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

FOR INDEX SEE SHEET IA

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

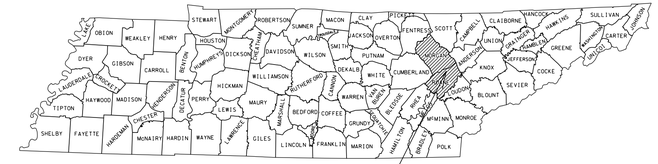
TENN.	YEAR	SHEET NO.
	2015	1
ROANE COUNTY FED. AID PROJ. NO.	NH-29(84)	
ROANE COUNTY STATE PROJ. NO.	73008-3243-14	
MORGAN COUNTY FED. AID PROJ. NO.	NH-29(84)	
MORGAN COUNTY STATE PROJ. NO.	65001-3266-14	

ROANE / MORGAN COUNTIES

STATE ROUTE 29 (US-27)
FROM STATE ROUTE 61 NEAR HARRIMAN IN ROANE COUNTY TO
SOUTH OF WHETSTONE ROAD IN MORGAN COUNTY
ROANE AND MORGAN COUNTIES

CONSTRUCTION

STATE HIGHWAY NO. 29 F.A.H.S. NO. 29

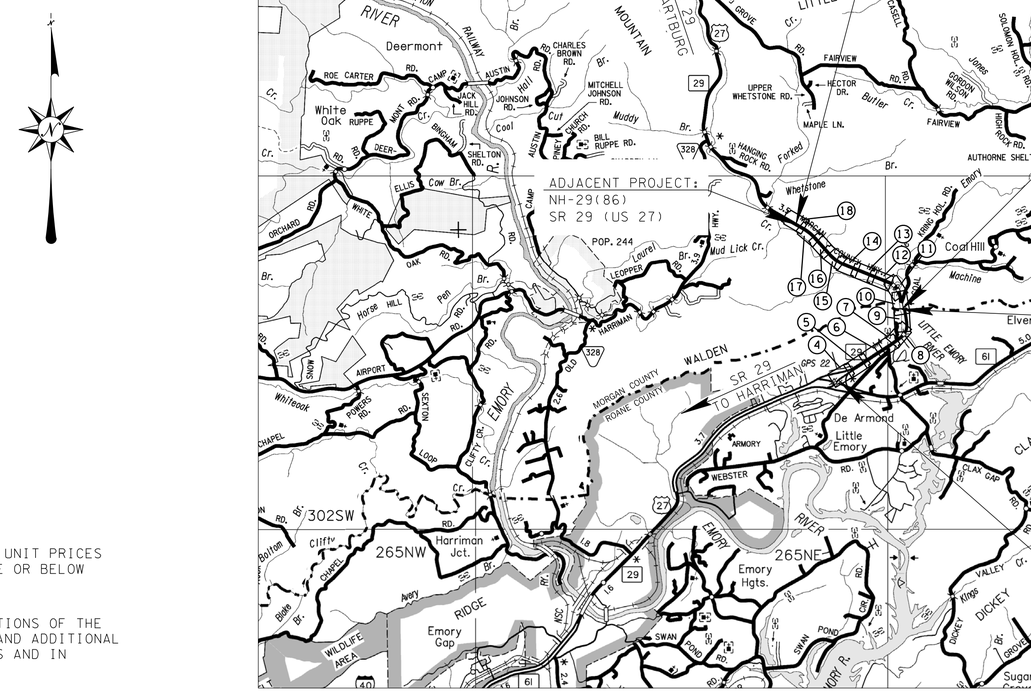


ROANE COUNTY PROJECT NO. 73008-3243-14
MORGAN COUNTY PROJECT NO. 65001-3266-14

END CONSTRUCTION FEDERAL PROJECT
NO. NH-29(84)
STATE PROJECT NO. 65001-3266-14
STA. 259+00.00 S.R. 29

EQUATION	
DESCRIPTION	NET EFFECT ON ENUMERATION
STA. 22+61.84 S.R. 29 RAMP B BK. = STA. 100+00.00 AH.	-7738.16
STA. 155+20.64 BK. = STA. 155+25.45 AH.	-4.81
TOTAL	-7742.97

BEGIN CONSTRUCTION FEDERAL PROJECT
NO. NH-29(84)
STATE PROJECT NO. 65001-3266-14
STA. 162+71.46 S.R. 29



SCALE: 1"= 1 MILE

ADJACENT PROJECT:
NH-29(86)
SR 29 (US 27)

END CONSTRUCTION FEDERAL PROJECT
NO. NH-29(84)
STATE PROJECT NO.73008-3243-14
STA. 162+71.46 S.R. 29

NO EXCEPTION
NO EXCLUSION

BEGIN CONSTRUCTION FEDERAL PROJECT
NO. NH-29(84)
STATE PROJECT NO. 73008-3243-14
STA. 10+00.00 S.R.29 RAMP B

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

TDOT TRANSPORTATION MANAGER FREDERICK MILLER,P.E.

DESIGNED BY ARCADIS U.S.

DESIGNER CLINT BUTLER, P.E. CHECKED BY BRIAN WHITAKER, P.E.

P.E. NO. 65001-1256-14, 73008-1237-14

PIN 101411.04

ARCADIS
Infrastructure · Water · Environment · Buildings

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Survey & Design Division

CONSTRUCTION PROJECT LENGTH

ROANE ROADWAY LENGTH	1.388 MILES	MORGAN ROADWAY LENGTH	1.718 MILES
ROANE BRIDGE LENGTH	0.037 MILES	MORGAN BRIDGE LENGTH	0.106 MILES
ROANE BOX BRIDGE LENGTH	0.000 MILES	MORGAN BOX BRIDGE LENGTH	0.000 MILES
ROANE PROJECT LENGTH	1.425 MILES	MORGAN PROJECT LENGTH	1.824 MILES

TOTAL PROJECT LENGTH 3.249 MILES

TRAFFIC DATA	
ADT (2014)	4,270
ADT (2034)	5,130
DHV (2034)	564
D	65 - 35
T (ADT)	6 %
T (DHV)	4 %
V	60 mph

APPROVED: Paul Degan
ASSISTANT CHIEF ENGINEER
DATE:
APPROVED:
JOHN SCHROER, COMMISSIONER

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	1A

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

INDEX

DESCRIPTION	SHT.
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ESTIMATED UTILITIES QUANTITIES	2B
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PROPOSED PROFILES – TAPER	17C – 18C
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SHEETS 2C, 2O,2P, 2T OMITTED

STANDARD ROADWAY DRAWINGS

STANDARD BRIDGE DRAWINGS

DWG. NO. REV. DESCRIPTION

BRIDGE APPURTENANCES ENGLISH (NEW STRUCTURES)

DWG. NO	REV.	DESCRIPTION
STD-1-1	7-31-00	BRIDGE RAILING CONCRETE PARAPET
STD-1-2	3-28-08	SLIDER PLATES AND DECK DRAINS
STD-1-3	7-31-00	STD. CONCRETE MEDIAN BARRIER
STD-1-4	1-05-01	SLIDER PLATES FOR MEDIAN BARRIER
STD-1-5	06-01-11	PAVEMENT AT BRIDGE ENDS
STD-1-6	4-28-97	BRIDGE END DRAIN W/ PABE
STD-1-7	8-24-11	BRIDGE END DRAIN W/ PABE

BRIDGE APPURTENANCES ENGLISH (BOX CULVERTS)

DWG. NO	REV.	DESCRIPTION
STD-15-1	11-06-08	INDEX OF DRAWINGS AND TERMINOLOGY
STD-15-2	3-28-08	GENERAL NOTES
STD-15-3	2-28-03	DESIGN SECTION LIMITS
STD-15-4	12-07-01	TYPICAL SECTION AND DETAILS
STD-15-5	2-28-03	TYPICAL ELEVATION
STD-15-6	3-28-08	CURB AND RAIL DETAILS - SKEW NOT LESS THAN 45 DEG.
STD-15-7	3-02-02	STANDARD EDGE BEAM DETAILS FOR FILLS GREATER THAN 3' - 8"
STD-15-9	2-28-03	TYPICAL WINGWALL DETAILS AND NOTES
STD-15-10	11-06-08	WINGWALL DIMENSIONS AND QUANTITIES
STD-15-11		WINGWALL DIMENSIONS AND QUANTITIES
STD-15-12	3-28-08	WINGWALL & SPECIAL RETAINING WALL DESIGN SECTION
STD-15-13		WINGWALL DESIGN SECTION
STD-15-14	06-01-11	BACKFILL AND DRAINAGE DETAILS
STD-15-15		BACKFILL AND DRAINAGE DETAILS
STD-15-16A		LOW FLOW CHANNEL CONSTRUCTION DETAILS FOR CULVERT INLET AND OUTLET
STD-15-19		SIDEWALK AND MISCELLANEOUS DETAILS
STD-15-20		WARPED SLOPE DETAIL
STD-15-21	3-02-02	STAGE CONSTRUCTION JOINT DETAIL (FILL ABOVE TOP OF SLAB NOT GREATER THAN 3'-8")
STD-15-22	2-28-03	EXTENSION DETAILS
STD-15-23	12-07-01	EXTENSION DETAILS FOR SCOURED OUTLET
STD-15-24	12-07-01	END SECTION DETAILS
STD-15-25	11-01-10	PRECAST BOX CULVERT DETAILS
STD-15-26		PRECAST BOX CULVERT DETAILS
STD-15-27		PRECAST BOX CULVERT DETAILS
STD-15-28		PRECAST BOX CULVERT DETAILS
STD-15-29		PRECAST BOX CULVERT DETAILS
STD-15-35		BOX BRIDGE, 1 BARREL AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-15-37	5-01-14	BOX BRIDGE, 1 BARREL AT 8', CLEAR HTS. 5' - 8', 0 - 60' FILL
STD-15-38	9-19-06	BOX BRIDGE, 1 BARREL AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL

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-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD01-TS-1	10-15-02	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD01-TS-1A		DESIGN STANDARDS FOR LOW-VOLUME LOCAL ROADS (ADT<=400)
RD01-TS-2	10-15-02	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
RD01-TS-3A	10-15-02	DESIGN STANDARDS 4 AND 6 LANE ARTERIAL HIGHWAYS WITH DEPRESSED MEDIANS
RD01-TS-3C	10-15-02	DESIGN STANDARDS 4 AND 6 LANE ARTERIAL HIGHWAYS WITH FLUSH MEDIANS
RD01-TS-4	07-23-13	DESIGN STANDARDS 1 AND 2 LANE RAMPS
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-S-12	08-01-09	CLEAR ZONE CRITERIA
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
RD01-TS-1	10-15-02	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
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-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-2	01-02-13	STANDARD DETAILS FOR FLEXIBLE PIPE INSTALLATION
D-PE-1	02-12-76	TYPE "A" CONCRETE ENDWALL 2:1 SLOPE, 36" TO 78"
D-PE-4	01-15-13	STRAIGHT, CONCRETE ENDWALL
D-PE-5	05-27-01	STANDARD WINGWALLS HORIZONTAL OVAL CONCRETE PIPES
D-PE-18A	06-14-13	18" CONCRETE ENDWALL CROSS DRAIN
D-PE-18B		18" CONCRETE ENDWALL CROSS DRAIN
D-PE-24A	06-14-13	24" CONCRETE ENDWALL CROSS DRAIN
D-PE-24B		24" CONCRETE ENDWALL CROSS DRAIN

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ROADWAY INDEX AND STANDARD DRAWINGS

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	1A1

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

D-PE-30A	06-14-13	30” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-30B		30” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-36A	06-14-13	36” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-36B		36” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-42A	06-14-13	42” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-42B		42” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-48A	06-14-13	48” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-48B		48” CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-99		PIPE GRATE AND SKEWED CONNECTION DETAILS FOR “U” ENDWALLS
D-PO-1	05-27-01	STANDARD OVAL & FLAT BASE CONCRETE CULVERT PIPE
D-SEW-1A	01-10-13	SIDE DRAIN CONCRETE ENDWALL WITH STEEL PIPE GRATE
D-SEW-12D	04-20-12	CONCRETE ENDWALL TYPE "SD" WITH STEEL PIPE GRATE (FOR 15" AND 18" PIPES) – (12:1 SLOPE)

DRAINAGE-CATCH BASINS AND MANHOLES

D-CB-38RB	09-24-12	STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN
D-CB-38S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SB	09-24-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SC	09-24-12	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-39RB	09-24-12	STANDARD PRECAST CIRCULAR NO. 39 CATCH BASIN
D-CB-39S	08-01-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SC	09-24-12	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SD	09-24-12	STANDARD 7' X 7' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SE	08-01-12	STANDARD 9' X 9' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-41SB	09-24-12	STANDARD 4’X4’ SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-JBS-1	08-01-12	STANDARD 32” X 32” SQUARE CONCRETE NO. 1 JUNCTION BOX
D-JBS-2	08-01-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 2 JUNCTION BOX
D-JBS-4	08-01-12	STANDARD 7' X 7' SQUARE CONCRETE NO. 4 JUNCTION BOX
D-MH-5	08-01-12	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 3 MANHOLE
D-SDS-1	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 SPRING DRAIN BOX
D-CB-99	05-20-14	MISC. DETAILS FOR RECTANGULAR STRUCTURES

DRAINAGE – NATURAL STREAM DESIGN

D-NSD-2		ROCK VANES
D-NSD-3		LOG DEFLECTORS
D-NSD-4		LOG DROPS AND STEP POOLS
D-NSD-6		CONSTRUCTED RIFFLES
D-NSD-7		COCONUT FIBER ROLLS AND LIVE SILTATION

ROADWAY AND PAVEMENT APPURTENANCES

RP-DHO-1	10-26-93	MEDIAN OPENINGS ON 4-LANE DIVIDED HIGHWAY
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-J-1	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	07-14-14	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J-9	02-02-12	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	02-02-12	DOWEL ASSEMBLY DEVICES
RP-J-18	02-02-12	DOWEL ASSEMBLY DEVICES
RP-J-19	02-02-12	DOWEL ASSEMBLY DEVICES
RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS

SAFETY APPURTENANCES AND FENCE

S-CZ-1		CLEAR ZONE CRITERIA
S-F-1	05-24-12	HIGH VISIBILITY FENCE
S-F-10B	05-14-10	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-GR31-1		W-BEAM GUARDRAIL
S-GRS-2		SPECIAL CASE: GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-GRT-2	06-30-14	TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-3		TYPE 21 GUARDRAIL TERMINAL
S-GRT-3D		TYPE 21 GUARDRAIL TERMINAL (DETAILS)
S-GRT-3P		EARTH PAD FOR TYPE 21 TERMINAL
S-GRT-4		TYPE 13 GUARDRAIL TERMINAL (TRAILING END)
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 21, 13 AND IN-LINE TERMINALS
S-PL-2		SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
S-PL-3		SAFETY PLAN: MINIMUM INSTALLATION AT BRIDGE ENDS
S-PL-5		SAFETY PLAN FOR BRIDGE ENDS IN MEDIANS
S-PL-6		SAFETY PLAN: SAFETY HARDWARE PLACEMENT
S-RP-2	01-19-99	STANDARD CONCRETE RIGHT-OF-WAY MARKERS
S-SSMB-3	07-16-13	51” HALF SIZE SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-5		SINGLE SLOPE MEDIAN BARRIER WALL CATCH BASIN DETAIL
S-SSMB-6	10-24-13	GUARDRAIL ATTACHMENT TO SINGLE SLOPE CONCRETE BARRIER WALL

TRAFFIC CONTROL APPURTENANCES

T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	07-24-14	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	07-24-14	DETAILS OF PAVEMENT MARKING FOR CONVENTIONAL ROADS
T-M-3	07-24-14	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	07-24-14	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-5	04-23-13	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-15		ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES
T-M-15A	11-01-11	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED ROUTES
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
T-S-9	06-10-14	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	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	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-14	08-07-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
T-S-16	06-05-14	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-17	07-19-13	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
T-S-19	07-19-13	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-20	12-18-99	GEOMETRIC MEDIAN CROSS-OVER DETAIL ON DIVIDED HIGHWAYS

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-2	08-01-12	SEDIMENT FILTER BAG
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
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ROADWAY INDEX AND STANDARD DRAWINGS

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	1A2

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

EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-6	08-01-12	ROCK CHECK DAM
EC-STR-6A	08-01-12	ENHANCED ROCK CHECK DAM
EC-STR-7	08-01-12	SEDIMENT TRAP WITH CHECK DAM
EC-STR-11	08-01-12	CULVERT PROCTECTION TYPE 1
EC-STR-11A	08-01-12	CULVERT PROCTECTION TYPE 2
EC-STR-12	08-01-12	ROCK SEDIMENT DAM
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-31	08-01-12	TEMPORARY DIVERSION CHANNEL
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN
EC-STR-32	08-01-12	TEMPORARY DIVERSION CULVERTS
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSON (DOWNSTREAM)
EC-STR-33A	08-01-12	SUSPENDED PIPE DIVERSON (UPSTREAM)
EC-STR-34	08-01-12	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-35	08-01-12	FILTER BERMS
EC-STR-37	06-10-14	SEDIMENT TUBE
EC-STR-40		CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR STRUCTURES
EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS
EC-STR-43A		CATCH BASIN FILTER ASSEMBLY (TYPE 3) SLIPCOVER DETAILS
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-43		CATCH BASIN FILTER ASSEMBLY (TYPE 3)
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ROADWAY INDEX AND STANDARD DRAWINGS

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	1B

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

PROJECT COMMITMENTS

COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION
1	ENVIRONMENTAL	PYRITE MONITORING PLAN MUST BE ADHERED TO, STARTING WITH PRE-CONSTRUCTION SAMPLING 3 MONTHS PRIOR TO START OF CONSTRUCTION AND CONTINUING DURING- AND POST-CONSTRUCTION.	FROM BEGIN STA 10+00 S.R. 29 RAMP B IN ROANE COUNTY TO END STA. 259+00.00 S.R. 29 IN MORGAN COUNTY
2	ENVIRONMENTAL	THE NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) HAS BEEN DOCUMENTED IN THE PROJECT VICINITY. THIS SPECIES WAS PROPOSED FOR FEDERAL LISTING UNDER THE ESA ON OCTOBER 2, 2013 AND A LISTING DECISION IS SCHEDULED TO BE ANNOUNCED ON OR BEFORE APRIL 2ND, 2015. TO MINIMIZE THE POTENTIAL OF ADVERSELY AFFECTING (JEOPARDY) THE NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS), CLEARING OF TREES WITH DBH (DIAMETER AT BREAST HEIGHT) OF THREE (3) INCHES OR GREATER WILL BE DONE PRIOR TO APRIL 2ND, 2015. THIS WILL ALSO MINIMIZE POTENTIAL ADVERSE IMPACTS TO THE FEDERALLY LISTED ENDANGERED INDIANA BAT (MYOTIS SODALIS). IN AREAS WHERE TREE CLEARING PRIOR TO APRIL 2ND, 2015 IS NOT POSSIBLE THE TDOT REGION 1 BIOLOGIST SHALL BE CONTACTED FOR GUIDANCE.	FROM BEGIN STA 10+00 S.R. 29 RAMP B IN ROANE COUNTY TO END STA. 259+00.00 S.R. 29 IN MORGAN COUNTY
3	ENVIRONMENTAL	TO MINIMIZE THE RISK TO CONSTRUCTION WORKERS, TDOT IS COMMITTED TO THE REMOVAL OF ASBESTOS-CONTAINING MATERIALS FROM BRIDGES THAT ARE BEING DEMOLISHED, REHABILITATED OR REPAIRED. ASBESTOS ABATEMENT MUST BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES. ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS CONTAINING MATERIALS. BRIDGE # 65SR0290001, BRIDGE # 65SR0290003 AND BRIDGE # 73SR0290011 HAVE ASBESTOS CONTAINING MATERIAL IN THE DECK DRAINS. ABATEMENT OF THESE MATERIALS WILL REQUIRE TRAINED WORKERS AND A COMPETENT PERSON TO OVERSEE THE WORK (AN ASBESTOS SUPERVISOR). ADDITIONALLY, STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT SUCH WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS. IF ABATEMENT ACTIVITIES ARE REQUIRED, A 10-DAY NOTIFICATION TO THE TENNESSEE DEPARTMENT OF AIR POLLUTION CONTROL WILL BE REQUIRED.	BRIDGE # 73SR0290011 STA. 143+50, LT BRIDGE # 65SR0290001 STA. 173+50, LT BRIDGE # 65SR0290003 STA. 179+50, LT

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Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROJECT COMMITMENTS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2A

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

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	ROANE QUANTITY	MORGAN QUANTITY	TOTAL QUANTITY
1	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	0.33	0.33	0.66
2	201-01	CLEARING AND GRUBBING	LS	0.33	0.33	0.66
	202-02.01	REMOVAL OF PIPE (24" RCP ,STA. 157+19)	L.F.	110.00	0.00	110.00
	202-02.02	REMOVAL OF PIPE (24" CMP, STA. 183+00)	L.F.	0.00	135.00	135.00
	202-02.03	REMOVAL OF PIPE (54" RCP, STA. 192+80)	L.F.	0.00	98.00	98.00
	202-02.04	REMOVAL OF PIPE (60" RCP, STA. 204+43)	L.F.	0.00	74.00	74.00
	202-02.05	REMOVAL OF PIPE (30" CMP, STA. 217+00)	L.F.	0.00	80.00	80.00
	202-02.06	REMOVAL OF PIPE (24" RCP, STA. 236+45)	L.F.	0.00	79.00	79.00
	202-02.07	REMOVAL OF PIPE (72" CMP, STA. 241+38)	L.F.	0.00	69.00	69.00
	202-03.01	REMOVAL OF ASPHALT PAVEMENT	S.Y.	373	0	373
3	202-06.01	REMOVAL OF BUILDINGS (TRACT 10)	LS	1	0	1
3	202-06.02	REMOVAL OF BUILDINGS (TRACT 10A)	LS	1	0	1
3	202-06.03	REMOVAL OF BUILDINGS (TRACT 21)	LS	0	1	1
3	202-06.04	REMOVAL OF BUILDINGS (TRACT 23)	LS	0	1	1
3	202-06.05	REMOVAL OF BUILDINGS (TRACT 25)	LS	0	1	1
3	202-06.06	REMOVAL OF BUILDINGS (TRACT 30)	LS	0	1	1
3	202-06.07	REMOVAL OF BUILDINGS (TRACT 54B)	LS	1	0	1
3	202-06.08	REMOVAL OF BUILDINGS (TRACT 54C)	LS	1	0	1
4, 5	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	240,916	276,197	517,113
6	203-01.07	RD & DRNG EXCV (ACID PRODUCING-OFF SITE DISPOSAL)	C.Y.	13,760	227,240	241,000
5, 7	203-01.11	PRESPLITTING OF ROCK EXCAVATION	S.Y.	1,750	0	1,750
8	203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	0	31,000	31,000
	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	19,310	23,016	42,326
9	203-05	UNDERCUTTING	C.Y.	0	11,000	11,000
	203-06	WATER	M.G.	1,100	1,260	2,360
10	203-15.03	COMPACTED CLAY	C.Y.	178	662	840
	204-08	FOUNDATION FILL MATERIAL	C.Y.	85	165	250
11, 12	209-01.31	TEMPORARY MULCH FILTER BERM	C.Y.	1,333	2,398	3,731
11, 12	209-02.03	8" TEMPORARY SLOPE DRAIN	L.F.	0	227	227
11, 12	209-02.04	10" TEMPORARY SLOPE DRAIN	L.F.	967	671	1,638
11, 12	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	0	572	572
11, 12	209-02.06	15" TEMPORARY SLOPE DRAIN	L.F.	103	437	540
11, 12	209-02.07	18" TEMPORARY SLOPE DRAIN	L.F.	478	1,167	1,645
	209-03.35	STREAM MITIGATION-LOG DROP STRUCTURE	L.F.	60	0	60
	209-03.36	STREAM MITIGATION-STEP POOL	EACH	2	2	4
	209-03.37	STREAM MITIGATION CROSS VANE STRUCTURE	EACH	1	1	2
	209-03.44	STREAM MITIGATION - WILLOW POLES (SPECIES)	EACH	654	194	848
	209-03.55	STREAM MITIGATION - BOULDER SILL	EACH	4	0	4
	209-03.57	STREAM MITIGATION - COIR ROLES	L.F.	650	650	1,300
2, 12	209-04	BRUSH BARRIERS	L.F.	2,176	4,179	6,355
12	209-05	SEDIMENT REMOVAL	C.Y.	5,044	6,079	11,123
11, 12	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	25,612	35,548	61,160
11, 12	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	9,994	2,722	12,716
11, 12	209-08.07	ROCK CHECK DAM PER	EACH	297	244	541
11, 12	209-08.08	ENHANCED ROCK CHECK DAM	EACH	90	122	212
11,12,13	209-09.01	SANDBAGS	BAG	5,085	5,797	10,882
11, 12	209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	27	60	87
11,12,14	209-09.21	POLYACHLAMIDE GEL LOGS	EACH	42	60	102
11,12,14	209-09.22	POLYACHLAMIDE POWDER	LB.	375	608	983
11,12,14	209-09.24	JUTE MESH FABRIC	S.Y.	1,784	2,084	3,868
11, 12	209-09.41	CURB INLET PROTECTION (TYPE 2)	EACH	2	9	11
11	209-10.20	TEMPORARY SEDIMENT TRAP	C.Y.	150	4,005	4,155
11,12,15	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	7,300	43,100	50,400
11, 12	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	16	23	39
11, 12	209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	3	9	12
11, 12	209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	16	19	35

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	ROANE QUANTITY	MORGAN QUANTITY	TOTAL QUANTITY
11, 12	209-40.43	CATCH BASIN FILTER ASSEMBLY(TYPE 3)	EACH	2	0	2
11, 12	209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EACH	0	3	3
16	209-65.01	TEMPORARY STREAM DIVERSION (PUMP AROUND)	LS	0.33	0.33	0.66
16	209-65.02	TEMPORARY STREAM DIVERSION (PIPE AROUND)	LS	0.33	0.33	0.66
11	209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	676	1,491	2,167
16	209-65.14	TEMPORARY STREAM DIVERSION	LS	0.33	0.33	0.66
	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	58,213	61,756	119,969
	303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	9,107	16,306	25,413
17	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	2,667	8,678	11,345
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	4,956	6,545	11,501
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	4,781	6,215	10,996
	313-03	TREATED PERMEABLE BASE	S.Y.	11,673	0	11,673
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	92	99	191
	402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	360	389	749
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	35	39	74
	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	1,579	2,499	4,078
	411-01.10	ACS MIX(PG64-22) GRADING D	TON	3,524	4,764	8,288
	411-12.01	SCORING SHOULDERS (CONTINUOUS)(16IN WIDTH)	L.M.	2.6	3.9	6.5
	411-12.03	SCORING RUMBLE STRIPE (NON-CONTINUOUS) (8IN WIDTH)	L.M.	2.6	3.9	6.5
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	28,890	40,905	69,795
	501-01.03	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"	S.Y.	11,673	0	11,673
	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	356	524	880
	604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	73,661	114,047	187,708
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	1,442	2,842	4,284
	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	543	277	820
	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	772	451	1,223
	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	176	148	324
	607-08.02	42" CONCRETE PIPE CULVERT (CLASS III)	L.F.	0	305	305
	607-09.02	48" CONCRETE PIPE CULVERT (CLASS III)	L.F.	240	0	240
	607-11.03	60" CONCRETE PIPE CULVERT (CLASS III)	L.F.	116	231	347
	607-16.11	76"X 48" HORIZONTAL OVAL CONCRETE PIPE CULVERT	L.F.	0	140	140
	607-39.02	18" CONCRETE PIPE CULVERT (SIDE DRAIN)	L.F.	161	98	259
	607-39.03	24" CONCRETE PIPE CULVERT (SIDE DRAIN)	L.F.	221	125	346
	607-39.04	30" CONCRETE PIPE CULVERT (SIDE DRAIN)	L.F.	0	43	43
	607-39.09	60" CONCRETE PIPE CULVERT (SIDE DRAIN)	L.F.	0	24	24
18	610-07.03	18" PIPE DRAIN (BRIDGE DRAIN)	L.F.	0	80	80
	611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	1	0	1
	611-01.03	MANHOLES, > 8' - 12' DEPTH	EACH	1	0	1
	611-02.01	SPRING DRAIN BOX, TYPE 1	EACH	1	0	1
	611-02.10	JUNCTION BOX, TYPE 1	EACH	1	0	1
	611-02.11	JUNCTION BOX, TYPE 2	EACH	2	0	2
	611-02.13	JUNCTION BOX, TYPE 4	EACH	1	0	1
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	76	129	205
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	3,823	5,227	9,050
	611-07.03	STRUCTURAL STEEL (PIPE ENDWALLS)	LB.	1,980	2,705	4,685
	611-07.31	18" ENDWALL (SIDEDRAIN)	EACH	8	2	10
	611-07.32	24" ENDWALL (SIDEDRAIN)	EACH	8	6	14
	611-38.01	CATCH BASINS, TYPE 38, 0' - 4' DEPTH	EACH	2	4	6
	611-38.02	CATCH BASINS, TYPE 38, > 4' - 8' DEPTH	EACH	8	10	18
	611-38.03	CATCH BASINS, TYPE 38, > 8' - 12' DEPTH	EACH	8	5	13

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ESTIMATED ROADWAY QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2A1

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

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	ROANE QUANTITY	MORGAN QUANTITY	TOTAL QUANTITY
	611-38.05	CATCH BASINS, TYPE 38, >16'-20' DEOTG	EACH	0	1	1
	611-39.01	CATCH BASINS, TYPE 39, 0' - 4' DEPTH	EACH	0	1	1
	611-39.04	CATCH BASINS, TYPE 39, > 12' - 16' DEPTH	EACH	0	1	1
	611-39.05	CATCH BASINS, TYPE 39, > 16' - 20' DEPTH	EACH	0	1	1
	611-41.01	CATCH BASINS, TYPE 41, 0' - 4' DEPTH	EACH	2	0	2
	611-41.02	CATCH BASINS, TYPE 41, > 4' - 8' DEPTH	EACH	2	9	11
	611-41.03	CATCH BASINS, TYPE 41, > 8' - 12' DEPTH	EACH	0	1	1
11,12,19	621-03.02	18" TEMPORARY DRAINAGE PIPE (DIVERSION)	L.F.	683	446	1129
11,12,19	621-03.03	24" TEMPORARY DRAINAGE PIPE (DIVERSION)	L.F.	22	800	822
11,12,19	621-03.05	36" TEMPORARY DRAINAGE PIPE (DIVERSION)	L.F.	0	522	522
11,12,19	621-03.06	42" TEMPORARY DRAINAGE PIPE (DIVERSION)	L.F.	130	145	275
11,12,19	621-03.07	48" TEMPORARY DRAINAGE PIPE (DIVERSION)	L.F.	294	43	337
	703-01	CEMENT CONCRETE DITCH PAVING	C.Y.	137	545	682
	705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	189	432	621
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	5753	5170	10923
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	13	10	23
	705-04.04	GUARDRAIL TERMINAL (TYPE 21)	EACH	2	0	2
	705-04.05	GUARDRAIL TERMINAL (TYPE-IN-LINE)	EACH	10	4	14
	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	7	12	19
20	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	1	1	2
	706-01	GUARDRAIL REMOVED	L.F.	337	804	1,141
	707-01.50	CHAIN-LINK FENCE (8 FOOT)	L.F.	1,000	0	1,000
	707-01.51	END & CORNER POST ASSEMBLY (CHAIN-LINK FENCE 8')	EACH	5	0	5
21	707-01.52	GATE - CHAIN-LINK FENCE (8 FOOT - 4' WIDE)	EACH	1	0	1
11, 12	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	5,603	9,112	14,715
	708-01.01	MONUMENTS (R.O.W.)	EACH	56	72	128
18	709-01.01	RUBBLE STONE RIP-RAP	C.Y.	0	4	4
22	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	683	105	788
	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	4,022	5,586	9,608
	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	3,472	5,132	8,604
	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	3,398	5,237	8,635
	709-05.81	ROCK RIFFLES	LS	0.6	0.4	1
	709-05.83	EMBEDED RIPRAP	TON	20	13	33
23, 24	710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	3,100	0	3,100
	710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	3	0	3
	710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	6	0	6
	710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	EACH	7	0	7
8	710-13.03	FILTER CLOTH	S.Y.	0	7,000	7,000
	711-05.72	SINGLE SLOPE HALF CONCRETE BARRIER WALL	L.F.	801	5,822	6,623
25	712-01	TRAFFIC CONTROL	LS	0.4	0.6	1
13	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	2,600	0	2,600
13	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	212	242	454
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	48	48	96
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	10	10	20
	712-06	SIGNS (CONSTRUCTION)	S.F.	812	354	1166
13, 26	712-06.01	VERTICAL PANELS	S.F.	46	0	46
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	564	576	1,140
	712-08.03	ARROW BOARD (TYPE C)	EACH	1	1	2
	712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.	6,000	2,000	8,000
	713-02.14	FLEXIBLE DELINEATOR (WHITE)	EACH	0	14	14

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	ROANE QUANTITY	MORGAN QUANTITY	TOTAL QUANTITY
27	713-02.15	FLEXIBLE DELINEATOR (YELLOW)	EACH	18	14	32
28	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	471	620	1,091
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	382	456	838
28	713-11.01	"U" SECTION STEEL POSTS	L.B.	1,788	1,409	3,197
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	L.B.	2,396	3,497	5,893
	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	0.4	0.6	1.0
	713-16.01	CHANGEABLE MESSAGE SIGN	EACH	1	1	2
	716-01.22	SNWPLWBLE PVMT MRKRS (MONO-DIR) (1 COLOR)	EACH	269	265	534
29	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	90	40	130
29	716-02.06	PLASTIC PAVEMENT MKG (TURN LANE ARROW)	EACH	5	1	6
	716-04.03	PLASTIC PAVEMENT MARKING (4" DOTTED LINE)	L.F.	1,200	985	2,185
	716-04.14	PLASTIC PAVEMENT MARKING(LANE RED ARROW)	EACH	0	2	2
30	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	9	11	20
30	716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	L.F.	5,400	0	5,400
30	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	60	0	60
	716-08.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	1,000	3,000	4,000
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	7.2	9.0	16.2
	716-12.03	ENHANCED FLAT THERMO P.M. (8IN BARR)	L.F.	268.0	0.0	268.0
	717-01	MOBILIZATION	LS	0.33	0.33	0.66
31	740-06.01	GEOMEMBRANE (60 MIL)	S.Y.	1,186	2,146	3,332
11,12,22	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	8,281	9,732	18,013
11,12,22	740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	1,661	1,420	3,081
11, 12	740-11.01	8" SEDIMENT TUBE	L.F.	2,206	0	2,206
11, 12	740-11.02	12" SEDIMENT TUBE	L.F.	12,284	6,652	18,936
11, 12	740-11.03	18" SEDIMENT TUBE	L.F.	1,777	2,040	3,817
11, 12	740-11.04	20" SEDIMENT TUBE	L.F.	12,742	25,552	38,294
12, 21	801-01	SEEDING (WITH MULCH)	UNIT	100	120	220
11, 12	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	3,500	4,188	7,688
12, 21	801-01.13	BONDED FIBER MATRIX HYDROMULCH (WITHOUT SEED)	UNIT	100	200	300
	801-01.30	COVER CROP SEED MIX (RIPZN/FLPL) W/MULCH	UNIT	66	131	197
	801-01.34	GRASS SEED MIX (RIPZN/FLPL)	UNIT	29	57	86
11, 12	801-01.65	TEMPORARY MULCH	UNIT	1,155	1,382	2,537
32	801-02	SEEDING (WITHOUT MULCH)	UNIT	836	854	1,690
33	801-03	WATER (SEEDING & SODDING)	M.G.	915	1,179	2,094
	801-08	FERTILIZER (SUPPLEMENTAL APPLICATION)	TON	43	51	94
12, 34	801-09	AGRICULTURAL LIME	TON	42	43	85
	802-02.01	SEEDLINGS	EACH	108	38	146
	802-02.02	ASIMINA TRILOBA (PAWPAW) 18-24 INCH BARE ROOT SEEDLINGS	EACH	108	38	146
	802-11.02	ACER RUBRUM (RED MAPLE 2-5FT CNTNR GRWN)	EACH	53	48	101
	802-11.16	FRAXINUS PENNSYLVANICA (GREEN ASH 2-5FT CNTNR GRWN)	EACH	53	0	53
	802-11.18	LIQUIDAMBER STYRACIFLUA (SWEETGUM 2-5FT CNTNR GRWN)	EACH	0	16	60
	802-11.19	LIRIODENDRON TULIPIFERA (TULIP POPLAR 2-5FT CNTNR GRWN)	EACH	53	16	69
	802-11.26	PLATANUS OCCIDENTALIS (SYCAMORE 2-5FT CNTNR GRWN)	EACH	53	20	73
	802-12.18	LIQUIDAMBER STYRACIFLUA (SWEETGUM SEEDLNG B.R.)	EACH	0	32	32
	802-12.19	LIRIODENDRON TULIPIFERA (TULIP POPLAR SEEDLNG B.R.)	EACH	0	32	32
	802-12.26	PLATANUS OCCIDENTALIS (SYCAMORE SEEDLNG B.R.)	EACH	0	28	28
	802-13.01	ALNUS SERRULATA (HAZEL ALDER 2-5FT CNTNR GRWN)	EACH	0	28	28
35	803-01	SODDING (NEW SOD)	S.Y.	18,061	34,347	52,408
12, 32	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	56,834	63,928	120,762
12, 36	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	29,898	27,032	56,930
12, 37	805-12.04	EROSION CONTROL BLANKET (TYPE IV)	S.Y.	5,525	560	6,085
	805-12.08	GRAM COIR FIBER EROSION BLANKET	S.Y.	1,200	200	1,400
38	806-02.03	PROJECT MOWING	CYCL	6	6	12

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ESTIMATED ROADWAY QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2A2

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

FOOTNOTES

1. INCLUDES COST OF STAKING HIGH-VISIBILITY CONSTRUCTION FENCE. (BUFFER FENCE) ITEM NO. 707-08.11
2. SEE SPECIAL NOTES REGARDING CLEARING AND GRUBBING ON SHEET 2X.
3. BID PRICE INCLUDES ALL SALVAGE VALUE OF MATERIAL. SEE TABULATED QUANTITIES SHT. 2Y FOR REMOVAL OF BUILDINGS.
4. INCLUDES 8,235 C.Y. IN ROANE COUNTY AND 5,411 C.Y. IN MORGAN COUNTY FOR EROSION CONTROL.
5. REFER TO "SPECIAL NOTES" ON SHEET 2X
6. SEE TDOT SPECIAL PROVISION 107L.
7. SEE SPECIAL PROVISION 107H REGUARDING CONTROLLED ROCK BLASTING.
8. TO BE USED FOR ROCK FILL PADS FOR UNDERCUTTING AS DIRECTED BY THE ENGINEER.
9. TO BE USED FOR UNDERCUTTING AS DIRECTED BY THE TDOT SUPERVISOR.
10. CLAY PLUGS FOR WETLANDS AND RETAINING WALLS BENCHES.
11. SEE SUBSECTION 209-07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENT.
12. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
13. MAY BE INCREASED OR DECREASED BY THE T.D.O.T. SUPERVISOR.
14. TO BE USED WHEN DEEMED NECESSARY BASED ON FIELD CONDITIONS. TO STAY IN PERMIT COMPLIANCE.
15. INCLUDES 7,250 S.Y. IN ROANE COUNTY AND 43,081 S.Y. IN MORGAN COUNTY FOR A.P.R. COVER AS DIRECTED BY THE ENGINEER. SEE SHT. 2R.
16. TO BE USED FOR STR-1 IN ROANE CO. AND STR-10 IN MORGAN CO. NATURAL STREAM CONSTRUCTION.
17. INCLUDES 4,500 TONS FOR ROCK FILL PADS FOR UNDERCUTTING IN MORGAN CO.; 496 TONS IN ROANE CO. AND 642 TONS IN MORGAN CO. FOR EROSION CONTROL; 2057 TONS IN ROANE CO. AND 3267 TONS IN MORGAN CO. FOR FILL AT WALLS 4-3, 5-2 AND 5-3; 114 TONS IN ROANE CO. AND 269 TONS IN MORGAN CO. FOR WEEP HOLES.
18. STANDARD DRAWING STD-1-7 IS TO BE USED FOR BURIAL OF THE OUTLET PIPE AND FOR END TREATMENT DETAILS.
19. QUANTITY IS BASED ON MINIMUM CALCULATED LENGTH. ACTUAL LENGTH WILL BE DETERMINED BASED ON FIELD CONDITIONS ENCOUNTERED. THE BIDDER IS RESPONSIBLE FOR VERIFYING ESTIMATED LENGTHS PRIOR TO SUBMITTING HIS 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.
20. THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP. 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUADGUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.
21. TO BE USED AS REQUESTED BY THE TDOT SUPERVISOR.
22. FOR EROSION CONTROL.
23. PIPES ARE TO BE TIED TO THE PROPOSED CATCH BASINS AND COST WILL BE INCLUDED IN OTHER ITEMS.
24. TO BE USED ON RAMPS A, B AND C.
25. INCLUDES TRAFFIC CONTROL SUPERVISOR. SEE TDOT BUREAU OF HIGHWAYS "SPECIAL PROVISION REGARDING TRAFFIC CONTROL SUPERVISOR".
26. INCLUDES 22 RIGHT PANELS AND 24 LEFT PANELS.
27. TO BE USED AT ALL MEDIAN OPENINGS.
28. INCLUDES 90 S.F. OF ALUMINUM SIGNS AND 1260 LBS. OF "U" POSTS FOR "DO NOT MOW OR SPRAY" SIGNS. SEE SHEETS NS-1 THROUGH NS-3 FOR LOCATIONS AND SIGN DETAILS.
29. THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
30. TO BE USED FOR TEMPORARY STRIPING.
31. SEE SPECIAL PROVISION 740D REGARDING GEOMEMBRANE.
32. TO BE USED ON ALL SLOPES OF THE PROJECT OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR EXCEPT WHERE RIP RAP AND SOD DITCHES ARE USED.
33. INCLUDES 334 THOUSAND GALLONS IN ROANE COUNTY AND 400 THOUSAND GALLONS IN MORGAN COUNTY FOR EROSION PREVENTION AND SEDIMENT CONTROL.
34. TO BE USED AS A SOIL AMENDMENT. SEE SHT. 2R.
35. ITEM TO BE USED WITHIN THE MEDIAN OF SR-29 OR AS DIRECTED BY THE TDOT SUPERVISOR. QUANTITY INCLUDES 1263 SY IN ROANE CO. AND 4602 SY IN MORGAN CO. FOR DITCHES.
36. INCLUDES 737 SY FOR DITCHES IN ROANE COUNTY AND 393 SY FOR DITCHES IN MORGAN COUNTY.
37. INCLUDES 2228 SY FOR DITCHES IN ROANE COUNTY.
38. 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.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ESTIMATED ROADWAY QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2B

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

ESTIMATED UTILITY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	73008-3243-14 QUANTITY	65001-3266-14 QUANTITY
760-13.01	INSTALL OVERHEAD CONDUCTOR - 336 AAC	L.F.	6603	8811
760-13.02	INSTALL OVERHEAD CONDUCTOR - 4/0 AAC	L.F.	2201	2940
760-13.03	INSTALL OVERHEAD CONDUCOTR - 3/0 ACSR	L.F.	0	1599
760-13.04	INSTALL OVER HEAD CONDUCTOR - 1/0 ACSR	L.F.	0	533
760-13.05	INSTALL OVERHEAD CONDUCTOR - #2ACSR	L.F.	3158	1270
760-13.07	INSTALL OVERHEAD CONDUCTOR - #2 TPX	L.F.	97	0
760-13.08	INSTALL WOOD POLE CLASS 1 60FT LENGTH	EACH	0	1
760-13.09	INSTALL WOOD POLE CLASS 2 55 FT LENGTH	EACH	0	4
760-13.10	INSTALL WOOD POLE CLASS 2 50 FT LENGTH	EACH	5	2
760-13.11	INSTALL WOOD POLE CLASS 3 45 FT LENGTH	EACH	11	9
760-13.12	INSTALL WOOD POLE CLASS 4 40 FT LENGTH	EACH	7	0
760-13.13	INSTALL ELECTRIC UTILITY ASSY (C1C)	EACH	0	1
760-13.14	INSTALL ELECTRIC UTILITY ASSY (C1-2CL)	EACH	7	9
760-13.15	INSTALL ELECTRIC UTILITY ASSY (C1-3CL)	EACH	2	0
760-13.16	INSTALL ELECTRIC UTILITY ASSY (C2C)	EACH	0	1
760-13.17	INSTALL ELECTRIC UTILITY ASSY (C2-2CL)	EACH	0	2
760-13.21	INSTALL ELECTRIC UTILITY ASSY (C7C)	EACH	1	0
760-13.22	INSTALL ELECTRIC UTILITY ASSY (C7-1C)	EACH	1	2
760-13.23	INSTALL ELECTRIC UTILITY ASSY (C8C)	EACH	0	1
760-13.24	INSTALL ELECTRIC UTILITY ASSY (C8-3CL)	EACH	3	1
760-13.25	INSTALL ELECTRIC UTILITY ASSY (A1)	EACH	2	0
760-13.27	INSTALL ELECTRIC UTILITY ASSY (A2)	EACH	1	0
760-13.28	INSTALL ELECTRIC UTILITY ASSY (A3)	EACH	2	0
760-13.30	INSTALL ELECTRIC UTILITY ASSY (A5)	EACH	3	1
760-13.31	INSTALL ELECTRIC UTILITY ASSY (A5-1)	EACH	3	0
760-13.32	INSTALL ELECTRIC UTILITY ASSY (A5-2)	EACH	2	0
760-13.33	INSTALL ELECTRIC UTILITY ASSY (A5-2A)	EACH	1	0
760-13.34	INSTALL ELECTRIC UTILITY ASSY (A6)	EACH	2	0
760-13.36	INSTALL ELECTRIC UTILITY ASSY (A8)	EACH	2	0
760-13.37	INSTALL ELECTRIC UTILITY ASSY (M2-11R)	EACH	13	4
760-13.38	INSTALL ELECTRIC UTILITY ASSY (M2-12B)	EACH	10	11
760-13.40	INSTALL ELECTRIC UTILITY ASSY (E1-2F)	EACH	0	1
760-13.41	INSTALL ELECTRIC UTILITY ASSY (E1-2T)	EACH	21	20
760-13.43	INSTALL ELECTRIC UTILITY ASSY (E3-10P)	EACH	22	21
760-13.46	INSTALL ELECTRIC UTILITY ASSY (FP-2)	EACH	20	21
760-13.48	INSTALL ELECTRIC UTILITY ASSY (G11-15)	EACH	4	1
760-13.50	INSTALL ELECTRIC UTILITY ASSY (K6)	EACH	2	0
760-13.51	INSTALL ELECTRIC UTILITY ASSY (K7)	EACH	4	1
760-13.53	INSTALL ELECTRIC UTILITY ASSY (M5-2S)	EACH	2	0
760-13.54	INSTALL ELECTRIC UTILITY ASSY (M5-4A)	EACH	1	0
760-13.55	INSTALL ELECTRIC UTILITY ASSY (M5-5S)	EACH	28	6
760-13.58	INSTALL ELECTRIC UTILITY ASSY (M5-10C)	EACH	5	1
760-13.60	INSTALL ELECTRIC UTILITY ASSY (SL-2)	EACH	1	0
760-13.62	REMOVE OVERHEAD PRI. CONDUCTORS	LS	1	1
760-13.64	REMOVE OVERHEAD SEC. CONDUCTORS	LS	1	1
760-13.65	REMOVE WOOD POLES'	LS	1	1
760-13.66	REMOVE OH ELECTRIC UTILITY PRI ASSY	LS	1	1
760-13.67	REMOVE OH ELECTRIC UTILITY GUY/ANCHOR ASSY	LS	1	1
760-13.68	REMOVE OH ELECTRIC UTILITY MISC ASSY	LS	1	1
760-13.69	REMOVE OH ELECTRIC UTILITY SEC ASSY	LS	1	1
760-13.71	REMOVE ELECTRIC UTILITY ASSY (G11-10)	EACH	0	3
760-13.72	REMOVE ELECTRIC UTILITY ASSY (G11-15)	EACH	5	3
773-24.44	PLACE ANCHOR 1-1/4 IN TRIPLE EYE	EACH	9	
773-24.45	PLACE WOOD POLE - 45FT CLASS 3	EACH	5	
773-24.46	REMOVE 30FT POLE	EACH	1	
773-24.47	REMOVE 40FT POLE	EACH	4	
773-24.48	REMOVE 12IN PEDESTAL	EACH	3	

ESTIMATED UTILITY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	73008-3243-14 QUANTITY	65001-3266-14 QUANTITY
773-24.49	PLACE SPLICE PEDESTAL	EACH	1	
773-24.50	PLACE BURIED COPPER CABLE AT 24IN COVER	L.F.	700	
773-26.42	45-3 45 FOOT CLASS 3 WOOD POLE (SPEC A45-3)	EACH	12	0
773-26.43	55-2 55 FOOT CLASS 2 WOOD POLE (SPEC A55-2)	EACH	4	0
773-26.44	CO(36)E 36 FIBER LASHED TO EXISTING STRAND	FOOT	2152	0
773-26.45	CW12-24(10M) AERIAL FILLED CABLE 10M STRAND	FOOT	300	0
773-26.46	CW25-24(10M) AERIAL FILLED CABLE 10M STRAND	FOOT	300	0
773-26.47	CW100-24(10M) AERIAL FILLED CABLE 10M STRAND	FOOT	1752	0
773-26.48	HAC(12-24) AERIAL NONFILLED CLOSURE	EACH	1	0
773-26.49	HAC(50-24) AERIAL NONFILLED CLOSURE	EACH	2	0
773-26.50	HAC(100-24) AERIAL NONFILLED CLOSURE	EACH	2	0
773-26.51	HACO(36) AERIAL NONFILLED FIBER OPTIC CLOSURE	EACH	2	0
773-26.52	HAFO SB FIBER OPTIC SNOW SHOE (SPEC PM92)	EACH	2	0
773-26.53	PE1-3G 10M STRAND DOWN GUY	EACH	24	0
773-26.54	PF1-5A EXPANDING ANCHOR ANCHOR	EACH	28	0
773-26.55	PM52-1 POLE NUMBER (SPEC PM52)	EACH	5	0
773-26.56	PM11 GUY GUARD	EACH	16	0
773-26.57	PM2A GROUND WIRE ELECTRIC NEUTRAL	EACH	15	0
773-26.58	SEA2-22 AERIAL TWO PAIR DROP	FOOT	1000	0
773-26.59	WPE TRANSFER OR TIGHTEN EXISTING DOWN GUY	EACH	1	0
773-26.60	WC RELASHING EXISTING AERIAL CABLE STRAND	FOOT	1400	0
773-26.61	WC1 REMOVE & REATTACH AERIAL CABLE	EACH	8	0
773-26.62	WC2 SAME AS WC1 ON ANGLE/DEAD-END POLE	EACH	6	0
773-26.63	WHC RE-TERMINATE ONE EXISTING CABLE SPLICE	EACH	430	0
773-26.64	WSEA REARRANGE ONE EXISTING AERIAL DROP	EACH	1	0
773-26.65	WHO RE-TERMINATE ONE FIBER FUSION SPLICE	EACH	114	0
773-26.66	XX POLE REMOVE ANY SIZE WOOD POLE	EACH	12	0
773-26.67	XXCA REMOVE ANY SIZE AERIAL CABLE/STRAND	FOOT	1960	0
773-26.68	XXDW REMOVE ANY SIZE DISTRIBUTION WIRE	FOOT	170	0
773-26.69	XXPE REMOVE ANY SIZE DOWN OR OVERHEAD GUY	EACH	13	0
773-26.70	XXPF REMOVE ANY SIZE OR TYPE OF ANCHOR ROD	EACH	13	0
773-26.71	XXSEA REMOVE ANY SIZE AERIAL DROP	EACH	1	0
795-01.03	6IN DIP RESTRAINED JOINT WATER LINE	L.F.	750	100
795-01.04	6IN DIP SLIP JOINT WATER LINE	L.F.	750	0
795-01.05	8IN DIP RESTRAINED JOINT WATER LINE	L.F.	1150	475
795-01.06	8IN DIP SLIP JOINT WATER LINE	L.F.	3100	0
795-01.09	12IN DIP RESTRAINED JOINT WATER LINE	L.F.	625	900
795-01.10	12IN DIP SLIP JOINT WATER LINE	L.F.	1150	8000
795-02.01	2IN HDPE WATER LINE	L.F.	50	300
795-02.07	12IN HDPE WATER LINE	L.F.	200	200
795-03.02	2IN PVC WATER LINE	L.F.	1035	45
795-05.01	HDD 2IN HDPE CARRIER PIPE-UNCON	L.F.	50	1000
795-05.22	HDD 16IN HDPE CASING PIPE-ROCK	L.F.	0	1350
795-05.63	BORE/JACK 12IN STEEL CASING PIPE-UNCON	L.F.	50	50
795-05.65	BORE/JACK 16IN STEEL CASING PIPE-UNCON	L.F.	0	50
795-05.68	BORE/JACK 24IN STEEL CASING PIPE-UNCON	L.F.	20	50
795-06.01	CONNECT TO 2IN WATER LINE	EACH	2	2
795-06.02	CONNECT T0 3IN WATER LINE	EACH	1	0
795-06.04	CONNECT TO 6IN WATER LINE	EACH	2	50
795-06.05	CONNECT TO 8IN WATER LINE	EACH	0	1
795-06.06	CONNECT TO 10IN WATER LINE	EACH	1	1
795-08.03	4IN GATE VALVE ASSEMBLY	EACH	1	0
795-08.04	6IN GATE VALVE ASSEMBLY	EACH	7	0
795-08.05	8IN GATE VALVE ASSEMBLY	EACH	6	3
795-08.06	10IN GATE VALVE ASSEMBLY	EACH	0	1
795-08.09	12IN GATE VALVE ASSEMBLY	EACH	6	7
795-09.01	3/4IN WATER SERVICE METER ASSEMBLY	EACH	13	10

ESTIMATED UTILITY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	73008-3243-14 QUANTITY	65001-3266-14 QUANTITY
795-09.12	2IN COPPER SERVICE PIPE	L.F.	75	0
795-09.14	3/4IN HDPE SERVICE PIPE	L.F.	100	100
795-09.28	3/4IN COPPER SERVICE PIPE	L.F.	400	1600
795-09.29	1IN COPPER SERVICE PIPE	L.F.	55	0
795-10.03	1IN AUTO AIR RELEASE VALVE ASSEMBLY	EACH	5	8
795-11.01	BLOW-OFF ASSEMBLY	EACH	1	1
795-11.02	FIRE HYDRANT ASSEMBLY	EACH	2	3
795-12.01	REMOVE FIRE HYDRANT	EACH	1	1
795-13.01	DI FITTINGS	LBS	3000	2500
795-13.02	HDPE FITTINGS	LBS	0	600
795-14.05	CONCRETE ENCASEMENT	L.F.	50	50
795-15.02	12IN STEEL CASING PIPE OPEN CUT METHOD	L.F.	310	0
795-15.04	18IN STEEL CASING PIPE OPEN CUT METHOD	L.F.	0	160
795-15.07	24IN STEEL CASING PIPE OPEN CUT METHOD	L.F.	110	0
796-06.03	CONNECT TO 4IN WATER LINE	EACH	1	0

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SEE SHEET U1-1 FOR INDEX OF UTILITY SHEETS. APPLICABLE FOOTNOTES FOR ESTIMATED UTILITIES QUANTITIES WILL BE ON THE UTILITY TABULATION BLOCKS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ESTIMATED UTILITIES QUANTITIES

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2C
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2D

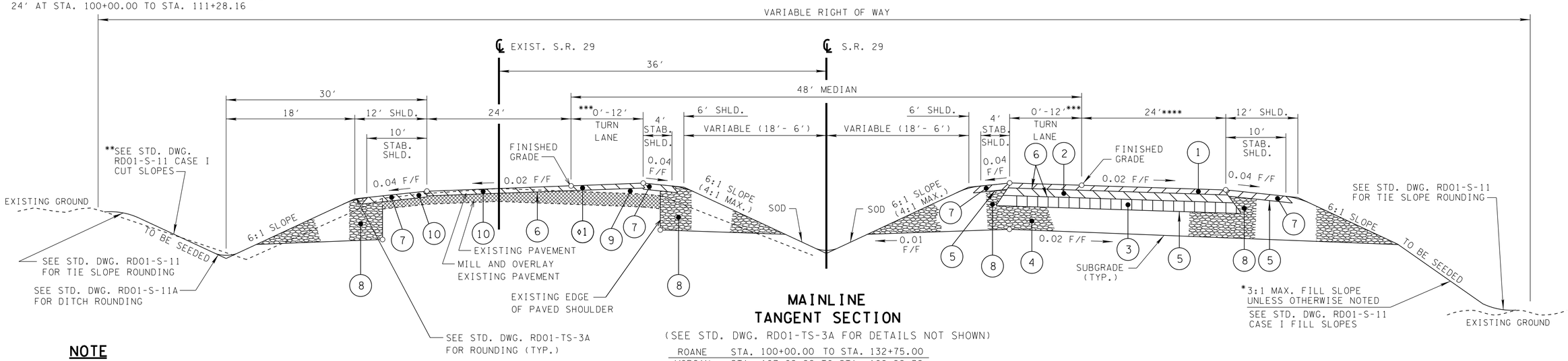
* USE 2:1 FILL SLOPE FROM STA. 127+75 TO STA. 132+50, LT.

** A 15-FOOT WIDE BENCH IS REQUIRED EVERY 30 VERTICAL FEET OF A 2:1 CUT SLOPE. A BENCH IS NOT REQUIRED IF THE EXTENSION OF THE 2:1 CUT SLOPE AN ADDITIONAL 10 VERTICAL FEET OR LESS (FOR A TOTAL MAXIMUM VERTICAL HEIGHT OF 40 FEET) INTERSECTS THE EXISTING SLOPE. (SEE CROSS-SECTIONS)

*** INSIDE TURN LANE LOCATIONS (INCLUDING TAPER)
BUSINESS ENTRANCE STA. 113+67.66 - STA. 116+53.00 (RIGHT)
ROCK BRIDGE RD STA. 125+85.00 - STA. 132+15.00 (LEFT)
SANDERS LANE STA. 135+50.00 - 138+30.46 (RIGHT)
COAL HILL RD STA. 167+93.45 - 171+00.00 (LEFT)

**** REQUIRED PAVEMENT WIDTH VARIES FROM 36' TO 24' AT STA. 100+00.00 TO STA. 111+28.16

◊ IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "B-M2" MIX ALSO USE AS NEEDED FOR LEVELING TO ACHIEVE PROPOSED CROSS SLOPES AND ELEVATIONS.



MAINLINE TANGENT SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

ROANE	STA. 100+00.00 TO STA. 132+75.00
MORGAN	STA. 167+09.99 TO STA. 168+22.32 - SEE COAL HILL ROAD SHEET 2H
	STA. 191+43.06 TO STA. 199+50.00
	STA. 203+00.00 TO STA. 213+00.59
	STA. 230+75.00 TO STA. 241+17.75
	STA. 253+18.72 TO STA. 259+00.00 ■

■ STA. 250+68 TO STA. 259+00 NORTHBOUND LANES LOCATED OUTSIDE OF THE TAPER- CONSTRUCT CRUSHED STONE BASE AND PRIME COAT (WITH COVER MATERIAL) ONLY.

NOTE

1. SEE SHEET 2F FOR REQUIRED RETAINING WALLS AND DETAILS.
2. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
3. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.
4. 2:1 BACKSLOPE REQUIRED TO PROTECT ADJACENT PROPERTIES OF ARCHAEOLOGICAL SIGNIFICANCE STA. 104+00 TO STA 110+50(LT).

PROPOSED PAVEMENT SCHEDULE - MAINLINE & S.R. 29 TAPER

(1) SURFACE AT 1.25" THICK (132.5 LBS/SQ. YD.) ITEM NUMBER 411-01.10 ACS MIX (PG64-22) GRADING D	(6) TACK COAT ITEM NUMBER 403-01 BITUMINOUS MATERIAL FOR TACK COAT (0.07 GAL/SQ. YD.) GENERAL USE (0.10 GAL/SQ. YD.) MILLING-COLD PLANING
(2) BINDER AT 2" THICK (226 LBS./SQ. YD) ITEM NUMBER 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	(7) SURFACE(SHOULDERS)AT 1.5" THICK(154.5 LBS/SQ.YD.) ITEM NUMBER 411-01.07 ACS MIX (PG64-22) GRADING E SHOULDER
(3) BLACK BASE AT 3" THICK (345 LBS./SQ. YD.) ITEM NUMBER 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	(8) CRUSHED STONE BASE AT 14.75" THICK (SHOULDERS) ITEM NUMBER 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D
(4) CRUSHED STONE BASE AT 10" THICK (ROADWAY) ITEM NUMBER 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D	(9) LEVELING, THICKNESS AND RATE VARIES ITEM NUMBER 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2
(5) PRIME COAT ITEM NUMBER 402-01 - BITUMINOUS MATERIAL FOR PRIME COAT(0.35 GAL/SQ.YD.) ITEM NUMBER 402-02 - AGGREGATE FOR COVER MATERIAL PRIME COAT (12 LBS/SQ.YD.)	(10) PLANING, THICKNESS VARIES 1.25" (TRAVEL LANE) TO 1.50" (SHOULDER) ITEM NUMBER 415-01.02 COLD PLANING BITUMINOUS PAVEMENT (SQ YD)

OUTSIDE SHOULDER GUARDRAIL PLACEMENT

SEE TYPICAL SR-29 GUARDRAIL LOCATION DETAIL SHEET 2N

	STA. 100+00.00 TO STA. 104+96.00 (RT.)
	STA. 105+11.00 TO STA. 108+50.00 (RT.)
	STA. 120+80.00 TO STA. 128+82.00 (RT.)
	STA. 127+90.00 TO STA. 128+86.00 (LT.)
	STA. 129+13.00 TO STA. 137+20.00 (LT.)
	STA. 139+08.00 TO STA. 141+84.00 (LT.)
	STA. 141+89.00 TO STA. 142+20.00 (RT.)
	STA. 144+69.00 TO STA. 150+24.00 (LT.)
	STA. 144+76.00 TO STA. 147+37.00 (RT.)
	STA. 150+35.00 TO STA. 151+32.00 (LT.)
	STA. 152+69.00 TO STA. 155+00.00 (RT.)
ROANE	STA. 159+34.00 TO STA. 162+71.46 (LT.)
MORGAN	STA. 162+71.46 TO STA. 171+64.00 (LT.)
	STA. 170+92.00 TO STA. 173+10.00 (RT.)
	STA. 174+56.00 TO STA. 178+46.00 (LT.)
	STA. 175+67.00 TO STA. 176+53.00 (RT.)
	STA. 180+83.00 TO STA. 181+65.00 (LT.)
	STA. 182+95.00 TO STA. 184+51.00 (RT.)
	STA. 191+73.00 TO STA. 194+81.00 (RT.)
	STA. 199+98.00 TO STA. 207+25.00 (LT.)
	STA. 210+77.00 TO STA. 213+40.00 (RT.)
	STA. 221+42.00 TO STA. 223+85.00 (RT.)
	STA. 229+60.71 TO STA. 230+99.00 (RT.)
	STA. 230+99.00 TO STA. 232+93.00 (LT.)
	STA. 233+07.00 TO STA. 236+76.00 (LT.)
	STA. 235+52.22 TO STA. 236+95.13 (RT.)
	STA. 254+69.00 TO STA. 258+45.00 (LT.)

INSIDE SHOULDER GUARDRAIL PLACEMENT

SEE TYPICAL SR-29 GUARDRAIL LOCATION DETAIL SHEET 2N

	STA. 140+55.00 TO STA. 142+08.00 (RT.)
ROANE	STA. 144+70.00 TO STA. 146+35.00 (LT.)
MORGAN	STA. 170+95.00 TO STA. 172+64.00 (RT.)
	STA. 175+03.00 TO STA. 176+61.00 (LT.)
	STA. 175+35.00 TO STA. 176+65.00 (RT.)
	STA. 180+90.00 TO STA. 182+55.00 (LT.)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TYPICAL SECTIONS

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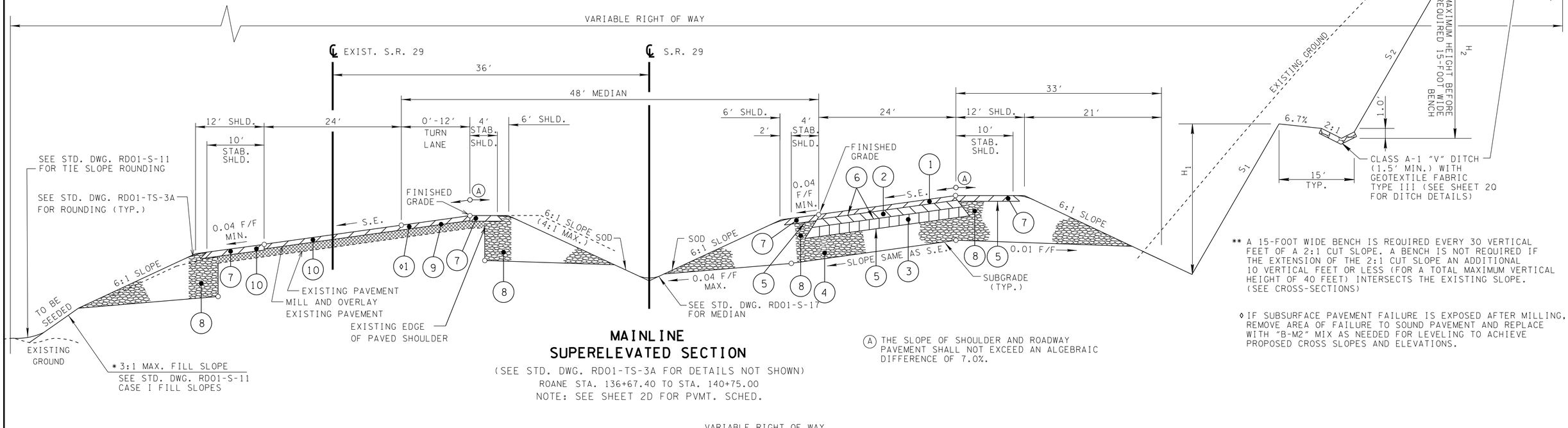
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2D
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2E

MAINLINE LOCATION	H_1	S_1	H_2	S_2
STA. 136+67.40 TO STA. 138+75.00, RT.	20′	0.25:1	30′	2:1
STA. 138+75.00 TO STA. 139+25.00, RT.	*	0.5:1	*	2:1
STA. 139+25.00 TO STA. 139+75.00, RT.	*	1:1	*	2:1
STA. 139+75.00 TO STA. 140+25.00, RT.	*	1.5:1	*	2:1
STA. 140+25.00 TO STA. 140+75.00, RT.	*	2:1	*	2:1

* VARIES SEE CROSS SECTIONS



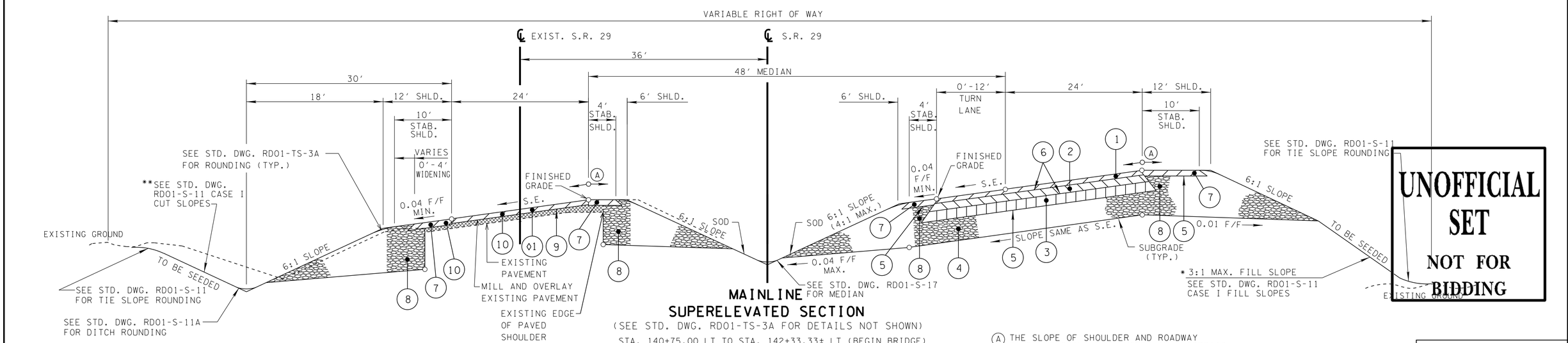
** A 15-FOOT WIDE BENCH IS REQUIRED EVERY 30 VERTICAL FEET OF A 2:1 CUT SLOPE. A BENCH IS NOT REQUIRED IF THE EXTENSION OF THE 2:1 CUT SLOPE AN ADDITIONAL 10 VERTICAL FEET OR LESS (FOR A TOTAL MAXIMUM VERTICAL HEIGHT OF 40 FEET) INTERSECTS THE EXISTING SLOPE. (SEE CROSS-SECTIONS)

◊ IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "B-M2" MIX AS NEEDED FOR LEVELING TO ACHIEVE PROPOSED CROSS SLOPES AND ELEVATIONS.

MAINLINE SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)
ROANE STA. 136+67.40 TO STA. 140+75.00
NOTE: SEE SHEET 2D FOR PVMT. SCHED.

(A) THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.



MAINLINE SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

ROANE
STA. 140+75.00 LT TO STA. 142+33.33± LT (BEGIN BRIDGE)
STA. 144+32.44± LT (END BRIDGE) TO STA. 154+66.02 LT
STA. 140+75.00 RT TO STA. 142+46.40± RT (BEGIN BRIDGE)
STA. 144+37.46± RT (END BRIDGE) TO STA. 154+66.02 RT

MORGAN
STA. 168+22.32 LT TO STA. 172+52.78± LT (BEGIN BRIDGE)
STA. 174+56.03± LT (END BRIDGE) TO STA. 178+46.12 LT (BEGIN BRIDGE)
STA. 180+50.01± LT (END BRIDGE) TO STA. 184+10.00 LT
STA. 168+22.32 RT TO STA. 173+09.32± RT (BEGIN BRIDGE)
STA. 180+29.02± RT (END BRIDGE) TO STA. 184+10.00 RT
STA. 213+00.59 TO STA. 222+37.00
STA. 241+17.75 TO STA. 253+18.72 ■

NOTE: SEE SHEET 2D FOR PVMT. SCHED.

(A) THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

* USE 2:1 FILL SLOPES FROM STA 140+50 TO STA 142+50, LT. FROM STA 144+50 TO STA 145+50, RT. AND STA. 147+00 RT.

■ STA. 250+68 TO STA. 259+00 NORTHBOUND LANES- CONSTRUCT CRUSHED STONE BASE AND PRIME COAT (WITH COVER MATERIAL) ONLY.

UNOFFICIAL SET
NOT FOR BIDDING

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING ROCK CUT, SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

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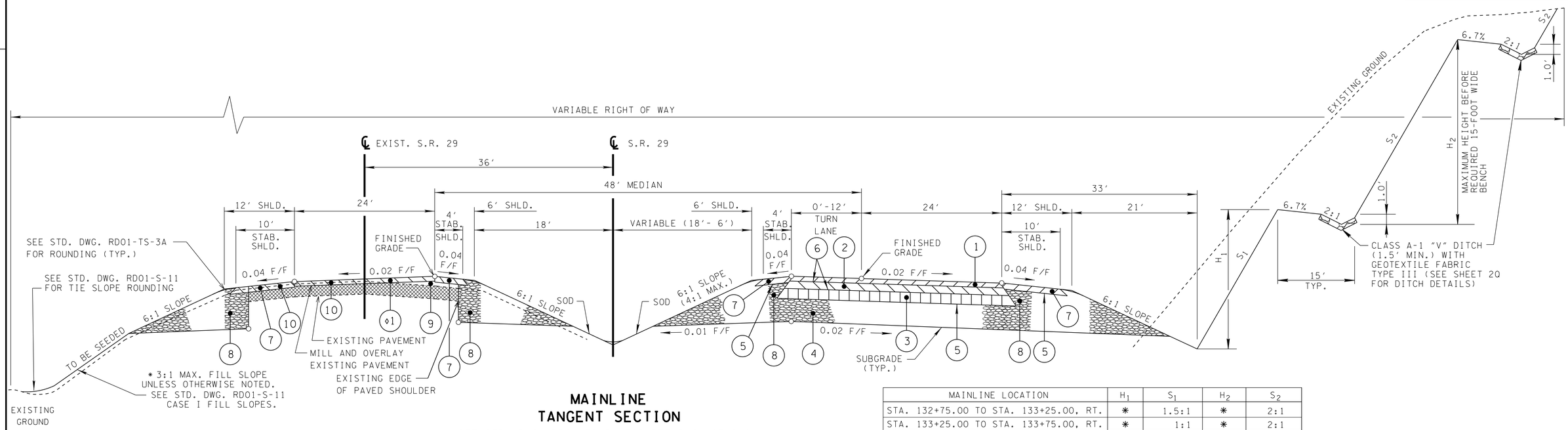
TYPICAL SECTIONS

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2E
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2F

◊ IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "B-M2" MIX AS NEEDED FOR LEVELING TO ACHIEVE PROPOSED CROSS SLOPES AND ELEVATIONS.



MAINLINE TANGENT SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

ROANE	STA. 132+75.00 TO STA. 136+67.40
MORGAN	STA. 199+50.00 TO STA. 203+00.00

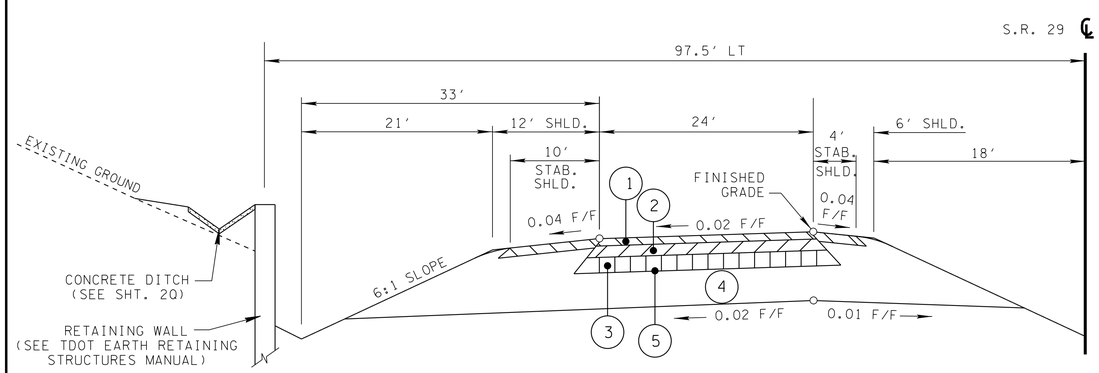
NOTE: SEE SHEET 2D FOR PVMT. SCHED.

MAINLINE LOCATION	H_1	S_1	H_2	S_2
STA. 132+75.00 TO STA. 133+25.00, RT.	*	1.5:1	*	2:1
STA. 133+25.00 TO STA. 133+75.00, RT.	*	1:1	*	2:1
STA. 133+75.00 TO STA. 136+67.40, RT.	20′	0.25:1	30′	2:1
STA. 199+50.00 TO STA. 203+00.00, RT.	30′	2:1	30′	2:1

* VARIES SEE CROSS SECTIONS

*USE 2:1 FILL SLOPE FROM STA. 132+50 TO STA. 134+75, LT.

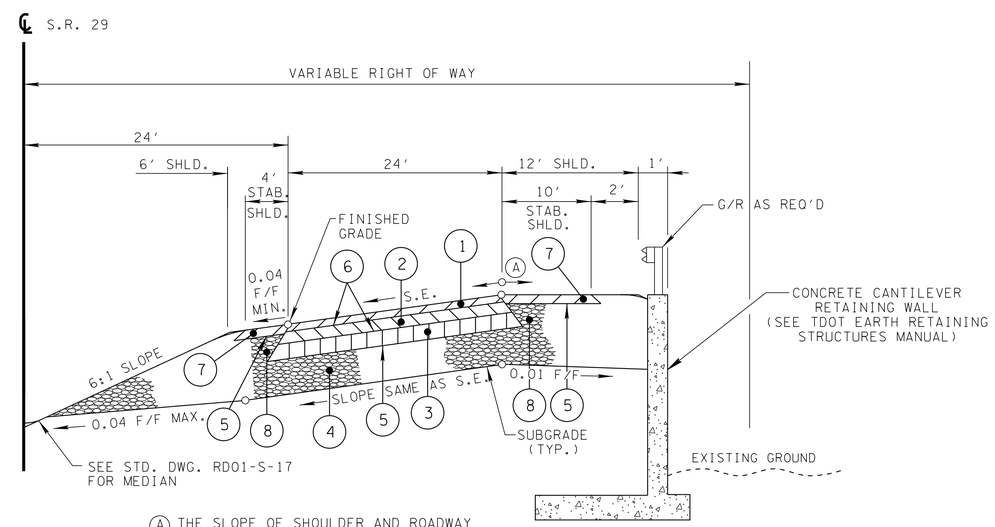
USE 2:1 TO 1:1 FILL SLOPES FROM STA. 161+50 TO STA. 173+09.57, LT.



MAINLINE TANGENT SECTION

(RETAINING WALL LEFT)

MORGAN STA. 177+00 LT TO STA. 177+50 LT



Ⓐ THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

MAINLINE SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

MORGAN STA. 174+96.87 RT (END BRIDGE) TO STA. 177+04.02 RT (BEGIN BRIDGE)

NOTE: SEE SHEET 2D FOR PVMT. SCHED.

UNOFFICIAL SET

NOT FOR BIDDING

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING ROCK CUT, SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

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Survey & Design Division

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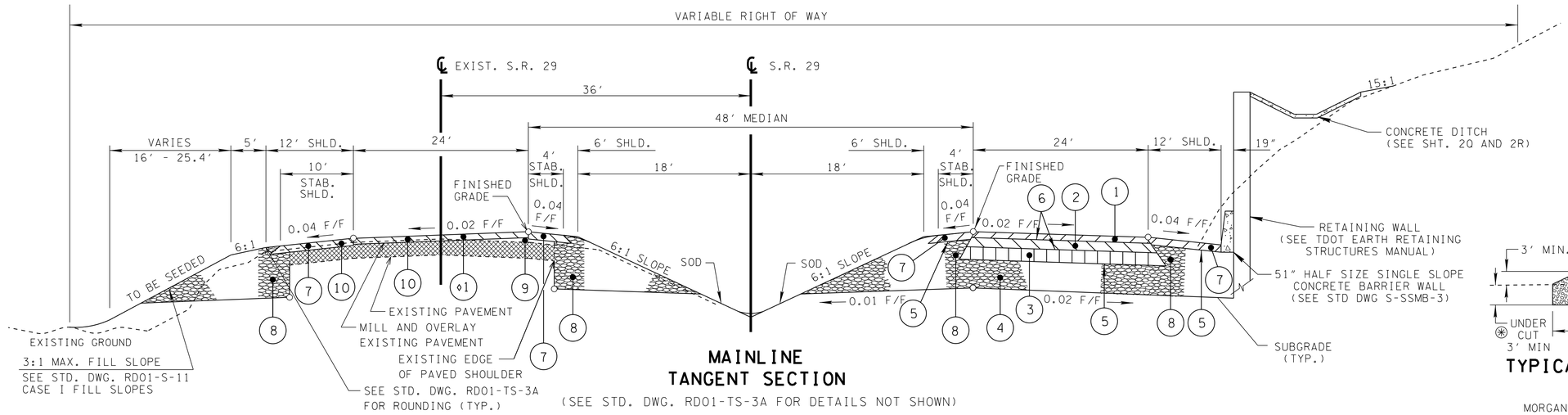
TYPICAL SECTIONS

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2F
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2G



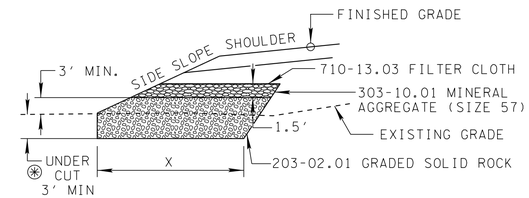
MAINLINE TANGENT SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

◊ IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "B-M2" MIX AS NEEDED FOR LEVELING TO ACHIEVE PROPOSED CROSS SLOPES AND ELEVATIONS.

ROANE	STA. 155+20.64 TO STA. 162+71.46
MORGAN	STA. 162+71.46 TO STA. 167+09.99
	STA. 184+40.92 TO STA. 191+43.06
	STA. 228+97.26 TO STA. 230+75.00

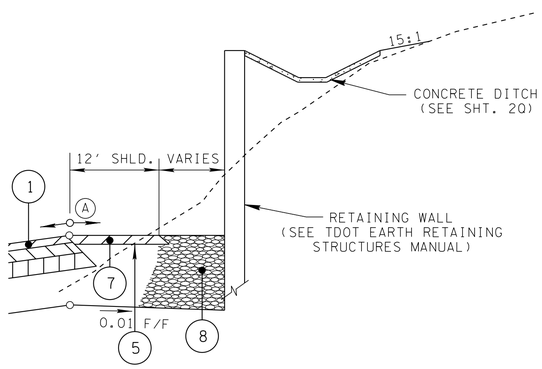
NOTE: SEE SHEET 2D FOR PVMT. SCHED.



TYPICAL SECTION - ROCK FILL PAD ⊛ (UNDERCUT AREAS)

MORGAN	STA. 192+69 - 197+51 RT, X= 0′- 80′⊛
	STA. 197+25 - 198+30 LT, X= 0′- 50′⊛
	STA. 241+71 - 242+34 RT, X= 0′- 60′⊛
	STA. 245+02 - 250+85 RT, X= 0′-150′⊛

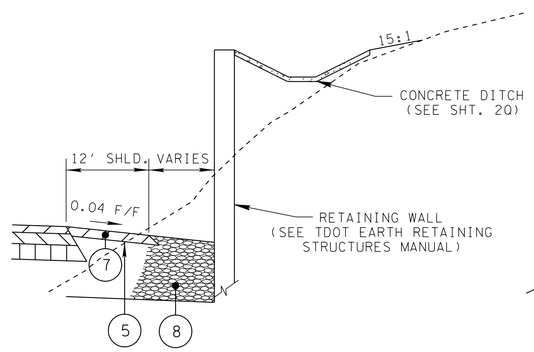
⊛ AS DIRECTED BY THE TDOT SUPERVISOR



RETAINING WALL TAPERED END SECTIONS SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

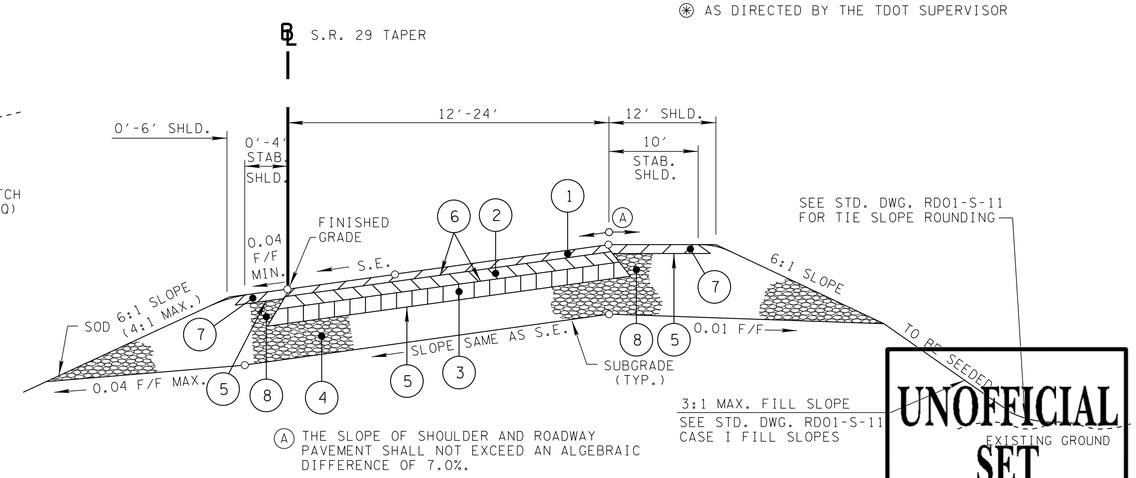
MORGAN STA. 222+37.00 TO STA. 223+85.35



RETAINING WALL TAPERED END SECTIONS TANGENT SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

MORGAN STA. 184+10.00 TO STA. 184+50.41
STA. 229+60.71 TO STA. 230+75.00



Ⓐ THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

S.R. 29 TAPER SUPERELEVATED SECTION

MORGAN STA. 10+00.00 TO STA. 18+35.82

UNOFFICIAL SET

NOT FOR BIDDING

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

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TYPICAL SECTIONS

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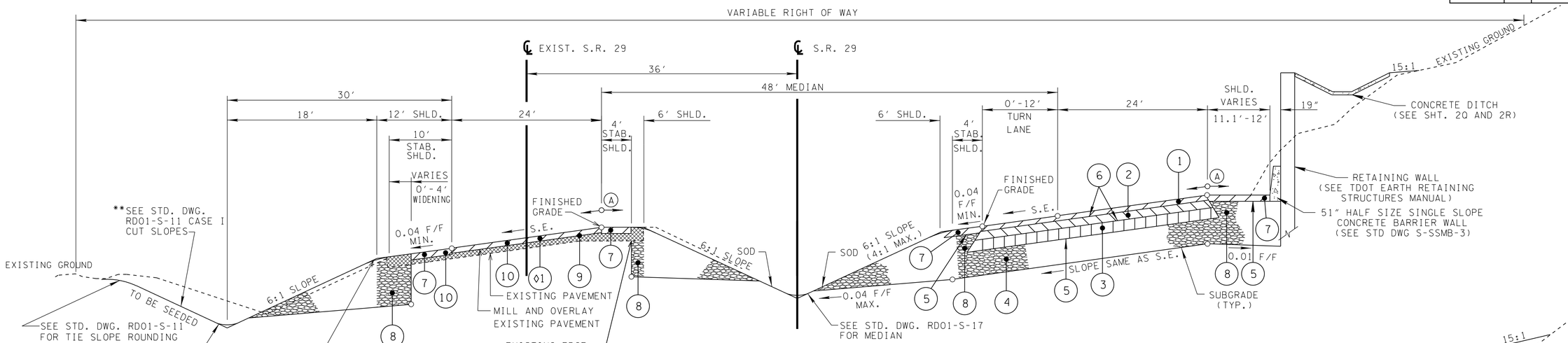
DESIGN DIVISION
FILE NO.

◊ IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "B-M2" MIX ALSO USE AS NEEDED FOR LEVELING TO ACHIEVE PROPOSED CROSS SLOPES AND ELEVATIONS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2K
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2H

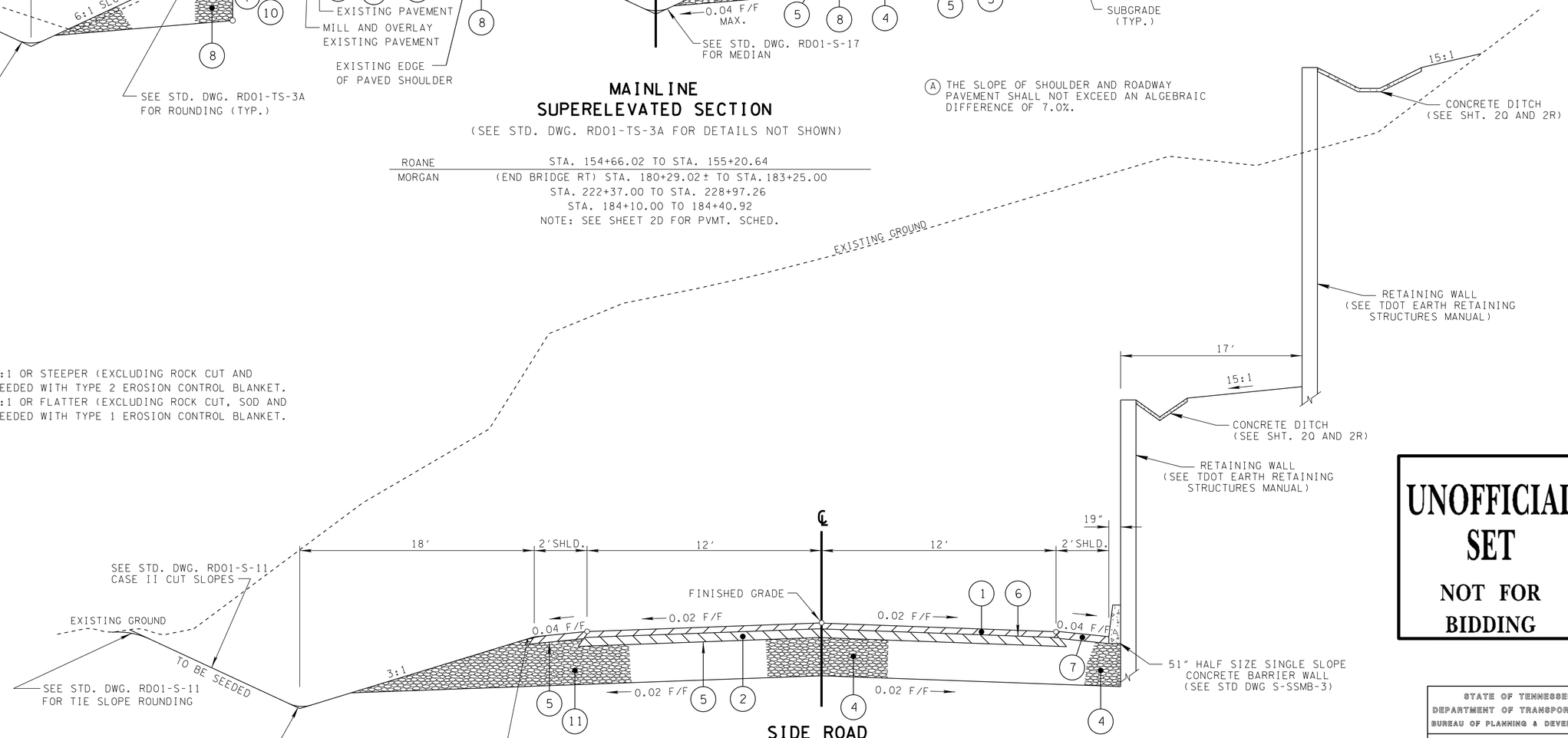


MAINLINE SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-3A FOR DETAILS NOT SHOWN)

Ⓐ THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

ROANE	STA. 154+66.02 TO STA. 155+20.64
MORGAN	(END BRIDGE RT) STA. 180+29.02± TO STA.183+25.00
	STA. 222+37.00 TO STA. 228+97.26
	STA. 184+10.00 TO 184+40.92
	NOTE: SEE SHEET 2D FOR PVMT. SCHED.



SIDE ROAD TANGENT SECTION

(SEE STD. DWG. RD01-TS-1 FOR DETAILS NOT SHOWN)

MORGAN STA. 43+05.68 TO STA. 47+05.38 COAL HILL ROAD (RT.), S.R. 29 STA. 167+59.42

NOTE: SEE SHEET 2J FOR SIDE ROAD PAVEMENT SCHEDULE

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING ROCK CUT, SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

UNOFFICIAL SET

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TYPICAL SECTIONS

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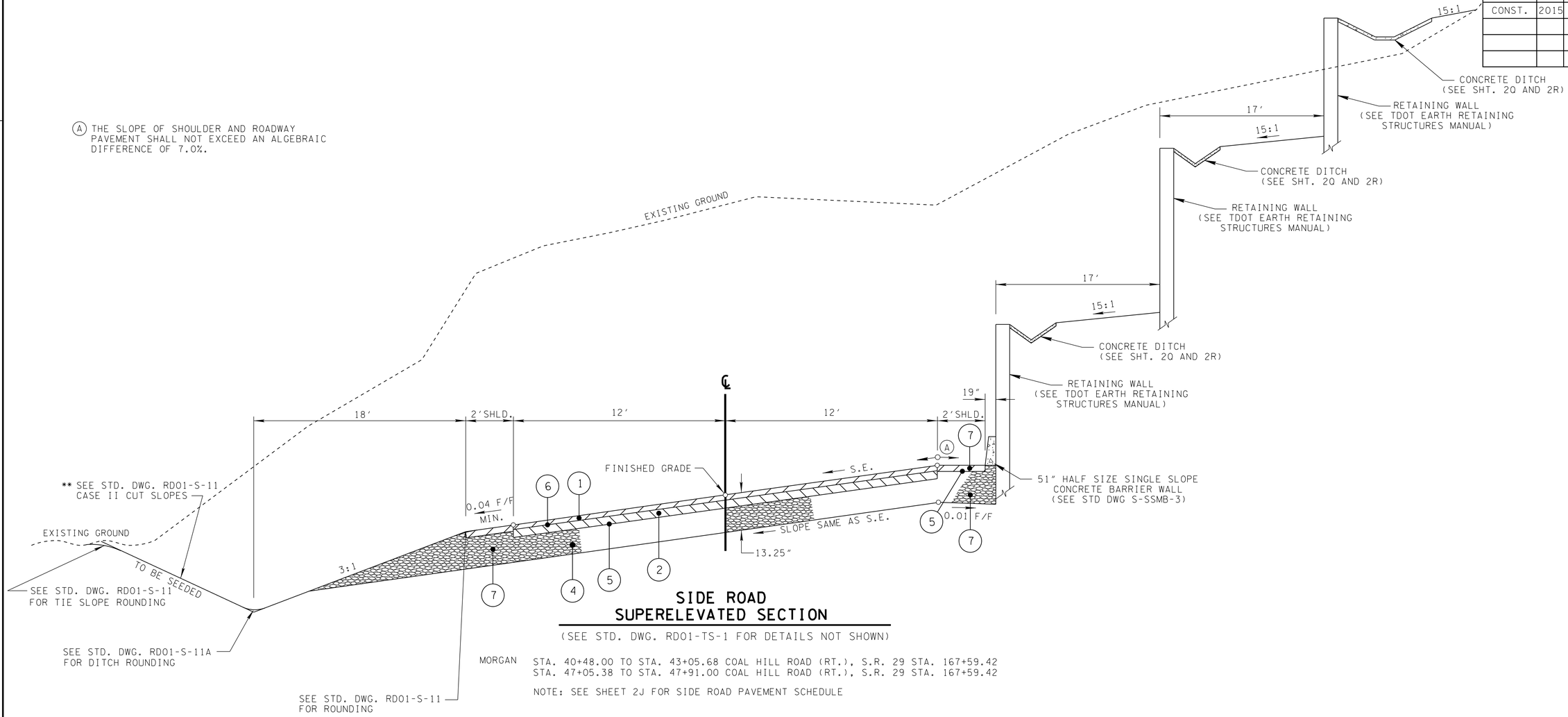
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2I

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

(A) THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

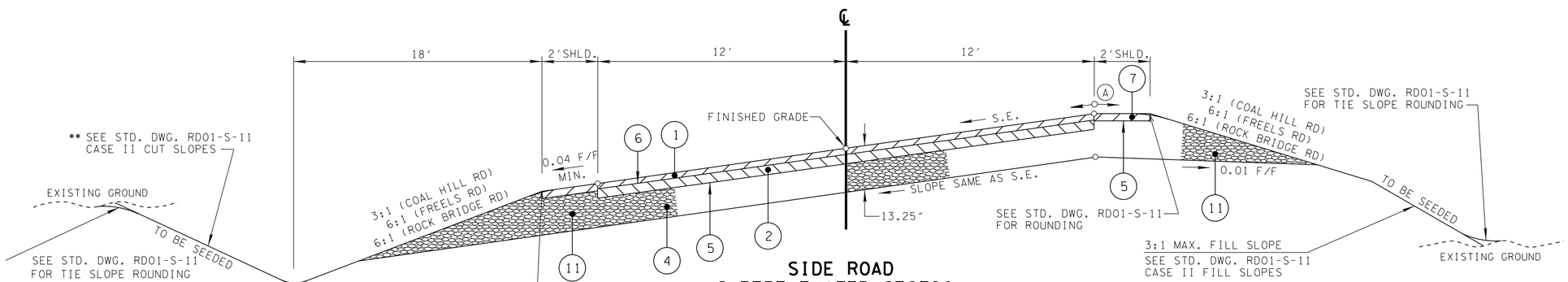


SIDE ROAD SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-1 FOR DETAILS NOT SHOWN)

MORGAN STA. 40+48.00 TO STA. 43+05.68 COAL HILL ROAD (RT.), S.R. 29 STA. 167+59.42
STA. 47+05.38 TO STA. 47+91.00 COAL HILL ROAD (RT.), S.R. 29 STA. 167+59.42

NOTE: SEE SHEET 2J FOR SIDE ROAD PAVEMENT SCHEDULE



SIDE ROAD SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-1 FOR DETAILS NOT SHOWN)

ROANE STA. 37+20.00 TO STA. 39+52.00 FREELS ROAD (LT.), S.R. 29 STA. 100+45.00
STA. 40+48.00 TO STA. 42+75.00 ROCK BRIDGE ROAD (RT.), S.R. STA. 129+00.00

MORGAN STA. 47+91.00 TO STA. 49+90.00 COAL HILL ROAD (RT.), S.R. 29 STA. 167+59.42

NOTE: SEE SHEET 2J FOR SIDE ROAD PAVEMENT SCHEDULE

UNOFFICIAL SET

NOT FOR BIDDING

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING ROCK CUT, SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

STATE OF TENNESSEE
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BUREAU OF PLANNING & DEVELOPMENT

TYPICAL SECTIONS

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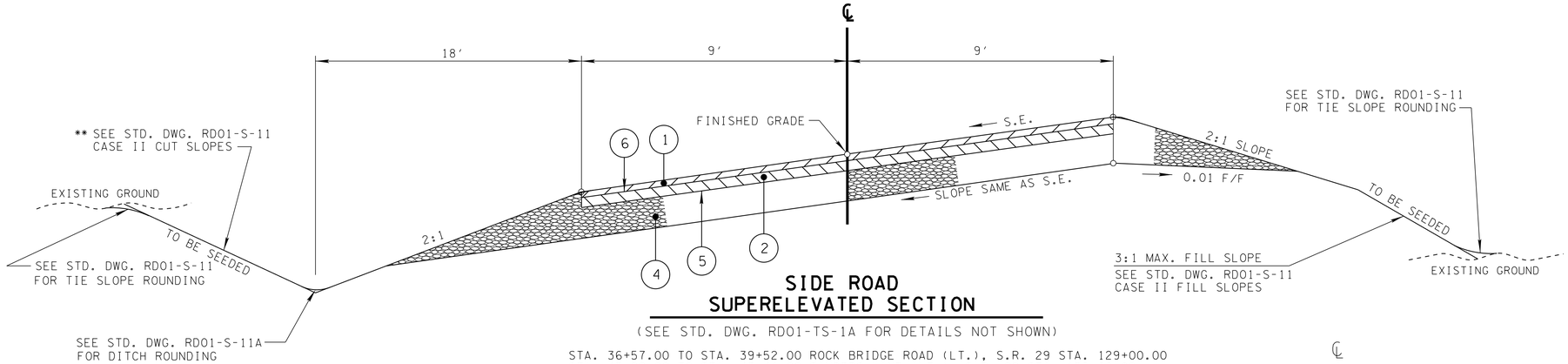
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2L
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2J

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



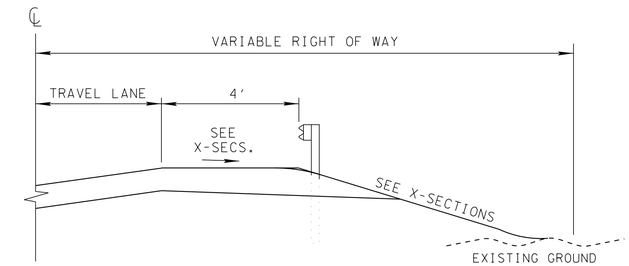
SIDE ROAD SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-1A FOR DETAILS NOT SHOWN)

ROANE STA. 36+57.00 TO STA. 39+52.00 ROCK BRIDGE ROAD (LT.), S.R. 29 STA. 129+00.00
STA. 45+20.00 TO STA. 47+41.00 SANDERS LANE (LT.), S.R. 29 STA. 138+60.00

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.



TYPICAL SIDE ROAD GUARDRAIL PLACEMENT

SEE TDOT STANDARD FOR INSTALLATION DETAILS

GUARDRAIL PLACEMENT

SEE TYPICAL SIDE ROAD GUARDRAIL LOCATION DETAIL THIS SHEET

STA. 46+28.09 SANDERS LANE TO STA. 47+26.32 SANDERS LANE (LT)
ROANE STA. 3+50.00 TEDDER LANE TO STA. 8+20.43 TEDDER LANE (LT.)
MORGAN STA. 48+50.69 COAL HILL ROAD TO STA. 49+91.68 COAL HILL ROAD (LT.)

PROPOSED PAVEMENT SCHEDULE - SIDE ROADS

(1) SURFACE AT 1.25" THICK (132.5 LBS/SQ. YD.)
ITEM NUMBER 411-01.10
ACS MIX (PG64-22) GRADING D

(2) BINDER AT 2" THICK (226 LBS./SQ. YD)
ITEM NUMBER 307-01.08
ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM)
GRADING B-M2

(4) CRUSHED STONE BASE AT 10" THICK
ITEM NUMBER 303-01
MINERAL AGGREGATE, TYPE A BASE, GRADING D

(5) PRIME COAT
ITEM NUMBER 402-01 - BITUMINOUS MATERIAL FOR PRIME COAT(0.35 GAL/SQ.YD.)
ITEM NUMBER 402-02 - AGGREGATE FOR COVER MATERIAL PRIME COAT (12 LBS/SQ.YD.)

(6) TACK COAT
ITEM NUMBER 403-01
BITUMINOUS MATERIAL FOR TACK COAT
(0.07 GAL/SQ. YD.) GENERAL USE
(0.10 GAL/SQ. YD.) MILLING-COLD PLANING

(7) SURFACE(SHOULDERS)AT 1.5" THICK(154.5 LBS/SQ.YD.)
ITEM NUMBER 411-01.07
ACS MIX (PG64-22) GRADING E SHOULDER

(11) CRUSHED STONE BASE AT 11.75" THICK (SHOULDERS)
ITEM NUMBER 303-01
MINERAL AGGREGATE, TYPE A BASE, GRADING D

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TYPICAL SECTIONS

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2M
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2K

TENNESSEE D.O.T.
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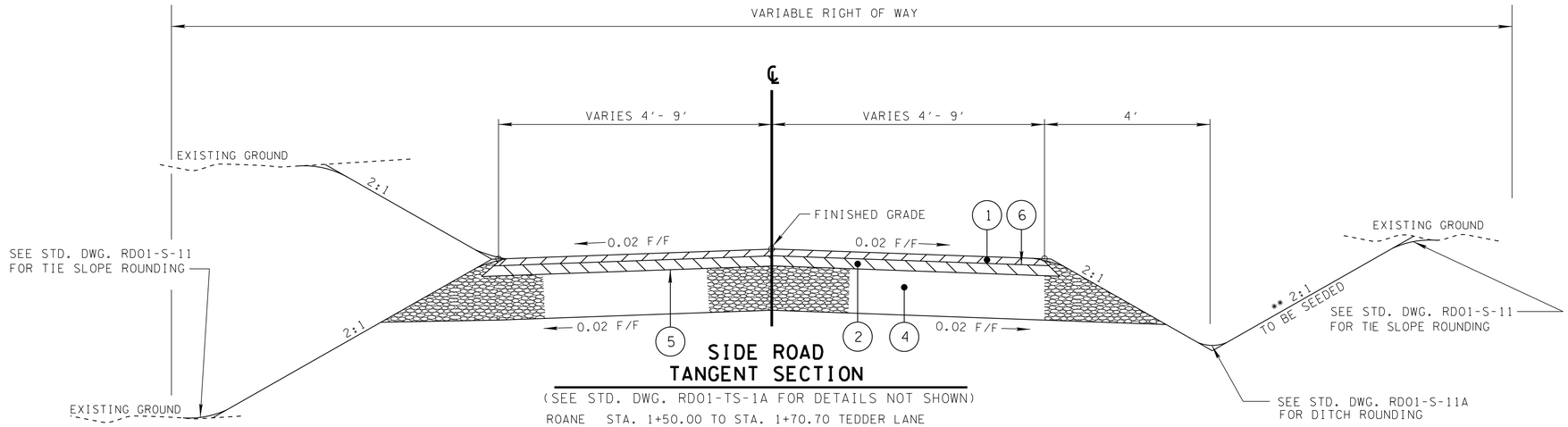
FILE NO.

