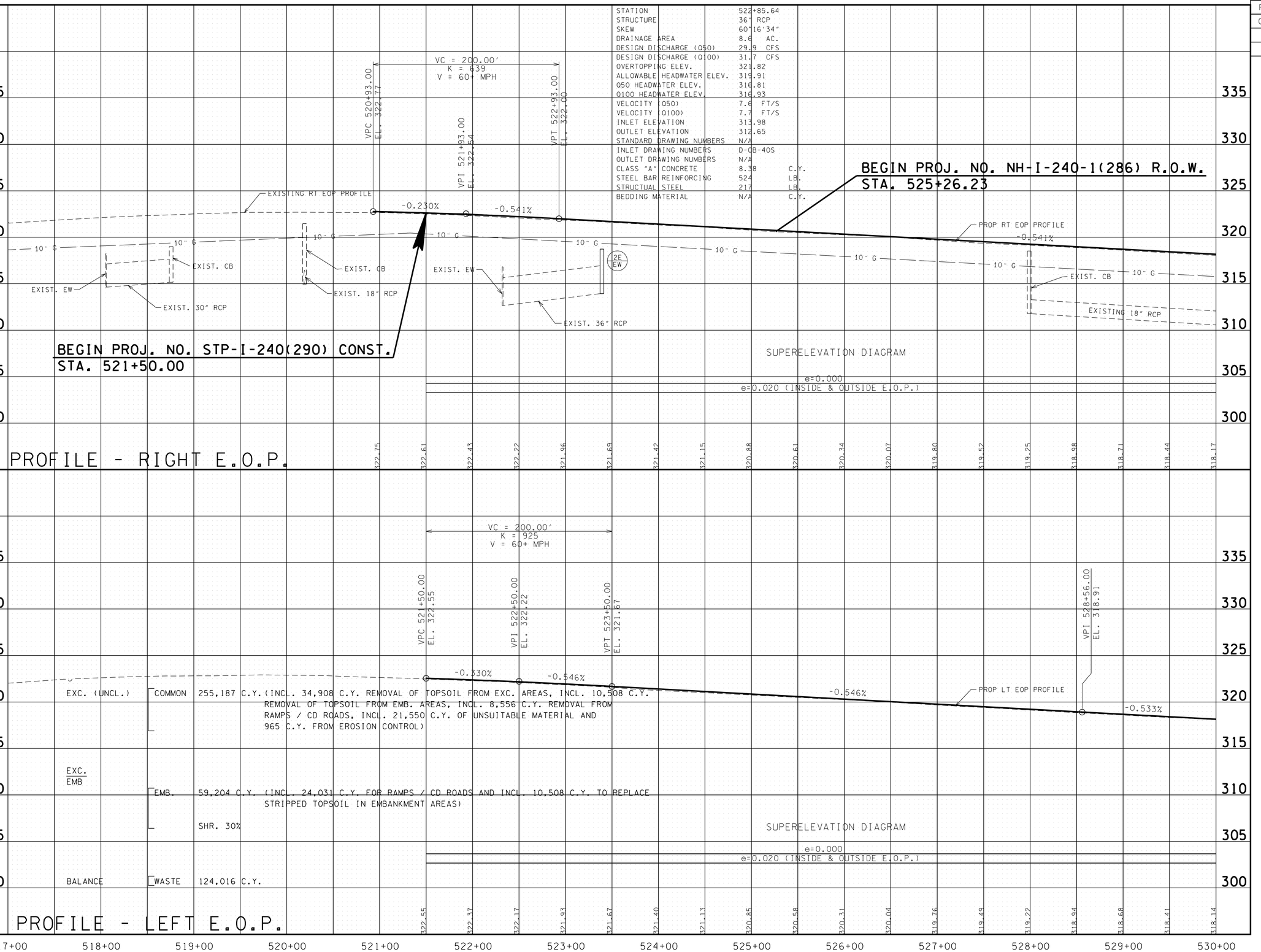
SCALE: 1"= 50'

8/20/2010
w:\615\transportation\prop04.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	4B
CONST.	2010	STP-I-240(290)	4B

STATION	522+85.64
STRUCTURE	36' RCP
SKEW	60°16'34"
DRAINAGE AREA	8.6 AC.
DESIGN DISCHARGE (Q50)	29.9 CFS
DESIGN DISCHARGE (Q100)	31.7 CFS
OVERTOPPING ELEV.	321.82
ALLOWABLE HEADWATER ELEV.	319.91
Q50 HEADWATER ELEV.	316.81
Q100 HEADWATER ELEV.	316.93
VELOCITY (Q50)	7.6 FT/S
VELOCITY (Q100)	7.7 FT/S
INLET ELEVATION	313.98
OUTLET ELEVATION	312.65
STANDARD DRAWING NUMBERS	N/A
INLET DRAWING NUMBERS	D-CB-40S
OUTLET DRAWING NUMBERS	N/A
CLASS "A" CONCRETE	8.38 C.Y.
STEEL BAR REINFORCING	524 LB.
STRUCTUAL STEEL	217 LB.
BEDDING MATERIAL	N/A C.Y.



EXC. (UNCL.)	COMMON	255,187 C.Y.	(INCL. 34,908 C.Y. REMOVAL OF TOPSOIL FROM EXC. AREAS, INCL. 10,508 C.Y. REMOVAL OF TOPSOIL FROM EMB. AREAS, INCL. 8,556 C.Y. REMOVAL FROM RAMPS / CD ROADS, INCL. 21,550 C.Y. OF UNSUITABLE MATERIAL AND 965 C.Y. FROM EROSION CONTROL)
EXC. EMB	EMB.	59,204 C.Y.	(INCL. 24,031 C.Y. FOR RAMPS / CD ROADS AND INCL. 10,508 C.Y. TO REPLACE STRIPPED TOPSOIL IN EMBANKMENT AREAS)
	SHR. 30%		
BALANCE	WASTE	124,016 C.Y.	

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-25-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

B.O.P. TO STA. 530+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/25/2010
W:\615\Transportation\prof04.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	5
CONST.	2010	STP-I-240(290)	5

N

S03°07'10"W 3174.52'

CITY OF MEMPHIS (11)

GRASS

TRAIL

TRANSMISSION TOWER

535

540

PI 28+51.87
Δ 00° 53' 14" (LT)
N 301,307.3920
E 810,896.2370

PERM. DRAIN. ESMT.

10" G

CONST ESMT.

SLOPE ESMT.

TOP OF CUT

EXIST. CA FENCE

PRES. & PROP. R.O.W. (CA & FENCE)

S03°07'10"W 1858.10

F (UG)

CONC.DITCH

CONC. FLUME

PULL BOX

540+99.53
150.01'

S08°01'52"E
208.33'

PRES. & PROP. R.O.W. (CA & FENCE)

CONC.DITCH

35

30

SIGN

LP

S 1° 58' 25" W PROP ℄ RAMP 15-D

S 2° 51' 39" W

INV-304.23

EXIST. EDGE OF PVM'T

EXIST. JERSEY BARRIER WALL

EXIST. GUARDRAIL

PROP ℄ I-240

N 3° 07' 12" E

18"RCP

TOP-315.16
TOP-315.35
INV-308.15

EXISTING MEDIAN BARRIER

TOP-313.01
TOP-313.16
INV-306.56

24"RCP

60" RCP

JB

MATCH LINE STA. 530+00 SEE SHT. NO. 4

MATCH LINE STA. 543+00 SEE SHT. NO. 6

PT 24+16.45

PROP ℄ CD ROAD-1

CP-S8

CP-S9

N 3° 07' 44" E

TOP-310.18
INV-303.71
INV-302.75

20

25

531+82.66
149.99'

539+83.99
149.99'

540+81.49
149.99'

542+24.77
149.98'

S03°07'10"W
801.33'

S03°07'10"W
143.28'

N03°07'10"E
97.50'

72" RCP

ASPH. PARKING

CURB

EXIST. CA FENCE

2-S-GLASS OFFICE BLDG

1-S-B POST OFFICE GARAGE

CANOPY

N86°40'00"W
279.42'

S86°08'37"E
282.75'

STA. 28+50.00 RAMP 15-G =
STA. 541+74.46, 109.67' RT. I-240
STA. 28+50.00, 14.00' RT. CD ROAD-1
N 301470.6434
E 811112.1161

LYNNFIELD OFFICE PROJECT LLC

LYNNFIELD OFFICE PROJECT LLC

THE 5821 PARK AVENUE PARTNERSHIP

19

~~W.L. REID, JR. FAMILY LIMITED PARTNERSHIP~~

CURVE CD-RD1_1
PI 20+18.26
N 300,640.8316
E 811,052.7362
Δ 1° 59' 28" (LT)
D 0° 15' 00"
R 22,918.31
L 796.45
T 398.26
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

S03°20'47"W 803.65'

S03°12'14"W 97.52'

N03°41'55"E 436.75'

JOHN T. PANKEY JR. LICENSED AND REGISTERED LANDSCAPE ARCHITECT DEPARTMENT OF AGRICULTURE STATE OF TENNESSEE NO. 102351 8-23-10

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 530+00 TO STA. 543+00

SCALE: 1"= 50'

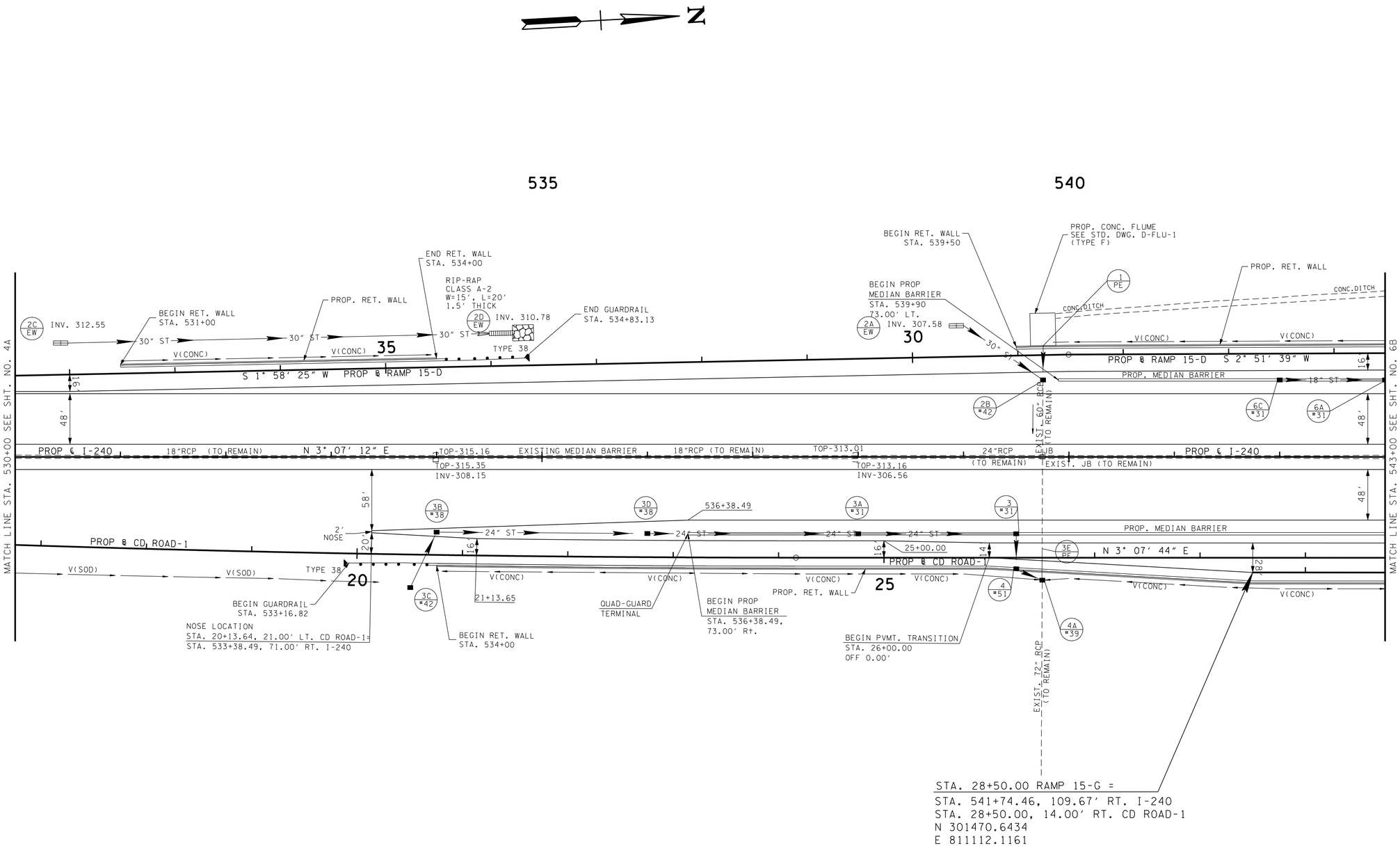
8/20/2010
w:\6115\transportation\PRES05.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	5A
CONST.	2010	STP-I-240(290)	5A

REVISIONS

DATE: 1/23/2009
ADDED RIP-RAP STA. 534+00 LT.



JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
No. 102361
STATE OF TENNESSEE
1-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 530+00 TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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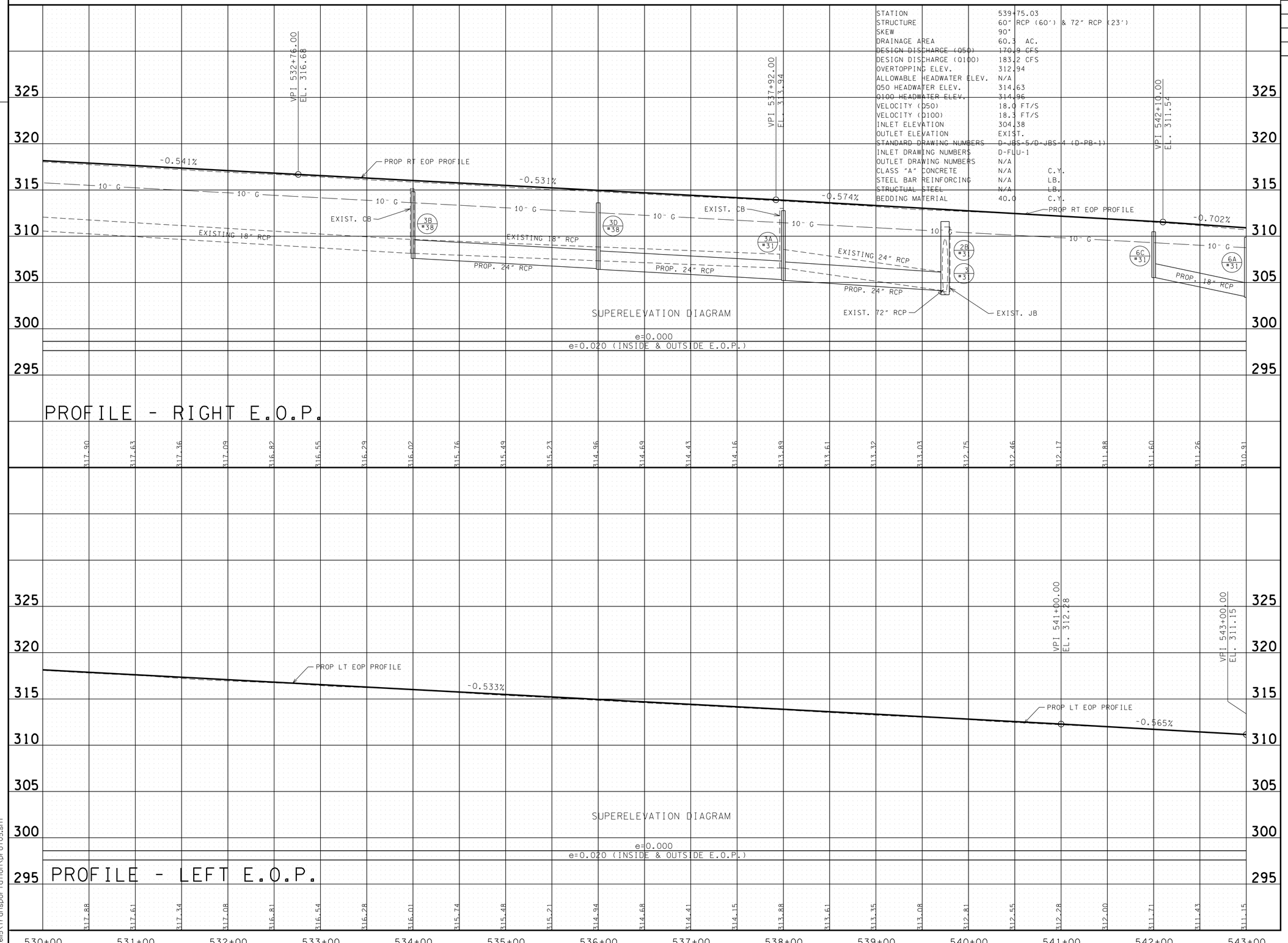
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	5B
CONST.	2010	STP-I-240(290)	5B

STATION	539+75.03	
STRUCTURE	60" RCP (60') & 72" RCP (23')	
SKEW	90°	
DRAINAGE AREA	60.3 AC.	
DESIGN DISCHARGE (Q50)	170.9 CFS	
DESIGN DISCHARGE (Q100)	183.2 CFS	
OVERTOPPING ELEV.	312.94	
ALLOWABLE HEADWATER ELEV.	N/A	
Q50 HEADWATER ELEV.	314.63	
Q100 HEADWATER ELEV.	314.96	
VELOCITY (Q50)	18.0 FT/S	
VELOCITY (Q100)	18.3 FT/S	
INLET ELEVATION	304.38	
OUTLET ELEVATION	EXIST.	
STANDARD DRAWING NUMBERS	D-JBS-5/D-JBS-4 (D-PB-1)	
INLET DRAWING NUMBERS	D-FLU-1	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	N/A	C.Y.
STEEL BAR REINFORCING	N/A	LB.
STRUCTUAL STEEL	N/A	LB.
BEDDING MATERIAL	40.0	C.Y.



PROFILE - LEFT E.O.P.

PROFILE - RIGHT E.O.P.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10250
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 530+00 TO STA. 543+00

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

8/20/2010
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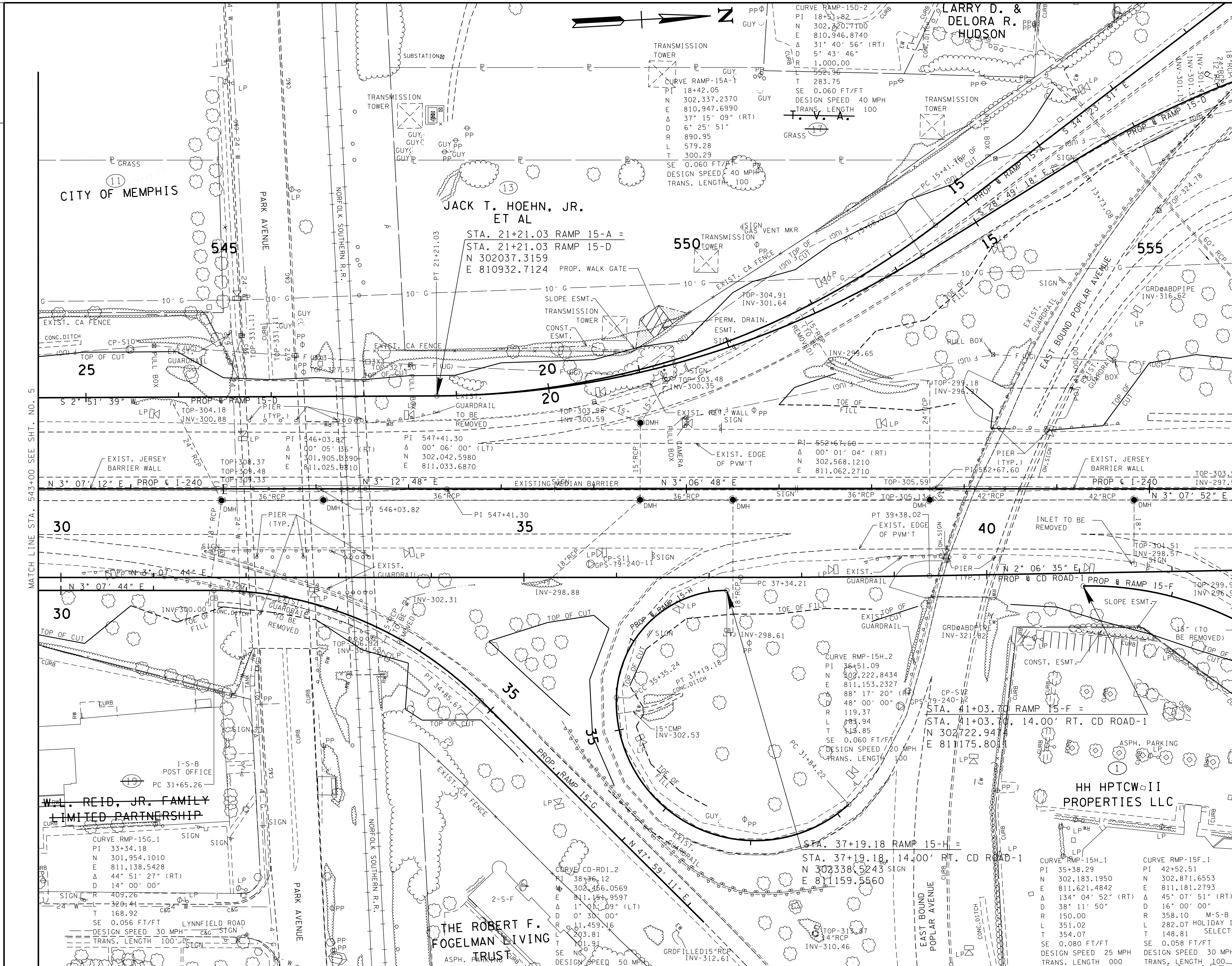
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	6
CONST.	2010	STP-I-240(290)	6

REVISIONS

DATE: 1/23/2009
ADDED R.O.W. WALK GATE ALONG RAMP 15-A STA. 18+60 RT.

JOHN T. PANKEY REGISTERED ENGINEER NO. 10235 STATE OF TENNESSEE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 543+00 TO STA. 556+00

SCALE: 1″= 50′

8/20/2010
w:\6i15\transportation\pres06.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	6A
CONST.	2010	NH-I-240-1(286)	6A

REVISIONS

DATE: 1/23/2009
ADDED R.O.W. WALK GATE ALONG
RAMP 15-A STA. 18+60 RT.
DELETED DUPLICATE DATA FROM DETAIL 1.

N

MATCH LINE STA. 543+00 SEE SHT. NO. 5

MATCH LINE STA. 556+00 SEE SHT. NO. 7A

(11) CITY OF MEMPHIS

(13) JACK T. HOEHN, JR. ET AL

(17) T. V. A.

LARRY D. & DELORA R. HUDSON

PARK AVENUE

PRES. & PROP. R.O.W.

PROP. & RAMP 15-A

PROP. & RAMP 15-D

PROP. & RAMP 15-F

PROP. & RAMP 15-G

PROP. & RAMP 15-H

PROP. & CD ROAD-1

PROP. & I-240

EAST BOUND POPLAR AVENUE

PROP. WALK GATE

SLOPE ESMT.

CONST. ESMT.

PERM. DRAIN. ESMT.

SEE DETAIL 1 THIS SHEET

S03°07'10"W 3174.52'

544+94.82 355.02'

N88°37'23"W 164.85'

543+03.93 190.30'

N03°08'17"E 195.90'

544+99.83 190.24'

546+84.54 355.15'

N 3° 7' 10" E 565.82'

546+95.76 149.21'

N03°13'49"E 184.91'

N89°54'18"W 206.24'

548+80.93 148.92'

N04°11'22"E 59.53'

549+40.45 147.80'

N29°34'22"W 29.21'

S29°39'35"E 55.13'

550+36.37 211.93'

550+84.99 243.27'

N29°41'35"W 57.84'

N29°50'47"W 54.51'

551+30.72 272.92'

551+72.60 299.43'

N32°18'56"W 96.19'

552+50.98 355.19'

S29°12'56"E 49.39'

553+75.95 444.22'

S32°18'56"E 153.54'

554+61.55 505.17'

S83°44'39"E 184.53'

S32°18'56"E 105.08'

S83°23'01"E 135.36'

N04°22'48"E 152.05'

N04°48'11"E 140.89'

S 34° 23' 31" E

S 28° 49' 18" E

S 2° 51' 39" W

N 3° 07' 12" E

N 3° 12' 48" E

N 3° 06' 48" E

N 3° 07' 52" E

N 3° 07' 44" E

N 2° 06' 35" E

25

30

35

40

545

550

555

15

20

S17°23'14"W 314.47'

545+29.54 227.49'

S89°57'41"E 188.86'

547+12.15 274.81'

547+11.44 274.58'

N 47° 59' 11" E

(19) ~~W.L. REID, JR. FAMILY LIMITED PARTNERSHIP~~

THE ROBERT F. FOGELMAN LIVING TRUST

STA. 21+21.03 RAMP 15-A =
STA. 21+21.03 RAMP 15-D
N 302037.3159
E 810932.7124

STA. 37+19.18 RAMP 15-H =
STA. 37+19.18, 14.00' RT. CD ROAD-1
N 302338.5243
E 811159.5560

STA. 41+03.70 RAMP 15-F =
STA. 41+03.70, 14.00' RT. CD ROAD-1
N 302722.9474
E 811175.8011

553+56.82 149.79'

N03°07'10"E 135.70'

554+92.53 149.77'

N80°06'13"W 197.06'

S85°44'06"E 198.11'

LINE TABLE		
LINE	BEARING	DIST.
L1	S34°21'22"E	19.02'
L2	S29°34'22"E	6.00'
L3	N55°38'38"E	25.09'
L4	N33°0'31"W	25.01'
L5	S55°38'38"W	25.00'

(1) HH HPTCW II PROPERTIES LLC

549+69.98 198.23'

549+90.02 182.09'

549+49.78 183.49'

N29°34'22"W 6.09'

549+85.19 178.39'

549+70.09 166.82'

549+65.04 163.57'

DETAIL 1
SCALE 1"=20'

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
1-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAILS

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	6B
CONST.	2010	STP-I-240(290)	6B

REVISIONS

DATE: 1/23/2009
REMOVED C&G RAMP 15-H LT.
ADDED MEDIAN GUARDRAIL BETWEEN RAMPS 15-G AND 15-H.
ADDED RIP-RAP STA. 17+00 (RAMP 15-D) LT.
ADDED RIP-RAP STA. 34+35 (CD ROAD-1) RT.

N

PARK AVENUE
NORFOLK SOUTHERN R.R.
545
550
555
25
20
15
30
35
40
632
672
TOP-331.11
TOP-324.78
CONC.DITCH
V(CONC)
PROP. RET. WALL
PROP. MEDIAN BARRIER
18" ST
S 2° 51' 39" W
PROP ℄ RAMP 15-D
16'
48'
28'
544+69.76
73.00'
TOP-308.37
TOP-309.48
TOP-309.33
24" RCP (TO REMAIN)
END GUARDRAIL STA. 548+98.50
547+13.42
73.00'
TYPE 38
15" TYPE 38 (TO REMAIN)
15" RCP (TO REMAIN)
DMH
END GUARDRAIL STA. 19+01.46 (RAMP 15-D)
STA. 21+21.03 RAMP 15-A =
STA. 21+21.03 RAMP 15-D
N 302037.3159
E 810932.7124
END PROP MEDIAN BARRIER STA. 547+50.00, 73.00' LT.
PROP. 24" SLOPE DRAIN
PROP. RET. WALL
NOSE LOCATION
STA. 16+05.02, 15.00' LT. RAMP 15-A=
STA. 16+01.63, 1.00' RT. RAMP 15-D
LIMIT OF CONST.
15+41.76
LIMIT OF CONST.
END ASPH. PVMT. OVERLAY
12+64.09
END GUARDRAIL STA. 13+57.80 (RAMP 15-D)
END RET. WALL STA. 14+40 (RAMP 15-D)
TYPE 38
S 34° 23' 31" E
PROP ℄ RAMP 15-A
S 28° 49' 18" E
ASPH. PVMT. OVERLAY
2' NOSE
END FULL DEPTH PVMT. 15+68.07
INV. 299.64
RIP-RAP CLASS A-2 W=12', L=15' 1.5' THICK
EX. C.B. TO REMAIN TOP-299.18 INV-296.97
GRADE TO DRAIN
EAST BOUND POPLAR AVENUE
GRD@ABDPIPE INV-316.62
TIE GUARDRAIL TO EXIST. STA. 554+68.45
END GUARDRAIL STA. 555+40.70
TYPE 38
60" RCP (TO REMAIN)
18"RCP 24" RCP (TO REMAIN)
INV-301.31
INV-301.43
INV-301.15
MATCH LINE STA. 543+00 SEE SHT. NO. 5A
MATCH LINE STA. 556+00 SEE SHT. NO. 7B
N 3° 07' 12" E
PROP ℄ I-240
N 3° 12' 48" E
EXISTING MEDIAN BARRIER
N 3° 06' 48" E
TOP-305.59
TOP-305.13
TOP-303.50
INV-297.58
PROP ℄ I-240
N 3° 07' 52" E
36"RCP (TO REMAIN)
42"RCP (TO REMAIN)
DMH
544+78.75
73.00'
7A #31
7B #31
18" RCP (TO REMAIN)
547+18.46
73.00'
18 #31
18" RCP (TO REMAIN)
18A #31
18B JB
18C #31
NOSE LOCATION
STA. 36+96.17, 1.00' RT. CD ROAD-1
STA. 36+98.63, 15.00' LT. RAMP 15-H
552+28.03
73.00'
553+99.86
72.41'
30A #31
18" RCP (TO REMAIN)
30 JB
2' NOSE
N 2° 06' 35" E
PROP ℄ CD ROAD-1
PROP ℄ RAMP 15-F
V(CONC)
31 #28
32 #28
GRD@ABDPIPE INV-321.82
BEGIN C & G STA. 554+19.06 OFF 115.07'
PROP. RET. WALL
STA. 41+03.70 RAMP 15-F =
STA. 41+03.70, 14.00' RT. CD ROAD-1
N 302722.9474
E 811175.8011
NOSE LOCATION
STA. 42+14.35, 20.95' LT RAMP 15-F=
STA. 42+18.97, 11.00' RT. CD ROAD-1
N 3° 07' 44" E
8 #51
9 JB
10 #42
11 #28
12 #28
13 #28
14 JB
14A EW
INV. 300.95
17 JB
VI SOD
16 EW
INV. 299.33
RIP-RAP CLASS A-2 W=12', L=15' 1.5' THICK
END GUARDRAIL STA. 546+75
TYPE 13
STA. 33+84.19
NOSE LOCATION
STA. 32+88.26, 11.00' RT. CD ROAD-1=
STA. 32+83.92, 20.96' LT. RAMP 15-G
END RET. WALL STA. 544+70.60
BEGIN C & G STA. 31+47.42 OFF 12.49'
PROP. RET. WALL
BEGIN GAURDRAIL STA. 544+74.76 TYPE IN-LINE ANCHOR
STA. 35+98.48
PROP ℄ RAMP 15-H
18" RCP (TO REMAIN)
28 #28
EX. C.B. TO REMAIN INV-298.61
29 #28
TYPE 38
BEGIN GUARDRAIL STA. 551+16.41
BEGIN RET. WALL STA. 552+00
END C & G STA. 552+02.54 OFF 118.75'
TO REMAIN CONC.DITCH
INV. 302.53
27 #28
END C & G STA. 35+65.00 OFF 9.67'
LIMIT OF CONST. 35+65.00
PROP. RAMP 15-G
TYPE 21
BEGIN C & G STA. 33+60.00 OFF 8.00'
BEGIN GUARDRAIL STA. 36+25.00 (RAMP 15-G)
N 47° 59' 11" E
LIMIT OF CONST. 33+60.00
STA. 37+19.18 RAMP 15-H =
STA. 37+19.18, 14.00' RT. CD ROAD-1
N 302338.5243
E 811159.5560
END GUARDRAIL MATCH EXIST. STA. 37+60.00 (RAMP 15-G)
EAST BOUND POPLAR AVENUE

JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
NO. 10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
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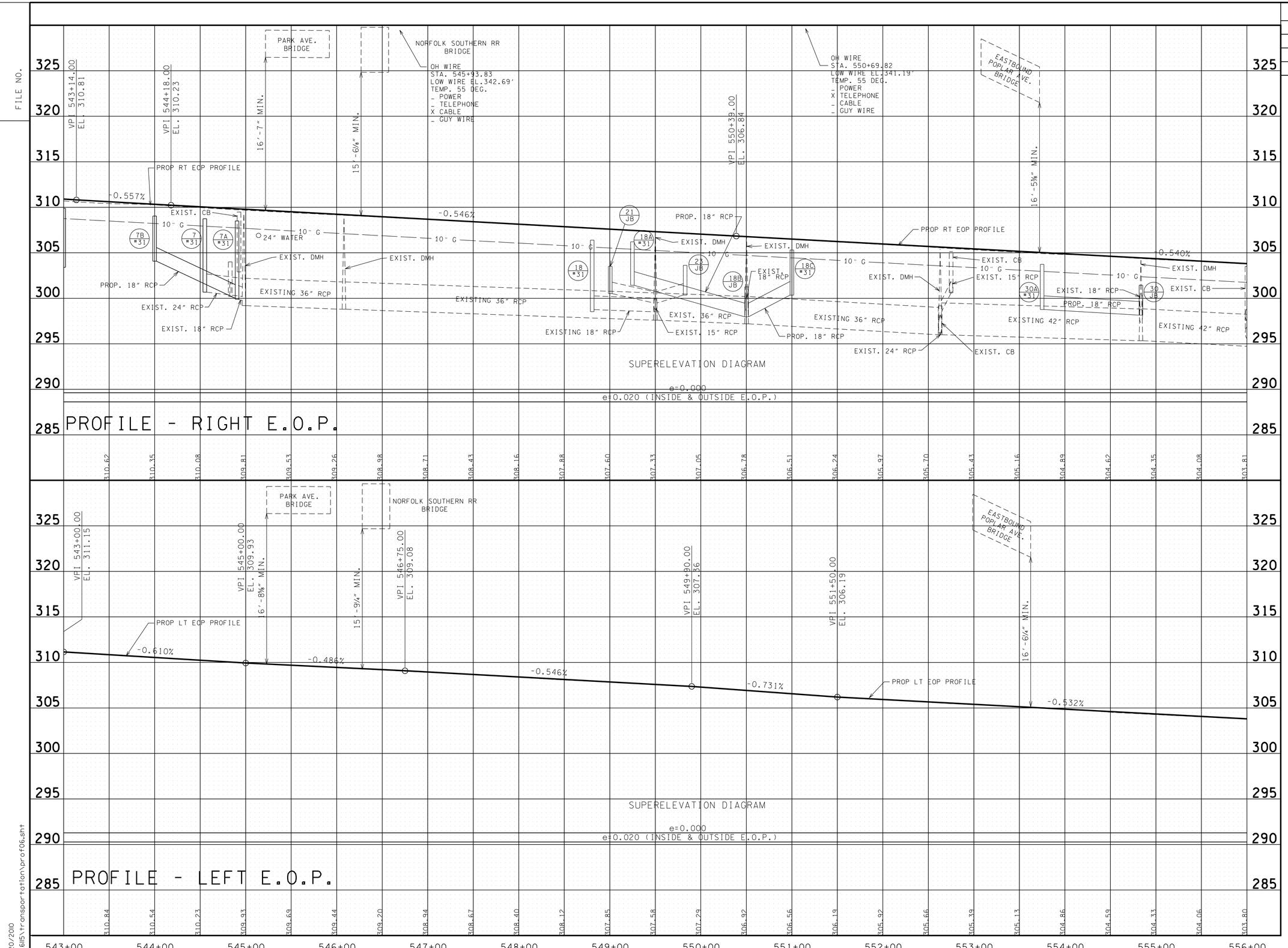
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	6C
CONST.	2010	STP-I-240(290)	6C



JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 543+00 TO STA. 556+00

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	7
CONST.	2010	STP-I-240(290)	7

POPLAR POINTE L.L.C.

CITY OF MEMPHIS, LG&W DIVISION

RBD MEMPHIS LLC

HH HPTCW II PROPERTIES LLC

WEST BOUND POPLAR AVENUE

EXIST. GUARDRAIL

EXIST. CA FENCE

EXIST. JERSEY BARRIER WALL

EXIST. EDGE OF PVM'T

EXIST. MEDIAN BARRIER

TRANSMISSION TOWER

TRANSMISSION TOWER SUBSTATION

ADAM'S MARK HOTEL

3-S-B OFFICE BLDG

ASPH. PARKING

POOL

CONTROL BOX

TDOT CAMERA

PROP. PERM. DRAIN. ESMT.

CONST. ESMT.

TO BE REMOVED

TOP OF CUT

PROP ℄ RAMP 15-B

PROP ℄ RAMP 15-C

PROP ℄ RAMP 15-E

PROP ℄ RAMP 15-F

PROP ℄ CD ROAD-1

PROP ℄ I-240

CURVE RAMP-15D-1
PI 12+30.39
N 303,866.9050
E 810,646.3330
Δ 16° 27' 53" (LT)
D 5° 43' 46"
R 1,000.00
L 287.36
T 144.68
SE EXIST.
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

CURVE RAMP-15C-3
PI 41+26.90
N 303,651.9345
E 810,668.6697
Δ 17° 14' 06" (RT)
D 10° 18' 42"
R 555.64
L 167.14
T 84.21
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

CURVE RAMP-15C-2
PI 38+71.29
N 303,712.9092
E 810,959.7664
Δ 61° 32' 17" (RT)
D 16° 00' 00"
R 358.10
L 384.61
T 213.21
SE 0.063 FT/FT
DESIGN SPEED 30 MPH
TRANS. LENGTH 130

CURVE CL240_2
PI 560+77.70
N 303,377.0132
E 811,106.5215
Δ 1° 01' 21" (RT)
D 0° 08' 36"
R 40,000.00
L 713.93
T 356.97
SE NC
DESIGN SPEED 60 MPH
TRANS. LENGTH 000

CURVE CD-RD1-3
PI 45+09.92
N 303,129.4064
E 811,178.7650
Δ 2° 02' 40" (RT)
D 0° 30' 00"
R 11,459.16
L 409.88
T 204.97
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

CURVE RMP-15E_1
PI 48+07.92
N 303,417.1789
E 811,338.8594
Δ 48° 26' 04" (RT)
D 14° 00' 00"
R 409.26
L 345.96
T 184.07
SE 0.050 FT/FT
DESIGN SPEED 30 MPH
TRANS. LENGTH 76

CURVE RMP-15E_2
PI 50+42.00
N 303,656.5404
E 811,247.3155
Δ 22° 47' 48" (RT)
D 16° 00' 00"
R 358.10
L 142.48
T 72.19
SE 0.058 FT/FT
DESIGN SPEED 30 MPH
TRANS. LENGTH 100

CURVE RMP-15F_3
PI 47+69.63
N 303,315.2382
E 811,414.9237
Δ 65° 51' 55" (LT)
D 28° 38' 52"
R 200.00
L 229.91
T 129.55
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

CURVE RMP-15F_2
PI 45+49.06
N 303,083.5440
E 811,410.4240
Δ 46° 07' 41" (LT)
D 23° 52' 24"
R 240.00
L 193.22
T 102.19
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

PI 54+42.69
Δ 00° 01' 49" (LT)
N 304,059.7703
E 811,244.3392

PI 567+69.21
Δ 00° 01' 48" (LT)
N 304,066.7320
E 811,156.6130

N 3° 07' 52" E
N 4° 09' 14" E
N 4° 07' 26" E
N 1° 52' 03" E
N 69° 21' 50" W
N 47° 14' 26" E
S 6° 13' 53" W
S 4° 03' 38" W

MATCH LINE STA. 556+00 SEE SHT. NO. 6

MATCH LINE STA. 569+00 SEE SHT. NO. 8

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

JOHN T. PANKEY — REGISTERED ENGINEER — AGRICULTURE — NUMBER 102150 — STATE OF TENNESSEE — 8-23-10

8/20/2010
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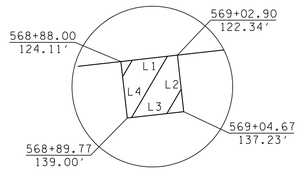
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	7A
CONST.	2010	NH-I-240-1(286)	7A

LINE TABLE		
LINE	BEARING	DIST.
L1	N2°38'35"W	15.00'
L2	N87°21'25"E	15.00'
L3	S2°38'35"E	15.00'
L4	S87°21'25"W	15.00'

DETAIL 1
SCALE 1"=20'



POPLAR POINTE L.L.C.

S 12° 21' 25" E

10

N38°44'32"E
208.74'
PRES. & PROP. R.O.W.

S72°32'03"E
579.69'

562+01.53
445.39'

N18°07'05"E
36.31'

562+36.33
436.43'

WEST BOUND POPLAR AVENUE

560

N04°26'34"E
3114.00'

S87°23'21"W
13.74'

563+92.97
421.92'

S61°15'54"W
168.74'

14

CITY OF MEMPHIS, LG&W DIVISION

40

564+84.15
280.20'

566+05.24
213.18'

S33°07'13"W
138.40'

CONST. ESMT.

565

S27°43'58"W
32.32'

TOP OF CUT

PRES. & PROP R.O.W. (CA & FENCE)

566+34.86
200.25'

N 9° 25' 34" E
762.36'

35

TOP OF CUT

TOP OF CUT

TOP OF CUT

PROP ℄ RAMP 15-C

S 6° 13' 53" W

PROP ℄ RAMP 15-B

S 4° 03' 38" W

35

MATCH LINE STA. 556+00 SEE SHT. NO. 6A

N 3° 07' 52" E PROP ℄ I-240

N 4° 09' 14" E PROP ℄ I-240 N 4° 07' 26" E

MATCH LINE STA. 569+00 SEE SHT. NO. 8A

50

55

PROP ℄ CD ROAD-1

N 4° 09' 15" E

PROP ℄ CD ROAD-1 N4°07'26"E

45

N 1° 52' 03" E

TOP OF CUT

55

PROP ℄ RAMP 15-E

50

TOP OF CUT

TOP OF CUT

TOP OF CUT

TOP OF CUT

N47°14'26"E

45

PROP ℄ RAMP 15-F

562+80.14
196.11'

N02°38'35"W
611.47'

PRES. & PROP R.O.W. (CA & FENCE)

PERM. DRAIN. ESMT.

SEE DETAIL 1 THIS SHEET

TOP OF CUT
S39°29'25"W
303.08'
PRES. & PROP R.O.W. (CA & FENCE)

557+36.72
329.43'

N19°41'31"E
267.48'

559+95.77
404.74'

N72°25'07"W PRES. & PROP. R.O.W.
216.39'

WEST BOUND POPLAR AVENUE

N 69° 21' 50" W

TOE OF FILL

S49°06'05"E
205.08'

PRES. & PROP R.O.W. (CA & FENCE)

561+53.27
362.95'

561+41.09
400.62'

N17°32'08"E
232.50'

563+69.49
455.44'

N87°22'12"E
30.00'

S02°37'52"E
113.00'

N87°22'08"E
135.00'

563+73.02
485.24'

1

HH HPTCW II PROPERTIES LLC

RBD MEMPHIS LLC

2

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAILS

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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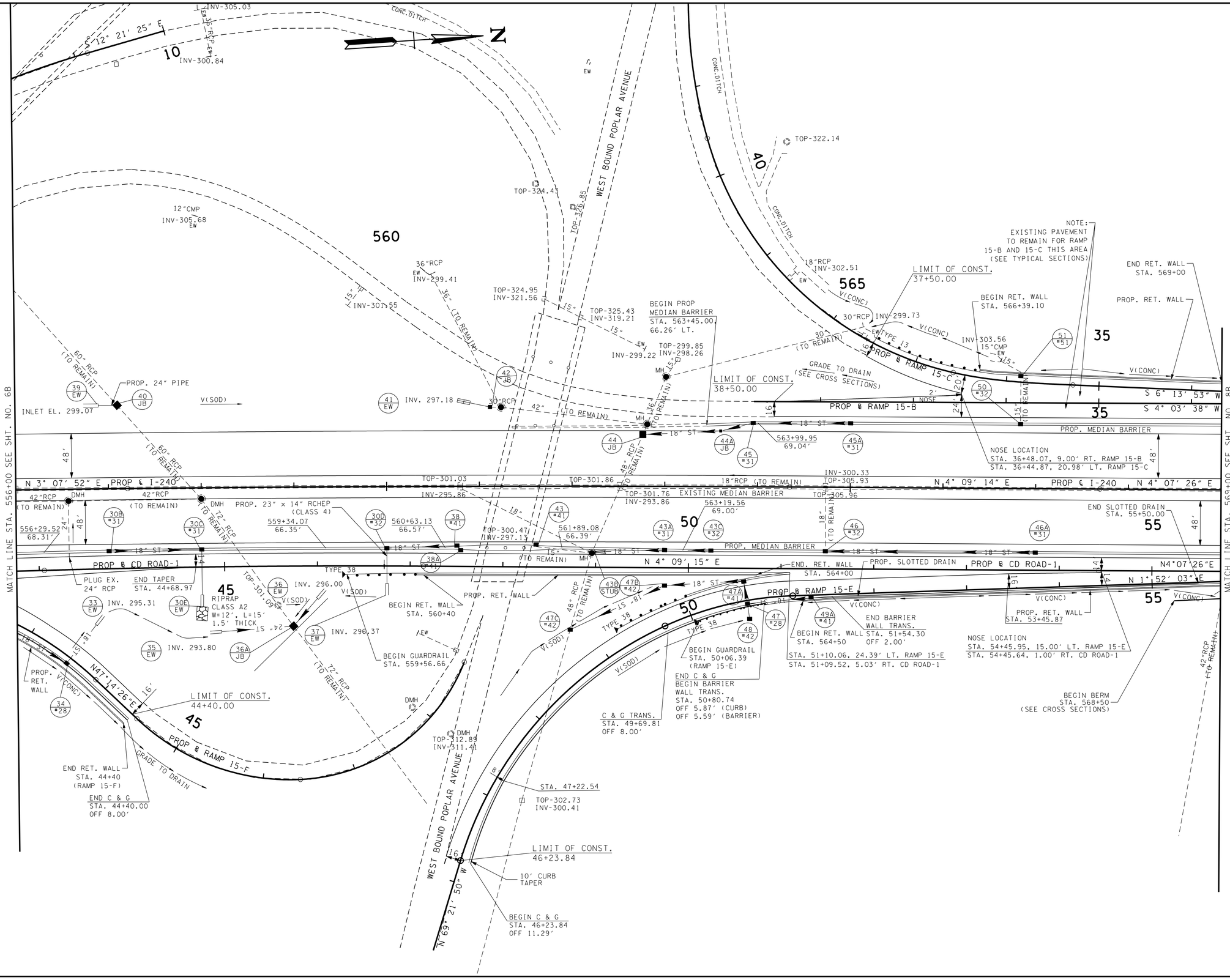
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	7B
CONST.	2010	STP-I-240(290)	7B



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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

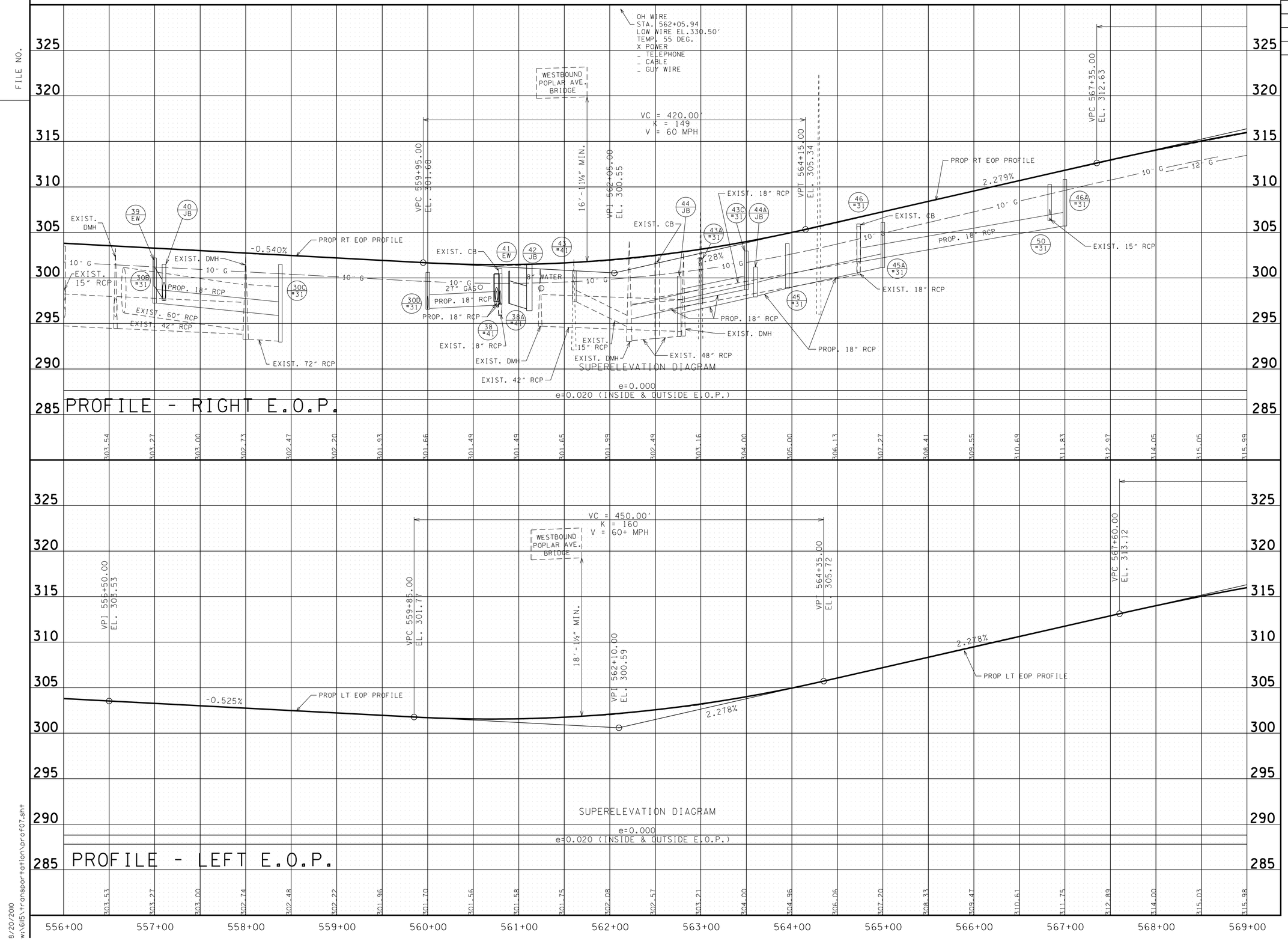
PROPOSED LAYOUT

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	7C
CONST.	2010	STP-I-240(290)	7C



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 556+00 TO STA. 569+00

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	8
CONST.	2010	STP-I-240(290)	8

REVISIONS

DATE: 1/23/2009
ELIMINATED TRACT NO. 3.

CURVE RAMP-15C-1
PI 18+08.88
N 305,759.5274
E 811,174.8259
Δ 3° 20' 29" (LT)
D 0° 15' 00"
R 22,918.31
L 1,336.58
T 668.48
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

STA. 33+37.87 RAMP 15-B =
STA. 33+37.36, 12.30' LT. RAMP 15-C
N 304233.4150
E 811075.5880

PI 33+20.11
Δ 02° 04' 25" (RT)
N 304,251.9000
E 811,065.2300

PI 576+74.30
Δ 00° 02' 06" (RT)
N 304,969.4740
E 811,221.7000

PI 63+48.34
Δ 00° 02' 06" (RT)
N 304,963.0759
E 811,309.4673

PI 68+73.47
Δ 00° 45' 40" (LT)
N 305,486.7909
E 811,347.5483

STA. 58+51.96 RAMP 15-E =
STA. 58+51.96 CD ROAD-1
N 304467.9839
E 811273.7713

CITY OF MEMPHIS,
LG&W DIVISION

BOYLE INVESTMENT COMPANY ET AL

RBD MEMPHIS LLC

855 RIDGE LAKE BOULEVARD LLC

CONWOOD COMPANY, L.P.

VRF BUILDING PARTNERS LLC

3-S-B OFFICE BLDG

5-S-GLASS OFFICE BLDG

3-S-GLASS OFFICE BLDG

PROP ℄ RAMP 15-C
PROP ℄ I-240
PROP ℄ CD ROAD-1
EXISTING MEDIAN BARRIER
EXIST. JERSEY BARRIER WALL
EXIST. EDGE OF PVM'T
EXIST. CA FENCE
CONST. ESMT.
SLOPE ESMT.
TOP OF CUT
TOE OF FILL
PROP. PERM. DRAIN. ESMT.
TRANSMISSION TOWER
HVAC UNIT
ASPH. PARKING
NO PARKING THIS AREA
SIGNS
GRASS

MATCH LINE STA. 569+00 SEE SHT. NO. 7
MATCH LINE STA. 582+00 SEE SHT. NO. 9

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 569+00 TO STA. 582+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	8A
CONST.	2010	MH-I-240-1(286)	8A

REVISIONS

DATE: 1/23/2009
ELIMINATED TRACT NO. 3.

N

℄ N04°26'34"E 3114.00' ℄

570 575 580

CITY OF MEMPHIS,
LG&W DIVISION
(14)

STA. 33+37.87 RAMP 15-B =
STA. 33+37.36, 12.30' LT. RAMP 15-C
N 304233.4150
E 811075.5880

SLOPE ESMT.
CONST. ESMT.
PRES. & PROP. R.O.W. (CA & FENCE)
N 9° 25' 34" E 762.36'
30
CONST. ESMT.
SLOPE ESMT.
573+94.06 129.87'
PRES. & PROP. R.O.W. (CA & FENCE)
SLOPE ESMT.
CONST. ESMT.
25
S04°09'28"W 1617.95
SLOPE ESMT.
CONST. ESMT.
PRES. & PROP. R.O.W. (CA & FENCE)

PROP ℄ RAMP 15-C
S 4° 09' 28" W
PROP ℄ RAMP 15-C

MATCH LINE STA. 569+00 SEE SHT. NO. 7A

PROP ℄ I-240 N 4° 07' 26" E
PROP ℄ I-240 N 4° 09' 32" E

MATCH LINE STA. 582+00 SEE SHT. NO. 9A

N 2° 38' 35" W 19.85'
S04°10'15"W 60.11'
570+89.60 100.18'
571+49.71 100.23'
CUT LIMIT
60
575+62.32 100.57'
65
578+62.36 100.70'
CONST. ESMT.
580+22.35 100.74'
PRES. R.O.W.
CUT LIMIT

PROP ℄ CD ROAD-1
N 4° 07' 26" E
S04°10'15"W 412.61'
N 4° 09' 32" E
S04°10'15"W 299.98'
PRES. R.O.W.
S04°10'15"W 159.99'
PROP ℄ CD ROAD-1
N 4° 10' 15" E 180.92'

N 2° 38' 35" W 188.64'
PRES. R.O.W.
CUT LIMIT
CONST. ESMT.
CONST. ESMT.

STA. 58+51.96 RAMP 15-E =
STA. 58+51.96 CD ROAD-1
N 304467.9839
E 811273.7713

PERM. DRAIN. ESMT.
(SEE DETAIL 1 SHEET 7A)

N 85° 50' 52" W 480.00'
~~BOYLE INVESTMENT COMPANY ET AL~~
(3)
N 85° 48' 31" W 480.00'
N 85° 41' 3" W 480.00'
S 85° 45' 45" E 480.00'

RBD MEMPHIS LLC
(2)

855 RIDGE LAKE BOULEVARD LLC
(4)

(5)
VRF BUILDING PARTNERS LLC

CONWOOD COMPANY, L.P.
(6)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAILS

STA. 569+00 TO STA. 582+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	8B
CONST.	2010	STP-I-240(290)	8B

N

570 575 580

STA. 33+37.87 RAMP 15-B =
STA. 33+37.36, 12.30' LT. RAMP 15-C
N 304233.4150
E 811075.5880

30 25

END GUARDRAIL
STA. 569+82.80

52 EW INV. 309.90

V(SOD)

TYPE 38

STA. 31+56.00

BEGIN RET. WALL
STA. 573+50

PROP. WIDENING
(SEE TYPICAL SECTION)

PROP. RET. WALL

STA. 24+00.00

57B #51

57A #40

57 #51

569+29.66
69.80'

570+92.87
73.00'

16'

24'

PROP ℄ RAMP 15-C

S 4° 09' 28" W

V(CONC)

30" ST

36" ST

PROP. MEDIAN BARRIER

18" ST

MATCH LINE STA. 569+00 SEE SHT. NO. 7B

MATCH LINE STA. 582+00 SEE SHT. NO. 9B

53 #31

48'

42"RCP (TO REMAIN)

EXISTING PAVEMENT
TO REMAIN

58A #51

58B #31

58 #31

TOP-314.55

PROP ℄ I-240 N 4° 07' 26" E

EXISTING MEDIAN BARRIER

PROP ℄ I-240 INV-310.55 N 4° 09' 32" E

INV-309.91

TOP-316.51

TOP-314.56

24"RCP (TO REMAIN)

54 #31

55 #51

54A #31

54B #31

60

59A #31

59B #31

65

59C #31

59 #31

59D #31

PROP ℄ CD ROAD-1

N 4° 07' 26" E

N 4° 09' 32" E

PROP ℄ CD ROAD-1

14'

18" ST

24" ST

V(CONC)

60A #51

60B #51

60 #51

60C #51

56 EW

PROP. SLOTTED DRAIN

END SLOTTED DRAIN
STA. 57+50.00

55B #51

55A #51

PROP. RET. WALL

END PROP
MEDIAN BARRIER
STA. 581+99.29,
65.00' RT.

STA. 58+51.96 RAMP 15-E =
STA. 58+51.96 CD ROAD-1
N 304467.9839
E 811273.7713

END BERM
STA. 569+50
(SEE CROSS SECTIONS)

NOTE:
EXISTING CURB NOT TO BE DISTURBED. ANY DAMAGE TO EXISTING CURB WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 569+00 TO STA. 582+00

SCALE: 1"= 50'

8/20/2010
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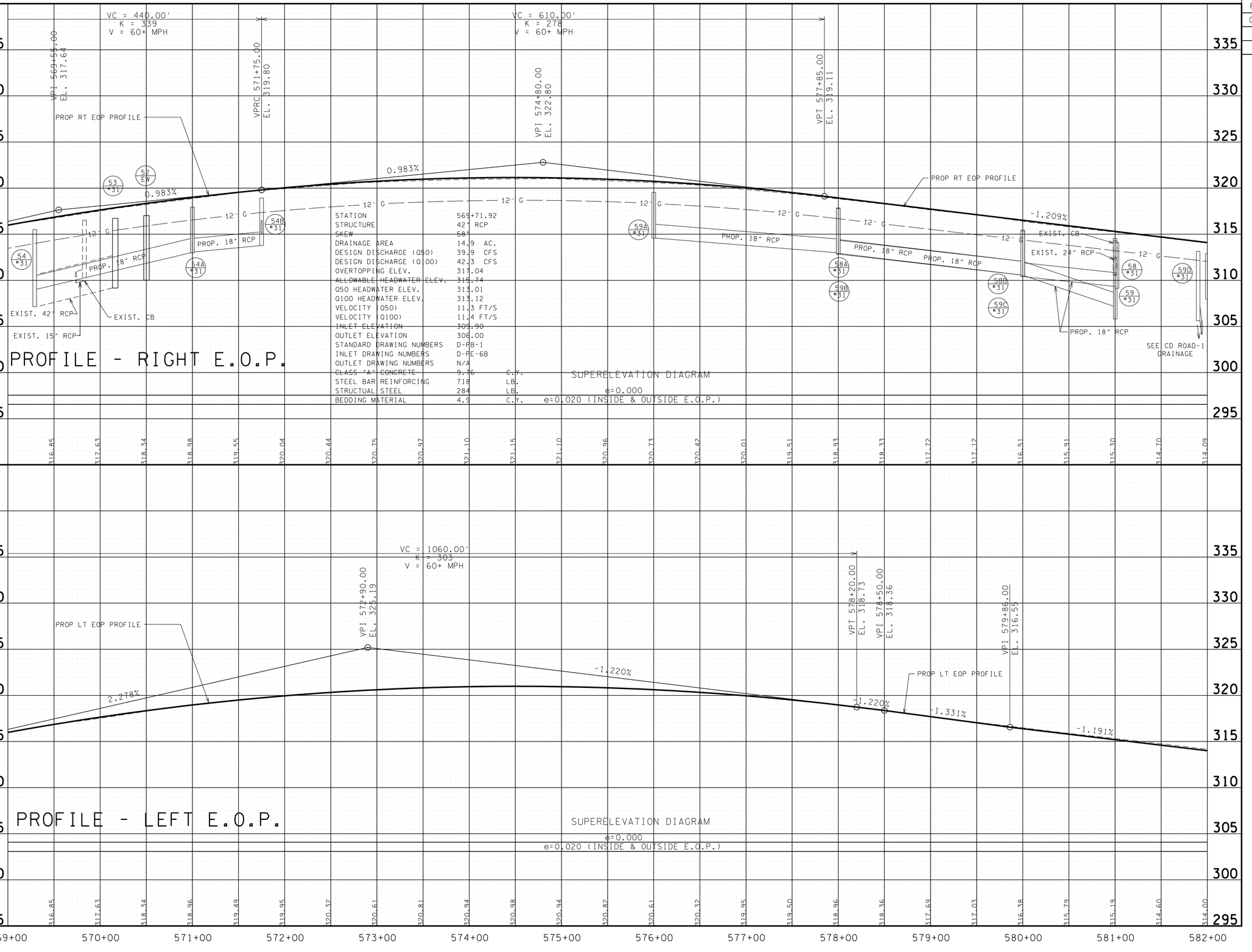
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	8C
CONST.	2010	STP-I-240(290)	8C



STATION	569+71.92	
STRUCTURE	42" RCP	
SKEW	58°	
DRAINAGE AREA	14.9	AC.
DESIGN DISCHARGE (Q50)	39.9	CFS
DESIGN DISCHARGE (Q100)	42.3	CFS
OVERTOPPING ELEV.	317.04	
~~ALLOWABLE HEADWATER ELEV.~~	~~315.74~~	
Q50 HEADWATER ELEV.	313.01	
Q100 HEADWATER ELEV.	313.12	
VELOCITY (Q50)	11.3	FT/S
VELOCITY (Q100)	11.4	FT/S
INLET ELEVATION	309.90	
OUTLET ELEVATION	306.00	
STANDARD DRAWING NUMBERS	D-FB-1	
INLET DRAWING NUMBERS	D-FE-6B	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	9.76	C.Y.
STEEL BAR REINFORCING	718	LB.
STRUCTUAL STEEL	284	LB.
BEDDING MATERIAL	4.9	C.Y.

PROFILE - RIGHT E.O.P.

SUPERELEVATION DIAGRAM
e=0.000
e=0.020 (INSIDE & OUTSIDE E.O.P.)

PROFILE - LEFT E.O.P.

SUPERELEVATION DIAGRAM
e=0.000
e=0.020 (INSIDE & OUTSIDE E.O.P.)

JOHN T. PANFET
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 569+00 TO STA. 582+00

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	9
CONST.	2010	STP-I-240(290)	9

REVISIONS

DATE: 1/23/2009
ELIMINATED TRACTS NOS. 7, 8, & 9.
ADDED LABEL FOR TRACT 6.

N

STA. 10+00.00 RAMP 15-C =
STA. 592+65.00, 60.00' LT. I-240
N 306561.4890
E 811280.3950

CITY OF MEMPHIS, LG&W DIVISION (14)

CITY OF MEMPHIS, LG&W DIVISION (14)

TRANSMISSION TOWER

TRANSMISSION TOWER 519

TRANSMISSION TOWER 418

TRANSMISSION TOWER 318

GRASS

585

590

12" G

SLOPE ESMT.

CONST. ESMT.

TOP OF CUT

EXIST. CA FENCE

PC 11+40.40

PERMANENT DRAIN. ESMT. (FOR DETENTION BASIN)

TOP OF BANK

STORAGE

20

15

10

PROP ℄ RAMP 15-C

S 7° 29' 57" W

SIGN

LP

F (UG)

CONTROL BOX

PI 583+14.70
Δ 00° 00' 21" (LT)
N 305,608.1850
E 811,268.1430

EXIST. JERSEY BARRIER WALL

EXIST. EDGE OF PVM'T

N 4° 09' 32" E

PROP ℄ I-240

N 4° 09' 11" E

EXISTING MEDIAN BARRIER

TOP-306.26
INV-298.99

TOP-306.19

TOP-299.17
INV-293.59

TOP-299.09

70

75

80

EXIST. GUARDRAIL

18"RCP

N 3° 23' 52" E

INV-295.58

CP-S17

GPS-79-240-17

PROP ℄ CD ROAD-I

INV-291.32

MATCH LINE STA. 582+00 SEE SHT. NO. 8

MATCH LINE STA. 595+00 SEE SHT. NO. 10

EXIST. CA FENCE

INV-300.98

29" x 45" HANDRAIL

CONC. DITCH

INV-302.89

TOP-302.57
INV-296.50

18CMP
INV-298.26

18CMP
INV-298.93

18CMP
INV-296.16

18CMP
INV-295.80

TOP-300.69
INV-294.96

TOP-310.49
INV-294.71

ASPH. PARKING

3-S-GLASS OFFICE BLDG

MH

RW

CURB

C&G

CONWOOD COMPANY, L.P.

6

EMBASSY PROPERTIES, LLC

7

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MEMPHIS AND COUNTY OF SHELBY TENNESSEE

8

PC 77+56.05

PC 589+95.78

PI 593+64.17
N 306,654.9071
E 811,344.1489
Δ 3° 40' 57" (RT)
D 0° 30' 00"
R 11,459.16
L 736.53
T 368.39
SE RC
DESIGN SPEED 60 MPH
TRANS. LENGTH 220

EXISTING DETENTION POND

ASPHALT

3-S-B FIRST EVANGELICAL CHURCH

CURVE CD-RD1_4
PI 81+94.20
N 306,805.2258
E 811,425.8266
Δ 4° 22' 46" (RT)
D 0° 30' 00"
R 11,459.16
L 875.87
T 438.15
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

FIRST EVANGELICAL CHURCH

9

BRICK FENCE

24" RCP

1-S-B

GARY D. & SALLY M. MYERS

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 102352
STATE OF TENNESSEE
8/20/2010

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 582+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	9A
CONST.	2010	NH-I-240-1(286	9A

REVISIONS

DATE: 1/23/2009
ELIMINATED TRACTS NOS. 7, 8, & 9.
ADDED MISSING BEARING AND DISTANCE CALLOUT TO PERM. DRAIN. ESMT.

N

STA. 10+00.00 RAMP 15-C =
STA. 592+65.00, 60.00' LT. I-240
N 306561.4890
E 811280.3950

CITY OF MEMPHIS, LG&W DIVISION (14)

585

CITY OF MEMPHIS, LG&W DIVISION (14)

590

SEE DETAIL 1 THIS SHEET

S 4° 26' 34" W 3111.19'

N 42° 22' 25" W 119.96'

593+60.12 332.22'

CONST. ESMT.

PERMANENT DRAIN. ESMT. FOR DETENTION BASIN

S 85° 32' 49" E 70.93'

593+61.96 261.31'

N 32° 57' 6" E 105.92'

594+54.64 213.66'

N 14° 1' 53" W 42.93'

594+94.07 228.75'

SLOPE ESMT.

CONST. ESMT.

PRES. & PROP. R.O.W. (CA & FENCE)

S04°09'28"W 1617.95'

CONST. ESMT.

SLOPE ESMT.

590+11.76 129.67'

PRES. & PROP. R.O.W. (CA & FENCE)

R=11589.69' L=491.56'

CONST. ESMT.

SLOPE ESMT.

PRES. & PROP R.O.W. (CA & FENCE)

S85°33'26"E 98.51'

594+97.81 130.32'

20 15 10

PROP ℄ RAMP 15-C

S 7° 29' 57" W

MATCH LINE STA. 582+00 SEE SHT. NO. 8A

MATCH LINE STA. 595+00 SEE SHT. NO. 10A

N 4° 09' 32" E PROP ℄ I-240 N 4° 09' 11" E PROP ℄ I-240

582+03.27 100.78'

582+58.10 100.79'

70 75 80

PROP ℄ CD ROAD-1

N4°10'15"E 54.83'

S04°10'15"W 28.93'

584+68.51 100.85'

586+68.51 100.91'

N 3° 23' 52" E

PRES. R.O.W. S 4° 10' 15" W 181.49'

N 4° 10' 15" E 200.00'

PRES. & PROP.R.O.W.(CA & FENCE) S04°10'15"W 193.48'

S04°44'58"W 510.17'

PRES. & PROP R.O.W. (CA & FENCE)

582+87.03 100.79'

588+68.48 100.97'

593+82.06 99.83'

S86°10'33"W 50.06'

S06°53'53"W 141.19'

PRES. & PROP R.O.W. (CA & FENCE)

593+84.06 149.85'

N 4° 26' 34" E 2.81'

594+37.01 422.13'

594+83.89 430.19'

594+86.60 430.30'

S 4° 26' 34" W 3111.19'

N 42° 22' 25" W 119.96'

S 85° 33' 26" E 20.21'

594+87.33 410.11'

CONST. ESMT.

N 43° 39' 39" W 53.86'

N 46° 20' 19" W 35.82'

N 85° 33' 26" W 181.49'

594+63.04 401.64'

PERM. DRAIN. ESMT.

DETAIL 1
SCALE 1"=20'

N86°29'10"W 212.45'

S 85° 51' 14" E 480.00'

S 85° 53' 0" E 480.00'

S 85° 51' 2" E 480.00'

S 85° 53' 43" E 480.00'

S 85° 53' 43" E 480.00'

N 85° 56' 02" W 463.63'

N03°44'08"E 140.32'

6 CONWOOD COMPANY, L.P.

7 ~~EMBASSY PROPERTIES, LLC~~

8 ~~THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MEMPHIS AND COUNTY OF SHELBY TENNESSEE~~

9 ~~FIRST EVANGELICAL CHURCH~~

GARY D. & SALLY M. MYERS

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102511
STATE OF TENNESSEE
8-23-2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAILS

STA. 582+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	9B
CONST.	2010	STP-I-240(290)	9B

N

STA. 10+00.00 RAMP 15-C =
STA. 592+65.00, 60.00' LT. I-240
N 306561.4890
E 811280.3950

NOTE:
FOR DETENTION POND
INFORMATION SEE
SHEETS 26 & 26A.

585

590

END PROP
MEDIAN BARRIER
STA. 582+32.45,
73.00' LT.

QUAD GUARD
TERMINAL

PROP. RET. WALL

END RET. WALL
STA. 585+50

STA. 20+00.00

STA. 18+34.15

63 EW — INV. 301.05

58F #31 | 58E #51 | 62 #51

V(CONC) | V(CONC) | V(CONC)

V(RIP-RAP) | V(RIP-RAP) | V(RIP-RAP) | V(RIP-RAP) | V(RIP-RAP) | V(RIP-RAP) | V(RIP-RAP)

20 | 15 | 10

36" ST | 36" ST

16' | 16'

18" ST | 18" ST

58C #38 | 58D #38

20'

PROP ℄ RAMP 15-C

S 7° 29' 57" W

NOSE LOCATION
STA. 17+34.12, 21.00' LT. RAMP 15-C
STA. 585+32.45, 71.00' LT. I-240

48' | 58' | 48'

MATCH LINE STA. 582+00 SEE SHT. NO. 8B

MATCH LINE STA. 595+00 SEE SHT. NO. 10B

TOP-306.26
INV-298.99
TOP-306.19

N 4° 09' 32" E ℄ PROP ℄ I-240

N 4° 09' 11" E

EXISTING MEDIAN BARRIER

PROP ℄ I-240

TOP-299.17
INV-293.59
TOP-299.09

18"RCP (TO REMAIN)

70 | 75 | 80

48' | 14'

NOSE LOCATION
STA. 77+57.46, 15.00' LT. CD ROAD-1
STA. 590+83.59, 61.00' RT. I-240

PROP. RET. WALL/NOISE WALL

PROP ℄ CD ROAD-1

INV-291.32

N 3° 23' 52" E

24" ST | 30" ST

60D #51 | 60E #51 | 60F #51 | 61 #51 | 61B #51 | 61A #51 | 61C #51 | 61D #51 | 64 #51 | 64B #51 | 64C #51 | 64D #51 | 64A #51 | 64E #51 | 65 #51

PROP. RET. WALL

CONC. DITCH

END RET. WALL
BEGIN RET. WALL/NOISE WALL
STA. 591+00

EXISTING DETENTION POND

END RET. WALL/NOISE WALL
BEGIN NOISE WALL
STA. 594+75

PROP. NOISE WALL

FW

24"RCP

JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
8-23-10
PROFESSIONAL ENGINEER
No. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 582+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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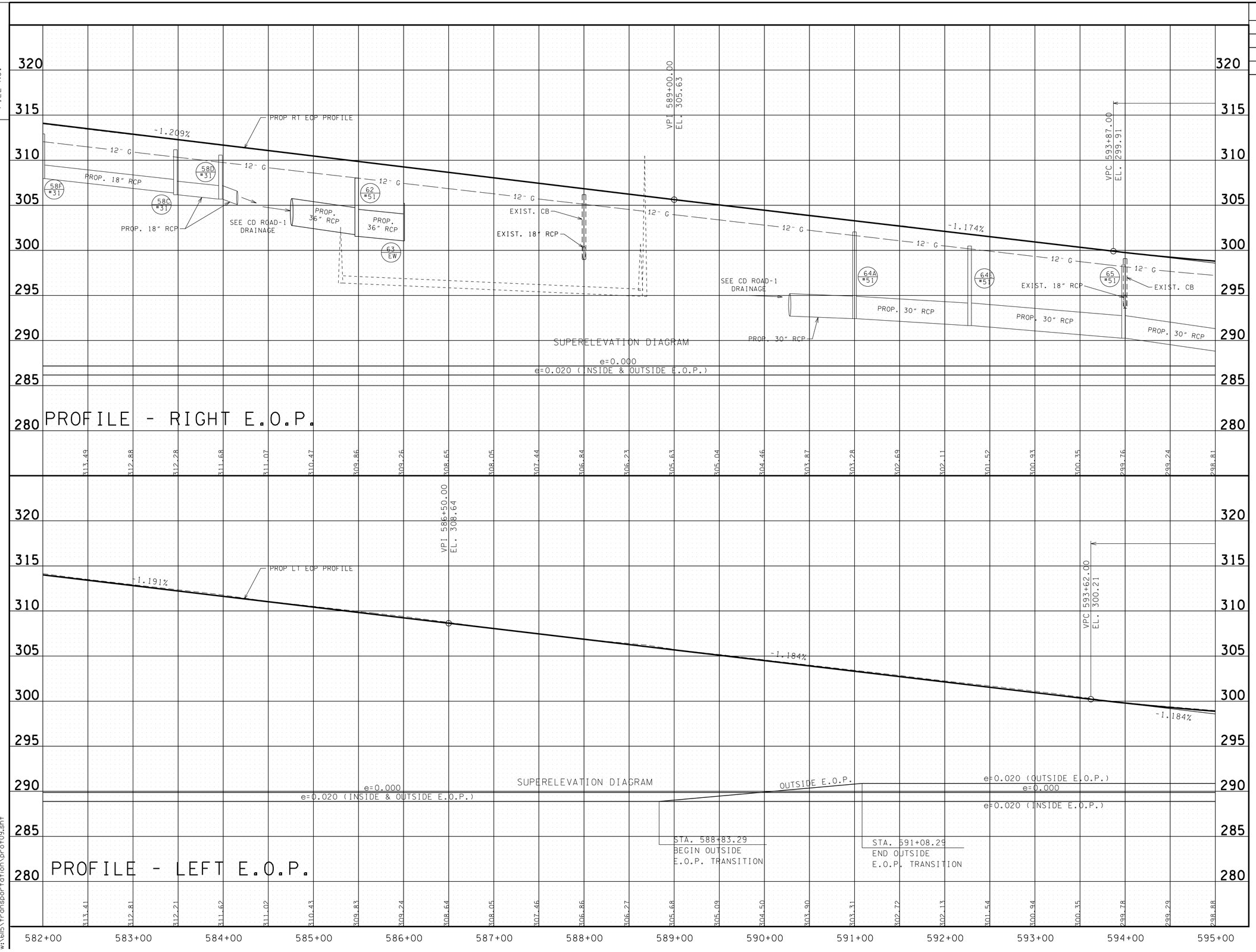
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	9C
CONST.	2010	STP-I-240(290)	9C



JOHN T. PANFET
REGISTERED ENGINEER
AGRICULTURE
102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 582+00 TO STA. 595+00

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	10
CONST.	2010	STP-I-240(290)	10

REVISIONS

DATE: 1/23/2009
ADDED R.O.W. WALK GATE STA. 597+50 LT.

N

MATCH LINE STA. 595+00 SEE SHT. NO. 9

MATCH LINE STA. 608+00 SEE SHT. NO. 11

TOP OF CUT
CONST. ESMT.
PERMANENT DRAINAGE ESMT. (FOR DETENTION BASIN)
GRASS
TOP OF CUT
S-1
TRANSMISSION TOWER 520
TRANSMISSION TOWER 419
TRANSMISSION TOWER 319
TRANSMISSION SUBSTATION
MEMPHIS POWER & LIGHT COMPANY (15)
600
605
85
CITY OF MEMPHIS L.G.&W. DIV. (16)
GRASS
S-2
12" G
INV-289.26
INV-287.61
TOP-297.04
INV-284.51
TOP-297.29
INV-285.41
TOP OF CUT
EXIST. CA FENCE
PROP. WALK GATE
F (UG)
CONC.DITCH
INV-280.55
TOP-287.07
INV-278.06
DRIVEWAY
PULL BOX
ELECTRIC CUTPANEL
SWITCHBOX
CONTROL BOX E
SIGN CONTROL
OH SIGN
EXIST. GUARDRAIL
EXIST. JERSEY BARRIER WALL
EXIST. EDGE OF PVM'T
PI 599+36.90
Δ 00°03' 31" (LT)
N 307222.5320
E 811422.2650
STA. 86+31.92 CD ROAD-1 =
STA. 599+21.72, 60.00' RT.
N 307239.3434
E 811485.1181
PROP ℄ I-240
N 7° 50' 09" E
N 7° 46' 38" E
SIGN
TOP-297.41 EXISTING MEDIAN BARRIER
TOP-299.05
INV-291.65
TOP-299.06
PT 597+32.31
PI 599+36.90
PT 86+31.92
PROP ℄ CD ROAD-1
CP-S18
GPS-79-240-18
INV-280.30
INV-279.65
24"RCP
INV-280.44
INV-281.63
INV-280.08
INV-277.16
TOP OF CUT
EXIST. CA FENCE
BRICK FENCE
PED.
8'X3' RCBC
118'RCP
193.05 L.F. 48"RCP
INV-288.03
TOE OF FILL
INV-284.62
INV-283.74
48"RCP
TOP-289.88
INV-282.60
POOL
2-S-B
1-S-B
A/C UNIT
HARWOOD ROAD
C&G
MH
LP
RW
EW

WILLIAM & ANEDRA SCHADRACK
GORDON ALLEN EVERITT & CAROL ANN LOTT
M. CARTER & ELIZABETH T. MYERS
DANIEL & PORTIA K. HARVEY
ADAM & BLAIR CANALE
JOAN KOLKER REVOCABLE TRUST
THOMAS L. & MARY FAY TALARICO
FRANK E. & LA DELLE LEQUERICA
MARY JONES
HOBACK & JESSICA HOBACK
STEVE J. & CHRISTINE C. MARTIN
WILLIAM E. & SUNDRA GEORGE

JOHN T. PANKEY
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
COMMISSION NO. 10235
STATE OF TENNESSEE
8-23-10

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	10A
CONST.	2010	NH-I-240-1(286)	10A

REVISIONS

DATE: 1/23/2009
CORRECTED BEARING AND DISTANCE CALLOUT FOR PERM. DRAIN. ESMT.
ADDED R.O.W. WALK GATE STA. 597+50 LT.

N

S 8° 45' 47" W
366.09'

598+44.63
401.47'

N08°45'47"E
515.71'

N04°12'04"E
2763.05'

N 56° 10' 2" E
139.77'

CONST. ESMT.

599+37.85
297.07'

PERMANENT DRAIN. ESMT. FOR DETENTION BASIN

596+52.61
251.95'

596+98.47
248.98'

S 40° 1' 59" E
44.88'

S 73° 3' 48" W
11.65'

S 72° 19' 37" E
40.68'

588+93.53
259.82'

N 9° 13' 3" E
187.10'

598+17.18
264.41'

596+77.93
221.65'

N 6° 57' 4" E
83.09'

599+30.60
256.99'

597+54.10
223.43'

S 6° 11' 23" E
33.17'

N 2° 38' 34" W
41.62'

N 84° 12' 17" E
109.29'

597+36.96
130.63'

598+12.76
110.70'

PRES. & PROP R.O.W. (CA & FENCE)
R=11589.29' L=241.83'
PROP. WALK GATE

PRES. & PROP R.O.W.
(CA & FENCE)

N 7° 47' 1" E
564.20'

PRES. & PROP. R.O.W.
(CA & FENCE)

603+77.06
110.77'

N85° 32' 58"W
81.41'

605+00.00
110.75'

PRES. & PROP R.O.W.
(CA & FENCE)

S03°58'10"W
601.33'

PRES. & PROP R.O.W.
(CA & FENCE)

N82°12'58"W
20.00'

597+36.98
110.63'

N 7° 47' 1" E
75.77'

N07°47'01"E
122.94'

PROP ℄ I-240

N 7° 50' 09" E

N 7° 46' 38" E

PROP ℄ I-240

85

PROP ℄ CD ROAD-1

STA. 86+31.92 CD ROAD-1 =
STA. 599+21.72, 60.00' RT.
N 307239.3434
E 811485.1181

MEMPHIS POWER & LIGHT COMPANY
(15)

MEMPHIS POWER & LIGHT COMPANY
(15)

MEMPHIS POWER & LIGHT COMPANY
(15)

CITY OF MEMPHIS L.G.&W. DIV.
(16)

600

605

N85°32'58"W
54.84'

S03°26'52"W
621.47'

MATCH LINE STA. 595+00 SEE SHT. NO. 9A

MATCH LINE STA. 608+00 SEE SHT. NO. 11

S06°53'53"W
141.19'

S06°53'47"W
69.13'

N07°47'01"E
40.96'

601+07.18
149.20'

602+07.36
149.21'

603+07.43
149.23'

S06°53'53"W
138.29'

N07°47'01"E
110.09'

N07°47'01"E
108.36'

S07°47'01"W
100.18'

S07°47'01"W
100.07'

S07°47'01"W
94.77'

S07°47'01"W
145.39'

N07°47'01"E
180.57'

PRES. & PROP R.O.W.
(CA & FENCE)

S07°47'01"W
148.19'

595+27.12
150.95'

596+67.26
150.32'

PRES. & PROP R.O.W.
(CA & FENCE)

597+78.19
149.33'

598+88.28
149.23'

S07°47'01"W
110.69'

599+98.82
149.19'

604+02.20
149.24'

605+47.58
149.25'

607+28.16
149.27'

N79°48'6"E
160.93'

N84°08'31"W
175.00'

S84°03'57"E
173.50'

S84°34'09"E
168.96'

N84°11'45"W
164.45'

N84°12'25"W
160.02'

S84°21'19"E
156.22'

S84°16'59"E
152.55'

S86°29'58"E
149.34'

S71°59'37"E
156.36'

S56°05'12"E
213.60'

R=50.00'
L=43.22'

N06°26'52"E
110.32'

N05°25'27"E
111.52'

S05°26'43"W
109.52'

S05°26'42"W
108.33'

N05°36'17"E
100.53'

S05°41'06"W
99.80'

S05°46'21"W
100.48'

R=420.61'
L=335.29'

R=25.00'
L=36.53'

WILLIAM & ANEDRA SCHADRACK

GORDON ALLEN EVERITT & CAROL ANN LOTT

M. CARTER & ELIZABETH T. MYERS

DANIEL & PORTIA K. HARVEY

ADAM & BLAIR CANALE

JOAN KOLKER REVOCABLE TRUST

THOMAS L. & MARY FAY TALARICO

FRANK E. & LA DELLE LEQUERICA

MARY JONES HOBACK & JESSICA HOBACK

STEVE J. & CHRISTINE C. MARTIN

WILLIAM E. & SUNDRA GEORGE

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. DETAILS

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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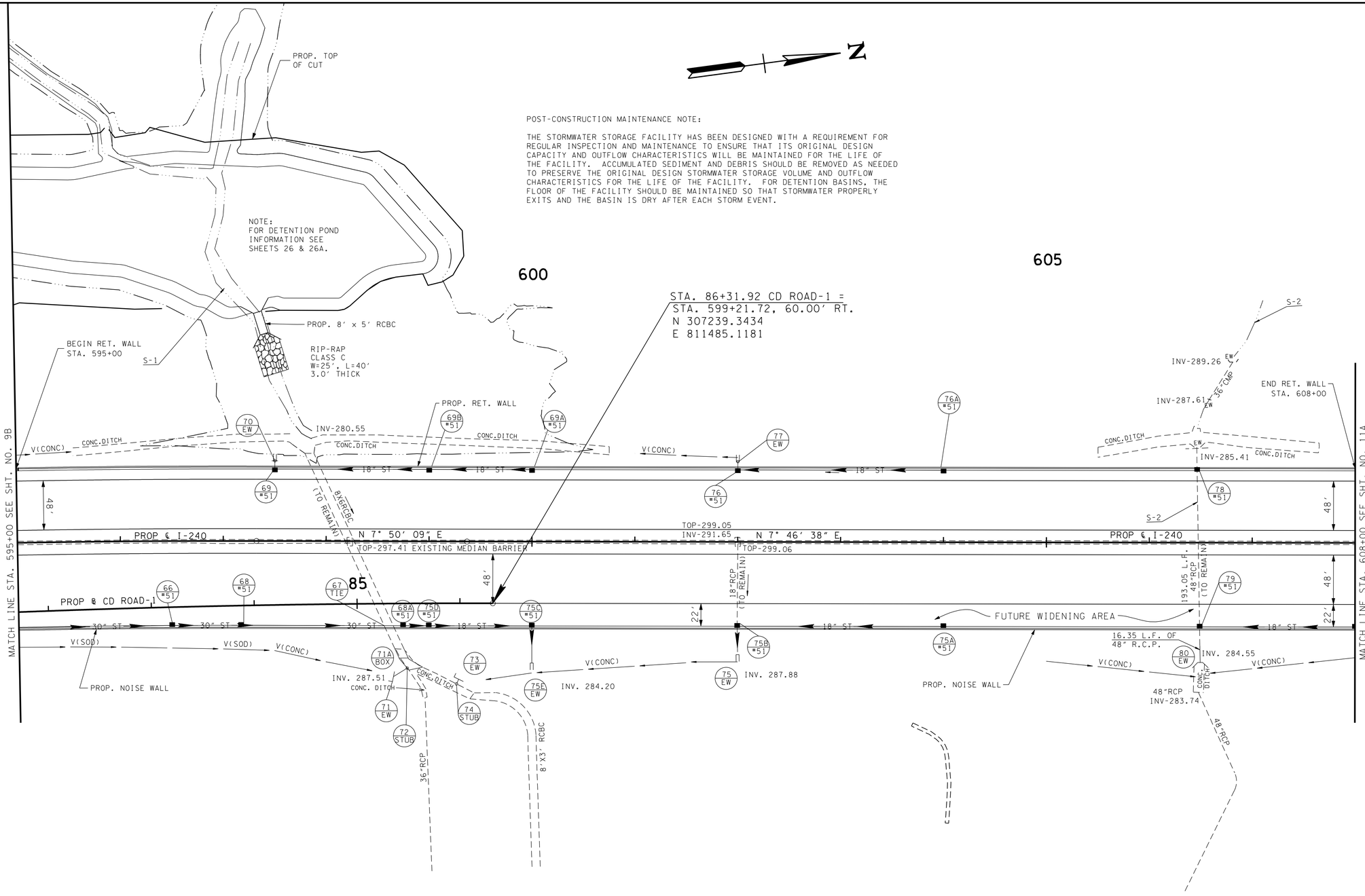
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	10B
CONST.	2010	STP-I-240(290)	10B

REVISIONS

DATE: 1/23/2009
ADDED RIP-RAP STA. 596+50 RT.

DATE: 9/30/2009
ADDED RIP-RAP STA. 597+40 LT.
REVISED SIZE OF RCBC 597+26.80 LT.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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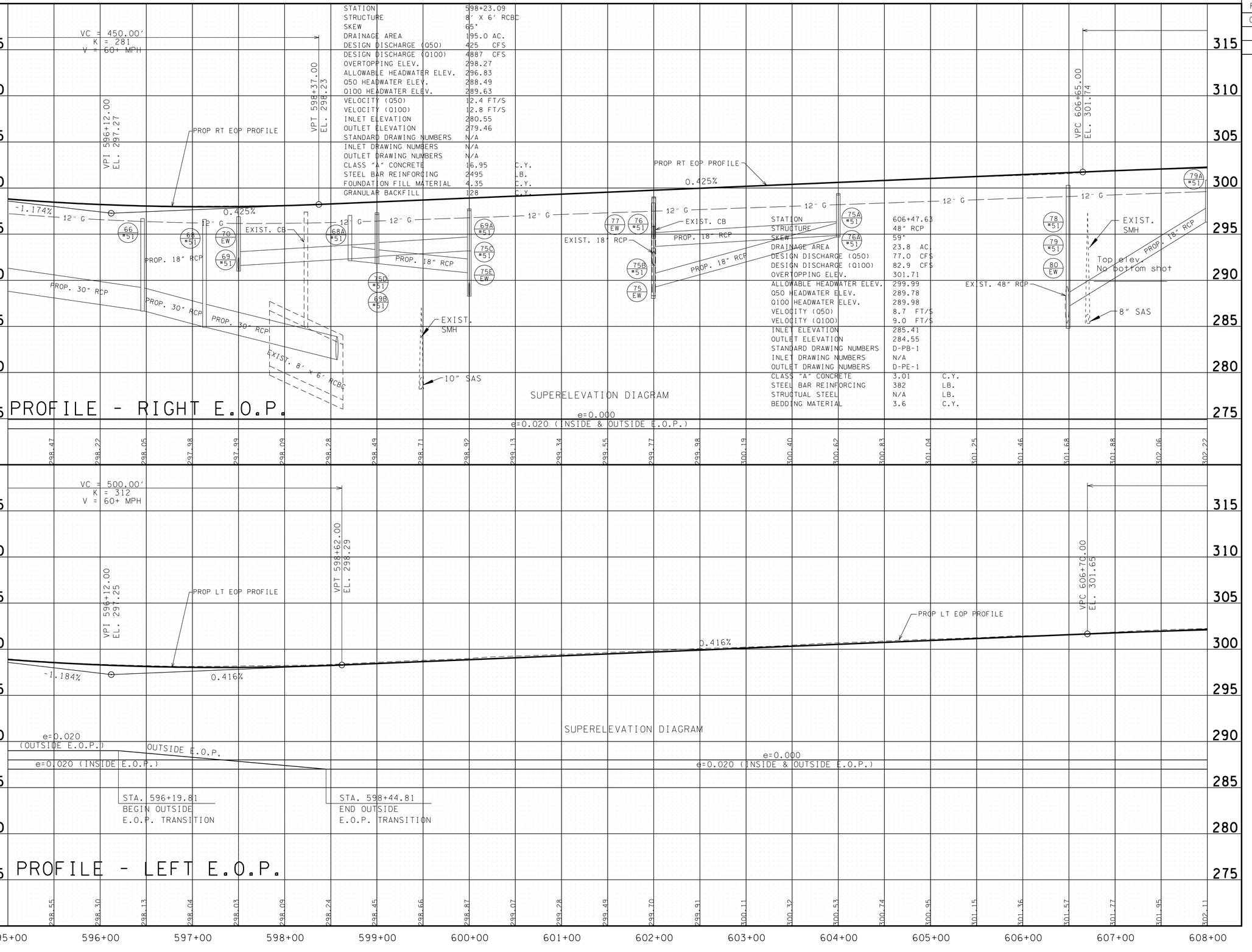
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	10C
CONST.	2010	STP-I-240(290)	10C



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 595+00 TO STA. 608+00

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	11
CONST.	2010	STP-I-240(290)	11

MATCH LINE STA. 608+00 SEE SHT. NO. 10

MATCH LINE STA. 621+00 SEE SHT. NO. 12

610 615 620

N84°12'04"E 2763.05'

S03°26'52"W 621.47'

S05°33'04"W 407.40'

S04°16'50"W 497.38'

MEMPHIS POWER & LIGHT COMPANY (15)

CITY OF MEMPHIS L.G.& W. DIV. (16)

TRANSMISSION TOWER

POOL

GRASS

DRIVEWAY

CONST. ESMT.

SLOPE ESMT.

611+00.01 150.69'

619+13.49 150.60'

PRES. & PROP R.O.W. (CA & FENCE)

EXIST. CA FENCE

EXIST. F(UG) P(UG) F(UG) (CR W/FENCE)

TOP OF CUT

TOE OF FILL

CONC. DITCH

INV-288.71

INV-290.25

ELECTRIC BOX

TDOT CAMERA

SIGN

LP

EXIST. EDGE OF PVM'T

EXIST. JERSEY BARRIER WALL

PROP ℄ I-240

TOP-301.84

TOP-301.90 EXISTING MEDIAN BARRIER

N 7° 46' 38" E

TOP-298.84

INV-293.60

TOP-298.90

36"RCP

18"RCP

CP-S19 GPS-79-240-19

CP-S20 GPS-79-240-20

INV-292.63

INV-286.39

INV-286.36'

SIGN CONTROL

ELECTRICAL PANEL

PULL BOX

608+76.35 149.29'

610+27.10 149.30'

611+40.39 149.32'

613+75.50 149.34'

614+79.49 149.35'

615+94.66 149.37'

617+60.36 149.38'

619+21.89 149.40'

620+84.36 149.42'

S07°47'01"W 148.19'

S07°47'01"W 150.75'

S07°47'01"W 113.88'

S07°47'01"W 234.52'

S07°47'01"W 103.99'

N07°47'01"E 115.17'

N07°47'01"E 185.70'

S07°47'01"W 161.53'

S07°47'01"W 162.47'

INV-283.02

TOP-285.55 2X2

TOP-287.73

N60°05'33"W 217.17'

S63°08'31"E 245.31'

N74°43'56"W 154.29'

N67°08'33"E 235.90'

S14°39'43"W 202.35'

S62°54'07"E 196.68'

S75°23'29"W 199.52'

R=425.00' L=309.27'

PETER & TERESA T. WRIGHT

JERRY F. TAYLOR

McWATERS CONST., INC.

H. MARK HILL

WILLIAM E. & SUNDRA GEORGE

WM. M. JR. & NANCY C. FAY

LEE R. & MICHELE L. MORISY

NICOLA R.S. ALLEN

PHILIP H. & BRIDGET M. TRENARY

2-S-B

2-S-F

HARWOOD ROAD

RIVER RIDGE COVE

GARDEN OAK COVE

CURB

RW

POOL

MH

S-3

JOHN T. PANKEY
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
COMMERCE
NO. 102351
STATE OF TENNESSEE
8-23-10

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 608+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	11A
CONST.	2010	STP-I-240(290)	11A

REVISIONS

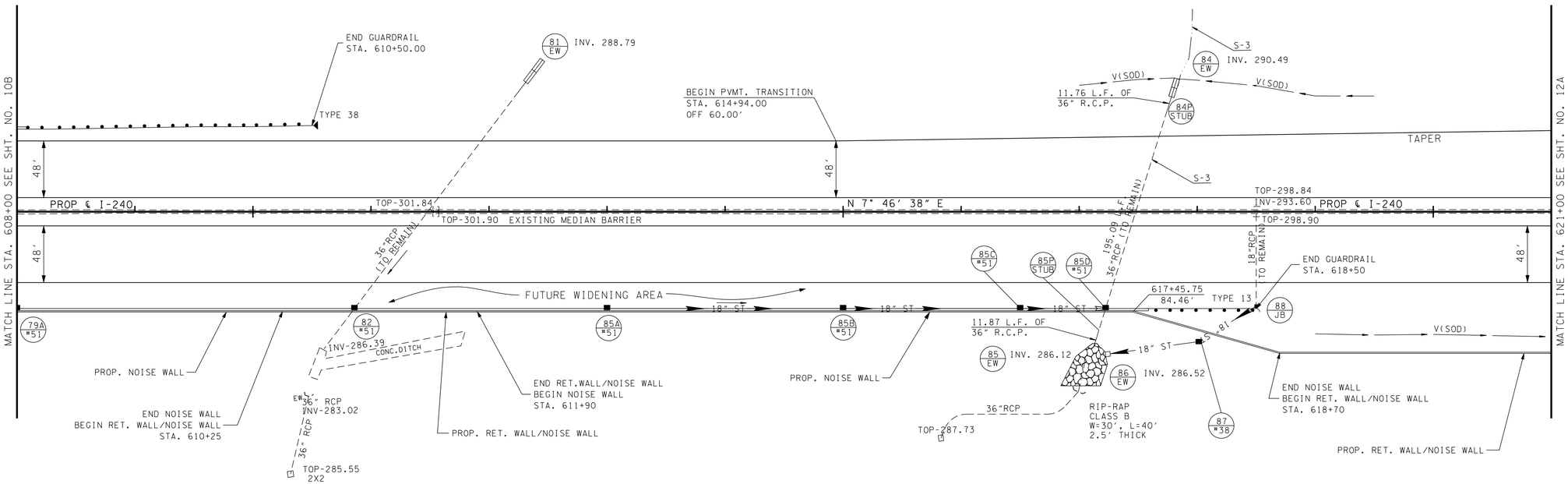
DATE: 1/23/2009
ADDED RIP-RAP STA. 617+00 RT.

N

610

615

620



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 608+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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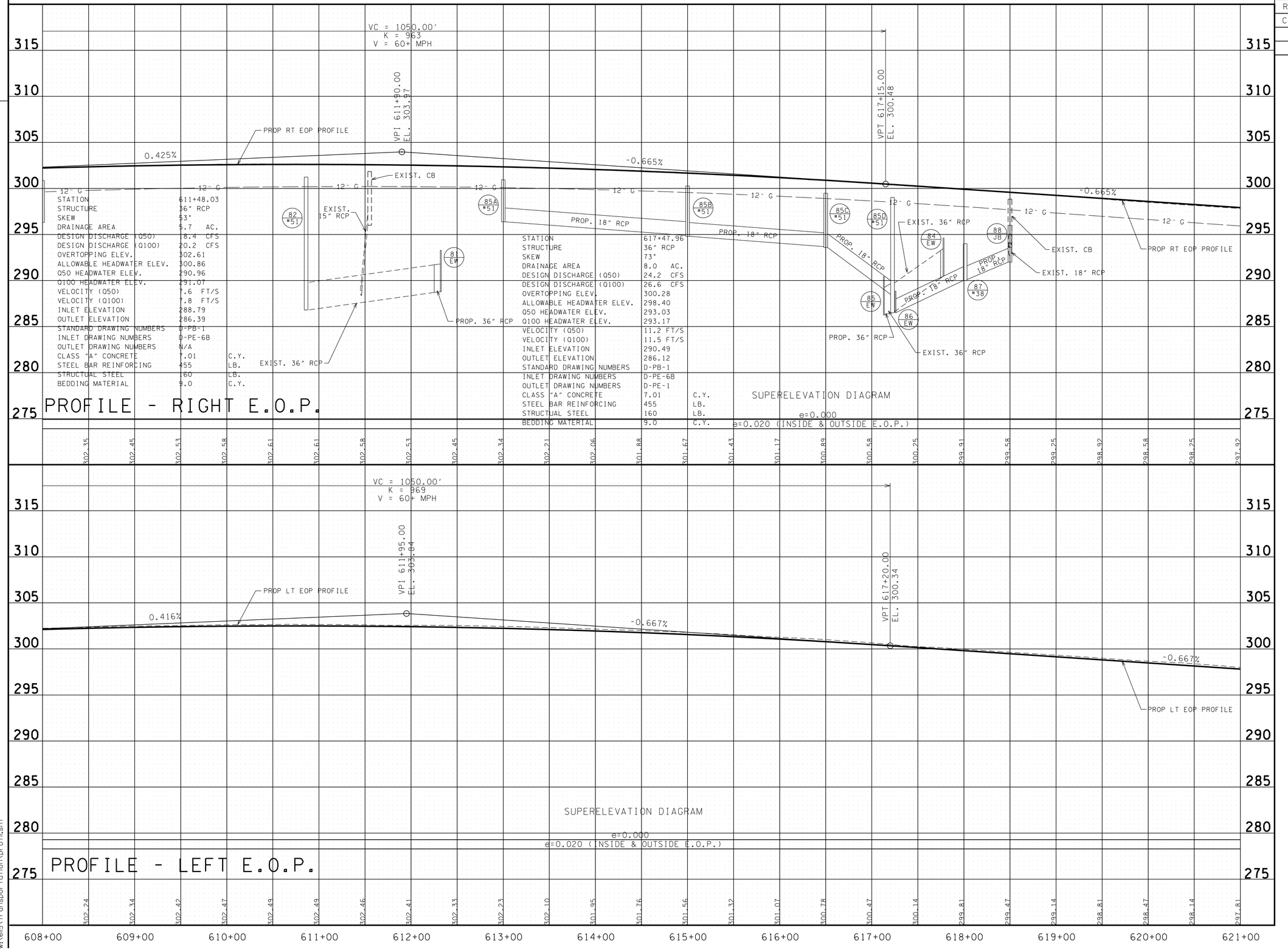
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	11B
CONST.	2010	STP-I-240(290)	11B



8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 608+00 TO STA. 621+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	12
CONST.	2010	STP-I-240(290)	12

REVISIONS

DATE: 1/23/2009
CORRECTED BEARING AND DISTANCE CALLOUTS FOR PRES. R.O.W.

DATE: 3/05/2010
REVISED TRACT 20

MEMPHIS POWER & LIGHT COMPANY
TRANSMISSION TOWER (15)
CITY OF MEMPHIS L.G.&W. DIVISION (16)
RANSOM LANE - FOREST GATE HOMEOWNERS ASSOCIATION (18)
CITY OF MEMPHIS L.G.&W. DIVISION
SHADY GROVE VILLAGE HOMEOWNERS ASSOCIATION INC.
PAT K. TIGRETT
JANA K. EDWARDS
MILTON ANGEL & WIFE DOROTHY M. ANGEL (20)
LOUIS H. DICKINSON III & WIFE COURTNEY B. DICKINSON (10)

CURVE CD-RD2-3
PI 68+79.09
N 309,715.3348
E 811,690.0618
Δ 1° 08' 25" (RT)
D 0° 30' 00"
R 11,459.16
L 228.05
T 114.03
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

STA. 69+93.11 CD ROAD-2 =
STA. 623+28.98, 72.00' LT. I-240
N 309602.3536
E 811674.6309

END PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 631+67.43
N 310423.3452
E 811859.4298

MATCH LINE STA. 621+00 SEE SHT. NO. 11
MATCH LINE STA. 634+00 SEE SHT. NO. 13

PROP ℄ I-240 N 7° 46' 38" E
PROP ℄ CD ROAD-2 S 6° 38' 13" W

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

JOHN T. PANKEY — REGISTERED PROFESSIONAL ENGINEER — AGRICULTURE — 10235 — STATE OF TENNESSEE — 3-23-10

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	12A
CONST.	2010	STP-I-240(290)	12A

REVISIONS

DATE: 1/23/2009
ADDED RIP-RAP STA. 625+50 RT.
ADDED RIP-RAP STA. 633+00 RT.

N

STA. 69+93.11 CD ROAD-2 =
STA. 623+28.98, 72.00' LT. I-240
N 309602.3536
E 811674.6309

625

END PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 631+67.43
N 310423.3452
E 811859.4298

630

CONC.DITCH

END PROP
MEDIAN BARRIER
STA. 630+98.23,
66.00' Lt.

BEGIN RET. WALL
STA. 630+50

V(CONC)

NOSE LOCATION
STA. 66+78.24, 15.00' LT. CD ROAD-2
STA. 626+44.11, 61.00' LT. I-240

END PVMT. TRANSITION
STA. 623+28.98
OFF 72.00'

89 EW INV. 288.90

65

INV. 286.67
92 EW
2"C
2"C
93 #51

PROP. RET. WALL

60

95 #31 V(CONC)

PROP ℄ CD ROAD-2 S 6° 38' 13" W

18" ST — 18" ST — 18" ST

SB-1 SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8 SB-9 SB-10

PROP. MEDIAN BARRIER

632+70.83
69.50'

14'

60'

48'

36"RCP (TO REMAIN)

TOP-293.16
INV-288.56
TOP-293.26

PROP ℄ I-240 N 7° 46' 38" E

EXISTING MEDIAN BARRIER

PROP ℄ I-240

TOP-288.12
INV-283.12

MATCH LINE STA. 621+00 SEE SHT. NO. 11A

MATCH LINE STA. 634+00 SEE SHT. NO. 13A

NB-7 NB-8 NB-5 NB-6 NB-3 NB-4 NB-1 NB-2

48'

18"RCP (TO REMAIN)

BEGIN GUARDRAIL
STA. 624+00

24'

FUTURE WIDENING AREA

INV-287.24

TYPE 38

V(SOD)

90 EW INV. 284.05

91E PE

91 EW INV. 286.86

2"C 2"C

PROP. BARRIER

18" ST

91B JB

91A EW INV. 284.00

91C JB

91D EW INV. 282.77

RIP-RAP
CLASS A-2
W=15', L=20'
1.5' THICK

END RET. WALL/NOISE WALL
BEGIN NOISE WALL
STA. 624+50

PROP. RET. WALL/NOISE WALL

PROP. NOISE WALL

END NOISE WALL
STA. 625+00

RIP-RAP
CLASS B
W=20', L=40'
2.5' THICK

BEGIN RET. WALL
STA. 626+50

631+39.65
138.03' RT.

END RET. WALL
STA. 631+65.20

PROP. NOISE WALL

BEGIN NOISE WALL
STA. 632+20

WWC-1

7'
5'
16'
DRECTION OF TRAVEL

LOOP DETAIL

FOR GUARDRAIL,
LOCATE PULL BOX
MINIMUM OF 4'
BEHIND FACE OF
GUARDRAIL

5'
2"C
2"C
5'
PROP. RET. WALL
DRECTION OF TRAVEL

POLE & TRAFFIC CABINET LOCATION DETAIL
(SEE STANDARD DRAWINGS RD-L-3, T-SG-2 & T-SG-3
FOR OTHER DETAILS)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

8/20/2010
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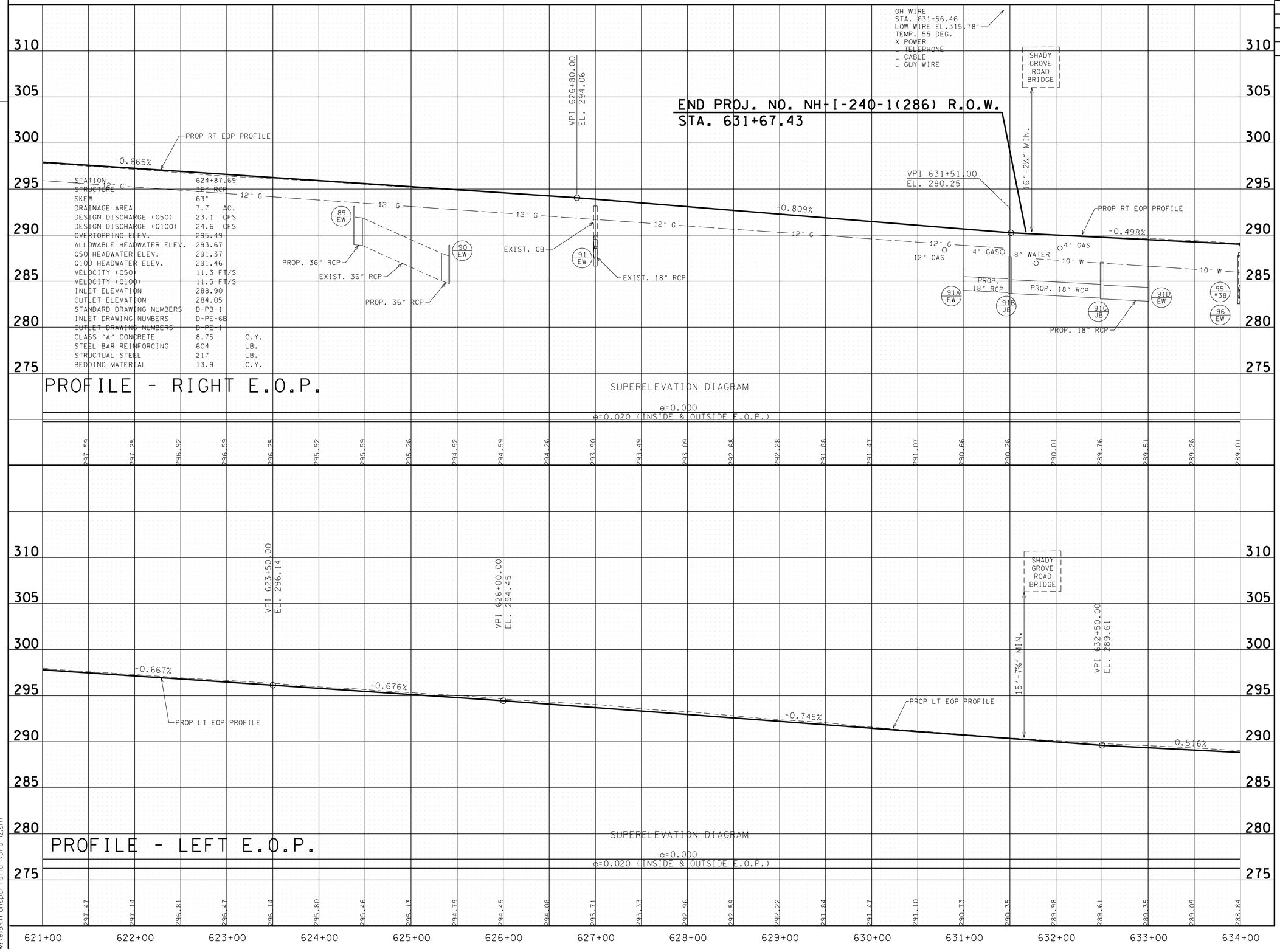
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	12B
CONST.	2010	STP-I-240(290)	12B



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 103230
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 621+00 TO STA. 634+00

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	13
CONST.	2010	STP-I-240(290)	13

MEMPHIS POWER & LIGHT COMPANY
TRANSMISSION TOWER

SHADY GROVE VILLAGE HOMEOWNERS ASSOCIATION INC.

SHADY GROVE VILLAGE II LLC
12

CURVE CD-RD2-2
PI 57+71.90
N 310,815.1050
E 811,818.0300
A 1° 08' 10" (LT)
D 0° 30' 00"
R 11,459.16
L 227.21
T 113.61
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

S07°54'26"W 418.78'
636+00.26 484.29'
S08°01'18"W 1424.14'
S78°44'19"E 202.69'
INV-263.05
INV-271.71
INV-267.98
635
640
645
2-S-F CONDOMINIUM
S68°06'23"W 150.41'
636+62.89 150.41'
TOP-270.28
646+81.98 147.19'
INV-264.00
INV-266.66
INV-266.58
INV-270.73 TOP OF CUT
N07°47'01"E 455.06'
PI 58+85.50
PC 56+58.30
55
50
INV-261.81
INV-261.76
S 7° 46' 23" W
PROP & CD ROAD-2
EXIST. GUARDRAIL
EXIST. EDGE OF PVM'T
EXIST. JERSEY BARRIER WALL
EXISTING MEDIAN BARRIER
PROP & I-240
TOP-283.71
INV-275.65
TOP-283.72
N 7° 46' 38" E
MATCH LINE STA. 634+00 SEE SHT. NO. 12
MATCH LINE STA. 647+00 SEE SHT. NO. 14
CP-S22 GPS-79-240-22
INV-282.65
PROP & RAMP 17-G
N 9° 45' 57" E
CP-S23 GPS-79-240-23
15
10
INV-260.27
N15°10'04"W 18.80'
637+83.26 156.72'
638+00.57 149.39'
639+16.95 149.62'
640+45.26 149.63'
641+73.31 149.65'
643+04.16 149.66'
644+20.49 149.77'
646+51.37 149.70'
637+00.11 192.90'
636+52.19 193.12'
634+52.19 194.57'
S07°47'01"W 59.39'
S07°53'23"W 118.38'
S07°47'01"W 128.05'
N07°47'01"E 130.86'
S07°47'01"W 116.38'
S07°47'01"W 115.37'
S07°47'01"W 114.85'
S07°47'01"W 113.99'
EXIST. CA FENCE 128.31'
PRES. & PROP. R.O.W. (CA & FENCE) 200.01'
N07°30'27"E 47.91'
TOP-266.77
INV IN-259.06
INV OUT-256.96
PRES. & PROP/R.O.W. (CA & FENCE)
645+36.51 149.68
INV-261.71
TOP-269.17
TOP-271.23
LYNNFIELD STREET
BRIERDALE
BRIERGLEN
BRIARHAVEN
1-S-B
2-S-B
POOL
PETER A. & JACKIE S. STARK
MICHAEL E. & REBECCA A. ROBILIO
WILLIE R. & REBECCA A. CINT
BETTYE J. GRONAUER
GREGORY S. & LEANNE E. CARMICHAEL
JAMES A. LOWERY
LISA STARK
LOUIS & RUTH SIEGEL
BEN & ALICE LEVITCH
DOMINIC & BEVERLY MUSARRA
STA. 10+00.00 RAMP 17-G
STA. 640+05.01, 91.8' RT.
N 311245.1260
E 812032.0960

I HEREBY CERTIFY THAT I AM A REGISTERED LANDSCAPE ARCHITECT IN THE STATE OF TENNESSEE AND THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.
JOHN T. PANKEY
REGISTERED LANDSCAPE ARCHITECT
AGRICULTURE
NUMBER 1023
STATE OF TENNESSEE
8-23-10

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 634+00 TO STA. 647+00

SCALE: 1"= 50'

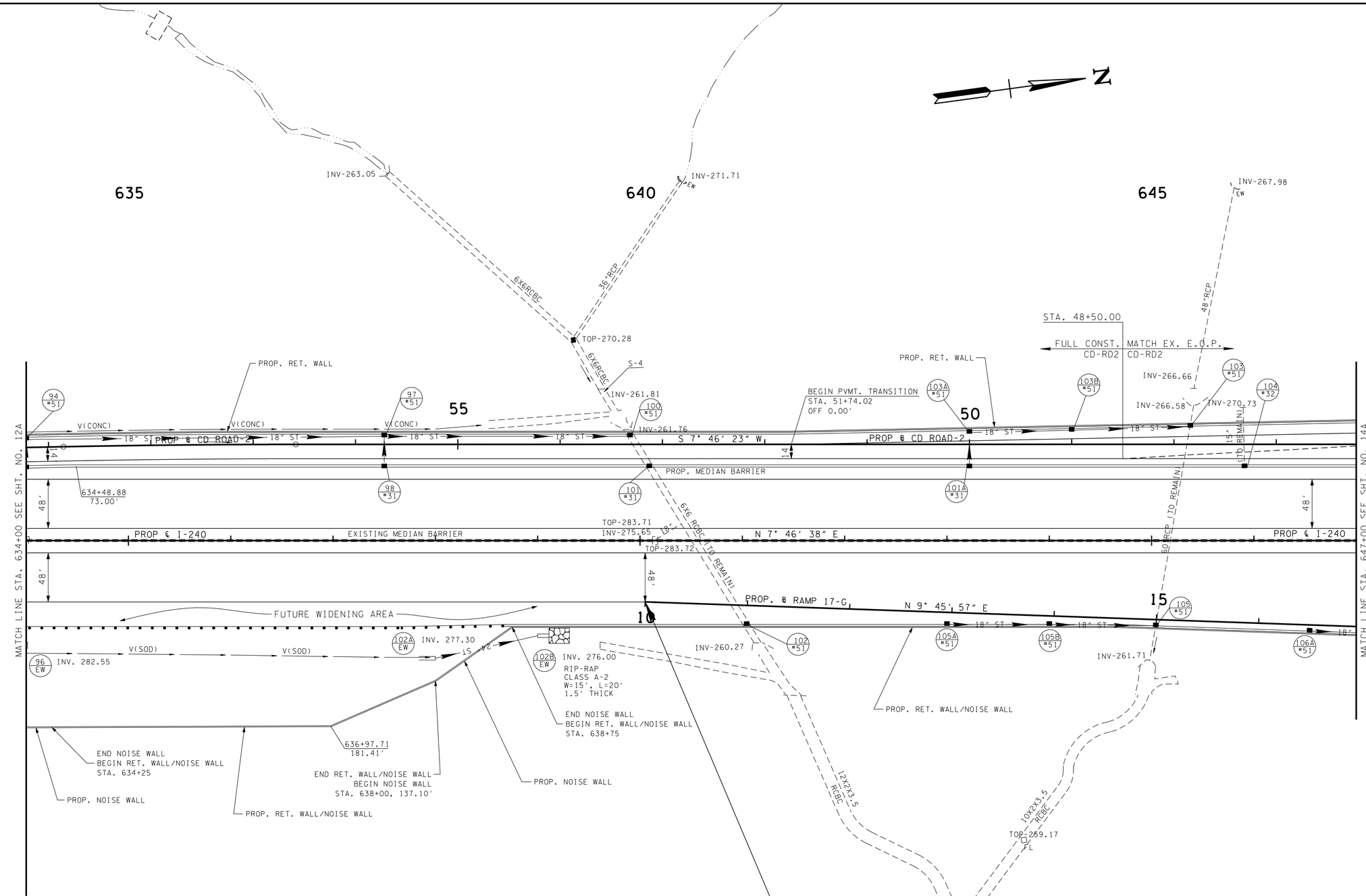
8/20/2010
w:\615\transportation\PRES13.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	13A
CONST.	2010	STP-I-240(290)	13A

REVISIONS

DATE: 1/23/2009
ADDED RIP-RAP STA. 639+00 RT.



STA. 10+00.00 RAMP 17-G
STA. 640+05.01, 59.87' RT. I-240
N 311245.1260
E 812032.0960

JOHN T. PANKEY
REGISTERED
AGRICULTURE
PROFESSIONAL ENGINEER
NO. 102357
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 634+00 TO STA. 647+00

SCALE: 1"= 50'

8/20/2010
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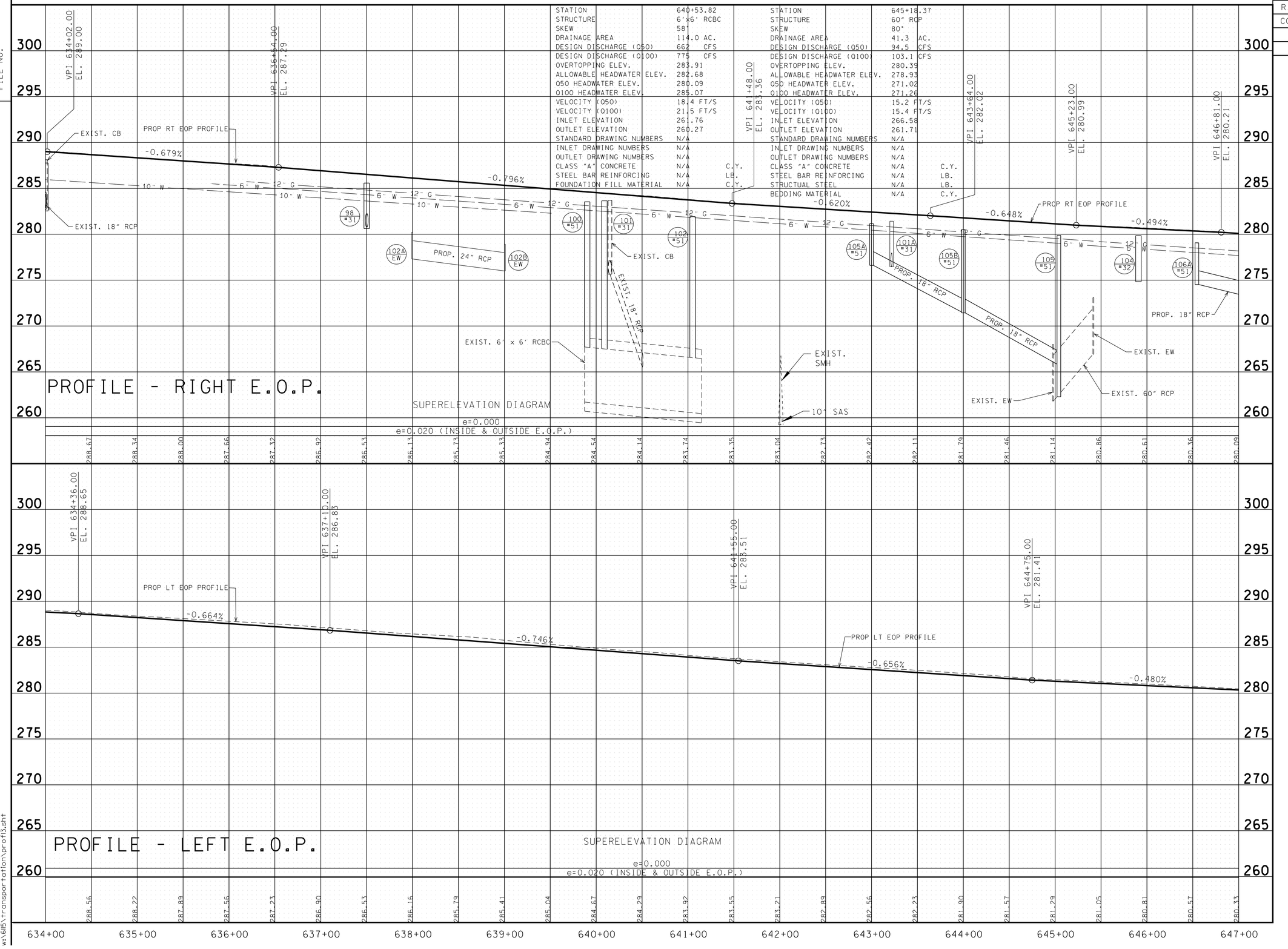
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	13B
CONST.	2010	STP-I-240(290)	13B

STATION	640+53.82	STATION	645+18.37
STRUCTURE	6'x6' RCBC	STRUCTURE	60" RCP
SKEW	58°	SKEW	80°
DRAINAGE AREA	114.0 AC.	DRAINAGE AREA	41.3 AC.
DESIGN DISCHARGE (Q50)	662 CFS	DESIGN DISCHARGE (Q50)	94.5 CFS
DESIGN DISCHARGE (Q100)	775 CFS	DESIGN DISCHARGE (Q100)	103.1 CFS
OVERTOPPING ELEV.	283.91	OVERTOPPING ELEV.	280.39
ALLOWABLE HEADWATER ELEV.	282.68	ALLOWABLE HEADWATER ELEV.	278.93
Q50 HEADWATER ELEV.	280.09	Q50 HEADWATER ELEV.	271.02
Q100 HEADWATER ELEV.	285.07	Q100 HEADWATER ELEV.	271.26
VELOCITY (Q50)	18.4 FT/S	VELOCITY (Q50)	15.2 FT/S
VELOCITY (Q100)	21.5 FT/S	VELOCITY (Q100)	15.4 FT/S
INLET ELEVATION	261.76	INLET ELEVATION	266.58
OUTLET ELEVATION	260.27	OUTLET ELEVATION	261.71
STANDARD DRAWING NUMBERS	N/A	STANDARD DRAWING NUMBERS	N/A
INLET DRAWING NUMBERS	N/A	INLET DRAWING NUMBERS	N/A
OUTLET DRAWING NUMBERS	N/A	OUTLET DRAWING NUMBERS	N/A
CLASS "A" CONCRETE	N/A C.Y.	CLASS "A" CONCRETE	N/A C.Y.
STEEL BAR REINFORCING	N/A LB.	STEEL BAR REINFORCING	N/A LB.
FOUNDATION FILL MATERIAL	N/A C.Y.	STRUCTUAL STEEL	N/A LB.
		BEDDING MATERIAL	N/A C.Y.



JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 634+00 TO STA. 647+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	14
CONST.	2010	STP-I-240(290)	14

MEMPHIS POWER & LIGHT COMPANY

SHELBY COUNTY TAX SALE

SHADY GROVE VILLAGE II LLC

BENNIE SACHARIN

CURVE RMP-17B-2
PI 41+35.39
N 312,783.4396
E 811,830.3050
Δ 90° 31' 09" (RT)
D 37° 41' 41"
R 152.00
L 240.14
T 153.38
SE 0.060 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH 120

CURVE RMP_17A
PI 40+41.42
N 312,565.4531
E 812,042.8296
Δs 51° 59' 12" (RT)
θs 10° 43' 07"
Δc 30° 32' 57" (RT)
Dc 12° 15' 00"
Rc 467.72
Lc 249.38
Ts 316.78
Ls 175.00
SE 0.080 FT/FT
DESIGN SPEED 30 MPH
TRANS. LENGTH 175

CURVE RMP 17G
PI 21+04.55
N 312,333.6721
E 812,219.4523
Δs 21° 07' 55" (RT)
θs 4° 22' 30"
Δc 12° 22' 55" (RT)
Dc 5° 00' 00"
Rc 1,145.92
Lc 247.64
Ts 301.44
Ls 175.00
SE 0.071 FT/FT
DESIGN SPEED 50 MPH
TRANS. LENGTH 175

STA. 43+24.02 RAMP 17-A =
STA. 43+24.02, 14.00' RT. CD ROAD-2
N 312251.5826
E 811999.8851

PROP. CD ROAD-2 S 7° 46' 23" W

PI 648+40.02
Δ 00° 00' 32" (LT)
N 312,080.5520
E 812,085.7700

N 7° 46' 38" E PROP. I-240

N 7° 46' 06" E PROP. I-240

N 9° 45' 57" E

PROP. & RAMP 17-A

PROP. & RAMP 17-G

EXISTING MEDIAN BARRIER

CP-S24

GPS-79-240-24

MATCH LINE STA. 647+00 SEE SHT. NO. 13

MATCH LINE STA. 657+00 SEE SHT. NO. 15

CHERLY & BILLY GLOVER

FREDERICK N. HARRISON

JOHN K. & ANN A. LARKIN

JOHN A. & JULIE A. ANTHONY

BONNIE B. McLAURINE

FORREST K. & REARSON U. CRUTCHER

SANDRA R. H. PERSON

JOHN D. & PATTI C. HARBIN

DAVID A. LEE

LYNNFIELD STREET

BRIERHEDGE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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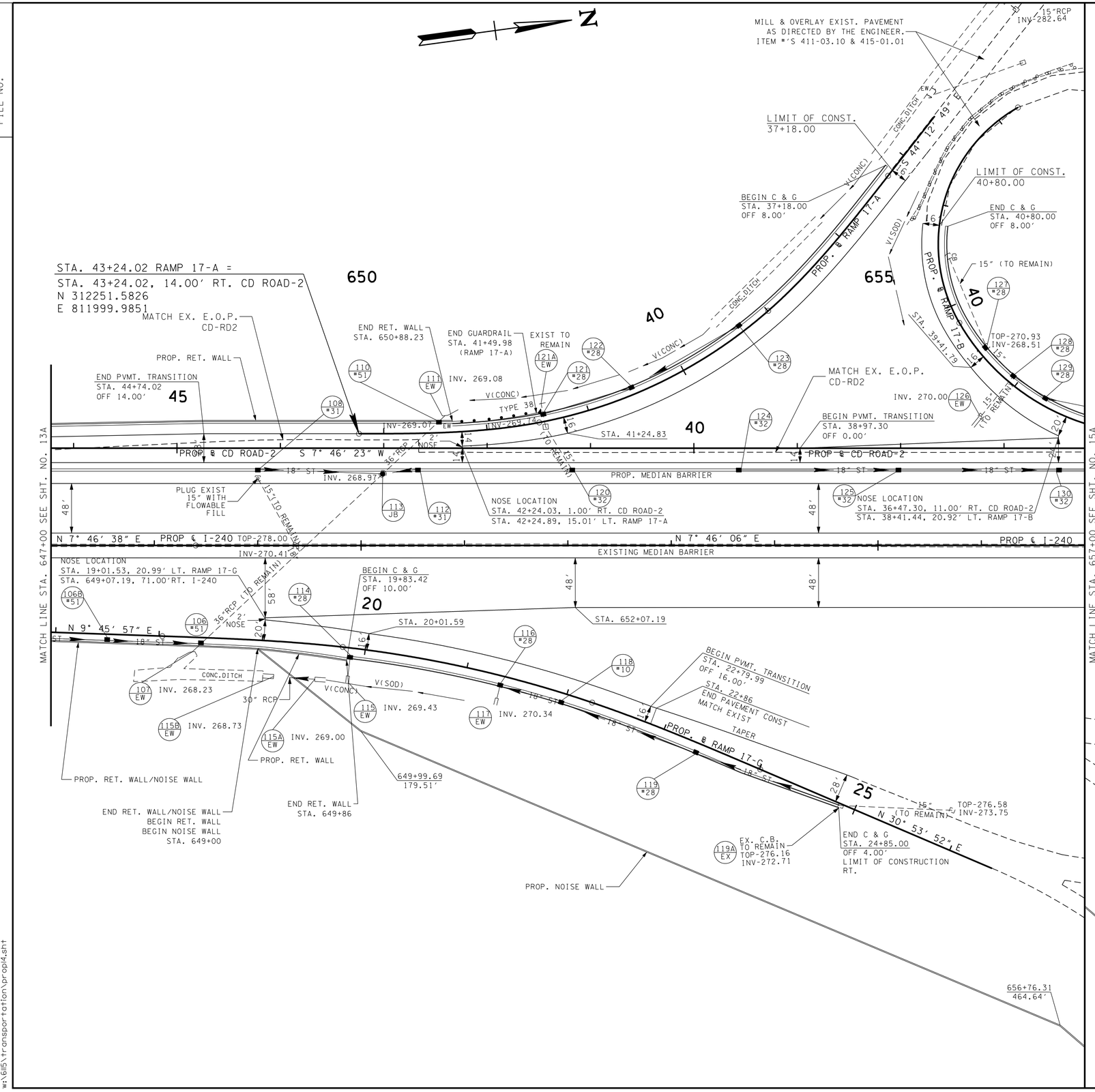
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	14A
CONST.	2010	STP-I-240(290)	14A



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 110235
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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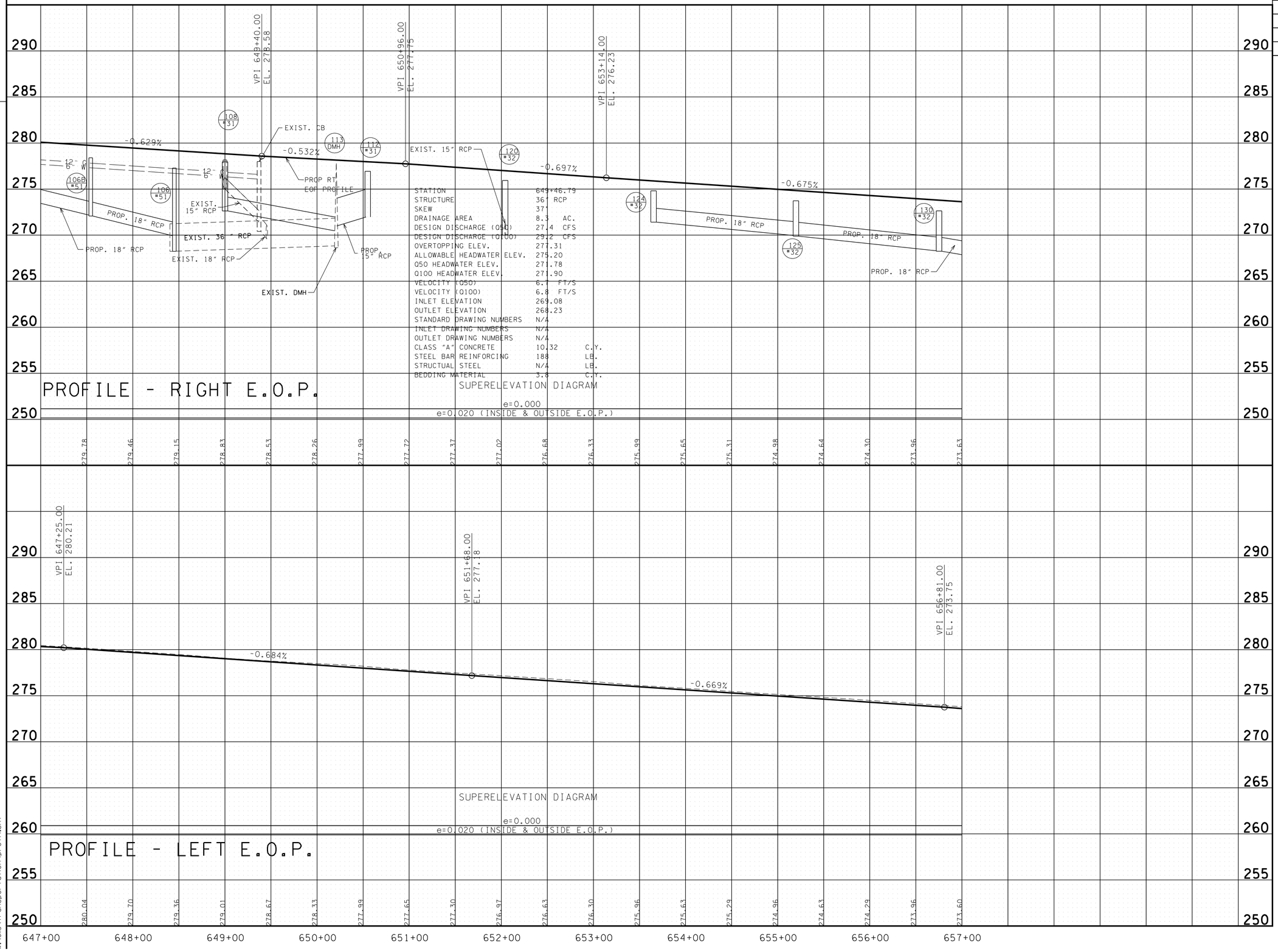
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	14B
CONST.	2010	STP-I-240(290)	14B



8/20/2010
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JOHN T. PANKEY
REGISTERED
AGRICULTURE
ENGINEER
NO. 102351
STATE OF TENNESSEE
8/23/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 647+00 TO STA. 657+00

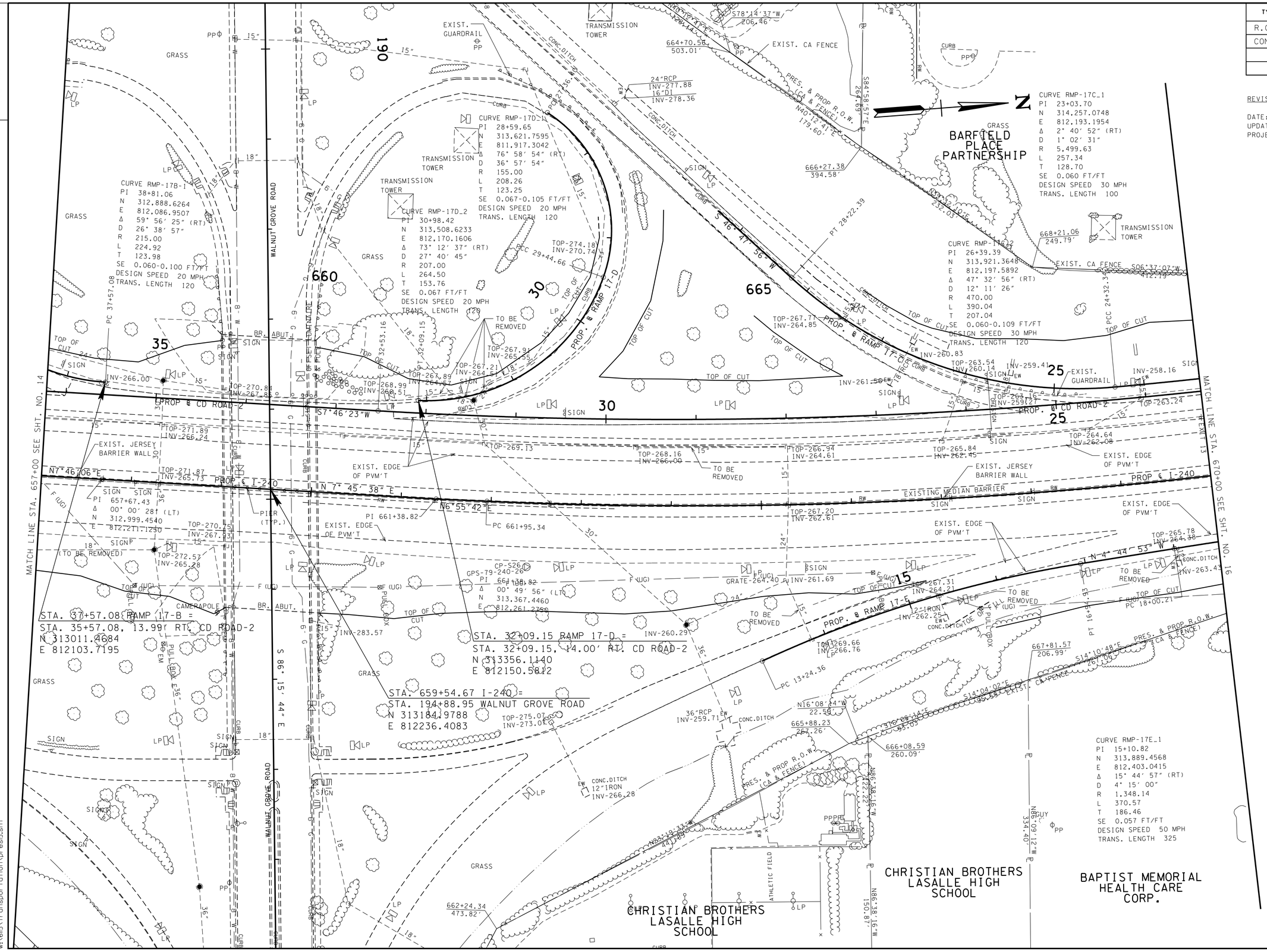
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	15
CONST.	2010	STP-I-240(290)	15

REVISIONS

DATE: 1/23/2009
UPDATED LINEWORK FROM WALNUT GROVE PROJECT.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	15A
CONST.	2010	STP-I-240(290)	15A

REVISIONS

DATE: 1/23/2009
UPDATED LINEWORK FROM WALNUT GROVE PROJECT.

MILL & OVERLAY EXIST. PAVEMENT AS DIRECTED BY THE ENGINEER. ITEM #'S 411-03.10 & 415-01.01

24"RCP INV-277.88 16"DI INV-278.36

BEGIN C & G STA. 28+75.00 OFF 8.00'

LIMIT OF CONST. 28+75.00

END C & G STA. 28+25.00 OFF 8.00'

LIMIT OF CONST. 28+25.00

TOP-274.18 INV-270.74

EX. C.B. TO REMAIN

WALNUT GROVE ROAD

PROP. ℄ RAMP 17-D

PROP. ℄ RAMP 17-C

MATCH EX. E.O.P. CD-RD2

MATCH EX. E.O.P. CD-RD1

18" RCP (TO REMAIN) INV-261.80

INV-261.01

BEGIN C & G STA. 25+22.96 OFF 8.00' INV. 257.50

INV. 259.35

15" RCP (TO REMAIN)

TOP-267.91 INV-265.55

STA. 30+80.58

STA. 28+20.92

TAPER

PROP. ℄ CD ROAD-2

PROP. MEDIAN BARRIER

TOP-263.24

QUAD GUARD TERMINAL

NOSE LOCATION
STA. 31+80.71, 15.00' LT. RAMP 17-D
STA. 31+78.74, 1.01' RT. CD ROAD-2

NOSE LOCATION
STA. 25+70.93, 11.00' RT. CD ROAD-2
STA. 25+65.89, 20.97' LT. RAMP 17-C

END PROP MEDIAN BARRIER STA. 669+48.04
73.00' LT.

MATCH LINE STA. 657+00 SEE SHT. NO. 14A

MATCH LINE STA. 670+00 SEE SHT. NO. 16A

N7°46'06"E

S7°46'23"W

N 7° 45' 38" E

N6°55'42"E

S 46° 41' 56" W

N 4° 44' 53" W

PROP. ℄ I-240

EXISTING MEDIAN BARRIER

TOP-271.87 INV-265.73

TOP-267.20 INV-262.61

INV. 268.00 DMH TO REMAIN

18" RCP

V(SOD)

V(CONC)

CONC.DITCH

S 86° 15' 44" E

STA. 37+57.08 RAMP 17-B =
STA. 35+57.08, 13.99' RT. CD ROAD-2
N 313011.4684
E 812103.7195

STA. 32+09.15 RAMP 17-D = INV-260.29
STA. 32+09.15, 14.00' RT. CD ROAD-2
N 313356.1140
E 812150.5812

STA. 659+54.67 I-240 =
STA. 194+88.95 WALNUT GROVE ROAD
N 313184.9788
E 812236.4083

TOP-275.07 INV-273.07

36"RCP INV-259.71

CONC.DITCH

12"IRON INV-266.28

PROP. NOISE WALL

LIMIT OF CONST. 15+25.00

NOSE LOCATION
STA. 18+00.35, 15.00' LT. RAMP 17-E
STA. 669+50.66, 61.00' RT. I-240

JOHN T. PANKEY
REGISTERED
AGRICULTURE
ENGINEER
COMMERCE
102358
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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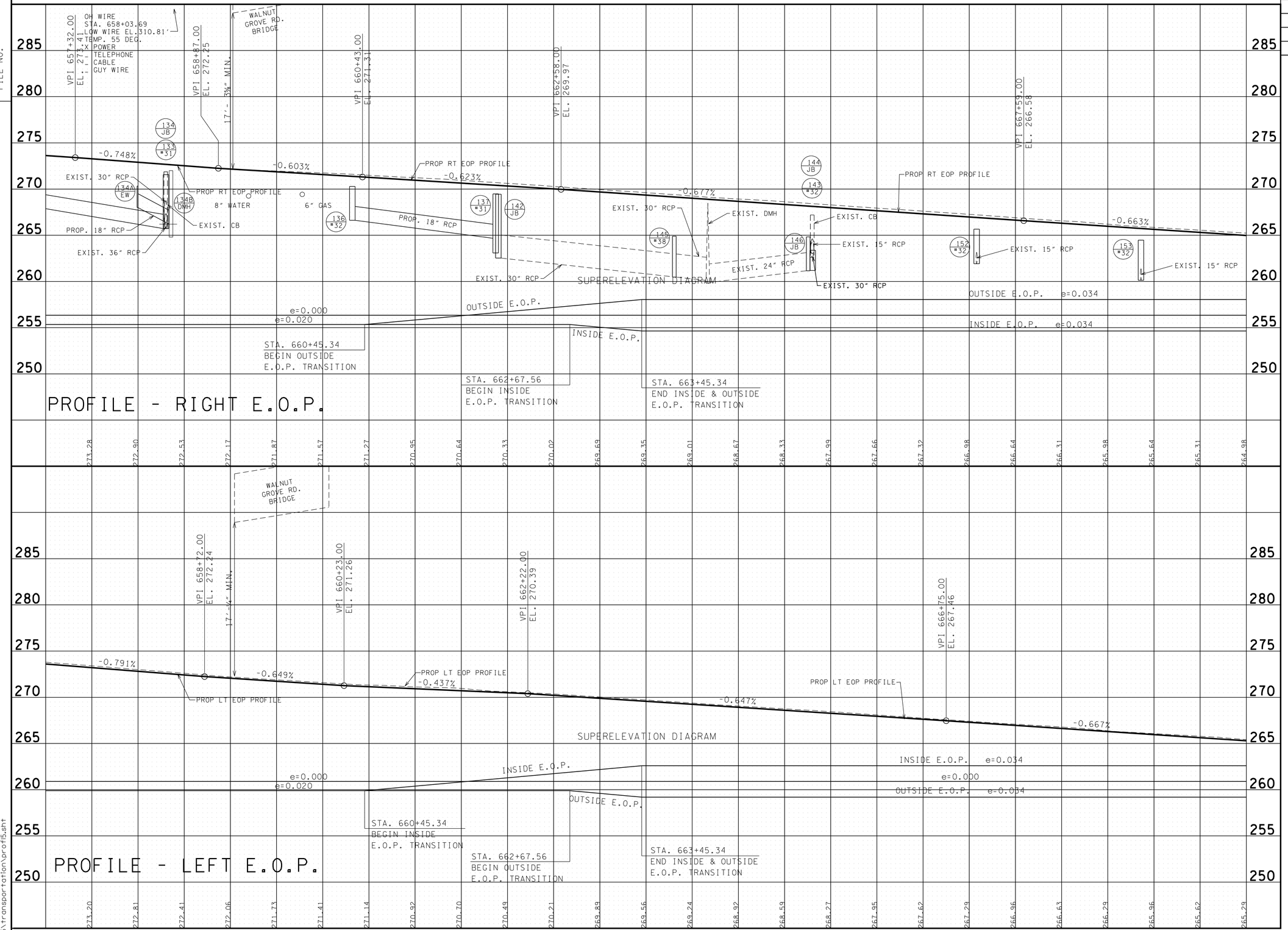
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	15B
CONST.	2010	STP-I-240(290)	15B



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 657+00 TO STA. 670+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	16
CONST.	2010	STP-I-240(290)	16

REVISIONS

DATE: 1/23/2009
ADDED LABEL FOR S-5.

BARFIELD PLACE PARTNERSHIP

ANTHONY HOOVER AND WIFE, SARA HOOVER

DAMON McKAY

NEWTON MEALER AND WIFE, NANCY MEALER

EDWARD B. CRENSHAW AND WIFE, MARY JEAN B. CRENSHAW

JEFFREY W. & MIMI R. GATLIN

SUSAN G. THURMOND

VIKTOR & GALINA BRODSKIY

CHARLES & TAMMY ELLIOT

ELLIOT BRUCE WILONS AND WIFE, ROCHELLE S. WILONS

AUDREY N. WALTERS

LEOPOLD L. BROWN AND WIFE, LORRAINE E. BROWN

BAPTIST MEMORIAL HEALTH CARE CORP.

CURVE CD-RD2-1
PI 22+83.16
N 314,292.5350
E 812,292.7130
Δ 20° 22′ 39″ (RT)
D 1° 02′ 21″
R 5,513.63
L 1,960.94
T 990.94
SE NC
DESIGN SPEED 50 MPH
TRANS. LENGTH 000

STA. 21+75.00 RAMP 17-C =
STA. 21+75.00, 14.00′ RT. CD ROAD-2
N 314385.5391
E 812185.4938

STA. 20+00.13 RAMP 17-E =
STA. 671+48.33, 72.00′ RT. I-240
N 314379.6482
E 812365.3046

CURVE RMP-17E_2
PI 18+73.65
N 314,253.3847
E 812,372.8141
Δ 1° 28′ 07″ (RT)
D 1° 00′ 00″
R 5,729.58
L 146.87
T 73.44
SE 0.057 FT/FT
DESIGN SPEED 50 MPH
TRANS. LENGTH 325

CURVE CL240_4
PI 678+34.41
N 315,050.6512
E 812,465.8111
Δ 35° 55′ 37″ (LT)
D 1° 08′ 00″
R 5,055.51
L 3,170.02
T 1,639.07
SE 0.034 FT/FT
DESIGN SPEED 60 MPH
TRANS. LENGTH 300

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 670+00 TO STA. 683+00

SCALE: 1"= 50'

JOHN T. PANKEY
REGISTERED
AGRICULTURE
ENGINEER
NO. 102351
STATE OF TENNESSEE
1-23-10

8/20/2010
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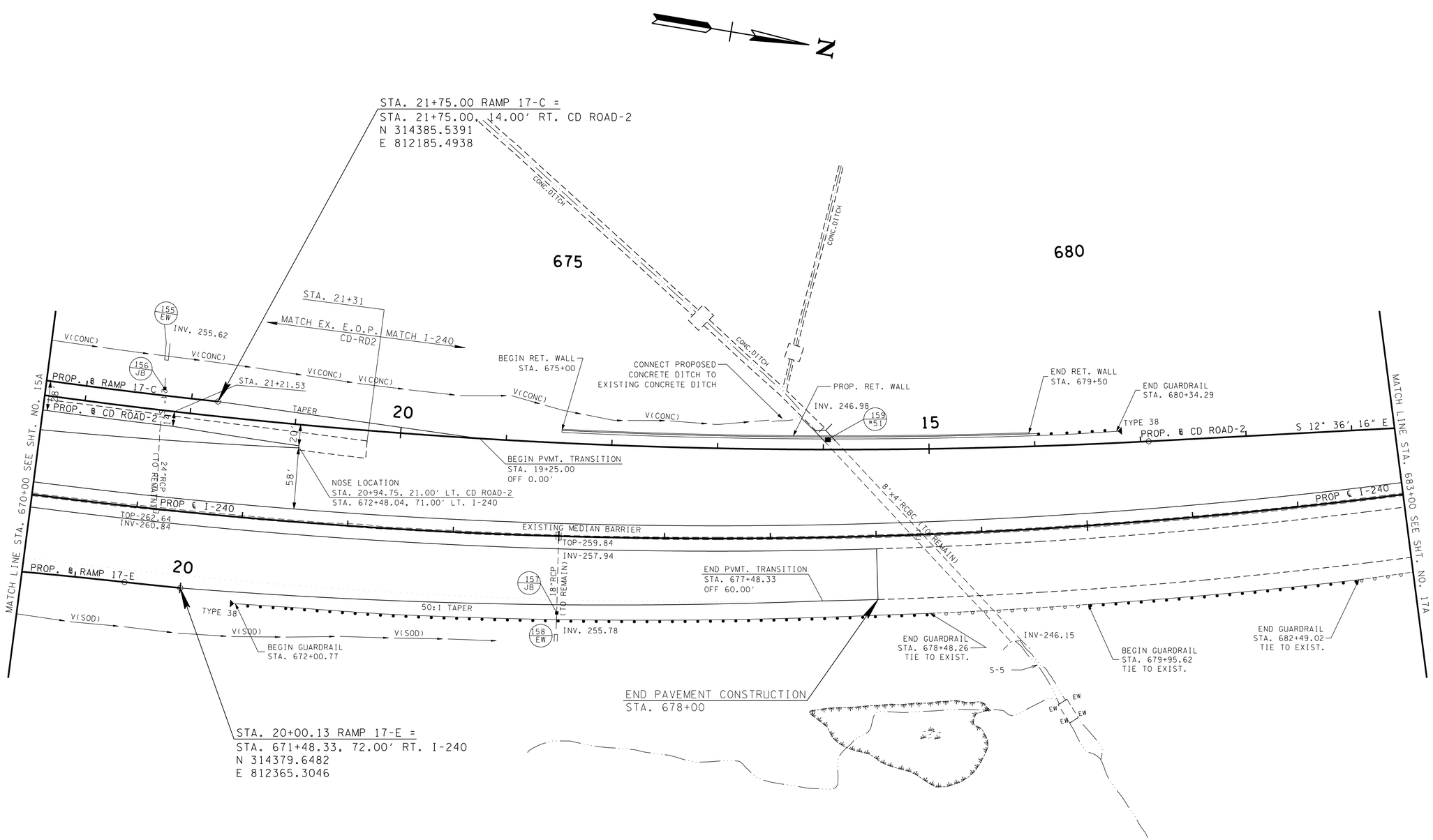
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	16A
CONST.	2010	STP-I-240(290)	16A

REVISIONS

DATE: 1/23/2009
ADDED LABEL FOR S-5.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102357
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 670+00 TO STA. 683+00

SCALE: 1"= 50'

8/20/2010
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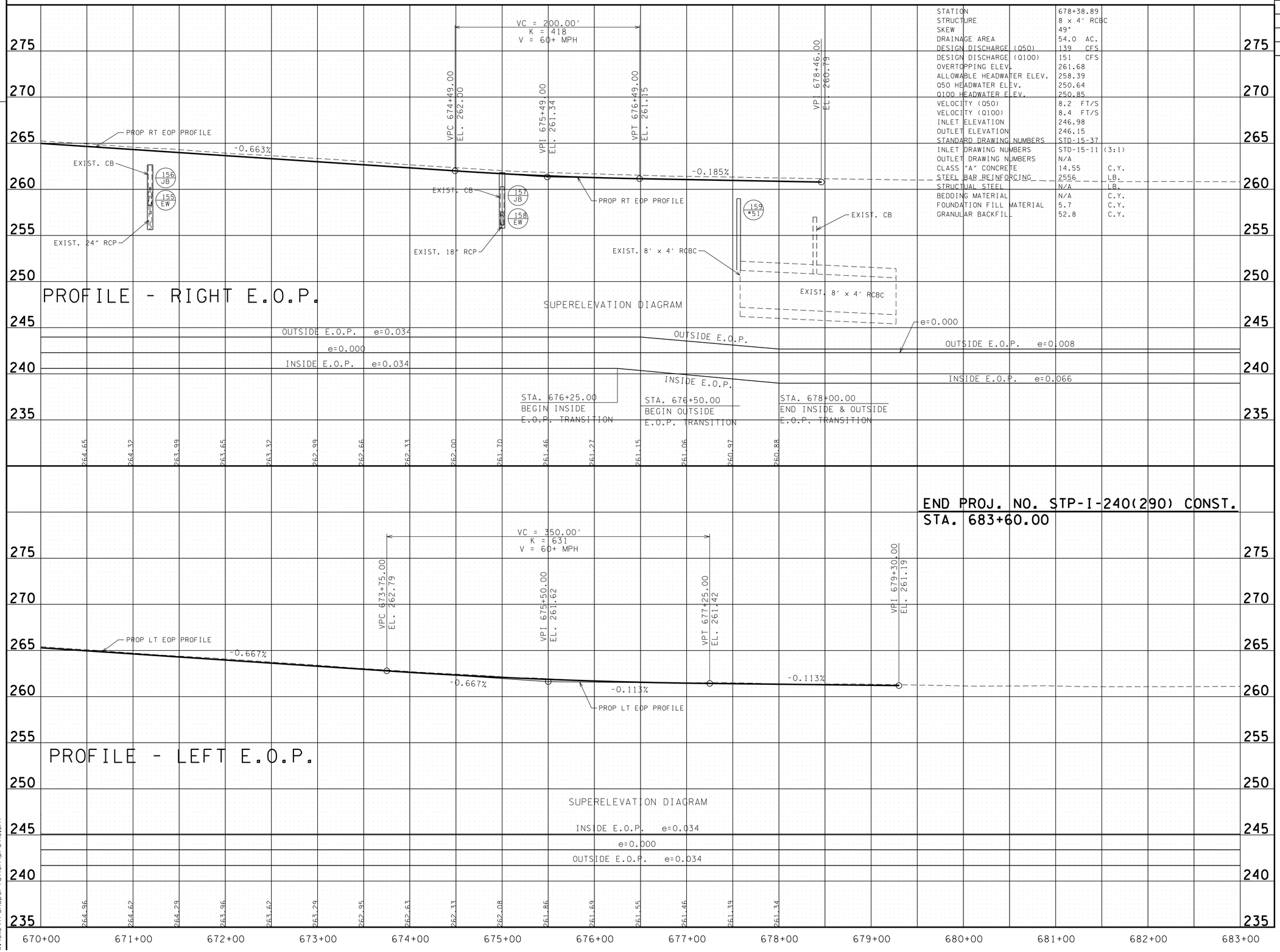
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	16B
CONST.	2010	STP-I-240(290)	16B



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NUMBER 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 670+00 TO E.O.P.

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	17
CONST.	2010	STP-I-240(290)	17

STA. 10+00.00 CD ROAD-2 =
STA. 683+60.00, 58.27' LT. I-240
N 315544.7720
E 812012.7040

N

MELVIN H. & ESTALINE T. KATZ

SUSAN S. BROOKS LIVING TRUST

AUDREY N. WALTERS

WALTER WEINSTEIN AND WIFE, ROSLYN WEINSTEIN AND CHERYL LYNN WEINSTEIN

LARRY S. WEISS AND WIFE, SUSAN J. WEISS

685

690

TRANSMISSION TOWER

POOL

SIGN

EXIST. GUARDRAIL

EXIST. EDGE OF PVM'T

EXIST. JERSEY BARRIER WALL

PROP ℄ I-240

PRES. & PROP R.O.W. (CA & FENCE)

18" RCP

MP 13

POT 694+11.02
N 316524.1720
E 811649.0750

PT 693+65.36

683+15.90
148.61'

684+33.62
148.53'

685+39.67
148.44'

686+22.10
148.36'

687+04.53
146.19'

687+91.76
146.06'

688+76.82
145.92'

689+60.09
145.78'

690+46.64
145.62'

691+31.92
145.45'

692+16.84
145.28'

693+01.64
145.09'

693+85.16
145.04'

693+02.22
154.77'

693+
154

MATCH LINE STA. 683+00 SEE SHT. NO. 16

683+25.62
149.23'

686+04.88
150.00'

686+78.26
149.68'

689+01.35
150.82'

693+55.18
152.32'

PRIVATE ACCESS ROAD

TRAIL

BB

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00003 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 683+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	17A
CONST.	2010	STP-I-240(290)	17A

STA. 10+00.00 CD ROAD-2 =
STA. 683+60.00, 58.27' LT. I-240
N 315544.7720
E 812012.7040

N

685

690

10

MATCH LINE STA. 683+00 SEE SHT. NO. 16A

PROP ℄ I-240

18" RCP

PROP ℄ I-240

N28°59'55"W

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 683+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
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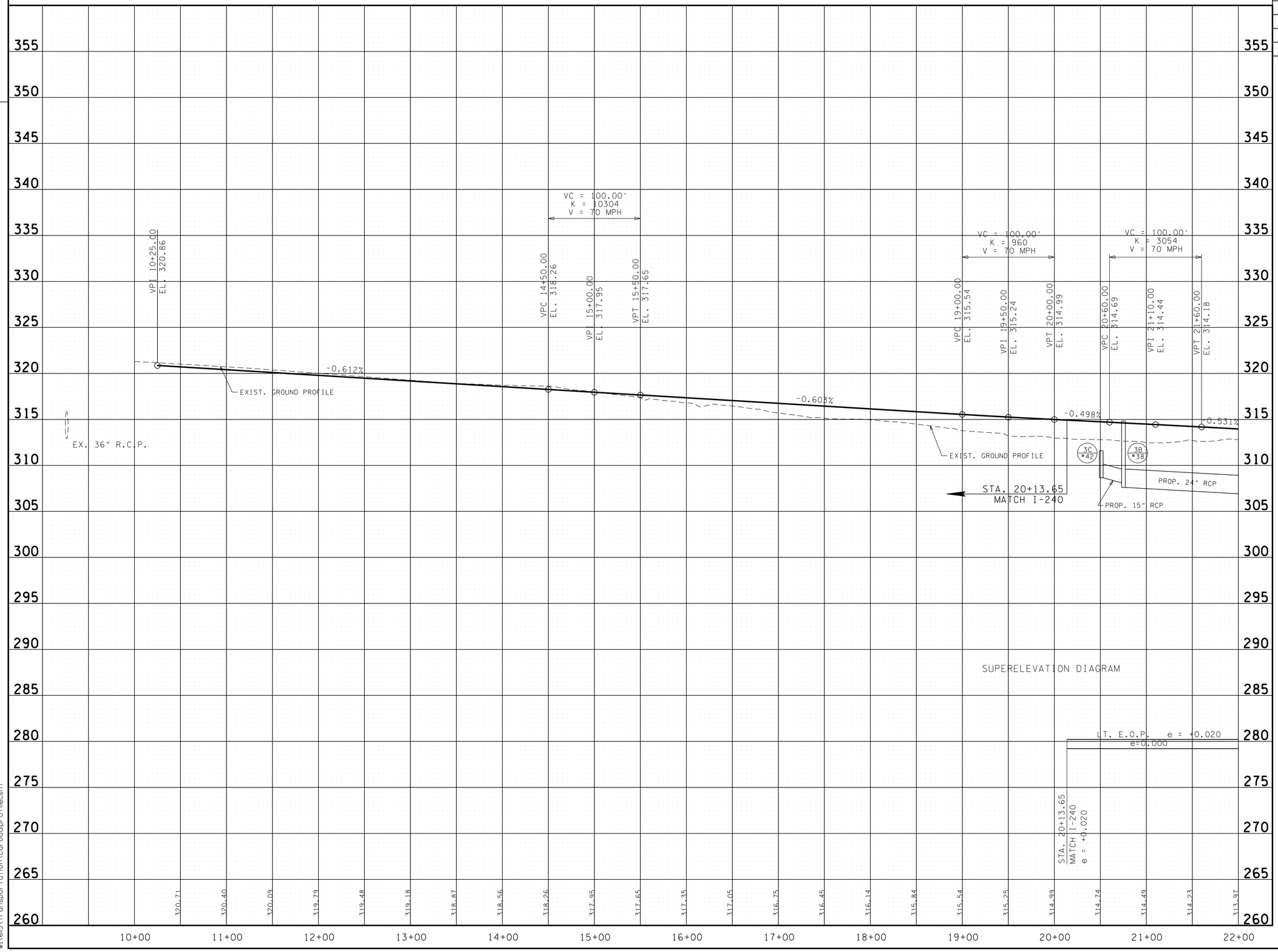
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18
CONST.	2010	STP-I-240(290)	18



JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
15823
10235
STATE OF TENNESSEE

CD ROAD-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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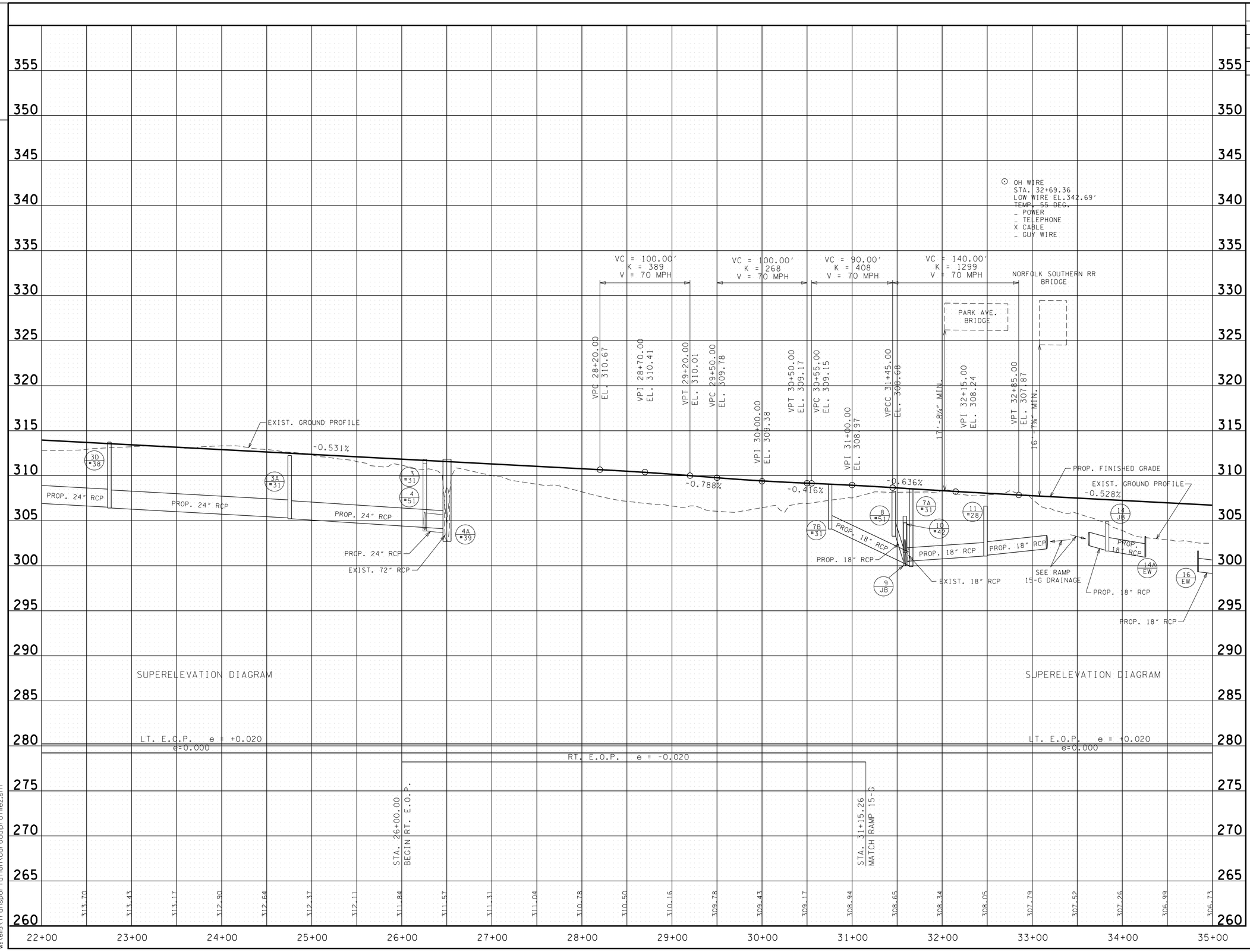
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18A
CONST.	2010	STP-I-240(290)	18A



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JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
323
NO. 102255
STATE OF TENNESSEE

CD ROAD-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18B
CONST.	2010	STP-I-240(290)	18B

OH WIRE
STA. 37+45.44
LOW WIRE EL.341.19'
TEMP. 55 DEG.
_ POWER
X TELEPHONE
_ CABLE
_ GUY WIRE

VC = 120.00'
K = 903
V = 70 MPH

VC = 60.00'
K = 301
V = 70 MPH

EASTBOUND POPLAR AVE. BRIDGE

WESTBOUND POPLAR AVE. BRIDGE

VPC 37+90.00
EL. 305.20

VPI 38+50.00
EL. 304.88

VPT 39+10.00
EL. 304.48

VPC 39+60.00
EL. 304.15

VPI 39+90.00
EL. 303.95

17'-1½" MIN.

VPT 40+20.00
EL. 303.82

VPI 44+00.00
EL. 302.06

VPC 46+75.00
EL. 300.66

17'-3½" MIN.

PROP. FINISHED GRADE

-0.528%

-0.661%

-0.462%

-0.508%

SEE RAMP 15-H DRAINAGE

SEE RAMP 15-F DRAINAGE

EXIST. GROUND PROFILE

PROP. 18" RCP

EXIST. 18" RCP

EXIST. 72" RCP

17 JB

18 #31

18A #31

18B JB

18C #31

29 #28

30 JB

30A #31

31 #28

30B #31

30C #31

30D #32

30E EW

37 EW

38 #41

38A #41

SUPERELEVATION DIAGRAM

LT. E.O.P. e = +0.020
e=0.000

RT. E.O.P. e = -0.020

STA. 37+69.18
MATCH RAMP 15-H

STA. 40+53.70
MATCH RAMP 15-F

306.47 306.20 305.94 305.67 305.41 305.14 304.86 304.55 304.22 303.92 303.68 303.45 303.22 302.98 302.75 302.52 302.29 302.06 301.81 301.55 301.30 301.04 300.79 300.56 300.46 300.54

35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00

355 350 345 340 335 330 325 320 315 310 305 300 295 290 285 280 275 270 265 260

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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE

CD ROAD-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18C
CONST.	2010	STP-I-240(290)	18C

OH WIRE
STA. 48+80.80
LOW WIRE EL. 330.50'
TEMP. 55 DEG.
X POWER
- TELEPHONE
- CABLE
- GUY WIRE

VC = 430.00'
K = 153
V = 60 MPH

VC = 580.00'
K = 290
V = 70 MPH

WESTBOUND POPLAR AVE. BRIDGE

17'-3¾" MIN.

VPI 48+90.00
EL. 299.57

VPT 51+05.00
EL. 304.49

VPI 53+00.00
EL. 308.96

VPC 54+70.00
EL. 312.74

VPI 57+60.00
EL. 319.19

VPCC 60+50.00
EL. 319.85

PROP. FINISHED GRADE

EXIST. GROUND PROFILE

2.224%

2.290%

0.228%

-0.508%

PROP. 18" RCP

EXIST. 15" RCP

EXIST. DMH

EXIST. 48" RCP

EXIST. 42" RCP

43 #41
43A #31
43C #32
46 #32
46A #31
47A #41
47B #42
47C #42
54 #31
54A #31
54B #31
55 #51
55A #51
55B #51
56 EW

SUPERELEVATION DIAGRAM

LT. E.O.P. e = +0.020
e=0.000

RT. E.O.P. e = -0.020

STA. 54+45.64
MATCH RAMP 15

STA. 58+51.96
END RT. E.O.P.

355 350 345 340 335 330 325 320 315 310 305 300 295 290 285 280 275 270 265 260

300.77 301.17 301.73 302.45 303.33 304.38 305.52 306.67 307.81 308.96 310.07 311.18 312.30 313.39 314.41 315.34 316.19 316.95 317.62 318.21 318.71 319.12 319.45 319.69 319.85 319.92

48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
8-23-10
STATE OF TENNESSEE

CD ROAD-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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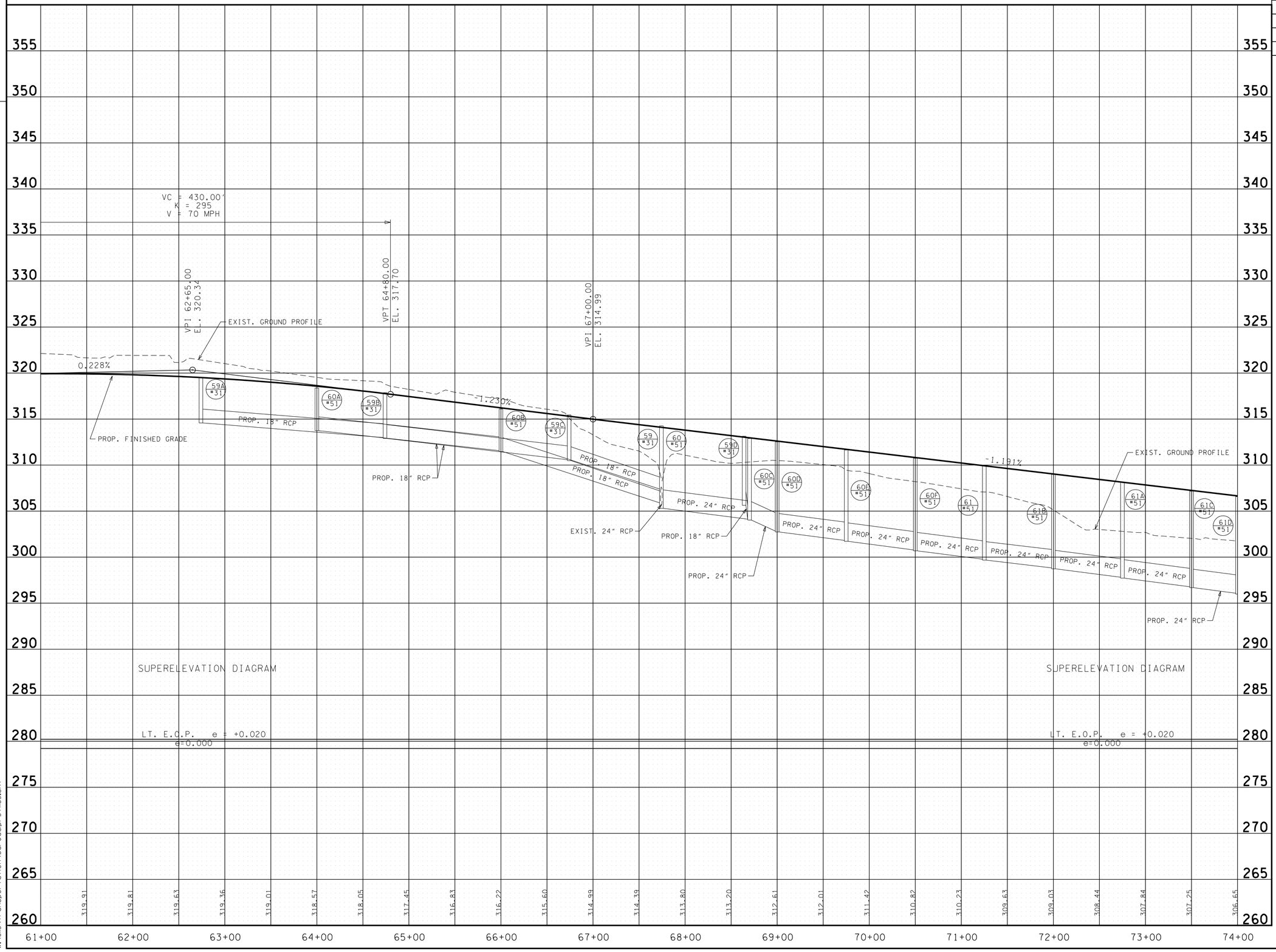
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18D
CONST.	2010	STP-I-240(290)	18D



JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
8-23-10
NO. 102355
STATE OF TENNESSEE

CD ROAD-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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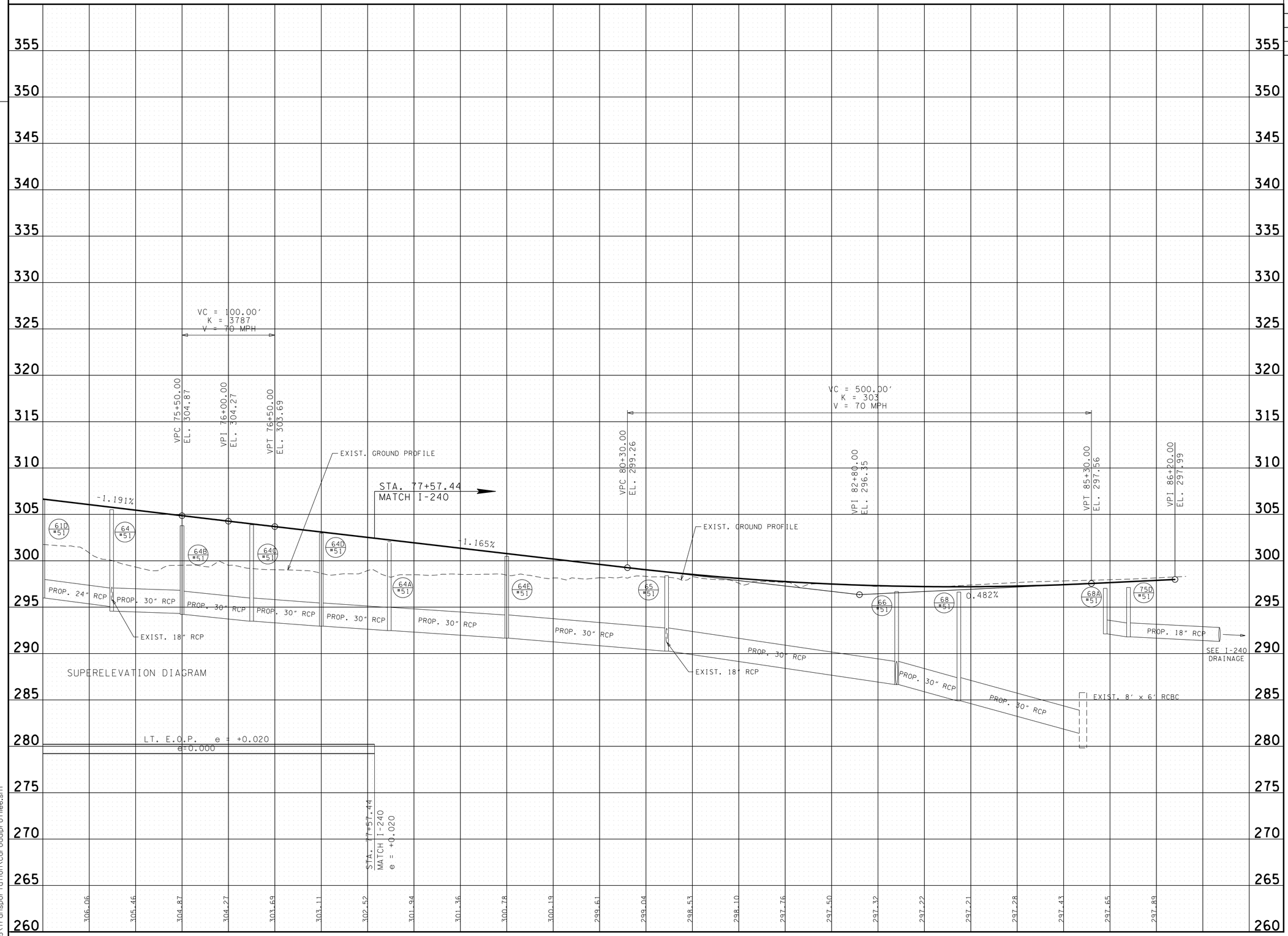
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18E
CONST.	2010	STP-I-240(290)	18E



JOHN T. PANEVINO
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

CD ROAD-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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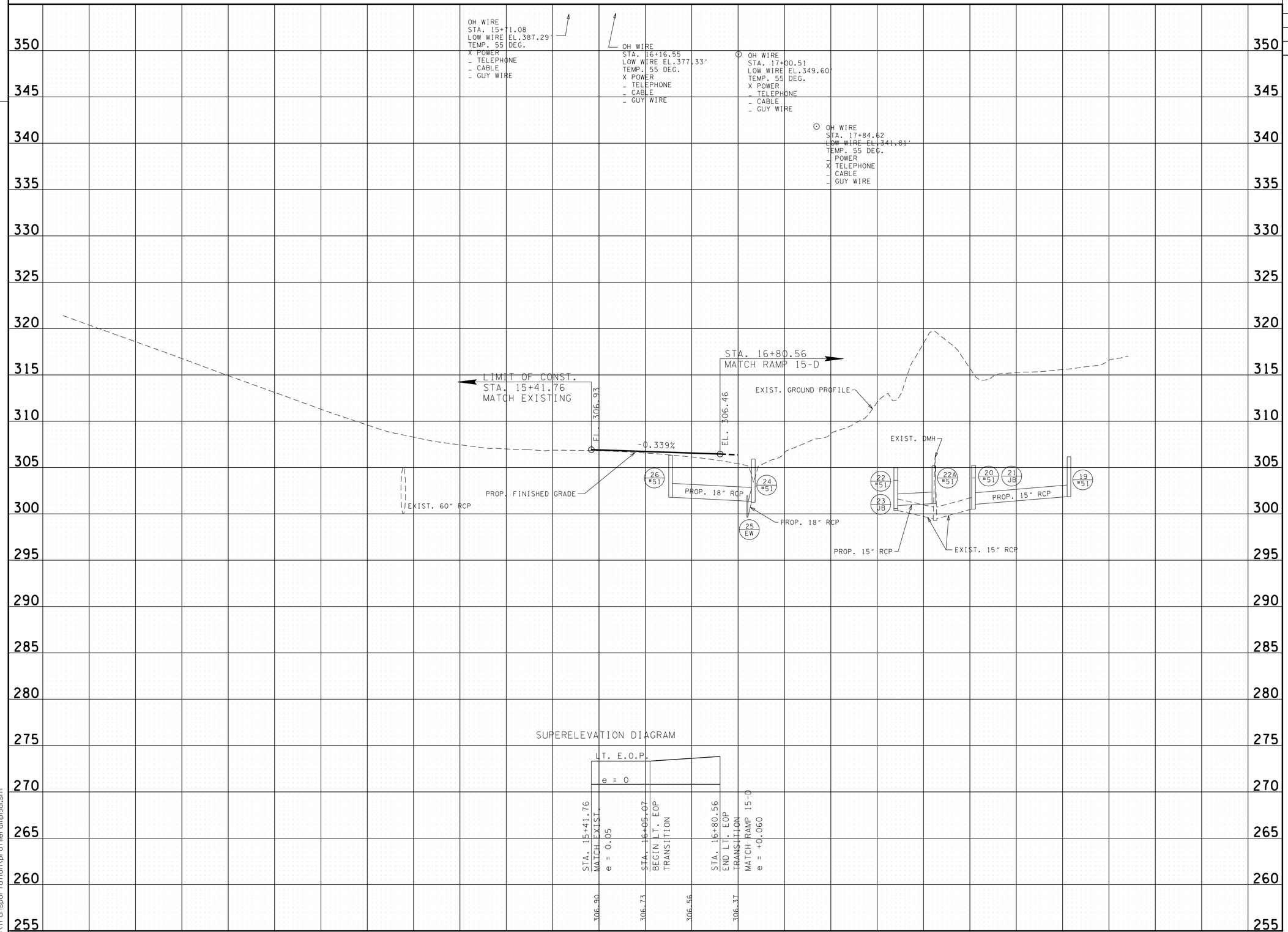
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18F
CONST.	2010	STP-I-240(290)	18F



JOHN T. PANFEY
REGISTERED
LANDSCAPE
ARCHITECT
AGRICULTURE
No. 102357
STATE OF TENNESSEE
8-23-10

RAMP 15-A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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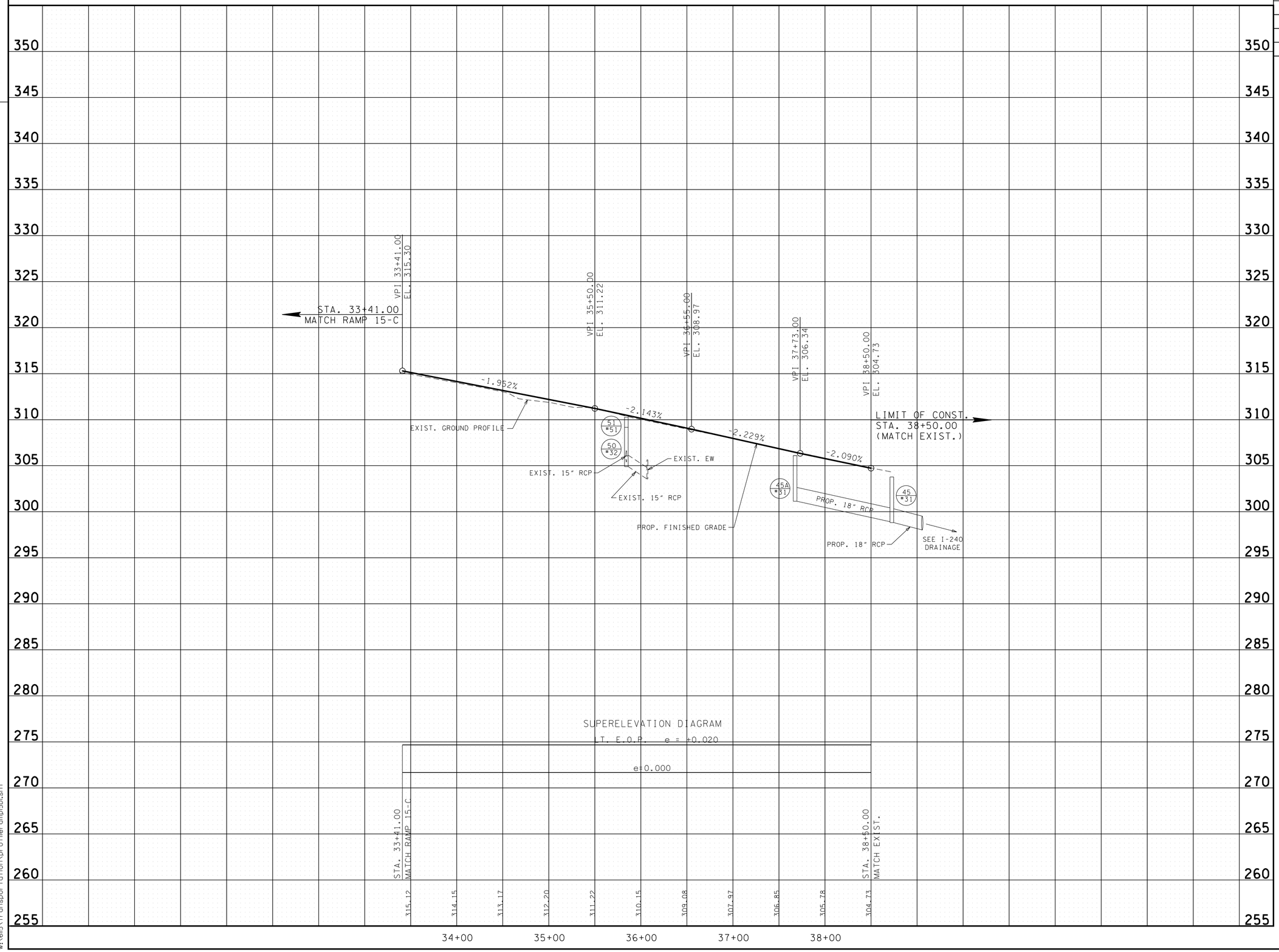
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18G
CONST.	2010	STP-I-240(290)	18G



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JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
10251
8-23-10
STATE OF TENNESSEE

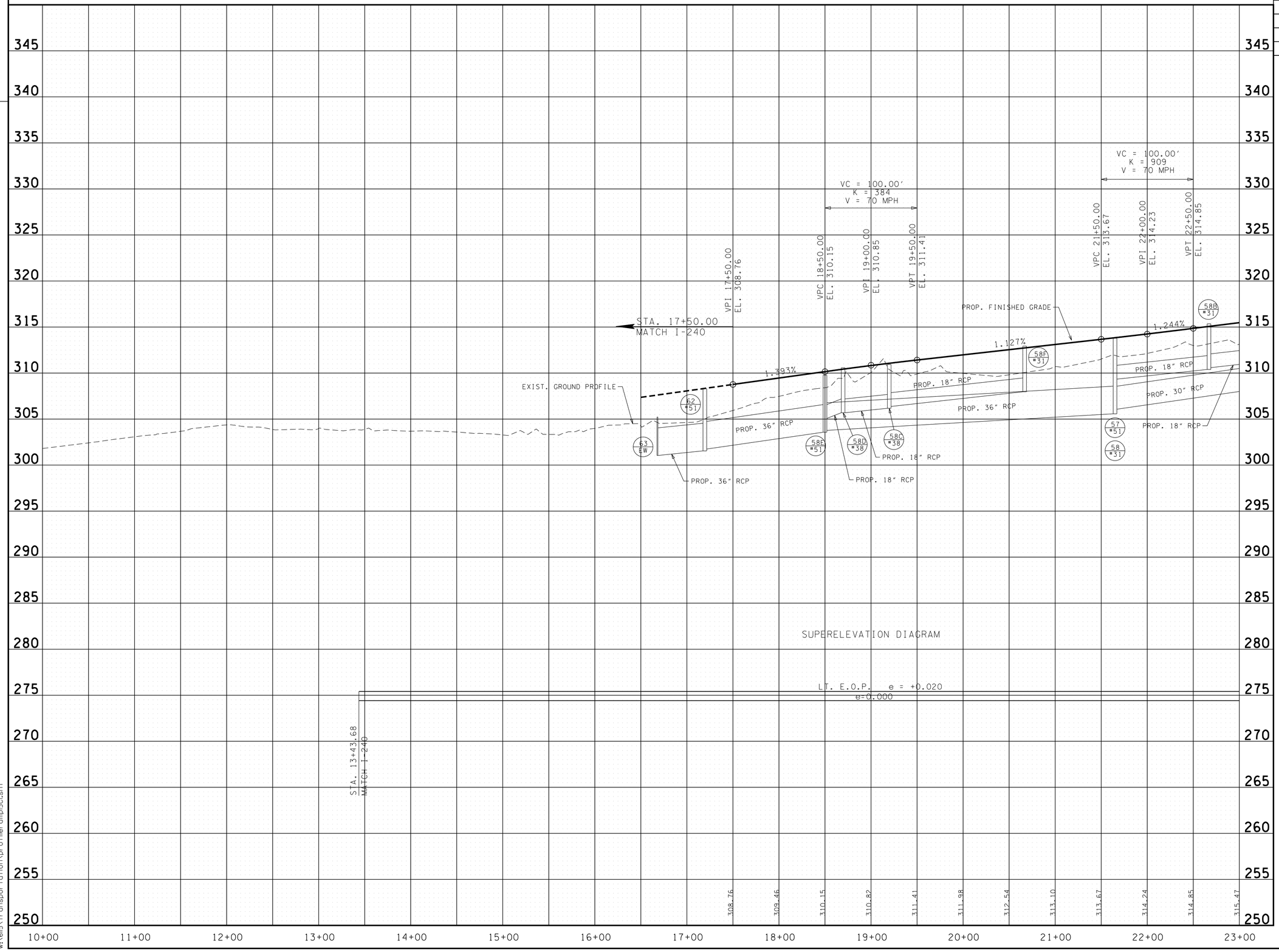
RAMP 15-B

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18H
CONST.	2010	STP-I-240(290)	18H



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JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
10251
STATE OF TENNESSEE
8-23-10

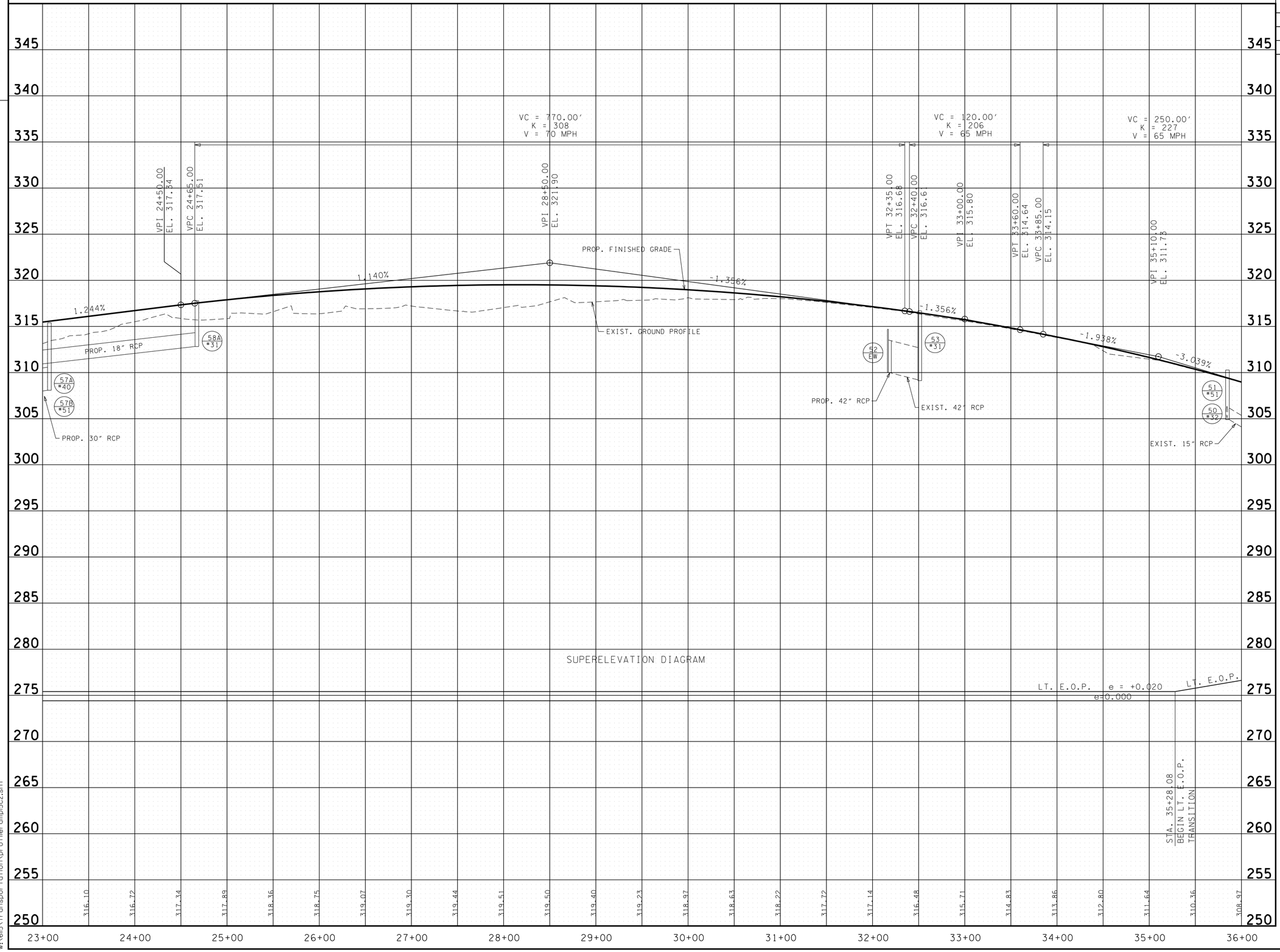
RAMP 15-C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18-I
CONST.	2010	STP-I-240(290)	18-I



SUPERELEVATION DIAGRAM

RAMP 15-C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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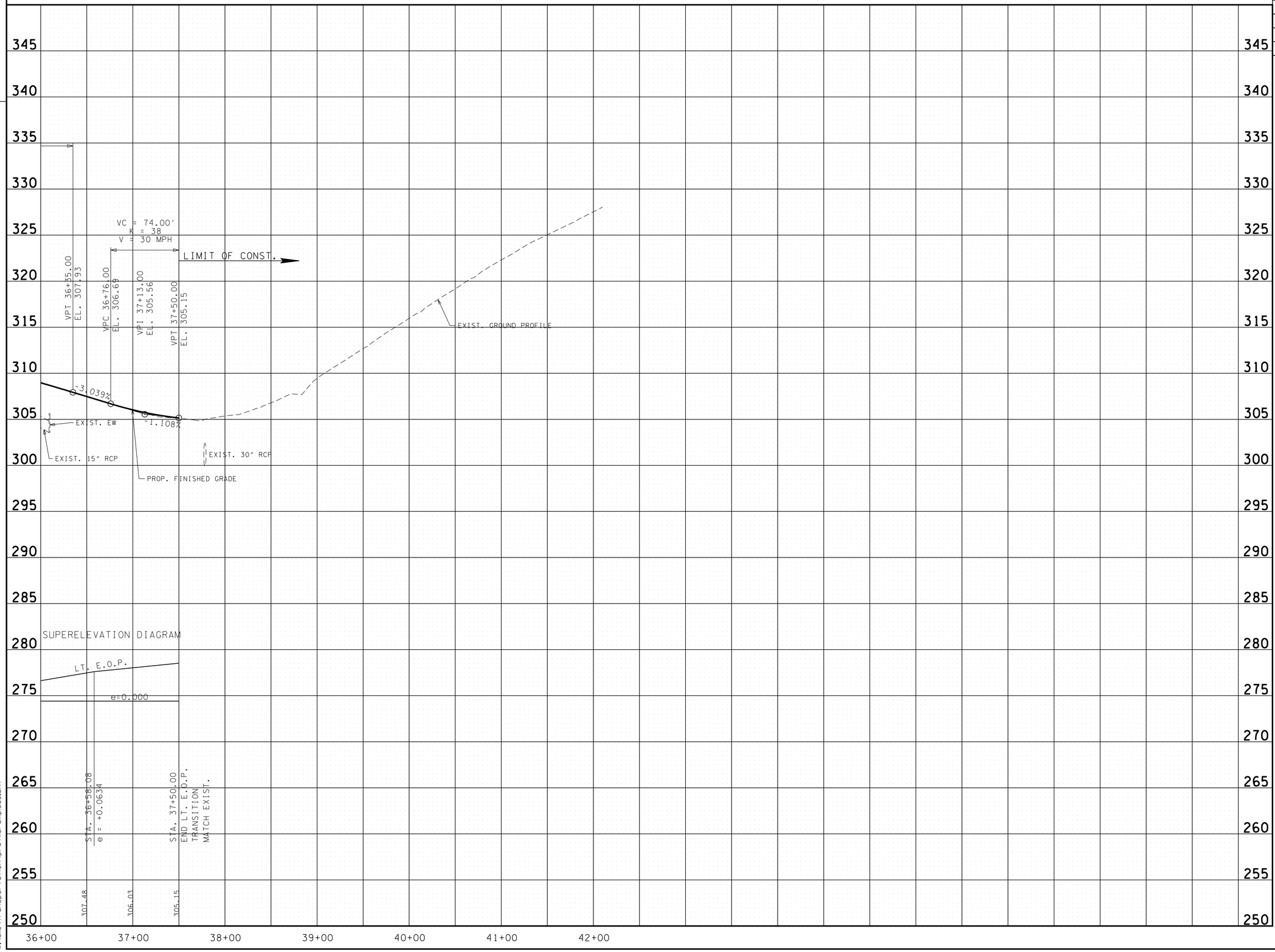
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18J
CONST.	2010	STP-I-240(290)	18J



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RAMP 15-C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18K
CONST.	2010	STP-I-240(290)	18K

OH WIRE
STA. 15+66.93
LOW WIRE EL.387.29'
TEMP. 55 DEG.
X POWER
_ TELEPHONE
_ CABLE
_ GUY WIRE

OH WIRE
STA. 16+13.33
LOW WIRE EL.377.33'
TEMP. 55 DEG.
X POWER
_ TELEPHONE
_ CABLE
_ GUY WIRE

OH WIRE
STA. 16+98.64
LOW WIRE EL.349.60'
TEMP. 55 DEG.
X POWER
_ TELEPHONE
_ CABLE
_ GUY WIRE

OH WIRE
STA. 17+83.66
LOW WIRE EL.341.81'
TEMP. 55 DEG.
_ POWER
X TELEPHONE
_ CABLE
_ GUY WIRE

EASTBOUND POPLAR AVE. BRIDGE

NORFOLK SOUTHERN RR BRIDGE

PARK BRI

VC = 100.00'
K = 146
V = 55 MPH

VC = 180.00'
K = 97
V = 50 MPH

VC = 50.00'
K = 124
V = 55 MPH

VC = 100.00'
K = 164
V = 60 MPH

VC = 100.00'
K = 1240
V = 70 MPH

STA. 15+68.07
BEGIN FULL DEPTH CONSTRUCTION

OVERLAY PVMT. TO MEET PROPOSED e VALUE
MATCH EXIST. ℄ ELEVATION
SEE SUPERELEVATION DIAGRAM

STA. 12+64.09
MATCH EXISTING

EXIST. GROUND PROFILE

VPI 15+68.07
EL. 307.67

VPC 16+50.00
EL. 307.31

VPI 17+00.00
EL. 307.09

VPT 17+50.00
EL. 306.52

VPC 17+80.00
EL. 306.18

VPI 18+70.00
EL. 305.17

VPT 19+60.00
EL. 305.82

VPC 20+35.00
EL. 306.36

VPI 20+60.00
EL. 306.54

VPT 20+85.00
EL. 306.82

VPC 21+20.00
EL. 307.21

VPI 21+70.00
EL. 307.78

17'-2¾" MIN.

VPT 22+20.00
EL. 308.03

VPC 22+50.00
EL. 308.19

8'-5" MIN.

VPI 23+00.00
EL. 308.44

-0.443%

-1.128%

0.721%

1.125%

0.513%

EXIST. DMH

EXIST. 60" RCP

PROP. 18" RCP

PROP. 18" RCP

PROP. 15" RCP

PROP. 15" RCP

EXIST. 15" RCP

SUPERELEVATION DIAGRAM

e = +0.060 LT. E.O.P.

e=0.000

e=0.000

e = -0.060 RT. E.O.P.

e = +0.020
e=0.000

LT. E.O.P.

LT. E.O.P.

STA. 12+64.09
BEGIN LT. E.O.P.
TRANSITION
MATCH EXIST. e

STA. 16+01.63

STA. 16+78.41

STA. 20+71.03
BEGIN E.C.P.
TRANSITION

STA. 21+21.03
END RT. E.O.P.

STA. 21+71.03
END LT. E.O.P.
TRANSITION

SEE RAMP 15-A SUPERELEVATION DIAGRAM FOR RT. E.O.P. e

307.53 307.31 307.00 306.52 305.98 305.65 305.57 305.75 306.11 306.48 306.99 307.52 307.92 308.19 308.45

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NUMBER 102351
STATE OF TENNESSEE

RAMP 15-D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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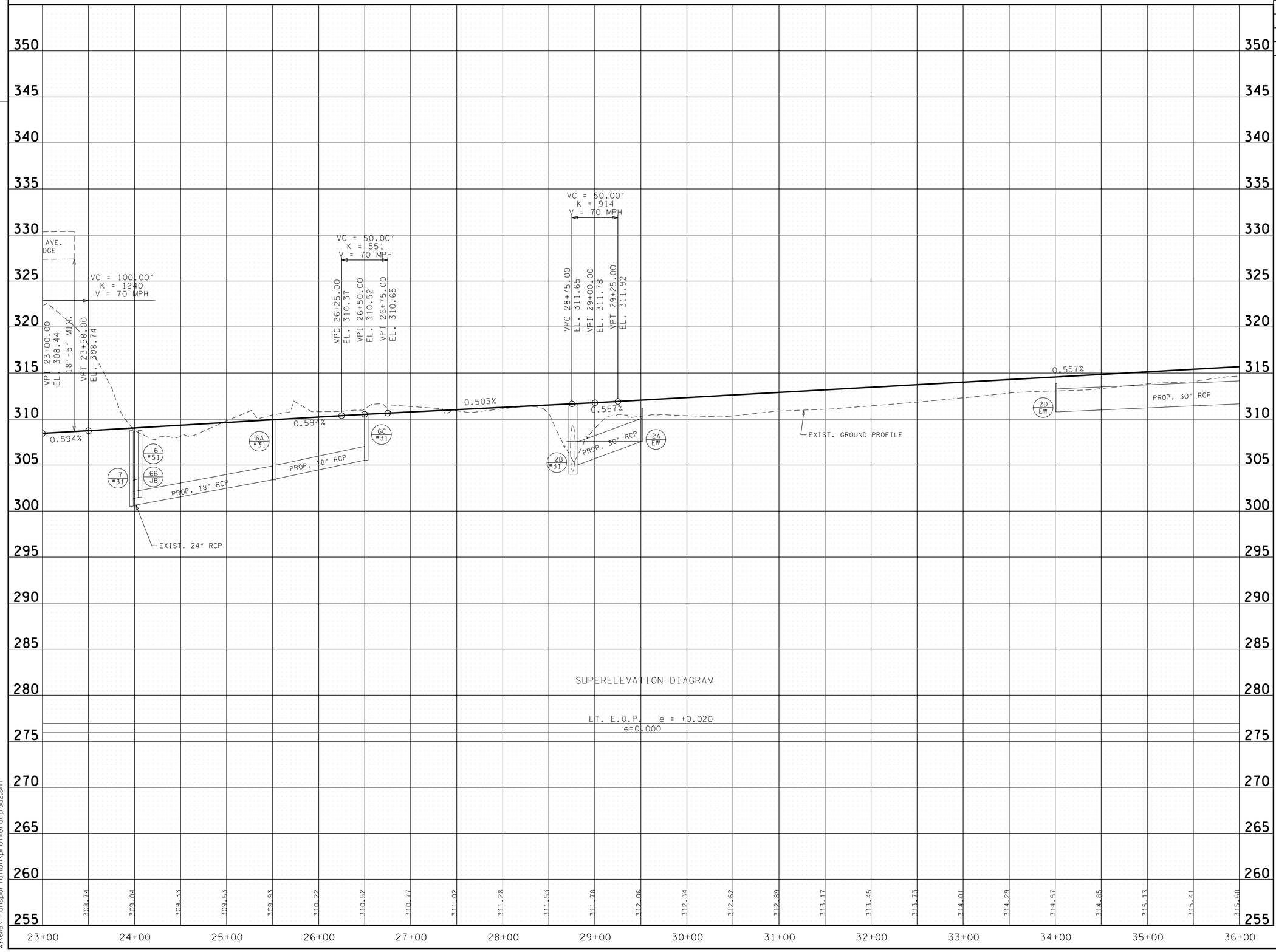
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18L
CONST.	2010	STP-I-240(290)	18L



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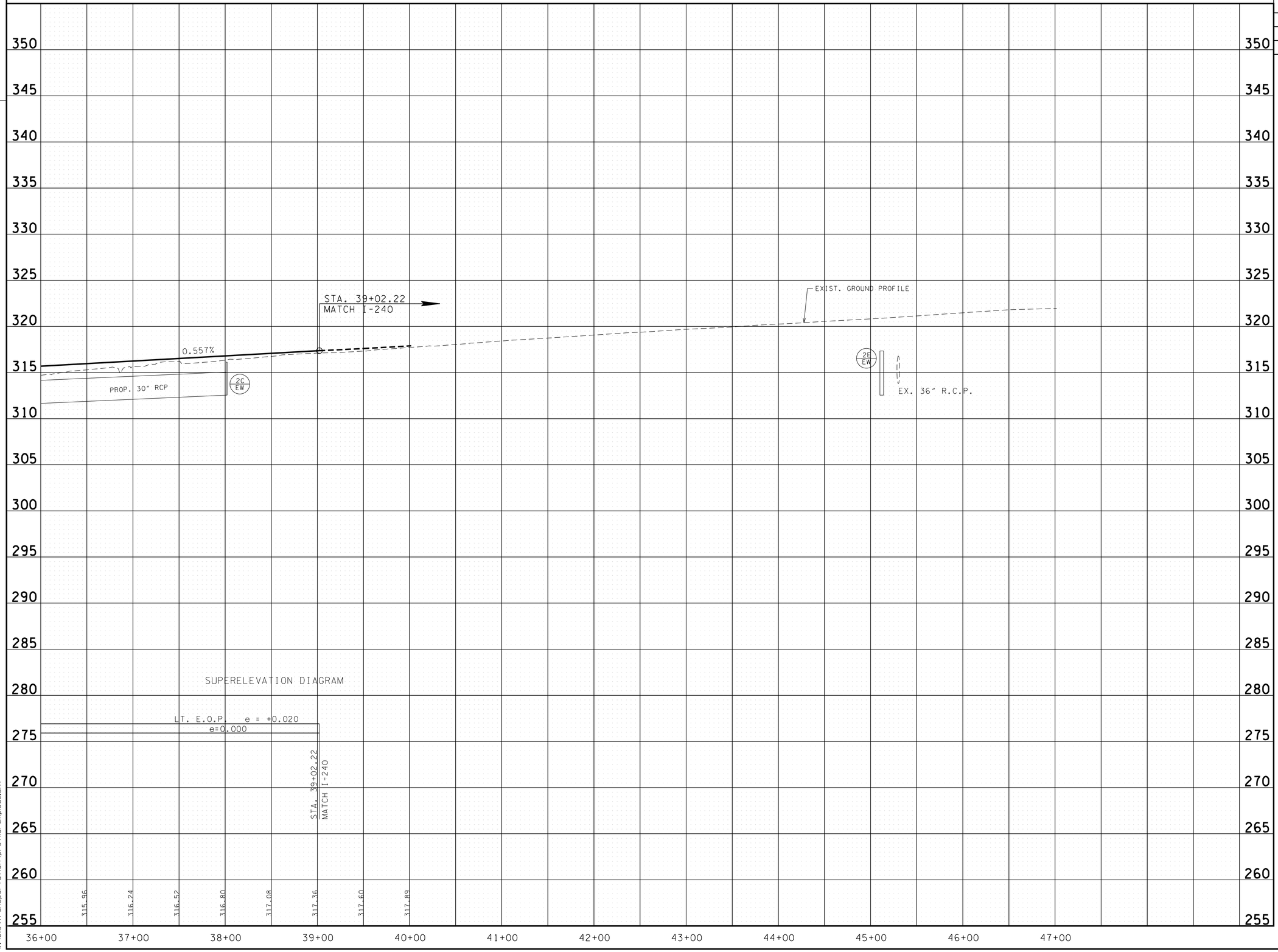
RAMP 15-D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18M
CONST.	2010	STP-I-240(290)	18M



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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

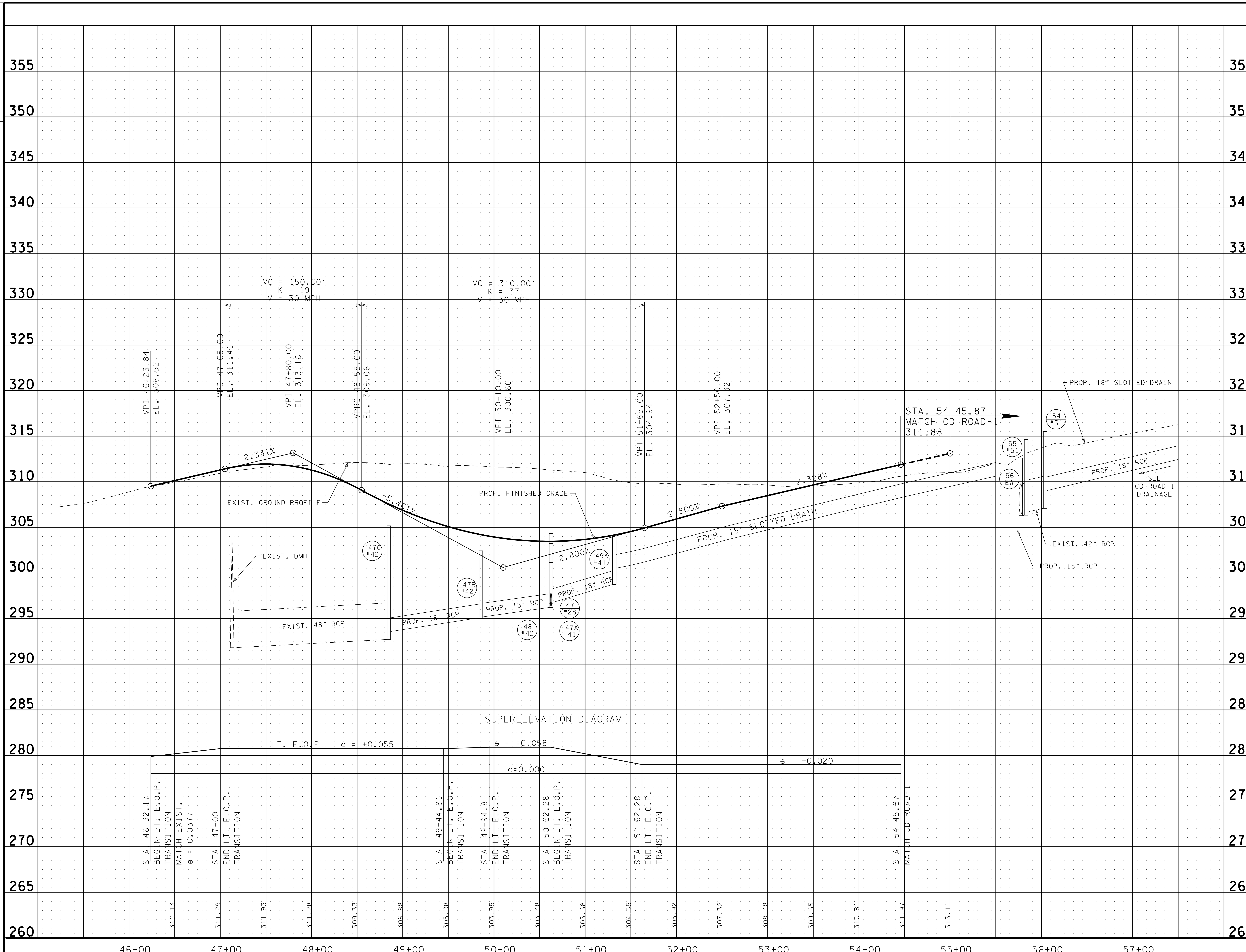
RAMP 15-D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18N
CONST.	2010	STP-I-240(290)	18N

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



JOHN T. PANKEY
STATE OF TENNESSEE

RAMP 15-E

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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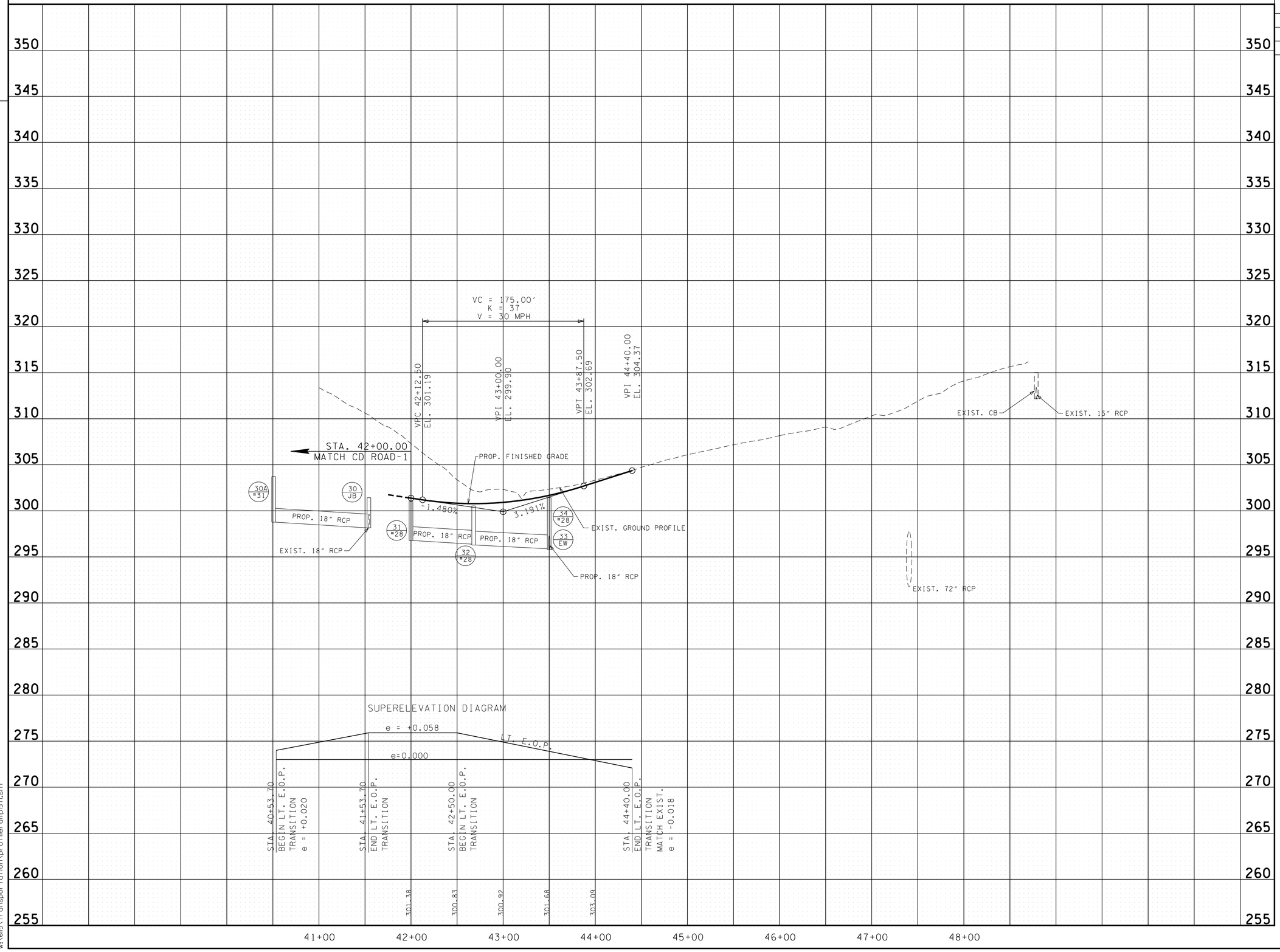
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18-0
CONST.	2010	STP-I-240(290)	18-0



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

RAMP 15-F

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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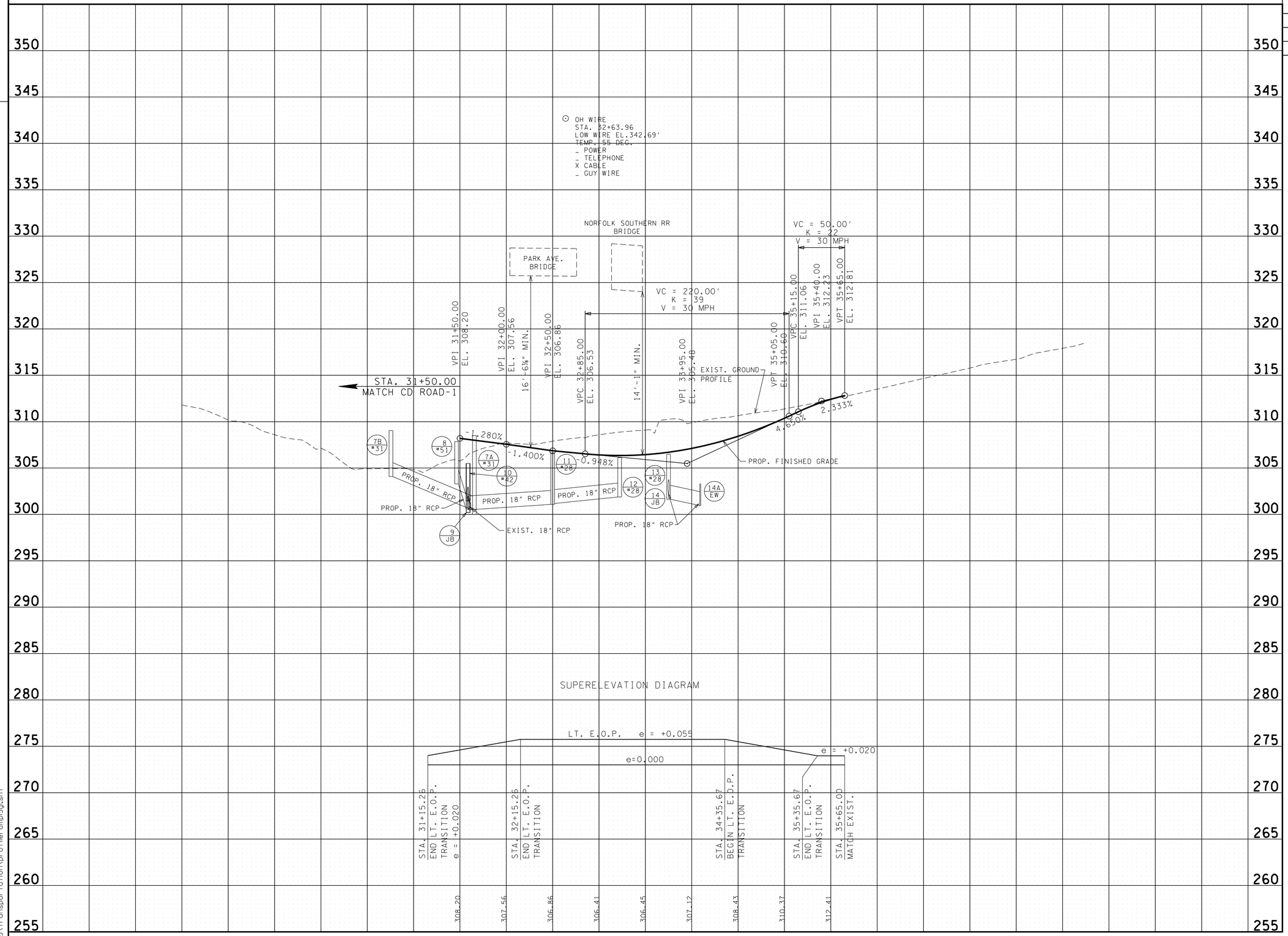
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18P
CONST.	2010	STP-I-240(290)	18P



SUPERELEVATION DIAGRAM

29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00

JOHN T. PANKEY
REGISTERED
AGRICULTURE
NUMBER
10235
STATE OF TENNESSEE
8-23-10

RAMP 15-G

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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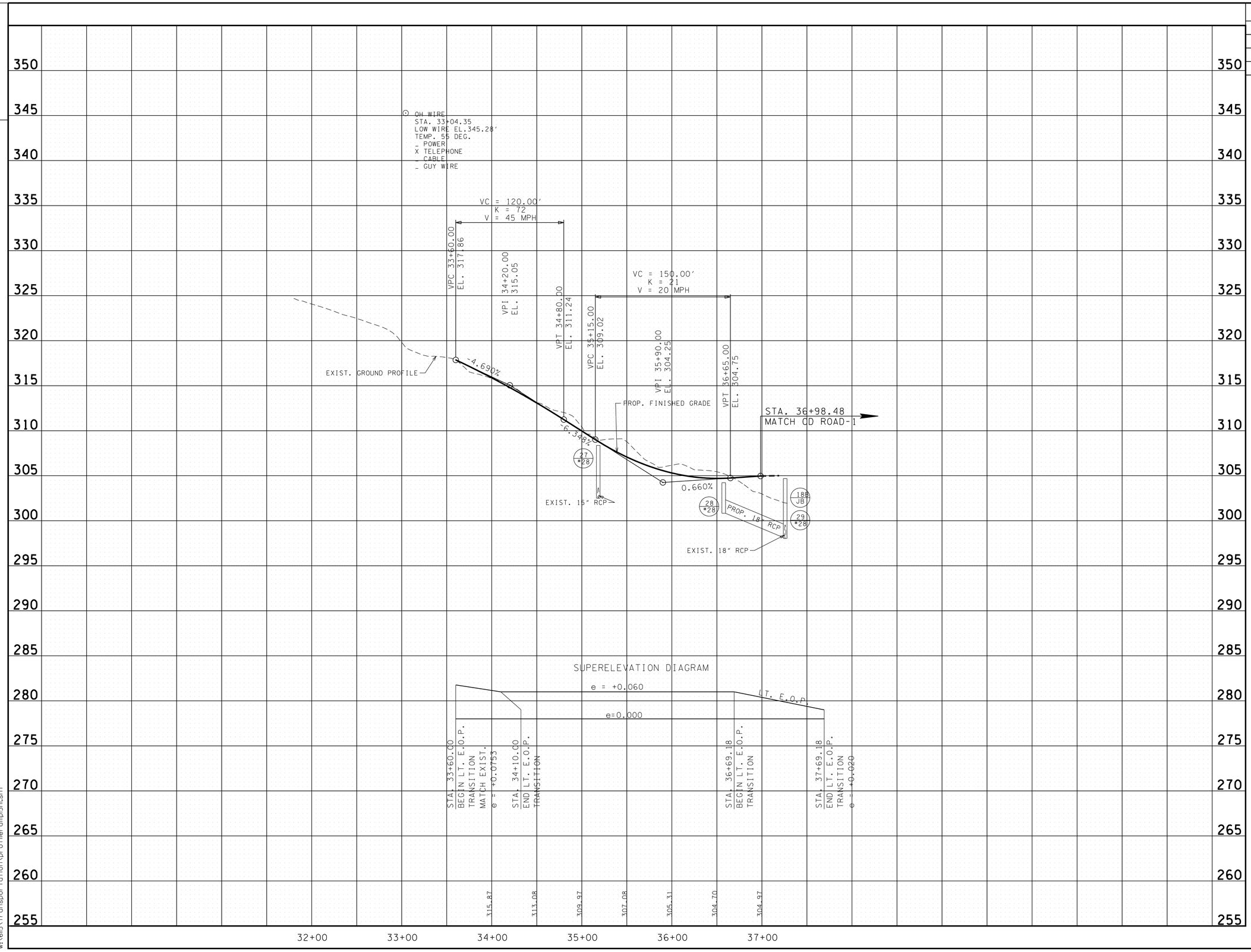
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	180
CONST.	2010	STP-I-240(290)	180



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
8-23-10
STATE OF TENNESSEE

RAMP 15-H

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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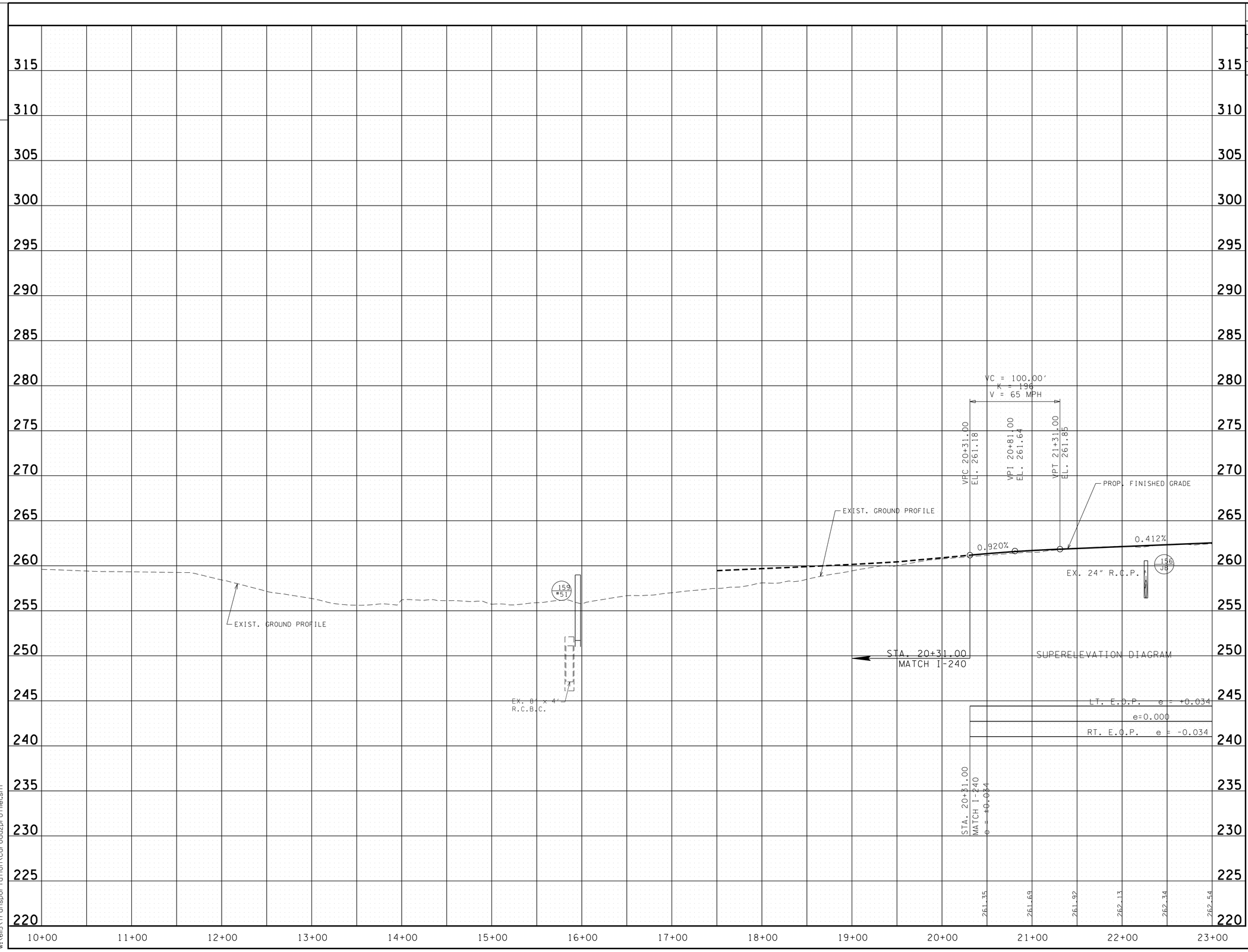
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18R
CONST.	2010	STP-I-240(290)	18R



8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

CD ROAD-2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18S
CONST.	2010	STP-I-240(290)	18S

OH WIRE
STA. 35+18.20
LOW WIRE EL.310.81' ⊙
TEMP. 55 DEG.
X POWER
⊥ TELEPHONE
⊥ CABLE
⊥ GUY WIRE

WALNUT GROVE RD. BRIDGE

VPI 23+31.00
EL. 262.67

VPI 26+40.00
EL. 266.10

VPI 31+86.00
EL. 269.90

VPI 33+46.00
EL. 271.30

VPI 34+99.00
EL. 272.29

16'-6¼" MIN.

1.110%
0.696%
0.875%
0.647%
0.746%

PROP. FINISHED GRADE
EXIST. GROUND PROFILE
EX. 30" R.C.P.
PROP. FINISHED GRADE
EXIST. GROUND PROFILE

154A JB
154 EW
EX. 15" R.C.P.
EX. 15" R.C.P.

139 #28
138 #28
135 #28
132 JB
131 DMH

18" RCP @ 2.18%
18" RCP @ 0.60%
EX. 30" R.C.P.
24" RCP @ 0.70%
24" RCP @ 0.50%

NOTE:
PROFILE MATCHES
EXISTING CD-RD2.

SUPERELEVATION DIAGRAM

LT. E.O.P. e = +0.034
e=0.000
RT. E.O.P. e = -0.034

LT. E.O.P. e=0.022
e=0.000

LT. E.O.P. e = +0.020
e=0.000
RT. E.O.P. e = -0.020

STA. 24+80.00
BEGIN LT. E.O.P.
TRANSITION

STA. 25+60.00
END LT. E.O.P.
TRANSITION

STA. 32+48.16
BEGIN LT. EOP
TRANSITION

STA. 32+58.16
END LT. EOP
TRANSITION

STA. 32+70.70
MATCH RAMP 17-D

STA. 35+18.08
MATCH RAMP 17-B

315 310 305 300 295 290 285 280 275 270 265 260 255 250 245 240 235 230 225 220

262.88 263.44 263.99 264.55 265.10 265.66 266.17 266.52 266.87 267.21 267.56 267.91 268.26 268.61 268.95 269.30 269.65 270.02 270.46 270.90 271.33 271.65 271.97 272.30 272.67 273.04

23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00

JOHN T. PANKEY JR.
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-2-10

CD ROAD-2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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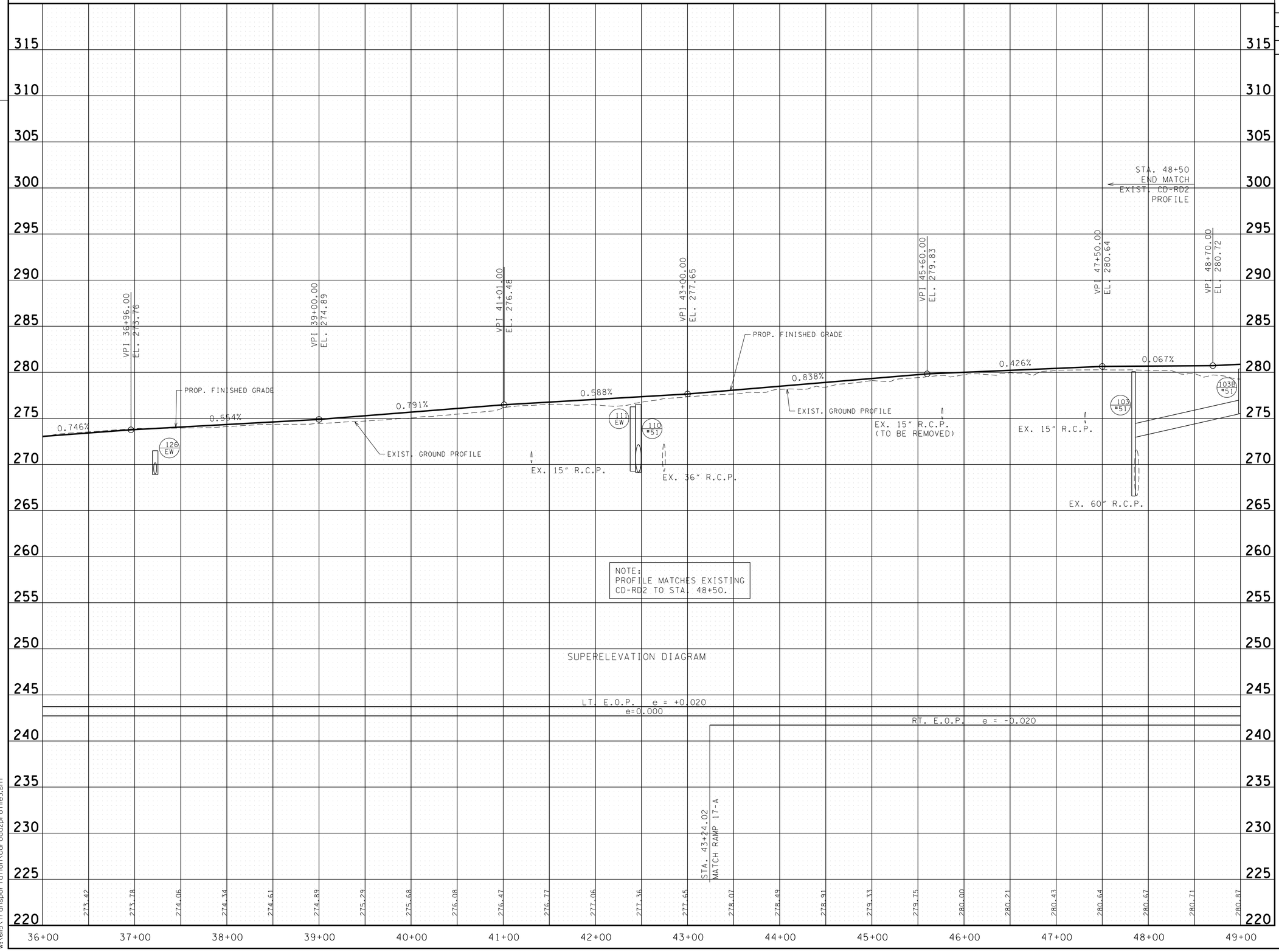
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18T
CONST.	2010	STP-I-240(290)	18T



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JOHN T. PANKEY
REGISTERED
PROFESSIONAL
ENGINEER
AGRICULTURE
8-23-10
NO. NUMBER
102351
STATE OF TENNESSEE

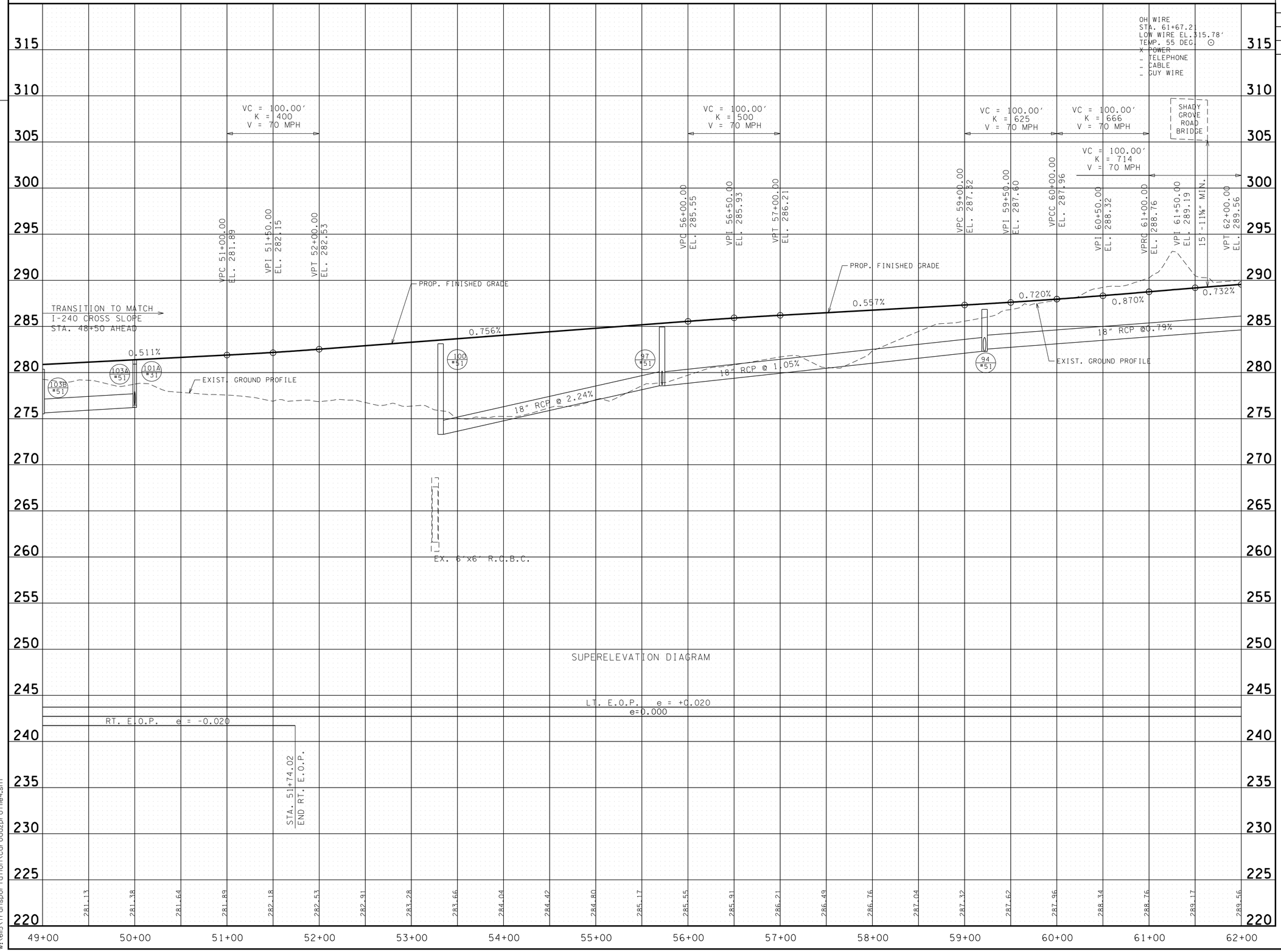
CD ROAD-2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18U
CONST.	2010	STP-I-240(290)	18U



JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
TENNESSEE
NUMBER 102351
STATE OF TENNESSEE
8-23-10

CD ROAD-2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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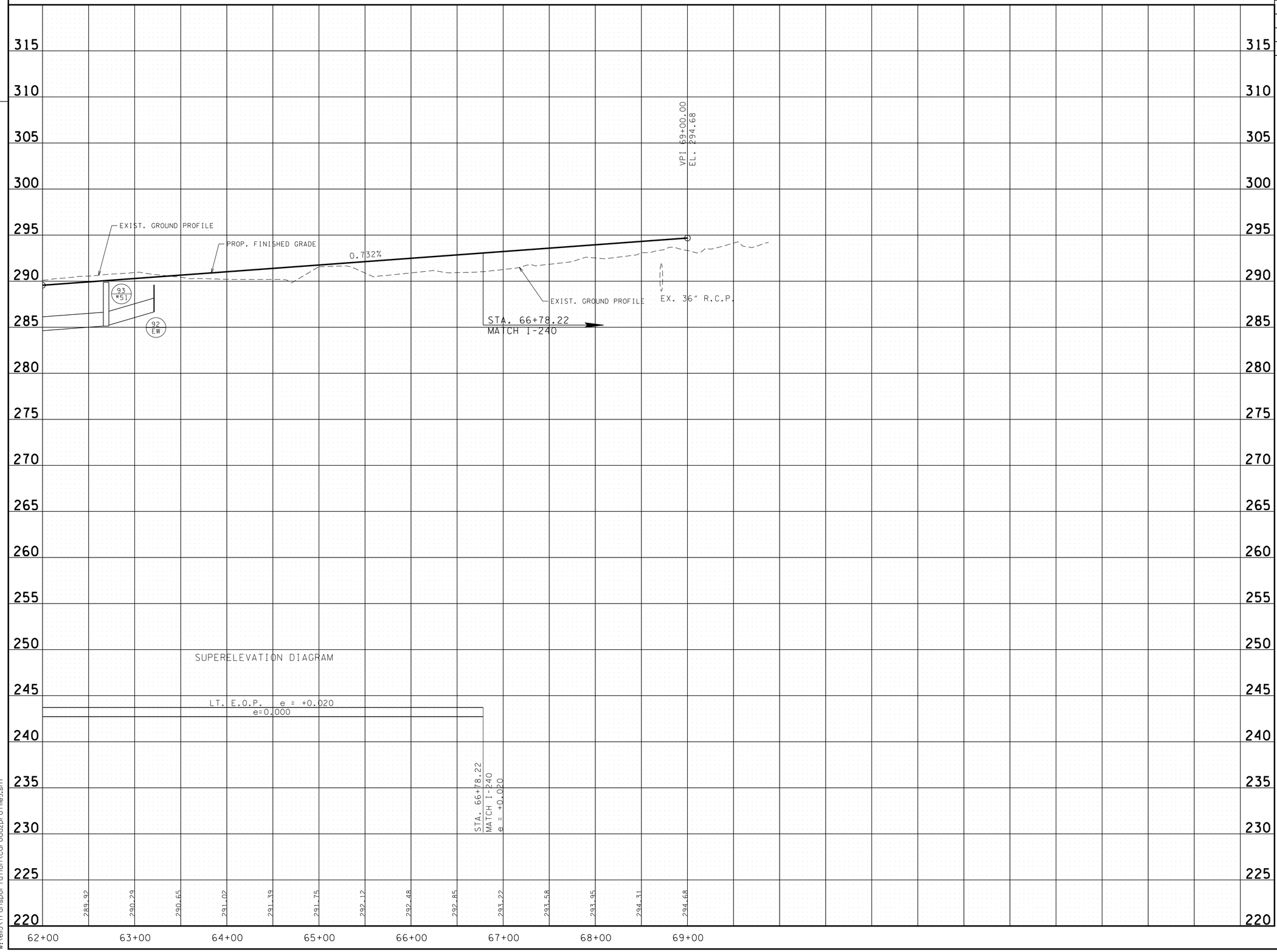
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18V
CONST.	2010	STP-I-240(290)	18V



SUPERELEVATION DIAGRAM

LT. E.O.P. e = +0.020

e=0.000

STA. 66+78.22
MATCH I-240
e = +0.020

JOHN T. PANKEY
REGISTERED
AGRICULTURE
ENGINEER
10235
8-23-10
STATE OF TENNESSEE

CD ROAD-2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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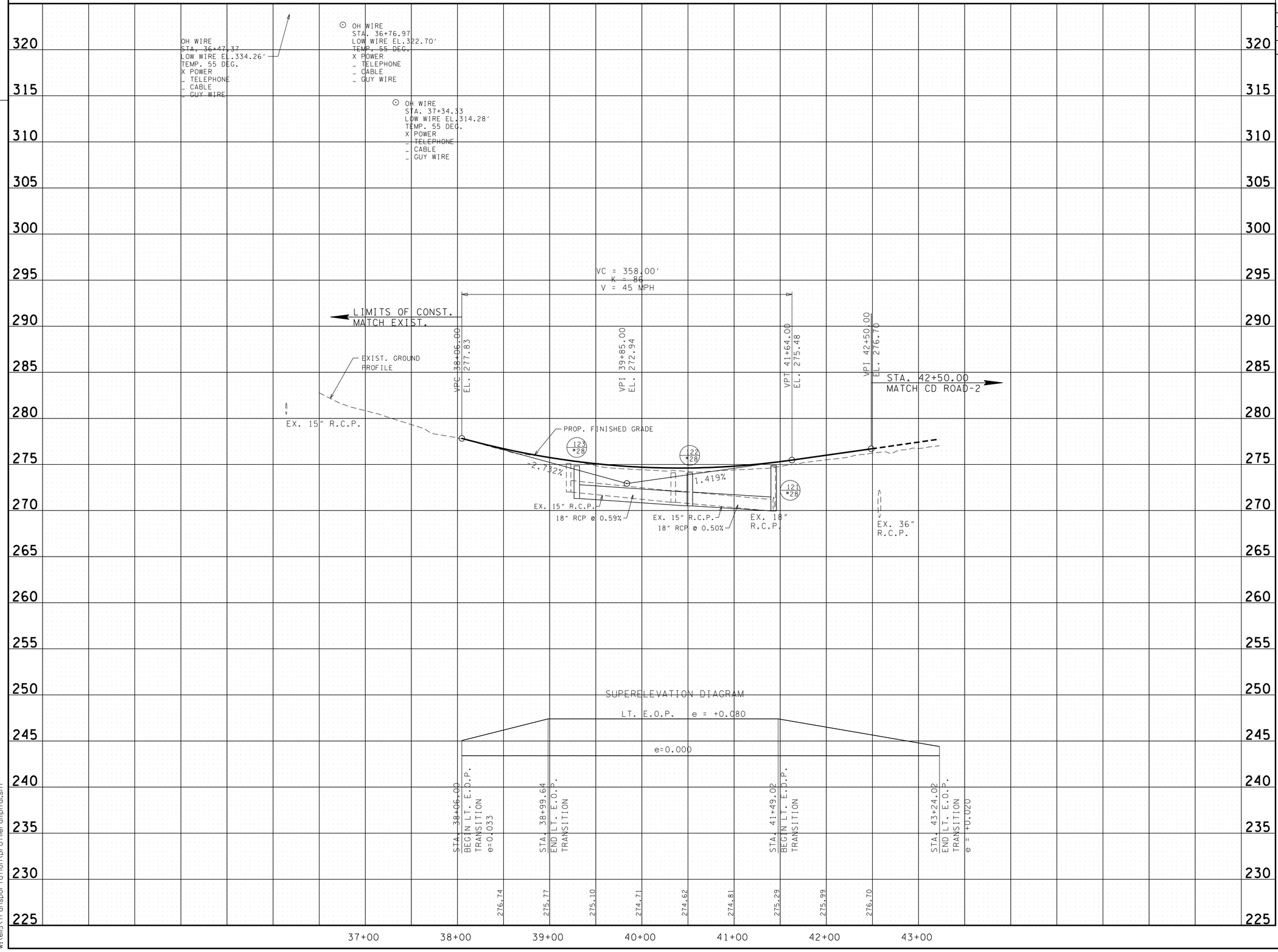
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18W
CONST.	2010	STP-I-240(290)	18W



JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
No. 102355
STATE OF TENNESSEE
8-23-10

RAMP 17-A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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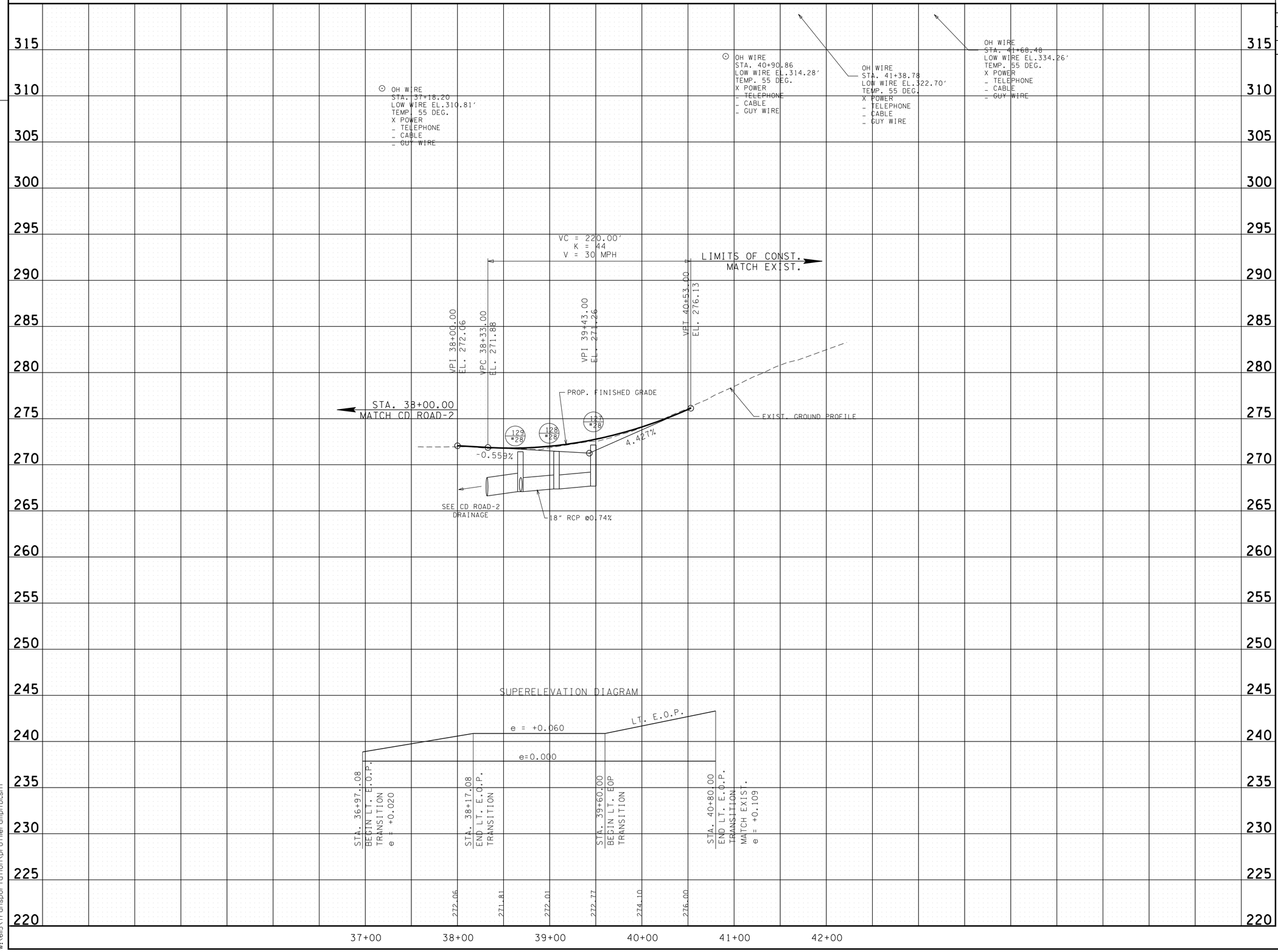
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18X
CONST.	2010	STP-I-240(290)	18X



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE

RAMP 17-B

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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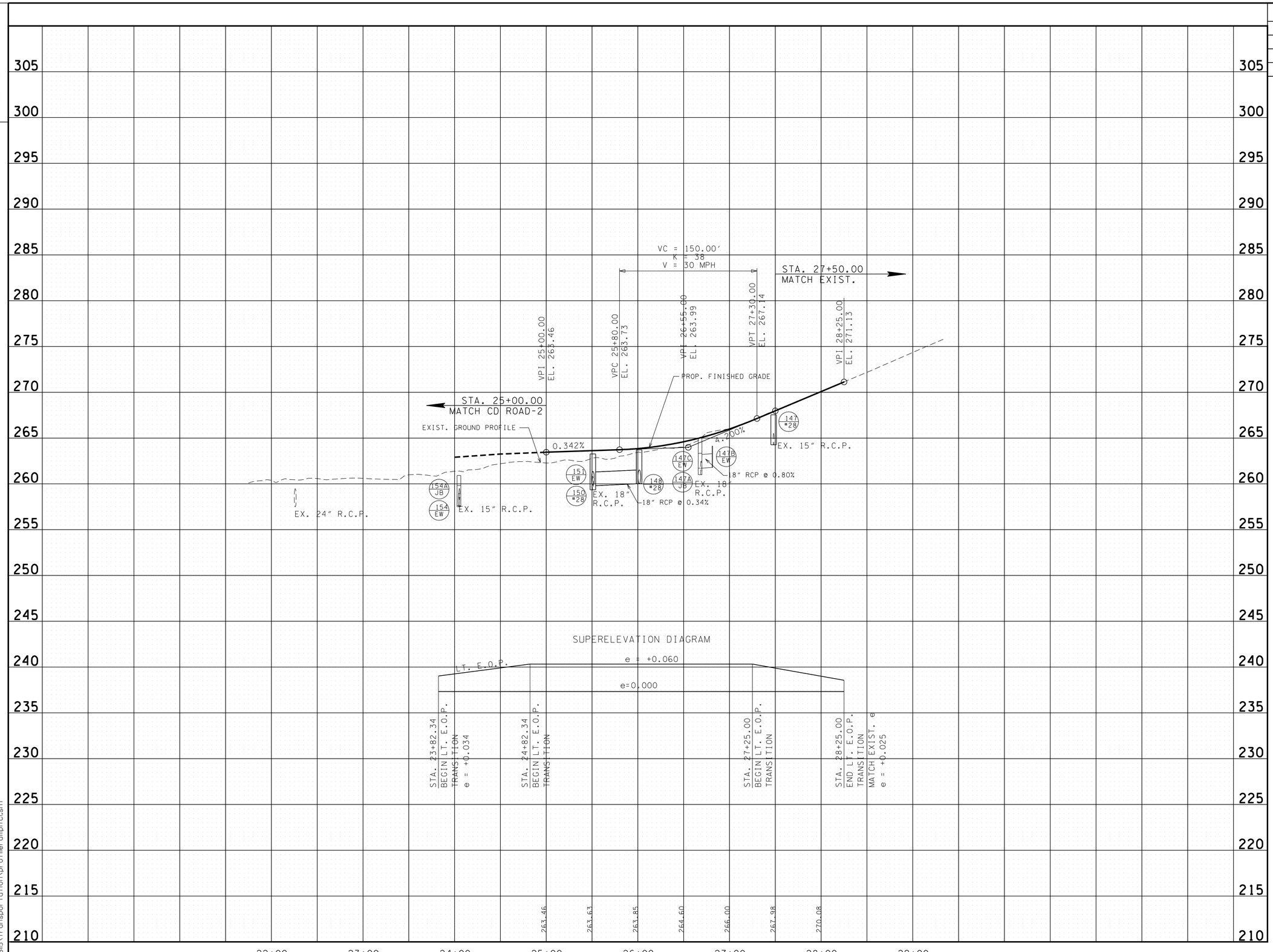
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18Y
CONST.	2010	STP-I-240(290)	18Y



SUPERELEVATION DIAGRAM

STA. 23+82.34
BEGIN LT. E.O.P.
TRANSITION
e = +0.034

STA. 24+82.34
BEGIN LT. E.O.P.
TRANSITION

STA. 27+25.00
BEGIN LT. E.O.P.
TRANSITION

STA. 28+25.00
END LT. E.O.P.
TRANSITION
MATCH EXIST. e
e = +0.025

263.46 263.63 263.85 264.60 266.00 267.98 270.08

JOHN T. PANKEY JR.
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-27-10

RAMP 17-C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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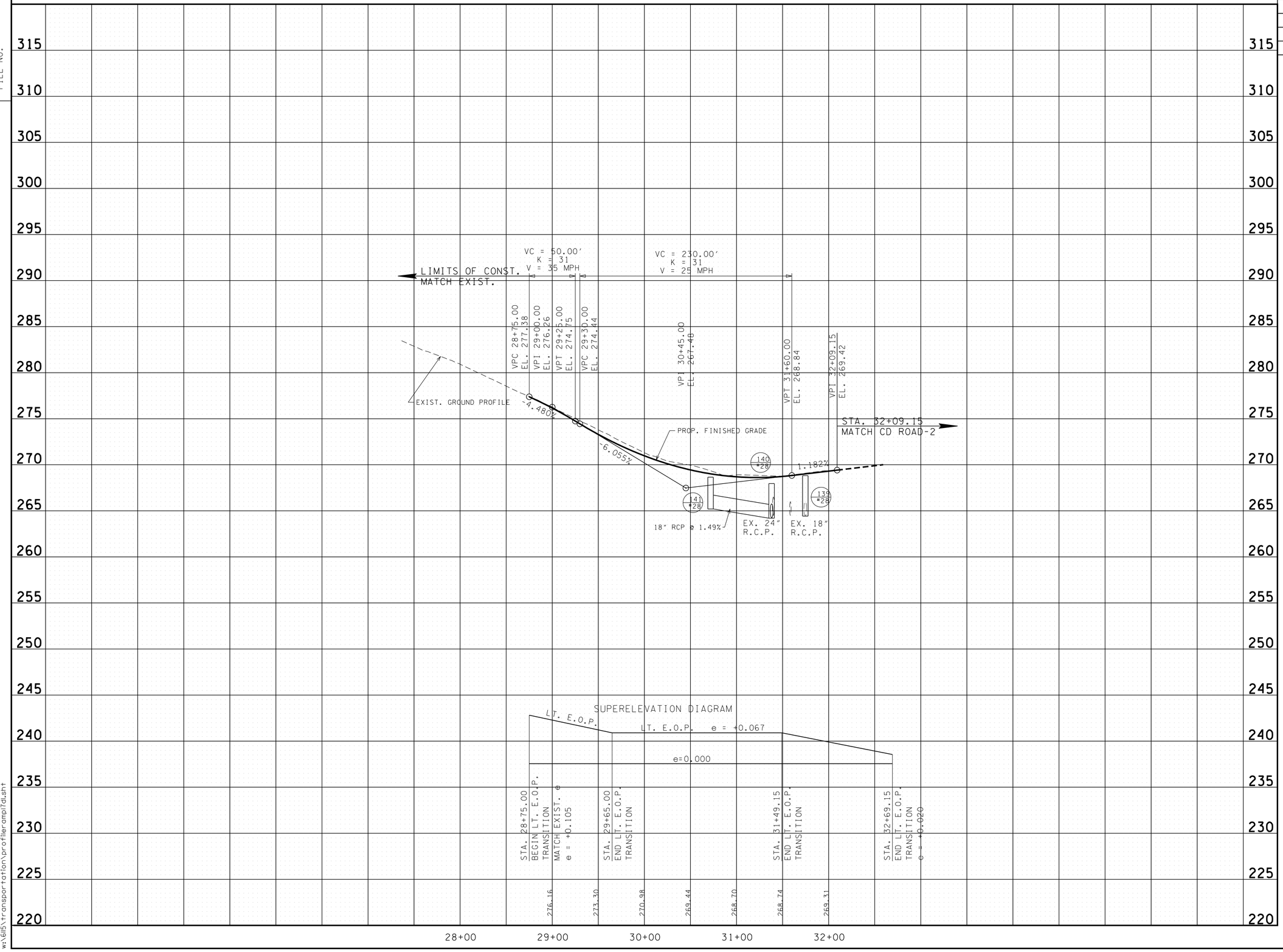
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18Z
CONST.	2010	STP-I-240(290)	18Z



JOHN T. PANKEY
REGISTERED
LANDSCAPE
ARCHITECT
AGRICULTURE
COMMERCE
102356
STATE OF TENNESSEE
8-23-10

RAMP 17-D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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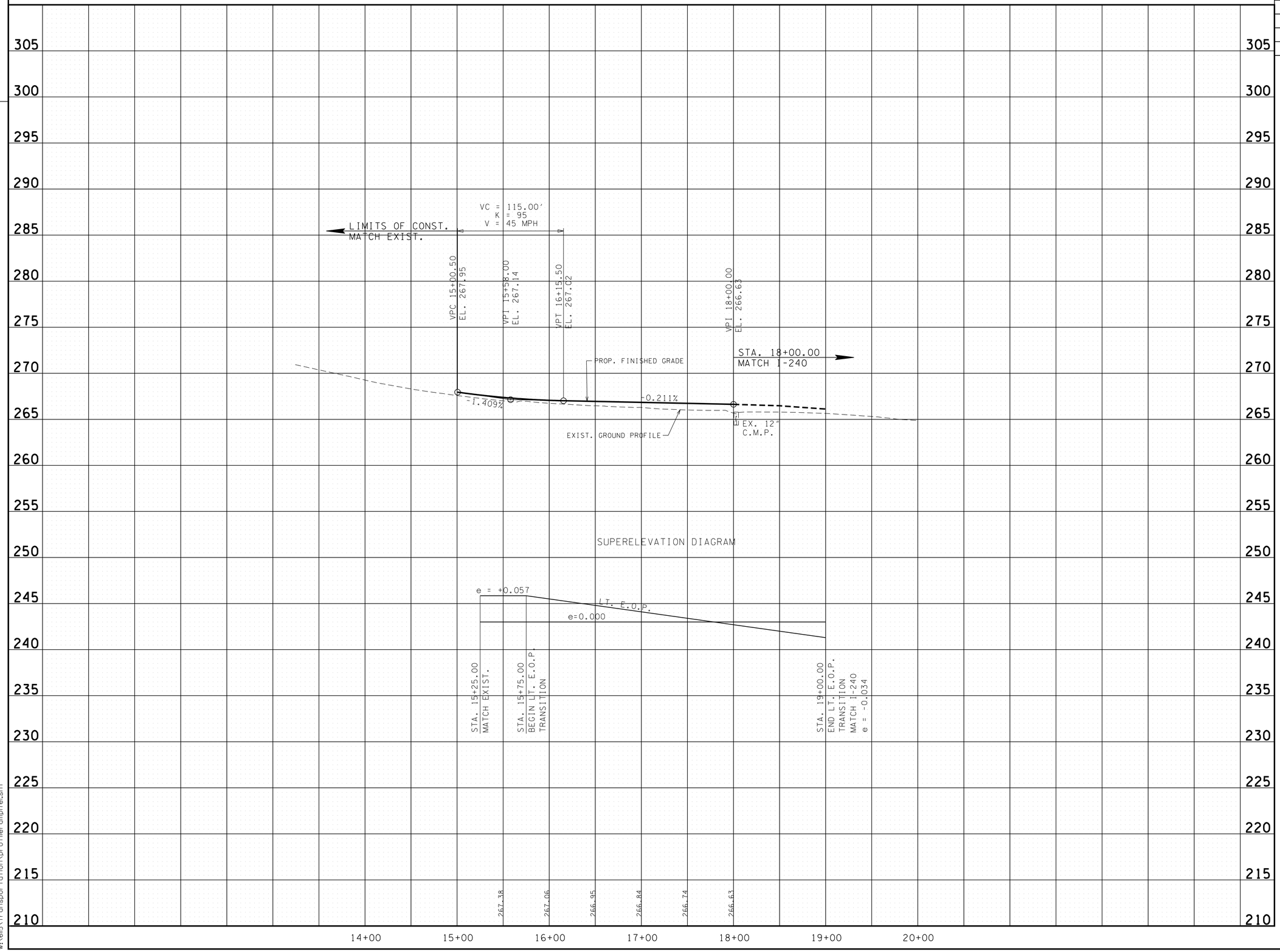
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18AA
CONST.	2010	STP-I-240(290)	18AA



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 102351
STATE OF TENNESSEE
8-23-10

RAMP 17-E

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	18BB
CONST.	2010	STP-I-240(290)	18BB

VC = 436.00'
K = 206
V = 70 MPH

VPC 18+50.00
EL. 277.39

VPI 20+68.00
EL. 274.08

VPT 22+86.00
EL. 275.37

VP 23+50.00
EL. 275.75

STA. 23+50.00
MATCH EXIST.