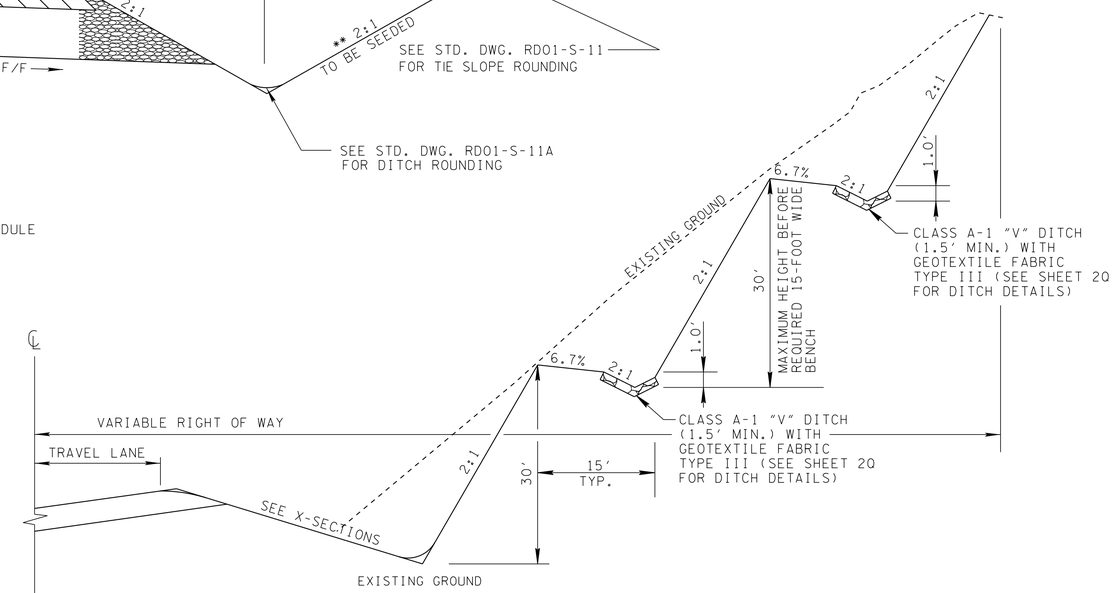


SIDE ROAD TANGENT SECTION

(SEE STD. DWG. RD01-TS-1A FOR DETAILS NOT SHOWN)

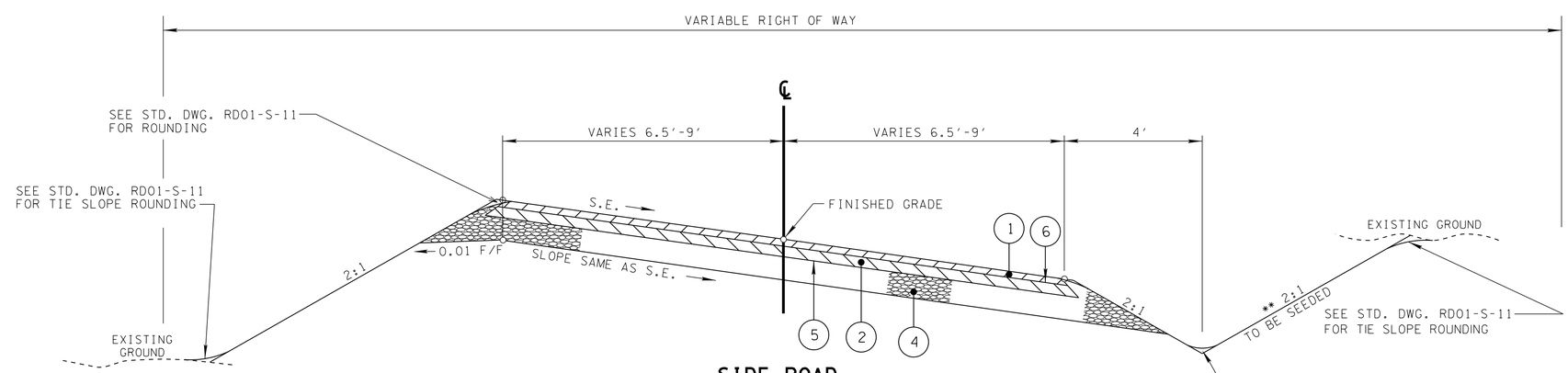
ROANE STA. 1+50.00 TO STA. 1+70.70 TEDDER LANE
STA. 5+52.56 TO STA. 5+72.57 TEDDER LANE
STA. 9+32.57 TO STA. 9+45.00 TEDDER LANE

NOTE: SEE SHEET 2J FOR SIDE ROAD PAVEMENT SCHEDULE



TEDDER LANE SIDE ROAD BENCHING

** A 15-FOOT WIDE BENCH IS REQUIRED EVERY 30 VERTICAL FEET OF A 2:1 CUT SLOPE. A BENCH IS NOT REQUIRED IF THE EXTENSION OF THE 2:1 CUT SLOPE AN ADDITIONAL 10 VERTICAL FEET OR LESS (FOR A TOTAL MAXIMUM VERTICAL HEIGHT OF 40 FEET) INTERSECTS THE EXISTING SLOPE. (SEE CROSS-SECTIONS)



SIDE ROAD SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-1A FOR DETAILS NOT SHOWN)

ROANE STA. 1+70.70 TO STA. 5+52.56 TEDDER LANE
STA. 5+72.57 TO STA. 9+32.57 TEDDER LANE
NOTE: SEE SHEET 2J FOR SIDE ROAD PAVEMENT SCHEDULE

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TYPICAL SECTIONS

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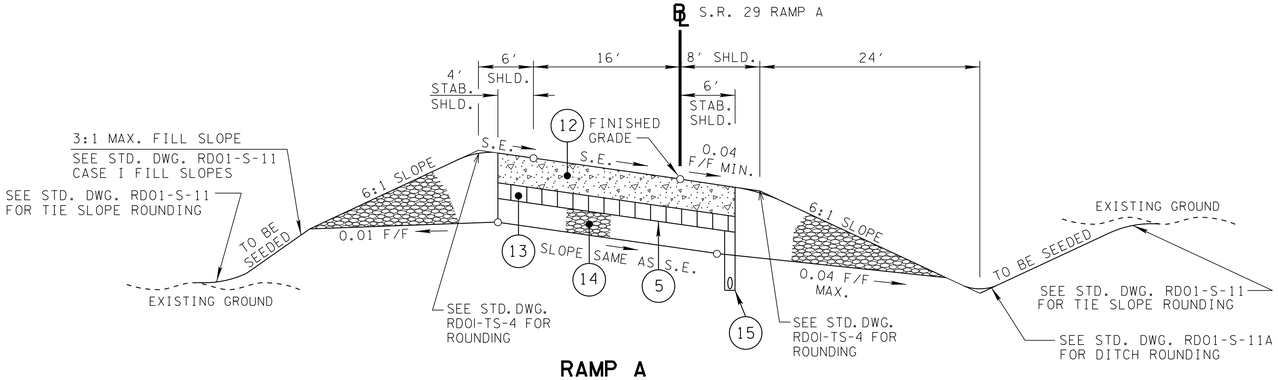
Survey & Design Division

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

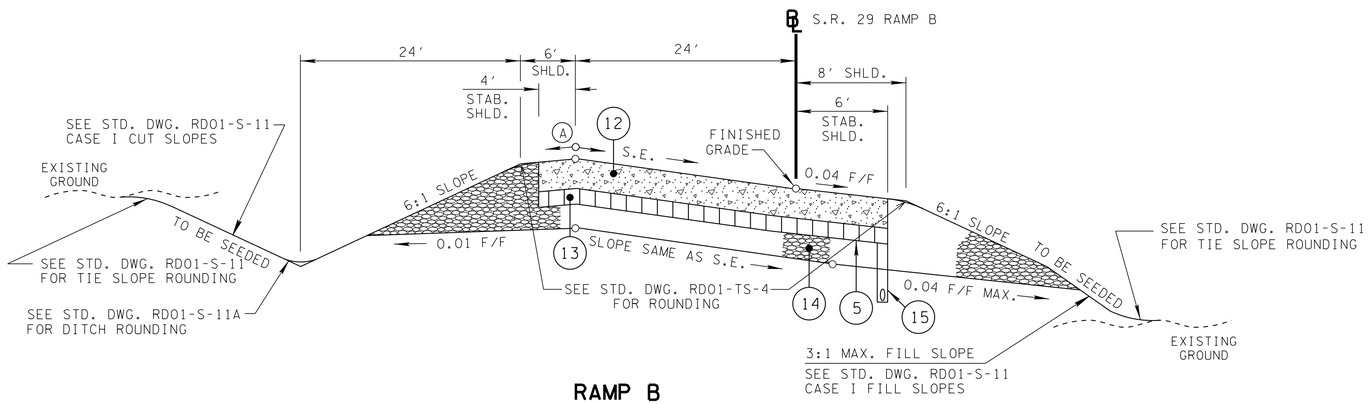
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2P
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2L



RAMP A
SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-4 FOR DETAILS NOT SHOWN)

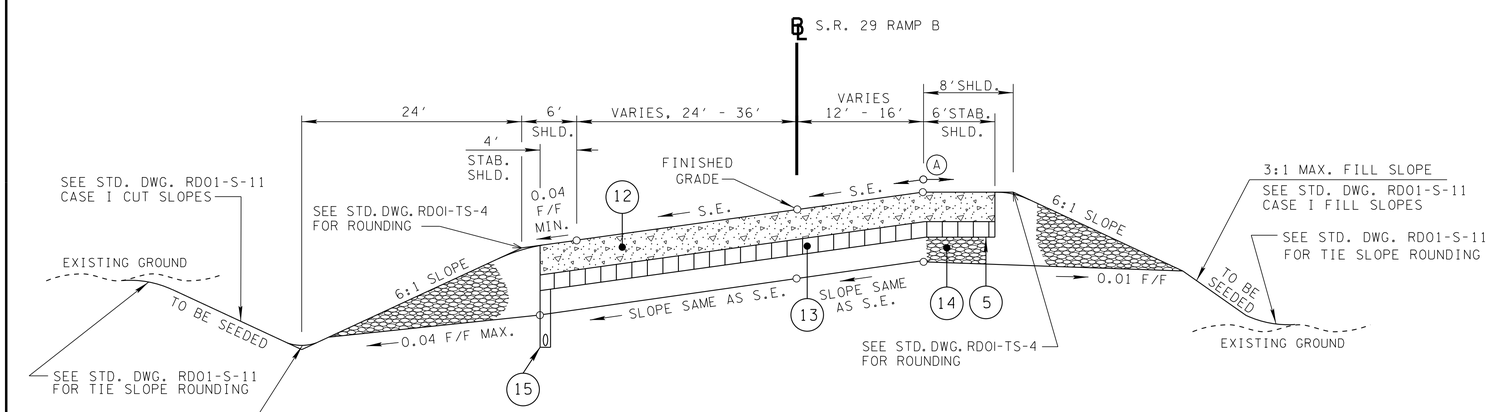
ROANE S.R. 29 RAMP A STA. 2+00.00 TO STA. 7+03.38



RAMP B
SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-4 FOR DETAILS NOT SHOWN)

ROANE S.R. 29 RAMP B STA.10+00.00 TO STA. 17+60.00



RAMP B
SUPERELEVATED SECTION

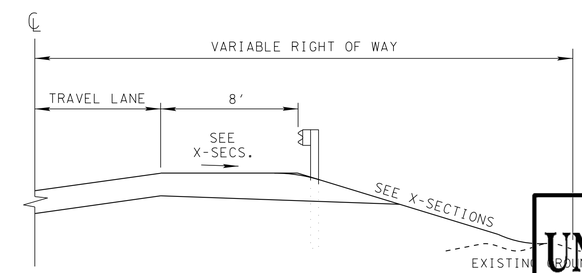
(SEE STD. DWG. RD01-TS-4 FOR DETAILS NOT SHOWN)

ROANE S.R. 29 RAMP B STA.17+60.00 TO STA. 22+61.84

(A) THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

PROPOSED PAVEMENT SCHEDULE - RAMPS

(12)	SURFACE AT 10" THICK ITEM NUMBER 501-01.03 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"
(13)	BASE AT 4" THICK ITEM NUMBER 313-03 TREATED PERMEABLE BASE
(14)	CRUSHED STONE BASE AT 6" THICK ITEM NUMBER 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D
(5)	PRIME COAT ITEM NUMBER 402-01 - BITUMINOUS MATERIAL FOR PRIME COAT(0.35 GAL/SQ.YD.) ITEM NUMBER 402-02 - AGGREGATE FOR COVER MATERIAL PRIME COAT (12 LBS/SQ.YD.)
(15)	AGGREGATE UNDERDRAIN (STD. DWG. RD-UD-3) DETAIL "F" ITEM NUMBER 710-02 AGGREGATE UNDERDRAINS (WITH PIPE)



TYPICAL RAMP GUARDRAIL PLACEMENT

SEE TDOT STANDARD FOR INSTALLATION DETAILS

GUARDRAIL PLACEMENT

SEE TYPICAL SR-29 GUARDRAIL LOCATION DETAIL THIS SHEET

STA. 18+75.26 RAMP B TO STA. 22+61.84
RAMP B (RT.) = STA. 100+00.00 SR-29

UNOFFICIAL SET

NOT FOR BIDDING

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TYPICAL SECTIONS

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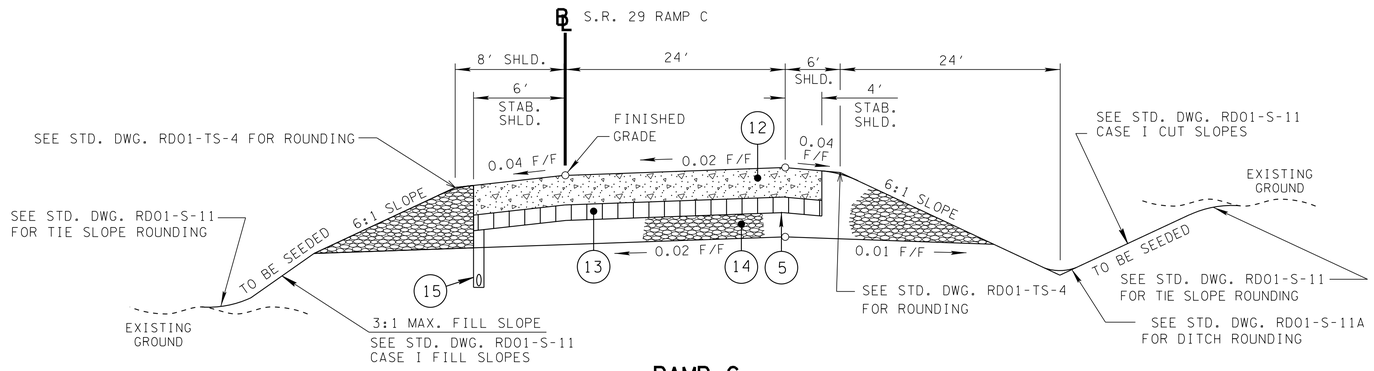
Survey & Design Division

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

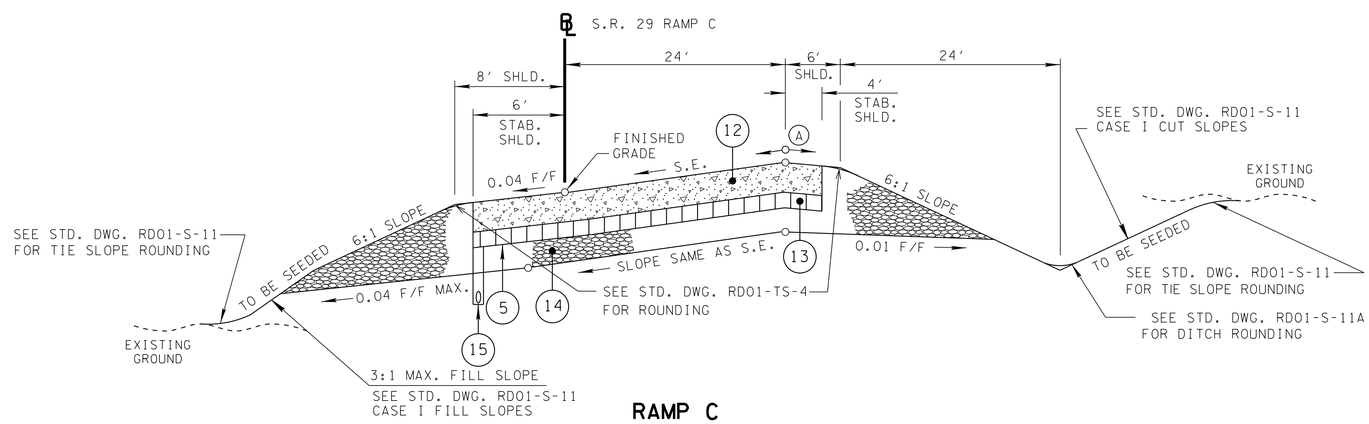
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2O
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2M



RAMP C
TANGENT SECTION

(SEE STD. DWG. RD01-TS-4 FOR DETAILS NOT SHOWN)

ROANE S.R. 29 RAMP C STA. 25+00.00 TO STA. 27+10.04
S.R. 29 RAMP C STA. 35+29.10 TO STA. 35+44.13
NOTE: SEE SHEET 2L FOR RAMP PAVEMENT SCHEDULE



RAMP C
SUPERELEVATED SECTION

(SEE STD. DWG. RD01-TS-4 FOR DETAILS NOT SHOWN)

ROANE S.R. 29 RAMP C STA. 27+10.04 TO STA. 35+29.10
NOTE: SEE SHEET 2L FOR RAMP PAVEMENT SCHEDULE

(A) THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TYPICAL SECTIONS

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

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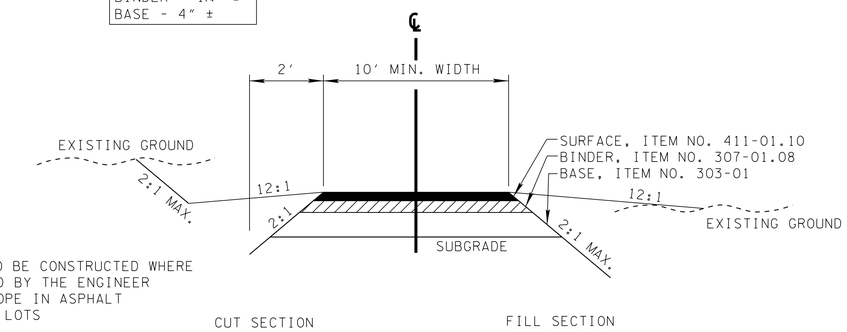
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	2R
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	2N

BUSINESS

SURFACE - 1¼" ±
BINDER - 1¾" ±
BASE - 4" ±

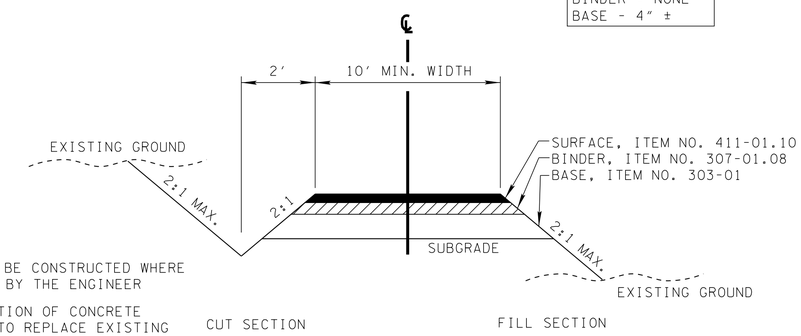


NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER
12:1 SLOPE IN ASPHALT PARKING LOTS

TYPICAL SECTION
PRIVATE DRIVE TO BUSINESS

FIELD ENTRANCE OR RESIDENTIAL

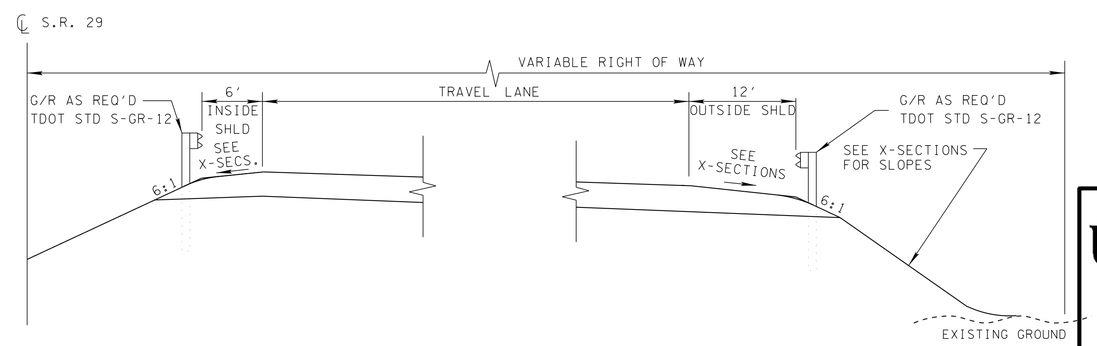
SURFACE - 1½" ±
BINDER - NONE
BASE - 4" ±



NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER

SUBSTITUTION OF CONCRETE ALLOWED TO REPLACE EXISTING CONCRETE AS DIRECTED BY THE ENGINEER

TYPICAL SECTION
PRIVATE DRIVE TO
FIELD OR RESIDENTIAL PROPERTY



TYPICAL SR-29 GUARDRAIL LOCATION
SEE TDOT STANDARD FOR
INSTALLATION DETAILS

UNOFFICIAL SET
NOT FOR BIDDING

NOTE

1. ALL CUT AND FILL SLOPES 2:1 OR STEEPER (EXCLUDING ROCK CUT AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 2 EROSION CONTROL BLANKET.
2. ALL CUT AND FILL SLOPES 3:1 OR FLATTER (EXCLUDING SOD AND RIP-RAP AREAS) SHALL BE SEEDED WITH TYPE 1 EROSION CONTROL BLANKET.

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DEPARTMENT OF TRANSPORTATION
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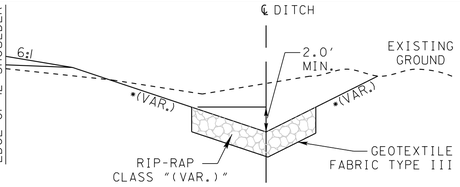
TYPICAL SECTIONS

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	20



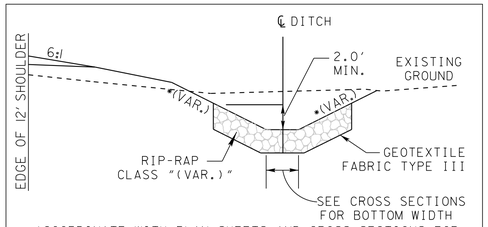
"V" RIPRAP DITCH DETAIL

(COORDINATE WITH CROSS-SECTIONS FOR DETAILS NOT SHOWN)*

MORGAN

CLASS A1 RIP-RAP (1.5' MIN.)
STA. 168+11 - 172+73 RT
STA. 197+50 - 200+00 RT
STA. 231+28 - 232+50 RT

CLASS B RIP-RAP (2.5' MIN.)
STA. 177+50 - 177+93 LT
STA. 205+50 - 209+30 RT
STA. 209+45 - 209+39 RT (STR-10)
STA. 213+05 - 213+30 RT
STA. 215+00 - 217+19 RT
STA. 220+50 - 222+00 RT
STA. 235+50 - 239+25 RT



(COORDINATE WITH PLAN SHEETS AND CROSS-SECTIONS FOR LOCATIONS AND DETAILS NOT SHOWN)*

"T" RIP-RAP DITCH DETAIL

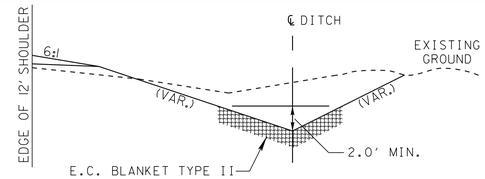
ROANE

CLASS B RIP-RAP (2.5' MIN.)
STA. 120+91 RT
STA. 144+00 - 147+12 RT

CLASS C RIP-RAP (3.5' MIN.)
STA. 154+20 - 154+51 RT (WWC-14)
STA. 153+83 - 154+66 RT
STA. 155+69 - 156+30 LT

MORGAN

CLASS C RIP-RAP (3.5' MIN.)
STA. 253+75 - 256+00 RT
TEMP. CLASS A-1 RIP RAP.
STA. 255+00 TO 255+60 RT



"V" GRASS DITCH WITH E.C. BLANKET TYPE II DETAIL

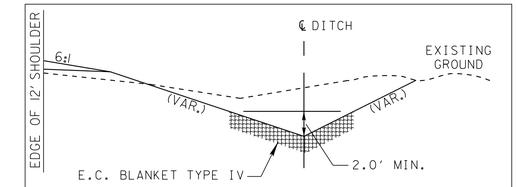
(ALL DITCHES EXCULDING ROCK CUTS, SOD OR RIP-RAP)

ROANE

STA. 25+00 - 25+75 LT (RAMP C)
STA. 30+75 - 35+00 LT (RAMP C)
STA. 37+00 - 38+00 RT (FREELS ROAD)
STA. 37+50 - 38+00 LT (FREELS ROAD)
STA. 115+87 - 116+44 RT
STA. 116+35 - 117+69 LT
STA. 134+60 - 136+98 RT
STA. 137+50 - 141+59 RT
STA. 152+21 - 153+83 RT

MORGAN

STA. 175+50 - 178+50 RT
STA. 217+70 - 220+50 RT
STA. 256+00 - 259+00 RT

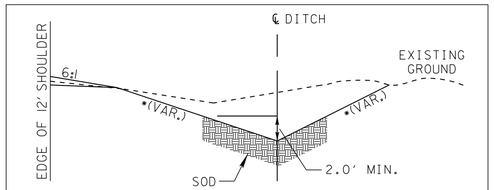


"V" GRASS DITCH WITH E.C. BLANKET TYPE IV DETAIL

(ALL DITCHES EXCULDING ROCK CUTS, SOD OR RIP-RAP)

ROANE

STA. 10+75 - 18+00 LT (RAMP B)
STA. 29+50 - 35+00 RT (RAMP C)

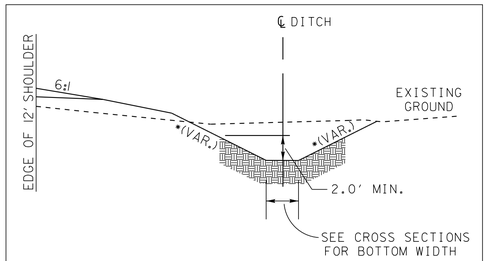


"V" SOD DITCH DETAIL

(COORDINATE WITH CROSS-SECTIONS FOR DETAILS NOT SHOWN)*

ROANE STA. 147+50 - 151+68 RT

MORGAN
STA. 200+00 - 203+00 RT
STA. 233+13 - 236+00 LT

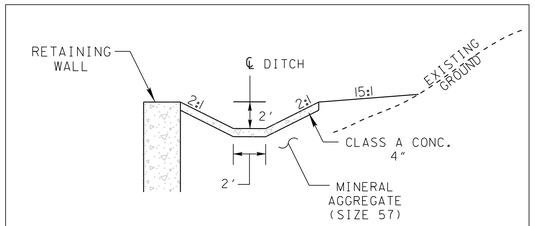


"T" SOD DITCH DETAIL

(COORDINATE WITH CROSS-SECTIONS FOR DETAILS NOT SHOWN)*

ROANE STA. 3+50 - 9+00 RT (TEDDER LANE)

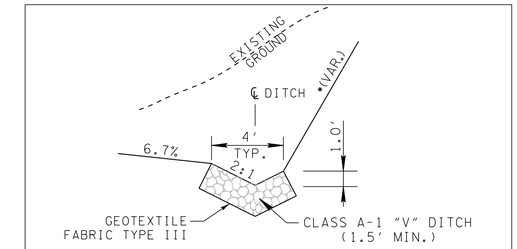
MORGAN
STA. 216+70 - 218+00 LT
STA. 230+87 - 232+88 LT



"T" CHANNEL SPECIAL CONCRETE DITCH

ROANE STA. 154+66.02 - 162+71.46 RT (WALL 4-1 AND 4-2)

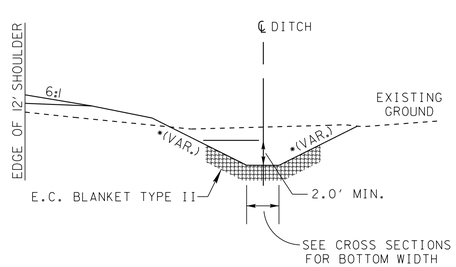
MORGAN
STA. 162+71.46 - 167+09.99 RT (WALL 4-2)
STA. 40+75.47 - 48+38.54 RT (COAL HILL RD) (WALL 5-1, 5-2 AND 5-3)
STA. 180+00.17 - 183+64.61 RT (WALL 6)
STA. 183+77.58 - 191+40.17 RT (WALL 7)
STA. 222+06.50 - 231+12.52 RT (WALL 8)



"V" RIP-RAP DITCH FOR BENCH FLOW LINE

STA. 132+87 - 140+50 RT
STA. 133+41 - 139+15 RT
STA. 4+27 - 6+19 RT TEDDER LANE
STA. 199+70 - 202+50 RT
STA. 199+80 - 202+51 RT
STA. 199+91 - 202+00 RT
STA. 200+03 - 200+53 RT
STA. 206+01 - 207+68 RT

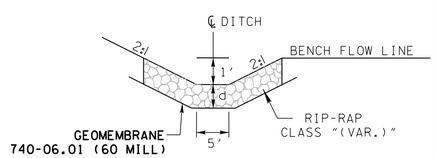
SEE PLANS AND CROSS SECTIONS FOR LOCATIONS AND DETAILS NOT SHOWN.



"T" GRASS DITCH WITH E.C. BLANKET TYPE II DETAIL

(COORDINATE WITH CROSS-SECTIONS FOR DETAILS NOT SHOWN)*

MORGAN
STA. 192+57 - 197+50 RT
STA. 246+36 - 251+00 RT
STA. 251+00 - 253+38 RT



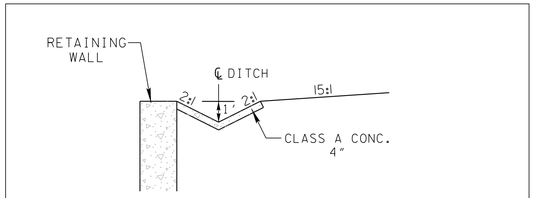
"T" CHANNEL BENCH DRAIN

(COORDINATE WITH PLAN SHEETS FOR LOCATIONS)

CLASS C RIP-RAP (d=3.5' MIN.)

ROANE
STA. 4+10 RT (TEDDER LN) STA. 134+13 RT AT SR-29
STA. 6+24 RT (TEDDER LN) STA. 136+24 RT AT SR-29
STA. 138+98 RT SR-29

MORGAN
STA. 199+59 RT SR-29
STA. 207+73 RT SR-29



"V" CHANNEL SPECIAL CONCRETE DITCH

ROANE STA. 158+06.50 - 162+71.46 RT (WALL 4-1)

MORGAN
STA. 162+71.46 - 167+09.99 RT (WALL 4-1)
STA. 40+59.65 - 46+65.78 RT (COAL HILL RD, WALL 5-1)
STA. 167+02.76 - 167+09.99 RT (WALL 4-2)
STA. 40+75.47 - 44+14.12 RT (COAL HILL RD WALL 5-2)
STA. 177+00.00 - 177+50.00 LT (WALL 3)

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

DITCH DETAILS

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2R

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

APR NOTES:

1. THIS PROJECT CONTAINS POTENTIALLY ACID PRODUCING MATERIALS (PYRITIC MATERIALS) CONSISTING OF ROCK, ROCK-LIKE MATERIALS, AND SOIL THAT CONTAIN SUFFICIENT AMOUNTS OF CERTAIN MINERALS THAT COULD PRODUCE DRAINAGE AT pH LEVELS SUFFICIENTLY LESS THAN BACKGROUND pH WHEN EXPOSED TO ATMOSPHERIC CONDITIONS AND WEATHERING PROCESSES.

2. TDOT SPECIAL PROVISION 107L, REGARDING POTENTIALLY ACID PRODUCING MATERIALS, AND SUPPLEMENTAL NOTES HEREIN SHALL BE FOLLOWED FOR THE SAMPLING, TESTING AND DISPOSAL OF ACID PRODUCING MATERIALS.

3. TESTING OF ACID PRODUCING MATERIALS SHALL BE PERFORMED BY A TDOT APPROVED LABORATORY. THE CONTRACTOR SHALL ASSIST TDOT'S REPRESENTATIVE WITH THE COLLECTION OF ACID PRODUCING MATERIAL SAMPLES FOR TESTING AND THE ACID PRODUCING MATERIAL SAMPLES WILL BE DELIVERED BY THE TDOT REPRESENTATIVE TO THE LABORATORY.

4. ALL ACID PRODUCING MATERIALS THAT REQUIRE ENCAPSULATION OR BLENDING SHALL BE PLACED IN AN APPROVED CLASS 1 LANDFILL. THE FOLLOWING LANDFILL HAS AIRSPACE AVAILABLE TO ACCEPT ACID PRODUCING MATERIAL: RHEA COUNTY, TN LANDFILL. CONTACT INFORMATION:

   SANTEK WASTE SERVICES
   ATTN: AARON ELLEDGE
   650 25TH STREET, N.W., SUITE 100
   CLEVELAND, TN 37311
   PHONE: 423-303-7101
   TOLL FREE: 800-467-9160

5. THE CONTRACTOR SHALL COORDINATE WITH THE LANDFILL REGARDING THE AMOUNT OF ACID PRODUCING MATERIALS THAT CAN BE RECEIVED ON A PER DAY BASIS IN ORDER TO PREVENT EXCESS STOCKPILING OF ACID PRODUCING MATERIALS ON-SITE.

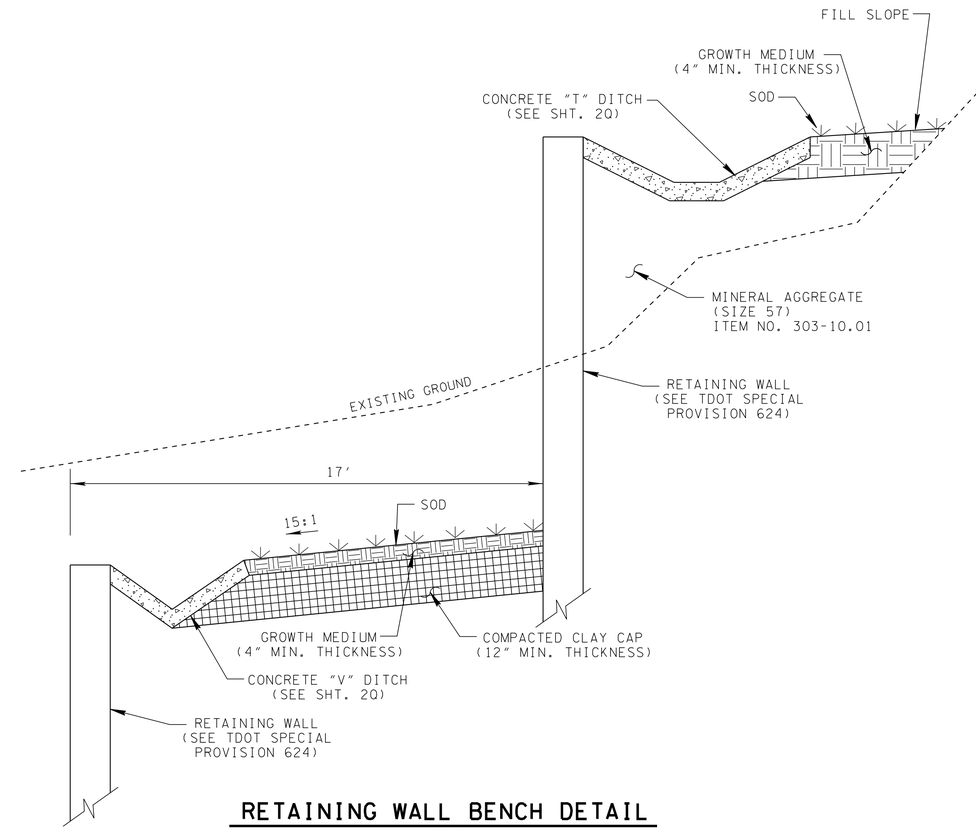
6. IN ADDITION TO SPECIAL PROVISION 107L, THE CONTRACTOR SHALL COVER AND PROTECT ALL PYRITIC SLOPES AND MATERIAL BY THE USE OF POLYETHYLENE SHEETING AND SANDBAGS AT ANY TIME THE PROJECT ENGINEER DETERMINES THAT APPROACHING INCLEMENT WEATHER WILL POSE A CONCERN WITH POTENTIAL ACIDIC RUNOFF. THE COST FOR COVERING PYRITIC SLOPES AND MATERIALS SHALL BE INCLUDED IN PAY ITEM NO. 209-20.03.

7. DUE TO THE POTENTIAL OF ACIDIC SOILS THROUGHOUT THE PROJECT SITE, SOILS ON OR TOPSOIL PLACED ON CUT AND FILL SLOPES SHALL BE TESTED FOR pH PRIOR TO APPLYING PERMANENT STABILIZATION (SEED AND EROSION CONTROL BLANKETS, SOD, ETC.). THE COST FOR PH TESTS WILL BE INCLUDED IN THE COST OF OTHER ITEMS. AGRICULTURAL LIME (801-09) SHALL BE APPLIED TO THE SLOPES TO NEUTRALIZE THE SOIL ACIDITY AT THE RECOMMENDED RATES TO PROVIDE A pH RANGE OF 6-9.

8. SOILS INFORMATION DEPICTED WITHIN THE CONSTRUCTION PLANS IS BASED UPON THE "GEOTECHNICAL INVESTIGATION STATE ROUTE 29 (U.S. 27) STA. 100+00 TO STA. 345+00" REPORT PREPARED BY ARCADIS U.S., INC. DATED FEBRUARY 12, 2002. FOR ADDITIONAL GEOTECHNICAL BORINGS AND SOILS INFORMATION REFER TO THE "REPORT OF ACID PRODUCING ROCK EVALUATION STATE ROUTE 29 (U.S. HIGHWAY 27) IMPROVEMENTS" DATED JANUARY 4, 2013 AND THE REPORT "RETAINING WALL AND ACID PRODUCING ROCK EVALUATION REPORT STATE ROUTE 29 WIDENING FROM STATE ROUTE 61 TO 0.6 MILE SOUTH OF WHETSTONE ROAD" DATED JUNE 19, 2013, PREPARED BY S&ME, INC..

9. BENCH SURFACES LOCATED IN CUTS AND RETAINING WALL AREAS SHALL BE MITIGATED PER THE DETAIL DEPICTED ON SHEET THIS SHEET.

10. WATER INFILTRATING BEHIND THE UPPER TIER RETAINING WALLS AND DISCHARGING THROUGH WEEP HOLES NEAR THE BASE OF THE WALLS SHALL BE MITIGATED BY CONSTRUCTING CHANNELS LINED WITH LIMESTONE THAT ARE ROUTED TO THE CONCRETE DRAINAGE DITCH DOWN GRADIENT. THE LIMESTONE SHALL MEET THE GRADATION OF ASTM D448 NO. 57 STONE AND SHALL BE A MINIMUM OF ONE FOOT THICK.



RETAINING WALL BENCH DETAIL

N.T.S.

NOTE:

1. THE COMPACTED CLAY CAP SHALL CONSIST OF 12 INCHES OF LOW TO MODERATELY PLASTIC CLAY OR SILT WITH A PLASTICITY INDEX OF LESS THAN THIRTY FIVE(PI<35) AND A STANDARD PROCTOR MAXIMUM DRY DENSITY GREATER THAN 90 POUNDS PER CUBIC FOOT. THE CAP SHALL CONTAIN NO ROCK FRAGMENTS LARGER THAN 1 INCH IN ANY DIMENSION, AND NO ORGANIC MATTER.

2. THE COMPACTED CLAY CAP SHALL BE PLACED IN THIN LIFTS WITH A MAXIMUM LOOSE THICKNESS OF 8 INCHES, THEN COMPACTED TO 90 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, WITH A MOISTURE CONTENT WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT, DEPENDING ON THE SHAPE OF THE PROCTOR CURVE. WETTING OR DRYING OF THESE SOILS MAY BE REQUIRED, DEPENDING ON THE TIME OF YEAR SITE GRADING IS PERFORMED.

3. THE DENSITY AND MOISTURE CONTENT OF EACH LIFT SHALL BE TESTED BY A SOILS TECHNICIAN BEFORE PLACING ADDITIONAL LIFTS TO EVALUATE THAT THE SPECIFIED DEGREE OF COMPACTION IS BEING ACHIEVED.

4. THE ACTUAL TESTING FREQUENCY SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER BASED ON THE TYPE OF SOIL BEING PLACED, THE EQUIPMENT BEING USED, AND THE TIME OF YEAR THE FILL IS BEING PLACED. ANY AREAS THAT DO NOT MEET THE COMPACTION SPECIFICATION SHALL BE RE-COMPACTED TO ACHIEVE COMPLIANCE.

5. THE GROWTH MEDIUM SHALL CONSIST OF 4 INCHES OF TOPSOIL PLACED OVER THE CLAY CAP WITH SOD FOR PERMANENT STABILIZATION.

6. THE BACK SLOPE OF THE CONCRETE "T" DITCH SHALL TIE INTO EXISTING GROUND OR BE PLACED IN FILL. NO EXCAVATION OF THE EXISTING SLOPE UP GRADIENT OF THE CONCRETE "T" DITCH WILL BE ALLOWED.

7. DENSIFIED ASTM D448 NO. 57 STONE SHALL BE PLACED BENEATH THE CONCRETE "T" DITCH SECTIONS LOCATED IN FILL AREAS.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

APR NOTES & DETAILS

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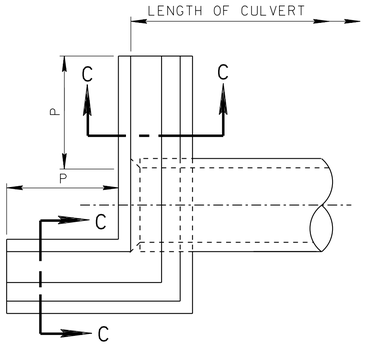
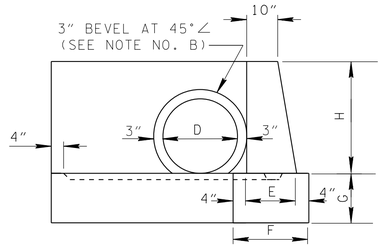
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2S



PLAN



FRONT ELEVATION

" L " TYPE CONCRETE ENDWALL

TABLE OF DIMENSIONS						
DIMENSIONS						
OPENING		WALL			FOOTING	
D	AREA	P	H	E	F	G
1'-6"	1.77	2'-3"	2'-6"	1'-3"	1'-11"	1'-3"
2'-0"	3.14	3'-0"	3'-0"	1'-4"	2'-0"	1'-4"
2'-6"	4.91	3'-9"	3'-6"	1'-6"	2'-2"	1'-6"

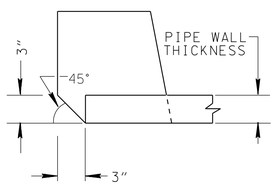
GENERAL NOTES

(A) CONCRETE ENDWALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION, SECTION 611, AND/OR SPECIAL PROVISIONS.

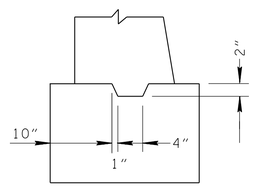
(B) "L "TYPE CONCRETE ENDWALLS ON INLET END OF PIPE, AND AT 90° SKEW SHALL BE BEVELED AT 3" AT 45° ANGLE. BEVEL WILL NOT BE REQUIRED WHEN ENDWALL IS CONSTRUCTED ON THE "BELLED "END OF CONCRETE PIPE.

(C) PAYMENT FOR ENDWALLS WILL BE MADE FOLLOWS:

ITEM 611-07.01, CLASS "A" CONCRETE (PIPE ENDWALLS)----CUBIC YARD.
ITEM 611-07.02. STEEL BAR REINFORCING (PIPE ENDWALLS)----POUND.

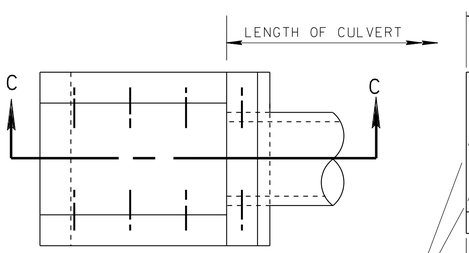


DETAIL OF BEVEL



SECTION C- C
SHOWING CONSTRUCTION JOINT

ESTIMATED QUANTITIES FOR ONE "L" TYPE CONCRETE ENDWALL
CONCRETE (CUBIC YARDS)
1.28
1.91
2.90



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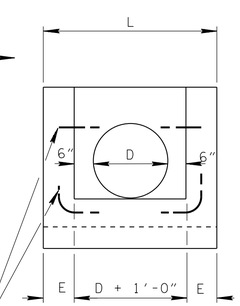
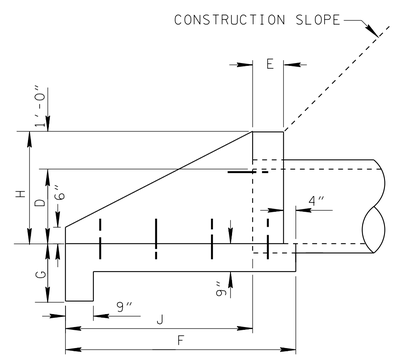


NO.6 REINF. STEEL TIE BAR (LENGTH 2'-0")

FRONT ELEVATION



SIDE ELEVATION

" U " TYPE CONCRETE ENDWALL

TABLE OF DIMENSIONS AND ESTIMATED QUANTITIES FOR ONE " U " TYPE CONCRETE ENDWALL (SLOPE 1½ : 1 & 2:1)													
DIMENSIONS								CONC.IN ONE ENDWALL			C.Y. FOR EACH ADDITIONAL LINE OF PIPE	C.Y. PER FOOT OF LENGTH "L"	REINF STEEL LB.
OPENING		WALL			FOOTING			C.Y.	C.Y.	C.Y.			
D	AREA	L	H	E	J	F	G	WALL	FOOTING	TOTAL			
1'-6"	1.77	4'-0"	2'-6"	9"	4'-0"	5'-1"	1'-3"	0.61	0.62	1.23	0.554	0.225	20
2'-0"	3.14	4'-8"	3'-0"	10"	5'-0"	6'-2"	1'-6"	0.86	0.90	1.76	0.728	0.275	20
2'-6"	4.91	5'-2"	3'-6"	10"	6'-0"	7'-2"	1'-6"	1.12	1.14	2.26	0.996	0.328	20

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SPECIAL DETAIL
HISTORIC TYPE
L & U
CONCRETE ENDWALLS

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2U

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

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. 801-02, SEEDING (WITHOUT MULCH) AND EROSION CONTROL BLANKET , SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AS WELL AS LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL

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

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

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

DRAINAGE

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

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

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

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

ROAD CLOSURE

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

RIGHT - OF – WAY

(1) IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, ROADWAY DESIGN DIVISION IS TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

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

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

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

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

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

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

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

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL NOTES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2V

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

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

FINAL PAVEMENT MARKING IF 6" ENHANCED FLATLINE THERMOPLASTIC IS USED

(2) 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.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

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

(4) BEFORE OPENING THE DIVERSIONS TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM 712-09.01 REMOVABLE PAVEMENT MARKING LINE, LIN. FT. 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.

RESURFACING

(3) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) ALL PUBLIC SIDE ROADS SHALL BE PAVED ONE PAVER WIDTH THROUGH THE INTERSECTION AS A MINIMUM. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD OR BUSINESS ENTRANCE SHALL BE PROVIDED. SHOULD THE PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.

(5) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.

(6) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

GRADED SOLID ROCK

(1) THE ROCK FILL (GRADED SOLID ROCK) MATERIAL SHALL CONSIST OF SOUND, NON-DEGRADABLE LIMESTONE OR SANDSTONE WITH A MAXIMUM SIZE OF 3'-0". AT LEAST 50% (BY WEIGHT) OF THE ROCK SHALL BE UNIFORMLY DISTRIBUTED BETWEEN 1'-0" AND 3'-0" IN DIAMETER, AND NO GREATER THAN 10% (BY WEIGHT) SHALL BE LESS THAN 2" IN DIAMETER. THE MATERIAL SHALL BE ROUGHLY EQUIDIMENSIONAL; THIN, SLABBY MATERIALS WILL NOT BE ACCEPTED. THE CONTRACTOR SHALL BE REQUIRED TO PROCESS THE MATERIAL WITH AN ACCEPTABLE MECHANICAL MEANS (A SCREENING PROCESS CAPABLE OF PRODUCING THE REQUIRED GRADATION). THE ROCK SHALL BE APPROVED BY A REPRESENTATIVE OF THE DIVISION OF MATERIALS AND TESTS BEFORE USE.

(2) THIS GRADED SOLID ROCK MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING FIVE FEET IN DEPTH.

SIGNING

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

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

(3) 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.

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

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

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

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

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

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

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

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

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

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

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

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

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

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

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

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

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

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

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

SEDIMENT CONTROL

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

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

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL NOTES

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Survey & Design Division

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(9) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.

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

(11) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

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

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

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

STREAM/WETLAND

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

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

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

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

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

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

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

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

SPECIES

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

INSPECTION, MAINTENANCE, REPAIR

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

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

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

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

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

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

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

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

MATERIALS

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

SWPPP, PERMITS, PLANS, RECORDS

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

(34) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROADWAY 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.

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

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

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

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

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2X

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

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

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

LITTER, DEBRIS, WASTE, PETROLEUM

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

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

SPECIAL 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.

MISCELLANEOUS

(1) ALL EXISTING DRAINGE PIPES AND STRUCTURES THAT WILL NO LONGER BE OPERATIONAL SHALL BE REMOVED. PIPES AND STRUCTURES LISTED ON THE ESTIMATED ROADWAY QUANTITIES SHEET WILL BE PAID FOR DIRECTLY. ALL OTHER REMOVAL OF EXISTING PIPES AND CATCH BASINS WILL NOT BE MEASURED DIRECTLY BUT WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(2) THE CONTRACTOR IS TO USE ALL MEANS NECESSARY TO PROTECT THE HOLLY TREE, THAT IS ON THE NATIONAL RESTIGRY OF TREES, AT STATION 106+61 (LT).

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 56, 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 PERSONNEL OR DESIGNATED CONSULTANT WILL NEED TO BE ON-SITE FOR WORK BEING DONE WHICH COULD AFFECT THE STREAM OR SPECIES.

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

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

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 IS TO BE SUPPLIED WITH THE NOTIFICATION.

CLEARING AND GRUBBING

(5) CLEARING OPERATIONS FOR THE ENTIRE PROJECT SHALL INCLUDE THE CHIPPING/MULCHING OF TREES AND VEGETATION (EXCLUDING TREES AND VEGETATION USED TO CONSTRUCT BRUSH BARRIERS) AND THE SPREADING/BLOWING OF WOOD MULCH OVER THE CLEARED AREA(S) AT A DEPTH OF 3-INCHES (MIN.) FOR TEMPORARY STABILIZATION. THE COST FOR REMOBILIZATION, CHIPPING/MULCHING AND SPREADING/BLOWING OF WOOD MULCH IS TO BE INCLUDED IN THE COST OF PAY ITEM 201-01.

(6) IN AREAS OF THE PROJECT SITE THAT CONTAIN BENCH CUTS AND ASSOCIATED SLOPES, THE CONTRACTOR SHALL NOT CLEAR THE ENTIRE BENCH CUT SLOPE AREA AT ONE TIME. CLEARING SHALL BE STAGED AND LIMITED TO THE CONSTRUCTION OF ACCESS AND HAUL ROADS AND THE AREA REQUIRED TO CONSTRUCT THREE (3) BENCH CUTS AT A TIME. ONCE A BENCH CUT AND ASSOCIATED SLOPE ARE STABILIZED ADDITIONAL AREA MAY BE CLEARED FOR THE NEXT BENCH CUT. BRUSH BARRIERS SHALL BE CONSTRUCTED BELOW EACH CLEARED BENCH CONSTRUCTION AREA AND IN LOCATIONS DEPICTED ON THE EPSC PLANS. BRUSH BARRIERS AND/OR OTHER SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED PER DETAIL "F" LOCATED ON SHEET 81A AND SUPPLEMENTED AS NEEDED WITH ADDITIONAL BRUSH BARRIERS OR OTHER EPSC MEASURES. ONCE A BENCH CUT AND ASSOCIATED SLOPE IS CONSTRUCTED AND STABILIZED THEN ADDITIONAL AREA(S) CAN BE CLEARED.

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL AND SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2Y

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

GUARDRAIL REMOVAL

SHEET NO.	LOCATION	SIDE LT	SIDE RT	STATION FROM	STATION TO	LENGTH (FT)	REMARKS
ROANE COUNTY							
8	SR-29	X		141+86.38	142+62.76	96	
8	SR-29		X	142+13.21	142+62.24	70	
8	SR-29	X		144+23.02	144+99.88	77	
8	SR-29		X	144+22.64	144+96.40	94	
ROANE COUNTY TOTAL						337	
MORGAN COUNTY							
11	SR-29	X		171+91.06	172+43.89	58	
11	SR-29		X	172+31.03	172+77.83	103	
11	SR-29	X		174+16.23	174+68.32	59	
11	SR-29		X	174+50.37	175+26.88	84	
11	SR-29	X		178+28.85	178+82.10	120	
11	SR-29		X	177+93.58	178+82.59	90	
11	SR-29	X		177+93.58	178+82.59	78	
11	SR-29		X	180+28.84	181+09.10	62	
11	COAL HILL RD	X		180+29.49	180+90.61	150	
MORGAN COUNTY TOTAL						804	
GRAND TOTAL						**1141**	

ESTIMATED GRADING QUANTITIES

STATION TO STATION	ROAD & DRAINAGE EXC. (UNCL.) COMMON - C.Y.	ROAD & DRAINAGE EXC. (UNCL.) S. ROCK - C.Y.	ROAD & DRAINAGE EXC. (ACID PRODUCING OFF SITE DIISPOSAL) C.Y.	EXCESS EXC. WASTE C.Y.	EMB. C.Y.
ROANE COUNTY					
SR 29	46720	153817	13760		180979
RAMP A	427				3224
RAMP B	1328				22877
RAMP C	2235				801
FREELS ROAD	835				17
ROCK BRIDGE ROAD LT	183				522
ROCK BRIDGE ROAD RT	1267				988
SANDERS LANE	693				0
TEDDER LANE	25176				0
ROANE CO. TOTAL	78864	153817	13760	30648	209408
MORGAN COUNTY					
SR 29	148194	122592	74380		211128
COAL HILL ROAD	0	0	152860		784
MORGAN CO. TOTAL	148194	122592	227240	45974	211912
TOTALS	(1) **227058**	**276409**	**241000**	**76622**	(2) **421320**

(1) INCLUDES 12,944 C.Y. STRIPPED IN FILL AREAS AND 1,500 C.Y. FOR PVT DRIVES.
(2) INCLUDES 12,944 C.Y. OF EMBANKMENT TO REPLACE TOPSOIL STRIPPED IN FILL AREAS AND 4,752 C.Y. FOR PVT DRIVES.

PAVEMENT QUANTITIES

LOCATION	PAY ITEMS 303-01 (TON)	307-01.01 (TON)	* 307-01.08 (TON)	313-03 (S.Y.)	402-01 (TON)	402-02 (TON)	403-01 (TON)	411-01.10 (TON)	411-01.07 (TON)	501-01.03 (S.Y.)
ROANE COUNTY										
SR-29	39692.0	4750.0	4116.0		63.0	250.0	33.0	3000.0	1559.0	
RAMP A	1566.0			1529.0	4.0	12.0				1529.0
RAMP B	4540.0			6003.0	10.0	43.0				6003.0
RAMP C	3490.0			4141.0	7.0	27.0				4141.0
FREELS RD	588.0		80.0		1.2	4.2	0.2	43.0	10.0	
ROCK BRIDGE RD	1138.0		156.0		2.2	8.7	0.4	84.0	10.0	
SANDERS	322.0		58.0		0.8	3.1	0.2	30.0		
TEDDER LANE	1090.0		193.0		2.6	9.3	0.5	115.0		
PRIVATE DRIVES	773.0							227.0		
BUSINESS DRIVES	86.0		43.0		0.7	2.7	0.2	25.0		
TEMP. TRAFF. CONTROL	928.0	206.0	135.0							
DRIVES DURING CONST.	4000.0									
ROANE COUNTY TOTAL	58213.0	4956.0	4781.0	11673.0	91.5	360.0	34.5	3524.0	1579.0	11673.0
MORGAN COUNTY										
SR-29	51853.0	6444.0	5728.0		93.0	367.0	38.0	4255.0	2441.0	
COAL HILL RD	2154.0		325.0		4.6	18.6	0.9	179.0	58.0	
PRIVATE DRIVES	865.0							270.0		
BUSINESS DRIVES	222.0		96.0		1.4	2.7	0.2	60.0		
TEMP. TRAFF. CONTROL	662.0	101.0	66.0							
DRIVES DURING CONST.	6000.0									
MORGAN COUNTY TOTAL	61756.0	6545.0	6215.0	0.0	99.0	388.3	39.1	4764.0	2499.0	0.0
TOTALS	**119969.0**	**11501.0**	**10996.0**	**11673.0**	**190.5**	**748.3**	**73.6**	**8288.0**	**4078.0**	**11673.0**

*SR-29 QUANTITY INCLUDES 1006 TONS FOR LEVELING IN ROANE COUNTY AND 1504 TONS FOR LEVELING IN MORGAN COUNTY

REMOVAL OF BUILDINGS AND OBSTRUCTIONS DESCRIPTION BLOCK

PAY ITEM	TRACT NO.	DESCRIPTION	COUNTY
202-06.01	10	MOBILE HOME	ROANE
202-06.02	10A	SHED	ROANE
202-06.03	21	RUINS, WELL HOUSE	MORGAN
202-06.04	23	CAR PORT, HOUSE, GARAGE	MORGAN
202-06.05	25	(2) SHEDS	MORGAN
202-06.06	30	(2) BUILDINGS	MORGAN
202-06.07	54B	MOBILE HOME	ROANE
202-06.08	54C	SINGLE FAMILY RESIDENCE	ROANE

NO ADDITIONAL COMPENSATION WILL BE MADE FOR THESE REMOVALS.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TABULATED QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2Z

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

PROPOSED GUARDRAIL

SHEET NO.	LOCATION	SIDE		STATION		GUARDRAIL					
		LT	RT	FROM	TO	BRIDGE ENDS 705-01.01 (L.F.)	SINGLE TYPE 2 705-02.02 (L.F.)	TYPE 13 705-04.03 (EACH)	TYPE 21 705-04.04 (EACH)	TYPE IN-LINE 705-04.05 (EACH)	TYPE 38 705-04.07 (EACH)
ROANE COUNTY											
4A	RAMP B		X	18+75.26	22+61.84		388.0				1
4A, 5A	SR-29		X	100+00.00	104+96.00		524.0	1		1	
5A	SR-29		X	105+10.78	108+50.00		358.0	2		1	
6A, 7A	SR-29		X	120+80.00	128+82.00		842.0	1		1	1
7A	SR-29	X		127+90.00	128+86.00		130.0	1	1	1	
7A, 8A	SR-29	X		129+13.00	137+20.00		840.0	1		1	1
7A, 8A	TEDDER LANE	X		3+50.00	7+40.00		371.0	1	1		
8A	SANDERS LANE	X		46+28.09	47+26.32		106.0	1		1	
8A	SR-29	X		139+08.00	141+84.00	27.0	265.0				
8A	SR-29		X	140+55.00	142+08.00	27.0	157.0				1
8A	SR-29		X	141+89.00	142+20.00	27.0	77.0	1		1	
8A, 9A	SR-29	X		144+69.00	150+24.00	27.0	552.0	1		1	
8A	SR-29	X		144+70.00	146+35.00	27.0	163.0				1
8A, 9A	SR-29		X	144+76.00	147+37.00	27.0	303.0	1		1	
9A	SR-29	x		150+35.00	151+32.00		132.0	1		1	1
9A	SR-29		X	152+69.00	155+00.00	27.0	208.0				1
10A	SR-29	X		159+34.00	162+71.46		337.0	1			
ROANE COUNTY TOTAL						189.0	5753.0	13.0	2.0	10.0	7.0
MORGAN COUNTY											
10A, 11A	SR-29	X		162+71.46	171+64.00	27.0	886.0				
11A	SR-29		X	170+92.00	173+10.00	27.0	229.0				1
11A	SR-29		X	170+95.00	172+64.00	27.0	172.0				1
11A	SR-29	X		174+56	178+46	54.0	336.0				
11A	SR-29	X		175+03.00	176+61.00	27.0	157.0				1
11A	SR-29		X	175+35.00	176+65.00	54.0	132.0				
11A	COAL HILL RD	X		48+50.69	49+91.68		148.0				1
11A	SR-29		X	175+67.00	176+53.00	54.0	92.0				
11A, 12A	SR-29	X		180+90.00	182+55.00	27.0	164.0				1
11A, 12A	SR-29	X		180+83.00	181+65.00	27.0	0.0				1
12A	SR-29		X	182+95.00	184+51.00	54.0	102.0				
12A, 13A	SR-29		X	191+73.00	194+81.00		336.0	2		1	
13A, 14A	SR-29	X		199+98.00	207+25.00		726.0	1			1
14A	SR-29		X	210+77.00	213+40.00		292.0	1		1	1
15A	SR-29		X	221+42.00	223+85.00	27.0	213.0				1
16A	SR-29		X	229+60.71	230+99.00	27.0	111.0	1			
16A	SR-29	X		230+99.00	232+93.00		223.0	2		1	
16A	SR-29	X		233+07.00	236+76.00		397.0	1		1	1
16A	SR-29		X	235+52.22	236+95.13		78.0	1			1
18A	SR-29	X		254+69.00	258+45.00		376.0	1			1
MORGAN COUNTY TOTAL						432.0	5170.0	10.0	0.0	4.0	12.0
TOTALS						**621.0**	**10923.0**	**23.0**	**2.0**	**14.0**	**19.0**

R.O.W. MARKERS

SHEET NO.	QUANTITIES "A"	"B"	"C"	TOTALS
ROANE COUNTY				
4	3	1		**4**
5	1			**1**
6	4			**4**
7	8	10	8	**26**
8	7	3	4	**14**
9	3	2	1	**6**
10		0	1	**1**
ROANE TOTAL	26	16	14	56
MORGAN COUNTY				
10	2		1	**3**
11	3	3	4	**10**
12	6	1		**7**
13	7	3	5	**15**
14	8	3		**11**
15	6	0	1	**7**
16	3	1	1	**5**
17	7	3	2	**12**
18	2	0	0	**2**
MORGAN TOTAL	44	14	14	72
GRAND TOTAL	**70**	**30**	**28**	**128**

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TABULATED QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2AA

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

CATCH BASINS, JUNCTION BOXES AND MANHOLES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAIN CODE	GRATE/ TOP ELEV.	TYPE	INSIDE DIM. (IN.)	DEPTH (FT.)	STANDARD DRAWING	D-MH-5 611-01.02 4' - 8'	D-MH-5 611-01.03 8' - 12'	JB TY 1 611-02.10	JB TY 2 611-02.11	JB TY 4 611-02.13	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	TYPE 38 611-38.03 8' - 12'	TYPE 38 611-38.05 16'-20'	TYPE 39 611-39.01 0' - 4'	TYPE 39 611-39.04 12' - 16'	TYPE 39 611-39.05 16' - 20'	TYPE 41 611-41.01 0' - 4'	TYPE 41 611-41.02 4' - 8'	TYPE 41 611-41.03 8' - 12'	SPRING BOX TYPE I 611-02.01	REMARKS
ROANE COUNTY																										
4A	RAMP-B	21+19.84	23.77 LT	1B	812.43	JB	84X84	8.88	D-JBS-4					1												
5A	SR-29	102+95.15	0	1A	822.84	CB	48X48	10.62	D-CB-38SB								1									
5A	SR-29	105+40.18	0	1	821.88	CB	48X48	4.25	D-CB-38SB							1										
5A	SR-29	107+86.35	0	2	818.33	CB	48X48	9.08	D-CB-38SB								1									
5A	SR-29	111+85.27	0	4	810.94	MH	62X62	7.21	D-MH-5	1																
6A	SR-29	116+05.28	0	4A	796.15	CB	48X48	3.07	D-CB-38SB						1											INTO BOX CULV.
6A	SR-29	120+24.34	0	4B	787.99	CB	48X48	10.13	D-CB-38SB								1									
6A	SR-29	120+24.34	76.60 LT	4D	783.71	JB	32X32	3.98	D-JBS-1			1														
6A	SR-29	122+79.65	0	5	785.60	CB	48X48	5.00	D-CB-38SB							1										
6A	SR-29	123+34.00	0	6	777.62	JB	62X62	4.42	D-JBS-3				1													
6A	SR-29	123+34.00	70.56 LT	6A	780.10	JB	48X48	4.14	D-JBS-2				1													
7A	SR-29	128+25.00	0	7	779.54	CB	48X48	4.25	D-CB-38SB							1										
7A	SR-29	131+15.67	32 RT	7B		SB	32X32	4.00	D-SDS-1																1	
7A	SR-29	134+59.89	0	7A	769.03	CB	48X48	8.23	D-CB-38SB								1									
7A	SR-29	134+59.89	88 RT	7C	766.63	CB	48X48	4.75	D-CB-38SB							1										
8A	SR-29	137+00.00	0	8B	763.82	CB	48X48	7.09	D-CB-38SB							1										
8A	SR-29	137+00.00	89.5 RT	8A	762.00	CB	48X48	4.75	D-CB-38SB							1										
8A	SR-29	139+00.00	83.59 RT	9	761.63	CB	48X48	4.96	D-CB-38SB							1										
8A	SR-29	139+00.00	0	9B	765.10	MH	62X62	9.63	D-MH-5		1															
8A	SR-29	140+22.05	0	9C	761.96	CB	48X48	8.96	D-CB-38SB								1									
9A	SR-29	148+00.00	1.62 RT	12	762.62	CB	48X48	6.15	D-CB-38SB							1										
9A	SR-29	150+33.00	0.82 RT	15	762.63	CB	48X48	4.00	D-CB-38SB						1											
9A	SR-29	154+17.28	0	16	763.25	CB	84	8.78	D-CB-38RB								1									
9A	SR-29	156+67.66	60 RT	16A	764.29	CB	48X48	4.00	D-CB-41SB													1				
9A	SR-29	157+15.66	60 RT	17	764.24	CB	48X48	4.00	D-CB-41SB													1				
9A	SR-29	156+91.66	0	17B	761.90	CB	60	10.20	D-CB-38RB								1									
9A	SR-29	156+91.66	60 RT	17A	764.20	CB	48X48	7.15	D-CB-41SB														1			
10A	SR-29	159+94.54	0	17D	763.51	CB	48X48	10.62	D-CB-38SB								1									
10A	SR-29	159+94.54	60 RT	17F	765.79	CB	48X48	7.48	D-CB-41SB														1			
ROANE COUNTY TOTAL										1	1	1	2	1	2	8	8	0	0	0	0	2	2	0	1	
MORGAN COUNTY																										
10A	SR-29	162+99.86	60 RT	18C	768.42	CB	48X48	4.33	D-CB-41SB														1			
10A	SR-29	164+32.56	60 RT	18D	769.53	CB	48X48	8.00	D-CB-41SB														1			
10A	SR-29	164+32.56	0	18A	767.24	CB	48X48	7.46	D-CB-38SB							1										
10A	SR-29	168+32.50	0	20	770.90	CB	48X48	8.71	D-CB-38SB								1									
12A	SR-29	181+50.00	0	24	772.30	CB	32X32	4.30	D-CB-38S							1										
12A	SR-29	181+50.00	60 RT	24B	776.21	CB	48X48	5.61	D-CB-41SB														1			
12A	SR-29	183+71.06	0	24A	772.55	CB	48X48	4.73	D-CB-38SB							1										
12A	SR-29	188+00.00	60 RT	27A	774.99	CB	48X48	4.33	D-CB-41SB														1			
12A	SR-29	189+99.68	0	27	772.19	CB	32X32	8.55	D-CB-38S								1									
12A	SR-29	189+99.68	60 RT	27B	774.47	CB	48X48	8.47	D-CB-41SB															1		
12A	SR-29	191+36.22	77.92 RT	27C	774.01	CB	48X48	4.41	D-CB-41SB														1			
12A	SR-29	191+44.31	90.96 RT	27D	772.81	CB	48X48	4.56	D-CB-38SB							1										
12A	SR-29	192+56.98	0	29	773.00	CB	84X84	19.34	D-CB-39SD												1					
13A	SR-29	197+07.74	0	28	775.21	CB	48X48	17.81	D-CB-38SB									1								
13A	SR-29	198+98.00	0	30	776.21	CB	48X48	8.90	D-CB-38SB								1									
13A	SR-29	204+23.28	0	32	777.00	CB	48X48	12.05	D-CB-39S											1						
14A	SR-29	207+64.00	0	31	774.83	CB	32X32	9.18	D-CB-38S								1									
14A	SR-29	211+08.00	0	33	772.73	CB	32X32	8.83	D-CB-38S								1									
14A	SR-29	213+05.81	0	34	771.50	CB	32X32	4.46	D-CB-38S							1										
14A	SR-29	216+53.25	0.6 LT	34A	769.33	CB	72	5.68	D-CB-38RB							1										
15A	SR-29	219+25.00	0.6 LT	35	767.65	CB	32X32	3.85	D-CB-38S						1											
15A	SR-29	222+32.68	0.6 LT	35A	766.03	CB	32X32	5.25	D-CB-38S							1										
15A	SR-29	221+96.75	0.6 LT	37	766.25	CB	84	5.90	D-CB-38RB							1										
15A	SR-29	225+15.00	0.6 LT	36	767.68	CB	32X32	3.68	D-CB-38S						1											
15A	SR-29	225+15.00	60 RT	36D	769.08	CB	48X48	4.38	D-CB-41SB														1			
16A	SR-29	228+50.00	0	37A	770.83	CB	48X48	3.87	D-CB-38SB						1											
16A	SR-29	228+50.00	60 RT	37B	772.78	CB	48X48	5.39	D-CB-41SB														1			
16A	SR-29	230+99.19	0.4 LT	36A	772.60	CB	32X32	1.52	D-CB-39S										1							INTO BOX CULV.
16A	SR-29	235+00.00	0	36B	776.02	CB	32X32	3.36	D-CB-38S						1											
17A	SR-29	242+06.63	0	36C	782.38	CB	32X32	6.54	D-CB-38S							1										
17A	SR-29	248+07.14	0.58 RT	40	787.50	CB	32X32	4.25	D-CB-38S							1										
10A	COAL HILL RD	40+88	16 RT	19	771.87	CB	48X48	6.32	D-CB-41SB														1			
10A	COAL HILL RD	42+61.48	16 RT	21	780.41	CB	48X48	5.97	D-CB-41SB														1			
MORGAN COUNTY TOTAL										0	0	0	0	0	4	10	5	1	1	1	1	0	9	1	0	
GRAND TOTAL										**1**	**1**	**1**	**2**	**1**	**6**	**18**	**13**	**1**	**1**	**1**	**1**	**2**	**11**	**1**	**1**	

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
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TABULATED QUANTITIES

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Survey & Data Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2BB

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

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM INLET ELEV.	TO CODE	TO OUTLET ELEV.	% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.) 18"	24"	30"	36"	42"	48"	54"	60"
ROANE COUNTY													
5A	1	817.63	2	809.67	3.22	247							
5A	3	808.67	4	805.42	9.85	33							
6A	5	780.60	6	773.80	12.59	54							
7A	7B	765.57	7D	760.55	4.69	107							
8A	9A	763.00	9B	755.87	8.01	89							
8A	9B	755.47	9C	753.20	1.86			122					
9A	15	758.63	12	757.00	0.70	233							
9A	16A	760.29	17A	759.81	2.00	24							
9A	17	760.24	17A	759.81	1.79	24							
10A	18	765.06	17D	753.06	8.10	148							
ROANE COUNTY TOTAL						**959**	**0**	**122**	**0**	**0**	**0**	**0**	**0**
MORGAN COUNTY													
10A	18C	764.09	18D	761.63	1.91	129							
12A	27	763.64	29	754.76	3.46	257							
12A	27B	766.00	27	765.00	1.67	60							
12A	27A	770.66	27B	766.20	2.28	196							
12A/13A	28	757.40	29	753.76	0.81			451					
13A	30	767.31	28	757.55	5.19	188							
14A	31	765.65	33	764.00	0.48	344							
14A	33	763.90	34	762.49	0.71	198							
15A	35	763.80	37	760.37	1.28	268							
15A	35A	760.78	37	760.37	1.28	32							
15A	36	764.00	35A	760.98	1.07	283							
15A	36D	764.70	36	764.10	1.00	58							
16A	38	778.78	39	777.94	1.17	72							
17A	42	790.58	43	789.58	1.16	86							
MORGAN COUNTY TOTAL						**2171**	**0**	**451**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL						**3130**	**0**	**573**	**0**	**0**	**0**	**0**	**0**

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.)
ROANE COUNTY									
5A	SR-29	111+50.93	0	3	SD	D-SEW-12D	2.84	253	461
6A	SR-29	119+94.63	125.84 LT	4C	EW	D-PE-4	1.86	68	0
8A	SR-29	138+11.04	0	9A	SD	D-SEW-12D	2.84	253	461
10A	SR-29	161+42.00	0	18	SD	D-SEW-12D	2.84	253	461
ROANE COUNTY TOTAL							10.38	827	1383
MORGAN COUNTY									
16A	SR-29	237+39.00	0	39	SD	D-SEW-12D	2.84	253	461
16A	SR-29	238+11.00	0	38	SD	D-SEW-12D	2.84	253	461
17A	SR-29	250+24.75	0	43	SD	D-SEW-12D	2.84	253	461
17A	SR-29	251+11.14	0	42	SD	D-SEW-12D	2.84	253	461
MORGAN COUNTY TOTAL							11.36	1012	1844
GRAND TOTAL							**21.74**	**1839**	**3227**

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	ROANE	MORGAN	TOTAL
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	8,235	5,411	13,646
209-01.31	TEMPORARY MULCH FILTER BERM	C.Y.	1,333	2,398	3,731
209-02.03	8" TEMPORARY SLOPE DRAIN	L.F.	0	227	227
209-02.04	10" TEMPORARY SLOPE DRAIN	L.F.	967	671	1,638
209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	0	572	572
209-02.06	15" TEMPORARY SLOPE DRAIN	L.F.	103	437	540
209-02.07	18" TEMPORARY SLOPE DRAIN	L.F.	478	1,167	1,645
209-04	BRUSH BARRIER	L.F.	2,176	4,179	6,355
209-05	SEDIMENT REMOVAL	C.Y.	5,044	6,079	11,123
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	25,612	35,548	61,160
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	9,994	2,722	12,716
209-08.07	ROCK CHECK DAM	EACH	297	244	541
209-08.08	ENHANCED ROCK CHECK DAM	EACH	90	122	212
209-09.01	SANDBAGS	BAG	5,085	5,797	10,882
209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	27	60	87
209-09.21	POLYACHLAMIDE GEL LOGS	EACH	42	60	102
209-09.22	POLYACHLAMIDE POWDER	L.B.	375	608	983
209-09.24	JUTE MESH FABRIC	S.Y.	1,784	2,084	3,868
209-09.41	CURB INLET PROTECTION (TYPE 2)	EACH	2	9	11
209-10.20	TEMPORARY SEDIMENT TRAP	C.Y.	150	4,005	4,155
209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	50	19	69
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	16	23	39
209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	3	9	12
209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	16	19	35
209-40.43	CATCH BASIN FILTER ASSEMBLY(TYPE 3)	EACH	2	0	2
209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EACH	0	3	3
209-65.01	TEMPORARY STREAM DIVERSION (PUMP AROUND)	LS	0.33	0.33	0.66
209-65.02	TEMPORARY STREAM DIVERSION (PIPE AROUND)	LS	0.33	0.33	0.66
209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	676	1,491	2,167
209-65.14	TEMPORARY STREAM DIVERSION	LS	0.33	0.33	1
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	496	642	1,138
621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	683	446	1,129
621-03.03	24" TEMPORARY DRAINAGE PIPE	L.F.	22	800	822
621-03.05	36" TEMPORARY DRAINAGE PIPE	L.F.	0	552	552
621-03.06	42" TEMPORARY DRAINAGE PIPE	L.F.	130	145	275
621-03.07	48" TEMPORARY DRAINAGE PIPE	L.F.	294	43	337
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	5,603	9,112	14,715
709-01.01	RUBBLE STONE RIP-RAP	C.Y.	0	4	4
709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	683	105	788
709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	2,698	4,059	6,757
709-05.08	MACHINED RIP-RAP (CLASS B)	TON	2,413	3,535	5,948
709-05.09	MACHINED RIP-RAP (CLASS C)	TON	1,601	2,638	4,239
709-05.81	ROCK RIFFLES	LS	0.6	0.4	1
709-05.83	EMBEDED RIPRAP	TON	20	13	33
740-06.01	GEOMEMBRANE (60 MIL)	S.Y.	827	675	1,502
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	6,853	9,362	16,215
740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	1,661	1,420	3,081
740-11.01	8" SEDIMENT TUBE	L.F.	2,206	0	2,206
740-11.02	12" SEDIMENT TUBE	L.F.	12,284	6,652	18,936
740-11.03	18" SEDIMENT TUBE	L.F.	1,777	2,040	3,817
740-11.04	20" SEDIMENT TUBE	L.F.	12,742	25,552	38,294
801-01	SEEDING (WITH MULCH)	UNIT	100	120	220
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	3,500	4,188	7,688
801-01.13	BONDED FIBER MATRIX HYDROMULCH (WITHOUT SEED)	UNIT	100	200	300
801-01.30	COVER CROP SEED MIX (RIPZN/FLPL) W/MULCH	UNIT	66	131	197
801-01.34	GRASS SEED MIX (RIPZN/FLPL)	UNIT	29	57	86
801-01.65	TEMPORARY MULCH	UNIT	1,155	1,382	2,537
801-02	SEEDING (WITHOUT MULCH)	UNIT	836	854	1,690
801-03	WATER (SEEDING & SODDING)	M.G.	915	1,179	2,094
801-08	FERTILIZER (SUPPLEMENTAL APPLICATION)	TON	43	51	94
801-09	AGRICULTURAL LIME	TON	42	43	85
805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	56,834	63,928	120,762
805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	29,161	26,639	55,800
805-12.04	EROSION CONTROL BLANKET (TYPE IV)	S.Y.	3,297	560	3,857
805-12.08	GRAM COIR FIBER EROSION BLANKET	S.Y.	1,200	200	1,400

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2CC

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

CROSS DRAIN TABULATION

STATION	RCP CLASS III OR CMP 10 GA. OR HDPE (L.F.) FILL HEIGHT < OR = 16 FT.								HORIZ OVAL CONCRETE PIPE CULVERT (L.F.)	SKEW	CLASS "B" RIP-RAP 709-05.08 (TON)	CLASS "C" RIP-RAP 709-05.09 (TON)	END TREATMENT				CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)	REMARKS
													INLET		OUTLET					
	18"	24"	30"	36"	42"	48"	54"	60"	76"x48"				TYPE	DRAWING NO.	TYPE	DRAWING NO.				
ROANE COUNTY																				
8+00.00	39									90°		70	STR	D-PE-4	U	D-PE-18A	2.65	177		Tedder Lane
39+06.90	50									85°			U	SHEET 2S	U	SHEET 2S	2.46	40		Rock Bridge Rd LT
21+19.84								116		75°		73			A	D-PE-1	9.33	123		RAMP B
102+95.15			206							90°	20		U	D-PE-30A	U	D-PE-30A	5.13	477	300	SR-29
107+86.35		182								90°	20		U	D-PE-24A	U	D-PE-24A	3.54	339		SR-29
111+85.27		146								90°	20		U	D-PE-24A	U	D-PE-24A	3.87	368		SR-29
120+24.34		113								90°			U	D-PE-24A	U	D-PE-24A	3.54	339		SR-29
123+34.00			115							90°			U	D-PE-30A	U	SHEET 2S	4.58	236	137	SR-29
134+59.89			163							90°	50				U	SHEET 2S	2.26	20		SR-29
137+00.00				176						90°	15				U	D-PE-36A	3.08	276	160	SR-29
154+17.28						240				35° LT, 90° RT		228	A	D-PE-1	A	D-PE-1	11.76	180		SR-29
156+91.66	163									60° LT, 90° RT	30				U	D-PE-18A	1.08	98		SR-29
159+94.54	54	102								90°	21				U	D-PE-24A	1.28	124		SR-29
ROANE COUNTY TOTAL	**267**	**543**	**484**	**176**	**0**	**240**	**0**	**116**	**0**		**176**	**301**					**54.56**	**2797**	**597**	
MORGAN COUNTY																				
164+32.56	127									90°		25			STR	D-PE-4	1.16	40		SR-29
168+32.50		168								90°		40	U	D-PE-24A	STR	D-PE-4	3.47	221		SR-29
181+50.00	131									90°	50				U	D-PE-18A	1.49	137		SR-29
183+71.06				148						90°		200	A	D-PE-1	U	D-PE-36A	8.28	461	217	SR-29
192+56.98								185		90°	59		A	D-PE-1	A	D-PE-1	18.14	240		SR-29
216+53.25					154					90°	75		U	D-PE-42A	U	D-PE-42A	9.35	791	464	SR-29
221+96.75					151					90°	150		A	D-PE-1	U	D-PE-42A	8.57	406	180	SR-29
228+50.00	130									90°		25			U	D-PE-18A	1.08	98		SR-29
236+45.09									140	82°	306		STR	D-PE-5	STR	D-PE-5	10.00	554		SR-29
40+92.72	46									70°					U	D-PE-18A	1.08	98		Coal Hill Rd
42+61.48	57									90°	21				U	D-PE-18A	1.30	118		Coal Hill Rd
48+60.04								46		70°		150	A	D-PE-1	A	D-PE-1	18.14	240		Coal Hill Rd
MORGAN COUNTY TOTAL	**491**	**168**	**0**	**148**	**305**	**0**	**0**	**231**	**140**		**661**	**440**					**82.06**	**3404**	**861**	
GRAND TOTAL	**758**	**711**	**484**	**324**	**305**	**240**	**0**	**347**	**140**		**837**	**741**					**136.62**	**6201**	**1458**	

BOX CULVERT TABULATION

STATION	LOCATION	SPAN	HEIGHT	LENGTH	SKEW	DRAINAGE AREA	BOX CULVERT W/ WINGWALLS		CLASS "B" RIP-RAP 709-05.08 (TON)	CLASS "C" RIP-RAP 709-05.09 (TON)	CULVERT EXC. *	DRAWING NO.	BACKFILLING ITEM 303-01.01 DWG. STD-10-1	FOUNDATION FILL MATERIAL ITEM 204-08
							CLASS "A" CONC.	REINF. STEEL					TONS	CU. YD.
						ACRES	CU. YD.	LBS.			CU. YD.			
ROANE COUNTY														
116+05.28	SR-29	5	6	116	60° RT	173.4	89	18441		136		STD-15-9, 11, 35	3008	22
41+16.00	ROCK BRIDGE ROAD RT	8	6	110	60° RT	244.5	116	23466				STD-15-9, 11, 37	2853	27
130+12.39	SR-29	10	6	102	60° LT	268.7	126	26531	85			STD-15-9, 11, 38	2646	27
11+19.21	P.D. 147+43.67	6	3	37	60° RT	20.4	25	5223				STD-15-9, 11, 35	600	8
ROANE COUNTY TOTAL							**356**	**73661**	**85**	**136**	**0**		**9107**	**83**
MORGAN COUNTY														
204+23.28	SR-29	6	4	248	75° RT	71.6	157	36924		216		STD-15-9, 10, 35	4823	51
213+05.81	SR-29	6	5	136	90°	144.3	95	18845		82		STD-15-9, 10, 35	3086	28
230+99.19	SR-29	6	5	106	75° RT	173.7	76	15063		295		STD-15-9, 10, 35	2405	22
242+06.63	SR-29	6	4	188	90°	121.5	114	24780	59			STD-15-9, 10, 35	3656	39
11+25.17	P.D. 246+00.00	6	4	45	90°	67	31	7200		95		STD-15-9, 10, 35	876	9
11+20.95	P.D. 251+07.03	6	4	38	90°	47.5	25	5684				STD-15-9, 10, 35	740	8
11+11.96	P.D. 253+58.00	6	4	37	90°	47.5	25	5551				STD-15-9, 10, 35	720	8
MORGAN COUNTY TOTAL							**524**	**114047**	**59**	**688**	**0**		**16306**	**165**
GRAND TOTAL							**880**	**187708**	**144**	**824**	**0**		**25413**	**248**

* 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.

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TABULATED QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2DD

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

SIDE DRAIN TABULATION

STATION	LOCATION LT	LOCATION RT	DESCRIPTION	SURFACE WIDTH (L.F.)	RCP CLASS III OR CMP 16 GA. OR HDPE OR PVC (L.F.) FILL HEIGHT < OR = 10 FT. 18"	24"	30"	60"	CLASS "B" RIP-RAP 709-05.08 (TON)	END TREATMENT TYPE	DRAWING NO.	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	18" ENDWALL (SIDEDRAIN) 611-07.31 (EACH)	24" ENDWALL (SIDEDRAIN) 611-07.32 (EACH)	REMARKS
ROANE COUNTY																
38+52.52 FREELS	X		PRIVATE DR. STA. 10+28.40	12	27					U	SHT. 2S	2.46	40			
41+32.41 ROCK BRIDGE RD RT	X		PRIVATE DR. STA. 10+33.37	10		45				U	SHT. 2S	1.76	20			
105+29.17	X		PRIVATE DR. STA. 10+78.00	12	28					U	D-SEW-1A			2		
106+86.25	X		PRIVATE DR. STA. 10+78.00	12		29				U	D-SEW-1A				2	
110+32.49	X		PRIVATE DR. STA. 10+78.00	12		29				U	D-SEW-1A				2	
114+67.90	X		PRIVATE DR. STA. 10+82.65	12		26				U	D-SEW-1A				2	
115+58.00		X	PRIVATE DR.STA. 10+92.22	(2) 10		52				U	D-SEW-1A				2	
117+87.00	X		PRIVATE DR. STA. 10+78.63	20	30					U	D-SEW-1A			2		
120+63.05	X		PRIVATE DR. STA. 10+71.50	16	25					U	D-SEW-1A			2		
141+76.15		X	PRIVATE DR. STA. 10+98.88	38	51					U	D-SEW-1A			2		
151+95.29		X	PRIVATE DR. STA. 11+14.13	12		40				U	SHT. 2S	3.52	40			
ROANE COUNTY TOTAL					**161**	**221**	**0**	**0**	**0**			**7.74**	**100**	**8**	**8**	
MORGAN COUNTY																
191+65.00		X	PRIVATE DR. STA. 10+88.27	16	58				20	U	SHT. 2S	1.23	20			RCP
191+65.00		X	PRIVATE DR. STA. 11+00.50	16		43			20	U	SHT. 2S	1.76	20			RCP
209+78.07		X	PRIVATE DR. STA. 11+06.06	15			43		70	U	SHT. 2S	4.52	40			
213+47.05		X	PRIVATE DR. STA. 11+00.03	12	20					U	SHT. 2S	2.46	40			
233+00.00	X		PRIVATE DR. STA. 11+03.74	12				24		A	D-PE-1	18.14	240			
233+42.00		X	PRIVATE DR. STA. 10+77.00	12	20					U	D-SEW-1A			2		
239+57.97		X	PRIVATE DR. STA. 10+78.00	12		27				U	D-SEW-1A				2	
240+41.06		X	PRIVATE DR. STA. 10+81.19	12		27				U	D-SEW-1A				2	
48+78.00 COAL HILL		X	PRIVATE DR. STA. 10+30.14	16		28				U	SHT. 2S	3.52	40		2	
MORGAN COUNTY TOTAL					**98**	**125**	**43**	**24**	**110**			**31.63**	**400**	**2**	**6**	
GRAND TOTAL					**259**	**346**	**43**	**24**	**110**			**39.37**	**500**	**10**	**14**	

MEDIAN DRAIN TABULATION

STATION	CODE	RCP CLASS III (L.F.) FILL HEIGHT < OR = 16 FT. 18"	24"	30"	SKEW	CLASS "C" RIP-RAP 709-05.09 (TON)	END TREATMENT INLET TYPE	INLET DRAWING NO.	OUTLET TYPE	OUTLET DRAWING NO.	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	STRUC. STEEL 611-07.03 (LB.)	REMARKS
ROANE COUNTY														
128+25.00	7	110.0			90°		CB	D-CB-38SB						TIE TO 8'X6' RCBC
139+00.00	9			82.0	90°		CB	D-CB-38SB	MH	D-MH-5				
140+22.05	9C			84.0	90°	30	CB	D-CB-38SB	U	SHT. 2S	2.26	20		
148+00.00	12	106.0			90°		CB	D-CB-38SB	U	D-PE-18A	0.87	79		
ROANE COUNTY TOTAL		**216.0**	**0.0**	**166.0**		**30.0**					**3.13**	**99**	**0**	
MORGAN COUNTY														
197+07.74	28		109.0		90°		U	D-PE-24A	CB	D-CB-38SB	2.26	215		
235+00.00	36B	79.0			90°		CB	D-CB-38S	U	D-PE-18A	1.08	98		
248+07.14	40	101.0			90°		CB	D-CB-38S	U	D-PE-18A	1.08	98		
MORGAN COUNTY TOTAL		**180.0**	**109.0**	**0.0**		**0.0**					**4.42**	**411**	**0**	
GRAND TOTAL		**396**	**109**	**166**		**30**					**7.55**	**510**	**0**	

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TABULATED QUANTITIES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	2EE

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

RIP-RAP DITCHES

STATION FROM	STATION TO	LOCATION	SIDE LT	SIDE RT	TYPE	LENGTH	BOTTOM WIDTH (L.F.)	TOTAL WIDTH (L.F.)	CLASS "A-1" RIP-RAP 709-05.06 (TON)	CLASS "B" RIP-RAP 709-05.08 (TON)	CLASS "C" RIP-RAP 709-05.09 (TON)	GEOMEMBRANE 740-06.01 (S.Y)	GEOTEXTILE TYPE 3 740-10.03 (S.Y)
ROANE COUNTY													
120+91	120+91	SR 29		X	T	16	3	20		52.00			36.00
4+10	4+10	TEDDER LANE (BENCH DRAIN)		X	T	73	5	9			150.00	73.00	
144+00	147+12	SR 29		X	T	354	5	13		746.00			512.00
6+24	6+24	TEDDER LANE (BENCH DRAIN)		X	T	71	5	9			145.00	71.00	
133+00.00	140+50.00	SR 29 (BENCH DITCHES)		X	V	750		4	292.00				334.00
133+50.00	139+20.00	SR 29 (BENCH DITCHES)		X	V	570		4	222.00				254.00
138+00	138+98	SR 29 (BENCH DRAIN)		X	T	215	5	9			439.00	215.00	
153+83.00	154+17.28	SR 29		X	T	34	3	11			85.00		42.00
154+66.02	154+17.28	SR 29		X	T	34	2	10			78.00		38.00
154+51	154+20	SR 29		X	T	60	3	9			123.00		60.00
155+69	156+30	SR 29	X		T	78	5	17.5			310.00		152.00
								ROANE CO. TOTALS	514.00	798.00	1330.00	359.00	1428.00
MORGAN COUNTY													
199+59.00	199+59.00	SR 29 (BENCH DRAIN)		X	T	302	5	9			617.00	302.00	
168+11	172+73	SR 29		X	V	462		6	270.00				308.00
177+50	177+93	SR 29	X		V	40		6		39.00			27.00
194+37	194+47	SR 29 (SPRING DRAIN)		X	N/A	20		10	20.00				23.00
200+00	197+50	SR 29		X	V	250		6	146.00				167.00
200+00	201+50	SR 29 (BENCH DITCHES)		X	V	150		4	59.00				67.00
200+00	201+50	SR 29 (BENCH DITCHES)		X	V	150		4	59.00				67.00
200+00	201+00	SR 29 (BENCH DITCHES)		X	V	100		4	39.00				45.00
200+00	200+50	SR 29 (BENCH DITCHES)		X	V	50		4	20.00				23.00
205+50	209+30	SR 29		X	V	380		6	222.00				254.00
206+00	207+50	SR 29 (BENCH DITCHES)		X	V	150		4	59.00				67.00
209+45	209+39	SR 29		X	V	35		6		35.00			24.00
207+73	207+73	SR 29 (BENCH DRAIN)		X	T	68	5	9			139.00	68.00	
213+05	213+30	SR 29		X	V	24		6		24.00			16.00
215+00	217+19	SR 29		X	V	225		6		219.00			150.00
220+50	222+00	SR 29		X	V	150		6		146.00			100.00
231+28	232+50	SR 29		X	V	122		6	72.00				82.00
235+50	239+24	SR 29		X	V	375		5		304.00			209.00
253+75	256+00	SR 29		X	T	225	10	14			715.00		350.00
* 255+00	255+60	SR 29		X	V	115		6	68.00				77.00
								MORGAN CO. TOTAL	1034.00	767.00	1471.00	370.00	2056.00
TOTALS									**1548**	**1565**	**2801**	**729**	**3484**

* TEMPORARY DITCH

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TABULATED QUANTITIES

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	3

UTILITIES

GAS:
Citizens Gas Utility District
of Scott and Morgan Counties
P.O. Box 320
12519 Scott Highway
Helenwood, Tennessee 37755
Phone: (423) 569-4457
Attn: Mike Watters

Spectra Energy
East Tennessee Natural Gas
1575 Downtown West Boulevard
Knoxville, Tennessee 37919
Phone: (865) 539-3283
Attn: Greg B. Davisson

TELEPHONE:
AT&T
9733 Parkside Drive
Knoxville, Tennessee 37922
Phone: (865) 539-8579
Attn: David Overman

Highland Telephone
P.O. Box 119
7840 Morgan Co. Hwy
Sunbright, Tennessee 37872
Phone: (423) 628-2121
Attn: Steven (Jake) Diden

Sprint Communication
411 Huger Street
Columbia, South Carolina
Phone: (404) 649-2355
Attn: Steve Thompson

ELECTRIC:
Harriman Utility Board
P.O. Box 434
300 North Roane Street
Harriman, Tennessee 37748
Phone: (865) 882-3242
Attn: Steve Ladd

Tennessee Valley Authourity
4125 Greenway Drive
Knoxville, Tennessee 37918
Phone: (865) 673-2202
Attn: Jason Goodman

Plateau Electric Cooperative
P.O. Box 4669
16200 Scott Highway
Oneida, Tennessee 37841
Phone: (423) 569-8591
Attn: Joel McCartt

Cable:
Xfinity (Comcast)
5720 Asheville Highway
Knoxville, Tennessee 37924
Phone: (865) 862-5061
Attn: Josh Jones

WATER:
Cumberland Utility District
P.O. Box 950
3201 Harriman Highway
Harriman, Tennessee 37748
Phone: (865) 882-0395
Attn: Sam Crass

NOTE: ALL THE LISTED UTILITY OWNERS WERE CONTACTED AND INFORMED THAT THE D.O.T. WAS CONDUCTING A SURVEY FOR THE PURPOSE OF RECONSTRUCTING S.R. 29. AFTER A REASONABLE TIME AND NUMEROUS REQUESTS SOME UTILITIES WERE NOT MARKED OR INCOMPLETELY MARKED.

AS A RESULT SOME UTILITIES LOCATIONS ARE NOT SHOWN, ONLY PARTIALLY SHOWN, OR ARE APPROXIMATELY SHOWN BASED ON UTILITY PLANS OR EVIDENCE ON THE GROUND.

LEGEND

PERMANENT DRAINAGE EASEMENT

UTILITY NOTES

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

2. UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE 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 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. THE WORK REQUIREDAROUND THE UTILITIES.

06/18/2010: CHANGED PERMANENT DRAINAGE EASEMENT TO CONSTRUCTION EASEMENT ON TRACT 51, ADDED CONSTRUCTION EASEMENT ON TRACT 2 AND NOTED CONTROLLED ACCESS R.O.W.

1/26/2011: ADDED TRACT 10A AND NOTED CONTROLLED ACCESS R.O.W.

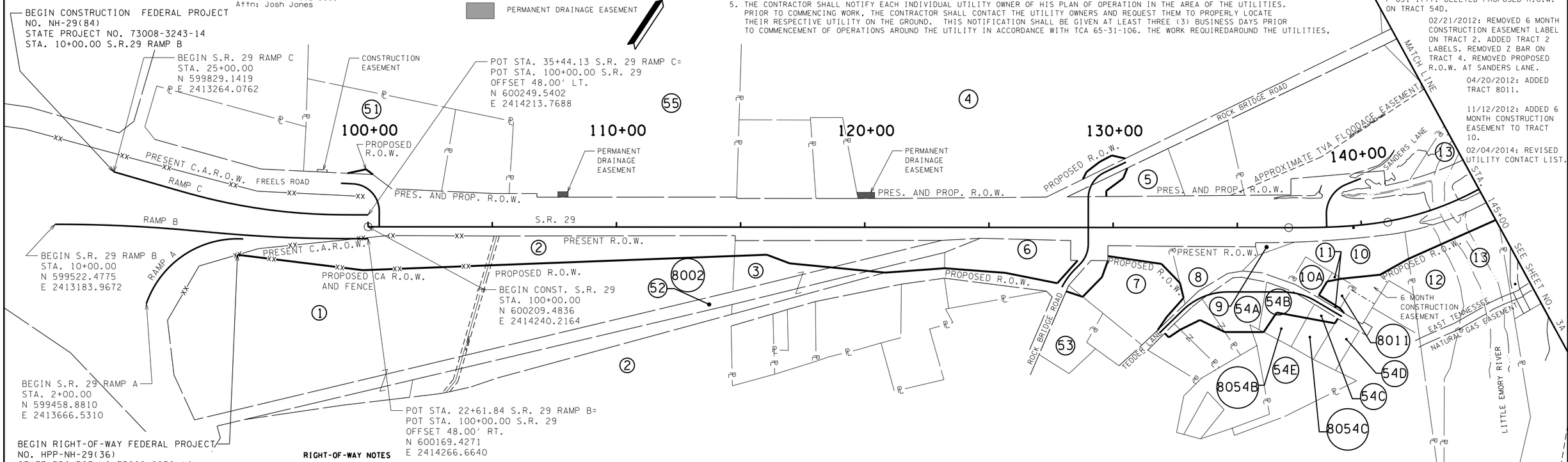
12/16/2011: ADDED TRACTS 8002, 8054B, AND 8054C. REMOVED 6 MONTH CONSTRUCTION EASEMENT TRACT 2. REMOVED PRESENT AND PROPOSED C.A.R.O.W. ON NORTH SIDE OF FREELS ROAD. REVISED PRESENT C.A.R.O.W. ON SOUTH SIDE OF FREELS ROAD PER C.A. R.O.W. PROJECT F-031-1(7). DELETED PROPOSED R.O.W. ON TRACT 54D.

02/21/2012: REMOVED 6 MONTH CONSTRUCTION EASEMENT LABEL ON TRACT 2. ADDED TRACT 2 LABELS. REMOVED Z BAR ON TRACT 4. REMOVED PROPOSED R.O.W. AT SANDERS LANE.

04/20/2012: ADDED TRACT 8011.

11/12/2012: ADDED 6 MONTH CONSTRUCTION EASEMENT TO TRACT 10.

02/04/2014: REVISED UTILITY CONTACT LIST.



RIGHT-OF-WAY NOTES

1. IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, DESIGN DIVISION IS TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

2. IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, DESIGN DIVISION AND THE CIVIL ENGINEERING MANAGER 1, REGIONAL DESIGN OFFICE, ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

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

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

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

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

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

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

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

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

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

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

TRACT NO.	PROPERTY OWNERS
1	HELEN JOYCE POLSTON
2	JOSHUA AND STEPHANIE BROWN
8002	JOSHUA AND STEPHANIE BROWN
3	PEGGY SUE AND ALAN DALE WEBB
4	JOHN E. AND JACKIE M. BROWN
5	STANLEY RAY AND MELISSA BROWN BURNEY, JR.
6	JAMES R. HULING
7	BRENDA GUINN
8	HENRY E. BELL AND EVELYN M. BELL
9	ROY E. AND NANNIE G. GILMORE
10	ROY E. AND NANNIE G. GILMORE
10A	REBECCA V. GILMORE
11	LINDA G. PARKS
8011	LINDA G. PARKS
12	HAROLD E. AND JEAN MURRY
13	UNITED STATES OF AMERICA
51	LAWERENCE AND JUDY GRIFFITH
52	SOUTHERN RAIL ROAD ROW
53	JAMES RICHARD AND PATRICIA WARD
54A	JAMES C. AND JUDY S. COLEY
54B	DOUGLAS WAYNE MOORE
8054B	DOUGLAS WAYNE MOORE
54C	RITA JOYCE BARNES AND PETER TIMAR
8054C	RITA JOYCE BARNES AND PETER TIMAR
54D	NANNIE G. GILMORE
54E	SANDRA L. AND JOHN STOUT, JR.
55	MARY COFER POLSTON

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Survey & Design Division

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPERTY MAP

STA. 10+00 TO STA. 145+00

SCALE: 1"=200'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	3A

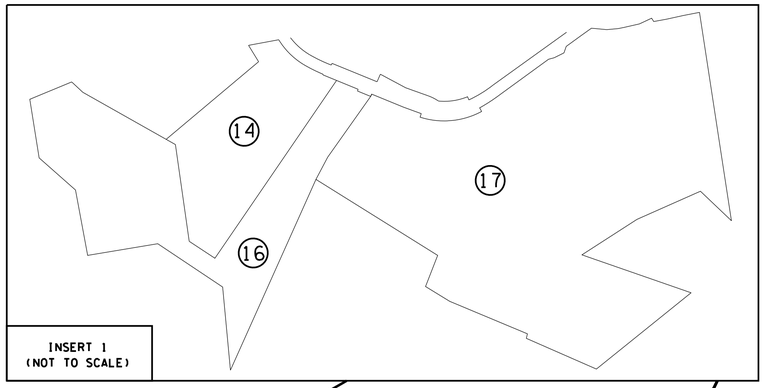
06/18/2010: REVISED PROPERTY LINES FOR TRACTS 16 & 17.

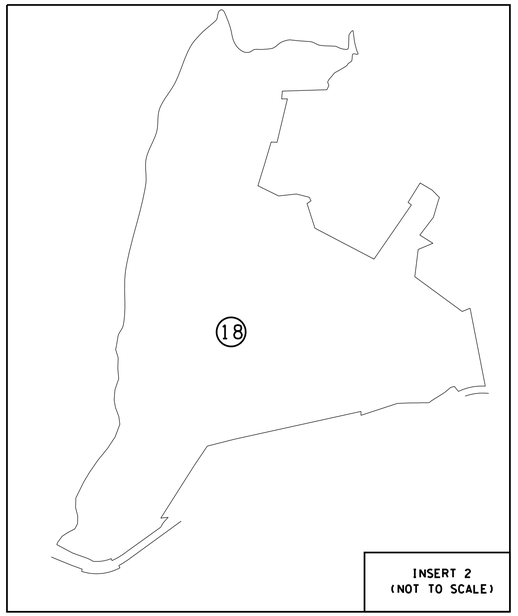
12/16/2011: ADDED TRACT 17S, REVISED COAL HILL ROAD ALIGNMENT AND ADDED PROPOSED R.O.W. EAST OF COAL HILL ROAD.

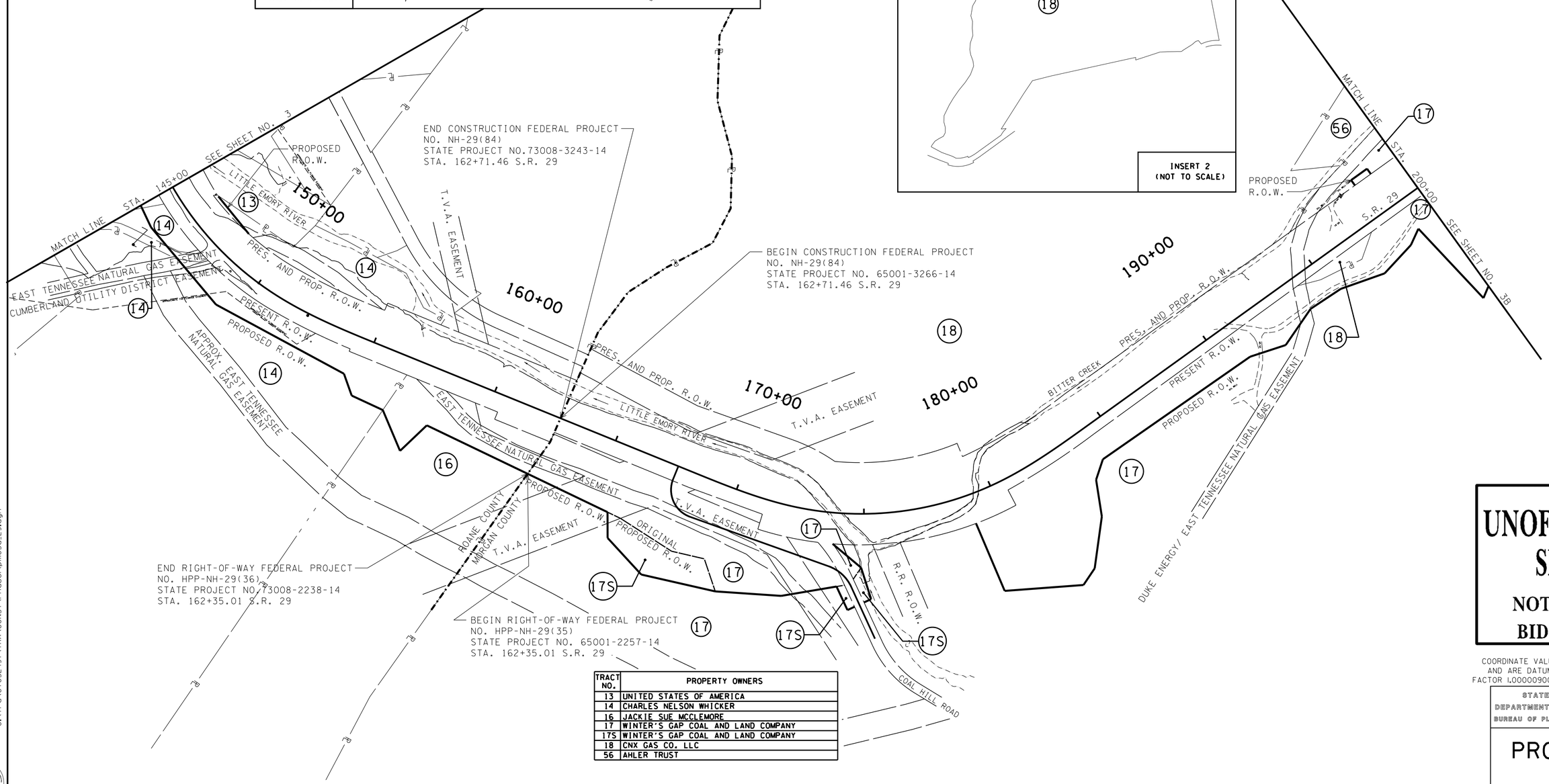
10/17/2013: REVISED TRACT 13 AND 14 LT PROPERTY LINE BEARINGS AND DISTANCES.

LEGEND

PERMANENT DRAINAGE EASEMENT







TRACT NO.	PROPERTY OWNERS
13	UNITED STATES OF AMERICA
14	CHARLES NELSON WHICKER
16	JACKIE SUE MCCLEMORE
17	WINTER'S GAP COAL AND LAND COMPANY
17S	WINTER'S GAP COAL AND LAND COMPANY
18	CNX GAS CO. LLC
56	AHLER TRUST

UNOFFICIAL SET

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPERTY MAP

STA. 145+00 TO STA. 200+00

SCALE: 1"=200'

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Survey & Design Division

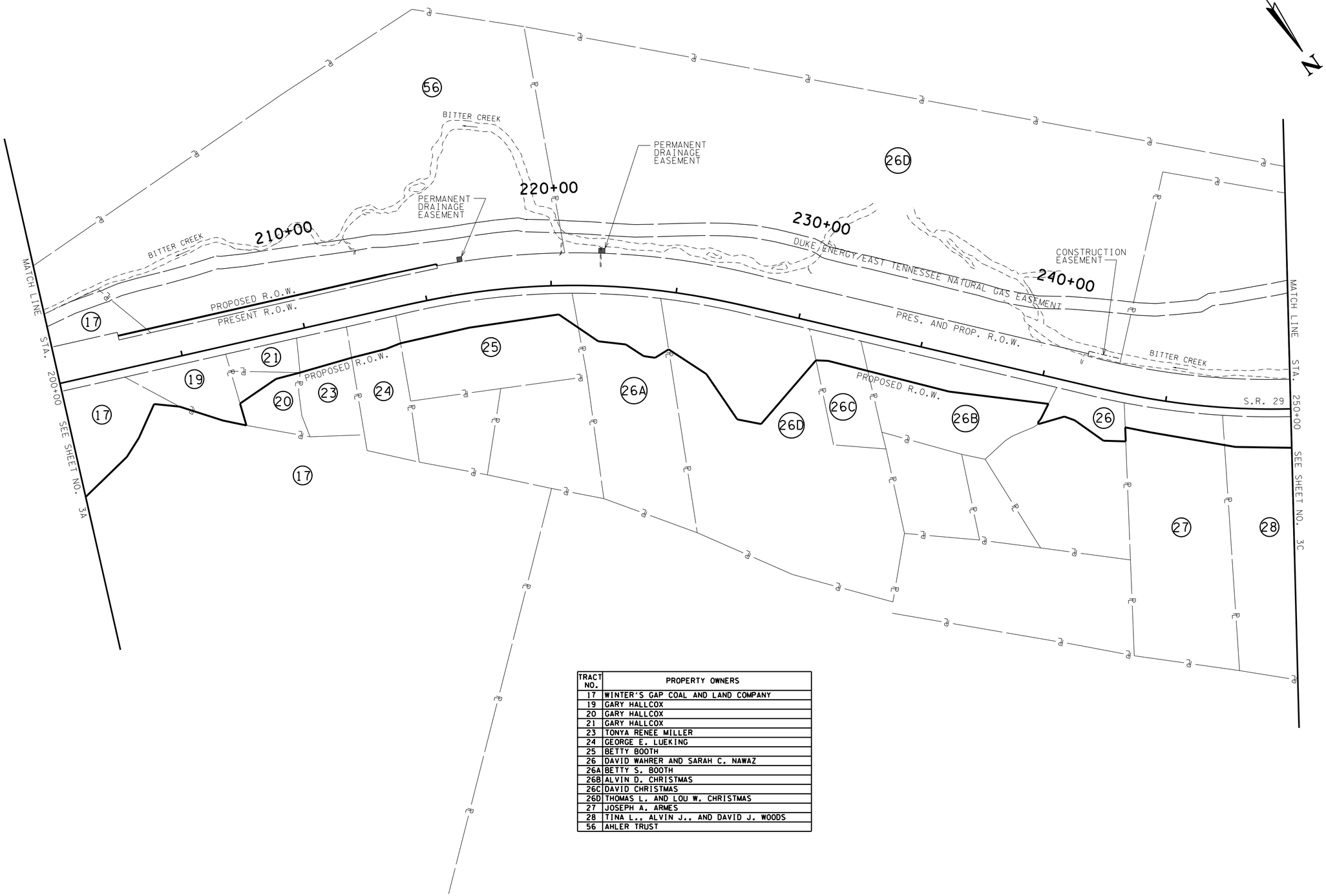
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	3B

06/18/2010: REVISED PROPERTY LINES FOR TRACTS 17, 19, 20, 21, 56 AND 26 AND DELETED TRACT 22.

LEGEND

PERMANENT DRAINAGE EASEMENT



TRACT NO.	PROPERTY OWNERS
17	WINTER'S GAP COAL AND LAND COMPANY
19	GARY HALLCOX
20	GARY HALLCOX
21	GARY HALLCOX
23	TONYA RENEE MILLER
24	GEORGE E. LUEKING
25	BETTY BOOTH
26	DAVID WAHRER AND SARAH C. NAWAZ
26A	BETTY S. BOOTH
26B	ALVIN D. CHRISTMAS
26C	DAVID CHRISTMAS
26D	THOMAS L. AND LOU W. CHRISTMAS
27	JOSEPH A. ARMES
28	TINA L., ALVIN J., AND DAVID J. WOODS
56	AHLER TRUST

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPERTY MAP

STA. 200+00 TO STA. 250+00

SCALE: 1"=200'

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3C
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	3C

06/18/2010: REVISED PROPERTY LINES FOR TRACT 58, AND ADDED TRACT 57.

1/26/2011: RENAMED TRACT 38 TO 8038 AND ADDED TRACT 38A.

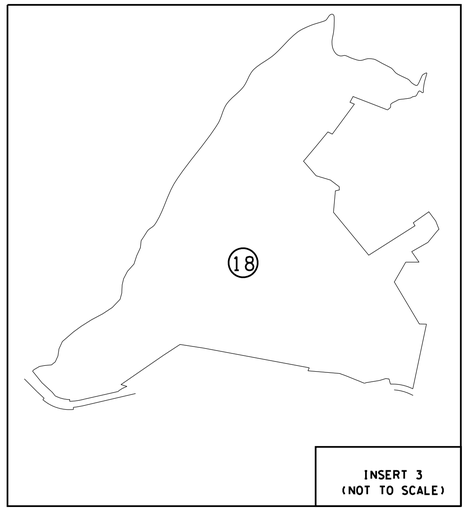
12/16/2011: REVISED TRACT 32 AND ADDED TRACTS 8030 AND 8032. RENAMED TRACT 38A TO 38 AND REVISED OWNER NAME.

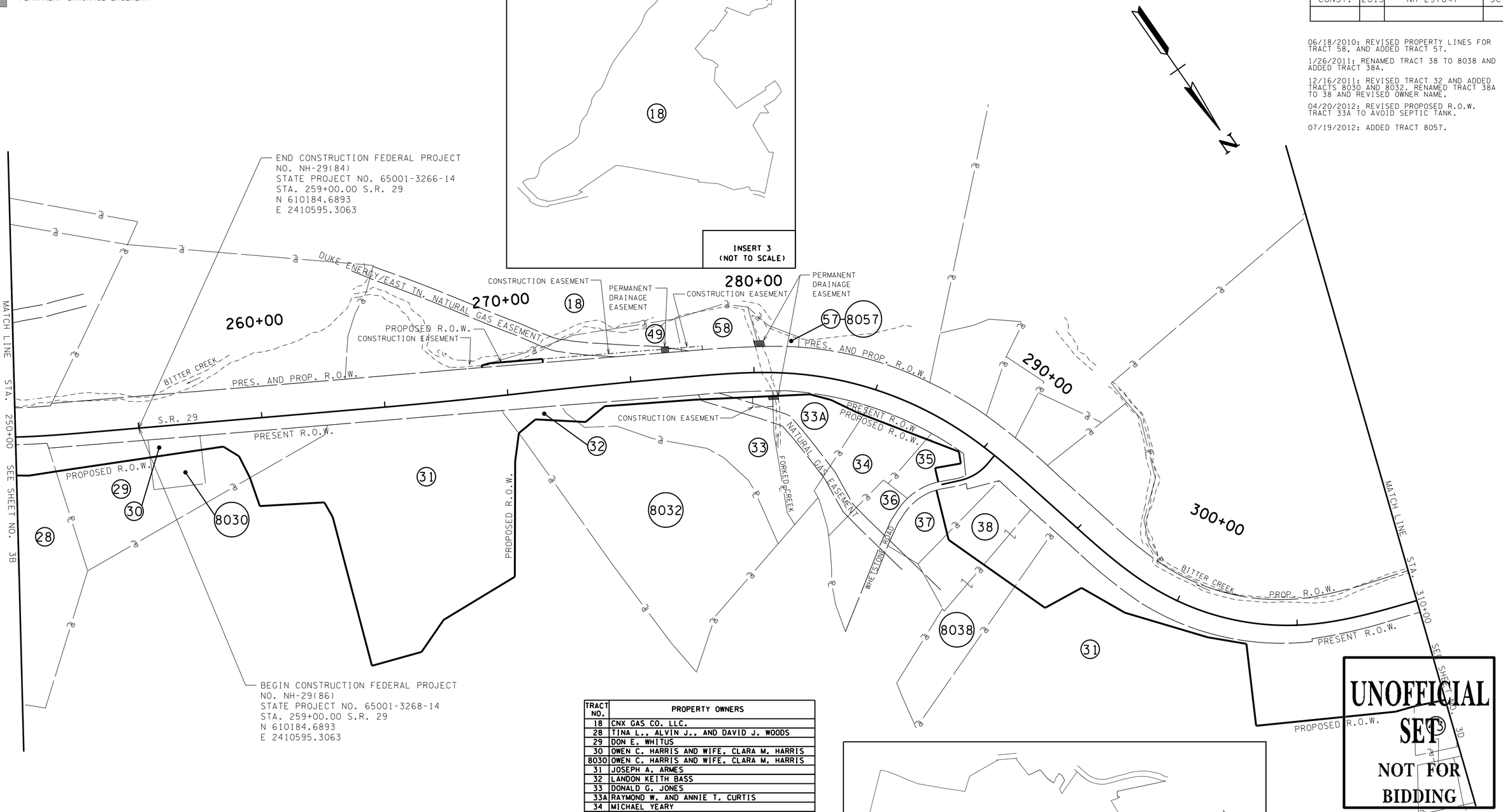
04/20/2012: REVISED PROPOSED R.O.W. TRACT 33A TO AVOID SEPTIC TANK.

07/19/2012: ADDED TRACT 8057.

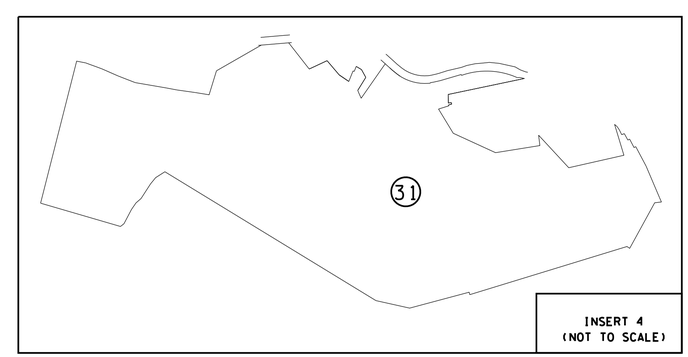
LEGEND

PERMANENT DRAINAGE EASEMENT





TRACT NO.	PROPERTY OWNERS
18	CNX GAS CO. LLC.
28	TINA L., ALVIN J., AND DAVID J. WOODS
29	DON E. WHITUS
30	OWEN C. HARRIS AND WIFE, CLARA M. HARRIS
8030	OWEN C. HARRIS AND WIFE, CLARA M. HARRIS
31	JOSEPH A. ARMES
32	LANDON KEITH BASS
33	DONALD G. JONES
33A	RAYMOND W. AND ANNIE T. CURTIS
34	MICHAEL YEARY
35	PAUL W. AND LESLIE YEARY
36	STEPHANIE YEARY PINKERTON
37	WILLIAM R. AND WANDA D. TURNER
8038	STEVEN BRUCE LANE AND MARSHA CAROL LANE
38	STEVEN BRUCE LANE AND MARSHA CAROL LANE
43	HOUSTON AND LIANNE HULING
49	DONALD G. JONES
57	WILLIAM TURNER
8057	WILLIAM TURNER
58	DONALD G. JONES



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPERTY MAP

STA. 250+00 TO STA. 310+00

SCALE: 1"=200'

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Survey & Design Division

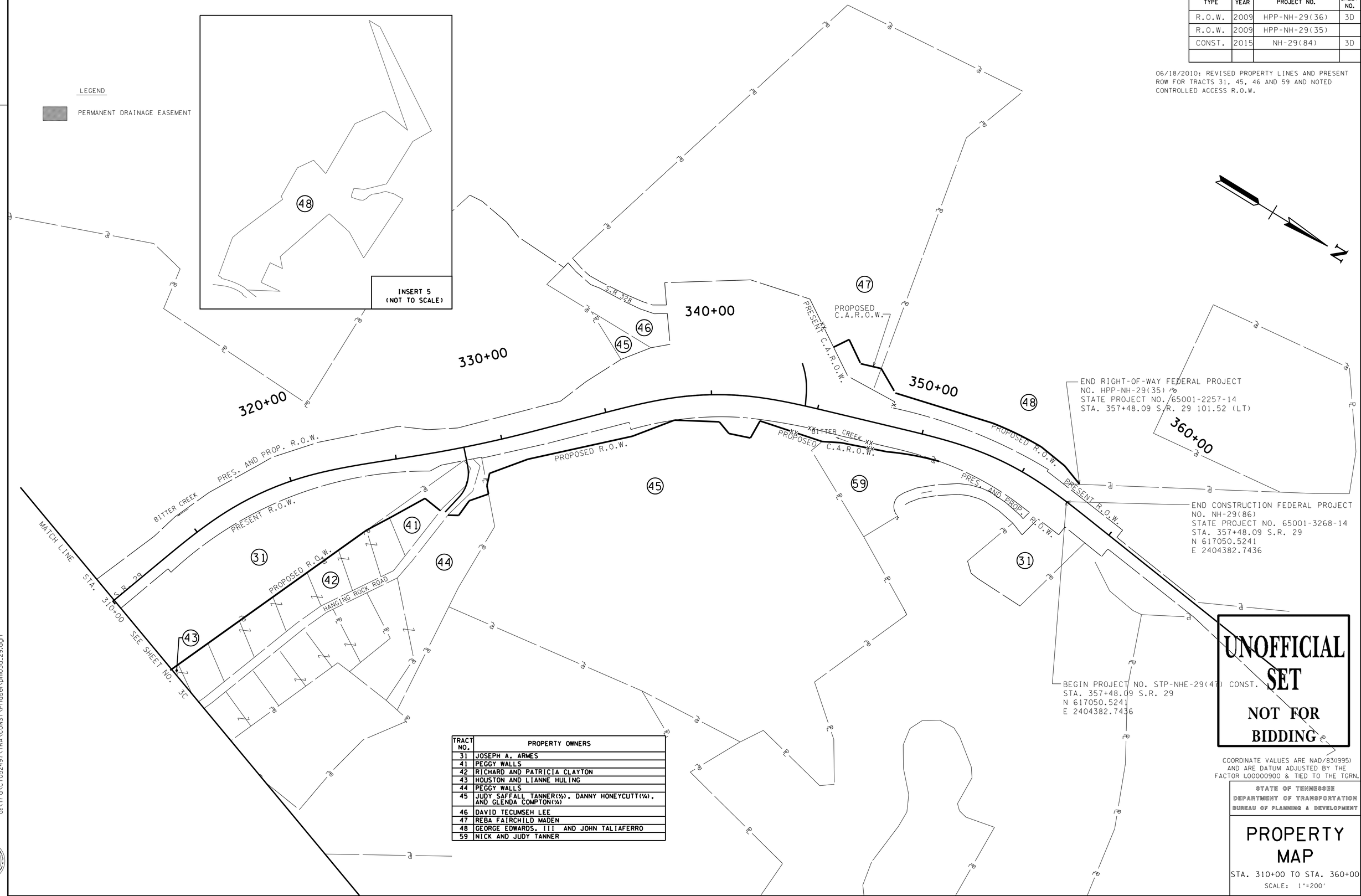
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3D
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	3D

06/18/2010: REVISED PROPERTY LINES AND PRESENT ROW FOR TRACTS 31, 45, 46 AND 59 AND NOTED CONTROLLED ACCESS R.O.W.

LEGEND

PERMANENT DRAINAGE EASEMENT



TRACT NO.	PROPERTY OWNERS
31	JOSEPH A. ARMES
41	PEGGY WALLS
42	RICHARD AND PATRICIA CLAYTON
43	HOUSTON AND LIANNE HULING
44	PEGGY WALLS
45	JUDY SAFFALL TANNER(½), DANNY HONEYCUTT(¼), AND GLENDA COMPTON(¼)
46	DAVID TECUMSEH LEE
47	REBA FAIRCHILD MADEN
48	GEORGE EDWARDS, III AND JOHN TALIAFERRO
59	NICK AND JUDY TANNER

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPERTY MAP

STA. 310+00 TO STA. 360+00

SCALE: 1"=200'

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Survey & Design Division

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

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	HELEN JOYCE POLSTON	11	64.01	WB4	142-143		16.795	16.795	0.000	2.358	2.358	0.000	14.437			
2	JOSHUA AND STEPHANIE BROWN	11	64	1201	787		9.642	9.642	0.000	2.232	2.232	0.000	7.410			
8002	JOSHUA AND STEPHANIE BROWN	11	64	1201	787		5.876	5.876	0.000	5.876	5.876	0.000	0.000			
3	PEGGY SUE AND ALAN DALE WEBB	11	59	T18	657		2.633	2.633	0.000	1.526	1.526	0.000	1.107			
4	JOHN E. AND JACKIE M. BROWN	11	54	K18	616-617	61.001		61.001	0.107	0.000	0.107	60.894	0.000	1740		
5	STANLEY RAY AND MELISSA B. BURNEY, JR.	11	54.01	L20	765	1.042		1.042	0.207	0.000	0.207	0.835	0.000			
6	JAMES R. HULING	11	55	G22	270		1.563	1.563	0.000	1.563	1.563	0.000	0.000			
7	BRENDA GUINN	12	5	W20	644		2.683	2.683	0.000	0.720	0.720	0.000	1.963			
8	HENRY E. BELL AND EVELYN M. BELL	12	5.01	1257	518		1.024	1.024	0.000	1.024	1.024	0.000	0.000			
9	ROY E. AND NANNIE G. GILMORE	12I	14	R15	257-258		0.092	0.092	0.000	0.092	0.092	0.000	0.000			
10	**ROY E. AND NANNIE G. GILMORE	12I	13	L14, Z12	244-245, 340		2.506	2.506	0.000	1.789	1.789	0.000	0.717			0.263
10A	REBECCA V. GILMORE	12IA	13	1352	770		0.340	0.340	0.000	0.340	0.340	0.000	0.000			
11	LINDA G. PARKS	12I	13.01	A17	750		0.264	0.264	0.000	0.043	0.043	0.000	0.221			
8011	LINDA G. PARKS	12IA	13.01	A17	750		0.221	0.221	0.000	0.221	0.221	0.000	0.000			
~~12~~	~~HAROLD E. AND JEAN MURRY~~	~~12~~	~~3~~	~~B9~~	~~430~~		~~2.632~~	~~2.632~~	0.000	0.281	0.281	0.000	2.351			
13	TVA	12	59	U5	447		2.364	2.364	0.000	0.475 ①	0.475 ①	0.000	1.889			
14	*CHARLES NELSON WHICKER	12	1	S21	711	2.406	102.896	105.302	0.042 ①	2.668	2.710	2.364	100.228			
~~15~~								~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~			
16	JACKIE SUE MCCLEMORE	12	60	Z19	78		178.734	178.734	0.000	2.354	2.354	0.000	176.380			
17	WINTER'S GAP COAL AND LAND COMPANY	149	47	T4	315	2.137	475.239	477.376	0.091	17.550	17.641	2.046	457.689			
17S	WINTER'S GAP COAL AND LAND COMPANY	149	47	T4	315	2.046	457.689	459.735	0.000	1.321	1.321	2.046	456.368			
18	CNX GAS CO. LLC.	149	25	96	791	2394.000	0.292	2394.292	0.000	0.292	0.292	2394.000	0.000			1718
19	GARY HALLCOX	149	50.02	M7	112		1.592	1.592	0.000	1.592	1.592	0.000	0.000			
20	GARY HALLCOX	149	50.03	R6	11		1.334	1.334	0.000	0.341	0.341	0.000	0.993			
21	GARY HALLCOX	149	50.01	M7	114		0.672	0.672	0.000	0.672	0.672	0.000	0.000			
~~22~~																
23	TONYA RENEE MILLER	149	49.01	RB41	141		2.105	2.105	0.000	0.626	0.626	0.000	1.479			
24	GEORGE E. LUEKING	149	48.01	S8	663		2.531	2.531	0.000	0.561	0.561	0.000	1.970			
25	BETTY BOOTH	149	49	Y7	346		5.802	5.802	0.000	1.705	1.705	0.000	4.097			
26	DAVID WAHRER AND SARAH C. NAWAZ	149	22.04	82	725		0.983	0.983	0.000	0.983	0.983	0.000	0.000			
26A	BETTY S. BOOTH	149	22.02	C9	378		7.009	7.009	0.000	1.630	1.630	0.000	5.379			
26B	ALVIN D. CHRISTMAS	149	22.03	79	185		4.995	4.995	0.000	1.794	1.794	0.000	3.201			
26C	DAVID CHRISTMAS	149	22.05	88	512		2.047	2.047	0.000	0.532	0.532	0.000	1.515			
26D	THOMAS L. AND LOU W. CHRISTMAS	149	22	P8	590	49.192	16.533	65.725	0.000	4.149	4.149	49.192	12.384	500		2683
27	JOSEPH A. ARMES	149	21.01	G9	531		9.340	9.340	0.000	0.943	0.943	0.000	8.397			
28	TINA L., ALVIN J., AND DAVID J. WOODS	149	21.02	B9	485		10.693	10.693	0.000	1.165	1.165	0.000	9.528			
29	DON E. WHITUS	149	23	H6	202		6.004	6.004	0.000	1.917	1.917	0.000	4.087			
30	OWEN C. HARRIS AND WIFE, CLARA M. HARRIS	149	23.01	MISC 37	653		0.958	0.958	0.000	0.310	0.310	0.000	0.648			
8030	OWEN HARRIS AND WIFE, CLARA HARRIS	149	23.01	MISC 37	653		0.648	0.648	0.000	0.648	0.648	0.000	0.000			
31	JOSEPH A. ARMES	149 140	25.01 29	G9	531		1120.785	1120.785	0.000	34.110	34.110	0.000	1086.675			
32	LANDON KEITH BASS	149	16	Y8	915-916		12.350	12.350	0.000	0.360	0.360	0.000	11.990			
8032	LANDON KEITH BASS	149	16	Y8	915		11.990	11.990	0.000	11.990	11.990	0.000	0.000			
33	DONALD G. JONES	149	17.02	E9	473		4.236	4.236	0.000	0.508	0.508	0.000	3.728	259		3118
33A	RAYMOND W. AND ANNIE T. CURTIS	149	17	I6	15		2.702	2.702	0.000	0.174	0.174	0.000	2.528	342		
34	MICHEAL YEARY	149	13	RB69	606		2.477	2.477	0.000	0.251	0.251	0.000	2.226			
35	PAUL W. AND LESLIE YEARY	149	12	Q5	396		0.976	0.976	0.000	0.227	0.227	0.000	0.749			
~~36~~	~~STEPHANIE YEARY PINKERTON~~	~~149~~	~~18~~	~~RB71~~	~~123~~		~~1.906~~	~~1.906~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~1.906~~			
37	WILLIAM R. AND WANDA D. TURNER	149	11	Z7	142		1.474	1.474	0.000	0.525	0.525	0.000	0.949			
38	STEVEN BRUCE LANE AND MARSHA CAROL LANE	149	11.02,11.05	G7	130		5.684	5.684	0.000	2.189	2.189	0.000	3.495			
8038	STEVEN BRUCE LANE AND MARSHA CAROL LANE	149	11.05	G7	130		3.495	3.495	0.000	3.495	3.495	0.000	0.000			
~~39~~	~~BERNICE T. COUCH~~	~~149~~	~~11.02~~	~~V6~~	~~599~~		~~3.478~~	~~3.478~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~3.478~~			
~~40~~	~~PER O. LOSETH~~	~~140~~	~~16~~	~~R8~~	~~219-225~~		~~897.000~~	~~897.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~897.000~~			
41	PEGGY WALLS	140-O	1	Z7	626-627		1.379	1.379	0.000	0.689	0.689	0.000	0.690			
42	RICHARD AND PATRICIA CLAYTON	140-O	2-7	S8	376		4.362	4.362	0.000	0.023	0.023	0.000	4.339			
~~43~~	~~HOUSTON AND LIANNE HULING~~	~~140-O~~	~~8-10~~	~~G7~~	~~107~~		~~2.266~~	~~2.266~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~2.266~~			

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3E
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	3E

06/18/2010: ROUNDED ALL EASEMENTS TO THE NEAREST SQUARE FOOT REVISED OWNER NAMES FOR TRACTS 1, 2, 23, 26D, 33, 33A & 45 CORRECTED COUNTY RECORD INFORMATION FOR TRACTS 2,33,33A,45&58 REVISED ACREAGES FOR AFFECTED TRACTS

1/26/2011: ADDED TRACTS 10A AND 38A. RENAMED TRACT 38 TO 8038. REVISED AREA TO BE ACQUIRED FOR TRACTS 23, 24, AND 38.

12/16/2011: ADDED TRACT 17S, 8002, 8030 AND 8032. REVISED AREA TO BE ACQUIRED FOR TRACT 10, 10A, 32 AND 8038. RENAMED TRACT 38A TO 38 AND REVISED AREAS AND OWNER NAME.REMOVED CONSTRUCTION EASEMENT ON TRACT 2.

2/21/2012: REVISED TOTAL AREA LEFT AND AREA TO BE ACQUIRED LEFT FOR TRACT 4. REVISED ACQUIRED AREA AND AREA REMAINING ON TRACT 8038. ADDED TVA FLOWAGE EASEMENT NOTE FOR TRACT 14.

04/20/2012: ADDED TRACT 8011. TRACT 33A REVISED AREA TO BE ACQUIRED TO AVOID SEPTIC TANK.

11/12/2012: ADDED 6 MONTH CONSTRUCTION EASEMENT TO TRACT 10.

01/15/2014: ADDED NOTE TO REFERENCE SHEET 8D FOR TVA AREAS FOR TRACT 13 AND 14.

① SEE SHEET 8D FOR THE AREAS USED BY TVA

* -OIL AND MINERAL RIGHTS RETAINED BY THE COAL CREEK MINING AND MANUFACTURING CO. DEED S21, PAGE 711

* -TRACT CONTAINS APPROXIMATELY 4.75 ACRES OF TVA FLOWAGE EASEMENT

** - 6 MONTH CONSTRUCTION EASEMENT TO REMOVE IMPROVEMENTS

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RIGHT-OF-WAY ACQUISITION TABLE

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	3F

12/16/2011: ADDED SHEET TO PLAN SET AND TRACTS 8054B AND 8054C.

07/20/2012: ADDED TRACT 8057

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.
44	PEGGY WALLS	140-O	17-18	Z7	626-627		5.941	5.941	0.000	0.272	0.272	0.000	5.669			
45	JUDY SAFFALL TANNER(1/2), DANNY HONEYCUTT(1/4), AND GLENDA COMPTON(1/4)	140	26	X8 Z6 Y7	707, 557, 817	0.444	50.466	50.910	0.000	1.923	1.923	0.444	48.543			
~~46~~	~~DAVID TECUMSEH LEE~~	~~140~~	~~25.02~~	~~U6~~	~~654~~	~~1.715~~		~~1.715~~	~~0.000~~	~~0.000~~	~~0.000~~	~~1.715~~	~~0.000~~			
47	REBA FAIRCHILD MADEN	140	25	A7	712	38.263		38.263	0.495	0.000	0.495	37.768	0.000			
48	GEORGE EDWARDS, III AND JOHN TALIAFERRO	139	10	RB26	885	387.000		387.000	1.604	0.000	1.604	385.396	0.000			
49	DONALD G. JONES	149	16.01	T7	789	1.580		1.580	0.083	0.000	0.083	1.497	0.000	750		7988
~~50~~	~~LARRY WILL~~	~~140~~	~~19.02~~	~~??~~	~~???~~	~~7.700~~		~~7.700~~	~~0.000~~	~~0.000~~	~~0.000~~	~~7.700~~	~~0.000~~			
51	LAWERENCE AND JUDY GRIFFITH	11	52.03	1026	317	4.667		4.667	0.023	0.000	0.023	4.644	0.000			374
52	SOUTHERN RAIL ROAD ROW	??	??	??	??		3.471	3.471	0.000	0.531	0.531	0.000	2.940			
53	JAMES RICHARD AND PATRICIA WARD	12	6.01	B16	272		1.040	1.040	0.000	0.021	0.021	0.000	1.019			
~~54~~	~~RHONDA LEE~~	~~12I-A~~	~~5~~	~~Y17~~	~~301~~		~~1.615~~	~~1.615~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~1.615~~			
54A	JAMES C. AND JUDY S. COLEY	12I-A	6,6.01,7	R20	470		2.539	2.539	0.000	1.213	1.213	0.000	1.326			
54B	DOUGLAS WAYNE MOORE	12I-A	9	L20	604		0.805	0.805	0.000	0.493	0.493	0.000	0.312			
8054B	DOUGLAS WAYNE MOORE	12I-A	9	T21	295		0.312	0.312	0.000	0.312	0.312	0.000	0.000			
54C	RITA JOYCE BARNES AND PETER TIMAR	12I-A	11.01	T18	7		0.473	0.473	0.000	0.108	0.108	0.000	0.365			
8054C	RITA JOYCE BARNES AND PETER TIMAR	12I-A	11.01	T18	7		0.365	0.365	0.000	0.365	0.365	0.000	0.000			
~~54D~~	~~NANNIE C. GILMORE~~	~~12I-A~~	~~11~~	~~C12~~	~~130~~		~~0.431~~	~~0.431~~	~~0.000~~	~~0.006~~	~~0.006~~	~~0.000~~	~~0.425~~			
54E	SANDRA L. AND JOHN STOUT, JR.	12I-A	12.02	Q21	108		1.775	1.775	0.000	0.016	0.016	0.000	1.759			
55	MARY COFER POLSTON	11	52	Y19	261	53.496		53.496	0.000	0.000	0.000	53.496	0.000	919		
56	AHLER TRUST	149	51	E8	567	41.613		41.613	0.458	0.000	0.458	41.155	0.000	403		
57	WILLIAM TURNER	149	14.01	60	250	0.327			0.000	0.000	0.000	0.327	0.000	622		
8057	WILLIAM TURNER	149	14.01	60	250	0.327			0.327	0.000	0.327	0.000	0.000	622		
58	DONALD G. JONES	149	15	O8	539	1.130		1.130	0.000	0.000	0.000	1.130	0.000	380		1279
~~59~~	~~NICK AND JUDY TANNER~~	~~140~~	~~16.46~~	~~D9~~	~~175~~		~~4.370~~	~~4.370~~	~~0.000~~	~~0.000~~	~~0.000~~	~~0.000~~	~~4.370~~			

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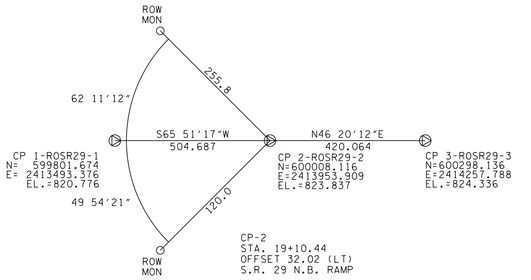
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

RIGHT-OF-WAY ACQUISITION TABLE

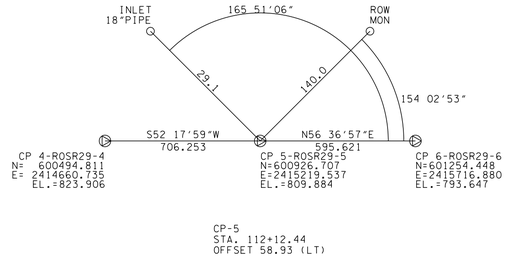
Survey & Design Division

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

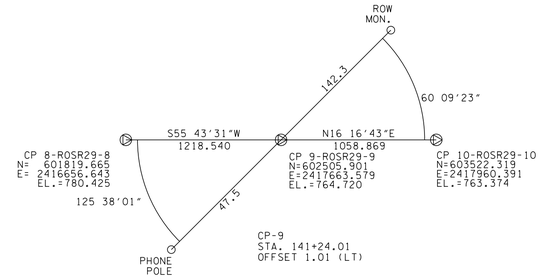
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3G
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	3G



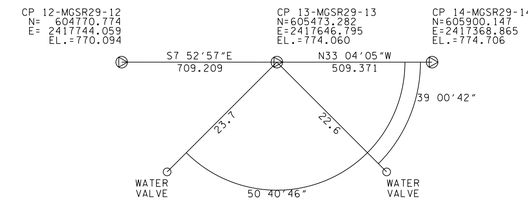
CP-2
STA. 19+10.44
OFFSET 32.02 (LT)
S.R. 29 N.B. RAMP



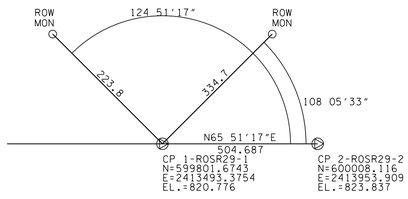
CP-5
STA. 112+12.44
OFFSET 58.93 (LT)



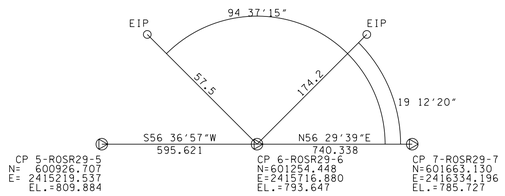
CP-9
STA. 141+24.01
OFFSET 1.01 (LT)



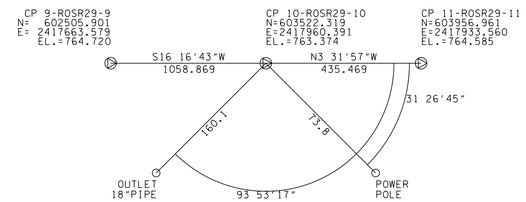
CP-13
STA. 172+32.41
OFFSET 6.23 (LT)



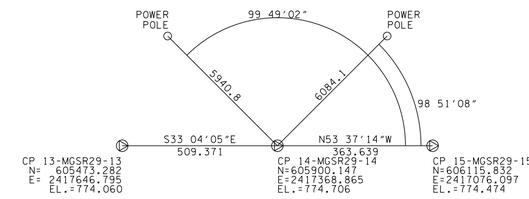
CP-1
STA. 14+07.23
OFFSET 75.76 (LT)
S.R. 29 N.B. RAMP



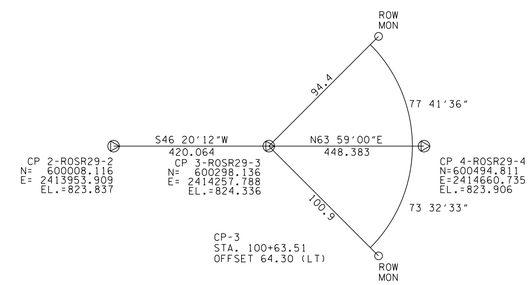
CP-6
STA. 118+08.06
OFFSET 58.41 (LT)



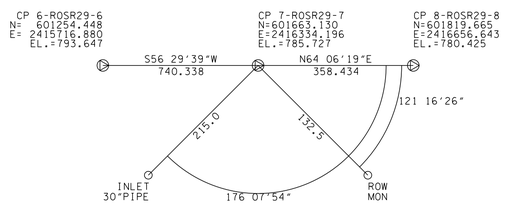
CP-10
STA. 152+45.46
OFFSET 56.67 (LT)



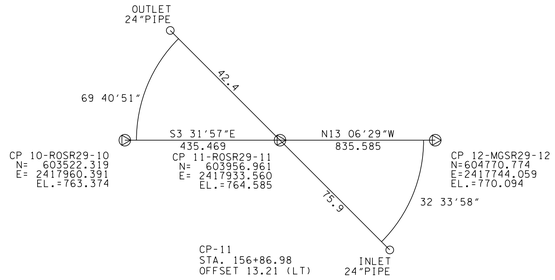
CP-14
STA. 177+49.73
OFFSET 12.72 (LT)



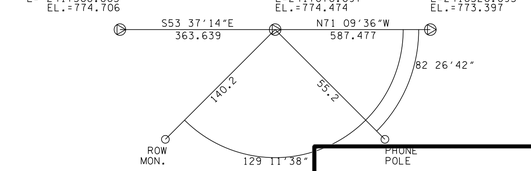
CP-3
STA. 100+63.51
OFFSET 64.30 (LT)



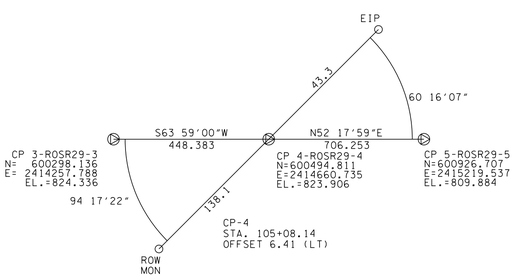
CP-7
STA. 125+48.40
OFFSET 59.32 (LT)



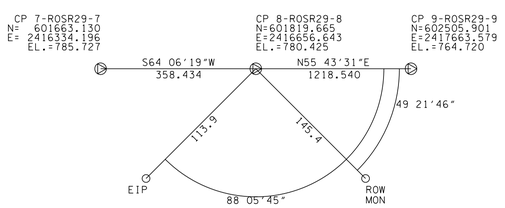
CP-11
STA. 156+86.98
OFFSET 13.21 (LT)



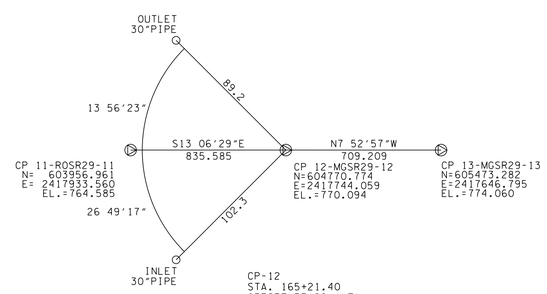
CP-15
STA. 181+18.0
OFFSET 14.25 (LT)



CP-4
STA. 105+08.14
OFFSET 6.41 (LT)



CP-8
STA. 129+03.73
OFFSET 12.29 (LT)



CP-12
STA. 165+21.40
OFFSET 57.22 (LT)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

REFERENCE POINTS

N.T.S.

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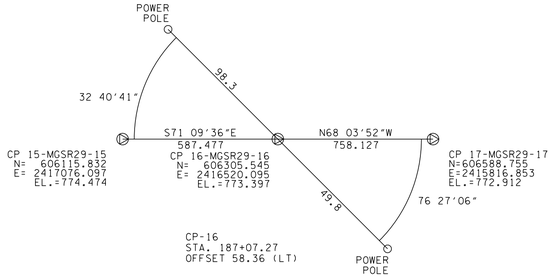
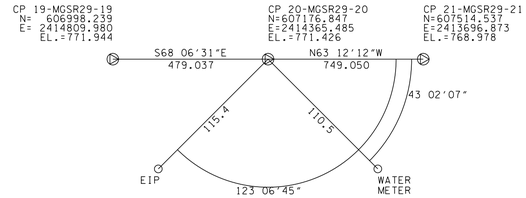
Survey & Design Division

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

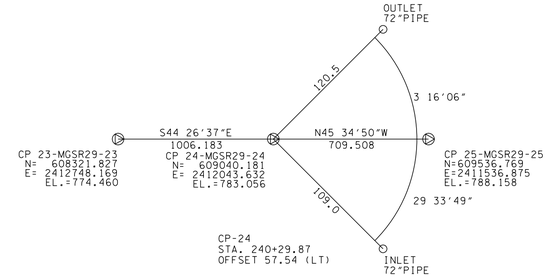
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	3H
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(86)	3H



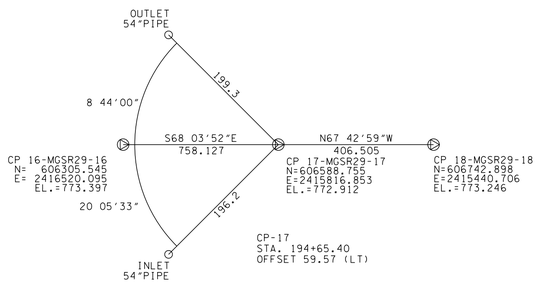
CP-16
STA. 187+07.27
OFFSET 58.36 (LT)



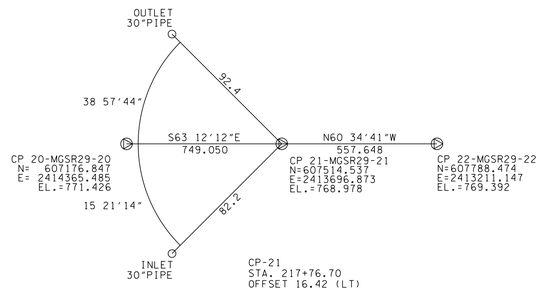
CP-20
STA. 210+31.39
OFFSET 58.74 (LT)



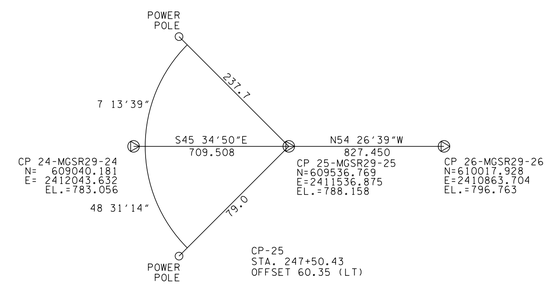
CP-24
STA. 240+29.87
OFFSET 57.54 (LT)



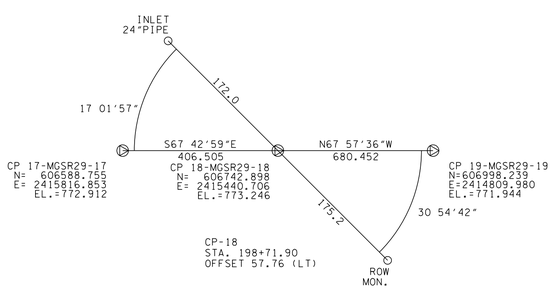
CP-17
STA. 194+65.40
OFFSET 59.57 (LT)



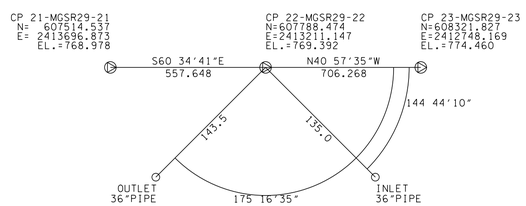
CP-21
STA. 217+76.70
OFFSET 16.42 (LT)



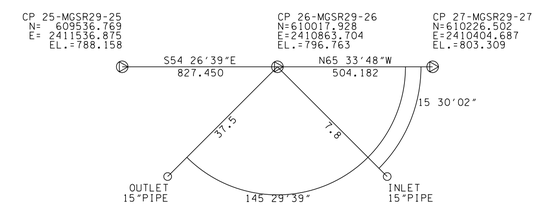
CP-25
STA. 247+50.43
OFFSET 60.35 (LT)



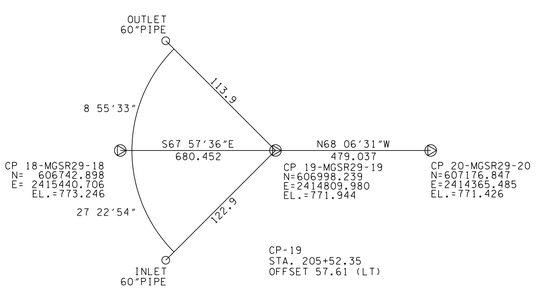
CP-18
STA. 198+71.90
OFFSET 57.76 (LT)



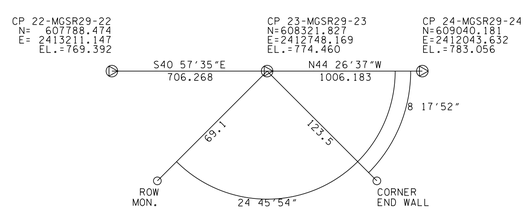
CP-22
STA. 223+25.91
OFFSET 61.54 (LT)



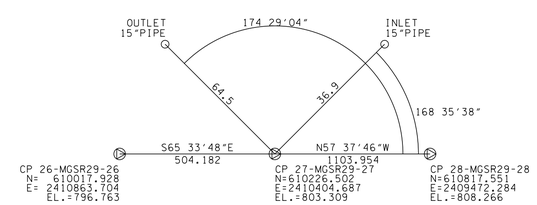
CP-26
STA. 255+84.19
OFFSET 10.54 (LT)



CP-19
STA. 205+52.35
OFFSET 57.61 (LT)



CP-23
STA. 230+24.57
OFFSET 15.33 (LT)



CP-27
STA. 260+85.97
OFFSET 58.87 (LT)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

REFERENCE POINTS

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Survey & Design Division

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

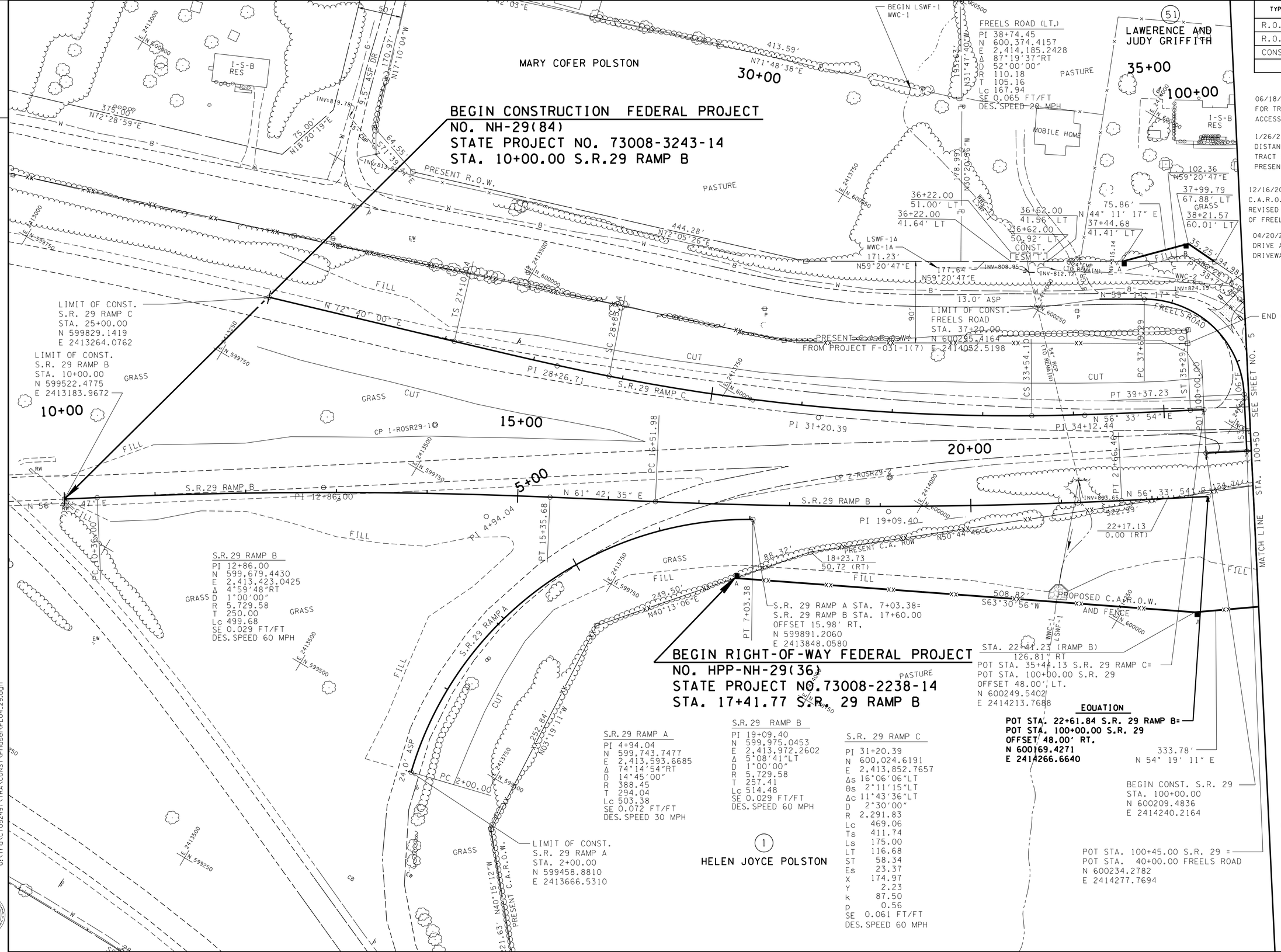
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	4
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	4

06/18/2010: REVISED OWNER NAME FOR TRACT 1 AND NOTED CONTROLLED ACCESS R.O.W.

1/26/2011: ADDED BEARING AND DISTANCES ALONG C.A.R.O.W. ON TRACT 51. REVISED LINESTYLE ON PRESENT AND PROPOSED C.A.R.O.W.

12/16/2011: REMOVED PRESENT AND PROPOSED C.A.R.O.W. ON NORTH SIDE OF FREELS ROAD. REVISED PRESENT C.A.R.O.W. ON SOUTH SIDE OF FREELS ROAD PER PROJECT F-031-1(7).

04/20/2012: INCREASED WIDTH OF PRIVATE DRIVE AT STA. 38+52.52 TO 12' AND DRIVEWAY RADIUS TO 25'.



UNOFFICIAL SET
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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 10+00 TO STA. 100+50

SCALE: 1"= 50'

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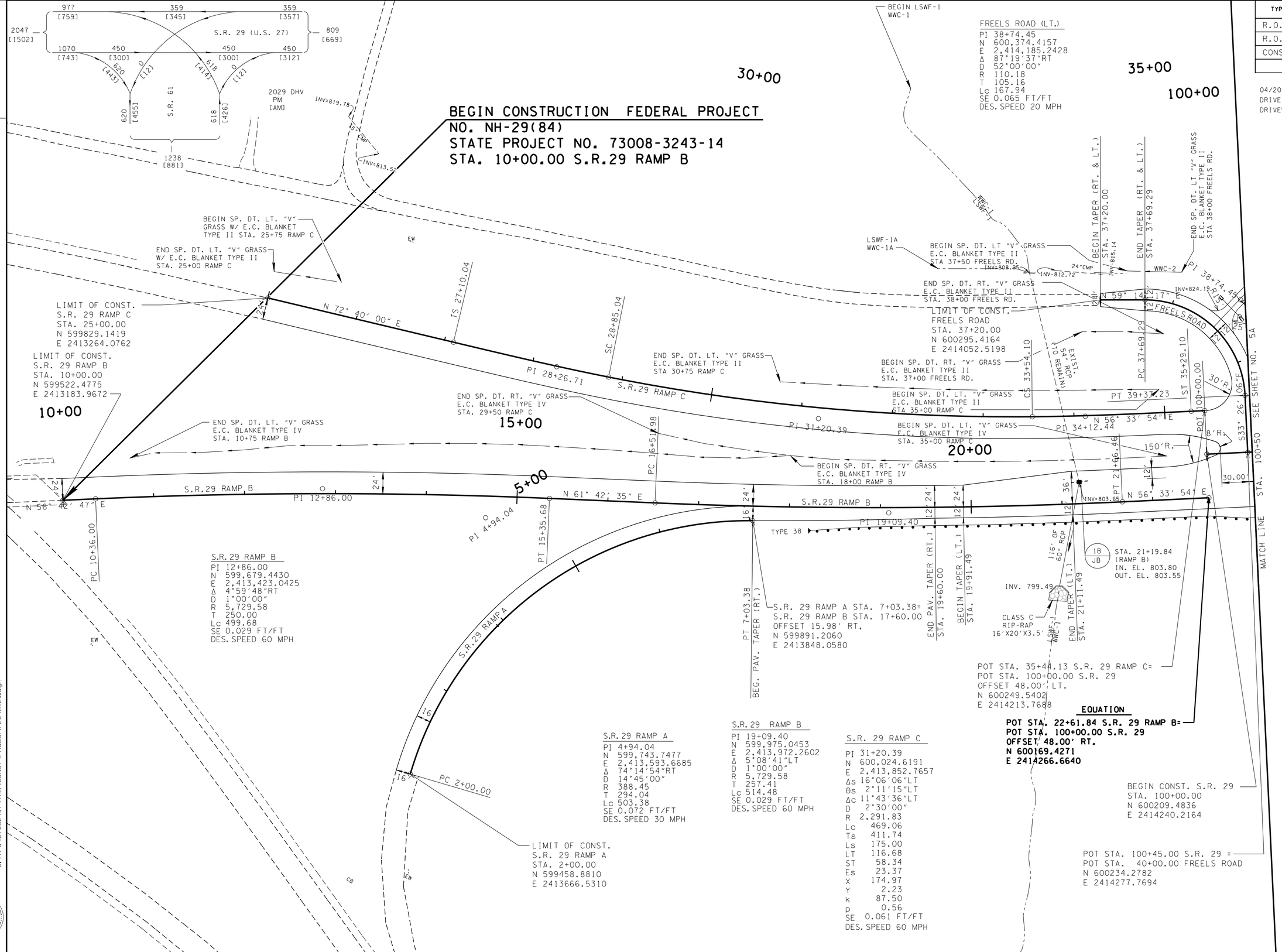
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	4A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	4A

04/20/2012: INCREASED WIDTH OF PRIVATE DRIVE AT STA. 38+52.52 TO 12' AND DRIVEWAY RADIUS TO 25'.



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Survey & Design Division

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

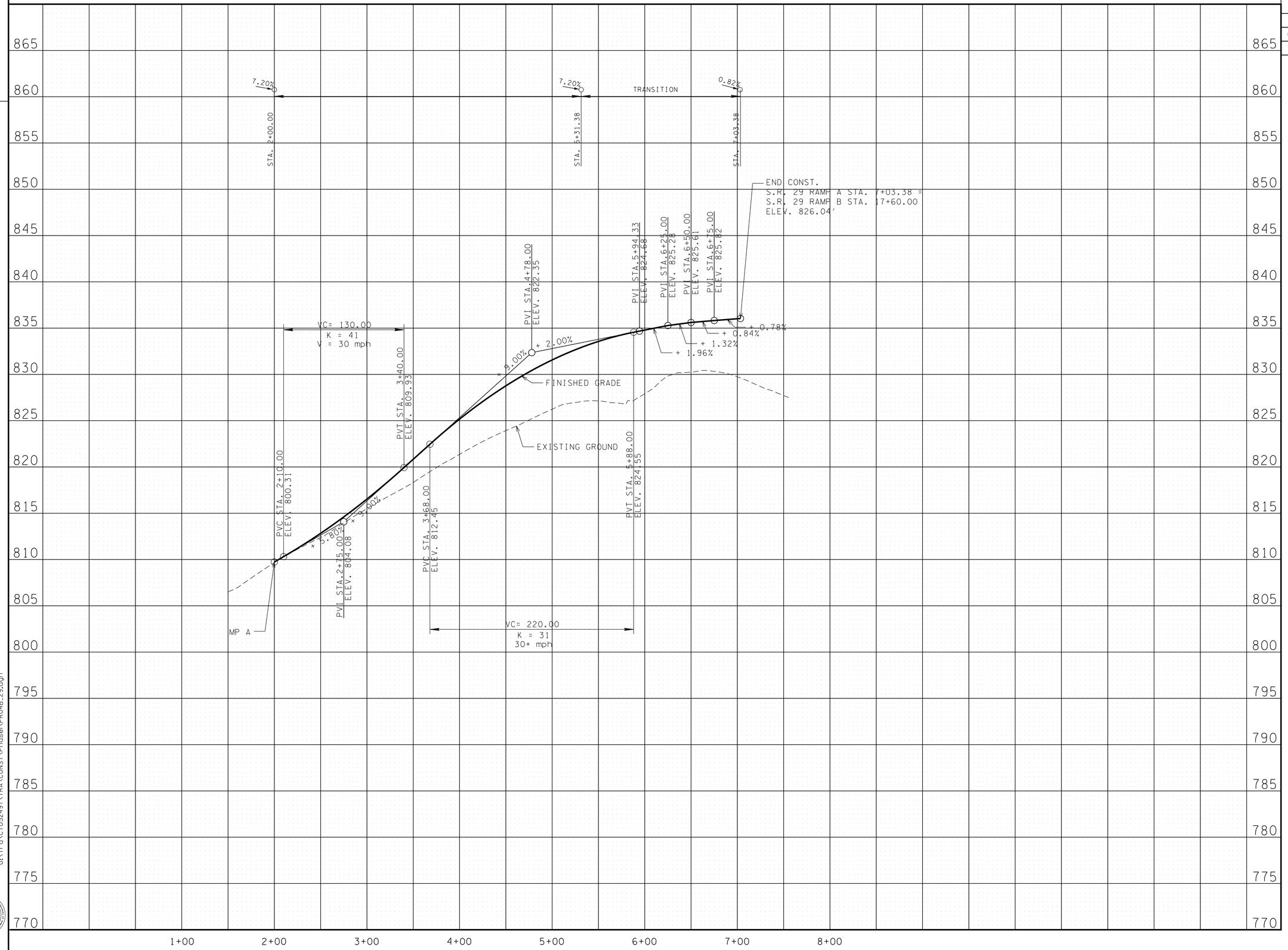
PROPOSED LAYOUT

STA. 10+00 TO STA. 100+50

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	4B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	4B



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Survey & Design Division

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

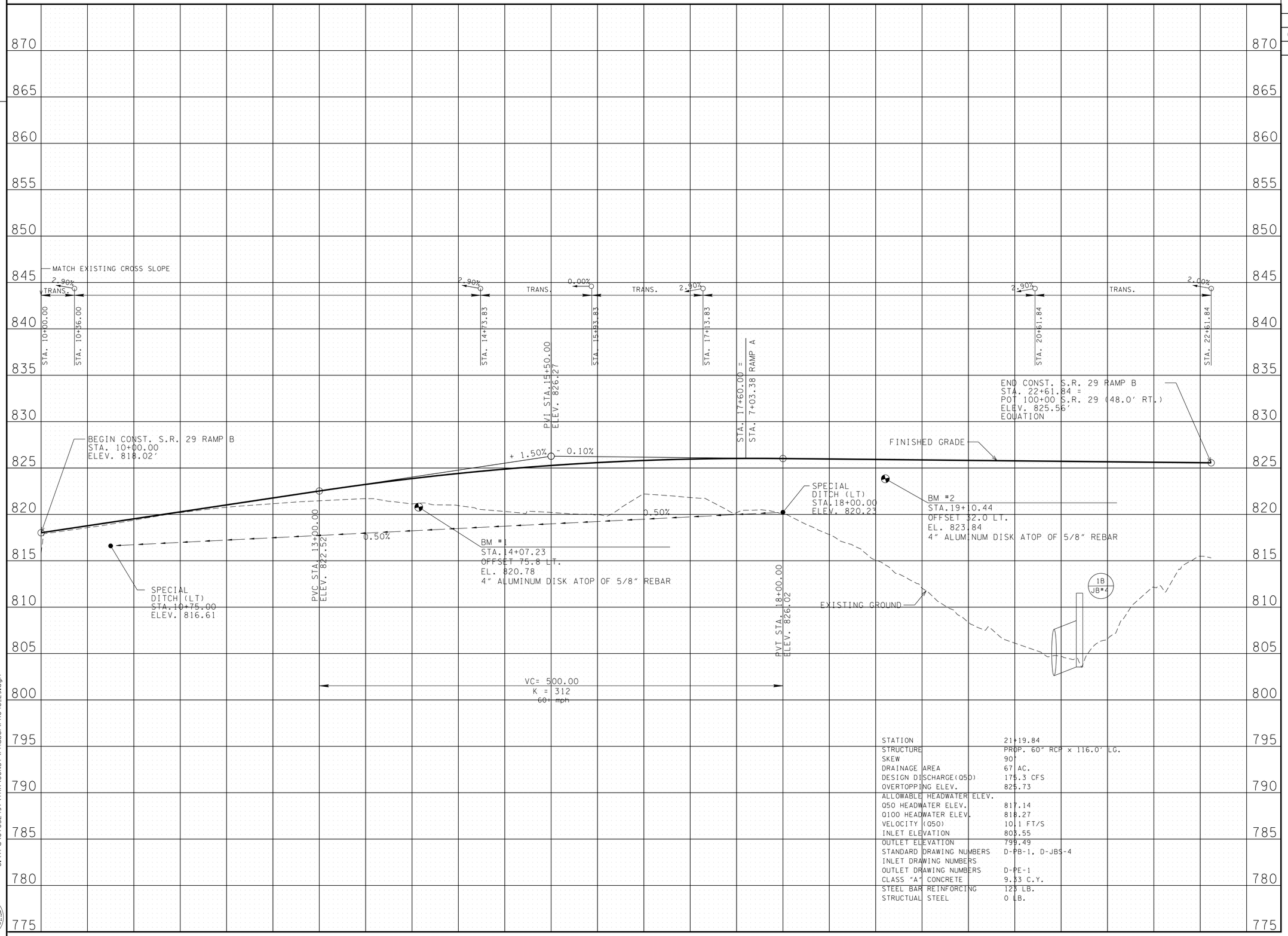
S.R. 29 RAMP A

STA.2+00.00 TO STA.7+03.38

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

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	4C
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	4C



STATION	21+19.84
STRUCTURE	PROP. 60" RCP x 116.0' LG.
SKEW	90°
DRAINAGE AREA	67 AC.
DESIGN DISCHARGE(Q50)	175.3 CFS
OVERTOPPING ELEV.	825.73
ALLOWABLE HEADWATER ELEV.	
Q50 HEADWATER ELEV.	817.14
Q100 HEADWATER ELEV.	818.27
VELOCITY (Q50)	10.1 FT/S
INLET ELEVATION	803.55
OUTLET ELEVATION	799.49
STANDARD DRAWING NUMBERS	D-PB-1, D-JBS-4
INLET DRAWING NUMBERS	
OUTLET DRAWING NUMBERS	D-PE-1
CLASS "A" CONCRETE	9.33 C.Y.
STEEL BAR REINFORCING	123 LB.
STRUCTUAL STEEL	0 LB.

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Survey & Design Division

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

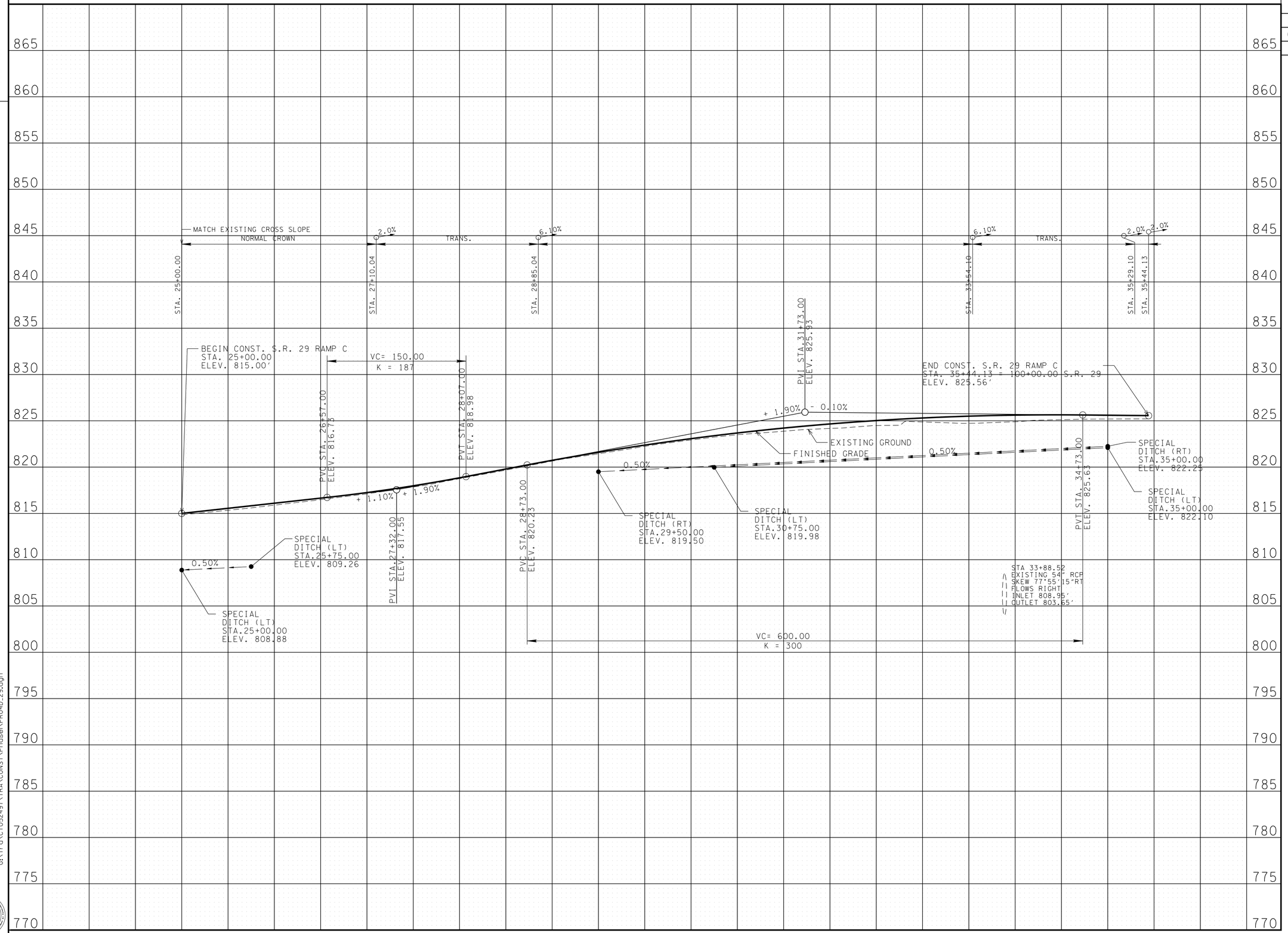
S.R. 29 RAMP B

STA. 10+00 TO STA. 22+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.	2009	HPP-NH-29(36)	4D
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	4D



UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

S.R. 29 RAMP C

STA. 25+00 TO STA. 35+44.13

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

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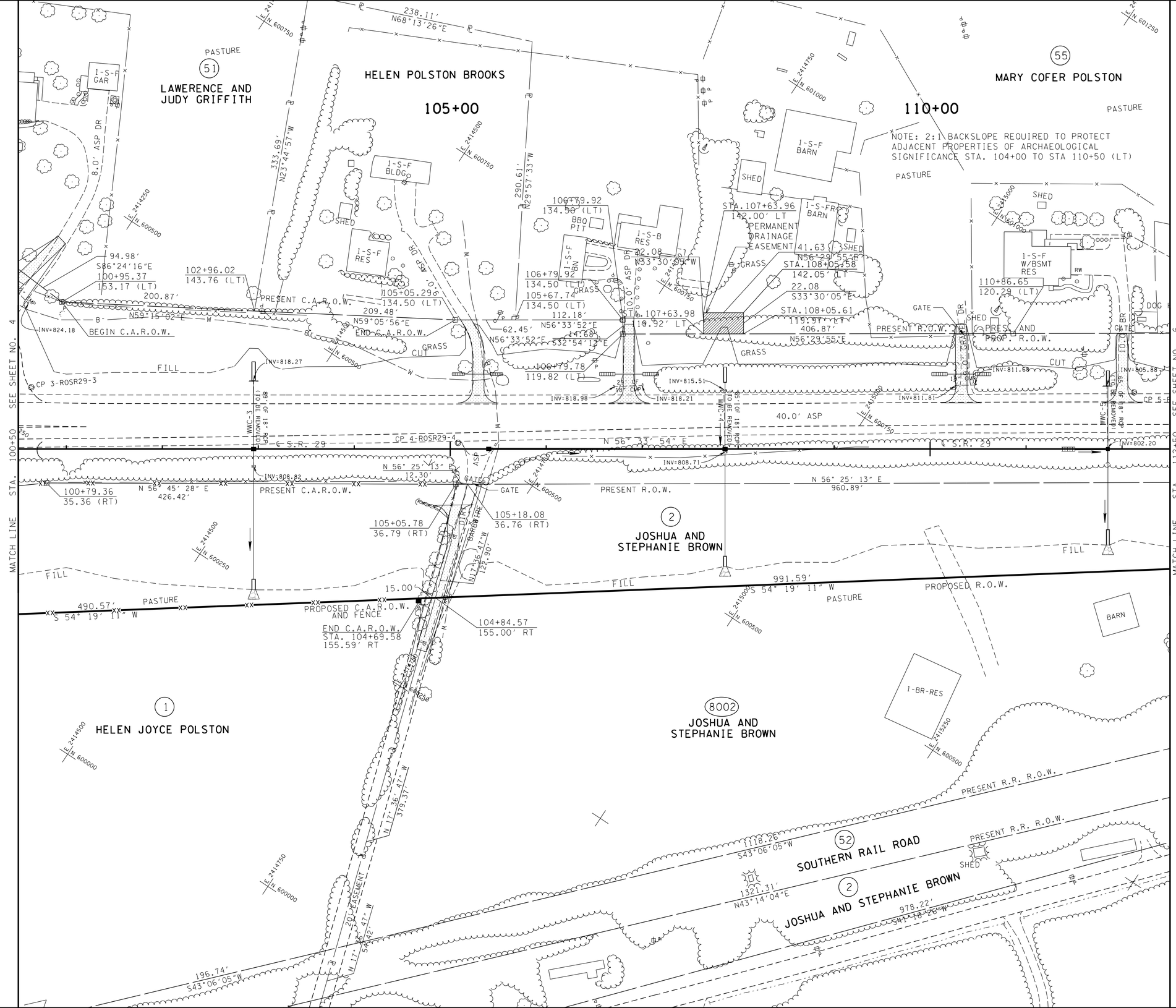
Survey & Design Division

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



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	5
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	5

06/18/2010: REVISED OWNER NAME FOR TRACTS 1 & 2. RELOCATED PROPERTY LINE BETWEEN TRACTS 1 & 2. ADDED CONST EASEMENT AROUND STRUCTURE ON TRACT 2 AND ADDED CONTROLLED ACCESS R.O.W.

1/26/2011: REVISED LINESTYLE ON PRESENT AND PROPOSED C.A.R.O.W.

12/16/2011: ADDED TRACT 8002, REVISED DISTANCE ALONG PROPERTY LINE BETWEEN TRACTS 1 & 8002. REMOVED Z BAR CONNECTING TRACT 2 ACROSS RAILROAD AND DISTANCE ALONG TRACT 2 BETWEEN TRACTS 1 & 3.

04/20/2012: INCREASED WIDTH OF PRIVATE DRIVE AT STA. 38+52.52 TO 12' AND DRIVEWAY RADIUS TO 25'.

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 100+50 TO STA. 112+50

SCALE: 1"= 50'

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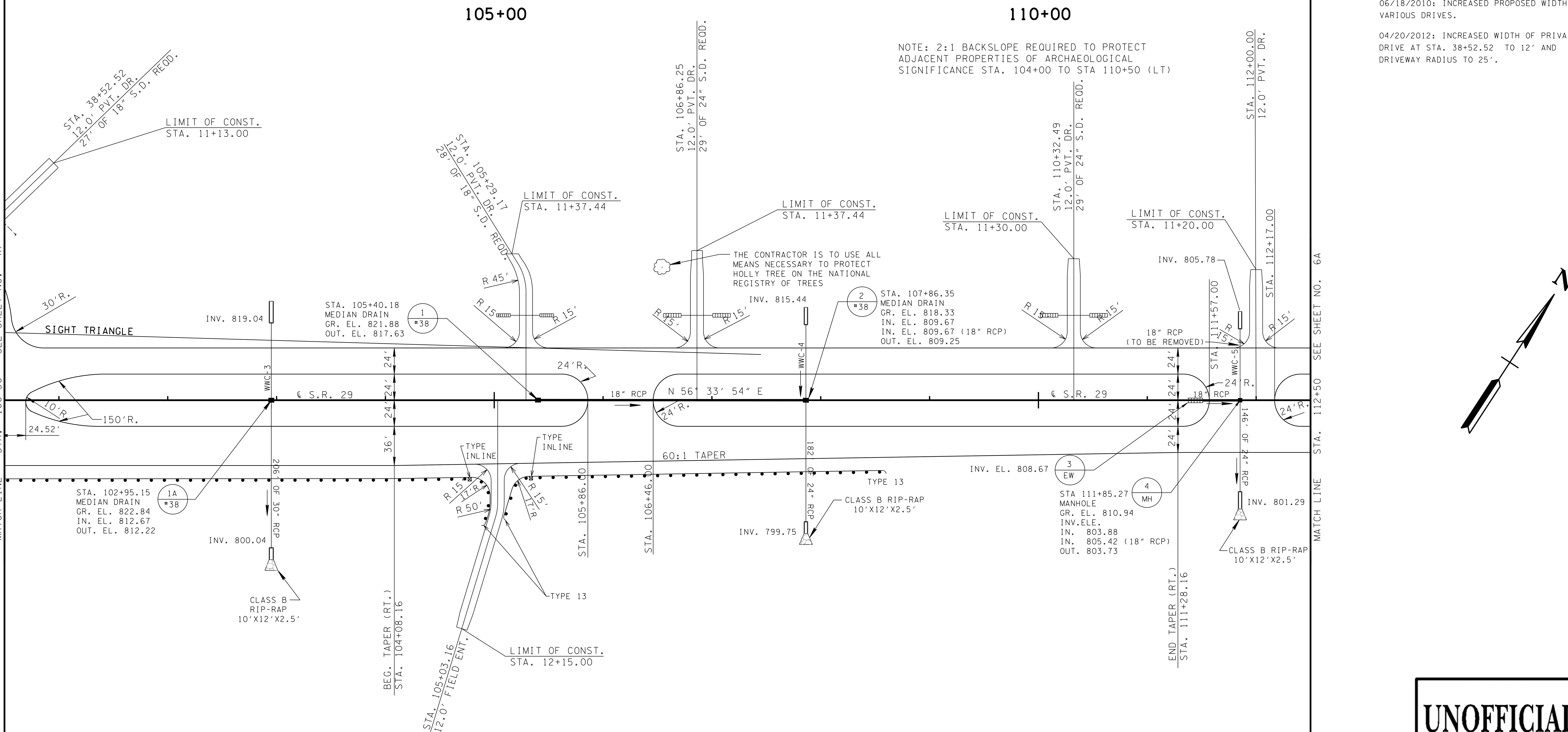
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	5A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	5A

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES.

04/20/2012: INCREASED WIDTH OF PRIVATE DRIVE AT STA. 38+52.52 TO 12' AND DRIVEWAY RADIUS TO 25'.



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Survey & Design Division

UNOFFICIAL SET

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

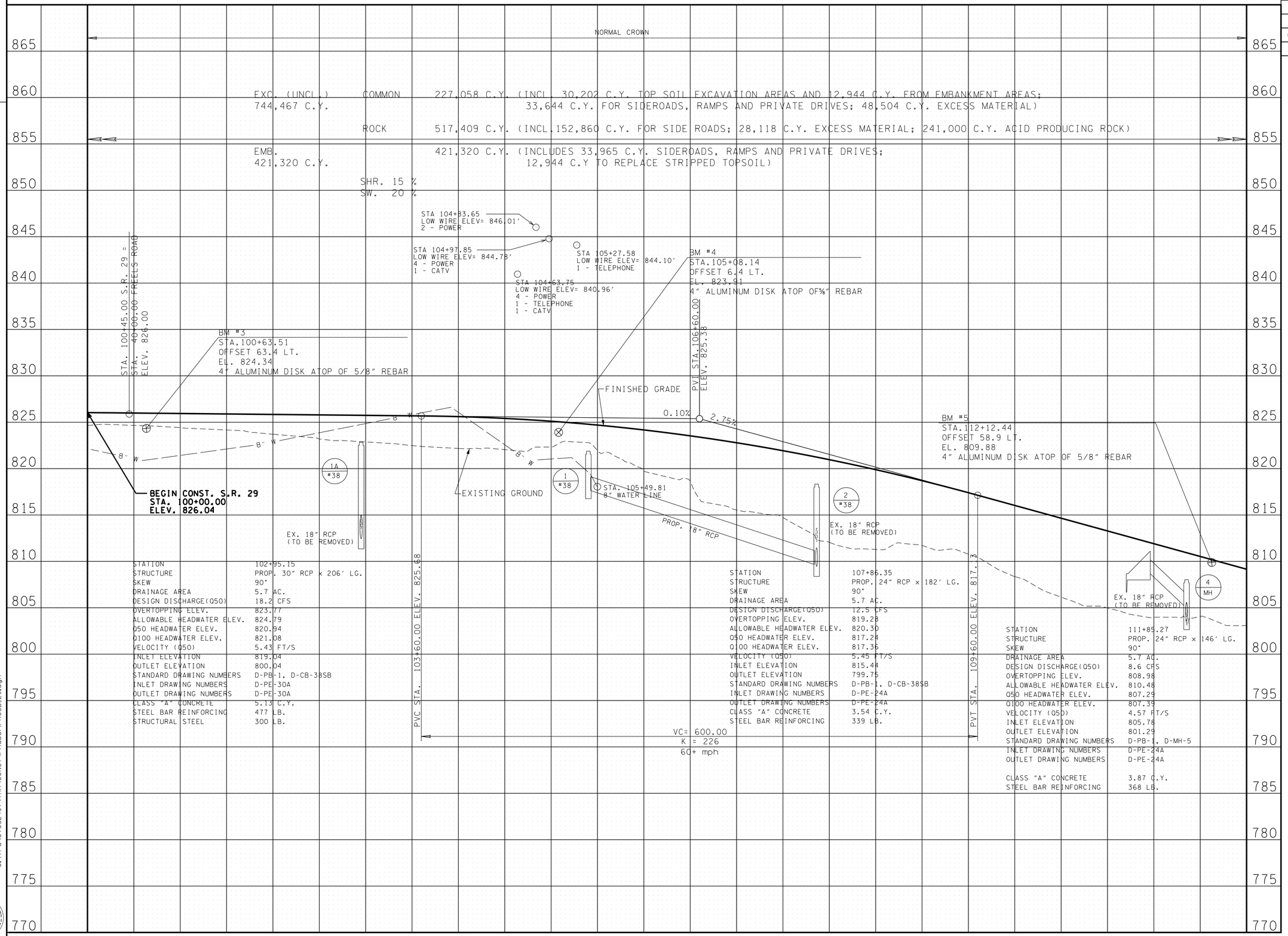
PROPOSED LAYOUT

STA. 100+50 TO STA. 112+50

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	5B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	5B



STATION	102+95.15
STRUCTURE	PROP. 30" RCP x 206' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	18.2 CFS
OVERTOPPING ELEV.	823.77
ALLOWABLE HEADWATER ELEV.	824.79
Q50 HEADWATER ELEV.	820.94
Q100 HEADWATER ELEV.	821.08
VELOCITY (Q50)	5.43 FT/S
INLET ELEVATION	819.04
OUTLET ELEVATION	800.04
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-PE-30A
OUTLET DRAWING NUMBERS	D-PE-30A
CLASS "A" CONCRETE	5.13 C.Y.
STEEL BAR REINFORCING	477 LB.
STRUCTURAL STEEL	300 LB.

STATION	107+86.35
STRUCTURE	PROP. 24" RCP x 182' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	12.5 CFS
OVERTOPPING ELEV.	819.28
ALLOWABLE HEADWATER ELEV.	820.30
Q50 HEADWATER ELEV.	817.24
Q100 HEADWATER ELEV.	817.36
VELOCITY (Q50)	5.45 FT/S
INLET ELEVATION	815.44
OUTLET ELEVATION	799.75
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-PE-24A
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	3.54 C.Y.
STEEL BAR REINFORCING	339 LB.

STATION	111+85.27
STRUCTURE	PROP. 24" RCP x 146' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	8.6 CFS
OVERTOPPING ELEV.	808.98
ALLOWABLE HEADWATER ELEV.	810.48
Q50 HEADWATER ELEV.	807.29
Q100 HEADWATER ELEV.	807.39
VELOCITY (Q50)	4.57 FT/S
INLET ELEVATION	805.78
OUTLET ELEVATION	801.29
STANDARD DRAWING NUMBERS	D-PB-1, D-MH-5
INLET DRAWING NUMBERS	D-PE-24A
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	3.87 C.Y.
STEEL BAR REINFORCING	368 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 100+00 TO STA. 112+50
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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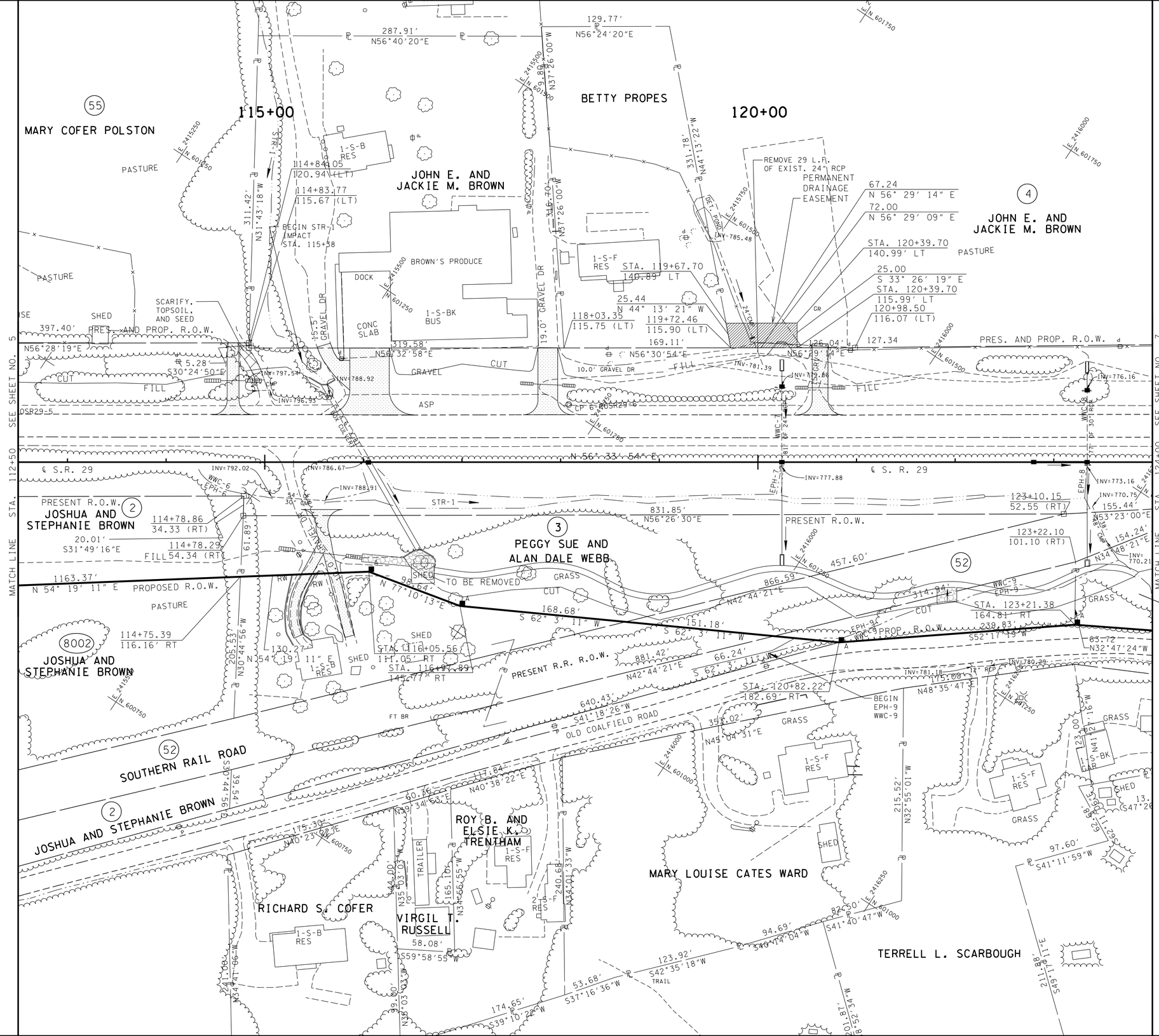
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	6
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	6

06/18/2010: ADDED BEARING AND DISTANCES FOR EACH BREAK AT PROPERTY LINES FOR TRACTS 3 & 52, ADDED BEARING AND DISTANCE TO PERMANENT DRAINAGE EASEMENT ON TRACT 4, ADDED DRIVEWAY LEFT OF STA 116+00.

12/16/2011: ADDED TRACT 8002



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 112+50 TO STA. 124+00

SCALE: 1"= 50'

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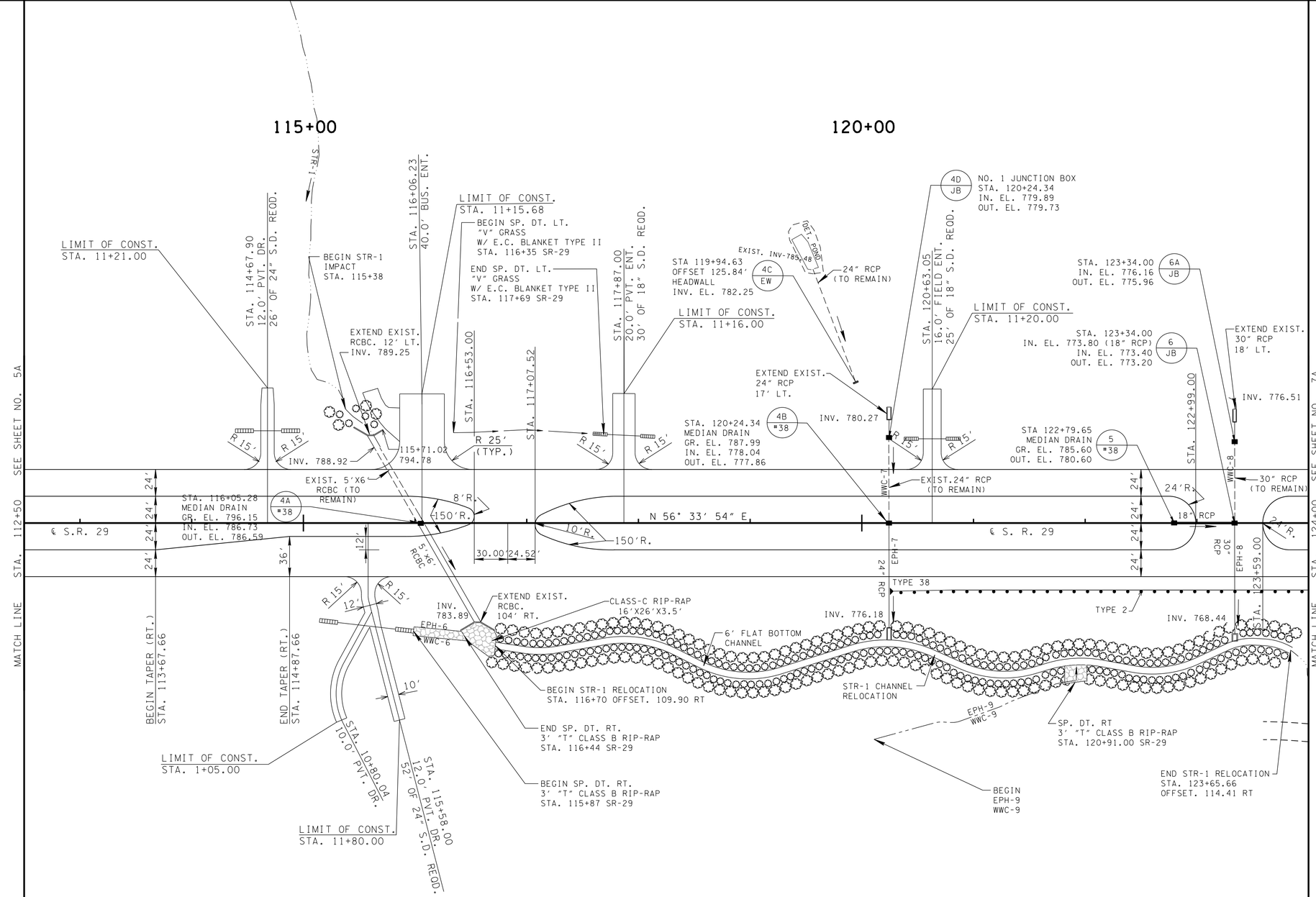
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	6A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	6A

06/18/2010: ADDED DRIVEWAY LEFT OF STA 116+00.
INCREASED PROPOSED WIDTH OF VARIOUS DRIVES.



RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE REMOVE FROM CULVERT EXCAVATION AREA.

SEE SHEETS NS-4 TO NS-6 FOR STREAM MITIGATION DETAILS AND SHEET NS-1 FOR STR-1 RELOCATION PLAN AND PROFILE.

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 112+50 TO STA. 124+00

SCALE: 1"= 50'

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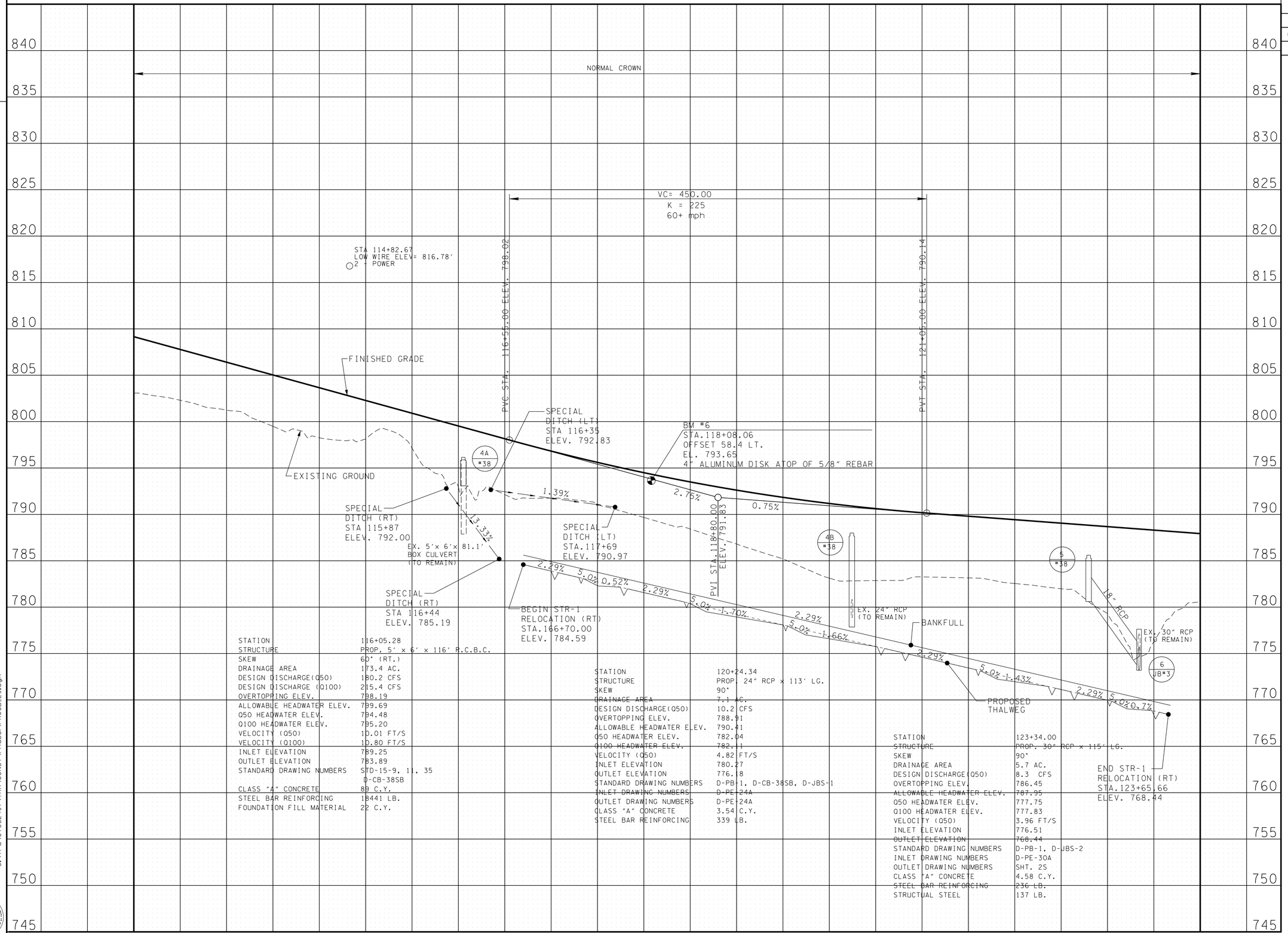
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	6B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	6B



STATION	116+05.28
STRUCTURE	PROP. 5' x 6' x 116' R.C.B.C.
SKEW	60° (RT.)
DRAINAGE AREA	173.4 AC.
DESIGN DISCHARGE(Q50)	180.2 CFS
DESIGN DISCHARGE (Q100)	215.4 CFS
OVERTOPPING ELEV.	798.19
ALLOWABLE HEADWATER ELEV.	799.69
Q50 HEADWATER ELEV.	794.48
Q100 HEADWATER ELEV.	795.20
VELOCITY (Q50)	10.01 FT/S
VELOCITY (Q100)	10.80 FT/S
INLET ELEVATION	789.25
OUTLET ELEVATION	783.89
STANDARD DRAWING NUMBERS	STD-15-9, 11, 35 D-CB-38SB
CLASS "A" CONCRETE	89 C.Y.
STEEL BAR REINFORCING	18441 LB.
FOUNDATION FILL MATERIAL	22 C.Y.

STATION	120+24.34
STRUCTURE	PROP. 24" RCP x 113' LG.
SKEW	90°
DRAINAGE AREA	7.1 AC.
DESIGN DISCHARGE(Q50)	10.2 CFS
OVERTOPPING ELEV.	788.91
ALLOWABLE HEADWATER ELEV.	790.41
Q50 HEADWATER ELEV.	782.04
Q100 HEADWATER ELEV.	782.11
VELOCITY (Q50)	4.82 FT/S
INLET ELEVATION	780.27
OUTLET ELEVATION	776.18
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB, D-JBS-1
INLET DRAWING NUMBERS	D-PE-24A
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	3.54 C.Y.
STEEL BAR REINFORCING	339 LB.

STATION	123+34.00
STRUCTURE	PROP. 30" RCP x 115' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	8.3 CFS
OVERTOPPING ELEV.	786.45
ALLOWABLE HEADWATER ELEV.	787.95
Q50 HEADWATER ELEV.	777.75
Q100 HEADWATER ELEV.	777.83
VELOCITY (Q50)	3.96 FT/S
INLET ELEVATION	776.51
OUTLET ELEVATION	768.44
STANDARD DRAWING NUMBERS	D-PB-1, D-JBS-2
INLET DRAWING NUMBERS	D-PE-30A
OUTLET DRAWING NUMBERS	SHT. 2S
CLASS "A" CONCRETE	4.58 C.Y.
STEEL BAR REINFORCING	236 LB.
STRUCTUAL STEEL	137 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 112+50 TO STA. 124+00

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

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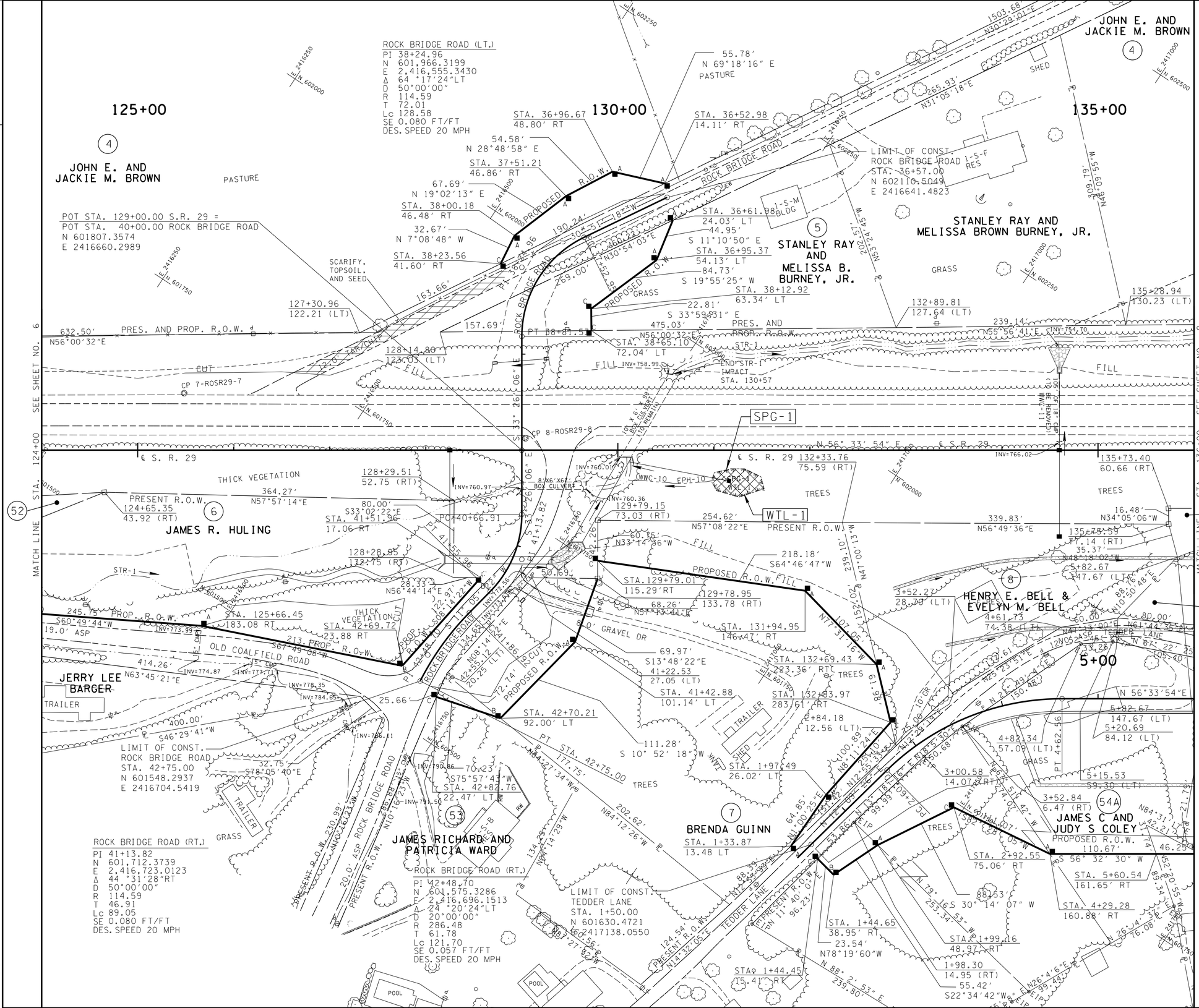
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	7
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	7



LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.03 AC.
	VOLUME OF PERMANENT IMPACT = 44 C.Y.
	AREA OF TEMPORARY IMPACT = 0 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.

TEDDER LANE
PI 3+67.01
N 601,842.8109
E 2,417,183.7549
Δ 44 °24'28"RT
D 22°00'00"
R 260.44
T 106.30
Lc 201.85
SE 0.080 FT/FT
DES. SPEED 30 MPH

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 124+00 TO STA. 136+00

SCALE: 1"= 50'

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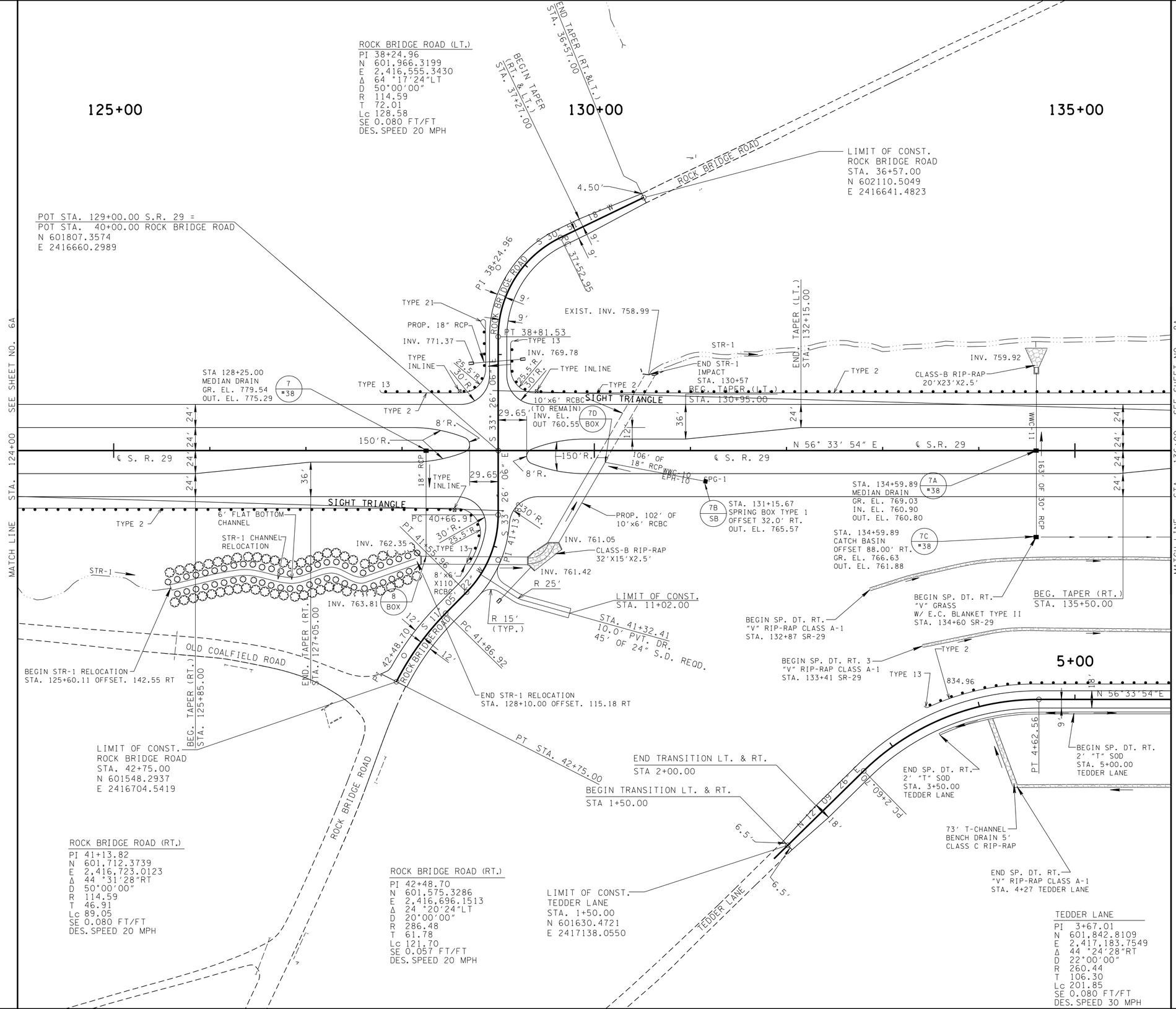
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	7A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	7A

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



RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.

SEE SHEETS NS-4 - NS-6 FOR STREAM RELOCATION DETAILS AND SHEET NS-1 FOR STR-1 RELOCATION PLAN AND PROFILE.

N

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 124+00 TO STA. 136+00

SCALE: 1"= 50'

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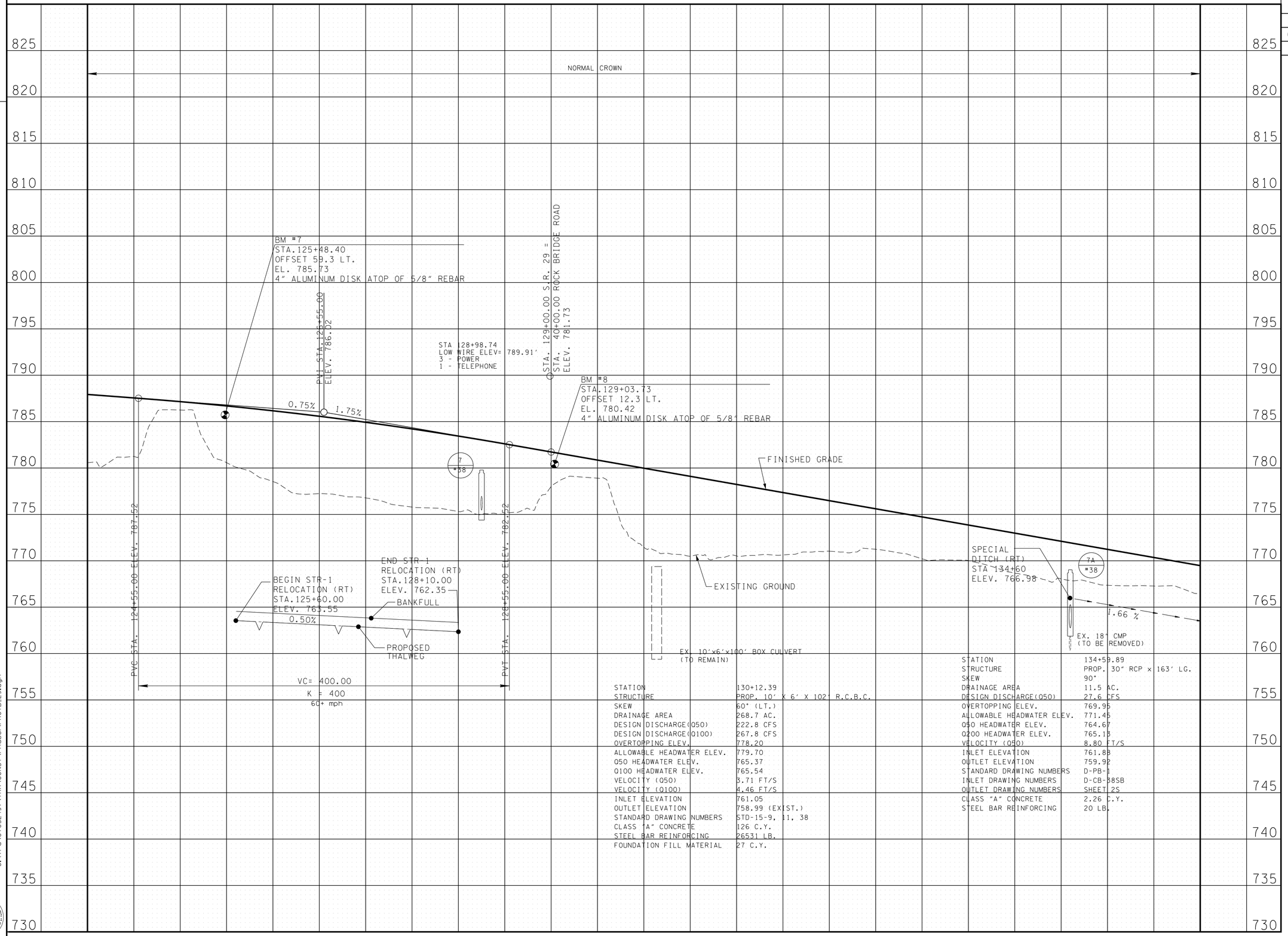
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	7B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	7B



STATION	130+12.39
STRUCTURE	PROP. 10' X 6' X 102' R.C.B.C.
SKEW	60° (LT.)
DRAINAGE AREA	268.7 AC.
DESIGN DISCHARGE(Q50)	222.8 CFS
DESIGN DISCHARGE(Q100)	267.8 CFS
OVERTOPPING ELEV.	778.20
ALLOWABLE HEADWATER ELEV.	779.70
Q50 HEADWATER ELEV.	765.37
Q100 HEADWATER ELEV.	765.54
VELOCITY (Q50)	3.71 FT/S
VELOCITY (Q100)	4.46 FT/S
INLET ELEVATION	761.05
OUTLET ELEVATION	758.99 (EXIST.)
STANDARD DRAWING NUMBERS	STD-15-9, 11, 38
CLASS "A" CONCRETE	126 C.Y.
STEEL BAR REINFORCING	26531 LB.
FOUNDATION FILL MATERIAL	27 C.Y.

STATION	134+59.89
STRUCTURE	PROP. 30" RCP x 163' LG.
SKEW	90°
DRAINAGE AREA	11.5 AC.
DESIGN DISCHARGE(Q50)	27.6 CFS
OVERTOPPING ELEV.	769.95
ALLOWABLE HEADWATER ELEV.	771.45
Q50 HEADWATER ELEV.	764.67
Q200 HEADWATER ELEV.	765.13
VELOCITY (Q50)	8.80 FT/S
INLET ELEVATION	761.83
OUTLET ELEVATION	759.92
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-CB-38SB
OUTLET DRAWING NUMBERS	SHEET 2S
CLASS "A" CONCRETE	2.26 C.Y.
STEEL BAR REINFORCING	20 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 124+00 TO STA. 136+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	8
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	8

06/18/2010: REVISED RIGHT SLOPE LIMIT ON TEDDER LANE AT END OF CONSTRUCTION.