STA. 18+50.00
MATCH I-240

EXIST. GROUND PROFILE

EXIST. GROUND PROFILE

PROP. FINISHED GRADE

-1.518%

0.592%

106A #51

106B #51

107 EW

106 #51

115 EW

114 #28

117 EW

116 #28

118 #10

119 #28

119A #28

PROP. 18" RCP

PROP. 18" RCP

PROP. 18" RCP

PROP. 18" RCP

PROP. 18" RCP

PROP. 18" RCP

EXIST. CB

EXIST. 15" RCP

EXIST. 36" RCP

SUPERELEVATION DIAGRAM

STA. 23+50.00
MATCH EXIST.

LT. E.O.P. e=0.071

e=0.000

	STA. 18+03.11	STA. 19+78.11	STA. 22+25.76	STA. 24+00.76
	BEG IN LT. E.O.P. TRANSITION e = +0.020	END LT. E.O.P. TRANSITION	BEG IN LT. E.O.P. TRANSITION	END LT. E.O.P. TRANSITION
277.39				
276.69				
276.11				
275.66				
275.32				
275.11				
275.01				
275.04				
275.19				
275.45				
275.75				
276.05				
276.34				

16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

RAMP 17-G

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	19
CONST.	2010	STP-I-240(290)	19

BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00
N 299455.1548
E 810892.4304

BEGIN PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 525+26.23
N = 299830.8266
E = 810912.9069

N

505 510 515 520 525 530 535 540 545 550 555

52.6 Ac.

2.2 AC

QUINCE AVE.

PARK AVENUE

NORFOLK SOUTHERN R.R.

POPLAR AVENUE (EASTBOUND)

MATCH LINE STA. 557+00 SEE SHT. NO. 19A

STATION 522+85.64

EXISTING STRUCTURE: 36" RCP
DRAINAGE AREA 8.6 ACRES
PROPOSED STRUCTURE: 36" RCP
Q50: 29.9 CFS
Q100: 31.7 CFS

STATION 539+75.03

EXISTING STRUCTURE: 60" RCP
DRAINAGE AREA 60.3 ACRES
PROPOSED STRUCTURE: 60" RCP
Q50: 170.9 CFS
Q100: 183.2 CFS

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
3-22-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

B.O.P. TO STA. 557+00

SCALE: 1"=200'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	19A
CONST.	2010	STP-I-240(290)	19A

N

560 565 570 575 580 585 590 595 600 605

STATION 569+71.92
EXISTING STRUCTURE: 42" RCP
DRAINAGE AREA 14.9 ACRES
PROPOSED STRUCTURE: 42" RCP
Q50: 39.9 CFS
Q100: 42.3 CFS

STATION 606+47.63
EXISTING STRUCTURE: 48" RCP
DRAINAGE AREA 23.8 ACRES
PROPOSED STRUCTURE: 48" RCP
Q50: 77.0 CFS
Q100: 82.9 CFS

PROPOSED DETENTION BASIN
WATER SURFACE CONTOUR

8.9 Ac.
6.8 Ac.
57.0 Ac.
2.8 Ac.
2.8 Ac.

MATCH LINE STA. 557+00 SEE SHT. NO. 19

MATCH LINE STA. 609+00 SEE SHT. NO. 19B

POPLAR AVENUE WESTBOUND

STATION 598+23.09
EXISTING STRUCTURE: 8'x6' RCBC
DRAINAGE AREA 195.0 ACRES
PROPOSED STRUCTURE: 8'x6' RCBC
Q50: 530.3 CFS
Q100: 617.3 CFS

JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 557+00 TO STA. 609+00
SCALE: 1"=200'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	19B
CONST.	2010	STP-I-240(290)	19B

N

610 615 620 625 630 635 640 645 650 655 660

MATCH LINE STA. 609+00 SEE SHT. NO. 19A

MATCH LINE STA. 661+00 SEE SHT. NO. 19C

SHADY GROVE

WALNUT GROVE

5.7 Ac.

END PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 631+67.43
N=310423.3382
E=811859.4808

STATION 624+87.62
EXISTING STRUCTURE: 36" RCP
DRAINAGE AREA 7.7 ACRES
PROPOSED STRUCTURE: 36" RCP
Q50: 23.1 CFS
Q100: 24.6 CFS

STATION 649+46.79
EXISTING STRUCTURE: 36" RCP
DRAINAGE AREA 8.3 ACRES
PROPOSED STRUCTURE: 36" RCP
Q50: 27.4 CFS
Q100: 29.2 CFS

STATION 617+47.96
EXISTING STRUCTURE: 36" RCP
DRAINAGE AREA 8.0 ACRES
PROPOSED STRUCTURE: 36" RCP
Q50: 24.2 CFS
Q100: 26.6 CFS

STATION 640+53.74
EXISTING STRUCTURE: 6'x6' RCBC
DRAINAGE AREA 164.0 ACRES
PROPOSED STRUCTURE: 6'x6' RCBC
Q50: 662.6 CFS
Q100: 774.8 CFS

STATION 658+30.06
EXISTING STRUCTURE: 30" RCP
DRAINAGE AREA 5.7 ACRES
PROPOSED STRUCTURE: 30" RCP
Q50: 23.7 CFS
Q100: 26.1 CFS

STATION 611+48.10
EXISTING STRUCTURE: 36" RCP
DRAINAGE AREA 5.7 ACRES
PROPOSED STRUCTURE: 36" RCP
Q50: 18.4 CFS
Q100: 20.2 CFS

STATION 645+18.39
EXISTING STRUCTURE: 60" RCP
DRAINAGE AREA 41.3 ACRES
PROPOSED STRUCTURE: 60" RCP
Q50: 94.5 CFS
Q100: 103.1 CFS

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 609+00 TO STA. 661+00
SCALE: 1"=200'

8/20/2010
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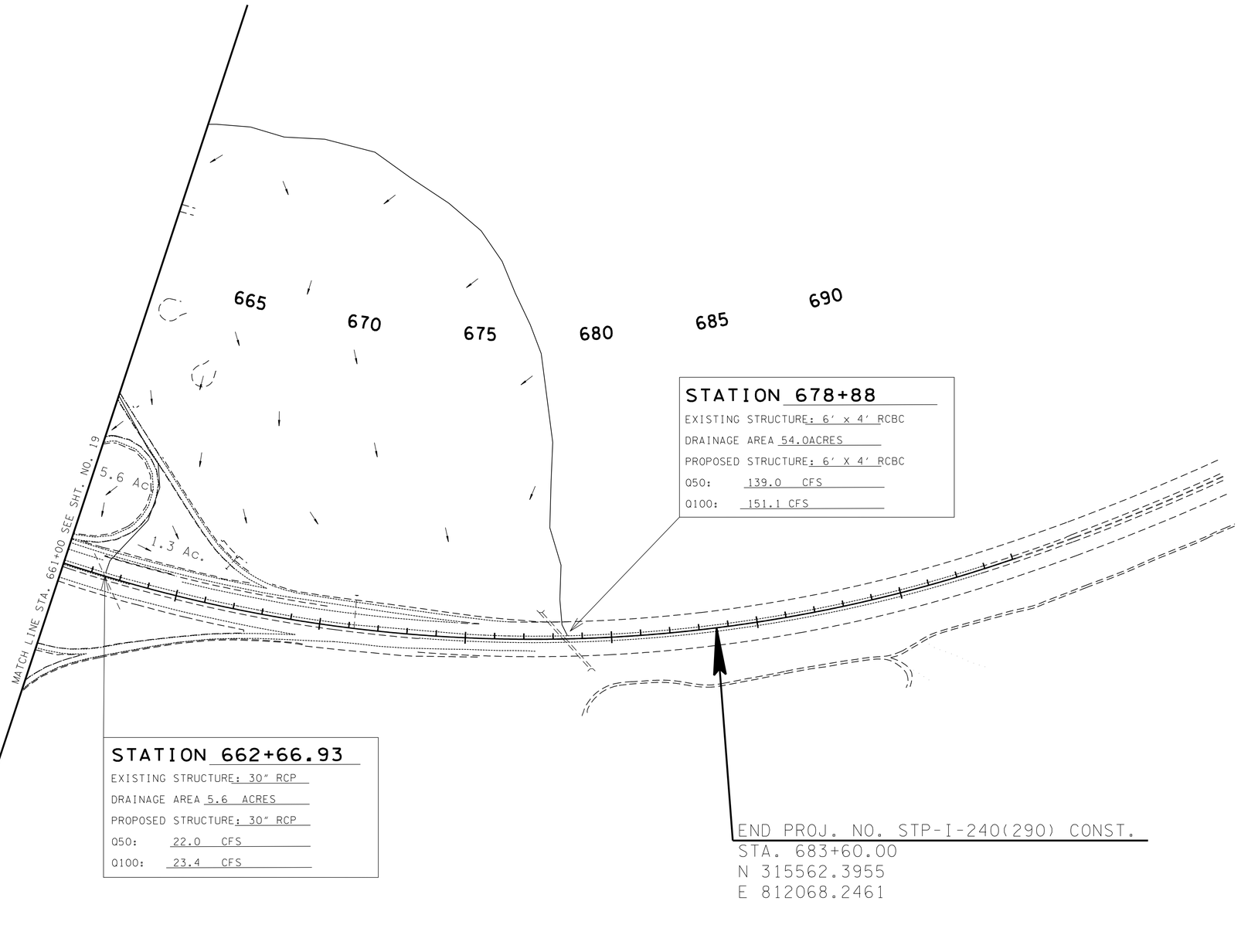
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	19C
CONST.	2010	STP-I-240(290)	19C



STATION 678+88

EXISTING STRUCTURE: 6' x 4' RCBC

DRAINAGE AREA 54.0ACRES

PROPOSED STRUCTURE: 6' X 4' RCBC

Q50: 139.0 CFS

Q100: 151.1 CFS

STATION 662+66.93

EXISTING STRUCTURE: 30" RCP

DRAINAGE AREA 5.6 ACRES

PROPOSED STRUCTURE: 30" RCP

Q50: 22.0 CFS

Q100: 23.4 CFS

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10236
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 661+00 TO E.O.P.

SCALE: 1"=200'

8/20/2010
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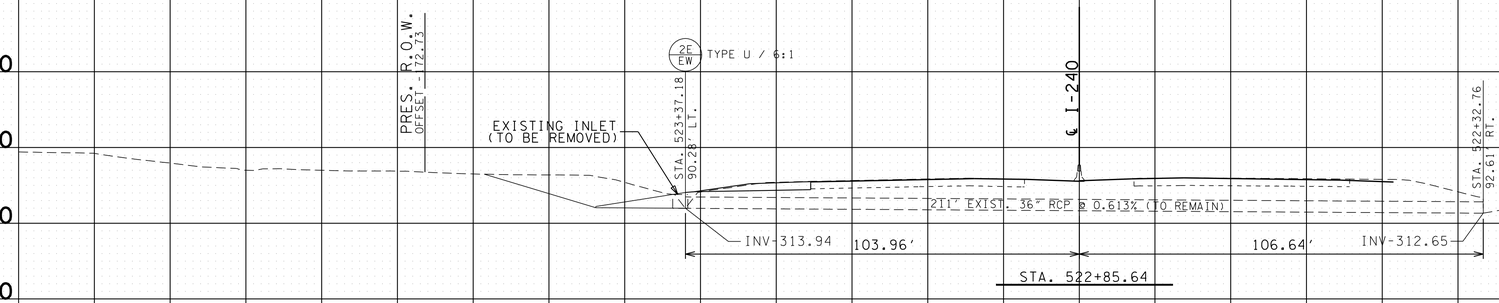
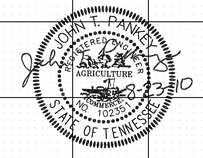
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20
CONST.	2010	STP-I-240(290)	20



STATION	522+85.64	
STRUCTURE	36" RCP	
SKEW	60°16'34"	LT.
DRAINAGE AREA	8.6	AC.
DESIGN DISCHARGE (Q50)	29.9	CFS
DESIGN DISCHARGE (Q100)	31.7	CFS
OVERTOPPING ELEV.	321.82	
ALLOWABLE HEADWATER ELEV.	319.91	
Q50 HEADWATER ELEV.	316.81	
Q100 HEADWATER ELEV.	316.93	
VELOCITY (Q50)	7.6	FT/S
VELOCITY (Q100)	7.7	FT/S
INLET ELEVATION	313.94	
OUTLET ELEVATION	312.65	
STANDARD DRAWING NUMBERS	N/A	
INLET DRAWING NUMBERS	D-PE-6B(1), D-PE-6B(2)	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	8.38	C.Y.
STEEL BAR REINFORCING	524	LB.
STRUCTUAL STEEL	217	LB.
BEDDING MATERIAL	N/A	C.Y.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

-280 -240 -200 -160 -120 -80 -40 0 40 80 120 160 200 240 280

8/20/2010
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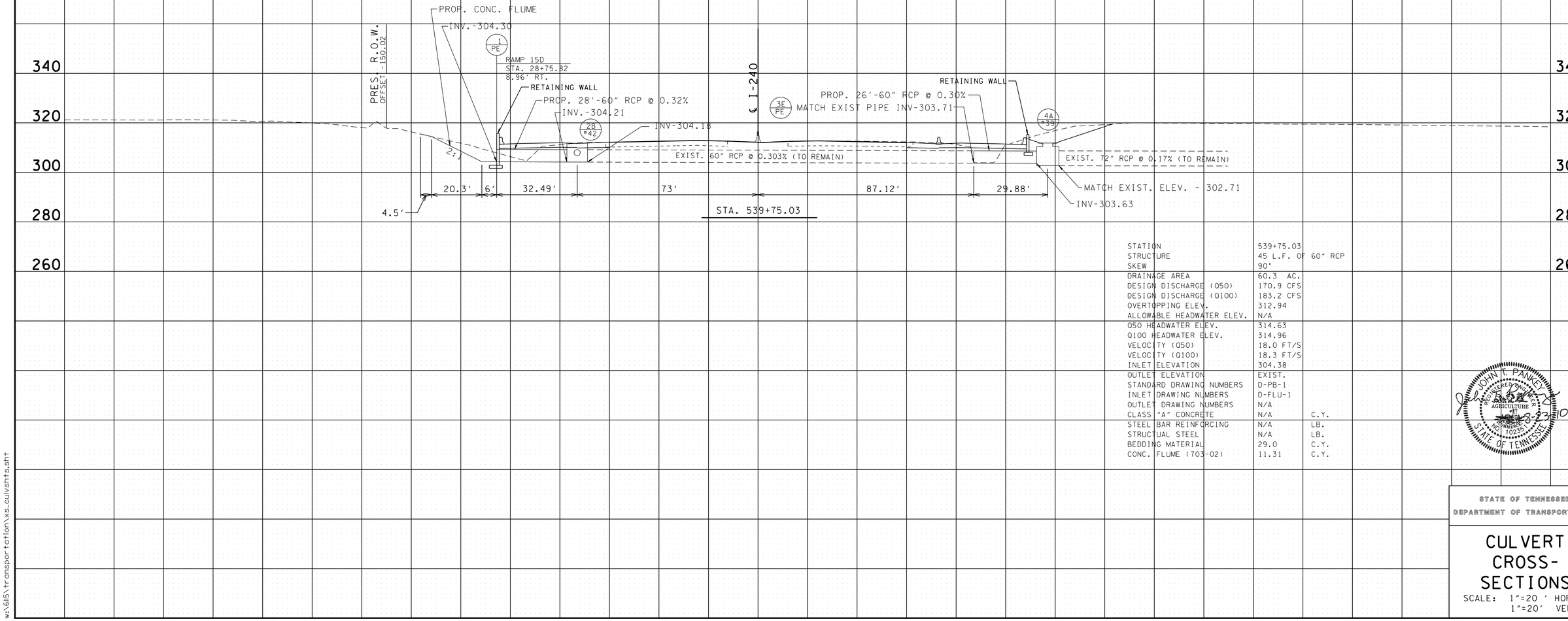
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20A
CONST.	2010	STP-I-240(290)	20A



STATION	539+75.03	
STRUCTURE	45 L.F. OF 60" RCP	
SKEW	90°	
DRAINAGE AREA	60.3 AC.	
DESIGN DISCHARGE (Q50)	170.9 CFS	
DESIGN DISCHARGE (Q100)	183.2 CFS	
OVERTOPPING ELEV.	312.94	
ALLOWABLE HEADWATER ELEV.	N/A	
Q50 HEADWATER ELEV.	314.63	
Q100 HEADWATER ELEV.	314.96	
VELOCITY (Q50)	18.0 FT/S	
VELOCITY (Q100)	18.3 FT/S	
INLET ELEVATION	304.38	
OUTLET ELEVATION	EXIST.	
STANDARD DRAWING NUMBERS	D-PB-1	
INLET DRAWING NUMBERS	D-FLU-1	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	N/A	C.Y.
STEEL BAR REINFORCING	N/A	LB.
STRUCTUAL STEEL	N/A	LB.
BEDDING MATERIAL	29.0	C.Y.
CONC. FLUME (703-02)	11.31	C.Y.

JOHN E. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 102236
STATE OF TENNESSEE
8-3-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

8/20/2010
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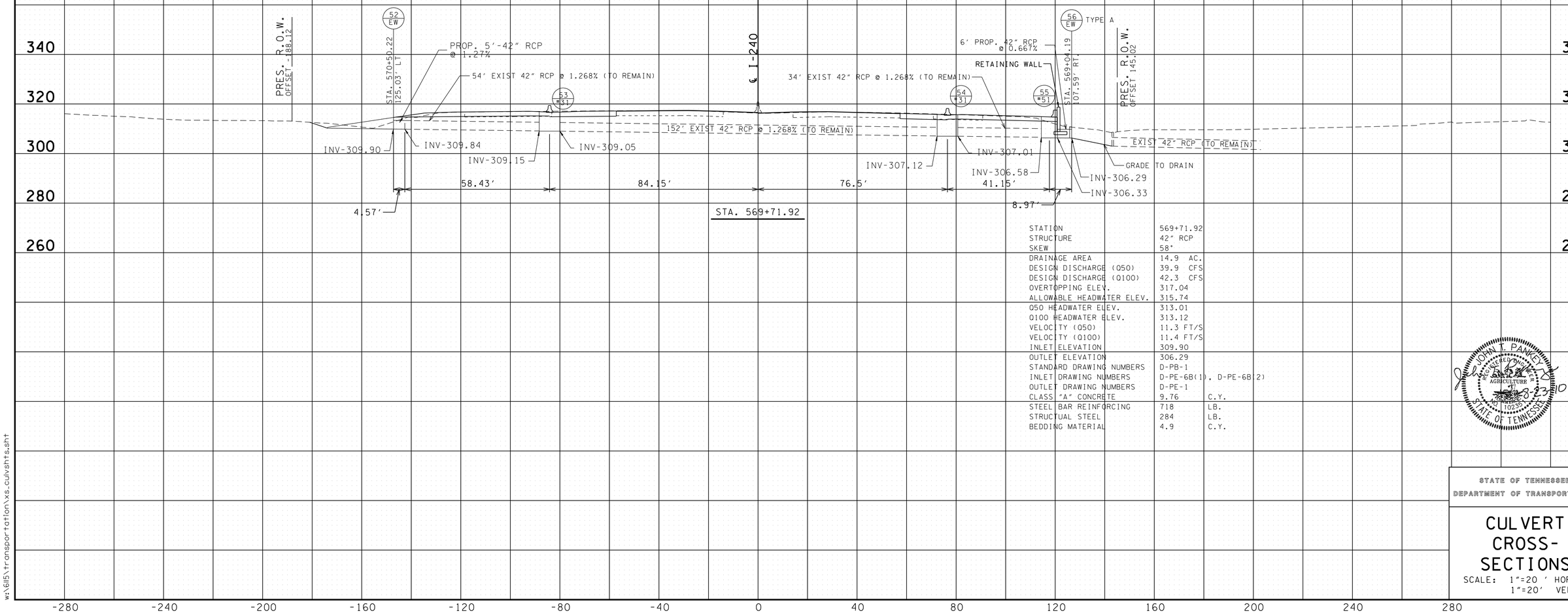
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20B
CONST.	2010	STP-I-240(290)	20B



STATION	569+71.92	
STRUCTURE	42" RCP	
SKEW	58°	
DRAINAGE AREA	14.9	AC.
DESIGN DISCHARGE (Q50)	39.9	CFS
DESIGN DISCHARGE (Q100)	42.3	CFS
OVERTOPPING ELEV.	317.04	
ALLOWABLE HEADWATER ELEV.	315.74	
Q50 HEADWATER ELEV.	313.01	
Q100 HEADWATER ELEV.	313.12	
VELOCITY (Q50)	11.3	FT/S
VELOCITY (Q100)	11.4	FT/S
INLET ELEVATION	309.90	
OUTLET ELEVATION	306.29	
STANDARD DRAWING NUMBERS	D-PB-1	
INLET DRAWING NUMBERS	D-PE-6B(1), D-PE-6B(2)	
OUTLET DRAWING NUMBERS	D-PE-1	
CLASS "A" CONCRETE	9.76	C.Y.
STEEL BAR REINFORCING	718	LB.
STRUCTUAL STEEL	284	LB.
BEDDING MATERIAL	4.9	C.Y.

JOHN T. PANKEY
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10/26/10
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

8/20/2010
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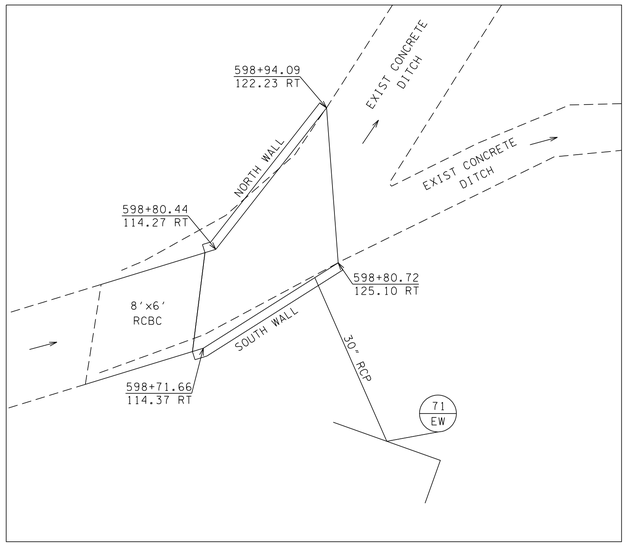
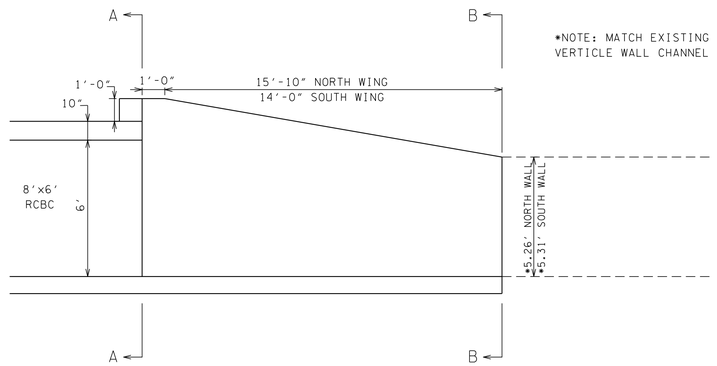
TENNESSEE D.O.T. DESIGN DIVISION

FILE NO.

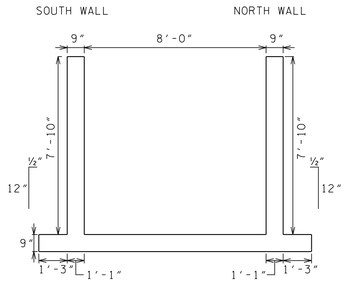
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20C
CONST.	2010	STP-I-240(290)	20C



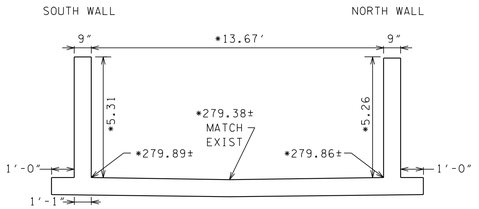
PLAN VIEW
N.T.S.



ENDWALL DETAIL
N.T.S.

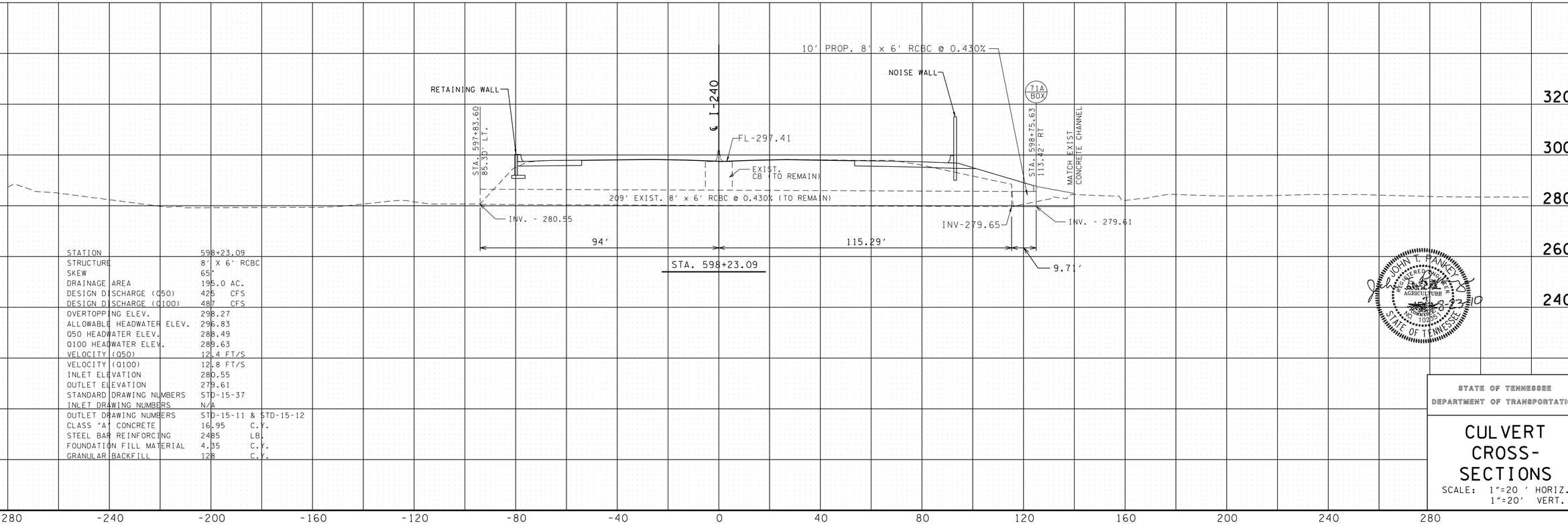


SECTION A-A
LOOKING WEST



SECTION B-B
LOOKING WEST

DETAIL FOR WINGWALLS AND
CONCRETE LINER RT. STA. 598+75.63
USE STD-15-11 AND STD-15-12 FOR STEEL LAYOUT



STATION	598+23.09
STRUCTURE	8' X 6' RCBC
SKEW	65°
DRAINAGE AREA	195.0 AC.
DESIGN DISCHARGE (Q50)	425 CFS
DESIGN DISCHARGE (Q100)	487 CFS
OVERTOPPING ELEV.	298.27
ALLOWABLE HEADWATER ELEV.	296.83
Q50 HEADWATER ELEV.	288.49
Q100 HEADWATER ELEV.	289.63
VELOCITY (Q50)	12.4 FT/S
VELOCITY (Q100)	12.8 FT/S
INLET ELEVATION	280.55
OUTLET ELEVATION	279.61
STANDARD DRAWING NUMBERS	STD-15-37
INLET DRAWING NUMBERS	N/A
OUTLET DRAWING NUMBERS	STD-15-11 & STD-15-12
CLASS "A" CONCRETE	16.95 C.Y.
STEEL BAR REINFORCING	2485 LB.
FOUNDATION FILL MATERIAL	4.35 C.Y.
GRANULAR BACKFILL	128 C.Y.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

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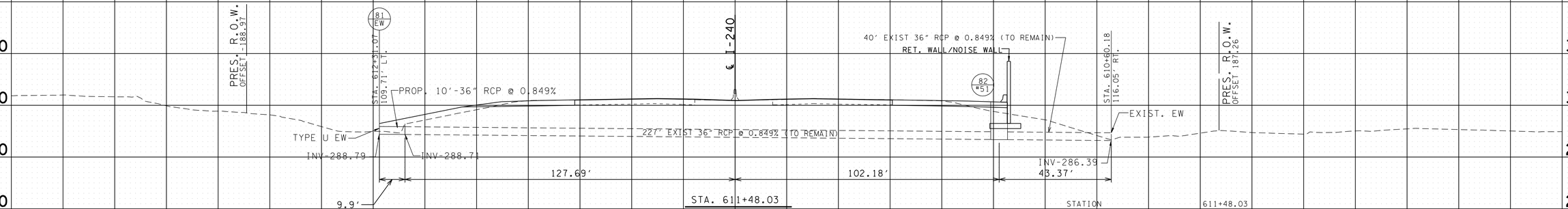
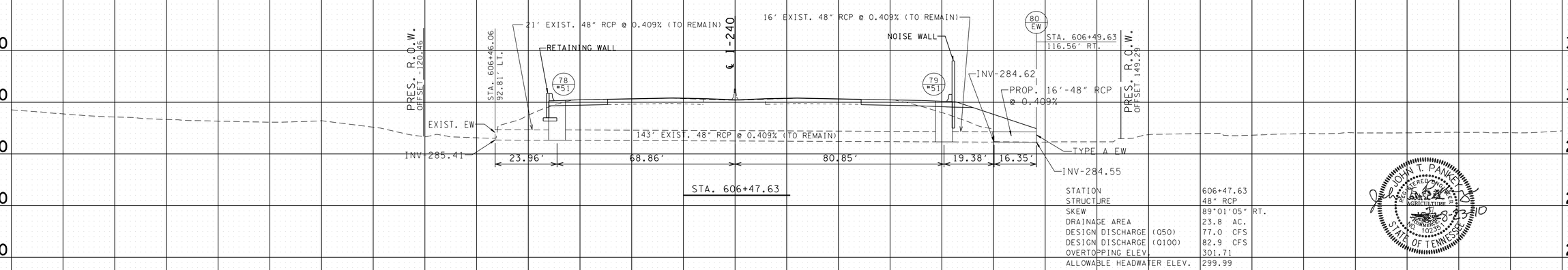
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20D
CONST.	2010	STP-I-240(290)	20D



STATION	611+48.03		
STRUCTURE	36" RCP		
SKEW	53°		
DRAINAGE AREA	5.7	AC.	
DESIGN DISCHARGE (Q50)	18.4	CFS	
DESIGN DISCHARGE (Q100)	20.2	CFS	
OVERTOPPING ELEV.	302.61		
ALLOWABLE HEADWATER ELEV.	300.86		
Q50 HEADWATER ELEV.	290.96		
Q100 HEADWATER ELEV.	291.07		
VELOCITY (Q50)	7.6	FT/S	
VELOCITY (Q100)	7.8	FT/S	
INLET ELEVATION	288.79		
OUTLET ELEVATION	286.39		
STANDARD DRAWING NUMBERS	D-PB-1		
INLET DRAWING NUMBERS	D-PE-4B(1)		
OUTLET DRAWING NUMBERS	N/A		
CLASS "A" CONCRETE	3.01	C.Y.	
STEEL BAR REINFORCING	382	LB.	
STRUCTUAL STEEL	N/A	LB.	
BEDDING MATERIAL	3.8	C.Y.	



STATION	606+47.63		
STRUCTURE	48" RCP		
SKEW	89°01'05"	RT.	
DRAINAGE AREA	23.8	AC.	
DESIGN DISCHARGE (Q50)	77.0	CFS	
DESIGN DISCHARGE (Q100)	82.9	CFS	
OVERTOPPING ELEV.	301.71		
ALLOWABLE HEADWATER ELEV.	299.99		
Q50 HEADWATER ELEV.	289.78		
Q100 HEADWATER ELEV.	289.98		
VELOCITY (Q50)	8.7	FT/S	
VELOCITY (Q100)	9.0	FT/S	
INLET ELEVATION	285.41		
OUTLET ELEVATION	284.55		
STANDARD DRAWING NUMBERS	D-PB-1		
INLET DRAWING NUMBERS	N/A		
OUTLET DRAWING NUMBERS	D-PE-1		
CLASS "A" CONCRETE	6.6	C.Y.	
STEEL BAR REINFORCING	100	LB.	
STRUCTUAL STEEL	N/A	LB.	
BEDDING MATERIAL	8.3	C.Y.	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

-280 -240 -200 -160 -120 -80 -40 0 40 80 120 160 200 240 280

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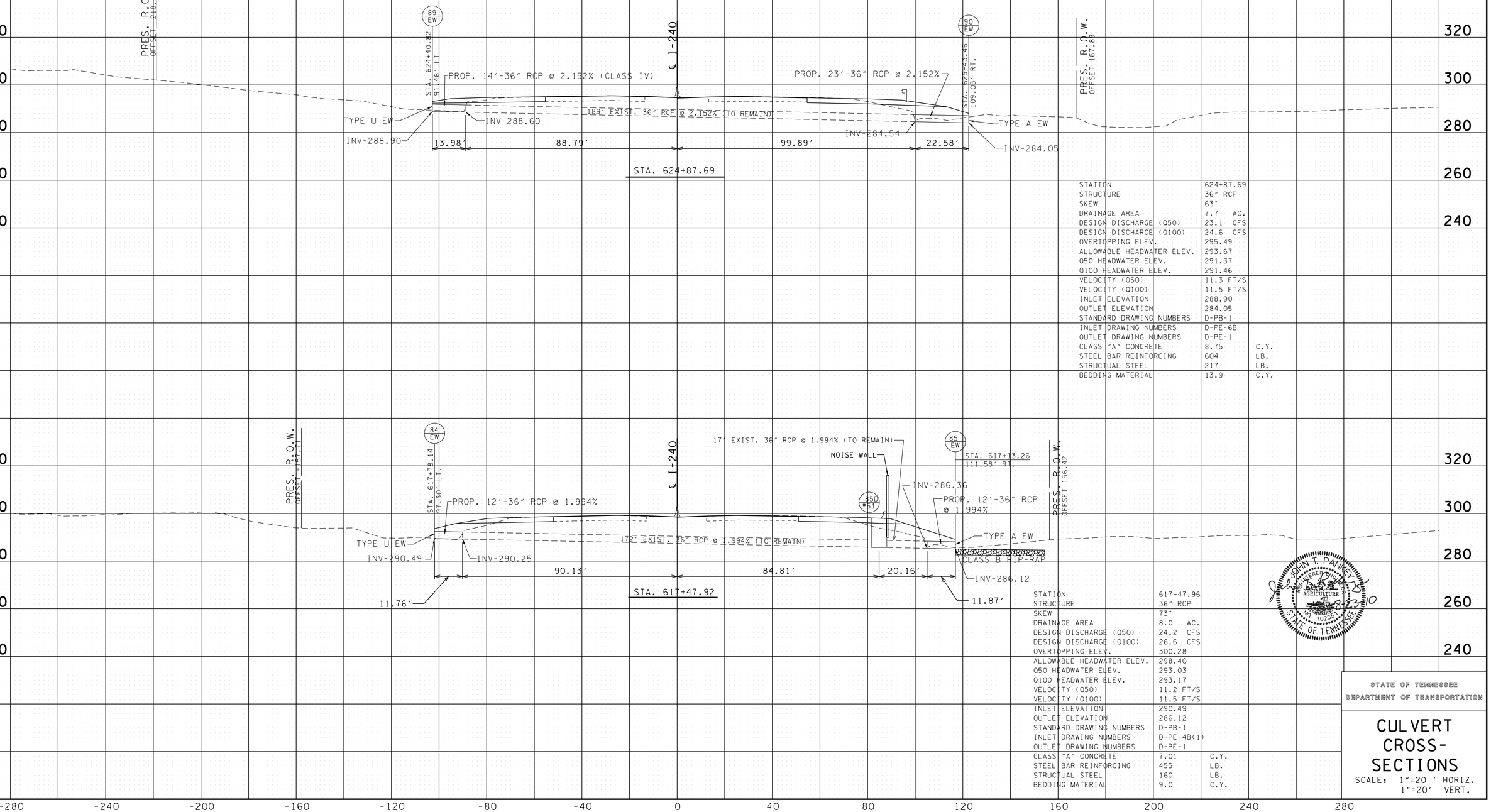
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20E
CONST.	2010	STP-I-240(290)	20E

REVISIONS

DATE: 9/30/2009
REVISED INLET END DRAWING
NO. D-PE-4B FOR
STA. 617+47.92



STATION	624+87.69		
STRUCTURE	36" RCP		
SKEW	63°		
DRAINAGE AREA	7.7 AC.		
DESIGN DISCHARGE (Q50)	23.1 CFS		
DESIGN DISCHARGE (Q100)	24.6 CFS		
OVERTOPPING ELEV.	295.49		
ALLOWABLE HEADWATER ELEV.	293.67		
Q50 HEADWATER ELEV.	291.37		
Q100 HEADWATER ELEV.	291.46		
VELOCITY (Q50)	11.3 FT/S		
VELOCITY (Q100)	11.5 FT/S		
INLET ELEVATION	288.90		
OUTLET ELEVATION	284.05		
STANDARD DRAWING NUMBERS	D-PB-1		
INLET DRAWING NUMBERS	D-PE-6B		
OUTLET DRAWING NUMBERS	D-PE-1		
CLASS "A" CONCRETE	8.75	C.Y.	
STEEL BAR REINFORCING	604	LB.	
STRUCTUAL STEEL	217	LB.	
BEDDING MATERIAL	13.9	C.Y.	

STATION	617+47.96	
STRUCTURE	36" RCP	
SKEW	73°	
DRAINAGE AREA	8.0 AC.	
DESIGN DISCHARGE (Q50)	24.2 CFS	
DESIGN DISCHARGE (Q100)	26.6 CFS	
OVERTOPPING ELEV.	300.28	
ALLOWABLE HEADWATER ELEV.	298.40	
Q50 HEADWATER ELEV.	293.03	
Q100 HEADWATER ELEV.	293.17	
VELOCITY (Q50)	11.2 FT/S	
VELOCITY (Q100)	11.5 FT/S	
INLET ELEVATION	290.49	
OUTLET ELEVATION	286.12	
STANDARD DRAWING NUMBERS	D-PB-1	
INLET DRAWING NUMBERS	D-PE-4B(1)	
OUTLET DRAWING NUMBERS	D-PE-1	
CLASS "A" CONCRETE	7.01	C.Y.
STEEL BAR REINFORCING	455	LB.
STRUCTUAL STEEL	160	LB.
BEDDING MATERIAL	9.0	C.Y.

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NO. 102351
STATE OF TENNESSEE
9/30/2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

8/20/2010
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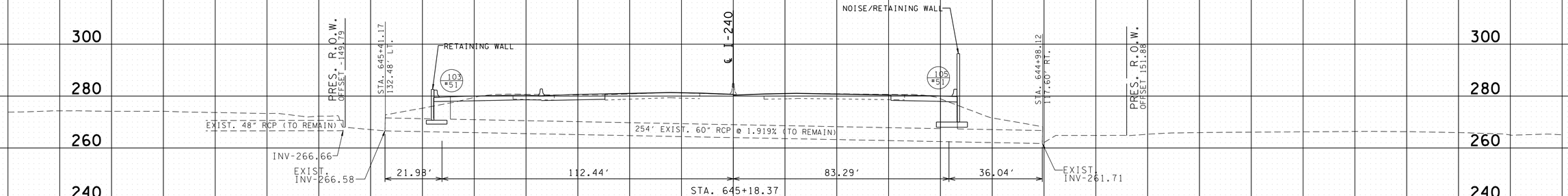
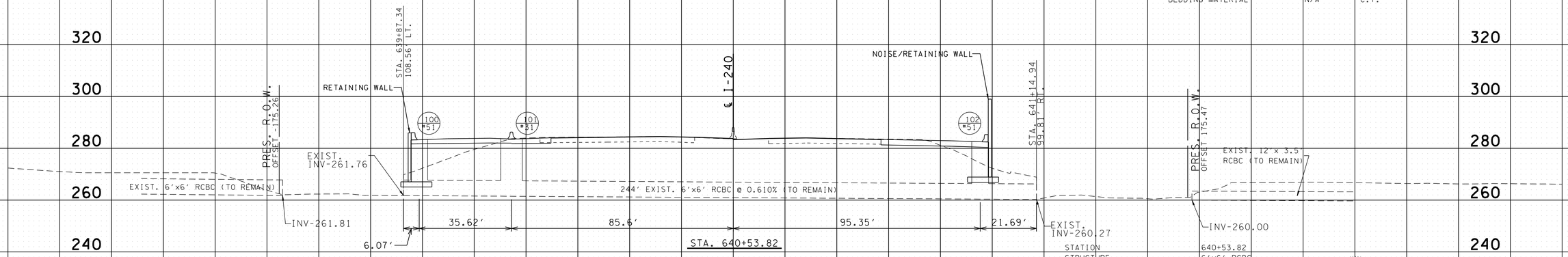
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20F
CONST.	2010	STP-I-240(290)	20F



STATION	645+18.37	
STRUCTURE	60" RCP	
SKEW	80°	
DRAINAGE AREA	41.3 AC.	
DESIGN DISCHARGE (Q50)	94.5 CFS	
DESIGN DISCHARGE (Q100)	103.1 CFS	
OVERTOPPING ELEV.	280.39	
ALLOWABLE HEADWATER ELEV.	278.93	
Q50 HEADWATER ELEV.	271.02	
Q100 HEADWATER ELEV.	271.26	
VELOCITY (Q50)	15.2 FT/S	
VELOCITY (Q100)	15.4 FT/S	
INLET ELEVATION	266.58	
OUTLET ELEVATION	261.71	
STANDARD DRAWING NUMBERS	N/A	
INLET DRAWING NUMBERS	N/A	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	N/A	C.Y.
STEEL BAR REINFORCING	N/A	LB.
STRUCTUAL STEEL	N/A	LB.
BEDDING MATERIAL	N/A	C.Y.



STATION	640+53.82	
STRUCTURE	6'x6' RCBC	
SKEW	58°	
DRAINAGE AREA	164.0 AC.	
DESIGN DISCHARGE (Q50)	662 CFS	
DESIGN DISCHARGE (Q100)	775 CFS	
OVERTOPPING ELEV.	283.91	
ALLOWABLE HEADWATER ELEV.	282.68	
Q50 HEADWATER ELEV.	280.09	
Q100 HEADWATER ELEV.	285.07	
VELOCITY (Q50)	18.4 FT/S	
VELOCITY (Q100)	21.5 FT/S	
INLET ELEVATION	261.76	
OUTLET ELEVATION	260.27	
STANDARD DRAWING NUMBERS	N/A	
INLET DRAWING NUMBERS	N/A	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	N/A	C.Y.
STEEL BAR REINFORCING	N/A	LB.
FOUNDATION FILL MATERIAL	N/A	C.Y.
GRANULAR BACKFILL	N/A	C.Y.

JOHN T. PANKEY
REGISTERED ENGINEER
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8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

-280 -240 -200 -160 -120 -80 -40 0 40 80 120 160 200 240 280

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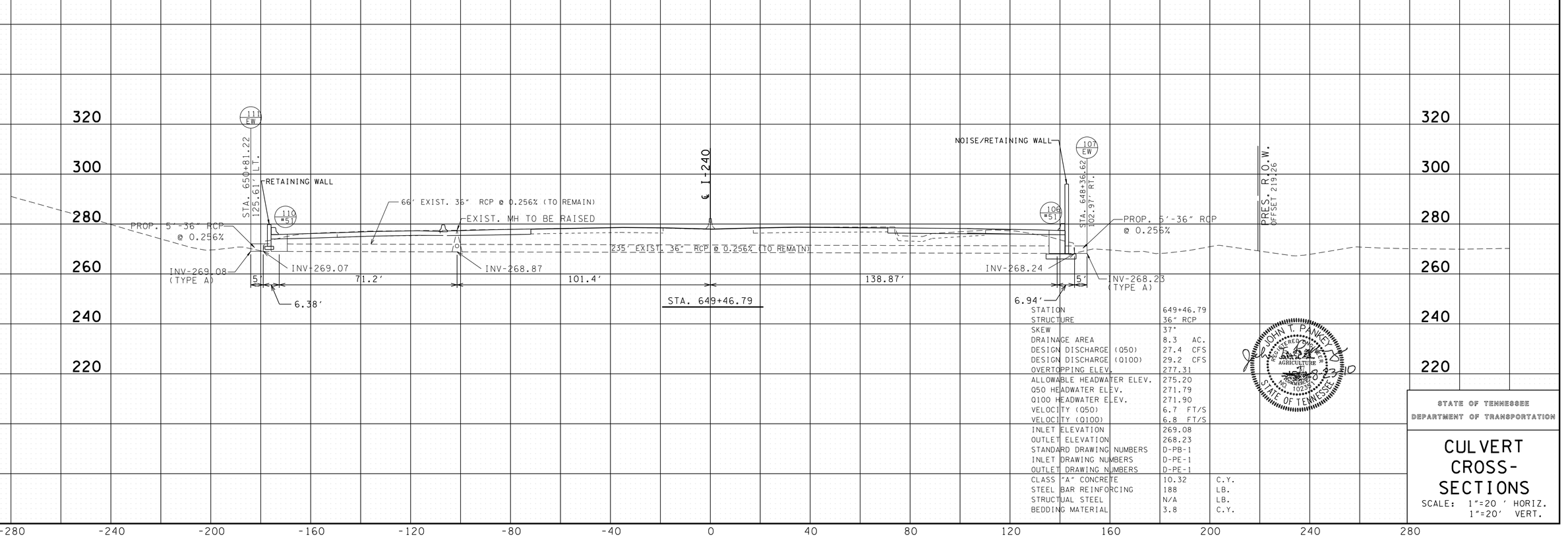
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	206
CONST.	2010	STP-I-240(290)	206



STATION	649+46.79	
STRUCTURE	36" RCP	
SKEW	37°	
DRAINAGE AREA	8.3 AC.	
DESIGN DISCHARGE (Q50)	27.4 CFS	
DESIGN DISCHARGE (Q100)	29.2 CFS	
OVERTOPPING ELEV.	277.31	
ALLOWABLE HEADWATER ELEV.	275.20	
Q50 HEADWATER ELEV.	271.79	
Q100 HEADWATER ELEV.	271.90	
VELOCITY (Q50)	6.7 FT/S	
VELOCITY (Q100)	6.8 FT/S	
INLET ELEVATION	269.08	
OUTLET ELEVATION	268.23	
STANDARD DRAWING NUMBERS	D-PB-1	
INLET DRAWING NUMBERS	D-PE-1	
OUTLET DRAWING NUMBERS	D-PE-1	
CLASS "A" CONCRETE	10.32	C.Y.
STEEL BAR REINFORCING	188	LB.
STRUCTUAL STEEL	N/A	LB.
BEDDING MATERIAL	3.8	C.Y.

JOHN T. PANKEY
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10/23/10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

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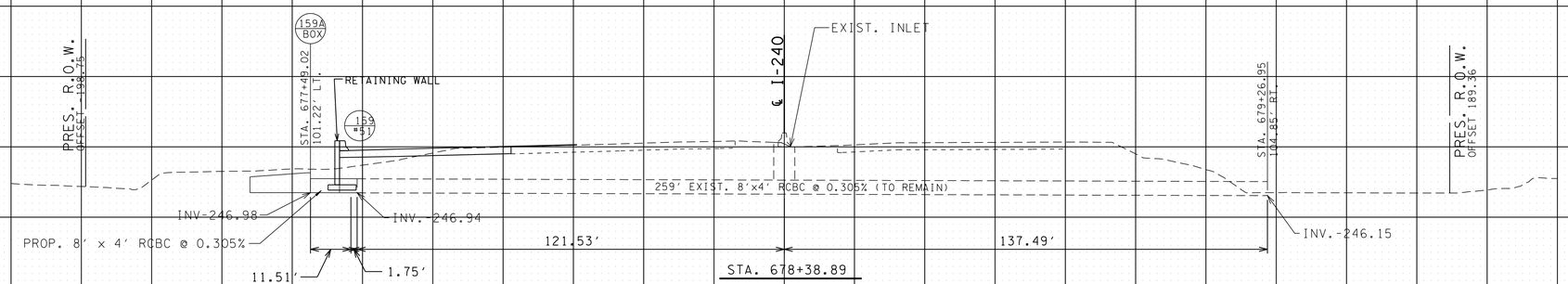
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20H
CONST.	2010	STP-I-240(290)	20H



STATION	678+38.89	
STRUCTURE	8' x 4' RCBC	
SKEW	49°	
DRAINAGE AREA	54.0	AC.
DESIGN DISCHARGE (Q50)	139	CFS
DESIGN DISCHARGE (Q100)	151	CFS
OVERTOPPING ELEV.	261.68	
ALLOWABLE HEADWATER ELEV.	258.39	
Q50 HEADWATER ELEV.	250.64	
Q100 HEADWATER ELEV.	250.85	
VELOCITY (Q50)	8.2	FT/S
VELOCITY (Q100)	8.4	FT/S
INLET ELEVATION	246.98	
OUTLET ELEVATION	246.15	
STANDARD DRAWING NUMBERS	STD-15-37	
INLET DRAWING NUMBERS	STD-15-11 (3:1)	
OUTLET DRAWING NUMBERS	N/A	
CLASS "A" CONCRETE	14.55	C.Y.
STEEL BAR REINFORCING	2556	LB.
STRUCTUAL STEEL	N/A	LB.
BEDDING MATERIAL	N/A	C.Y.
FOUNDATION FILL MATERIAL	5.7	C.Y.
GRANULAR BACKFILL	52.8	C.Y.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=20 ' HORIZ.
1"=20' VERT.

8/20/2010
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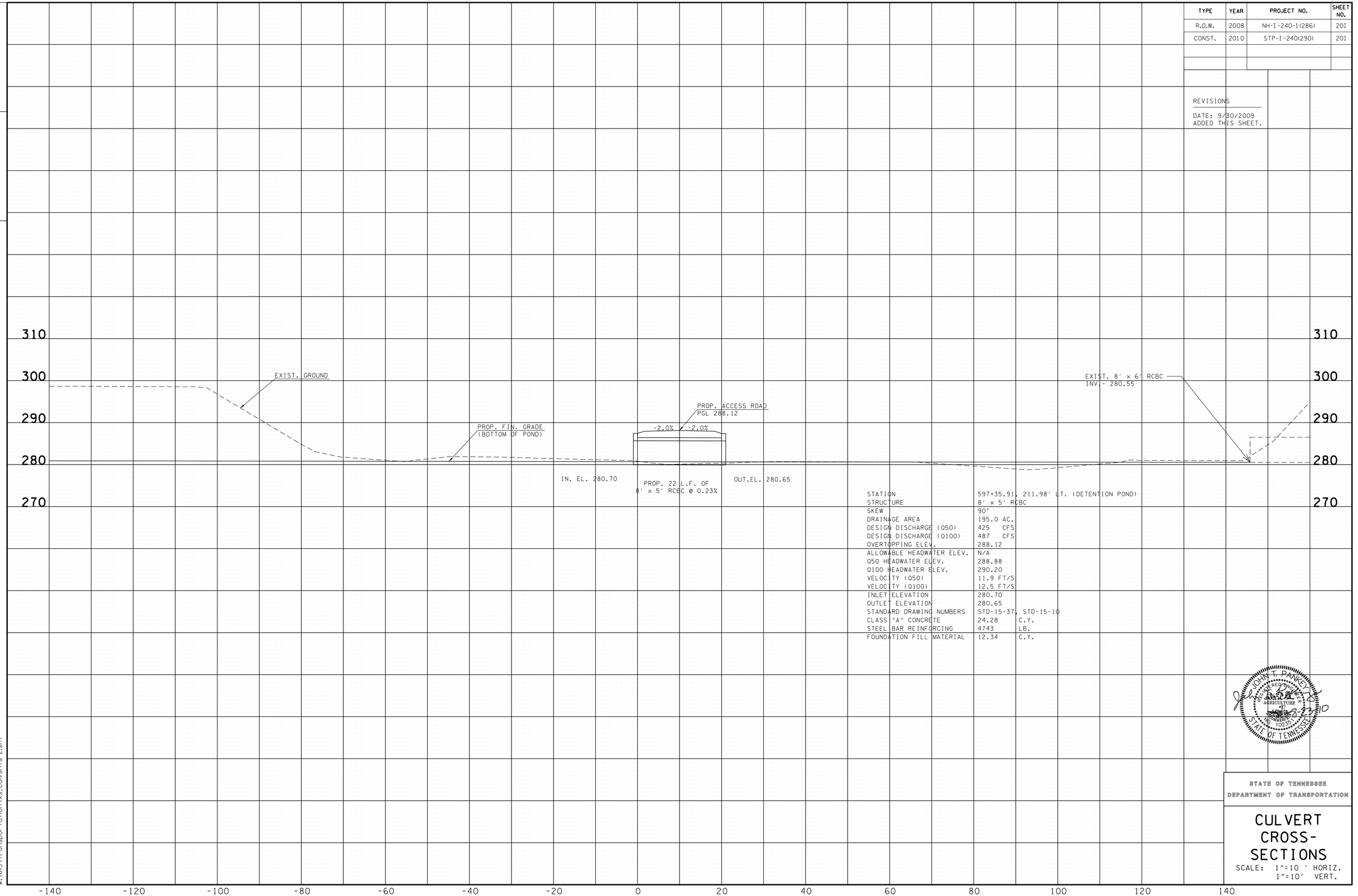
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	20I
CONST.	2010	STP-I-240(290)	20I

REVISIONS

DATE: 9/30/2009
ADDED THIS SHEET.



STATION	597+35.91, 211.98' LT. (DETENTION POND)	
STRUCTURE	8' x 5' RCBC	
SKEW	90°	
DRAINAGE AREA	195.0 AC.	
DESIGN DISCHARGE (Q50)	425 CFS	
DESIGN DISCHARGE (Q100)	487 CFS	
OVERTOPPING ELEV.	288.12	
ALLOWABLE HEADWATER ELEV.	N/A	
Q50 HEADWATER ELEV.	288.88	
Q100 HEADWATER ELEV.	290.20	
VELOCITY (Q50)	11.9 FT/S	
VELOCITY (Q100)	12.5 FT/S	
INLET ELEVATION	280.70	
OUTLET ELEVATION	280.65	
STANDARD DRAWING NUMBERS	STD-15-37, STD-15-10	
CLASS "A" CONCRETE	24.28	C.Y.
STEEL BAR REINFORCING	4743	LB.
FOUNDATION FILL MATERIAL	12.34	C.Y.

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8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

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

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21
CONST.	2010	STP-I-240(290)	21

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.

UTILITY RELOCATION

(1) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(2) 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.

(3) 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).

(4) 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.

(5) 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.

(6) 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.

(7) 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.

(8) 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.

(9) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).

(10) 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.

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

HIGH QUALITY WATERS

(1) FOR PROJECTS THAT DISCHARGE INTO HIGH QUALITY WATERS OR WATERS IMPAIRED BY SILTATION, AN OUTFALL IN A DRAINAGE AREA OF 5 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT.

(2) FOR PROJECTS THAT DISCHARGE INTO HIGH QUALITY 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 25 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

NPDES

(1) 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.

(2) 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.

(3) 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, OR FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN, INCORPORATED INTO THE SWPPP.

(4) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 15 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 15 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 RUNS WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.

(5) 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.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.	SYMBOL	ITEM	STD. DWG.
✱ SF ✱ SF ✱ SF ✱	SILT FENCE	EC-STR-3B	TTTTTTTTT	TEMPORARY BERM	EC-STR-27
✱ SFB ✱ SFB ✱ SFB ✱	SILT FENCE WITH WIRE BACKING	EC-STR-3C		RIP-RAP	EC-STR-27
	ENHANCED SILT FENCE CHECK V-DITCH	EC-STR-4A		TEMPORARY DIVERSION CHANNEL	EC-STR-31
	ROCK CHECK DAM V-DITCH	EC-STR-6	✱✱ TUBE ✱✱ TUBE ✱✱	SEDIMENT TUBE	EC-STR-37
	ENHANCED ROCK CHECK DAM V-DITCH	EC-STR-6A	4	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
	CULVERT PROTECTION TYPE 1	EC-STR-11	1	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EC-STR-41
	CULVERT PROTECTION (TYPE 2)	EC-STR-11A	2	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42
A	CATCH BASIN PROTECTION (TYPE A)	EC-STR-19	3	CATCH BASIN FILTER ASSEMBLY (TYPE 3)	EC-STR-43
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19	4	CATCH BASIN FILTER ASSEMBLY (TYPE 4)	EC-STR-44
E	CATCH BASIN PROTECTION (TYPE E)	EC-STR-19	TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	TEMPORARY SLOPE DRAIN	EC-STR-27			

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES (PRE-CONSTRUCTION)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	650
209-02.03	8" TEMPORARY SLOPE DRAIN	LF	55
209-02.05	12" TEMPORARY SLOPE DRAIN	LF	30
209-02.07	18" TEMPORARY SLOPE DRAIN	LF	81
209-05	SEDIMENT REMOVAL	C.Y.	2000
209-08.02	TEMPORARY SILT FENCE WITH BACKING	LF	7500
209-08.03	TEMPORARY SILT FENCE WITHOUT BACKING	LF	8900
209-08.05	ENHANCED SILT FENCE CHECK V DITCH	EA	50
209-08.08	ENHANCED ROCK CHECK DAM	EA	23
209-09.43	CURB INLET PROTECTION (TYPE 4)	EA	2
209-40.30	CATCH BASIN PROTECTION (TYPE A)	EA	7
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EA	10
209-40.34	CATCH BASIN PROTECTION (TYPE E)	EA	6
209-65.03	TEMPORARY DIVERSION CHANNEL	LF	132
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	235
709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	450
709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	1100
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	1900
740-11.02	TEMPORARY SEDIMENT TUBE (12")	LF	1000
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	2310
801-03	WATER (SEEDING & SODDING)	M.G.	230

All enhanced rock check dams have a height of 1.5' unless otherwise specified.

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES (PHASE 1)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	100
209-05	SEDIMENT REMOVAL	C.Y.	2000
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EA	1
209-40.34	CATCH BASIN PROTECTION (TYPE E)	EA	6
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	200
709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	150
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	700

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES (PHASE 2)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	100
209-02.07	18" TEMPORARY SLOPE DRAIN	LF	50
209-05	SEDIMENT REMOVAL	CY	2000
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	LF	3500
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	LF	3500
209-08.05	ENHANCED SILT FENCE CHECK (V-DITCH)	EA	60
209-08.07	ROCK CHECK DAM	EA	25
209-08.08	ENHANCED ROCK CHECK DAM	EA	15
209-09.03	SEDIMENT FILTER BAG (15' X 15')	EA	5
209-40.30	CATCH BASIN PROTECTION (TYPE A)	EA	7
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EA	2
209-40.34	CATCH BASIN PROTECTION (TYPE E)	EA	6
209-09.43	CURB INLET PROTECTION (TYPE 4)	EA	103
209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EA	19
209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EA	5
209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EA	53
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	20
709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	55
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	125
740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	16500
740-11.04	TEMPORARY SEDIMENT TUBE 20IN	L.F.	325
740-11.05	TEMPORARY SEDIMENT TUBE 24IN	L.F.	800

All enhanced rock check dams have a height of 1.5' unless otherwise specified.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN
(LEGEND AND NOTES)

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21A
CONST.	2010	STP-I-240(290)	21A

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

N

BEGIN PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 525+26.23
N 299830.8266
E 810912.9069

520 525 40 45 10 15

STA. 47+01.94 RAMP 15-D =
STA. 521+50.00, 60.00' LT. I-240
N 299458.4180
E 810832.5190

12" TEMP. SLOPE DRAIN
SLOPE ESMT.
CONST ESMT.
TOP OF CUT
GRADE BREAK
CONC. DITCH
OUT-1A
OUT-1B
OUT-1C
OUT-1D
PROP ℄ RAMP 15-D
S 1° 58' 25" W
PROP ℄ I-240
PROP ℄ I-240 N 3° 07' 12" E
PROP ℄ CD ROAD-1
N 5° 07' 12" E
30" RCP
18" RCP
36" RCP
DMH
SFB
MATCH LINE STA. 530+00 SEE SHT. NO. 21B

STA. 10+00.00 CD ROAD-1 =
STA. 523+25.00, 60.00' RT. I-240
N 299626.6300
E 810961.8660

BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00
N 299455.1548
E 810892.4304

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)
B.O.P. TO STA. 530+00
SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21B
CONST.	2010	STP-I-240(290)	21B

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

N

535

540

18" TEMP. SLOPE DRAIN

CONST ESMT.

SLOPE ESMT.

CONST/ ESMT.

SLOPE ESMT.

TOP OF CUT

SF * SF * SF * SF * SF

CONST. ESMT.

PERM. DRAIN. ESMT.

CONC. DITCH

EXIST. CONC. SWALE

CONC. DITCH

STO REMAIN

35

30

20

25

S 1° 58' 25" W PROP ℄ RAMP 15-D

N 3° 07' 12" E PROP ℄ RAMP 15-D S 2° 51' 39" W

OUT-2A

OUT-2B

OUT-2C

PROP ℄ I-240

18"RCP

24"RCP

60" RCP

JB

PROP ℄ CD ROAD-1

N 3° 07' 44" E

72" RCP

MATCH LINE STA. 530+00 SEE SHT. NO. 21A

MATCH LINE STA. 543+00 SEE SHT. NO. 21C

STA. 28+50.00 RAMP 15-G =
STA. 541+74.46, 109.67' RT. I-240
STA. 28+50.00, 14.00' RT. CD ROAD-1
N 301470.6434
E 811112.1161

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102350
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 530+00 TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21C
CONST.	2010	STP-I-240(290)	21C

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS OUT-1A

STA. 21+21.03 RAMP 15-A =
STA. 21+21.03 RAMP 15-D
N 302037.3159
E 810932.7124

STA. 41+03.70 RAMP 15-F =
STA. 41+03.70, 14.00' RT. CD ROAD-1
N 302722.9478
E 811175.8031

STA. 37+19.18 RAMP 15-H =
STA. 37+19.18, 14.00' RT. CD ROAD-1
N 302338.5243
E 811159.5560

MATCH LINE STA. 543+00 SEE SHT. NO. 21B

MATCH LINE STA. 556+00 SEE SHT. NO. 21D

PARK AVENUE

EAST BOUND POPLAR AVENUE

PROP. RAMP 15-G

PROP. RAMP 15-D

PROP. RAMP 15-A

PROP. RAMP 15-H

PROP. CD ROAD-1

PROP. WALK GATE

INLET TO BE REMOVED

EX. C.B. TO REMAIN

REMOVE EXIST. CB AND INSTALL ROCK SILT SCREEN AT PIPE ENDCUT

STABILIZE WITH E.C. MATTING

12" SEDIMENT TUBE

SLOPE ESMT.

CONST. ESMT.

TOP OF CUT

TOE OF FILL

CONC. DITCH

18" RCP

24" RCP

36" RCP

42" RCP

15" CMP

GRD@ABDPIPE

GRD@CLEDIS RCP

14" RCP

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
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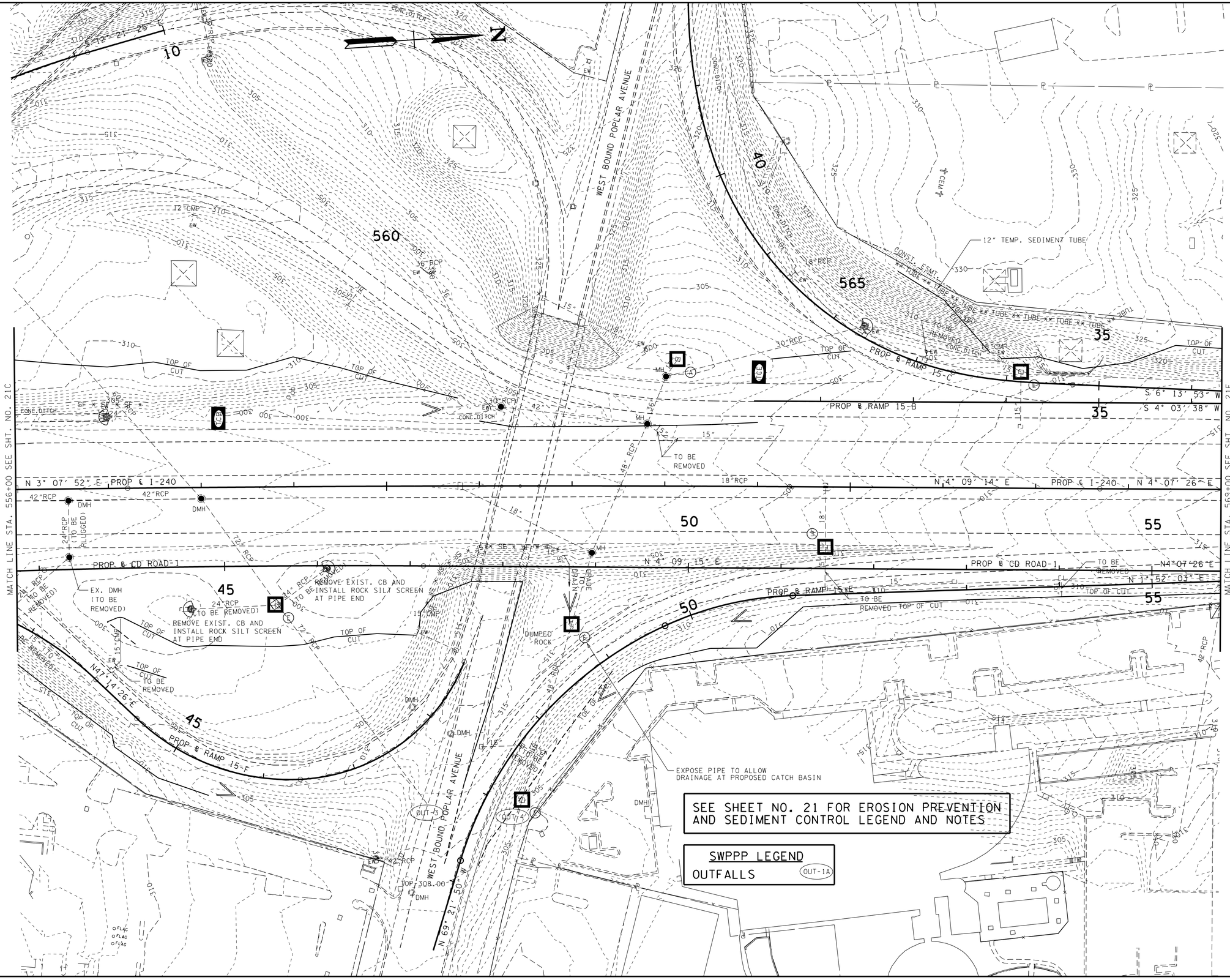
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21D
CONST.	2010	STP-I-240(290)	21D



SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
AGRICULTURE
No. 102355
3-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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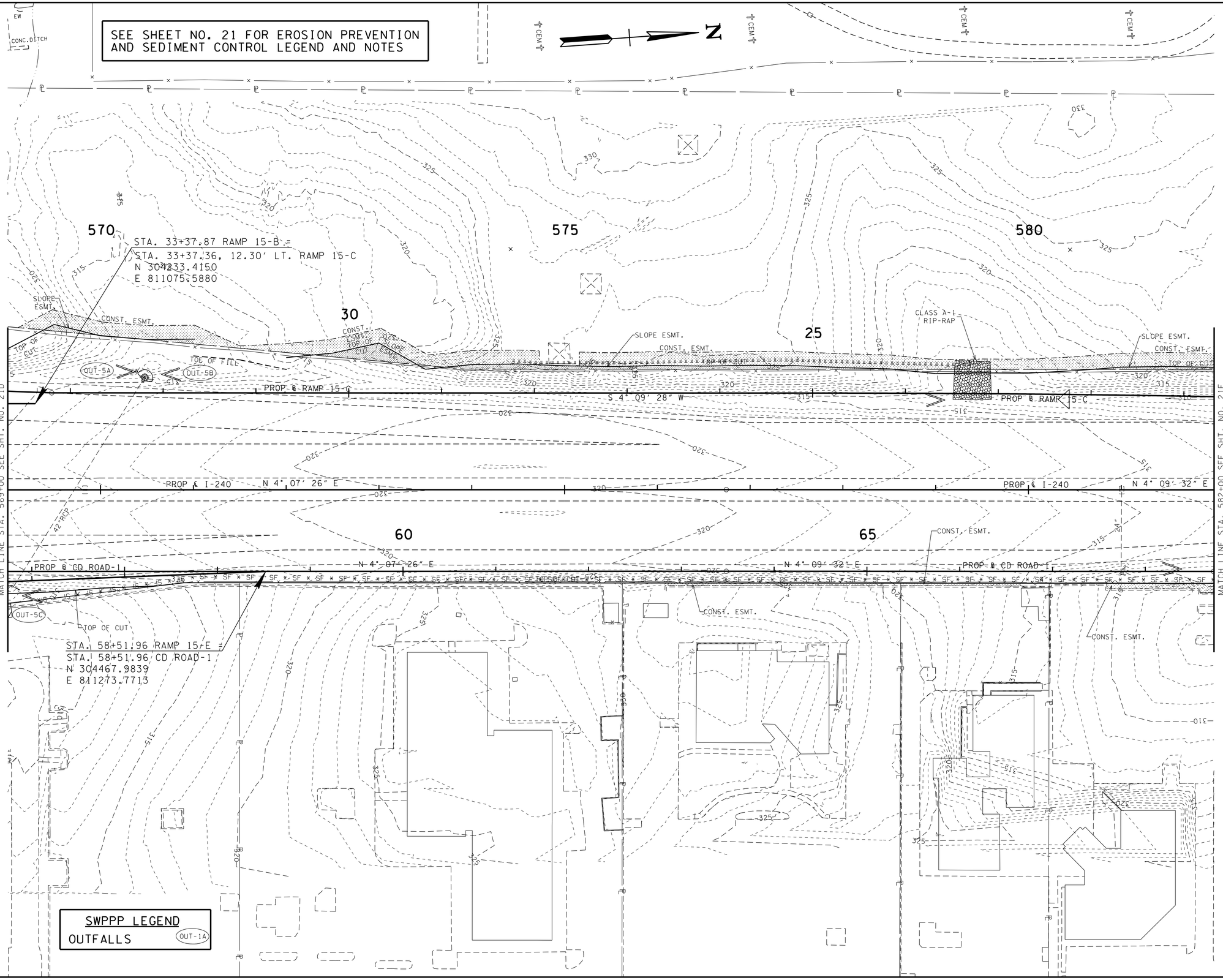
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21E
CONST.	2010	STP-I-240(290)	21E

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES



SWPPP LEGEND
OUTFALLS (OUT-1A)

JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 569+00 TO STA. 582+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21F
CONST.	2010	STP-I-240(290)	21F

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

STA. 10+00.00 RAMP 15-C
STA. 592+65.00, 60.00' LT. I-240
N 306561.4890
E 811280.3950

LIMIT OF PROPOSED DETENTION BASIN EXCAVATION

PERMANENT DRAIN. ESMT. FOR DETENTION BASIN

CONST. ESMT.

8" TEMP. SLOPE DRAIN

SLOPE ESMT.
CONST. ESMT.
TOP OF CUT

PROP ℄ RAMP 15-C
S 7° 29' 57" W

N 4° 09' 32" E PROP ℄ I-240
N 4° 09' 11" E
PROP ℄ I-240
N 3° 23' 38" E
PROP ℄ CD ROAD-1

18"RCP
24"RCP

ODIT-6
OUT-7

EXISTING DETENTION POND

CONC. DITCH

MH

MATCH LINE STA. 582+00 SEE SHT. NO. 21E

MATCH LINE STA. 595+00 SEE SHT. NO. 21G

JOHN T. PANKEY
REGISTERED
AGRICULTURE
10255
TENNESSEE
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 582+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21G
CONST.	2010	STP-I-240(290)	21G

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

N

LIMIT OF PROPOSED DETENTION BASIN EXCAVATION

EXIST. GROUNDLINE
VARIES
5.0'
2:1
2:1
RIP-RAP CLASS A-1 2' THICK (TRANS. AREA ONLY)
GEOTEXTILE (TYPE III)
6'
TEMP. DIVERSION CHANNEL
SEE STD. DWG. EC-STR-31 FOR ADDITIONAL INFORMATION

SWPPP LEGEND
OUTFALLS (OUT-1A)

STA. 86+31.92 CD ROAD-1 =
STA. 599+21.72, 60.00' RT.
N 307239.3434
E 811485.1181

600
605
85

PERMANENT DRAIN. EASEMENT DETENTION BASIN
TEMP. DIVERSION CHANNEL
SEE DETAIL (THIS SHEET)
CONST. ESMT.
TOP OF CUT
TOE OF FILL
PROP. WALK GATE
CONC. DITCH
OUT-8A
OUT-8B
OUT-8C
OUT-8D
OUT-9A
OUT-9B
OUT-9C
OUT-9D
24" RCP
36" RCP
48" RCP
118" RCP
8' X3' RCBC
PROP ℄ I-240
N 7° 50' 09" E
N 7° 46' 38" E
PROP ℄ CD ROAD-1
MH
S-1
S-2

MATCH LINE STA. 595+00 SEE SHT. NO. 21F

MATCH LINE STA. 608+00 SEE SHT. NO. 21H

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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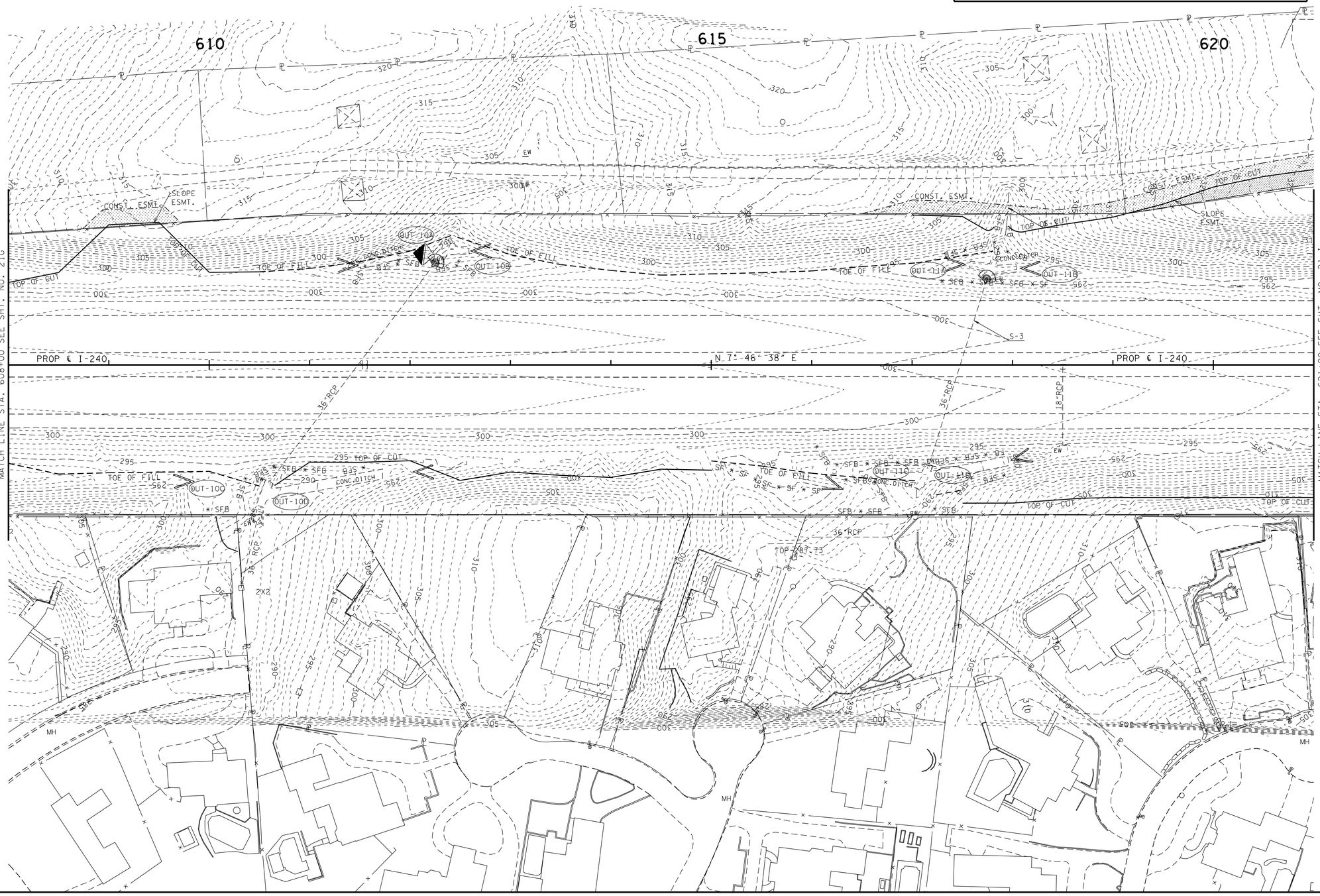
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21H
CONST.	2010	STP-I-240(290)	21H

SWPPP LEGEND
OUTFALLS (OUT-1A)

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES



8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 608+00 TO STA. 621+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21-I
CONST.	2010	STP-I-240(290)	21-I

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

STA. 69+93.11 CD ROAD-2 =
STA. 623+28.98, 72.00' LT. I-240
N 309602.3536
E 811674.6309

END PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 631+67.43
N 310423.3452
E 811859.4298

PROP. R.O.W. & C.A. FENCE
PROP. ℄ CD ROAD-2, S 6° 38' 13" W
PROP ℄ I-240 N 7° 46' 38" E
PROP ℄ I-240
TOP OF CUT
SLOPE ESMT.
CONST. ESMT.
CONC. DITCH
WWC-1
OUT-12A
OUT-12B
18"RCP
MH
SF * SFB * SFE
625
630
65
60

MATCH LINE STA. 621+00 SEE SHT. NO. 21H
MATCH LINE STA. 634+00 SEE SHT. NO. 21J

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21J
CONST.	2010	STP-I-240(290)	21J

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

N

MATCH LINE STA. 634+00 SEE SHT. NO. 21-I

MATCH LINE STA. 647+00 SEE SHT. NO. 21K

PROP. ℄ CD ROAD-2

PROP. ℄ I-240

PROP. ℄ RAMP 17-G

N 7° 46' 23" W

N 7° 46' 38" E

N 9° 45' 57" E

635 640 645 55 50 15 10

OUT-13A OUT-13B OUT-13C OUT-14A OUT-14B OUT-14C OUT-14D

WWC-2 WWC-4 WWC-5 WWC-6

S-4

6'X6'RCBC 36"RCP 48"RCP 60"RCP 18" 12"X3.5' RCBC 10'X2'X3.5' RCBC

TOP OF CUT

CONC. DITCH

TOP=269.17 FL MH#2

STA. 10+00.00 RAMP 17-G =
STA. 640+05.01, 50.87' RT. I-240
N 311245.1260
E 812032.0960

JOHN T. PANIEY
REGISTERED
AGRICULTURE
NO. 10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 634+00 TO STA. 647+00

SCALE: 1"= 50'

8/20/2010
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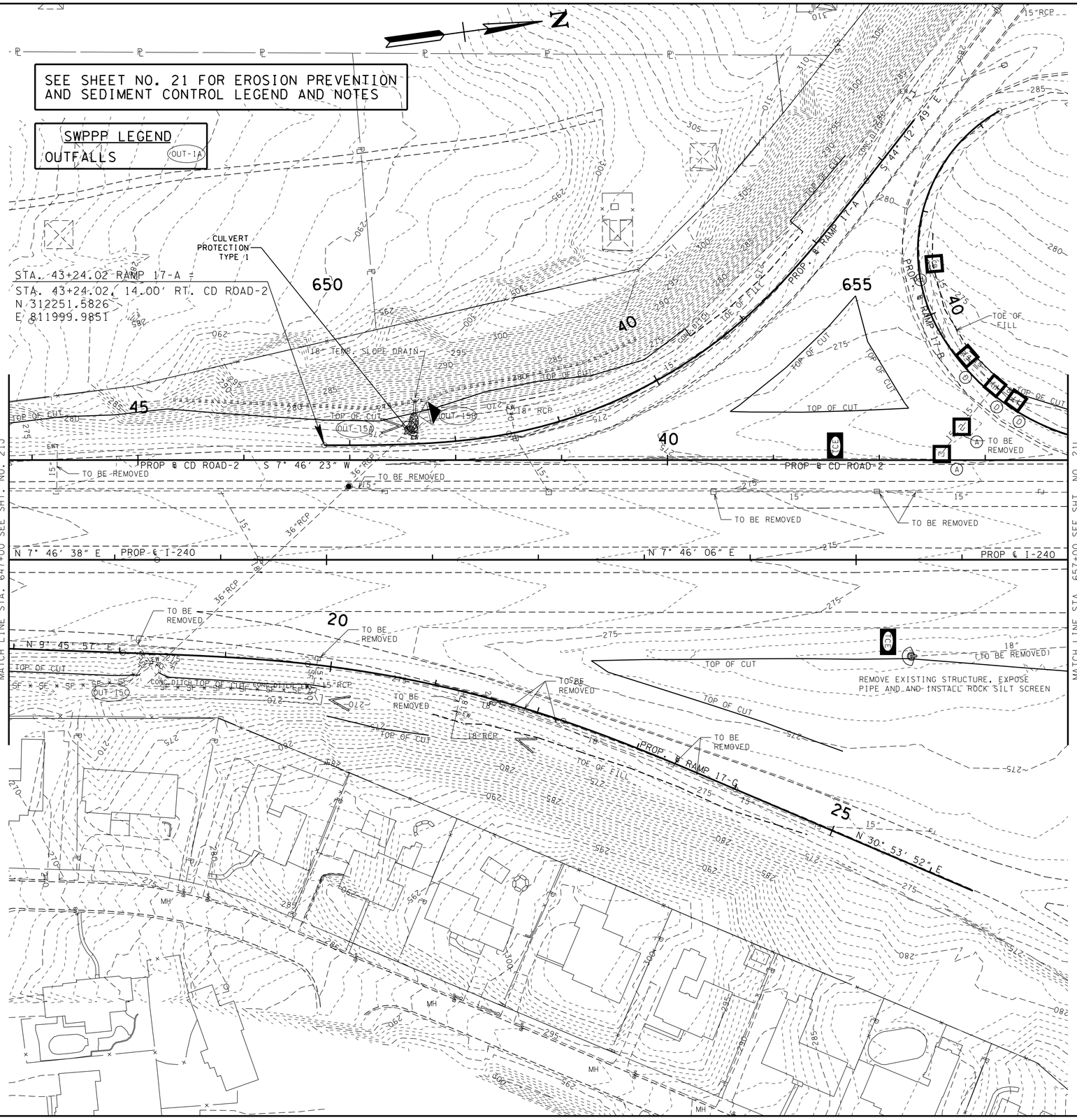
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21K
CONST.	2010	STP-I-240(290)	21K



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
STATE OF TENNESSEE

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21L
CONST.	2010	STP-I-240(290)	21L

N

WALNUT GROVE ROAD

PROP. ℄ CD ROAD-2

PROP. ℄ RAMP 17-D

PROP. ℄ RAMP 17-B

PROP. ℄ I-240

MATCH LINE STA. 657+00 SEE SHT. NO. 21K

MATCH LINE STA. 670+00 SEE SHT. NO. 21M

CONSTRUCT PROP. CONC. SWALE AND ROUTE FLOW TO IT PRIOR TO ANY OTHER EARTH-DISTURBING ACTIVITIES IN THIS AREA

TO BE REMOVED

TOP OF CUT

S 45° 47' 56" W

S 7° 46' 23" W

N 7° 46' 06" E

N 7° 45' 38" E

N 6° 55' 42" E

N 4° 44' 53" W

S 86° 15' 44" E

STA. 37+57.08 RAMP 17-B =
STA. 35+57.08, 13.99' RT. CD ROAD-2
N 313011.4684
E 812103.7195

STA. 32+09.15 RAMP 17-D =
STA. 32+09.15, 14.00' RT. CD ROAD-2
N 313356.1140
E 812150.5812

STA. 659+54.67 I-240 =
STA. 194+88.95 WALNUT GROVE ROAD
N 313184.9788
E 812236.4083

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

JOHN T. PANKEY
REGISTERED
LANDSCAPE ARCHITECT
AGRICULTURE
COMMERCE
AND
TOURISM
102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21M
CONST.	2010	STP-I-240(290)	21M

REVISIONS

DATE: 1/23/2009
ADDED LABEL FOR S-5.

STA. 21+75.00 RAMP 17-C =
STA. 21+75.00, 14.00' RT. CD ROAD-2
N 314385.5391
E 812185.4938

CONSTRUCT PROP. CONC. SWALE AND ROUTE FLOW TO IT PRIOR TO ANY OTHER EARTH-DISTURBING ACTIVITIES IN THIS AREA

675

680

CONC. DITCH

TOP OF CUT

TOP OF FILL

PROP. ℄ RAMP 17-E

PROP. ℄ CD ROAD-2

PROP. ℄ I-240

24" RCP

18" RCP

8'-X4' RCBC

OUT-18A

OUT-18B

OUT-18C

OUT-18D

OUT-19

S-5

WETLAND

20

15

MATCH LINE STA. 670+00 SEE SHT. NO. 21L

MATCH LINE STA. 683+00 SEE SHT. NO. 21N

STA. 20+00.13 RAMP 17-E =
STA. 671+48.33, 72.00' RT. I-240
N 314379.6482
E 812365.3046

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

JOHN T. PANKEY
REGISTERED
AGRICULTURE
10235
STATE OF TENNESSEE
1/23/2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 670+00 TO STA. 683+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21N
CONST.	2010	STP-I-240(290)	21N

STA. 10+00.00 CD ROAD-2 =
STA. 683+60.00, 58.27' LT. I-240
N 315544.7720
E 812012.7040

N

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

685

690

10

SFB

MATCH LINE STA. 683+00 SEE SHT. NO. 21M

PROP ℄ I-240

18" RCP

PROP ℄ I-240

N28°59'55"W

OUT-20

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANETTA
REGISTERED
AGRICULTURE
ENGINEER
NO. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PRE-CONSTRUCTION)

STA. 683+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21-0
CONST.	2010	STP-I-240(290)	21-0

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

STA. 21+21.03 RAMP 15-A =
STA. 21+21.03 RAMP 15-D
N 302037.3159
E 810932.7124

STA. 41+03.70 RAMP 15-F =
STA. 41+03.70, 14.00' RT. CD ROAD-1
N 302722.9474
E 811175.8011

STA. 37+19.18 RAMP 15-H =
STA. 37+19.18, 14.00' RT. CD ROAD-1
N 302338.5243
E 811159.5560

PARK AVENUE

EAST BOUND POPLAR AVENUE

PROP. RAMP 15-D

PROP. RAMP 15-A

PROP. RAMP 15-C

PROP. RAMP 15-F

PROP. RAMP 15-H

PROP. CD ROAD-1

PROP. WALK GATE

SLOPE ESMT.

CONST. ESMT.

EXIST. GUARDRAIL

EXIST. GUARDRAIL TO BE REMOVED

EXIST. JERSEY BARRIER WALL

PROP. I-240

EXIST. CONC. SWALE TO BE REMOVED

INLET TO BE REMOVED

REMOVE EXIST. HEADWALL AND SILT SCREEN AT PIPE END

EX. C.B. TO REMAIN

STABILIZE WITH E.C. MATTING

12" SEDIMENT TUBE

CONC. DITCH

MATCH LINE STA. 556+00 SEE SHT. NO. 21P

N 3° 07' 12" E PROP ℄ I-240

N 3° 12' 48" E

N 3° 06' 48" E

N 3° 07' 52" E

N 3° 07' 44" E

N 2° 06' 35" E

S 2° 51' 39" W

S 34° 21' 31" E

S 28° 49' 18" E

N 47° 59' 11" E

S 3° 07' 44" W

TOP-327.57

TOP-327.50

545 550 555

25 20 30 35 40

15

18" RCP

24" RCP

36" RCP

42" RCP

15" CMP

60" RCP

GRD@ABDPIPE

GRDFILLED15"RCP

14"RCP

DMH

JMH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 1)

STA. 543+00 TO STA. 566+00

SCALE: 1"= 50'

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102451
STATE OF TENNESSEE
8-23-10

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21P
CONST.	2010	STP-I-240(290)	21P

N

S 12° 21' 25" E

WEST BOUND POPLAR AVENUE

EXIST. GUARDRAIL

560

565

10

40

12"CMP

36"RCP

18"RCP

30"RCP

15"CMP

CONC.DITCH

CONST. ESMT.

12" TEMP. SEDIMENT TUBE

TO BE REMOVED

35

EXIST. RET. WALL (TO BE REMOVED)

PROP ℄ RAMP 15-C

S 6° 13' 53" W

PROP ℄ RAMP 15-B

S 4° 03' 38" W

EXIST. MEDIAN BARRIER

EXIST. JERSEY BARRIER WALL

MATCH LINE STA. 556+00 SEE SHT. NO. 210

N 3° 07' 52" E PROP ℄ I-240

N 4° 09' 14" E PROP ℄ I-240 N 4° 07' 26" E

EXIST. EDGE OF PVM'T

EXIST. GUARDRAIL TO BE REMOVED

50

55

18" ST

N 4° 09' 15" E

PROP ℄ CD ROAD-1

N4° 07' 26" E

N 1° 52' 03" E

45

24"RCP

REMOVE EXIST. CB AND INSTALL ROCK SILT SCREEN AT PIPE END

N47°14'26"E

PROP ℄ RAMP 15-F

PROP ℄ RAMP 15-E

EXPOSE PIPE TO ALLOW DRAINAGE AT PROPOSED CATCH BASIN

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

TOP 308.00

N 69° 21' 50" W

FLAG

FLAG

FLAG

8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
NO. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 1)

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	210
CONST.	2010	STP-I-240(290)	210

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS OUT-1A

STA. 43+24.02 RAMP 17-A =
STA. 43+24.02, 14.00' RT. CD ROAD-2
N 312251.5826
E 811999.9851

CULVERT PROTECTION TYPE 1

650 655 45 40 20 25

PROP. ℄ RAMP 17-A S 44° 12' 49" E
PROP. ℄ RAMP 17-B
PROP. ℄ RAMP 17-C N 30° 53' 52" E
PROP ℄ CD ROAD-2 S 7° 46' 23" W
PROP ℄ CD ROAD-2
N 7° 46' 38" E PROP ℄ I-240
N 7° 46' 06" E PROP ℄ I-240
N 9° 45' 57" E

EXIST. GUARDRAIL
EXIST. JERSEY BARRIER WALL
18" TEMP. SLOPE DRAIN
OUT-15A
OUT-15B
18" RCP
36" RCP
15" RCP
CONC DITCH
TO BE REMOVED
REMOVE EXISTING STRUCTURE, EXPOSE PIPE AND AND INSTALL ROCK SILT SCREEN
MH
EWT

MATCH LINE STA. 657+00 SEE SHT. NO. 21R

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 102357
STATE OF TENNESSEE
8-27-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 1)

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21R
CONST.	2010	STP-I-240(290)	21R

N

EXIST. GUARDRAIL

CONC.DITCH

24"RCP

16"DI

WALNUT GROVE ROAD

190

660

30

35

665

S 46° 47' 56" W

CONSTRUCT PROP. CONC. SWALE AND ROUTE FLOW TO IT PRIOR TO ANY OTHER EARTH-DISTURBING ACTIVITIES IN THIS AREA

TO BE REMOVED

PROP. ℄ RAMP 17-D

18" ST

15" ST

PROP. ℄ RAMP 17-C

25

EXIST. GUARDRAIL

PROP. ℄ CD ROAD-2

S7°46'23"W

EXIST. JERSEY BARRIER WALL

N7°46'06"E

PROP ℄ I-240

N 7° 45' 38" E

N6°55'42"E

MATCH LINE STA. 657+00 SEE SHT. NO. 21Q

S 86° 15' 44" E

N 4° 44' 53" W

15

PROP. ℄ RAMP 17-E

CB

CONC.DITCH

STA. 37+57.08 RAMP 17-B =
STA. 35+57.08, 13.99' RT. CD ROAD-2
N 313011.4684
E 812103.7195

STA. 32+09.15 RAMP 17-D =
STA. 32+09.15, 14.00' RT. CD ROAD-2
N 313356.1140
E 812150.5812

STA. 659+54.67 I-240 =
STA. 194+88.95 WALNUT GROVE ROAD
N 313184.9788
E 812236.4083

36"RCP

12"IRON

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-27-10
NO. 102351
STATE OF TENNESSEE

SWPPP LEGEND
OUTFALLS OUT-1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 1)

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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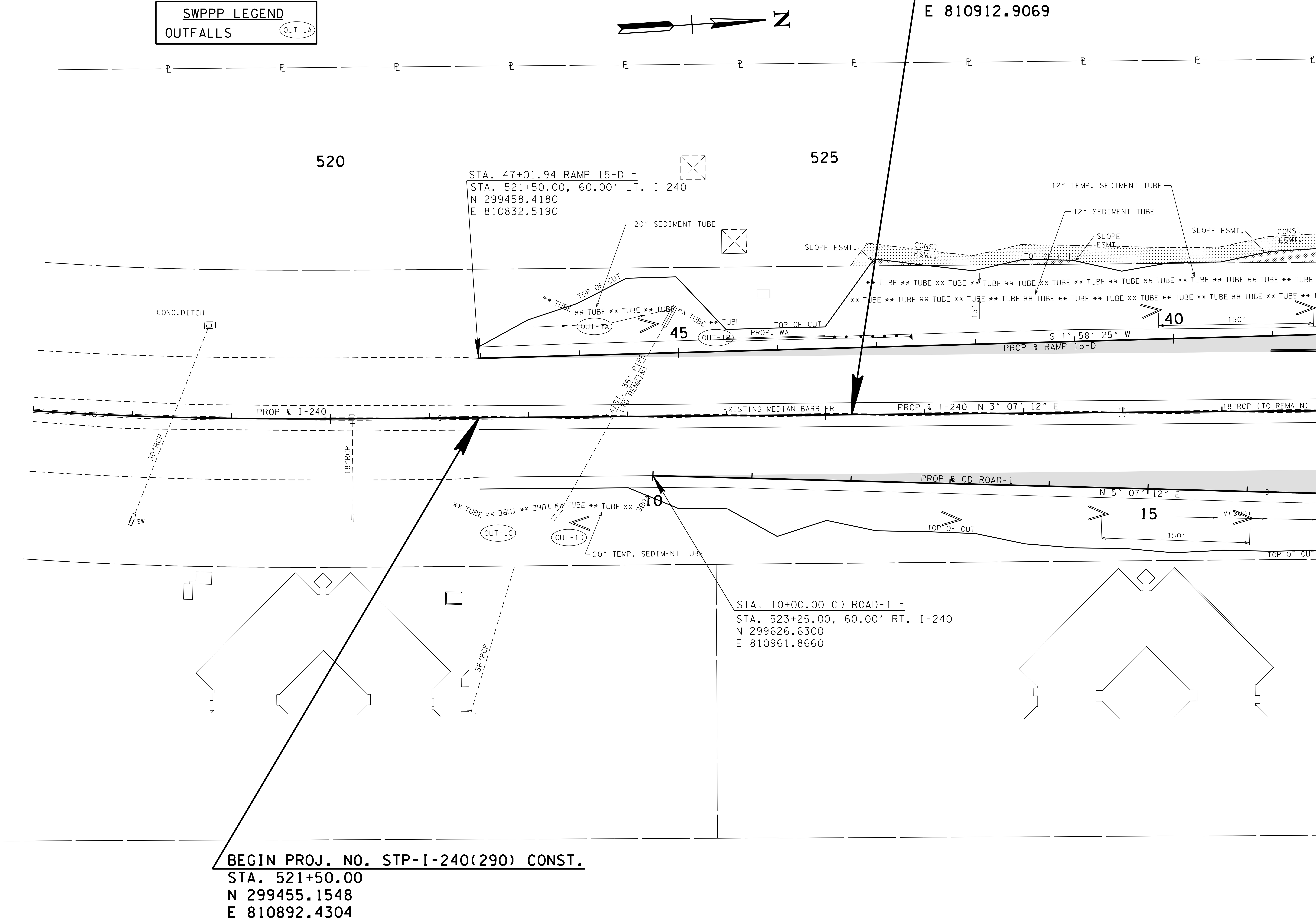
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21S
CONST.	2010	STP-I-240(290)	21S

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)



JOHN T. PANKEY
REGISTERED ENGINEER AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

8/20/2010
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

B.O.P. TO STA. 530+00

SCALE: 1″= 50′

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

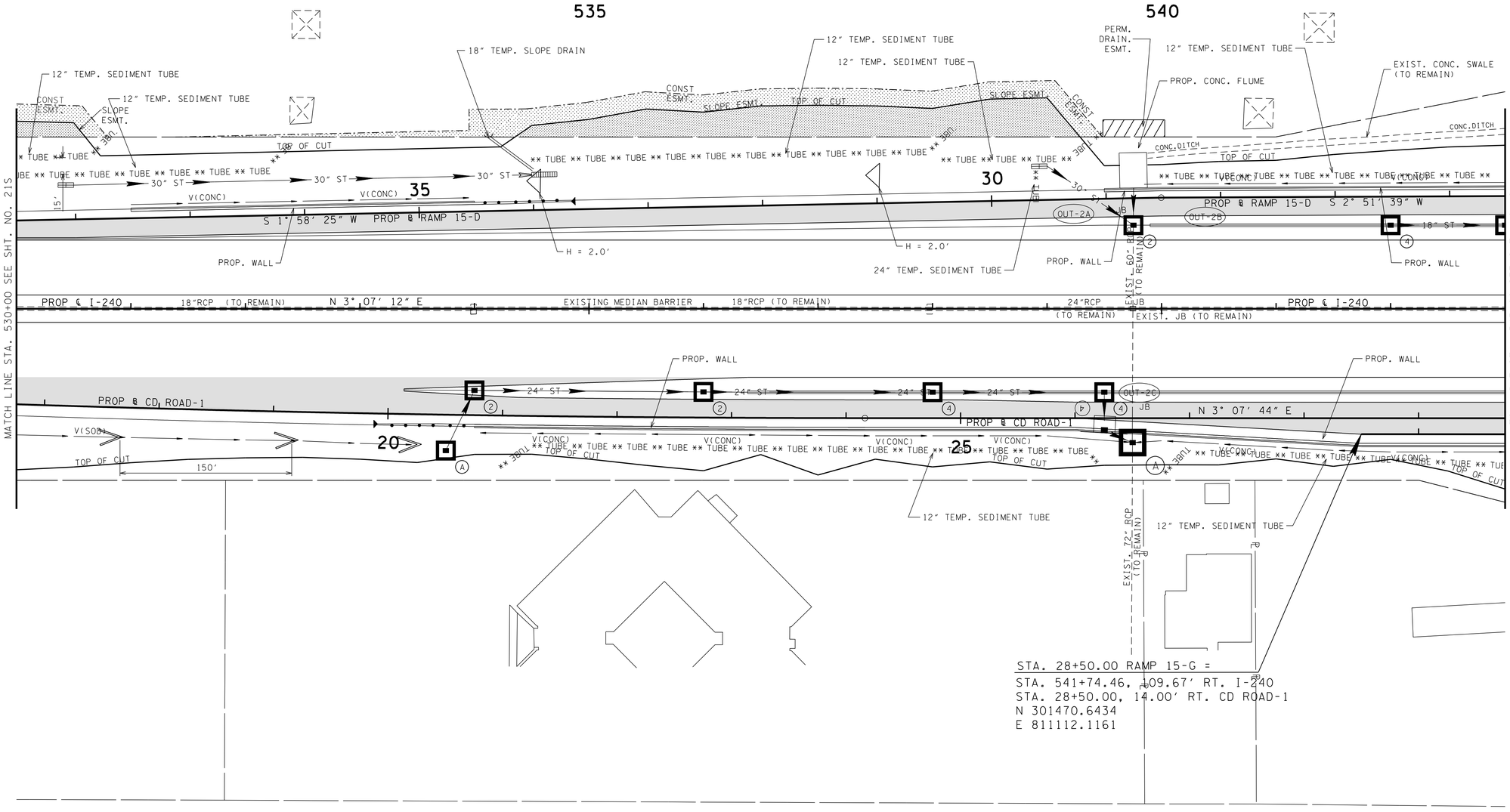
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21T
CONST.	2010	STP-I-240(290)	21T

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

N



STA. 28+50.00 RAMP 15-G =
STA. 541+74.46, 109.67' RT. I-240
STA. 28+50.00, 14.00' RT. CD ROAD-1
N 301470.6434
E 811112.1161

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10-33-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 530+00 TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21U
CONST.	2010	STP-I-240(290)	21U

N

SWPPP LEGEND
OUTFALLS (OUT-1A)

STA. 21+21.03 RAMP 15-A =
STA. 21+21.03 RAMP 15-D
N 302037.3159
E 810932.7124

PARK AVENUE

545 550 555

12" TEMP. SEDIMENT TUBE
PROP. WALL
PROP. AND PERM. 24" SLOPE DRAIN
SLOPE ESMT.
PROP. WALK GATE
CONST. ESMT.
CONC. DITCH
TOP OF CUT
TOE OF FILL
V(CONC)
V(SOD)
** TUBE **
* SFB *
632
672

PROP. ℄ RAMP 15-D
S 2° 51′ 39″ W
S 34° 23′ 31″ E
S 28° 49′ 18″ E
18" ST
JB
DMH
EX. C.B. TO REMAIN
TOP=299.18
INV-296.97
GRADE TO DRAIN
GRD@ABDPIPE
EAST BOUND POPLAR AVENUE
60" RCP (TO REMAIN)
18"RCP 24"RCP (TO REMAIN)
15"RCP (TO REMAIN)
24"RCP (TO REMAIN)
18" RCP (TO REMAIN)
36"RCP (TO REMAIN)
42"RCP (TO REMAIN)

TOP 308.37

N 3° 07′ 12″ E PROP ℄ I-240
N 3° 12′ 48″ E
EXISTING MEDIAN BARRIER
N 3° 06′ 48″ E
PROP ℄ I-240
N 3° 07′ 52″ E

30 35 40

20" TEMP. SEDIMENT TUBE
12" TEMP. SEDIMENT TUBES
24" TEMP. SEDIMENT TUBES
N 3° 07′ 44″ E
N 2° 06′ 35″ E
PROP ℄ CD ROAD-1
PROP ℄ RAMP 15-F
PROP ℄ RAMP 15-H
PROP. RAMP 15-G
N 47° 59′ 11″ E
SLOPE ESMT.

STA. 41+03.70 RAMP 15-F =
STA. 41+03.70, 14.00′ RT. CD ROAD-1
N 302722.9474
E 811175.8011

STA. 37+19.18 RAMP 15-H =
STA. 37+19.18, 14.00′ RT. CD ROAD-1
N 302338.5243
E 811159.5560

MATCH LINE STA. 543+00 SEE SHT. NO. 21T
MATCH LINE STA. 556+00 SEE SHT. NO. 21V

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 543+00 TO STA. 566+00

SCALE: 1"= 50'

8/20/2010
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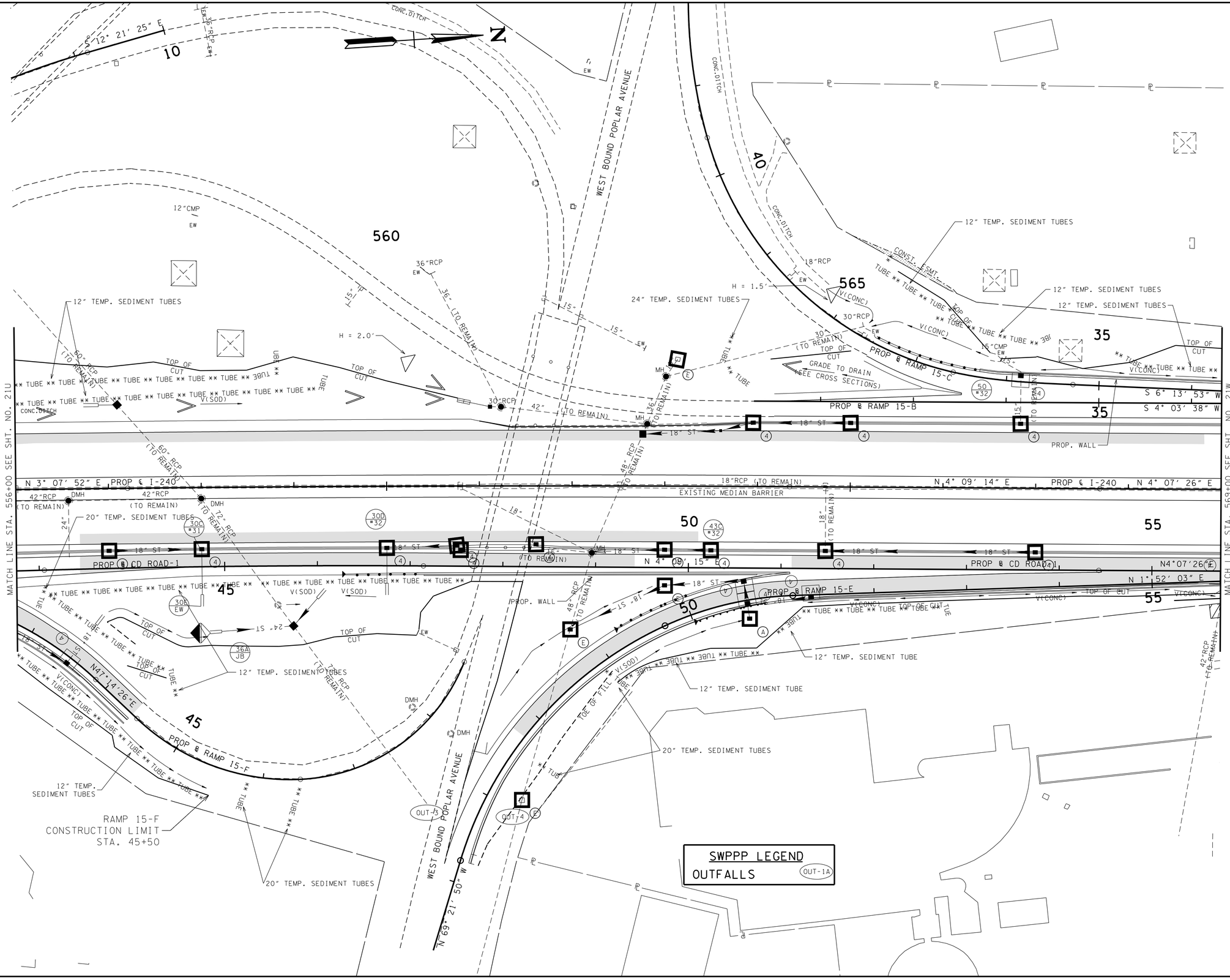
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21V
CONST.	2010	STP-I-240(290)	21V



SWPPP LEGEND
OUTFALLS (OUT-1A)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
AND
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21W
CONST.	2010	STP-I-240(290)	21W

N

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

570 575 580

STA. 33+37.87 RAMP 15-B =
STA. 33+37.36, 12.30' LT. RAMP 15-C
N 304233.4150
E 811075.5880

24" TEMP. SEDIMENT TUBE

SLOPE ESMT.

CONST. ESMT.

TOP OF CUT

** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE **

V(SOD)

TOE OF FILL

OUT-5A

OUT-5B

30

25

V(CONC)

PROP ℄ RAMP 15-C

S 4° 09' 28" W

30" ST

36" ST

18" ST

PROP. WALL

H = 1.5'

42"RCP (TO REMAIN)

PROP ℄ I-240 N 4° 07' 26" E

EXISTING MEDIAN BARRIER

PROP ℄ I-240 N 4° 09' 32" E

24"RCP (TO REMAIN)

MATCH LINE STA. 569+00 SEE SHT. NO. 21V

MATCH LINE STA. 582+00 SEE SHT. NO. 21X

60 65

PROP ℄ CD ROAD-1

N 4° 07' 26" E

N 4° 09' 32" E

PROP ℄ CD ROAD-1

24" ST

PROP. WALL CONST. ESMT.

CONST. ESMT.

OUT-5C

TOP OF CUT

STA. 58+51.96 RAMP 15-E =
STA. 58+51.96 CD ROAD-1
N 304467.9839
E 811273.7713

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 569+00 TO STA. 582+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21X
CONST.	2010	STP-I-240(290)	21X

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

STA. 10+00.00 RAMP 15-C =
STA. 592+65.00, 60.00' LT. I-240
N 306561.4890
E 811280.3950

585 590

LIMIT OF PROPOSED DETENTION BASIN EXCAVATION

CONST. ESMT.

PERMANENT DRAIN. ESMT. FOR DETENTION BASIN

TOP OF CUT

SLOPE ESMT.

CONST. ESMT.

H = 2.0' (TYP. THIS RUN)

12" TEMP. SEDIMENT TUBE

CUT SWALE AND RIP-RAP

** TUBE ** TUBE ** TUBE ** TUBE **

V(RIP-RAP)

V(CONC)

36" ST

18" ST

24" ST

30" ST

PROP. WALL

PROP ℄ RAMP 15-C

S 7° 29' 57" W

N 4° 09' 32" E PROP ℄ I-240

N 4° 09' 11" E

EXISTING MEDIAN BARRIER

PROP ℄ I-240

18"RCP (TO REMAIN)

PROP ℄ CD ROAD-1

N 3° 23' 52" E

TOP OF CUT

* SFB

OUT-6

OUT-7

CONC.DITCH

H = 1.5' (TYP. THIS RUN)

12" TEMP. SEDIMENT TUBE EXISTING DETENTION POND

24"RCP

MATCH LINE STA. 582+00 SEE SHT. NO. 21W

MATCH LINE STA. 595+00 SEE SHT. NO. 21Y

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 582+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21Y
CONST.	2010	STP-I-240(290)	21Y

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

N

SWPPP LEGEND
OUTFALLS (OUT-1A)

LIMIT OF PROPOSED DETENTION BASIN EXCAVATION
TOP OF CUT
CONST. ESMT.
PERMANENT DRAIN. ESMT. FOR DETENTION BASIN
600
605
STA. 86+31.92 CD ROAD-1 =
STA. 599+21.72, 60.00' RT.
N 307239.3434
E 811485.1181
S-1
12" TEMP. SEDIMENT TUBE
8' X 5' RCBC
EXIST. CONC. SWALE (TO REMAIN)
PROP. WALK GATE
CONC.DITCH
OUT-8A
OUT-8B
V(CONC)
** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TOP OF CUT
TUBE
18" ST
4
PROP. WALL
BX66RCBC (TO REMAIN)
PROP ℄ I-240
N 7° 50' 09" E
N 7° 46' 38" E
EXISTING MEDIAN BARRIER
PROP ℄ CD ROAD-1
85
30" ST
SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF * SF
TOP OF CUT
V(SOD)
INV. 287.25
OUT-8C
OUT-8D
TOE OF FILL
12" TEMP. SEDIMENT TUBES
36" RCP
8' X3' RCBC
18" RCP (TO REMAIN)
20" TEMP. SEDIMENT TUBES
S-2
OUT-9A
OUT-9B
OUT-9C
OUT-9D
EW
36" CMP
48" RCP
48" RCP (TO REMAIN)
MATCH LINE STA. 595+00 SEE SHT. NO. 21X
MATCH LINE STA. 608+00 SEE SHT. NO. 21Z

JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
No. 102361
STATE OF TENNESSEE
8-23-2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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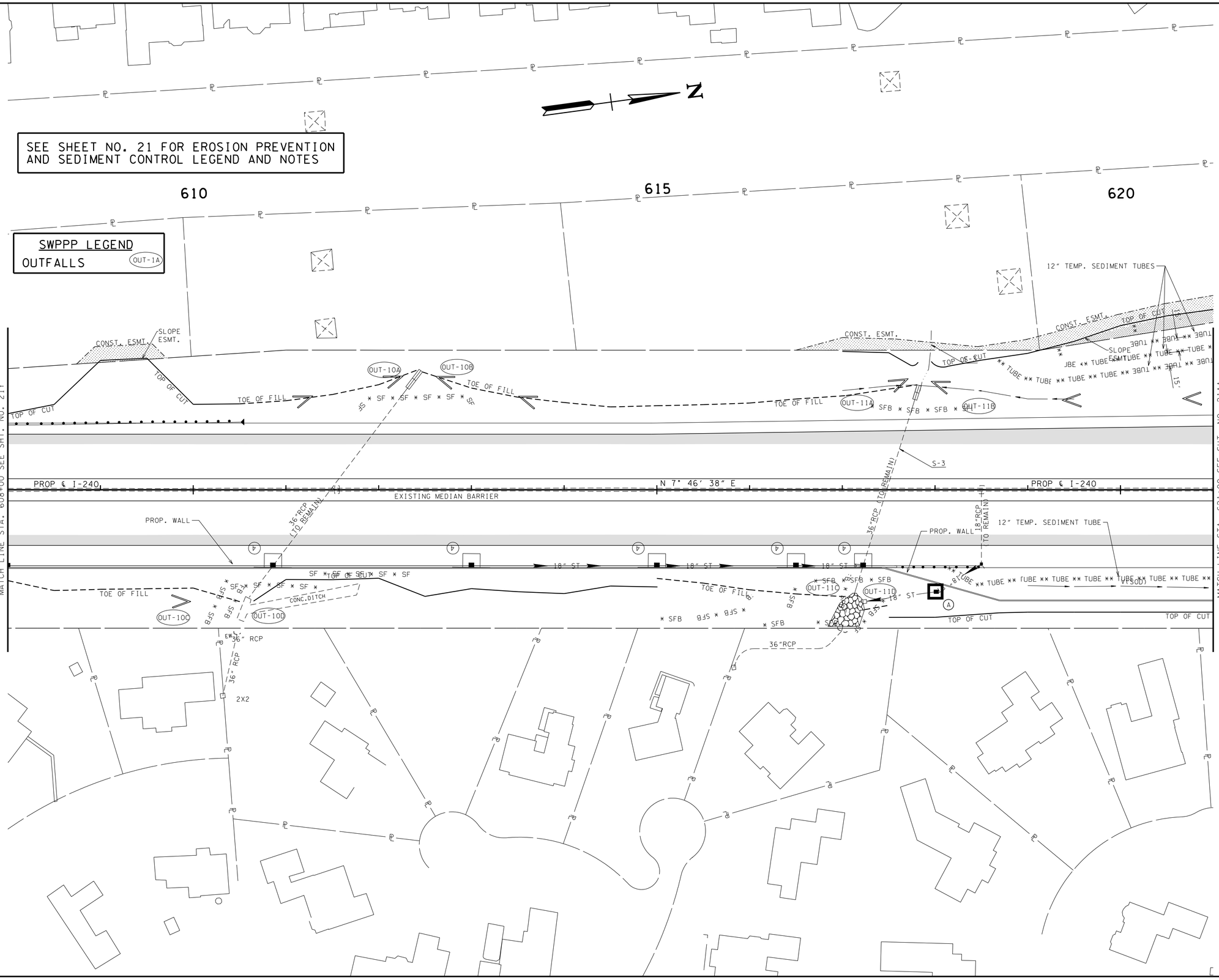
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21Z
CONST.	2010	STP-I-240(290)	21Z



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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 608+00 TO STA. 621+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21AA
CONST.	2010	STP-I-240(290)	21AA

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

N

SWPPP LEGEND
OUTFALLS (OUT-1A)

STA. 69+93.11 CD ROAD-2 =
STA. 623+28.98, 72.00' LT. I-240
N 309602.3536
E 811674.6309

625

END PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 631+67.43
N 310423.3452
E 811859.4298

630

MATCH LINE STA. 621+00 SEE SHT. NO. 21Z

MATCH LINE STA. 634+00 SEE SHT. NO. 21BB

12" TEMP. SEDIMENT TUBES

TOP OF CUT

CONST. ESMT.

SLOPE ESMT.

** TUBE ** TUBE ** TUBE ** TUBE **

15'

SFB * SOB CUT * SFE

TOP OF CUT

V(CONC)

OUT-12A

OUT-12B

36"RCP (TO REMAIN)

PROP. & CD ROAD-2, S 6° 38' 13" W

12" TEMP. SEDIMENT TUBES

PROP. R.O.W. & C.A. FENCE

XX

CONC.DITCH

TOP OF CUT

** TUBE ** TUBE ** TUBE ** TUBE ** TUBE **

** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUB

** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE ** TUBE **

65

TOP OF CUT

60

V(CONC)

18" ST

4

PROP. WALL

PROP. & I-240

N 7° 46' 38" E

EXISTING MEDIAN BARRIER

PROP. & I-240

18"RCP (TO REMAIN)

PROP. WALL

V(SOD)

SF * SF * SF

OUT-12C

OUT-12D

SFB * SOB CUT * SFE

18" ST

91C JB

PROP. WALL

TOP OF CUT

SLOPE ESMT.

CONST. ESMT.

WWC-1

PROP. WALL

TOP OF CUT

JOHN T. PANKEY
REGISTERED ENGINEER
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8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21BB
CONST.	2010	STP-I-240(290)	21BB

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

635 640 645

6'X6'RCBC
36"RCP
12" TEMP. SEDIMENT TUBE
S-4
OUT-13B
OUT-13A
OUT-14A
OUT-14B
48"RCP
PROP. WALL
TOP OF CUT
V(CONC)
18" ST
TUBE
SF
PROP ℄ CD ROAD-2
S 7° 46' 23" W
55
50
PROP ℄ I-240
EXISTING MEDIAN BARRIER
N 7° 46' 38" E
6'X6' RCBC (TO REMAIN)
60"RCP (TO REMAIN)
15" (TO REMAIN)
PROP ℄ RAMP 17-G
N 9° 45' 57" E
15
10
V(SOD)
LS
SFB
OUT-13C
OUT-13D
OUT-14C
OUT-14D
12'X2'X3.5' RCBC
10'X2'X3.5' RCBC
FL

MATCH LINE STA. 634+00 SEE SHT. NO. 21AA

MATCH LINE STA. 647+00 SEE SHT. NO. 21CC

STA. 10+00.00 RAMP 17-G
STA. 640+05.01, 59.87' RT. I-240
N 311245.1260
E 812032.0960

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
10/25/1
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 634+00 TO STA. 647+00

SCALE: 1"= 50'

8/20/2010
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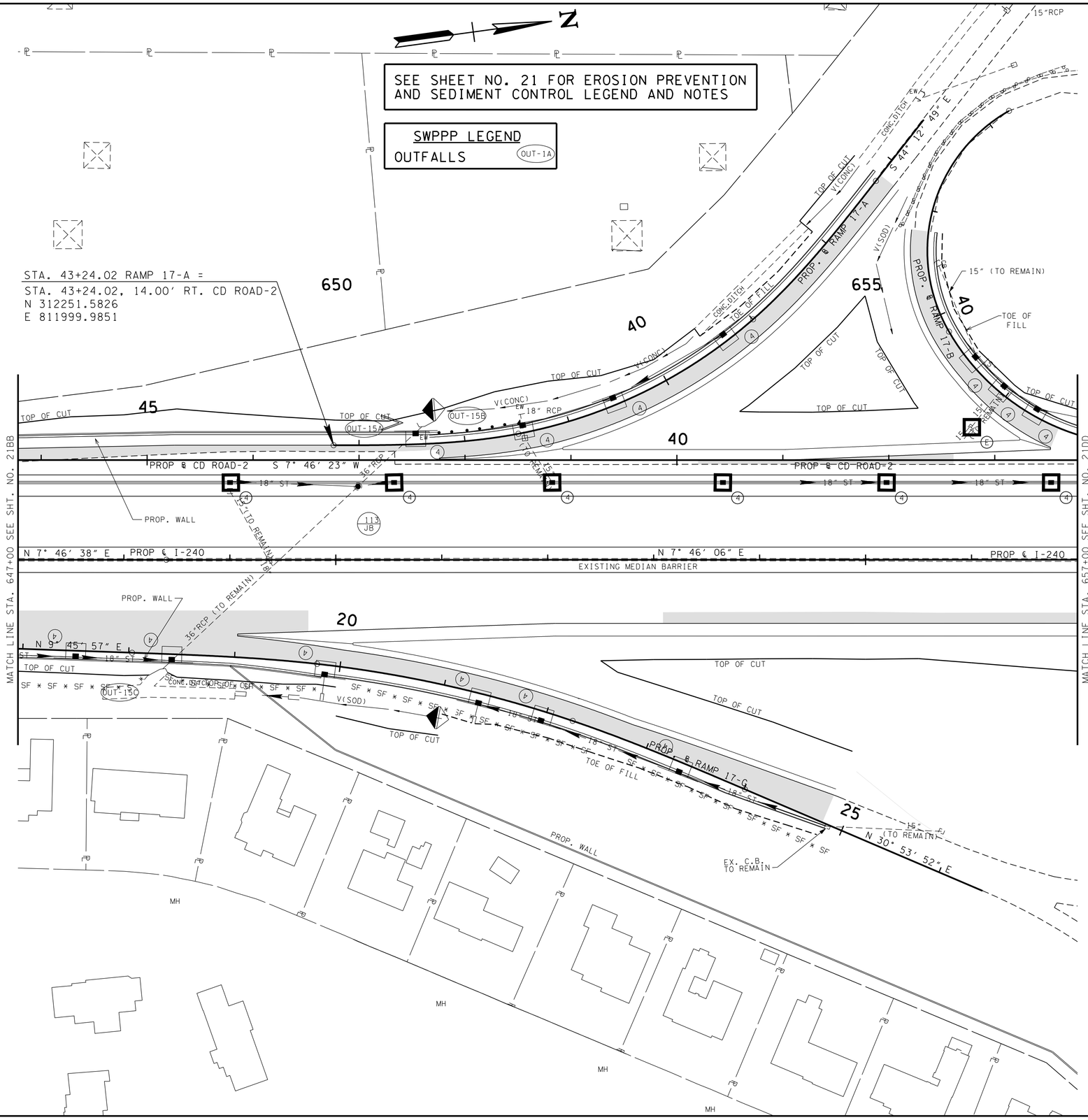
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21CC
CONST.	2010	STP-I-240(290)	21CC



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8/20/2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21DD
CONST.	2010	STP-I-240(290)	21DD

N

WALNUT GROVE ROAD

MATCH LINE STA. 657+00 SEE SHT. NO. 21CC

MATCH LINE STA. 670+00 SEE SHT. NO. 21EE

PROP. ℄ CD ROAD-2

PROP. ℄ RAMP 17-B

PROP. ℄ RAMP 17-D

PROP. ℄ RAMP 17-C

PROP. ℄ RAMP 17-E

PROP. ℄ I-240

EXISTING MEDIAN BARRIER

S46°47'56"W

S7°46'23"W

N7°46'06"E

N 7° 45' 38" E

N6°55'42"E

S 86° 15' 44" E

N 4° 44' 53" W

660

665

190

30

35

25

15

CONC.DITCH

24"RCP

16"DI

EW

18" RCP (TO REMAIN)

15" RCP (TO REMAIN)

30" RCP (TO REMAIN)

36" RCP (TO REMAIN)

24" RCP (TO REMAIN)

EX. C.B. TO REMAIN

TOP OF CUT

V(CONC)

12" TEMP. SEDIMENT TUBES

18" ST

DMH TO REMAIN

OUT-16

OUT-17

V(SOD)

TOE OF FILL

36"RCP

CONC.DITCH

12"IRON

STA. 37+57.08 RAMP 17-B =
STA. 35+57.08, 13.99' RT. CD ROAD-2
N 313011.4684
E 812103.7195

STA. 32+09.15 RAMP 17-D =
STA. 32+09.15, 14.00' RT. CD ROAD-2
N 313356.1140
E 812150.5812

STA. 659+54.67 I-240 =
STA. 194+88.95 WALNUT GROVE ROAD
N 313184.9788
E 812236.4083

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND
OUTFALLS (OUT-1A)

JOHN T. PANKEY JR.
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
10235
MEMPHIS
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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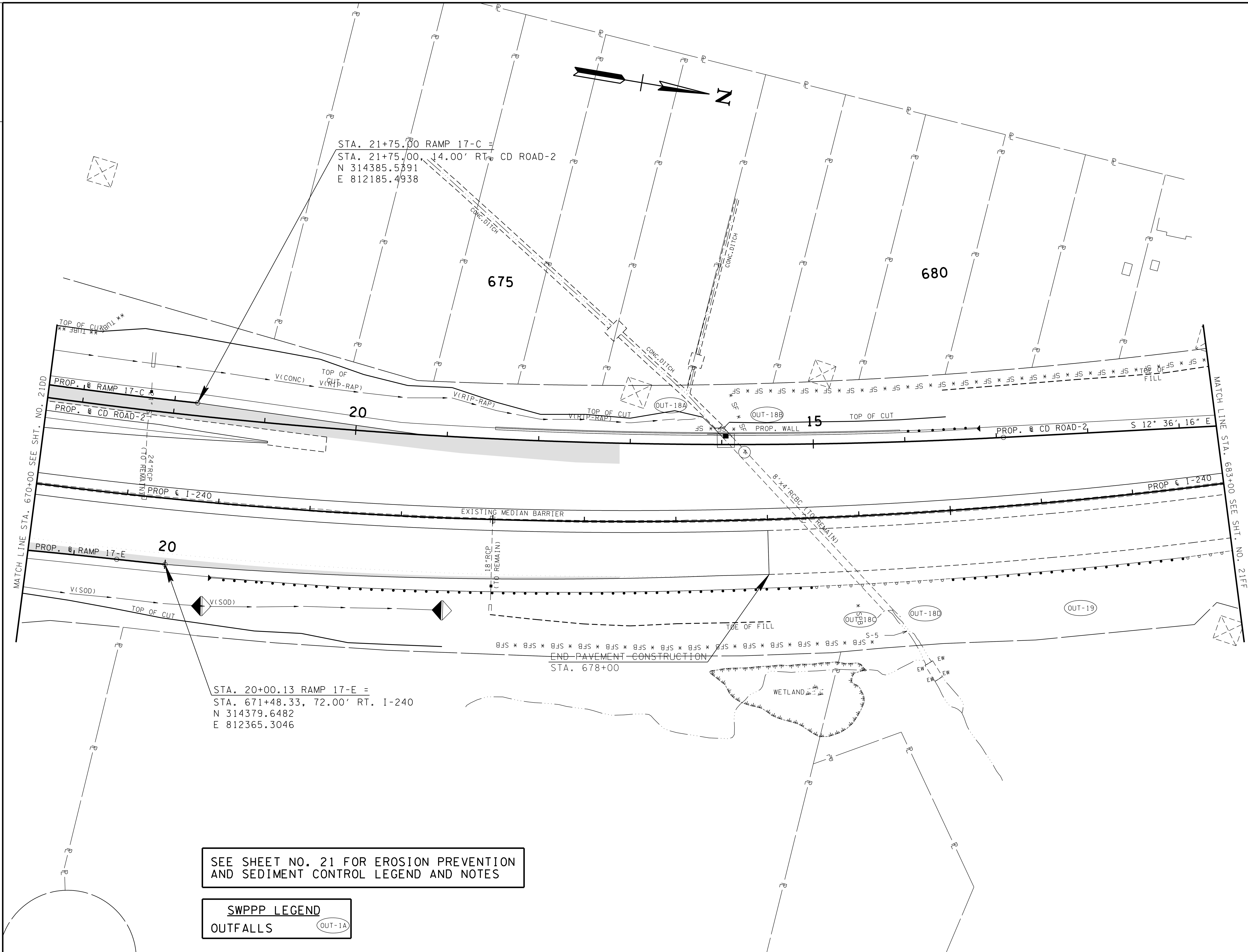
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21EE
CONST.	2010	STP-I-240(290)	21EE

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



SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

JOHN T. PANKEY, REGISTERED ENGINEER, AGRICULTURE, COMMERCE, No. 102351, STATE OF TENNESSEE 8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 670+00 TO STA. 683+00
SCALE: 1" = 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	21FF
CONST.	2010	STP-I-240(290)	21FF

STA. 10+00.00 CD ROAD-2 =
STA. 683+60.00, 58.27' LT. I-240
N 315544.7720
E 812012.7040

N

SEE SHEET NO. 21 FOR EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND NOTES

SWPPP LEGEND

OUTFALLS (OUT-1A)

685

690

10

SF * SF * SF * SF *

MATCH LINE STA. 683+00 SEE SHT. NO. 21EE

PROP ℄ I-240

18" RCP

PROP ℄ I-240

N28°59'55"W

OUT-20

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-2-2010
102351
REGISTERED ENGINEER
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (PHASE 2)

STA. 683+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21GG

BEGIN PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 525+26.23
N 299830.8266
E 810912.9069

N

520

525

STA. 47+01.94 RAMP 15-D =
STA. 521+50.00, 60.00' LT. I-240
N 299458.4180
E 810832.5190

330

320

TOP OF CUT

45

40

S 1° 58' 25" W
PROP ℄ RAMP 15-D

PROP ℄ I-240

PROP ℄ I-240 N 3° 07' 12" E

10

PROP ℄ CD ROAD-1

N 5° 07' 12" E

15

MATCH LINE STA. 530+00 SEE SHT. NO. 21HH

STA. 10+00.00 CD ROAD-1 =
STA. 523+25.00, 60.00' RT. I-240
N 299626.6300
E 810961.8660

BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00
N 299455.1548
E 810892.4304

JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

B.O.P. TO STA. 530+00
SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21HH

N

535

540

TOP OF CUT

30" ST

35

30

S 1° 58' 25" W PROP ℄ RAMP 15-D

S 2° 51' 39" W PROP ℄ RAMP 15-D

18" ST

MATCH LINE STA. 530+00 SEE SHT. NO. 21-GG

MATCH LINE STA. 543+00 SEE SHT. NO. 21II

PROP ℄ I-240

N 3° 07' 12" E

N 3° 07' 44" E

24" ST

PROP ℄ CD ROAD-1

20

25

STA. 28+50.00 RAMP 15-G =
STA. 541+74.46, 109.67' RT. I-240
STA. 28+50.00, 14.00' RT. CD ROAD-1
N 301470.6434
E 811112.1161

JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 530+00 TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21II

N

PARK AVENUE

STA. 21+21.03 RAMP 15-A =
STA. 21+21.03 RAMP 15-D
N 302037.3159
E 810932.7124

S 34° 23' 31" E
PROP ℄ RAMP 15-D
S 28° 49' 18" E
PROP ℄ RAMP 15-A

EAST BOUND POPLAR AVENUE

TOP 299.18
INV 296.97

S 2° 51' 39" W
PROP ℄ RAMP 15-D

TOP 308.37

N 3° 07' 12" E PROP ℄ I-240
N 3° 12' 48" E
N 3° 06' 48" E
PROP ℄ I-240
N 3° 07' 52" E

N 3° 07' 44" E
N 2° 06' 35" E
PROP ℄ CD ROAD-1
PROP ℄ RAMP 15-F

PROP ℄ RAMP 15-H

PROP. RAMP 15-G
N 47° 59' 11" E

STA. 41+03.70 RAMP 15-F =
STA. 41+03.70, 14.00' RT. CD ROAD-1
N 302722.9474
E 811175.8011

STA. 37+19.18 RAMP 15-H =
STA. 37+19.18, 14.00' RT. CD ROAD-1
N 302338.5243
E 811159.5560

MATCH LINE STA. 543+00 SEE SHT. NO. 21HH

MATCH LINE STA. 556+00 SEE SHT. NO. 21JJ

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 543+00 TO STA. 566+00
SCALE: 1"= 50'

8/20/2010
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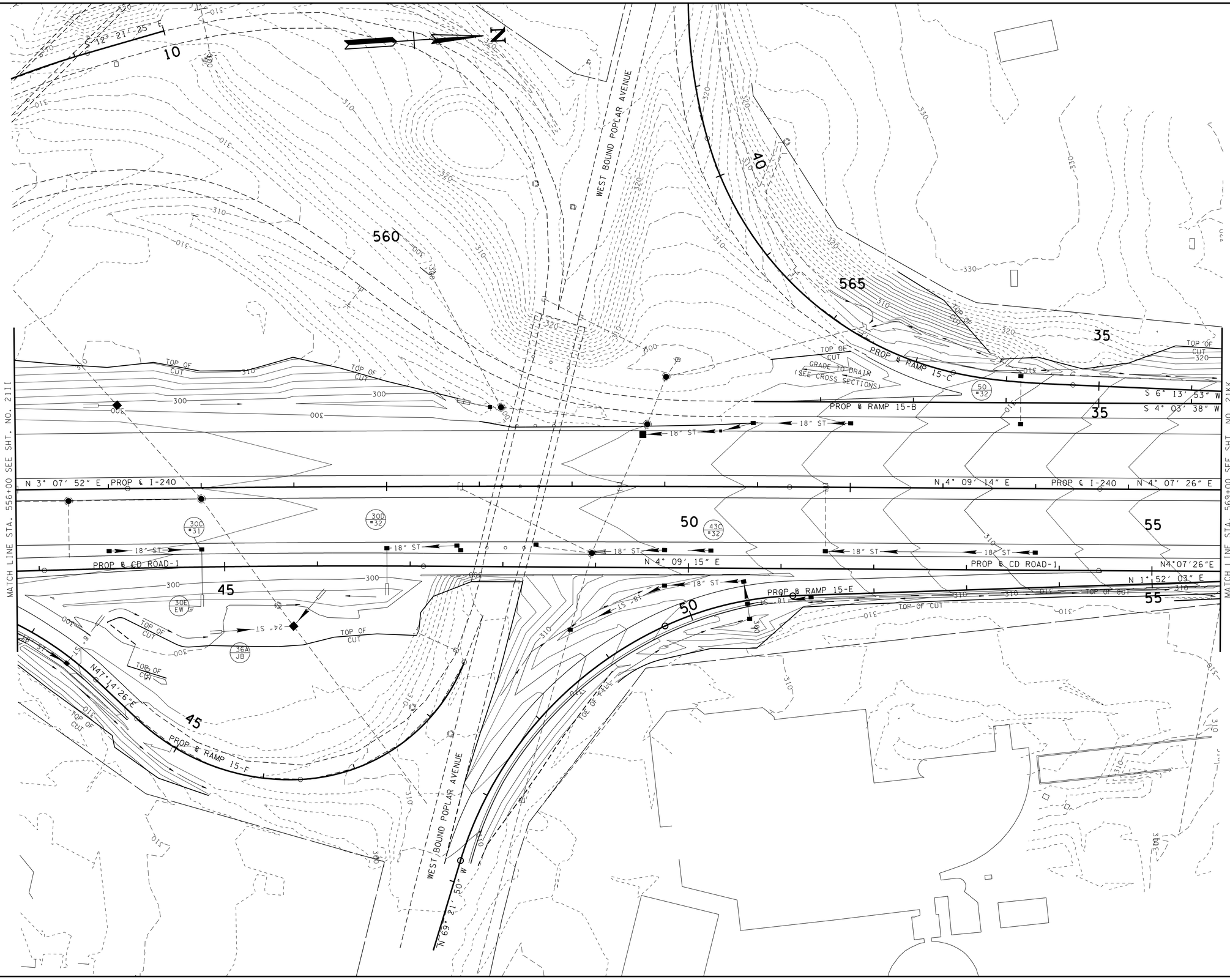
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21JJ



JOHN T. PANKEY
REGISTERED
AGRICULTURE
AND
COMMERCE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 556+00 TO STA. 569+00
SCALE: 1"= 50'

8/20/2010
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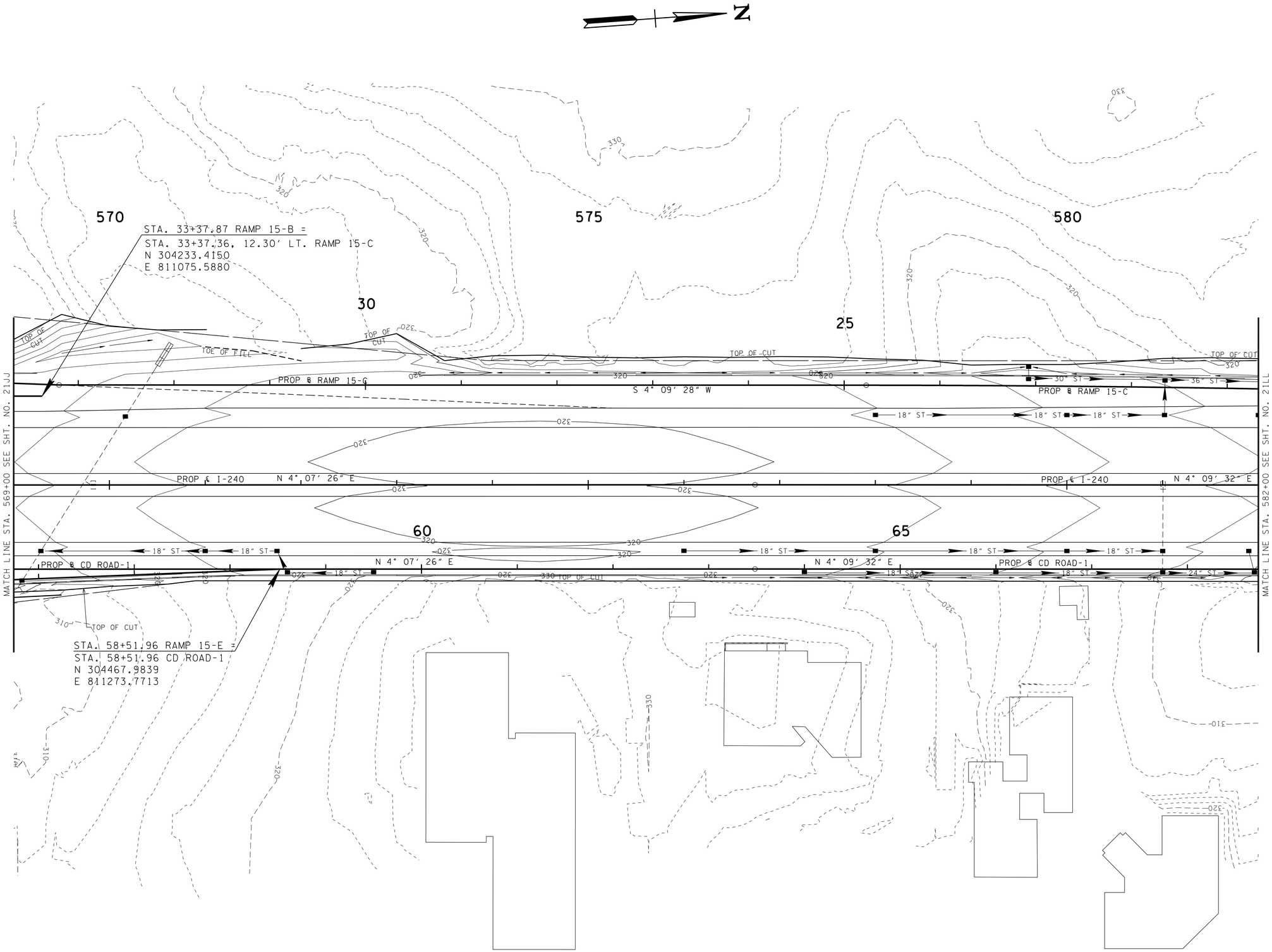
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21KK



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 569+00 TO STA. 582+00
SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21LL

N

STA. 10+00.00 RAMP 15-C =
STA. 592+65.00, 60.00' LT. I-240
N 306561.4890
E 811280.3950

585 590 70 75 80

20 15 10

PROP ℄ RAMP 15-C

S 7° 29' 57" W

N 4° 09' 32" E PROP ℄ I-240

N 4° 09' 11" E

PROP ℄ I-240

N 3° 23' 52" E

PROP ℄ CD ROAD-1

TOP OF CUT

36" ST

30" ST

24" ST

18" ST

EXISTING DETENTION POND

MATCH LINE STA. 582+00 SEE SHT. NO. 21KK

MATCH LINE STA. 595+00 SEE SHT. NO. 21MM

JOHN T. PANKEY
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STATE OF TENNESSEE

8-27-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 582+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21MM

N

600

605

85

STA. 86+31.92 CD ROAD-1 =
STA. 599+21.72, 60.00' RT.
N 307239.3434
E 811485.1181

MATCH LINE STA. 595+00 SEE SHT. NO. 21LL

MATCH LINE STA. 608+00 SEE SHT. NO. 21NN

PROP ℄ I-240

N 7° 50' 09" E

N 7° 46' 38" E

PROP ℄ CD ROAD-1

TOP OF CUT

TOE OF FILL

S-1

S-2

30" ST

18" ST

INV. 287.51

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21NN

N

610 615 620

MATCH LINE STA. 608+00 SEE SHT. NO. 21MM

MATCH LINE STA. 621+00 SEE SHT. NO. 2100

PROP ℄ I-240

N 7° 46' 38" E

PROP ℄ I-240

TOP OF CUT

TOE OF FILL

18" ST

S-3

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 608+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21-00

STA. 69+93.11 CD ROAD-2 =
STA. 623+28.98, 72.00' LT. I-240
N 309602.3536
E 811674.6309

625

END PROJ. NO. NH-I-240-1(286) R.O.W.
STA. 631+67.43
N 310423.3452
E 811859.4298

630

N

MATCH LINE STA. 621+00 SEE SHT. NO. 21NN

MATCH LINE STA. 634+00 SEE SHT. NO. 21PP

PROP ℄ CD ROAD-2 S 6° 38' 13" W

PROP ℄ I-240 N 7° 46' 38" E

PROP ℄ I-240

TOP OF CUT

65

60

18" ST

WWC-1

JOHN T. PANKEY
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102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21PP

N

635 640 645

TOP OF CUT
18" ST
PROP ℄ CD ROAD-2
S 7° 46' 23" W
55
50
S-4
PROP ℄ I-240
N 7° 46' 38" E
PROP. ℄ RAMP 17-G
N 9° 45' 57" E
10
15
MATCH LINE STA. 634+00 SEE SHT. NO. 2100
MATCH LINE STA. 647+00 SEE SHT. NO. 2100

STA. 10+00.00 RAMP 17-G
STA. 640+05.01, 59.87' RT. I-240
N 311245.1260
E 812032.0960

JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
No. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 634+00 TO STA. 647+00
SCALE: 1"= 50'

8/20/2010
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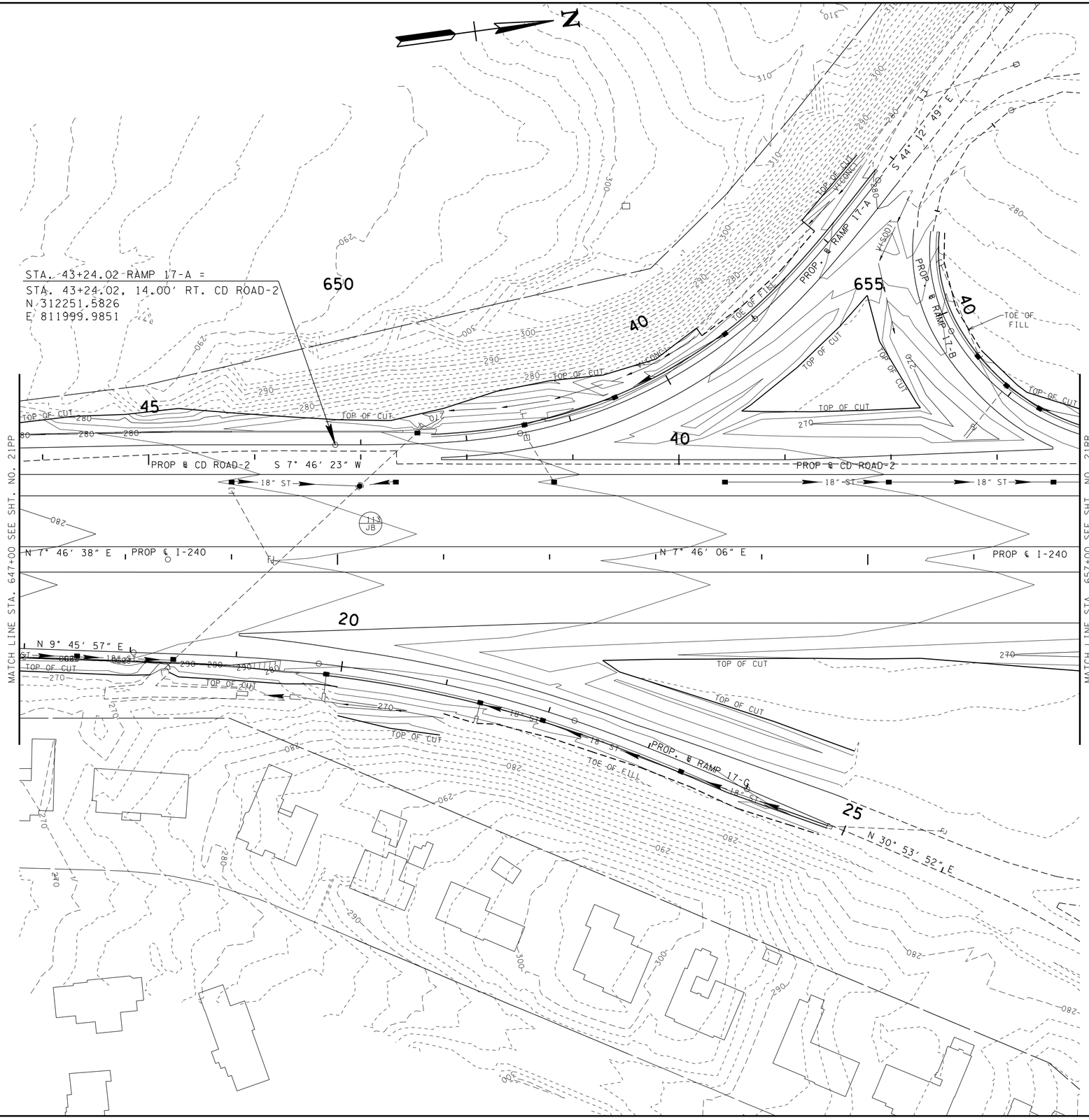
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	2100



JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
8-23-10
No. 102350
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21RR

N

WALNUT GROVE ROAD

MATCH LINE STA. 657+00 SEE SHT. NO. 2100

MATCH LINE STA. 670+00 SEE SHT. NO. 21SS

PROP. ℄ CD ROAD-2

PROP. ℄ I-240

PROP. ℄ RAMP 17-D

PROP. ℄ RAMP 17-E

S7°46'23"W

N7°46'06"E

N 7° 45' 38" E

N6°55'42"E

S 46° 47' 56" W

N 4° 44' 53" W

S 86° 15' 44" E

TOP OF CUT

TOE OF FILL

18" ST

270 DMH TO REMAIN

STA. 37+57.08 RAMP 17-B =
STA. 35+57.08, 13.99' RT. CD ROAD-2
N 313011.4684
E 812103.7195

STA. 32+09.15 RAMP 17-D =
STA. 32+09.15, 14.00' RT. CD ROAD-2
N 313356.1140
E 812150.5812

STA. 659+54.67 I-240 =
STA. 194+88.95 WALNUT GROVE ROAD
N 313184.9788
E 812236.4083

JOHN T. PANKEY
REGISTERED
ENGINEER
AGRICULTURE
COMMERCE
102350
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21SS

N

STA. 21+75.00 RAMP 17-C =
STA. 21+75.00, 14.00' RT. CD ROAD-2
N 314385.5391
E 812185.4938

675

680

TOP OF CUT

TOE OF FILL

PROP. ℄ RAMP 17-C

PROP. ℄ CD ROAD-2

20

15

S 12° 36' 16" E

MATCH LINE STA. 670+00 SEE SHT. NO. 21RR

MATCH LINE STA. 683+00 SEE SHT. NO. 21TT

PROP ℄ I-240

PROP. ℄ RAMP 17-E

20

STA. 20+00.13 RAMP 17-E =
STA. 671+48.33, 72.00' RT. I-240
N 314379.6482
E 812365.3046

END PAVEMENT CONSTRUCTION
STA. 678+00

S-5

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 670+00 TO STA. 683+00
SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	NH-I-240-1(286)	21TT

STA. 10+00.00 CD ROAD-2 =
STA. 683+60.00, 58.27' LT. I-240
N 315544.7720
E 812012.7040

N

685

690

10

MATCH LINE STA. 683+00 SEE SHT. NO. 21SS

PROP ℄ I-240

PROP ℄ I-240

N28°59'55"W

END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

JOHN T. PANKEY
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NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED CONTOURS

STA. 683+00 TO E.O.P.
SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22

TRAFFIC CONTROL STORM DRAINAGE PIPES (TEMPORARY)

	SHEET NO.	FROM CODE	FROM OUTLET ELEV.	TO CODE	TO INLET ELEV.	% GRADE	CORRUGATED METAL PIPE SIZE AND LENGTH (L.F.) 18"	RIP-RAP 709-05.06 (TON)
	22S	23A	299.54	23B	298.88	0.74	94	
	22S	14B	303.40	14C	302.00	1.56	90	
	22S	23C	300.25	23B	299.54	5.07	14	
	22T	34A	295.65	33A	295.19	0.70	66	
	22T	43D	300.00	43E	298.81	3.97	30	
	22S	28A	302.68	28B	302.00	0.75	90	
	22Y	124A	270.79	124B	270.30	0.84	58	
*	22Y	126B	269.99	126A	269.00	3.54	28	
*	22Y	126C	269.40	126A	269.00	0.57	70	
	22Y	119A	273.50	119B	272.75	1.00	75	
	22Z	141B	264.20	141A	263.70	0.70	71	
	22Z	146A	264.25	146*	261.80	1.07	228	
	22Z	143A	262.70	143B	261.95	0.94	80	
	TOTALS						994	0

* - NOTE: TIE TEMPORARY 18" CMP TO EXISTING CATCH BASIN THAT HAS BEEN CONVERTED INTO A

TRAFFIC CONTROL STORM DRAINAGE ENDWALLS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	STRUCTURE TYPE	STANDARD DRAWING	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)
22S	DETOUR RD 15A	9+60	65.53 LT	23B	PE				
22S	DETOUR RD 15G	52+50	24.14 RT	14B	PE				
22S	DETOUR RD 15G	53+00	49.05 LT	14C	PE				
22T	DETOUR RD 15F	7+73.02	49.52 LT	33A	PE				
22Y	DETOUR RD 17B	6+75	48 LT	126C	PE				
22Y	DETOUR RD 17A	8+25	39.52 LT	124B	PE				
22Z	DETOUR RD 17D	8+20	44.56 LT	141A	PE				
22Z	DETOUR RD 17D	8+50	18.68 RT	141B	PE				
22Y	DETOUR RD 17G	13+50	22 RT	119A	PE				
22Y	DETOUR RD 17G	13+50	30.34 LT	119B	PE				
22S	DETOUR RD 15H	10+40	51.42 LT	28B	PE				
TOTALS							0	0	0

NOTE: AFTER DETOUR ROAD 15F HAS BEEN REMOVED, CONSTRUCT A PERMANENT ENDWALL AT POINT 33.
PE= PIPE END

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	SIGN (CONSTRUCTION) (2-SIDED)
	SIGN (CONSTRUCTION) (2-POST)
	VERTICAL PANELS (1 FACE)
	VERTICAL PANELS (2 FACES)
	TRAFFIC FLOW
	PORTABLE BARRIER RAIL (WITH SINGLE VERTICAL PANELS)
	PORTABLE BARRIER RAIL (WITH DOUBLE VERTICAL PANELS)
	TEMPORARY ATTENUATOR
	ARROW BOARD TYPE C
	ARROW BOARD TYPE C (SINGLE ARROW)
	ARROW BOARD TYPE C (CAUTION)
	CHANGEABLE MESSAGE SIGN
	CHANGEABLE MESSAGE SIGN
	TEMPORARY BARRICADE (TYPE III)
	WARNING FLAGS (ON SIGN)
C	WARNING LIGHT (TYPE C) (STEADY)

MAINTENANCE OF TRAFFIC AND CONSTRUCTION SEQUENCE

THE FOLLOWING STEPS REPRESENT A SUGGESTED METHOD OF CONSTRUCTION SEQUENCING OUTLINING APPLICATIONS FOR MAINTAINING TRAFFIC DURING CONSTRUCTUION OF I-240 AT POPLAR AVENUE AND WALNUT GROVE ROAD, RAMPS TYING INTO I-240 AND CD ROADS.

PHASE 1
1. INSTALL TRAFFIC CONTROL SIGNING.
2. RESURFACE THE INSIDE LANES AND MEDIAN SHOULDERS AND ADD CAP TO MEDIAN BARRIER.
3. CONSTRUCT ROADWAYS AS SHOWN ON PLANS.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

PHASE 2
1. REVISE TRAFFIC CONTROL SIGNING.
2. CONSTRUCT DETOUR ROADS AS SHOWN ON PLANS.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

PHASE 3
1. REVISE TRAFFIC CONTROL SIGNING.
2. CONSTRUCT ROADWAYS AS SHOWN ON PLANS.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

PHASE 4
1. REVISE TRAFFIC CONTROL SIGNING.
2. CONSTRUCT ROADWAYS AS SHOWN ON THE PLANS.
3. REMOVE DETOUR RAMPS AS SHOWN ON THE PLANS.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

PHASE 5
1. REVISE TRAFFIC CONTROL SIGNING.
2. CONSTRUCT ROADWAYS AS SHOWN ON THE PLANS.
3. COMPLETE ANY REMAINING CONSTRUCTION.
4. INSTALL FINAL STRIPING.
5. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

TRAFFIC CONTROL CATCH BASINS (TEMPORARY)

	SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	TYPE 38 0' - 4'	TYPE 42 0' - 4'	TYPE 42 4' - 8'
*	22S	DETOUR RAMP 15A	10+24.94	17 RT	23C	303.20	42		2.95			1	
*	22T	DETOUR RAMP 15F	7+83.34	17 RT	34A	300.70	42		5.05				1
	22T	DETOUR RAMP 15E	9+61.22	2 RT	43D	304.56	42		4.56				1
	22S	DETOUR RAMP 15H	11+00	8 RT	28A	306.35	42		3.67			1	
	22Y	DETOUR RAMP 17A	8+50	12.4 RT	124A	273.53	38S		2.74		1		
	22Y	DETOUR RAMP 17B	6+00	12 RT	126B	272.73	42		2.74			1	
	22Z	DETOUR RAMP 17E	15+00	9 RT	146A	267.20	42S		2.95			1	
										TOTALS	1	4	2

* NOTE: CONSTRUCT INLET OVER EXSTING PIPE.

TRAFFIC CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	REQUIRED	M.U.T.C.D. SIZE	NO.	REMARKS	QUANTITY (#) PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	REQUIRED
705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	2	22	16	17	3	22	36"X18"	G20-2	END ROAD WORK	1	11	11	9	11	11
712-01.02	LANE CLOSURE	EACH	1				1	2	48"X24"	G20-2	END ROAD WORK	2	4	2	2	4	4
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	32740	43466	12150	11532	280	43466	78"X60"	TN-44	WORKERS PRESENT	9	9	9	9	9	9
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	42	47	102	224	115	224	36"X36"	W1-3	REVERSE TURN SYMBOL RIGHT					1	1
712-05.03	WARNING LIGHTS (TYPE C)	EACH	41	47	102	224	55	224	48"X48"	W1-3	REVERSE TURN SYMBOL RIGHT			1			1
712-06	SIGNS (CONSTRUCTION)	S.F.	1005	1455	1529	1463	1502.25	1413.5	48"X48"	W1-4DL	MULTI LANE REVERSE CURVE LEFT		4	4	4	4	4
712-06.01	VERTICAL PANELS	S.F.	728	1234	345	378	14	1234	48"X48"	W1-4DR	MULTI LANE REVERSE CURVE RIGHT		4	4	4	2	2
712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.			20	60	50	60	30"X30"	W4-1	LANE MERGE	1	1	1	1	1	1
712-08.03	ARROW BOARD (TYPE C)	EACH	1	2	2	2	4	3	48"X48"	W4-2R	LANE SHIFT					2	2
712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.		78075	4432	1476		83983	48"X48"	W4-5L	LANE SHIFT	2					2
712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	32740	79378	12150	11532	280	136080	48"X48"	W12-1	DOUBLE ARROW FOR OBSTACLE		5	5	6	3	6
712-09.05	REMOVABLE PAVEMENT MARKING (ARROW)	EACH		2	4			6	36"X36"	W12-1	DOUBLE ARROW FOR OBSTACLE		2	1	3	3	3
716-08.02	REMOVAL OF PAVEMENT MARKING (8" BARRIER LINE)	L.F.	32740	31316	12150	11532	280	88018	18"X18"	W13-1	ADVISORY SPEED		2	2	2	4	4
716-08.04	REMOVAL OF PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.			9670			9670	24"X24"	W13-1	ADVISORY SPEED					2	2
716-10.16	PREFORMED PLASTIC PAVEMENT MARKING (6" DOTTED LINE)	L.F.	0	2753	2079	1392		6224	24"X30"	W13-1	ADVISORY SPEED	51	72	69	69	67	67
									24"X30"	W13-2	ADVISORY EXIT SPEED	4	2	5	5	4	4
									36"X48"	W13-2	ADVISORY EXIT SPEED	1	1	5	3	1	5
									48"X48"	W20-1	ROAD WORK 1 MILE	8	8	8	8	8	8
									48"X48"	W20-1	ROAD WORK 1/2 MILE	2					2
									36"X36"	W20-1	ROAD WORK 15OO FT		9	9	9	9	9
									36"X36"	W20-1	ROAD WORK 1000 FT		9	9	9	9	9
									36"X36"	W20-1	ROAD WORK 500 FT	2	11	11	11	11	11
									36"X36"	W20-1	ROAD WORK AHEAD	1	1	1	1	1	1
									48"X48"	W20-4L	LEFT LANE CLOSED 1500 FT	2					2
									48"X48"	W20-5	LANE SHIFT 1/2 MILE		4	4	4	4	4
									48"X48"	W20-5L	LEFT LANE CLOSED 1/2 MILE	2					2
									48"X48"	W20-5R	RIGHT LANE CLOSED 1/2 MILE					2	2
									48"X48"	W20-5R	RIGHT LANE CLOSED 1500 FT					2	2
									48"X48"	W21-4	LEFT SHOULDER CLOSED 1500 FT	2					2
									48"X48"	W21-5R	LEFT SHOULDER CLOSED	2					2

TRAFFIC CONTROL JUNCTION BOXES (TEMPORARY)

	SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	OUTSIDE TOP ELEV.	STRUCTURE TYPE	DEPTH (FT.)
*	22S	DETOUR RAMP 15A	10+25.01	2.12 RT	23A	303.28	JB1	3.07
	22T	I-240	563+50	69 RT	43E	302.55	JB1	3.07
	22Y	DETOUR RAMP 17B	6+30	3.7 RT	126A	272.74	JB1	3.07

* - NOTE: CONSTRUCT 43E (TEMPORARY JUNCTION BOX) AT SAME LOCATION AS PERMANENT 43C (TYPE 31 CATCH BASIN) WHEN DETOUR RAMP 15E IS REMOVED. CONVERT TEMPORARY JUNCTION TO (TYPE 31 CATCH BASIN) AT THIS LOCATION.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102359
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL NOTES

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22A

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

   a. WARNING SIGNS, UNEVEN PAVEMENT (W8-11) AND/OR SHOULDER DROP-OFF (W8-9A), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

   d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

   IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

   a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

   b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

   c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.

   d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

   FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN (W8-9A). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

   SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

   IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING ONE MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

   WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

   a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

      (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

      (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

   b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

   THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

8/20/2010
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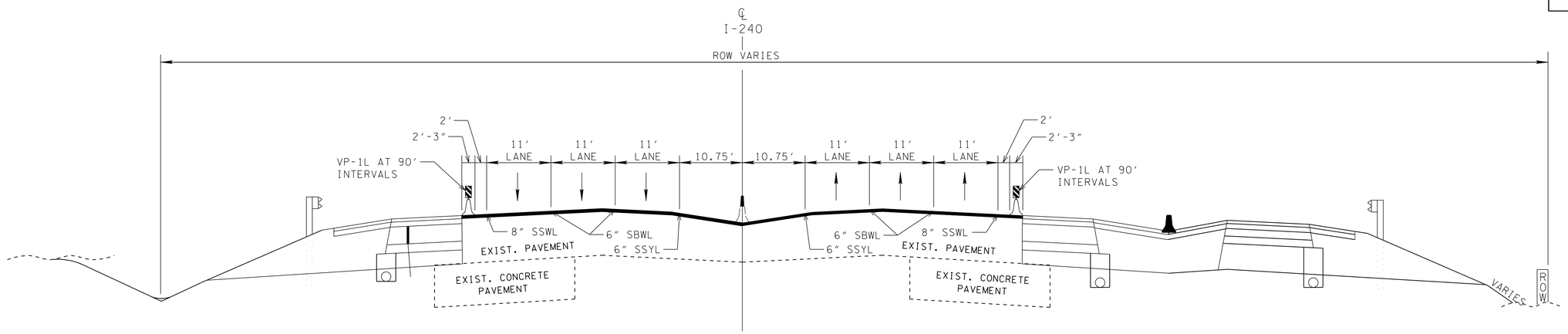
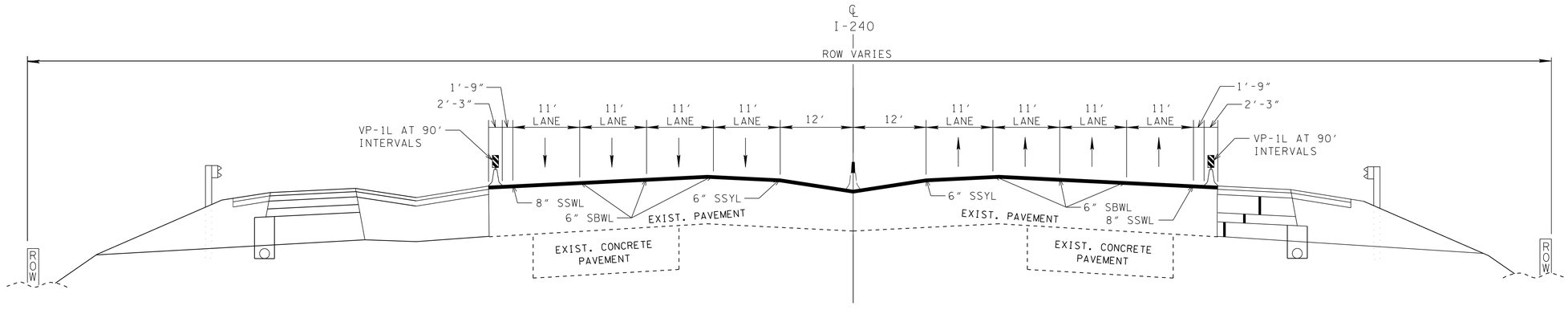
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22B



I-240 - LANE SHIFT WITH 3 EXISTING LANES

(BASED ON STD. DWG. RD-TS-5 MOD.)



I-240 - LANE SHIFT WITH 4 EXISTING LANES

(BASED ON STD. DWG. RD-TS-5 MOD.)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS FOR TRAFFIC CONTROL

8/20/2010
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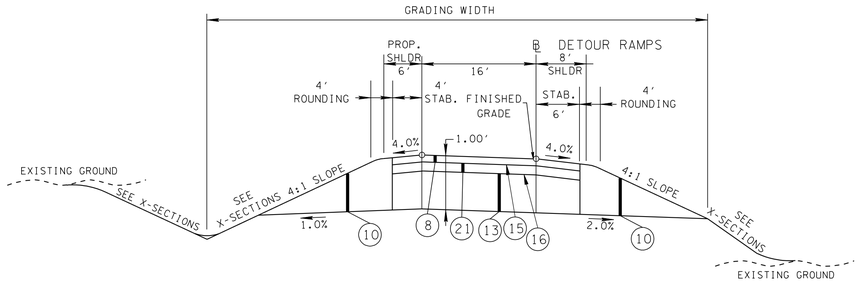
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22C



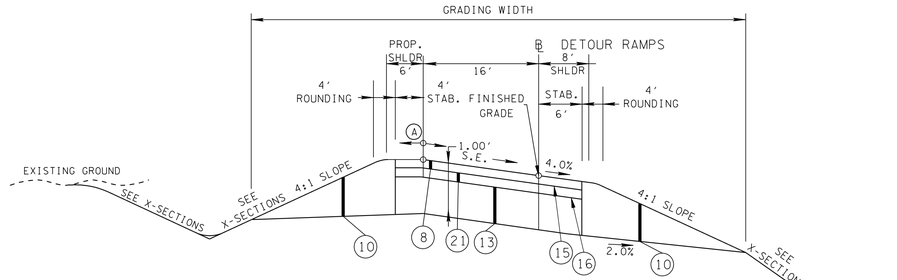
NOTE: SEE PAVEMENT SCHEDULE SHEET 2

TANGENT DETOUR RAMP SECTION

(BASED ON STD. DWG. RD-TS-4 MOD.)

DETOUR RAMP 15A
DETOUR RAMP 15D
DETOUR RAMP 15E
DETOUR RAMP 15F
DETOUR RAMP 15G

DETOUR RAMP 17A
DETOUR RAMP 17B
DETOUR RAMP 17C
DETOUR RAMP 17D
DETOUR RAMP 17E
DETOUR RAMP 17G



(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.

SUPEREVLEVATED DETOUR RAMP SECTION

(BASED ON STD. DWG. RD-TS-4 MOD.)

DETOUR RAMP 15A
DETOUR RAMP 15D
DETOUR RAMP 15E
DETOUR RAMP 15F
DETOUR RAMP 15G

DETOUR RAMP 17A
DETOUR RAMP 17B
DETOUR RAMP 17C
DETOUR RAMP 17D
DETOUR RAMP 17E
DETOUR RAMP 17G

PROPOSED PAVEMENT SCHEDULE

(8) BITUMINOUS BINDER, 2 " THICK (226 LB. ±/SQ. YD.)

307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMP-HM) GRADING B-M2

(10) MINERAL AGGREGATE BASE, VARIABLE THICKNESS

303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D

(13) CEMENT TREATED BASE

309-01.01 AGGREGATE-CEMENT BASE COURSE, 6" THICK (634 LB. ±/SQ. YD.)
MINERAL AGGREGATE (A-CBC)
309-01.02 PORTLAND CEMENT (A-CBC)
309-01.03 AGGREGATE CEMENT PROCESS

(15) TACK COAT

403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (0.02 GAL./SQ. YD.)

(16) PRIME COAT

402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (0.35 GAL./SQ. YD.)
402-02 AGGREGATE FOR COVER MATERIAL (PC) (12 LB. ±/SQ. YD.)

(21) BITUMINOUS BINDER, 4 " THICK (460 LB. ±/SQ. YD.)

307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS FOR TRAFFIC CONTROL

8/20/2010
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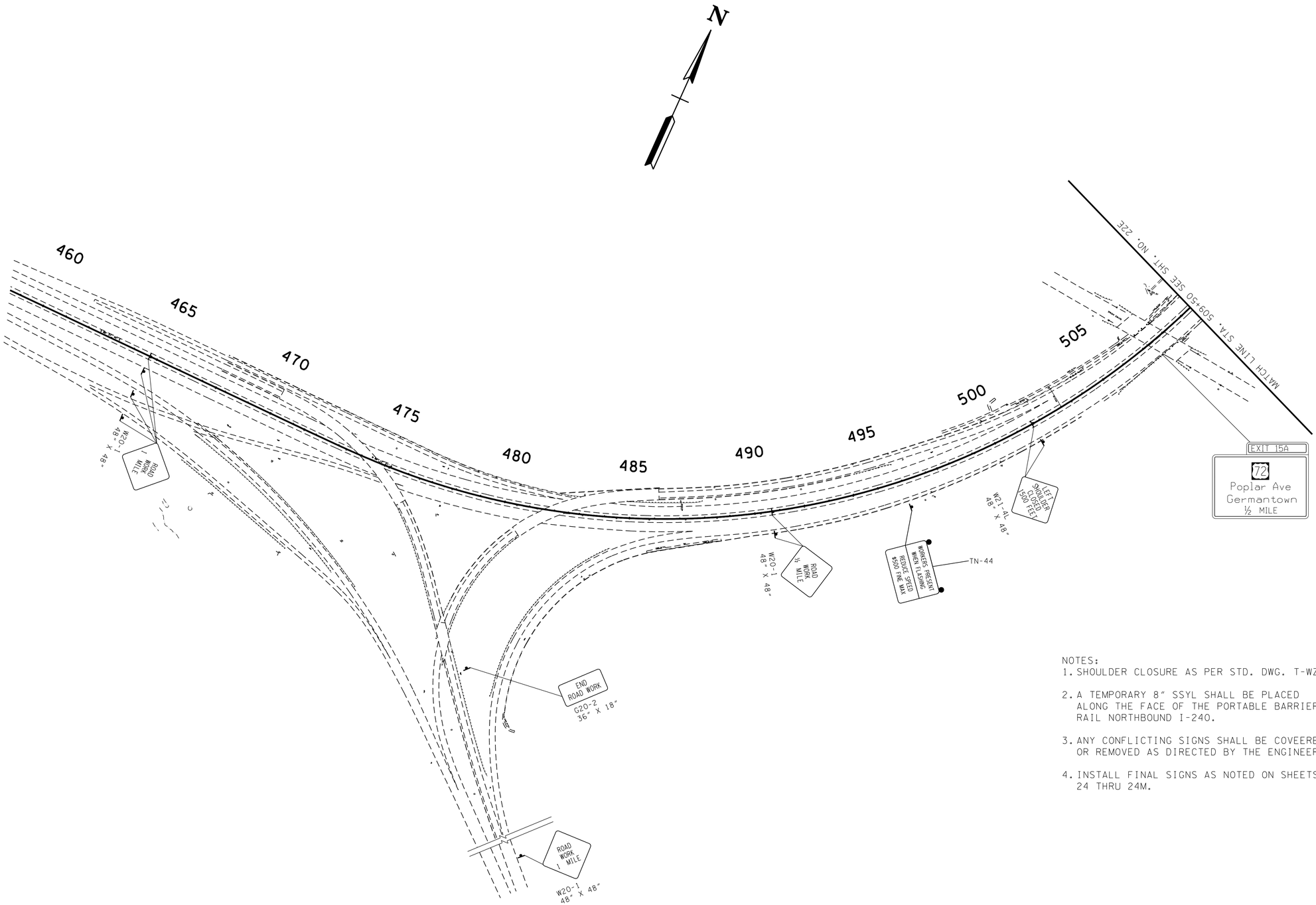
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22D



NOTES:
1. SHOULDER CLOSURE AS PER STD. DWG. T-WZ-18.

2. A TEMPORARY 8" SSYL SHALL BE PLACED ALONG THE FACE OF THE PORTABLE BARRIER RAIL NORTHBOUND I-240.

3. ANY CONFLICTING SIGNS SHALL BE COVEERED OR REMOVED AS DIRECTED BY THE ENGINEER.

4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

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STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

S.R. 385 TO B.O.P.

SCALE: 1"=200'

8/20/2010
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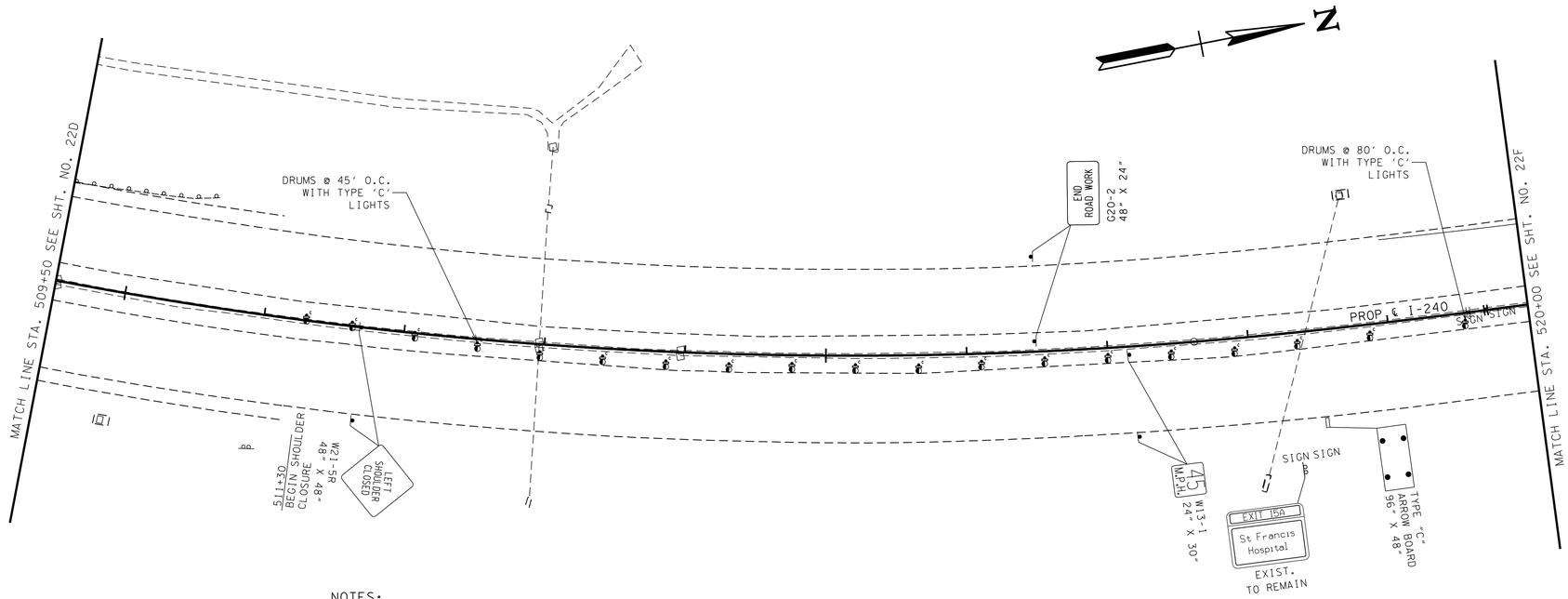
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22E

510

515



NOTES:
1. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

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NO. 102355
NOVEMBER
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

B.O.P. TO STA. 520+00

SCALE: 1"= 50'

8/20/2010
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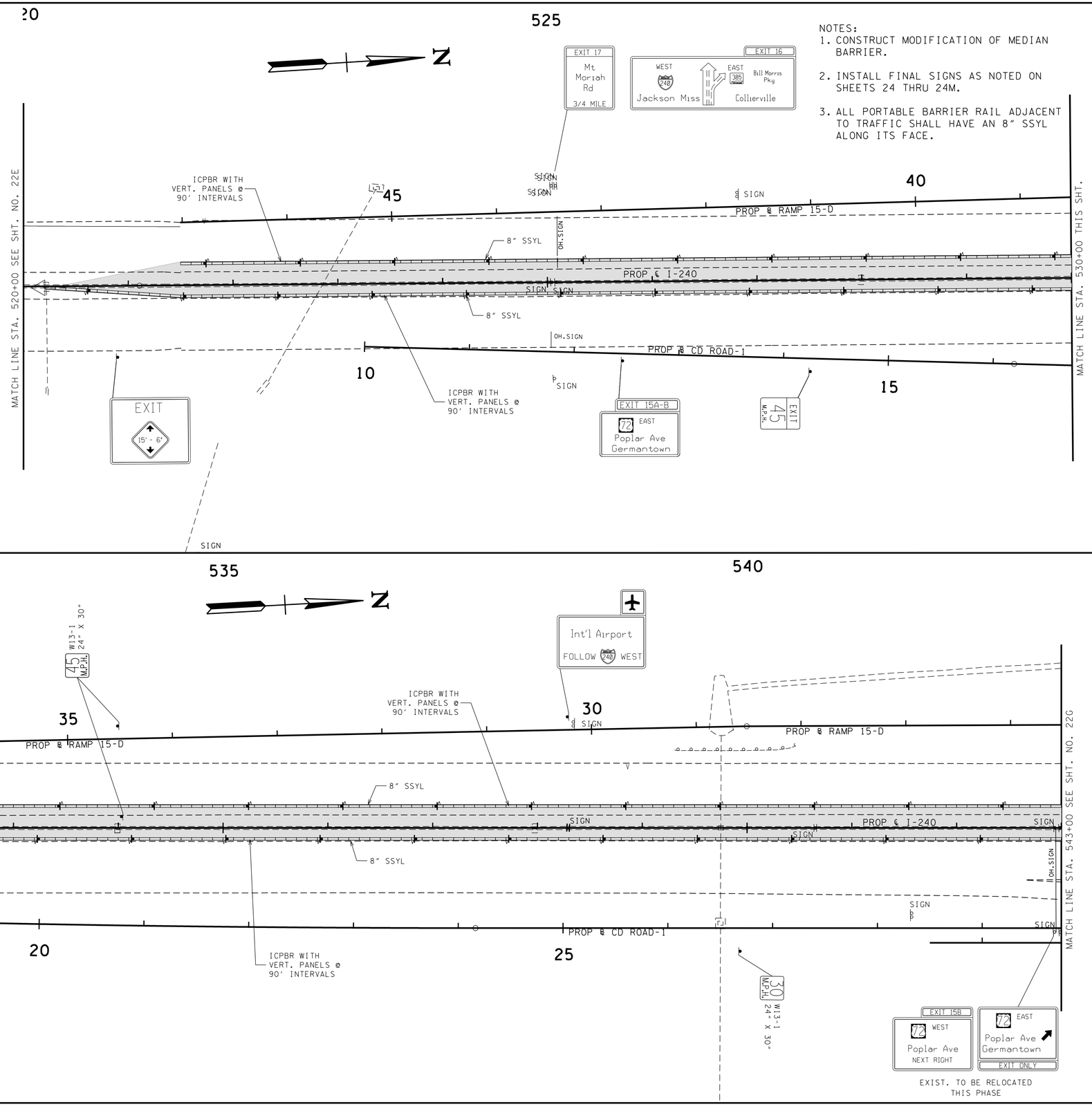
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22F

NOTES:
1. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL ALONG ITS FACE.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

520+00 TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22G

NOTES:
1. INSTALL SIGNS AND TRAFFIC CONTROL DEVICES.
2. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

N

MATCH LINE STA. 543+00 SEE SHT. NO. 22F

MATCH LINE STA. 556+00 SEE SHT. NO. 22H

PROP ℄ I-240

PROP ℄ RAMP 15-D

PROP ℄ RAMP 15-A

PROP ℄ RAMP 15-G

PROP ℄ CD ROAD-1

PARK AVENUE

EAST BOUND POPLAR AVENUE

EXIST. TO REMAIN THIS PHASE

EXIT 15A

TN-44 WORKERS PRESENT WHEN FLASHING REDUCE SPEED $500 FINE MAX

W13-1 24" X 30" 45 M.P.H.

TOP-327.57

TOP-327.50

ICPBR WITH VERT. PANELS @ 90' INTERVALS

8" SSYL

W13-1 24" X 30" 45 M.P.H.

EXIST. TO REMAIN THIS PHASE EXIT 15B 72 WEST Poplar Ave

EXIST. TO REMAIN EXIT 16 WEST 240 Jackson Miss EAST 385 Bill Morris Pkwy Collierville 3/4 MILE

REUSE AS SHOWN

72 EAST Poplar Ave Germantown EXIT ONLY

30 M.P.H. W13-1 24" X 30"

W13-1 24" X 30" EXIT 20 M.P.H.

EXIT 20 M.P.H. TO BE RELOCATED AS SHOWN REUSE SIGN FACE

LYNNFIELD ROAD SIGN

JOHN T. PANKEY REGISTERED ENGINEER AGRICULTURE NO. 102351 STATE OF TENNESSEE 8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
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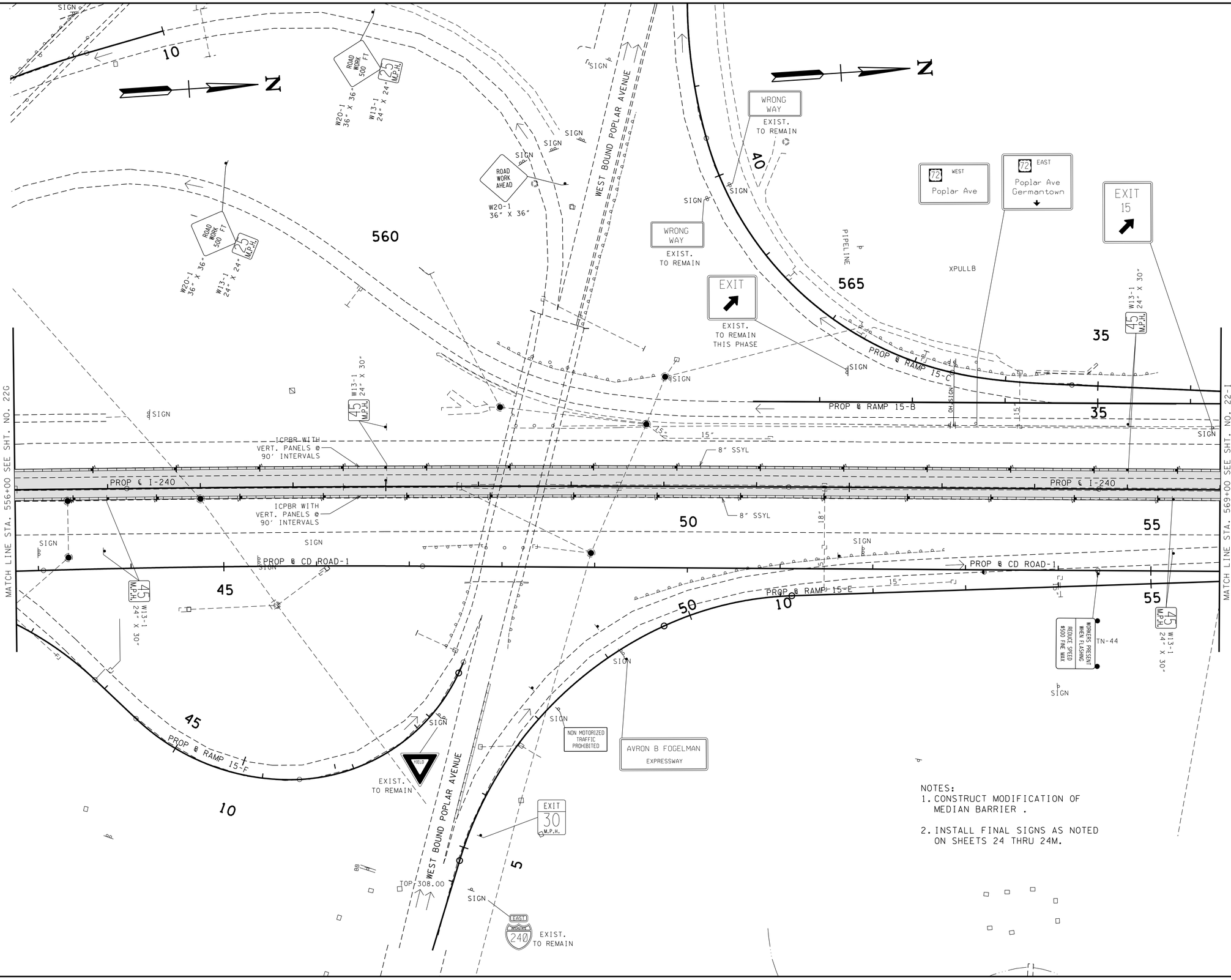
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22H



NOTES:
1. CONSTRUCT MODIFICATION OF MEDIAN BARRIER .

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
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STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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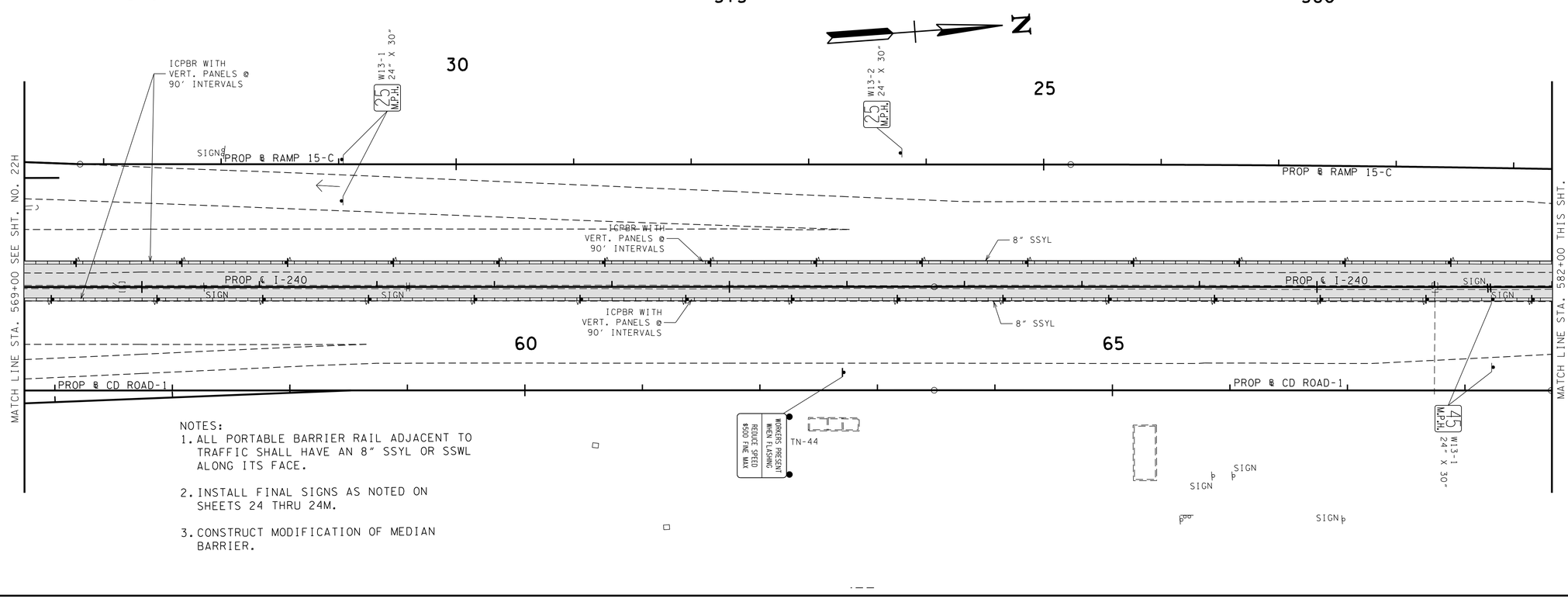
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

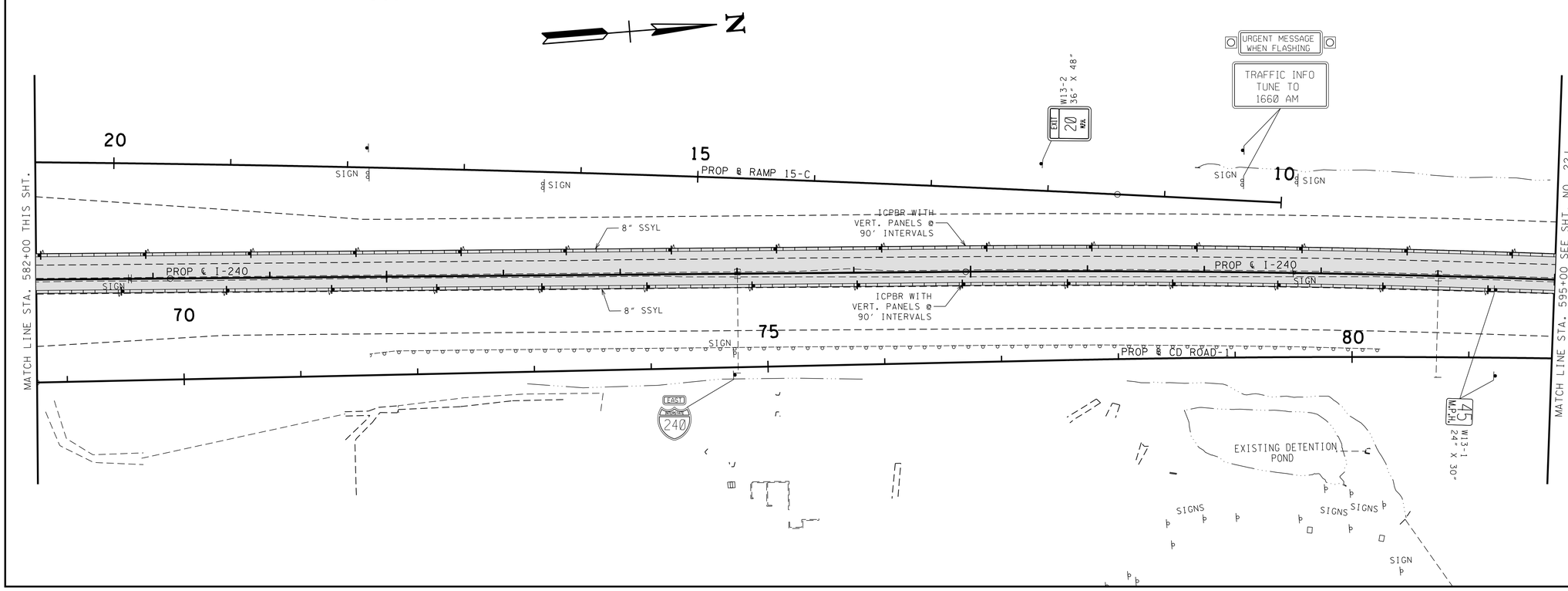
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22-I

570 575 580



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG ITS FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.

585 590



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8-23-10
NO. 102251
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 569+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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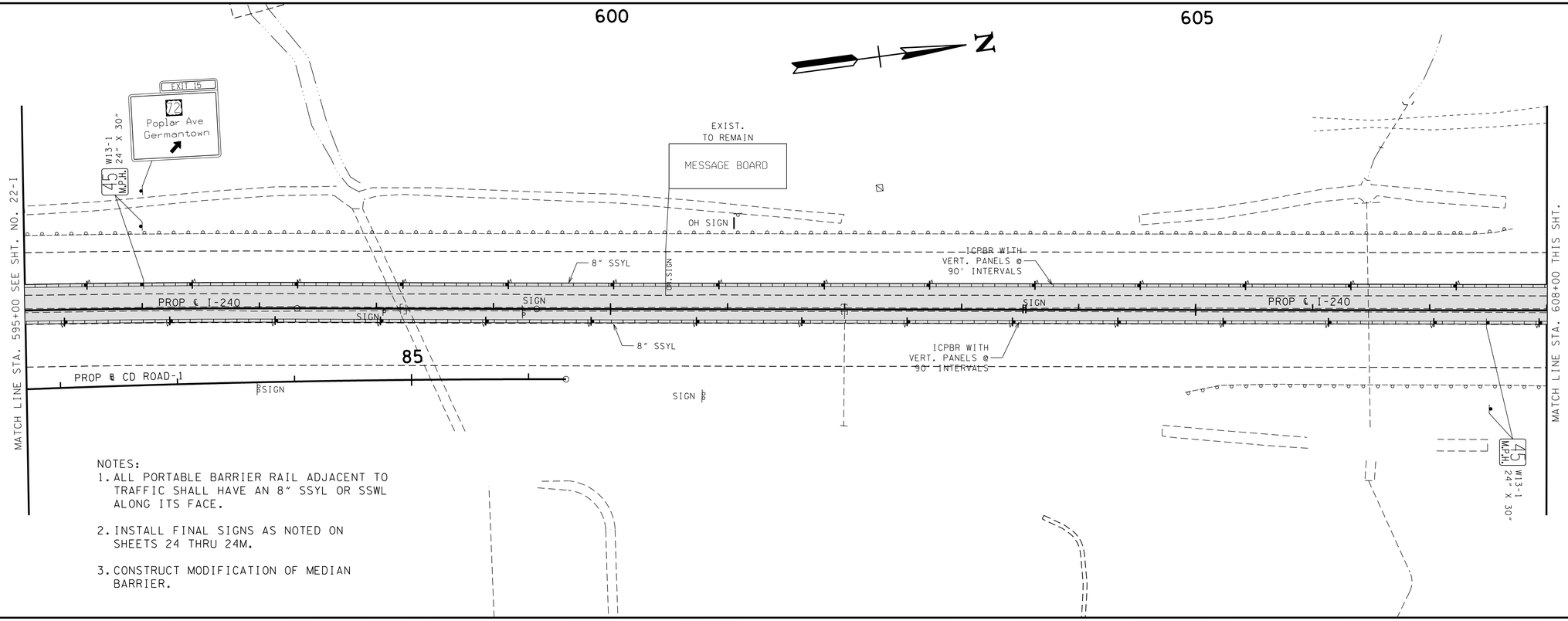
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22J

600 605



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG ITS FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.

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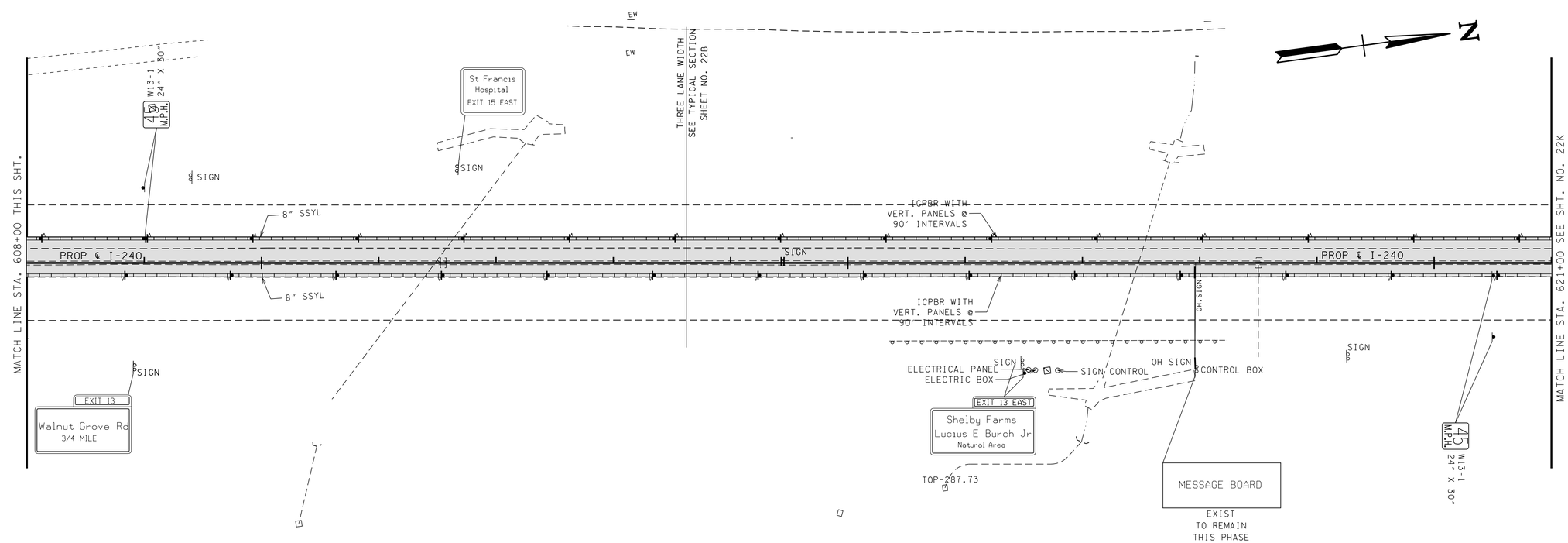

JOHN T. PANKEY
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10235
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STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 595+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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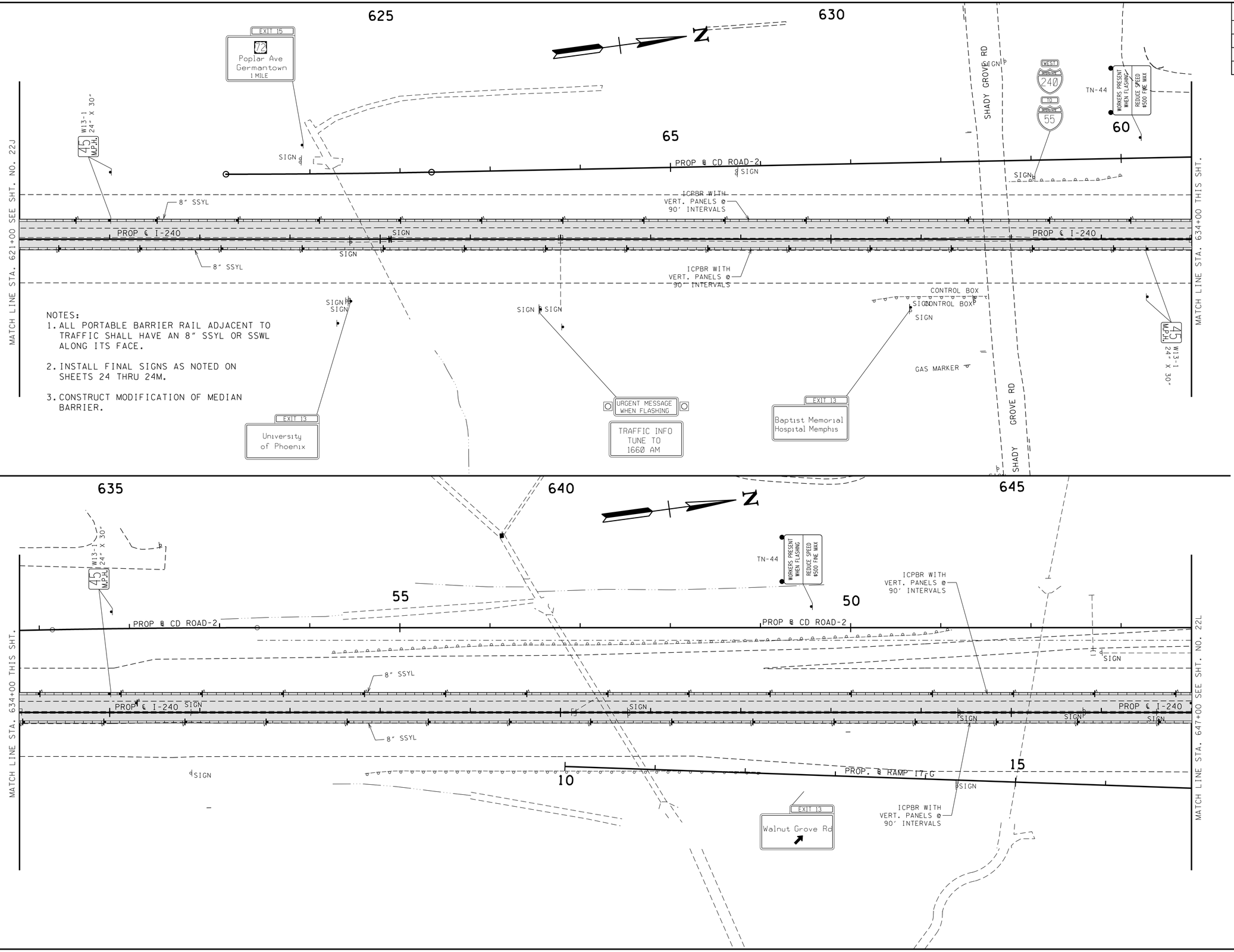
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22K



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JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 621+00 TO STA. 647+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22L

650

655

N

AVRON B FOGELMAN EXPRESSWAY

EXIST TO REMAIN

SIGN

PROP. ℄ RAMP 17-A

PROP. ℄ RAMP 17-B

40

CB

EXIT 20 M.P.H. W13-2 24" X 30"

EXIT

AVRON B FOGELMAN EXPRESSWAY

45 M.P.H. W13-1 24" X 30"

45

YIELD

40

10

ICPBR WITH VERT. PANELS @ 90' INTERVALS

SIGN

EWT

PROP ℄ CD ROAD-2

PROP ℄ CD ROAD-2

8" SSYL

MATCH LINE STA. 647+00 SEE SHT. NO. 22K

PROP ℄ I-240

PROP ℄ I-240

SIGN

8" SSYL

MATCH LINE STA. 657+00 SEE SHT. NO. 22M

20

SIGN

ICPBR WITH VERT. PANELS @ 90' INTERVALS

EXIT 13 M.P.H. W13-2 24" X 30"

SIGN

PROP. ℄ RAMP 17-C

25

SIGN

SIGN

EXIT 13

University of Phoenix

Shelby Farms
Lucius E Burch Jr
Natural Area

Walnut Grove Rd
WEST NO TRUCKS | EAST

EXIST TO REMAIN

LYNNFIELD STREET

LYNNFIELD STREET

BRIERHEDGE

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG ITS FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

3. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.

JOHN T. PANNELL
REGISTERED
DEPARTMENT OF AGRICULTURE
NO. 102359
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22M

660 665 190 N

RAMP 17B
RAMP 17D
EXIST TO REMAIN THIS PHASE
WALNUT GROVE ROAD
EXIT 20 M.P.H. W13-1 24" X 30"
EAST Walnut Grove Rd RAMP 30 MPH
YIELD
45 M.P.H. W13-1 24" X 30"
PROP. ℄ RAMP 17-D
SIGN
EAST Walnut Grove Rd
NO TRUCKS
WEST Walnut Grove Rd
EXIT
EXIT 13
PROP. ℄ RAMP 17-C
5 35 30 25 15
PROP ℄ CD ROAD-2
PROP ℄ I-240
ICPBR WITH VERT. PANELS @ 90' INTERVALS
8" SSYL
PROP. ℄ RAMP 17-E
TN-44
WORKERS PRESENT WHEN FLASHING REDUCE SPEED $500 FINE MAX
MATCH LINE STA. 657+00 SEE SHT. NO. 22L
MATCH LINE STA. 670+00 SEE SHT. NO. 22N
W4-1 30" X 30"

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG ITS FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.

JOHN T. PANKEY JR. REGISTERED PROFESSIONAL ENGINEER AGRICULTURE No. 102361 STATE OF TENNESSEE
8/23/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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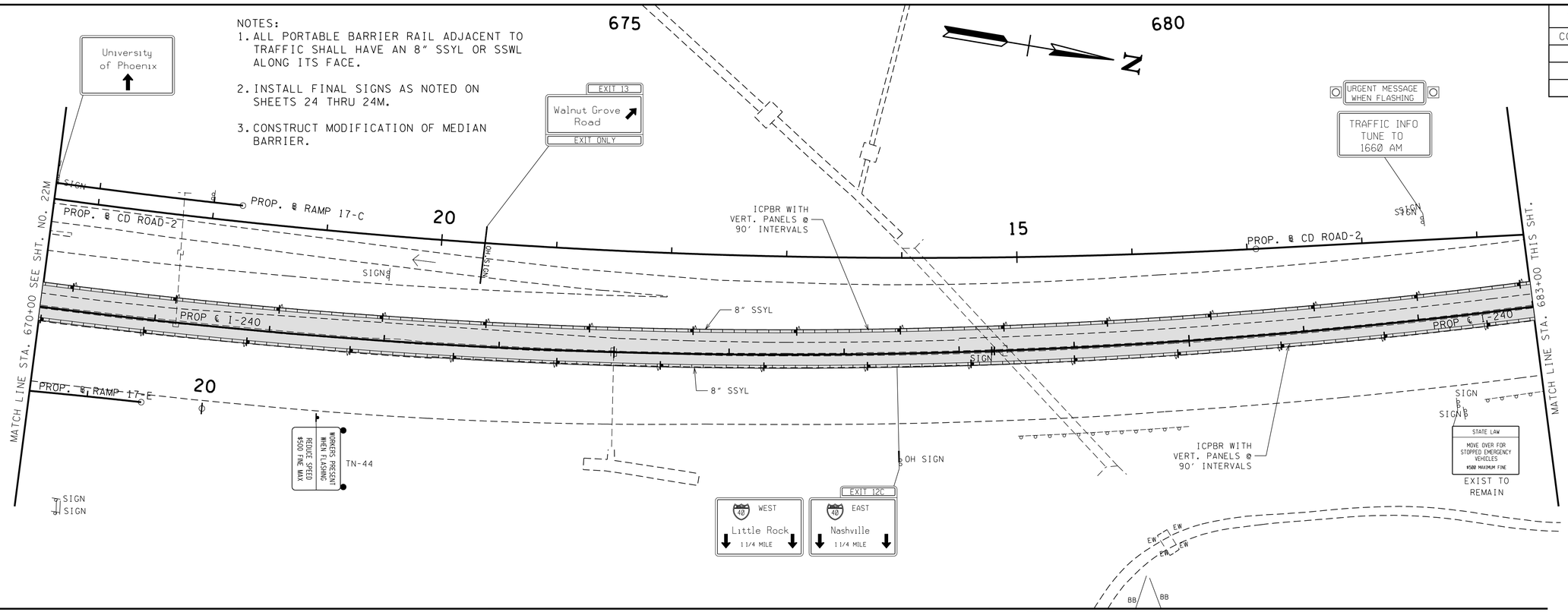
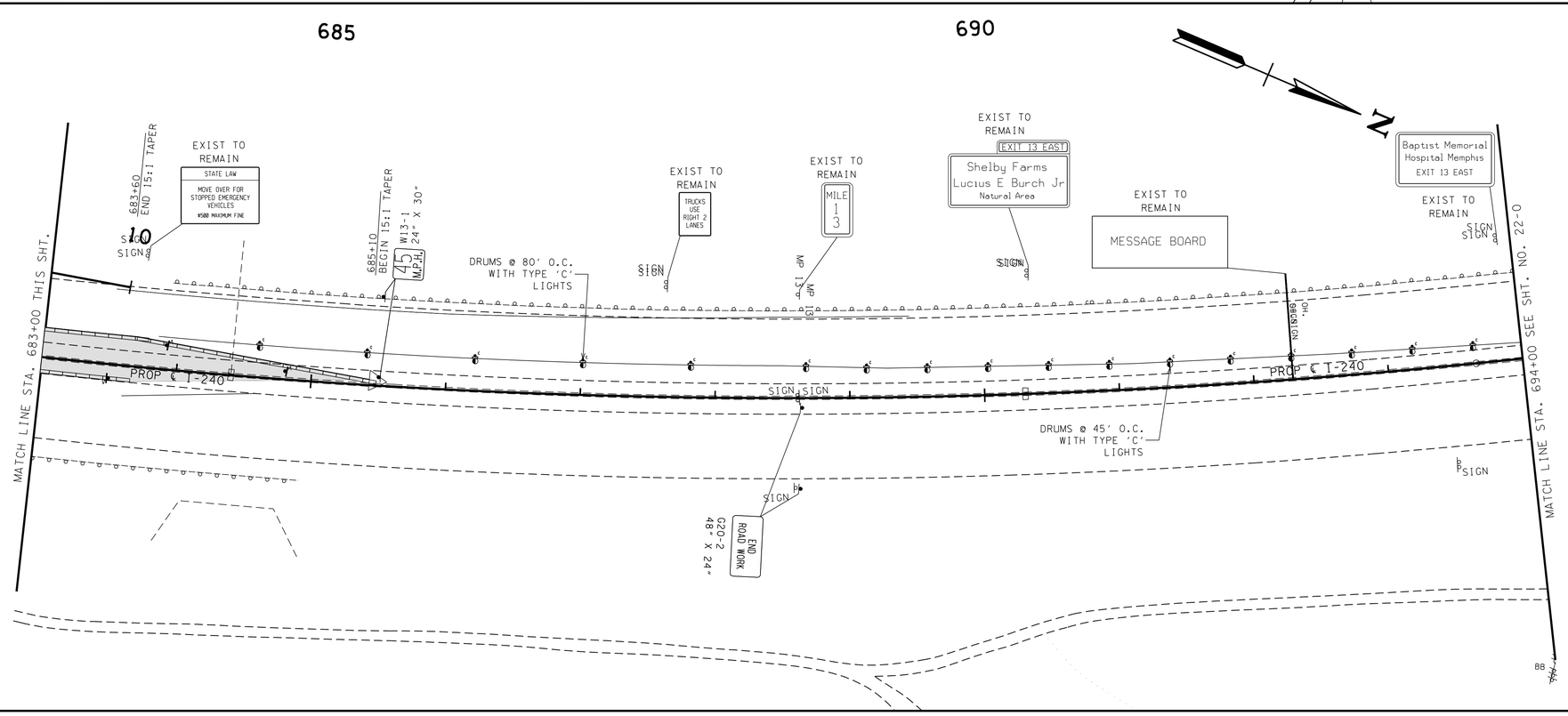
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22N

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG ITS FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. CONSTRUCT MODIFICATION OF MEDIAN BARRIER.





JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 670+00 TO STA. 694+00

SCALE: 1"= 50'

8/20/2010
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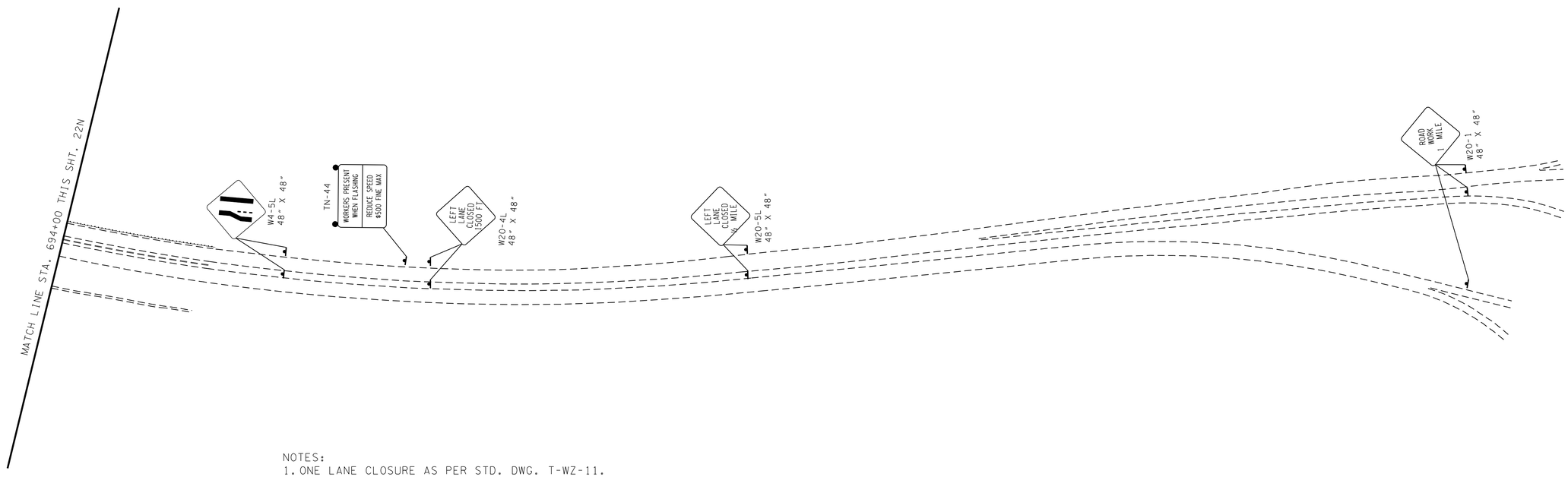
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22-C



NOTES:
1. ONE LANE CLOSURE AS PER STD. DWG. T-WZ-11.

2. A TEMPORARY 8" SSYL SHALL BE PLACED ALONG THE FACE OF THE PORTABLE BARRIER RAIL NORTHBOUND I-240.

3. ANY CONFLICTING SIGNS SHALL BE COVEERED OR REMOVED AS DIRECTED BY THE ENGINEER.

4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED
ENGINEER
AGRICULTURE
8-23-10
10235
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 1

STA. 694+00 TO I-40

SCALE: 1"=200'

8/20/2010
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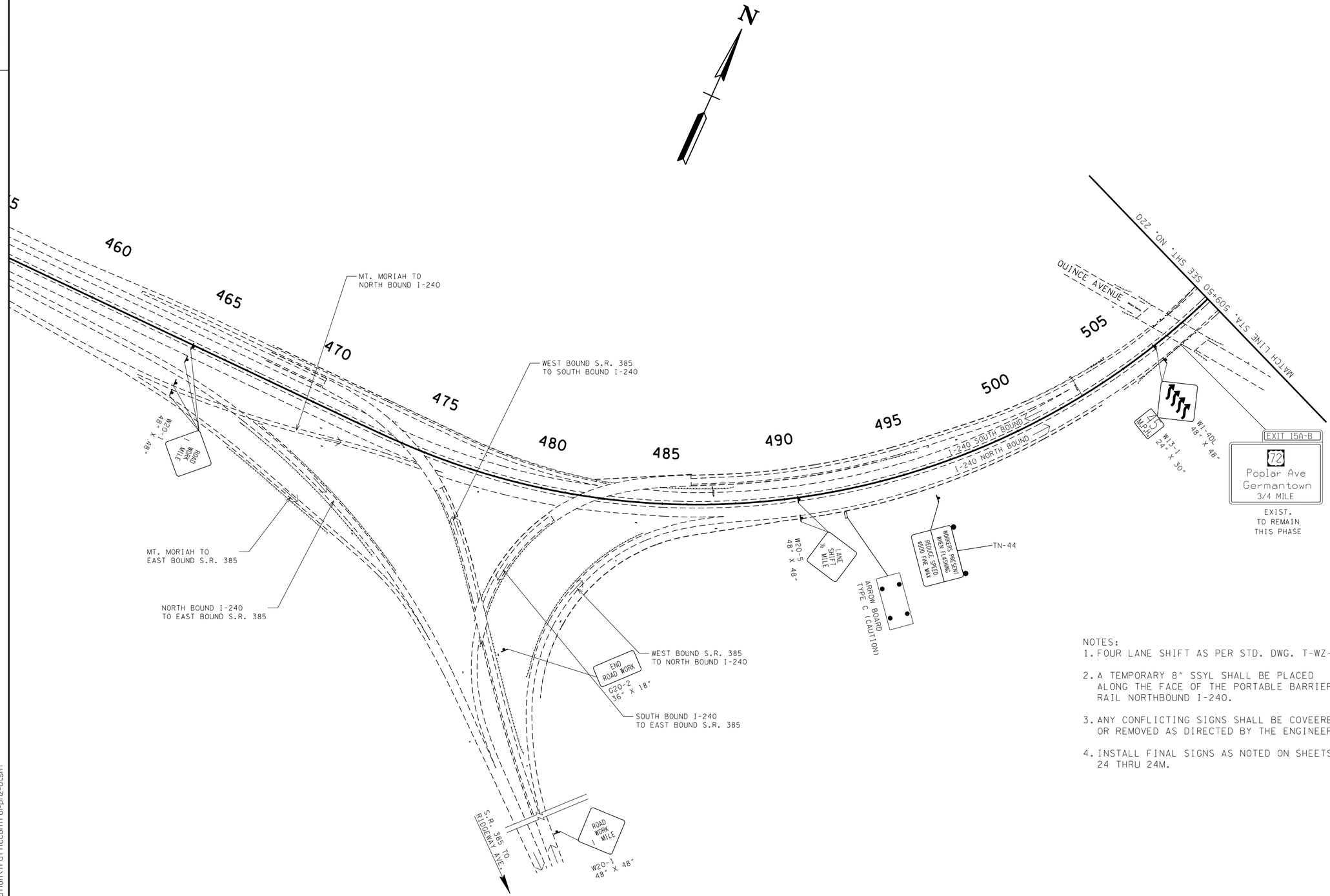
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22P



NOTES:
1. FOUR LANE SHIFT AS PER STD. DWG. T-WZ-18.
2. A TEMPORARY 8" SSYL SHALL BE PLACED ALONG THE FACE OF THE PORTABLE BARRIER RAIL NORTHBOUND I-240.
3. ANY CONFLICTING SIGNS SHALL BE COVEERED OR REMOVED AS DIRECTED BY THE ENGINEER.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102150
STATE OF TENNESSEE
8-23-2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

S.R. 385 TO B.O.P.

SCALE: 1"=200'

8/20/2010
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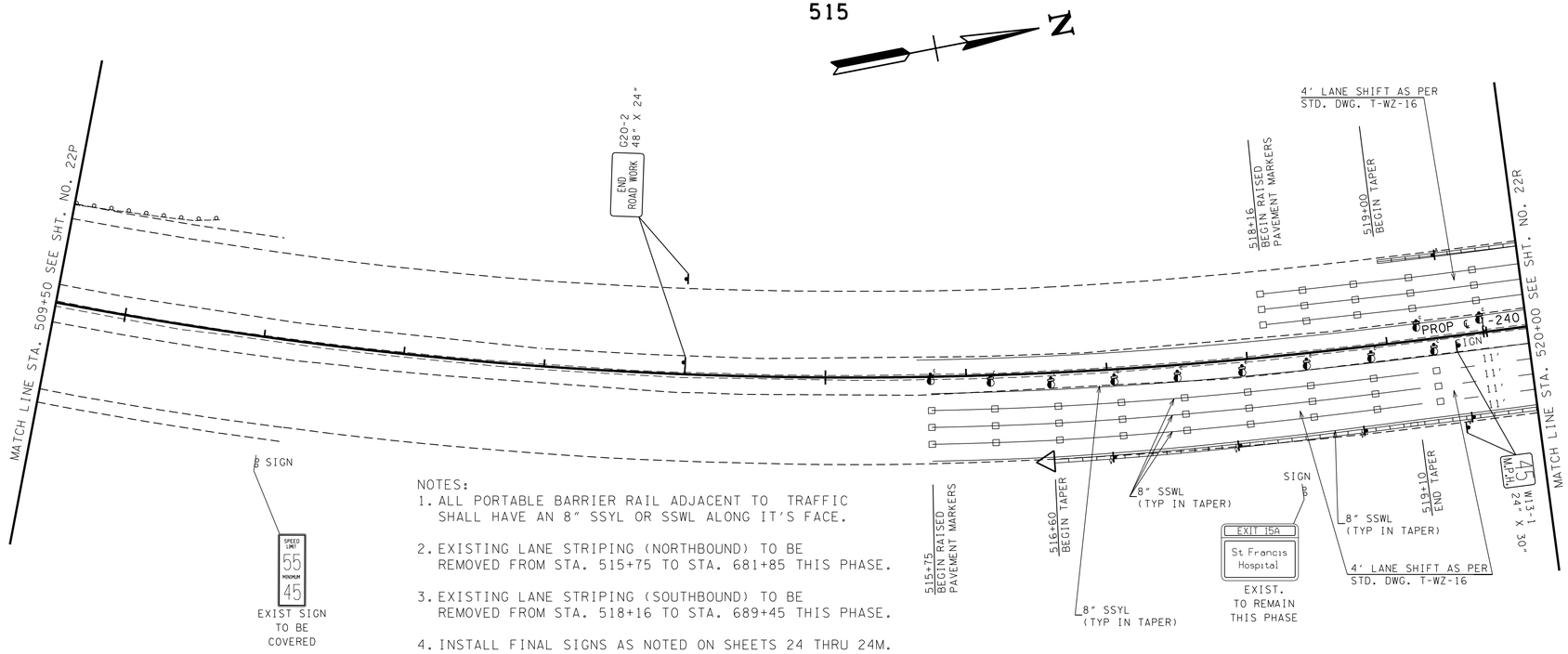
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	220

515



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. EXISTING LANE STRIPING (NORTHBOUND) TO BE REMOVED FROM STA. 515+75 TO STA. 681+85 THIS PHASE.
3. EXISTING LANE STRIPING (SOUTHBOUND) TO BE REMOVED FROM STA. 518+16 TO STA. 689+45 THIS PHASE.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

B.O.P. TO STA. 520+00

SCALE: 1"= 50'

8/20/2010
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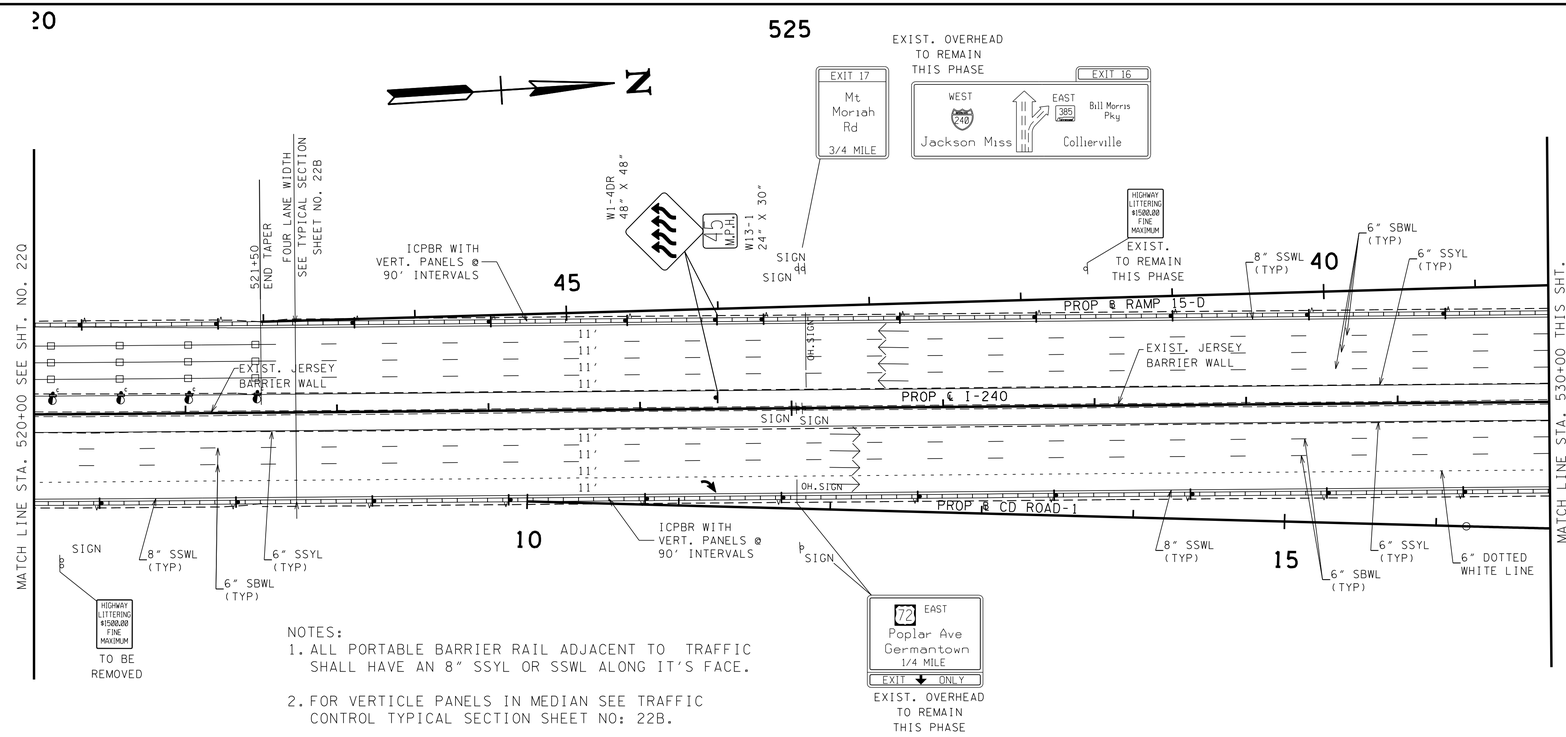
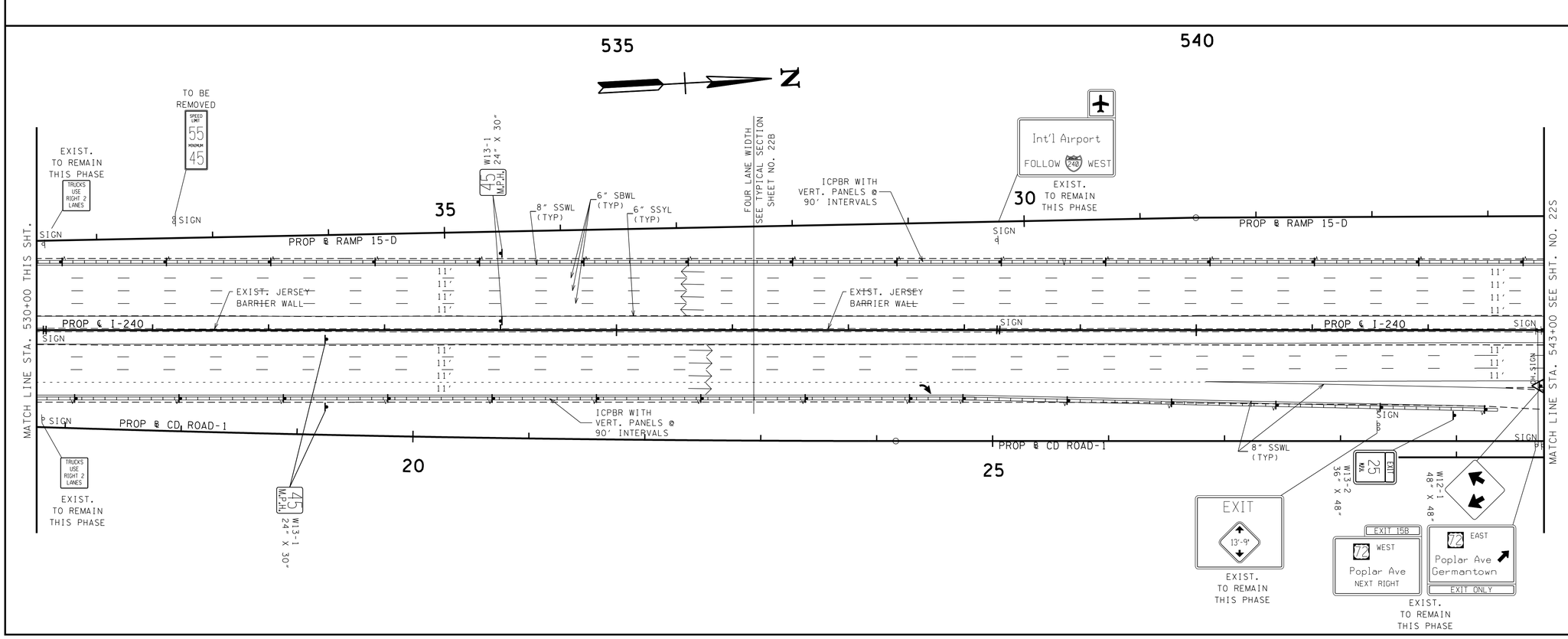
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22R



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. FOR VERTICLE PANELS IN MEDIAN SEE TRAFFIC CONTROL TYPICAL SECTION SHEET NO: 22B.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
102258
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

520+00 TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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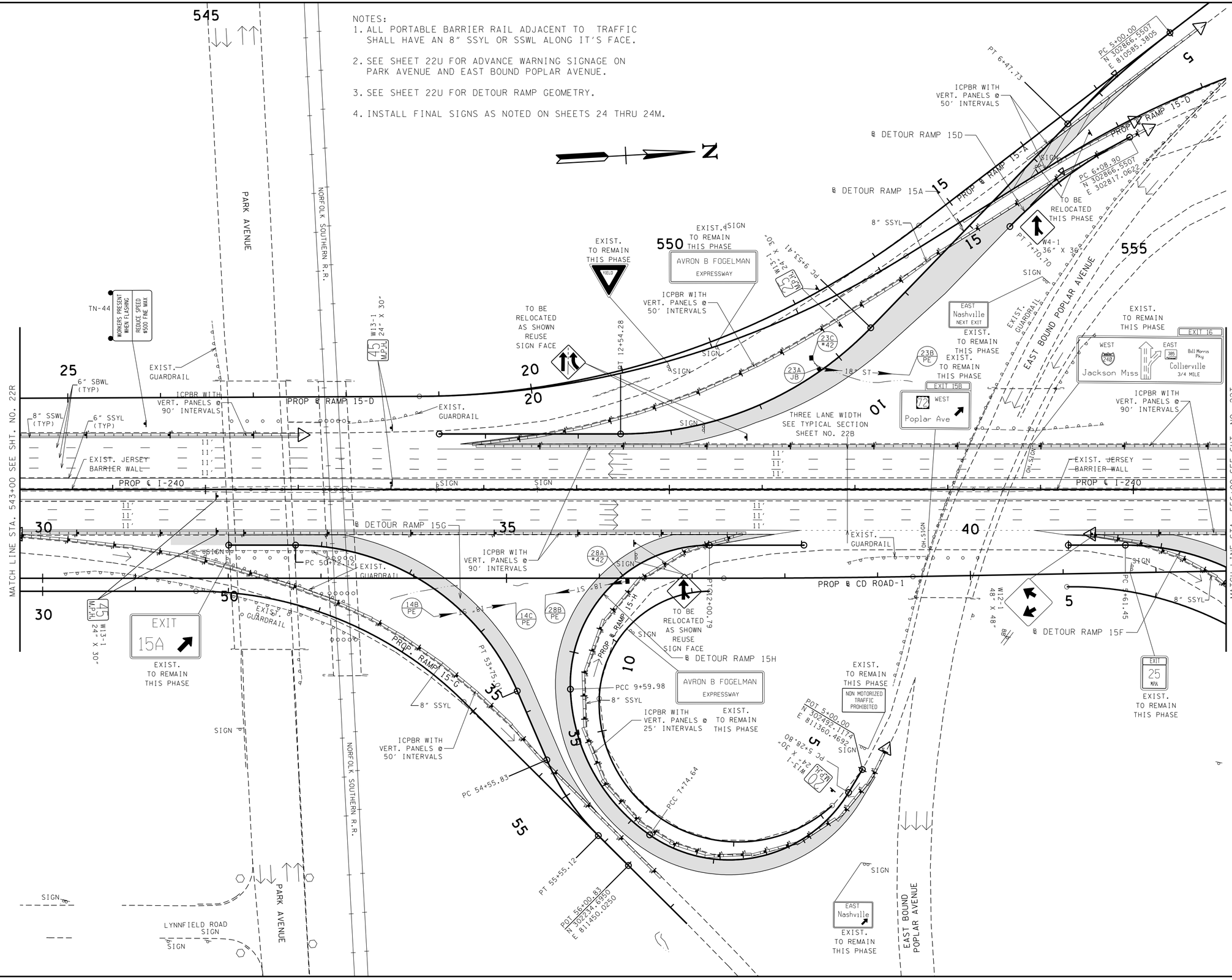
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22S

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. SEE SHEET 22U FOR ADVANCE WARNING SIGNAGE ON PARK AVENUE AND EAST BOUND POPLAR AVENUE.
3. SEE SHEET 22U FOR DETOUR RAMP GEOMETRY.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
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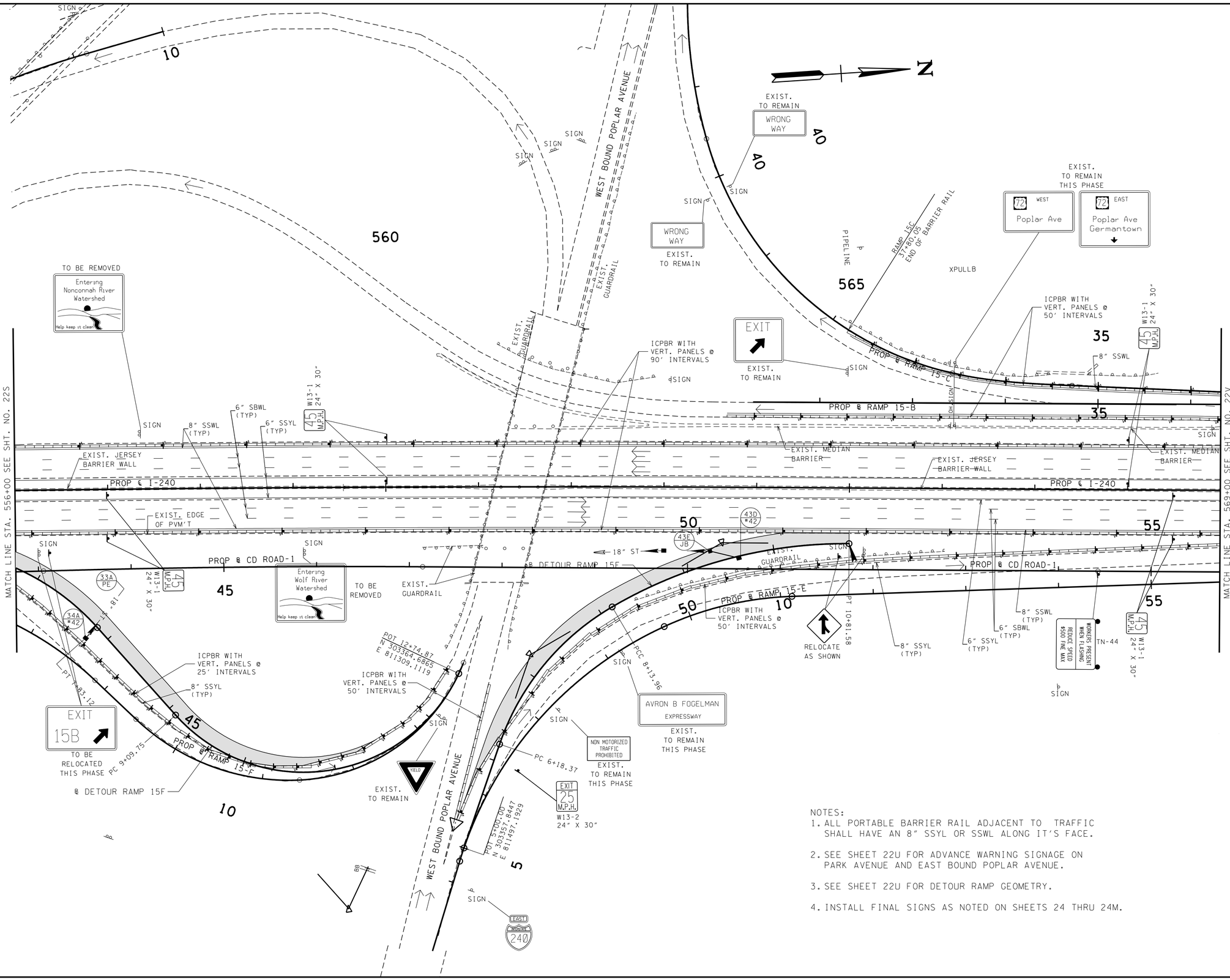
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22T



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. SEE SHEET 22U FOR ADVANCE WARNING SIGNAGE ON PARK AVENUE AND EAST BOUND POPLAR AVENUE.
3. SEE SHEET 22U FOR DETOUR RAMP GEOMETRY.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
No. 102357
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22U

DETOUR RAMP 15A - CURVE 1
PI 5+74.00
N 302,805.4872
E 810,627.1789
Δ 8° 27′ 51″ (LT)
D 5° 43′ 46″
R 1,000.00
L 147.73
T 74.00
SE MATCH EXIST.
DESIGN SPEED 20 MPH
TRANS. LENGTH MATCH EXIST.