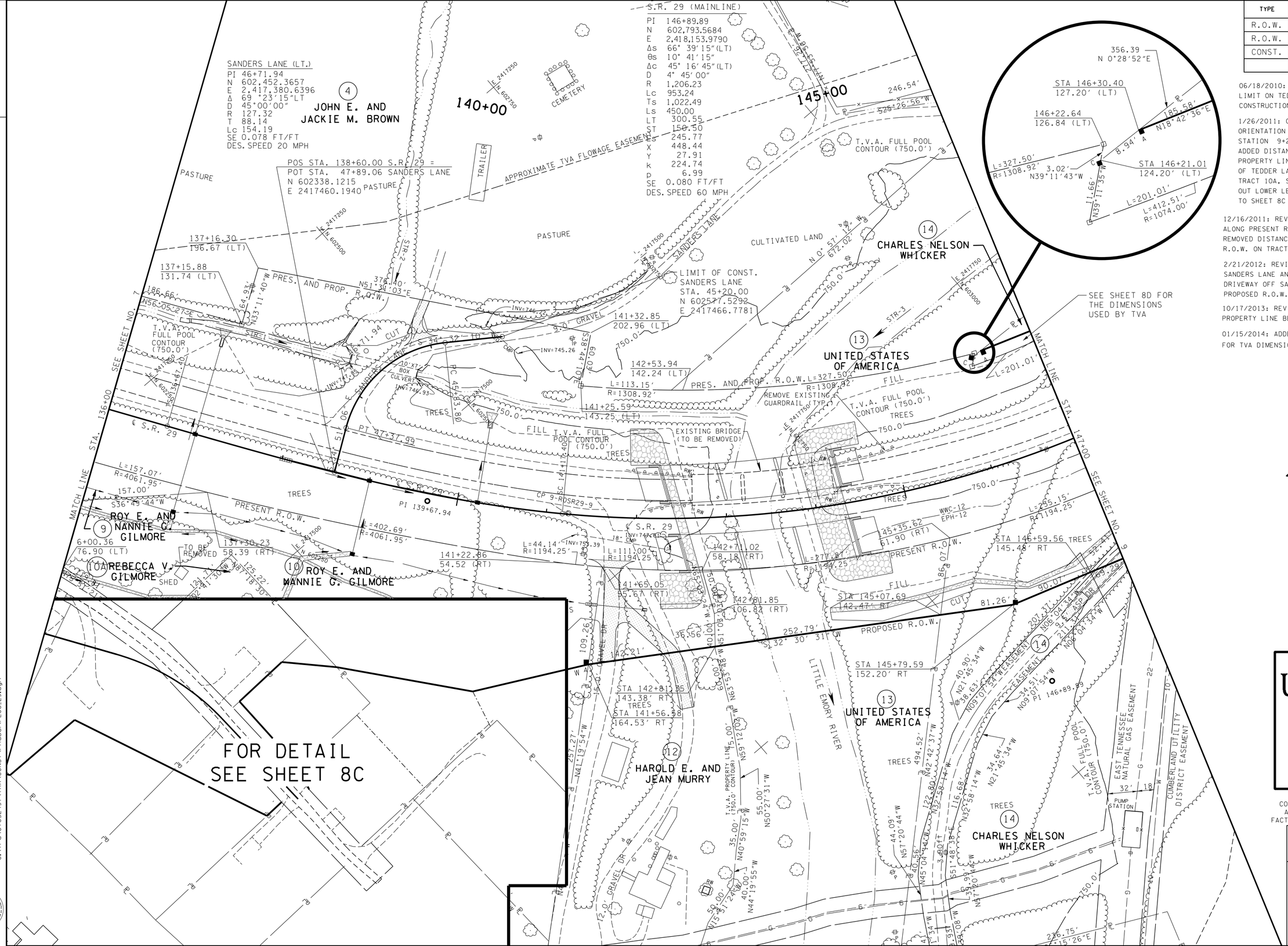
1/26/2011: CORRECTED THE LT/RT ORIENTATION OF THE OFFSET AT STATION 9+21.57 FROM RT TO LT. ADDED DISTANCE DIMENSIONS TO PROPERTY LINES AT THE END STATION OF TEDDER LANE. ADDED PROPERTY TRACT 10A, SEE SHEET 8C. BROKE OUT LOWER LEFT CORNER OF SHEET TO SHEET 8C FOR MORE CLARITY.

12/16/2011: REVISED TRACT 10 DISTANCE ALONG PRESENT R.O.W. FROM 140' TO 119.81'. REMOVED DISTANCE L=200.72 ALONG PROPOSED R.O.W. ON TRACT 14.

2/21/2012: REVISED SLOPE LIMITS ON SANDERS LANE AND ADDED EXISTING DRIVEWAY OFF SANDERS LANE. REMOVED PROPOSED R.O.W. AT SANDERS LANE

10/17/2013: REVISED TRACT 13 AND 14 LT PROPERTY LINE BEARINGS AND DISTANCES.

01/15/2014: ADDED NOTE TO REFERENCE SHEET 8D FOR TVA DIMENSIONS FOR TRACT 13 AND 14.



UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 136+00 TO STA. 147+00

SCALE: 1"= 50'

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Survey & Design Division

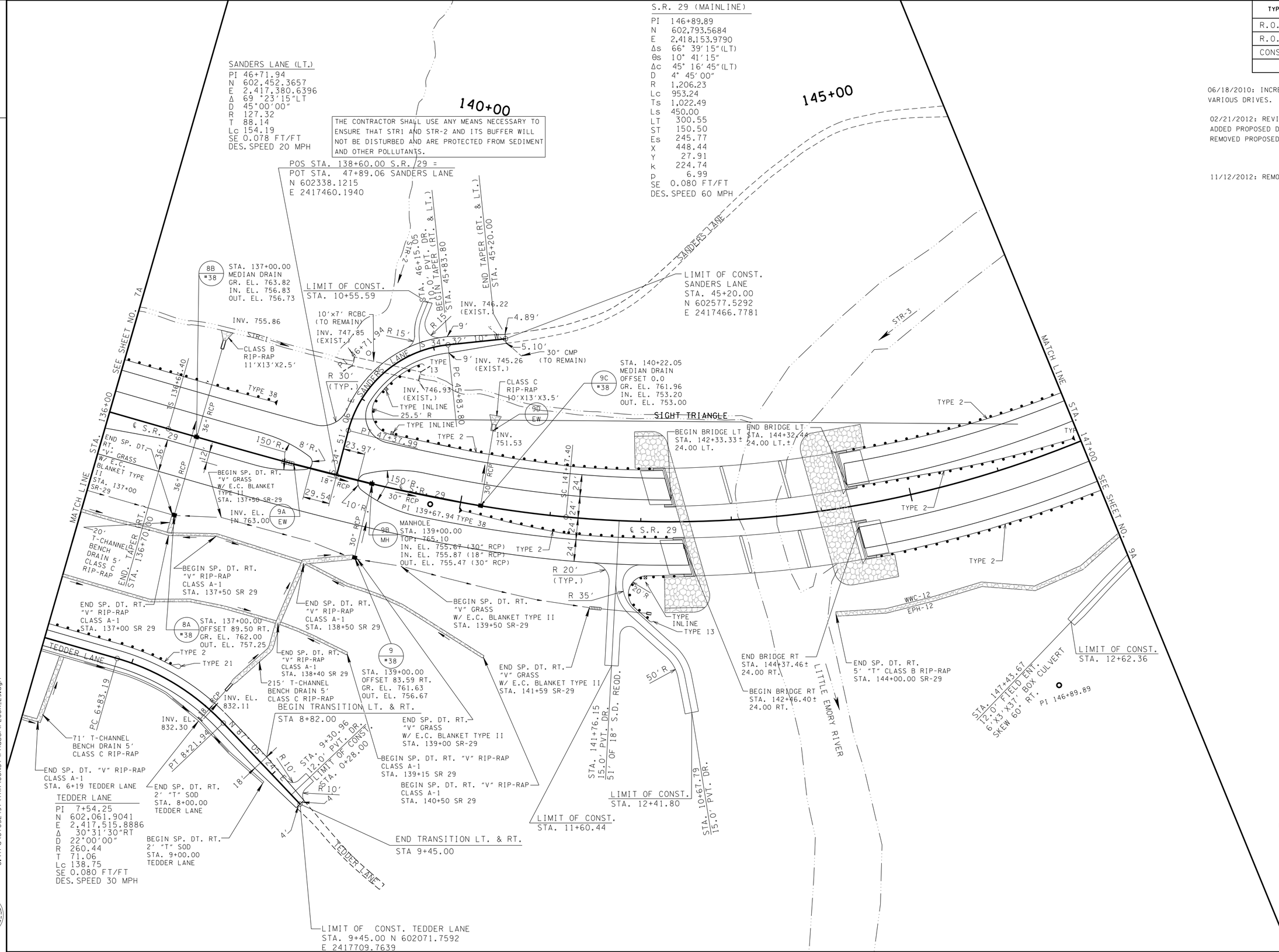
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	8A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	8A

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES.

02/21/2012: REVISED PAVEMENT WIDTH ON SANDERS LANE. ADDED PROPOSED DRIVEWAY OFF OF SANDERS LANE. REMOVED PROPOSED 30" RCP UNDER SANDERS LANE.

11/12/2012: REMOVED DRIVEWAY FOR TRACT 11/8011.



UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 136+00 TO STA. 147+00

SCALE: 1"= 50'

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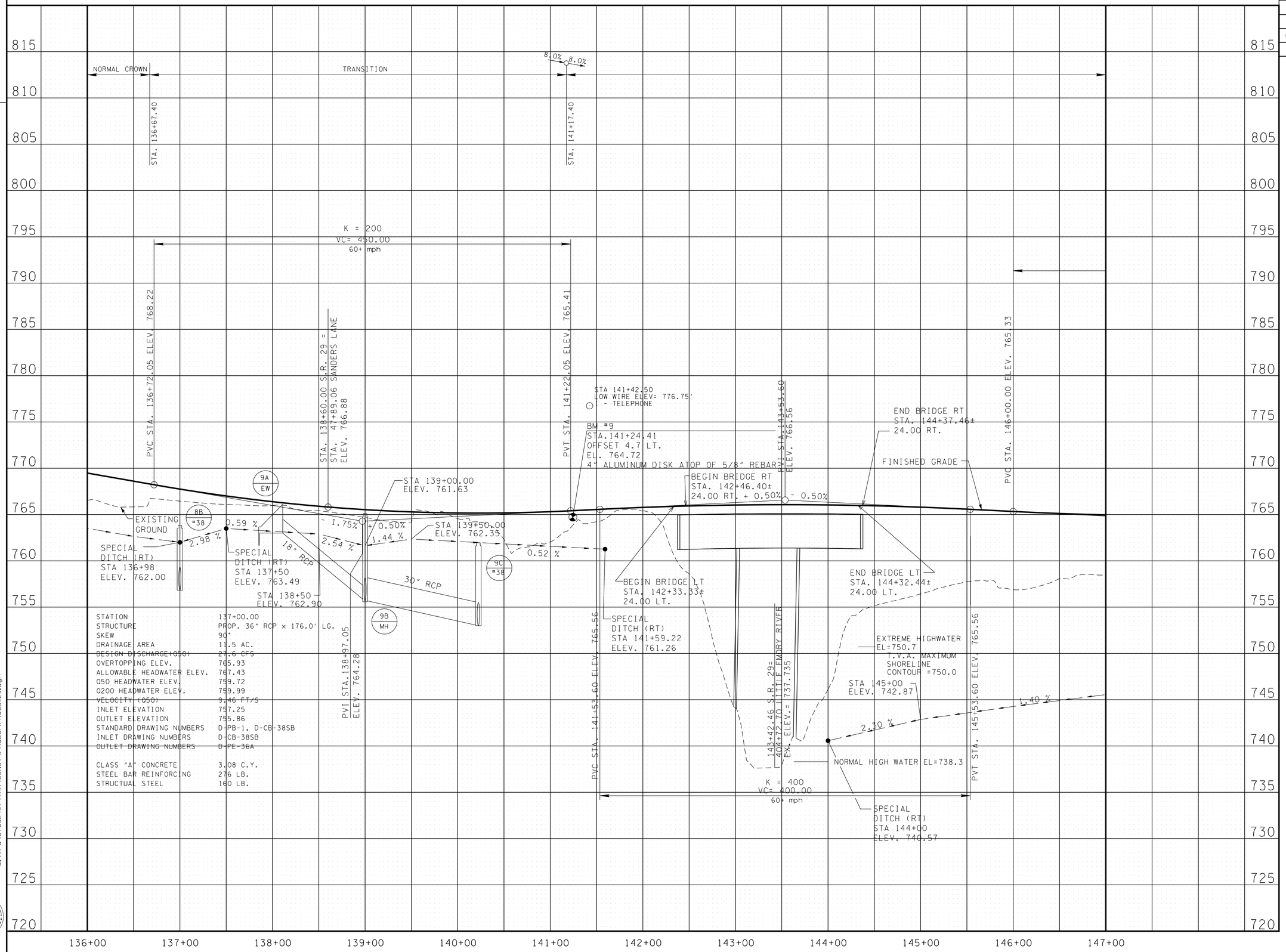
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	8B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	8B



STATION	137+00.00
STRUCTURE	PROP. 36" RCP x 176.0' LG.
SKEW	90°
DRAINAGE AREA	11.5 AC.
DESIGN DISCHARGE(Q50)	27.6 CFS
OVERTOPPING ELEV.	765.93
ALLOWABLE HEADWATER ELEV.	767.43
Q50 HEADWATER ELEV.	759.72
Q200 HEADWATER ELEV.	759.99
VELOCITY (Q50)	9.46 FT/S
INLET ELEVATION	757.25
OUTLET ELEVATION	755.86
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-CB-38SB
OUTLET DRAWING NUMBERS	D-PE-36A
CLASS "A" CONCRETE	3.08 C.Y.
STEEL BAR REINFORCING	276 LB.
STRUCTUAL STEEL	160 LB.

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

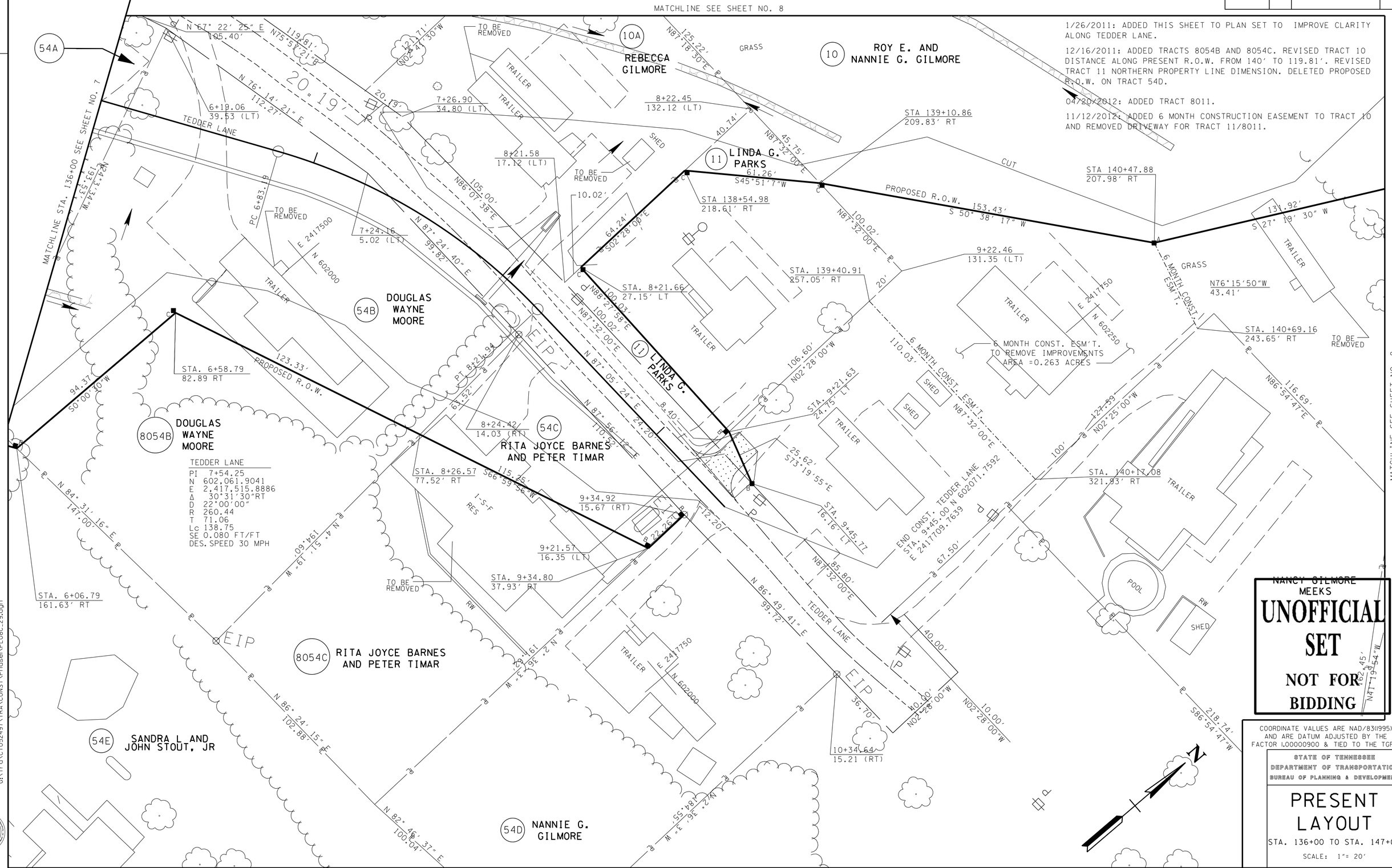
PROFILE

STA. 136+00 TO STA. 147+00

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	8C
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	8C

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



1/26/2011: ADDED THIS SHEET TO PLAN SET TO IMPROVE CLARITY ALONG TEDDER LANE.

12/16/2011: ADDED TRACTS 8054B AND 8054C. REVISED TRACT 10 DISTANCE ALONG PRESENT R.O.W. FROM 140' TO 119.81'. REVISED TRACT 11 NORTHERN PROPERTY LINE DIMENSION. DELETED PROPOSED R.O.W. ON TRACT 54D.

04/20/2012: ADDED TRACT 8011.

11/12/2012: ADDED 6 MONTH CONSTRUCTION EASEMENT TO TRACT 10 AND REMOVED DRIVEWAY FOR TRACT 11/8011.

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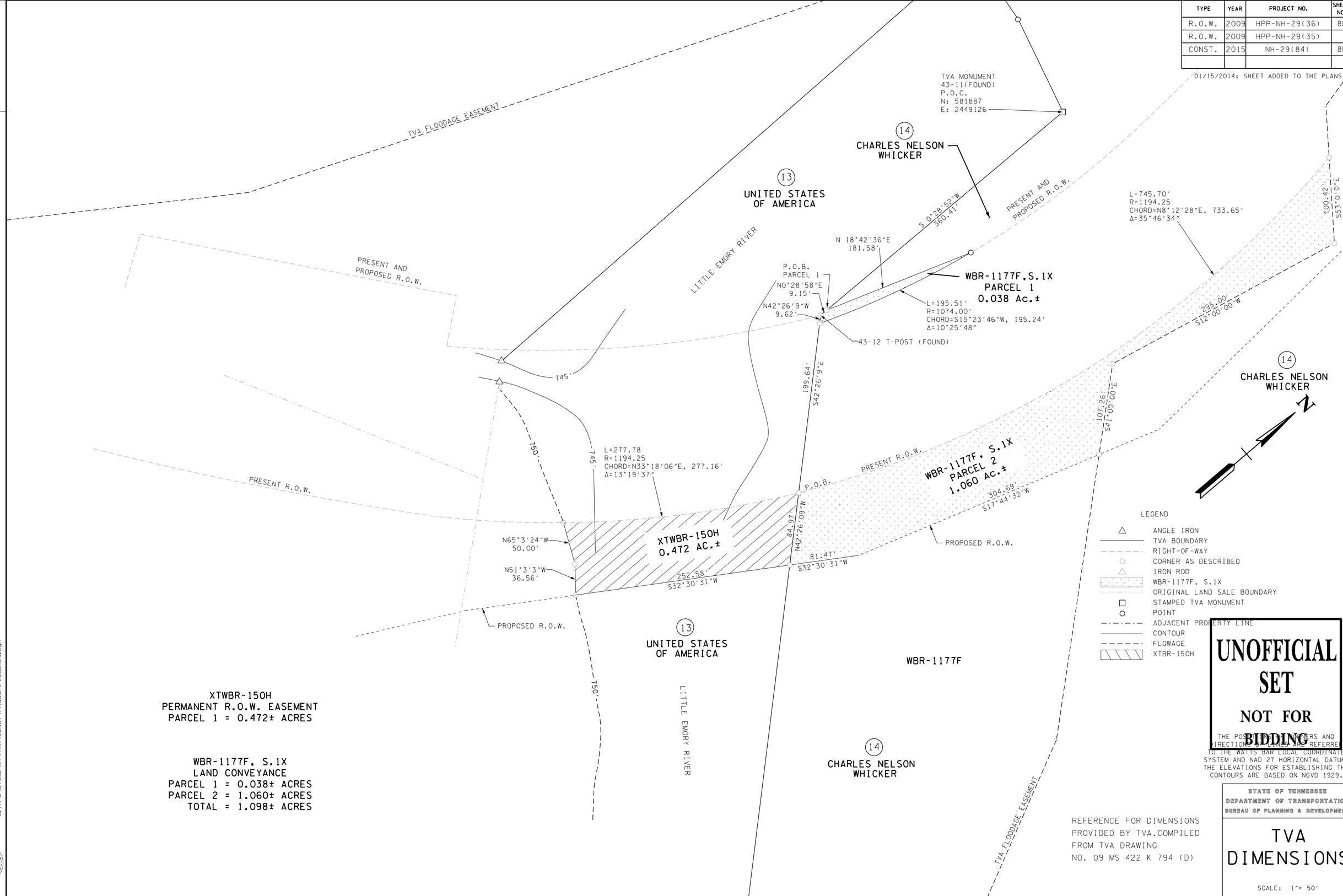
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	8D
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	8D

01/15/2014: SHEET ADDED TO THE PLANS.



XTWBR-150H
PERMANENT R.O.W. EASEMENT
PARCEL 1 = 0.472± ACRES

WBR-1177F, S.1X
LAND CONVEYANCE
PARCEL 1 = 0.038± ACRES
PARCEL 2 = 1.060± ACRES
TOTAL = 1.098± ACRES

UNOFFICIAL SET

NOT FOR BIDDING

THE POSITIONS, BEARINGS AND DIRECTIONS OF LINES ARE REFERRED TO THE WATTS BAR LOCAL COORDINATE SYSTEM AND NAD 27 HORIZONTAL DATUM. THE ELEVATIONS FOR ESTABLISHING THE CONTOURS ARE BASED ON NGVD 1929.

REFERENCE FOR DIMENSIONS PROVIDED BY TVA.COMPILED FROM TVA DRAWING NO. 09 MS 422 K 794 (D)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TVA DIMENSIONS

SCALE: 1"= 50'

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	9
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	9

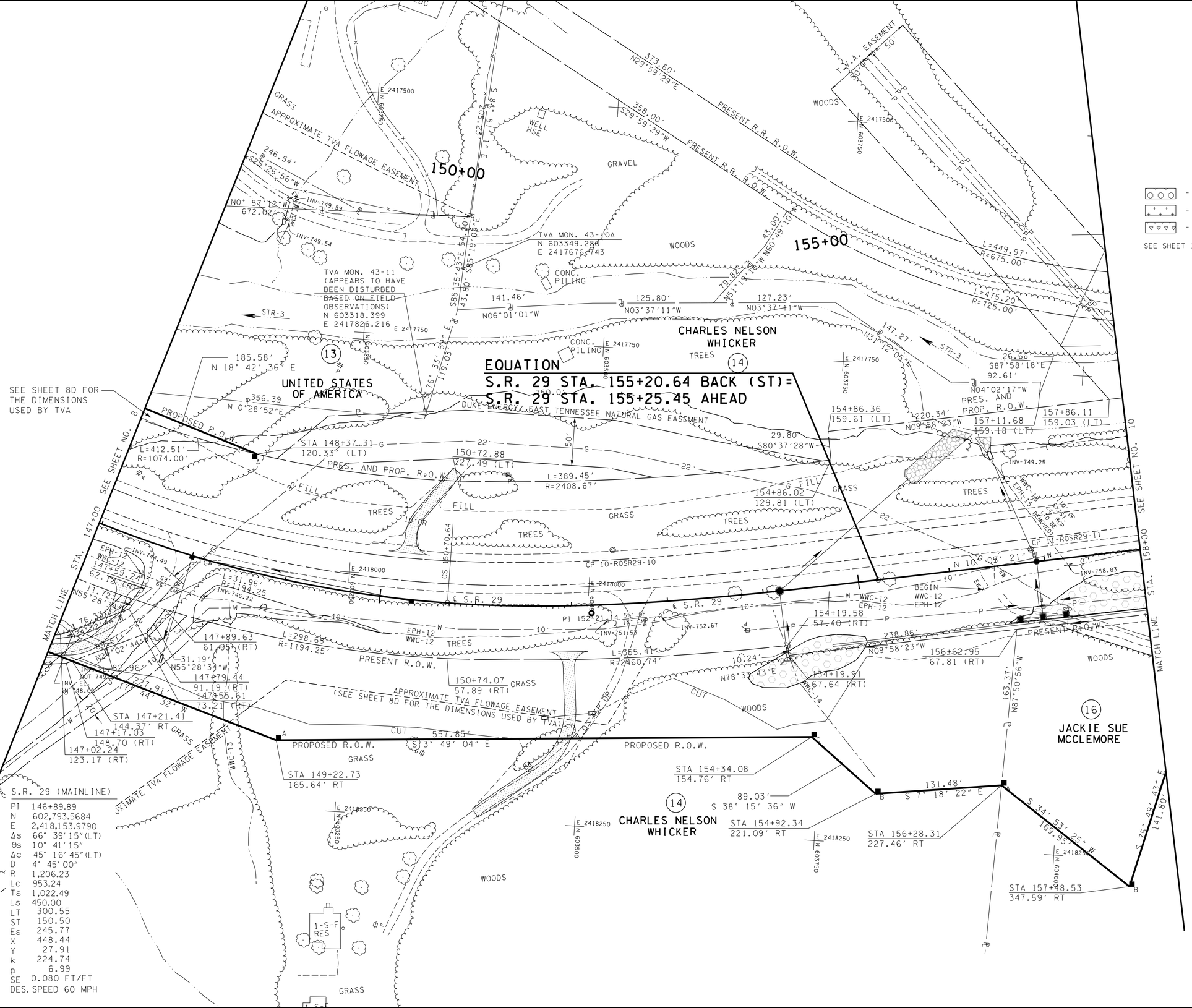
1/26/2011: ADDED PROPERTY LINE LABEL 163.37' N87°50'56"W BETWEEN TRACTS 14 AND 16.

10/17/2013: REVISED TRACT 13 AND 14 LT PROPERTY LINE BEARINGS AND DISTANCES.

01/15/2014: ADDED NOTES TO REFERENCE SHEET 8D FOR TVA DIMENSIONS FOR TRACT 13 AND 14.

- APR - Encapsulation Required
- APR - Encapsulation or Partial Blending Required
- APR - Blending Required

SEE SHEET 11 FOR ESTIMATED APR MATERIAL QUANTITIES FOR THIS SHEET



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 147+00 TO STA. 158+00

SCALE: 1"= 50'

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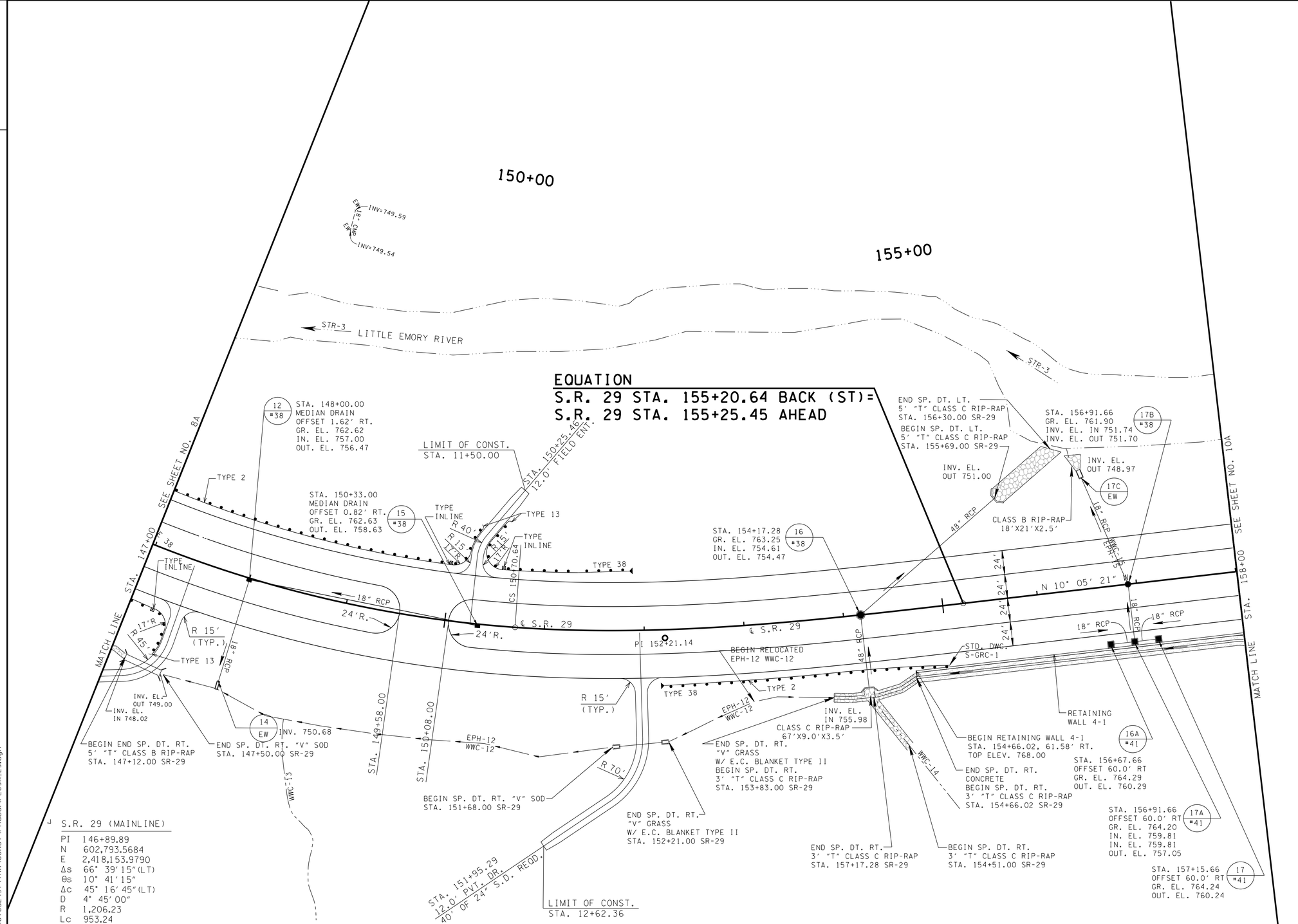
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	9A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	9A

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES



S.R. 29 (MAINLINE)

PI	146+89.89
N	602,793.5684
E	2,418,153.9790
Δs	66° 39' 15"(LT)
θs	10° 41' 15"
Δc	45° 16' 45"(LT)
D	4° 45' 00"
R	1,206.23
Lc	953.24
Ts	1,022.49
Ls	450.00
LT	300.55
ST	150.50
Es	245.77
X	448.44
Y	27.91
k	224.74
p	6.99
SE	0.080 FT/FT
DES. SPEED	60 MPH

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Survey & Design Division

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

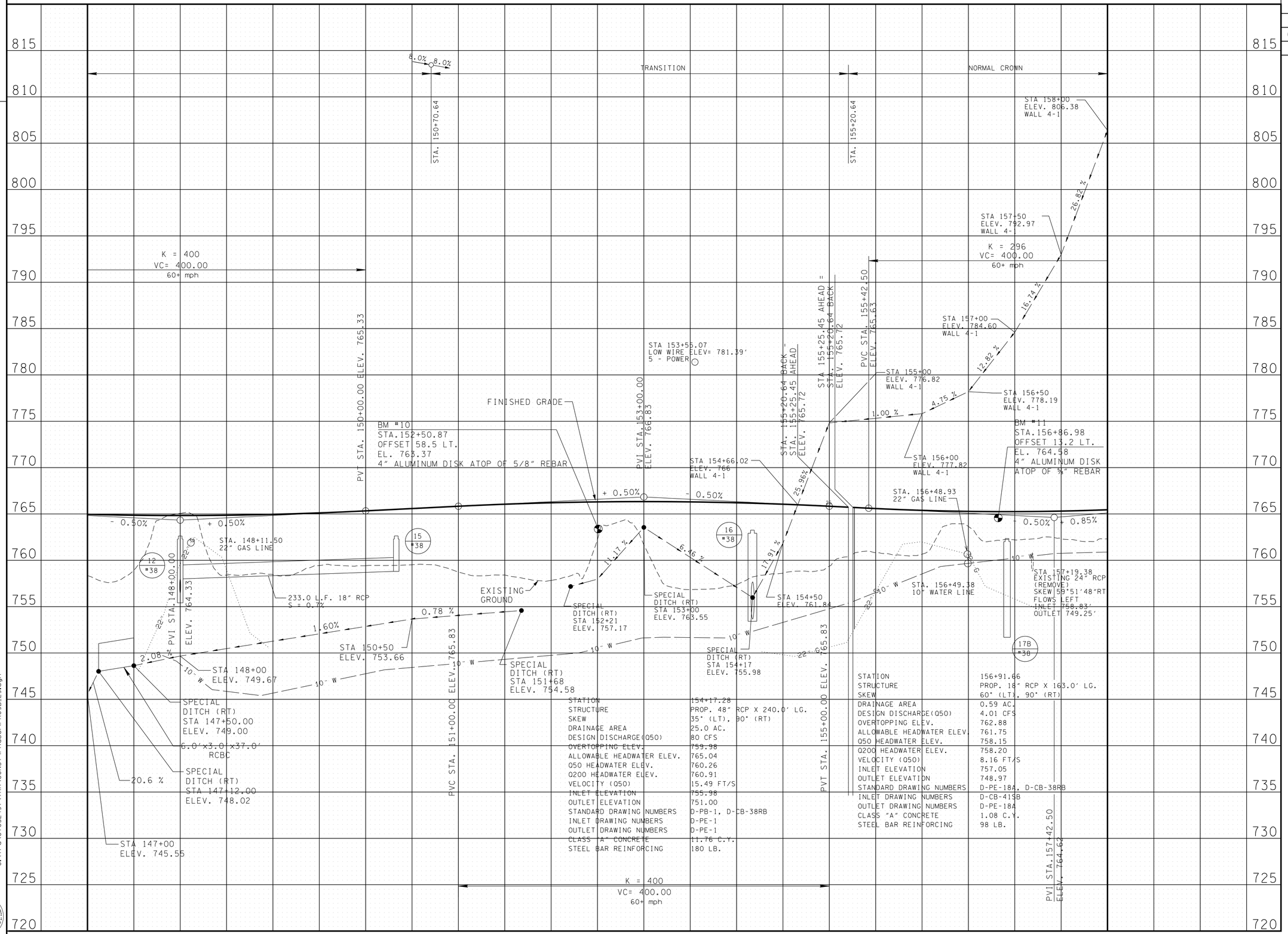
PROPOSED LAYOUT

STA. 147+00 TO STA. 158+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	9B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	9B



STATION	154+17.28
STRUCTURE	PROP. 48" RCP X 240.0' LG.
SKEW	35° (LT), 90° (RT)
DRAINAGE AREA	25.0 AC.
DESIGN DISCHARGE(Q50)	80 CFS
OVERTOPPING ELEV.	759.98
ALLOWABLE HEADWATER ELEV.	765.04
Q50 HEADWATER ELEV.	760.26
Q200 HEADWATER ELEV.	760.91
VELOCITY (Q50)	15.49 FT/S
INLET ELEVATION	755.98
OUTLET ELEVATION	751.00
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38RB
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-1
CLASS "A" CONCRETE	11.76 C.Y.
STEEL BAR REINFORCING	180 LB.

STATION	156+91.66
STRUCTURE	PROP. 18" RCP X 163.0' LG.
SKEW	60° (LT), 90° (RT)
DRAINAGE AREA	0.59 AC.
DESIGN DISCHARGE(Q50)	4.01 CFS
OVERTOPPING ELEV.	762.88
ALLOWABLE HEADWATER ELEV.	761.75
Q50 HEADWATER ELEV.	758.15
Q200 HEADWATER ELEV.	758.20
VELOCITY (Q50)	8.16 FT/S
INLET ELEVATION	757.05
OUTLET ELEVATION	748.97
STANDARD DRAWING NUMBERS	D-PE-18A, D-CB-38RB
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-18A
CLASS "A" CONCRETE	1.08 C.Y.
STEEL BAR REINFORCING	98 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 147+00 TO STA. 158+00

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

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Survey & Design Division

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

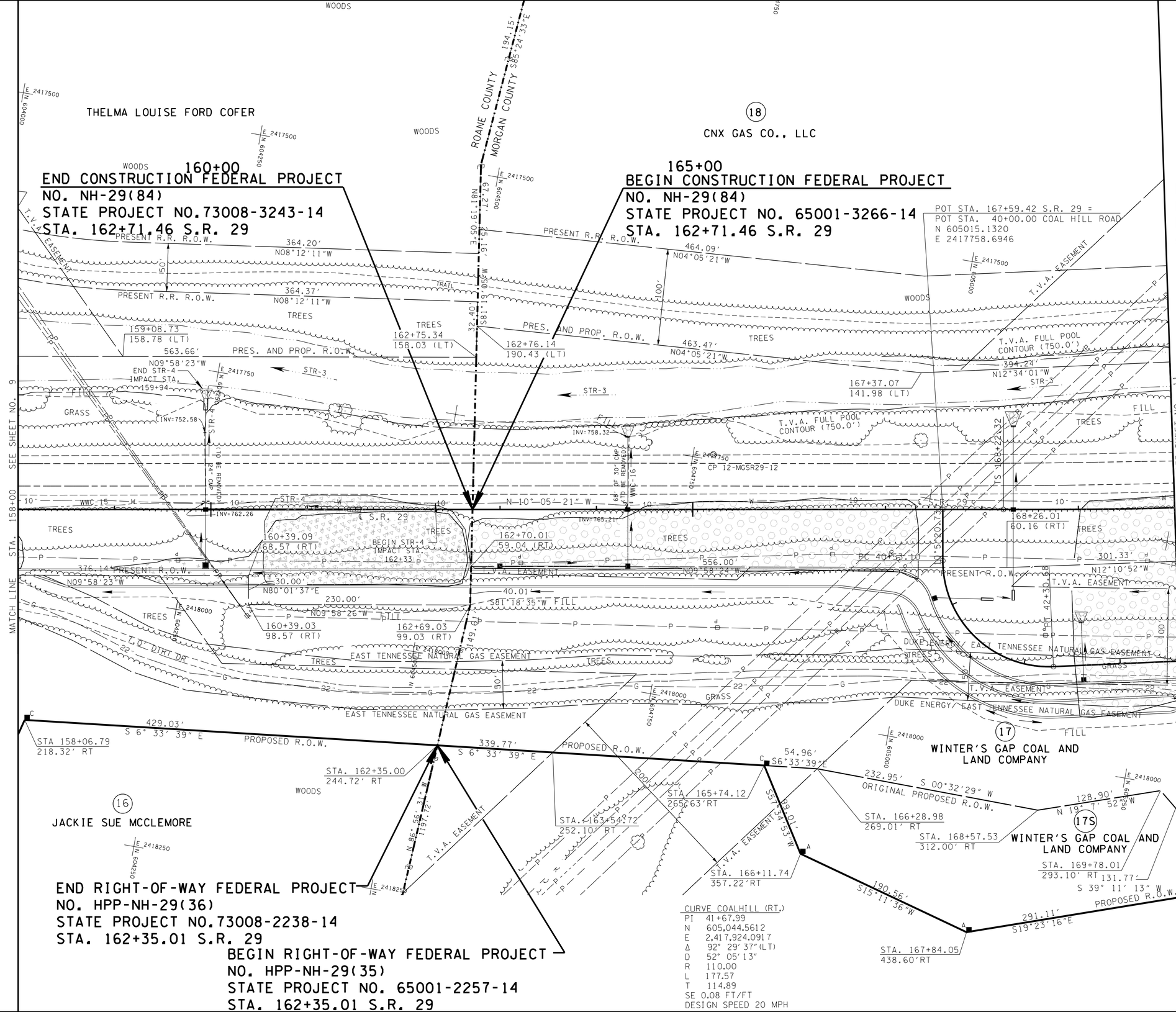
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	10
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	10

06/18/2010: MOVED PROPERTY LINE BETWEEN TRACTS 16 & 17 TO CORRECT LOCATION.

12/16/2011: RELOCATED COAL HILL ROAD ALIGNMENT. ADDED ADDITIONAL PROPOSED ROW RT FROM STA 165+74.12 TO STA 170+00 AND ADDED TRACT 17S.

- APR - Encapsulation Required
- APR - Encapsulation or Partial Blending Required
- APR - Blending Required

SEE SHEET 11 FOR ESTIMATED APR MATERIAL QUANTITIES FOR THIS SHEET



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Survey & Design Division

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

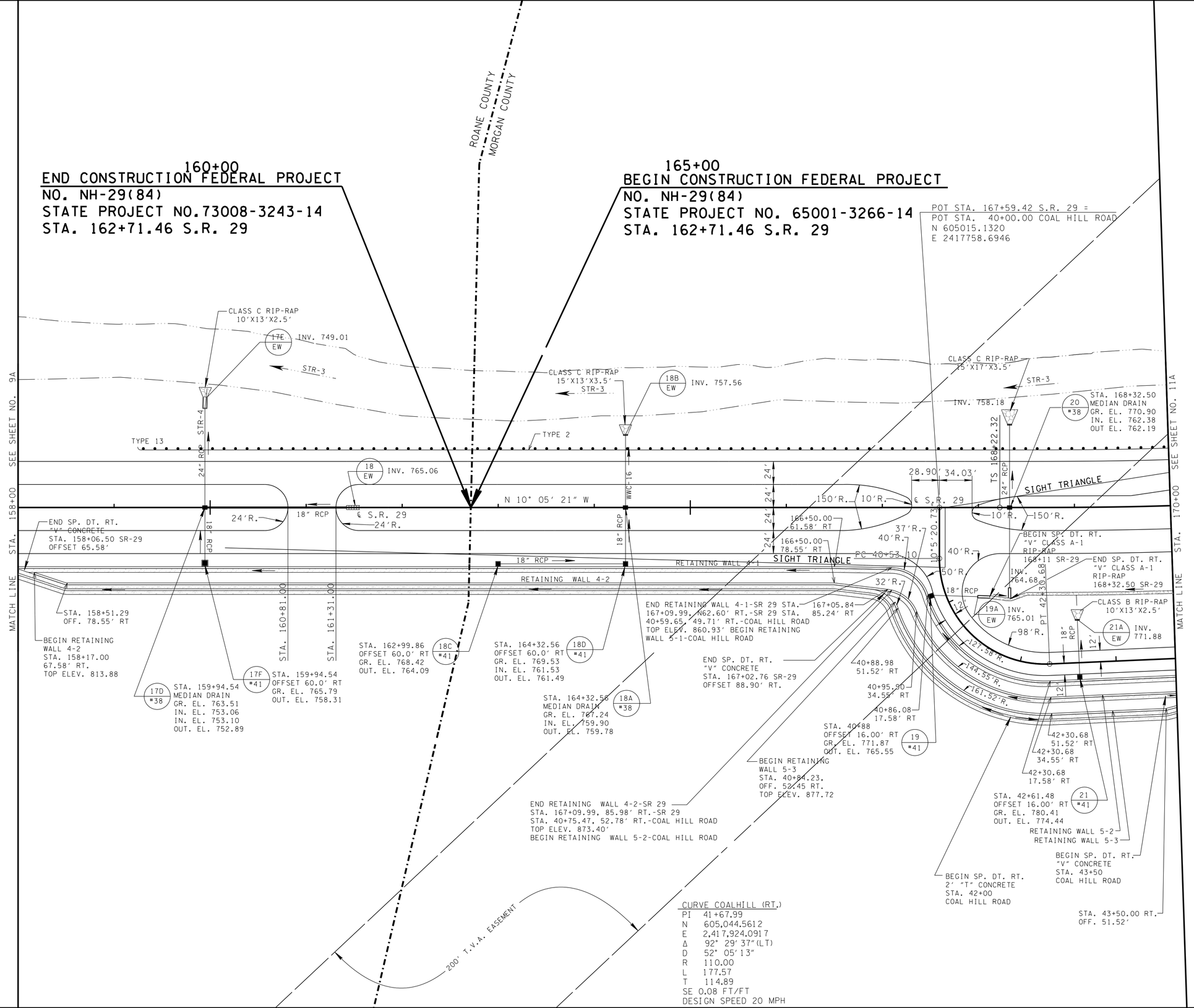
STA. 158+00 TO STA. 170+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	10A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	10A

12/16/2011: RELOCATED COAL HILL ROAD ALIGNMENT



CURVE COALHILL (RT.)

PI	41+67.99
N	605,044.5612
E	2,417,924.0917
Δ	92° 29' 37"(LT)
D	52° 05' 13"
R	110.00
L	177.57
T	114.89

SE 0.08 FT/FT
DESIGN SPEED 20 MPH

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 158+00 TO STA. 170+00

SCALE: 1"= 50'

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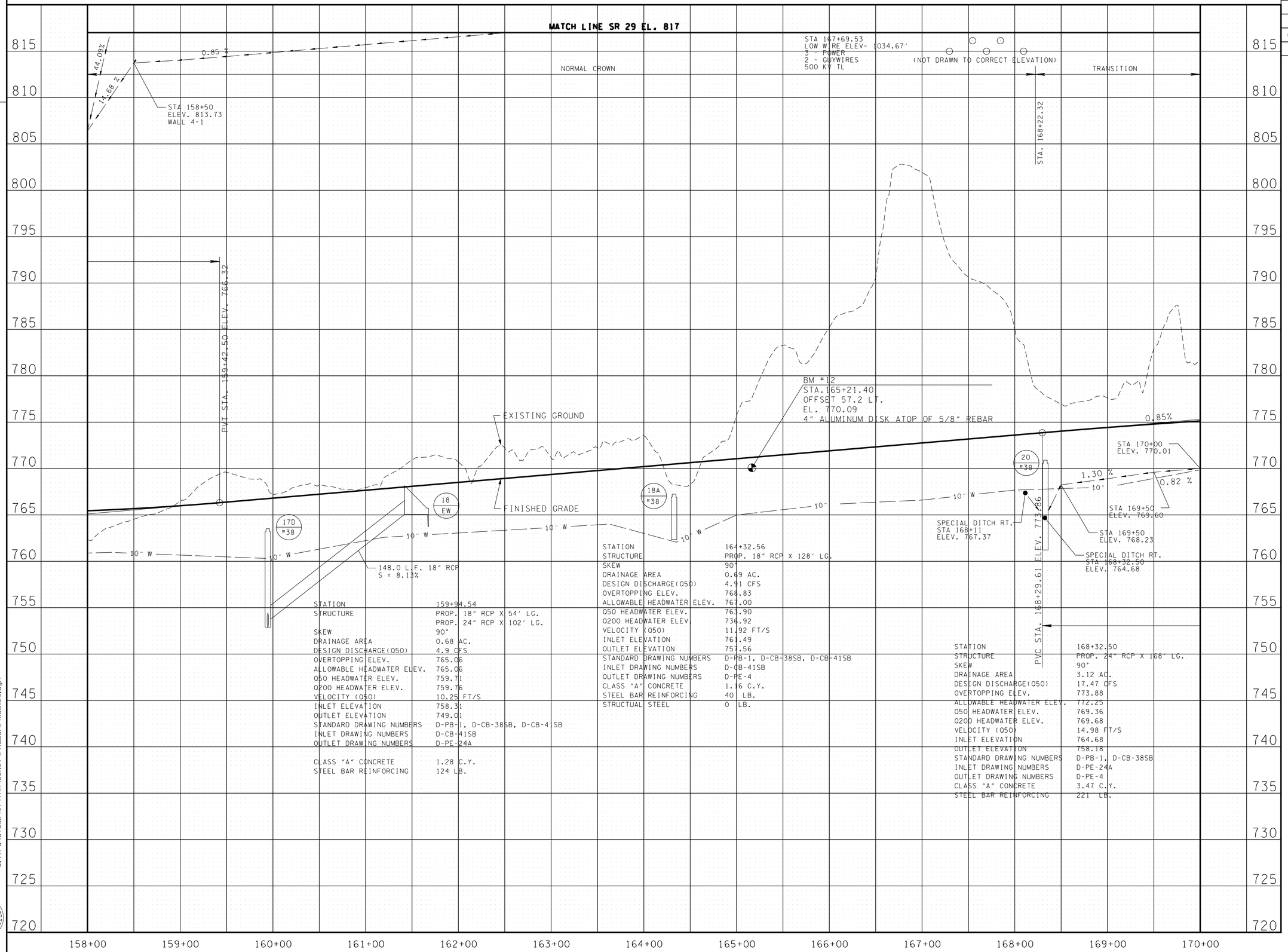
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	10B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	10B



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 158+00 TO STA. 170+00

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

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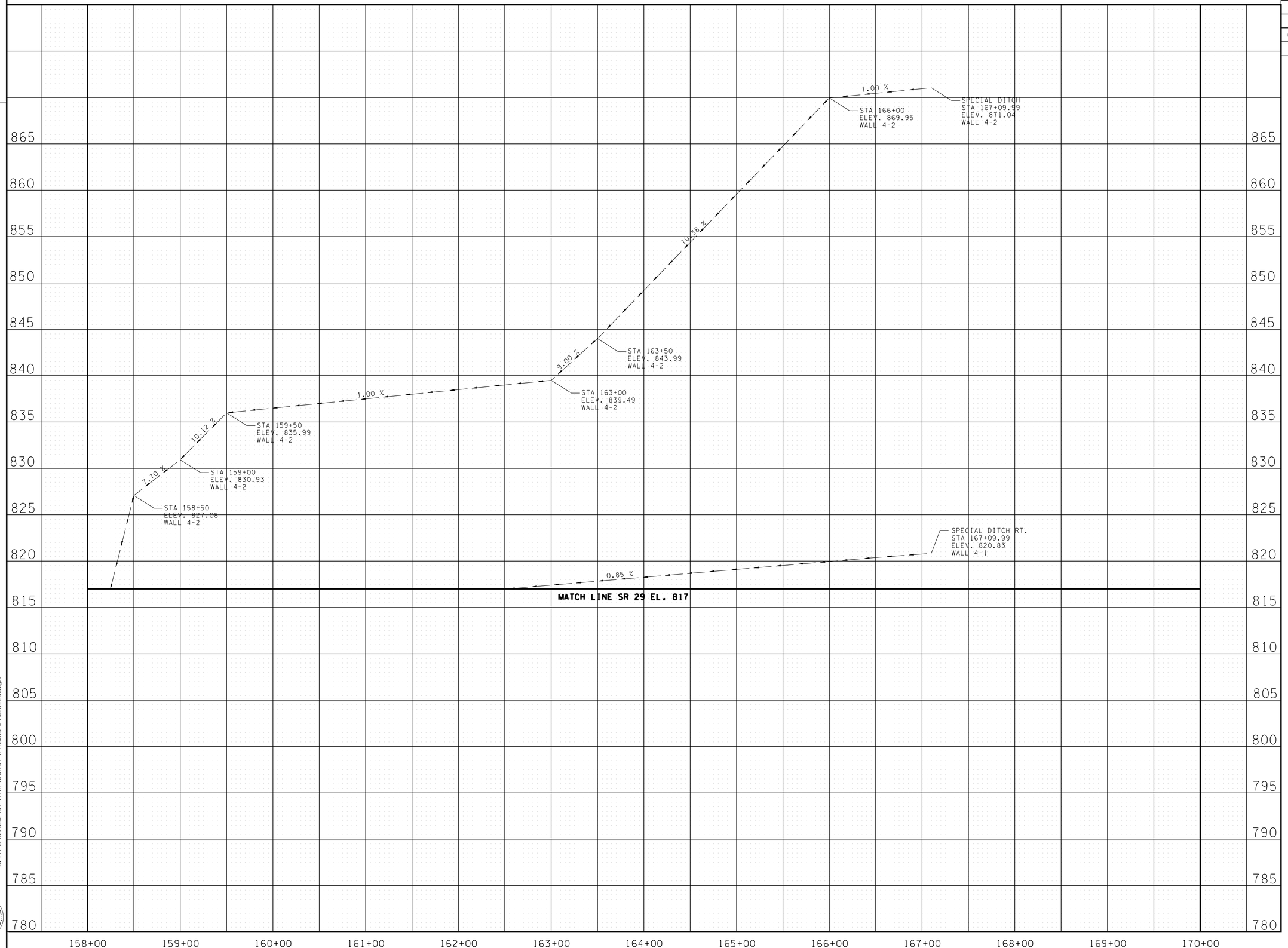
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	10C
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	10C



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UNOFFICIAL SET
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 158+00 TO STA. 170+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.	2009	HPP-NH-29(36)	11
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	11

1/26/2011: ADDED LENGTH AND RADIUS ALONG PRESENT R.O.W. BETWEEN STA. 179+00.00 112.80' RT AND STA. 180+54.18 108.96 RT. CHANGED OFFSET ORIENTATION AT COAL HILL RD STATION 44+25.00 FROM RT TO LT. ADDED DISTANCE BETWEEN STA 174+55.85 231.07 RT (SR 29) AND STA 44+25.00 21.22 LT (COAL HILL RD). REVISED CURVE LENGTH BETWEEN STA 176+25.15 117.62 RT AND STA 179+00.00 112.80 RT.

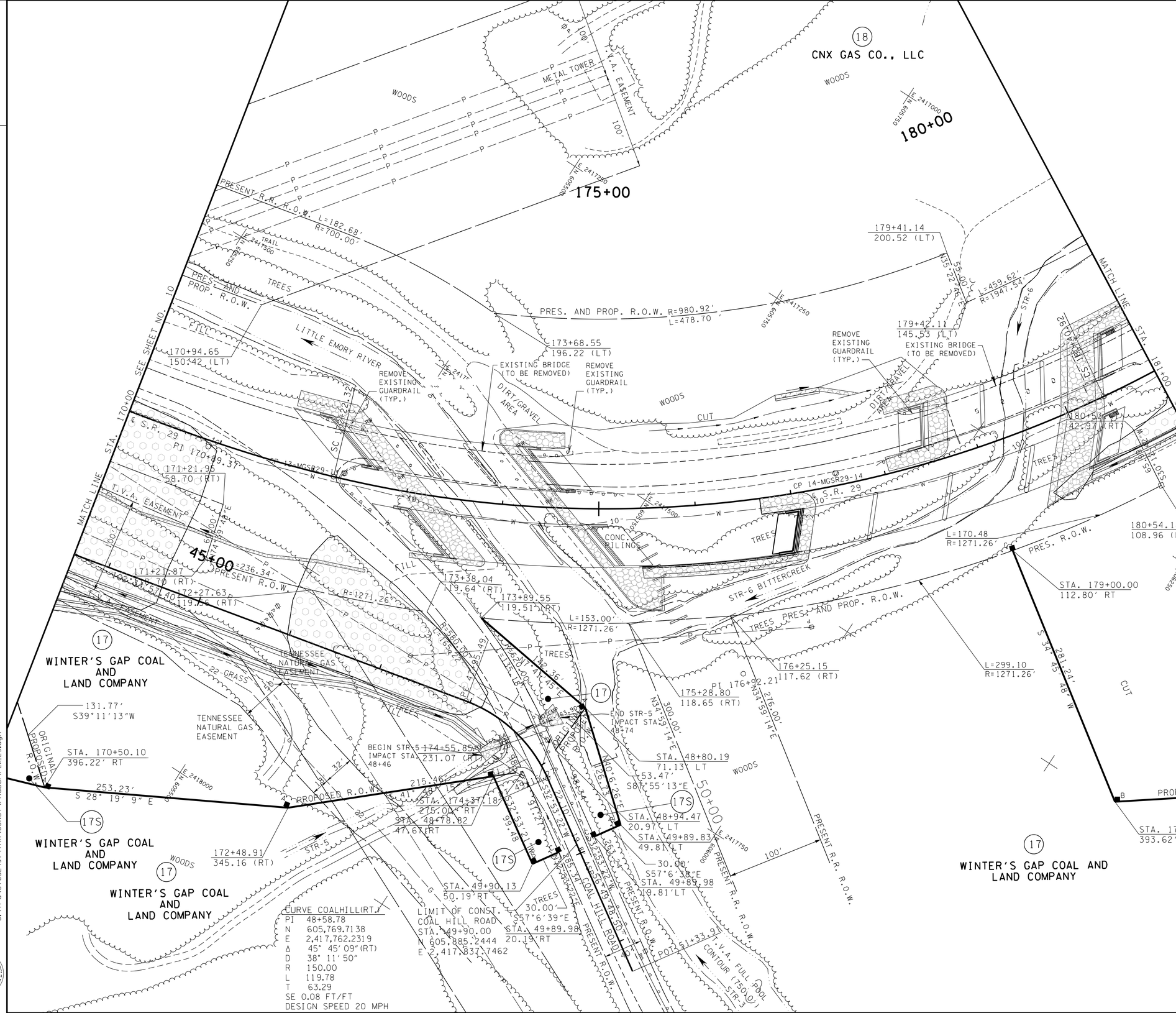
12/16/2011: RELOCATED COAL HILL ROAD ALIGNMENT AND ADDED PRIVATE DRIVE STA 48+78. REMOVED PRESENT R.O.W. LABEL STA 173+89.14. ADDED TRACT 17S, ADDITIONAL PROPOSED R.O.W. RT FROM STA. 170+00 TO STA. 170+50.10 AND ADDITIONAL PROPOSED R.O.W. ALONG COAL HILL ROAD.

2/21/2012: REVISED DIMENSIONS ALONG THE NORTHERN AND SOUTHERN EXISTING ROW LINES ON COAL HILL ROAD AND TRACT 17S.

ESTIMATED VOLUMES (CUYD)
STA. 154+00 - 172+50 SR 29,
STA. 40+50 - 48+50 COAL HILL RD

APR AREAS		
	- APR - Encapsulation Required	152,800
	- APR - Encapsulation or Partial Blending Required	4,750
	- APR - Blending Required	7,200

SEE SHEET 12 FOR ESTIMATED APR MATERIAL QUANTITIES FOR THIS SHEET, STA. 180+00 - 181+00 SR 29



CURVE COALHILL(RT.)
PI 48+58.78
N 605,769.7138
E 2,417,762.2319
Δ 45° 45' 09"(RT)
D 38° 11' 50"
R 150.00
L 119.78
T 63.29
SE 0.08 FT/FT
DESIGN SPEED 20 MPH

S.R. 29 (MAINLINE)
PI 176+92.21
N 605,933.5007
E 2,417,595.2886
Δ 57°53'01"LT
θs 09°30'00"LT
Δc 38°53'01"LT
D 04°45'00"
R 1,206.23
Lc 818.60
Ts 869.89
Ls 400.00
LT 267.05
ST 133.68
Es 178.45
X 398.90
Y 22.06
k 199.82
p 5.52
SE 0.080 FT/FT
DES. SPEED 60 MPH

UNOFFICIAL SET
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 170+00 TO STA. 181+00

SCALE: 1"= 50'

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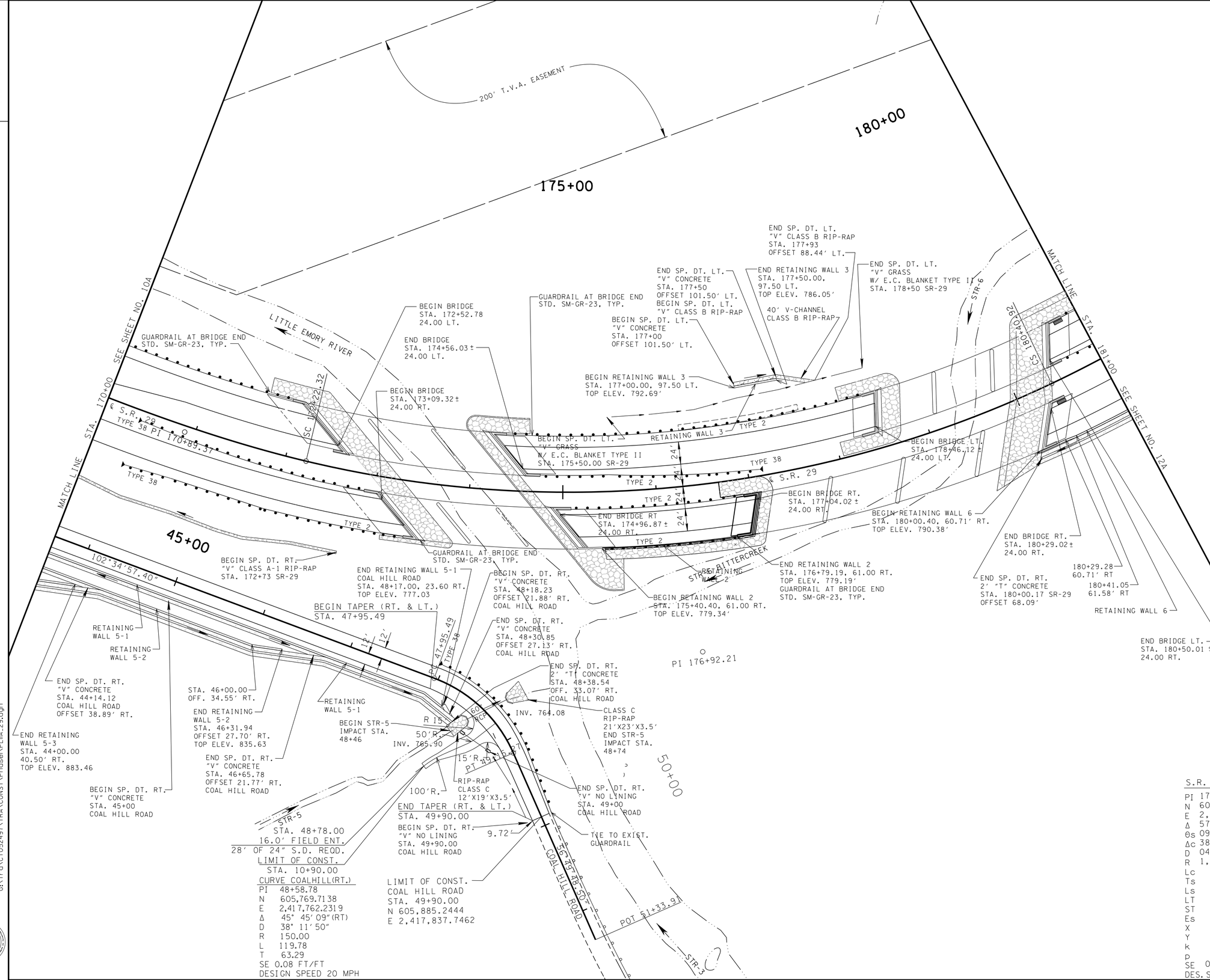
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	11A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	11A

12/16/2011: RELOCATED COAL HILL ROAD ALIGNMENT AND ADDED PRIVATE DRIVE STA 48+78.

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.



S.R. 29 (MAINLINE)

PI	176+92.21
N	605,933.5007
E	2,417,595.2886
Δ	57°53'01"LT
θs	09°30'00"LT
Δc	38°53'01"LT
D	04°45'00"
R	1,206.23
Lc	818.60
Ts	869.89
Ls	400.00
LT	267.05
ST	133.68
Es	178.45
X	398.90
Y	22.06
k	199.82
p	5.52
SE	0.080 FT/FT
DES. SPEED	60 MPH

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 170+00 TO STA. 181+00

SCALE: 1"= 50'

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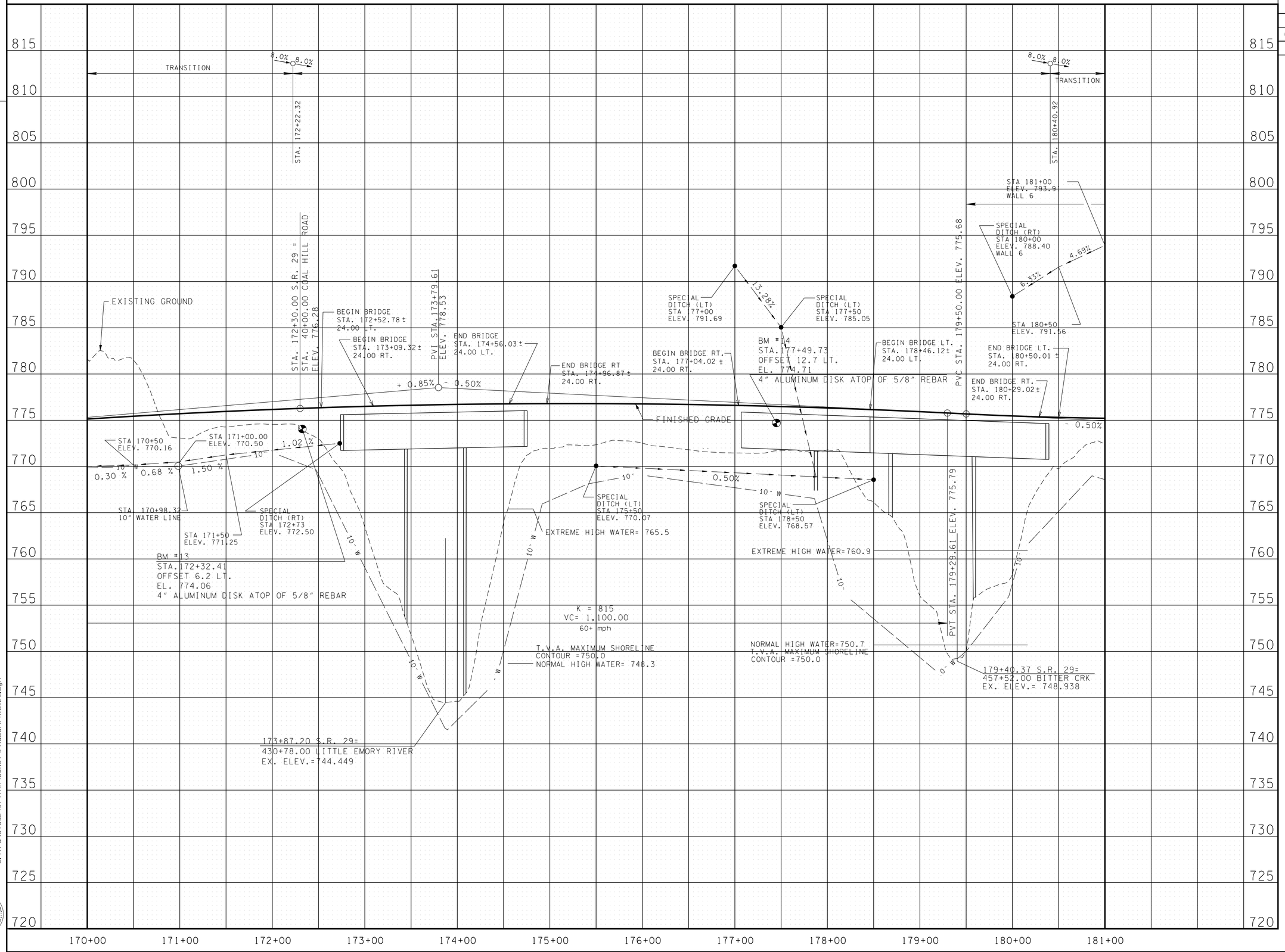
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	11B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	11B



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Survey & Design Division

UNOFFICIAL SET
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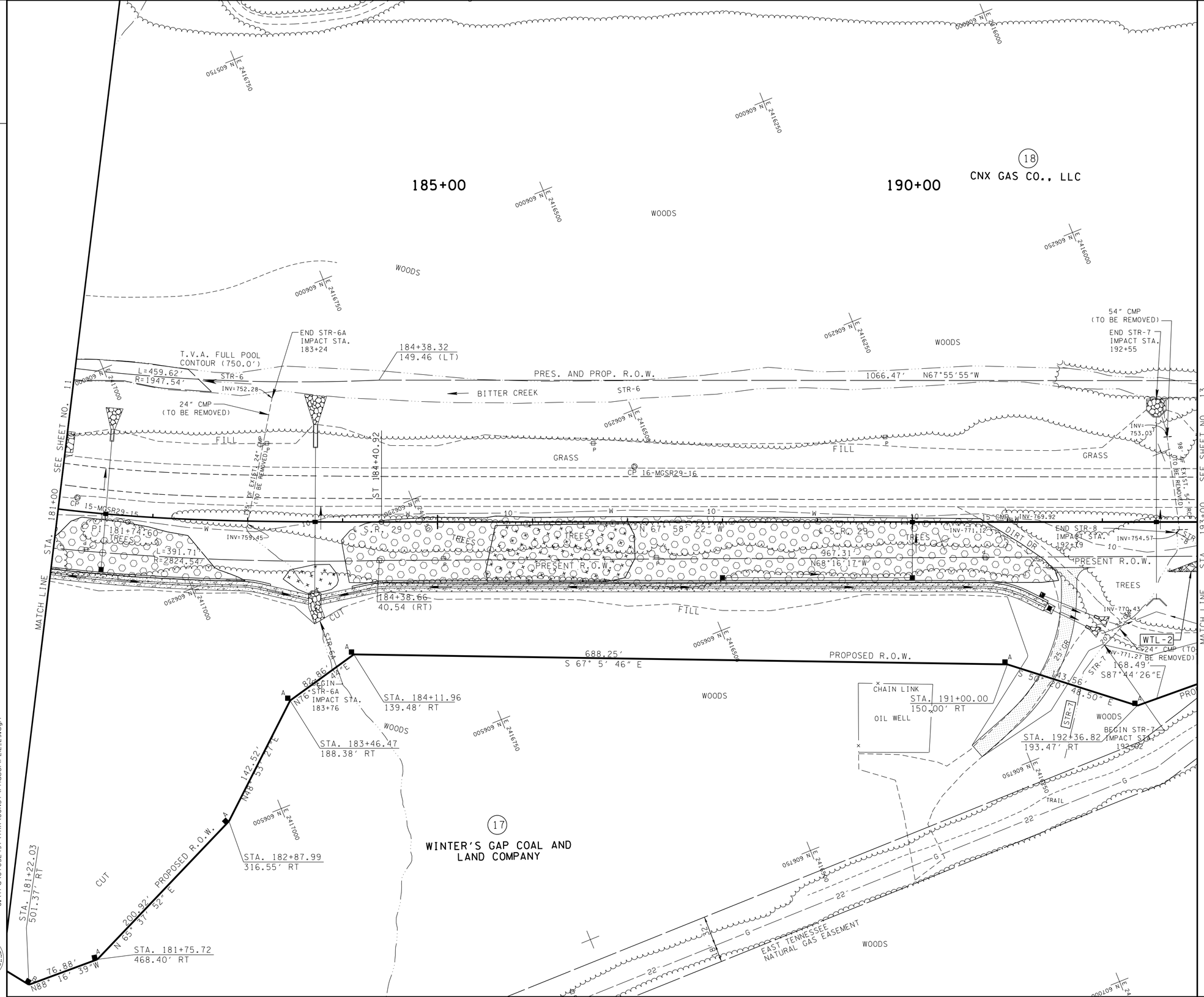
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 170+00 TO STA. 181+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.	2009	HPP-NH-29(36)	12
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	12



WTL-2 STA 192+69 TO STA 198+00	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.30 AC.
	VOLUME OF PERMANENT IMPACT = 484 C.Y.
	AREA OF TEMPORARY IMPACT = 0.00 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.

APR AREAS	ESTIMATED VOLUMES (CUYD) STA. 180+00 - 191+50 SR 29.
- APR - Encapsulation Required	19,700
- APR - Encapsulation or Partial Blending Required	1,700
- APR - Requiring Blending	0

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 181+00 TO STA. 193+00

SCALE: 1"= 50'

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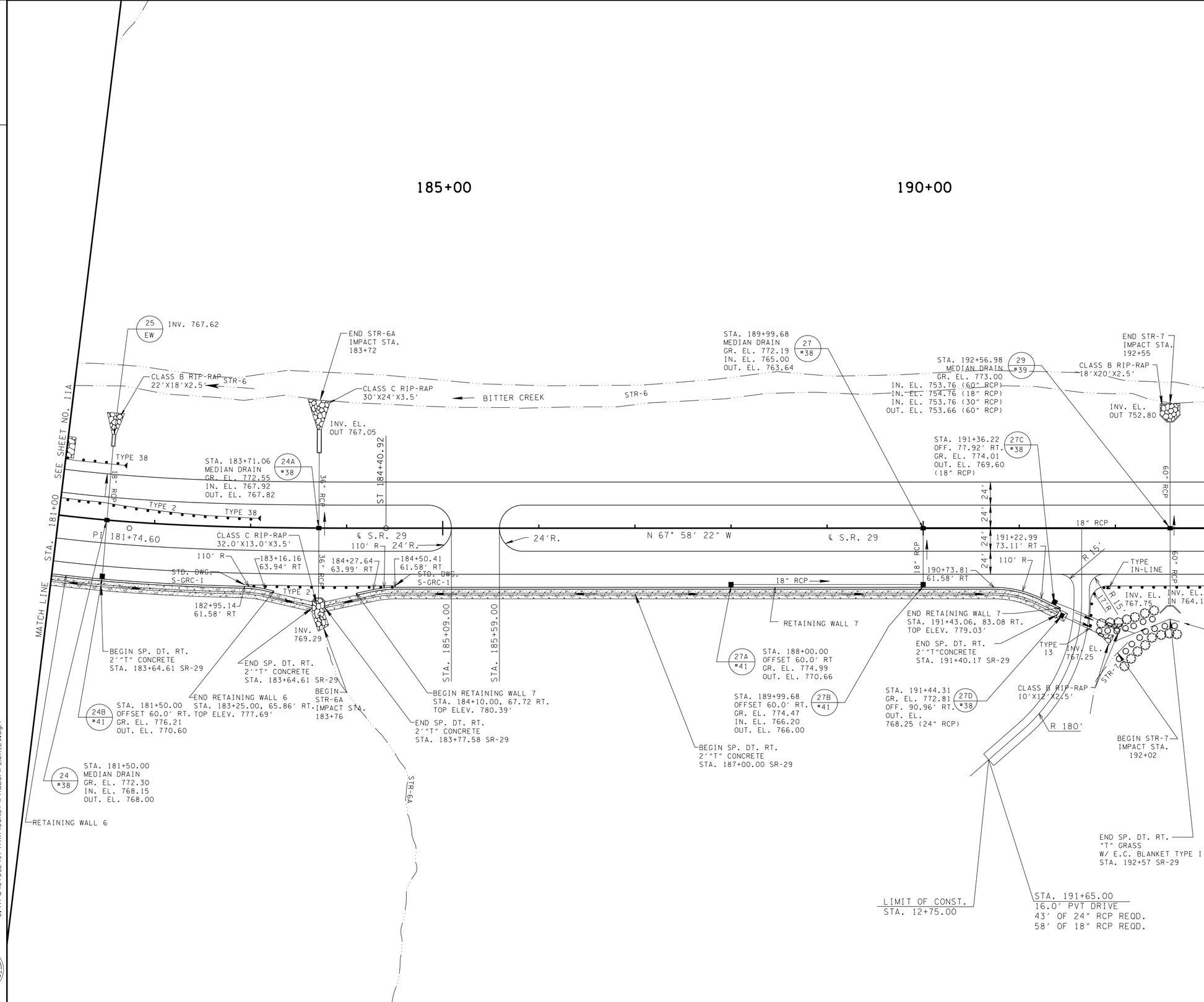
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	12A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	12A



SEE SHEET NS-3 FOR STREAM MITIGATION DETAILS

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 181+00 TO STA. 193+00

SCALE: 1"= 50'

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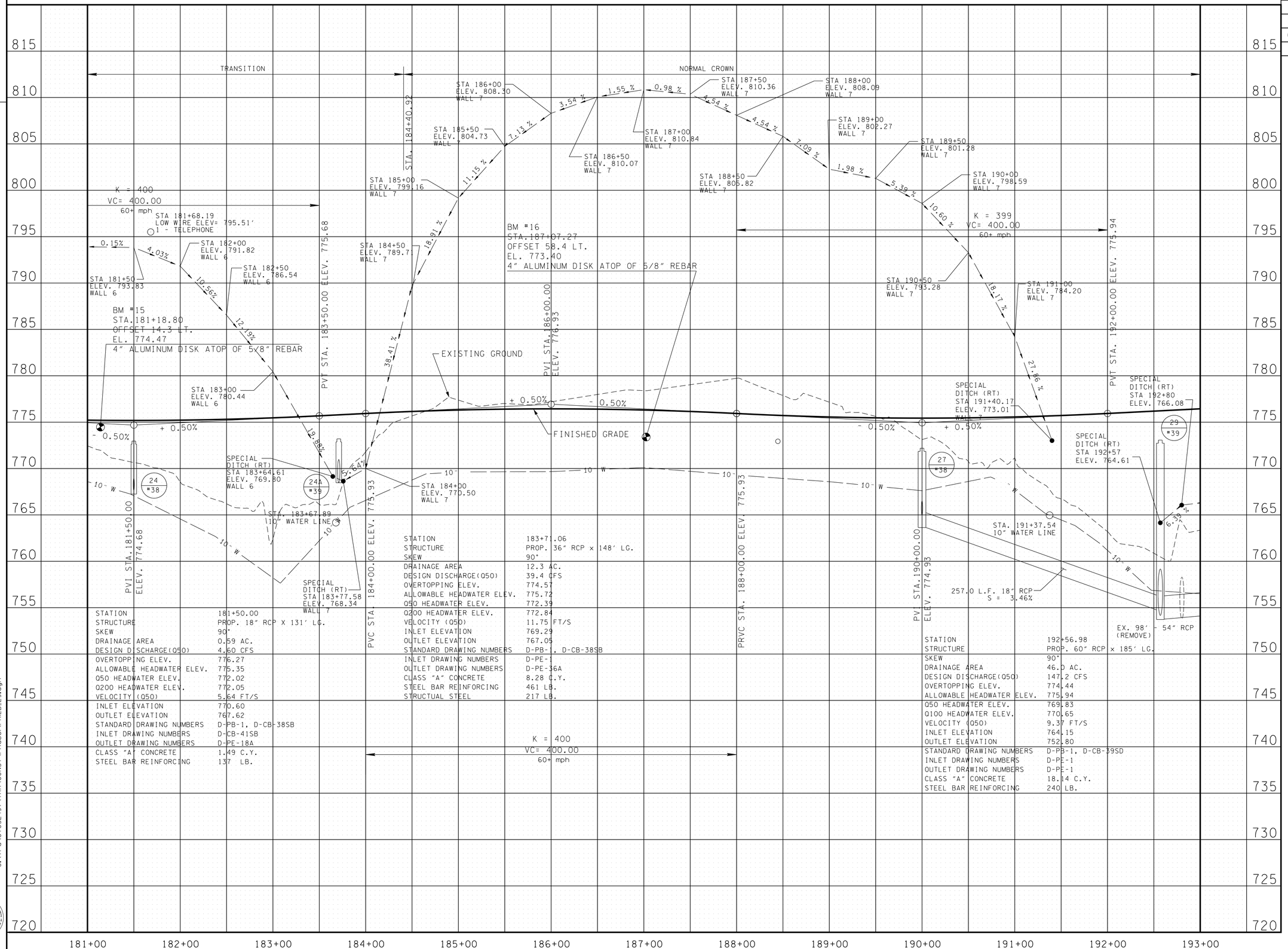
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	12B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	12B



UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 181+00 TO STA. 193+00

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

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	13
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	13

06/18/2010: REVISED PROPERTY LINES FOR TRACTS 17, 19, 21, 20, AND DELETED TRACT 22. MOVED DRIVEWAY LOCATION FROM RIGHT OF STA 203+83 TO STA 204+35

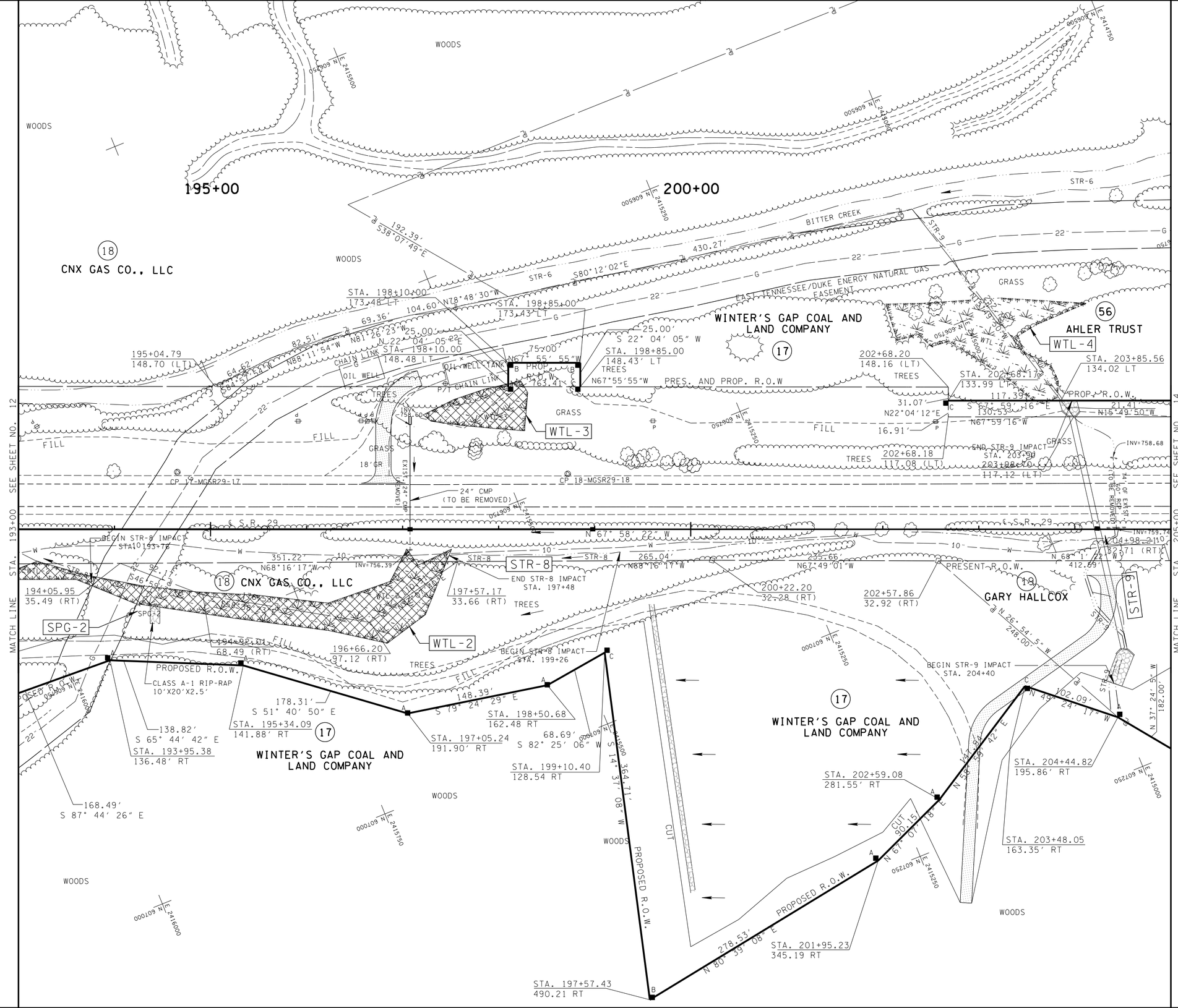
1/26/2011: REVISED PROPERTY DIMENSIONS BETWEEN TRACTS 17 AND 56. CORRECTED BEARING ON PROPOSED R.O.W. BETWEEN STA. 203+48.05 163.35' RT AND STA. 204+44.82 195.86' RT. CHANGED OFFSET DISTANCE AT STATION 198+85.00 FROM 191.90' RT TO 148.43' LT.

WTL-2 STA 192+69 TO STA 198+00	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.30 AC.
	VOLUME OF PERMANENT IMPACT = 484 C.Y.
	AREA OF TEMPORARY IMPACT = 0.00 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.

WTL-3 STA 197+90	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.07 AC.
	VOLUME OF PERMANENT IMPACT = 130 C.Y.
	AREA OF TEMPORARY IMPACT = 0.0 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.

NO EQUIPMENT IS TO BE OPERATED IN WETLAND AREAS AND STREAMS LOCATED BEYOND THE PERMITTED LIMITS.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT WTL-4 AND STR-6 WILL NOT BE DISTURBED BEYOND THE LIMITS OF DISTURBANCE AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 193+00 TO STA. 205+00

SCALE: 1"= 50'

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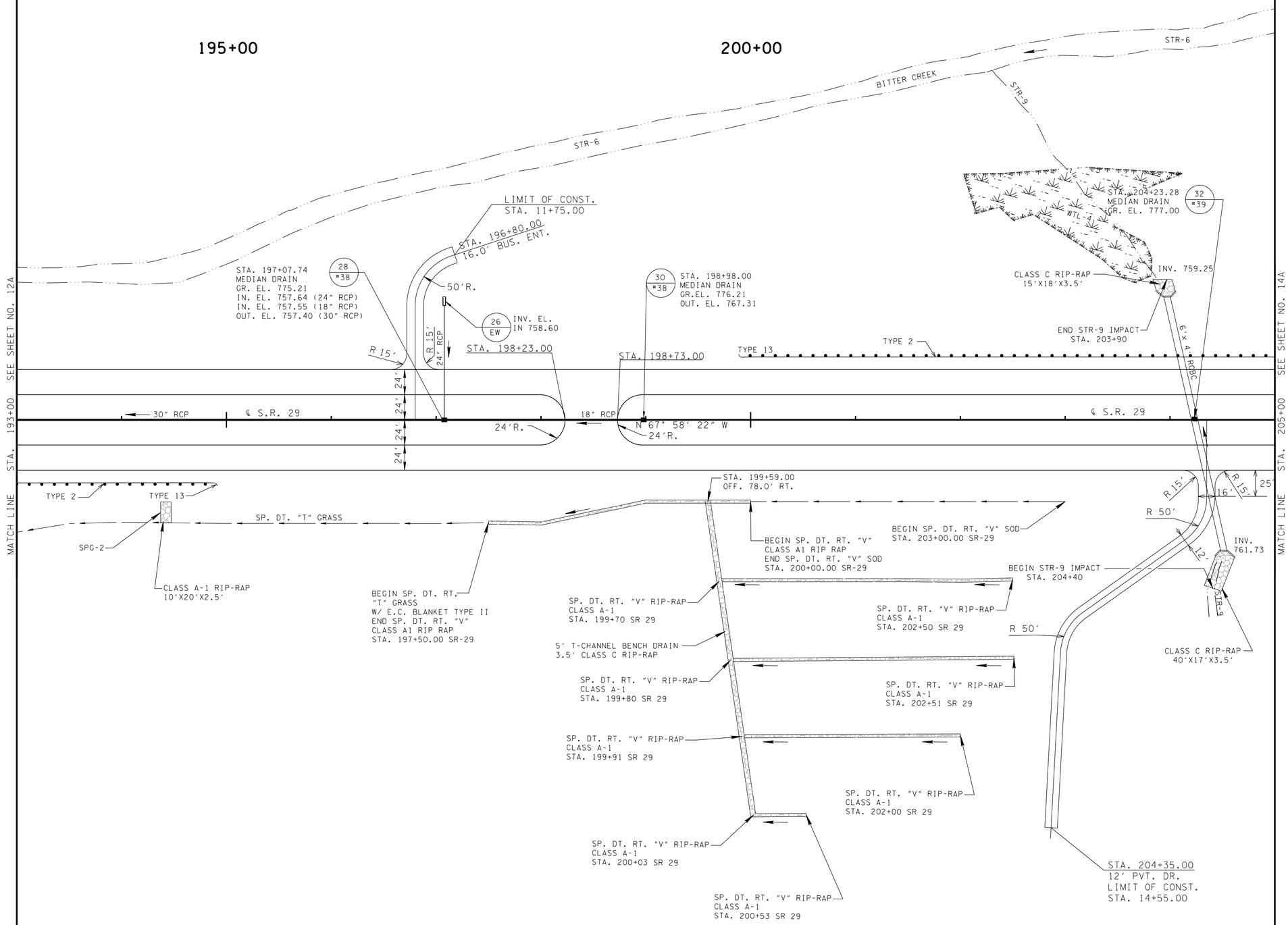
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	13A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	13A

06/18/2010: MOVED DRIVEWAY LOCATION FROM RIGHT OF STA 203+83 TO STA 204+35 AND INCREASED THE WIDTH OF VARIOUS DRIVES.

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

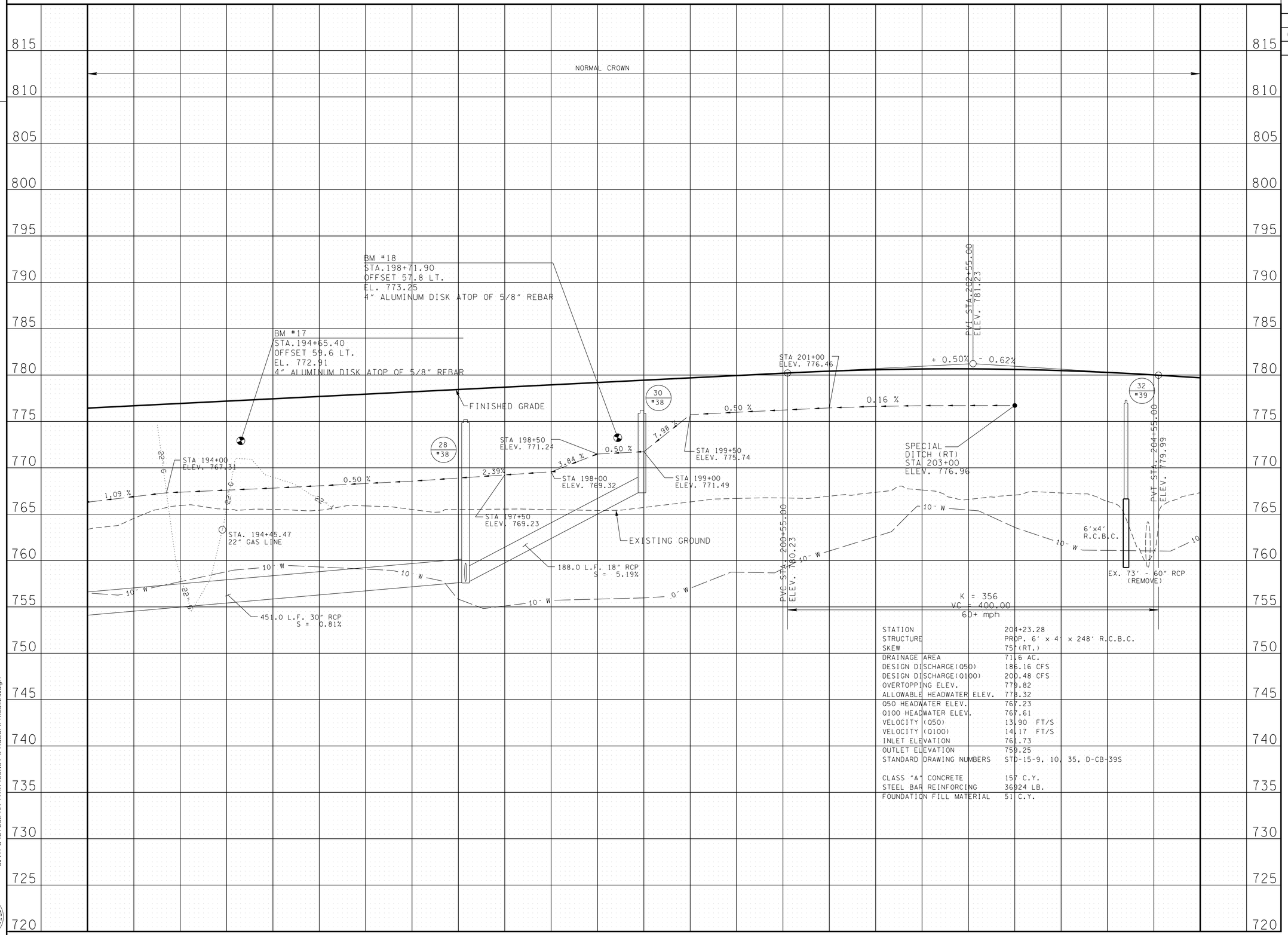
PROPOSED LAYOUT

STA. 193+00 TO STA. 205+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	13B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	13B



STATION	204+23.28
STRUCTURE	PROP. 6' x 4' x 248' R.C.B.C.
SKEW	75° (RT.)
DRAINAGE AREA	71.6 AC.
DESIGN DISCHARGE(Q50)	186.16 CFS
DESIGN DISCHARGE(Q100)	200.48 CFS
OVERTOPPING ELEV.	779.82
ALLOWABLE HEADWATER ELEV.	778.32
Q50 HEADWATER ELEV.	767.23
Q100 HEADWATER ELEV.	767.61
VELOCITY (Q50)	13.90 FT/S
VELOCITY (Q100)	14.17 FT/S
INLET ELEVATION	761.73
OUTLET ELEVATION	759.25
STANDARD DRAWING NUMBERS	STD-15-9, 10, 35, D-CB-39S
CLASS "A" CONCRETE	157 C.Y.
STEEL BAR REINFORCING	36924 LB.
FOUNDATION FILL MATERIAL	51 C.Y.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 193+00 TO STA. 205+00

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

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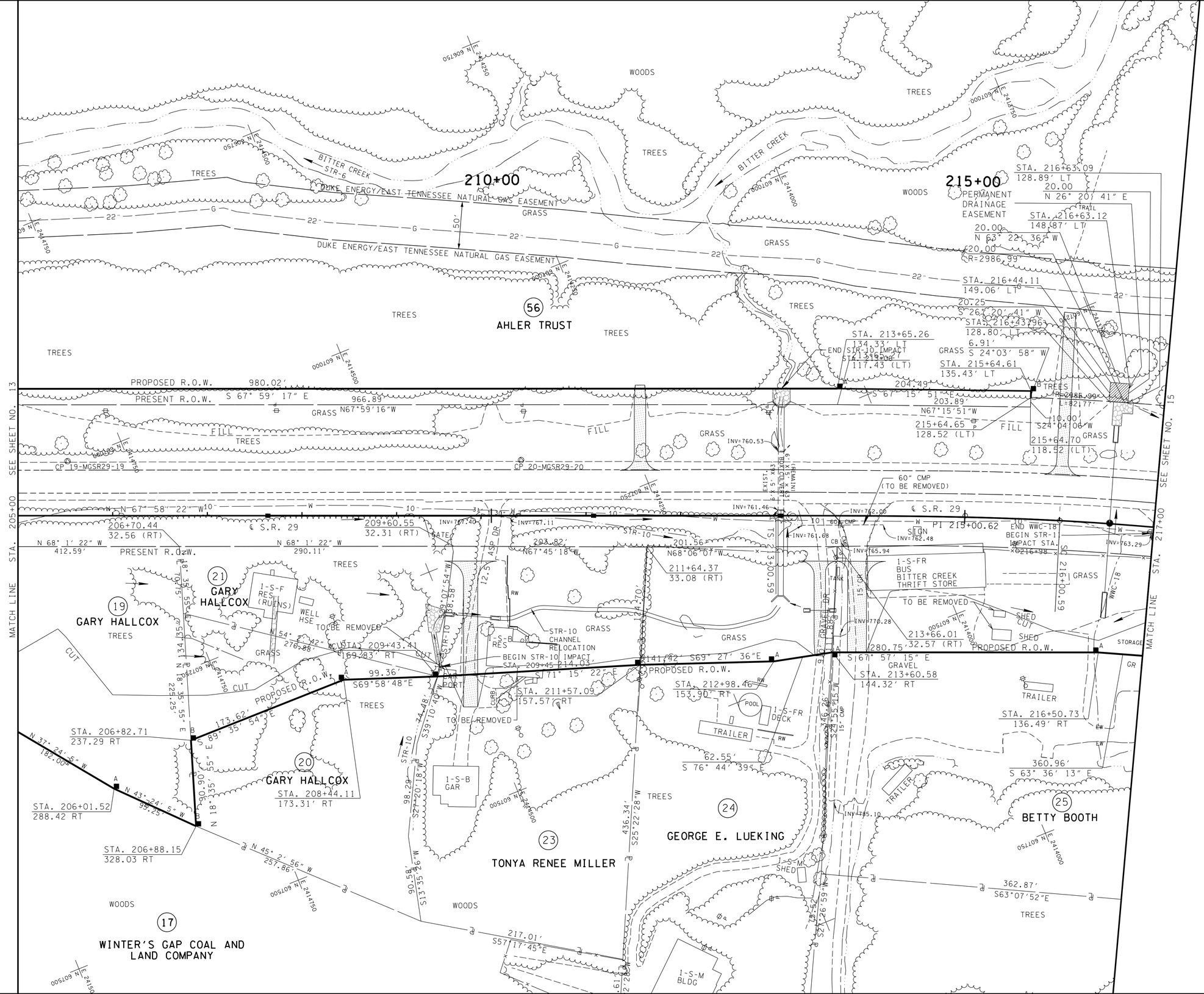
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	14
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	14

06/18/2010: REVISED PROPERTY LINES FOR TRACTS 17, 19, 21 & 20 AND DELETED TRACT 22.
REVISED OWNER NAME FOR TRACT 23.

1/26/2011: ADDED DISTANCE ALONG PRESENT ROW TO PERMANENT DRAINAGE EASEMENT AND ADDED PRIVATE DRIVE AT STATION 216+00 LT.



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 205+00 TO STA. 217+00

SCALE: 1"= 50'

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Survey & Design Division

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

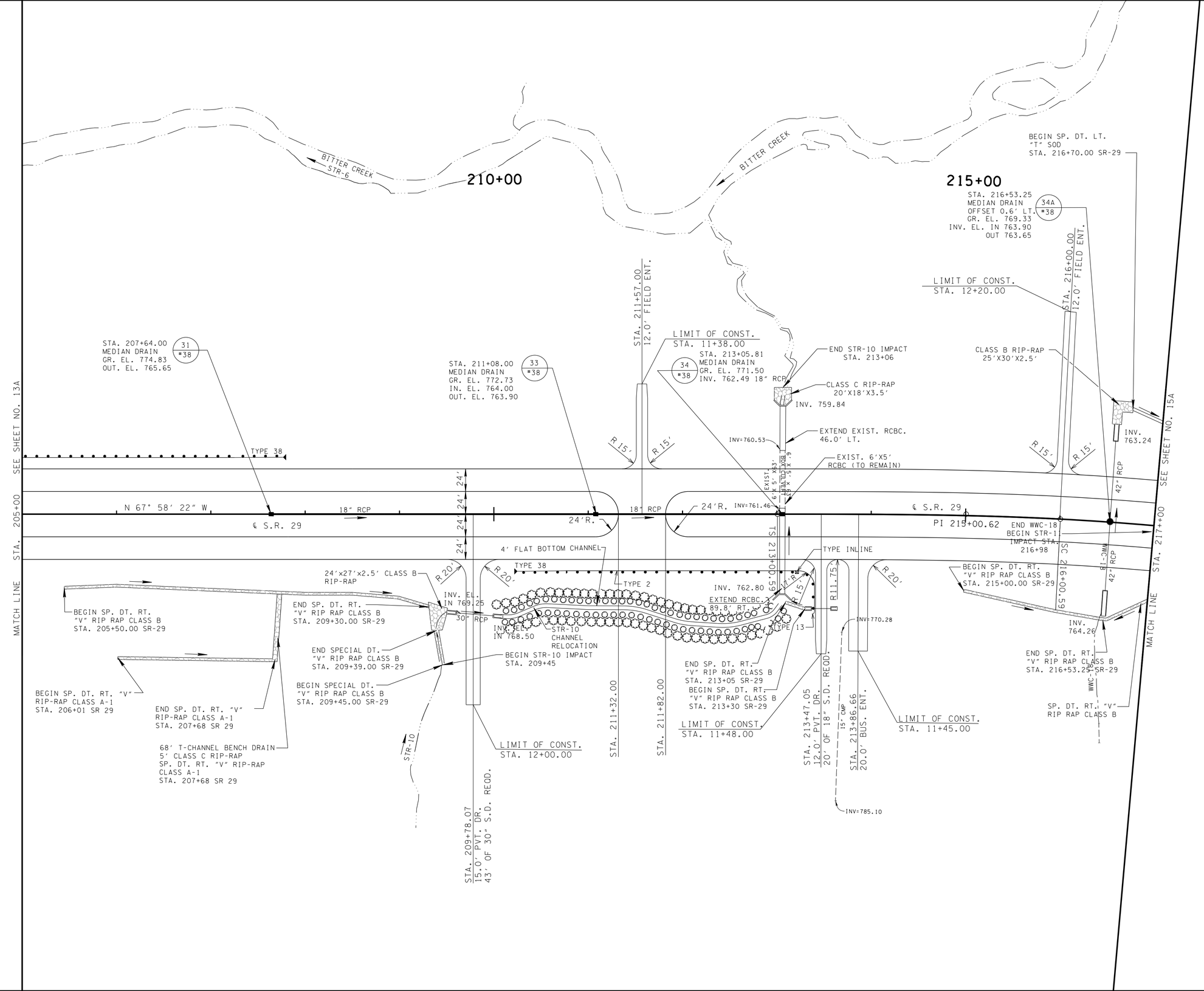
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	14A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	14A

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES AND REMOVED PRIVATE DRIVE STA 209+00.

12/16/2011: REVISED SHEET TO DISPLAY PRIVATE DRIVE AT STA 216+00.

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.

SEE SHEETS NS-4 - NS-6 FOR STREAM MITIGATION DETAILS AND SHEET NS-2 FOR STR-10 RELOCATION PLAN AND PROFILE.



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 205+00 TO STA. 217+00

SCALE: 1"= 50'

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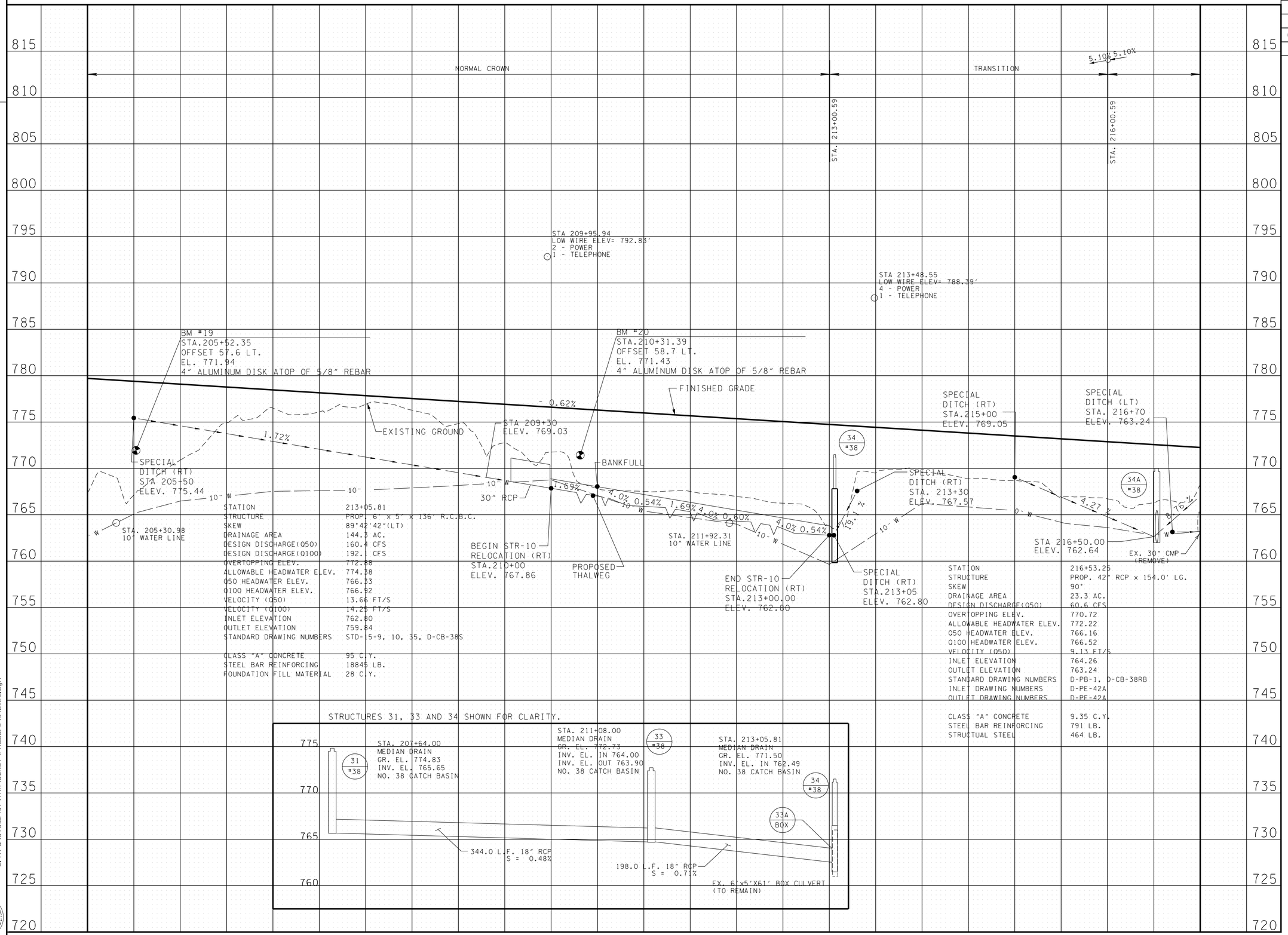
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	14B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	14B



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 205+00 TO STA. 217+00

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

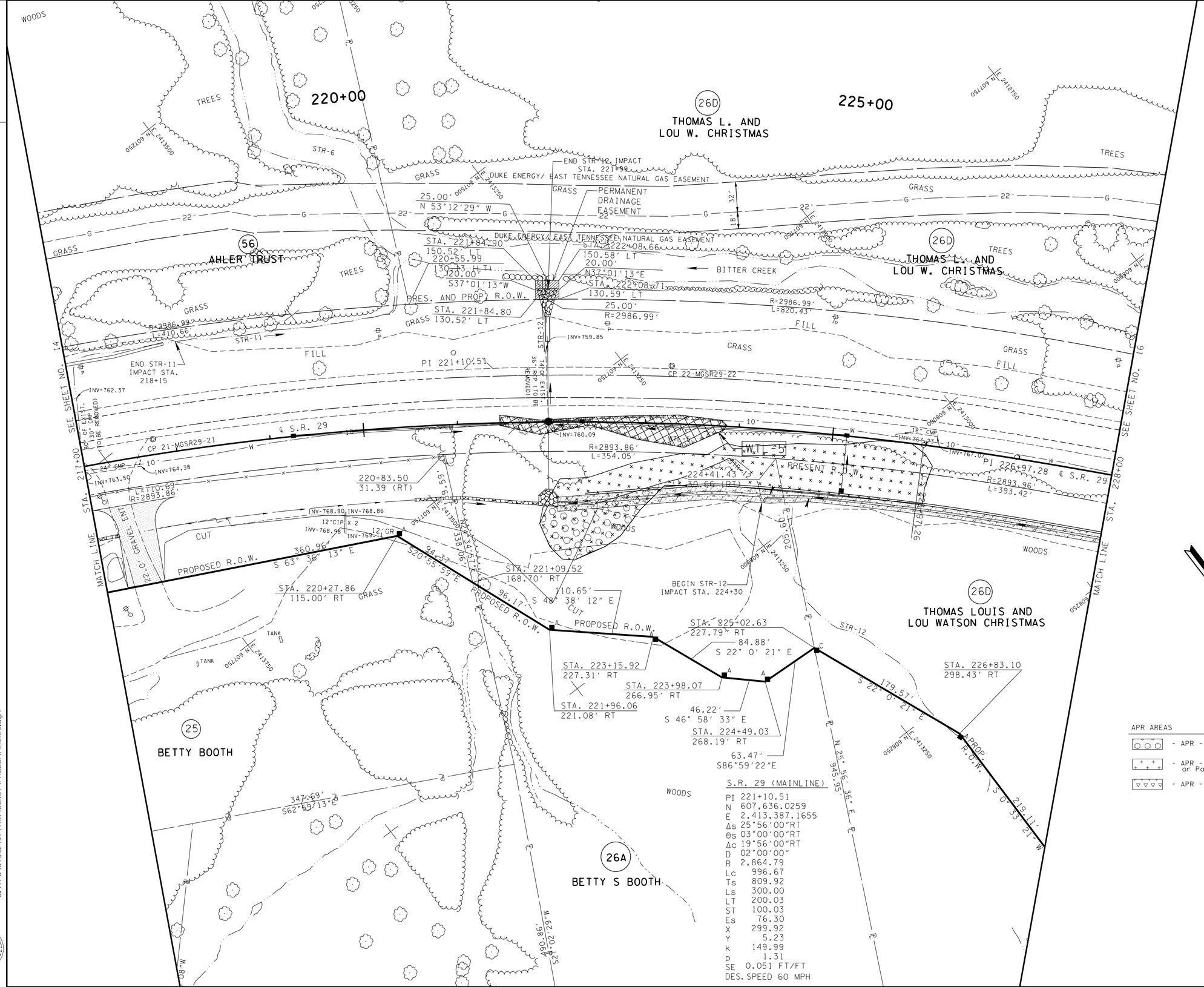
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	15
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	15

06/18/2010: RELOCATED PROPERTY LINE BETWEEN TRACTS 56 & 26D AND CHANGED PROPERTY OWNER NAME OF TRACT 26D.