DETOUR RAMP 15A - CURVE 2
PI 11+12.48
N 302,410.5527
E 810,993.6119
Δ 45° 58′ 10″ (RT)
D 15° 16′ 44″
R 375.00
L 300.87
T 159.06
SE 0.040 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15D - CURVE 1
PI 6+90.51
N 302,742.6889
E 810,729.0976
Δ 18° 32′ 27″ (LT)
D 11° 27′ 33″
R 500.00
L 161.80
T 81.61
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15G - CURVE 1
PI 52+43.39
N 302,066.3959
E 811,094.8489
Δ 66° 44′ 51″ (RT)
D 22° 02′ 13″
R 260.00
L 302.89
T 171.27
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15H - CURVE 1
PI 6+89.38
N 302,385.8508
E 811,517.2247
Δ 93° 54′ 03″ (RT)
D 38° 11′ 50″
R 150.00
L 245.83
T 160.58
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15H - CURVE 2
PI 8+74.57
N 302,180.6659
E 811,356.7170
Δ 53° 05′ 53″ (RT)
D 28° 38′ 52″
R 200.00
L 185.35
T 99.93
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15H - CURVE 3
PI 11+15.26
N 302,185.7107
E 811,101.5595
Δ 91° 58′ 51″ (RT)
D 38° 11′ 50″
R 150.00
L 240.80
T 155.28
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

STA. 14+49.76 DETOUR RAMP 15A =
STA. 547+51.99, 60.00 LT I-240
N 302056.5386
E 810974.3566

STA. 50+00.00 DETOUR RAMP 15G =
STA. 545+25.00, 60.00 RT I-240
N 301823.3690
E 811081.6020

STA. 7+70.70 DETOUR RAMP 15D =
STA. 553+67.00, 283.52′ LT I-240
N 302682.8614
E 810784.6074

STA. 5+00.00 DETOUR RAMP 15F =
STA. 554+30.00, 60.00 RT I-240
N 302442.4470
E 811115.5240

STA. 13+02.63 DETOUR RAMP 15H =
STA. 551+45.00, 60.00 RT I-240
N 302442.4470
E 811115.5240

STA. 10+81.58 DETOUR RAMP 15E =
STA. 565+00.00, 60.00 RT I-240
N 303793.8788
E 811196.9548

DETOUR RAMP 15G - CURVE 2
PI 55+06.09
N 302,170.4610
E 811,378.7190
Δ 21° 52′ 50″ (LT)
D 22° 02′ 13″
R 260.00
L 99.29
T 50.26
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15E - CURVE 1
PI 7+20.51
N 303,443.0644
E 811,293.8185
Δ 40° 45′ 08″ (RT)
D 20° 50′ 05″
R 275.00
L 195.60
T 102.14
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15E - CURVE 2
PI 9+51.06
N 303,657.1429
E 811,187.0243
Δ 30° 39′ 59″ (RT)
D 11° 27′ 33″
R 500.00
L 267.61
T 137.10
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15F - CURVE 1
PI 6+79.53
N 302,906.2657
E 811,140.8586
Δ 48° 51′ 00″ (RT)
D 22° 02′ 13″
R 260.00
L 221.67
T 118.08
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 15F - CURVE 2
PI 11+89.67
N 303,229.3934
E 811,554.1645
Δ 113° 04′ 42″ (LT)
D 30° 58′ 14″
R 185.00
L 365.11
T 279.92
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
No. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

POPLAR INTERCHANGE

SCALE: 1"=100'

8/20/2010
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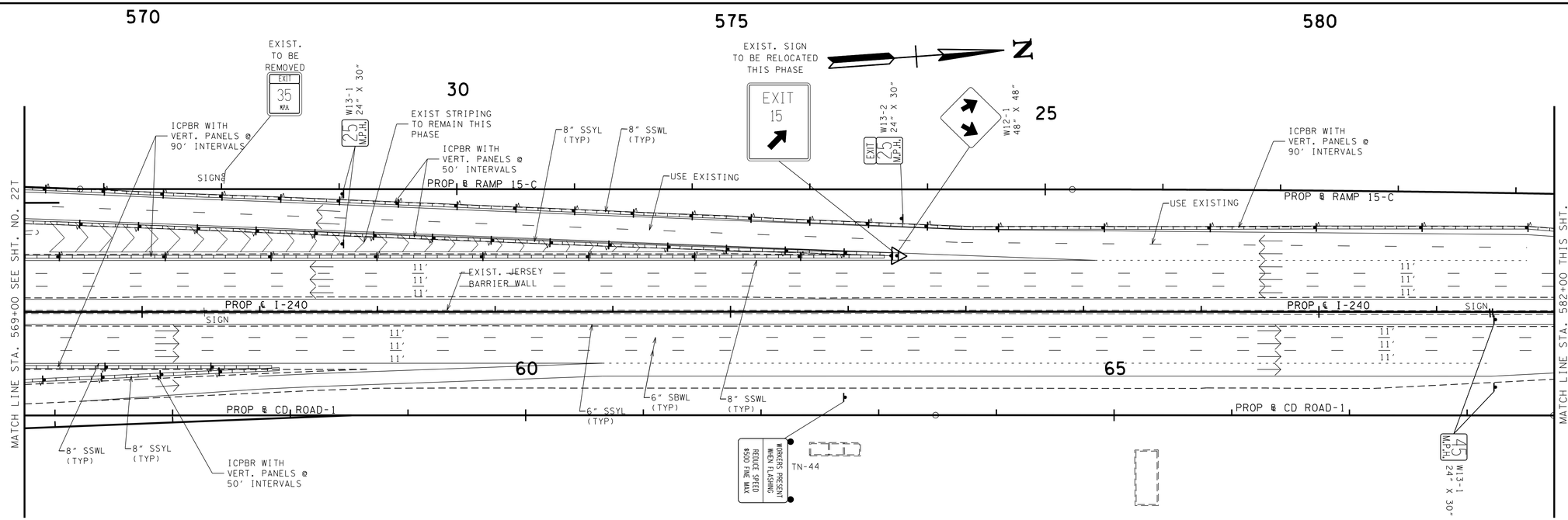
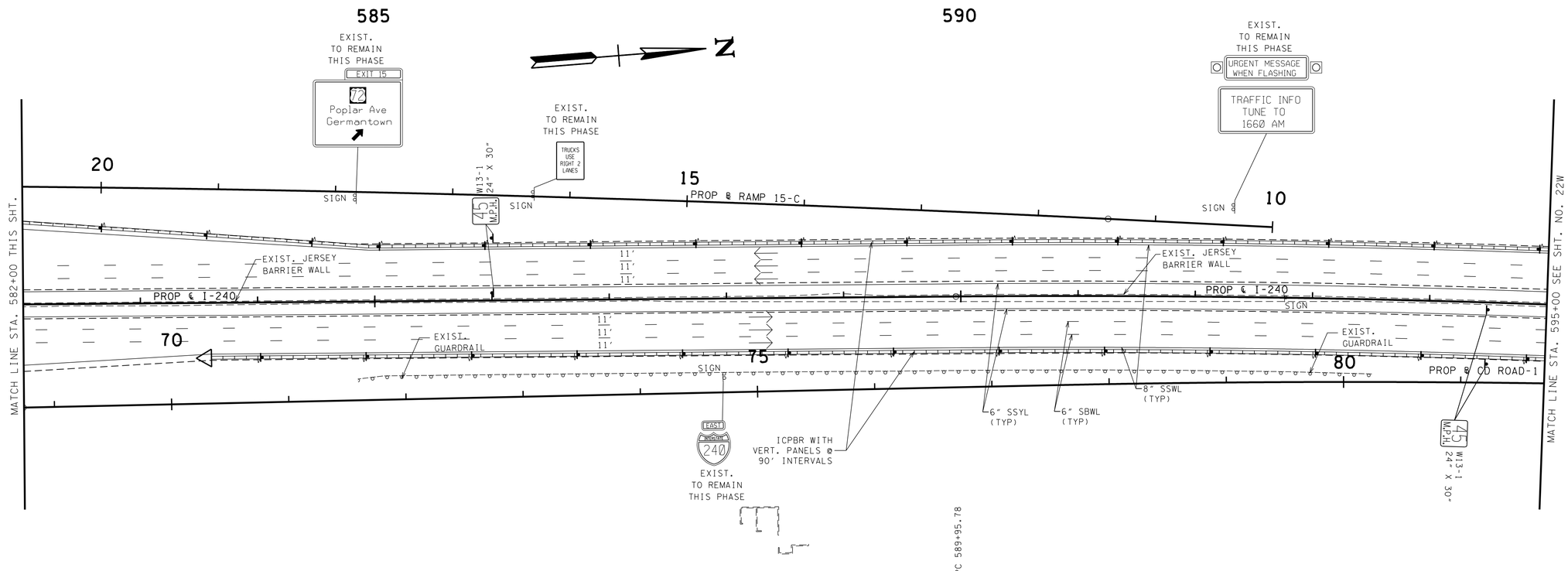
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22V



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



PC 589+95.78

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 569+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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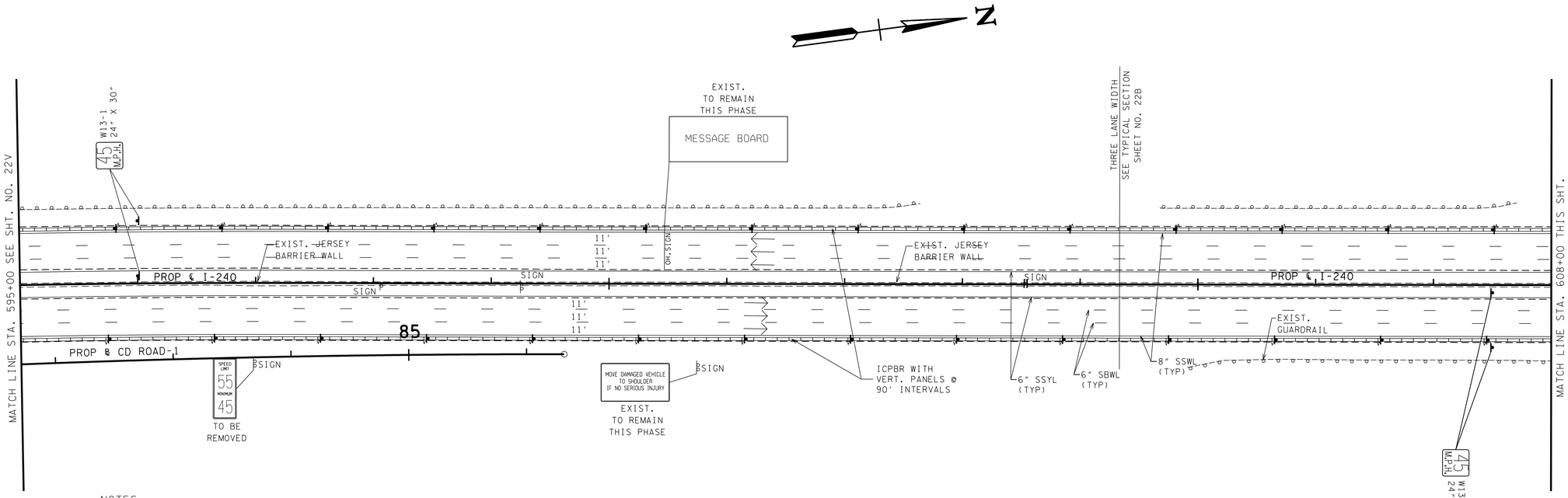
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22W

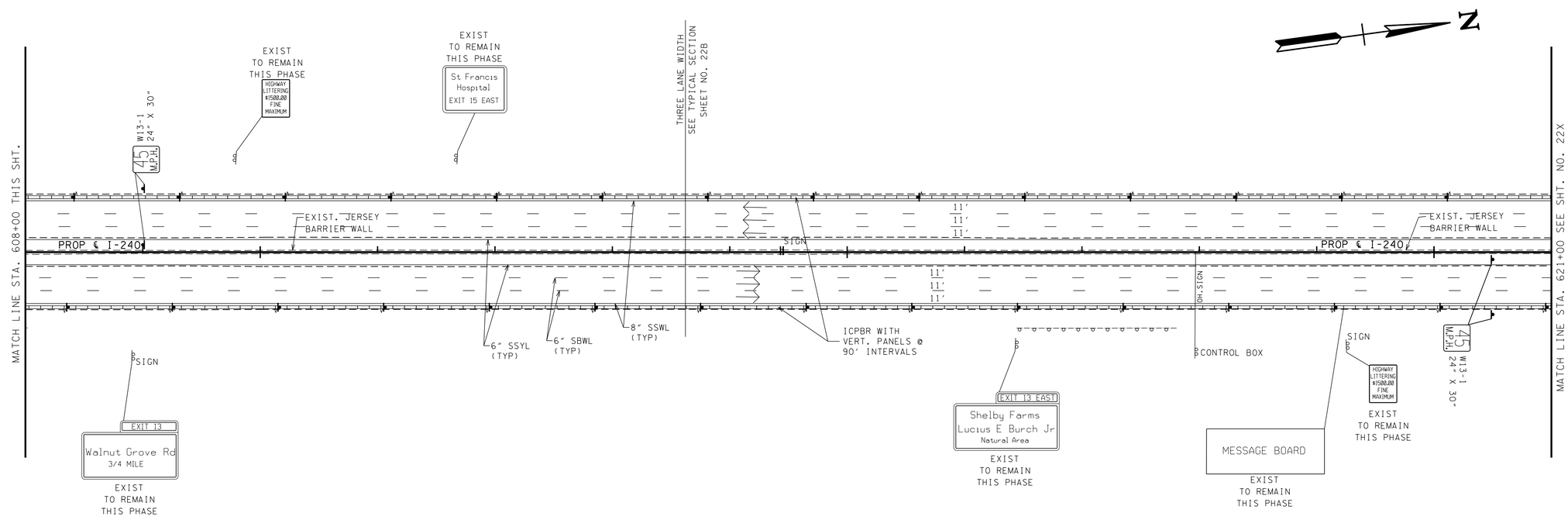
600 605



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

610 615 620



JOHN T. PANKEY
REGISTERED
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 595+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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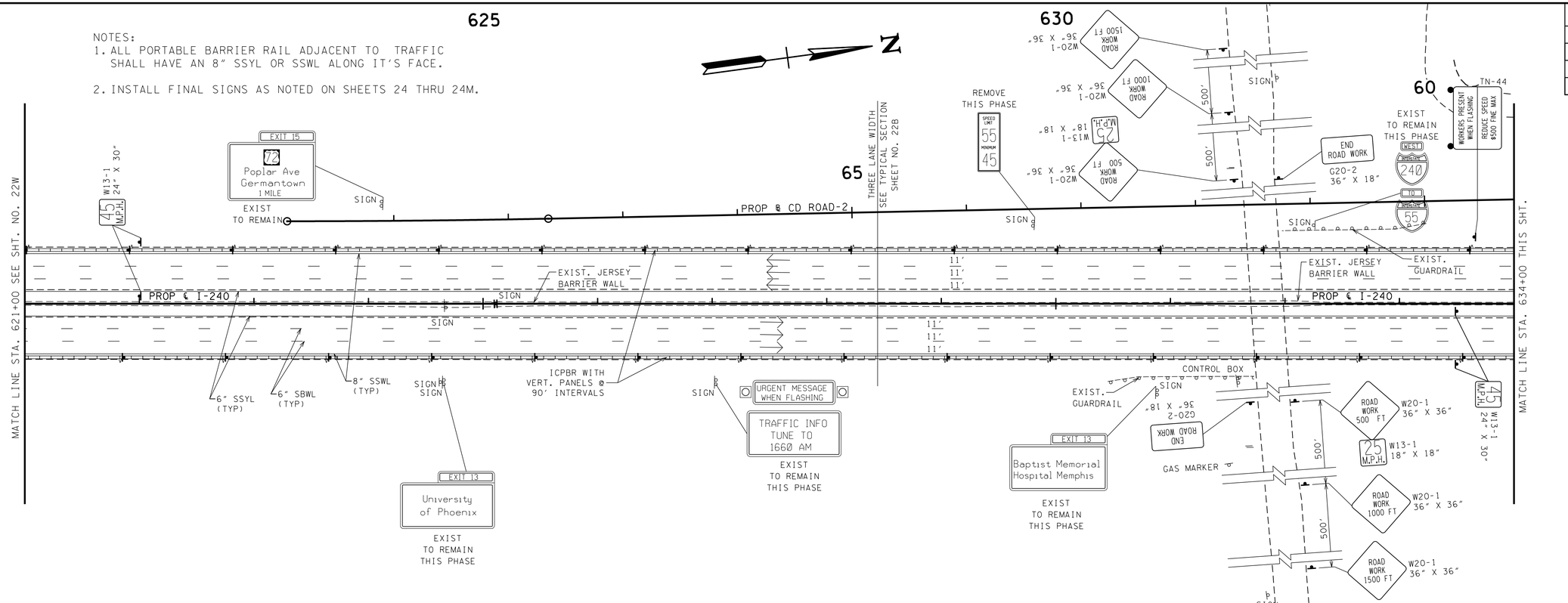
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22X

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



JOHN T. PANKEY
REGISTERED
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 621+00 TO STA. 647+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22Y

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22AA FOR DETOUR RAMP GEOMETRY.

650

655

N

MATCH LINE STA. 647+00 SEE SHT. NO. 22X

MATCH LINE STA. 657+00 SEE SHT. NO. 22Z

PROP ℄ I-240

PROP ℄ CD ROAD-2

CD-RD 2

PC 5+00.00
N 812863.0867
E 811753.2758

AVRON B FOGELMAN EXPRESSWAY

EXIST TO REMAIN

RT 5+60.46

SIGN

POT 9+15.92
N 812867.6060
E 811814.7877

PT 8+71.98

PROP ℄ RAMP 17-A

PC 7+39.21

EXIST TO BE RELOCATED AS SHOWN

ICPBR WITH VERT. PANELS @ 50' INTERVALS

℄ DETOUR RAMP 17A

EXIST TO REMAIN THIS PHASE

AVRON B FOGELMAN EXPRESSWAY

45

W13-1 24" X 30"

45 M.P.H.

SIGN

ICPBR WITH VERT. PANELS @ 50' INTERVALS

POT 10+07.91

PT 10+28.41

10

40

124A #42

18" ST

124B PE

EXIT

℄ DETOUR RAMP 17B

ICPBR WITH VERT. PANELS @ 50' INTERVALS

126C PE

18" ST

SIGN

126A JB

126B #42

RAMP 17B

PC 5+27.89

PROP ℄ RAMP 17-B

CB

40

20

℄ SIGN

PC 10+87.88

6" SSYL (TYP)

6" SBWL (TYP)

8" SSWL (TYP)

ICPBR WITH VERT. PANELS @ 90' INTERVALS

ICPBR WITH VERT. PANELS @ 50' INTERVALS

119B PE

℄ DETOUR RAMP 17G

119A PE

THREE LANE WIDTH
SEE TYPICAL SECTION
SHEET NO. 22B

W12-1 48" X 48"

W13-1 24" X 30"

45 M.P.H.

NOTE:
CONSTRUCT 4th NORTHBOUND LANE AS SHOWN

EXIT 13

EXIST TO REMAIN THIS PHASE

EXIST TO REMAIN THIS PHASE

University of Phoenix

PROP. ℄ RAMP 17-G

PT 13+98.22

SIGN

25

Shelby Farms
Lucius E Burch Jr
Natural Area

EXIST TO REMAIN THIS PHASE

15

PC 15+08.81

SIGN

Walnut Grove Rd
WEST NO TRUCKS | EAST

EXIST TO REMAIN THIS PHASE

PT 16+21.00

POT 16+67.02
N 812844.7820
E 812524.9650

LYNNFIELD STREET

LYNNFIELD STREET

BRIERHEDGE

JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
102358
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22Z

660 665 190 10 30 35 5 25 15

RAMP 17B
RAMP 17D
WALNUT GROVE ROAD
POT 10+34.13
N 313600.5403
E 811854.2742
PT 9+84.13
ICPBR WITH VERT. PANELS @ 50' INTERVALS
SIGN
PC 9+22.68
℄ DETOUR RAMP 17C
PC 5+00.00 N 313523.4865 E 811842.9170
PT 5+58.44
PC 6+21.57
EXIST TO BE REMOVED
EXIT 30 MPH
W12-1 36" X 36"
EXIST TO REMAIN THIS PHASE
EAST Walnut Grove Rd
RAMP 30 MPH
W13-1 24" X 30"
45 M.P.H.
EXIST TO REMAIN THIS PHASE
YIELD
PT 9+73.75
TO BE RELOCATED AS SHOWN
PROP. ℄ RAMP 17-D
141B PE
141A PE
℄ DETOUR RAMP 17D
143A PE
143B PE
IS .81
PT 7+73.49
PROP. ℄ RAMP 17-C
EXIST. TO REMAIN THIS PHASE
EXIT
NO TRUCKS
EAST Walnut Grove Rd
WEST Walnut Grove Rd
EXIST. TO REMAIN THIS PHASE
EXIT 13
PROP. ℄ CD ROAD-2
CD-RD 2
PC 5+00.00
MATCH LINE STA. 657+00 SEE SHT. NO. 22Y
MATCH LINE STA. 670+00 SEE SHT. NO. 22BB
PROP ℄ I-240
11' 11' 11'
6" SSYL (TYP)
6" SBWL (TYP)
8" SSWL (TYP)
W13-1 24" X 30"
45 M.P.H.
ICPBR WITH VERT. PANELS @ 90' INTERVALS
℄ DETOUR RAMP 17E
146 PE
146A *425
EXIST. TO REMAIN
PROP. ℄ RAMP 17-E
PT 11+50.02
PC 10+73.23
PC 12+57.12
PRC 15+21.24
PT 15+91.24
WORKERS PRESENT WHEN FLASHING REDUCE SPEED 45/30 LIMIT MAX
TN-44
ICPBR WITH VERT. PANELS @ 50' INTERVALS
POT 10+00.00
N 313513.2833
E 812543.7762
W4-1 30" X 30"
W13-1 24" X 30"
25 M.P.H.
WALNUT GROVE ROAD

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22AA FOR DETOUR RAMP GEOMETRY.
4. SEE SHEET 22AA FOR ADVANCE WARNING SIGNAGE ON WALNUT GROVE ROAD.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22AA

DETOUR RAMP 17A - CURVE 1
PI 5+30.29
N 312,841.3574
E 811,774.3980
Δ 8° 39′ 39″ (LT)
D 14° 19′ 26″
R 400.00
L 60.46
T 30.29
SE (MATCH EXIST.)
DESIGN SPEED 20 MPH
TRANS. LENGTH (MATCH EXIST.)

DETOUR RAMP 17A - CURVE 2
PI 8+99.04
N 312,618.7206
E 812,068.5034
Δ 60° 41′ 44″ (RT)
D 20° 59′ 15″
R 273.00
L 289.20
T 159.83
SE 0.060 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH 100

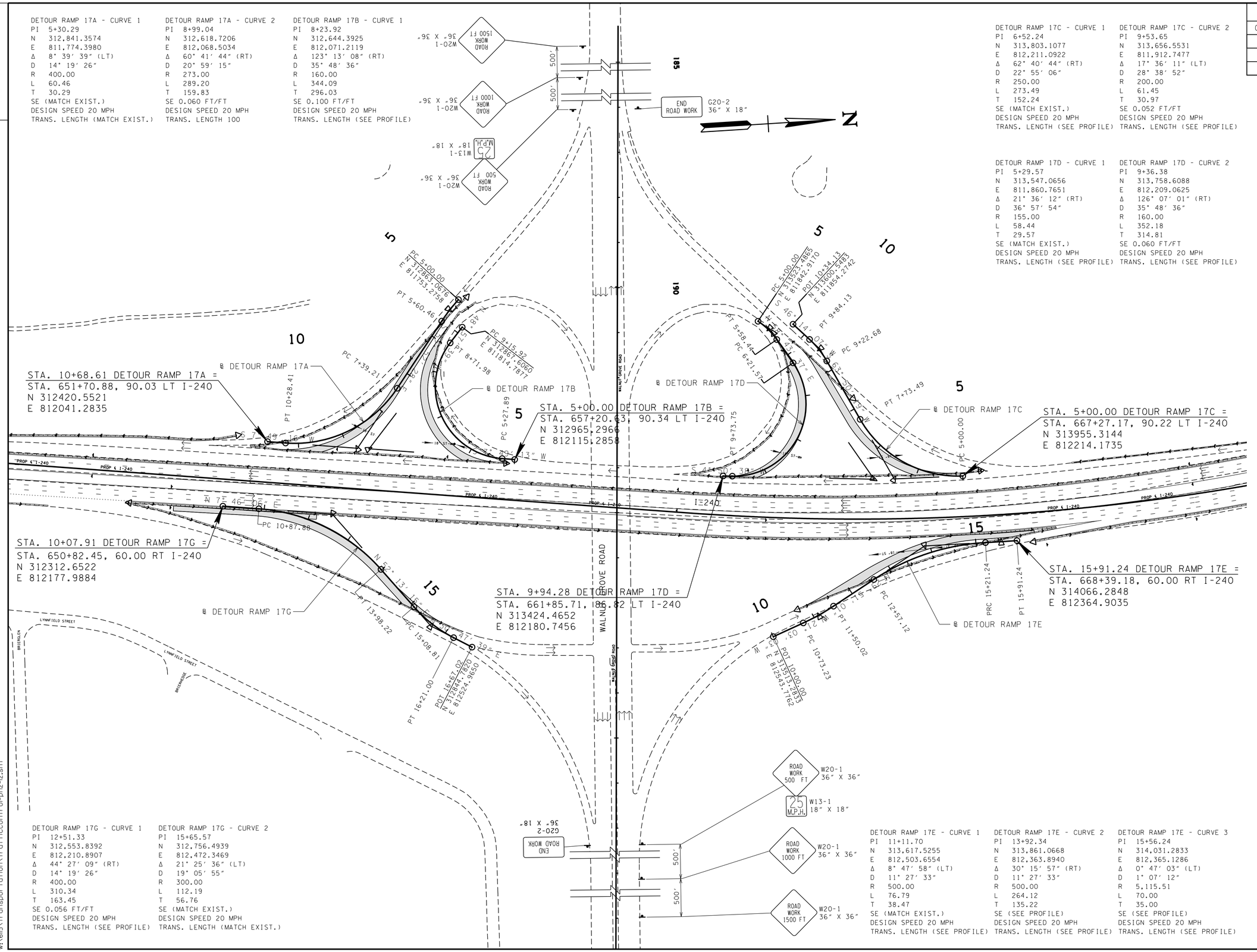
DETOUR RAMP 17B - CURVE 1
PI 8+23.92
N 312,644.3925
E 812,071.2119
Δ 123° 13′ 08″ (RT)
D 35° 48′ 36″
R 160.00
L 344.09
T 296.03
SE 0.100 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17C - CURVE 1
PI 6+52.24
N 313,803.1077
E 812,211.0922
Δ 62° 40′ 44″ (RT)
D 22° 55′ 06″
R 250.00
L 273.49
T 152.24
SE (MATCH EXIST.)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17C - CURVE 2
PI 9+53.65
N 313,656.5531
E 811,912.7477
Δ 17° 36′ 11″ (LT)
D 28° 38′ 52″
R 200.00
L 61.45
T 30.97
SE 0.052 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17D - CURVE 1
PI 5+29.57
N 313,547.0656
E 811,860.7651
Δ 21° 36′ 12″ (RT)
D 36° 57′ 54″
R 155.00
L 58.44
T 29.57
SE (MATCH EXIST.)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17D - CURVE 2
PI 9+36.38
N 313,758.6088
E 812,209.0625
Δ 126° 07′ 01″ (RT)
D 35° 48′ 36″
R 160.00
L 352.18
T 314.81
SE 0.060 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)



DETOUR RAMP 17G - CURVE 1
PI 12+51.33
N 312,553.8392
E 812,210.8907
Δ 44° 27′ 09″ (RT)
D 14° 19′ 26″
R 400.00
L 310.34
T 163.45
SE 0.056 FT/FT
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17G - CURVE 2
PI 15+65.57
N 312,756.4939
E 812,472.3469
Δ 21° 25′ 36″ (LT)
D 19° 05′ 55″
R 300.00
L 112.19
T 56.76
SE (MATCH EXIST.)
DESIGN SPEED 20 MPH
TRANS. LENGTH (MATCH EXIST.)

DETOUR RAMP 17E - CURVE 1
PI 11+11.70
N 313,617.5255
E 812,503.6554
Δ 8° 47′ 58″ (LT)
D 11° 27′ 33″
R 500.00
L 76.79
T 38.47
SE (MATCH EXIST.)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17E - CURVE 2
PI 13+92.34
N 313,861.0668
E 812,363.8940
Δ 30° 15′ 57″ (RT)
D 11° 27′ 33″
R 500.00
L 264.12
T 135.22
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

DETOUR RAMP 17E - CURVE 3
PI 15+56.24
N 314,031.2833
E 812,365.1286
Δ 0° 47′ 03″ (LT)
D 1° 07′ 12″
R 5,115.51
L 70.00
T 35.00
SE (SEE PROFILE)
DESIGN SPEED 20 MPH
TRANS. LENGTH (SEE PROFILE)

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-27-10
NO. NUMBER 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

WALNUT GROVE INTERCHANGE

SCALE: 1"=100′

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22BB

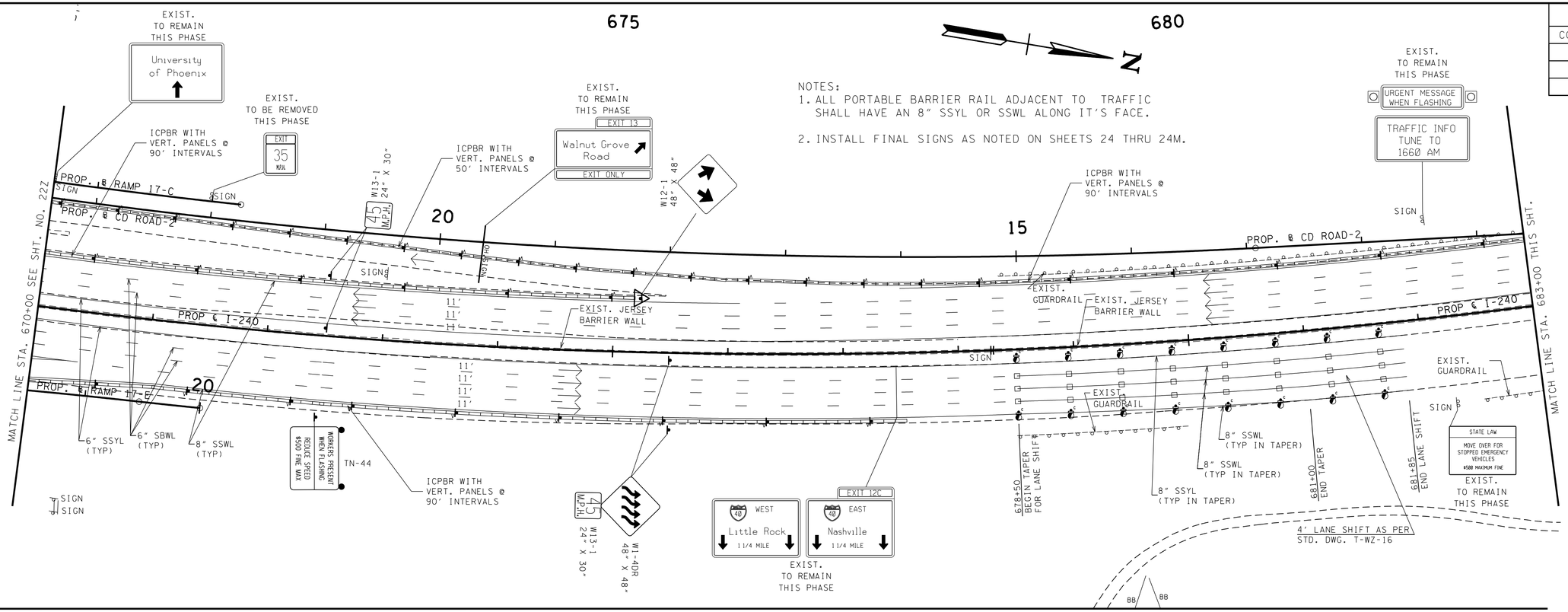
675

680

N

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

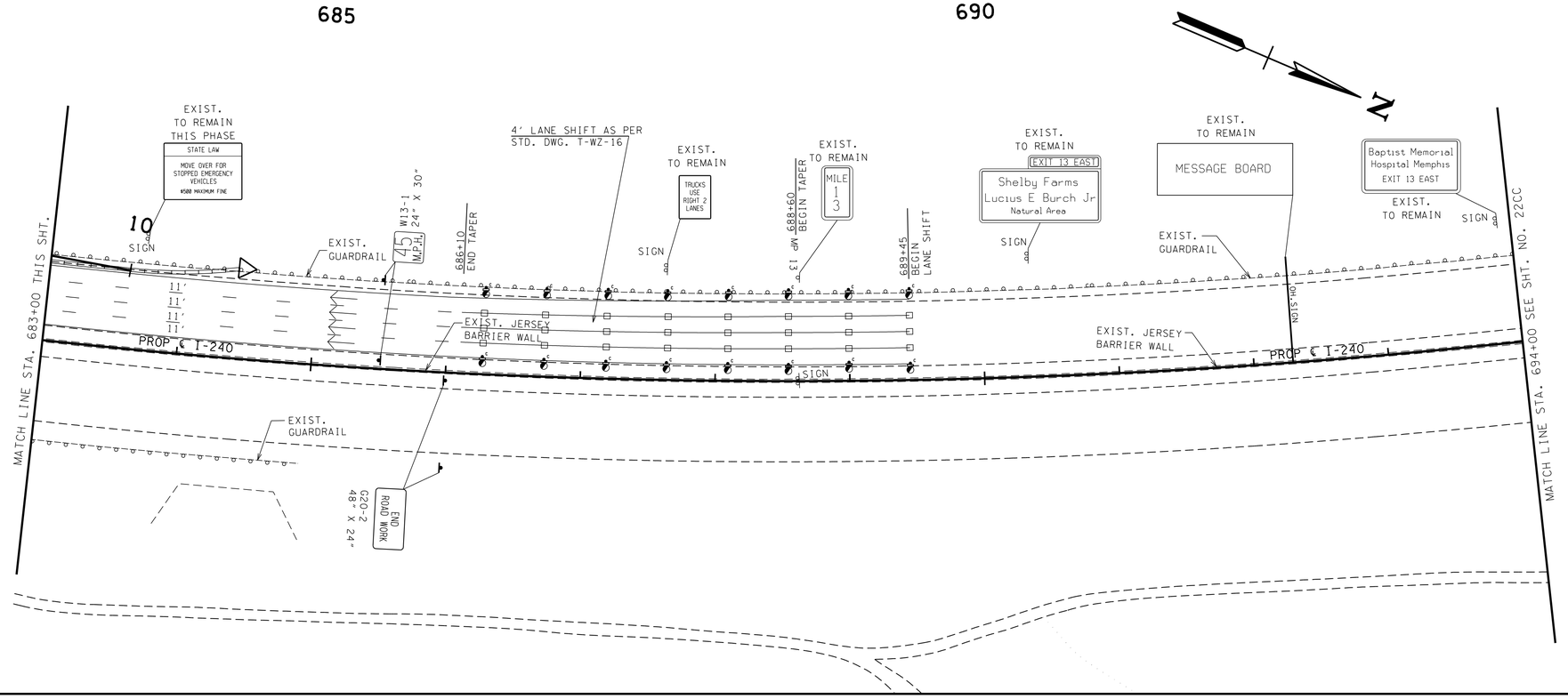
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



685

690

N



8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
AND COMMERCE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

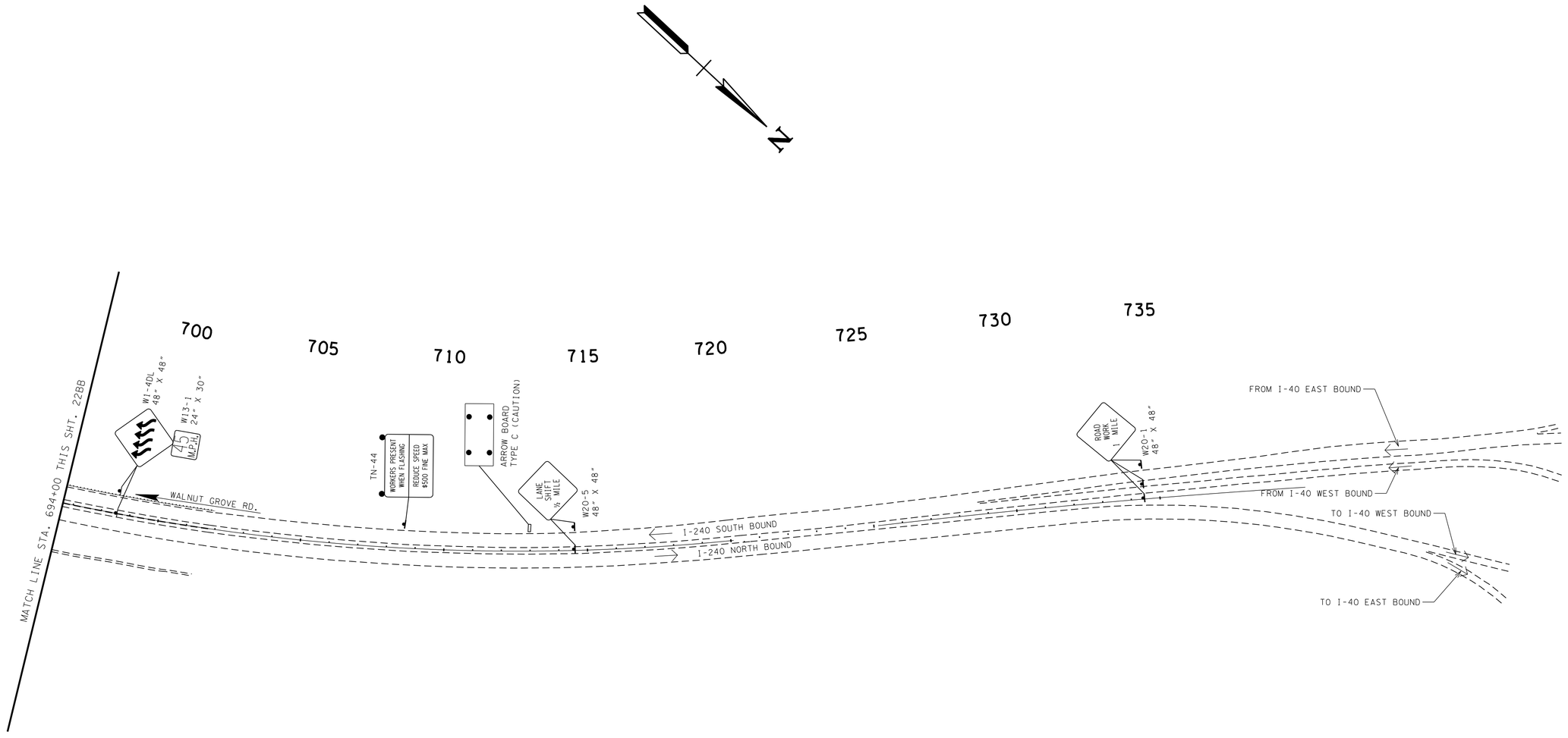
TRAFFIC CONTROL PLAN PHASE 2

STA. 670+00 TO STA. 694+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22CC



NOTES:
1. FOUR LANE SHIFT AS PER STD. DWG. T-WZ-16.

2. ANY CONFLICTING SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

3. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 2

STA. 694+00 TO I-40

SCALE: 1"=200'

8/20/2010
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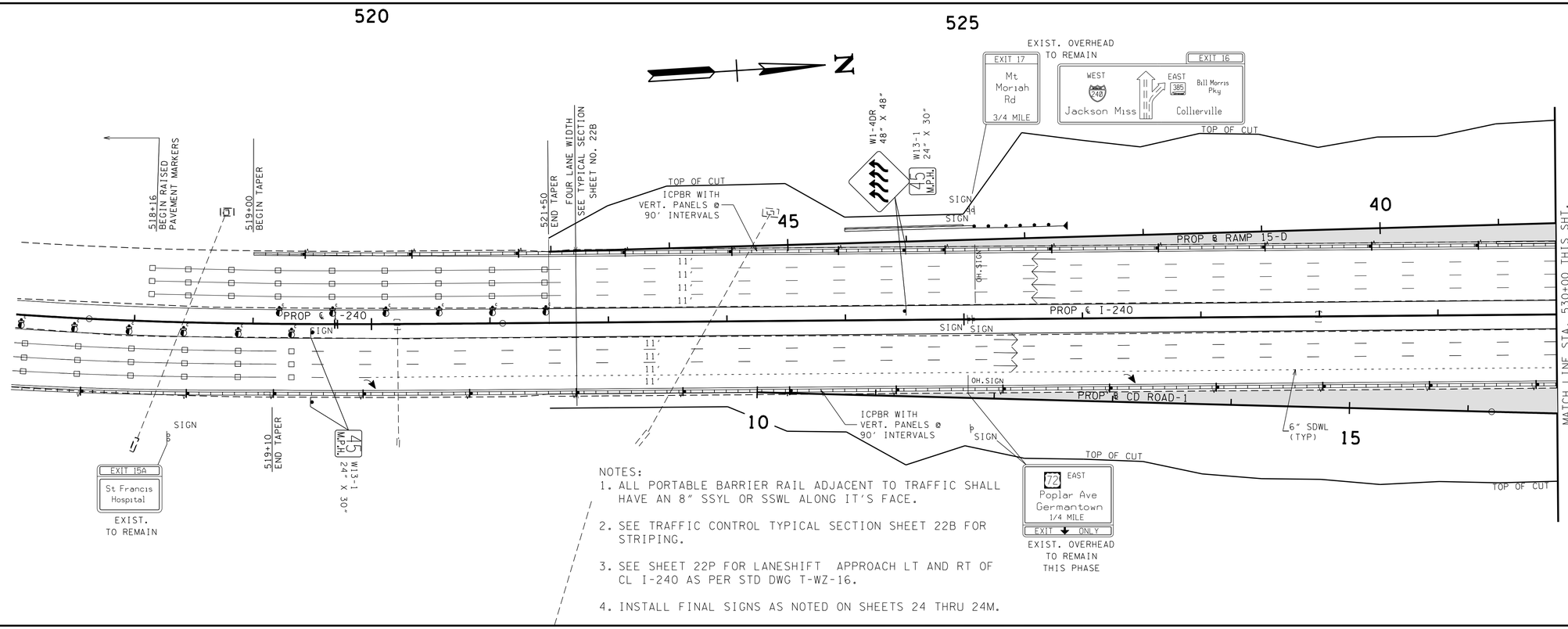
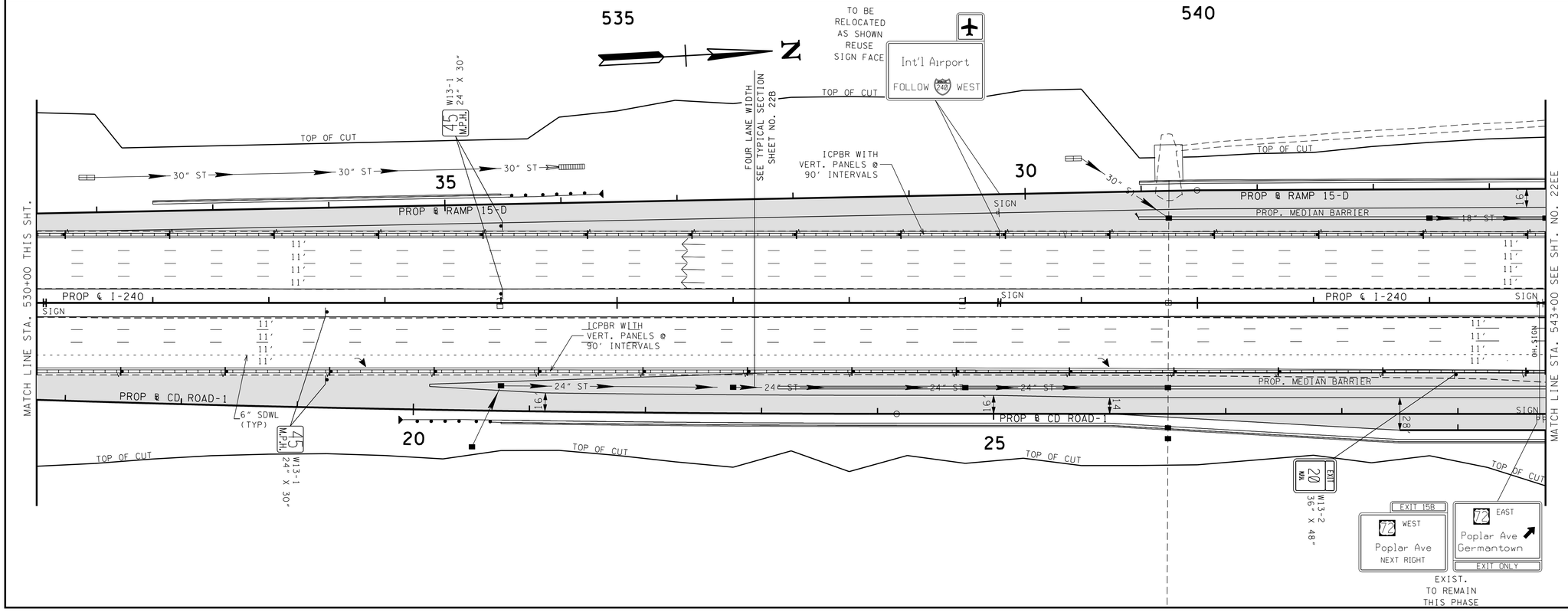
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22DD



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. SEE TRAFFIC CONTROL TYPICAL SECTION SHEET 22B FOR STRIPING.
3. SEE SHEET 22P FOR LANESHIFT APPROACH LT AND RT OF CL I-240 AS PER STD DWG T-WZ-16.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



JOHN T. PANKEY JR.
REGISTERED ENGINEER
AGRICULTURE
3-23-10
NUMBER 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

B.O.P. TO STA. 543+00

SCALE: 1"= 50'

8/20/2010
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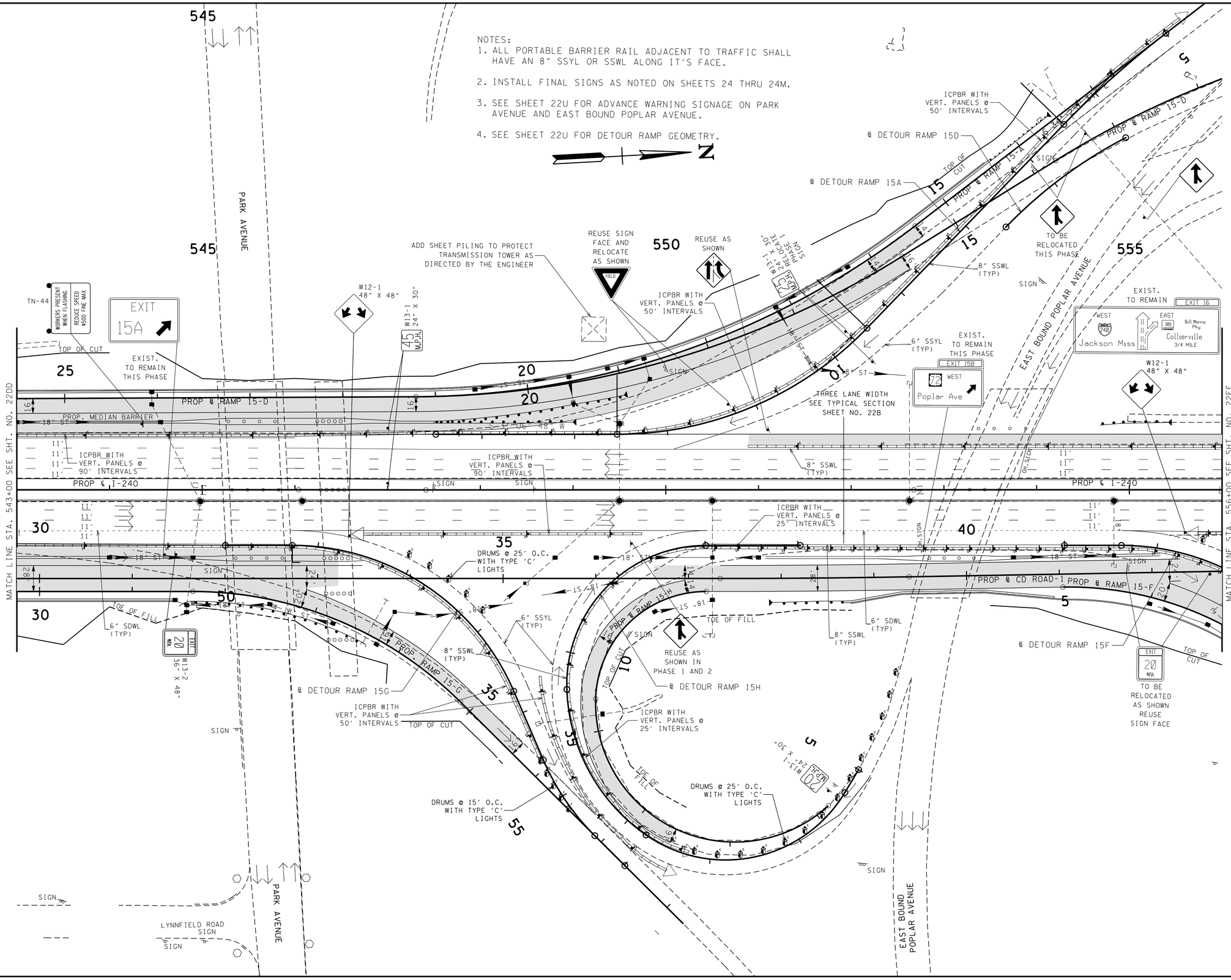
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22EE

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22U FOR ADVANCE WARNING SIGNAGE ON PARK AVENUE AND EAST BOUND POPLAR AVENUE.
4. SEE SHEET 22U FOR DETOUR RAMP GEOMETRY.



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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
8-23-2010
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

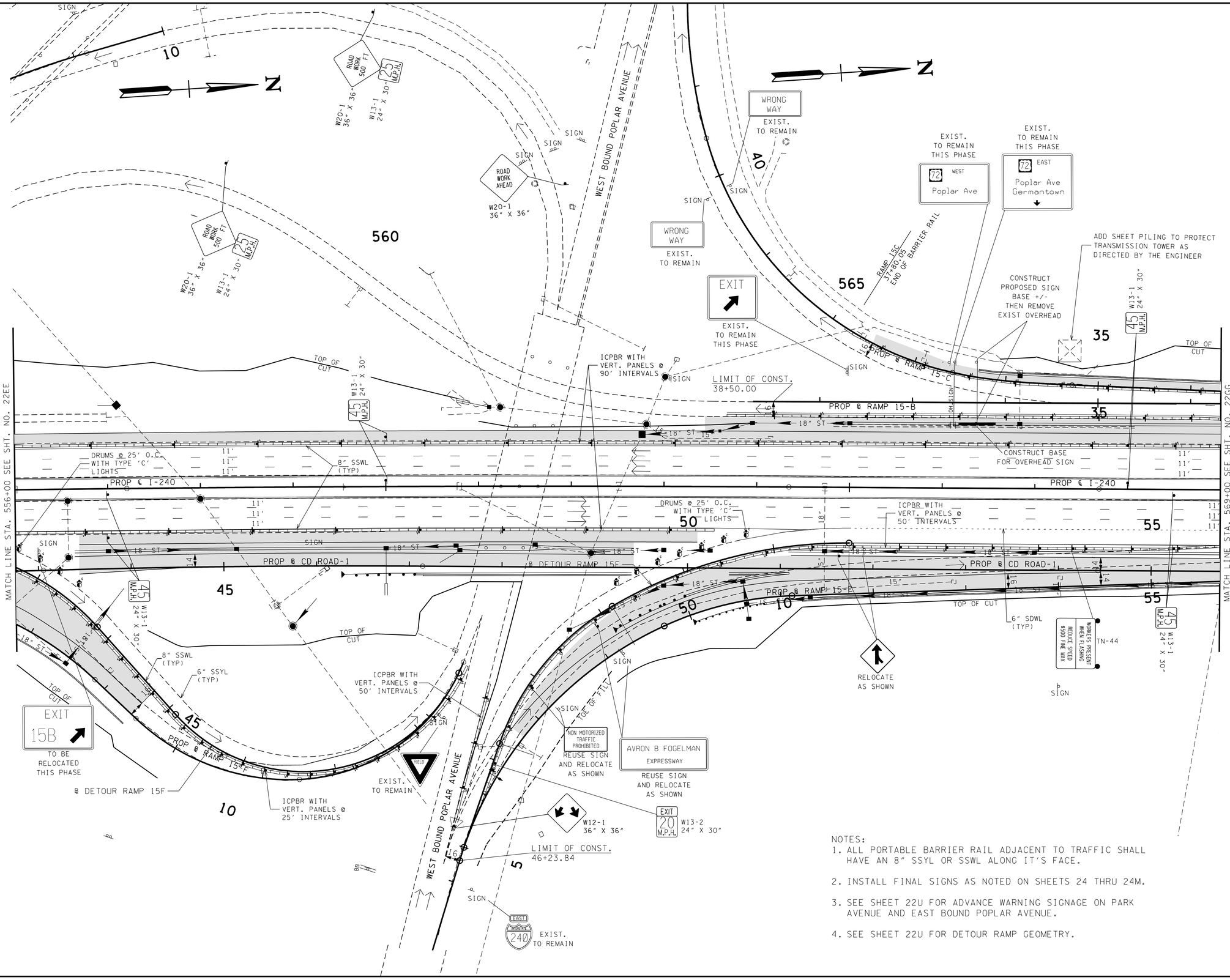
TRAFFIC CONTROL PLAN PHASE 3

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22FF



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22U FOR ADVANCE WARNING SIGNAGE ON PARK AVENUE AND EAST BOUND POPLAR AVENUE.
4. SEE SHEET 22U FOR DETOUR RAMP GEOMETRY.

JOHN T. PANKEY — REGISTERED — AGRICULTURE — ENGINEER — No. 102551 — STATE OF TENNESSEE — 8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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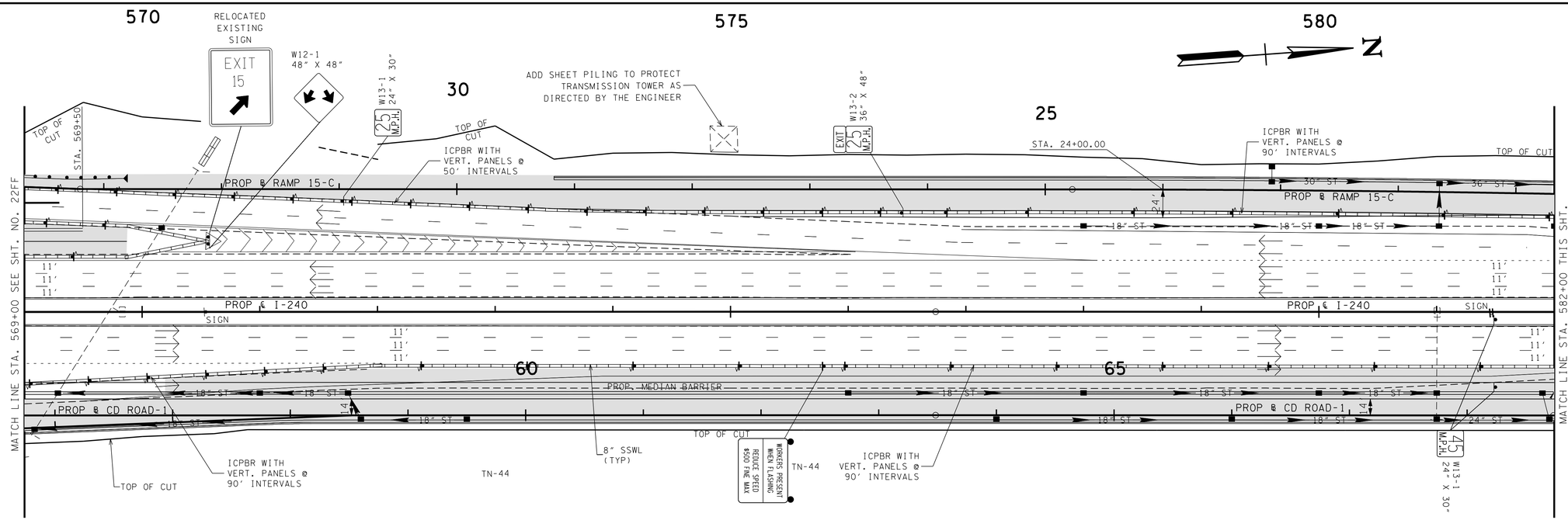
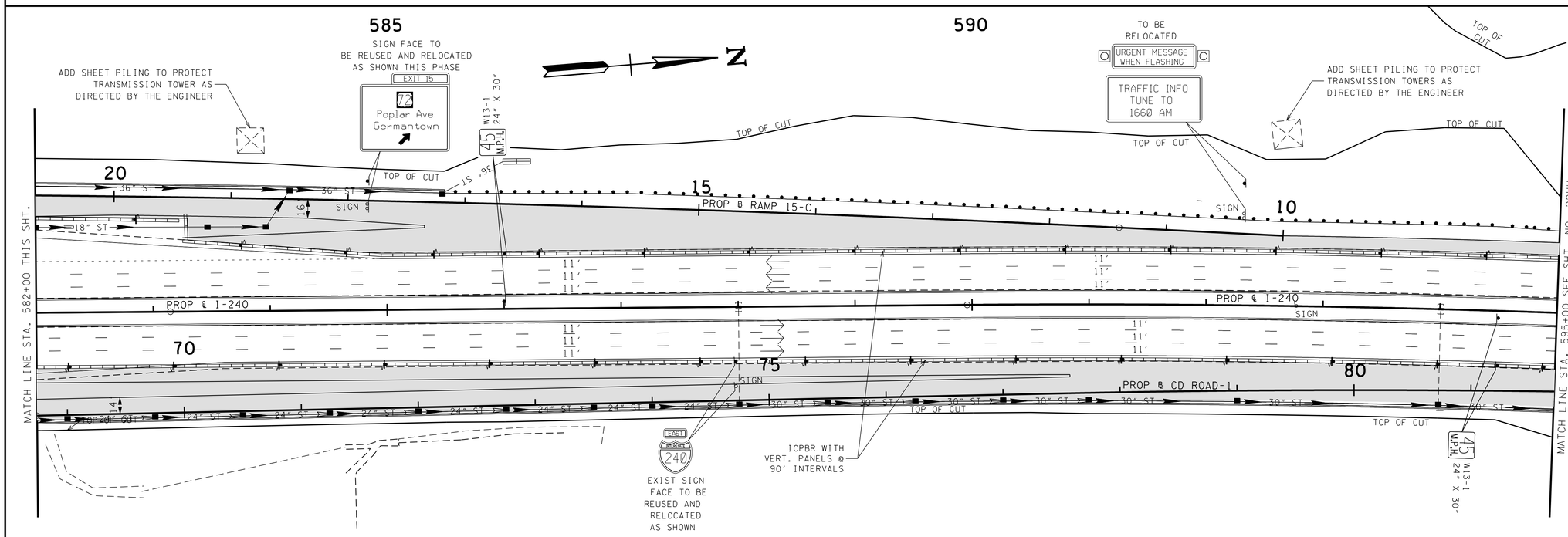
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22GG



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



JOHN T. PANKEY
REGISTERED
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-3-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 569+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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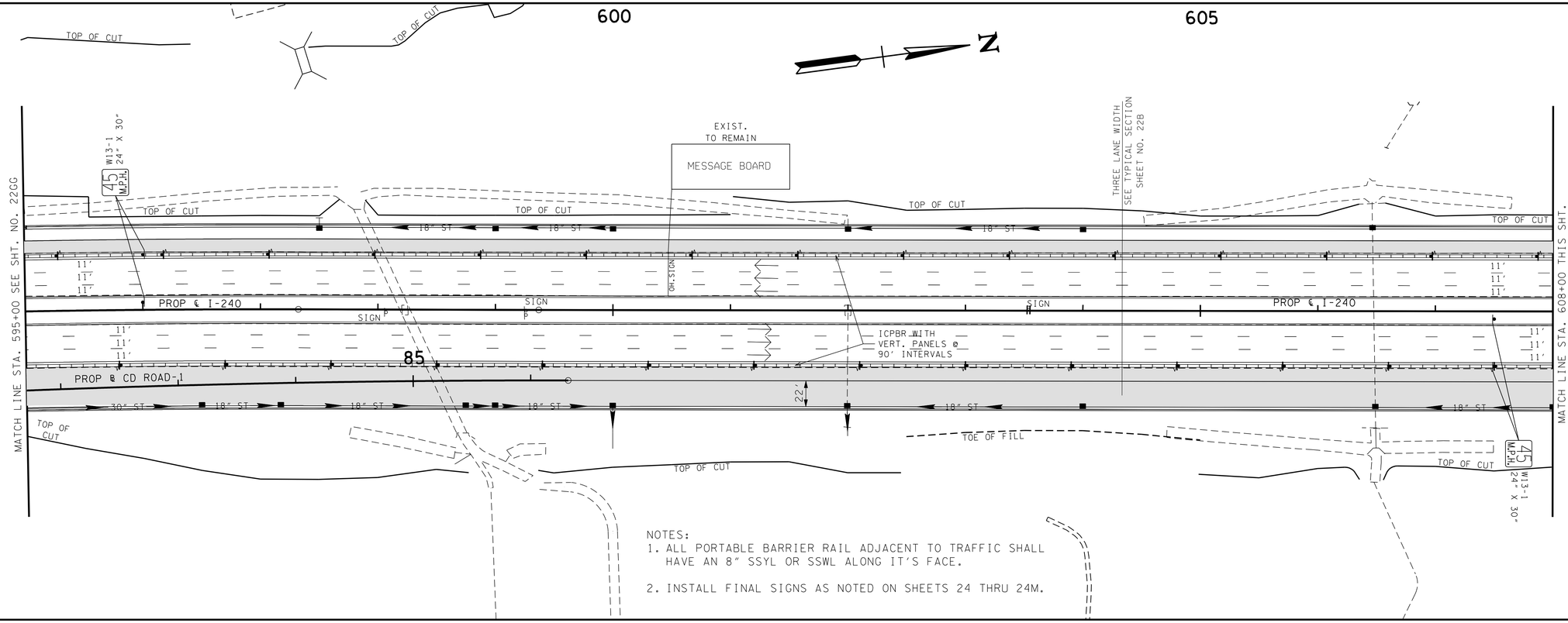
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22HH

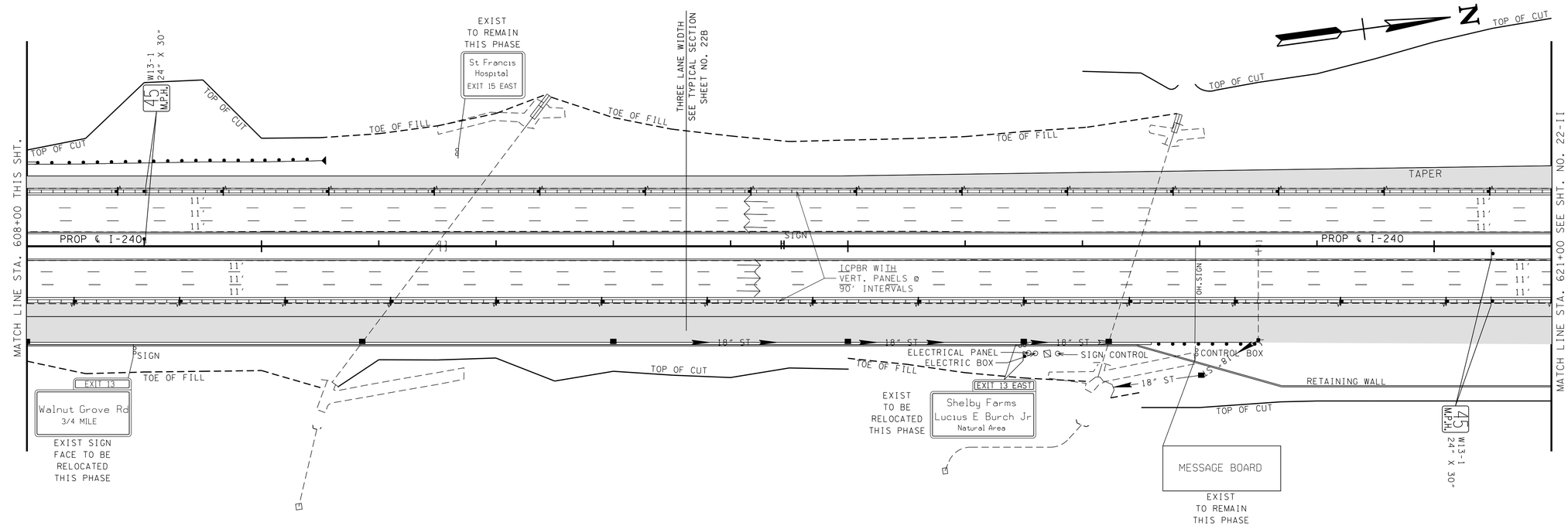
600 605



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

610 615 620



JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8/23/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 595+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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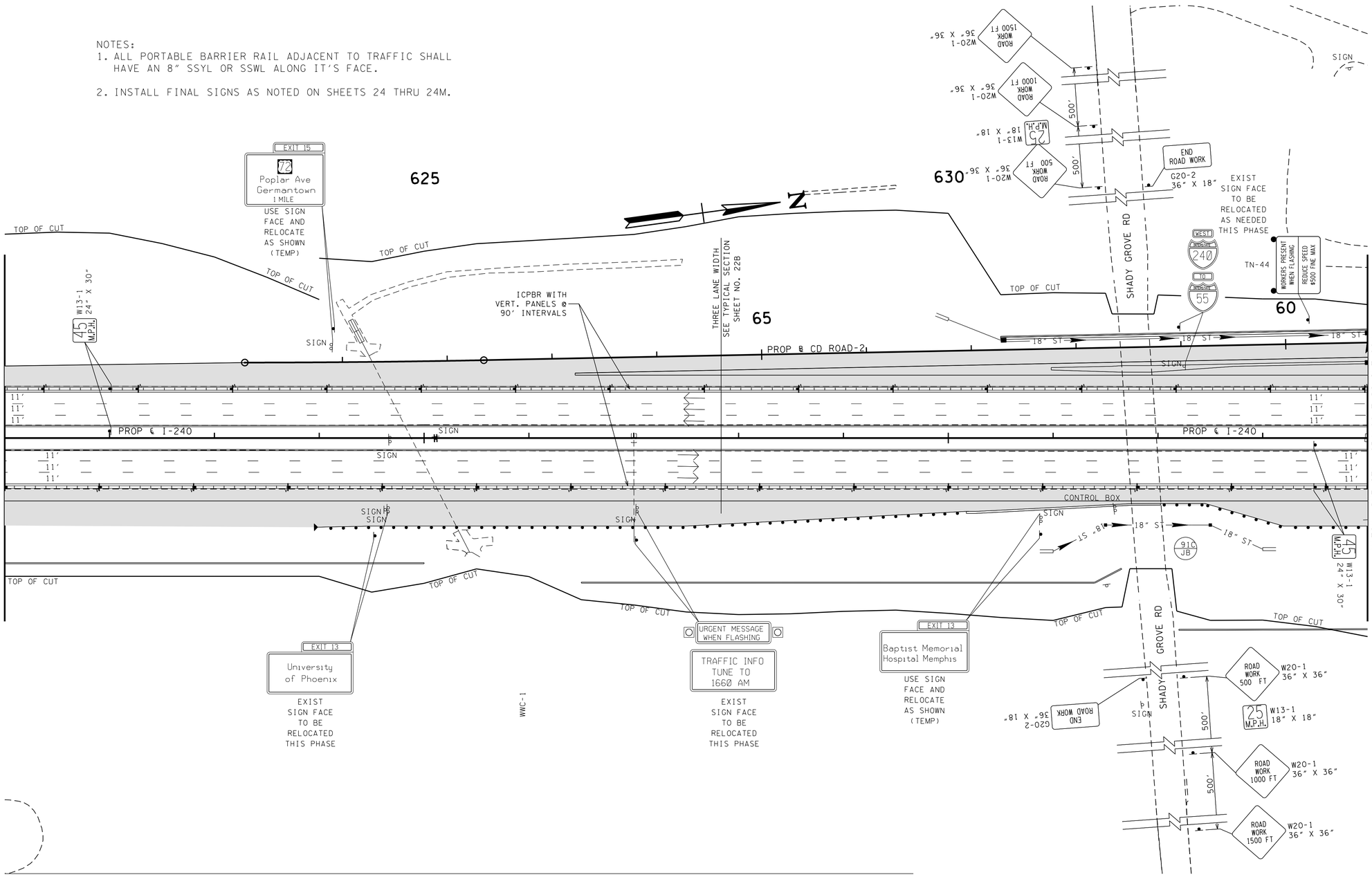
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22-II

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

8/20/2010
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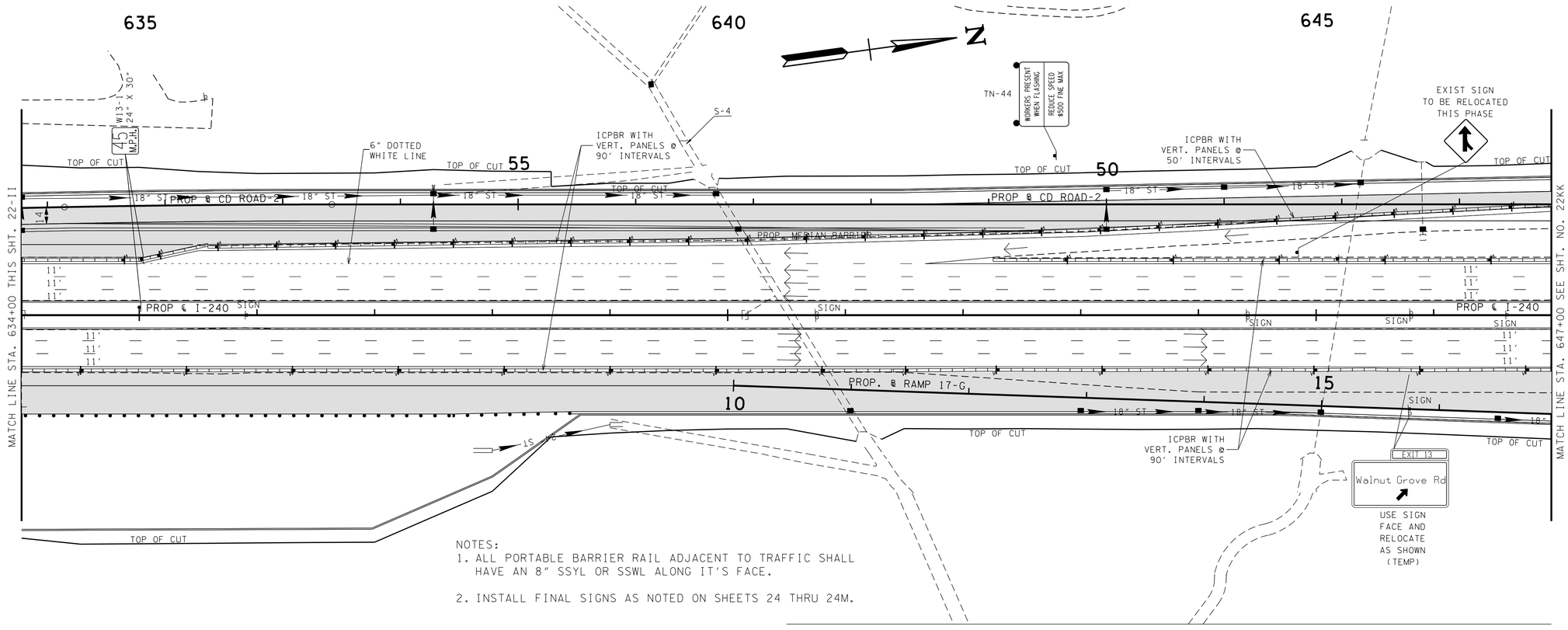
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22JJ



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 634+00 TO STA. 647+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22KK

650

655

N

AVRON B FOGELMAN EXPRESSWAY

EXIST TO REMAIN

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22AA FOR ADVANCE WARNING SIGNAGE ON WALNUT GROVE ROAD.
4. SEE SHEET 22AA FOR DETOUR RAMP GEOMETRY.

MATCH LINE STA. 647+00 SEE SHT. NO. 22JJ

MATCH LINE STA. 657+00 SEE SHT. NO. 22LL

TOP OF CUT
TOE OF FILL
PROP. ℄ RAMP 17-F
PROP. ℄ RAMP 17-G
PROP ℄ CD ROAD-2
CD-RD 2
PROP ℄ I-240
18" ST.
11'
SIGN
8" SSWL (TYP)
DRUMS @ 25' O.C. WITH TYPE 'C' LIGHTS
ICPBR WITH VERT. PANELS @ 50' INTERVALS
ICPBR WITH VERT. PANELS @ 90' INTERVALS
TO BE RELOCATED AS SHOWN REUSE SIGN FACE
W13-1 24" X 30"
45 M.P.H.
EXIT 20 M.P.H. W13-2 24" X 30"
EXIT 20 M.P.H. W13-2 36" X 48"
W12-1 48" X 48"
W1-3 48" X 48"
EXIT
THREE LANE WIDTH SEE TYPICAL SECTION SHEET NO. 22B

EXIT 13
TO BE RELOCATED AS SHOWN REUSE SIGN FACE

University of Phoenix
TO BE RELOCATED AS SHOWN REUSE SIGN FACE

Shelby Farms
Lucius E Burch Jr
Natural Area
TO BE RELOCATED AS SHOWN REUSE SIGN FACE

Walnut Grove Rd
WEST NO TRUCKS | EAST
EXIST TO REMAIN

LYNNFIELD STREET
BRIERHEDGE

JOHN T. PANKEY
REGISTERED
AGRICULTURE
No. 10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22LL

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22AA FOR ADVANCE WARNING SIGNAGE ON WALNUT GROVE ROAD.
4. SEE SHEET 22AA FOR DETOUR RAMP GEOMETRY.

660
665
190
RAMP 17B
RAMP 17D
WALNUT GROVE ROAD
EXIT 20 W13-1 24" X 30" 45 M.P.H.
EXIST TO REMAIN THIS PHASE
EAST Walnut Grove Rd
RAMP 30 MPH
ICPBR WITH VERT. PANELS @ 50' INTERVALS
TYPE III BARRICADE
ICPBR WITH VERT. PANELS @ 50' INTERVALS
EISTING TO REMAIN UNTIL PROPOSED OVERHEAD IS CONSTRUCTED
EAST Walnut Grove Rd
NO TRUCKS
WEST Walnut Grove Rd
TO BE RELOCATED AS SHOWN REUSE SIGN FACE
EXIT
CONSTRUCT PROPOSED SIGN BASE +/- THEN REMOVE EXIST OVERHEAD
SEE INSERT THIS SHEET
RELOCATE SIGN ON TEMPORARY BASE WHERE NEEDED
EXIT 13
DRUMS @ 25' O.C. WITH TYPE 'C' LIGHTS
YIELD
TO BE RELOCATED AS SHOWN REUSE SIGN FACE
EXIST TO REMAIN THIS PHASE
W13-2 24" X 30" EXIT 20 M.P.H.
PROP. & RAMP 17-D
PROP. & RAMP 17-C
PROP. & CD ROAD-2
PROP ℄ I-240
150' TAPER
CONSTRUCT BASE FOR OVERHEAD SIGN (PHASE 3)
ICPBR WITH VERT. PANELS @ 50' INTERVALS
MATCH LINE STA. 657+00 SEE SHT. NO. 22KK
MATCH LINE STA. 670+00 SEE SHT. NO. 22MM
DMH TO REMAIN
TOP OF CUT
ICPBR WITH VERT. PANELS @ 90' INTERVALS
TO BE RELOCATED AS SHOWN REUSE SIGN FACE
W13-1 24" X 30" 45 M.P.H.
PROP. & RAMP 17-E
6" SDWL (TYP)
TN-44
WORKERS PRESENT WHEN FLASHING REDUCE SPEED 45/30 MPH MAX
ICPBR WITH VERT. PANELS @ 50' INTERVALS
W4-1 30" X 30"
W13-1 24" X 30" 25 M.P.H.
WALNUT GROVE ROAD
STA. 25+20 22' LT
STA. 25+60 22' LT
SCALE: 1" = 30'

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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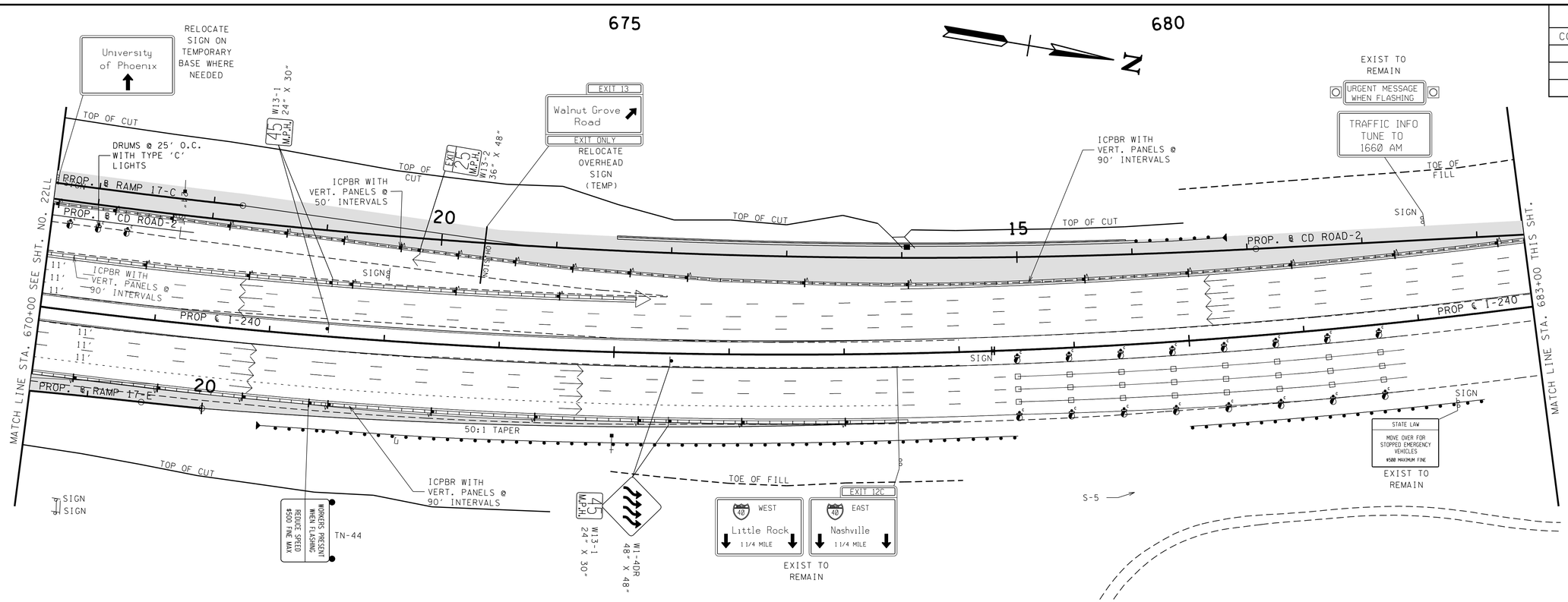
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22MM



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
3. SEE SHEET 22CC PHASE 2 ADVANCE WARNING LANE SHIFT.

JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
No. 102361
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 3

STA. 670+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22NN

NOTES:
1. THE SIGNS, MARKINGS ETC., FOR PHASE 4 SHALL REMAIN THE SAME AS PHASE 3 SOUTH OF STA. 543+00.
2. CD-ROAD 1, RAMPS 15-G, 15-H AND 15-F SHALL REMAIN CLOSED THIS PHASE. USE DETOUR RAMPS.
3. CONSTRUCT TEMPORARY CONNECTORS.
4. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
5. SEE SHEET 22U FOR ADVANCE WARNING SIGNAGE ON PARK AVENUE AND EAST BOUND POPLAR AVENUE.
6. SEE SHEET 22U FOR DETOUR RAMP GEOMETRY.
7. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

N

545
PARK AVENUE
NORFOLK SOUTHERN R.R.
TN-44
WORKERS PRESENT WHEN FLASHING
REDUCE SPEED $500 FINE MAX
EXIT 15A
EXIST. TO REMAIN THIS PHASE
W12-1 48" X 48"
W13-1 24" X 30"
45 M.P.H.
PROP ℄ RAMP 15-D
PROP. MEDIAN BARRIER
18" ST
16'
PROP ℄ I-240
ICPBR WITH VERT. PANELS @ 90' INTERVALS
SIGN
TYPE III BARRICADE
DRUMS @ 25' O.C. WITH TYPE 'C' LIGHTS
545
550
555
NOTE: REDIRECT TRAFFIC TO PERMANENT RAMPS 15A AND 15D. REMOVE DETOUR RAMP AND COMPLETE FINAL GRADING IN THIS AREA.
PROP ℄ RAMP 15-A
PROP ℄ RAMP 15-D
ICPBR WITH VERT. PANELS @ 50' INTERVALS
EXIST. TO REMAIN THIS PHASE
EAST BOUND POPLAR AVENUE
EXIST. TO REMAIN
EXIT 16
WEST 240 Jackson Miss
EAST 385 Bill Morris Pky Collierville 3/4 MILE
EXIST. TO REMAIN THIS PHASE
EXIT 15B
72 WEST Poplar Ave
THREE LANE WIDTH SEE TYPICAL SECTION SHEET NO. 22B
W12-1 48" X 48"
W13-1 24" X 30"
MATCH LINE STA. 556+00 SEE SHT. NO. 22-00
PROP ℄ CD ROAD 1
PROP ℄ RAMP 15-F
PC 41+07.59
PT 42+68.82
℄ DETOUR RAMP 15F
EXIT 20 N/A
TO BE RELOCATED AS SHOWN REUSE SIGN FACE
PT 37+85.12
REUSE AS SHOWN IN PHASE 1, 2 AND 3
℄ DETOUR RAMP 15H
PROP. RAMP 15-G
℄ DETOUR RAMP 15G
8" SSWL (TYP)
W13-2 36" X 48"
EXIT 20 N/A
POT 36+00.00 N 302235.3470 E 811208.7107 PC 36+35.88
N 04° 33' 37" W
ICPBR WITH VERT. PANELS @ 50' INTERVALS
ICPBR WITH VERT. PANELS @ 25' INTERVALS
DRUMS @ 25' O.C. WITH TYPE 'C' LIGHTS
DRUMS @ 15' O.C. WITH TYPE 'C' LIGHTS
ICPBR WITH DOUBLE SIDED VERT. PANELS @ 50' INTERVALS
N 2° 55' 54" E
N 3° 15' 02" E
OH SIGN
LYNNFIELD ROAD SIGN
EAST BOUND POPLAR AVENUE

STA. 39+12.86 TEMP. CONNECTOR RAMP 15H=
STA. 552+16.04, 65.02 RT, I-240
N 302513.1100
E 811124.3955

STA. 39+53.37 TEMP. CONNECTOR RAMP 15F=
STA. 553+00.10, 64.89 RT, I-240
N 302597.0360
E 811128.8390

TEMP. CONNECTOR RAMP 15H
PI 37+17.33
N 302,304.1867
E 811,113.6964
Δ 57° 00' 27" (RT)
D 38° 11' 50"
R 150.00
L 149.25
T 81.46
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

TEMP. CONNECTOR RAMP 15F
PI 41+92.42
N 302,835.6978
E 811,142.3934
Δ 43° 59' 24" (RT)
D 27° 17' 01"
R 210.00
L 161.23
T 84.82
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
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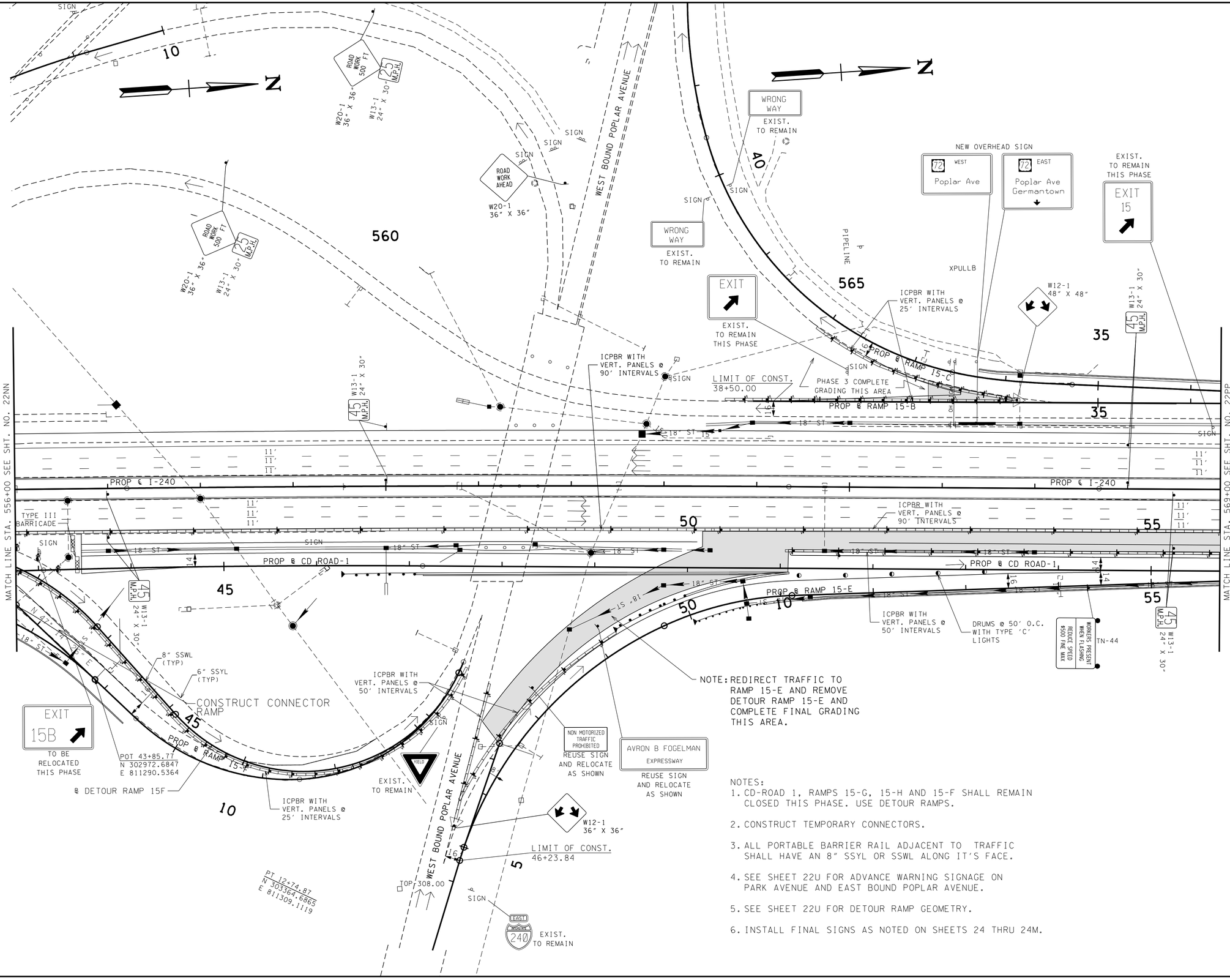
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22-00



NOTE: REDIRECT TRAFFIC TO RAMP 15-E AND REMOVE DETOUR RAMP 15-E AND COMPLETE FINAL GRADING THIS AREA.

NOTES:
1. CD-ROAD 1, RAMPS 15-G, 15-H AND 15-F SHALL REMAIN CLOSED THIS PHASE. USE DETOUR RAMPS.
2. CONSTRUCT TEMPORARY CONNECTORS.
3. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
4. SEE SHEET 22U FOR ADVANCE WARNING SIGNAGE ON PARK AVENUE AND EAST BOUND POPLAR AVENUE.
5. SEE SHEET 22U FOR DETOUR RAMP GEOMETRY.
6. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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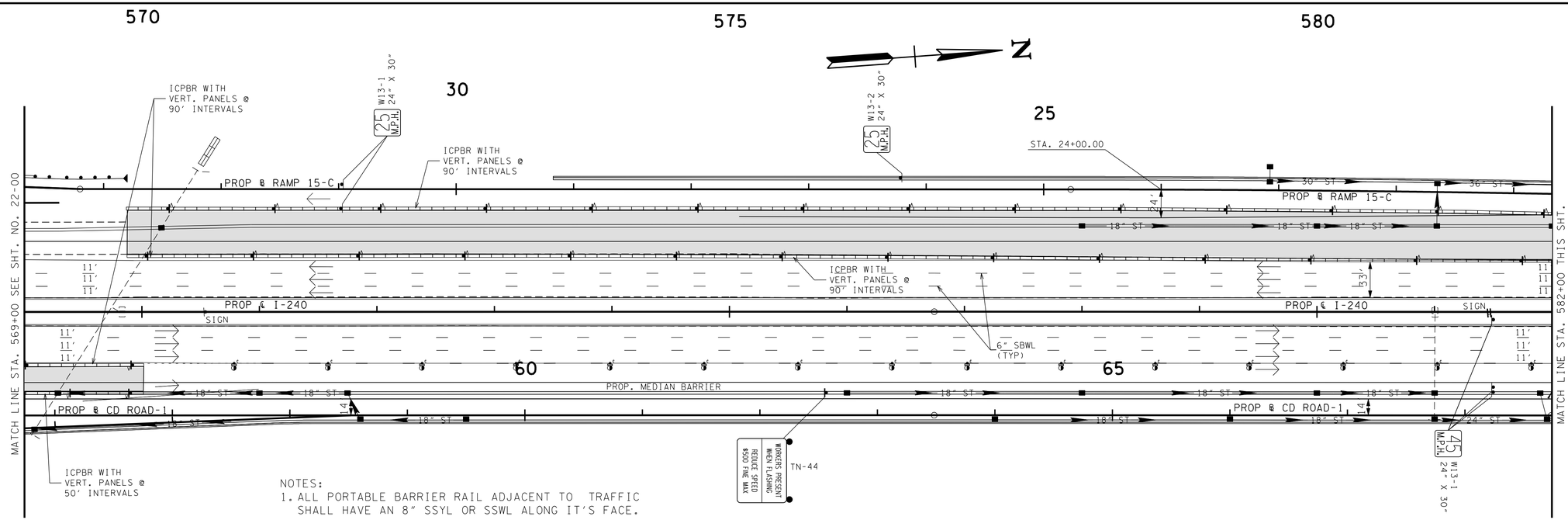
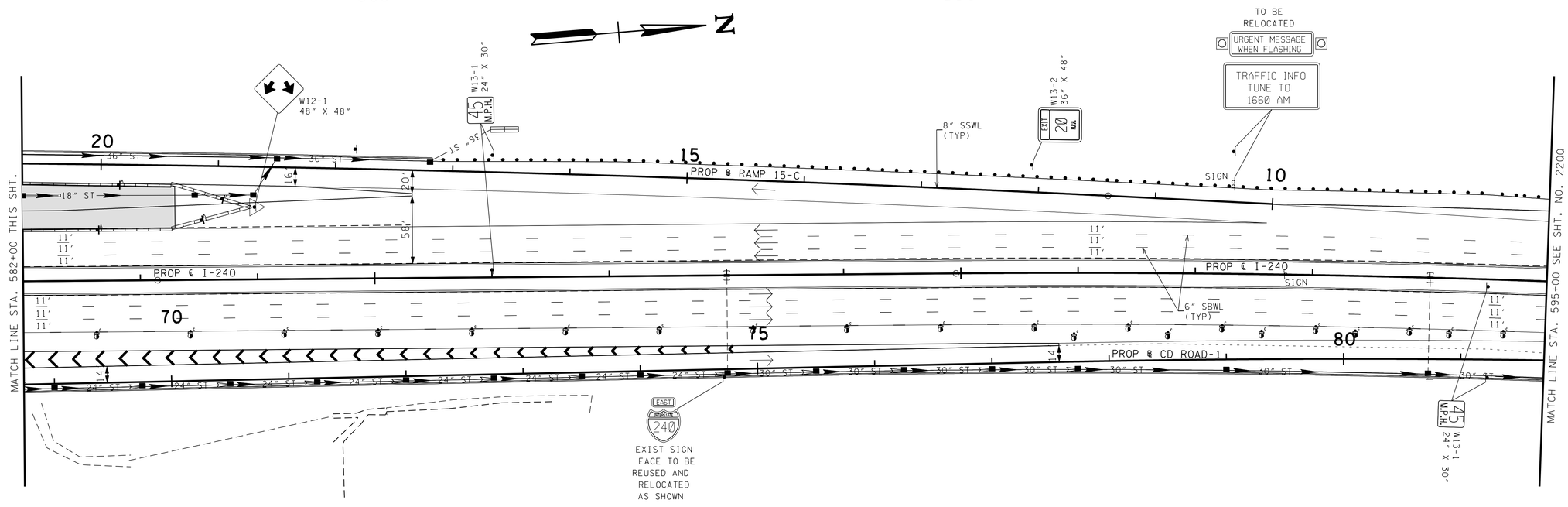
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22PP



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
COMMERCIAL
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 569+00 TO STA. 595+00

SCALE: 1"= 50'

8/20/2010
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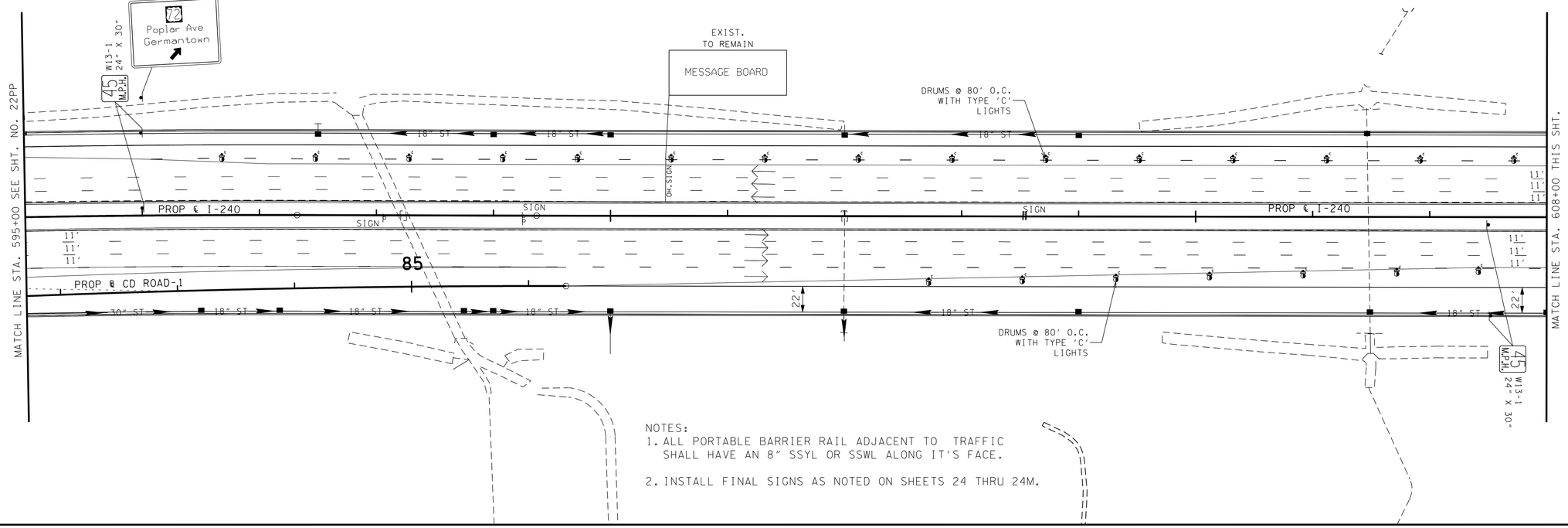
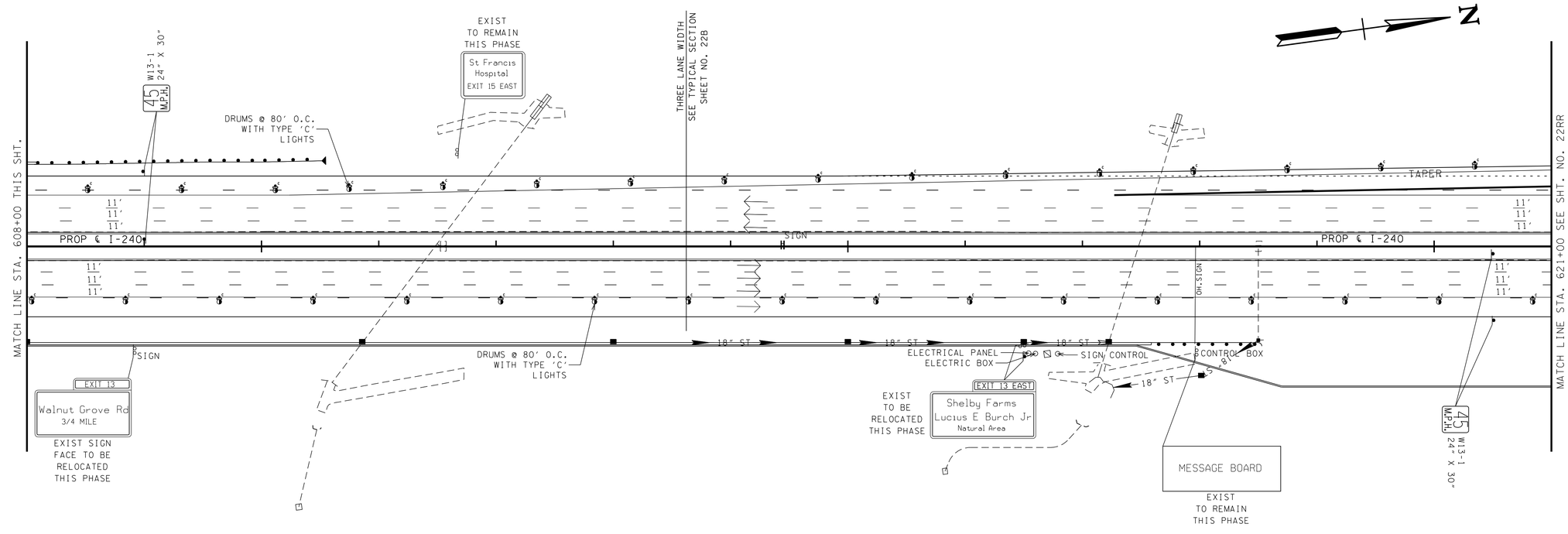
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	2200

600 605



610 615 620



JOHN T. PANKEY
REGISTERED
PROFESSIONAL
ENGINEER
AGRICULTURE
8-23-10
10235
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 595+00 TO STA. 621+00

SCALE: 1"= 50'

8/20/2010
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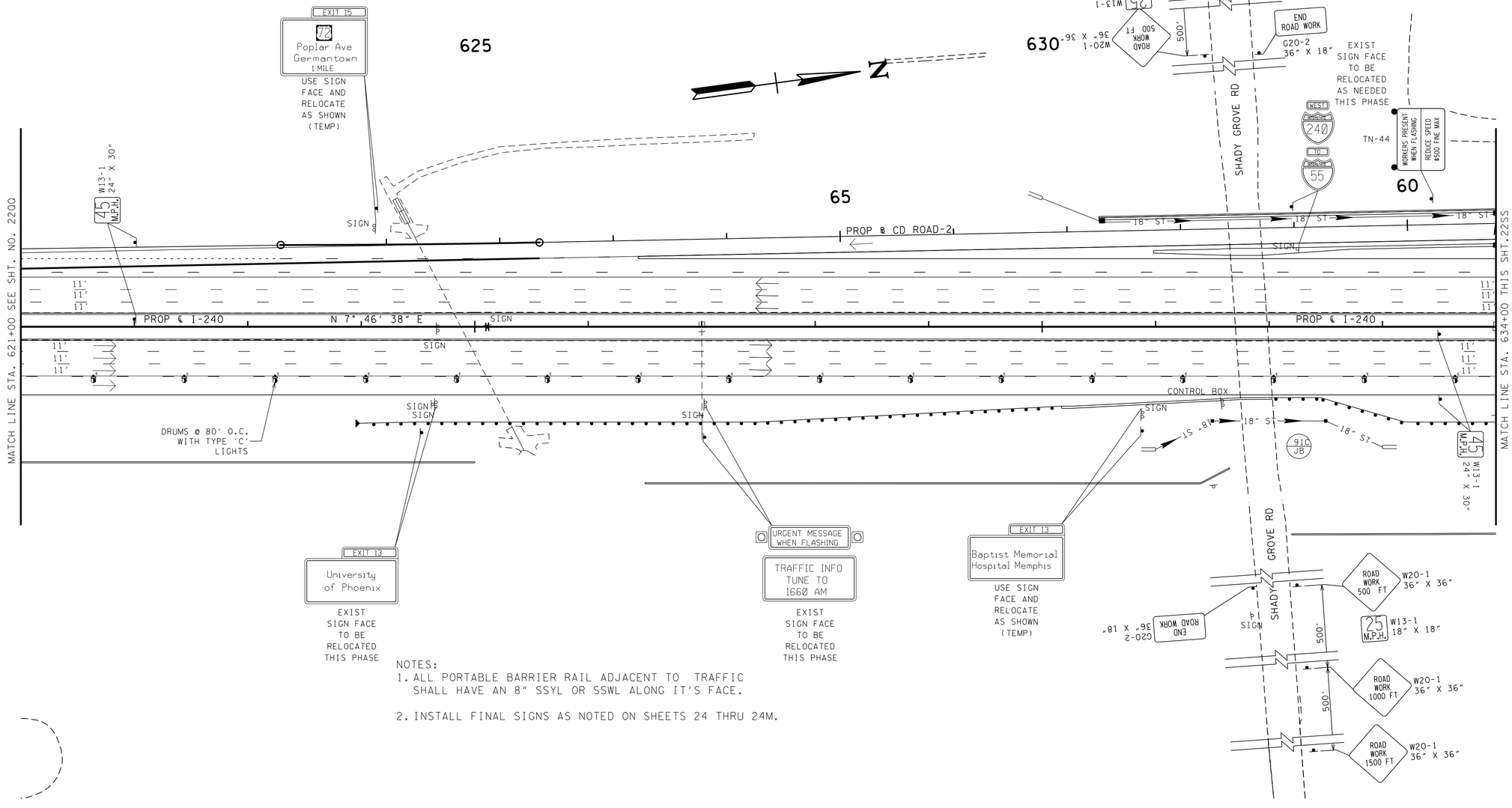
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22RR



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANTELIS
REGISTERED ENGINEER
AGRICULTURE
102350
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 621+00 TO STA. 634+00

SCALE: 1"= 50'

8/20/2010
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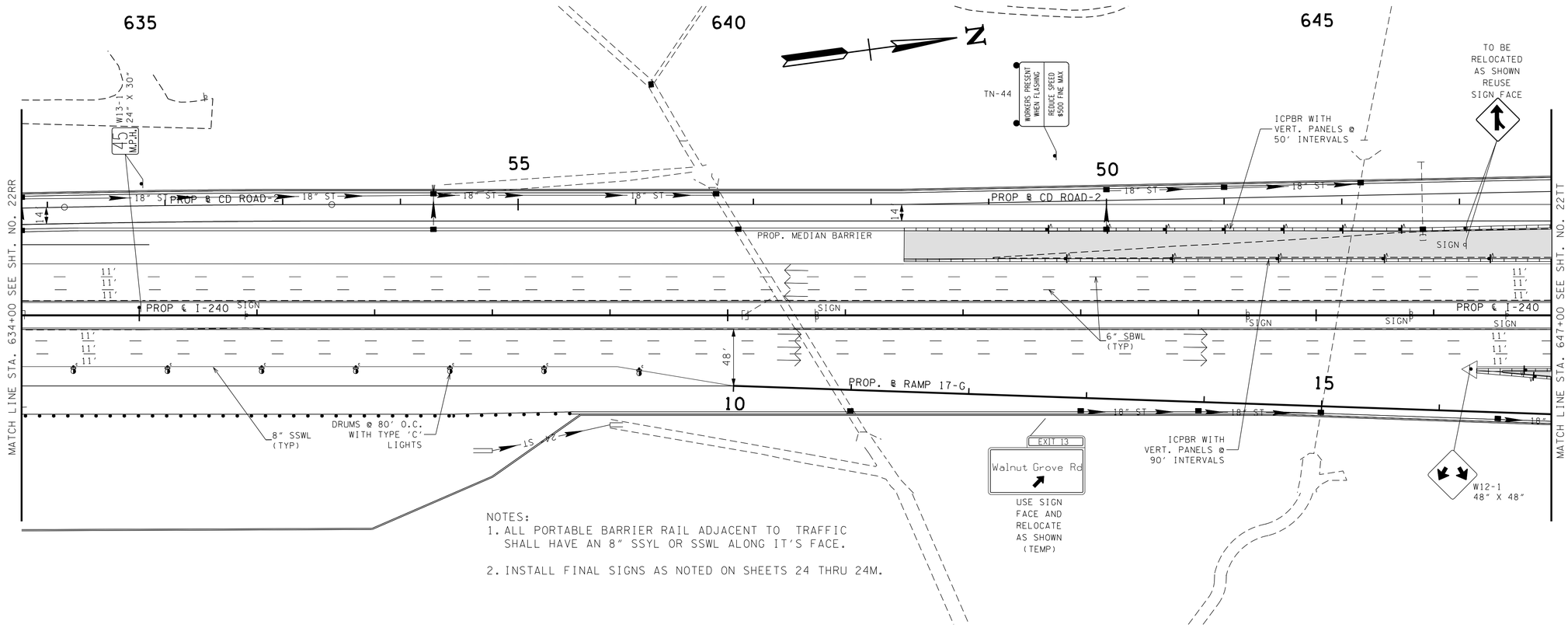
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22SS



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
TECHNOLOGY
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 634+00 TO STA. 647+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22TT

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. FOR TRAFFIC CONTROL SIGNING EAST AND WEST ON WALNUT GROVE ROAD SEE SHEET 22AA.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

650

655

N

AVRON B FOGELMAN EXPRESSWAY
EXIST TO REMAIN

SIGN A

NOTE: REDIRECT TRAFFIC TO PERMANENT RAMPS 17-A AND 17-B. REMOVE DETOUR RAMP AND COMPLETE FINAL GRADING IN THIS AREA.

ICPBR WITH VERT. PANELS @ 25' INTERVALS

6" SSWL (TYP)

8" SSYL (TYP)

PROP. ℄ RAMP 17-A

PROP. ℄ RAMP 17-B

W12-1 36" X 36"

TO BE RELOCATED AS SHOWN REUSE SIGN FACE

ICPBR WITH VERT. PANELS @ 50' INTERVALS

EXIT 20 M.P.H. W13-2 24" X 30"

EXIT

W13-1 24" X 30"

45 M.P.H.

6" SSWL (TYP)

8" SSYL (TYP)

ICPBR WITH VERT. PANELS @ 50' INTERVALS

PROP ℄ CD ROAD-2

CD-RD 2

18" ST

11' 11' 11'

PROP ℄ I-240

ICPBR WITH VERT. PANELS @ 90' INTERVALS

MATCH LINE STA. 647+00 SEE SHT. NO. 22SS

MATCH LINE STA. 657+00 SEE SHT. NO. 22UU

THREE LANE WIDTH SEE TYPICAL SECTION SHEET NO. 22B

NOTE: REDIRECT TRAFFIC TO PERMANENT RAMP 17-G. REMOVE DETOUR RAMP AND COMPLETE FINAL GRADING IN THIS AREA.

PROP. ℄ RAMP 17-G

SIGN B

ICPBR WITH VERT. PANELS @ 50' INTERVALS

EXIT 13

TO BE RELOCATED AS SHOWN REUSE SIGN FACE

University of Phoenix

Shelby Farms
Lucius E Burch Jr
Natural Area

RETAINING WALL

LYNNFIELD STREET

BRIERMEDGE

Walnut Grove Rd
WEST NO TRUCKS | EAST

EXIST TO REMAIN

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102515
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 647+00 TO STA. 657+00

SCALE: 1"= 50'

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22UU

NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. FOR TRAFFIC CONTROL SIGNING EAST AND WEST ON WALNUT GROVE ROAD SEE SHEET 22AA.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

660 665 190 N

WALNUT GROVE ROAD

RAMP 17B

RAMP 17D

EXIT 20 M.P.H. W13-2 24" X 30"

EXIST TO REMAIN THIS PHASE

EXIST TO REMAIN THIS PHASE

EAST Walnut Grove Rd

RAMP 30 MPH

COVER UP THE 30 mph

ICPBR WITH VERT. PANELS @ 25' INTERVALS

TO BE RELOCATED AS SHOWN REUSE SIGN FACE

EXIST TO REMAIN THIS PHASE

NOTE: REDIRECT TRAFFIC TO PERMANENT RAMP 17-C AND 17-D. REMOVE DETOUR RAMP AND COMPLETE FINAL GRADING IN THIS AREA.

EISTING TO REMAIN UNTIL PROPOSED OVERHEAD IS CONSTRUCTED

EAST Walnut Grove Rd

NO TRUCKS

WEST Walnut Grove Rd

ICPBR WITH VERT. PANELS @ 50' INTERVALS

TO BE RELOCATED AS SHOWN REUSE SIGN FACE

EXIT

RELOCATE SIGN ON TEMPORARY BASE WHERE NEEDED

EXIT 13

W12-1 36" X 36"

PROP. ℄ RAMP 17-D

PROP. ℄ RAMP 17-C

PROP. ℄ CD ROAD-2

CD RD 2

150' TAPER

PROP ℄ I-240

ICPBR WITH VERT. PANELS @ 50' INTERVALS

PROP. ℄ RAMP 17-E

8" SSYL (TYP)

6" SSWL (TYP)

TN-44

WORKERS PRESENT WHEN FLASHING REDUCE SPEED 50.00 MAX

TO BE RELOCATED AS SHOWN REUSE SIGN FACE

W13-1 24" X 30"

45 M.P.H.

W4-1 30" X 30"

W13-1 24" X 30"

25 M.P.H.

DMH TO REMAIN

MATCH LINE STA. 657+00 SEE SHT. NO. 22TT

MATCH LINE STA. 670+00 SEE SHT. NO. 22VV

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102350
STATE OF TENNESSEE
8-23-2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 657+00 TO STA. 670+00

SCALE: 1"= 50'

8/20/2010
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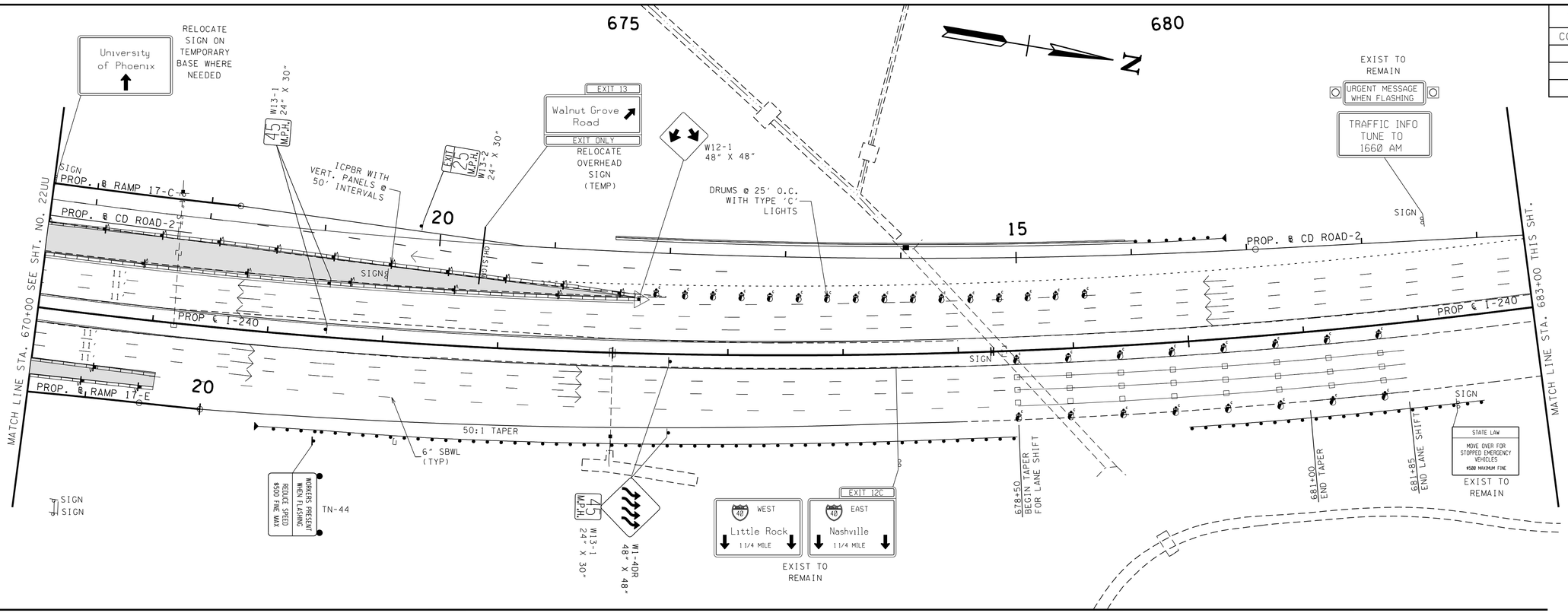
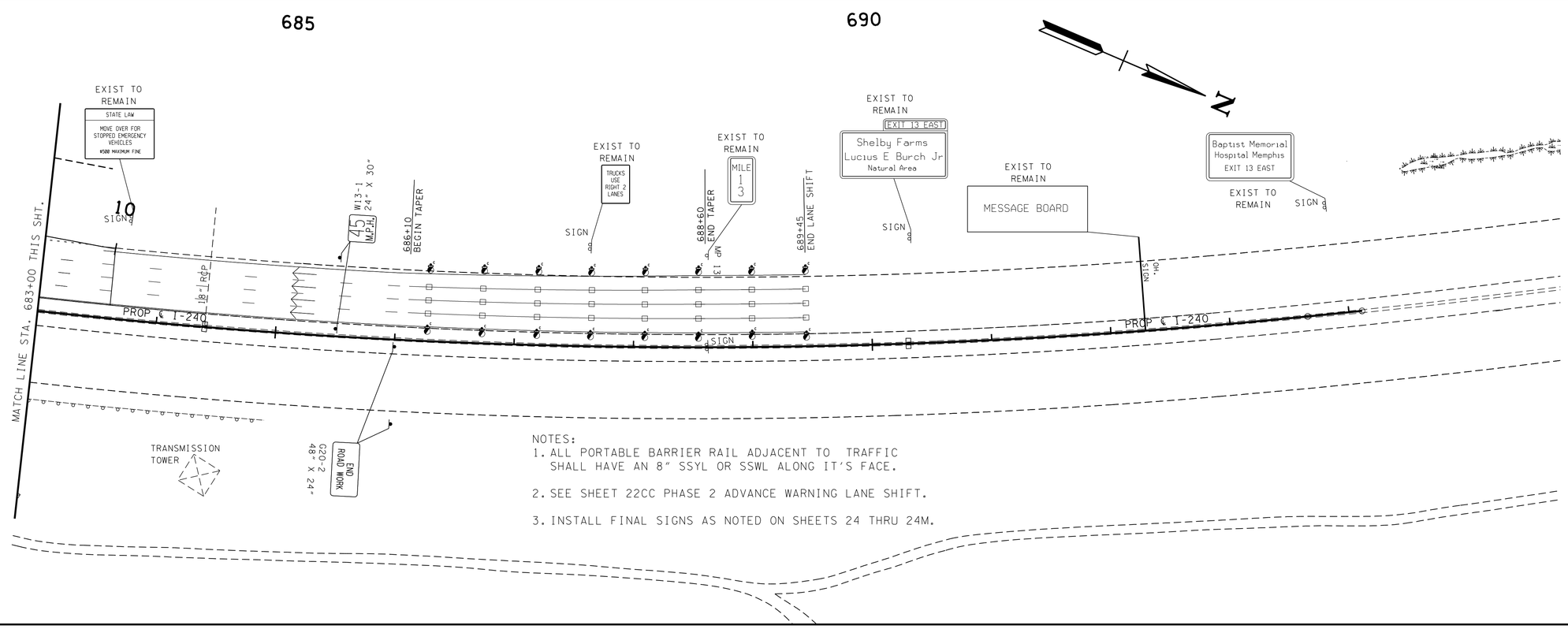
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22VV





NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
2. SEE SHEET 22CC PHASE 2 ADVANCE WARNING LANE SHIFT.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 4

STA. 670+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
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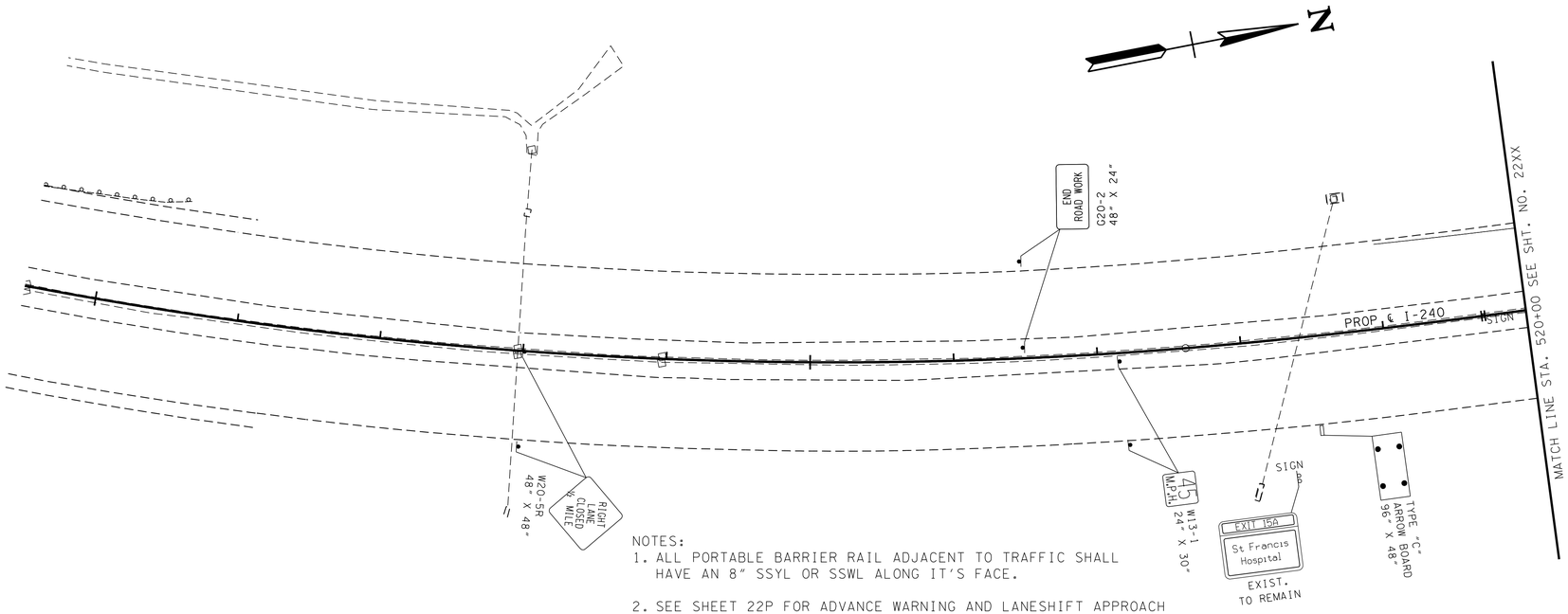
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22WW

510

515



NOTES:
1. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.

2. SEE SHEET 22P FOR ADVANCE WARNING AND LANESHIFT APPROACH LT AND RT OF CL I-240 AS PER STD DWG T-WZ-16.

3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
TENNESSEE
102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 5

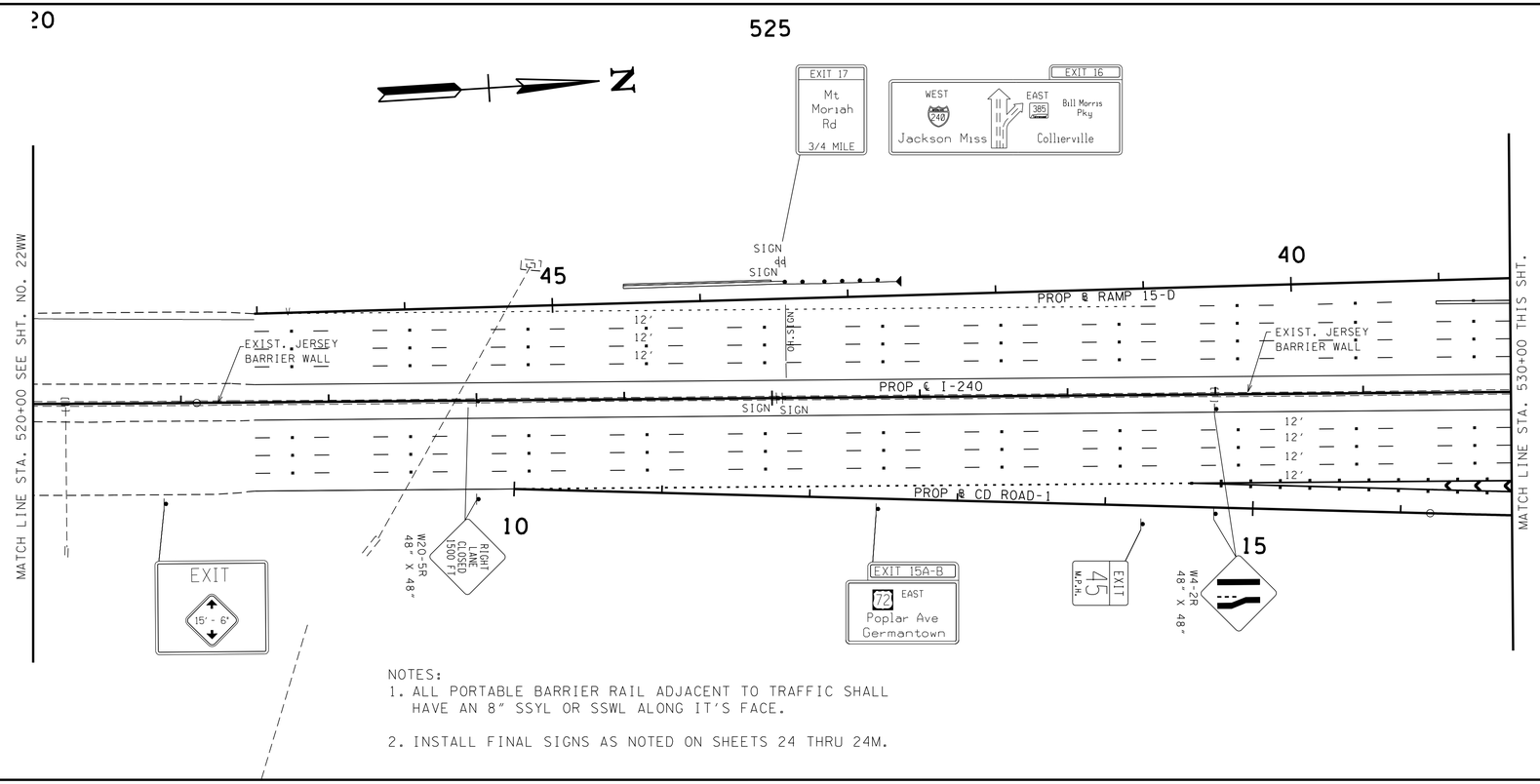
B.O.P. TO STA. 520+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\TrafficControl-ph5-02.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22XX



JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
AND
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 5

520+00 TO STA. 543+00

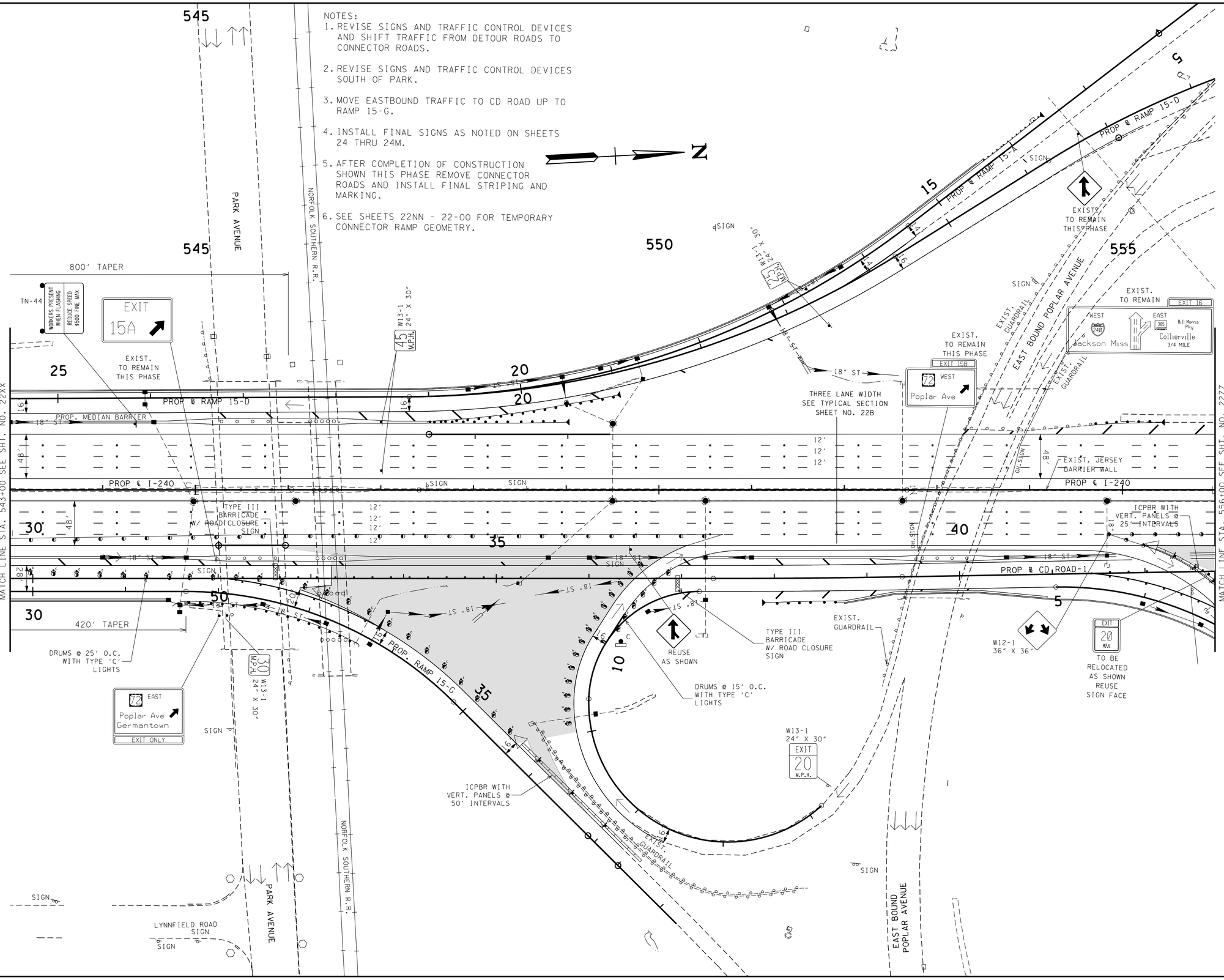
SCALE: 1"= 50′

8/20/2010
w:\6115\transportation\TrafficControl-ph5-03.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22YY

NOTES:
1. REVISE SIGNS AND TRAFFIC CONTROL DEVICES AND SHIFT TRAFFIC FROM DETOUR ROADS TO CONNECTOR ROADS.
2. REVISE SIGNS AND TRAFFIC CONTROL DEVICES SOUTH OF PARK.
3. MOVE EASTBOUND TRAFFIC TO CD ROAD UP TO RAMP 15-G.
4. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
5. AFTER COMPLETION OF CONSTRUCTION SHOWN THIS PHASE REMOVE CONNECTOR ROADS AND INSTALL FINAL STRIPING AND MARKING.
6. SEE SHEETS 22NN - 22-00 FOR TEMPORARY CONNECTOR RAMP GEOMETRY.



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
COMMISSION NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 5

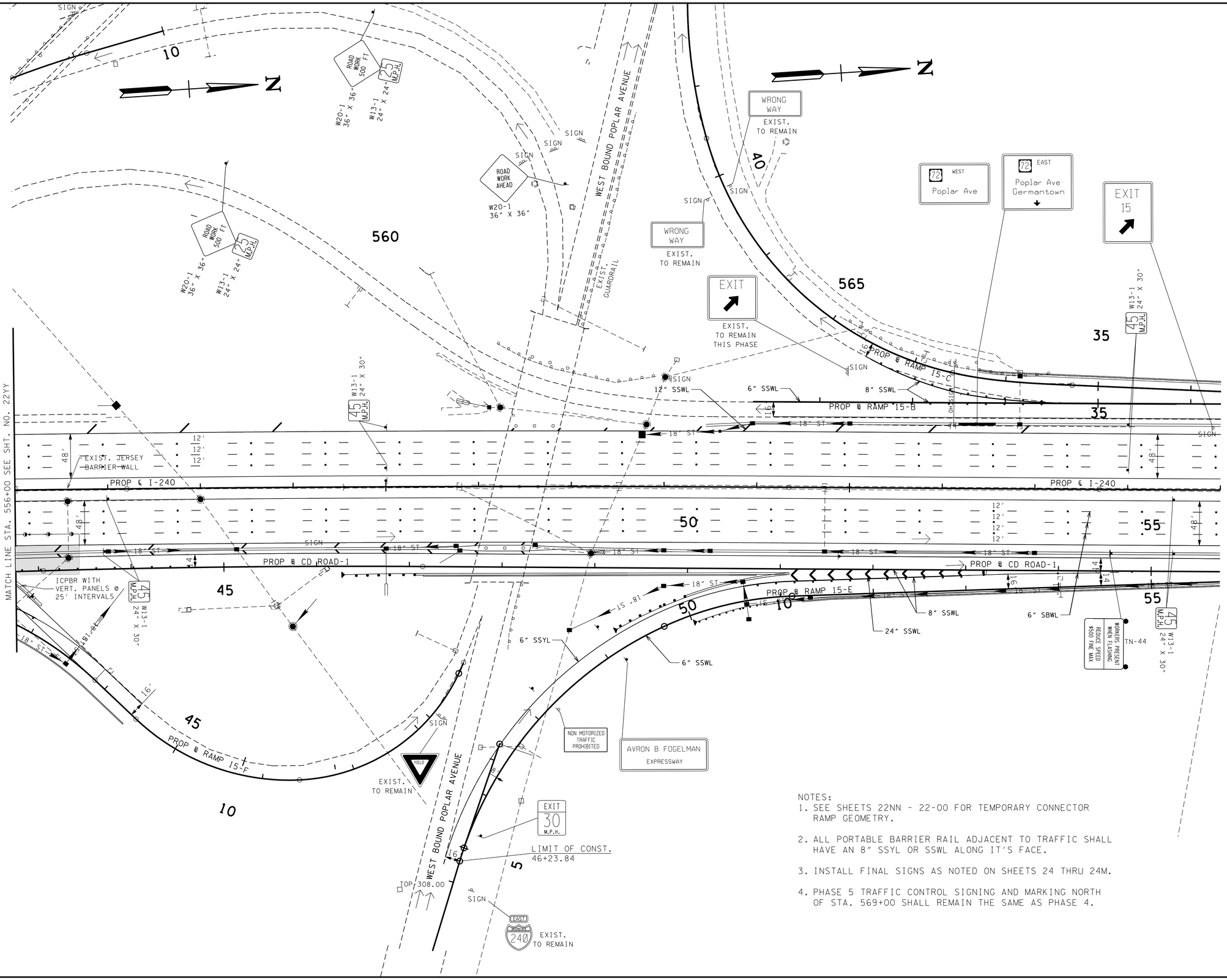
STA. 543+00 TO STA. 556+00

SCALE: 1"= 50'

8/20/2010
w:\6li5\transportation\TrafficControl-ph5-04.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	22ZZ



NOTES:
1. SEE SHEETS 22NN - 22-00 FOR TEMPORARY CONNECTOR RAMP GEOMETRY.
2. ALL PORTABLE BARRIER RAIL ADJACENT TO TRAFFIC SHALL HAVE AN 8" SSYL OR SSWL ALONG IT'S FACE.
3. INSTALL FINAL SIGNS AS NOTED ON SHEETS 24 THRU 24M.
4. PHASE 5 TRAFFIC CONTROL SIGNING AND MARKING NORTH OF STA. 569+00 SHALL REMAIN THE SAME AS PHASE 4.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NUMBER 102151
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN PHASE 5

STA. 556+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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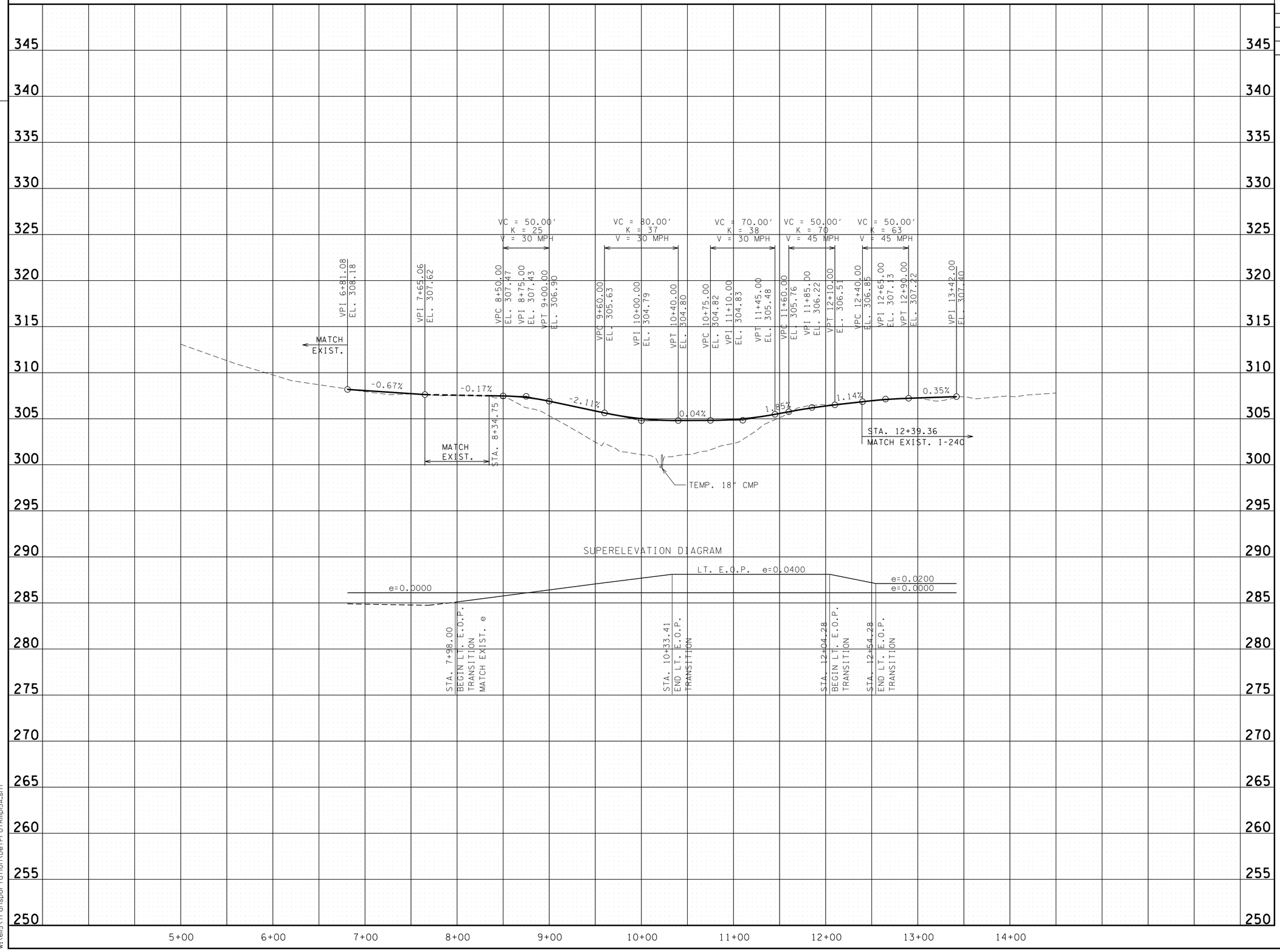
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23



8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
10235
STATE OF TENNESSEE

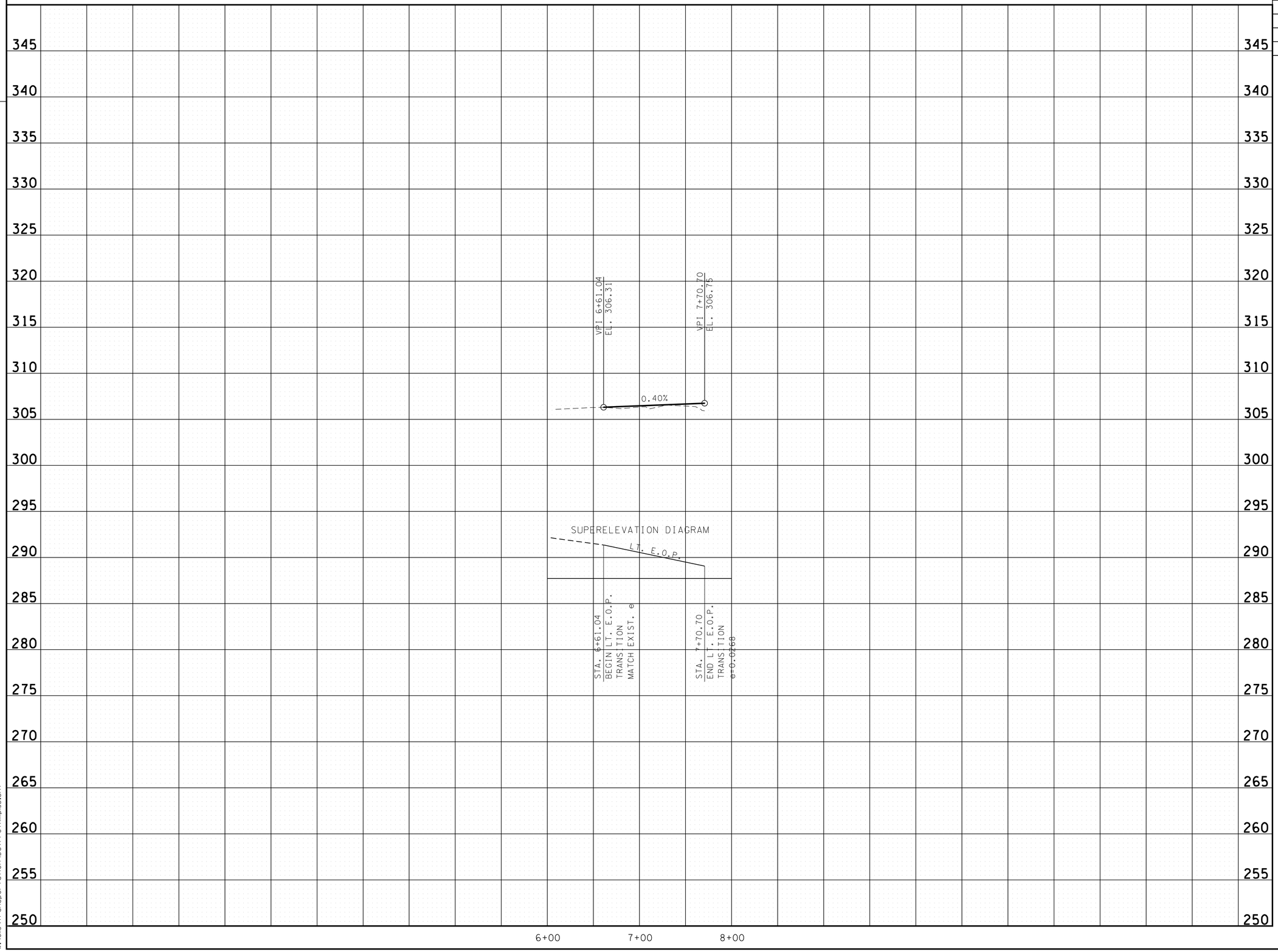
DETOUR RAMP 15-A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23A



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

DETOUR RAMP 15-D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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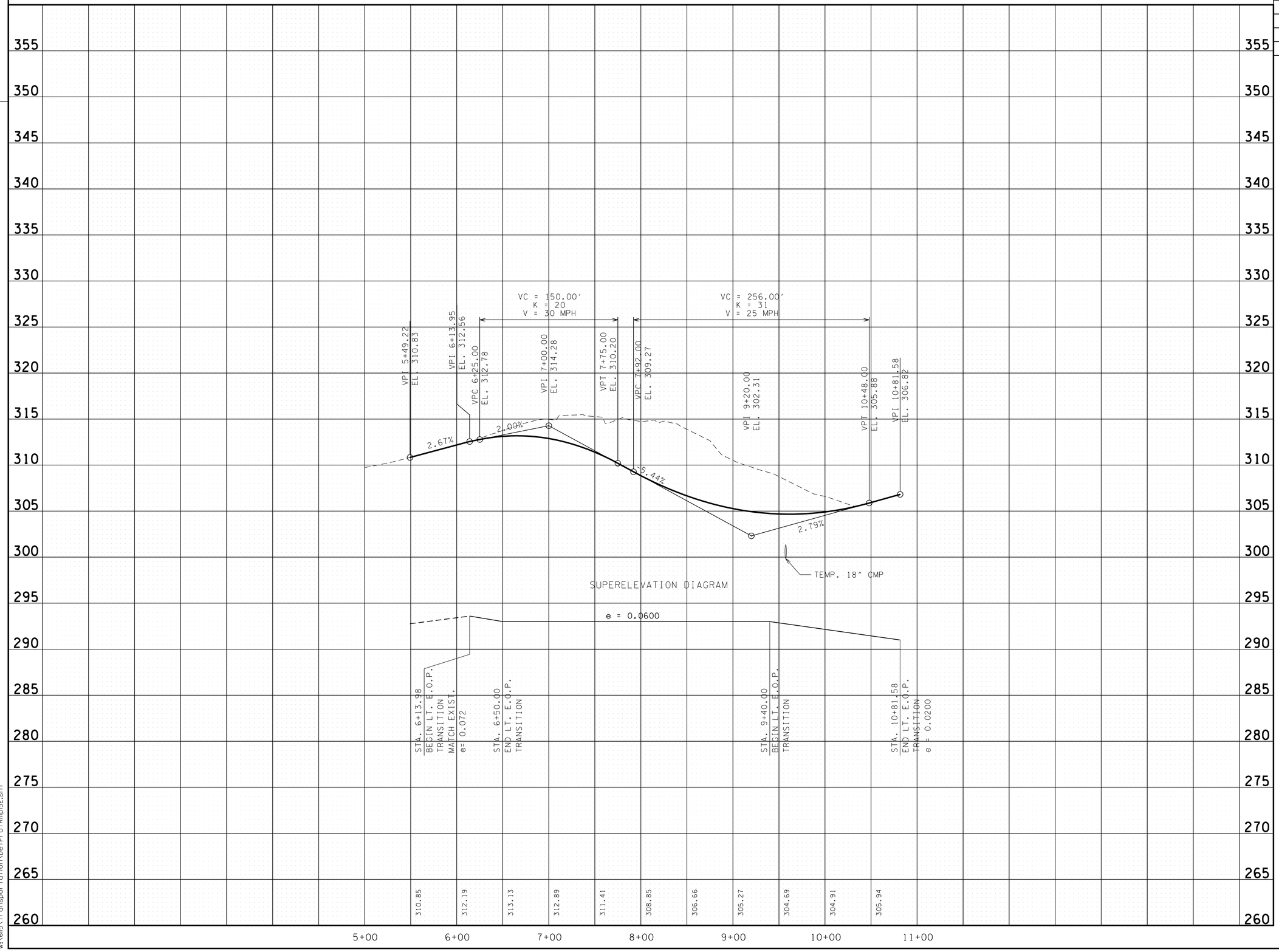
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23B



SUPERELEVATION DIAGRAM

e = 0.0600

STA. 6+13.98 BEGIN LT. E.O.P. TRANSITION MATCH EXIST. e= 0.072	STA. 6+50.00 END LT. E.O.P. TRANSITION	STA. 9+40.00 BEGIN LT. E.O.P. TRANSITION	STA. 10+81.58 END LT. E.O.P. TRANSITION e = 0.0200
310.85	312.19	313.13	312.89	311.41	308.85	306.66	305.27	304.63	304.91	305.94

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102357
STATE OF TENNESSEE
3-23-10

DETOUR RAMP 15-E

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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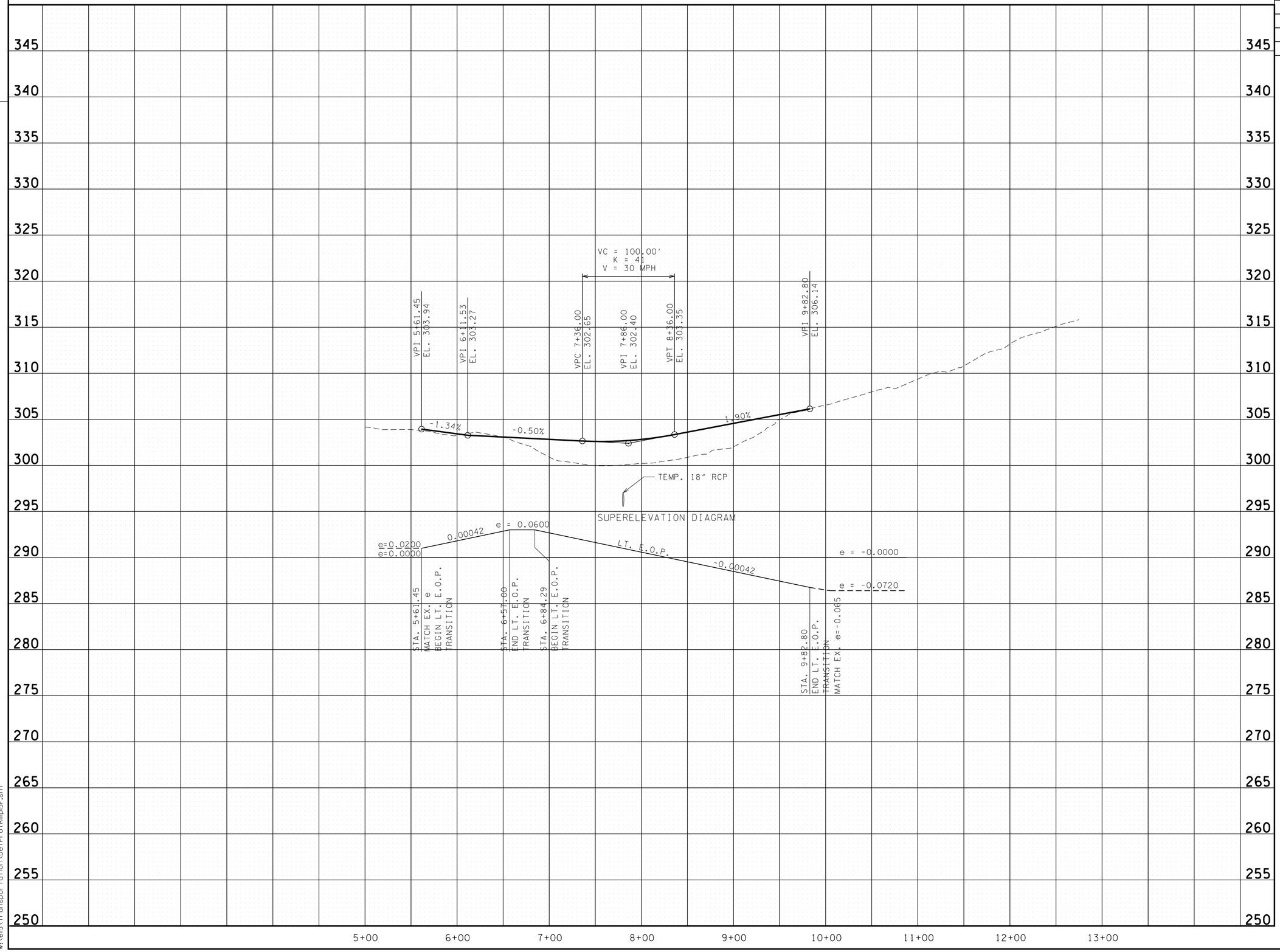
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23C



JOHN T. PANKEY
REGISTERED
PROFESSIONAL
ENGINEER
AGRICULTURE
COMMERCE
AND
STATE OF TENNESSEE
8-23-10

DETOUR RAMP 15-F

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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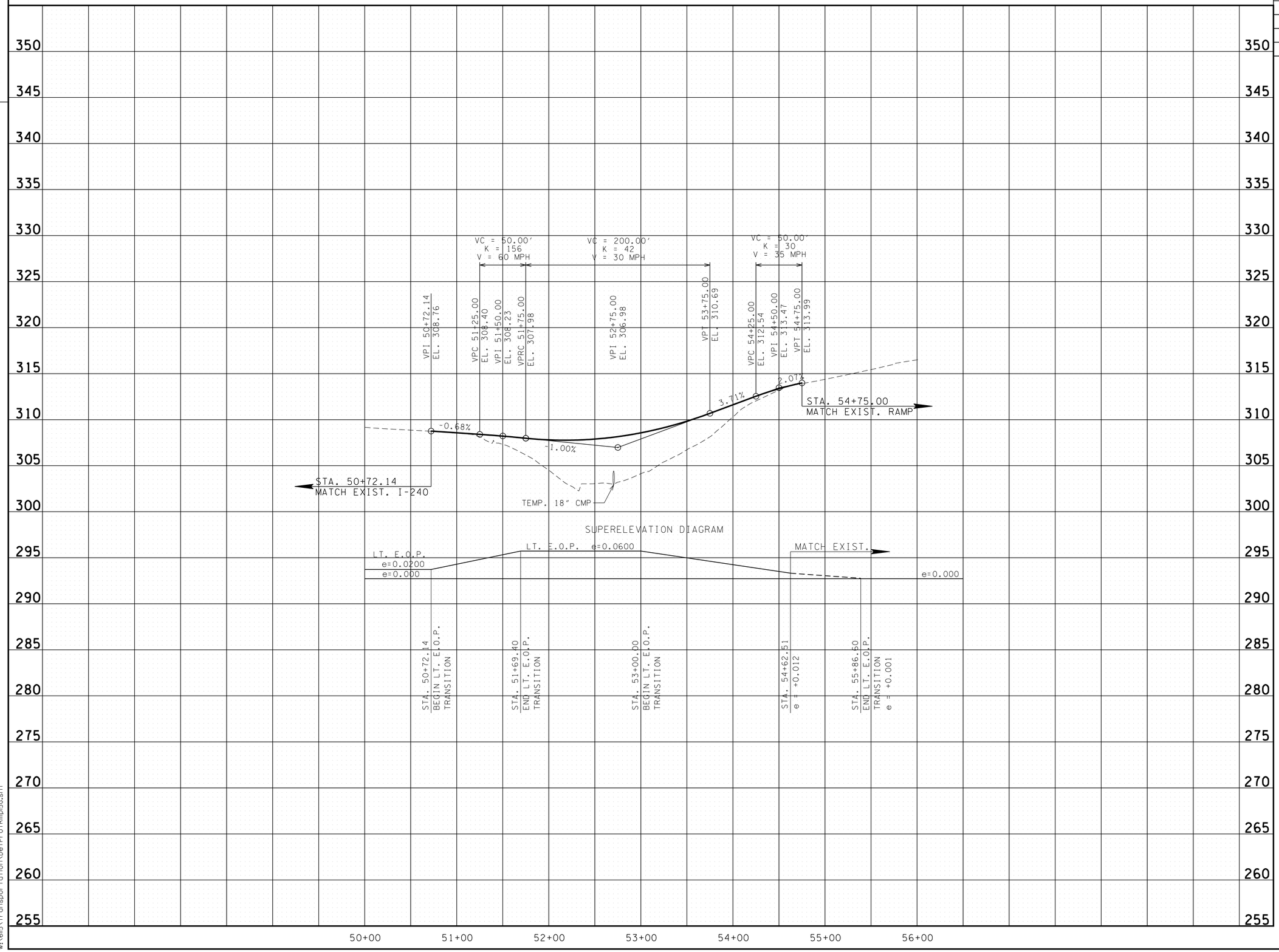
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23D



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102255
STATE OF TENNESSEE

DETOUR RAMP 15-G

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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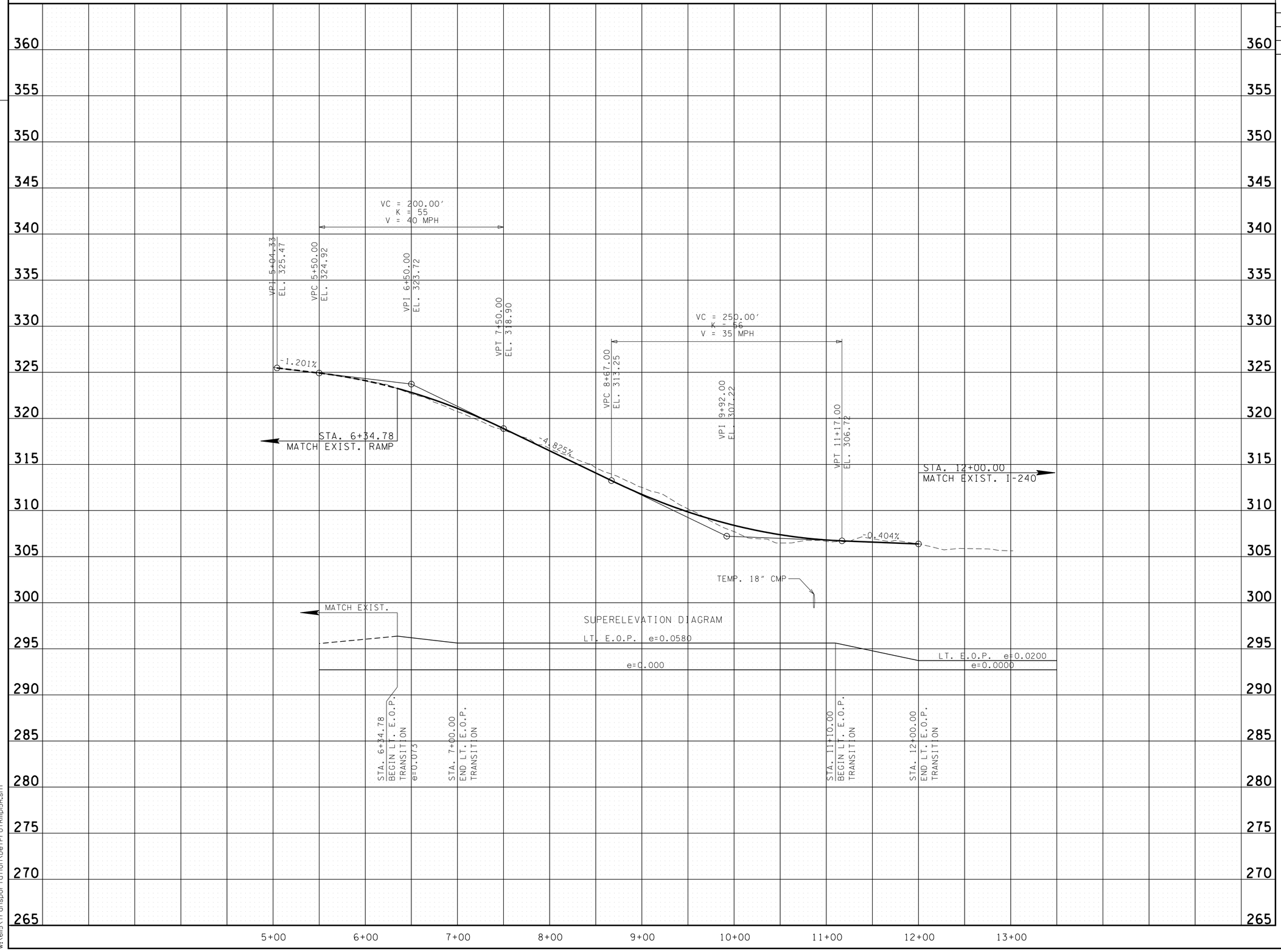
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23E



JOHN T. PANKEY JR.
REGISTERED
AGRICULTURE
No. 102361
STATE OF TENNESSEE

DETOUR RAMP 15-H

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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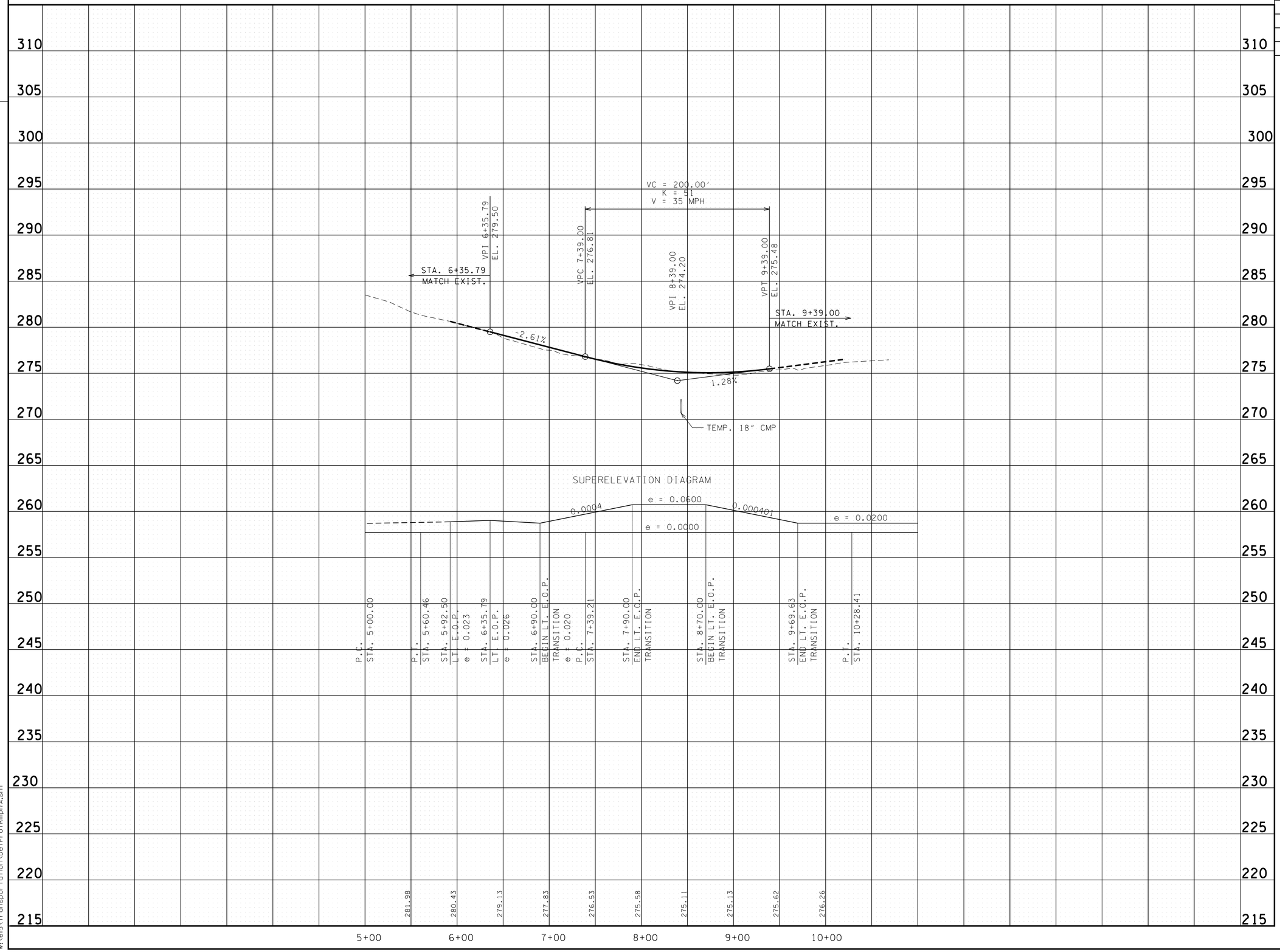
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23F



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 10235
STATE OF TENNESSEE

DETOUR RAMP 17A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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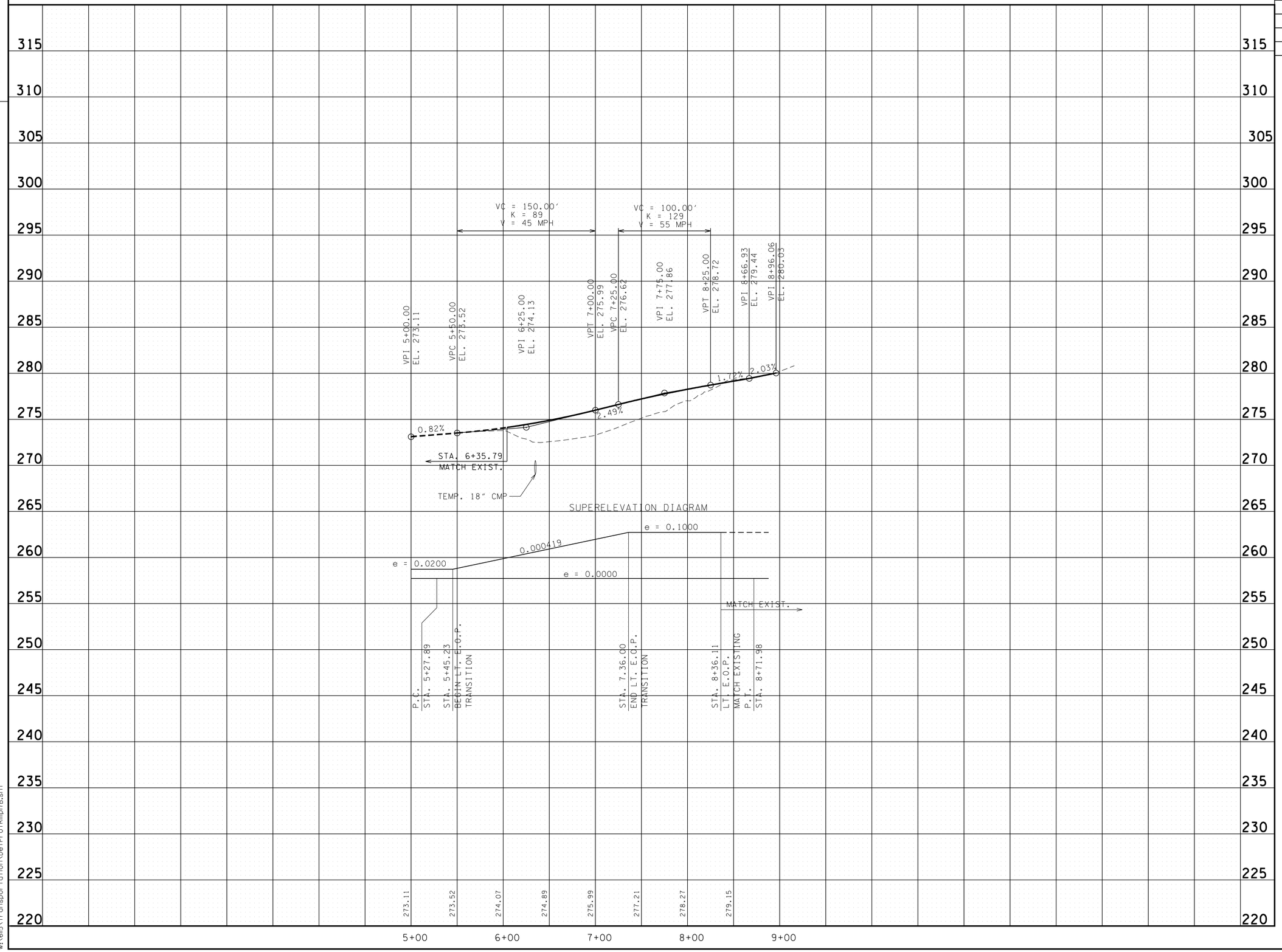
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23G



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
AT
COMMERCE
10235
STATE OF TENNESSEE
8-23-10

DETOUR RAMP 17B

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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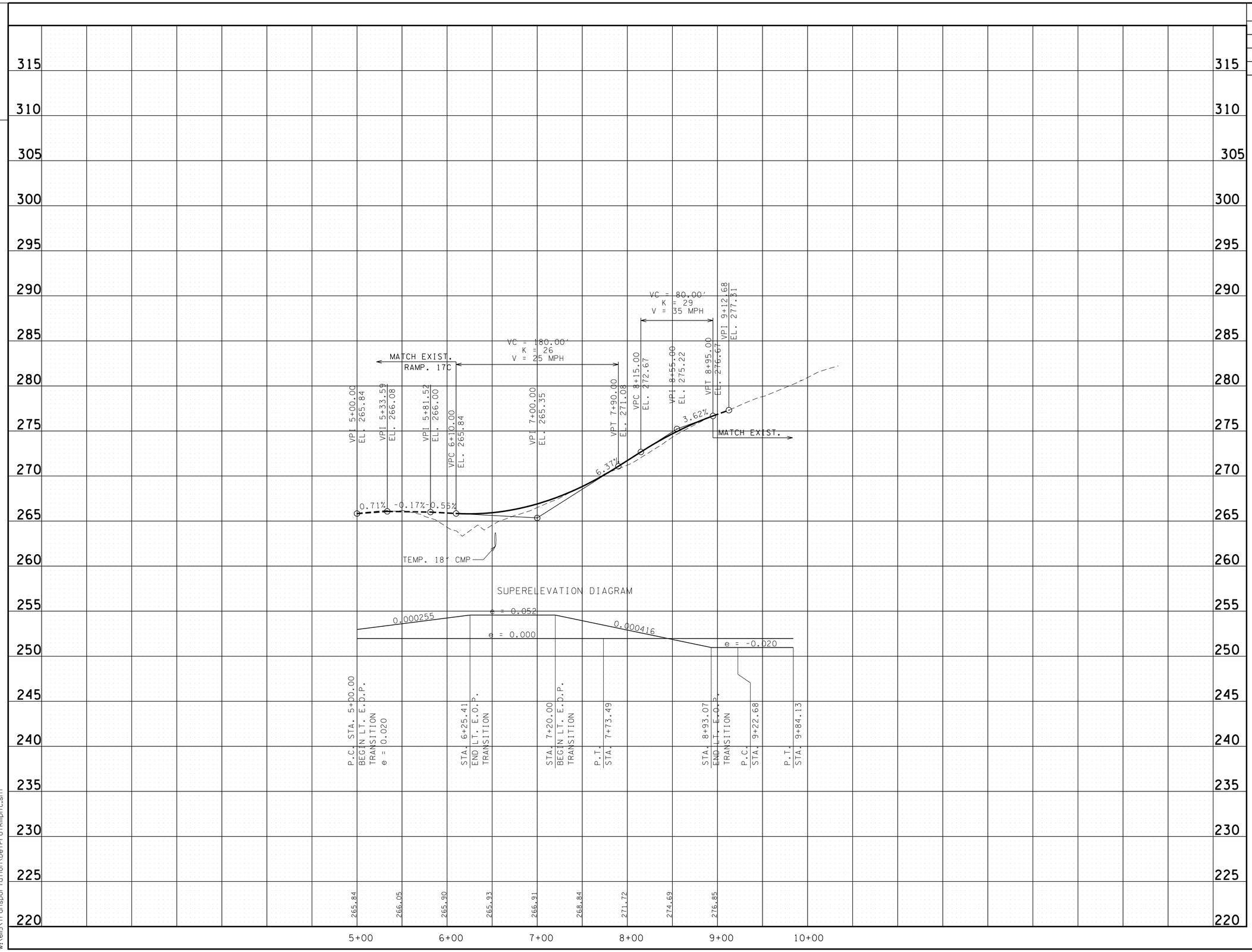
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23H



JOHN T. PANKEY
REGISTERED
AGRICULTURE
10235
8-23-10
STATE OF TENNESSEE

DETOUR RAMP 17C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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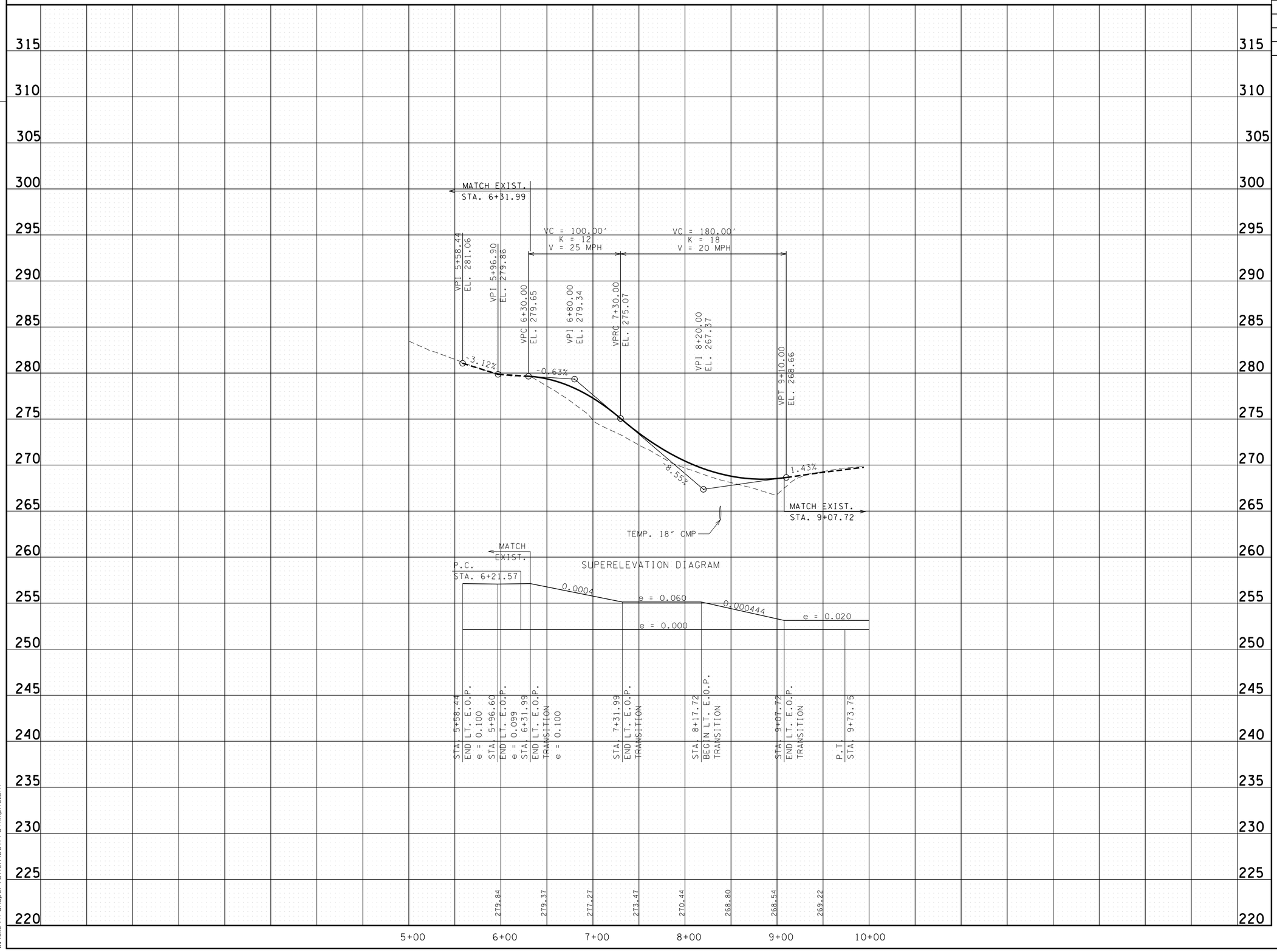
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23-I



JOHN T. PANKEY
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
No. 102351
STATE OF TENNESSEE

DETOUR RAMP 17D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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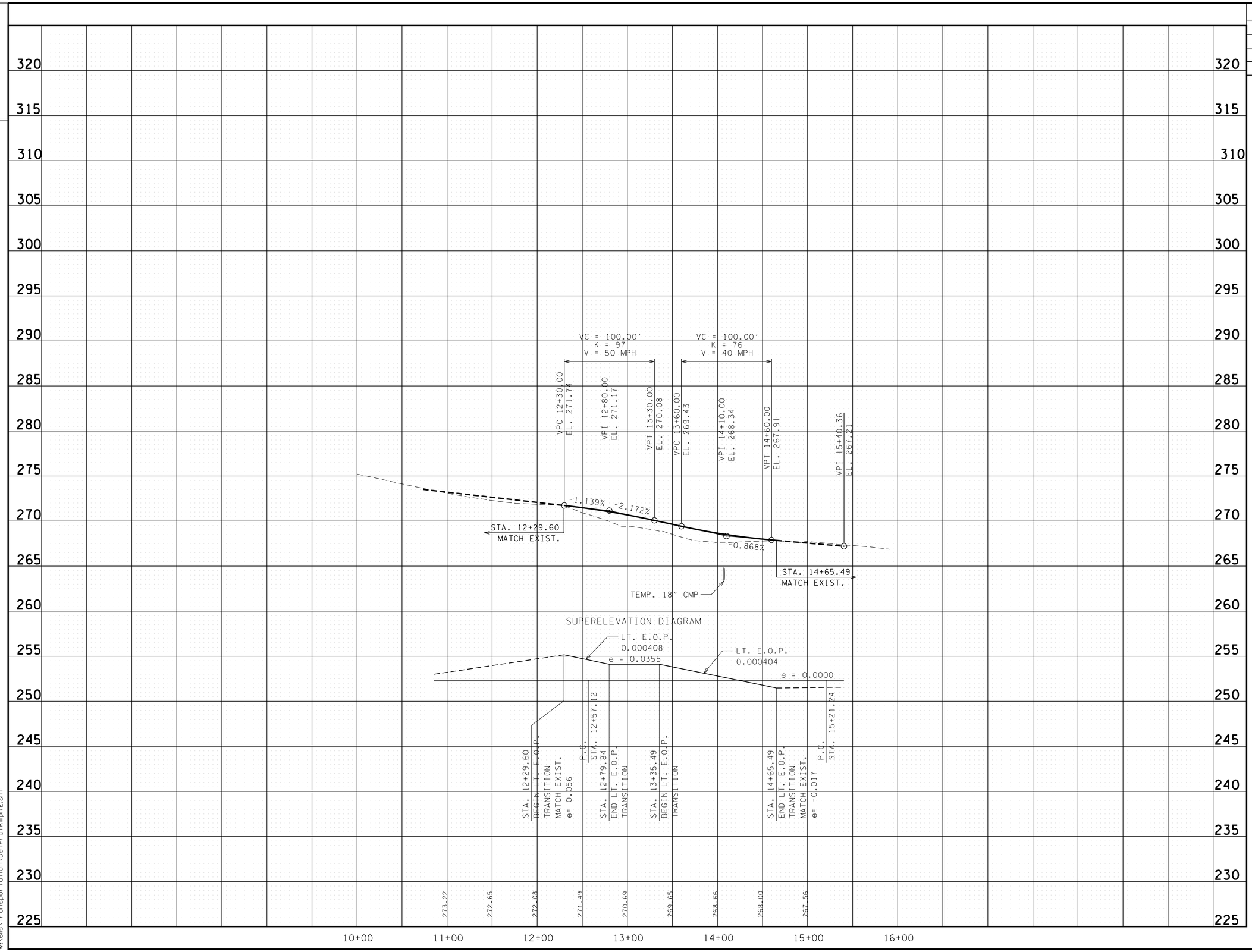
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23J



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102356
8-23-10
STATE OF TENNESSEE

DETOUR RAMP 17E

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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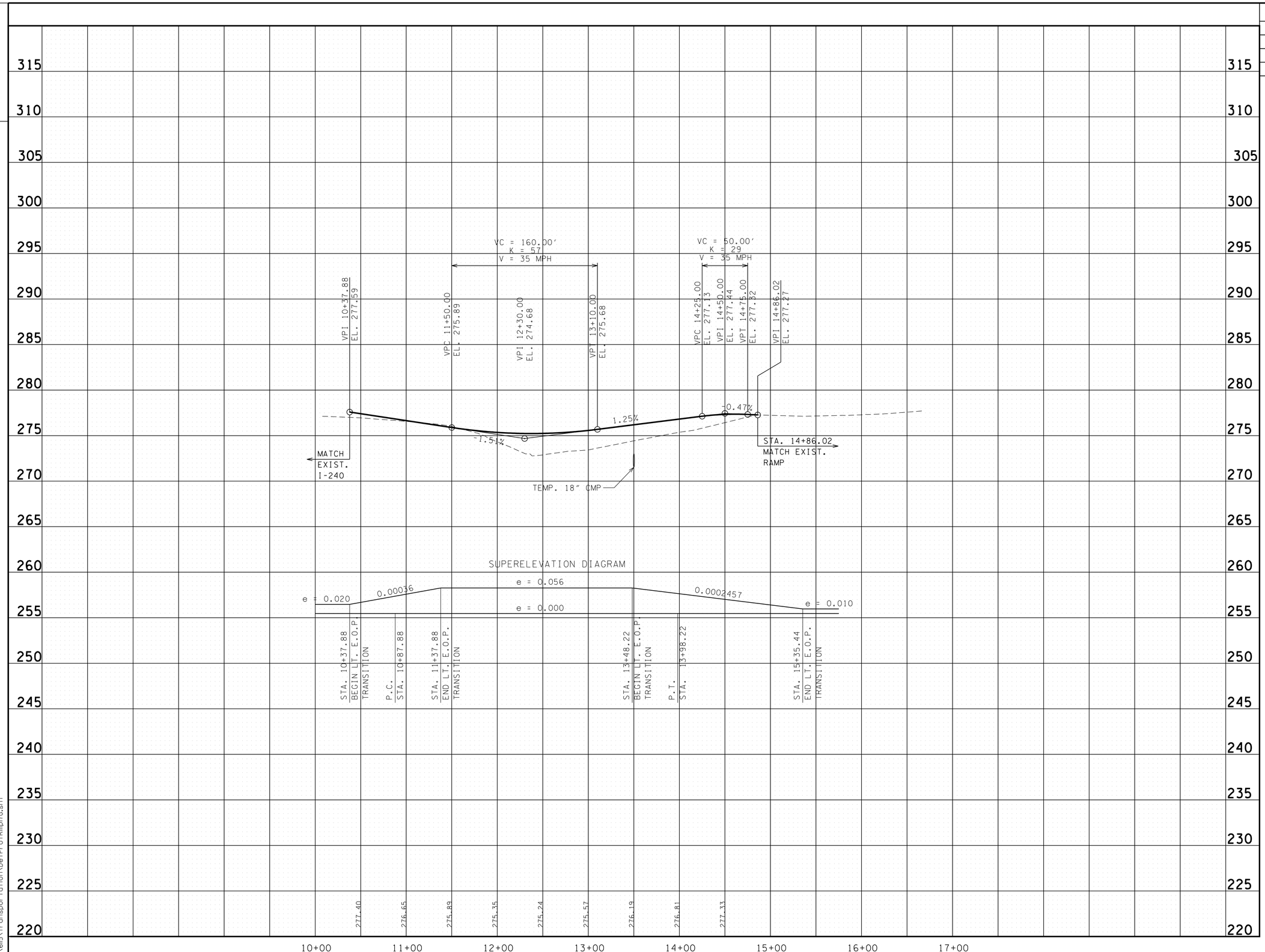
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23K



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

DETOUR RAMP 17G

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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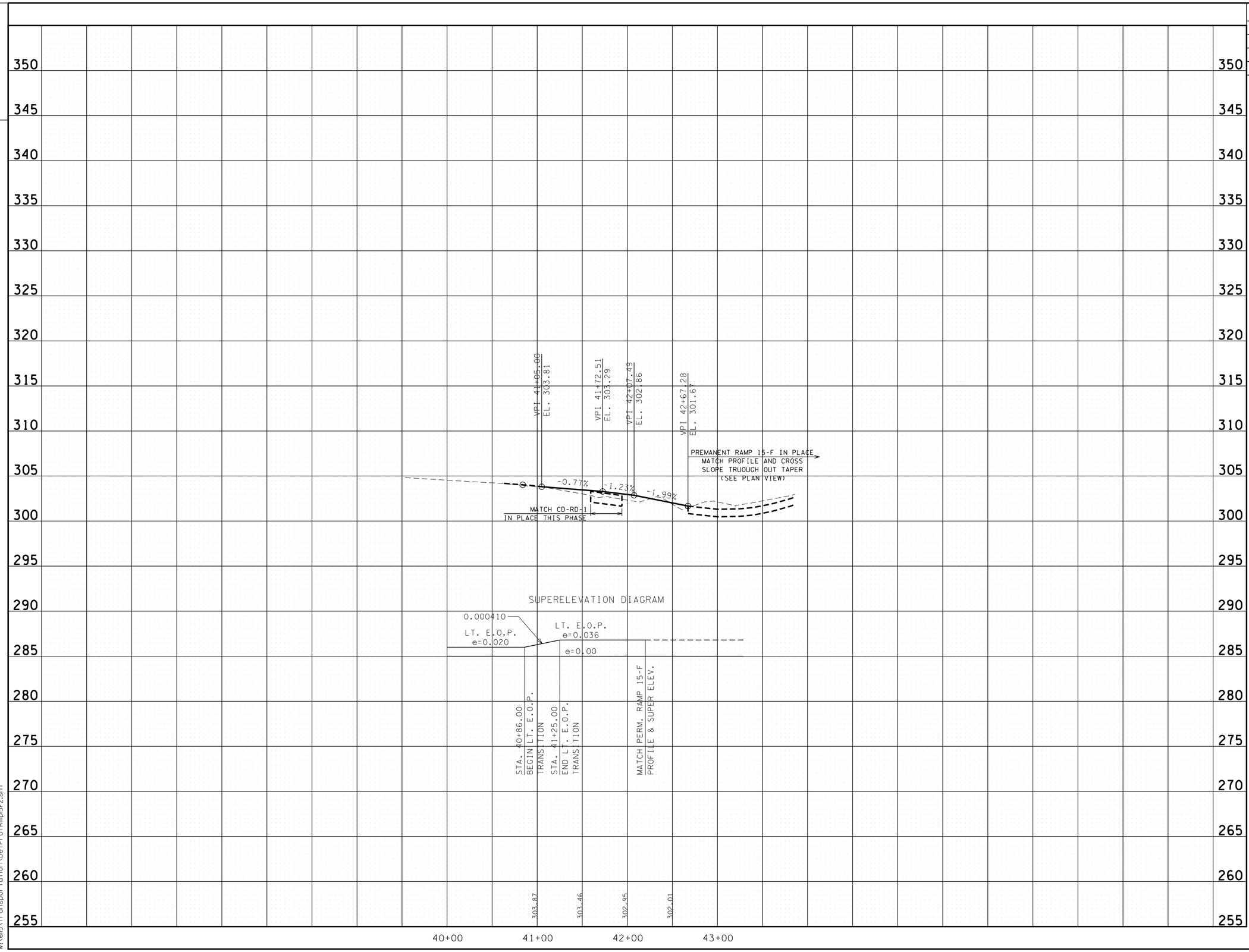
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23L



JOHN T. PANKEY JR.
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

TEMP CONNECTOR
RAMP 15-F

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

8/20/2010
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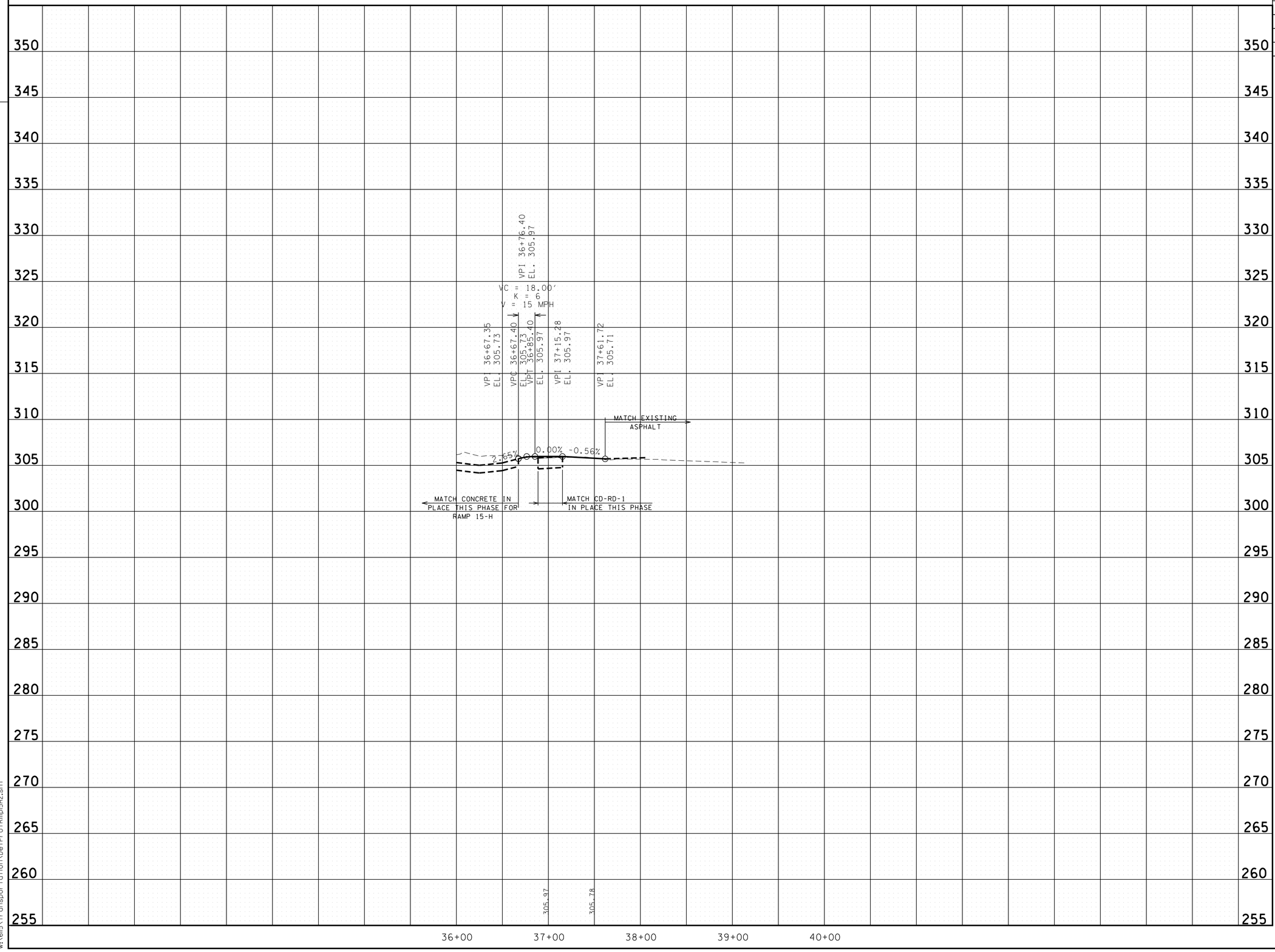
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	23M



8/20/2010
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JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
102296
TENNESSEE
NO. 102296
8-23-10
STATE OF TENNESSEE

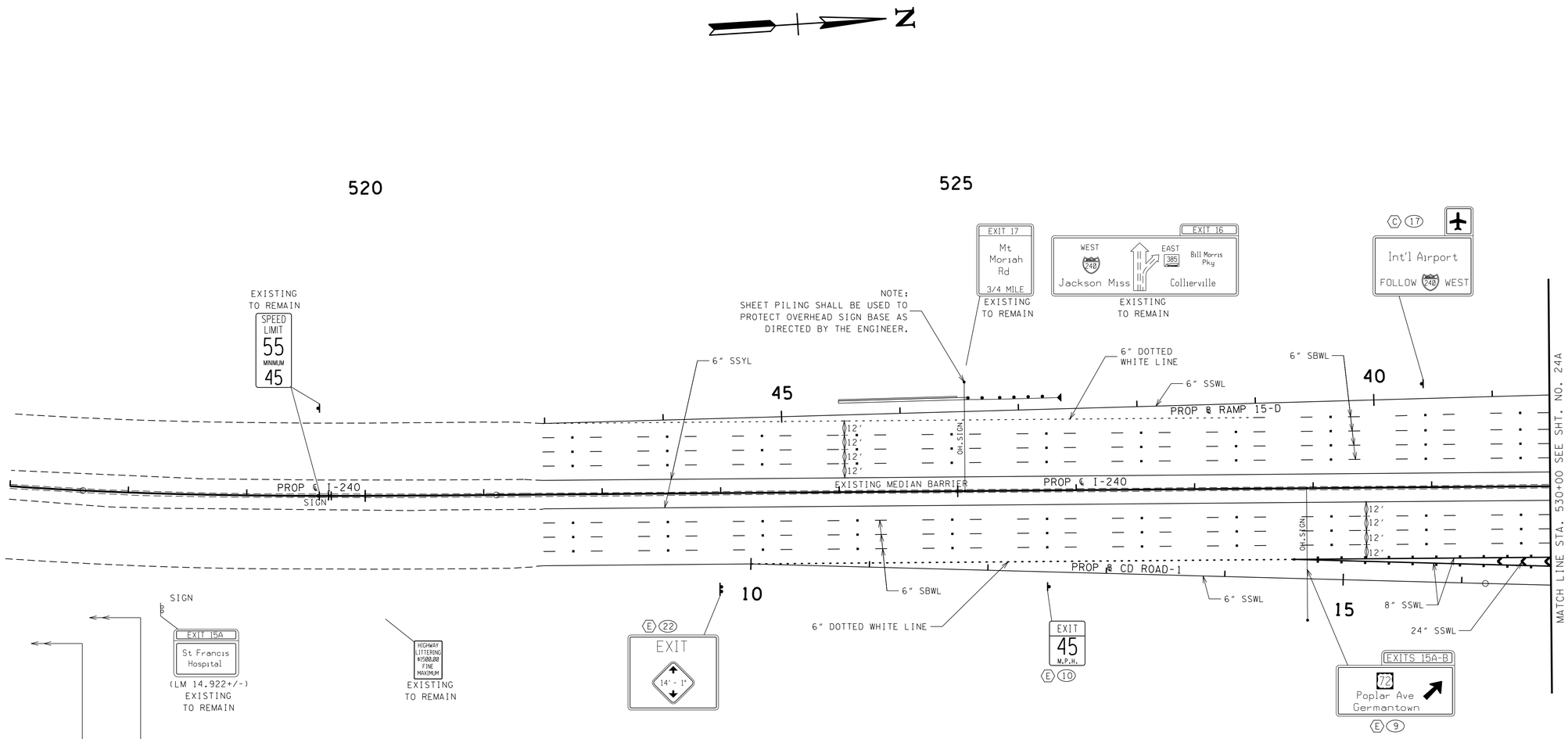
TEMP. CONNECTOR
RAMP 15-H

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETOUR RAMP PROFILE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24



FOOTNOTES:

- (A) SIGN TO BE CONSTRUCTED IN PHASE 1.
- (B) SIGN TO BE CONSTRUCTED IN PHASE 2.
- (C) SIGN TO BE CONSTRUCTED IN PHASE 3.
- (D) SIGN TO BE CONSTRUCTED IN PHASE 4.
- (E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

B.O.P. TO STA.530+ 00

SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\Signing-Marking-01.sht

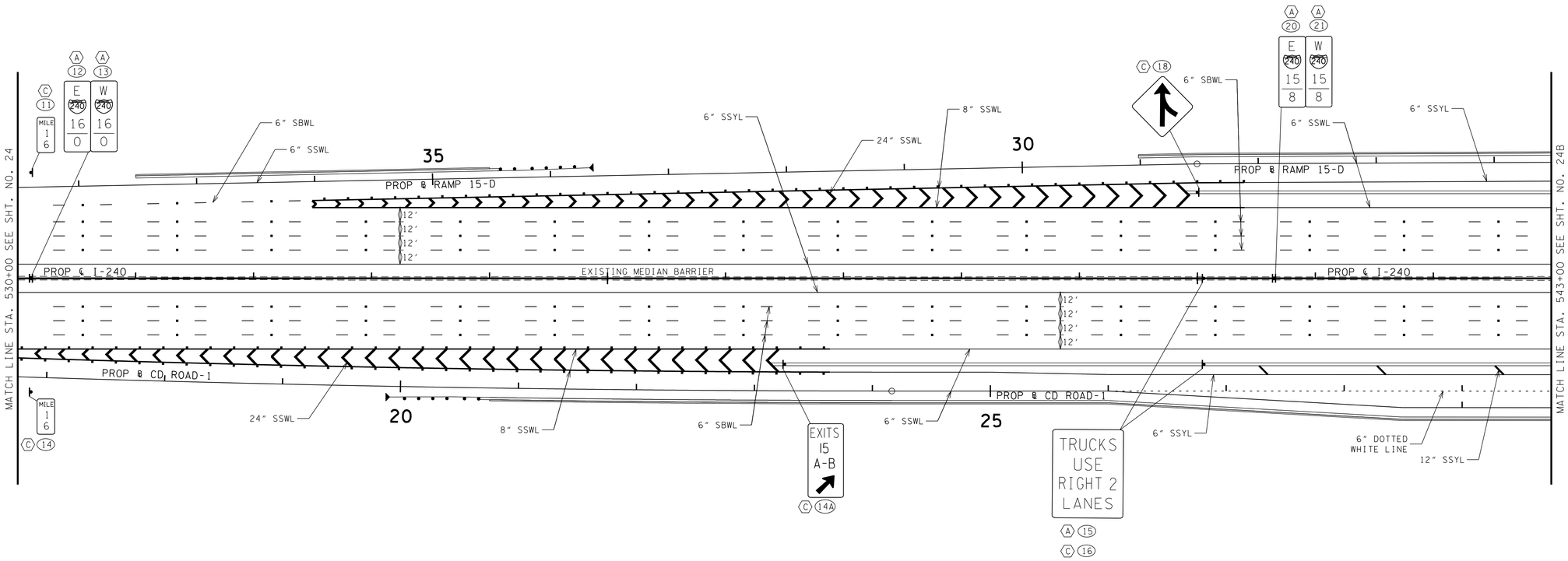
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24A

N

535

540



FOOTNOTES:

Ⓐ SIGN TO BE CONSTRUCTED IN PHASE 1.
Ⓑ SIGN TO BE CONSTRUCTED IN PHASE 2.
Ⓒ SIGN TO BE CONSTRUCTED IN PHASE 3.
Ⓓ SIGN TO BE CONSTRUCTED IN PHASE 4.
Ⓔ SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.530+00 TO STA.543+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-02.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24B

N

MATCH LINE STA. 543+00 SEE SHT. NO. 24A

MATCH LINE STA. 556+00 SEE SHT. NO. 24C

PARK AVENUE

NORFOLK SOUTHERN R.R.

545 550 555

AVRON B FOGELMAN EXPRESSWAY

PROP ℄ RAMP 15-D

PROP ℄ RAMP 15-A

PROP ℄ RAMP 15-H

PROP ℄ RAMP 15-G

PROP ℄ CD ROAD-1

PROP ℄ RAMP 15-F

PROP ℄ I-240

EXISTING MEDIAN BARRIER

N 3° 06' 48" E

N 47° 59' 11" E

EAST BOUND POPLAR AVENUE

6" SSWL
6" SSYL
8" SSWL
12" SSYL
6" SBWL
8" DOTTED WHITE LINE
24" SSWL

SPEED LIMIT 55 MINIMUM 45

YIELD

SIGN

OH. SIGN

EXIT 16
WEST 240
EAST 385 Bill Morris Pkwy
Jackson Miss
Collierville 3/4 MILE
USE EXISTING SIGN AND SUPPORT

E 240 15 6
W 240 15 6

EXIT 15B
72 WEST Poplar Ave

EXIT 15A
72 EAST Poplar Ave Germantown
EXIT 30 MPH

240 EAST Nashville

EXIT 20 M.P.H.

EXIT 15A

EXIT 15B

FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
ENGINEER
NO. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

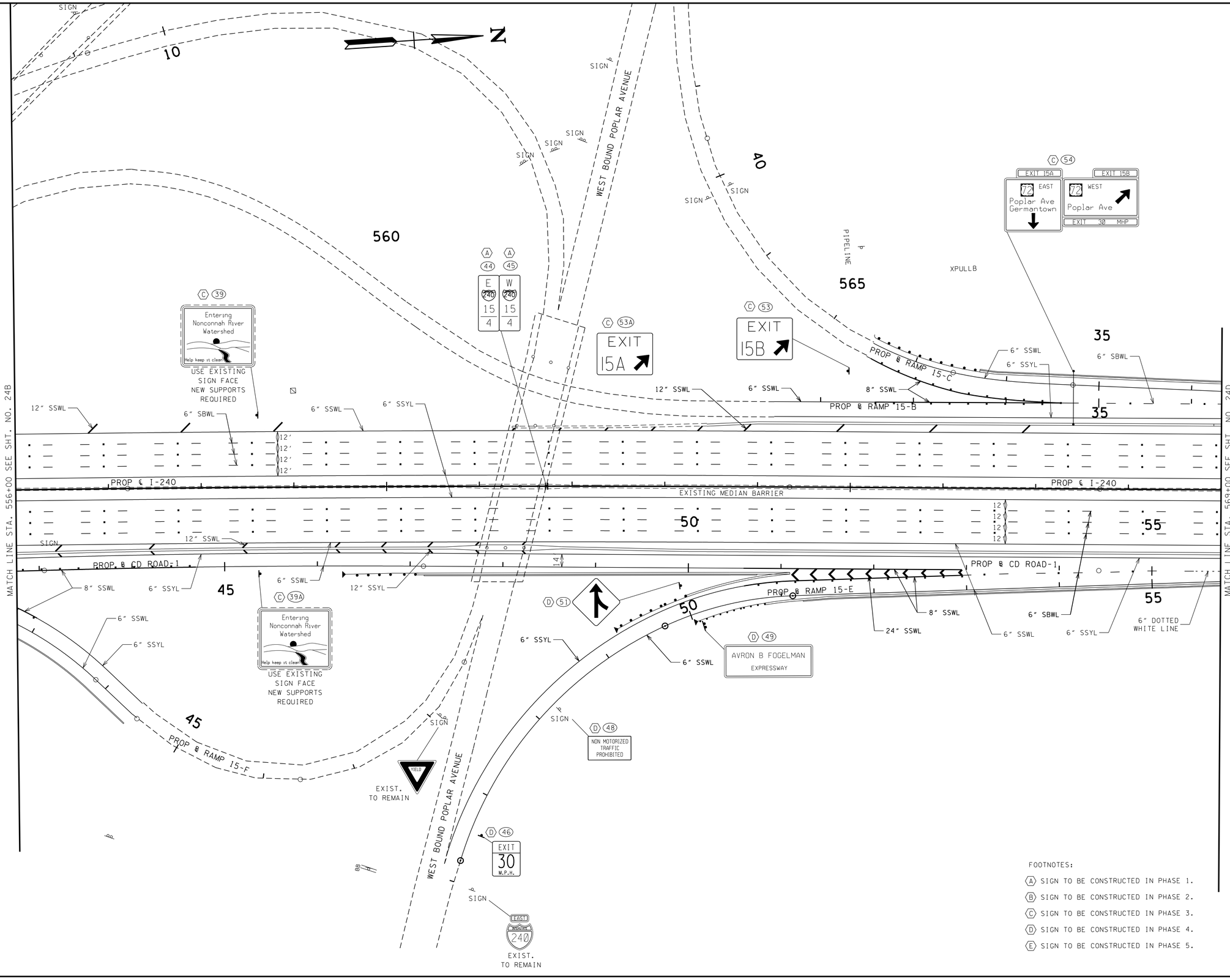
STA.543+00 TO STA.556+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-03.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24C



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.556+00 TO STA.569+00

SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\Signing-Marking-04.sht

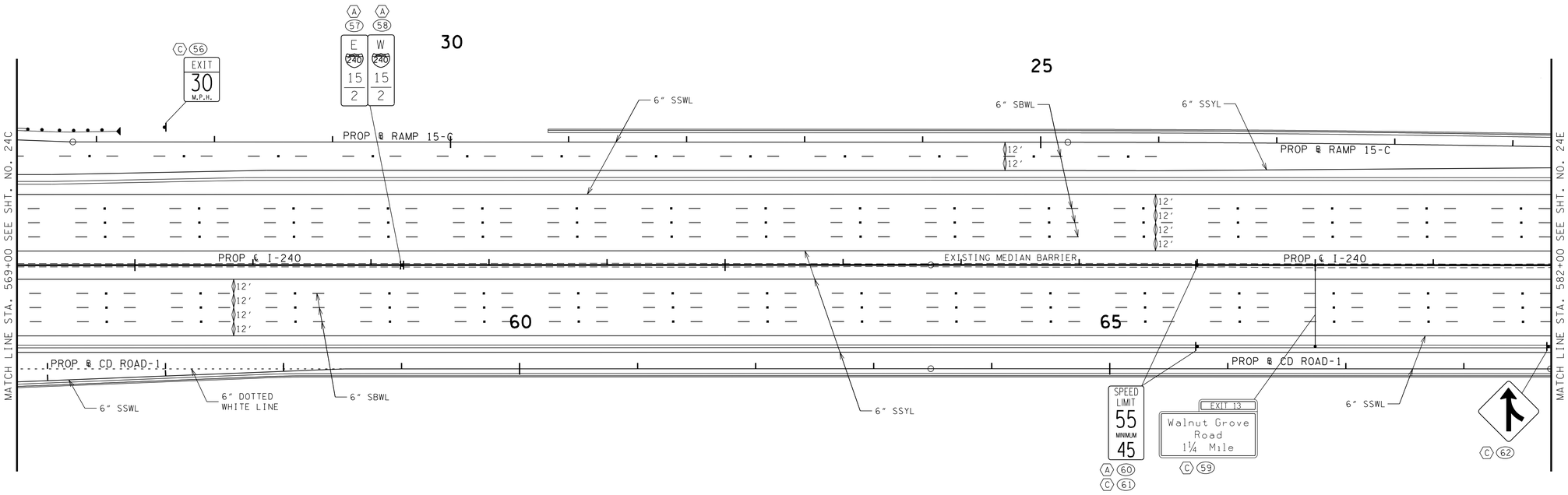
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24D

N

570 575 580

30 25



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.

(B) SIGN TO BE CONSTRUCTED IN PHASE 2.

(C) SIGN TO BE CONSTRUCTED IN PHASE 3.

(D) SIGN TO BE CONSTRUCTED IN PHASE 4.

(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

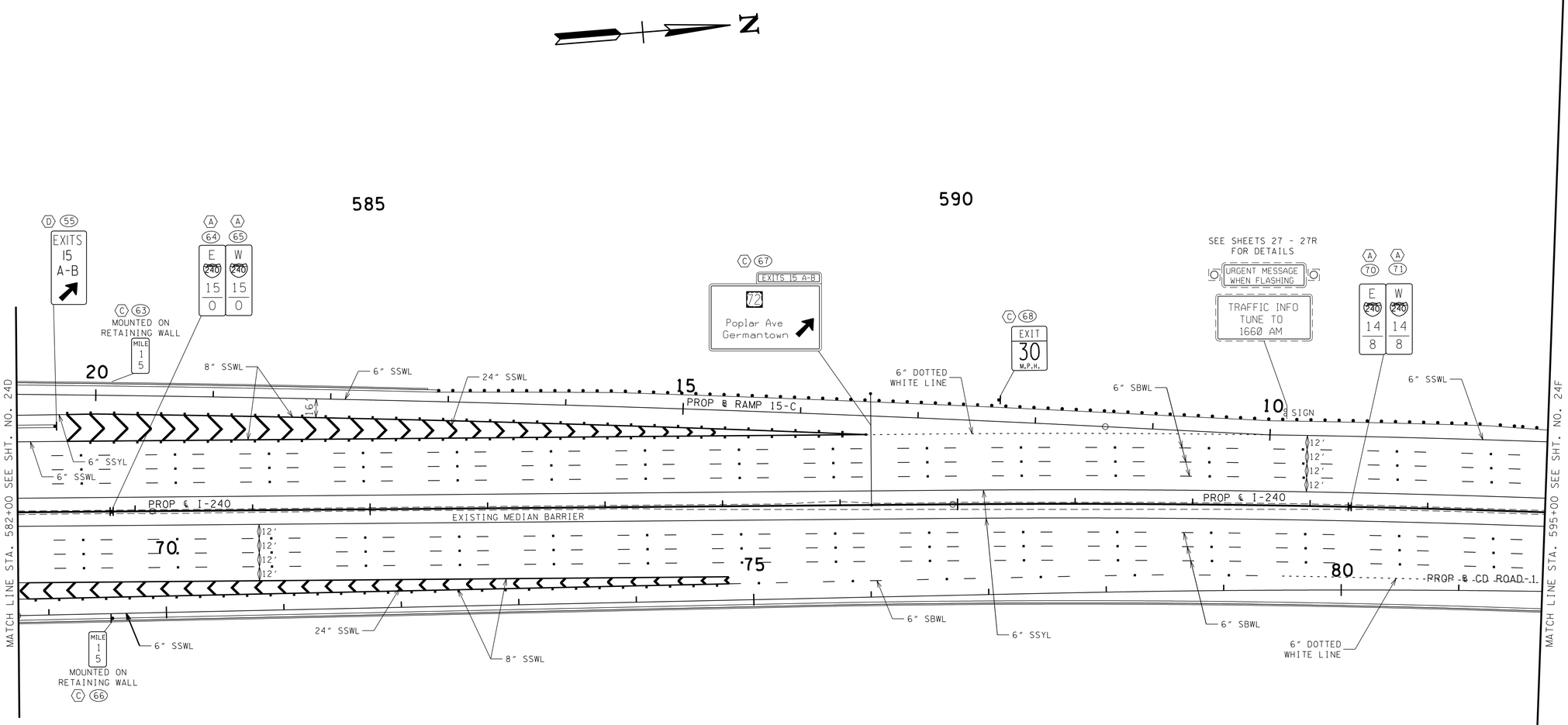
STA.569+00 TO STA.582+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-05.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24E



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

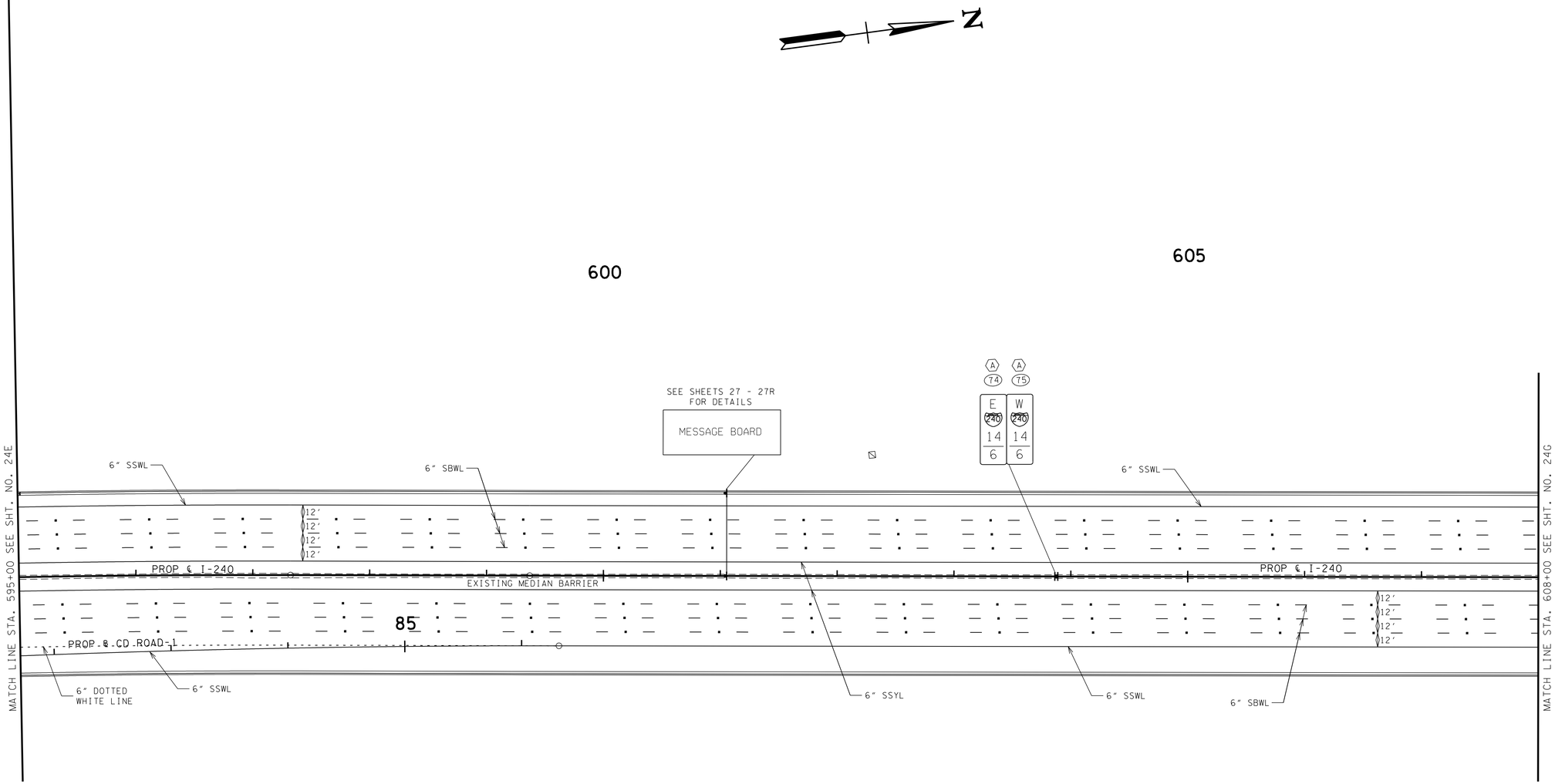
STA.582+00 TO STA.595+00

SCALE: 1"= 50'

8/20/2010
w:\6il5\transportation\Signing-Marking-06.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24F



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
102361
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.595+00 TO STA.608+00

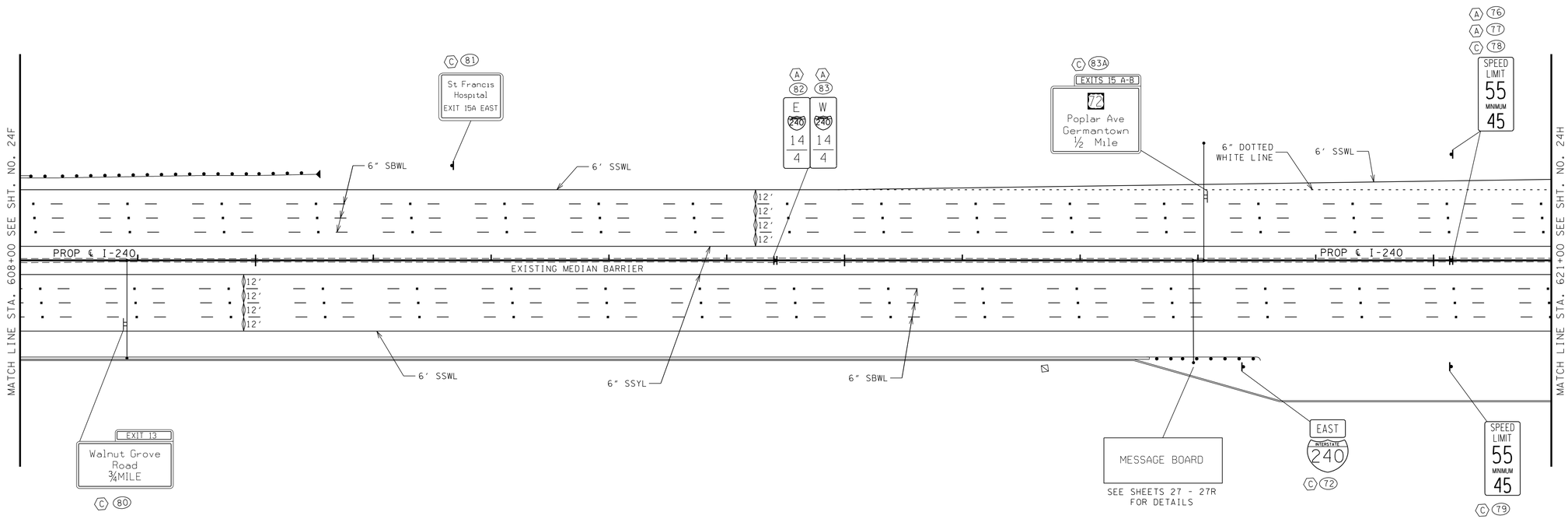
SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-07.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24G

610 615 620



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY REGISTERED ENGINEER AGRICULTURE No. 102350 STATE OF TENNESSEE 8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

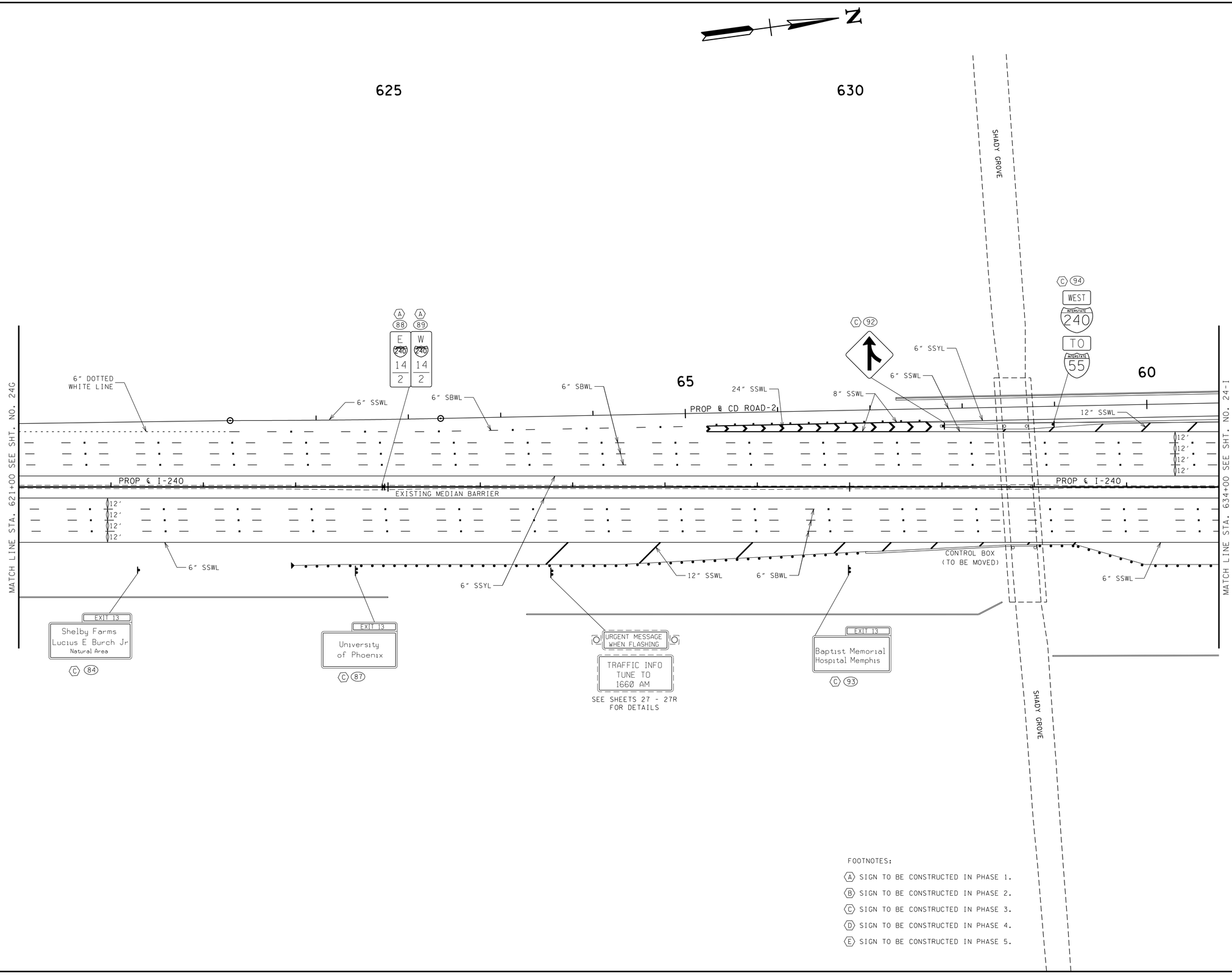
STA.608+00 TO STA.621+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-08.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24H



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY REGISTERED PROFESSIONAL ENGINEER AGRICULTURE 8-23-2010 NO. COMMERCE 102361 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

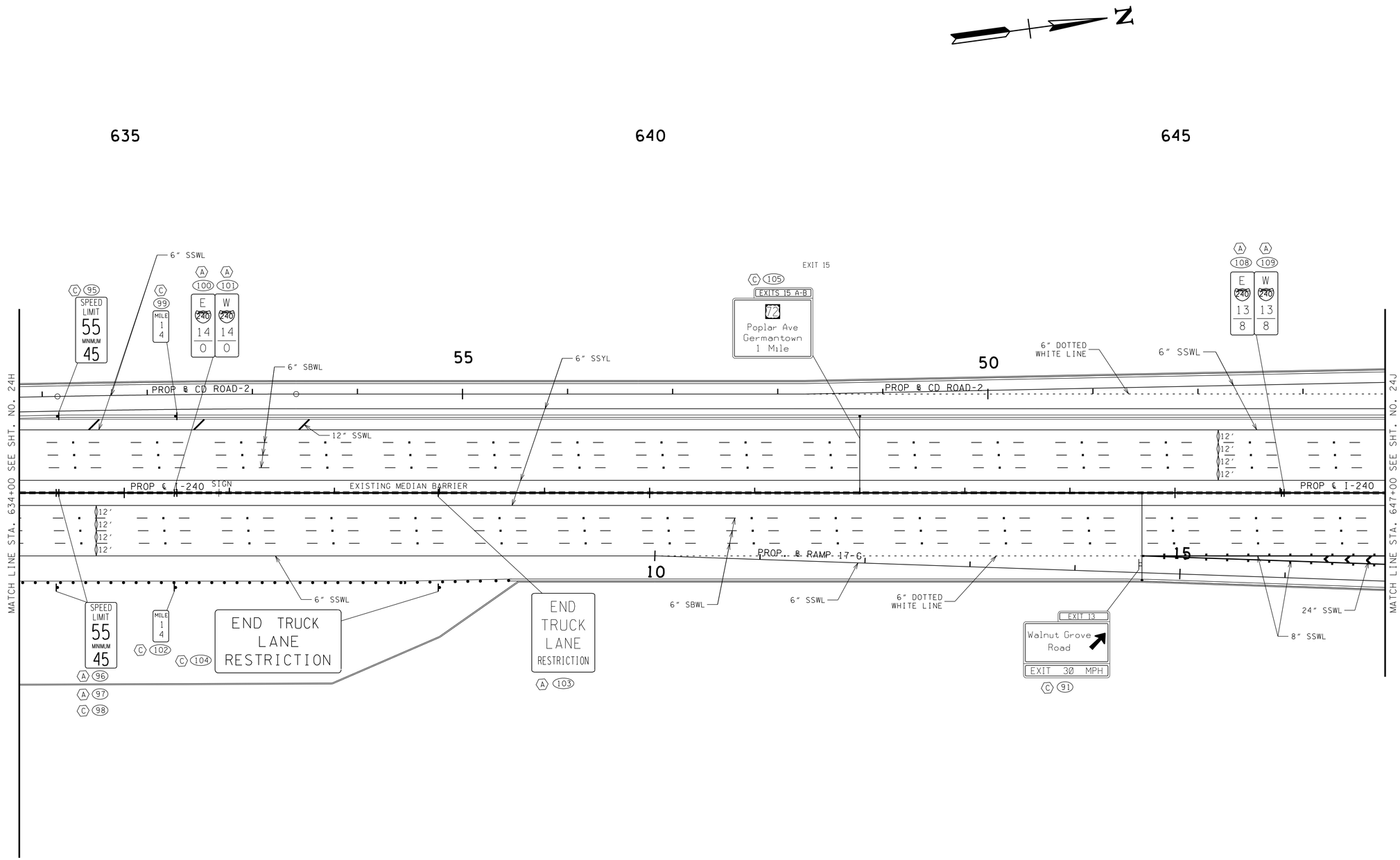
STA.621+00 TO STA.634+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-09.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24-I



FOOTNOTES:

- (A) SIGN TO BE CONSTRUCTED IN PHASE 1.
- (B) SIGN TO BE CONSTRUCTED IN PHASE 2.
- (C) SIGN TO BE CONSTRUCTED IN PHASE 3.
- (D) SIGN TO BE CONSTRUCTED IN PHASE 4.
- (E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

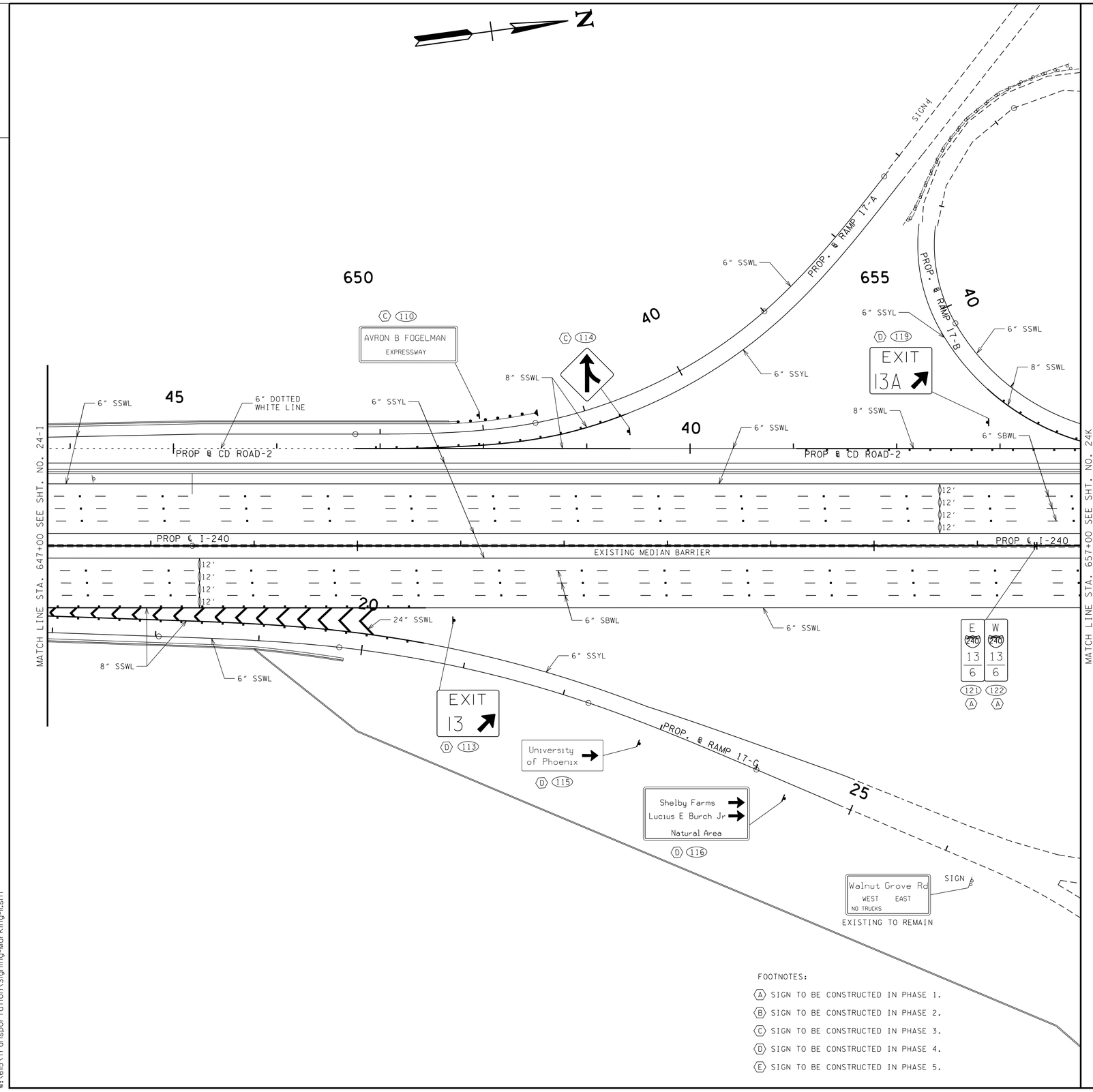
STA.634+00 TO STA.647+00

SCALE: 1"= 50'

8/20/2010
w:\615\transportation\Signing-Marking-10.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24J



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

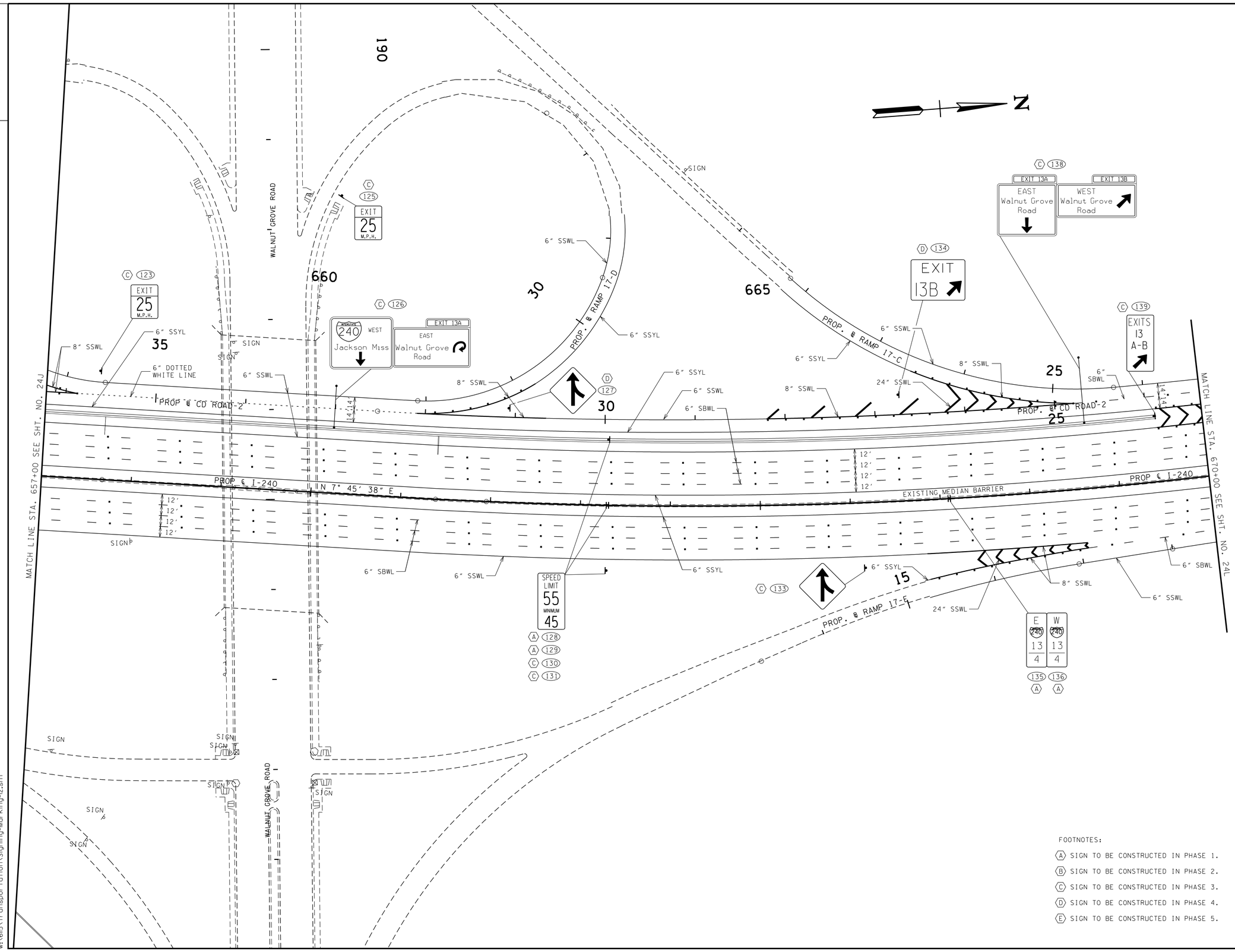
STA.647+00 TO STA.657+00

SCALE: 1"= 50'

8/20/2010
w:\6li5\transportation\Signing-Marking-II.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24K



8/20/2010
w:\6115\transportation\Signing-Marking-12.sht

FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

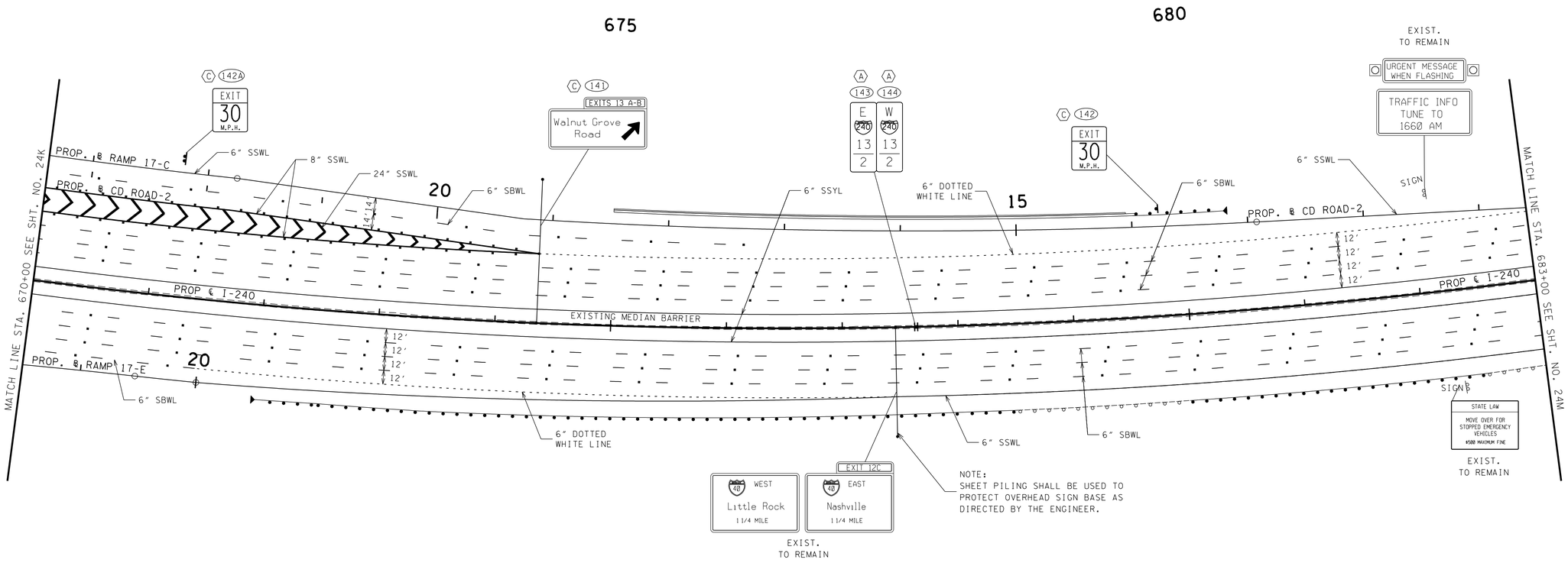
STA.657+00 TO STA.670+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24L

N



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED
PROFESSIONAL
ENGINEER
AGRICULTURE
NUMBER
102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

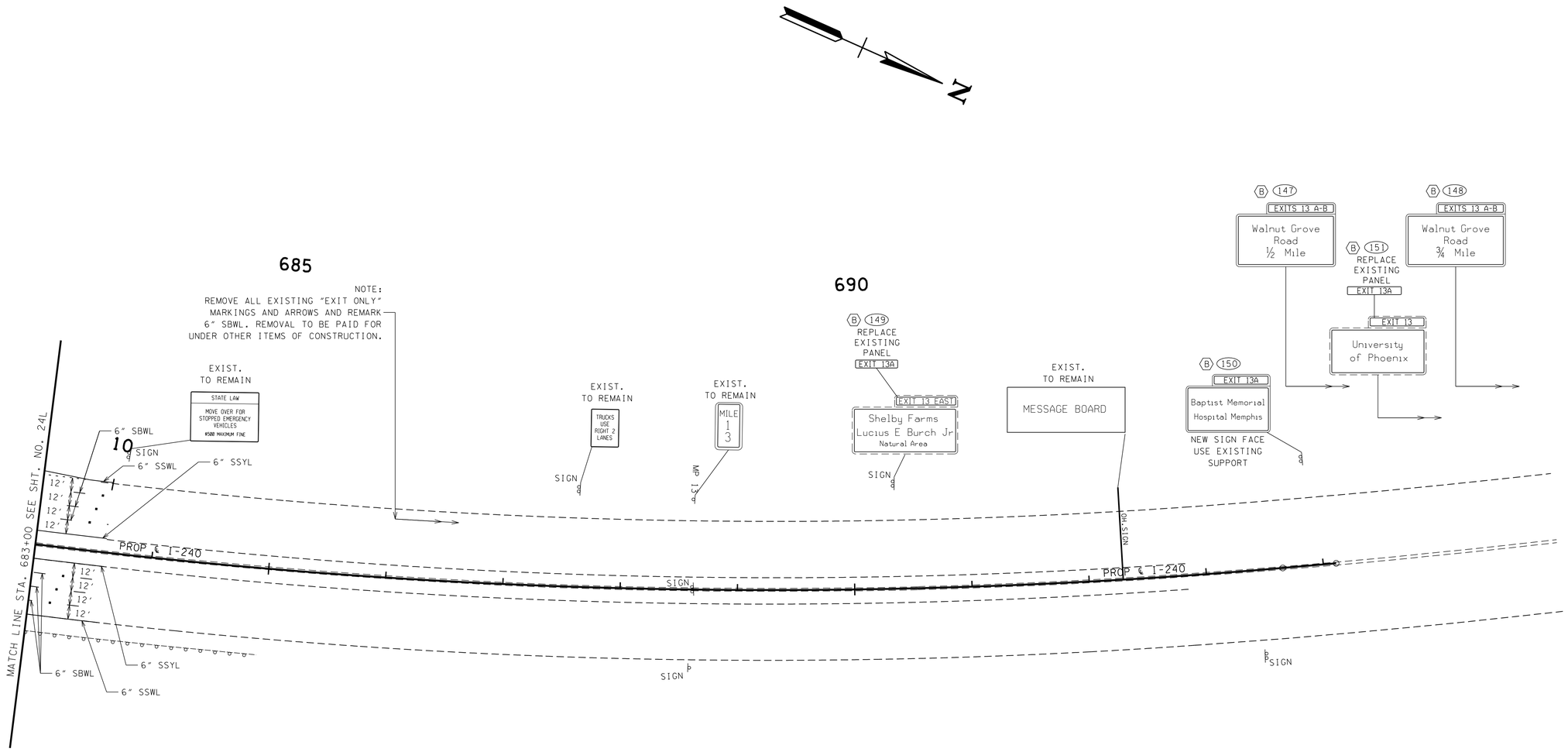
STA.670+00 TO STA.683+00

SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\Signing-Marking-13.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24M



FOOTNOTES:

(A) SIGN TO BE CONSTRUCTED IN PHASE 1.
(B) SIGN TO BE CONSTRUCTED IN PHASE 2.
(C) SIGN TO BE CONSTRUCTED IN PHASE 3.
(D) SIGN TO BE CONSTRUCTED IN PHASE 4.
(E) SIGN TO BE CONSTRUCTED IN PHASE 5.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.683+00 TO E.O.P.

SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\Signing-Marking-I4.sht

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

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24N

SIGN NO	LEGEND	SHEET NO	SIZE LENGTH	SIZE HEIGHT	SIZE RADIUS	SIZE BORDER WIDTH	COPY CAPITAL	COPY LOWER CASE	COPY NUMERAL	COPY SERIES	SHIELD	ARROW	SIGN FACE COPY	SIGN FACE BACKGROUND	SIGN FACE MATERIAL	STEEL DESIGN (BREAK-AWAY) SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.	MINIMUM VERTICAL CLEARANCE	REMARKS
1	EXIT 15A-B 72 Poplar Ave Germantown ½MILE	24	13'-0" 16'-0"	2'-0" 11'-0"	6" TOP ONLY 12"	2" 2"	10" 16" 16" 10"	12" 12"	15" 10"/10"	'EMOD'	36" X 36"		WHITE (REF)	GREEN (REF)	2-12" & 11-12" ALUM. EXTRUSIONS							USE EXISTING BRIDGE MOUNT STRUCTURE
28	SPEED LIMIT 55 MINIMUM 45 TN-7C	24-B	48"	96"									BLACK	WHITE (REF)	0.100" SHEET ALUM.						7'-0"	MOUNTED ON MEDIAN BARRIER ITEM NO. 713-17.62 (SEE DETAIL SHEET)
29		24-B																				
60		24-D																				
77		24-G																				
78		24-G																				
95		24-I																				
96		24-I																				
97		24-I																				
128		24-K																				
129		24-K																				
130		24-K																				
27		24-B														S4 X 7.7	h_1 = 18'-3" h_2 = 18'-6"	TYPE 5 D= 1'-3"	0.18	50.1		
30		24-B																				
61		24-D																				
76		24-G																				
79		24-G																				
98		24-I																				
131		24-K																				
9	EXITS 15A-B 72 Poplar Ave Germantown	24	13'-0" 19'-0"	2'-0" 10'-0"	6" TOP ONLY 12"	2" 2"	10" 16" 16"	12" 12"	15"	'EMOD'	36" X 36"	TYPE "G" ⊘ 45°	WHITE (REF)	GREEN (REF)	2-12" & 10-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE USE AUXILIARY SUPPORTS FOR EXIT PANEL - 713-17.02
10	EXIT XX M.P.H. W13-2	24	48"	60"									BLACK	YELLOW (REF)	0.100" SHEET ALUM.	S3 X 5.7	h_1 = 15'-3" h_2 = 15'-9"	TYPE 5 D= 1'-3"	0.18	50.1	6'-0"	SIGN NO. 10 XX = 45
37		24-B																				SIGN NO. 37 XX = 20
46		24-C																				SIGN NO. 46 XX = 30
56		24-D																				SIGN NO. 56 XX = 30
68		24-E																				SIGN NO. 68 XX = 30
123		24-K																				SIGN NO. 123 XX = 25
125		24-K																				SIGN NO. 125 XX = 25
142		24-L																				SIGN NO. 142 XX = 30
142A		24-L																				SIGN NO. 142 XX = 30
11	MILE X X AS REQUIRED D10-2	24-A	(SEE STANDARD DRAWING T-S-11)													PAID FOR UNDER ITEM NO. 713-02.04					4'-0"	SIGN NO. 11 XX = 16
14		24-A																				SIGN NO. 14 XX = 16
102		24-I																				SIGN NO. 102 XX = 14
63		24-E											WHITE (REF)	GREEN (REF)	0.080" SHEET ALUM.	MOUNTED ON BARRIER WALL PAID FOR UNDER ITEM NO. 713-16.20					7'-0"	SIGN NO. 63 XX = 15
66		24-E	12"	36"																		SIGN NO. 66 XX = 15
99		24-I																				SIGN NO. 99 XX = 14
12	X 240 Y Z AS REQUIRED TN-45a	24-A	18"	48"									WHITE (REF)	BLUE (REF)	0.080" SHEET ALUM.	MOUNTED ON MEDIAN BARRIER PAID FOR UNDER ITEM NO. 713-16.20					7'-0"	SIGN NO. 12 X = EAST, Y = 16, Z = 0
13		24-A																				SIGN NO. 13 X = WEST, Y = 16, Z = 0
20		24-A																				SIGN NO. 20 X = EAST, Y = 15, Z = 8
21		24-A																				SIGN NO. 21 X = WEST, Y = 15, Z = 8
34		24-B																				SIGN NO. 34 X = EAST, Y = 15, Z = 6
35		24-B																				SIGN NO. 35 X = WEST, Y = 15, Z = 6
44		24-C																				SIGN NO. 44 X = EAST, Y = 15, Z = 4
45		24-C																				SIGN NO. 45 X = WEST, Y = 15, Z = 4
57		24-D																				SIGN NO. 57 X = EAST, Y = 15, Z = 2
58		24-D																				SIGN NO. 58 X = WEST, Y = 15, Z = 2
64		24-E																				SIGN NO. 64 X = EAST, Y = 15, Z = 0
65		24-E																				SIGN NO. 65 X = WEST, Y = 15, Z = 0
70		24-E																				SIGN NO. 70 X = EAST, Y = 14, Z = 8
71		24-E																				SIGN NO. 71 X = WEST, Y = 14, Z = 8
74		24-F																				SIGN NO. 74 X = EAST, Y = 14, Z = 6
75		24-F																				SIGN NO. 75 X = WEST, Y = 14, Z = 6
82		24-G																				SIGN NO. 82 X = EAST, Y = 14, Z = 4
83		24-G																				SIGN NO. 83 X = WEST, Y = 14, Z = 4
88		24-H																				SIGN NO. 88 X = EAST, Y = 14, Z = 2
89		24-H																				SIGN NO. 89 X = WEST, Y = 14, Z = 2
100		24-I																				SIGN NO. 100 X = EAST, Y = 14, Z = 0
101		24-I																				SIGN NO. 101 X = WEST, Y = 14, Z = 0
108		24-I																				SIGN NO. 108 X = EAST, Y = 13, Z = 8
109		24-I																				SIGN NO. 109 X = WEST, Y = 13, Z = 8
121		24-J																				SIGN NO. 121 X = EAST, Y = 13, Z = 6
122		24-J																				SIGN NO. 122 X = WEST, Y = 13, Z = 6
135		24-K																				SIGN NO. 135 X = EAST, Y = 13, Z = 4
136		24-K																				SIGN NO. 136 X = WEST, Y = 13, Z = 4
143		24-L																				SIGN NO. 143 X = EAST, Y = 13, Z = 2
144		24-L																				SIGN NO. 144 X = WEST, Y = 13, Z = 2
14A	EXITS XX A-B	24-A	4'-0"	7'-6"	6"	2"	12"		15"	EMOD.		TYPE "F" ⊘ 45°	WHITE (REF)	GREEN (REF)	0.125" SHEET ALUM.	MOUNTED ON MEDIAN BARRIER PAID FOR UNDER ITEM NO. 713-17.60					7'-0"	SIGN NO. 14A XX = 15
55		24-E								"D"												SIGN NO. 55 XX = 15
139		24-K					15"			EMOD.												SIGN NO. 139 XX = 13

U-POST SUBSTITUTION TABLE

BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MU1 OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

8/20/2010
w:\6115\transportation\sign-schedule.sht

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

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24-0

SIGN NO	LEGEND		SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
				LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
15	TRUCKS USE RIGHT 2 LANES	TN-60d	24-A	48"	60"									BLACK	WHITE (REF)	0.100" SHEET ALUM.	MOUNTED ON MEDIAN BARRIER PAID FOR UNDER ITEM NO. 713-17.62					7'-0"	
16			24-A																				
17	Int'l Airport FOLLOW 240 WEST	I5	24	30" 14'-0"	30" 5'-0"	9"	2"	13.33" 10"	10"		EMOD.	30"X 24"		WHITE (REF)	GREEN (REF)	0.080" SHEET ALUM. 5 - 12" ALUM. EXTRUSIONS	S6 X 12.5	h_1= 16'-3" h_2= 16'-9"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	USE AUXILIARY SUPPORTS FOR 1-5. PAID FOR UNDER ITEM NO. 713-17.02
18			24-A	36"	36"									BLACK	YELLOW (FLOR.)	0.100" SHEET ALUM.	MOUNTED ON MEDIAN BARRIER PAID FOR UNDER ITEM NO. 713-16.21					7'-0"	
62			24-D																				
92			24-H																				
31			24-B																				
40			24-B	48"	48"												S3 X 5.7	h_1= 13'-3" h_2= 13'-9"	TYPE 5 D= 1'-3"	0.18	50.1		
51			24-C																				
114		W4-1	24-J																				
127			24-K																				
133			24-K																				
22	EXIT 14' - 1"		24	9'-0"	7'-0"	9"	2"	12"			EMOD.	48"X 48" (W2-12)		BLACK	YELLOW (FLOR.)	7 - 12" ALUM. EXTRUSIONS	S6 X 12.5	h_1= 18'-3" h_2= 18'-9"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	
24	EXIT 15A 72 EAST Poplar Ave Germantown EXIT 30 MPH		24-B	10'-0" 19'-0"	2'-0" 13'-0"	6" TOP ONLY 12"	2"	10" 12" 16" 16" 10"	12" 12"	15"	EMOD.	36"X 36"	TYPE "G" ⊘ 45°	WHITE (REF) BLACK	GREEN (REF) YELLOW (FLOR)	2 - 12" & 13 - 12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE USE AUXILIARY SUPPORTS FOR EXIT PANEL - 713-17.02
	EXIT 15B 72 WEST Poplar Ave			10'-0" 15'-0"	2'-0" 10'-0"	6" TOP ONLY 12"	2"	10" 12" 16"	12"	15"		36"X 36"	TYPE "H"	WHITE (REF)	GREEN (REF)	2 - 12" & 10 - 12" ALUM. EXTRUSIONS							
113		E5-1a	24-J	6'-0"	5'-0"																		SIGN NO. 113 XX = 13
26			24-B																				SIGN NO. 26 XXX = 15A
43			24-B																				SIGN NO. 43 XXX = 15B
53	EXIT XXX	E5-1b	24-C	7'-6"	5'-0"	6"	2"	12"		15"	EMOD. "D"		TYPE "G" ⊘ 45°	WHITE (REF)	GREEN (REF)	5 - 12" ALUM. EXTRUSIONS	S5 X 10	h_1= 16'-3" h_2= 16'-3"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	SIGN NO. 53 XXX = 15B
53A			24-C																				SIGN NO. 53A XXX = 15A
119			24-J																				SIGN NO. 119 XXX = 13A
134			24-K																				SIGN NO. 134 XXX = 13B
32			24-B																				
33	AVRON B FOGELMAN EXPRESSWAY	TN-26	24-B	72"	18"									WHITE (REF)	GREEN (REF)	0.100" SHEET ALUM.	S3 X 5.7	h_1= 12'-3" h_2= 12'-9"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	
49			24-C																				
110			24-J																				
36	YIELD	R1-2	24-B	36"X 36"X 36"										RED (REF)	WHITE (REF)	0.080" SHEET ALUM.	MOUNTED ON MEDIAN BARRIER PAID FOR UNDER ITEM NO. 713-16.21					7'-0"	
38	EXIT 15B 72 WEST Poplar Ave EXIT 30 MPH		24-B	10'-0" 19'-0"	2'-0" 11'-0"	6" TOP ONLY 12"	2" 2"	10" 12" 16" 12"	12"	15" 15"	EMOD.	36"X 36"	TYPE "G" ⊘ 45°	WHITE (REF) BLACK	GREEN (REF) YELLOW (FLOR.)	2 - 12" & 11 - 12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE USE AUXILIARY SUPPORTS FOR EXIT PANEL - 713-17.02
	240 EAST Nashville			12'-0"	10'-0"	12"	2"	12" 16"	12"			45"X 36"	TYPE "H"	WHITE (REF) BLACK	GREEN (REF)	10 - 12" ALUM. EXTRUSIONS							

JOHN T. PANKEY — REGISTERED ENGINEER — AGRICULTURE — 102251 — NOVEMBER — 3-22-10 — STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS
DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24P

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
72	EAST 240 M3-2 M1-1	24-E	30"	15"							45"X 36"		WHITE (REF)	BLUE (REF)	0.100" SHEET ALUM.	2½" Ø ø 3.98 # / FT.	h = 15'-0"	TYPE 4 D= 1'-0"	0.12	26.4	7'-0"	
48	NON MOTORIZED TRAFFIC PROHIBITED TN-21	24-C	36"	30"									BLACK	WHITE (REF)	0.100" SHEET ALUM.	2½" Ø ø 3.98 # / FT.	h = 12'-6"	TYPE 4 D= 1'-0"	0.12	26.4	7'-0"	
54	EXIT 15A / 72 EAST / Poplar Ave Germantown EXIT 15B / 72 WEST / Poplar Ave / EXIT 30 MHP	24-C	10'-0" 16'-0" 10'-0" 19'-0"	2'-0" 12'-0" 2'-0" 11'-0"	6" TOP ONLY 12" 6" TOP ONLY 12"	2" 2"	10" 12" 16" 16" 10" 12" 16" 12"	12" 12" 12"	15" 15" 15"	EMOD	35"X 36" 36"X 36"	TYPE "H" TYPE "G" ⊘ 45°	WHITE (REF) BLACK	GREEN (REF) YELLOW (FLOR)	2 - 12"& 12 - 12" ALUM. EXTRUSIONS 2 - 12"& 11 - 12" ALUM. EXTRUSIONS						PROPOSED OVERHEAD SIGN STRUCTURE
59	EXIT 13 / Walnut Grove Road 1¼ Mile	24-D	9'-0" 17'-0"	2'-0" 8'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 10"	12" 12"	15" 15"	EMOD			WHITE (REF)	GREEN (REF)	8-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
67	EXITS 15 A-B / 72 / Poplar Ave Germantown	24-E	13'-0" 19'-0"	2'-0" 10'-0"	6" TOP ONLY 12"	2"	10" 16" 16"	12" 12"	15"	EMOD	36"X 36"	TYPE "G" ⊘ 45°	WHITE (REF)	GREEN (REF)	2 - 12"& 10 - 12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
39 39A	Entering Nonconnah River Watershed / Help keep it clean	24C 24C	10'-0"	7'-0"	USE EXISTING SIGN FACE											W6X15	h_1 = 18'-6" h_2 = 19'-0"	TYPE 5 D= 5'-0"	0.23	63.4	7'-0"	
80	EXIT 13 / Walnut Grove Road ¾MILE	24-G	9'-0" 17'-0"	2'-0" 8'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 10"	12" 12"	15" 10"/10"	EMOD			WHITE (REF)	GREEN (REF)	2-12"& 8-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
81	St Francis Hospital / EXIT 15A EAST	24-G	12'-0"	7'-0"	9"	2"	13.33" 13.33" 10"	10" 10"	12"	EMOD			WHITE (REF)	GREEN (REF)	7-12" ALUM. EXTRUSIONS	W6X15	h_1 = 18'-6" h_2 = 19'-0"	TYPE 6 D= 5'-0"	0.23	63.4	7'-0"	
83A	EXITS 15 A-B / 72 / Poplar Ave Germantown ½ Mile	24-G	13'-0" 16'-0"	2'-0" 11'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 10"	12" 12"	10"/10"	EMOD	36"X 36"		WHITE (REF)	GREEN (REF)	2-12"& 11-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
84	EXIT 13 / Shelby Farms Lucius E Burch Jr Natural Area	24-H	9'-0" 19'-0"	2'-0" 7'-0"	6" TOP ONLY 9"	2"	10" 13.33" 13.33" 10"	10" 10"	15"	EMOD			WHITE (REF)	GREEN (REF)	2-12"& 7-12" ALUM. EXTRUSIONS	W6X15	h_1 = 18'-6" h_2 = 19'-0"	TYPE 6 D= 6'-0"	0.27	76.7	7'-0"	
87	EXIT 13 / University of Phoenix	24-H	9'-0" 12'-0"	2'-0" 5'-0"	6" TOP ONLY 12"	2"	10" 13.33" 13.33"	10" 10"	15"	EMOD			WHITE (REF)	GREEN (REF)	2-12"& 5-12" ALUM. EXTRUSIONS	S6X12.5	h_1 = 16'-3" h_2 = 16'-9"	TYPE 5 D= 6'-0"	0.18	50.1	7'-0"	

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. ENGINEER 10235
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

8/20/2010
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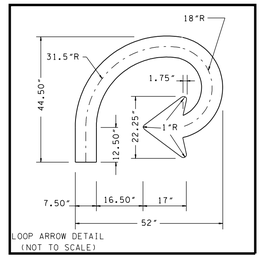
TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	240

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
93	EXIT 13 Baptist Memorial Hospital Memphis	24-H	9'-0" 17'-0"	2'-0" 5'-0"	6" TOP ONLY 9"	2"	10" 13.33" 13.33"	10" 10"	15"	EMOD			WHITE (REF)	GREEN (REF)	2-12" & 5-12" ALUM. EXTRUSIONS	W6X15	h_1 = 16'-3" h_2 = 16'-9"	TYPE 6 D= 5'-6"	0.25	70.7	7'-0"	
94	WEST M3-4 INTERSTATE 240 M1-1 TO M4-5 INTERSTATE 55 M1-1	24-H	30" 45" 30" 36"	15" 36" 15" 36"							45" X 36" 36" X 36"		WHITE (REF)	BLUE (REF)	0.100" SHEET ALUM.	3" Ø @ 4.83 # / FT.	h = 17'-9"	TYPE A D= 1'-0"	0.12	26.4	5'-0"	
91	EXIT 13 Walnut Grove Road EXIT 30 MPH	24-I	9'-0" 20'-0"	2'-0" 9'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 12"	12" 12"	15" 15"	EMOD		TYPE "C" ⊘ 45°	WHITE (REF) BLACK	GREEN (REF) YELLOW (FLOR)	2-12" & 9-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
103	END TRUCK LANE RESTRICTION TN-60f	24-I	48"	60"									BLACK	WHITE (REF)	0.100" SHEET ALUM.	MOUNTED ON MEDIAN BARRIER ITEM 713-17.62					7'-0"	
104	END TRUCK LANE RESTRICTION TN-60e	24-I	96"	48"									BLACK	WHITE (REF)	0.100" SHEET ALUM.	S5X10	h_1 = 15'-3" h_2 = 15'-9"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	
105	EXITS 15 A-B 72 Poplar Ave Germantown 1 Mile	24-I	13'-0" 16'-0"	2'-0" 11'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 10"	12" 12"	15" 15"	EMOD	36" X 36"		WHITE (REF)	GREEN (REF)	2-12" & 11-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
115	University of Phoenix	24-J	9'-0"	3'-0"	3"	1"	8" 8"	6" 6"				TYPE "A"	WHITE (REF)	GREEN (REF)	3-12" ALUM. EXTRUSIONS	S4X7.7	h_1 = 14'-3" h_2 = 14'-9"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	
116	Shelby Farms Lucius E Burch Jr Natural Area	24-J	13'-0"	4'-0"	6"	1"	8" 8" 6"	6" 6"		EMOD		TYPE "A"	WHITE (REF)	GREEN (REF)	4-12" ALUM. EXTRUSIONS	S6X12.5	h_1 = 15'-3" h_2 = 15'-9"	TYPE 5 D= 1'-3"	0.18	50.1	7'-0"	
126	BRIDGE 240 WEST Jackson Miss EXIT 13A EAST Walnut Grove Road	24-K	17'-0" 10'-0" 22'-0"	10'-0" 2'-0" 8'-0"	12" 6" TOP ONLY 12"	2"	12" 16" 10" 12" 16" 16"	12" 12" 12"	15"	EMOD	45" X 36"	TYPE "H" LOOP ARROW	WHITE (REF)	GREEN (REF)	10-12" ALUM. EXTRUSIONS 2-12" & 8-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE



LOOP ARROW DETAIL (NOT TO SCALE)

JOHN T. PANKEY REGISTERED ENGINEER DEPARTMENT OF AGRICULTURE 8-23-10 NUMBER 10235 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24R

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
138	EXIT 13A EAST Walnut Grove Road EXIT 13B WEST Walnut Grove Road	24-K	10'-0" 17'-0" 10'-0" 20'-0"	2'-0" 10'-0" 2'-0" 8'-0"	6" TOP ONLY 12" 6" TOP ONLY 12"	2" 2"	10" 12" 16" 16" 10" 12" 16" 16"	12" 12" 12" 12"	15" 15"	EMOD EMOD		TYPE "H" TYPE "G" ⊘ 45°	WHITE (REF)	GREEN (REF)	2-12" & 10-12" ALUM. EXTRUSIONS 2-12" & 8-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
141	EXITS 13 A-B Walnut Grove Road	24-L	13'-0" 20'-0"	2'-0" 6'-0"	6" TOP ONLY 12"	2"	10" 16" 16"	12" 12"	15"	EMOD		TYPE "G" ⊘ 45°	WHITE (REF)	GREEN (REF)	2-12" & 6-12" ALUM. EXTRUSIONS							PROPOSED OVERHEAD SIGN STRUCTURE
147	EXITS 13 A-B Walnut Grove Road ½ Mile	24-M	13'-0" 17'-0"	2'-0" 8'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 10"	12" 12"	15" 10"/10"	EMOD			WHITE (REF)	GREEN (REF)	2-12" & 8-12" ALUM. EXTRUSIONS							EXISTING OVERHEAD SIGN STRUCTURE
148	EXITS 13 A-B Walnut Grove Road ¾ Mile	24-M	13'-0" 17'-0"	2'-0" 8'-0"	6" TOP ONLY 12"	2"	10" 16" 16" 10"	12" 12"	15" 10"/10"	EMOD			WHITE (REF)	GREEN (REF)	2-12" & 8-12" ALUM. EXTRUSIONS							EXISTING OVERHEAD SIGN STRUCTURE
149	EXIT 13A Shelby Farms Lucius E Burch Jr Natural Area	24-M	10'-0"	2'-0"	6" TOP ONLY	2"	10"		15"	EMOD			WHITE (REF)	GREEN (REF)	2-12" ALUM. EXTRUSIONS							REPLACE EXIT # PANEL
150	EXIT 13A Baptist Memorial Hospital Memphis	24-M	10'-0" 17'-0"	2'-0" 5'-0"	6" TOP ONLY 9"	2"	10" 13.33" 13.33"	10" 10"	15"	EMOD			WHITE (REF)	GREEN (REF)	2-12" & 5-12" ALUM. EXTRUSIONS						7'-0"	NEW SIGN FACE ON EXISTING SUPPORT
151	EXIT 13A University of Phoenix	24-M	10'-0"	2'-0"	6" TOP ONLY	2"	10"		15"	EMOD			WHITE (REF)	GREEN (REF)	2-12" ALUM. EXTRUSIONS							REPLACE EXIT # PANEL
2 3 4 5 6 7 8 19 23 25 41 42 47 50 52 69 73 85 86 90 106 107 111 112 117 118 120 124 132 137 140 145 146	OMITTED																					

JOHN T. PANKEY
REGISTERED ENGINEER
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COMMERCE
102251
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

8/20/2010
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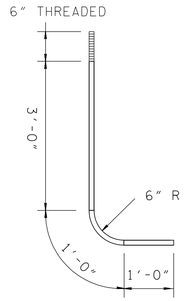
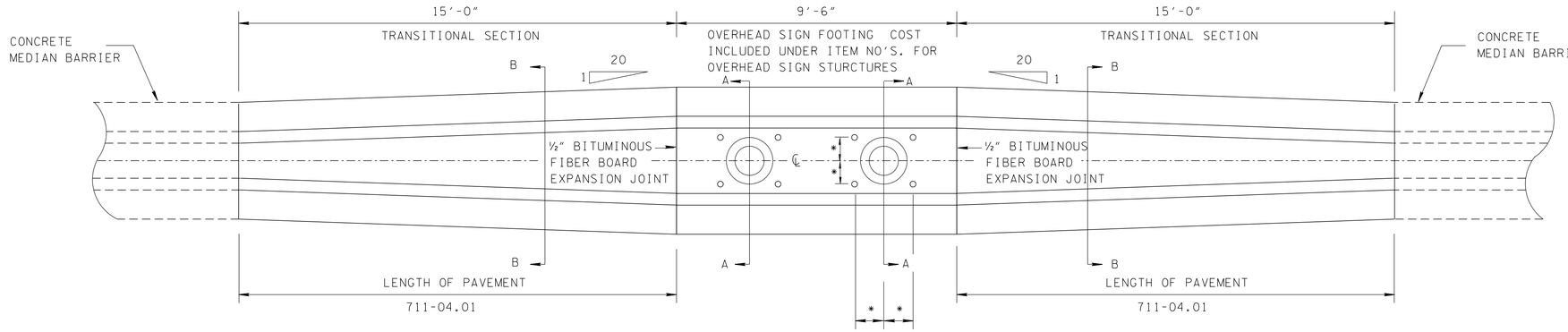
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24S



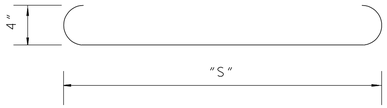
ANCHOR BOLT DETAIL

ASTM A-687 GALVANIZED STEEL (OR AS SUPPLIED BY THE SIGN FABRICATOR)

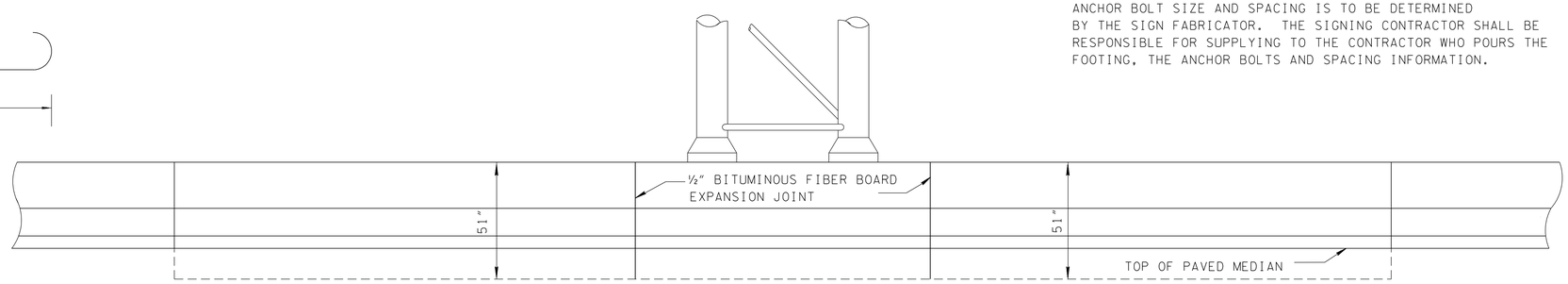


PLAN

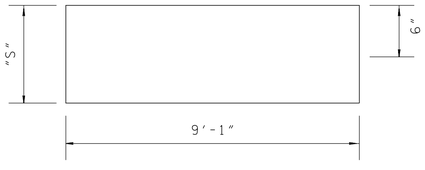
*NOTE:
ANCHOR BOLT SIZE AND SPACING IS TO BE DETERMINED BY THE SIGN FABRICATOR. THE SIGNING CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING TO THE CONTRACTOR WHO POURS THE FOOTING, THE ANCHOR BOLTS AND SPACING INFORMATION.



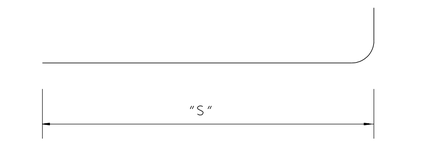
D BARS



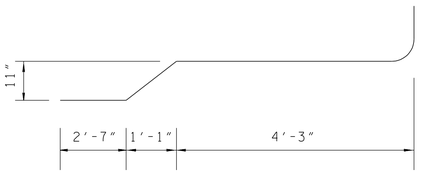
ELEVATION



L BARS



C BARS



BARS CA 700

BAR DETAILS

ESTIMATED QUANTITIES

CLASS "A" CONCRETE	13.0 C.Y.
REINFORCING STEEL	655 LB.

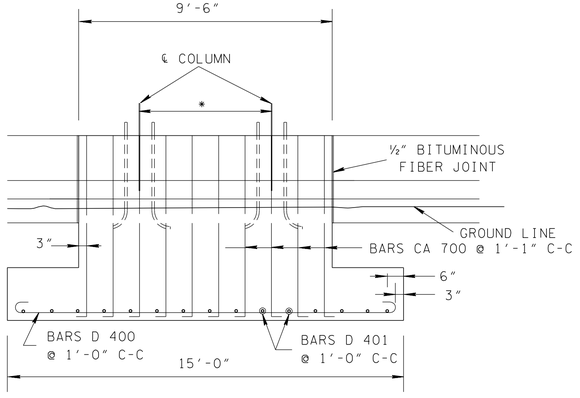
BILL OF STEEL - PER FOOTING

BAR	SIZE	NO. REQ'D.	DIM "S"	LENGTH
C 700	7	4	8'-2"	9'-3"
CA 700	7	20		9'-3"
D 400	4	6	14'-6"	15'-6"
D 401	4	15	5'-6"	6'-6"
L 400	4	3	1'-9"	22'-2"
L 401	4	1	2'-4"	23'-4"
L 402	4	3	3'-7"	25'-10"

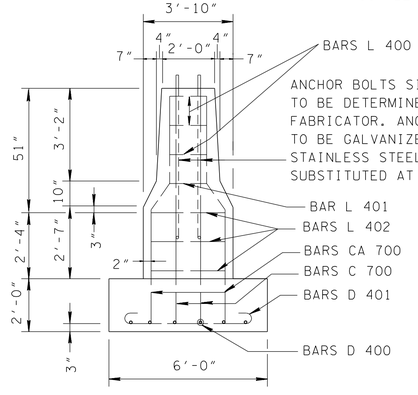
FINISHED CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATIONS. A TEXTURED COATED FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO WHITE FEDERAL SPECIFICATION NO. 37886, A COLOR SAMPLE SHALL BE SUBMITTED TO THE MATERIALS AND TEST ENGINEER FOR APPROVAL. ALL COST OF FINISHING TO BE INCLUDED IN ITEM NO. 711-04.01.

PLASTIC COATED DOWEL BARS WILL BE PERMITTED AS AN ALTERNATE TO PAINTED AND GREASED DOWEL BARS. THE PLASTIC COATING SHALL BE AN APPROVED HIGH DENSITY POLYETHELENE 17 MILS *(± 2 MILS) BONDED TO THE BAR WITH AN APPROVED ADHESIVE 1 TO 8 MILS THICK (4 MILS NOMINAL).

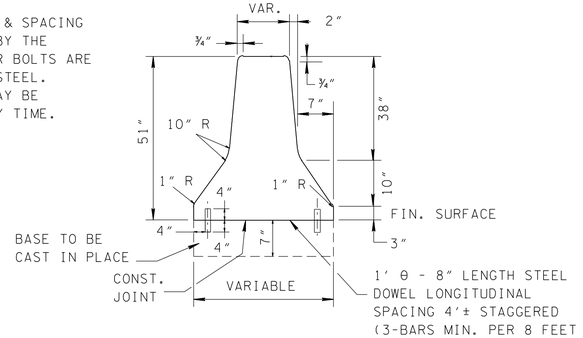
PRICE OF BARRIER INCLUDES COST OF ALL REINFORCEMENT, DOWELS, DRILLING, JOINTS, JOINT MATERIAL AND ANY OTHER INCIDENTAL ITEMS NECESSARY FOR COMPLETE INSTALLATION OF THE BARRIER.



FOOTING F-1



SECTION "A-A"



SECTION "B-B"

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

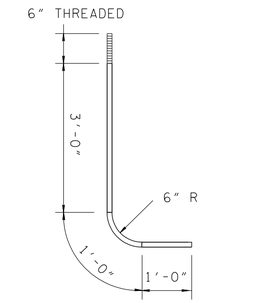
DETAILS
OVERHEAD SIGN STRUCTURE
MOUNTED ON CONCRETE MEDIAN BARRIER

51" WALL

8/20/2010
w:\6115\transportation\SignDetails.sht

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

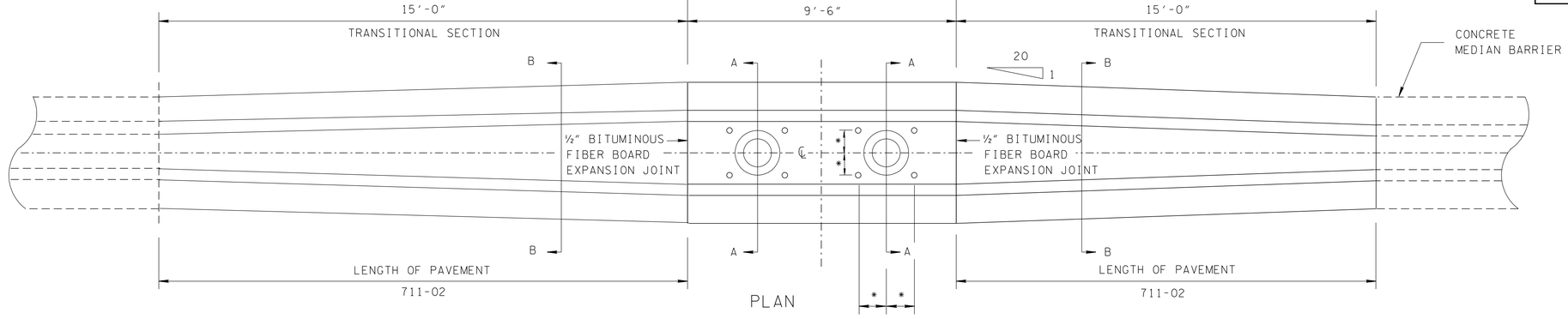
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24T



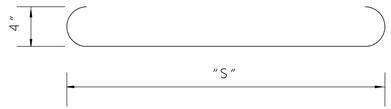
ANCHOR BOLT DETAIL

ASTM A-687 GALVANIZED STEEL (OR AS SUPPLIED BY THE SIGN FABRICATOR)

OVERHEAD SIGN FOOTING COST INCLUDED UNDER ITEM NO'S. FOR OVERHEAD SIGN STURCTURES

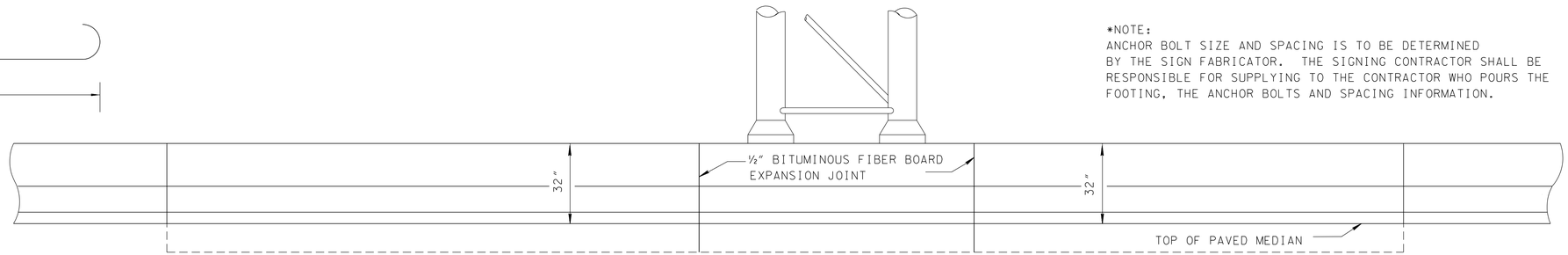


PLAN

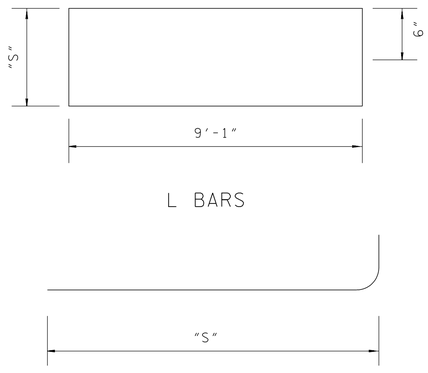


D BARS

*NOTE:
ANCHOR BOLT SIZE AND SPACING IS TO BE DETERMINED BY THE SIGN FABRICATOR. THE SIGNING CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING TO THE CONTRACTOR WHO POURS THE FOOTING, THE ANCHOR BOLTS AND SPACING INFORMATION.



ELEVATION



L BARS

C BARS

BARS CA 700

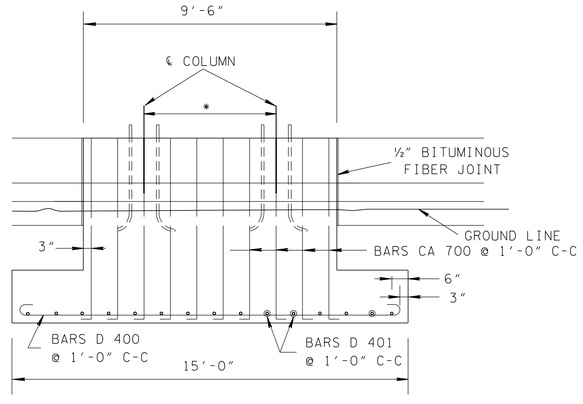
BAR DETAIL

ESTIMATED QUANTITIES

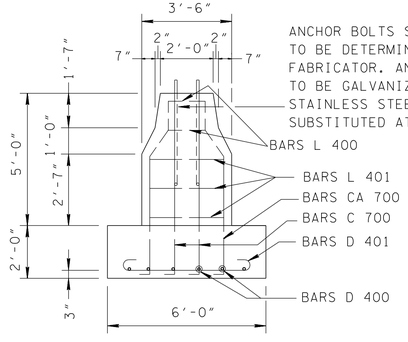
CLASS "A" CONCRETE	11.9 C.Y.
REINFORCING STEEL	588 LB.

BILL OF STEEL - PER FOOTING

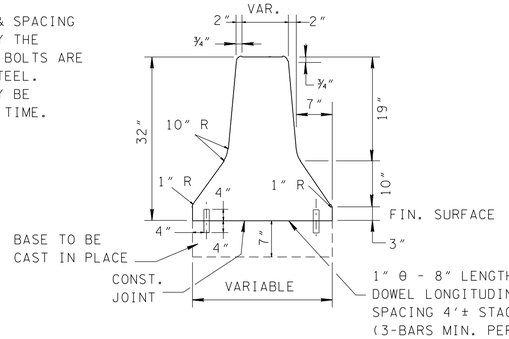
BAR	SIZE	NO. REQ'D.	DIM "S"	LENGTH
C 700	7	4	6'-6"	7'-6"
CA 700	7	20		7'-10"
D 400	4	6	14'-6"	15'-6"
D 401	4	15	5'-6"	6'-6"
L 400	4	2	1'-7"	21'-10"
L 401	4	3	3'-1"	24'-10"



FOOTING F-1



SECTION "A-A"



SECTION "B-B"

FINISHED CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY THE SPECIAL PROVISION NO. 130 REGARDING SECTION 604-CONCRETE STRUCTURES. A TEXTURED COATED FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO WHITE FEDERAL SPECIFICATION NO. 37778, A COLOR SAMPLE SHALL BE SUBMITTED TO THE MATERIALS AND TEST ENGINEER FOR APPROVAL. ALL COST OF FINISHING TO BE INCLUDED IN ITEM NO. 711-02.

PLASTIC COATED DOWEL BARS WILL BE PERMITTED AS AN ALTERNATE TO PAINTED AND GREASED DOWEL BARS. THE PLASTIC COATING SHALL BE AN APPROVED HIGH DENSITY POLYETHELENE 17 MILS (± 2 MILS) BONDED TO THE BAR WITH AN APPROVED ADHESIVE 1 TO 8 MILS THICK (4 MILS NOMINAL).

PRICE OF BARRIER INCLUDES COST OF ALL REINFORCEMENT, DOWELS, DRILLING, JOINTS, JOINT MATERIAL AND ANY OTHER INCIDENTAL ITEMS NECESSARY FOR COMPLETE INSTALLATION OF THE BARRIER.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

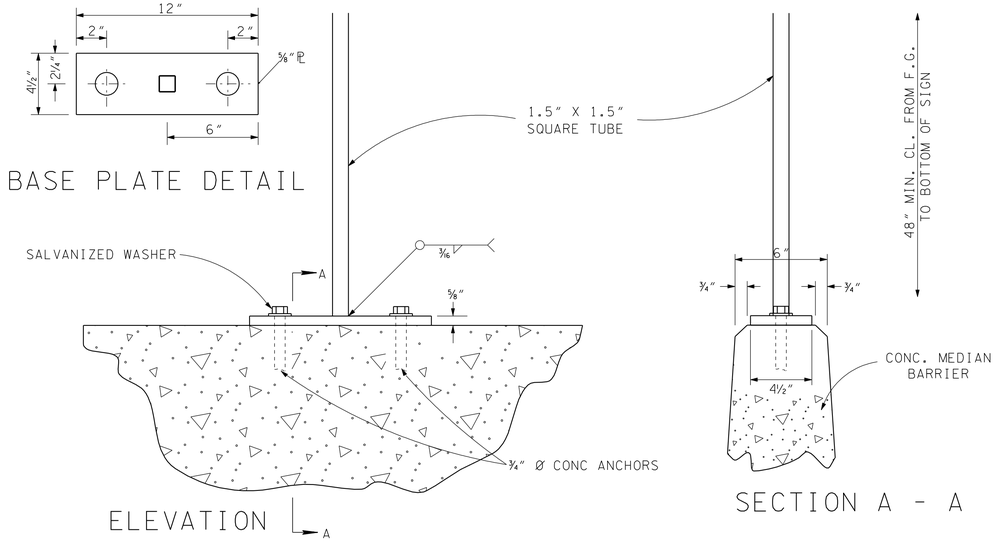
DETAILS
OVERHEAD SIGN STRUCTURE
MOUNTED ON CONCRETE MEDIAN BARRIER

32" WALL

8/20/2010
w:\6115\transportation\SignDetails.sht

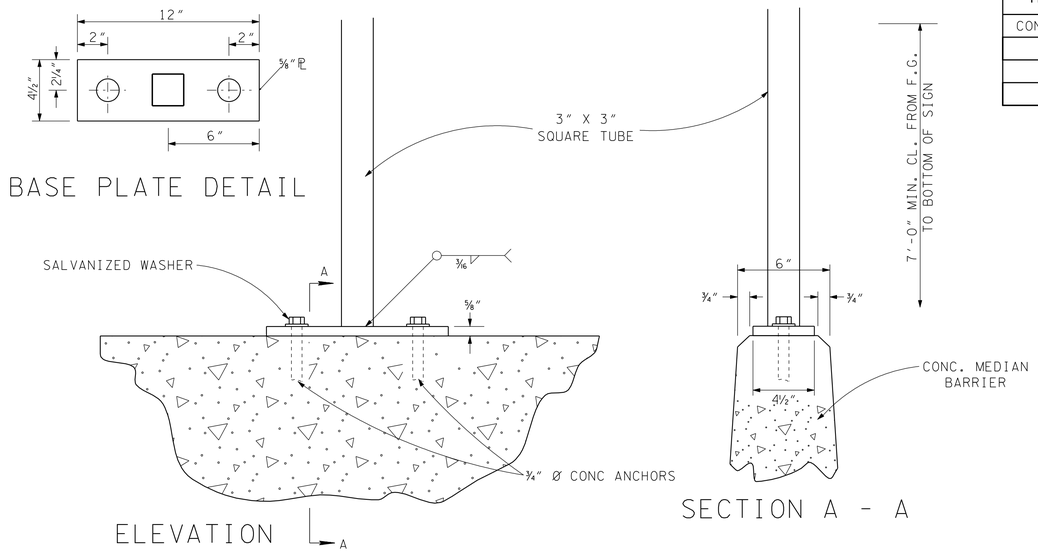
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24U



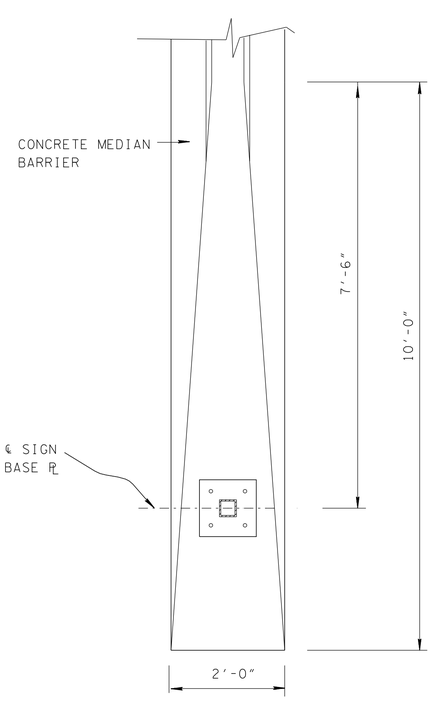
EMERGENCY SIGNING (AND OTHER SIGNING) MOUNTED ON MEDIAN BARRIER WALL

NOTES: AFTER UNIT IS FABRICATED IT SHALL BE GALVANIZED PER ASTM A123.
ALL PARTS AND FABRRICATION OF THIS UNIT (INCLUDING SIGN FACE AND 1.5" X 1.5" SQUARE TUBE) SHALL BE PAID FOR UNDER ITEM NO. 713-16.20.

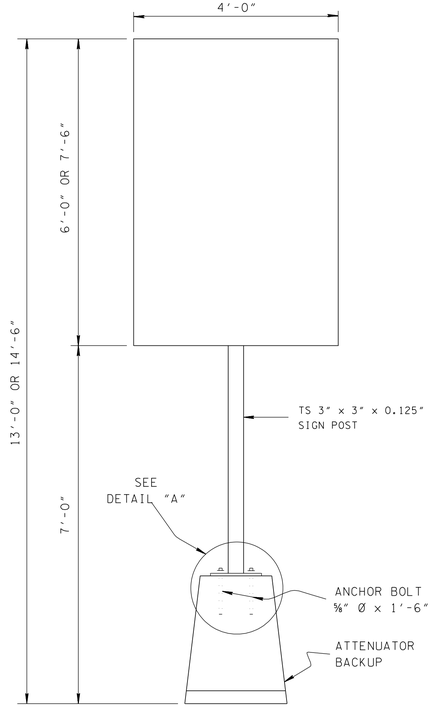


DETAILS FOR SIGNS MOUNTED ON CONCRETE MEDIAN BARRIER & NOISE BARRIER

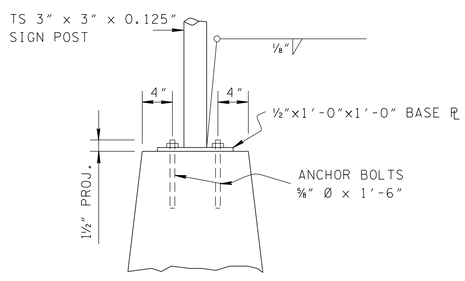
NOTES: AFTER UNIT IS FABRICATED IT SHALL BE GALVANIZED PER ASTM A123.
ALL PARTS AND FABRRICATION OF THIS UNIT (INCLUDING 3" X 3" SQUARE TUBE) SHALL BE PAID FOR UNDER ITEM NO. 713-16.21.



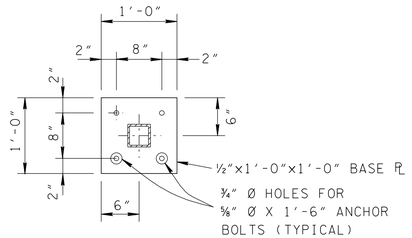
PLAN



ELEVATION



DETAIL "A"



BASE PL DETAILS

MATERIAL SPECIFICATIONS

1. WELDING SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
2. ALL STEEL SHALL BE GALVANTIZED AFTER FABRICATION AND CONFORMING TO THE REQUIREMENTS OF ASTM A123. DAMAGE TO THE COATING SHALL BE REPAIRED SUBSEQUENT TO ERECTION.
3. MATERIAL FOR STEEL STRUCTUREAL SHAPES AND PLATES SHALL BE ASTM-A36 STEEL.
4. ALL BOLTS SHALL BE ⅝" O GALVANIZED A325 STEEL.

ESTIMATED QUANTITIES

ITEM NO. 713-17.60
SIGN SUPPORT MOUNTED ON MEDIAN BARRIER RAIL
1*

* NOTE:
COST OF SIGN SUPPORT ASSEMBLY IN PLACE SHALL BE PER EACH.
COST OF SIGN FACE SHALL BE PAID AS ITEM NO. 713-13.04.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
COMMERCE
102252
8-23-10
STATE OF TENNESSEE

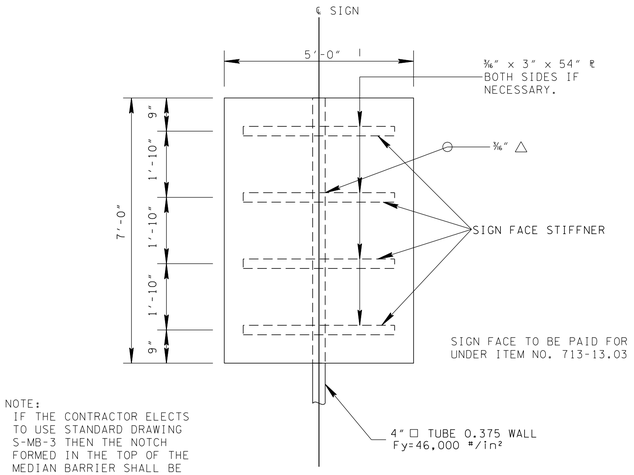
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MISC DETAILS

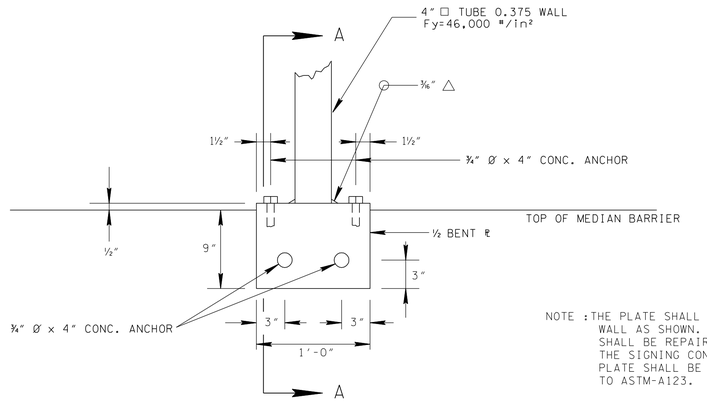
8/20/2010
w:\615\transportation\SignDetails.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	24V

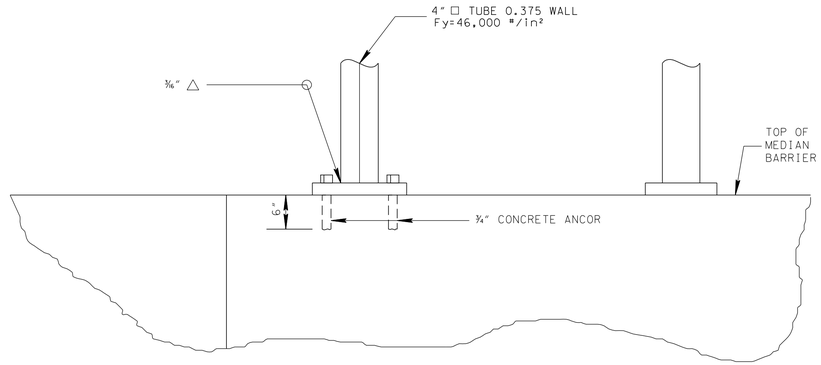


NOTE:
IF THE CONTRACTOR ELECTS TO USE STANDARD DRAWING S-MB-3 THEN THE NOTCH FORMED IN THE TOP OF THE MEDIAN BARRIER SHALL BE NO DEEPER THEN 19".



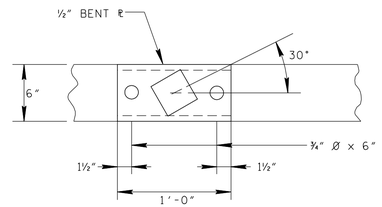
NOTE : THE PLATE SHALL BE MOUNTED OVER THE WALL AS SHOWN. ANY DAMAGE TO THE WALL SHALL BE REPAIRED AT THE EXPENCE OF THE SIGNING CONTRACTOR. POST AND PLATE SHALL BE GALVANIZED ACCORDING TO ASTM-A123.

SADDLE ATTACHMENT FOR SIGNS



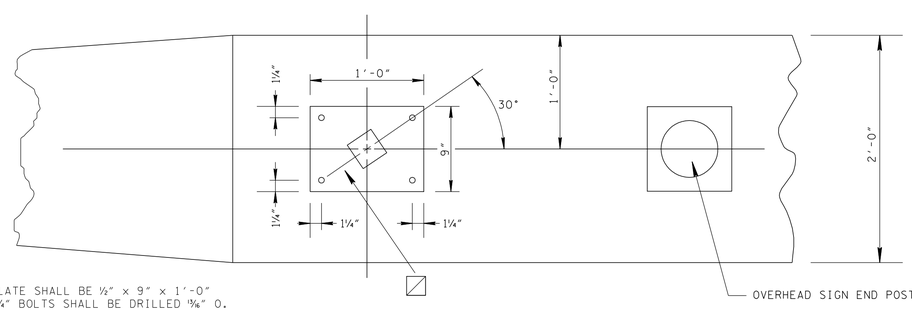
ELEVATION

SHOWING THE EXISTING MEDIAN BARRIER



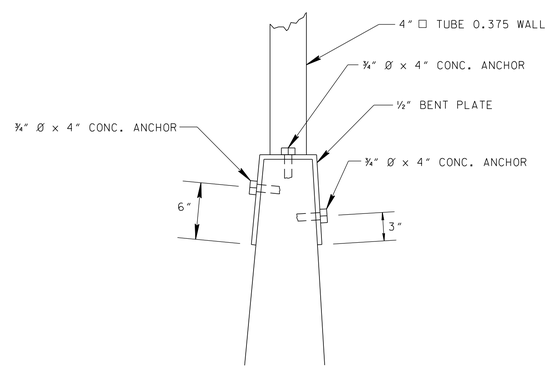
PLAN

PAID FOR UNDER ITEM NO. 713-17.62 (INCLUDES FABRICATION AND INSTALLTION OF BASE PLATE, POST, SIGN FACE STIFFNER, HARD WARE AND ECT.)



PLAN

DETAIL SIGNS MOUNTED ON CONCRETE MEDIAN BARRIER (12" X 9" BASE)



SECTION A-A

JOHN T. PANLEY
REGISTERED ENGINEER
AGRICULTURE
No. 10235
8-23-10
STATE OF TENNESSEE

NOTE:
AFTER ALL WELDING IS COMPLETED THE SIGN SUPPORT SHALL BE THOROUGHLY CLEANED AND GALVANIZED PER ASTM A-123 MATERIAL FOR ¾" O HIGH STRENGTH BOLTS SHALL BE A 325 GALVANIZED STEEL. STAINLESS STEEL MAY BE SUBSTITUTED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING DETAILS

8/20/2010
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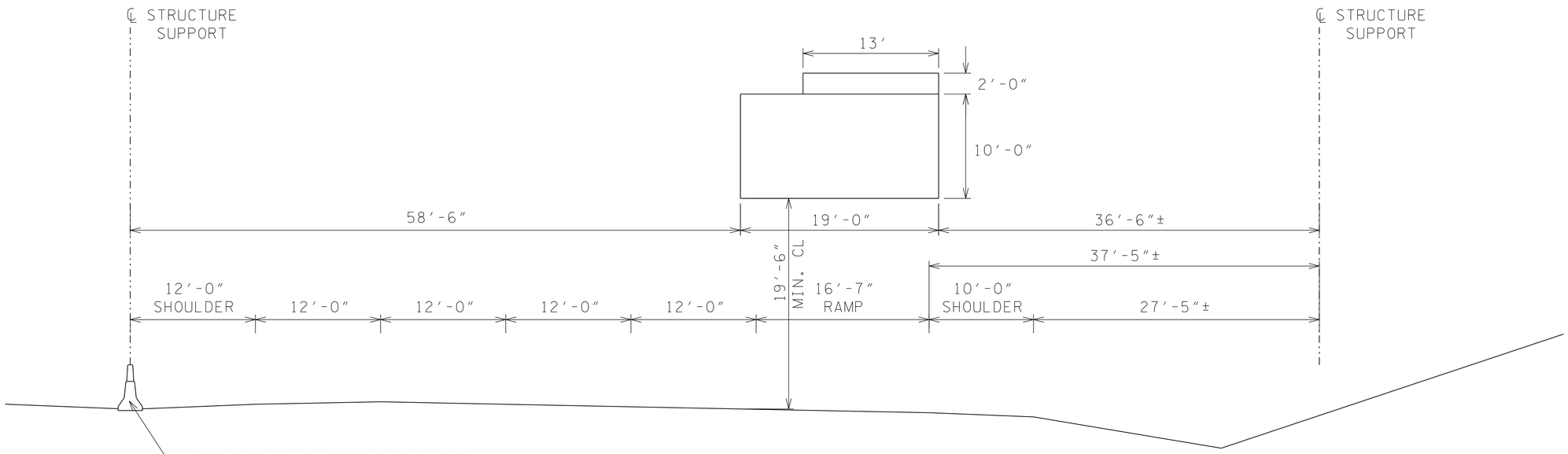
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24W

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 114'-0"



OVERHEAD STRUCTURE

SIGN NO. 9
STA. 527+90± I-240 E.B.L.

DESIGN DATA

SIGN DESIGN AREA = 646 SQ FT

SIGN STRUCTURE
I.D. NUMBER
79SNM395124

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 9 OVER RAMP.

JOHN T. PANKEY — REGISTERED ENGINEER — AGRICULTURE — 10235 — STATE OF TENNESSEE — 8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 9

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-124

8/20/2010
w:\6il5\transportation\OverheadSignLayouts.sht

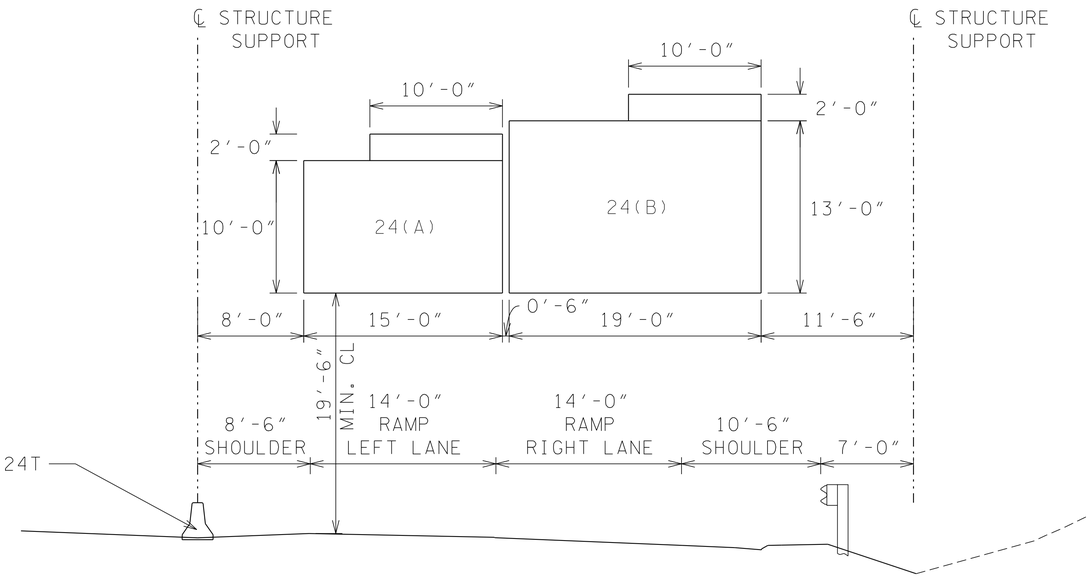
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24X

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 54′-0″



OVERHEAD STRUCTURE

SIGN NO. 24
STA. 31+75± C.D. RD. 1

DESIGN DATA

SIGN DESIGN AREA = 442 SQ FT

SIGN STRUCTURE
I.D. NUMBER
79SNM395125

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN 24(A) OVER LEFT LANE OF C.D. RD. 1.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
ENGINEER
No. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 24

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-125

8/20/2010
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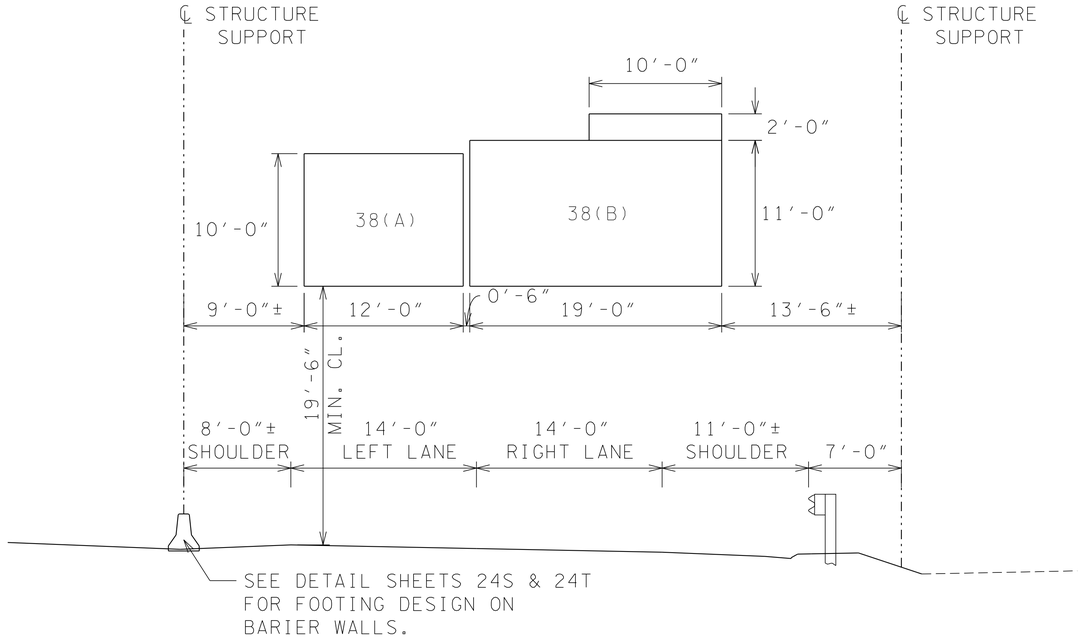
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24Y

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 54'-0"±



OVERHEAD STRUCTURE

SIGN NO. 38
STA. 38+50± C.D. RD. 1

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 38(A) OVER LEFT LANE OF C.D. RD. 1.

DESIGN DATA

SIGN DESIGN AREA = 349 SQ FT

SIGN STRUCTURE
I.D. NUMBER
79SNM395126

JOHN T. PANKEY
REGISTERED
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 38

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-126

8/20/2010
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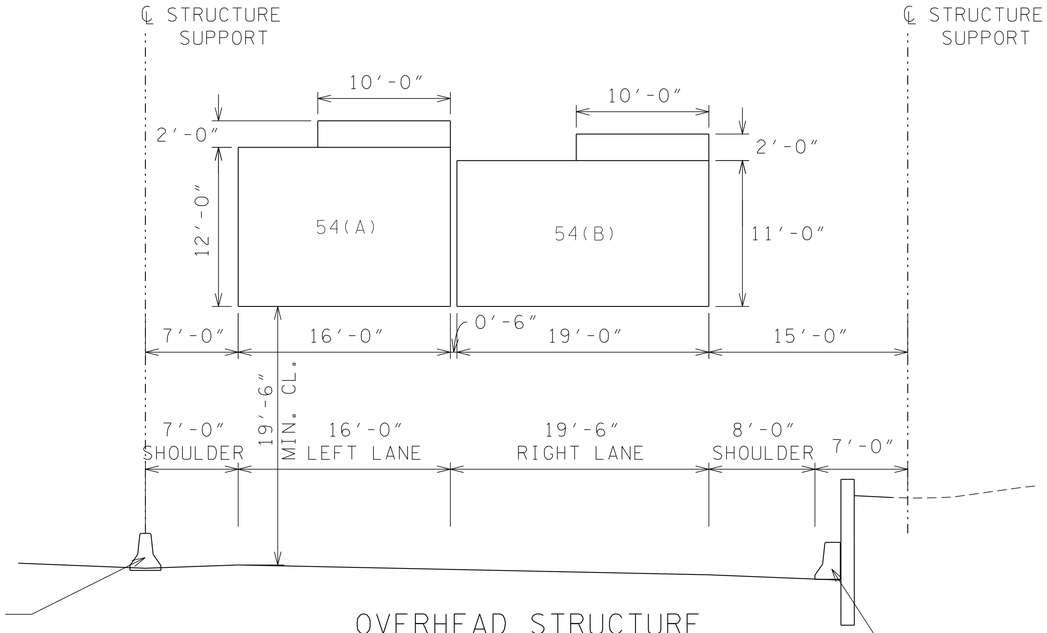
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24Z

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 57'-6"



SEE DETAIL SHEETS 24S & 24T FOR FOOTING DESIGN ON BARIER WALLS.

SEE DETAIL SHEETS 24S & 24T FOR FOOTING DESIGN ON BARIER WALLS.

OVERHEAD STRUCTURE

SIGN NO. 54
STA. 35+35± RAMP 15C

DESIGN DATA

SIGN DESIGN AREA = 426 SQ FT

SIGN STRUCTURE I.D. NUMBER 79SNM395127

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 54(A) OVER LEFT LANE OF RAMP 15C.

JOHN T. PANKEY — REGISTERED — AGRICULTURE — 102351 — STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 54

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-127

8/20/2010
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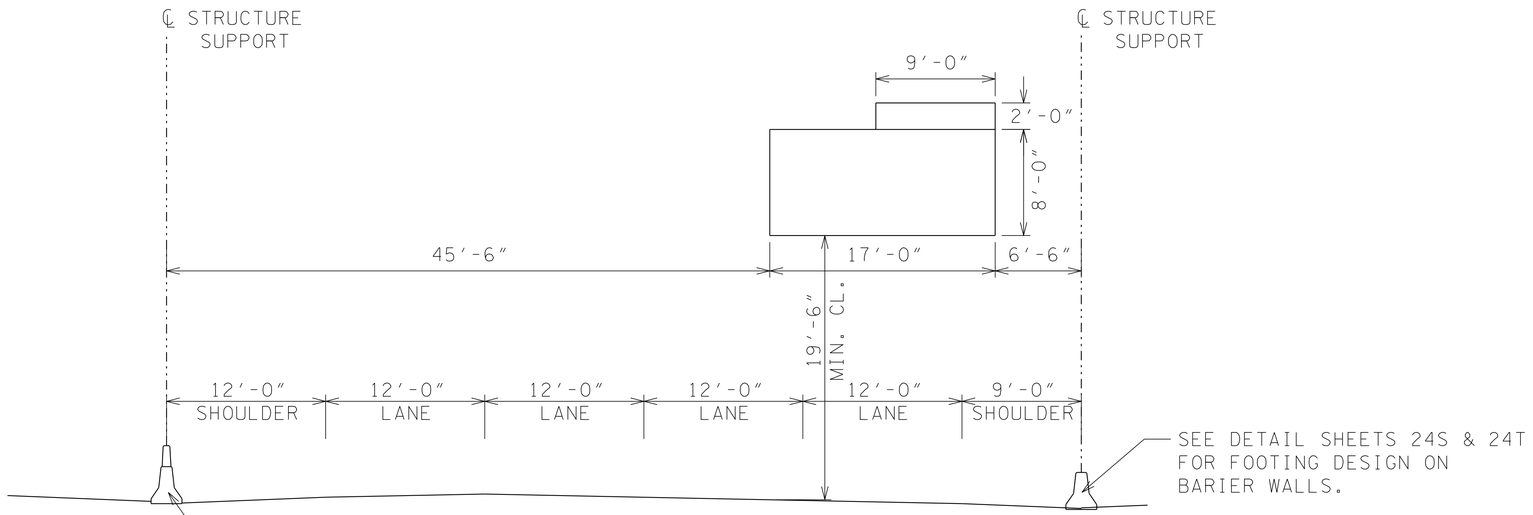
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24AA

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 69′-0″



OVERHEAD STRUCTURE

SIGN NO. 59
STA. 580+00± I-240 E.B.L.

SIGN STRUCTURE
I.D. NUMBER
79SNM395128

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 59 OVER OUTSIDE EAST BOUND LANE OF I-240.

DESIGN DATA

SIGN DESIGN AREA = 384 SQ FT

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
ENGINEER
102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 59

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-128

8/20/2010
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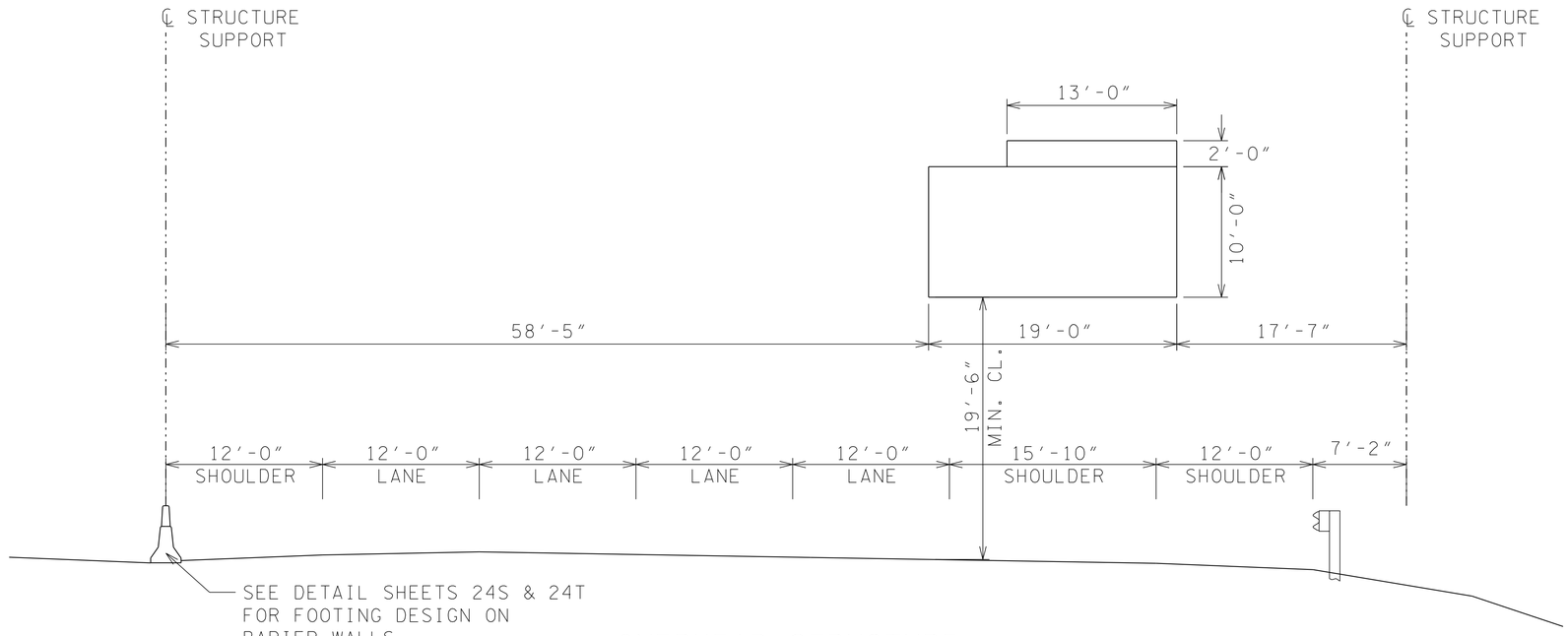
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24BB

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 95'-0"



OVERHEAD STRUCTURE

SIGN NO. 67
STA. 589+25± I-240 W.B.L.

SIGN STRUCTURE
I.D. NUMBER
79SNM395129

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 67 OVER RAMP.

DESIGN DATA

SIGN DESIGN AREA = 638 SQ FT

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 67

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-129

8/20/2010
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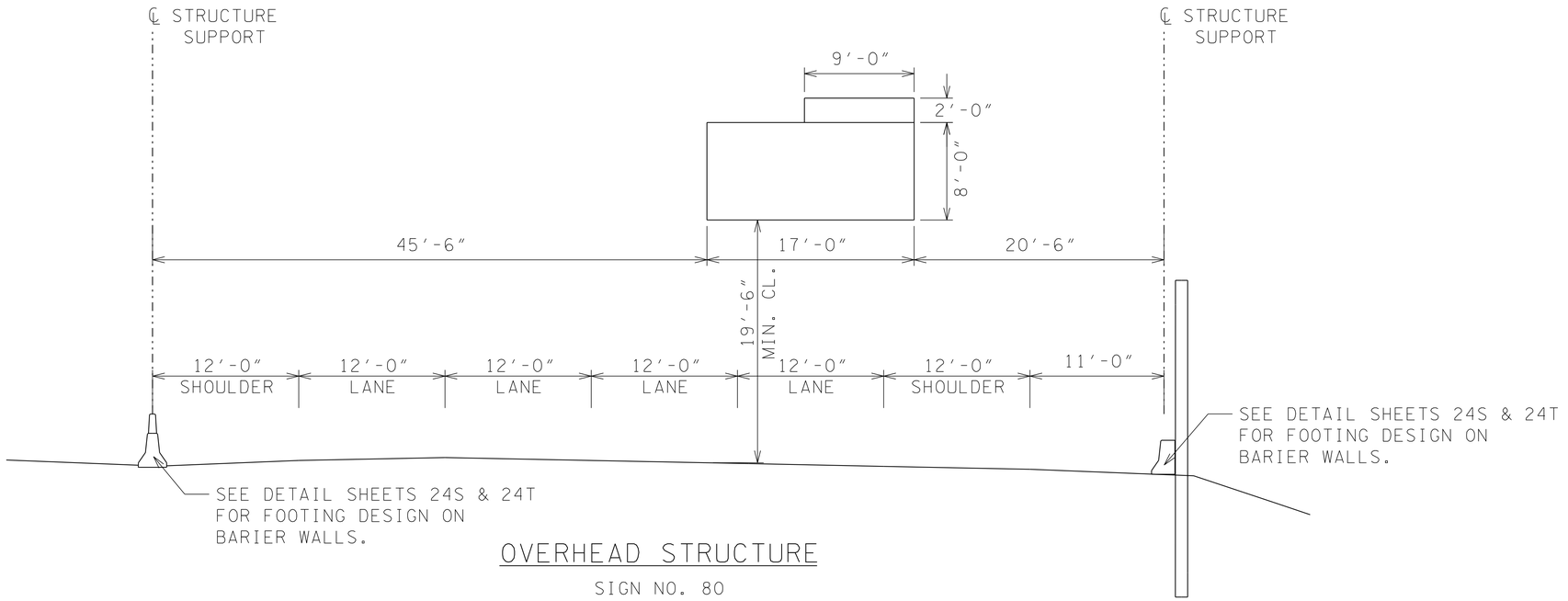
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24CC

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 83'-0"



OVERHEAD STRUCTURE

SIGN NO. 80
STA. 608+90± I-240 E.B.L.

DESIGN DATA

SIGN DESIGN AREA = 384 SQ FT

SIGN STRUCTURE
I.D. NUMBER
79SNM395130

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 80 OVER OUTSIDE EAST BOUND LANE OF I-240.

JOHN T. PANKEY
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
NO. 102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 80

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-130

8/20/2010
w:\6115\transportation\OverheadSignLayouts.sht

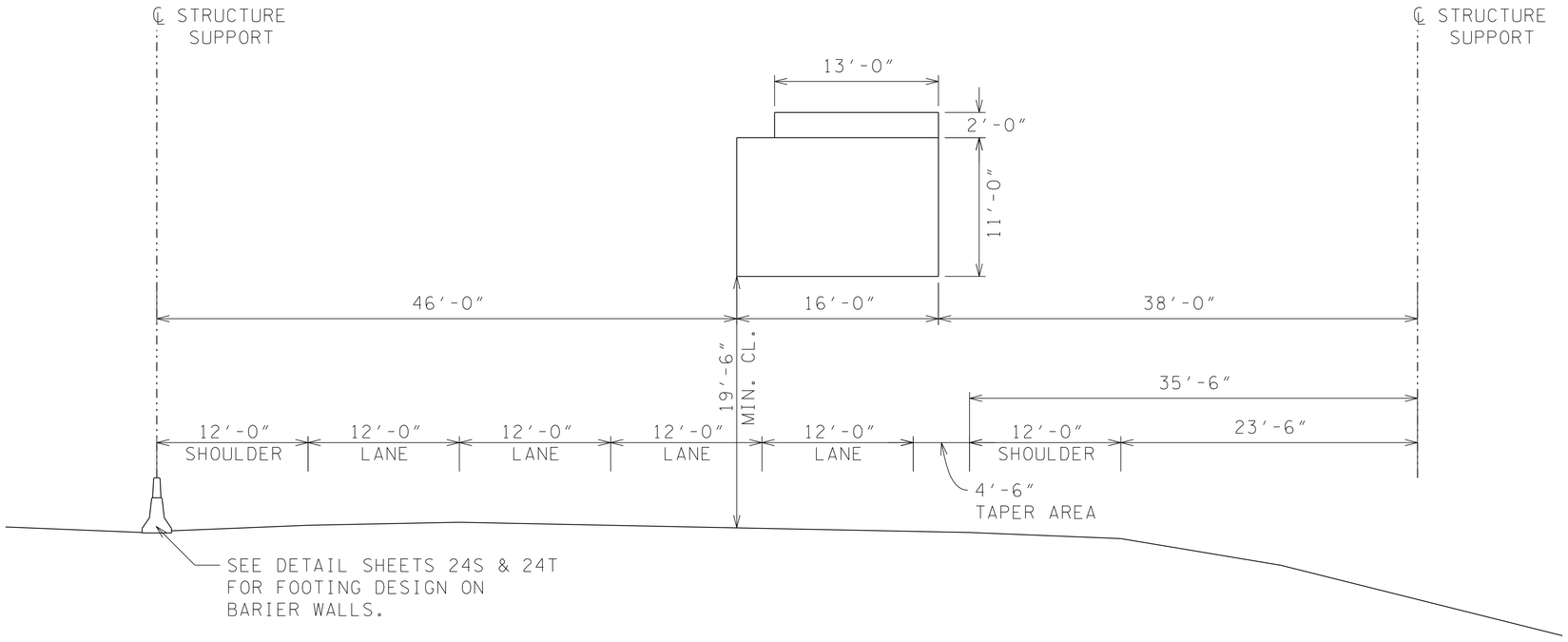
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24DD

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 100'-0"



OVERHEAD STRUCTURE

SIGN NO. 83A
STA. 618+05± I-240 W.B.L.

SIGN STRUCTURE
I.D. NUMBER
79SNM395131

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 83A OVER OUTSIDE WEST BOUND LANE OF I-240.

DESIGN DATA

SIGN DESIGN AREA = 578 SQ FT

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
102351
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 83A

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-131

8/20/2010
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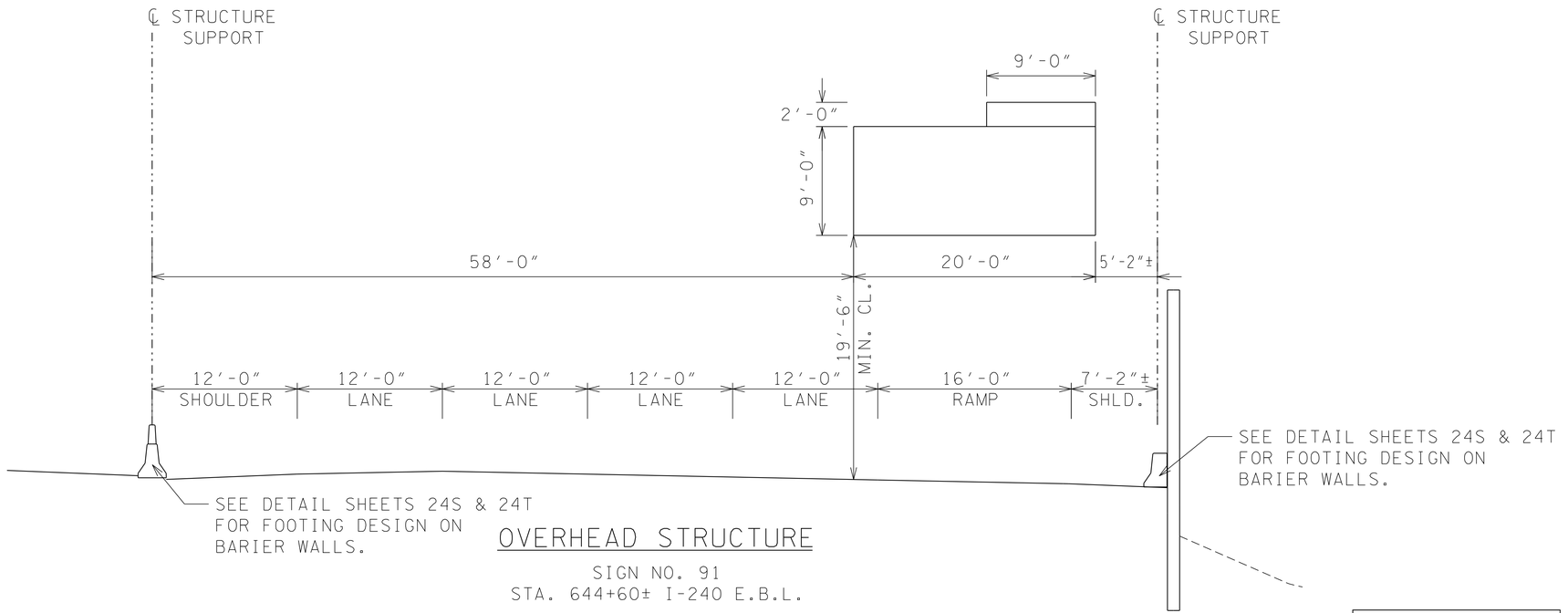
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24EE

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 83'-2"±



OVERHEAD STRUCTURE

SIGN NO. 91
STA. 644+60± I-240 E.B.L.

SIGN STRUCTURE
I.D. NUMBER
79SNM395132

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 91 OVER RAMP.

DESIGN DATA

SIGN DESIGN AREA = 576 SQ FT

JOHN T. PANKEY
REGISTERED
LICENSED
PROFESSIONAL
ENGINEER
AGRICULTURE
8-23-10
NO. 102350
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 91

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-132

8/20/2010
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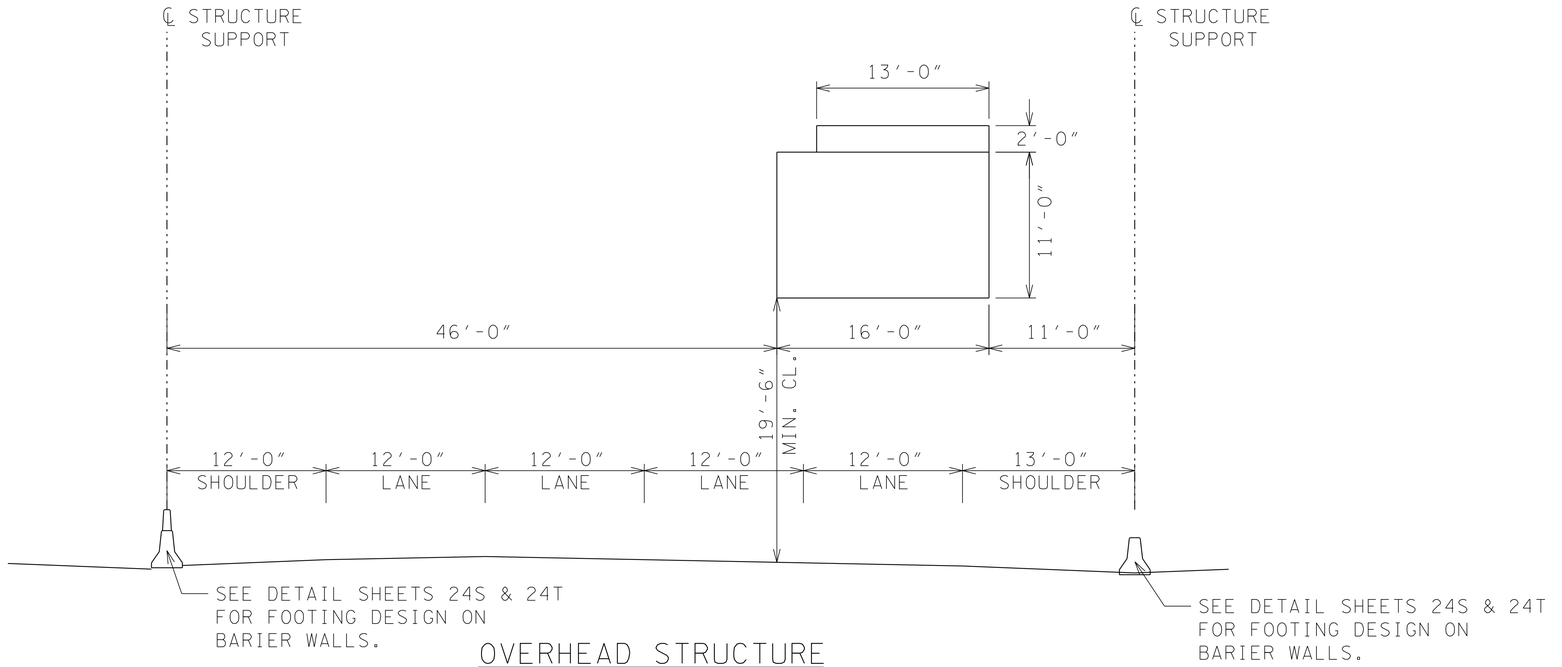
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24FF

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 73'-0"



OVERHEAD STRUCTURE

SIGN NO. 105
STA. 642+00± I-240 W.B.L.

SIGN STRUCTURE
I.D. NUMBER
79SNM395133

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 105 OVER OUTSIDE WEST BOUND LANE OF I-240.

DESIGN DATA

SIGN DESIGN AREA = 528 SQ FT

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NUMBER 10235
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 105

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-133

8/20/2010
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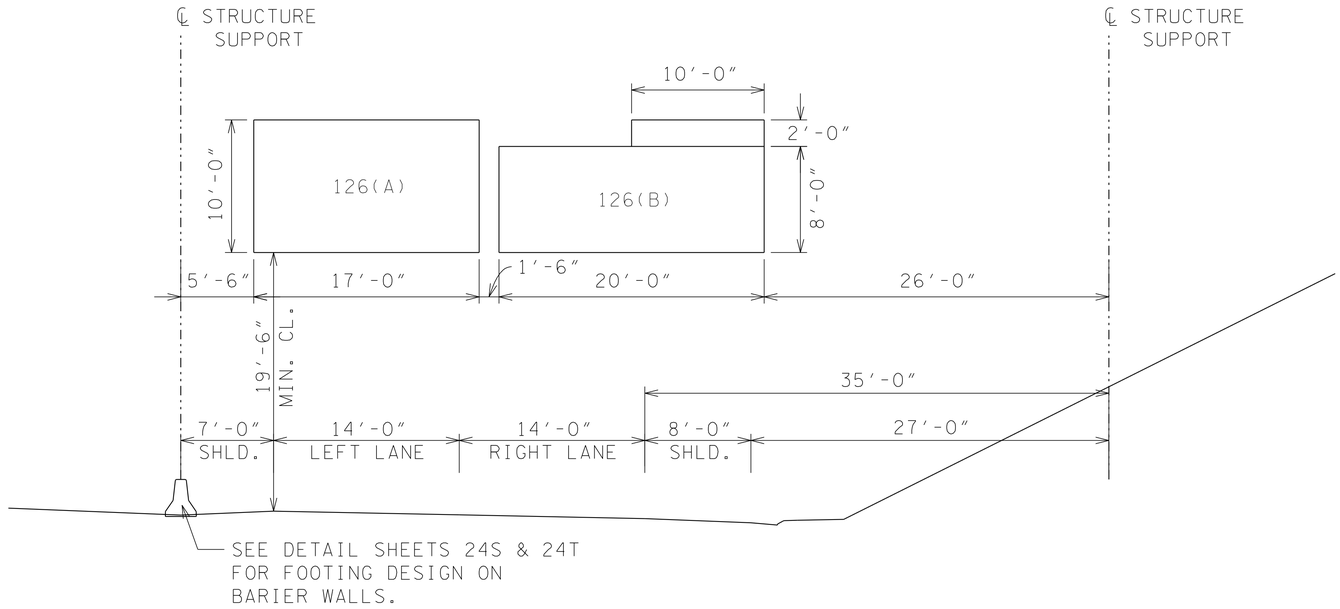
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24GG

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 70'-0"



OVERHEAD STRUCTURE

SIGN NO. 126
STA. 33+00± C.D. RD. 2

DESIGN DATA

SIGN DESIGN AREA = 370 SQ FT

SIGN STRUCTURE
I.D. NUMBER
79SNM395134

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 126(A) OVER LEFT LANE OF C.D. RD. 2.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 126

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-134

8/20/2010
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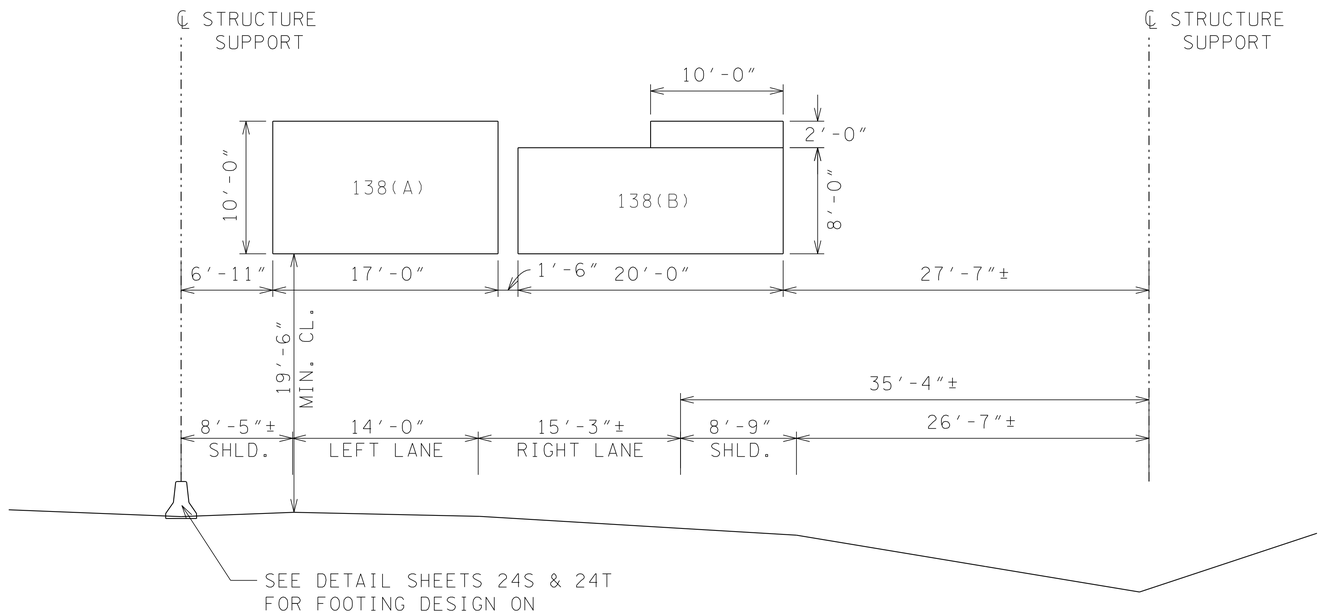
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24HH

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 73'-0"



SEE DETAIL SHEETS 24S & 24T FOR FOOTING DESIGN ON BARIER WALLS.

OVERHEAD STRUCTURE

SIGN NO. 138
STA. 24+75± C.D. RD. 2

DESIGN DATA

SIGN DESIGN AREA = 370 SQ FT

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 138(A) OVER LEFT LANE OF C.D. RD. 2.

SIGN STRUCTURE
I.D. NUMBER
79SNM395135

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 138

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-135

8/20/2010
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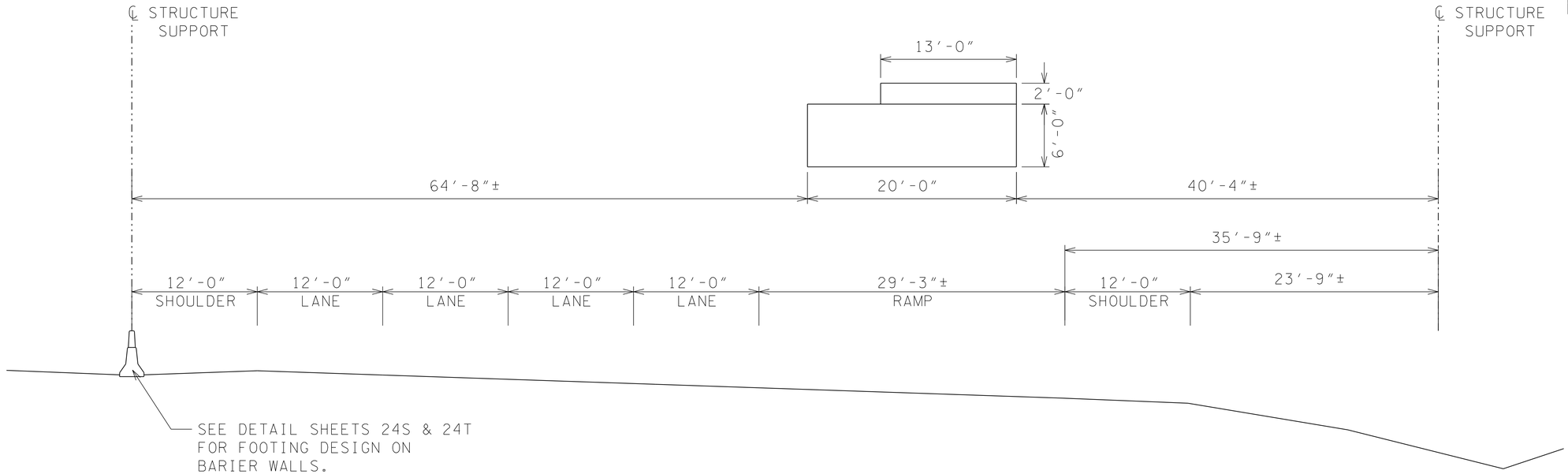
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

PROJECT NO.	YEAR	SHEET NO.
STP-I-240(290)	2010	24-II

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN= 125'-0"



OVERHEAD STRUCTURE

SIGN NO. 141
STA. 674+30± I-240 W.B.L.

SIGN STRUCTURE
I.D. NUMBER
79SNM395136

--NOTES--

NOTE:
PRIOR TO ORDERING ANY MATERIAL, THE CONTRACTOR SHALL FIELD MEASURE THIS SIGN STRUCTURE TO VERIFY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT LISTED IN THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THIS STANDARD. (THIS STANDARD DRAWING CAN BE FOUND ON THE TDOT WEBSITE UNDER "TDOT SERVICES INDEX" AND THEN "STANDARD DRAWINGS".

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

CENTER SIGN NO. 141 OVER CENTER OF RAMP.

DESIGN DATA

SIGN DESIGN AREA = 464 SQ FT

JOHN T. PANKEY JR. REGISTERED PROFESSIONAL ENGINEER IN AGRICULTURE 8-27-10 NO. 102351 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHELBY CO.
I-240
SIGN NO. 141

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-395-136

8/20/2010
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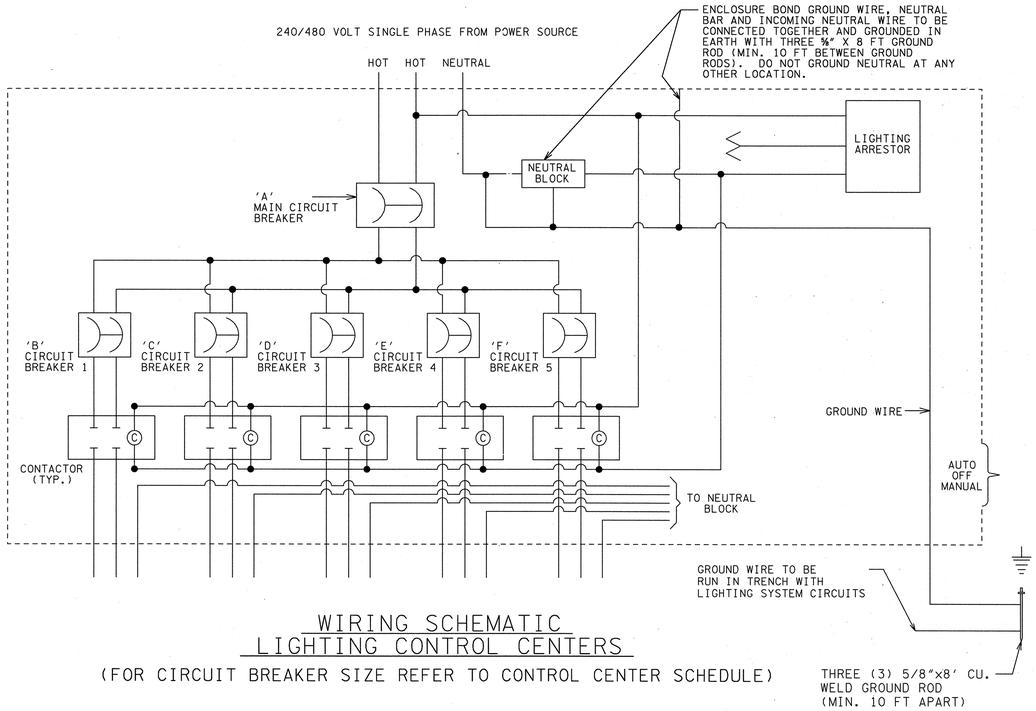
TENNESSEE D.O.T.
DESIGN DIVISION
FILE—NO.

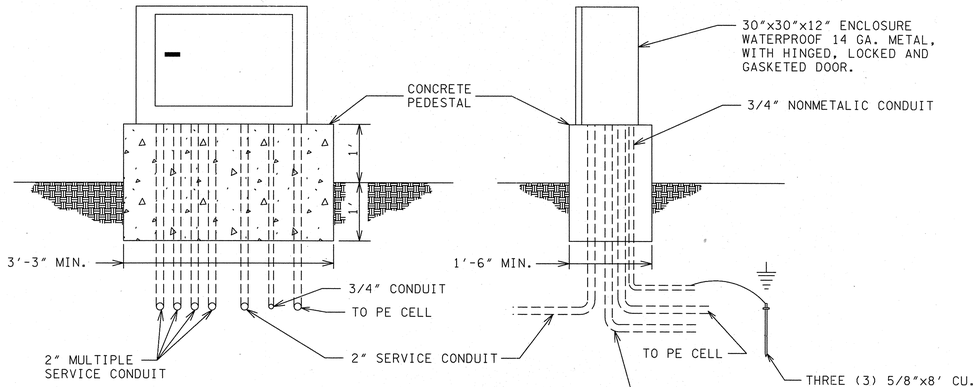
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22
CONST.	2010	STP-I-240(290)	25

REV.: 01-29-09 SHEET ADDED TO PLANS.



WIRING SCHEMATIC
LIGHTING CONTROL CENTERS

(FOR CIRCUIT BREAKER SIZE REFER TO CONTROL CENTER SCHEDULE)



PAD MOUNTED CONTROLLER CONSTRUCTION DETAIL

N.T.S

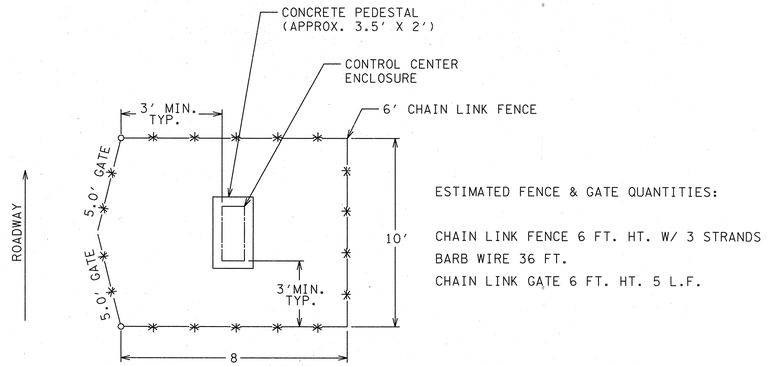
CONTROL CENTER SCHEDULE

	CONTROL CENTER NO.	MAIN CIRCUIT BREAKER (AMPS) 'A'	BRANCH CIRCUIT BREAKERS (AMPS) CIR. 1 'B'	CIR. 2 'C'	CIR. 3 'D'	CIR. 4 'E'	CIR. 5 'F'	BASELINE	STATION	OFFSET (FT)	SIDE	SHEET NO.
(1)	CC1	150	20	20	30	30	30	I-240	553+30	320	RT	25H
(2)	CC2	100	20	20	30	30	NA	RAMP 15-E	46+59	35	RT	25H
(2)	CC3	100	30	30	30	SPARE	NA	RAMP 15-A	13+68	67	RT	25H
(2)	CC4	60	20	20	SPARE	SPARE	NA	I-240	562+45	165	LT	25H
(2)	CC5	150	20	20	40	40	NA	WALNUT GROVE RD	196+31	167	RT	25Q
(2)	CC6	150	20	20	30	30	NA	WALNUT GROVE RD	189+86	166	LT	25Q

(1) SHALL CONSIST OF FIVE (5) TWO POLE, SINGLE THROW CIRCUIT BREAKERS.
(2) SHALL CONSIST OF FOUR (4) TWO POLE, SINGLE THROW CIRCUIT BREAKERS.

CONTROL CENTER NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND INSTALLATION UP TO AND INCLUDING WEATHERHEAD.
2. CONTRACTOR SHALL INSTALL A 100 AMP DISCONNECT FOR EACH CONTROL CENTER AS DIRECTED BY THE ENGINEER AND MLGW.
3. CONTRACTOR TO COORDINATE FINAL LOCATION OF CONTROL CENTERS WITH MLGW AND THE ENGINEER.
4. FOR ELECTRICAL SERVICE CONNECTION, CONTACT, CHEW SHANNON, OF MLGW, (901) 528-4211.
5. LIGHTING SYSTEM SHALL BE 240/480 VOLT SINGLE PHASE SERVICE. LUMINAIRES SHALL HAVE 240 VOLT OPERATION.
6. CONTRACTOR SHALL BALANCE LOADS ON EACH CIRCUIT.
7. THE CONTROL CENTER SHALL BE ENCLOSED BY A CHAIN LINK FENCE AS SHOWN IN DETAIL 'A'.
8. THE CONTROL CENTER CABINET DOOR SHALL FACE AND OPEN TOWARDS THE ROADWAY.
9. THE PHOTO ELECTRIC CELL SHALL BE LOCATED ON THE POWER POLE.



FENCE ENCLOSURE FOR CONTROL CENTER DETAIL 'A'

N.T.S

FENCE ENCLOSURE NOTES

10. THE FENCE ENCLSOURE SHALL BE CONSTRUCTED SO THAT THE CONTROL CENTER IS CENTERED WITHIN THE ENCLOSURE.
11. THE GATE OPENING SHALL FACE AND OPEN TOWARDS THE ROADWAY.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONTROL CENTER DETAILS

SCALE: NONE

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

OFFSET LIGHT POLE SCHEDULE

	LIGHT POLE NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
	LP 1	25F	250	240/480	A	1	1	1	45	I-240	513+40	82.4	RT	298633.0034	810868.1022
	LP 2	25F	250	240/480	A	1	1	1	45	I-240	515+20	82.5	RT	298813.3592	810908.9307
	LP 3	25F	250	240/480	A	1	1	1	45	I-240	517+05	81.8	RT	299001.0208	810938.8764
	LP 4	25F	250	240/480	A	1	1	1	45	I-240	518+85	82.5	RT	299183.9318	810958.3635
	LP 5	25F	250	240/480	A	1	1	1	45	I-240	520+70	82.7	RT	299370.7132	810970.5939
	LP 6	25F	250	240/480	A	1	1	1	45	I-240	522+55	80.7	RT	299555.6116	810978.7100
	LP 7	25F	250	240/480	A	1	1	1	45	I-240	524+40	84.6	RT	299740.1214	810992.7373
	LP 8	25F	250	240/480	A	1	1	1	45	I-240	526+15	90.8	RT	299914.5295	811008.3638
	LP 9	25F	250	240/480	A	1	1	1	45	I-240	527+55	95.6	RT	300054.0710	811020.8664
	LP 10	25F	250	240/480	A	1	1	1	45	I-240	529+00	100.7	RT	300198.5660	811033.8129
	LP 11	25G	250	240/480	A	1	1	2	45	I-240	530+50	106.0	RT	300348.0538	811047.2066
	LP 12	25G	250	240/480	A	1	1	2	45	I-240	531+95	109.7	RT	300492.6410	811058.8005
	LP 13	25G	250	240/480	A	1	1	2	45	I-240	533+45	106.6	RT	300642.5883	811063.8665
	LP 14	25G	250	240/480	A	1	1	2	45	I-240	534+95	RET. WALL	RT	NA	NA
	LP 15	25G	250	240/480	A	1	1	2	45	I-240	536+50	RET. WALL	RT	NA	NA
	LP 16	25G	250	240/480	A	1	1	2	45	I-240	538+00	RET. WALL	RT	NA	NA
	LP 17	25G	250	240/480	A	1	1	2	45	I-240	539+15	RET. WALL	RT	NA	NA
	LP 18	25G	250	240/480	A	1	1	2	45	I-240	540+55	RET. WALL	RT	NA	NA
	LP 19	25G	250	240/480	A	1	1	2	45	RAMP 15-G	28+66	RET. WALL	RT	NA	NA
	LP 20	25G	250	240/480	A	1	1	2	45	RAMP 15-G	30+06	RET. WALL	RT	NA	NA
	LP 21	25F	250	240/480	A	1	3	1	45	I-240	514+15	80.7	LT	298744.6198	810727.4936
	LP 22	25F	250	240/480	A	1	3	1	45	I-240	516+05	80.4	LT	298925.8848	810763.6784
	LP 23	25F	250	240/480	A	1	3	1	45	I-240	517+95	80.8	LT	299109.2944	810787.7746
	LP 24	25F	250	240/480	A	1	3	1	45	I-240	519+80	80.6	LT	299290.7146	810802.3741
	LP 25	25F	250	240/480	A	1	3	1	45	I-240	521+65	80.3	LT	299474.5028	810813.0614
	LP 26	25F	250	240/480	A	1	3	1	45	I-240	523+20	83.4	LT	299629.4434	810818.4009
	LP 27	25F	250	240/480	A	1	3	1	45	I-240	524+65	RET. WALL	LT	NA	NA
	LP 28	25F	250	240/480	A	1	3	1	45	I-240	526+15	89.3	LT	299924.3298	810828.5630
	LP 29	25F	250	240/480	A	1	3	1	45	I-240	527+55	92.1	LT	300064.2899	810833.3862
	LP 30	25F	250	240/480	A	1	3	1	45	I-240	529+00	95.0	LT	300209.2183	810838.3807
	LP 31	25G	250	240/480	A	1	3	1	45	RAMP 15-D	38+01	20.0	RT	300359.1545	810843.5477
	LP 32	25G	250	240/480	A	1	3	1	45	RAMP 15-D	36+57	RET. WALL	RT	NA	NA
	LP 33	25G	250	240/480	A	1	3	1	45	RAMP 15-D	35+06	RET. WALL	RT	NA	NA
	LP 34	25G	250	240/480	A	1	3	1	45	RAMP 15-D	33+56	20.0	RT	300803.9793	810858.8769
	LP 35	25G	250	240/480	A	1	3	1	45	RAMP 15-D	32+01	20.0	RT	300958.9188	810864.2163
	LP 36	25G	250	240/480	A	1	3	1	45	RAMP 15-D	30+71	20.0	RT	301088.8677	810868.6945
	LP 37	25G	250	240/480	A	1	3	1	45	RAMP 15-D	29+36	20.0	RT	301223.8133	810873.3449
	LP 38	25G	250	240/480	A	1	3	1	45	RAMP 15-D	27+92	RET. WALL	RT	NA	NA
	LP 39	25G	250	240/480	A	1	3	1	45	RAMP 15-D	26+62	RET. WALL	RT	NA	NA
	LP 40	25G	250	240/480	A	1	3	1	45	RAMP 15-D	25+22	RET. WALL	RT	NA	NA
	LP 41	25H	250	240/480	A	1	3	1	45	RAMP 15-D	23+92	RET. WALL	RT	NA	NA
(1)	LP 42	25T	250	240/480	B	2	2	1	45	NA	NA	NA	NA	303176.5530	812152.1513
(1)	LP 43	25H	250	240/480	B	2	2	1	45	NA	NA	NA	NA	303252.4504	811929.2861
(2)	LP 44	25T	250	240/480	B	2	2	1	45	NA	NA	NA	NA	303121.4240	812002.4060
(2)	LP 45	25H	250	240/480	B	2	2	1	45	NA	NA	NA	NA	303191.3640	811791.0980
	LP 46	25H	250	240/480	A	1	2	1	45	RAMP 15-E	55+64	RET. WALL	RT	NA	NA
	LP 47	25J	250	240/480	A	1	2	1	45	RAMP 15-E	56+89	RET. WALL	RT	NA	NA
	LP 48	25J	250	240/480	A	1	2	1	45	RAMP 15-E	58+14	RET. WALL	RT	NA	NA
	LP 49	25J	250	240/480	A	1	2	1	45	CD ROAD-1	59+39	RET. WALL	RT	NA	NA
	LP 50	25J	250	240/480	A	1	2	1	45	CD ROAD-1	60+64	RET. WALL	RT	NA	NA
	LP 51	25J	250	240/480	A	1	2	1	45	CD ROAD-1	61+94	RET. WALL	RT	NA	NA
	LP 52	25J	250	240/480	A	1	2	1	45	CD ROAD-1	63+24	RET. WALL	RT	NA	NA
	LP 53	25J	250	240/480	A	1	2	1	45	CD ROAD-1	64+49	RET. WALL	RT	NA	NA
	LP 54	25J	250	240/480	A	1	2	1	45	CD ROAD-1	64+74	RET. WALL	RT	NA	NA
	LP 55	25J	250	240/480	A	1	2	1	45	CD ROAD-1	66+99	RET. WALL	RT	NA	NA
	LP 56	25J	250	240/480	A	1	2	1	45	CD ROAD-1	68+39	RET. WALL	RT	NA	NA
	LP 57	25K	250	240/480	A	1	2	1	45	I-240	583+20	RET. WALL	RT	NA	NA
	LP 58	25K	250	240/480	A	1	2	2	45	I-240	584+50	RET. WALL	RT	NA	NA
	LP 59	25K	250	240/480	A	1	2	2	45	I-240	586+00	RET. WALL	RT	NA	NA
	LP 60	25K	250	240/480	A	1	2	2	45	I-240	587+65	RET. WALL	RT	NA	NA

A	OFFSET LUMINAIRE	(1)	RELOCATED POLE
B	COBRA HEAD LUMINAIRE WITH 8' ARM	(2)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC2
C	HIGH MAST LUMINAIRE	(3)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC5
D	UNDERPASS WALL MOUNTED LUMINAIRE	(4)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC6

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22A
CONST.	2010	STP-I-240(290)	25A

REV.: 01-29-09 SHEET ADDED TO PLANS.

NOTES:

1. LUMINAIRES ON THE SAME CIRCUIT SHALL BE WIRED ON ALTERNATING PHASES.
2. THE CONTRACTOR IS TO ENSURE THAT LIGHTING LOADS ARE DISTRIBUTED AS EVENLY AS POSSIBLE ON EACH PHASE.

BRENDA BOOKER
REGISTERED
LANDSCAPE ARCHITECT
No. 1012
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
(POLE DATA)

8/7/2010 7:10:18 PM
C:\Booker\VOL_ACTIVE\TDOT\E026\SHELBY\OLJ-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025A.SHT

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

OFFSET LIGHT POLE SCHEDULE CONTINUED

LIGHT POLE NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
LP 61	25K	250	240/480	A	1	2	2	45	I-240	589+35	RET. WALL	RT	NA	NA
LP 62	25K	250	240/480	A	1	2	2	45	I-240	591+05	RET. WALL	RT	NA	NA
LP 63	25K	250	240/480	A	1	2	2	45	I-240	592+80	RET. WALL	RT	NA	NA
LP 64	25K	250	240/480	A	1	2	2	45	I-240	594+70	RET. WALL	RT	NA	NA
LP 65	25L	250	240/480	A	1	2	2	45	I-240	596+50	RET. WALL	RT	NA	NA
LP 66	25L	250	240/480	A	1	2	2	45	I-240	598+30	RET. WALL	RT	NA	NA
LP 67	25L	250	240/480	A	1	2	2	45	I-240	600+15	RET. WALL	RT	NA	NA
LP 68	25L	250	240/480	A	1	2	2	45	I-240	601+95	RET. WALL	RT	NA	NA
LP 69	25L	250	240/480	A	1	2	2	45	I-240	603+80	RET. WALL	RT	NA	NA
LP 70	25L	250	240/480	A	1	2	2	45	I-240	605+65	RET. WALL	RT	NA	NA
LP 71	25L	250	240/480	A	1	5	1	45	I-240	607+50	RET. WALL	RT	NA	NA
LP 72	25M	250	240/480	A	1	5	1	45	I-240	609+35	RET. WALL	RT	NA	NA
LP 73	25M	250	240/480	A	1	5	1	45	I-240	611+15	RET. WALL	RT	NA	NA
LP 74	25M	250	240/480	A	1	5	1	45	I-240	613+00	NOISE WALL	RT	NA	NA
LP 75	25M	250	240/480	A	1	5	1	45	I-240	614+85	NOISE WALL	RT	NA	NA
LP 76	25M	250	240/480	A	1	5	1	45	I-240	616+70	NOISE WALL	RT	NA	NA
LP 77	25M	250	240/480	A	1	5	1	45	I-240	618+60	80.0	RT	309117.1217	811761.7695
LP 78	25M	250	240/480	A	1	5	1	45	I-240	620+35	80.0	RT	309290.5110	811785.4508
LP 79	25N	250	240/480	A	1	5	1	45	I-240	622+30	80.0	RT	309483.7191	811811.8391
LP 80	25N	250	240/480	A	1	5	1	45	I-240	624+15	88.7	RT	309665.8353	811845.4940
LP 81	25N	250	240/480	A	1	5	2	45	I-240	625+95	88.0	RT	309844.2783	811869.1583
LP 82	25N	250	240/480	A	1	5	2	45	I-240	627+80	86.4	RT	310027.7831	811892.6413
LP 83	25N	250	240/480	A	1	5	2	45	I-240	629+65	76.7	RT	310212.3985	811908.0769
LP 84	25N	250	240/480	A	1	5	2	45	I-240	631+35	69.2	RT	310381.8514	811923.6375
LP 85	25N	250	240/480	A	1	5	2	45	I-240	632+90	79.5	RT	310534.0300	811954.8307
LP 86	25P	250	240/480	A	1	5	2	45	I-240	634+50	88.0	RT	310691.4142	811984.8595
LP 87	25P	250	240/480	A	1	5	2	45	I-240	635+95	88.0	RT	310835.0804	812004.4813
LP 88	25P	250	240/480	A	1	5	2	45	I-240	637+45	88.0	RT	310983.7006	812024.7798
LP 89	25P	250	240/480	A	1	5	2	45	I-240	638+90	RET. WALL	RT	NA	NA
LP 90	25P	250	240/480	A	1	5	2	45	I-240	640+30	RET. WALL	RT	NA	NA
LP 91	25P	250	240/480	A	1	5	2	45	I-240	641+80	RET. WALL	RT	NA	NA
LP 92	25P	250	240/480	A	1	5	2	45	I-240	643+30	RET. WALL	RT	NA	NA
LP 93	25P	250	240/480	A	1	5	2	45	I-240	644+80	RET. WALL	RT	NA	NA
LP 94	25P	250	240/480	A	1	5	2	45	I-240	646+30	RET. WALL	RT	NA	NA
LP 95	25Q	250	240/480	A	1	5	2	45	I-240	647+80	RET. WALL	RT	NA	NA
LP 96	25Q	250	240/480	A	1	5	2	45	I-240	649+30	RET. WALL	LT	NA	NA
LP 97	25H	250	240/480	A	1	4	1	45	RAMP 15-C	34+33	RET. WALL	LT	NA	NA
LP 98	25H	250	240/480	A	1	4	1	45	RAMP 15-C	33+13	14.0	RT	304260.5597	811051.8226
LP 99	25J	250	240/480	A	1	4	1	45	RAMP 15-C	31+83	20.0	RT	304390.6491	811055.2635
LP 100	25J	250	240/480	A	1	4	1	45	RAMP 15-C	30+58	20.0	RT	304515.3255	811064.2526
LP 101	25J	250	240/480	A	1	4	1	45	RAMP 15-C	29+33	20.0	RT	304639.9912	811073.3892
LP 102	25J	250	240/480	A	1	4	1	45	RAMP 15-C	28+07	RET. WALL	LT	NA	NA
LP 103	25J	250	240/480	A	1	4	1	45	RAMP 15-C	26+77	RET. WALL	LT	NA	NA
LP 104	25J	250	240/480	A	1	4	1	45	RAMP 15-C	25+47	RET. WALL	LT	NA	NA
LP 105	25J	250	240/480	A	1	4	1	45	RAMP 15-C	24+22	RET. WALL	LT	NA	NA
LP 106	25J	250	240/480	A	1	4	1	45	RAMP 15-C	22+98	RET. WALL	LT	NA	NA
LP 107	25J	250	240/480	A	1	4	1	45	RAMP 15-C	21+63	RET. WALL	LT	NA	NA
LP 108	25J	250	240/480	A	1	4	1	45	RAMP 15-C	20+38	RET. WALL	LT	NA	NA
LP 109	25K	250	240/480	A	1	4	1	45	I-240	583+80	RET. WALL	LT	NA	NA
LP 110	25K	250	240/480	A	1	4	1	45	I-240	585+15	RET. WALL	LT	NA	NA
LP 111	25K	250	240/480	A	1	4	1	45	I-240	586+80	102.0	LT	305979.9156	811192.8817
LP 112	25K	250	240/480	A	1	4	1	45	I-240	588+50	95.5	LT	306148.9992	811211.6512
LP 113	25K	250	240/480	A	1	4	1	45	I-240	590+20	87.0	LT	306318.1280	811232.4737
LP 114	25K	250	240/480	A	1	4	1	45	I-240	591+90	78.9	LT	306488.1132	811254.5979
LP 115	25K	250	240/480	A	1	4	1	45	I-240	593+75	76.0	LT	306673.1819	811275.6079
LP 116	25L	250	240/480	A	1	4	1	45	I-240	595+55	RET. WALL	LT	NA	NA
LP 117	25L	250	240/480	A	1	4	1	45	I-240	597+40	RET. WALL	LT	NA	NA
LP 118	25L	250	240/480	A	1	4	1	45	I-240	599+25	RET. WALL	LT	NA	NA
LP 119	25L	250	240/480	A	1	4	1	45	I-240	601+05	RET. WALL	LT	NA	NA
LP 120	25L	250	240/480	A	1	4	1	45	I-240	602+90	RET. WALL	LT	NA	NA

A	OFFSET LUMINAIRE	(1)	RELOCATED POLE
B	COBRA HEAD LUMINAIRE WITH 8' ARM	(2)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC2
C	HIGH MAST LUMINAIRE	(3)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC5
D	UNDERPASS WALL MOUNTED LUMINAIRE	(4)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC6

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22B
CONST.	2010	STP-I-240(290)	25B

REV.: 01-29-09 SHEET ADDED TO PLANS.

BRENDA K. BOOKER 104511 REGISTERED ENGINEER STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
(POLE DATA)

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

OFFSET LIGHT POLE SCHEDULE CONTINUED

LIGHT POLE NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
LP 121	25L	250	240/480	A	1	4	2	45	I-240	604+75	RET. WALL	LT	NA	NA
LP 122	25L	250	240/480	A	1	4	2	45	I-240	606+60	RET. WALL	LT	NA	NA
LP 123	25M	250	240/480	A	1	4	2	45	I-240	608+40	76.0	LT	308127.6118	811469.1746
LP 124	25M	250	240/480	A	1	4	2	45	I-240	610+25	76.0	LT	308310.9129	811494.2097
LP 125	25M	250	240/480	A	1	4	2	45	I-240	611+90	80.0	LT	308474.9336	811512.5744
LP 126	25M	250	240/480	A	1	4	2	45	I-240	613+95	80.0	LT	308678.0542	811540.3165
LP 127	25M	250	240/480	A	1	4	2	45	I-240	615+80	81.2	LT	308861.5148	811564.1305
LP 128	25M	250	240/480	A	1	4	2	45	I-240	617+60	83.8	LT	309040.2075	811585.9388
LP 129	25M	250	240/480	A	1	4	2	45	I-240	619+55	86.6	LT	309233.7913	811609.5646
LP 130	25M	250	240/480	A	1	4	2	45	I-240	621+35	89.2	LT	309412.4804	811631.3725
LP 131	25N	250	240/480	A	1	6	1	45	I-240	623+20	91.8	LT	309596.1426	811653.7873
LP 132	25N	250	240/480	A	1	6	1	45	I-240	625+05	93.2	LT	309779.6299	811677.4082
LP 133	25N	250	240/480	A	1	6	1	45	I-240	626+90	96.9	LT	309963.4316	811698.7952
LP 134	25N	250	240/480	A	1	6	1	45	I-240	628+70	100.5	LT	310142.2537	811719.6028
LP 135	25N	250	240/480	A	1	6	1	45	CD ROAD-2	62+67	RET. WALL	LT	NA	NA
LP 136	25N	250	240/480	A	1	6	1	45	CD ROAD-2	61+07	RET. WALL	LT	NA	NA
LP 137	25P	250	240/480	A	1	6	1	45	CD ROAD-2	59+52	RET. WALL	LT	NA	NA
LP 138	25P	250	240/480	A	1	6	1	45	CD ROAD-2	57+97	RET. WALL	LT	NA	NA
LP 139	25P	250	240/480	A	1	6	1	45	CD ROAD-2	56+42	RET. WALL	LT	NA	NA
LP 140	25P	250	240/480	A	1	6	1	45	CD ROAD-2	54+87	RET. WALL	LT	NA	NA
LP 141	25P	250	240/480	A	1	6	1	45	CD ROAD-2	53+47	RET. WALL	LT	NA	NA
LP 142	25P	250	240/480	A	1	6	1	45	CD ROAD-2	52+07	RET. WALL	LT	NA	NA
LP 143	25P	250	240/480	A	1	6	1	45	CD ROAD-2	50+62	RET. WALL	LT	NA	NA
LP 144	25P	250	240/480	A	1	6	1	45	CD ROAD-2	49+12	RET. WALL	LT	NA	NA
LP 145	25P	250	240/480	A	1	6	1	45	CD ROAD-2	47+62	RET. WALL	LT	NA	NA
LP 146	25Q	250	240/480	A	1	6	1	45	CD ROAD-2	46+12	RET. WALL	LT	NA	NA
LP 147	25Q	250	240/480	A	1	6	1	45	CD ROAD-2	44+62	RET. WALL	LT	NA	NA
LP 148	25Q	250	240/480	A	1	6	1	45	CD ROAD-2	43+12	RET. WALL	LT	NA	NA
LP 149	25Q	250	240/480	A	1	5	3	45	I-240	669+30	97.2	RT	314159.0695	812400.7167
LP 150	25Q	250	240/480	A	1	5	3	45	I-240	670+65	92.2	RT	314296.3025	812390.4754
LP 151	25Q	250	240/480	A	1	5	3	45	I-240	672+10	92.2	RT	314296.3025	812390.4754
LP 152	25R	250	240/480	A	1	5	3	45	I-240	673+55	84.9	RT	314589.8547	812359.6835
LP 153	25R	250	240/480	A	1	5	3	45	I-240	675+15	82.7	RT	314750.9430	812337.3561
LP 154	25R	250	240/480	A	1	5	3	45	I-240	676+75	80.5	RT	314911.2121	812309.9417
LP 155	25R	250	240/480	A	1	5	3	45	I-240	678+50	78.7	RT	315085.4671	812274.7854
LP 156	25R	250	240/480	A	1	5	3	45	I-240	680+30	78.4	RT	315263.6102	812233.8460
LP 157	25R	250	240/480	A	1	5	3	45	I-240	682+10	78.9	RT	315440.3809	812187.3291
LP 158	25R	250	240/480	A	1	5	3	45	I-240	683+90	77.9	RT	315614.9596	812133.1695
LP 159	25R	250	240/480	A	1	5	3	45	I-240	685+75	67.9	RT	315789.1748	812062.6412
LP 160	25S	250	240/480	A	1	5	3	45	I-240	687+65	68.0	RT	315968.8518	811993.3288
LP 161	25S	250	240/480	A	1	5	3	45	I-240	689+52	68.2	RT	316143.2098	811918.6109
LP 162	25S	250	240/480	A	1	5	3	45	I-240	691+46	68.2	RT	316320.8226	811834.3087
LP 163	25S	250	240/480	A	1	5	3	45	I-240	693+24	68.5	RT	316481.0561	811751.1337
LP 164	25S	250	240/480	A	1	5	3	45	I-240	NA	NA	RT	316645.9980	811659.0826
LP 165	25S	250	240/480	A	1	5	3	45	I-240	NA	NA	RT	316803.5496	811565.8012
LP 166	25S	250	240/480	A	1	5	3	45	I-240	NA	NA	RT	316960.7034	811467.8187
LP 167	25Q	250	240/480	A	1	6	2	45	I-240	669+95	128.6	LT	314216.8425	812173.0018
LP 168	25Q	250	240/480	A	1	6	2	45	I-240	671+35	127.3	LT	314353.1818	812167.3087
LP 169	25Q	250	240/480	A	1	6	2	45	I-240	672+80	120.8	LT	314494.7270	812162.5873
LP 170	25R	250	240/480	A	1	6	2	45	I-240	674+35	109.3	LT	314646.5801	812157.5591
LP 171	25R	250	240/480	A	1	6	2	45	I-240	675+95	RET. WALL	LT	NA	NA
LP 172	25R	250	240/480	A	1	6	2	45	I-240	677+75	RET. WALL	LT	NA	NA
LP 173	25R	250	240/480	A	1	6	2	45	I-240	679+40	RET. WALL	LT	NA	NA
LP 174	25R	250	240/480	A	1	6	2	45	I-240	681+20	93.4	LT	315308.0146	812045.1507
LP 175	25R	250	240/480	A	1	6	2	45	I-240	683+00	83.2	LT	315480.8786	812006.4971
LP 176	25R	250	240/480	A	1	6	2	45	I-240	684+81	69.5	LT	315654.9537	811964.5021
LP 177	25S	250	240/480	A	1	6	2	45	I-240	686+70	68.6	LT	315830.0772	811901.5162
LP 178	25S	250	240/480	A	1	6	2	45	I-240	688+60	68.7	LT	316003.5943	811830.5992
LP 179	25S	250	240/480	A	1	6	2	45	I-240	690+45	68.4	LT	316169.9860	811755.7564
LP 180	25S	250	240/480	A	1	6	2	45	I-240	692+35	68.5	LT	316337.7741	811672.1543

A	OFFSET LUMINAIRE	(1)	RELOCATED POLE
B	COBRA HEAD LUMINAIRE WITH 8' ARM	(2)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC2
C	HIGH MAST LUMINAIRE	(3)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC5
D	UNDERPASS WALL MOUNTED LUMINAIRE	(4)	EXISTING POLE TO REMAIN AND RECONNECTED TO CC6

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22C
CONST.	2010	STP-I-240(290)	25C

REV.: 01-29-09 SHEET ADDED TO PLANS.

BRENDA K. BOOKER
No. 104943
STATE OF TENNESSEE
LICENSED PROFESSIONAL ENGINEER

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
(POLE DATA)

8/7/2010 7:13:19 PM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22D
CONST.	2010	STP-I-240(290)	25D

REV.: 01-29-09 SHEET ADDED TO PLANS.

OFFSET LIGHT POLE SCHEDULE CONTINUED

	LIGHT POLE NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
	LP 181	25S	250	240/480	A	1	6	2	45	I-240	NA	NA	LT	316493.6607	811588.0122
	LP 182	25S	250	240/480	A	1	6	2	45	I-240	NA	NA	LT	316653.0211	811496.4596
	LP 183	25S	250	240/480	A	1	6	2	45	I-240	NA	NA	LT	316811.2520	811400.2484
(3)	LP 184	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	208+21	65.3	LT	313162.8609	813569.0427
(3)	LP 185	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	206+99	65.6	LT	313171.5361	813448.3789
(3)	LP 186	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	205+87	66.0	LT	313179.2226	813336.7660
(3)	LP 187	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	204+52	66.1	LT	313188.2143	813201.4554
(3)	LP 188	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	203+12	73.2	LT	313204.3697	813061.9879
(3)	LP 189	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	201+92	82.4	LT	313221.3514	812943.1171
	LP 190	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	200+79	111.0	RT	313256.7720	812832.4894
(3)	LP 191	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	208+09	75.3	RT	313023.7465	813548.9519
(3)	LP 192	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	206+69	75.6	RT	313032.5969	813409.4063
(3)	LP 193	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	205+30	74.8	RT	313042.4379	813270.7331
(3)	LP 194	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	203+87	75.5	RT	313051.1011	813127.0988
(3)	LP 195	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	202+57	79.0	RT	313055.3970	813007.6249
	LP 196	25Q	250	240/480	A	1	5	4	45	WALNUT GRV.	210+05	107.0	RT	313038.5959	812844.4517
(4)	LP 197	25Q	250	240/480	B	1	6	1	45	WALNUT GRV.	184+27	46.0	LT	313300.1243	811179.6005
(4)	LP 198	25Q	250	240/480	B	1	6	1	45	WALNUT GRV.	184+19	49.0	RT	313208.2950	811127.1590

HIGH MAST POLE SCHEDULE

HIGH MAST POLE NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
HM 31	25H	1000	240/480	C	10	1	4	150	RAMP 15-H	36+36	28.8	RT	302277.9029	811206.0726
HM 32	25H	1000	240/480	C	6	1	5	150	NA	NA	NA	NA	302498.8250	811704.9316
HM 33	25H	1000	240/480	C	10	2	3	150	RAMP 15-F	46+30	148.0	LT	303184.7999	811264.2525
HM 34	25H	1000	240/480	C	10	2	4	150	RAMP 15-E	51+28	25.0	RT	303744.1858	811271.2053
HM 35	25H	1000	240/480	C	6	3	2	150	RAMP 15-A	11+43	25.0	LT	302899.6764	810532.3330
HM 36	25H	1000	240/480	C	10	3	3	150	NA	NA	NA	NA	303364.7995	810519.6915
HM 37	25T	1000	240/480	C	4	3	2	150	NA	NA	NA	NA	303734.8311	810007.4024
HM 38	25T	1000	240/480	C	8	1	3	150	NA	NA	NA	NA	302886.8020	812497.2500
HM 130	25Q	1000	240/480	C	10	5	4	150	RAMP 17-G	23+77	116.8	RT	312633.1709	812262.6288
HM 131	25Q	1000	240/480	C	8	5	3	150	WALNUT GRV.	196+65	80.0	LT	313253.3675	812416.7536
HM 132	25Q	1000	240/480	C	10	6	3	150	WALNUT GRV.	187+81	75.5	RT	313155.8187	811525.3844
HM 133	25Q	1000	240/480	C	8	6	4	150	RAMP 17-C	27+59	93.8	LT	313767.3725	812163.0632

UNDERPASS WALL MOUNT SCHEDULE

UNDERPASS NO.	SHEET NO.	LAMP WATTAGE (HPS)	VOLTAGE	LUMINAIRE TYPE	NO. OF LAMPS	CONTROL CENTER NO.	CIRCUIT NO.	MOUNTING HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
UP 1	25U	150	240/480	D	1	3	1	17.5	I-240	545+61	76.9	RT	301858.7155	811100.4888
UP 2	25U	150	240/480	D	1	3	1	17.5	I-240	545+57	3.0	RT	301858.2151	811026.4010
UP 3	25U	150	240/480	D	1	3	1	17.5	I-240	545+53	70.0	LT	301858.5087	810953.1019
UP 4	25U	150	240/480	D	1	1	3	17.5	I-240	553+35	2.5	RT	302635.2930	811068.3881
UP 5	25U	150	240/480	D	1	1	3	17.5	I-240	553+39	2.5	LT	302639.4065	811063.5696
UP 6	25U	150	240/480	D	1	4	2	17.5	I-240	561+29	63.2	RT	303424.2215	811174.4430
UP 7	25U	150	240/480	D	1	4	2	17.5	I-240	561+61	62.7	RT	303463.9025	811050.9370
UP 8	25V	150	240/480	D	1	5	1	17.5	I-240	659+55	2.3	RT	313184.6201	812238.7125
UP 9	25V	150	240/480	D	1	5	1	17.5	I-240	659+55	2.3	RT	313185.2676	812234.1393
UP 10	25V	150	240/480	D	1	5	1	17.5	I-240	659+43	168.6	LT	313195.9887	812067.7851

A OFFSET LUMINAIRE
B COBRA HEAD LUMINAIRE WITH 8' ARM
C HIGH MAST LUMINAIRE
D UNDERPASS WALL MOUNTED LUMINAIRE

(1) RELOCATED POLE
(2) EXISTING POLE TO REMAIN AND RECONNECTED TO CC2
(3) EXISTING POLE TO REMAIN AND RECONNECTED TO CC5
(4) EXISTING POLE TO REMAIN AND RECONNECTED TO CC6

BRENDA K. BOOKER
REGISTERED
No. 104948
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
(POLE DATA)

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C:\Booker\OI_ACTIVE\TDOT\EI026\SHELBY\OI-I-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025D.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25E

WIRING AND CONDUIT SCHEDULE

RUN NO.	POLE NO. TO POLE NO.			CONDUIT LENGTH (FT)	SPECIAL NOTE	NO. OF 2" SCH. 40 PVC CONDUIT*	NO. & SIZE OF WIRE
1	PSA	TO	CC1	15		1	3 @ #2 AWG
	PSB	TO	CC2	15			
	PSC	TO	CC3	15			
	PSD	TO	CC4	15			
	PSE	TO	CC5	15			
	PSF	TO	CC6	15			
2	CC1	TO	RPB	180		1	6 @ #6 AWG 9 @ #4 AWG 1 @ #6 GROUND
3	RPB	TO	HM 31	390		1	3 @ #6 AWG 9 @ #4 AWG 1 @ #6 GROUND
4	RPB	TO	UP 4 THRU UP 5	225	(A)	1	3 @ #6 AWG 1 @ #6 GROUND
	RPB	TO	UP 1 THRU UP 3	340	(B)		
	CC4	TO	UP 6 THRU UP 7	360	(C)		
	RPB	TO	UP 8 THRU UP 10	500	(D)		
	CC2	TO	HM 33	385			
	PB	TO	HM 34	80			
5	HM 31	TO	PB	230		1	3 @ #6 AWG 6 @ #4 AWG 1 @ #6 GROUND
6	PB	TO	HM 32	655		1	3 @ #4 AWG 1 @ #6 GROUND
	PB	TO	HM 36	310			
	PB	TO	HM 37	870			
	CC2	TO	LP 43	490			
	LP 43	TO	PB	85			
	LP 10	TO	LP 2	1435			
	CC5	TO	LP 192	1100			
	LP 195	TO	LP 189	295			
	LP 188	TO	LP 185	420			
7	PB	TO	LP 11	1810	(E)	1	3 @ #6 AWG 3 @ #4 AWG 1 @ #6 GROUND
8	LP 11	TO	LP 10	155		1	2 @ #6 AWG 3 @ #4 AWG 1 @ #6 GROUND
9	LP 2	TO	LP 1	190		1	2 @ #4 AWG 1 @ #6 GROUND
	LP 43	TO	LP 42	245			
	PB	TO	LP 44	120			
	PB	TO	LP 45	120			
	LP 192	TO	LP 191	150			
	LP 185	TO	LP 184	150			
	LP 189	TO	LP 190	125			

WIRING AND CONDUIT SCHEDULE

RUN NO.	POLE NO. TO POLE NO.			CONDUIT LENGTH (FT)	SPECIAL NOTE	NO. OF 2" SCH. 40 PVC CONDUIT*	NO. & SIZE OF WIRE
10	CC1	TO	HM 38	1255		1	3 @ #2 AWG 1 @ #6 GROUND
	CC5	TO	HM 131	340			
	HM 131	TO	LP 165	3945			
	LP 120	TO	LP 129	1555	(F)		
	HM 132	TO	LP 132	3700	(G)		
	PB	TO	PB	325			
	HM 133	TO	LP 182	3130	(H)		
	LP 57	TO	LP 69	2115	(J)		
	LP 80	TO	LP 72	1740	(K)		
	RPB	TO	LP 22	4160	(L)		
11	CC2	TO	PB	375		1	3 @ #6 AWG 3 @ #4 AWG 3 @ #2 AWG 1 @ #6 GROUND
12	PB	TO	LP 56	1815	(J)	1	3 @ #4 AWG 3 @ #2 AWG 1 @ #6 GROUND
	HM 130	TO	LP 82	2860	(M)		
13	LP 82	TO	LP 81	195		1	2 @ #4 AWG 3 @ #2 AWG 1 @ #6 GROUND
	LP 56	TO	LP 57	160	(J)		
14	LP 69	TO	LP 70	190	(J)	1	2 @ #2 AWG 1 @ #6 GROUND
	LP 72	TO	LP 71	190	(J)		
	LP 165	TO	LP 166	190			
	LP 22	TO	LP 21	190			
	LP 129	TO	LP 130	190	(J)		
	LP 132	TO	LP 131	175			
	LP 182	TO	LP 183	190			
	PB	TO	LP 198	80			
	PB	TO	LP 197	160			
15	CC5	TO	HM 130	425	(J)	1	6 @ #4 AWG 3 @ #2 AWG 1 @ #6 GROUND
16	CC3	TO	RPB	945		1	3 @ #6 AWG 3 @ #2 AWG 1 @ #6 GROUND
	CC6	TO	HM 133	590			
17	CC3	TO	HM 35	235		1	6 @ #4 AWG 1 @ #6 GROUND
	HM 35	TO	PB	240			
18	CC4	TO	LP 119	3945	(N)	1	6 @ #2 AWG 1 @ #6 GROUND
	CC6	TO	HM 132	380			
19	LP 119	TO	LP 120	190	(J)	1	5 @ #2 AWG 1 @ #6 GROUND

* MAX ALLOWABLE FILL = 40%

PSA = POWER SOURCE A
PSB = POWER SOURCE B
PSC = POWER SOURCE C
PSD = POWER SOURCE D
PSE = POWER SOURCE E
PSF = POWER SOURCE F

CC1 = CONTROL CENTER 1
CC2 = CONTROL CENTER 2
CC3 = CONTROL CENTER 3
CC4 = CONTROL CENTER 4
CC5 = CONTROL CENTER 5
CC6 = CONTROL CENTER 6

RPB = ROADSIDE PULL BOX
PB = PULL BOX

(A) CONDUIT LENGTH INCLUDES 200 L.F. OF 2" RGS STRAPPED TO BRIDGE.
(B) CONDUIT LENGTH INCLUDES 315 L.F. OF 2" RGS STRAPPED TO BRIDGE.
(C) CONDUIT LENGTH INCLUDES 310 L.F. OF 2" RGS STRAPPED TO BRIDGE.
(D) CONDUIT LENGTH INCLUDES 475 L.F. OF 2" RGS STRAPPED TO BRIDGE.
(E) CONDUIT LENGTH INCLUDES 1105 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(F) CONDUIT LENGTH INCLUDES 345 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(G) CONDUIT LENGTH INCLUDES 2100 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(H) CONDUIT LENGTH INCLUDES 465 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(J) 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING/NOISE WALL.
(K) CONDUIT LENGTH INCLUDES 850 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(L) CONDUIT LENGTH INCLUDES 320 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(M) CONDUIT LENGTH INCLUDES 1155 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.
(N) CONDUIT LENGTH INCLUDES 2190 L.F. OF 2" SCH. 40 PVC CONDUIT PRECAST IN RETAINING WALL.

BRENDA BOOKER 104918 REGISTERED PROFESSIONAL ENGINEER STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

(WIRING DATA)

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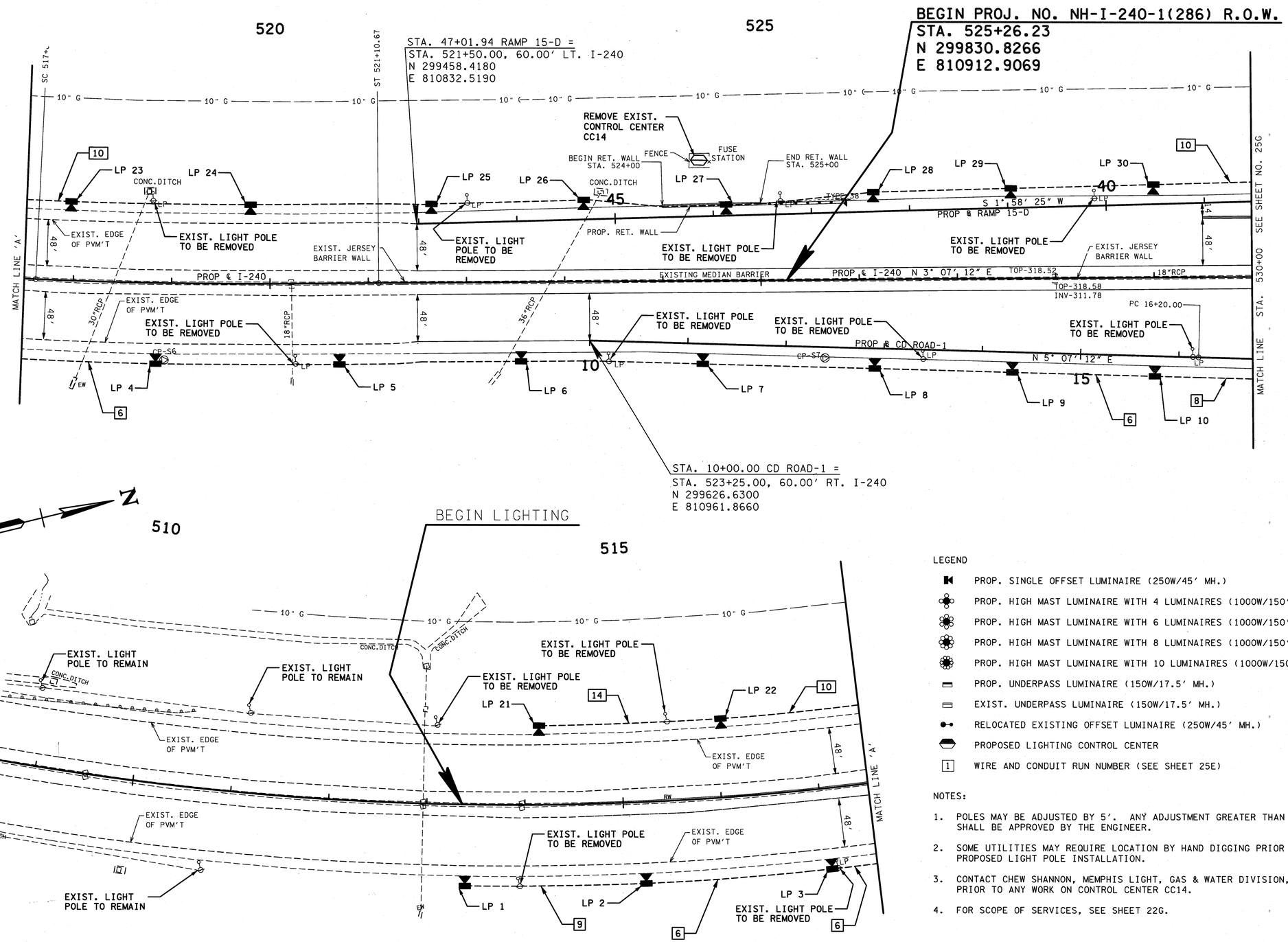
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22E
CONST.	2010	STP-I-240(290)	25F

REV.: 01-29-09 SHEET ADDED TO PLANS.



LEGEND

- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.
3. CONTACT CHEW SHANNON, MEMPHIS LIGHT, GAS & WATER DIVISION, PRIOR TO ANY WORK ON CONTROL CENTER CC14.
4. FOR SCOPE OF SERVICES, SEE SHEET 22G.

BRENDA K. BOOKER — 104915 — REGISTERED ENGINEER — STATE OF TENNESSEE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

BEGIN LIGHTING TO STA. 530+00

SCALE: 1"= 50'

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

LEGEND

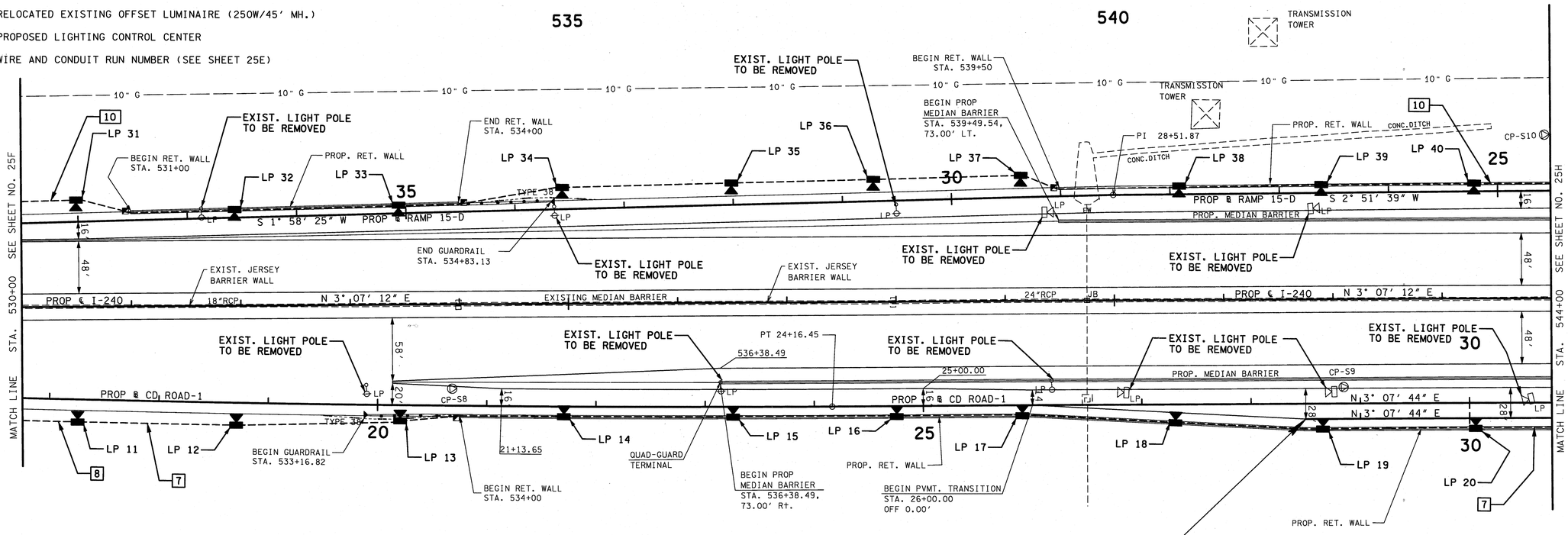
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22F
CONST.	2010	STP-I-240(290)	25G

REV.: 01-29-09 SHEET ADDED TO PLANS.



SCOPE OF SERVICES:

1. THE PROPOSED LIGHTING DESIGN LIMITS INCLUDE I-240 FROM SOUTH OF POPLAR AVENUE TO NORTH OF WALNUT GROVE ROAD AND UNIFICATION AND RE-CONNECTING OF ALL LIGHTING SYSTEMS FOR CONNECTING ROADS AT EACH INTERCHANGE.
2. THERE ARE 181 PROPOSED OFFSET LUMINAIRES. OFFSET LUMINAIRES SHALL BE MULTI-MOUNT SERIES 285, 250W HPS, AMERICAN ELECTRIC CATALOGUE NUMBER 285 25S R3 DA, OR EQUIVALENT, WITH 45 FT. MOUNTING HEIGHT.
3. THERE ARE 87 OF THE 181 PROPOSED OFFSET LUMINAIRES THAT SHALL BE INSTALLED ON THE RETAINING/NOISE WALL. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE APPROPRIATE POLE HEIGHT AT EACH LOCATION.
4. THERE ARE 12 PROPOSED HIGH MAST POLES. THE HIGH MAST LUMINAIRE SHALL BE HMST, 1000W HPS, HOLOPHANE CATALOGUE NUMBER HMSTC10HP00S1, OR EQUIVALENT, WITH 150 FT. MOUNTING HEIGHT. REFER TO PLANS AND HIGH MAST POLE SCHEDULE FOR NUMBER OF LUMINAIRES TO BE LOCATED AT EACH HIGH MAST POLE LOCATION.
5. THERE ARE 15 EXISTING OFFSET LUMINAIRES TO REMAIN AND 2 RELOCATED OFFSET LUMINAIRES. THEY SHALL BE REWIRED INTO THE PROPOSED LIGHTING DESIGN AS SHOWN IN THE PLANS.
6. THE PROPOSED UNDERPASS LUMINAIRE SHALL BE UNDERPASS SERIES 681, 150W HPS, AMERICAN ELECTRIC CATALOGUE NUMBER U681-15SCTMT1 NC 6YAR9386, OR EQUIVALENT, WITH APPROXIMATE 17.5 FT. MOUNTING HEIGHT.
7. ALL EXISTING UNDERPASS WALL MOUNTED LUMINAIRES SHALL BE REMOVED AND REPLACED, AND NEW CONDUIT ROUTED AND WIRED INTO NEW LIGHTING CIRCUITRY AS SHOWN IN THE PLANS.
8. ALL PROPOSED LUMINAIRES SHALL BE BALLASTED FOR 240V OPERATION.
9. ALL LIGHT POLES SHALL HAVE SCREW-IN TYPE FOUNDATIONS AND BREAK-AWAY COUPLINGS. NO TRANSFORMER BASES WILL BE PERMITTED.
10. ALL LIGHT POLES SHALL BE INSTALLED SO THAT THE HAND HOLE IS ORIENTED OPPOSITE THE FLOW OF TRAFFIC.
11. LUMINAIRES ON THE SAME CIRCUIT SHALL BE WIRED ON ALTERNATING PHASES. THE CONTRACTOR IS TO ENSURE THAT LIGHTING LOADS ARE DISTRIBUTED AS EVENLY AS POSSIBLE ON EACH PHASE.
12. PRIOR TO COMMENCING WORK ON ANY OF THE EXISTING CONTROL CENTERS, THE CONTRACTOR SHALL CONTACT CHEW SHANNON, MEMPHIS LIGHT GAS & WATER (MLGW), (901) 528-4211.
13. EXISTING CONDUIT TO BE ABANDONED SHALL BE PLUGGED ON BOTH ENDS.
14. FOR JACK AND BORE, USE ONLY POLYETHYLENE PIPE. NO SEAMS ARE PERMITTED. CONTRACTOR SHALL USE POLYETHYLENE PIPE ADHESIVE AT JUNCTIONS.
15. CONDUIT BENDS SHALL NOT EXCEED A 24" RADIUS.
16. THERE ARE A TOTAL OF 251 EXISTING LUMINAIRES TO BE REMOVED AND 2 COBRA HEADS WITH 8' ARMS TO BE RELOCATED.
17. SALVAGEABLE EQUIPMENT SHALL BE STOCKPILED ON THE JOBSITE FOR PICK UP BY MLGW. CONTRACTOR SHALL CONTACT CHEW SHANNON, (901) 528-4211, FOR PICKUP.
18. SCREW-IN TYPE FOUNDATIONS REMOVED ARE NOT CONSIDERED SALVAGEABLE EQUIPMENT AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
19. WHERE POSSIBLE, EXISTING LUMINIARES SHALL REMAIN IN PLACE UNTIL THE PROPOSED LIGHTING SYSTEM IS OPERATIONAL.
20. CONTRACTOR IS TO ENSURE THAT ALL EXISTING LUMINAIRES TO REMAIN ARE TO REMAIN ENERGIZED.

STA. 28+50.00 RAMP 15-G =
STA. 541+74.46, 109.67' RT. I-240
STA. 28+50.00, 14.00' RT. CD ROAD-1
N 301470.6434
E 811112.1161

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 530+00 TO STA. 544+00

SCALE: 1"= 50'

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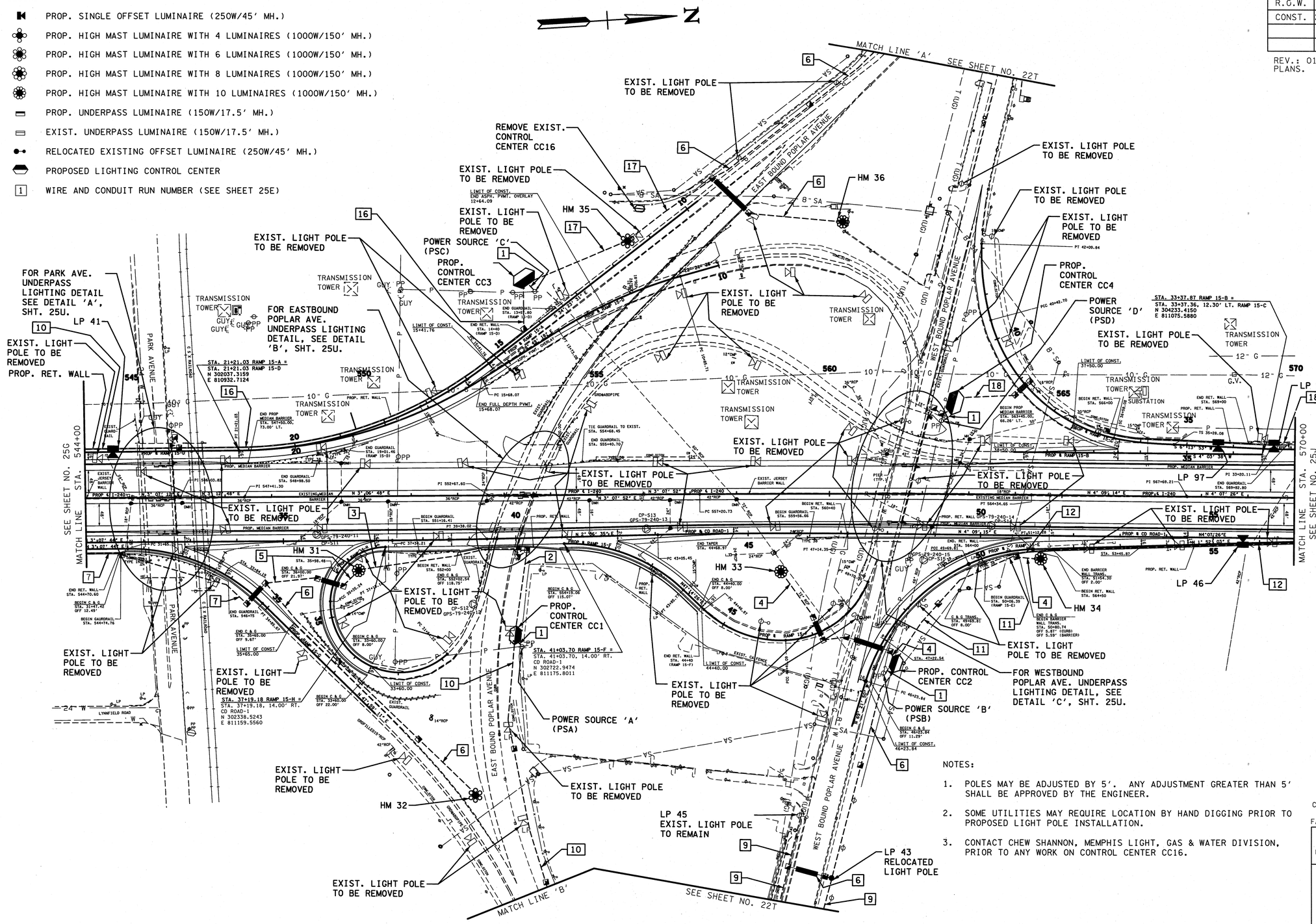
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

LEGEND

- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22G
CONST.	2010	STP-I-240(290)	25H

REV.: 01-29-09 SHEET ADDED TO PLANS.



NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.
3. CONTACT CHEW SHANNON, MEMPHIS LIGHT, GAS & WATER DIVISION, PRIOR TO ANY WORK ON CONTROL CENTER CC16.

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 544+00 TO STA. 570+00

SCALE: 1"=100'

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

LEGEND

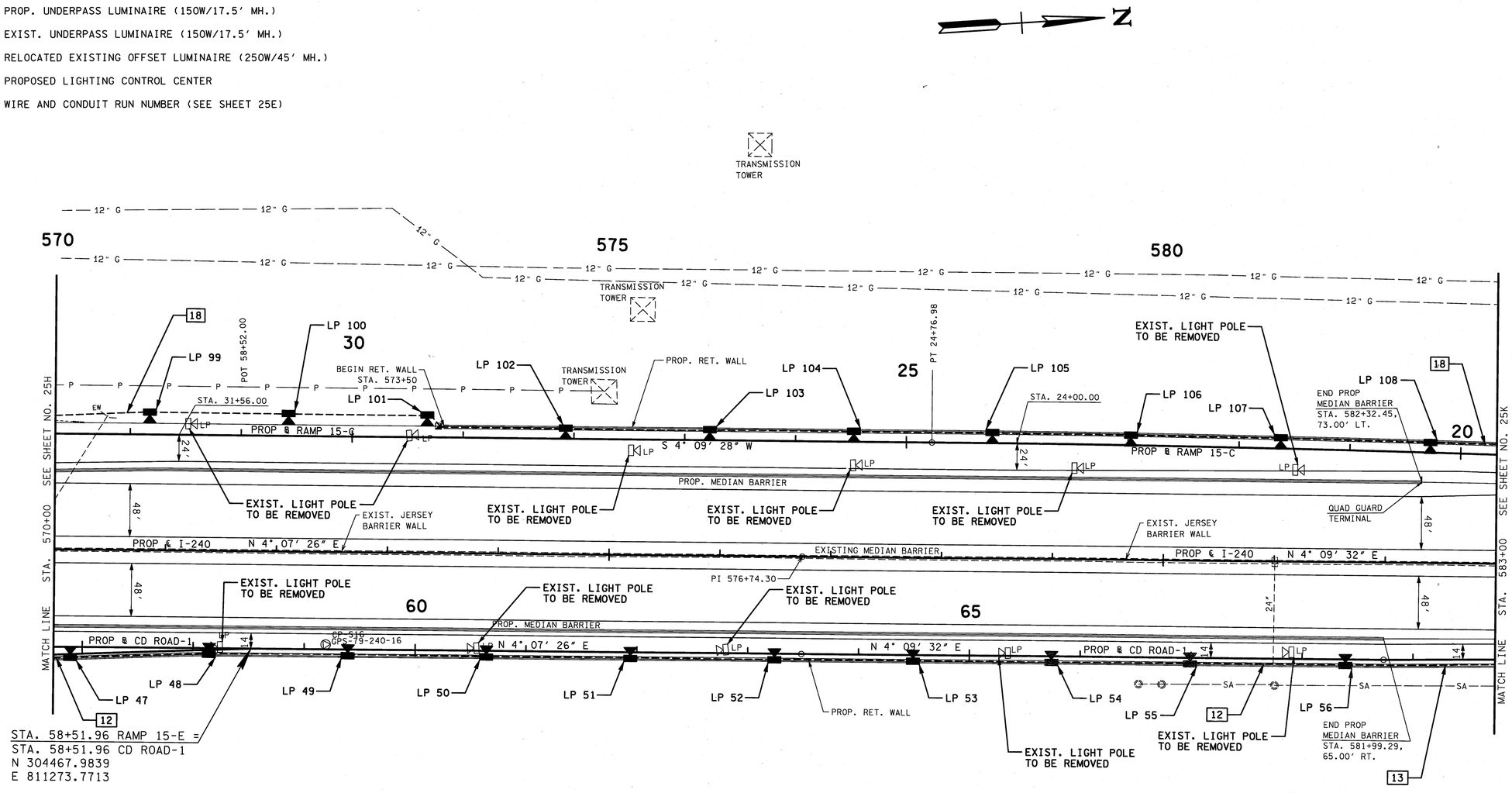
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22H
CONST.	2010	STP-I-240(290)	25J

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 570+00 TO STA. 583+00

SCALE: 1"= 50'

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

LEGEND

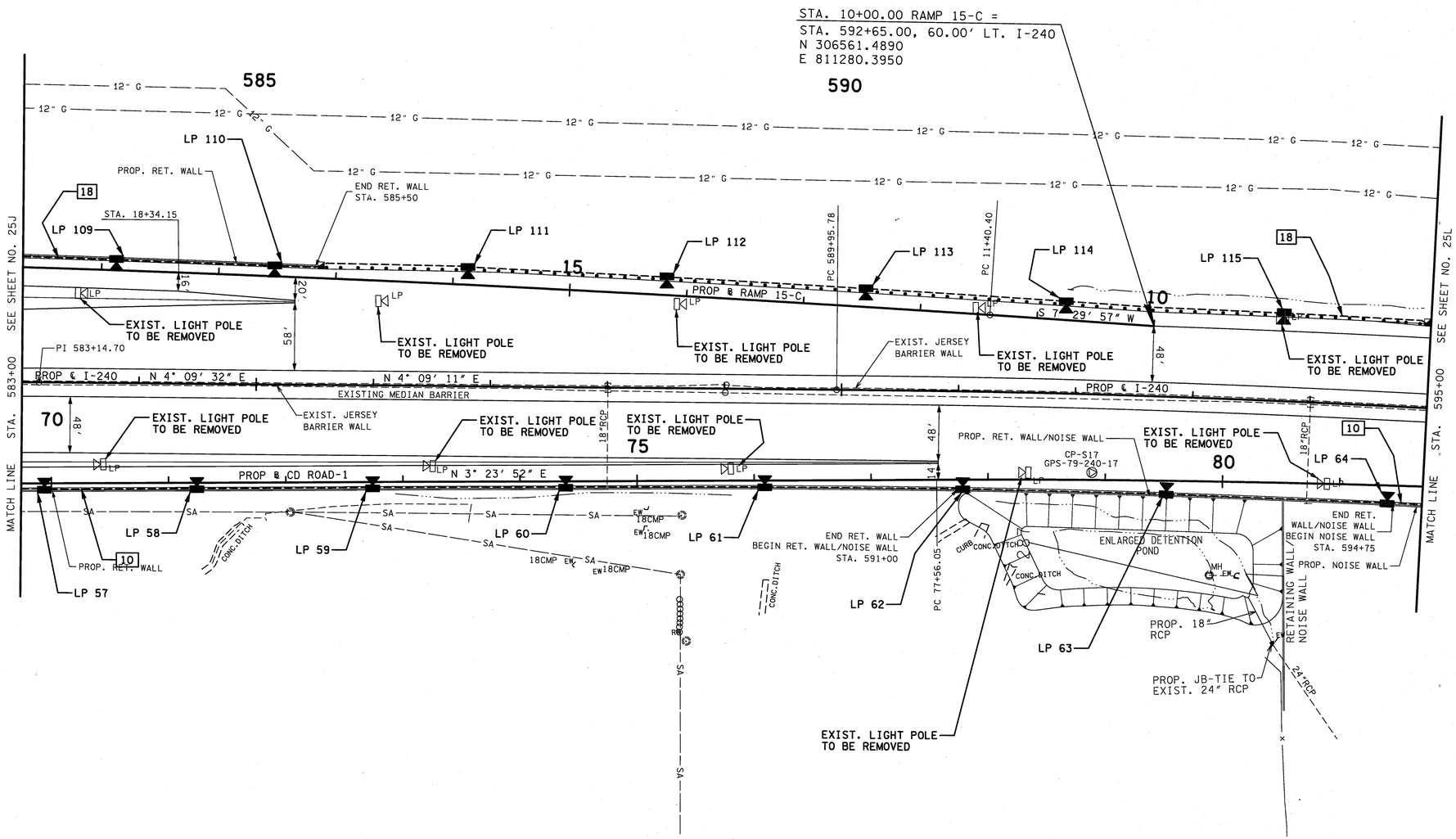
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22J
CONST.	2010	STP-I-240(290)	25K

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 583+00 TO STA. 595+00

SCALE: 1"= 50'

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

LEGEND

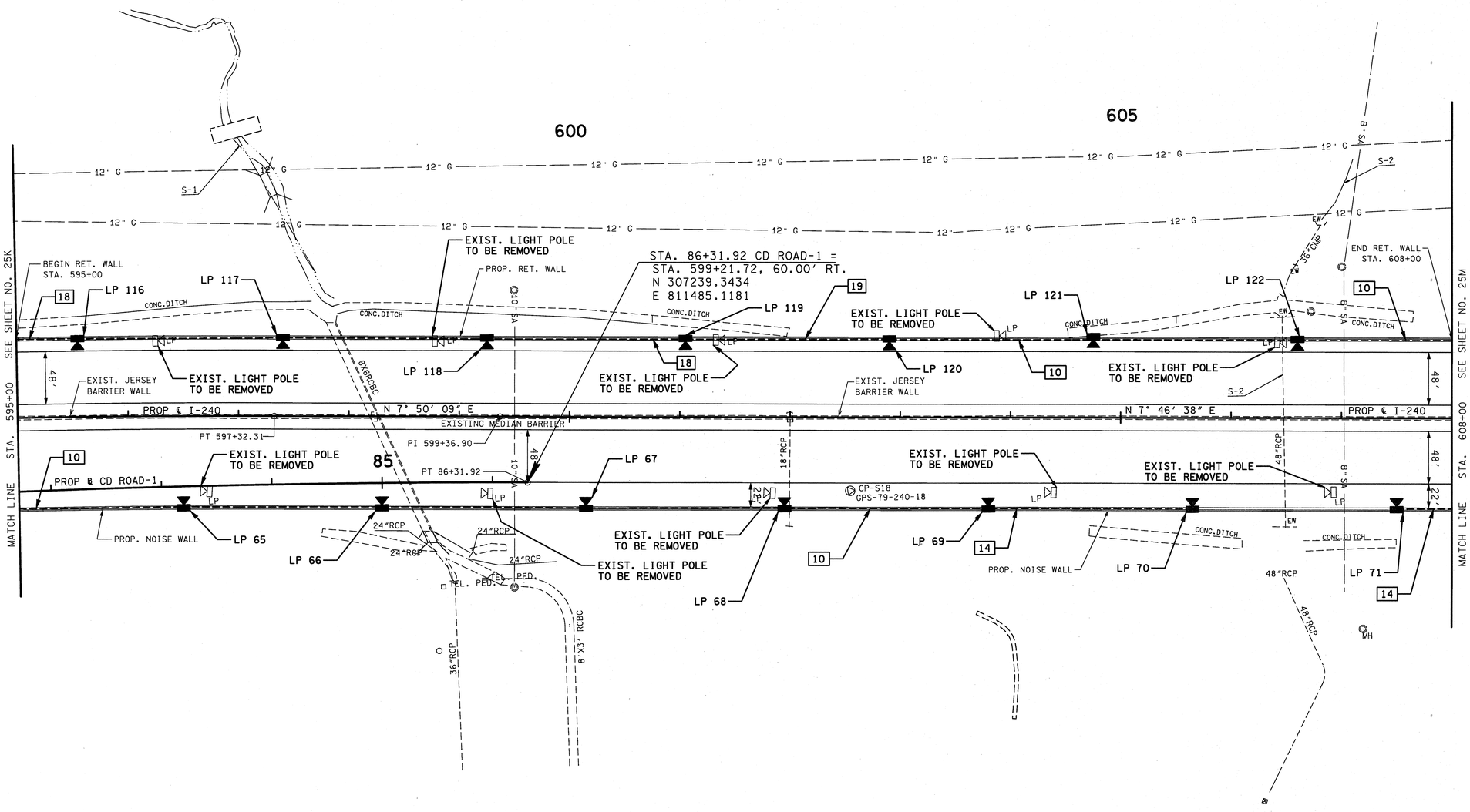
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22K
CONST.	2010	STP-I-240(290)	25L

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

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

LEGEND

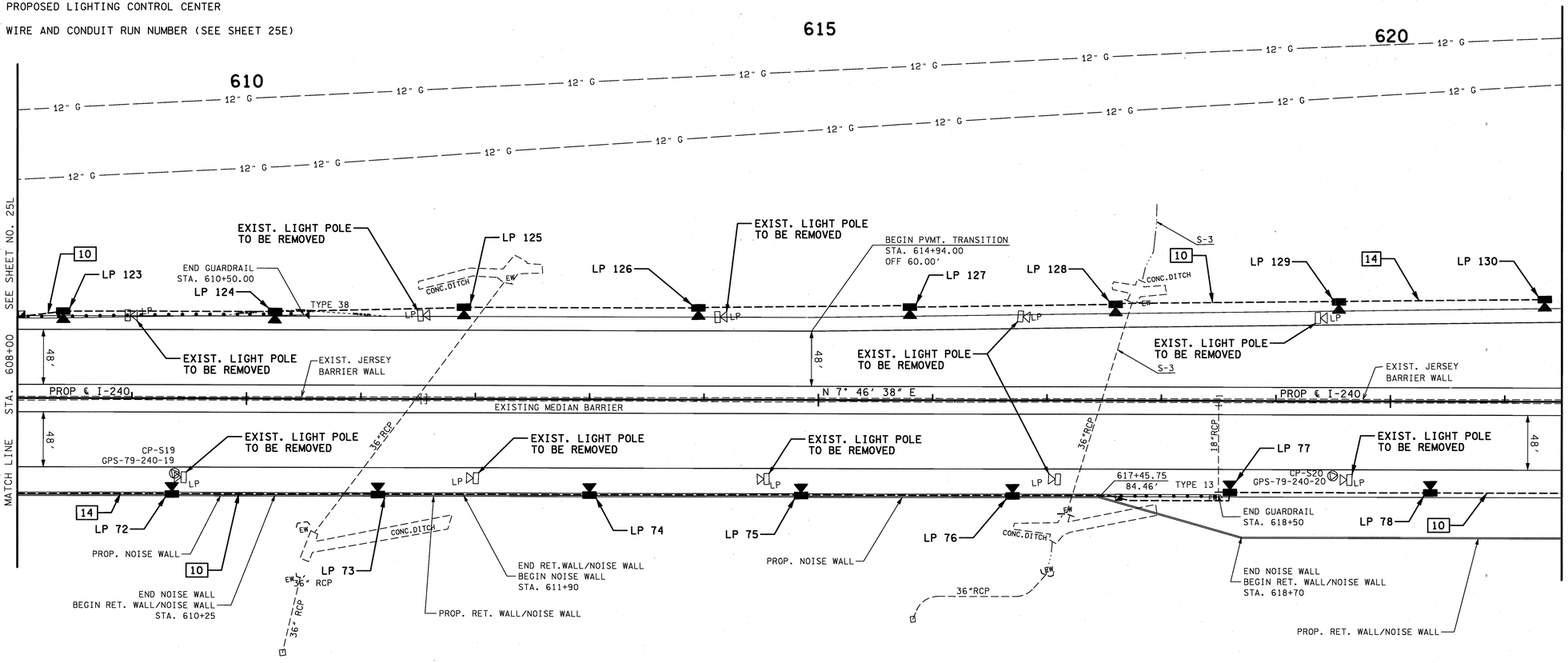
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22L
CONST.	2010	STP-I-240(290)	25M

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 608+00 TO STA. 621+50

SCALE: 1"= 50'

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

LEGEND

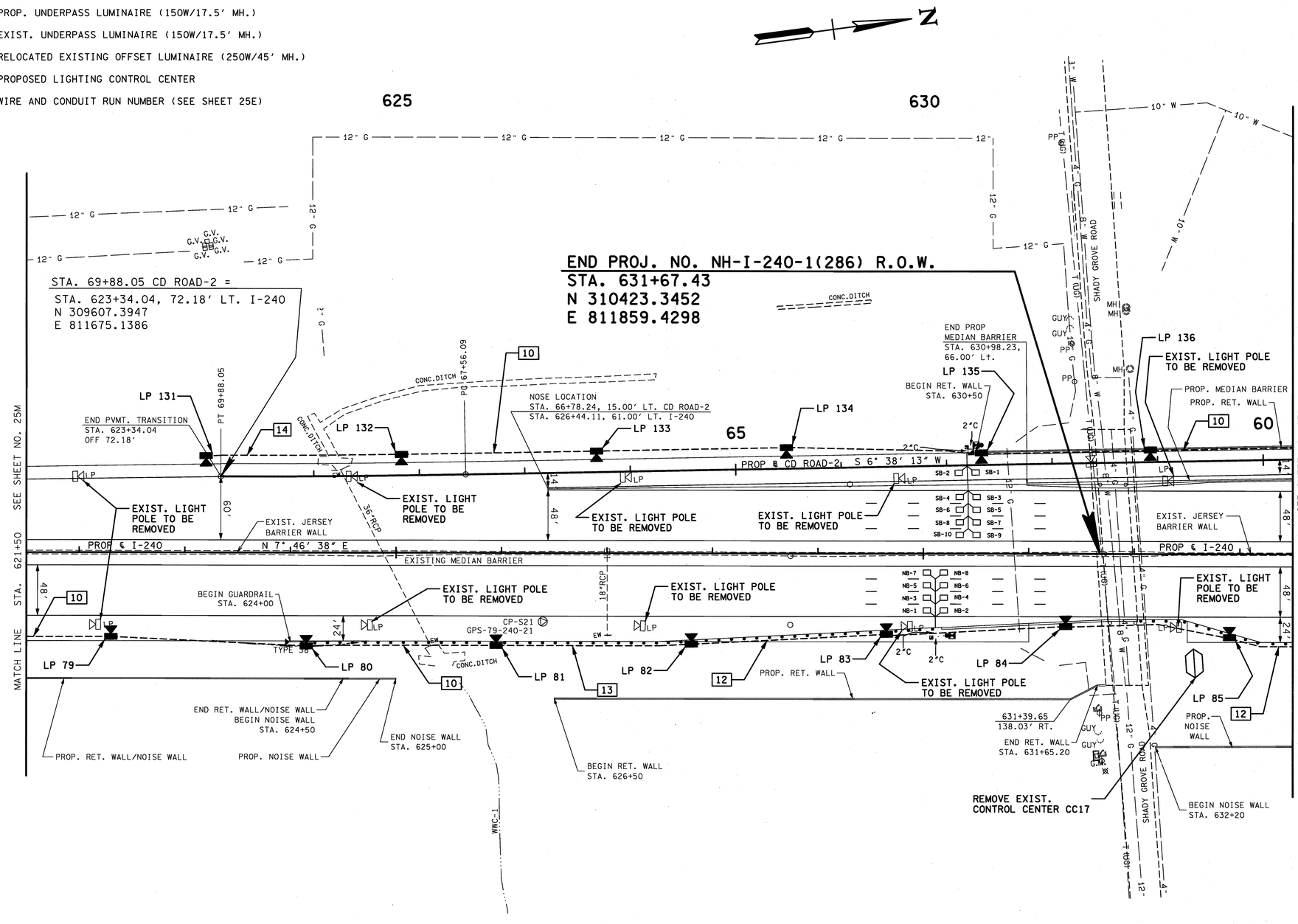
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.
3. CONTACT CHEW SHANNON, MEMPHIS LIGHT, GAS & WATER DIVISION, PRIOR TO ANY WORK ON CONTROL CENTER CC17.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22M
CONST.	2010	STP-I-240(290)	25N

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 621+50 TO STA. 633+50

SCALE: 1"= 50'

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

LEGEND

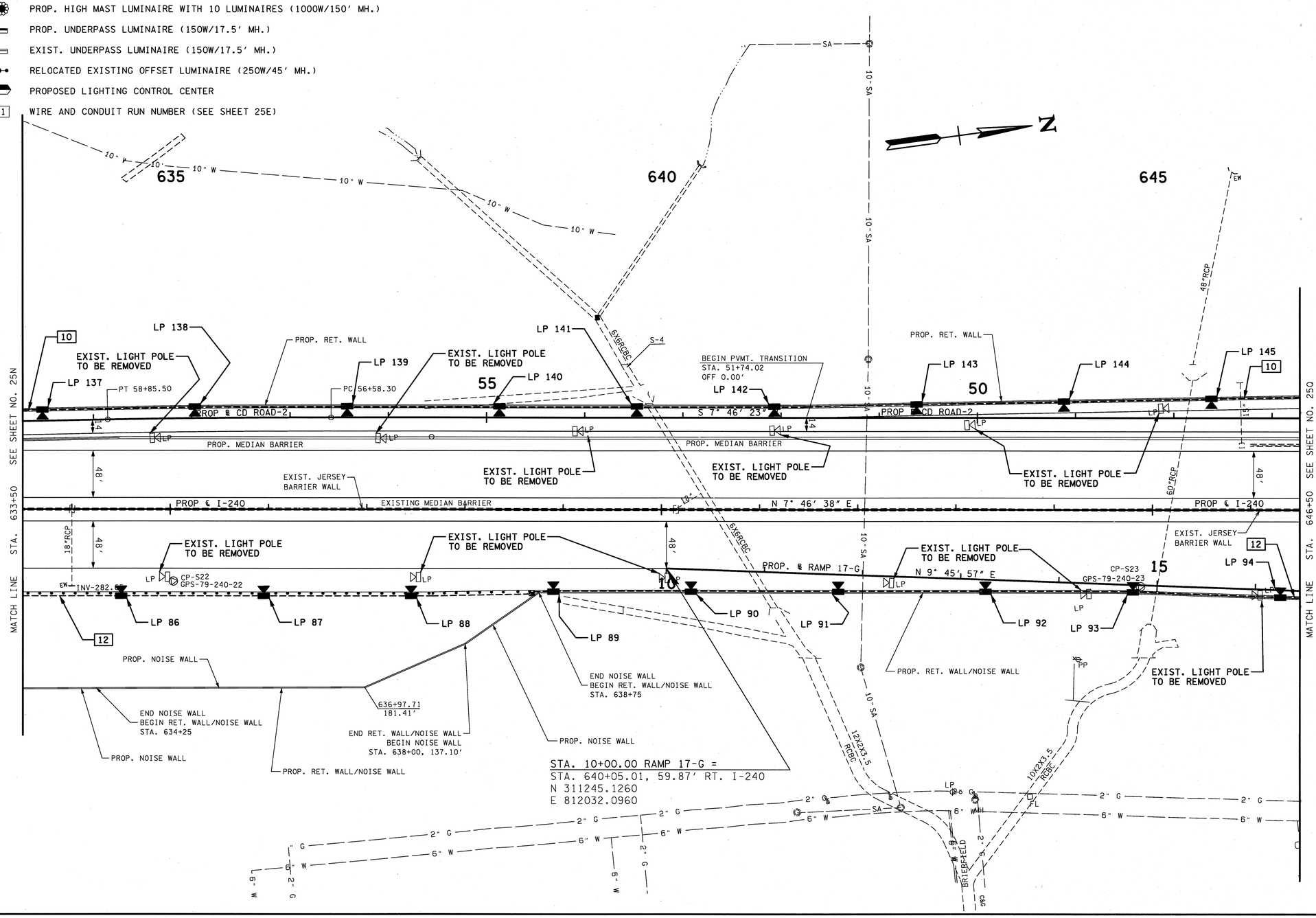
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22N
CONST.	2010	STP-I-240(290)	25P

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 633+50 TO STA. 646+50

SCALE: 1"= 50'

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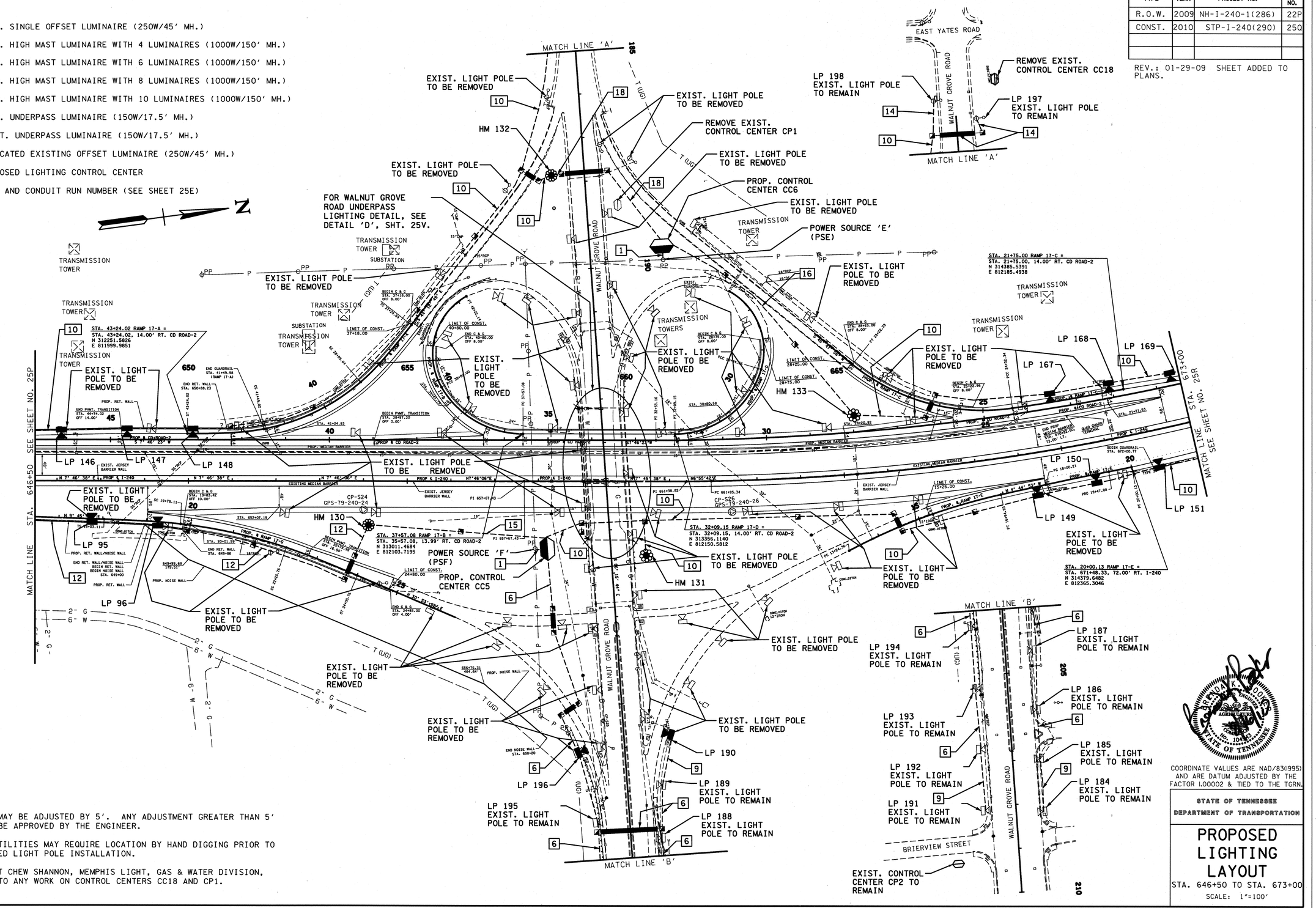
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22P
CONST.	2010	STP-I-240(290)	25Q

REV.: 01-29-09 SHEET ADDED TO PLANS.

LEGEND

- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)



NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.
3. CONTACT CHEW SHANNON, MEMPHIS LIGHT, GAS & WATER DIVISION, PRIOR TO ANY WORK ON CONTROL CENTERS CC18 AND CP1.

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 646+50 TO STA. 673+00

SCALE: 1"=100'

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

LEGEND

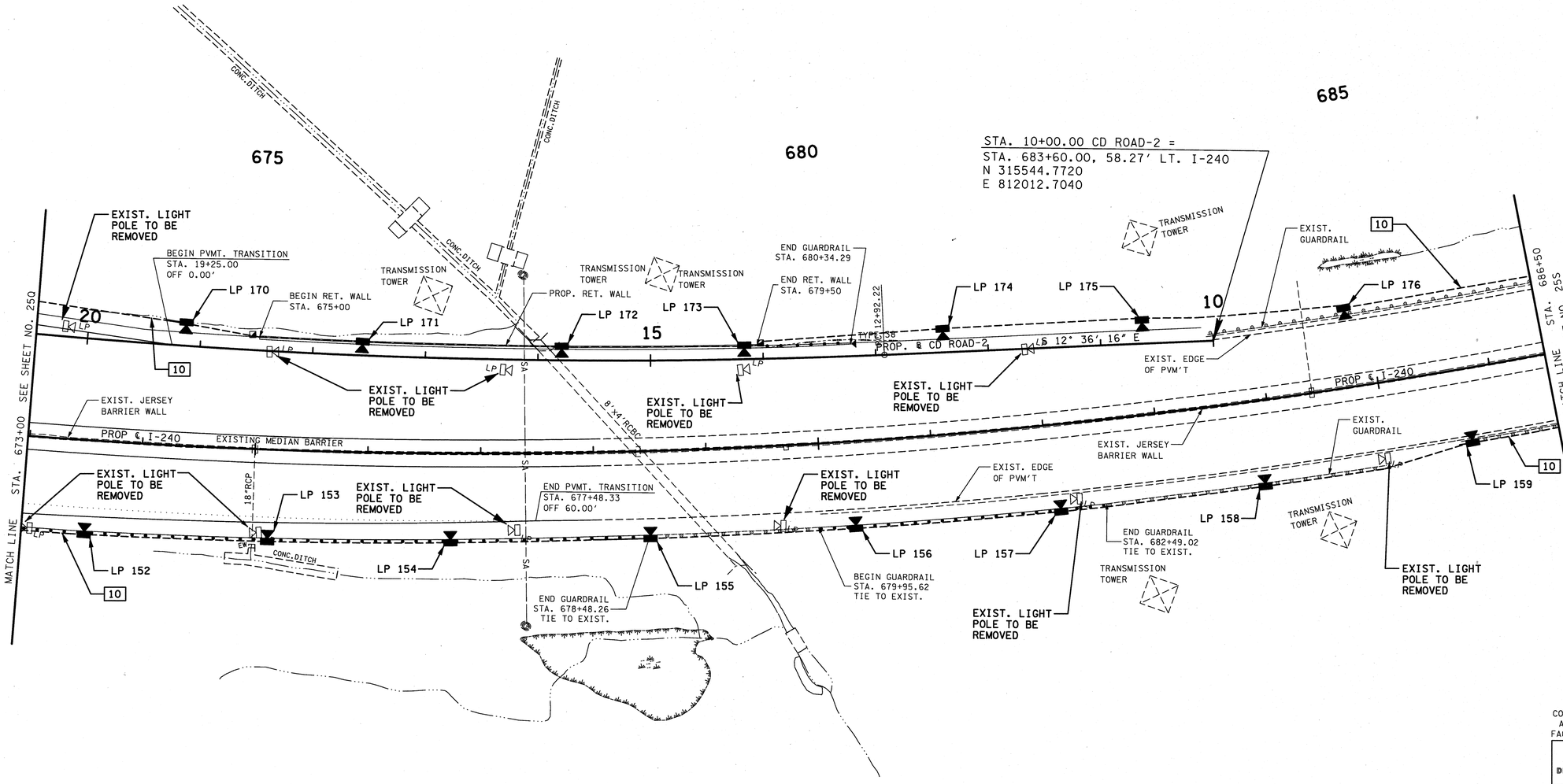
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	220
CONST.	2010	STP-I-240(290)	25R

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 673+00 TO STA. 686+50

SCALE: 1"= 50'

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

LEGEND

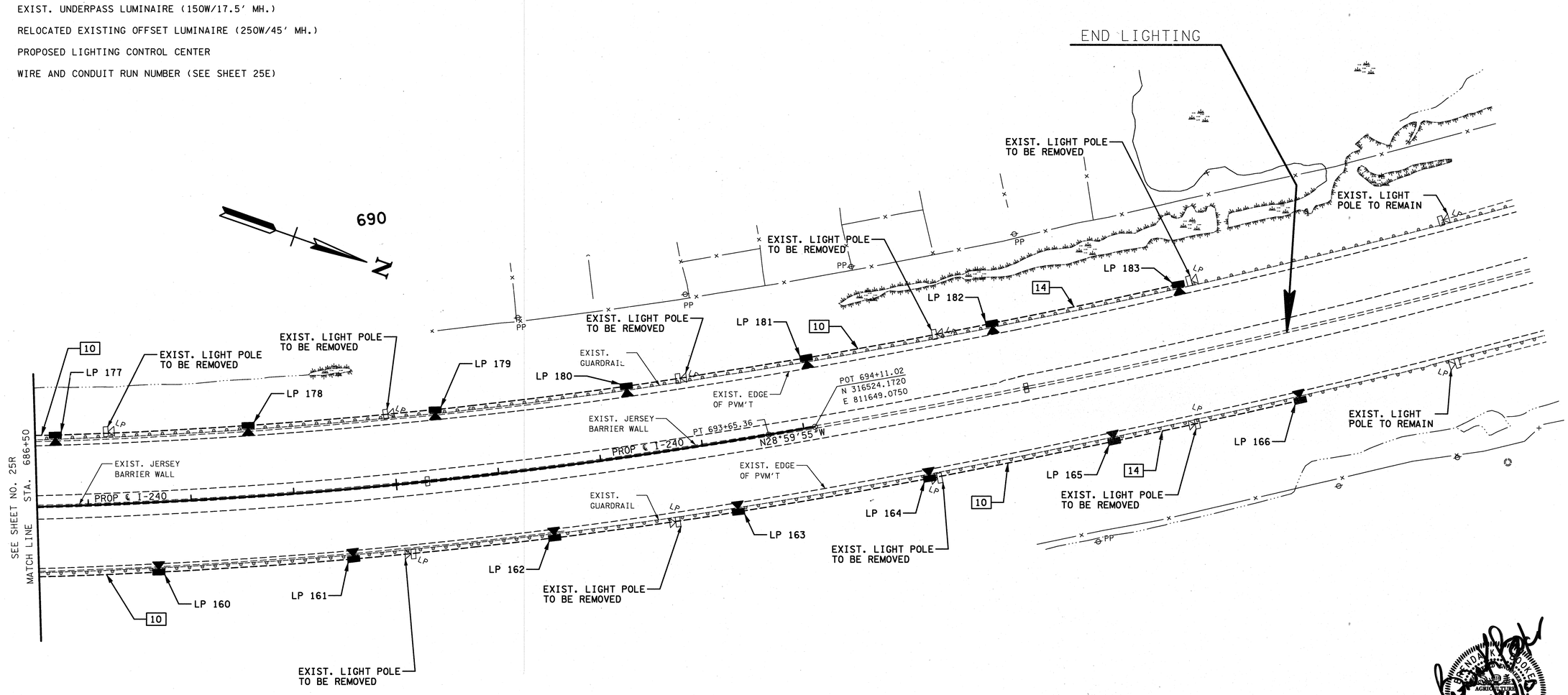
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22R
CONST.	2010	STP-I-240(290)	25S

REV.: 01-29-09 SHEET ADDED TO PLANS.



COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 686+50 TO END LIGHTING

SCALE: 1"= 50'

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

LEGEND

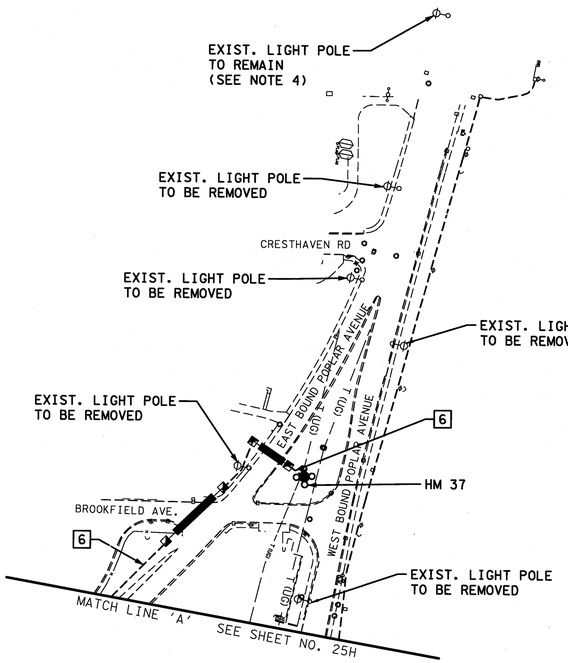
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

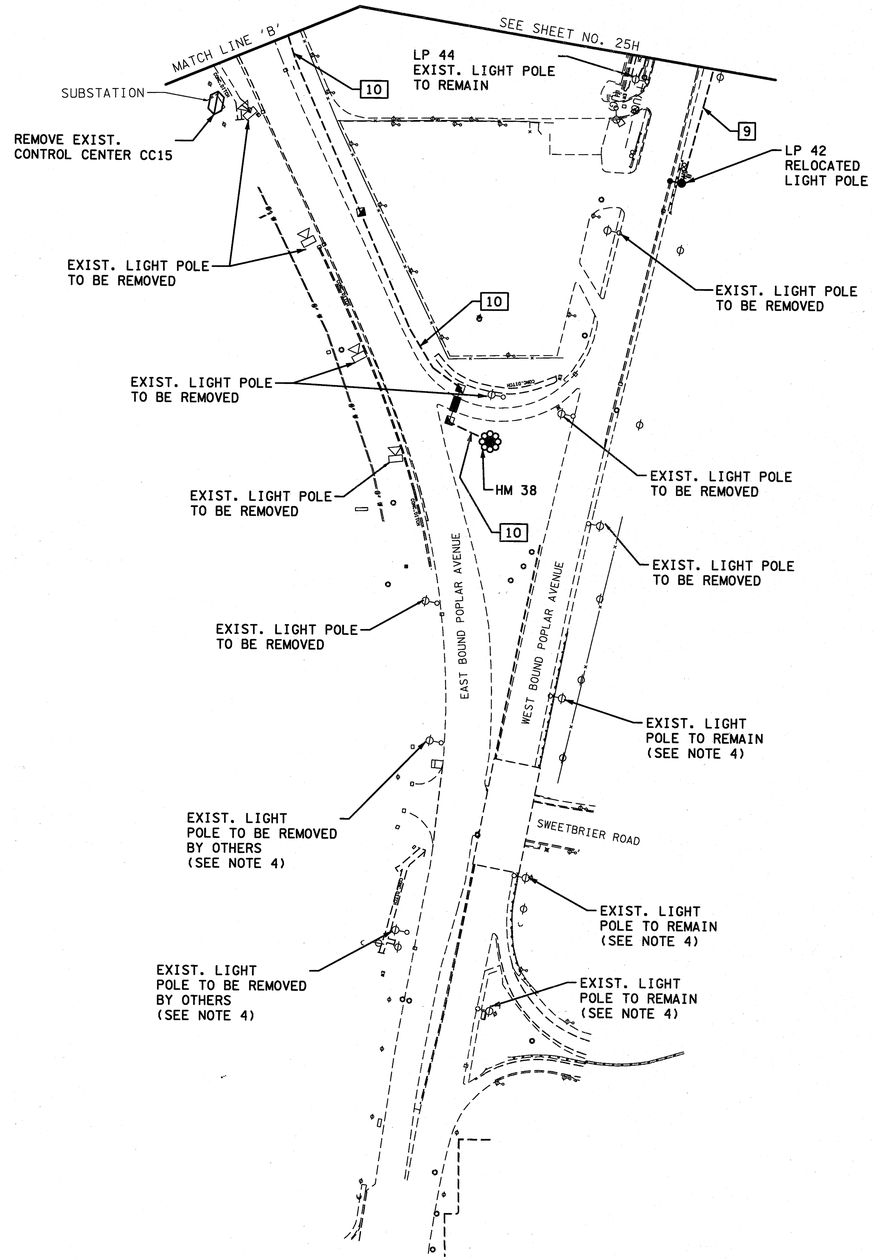
NOTES:

1. POLES MAY BE ADJUSTED BY 5'. ANY ADJUSTMENT GREATER THAN 5' SHALL BE APPROVED BY THE ENGINEER.
2. SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT POLE INSTALLATION.
3. CONTACT CHEW SHANNON, MEMPHIS LIGHT, GAS & WATER DIVISION, PRIOR TO ANY WORK ON CONTROL CENTER CC15.
4. EXISTING POLES TO REMAIN ARE NOT CONNECTED TO CC15 OR ANY OTHER CONTROL CENTERS ASSOCIATED WITH THIS PROJECT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22S
CONST.	2010	STP-I-240(290)	25T

REV.: 01-29-09 SHEET ADDED TO PLANS.





COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 544+00 TO STA. 570+00

SCALE: 1"=100'

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

LEGEND

- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

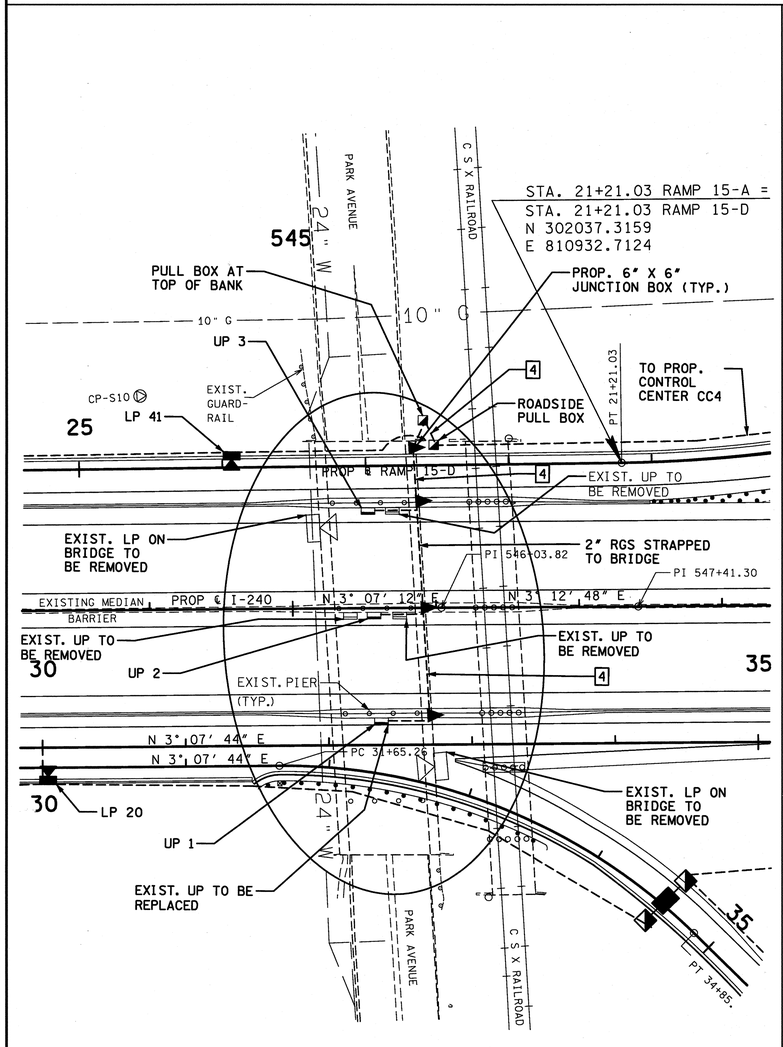
NOTES:

1. PROPOSED UNDERPASS LUMINAIRES SHALL BE INSTALLED IN THE CENTER OF THE PIER.
2. EXISTING UNDERPASS WALL MOUNTED LUMINAIRES SHALL BE REMOVED AND REPLACED WITH 150W HPS WALL MOUNTED LUMINAIRES IN THE LOCATIONS SHOWN.
3. EXISTING UNUSED CONDUIT IN PARAPET SHALL BE CAPPED ON BOTH ENDS.
4. THE PROP. 6" X 6" JUNCTION BOXES SHALL BE STRAPPED TO THE BRIDGE.

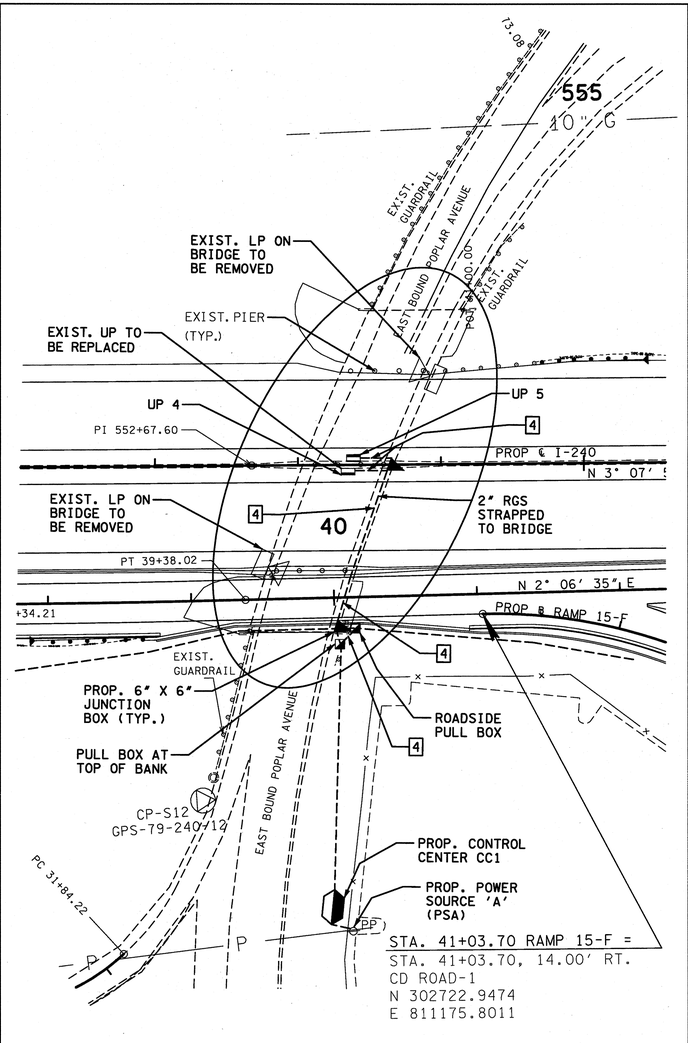
N

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22T
CONST.	2010	STP-I-240(290)	25U

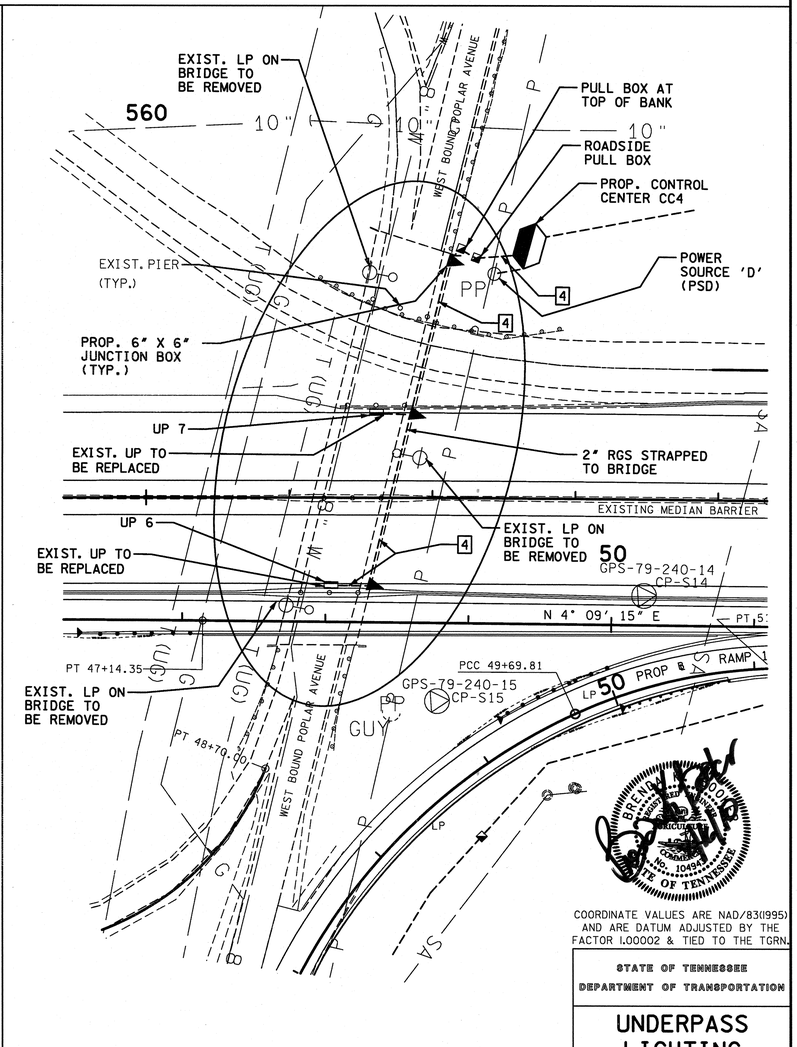
REV.: 01-29-09 SHEET ADDED TO PLANS.



DETAIL 'A'
I-240 AT PARK AVENUE



DETAIL 'B'
I-240 AT EASTBOUND POPLAR AVENUE



DETAIL 'C'
I-240 AT WESTBOUND POPLAR AVENUE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UNDERPASS LIGHTING DETAIL

I-240 AT PARK AVENUE AND POPLAR AVENUE
SCALE: 1"= 50'

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

LEGEND

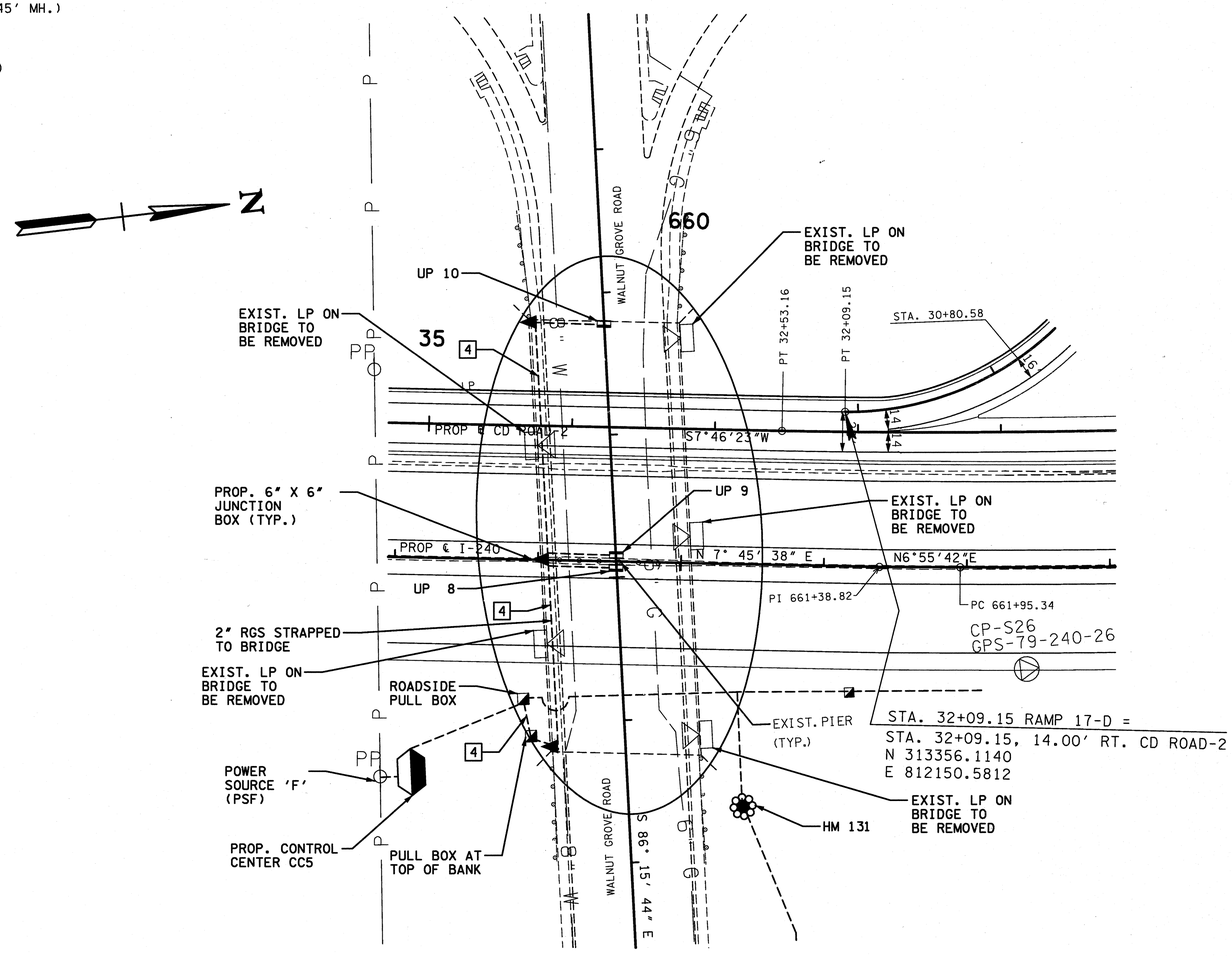
- PROP. SINGLE OFFSET LUMINAIRE (250W/45' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 4 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 6 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 8 LUMINAIRES (1000W/150' MH.)
- PROP. HIGH MAST LUMINAIRE WITH 10 LUMINAIRES (1000W/150' MH.)
- PROP. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- EXIST. UNDERPASS LUMINAIRE (150W/17.5' MH.)
- RELOCATED EXISTING OFFSET LUMINAIRE (250W/45' MH.)
- PROPOSED LIGHTING CONTROL CENTER
- [1] WIRE AND CONDUIT RUN NUMBER (SEE SHEET 25E)

NOTES:

1. PROPOSED UNDERPASS LUMINAIRES SHALL BE INSTALLED IN THE CENTER OF THE PIER.
2. EXISTING UNUSED CONDUIT IN PARAPET SHALL BE CAPPED ON BOTH ENDS.
3. THE PROP. 6" X 6" JUNCTION BOXES SHALL BE STRAPPED TO THE BRIDGE.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	NH-I-240-1(286)	22U
CONST.	2010	STP-I-240(290)	25V

REV.: 01-29-09 SHEET ADDED TO PLANS.



DETAIL 'D'
I-240 AT WALNUT GROVE ROAD

BRENDA L. BOOKER
LICENSED
PROFESSIONAL
ENGINEER
No. 104981
STATE OF TENNESSEE

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00002 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UNDERPASS LIGHTING DETAIL

I-240 AT WALNUT GROVE ROAD

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25W

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 1)

BEGIN RETAINING WALL I-240 C_L STA 534+00 RT
END RETAINING WALL I-240 C_L STA 544+70.60 RT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 14	45	I-240	534+95	RET. WALL	RT
LP 15	45	I-240	536+50	RET. WALL	RT
LP 16	45	I-240	538+00	RET. WALL	RT
LP 17	45	I-240	539+15	RET. WALL	RT
LP 18	45	I-240	540+55	RET. WALL	RT
LP 19	45	RAMP 15-G	28+66	RET. WALL	RT
LP 20	45	RAMP 15-G	30+06	RET. WALL	RT

OFFSET LIGHT POLE SCHEDULE ON RETAINING/NOISE WALL (NO. 4)

BEGIN RETAINING WALL I-240 C_L STA 564+50 RT
END RETAINING WALL I-240 C_L STA 611+90 RT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 46	45	RAMP 15-E	55+64	RET. WALL	RT
LP 47	45	RAMP 15-E	56+89	RET. WALL	RT
LP 48	45	RAMP 15-E	58+14	RET. WALL	RT
LP 49	45	CD ROAD-1	59+39	RET. WALL	RT
LP 50	45	CD ROAD-1	60+64	RET. WALL	RT
LP 51	45	CD ROAD-1	61+94	RET. WALL	RT
LP 52	45	CD ROAD-1	63+24	RET. WALL	RT
LP 53	45	CD ROAD-1	64+49	RET. WALL	RT
LP 54	45	CD ROAD-1	64+74	RET. WALL	RT
LP 55	45	CD ROAD-1	66+99	RET. WALL	RT
LP 56	45	CD ROAD-1	68+39	RET. WALL	RT
LP 57	45	I-240	583+20	RET. WALL	RT
LP 58	45	I-240	584+50	RET. WALL	RT
LP 59	45	I-240	586+00	RET. WALL	RT
LP 60	45	I-240	587+65	RET. WALL	RT
LP 61	45	I-240	589+35	RET. WALL	RT
LP 62	45	I-240	591+05	RET. WALL	RT
LP 63	45	I-240	592+80	RET. WALL	RT
LP 64	45	I-240	594+70	RET. WALL	RT
LP 65	45	I-240	596+50	RET. WALL	RT
LP 66	45	I-240	598+30	RET. WALL	RT
LP 67	45	I-240	600+15	RET. WALL	RT
LP 68	45	I-240	601+95	RET. WALL	RT
LP 69	45	I-240	603+80	RET. WALL	RT
LP 70	45	I-240	605+65	RET. WALL	RT
LP 71	45	I-240	607+50	RET. WALL	RT
LP 72	45	I-240	609+35	RET. WALL	RT
LP 73	45	I-240	611+15	RET. WALL	RT

BEGIN NOISE WALL I-240 C_L STA 611+90 RT
END NOISE WALL I-240 C_L STA 617+45 RT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 74	45	I-240	613+00	NOISE WALL	RT
LP 75	45	I-240	614+85	NOISE WALL	RT
LP 76	45	I-240	616+70	NOISE WALL	RT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 7)

BEGIN RETAINING WALL I-240 C_L STA 638+75 RT
END RETAINING WALL I-240 C_L STA 649+86 RT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 89	45	I-240	638+90	RET. WALL	RT
LP 90	45	I-240	640+30	RET. WALL	RT
LP 91	45	I-240	641+80	RET. WALL	RT
LP 92	45	I-240	643+30	RET. WALL	RT
LP 93	45	I-240	644+80	RET. WALL	RT
LP 94	45	I-240	646+30	RET. WALL	RT
LP 95	45	I-240	647+80	RET. WALL	RT
LP 96	45	I-240	649+30	RET. WALL	LT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 8)

BEGIN RETAINING WALL I-240 C_L STA 675+00 LT
END RETAINING WALL I-240 C_L STA 679+50 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 171	45	I-240	675+95	RET. WALL	LT
LP 172	45	I-240	677+75	RET. WALL	LT
LP 173	45	I-240	679+40	RET. WALL	LT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 9)

BEGIN RETAINING WALL I-240 C_L STA 630+50 LT
END RETAINING WALL I-240 C_L STA 650+88.23 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 135	45	CD ROAD-2	62+67	RET. WALL	LT
LP 136	45	CD ROAD-2	61+07	RET. WALL	LT
LP 137	45	CD ROAD-2	59+52	RET. WALL	LT
LP 138	45	CD ROAD-2	57+97	RET. WALL	LT
LP 139	45	CD ROAD-2	56+42	RET. WALL	LT
LP 140	45	CD ROAD-2	54+87	RET. WALL	LT
LP 141	45	CD ROAD-2	53+47	RET. WALL	LT
LP 142	45	CD ROAD-2	52+07	RET. WALL	LT
LP 143	45	CD ROAD-2	50+62	RET. WALL	LT
LP 144	45	CD ROAD-2	49+12	RET. WALL	LT
LP 145	45	CD ROAD-2	47+62	RET. WALL	LT
LP 146	45	CD ROAD-2	46+12	RET. WALL	LT
LP 147	45	CD ROAD-2	44+62	RET. WALL	LT
LP 148	45	CD ROAD-2	43+12	RET. WALL	LT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 10)

BEGIN RETAINING WALL I-240 C_L STA 595+00 LT
END RETAINING WALL I-240 C_L STA 608+00 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 116	45	I-240	595+55	RET. WALL	LT
LP 117	45	I-240	597+40	RET. WALL	LT
LP 118	45	I-240	599+25	RET. WALL	LT
LP 119	45	I-240	601+05	RET. WALL	LT
LP 120	45	I-240	602+90	RET. WALL	LT
LP 121	45	I-240	604+75	RET. WALL	LT
LP 122	45	I-240	606+60	RET. WALL	LT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 11)

BEGIN RETAINING WALL I-240 C_L STA 573+50 LT
END RETAINING WALL I-240 C_L STA 585+50 LT (1200 LF)

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 102	45	RAMP 15-C	28+07	RET. WALL	LT
LP 103	45	RAMP 15-C	26+77	RET. WALL	LT
LP 104	45	RAMP 15-C	25+47	RET. WALL	LT
LP 105	45	RAMP 15-C	24+22	RET. WALL	LT
LP 106	45	RAMP 15-C	22+98	RET. WALL	LT
LP 107	45	RAMP 15-C	21+63	RET. WALL	LT
LP 108	45	RAMP 15-C	20+38	RET. WALL	LT
LP 109	45	I-240	583+80	RET. WALL	LT
LP 110	45	I-240	585+15	RET. WALL	LT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 12)

BEGIN RETAINING WALL I-240 C_L STA 566+00 LT
END RETAINING WALL I-240 C_L STA 569+00 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 97	45	RAMP 15-C	34+33	RET. WALL	LT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 13)

BEGIN RETAINING WALL I-240 C_L STA 539+50 LT
END RETAINING WALL RAMP 15-D C_L STA 14+40 RT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 38	45	RAMP 15-D	27+92	RET. WALL	RT
LP 39	45	RAMP 15-D	26+62	RET. WALL	RT
LP 40	45	RAMP 15-D	25+22	RET. WALL	RT
LP 41	45	RAMP 15-D	23+92	RET. WALL	RT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 14)

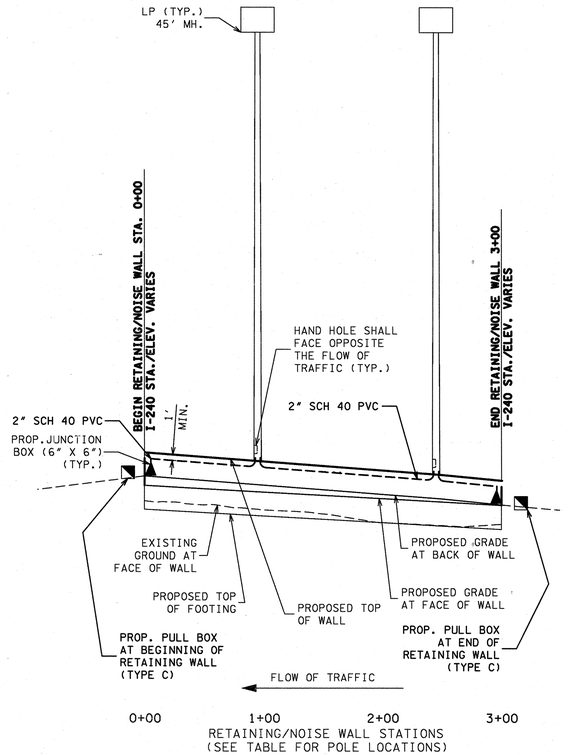
BEGIN RETAINING WALL I-240 C_L STA 531+00 LT
END RETAINING WALL I-240 C_L STA 534+00 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 32	45	RAMP 15-D	36+57	RET. WALL	RT
LP 33	45	RAMP 15-D	35+06	RET. WALL	RT

OFFSET LIGHT POLE SCHEDULE ON RETAINING WALL (NO. 15)

BEGIN RETAINING WALL I-240 C_L STA 524+00 LT
END RETAINING WALL I-240 C_L STA 525+00 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 27	45	I-240	524+65	RET. WALL	LT



RETAINING/NOISE WALL
DETAIL (TYP.)
(NTS)

NOTE:

1. CONDUIT SHALL BE PRECAST IN THE RETAINING/NOISE WALLS.

BRENDA K. BOOKER
REGISTERED
No. 104...
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RETAINING/ NOISE WALL LIGHTING DETAILS

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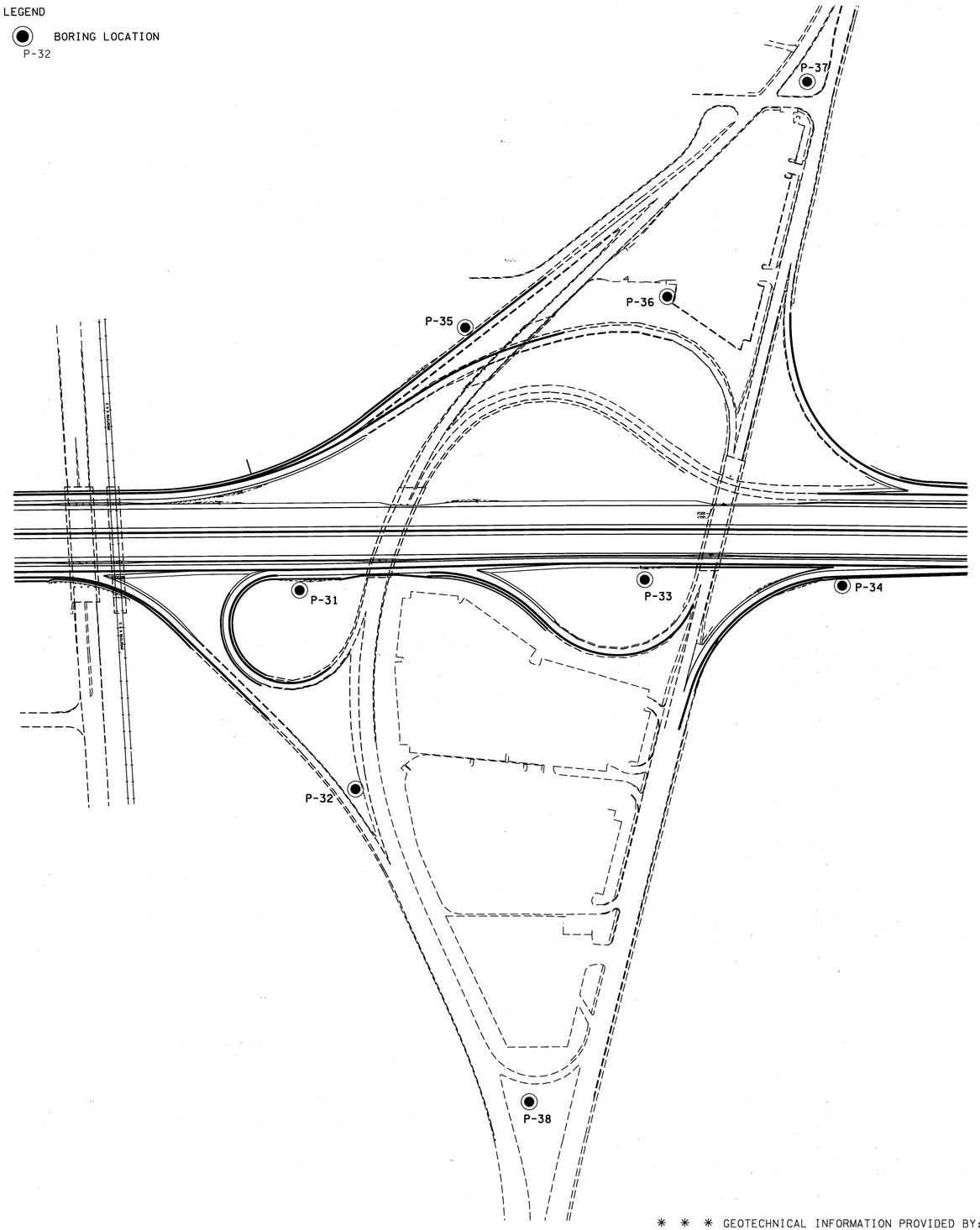
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25X

LEGEND

BORING LOCATION
P-32



GEOTECHNICAL NOTES

1. The boring locations were established by survey in the field. Each exploratory location was advanced to 50 feet below the ground surface and terminated within the soil overburden. The overburden encountered was drive sampled in general accordance with ASTM D 1586 (Penetration Test and Split-barrel Sampling of Soils).

2. In addition to the split barrel soil sampling, a total of five undisturbed Shelby tube soil samples were collected from various depths and locations.

3. The soil samples were visually classified, and selected soil samples were subjected to laboratory testing to determine pertinent engineering characteristics. Specifically, tests included determination of the soil's Atterberg limits, unconfined compression test (UCT), unit weight, and natural moisture content. The laboratory test results for borings P-32, P-37, P-130, P-131, and P-132 are summarized in below.

Boring	Depth (feet)	Natural Moisture Content (%)	Atterberg Limits			USCS Classification	Dry Unit Weight (pcf)	Q_u (ksf)
			LL	PL	PI			
P-32	13.0 - 15.0	20.6	29	20	9	CL	103.5	2.5
P-37	10.0 - 12.0	21.8	33	20	13	CL	100.6	2.1
P-130	10.0 - 12.0	27.1	41	15	26	CL	95.1	6.5
P-131	25.0 -27.0	20.2	45	18	27	CL	101.1	4.5
P-132	18.0 -20.0	22.4				N/P	100.4	0.7

4. At the locations explored, the generalized soil profile includes a surficial interval of topsoil underlain by interbedded sand, gravel and clay layers to the depths explored.

5. Based on Geologic literature, this area is underlain by interbedded Quaternary Loess (windblown clayey silt that occurs along the bluffs of the Mississippi River) and Quaternary alluvial beds of sand, silt, and gravel (deposited within the floodplains of the various rivers and creeks of the area). The thickness of the loess and alluvial deposits can exceed 100 feet.

6. Refusal was not encountered within any of the boring locations and upon completion of the drilling activities all the borings were dry, except for P-130 and P-132. Groundwater was encountered at a depth of 9 and 14 feet below the surface. The groundwater table at this site is most likely at the approximate elevation of the nearby Wolf River. We also anticipate that some "perched" or "trapped" water may be expected within local areas at the sand/clay interface above the Wolf River elevation.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BORING LOCATIONS AND GEOTECHNICAL NOTES

I-240 AT POPLAR AVENUE

SCALE: 1"=150'

* * * GEOTECHNICAL INFORMATION PROVIDED BY: TTL, INC., ON FILE WITH TDOT TRAFFIC DESIGN (FORMERLY GEOSCIENCES DESIGN GROUP, LLC.) * * *

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25Y

LEGEND

BORING LOCATION
P-130

GEOTECHNICAL NOTES CONTINUED

7. Each proposed High Mast Pole can be safely founded by means of a deep foundation system consisting of a straight shaft drilled pier. The actual size and depth of each pier is dependent upon the associated loading. The proportioning of the foundation system should be based on an appropriate balance between the requirements for the axial loading, lateral loading and the overturning conditions. The engineering parameters of the overburden based on interpretation of the subsurface conditions are presented in the following table.

Subgrade Description	Engineering Parameters					
	Effective/Total Stress					
	c'/c psf	ϕ' /ϕ	γ_m/γ_{sat} pcf	ε_{50}	k pci	q_{all} psf
Topsoil	-	-	-	-	-	-
Clay	0/1000	22°/0°	122/130	.01	800	2,500
Submerged Clay	0/650	15°/0°	67.6	.02	500	1,500
Sand	0	35°	123	-	90	3,000
Submerged Sand	0	35°	67.6	-	60	3,000
Sand and Rock	0	42°	125	-	90	3,000
Submerged Sand and Rock	0	42°	72.6	-	60	3,000

8. Deep foundation systems, such as drilled piers can provide a satisfactory foundation. The axial loads will be resisted by the bearing capacity of the material exposed at the base of the foundation combined with the skin friction/adhesion between the deep foundation element and the surrounding materials. The allowable bearing capacity should include a factor of safety of at least three against general shear failure. A factor of safety of at least 2 should be used when calculating the resistance to lateral loads and a depth below the ground surface equal to 1.5 pier diameters should be neglected.

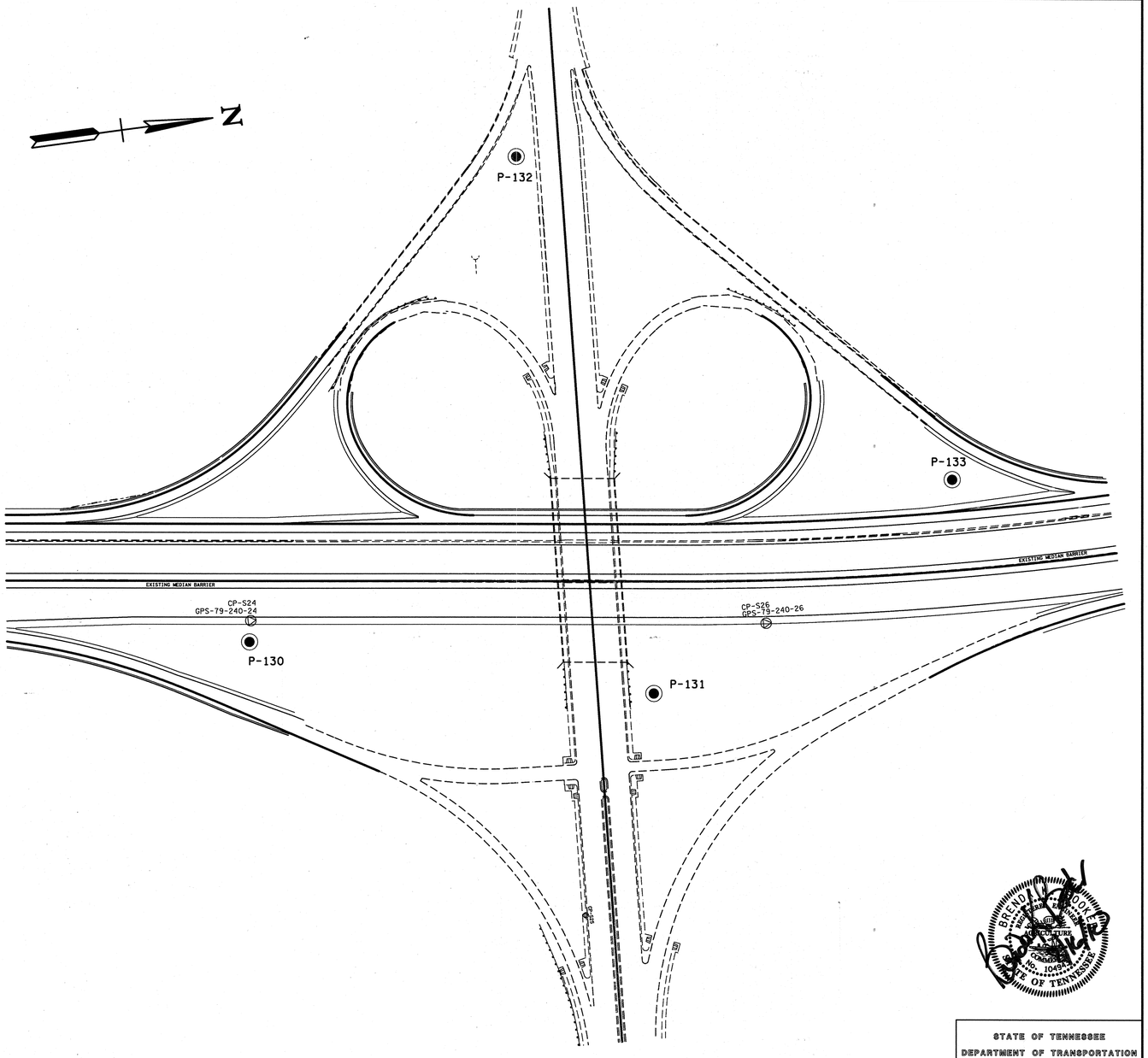
9. The lateral capacity of a pier system will be determined by a combination of the type and stiffness of the foundation element and the soil response in each stratum. Values typical for the materials encountered are presented in the previous table.

10. During installation of the drilled pier, the contractor will likely encounter ground water inflows during excavation at locations P130 and P132. The contractor shall maintain a dewatered excavation.

11. Temporary casing must also be provided for each drilled pier excavation if it becomes necessary for personnel to enter the excavation for cleaning or inspections. The casing should remain in place until concrete placement begins and then withdrawn in conjunction with the placement of concrete. The use of drilling slurry is not permitted.

12. Immediately prior to concrete placement, pier excavations should be visually examined by the engineer.

13. Any changes in the light pole locations or the formulation of structural loading will necessitate a review of the pole foundation recommendations cited above.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BORING LOCATIONS AND GEOTECHNICAL NOTES

I-240 AT POPLAR AVENUE

SCALE: 1"=100'

* * * GEOTECHNICAL INFORMATION PROVIDED BY: TTL, INC., ON FILE WITH TDOT TRAFFIC DESIGN (FORMERLY GEOSCIENCES DESIGN GROUP, LLC.) * * *

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25Z

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/20/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 31
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	8 14 19	33		Sand, medium to coarse grained, reddish brown with weathered rock fragments
		SS - 2	16 16 21	37		
		SS - 3	29 21 50			
		SS - 4	20 31 38	69		
		SS - 5	16 35 35	70		
		SS - 6	24 30 42	72		
		SS - 7	23 36	72		Sand, medium grained, reddish brown
		SS - 8	11 16 26	42		Sand, medium grained, slightly clayey, brown
		SS - 9	22 34 35	69		Sand, medium grained, light brown
		SS - 10	15 20 25	45		Sand, medium grained, reddish brown
		SS - 11	16 21 19	40		Sand, medium grained, light brown
		SS - 12	15 22 23	44		Sand, fine grained, brown
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/16/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 32
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	9 12 17	29		Clay, sandy (coarse grained), reddish brown with rounded gravel
		SS - 2	5 10 8	18		
		SS - 3	4 5 4	9		Clay, silty, brown
		SS - 4	10 12 11	23		
		SS - 5	6 ~6~ ~7~	13		
		SS - 6	41 44 40	84		Sand, medium grained, reddish brown
		SS - 7	50	50		Sand, coarse grained, slightly clayey, reddish brown with rounded gravel
		SS - 8	50	50		
		SS - 9	50	50		Sand, coarse grained, brown
		SS - 10	50	50		Sand, coarse grained, brown with rock fragments
		SS - 11	50	50		
		SS - 12	9 12 11	23		Sand, fine grained, reddish brown
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/16/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 33
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	6 12 16	28		Sand, coarse grained, slightly clayey, reddish brown with weathered rock fragments
		SS - 2	17 19 21	40		
		SS - 3	23 30 23	53		
		SS - 4	25 32 31	63		Sand, coarse grained, reddish brown with rounded gravel
		SS - 5	50	50		
		SS - 6	50	50		Sand, fine grained, reddish brown
		SS - 7	50	50		Sand, coarse grained, reddish brown with rounded gravel
		SS - 8	29 30	59		
		SS - 9	10 10 13	23		Sand, fine grained, reddish brown
		SS - 10	11 11 16	27		Sand, fine grained, brown
		SS - 11	22 21 22	43		
		SS - 12	11 23 20	40		Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/20/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 34
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	5 7 13	20		Clay, silty, brown
		SS - 2	11 15 11	26		
		SS - 3	9 14 11	25		
		SS - 4	12 14 33	47		Sand, coarse grained, slightly clayey, reddish brown with weathered rock fragments
		SS - 5	50	50		
		SS - 6	50	50		
		SS - 7	50	50		
		SS - 8	29 35 35	70		Sand, fine grained, brown
		SS - 9	25 30 35	65		
		SS - 10	50	50		
		SS - 11	18 ~7~ ~7~	14		
		SS - 12	7 8 9	17		Clay, silty, brown
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/16/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 35
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	5 6 7	13		Clay, silty, brown
		SS - 2	3 3 3	6		
		SS - 3	12 13 13	26		
		SS - 4	8 9 11	20		
		SS - 5	30 41 43	84		Sand, coarse grained, slightly clayey, reddish brown with weathered rock fragments
		SS - 6	50	50		
		SS - 7	25 32 36	68		Sand, coarse grained, reddish brown with rounded gravel
		SS - 8	50	50		
		SS - 9	50	50		
		SS - 10	50	50		
		SS - 11	13 13 16	29		Sand, fine grained, brown
		SS - 12	4 4 6	10		Clay, silty, brown
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/19/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 36
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	10 11 11	22		Clay, silty, dark brown
		SS - 2	4 6 8	14		Clay, silty, brown
		SS - 3	6 8 10	18		
		SS - 4	7 14 21	35		
		SS - 5	18 28 25	53		Sand, coarse grained, slightly clayey, reddish brown with weathered rock fragments
		SS - 6	33 50 50	90		
		SS - 7	50	50		Sand, coarse grained, reddish brown with rounded gravel
		SS - 8	50	50		
		SS - 9	29 50 50	90		
		SS - 10	50	50		
		SS - 11	50	50		Sand, fine grained, reddish brown
		SS - 12	50	50		
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

* * * GEOTECHNICAL INFORMATION PROVIDED BY: TTL, INC., ON FILE WITH TDOT TRAFFIC DESIGN (FORMERLY GEOSCIENCES DESIGN GROUP, LLC.) * * *

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BORE LOGS

I-240 AT POPLAR AVENUE
SCALE: NONE

8/7/2010 7:34:02 PM
C:\Booker\OL_ACTIVE\TDOT\E026\SHELBY\OL-I-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM. CONST FILE WITH STAMP\025Z.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25AA

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/16/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 37
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	7 9 10	19		Clay, silty, brown
5		SS - 2	5 5 4	9		
		SS - 3	4 4 6	10		
10		SS - 4	4 6 8	14		
		ST - 5	8			
15		SS - 6	4 6 9	15		
20		SS - 7	6 7 7	14		
25		SS - 8	14 43 22	65		Sand, coarse grained, slightly clayey, reddish brown with weathered rock fragments
30		SS - 9	50			Sand, coarse grained, reddish brown with rounded gravel
35		SS - 10	50			
40		SS - 11	50			
45		SS - 12	50			
50		SS - 13	50			Boring Terminated at 50.0 feet.
55						

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

PROJECT NAME I-240 Light Towers — PROJECT NUMBER: 07015
LOCATION Memphis, TN — DATE: 3/16/07
GROUND ELEVATION ____ WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 38
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0		SS - 1	4 5 5	10		Clay, silty, brown mottled gray
5		SS - 2	25 38 25	63		
		SS - 3	25 31 25	56		
10		SS - 4	50			Sand, coarse grained, slightly clayey, reddish brown with weathered rock fragments
15		SS - 6	50			
20		SS - 7	24 42 43	85		
25		SS - 8	50			
30		SS - 9	50			
35		SS - 10	50			
40		SS - 11	50			
45		SS - 12	50			
50		SS - 13	2 2 2	4		Clay, silty, brown
						Boring Terminated at 50.0 feet.
55						

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

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* * * GEOTECHNICAL INFORMATION PROVIDED BY: TTL, INC., ON FILE WITH TDOT TRAFFIC DESIGN (FORMERLY GEOSCIENCES DESIGN GROUP, LLC.) * * *

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BORE LOGS

I-240 AT POPLAR AVENUE
SCALE: NONE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25BB

LOCATION Memphis, TN DATE: 3/6/07
WATER LEVELS AT COMPLETION: 9.0 DELAYED: 9.0
REMARKS

BORING NO. P 130
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
		SS - 1	6 8 11	19		Sand, medium grained, reddish brown
		SS - 2	5 13 8	21		Sand, coarse grained, reddish brown with weathered rock fragments
		SS - 3	1 2 2	4		Clay, silty, brown
		SS - 4	2 3 3	6		
		ST - 5				
		SS - 6	3 4 5	9		
		SS - 7	4 8 10	18		Clay, sandy (fine grained), dark gray
		SS - 8	7 10 11	21		
		SS - 9	6 11 15	26		
		SS - 10	7 15 16	31		Clay, dark gray
		SS - 11	6 13 17	30		
		SS - 12	6 13 18	31		Clay, yellowish brown Sand, fine grained, brown
		SS - 13	10 18 18	36		
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

LOCATION Memphis, TN DATE: 3/6/07
WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 131
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
		SS - 1	4 5 4	9		Clay, sandy (coarse grained), brown
		SS - 2	7 8 11	19		Clay, silty, brown
		SS - 3	4 5 7	12		
		SS - 4	8 16 17	33		Sand, coarse grained, reddish brown with weathered rock fragments
		SS - 6	24 35 40	75		Sand, medium grained, reddish brown
		SS - 7	15 29 35	64		Sand, medium grained, reddish brown with weathered rock fragments
		SS - 8	4 4 6	10		Clay, gray
		ST - 9				
		SS - 10	4 4 5	9		
		SS - 11	5 7 11	18		
		SS - 12	8 8 7	15		Sand, fine grained, brown
		SS - 13	6 6 8	14		
		SS - 14	7 7 8	15		Sand, fine grained, yellowish brown
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

LOCATION Memphis, TN DATE: 3/5/07
WATER LEVELS AT COMPLETION: 14.0 DELAYED: 14.0
REMARKS

BORING NO. P 132
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
		SS - 1	9 16 14	30		Clay, sandy (coarse grained), brown
		SS - 2	12 14 18	32		Clay, silty, brown
		SS - 3	10 20 25	45		Sand, coarse grained, reddish brown with weathered rock fragments
		SS - 4	23 32 44	76		
		SS - 5	19 29 40	69		
		SS - 6	2 2 4	6		Clay, gray
		SS - 7	6 7 10	17		Sand, fine grained, yellowish brown
		SS - 8	10 14 13	27		
		SS - 9	7 8 11	19		Clay, very silty, dark gray
		SS - 10	9 11 14	25		
		SS - 11	13 19 21	40		
		SS - 12	8 9 11	20		
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

LOCATION Memphis, TN DATE: 3/5/07
WATER LEVELS AT COMPLETION: Dry DELAYED: Dry
REMARKS

BORING NO. P 133
PAGE 1 OF 1

DEPTH	ELEVATION (FEET)	SAMPLE NO.	BLOW COUNTS	N-VALUE	SAMPLE GRAPHIC LOG	LITHOLOGIC DESCRIPTION
		SS - 1	5 10 8	18		Sand, coarse grained, clayey, dark brown with weathered rock fragments
		SS - 2	5 10 11	21		Sand, medium grained, reddish brown
		SS - 3	6 7 9	16		Sand, fine grained, light brown
		SS - 4	8 9 11	20		
		SS - 5	8 8 10	18		Sand, fine grained, yellowish brown
		SS - 6	7 9 11	20		
		SS - 7	11 15 18	33		
		SS - 8	11 13 17	30		Sand, fine grained, reddish brown
		SS - 9	5 11 13	24		
		SS - 10	11 19 18	37		Sand, fine grained, brown
		SS - 11	13 19 18	37		
		SS - 12	15 20 25	45		
						Boring Terminated at 50.0 feet.

SPT N-VALUE (CONSISTENCY): 2 5 8 15 30 50

* * * GEOTECHNICAL INFORMATION PROVIDED BY: TTL, INC., ON FILE WITH TDOT TRAFFIC DESIGN (FORMERLY GEOSCIENCES DESIGN GROUP, LLC.) * * *

BRENDA K. BOOKER
REGISTERED
ENGINEER
AGRICULTURE
COMMERCE
10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BORE LOGS

I-240 AT WALNUT GROVE ROAD
SCALE: NONE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25CC

HIGH MAST FOUNDATION NOTES

(1) REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.

(2) CONCRETE SHALL BE CLASS 'A' WITH A MIN. 28-DAY COMPRESSIVE STRENGTH OF 3.0 ksi.

(3) DO NOT GROUT BETWEEN BOTTOM OF BASE PLATE AND TOP OF CONCRETE FOUNDATION.

(4) ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (STEEL) ANSI/AWS D1.1 (CURRENT EDITION).

(5) THE DESIGN WIND SPEED IS 90 MPH.

(6) FOR GROUNDING DETAILS, SEE TDOT STANDARD DWG. T-L-1.

(7) ALL STEEL ITEMS SHALL BE GALVANIZED AS FOLLOWS:

ALL NUTS, BOLTS AND WASHERS..... ASTM A153 CLASS C OR D DEPENDING ON SIZE

ALL OTHER STEEL ITEMS..... ASTM A123

(8) CONTRACTOR SHALL COORDINATE ANCHOR BOLT REQUIREMENTS WITH FABRICATOR.

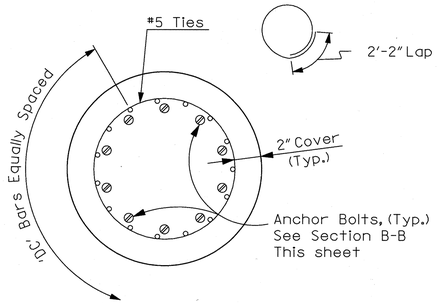
(9) THE ANCHOR BOLTS, BOLT PATTERN, WELDS AND PLATE SIZE VALUES ARE FOR INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE POLE MANUFACTURER TO PROVIDE BOLT PATTERN AND SIZES.

(10) THE TOP NUT SHALL BE TORQUED SO AS TO PRODUCE 60% YIELD STRESS OF ANCHOR BOLT.

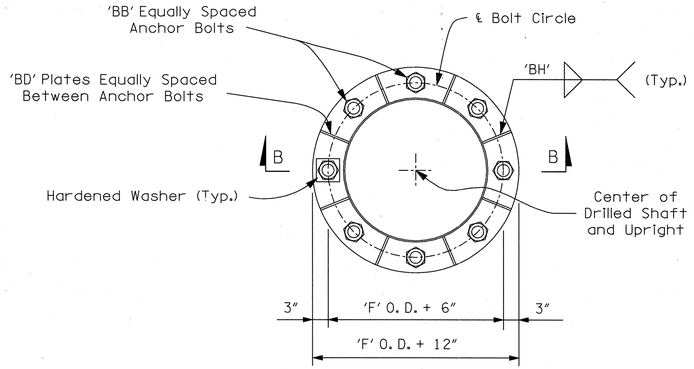
(11) THE FOUNDATION DESIGN IS BASED ON BORINGS TAKEN BY TTL, INC., FORMERLY GEOSCIENCES DESIGN GROUP, LLC.

(12) THE HIGH MAST FOUNDATION DESIGN IS BASED ON 150' HIGH MAST POLES.

(13) CONSERVATIVE SOIL TYPE CONDITIONS BETWEEN SAND OR CLAY WAS USED FOR THE DESIGN OF HIGH MAST SHAFTS.