1/26/2011: ADDED ADDITIONAL TRACT LABEL 26D. REVISED LABEL R = 2893.96' L = 393.42' ALONG PRESENT R.O.W. BETWEEN STA. 224+41.43 30.66' RT AND MATCHLINE STA. 288+00. ADDED DISTANCE ALONG THE CURVE OF THE PRESENT R.O.W. LINES BETWEEN THE LIMITS OF THE PROPOSED DRAINAGE EASEMENT ON THE LEFT SIDE OF SR-29.

12/16/2011: ADDED RADIUS ALONG THE CURVE OF THE PRESENT R.O.W. LINES BETWEEN THE LIMITS OF THE PROPOSED DRAINAGE EASEMENT ON THE LEFT SIDE OF SR-29.



WTL-5 STA 221+45 TO STA 223+87	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.1 AC.
	VOLUME OF PERMANENT IMPACT = 165 C.Y.
	AREA OF TEMPORARY IMPACT = 0 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT STR-11 AND STR-12 WILL NOT BE DISTURBED BEYOND THE LIMITS OF DISTURBANCE AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

APR AREAS

- APR - Encapsulation Required
- APR - Encapsulation or Partial Blending Required
- APR - Blending Required

ESTIMATED VOLUMES (CY)
STA. 217+00 - STA. 228+00 SR 29

	41,000
	7,900

UNOFFICIAL SET
NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 217+00 TO STA. 228+00

SCALE: 1"= 50'

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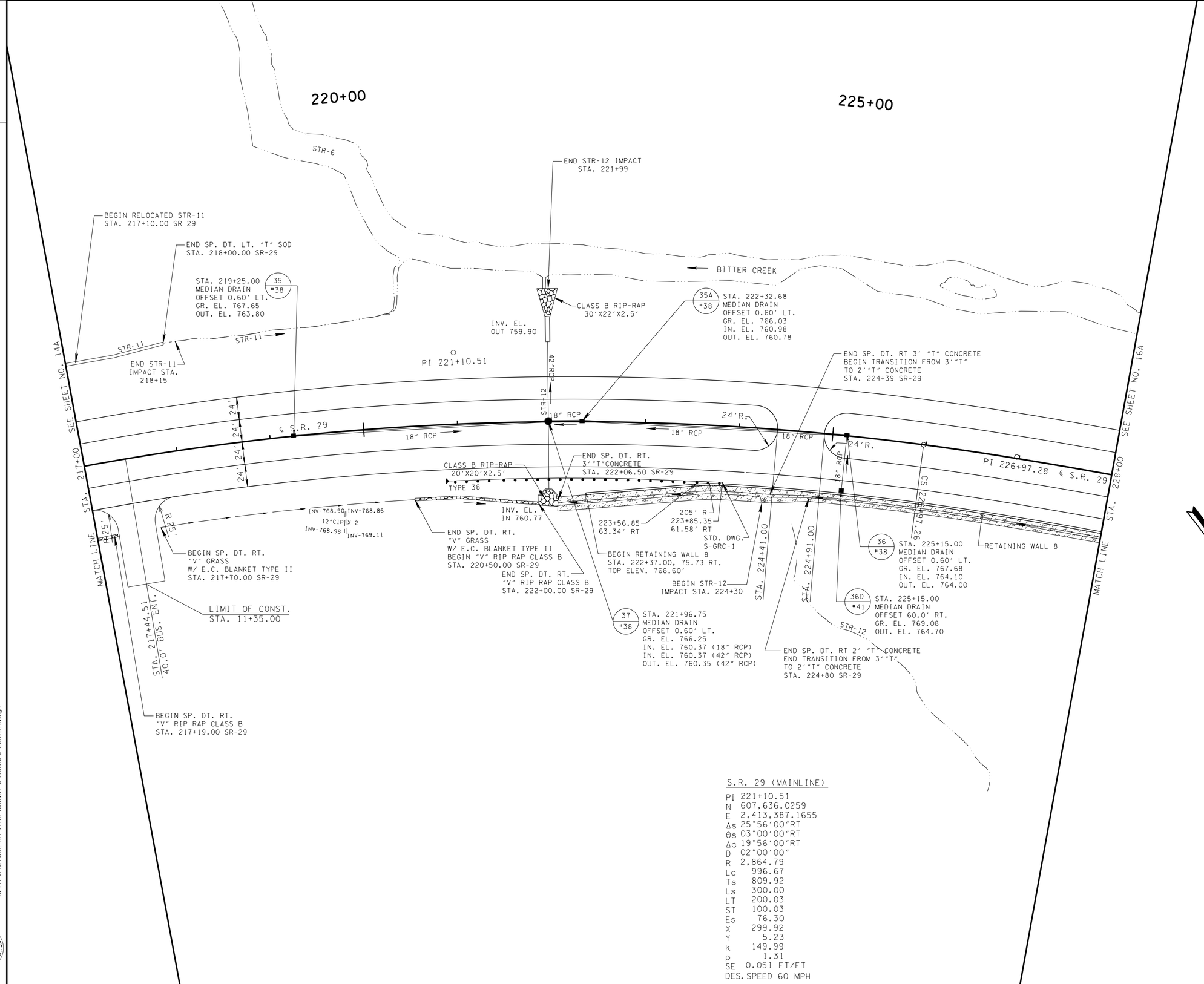
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	15A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	15A



SEE SHEET 2HH FOR STREAM MITIGATION DETAILS

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT STR-11 AND STR-12 WILL NOT BE DISTURBED BEYOND THE LIMITS OF DISTURBANCE AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.

S.R. 29 (MAINLINE)

PI	221+10.51
N	607,636.0259
E	2,413,387.1655
Δs	25°56'00"RT
θs	03°00'00"RT
Δc	19°56'00"RT
D	02°00'00"
R	2,864.79
Lc	996.67
Ts	809.92
Ls	300.00
LT	200.03
ST	100.03
Es	76.30
X	299.92
Y	5.23
k	149.99
p	1.31
SE	0.051 FT/FT
DES. SPEED	60 MPH

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 217+00 TO STA. 228+00

SCALE: 1"= 50'

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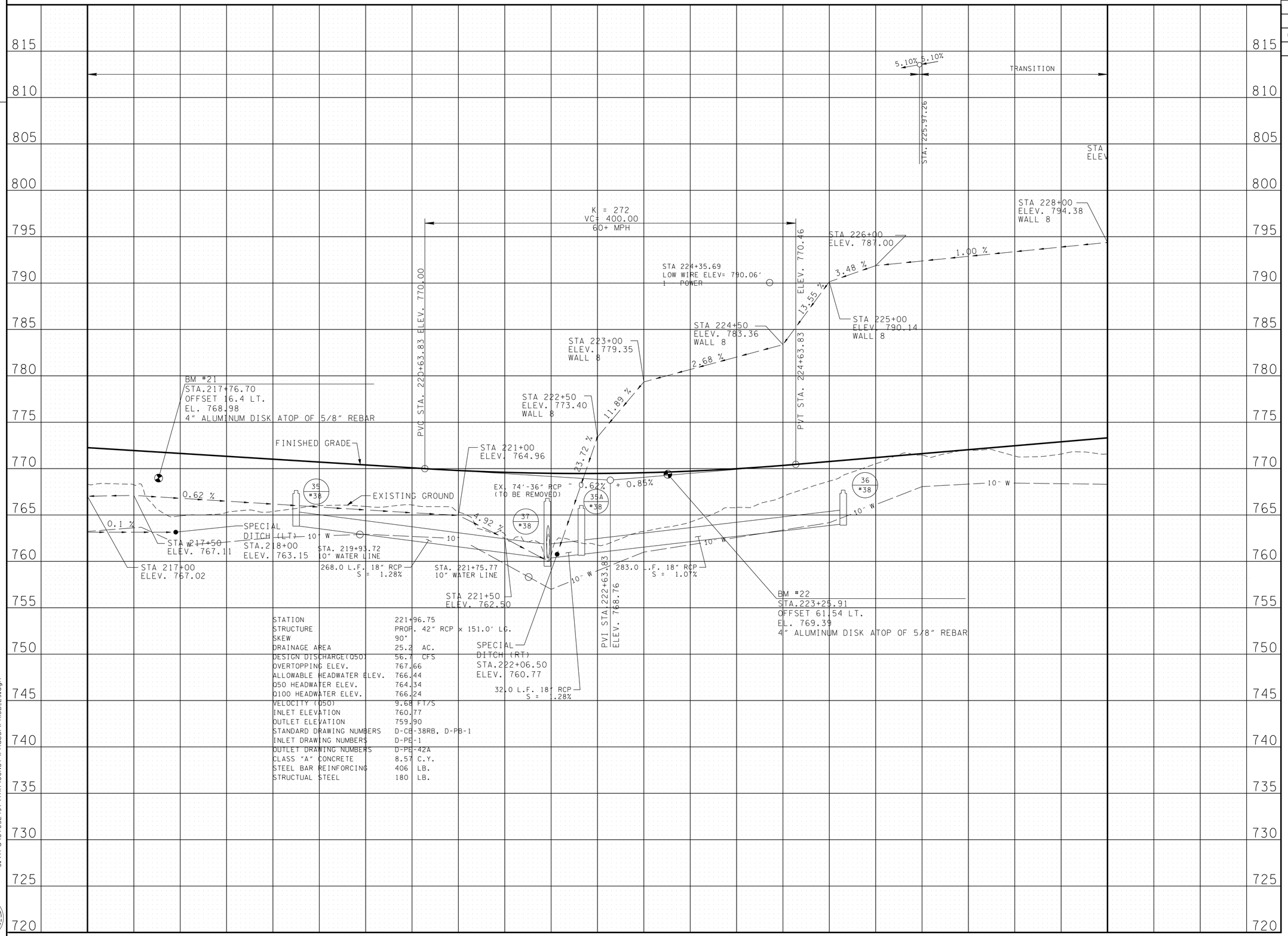
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	15B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	15B



STATION	221+96.75
STRUCTURE	PROP. 42" RCP x 151.0' LG.
SKEW	90°
DRAINAGE AREA	25.2 AC.
DESIGN DISCHARGE(Q50)	56.7 CFS
OVERTOPPING ELEV.	767.66
ALLOWABLE HEADWATER ELEV.	766.44
Q50 HEADWATER ELEV.	764.34
Q100 HEADWATER ELEV.	766.24
VELOCITY (Q50)	9.68 FT/S
INLET ELEVATION	760.77
OUTLET ELEVATION	759.90
STANDARD DRAWING NUMBERS	D-CB-38RB, D-PB-1
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-42A
CLASS "A" CONCRETE	8.57 C.Y.
STEEL BAR REINFORCING	406 LB.
STRUCTUAL STEEL	180 LB.

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 217+00 TO STA. 228+00

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

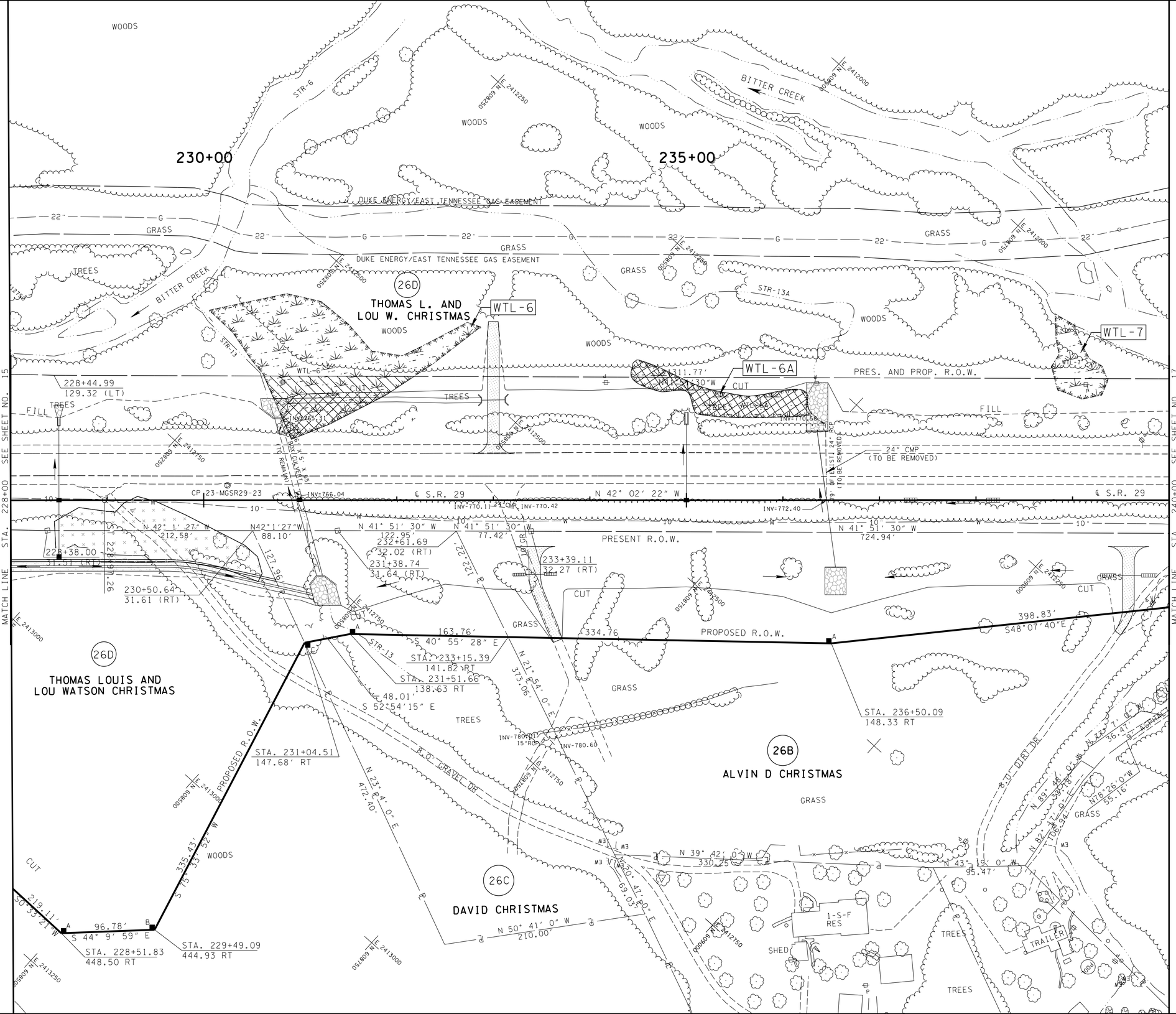
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	16
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	16

06/18/2010: DELETED DRIVEWAY RIGHT OF STA 230+00

- APR - Encapsulation Required
- APR - Encapsulation or Partial Blending Required
- APR - Blending Required

SEE SHEET 15 FOR ESTIMATED APR MATERIAL QUANTITIES FOR THIS SHEET



WTL-6A STA 234+42 TO 236+30	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.1 AC.
	VOLUME OF PERMANENT IMPACT = 162 C.Y.
	AREA OF TEMPORARY IMPACT = 0.0 AC.
	VOLUME OF TEMPORARY IMPACT = 0.0 C.Y.

WTL-6 STA 230+50 TO STA 232+00	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.068 AC.
	VOLUME OF PERMANENT IMPACT = 110 C.Y.
	AREA OF TEMPORARY IMPACT = 0.058 AC.
	VOLUME OF TEMPORARY IMPACT = 94 C.Y.

WTL-7 STA 239+01	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.0 AC.
	VOLUME OF PERMANENT IMPACT = 0 C.Y.
	AREA OF TEMPORARY IMPACT = 0.0 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 228+00 TO STA. 240+00

SCALE: 1"= 50'

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Survey & Data Services

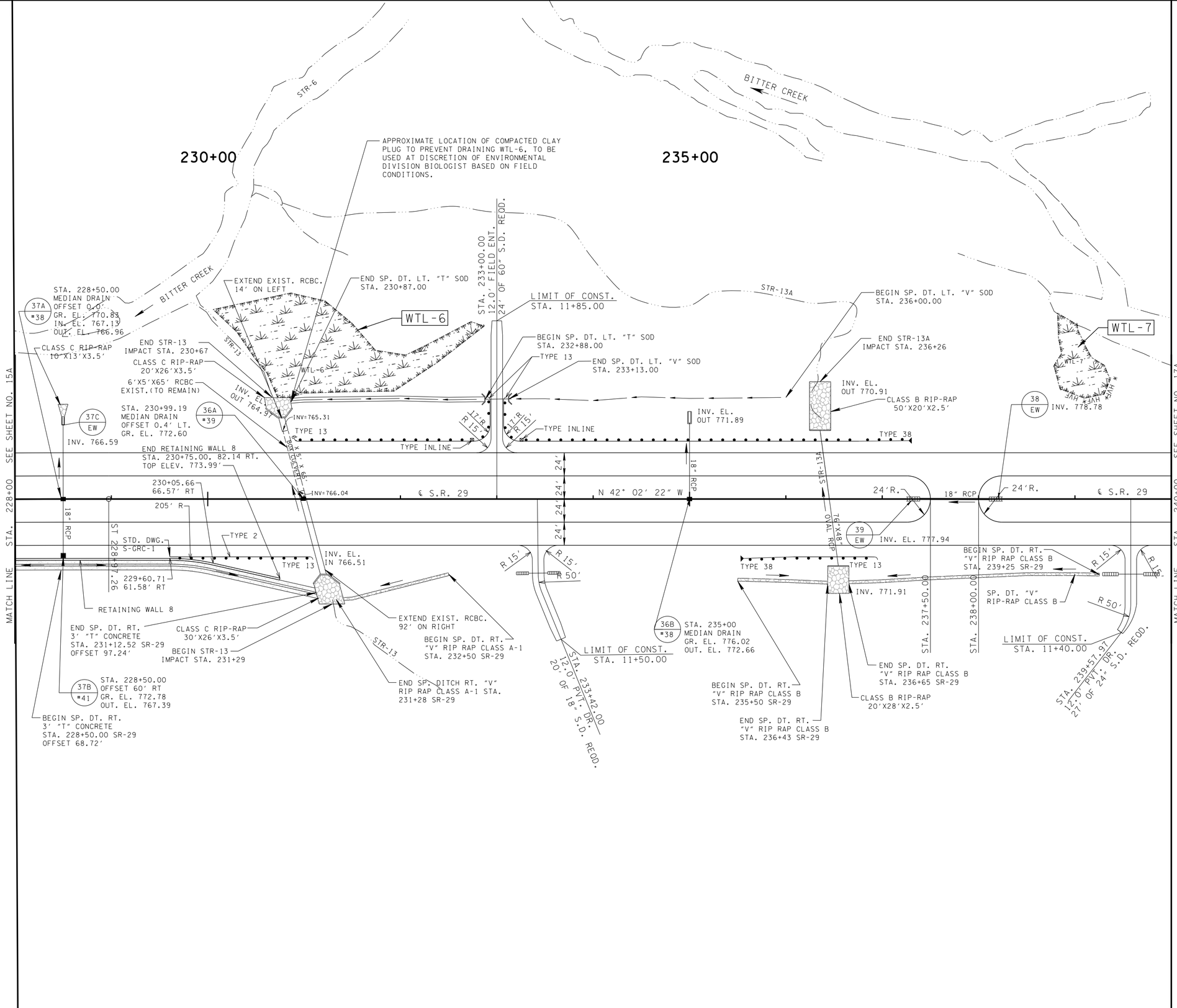
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	16A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	16A

06/18/2010: DELETED DRIVEWAY RIGHT OF STA 230+00. INCREASED PROPOSED WIDTH OF VARIOUS DRIVES.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT WTL-7 WILL NOT BE DISTURBED AND IS PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 228+00 TO STA. 240+00

SCALE: 1"= 50'

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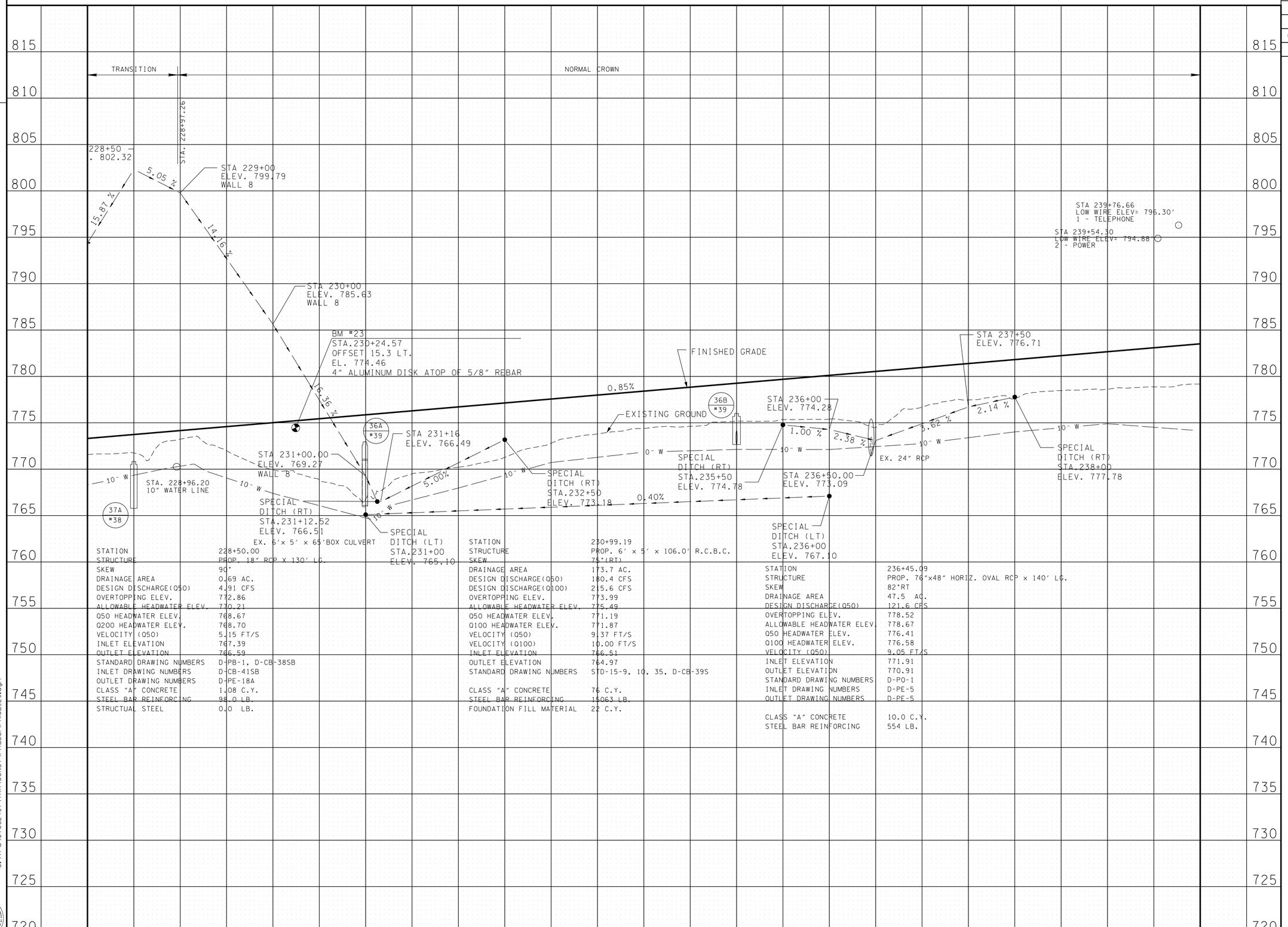
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	16B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	16B



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 228+00 TO STA. 240+00

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

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	17
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	17

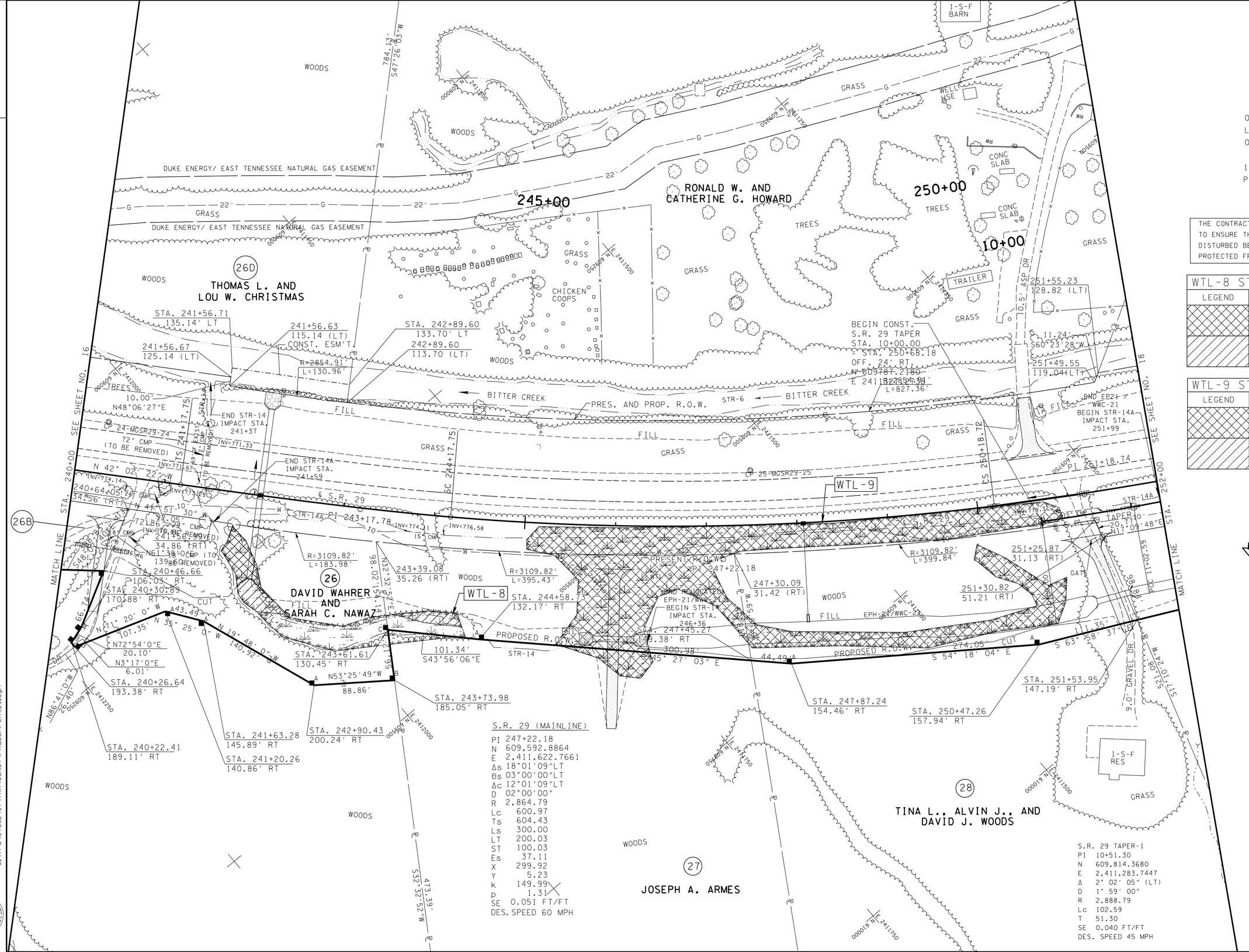
06/18/2010 RENUMBERED TRACT 26 LEFT AS TRACT 26D AND REVISED OWNERSHIP.

1/26/2011: ADDED BEARING LABEL TO PROPERTY LINE AT STA. 247+30.09.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT WTL-8 AND STR-14 WILL NOT BE DISTURBED BEYOND THE LIMITS OF DISTURBANCE AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

WTL-8 STA 241+81 TO 244+44	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.034 AC.
	VOLUME OF PERMANENT IMPACT = 55 C.Y.
	AREA OF TEMPORARY IMPACT = 0.041 AC.
	VOLUME OF TEMPORARY IMPACT = 66 C.Y.

WTL-9 STA 245+02 TO STA 250+92	
LEGEND	WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.87 AC.
	VOLUME OF PERMANENT IMPACT = 1406 C.Y.
	AREA OF TEMPORARY IMPACT = 0.0 AC.
	VOLUME OF TEMPORARY IMPACT = 0 C.Y.



S.R. 29 (MAINLINE)

PI	247+22.18
N	609,592.8864
E	2,411,622.7661
Δs	18°01'09"LT
θs	03°00'00"LT
Δc	12°01'09"LT
D	02°00'00"
R	2,864.79
Lc	600.97
Ts	604.43
Ls	300.00
LT	200.03
ST	100.03
Es	37.11
X	299.92
Y	5.23
k	149.99
p	1.31
SE	0.051 FT/FT
DES. SPEED	60 MPH

S.R. 29 TAPER-1

PI	10+51.30
N	609,814.3680
E	2,411,283.7447
Δ	2° 02' 05" (LT)
D	1° 59' 00"
R	2,888.79
Lc	102.59
T	51.30
SE	0.040 FT/FT
DES. SPEED	45 MPH

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 240+00 TO STA. 252+00

SCALE: 1"= 50'

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Survey & Design Division

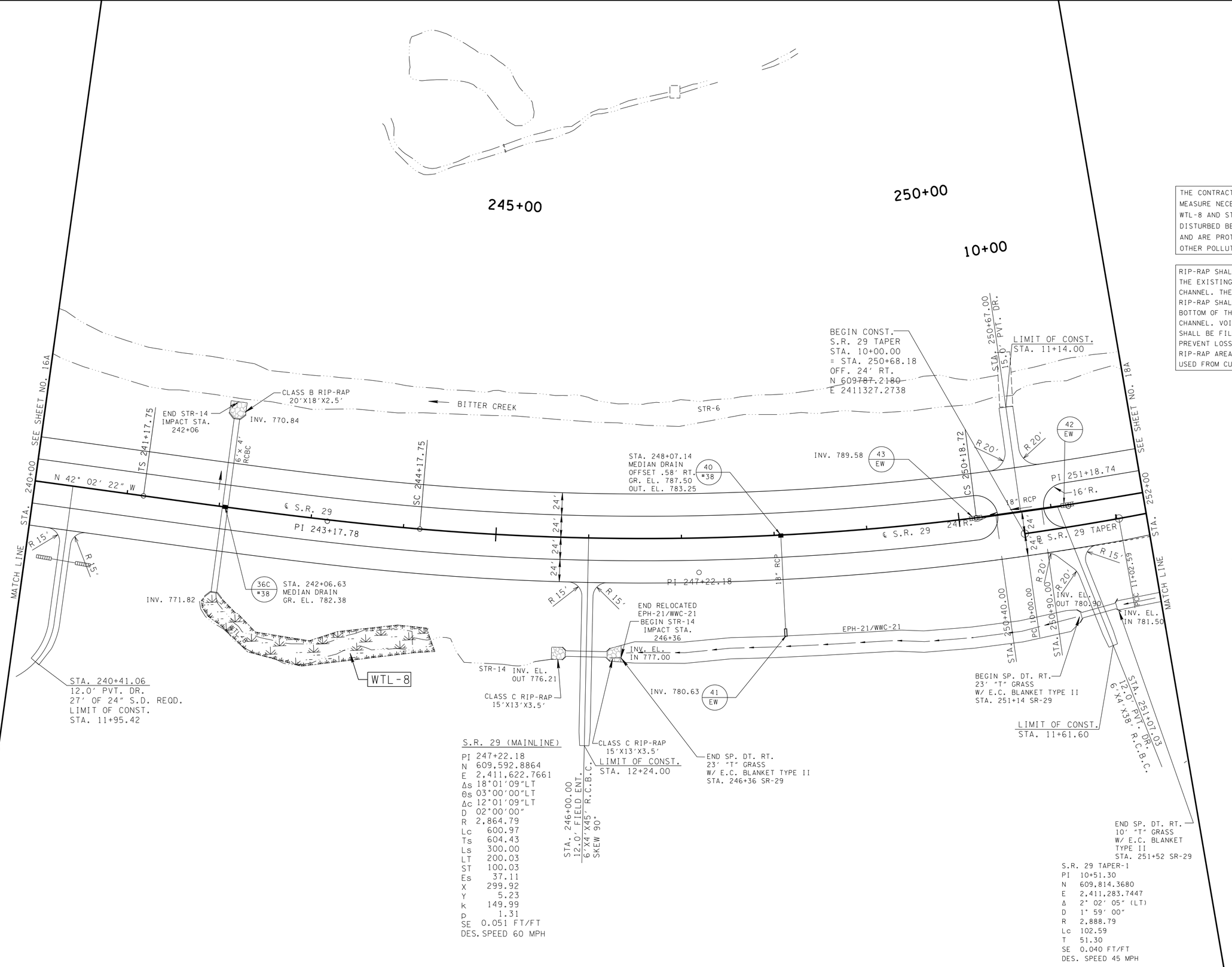
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	17A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	17A

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT WTL-8 AND STR-14 WILL NOT BE DISTURBED BEYOND PERMITTED LIMITS AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

RIP-RAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIP-RAP SHALL BE FILLED WITH CREEK GRAVEL TO PREVENT LOSS OF STREAM WITHIN RIP-RAP AREAS. CREEK GRAVEL CAN BE USED FROM CULVERT EXCAVATION AREA.



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 240+00 TO STA. 252+00

SCALE: 1"= 50'

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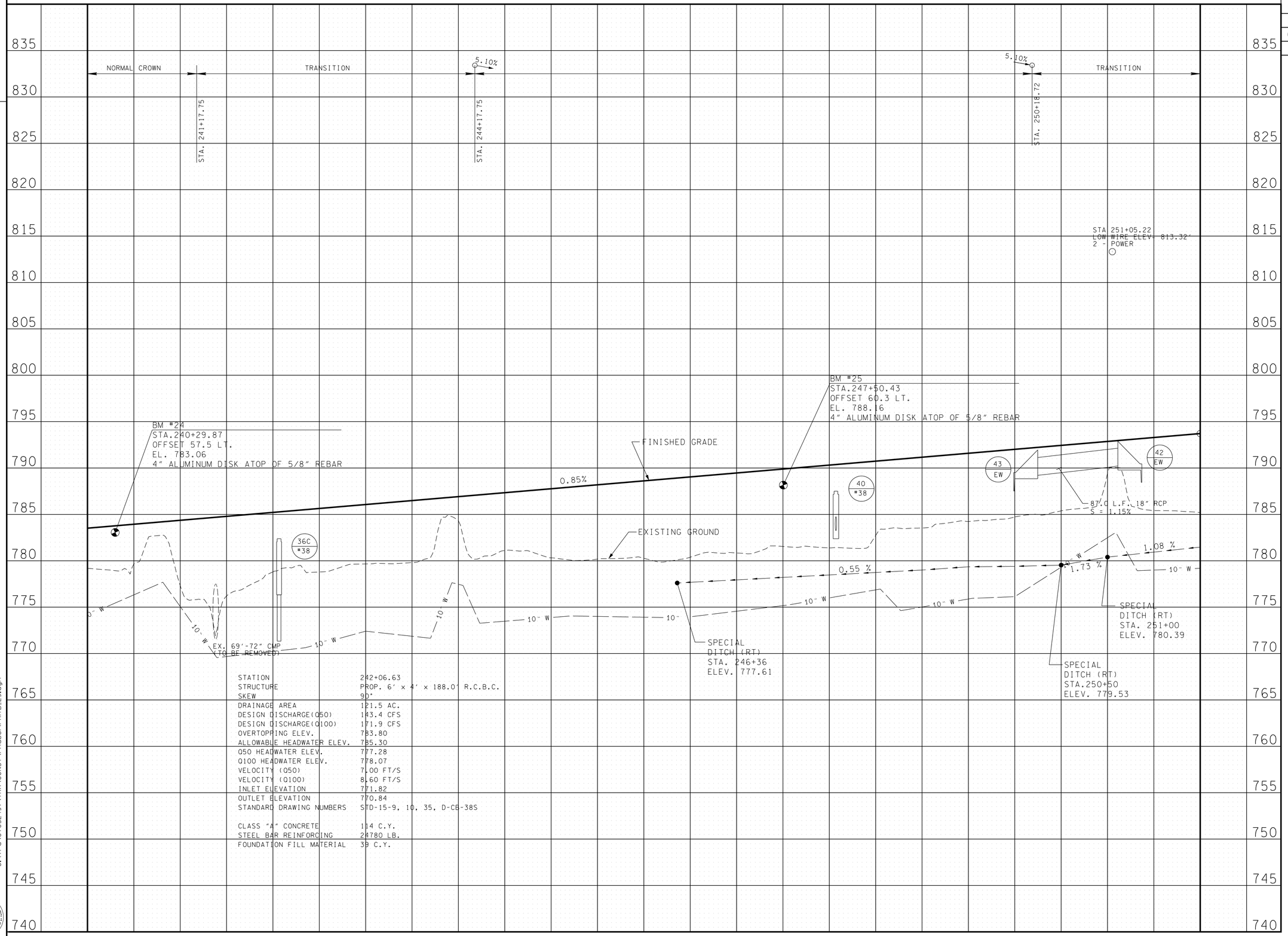
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	17B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	17B



STATION	242+06.63
STRUCTURE	PROP. 6' x 4' x 188.0' R.C.B.C.
SKEW	90°
DRAINAGE AREA	121.5 AC.
DESIGN DISCHARGE(Q50)	143.4 CFS
DESIGN DISCHARGE(Q100)	171.9 CFS
OVERTOPPING ELEV.	783.80
ALLOWABLE HEADWATER ELEV.	785.30
Q50 HEADWATER ELEV.	777.28
Q100 HEADWATER ELEV.	778.07
VELOCITY (Q50)	7.00 FT/S
VELOCITY (Q100)	8.60 FT/S
INLET ELEVATION	771.82
OUTLET ELEVATION	770.84
STANDARD DRAWING NUMBERS	STD-15-9, 10, 35, D-CB-38S
CLASS "A" CONCRETE	114 C.Y.
STEEL BAR REINFORCING	24780 LB.
FOUNDATION FILL MATERIAL	39 C.Y.

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

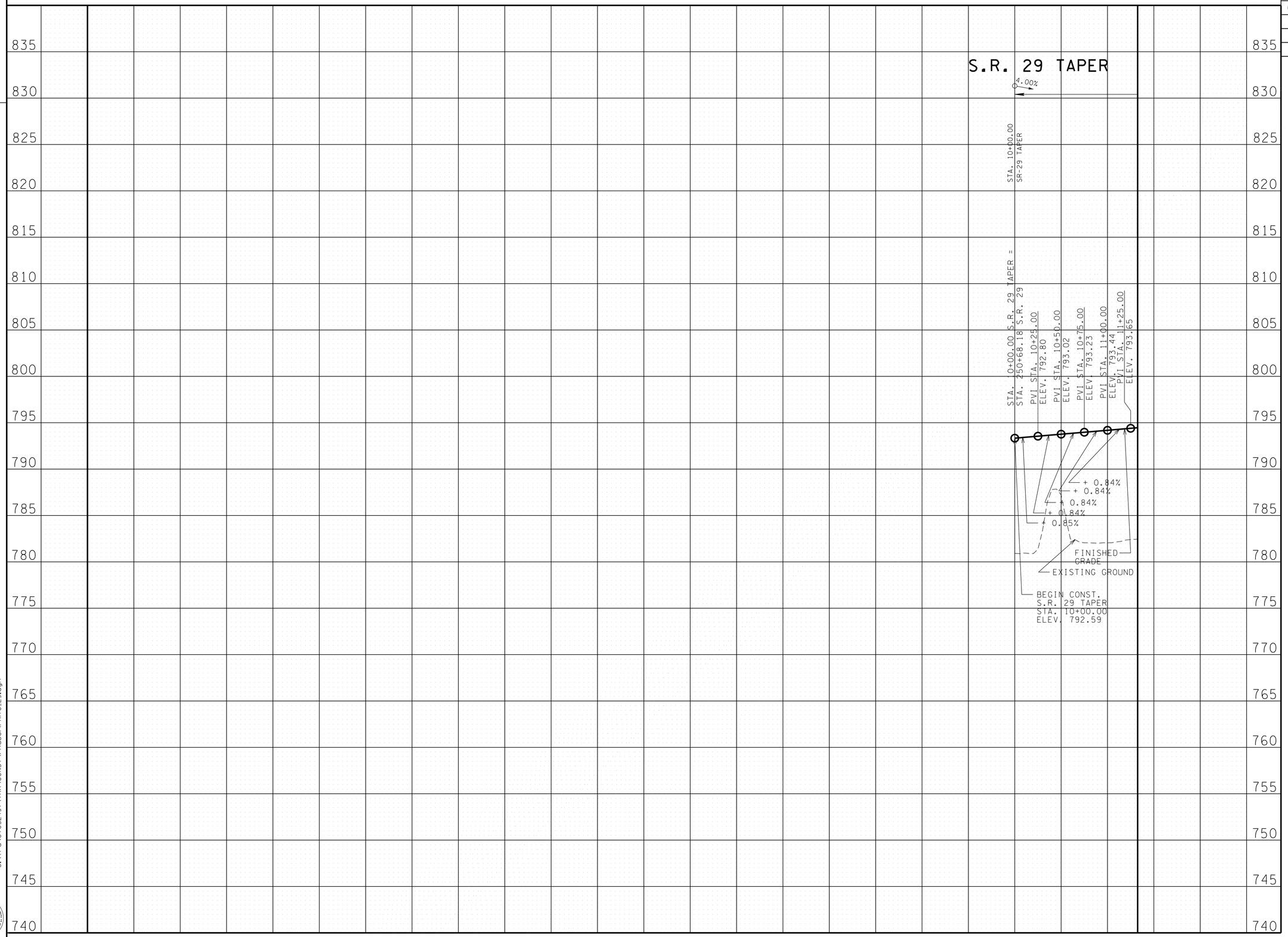
PROFILE

STA. 240+00 TO STA. 252+00

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

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	17C



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

S.R. 29 TAPER

STA.10+00 TO STA.11+32.50

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

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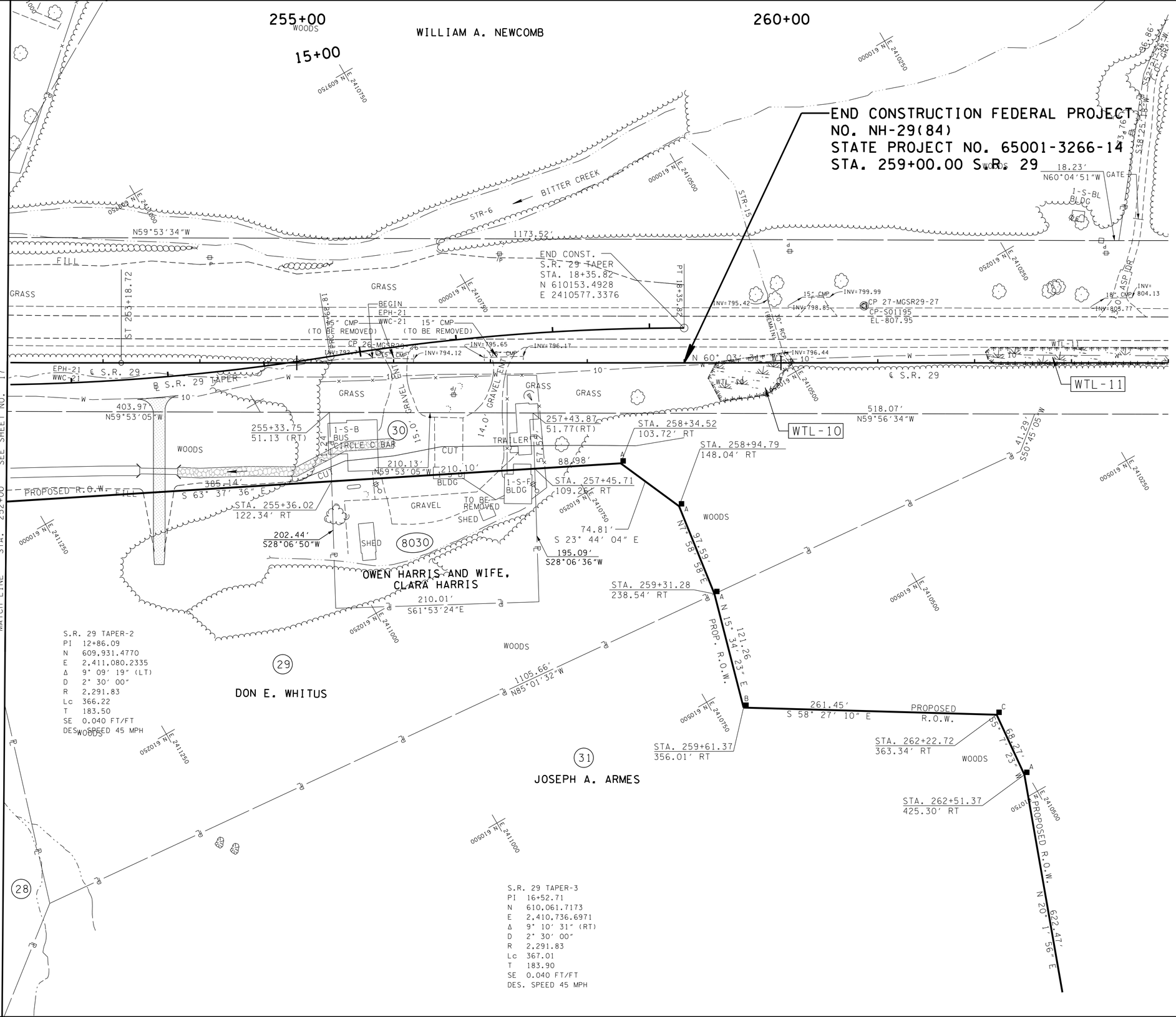
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	18
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	18

12/16/2011: ADDED TRACT 8030 AND REMOVED DRIVEWAYS AT STA. 256+05.92 AND STA. 256+94.04.



S.R. 29 TAPER-2
PI 12+86.09
N 609,931.4770
E 2,411,080.2335
Δ 9° 09' 19" (LT)
D 2° 30' 00"
R 2,291.83
Lc 366.22
T 183.50
SE 0.040 FT/FT
DES. SPEED 45 MPH

S.R. 29 TAPER-3
PI 16+52.71
N 610,061.7173
E 2,410,736.6971
Δ 9° 10' 31" (RT)
D 2° 30' 00"
R 2,291.83
Lc 367.01
T 183.90
SE 0.040 FT/FT
DES. SPEED 45 MPH

NO EQUIPMENT IS TO BE OPERATED IN WETLAND AREAS AND STREAMS LOCATED BEYOND THE PERMITTED LIMITS.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT WTL-10, WTL-11 AND STR-15 WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

STA. 252+00 TO STA. 264+00

SCALE: 1"= 50'

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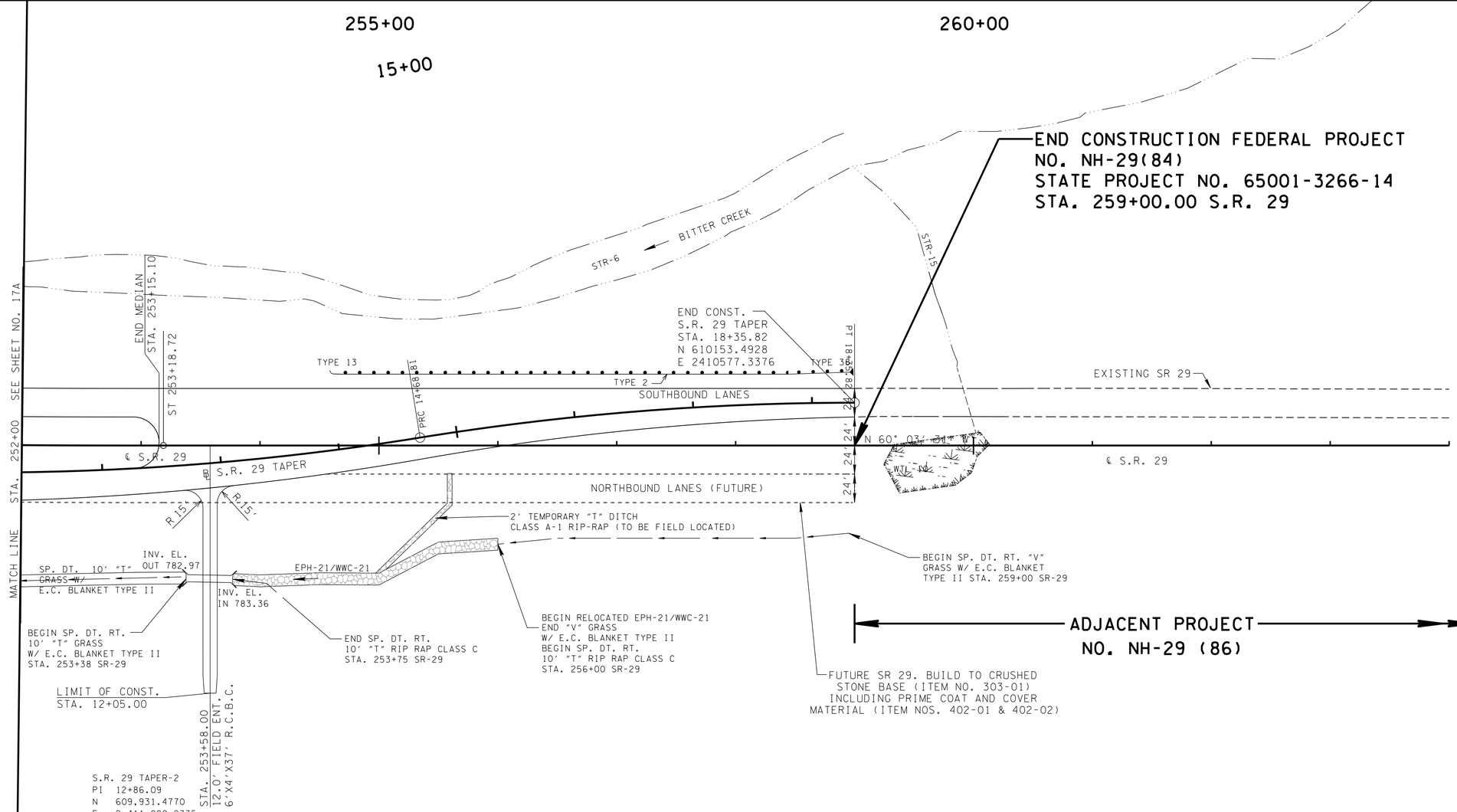
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	18A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	18A

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES.

12/16/2011: REMOVED DRIVEWAYS AT STA 256+05.92 AND STA 256+94.04.



NO EQUIPMENT IS TO BE OPERATED IN WETLAND AREAS AND STREAMS LOCATED BEYOND THE PERMITTED LIMITS.

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT WTL-10, WTL-11 AND STR-15 WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

S.R. 29 TAPER-2
PI 12+86.09
N 609,931.4770
E 2,411,080.2335
Δ 9° 09' 19" (LT)
D 2° 30' 00"
R 2,291.83
Lc 366.22
T 183.50
SE 0.040 FT/FT
DES. SPEED 45 MPH

S.R. 29 TAPER-3
PI 16+52.71
N 610,061.7173
E 2,410,736.6971
Δ 9° 10' 31" (RT)
D 2° 30' 00"
R 2,291.83
Lc 367.01
T 183.90
SE 0.040 FT/FT
DES. SPEED 45 MPH

N

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

STA. 252+00 TO STA. 264+00

SCALE: 1"= 50'

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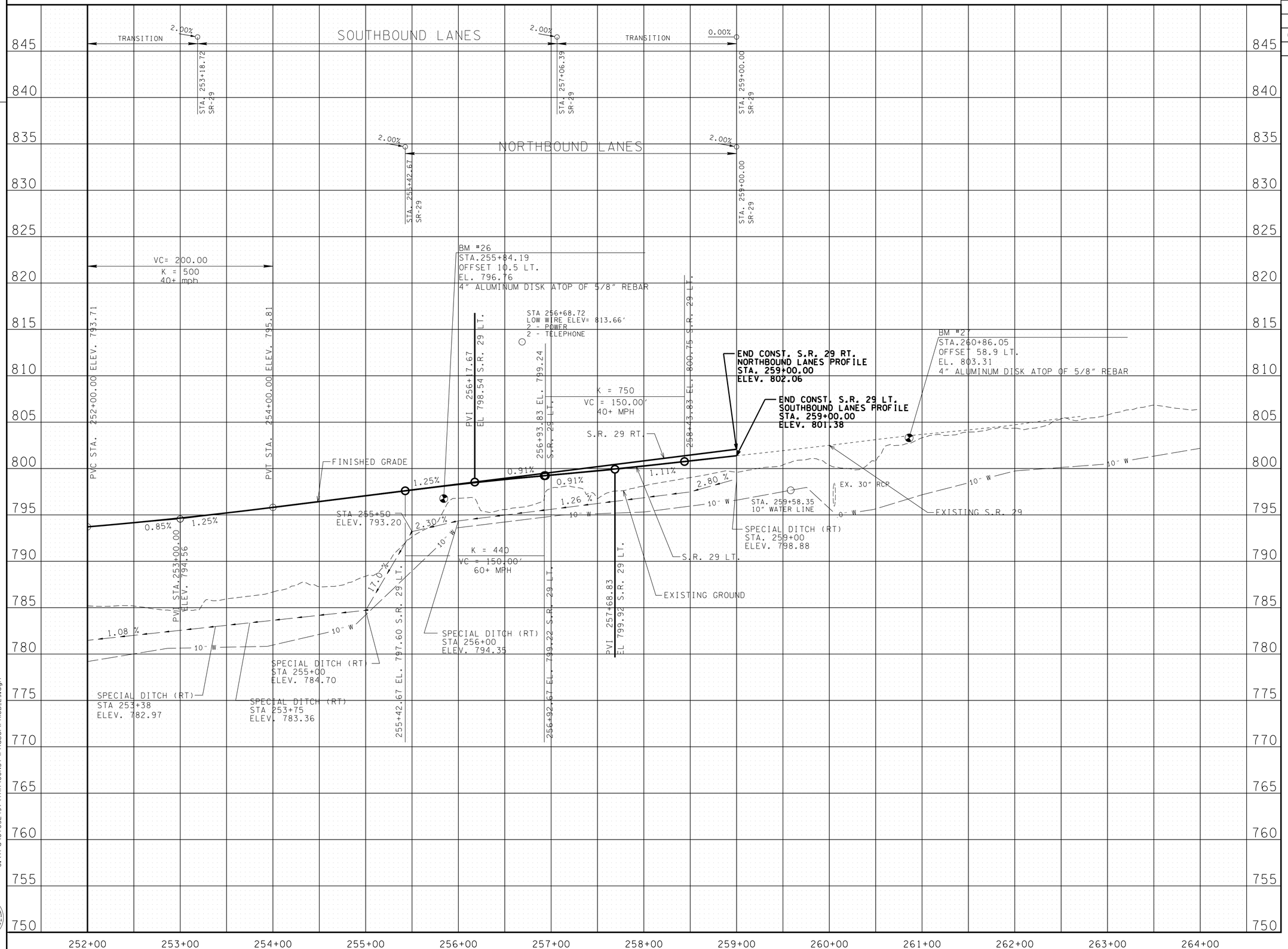
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	18B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	18B



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

STA. 252+00 TO STA. 264+00

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

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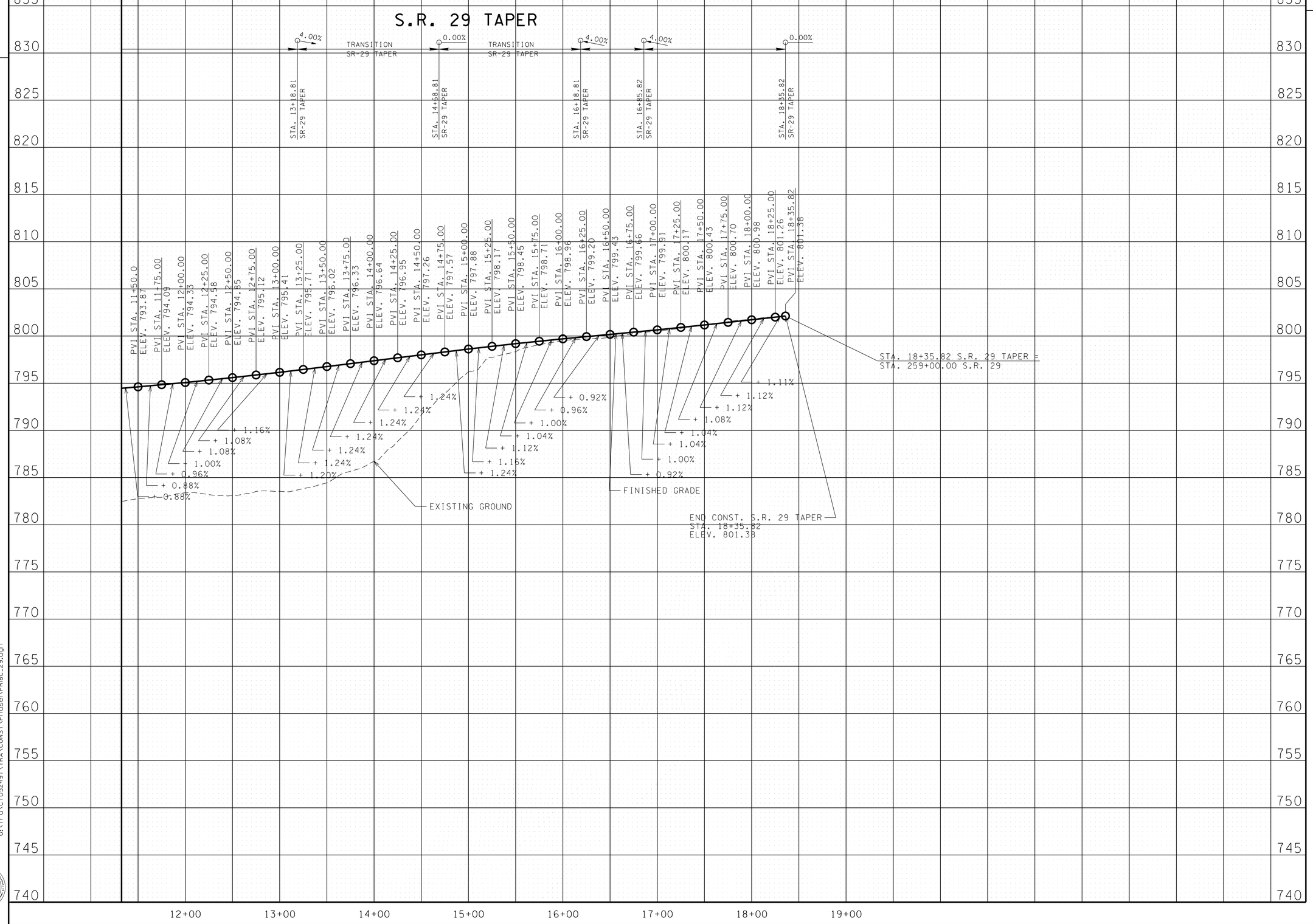
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	18C



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE

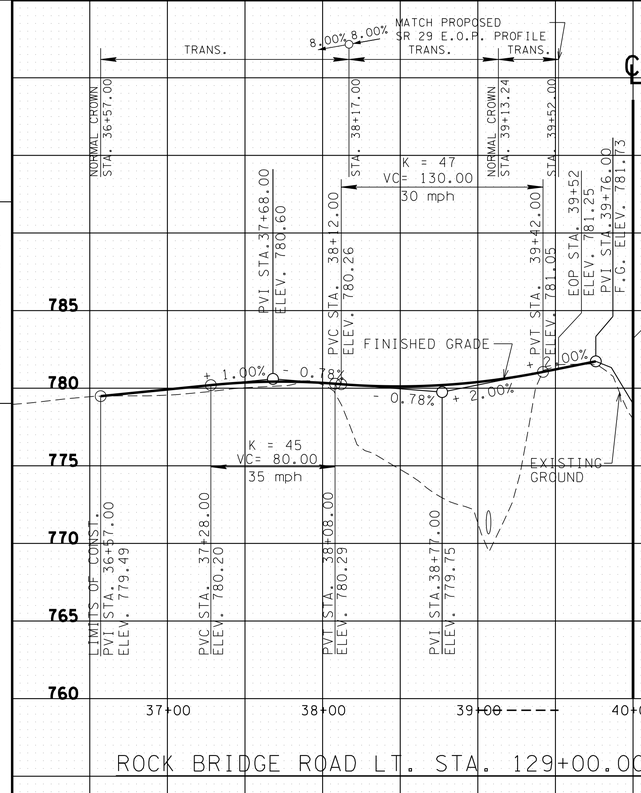
S.R. 29 TAPER

STA.11+32.50 TO
STA.18+35.82

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

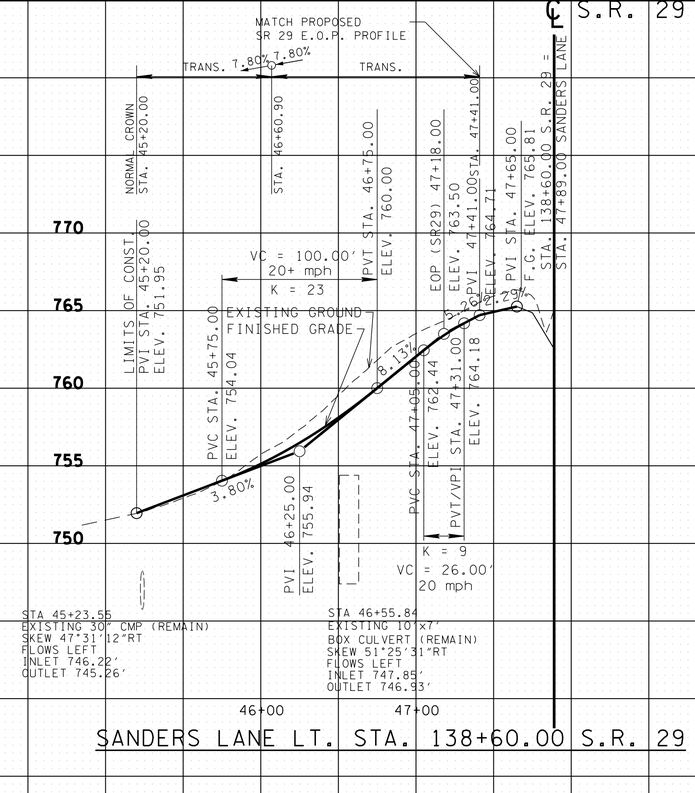
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	28
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	19

12/16/2011: MOVED COAL HILL ROAD PROFILE TO SHEET 29.



ROCK BRIDGE ROAD LT. STA. 129+00.00 S.R. 29

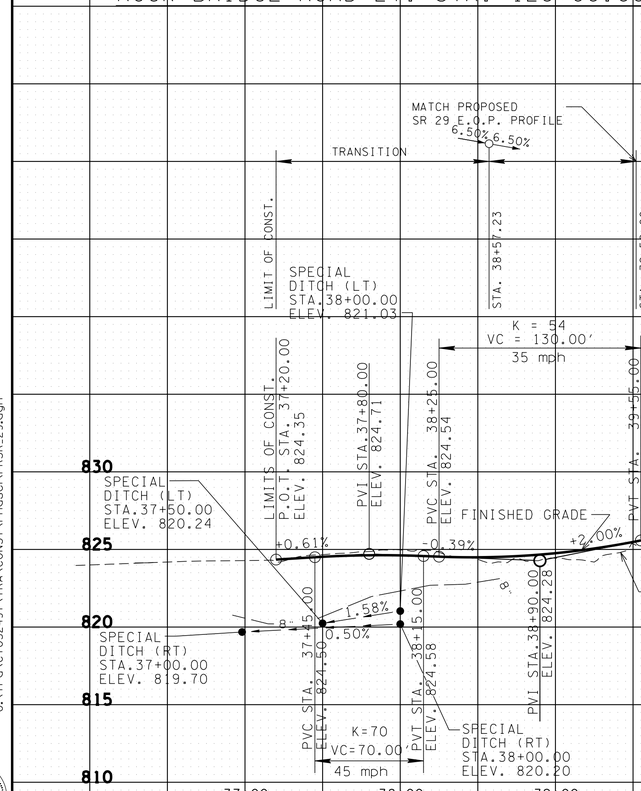
STATION	39+06.90
STRUCTURE	PROP. 18" RCP x 50.0' L
SKEW	85° RT
DRAINAGE AREA	4.0 AC.
DESIGN DISCHARGE(Q50)	6.0 CFS
OVERTOPPING ELEV.	779.29
ALLOWABLE HEADWATER ELEV.	780.79
Q50 HEADWATER ELEV.	773.35
Q100 HEADWATER ELEV.	773.42
VELOCITY (Q50)	4.25 FT/S
INLET ELEVATION	771.37
OUTLET ELEVATION	769.78
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	SEE SHEET 2S
OUTLET DRAWING NUMBERS	SEE SHEET 2S
CLASS "A" CONCRETE	2.46 C.Y.
STEEL BAR REINFORCING	40 LB.



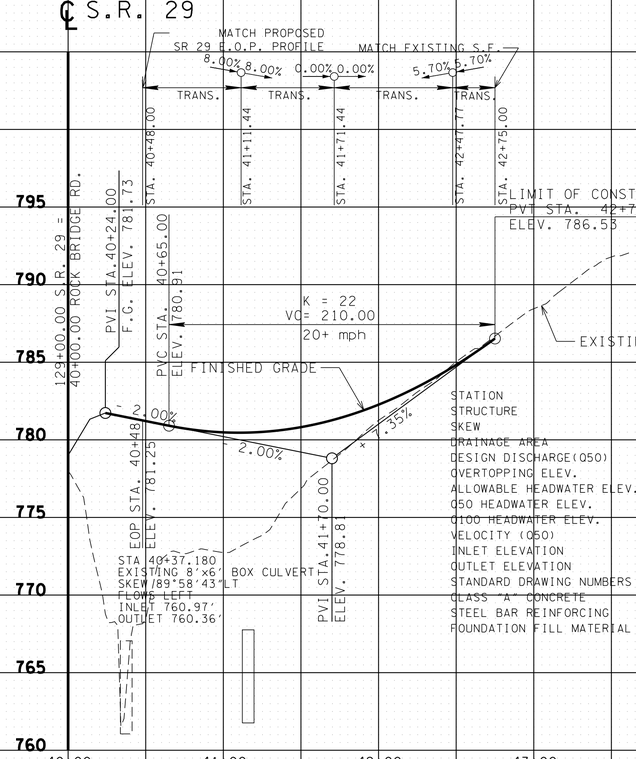
STA 45+23.55
EXISTING 30" CMP (REMAIN)
SKEW 47°31'12"RT
FLOWS LEFT
INLET 746.22'
OUTLET 745.26'

STA 46+55.84
EXISTING 10'x7'
BOX CULVERT (REMAIN)
SKEW 51°25'31"RT
FLOWS LEFT
INLET 747.85'
OUTLET 746.93'

SANDERS LANE LT. STA. 138+60.00 S.R. 29



FREELS ROAD LT. STA. 100+45.00 S.R. 29



STA 40+37.180
EXISTING 8'x6' BOX CULVERT
SKEW 89°58'43"LT
FLOWS LEFT
INLET 760.97'
OUTLET 760.36'

STATION	41+16.00
STRUCTURE	PROP. 8'x 6'x 110.0' R.C.B.C.
SKEW	60°RT
DRAINAGE AREA	244.5 AC.
DESIGN DISCHARGE(Q50)	208.4 CFS
OVERTOPPING ELEV.	778.20
ALLOWABLE HEADWATER ELEV.	779.70
Q50 HEADWATER ELEV.	767.90
Q100 HEADWATER ELEV.	768.11
VELOCITY (Q50)	4.34 FT/S
INLET ELEVATION	762.35
OUTLET ELEVATION	761.42
STANDARD DRAWING NUMBERS	STD-15-9, 11, 37
CLASS "A" CONCRETE	116 C.Y.
STEEL BAR REINFORCING	23466 LB.
FOUNDATION FILL MATERIAL	27 C.Y.

ROCK BRIDGE ROAD RT. STA. 129+00.00 S.R. 29

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PUBLIC SIDE ROADS

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

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

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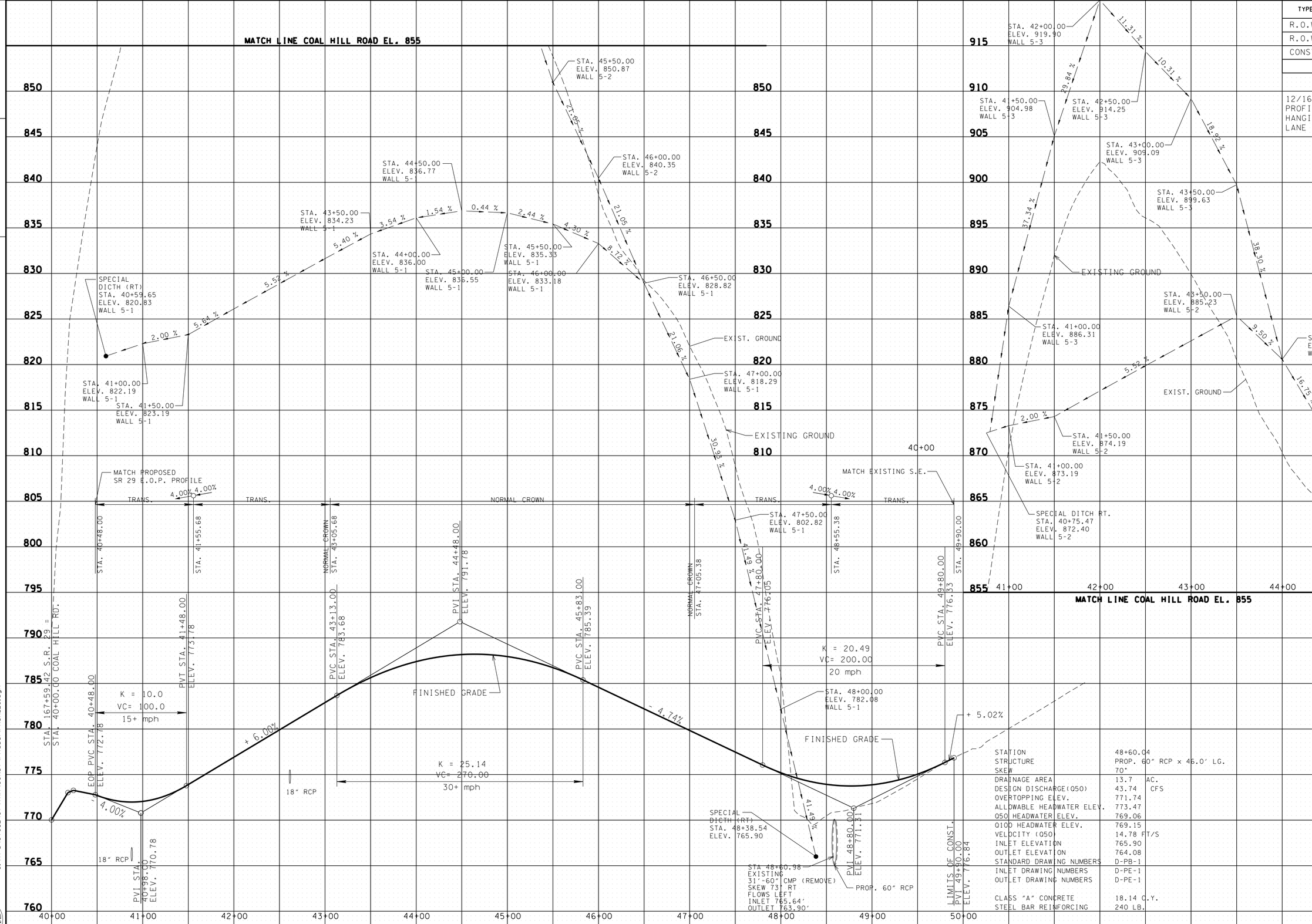
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	29
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	20

12/16/2011: ADDED COAL HILL ROAD PROFILE. MOVED WHETSTONE ROAD RT, HANGING ROACK ROAD RT AND TEDDER LANE TO SHEET 30.



STATION	48+60.04
STRUCTURE	PROP. 60" RCP x 46.0' LG.
SKEW	70°
DRAINAGE AREA	13.7 AC.
DESIGN DISCHARGE(Q50)	43.74 CFS
OVERTOPPING ELEV.	771.74
ALLOWABLE HEADWATER ELEV.	773.47
Q50 HEADWATER ELEV.	769.06
Q100 HEADWATER ELEV.	769.15
VELOCITY (Q50)	14.78 FT/S
INLET ELEVATION	765.90
OUTLET ELEVATION	764.08
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-1
CLASS "A" CONCRETE	18.14 C.Y.
STEEL BAR REINFORCING	240 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PUBLIC SIDE ROADS

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

COAL HILL ROAD RT. STA. 167+59.42 S.R. 29

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

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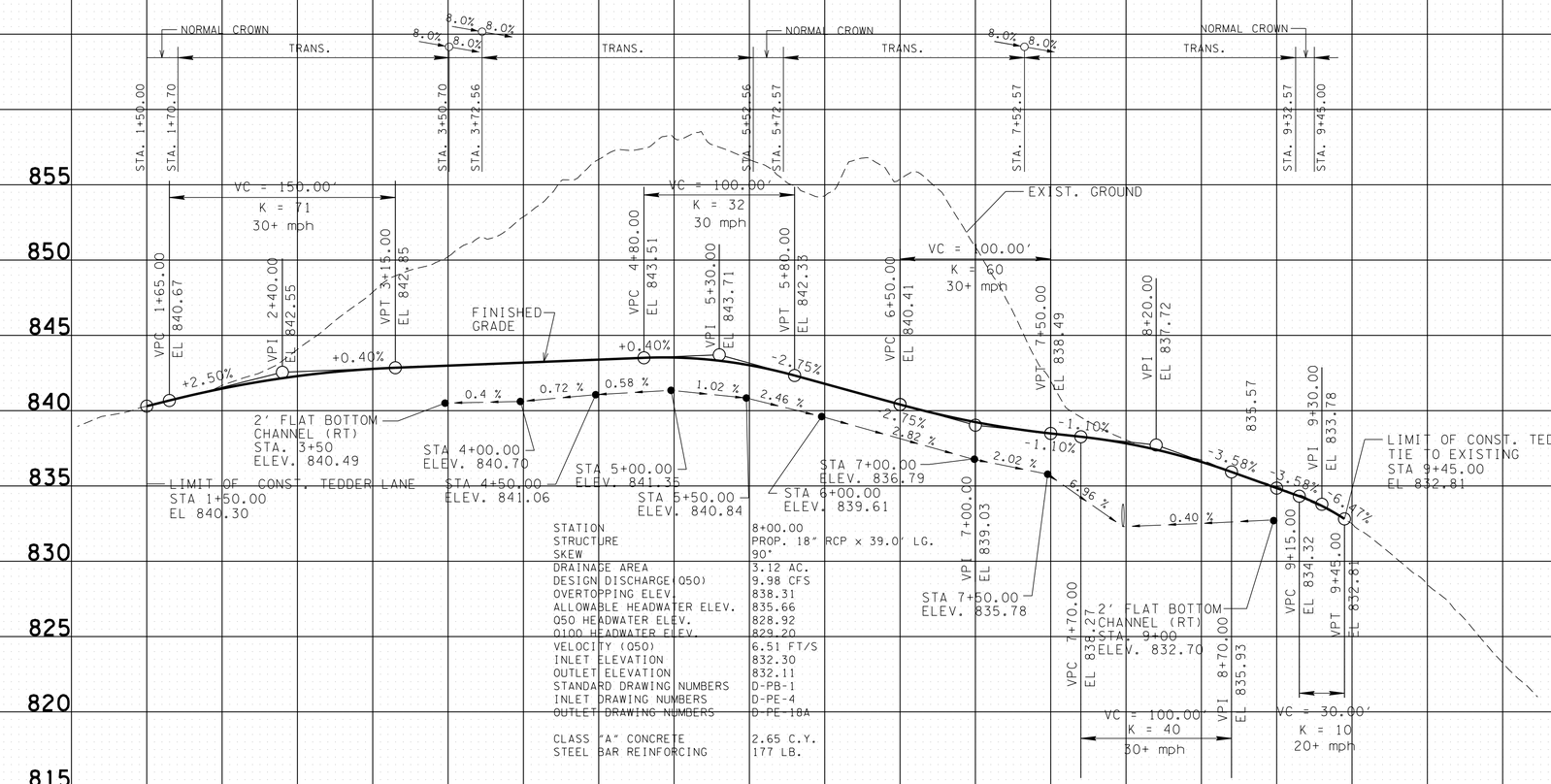
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	30
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	21

12/16/2011: ADDED WHETSTONE ROAD RT, HANGING ROACK ROAD RT AND TEDDER LANE. MOVED STATE ROUTE 328 LT TO SHEET 30A.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION	8+00.00
STRUCTURE	PROP. 18" RCP x 39.0' LG.
SKEW	90°
DRAINAGE AREA	3.12 AC.
DESIGN DISCHARGE (Q50)	9.98 CFS
OVERTOPPING ELEV.	838.31
ALLOWABLE HEADWATER ELEV.	835.66
Q50 HEADWATER ELEV.	828.92
Q100 HEADWATER ELEV.	829.20
VELOCITY (Q50)	6.51 FT/S
INLET ELEVATION	832.30
OUTLET ELEVATION	832.11
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-PE-4
~~OUTLET DRAWING NUMBERS~~	~~D-PE-18A~~
CLASS "A" CONCRETE	2.65 C.Y.
STEEL BAR REINFORCING	177 LB.

TEDDER LANE STA. 1+50.00 TO STA. 9+45.00 S.R. 29

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PUBLIC SIDE ROADS

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

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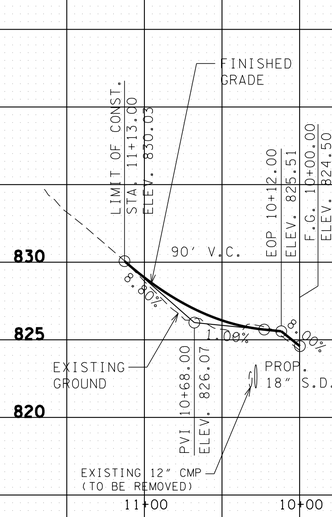
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	31
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	22

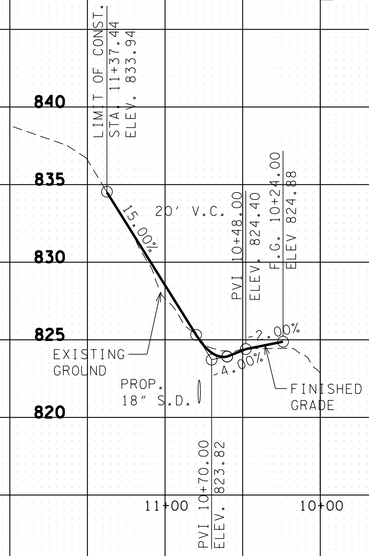
06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES

TENNESSEE D.O.T.
DESIGN DIVISION

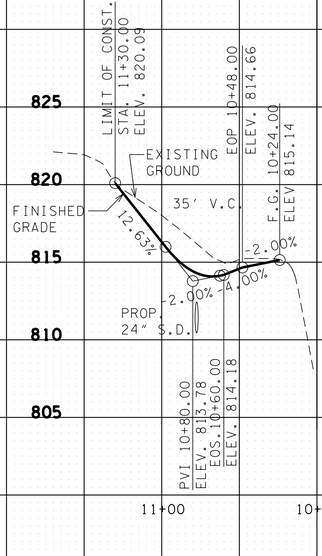
FILE NO.



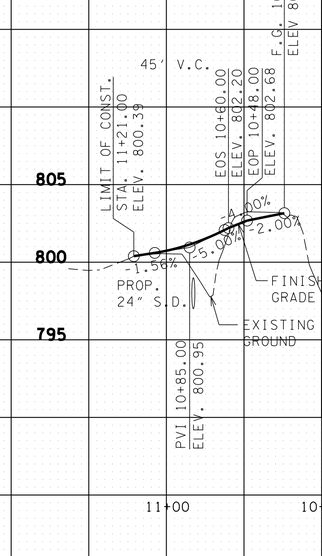
STA. 38+52.52 (LT.)
12' PVT. DRIVE
FREELS ROAD (LT.)



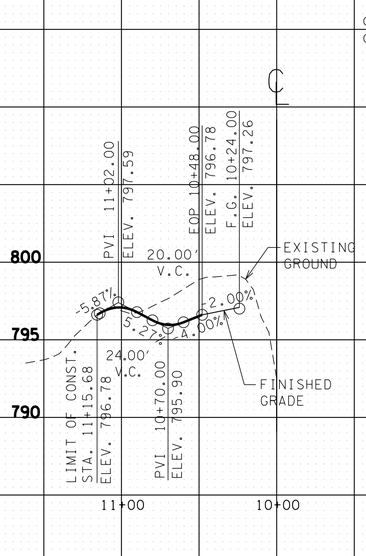
STA. 105+29.17 (LT.)
12' PVT. DRIVE



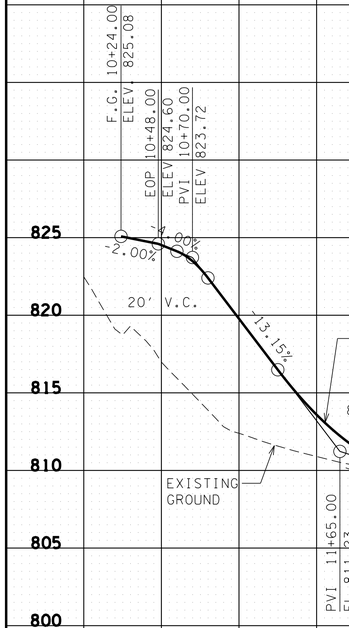
STA. 110+32.49 (LT.)
12' PVT. DRIVE



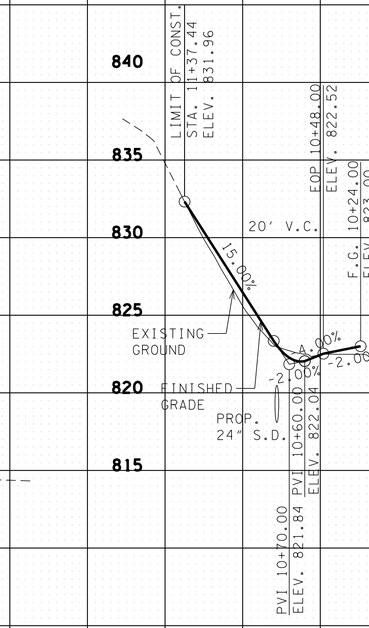
STA. 114+67.90 (LT.)
12' PVT. DRIVE



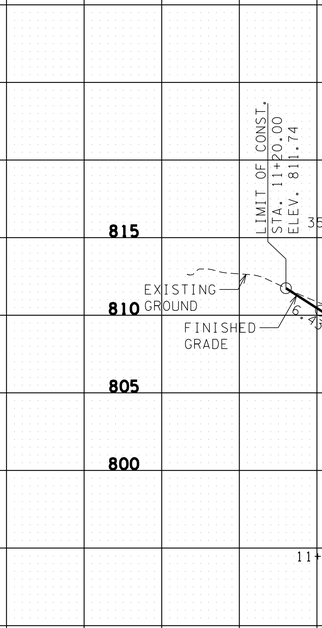
STA. 116+06.23 (LT.)
40' BUS. ENT.



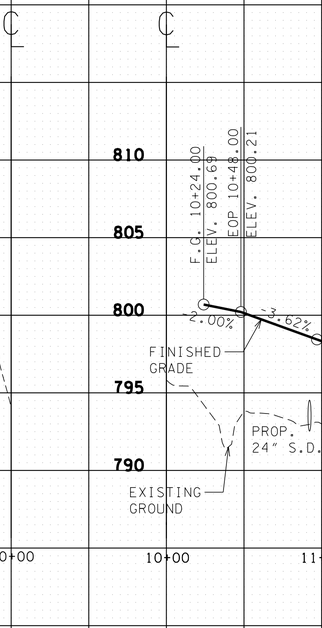
STA. 105+03.16 (RT.)
12' FIELD ENTRANCE



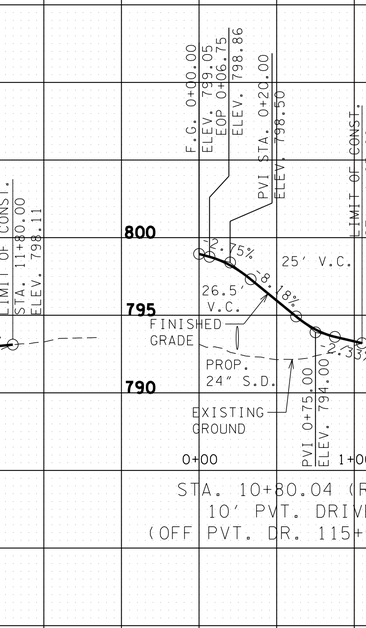
STA. 106+86.25 (LT.)
12' PVT. DRIVE



STA. 112+00.00 (LT.)
12' PVT. DRIVE



STA. 115+58.00 (RT.)
12' PVT. DRIVE



STA. 10+80.04 (RT.)
10' PVT. DRIVE
(OFF PVT. DR. 115+58.00)

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PRIVATE DRIVES

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

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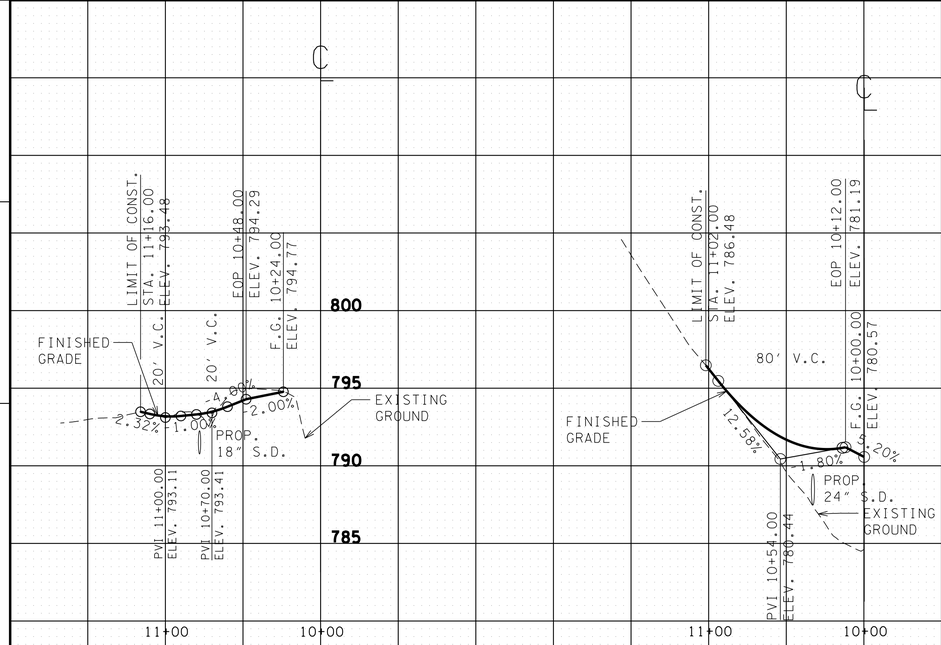
Survey & Design Division

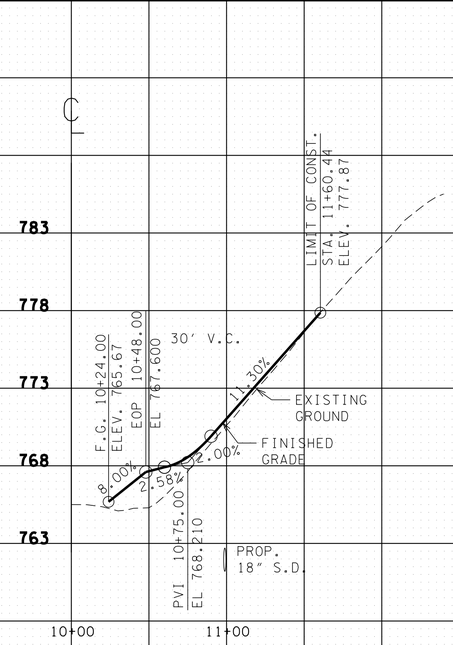
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	32
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	23

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES

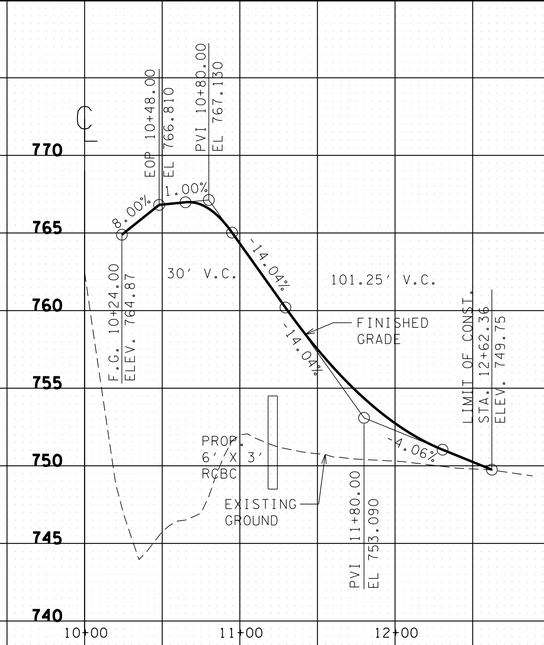


STA. 117+87.00 (LT.) 20' PVT. DRIVE

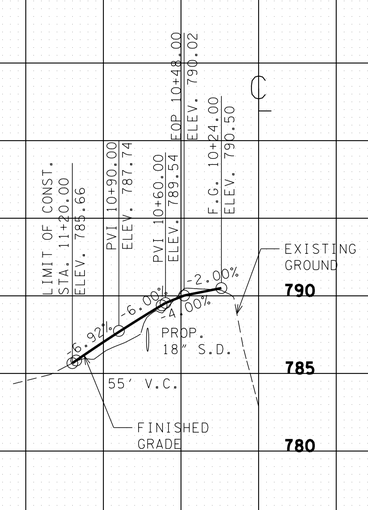
STA. 41+32.41 (LT.) 10' PVT. DRIVE
ROCK BRIDGE ROAD (RT.)



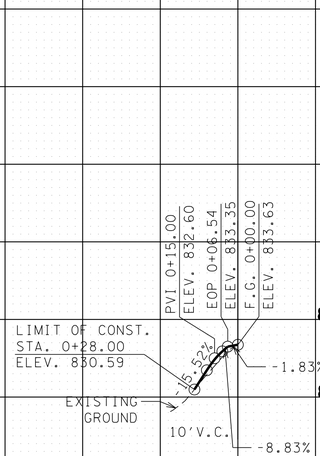
STA. 141+76.15 (RT.) 15' PVT. DRIVE



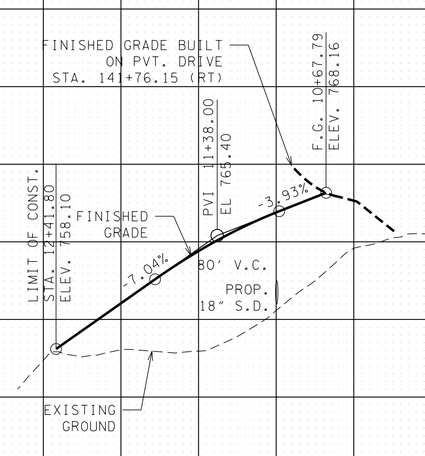
STA. 147+43.67 (RT.) 12' FIELD ENT.



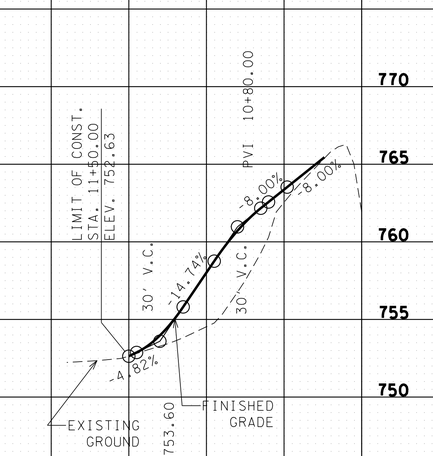
STA. 120+63.05 (LT.) 16' FIELD ENT.



STA. 9+30.96 (LT.) 12' PVT. DRIVE
TEDDER LANE



STA. 10+67.79 (LT.)
15' PVT. DRIVE
(OFF PVT. DR. 141+76.15)



STA. 150+25.46 (LT.) 12' FIELD ENT.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PRIVATE DRIVES

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

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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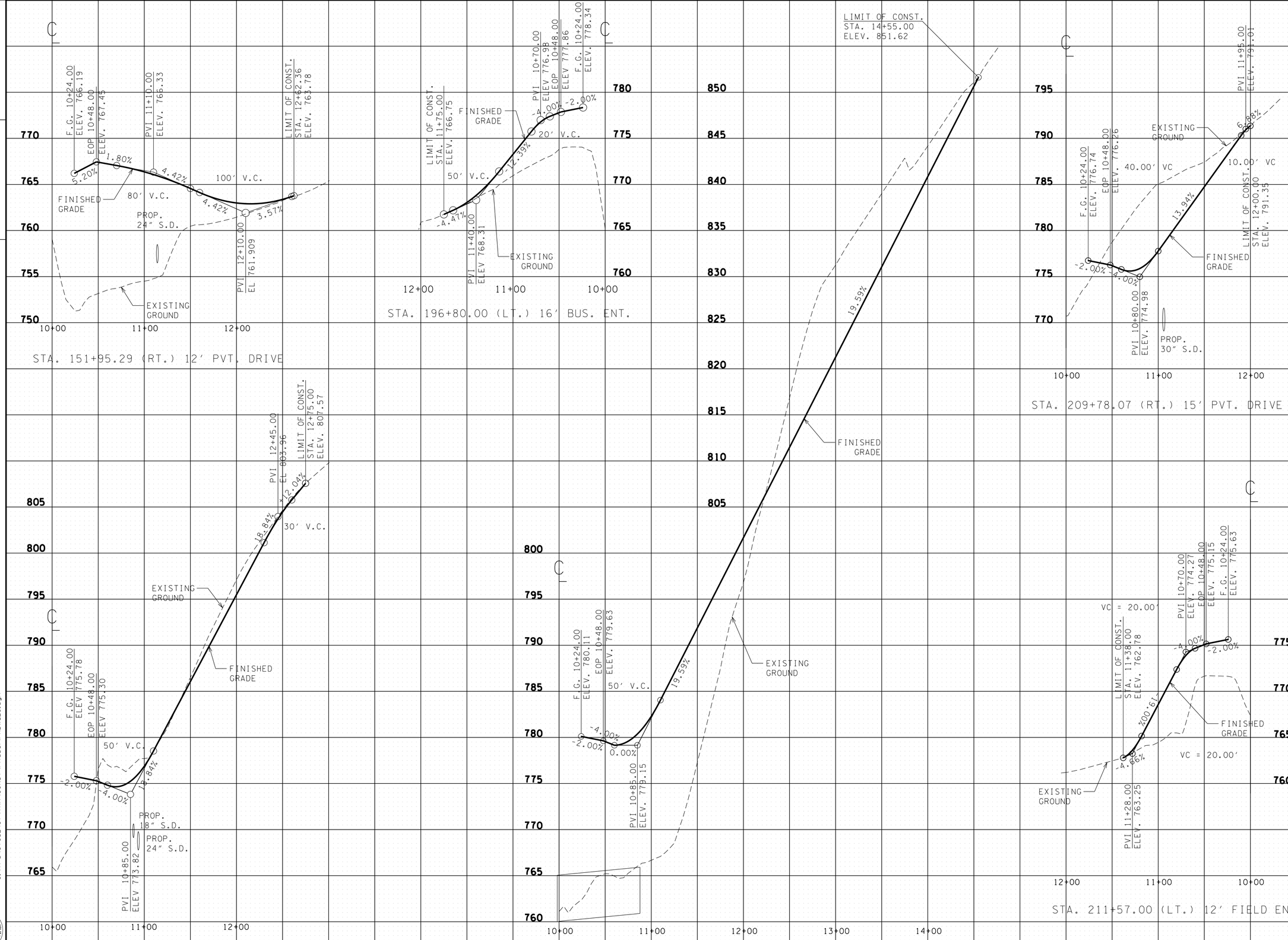
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	33
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	24

06/18/2010: DELETED DRIVEWAY PROFILES 203+83, 209+00 AND 210+00, ADDED DRIVEWAY PROFILE 204+35 RT AND INCREASED PROPOSED WIDTH OF VARIOUS DRIVES

1/26/2011: REMOVED DRIVEWAY PROFILE 233+42 RT AND ADDED DRIVEWAY PROFILE 216+00 LT.



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PRIVATE DRIVES

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

FILE NO.

TENNESSEE D.O.T.
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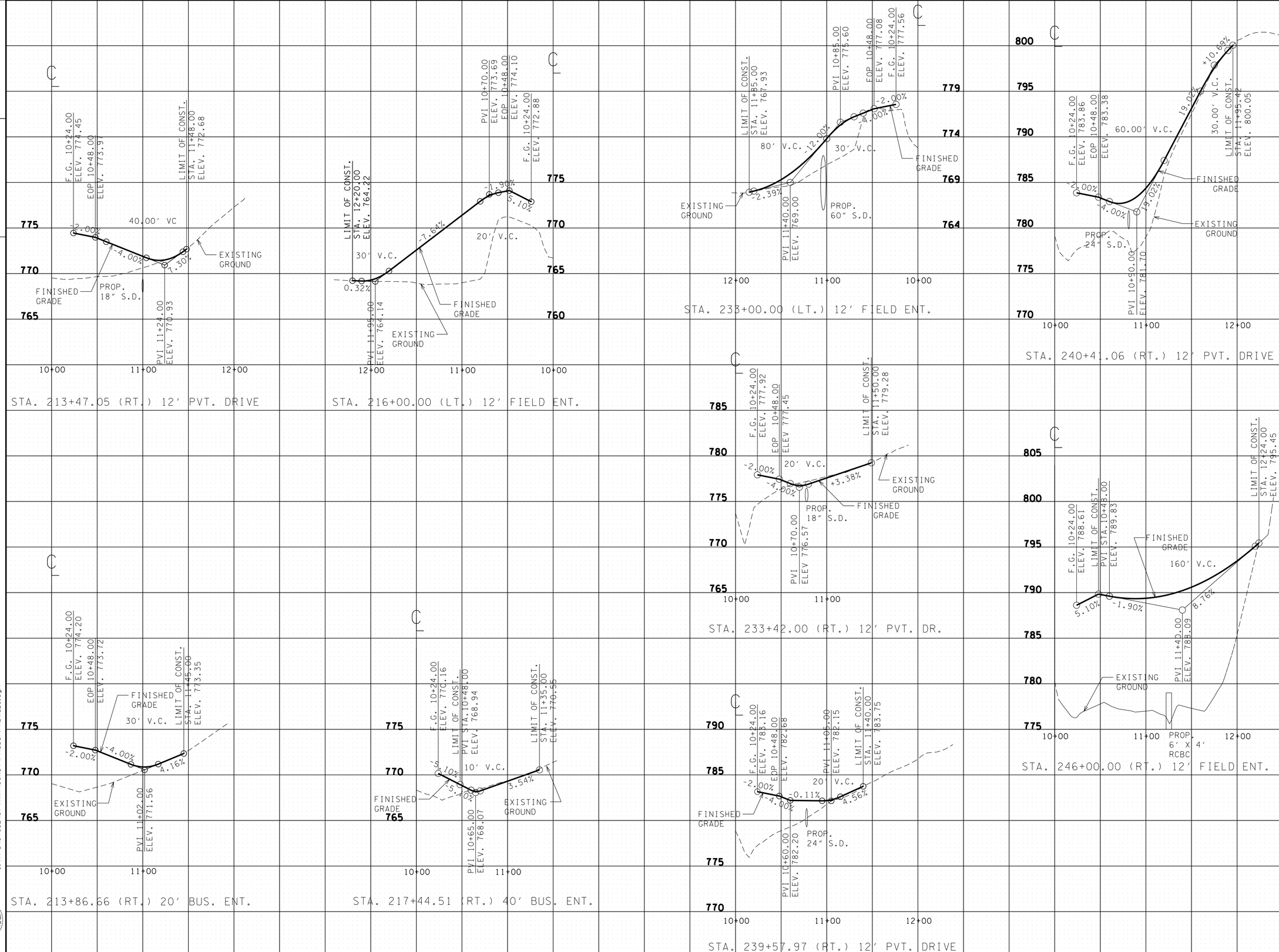
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	34
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	25

06/18/2010: ADDED DRIVEWAY PROFILE 239+57 RT AND DELETED DRIVEWAY PROFILE 230+00 RT AND INCREASED PROPOSED WIDTH OF VARIOUS DRIVES

1/26/2011: ADDED DRIVEWAY PROFILE 233+42 RT



UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PRIVATE DRIVES

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

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Survey & Design Division

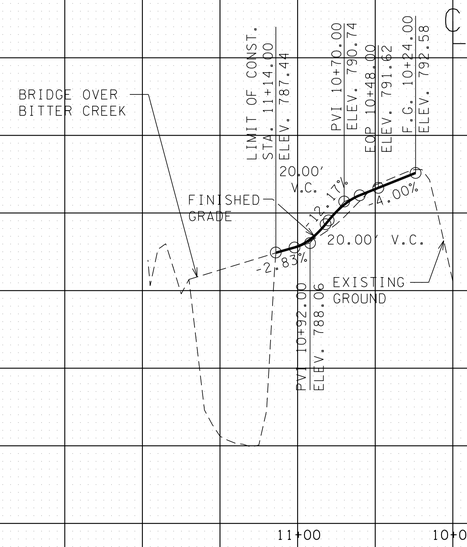
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	35
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	26

06/18/2010: INCREASED PROPOSED WIDTH OF VARIOUS DRIVES

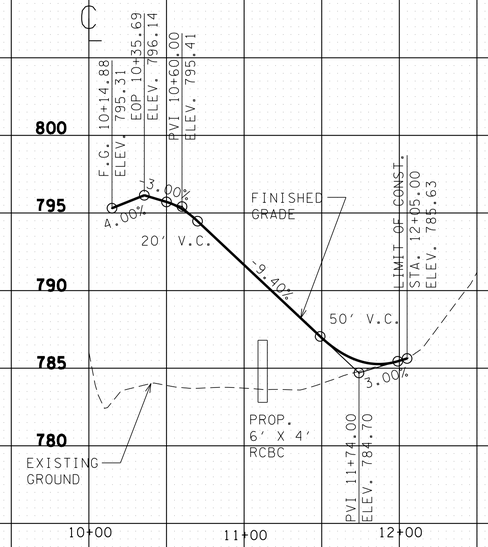
12/16/2011: DELETED DRIVEWAYS STA 256+05.92 AND 256+94.04.

FILE NO.

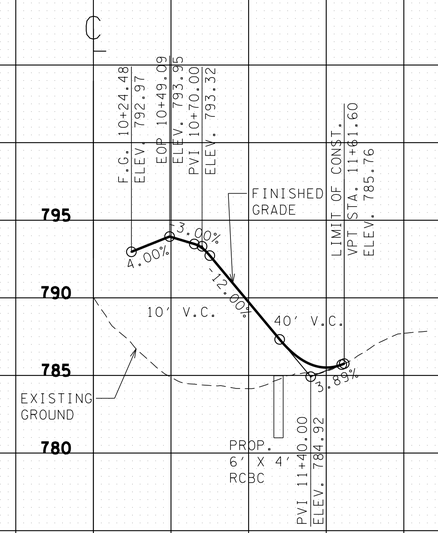
TENNESSEE D.O.T.
DESIGN DIVISION



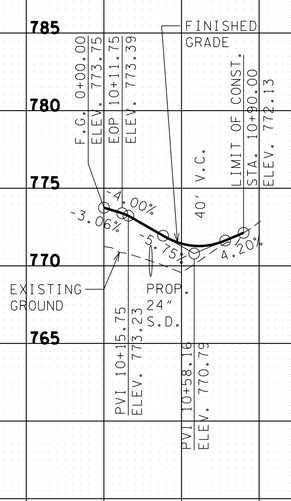
STA. 250+67.00 (LT.) 15' PVT. DRIVE



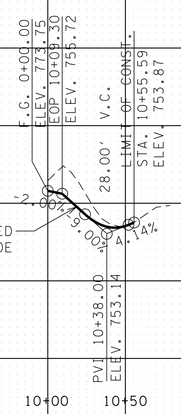
STA. 12+90.90 SR 29 TAPER (RT)
(STA. 253+58.00)
12' FIELD ENT.



STA. 10+44.73 SR 29 TAPER (RT.)
(STA. 251+07.03)
12' PVT. DRIVE



STA. 48+78.00 (RT.)
16' FIELD ENT.
COAL HILL ROAD



STA. 46+15.05 (LT.) 10' PVT. DRIVE
SANDERS LANE (RT.)

UNOFFICIAL SET
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROFILE OF PRIVATE DRIVES

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

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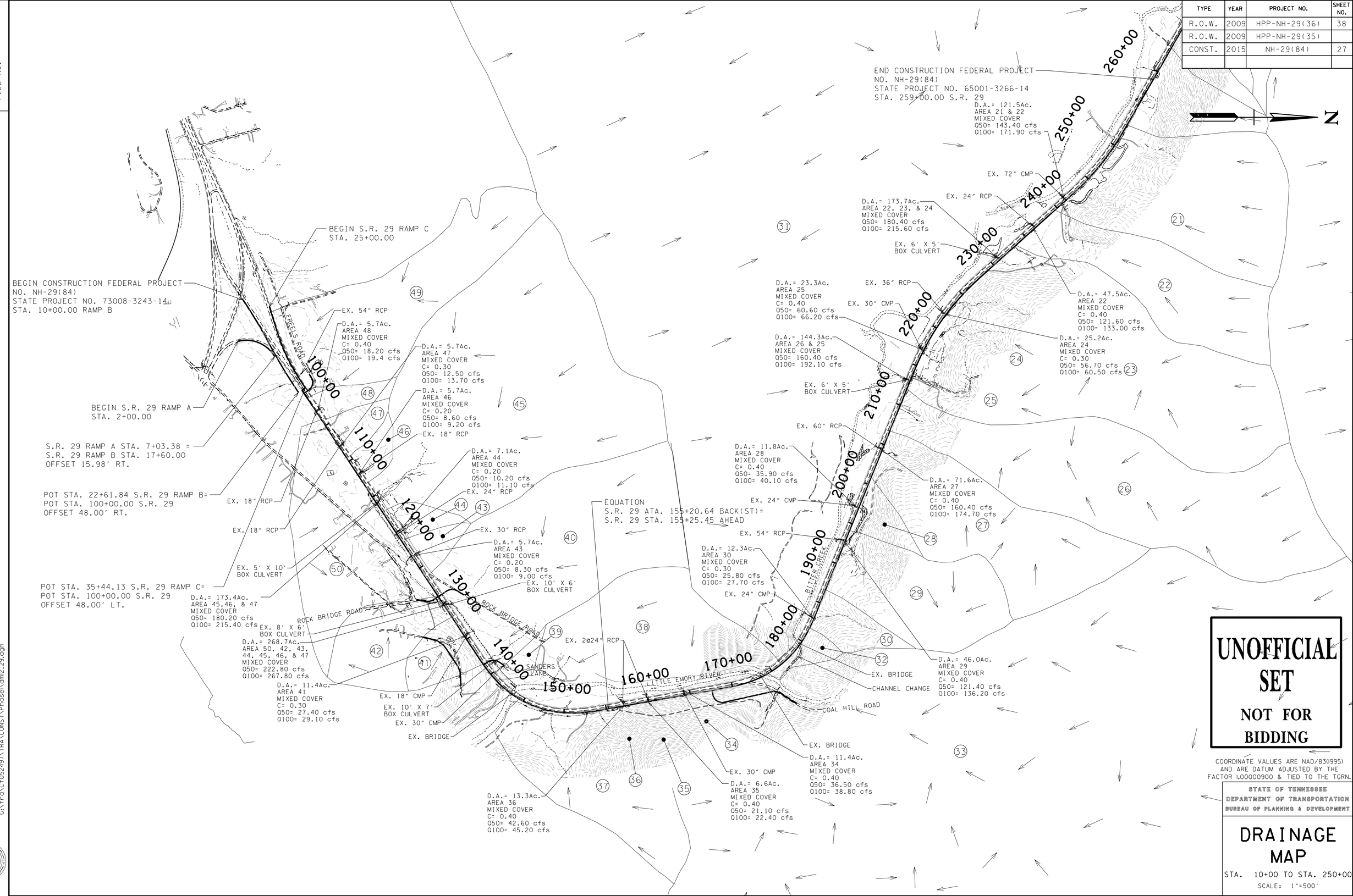
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	38
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	27



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995)
AND ARE DATUM ADJUSTED BY THE
FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

DRAINAGE MAP

STA. 10+00 TO STA. 250+00
SCALE: 1"=500'

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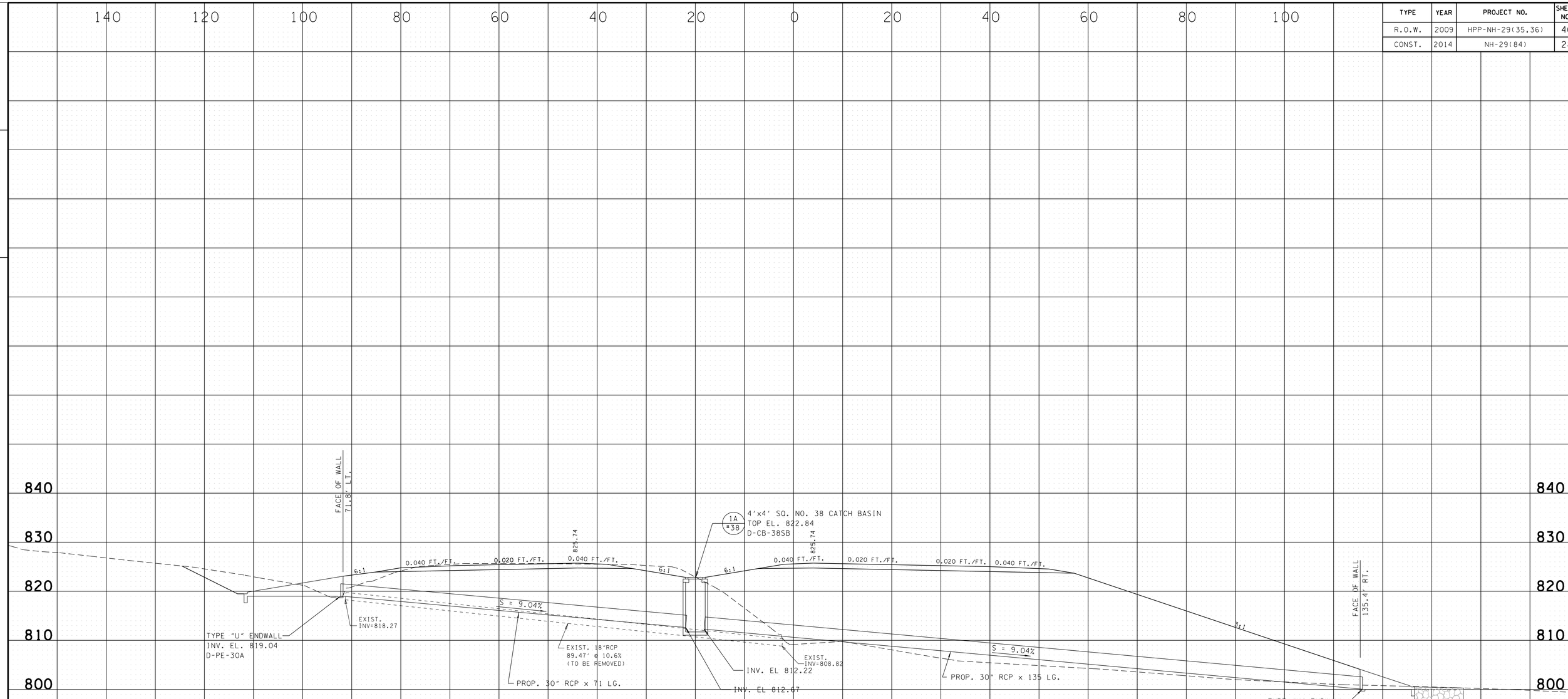
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	40
CONST.	2014	NH-29(84)	28

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 102+95.15 S.R. 29 ℄

SKEW = 90°

STATION	102+95.15
STRUCTURE	PROP. 30" RCP x 206' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	18.2 CFS
OVERTOPPING ELEV.	823.77
ALLOWABLE HEADWATER ELEV.	824.79
Q50 HEADWATER ELEV.	820.94
Q100 HEADWATER ELEV.	821.08
VELOCITY (Q50)	5.43 FT/S
INLET ELEVATION	819.04
OUTLET ELEVATION	800.04
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-PE-30A
OUTLET DRAWING NUMBERS	D-PE-30A
CLASS "A" CONCRETE	5.13 C.Y.
STEEL BAR REINFORCING	477 LB.
STRUCTURAL STEEL	300 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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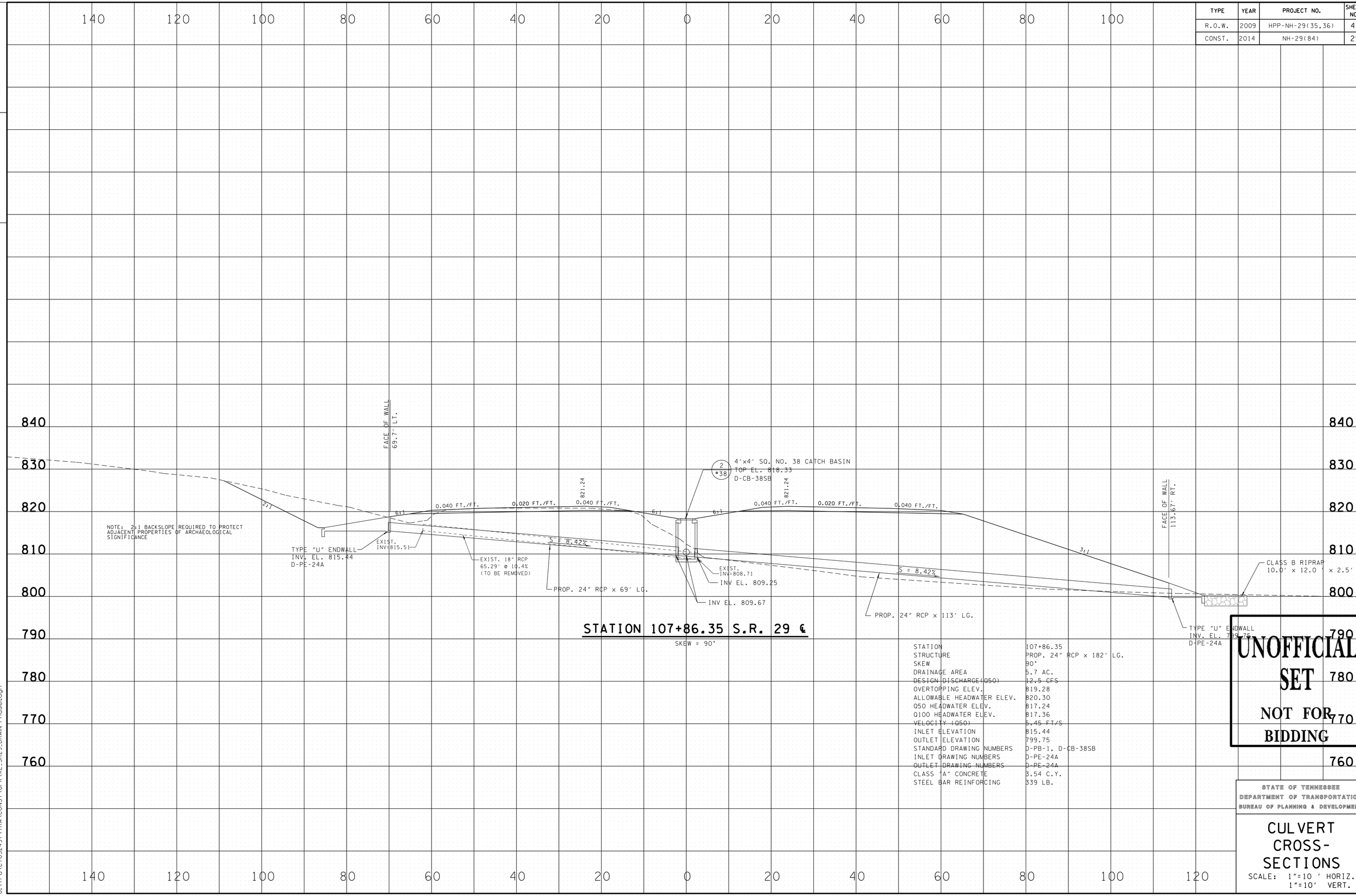
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	41
CONST.	2014	NH-29(84)	29



STATION 107+86.35 S.R. 29 ℄

SKEW = 90°

STATION	107+86.35
STRUCTURE	PROP. 24" RCP x 182' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	12.5 CFS
OVERTOPPING ELEV.	819.28
ALLOWABLE HEADWATER ELEV.	820.30
Q50 HEADWATER ELEV.	817.24
Q100 HEADWATER ELEV.	817.36
VELOCITY (Q50)	5.45 FT/S
INLET ELEVATION	815.44
OUTLET ELEVATION	799.75
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-PE-24A
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	3.54 C.Y.
STEEL BAR REINFORCING	339 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

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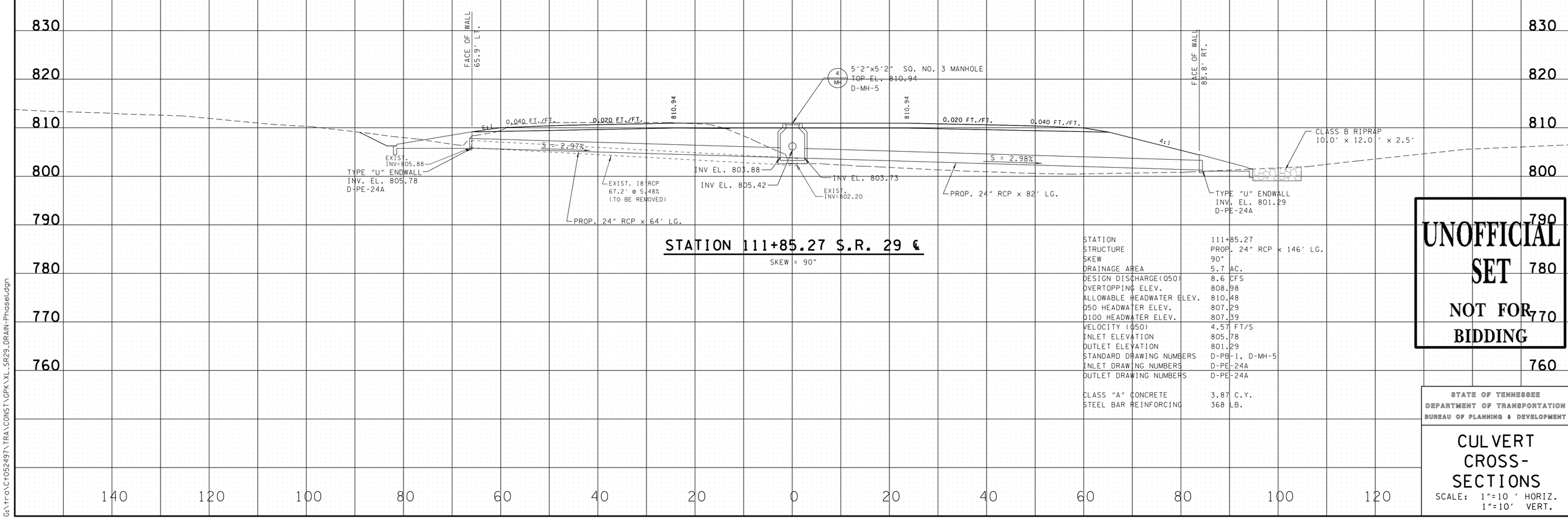
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	42
CONST.	2014	NH-29(84)	30

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 111+85.27 S.R. 29 ℄

SKEW = 90°

STATION	111+85.27
STRUCTURE	PROP. 24" RCP x 146' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	8.6 CFS
OVERTOPPING ELEV.	808.98
ALLOWABLE HEADWATER ELEV.	810.48
Q50 HEADWATER ELEV.	807.29
Q100 HEADWATER ELEV.	807.39
VELOCITY (Q50)	4.57 FT/S
INLET ELEVATION	805.78
OUTLET ELEVATION	801.29
STANDARD DRAWING NUMBERS	D-PB-1, D-MH-5
INLET DRAWING NUMBERS	D-PE-24A
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	3.87 C.Y.
STEEL BAR REINFORCING	368 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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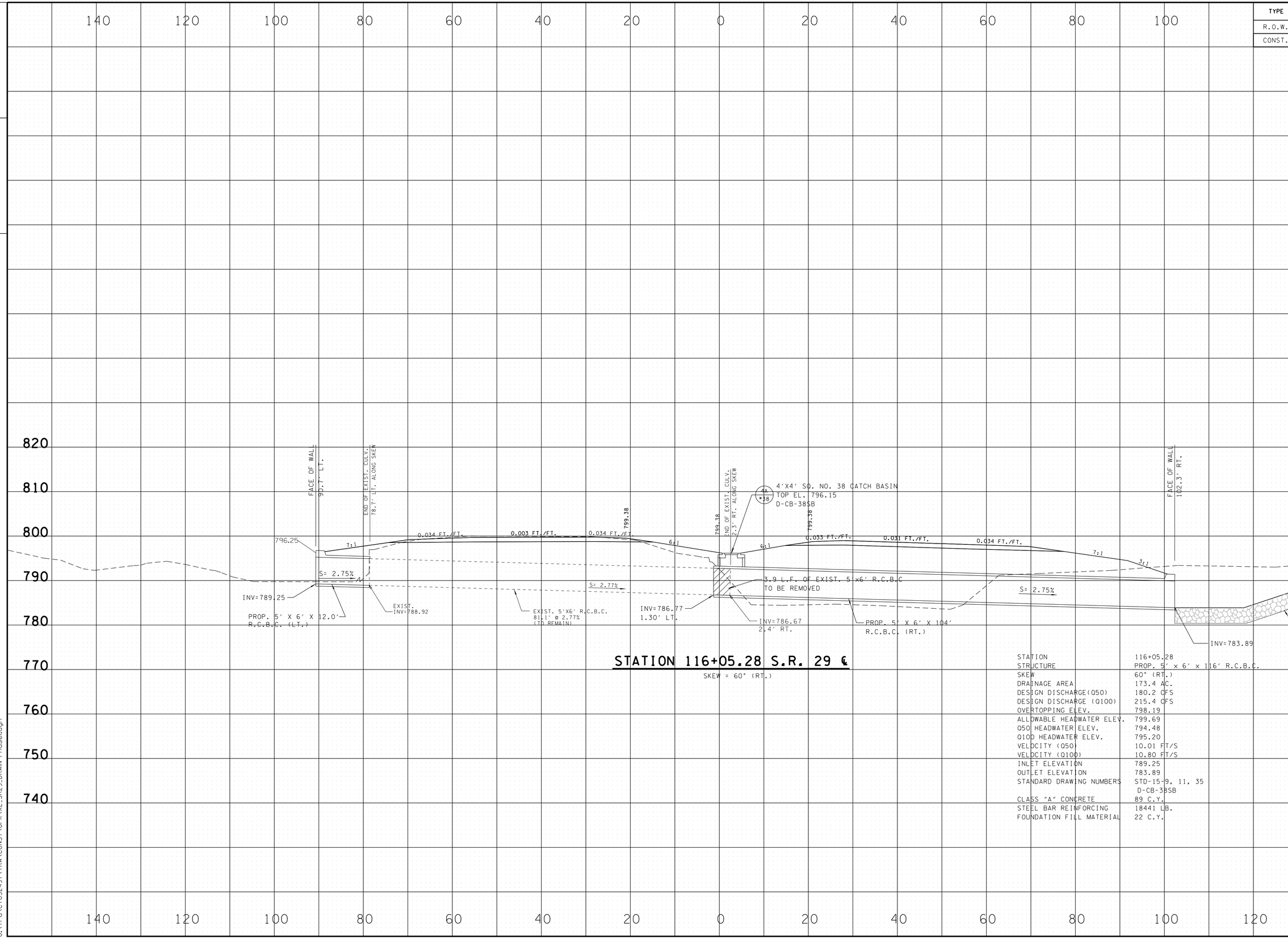
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	43
CONST.	2014	NH-29(84)	31

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 116+05.28 S.R. 29 ℄

SKEW = 60° (RT.)

STATION	116+05.28
STRUCTURE	PROP. 5' x 6' x 116' R.C.B.C.
SKEW	60° (RT.)
DRAINAGE AREA	173.4 AC.
DESIGN DISCHARGE(Q50)	180.2 CFS
DESIGN DISCHARGE (Q100)	215.4 CFS
OVERTOPPING ELEV.	798.19
ALLOWABLE HEADWATER ELEV.	799.69
Q50 HEADWATER ELEV.	794.48
Q100 HEADWATER ELEV.	795.20
VELOCITY (Q50)	10.01 FT/S
VELOCITY (Q100)	10.80 FT/S
INLET ELEVATION	789.25
OUTLET ELEVATION	783.89
STANDARD DRAWING NUMBERS	STD-15-9, 11, 35 D-CB-38SB
CLASS "A" CONCRETE	89 C.Y.
STEEL BAR REINFORCING	18441 LB.
FOUNDATION FILL MATERIAL	22 C.Y.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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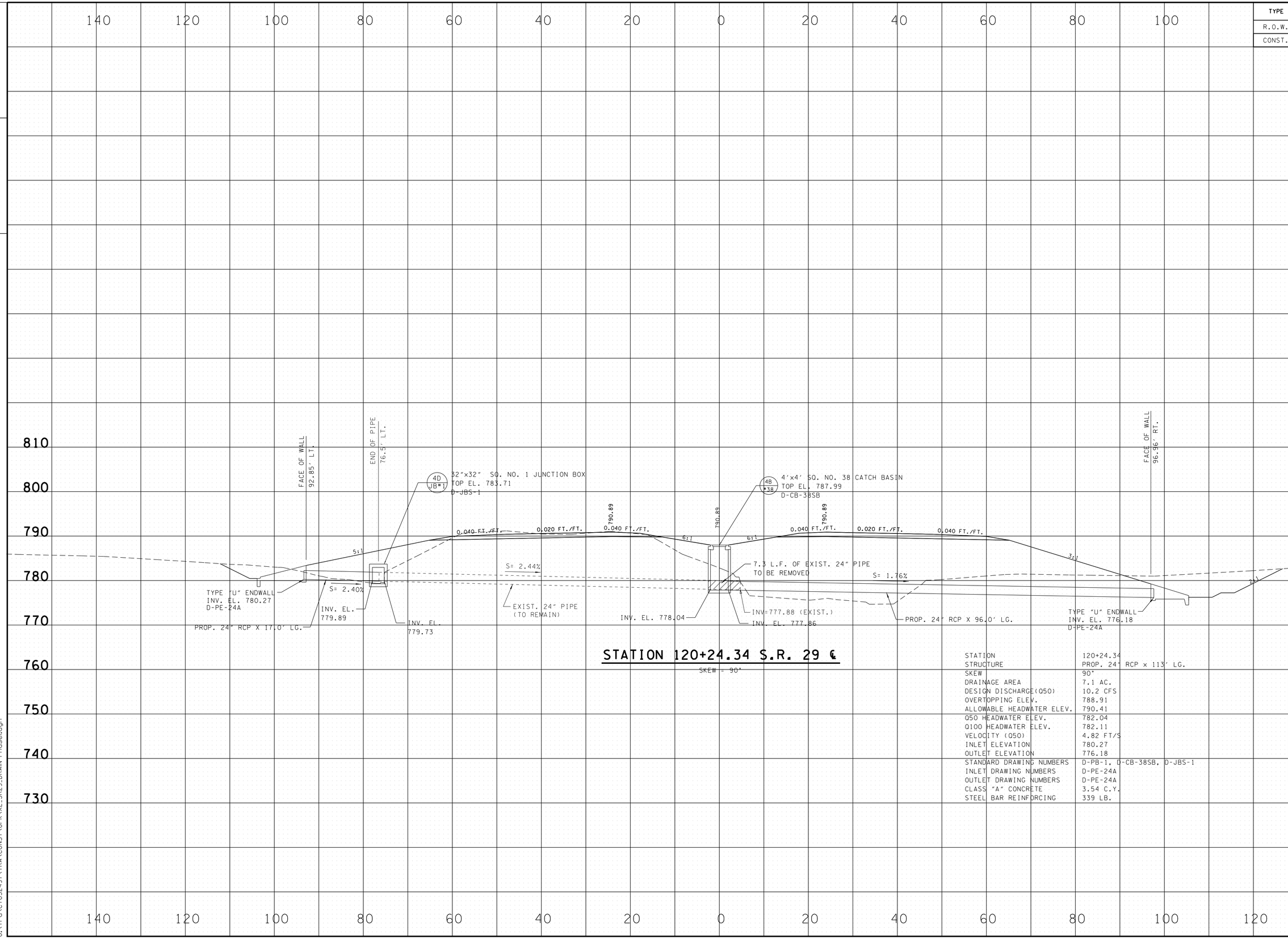
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	44
CONST.	2014	NH-29(84)	32

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



STATION 120+24.34 S.R. 29 ℄

SKEW = 90°

STATION	120+24.34
STRUCTURE	PROP. 24" RCP x 113' LG.
SKEW	90°
DRAINAGE AREA	7.1 AC.
DESIGN DISCHARGE(Q50)	10.2 CFS
OVERTOPPING ELEV.	788.91
ALLOWABLE HEADWATER ELEV.	790.41
Q50 HEADWATER ELEV.	782.04
Q100 HEADWATER ELEV.	782.11
VELOCITY (Q50)	4.82 FT/S
INLET ELEVATION	780.27
OUTLET ELEVATION	776.18
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB, D-JBS-1
INLET DRAWING NUMBERS	D-PE-24A
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	3.54 C.Y.
STEEL BAR REINFORCING	339 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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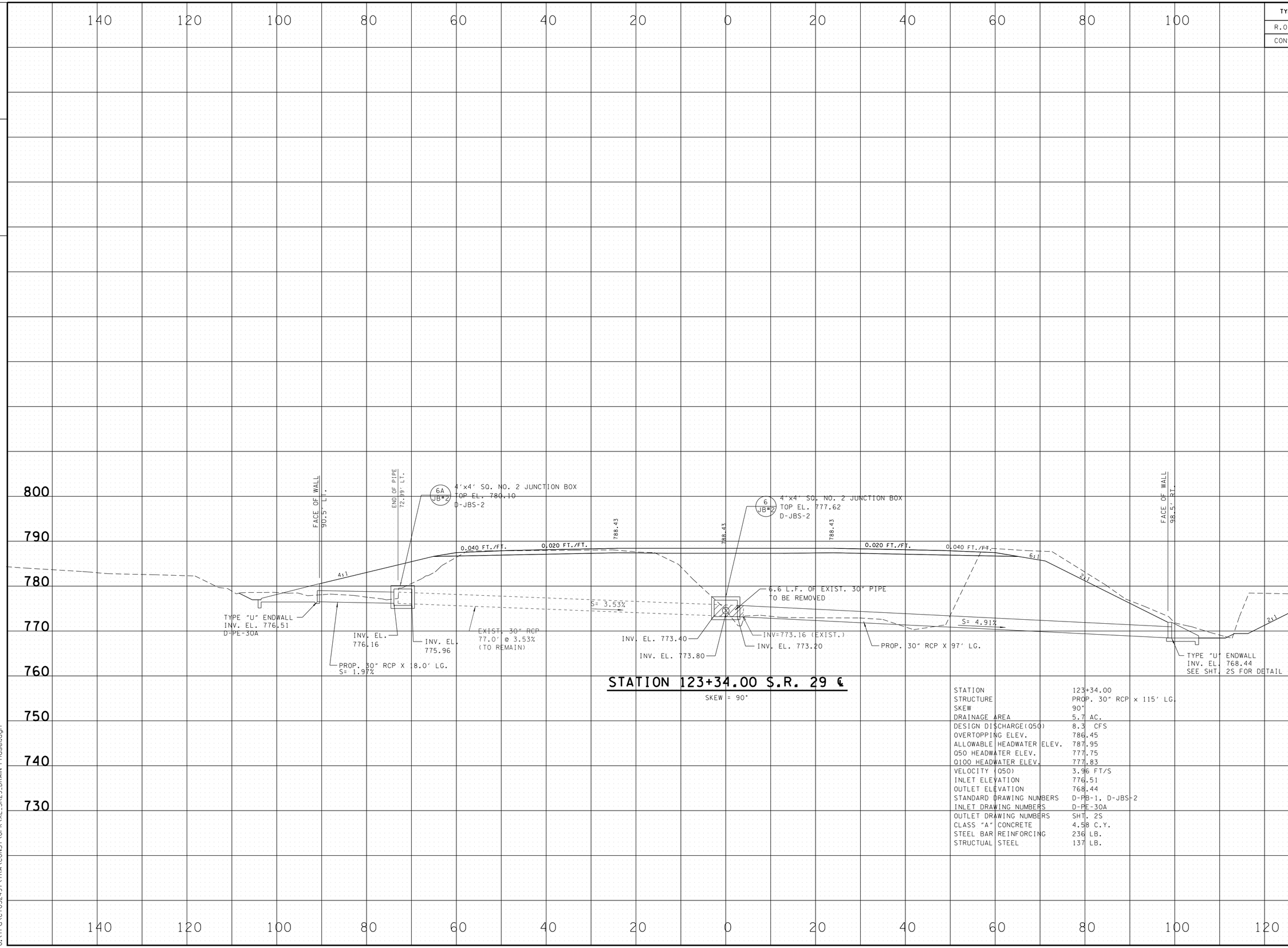
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	45
CONST.	2014	NH-29(84)	33

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION	123+34.00
STRUCTURE	PROP. 30" RCP x 115' LG.
SKEW	90°
DRAINAGE AREA	5.7 AC.
DESIGN DISCHARGE(Q50)	8.3 CFS
OVERTOPPING ELEV.	786.45
ALLOWABLE HEADWATER ELEV.	787.95
Q50 HEADWATER ELEV.	777.75
Q100 HEADWATER ELEV.	777.83
VELOCITY (Q50)	3.96 FT/S
INLET ELEVATION	776.51
OUTLET ELEVATION	768.44
STANDARD DRAWING NUMBERS	D-PB-1, D-JBS-2
INLET DRAWING NUMBERS	D-PE-30A
OUTLET DRAWING NUMBERS	SHT. 2S
CLASS "A" CONCRETE	4.58 C.Y.
STEEL BAR REINFORCING	236 LB.
STRUCTUAL STEEL	137 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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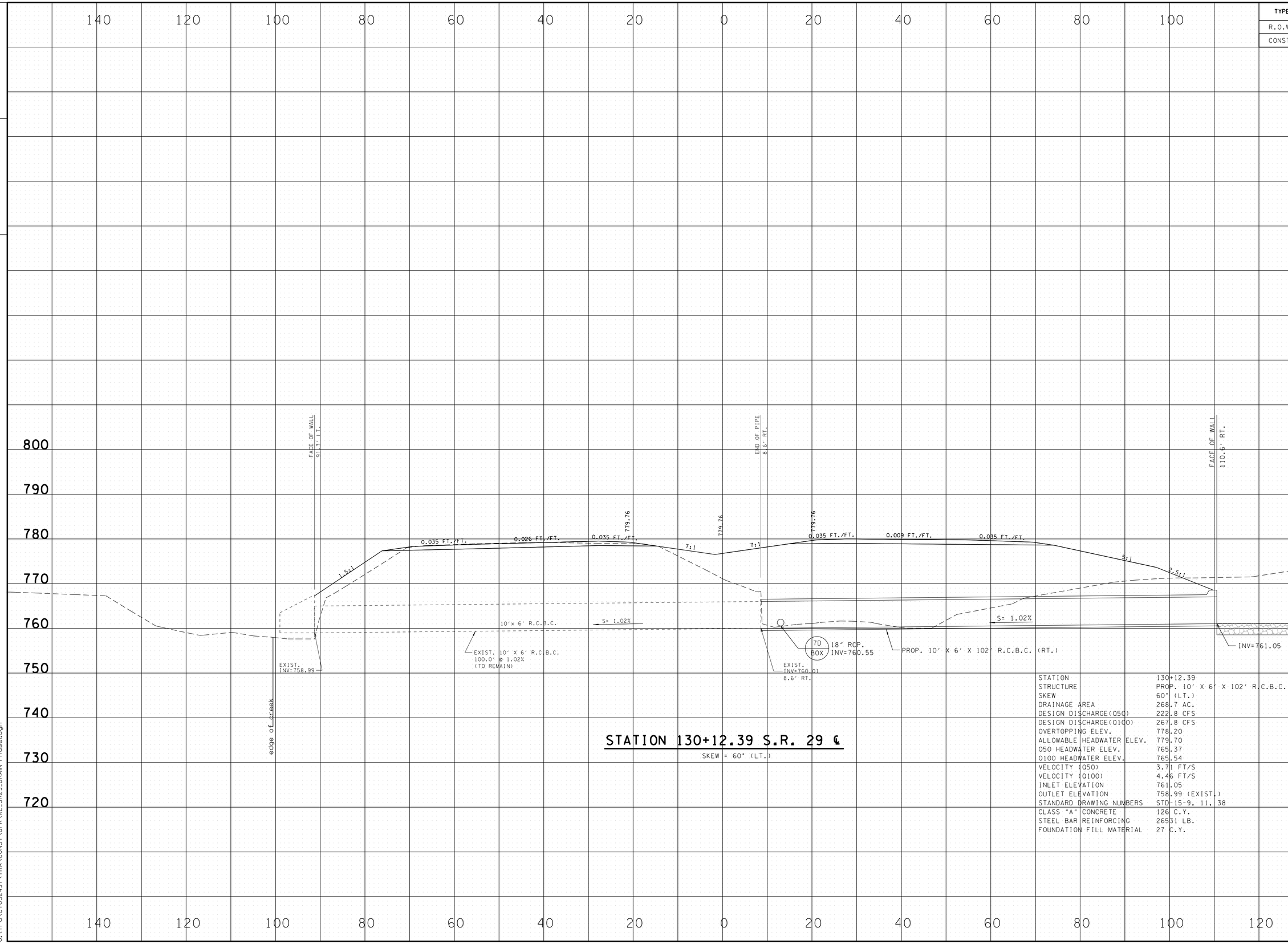
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	46
CONST.	2014	NH-29(84)	34

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 130+12.39 S.R. 29 ℄

SKEW = 60° (LT.)

STATION	130+12.39
STRUCTURE	PROP. 10' X 6' X 102' R.C.B.C.
SKEW	60° (LT.)
DRAINAGE AREA	268.7 AC.
DESIGN DISCHARGE(Q50)	222.8 CFS
DESIGN DISCHARGE(Q100)	267.8 CFS
OVERTOPPING ELEV.	778.20
ALLOWABLE HEADWATER ELEV.	779.70
Q50 HEADWATER ELEV.	765.37
Q100 HEADWATER ELEV.	765.54
VELOCITY (Q50)	3.71 FT/S
VELOCITY (Q100)	4.46 FT/S
INLET ELEVATION	761.05
OUTLET ELEVATION	758.99 (EXIST.)
STANDARD DRAWING NUMBERS	STD-15-9, 11, 38
CLASS "A" CONCRETE	126 C.Y.
STEEL BAR REINFORCING	26531 LB.
FOUNDATION FILL MATERIAL	27 C.Y.

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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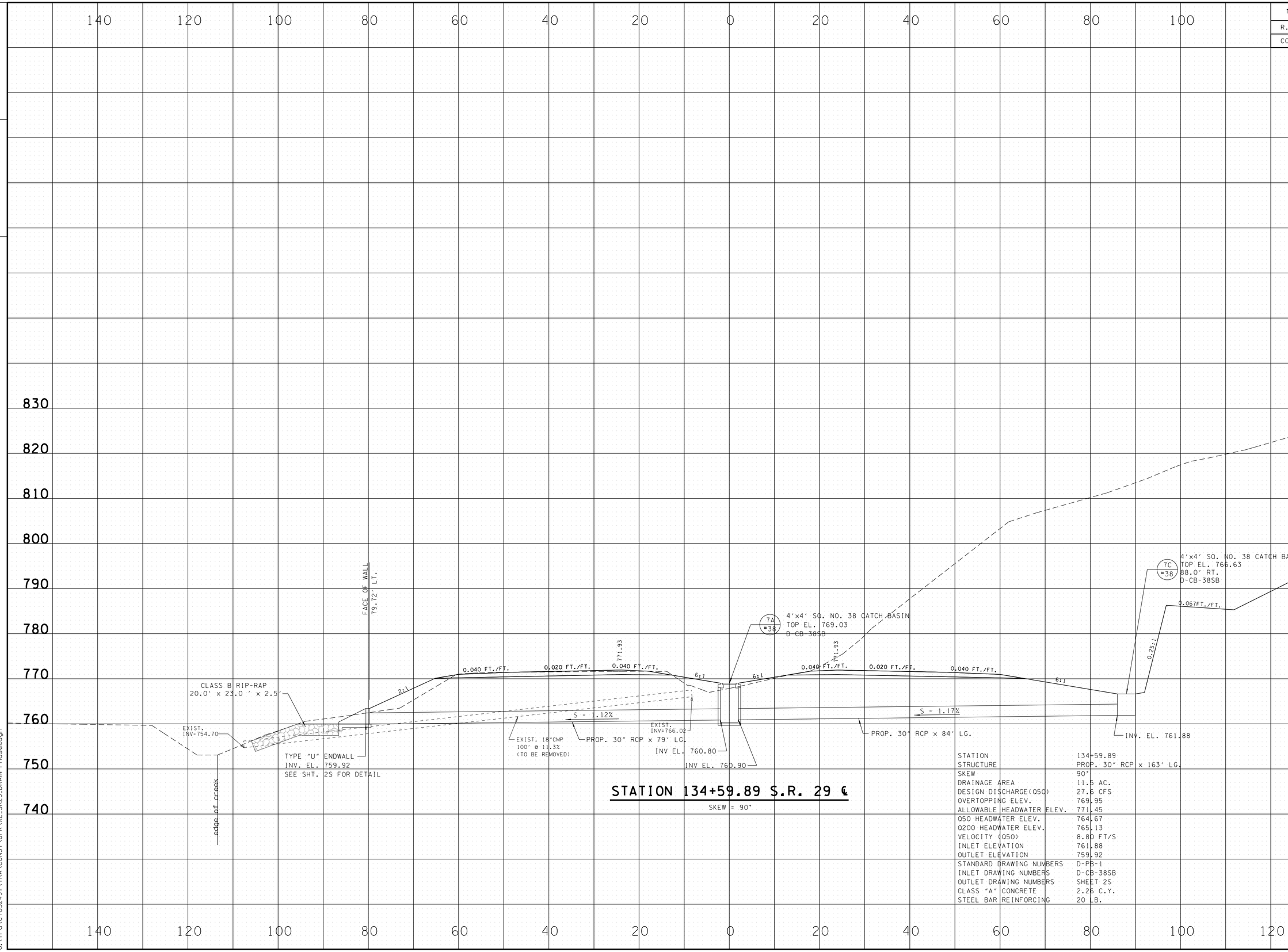
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	47
CONST.	2014	NH-29(84)	35

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION	134+59.89
STRUCTURE	PROP. 30" RCP x 163' LG.
SKEW	90°
DRAINAGE AREA	11.5 AC.
DESIGN DISCHARGE(Q50)	27.6 CFS
OVERTOPPING ELEV.	769.95
ALLOWABLE HEADWATER ELEV.	771.45
Q50 HEADWATER ELEV.	764.67
Q200 HEADWATER ELEV.	765.13
VELOCITY (Q50)	8.80 FT/S
INLET ELEVATION	761.88
OUTLET ELEVATION	759.92
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-CB-38SB
OUTLET DRAWING NUMBERS	SHEET 2S
CLASS "A" CONCRETE	2.26 C.Y.
STEEL BAR REINFORCING	20 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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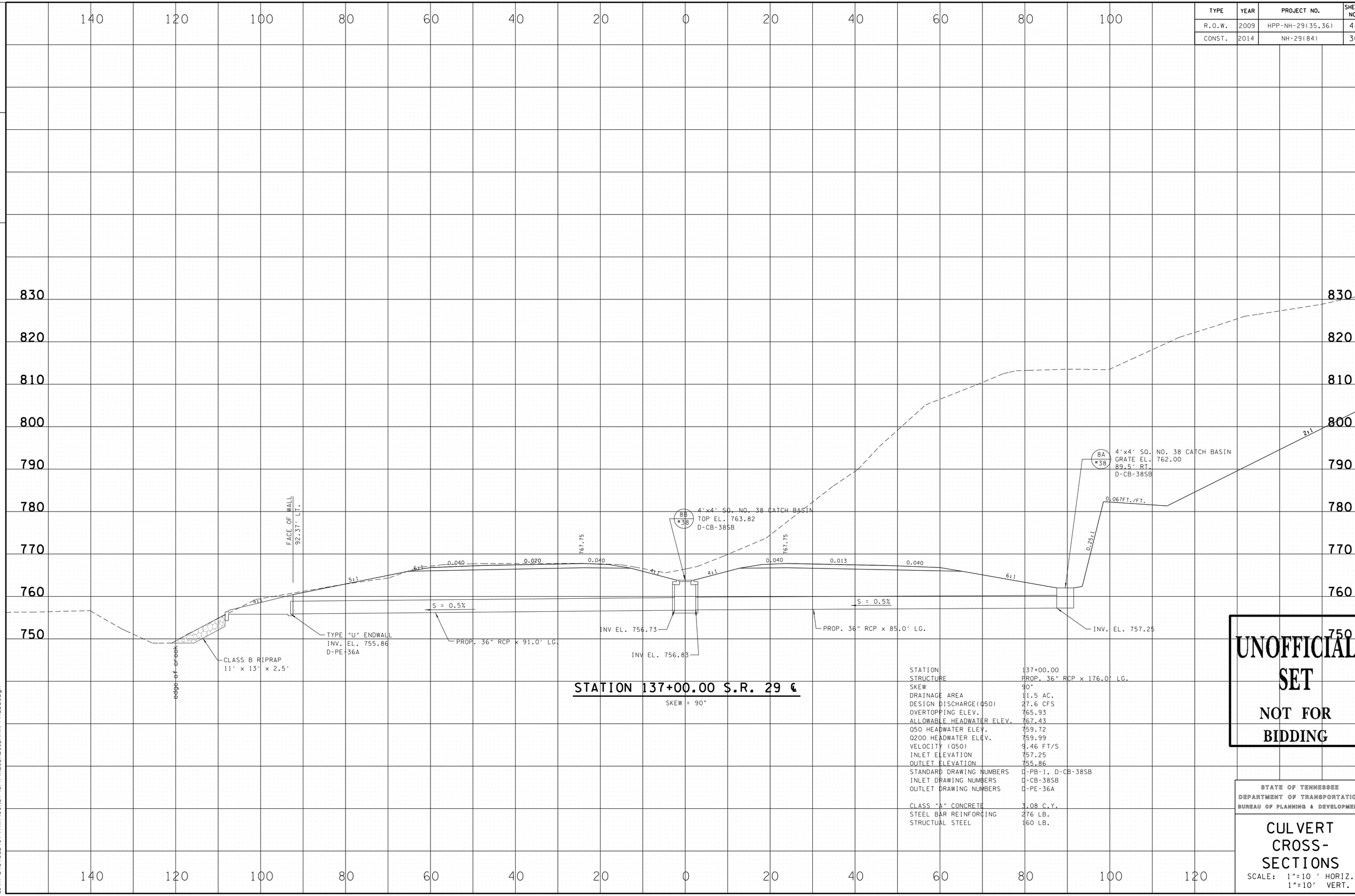
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	48
CONST.	2014	NH-29(84)	36

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 137+00.00 S.R. 29 ℄

SKEW = 90°

STATION	137+00.00
STRUCTURE	PROP. 36" RCP x 176.0' LG.
SKEW	90°
DRAINAGE AREA	11.5 AC.
DESIGN DISCHARGE(Q50)	27.6 CFS
OVERTOPPING ELEV.	765.93
ALLOWABLE HEADWATER ELEV.	767.43
Q50 HEADWATER ELEV.	759.72
Q200 HEADWATER ELEV.	759.99
VELOCITY (Q50)	9.46 FT/S
INLET ELEVATION	757.25
OUTLET ELEVATION	755.86
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-CB-38SB
OUTLET DRAWING NUMBERS	D-PE-36A
CLASS "A" CONCRETE	3.08 C.Y.
STEEL BAR REINFORCING	276 LB.
STRUCTUAL STEEL	160 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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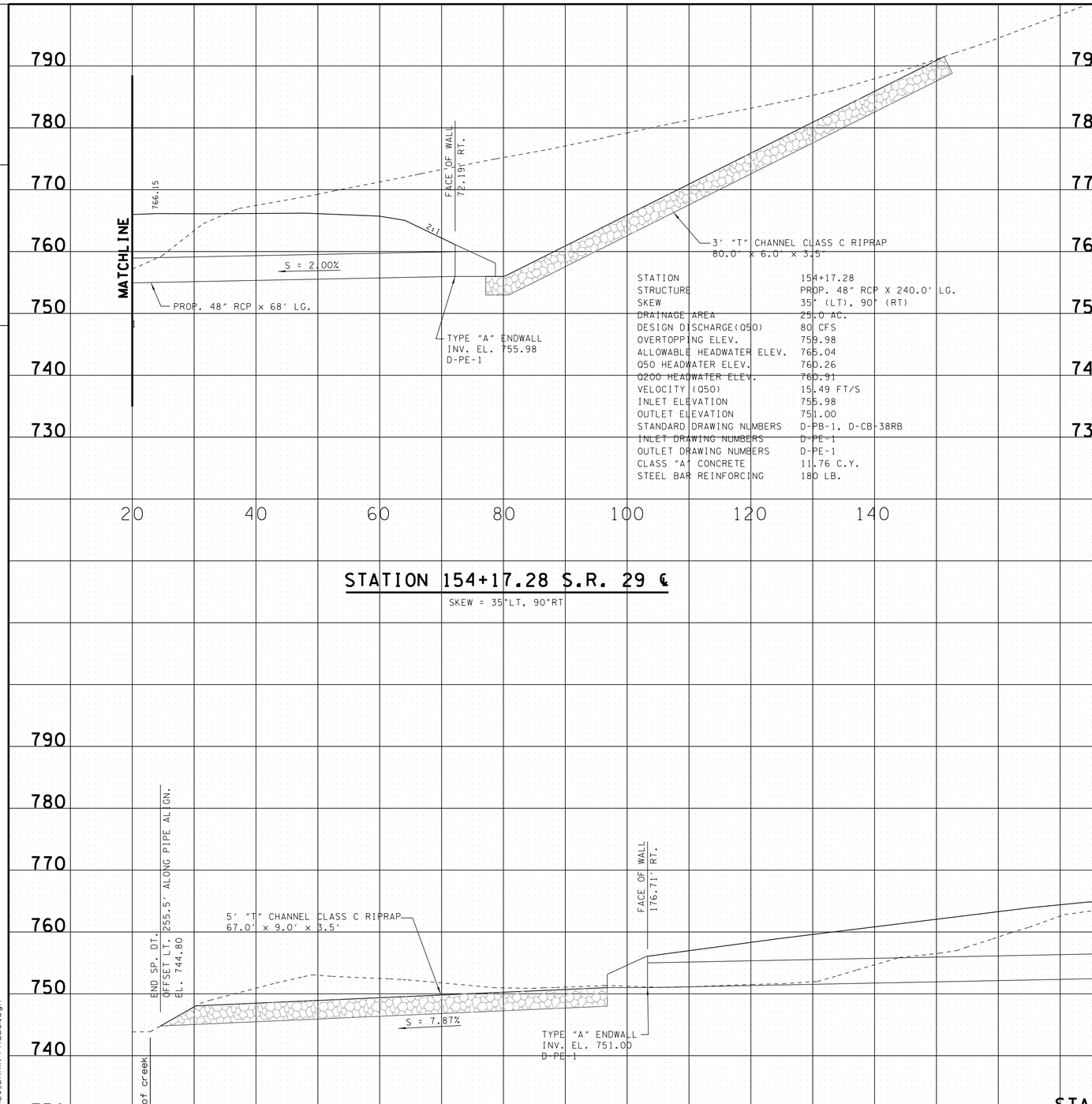
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	
CONST.	2014	NH-29(84)	37

FILE NO.

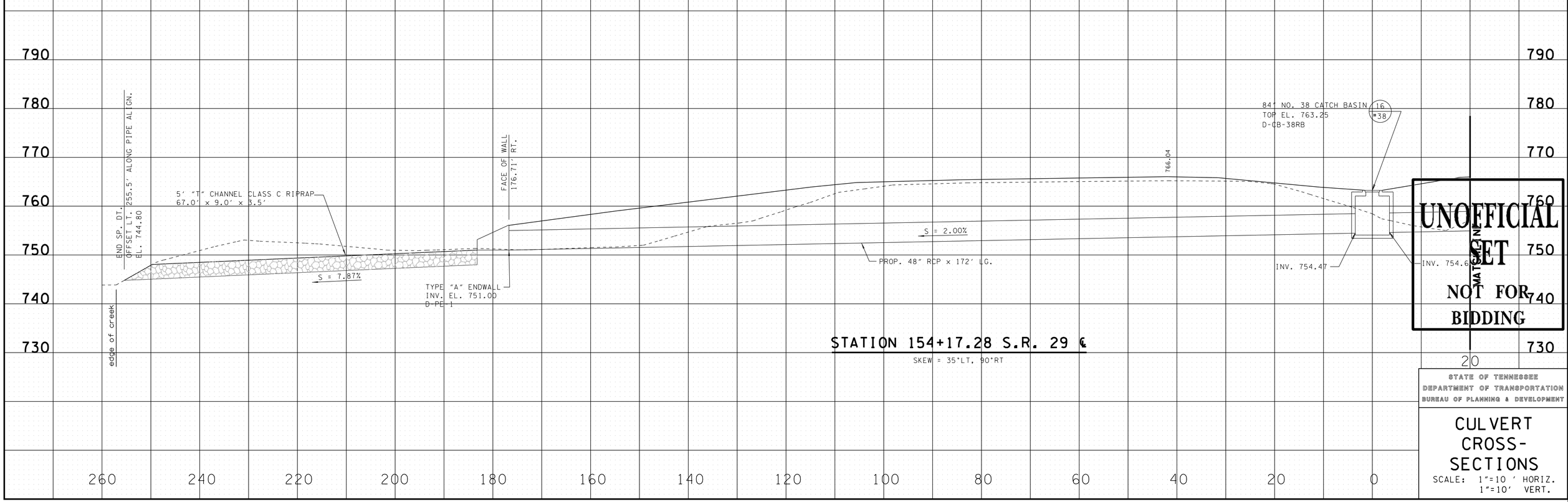
TENNESSEE D.O.T.
DESIGN DIVISION



STATION	154+17.28
STRUCTURE	PROP. 48" RCP X 240.0' LG.
SKEW	35° (LT), 90° (RT)
DRAINAGE AREA	25.0 AC.
DESIGN DISCHARGE(Q50)	80 CFS
OVERTOPPING ELEV.	759.98
ALLOWABLE HEADWATER ELEV.	765.04
Q50 HEADWATER ELEV.	760.26
Q200 HEADWATER ELEV.	760.91
VELOCITY (Q50)	15.49 FT/S
INLET ELEVATION	755.98
OUTLET ELEVATION	751.00
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38RB
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-1
CLASS "A" CONCRETE	11.76 C.Y.
STEEL BAR REINFORCING	180 LB.

STATION 154+17.28 S.R. 29 ℄

SKEW = 35°LT, 90°RT



STATION 154+17.28 S.R. 29 ℄

SKEW = 35°LT, 90°RT

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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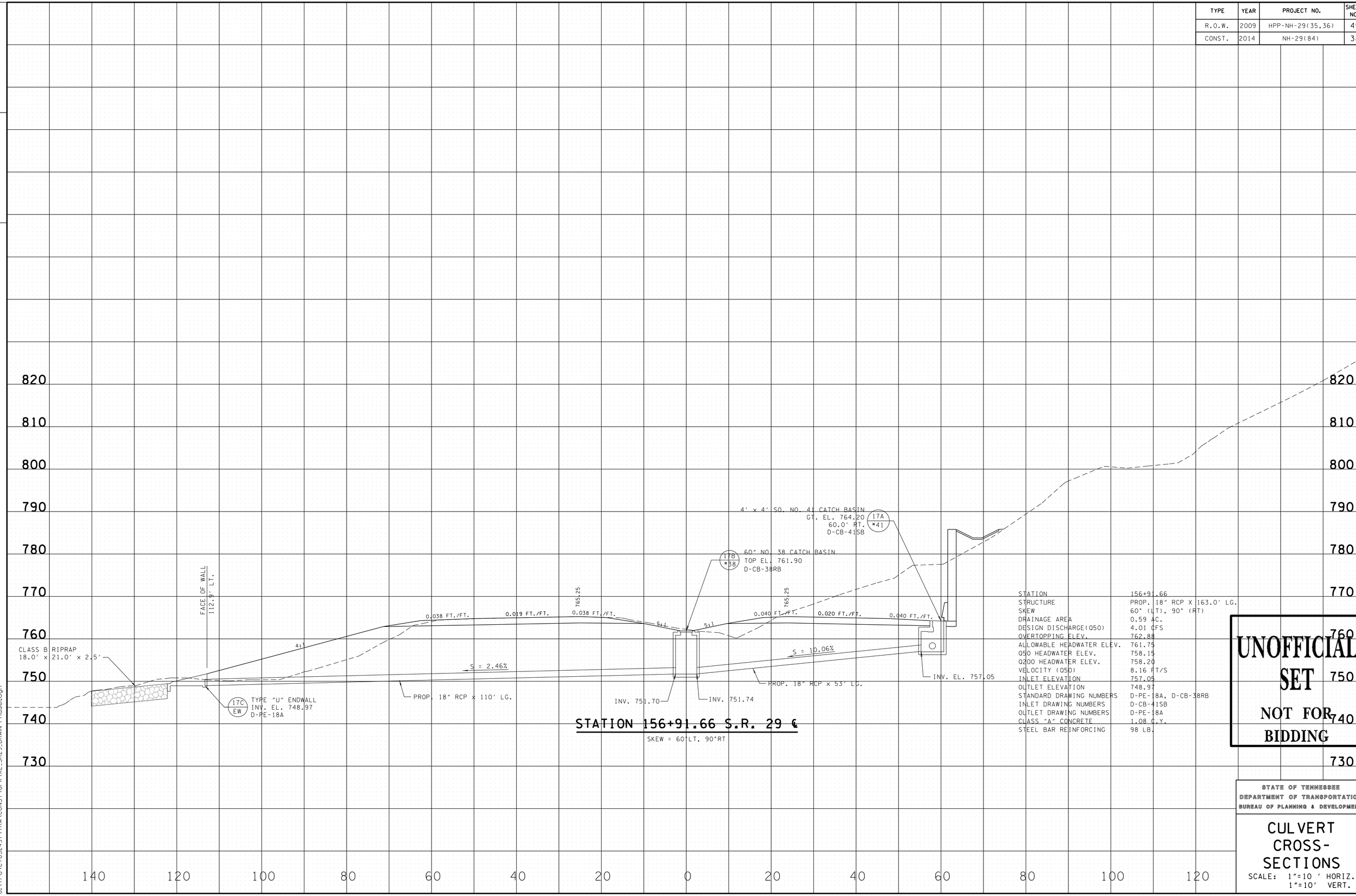
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	49
CONST.	2014	NH-29(84)	38

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION	156+91.66
STRUCTURE	PROP. 18" RCP X 163.0' LG.
SKEW	60° (LT), 90° (RT)
DRAINAGE AREA	0.59 AC.
DESIGN DISCHARGE(050)	4.01 CFS
OVERTOPPING ELEV.	762.88
ALLOWABLE HEADWATER ELEV.	761.75
050 HEADWATER ELEV.	758.15
0200 HEADWATER ELEV.	758.20
VELOCITY (050)	8.16 FT/S
INLET ELEVATION	757.05
OUTLET ELEVATION	748.97
STANDARD DRAWING NUMBERS	D-PE-18A, D-CB-38RB
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-18A
CLASS "A" CONCRETE	1.08 C.Y.
STEEL BAR REINFORCING	98 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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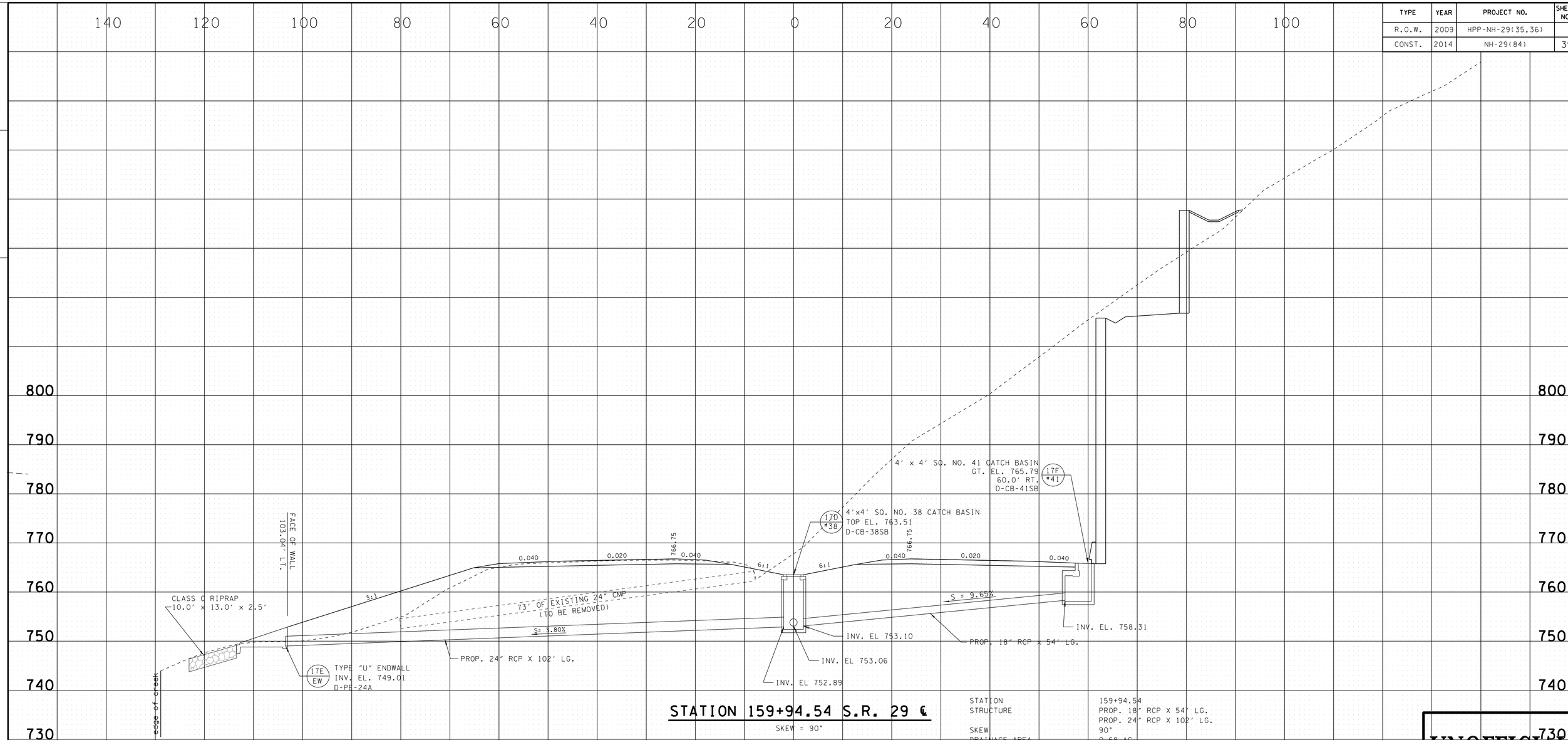
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	
CONST.	2014	NH-29(84)	39



STATION 159+94.54 S.R. 29 ℄

SKEW = 90°

STATION	159+94.54
STRUCTURE	PROP. 18" RCP X 54' LG. PROP. 24" RCP X 102' LG.
SKEW	90°
DRAINAGE AREA	0.68 AC.
DESIGN DISCHARGE(Q50)	4.9 CFS
OVERTOPPING ELEV.	765.06
ALLOWABLE HEADWATER ELEV.	765.06
Q50 HEADWATER ELEV.	759.71
Q200 HEADWATER ELEV.	759.76
VELOCITY (Q50)	10.25 FT/S
INLET ELEVATION	758.31
OUTLET ELEVATION	749.01
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB, D-CB-41SB
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-24A
CLASS "A" CONCRETE	1.28 C.Y.
STEEL BAR REINFORCING	124 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

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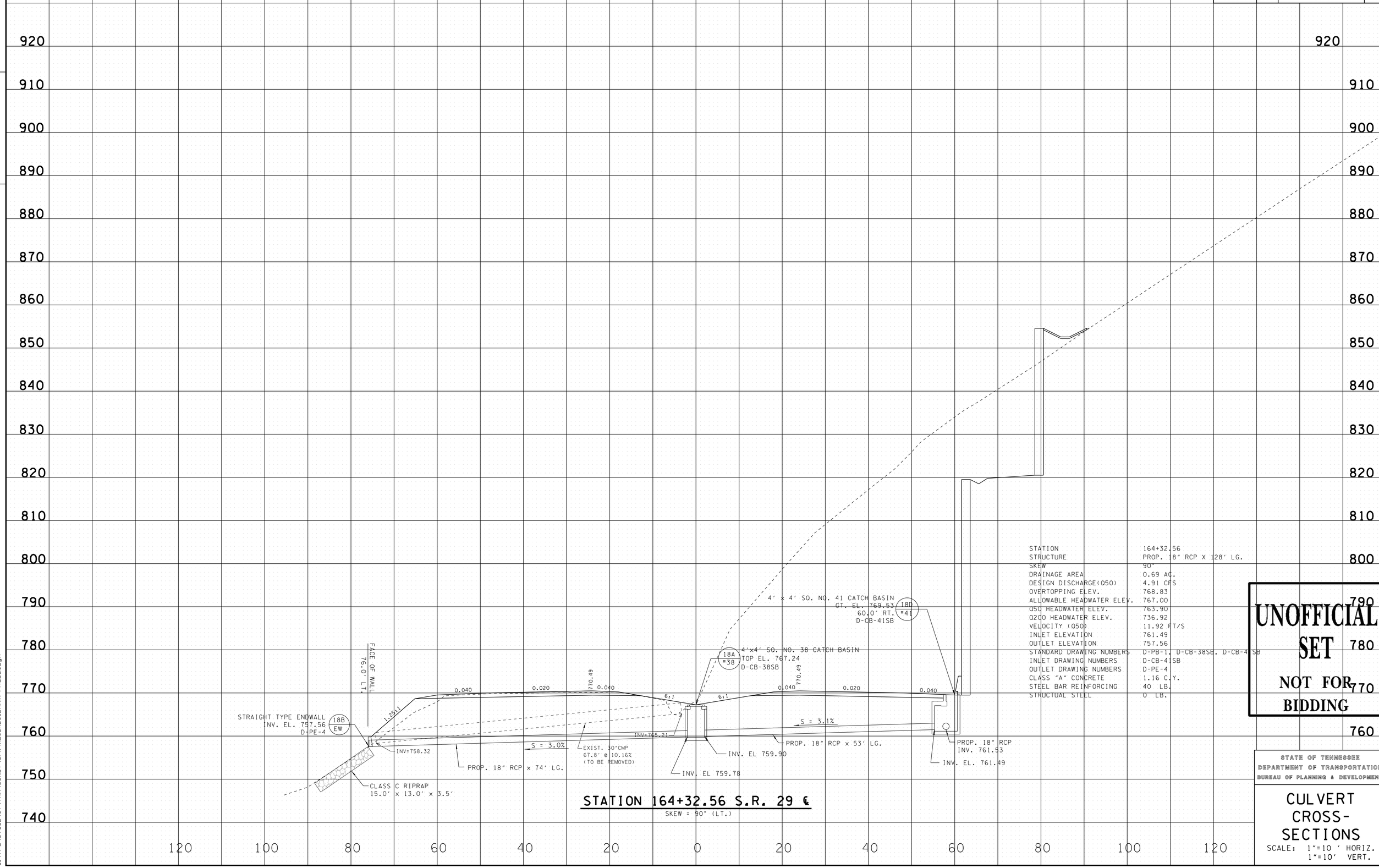
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	
CONST.	2014	NH-29(84)	40

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 164+32.56 S.R. 29 ℄

SKEW = 90° (LT.)

STATION	164+32.56
STRUCTURE	PROP. 18" RCP X 128' LG.
SKEW	90°
DRAINAGE AREA	0.69 AC.
DESIGN DISCHARGE(Q50)	4.91 CFS
OVERTOPPING ELEV.	768.83
ALLOWABLE HEADWATER ELEV.	767.00
Q50 HEADWATER ELEV.	763.90
Q200 HEADWATER ELEV.	736.92
VELOCITY (Q50)	11.92 FT/S
INLET ELEVATION	761.49
OUTLET ELEVATION	757.56
STANDARD DRAWING NUMBERS	D-PB-11, D-CB-38SB, D-CB-41SB
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-4
CLASS "A" CONCRETE	1.16 C.Y.
STEEL BAR REINFORCING	40 LB.
STRUCTUAL STEEL	0 LB.

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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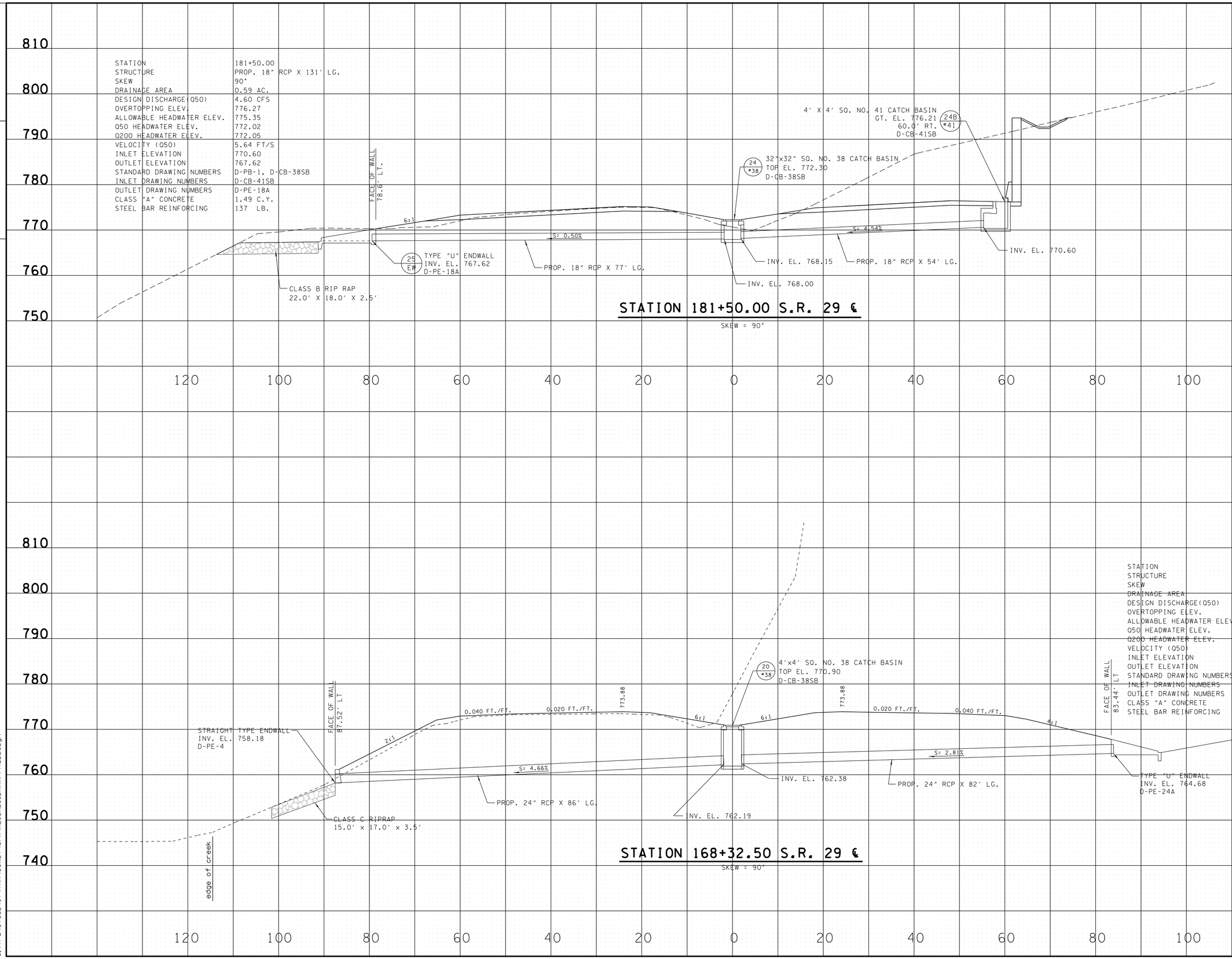
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	
CONST.	2014	NH-29(84)	41

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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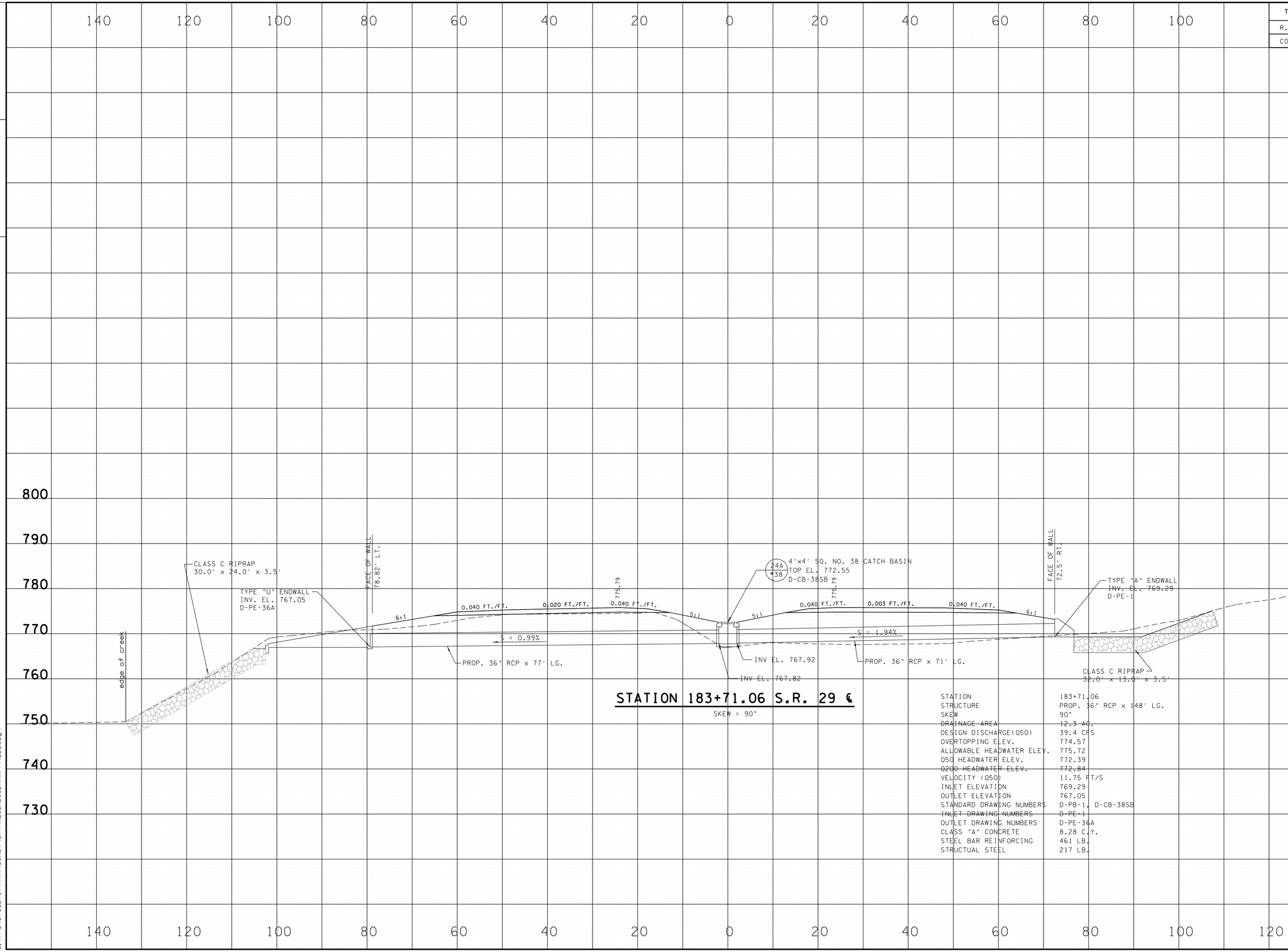
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	50
CONST.	2014	NH-29(84)	42

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 183+71.06 S.R. 29 ℄

SKEW = 90°

STATION	183+71.06
STRUCTURE	PROP. 36" RCP x 148' LG.
SKEW	90°
DRAINAGE AREA	12.3 AC.
DESIGN DISCHARGE(Q50)	39.4 CFS
OVERTOPPING ELEV.	774.57
ALLOWABLE HEADWATER ELEV.	775.72
Q50 HEADWATER ELEV.	772.39
Q200 HEADWATER ELEV.	772.84
VELOCITY (Q50)	11.75 FT/S
INLET ELEVATION	769.29
OUTLET ELEVATION	767.05
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-36A
CLASS "A" CONCRETE	8.28 C.Y.
STEEL BAR REINFORCING	461 LB.
STRUCTUAL STEEL	217 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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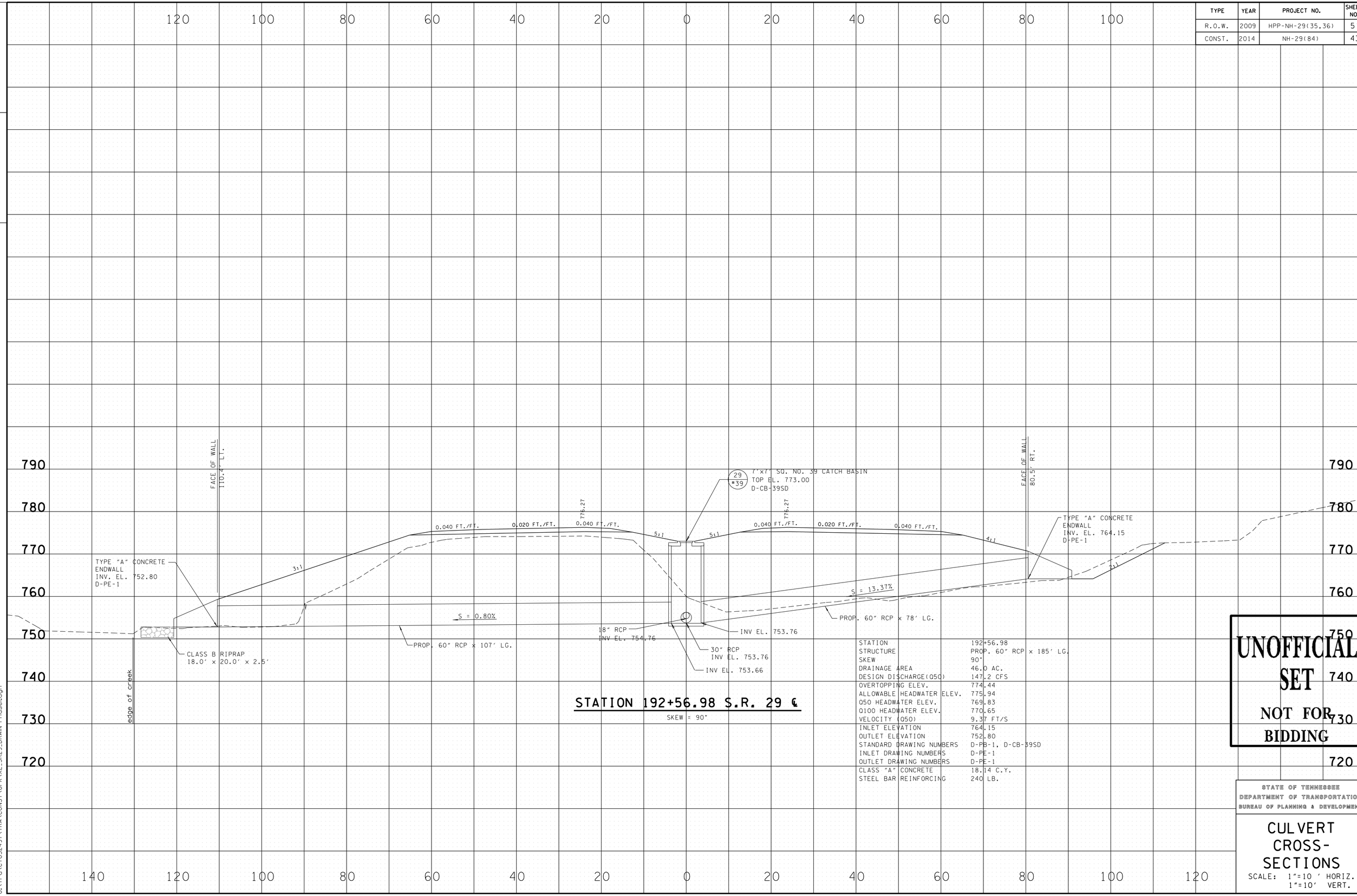
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	51
CONST.	2014	NH-29(84)	43

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 192+56.98 S.R. 29 ℄

SKEW = 90°

STATION	192+56.98
STRUCTURE	PROP. 60" RCP x 185' LG.
SKEW	90°
DRAINAGE AREA	46.0 AC.
DESIGN DISCHARGE(Q50)	147.2 CFS
OVERTOPPING ELEV.	774.44
ALLOWABLE HEADWATER ELEV.	775.94
Q50 HEADWATER ELEV.	769.83
Q100 HEADWATER ELEV.	770.65
VELOCITY (Q50)	9.37 FT/S
INLET ELEVATION	764.15
OUTLET ELEVATION	752.80
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-39SD
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-1
CLASS "A" CONCRETE	18.14 C.Y.
STEEL BAR REINFORCING	240 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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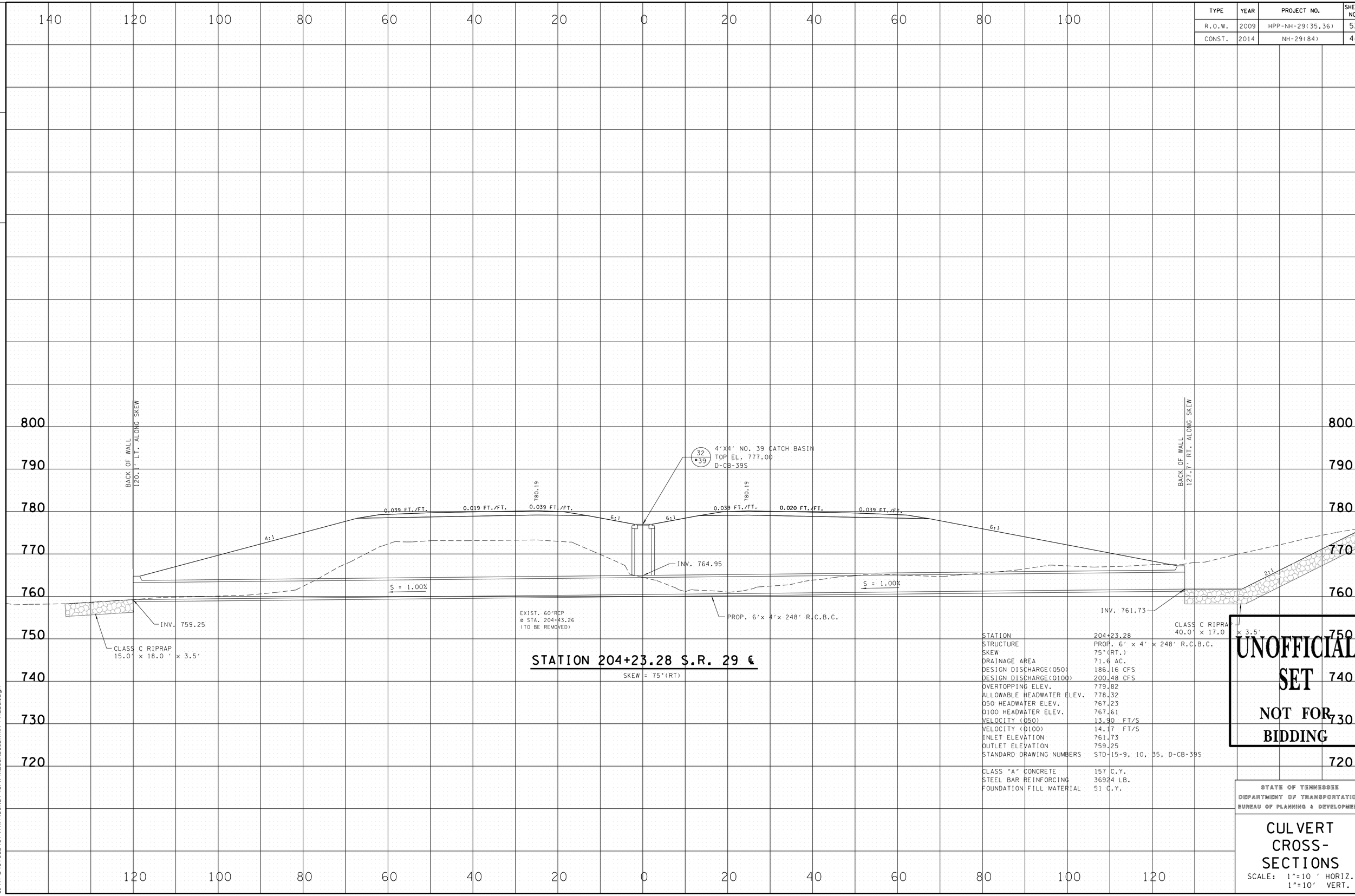
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	52
CONST.	2014	NH-29(84)	44

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 204+23.28 S.R. 29 ℄

SKEW = 75°(RT)

STATION	204+23.28
STRUCTURE	PROP. 6' x 4' x 248' R.C.B.C.
SKEW	75°(RT.)
DRAINAGE AREA	71.6 AC.
DESIGN DISCHARGE(Q50)	186.16 CFS
DESIGN DISCHARGE(Q100)	200.48 CFS
OVERTOPPING ELEV.	779.82
ALLOWABLE HEADWATER ELEV.	778.32
Q50 HEADWATER ELEV.	767.23
Q100 HEADWATER ELEV.	767.61
VELOCITY (Q50)	13.90 FT/S
VELOCITY (Q100)	14.17 FT/S
INLET ELEVATION	761.73
OUTLET ELEVATION	759.25
STANDARD DRAWING NUMBERS	STD-15-9, 10, 35, D-CB-39S
CLASS "A" CONCRETE	157 C.Y.
STEEL BAR REINFORCING	36924 LB.
FOUNDATION FILL MATERIAL	51 C.Y.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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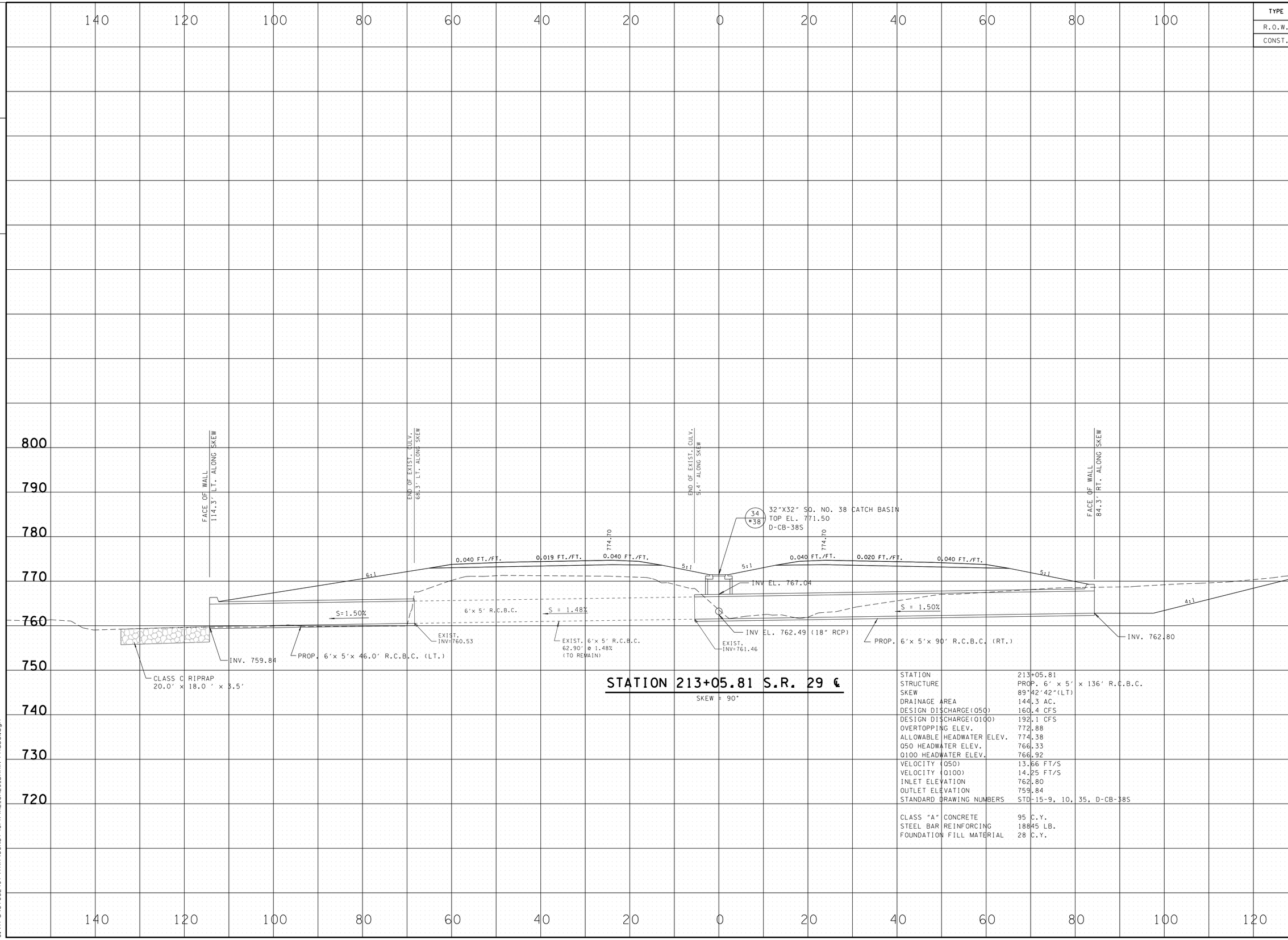
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	53
CONST.	2014	NH-29(84)	45

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



STATION 213+05.81 S.R. 29 ℄

SKEW = 90°

STATION	213+05.81
STRUCTURE	PROP. 6' x 5' x 136' R.C.B.C.
SKEW	89°42'42"(LT)
DRAINAGE AREA	144.3 AC.
DESIGN DISCHARGE(Q50)	160.4 CFS
DESIGN DISCHARGE(Q100)	192.1 CFS
OVERTOPPING ELEV.	772.88
ALLOWABLE HEADWATER ELEV.	774.38
Q50 HEADWATER ELEV.	766.33
Q100 HEADWATER ELEV.	766.92
VELOCITY (Q50)	13.66 FT/S
VELOCITY (Q100)	14.25 FT/S
INLET ELEVATION	762.80
OUTLET ELEVATION	759.84
STANDARD DRAWING NUMBERS	STD-15-9, 10, 35, D-CB-38S
CLASS "A" CONCRETE	95 C.Y.
STEEL BAR REINFORCING	18845 LB.
FOUNDATION FILL MATERIAL	28 C.Y.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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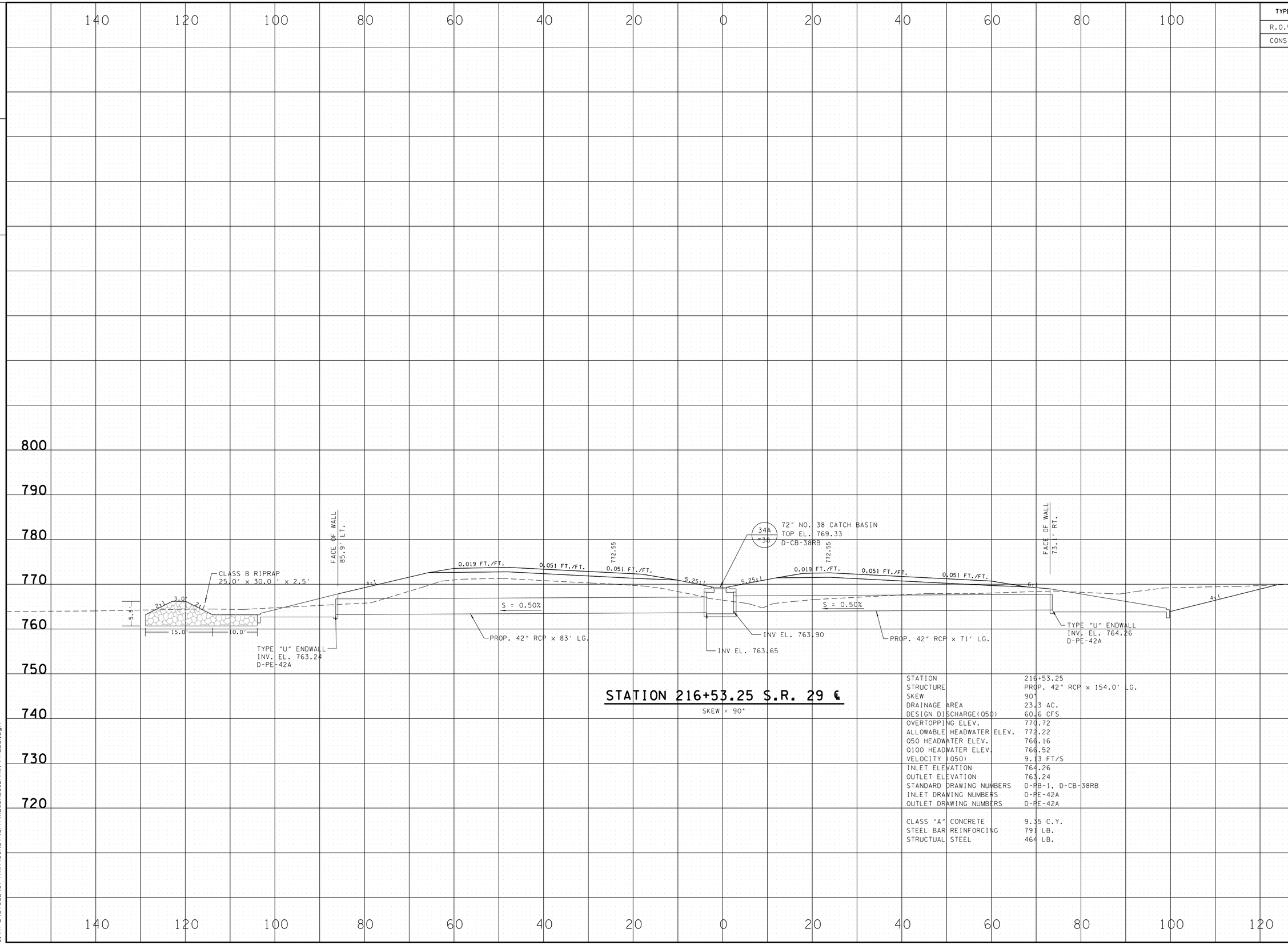
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	54
CONST.	2014	NH-29(84)	46

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 216+53.25 S.R. 29 ℄

SKEW = 90°

STATION	216+53.25
STRUCTURE	PROP. 42" RCP x 154.0' LG.
SKEW	90°
DRAINAGE AREA	23.3 AC.
DESIGN DISCHARGE(Q50)	60.6 CFS
OVERTOPPING ELEV.	770.72
ALLOWABLE HEADWATER ELEV.	772.22
Q50 HEADWATER ELEV.	766.16
Q100 HEADWATER ELEV.	766.52
VELOCITY (Q50)	9.13 FT/S
INLET ELEVATION	764.26
OUTLET ELEVATION	763.24
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38RB
INLET DRAWING NUMBERS	D-PE-42A
OUTLET DRAWING NUMBERS	D-PE-42A
CLASS "A" CONCRETE	9.35 C.Y.
STEEL BAR REINFORCING	791 LB.
STRUCTUAL STEEL	464 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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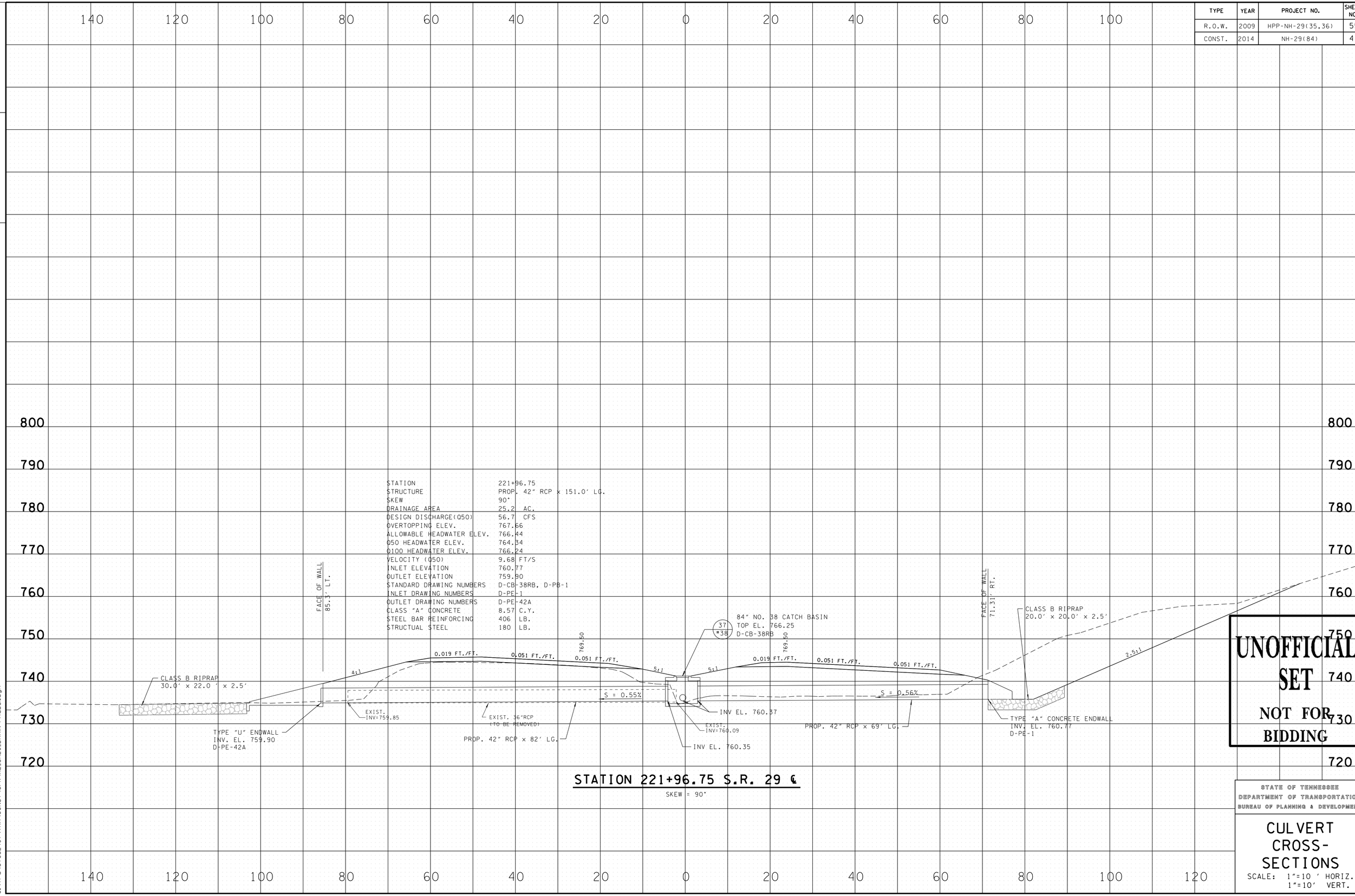
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	55
CONST.	2014	NH-29(84)	47

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

STATION	221+96.75
STRUCTURE	PROP. 42" RCP x 151.0' LG.
SKEW	90°
DRAINAGE AREA	25.2 AC.
DESIGN DISCHARGE(Q50)	56.7 CFS
OVERTOPPING ELEV.	767.66
ALLOWABLE HEADWATER ELEV.	766.44
Q50 HEADWATER ELEV.	764.34
Q100 HEADWATER ELEV.	766.24
VELOCITY (Q50)	9.68 FT/S
INLET ELEVATION	760.77
OUTLET ELEVATION	759.90
STANDARD DRAWING NUMBERS	D-CB-38RB, D-PB-1
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-42A
CLASS "A" CONCRETE	8.57 C.Y.
STEEL BAR REINFORCING	406 LB.
STRUCTUAL STEEL	180 LB.



STATION 221+96.75 S.R. 29 ℄

SKEW = 90°

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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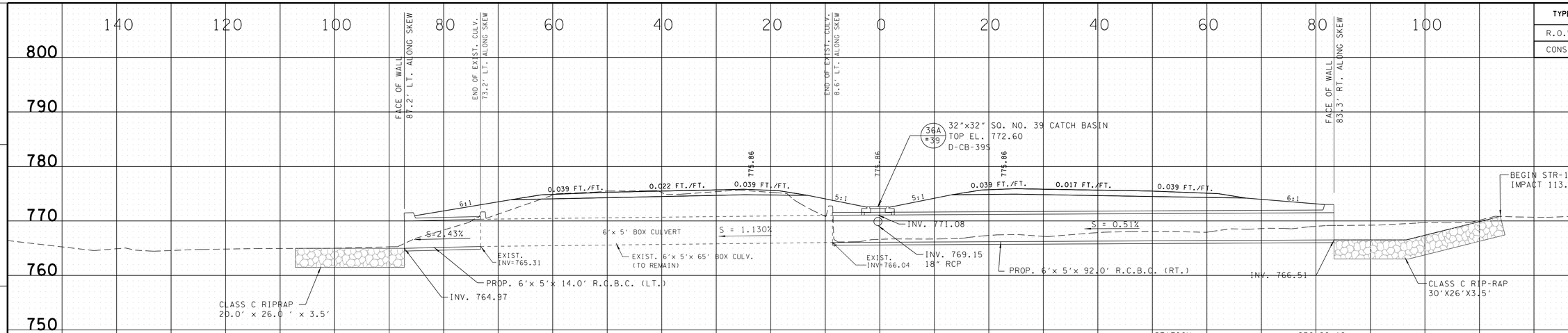
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	56
CONST.	2014	NH-29(84)	48

FILE NO.

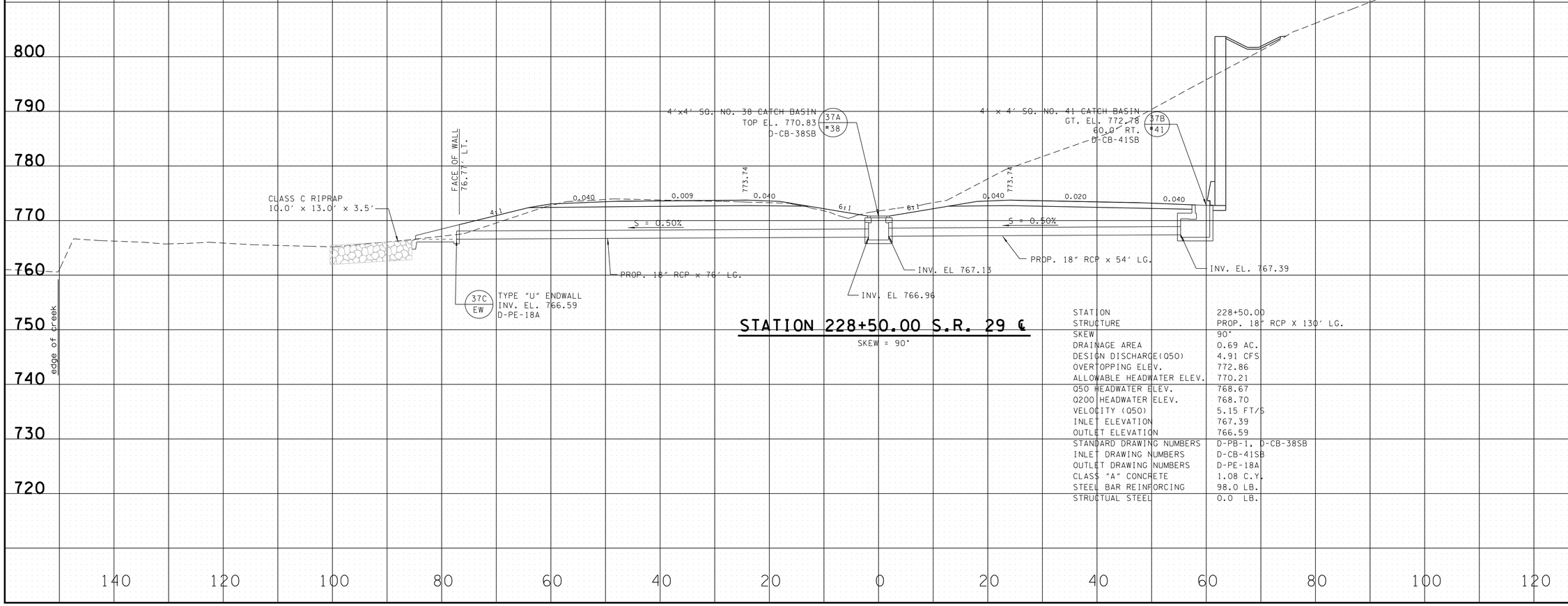
TENNESSEE D.O.T.
DESIGN DIVISION



STATION 230+99.19 S.R. 29 ℄

SKEW = 75°(RT)

STATION	230+99.19
STRUCTURE	PROP. 6' x 5' x 106.0' R.C.B.C.
SKEW	75°(RT)
DRAINAGE AREA	173.7 AC.
DESIGN DISCHARGE(Q50)	180.4 CFS
DESIGN DISCHARGE(Q100)	215.6 CFS
OVERTOPPING ELEV.	773.99
ALLOWABLE HEADWATER ELEV.	775.49
Q50 HEADWATER ELEV.	771.19
Q100 HEADWATER ELEV.	771.87
VELOCITY (Q50)	9.37 FT/S
VELOCITY (Q100)	10.00 FT/S
INLET ELEVATION	766.51
OUTLET ELEVATION	764.97
STANDARD DRAWING NUMBERS	STD-15-9, 10, 35, D-CB-39S
CLASS "A" CONCRETE	76 C.Y.
STEEL BAR REINFORCING	15063 LB.
FOUNDATION FILL MATERIAL	22 C.Y.