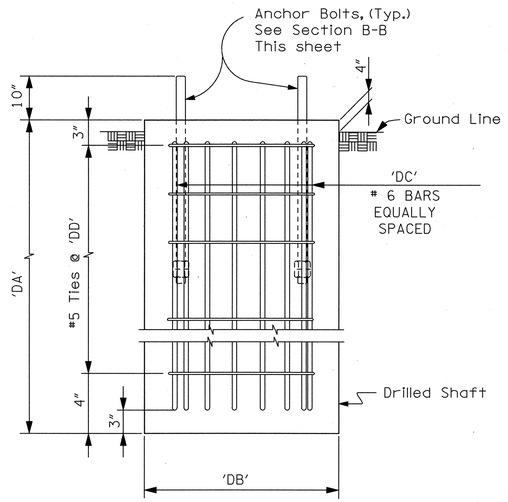
PLAN VIEW
DRILLED SHAFT



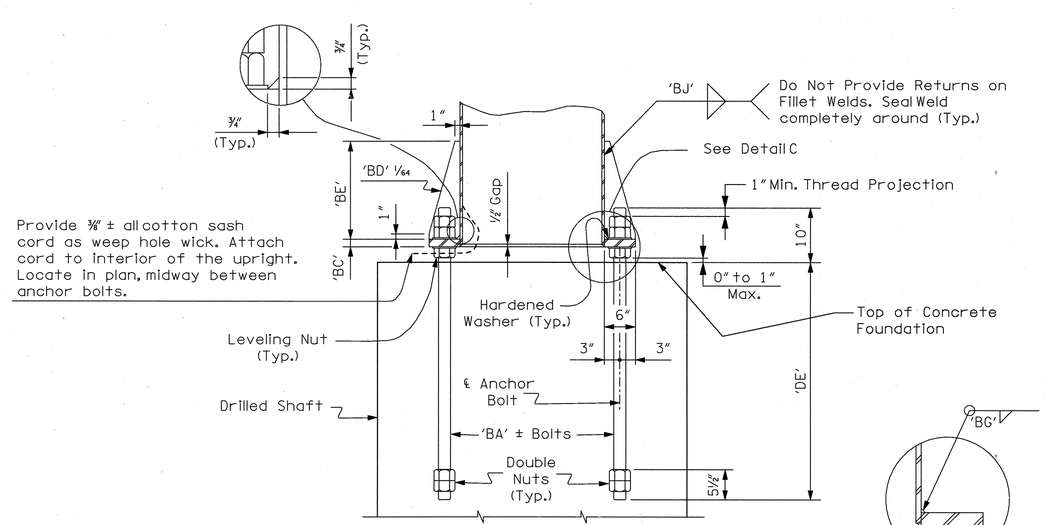
PLAN VIEW
BASE PLATE

HIGH MAST POLES
HM 31 THRU HM 38
AND
HM 130 THRU HM 133
(MH = 150')

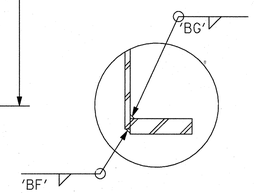
FOUNDATION DIMENSIONS	
SYMBOL	VALUE
BA	2¾" DIA.
BB	8
BC	1⅜"
BD	⅜"
BE	1'-6"
BF	⅜"
BG	⅜"
BH	⅜"
BJ	⅜"
DA	23'-0"
DB	4'-6"
DC	23
DD	12" (MAX)
DE	6'-6"
F	24"



ELEVATION
DRILLED SHAFT



SECTION B-B



DETAIL C

* * * GEOTECHNICAL INFORMATION PROVIDED BY: TTL, INC., ON FILE WITH TDOT TRAFFIC DESIGN (FORMERLY GEOSCIENCES DESIGN GROUP, LLC.) * * *

8/13/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DETAILS

SCALE: NONE

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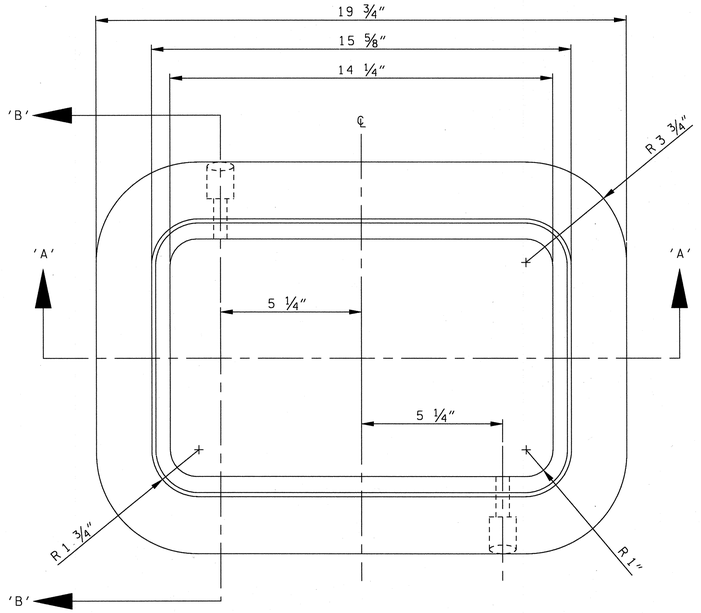
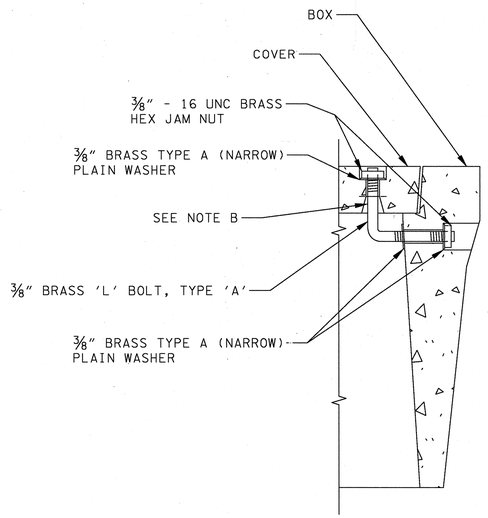
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

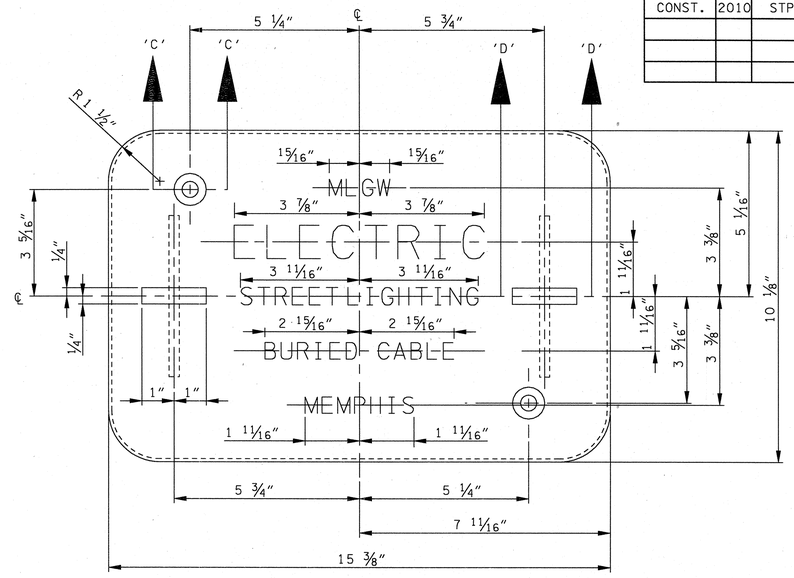
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25DD



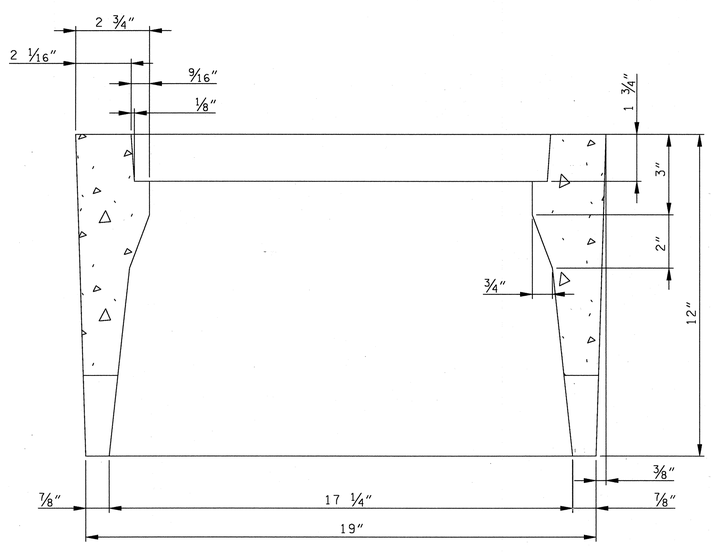
TOP VIEW
HANDHOLE
N.T.S.



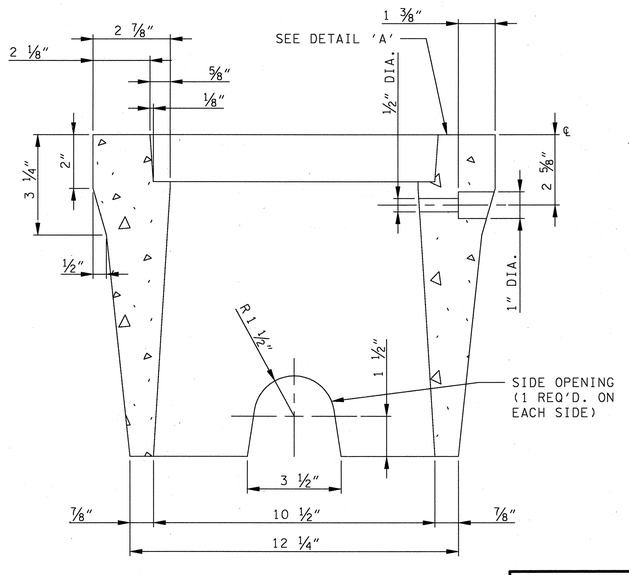
DETAIL 'A'
'L' BOLT ASSEMBLY



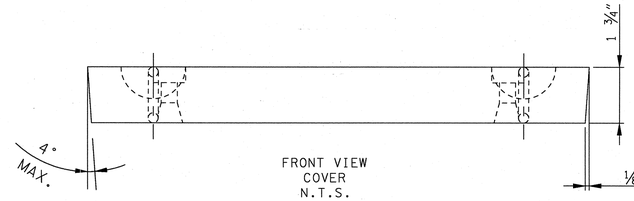
TOP VIEW
COVER
N.T.S.



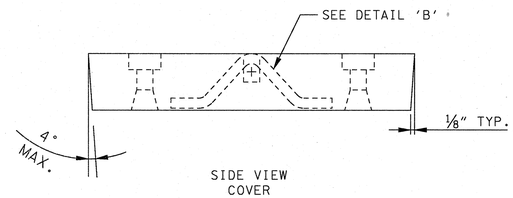
SECTION 'A' - 'A'
N.T.S.



SECTION 'B' - 'B'
N.T.S.



FRONT VIEW
COVER
N.T.S.



SIDE VIEW
COVER
N.T.S.

GENERAL NOTES

(A) THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 41-0250.

(B) WHEN SHIPPED, THE COVER SHALL BE SECURELY BOLTED DOWN IN THE HANDHOLE WITH 'L' BOLT ASSEMBLIES.

(C) WEIGHT: COVER - 17# APPROX.
HANDHOLE - 60# APPROX.
TOTAL - 77# APPROX.

PRECAST CONCRETE
ELECTRIC STREET
LIGHT HANDHOLE
10 ½" X 17 ¼" X 12"
WITH BOLT DOWN COVER
SHEET 1 OF 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

8/7/2010 7:39:05 PM
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TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25EE

SPECIFICATIONS

MATERIAL: THE CEMENT SHALL BE TYPE I OR TYPE II IN ACCORDANCE WITH ASTM DESIGNATION: C 150, 'STANDARD SPECIFICATION FOR PORTLAND CEMENT' AS LAST REVISED. THE AGGREGATE SHALL BE LIGHTWEIGHT IN ACCORDANCE WITH ASTM DESIGNATION: C330, 'STANDARD SPECIFICATION FOR LIGHTWEIGHT AGGREGATES FOR STRUCTURAL CONCRETE' AS LAST REVISED. ALSO, THE MAXIMUM SIZE OF THE COARSE AGGREGATE SHALL NOT EXCEED 1/5 OF THE MINIMUM WALL DIMENSION. THE PLAIN STEEL WIRE SHALL BE IN ACCORDANCE WITH ASTM DESIGNATION: A 82, 'STANDARD SPECIFICATION FOR STEEL WIRE, PLAIN, FOR CONCRETE REINFORCEMENT' AS LAST REVISED OR MEMPHIS LIGHT, GAS AND WATER DIVISION APPROVED EQUAL. THE LIFT EYE FOR THE COVER SHALL BE COMPLETELY DIPPED IN A PROTECTIVE ZINC COATING APPLIED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, 'STANDARD SPECIFICATION FOR ZINC COATING (HOT DIP) ON IRON AND STEEL HARDWARE' AS LAST REVISED OR MEMPHIS LIGHT, GAS AND WATER APPROVED EQUAL.

TOLERANCE: TOLERANCES SHALL BE HELD TO ± 1/16" OF THE DIMENSION SHOWN, EXCEPT WHEN INDICATED ON DRAWING, THEN THIS SHALL BE THE TOLERANCE THAT SHALL PREVAIL. DRAFT ANGLES SHALL NOT EXCEED 3 DEGREES UNLESS OTHERWISE SPECIFIED.

MANUFACTURING: TO ASSURE A TRUE LEVEL SURFACE AND A SMOOTH FINISH, BOTH PRODUCTS SHALL BE RAMMED IN METAL MOLDS AND BE SCREEDED OFF WITH A STRAIGHT EDGE. ALL TOP SURFACES OF THE HANDHOLES SHALL BE FLAT AND FINISHED SMOOTH. CORNERS AND EDGES SHALL BE ROUNDED. THE CONCRETE, AFTER CURING TO 90% OF ITS ULTIMATE STRENGTH, SHALL BE 4000 PSI.

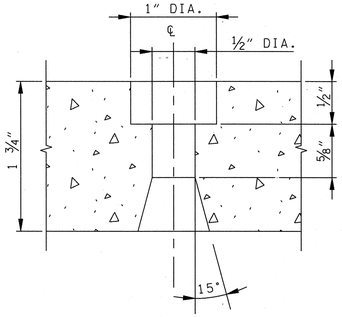
MARKING: THE COVER SHALL HAVE LETTERING TO IDENTIFY OWNERSHIP, STREETLIGHT, BURIED CABLE AND CITY IN GOTHIC FACE WITH AN OVERALL HEIGHT OF 1/2" AND SUBDIVISION OF UTILITY WITH AN OVERALL HEIGHT OF 1" IN THE LOCATIONS AS SHOWN ON THE DRAWING.

ASSEMBLY: AFTER FABRICATION THE HANDHOLE SHALL HAVE TWO (2) 3/8" 'L' BOLTS, TYPE 'A', BRASS - BROOKS PRODUCTRS INCORPORATED CATALOG #PBOLTA. SIX (6) 3/8" TYPE A (NARROW) PLAIN WASHERS, BRASS (ANSI/ASME B(8.22.1) - BROOKS PRODUCTS, INCORPORATED CATALOG #PWASH2003 AND FOUR (4) 3/8" - 16 UNC HEX JAM NUTS, BRASS - BROOKS PRODUCTS, INCORPORATED CATALOG #PNUT2002 INSTALLED IN THE LOCATION SHOWN ON THE DRAWING.

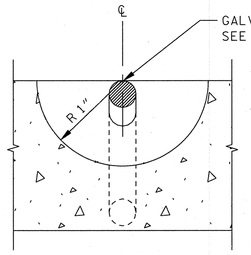
INSPECTION: MEMPHIS LIGHT, GAS AND WATER DIVISION RESERVES THE RIGHT TO REJECT ANY HANDHOLE THAT EXHIBITS A STRUCTURAL CRACK THAT WOULD IN THE OPINION OF THE DIVISION REPRESENTATIVE WEAKEN THE TOTAL ASSEMBLY. FAILURE TO MEET ANY ASPECT OF THESE SPECIFICATIONS WILL CONSTITUTE CAUSE FOR REJECTION.

SHIPPING: THE HANDHOLE AND COVER SHALL BE SHIPPED AS A COMPLETE UNIT WITH THE COVER SECURELY BOLTED DOWN IN THE HANDHOLE WITH THE 'L' BOLT ASSEMBLIES. EACH UNIT SHALL BE STACKED AND BANDED ON A PALLET AND MARKED WITH THE FOLLOWING INFORMATION.

MANUFACTURER'S NAME
MANUFACTURER'S CATALOG NUMBER
MEMPHIS LIGHT, GAS AND WATER DIVISION
CLASS-ITEM #43-0250
PRECRAST CONCRETE
ELECTRIC STREET LIGHT HANDHOLE
10 1/2" X 17 1/4" X 12"
WITH BOLT DOWN COVER
QUANTITY: _____



SECTION 'C' - 'C'



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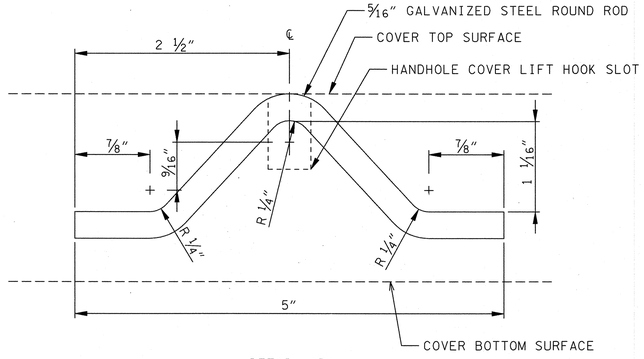
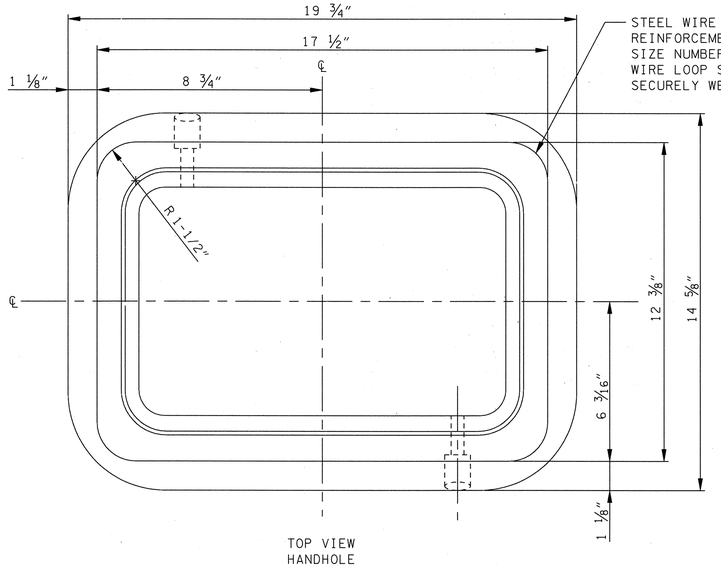
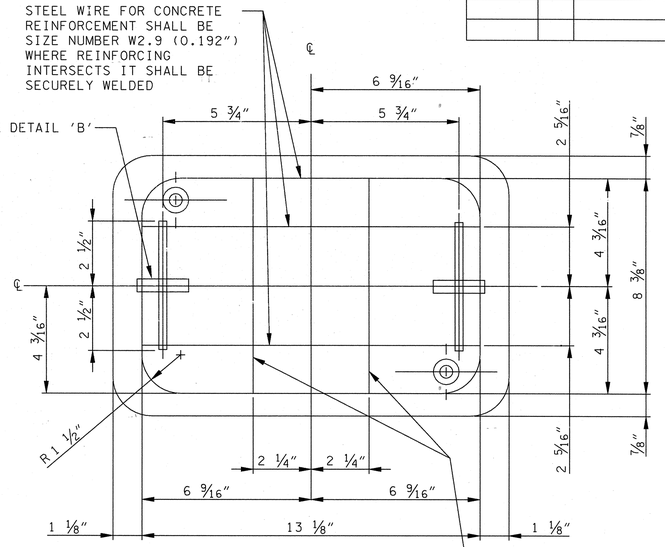


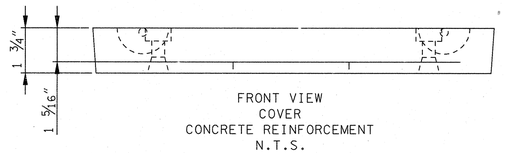
DETAIL 'B'
GALVANIZED LIFT EYE



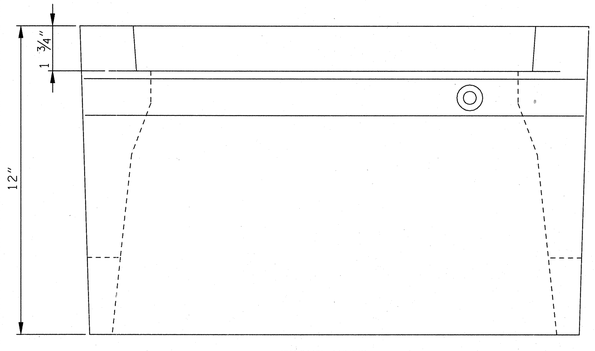
TOP VIEW
HANDHOLE
CONCRETE REINFORCEMENT
N.T.S.



TOP VIEW
COVER
CONCRETE REINFORCEMENT
N.T.S.



FRONT VIEW
COVER
CONCRETE REINFORCEMENT
N.T.S.



FRONT VIEW
HANDHOLE
CONCRETE REINFORCEMENT
N.T.S.

GENERAL NOTES

Ⓐ THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 41-0250.

BRENDA KAY BOOKER — LICENSED PROFESSIONAL ENGINEER — No. 104954 — STATE OF TENNESSEE

PRECAST CONCRETE
ELECTRIC STREET
LIGHT HANDHOLE
10 1/2" X 17 1/4" X 12"
WITH BOLT DOWN COVER
SHEET 2 OF 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

8/7/2010 7:39:30 PM
C:\Booker\OL_ACTIVE\TDOT\E026\SHELBY\OLI-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025DD & 025EE.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25FF

SPECIFICATIONS

MATERIAL: THE COVER SHALL BE MANUFACTURED FROM FIBERGLASS REINFORCED POLYMER CONCRETE CONSISTING OF ULTRAVIOLET INHIBITED RESIN (20% MINIMUM), CATALYTIC HARDENER, FIBERGLASS MATTING, AND COURSE, MEDIUM, FINE AND VERY FINE SAND.

TOLERANCE: TOLERANCES SHALL BE HELD TO ± 1/16" OR ± 1% OF THE DIMENSION SHOWN ON THE DRAWING WHICHEVER OF THE TWO BEING THE LARGER UNLESS TOLERANCES ARE STIPULATED ON THE DRAWING. DRAFT ANGLES SHALL NOT EXCEED 3 DEGREES UNLESS OTHERWISE SPECIFIED.

MANUFACTURING: THE COVER SHALL BE POURED IN A METAL MOLD TO INSURE COMPLIANCE WITH THE STIPULATED TOLERANCES. ALL EDGES SHALL BE SMOOTH AND ROUNDED, FREE OF PROTRUSIONS AND/OR SHARP SURFACES. THE TOP SURFACE SHALL BE TEXTURED TO PROVIDE A 'NON-SKID' SURFACE FOR PEDESTRIAN TRAFFIC. THE NAME OF THE MANUFACTURER, DATE OF MANUFACTURE AND DIMENSIONS OF THE COVER SHALL BE PERMANENTLY MARKED ON THE UNDERSIDE OF THE COVER.

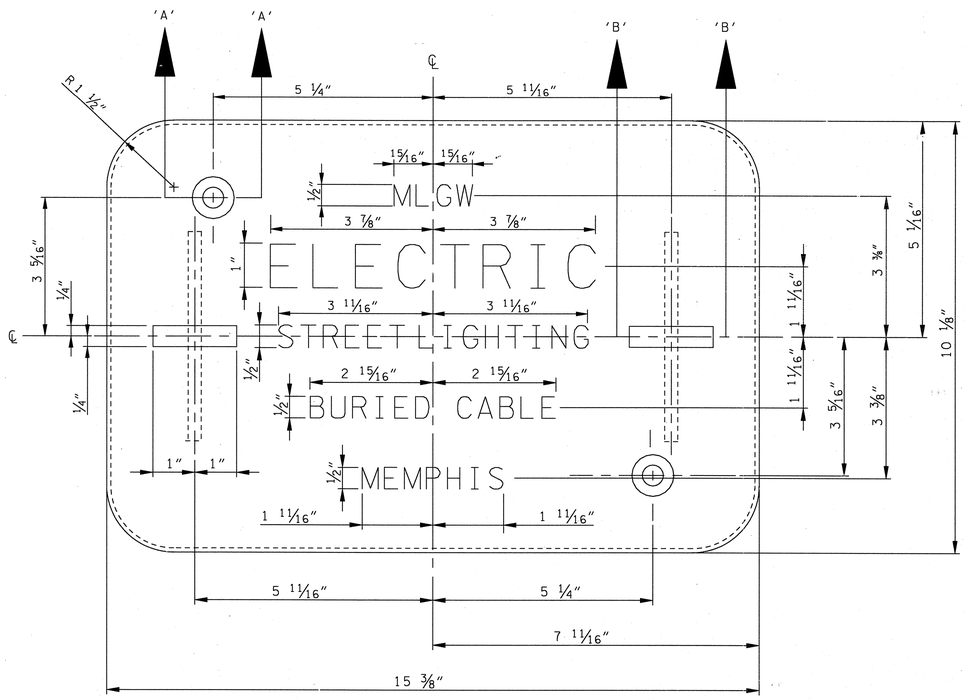
IMPACT AND LOAD BEARING STRENGTH: PROOF OF DESIGN TESTING: THE COVER SHALL BE TESTED FOR IMPACT AND LOAD BEARING STRENGTH. THE COVER SHALL BE IMPACT TESTED AND WITHSTAND 70 FT.-LBS IMPACT ADMINISTERED WITH A 12 POUND, 'B' TUP IN ACCORDANCE WITH ASTM D 2444, 'STANDARD TEST METHOD FOR IMPACT RESISTANCE WITH THERMOPLASTIC PIPE AND FITTINGS BY MEANS OF A TUP (FALLING WEIGHT)', WHILE RESTING UPON A FLAT RIGID SURFACE (CONCRETE OR ONE (1) INCH THICK STEEL PLATE). THE COVER SHALL THEN BE PLACED IN A STEEL FIXTURE SUPPORTING THE ON ALL EDGES BY 3/16". A LOAD SHALL BE APPLIED ON THE CENTER OF THE COVER BY AN 8" X 8" X 1" STEEL PLATE; A 1/2 INCH THICK NEOPRENE PAD AND A SPHERICALLY SEATED BEARING SALL BE USED TO INSURE UNIFORM DISTRIBUTION OF LOAD. A LOAD OF 16,000 POUNDS SHALL BE APPLIED AND REMOVED AT A UNIFORM RATE FOR 10 CYCLES. THE LOAD BEARING STRENGTH OF THE COVER SHALL BE 20,000 POUNDS. THE TEST SHALL BE WITNESSED BY, AND TEST REPORTS CERTIFIED BY, A PROFESSIONAL ENGINEER REGEISTRED IN THE STATE OF TESTING. THE TEST REPORTS INDICATING THE DESCRIPTION OF THE COVER, MANUFACTURERE, TEST FACILITY, EQUIPMENT OPERATOR, LOCTION(S) OF FAILURE AND ULTIMATE STRENGTH OF THE COVER SHALL BE SUBMITTED AT THE TIME OF BIDS. IN THE EVENT OF A DESIGN CHANGE, THE REQUIREMENTS DESCRIBED IN THIS PARAGRAPH SHALL BE PERFORMED ON THE NEW DESIGN.

PRODUCTION TESTING: THE MANUFACTURER SHALL TEST AN ADEQUATE NUMBER OF COVERS, SUPPLIED TO MLGW, TO INSURE COMPLIANCE WITH THE IMPACT AND LOAD BEARING STRENGTH REQUIREMENTS AS STATED IN THE PRECEEDING PARAGRAPH.

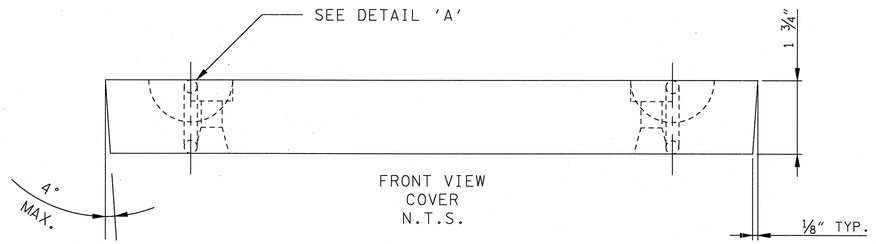
INSPECTION: MEMPHIS LIGHT, GAS AND WATER DIVISION RESERVES THE RIGHT TO REJECT ANY COVER THAT EXHIBITS A DEVIATION FROM THIS MATERIAL STANDARD. AN ENTIRE LOT MAY BE REJECTED IN THE EVENT THAT ANY COVER IN THE SHIPMENT DOES NOT MEET THE LOAD BEARING REUIREMENTS WHEN TESTED AT MLGW.

SHIPPING: THE COVER SHALL BE SHIPPED STACKED AND BANDED ON A PALLET AND MARKED WITH THE FOLLOWING INFORMATION:

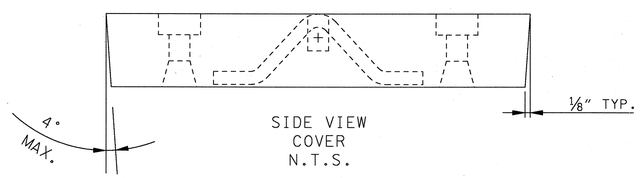
MANUFACTURER'S NAME
MANUFACTURER'S CATALOG NUMBER
MEMPHIS LIGHT, GAS AND WATER DIVISION
CLASS-ITEM #41-1249
POLYMER CONCRETE, EXTRA STRENGTH
BOLT DOWN COVER
10 1/8" X 15 3/8" X 1 3/4"
FOR ELECTRIC STREET LIGHT HANDHOLE
QUANTITY: _____



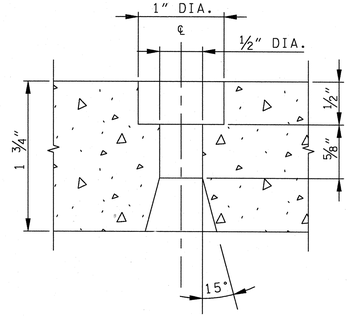
TOP VIEW
COVER
N.T.S.



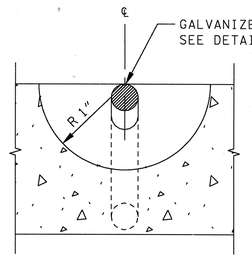
FRONT VIEW
COVER
N.T.S.



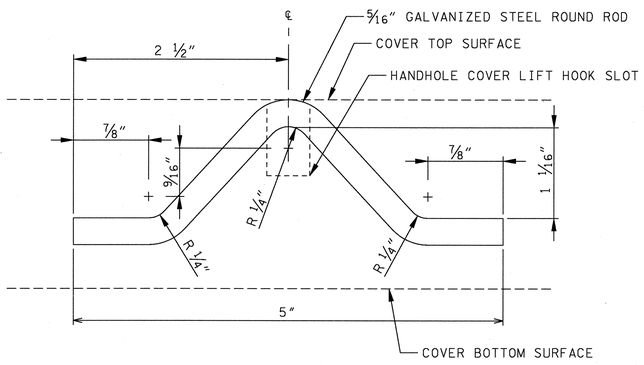
SIDE VIEW
COVER
N.T.S.



SECTION 'A' - 'A'



SECTION 'B' - 'B'



DETAIL 'A'
GALVANIZED LIFT EYE

GENERAL NOTES

(A) THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 41-1249.

POLYMER CONCRETE,
EXTRA STRENGTH
BOLT DOWN COVER
10⅛" X 15⅜" X 1¾"
ELECTRIC STREET
LIGHT HANDHOLE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

8/7/2010 7:40:52 PM
C:\Booker\OL_ACTIVE\TDOT\E026\SHELBY\OLI-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025FF.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25GG

SPECIFICATIONS

MATERIAL: THE BRACKET SHALL BE MADE OF 2" NOMINAL PIPE SIZE, SCHEDULE NO. 40 STEEL PIPE, TYPE S OR E, GRADE A IN ACCORDANCE WITH ASTM DESIGNATION: A 53, "STANDARD SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC COATED WELDED AND SEAMLESS" AS LAST REVISED. THE ⅜" X 2" AND ⅜" X 1" X 3" BAR STRUTS AND ⅜" X 5 ¼" SIMPLEX ATTACHMENTS SHALL BE MADE OF HOT-WROUGHT SPECIAL QUALITY CARBON STEEL BAR AND SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM DESIGNATION: A 576, "STANDARD SPECIFICATION FOR STEEL BARS, CARBON, HOT-WROUGHT, SPECIAL QUALITY" AS LAST REVISED. ONE (1) SOLID (BLIND & PLUG) RUBBER OR NEPRENE GROMMET HAVING A FULL MEMBRANE FOR A 1" DIA. HOLE WITH A 1 ½" OUTSIDE DIAMETER.

TOLERANCE: ALL TOLERANCES SHALL BE ±1/16" UNLESS OTHERWISE SPECIFIED.

FABRICATION: ALL WELDS SHALL MEET OR EXCEED ANSI/AWS D1.1 "STRUCTURAL WELDING-CODE STEEL", SECTION 9.25 AS TO THE QUALITY OF WELDS. THE WELD STRENGTH SHALL BE EQUAL TO OR GREATER THAN THE MATERIAL BEING WELDED.

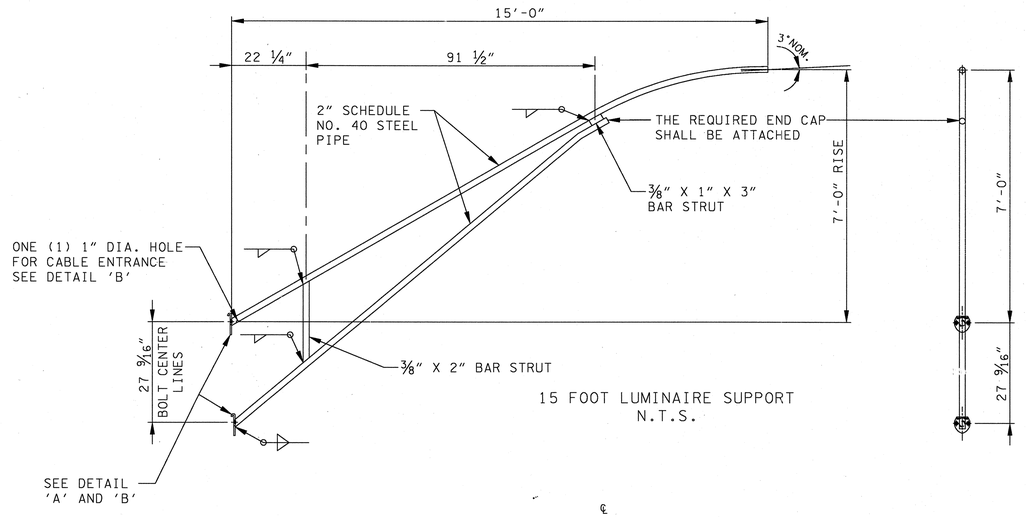
FINISH: AFTER FABRICATION, THE BRACKET SHALL BE COMPLETELY DIPPED IN A PROTECTIVE ZINC COATING APPLIED IN ACCORDANCE WITH ASTM DESIGNATION: A 123, "STANDARD SPECIFIATION FOR ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS" AS LAST REVISED.

HARDWARE: THE BRACKET HARDWARE SHALL CONSIST OF FOUR (4) ½" - 13 X 1 ½" UNC FINISHED HEX BOLTS, STAINLESS STEEL 304 ALLOY (18-8) (ANSI/ASME B18.2.1), FOUR (4) ½" SAE DESIGNATE NARROW "N" TYPE A PLAIN WASHERS, STAINLESS STEEL 304 ALLOY (18-8) (ANSI/ASME B18.22.1) AND FOUR (4) ½" REGULAR HELICAL SPRING LOCK WASHERS, STAINLESS STEEL 304 ALLOY (18-8) (ANSI/ASME B 18.21.1).

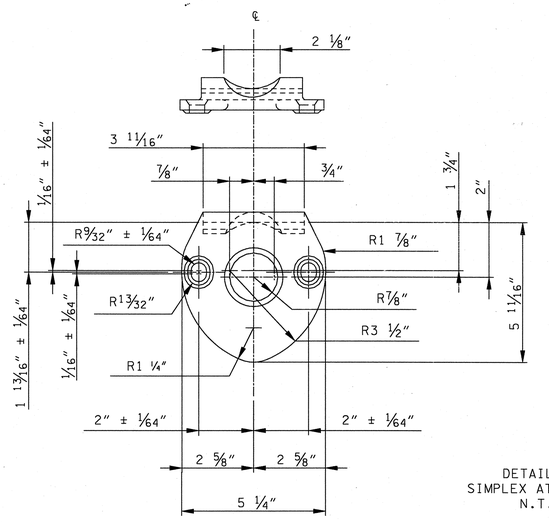
CEPTIFICATION: A CERTIFIED HEAT LOT TEST REPORT SHALL BE FURNISHED COVERING THE MATERIAL USED IN EACH BRACKET. ALL WELDS SHALL BE TESTED FOR PENETRATION AND A CERTIFIED WELD TEST REPORT SHALL BE FURNISHED.

SHIPPING: THE HARDWARE SHALL BE PACKAGED IN A 4 MIL CLEAR POLYETHYLENE PLASTIC BAG. ALL THE BAGGED HARDWARE SHALL BE PACKAGED IN A PRE-APPROVED RECLOSABLE WEATHERPROOF (NON-PAPER) CONTAINER. THE BRACKETS AND THE HARDWARE CONTAINER SHALL BE SHIPPED AND MARKED WITH THE FOLLOWING INFORMATION:

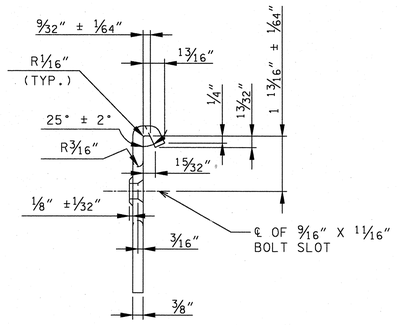
MANUFACTURER'S NAME
MANUFACTURER'S CATALOG NUMBER
MEMPHIS LIGHT, GAS AND WATER DIVISION
CLASS-ITEM #43-0638
15' TRUSS TYPE STEEL
LUMINAIRE SUPPORT WITH
SIMPLEX FITTINGS FOR USE WITH
38' STEEL EXPRESSWAY POLE
(GALVANIZED)
QUANTITY: _____

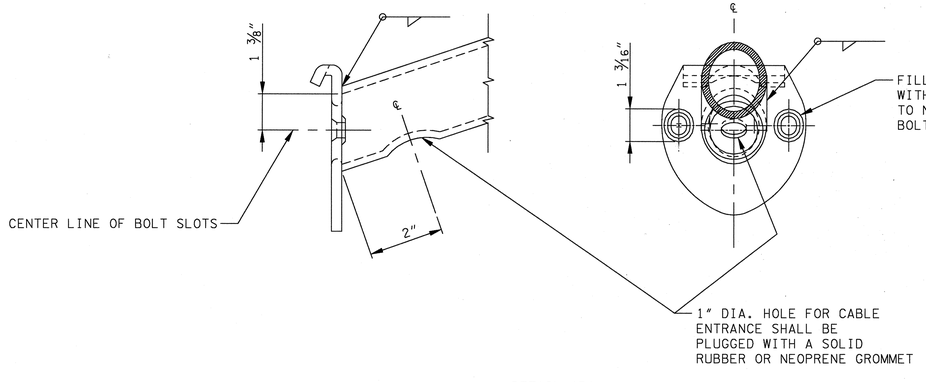


15 FOOT LUMINAIRE SUPPORT
N.T.S.



DETAIL 'A'
SIMPLEX ATTACHMENT
N.T.S.





DETAIL 'B'
SUPPORT ARM SIMPLEX ATTACHMENTS
AND LOCATION OF CABLE ENTRANCE

MATERIAL SPECIFICATIONS	
PLATE AND BAR	ASTM - A 36
PIPE	ASTM - A 501
SIMPLEX ATTACHMENT	ASTM - 576
STRUCTURE FINISH	GALVANIZE TO ASTM - A 123
HARDWARE FINISH	GALVANIZE TO ASTM - A 153

GENERAL NOTES

(A) THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 43-0638.

BRENDA L. BOOKER
REGISTERED ENGINEER
No. 104353
STATE OF TENNESSEE

15 FOOT TRUSS TYPE STEEL LUMINAIRE SUPPORT WITH SIMPLEX FITTINGS FOR USE WITH THIRTY-EIGHT FOOT STEEL EXPRESSWAY POLE (GALVANIZED)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25HH

SPECIFICATIONS

MATERIAL: THE BRACKET SHALL BE MADE OF 2" NOMINAL PIPE SIZE, SCHEDULE NO. 40 STEEL PIPE, TYPE S OR E, GRADE A IN ACCORDANCE WITH ASTM DESIGNATION: A 53, "STANDARD SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC COATED WELDED AND SEAMLESS" AS LAST REVISED. THE ¼" X 2 ½" SIMPLEX SUPPORT STRAP AND ⅜" X 5 ¼" SIMPLEX ATTACHMENTS SHALL BE MADE OF HOT-WROUGHT SPECIAL QUALITY CARBON STEEL BAR AND SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM DESIGNATION: A 576, "STANDARD SPECIFICATION FOR STEEL BARS, CARBON, HOT-WROUGHT, SPECIAL QUALITY" AS LAST REVISED. TWO (2) SOLID (BLIND & PLUG) RUBBER OR NEPRENE GROMMET HAVING A FULL MEMBRANE FOR A 1" DIA. HOLE WITH A 1 ½" OUTSIDE DIAMETER.

TOLERANCE: ALL TOLERANCES SHALL BE ±1/16" UNLESS OTHERWISE SPECIFIED.

FABRICATION: ALL WELDS SHALL MEET OR EXCEED ANSI/AWS D1.1 "STRUCTURAL WELDING-CODE STEEL", SECTION 9.25 AS TO THE QUALITY OF WELDS. THE WELD STRENGTH SHALL BE EQUAL TO OR GREATER THAN THE MATERIAL BEING WELDED.

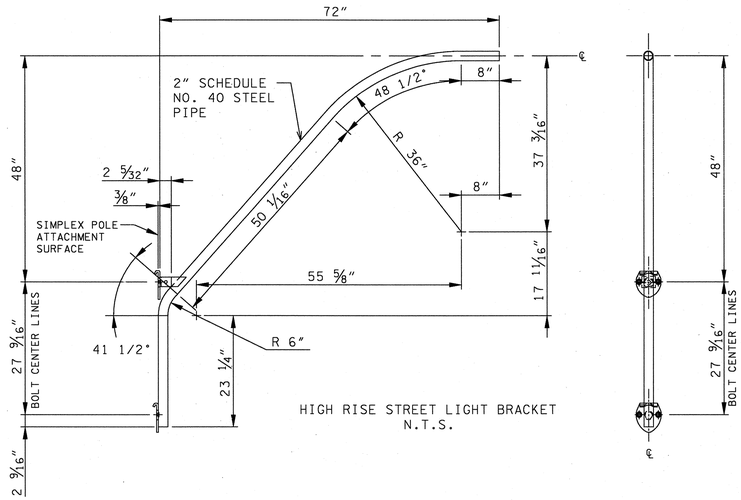
FINISH: AFTER FABRICATION, THE BRACKET SHALL BE COMPLETELY DIPPED IN A PROTECTIVE ZINC COATING APPLIED IN ACCORDANCE WITH ASTM DESIGNATION: A 123, "STANDARD SPECIFIATION FOR ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS" AS LAST REVISED.

HARDWARE: THE BRACKET HARDWARE SHALL CONSIST OF FOUR (4) ½" - 13 X 1 ½" UNC FINISHED HEX BOLTS, STAINLESS STEEL 304 ALLOY (18-8) (ANSI/ASME B18.2.1), FOUR (4) ½" SAE DESIGNATE NARROW "N" TYPE A PLAIN WASHERS, STAINLESS STEEL 304 ALLOY (18-8) (ANSI/ASME B18.22.1) AND FOUR (4) ½" REGULAR HELICAL SPRING LOCK WASHERS, STAINLESS STEEL 304 ALLOY (18-8) (ANSI/ASME B 18.21.1).

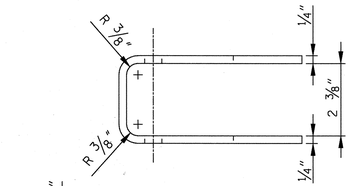
CERTIFICATION: A CERTIFIED HEAT LOT TEST REPORT SHALL BE FURNISHED COVERING THE MATERIAL USED IN EACH BRACKET. ALL WELDS SHALL BE TESTED FOR PENETRATION AND A CERTIFIED WELD TEST REPORT SHALL BE FURNISHED.

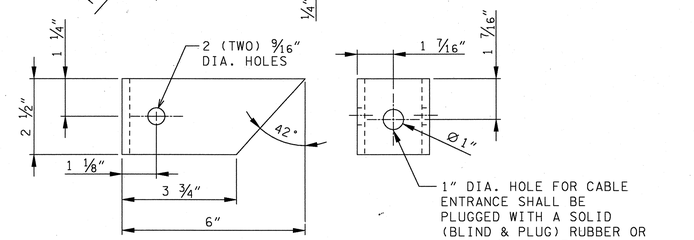
SHIPPING: THE HARDWARE SHALL BE PACKAGED IN A 4 MIL CLEAR POLYETHYLENE PLASTIC BAG. ALL THE BAGGED HARDWARE SHALL BE PACKAGED IN A PRE-APPROVED RECLOSABLE WEATHERPROOF (NON-PAPER) CONTAINER. THE BRACKETS AND THE HARDWARE CONTAINER SHALL BE SHIPPED AND MARKED WITH THE FOLLOWING INFORMATION:

MANUFACTURER'S NAME
MANUFACTURER'S CATALOG NUMBER
MEMPHIS LIGHT, GAS AND WATER DIVISION
CLASS-ITEM #43-0670
6'-0" HIGH RISE
STREET LIGHT BRACKET
WITH SIMPLEX ATTACHMENTS
(GALVANIZED)
QUANTITY: _____



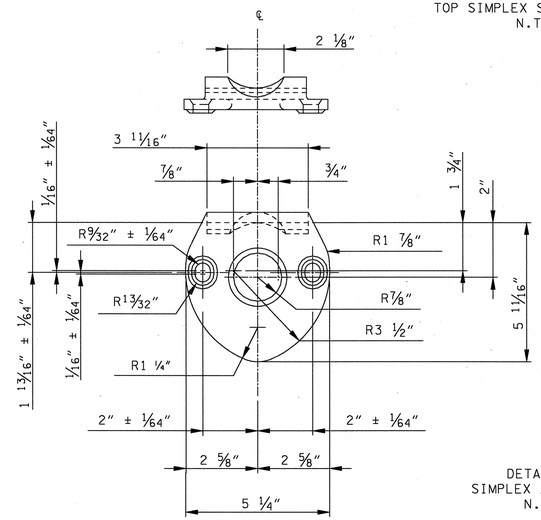
HIGH RISE STREET LIGHT BRACKET
N.T.S.



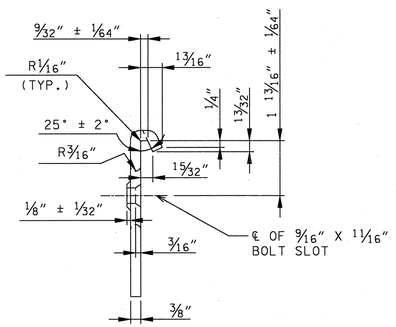


DETAIL 'B'
TOP SIMPLEX SUPPORT STRAP
N.T.S.

1" DIA. HOLE FOR CABLE ENTRANCE SHALL BE PLUGGED WITH A SOLID (BLIND & PLUG) RUBBER OR NEOPRENE GROMMET



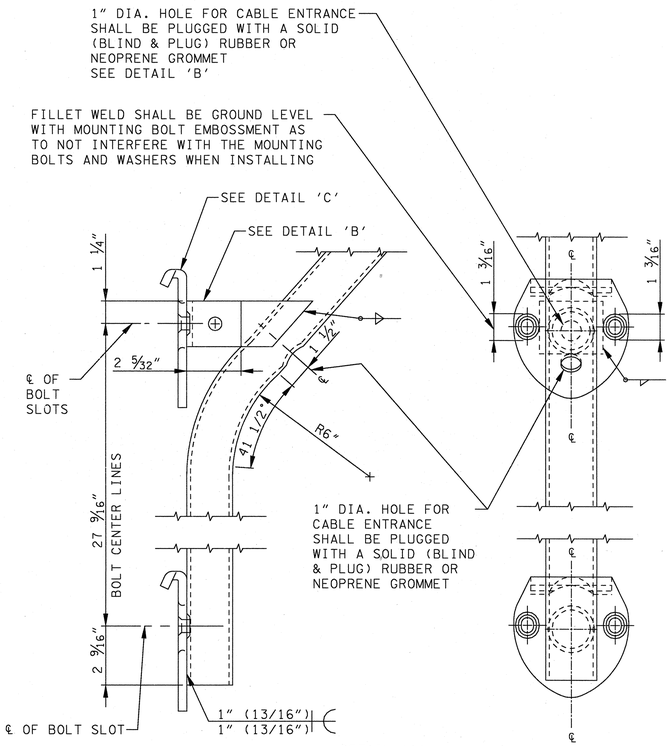
DETAIL 'C'
SIMPLEX ATTACHMENT
N.T.S.



1" DIA. HOLE FOR CABLE ENTRANCE SHALL BE PLUGGED WITH A SOLID (BLIND & PLUG) RUBBER OR NEOPRENE GROMMET
SEE DETAIL 'B'

FILLET WELD SHALL BE GROUND LEVEL WITH MOUNTING BOLT EMBOSSMENT AS TO NOT INTERFERE WITH THE MOUNTING BOLTS AND WASHERS WHEN INSTALLING

SEE DETAIL 'C'



DETAIL 'A'
SUPPORT ARM SIMPLEX ATTACHMENTS AND LOCATION OF CABLE ENTRANCE
N.T.S.

BRENDA K. BOONE
REGISTERED
LANDSCAPE ARCHITECT
DEPARTMENT OF AGRICULTURE
REG. NO. 1043
STATE OF TENNESSEE

HIGH RISE
2" X 6'-0"
STREET LIGHT
BRACKET
WITH SIMPLEX
ATTACHMENTS
(GALVANIZED)

GENERAL NOTES

(A) THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 43-0670.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

8/7/2010 7:42:57 PM
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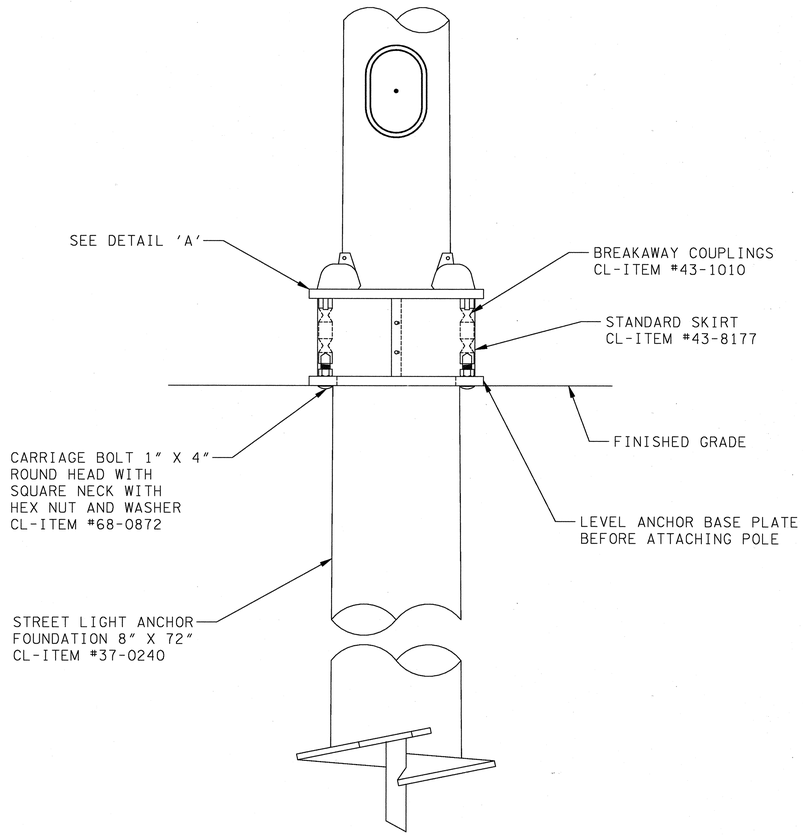
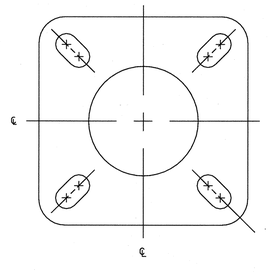
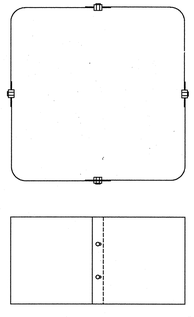
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25JJ

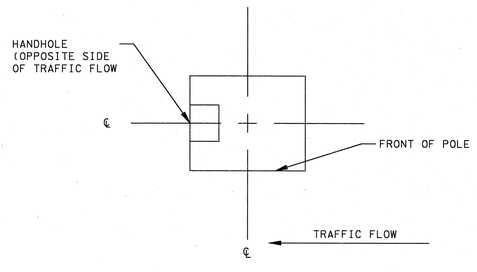




DETAIL 'A'
BASE PLATE OF POLE
N.T.S.



DETAIL 'B'
FRONT VIEW STANDARD SKIRT



DETAIL 'D'

GENERAL NOTES

Ⓐ THE INFORMATION PROVIDED IN THIS STANDARD IS TO SHOW THE RELATIONSHIP OF THE VARIOUS COMPONENTS OF A GALVANIZED STEEL POLE INSTALLATION WITH BREAKAWAY COUPLINGS AND IS A COMPILATION OF MLGW MATERIAL CLASS & ITEM NUMBERS 43-1010, 43-8177, 68-0872 & 37-0240.

GALVANIZED STEEL POLE INSTALLATION WITH BREAKAWAY COUPLINGS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

8/7/2010 7:43:44 PM
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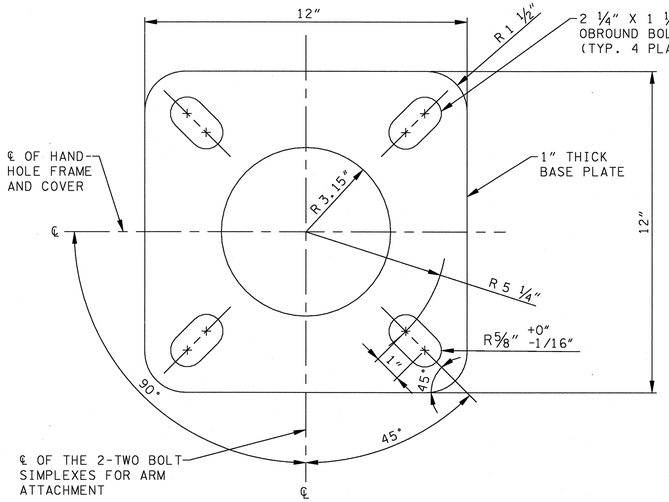
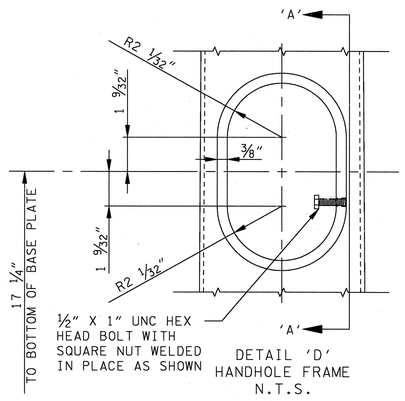
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

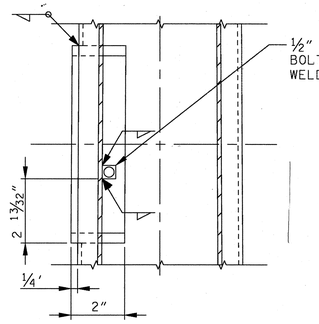
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25KK



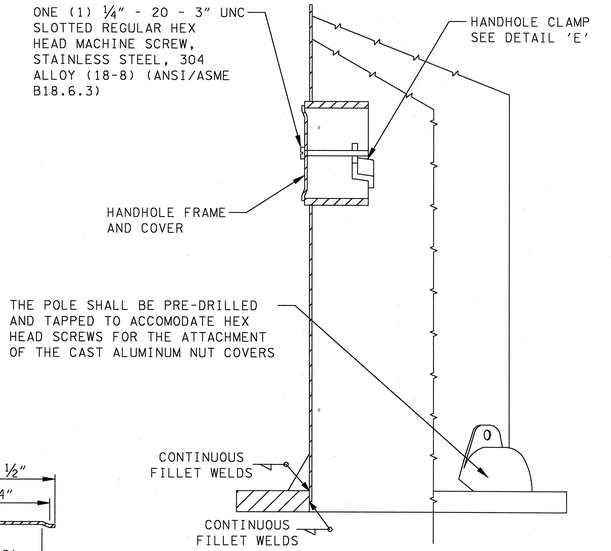
DETAIL 'A'
BASE PLATE/LOCATIONS FOR HANDHOLE AND
2-TWO BOLT SIMPLEXES FOR ARM ATTACHMENT
N.T.S.



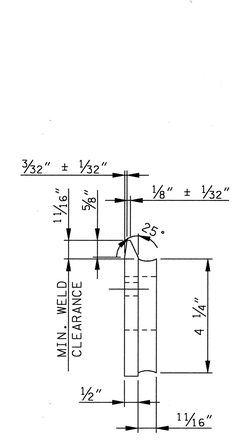
DETAIL 'D'
HANDHOLE FRAME
N.T.S.

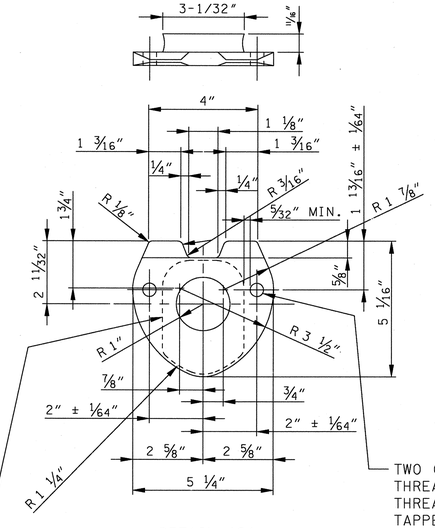


SECTION 'A' - 'A'
N.T.S.



DETAIL 'B'
SECTION/SIDE VIEW
N.T.S.

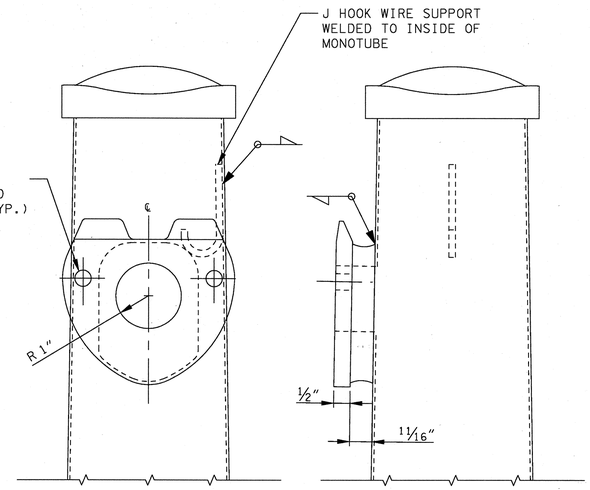




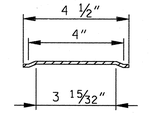
THE WELD ATTACHMENT TO PLATE SHALL BE CLEAR OF THE TWO (2) THREADED HOLES

TWO (2) ½" - 13 UNC THREADED HOLES, THREADS SHALL BE RE-TAPPED AFTER FINISH IS APPLIED

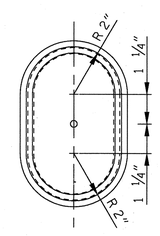
DETAIL 'G'
TWO BOLT SIMPLEX FOR ARM ATTACHMENT
N.T.S.



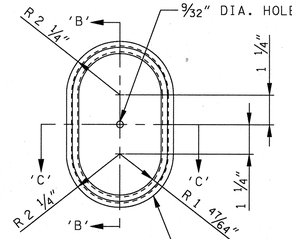
DETAIL 'C'
TWO BOLT SIMPLEX FOR ARM
ATTACHMENT AND J-HOOK
N.T.S.



SECTION 'C' - 'C'
N.T.S.



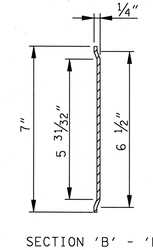
REAR VIEW



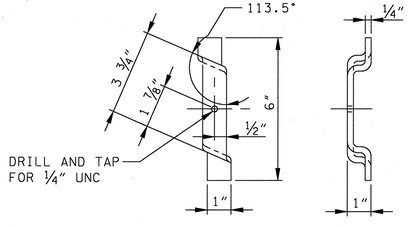
FRONT VIEW

10 GAUGE STEEL PLATE

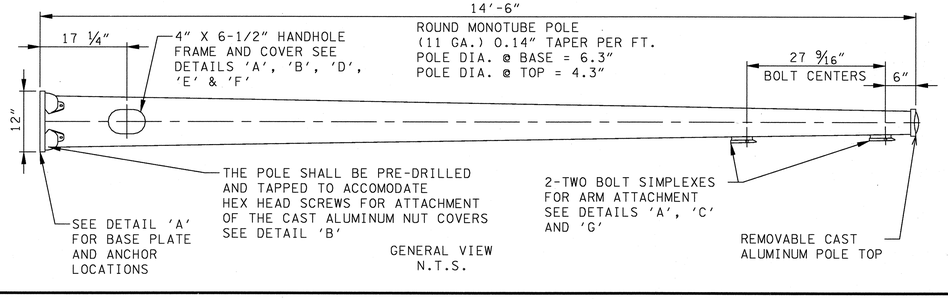
DETAIL 'F'
HANDHOLE COVER
N.T.S.



SECTION 'B' - 'B'
N.T.S.



DETAIL 'E'
HANDHOLE COVER CLAMP
N.T.S.



GENERAL VIEW
N.T.S.

MATERIAL SPECIFICATIONS	
MONOTUBE	ASTM - A 595 GRADE A
PLATE AND BAR	ASTM - A 36
POLE TOP & NUT COVERS	ASTM - B 26 (356 OR 43 ALLOY)
ANCHOR BOLTS	ASTM - A 675 GRADE 90
STRUCTURE FINISH	GALVANIZE TO ASTM - A 123
HARDWARE FINISH	GALVANIZE TO ASTM - A 153

GENERAL NOTES

Ⓐ THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 43-8628.

FOURTEEN FOOT SIX INCH GALVANIZED STEEL EXPRESSWAY LIGHTING POLE WITH SINGLE ARM ATTACHEMENTS

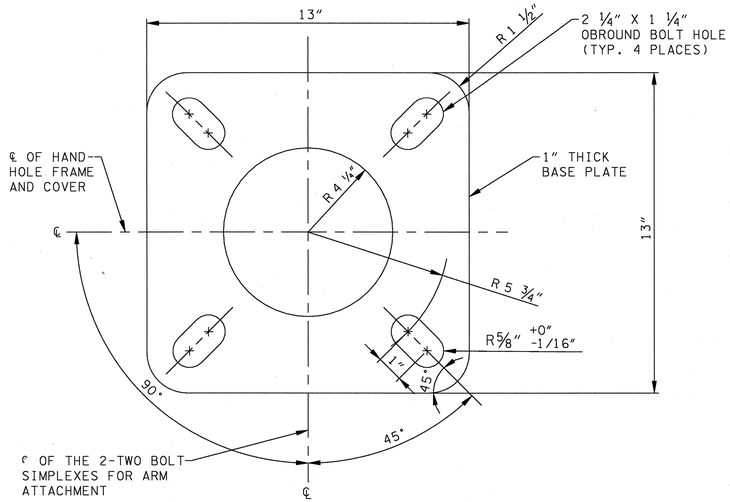
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

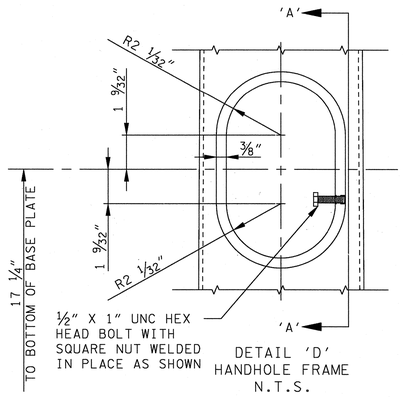
8/7/2010 7:44:30 PM
C:\Booker-\OI_ACTIVE\TDOT\EI026\SHELBY\OI-I-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025KK.SHT

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

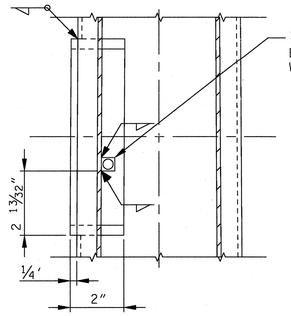
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25LL



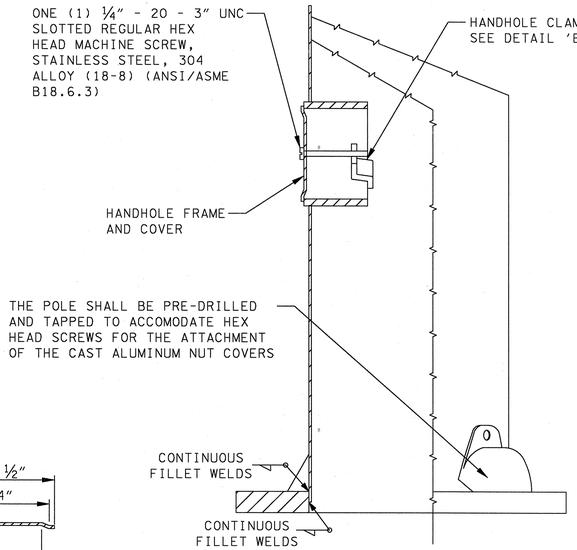
DETAIL 'A'
BASE PLATE/LOCATIONS FOR HANDHOLE AND 2-TWO BOLT SIMPLEXES FOR ARM ATTACHMENT
N.T.S.



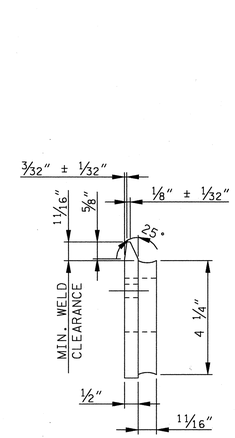
DETAIL 'D'
HANDHOLE FRAME
N.T.S.

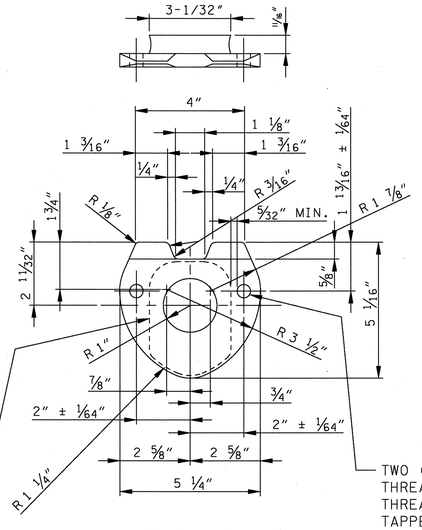


SECTION 'A' - 'A'
N.T.S.



DETAIL 'B'
SECTION/SIDE VIEW
N.T.S.

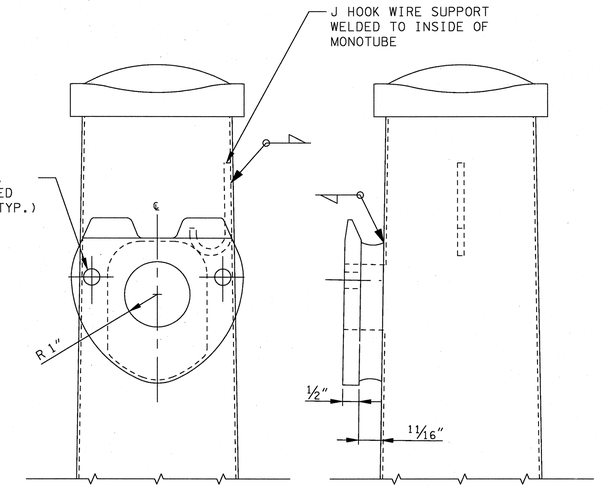




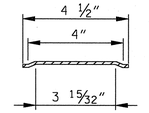
THE WELD ATTACHMENT TO PLATE SHALL BE CLEAR OF THE TWO (2) THREADED HOLES

TWO (2) ½" - 13 UNC THREADED HOLES, THREADS SHALL BE RE-TAPPED AFTER FINISH IS APPLIED

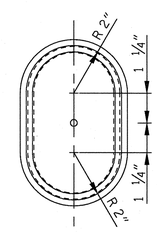
DETAIL 'G'
TWO BOLT SIMPLEX FOR ARM ATTACHMENT
N.T.S.



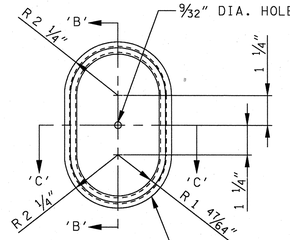
DETAIL 'C'
TWO BOLT SIMPLEX FOR ARM ATTACHMENT AND J-HOOK
N.T.S.



SECTION 'C' - 'C'
N.T.S.

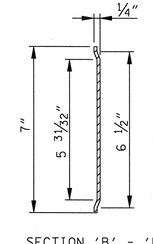


REAR VIEW

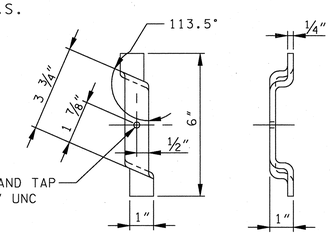


FRONT VIEW
10 GAUGE STEEL PLATE

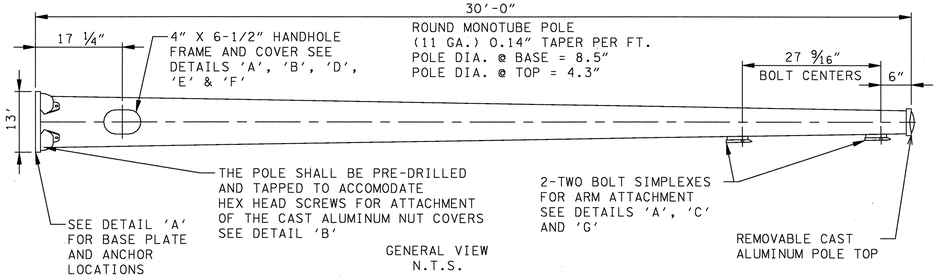
DETAIL 'F'
HANDHOLE COVER
N.T.S.



SECTION 'B' - 'B'
N.T.S.



DETAIL 'E'
HANDHOLE COVER CLAMP
N.T.S.



GENERAL VIEW
N.T.S.

MATERIAL SPECIFICATIONS	
MONOTUBE	ASTM - A 595 GRADE A
PLATE AND BAR	ASTM - A 36
POLE TOP & NUT COVERS	ASTM - B 26 (356 OR 43 ALLOY)
ANCHOR BOLTS	ASTM - A 675 GRADE 90
STRUCTURE FINISH	GALVANIZE TO ASTM - A 123
HARDWARE FINISH	GALVANIZE TO ASTM - A 153

GENERAL NOTES

Ⓐ THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 43-8630.

THIRTY FOOT GALVANIZED STEEL EXPRESSWAY LIGHTING POLE WITH SINGLE ARM ATTACHEMENTS

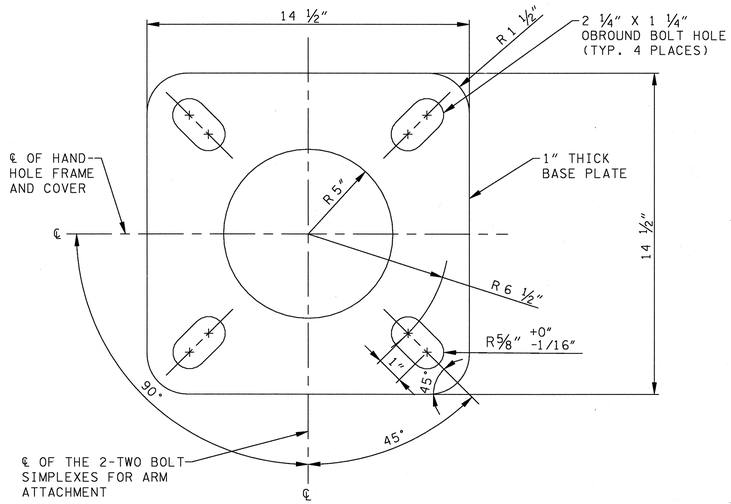
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

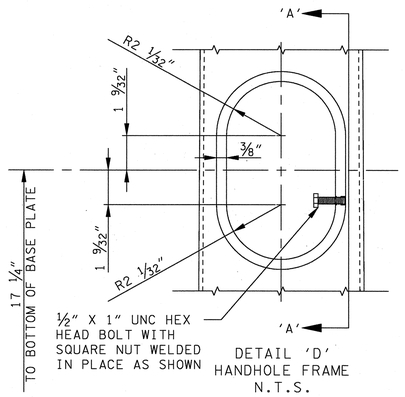
8/7/2010 7:45:18 PM
C:\Booker\DLACTIVE\TDOT\E026\SHELBY\OLI-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025LL.SHT

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

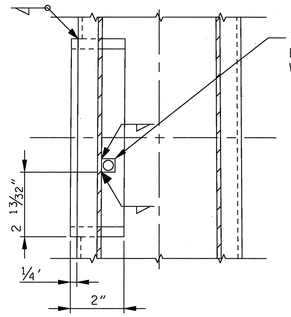
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25MM



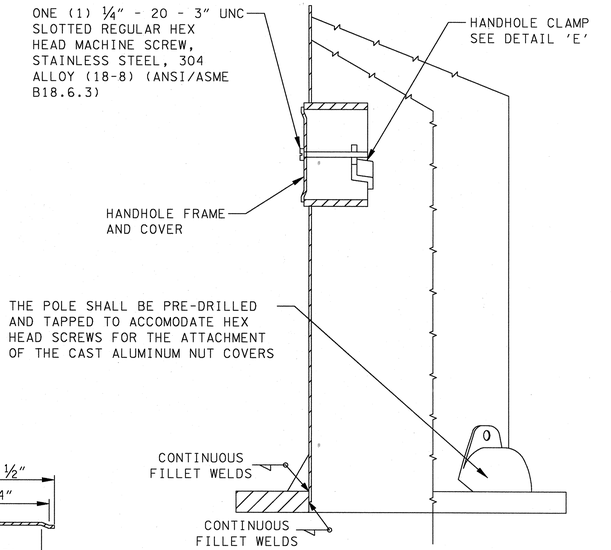
DETAIL 'A'
BASE PLATE/LOCATIONS FOR HANDHOLE AND 2-TWO BOLT SIMPLEXES FOR ARM ATTACHMENT
N.T.S.



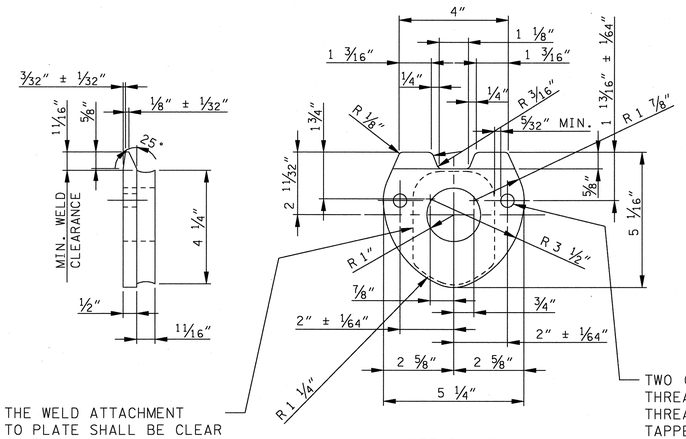
DETAIL 'D'
HANDHOLE FRAME
N.T.S.



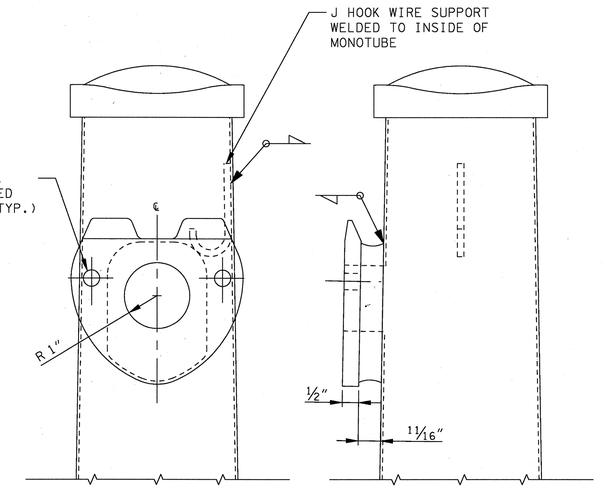
SECTION 'A' - 'A'
N.T.S.



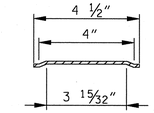
DETAIL 'B'
SECTION/SIDE VIEW
N.T.S.



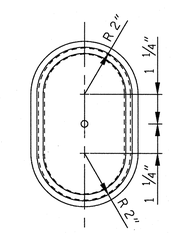
DETAIL 'G'
TWO BOLT SIMPLEX FOR ARM ATTACHMENT
N.T.S.



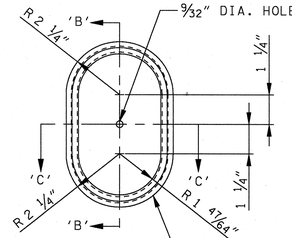
DETAIL 'C'
TWO BOLT SIMPLEX FOR ARM ATTACHMENT AND J-HOOK
N.T.S.



SECTION 'C' - 'C'
N.T.S.

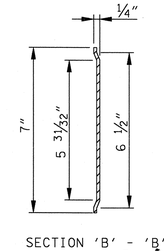


REAR VIEW

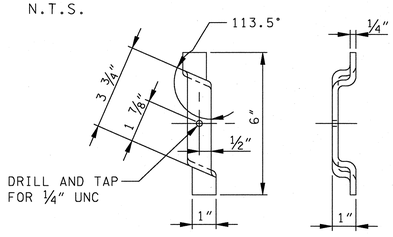


FRONT VIEW

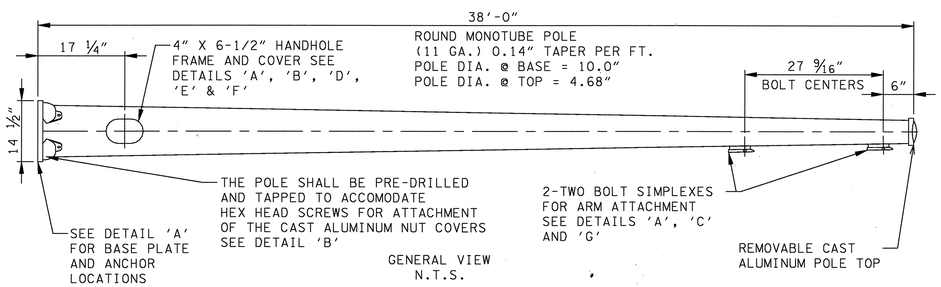
DETAIL 'F'
HANDHOLE COVER
N.T.S.



SECTION 'B' - 'B'
N.T.S.



DETAIL 'E'
HANDHOLE COVER CLAMP
N.T.S.



GENERAL VIEW
N.T.S.

MATERIAL SPECIFICATIONS	
MONOTUBE	ASTM - A 595 GRADE A
PLATE AND BAR	ASTM - A 36
POLE TOP & NUT COVERS	ASTM - B 26 (356 OR 43 ALLOY)
ANCHOR BOLTS	ASTM - A 675 GRADE 90
STRUCTURE FINISH	GALVANIZE TO ASTM - A 123
HARDWARE FINISH	GALVANIZE TO ASTM - A 153

GENERAL NOTES

Ⓐ THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 43-8638.

THIRTY-EIGHT FOOT GALVANIZED STEEL EXPRESSWAY LIGHTING POLE WITH SINGLE ARM ATTACHEMENTS

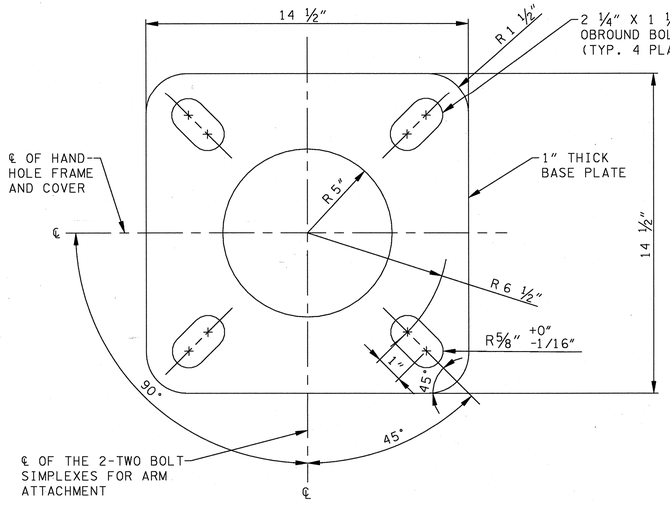
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

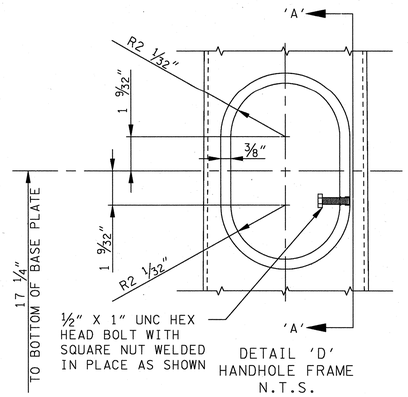
8/7/2010 7:46:13 PM
C:\Booker\01_ACTIVE\TDOT\E1026\SHELBY\01-I-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025MM.SHT

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

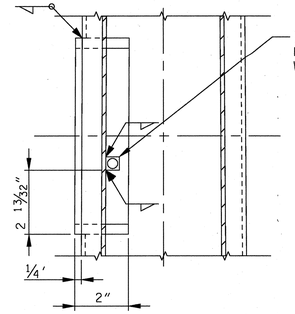
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	25NN



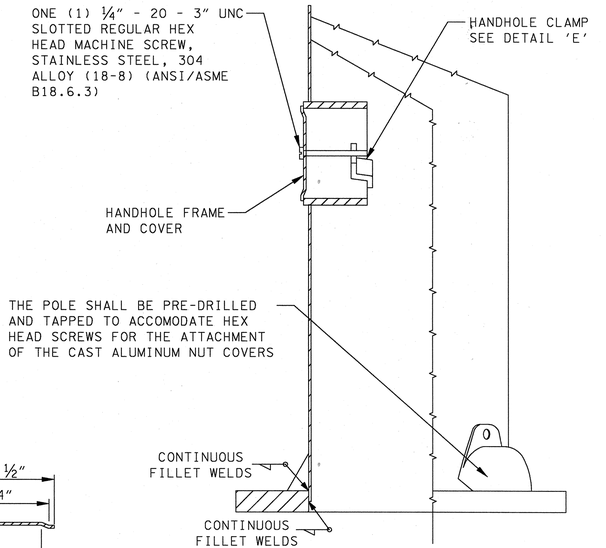
DETAIL 'A'
BASE PLATE/LOCATIONS FOR HANDHOLE AND 4-TWO BOLT SIMPLEXES FOR ARM ATTACHMENT
N.T.S.



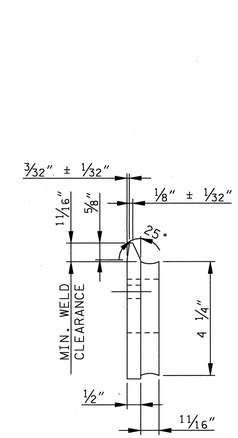
DETAIL 'D'
HANDHOLE FRAME
N.T.S.

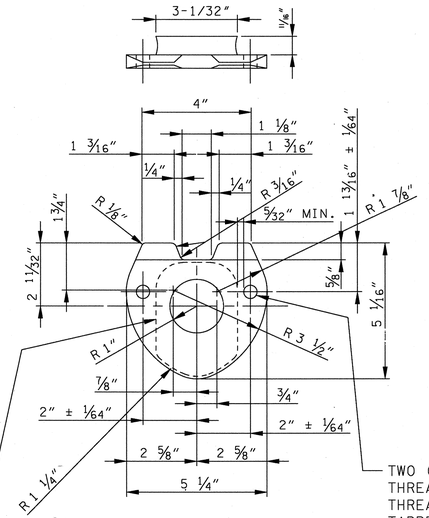


SECTION 'A' - 'A'
N.T.S.

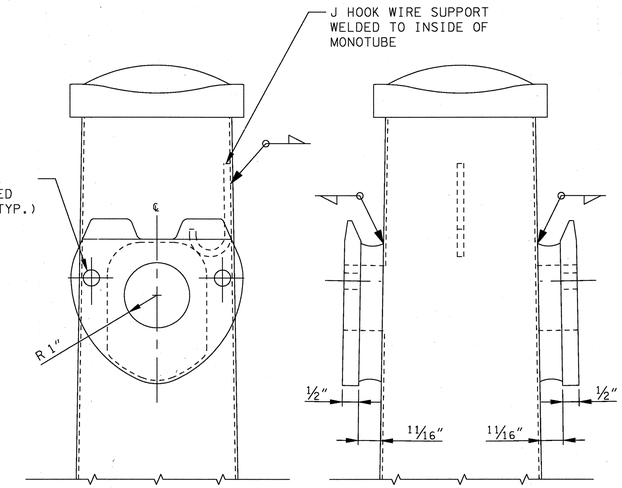


DETAIL 'B'
SECTION/SIDE VIEW
N.T.S.

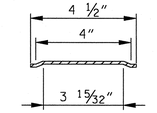




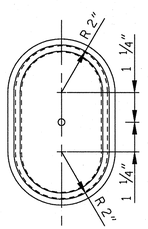
DETAIL 'G'
TWO BOLT SIMPLEX FOR ARM ATTACHMENT
N.T.S.



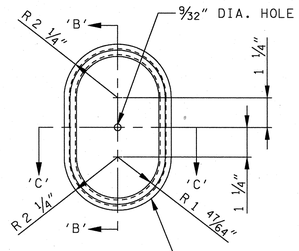
DETAIL 'C'
2-TWO BOLT SIMPLEX FOR ARM ATTACHMENT AND J-HOOK
N.T.S.



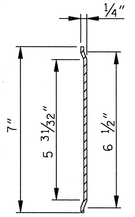
SECTION 'C' - 'C'
N.T.S.



REAR VIEW

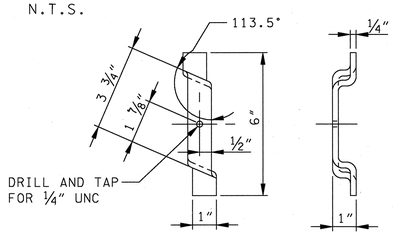


FRONT VIEW
10 GAUGE STEEL PLATE

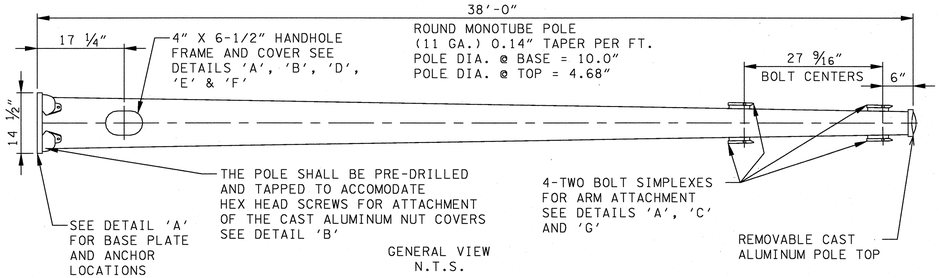


SECTION 'B' - 'B'
N.T.S.

DETAIL 'F'
HANDHOLE COVER
N.T.S.



DETAIL 'E'
HANDHOLE COVER CLAMP
N.T.S.



GENERAL VIEW
N.T.S.

MATERIAL SPECIFICATIONS	
MONOTUBE	ASTM - A 595 GRADE A
PLATE AND BAR	ASTM - A 36
POLE TOP & NUT COVERS	ASTM - B 26 (356 OR 43 ALLOY)
ANCHOR BOLTS	ASTM - A 675 GRADE 90
STRUCTURE FINISH	GALVANIZE TO ASTM - A 123
HARDWARE FINISH	GALVANIZE TO ASTM - A 153

GENERAL NOTES

Ⓐ THE INFORMATION PROVIDED IN THIS STANDARD DRAWING IS EQUIVALENT TO MLGW STANDARD DRAWING 43-8639.

BRENDA K. BOOKER
REGISTERED
AGRICULTURAL
ENGINEER
No. 109451
STATE OF TENNESSEE

THIRTY-EIGHT FOOT GALVANIZED STEEL EXPRESSWAY LIGHTING POLE WITH DOUBLE ARM ATTACHEMENTS

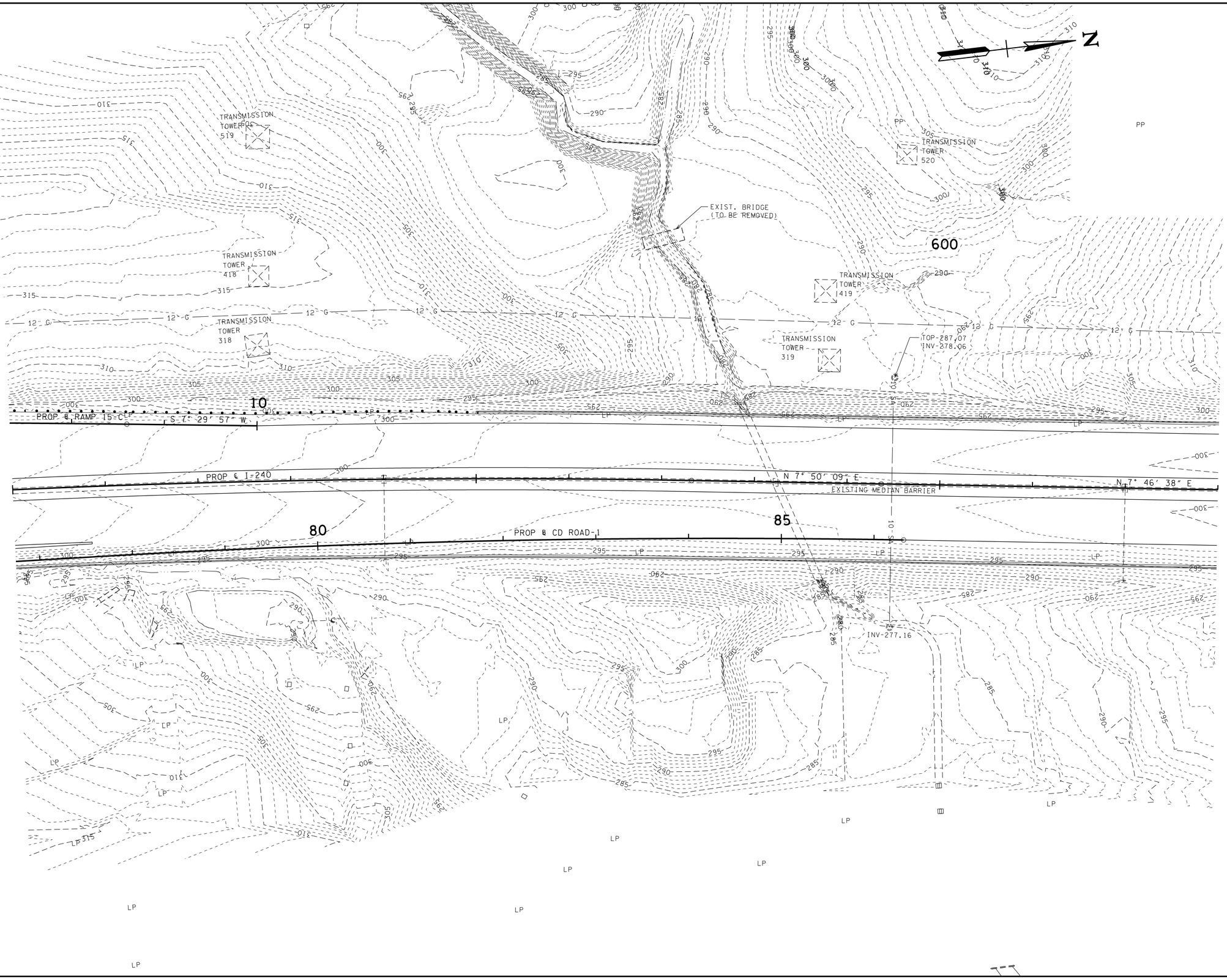
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

8/7/2010 7:47:14 PM
C:\Booker\DLACTIVE\TDOT\E026\SHELBY\OJ-I-240 SR 386 TO WALNUT GROVE - HM & OFFSET LIGHTING\03_PRELIM CONST FILE WITH STAMP\025NN.SHT

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	26



JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED DETENTION BASIN EXISTING CONDITIONS

SCALE: 1"= 50'

8/20/2010
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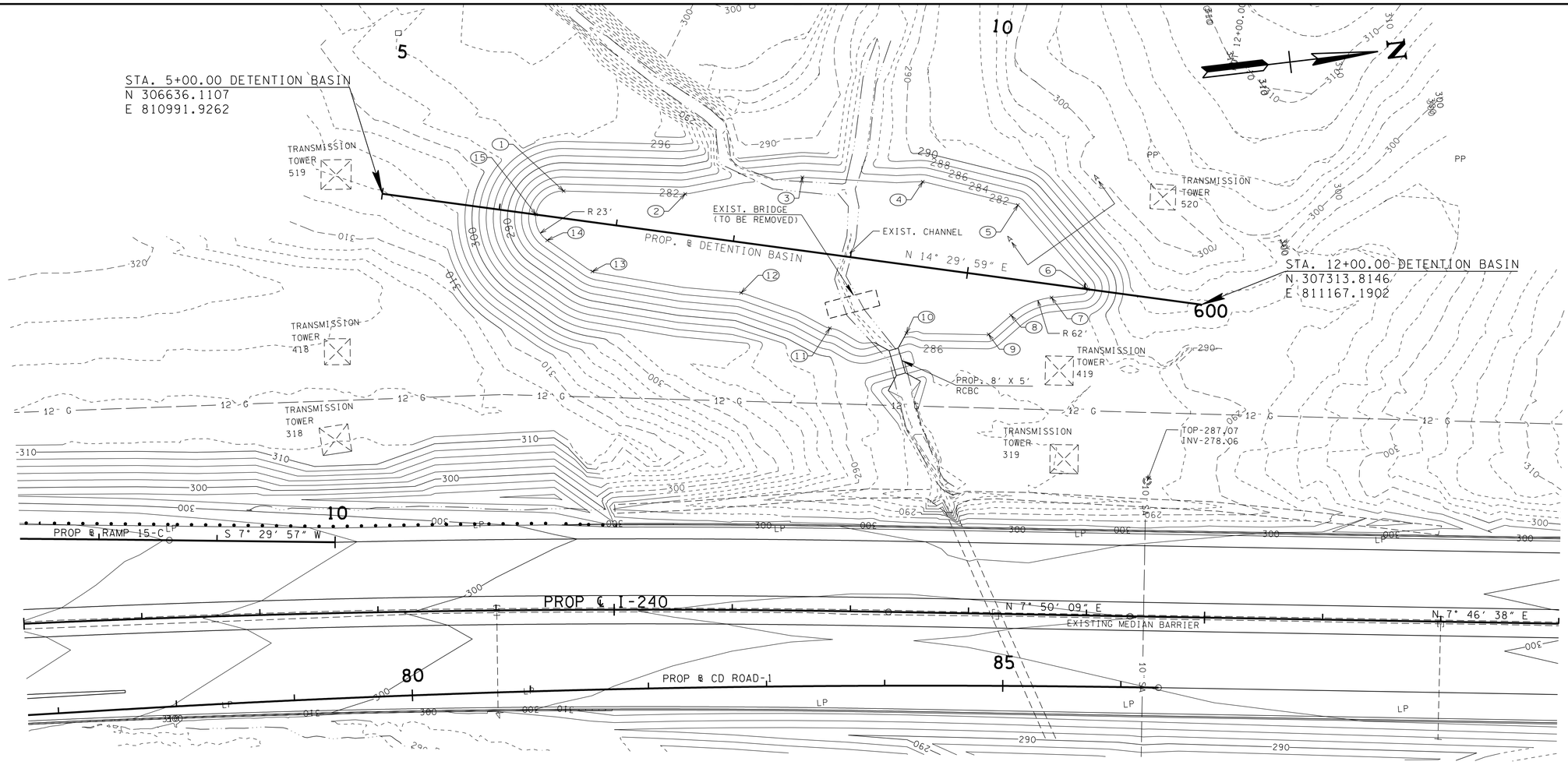
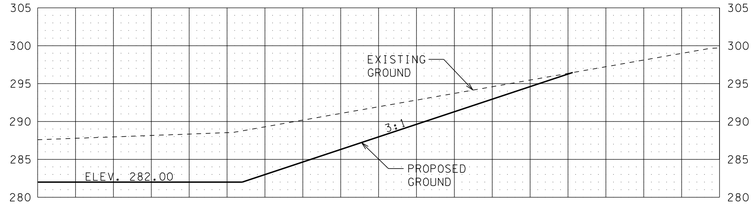
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	26A



GRADING LAYOUT		
POINT	STA. & OFFSET	ELEV.
1	6+51.84, 22.87′ LT.	282.00
2	7+54.16, 34.23′ LT.	282.00
3	8+50.70, 61.52′ LT.	282.00
4	9+52.20, 71.44′ LT.	282.00
5	10+34.64, 62.70′ LT.	282.00
6	11+02.93, 0.00′ LT.	282.00
7	10+73.99, 11.15′ RT.	282.00
8	10+41.40, 30.62′ RT.	282.00
9	10+24.80, 49.14′ RT.	282.00
10	9+55.62, 57.37′ RT.	282.00
11	8+90.82, 62.03′ RT.	282.00
12	8+12.32, 42.45′ RT.	282.00
13	6+85.14, 41.37′ RT.	282.00
14	6+43.68, 20.39′ RT.	282.00
15	6+31.32, 0.00′ RT.	282.00



SECTION A-A
SCALE: 1"=10′ H & V

POST-CONSTRUCTION MAINTENANCE NOTE:

THE STORMWATER STORAGE FACILITY HAS BEEN DESIGNED WITH A REQUIREMENT FOR REGULAR INSPECTION AND MAINTENANCE TO ENSURE THAT ITS ORIGINAL DESIGN CAPACITY AND OUTFLOW CHARACTERISTICS WILL BE MAINTAINED FOR THE LIFE OF THE FACILITY. ACCUMULATED SEDIMENT AND DEBRIS SHOULD BE REMOVED AS NEEDED TO PRESERVE THE ORIGINAL DESIGN STORMWATER STORAGE VOLUME AND OUTFLOW CHARACTERISTICS FOR THE LIFE OF THE FACILITY. FOR DETENTION BASINS, THE FLOOR OF THE FACILITY SHOULD BE MAINTAINED SO THAT STORMWATER PROPERLY EXITS AND THE BASIN IS DRY AFTER EACH STORM EVENT.

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STATE OF TENNESSEE
8-23-10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED DETENTION BASIN LAYOUT

SCALE: 1"= 50′

8/20/2010
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27

ABBREVIATIONS

APPROX.	APPROXIMATELY
AQ	AQUA
ASSY(S)	ASSEMBLY(S)
AWG	AMERICAN WIRE GAUGE
BK	BLACK
BL	BLUE
BR	BROWN
CCTV	CLOSED CIRCUIT TELEVISION
COAX	COAXIAL
COMM.	COMMUNICATIONS
DET	DETECTOR
DIA	DIAMETER
DMS	DYNAMIC MESSAGE SIGN
EB	EAST BOUND
EOP	END OF PROJECT
E.O.T.L.	EDGE OF TRAVEL LANE
EXIST	EXISTING
F	FIBERS
FCC	FEDERAL COMMUNICATIONS COMMISSION
FO	FIBER OPTIC
G.M.	GROUND MOUNTED
GR	GREEN
G.R.	GUARDRAIL
HAR	HIGHWAY ADVISORY RADIO
HDPE	HIGH DENSITY POLYETHYLENE
HEX	HEXAGONAL
INFO	INFORMATION
IP	INTERNET PROTOCOL
ITS	INTELLIGENT TRANSPORTATION SYSTEM
KVA	KILOVOLT-AMPERE
LF	LINEAR FEET
LT	LEFT
MLGW	MEMPHIS LIGHT GAS & WATER
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
L.D.	LOWERING DEVICE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NO(S)	NUMBER(S)
N.T.S.	NOT TO SCALE
O.H.	OVERHEAD
OR	ORANGE
P	POWER
PB	PULL BOX
PTZ	PAN TILT AND ZOOM
PVC	POLYVINYLCHLORIDE CONDUIT
RCV	RECEIVE
RD	RED
RDS	RADAR DETECTION SYSTEM
RGS	RIGID GALVANIZED STEEL
REFL.	REFLECTIVE
RT	RIGHT
SCH.	SCHEDULE
SHLD.	SHOULDER
SL	SLATE
SM	SINGLE MODE
STA.	STATION
TMC	TRANSPORTATION MANAGEMENT CENTER
TSP	TECHNICAL SPECIAL PROVISIONS
TYP	TYPICAL
UL	UNITED LABORATORIES
V	VOLTS
VDS	VIDEO DETECTION SYSTEM
VI	VIOLET
W	WATTS
W/	WITH
WB	WEST BOUND
WH	WHITE
W.S.	WEIGH STATION
YL	YELLOW

CONDUIT/CABLE LABEL DESCRIPTION

EXAMPLE LABEL:

(LINE 1) CONDUIT BANK TYPE 4 (290 LF)
(LINE 2) FO CABLE, 60F (490 LF)
(LINE 3) RDS COMM CABLE (340 LF)
(LINE 4) 1-2" CONDUIT W/BANK (290 LF)
(LINE 5) 3-#8 AWG POWER (365 LF)

LINE 1-INDICATES A TYPE 4 COMMUNICATIONS CONDUIT BANK. WILL INCLUDE FOUR 1-1/4" HDPE CONDUITS AND THE LENGTH OF EACH CONDUIT IN THAT SEGMENT IS 290 LINEAR FEET.

LINE 2-INDICATES THAT FIBER OPTIC CABLE WITH 60 FIBERS WILL BE INSTALLED IN ONE OF THE CONDUITS. THE TOTAL LENGTH OF CABLE IN THAT SEGMENT INCLUDING THE COILS INSIDE THE PULL BOXES IS 490 LINEAR FEET.

LINE 3-INDICATES THAT RDS COMMUNICATIONS CABLE WILL BE INSTALLED IN ONE OF THE CONDUITS. THE TOTAL LENGTH OF CABLE IN THAT SEGMENT INCLUDING THE COILS INSIDE THE PULL BOXES IS 340 LINEAR FEET.

LINE 4-INDICATES THAT ONE 2" CONDUIT WILL BE INSTALLED ALONG WITH THE COMMUNICATIONS CONDUIT BANK IN THE SAME TRENCH. TOTAL LENGTH OF CONDUIT IN THAT SEGMENT IS 290 LINEAR FEET.

LINE 5-INDICATES THAT THREE #8 AWG POWER CABLES WILL BE INSTALLED INSIDE THE 2" CONDUIT. TOTAL LENGTH OF EACH CABLE IN THAT SEGMENT INCLUDING COILS INSIDE THE PULL BOXES IS 365 LINEAR FEET.

A NEW CONDUIT LABEL IS LISTED ONLY WHEN THE TYPE OR COMBINATION OF CONDUIT/CABLE CHANGES, OR WHEN THERE IS A CHANGE IN SHEETS. IF THE TYPE DOES NOT CHANGE, A SINGLE LABEL WILL REFER TO CONDUIT THAT MAY SPAN ACROSS MULTIPLE PULL BOXES AND DEVICES.

LENGTHS ARE APPROXIMATE ONLY. PAYMENT WILL BE BASED ON ACTUAL LENGTHS INSTALLED.

PLANS LEGEND

TYPE C PULL BOX — PB
TYPE D PULL BOX
TYPE E PULL BOX
EXISTING PULL BOX (TO REMAIN UNLESS NOTED)
LABEL FOR PULL BOX TYPE(S) — C.D
TYPE A CABINET — A
TYPE B CABINET — B
TYPE C CABINET — C
POWER CONDUIT — P (UG)
COMMUNICATION CONDUIT — F (UG)
CLOSED CIRCUIT TELEVISION CAMERA — CCTV (ARROW REPRESENTS DIRECTION OF ARM AWAY FROM POLE)
DYNAMIC MESSAGE SIGN — DMS
RADAR DETECTOR SYSTEM — RDS
WIRELESS RADAR DETECTOR SYSTEM — RDS
VIDEO DETECTOR SYSTEM — VDS
HAR SIGN — HAR
HAR TRANSMITTER — HAR
POWER DEMARCATION POINT
EXISTING POWER CONDUIT — P (UG)
EXISTING COMMUNICATION CONDUIT — F (UG)
EXISTING CLOSED CIRCUIT TELEVISION CAMERA — CCTV (ARROW REPRESENTS DIRECTION OF ARM AWAY FROM POLE)
EXISTING DYNAMIC MESSAGE SIGN — DMS
PROPOSED GUARDRAIL
EXISTING GUARDRAIL

** NOTE
ALL DEVICES ARE SHOWN FOR GRAPHICAL REPRESENTATION ONLY AND ARE NOT TO SCALE. THE CENTER OF THE POLE OR DEVICE IS INDICATED ON THE PLANS BY THE STATION LOCATION.

MARK H. WASHINGTON — REGISTERED ENGINEER — No. 102108 — STATE OF TENNESSEE
8/7/16

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LEGEND AND ABBREVIATIONS

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

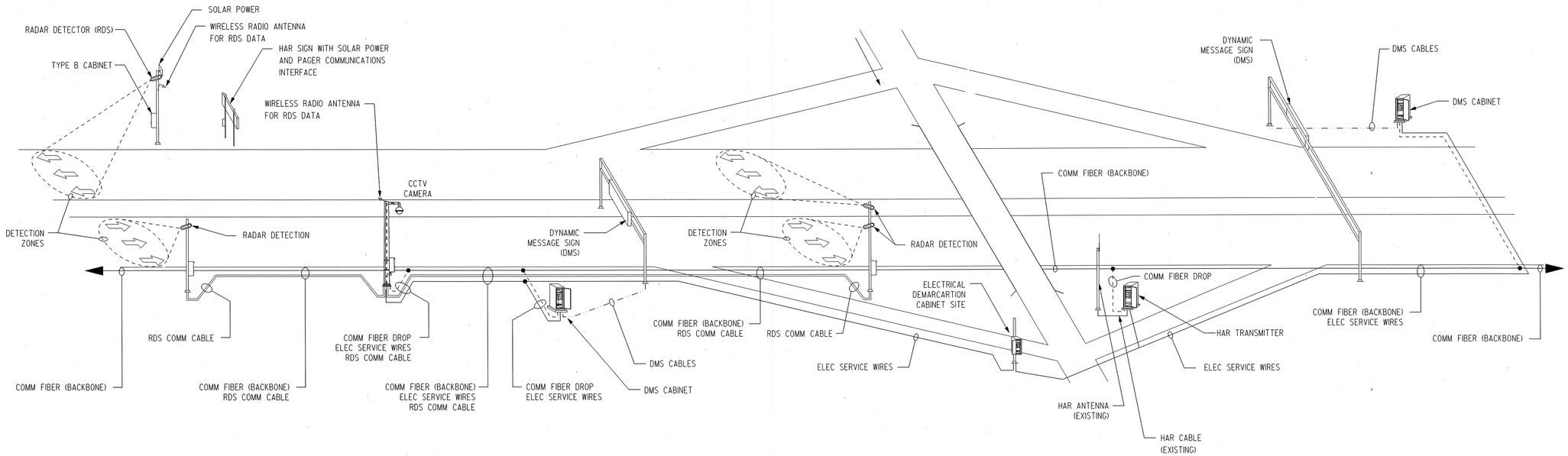
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27A

NOTE:

THIS SYSTEM SCHEMATIC IS INTENDED AS A HIGH LEVEL SYSTEM OVERVIEW ONLY. REFER TO THE TECHNICAL SPECIAL PROVISIONS AND OTHER PLAN SHEETS FOR SPECIFIC DETAILS AND QUANTITIES.

CABLE LEGEND

- COMM FIBER (BACKBONE)
- COMM FIBER DROP
- FIBER SPLICE CLOSURE
- RDS COMM CABLE
- ELEC SERVICE WIRES
- DMS CABLES



MARK H. WASHINGTON
REGISTERED
No. 101908
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SYSTEM SCHEMATIC OVERVIEW

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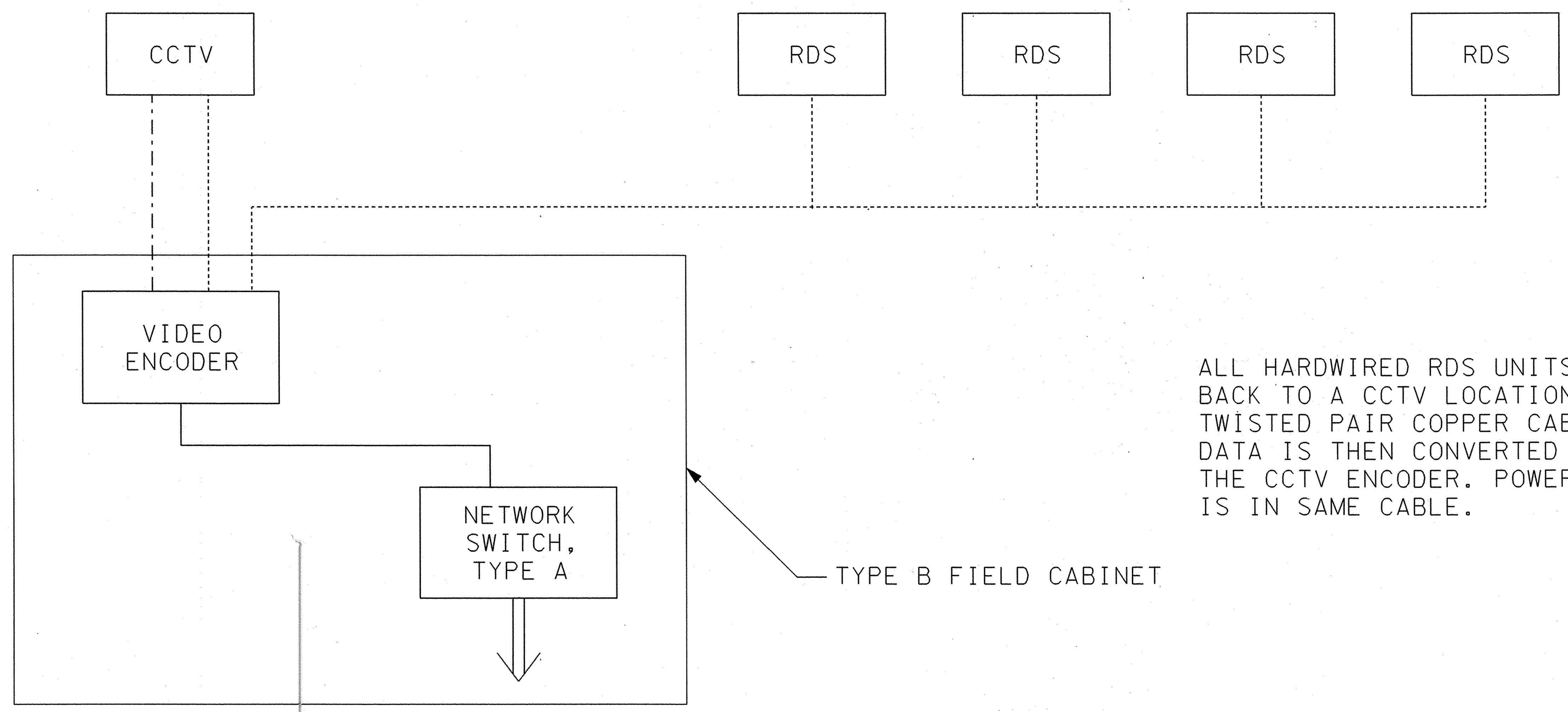
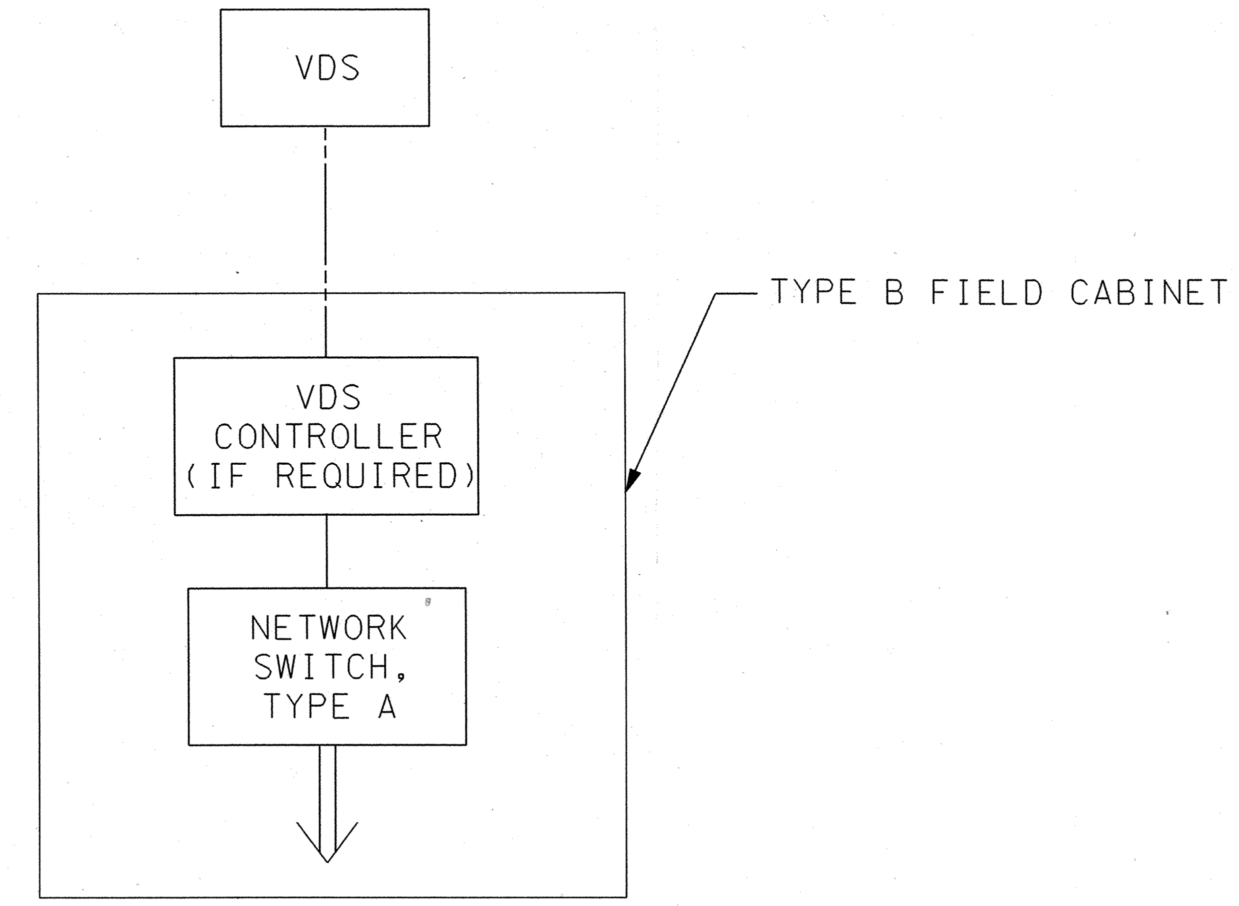
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	278

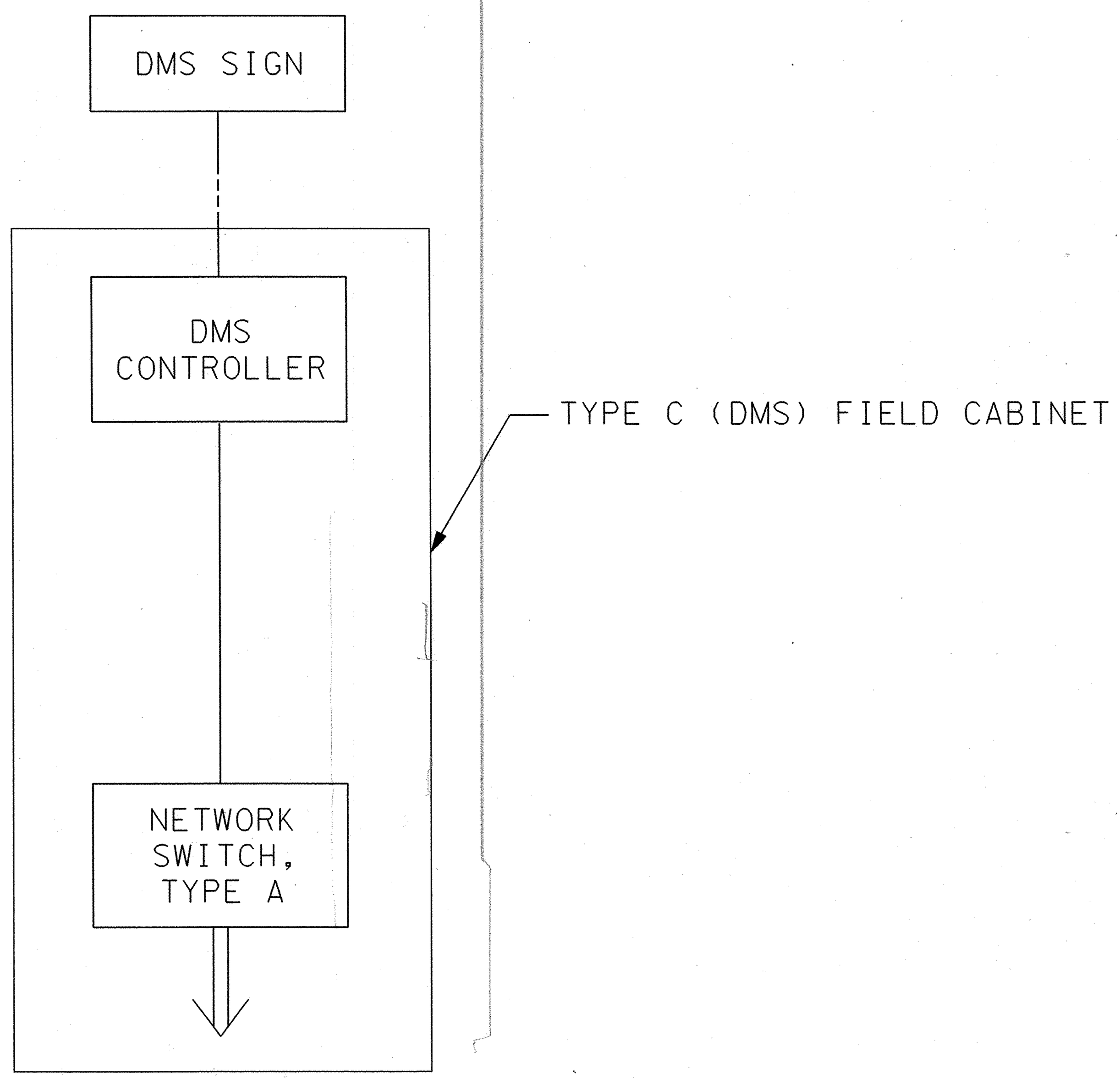


ALL HARDWIRED RDS UNITS ARE WIRED BACK TO A CCTV LOCATION VIA RS485 ALONG TWISTED PAIR COPPER CABLE. THE RDS DATA IS THEN CONVERTED TO ETHERNET AT THE CCTV ENCODER. POWER FOR RDS UNITS IS IN SAME CABLE.

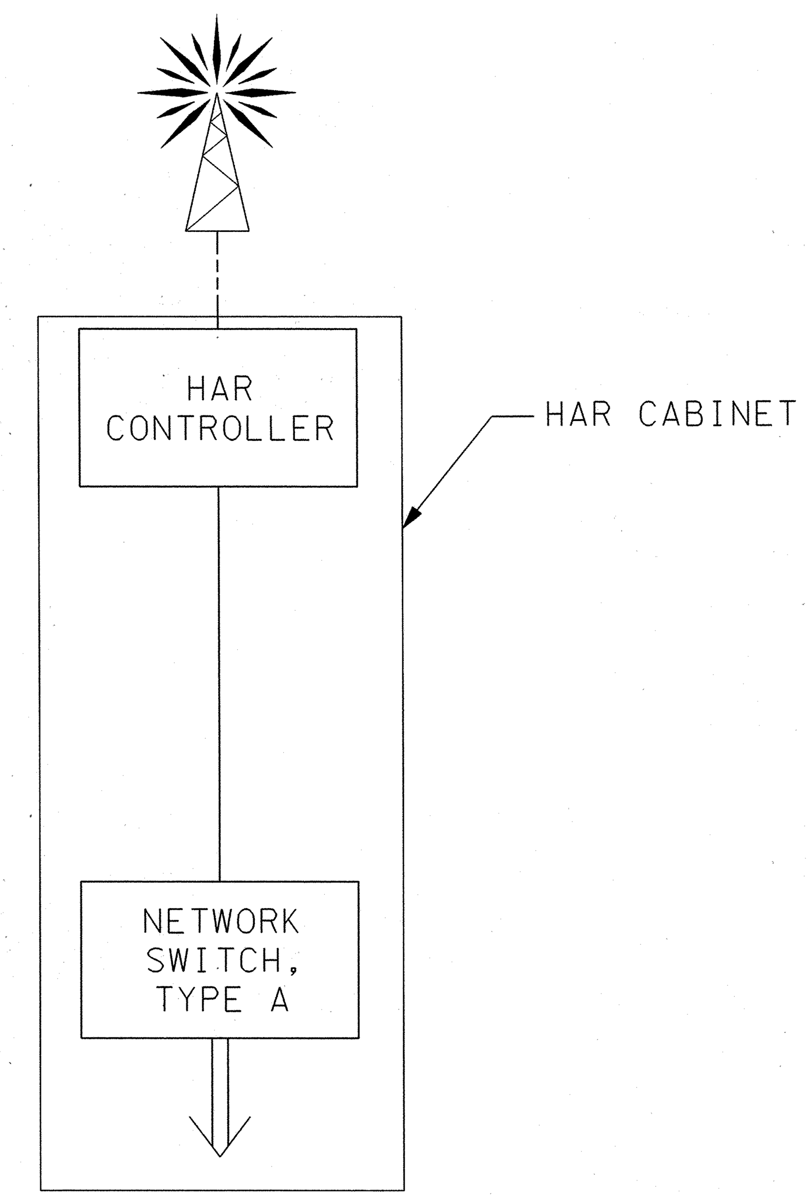
TYPICAL CCTV AND RDS SITE - FIBER



TYPICAL VDS SITE - FIBER



TYPICAL DMS SITE - FIBER



TYPICAL HAR SITE - FIBER

LEGEND

- ANALOG VIDEO NTSC (COAX)
- SERIAL DATA COMMUNICATION (TWISTED PAIR) (RS422, RS485)
- ETHERNET 10/100 BASE TX (CAT 5 CABLE)
- OPTICAL ETHERNET 100 BASE FX (SINGLE MODE FIBER)
- MANUFACTURER SPECIFIC CABLES

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SITE BLOCK DIAGRAMS (FIBER)

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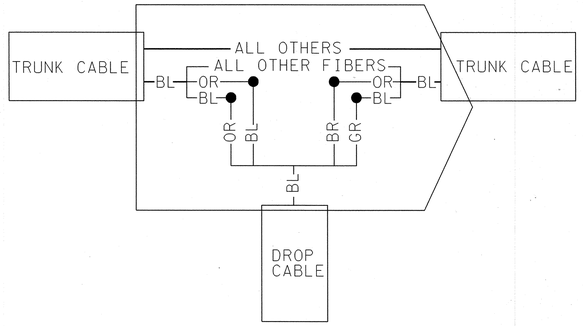
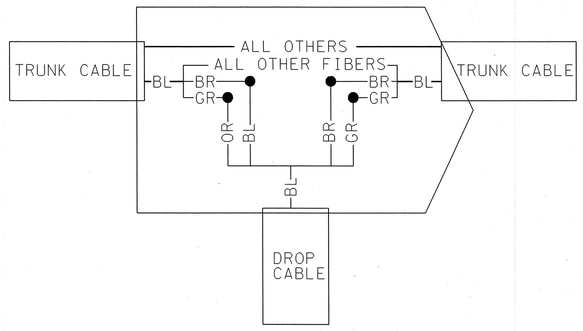
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27C

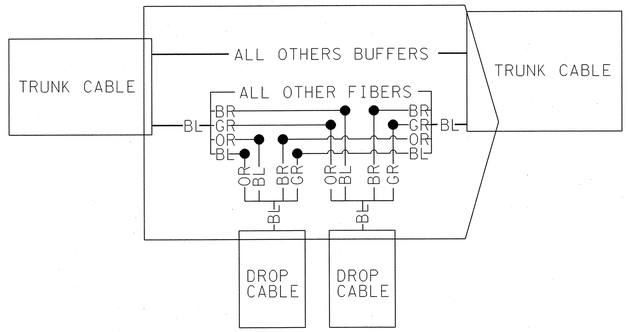
SPLICE CLOSURE DETAIL 1



SPLICE CLOSURE DETAIL 2



SPLICE ENCLOSURE DETAIL 1 / 2



FIBER COLOR STANDARD

AQ	AQUA	RS	ROSE
BK	BLACK	SL	SLATE
BL	BLUE	VI	VIOLET
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE	RD	RED

LEGEND

- FO CABLE
- FO BUFFER
- FO FIBER
- FUSION SPLICE
- UNTERMINATED FIBER(S) OR BUFFER(S)

NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 4 FOR FIBER OPTIC CABLE, CLOSURE AND SPLICING INFORMATION.

MARK H. WASHING
REGISTERED ENGINEER
No. 107...
STATE OF TENNESSEE
8/13/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPLICING DETAILS

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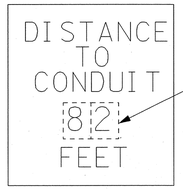
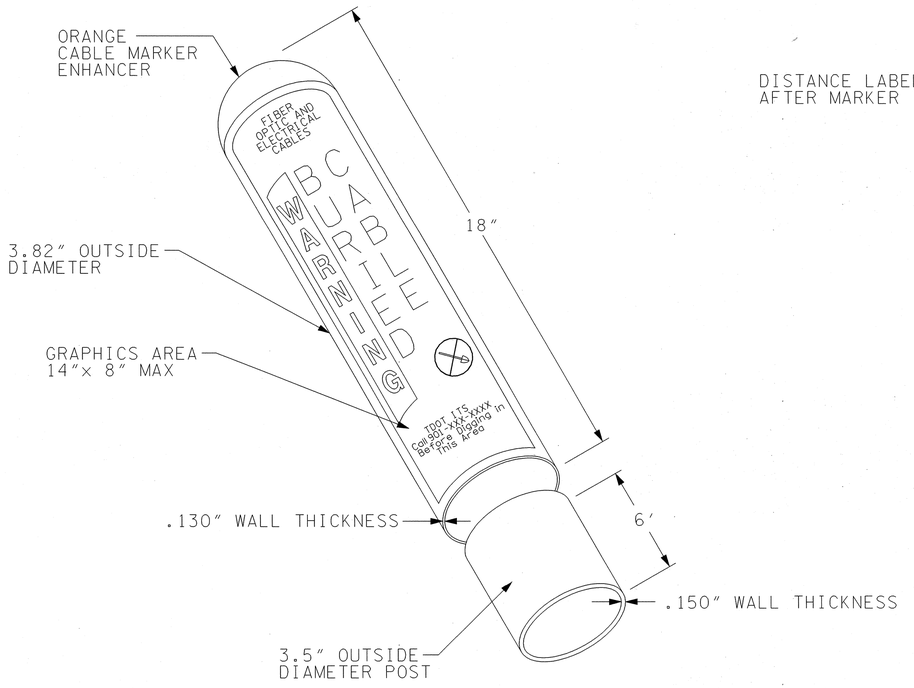
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

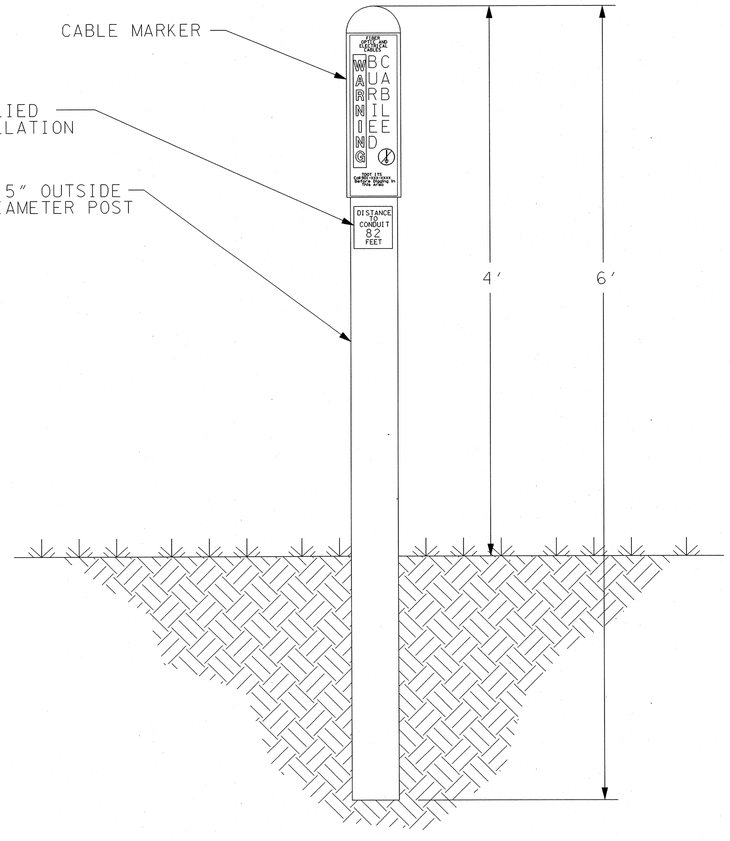
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27D



PRE PRINTED DISTANCE LABEL



DETAIL VIEW OF CABLE MARKER
N.T.S.



TYPICAL INSTALLATION OF CABLE MARKER
N.T.S.

NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM
TSP 725 SECTION 2.3.8 FOR INSTALLATION
INSTRUCTIONS

MARK H. WASHINGTON
REGISTERED ENGINEER
No. 107908
STATE OF TENNESSEE
8/15/16

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CABLE MANAGEMENT DETAILS

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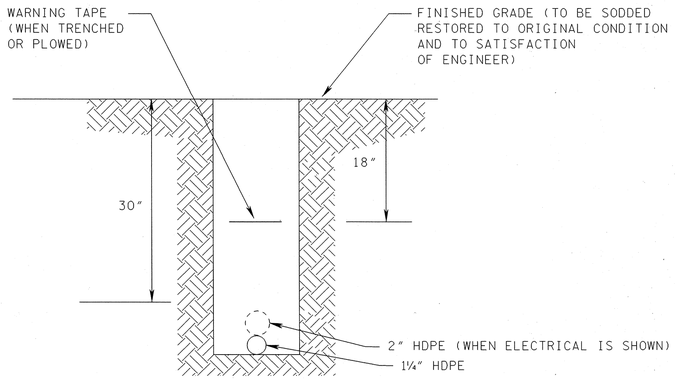
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

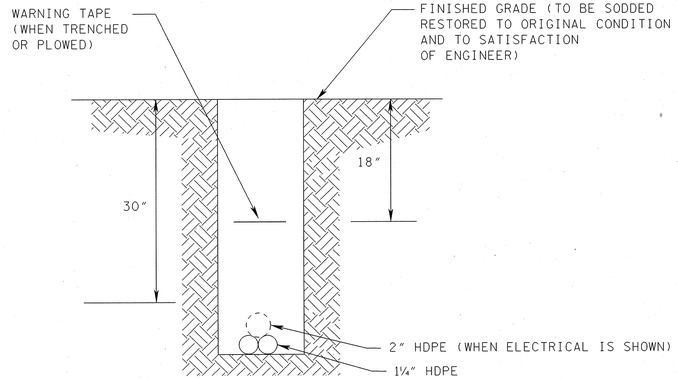
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	**STP-I-240(290)**	27E



CONDUIT BANK TYPE 1

N.T.S.

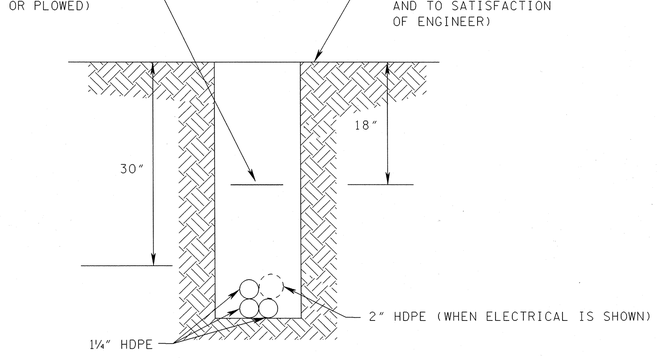
ONE 1¼″ HDPE COMMUNICATIONS CONDUIT WITH
OR WITHOUT ONE 2″ HDPE ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 2

N.T.S.

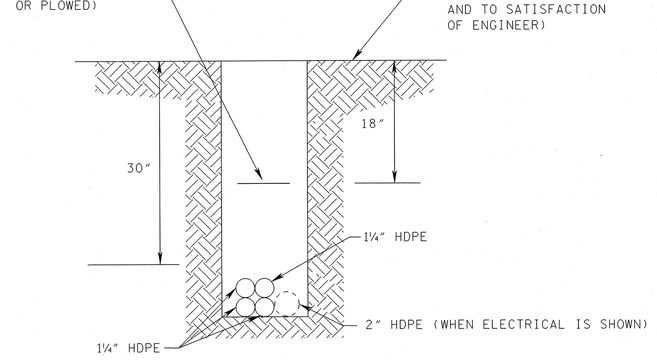
TWO 1¼″ HDPE COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2″ HDPE ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 3

N.T.S.

THREE 1¼″ HDPE COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2″ HDPE ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 4

N.T.S.

FOUR 1¼″ HDPE COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2″ HDPE ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY

NOTES:

DETAILS FOR CONDUIT BANKS APPEAR AS TRENCHED INSTALLATION FOR GRAPHICAL PURPOSES ONLY. AS DESCRIBED IN THE MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 2 CONDUIT BANKS IN EARTH MAY BE TRENCHED, PLOWED, HORIZONTAL DIRECTIONAL BORED, OR DRILLED.

CONDUIT COLORS

ALL CONDUIT USED ON THIS PROJECT SHALL CONFORM
TO THE COLOR SCHEME AND USE DESCRIBED BELOW:

CONDUIT BANK TYPE 1: GREEN (DROP FIBER OR RDS COMM)

CONDUIT BANK TYPE 2: GREEN (DROP FIBER OR RDS COMM)
WHITE (RDS COMM, 2ND DROP FIBER OR SPARE)

CONDUIT BANK TYPE 3: GREEN (DROP FIBER OR RDS COMM)
BLUE (RDS COMM OR 2ND DROP FIBER)
WHITE (2ND RDS COMM OR SPARE)

CONDUIT BANK TYPE 4: ORANGE (TRUNK FIBER CABLE)
BLUE (RDS COMM OR DROP FIBER)
WHITE (SPARE OR 2ND RDS COMM)
BROWN (SPARE)

2″ ELECTRICAL CONDUIT: GREY (ELECTRICAL WIRE)

MARK H. WASHINGTON
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8/15/10
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL CONDUIT AND TRENCHING DETAIL

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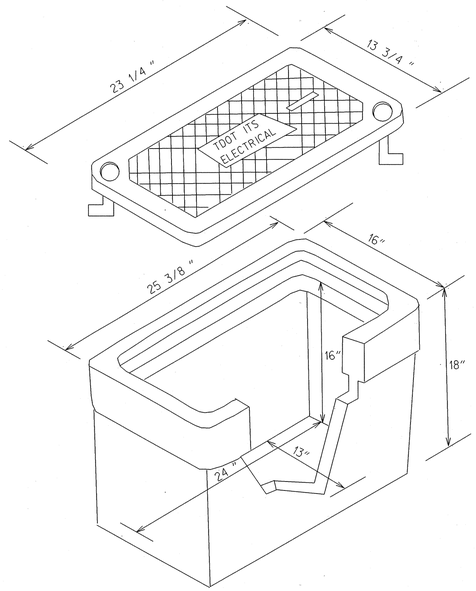
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27F

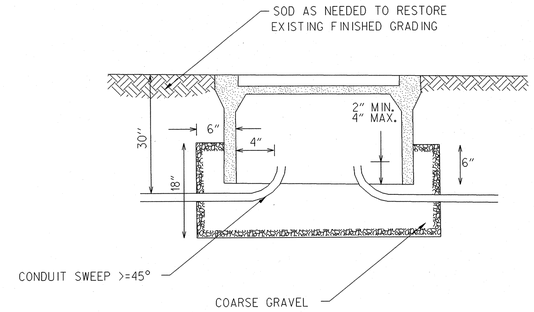


TYPICAL TYPE "C" PULL BOX ASSEMBLY

N.T.S.

SHOWN AS

PB



TYPICAL TYPE C PULL BOX INSTALLATION

(TYPICAL, TYPE C)
N.T.S.

NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725
SECTION 3 FOR PULL BOX SPECIFICATIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL PULL BOX DETAIL

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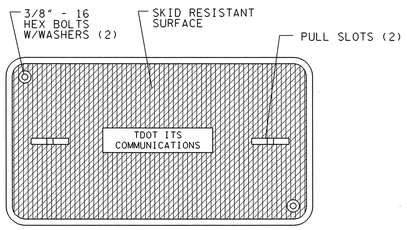
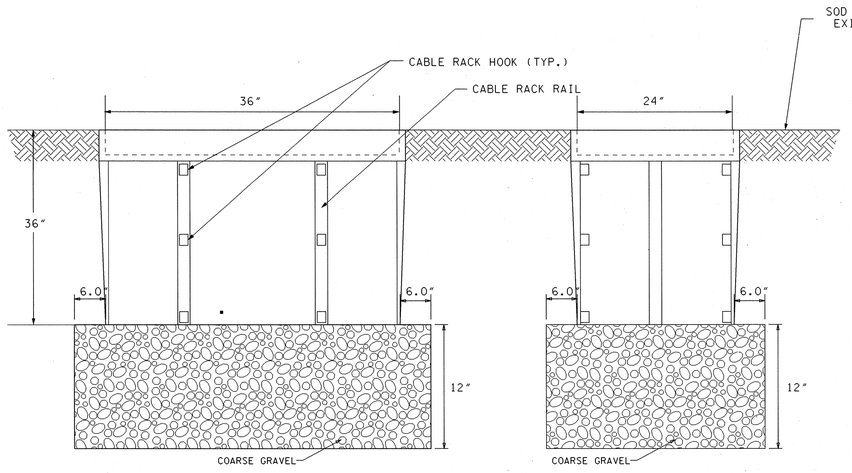
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27G



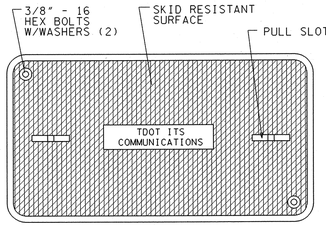


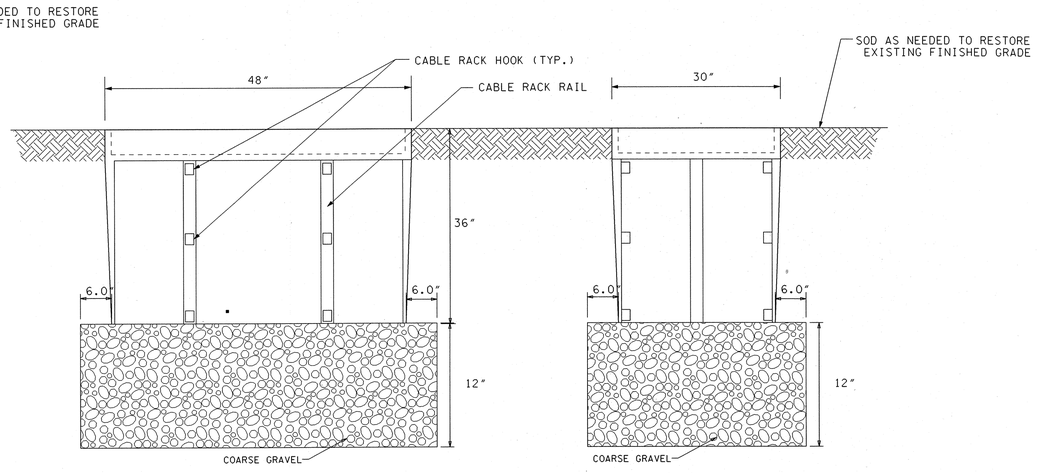
TYPE D PULL BOX ASSEMBLY
N.T.S.

SHOWN AS

TYPE D PULL BOX NOTES

1. ALL CONDUITS SHALL ENTER SIDE OF PULL BOX
2. ALL CONDUIT HOLES ARE TO BE CUT BY CONTRACTOR
3. ALL CONDUITS SHALL BE TERMINATED WITH A TERMINATOR KIT
4. NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 3 FOR PULL BOX SPECIFICATIONS.





TYPE E PULL BOX ASSEMBLY
N.T.S.

SHOWN AS

TYPE E PULL BOX NOTES

1. ALL CONDUITS SHALL ENTER SIDE OF PULL BOX
2. ALL CONDUIT HOLES ARE TO BE CUT BY CONTRACTOR
3. ALL CONDUITS SHALL BE TERMINATED WITH A TERMINATOR KIT
4. NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 3 FOR PULL BOX SPECIFICATIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL PULL BOX DETAIL

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

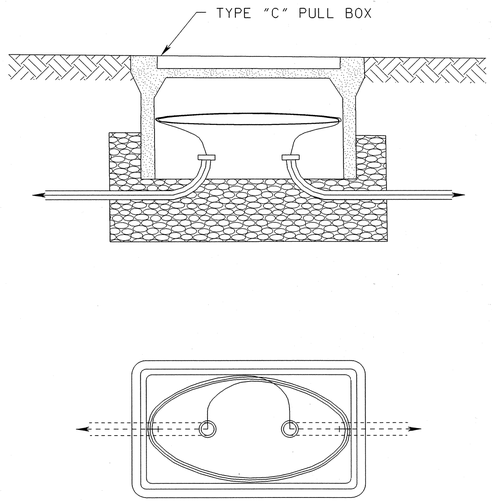
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27H

TYPICAL CABLE COIL INSTALLATION GUIDE

(FEET OF COIL LENGTH PER ENTERING CABLE)

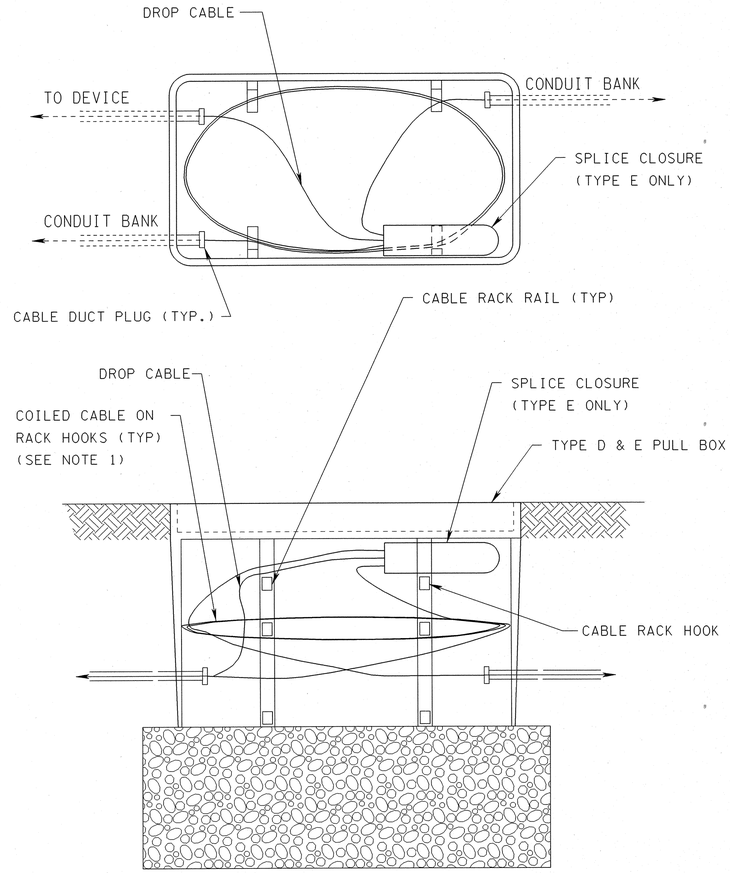
CABLE TYPE	TYPE "C" PULL BOX	TYPE "D" PULL BOX ON TRUNK	TYPE "D" PULL BOX ON DROP	TYPE "E" PULL BOX
FIBER OPTIC CABLES (TRUNK)		25		200
FIBER OPTIC CABLES (DROP)		25	10	100
ELECTRICAL SERVICE CONDUCTORS	10			
VDS LEAD-IN CABLE			10	
RDS COMM CABLE		20	20	20
DMS COMM CABLE			10	

* SEE TSP 725 FOR ADDITIONAL INFORMATION



CABLE MANAGEMENT IN TYPE "C" PULL BOX

N.T.S.



CABLE MANAGEMENT IN TYPE D & E PULL BOX

N.T.S.

NOTES: 1. FIBER TRUNK AND DROP CABLE SHALL BE COILED TOGETHER. EACH RDS COMM CABLE SHALL BE COILED SEPARATELY AND SUPPORTED ON RACK HOOKS.

MARK H. WASHINGTON
REGISTERED ENGINEER
CONVENOR
No. 107808
STATE OF TENNESSEE
8/19/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CABLE MANAGEMENT DETAILS

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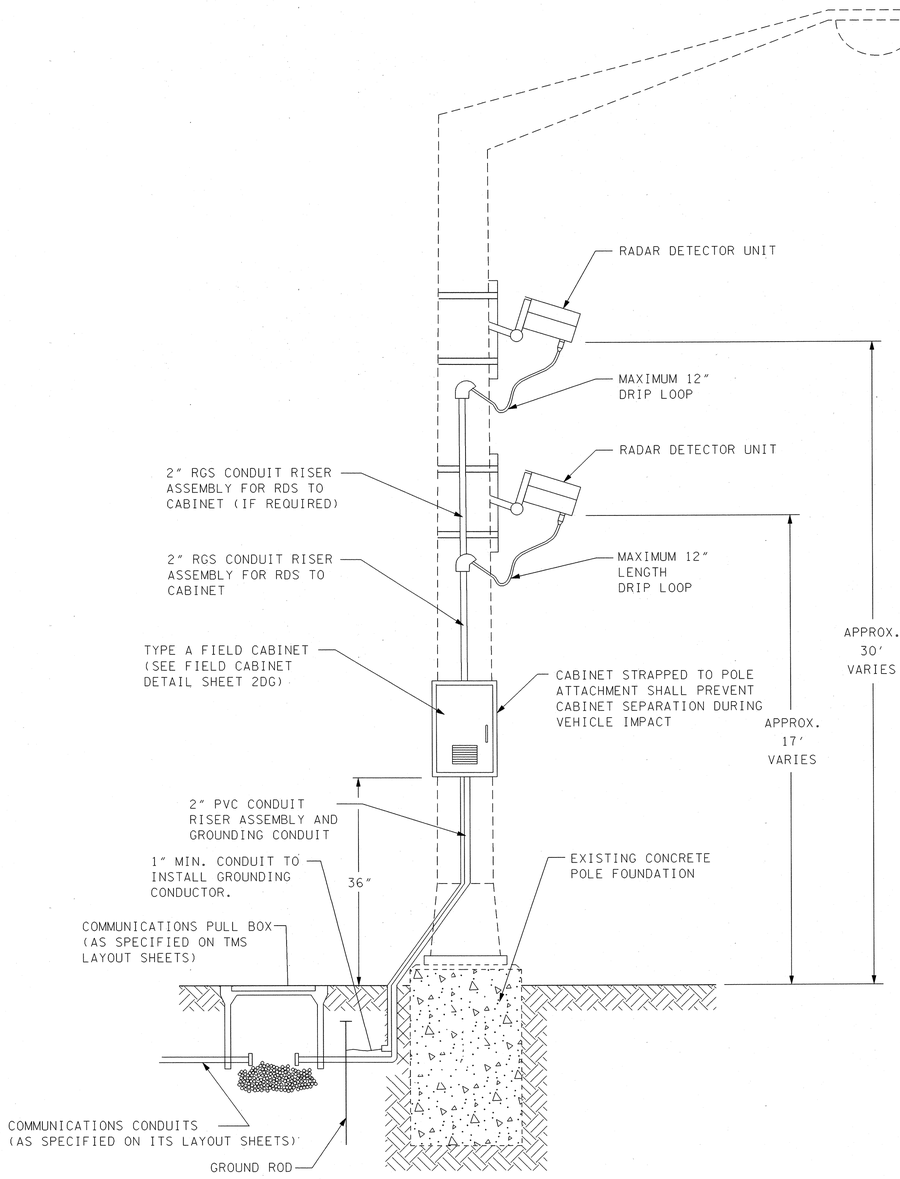
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	**STP-I-240(290)**	27J



TYPICAL RADAR DETECTOR
ON EXISTING LIGHT POLE
N.T.S.

NOTES:

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL COMPONENTS, INDIVIDUALLY, AND SUBMIT PLAN OF ATTACHMENT TO ENGINEER OF STRUCTURES FOR APPROVAL.
2. REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 12 FOR RDS SPECIFICATION AND INSTALLATINO REQUIREMENTS.
3. SUPPORTS AND FOUNDATIONS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ATTACHMENTS SHALL BE DESIGNED BY CONTRACTOR.
4. ALL EQUIPMENT CONNECTIONS SHOULD BE MADE ACCORDING TO MANUFACTURER RECOMMENDATIONS.

MARK H. WASHINGTON
REGISTERED ENGINEER
No. 18795
STATE OF TENNESSEE
8/17/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL RDS DETAIL

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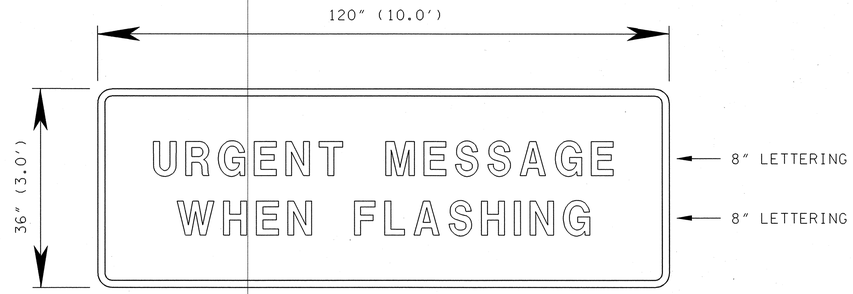
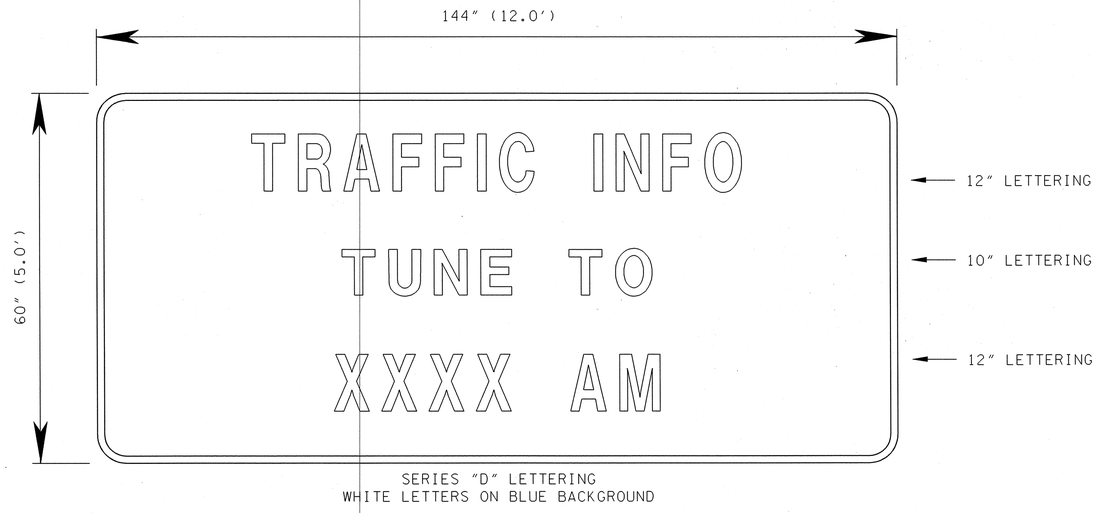
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27K



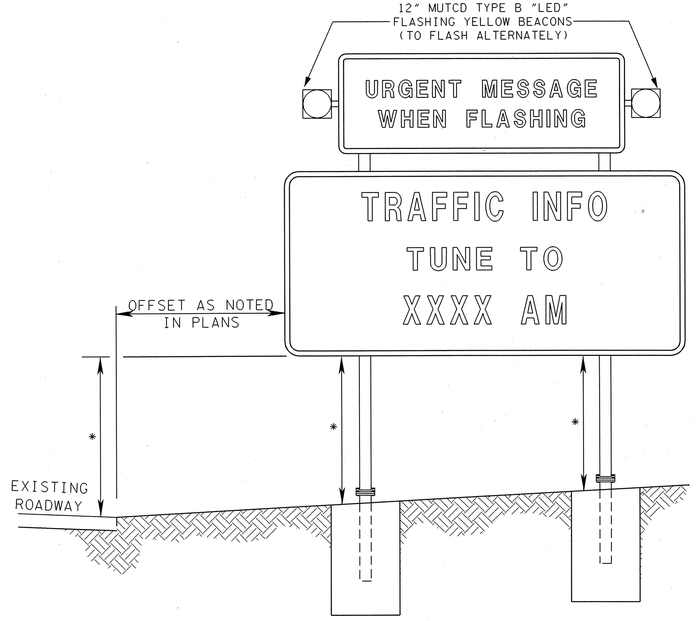
SERIES "D" LETTERING
BLACK LETTERS ON YELLOW BACKGROUND

"URGENT MESSAGE WHEN FLASHING" SIGN
SIZE AND LETTERING DETAILS
N.T.S.



SERIES "D" LETTERING
WHITE LETTERS ON BLUE BACKGROUND

"HIGHWAY ADVISORY RADIO" SIGN
SIZE AND LETTERING DETAILS
N.T.S.



"HIGHWAY ADVISORY RADIO WITH FLASHING BEACON"
SIGN MOUNTING DETAILS
N.T.S.

* SEE TDOT STD. DWG. T-S-9 FOR MINIMUM CLEARANCES.

MARK H. WASHINGTON
REGISTERED ENGINEER
No. 14709
STATE OF TENNESSEE
8/17/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

HAR
SIGN
DETAIL

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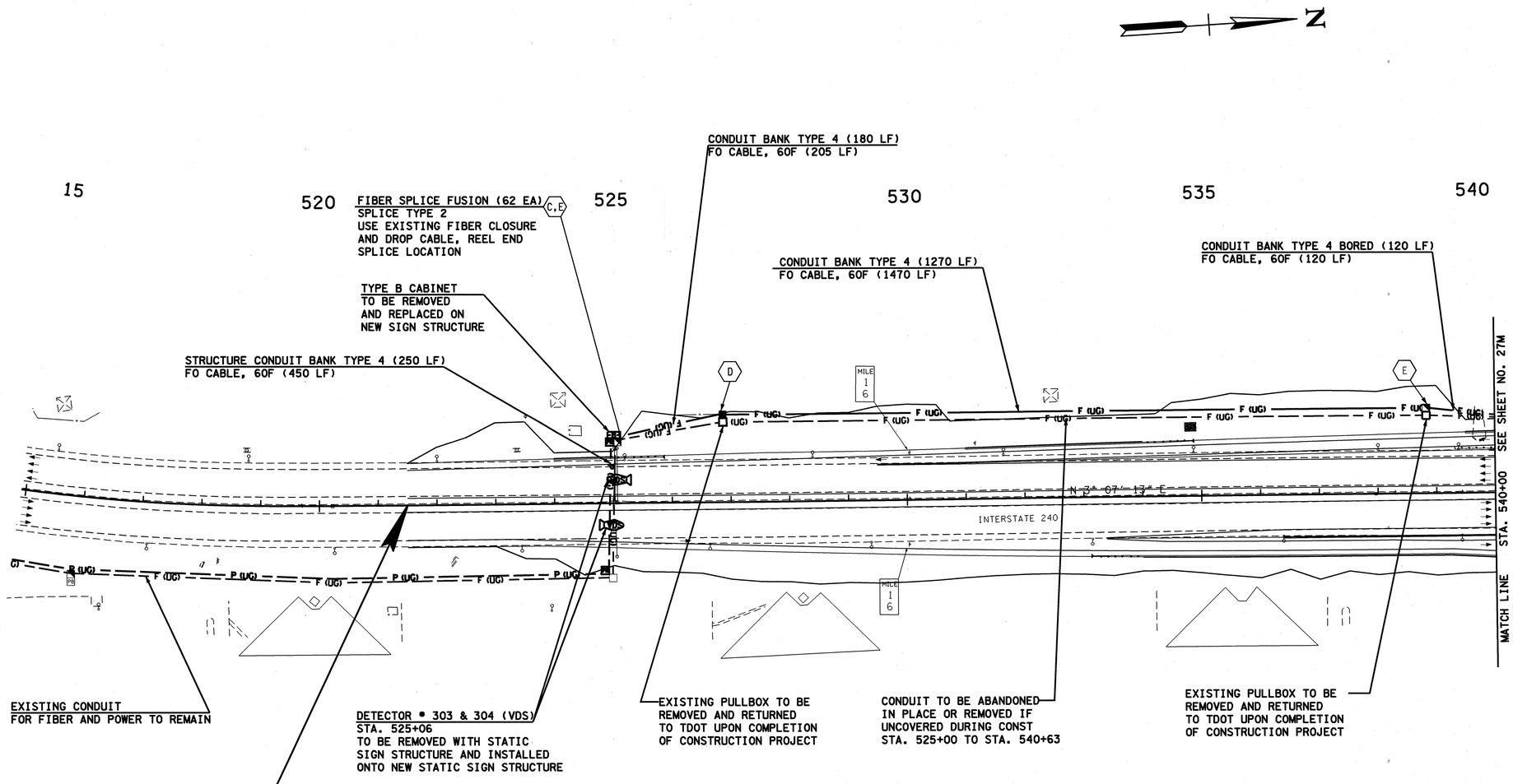
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27L



BEGIN PROJ. NO. STP-I-240(290) CONST.
STA. 521+50.00
N 299455.1548
E 810892.4304

NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 3 FOR VDS INSTALLATION REQUIREMENTS.

MARK H. WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
No. 107378
STATE OF TENNESSEE
8/31/16

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

B.O.P. TO STA. 540+00
SCALE: 1"=100'

29-AUG-2010 07:04
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27M

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (415 LF)
RDS COMM CABLE (225 LF)

CONDUIT BANK TYPE 4 (165 LF)
FO CABLE, 60F (190 LF)
RDS COMM CABLE (175 LF)

ELECTRICAL DEMARCATION * 108
480V, SINGLE PHASE

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (405 LF)

CONDUIT BANK TYPE 1 (430 LF)
RDS COMM CABLE (440 LF)

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (605 LF)

INSTALL CABLE INTO EXISTING CONDUIT
RDS COMM CABLE (150 LF)

CONDUIT BANK TYPE 4 BORED (75 LF)
FO CABLE, 60F (100 LF)

CONDUIT BANK TYPE 4 (720 LF)
FO CABLE, 60F (745 LF)

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (585 LF)

CONDUIT BANK TYPE 1 (335 LF)
RDS COMM CABLE (345 LF)

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (320 LF)

DETECTOR * 305 & 306
STA. 550+01
TO BE REMOVED WITH
LIGHTPOLE AND RE-INSTALLED
ONTO NEW PROPOSED LIGHTPOLE

540 545 550 555 560 565

SEE SHEET NO. 27L
STA. 540+00
MATCH LINE

SEE SHEET NO. 27N
STA. 565+00
MATCH LINE

W. REX RD.
PARK AVE.
POPLAR AVE.
INTERSTATE 240
C.S.X. RAILROAD
TO POPLAR AVE.

N 3° 12' 48" E
N 3° 06' 48" E
N 3° 07' 52" E

F (UG)
CCTV
HAR

TYPE A CABINET

EXISTING PULLBOX TO BE
REMOVED AND RETURNED
TO TDOT UPON COMPLETION
OF CONSTRUCTION PROJECT

CONDUIT TO BE ABANDONED
IN PLACE OR REMOVED IF
UNCOVERED DURING CONST
STA. 547+00 TO STA. 553+34

CONDUIT TO BE ABANDONED
IN PLACE OR REMOVED IF
UNCOVERED DURING CONST
STA. 555+57 TO STA. 558+97

FIBER CLOSURE, 12F
FIBER SPLICE FUSION (8 EA)
SPLICE TYPE 1 / 2
2-FO DROP CABLE, 4F (110 LF)
C,E

CCTV * 104
STA. 559+12
CCTV, CABINET
AND TRANSFORMER
TO REMAIN

HIGHWAY ADVISORY RADIO *14
STA. 559+01
GROUND PLANE TO BE
RELOCATED AS NEEDED
SEE NOTE THIS SHEET

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (215 LF)
RDS COMM CABLE (200 LF)

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (60 LF)
RDS COMM CABLE (60 LF)

NOTE: REFER TO MEMPHIS SMARTWAY SYSTEM TSP 725 SECTION 10.2.13 FOR HAR GROUNDING INSTALLATION REQUIREMENTS.

MARK H. WASHING
REGISTERED ENGINEER
CONSULTANT
No. 107508
STATE OF TENNESSEE
8/19/10

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

STA. 540+00 TO 565+00

SCALE: 1"=100'

19-AUG-2010 07:04
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27N

N

INSTALL CABLE INTO EXISTING CONDUIT
FO CABLE, 60F (245 LF)
RDS COMM CABLE (55 LF)

CONDUIT BANK TYPE 4 (640 LF)
FO CABLE, 60F (840 LF)
RDS COMM CABLE(660 LF)

TYPE A CABINET

CONDUIT BANK TYPE 1 (40 LF)
RDS COMM CABLE(60 LF)

CONDUIT BANK TYPE 4 (1070 LF)
FO CABLE, 60F (1270 LF)

CONDUIT BANK TYPE 4 (895 LF)
FO CABLE, 60F (895 LF)

565 570 575 580 585 590

SEE SHEET NO. 27M

STA. 565+00

MATCH LINE

F (UG)

N 4° 09' 14" E — N 4° 07' 26" E — N 4° 09' 32" E — N 4° 09' 11" E

INTERSTATE 240

SEE SHEET NO. 27P

STA. 590+00

MATCH LINE

DETECTOR * 307 & 308
STA. 571+22
TO BE REMOVED WITH
LIGHTPOLE AND RE-INSTALLED
ONTO NEW PROPOSED LIGHTPOLE

CONDUIT TO BE ABANDONED
IN PLACE OR REMOVED IF
UNCOVERED DURING CONST
STA. 565+35 TO STA. 598+83

MARK H. WASHINGTON
REGISTERED ENGINEER
No. 103108
STATE OF TENNESSEE
8/9/10

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

STA. 565+00 TO 590+00

SCALE: 1"=100'

9-AUG-2010 07:04
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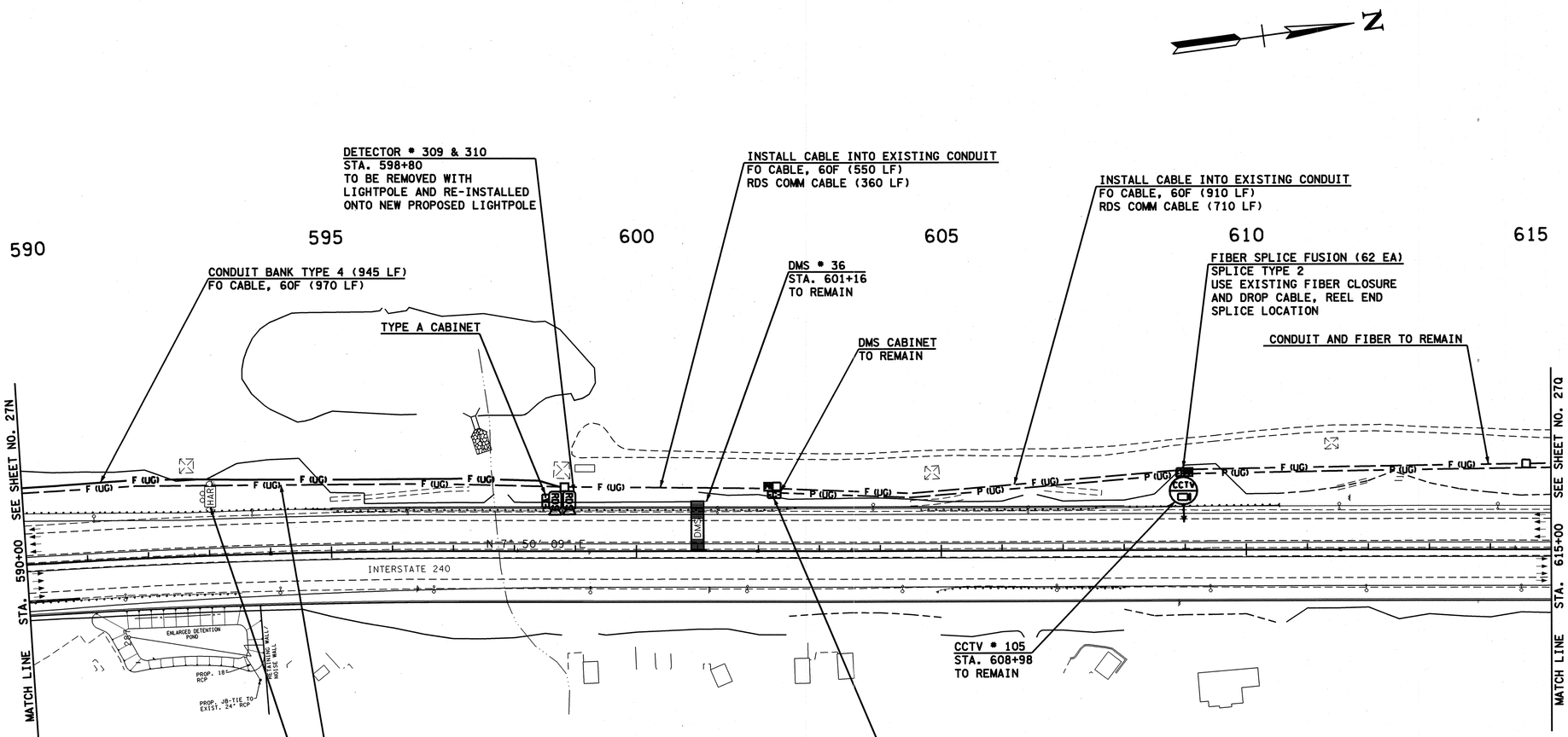
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27P



MARK H. WASHINGTON
REGISTERED ENGINEER
No. 107319
STATE OF TENNESSEE
8/4/10

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

STA. 590+00 TO 615+00

SCALE: 1"=100'

9-AUG-2010 07:04
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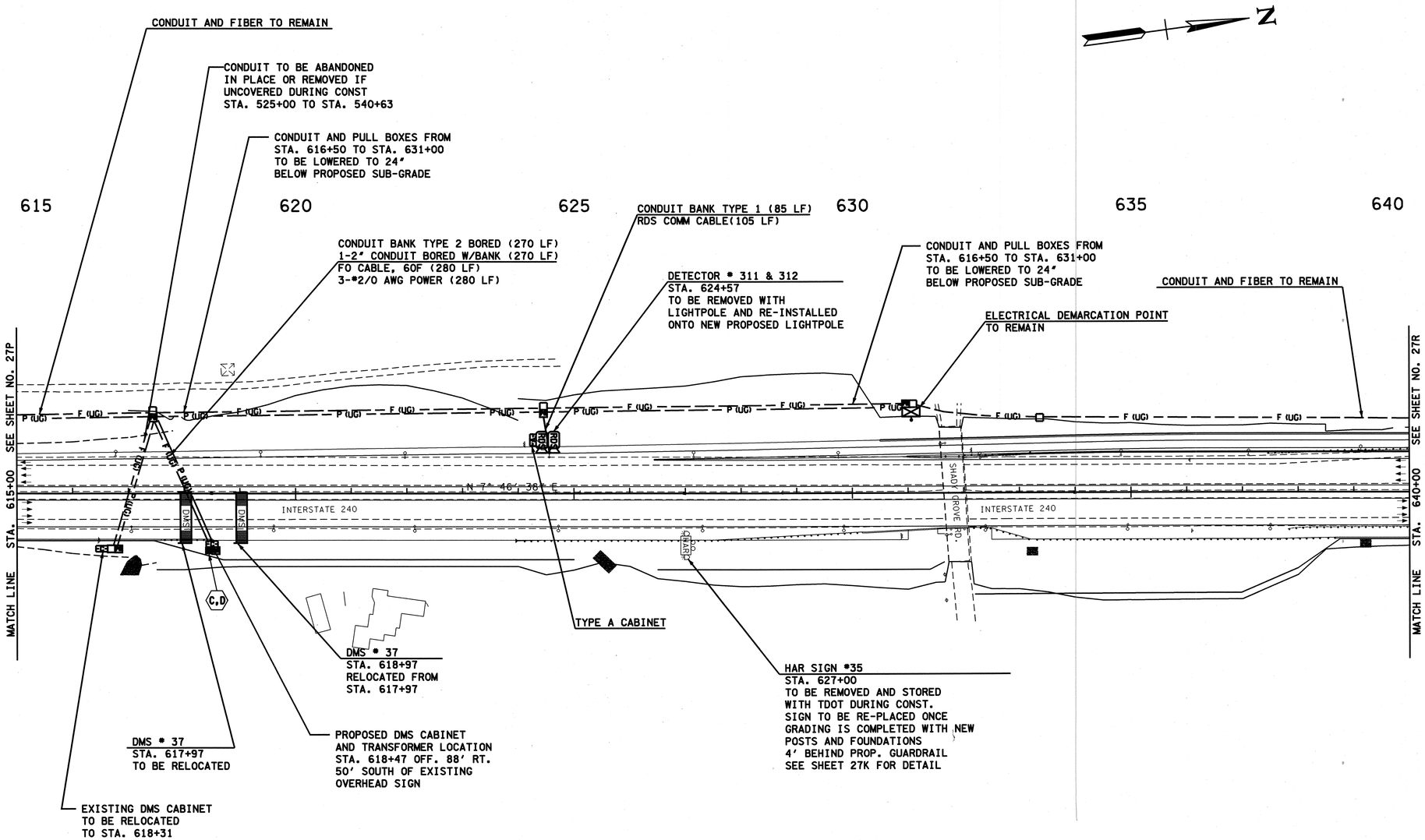
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27Q



NOTE: CABINET RELOCATION INCLUDES IN THE INSTALLATION OF CONDUIT FROM THE NEW DMS CABINET LOCATION TO THE DMS STRUCTURE AND SIGN.

MARK H. WASHINGTON
REGISTERED ENGINEER
No. 102309
STATE OF TENNESSEE
8/4/10

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

STA. 615+00 TO 640+00
SCALE: 1"=100'

9-AUG-2010 07:04
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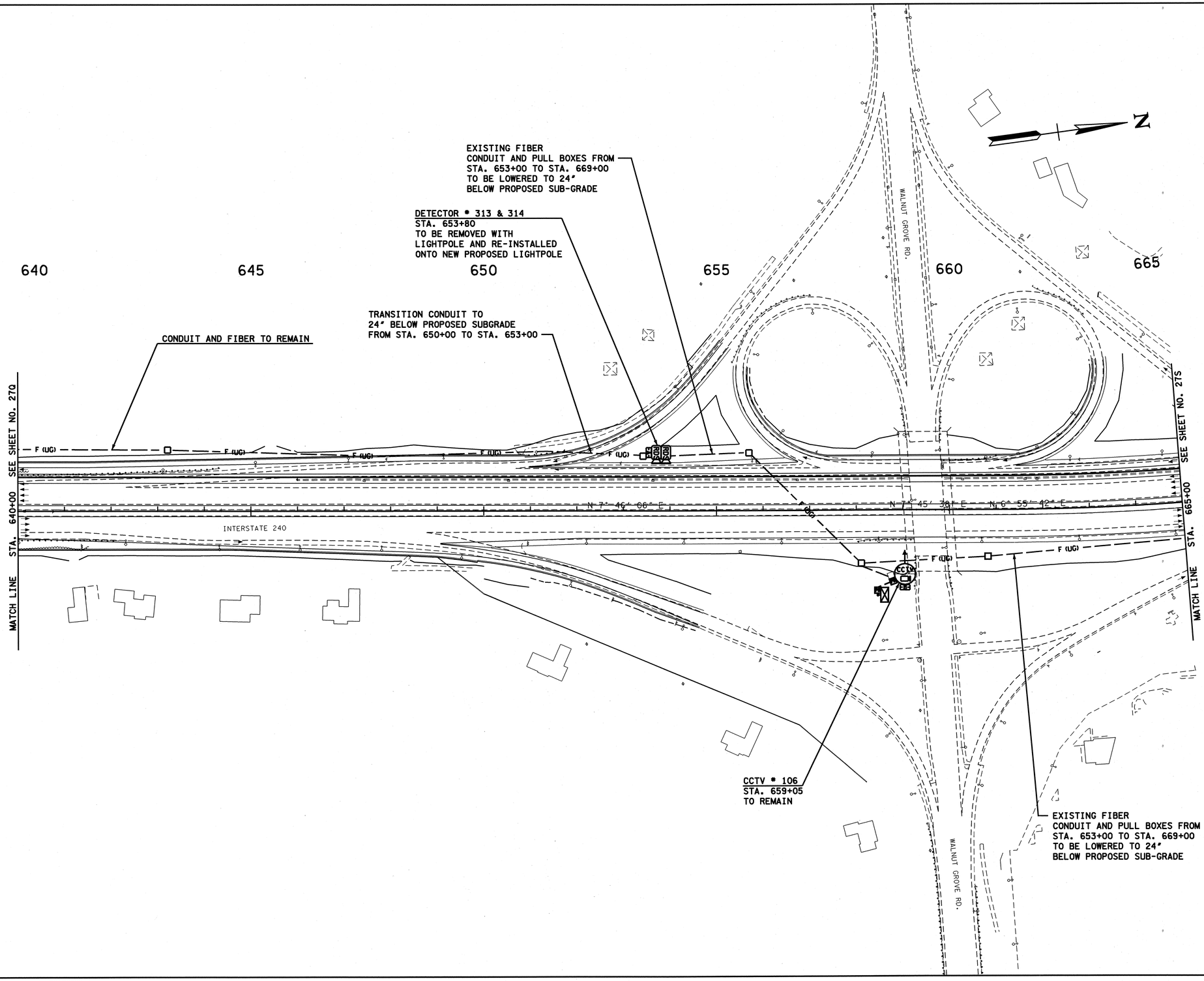
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27R



MARK H. WASHINGTON
REGISTERED ENGINEER
No. 109599
STATE OF TENNESSEE
8/31/10

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

STA. 615+00 TO 665+00

SCALE: 1"=100'

9-AUG-2010 07:05
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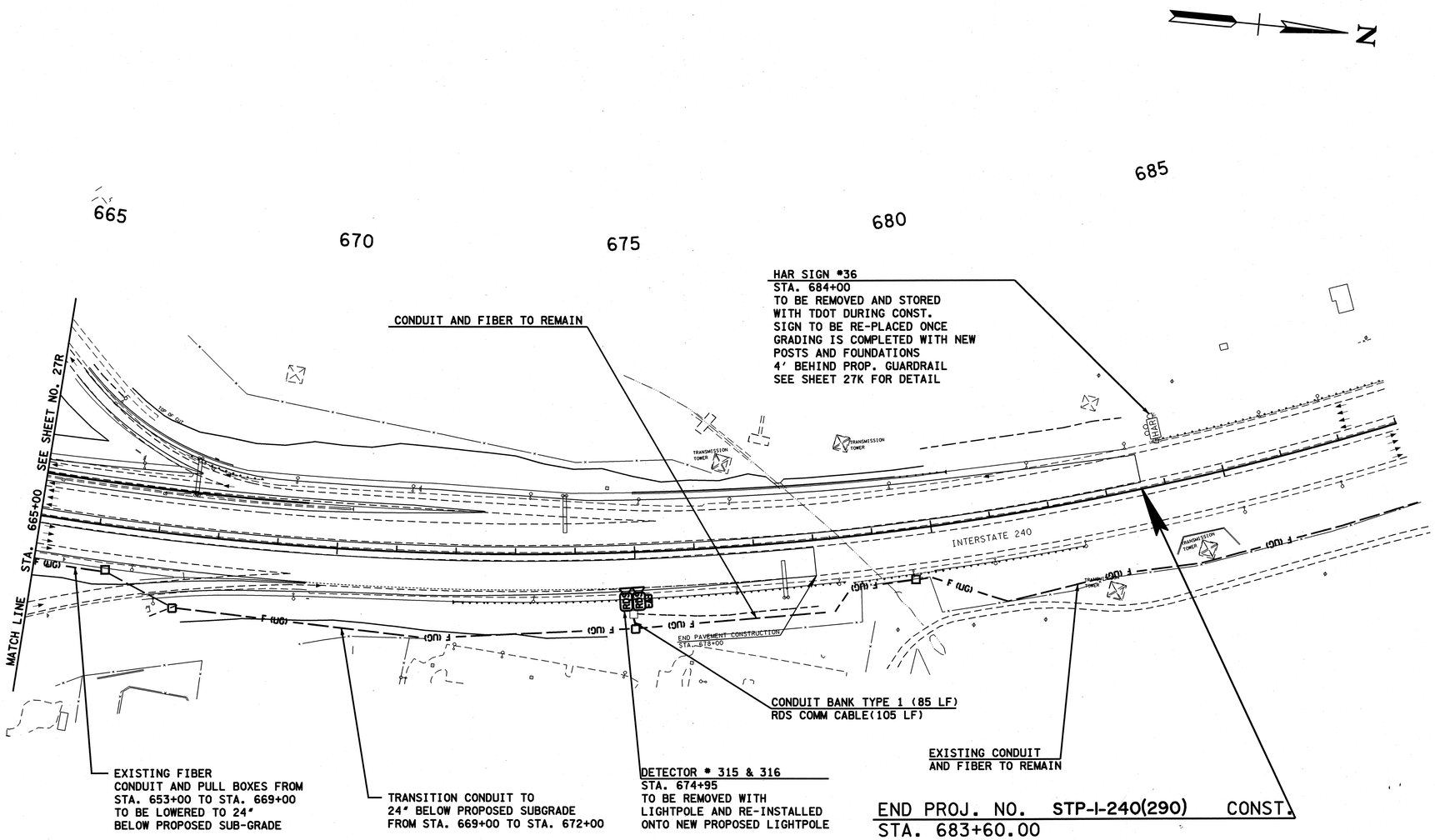
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	27S



END PROJ. NO. STP-I-240(290) CONST.
STA. 683+60.00
N 315562.3955
E 812068.2461

MARK H. WASHINGTON
REGISTERED ENGINEER
No. 102318
STATE OF TENNESSEE
01/21/10

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00003 AND TIED TO

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER REPAIR AND RELOCATION PLAN

STA. 665+00 TO E.O.P.
SCALE: 1"=100'

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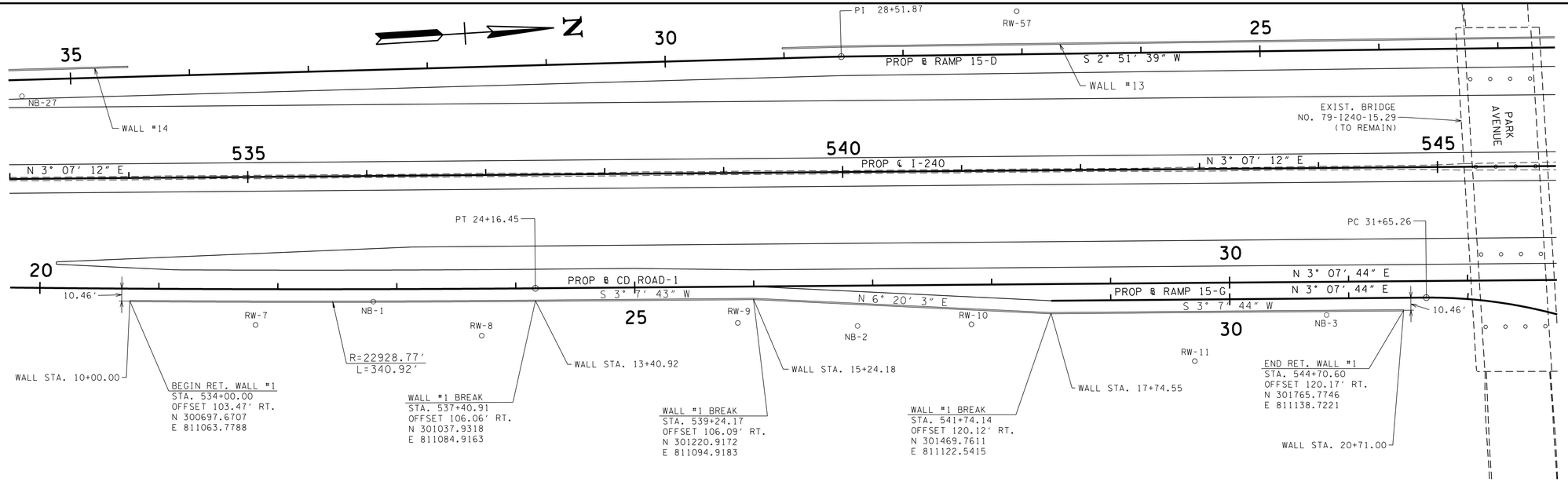
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	1
CONST.	2010	STP-I-240(290)	28

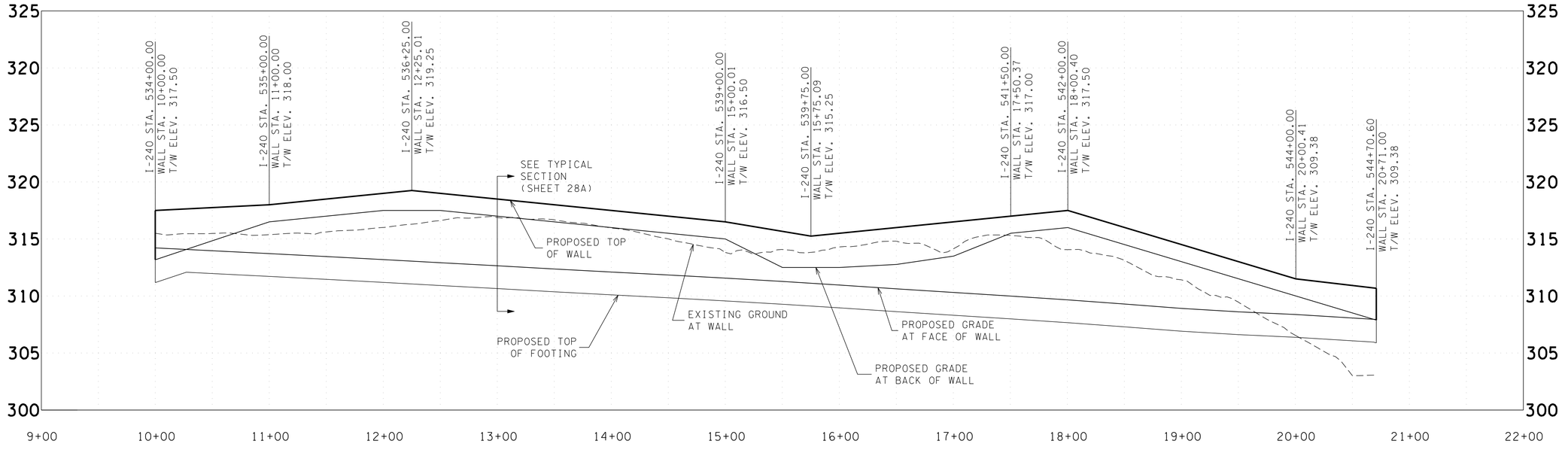


PLAN VIEW - RETAINING WALL #1

SCALE: 1″=50′H

RETAINING WALL QUANTITIES		
	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	7,723 S.F.
	ADJACENT BARRIER WALL	1,080 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #1

SCALE: 1″=50′H, 5′V

NOTES:
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102357
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

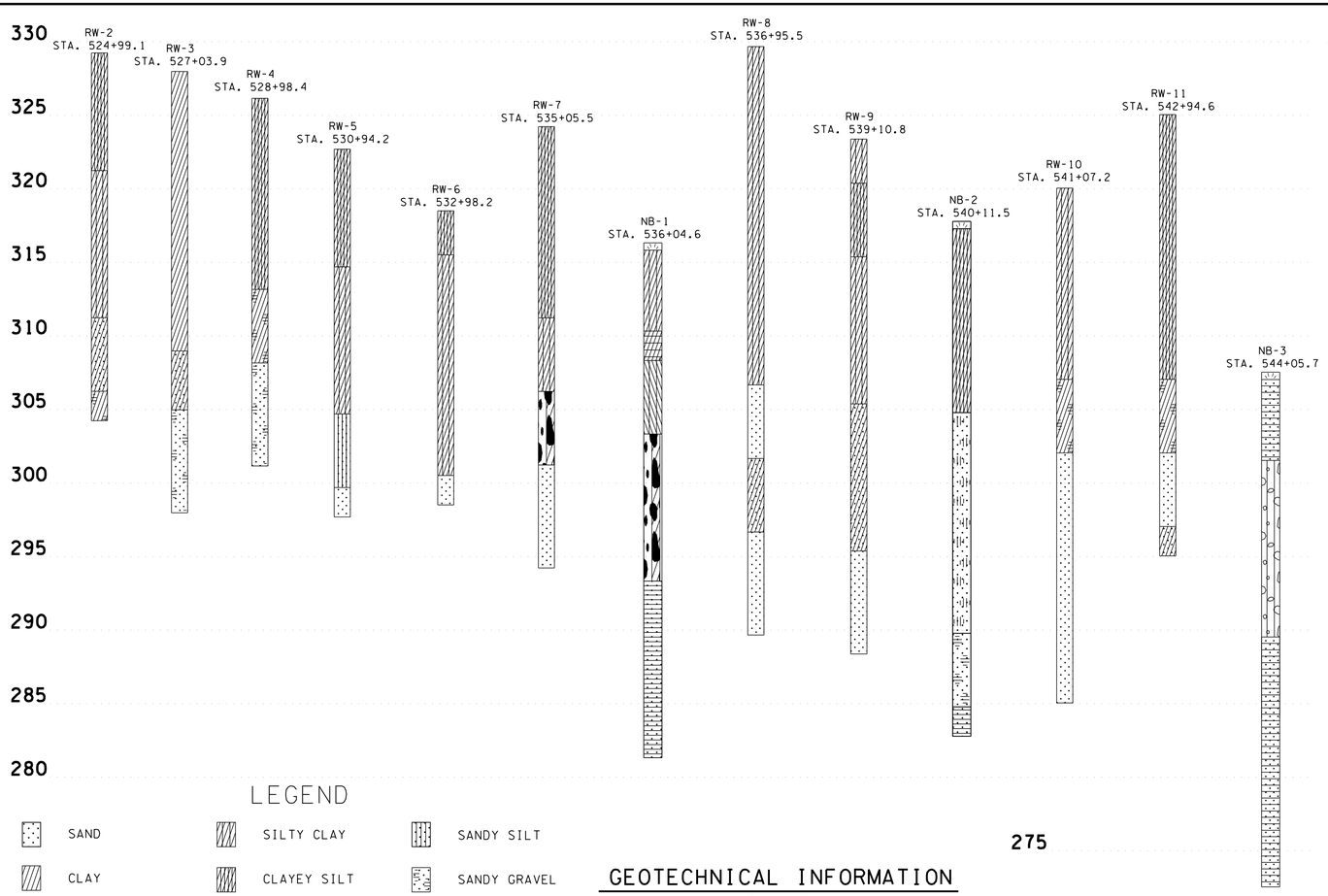
RETAINING WALL CONCEPTUAL DRAWING
WALL NO. 1
NORTHBOUND I-240
FROM STA. 534+00 TO STA. 544+70.60
SCALE: 1″= 50′

8/20/2010
w:\6115\transportation\ret_wall.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	1A
CONST.	2010	STP-I-240(290)	28A

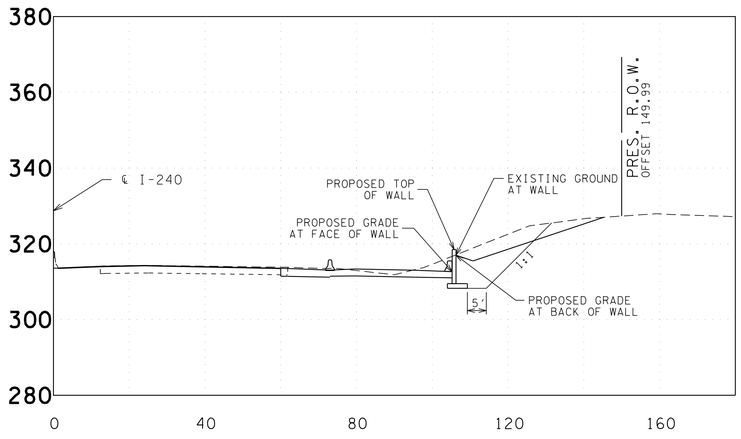


LEGEND

SAND	SILTY CLAY	SANDY SILT
CLAY	CLAYEY SILT	SANDY GRAVEL
CLAYEY, GRAVELLY, SAND	GRAVELLY CLAY	CLAYEY GRAVEL
GRAVELLY SAND	SAND WITH SILT AND GRAVEL	SILTY SAND
CLAY WITH SAND	SANDY CLAY	GRASS AND TOPSOIL

GEOTECHNICAL INFORMATION

SCALE: 1"=5'V



TYPICAL SECTION (STA. 537+00)

SCALE: 1"=20'H, 20'V

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL
- SOIL MIXED WALL (SMW)

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ø (°)	COHESION (PSF)	DENSITY (PCF)	ø (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ø) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHOULD BE 2500 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ø ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
ENTIRE WALL LENGTH	2800	3000

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 1 NORTHBOUND 240

FROM STA. 534+00 TO STA. 544+70.60

SCALE: 1"= 50'

8/20/2010
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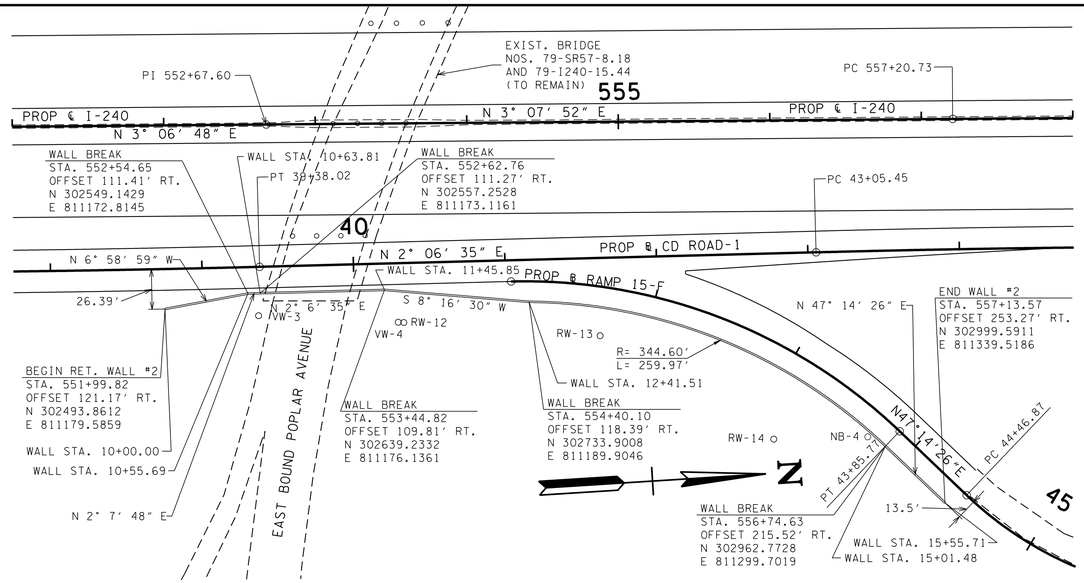
Survey & Design Division

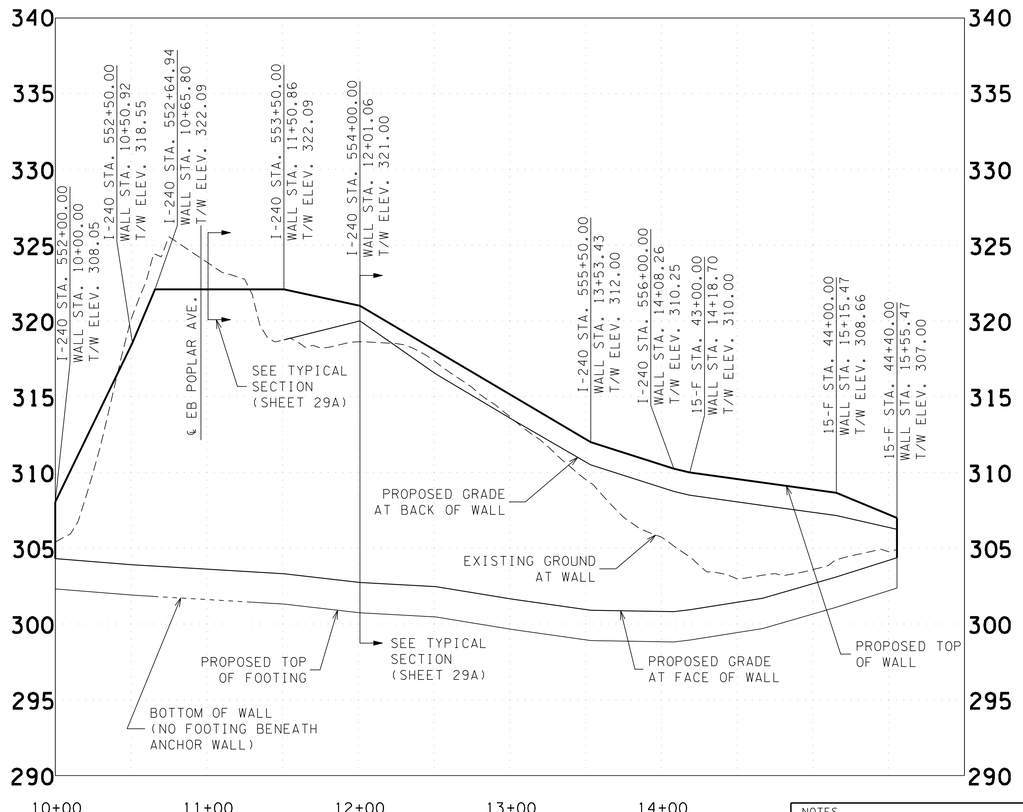
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	2
CONST.	2010	STP-I-240(290)	29



PLAN VIEW - RETAINING WALL #2

SCALE: 1″=50′H



PROFILE VIEW - RETAINING WALL #2

SCALE: 1″=50′H, 5′V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL
- SOIL MIXED WALL (SMW)

PLEASE NOTE THAT THERE IS AN EXISTING BRIDGE STRUCTURE BETWEEN STATIONS 552+64 AND 553+29 (WALL STATIONS 10+64.86 AND 11+29.84). DUE TO THE INTERFERENCE OF THE EXISTING FOUNDATION WITH THE PROPOSED CONSTRUCTION, AN ANCHOR WALL WILL BE REQUIRED AT THAT LOCATION. NO OTHER WALL TYPES WILL BE ACCEPTABLE BETWEEN STATIONS 552+64 AND 553+29. SEE SHEET 28 FOR RECOMMENDED SOIL PARAMETERS TO BE USED IN THE DESIGN OF THE ANCHOR WALL, AS WELL AS A TYPICAL SECTION AT THE BRIDGE LOCATION. APPROPRIATE MEASURES SHOULD BE TAKEN TO PROTECT THE EXISTING FOUNDATION SYSTEM OF THE BRIDGE.

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

BASED ON THE CONDITION THAT THE FOUNDATION LEVEL WILL BE AT ELEVATION 300 OR LOWER, AND THAT THE MINIMUM FOOTING WIDTH IS 15 FEET, A MAXIMUM ALLOWABLE BEARING PRESSURE OF 3500 PSF MAY BE USED. PLEASE NOTE THAT THE ALLOWABLE BEARING CAPACITY WILL DEPEND UPON THE FOUNDATION WIDTH. IF THE FOUNDATIONS ARE TO BE SUPPORTED BY COHESIVE SOILS, THESE MATERIALS SHOULD BE EXCAVATED AND REPLACED BY GRANULAR FILL. OTHERWISE, THE ALLOWABLE BEARING PRESSURE SHOULD BE REDUCED TO 2500 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

RECOMMENDATIONS REGARDING UNDERCUTTING AND BACKFILLING FOR THE PURPOSE OF SOIL IMPROVEMENT DO NOT APPLY TO THE PROPOSED ANCHOR WALL LOCATION (BETWEEN STATION 552+64 AND 553+29).

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	TO GRANULAR SOIL
ENTIRE WALL LENGTH	2850	3500

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	8,087 S.F.
	ADJACENT BARRIER WALL	229 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
PROFESSIONAL
NO. 102357
8-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING
WALL NO. 2
NORTHBOUND I-240
FROM STA. 552+00 TO STA. 557+13.57
SCALE: 1"= 50'

8/20/2010
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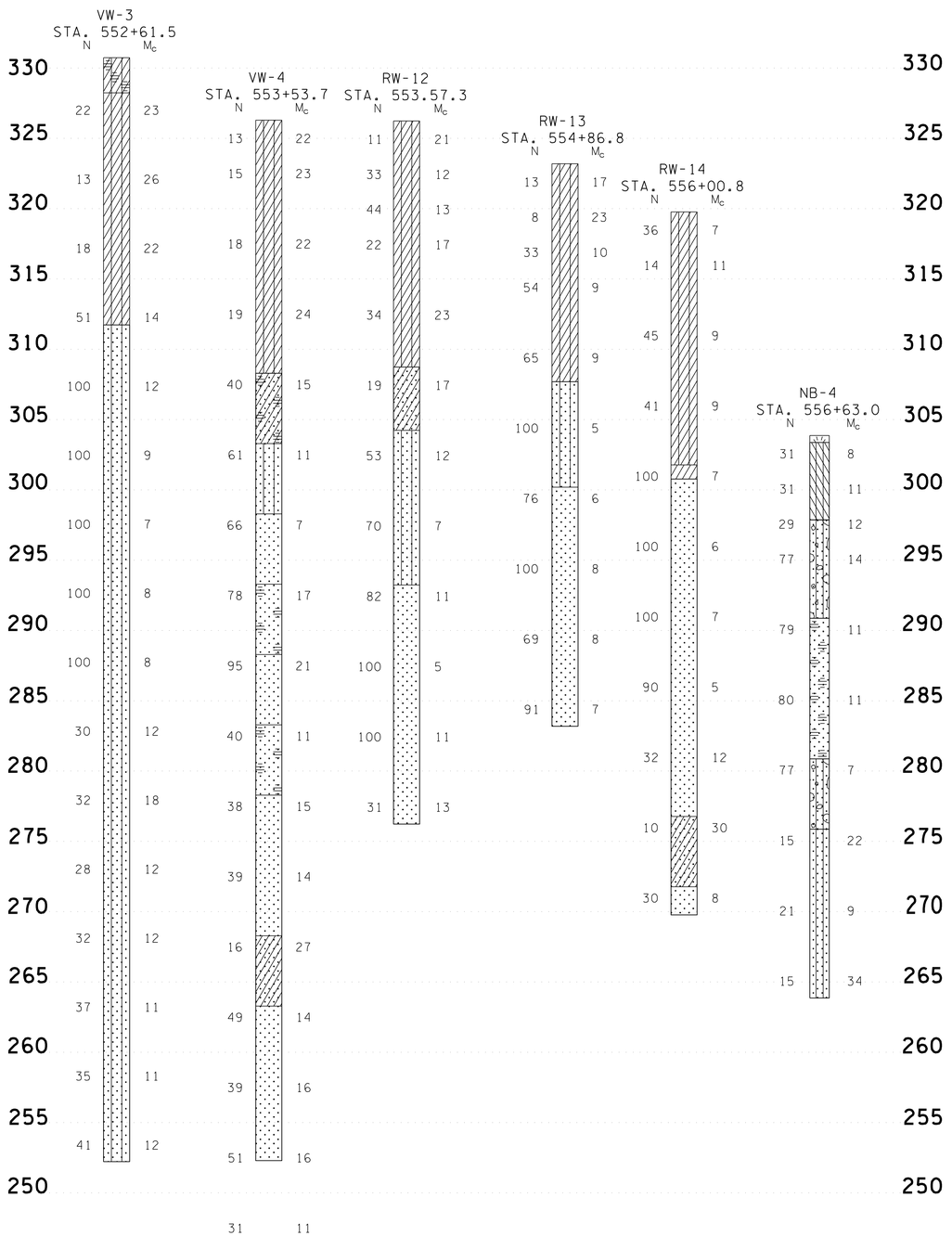
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	2A
CONST.	2010	STP-I-240(290)	29A

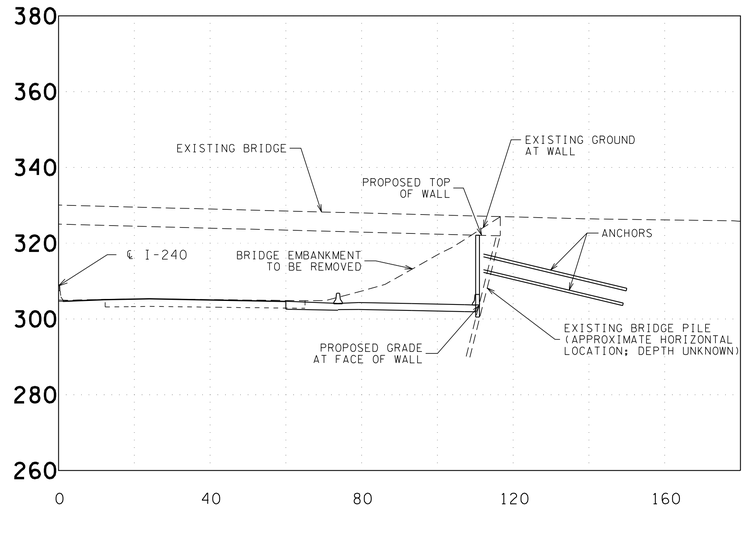


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

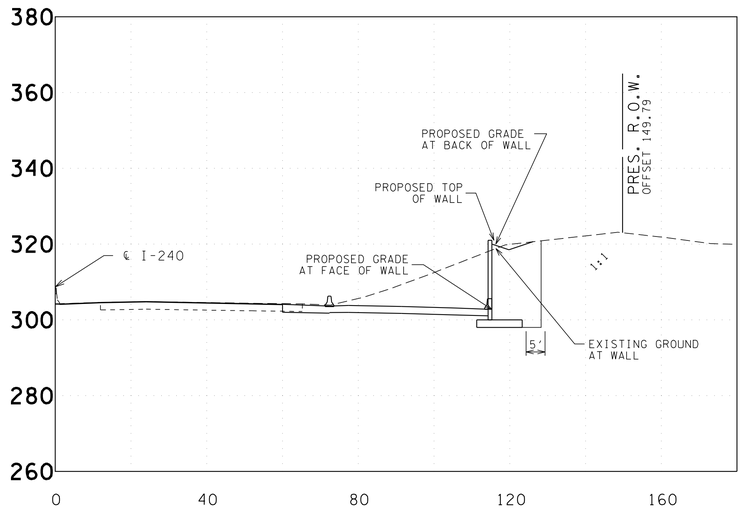
LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- GRAVELLY CLAY
- SILTY SAND
- GRAVELLY SAND
- INTERMEDIATE GRAVEL, SAND, SILT AND CLAY
- SANDY CLAY
- CLAYEY SILT
- SILTY SAND WITH GRAVEL
- GRASS AND TOPSOIL



TYPICAL SECTION AT BRIDGE (STA. 553+00)

SCALE: 1"=20'H, 20'V



TYPICAL SECTION (STA. 554+00)

SCALE: 1"=20'H, 20'V

JOHN T. PANNELL
REGISTERED ENGINEER
AGRICULTURE
No. 102351
8-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 2 NORTHBOUND I-240

FROM STA. 552+00 TO STA. 557+13.57

SCALE: 1"= 50'

8/20/2010
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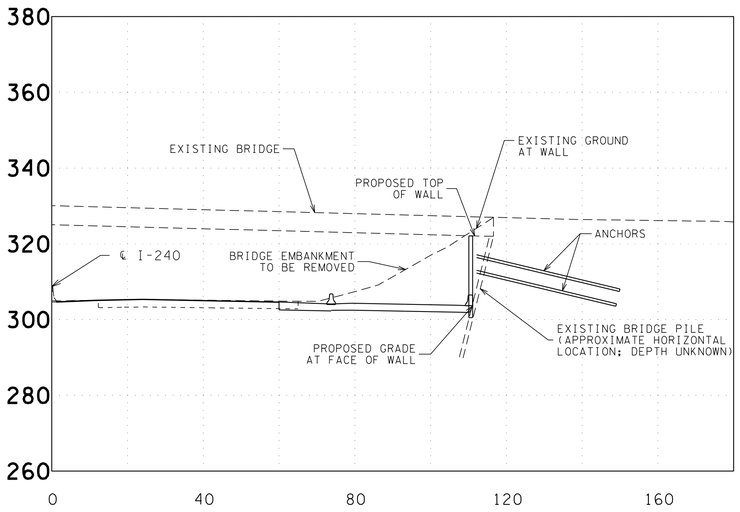
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	2B
CONST.	2010	STP-I-240(290)	29B



TYPICAL SECTION - ANCHOR WALL

(FROM STA. 552+64 TO STA. 553+29)
SCALE: 1"=20'H, 20'V

NOTE
ANCHOR SPACING AND LENGTHS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT REPRESENTATIVE OF PROPOSED DESIGN.

Recommended Soil Design Parameters for Anchor Wall from Station 552+64 to 553+29						
Soil Type	Depth (ft)	Unit Weight (pcf)	Undrained Condition (Short Term)		Drained Condition (Long Term)	
			Cohesion (psf)	φ	Cohesion (psf)	φ
CL	0-23	120	1000	0	0	28
SM/SP	23-58	125	0	34	0	34
SC	58-63	125	0	31	0	31
SP	63-80	125	0	35	0	35

*PLEASE NOTE THAT NO BORINGS WERE DRILLED IN THE AREA OF THE PROPOSED ANCHOR WALL. THE RECOMMENED DESIGN PARAMETERS LISTED ABOVE ARE FROM BORINGS LOCATED ADJACENT TO THE PROPOSED WALL.

*CONSTRUCTION OF THE WALL WILL TAKE PLACE UNDERNEATH AN EXISTING BRIDGE STRUCTURE. WALL CONSTUCTION CONTRACTORS SHOULD BE PREPARED TO ADDRESS ANY CLEARANCE ISSUE FOR THE CONSTRUCTION/INSTALLATION EQUIPMENT.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 2 NORTHBOUND I-240

FROM STA. 552+00 TO STA. 557+13.57
SCALE: 1"= 50'

8/20/2010
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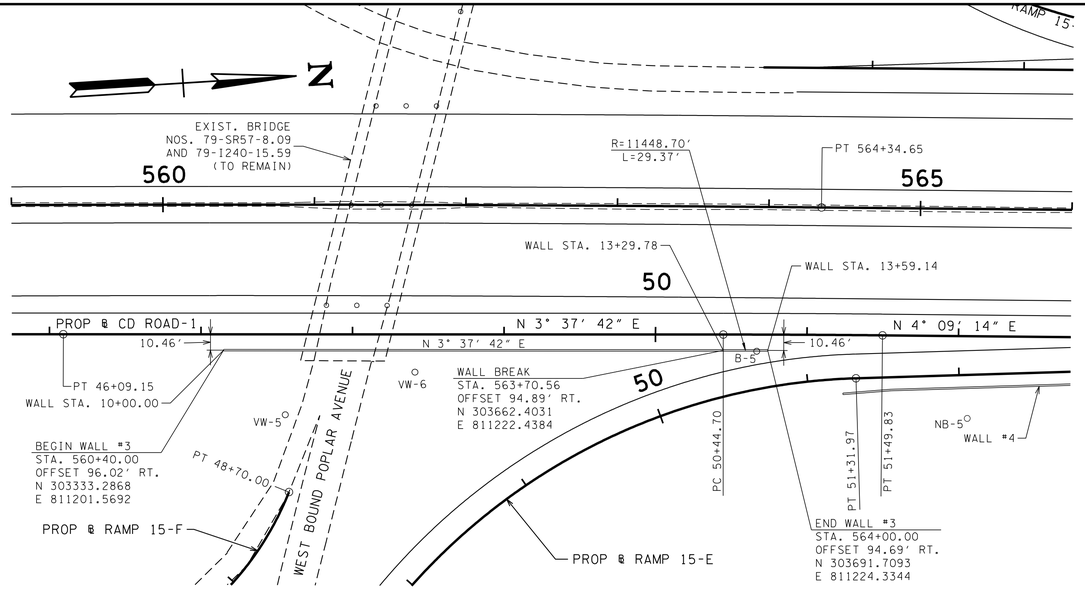
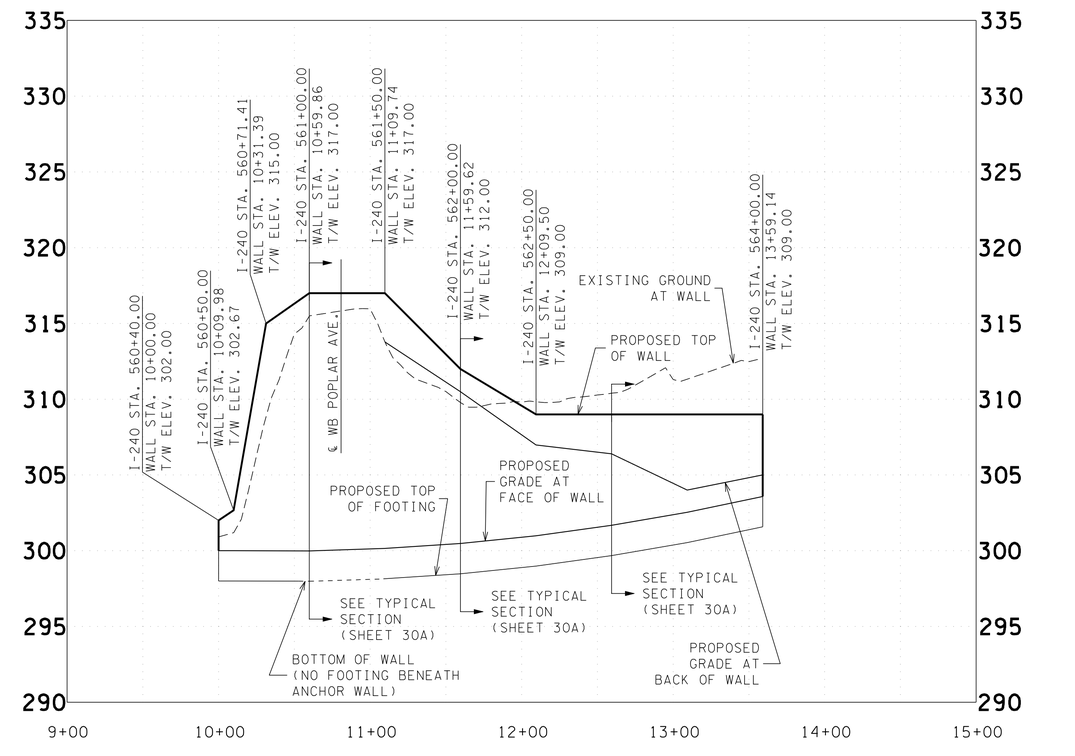
Survey & Design Division

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



PLAN VIEW - RETAINING WALL #3

SCALE: 1"=50'H



PROFILE VIEW - RETAINING WALL #3

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	3
CONST.	2010	STP-I-240(290)	30

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL

PLEASE NOTE THAT THERE IS AN EXISTING BRIDGE STRUCTURE BETWEEN STATIONS 560+93 AND 561+49 (WALL STATIONS 10+52.87 AND 11+08.74). DUE TO THE INTERFERENCE OF THE EXISTING FOUNDATION WITH THE PROPOSED CONSTRUCTION, AN ANCHOR WALL WILL BE REQUIRED AT THAT LOCATION. NO OTHER WALL TYPES WILL BE ACCEPTABLE BETWEEN STATIONS 560+93 AND 561+49. SEE SHEET 3B FOR RECOMMENDED SOIL PARAMETERS TO BE USED IN THE DESIGN OF THE ANCHOR WALL, AS WELL AS A TYPICAL SECTION AT THE BRIDGE LOCATION. APPROPRIATE MEASURES SHOULD BE TAKEN TO PROTECT THE EXISTING FOUNDATION SYSTEM OF THE BRIDGE.

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

BASED ON THE CONDITION THAT THE FOUNDATION LEVEL WILL BE AT ELEVATION 300 OR LOWER, AND THAT THE MINIMUM FOOTING WIDTH IS 15 FEET, A MAXIMUM ALLOWABLE BEARING PRESSURE OF 3500 PSF MAY BE USED. PLEASE NOTE THAT THE ALLOWABLE BEARING CAPACITY WILL DEPEND UPON THE FOUNDATION WIDTH. IF THE FOUNDATIONS ARE TO BE SUPPORTED BY COHESIVE SOILS, THESE MATERIALS SHOULD BE EXCAVATED AND REPLACED BY GRANULAR FILL. OTHERWISE, THE ALLOWABLE BEARING PRESSURE SHOULD BE REDUCED TO 2500 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

RECOMMENDATIONS REGARDING UNDERCUTTING AND BACKFILLING FOR THE PURPOSE OF SOIL IMPROVEMENT DO NOT APPLY TO THE PROPOSED ANCHOR WALL LOCATION (BETWEEN STATIONS 560+93 AND 561+49).

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	TO GRANULAR SOIL
ENTIRE WALL SECTION	2850	3500

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	4,448 S.F.
	ADJACENT BARRIER WALL	368 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.

JOHN T. PANKEY
REGISTERED
LICENSED
PROFESSIONAL
ENGINEER
AGRICULTURE
ENGINEER
NO. 102535
STATE OF TENNESSEE
8/23/10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING
WALL NO. 3
NORTHBOUND I-240
FROM STA. 560+40 TO STA. 564+00
SCALE: 1"= 50'

8/20/2010
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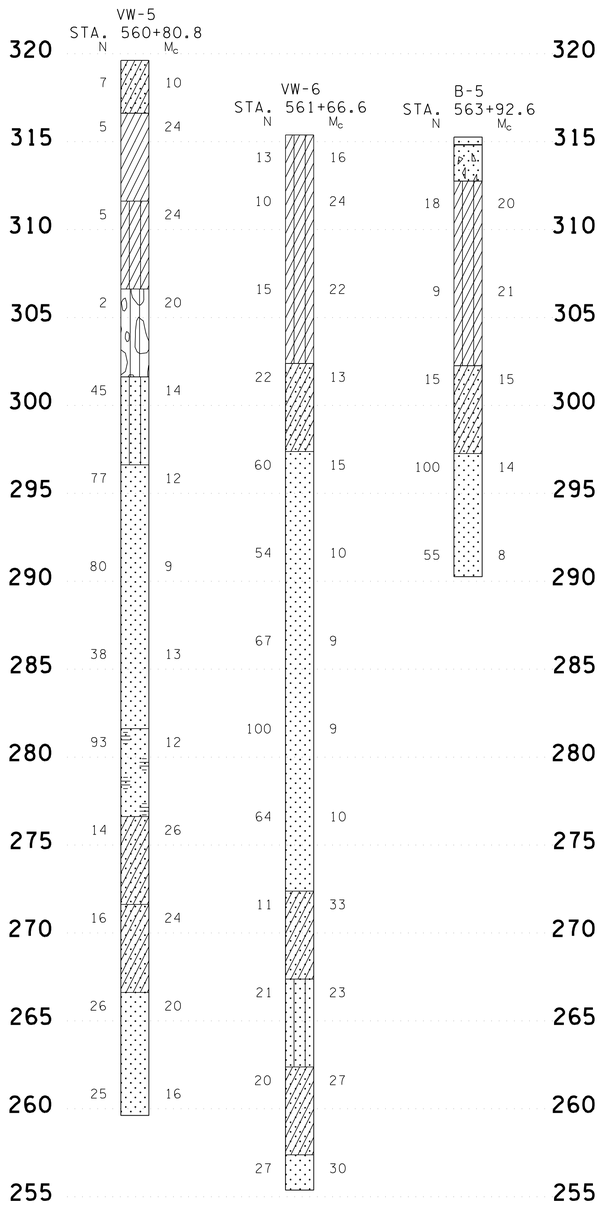
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	3A
CONST.	2010	STP-I-240(290)	30A

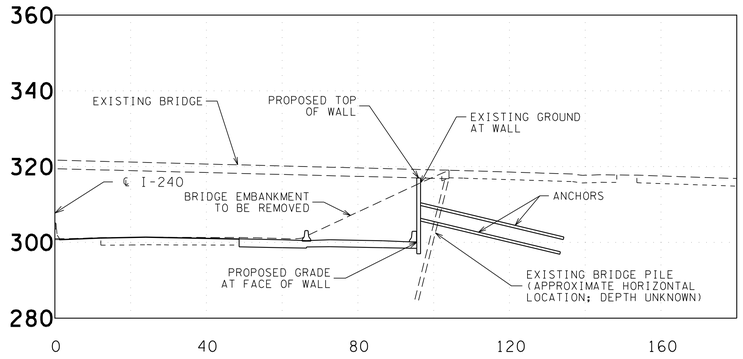


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

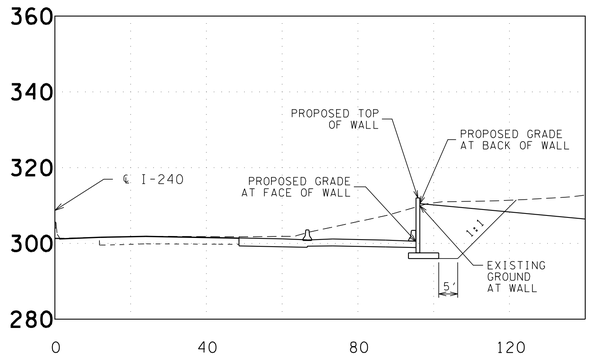
LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- GRASS AND TOPSOIL



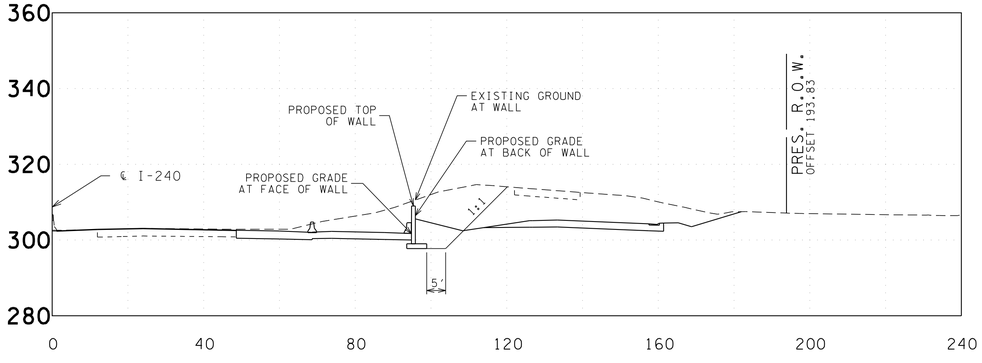
TYPICAL SECTION AT BRIDGE (STA. 561+00)

SCALE: 1"=20'H, 20'V



TYPICAL SECTION (STA. 562+00)

SCALE: 1"=20'H, 20'V



TYPICAL SECTION (STA. 563+00)

SCALE: 1"=20'H, 20'V

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 3 NORTHBOUND I-240

FROM STA. 560+40 TO STA. 564+00

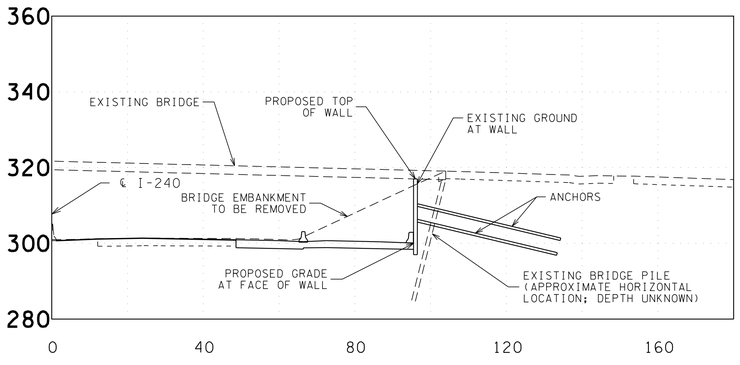
SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\ret_wall3A.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	3B
CONST.	2010	STP-I-240(290)	30B



TYPICAL SECTION - ANCHOR WALL

(FROM STA. 560+93 TO STA. 561+49)
SCALE: 1"=20'H, 20'V

NOTE
ANCHOR SPACING AND LENGTHS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT REPRESENTATIVE OF PROPOSED DESIGN.

Recommended Soil Design Parameters for Anchor Wall from Station 560+93 to 561+49						
Soil Type	Depth (ft)	Unit Weight (pcf)	Undrained Condition (Short Term)		Drained Condition (Long Term)	
			Cohesion (psf)	φ	Cohesion (psf)	φ
CL	0-13	118	500	0	0	28
CL	13-18	120	1300	0	0	28
SP-SM	18-43	125	0	35	0	35
CL	43-53	120	1100	0	-	-
SP	58-60	125	0	32	0	32

*PLEASE NOTE THAT NO BORINGS WERE DRILLED IN THE AREA OF THE PROPOSED ANCHOR WALL. THE RECOMMENED DESIGN PARAMETERS LISTED ABOVE ARE FROM BORINGS LOCATED ADJACENT TO THE PROPOSED WALL.

*CONSTRUCTION OF THE WALL WILL TAKE PLACE UNDERNEATH AN EXISTING BRIDGE STRUCTURE. WALL CONSTUCTION CONTRACTORS SHOULD BE PREPARED TO ADDRESS ANY CLEARANCE ISSUE FOR THE CONSTRUCTION/INSTALLATION EQUIPMENT.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
No. 102351
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 3 NORTHBOUND I-240

FROM STA. 560+40 TO STA. 564+00
SCALE: 1"= 50'

8/20/2010
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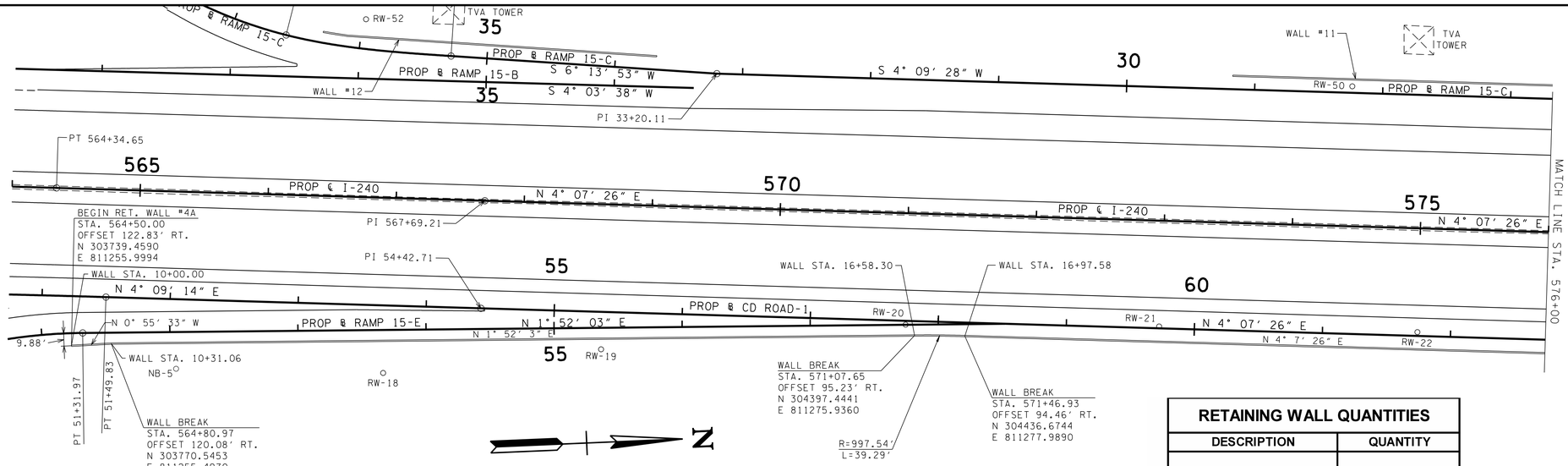
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	4
CONST.	2010	STP-I-240(290)	31



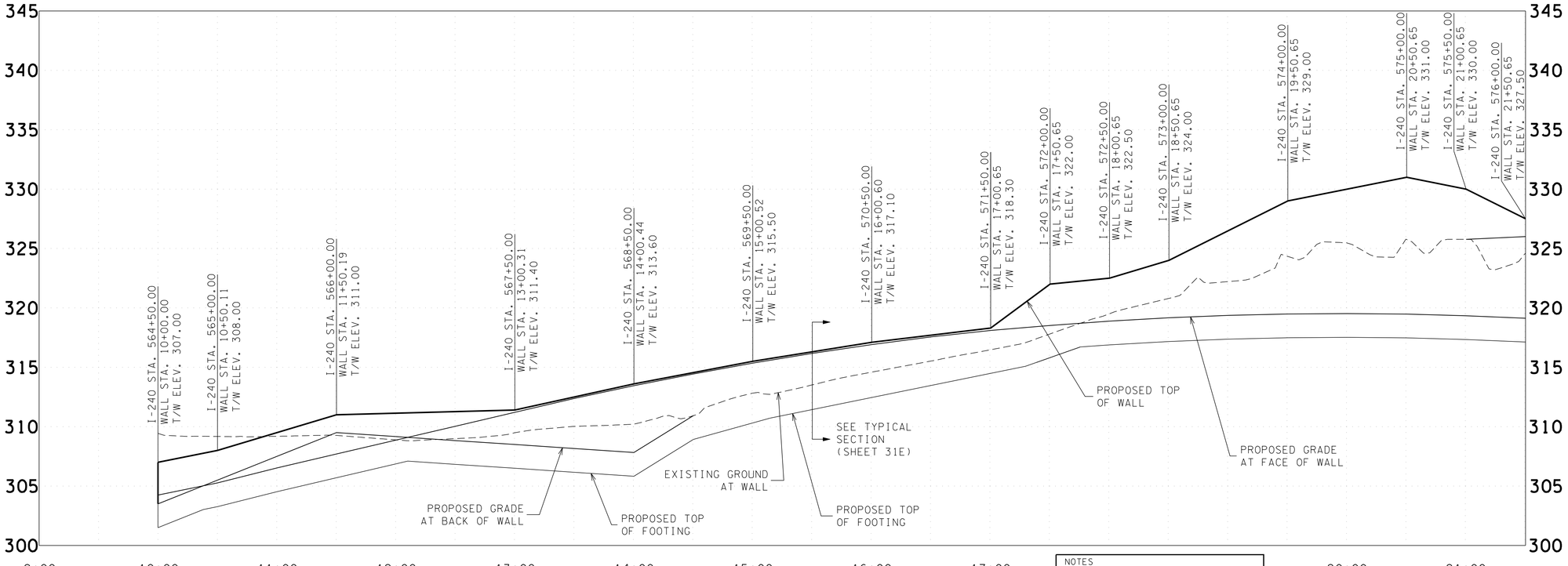
PLAN VIEW - RETAINING WALL #4

SCALE: 1″=50′H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	23,614 S.F.
(2)	ADJACENT BARRIER WALL	3,229 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. DOES NOT INCLUDE NOISE WALL FACE.
(2) DOES NOT INCLUDE BARRIER WALL ADJACENT TO NON-RETAINING NOISE WALL SECTIONS.



PROFILE VIEW - RETAINING WALL #4

SCALE: 1″=50′H, 5′V

NOTES
(1) "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
(2) "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
No. 23310
AGRICULTURE
COMMERCE
TO 2361
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 4 NORTHBOUND I-240

FROM STA. 564+50 TO STA. 576+00

SCALE: 1″= 50′

Survey & Design Division

8/20/2010
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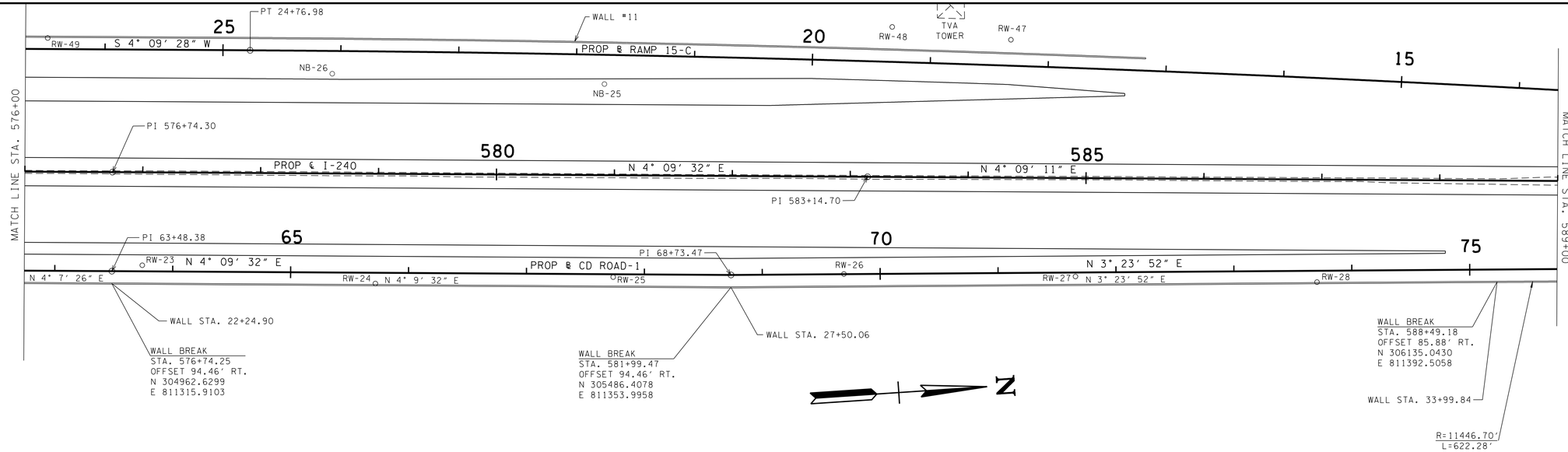
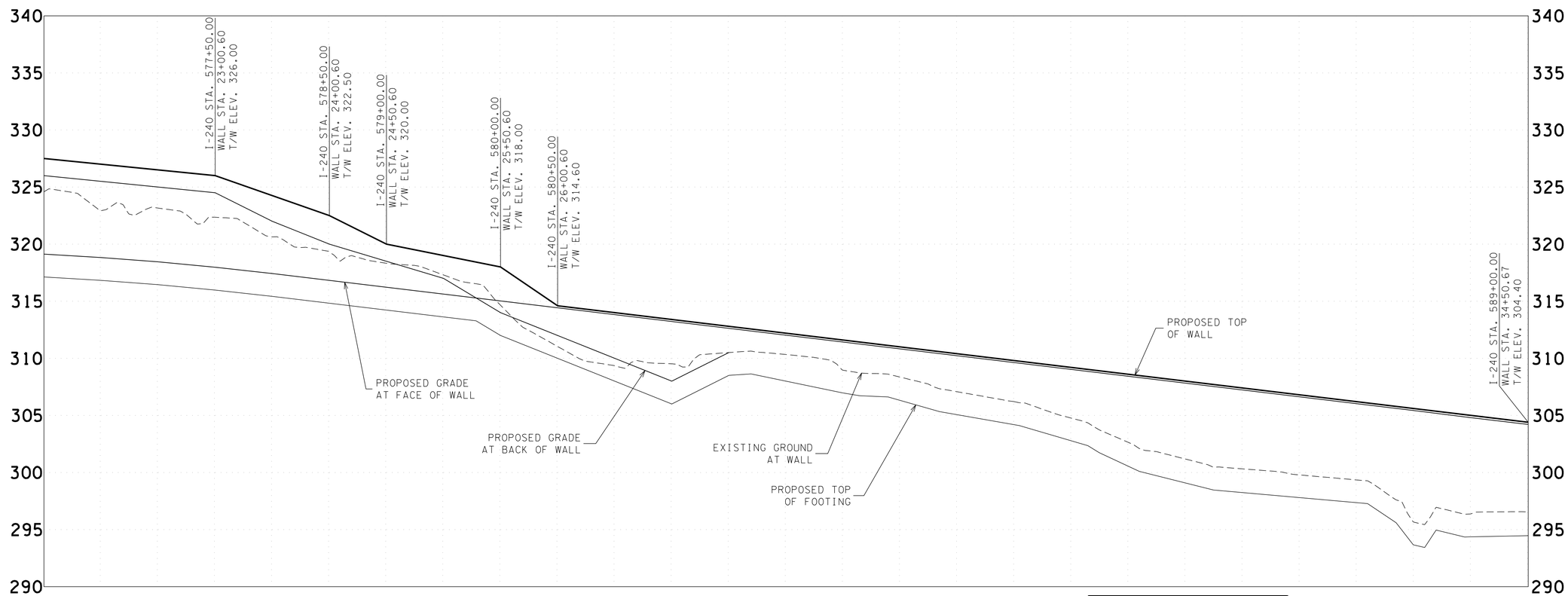
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	4A
CONST.	2010	STP-I-240(290)	31A



PLAN VIEW - RETAINING WALL #4

SCALE: 1″=50′H



PROFILE VIEW - RETAINING WALL #4

SCALE: 1″=50′H, 5′V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANFILL
REGISTERED
AGRICULTURE
COMMISSION NO. 102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 4 NORTHBOUND I-240

FROM STA. 576+00 TO STA. 589+00

SCALE: 1″= 50′

8/20/2010
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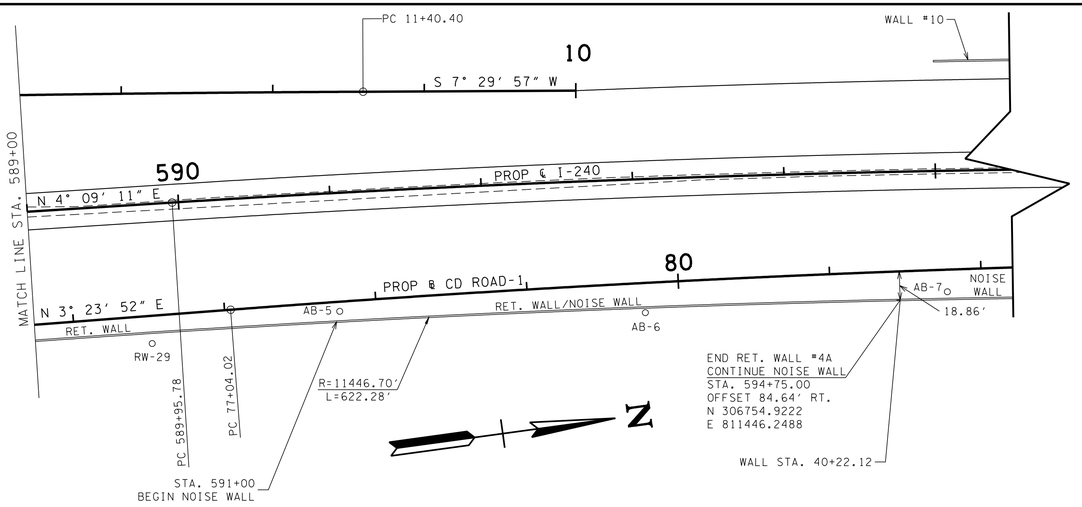
Survey & Design Division

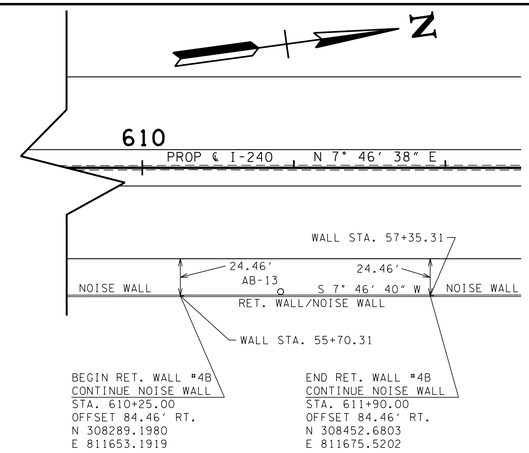
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	4B
CONST.	2010	STP-I-240(290)	31B



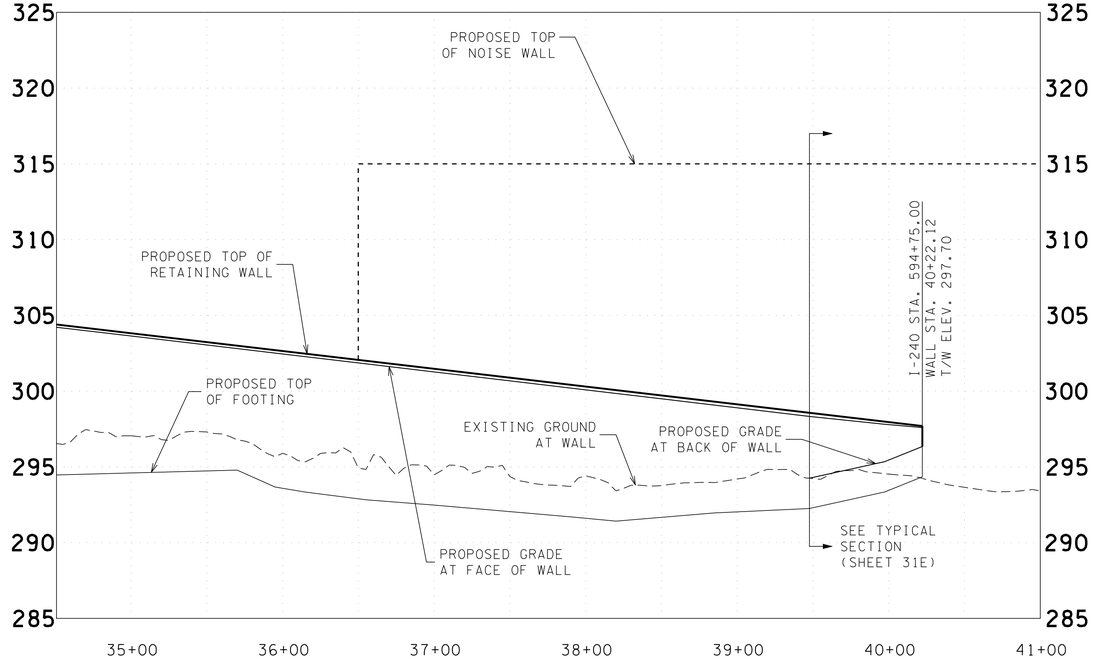
PLAN VIEW - RETAINING WALL #4

SCALE: 1"=50'H



PLAN VIEW - RETAINING WALL #4

SCALE: 1"=50'H

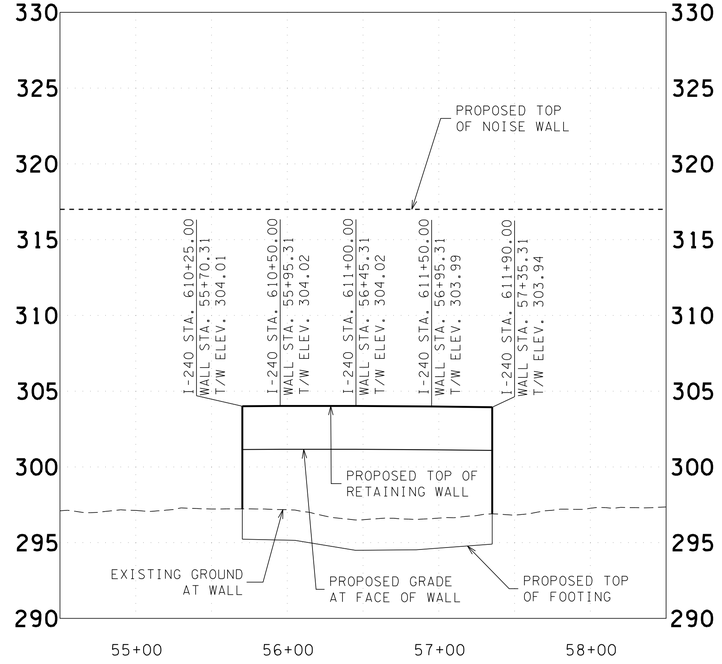


PROFILE VIEW - RETAINING WALL #4

SCALE: 1"=50'H, 5'V

NOTES

1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.