STATION 228+50.00 S.R. 29 ℄

SKEW = 90°

STATION	228+50.00
STRUCTURE	PROP. 18" RCP X 130' LG.
SKEW	90°
DRAINAGE AREA	0.69 AC.
DESIGN DISCHARGE(Q50)	4.91 CFS
OVERTOPPING ELEV.	772.86
ALLOWABLE HEADWATER ELEV.	770.21
Q50 HEADWATER ELEV.	768.67
Q200 HEADWATER ELEV.	768.70
VELOCITY (Q50)	5.15 FT/S
INLET ELEVATION	767.39
OUTLET ELEVATION	766.59
STANDARD DRAWING NUMBERS	D-PB-1, D-CB-38SB
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-18A
CLASS "A" CONCRETE	1.08 C.Y.
STEEL BAR REINFORCING	98.0 LB.
STRUCTUAL STEEL	0.0 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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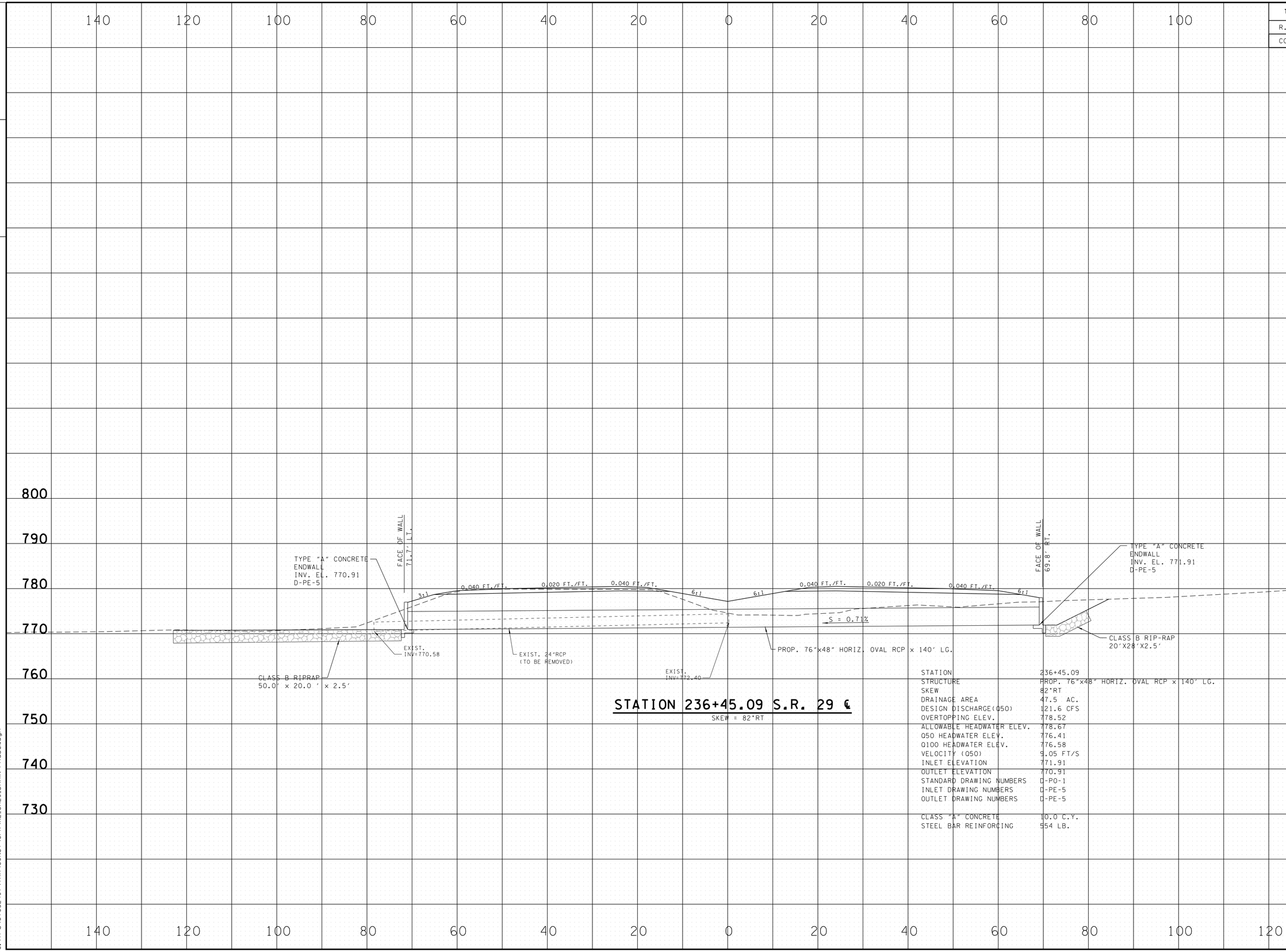
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	57
CONST.	2014	NH-29(84)	49

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION	236+45.09
STRUCTURE	PROP. 76"x48" HORIZ. OVAL RCP x 140' LG.
SKEW	82°RT
DRAINAGE AREA	47.5 AC.
DESIGN DISCHARGE(Q50)	121.6 CFS
OVERTOPPING ELEV.	778.52
ALLOWABLE HEADWATER ELEV.	778.67
Q50 HEADWATER ELEV.	776.41
Q100 HEADWATER ELEV.	776.58
VELOCITY (Q50)	9.05 FT/S
INLET ELEVATION	771.91
OUTLET ELEVATION	770.91
STANDARD DRAWING NUMBERS	D-PO-1
INLET DRAWING NUMBERS	D-PE-5
OUTLET DRAWING NUMBERS	D-PE-5
CLASS "A" CONCRETE	10.0 C.Y.
STEEL BAR REINFORCING	554 LB.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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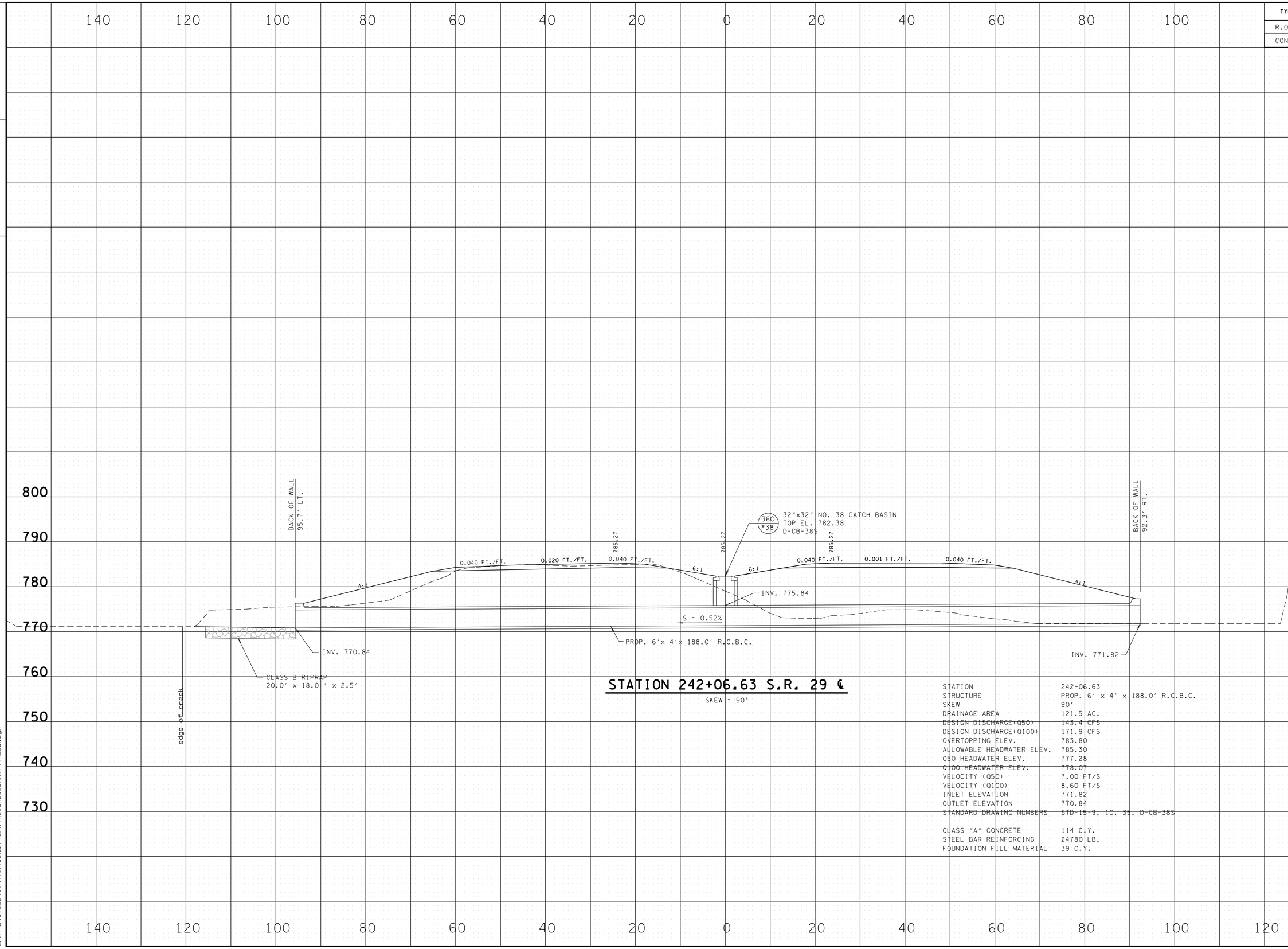
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	58
CONST.	2014	NH-29(84)	50

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 242+06.63 S.R. 29 ℄

SKEW = 90°

STATION	242+06.63
STRUCTURE	PROP. 6' x 4' x 188.0' R.C.B.C.
SKEW	90°
DRAINAGE AREA	121.5 AC.
DESIGN DISCHARGE(Q50)	143.4 CFS
DESIGN DISCHARGE(Q100)	171.9 CFS
OVERTOPPING ELEV.	783.80
ALLOWABLE HEADWATER ELEV.	785.30
Q50 HEADWATER ELEV.	777.28
Q100 HEADWATER ELEV.	778.07
VELOCITY (Q50)	7.00 FT/S
VELOCITY (Q100)	8.60 FT/S
INLET ELEVATION	771.82
OUTLET ELEVATION	770.84
STANDARD DRAWING NUMBERS	STD-15-9, 10, 35, D-CB-38S
CLASS "A" CONCRETE	114 C.Y.
STEEL BAR REINFORCING	24780 LB.
FOUNDATION FILL MATERIAL	39 C.Y.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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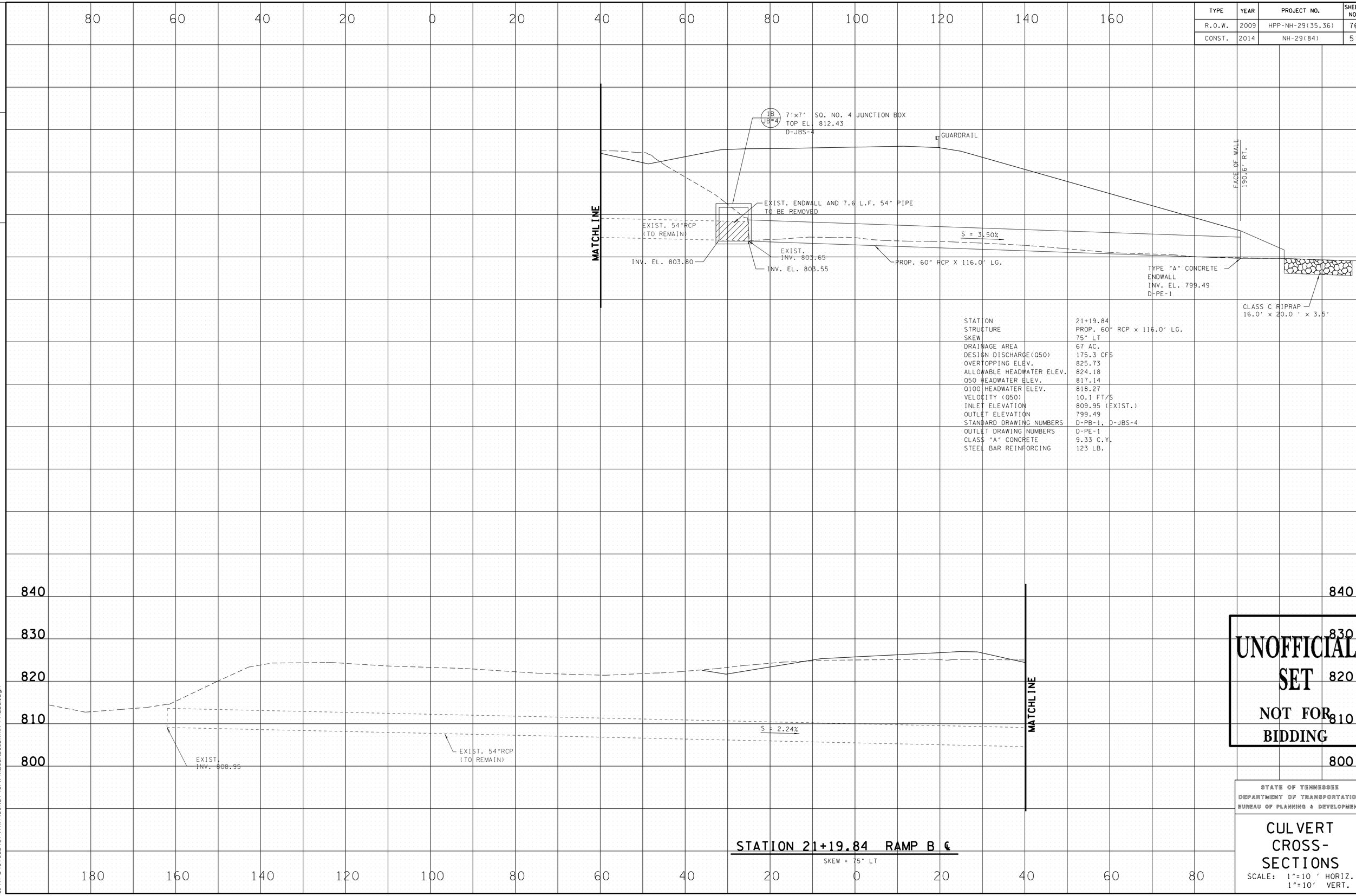
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	76
CONST.	2014	NH-29(84)	51

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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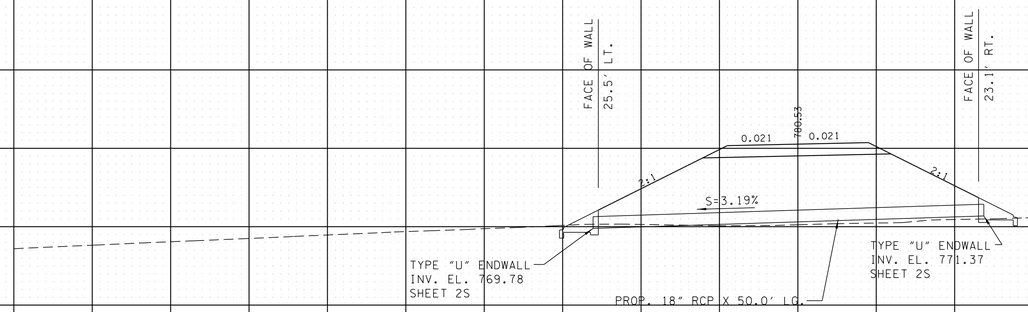
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	77
CONST.	2014	NH-29(84)	52

TENNESSEE D.O.T.
DESIGN DIVISION

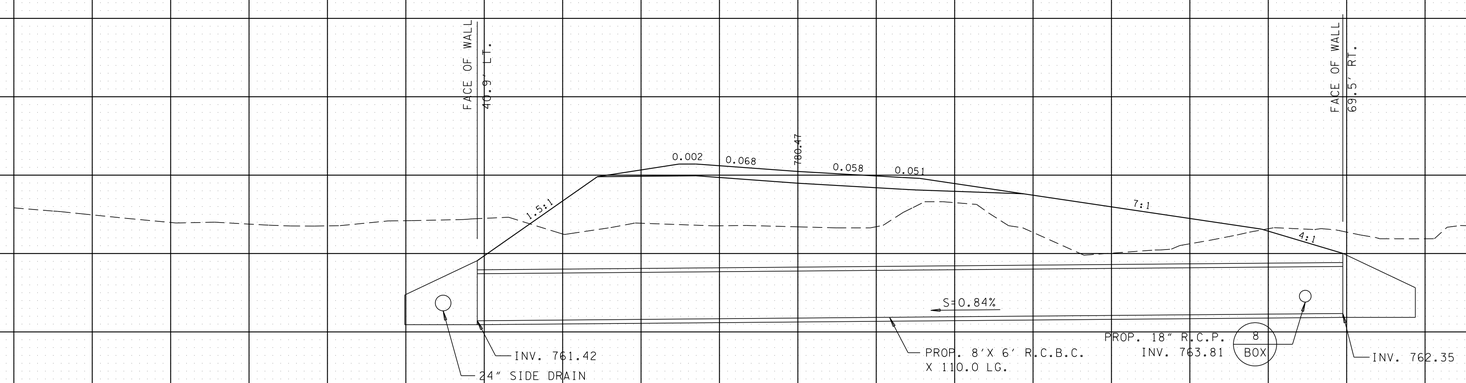
FILE NO.



STATION 39+06.90 ROCK BRIDGE ROAD (LT) ℄

SKEW = 85°RT

STATION	39+06.90
STRUCTURE	PROP. 18" RCP x 50.0' LG.
SKEW	85° RT
DRAINAGE AREA	4.0 AC.
DESIGN DISCHARGE(Q50)	6.0 CFS
OVERTOPPING ELEV.	779.29
ALLOWABLE HEADWATER ELEV.	780.79
Q50 HEADWATER ELEV.	773.35
Q100 HEADWATER ELEV.	773.42
VELOCITY (Q50)	4.25 FT/S
INLET ELEVATION	771.37
OUTLET ELEVATION	769.78
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	SEE SHEET 2S
OUTLET DRAWING NUMBERS	SEE SHEET 2S
CLASS "A" CONCRETE	2.46 C.Y.
STEEL BAR REINFORCING	40 LB.



STATION 41+16.00 ROCK BRIDGE ROAD (RT) ℄

SKEW = 60° RT

STATION	41+16.00
STRUCTURE	PROP. 8'x 6'x 110.0' R.C.B.C.
SKEW	60°RT
DRAINAGE AREA	244.5 AC.
DESIGN DISCHARGE(Q50)	208.4 CFS
OVERTOPPING ELEV.	778.20
ALLOWABLE HEADWATER ELEV.	779.70
Q50 HEADWATER ELEV.	767.90
Q100 HEADWATER ELEV.	768.11
VELOCITY (Q50)	4.34 FT/S
INLET ELEVATION	762.35
OUTLET ELEVATION	761.42
STANDARD DRAWING NUMBERS	STD-15-9, 11, 37
CLASS "A" CONCRETE	116 C.Y.
STEEL BAR REINFORCING	23466 LB.
FOUNDATION FILL MATERIAL	27 C.Y.

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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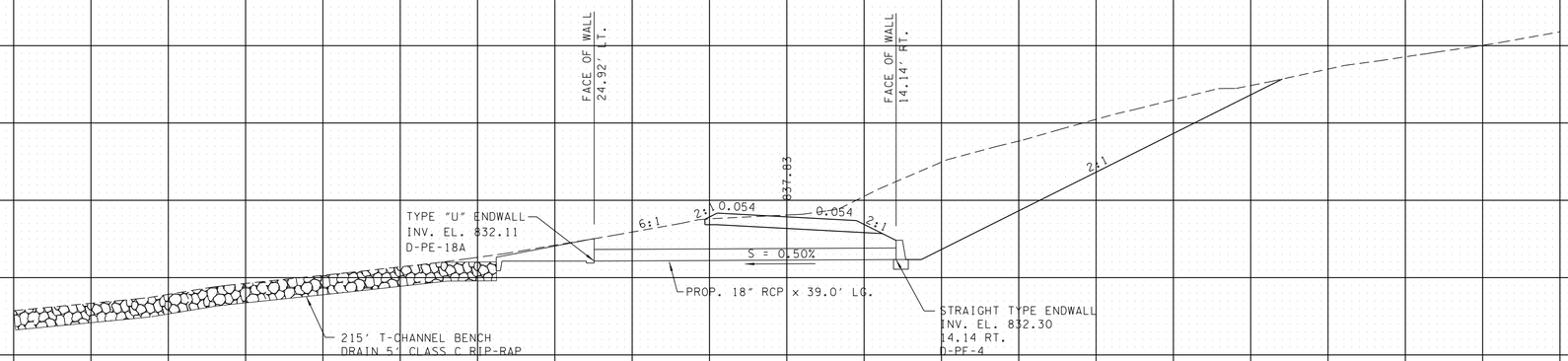
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	78
CONST.	2014	NH-29(84)	53

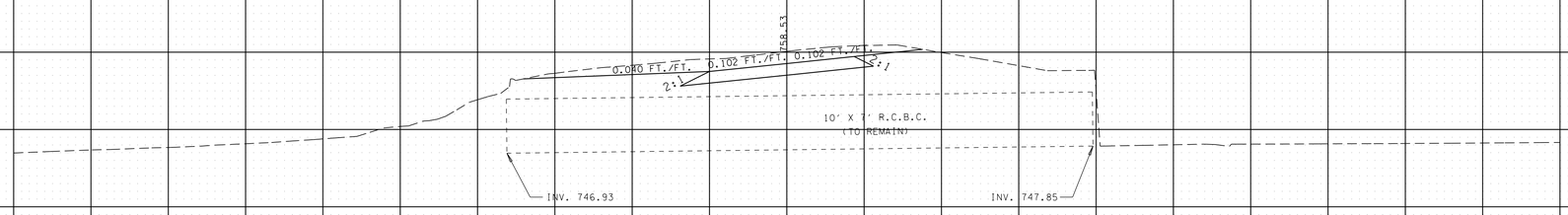
2/21/2012: REMOVED CULVERT SECTION AT SANDERS LANE STA. 45+35.05.



STATION	8+00.00
STRUCTURE	PROP. 18" RCP x 39.0' LG.
SKEW	90°
DRAINAGE AREA	3.12 AC.
DESIGN DISCHARGE(Q50)	9.98 CFS
OVERTOPPING ELEV.	838.31
ALLOWABLE HEADWATER ELEV.	835.66
Q50 HEADWATER ELEV.	828.92
Q100 HEADWATER ELEV.	829.20
VELOCITY (Q50)	6.51 FT/S
INLET ELEVATION	832.30
OUTLET ELEVATION	832.11
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-PE-4
OUTLET DRAWING NUMBERS	D-PE-18A
CLASS "A" CONCRETE	2.65 C.Y.
STEEL BAR REINFORCING	177 LB.

STATION 8+00.00 TEDDER LANE ℄

SKEW = 90°



STATION 46+55.84 SANDERS LANE ℄

SKEW = 51°25'31" RT

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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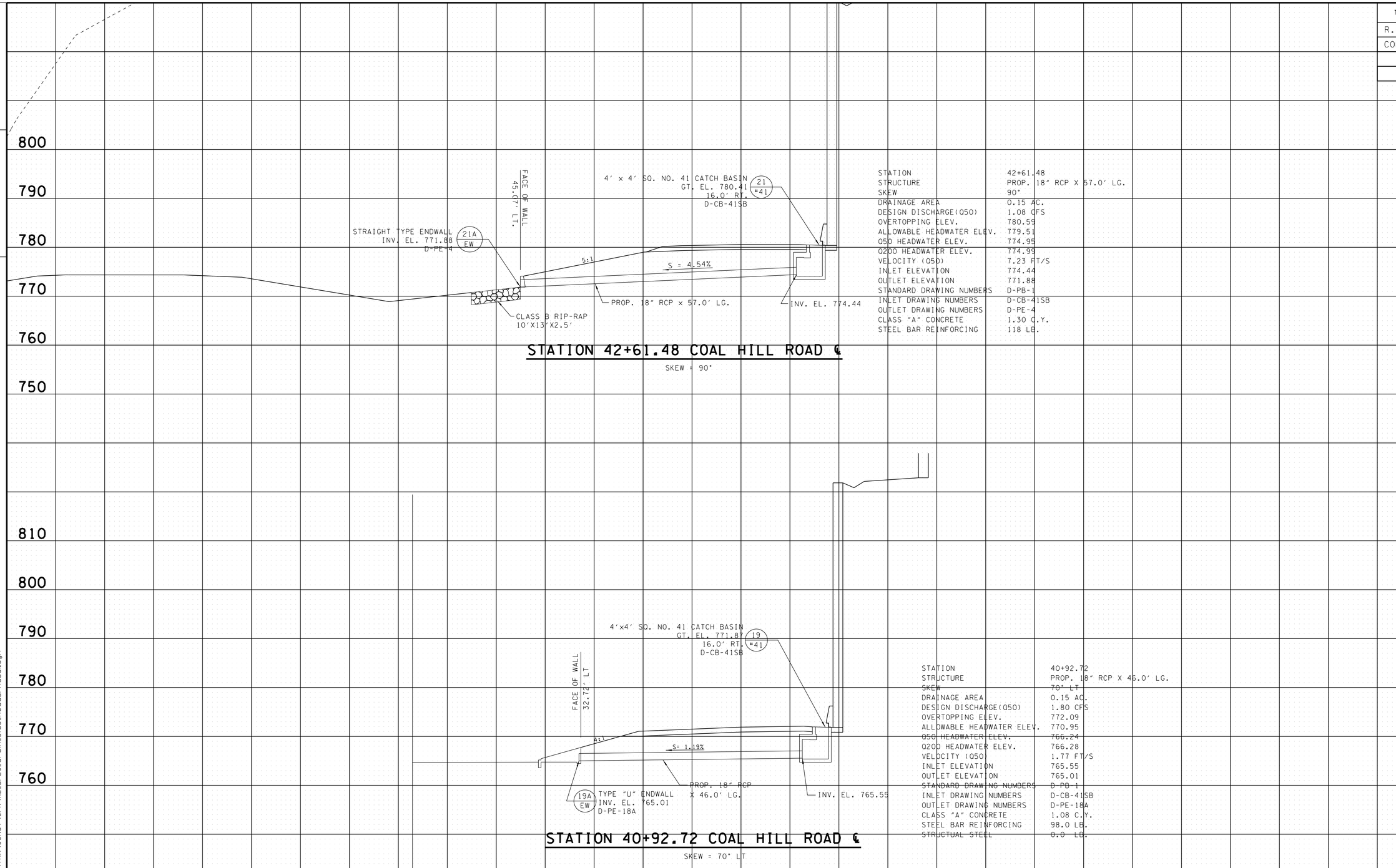
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	79
CONST.	2014	NH-29(84)	54

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION	42+61.48
STRUCTURE	PROP. 18" RCP X 57.0' LG.
SKEW	90°
DRAINAGE AREA	0.15 AC.
DESIGN DISCHARGE(Q50)	1.08 CFS
OVERTOPPING ELEV.	780.59
ALLOWABLE HEADWATER ELEV.	779.51
Q50 HEADWATER ELEV.	774.95
Q200 HEADWATER ELEV.	774.99
VELOCITY (Q50)	7.23 FT/S
INLET ELEVATION	774.44
OUTLET ELEVATION	771.88
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-4
CLASS "A" CONCRETE	1.30 C.Y.
STEEL BAR REINFORCING	118 LB.

STATION	40+92.72
STRUCTURE	PROP. 18" RCP X 46.0' LG.
SKEW	70° LT
DRAINAGE AREA	0.15 AC.
DESIGN DISCHARGE(Q50)	1.80 CFS
OVERTOPPING ELEV.	772.09
ALLOWABLE HEADWATER ELEV.	770.95
Q50 HEADWATER ELEV.	766.24
Q200 HEADWATER ELEV.	766.28
VELOCITY (Q50)	1.77 FT/S
INLET ELEVATION	765.55
OUTLET ELEVATION	765.01
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-CB-41SB
OUTLET DRAWING NUMBERS	D-PE-18A
CLASS "A" CONCRETE	1.08 C.Y.
STEEL BAR REINFORCING	98.0 LB.
STRUCTUAL STEEL	0.0 LB.

SEE SR-29
CROSS SECTIONS FOR
CONTINUATION OF SLOPE

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

UNOFFICIAL SET
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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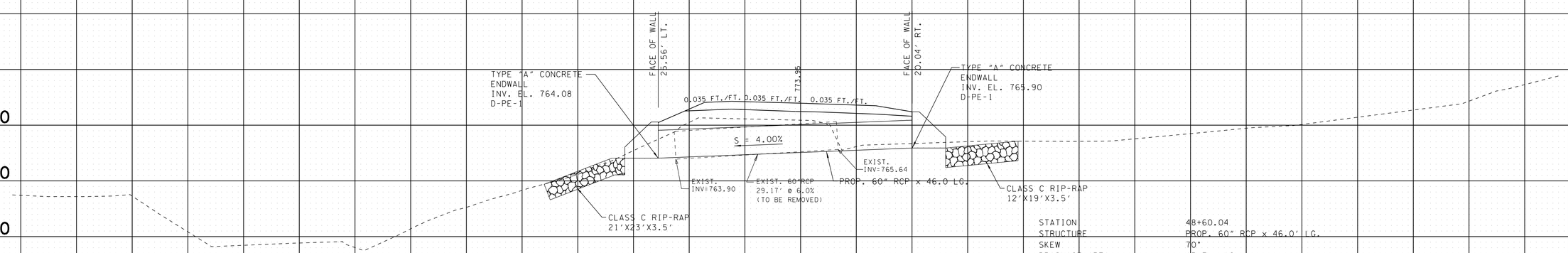
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	80
CONST.	2014	NH-29(84)	55

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



STATION 48+60.04 COAL HILL ROAD ℄

SKEW = 70° LT

STATION	48+60.04
STRUCTURE	PROP. 60" RCP x 46.0' LG.
SKEW	70°
DRAINAGE AREA	13.7 AC.
DESIGN DISCHARGE(Q50)	43.74 CFS
OVERTOPPING ELEV.	771.74
ALLOWABLE HEADWATER ELEV.	773.47
Q50 HEADWATER ELEV.	769.06
Q100 HEADWATER ELEV.	769.15
VELOCITY (Q50)	14.78 FT/S
INLET ELEVATION	765.90
OUTLET ELEVATION	764.08
STANDARD DRAWING NUMBERS	D-PB-1
INLET DRAWING NUMBERS	D-PE-1
OUTLET DRAWING NUMBERS	D-PE-1
CLASS "A" CONCRETE	18.14 C.Y.
STEEL BAR REINFORCING	240 LB.

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

CULVERT CROSS-SECTIONS

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

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	81
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	56

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

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

STREAM/WETLAND

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

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

NPDES

(3) 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.

(4) 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.

(5) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:

A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

(6) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.

(7) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

(8) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP.

(9) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

UTILITY RELOCATION

(10) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(11) 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

(12) 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).

(13) 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.

(14) 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.

(15) 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.

(16) 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.

(17) 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.

(18) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).

(19) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT PROJECT ENGINEER BEFORE COMMENCING WORK.

LITTER, DEBRIS, WASTE, PETROLEUM

(22) THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND COMPREHENSIVE EROSION PREVENTION AND SEDIMENT CONTROL PLAN TO PREVENT ROADWAY AND/OR CONSTRUCTION SEDIMENT OR DEBRIS AND ANY PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, PAINTS OR COATINGS ETC. FROM FALLING ONTO THE RAILROAD'S RIGHTS-OF-WAY AND/OR FROM ENTERING THE DRAINAGE DITCHES OR DRAINAGE STRUCTURES OF THE RAILROAD, AND ANY SEDIMENT OR DEBRIS OR PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, ETC. THAT DO ENTER SUCH DRAINAGE AREAS OF THE RAILROAD'S RIGHTS-OF-WAY ARE TO BE REMOVED IN ACCORDANCE WITH RULES SET FORTH BY SOUTHERN RAILROAD AND AT THE CONTRACTOR'S EXPENSE.

POLYACRYLAMIDE

(23) ENSURE POLYACRYLAMIDE (PAM) EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE AND MEET THE FOLLOWING REQUIREMENTS:

(24) MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.

(25) HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE.

(26) MIXTURE IS NON-COMBUSTIBLE.

(27) CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.

(28) PAM SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET (MSDS) REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USES CONFORMING TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.

(29) ALL VENDERS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES THAT THE PAM, PAM MIX, PAM BLEND EXHIBITS ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPA REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF PAM ARE NOT ALLOWED FOR UNDER THIS GUIDELINE DUE TO THEIR HIGH LEVELS OF TOXICITY TO AQUATIC ORGANISMS. PAM EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUR TO SURFACTANT TOXICITY. CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR USE ON THIS PROJECT.

(30) ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS $DEMONSTRATING THAT A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.

(31) EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF A TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS.

(32) PAM POWDER MAY BE APPLIED BY A HAND SPREADER OR A MECHANICAL SPREADER. MIXING PAM POWDER WITH DRY SILICA SAND WILL AID IN SPREADING.

(33) PREMIXING OF PAM POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.

(34) PAM LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS.

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EROSION PREVENTION AND SEDIMENT CONTROL NOTES

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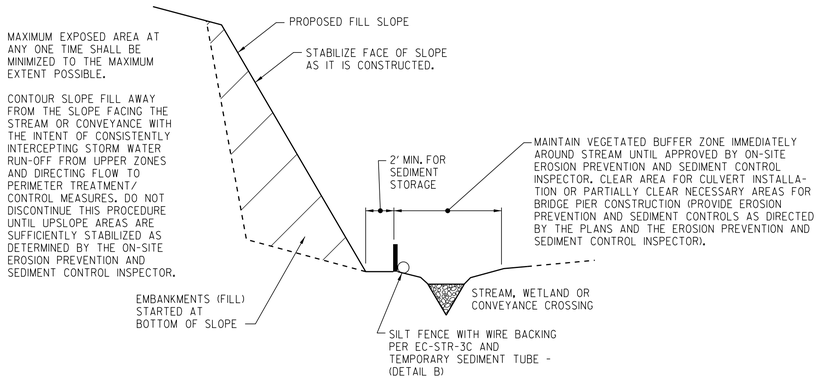
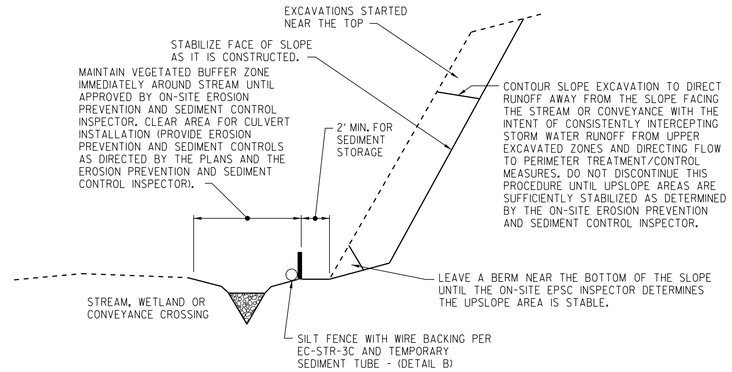
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	81A
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	57

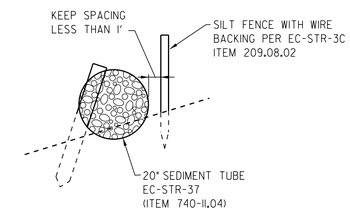


FILL SECTION



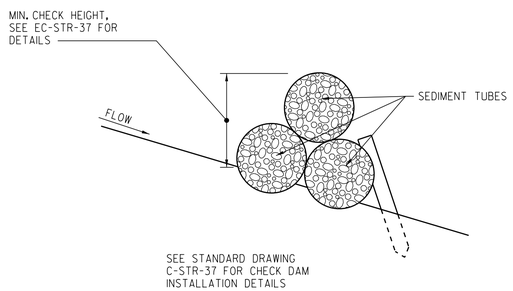
CUT SECTION

DETAIL A
SCALE: N.T.S.



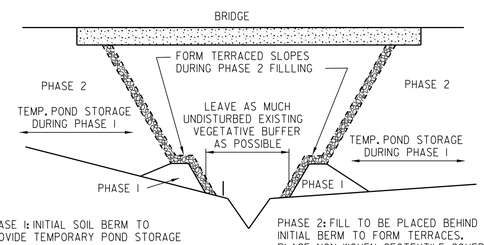
SILT FENCE WITH WIRE BACKING WITH SEDIMENT TUBE

DETAIL B
SCALE: N.T.S.



TRIPLE STACKED SEDIMENT TUBES OR TEMPORARY SEDIMENT TUBE CHECK DAM IN DITCH

DETAIL C
SCALE: N.T.S.



PHASE 1: INITIAL SOIL BERM TO PROVIDE TEMPORARY POND STORAGE BEHIND BERM. PLACE NON-WOVEN GEOTEXTILE COVERED BY CLASS A-1 RIPRAP ON FINISHED SLOPE FACING STREAM IMMEDIATELY AFTER SLOPE GRADING IS FINISHED.

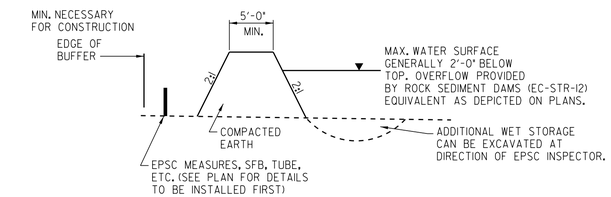
PHASE 2: FILL TO BE PLACED BEHIND INITIAL BERM TO FORM TERRACES. PLACE NON-WOVEN GEOTEXTILE COVERED BY RIPRAP ON FINISHED SLOPE FACING STREAM AS THE SLOPE IS CONSTRUCTED (SEE BRIDGE PLANS FOR ADDITIONAL DETAILS).

EROSION CONTROL FOR FILL BANKS AT PROPOSED BRIDGE CROSSINGS

DETAIL D
SCALE: N.T.S.

NOTES:
1. DIVERSION BERMS ARE TO BE UTILIZED FOR SEDIMENT PONDS OR DIVERSIONS FOR DIRECTING RUNOFF TO POND OR TREATMENT AREA.
2. BEGIN BY DELINEATING THE BUFFER ZONE AND INSTALLING EPSC MEASURES ALONG BUFFER. ONCE INSTALLED, THE BERM CAN BE CONSTRUCTED.
3. EARTH CORE TO BE PAID FOR AS 203-01ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).
4. UNLESS STATED OTHERWISE, THE HEIGHT OF THE DIVERSION BERM SHALL BE 5 FEET MINIMUM.
5. SEE EC-STR-27 FOR ADDITIONAL DETAILS.

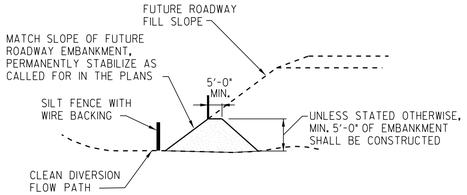
BERM SLOPES TO BE COMPACTED AND TRACKED. AT A MINIMUM, THE SLOPES SHOULD BE TEMPORARY SEEDED AND MULCHED AT THE DIRECTION OF EPSC INSPECTOR. ADDITIONAL MEASURES SUCH AS RIPRAP MAY BE REQUIRED FOR STABILIZATION.



BERMS

DIVERSION BERMS

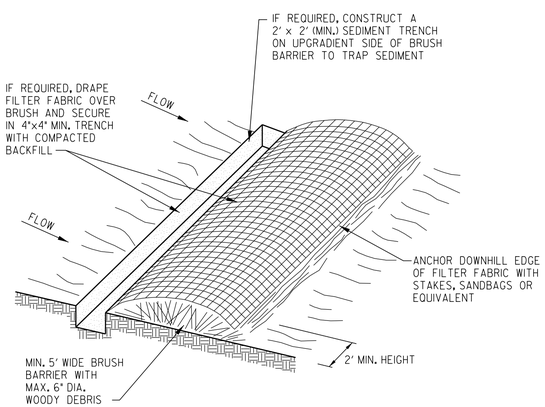
NOTES:
1. EMBANKMENT BERMS SHOULD BE CONSTRUCTED AS SHOWN IN THE PLANS TO CREATE CLEAN DIVERSION.
2. EARTH EMBANKMENT TO BE PAID FOR AS 203-01ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).



EMBANKMENT BERMS

DIVERSION BERMS

DETAIL E
SCALE: N.T.S.

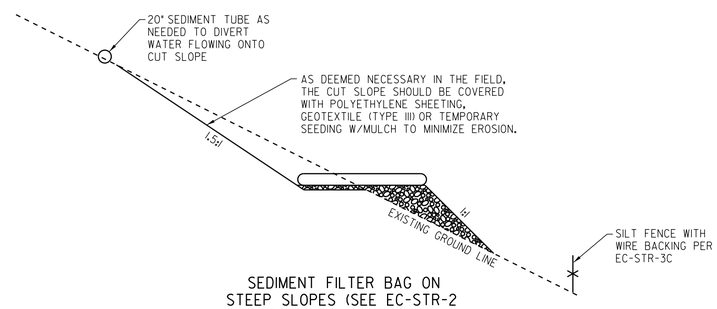


BRUSH BARRIER

DETAIL F
SCALE: N.T.S.

NOTES:

1. BRUSH BARRIERS MAY BE USED DOWNSLOPE OF ALL DISTURBED AREAS OF LESS THAN ONE-QUARTER ACRE.
2. BRUSH BARRIERS ARE NOT INTENDED TO TREAT CONCENTRATED FLOWS, NOR ARE THEY INTENDED TO TREAT SUBSTANTIAL AMOUNTS OF OVERLAND FLOW. ANY CONCENTRATED FLOWS MUST BE CONVEYED THROUGH A TEMPORARY DRAINAGE SYSTEM TO A SEDIMENT STORAGE AREA OR DOWNGRADIENT EPSC MEASURES.
3. BRUSH BARRIERS SHOULD ONLY BE INSTALLED PARALLEL ALONG THE CONTOURS.
4. HEIGHT 2 FEET (MIN.) TO 5 FEET (MAX.).
5. WIDTH 5 FEET AT BASE (MIN.) TO 15 FEET (MAX.).
6. FILTER FABRIC (GEOTEXTILE) MAY BE ANCHORED OVER THE BRUSH BERM TO ENHANCE THE FILTRATION ABILITY OF THE BARRIER. FILTER FABRIC SHALL BE INCLUDED IN THE COST OT THE BRUSH BARRIER.
7. CHIPPED SITE VEGETATION OR WOOD-BASED MULCH CAN BE USED TO CONSTRUCT BRUSH BARRIERS.
8. THERE SHALL BE NO SIGNS OF EROSION OR CONCENTRATED RUNOFF UNDER OR AROUND THE BARRIER. IF CONCENTRATED FLOWS ARE BYPASSING THE BARRIER, IT MUST BE EXPANDED OR AUGMENTED BY TOED-IN FILTER FABRIC.
9. BRUSH BARRIERS SHALL BE CONSTRUCTED BY USING ON-SITE PROJECT VEGETATION THAT CONSIST OF WOODY DEBRIS WITH A MAXIMUM DIAMETER OF 6 INCHES.
10. ALL ITEMS NECESSARY TO CONSTRUCT BRUSH BARRIERS SHALL BE PAID FOR UNDER PAY ITEM NO. 209-04. INCLUDES COST FOR REMOVAL.



SEDIMENT FILTER BAG ON STEEP SLOPES (SEE EC-STR-2 FOR ADDITIONAL DETAILS)

DETAIL G
SCALE: N.T.S.

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EROSION PREVENTION AND SEDIMENT CONTROL DETAILS

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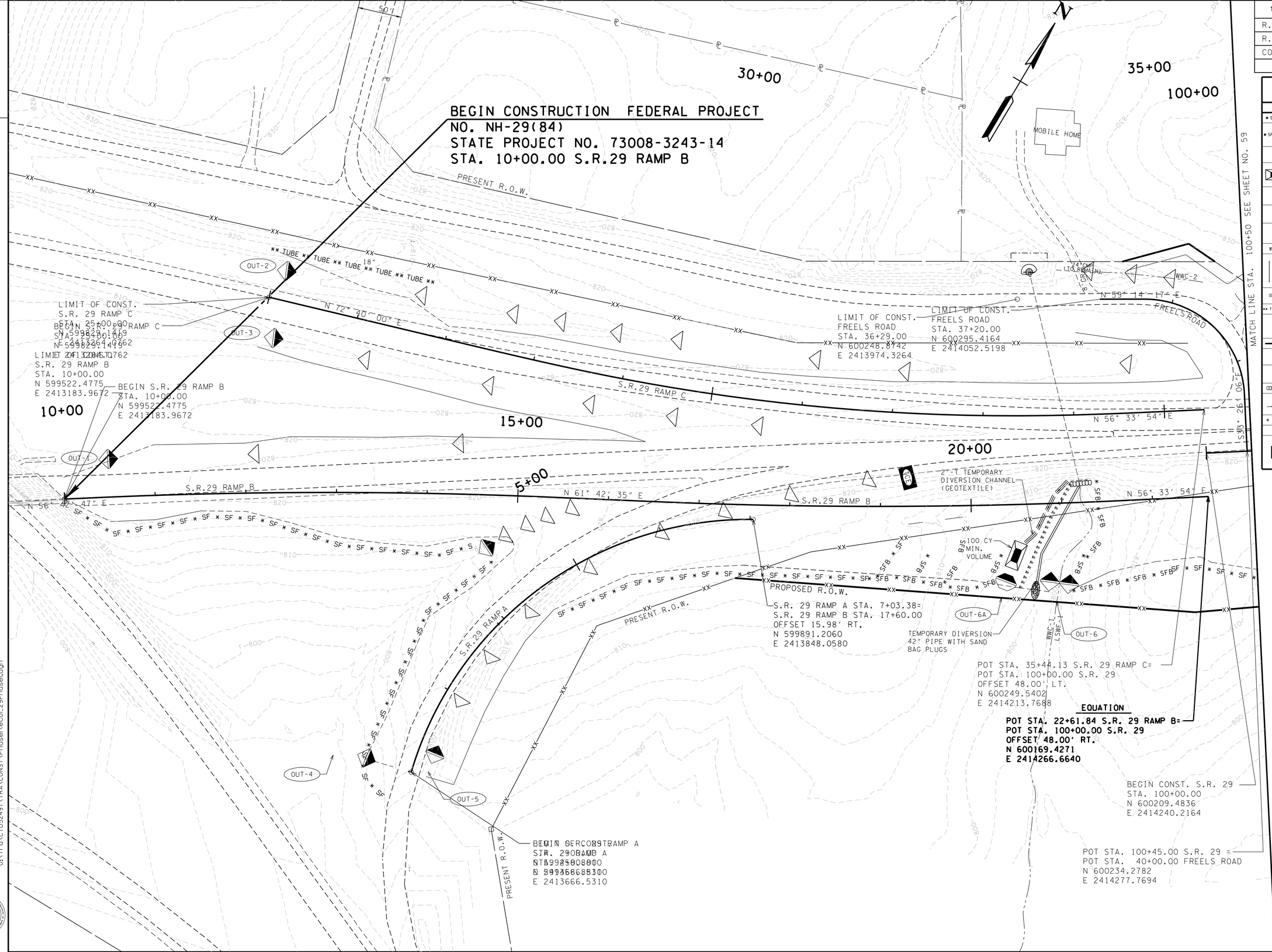
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	81B
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	58



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
* SF * SF * SF *	SILT FENCE	EC-STR-3B
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM	EC-STR-7
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	CULVERT PROTECTION (TYPE 2)	EC-STR-11A
	DIVERSION/EMBANKMENT BERM	DETAIL E
	TEMPORARY BERM	EC-STR-27
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	TEMPORARY DIVERSION CHANNEL	ESC-STR-31
** TUBE ** TUBE **	SEDIMENT TUBE	EC-STR-37
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
MFB	MULCH FILTER BERM	EC-STR-35
	TEMPORARY SLOPE DRAIN WITH CLASS A-1 RIP-RAP	EC-STR-27
	ROCK SEDIMENT DAM	EC-STR-12
	SAND BAG BERM/DAM	EC-STR-32
	TEMPORARY DIVERSION CULVERT	EC-STR-32
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1
	BRUSH BARRIER	DETAIL F
TCC	TEMPORARY CULVERT CROSSING	EC-STR-25

PHASE 1 EROSION CONTROL SHOULD BE USED FOR CLEARING / GRUBBING AND TEMPORARY DIVERSIONS

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 10+00 TO STA. 100+50

SCALE: 1"= 50'

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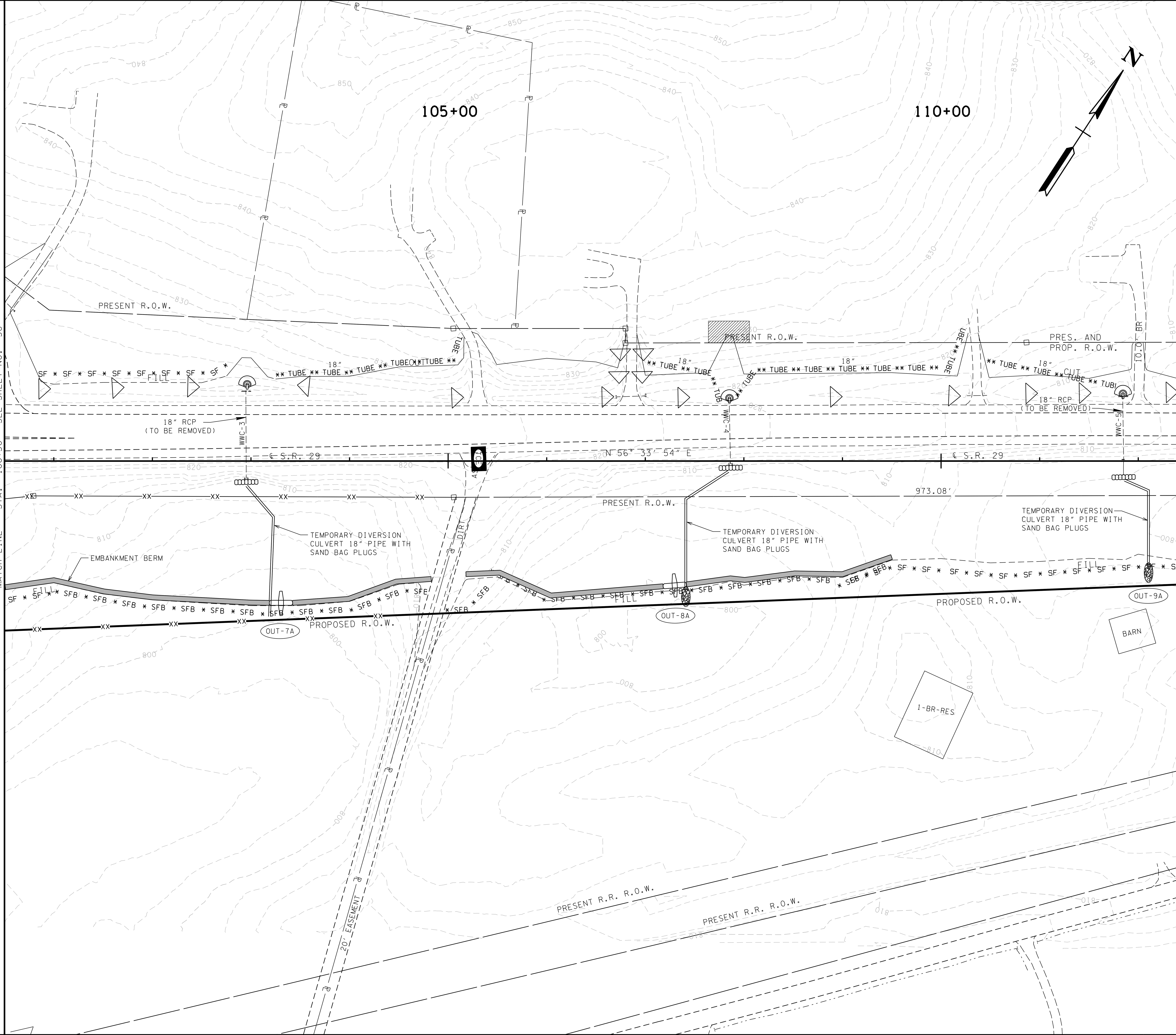
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	82
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	59



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 100+50 TO STA. 112+50

SCALE: 1"= 50'

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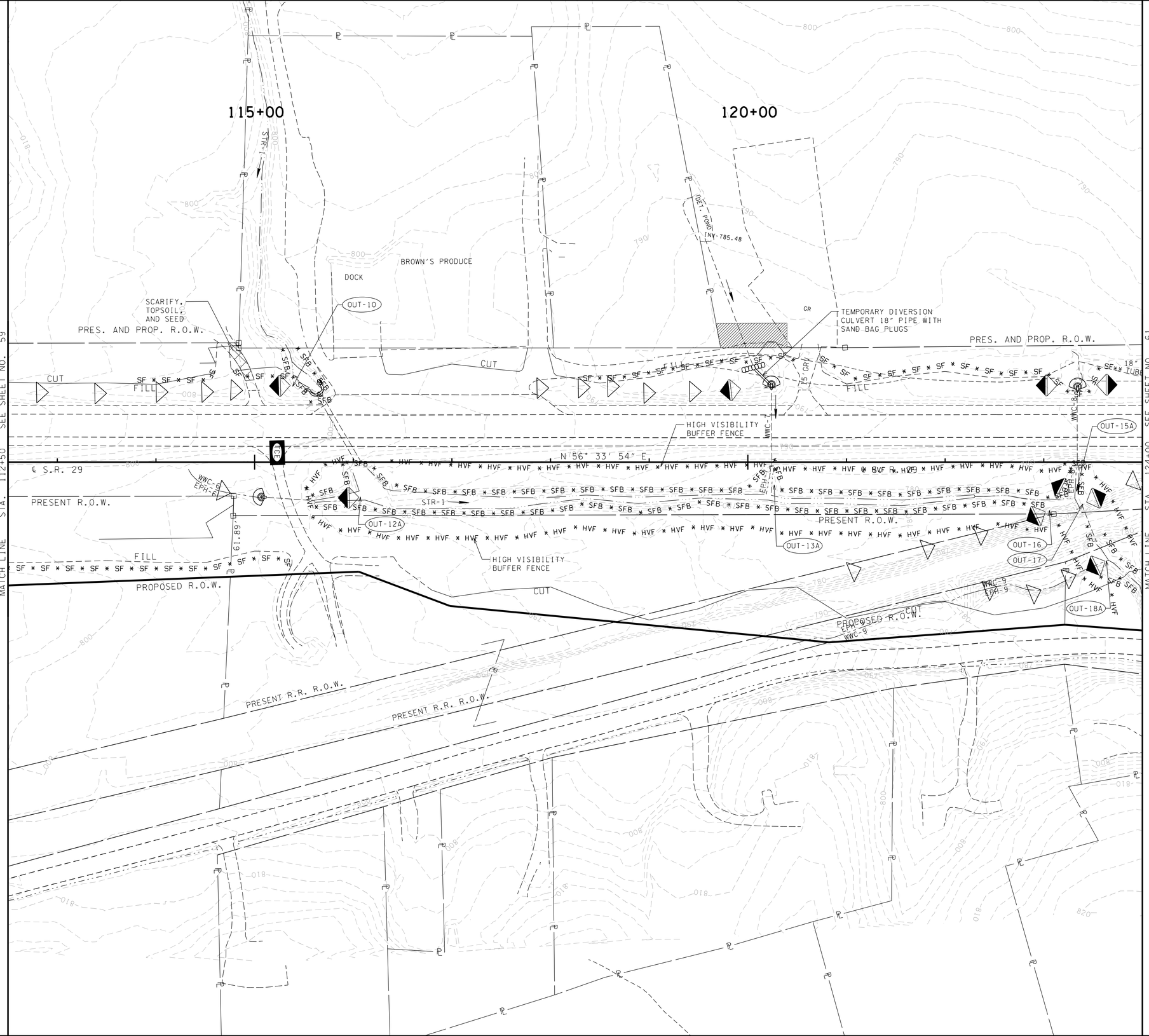
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	83
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	60



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 112+50 TO STA. 124+00
SCALE: 1"= 50'

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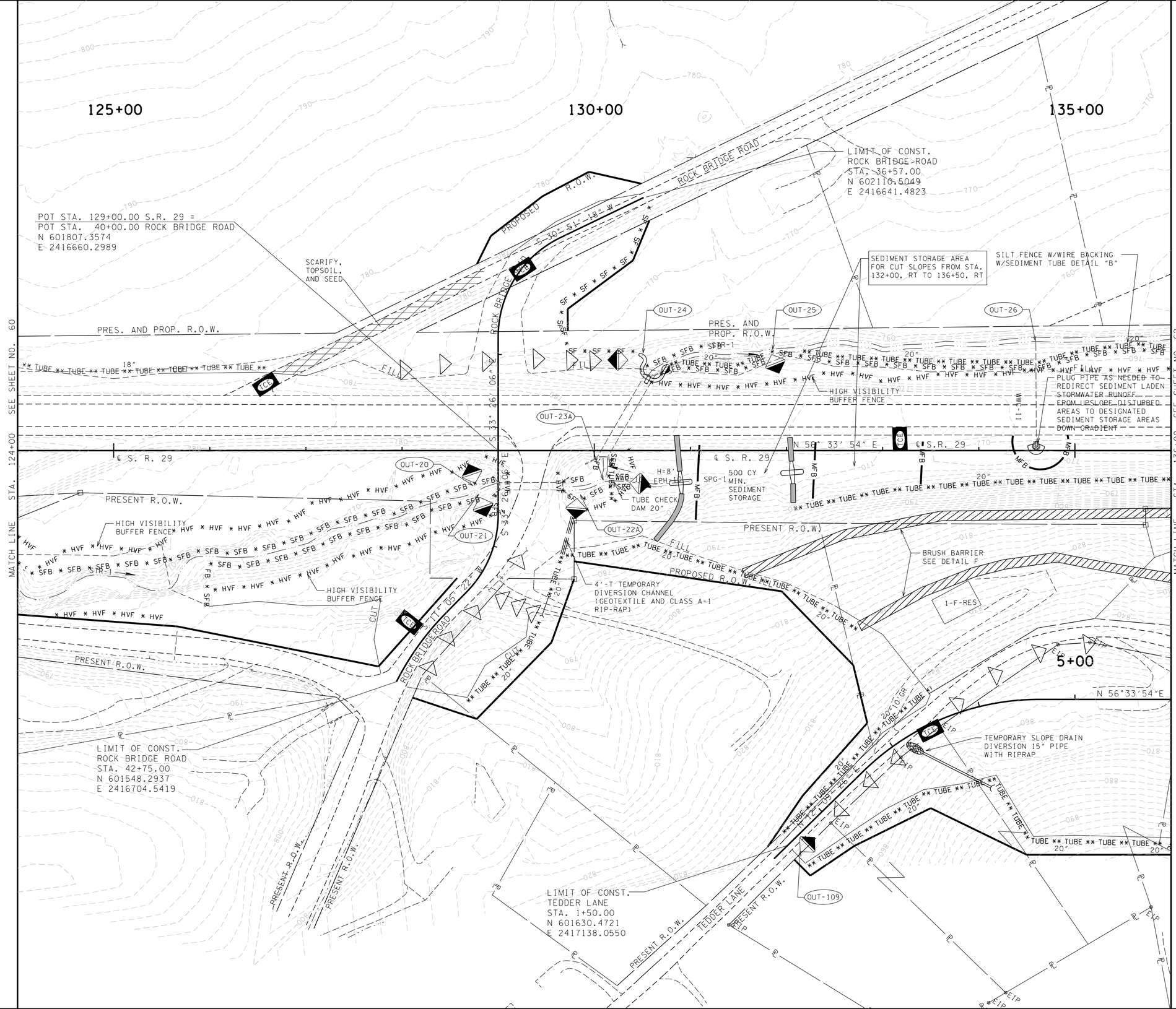
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	84
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	61

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



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 124+00 TO STA. 136+00

SCALE: 1"= 50'

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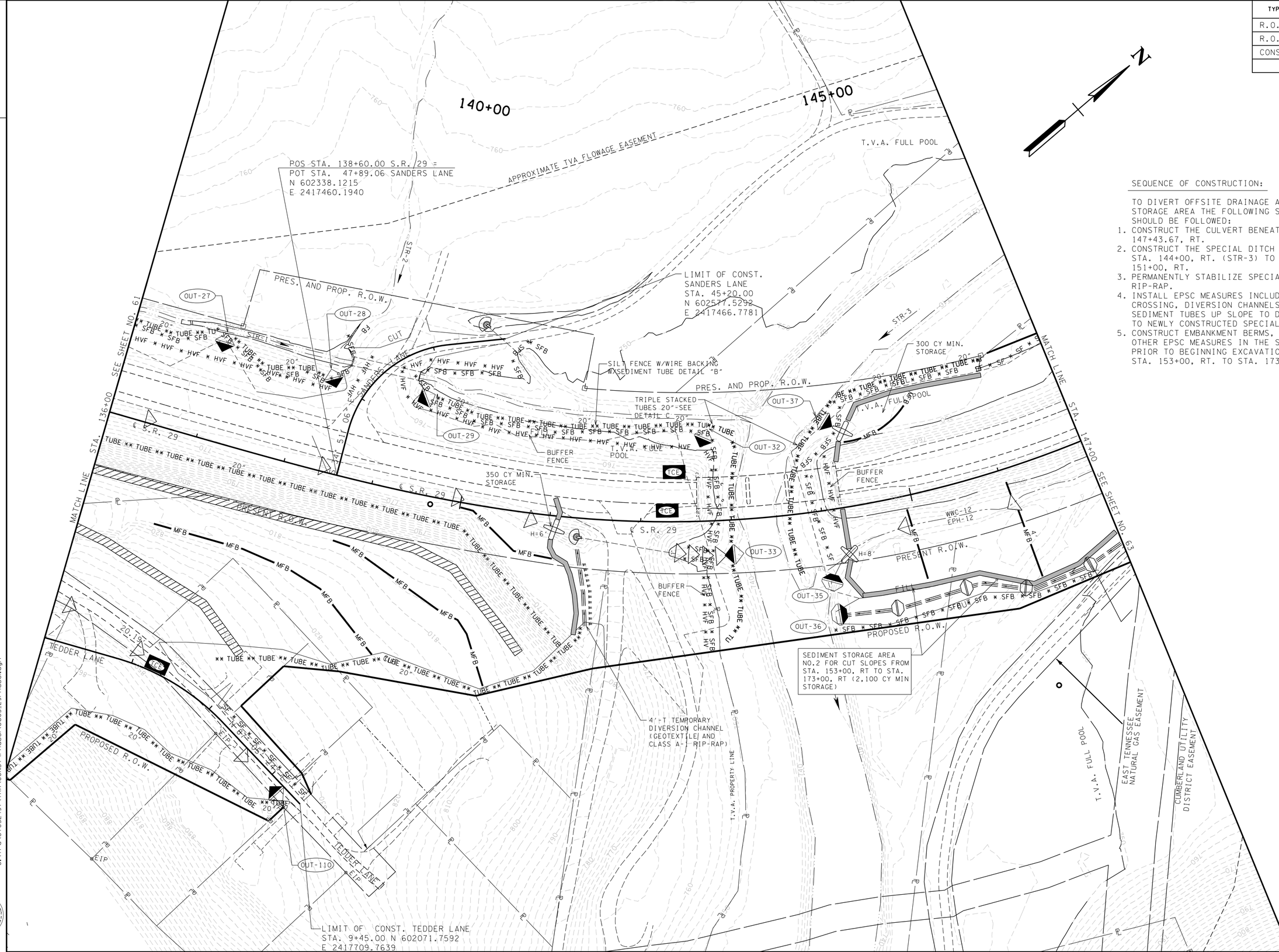
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	85
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	62



SEQUENCE OF CONSTRUCTION:

TO DIVERT OFFSITE DRAINAGE AROUND THE SEDIMENT STORAGE AREA THE FOLLOWING SEQUENCE OF CONSTRUCTION SHOULD BE FOLLOWED:

1. CONSTRUCT THE CULVERT BENEATH THE DRIVEWAY AT STA. 147+43.67, RT.
2. CONSTRUCT THE SPECIAL DITCH ON THE RIGHT SIDE FROM STA. 144+00, RT. (STR-3) TO APPROXIMATELY STA. 151+00, RT.
3. PERMANENTLY STABILIZE SPECIAL DITCH WITH CLASS B RIP-RAP.
4. INSTALL EPSC MEASURES INCLUDING TEMPORARY CULVERT CROSSING, DIVERSION CHANNELS, DIVERSION PIPES AND SEDIMENT TUBES UP SLOPE TO DIRECT OFFSITE DRAINAGE TO NEWLY CONSTRUCTED SPECIAL DITCH.
5. CONSTRUCT EMBANKMENT BERMS, ROCK SEDIMENT DAMS AND OTHER EPSC MEASURES IN THE SEDIMENT STORAGE AREA PRIOR TO BEGINNING EXCAVATION FOR CUT SLOPES FROM STA. 153+00, RT. TO STA. 173+00, RT.

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 136+00 TO STA. 147+00

SCALE: 1"= 50'

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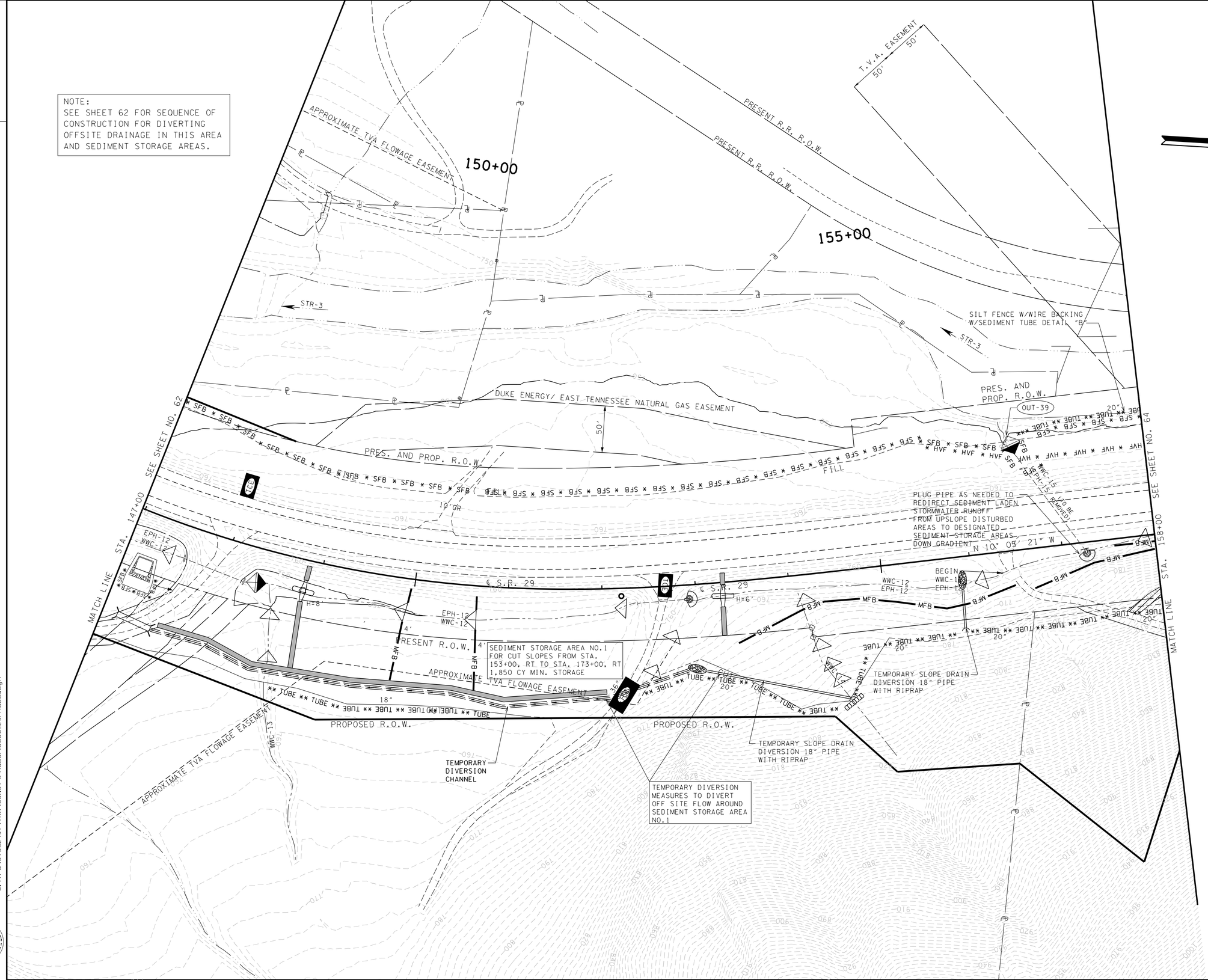
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	86
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	63

NOTE:
SEE SHEET 62 FOR SEQUENCE OF CONSTRUCTION FOR DIVERTING OFFSITE DRAINAGE IN THIS AREA AND SEDIMENT STORAGE AREAS.



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 147+00 TO STA. 158+00

SCALE: 1"= 50'

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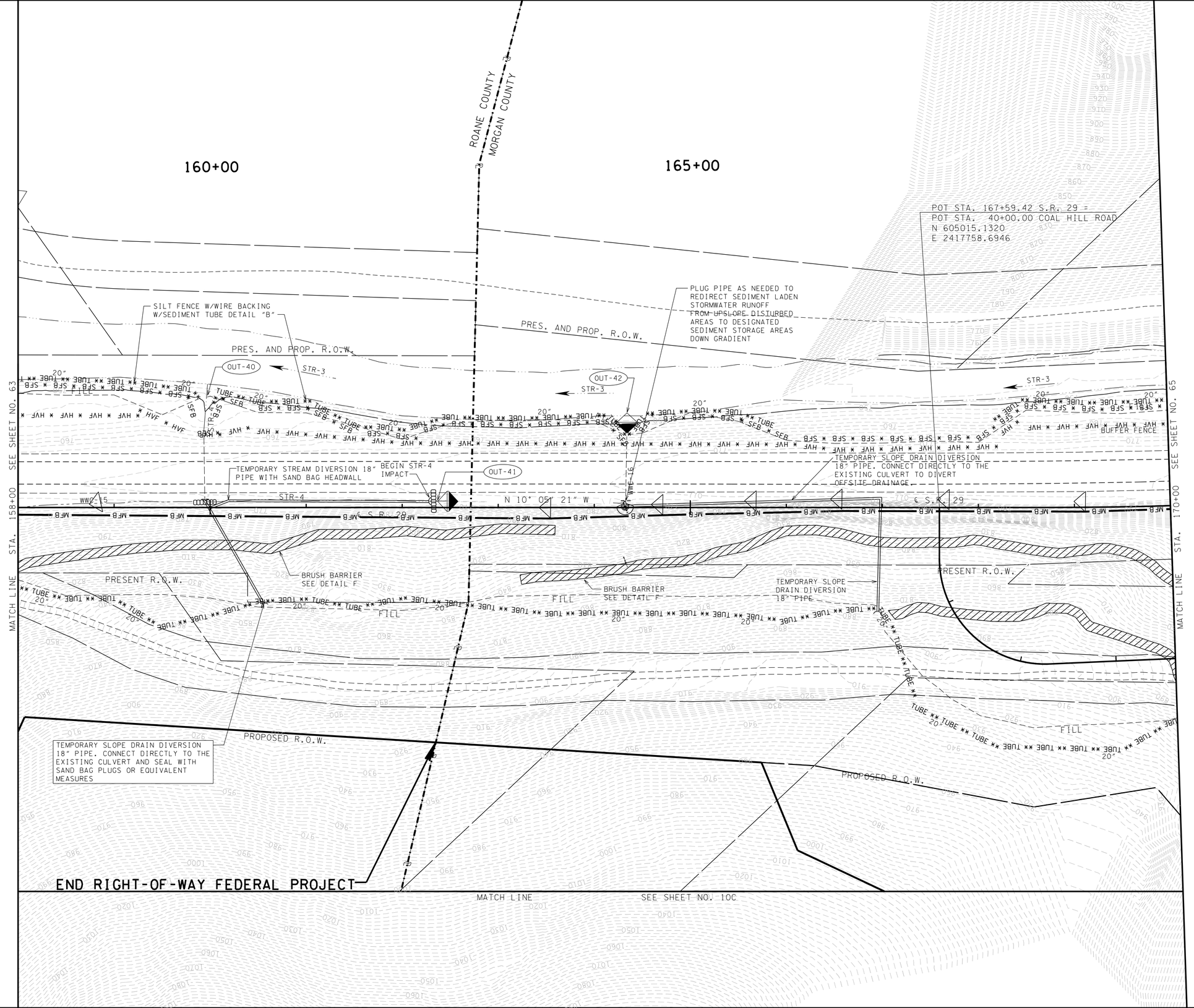
TENNESSEE D.O.T.	DESIGN DIVISION	FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	87
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	64

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 158+00 TO STA. 170+00

SCALE: 1"= 50'

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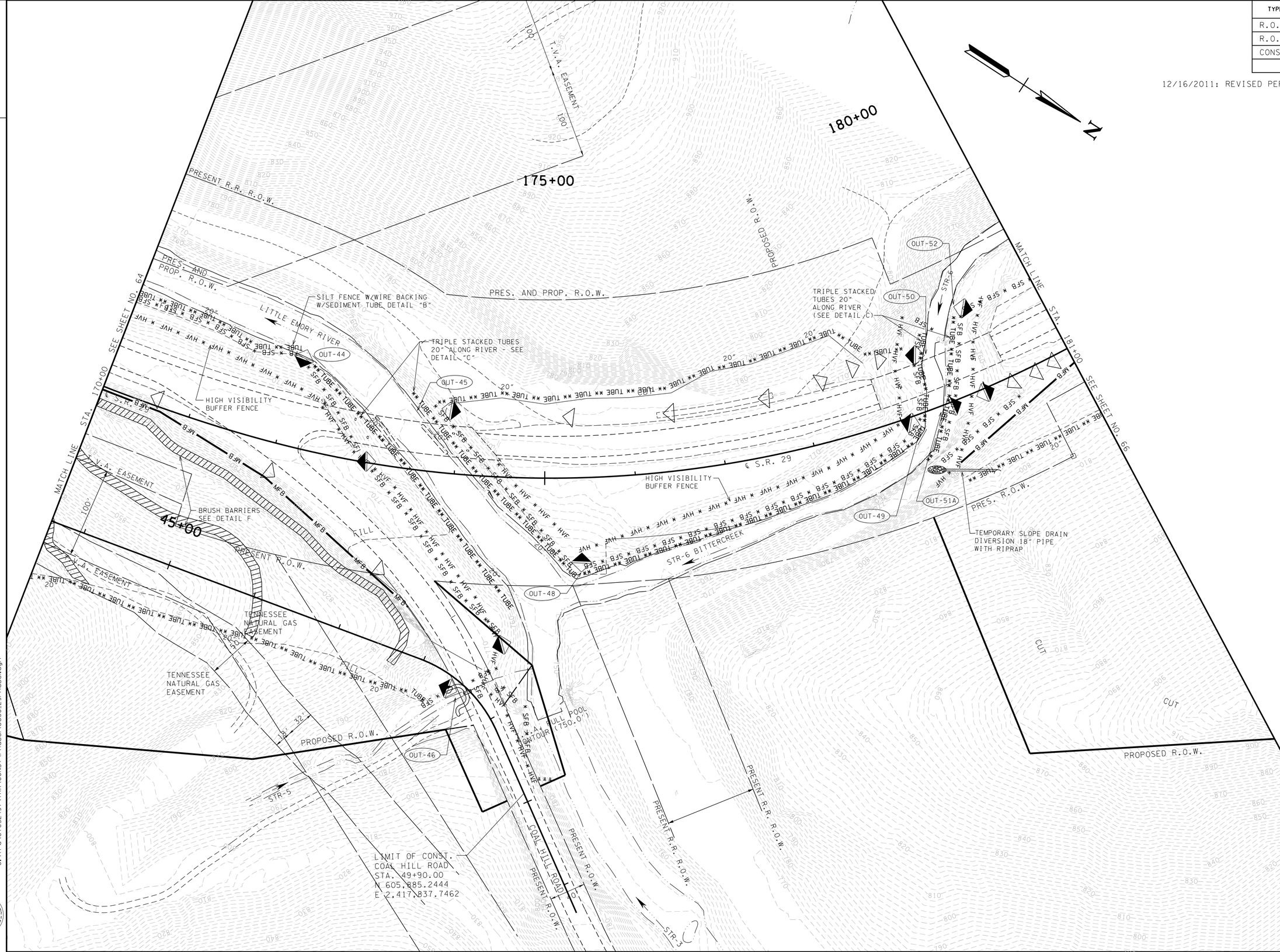
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	88
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	65

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 170+00 TO STA. 181+00

SCALE: 1"= 50'

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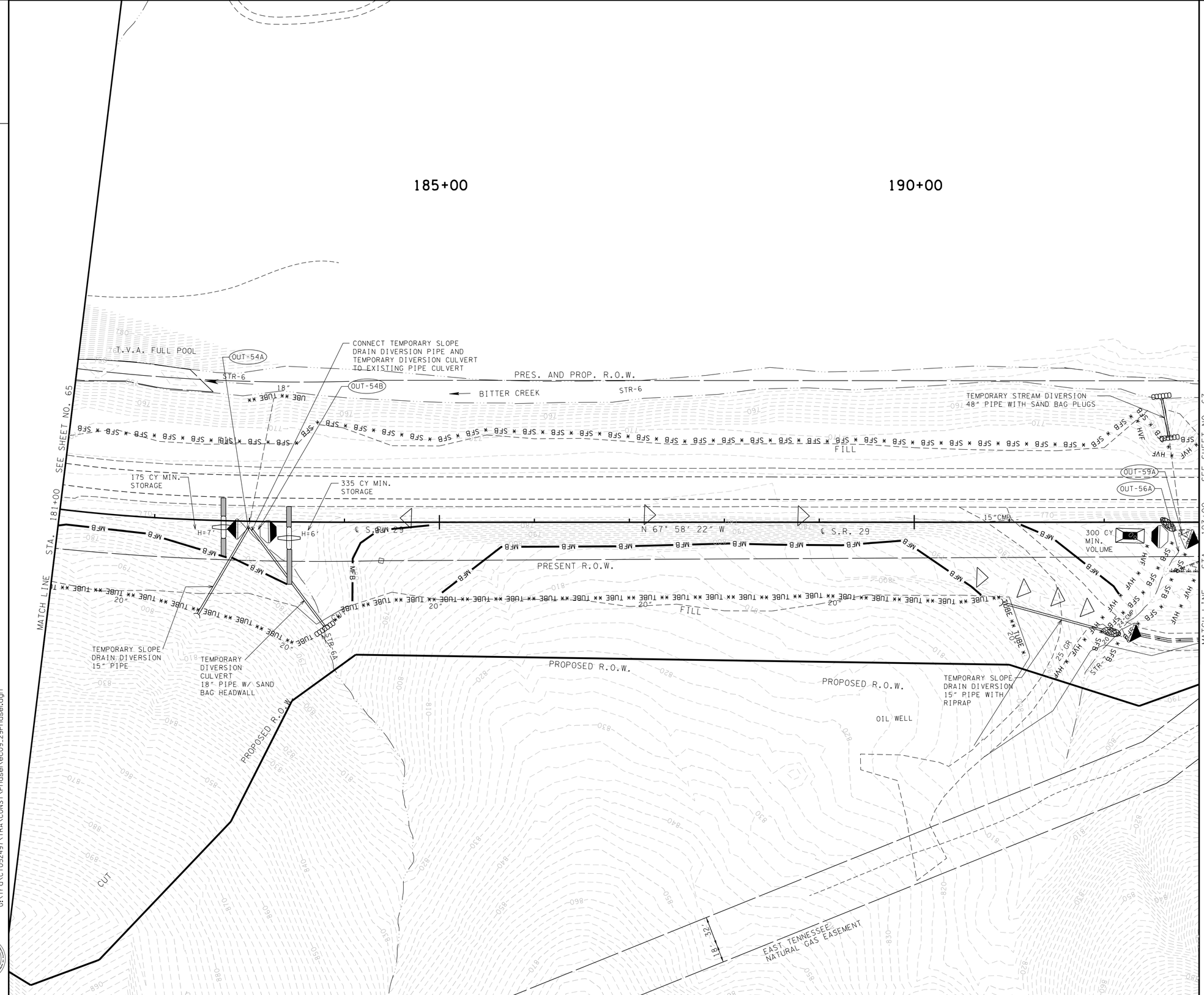
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	89
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	66



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STATE OF TENNESSEE
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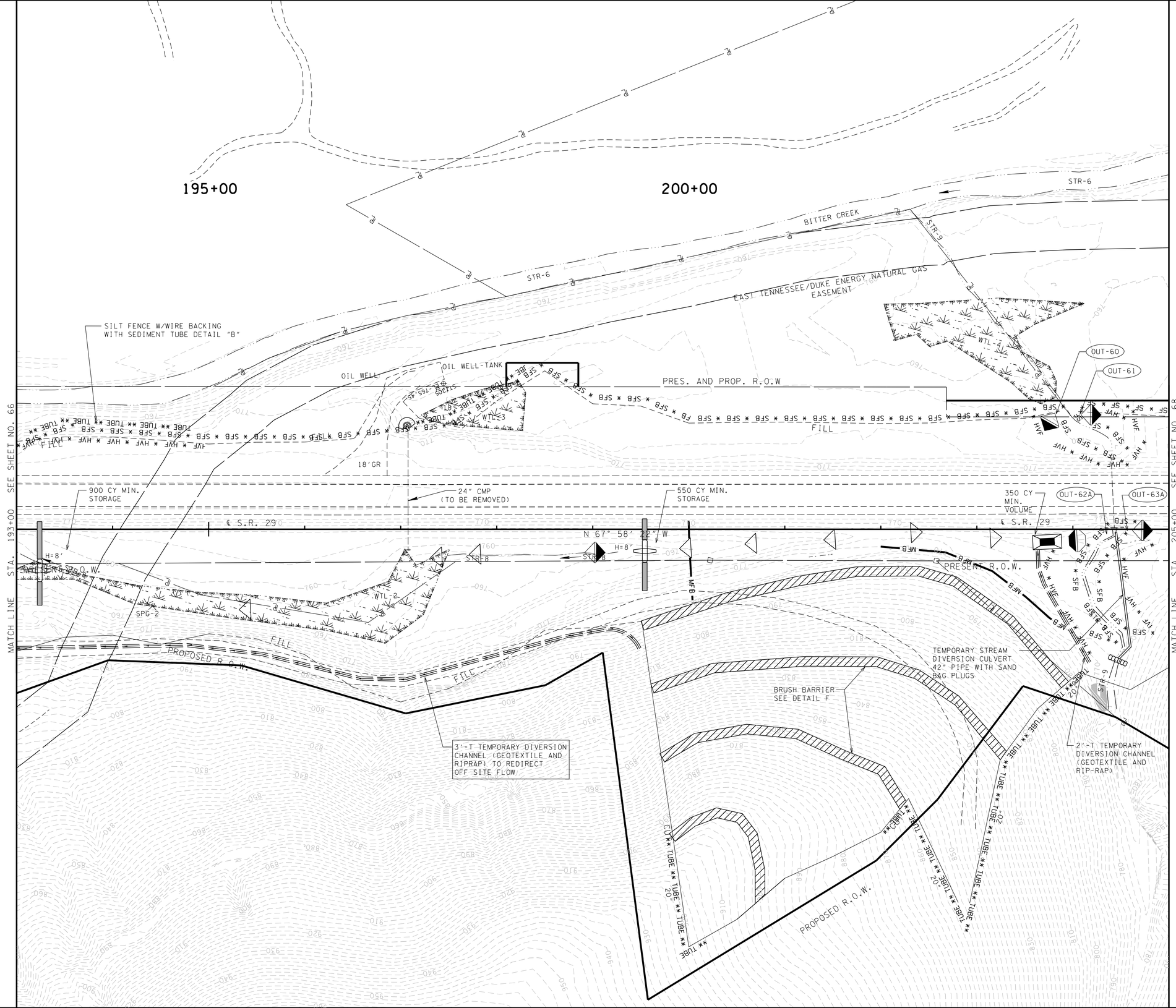
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 181+00 TO STA. 193+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	90
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	67



NOTE:
STREAM 8 AND WETLAND 2 HAVE BEEN PERMITTED AS A COMPLETE LOSS. INSTALL EPSC MEASURES AS DEPICTED TO PREVENT EROSION AND TO TRAP SEDIMENT.

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BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 193+00 TO STA. 205+00

SCALE: 1"= 50'

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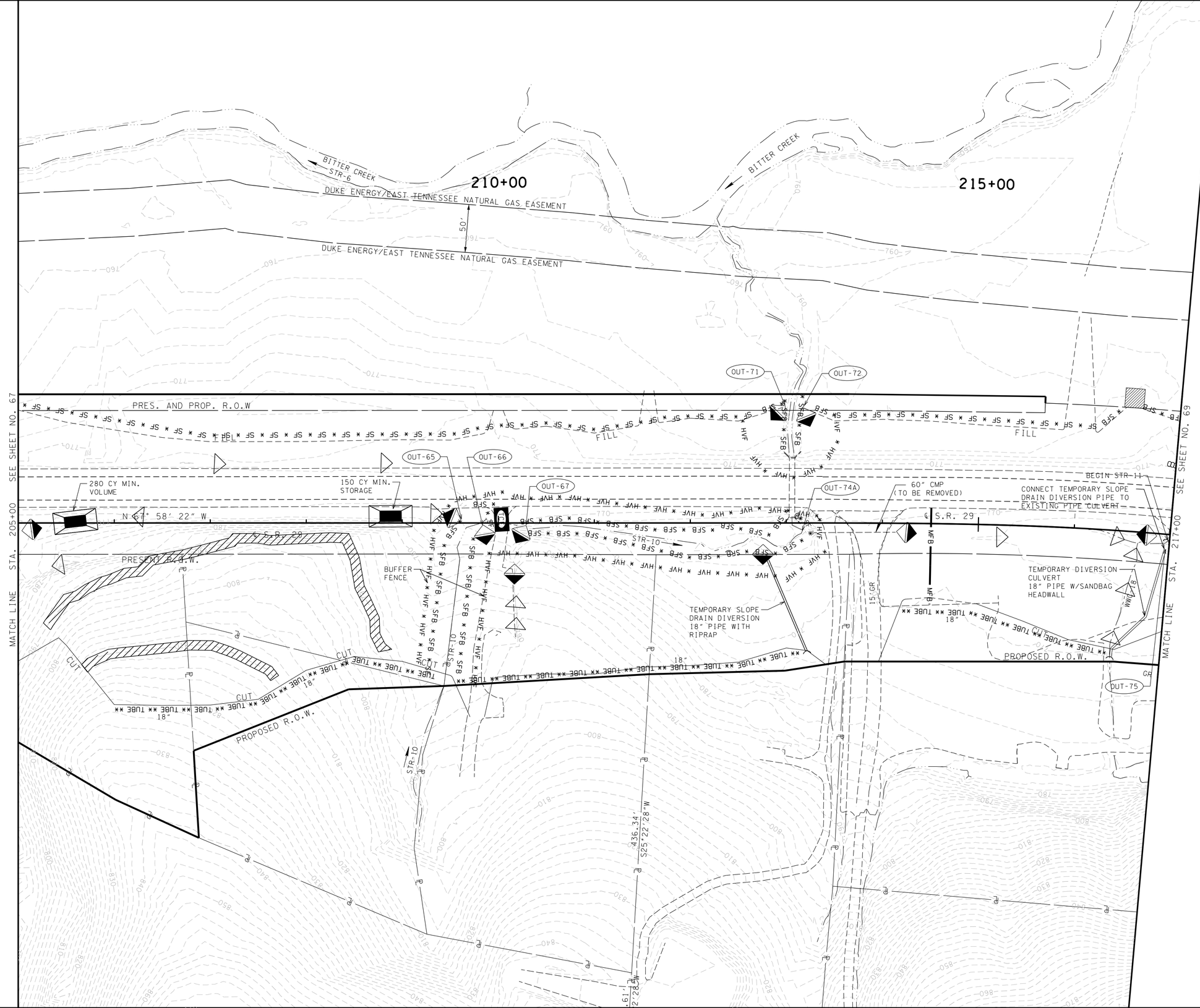
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	91
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	68



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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 205+00 TO STA. 217+00

SCALE: 1"= 50'

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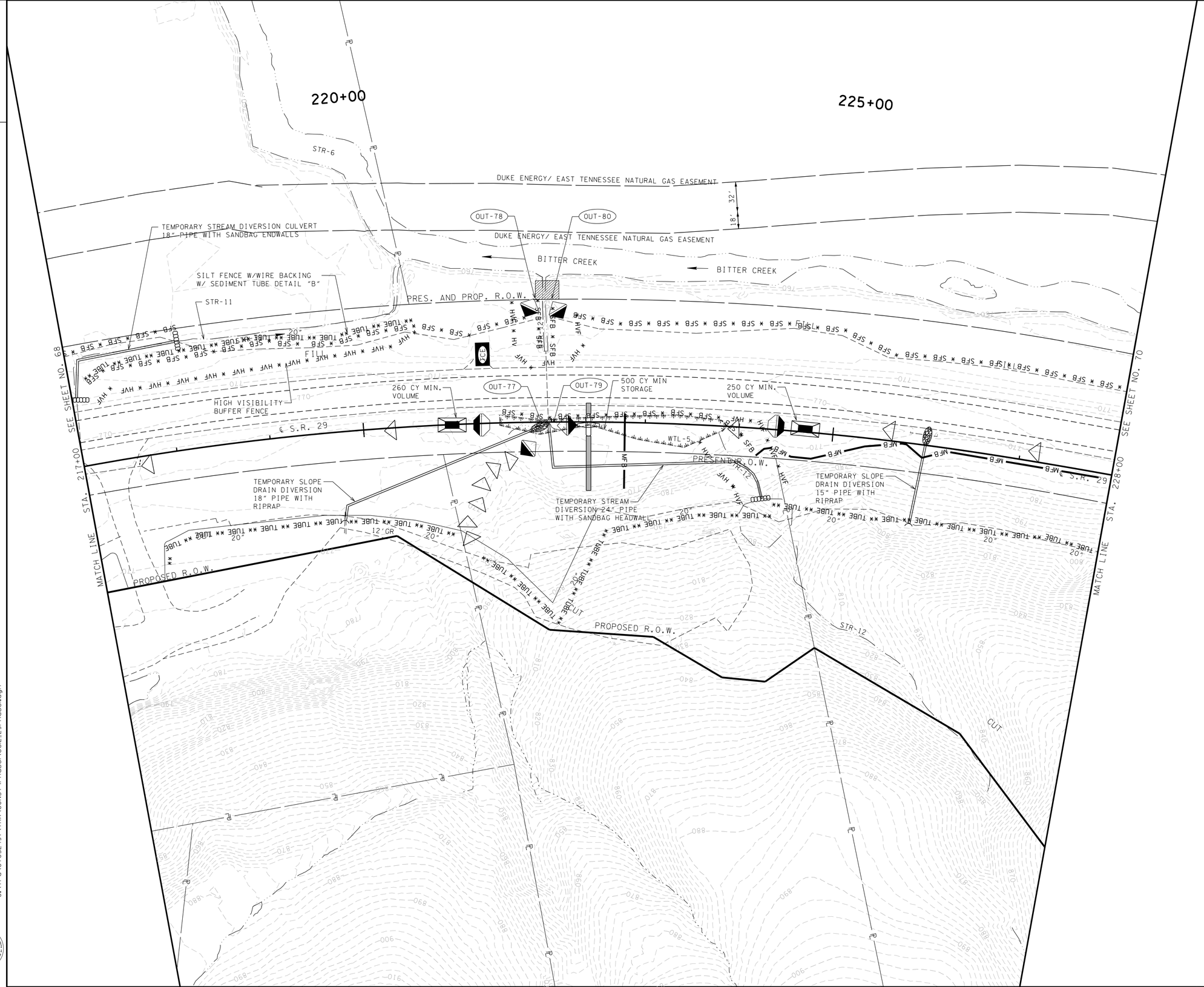
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	92
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	69

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



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 217+00 TO STA. 228+00

SCALE: 1"= 50'

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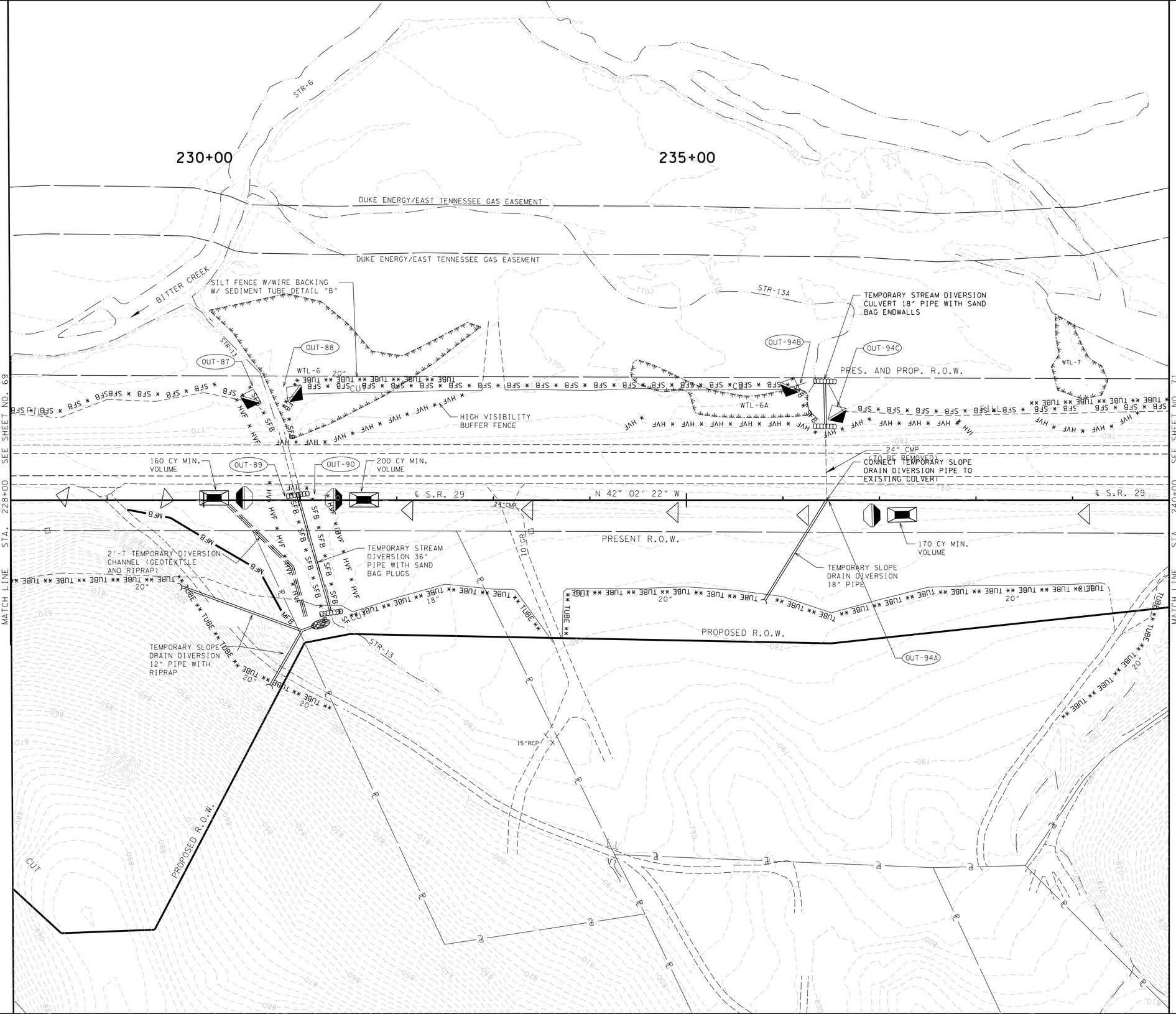
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	93
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	70



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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 228+00 TO STA. 240+00

SCALE: 1"= 50'

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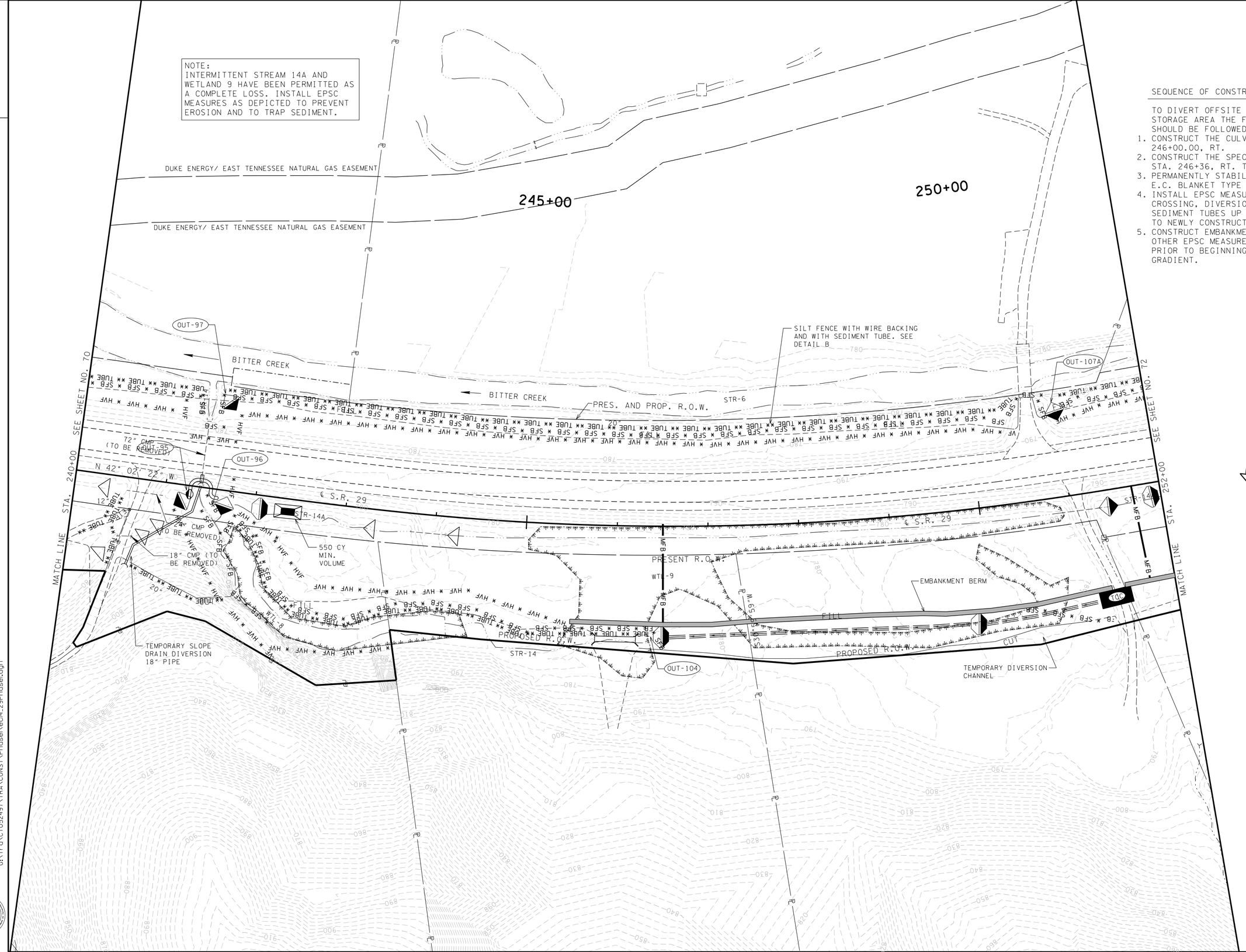
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	94
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	71



SEQUENCE OF CONSTRUCTION:

TO DIVERT OFFSITE DRAINAGE AROUND THE SEDIMENT STORAGE AREA THE FOLLOWING SEQUENCE OF CONSTRUCTION SHOULD BE FOLLOWED:

1. CONSTRUCT THE CULVERT BENEATH THE DRIVEWAY AT STA. 246+00.00, RT.
2. CONSTRUCT THE SPECIAL DITCH ON THE RIGHT SIDE FROM STA. 246+36, RT. TO APPROXIMATELY STA. 253+38, RT.
3. PERMANENTLY STABILIZE SPECIAL DITCH WITH GRASS AND E.C. BLANKET TYPE II.
4. INSTALL EPSC MEASURES INCLUDING TEMPORARY CULVERT CROSSING, DIVERSION CHANNELS, DIVERSION PIPES AND SEDIMENT TUBES UP SLOPE TO DIRECT OFFSITE DRAINAGE TO NEWLY CONSTRUCTED SPECIAL DITCH.
5. CONSTRUCT EMBANKMENT BERMS, ROCK SEDIMENT DAMS AND OTHER EPSC MEASURES IN THE SEDIMENT STORAGE AREA PRIOR TO BEGINNING EXCAVATION FOR CUT SLOPES UP GRADIENT.

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 240+00 TO STA. 252+00

SCALE: 1"= 50'

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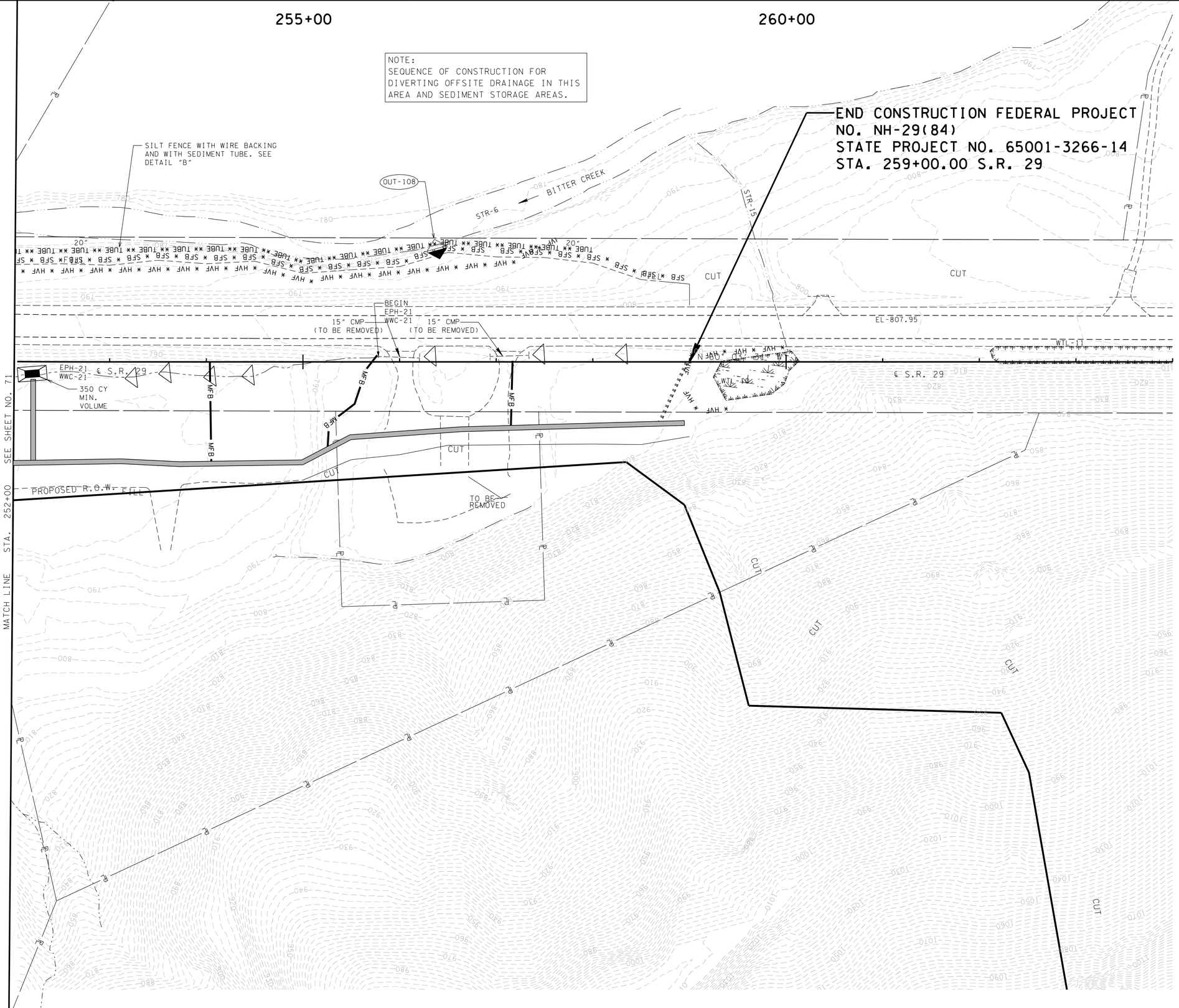
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	95
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	72



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DEPARTMENT OF TRANSPORTATION
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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE I

STA. 252+00 TO STA. 264+00

SCALE: 1"= 50'

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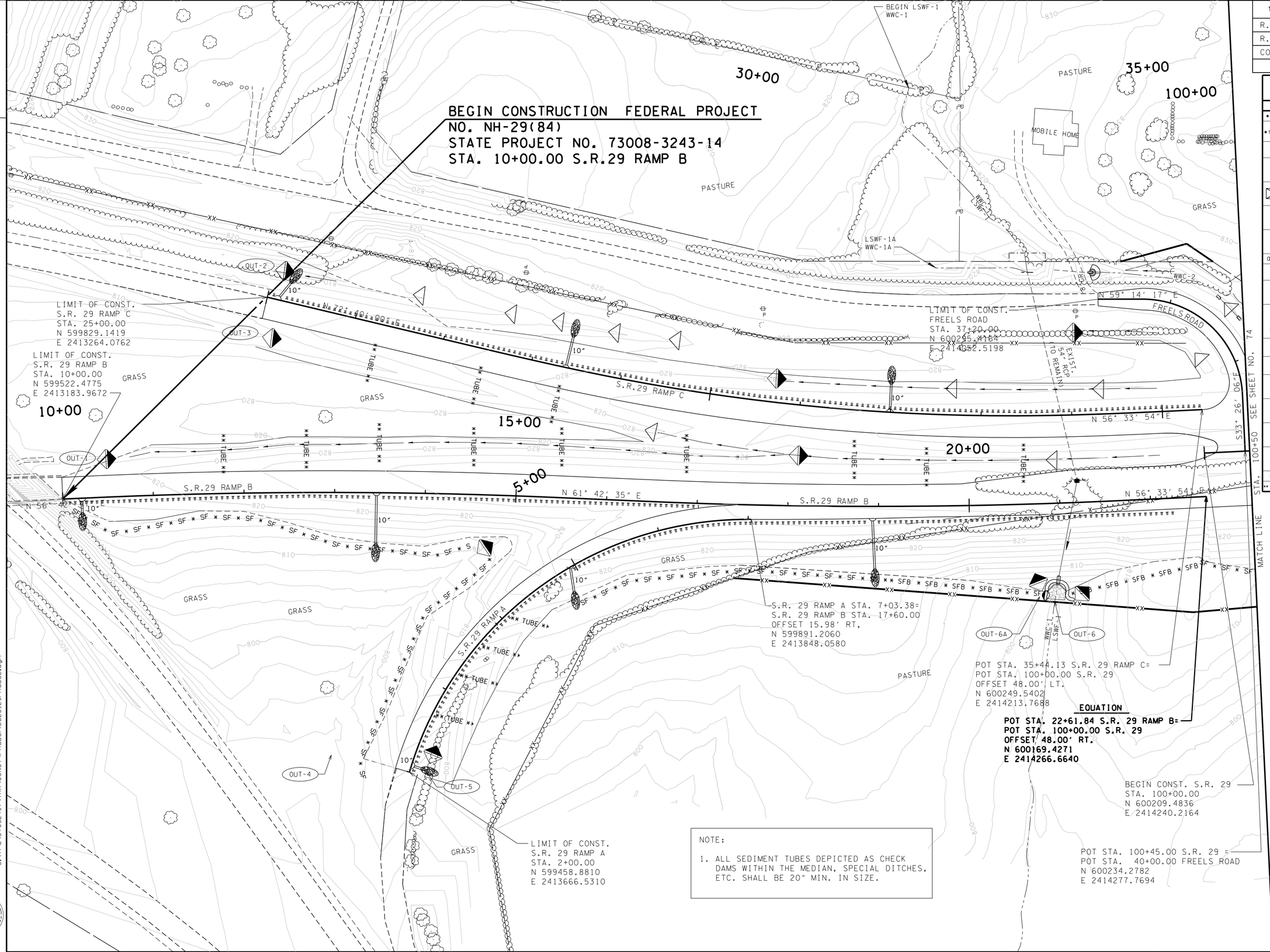
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	105
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	73



NOTE:

1. ALL SEDIMENT TUBES DEPICTED AS CHECK DAMS WITHIN THE MEDIAN, SPECIAL DITCHES, ETC. SHALL BE 20" MIN. IN SIZE.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
SF SF SF	SILT FENCE	EC-STR-3B
SFB SFB SFB	SILT FENCE WITH BACKING	EC-STR-3C
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	SEDIMENT TRAP WITH ENHANCED ROCK CHECK DAM	EC-STR-7
	ENHANCED ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6A
	ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6
	SAND BAG BERM	EC-STR-33
	TEMPORARY SLOPE DRAIN WITH CLASS A-1 RIP-RAP	EC-STR-27
	SUSPENDED PIPE DIVERSION	EC-STR-33 EC-STR-33A
	SEDIMENT FILTER BAG	EC-STR-2 DETAIL G
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	CULVERT PROTECTION (TYPE 2)	EC-STR-11A
1	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EC-STR-41
2	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42 EC-STR-42A
3	CATCH BASIN FILTER ASSEMBLY (TYPE 3)	EC-STR-43
4	CATCH BASIN FILTER ASSEMBLY (TYPE 4)	EC-STR-44
	TEMPORARY BERM	EC-STR-27
TUBE TUBE	SEDIMENT TUBE	EC-STR-37

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 10+00 TO STA. 100+50
SCALE: 1"= 50'

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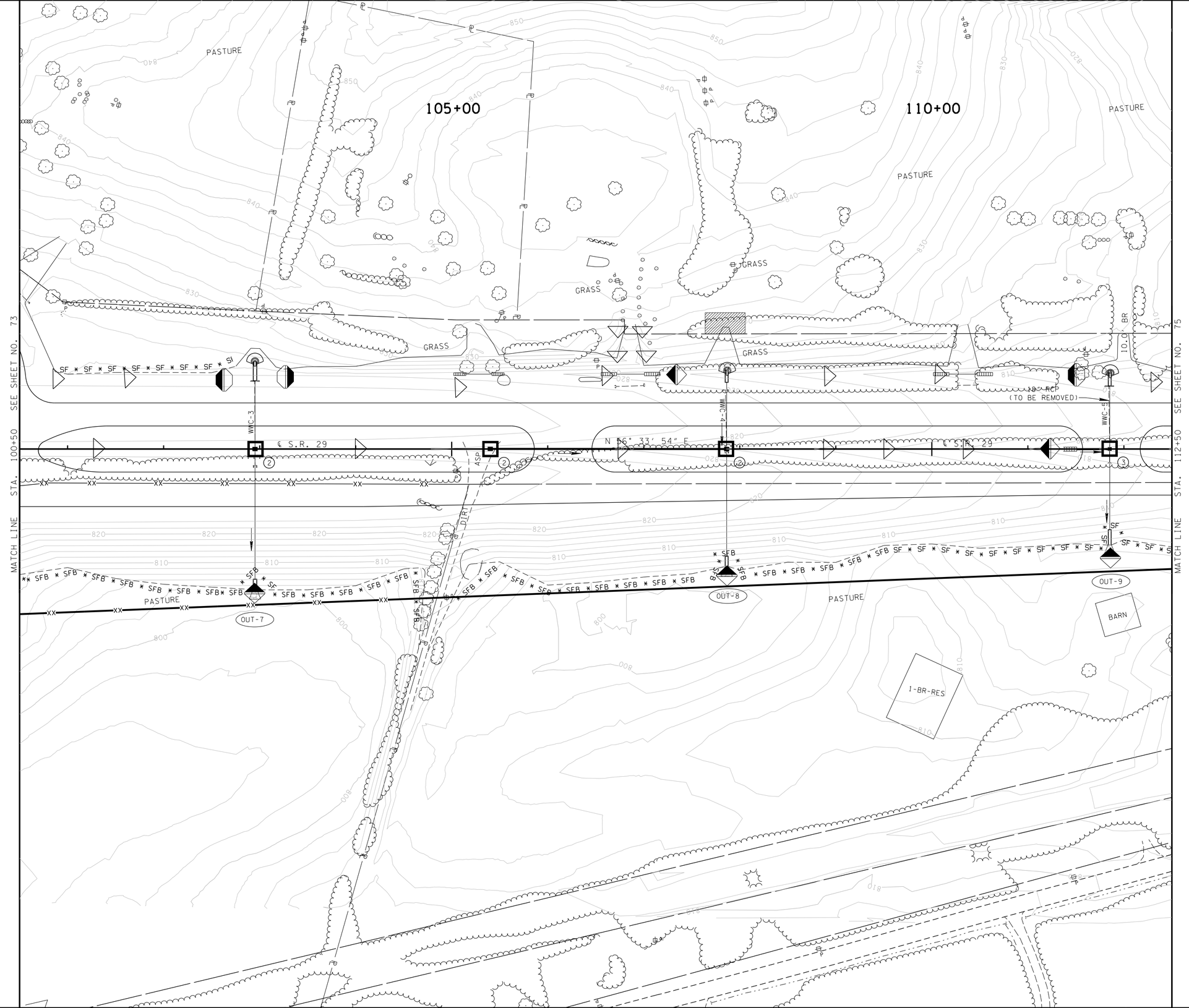
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	106
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	74



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 100+50 TO STA. 112+50

SCALE: 1"= 50'

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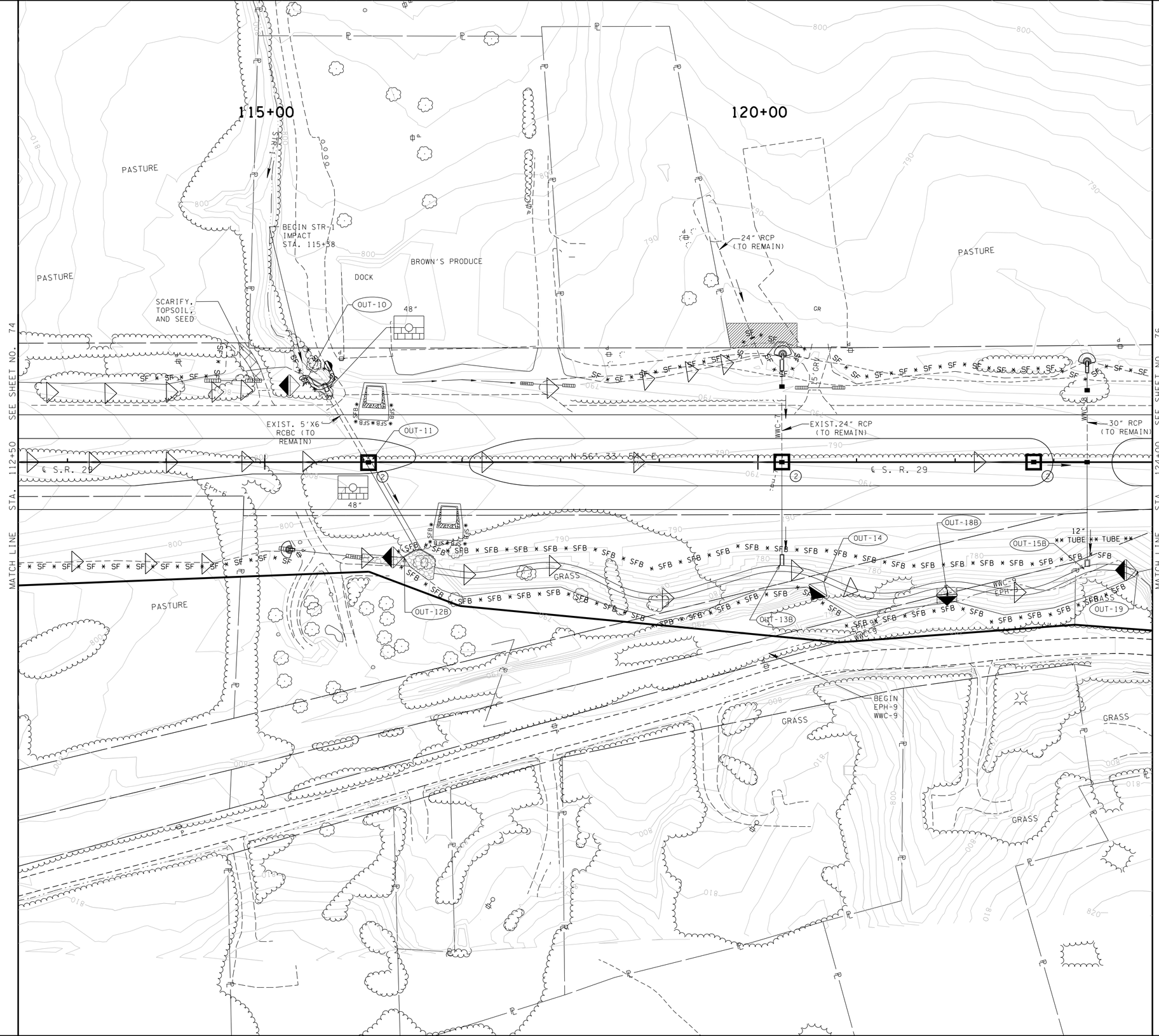
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	107
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	75



NOTE:
SEDIMENT TUBES, ROCK CHECK DAMS AND ENHANCED ROCK CHECK DAMS SHALL BE UTILIZED WITHIN THE RELOCATED STREAM CHANNEL DURING STREAM CHANNEL CONSTRUCTION. ALL EPSC MEASURES LOCATED WITHIN THE RELOCATED STREAM CHANNEL SHALL BE REMOVED PRIOR TO DIVERTING STREAM FLOW INTO THE RELOCATED CHANNEL.