PROFILE VIEW - RETAINING WALL #4

SCALE: 1"=50'H, 5'V

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102357
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING
WALL NO. 4
NORTHBOUND I-240
FROM STA. 589+00 TO STA. 611+90
SCALE: 1"= 50'

8/20/2010
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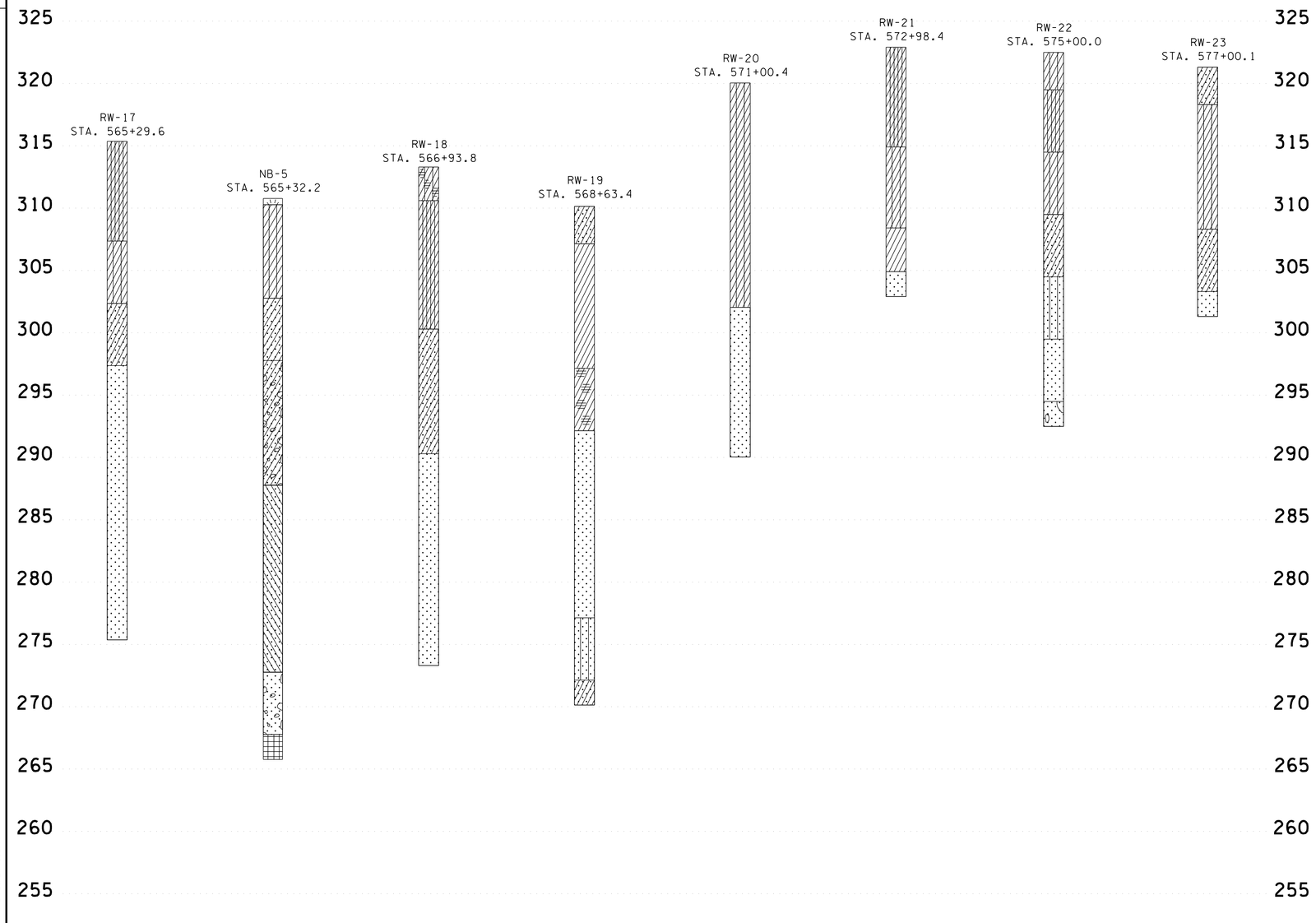
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	4C
CONST.	2010	STP-I-240(290)	31C



LEGEND

- SAND
- CLAY
- SILTY SAND
- CLAYEY SAND
- CLAYEY SAND WITH GRAVEL
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- SANDY, HIGH PLASTICITY CLAY
- GRASS AND TOPSOIL

GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
102251
8-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 4 NORTHBOUND I-240

FROM STA. 564+50 TO STA. 611+90

SCALE: 1"= 50'

8/20/2010
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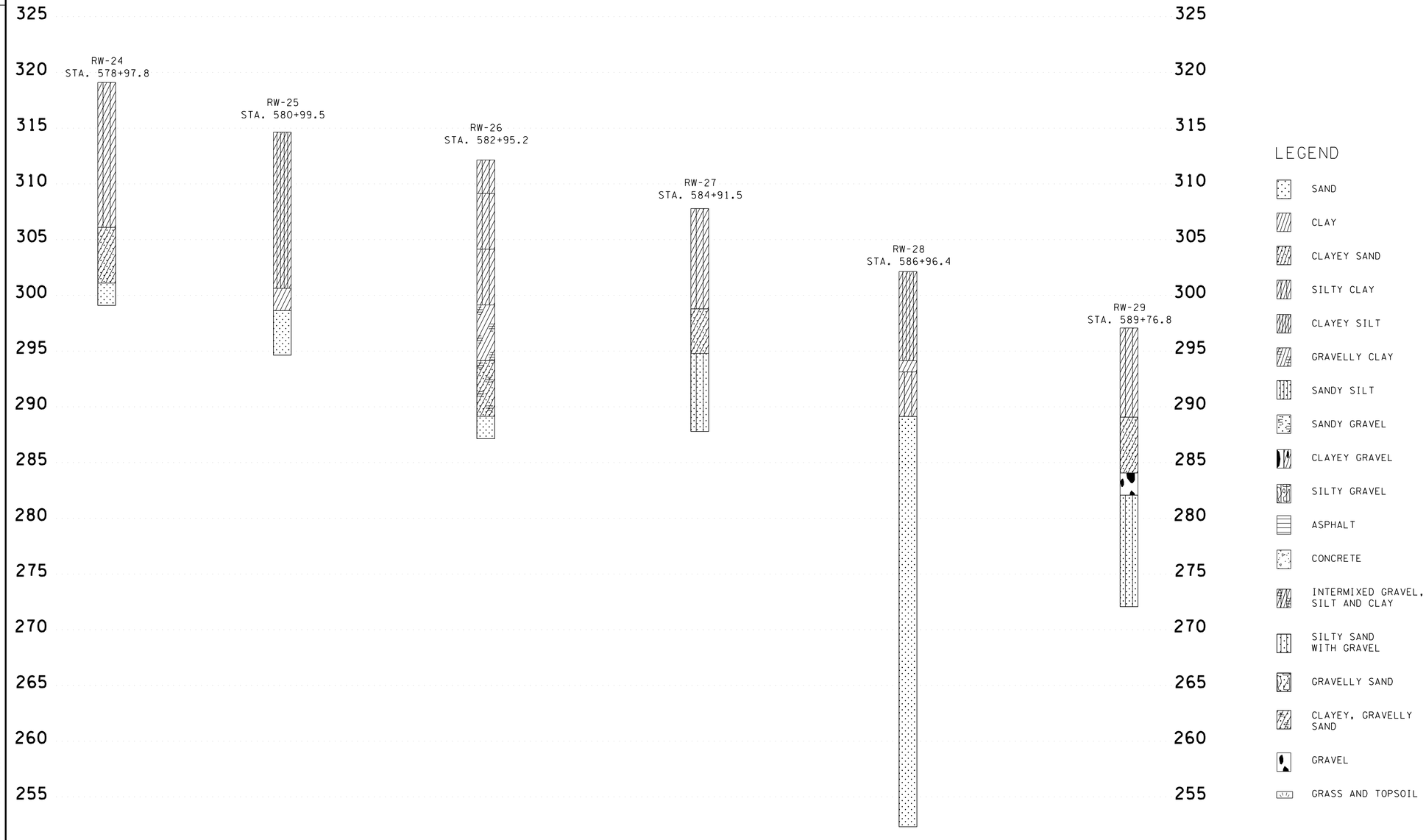
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	4D
CONST.	2010	STP-I-240(290)	31D



LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- CLAYEY, GRAVELLY SAND
- GRAVEL
- GRASS AND TOPSOIL

GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

JOHN T. PANKEY
LICENSED PROFESSIONAL ENGINEER
DEPARTMENT OF AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 4 NORTHBOUND I-240

FROM STA. 564+50 TO STA. 611+90

SCALE: 1"= 50'

Survey & Design Division

8/20/2010
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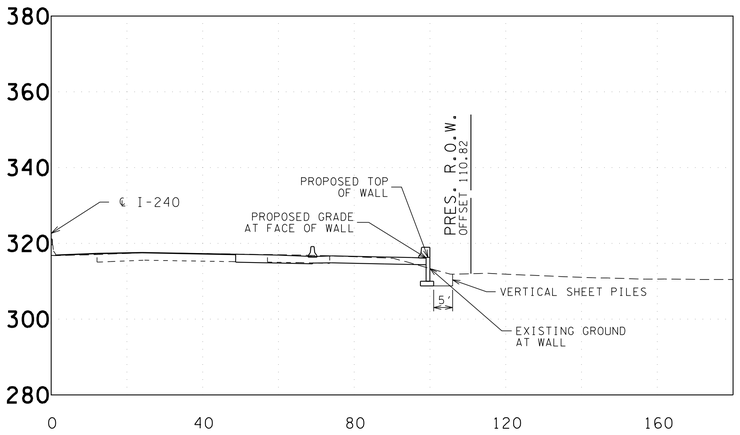
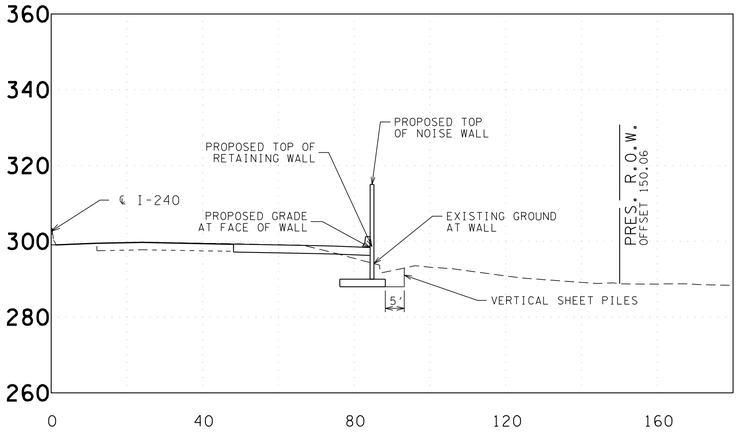
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	4E
CONST.	2010	STP-I-240(290)	31E



TYPICAL SECTION (STA. 570+00)

SCALE: 1"=20'H, 20'V



TYPICAL SECTION (STA. 594+00)

SCALE: 1"=20'H, 20'V

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL
- SOIL MIXED WALL (SMW)

IF THE AVAILABLE RIGHT OF WAY DOES NOT PROVIDE SUFFICIENT ROOM FOR CONSTRUCTION, THEN A "TOP DOWN" WALL TYPE WILL BE REQUIRED. ACCEPTABLE WALL TYPES INCLUDE:

- SHEET PILE WALL
- TANGENT/SECANT WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 564+50 TO STATION 568+00 2500 PSF
STATION 568+00 TO STATION 570+00 1800 PSF
STATION 570+00 TO STATION 582+00 2500 PSF
STATION 580+00 TO STATION 582+00 1350 PSF
STATION 582+00 TO STATION 586+00 2500 PSF
STATION 586+00 TO STATION 591+00 1500 PSF
STATION 591+00 TO STATION 595+00 2500 PSF
STATION 595+00 TO STATION 612+00 2500 PSF

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
568+00 TO 570+00 580+00 TO 582+00 586+00 TO 591+00	2650	3000
REMAINDER OF WALL SECTION	3000	3450

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 750 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 4 NORTHBOUND I-240

FROM STA. 564+50 TO STA. 611+90

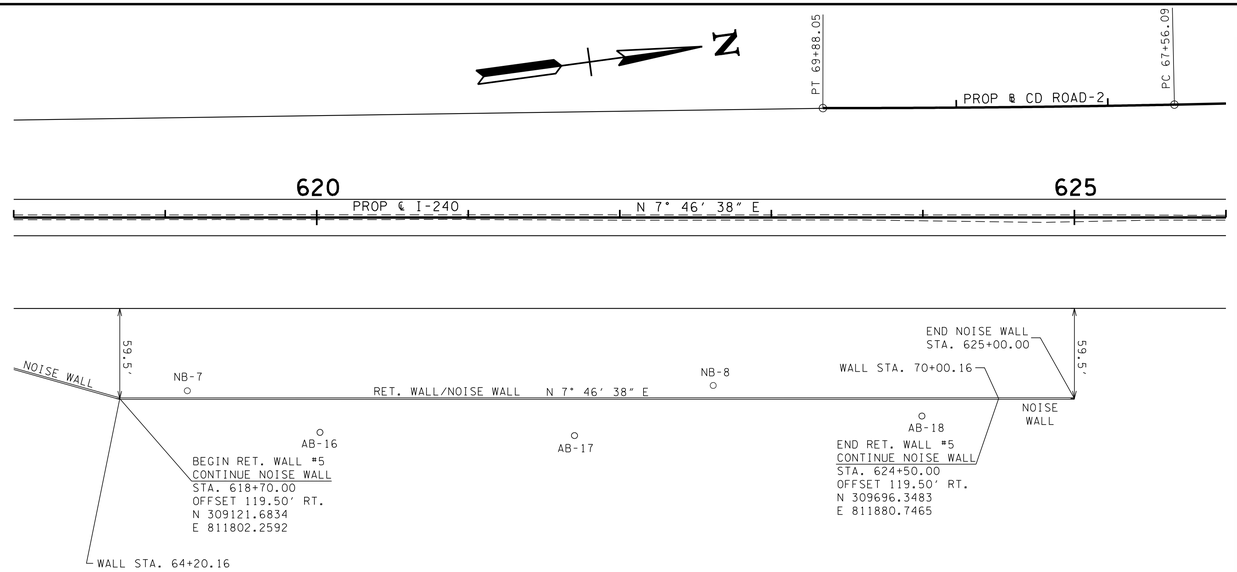
SCALE: 1"= 50'

8/20/2010
w:\611\transportation\ret_wall4E.sht

Survey & Design Division

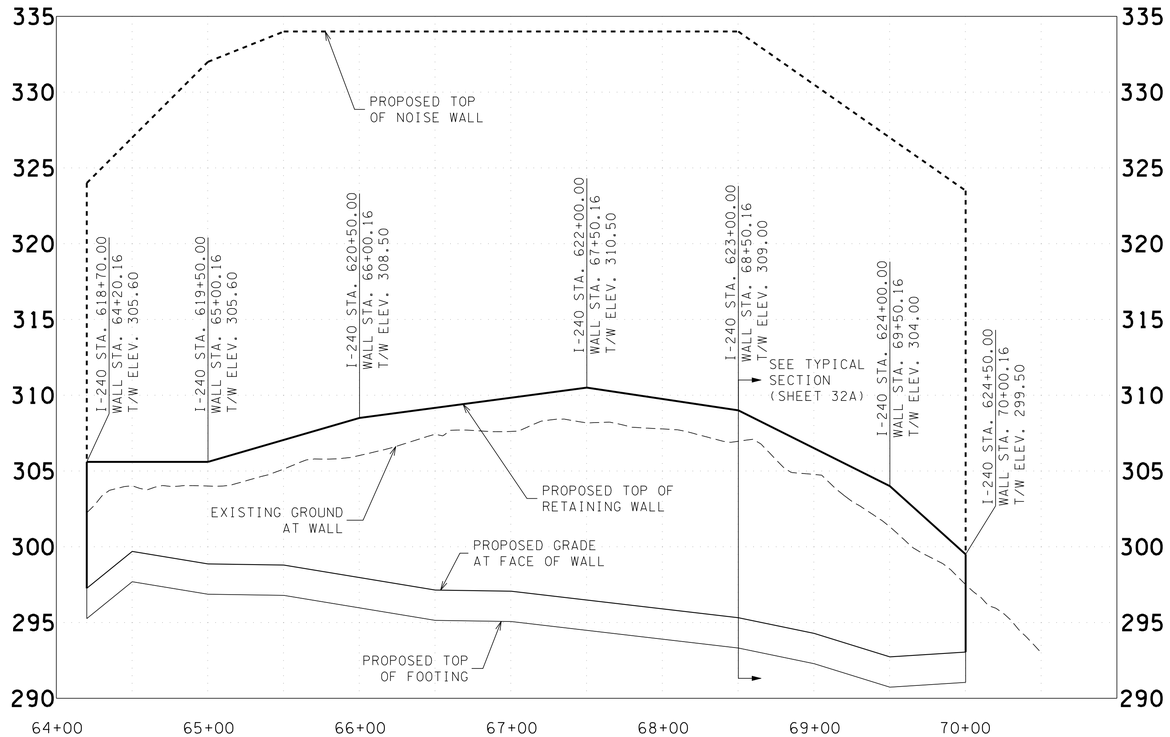
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	5
CONST.	2010	STP-I-240(290)	32



PLAN VIEW - RETAINING WALL #5

SCALE: 1"=50'H



PROFILE VIEW - RETAINING WALL #5

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL
- SOIL MIXED WALL (SWM)

IF THE AVAILABLE RIGHT OF WAY DOES NOT PROVIDE SUFFICIENT ROOM FOR CONSTRUCTION, THEN A "TOP DOWN" WALL TYPE WILL BE REQUIRED. ACCEPTABLE WALL TYPES INCLUDE:

- SHEET PILE WALL
- TANGENT/SECANT WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE ALLOWABLE BEARING PRESSURE SHOULD BE 3000 PSF. THIS IS BASED ON THE ASSUMPTION THAT THE FOUNDATION LEVEL IS AROUND ELEVATION 285 AND THAT THE WALL FOOTING IS SUPPORTED BY GRANULAR (COHESIONLESS) SOILS. IF THE WALL FOOTING IS TO BE SUPPORTED BY COHESIVE (SILTY CLAY) SOILS, THE MAXIMUM ALLOWABLE BEARING CAPACITY SHOULD BE 2500 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	TO GRANULAR SOIL
ENTIRE WALL SECTION	2850	3500

TO UTILIZE THE ABOVE VALUES THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 750 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	7,450 S.F.
	ADJACENT BARRIER WALL	0 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. DOES NOT INCLUDE NOISE WALL FACE.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 5 NORTHBOUND I-240

FROM STA. 618+70 TO STA. 625+00

SCALE: 1"= 50'

8/20/2010
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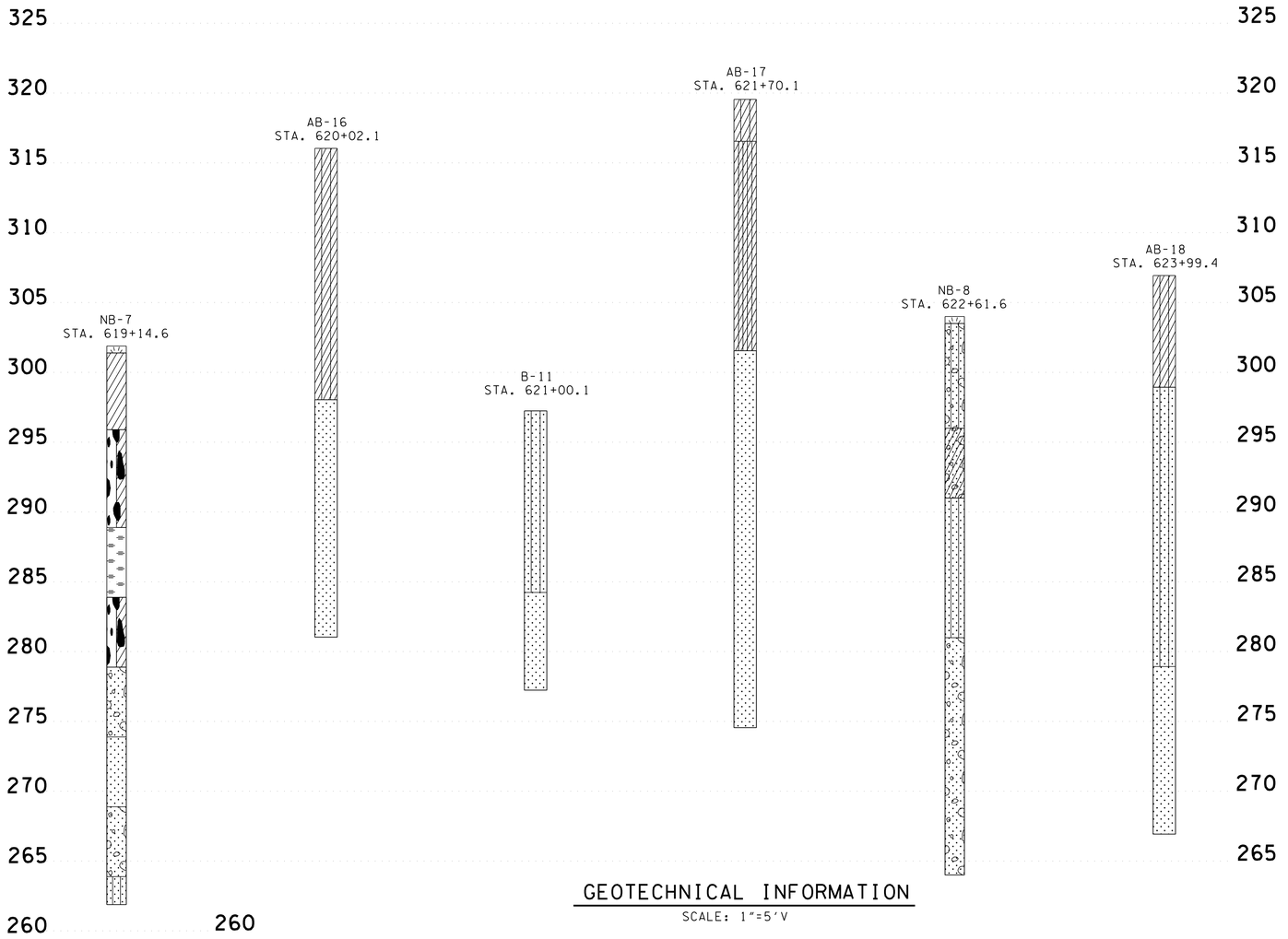
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	5A
CONST.	2010	STP-I-240(290)	32A

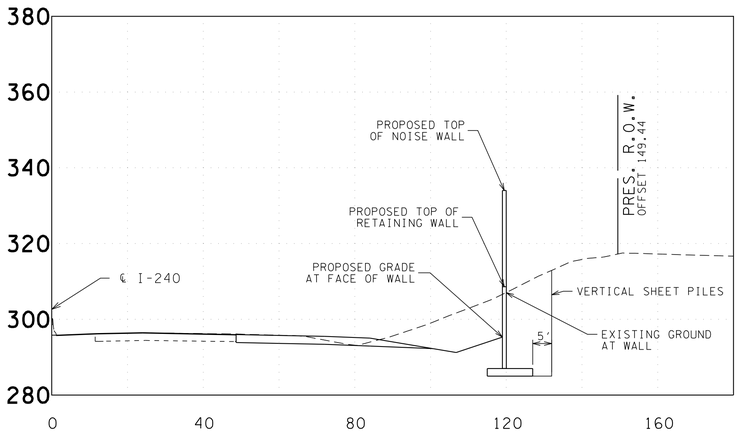


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELY CLAY
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- GRAVELLY SAND
- CLAYEY SAND WITH GRAVEL
- SILTY SAND WITH GRAVEL
- GRASS AND TOPSOIL



TYPICAL SECTION (STA. 623+00)

SCALE: 1"=20'H, 20'V

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
No. 102351
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 5 NORTHBOUND I-240

FROM STA. 618+70 TO STA. 625+00

SCALE: 1"= 50'

8/20/2010
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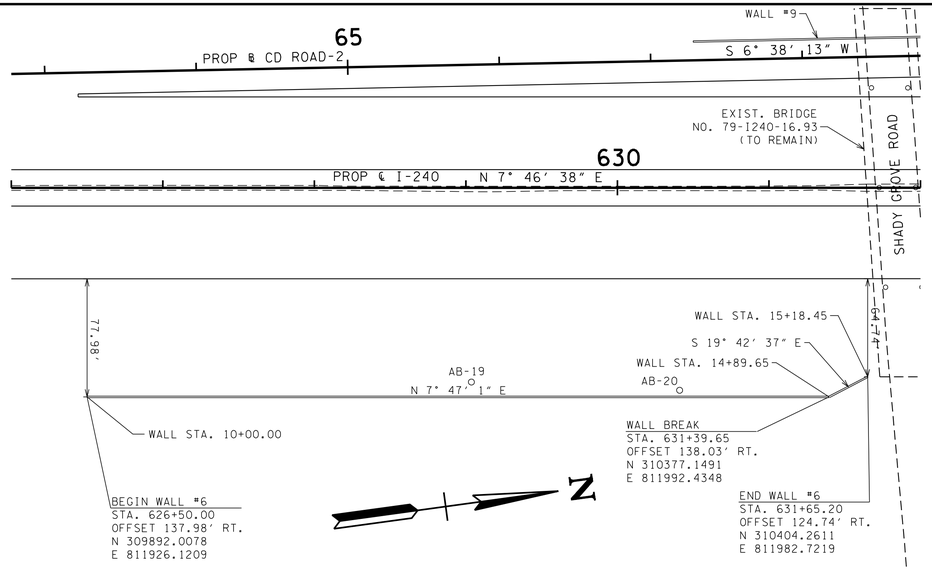
Survey & Design Division

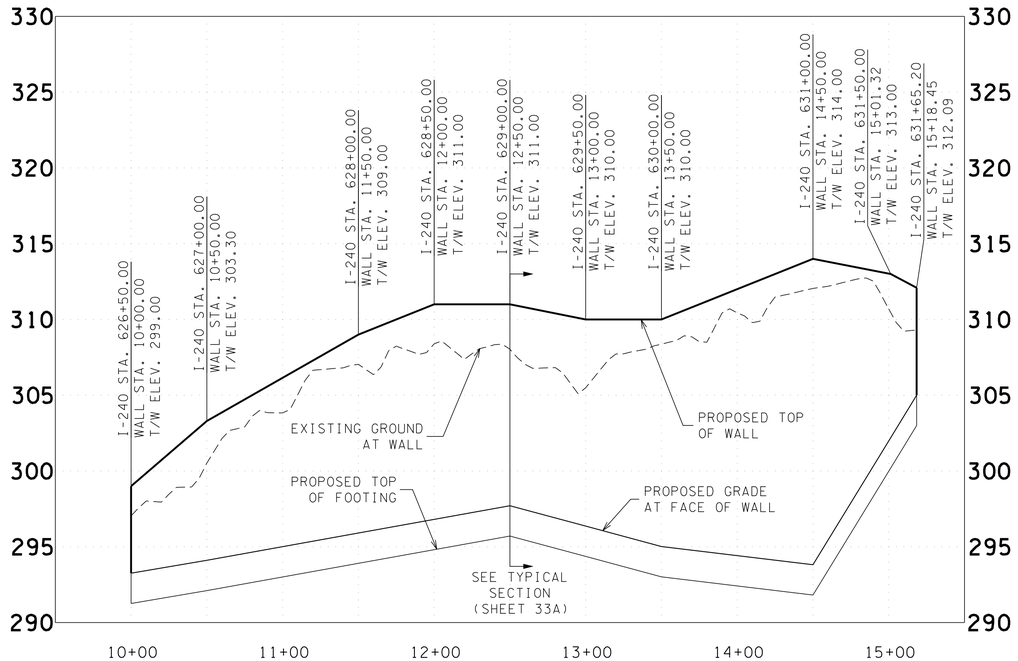
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	6
CONST.	2010	STP-I-240(290)	33



PLAN VIEW - RETAINING WALL #6

SCALE: 1"=50'H



PROFILE VIEW - RETAINING WALL #6

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL
- SOIL MIXED WALL (SMW)

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING CAPACITY SHOULD BE 3000 PSF. THIS IS BASED ON THE CONDITION THAT THE WALL FOOTING IS UNDERLAIN BY 2 TO 3 FEET OF COHESIVE SOIL. THE BEARING CAPACITY CAN BE INCREASED TO 3500 PSF BY EXCAVATING THE COHESIVE MATERIAL TO THE TOP OF THE UNDERLYING GRANULAR SOIL (APPROXIMATE ELEVATION 286 FEET BASED ON THE BORINGS), AND THEN BACKFILLING THE CAVITY WITH SELECT GRANULAR FILL.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	TO GRANULAR SOIL
ENTIRE WALL SECTION	3350	3500

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 750 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	7,988 S.F.
	ADJACENT BARRIER WALL	0 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102511
3-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 6 NORTHBOUND I-240

FROM STA. 626+50 TO STA. 631+65.20

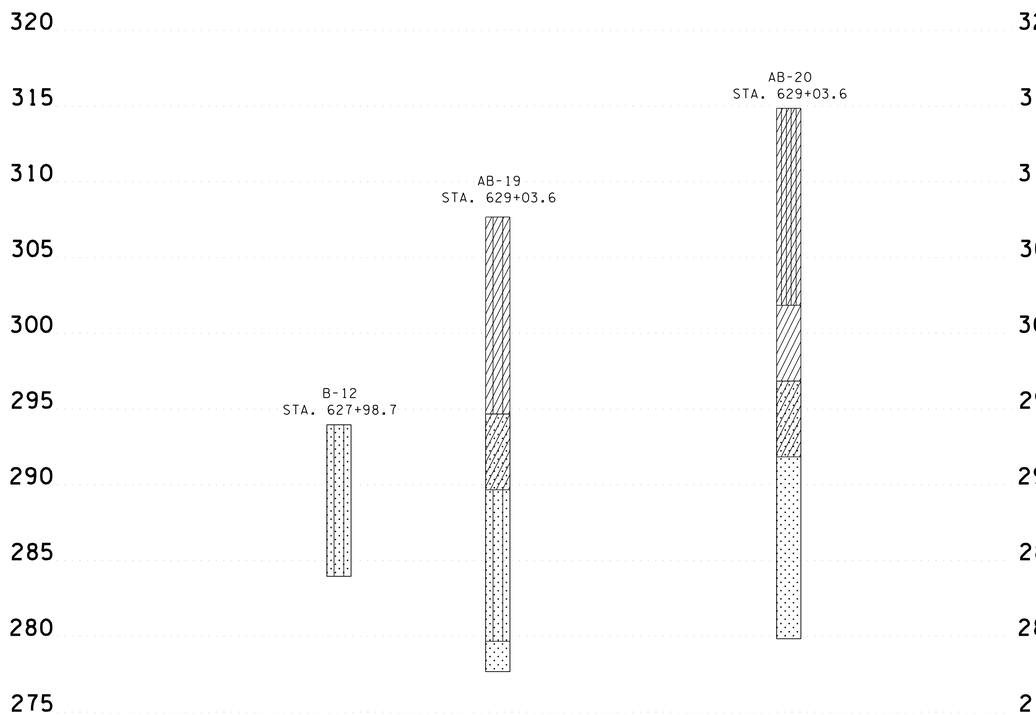
SCALE: 1"= 50'

8/20/2010
w:\615\transportation\ret_wall6.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	6A
CONST.	2010	STP-I-240(290)	33A

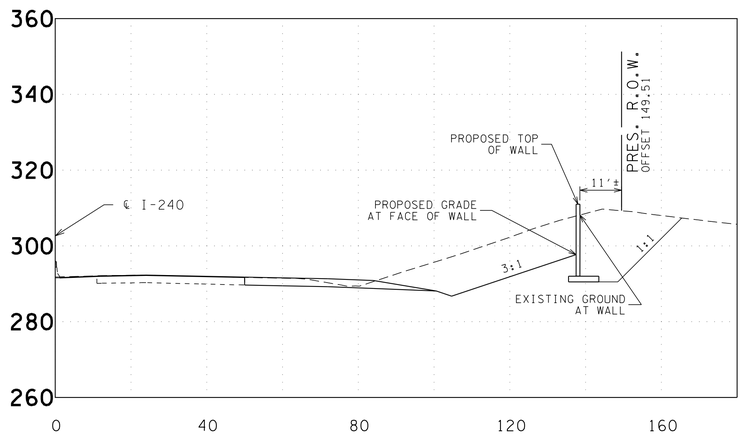


LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- GRASS AND TOPSOIL

GEOTECHNICAL INFORMATION

SCALE: 1"=5'V



TYPICAL SECTION (STA. 629+00)

SCALE: 1"=20'H, 20'V

JOHN T. PANKEY JR. LICENSED REGISTERED PROFESSIONAL ENGINEER AGRICULTURE 47 NO. 102251 STATE OF TENNESSEE 8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 6 NORTHBOUND I-240

FROM STA. 626+50 TO STA. 631+65.20

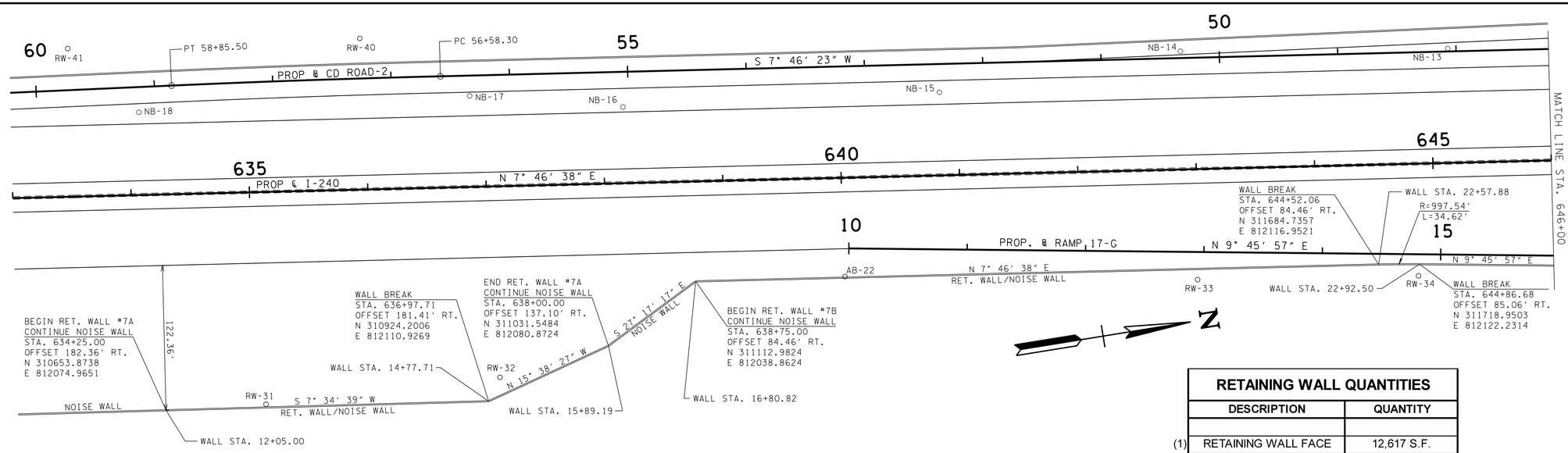
SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\ret_wall6A.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	7
CONST.	2010	STP-I-240(290)	34



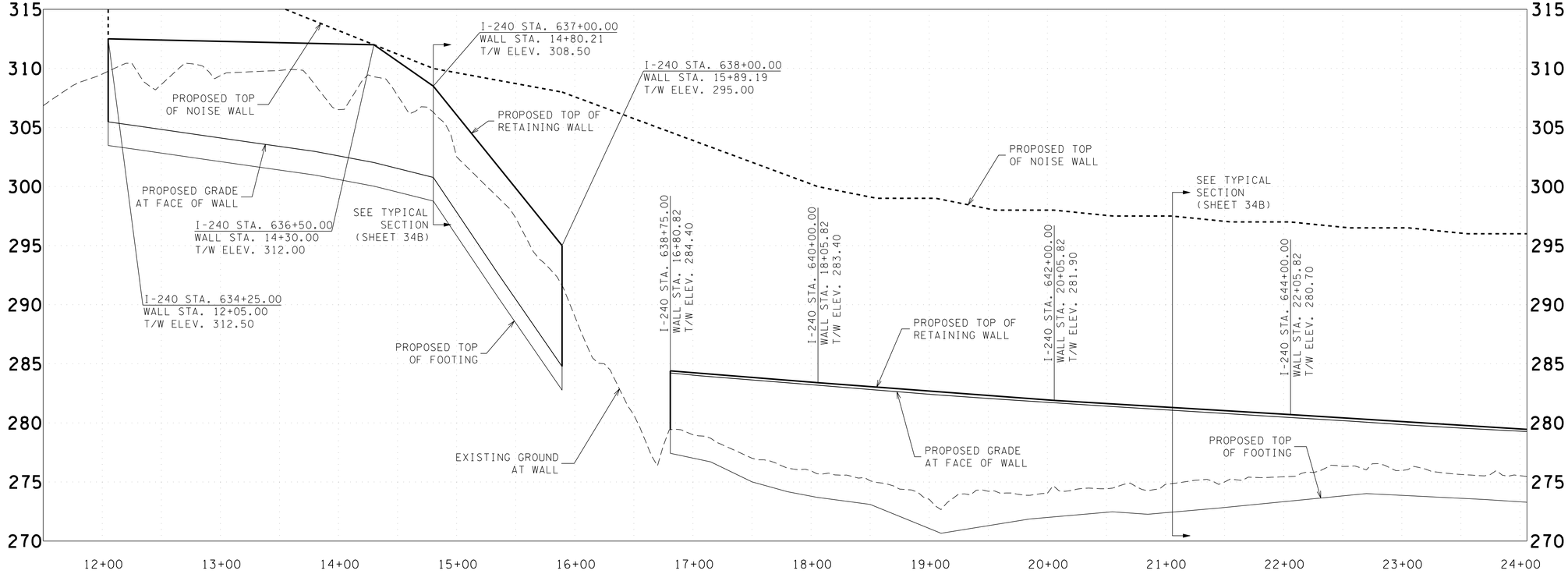
PLAN VIEW - RETAINING WALL #7

SCALE: 1″=50′H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	12,617 S.F.
(2)	ADJACENT BARRIER WALL	1,121 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. DOES NOT INCLUDE NOISE WALL FACE.
(2) DOES NOT INCLUDE BARRIER WALL ADJACENT TO NON-RETAINING NOISE WALL SECTIONS.



PROFILE VIEW - RETAINING WALL #7

SCALE: 1″=50′H, 5′V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 7 NORTHBOUND I-240

FROM STA. 634+25 TO STA. 646+00

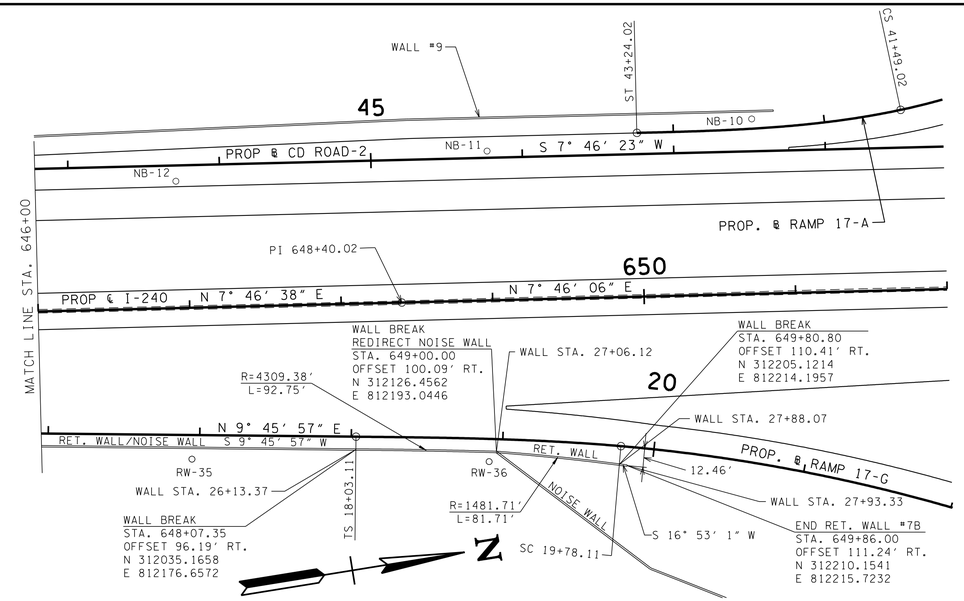
SCALE: 1″= 50′

8/20/2010
w:\615\transportation\ret_wall7.sht

Survey & Design Division

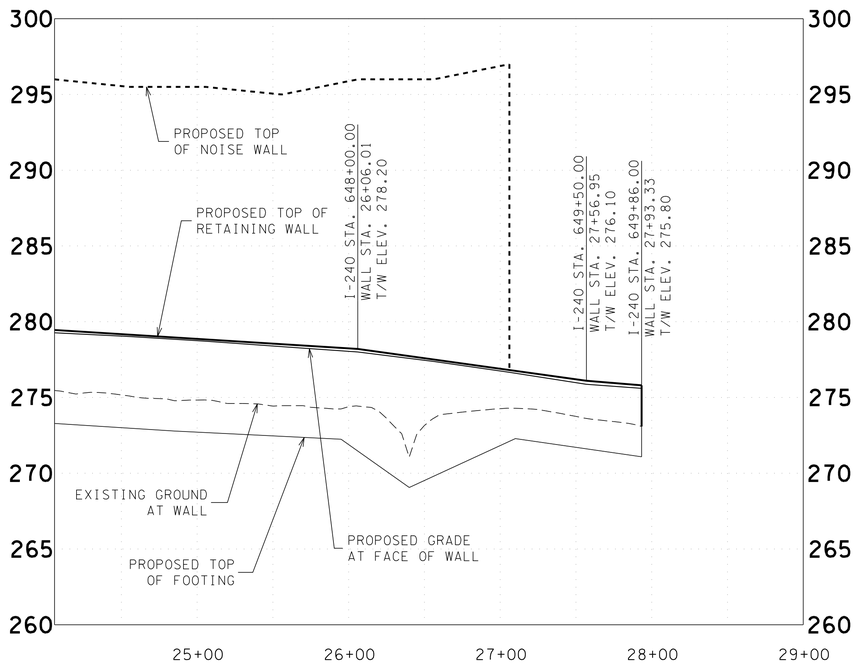
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	7A
CONST.	2010	STP-I-240(290)	34A



PLAN VIEW - RETAINING WALL #7

SCALE: 1″=50′H



PROFILE VIEW - RETAINING WALL #7

SCALE: 1″=50′H, 5′V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT/SECANT WALL
- SOIL MIXED WALL (SMW)

IF THE AVAILABLE RIGHT OF WAY DOES NOT PROVIDE SUFFICIENT ROOM FOR CONSTRUCTION, THEN A "TOP DOWN" WALL TYPE WILL BE REQUIRED. ACCEPTABLE WALL TYPES INCLUDE:

- SHEET PILE WALL
- TANGENT/SECANT WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ø (°)	COHESION (PSF)	DENSITY (PCF)	ø (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ø) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 634+25 TO STATION 637+50: 2600 PSF
STATION 637+50 TO STATION 644+00: 2000 PSF
STATION 644+00 TO STATION 649+86: 2600 PSF

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ø ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
634+25 TO 637+50 644+00 TO 649+86	3300	-
637+50 TO 644+00	2800	3100

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR RAMMED AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
8-23-10
NO. 102351
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 7 NORTHBOUND I-240

FROM STA. 634+25 TO STA. 649+86

SCALE: 1″= 50′

8/20/2010
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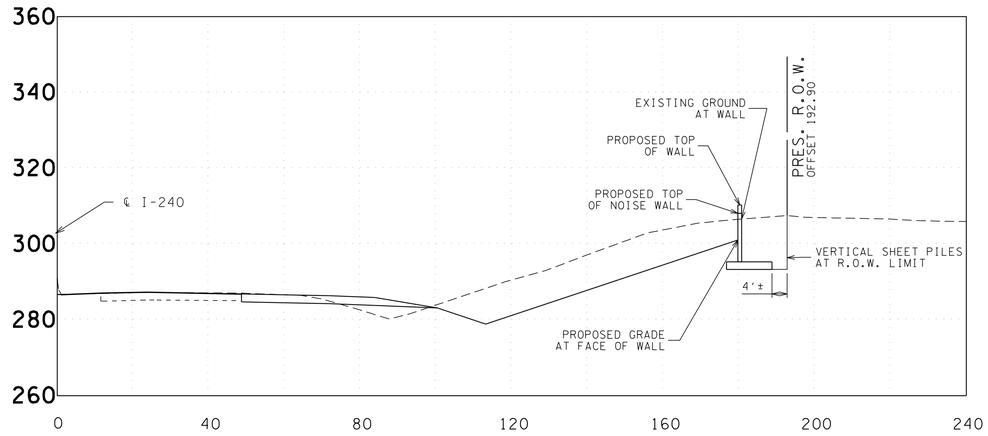
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	7B
CONST.	2010	STP-I-240(290)	34B

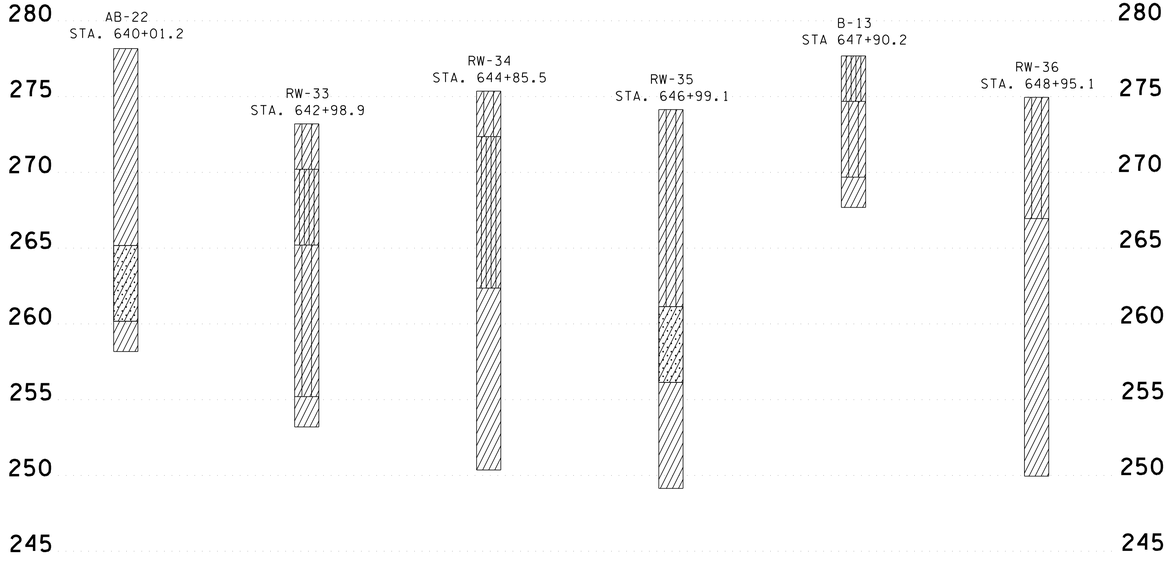
LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- GRASS AND TOPSOIL



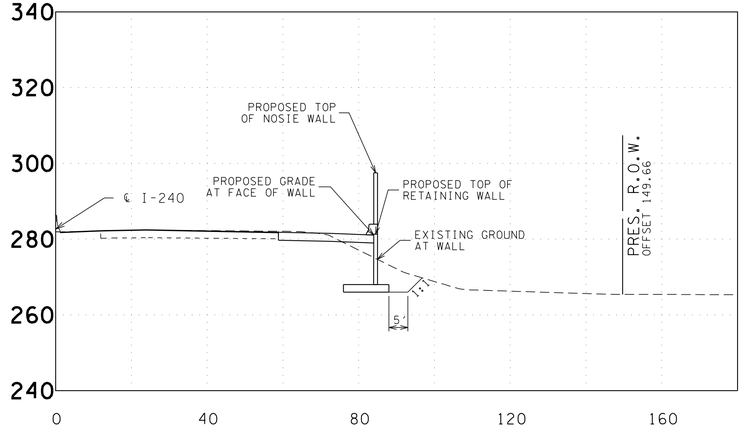
TYPICAL SECTION (STA. 637+00)

SCALE: 1"=20'H, 20'V



GEOTECHNICAL INFORMATION

SCALE: 1"=5'V



TYPICAL SECTION (STA. 643+00)

SCALE: 1"=20'H, 20'V

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 7 NORTHBOUND I-240

FROM STA. 634+25 TO STA. 649+86

SCALE: 1"= 50'

Survey & Design Division

8/20/2010
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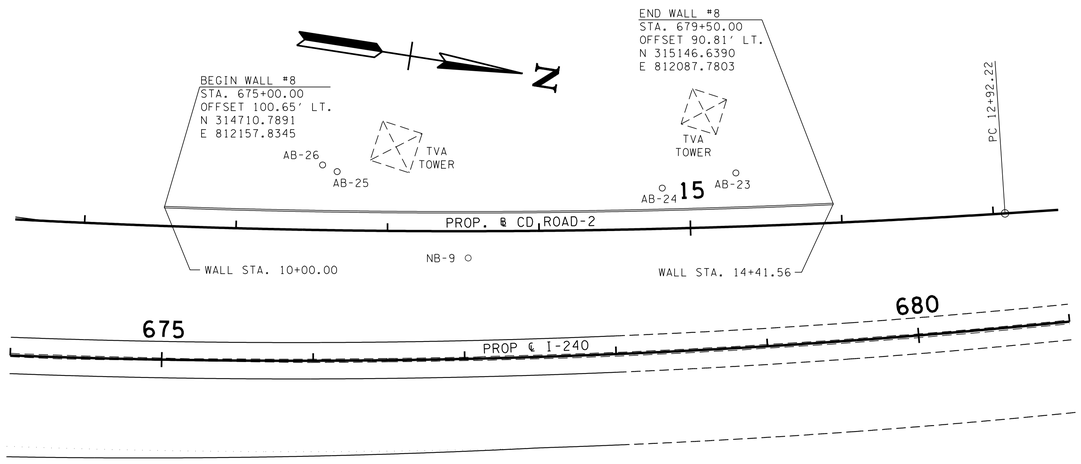
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	8
CONST.	2010	STP-I-240(290)	35

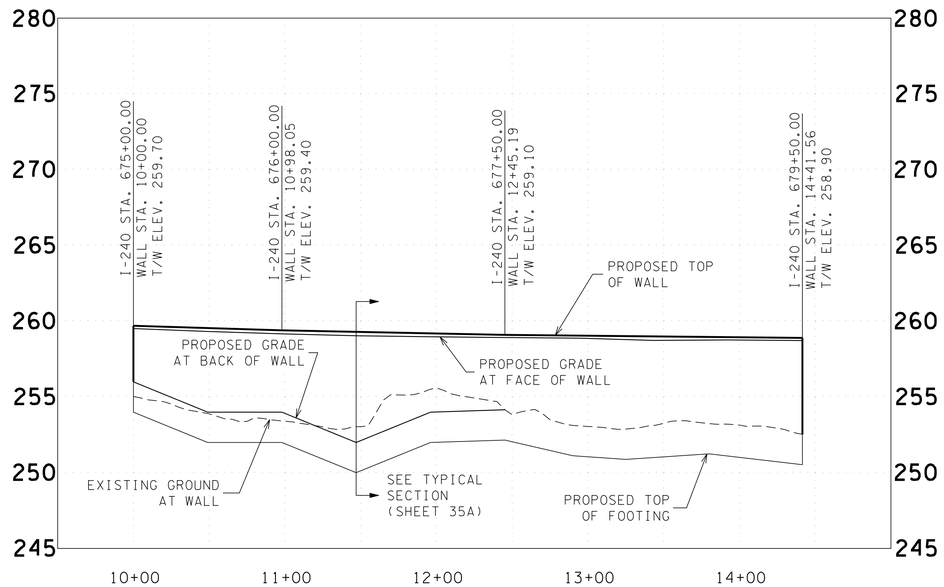


PLAN VIEW - RETAINING WALL #8

SCALE: 1"=50'H

RETAINING WALL QUANTITIES	
DESCRIPTION	QUANTITY
(1) RETAINING WALL FACE	3,398 S.F.
ADJACENT BARRIER WALL	450 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #8

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE 2000 PSF. IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
675+00 TO 679+50	2700	3000

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 300 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 8 SOUTHBOUND I-240

FROM STA. 675+00 TO STA. 679+50

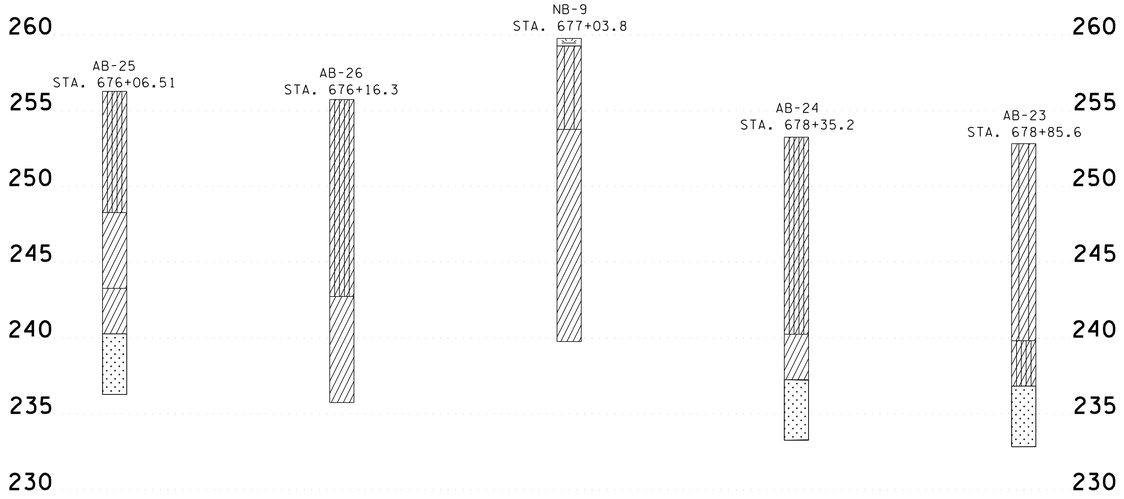
SCALE: 1"= 50'

8/20/2010
w:\615\transportation\ret_wall8.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	8A
CONST.	2010	STP-I-240(290)	35A

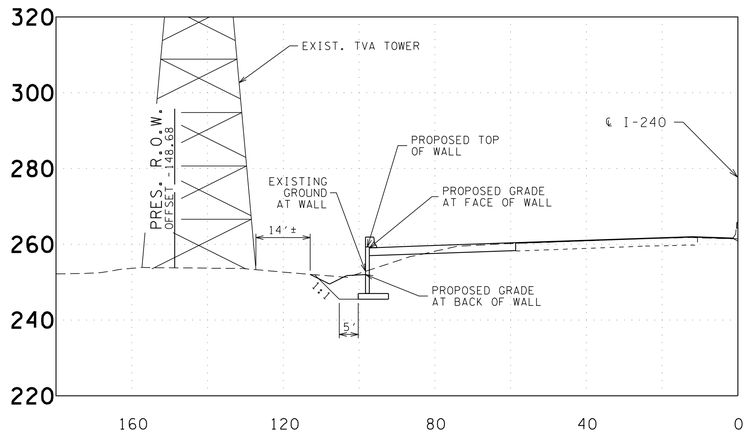


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- GRASS AND TOPSOIL



TYPICAL SECTION (STA. 676+50)

SCALE: 1"=20'H, 20'V

JOHN T. PANKEY
REGISTERED
AGRICULTURE
102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 8 SOUTHBOUND I-240

FROM STA. 675+00 TO STA. 679+50

SCALE: 1"= 50'

8/20/2010
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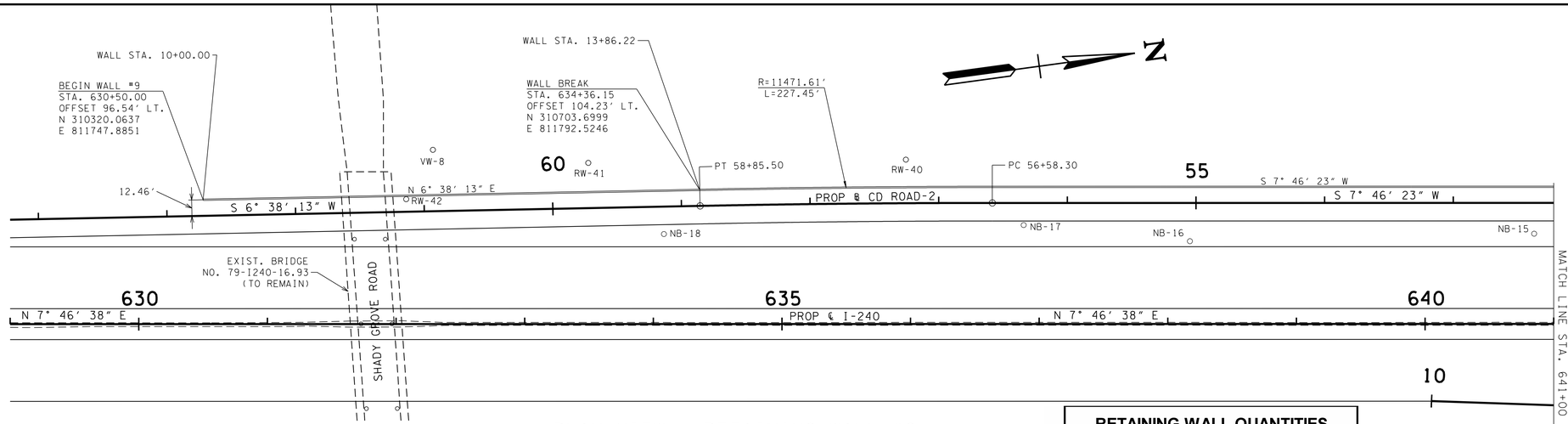
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	9
CONST.	2010	STP-I-240(290)	36



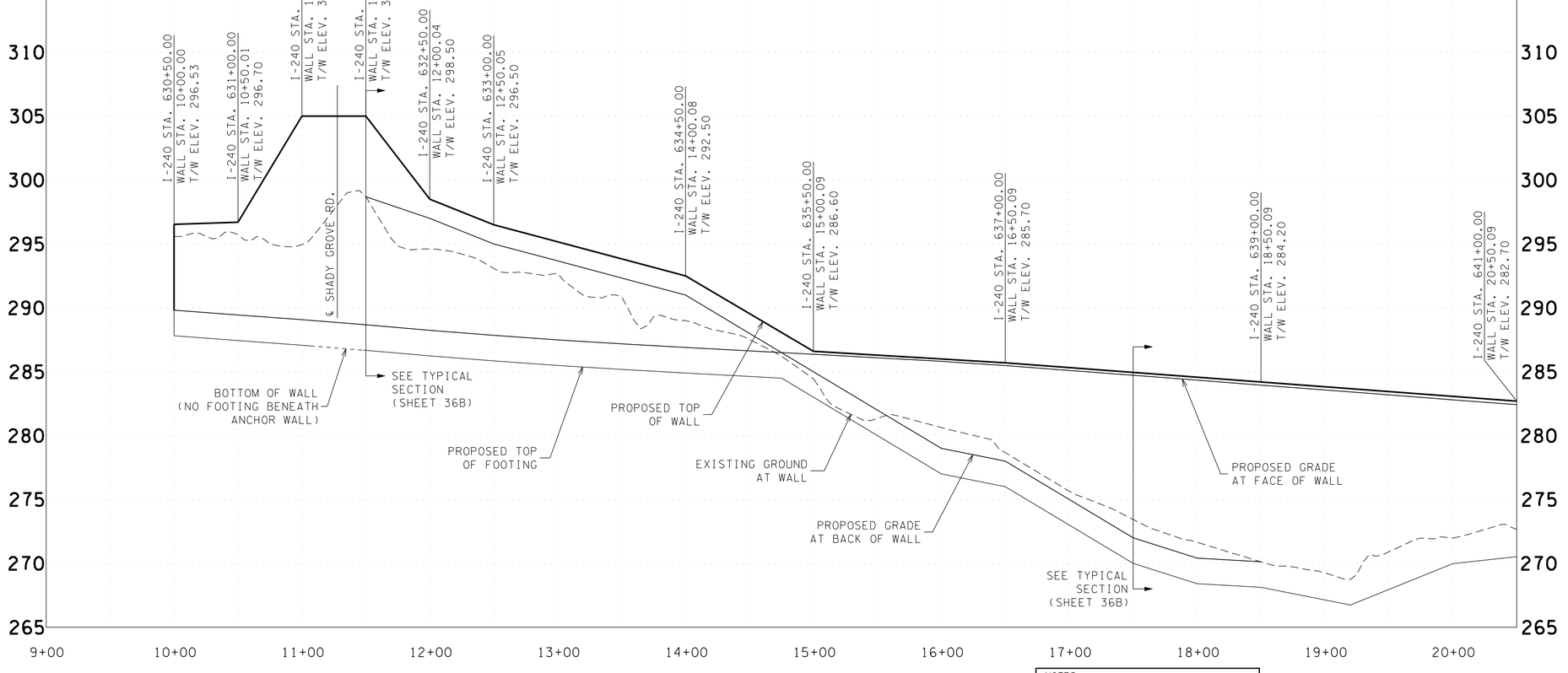
PLAN VIEW - RETAINING WALL #9

SCALE: 1"=50'H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	18,393 S.F.
	ADJACENT BARRIER WALL	2,047 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #9

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
10-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 9 SOUTHBOUND I-240

FROM STA. 630+50 TO STA. 641+00

SCALE: 1"= 50'

8/20/2010
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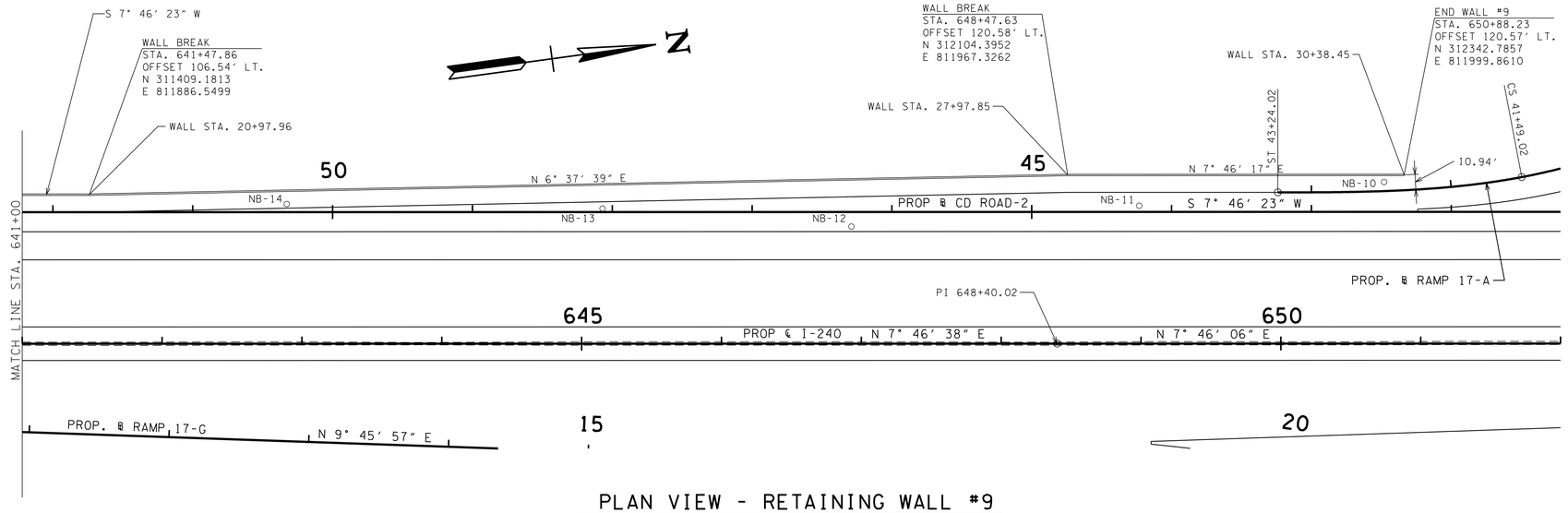
Survey & Design Division

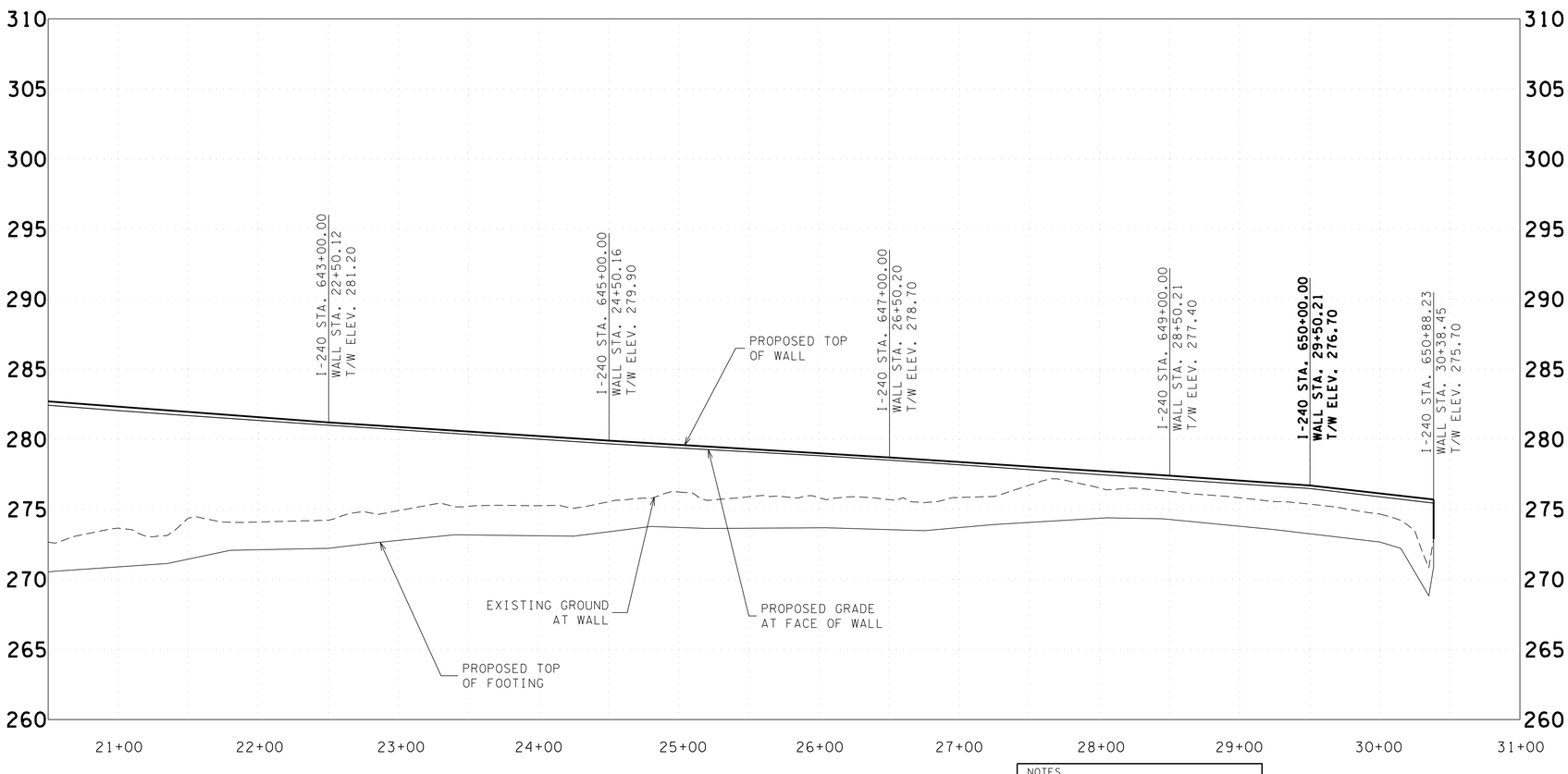
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	9A
CONST.	2010	STP-I-240(290)	36A



PLAN VIEW - RETAINING WALL #9

SCALE: 1″=50′H



PROFILE VIEW - RETAINING WALL #9

SCALE: 1″=50′H, 5′V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED
AGRICULTURE
8-23-10
NUMBER 10235
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 9 SOUTHBOUND I-240

FROM STA. 641+00 TO STA. 650+88.23

SCALE: 1″= 50′

8/20/2010
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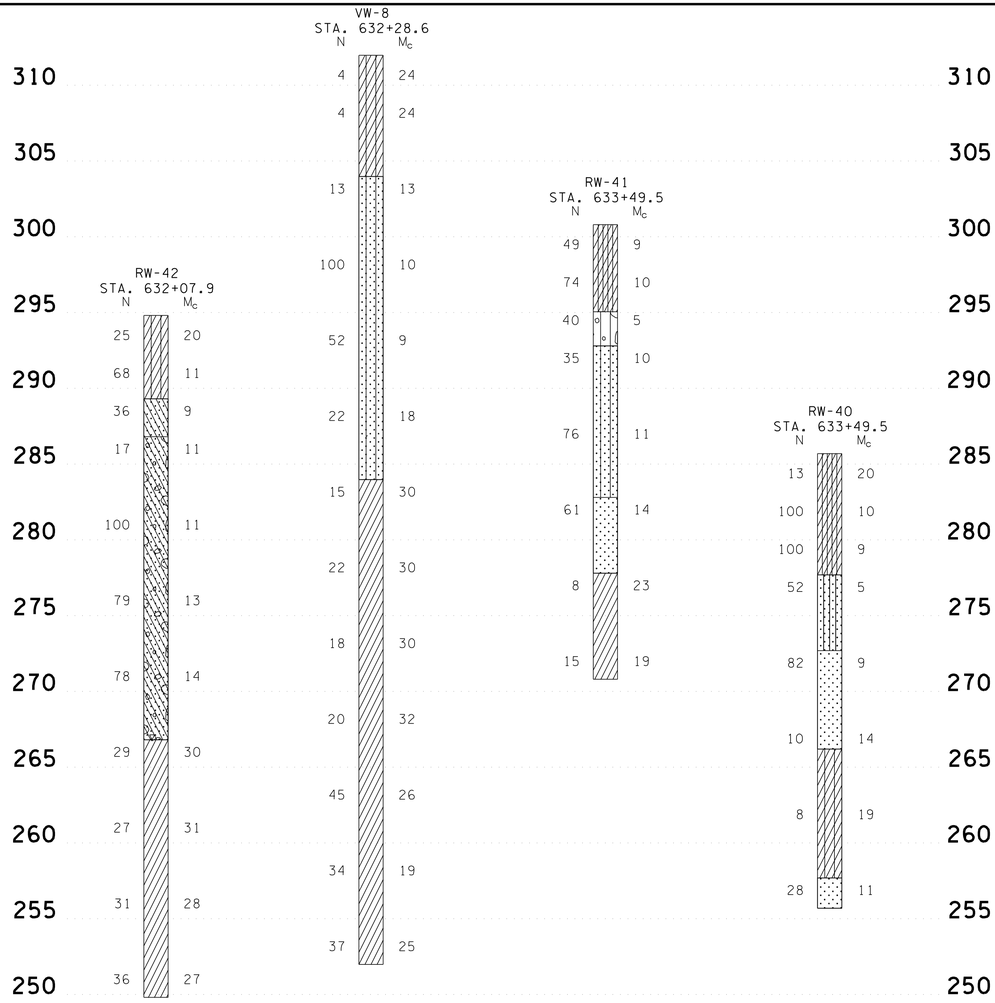
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	9B
CONST.	2010	STP-I-240(290)	36B

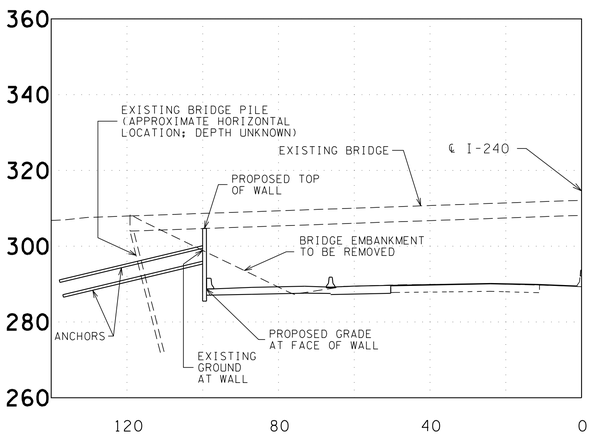


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

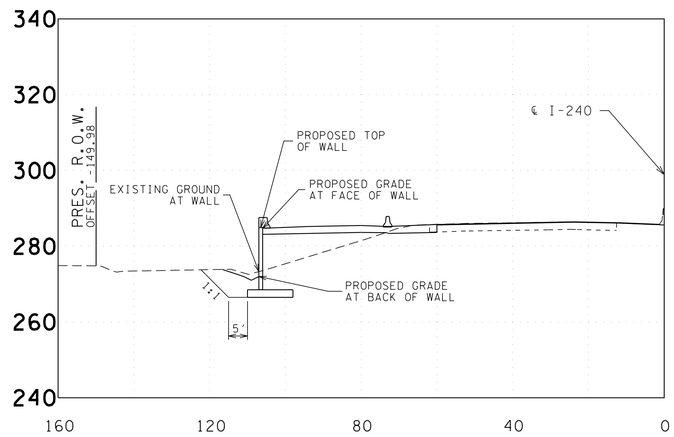
LEGEND

- SAND
- CLAY
- SANDY CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- GRAVELLY SAND
- SAND WITH SILT AND GRAVEL
- GRASS AND TOPSOIL



TYPICAL SECTION AT BRIDGE (STA. 632+00)

SCALE: 1"=20'H, 20'V



TYPICAL SECTION (STA. 638+00)

SCALE: 1"=20'H, 20'V

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL

PLEASE NOTE THAT THERE IS AN EXISTING BRIDGE STRUCTURE BETWEEN STATIONS 631+57 AND 631+98 (WALL STATIONS 11+07.02 AND 11+48.03). DUE TO THE INTERFERENCE OF THE EXISTING FOUNDATION WITH THE PROPOSED CONSTRUCTION, AN ANCHOR WALL WILL BE REQUIRED AT THAT LOCATION. NO OTHER WALL TYPES WILL BE ACCEPTABLE BETWEEN STATIONS 631+57 AND 631+98. SEE SHEET 9C FOR RECOMMENDED SOIL PARAMETERS TO BE USED IN THE DESIGN OF THE ANCHOR WALL, AS WELL AS A TYPICAL SECTION AT THE BRIDGE LOCATION. APPROPRIATE MEASURES SHOULD BE TAKEN TO PROTECT THE EXISTING FOUNDATION SYSTEM OF THE BRIDGE.

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL AS SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 630+50 TO STATION 643+00: 3000 PSF.
STATION 643+00 TO STATION 650+50: 2500 PSF.
STATION 650+50 TO STATION 650+88: 3000 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

RECOMMENDATIONS REGARDING UNDERCUTTING AND BACKFILLING FOR THE PURPOSE OF SOIL IMPROVEMENT DO NOT APPLY TO THE PROPOSED ANCHOR WALL LOCATION (BETWEEN STATIONS 631+57 AND 631+98).

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
643+50 TO 650+50	2900	3100

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 300 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

JOHN T. PANKEY — REGISTERED ENGINEER — AGRICULTURE — NO. 102516 — 8-23-2010 — STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 9 SOUTHBOUND I-240

FROM STA. 630+50 TO STA. 650+88.23

SCALE: 1"= 50'

8/20/2010
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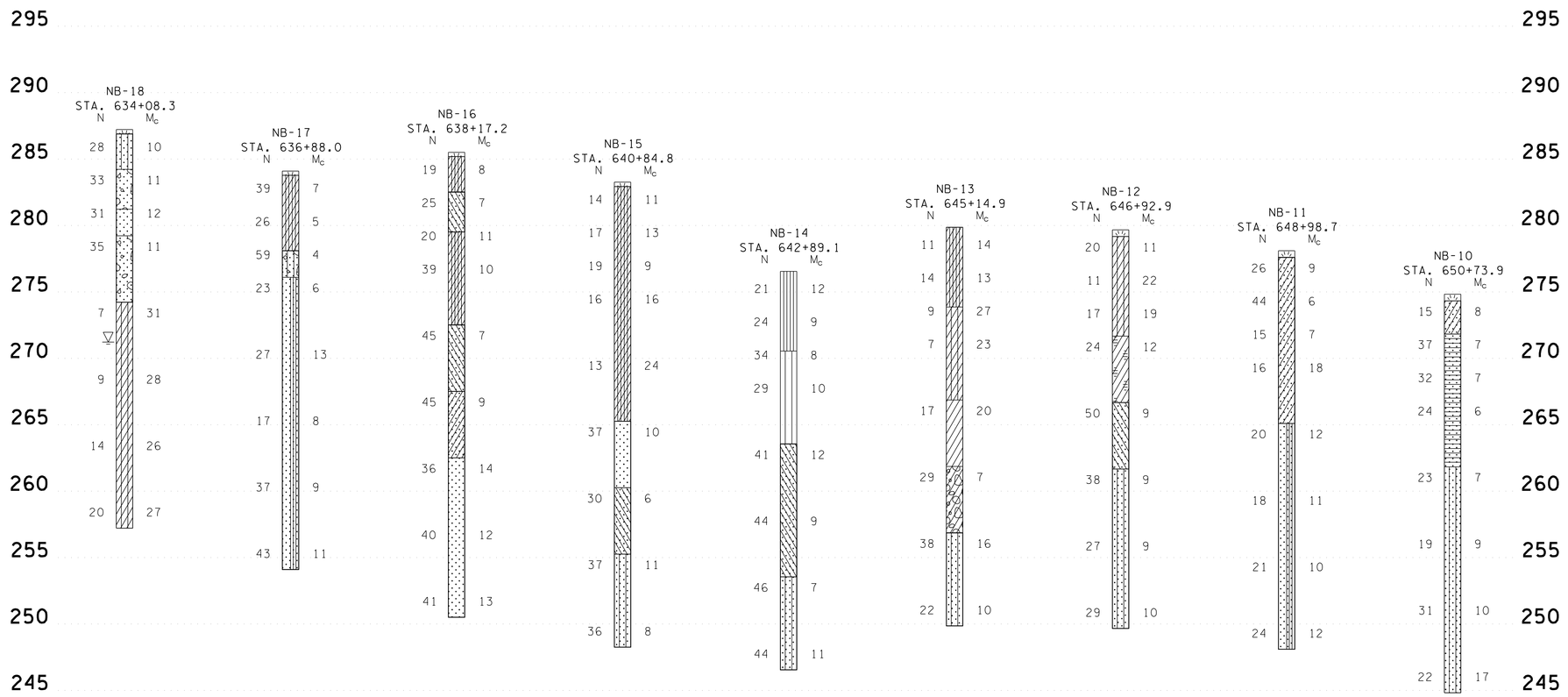
Survey & Design Division

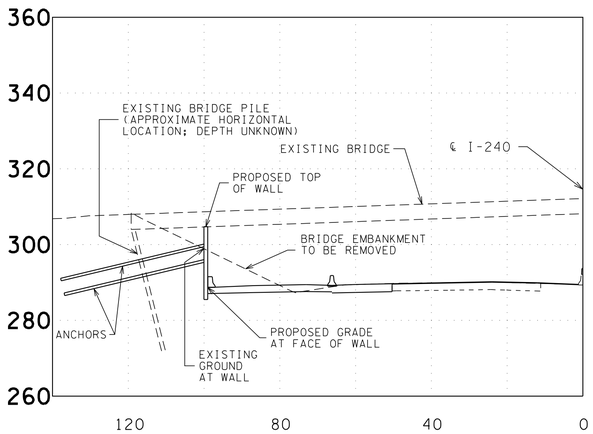
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	9C
CONST.	2010	STP-I-240(290)	36C



LEGEND

- SAND
- SAND WITH SILT
- CLAY
- CLAYEY SAND
- SANDY CLAY
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SAND WITH GRAVEL
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- SAND WITH SILT
- GRAVEL WITH CLAY
- HIGH PLASTICITY CLAY
- GRASS AND TOPSOIL
- WATER TABLE



TYPICAL SECTION - ANCHOR WALL

(FROM STA. 631+57 TO STA. 631+98)
SCALE: 1"=20'H, 20'V

NOTE
ANCHOR SPACING AND LENGTHS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT REPRESENTATIVE OF PROPOSED DESIGN.

RECOMMENDED SOIL DESIGN PARAMETERS FOR ANCHOR WALL FROM STATION 631+57 TO 631+98

BORING NUMBER	SOIL TYPE	DEPTH (FT)	UNIT WEIGHT (PCF)	UNDRAINED CONDITION (SHORT TERM)		DRAINED CONDITION (LONG TERM)	
				COHESION (PSF)	Φ	COHESION (PSF)	Φ
RW-42	CL	0-6	120	1000	0	0	28
	CL	6-8	120	1500	0	0	28
	SP-SM	8-28	125	0	35	0	35
	CL	28-45	120	2500	0	2500	0

*PLEASE NOTE THAT NO BORINGS WERE DRILLED IN THE AREA OF THE PROPOSED ANCHOR WALL. THE RECOMMENED DESIGN PARAMETERS LISTED ABOVE ARE FROM BORINGS LOCATED ADJACENT TO THE PROPOSED WALL.

*CONSTRUCTION OF THE WALL WILL TAKE PLACE UNDERNEATH AN EXISTING BRIDGE STRUCTURE. WALL CONSTUCTION CONTRACTORS SHOULD BE PREPARED TO ADDRESS ANY CLEARANCE ISSUE FOR THE CONSTRUCTION/INSTALLATION EQUIPMENT

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 9 SOUTHBOUND I-240

FROM STA. 630+50 TO STA. 650+88.23
SCALE: 1"= 50'

8/20/2010
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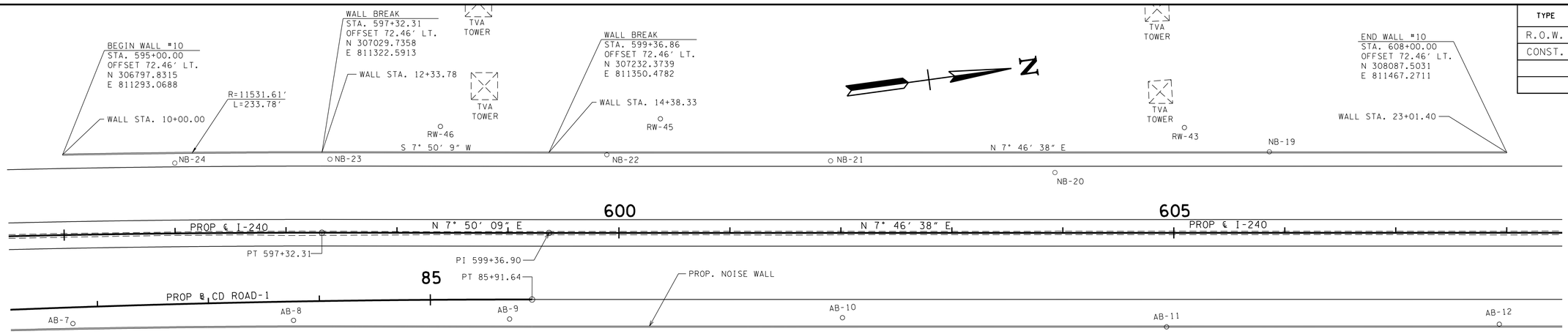
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	10
CONST.	2010	STP-I-240(290)	37

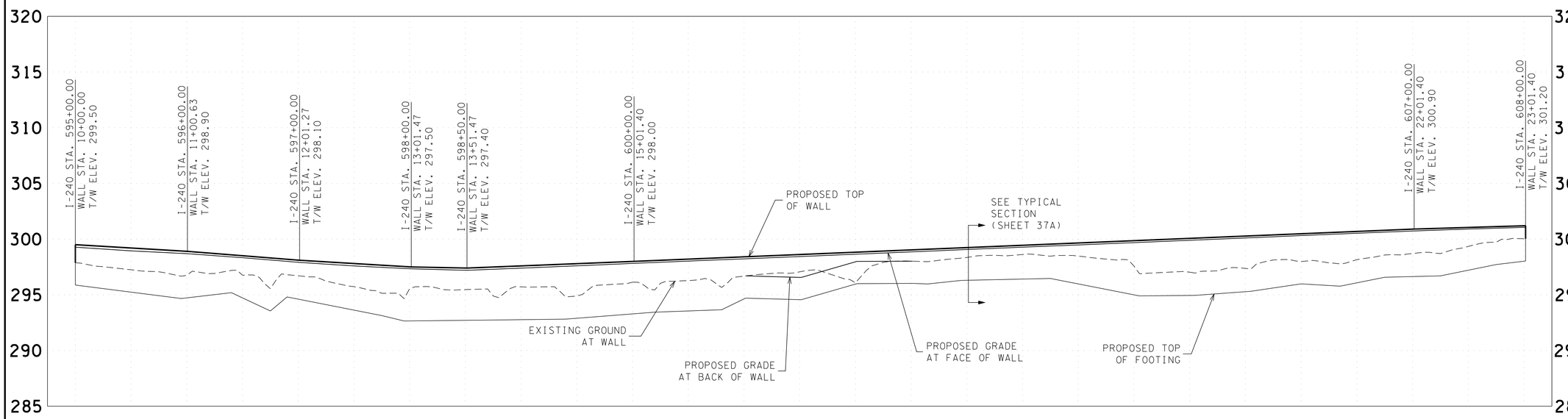


PLAN VIEW - RETAINING WALL #10

SCALE: 1"=50'H

RETAINING WALL QUANTITIES		
	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	5,394 S.F.
	ADJACENT BARRIER WALL	1,310 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #10

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
NO. 102358
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 10 SOUTHBOUND I-240

FROM STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

8/20/2010
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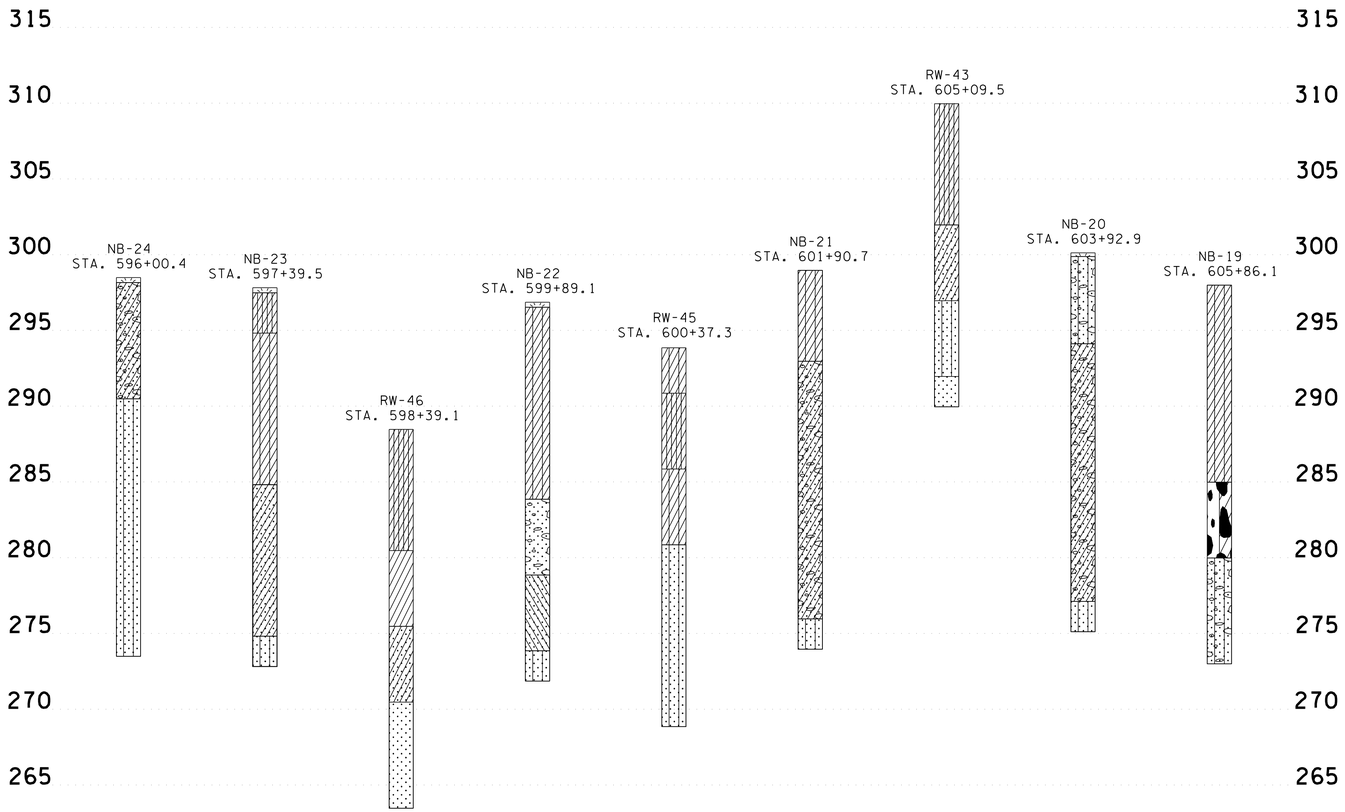
Survey & Design Division

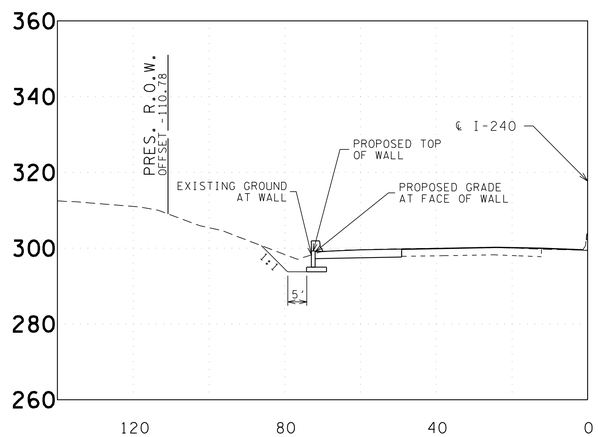
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	10A
CONST.	2010	STP-I-240(290)	37A



GEOTECHNICAL INFORMATION

SCALE: 1"=5'V



TYPICAL SECTION (STA. 603+00)

SCALE: 1"=20'H, 20'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- CLAYEY SAND WITH GRAVEL
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- SANDY CLAY
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- GRASS AND TOPSOIL

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ø (°)	COHESION (PSF)	DENSITY (PCF)	ø (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ø) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 595+00 TO STATION 596+00: 3000 PSF.
STATION 596+00 TO STATION 599+50: 2000 PSF.
STATION 599+50 TO STATION 601+50: 2500 PSF.
STATION 601+50 TO STATION 605+50: 3000 PSF.
STATION 605+50 TO STATION 608+00: 2500 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ø ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
596+00 TO 599+50	2500	2850

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 700 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

JOHN T. PANKEY
REGISTERED
DEPARTMENT OF
AGRICULTURE
8-23-10
REGISTERED
ENGINEER
102351
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING
WALL NO. 10
SOUTHBOUND I-240
FROM STA. 595+00 TO STA. 608+00

SCALE: 1"= 50'

Survey & Design Division

8/20/2010
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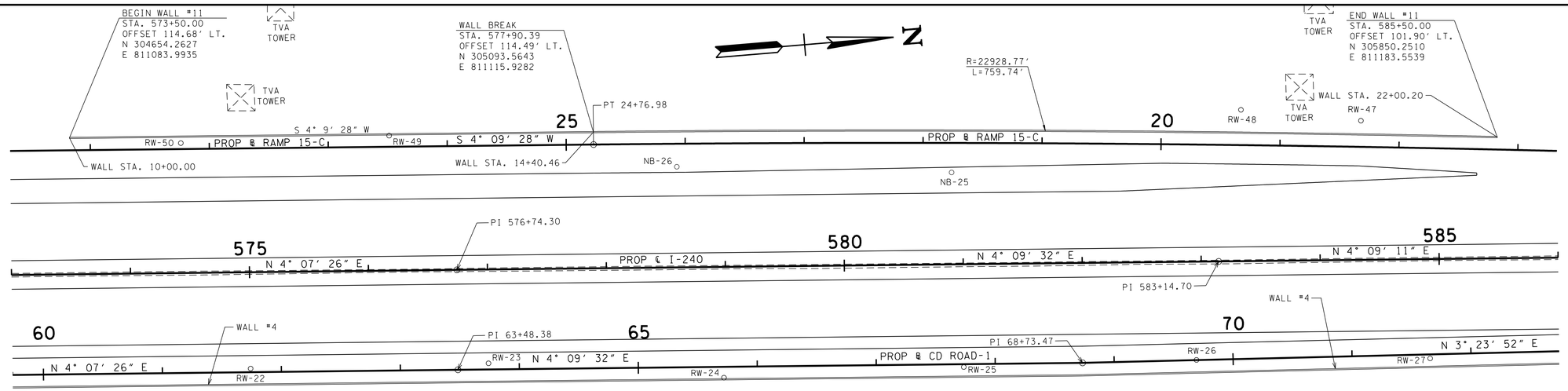
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	11
CONST.	2010	STP-I-240(290)	38



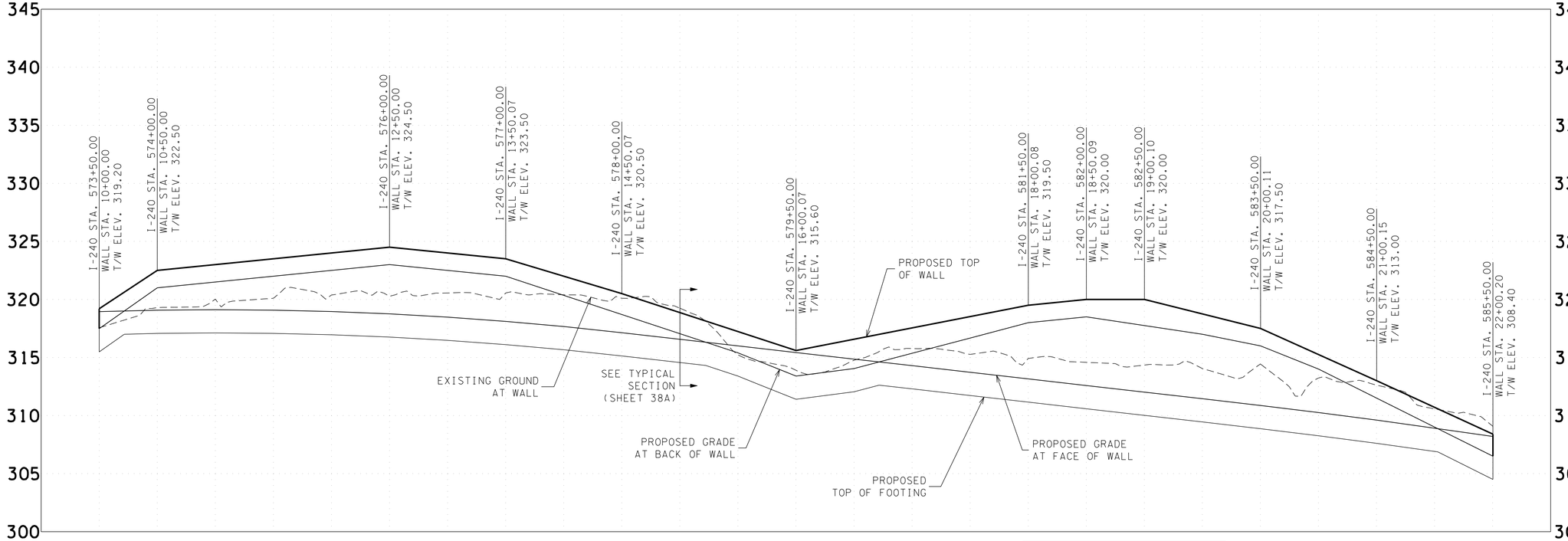
PLAN VIEW - RETAINING WALL #11

SCALE: 1"=50'H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	7,642 S.F.
	ADJACENT BARRIER WALL	1,209 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #11

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
10235
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 11 SOUTHBOUND I-240

FROM STA. 573+50 TO STA. 585+50

SCALE: 1"= 50'

8/20/2010
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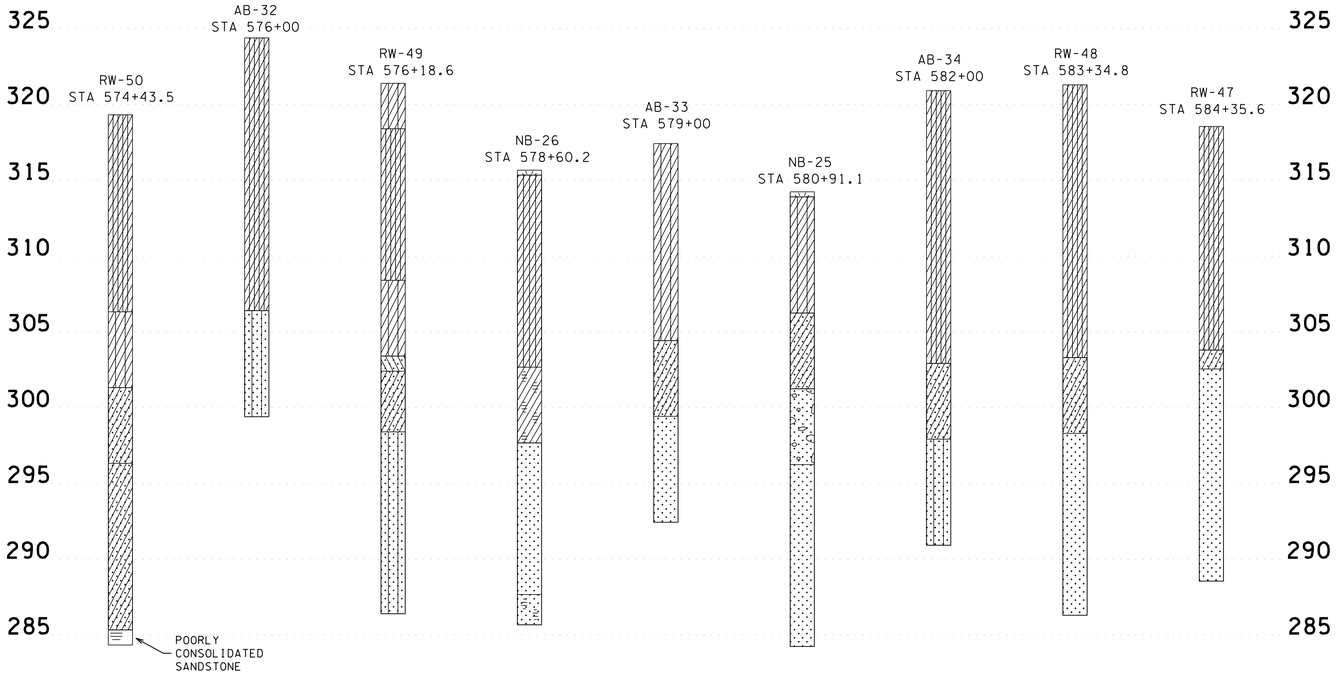
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	11A
CONST.	2010	STP-I-240(290)	38A

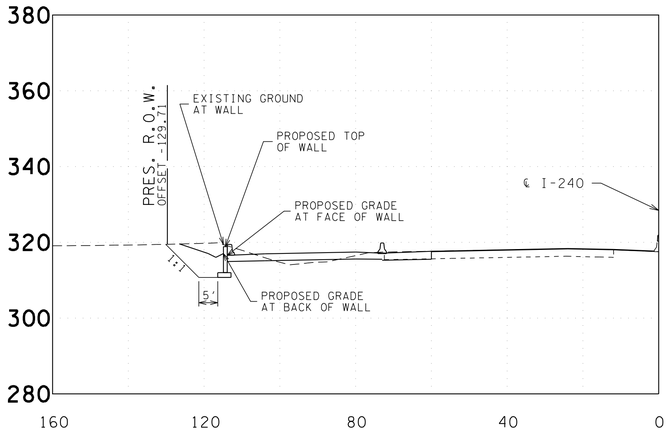


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SANDY CLAY
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- GRAVELLY SAND
- GRASS AND TOPSOIL



TYPICAL SECTION (STA. 578+50)

SCALE: 1"=20'H, 20'V

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT PILE AND SECANT PILE WALLS

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 573+50 TO STATION 585+50: 2500 PSF

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS:

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
573+00 TO 585+50	2900	3200

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 800 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-2-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 11 SOUTHBOUND I-240

FROM STA. 573+50 TO STA. 585+50

SCALE: 1"= 50'

8/20/2010
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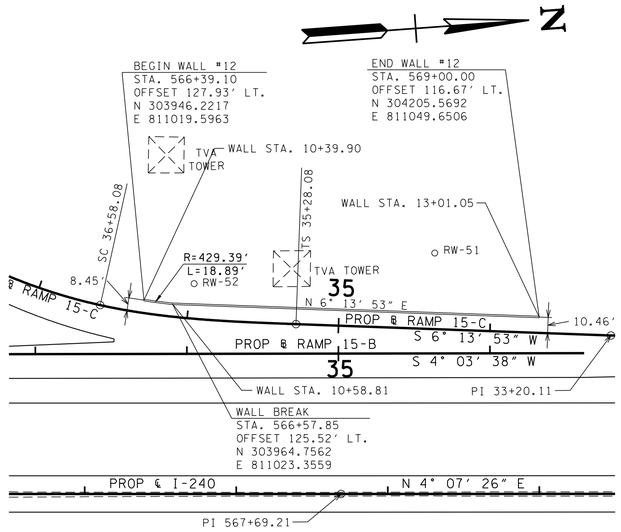
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	12
CONST.	2010	STP-I-240(290)	39

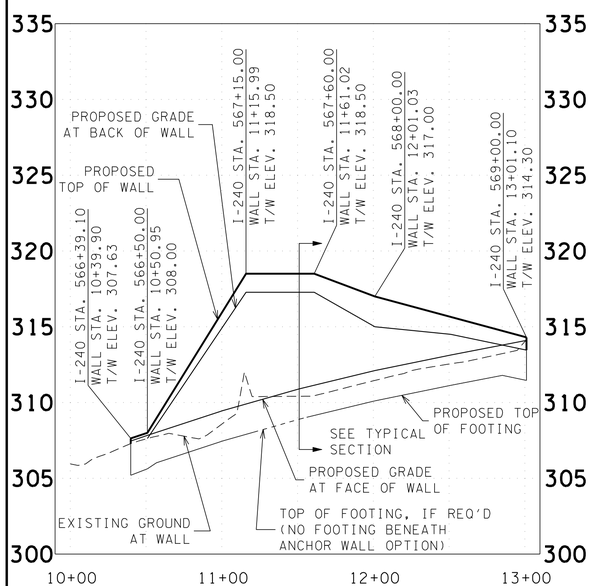


PLAN VIEW - RETAINING WALL #12

SCALE: 1"=50'H

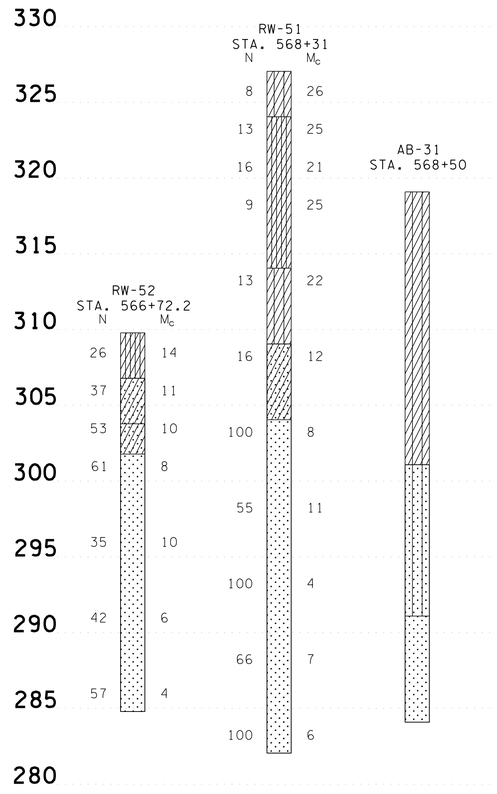
RETAINING WALL QUANTITIES		
	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	1,673 S.F.
	ADJACENT BARRIER WALL	270 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #12

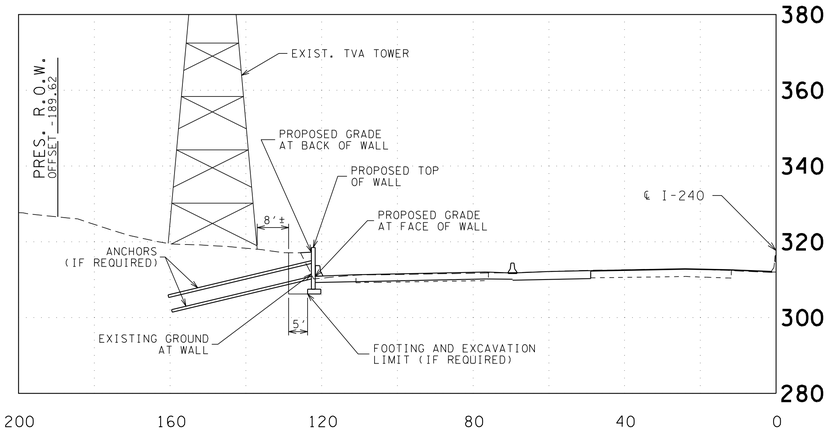
SCALE: 1"=50'H, 5'V



GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.



TYPICAL SECTION (STA. 567+50)

SCALE: 1"=20'H, 20'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- GRASS AND TOPSOIL

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT PILE AND SECANT PILE WALLS

PLEASE NOTE THAT THERE IS AN EXISTING TVA TOWER BETWEEN STATIONS 567+20 AND 567+55 (WALL STATIONS 11+21.00 AND 11+56.02). THE FOLLOWING WALL TYPES ARE ACCEPTABLE BETWEEN STATIONS 567+20 AND 567+55:

- ANCHOR WALL
- SHEET PILE WALL
- TANGENT/SECANT WALL

SEE SHEET 12A FOR RECOMMENDED SOIL PARAMETERS TO BE USED IN THE DESIGN OF THE ANCHOR WALL (IF CHOSEN). CONTACT TVA FOR TOWER FOUNDATION DETAILS.

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL." TEMPORARY SHORING WILL BE REQUIRED IN ORDER NOT TO ADVERSELY IMPACT THE EXISTING TVA TOWER. THE SHORING SHOULD EXTEND A SUFFICIENT DISTANCE BELOW THE EXCAVATION LINE TO MINIMIZE LATERAL MOVEMENT. THE CONTRACTOR SHOULD CONTACT TVA AND OBTAIN INFORMATION REGARDING THE TOWER FOUNDATION SYSTEM PRIOR TO THE SHORING DESIGN AND INSTALLATION

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 566+00 TO STATION 569+00: 2500 PSF

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS:

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
566+00 TO 569+00	2900	3200

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 10235
STATE OF TENNESSEE
8/23/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 12 SOUTHBOUND I-240

FROM STA. 566+00 TO STA. 569+00

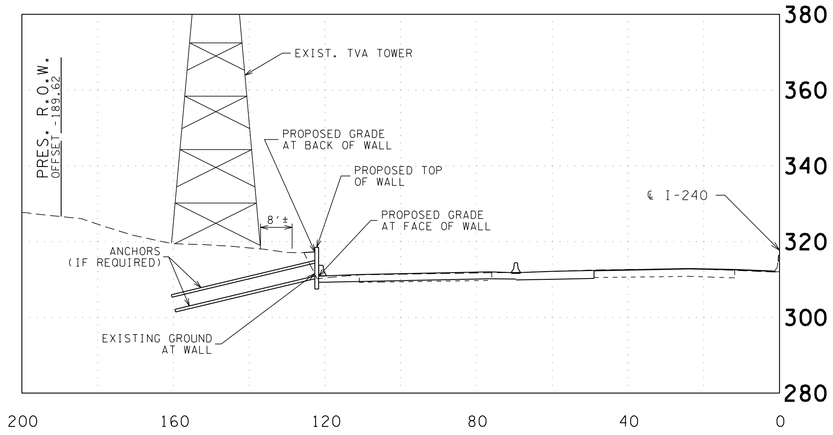
SCALE: 1"= 50'

8/20/2010
w:\615\transportation\ret_wall2.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	12A
CONST.	2010	STP-I-240(290)	39A



TYPICAL SECTION - WALL SECTION AT TVA TOWER

SCALE: 1"=20'H, 20'V

NOTE
ANCHOR SPACING AND LENGTHS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT REPRESENTATIVE OF PROPOSED DESIGN.

RECOMMENDED SOIL DESIGN PARAMETERS FOR ANCHOR WALL FROM STATION 567+20 TO 567+55

BORING NUMBER	SOIL TYPE	DEPTH (FT)	UNIT WEIGHT (PCF)	UNDRAINED CONDITION (SHORT TERM)		DRAINED CONDITION (LONG TERM)	
				COHESION (PSF)	Φ	COHESION (PSF)	Φ
RW-52	CL/ML	0-6	120	1000	0	0	28
	SCSP	6-25	125	0	35	0	35

*PLEASE NOTE THAT NO BORINGS WERE DRILLED IN THE AREA OF THE PROPOSED ANCHOR WALL. THE RECOMMENED DESIGN PARAMETERS LISTED ABOVE ARE FROM BORINGS LOCATED ADJACENT TO THE PROPOSED WALL.

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 12 SOUTHBOUND I-240

FROM STA. 566+00 TO STA. 569+00

SCALE: 1"= 50'

8/20/2010
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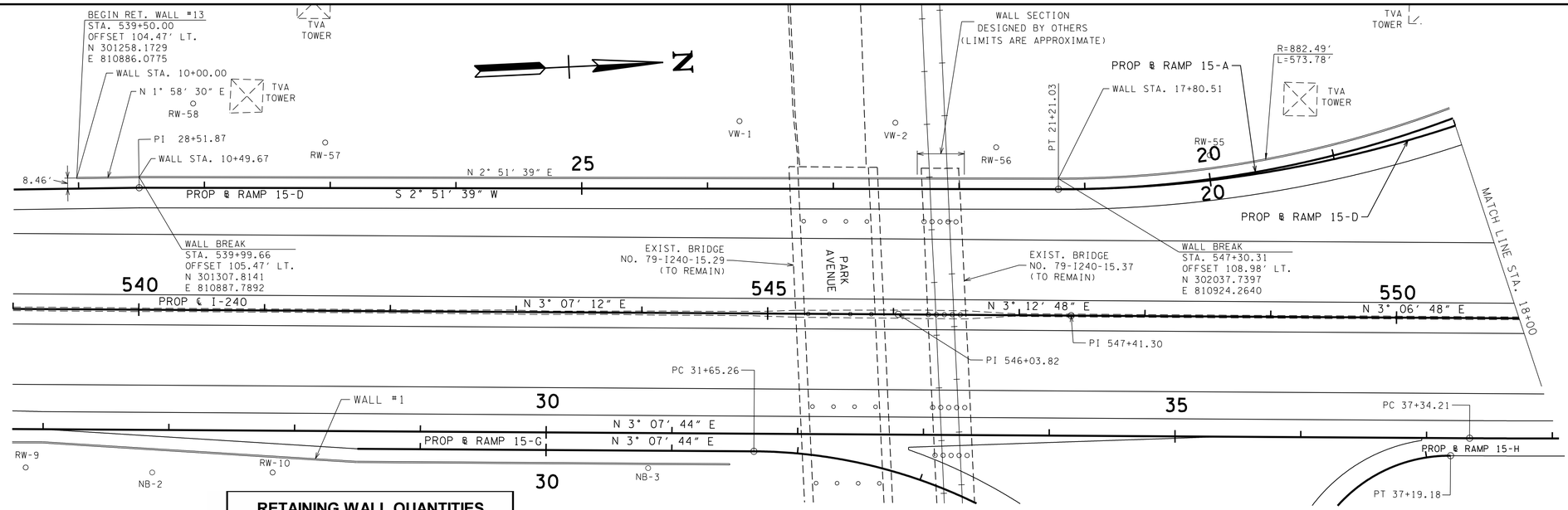
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	13
CONST.	2010	STP-I-240(290)	40



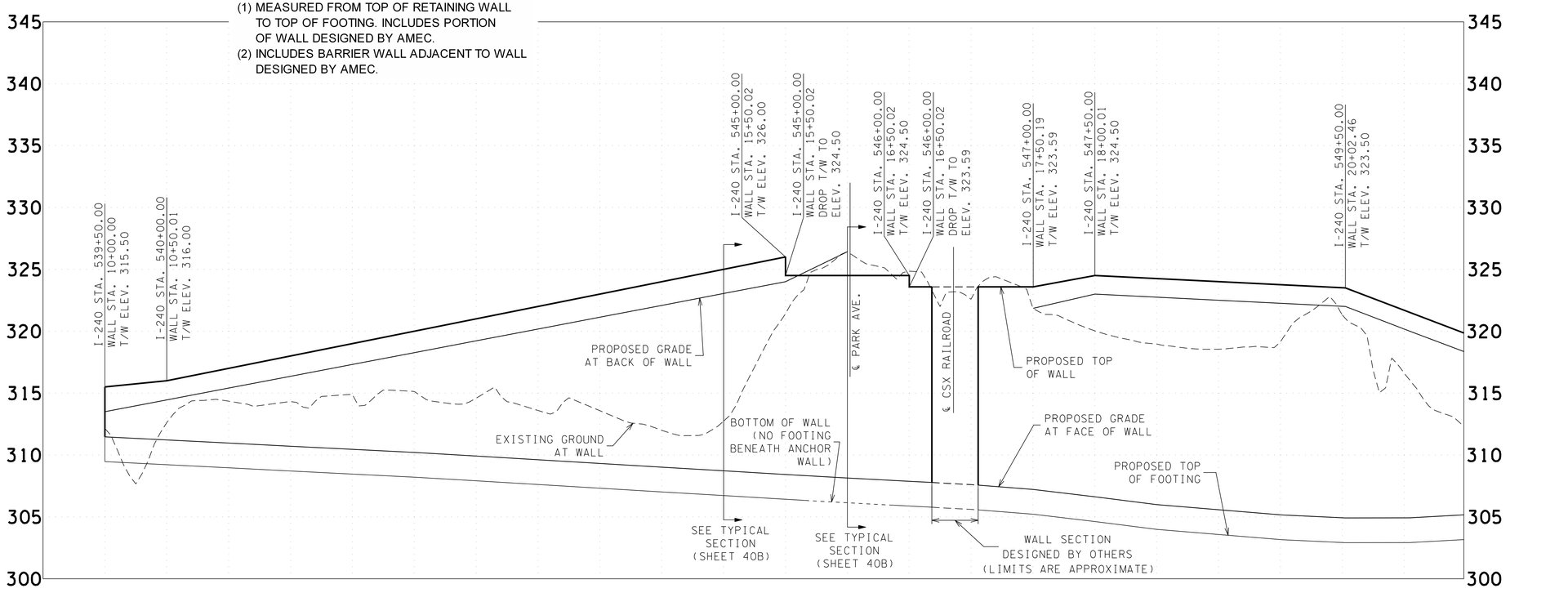
PLAN VIEW - RETAINING WALL #13

SCALE: 1"=50'H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	20,652 S.F.
(2)	ADJACENT BARRIER WALL	1,464 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING. INCLUDES PORTION OF WALL DESIGNED BY AMEC.
(2) INCLUDES BARRIER WALL ADJACENT TO WALL DESIGNED BY AMEC.



PROFILE VIEW - RETAINING WALL #13

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
10/2011
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 13 SOUTHBOUND I-240

FROM STA. 539+50 I-240 TO STA. 18+00 RAMP 15-D

SCALE: 1"= 50'

8/20/2010
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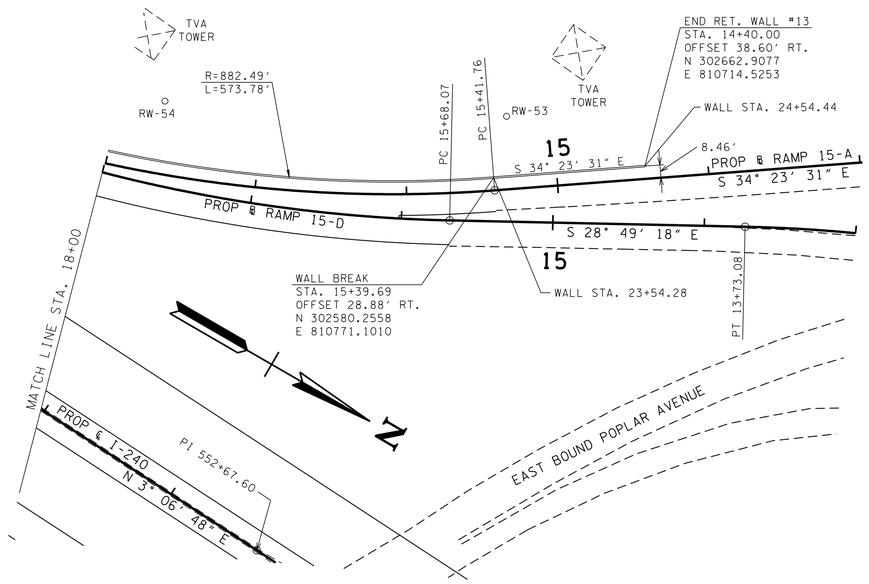
Survey & Design Division

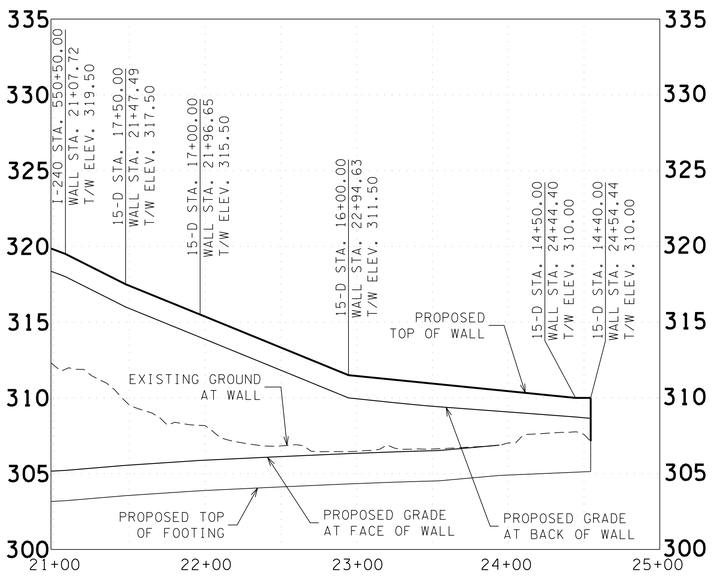
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	13A
CONST.	2010	STP-I-240(290)	40A



PLAN VIEW - RETAINING WALL #13

SCALE: 1"=50'H



PROFILE VIEW - RETAINING WALL #13

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL
- SHEET PILE WALL
- SOLDIER PILE AND LAGGING WALL
- TANGENT PILE AND SECANT PILE WALLS

THE RETAINING WALL SECTION UNDER THE RAILROAD IS DESIGNED BY OTHERS. PLEASE CONTACT CSX RAILROAD FOR DETAILS.

PLEASE NOTE THAT THERE IS AN EXISTING BRIDGE STRUCTURE BETWEEN STATIONS 545+16 AND 545+87 (WALL STATIONS 15+66.02 AND 16+37.02). DUE TO THE INTERFERENCE OF THE EXISTING FOUNDATION WITH THE PROPOSED CONSTRUCTION, AN ANCHOR WALL WILL BE REQUIRED AT THAT LOCATION. NO OTHER WALL TYPES WILL BE ACCEPTABLE BETWEEN STATIONS 545+16 AND 545+87. SEE SHEET 13C FOR RECOMMENDED SOIL PARAMETERS TO BE USED IN THE DESIGN OF THE ANCHOR WALL, AS WELL AS A TYPICAL SECTION AT THE BRIDGE LOCATION. APPROPRIATE MEASURES SHOULD BE TAKEN TO PROTECT THE EXISTING FOUNDATION SYSTEM OF THE BRIDGE.

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ϕ (°)	COHESION (PSF)	DENSITY (PCF)	ϕ (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ϕ) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

RECOMMENDATIONS REGARDING UNDERCUTTING AND BACKFILLING FOR THE PURPOSE OF SOIL IMPROVEMENT DO NOT APPLY TO THE PROPOSED ANCHOR WALL LOCATION (BETWEEN STATIONS 545+16 AND 545+87).

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE RECOMMENDED BEARING CAPACITY SHOULD BE AS FOLLOWS:

STATION 539+50.00 TO STATION 14+40.00 (RAMP 15-D): 2500 PSF

THE ABOVE VALUE WAS BASED ON THE FACT THAT THE BORINGS WERE DRILLED AT HIGHER GROUND ELEVATIONS AS COMPARED TO THE LEVELS OF THE BOTTOM OF THE FOOTINGS, AS WELL AS THE TO THE POTENTIAL FOR VARIABILITY IN THE SUBSURFACE CONDITIONS. IF THE WALL FOOTINGS ARE SUPPORTED BY GRANULAR (COHESIONLESS) SOILS, THEN THE ABOVE VALUE CAN BE INCREASED TO 3500 PSF. IF THE COHESIVE FOUNDATION SOILS ARE EXCAVATED TO THE TOP TO THE GRANULAR SOILS, AND THE CAVITY IS BACKFILLED WITH GRANULAR MATERIALS, THEN THE ALLOWABLE BEARING CAPACITY CAN BE INCREASED TO 3500 PSF.

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY, FOUNDATION WIDTH, AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ϕ ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	TO GRANULAR SOIL
ENTIRE WALL SECTION	2900	3500

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 800 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING
WALL NO. 13
SOUTHBOUND I-240
FROM STA. 18+00 RAMP 15-D TO STA. 14+40 RAMP 15-D

SCALE: 1"= 50'

8/20/2010
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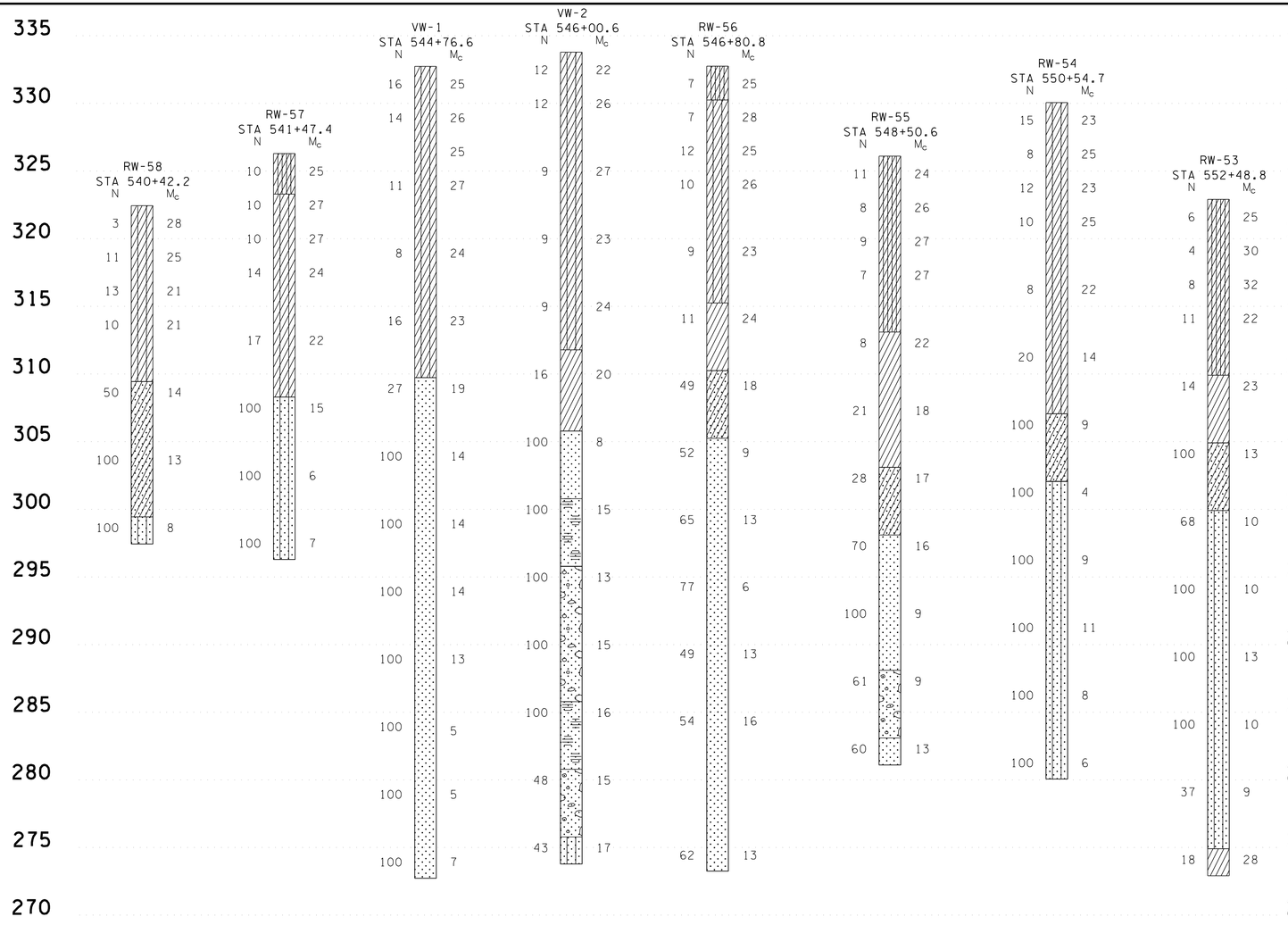
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	13B
CONST.	2010	STP-I-240(290)	40B

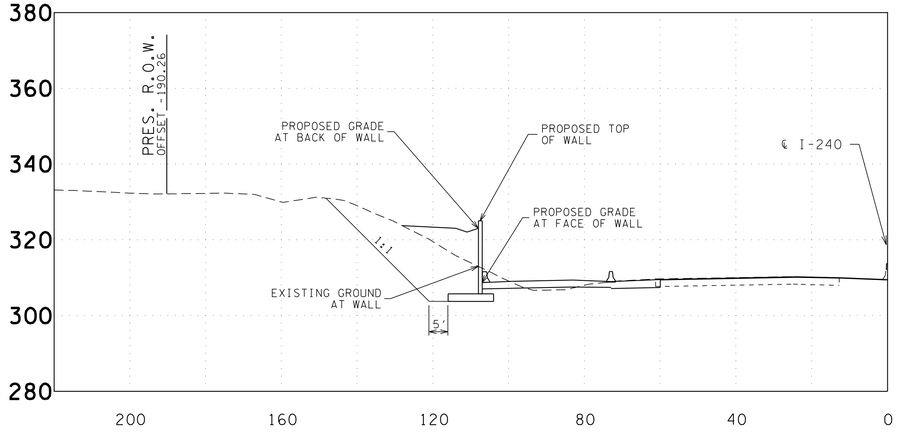


LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- GRAVELLY SAND
- GRASS AND TOPSOIL

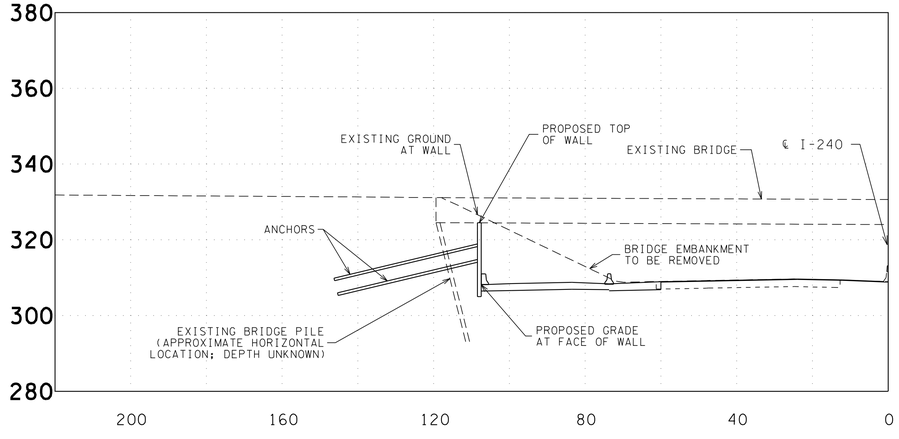
GEOTECHNICAL INFORMATION

SCALE: 1"=5'V



TYPICAL SECTION (STA. 544+50)

SCALE: 1"=20'H, 20'V



TYPICAL SECTION AT BRIDGE (STA. 545+50)

SCALE: 1"=20'H, 20'V

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
No. 102351
STATE OF TENNESSEE
8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 13 SOUTHBOUND I-240

FROM STA. 539+50 I-240 TO STA. 14+40 RAMP 15-D

SCALE: 1"= 50'

8/20/2010
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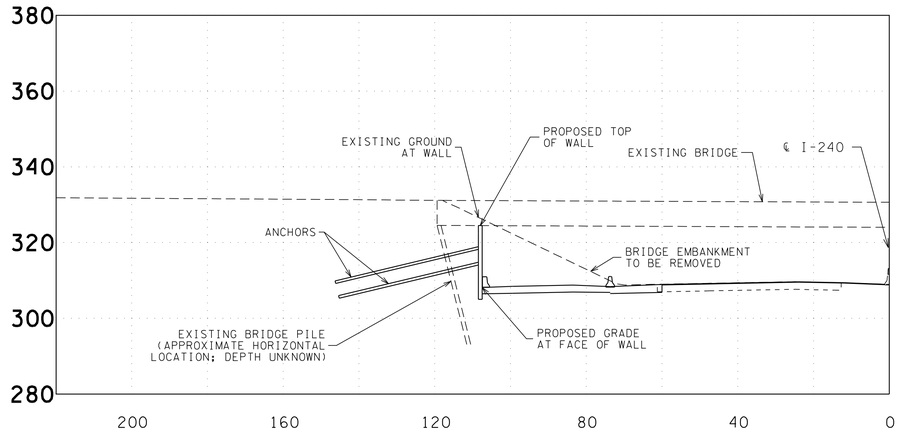
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	13C
CONST.	2010	STP-I-240(290)	40C



TYPICAL SECTION - ANCHOR WALL

(FROM STA. 545+16 TO STA. 545+87)
SCALE: 1"=20'H, 20'V

NOTE
ANCHOR SPACING AND LENGTHS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT REPRESENTATIVE OF PROPOSED DESIGN.

RECOMMENDED SOIL DESIGN PARAMETERS FOR ANCHOR WALL FROM STATION 545+16 TO 545+87

BORING NUMBER	SOIL TYPE	DEPTH (FT)	UNIT WEIGHT (PCF)	UNDRAINED CONDITION (SHORT TERM)		DRAINED CONDITION (LONG TERM)	
				COHESION (PSF)	Φ	COHESION (PSF)	Φ
VW-1	CL	0-23	120	1000	0	0	28
	SP	23-60	125	0	36	0	36
VW-2	CL	0-28	120	1000	0	0	28
	SP/GP/ SM	28-60	125	0	36	0	36

*PLEASE NOTE THAT NO BORINGS WERE DRILLED IN THE AREA OF THE PROPOSED ANCHOR WALL. THE RECOMMENED DESIGN PARAMETERS LISTED ABOVE ARE FROM BORINGS LOCATED ADJACENT TO THE PROPOSED WALL.

*CONSTRUCTION OF THE WALL WILL TAKE PLACE UNDERNEATH AN EXISTING BRIDGE STRUCTURE. WALL CONSTUCTION CONTRACTORS SHOULD BE PREPARED TO ADDRESS ANY CLEARANCE ISSUE FOR THE CONSTRUCTION/INSTALLATION EQUIPMENT

JOHN T. PANKEY
REGISTERED ENGINEER
AGRICULTURE
TN
COMMERCE
102351
8-23-10
STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 13 SOUTHBOUND I-240

FROM STA. 539+50 I-240 TO STA. 14+40 RAMP 15-D

SCALE: 1"= 50'

8/20/2010
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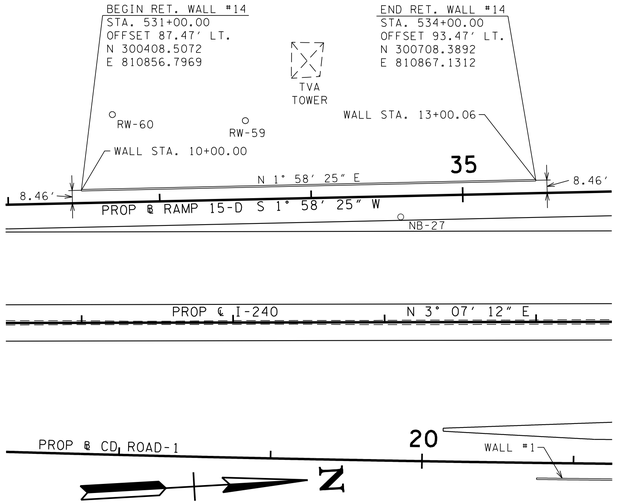
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	14
CONST.	2010	STP-I-240(290)	41



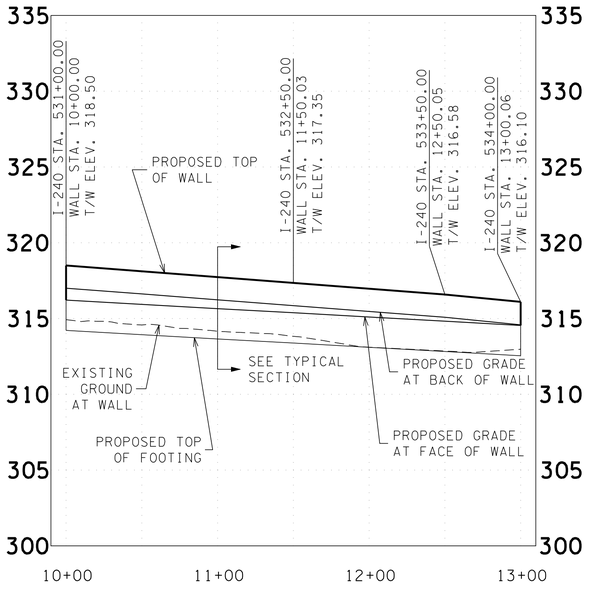
PLAN VIEW - RETAINING WALL #14

SCALE: 1"=50'H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	1,190 S.F.
	ADJACENT BARRIER WALL	309 L.F.

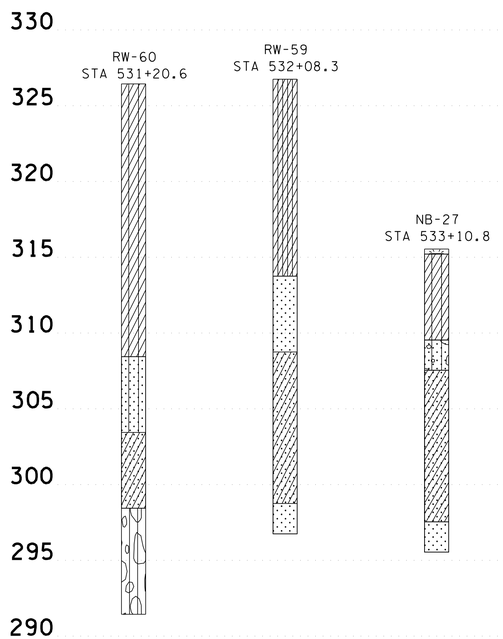
(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



PROFILE VIEW - RETAINING WALL #14

SCALE: 1"=50'H, 5'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

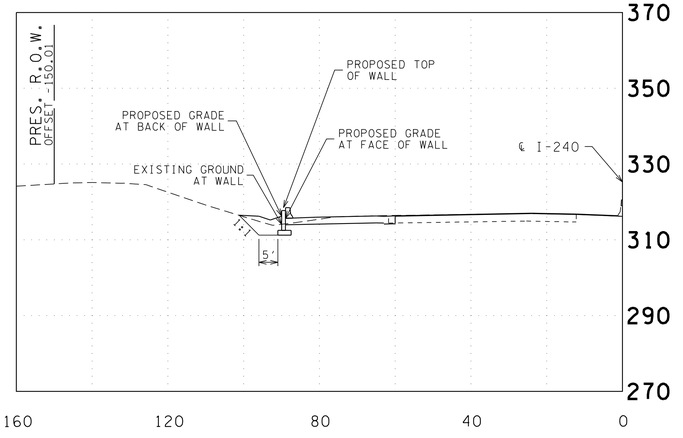


GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- SILTY GRAVEL WITH SAND
- GRASS AND TOPSOIL



TYPICAL SECTION (STA. 532+00)

SCALE: 1"=20'H, 20'V

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ø (°)	COHESION (PSF)	DENSITY (PCF)	ø (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ø) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 531+00 TO STATION 534+00: 2500 PSF

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

A. UNDERCUTTING AND BACKFILLING WITH SELECT FILL MATERIAL

THE AMOUNT OF UNDERCUTTING/BACKFILLING WILL DEPEND ON THE DESIRED BEARING CAPACITY AND THE TYPE OF BACKFILL MATERIAL. IF SELECT BACKFILL MATERIAL AS PREVIOUSLY SPECIFIED IN THIS REPORT IS USED (ø ANGLE OF 34°), THEN THE IMPROVED BEARING CAPACITY CAN BE AS FOLLOWS.

STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
531+00 TO 534+00	2900	3100

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.

JOHN T. PANKEY — REGISTERED PROFESSIONAL ENGINEER — AGRICULTURE — 102351 — 8-27-10 — STATE OF TENNESSEE

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 14 SOUTHBOUND I-240

FROM STA. 531+00 TO STA. 534+00

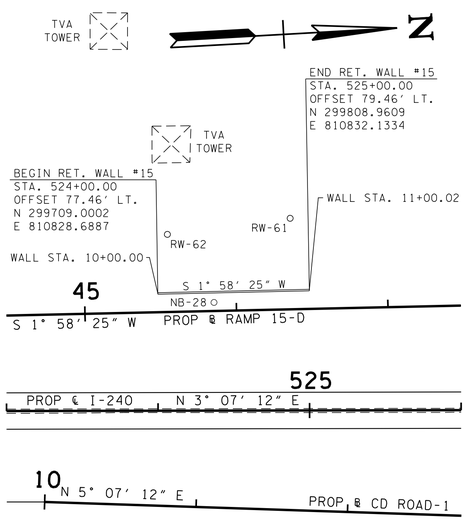
SCALE: 1"= 50'

8/20/2010
w:\6115\transportation\ret_wall4.sht

Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	79006-1179-04	15
CONST.	2010	STP-I-240(290)	42



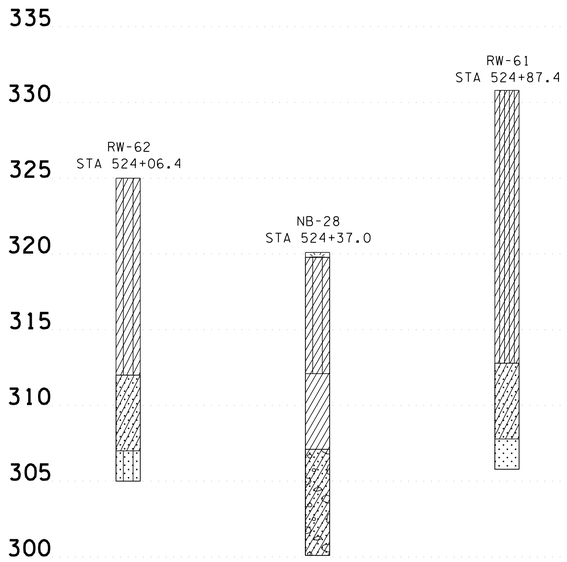
PLAN VIEW - RETAINING WALL #15

SCALE: 1"=50'H

RETAINING WALL QUANTITIES

	DESCRIPTION	QUANTITY
(1)	RETAINING WALL FACE	259 S.F.
	ADJACENT BARRIER WALL	109 L.F.

(1) MEASURED FROM TOP OF RETAINING WALL TO TOP OF FOOTING.



GEOTECHNICAL INFORMATION

SCALE: 1"=5'V

LEGEND

- SAND
- CLAY
- CLAYEY SAND
- CLAYEY SAND WITH GRAVEL
- SILTY CLAY
- CLAYEY SILT
- GRAVELLY CLAY
- SANDY SILT
- SANDY GRAVEL
- CLAYEY GRAVEL
- SILTY GRAVEL
- ASPHALT
- CONCRETE
- INTERMIXED GRAVEL, SILT AND CLAY
- SILTY SAND WITH GRAVEL
- GRAVELLY SAND
- GRASS AND TOPSOIL

1. ACCEPTABLE WALL TYPES

SEE "TDOT EARTH RETAINING STRUCTURES MANUAL" FOR GUIDANCE REGARDING DESIGN AND CONSTRUCTION REQUIREMENTS, AS WELL AS APPROVED WALL TYPES

- CAST-IN-PLACE (CIP) CONCRETE CANTILEVER RETAINING WALL
- SEGMENTAL PRECAST FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- PREFABRICATED MODULAR BLOCK FACING MECHANICALLY STABILIZED EARTH (MSE) WALL
- GRAVITY WALL

2. EXCAVATION AND BACKFILL

TEMPORARY CONSTRUCTION SLOPES SHOULD HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1. THE CONTRACTOR SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF A SLOPE IS UNSTABLE, BECOMES UNSTABLE, OR IS UNACCEPTABLE FOR OTHER REASONS, THEN TEMPORARY SHORING SHALL BE USED. ALL WALLS MUST FOLLOW THE DESIGN GUIDELINES ESTABLISHED IN THE "TDOT EARTH RETAINING STRUCTURES MANUAL."

THE 1:1 TEMPORARY CONSTRUCTION SLOPE SHOULD BE BACKFILLED WITH SELECT BACKFILL SHOWN BELOW. REFER TO THE SELECT GRANULAR BACKFILL MATERIAL TABLE FOR ENGINEERING PROPERTIES (SECTION 3 BELOW). THE ENGINEER SHALL APPROVE POTENTIAL BACKFILL MATERIALS BEFORE USE. THE BACKFILL SHOULD EXTEND VERTICALLY TO THE FULL HEIGHT OF THE WALL.

THE BACKFILL IS TO BE PLACED IN ACCORDANCE WITH TDOT'S *STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* (LATEST EDITION). PRIOR TO FILL PLACEMENT, THE FOUNDATION SOIL AND AREAS RECEIVING FILL SHALL BE INSPECTED BY THE ENGINEER. ANY SOFT ZONES OR UNSUITABLE MATERIALS SHALL BE REMOVED AND THE CAVITY BACKFILLED WITH APPROVED FILL MATERIALS.

3. GEOTECHNICAL DESIGN PROPERTIES AND PARAMETERS

BACKFILL MATERIAL	UNDRAINED CONDITION (SHORT TERM)			DRAINED CONDITION (LONG TERM)		
	ø (°)	COHESION (PSF)	DENSITY (PCF)	ø (°)	COHESION (PSF)	DENSITY (PCF)
COARSE-GRAINED (SELECT)	34	0	-	34	0	-
FINE-GRAINED (LOCAL)	0	1000	120	28	0	120

THE SLIDING COEFFICIENT VALUES SHALL BE AS FOLLOWS FOR CAST-IN-PLACE OR MSE WALLS:

LOCAL (FINE-GRAINED) MATERIAL: 0.35
SELECT GRANULAR MATERIAL: 0.50

THE SELECT FILL SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN ITEM 4.5 OF SECTION F, CHAPTER 3 OF THE TDOT EARTH RETAINING STRUCTURE MANUAL. IT SHOULD ALSO BE REASONABLY FREE (MAXIMUM OF 0.1%) FROM ORGANIC AND OTHERWISE DELETERIOUS MATERIALS. TO UTILIZE THE ANGLE OF INTERNAL FRICTION (ø) OF THE SELECT BACKFILL, THE BACKFILL MUST EXTEND BEHIND THE WALL FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE BEHIND THE BACK EDGE OF FOOTING OR REINFORCED ZONE. THE UNIT WEIGHT OF THE SELECT BACKFILL IS TO BE DETERMINED BY CONTRACTOR/WALL DESIGNER DEPENDING UPON THE ACTUAL BACKFILL MATERIAL USED.

4. FACTORS OF SAFETY

THE FOLLOWING SAFETY FACTORS SHOULD BE UTILIZED UPON CONDUCTING THE WALL DESIGN.

MODE OF FAILURE	MINIMUM SAFETY FACTORS	
	NON-SEISMIC CONDITION	SEISMIC CONDITION
SLIDING	1.50	1.13
OVERTURNING	2.00	1.50
BEARING CAPACITY	2.50	1.88

5. BEARING CAPACITY RECOMMENDATIONS

THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE AS FOLLOWS:

STATION 524+00 TO STATION 525+00: 2200 PSF

IT IS RECOMMENDED THAT THE GEOTECHNICAL ENGINEER BE PRESENT TO INSPECT THE EXCAVATION OF THE FOOTINGS FOR THE RETAINING STRUCTURES. WHEN THE ALLOWABLE BEARING PRESSURE VALUES ABOVE ARE NOT SUFFICIENT TO SUPPORT THE WALL, THEN SOIL IMPROVEMENT WILL BE NECESSARY. THIS CAN BE ACCOMPLISHED BY MEANS OF EITHER UNDERCUTTING THE SOFT SURFICIAL SOIL AND REPLACING THIS MATERIAL WITH APPROVED SELECT BACKFILL MATERIAL OR BY SOIL REINFORCEMENT AS EXPLAINED BELOW. PLEASE NOTE THAT OTHER METHODS OF IMPROVEMENT MAY ALSO BE APPLICABLE. THE PROPOSED IMPROVEMENT SCHEME SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER.

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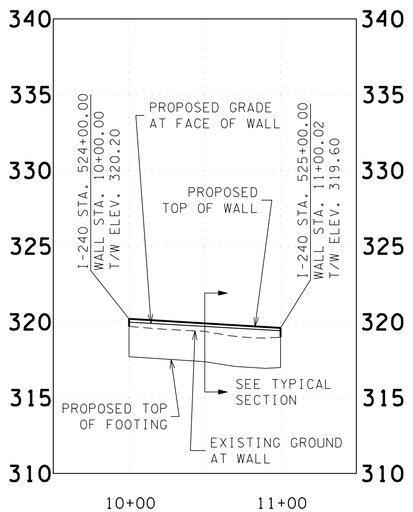
STATION	ALLOWABLE BEARING CAPACITY (PSF) AT SPECIFIC DEPTH OF REPLACEMENT (FT)	
	6 FT.	8 FT.
524+00 TO 525+00	2900	3100

TO UTILIZE THE ABOVE VALUES, THE GEOTECHNICAL ENGINEER SHOULD VERIFY THE SOIL CONDITIONS AT THE SITE, AS DEVIATIONS MAY EXIST BETWEEN THE BORINGS. THE SOIL REPLACEMENT SHOULD EXTEND TO A MINIMUM OF 5 FEET BEYOND THE OVERALL PROPOSED FOOTING AREA AT GROUND SURFACE THEN SLOPE AT 2V: 1H WITH DEPTH. IF THE FOUNDATION EXCAVATION EXPOSES THE UNDERLYING GRANULAR MATERIALS, SOIL IMPROVEMENT MAY NOT BE NECESSARY.

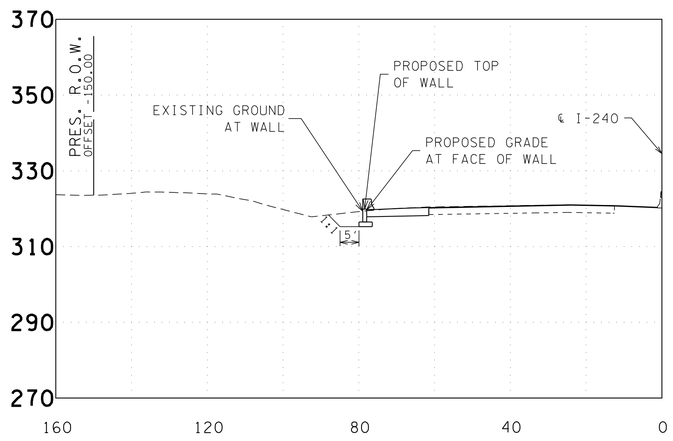
B. SOIL REINFORCEMENT

SOIL IMPROVEMENTS BY OTHER MEANS (SUCH AS STONE COLUMNS OR AGGREGATE PIERS) CAN ALSO BE CONSIDERED AND MAY BE SUITABLE FOR THE INTENDED PURPOSE. SUCH SYSTEMS ARE PROPRIETARY ONES AND ARE TYPICALLY PROVIDED USING A DESIGN/BUILD APPROACH. THE SPACING, DIAMETER AND DEPTH OF STONE COLUMNS OR RAMMED AGGREGATE PIERS WILL DEPEND ON THE DESIRED BEARING CAPACITY. SPACING IS USUALLY 5 TO 10 FEET ON CENTER. THE DEPTH OF INSTALLATION MAY BE IN THE RANGE OF 10 TO 20 FEET, DEPENDING ON THE SPACING. IN THE INSTALLATION ZONE, A COHESION VALUE OF 1000 PSF AND A TOTAL UNIT WEIGHT VALUE OF 120 PCF CAN BE USED TO DESIGN THE SOIL IMPROVEMENT SCHEME.



PROFILE VIEW - RETAINING WALL #15

SCALE: 1"=50'H, 5'V



TYPICAL SECTION (STA. 524+50)

SCALE: 1"=20'H, 20'V

NOTES
1. "BACK OF WALL" PERTAINS TO THE R.O.W. SIDE OF THE WALL.
2. "FACE OF WALL" PERTAINS TO THE ROADWAY SIDE OF THE WALL.

JOHN T. PANKEY — REGISTERED ENGINEER — AGRICULTURE — 102351 — STATE OF TENNESSEE — 8-23-10

NOTE: THIS SHEET IS BEING PROVIDED BY THE DESIGN CONSULTANT FOR THE PURPOSE OF OBTAINING GEOTECHNICAL INFORMATION FOR THIS PROPOSED RETAINING WALL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RETAINING WALL CONCEPTUAL DRAWING WALL NO. 15 SOUTHBOUND I-240

FROM STA. 524+00 TO STA. 525+00

SCALE: 1"= 50'

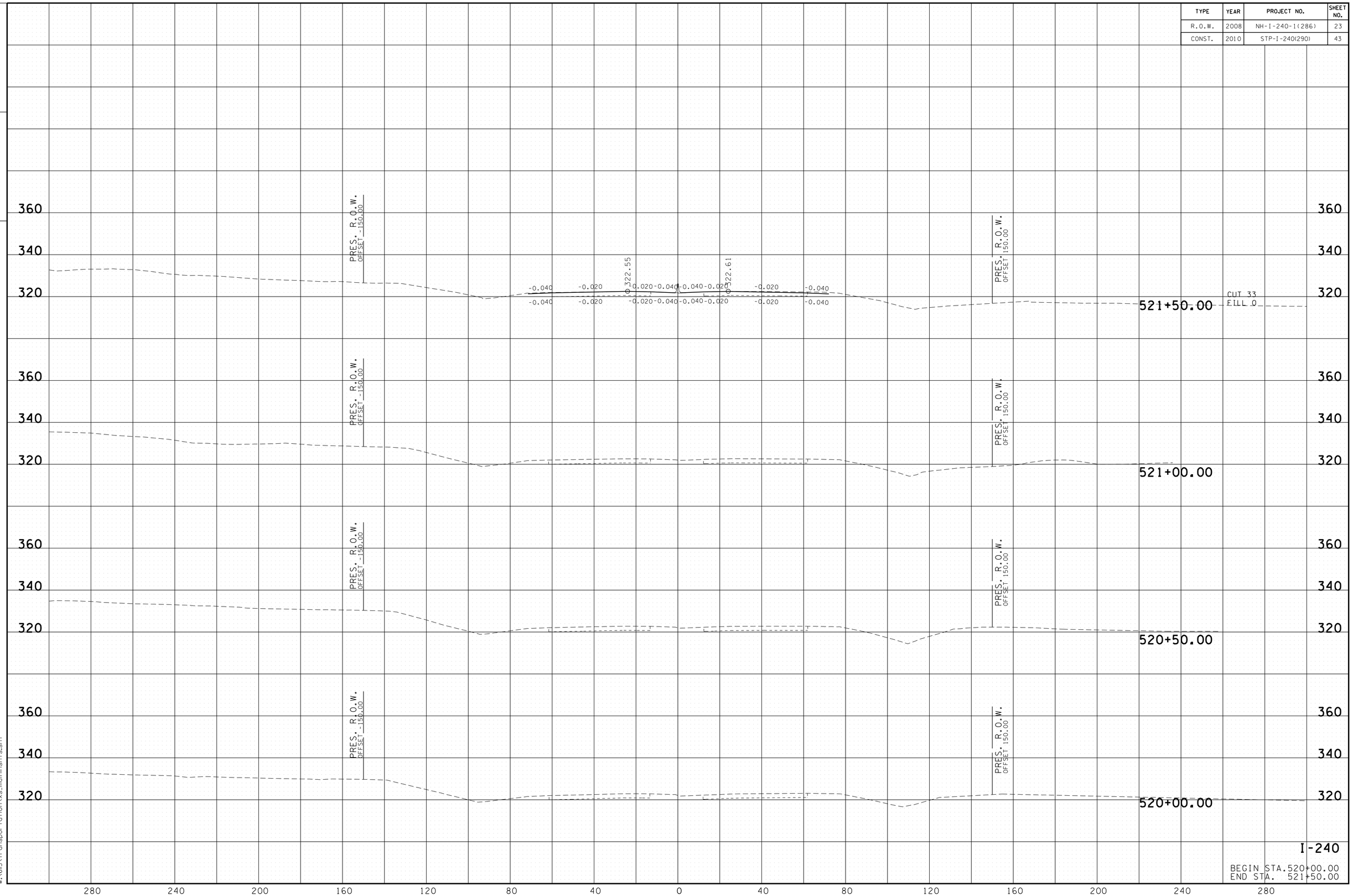
8/20/2010
w:\615\transportation\ret_wall5.sht

Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	23
CONST.	2010	STP-I-240(290)	43



8/24/2010
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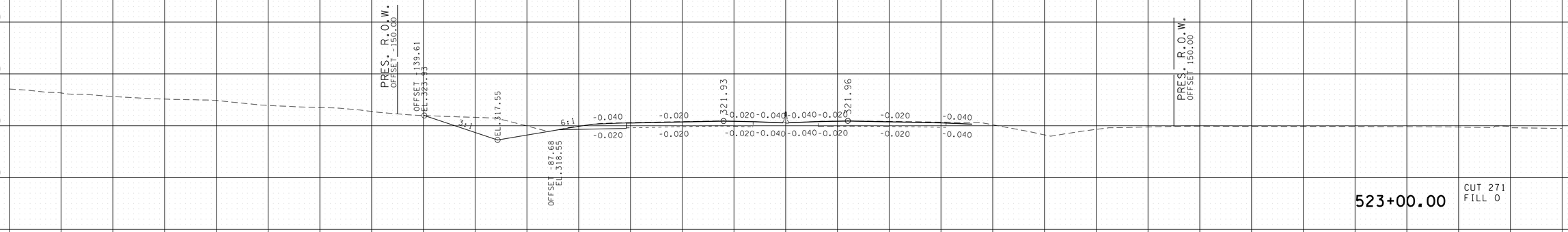
TENNESSEE D.O.T.
DESIGN DIVISION

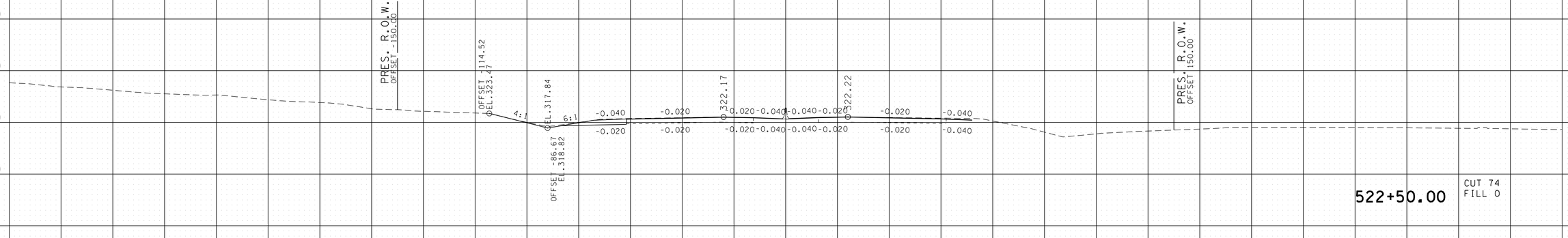
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	24
CONST.	2010	STP-I-240(290)	44



523+00.00

CUT 271
FILL 0



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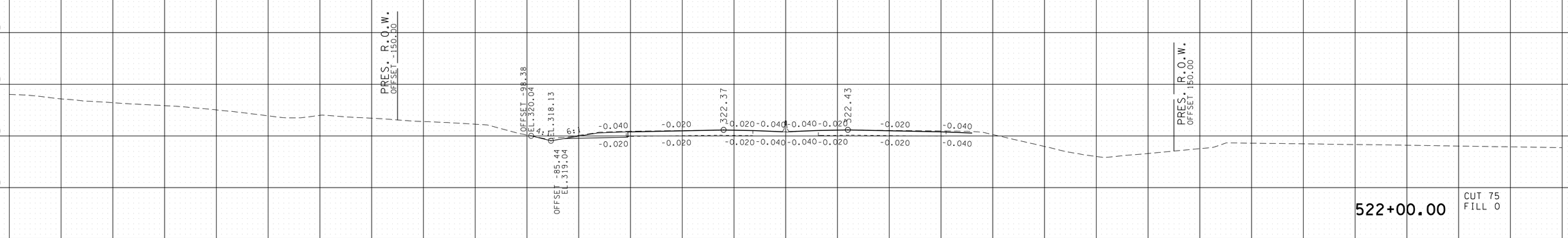
CUT 74
FILL 0



522+00.00

CUT 75
FILL 0

I-240

BEGIN STA. 522+00.00
END STA. 523+00.00

280 240 200 160 120 80 40 0 40 80 120 160 200 240 280

8/24/2010
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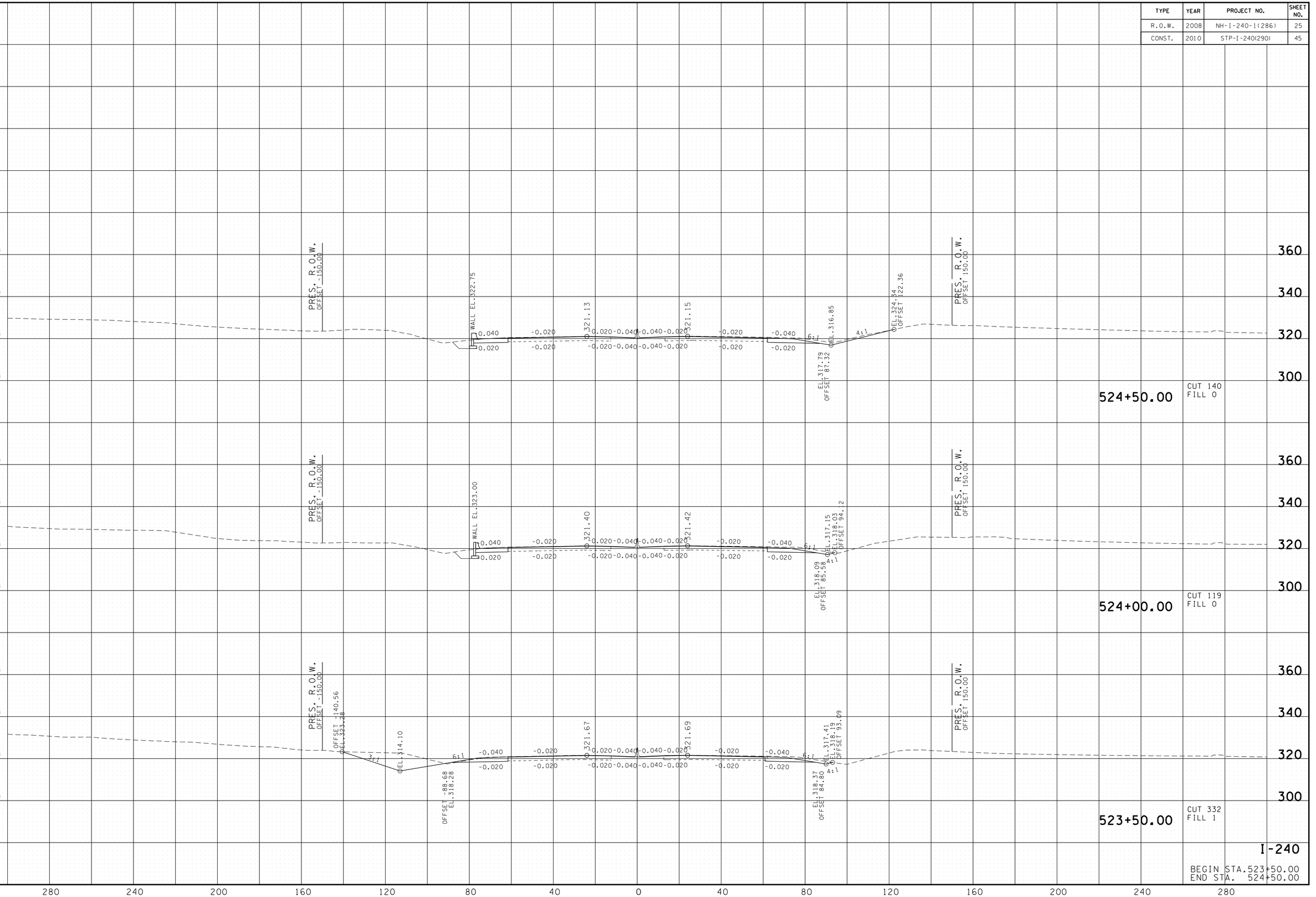
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	25
CONST.	2010	STP-I-240(290)	45



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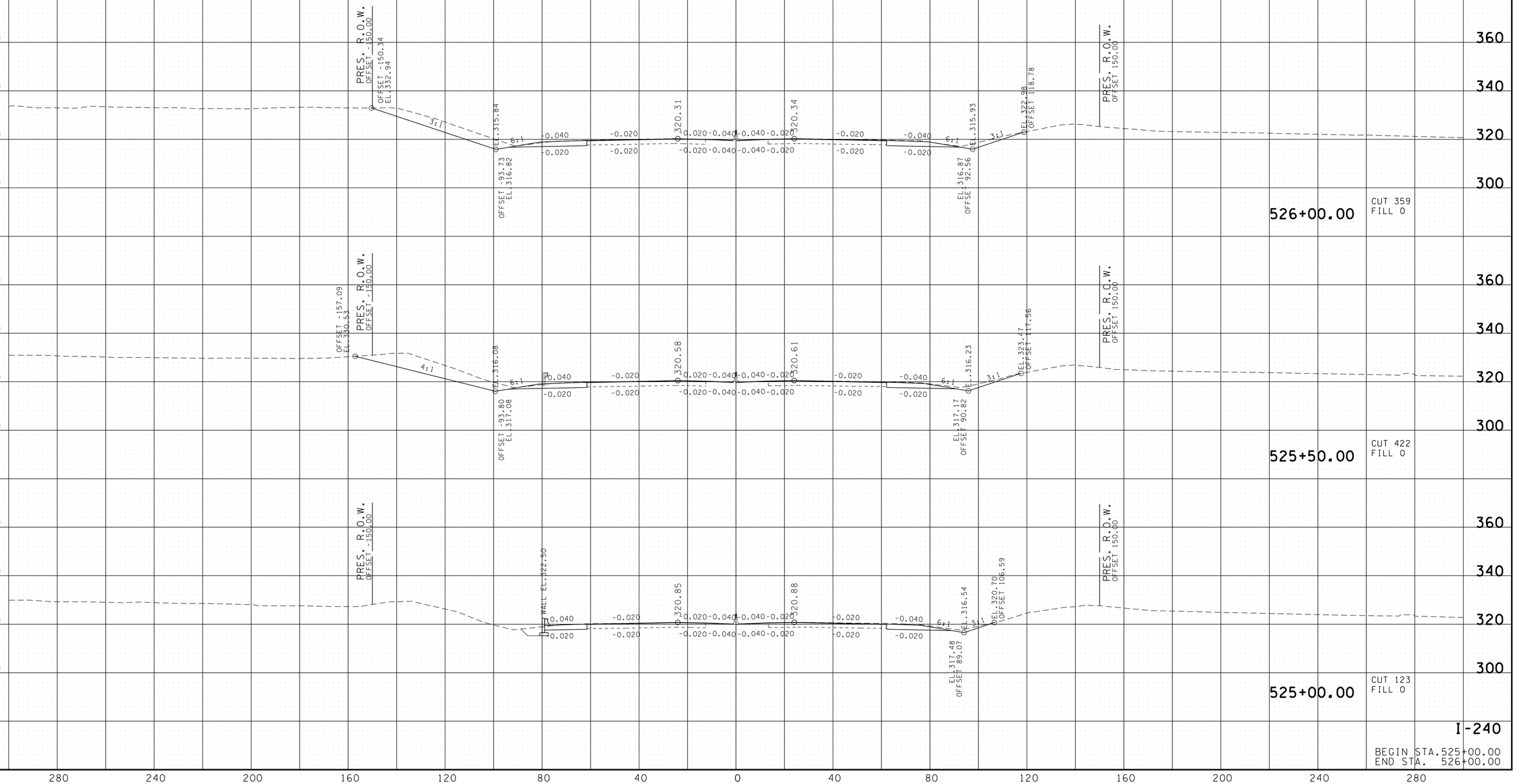
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	26
CONST.	2010	STP-I-240(290)	46



I-240

BEGIN STA.525+00.00
END STA. 526+00.00

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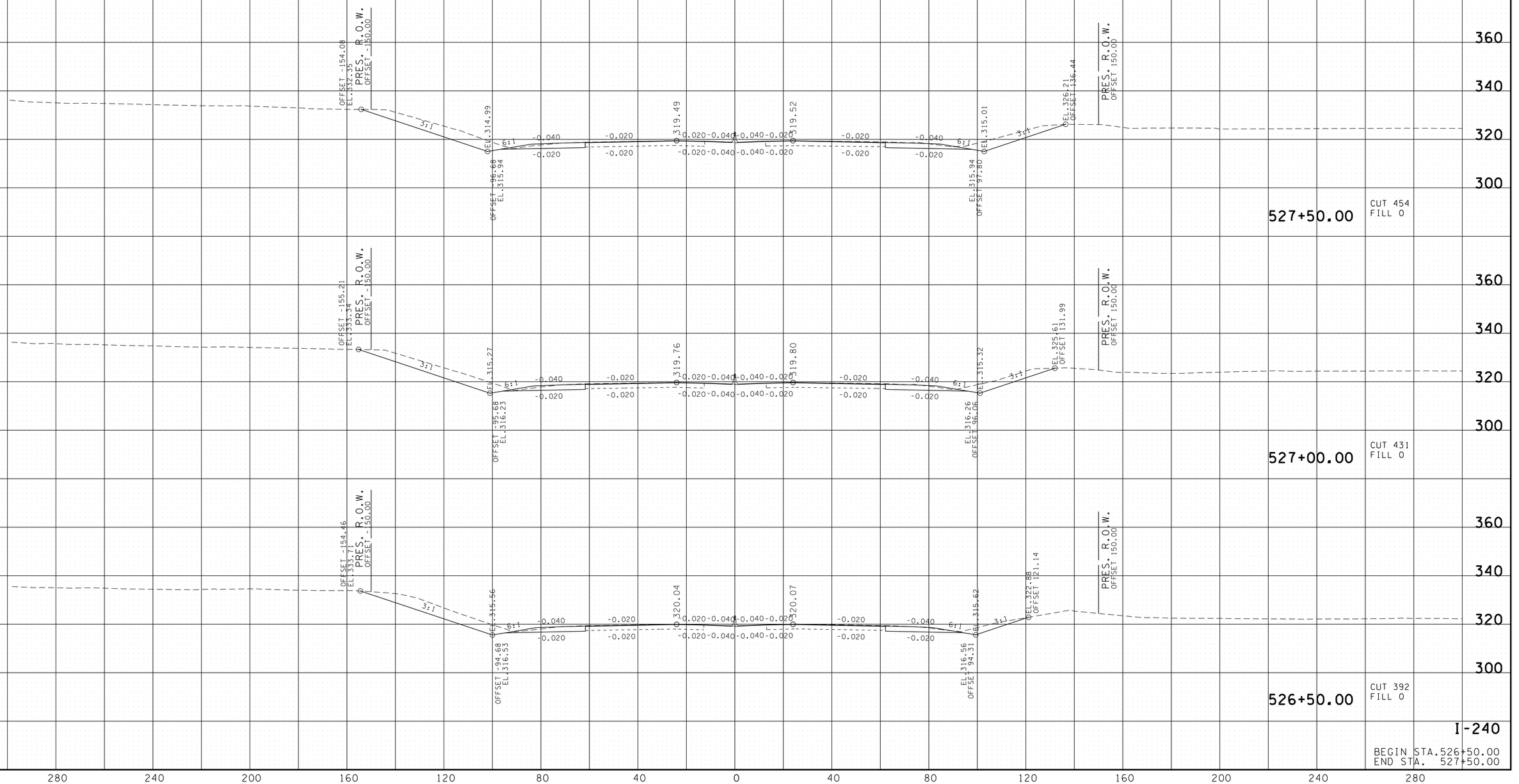
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	27
CONST.	2010	STP-I-240(290)	47



I-240

BEGIN STA.526+50.00
END STA. 527+50.00

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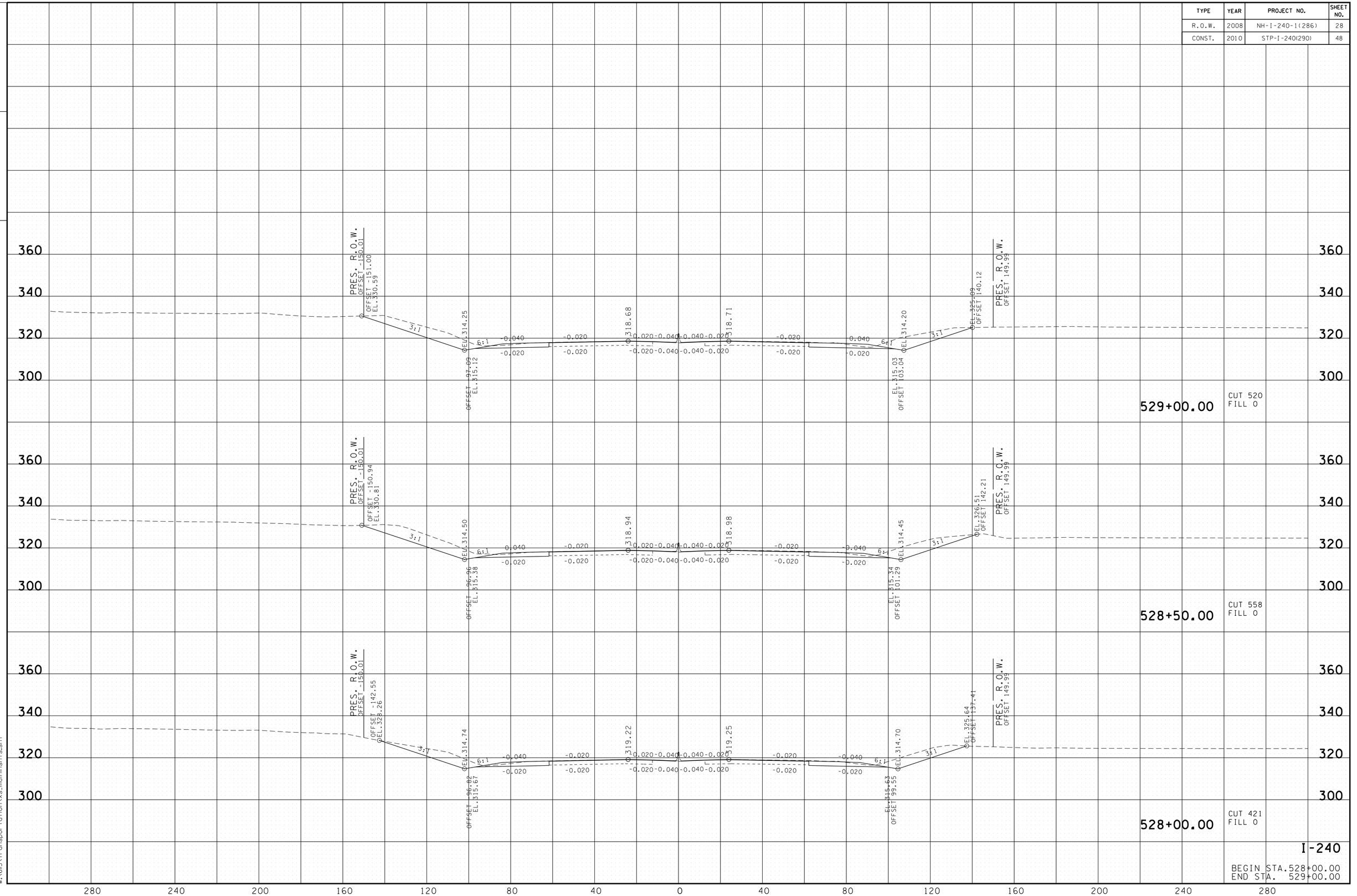
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	28
CONST.	2010	STP-I-240(290)	48



I-240

BEGIN STA.528+00.00
END STA. 529+00.00

8/24/2010
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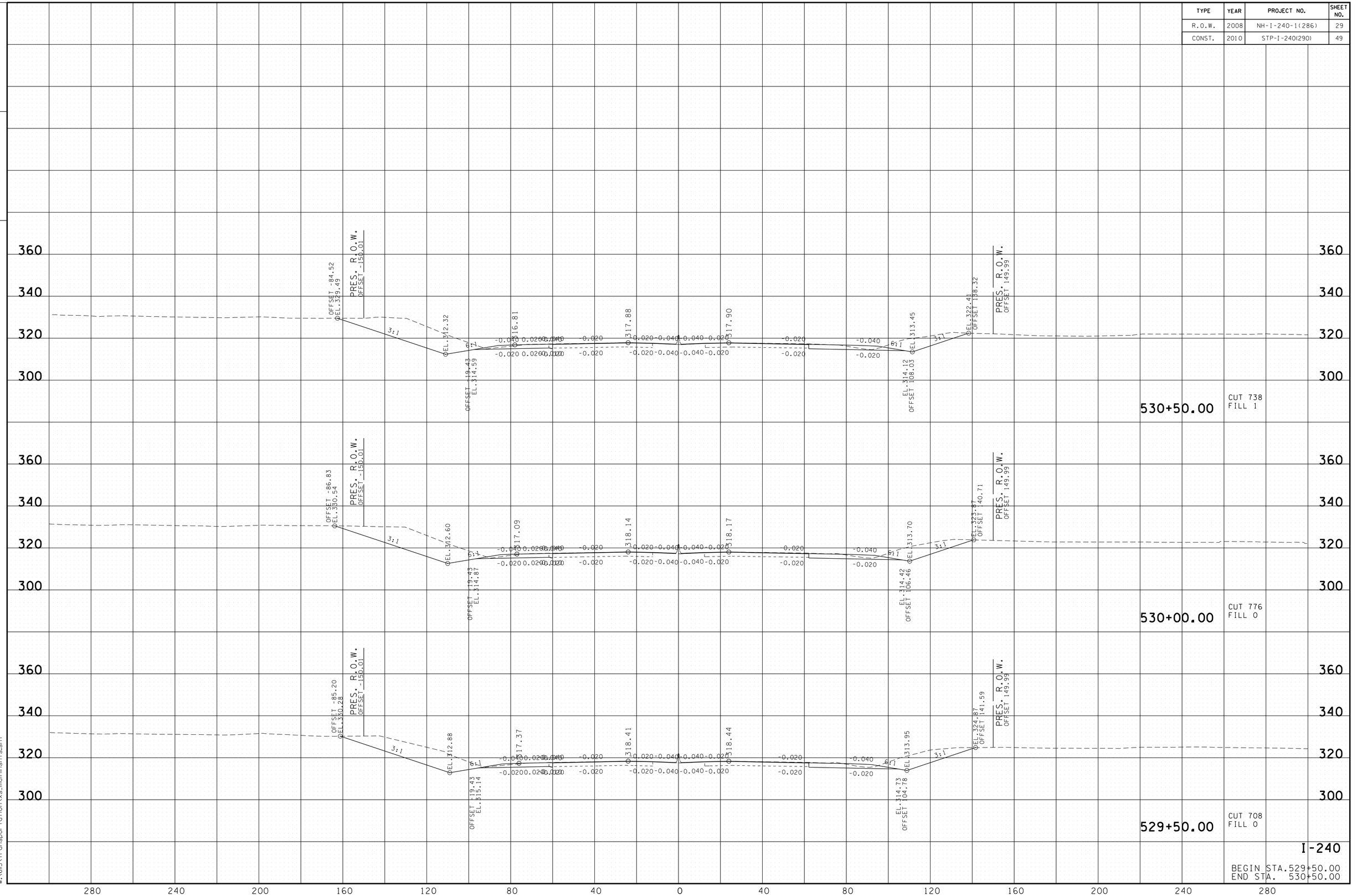
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	29
CONST.	2010	STP-I-240(290)	49



8/24/2010
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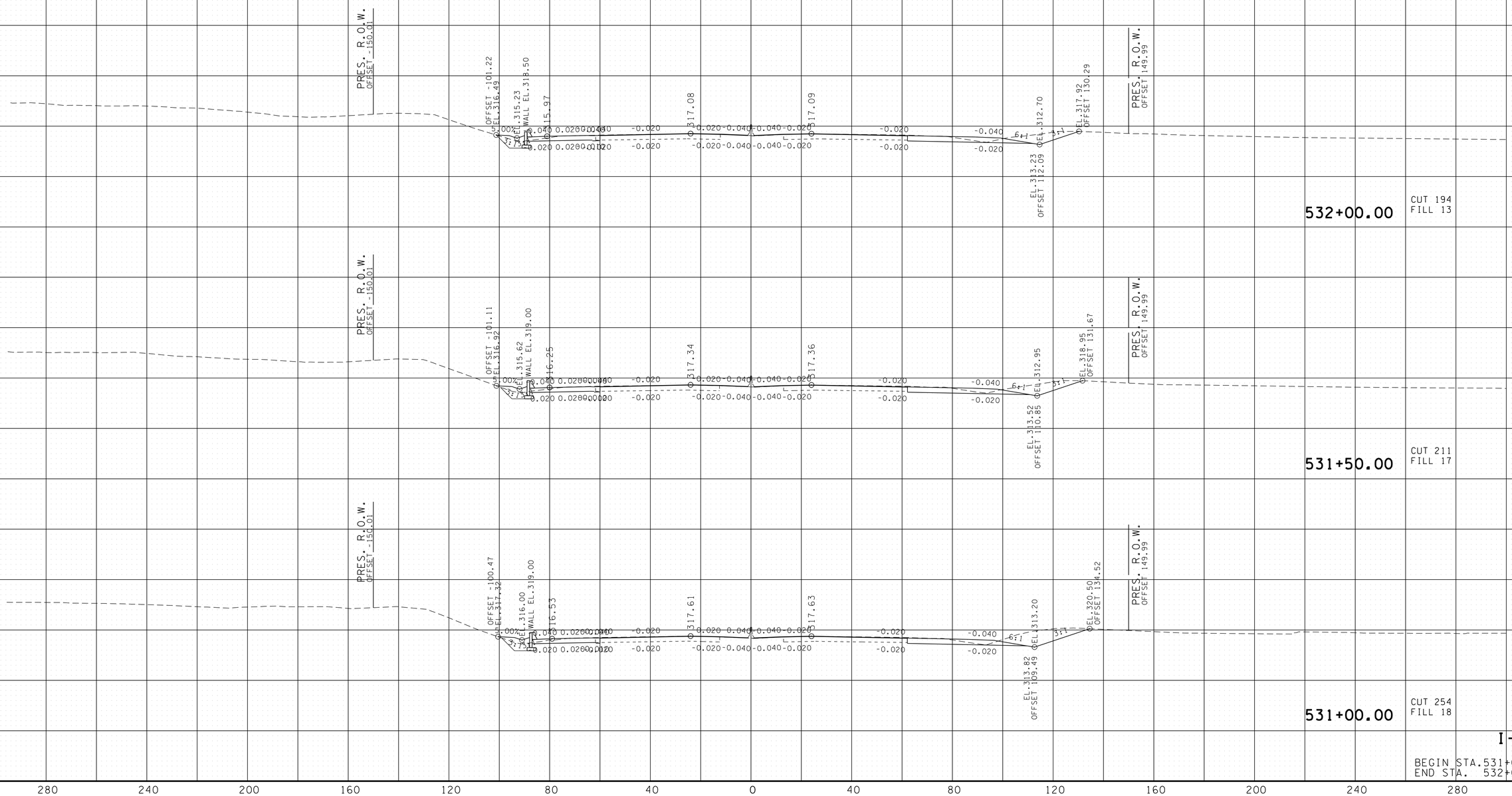
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	30
CONST.	2010	STP-I-240(290)	50



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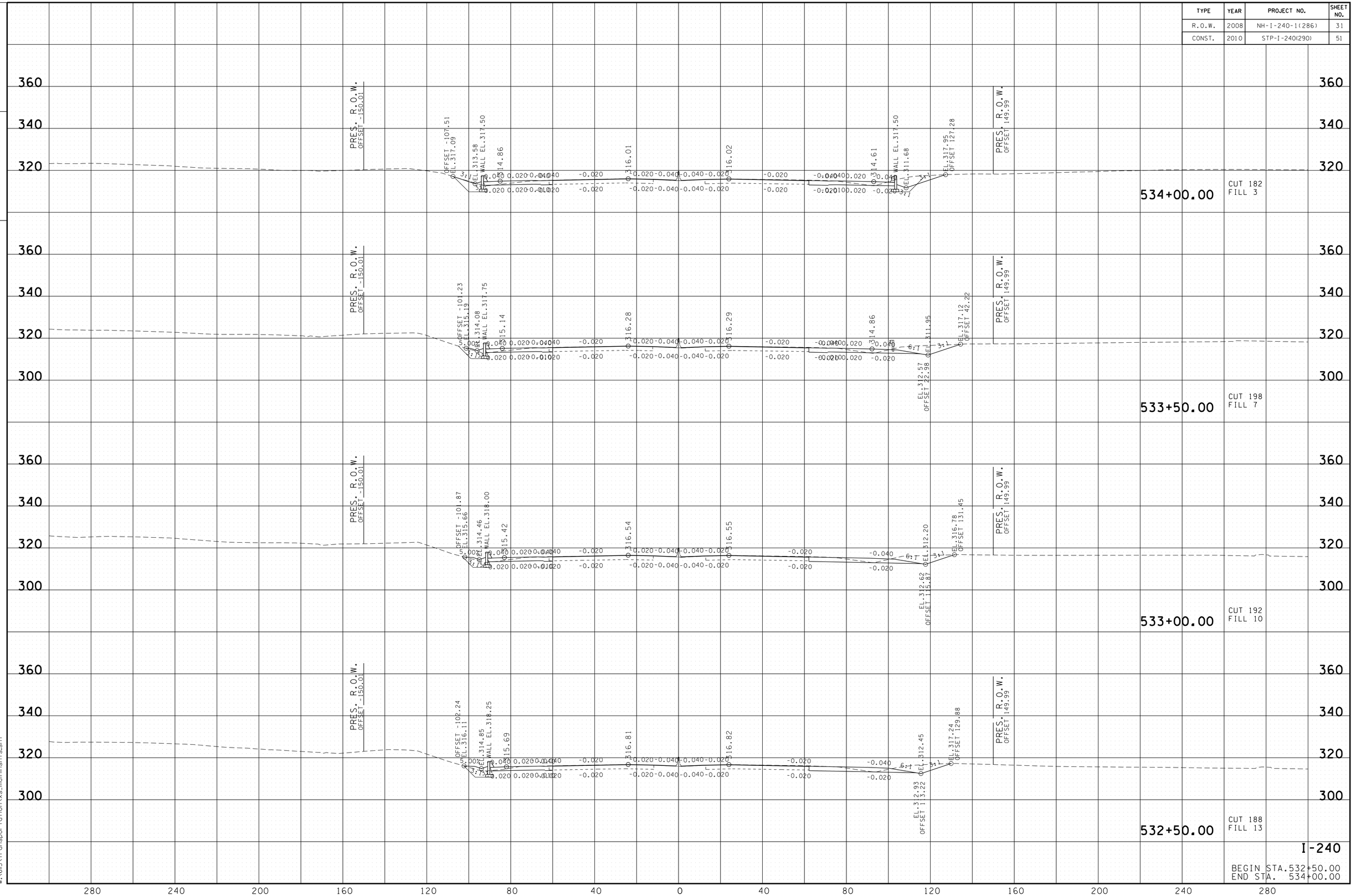
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	31
CONST.	2010	STP-I-240(290)	51



I-240

BEGIN STA.532+50.00
END STA. 534+00.00

8/24/2010
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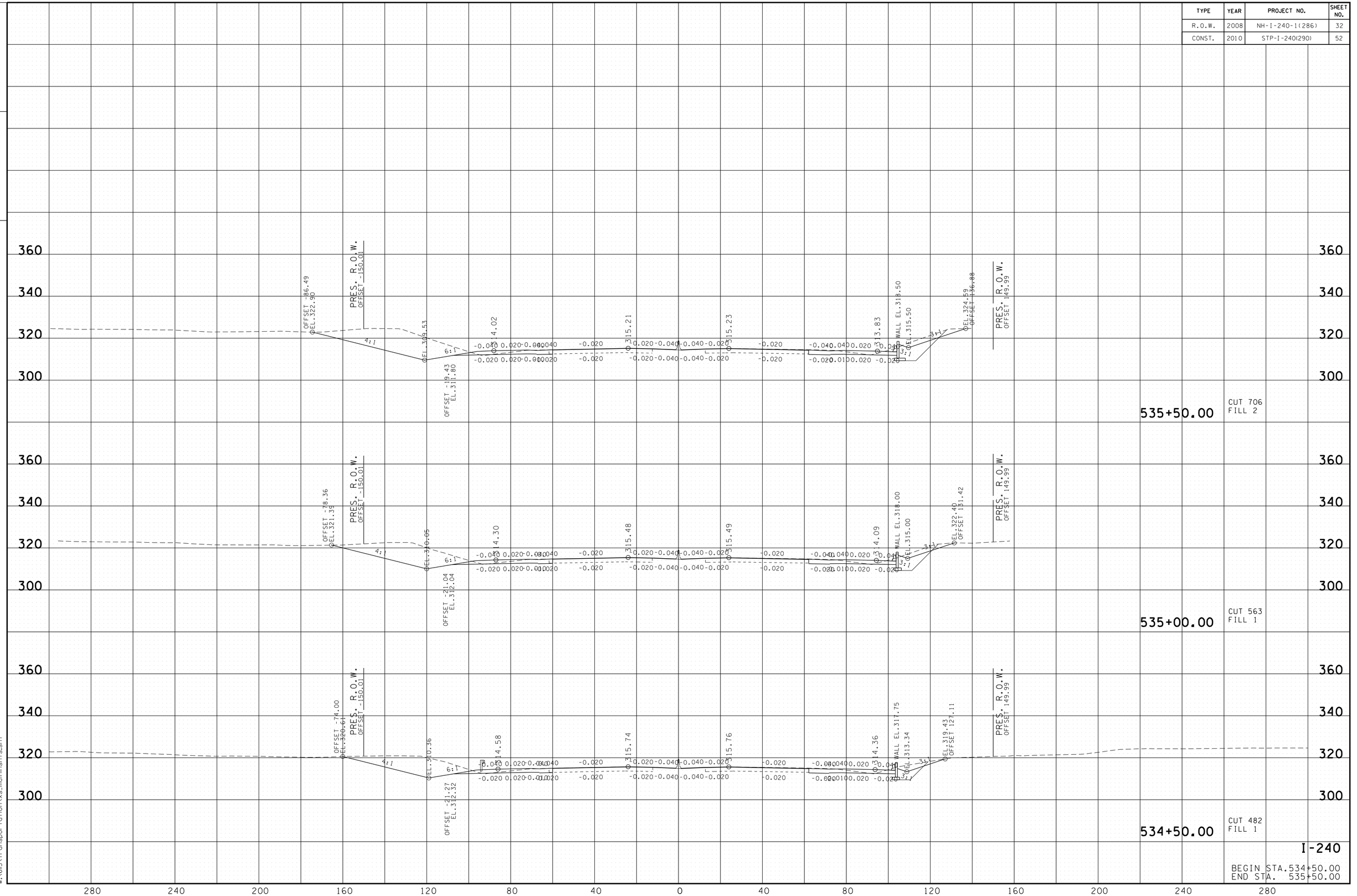
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	32
CONST.	2010	STP-I-240(290)	52

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



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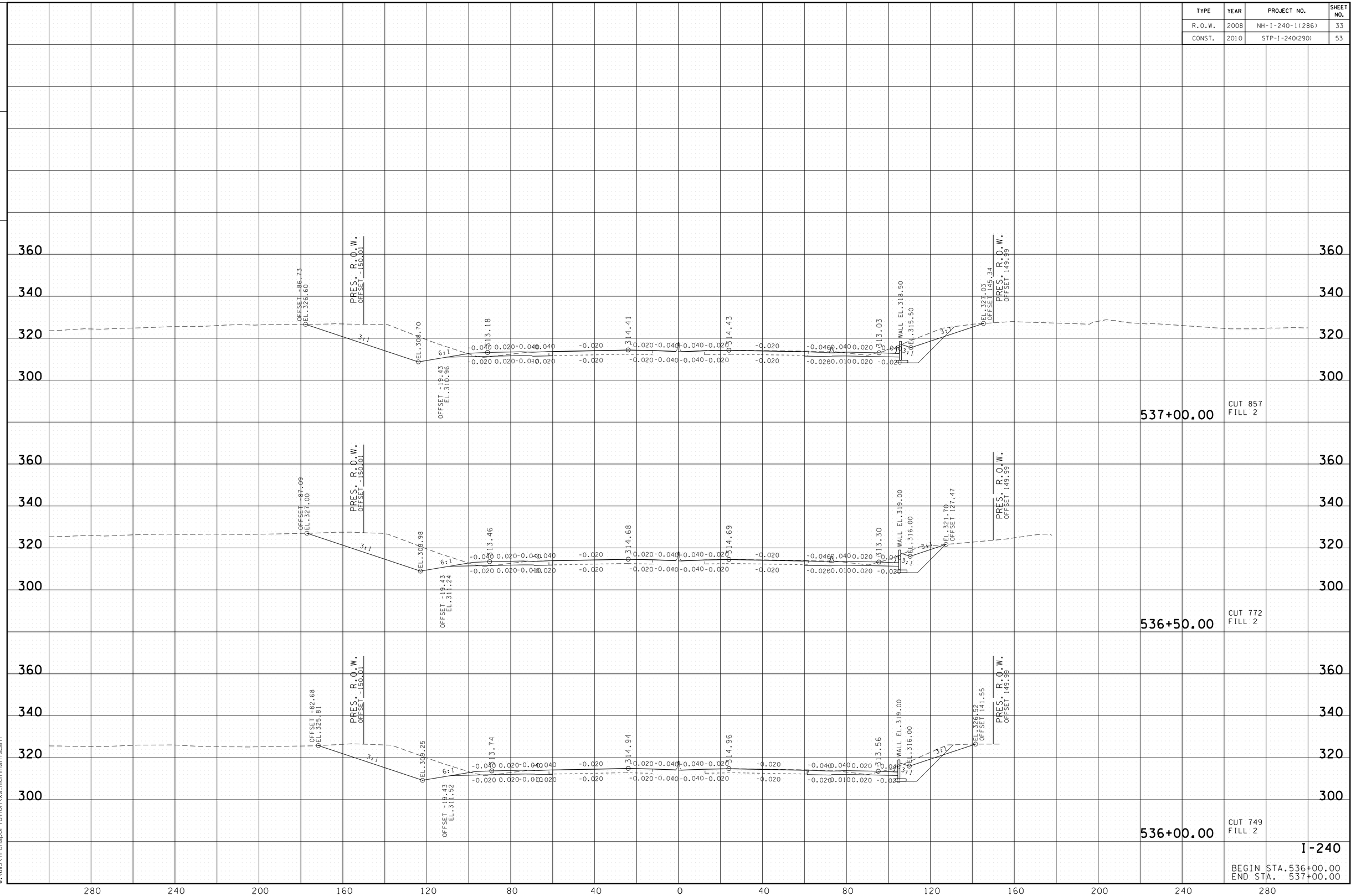
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	33
CONST.	2010	STP-I-240(290)	53



I-240

BEGIN STA.536+00.00
END STA. 537+00.00

8/24/2010
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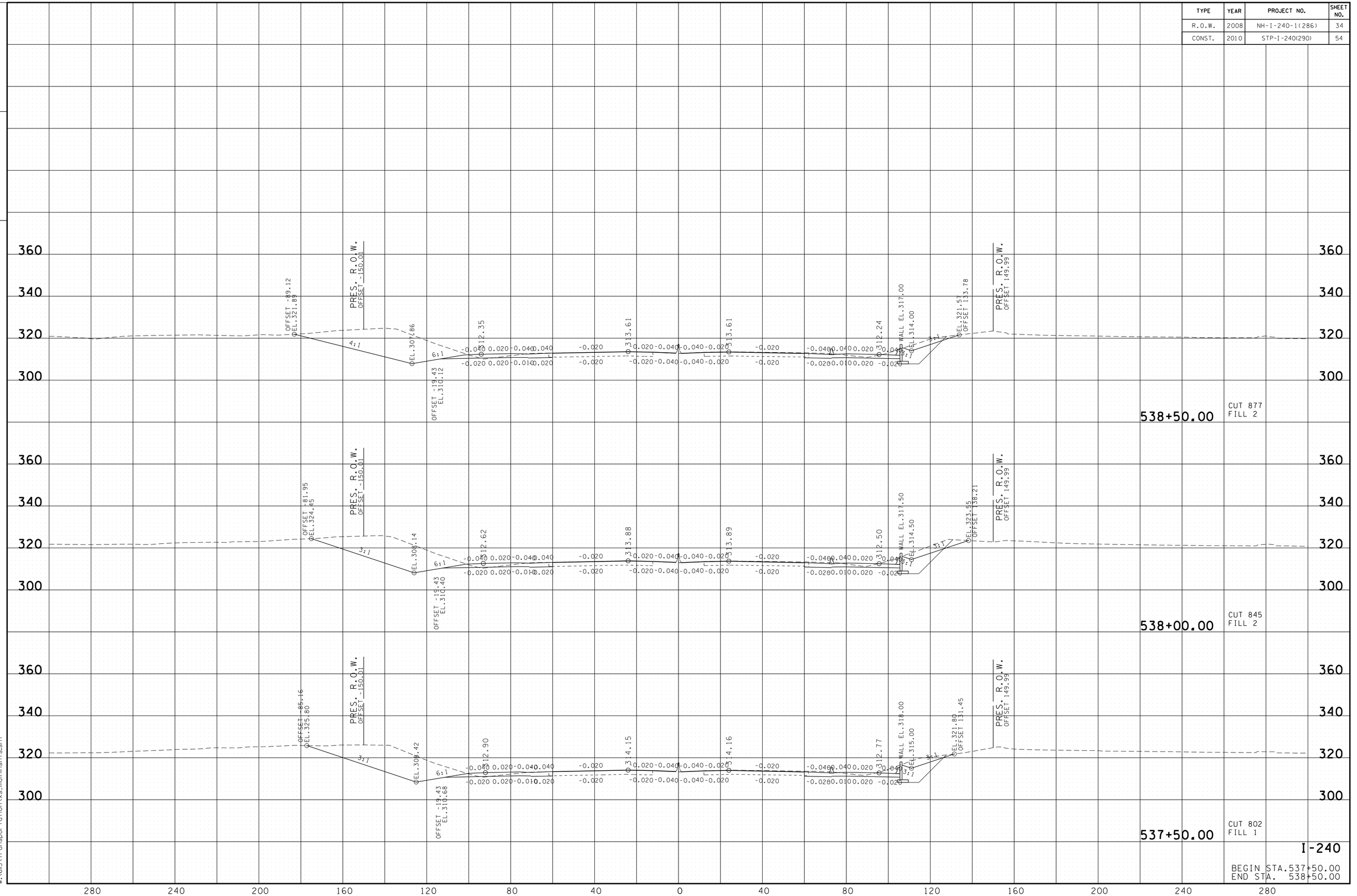
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	34
CONST.	2010	STP-I-240(290)	54



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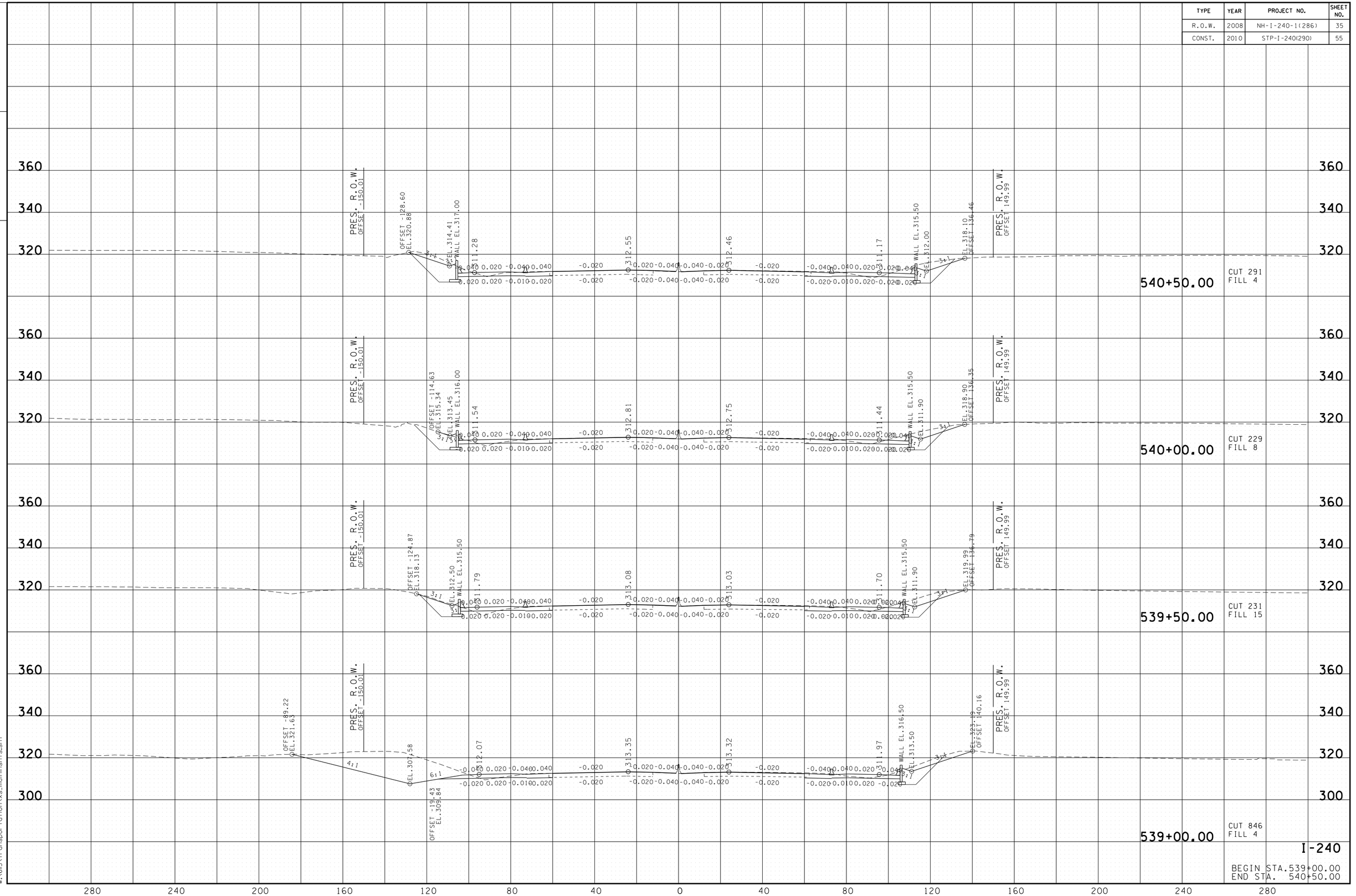
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	35
CONST.	2010	STP-I-240(290)	55



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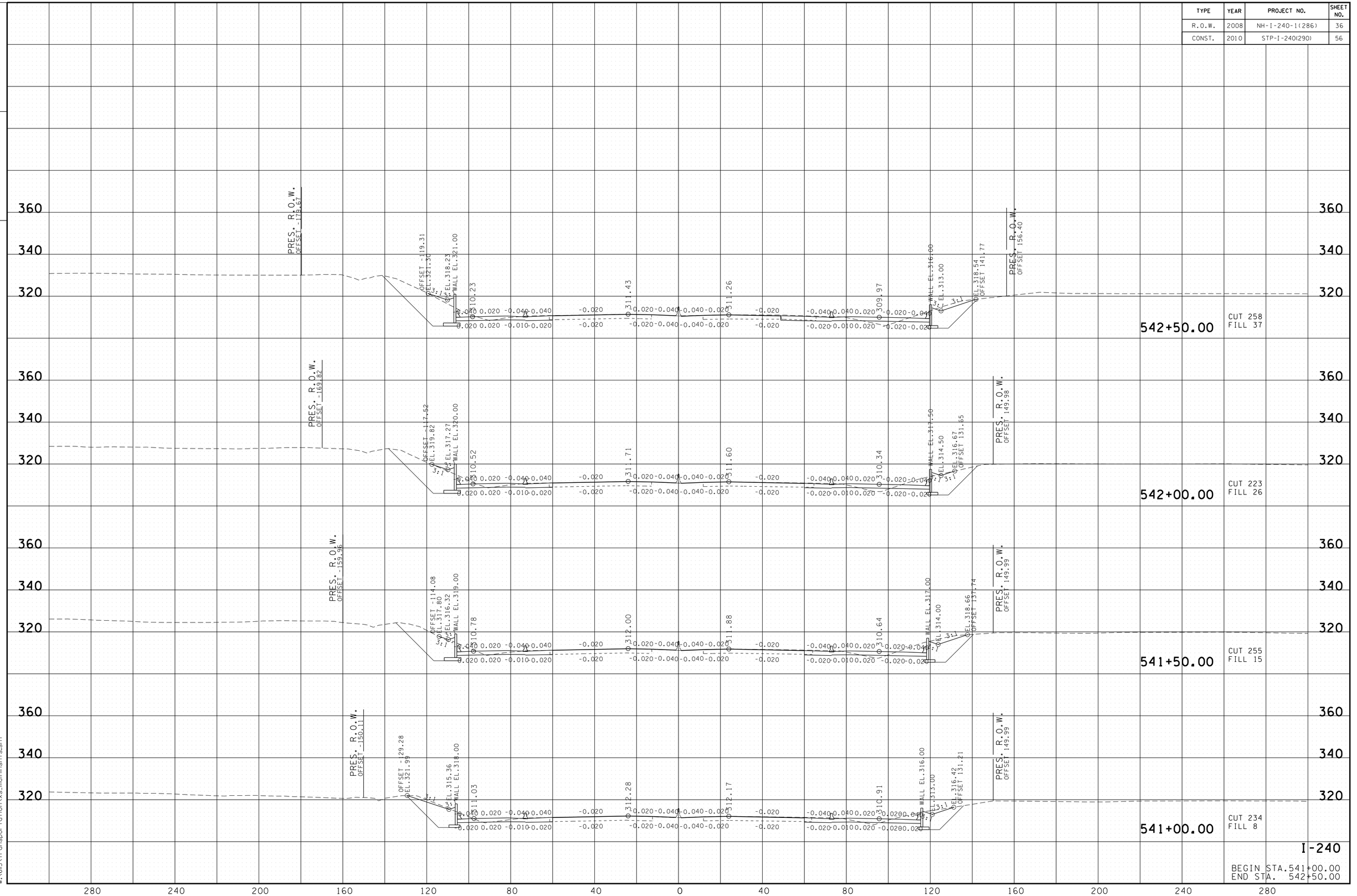
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	36
CONST.	2010	STP-I-240(290)	56



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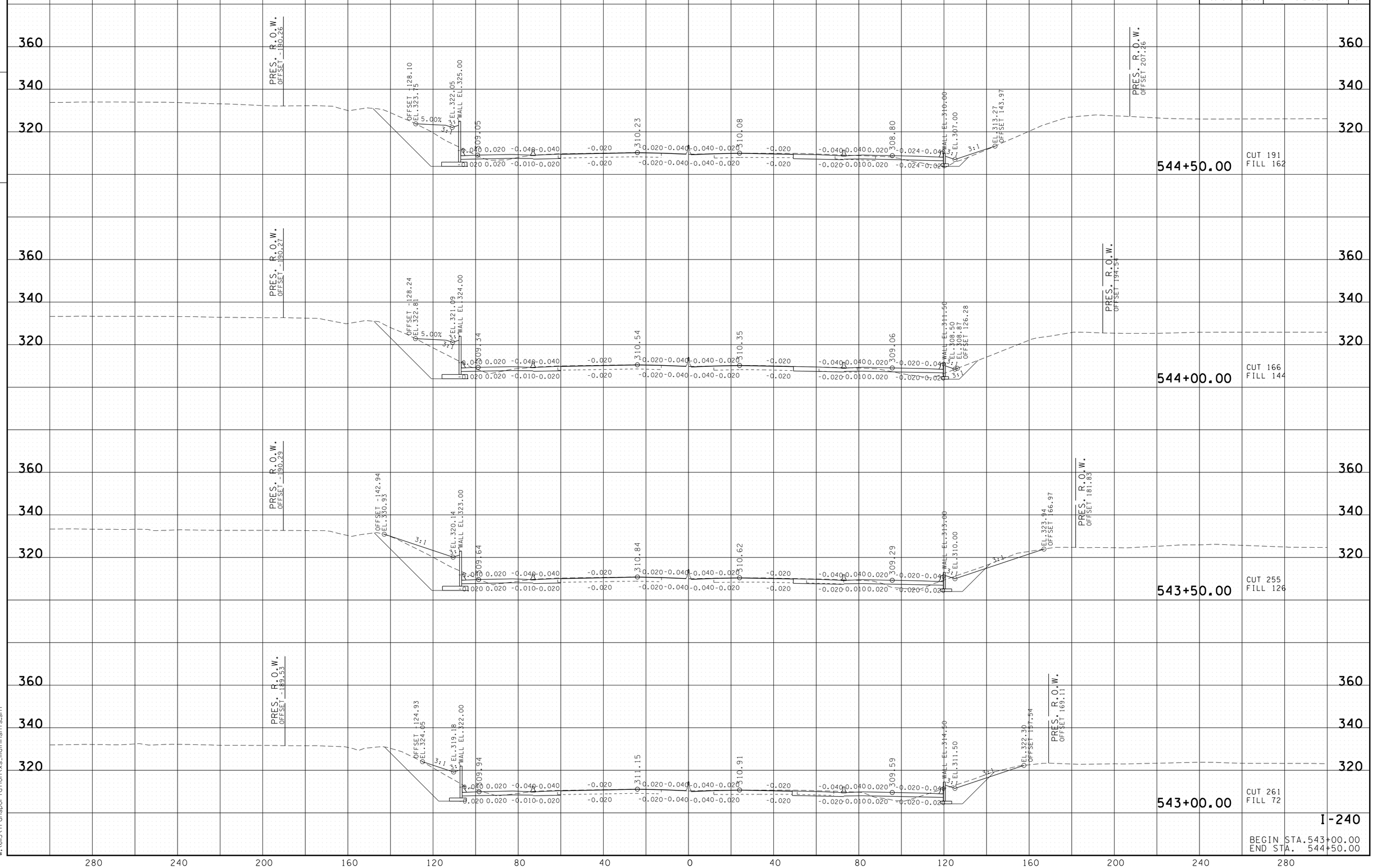
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	37
CONST.	2010	STP-I-240(290)	57



I-240

BEGIN STA.543+00.00
END STA. 544+50.00

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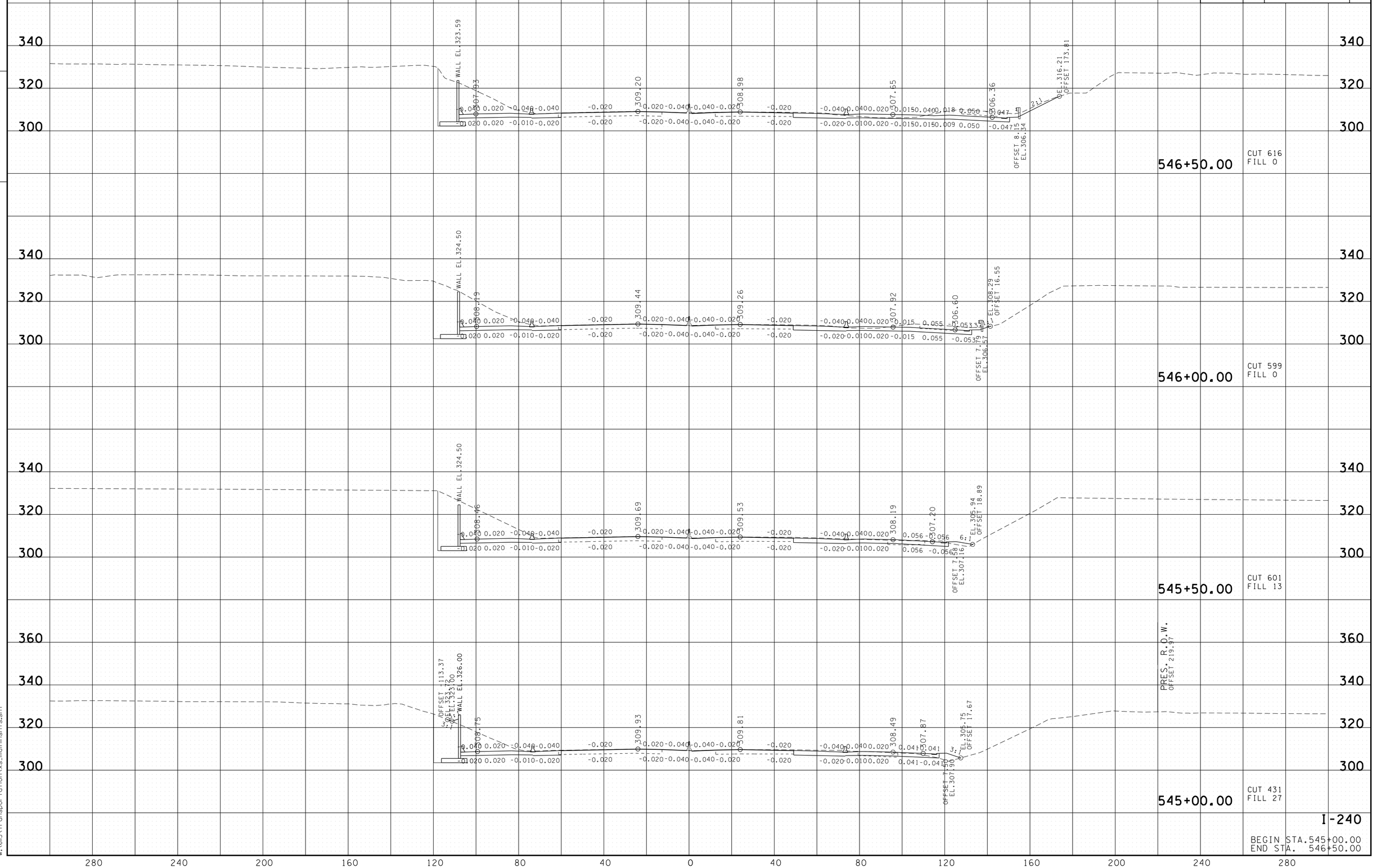
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	38
CONST.	2010	STP-I-240(290)	58



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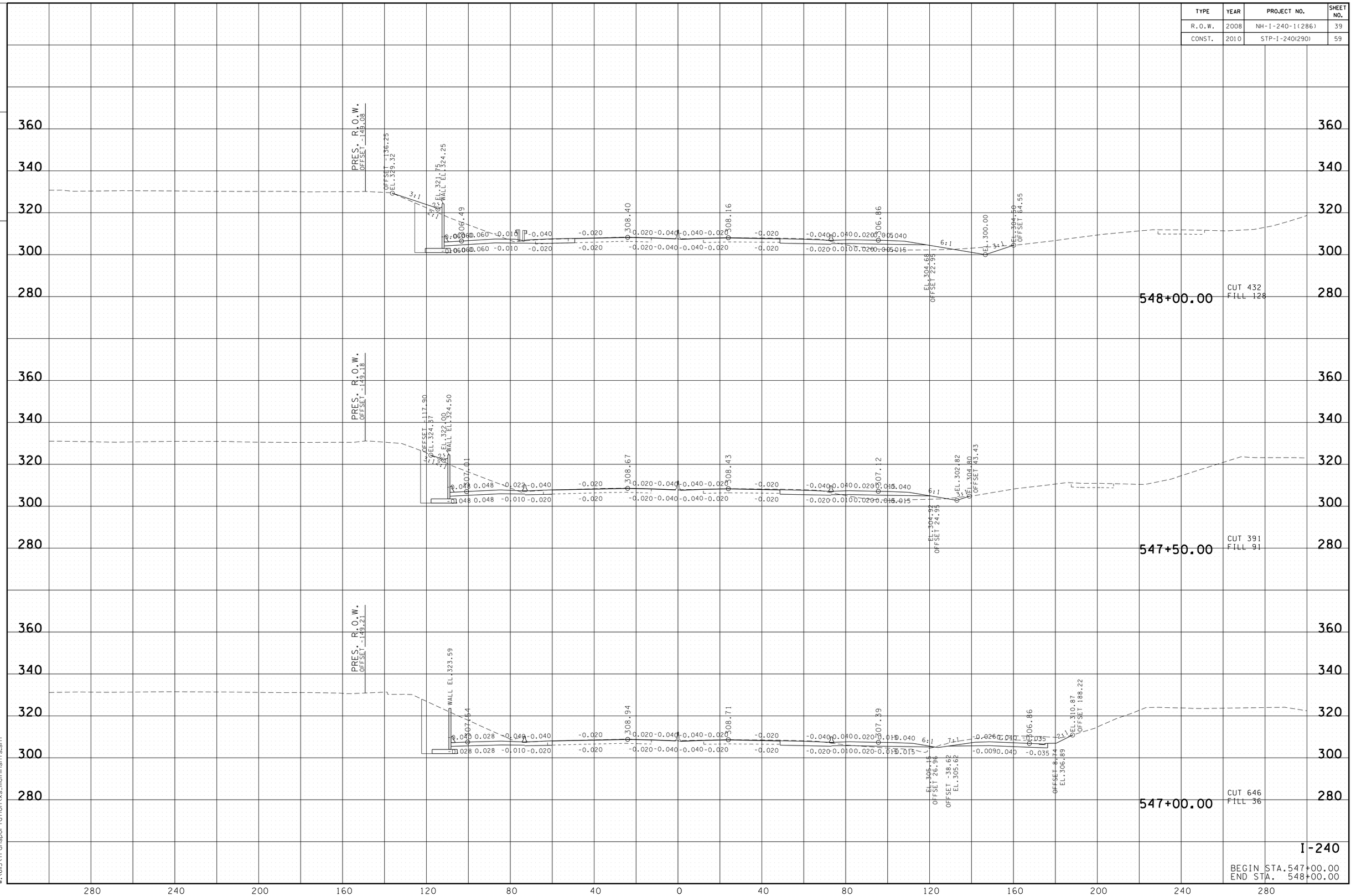
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	39
CONST.	2010	STP-I-240(290)	59



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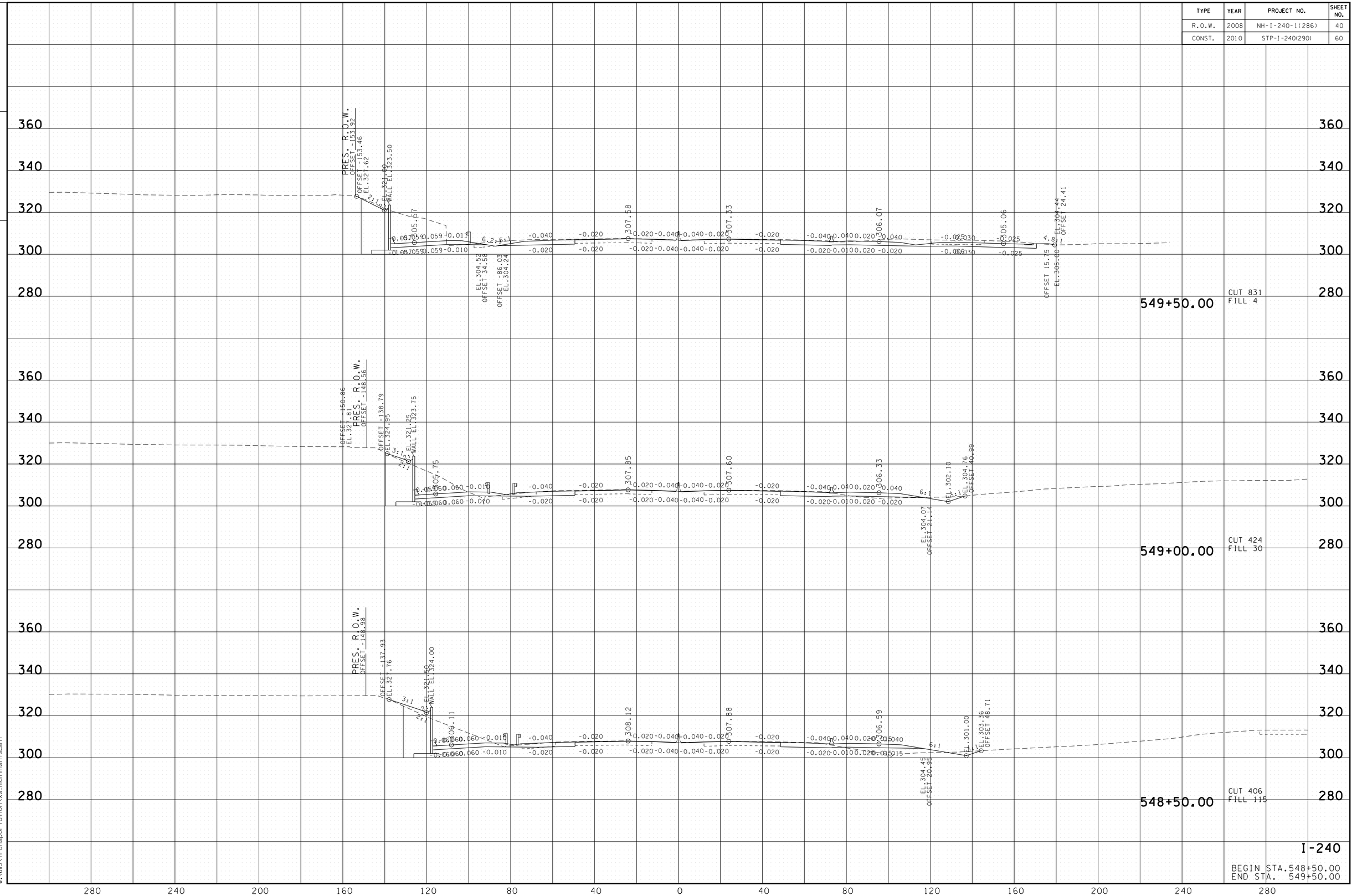
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	40
CONST.	2010	STP-I-240(290)	60



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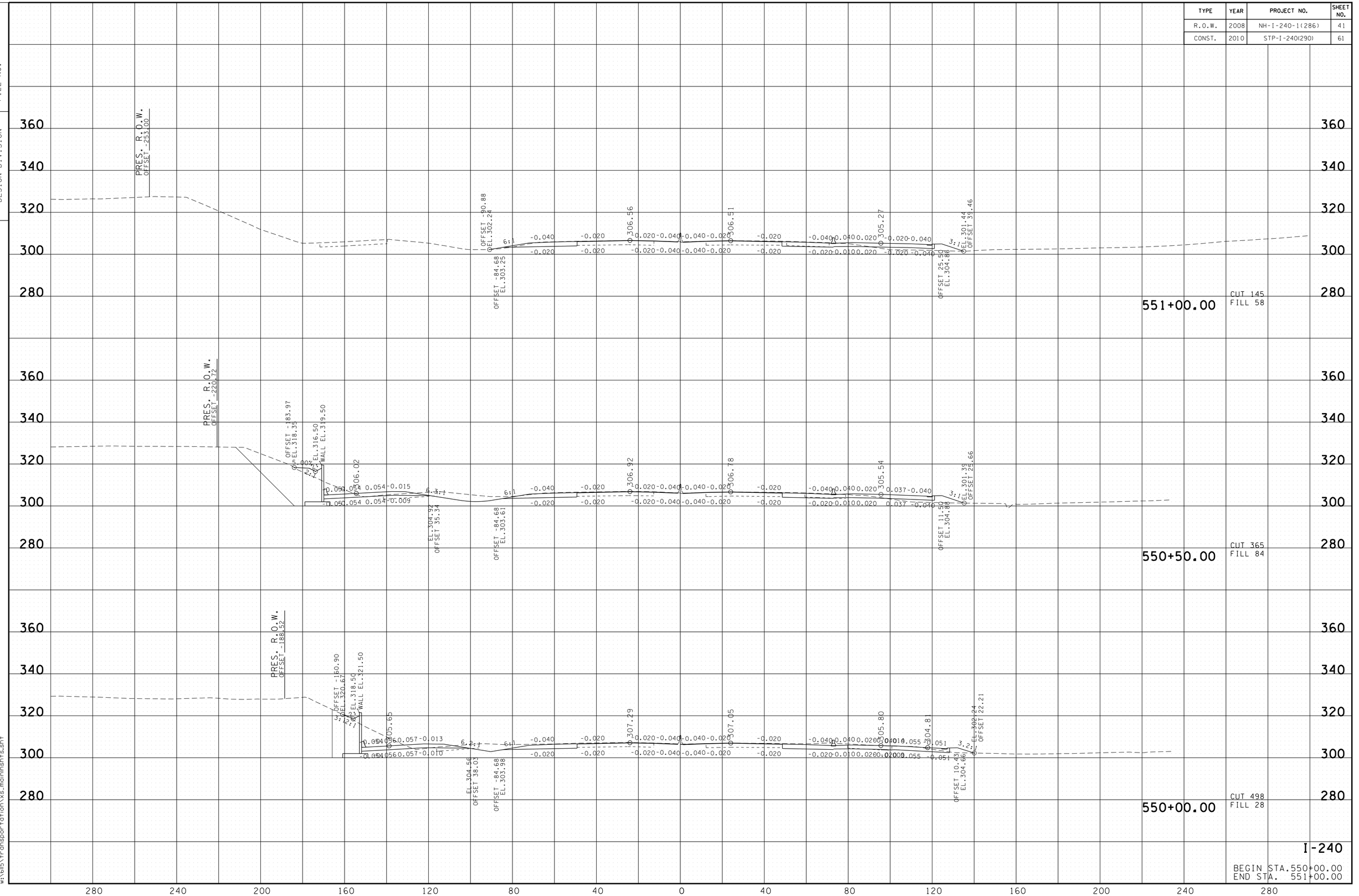
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	41
CONST.	2010	STP-I-240(290)	61



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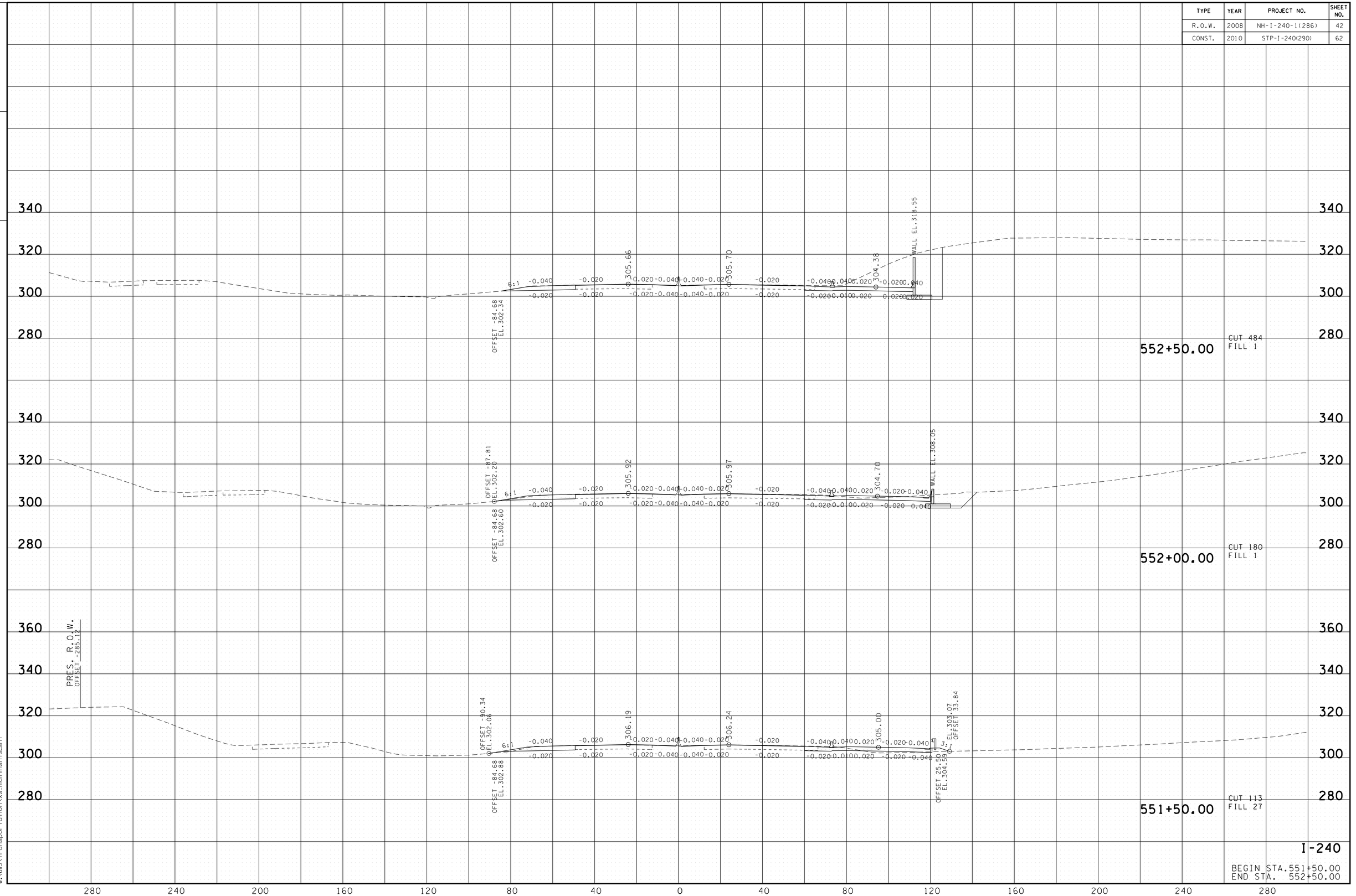
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	42
CONST.	2010	STP-I-240(290)	62



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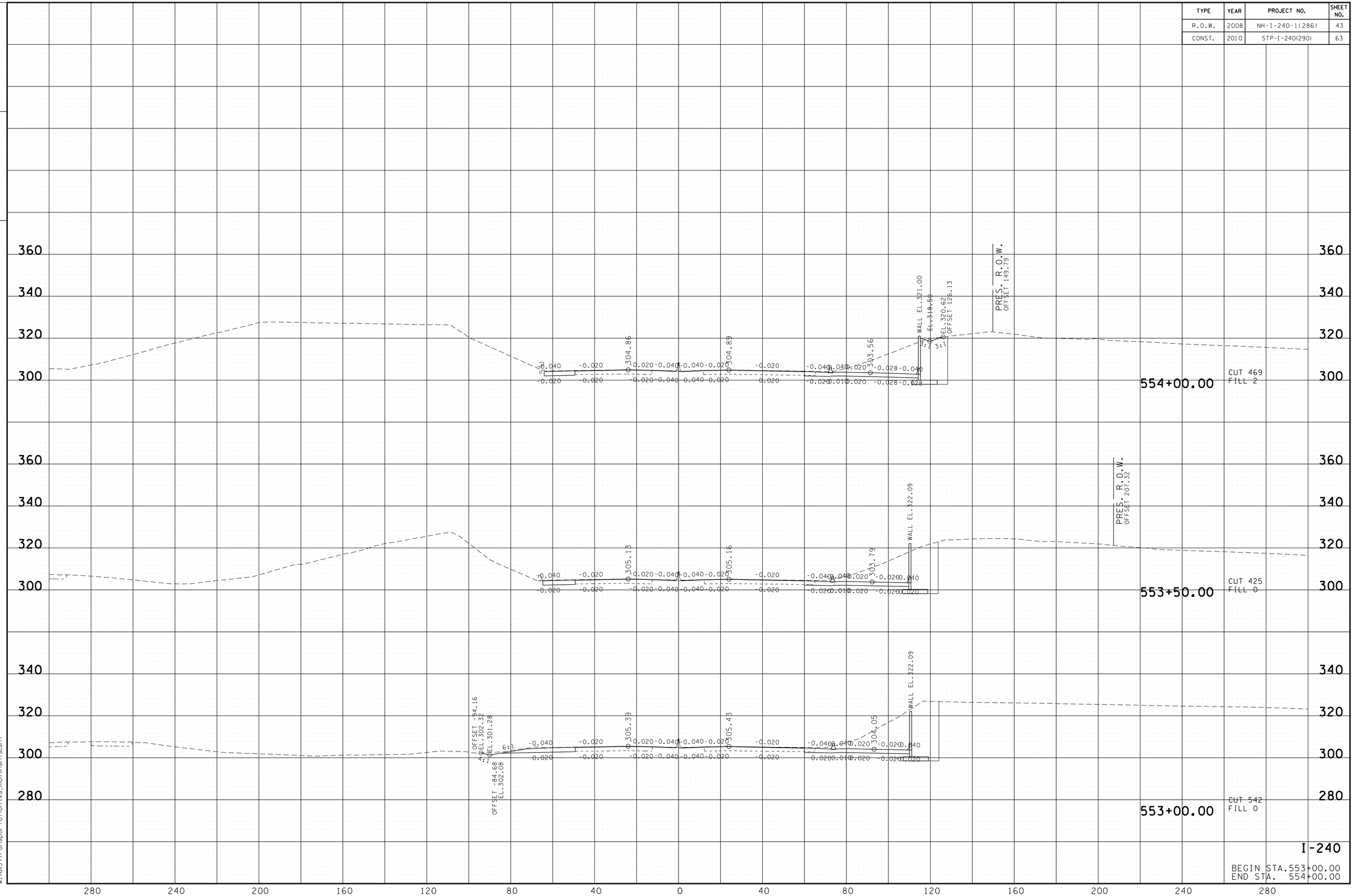
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	43
CONST.	2010	STP-I-240(290)	63



I-240

BEGIN STA. 553+00.00
END STA. 554+00.00

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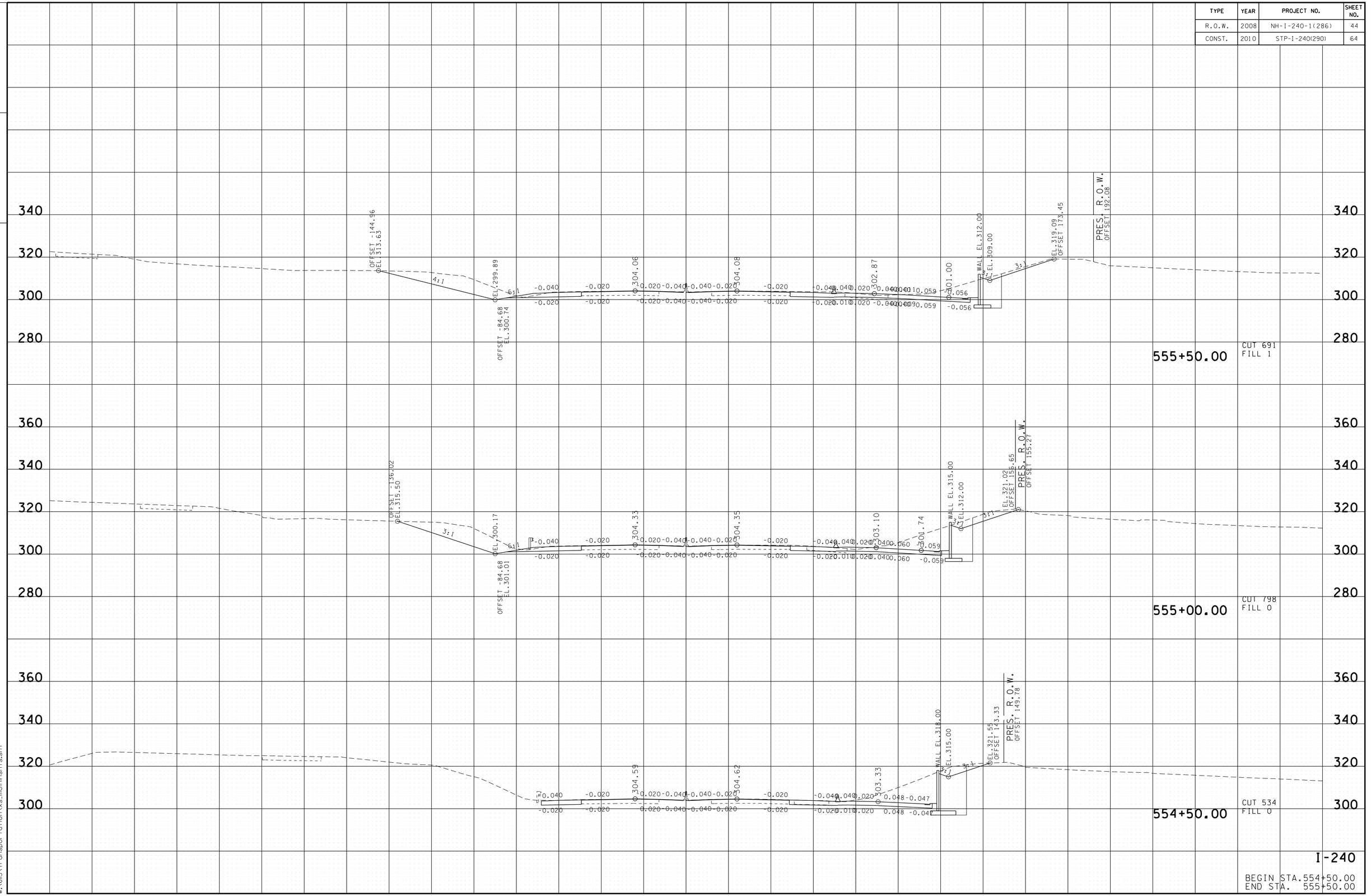
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	44
CONST.	2010	STP-I-240(290)	64



I-240

BEGIN STA. 554+50.00
END STA. 555+50.00

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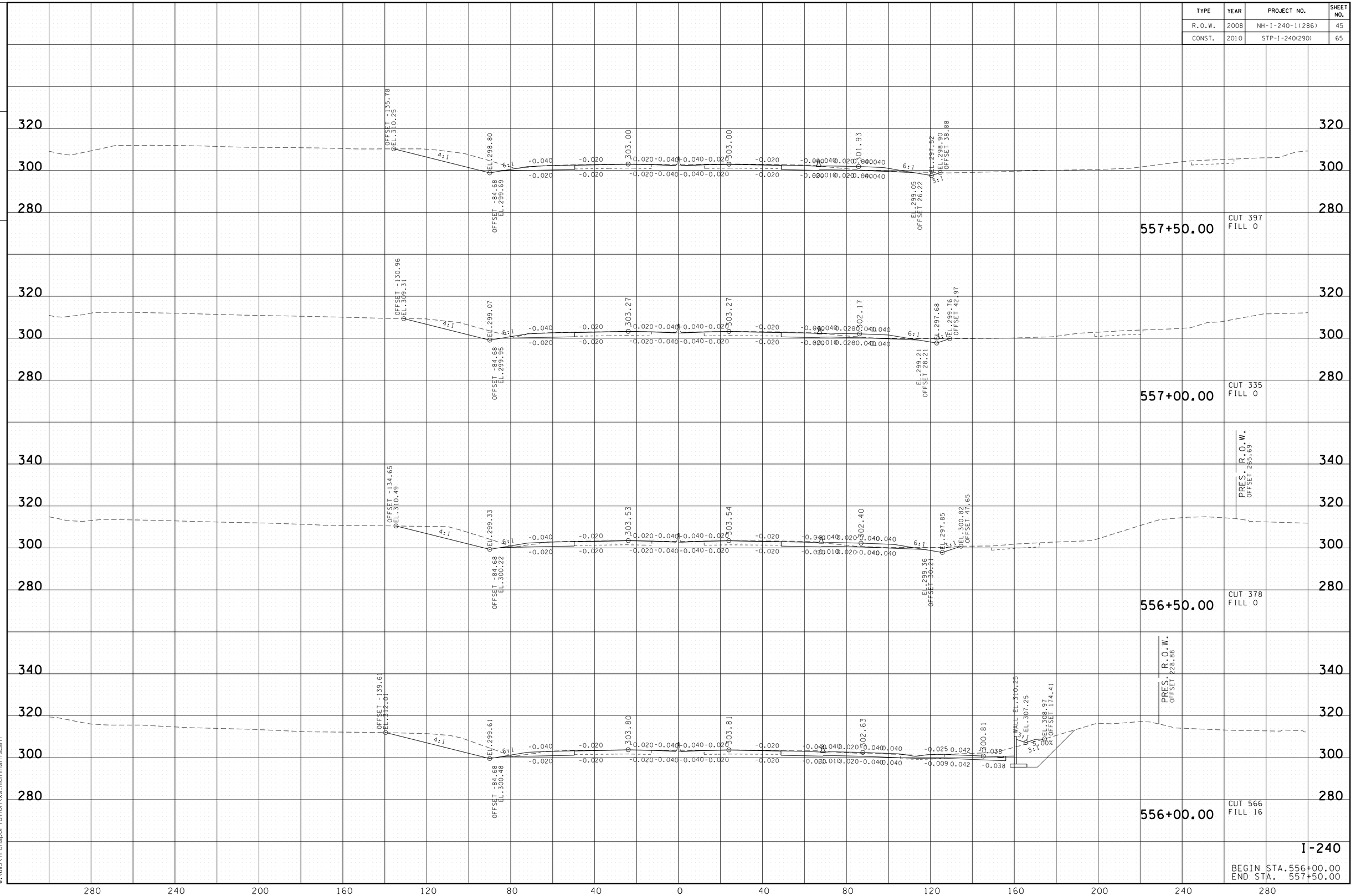
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	45
CONST.	2010	STP-I-240(290)	65



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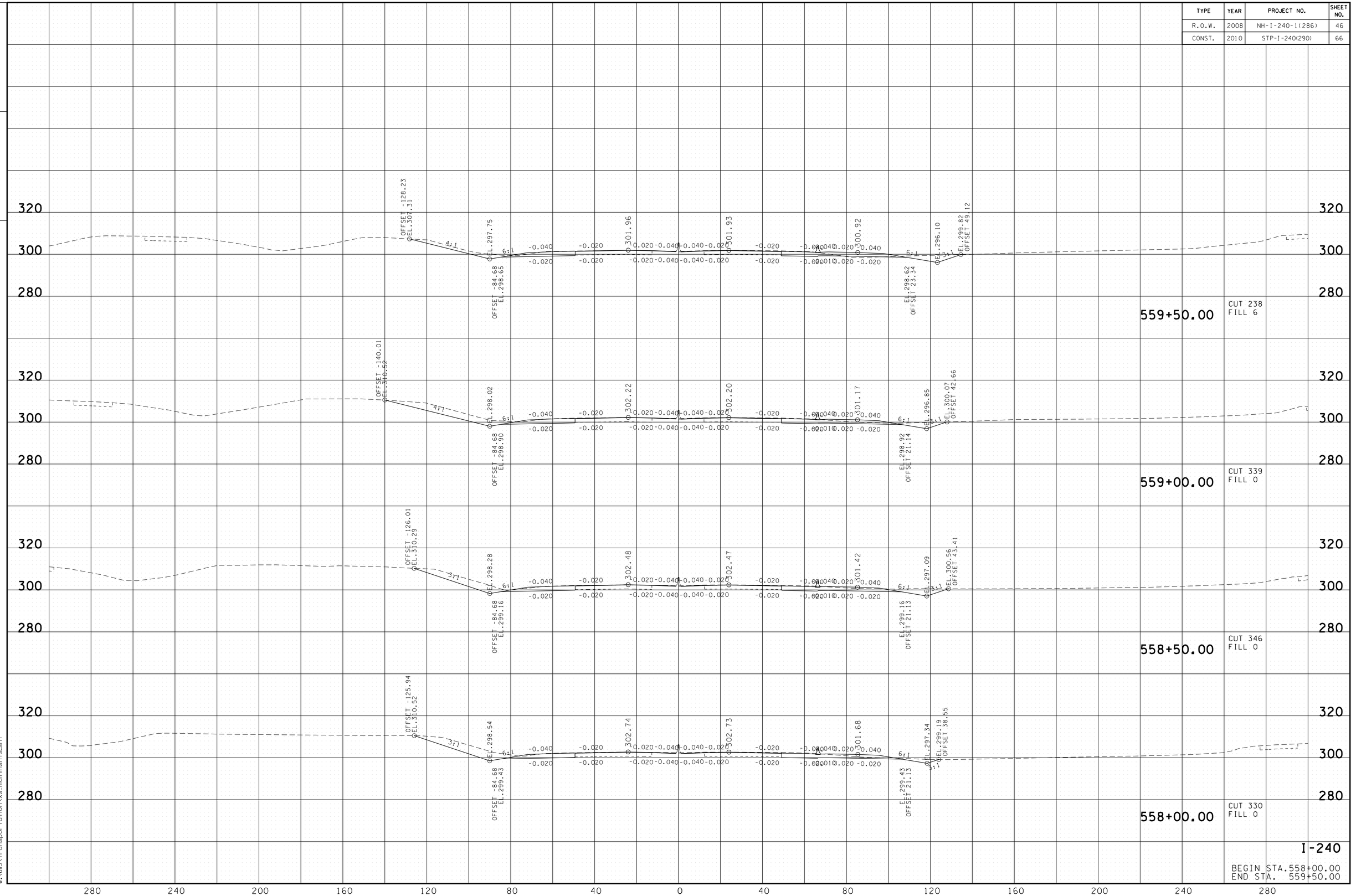
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	46
CONST.	2010	STP-I-240(290)	66



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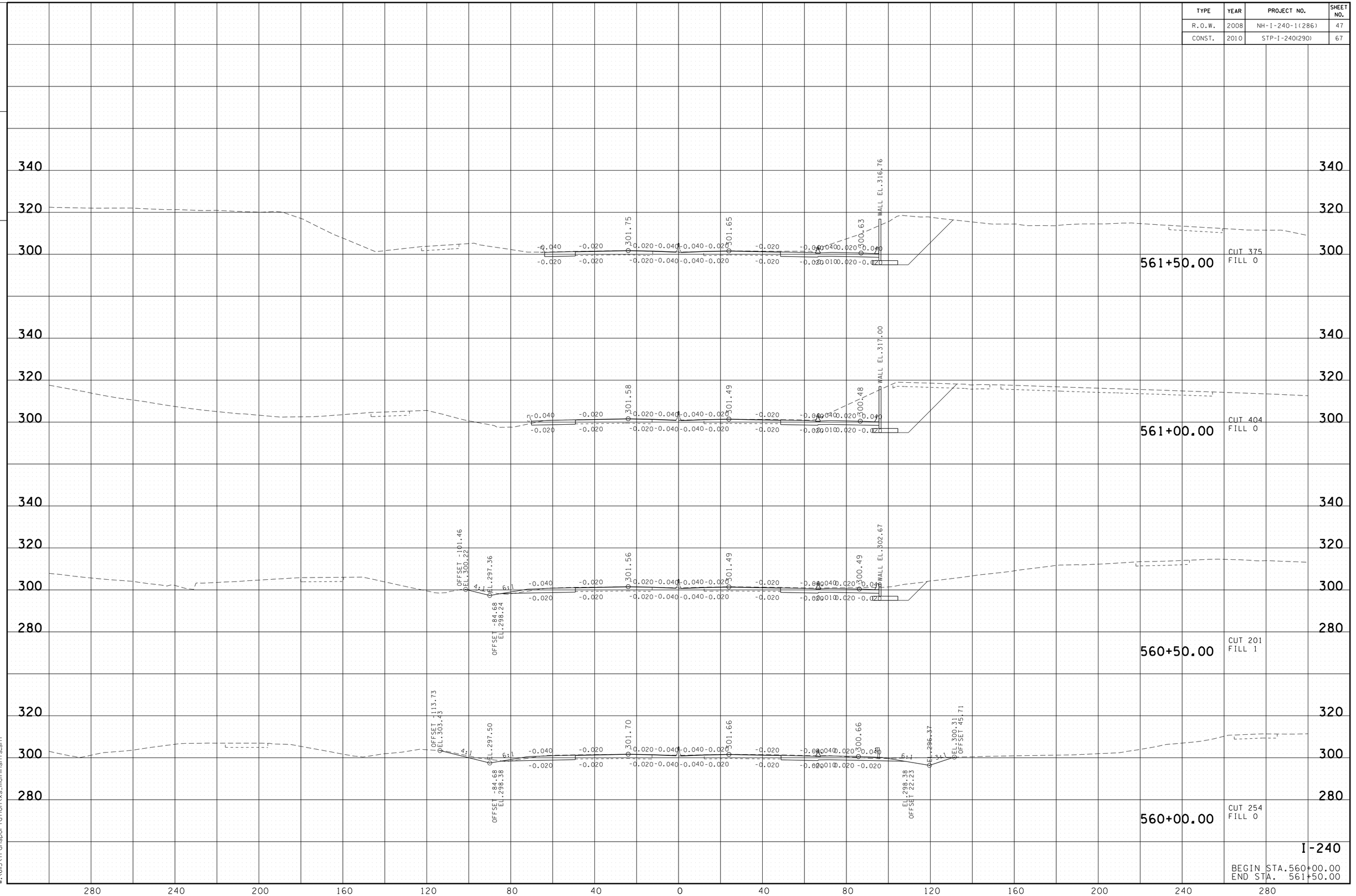
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	47
CONST.	2010	STP-I-240(290)	67



I-240

BEGIN STA.560+00.00
END STA. 561+50.00

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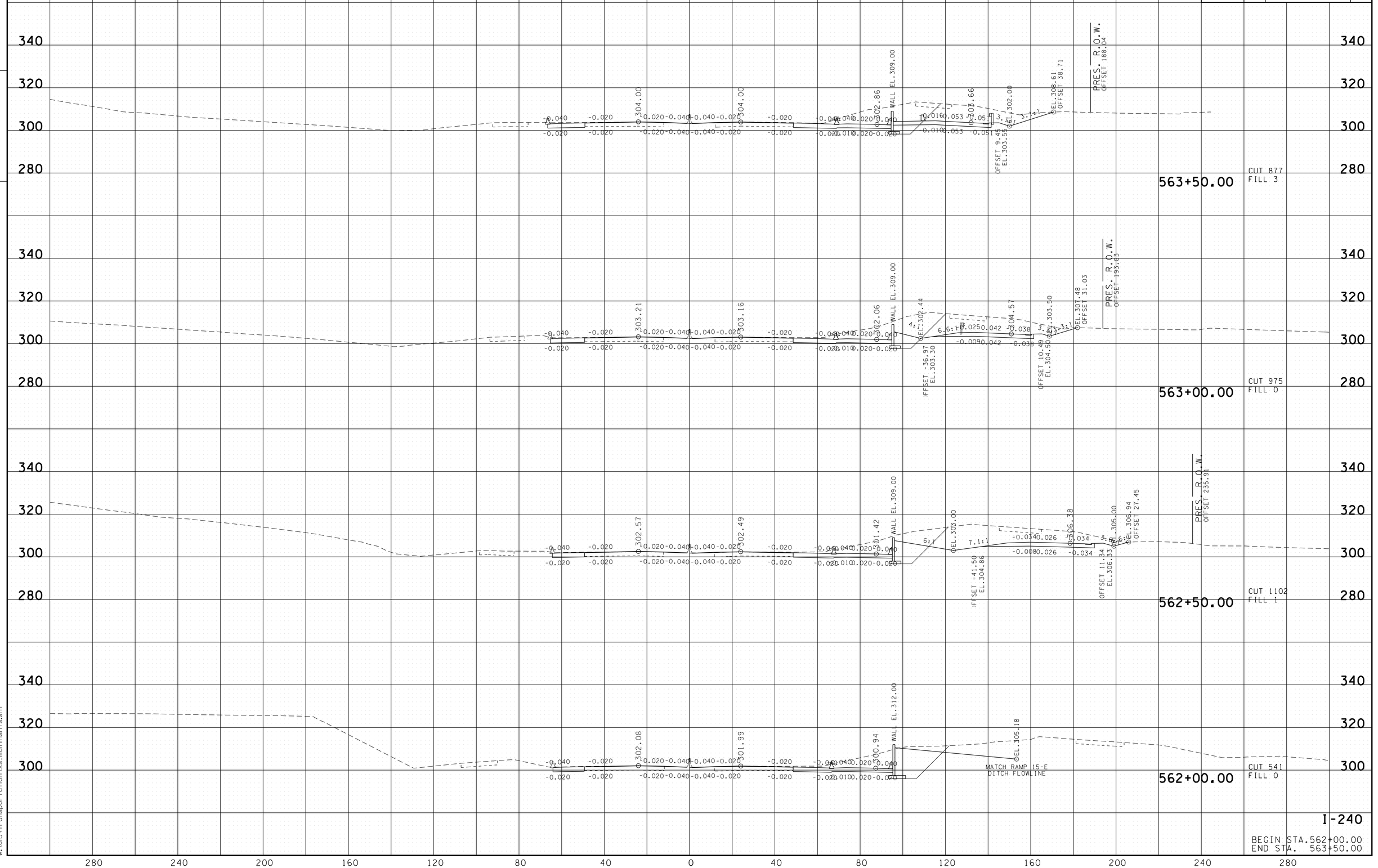
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	48
CONST.	2010	STP-I-240(290)	68



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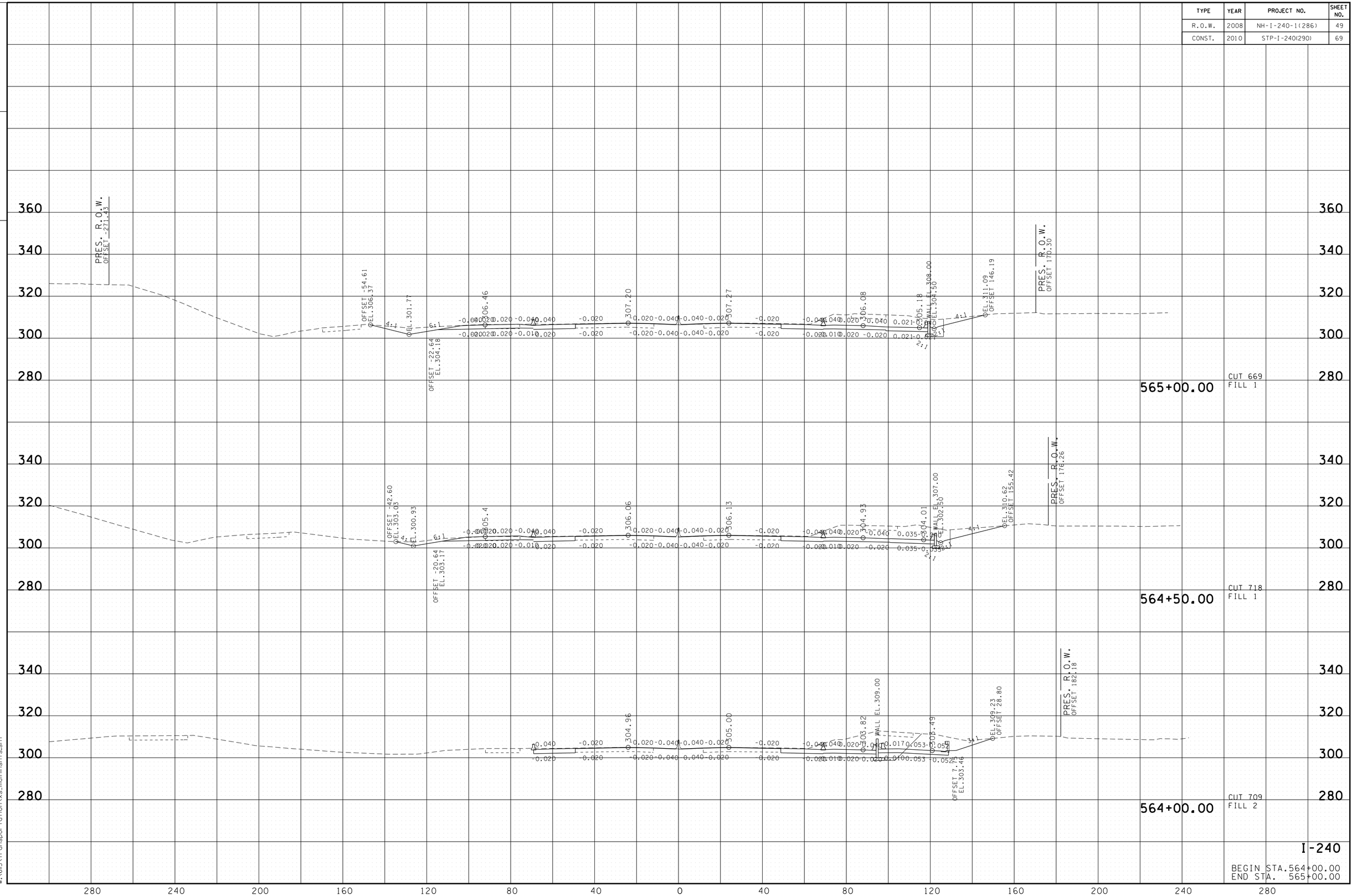
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	49
CONST.	2010	STP-I-240(290)	69



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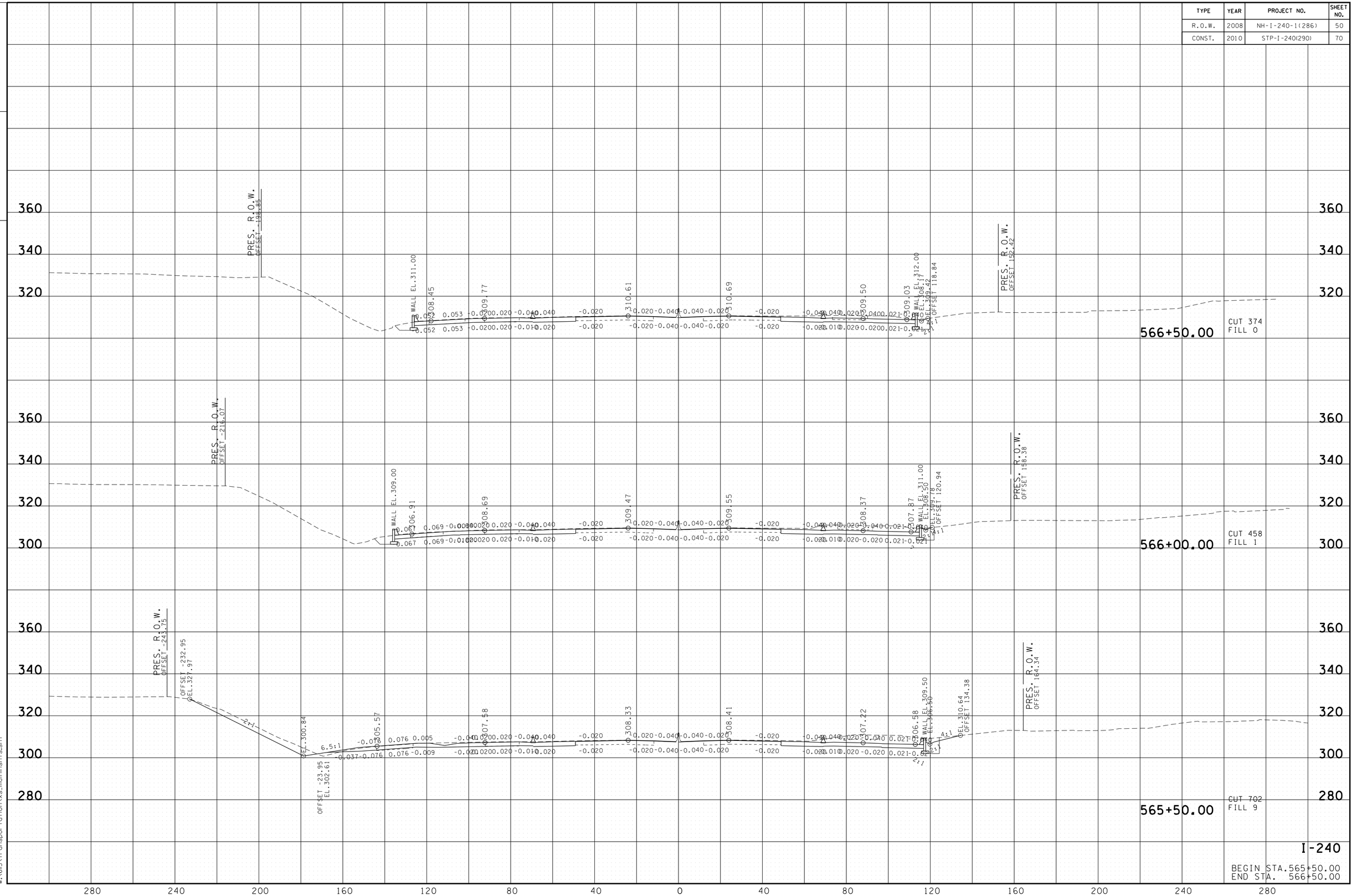
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	50
CONST.	2010	STP-I-240(290)	70



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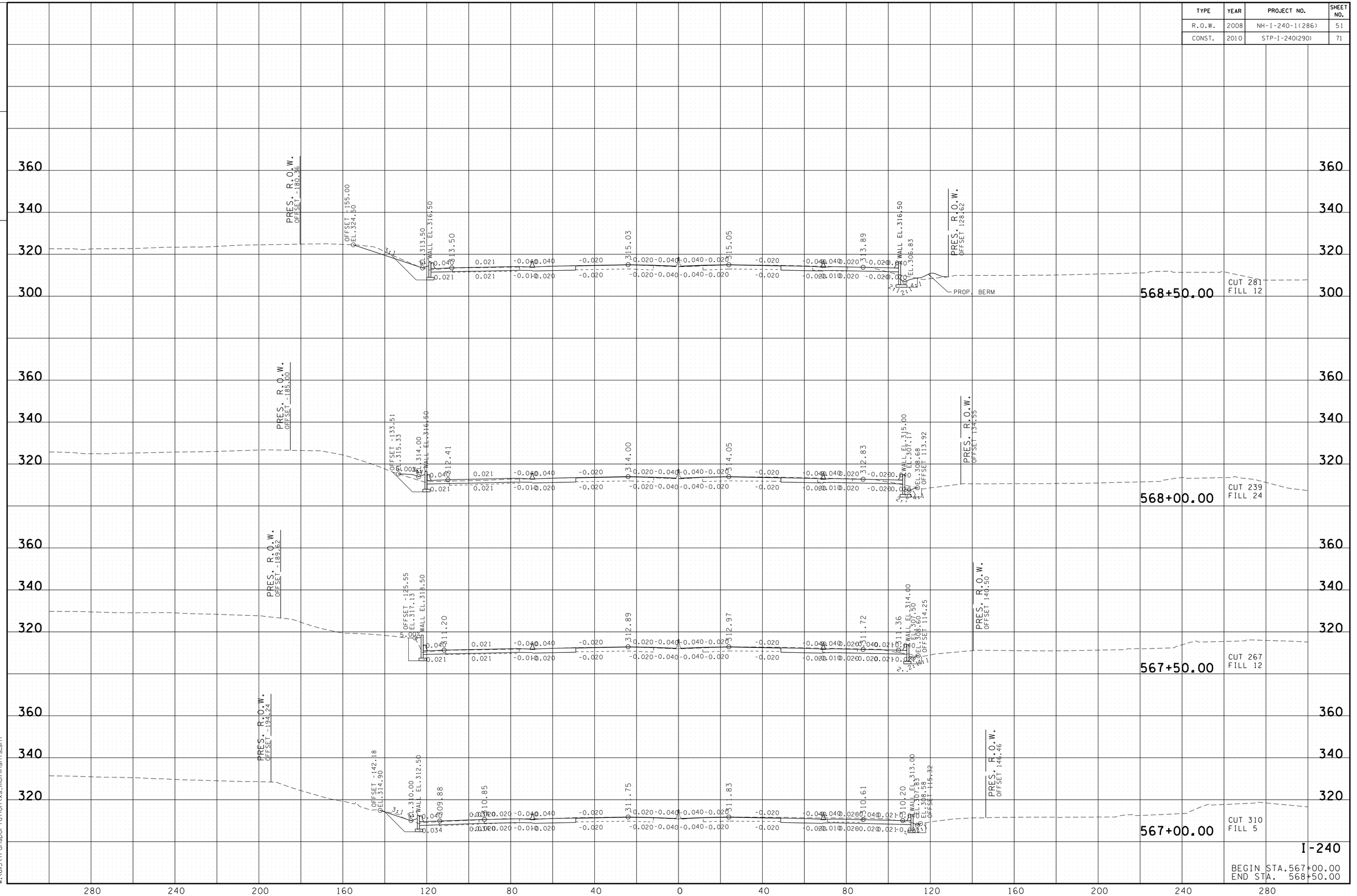
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	51
CONST.	2010	STP-I-240(290)	71



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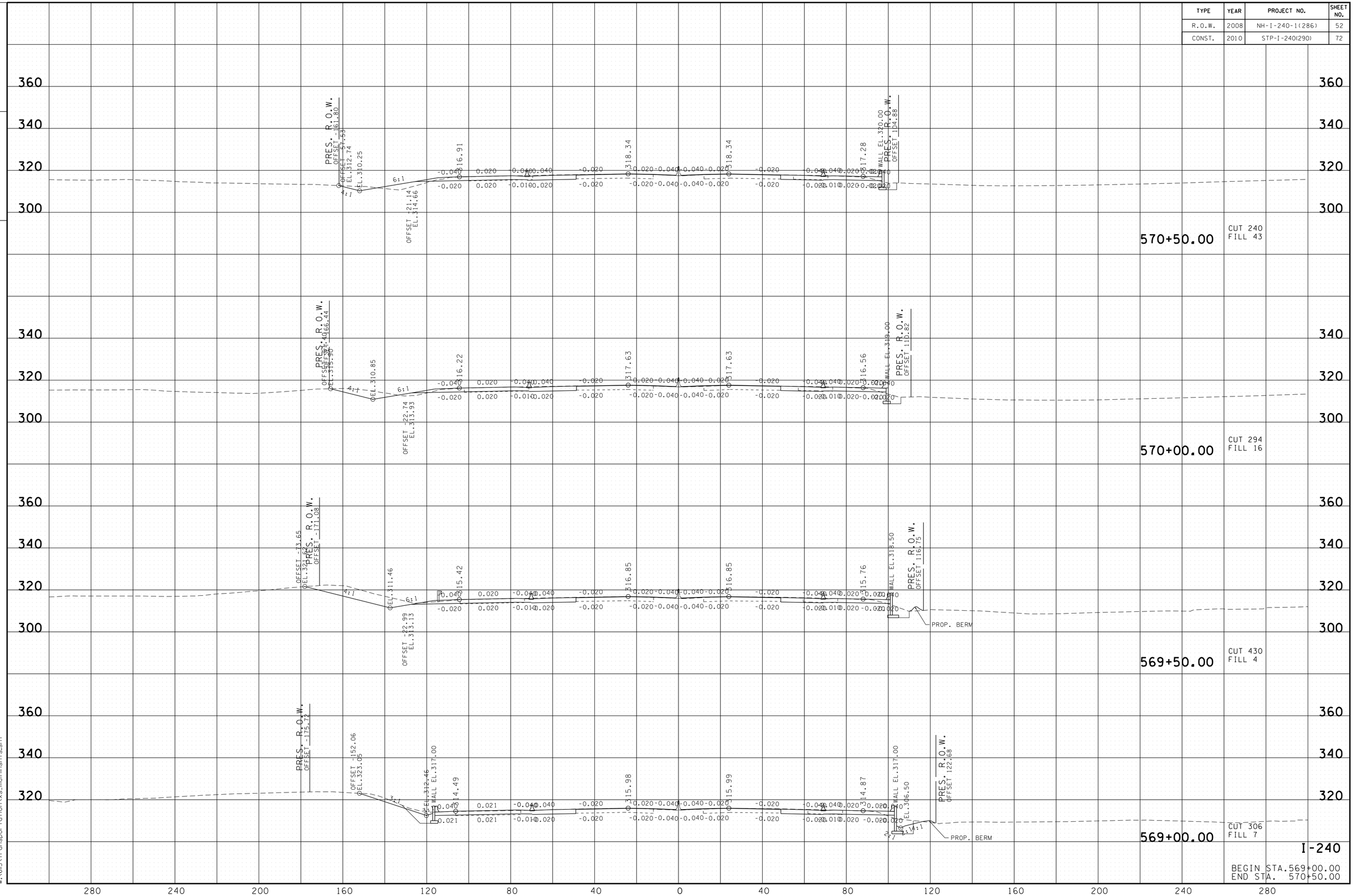
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	52
CONST.	2010	STP-I-240(290)	72

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



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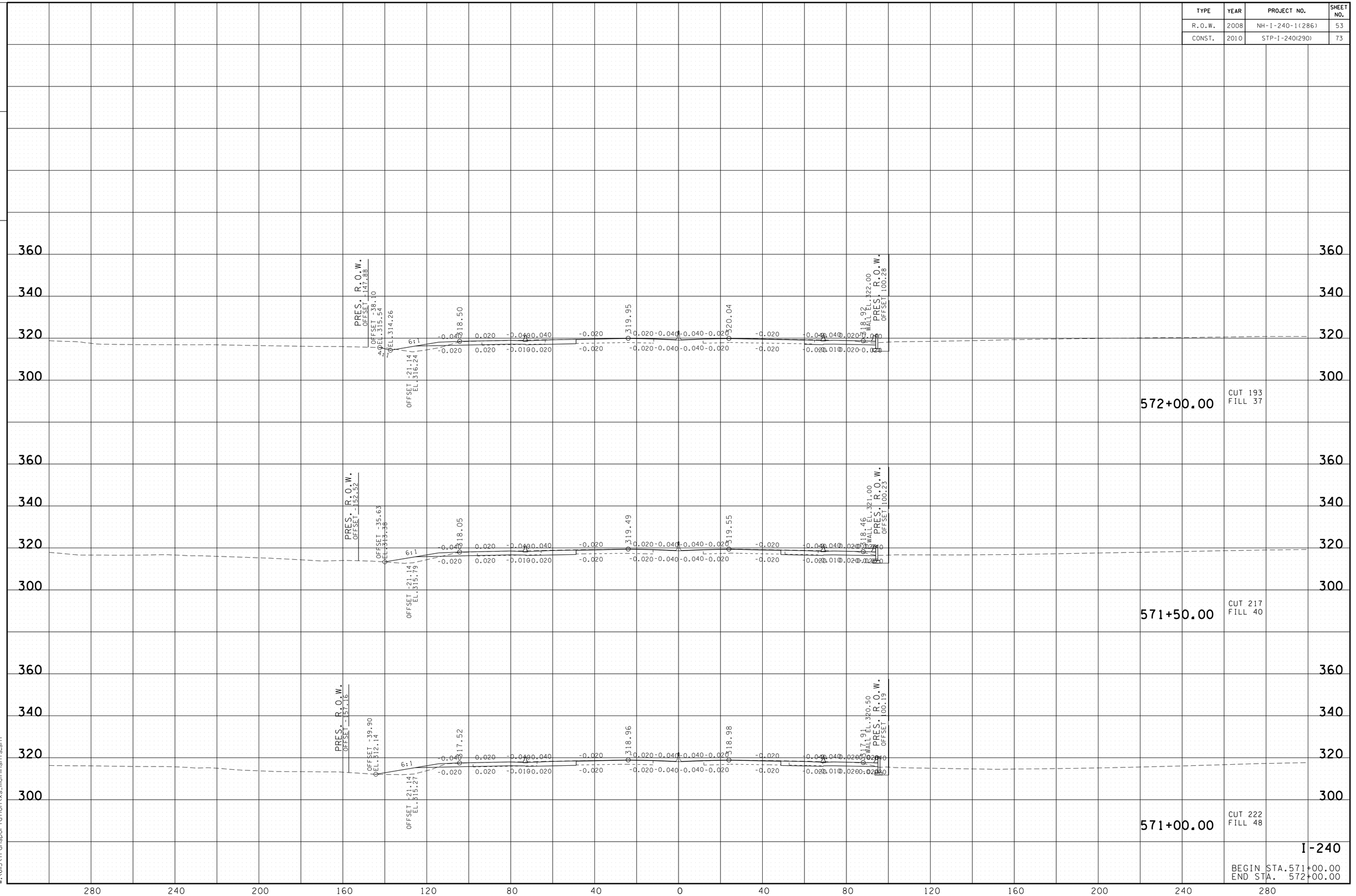
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	53
CONST.	2010	STP-I-240(290)	73



I-240

BEGIN STA.571+00.00
END STA. 572+00.00

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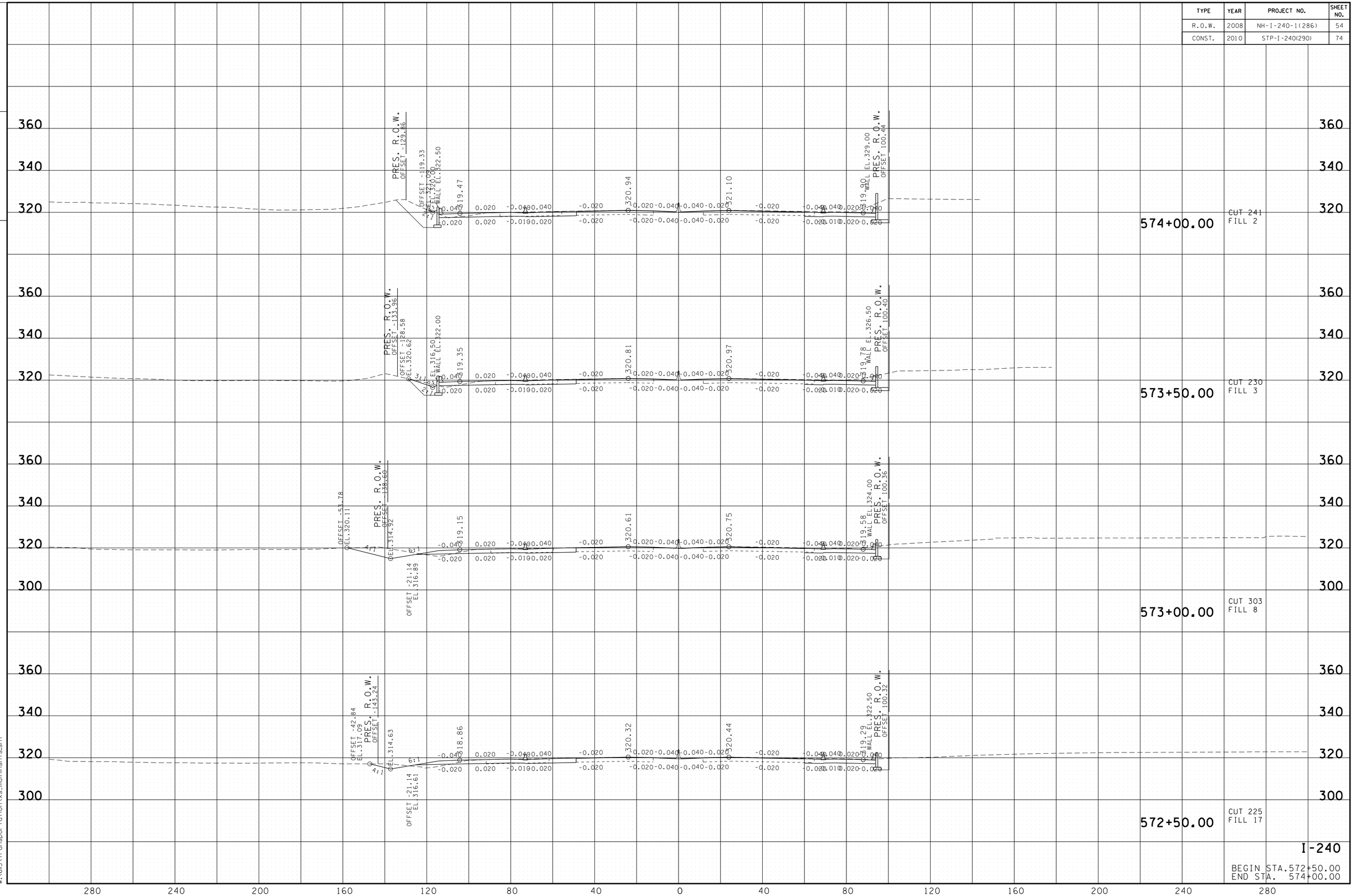
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	54
CONST.	2010	STP-I-240(290)	74



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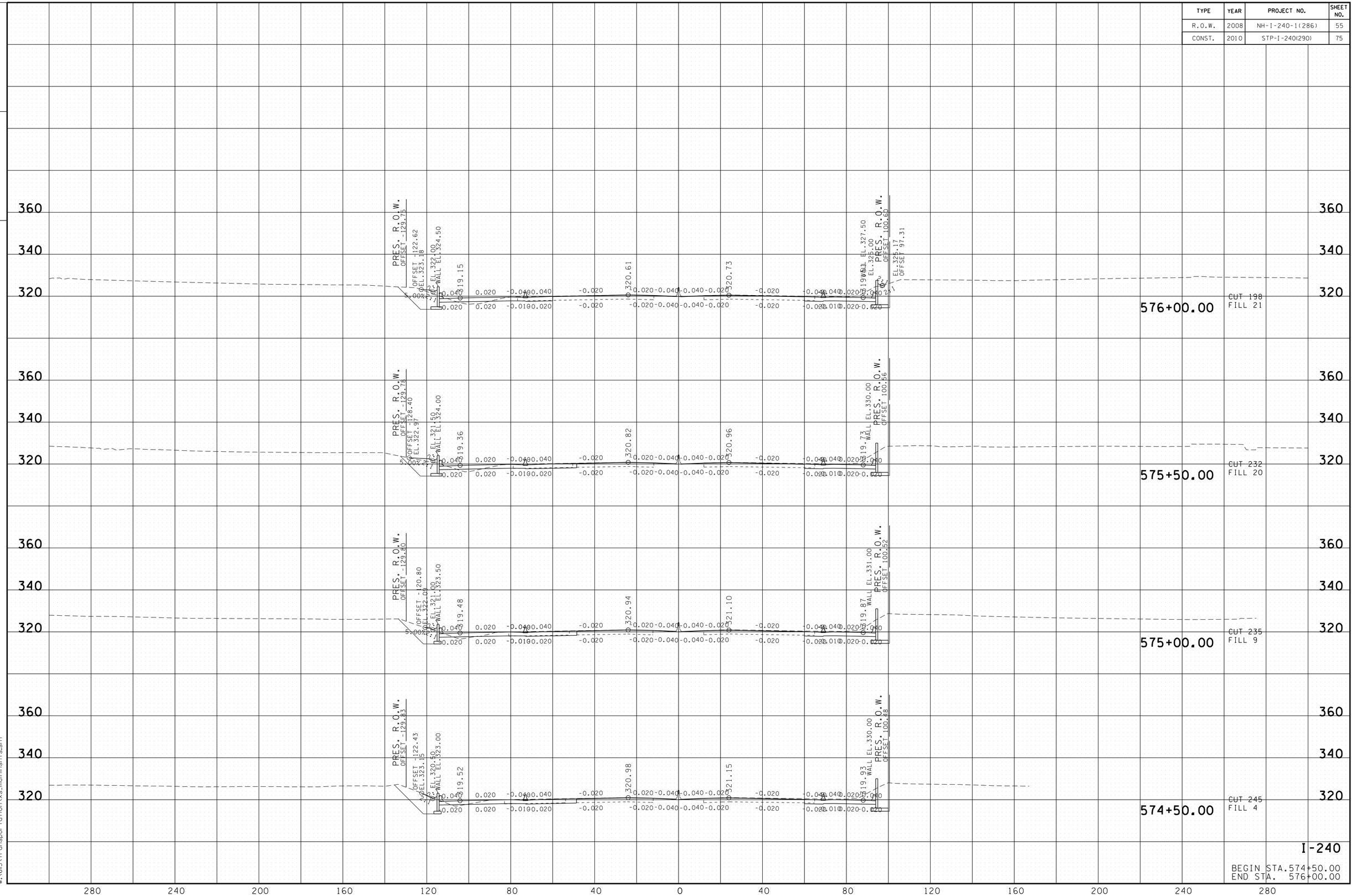
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	55
CONST.	2010	STP-I-240(290)	75

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



I-240

BEGIN STA.574+50.00
END STA. 576+00.00

8/24/2010
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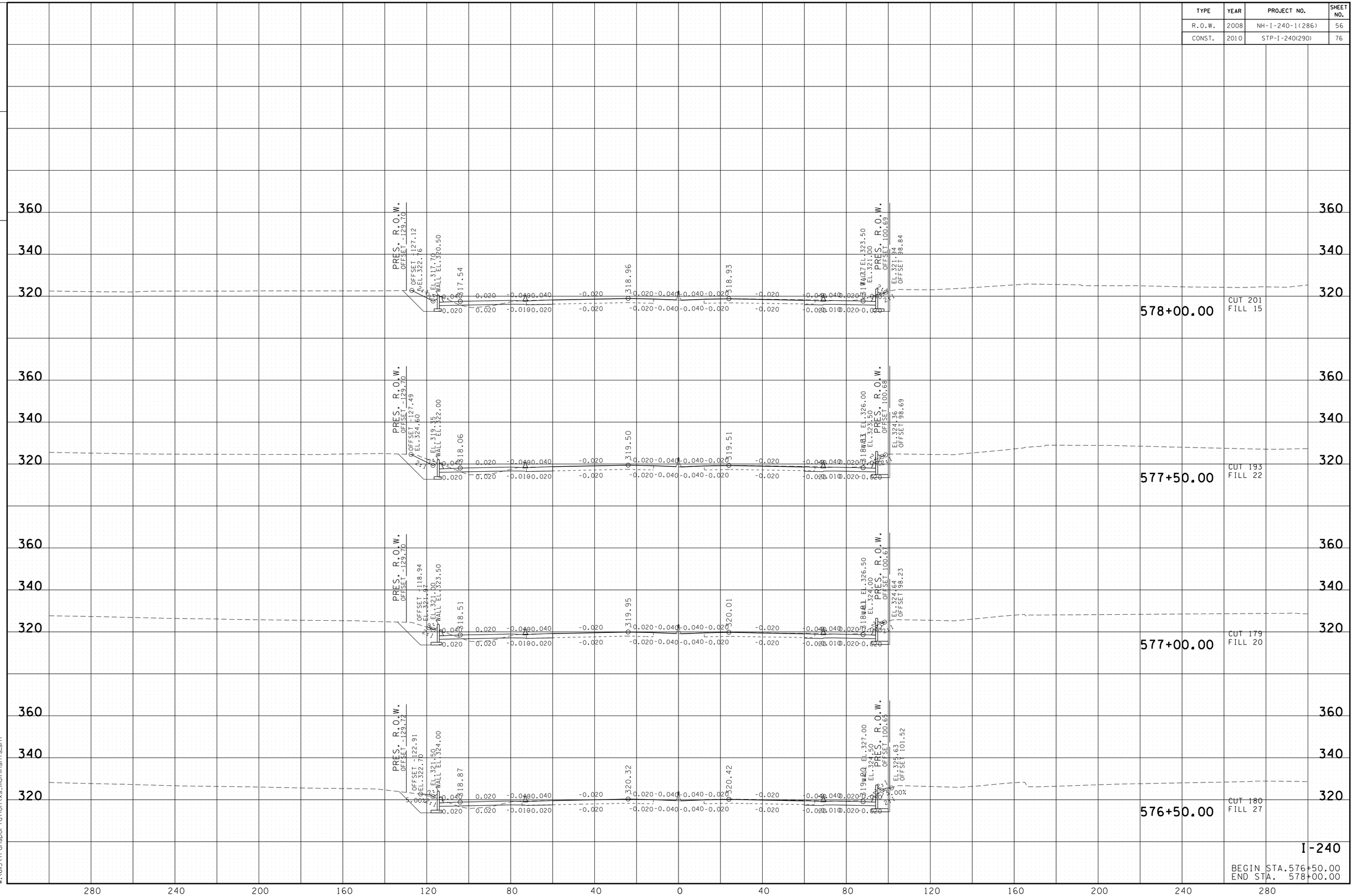
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	56
CONST.	2010	STP-I-240(290)	76



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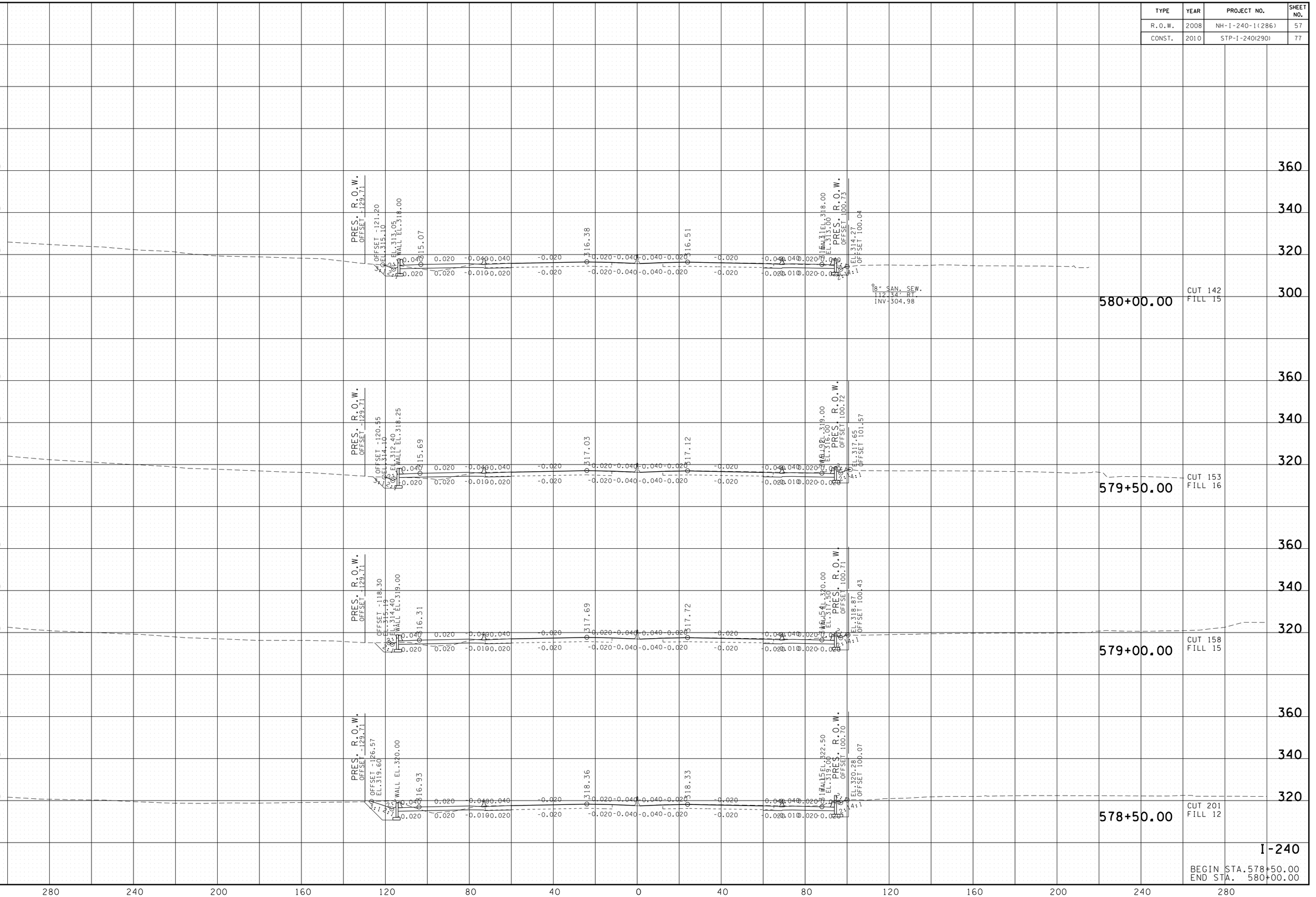
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	57
CONST.	2010	STP-I-240(290)	77



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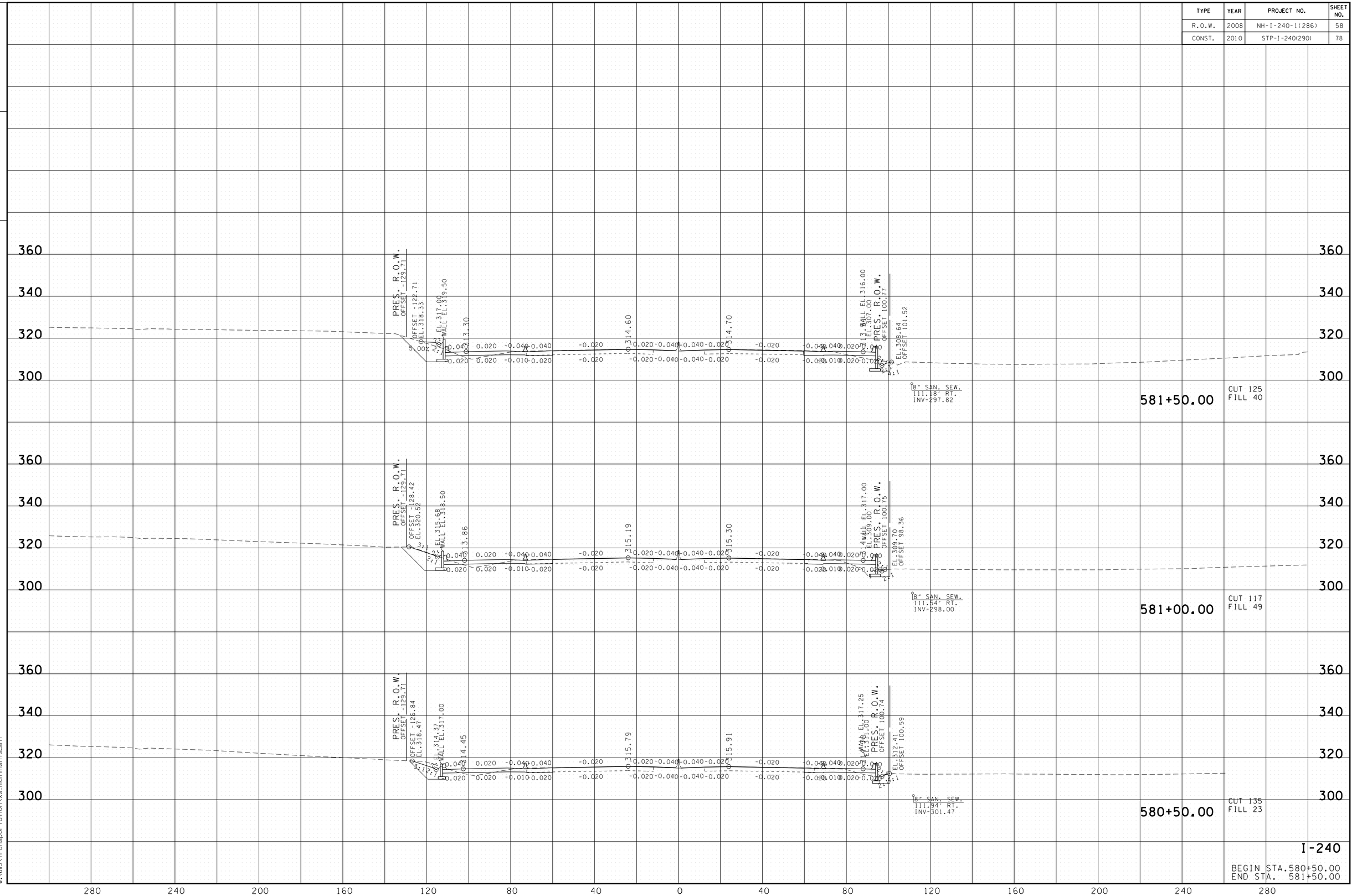
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	58
CONST.	2010	STP-I-240(290)	78



I-240

BEGIN STA.580+50.00
END STA. 581+50.00

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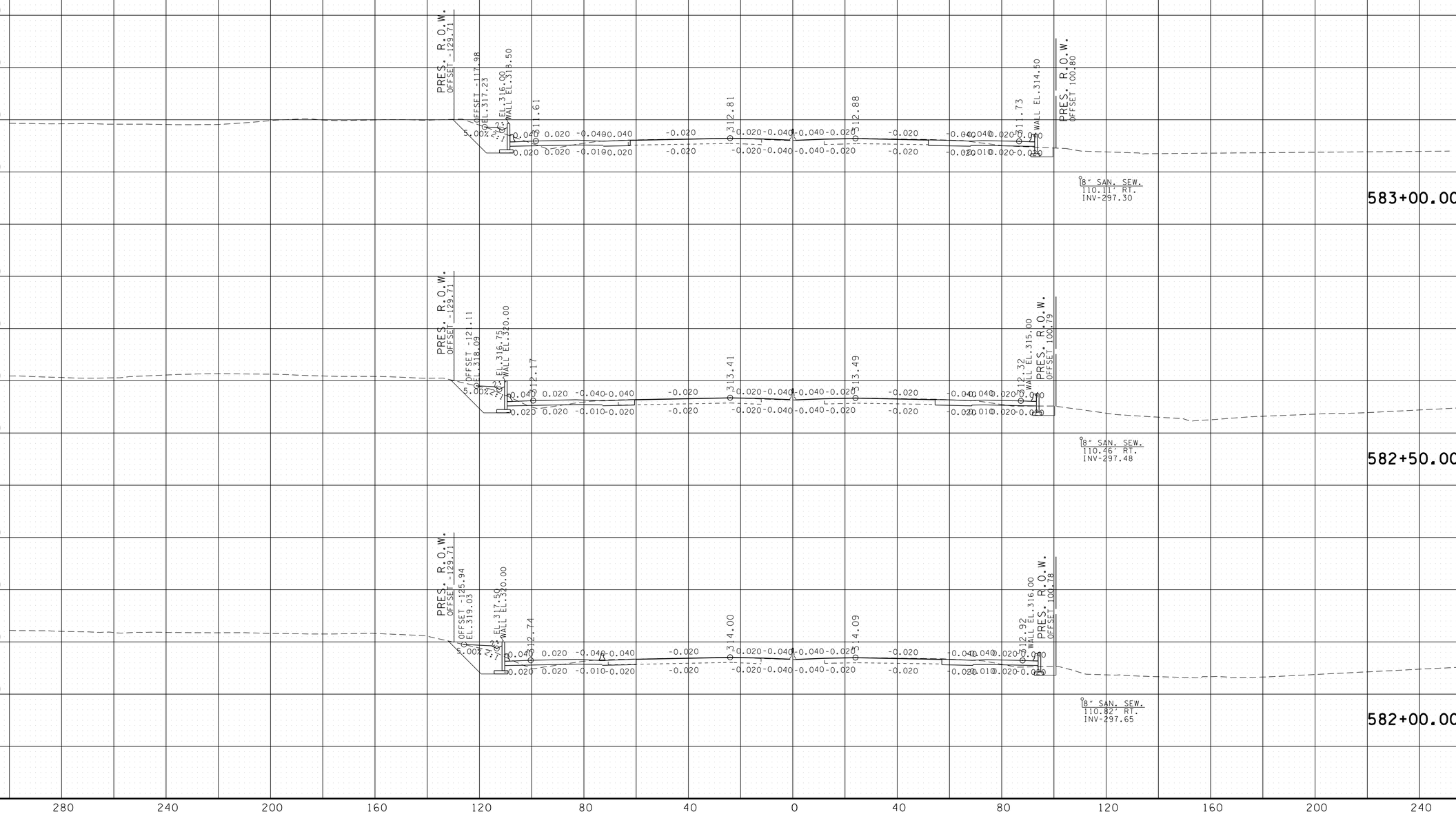
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	59
CONST.	2010	STP-I-240(290)	79



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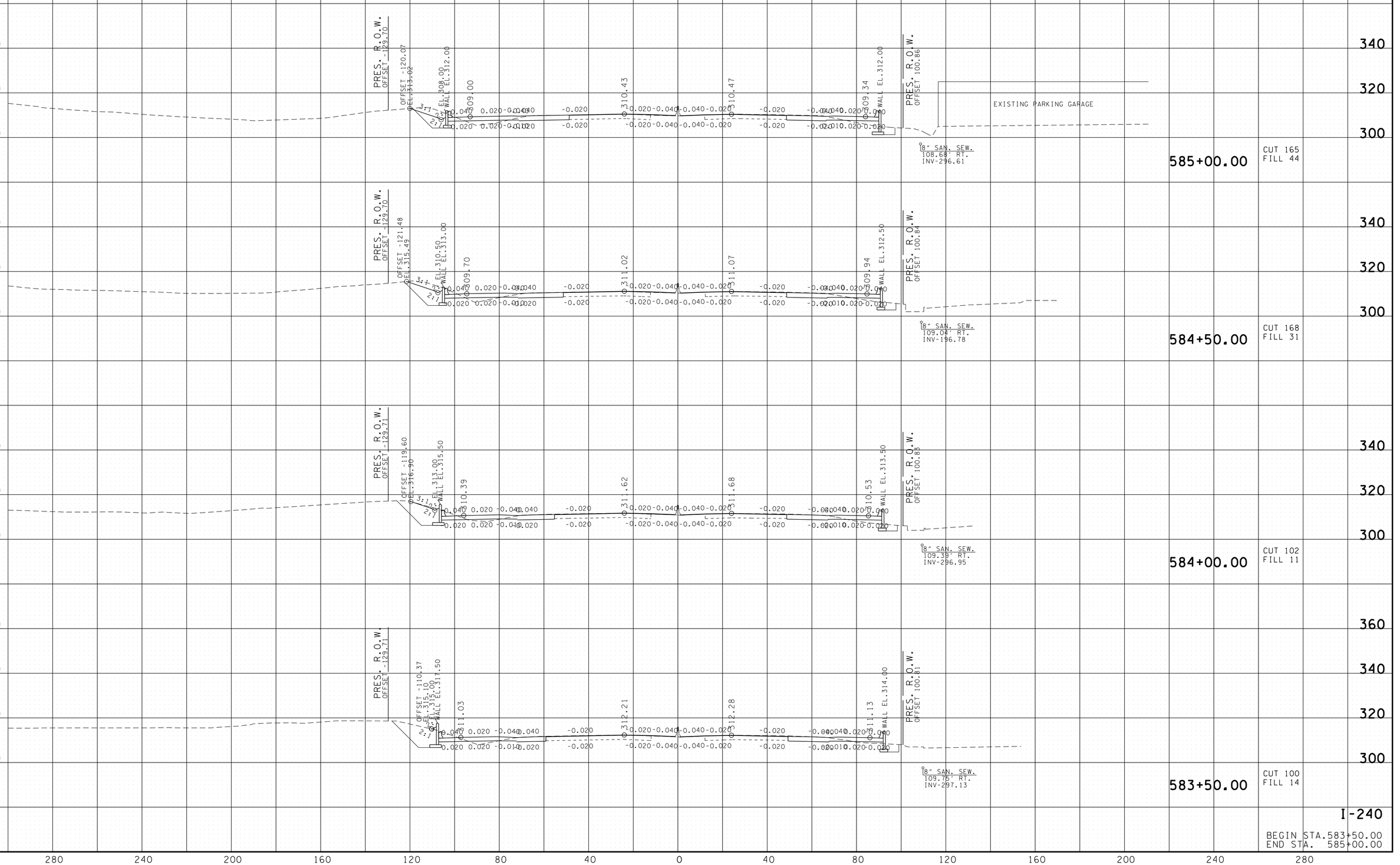
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	60
CONST.	2010	STP-I-240(290)	80



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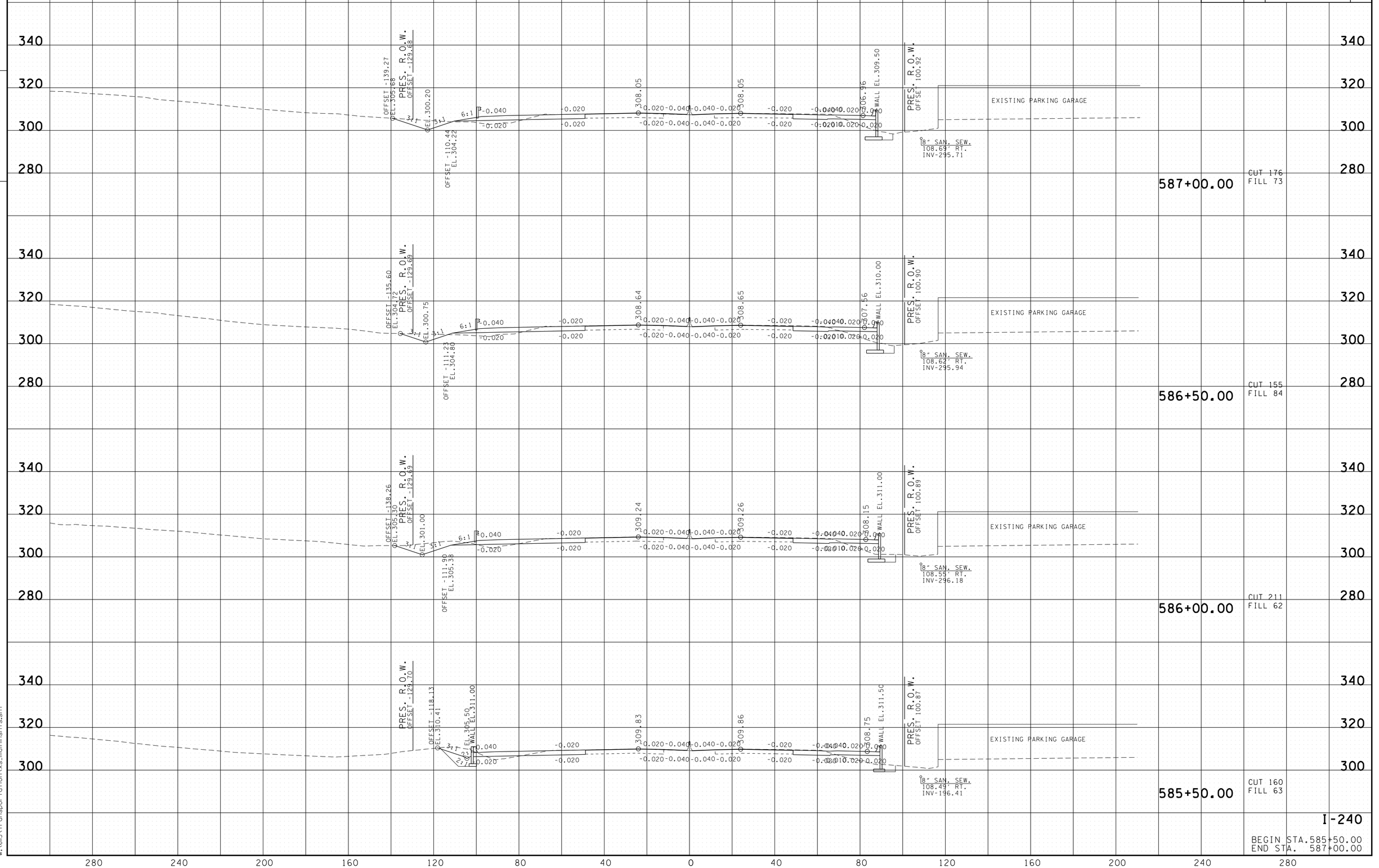
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	61
CONST.	2010	STP-I-240(290)	81



I-240

BEGIN STA.585+50.00
END STA. 587+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	62
CONST.	2010	STP-I-240(290)	82

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

8/24/2010
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	63
CONST.	2010	STP-I-240(290)	83

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

I-240

BEGIN STA.589+00.00
END STA. 590+00.00

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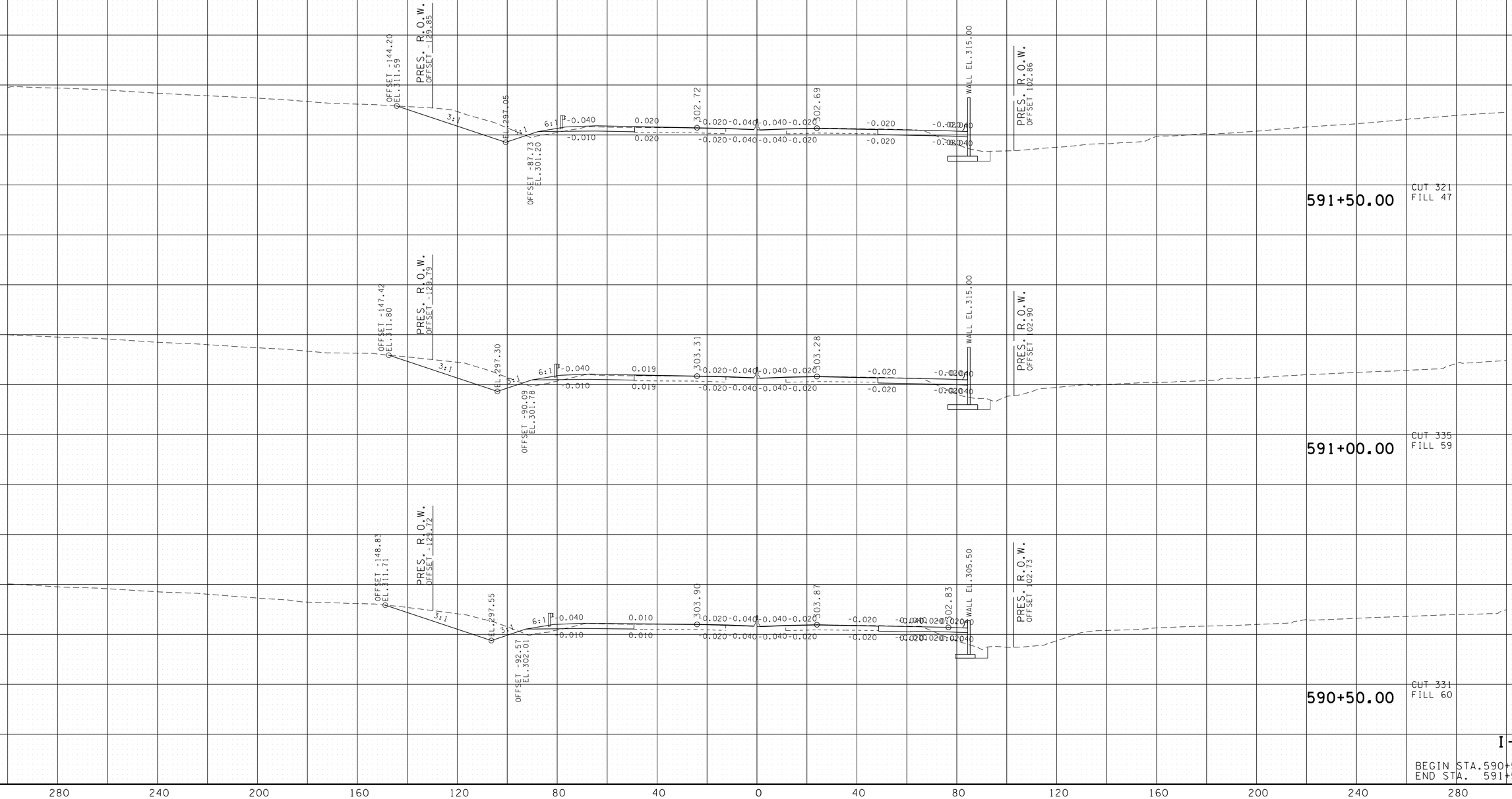
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	64
CONST.	2010	STP-I-240(290)	84



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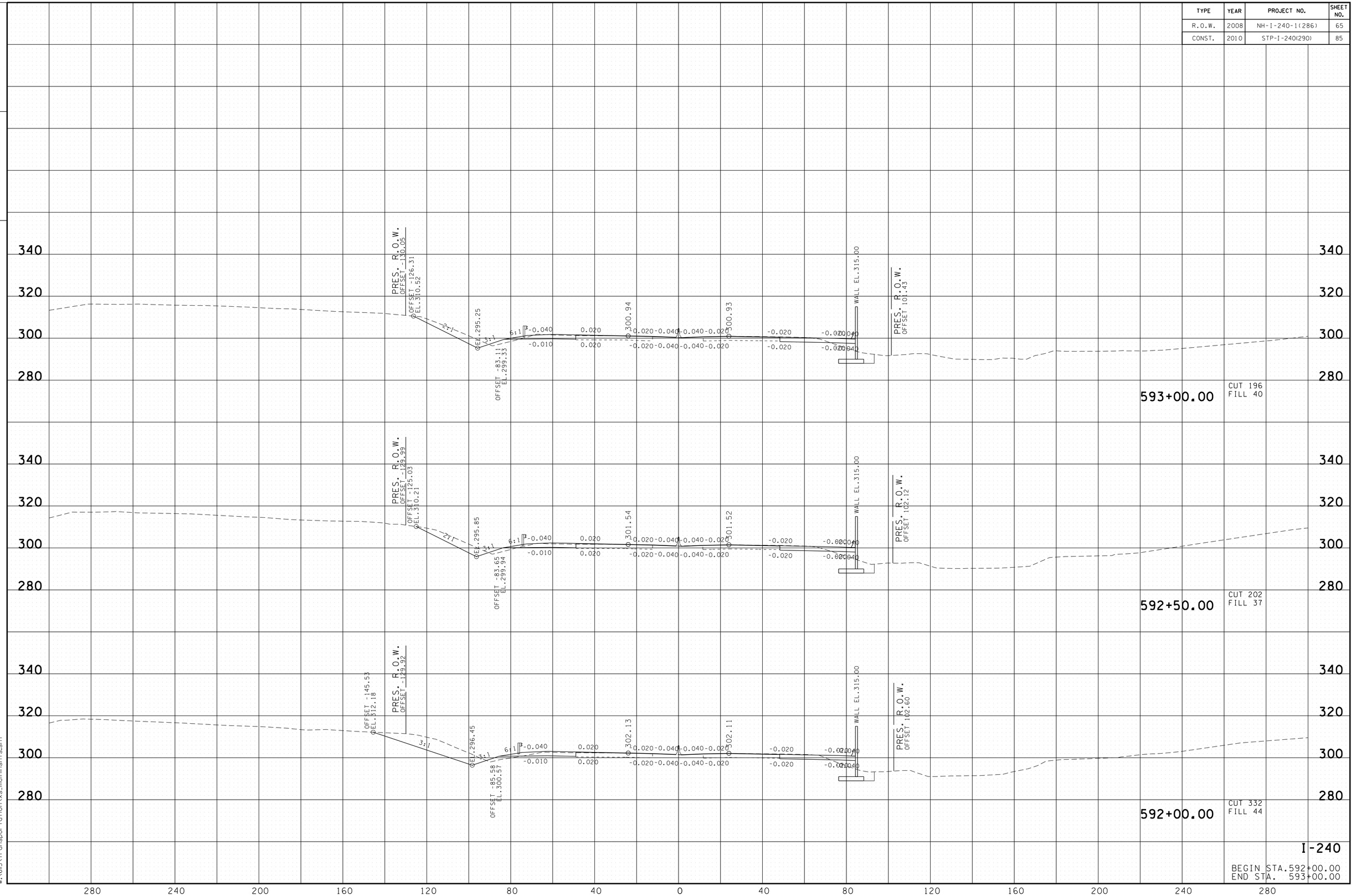
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	65
CONST.	2010	STP-I-240(290)	85



I-240

BEGIN STA.592+00.00
END STA. 593+00.00

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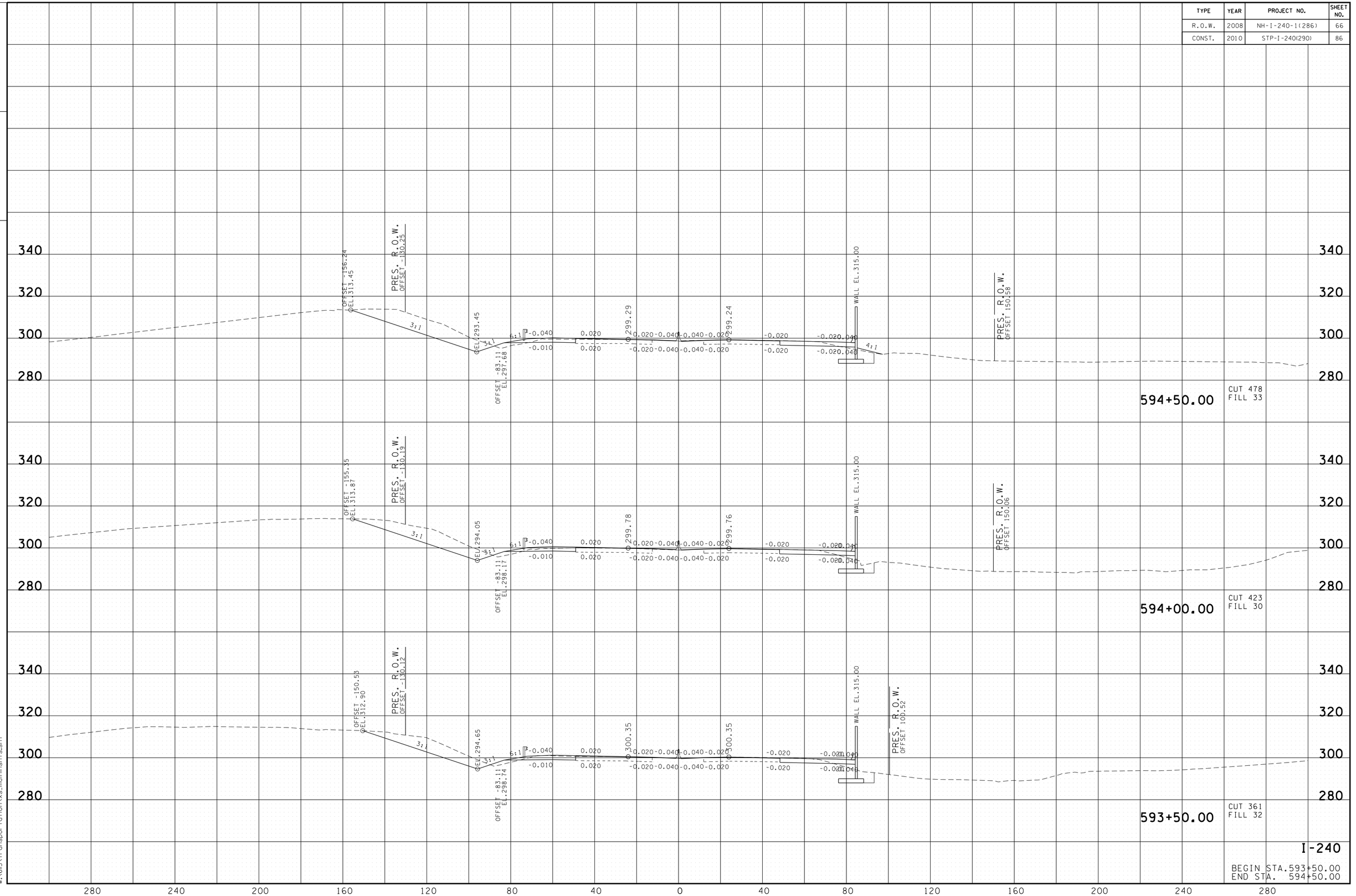
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	66
CONST.	2010	STP-I-240(290)	86



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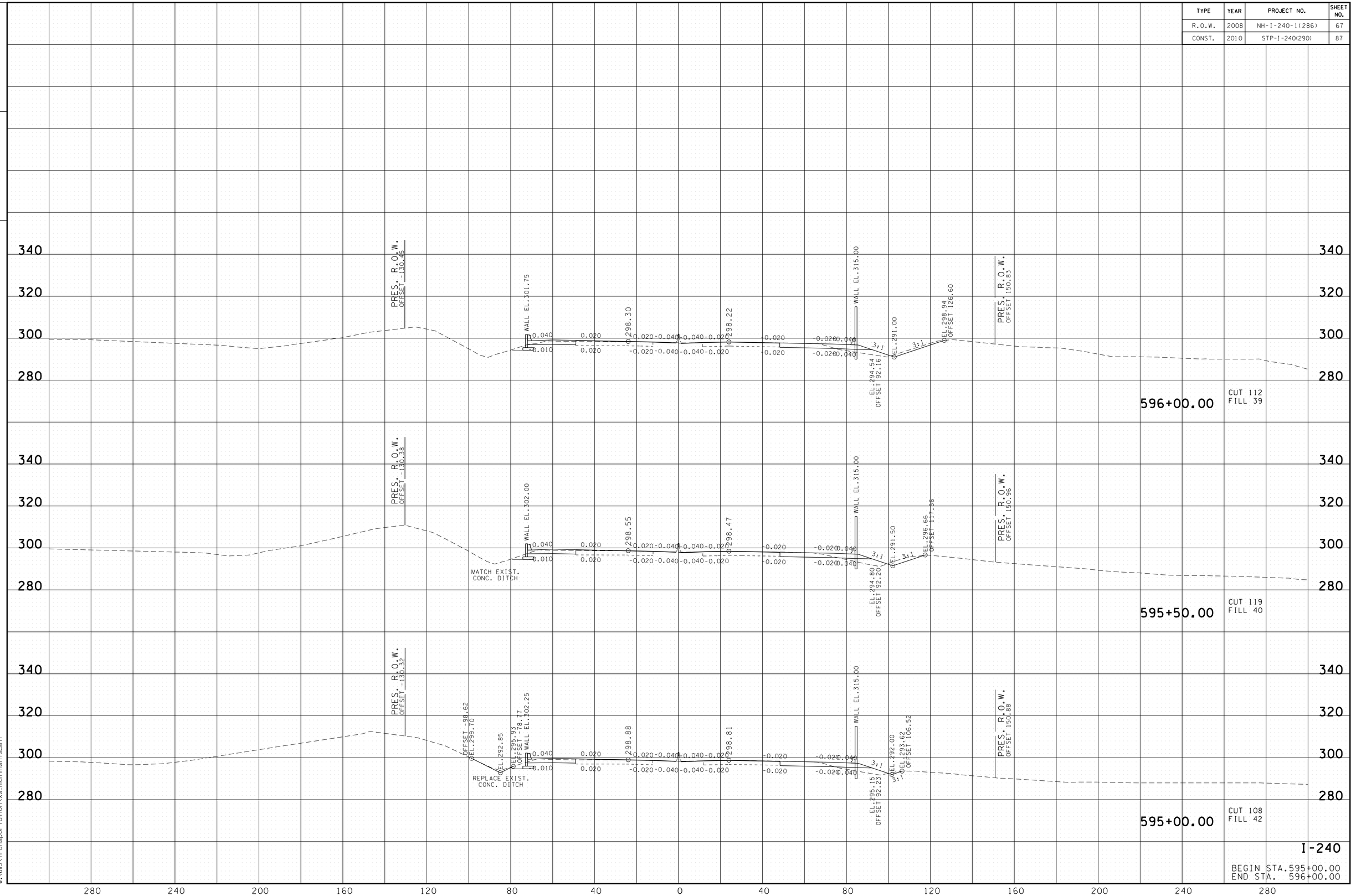
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	67
CONST.	2010	STP-I-240(290)	87



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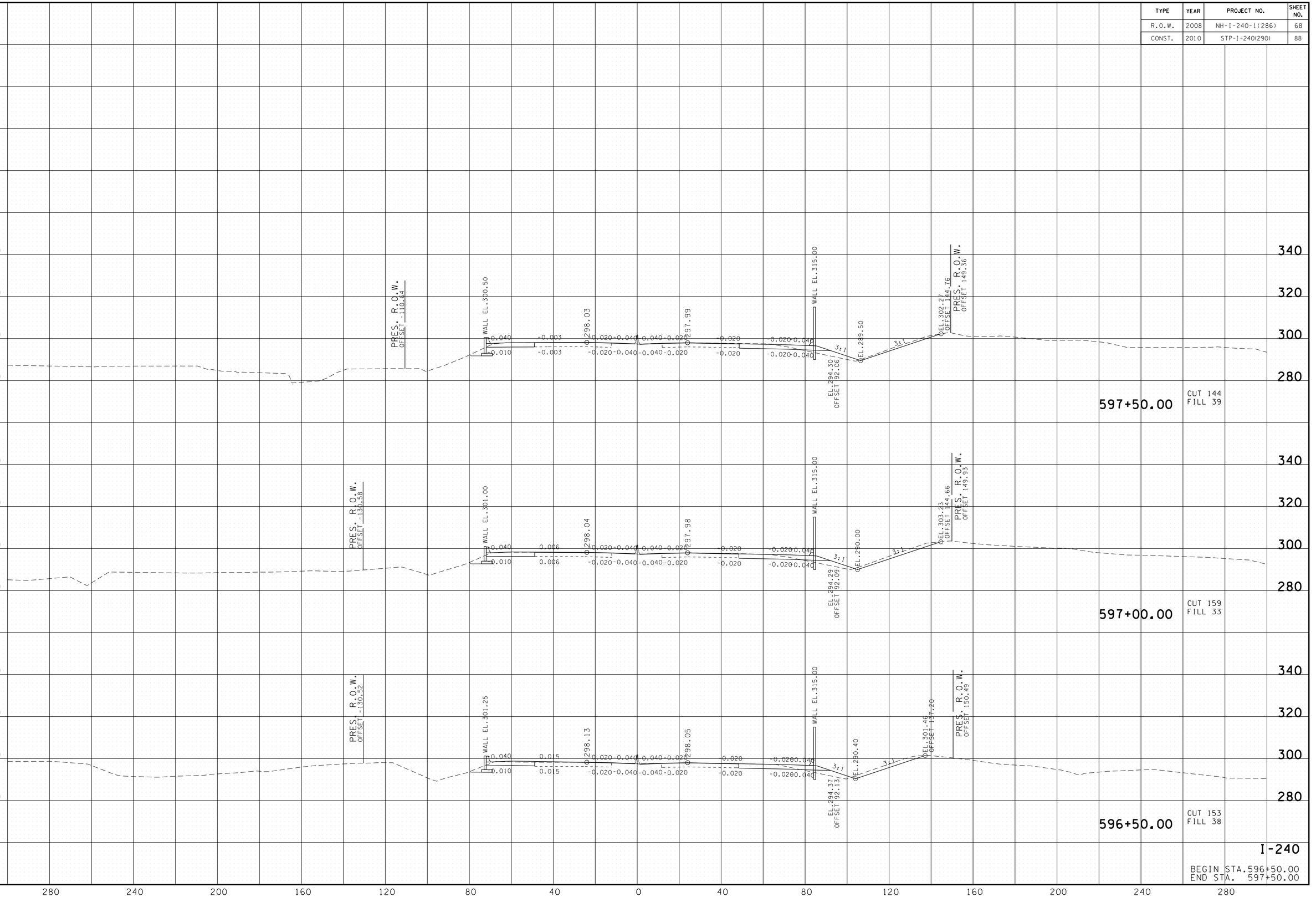
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	68
CONST.	2010	STP-I-240(290)	88



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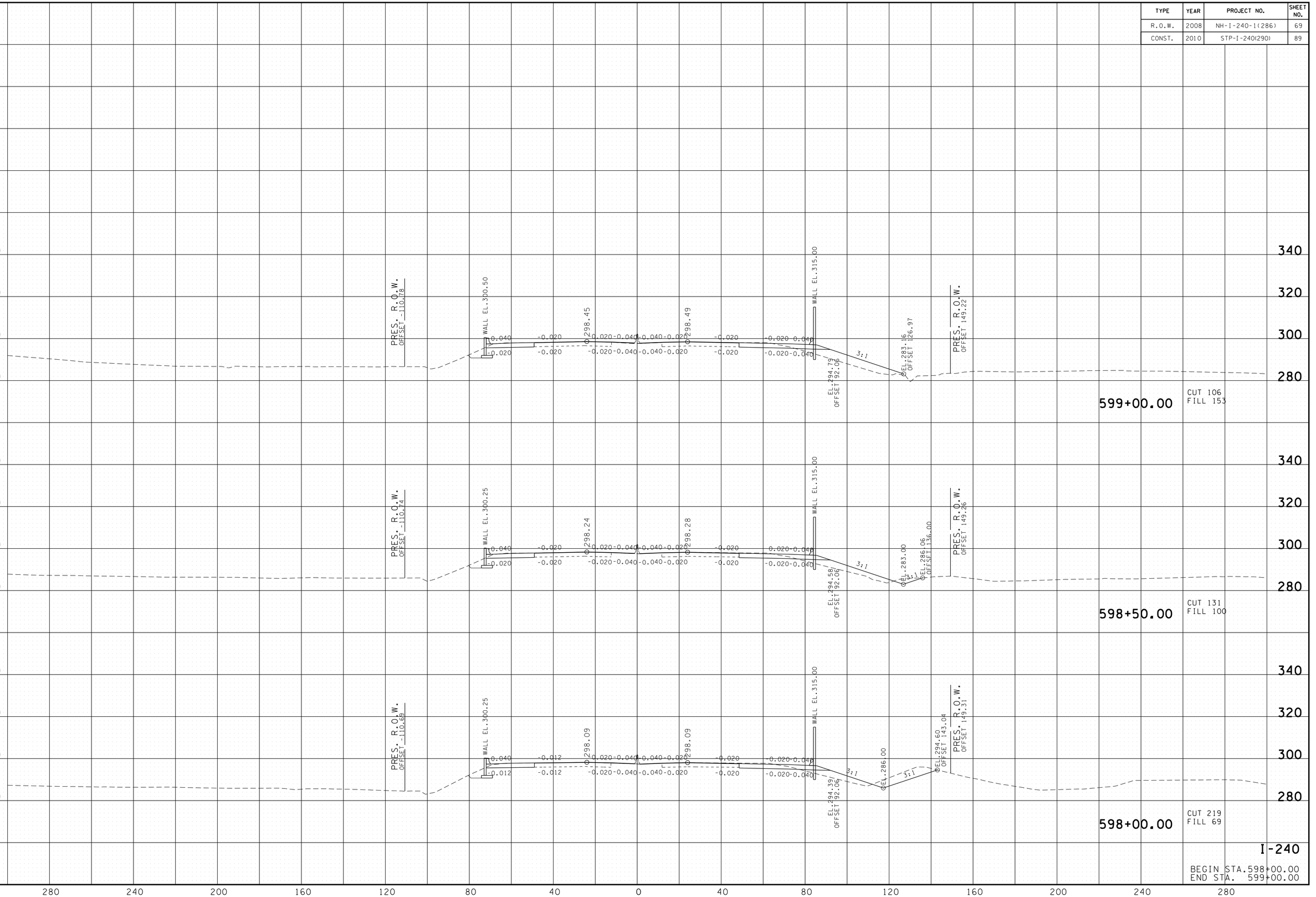
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	69
CONST.	2010	STP-I-240(290)	89



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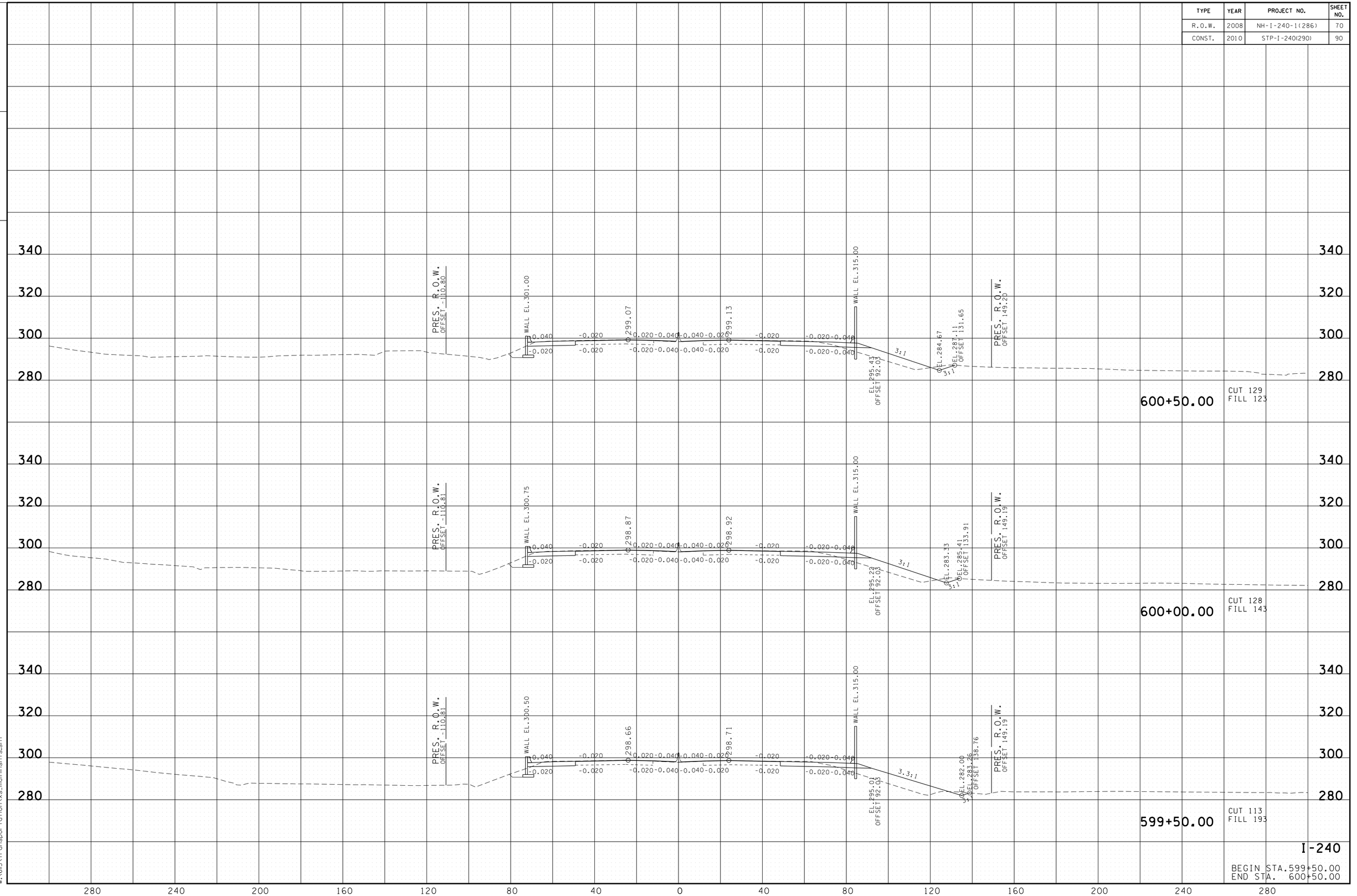
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	70
CONST.	2010	STP-I-240(290)	90

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



8/24/2010
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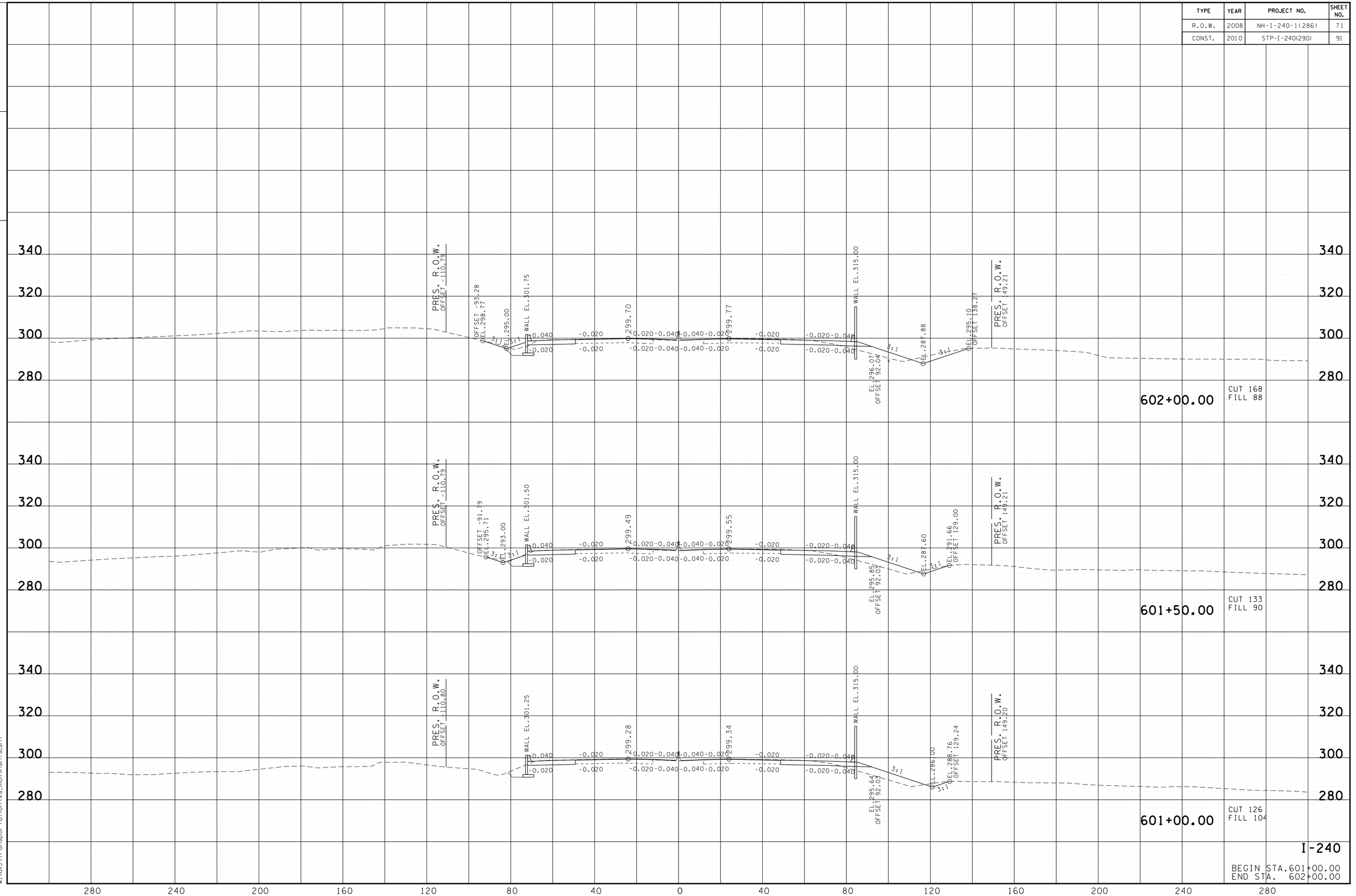
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	71
CONST.	2010	STP-I-240(290)	91



8/24/2010
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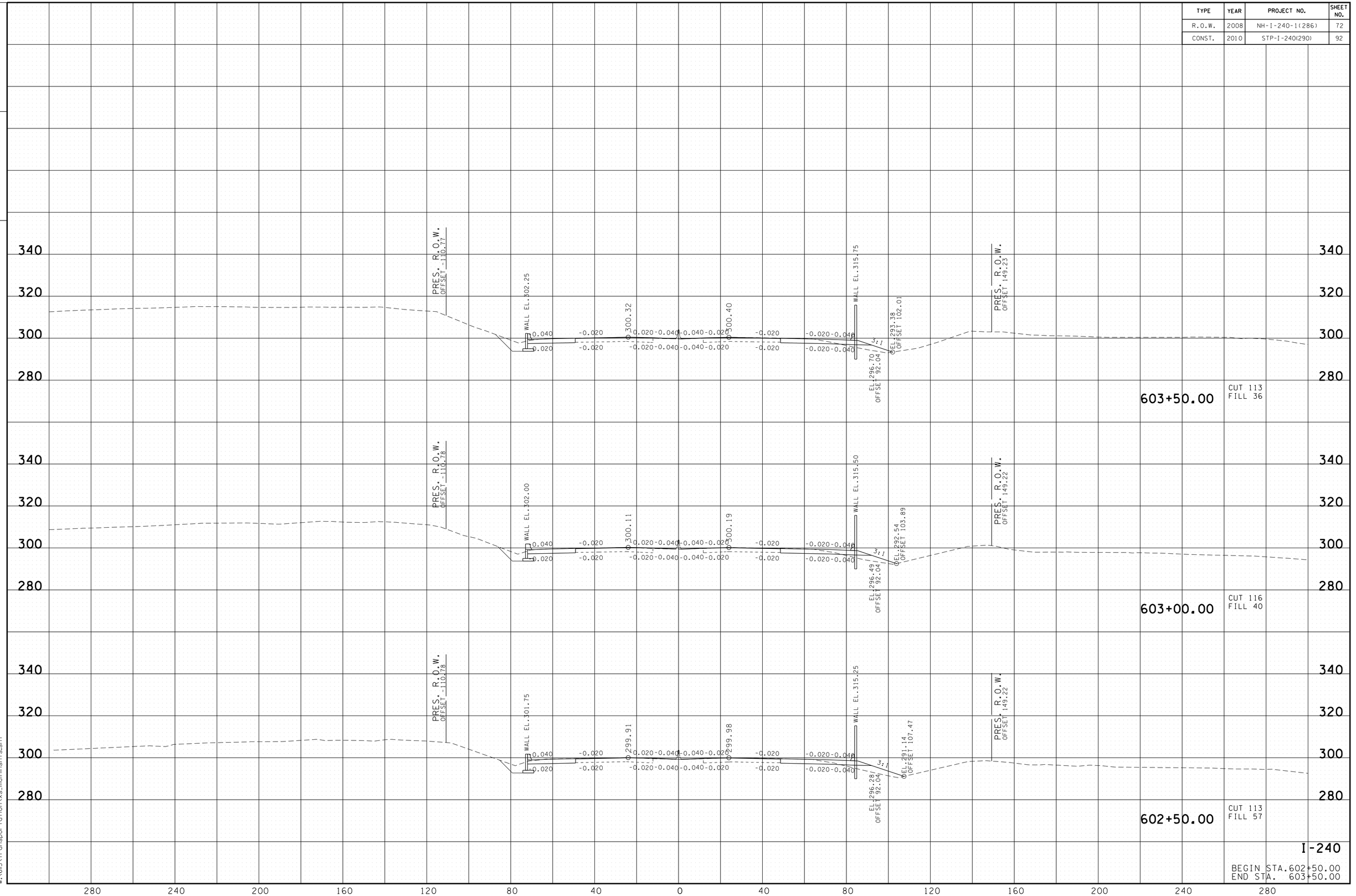
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	72
CONST.	2010	STP-I-240(290)	92



8/24/2010
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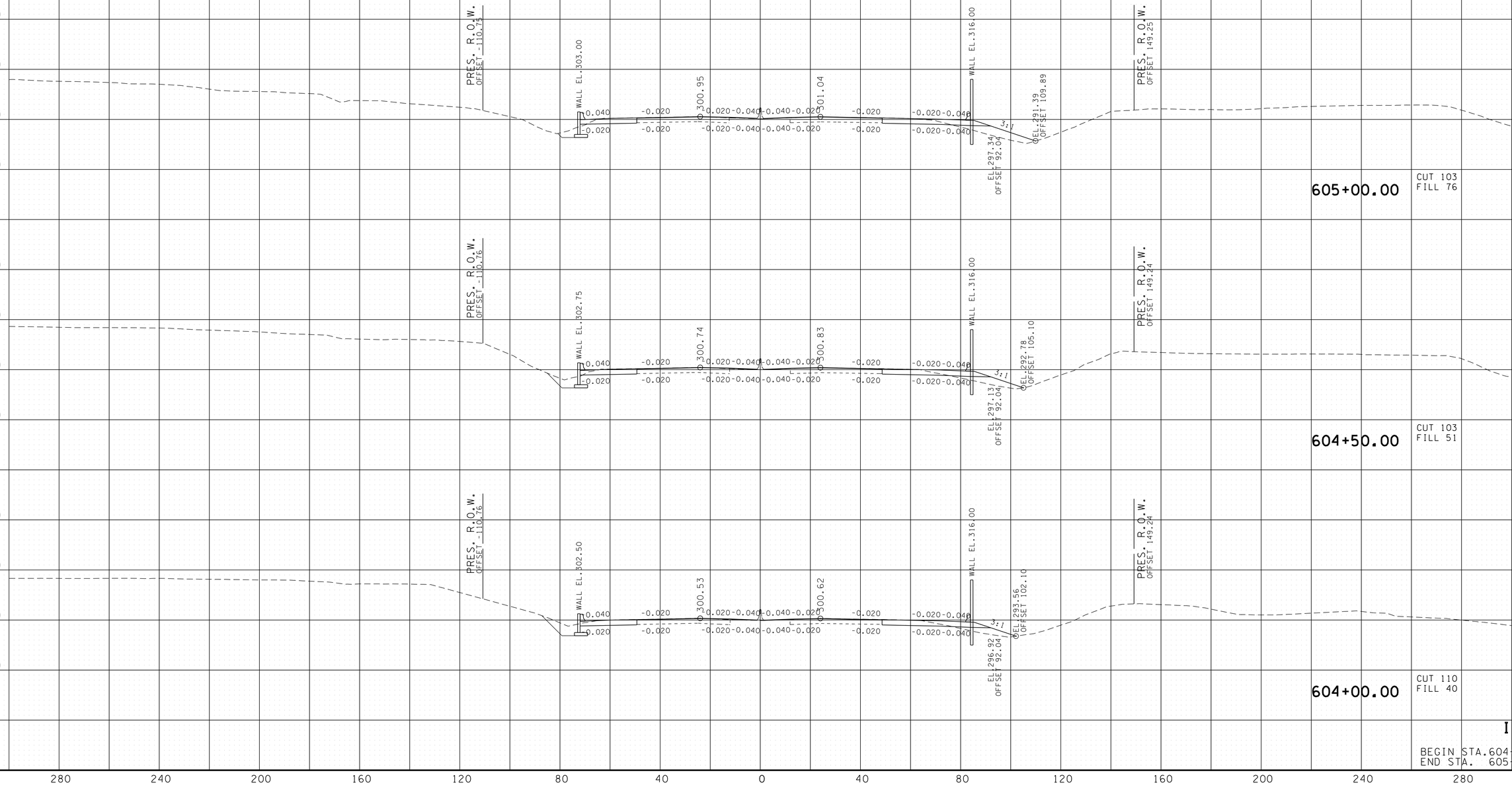
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	73
CONST.	2010	STP-I-240(290)	93



I-240

BEGIN STA.604+00.00
END STA. 605+00.00

8/24/2010
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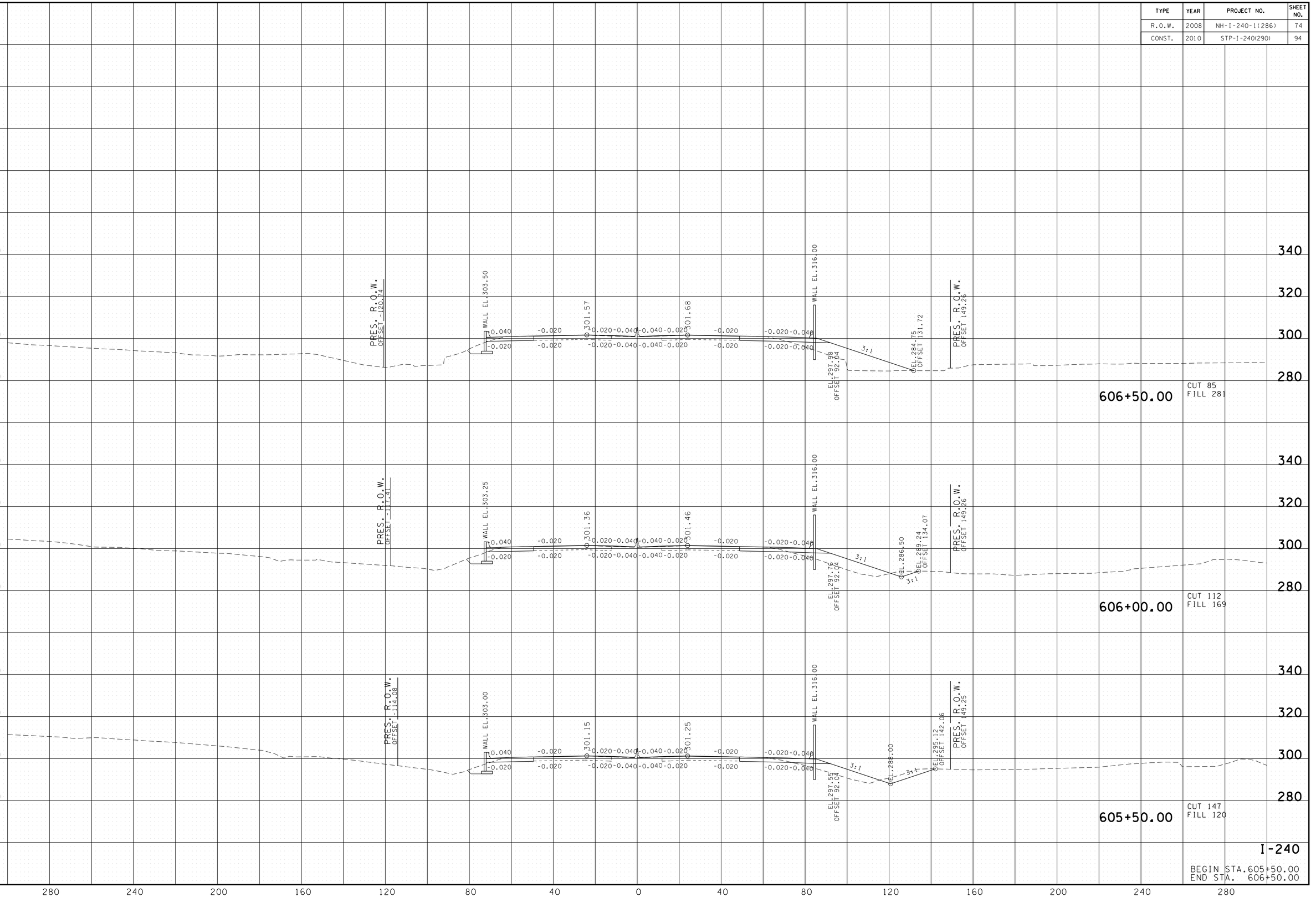
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	74
CONST.	2010	STP-I-240(290)	94



I-240

BEGIN STA. 605+50.00
END STA. 606+50.00

8/24/2010
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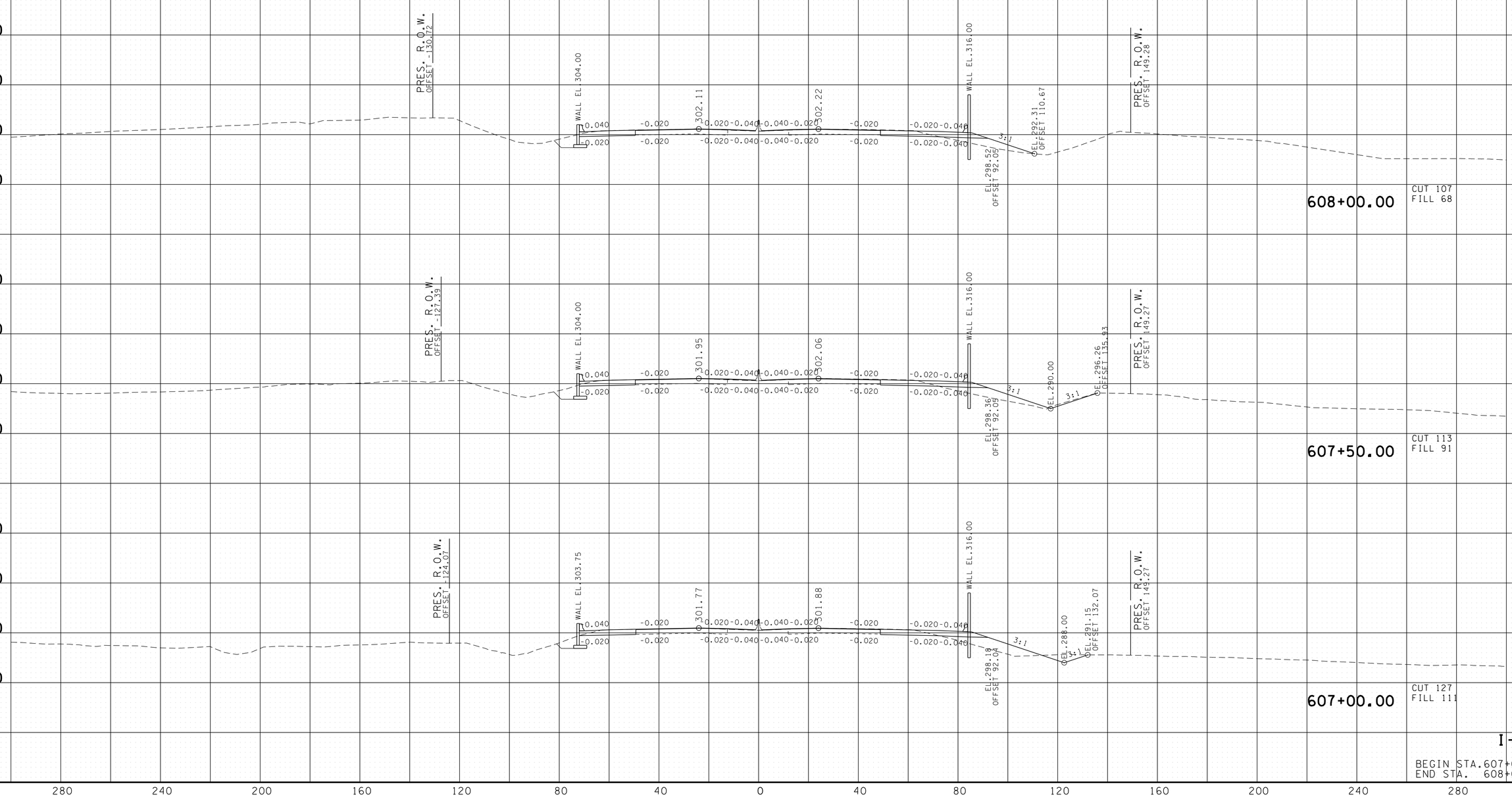
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	75
CONST.	2010	STP-I-240(290)	95



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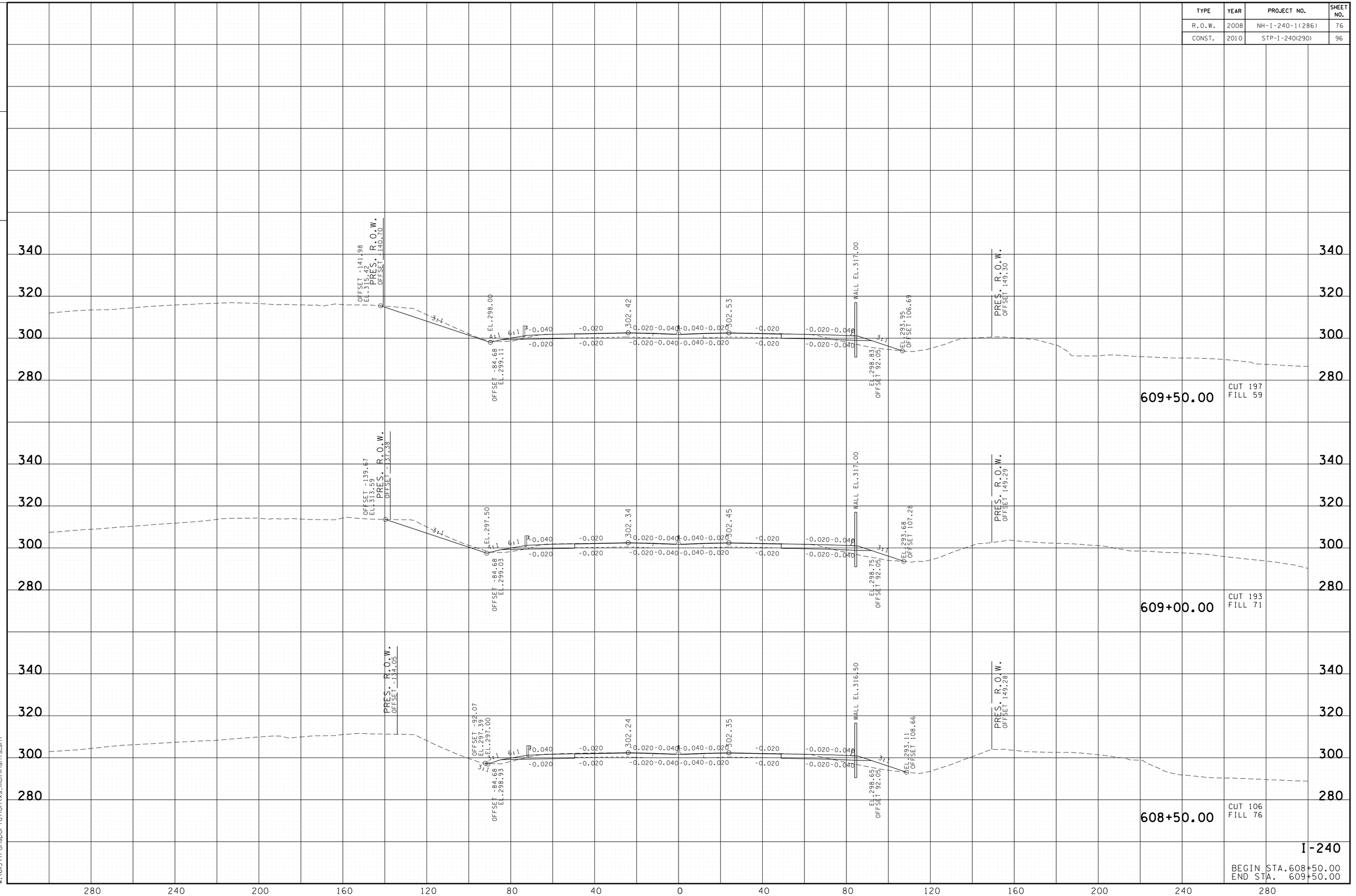
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	76
CONST.	2010	STP-I-240(290)	96



8/24/2010
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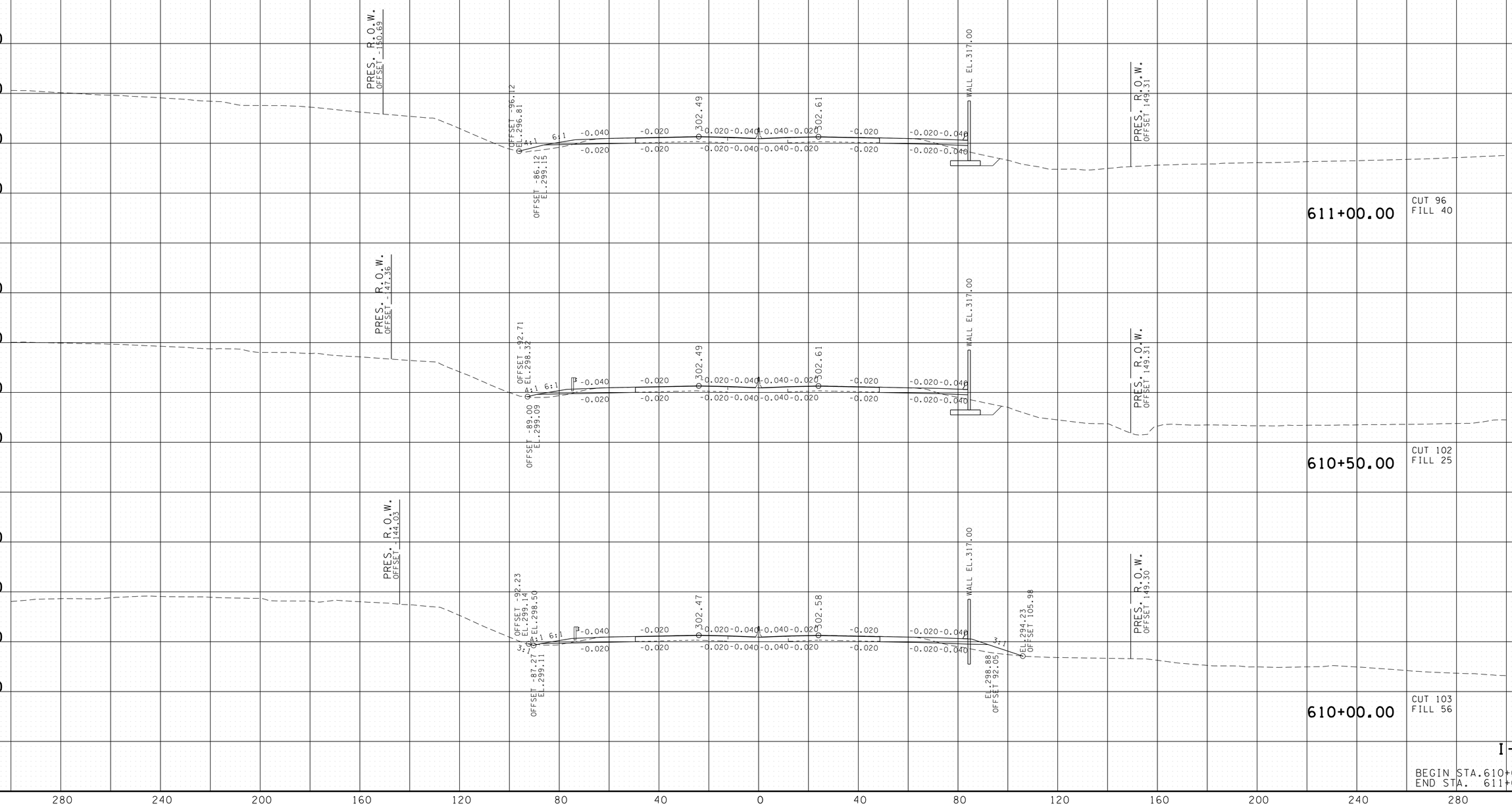
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	77
CONST.	2010	STP-I-240(290)	97



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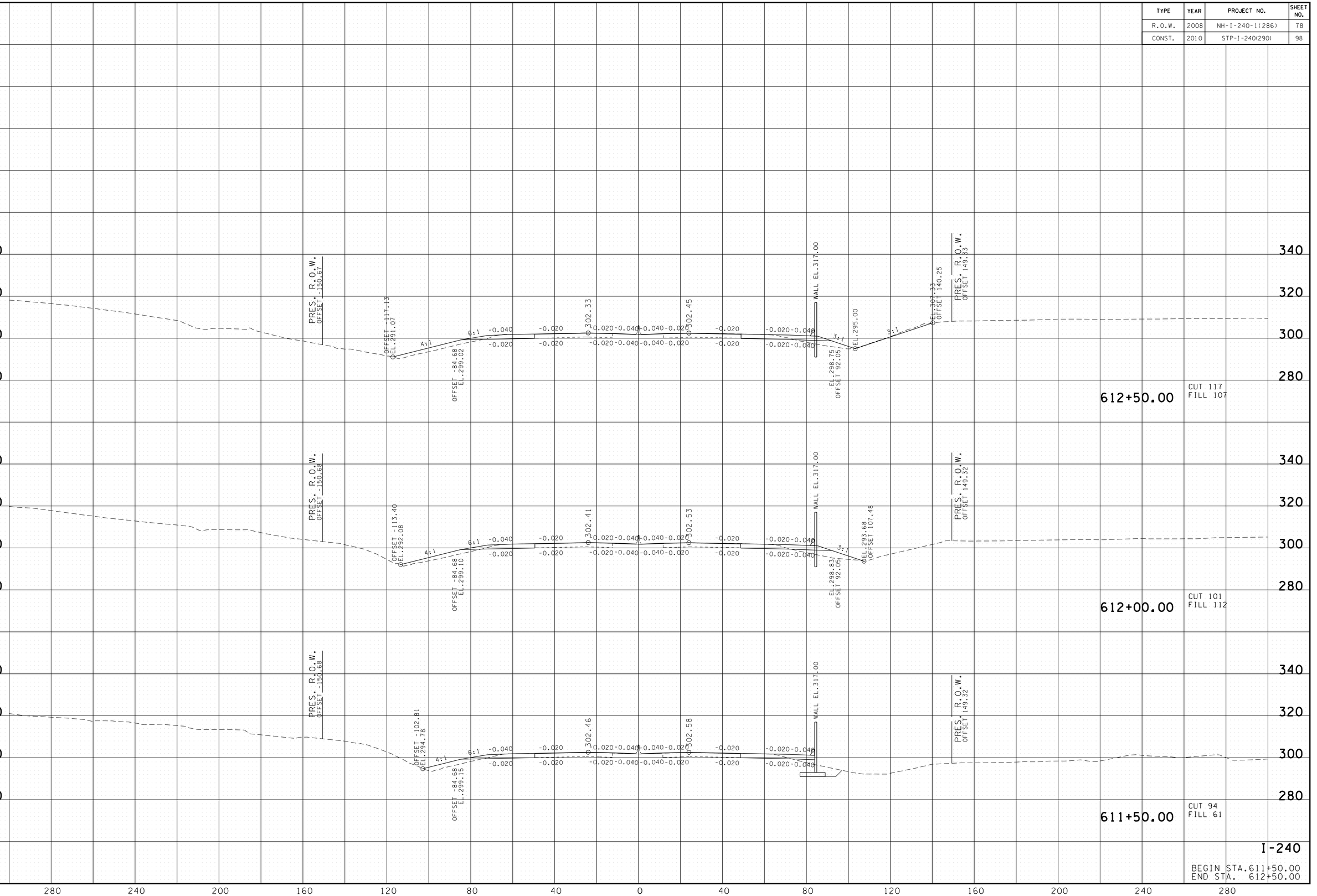
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	78
CONST.	2010	STP-I-240(290)	98



I-240

BEGIN STA.611+50.00
END STA. 612+50.00

8/24/2010
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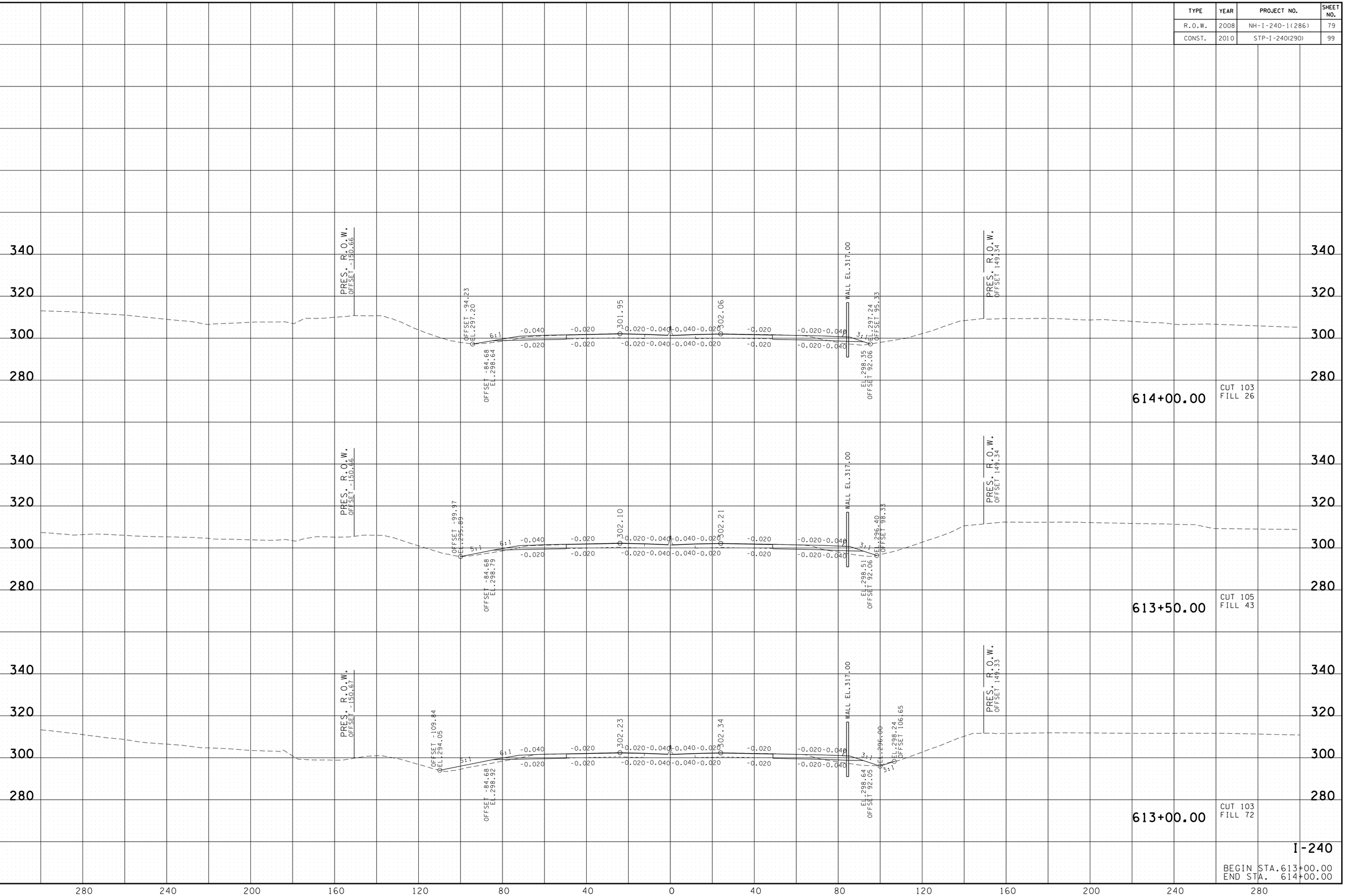
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	79
CONST.	2010	STP-I-240(290)	99



8/24/2010
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	80
CONST.	2010	STP-I-240(290)	100

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

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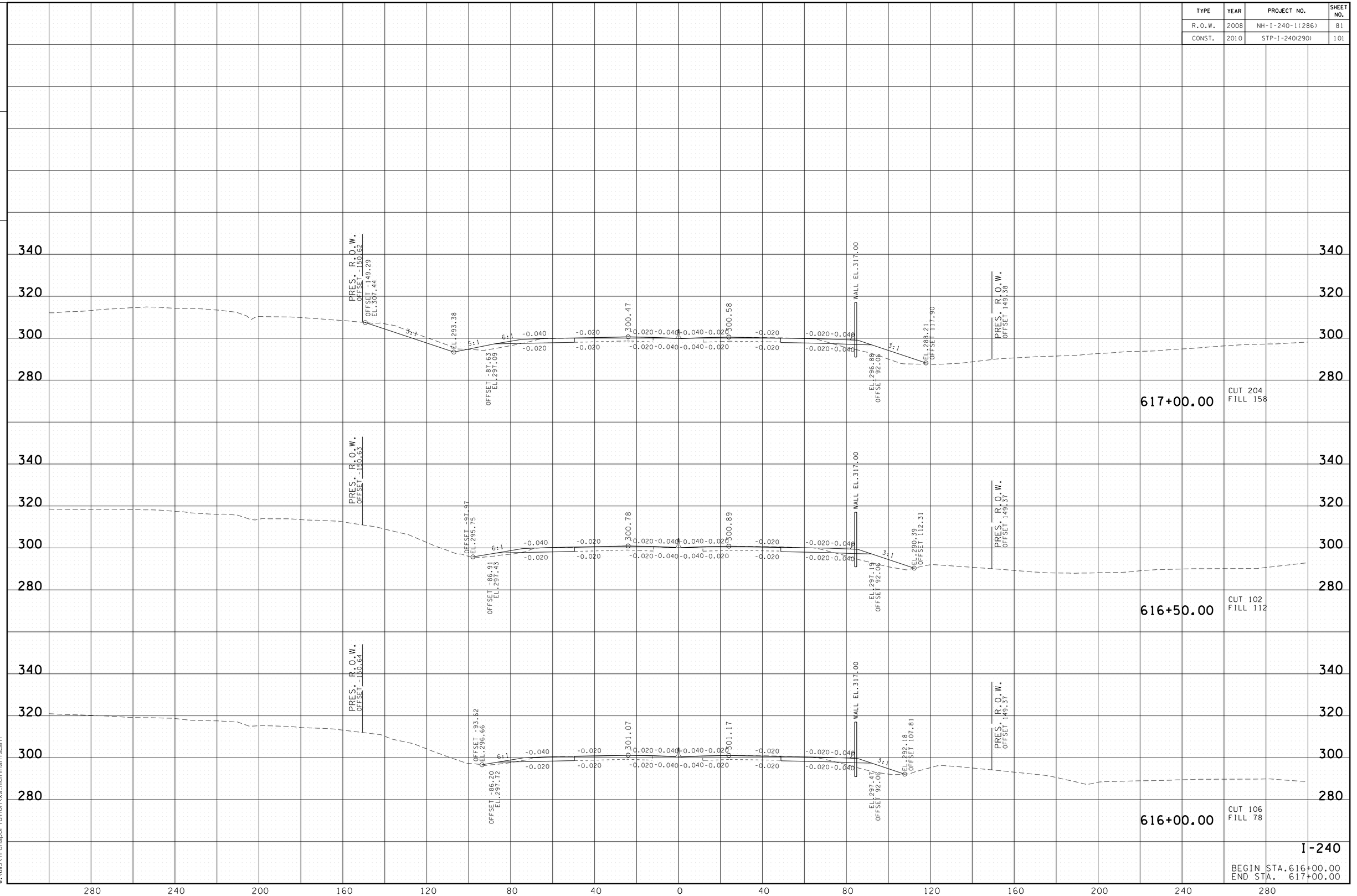
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	81
CONST.	2010	STP-I-240(290)	101



8/24/2010
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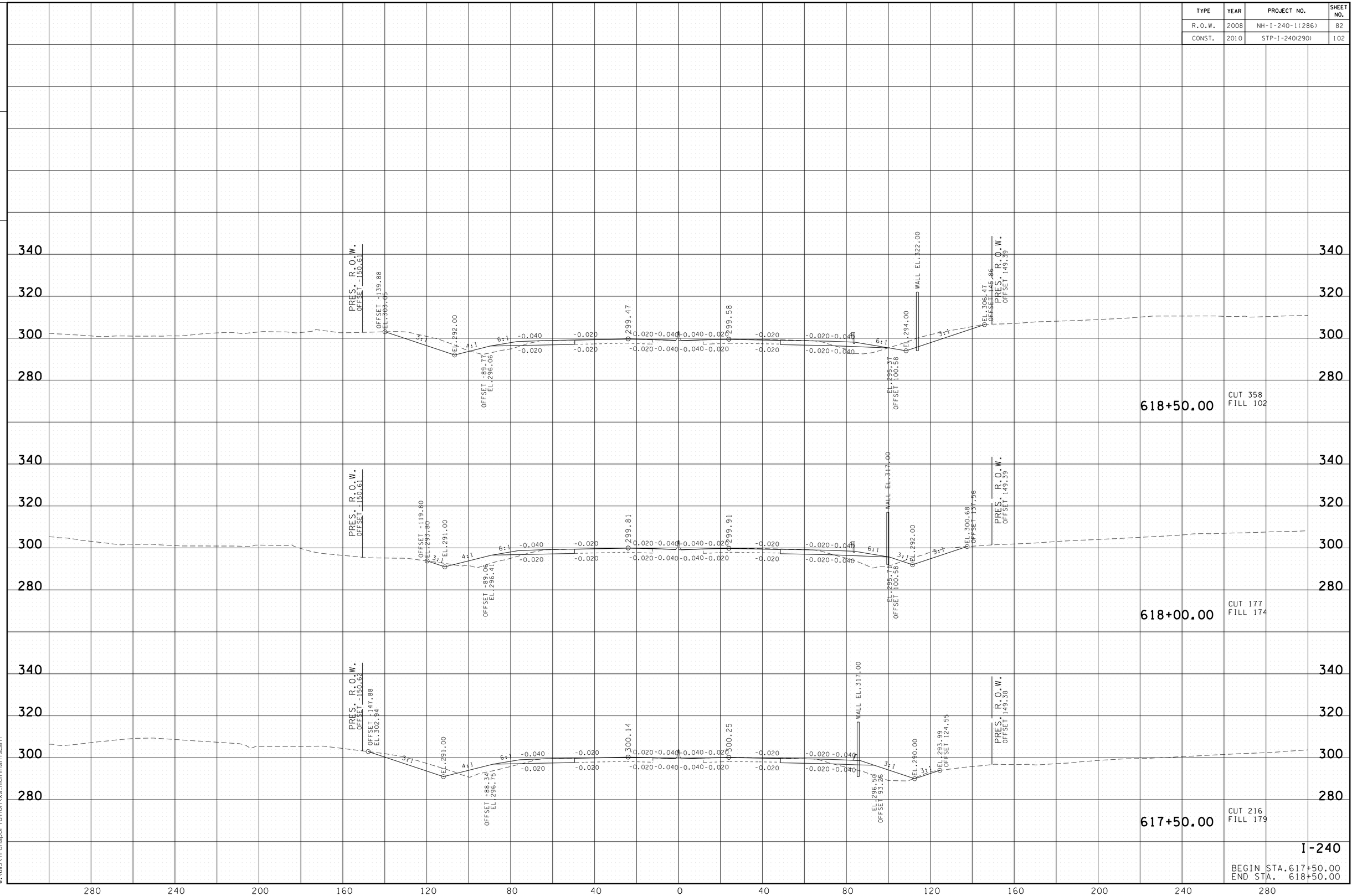
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	82
CONST.	2010	STP-I-240(290)	102



8/24/2010
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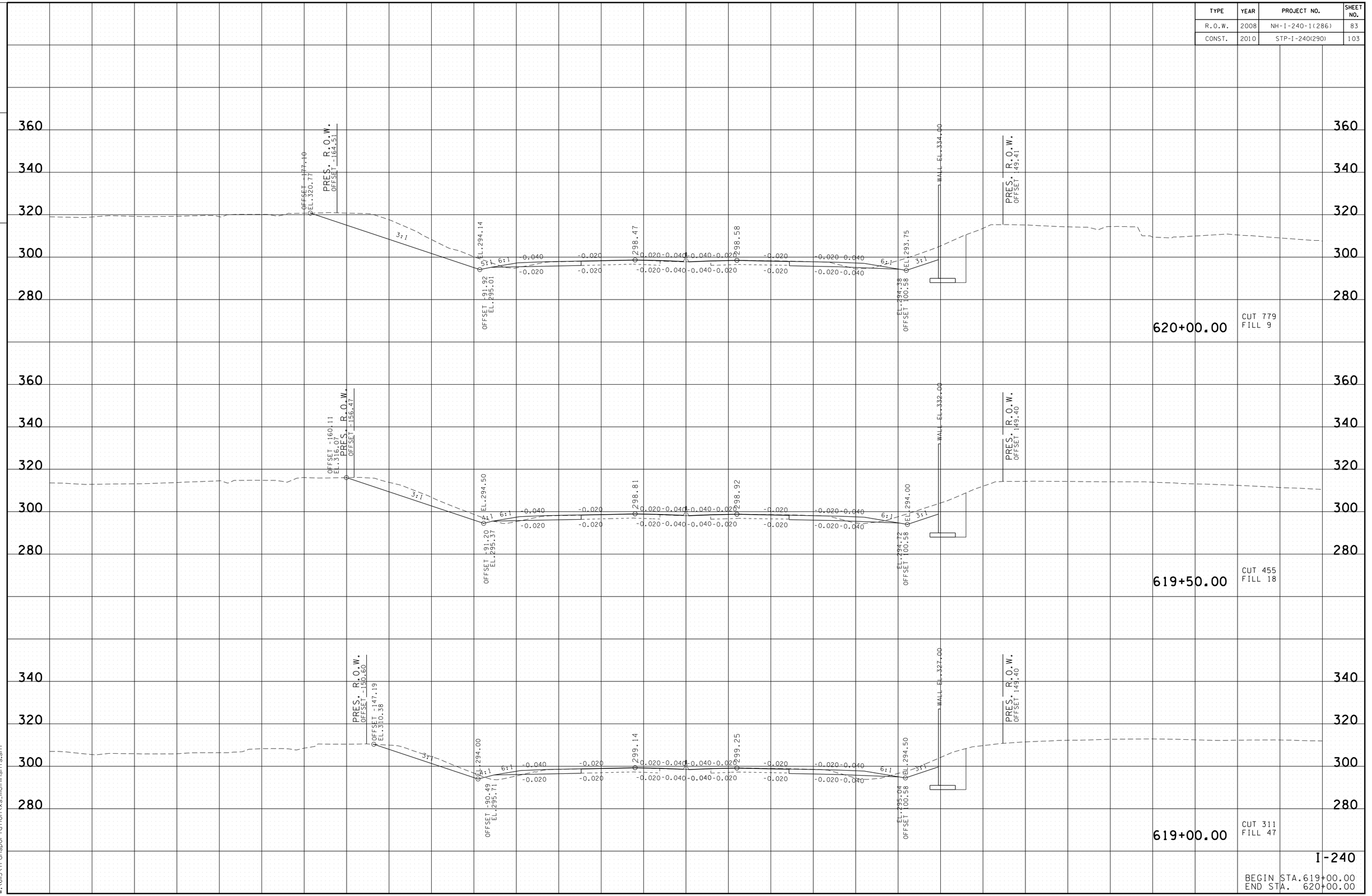
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	83
CONST.	2010	STP-I-240(290)	103



8/24/2010
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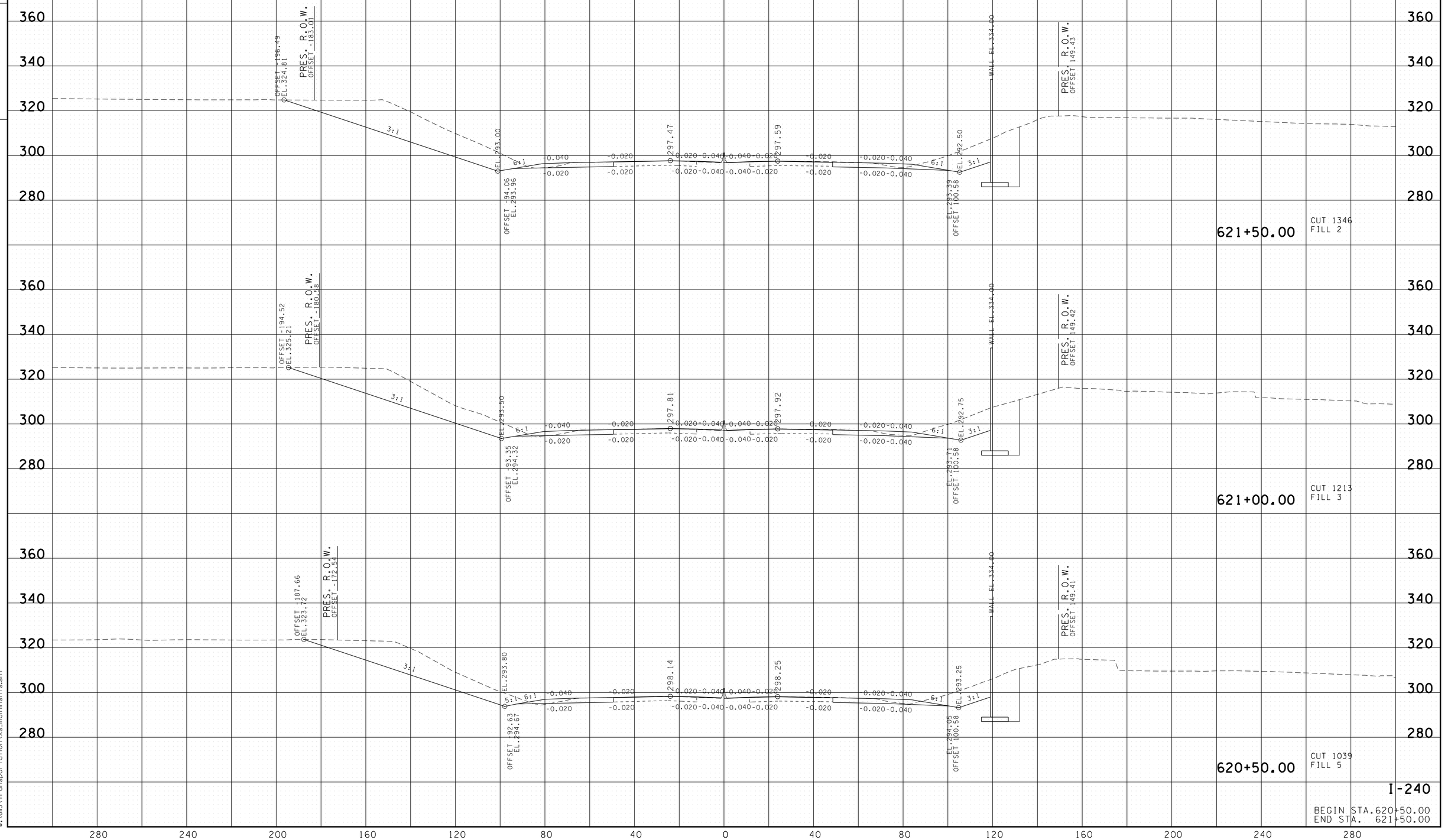
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	84
CONST.	2010	STP-I-240(290)	104

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



8/24/2010
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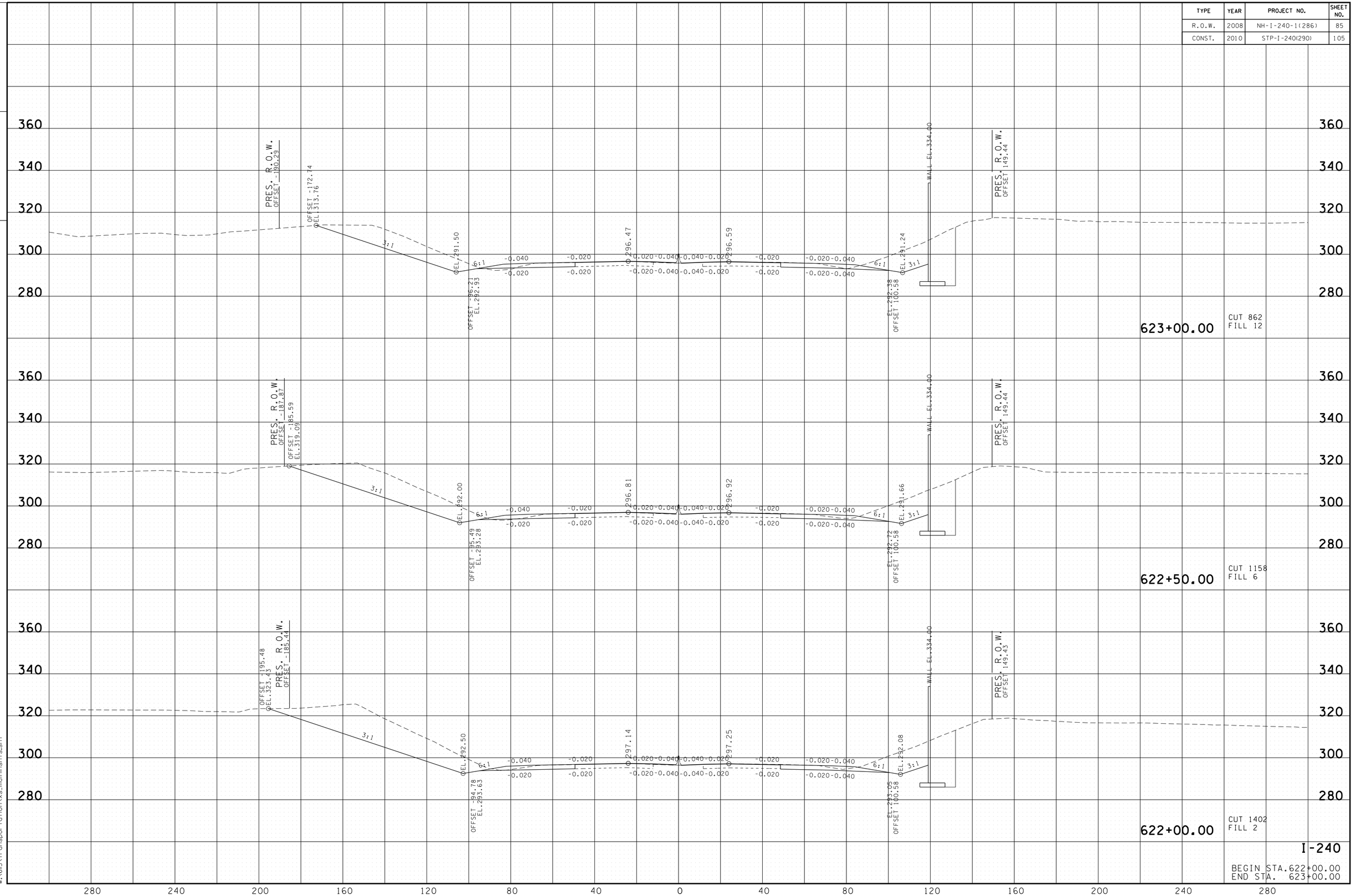
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	85
CONST.	2010	STP-I-240(290)	105



8/24/2010
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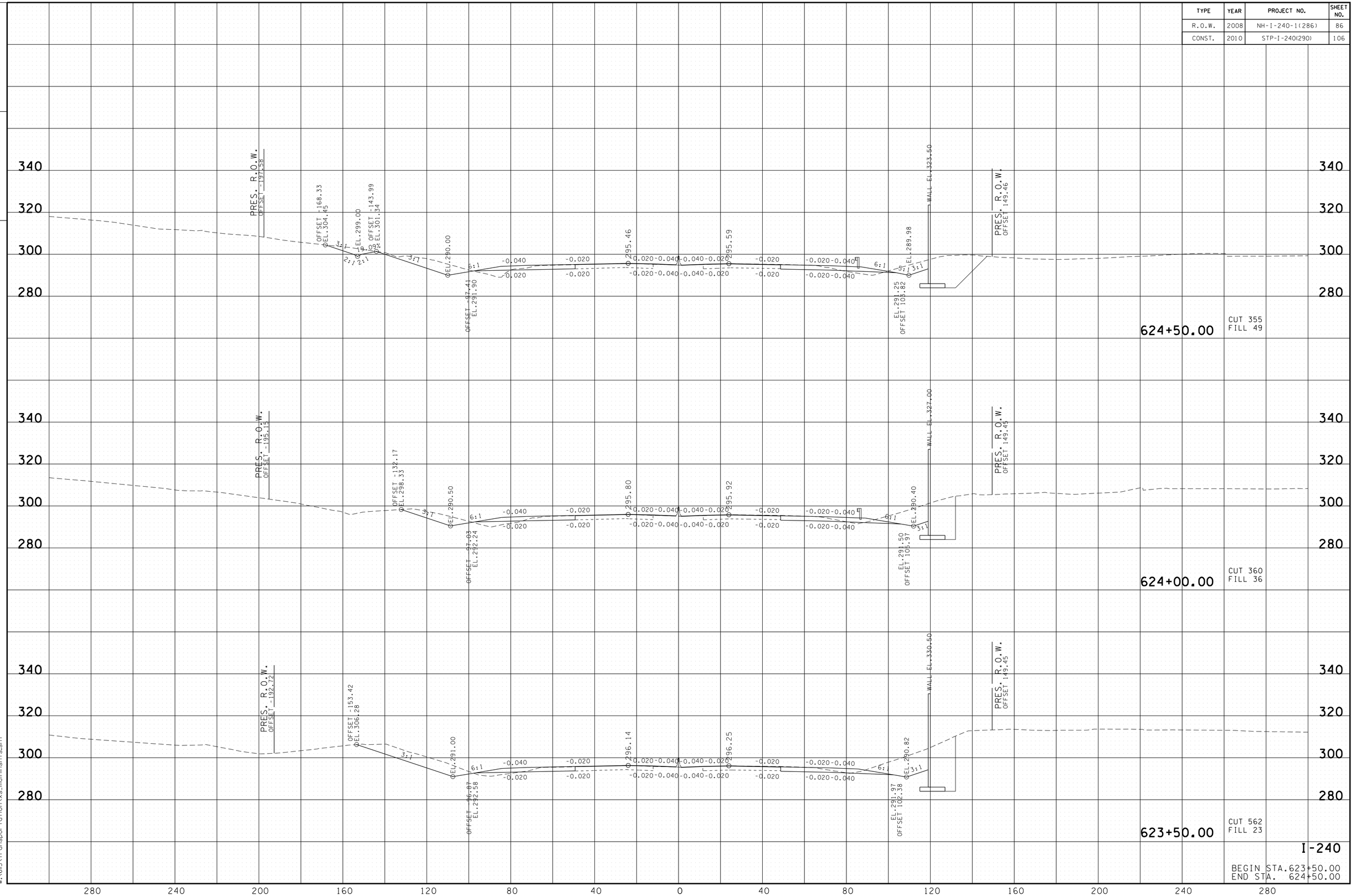
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	86
CONST.	2010	STP-I-240(290)	106



8/24/2010
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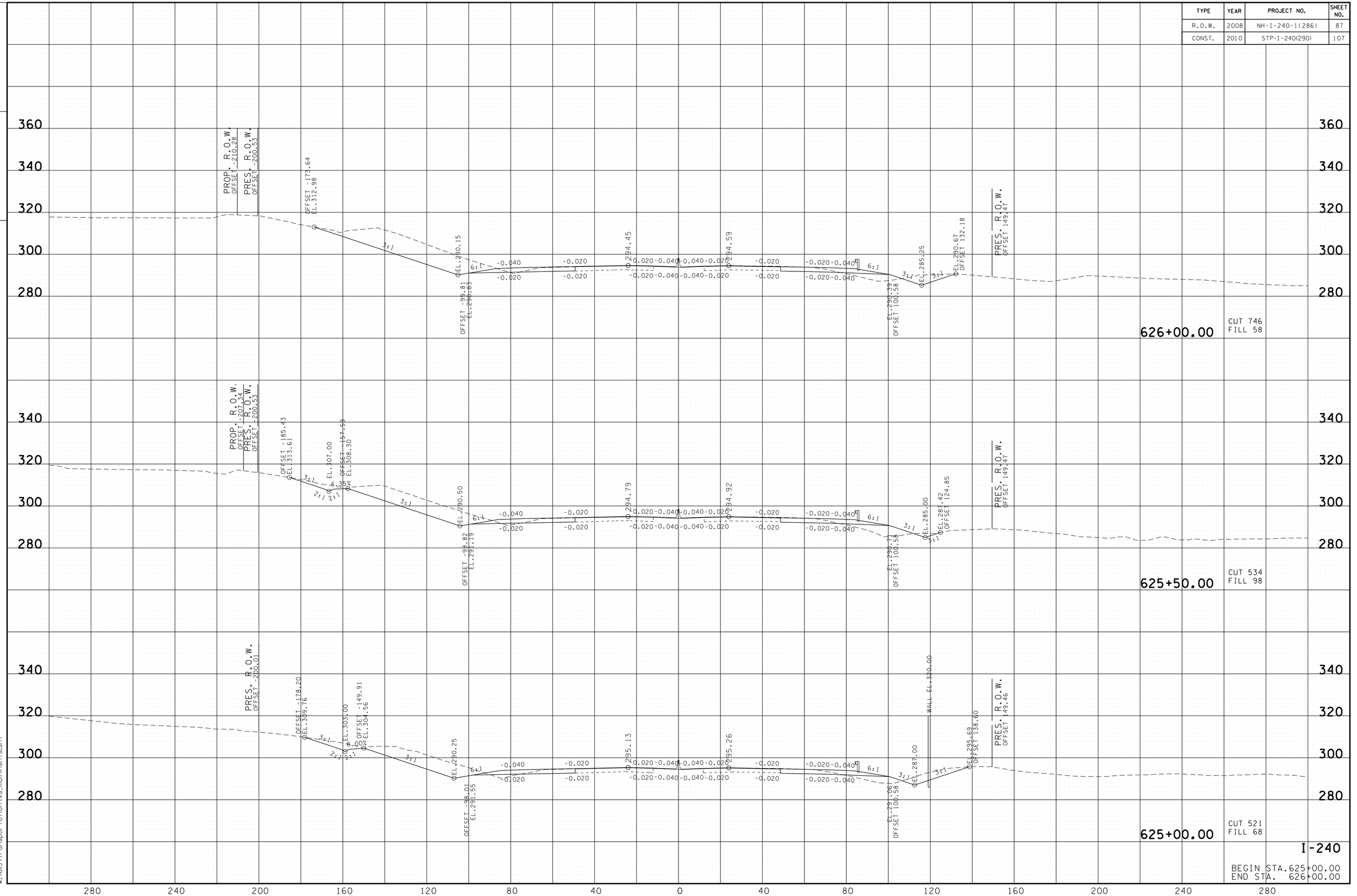
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	87
CONST.	2010	STP-I-240(290)	107



8/24/2010
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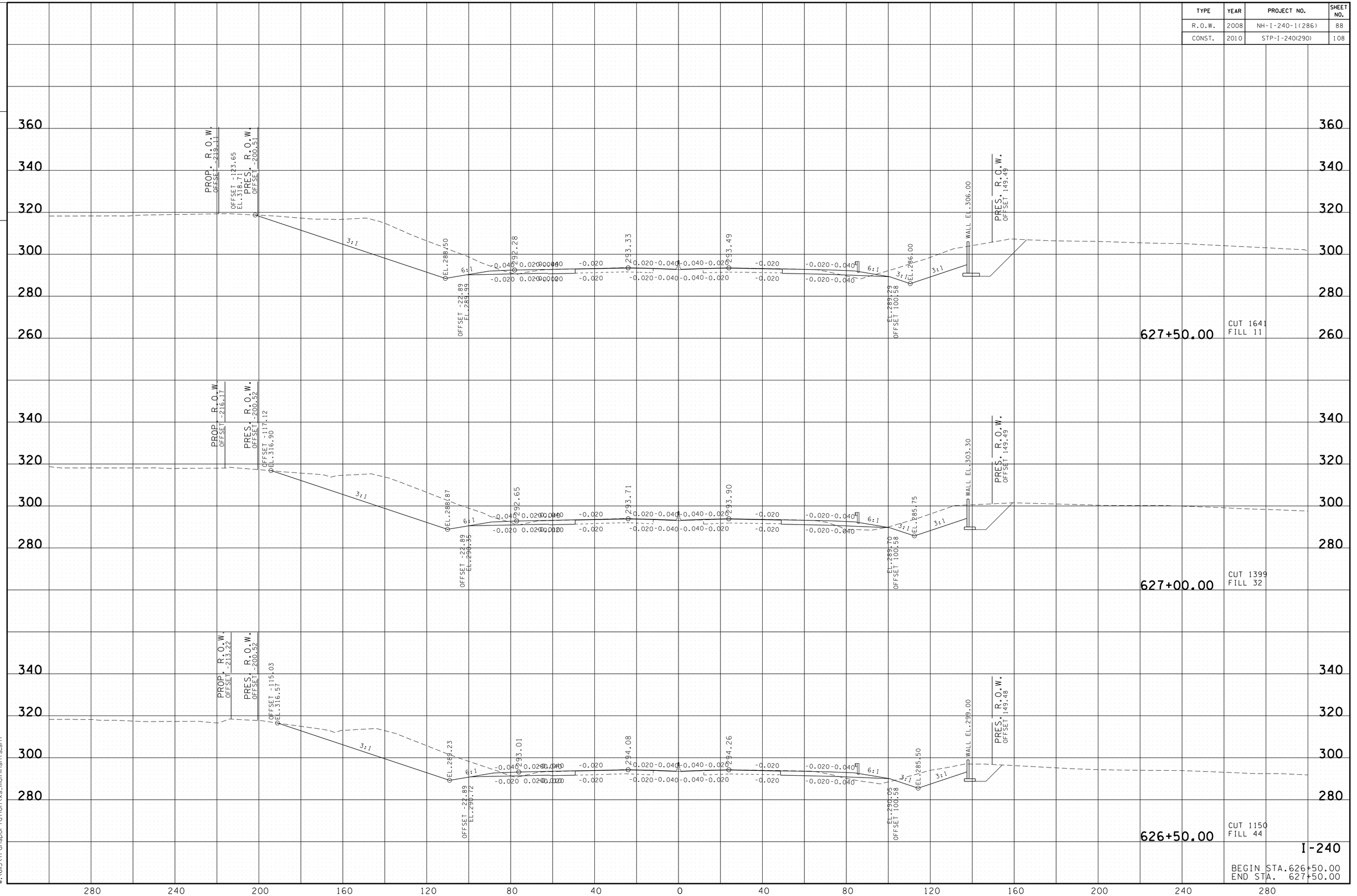
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	88
CONST.	2010	STP-I-240(290)	108



I-240

BEGIN STA.626+50.00
END STA. 627+50.00

8/24/2010
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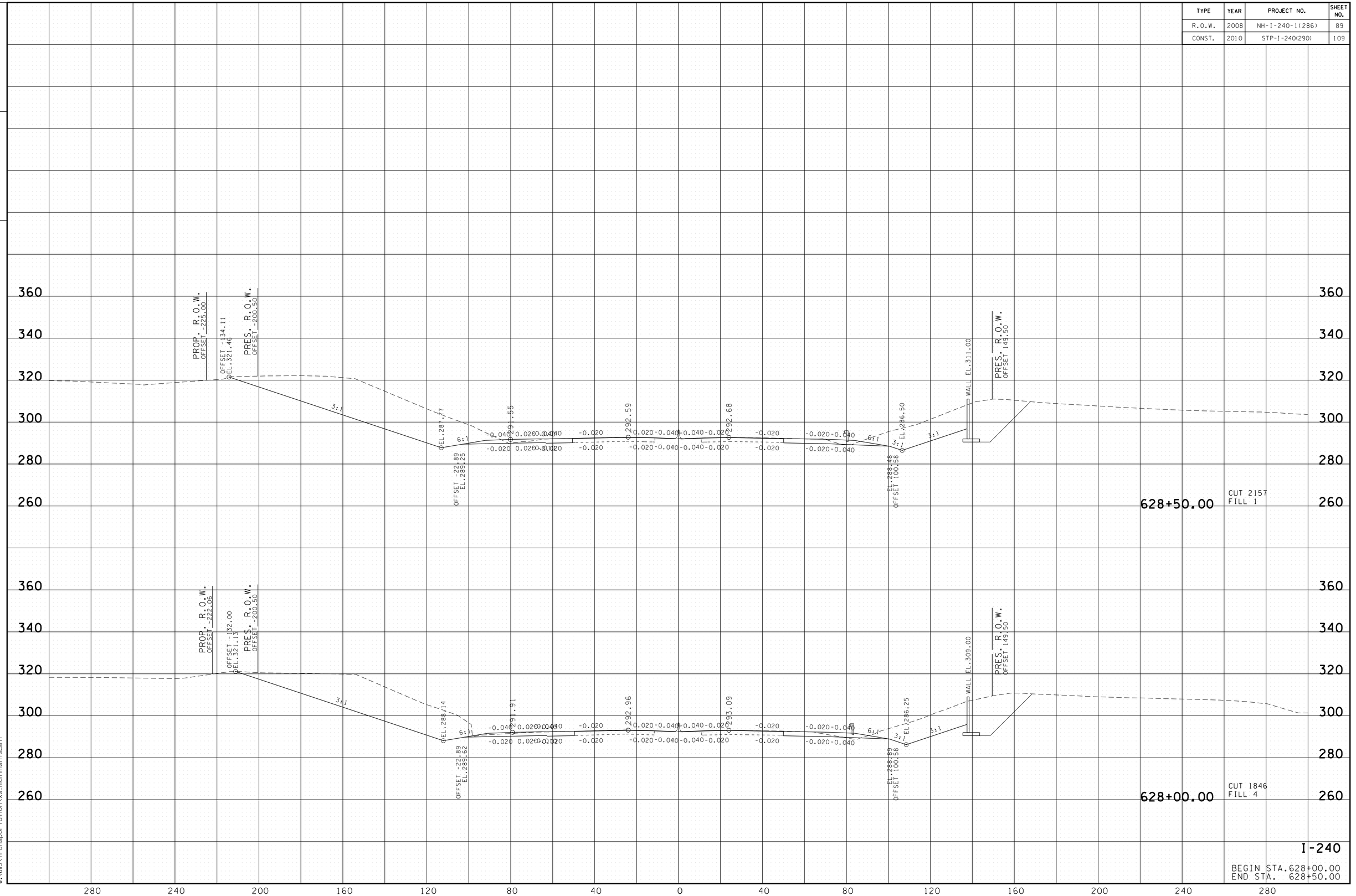
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	89
CONST.	2010	STP-I-240(290)	109



8/24/2010
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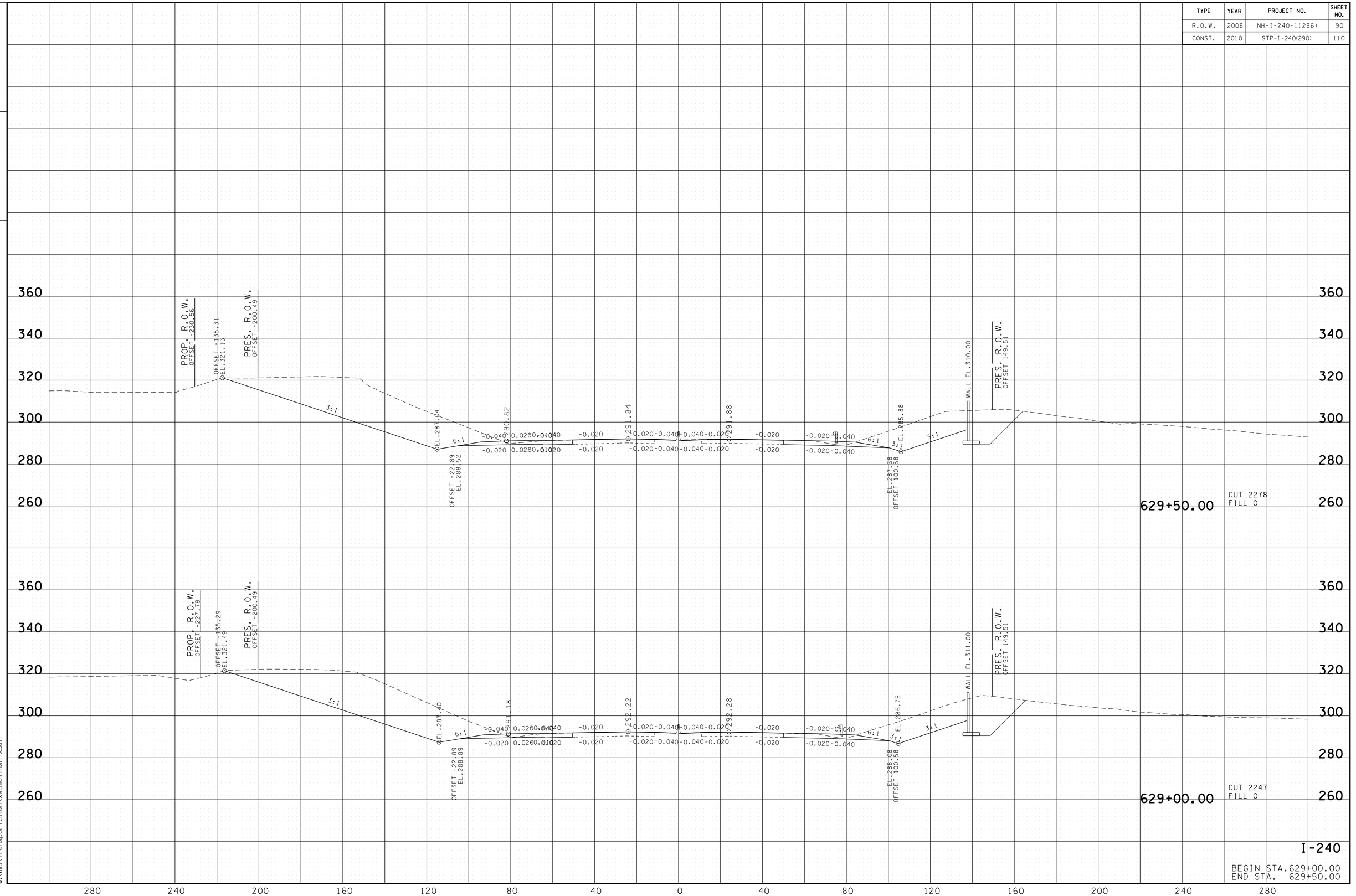
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	90
CONST.	2010	STP-I-240(290)	110



I-240

BEGIN STA.629+00.00
END STA. 629+50.00

8/24/2010
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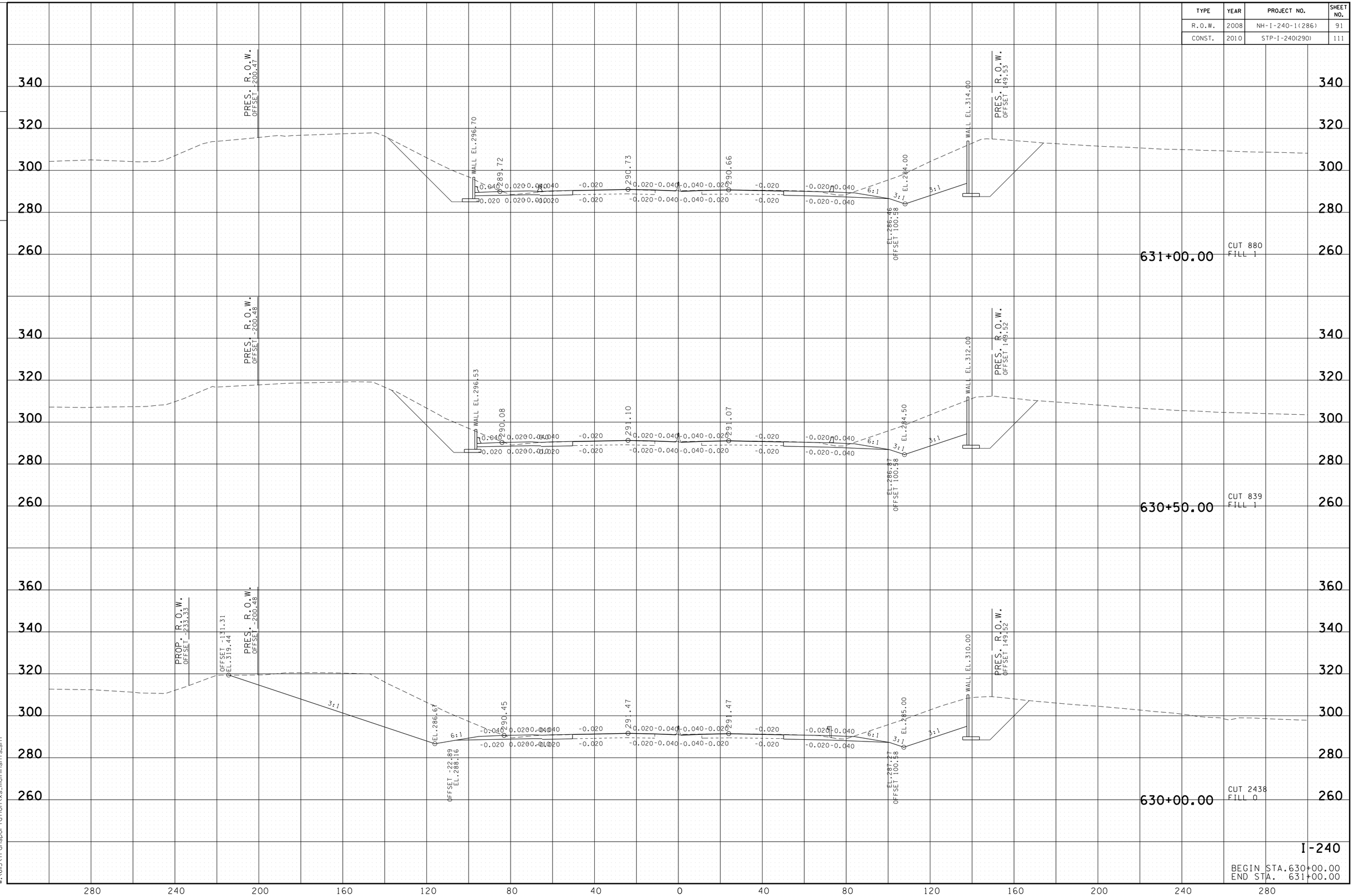
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	91
CONST.	2010	STP-I-240(290)	111



8/24/2010
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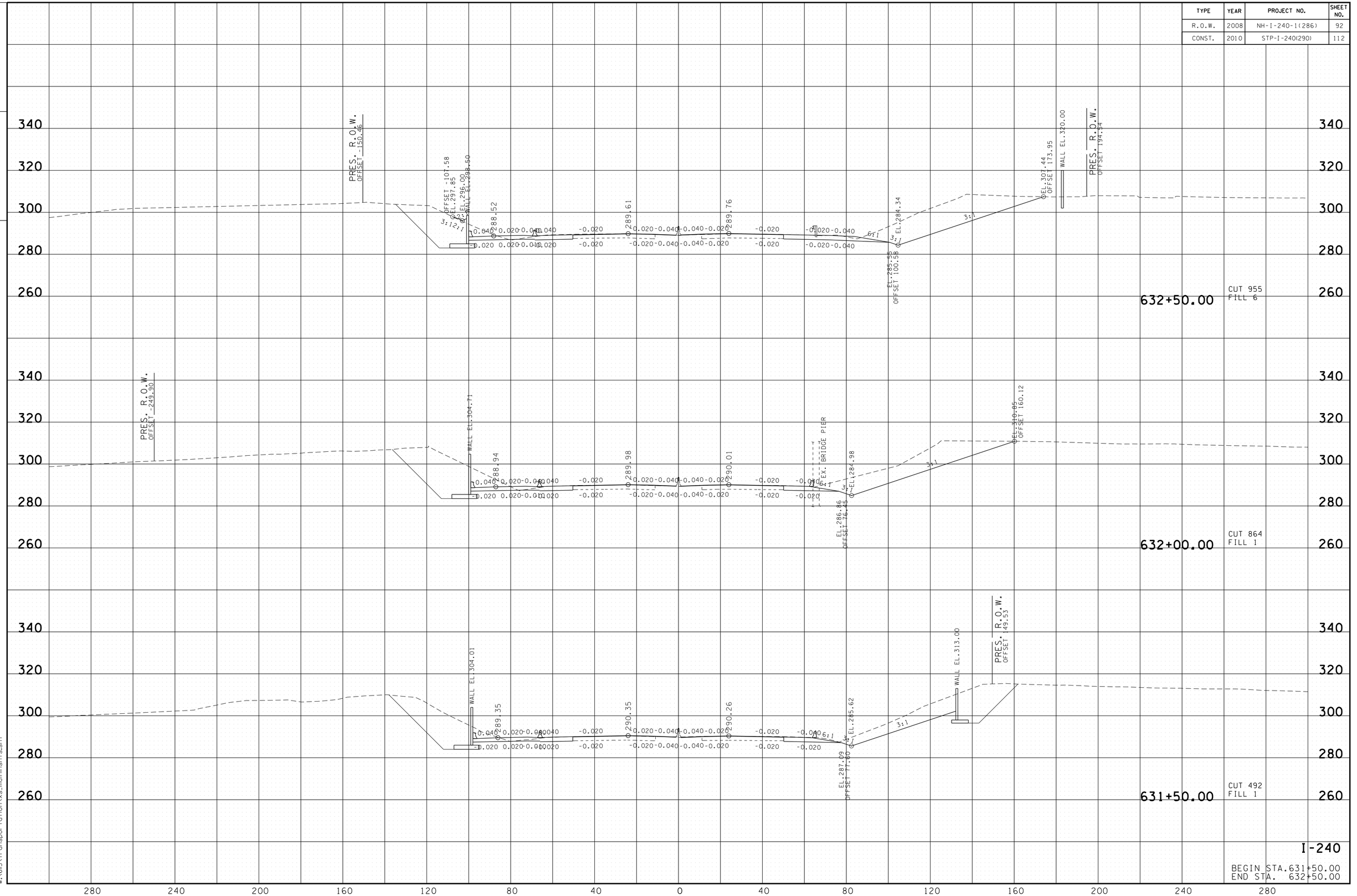
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	92
CONST.	2010	STP-I-240(290)	112



I-240

BEGIN STA.631+50.00
END STA. 632+50.00

8/24/2010
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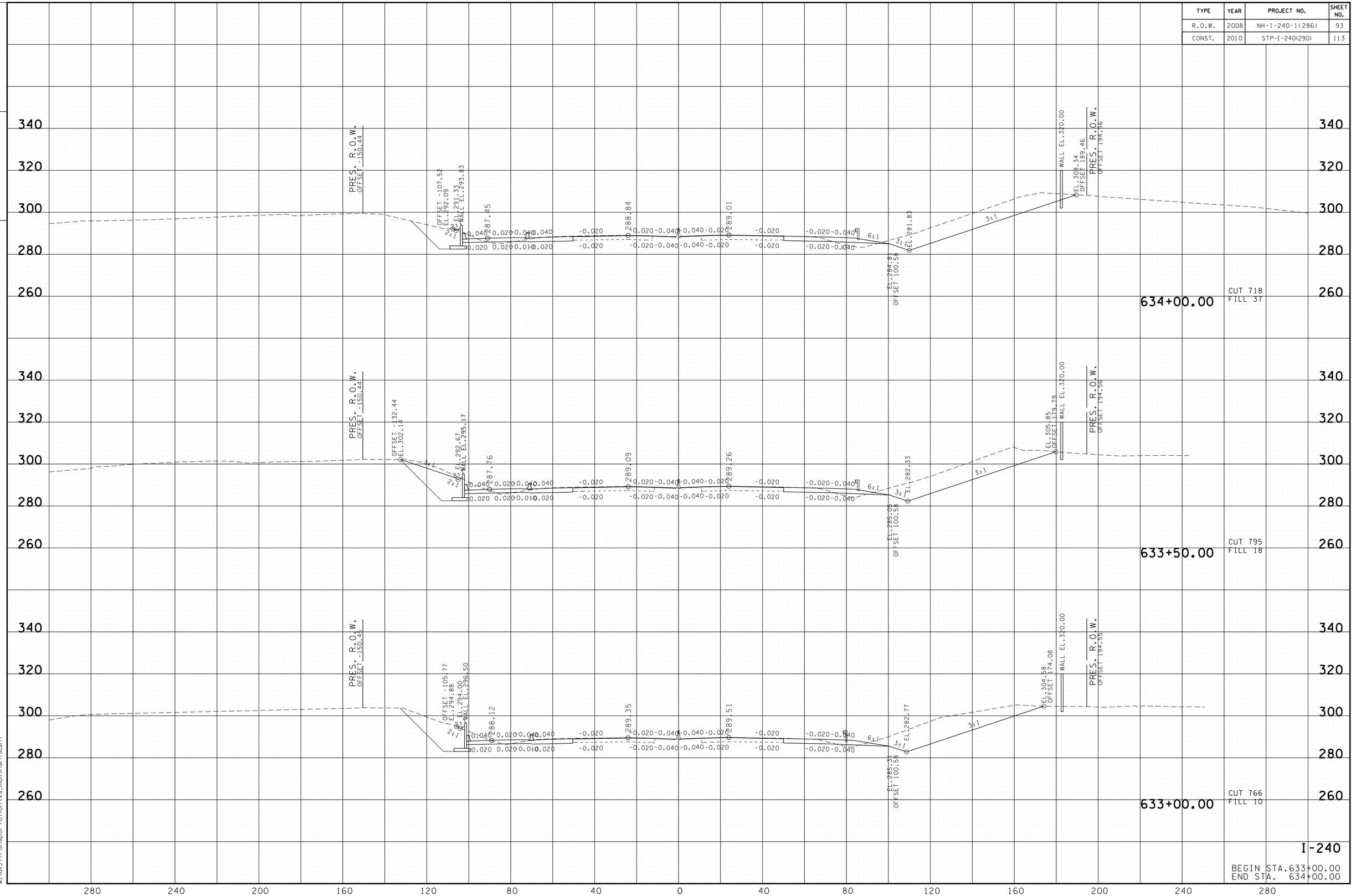
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	93
CONST.	2010	STP-I-240(290)	113

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



I-240

BEGIN STA. 633+00.00
END STA. 634+00.00

8/24/2010
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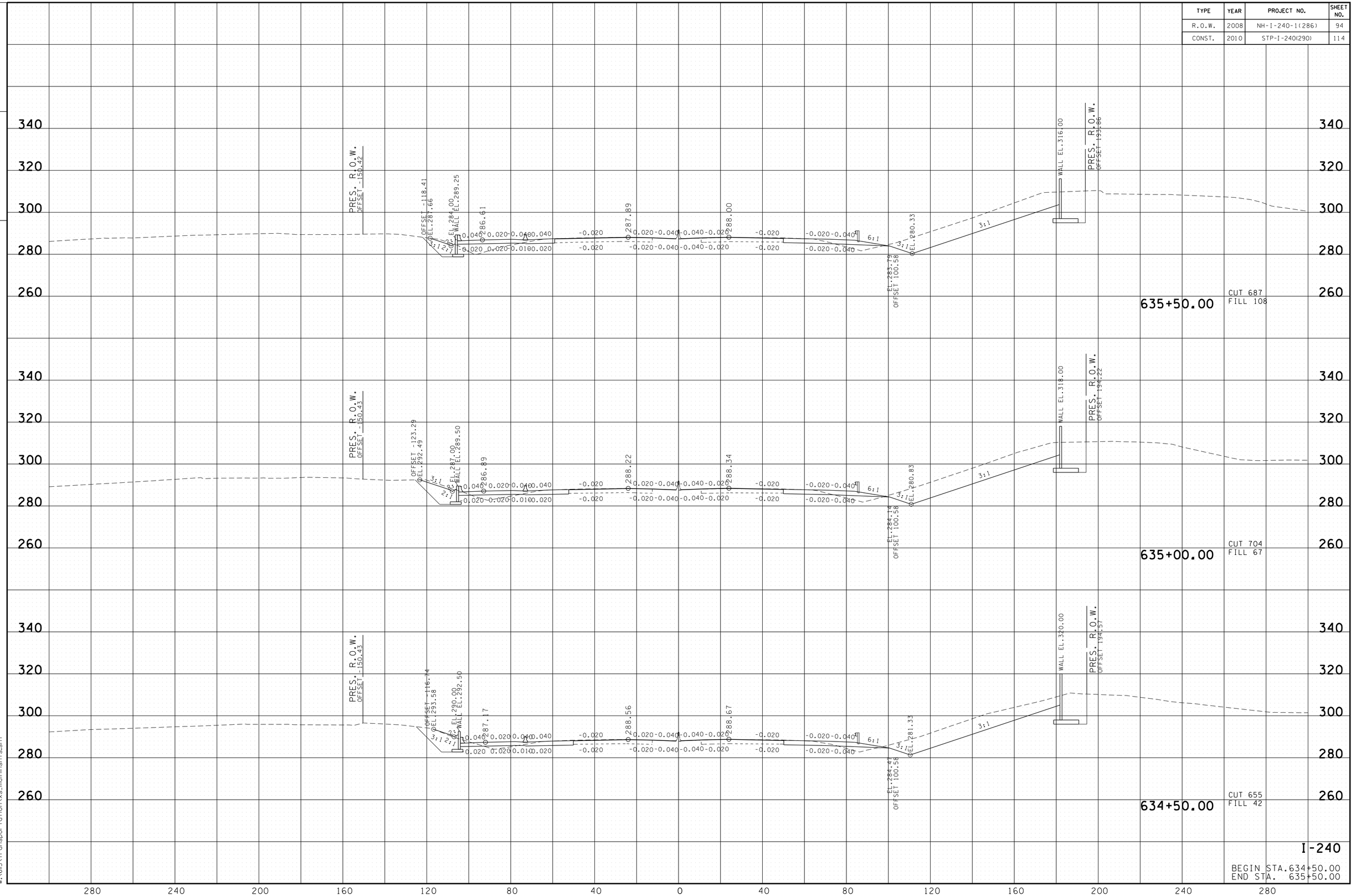
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	94
CONST.	2010	STP-I-240(290)	114



8/24/2010
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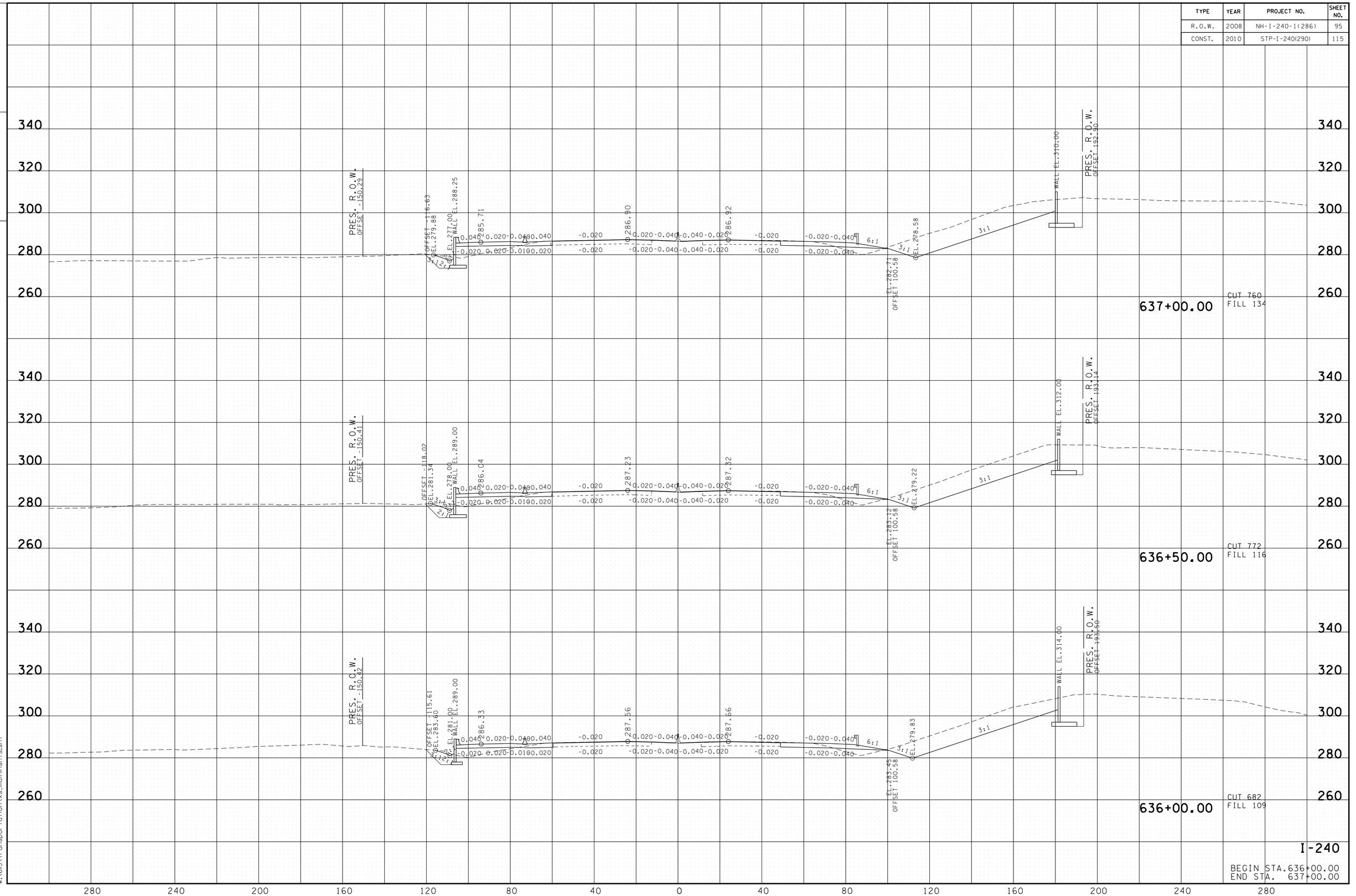
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	95
CONST.	2010	STP-I-240(290)	115



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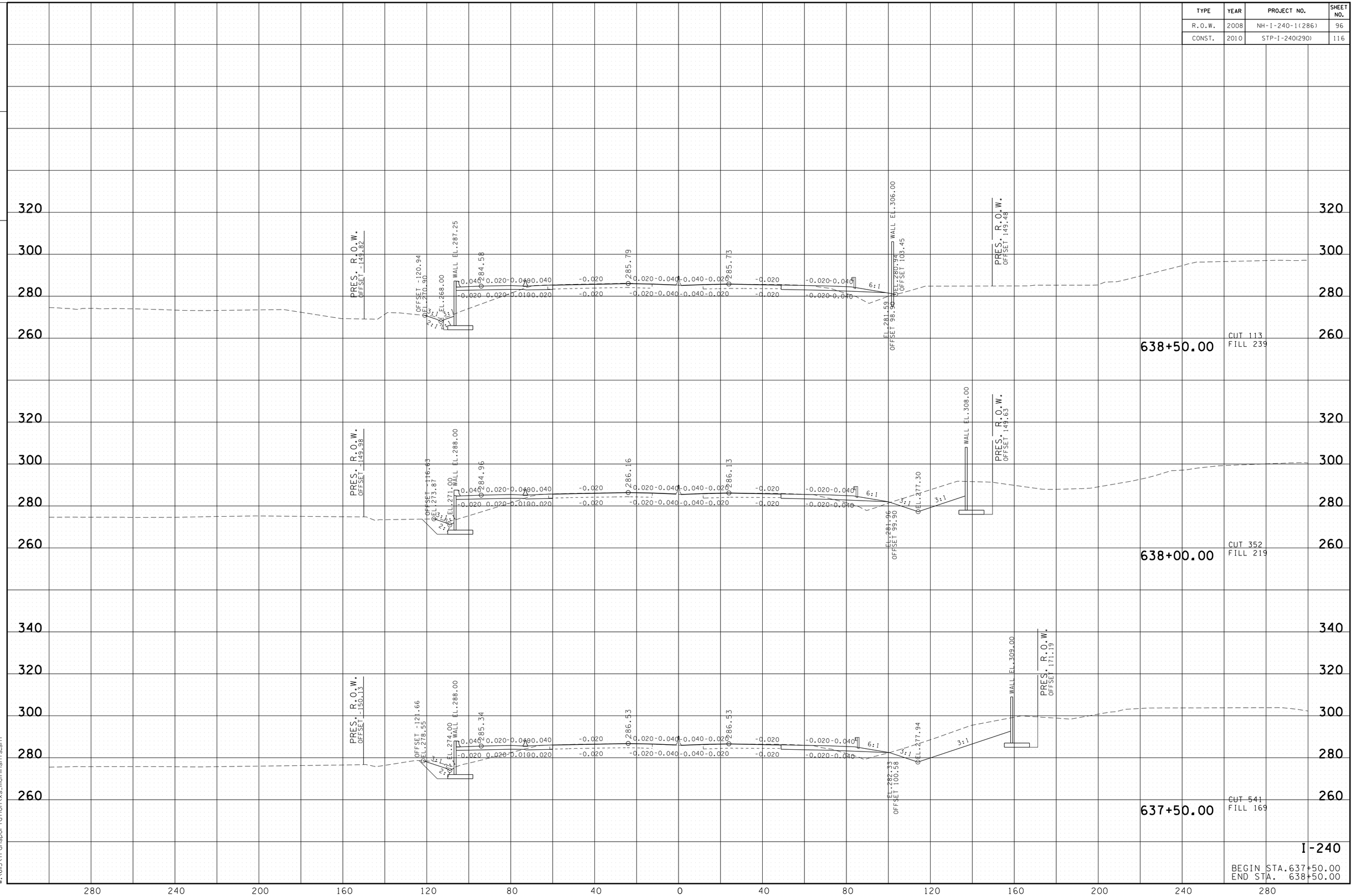
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	96
CONST.	2010	STP-I-240(290)	116



8/24/2010
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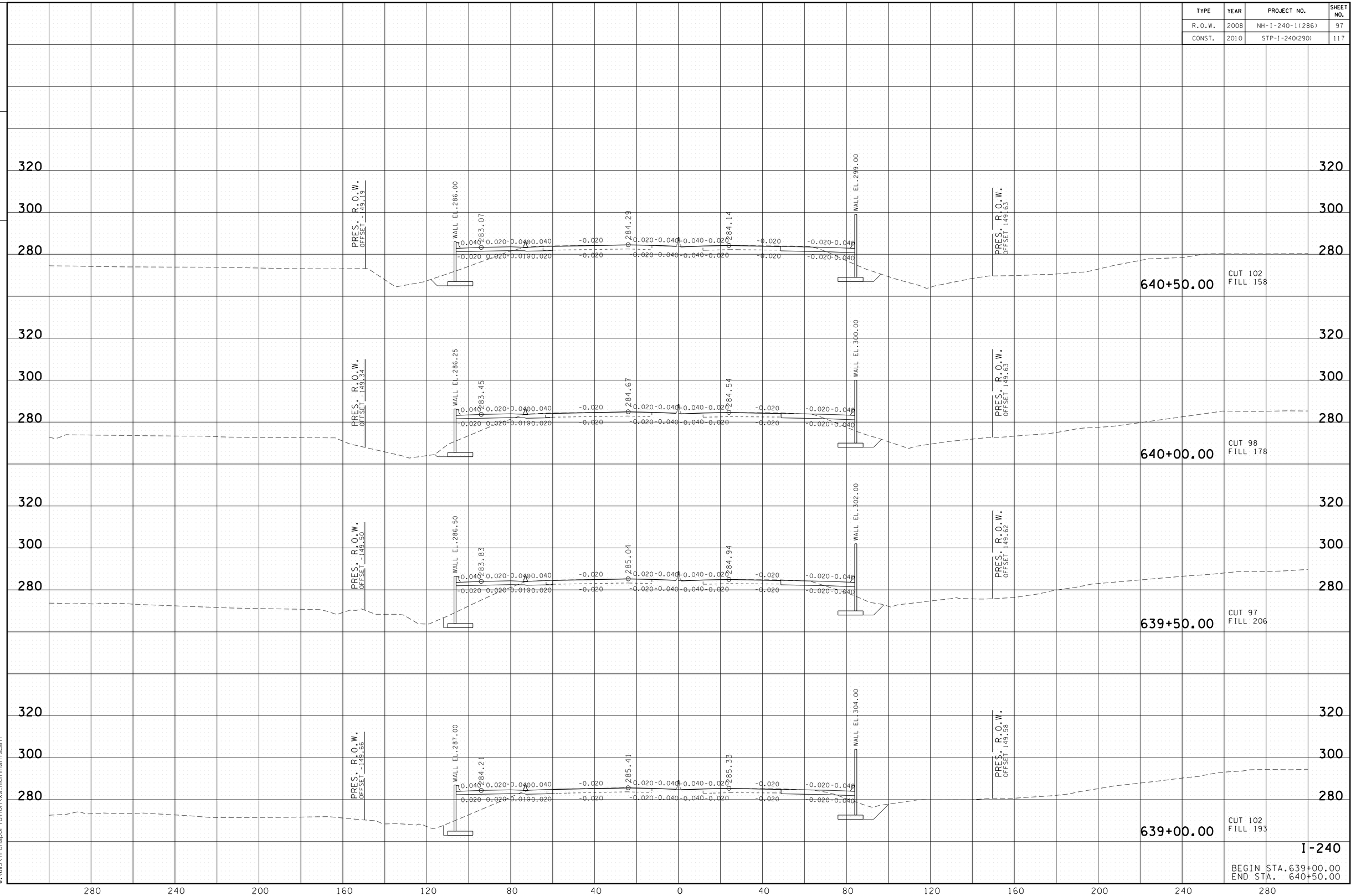
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	97
CONST.	2010	STP-I-240(290)	117



I-240

BEGIN STA.639+00.00
END STA. 640+50.00

8/24/2010
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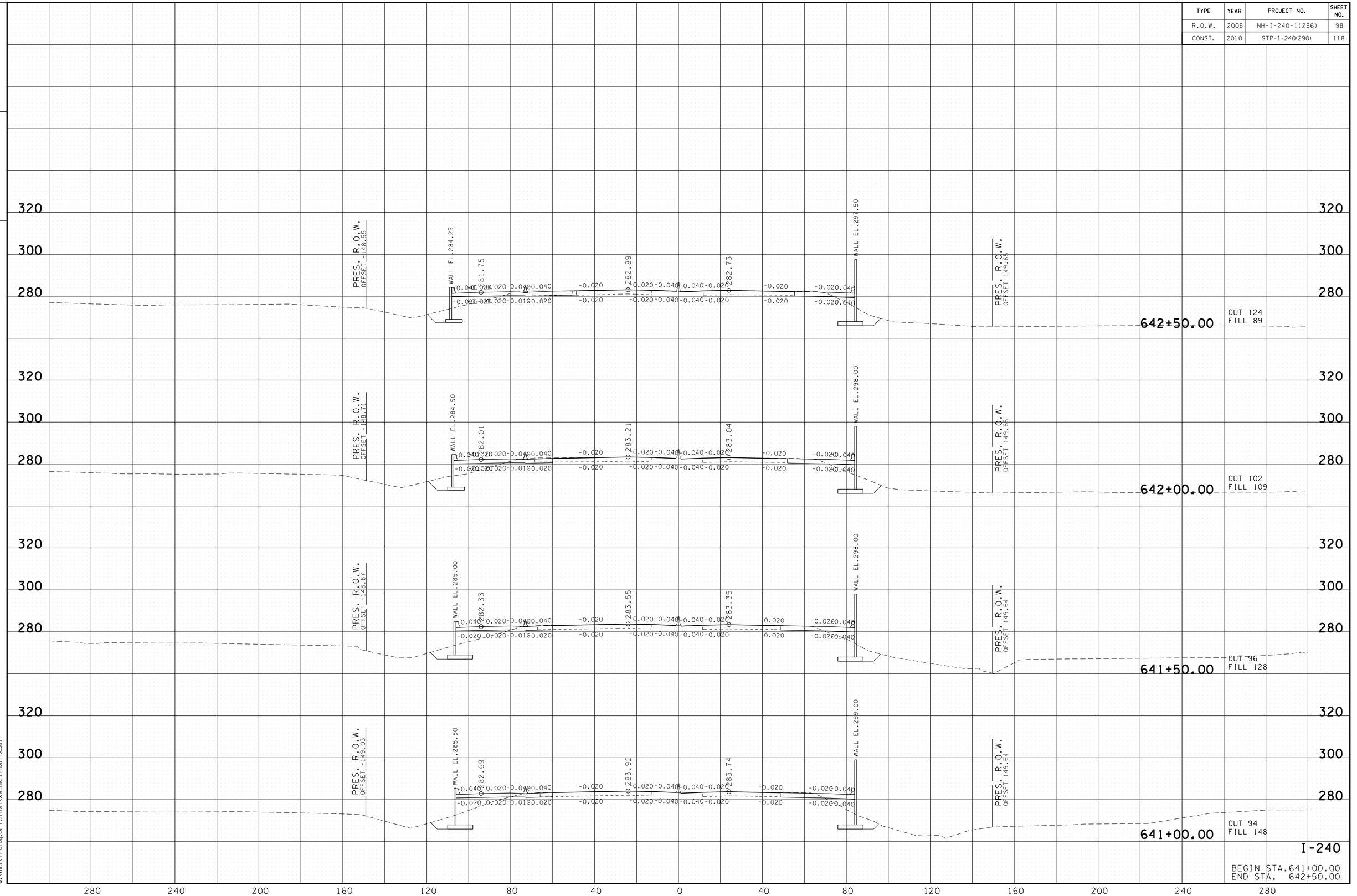
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	98
CONST.	2010	STP-I-240(290)	118



8/24/2010
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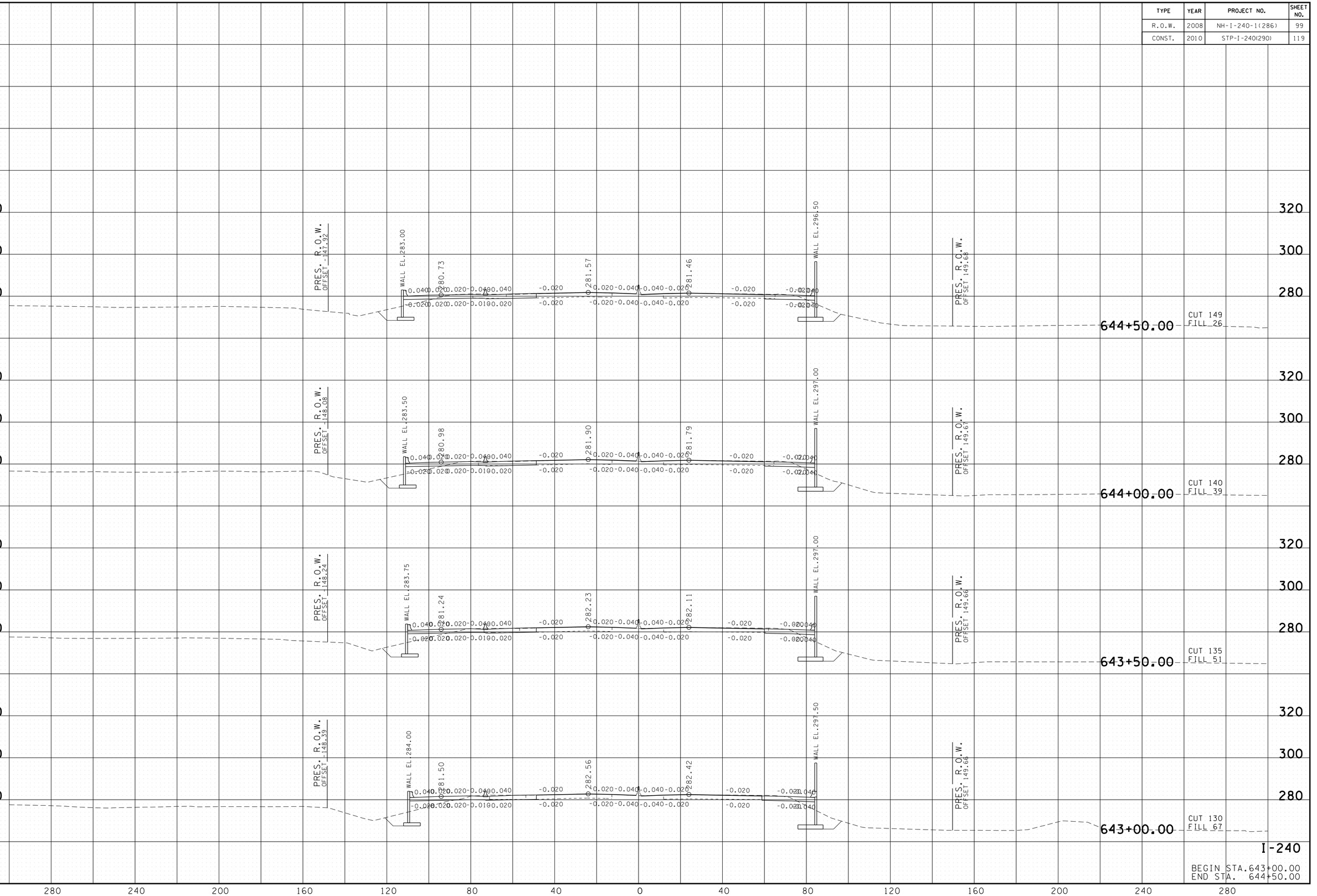
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	99
CONST.	2010	STP-I-240(290)	119



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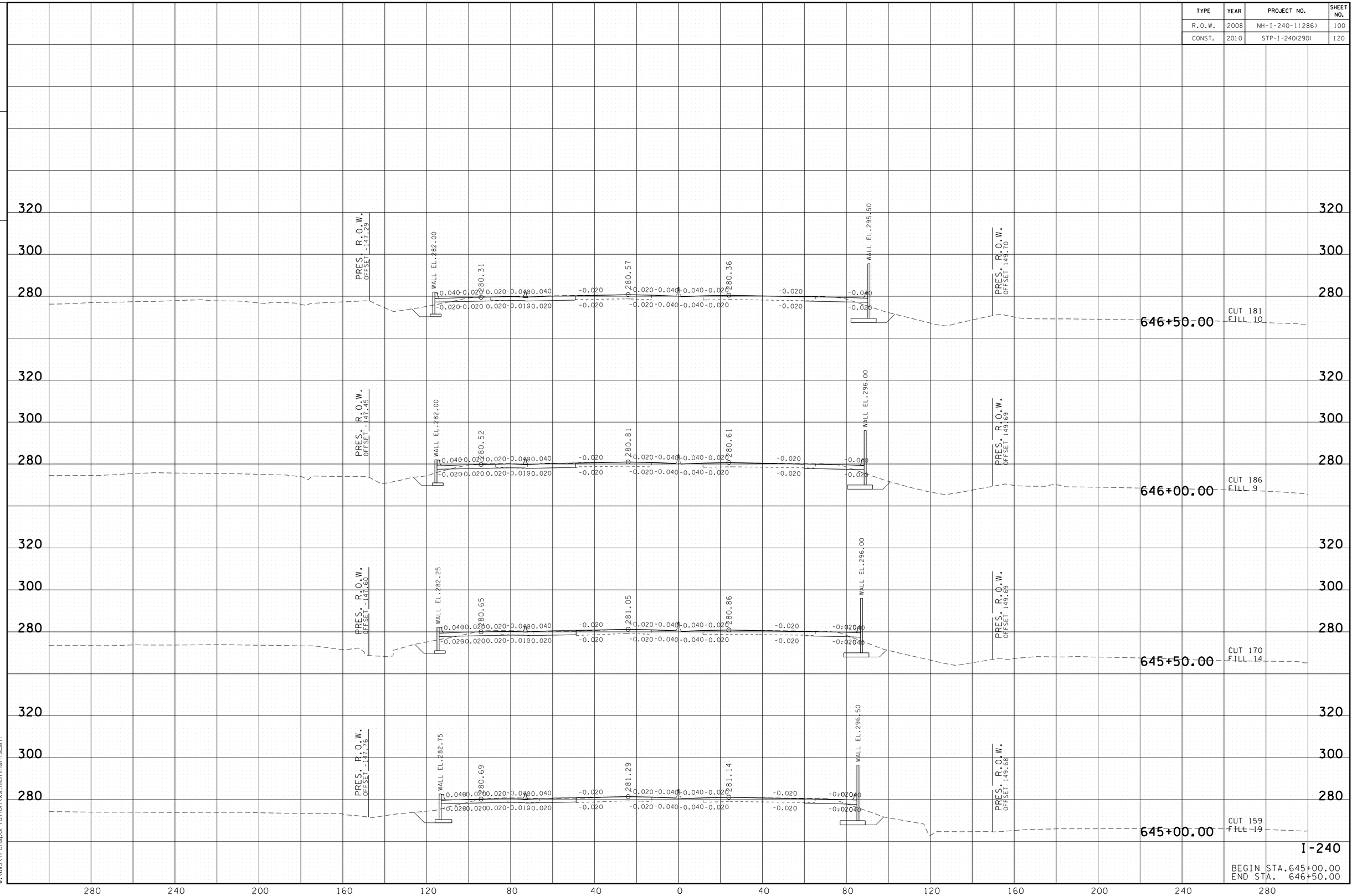
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	100
CONST.	2010	STP-I-240(290)	120



8/24/2010
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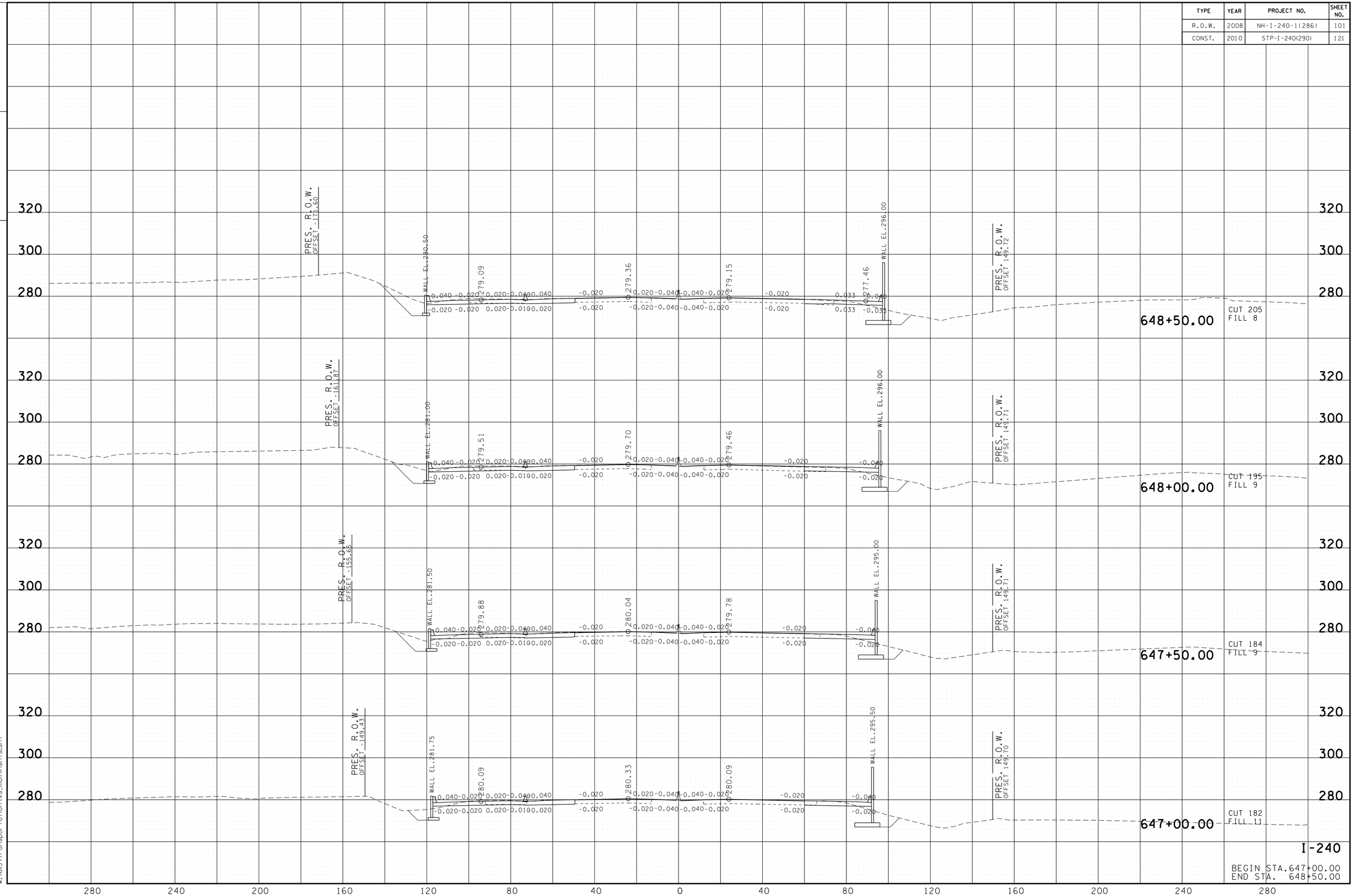
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	101
CONST.	2010	STP-I-240(290)	121



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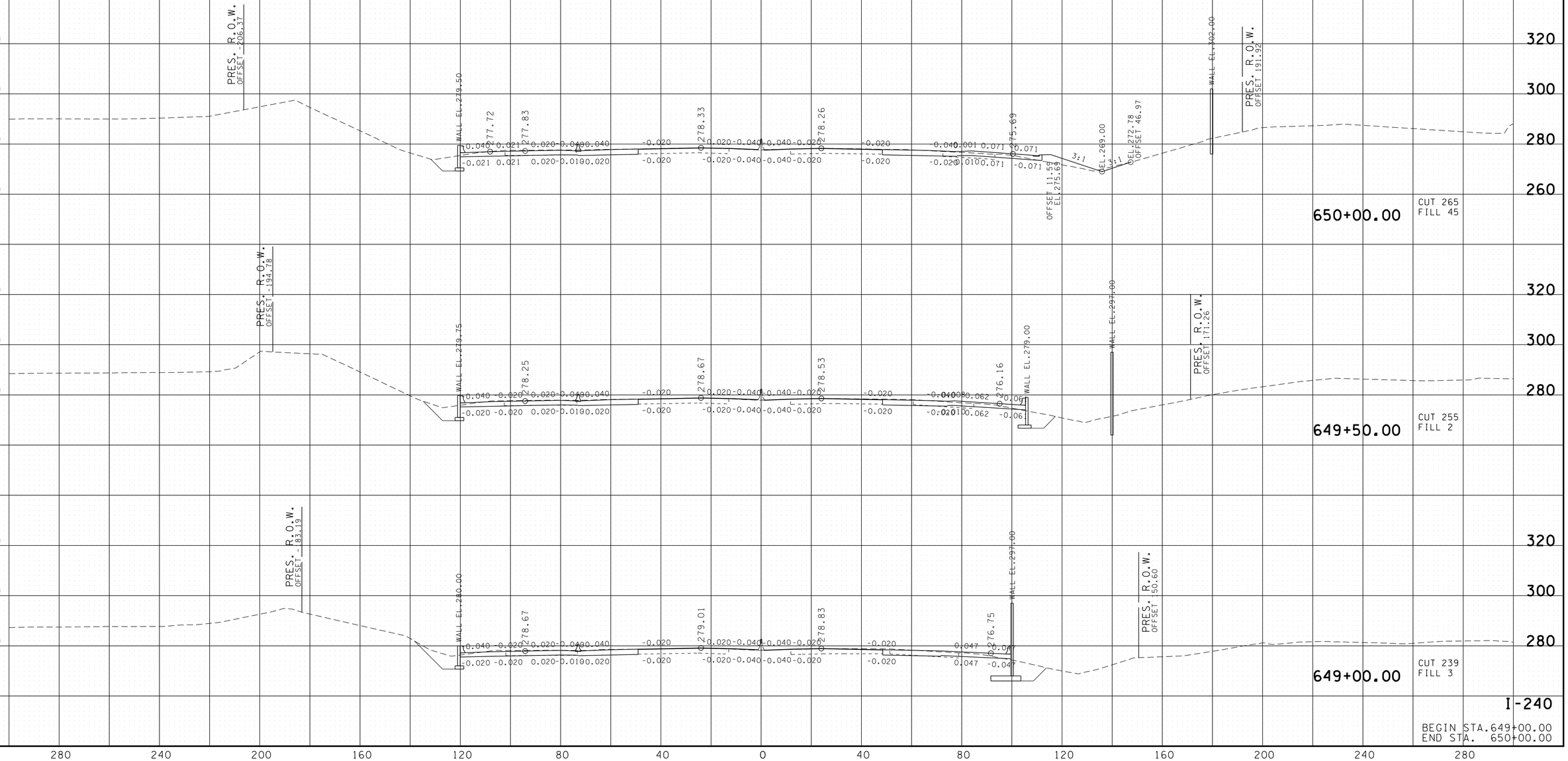
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	102
CONST.	2010	STP-I-240(290)	122



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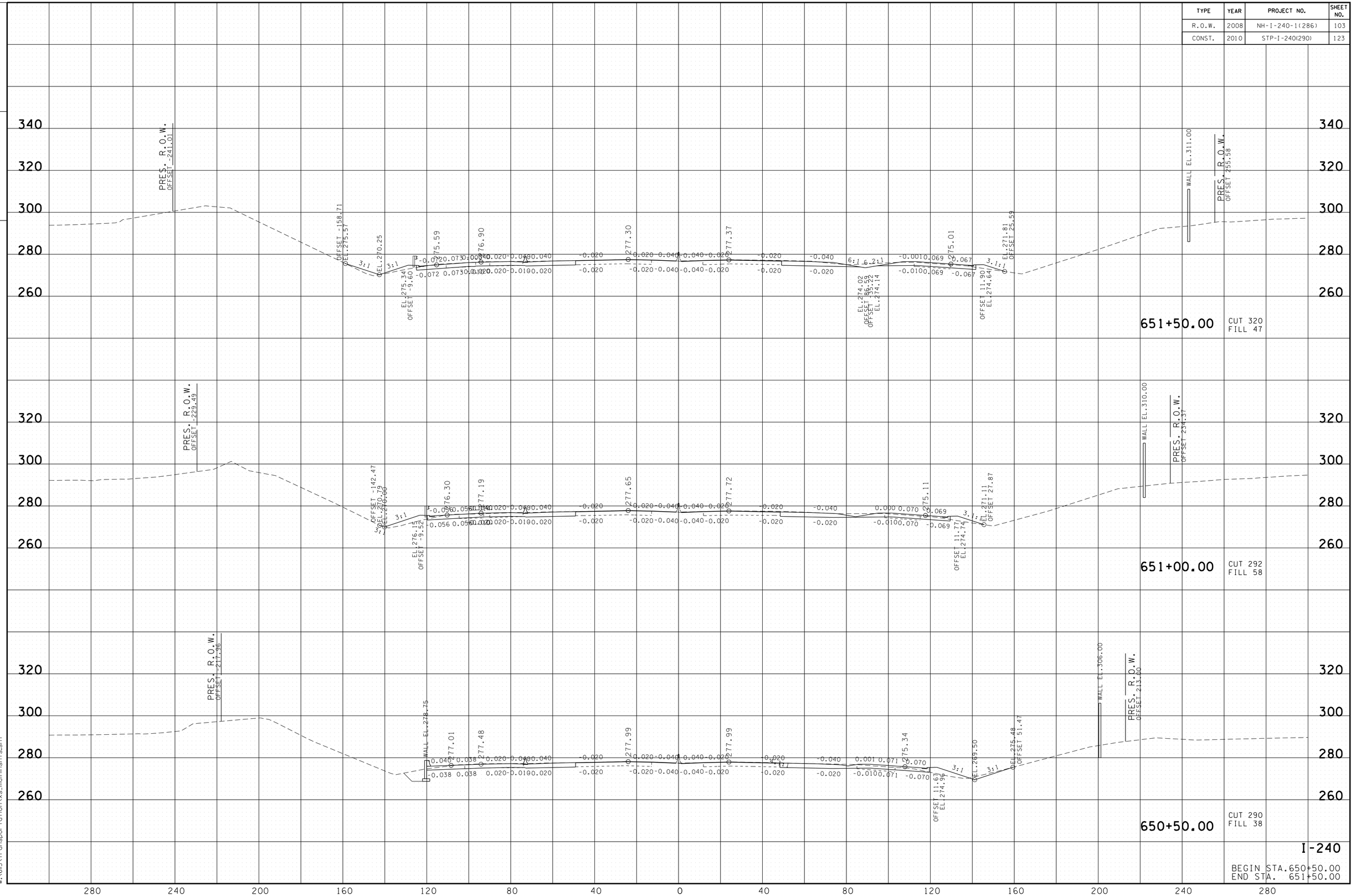
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	103
CONST.	2010	STP-I-240(290)	123



8/24/2010
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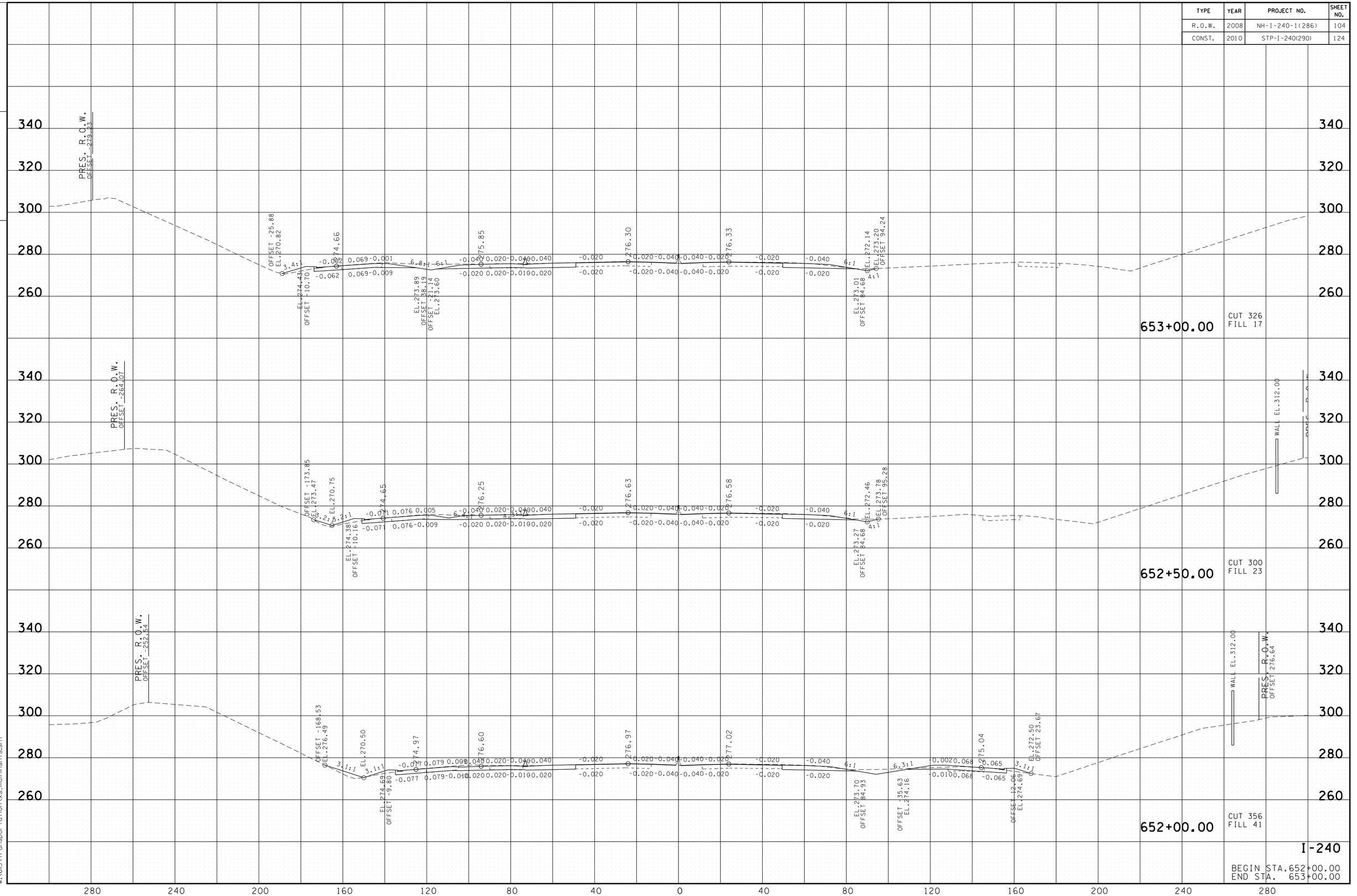
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	104
CONST.	2010	STP-I-240(290)	124



8/24/2010
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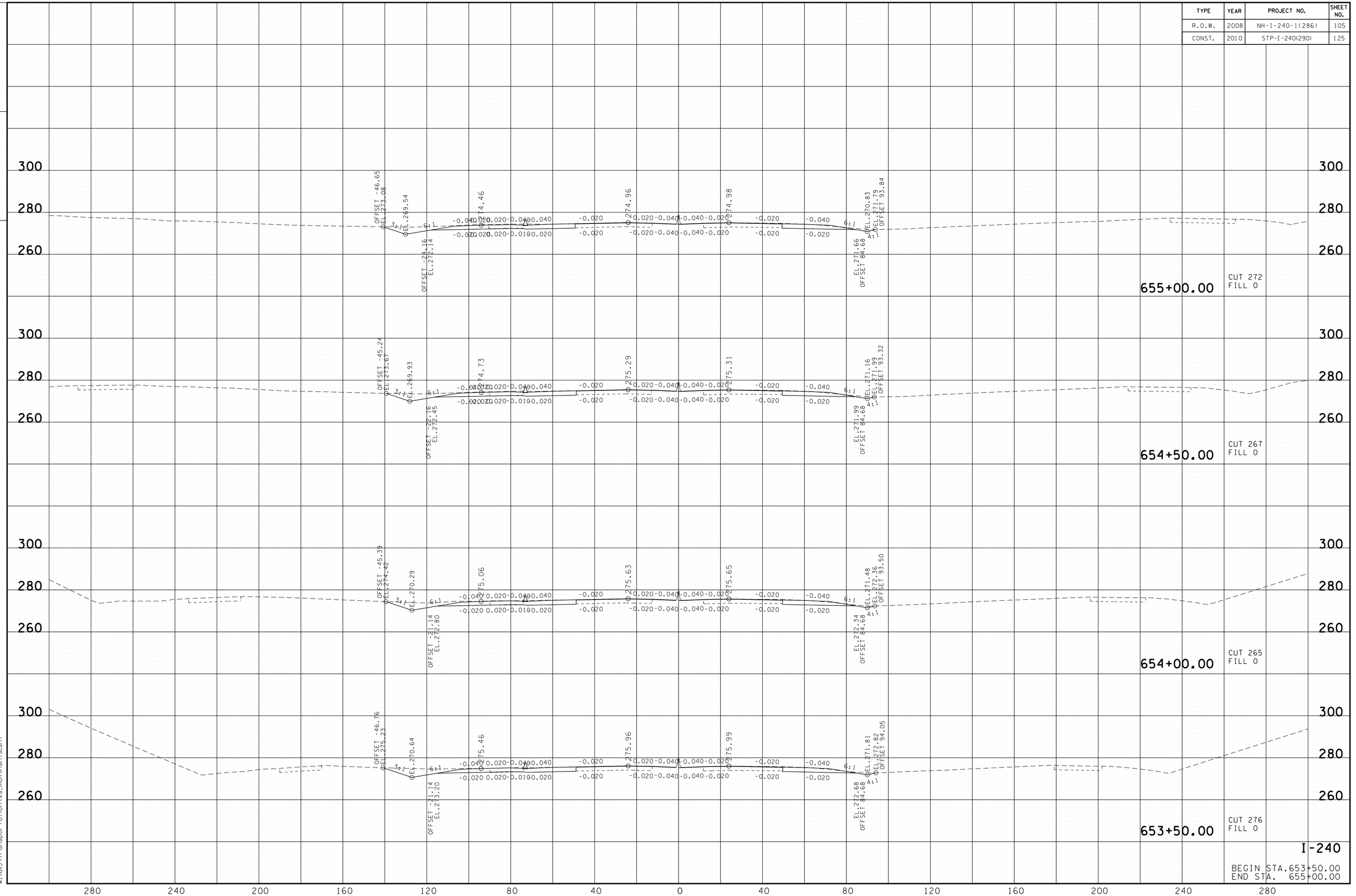
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	105
CONST.	2010	STP-I-240(290)	125



8/24/2010
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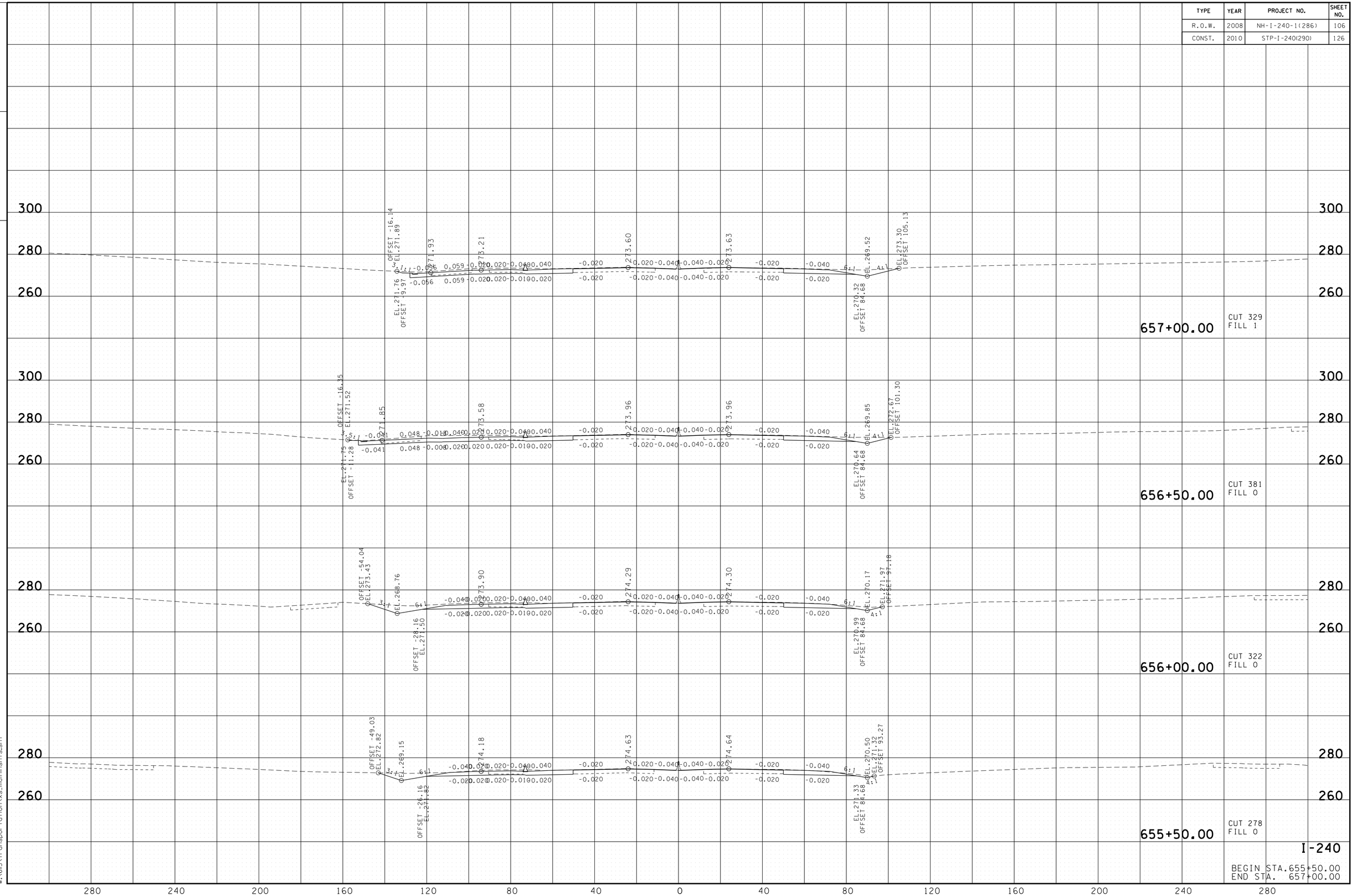
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	106
CONST.	2010	STP-I-240(290)	126



I-240

BEGIN STA.655+50.00
END STA. 657+00.00

8/24/2010
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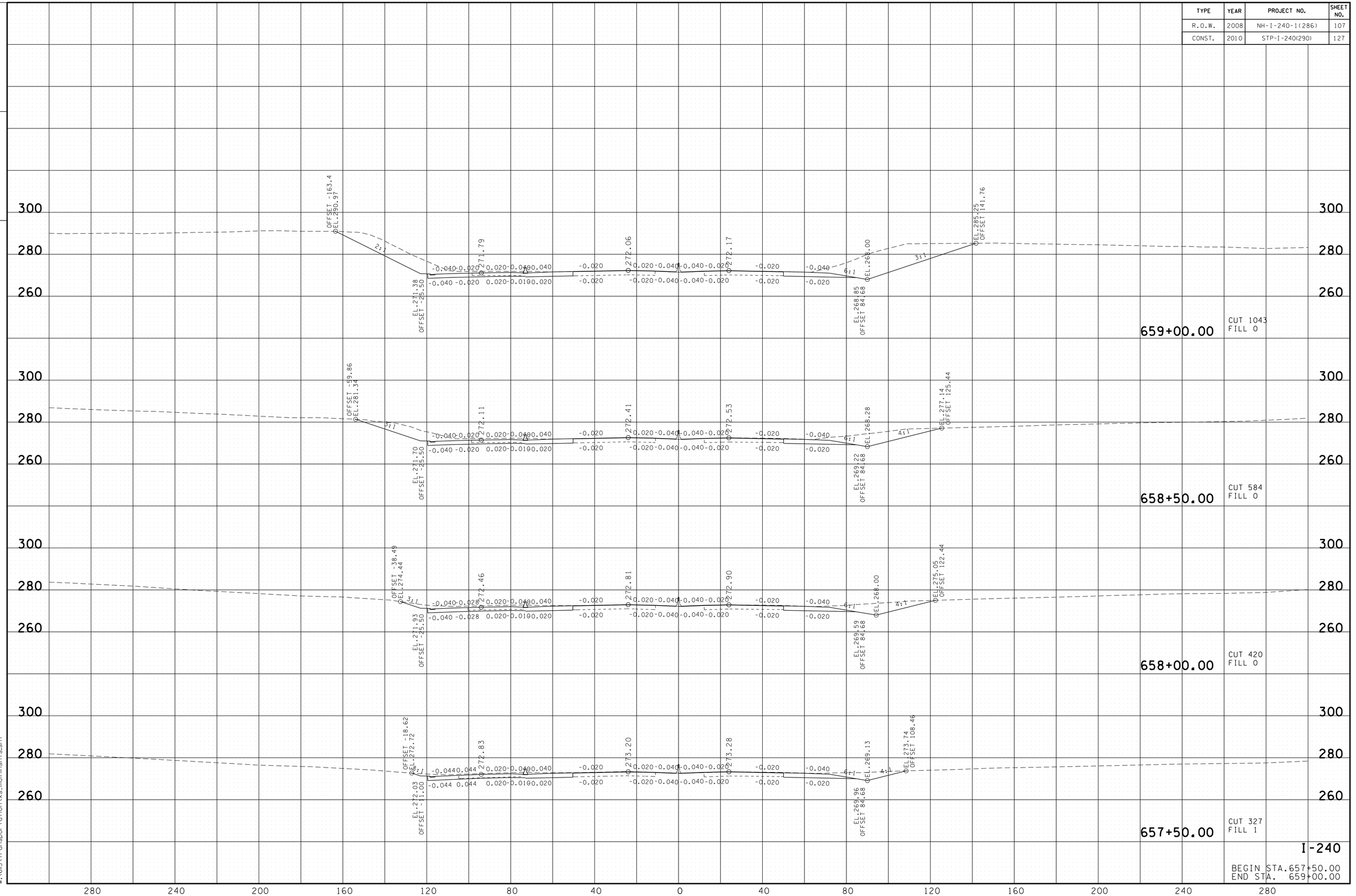
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	107
CONST.	2010	STP-I-240(290)	127



8/24/2010
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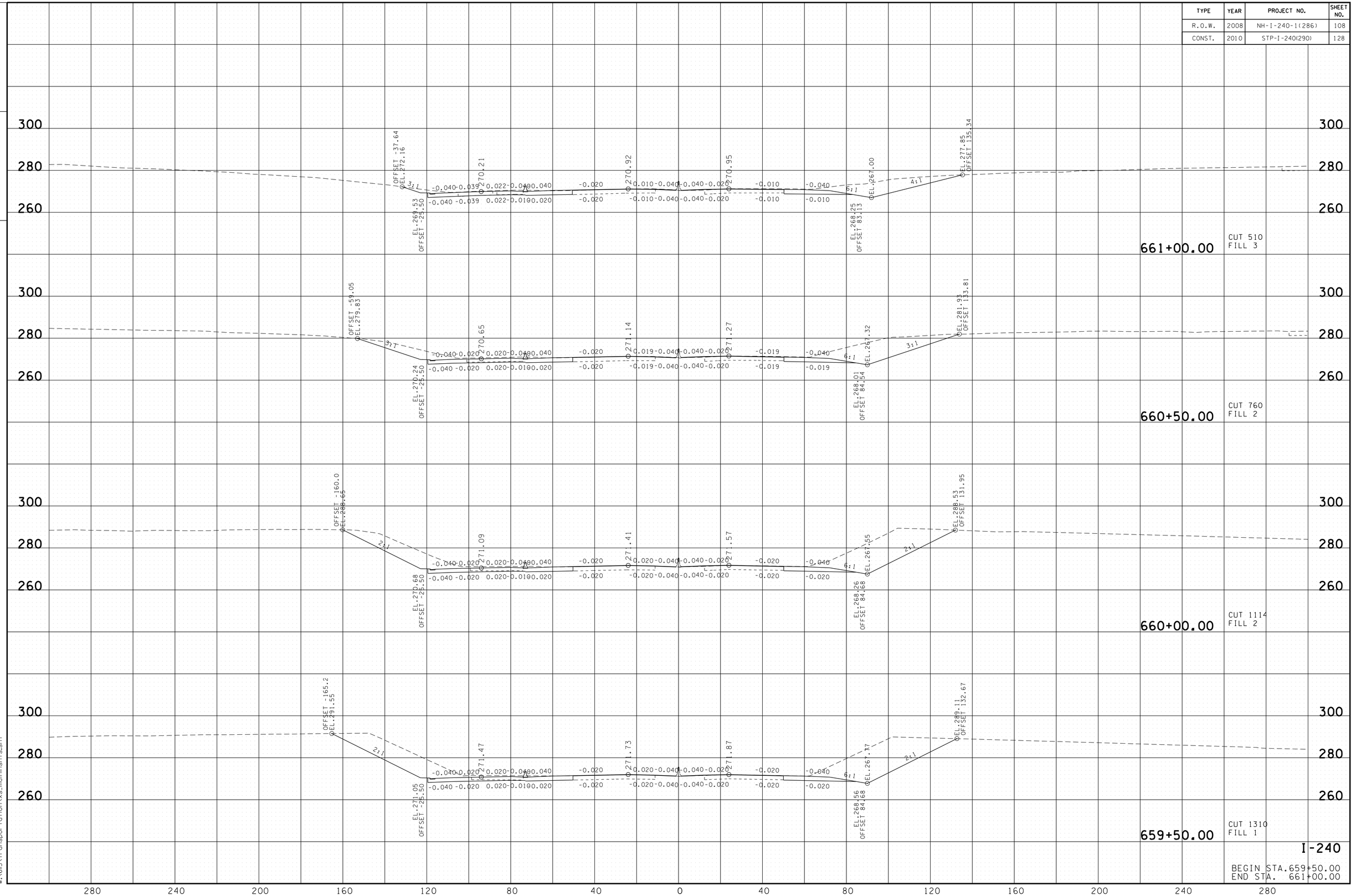
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	108
CONST.	2010	STP-I-240(290)	128

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



I-240

BEGIN STA.659+50.00
END STA. 661+00.00

8/24/2010
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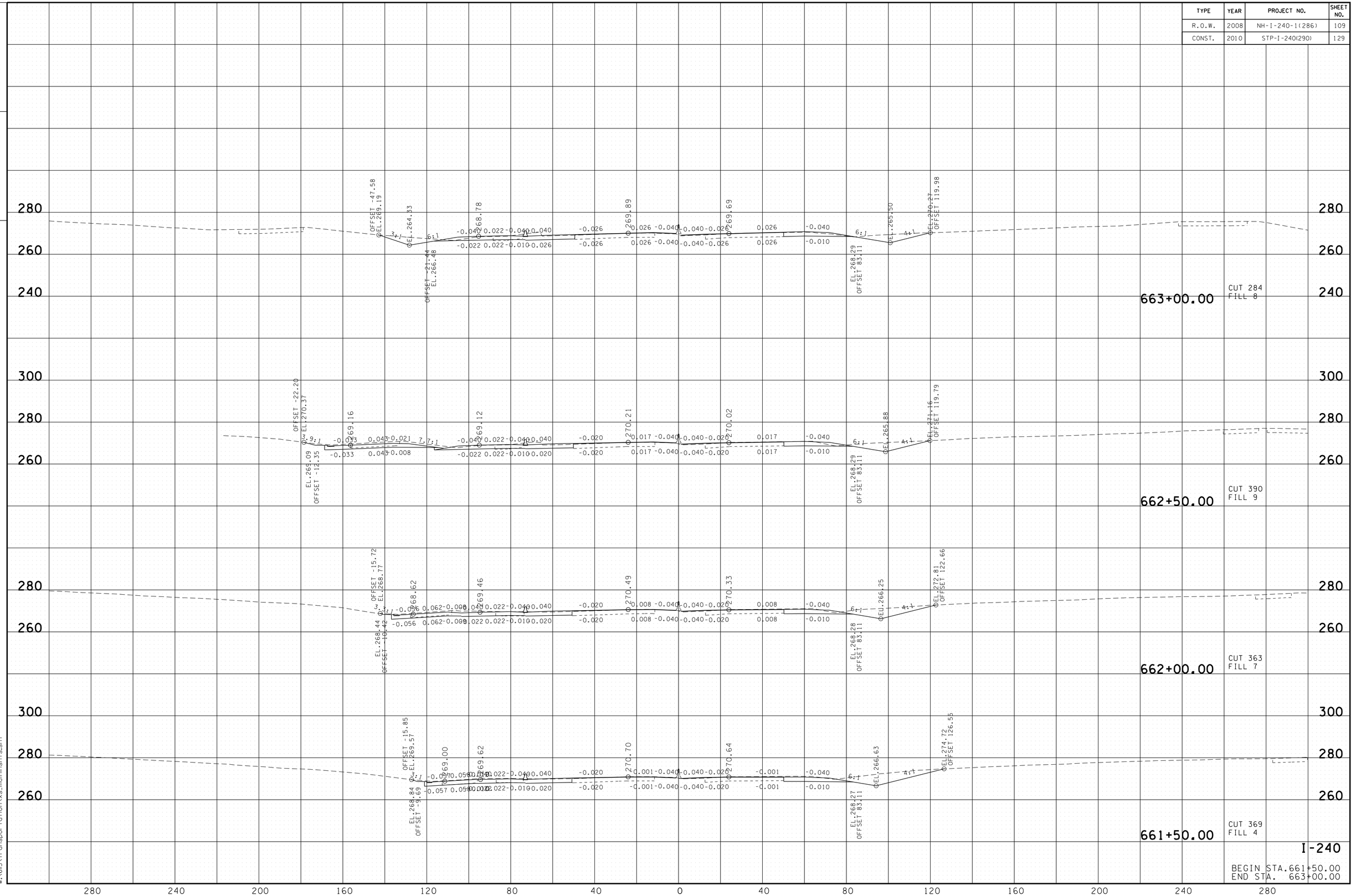
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	109
CONST.	2010	STP-I-240(290)	129



8/24/2010
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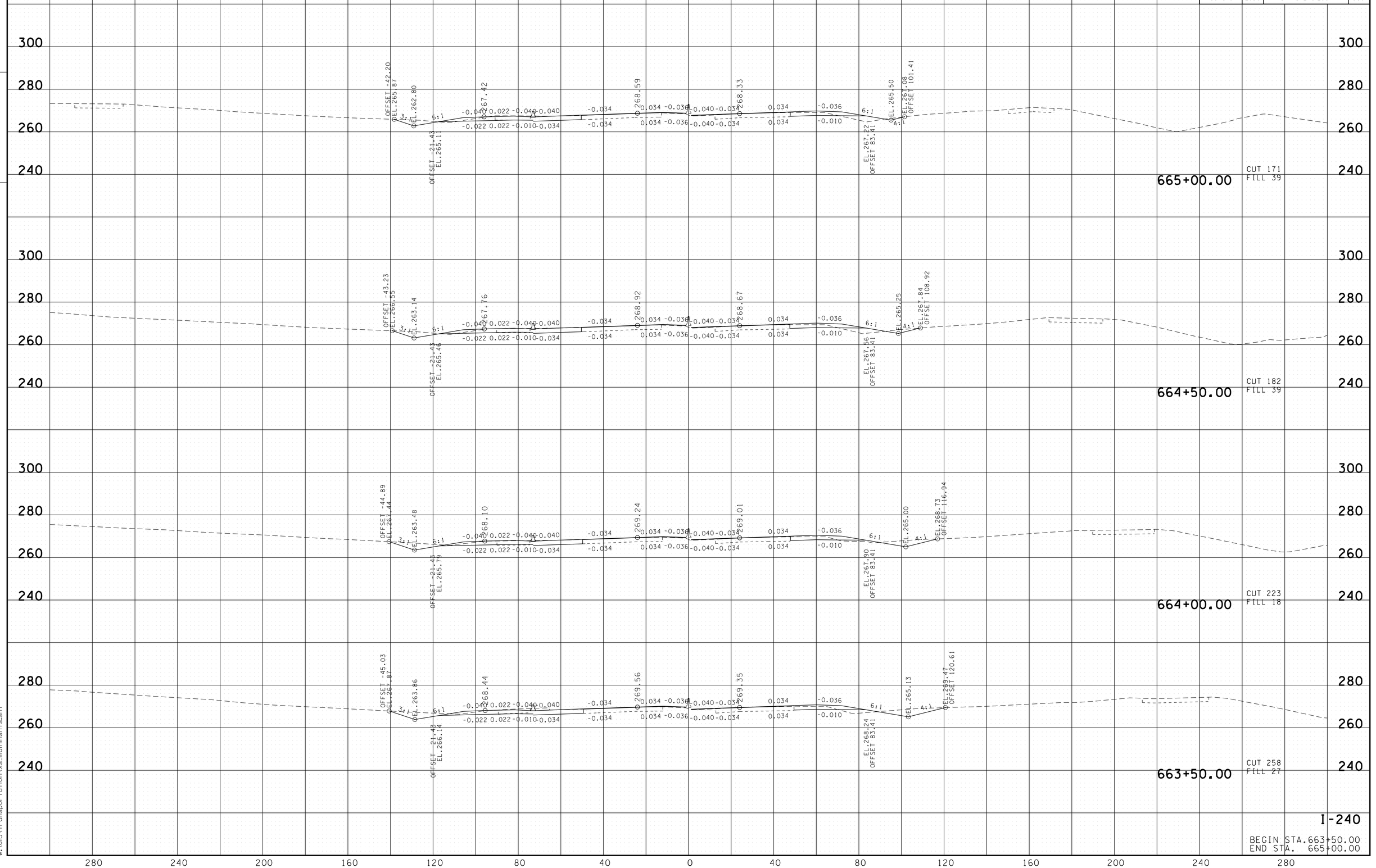
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	110
CONST.	2010	STP-I-240(290)	130



8/24/2010
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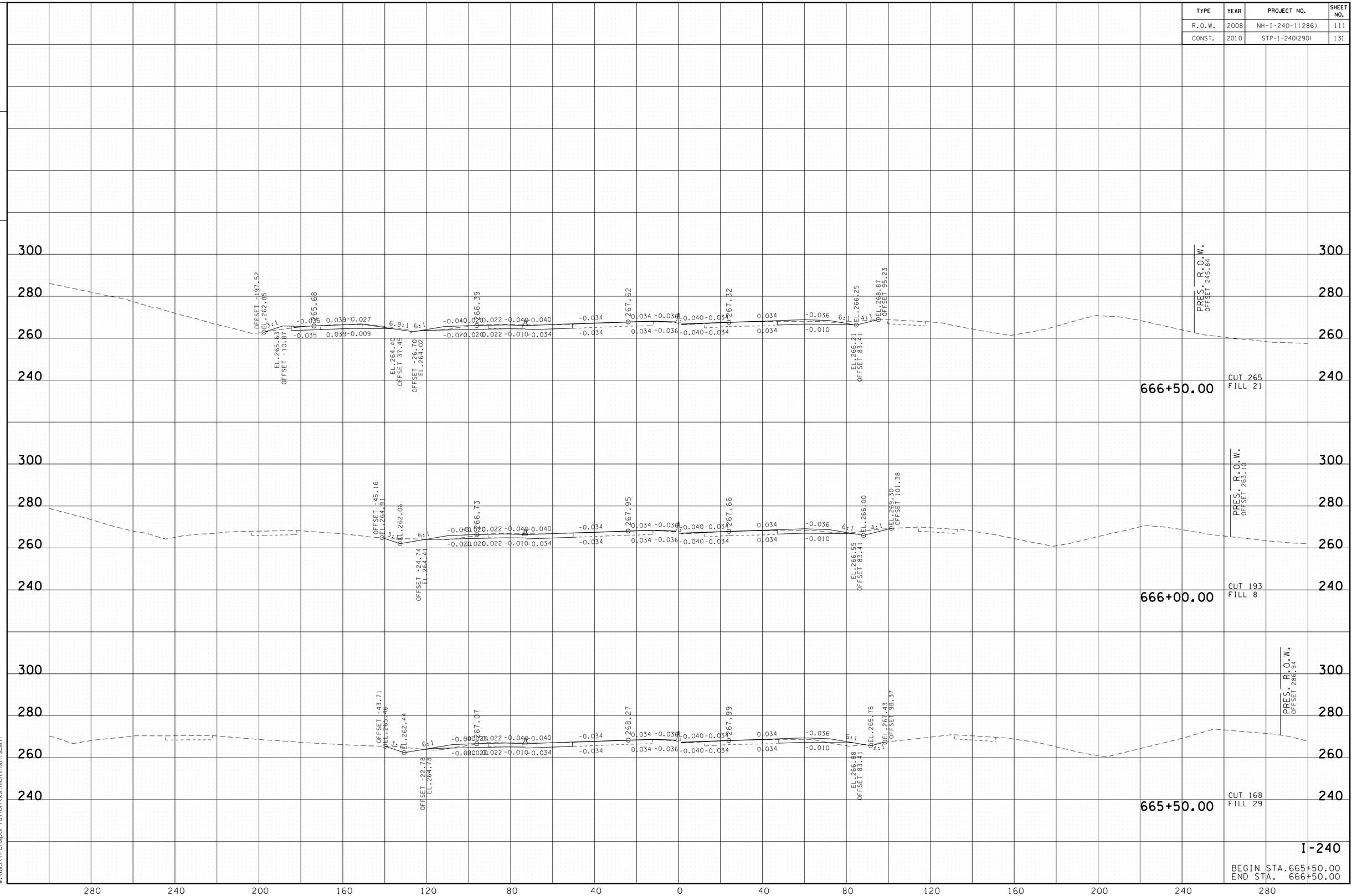
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	111
CONST.	2010	STP-I-240(290)	131



I-240

BEGIN STA. 665+50.00
END STA. 666+50.00

8/24/2010
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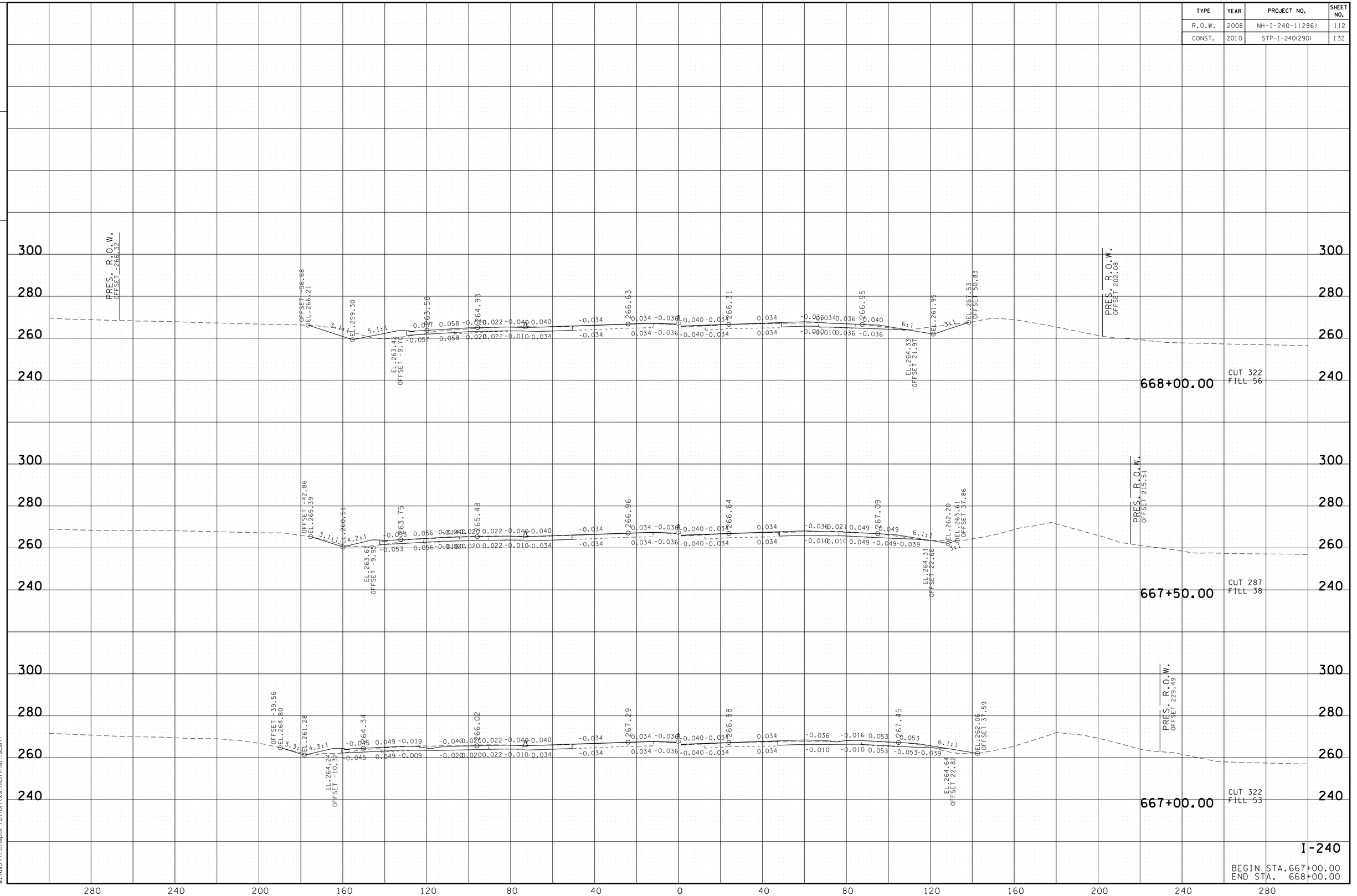
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	112
CONST.	2010	STP-I-240(290)	132



I-240

BEGIN STA. 667+00.00
END STA. 668+00.00

8/24/2010
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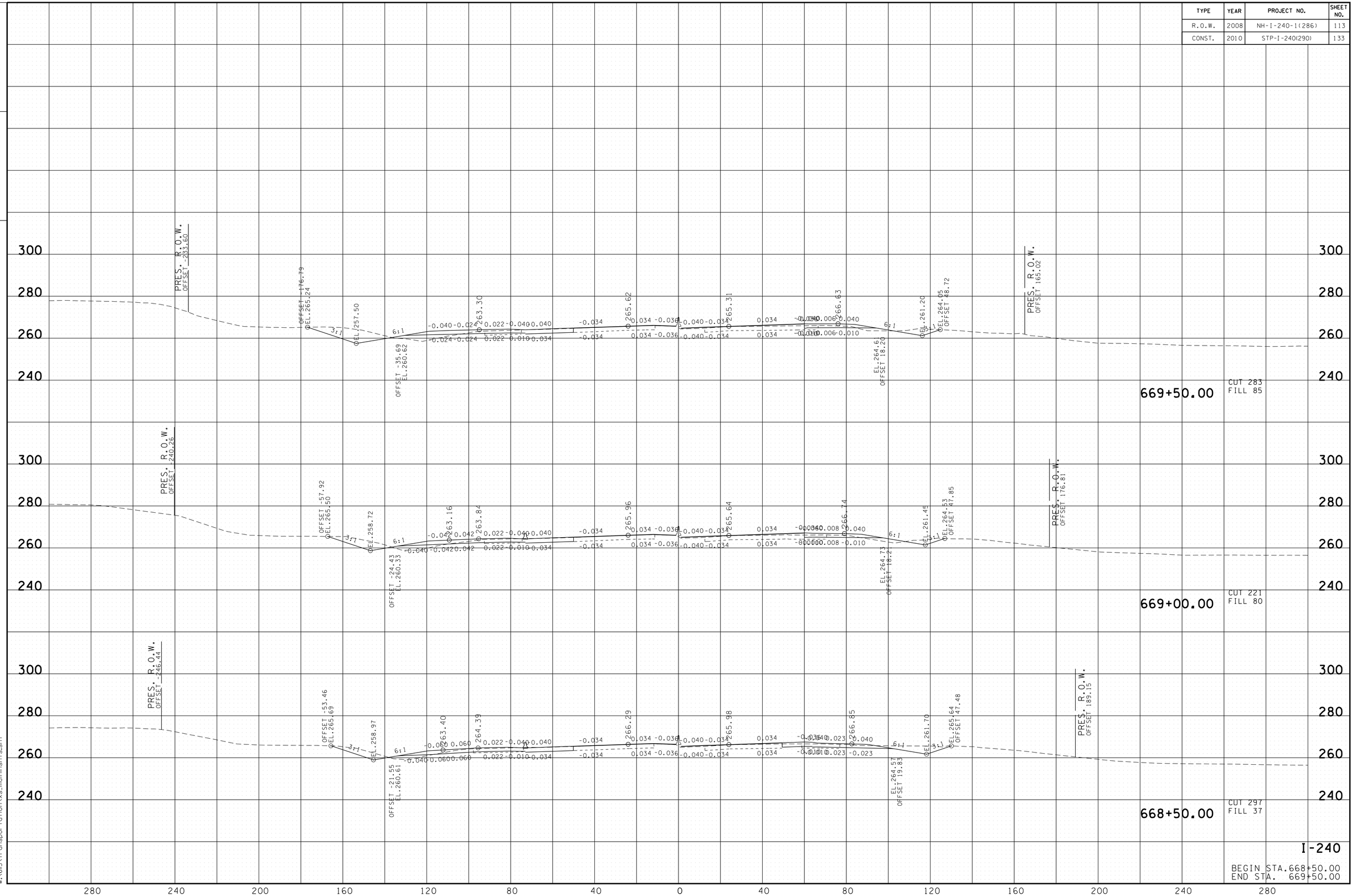
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	113
CONST.	2010	STP-I-240(290)	133



8/24/2010
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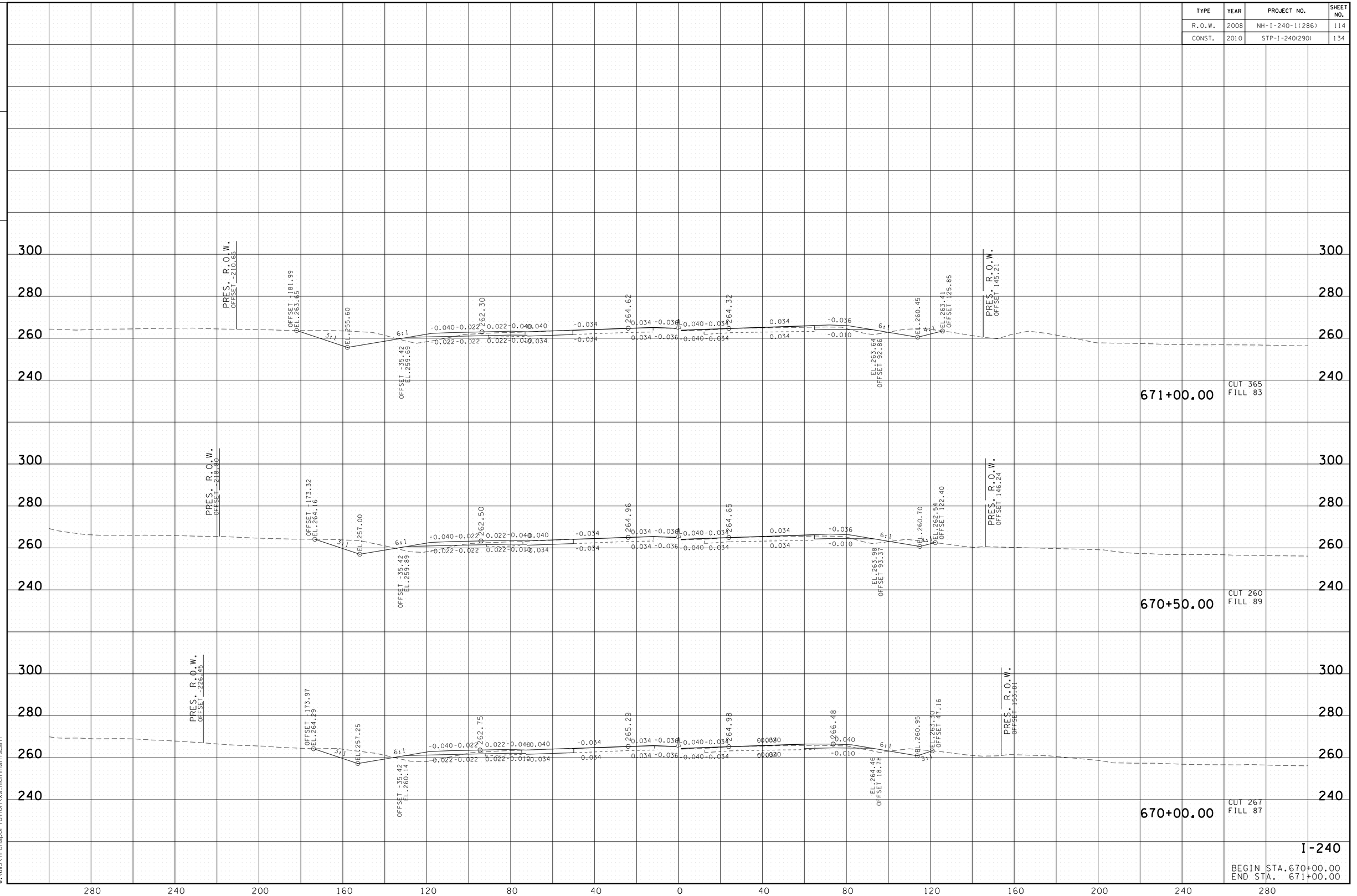
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	114
CONST.	2010	STP-I-240(290)	134



I-240

BEGIN STA.670+00.00
END STA. 671+00.00

8/24/2010
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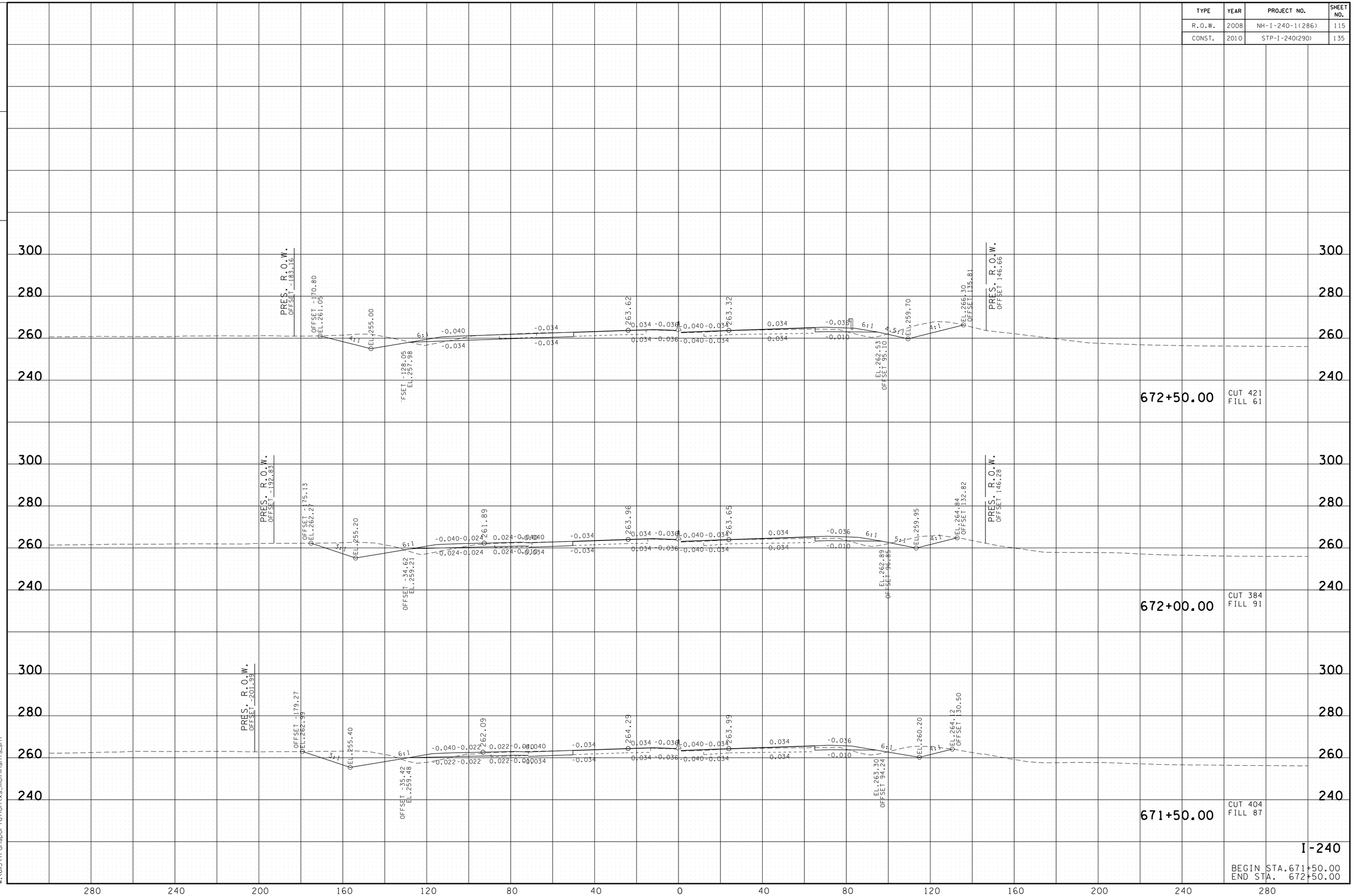
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	115
CONST.	2010	STP-I-240(290)	135



8/24/2010
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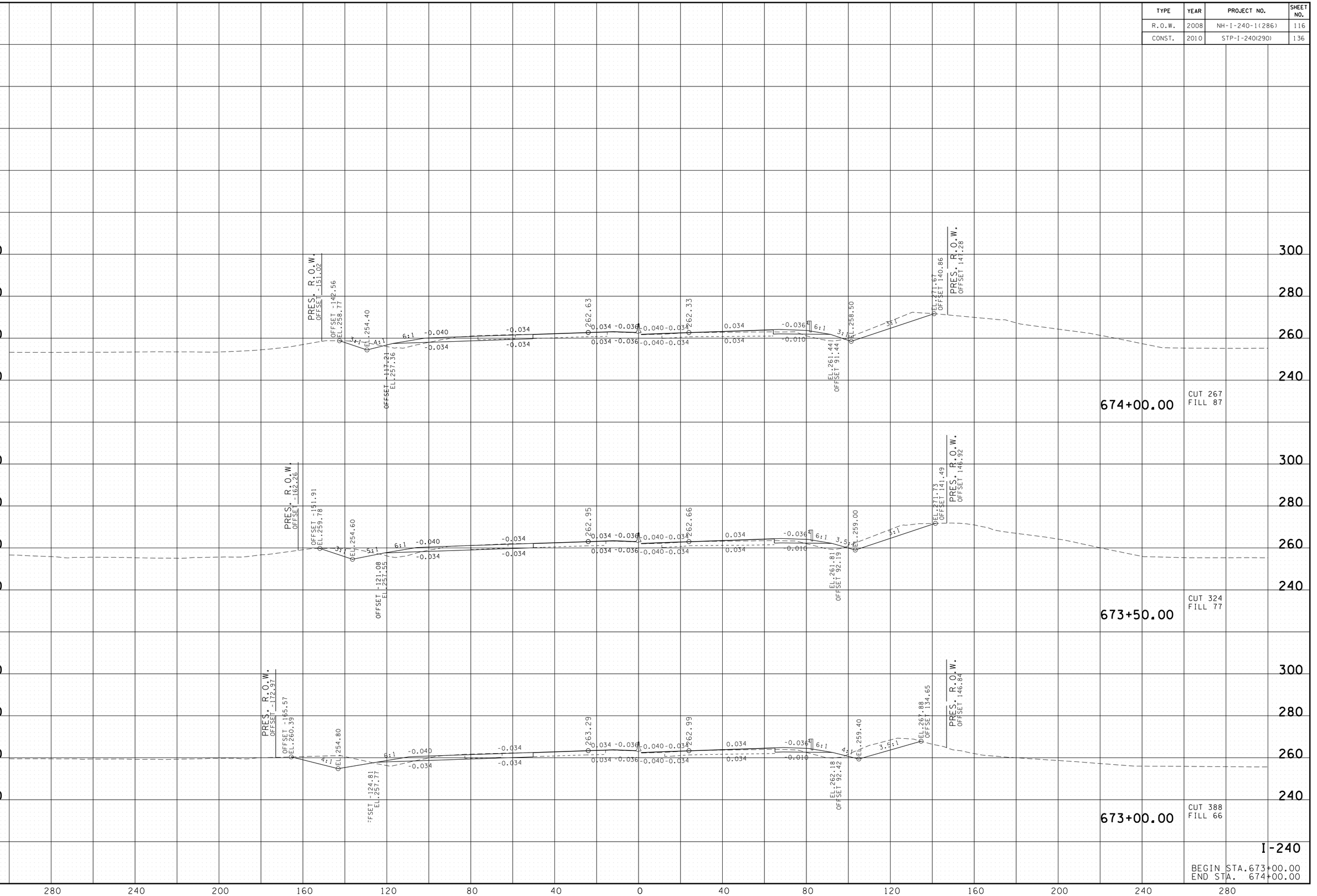
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	116
CONST.	2010	STP-I-240(290)	136



I-240

BEGIN STA. 673+00.00
END STA. 674+00.00

8/24/2010
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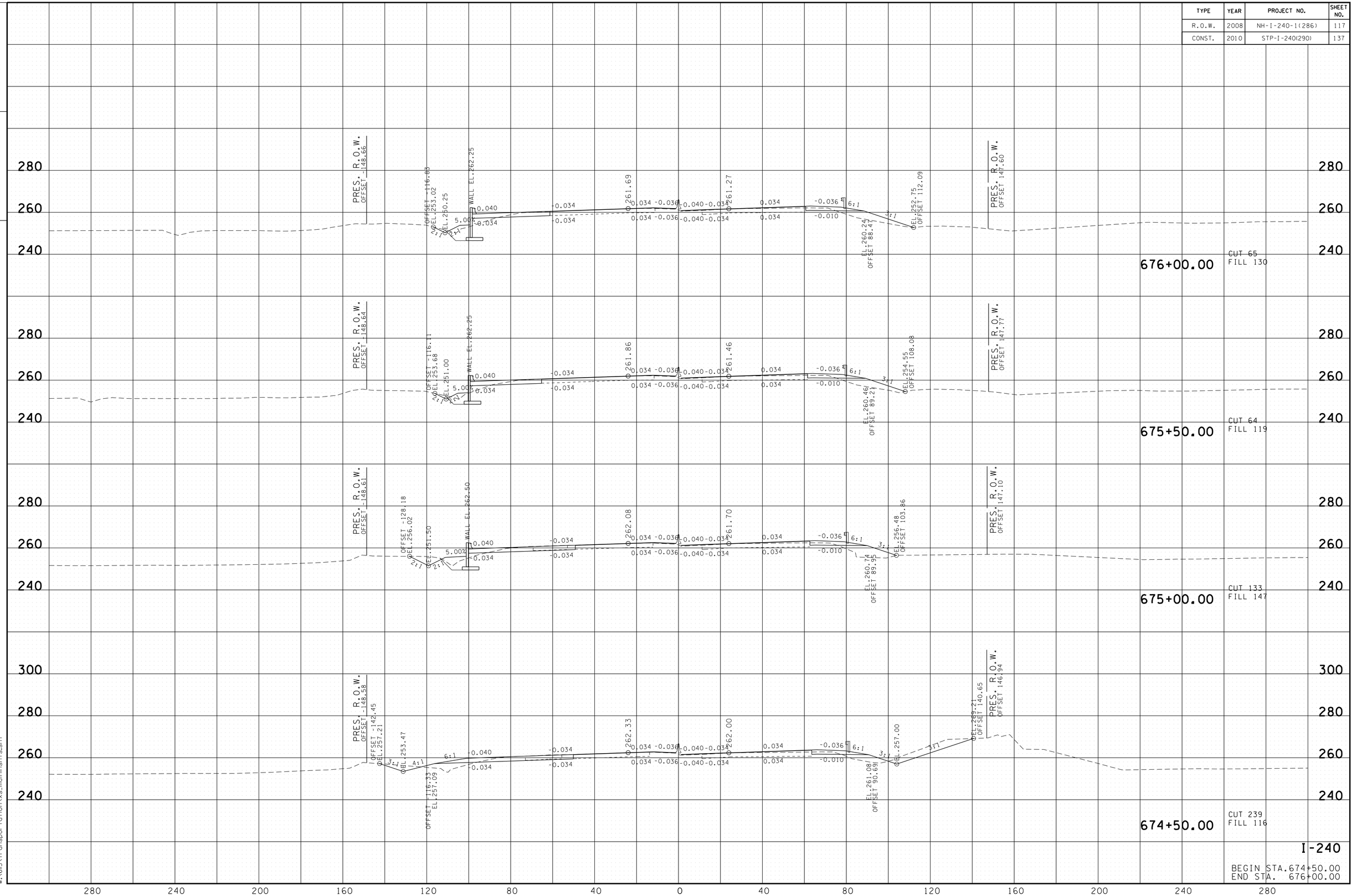
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	117
CONST.	2010	STP-I-240(290)	137



8/24/2010
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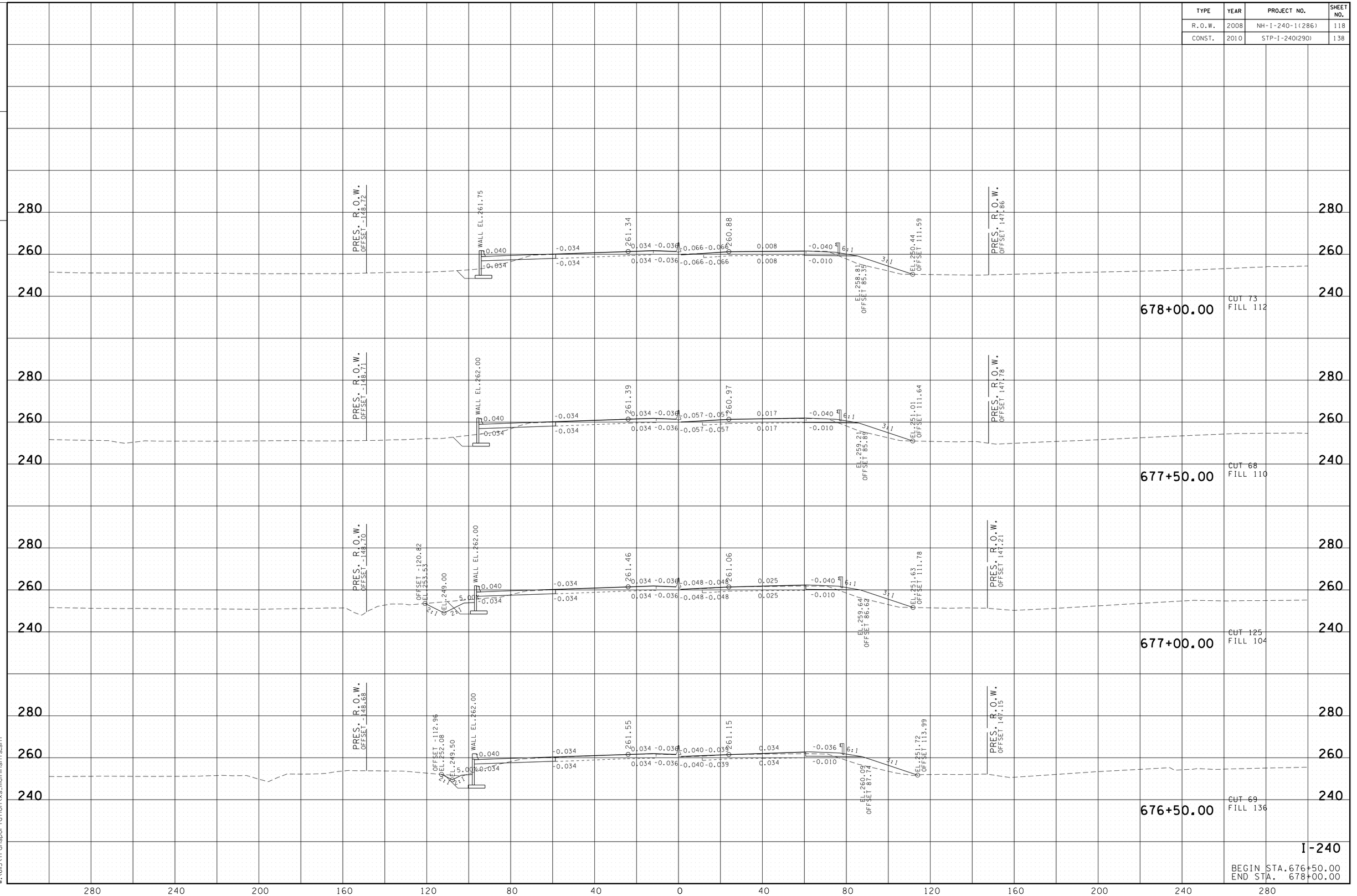
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	118
CONST.	2010	STP-I-240(290)	138

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



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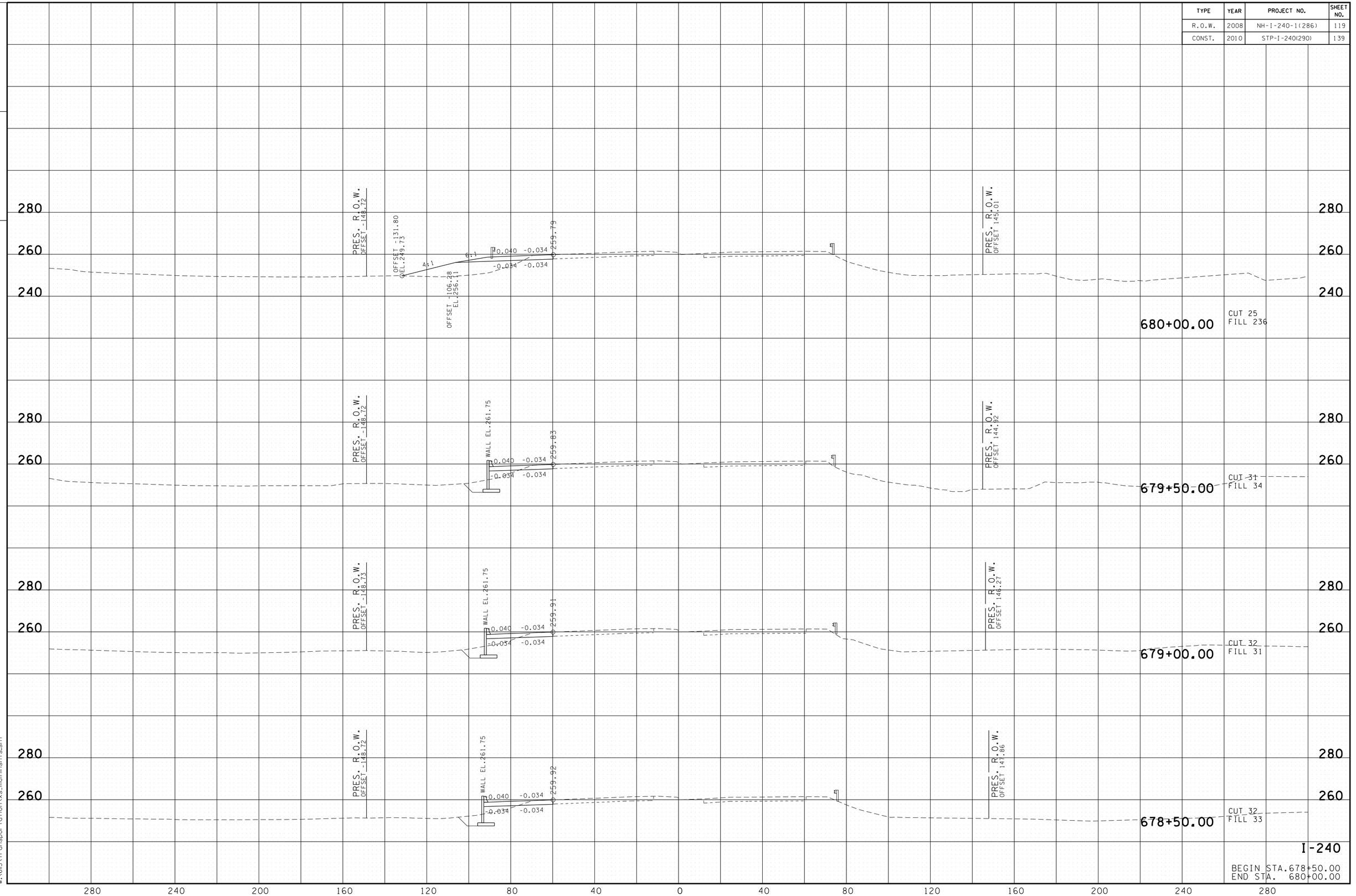
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	119
CONST.	2010	STP-I-240(290)	139



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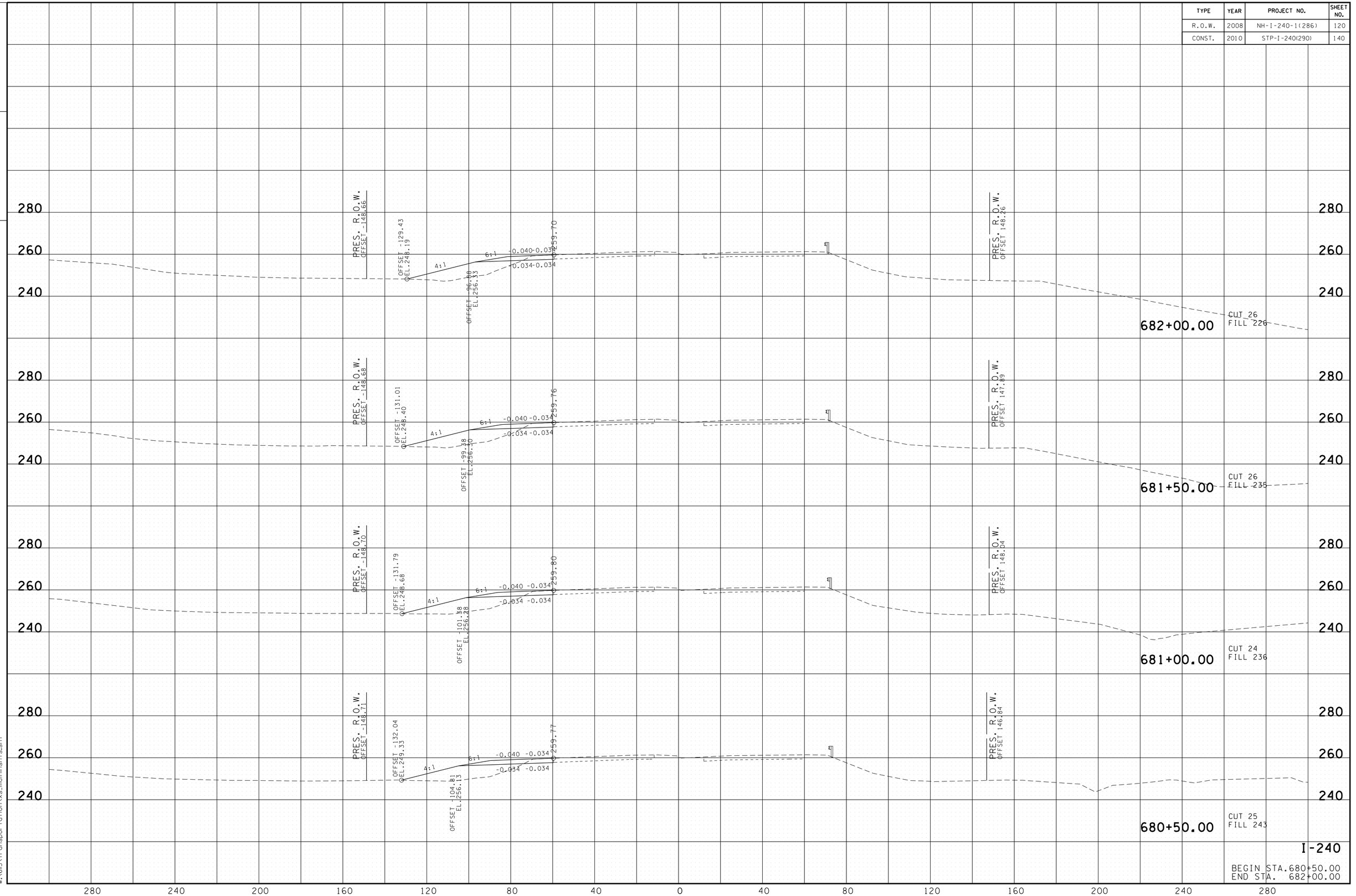
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	120
CONST.	2010	STP-I-240(290)	140



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TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	121
CONST.	2010	STP-I-240(290)	141

684+00.00

PRES. R.O.W.
OFFSET -148.55

PRES. R.O.W.
OFFSET 147.87

683+50.00

PRES. R.O.W.
OFFSET -148.59

PRES. R.O.W.
OFFSET 148.65

683+00.00

PRES. R.O.W.
OFFSET -148.62

OFFSET -128.95
EL. 246.78

4:1

6:1

-0.040

-0.030

OFFSET -90.42
EL 256.41

OFFSET 259.57
EL 259.34

PRES. R.O.W.
OFFSET 138.27

CUT 27
FILL 212

682+50.00

PRES. R.O.W.
OFFSET -148.64

OFFSET -127.77
EL. 247.89

4:1

6:1

-0.0400

-0.0340

OFFSET -93.90
EL. 256.36

OFFSET 259.64
EL 259.34

PRES. R.O.W.
OFFSET 149.14

CUT 27
FILL 213

I-240

BEGIN STA. 682+50.00
END STA. 684+00.00

280 240 200 160 120 80 40 0 40 80 120 160 200 240 280

8/24/2010
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TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	122
CONST.	2010	STP-I-240(290)	142

PRES. R.O.W.
OFFSET -148.48

PRES. R.O.W.
OFFSET 147.85

685+00.00

PRES. R.O.W.
OFFSET -148.52

PRES. R.O.W.
OFFSET 147.61

684+50.00

I-240

BEGIN STA.684+50.00
END STA. 685+00.00

280
260
240

280 240 200 160 120 80 40 0 40 80 120 160 200 240 280

8/24/2010
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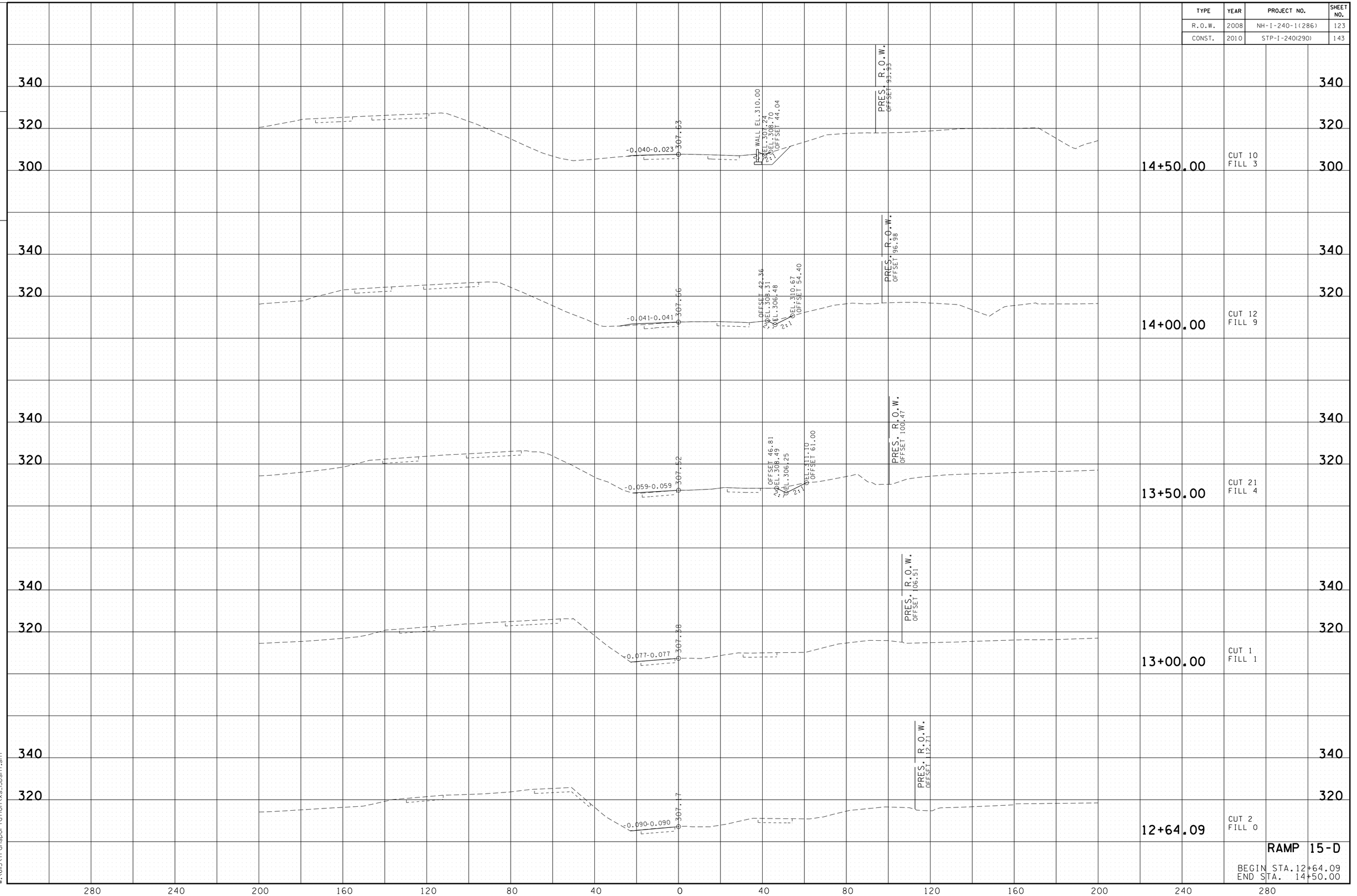
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	123
CONST.	2010	STP-I-240(290)	143



8/24/2010
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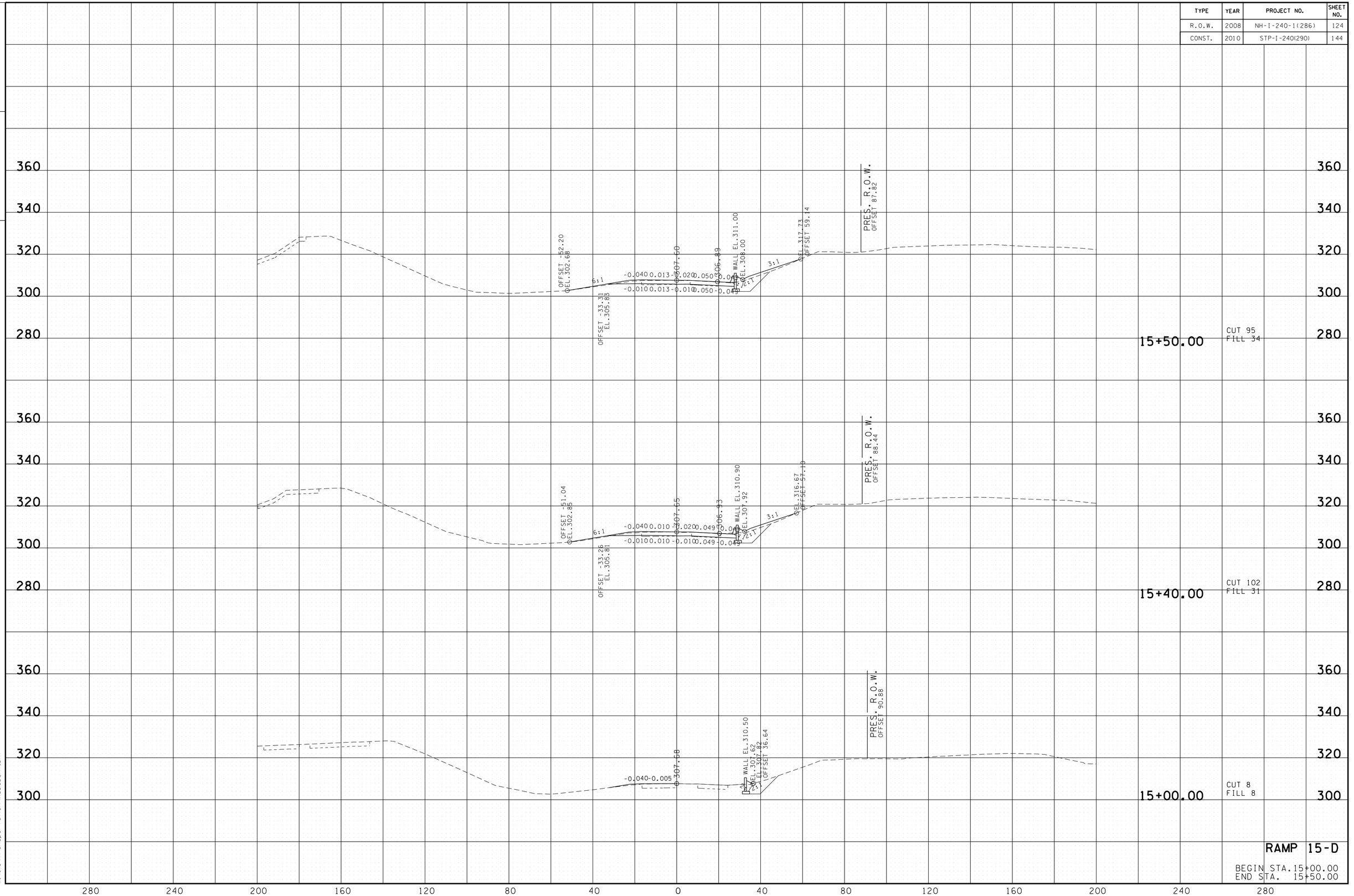
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	124
CONST.	2010	STP-I-240(290)	144



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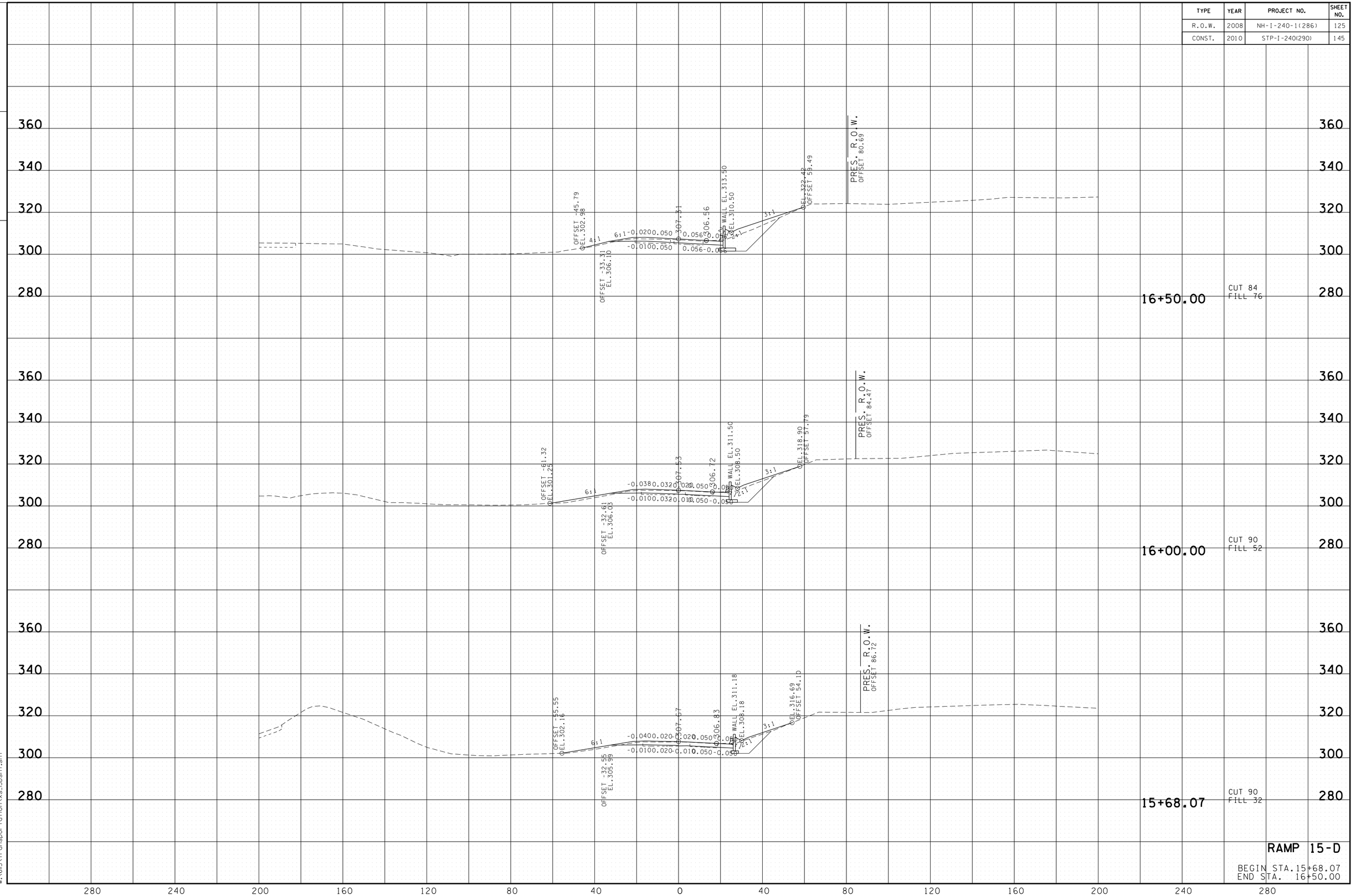
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	125
CONST.	2010	STP-I-240(290)	145



8/24/2010
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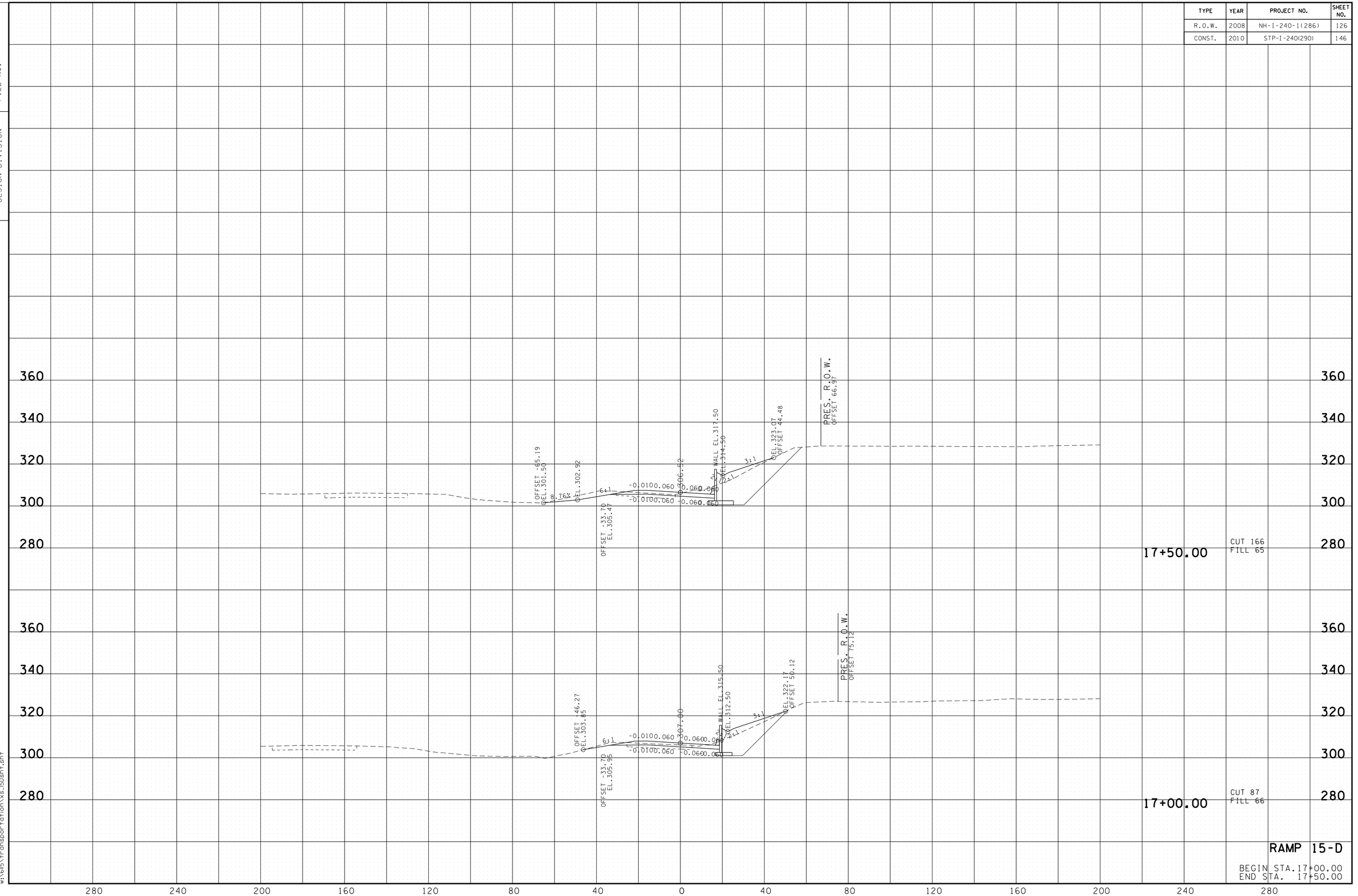
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	126
CONST.	2010	STP-I-240(290)	146



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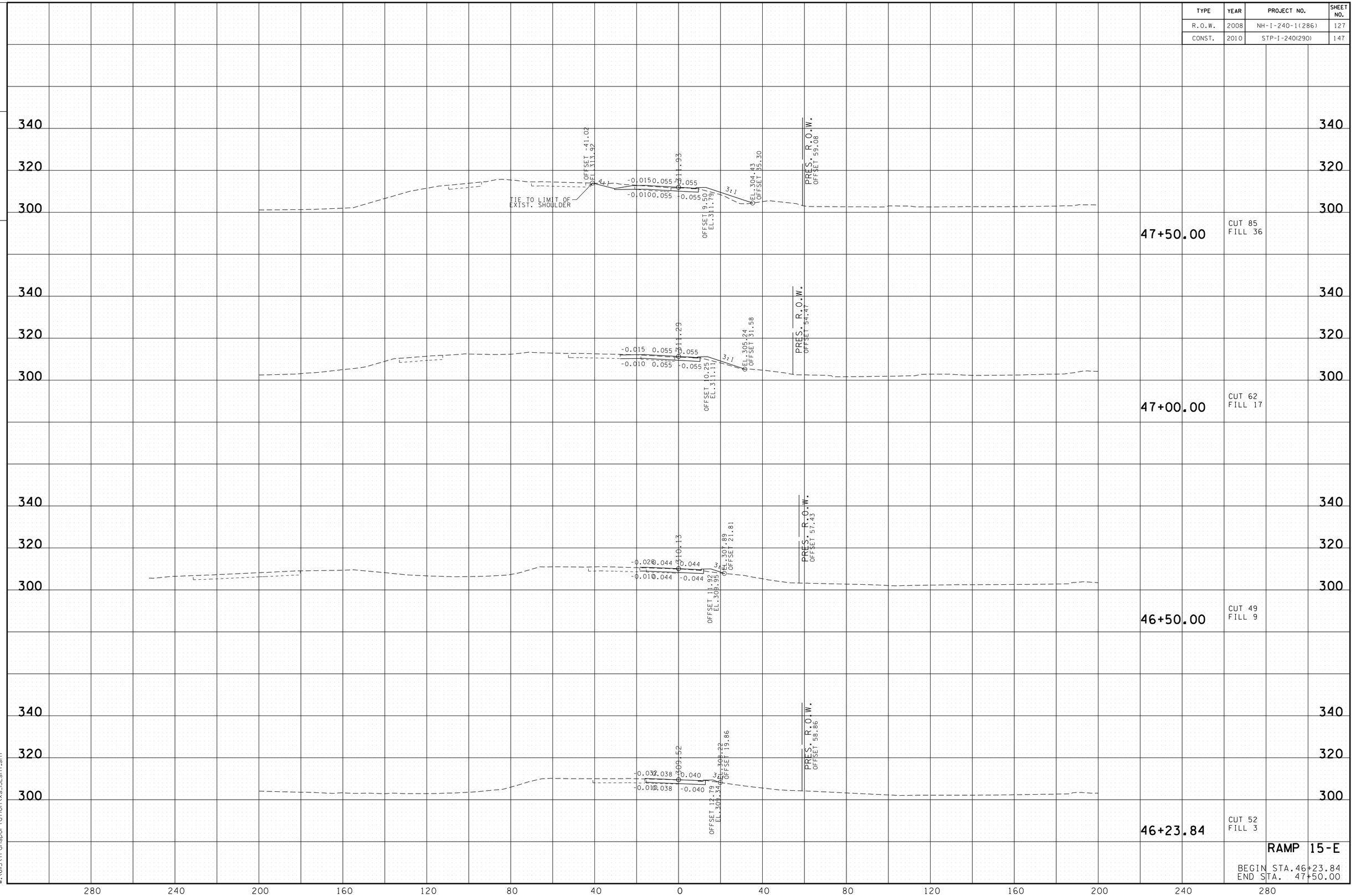
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	127
CONST.	2010	STP-I-240(290)	147



8/24/2010
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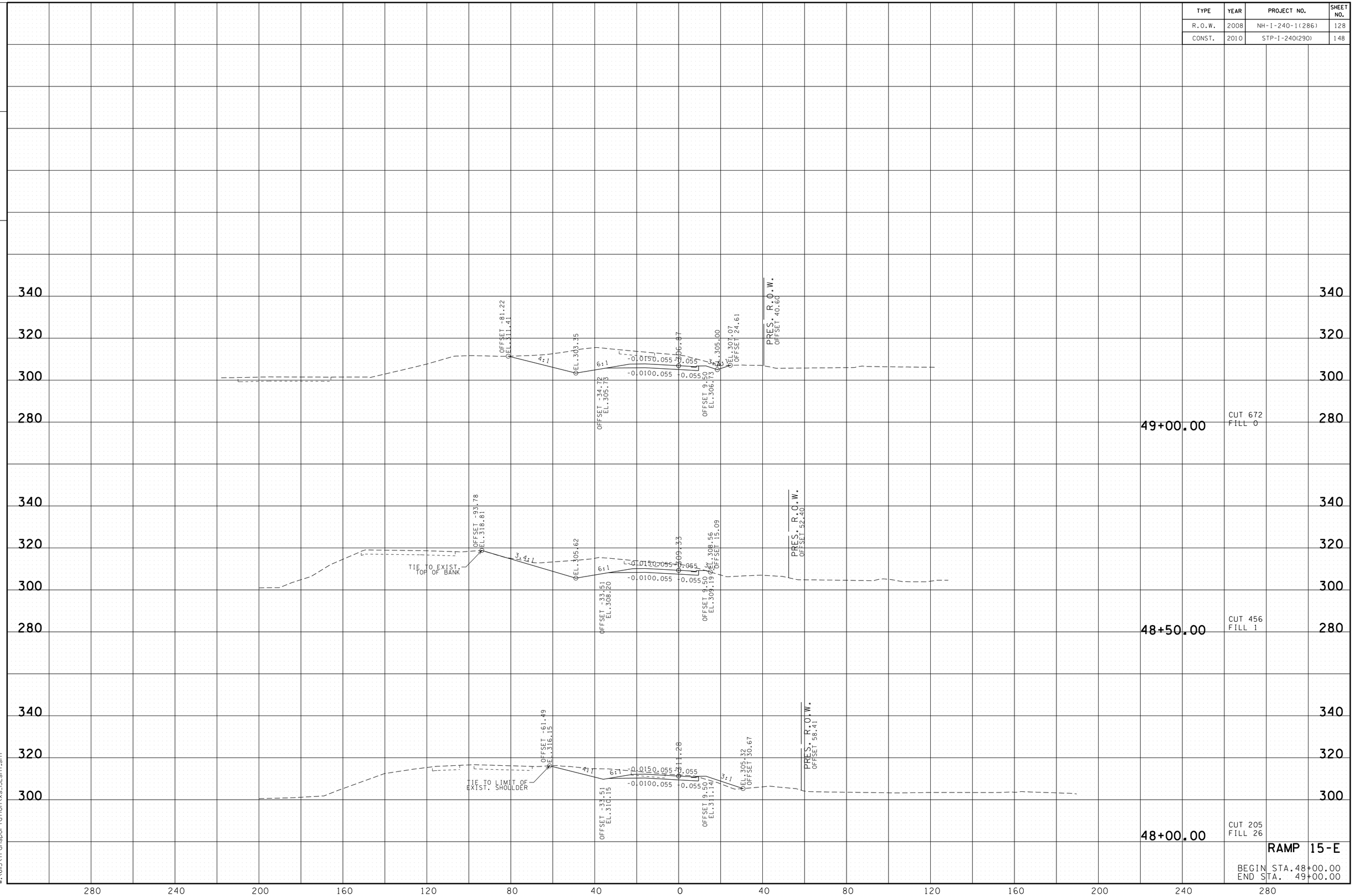
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	128
CONST.	2010	STP-I-240(290)	148



RAMP 15-E

BEGIN STA.48+00.00
END STA. 49+00.00

8/24/2010
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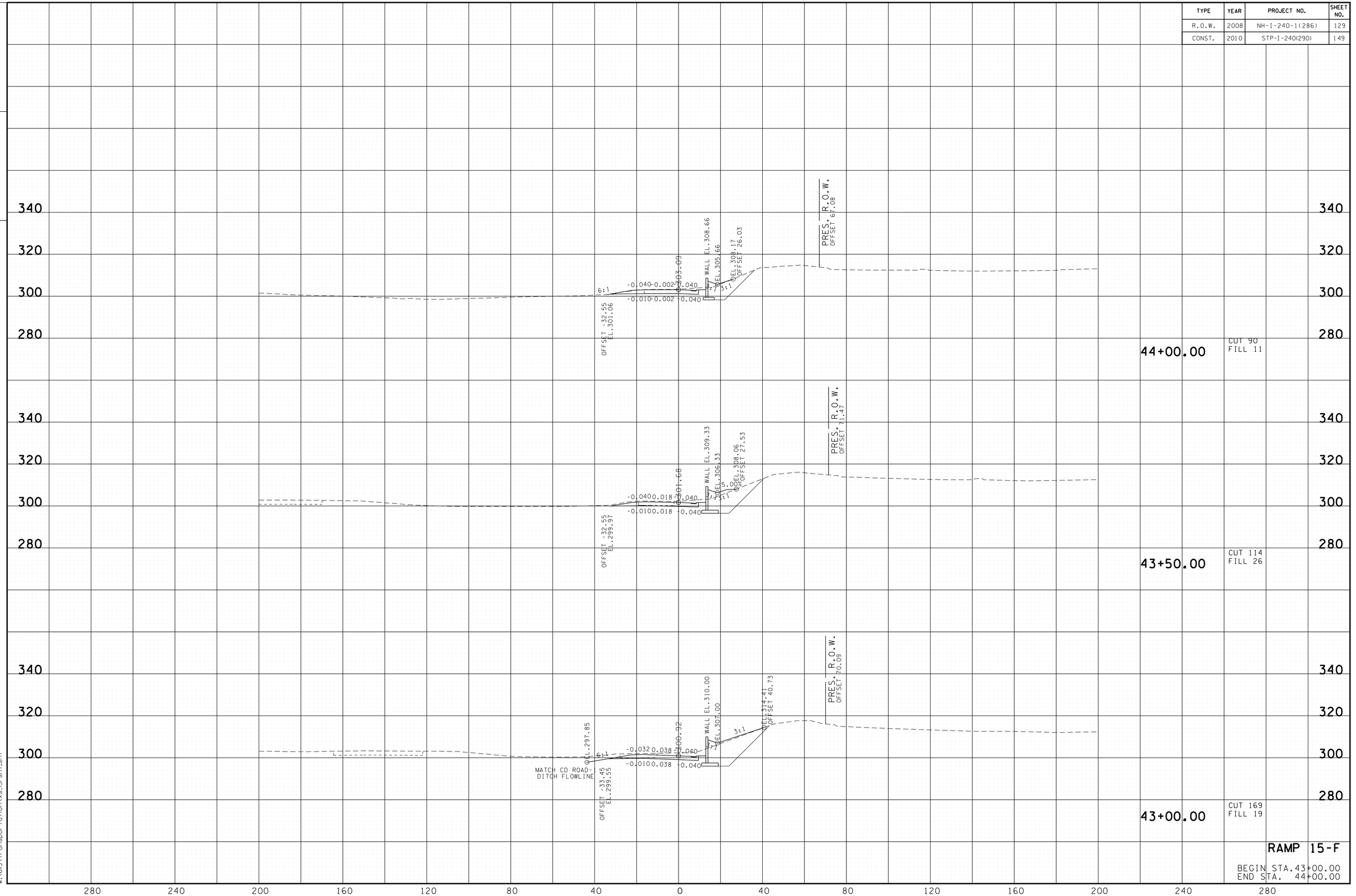
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	129
CONST.	2010	STP-I-240(290)	149



RAMP 15-F

BEGIN STA.43+00.00
END STA. 44+00.00

8/24/2010
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TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	130
CONST.	2010	STP-I-240(290)	150

RAMP 15-F

BEGIN STA. 44+40.00
END STA. 45+50.00

8/24/2010
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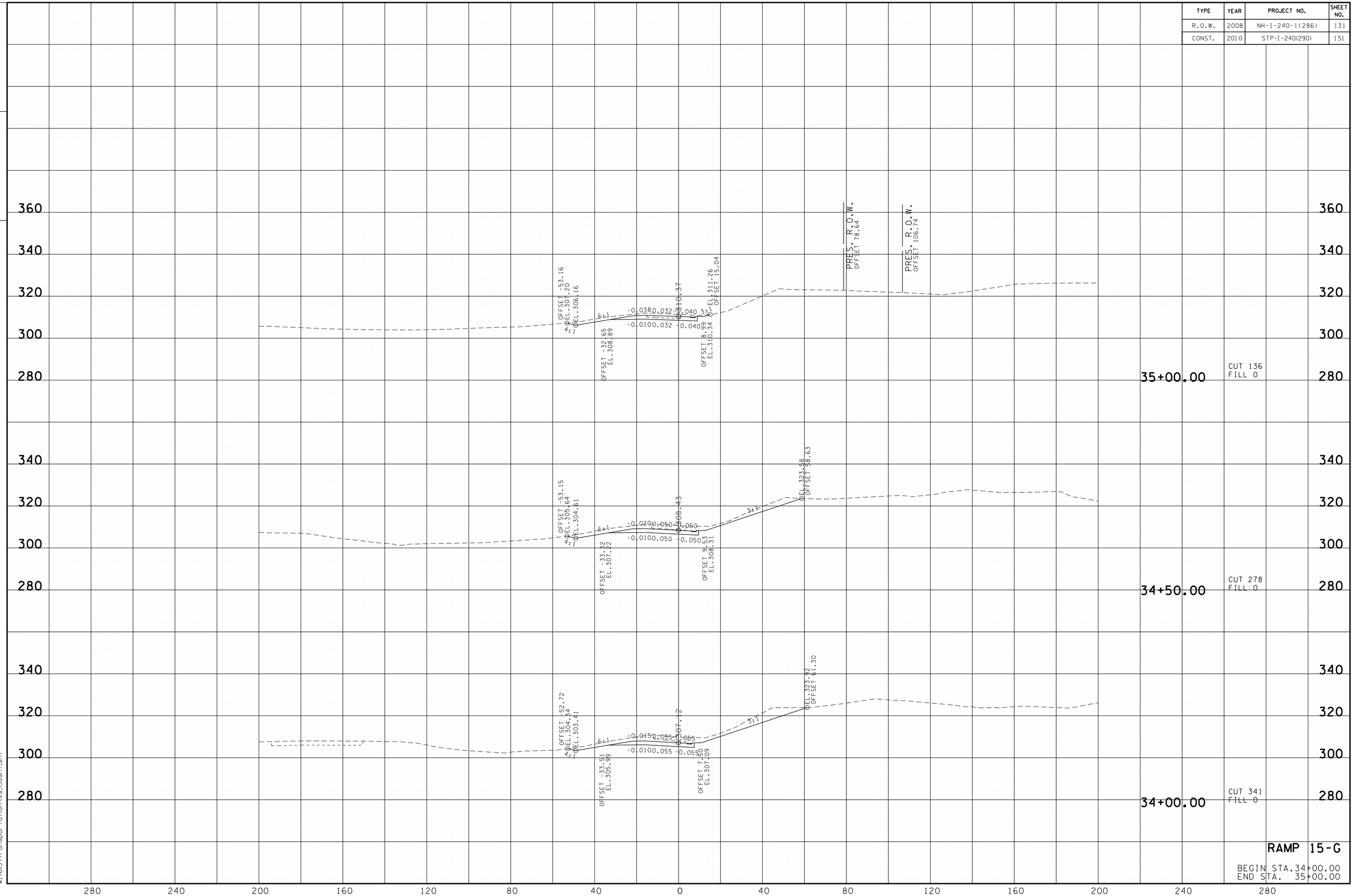
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	131
CONST.	2010	STP-I-240(290)	151



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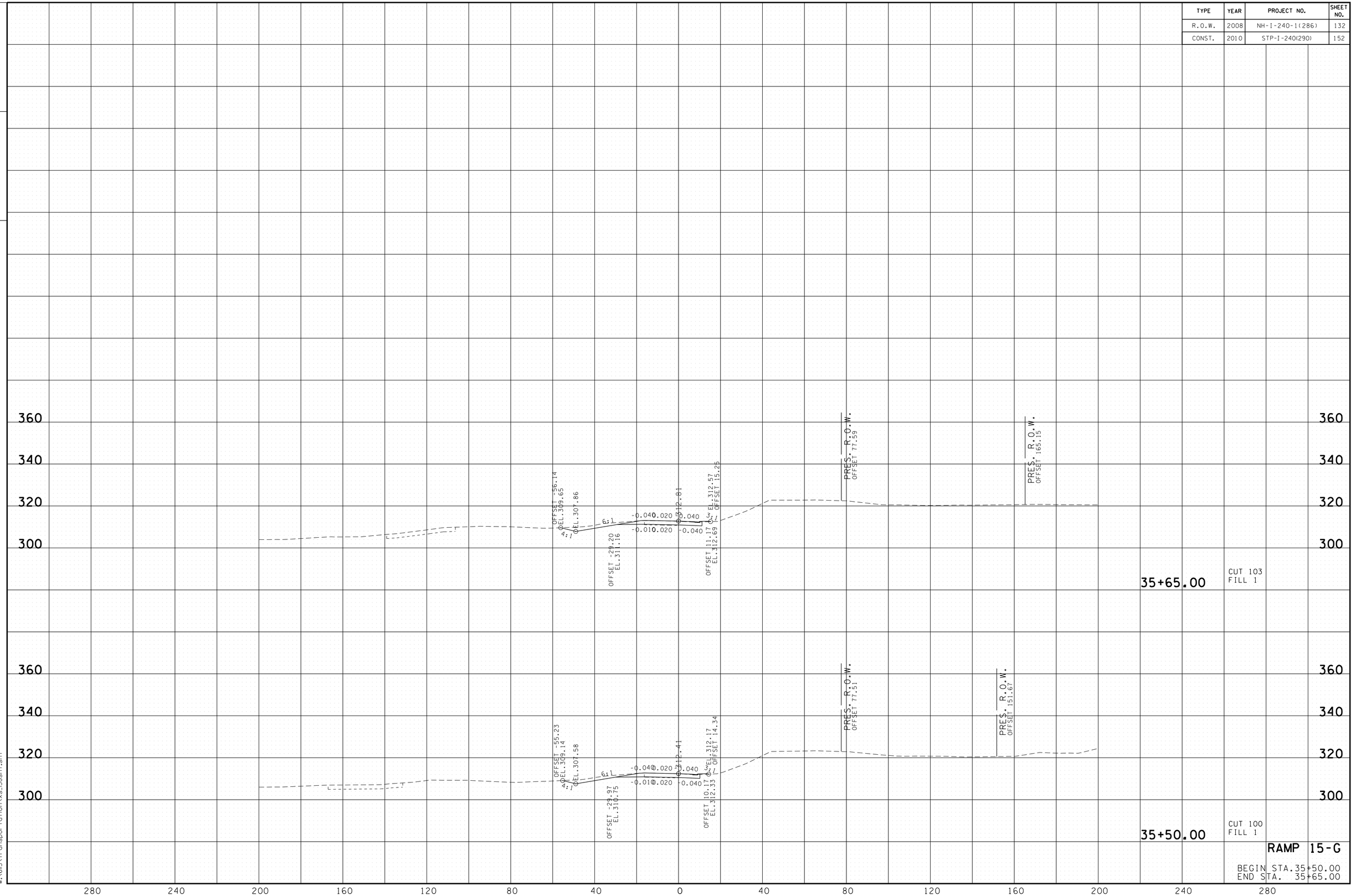
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	132
CONST.	2010	STP-I-240(290)	152



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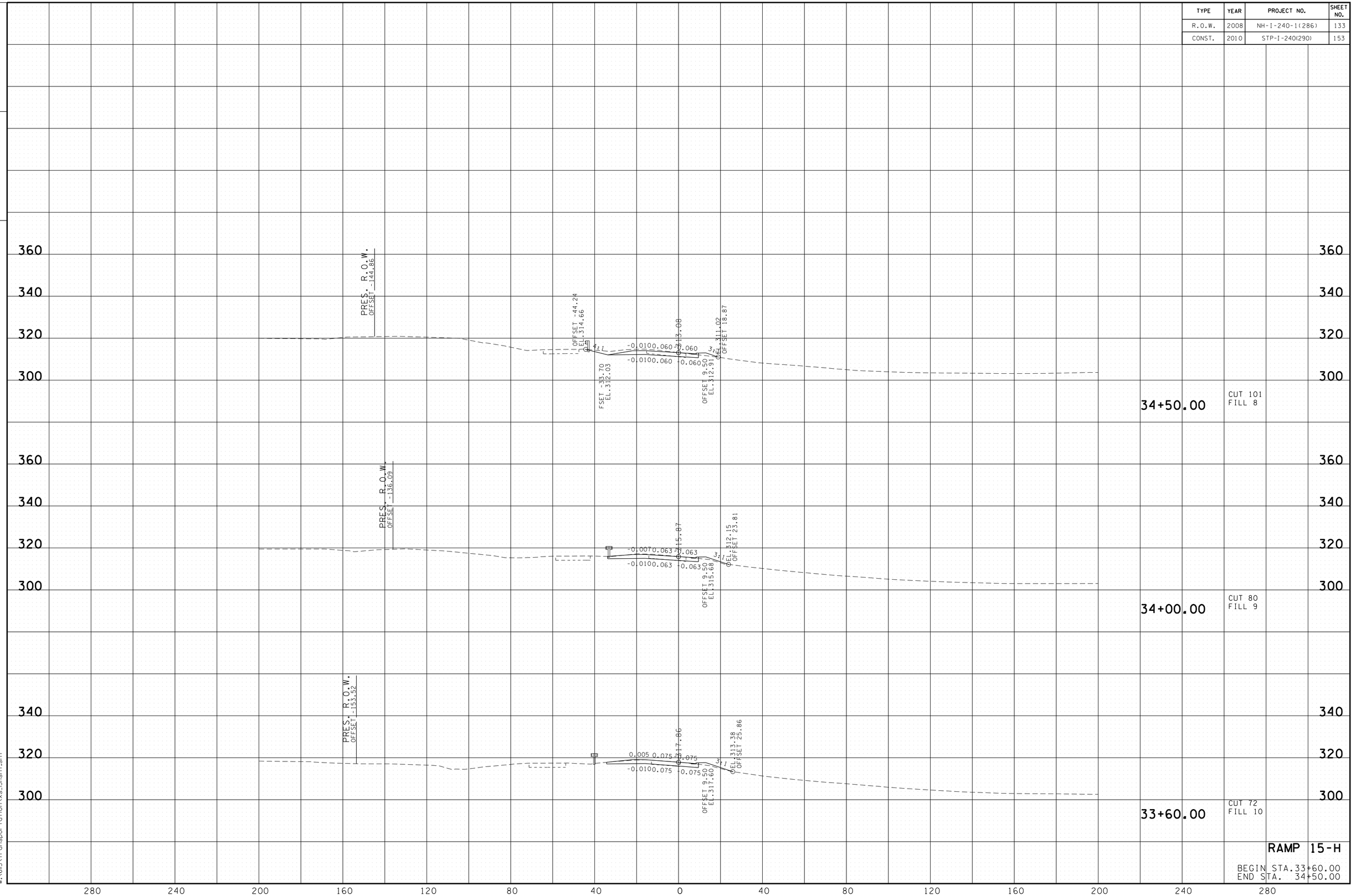
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	133
CONST.	2010	STP-I-240(290)	153



8/24/2010
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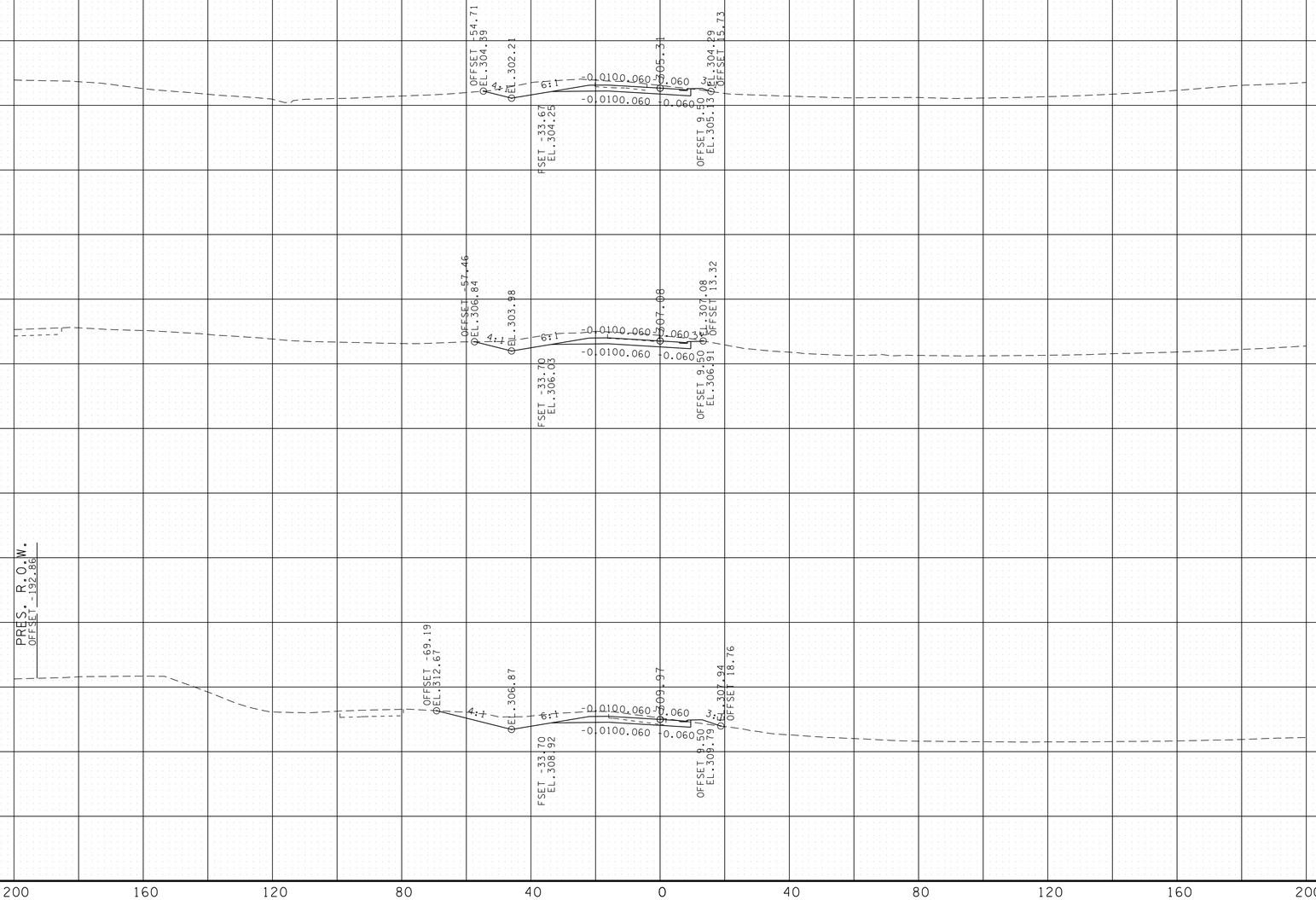
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	134
CONST.	2010	STP-I-240(290)	154



RAMP 15-H

BEGIN STA.35+00.00
END STA. 36+00.00

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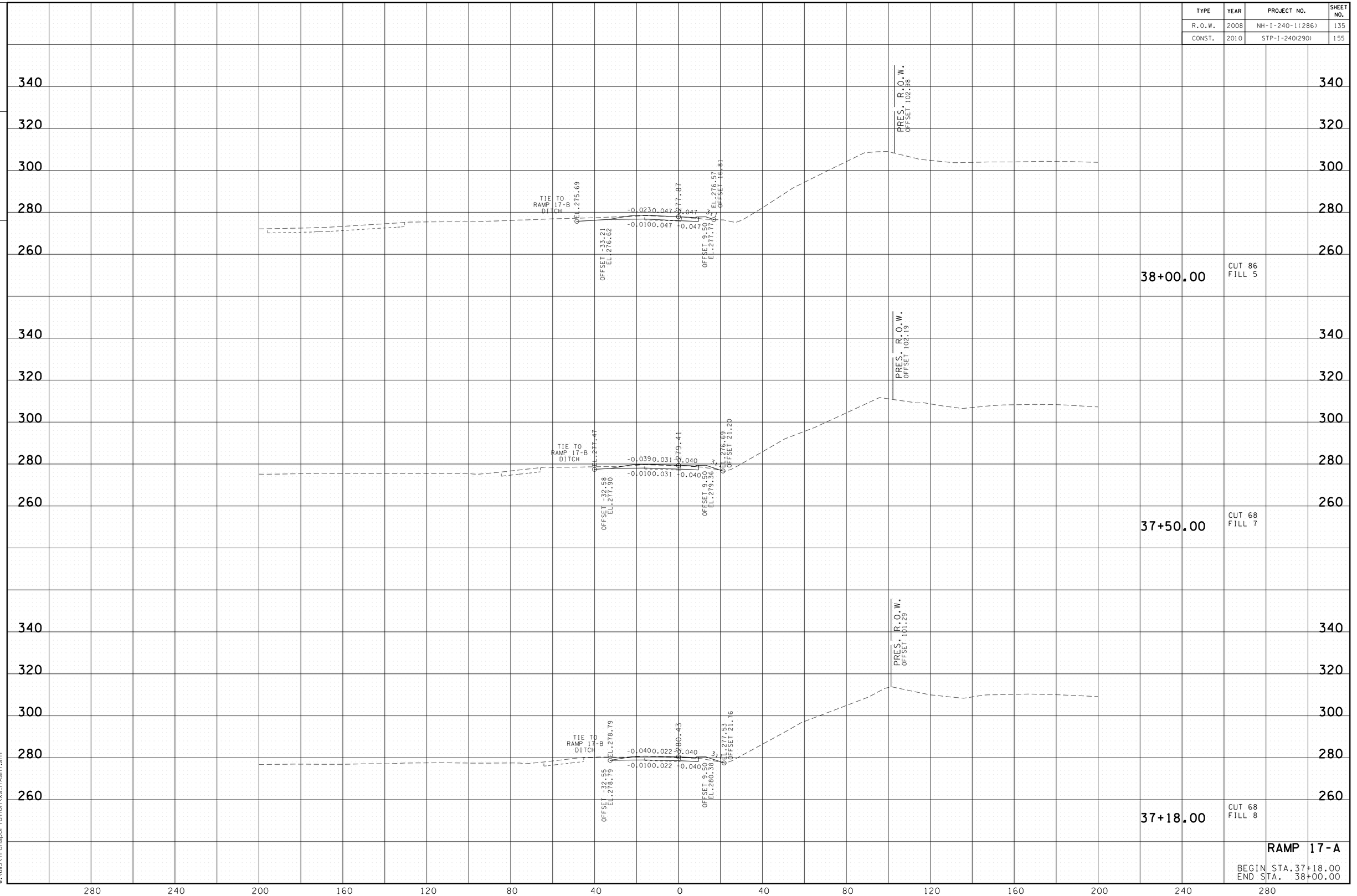
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	135
CONST.	2010	STP-I-240(290)	155



8/24/2010
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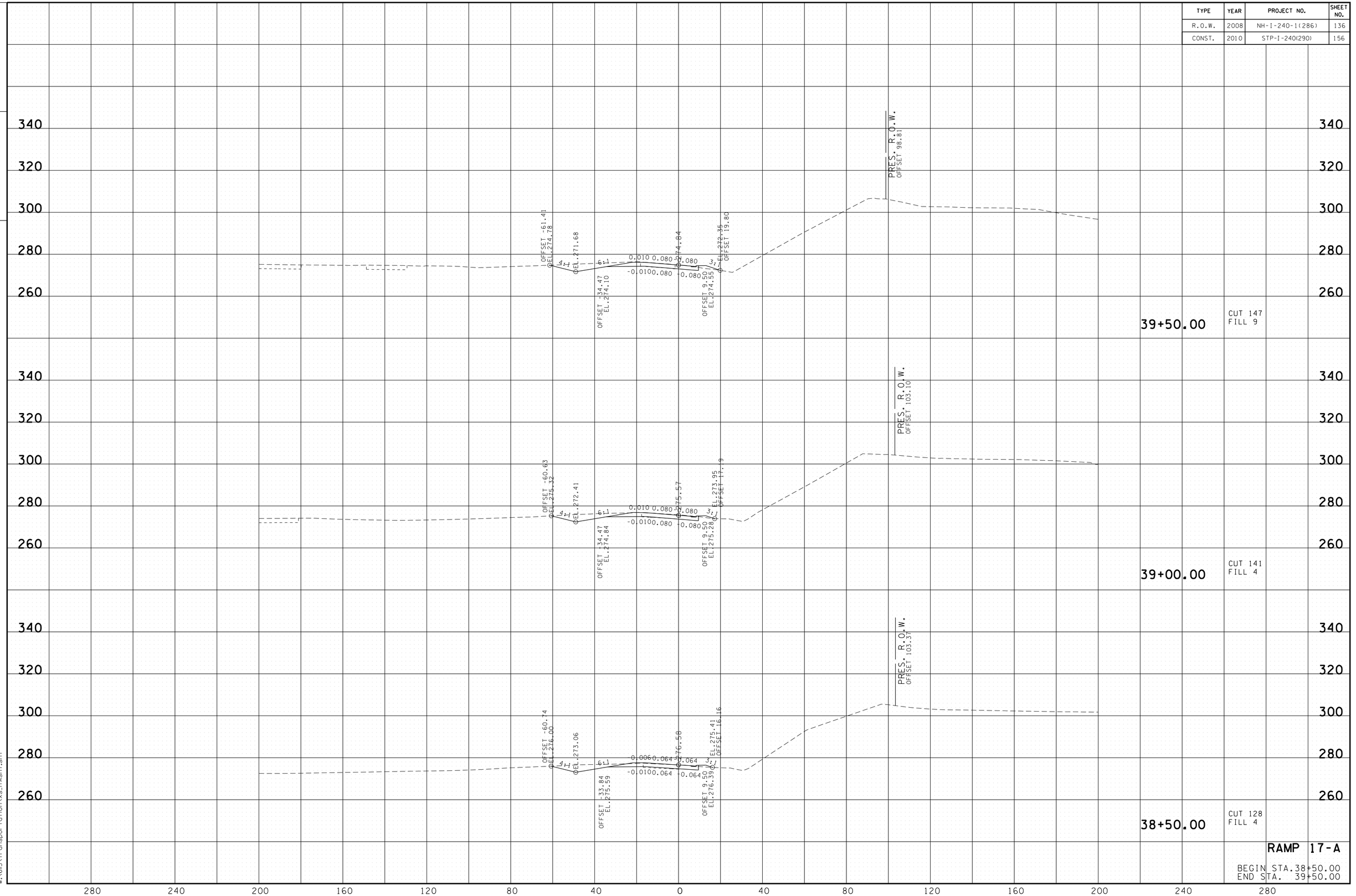
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	136
CONST.	2010	STP-I-240(290)	156



8/24/2010
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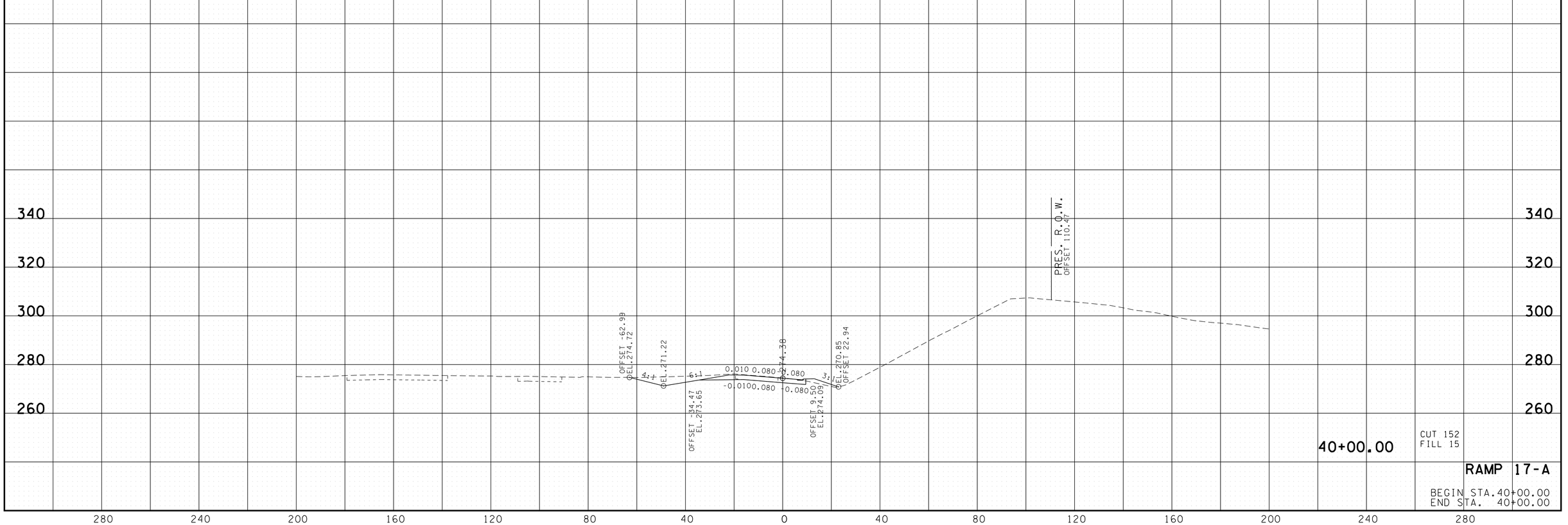
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	137
CONST.	2010	STP-I-240(290)	157



8/24/2010
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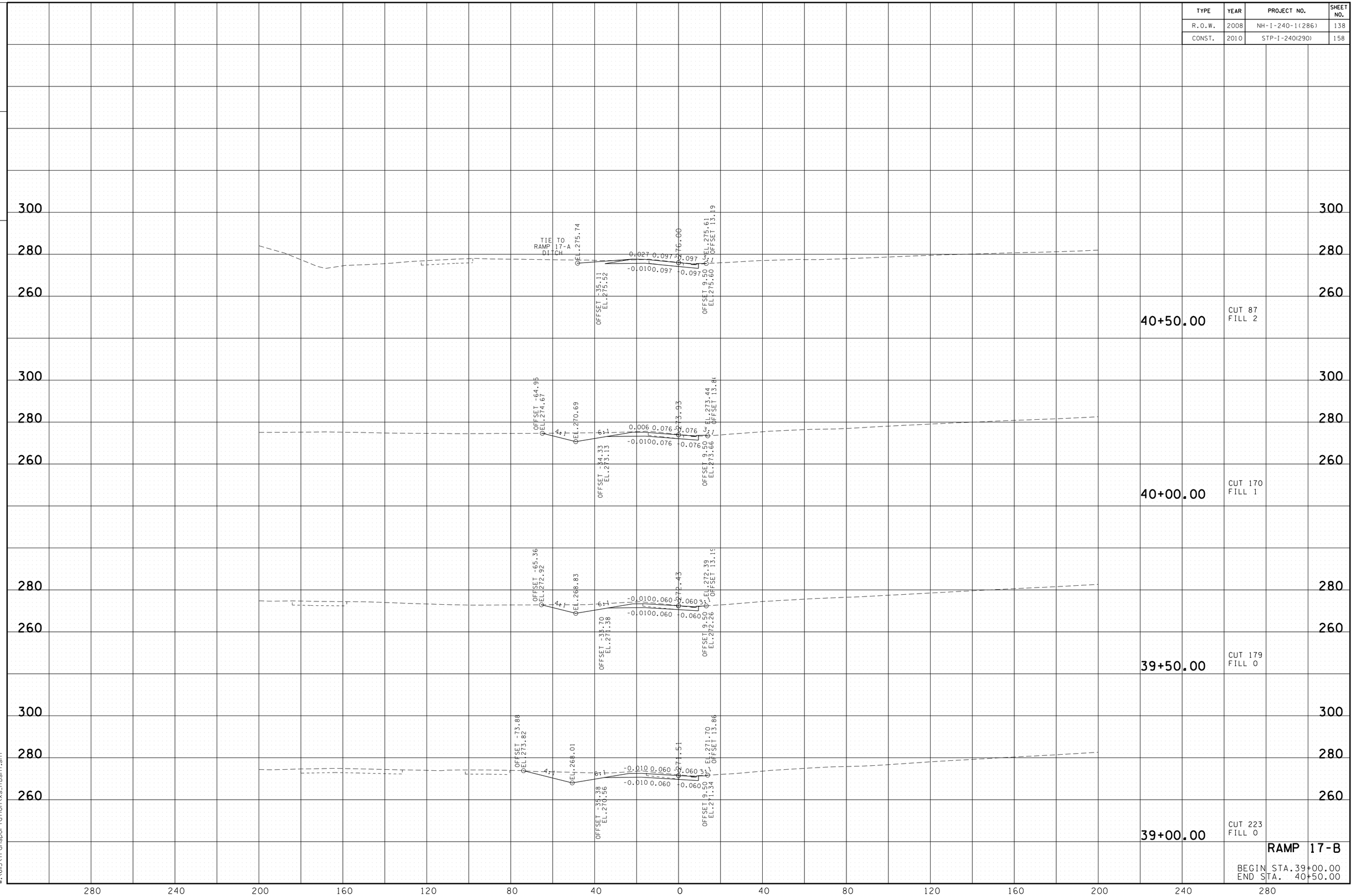
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	138
CONST.	2010	STP-I-240(290)	158



8/24/2010
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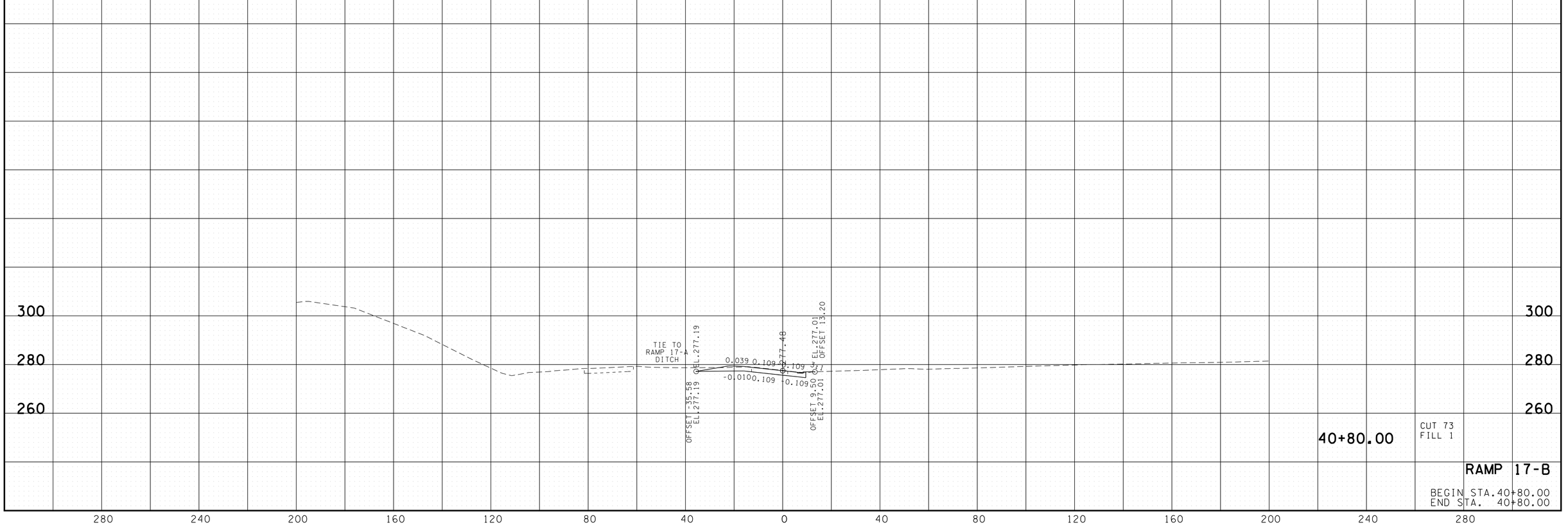
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	139
CONST.	2010	STP-I-240(290)	159



40+80.00

CUT 73
FILL 1

RAMP 17-B

BEGIN STA. 40+80.00
END STA. 40+80.00

8/24/2010
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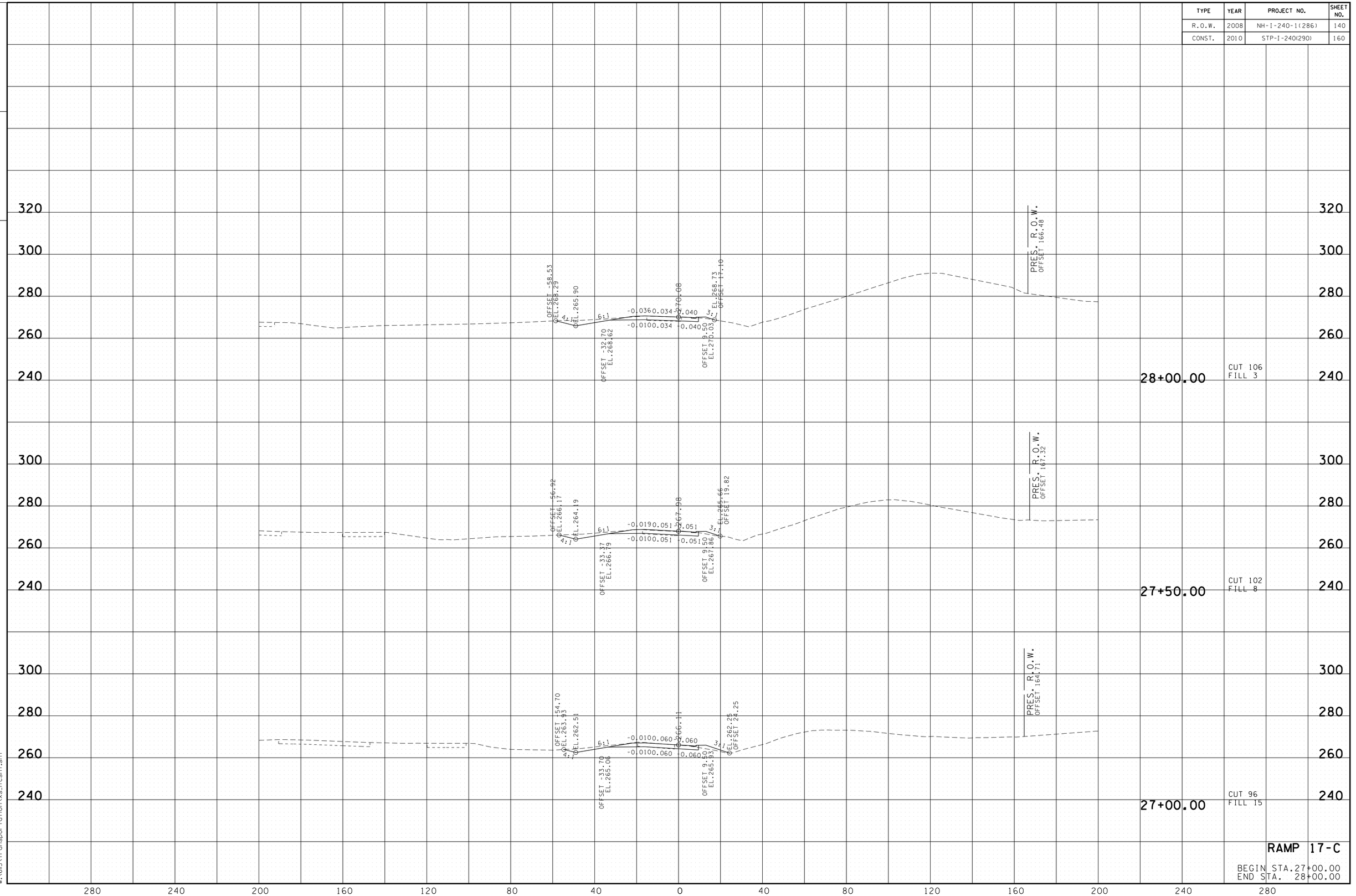
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	140
CONST.	2010	STP-I-240(290)	160



RAMP 17-C

BEGIN STA.27+00.00
END STA. 28+00.00

8/24/2010
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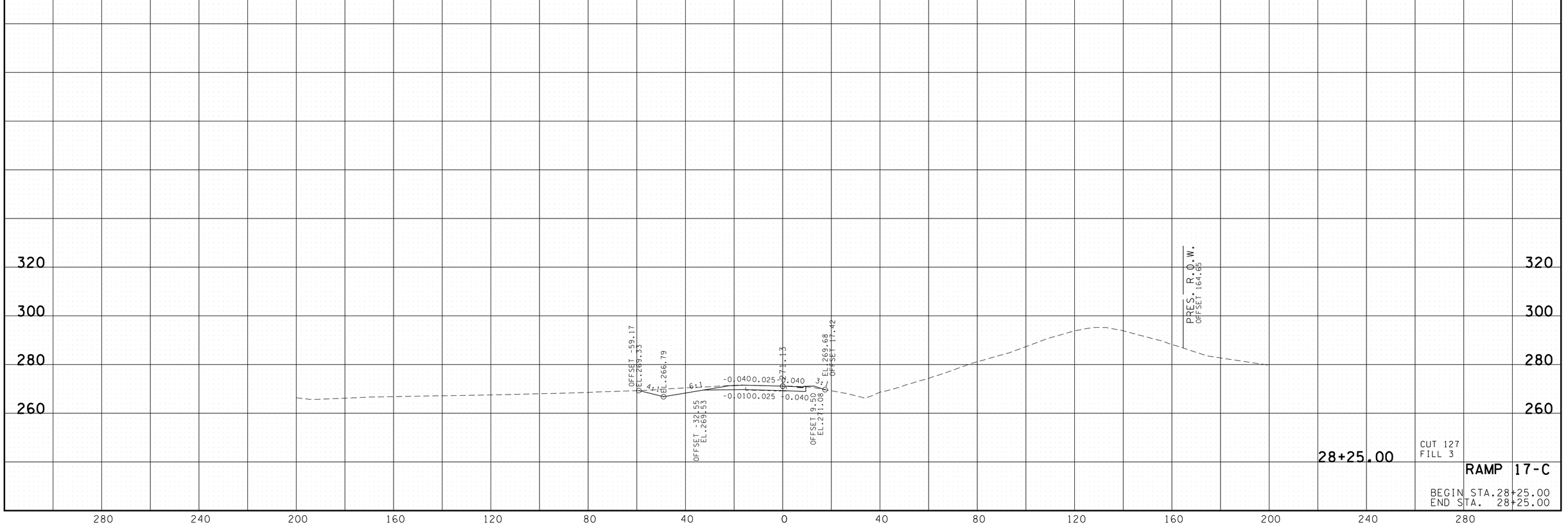
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	141
CONST.	2010	STP-I-240(290)	161



8/24/2010
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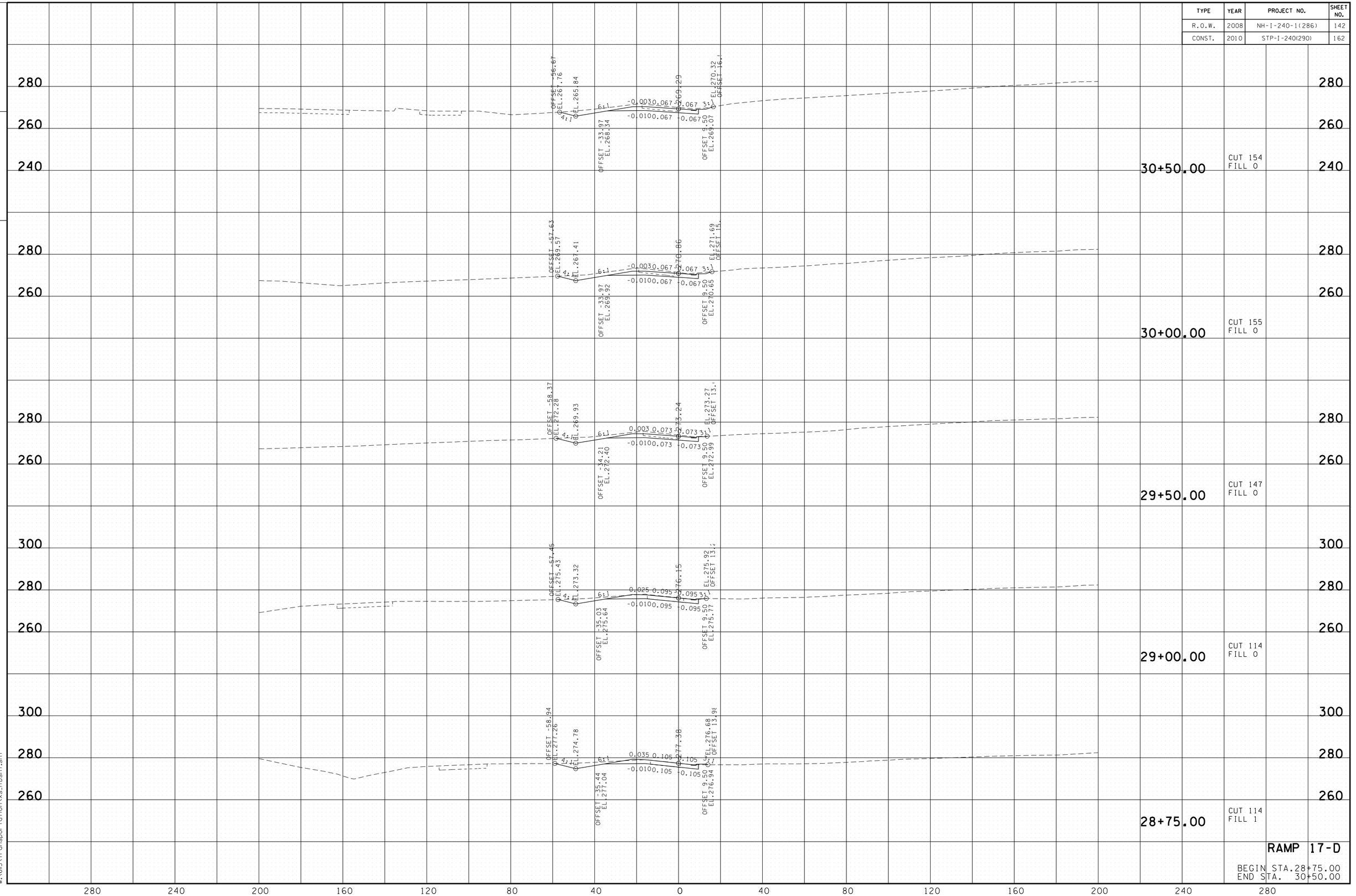
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	142
CONST.	2010	STP-I-240(290)	162



8/24/2010
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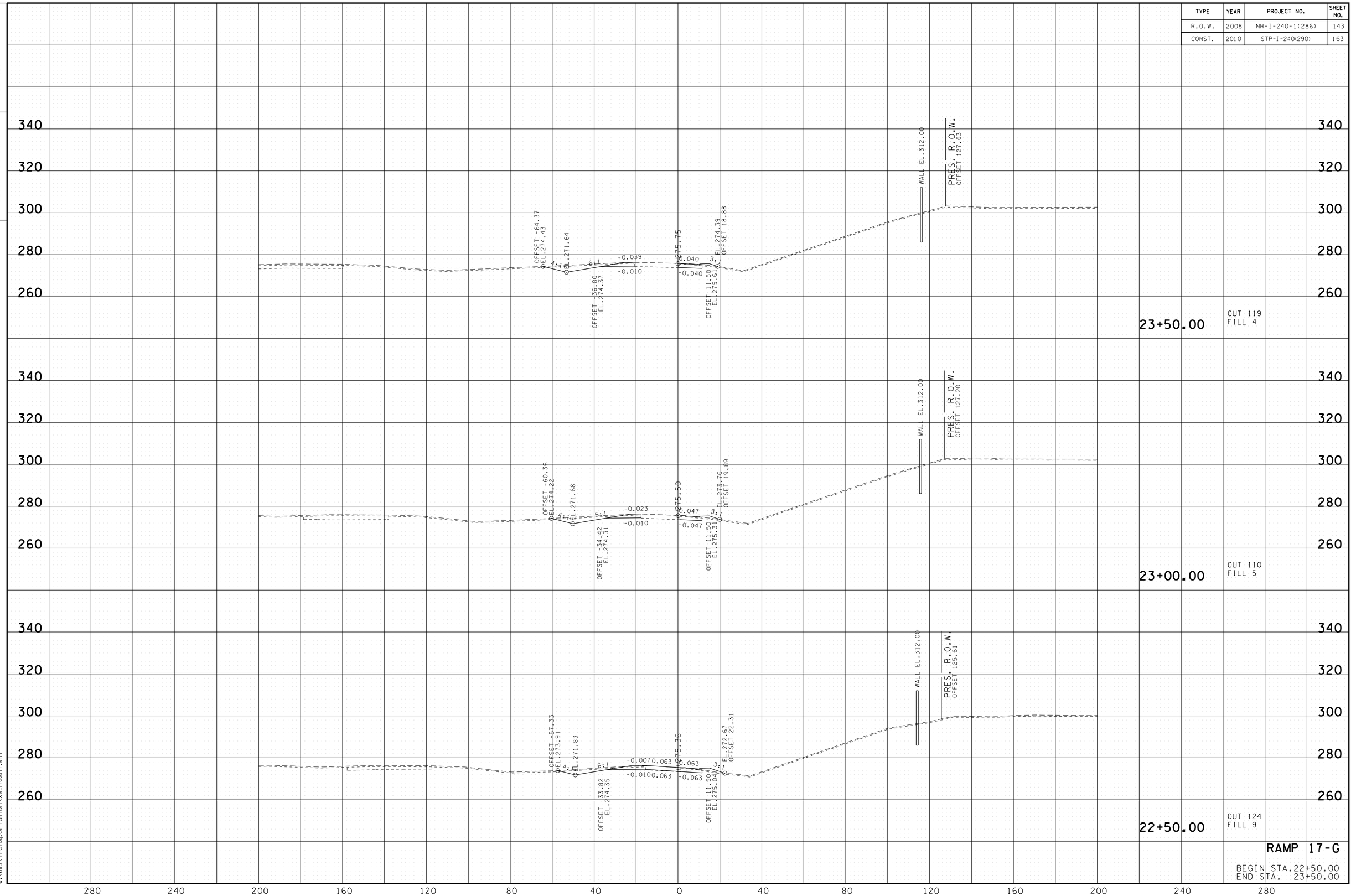
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	143
CONST.	2010	STP-I-240(290)	163



RAMP 17-G

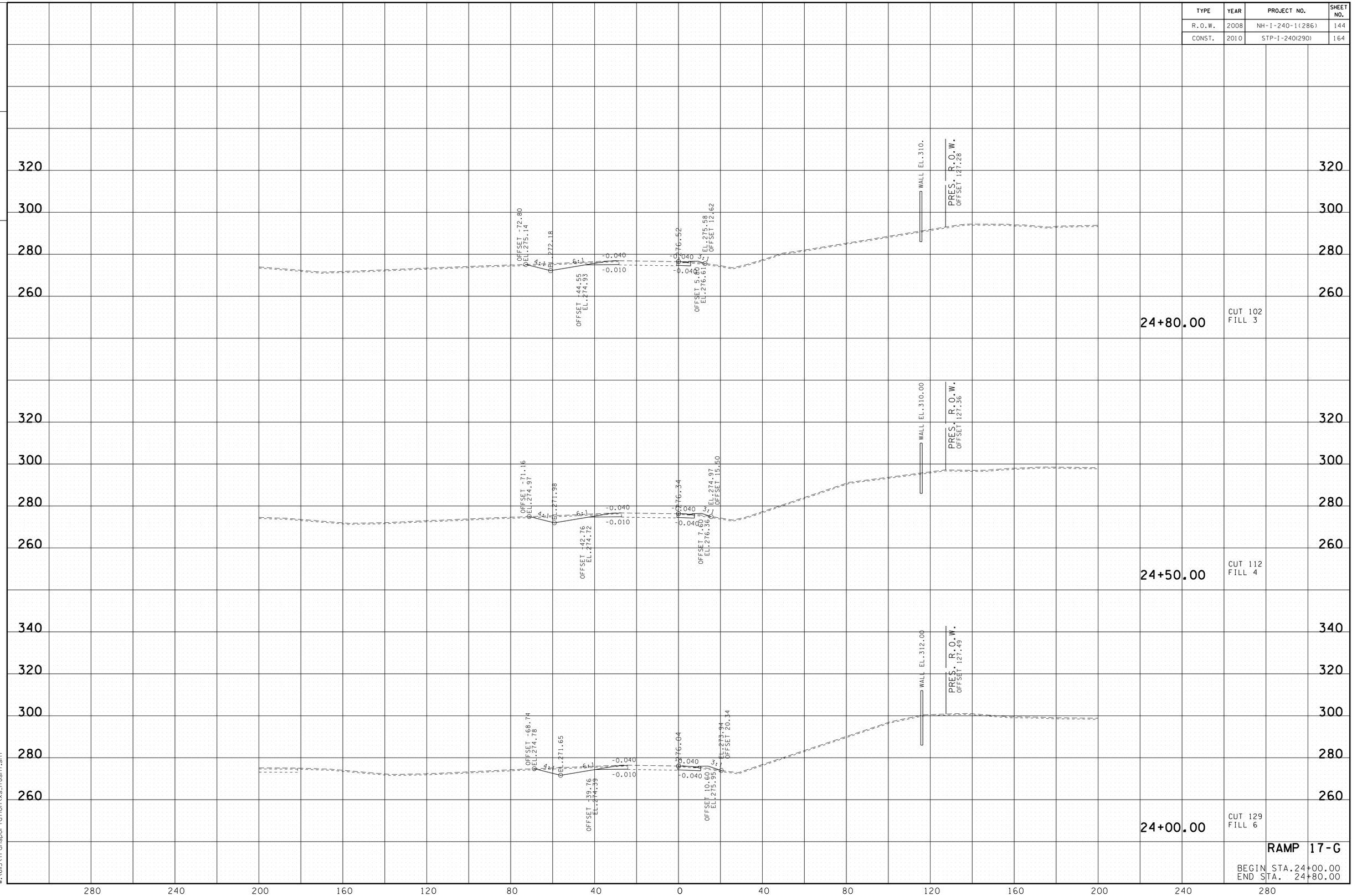
BEGIN STA.22+50.00
END STA. 23+50.00

8/24/2010
w:\611\5\transportation\xs_17Gsht.sht

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2008	NH-I-240-1(286)	144
CONST.	2010	STP-I-240(290)	164

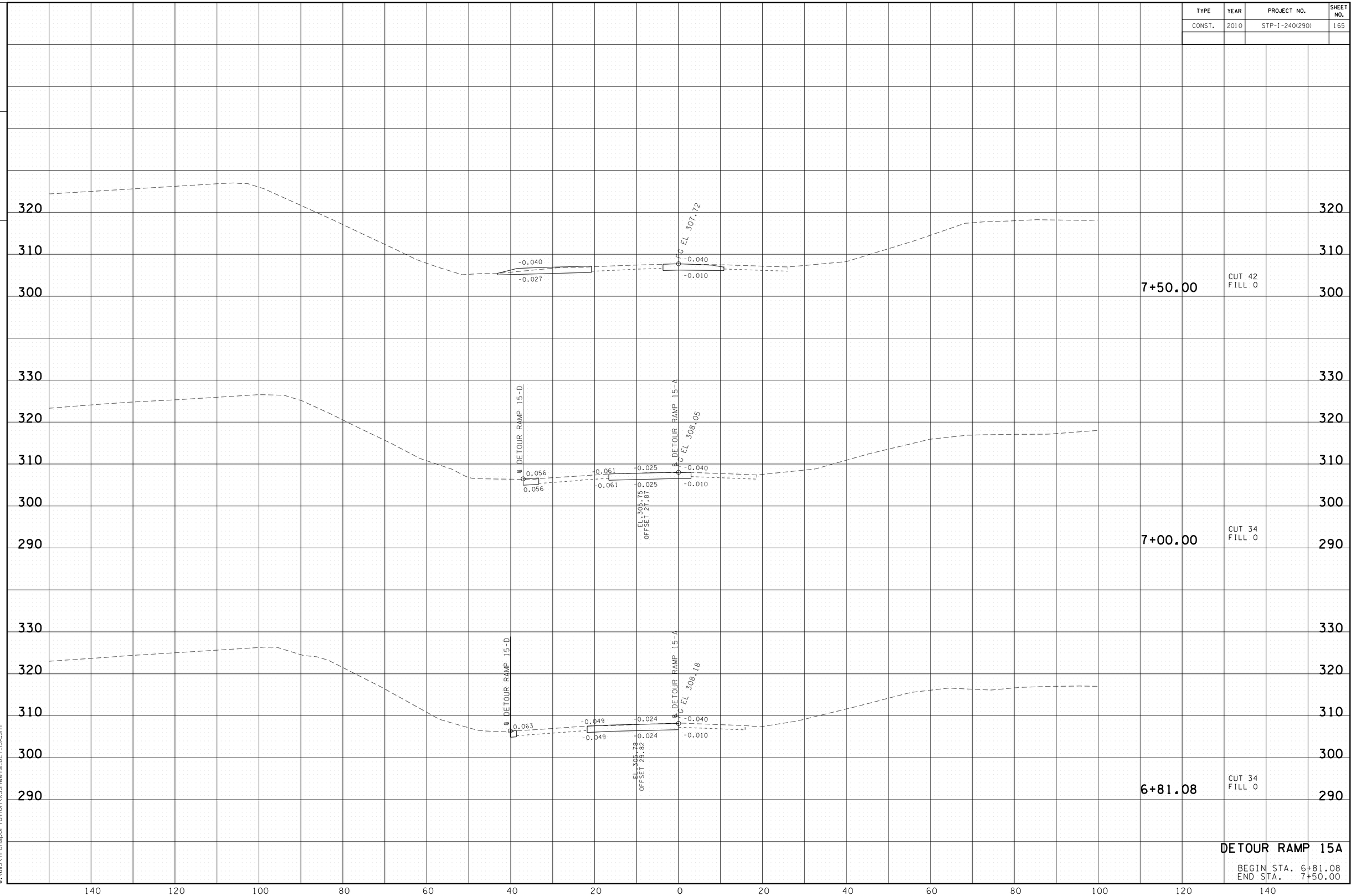


8/24/2010
w:\6ll5\transportation\xs_17gsht.sht

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	165



DETOUR RAMP 15A

BEGIN STA. 6+81.08
END STA. 7+50.00

8/24/2010
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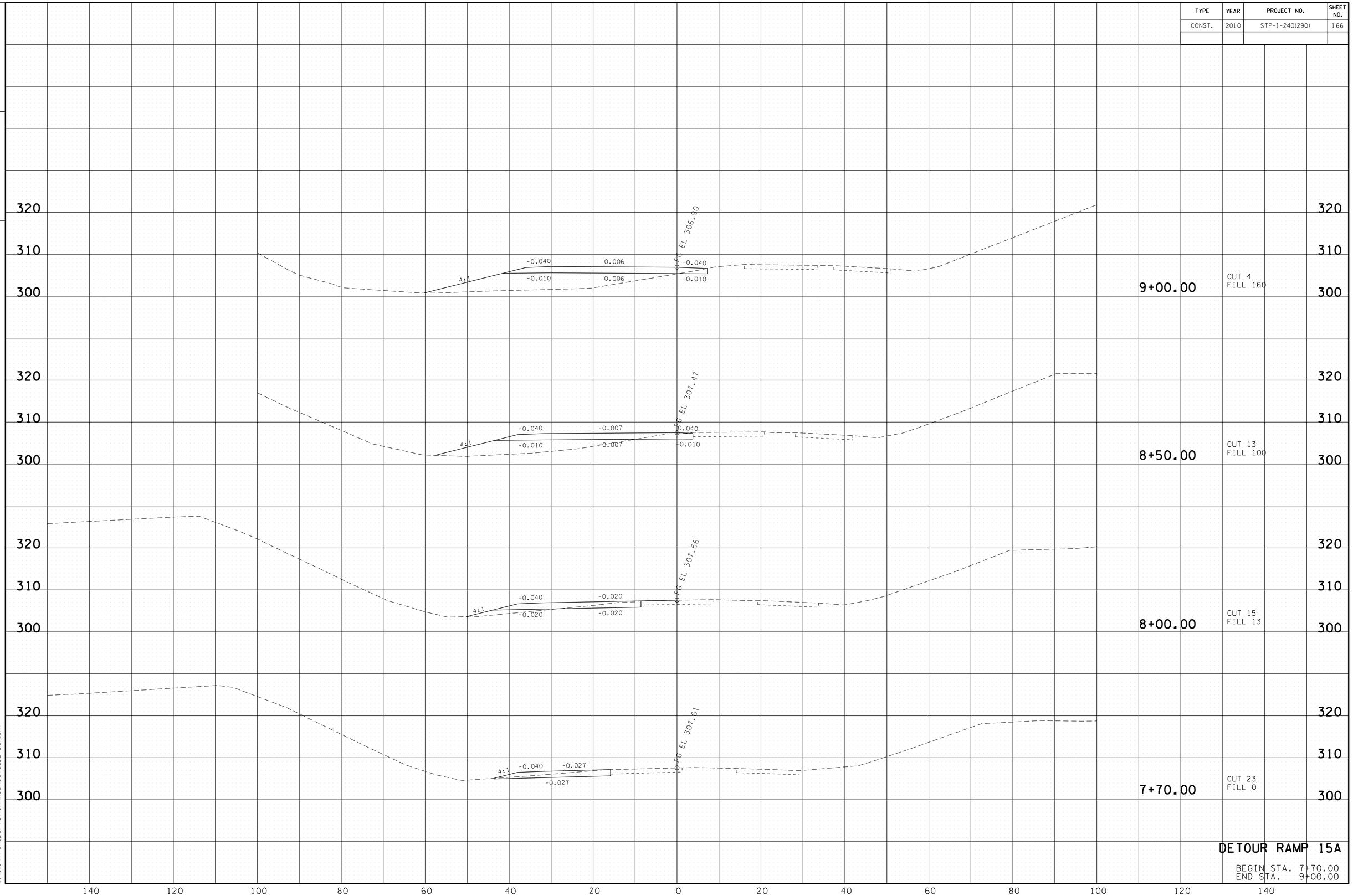
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	166



DETOUR RAMP 15A

BEGIN STA. 7+70.00
END STA. 9+00.00

8/24/2010
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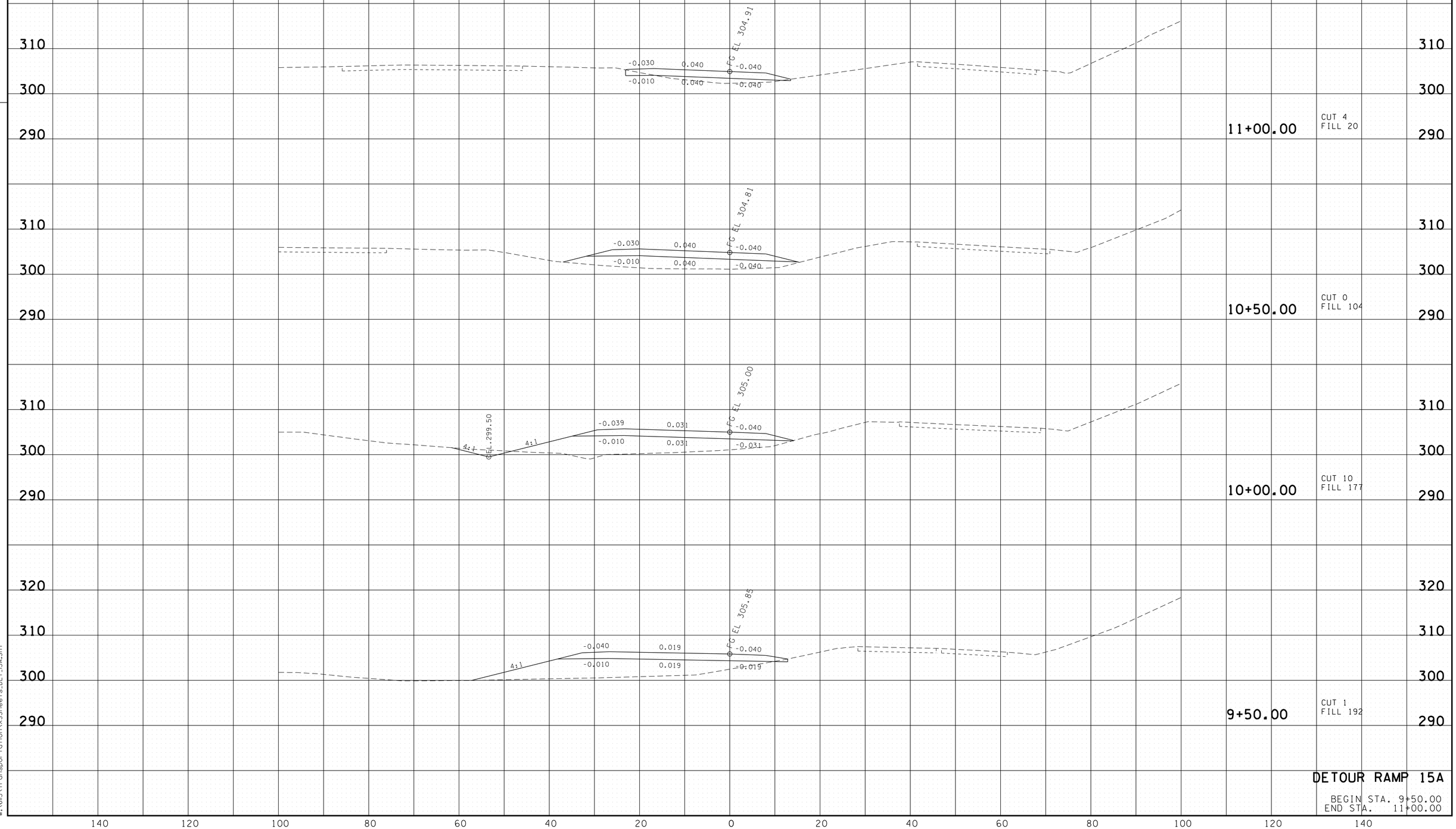
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	167



DETOUR RAMP 15A

BEGIN STA. 9+50.00
END STA. 11+00.00

8/24/2010
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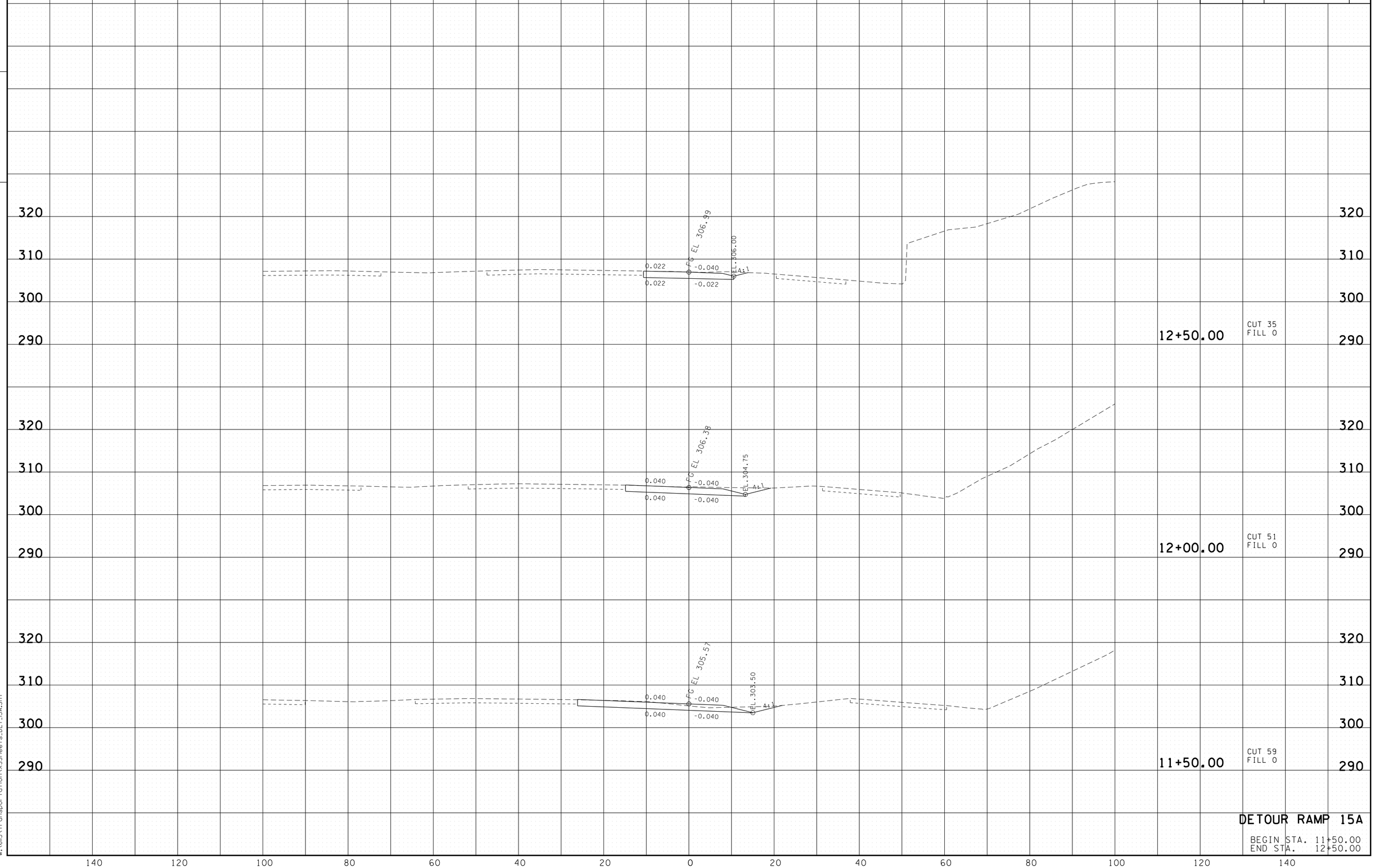
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	168



DETOUR RAMP 15A

BEGIN STA. 11+50.00
END STA. 12+50.00

8/24/2010
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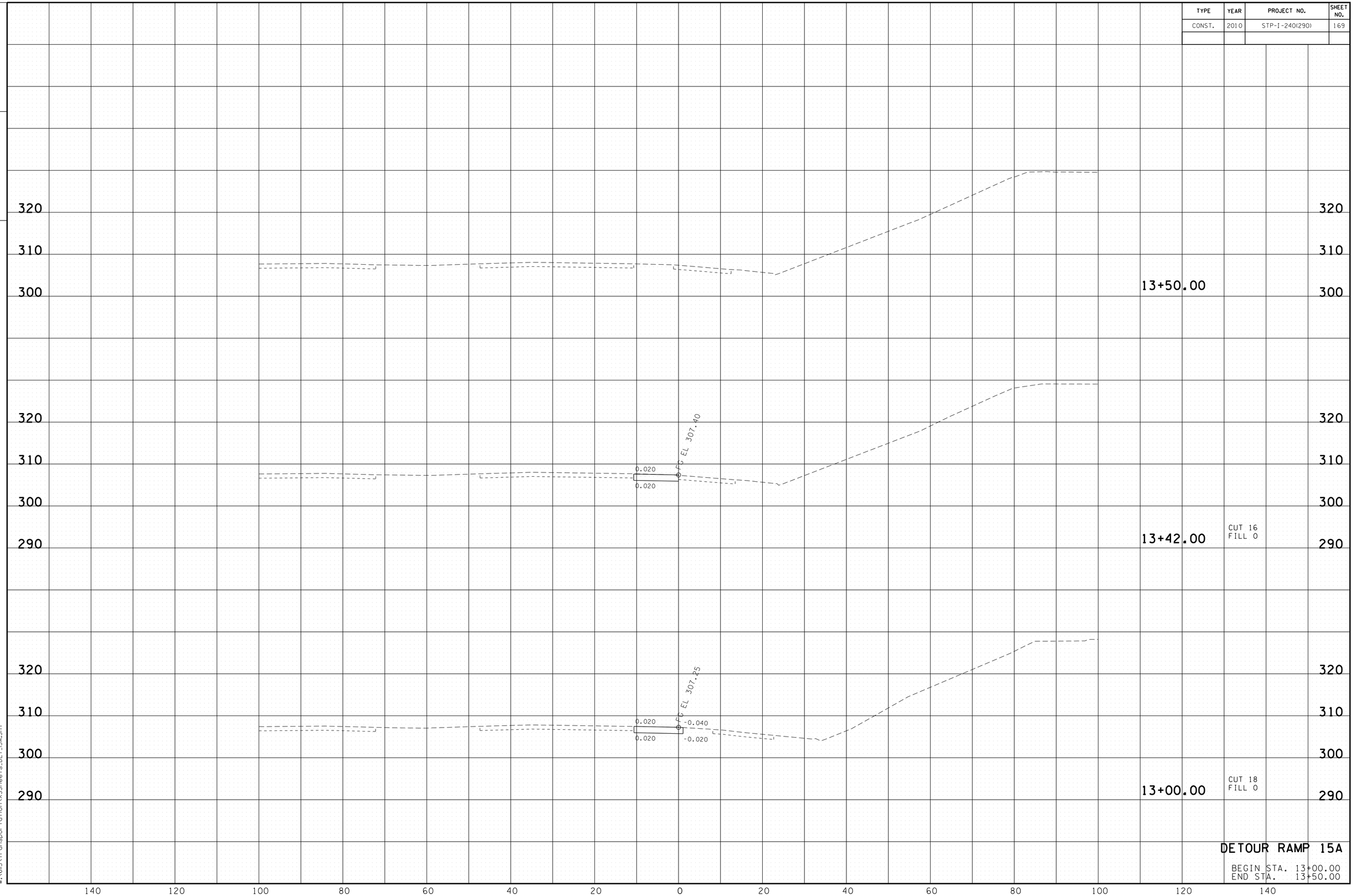
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	169



DETOUR RAMP 15A

BEGIN STA. 13+00.00
END STA. 13+50.00

8/24/2010
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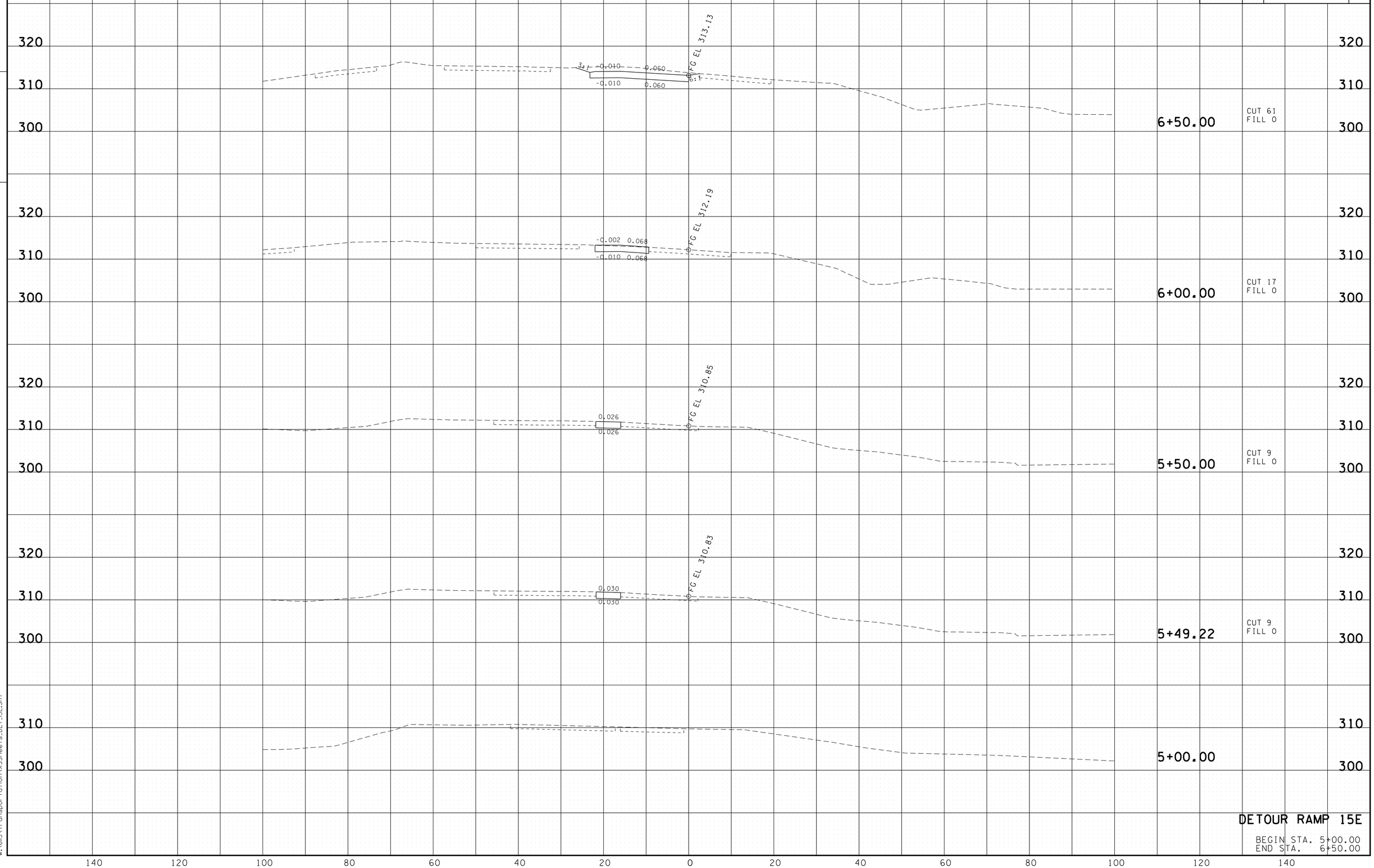
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	170



DETOUR RAMP 15E

BEGIN STA. 5+00.00
END STA. 6+50.00

8/24/2010
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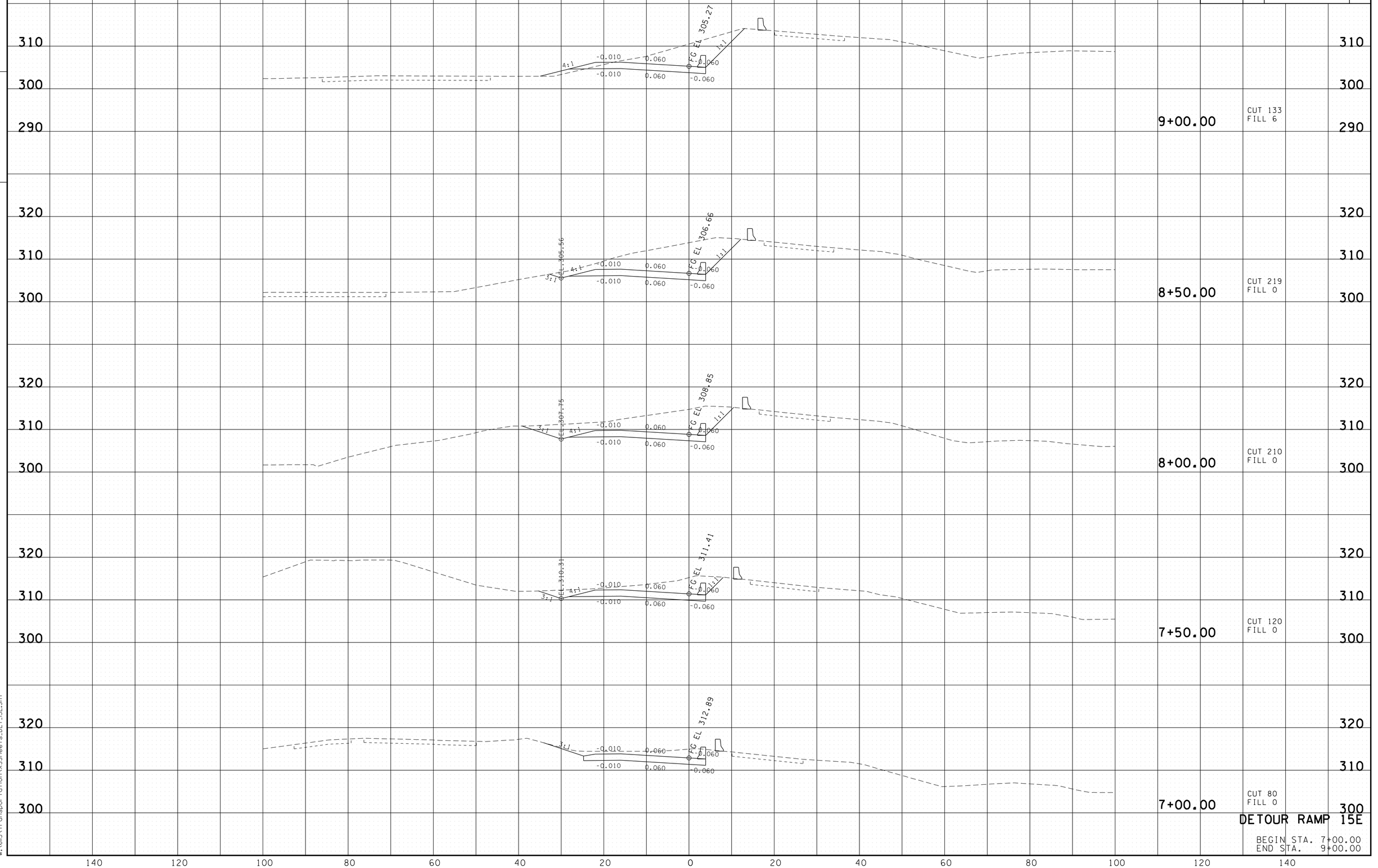
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	171



DETOUR RAMP 15E

BEGIN STA. 7+00.00
END STA. 9+00.00

8/24/2010
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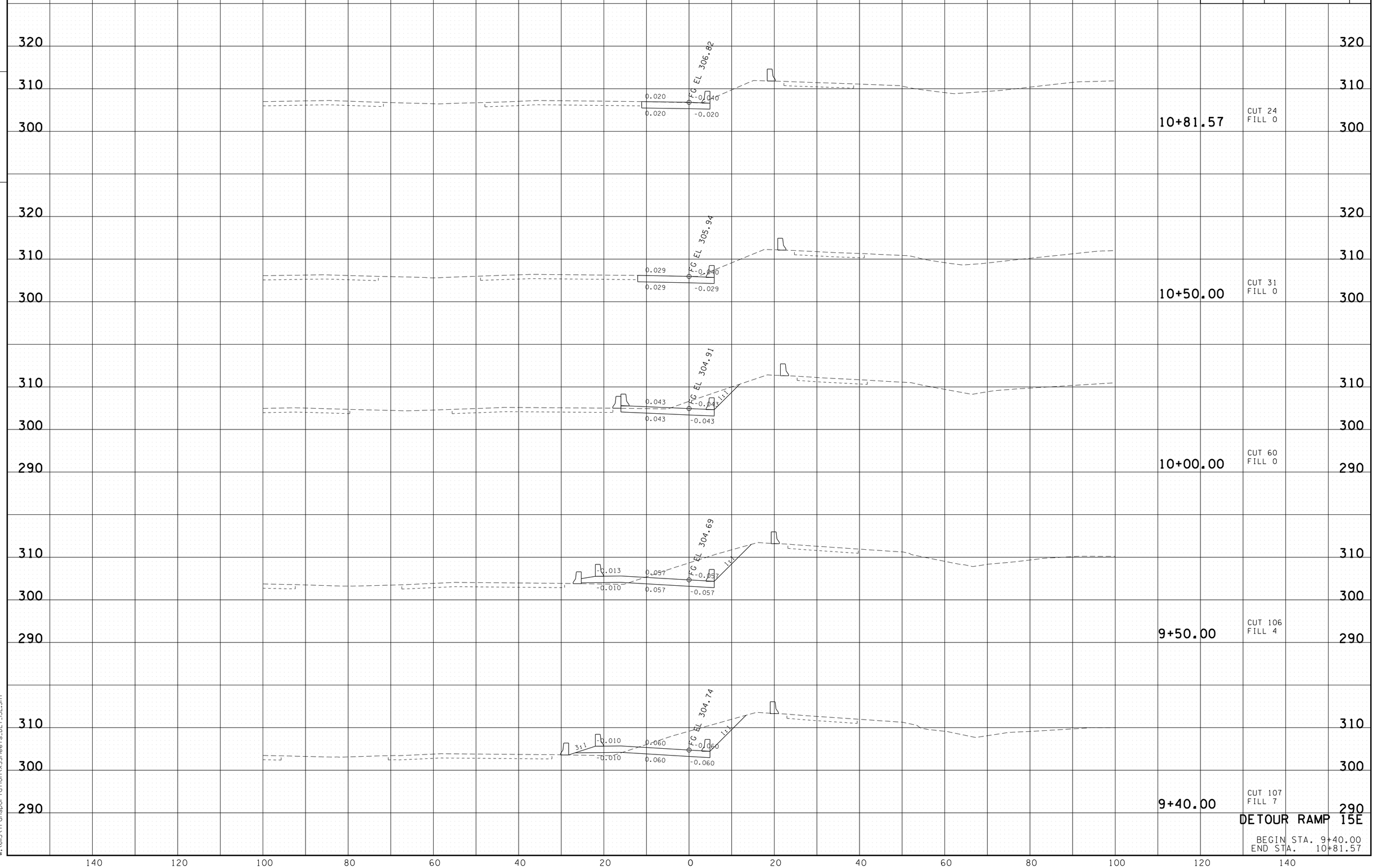
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	172



DETOUR RAMP 15E

BEGIN STA. 9+40.00
END STA. 10+81.57

8/24/2010
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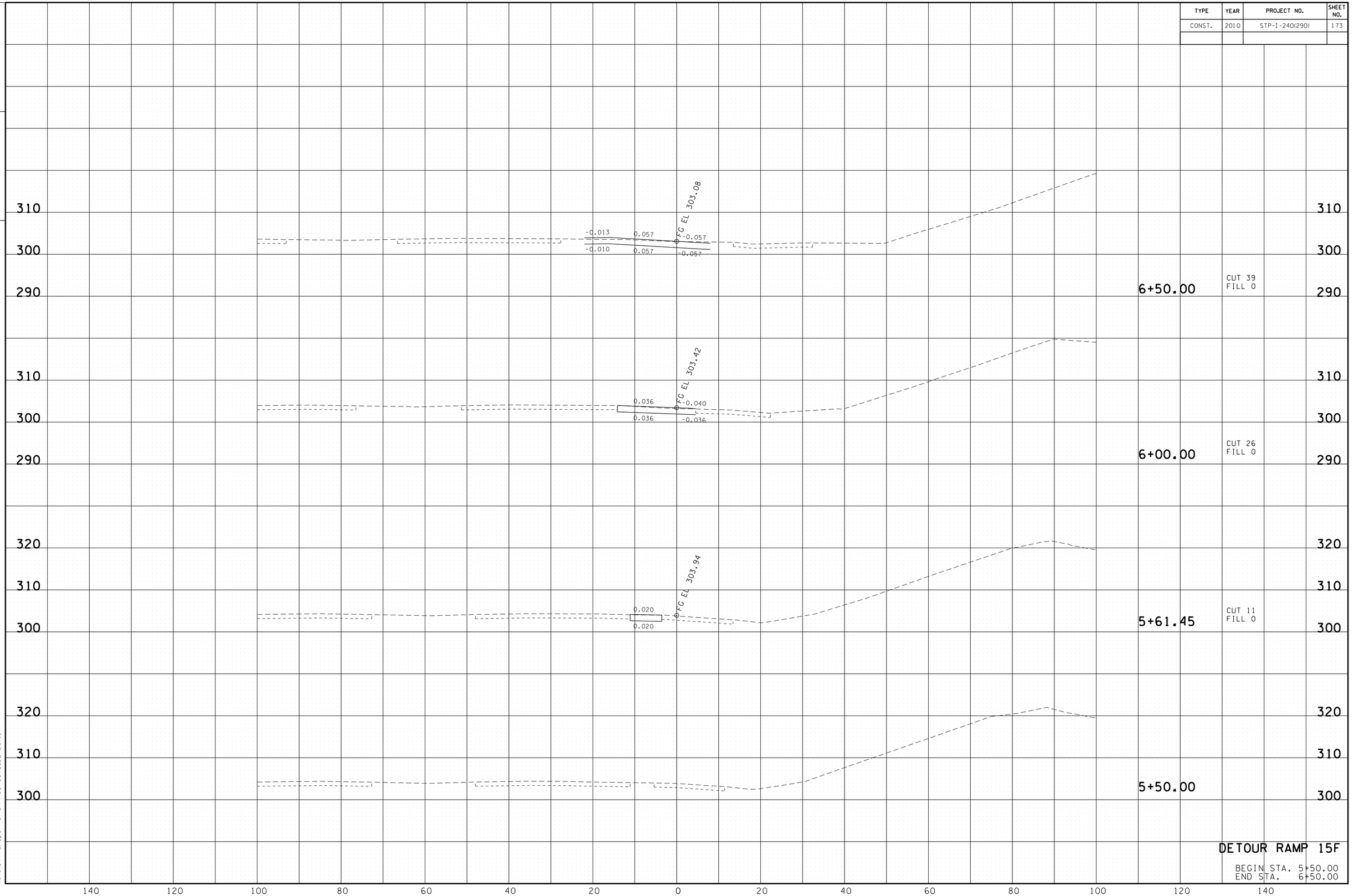
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	173

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



DETOUR RAMP 15F

BEGIN STA. 5+50.00
END STA. 6+50.00

8/24/2010
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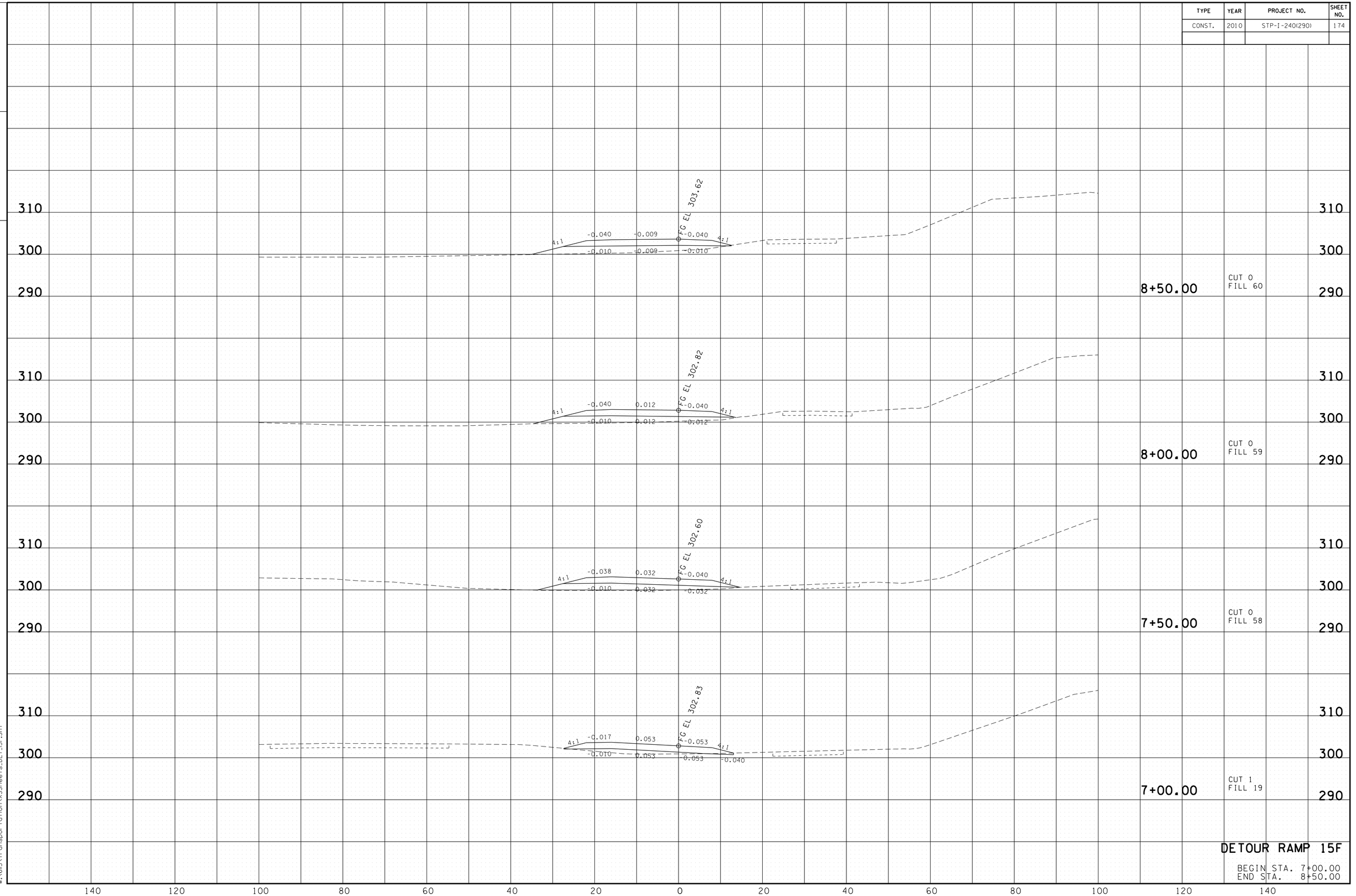
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(29O)	174

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



DETOUR RAMP 15F

BEGIN STA. 7+00.00
END STA. 8+50.00

8/24/2010
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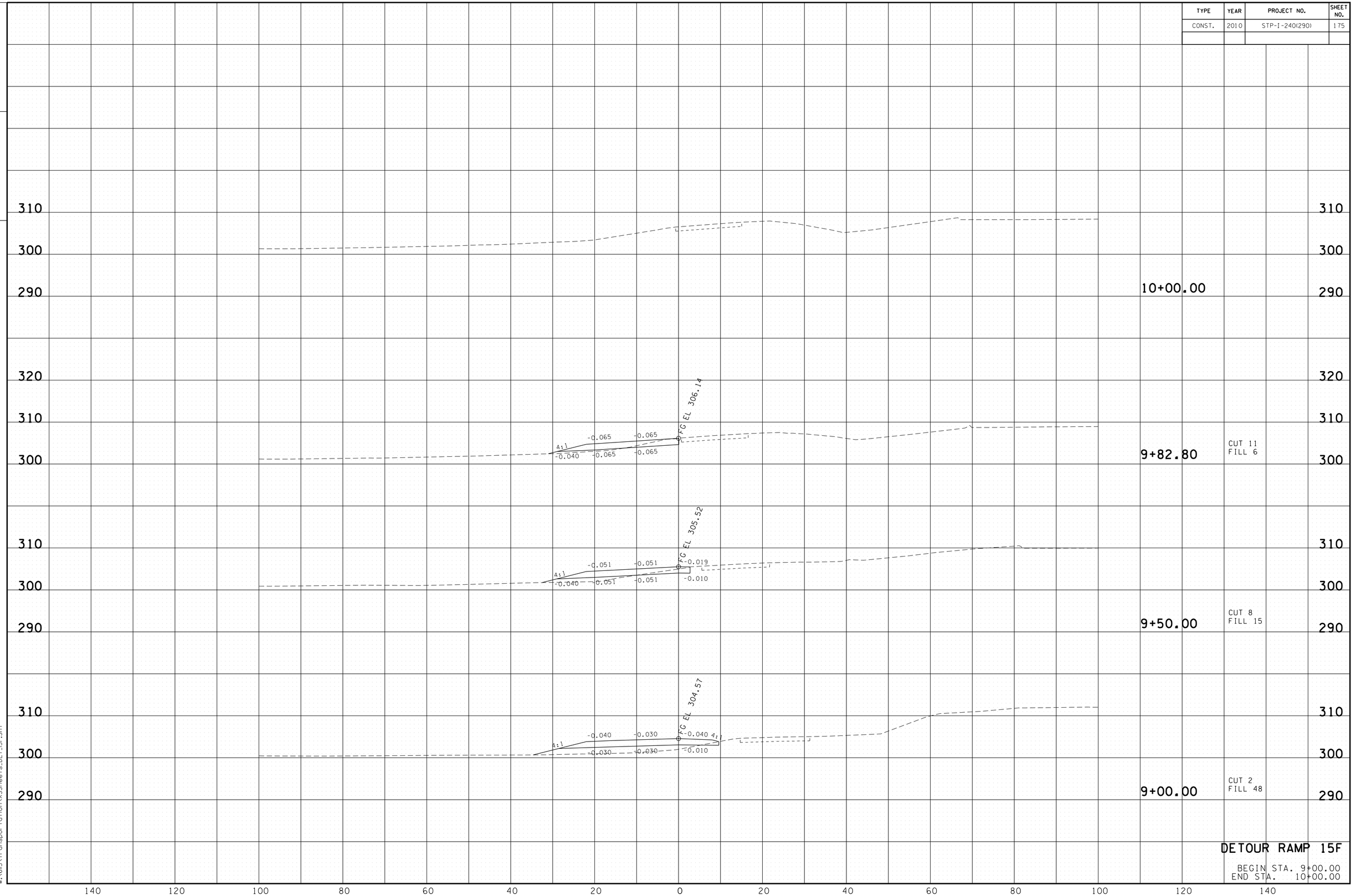
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	175



8/24/2010
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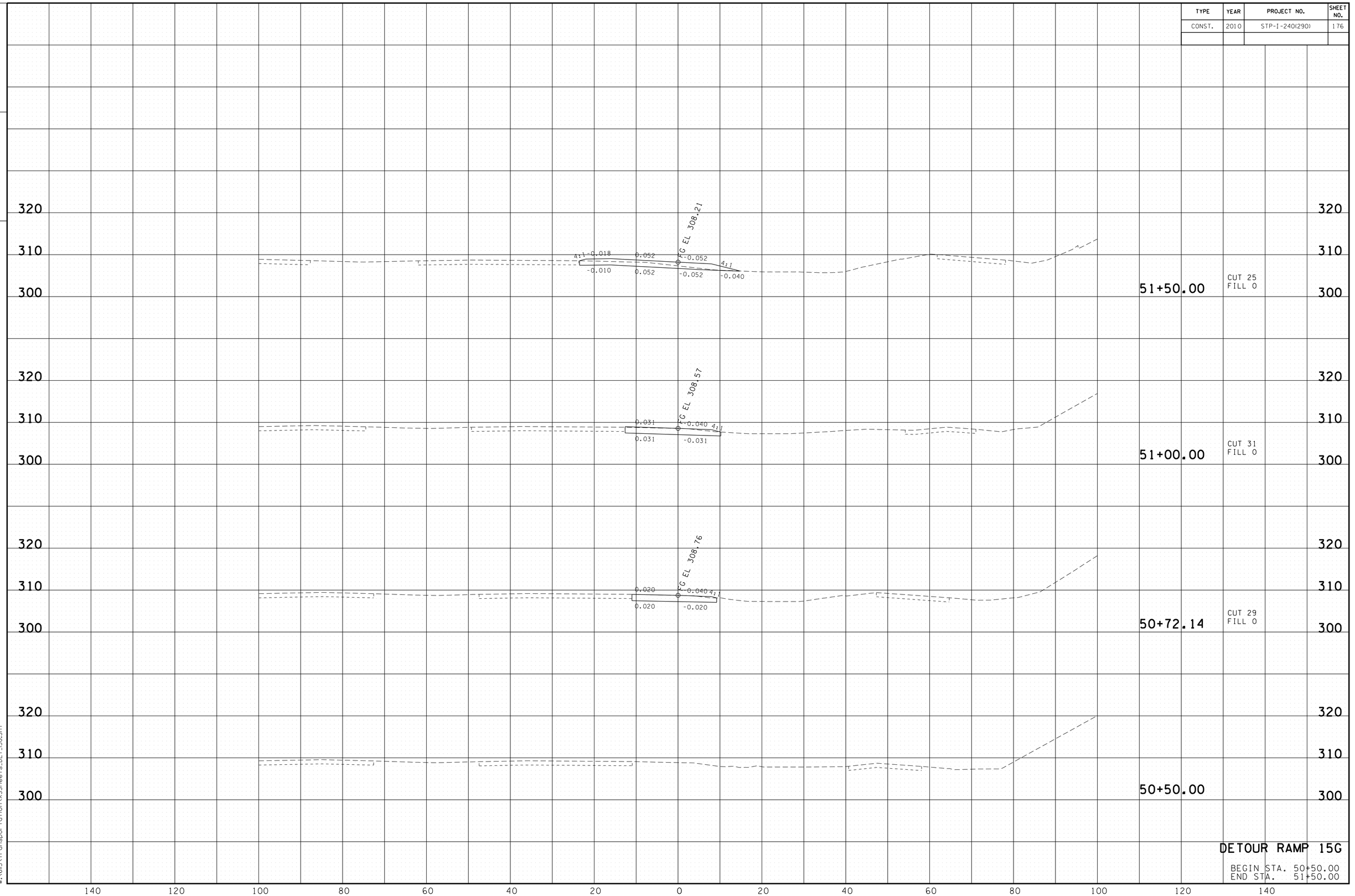
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	176



DETOUR RAMP 15G

BEGIN STA. 50+50.00
END STA. 51+50.00

8/24/2010
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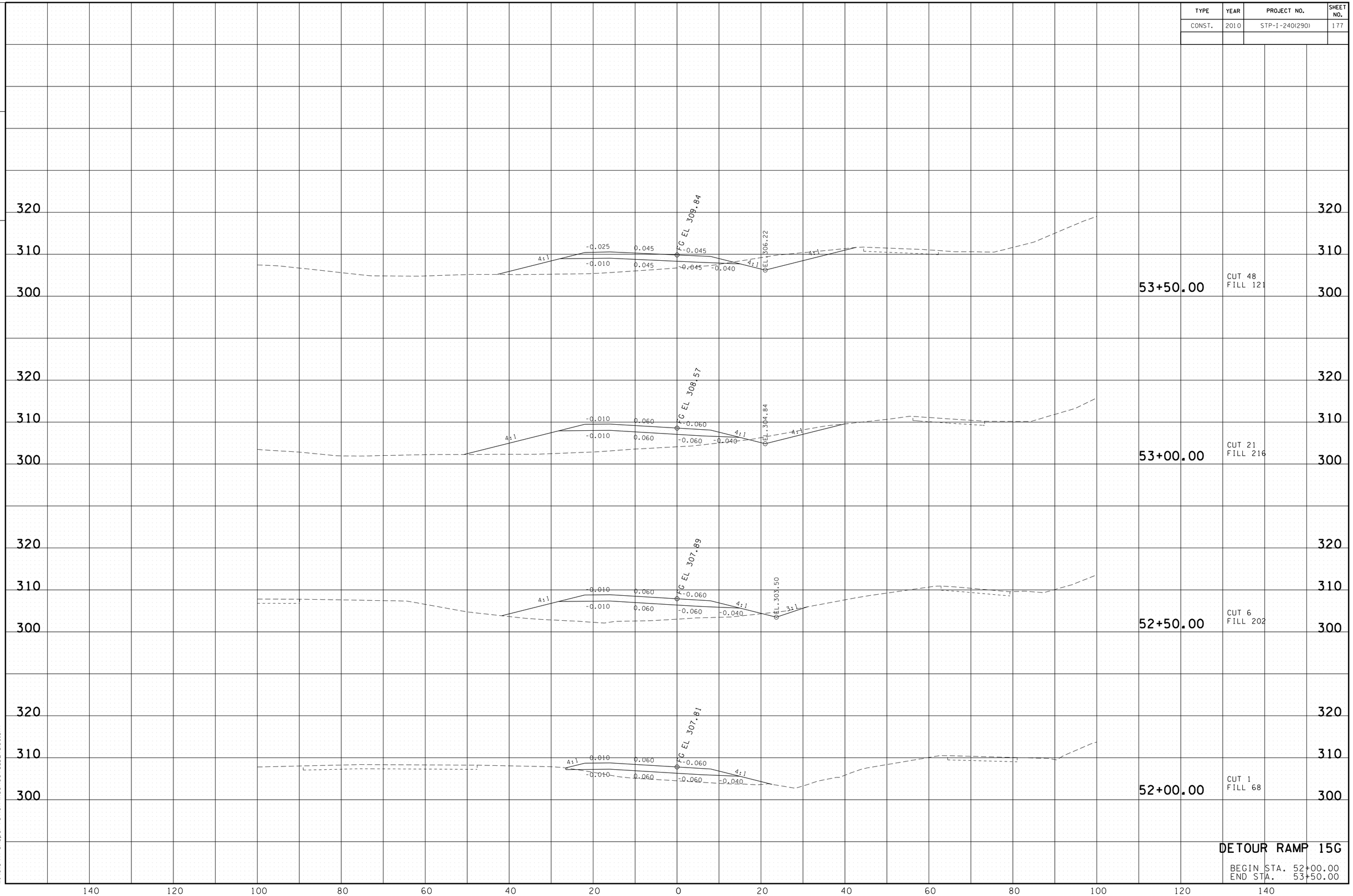
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	177



DETOUR RAMP 15G

BEGIN STA. 52+00.00
END STA. 53+50.00

8/24/2010
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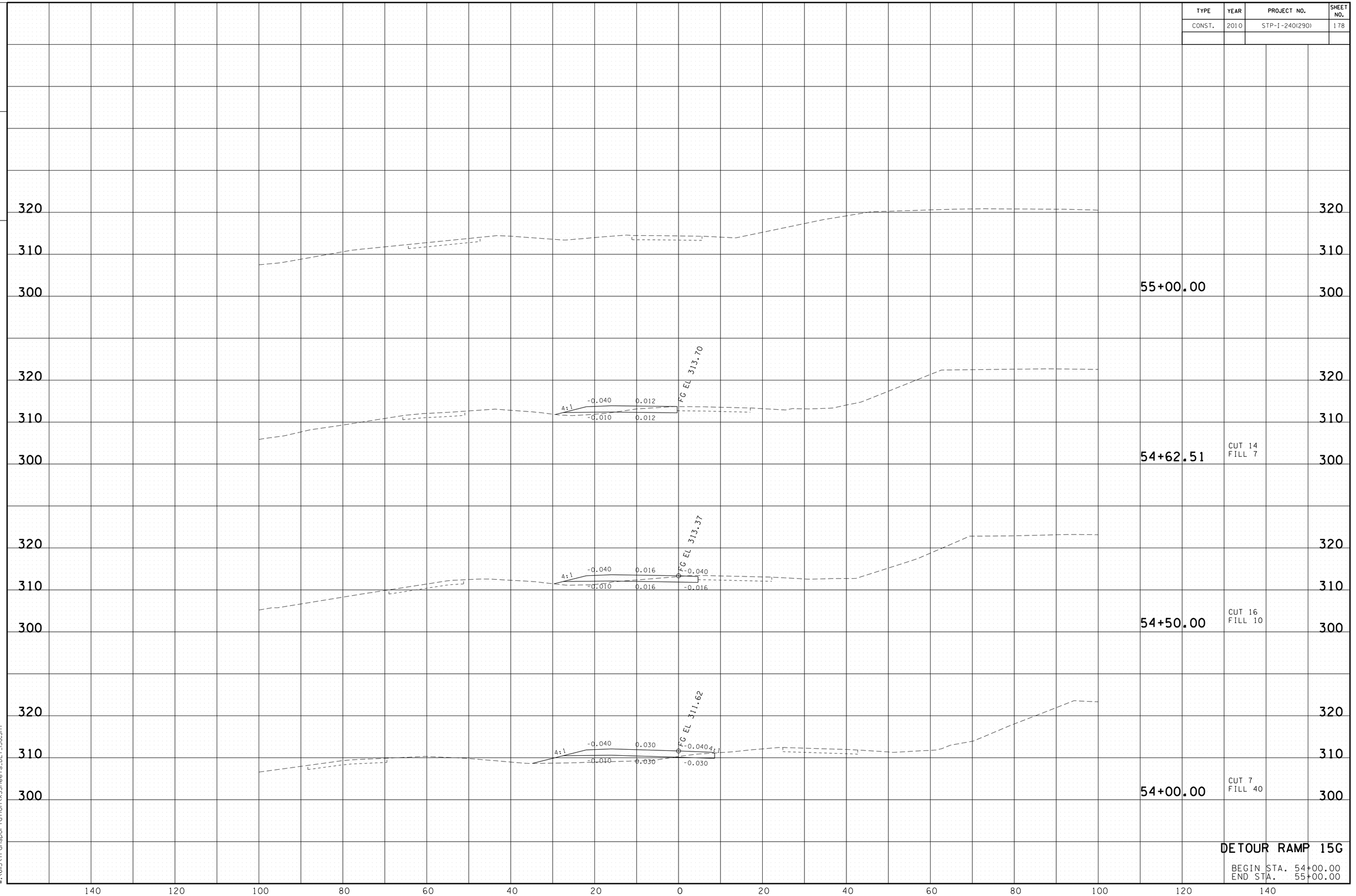
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	178



DETOUR RAMP 15G

BEGIN STA. 54+00.00
END STA. 55+00.00

8/24/2010
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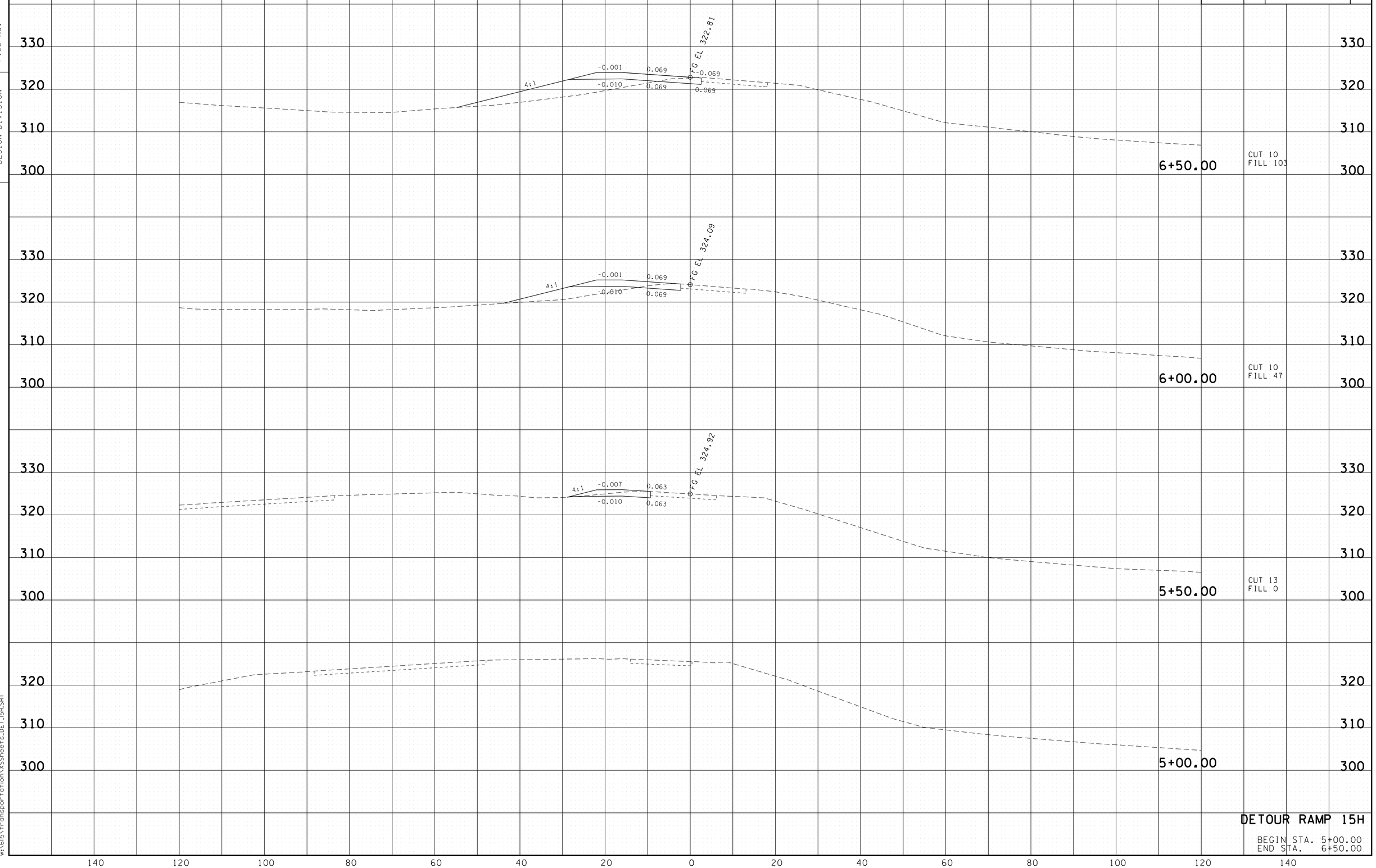
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	179

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



DETOUR RAMP 15H

BEGIN STA. 5+00.00
END STA. 6+50.00

8/24/2010
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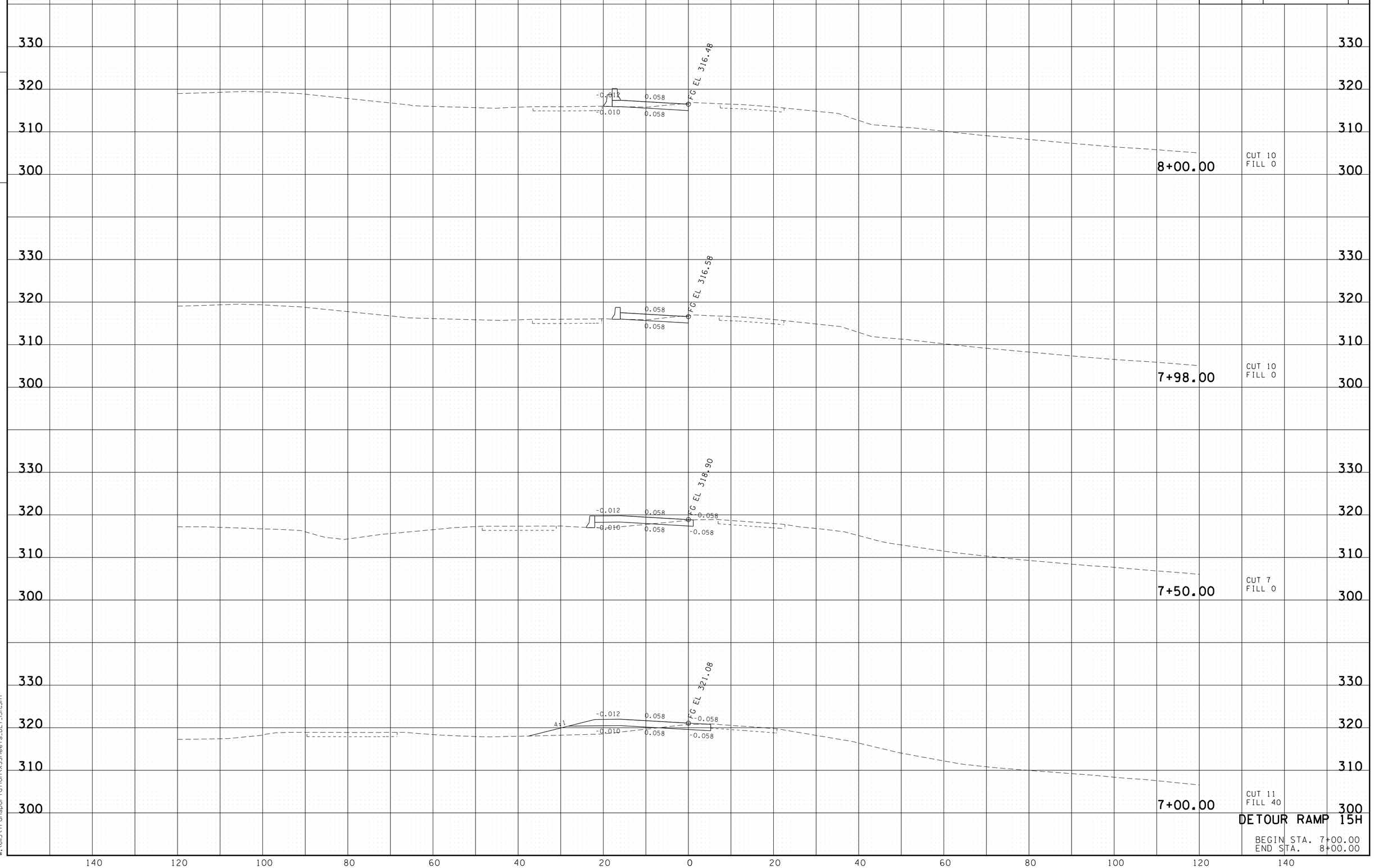
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	180

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



DETOUR RAMP 15H

BEGIN STA. 7+00.00
END STA. 8+00.00

8/24/2010
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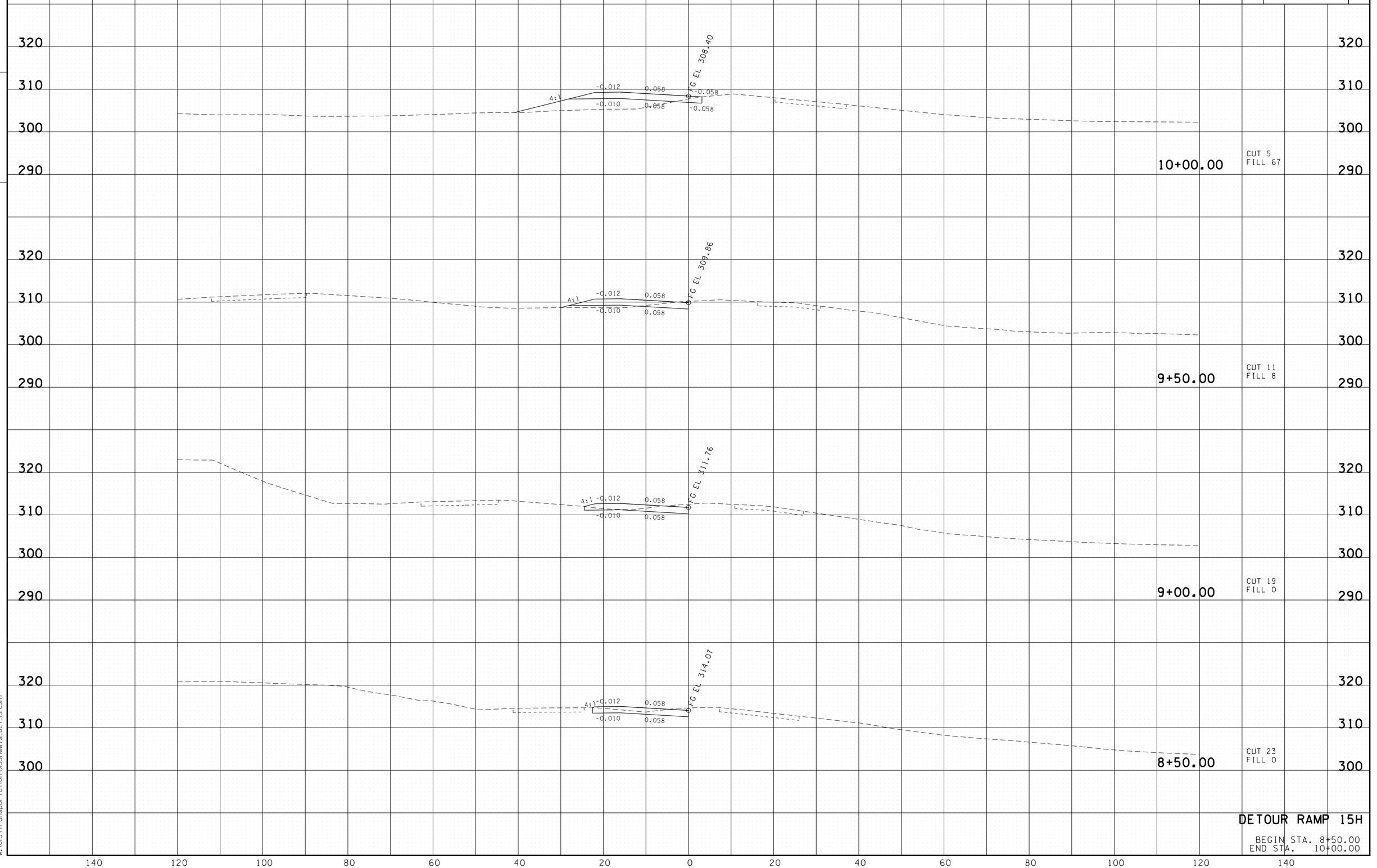
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	181

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



DETOUR RAMP 15H

BEGIN STA. 8+50.00
END STA. 10+00.00

8/24/2010
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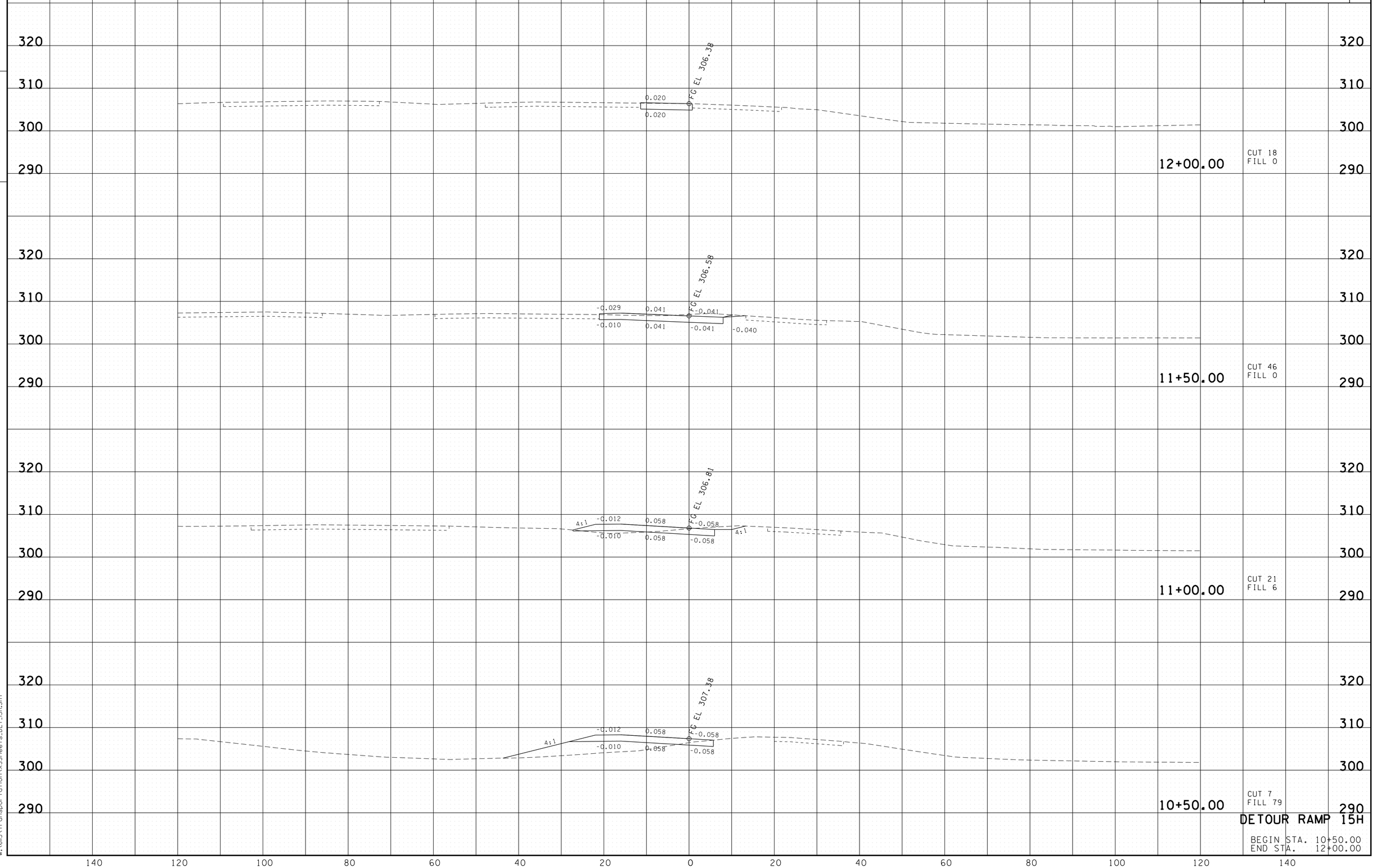
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	182



8/24/2010
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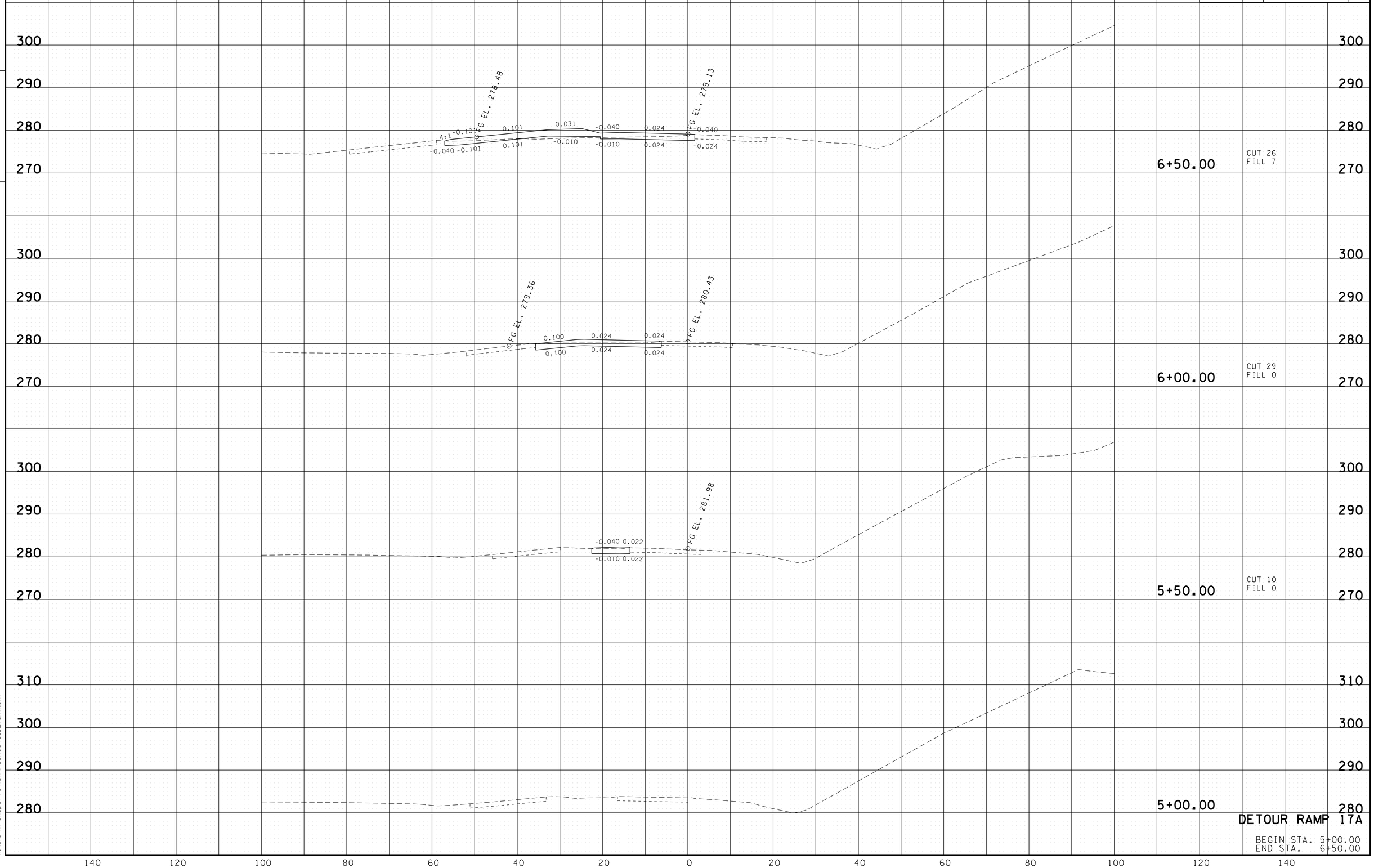
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	183



8/24/2010
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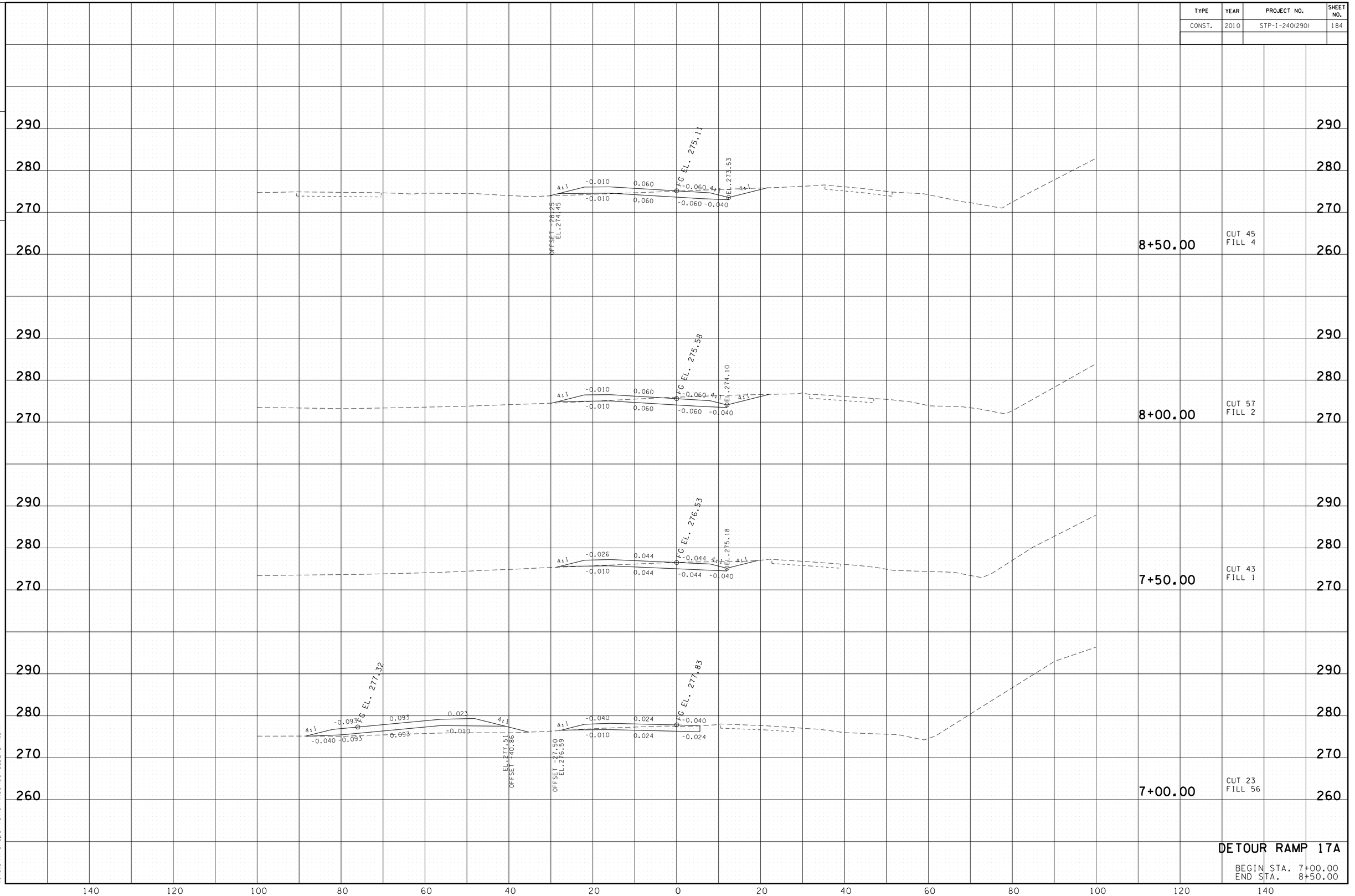
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	184

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

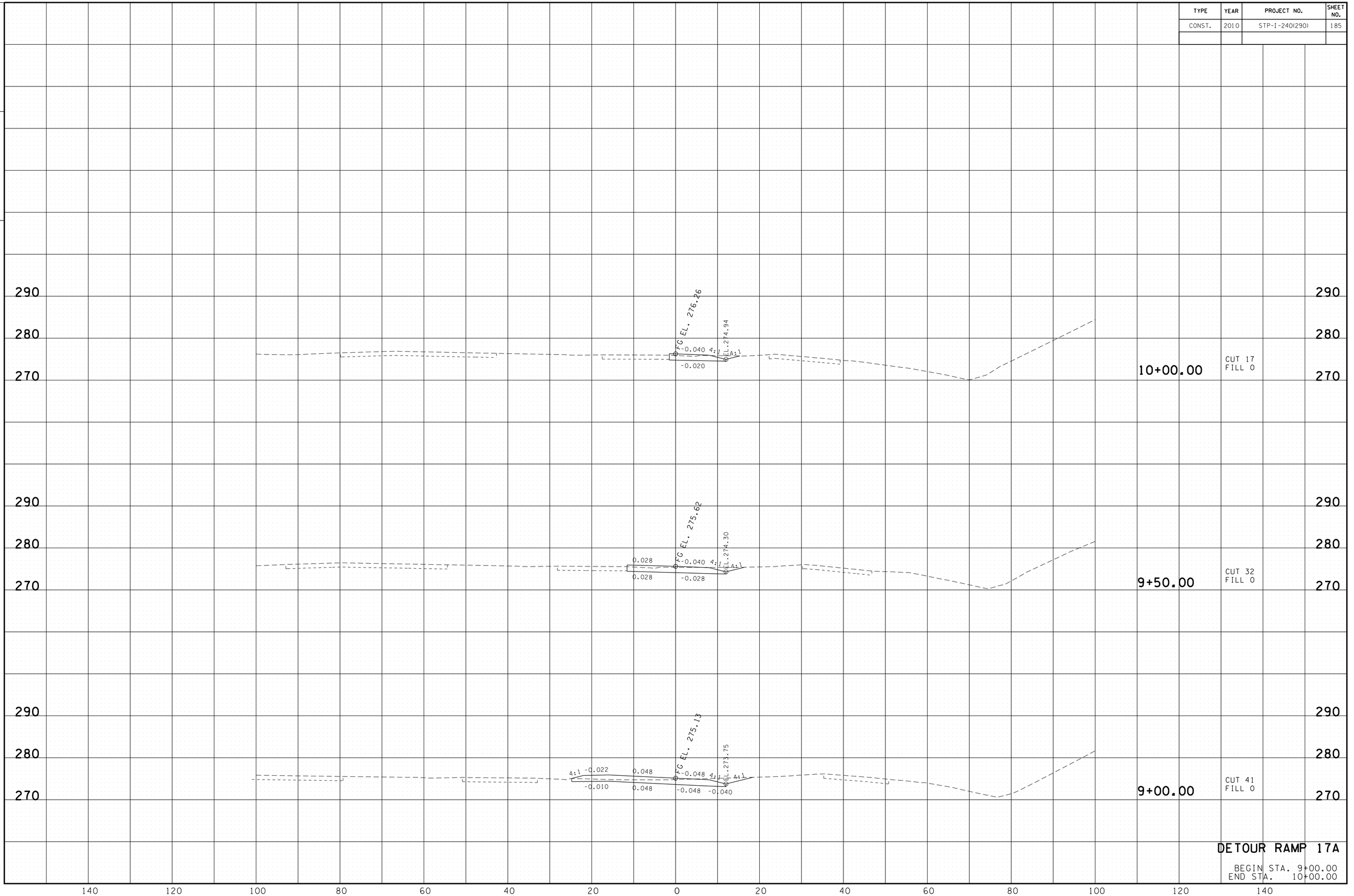


8/24/2010
w:\ell15\transportation\XSSheets_DET_17A.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	185

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

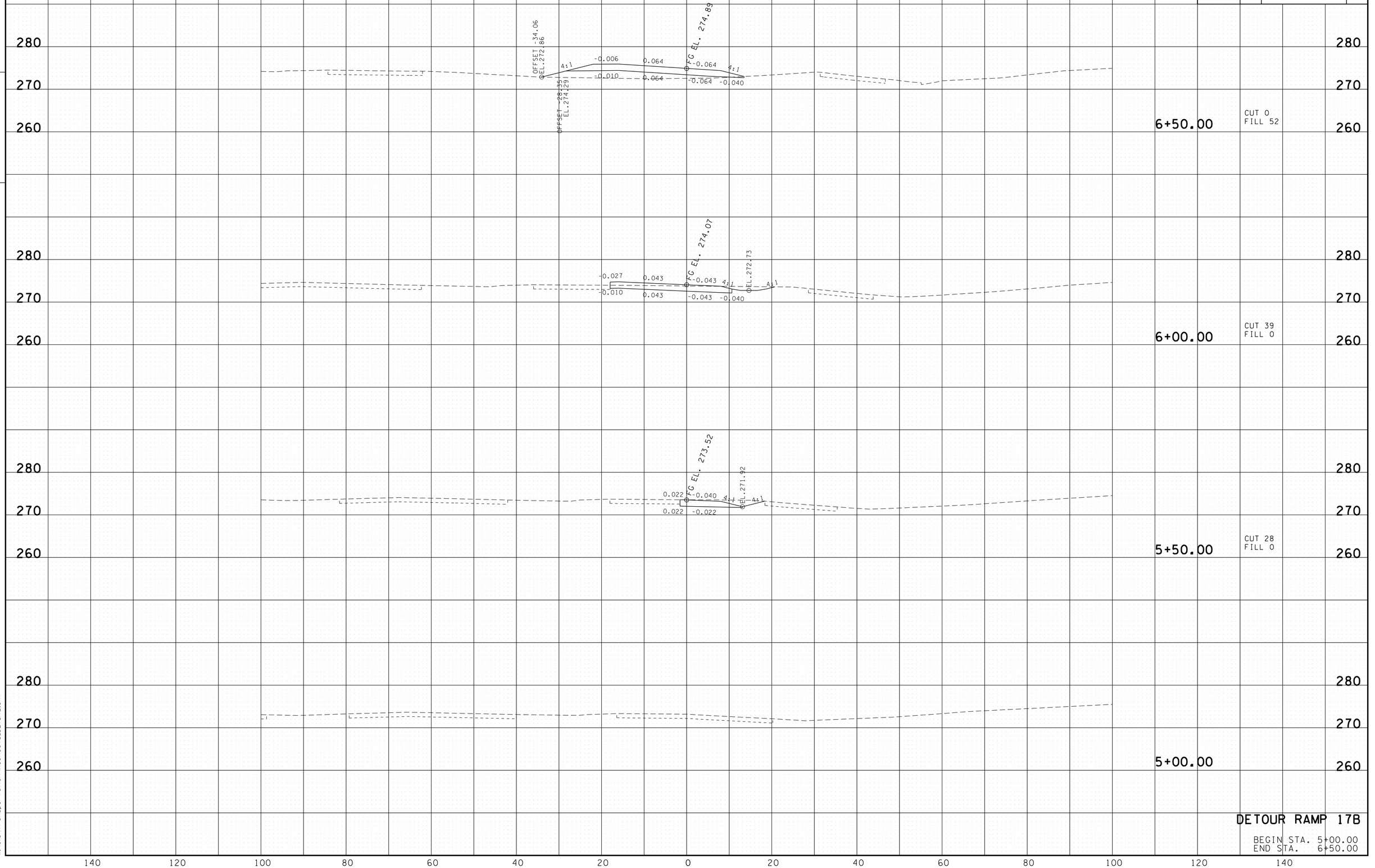


8/24/2010
w:\ellis\transportation\XSSheets_DET_17A.SHT

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	186



8/24/2010
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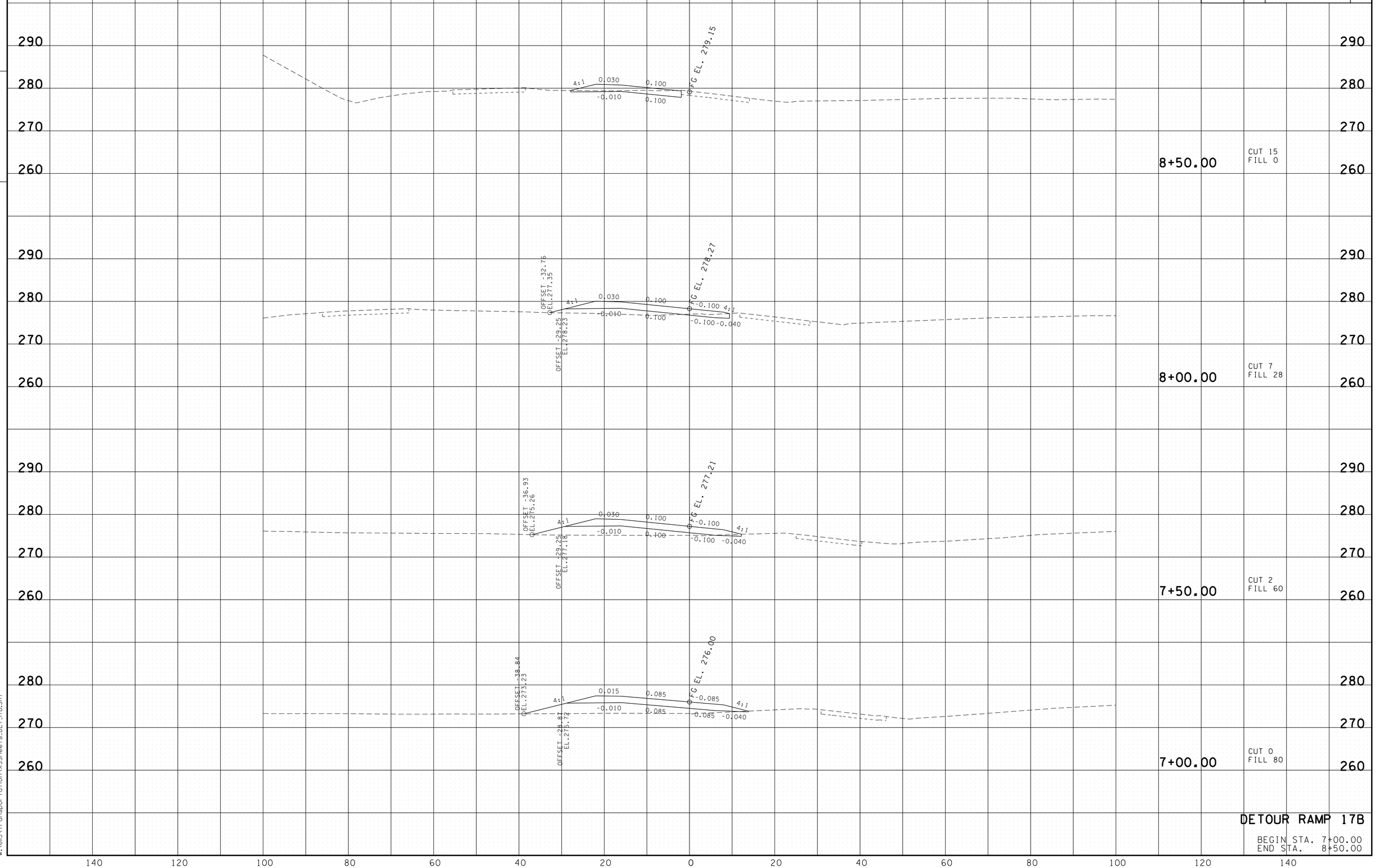
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	187



DETOUR RAMP 17B

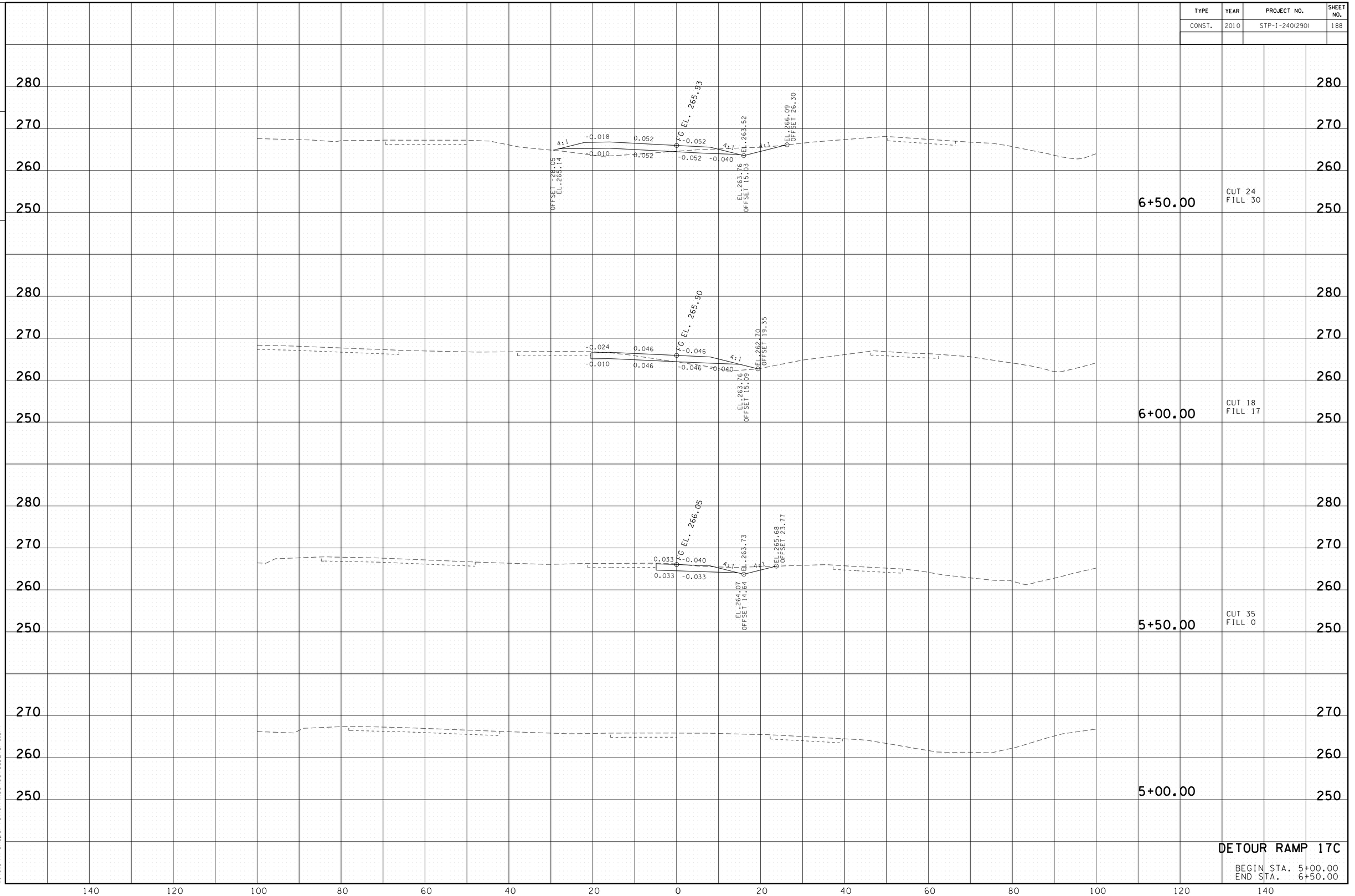
BEGIN STA. 7+00.00
END STA. 8+50.00

8/24/2010
w:\6ll5\transportation\XSSheets_DET_17B.SHT

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	188

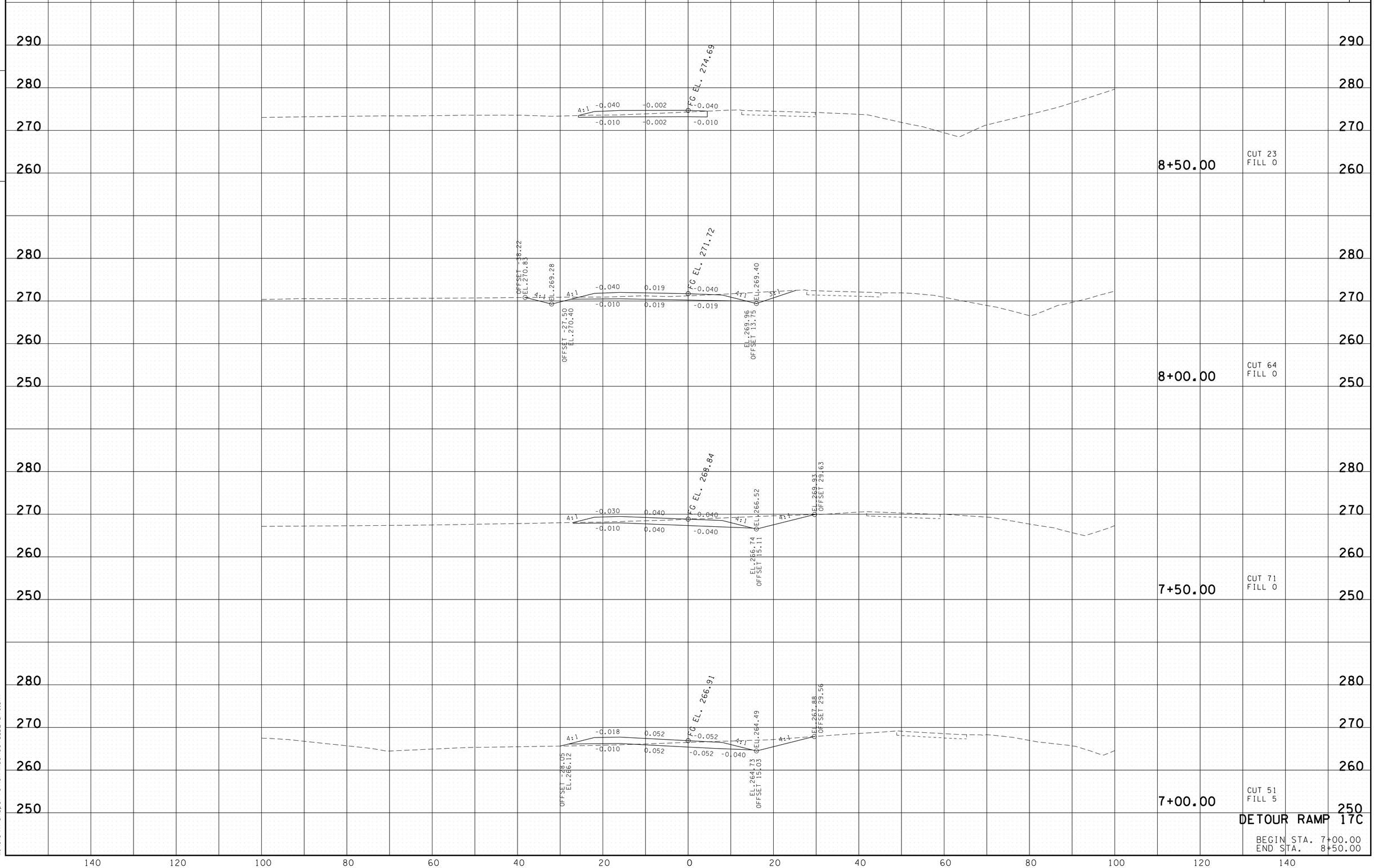


8/24/2010
w:\ell5\transportation\XSSheets_DET_17C.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	189

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



DETOUR RAMP 17C

BEGIN STA. 7+00.00
END STA. 8+50.00

8/24/2010
w:\6ll5\transportation\XSSheets_DET_17C.SHT

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	190

290
280
270
260

9+50.00

290
280
270
260

OFFSET -42.91
@EL.276.98

4:1

@EL.274.25

4:1

-0.040 -0.020

-0.020 -0.020

OFG EL. 277.31

OFFSET -28.00
EL.275.25

9+12.68

CUT 66
FILL 0

290
280
270
260

OFFSET -42.08
@EL.276.31

4:1

@EL.273.79

4:1

-0.040 -0.020

-0.020 -0.020

OFG EL. 276.85

OFFSET -28.00
EL.274.79

9+00.00

CUT 62
FILL 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

DETOUR RAMP 17C

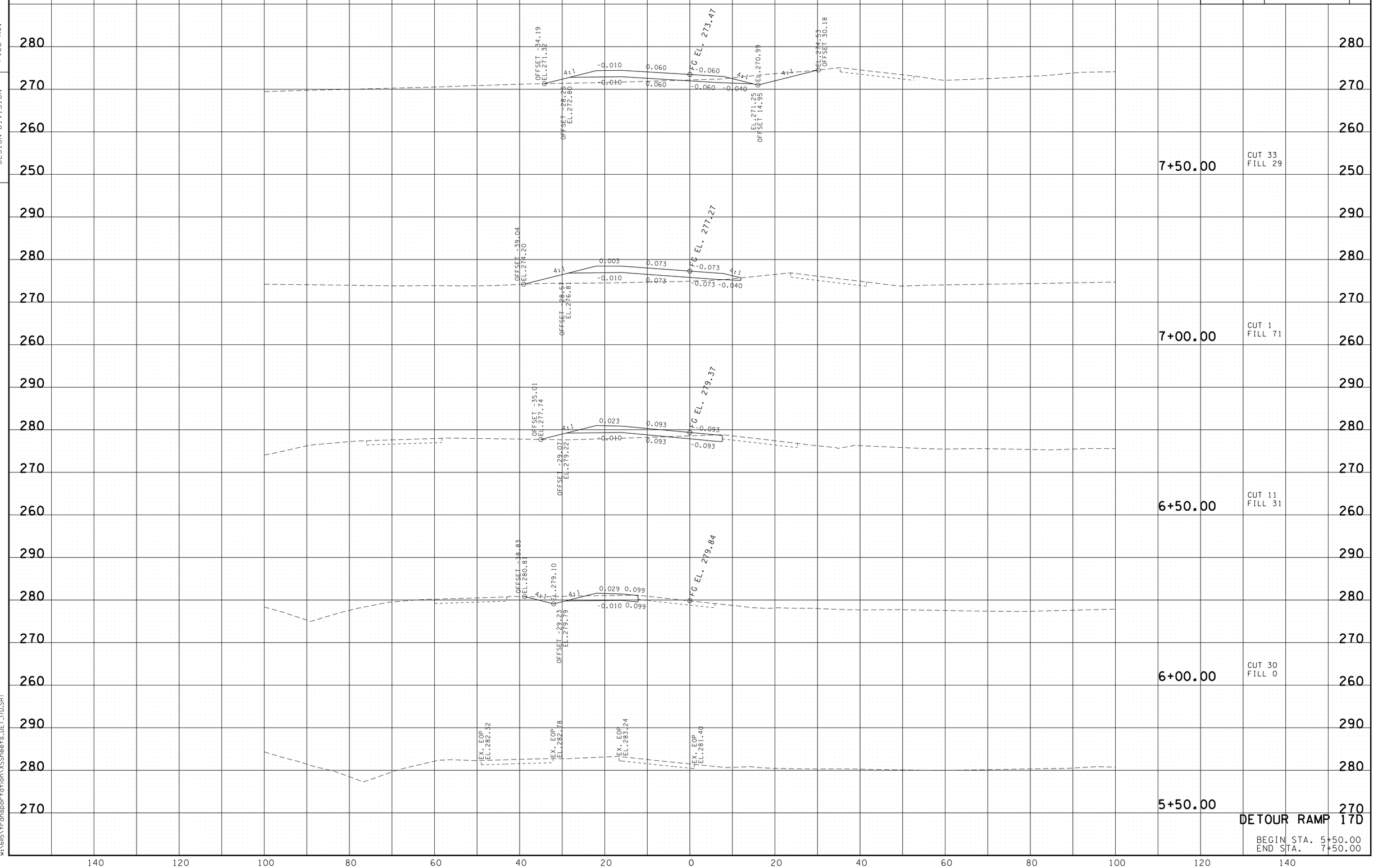
BEGIN STA. 9+00.00
END STA. 9+50.00

8/24/2010
w:\615\transportation\XSSheets.DET_17C.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	191

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



8/24/2010
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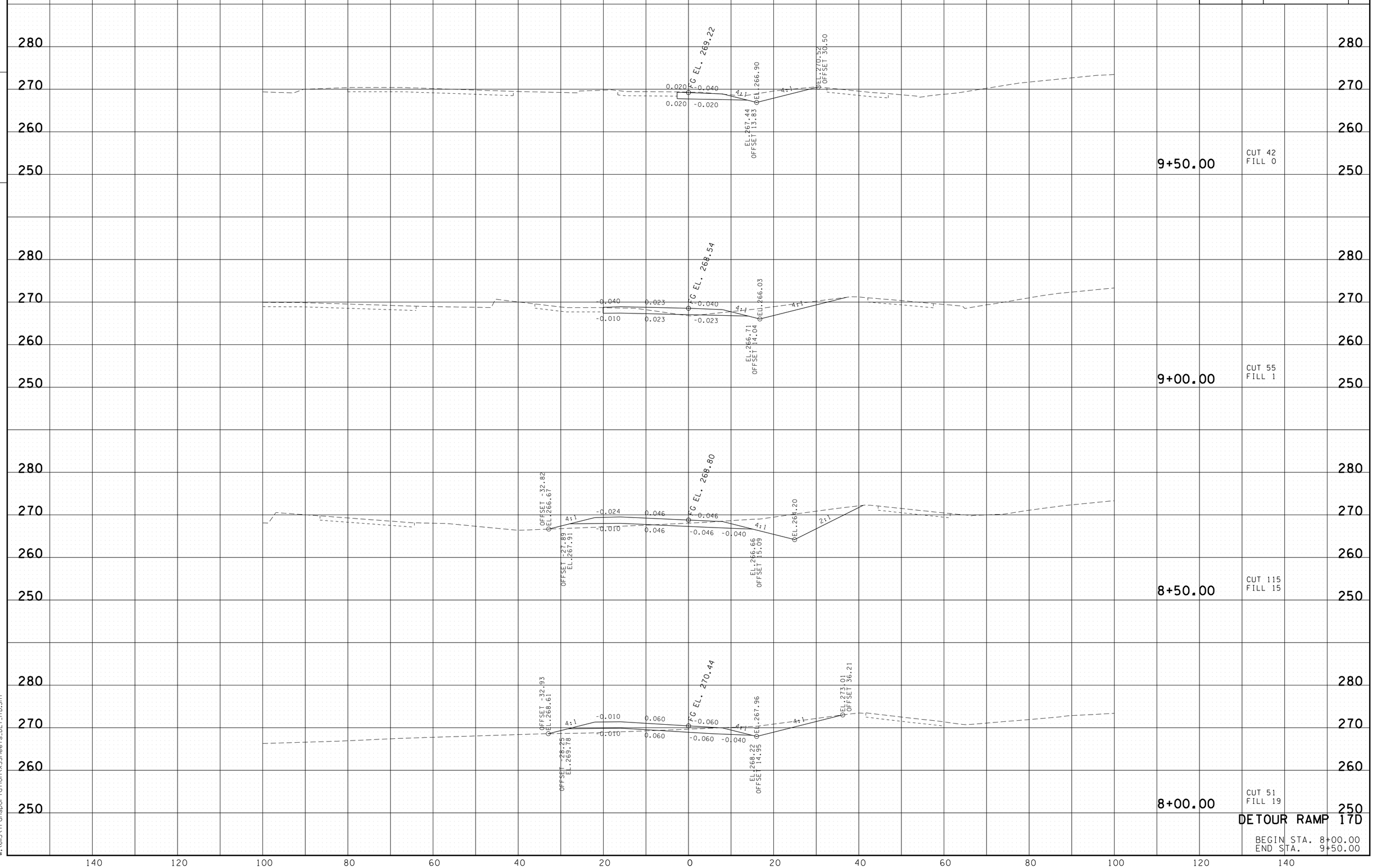
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	192



DETOUR RAMP 17D

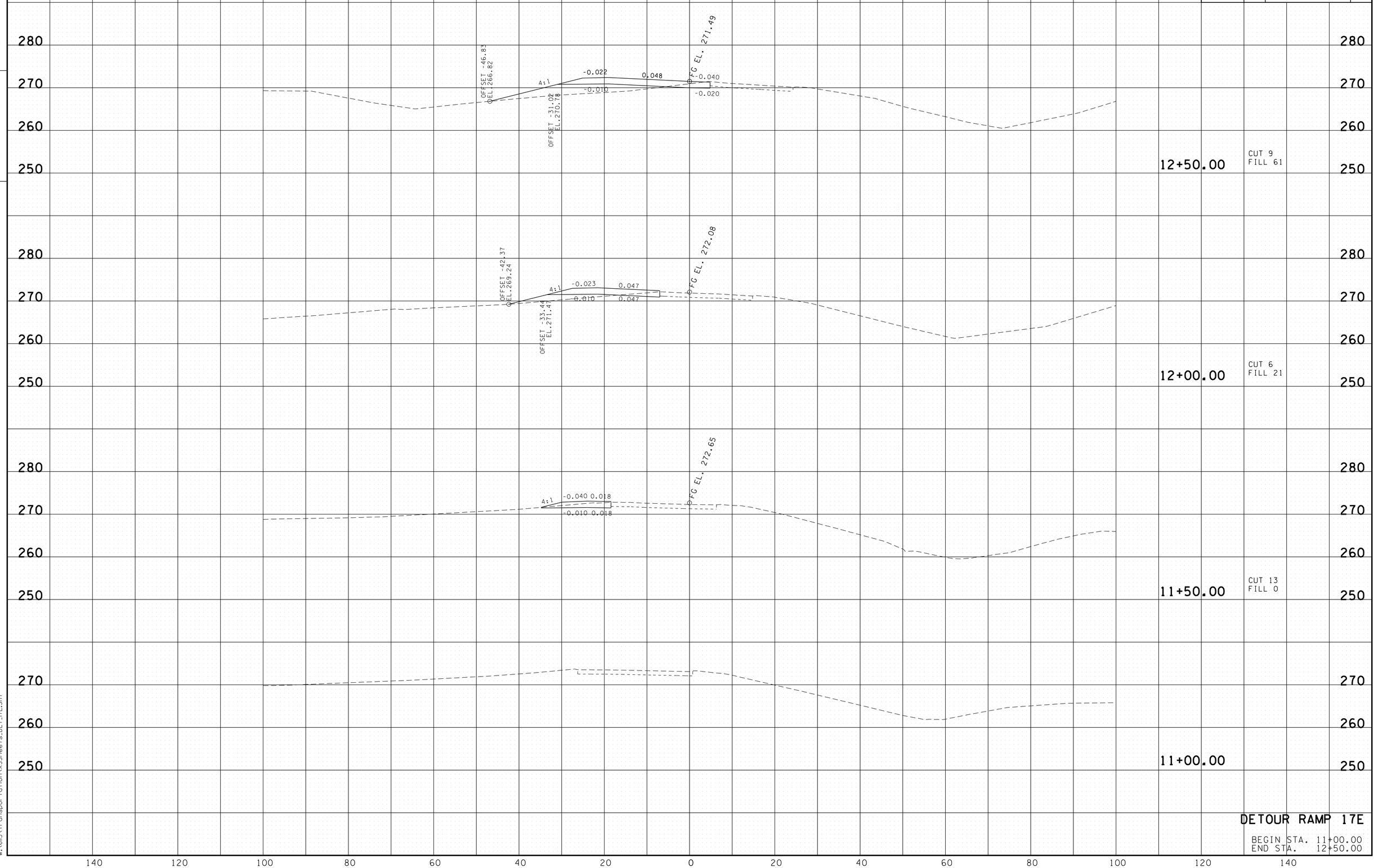
BEGIN STA. 8+00.00
END STA. 9+50.00

8/24/2010
w:\Ell5\transportation\XSSheets_DET_17D.SHT

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	193



DETOUR RAMP 17E

BEGIN STA. 11+00.00
END STA. 12+50.00

8/24/2010
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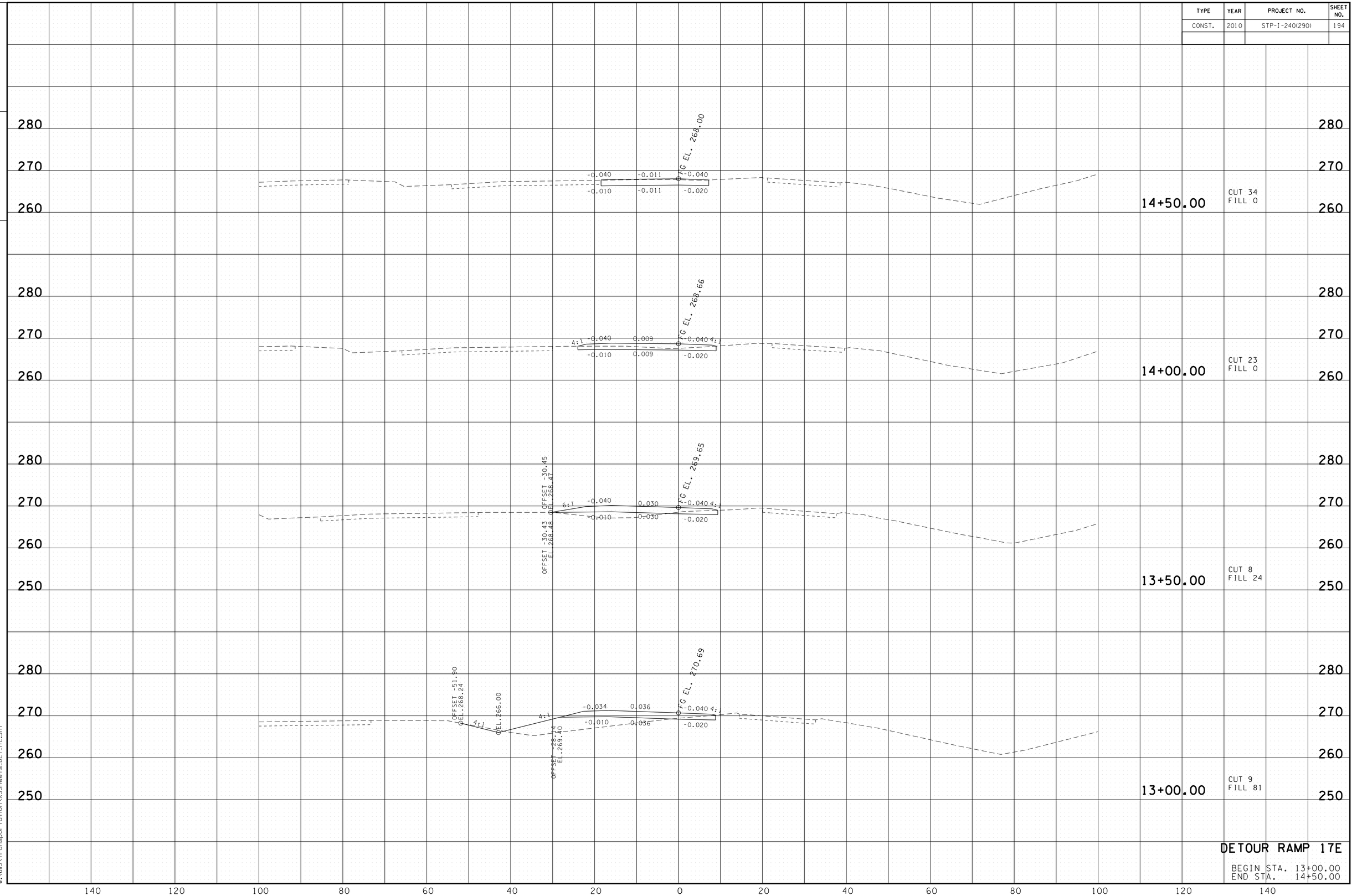
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	194



DETOUR RAMP 17E

BEGIN STA. 13+00.00
END STA. 14+50.00

8/24/2010
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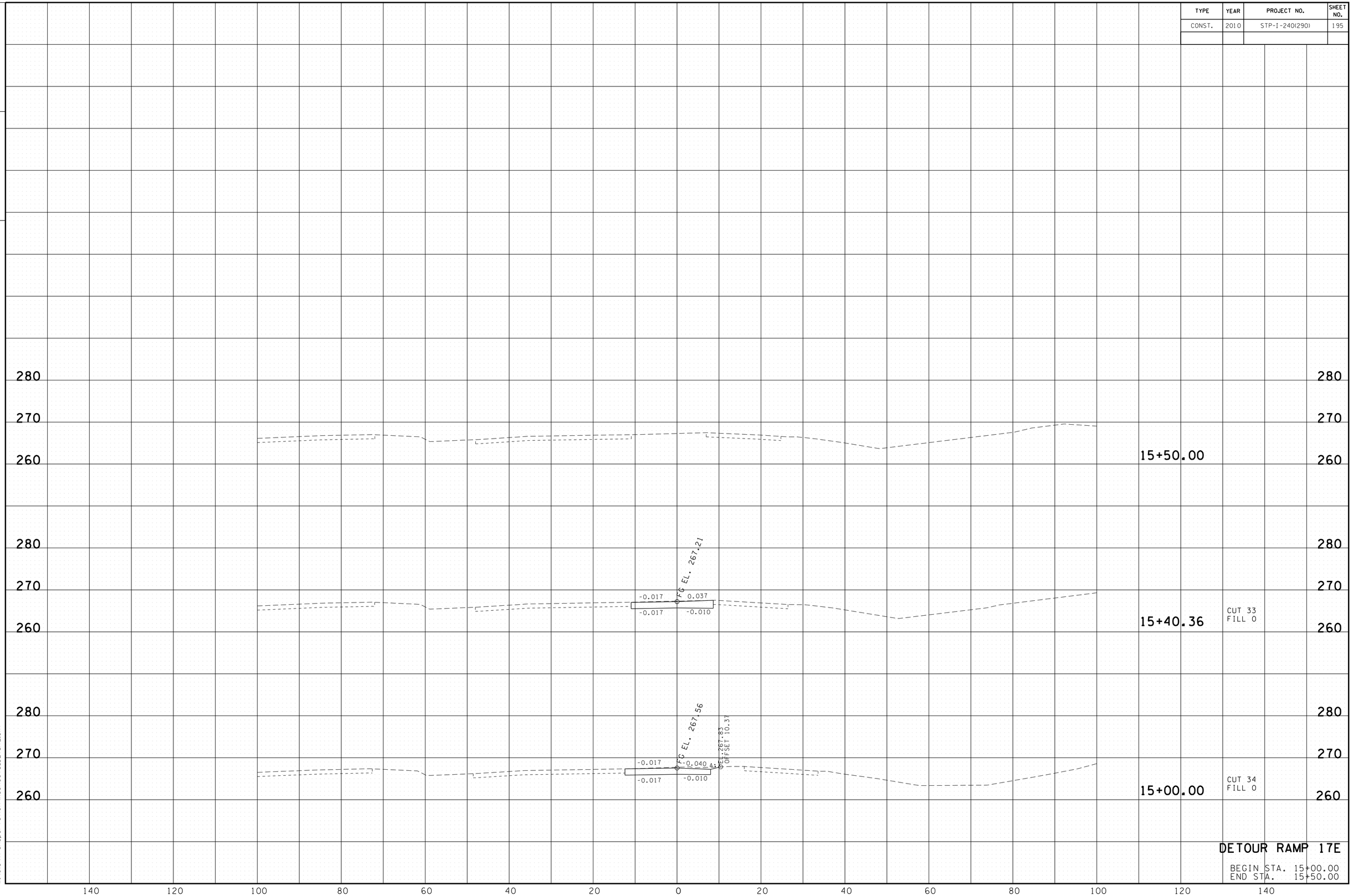
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	195



DETOUR RAMP 17E

BEGIN STA. 15+00.00
END STA. 15+50.00

8/24/2010
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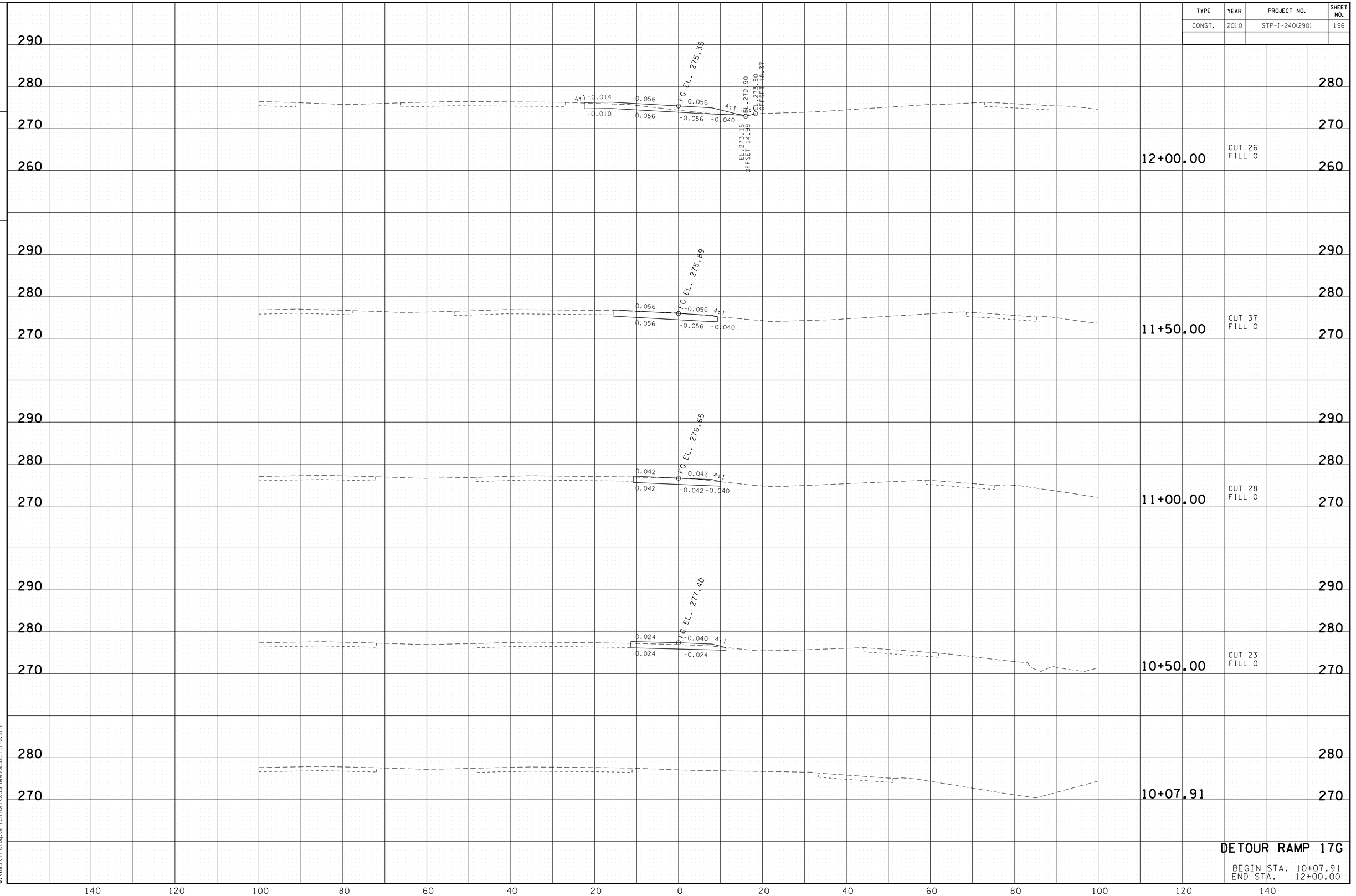
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	196



DETOUR RAMP 17G

BEGIN STA. 10+07.91
END STA. 12+00.00

8/24/2010
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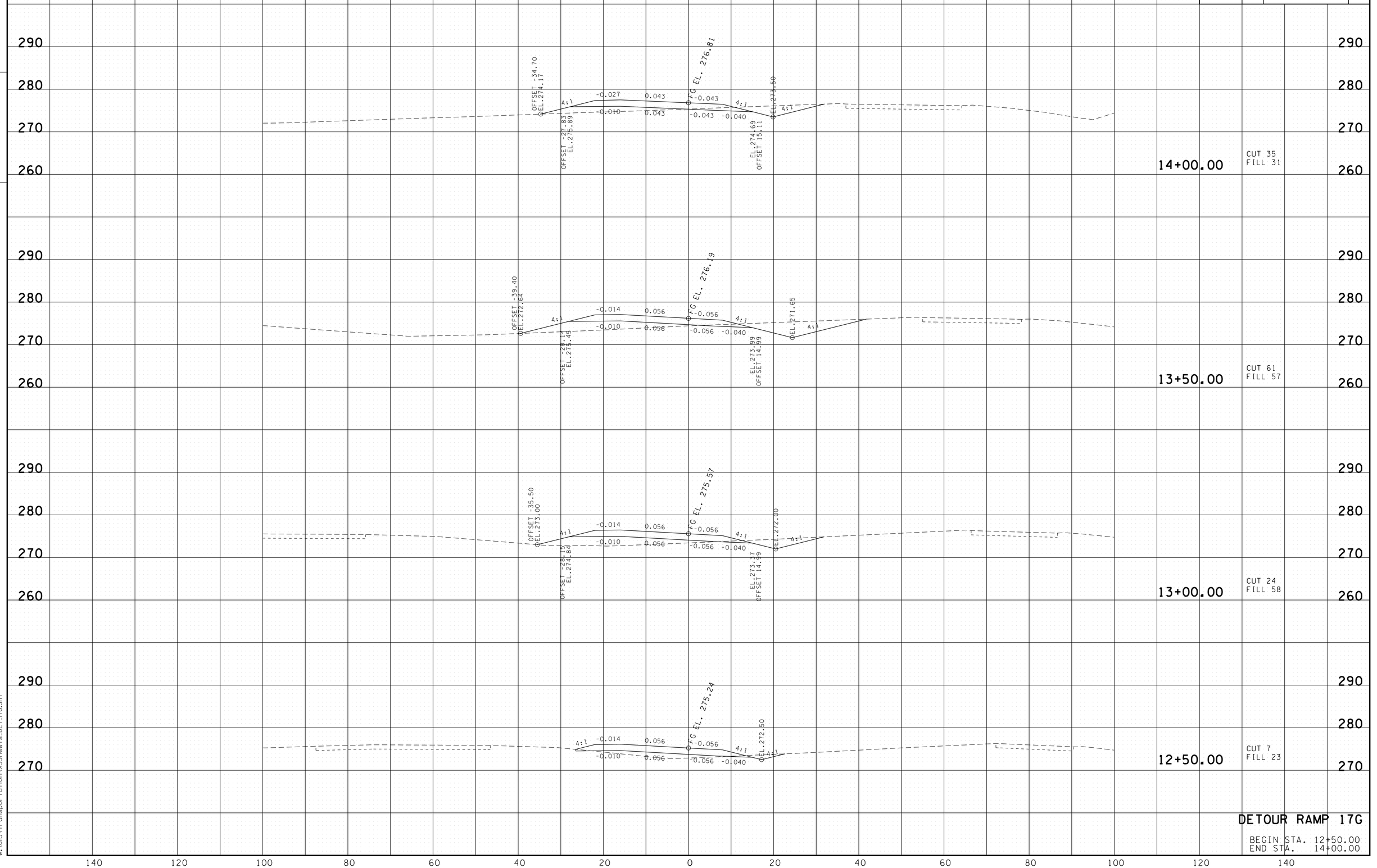
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	197

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

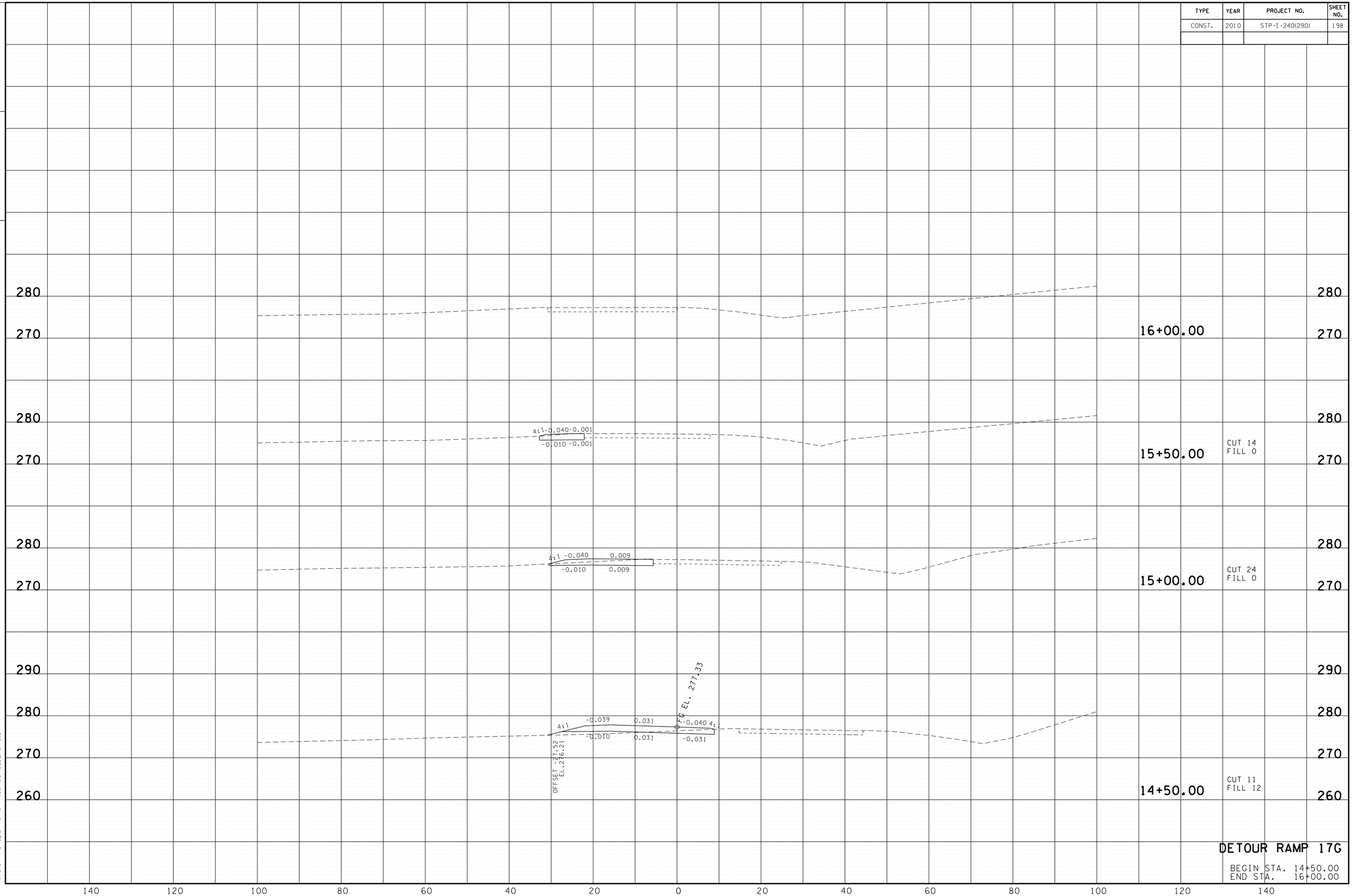


8/24/2010
w:\6ll5\transportation\XSSheets_DET_17G.SHT

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	198



DETOUR RAMP 17G

BEGIN STA. 14+50.00
END STA. 16+00.00

8/24/2010
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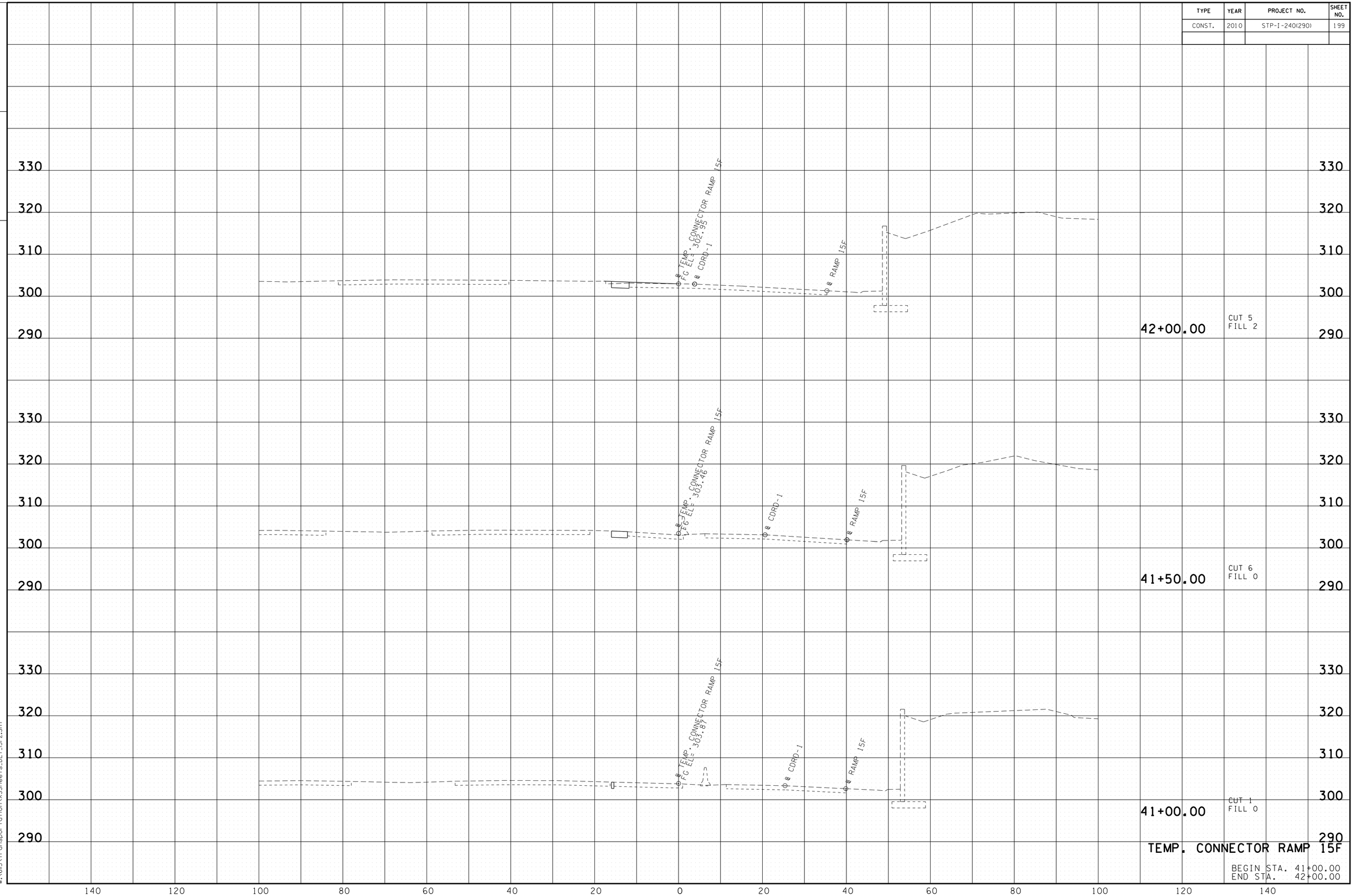
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	199

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



TEMP. CONNECTOR RAMP 15F

BEGIN STA. 41+00.00
END STA. 42+00.00

8/24/2010
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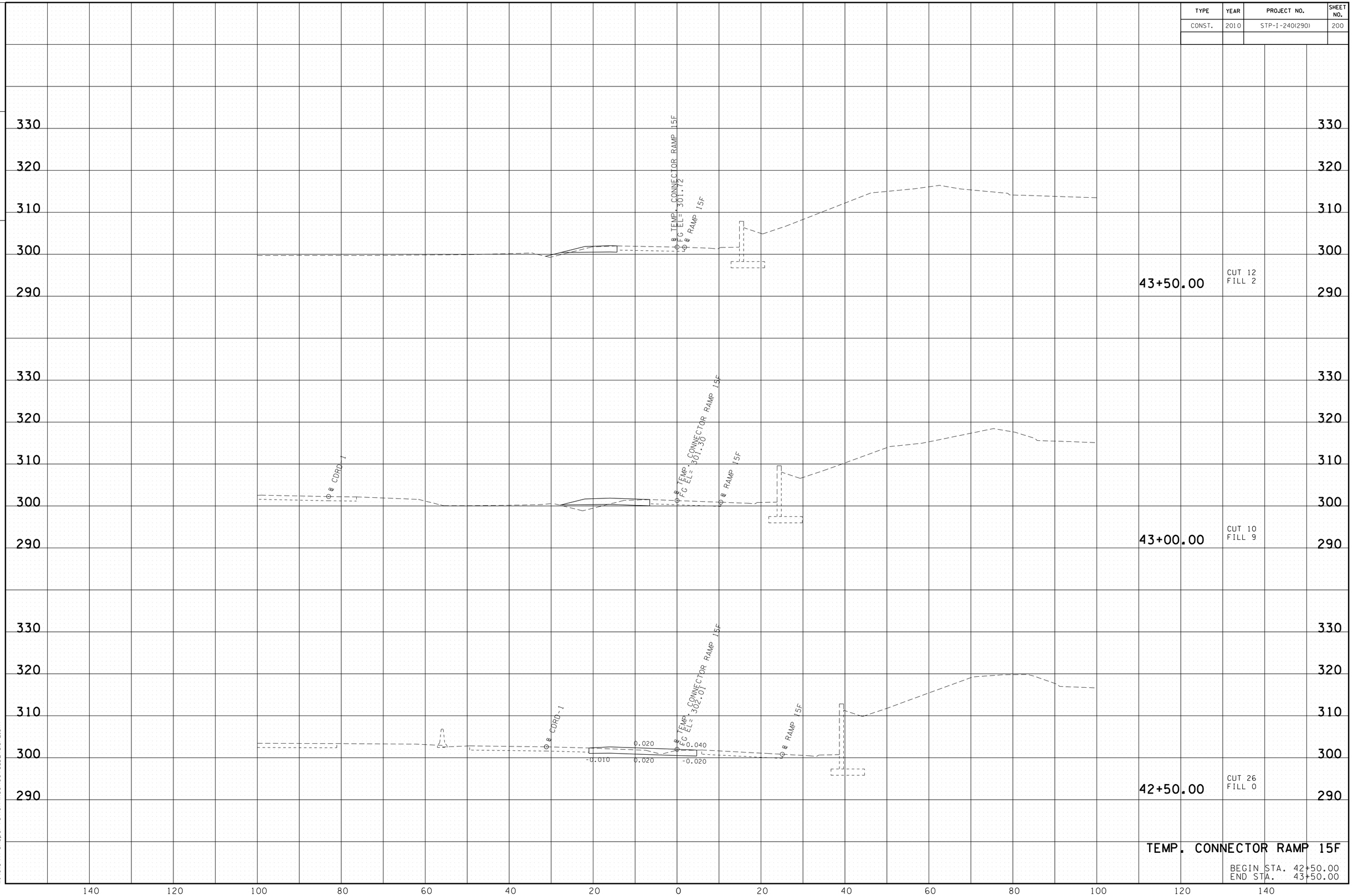
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	200

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



TEMP. CONNECTOR RAMP 15F

BEGIN STA. 42+50.00
END STA. 43+50.00

8/24/2010
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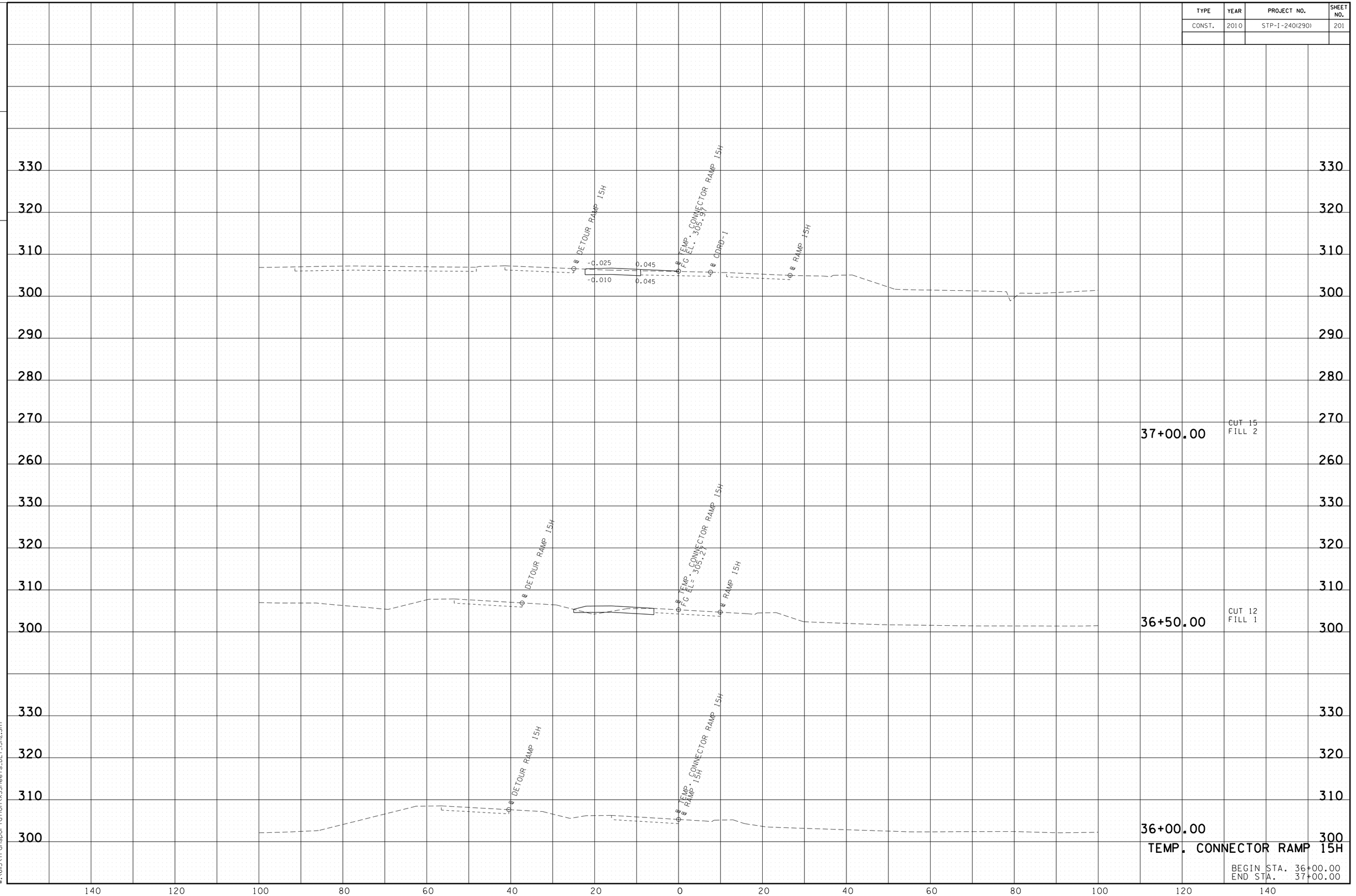
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	201



TEMP. CONNECTOR RAMP 15H

BEGIN STA. 36+00.00
END STA. 37+00.00

8/24/2010
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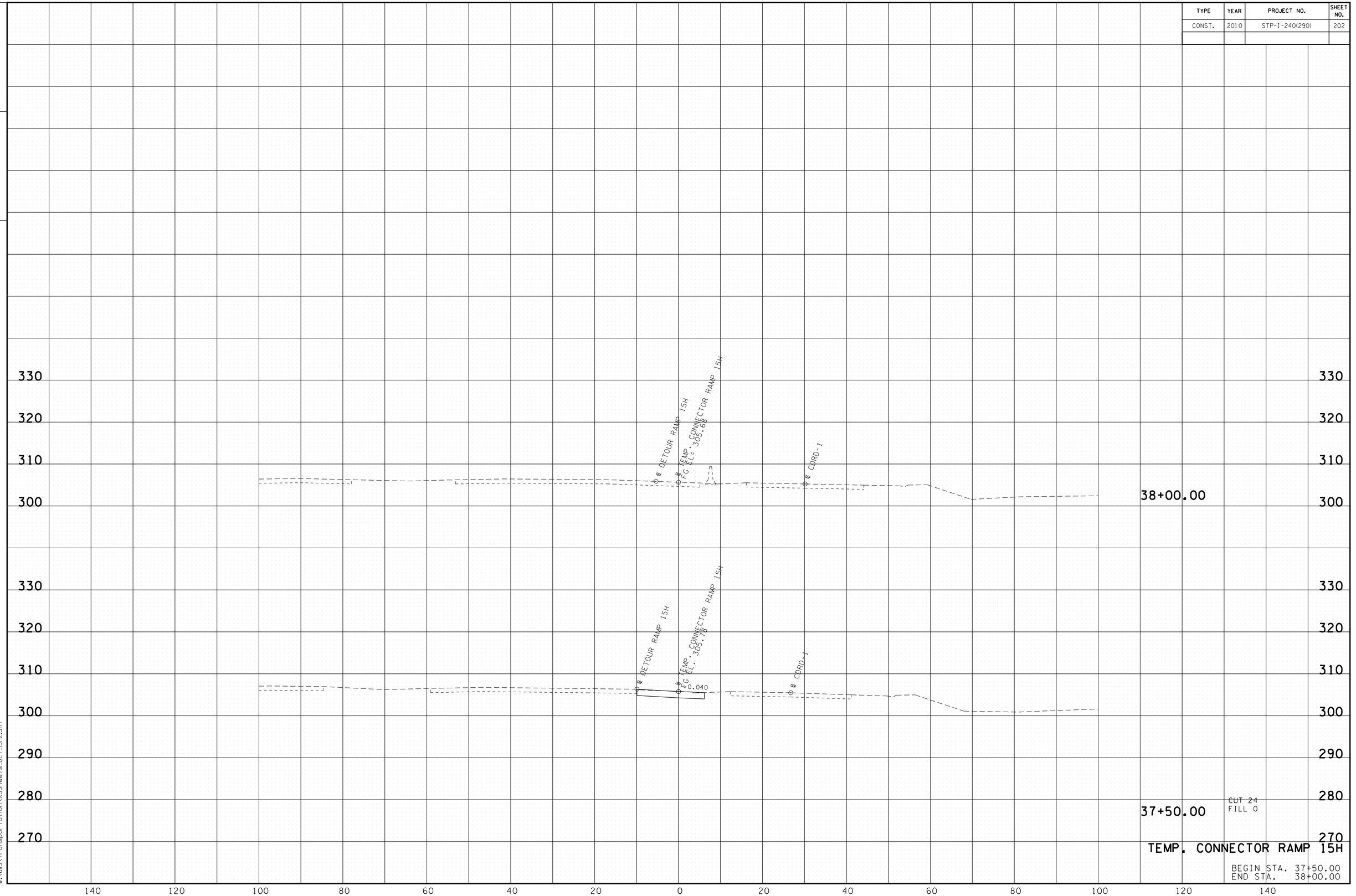
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	STP-I-240(290)	202



TEMP. CONNECTOR RAMP 15H

BEGIN STA. 37+50.00
END STA. 38+00.00

8/24/2010
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