STREAM CHANNEL
SEQUENCE OF CONSTRUCTION:

1. CONSTRUCT AND STABILIZE PROPOSED STREAM CHANNEL LOCATION WITH UPSTREAM AND DOWNSTREAM PLUGS.
2. REMOVE PLUGS AND DIVERT FLOW USING SUSPENDED PIPE DIVERSION INTO STABILIZED RELOCATED CHANNEL.
3. CONSTRUCT BOX CULVERT OUTLET EXTENSION.
4. INSTALL SUSPENDED PIPE DIVERSION FROM EXISTING BOX CULVERT INLET TO PROPOSED INLET.
5. CONSTRUCT BOX CULVERT INLET EXTENSION.

N

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 112+50 TO STA. 124+00
SCALE: 1"= 50'

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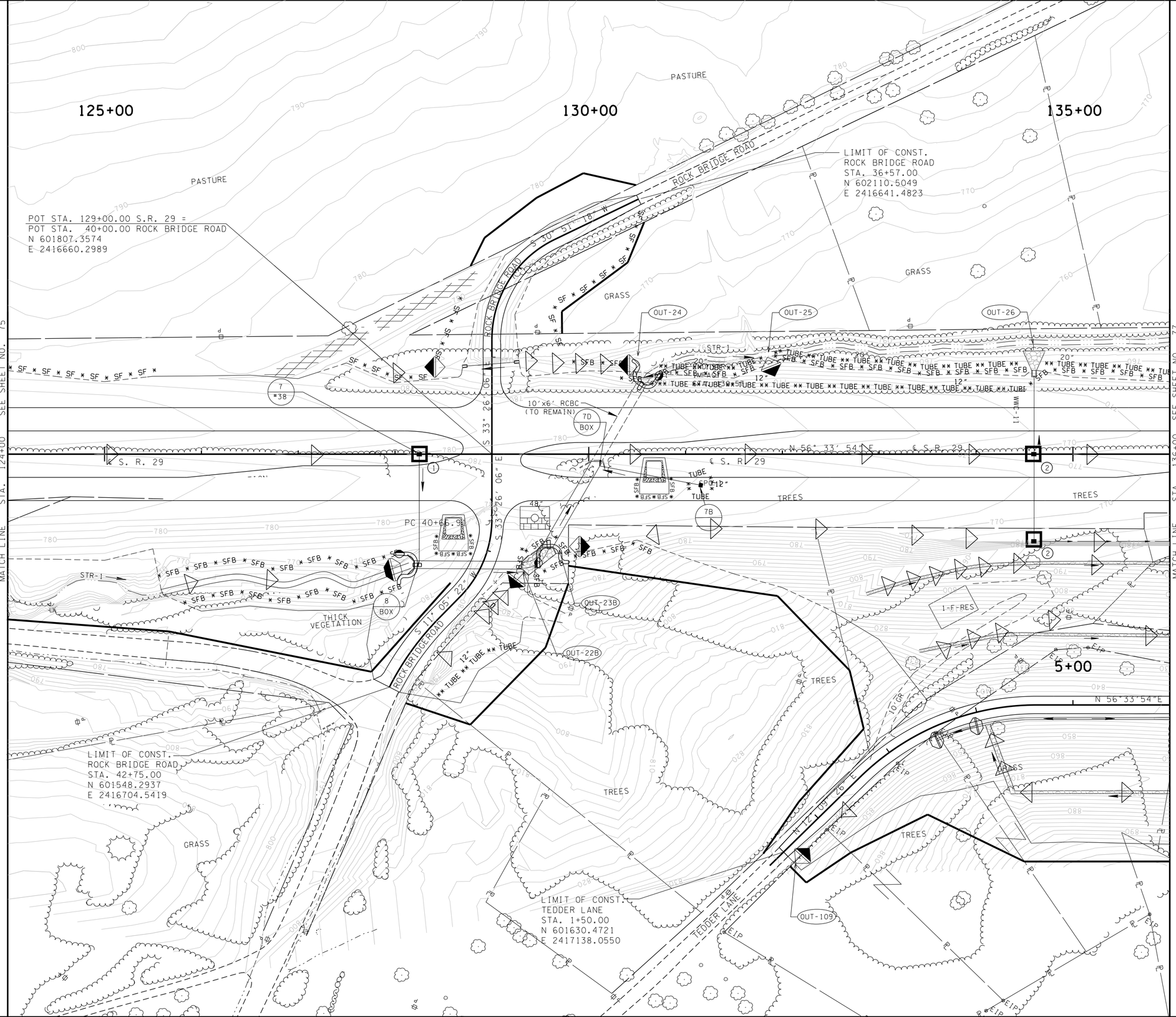
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	108
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	76



NOTE:
SEDIMENT TUBES, ROCK CHECK DAMS AND ENHANCED ROCK CHECK DAMS SHALL BE UTILIZED WITHIN THE RELOCATED STREAM CHANNEL DURING STREAM CHANNEL CONSTRUCTION. ALL EPSC MEASURES LOCATED WITHIN THE RELOCATED STREAM CHANNEL SHALL BE REMOVED PRIOR TO DIVERTING STREAM FLOW INTO THE RELOCATED CHANNEL.

STREAM CHANNEL
SEQUENCE OF CONSTRUCTION:

1. CONSTRUCT BOX CULVERT BENEATH ROCK BRIDGE ROAD.
2. CONSTRUCT AND STABILIZE PROPOSED STREAM CHANNEL LOCATION UPSTREAM OF BOX CULVERT BENEATH ROCK BRIDGE ROAD. MAINTAIN UPSTREAM PLUG.
3. CONSTRUCT AND STABILIZE PROPOSED STREAM CHANNEL LOCATION BETWEEN BOX CULVERTS.
4. INSTALL SUSPENDED PIPE DIVERSION FROM EXISTING BOX CULVERT INLET TO RELOCATED STREAM CHANNEL UP SLOPE OR OUTLET OF BOX CULVERT BENEATH ROCK BRIDGE ROAD.
5. REMOVE PLUG AND DIVERT FLOW INTO STABILIZED RELOCATED STREAM CHANNEL, AND SUSPENDED PIPE DIVERSION BOX CULVERT BENEATH ROCK BRIDGE ROAD.
6. CONSTRUCT BOX CULVERT INLET EXTENSION.

N

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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 124+00 TO STA. 136+00

SCALE: 1"= 50'

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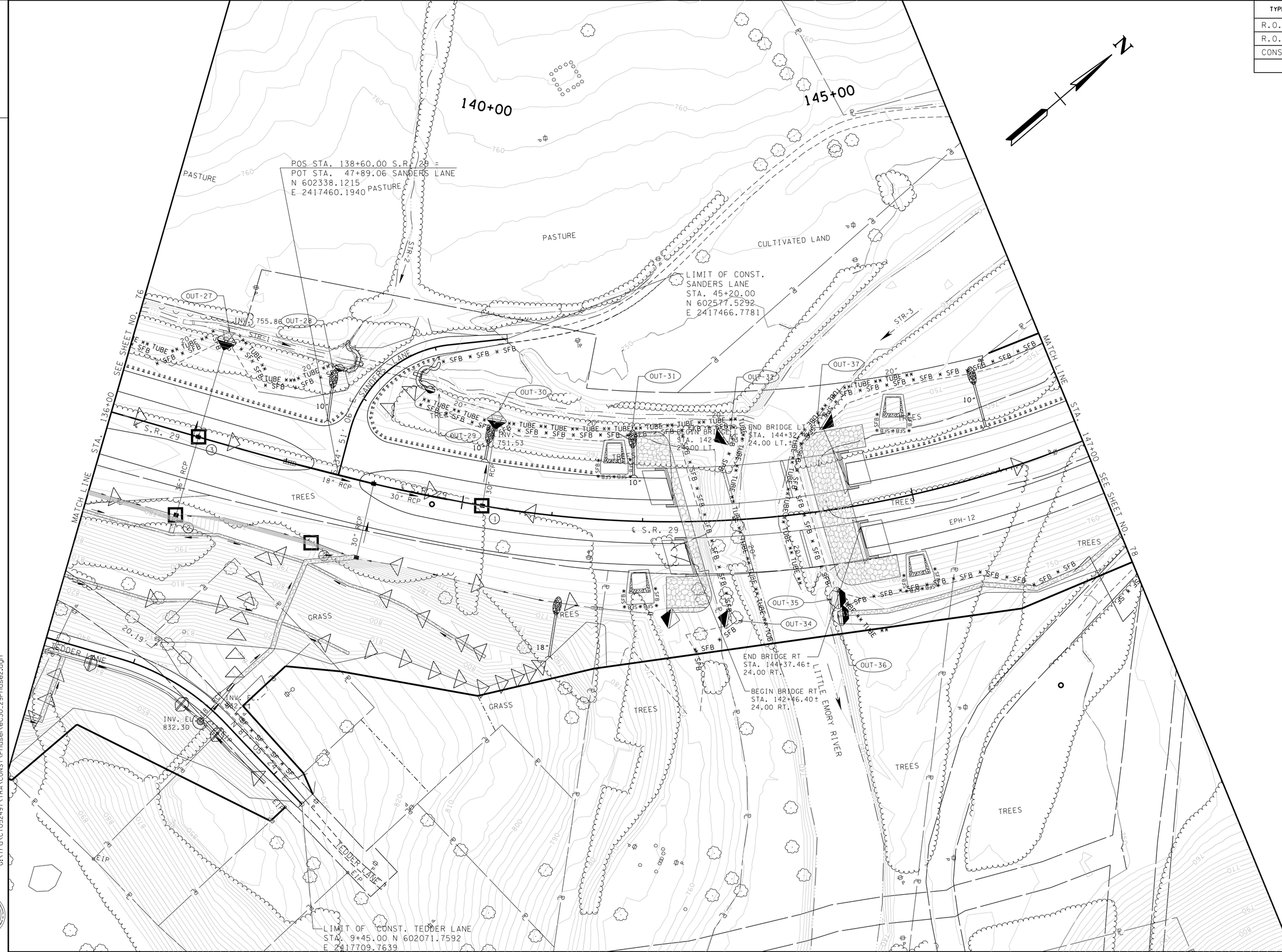
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	109
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	77

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



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 136+00 TO STA. 147+00

SCALE: 1"= 50'

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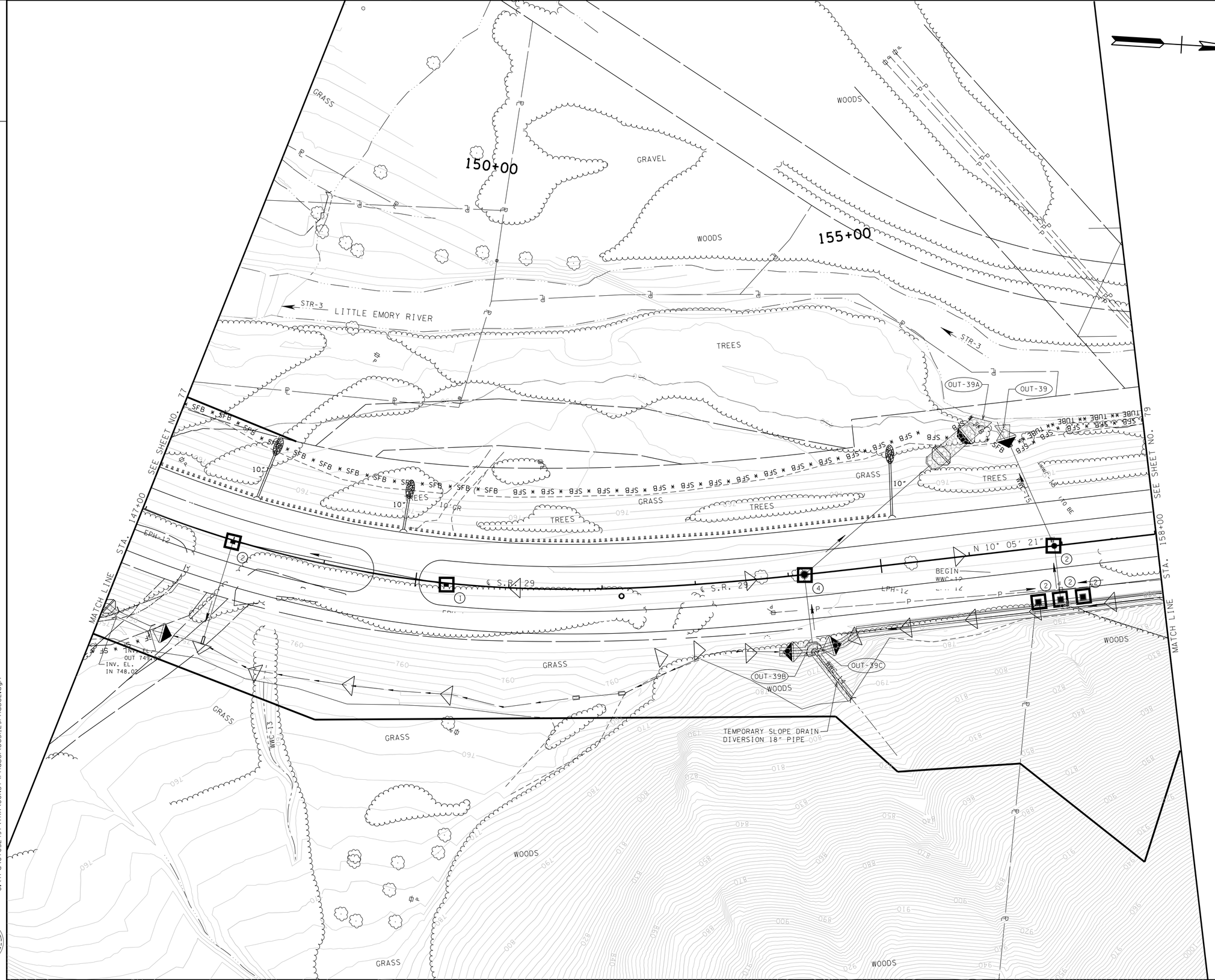
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	110
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	78



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 147+00 TO STA. 158+00

SCALE: 1"= 50'

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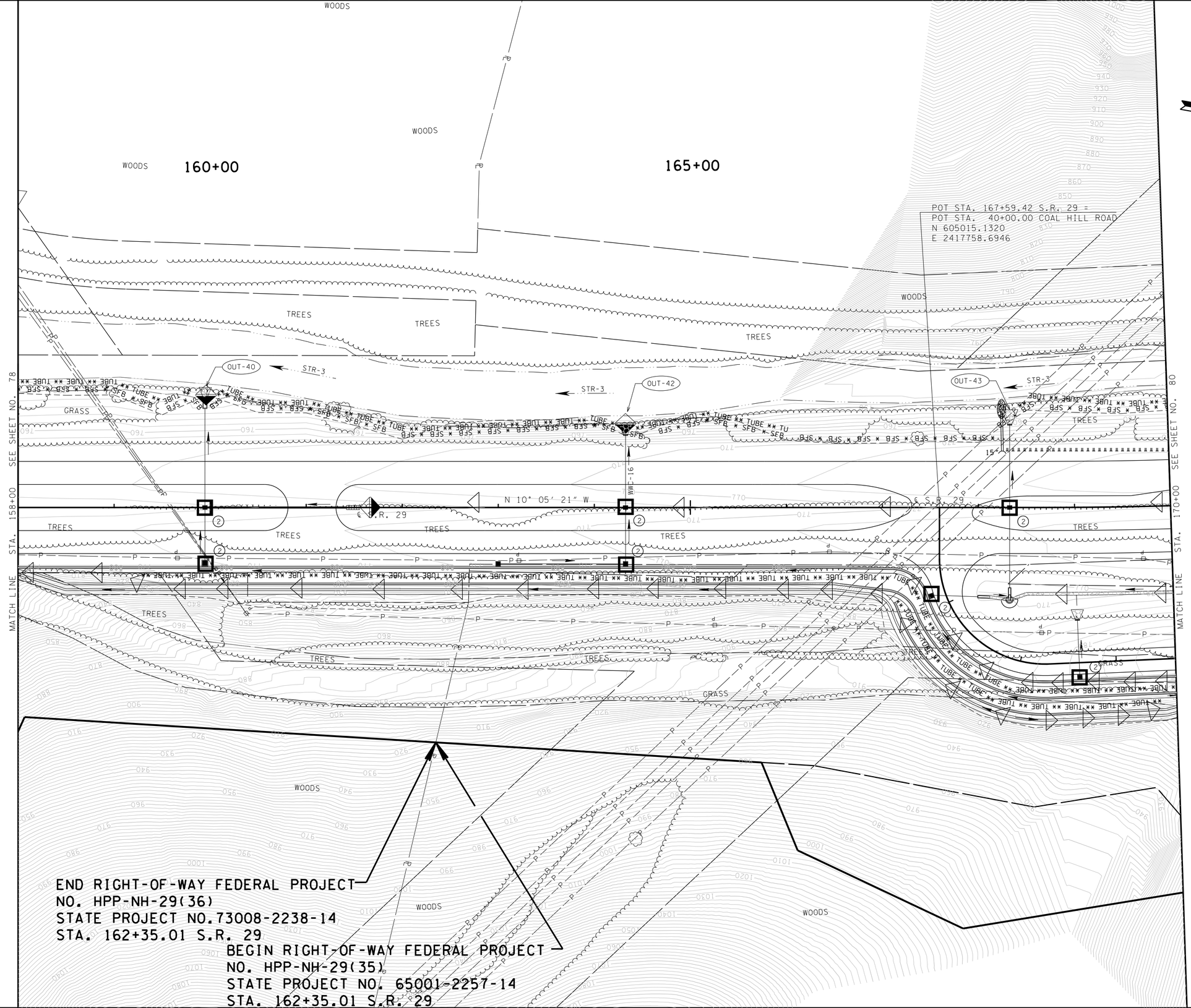
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	111
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	79

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

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



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

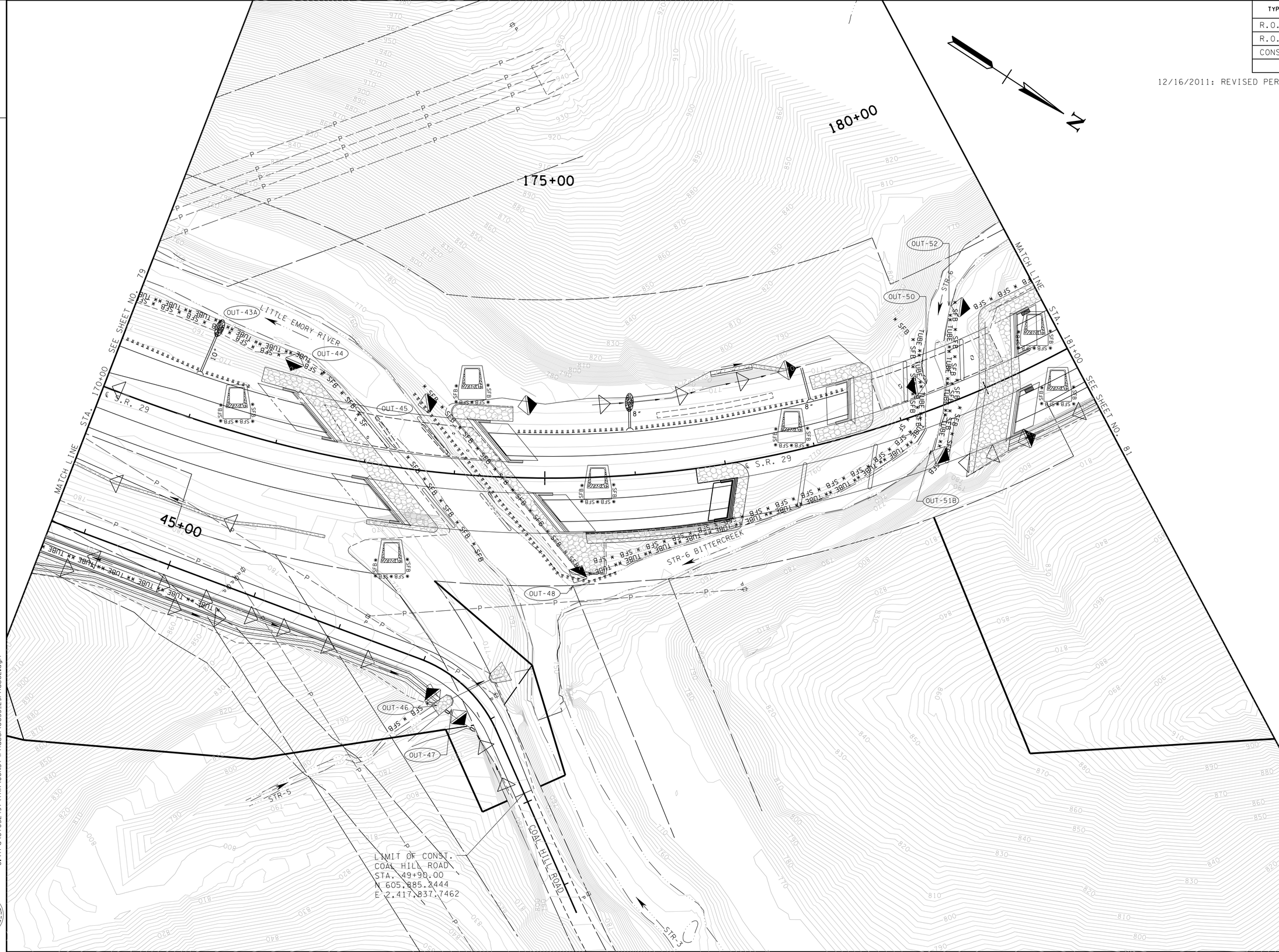
STA. 158+00 TO STA. 170+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	112
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	80

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.



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DEPARTMENT OF TRANSPORTATION
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EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 170+00 TO STA. 181+00

SCALE: 1"= 50'

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	113
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	81

NOTE:
SEDIMENT TUBES, ROCK CHECK DAMS AND ENHANCED ROCK CHECK DAMS SHALL BE UTILIZED WITHIN THE RELOCATED STREAM CHANNEL DURING STREAM CHANNEL CONSTRUCTION. ALL EPSC MEASURES LOCATED WITHIN THE RELOCATED STREAM CHANNEL SHALL BE REMOVED PRIOR TO DIVERTING STREAM FLOW INTO THE RELOCATED CHANNEL.

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Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

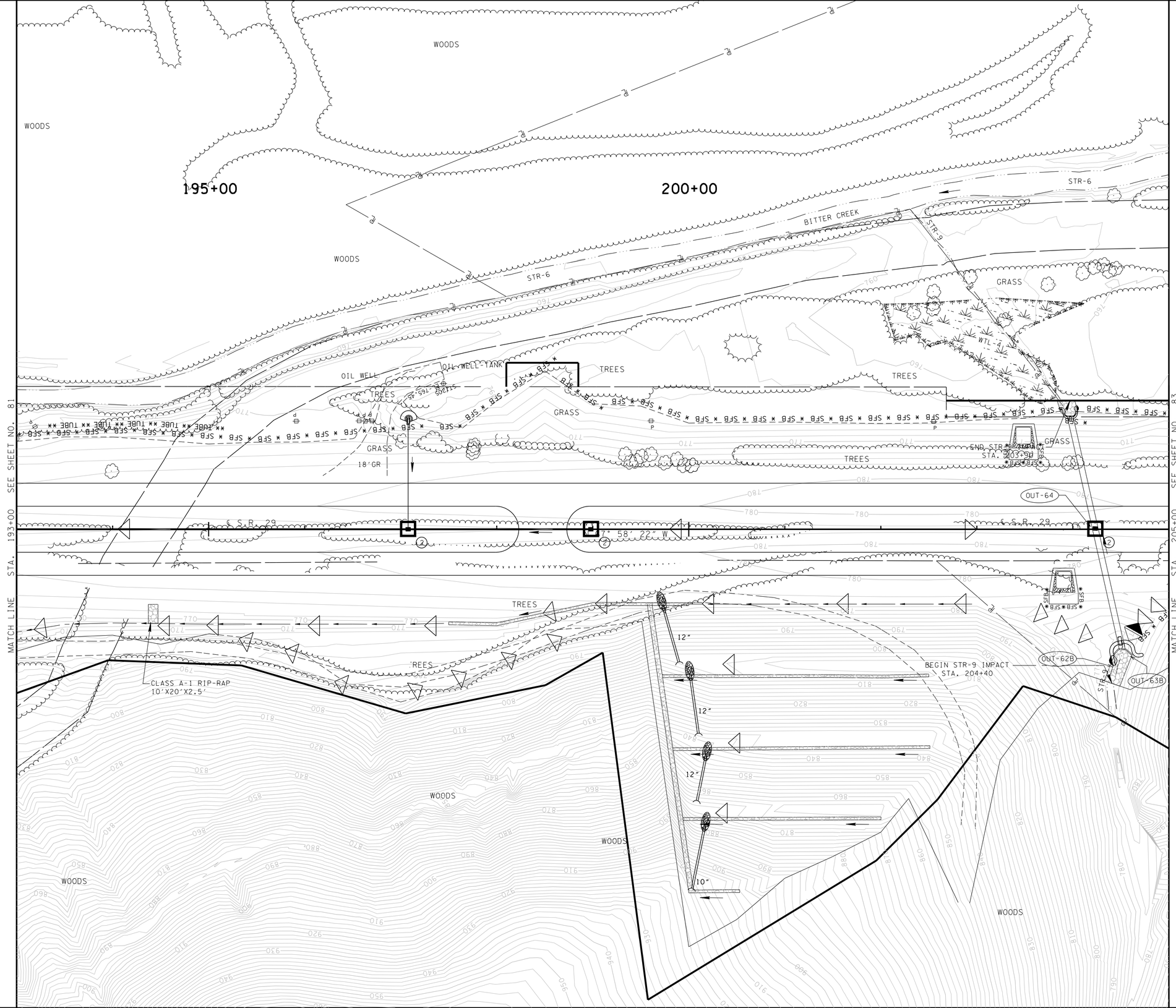
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 181+00 TO STA. 193+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	114
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	82

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



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STATE OF TENNESSEE
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BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 193+00 TO STA. 205+00

SCALE: 1"= 50'

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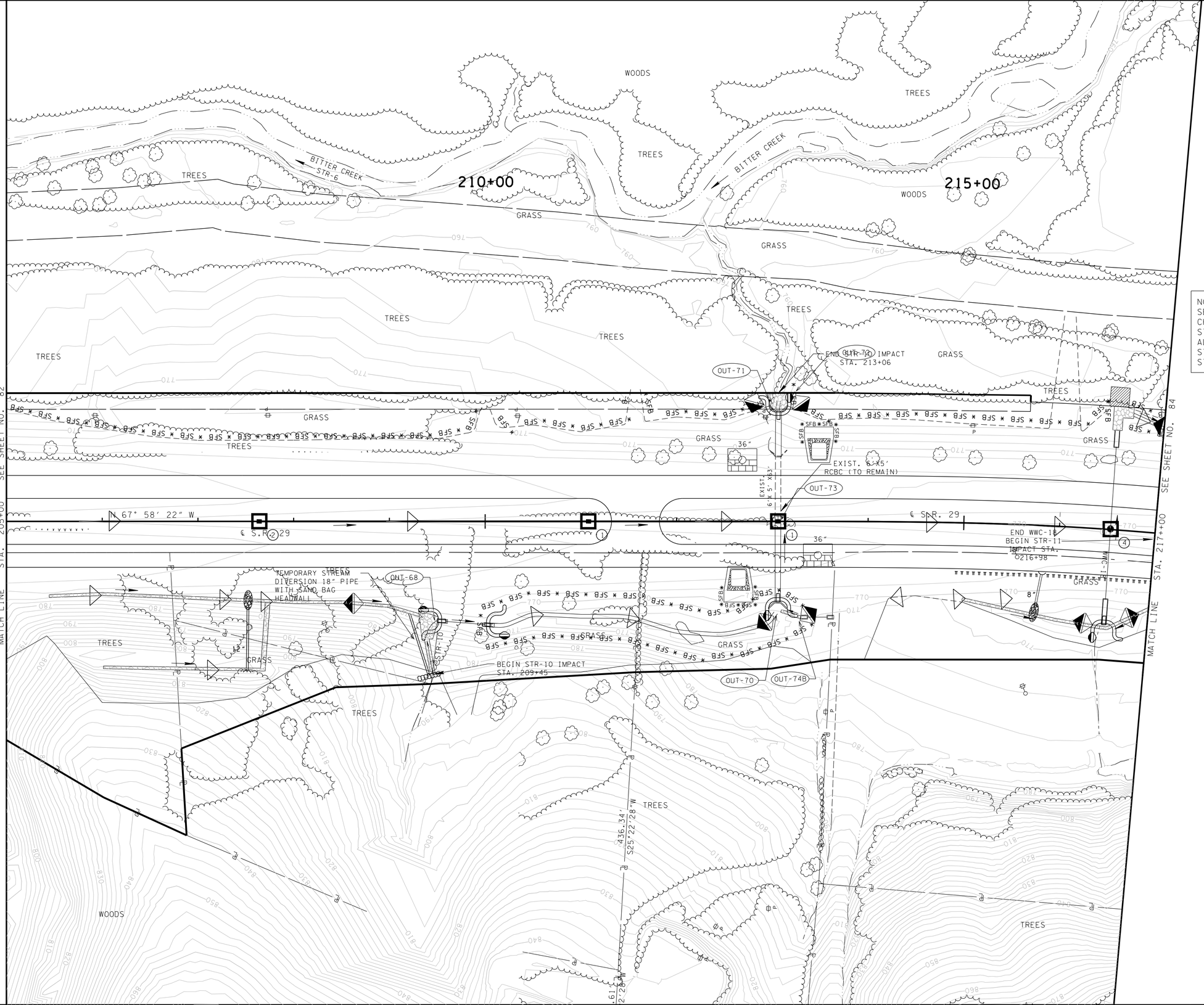
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	115
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	83



NOTE:
SEDIMENT TUBES, ROCK CHECK DAMS AND ENHANCED ROCK CHECK DAMS SHALL BE UTILIZED WITHIN THE RELOCATED STREAM CHANNEL DURING STREAM CHANNEL CONSTRUCTION. ALL EPSC MEASURES LOCATED WITHIN THE RELOCATED STREAM CHANNEL SHALL BE REMOVED PRIOR TO DIVERTING STREAM FLOW INTO THE RELOCATED CHANNEL.

STREAM CHANNEL
SEQUENCE OF CONSTRUCTION:

1. CONSTRUCT AND STABILIZE PROPOSED STREAM CHANNEL LOCATION WITH UPSTREAM PLUG
2. INSTALL SUSPENDED PIPE DIVERSION FROM EXISTING BOX CULVERT TO RELOCATED STREAM CHANNEL
3. REMOVE PLUG AND DIVERT FLOW INTO STABILIZED RELOCATED STREAM CHANNEL
4. CONSTRUCT BOX CULVERT INLET EXTENSION
5. INSTALL SUSPENDED PIPE DIVERSION FROM EXISTING BOX CULVERT OUTLET TO END OF PROPOSED OUTLET
6. CONSTRUCT BOX CULVERT OUTLET EXTENSION

UNOFFICIAL SET

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Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

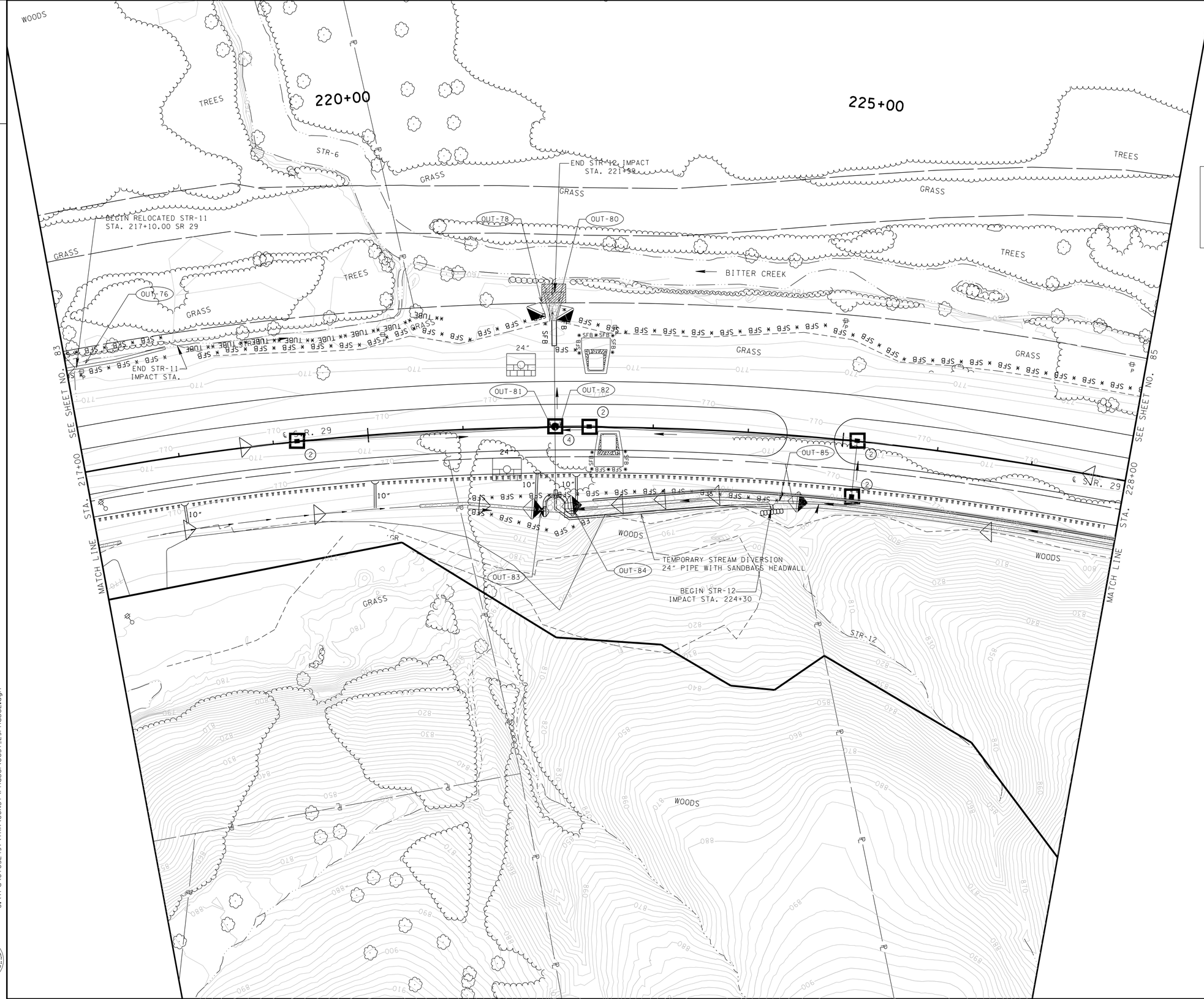
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 205+00 TO STA. 217+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	116
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	84



NOTE:
SEDIMENT TUBES, ROCK CHECK DAMS AND ENHANCED ROCK CHECK DAMS SHALL BE UTILIZED WITHIN THE RELOCATED STREAM CHANNEL DURING STREAM CHANNEL CONSTRUCTION. ALL EPSC MEASURES LOCATED WITHIN THE RELOCATED STREAM CHANNEL SHALL BE REMOVED PRIOR TO DIVERTING STREAM FLOW INTO THE RELOCATED CHANNEL.

STREAM CHANNEL
SEQUENCE OF CONSTRUCTION:

1. INSTALL TEMPORARY DIVERSION 24" PIPE WITH SANDBAG HEADWALL.
2. CONSTRUCT AND STABILIZE PROPOSED CHANNEL LOCATION WITH UPSTREAM PLUG.
3. INSTALL SUSPENDED PIPE DIVERSION FROM EXISTING PIPE CULVERT TO PROPOSED 42" PIPE CULVERT INLET.
4. INSTALL PROPOSED 42" PIPE CULVERT FROM INLET OF EXISTING PIPE CULVERT TO RELOCATED STREAM CHANNEL.
5. REMOVE PLUG AND DIVERT FLOW INTO STABILIZED RELOCATED STREAM CHANNEL.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 217+00 TO STA. 228+00

SCALE: 1"= 50'

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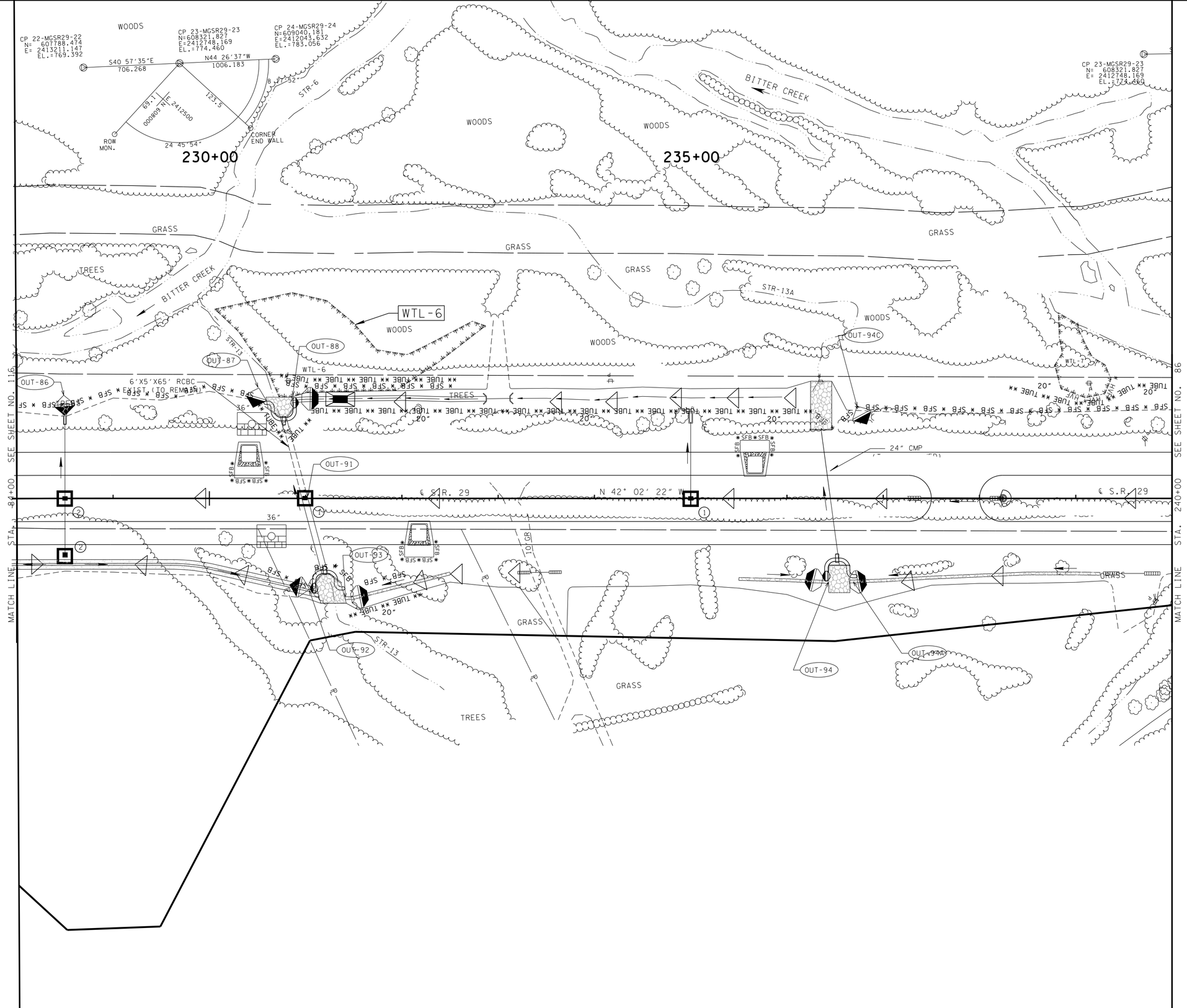
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	117
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	85

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



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 228+00 TO STA. 240+00

SCALE: 1"= 50'

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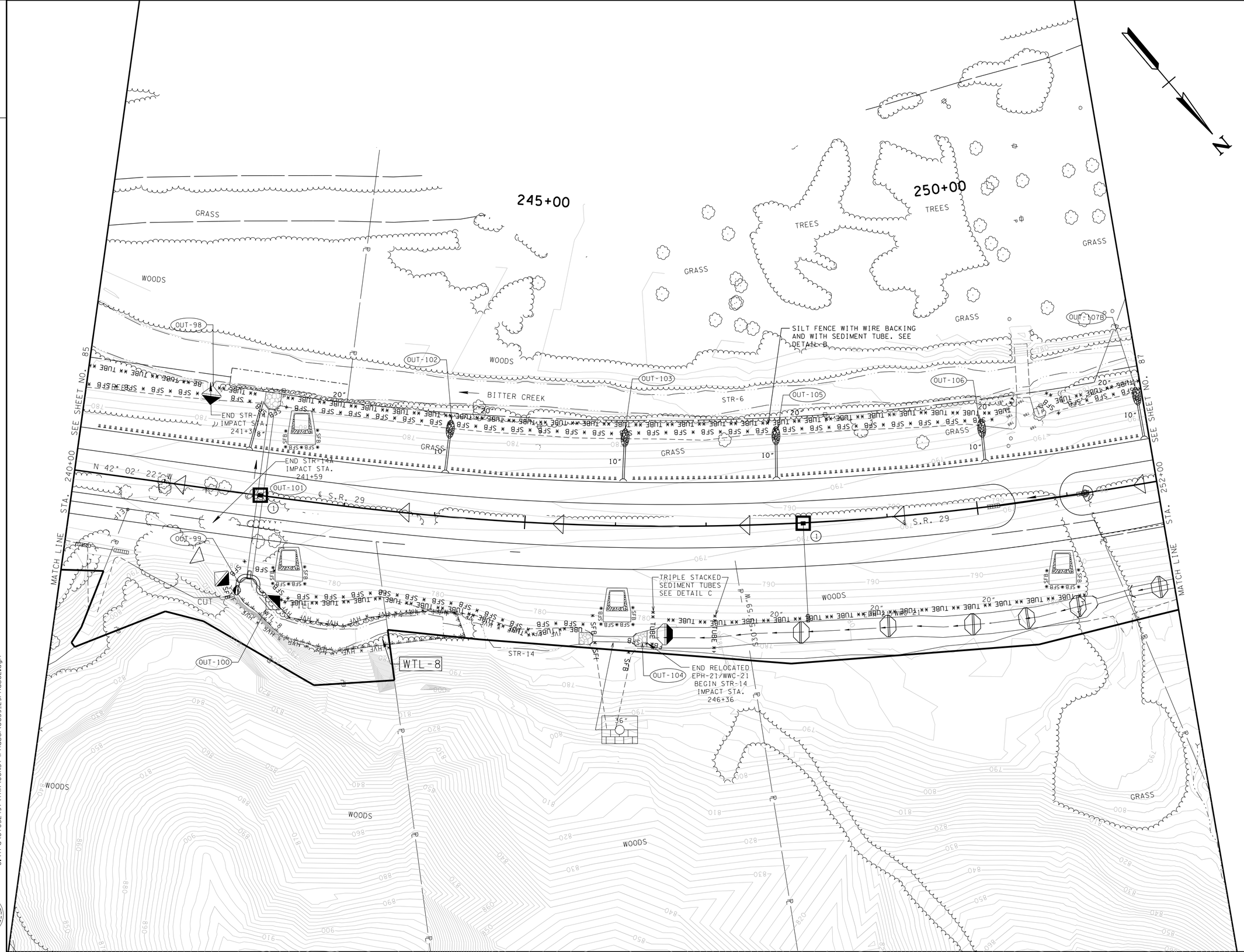
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	118
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	86

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



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE II

STA. 240+00 TO STA. 252+00

SCALE: 1"= 50'

Survey & Design Division

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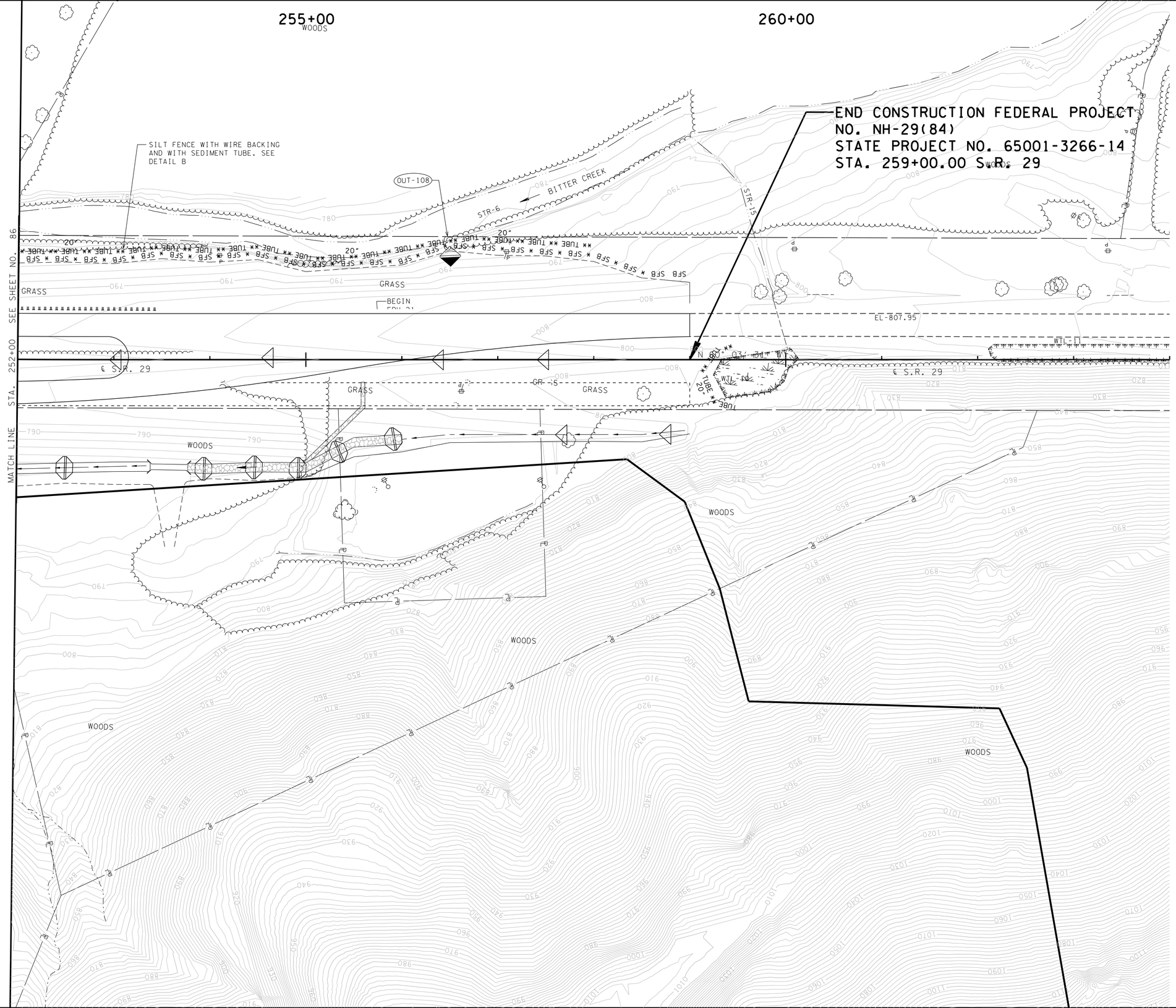
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	119
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	87

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



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

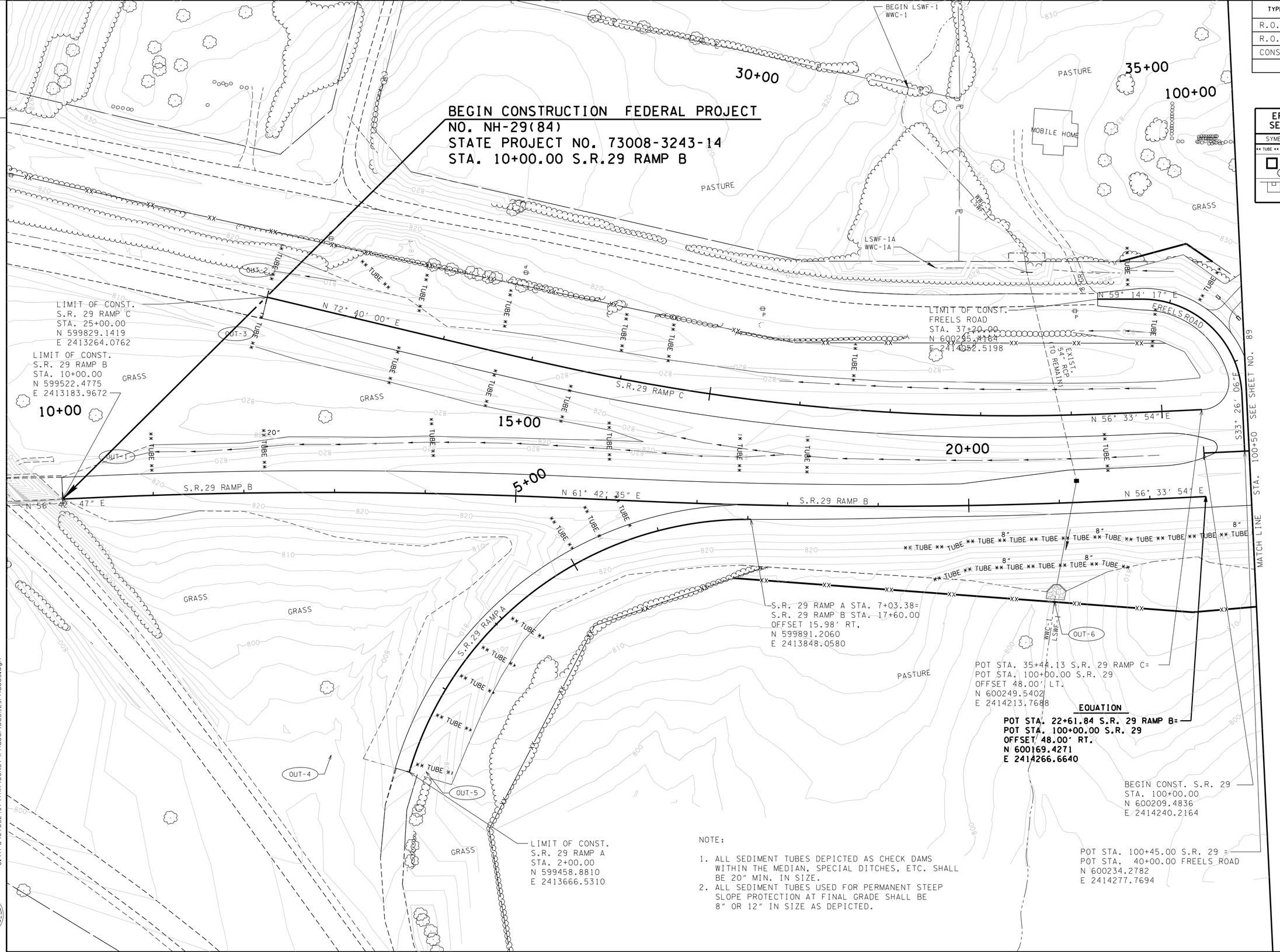
EROSION PREVENTION AND SEDIMENT CONTROL PLAN
PHASE II

STA. 252+00 TO STA. 264+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	129
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	88



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
** TUBE ** TUBE **	SEDIMENT TUBE	EC-STR-37
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
I	CURB INLET PROTECTION (TYPE I)	EC-STR-39

NOTE:

1. ALL SEDIMENT TUBES DEPICTED AS CHECK DAMS WITHIN THE MEDIAN, SPECIAL DITCHES, ETC. SHALL BE 20″ MIN. IN SIZE.
2. ALL SEDIMENT TUBES USED FOR PERMANENT STEEP SLOPE PROTECTION AT FINAL GRADE SHALL BE 8″ OR 12″ IN SIZE AS DEPICTED.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 10+00 TO STA. 100+50

SCALE: 1″= 50′

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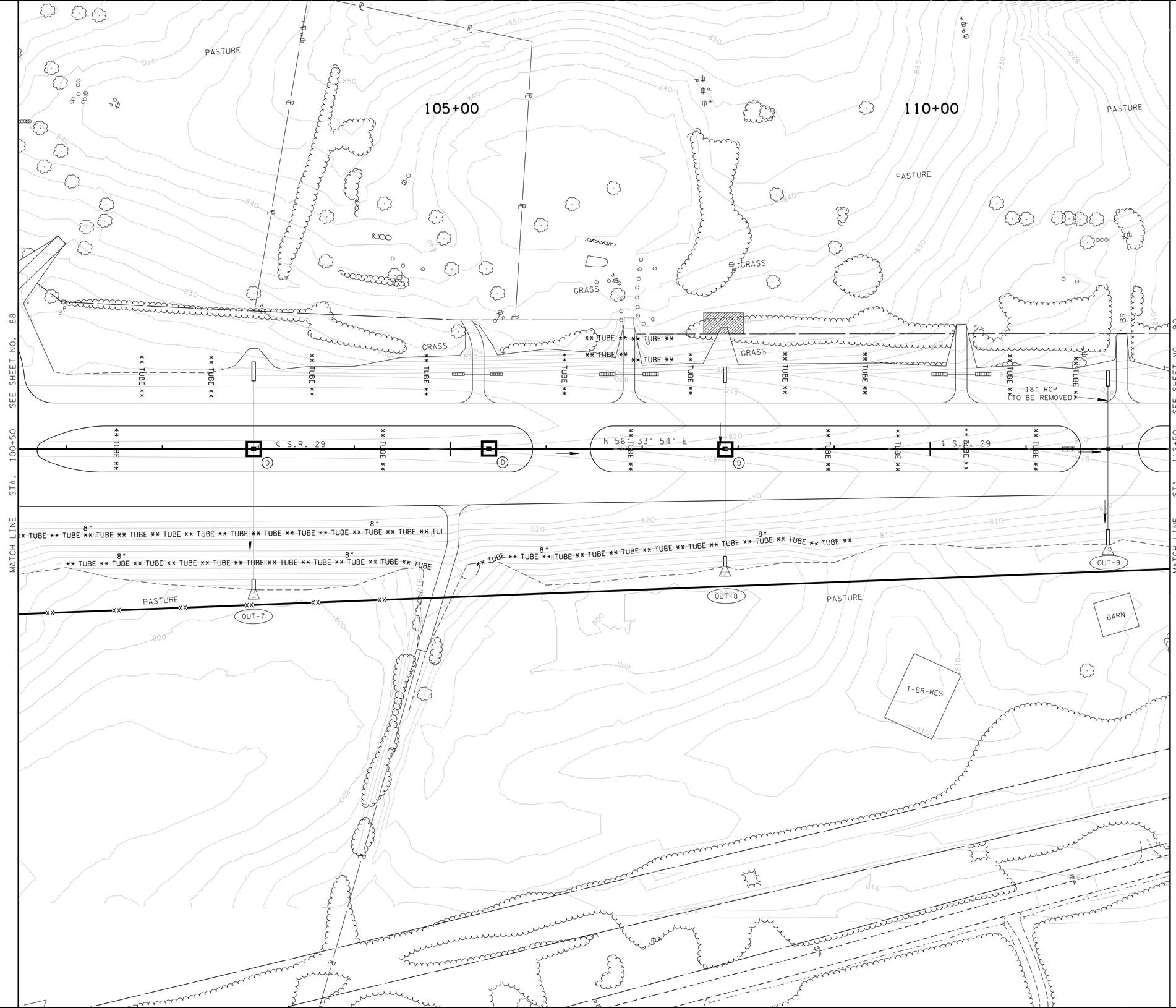
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	130
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	89



N

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 100+50 TO STA. 112+50

SCALE: 1"= 50'

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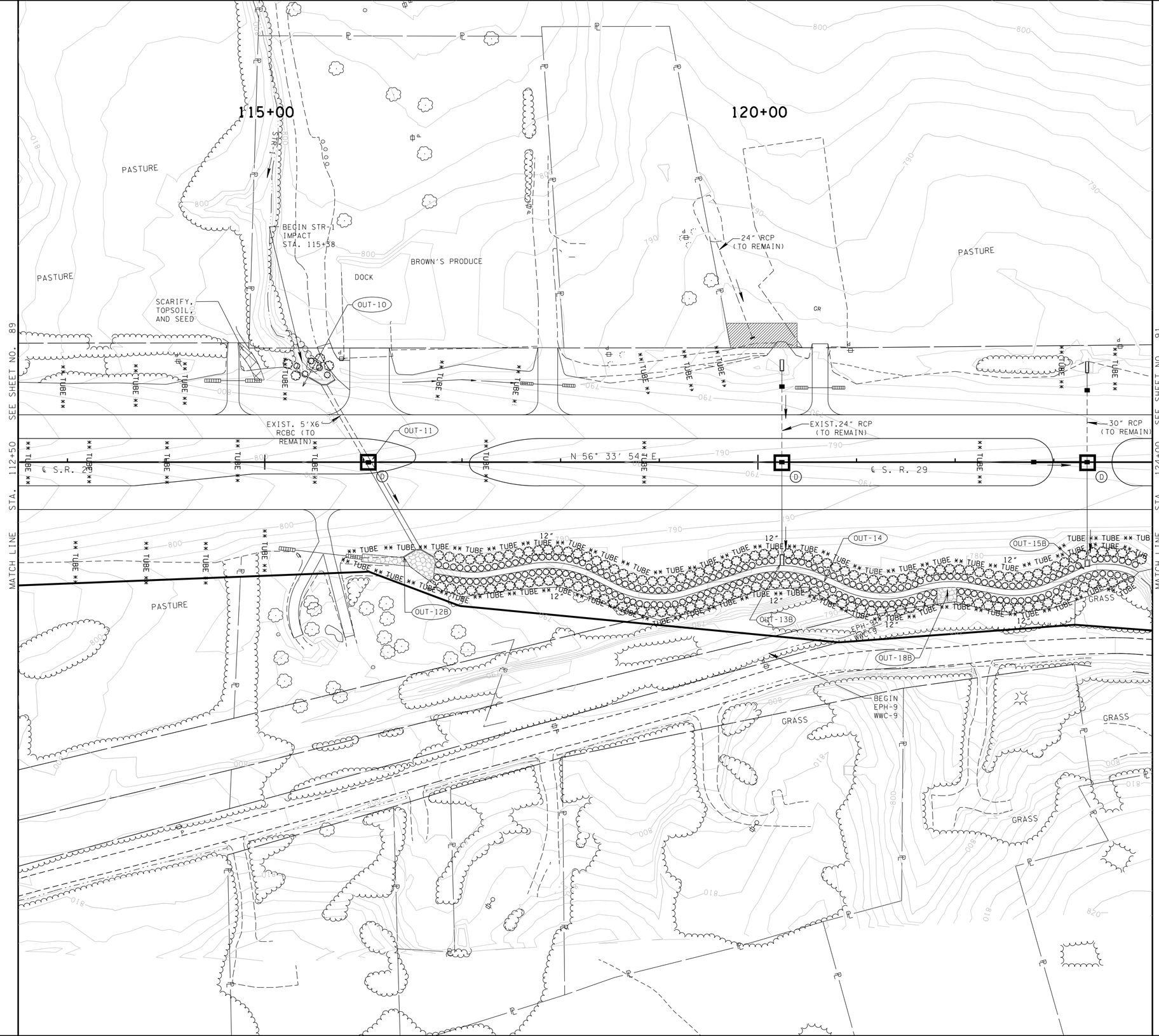
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	131
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	90



N

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 112+50 TO STA. 124+00

SCALE: 1"= 50'

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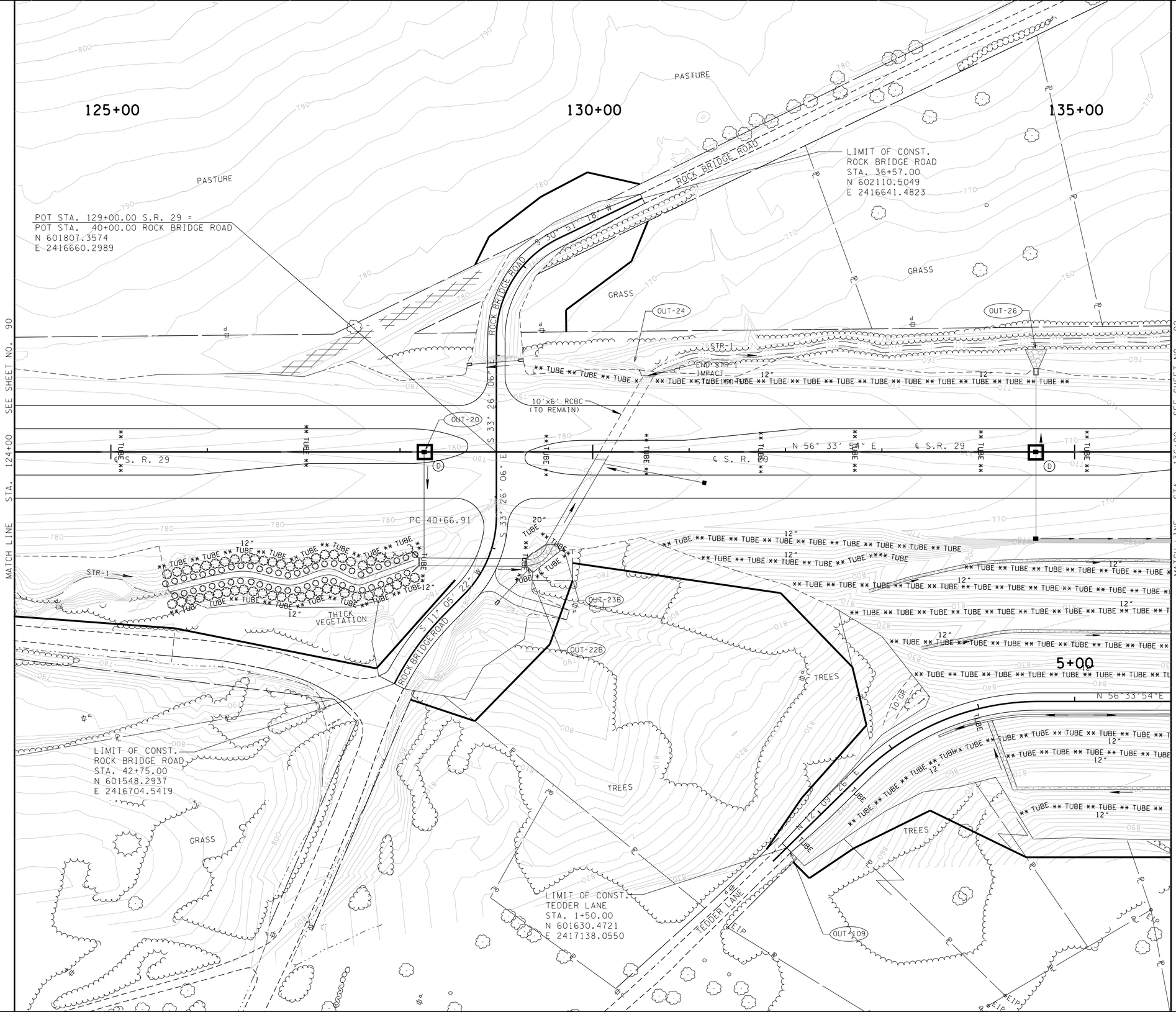
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	132
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	91



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 124+00 TO STA. 136+00

SCALE: 1"= 50'

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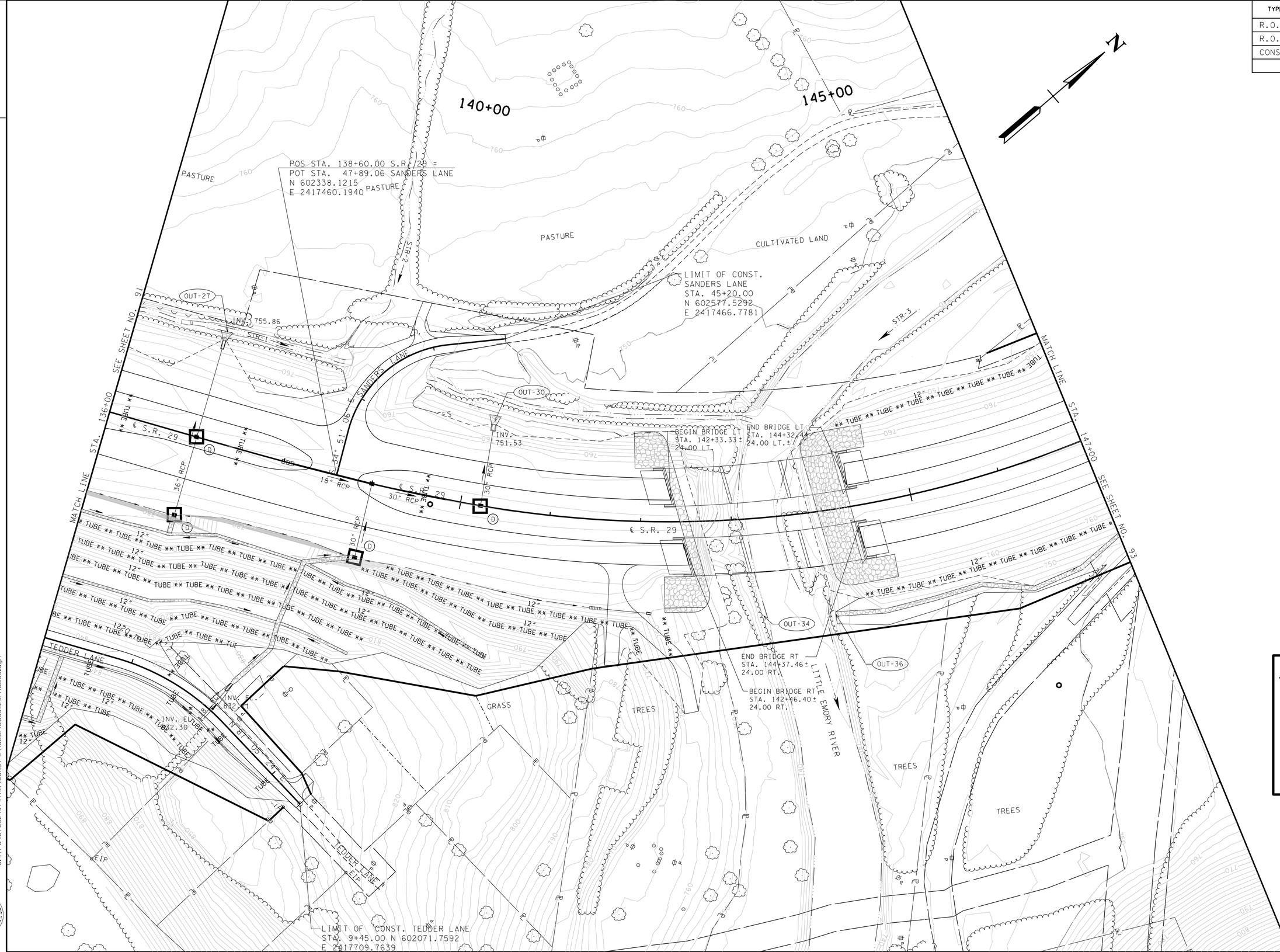
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	133
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	92



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Survey & Design Division

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 136+00 TO STA. 147+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	134
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	93

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 147+00 TO STA. 158+00

SCALE: 1"= 50'

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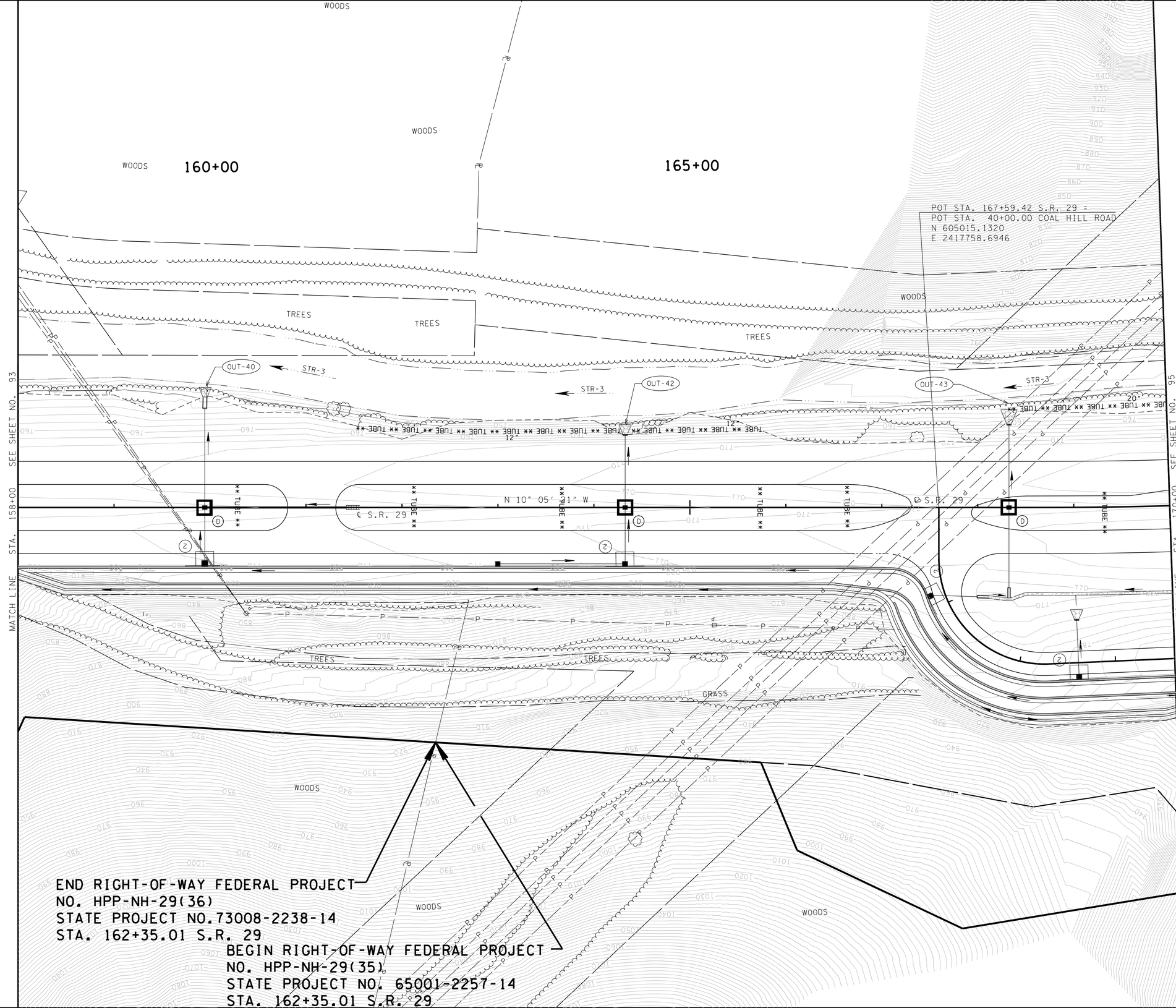
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	135
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	94

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.



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UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 158+00 TO STA. 170+00

SCALE: 1"= 50'

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	136
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	95

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

UNOFFICIAL SET

NOT FOR BIDDING

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Survey & Design Division

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

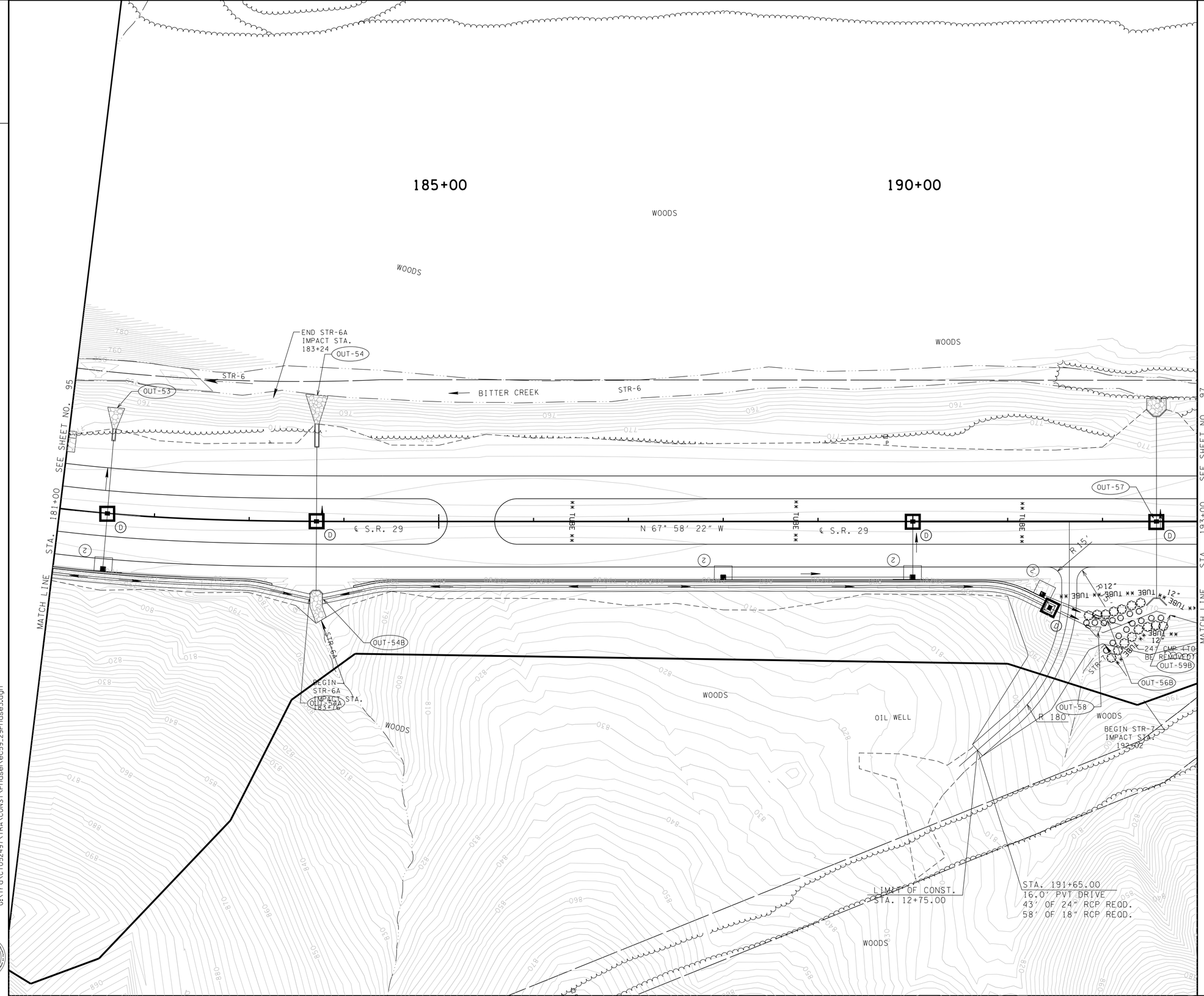
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 170+00 TO STA. 181+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	137
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	96



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Survey & Design Division

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

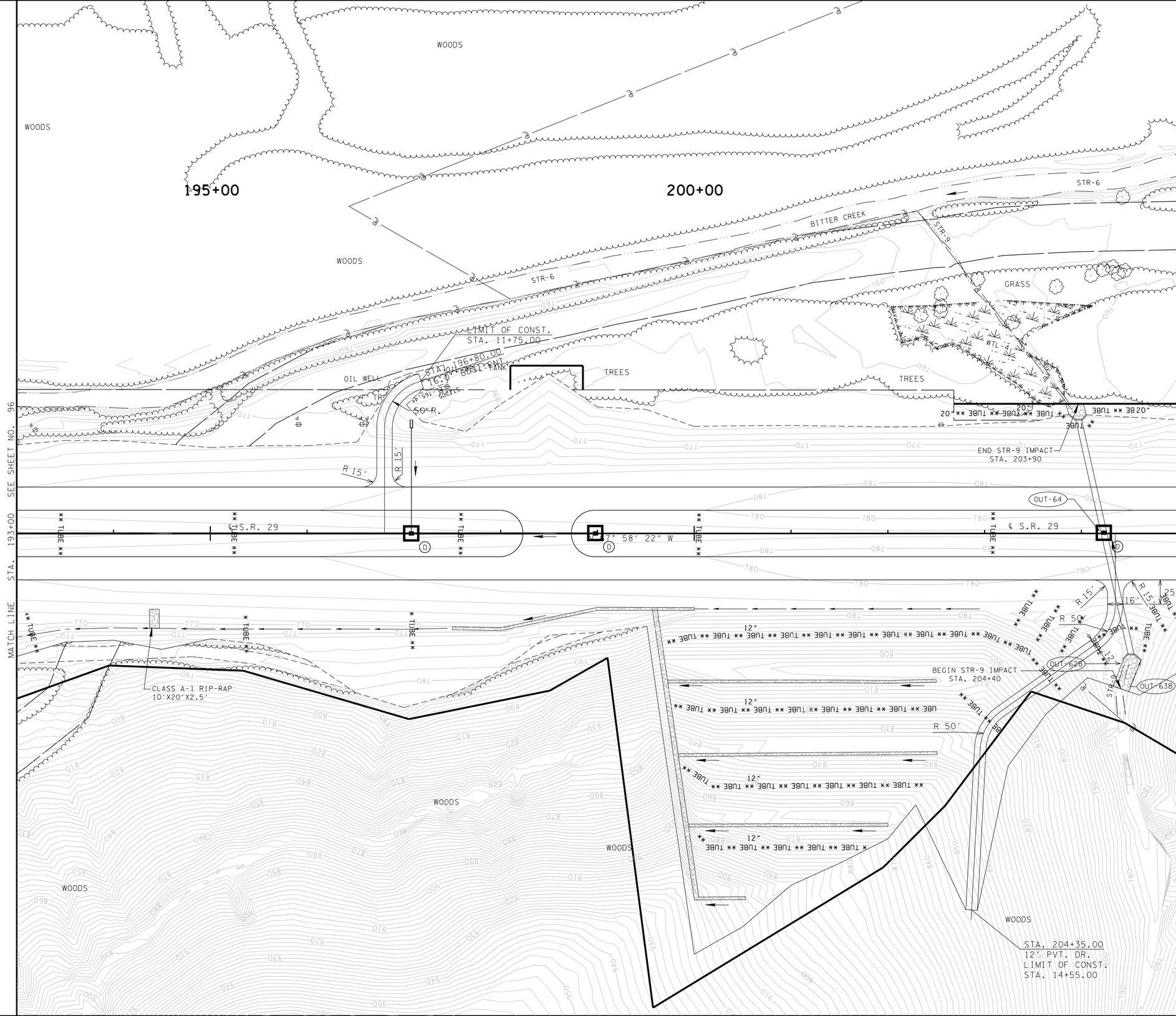
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 181+00 TO STA. 193+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	138
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	97



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 193+00 TO STA. 205+00

SCALE: 1"= 50'

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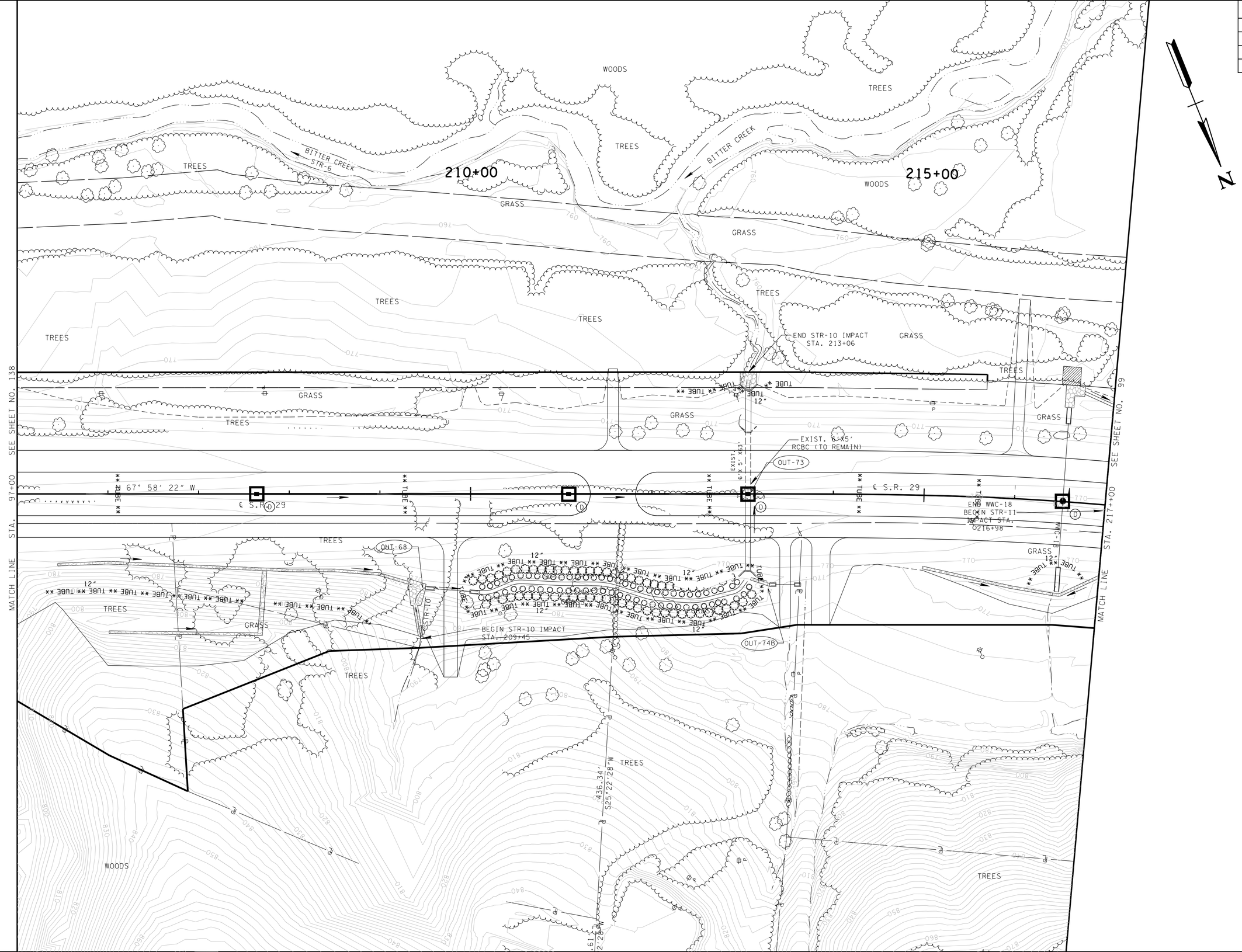
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	139
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	98



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UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 205+00 TO STA. 217+00

SCALE: 1"= 50'

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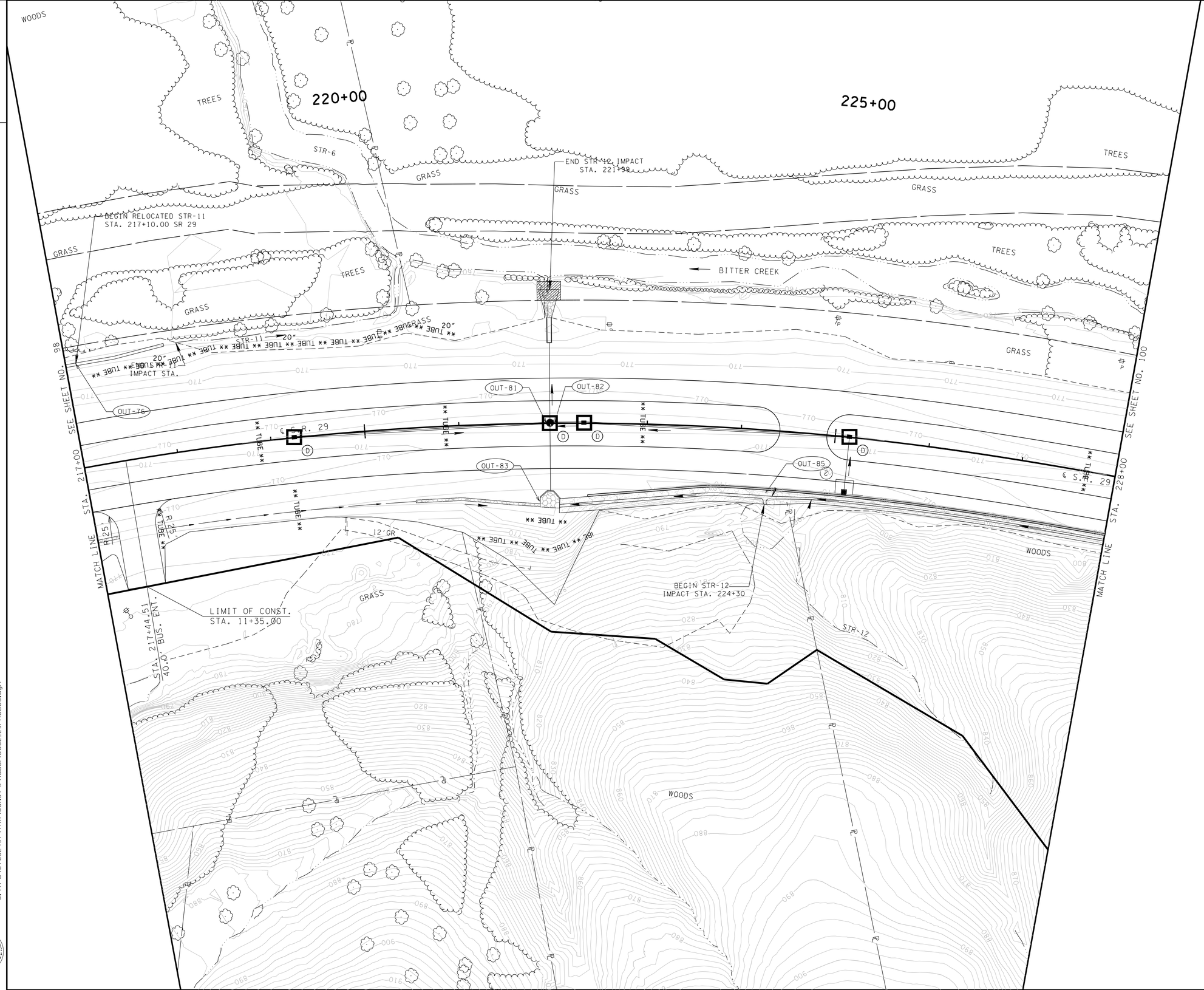
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	140
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	99



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 217+00 TO STA. 228+00

SCALE: 1"= 50'

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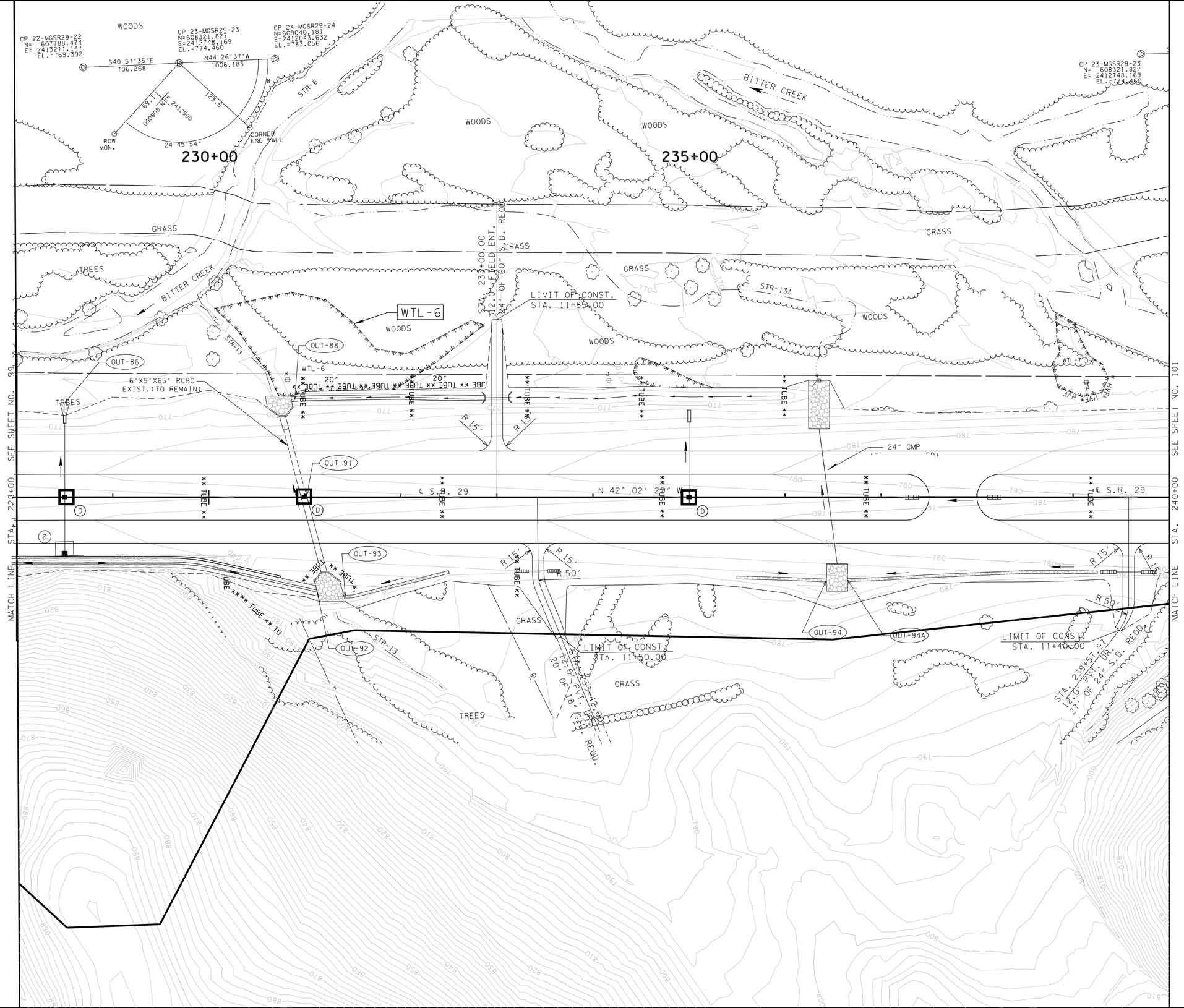
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	141
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	100

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



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 228+00 TO STA. 240+00

SCALE: 1"= 50'

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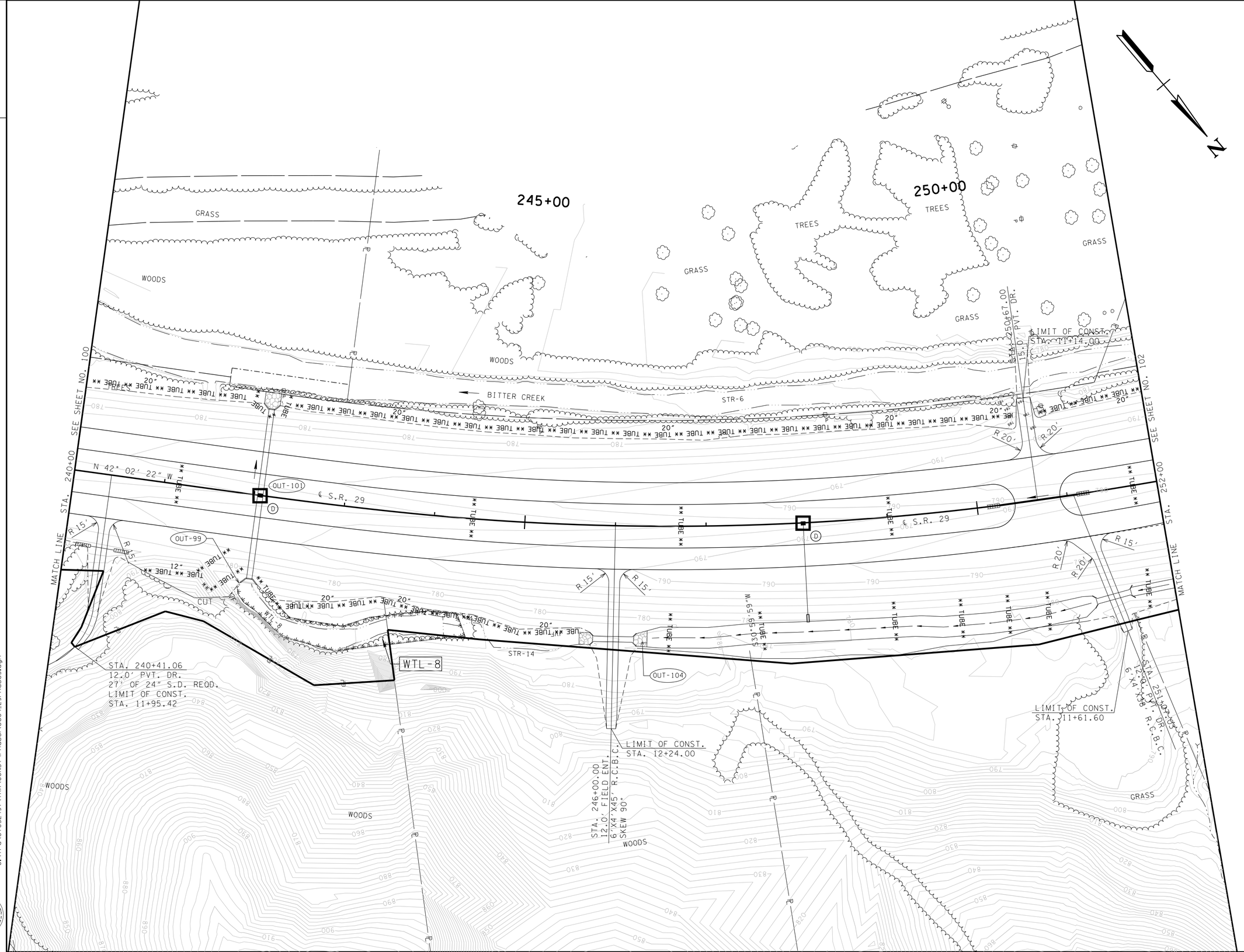
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	142
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	101



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Survey & Design Division

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

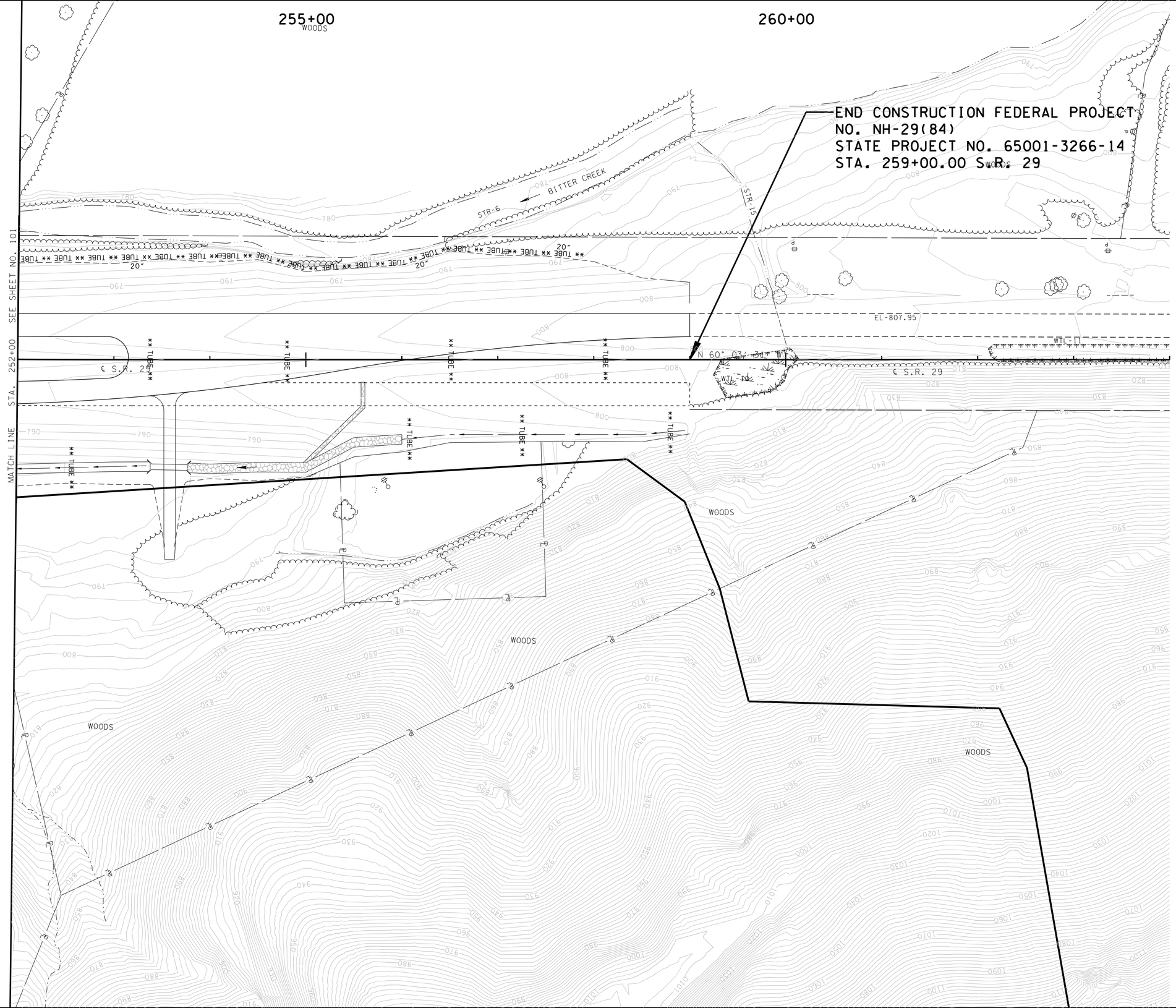
EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 240+00 TO STA. 252+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	143
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	102

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



UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE III

STA. 252+00 TO STA. 264+00

SCALE: 1"= 50'

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103

TRAFFIC CONTROL NOTES

1. ALL TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL MEET THE STANDARDS PRESCRIBED IN PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL COMPLY WITH THE STATE OF TENNESSEE, DEPARTMENT OF TRANSPORTATION, BUREAU OF PLANNING AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 712 - TEMPORARY TRAFFIC CONTROL.

2. TRAFFIC CONTROL DEVICES SHOWN ARE THE MINIMUM DEVICES REQUIRED. ADDITIONAL TRAFFIC CONTROL DEVICES REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR AS DIRECTED BY THE ENGINEER SHALL BE INSTALLED AND WILL BE PAID FOR UNDER THE APPROPRIATE ITEM.

3. THE APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE INSTALLED AT THE INCEPTION OF EACH STAGE OF CONSTRUCTION, PRIOR TO OPENING A ROAD TO TRAFFIC OR CLOSING AN EXISTING ROAD.

4. ALL TRAFFIC CONTROL DEVICES SHALL BE PROPERLY MAINTAINED AND/OR OPERATED AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER.

5. ALL REGULATORY AND WARNING SIGNS, WHICH ARE NO LONGER APPROPRIATE BECAUSE OF CONSTRUCTION, SHALL BE COVERED OR REMOVED.

6. EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH TRAFFIC CONTROL PAVEMENT MARKINGS SHALL BE REMOVED.

7. DRUMS AND PAVEMENT MARKINGS ARE NOT SHOWN AT EVERY LOCATION ON ON EACH SHEET AND SHALL BE PLACED IN CONFORMANCE WITH THE STANDARD DRAWINGS. FLEXIBLE DRUMS SHALL BE USED ON 50 FOOT SPACING ALONG THE FULL LENGTH OF CONSTRUCTION.

8. A UNIFORMED LAW ENFORCEMENT OFFICER WITH A LAW ENFORCEMENT VEHICLE EQUIPPED WITH BLUE LIGHTS SHALL BE REQUIRED FOR FLAGGING OPERATIONS AND WHEN TRAFFIC INTERRUPTIONS ARE NECESSARY. ALL COST FOR OFFICERS AND VEHICLES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 716-08.06 UNIFORMED POLICE OFFICER

9. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE REMOVED IMMEDIATELY UPON COMPLETION OF THE PROJECT.

10. ALL LANE LINES AND EDGE LINES USED AS TEMPORARY MARKINGS SHALL BE 4 IN. WIDE.

11. THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

12. THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

13. FLAGS ARE TO BE USED ON ADVANCE WARNING SIGNS WHERE SHOWN. FLAGS ARE TO BE 2' X 2' AND FLUORESCENT RED- ORANGE IN COLOR. COST OF FLAGGING TO BE INCLUDED IN THE COST OF TRAFFIC CONTROL.

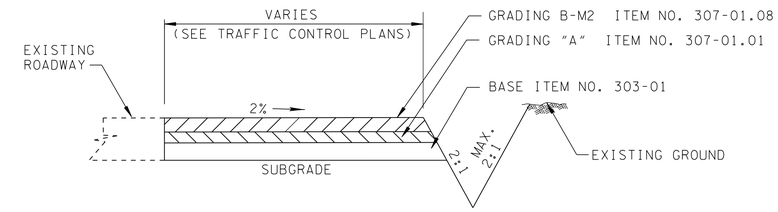
CONSTRUCTION SEQUENCE

PHASE I
1. INSTALL ADVANCE WARNING SIGNS AND APPLICABLE TRAFFIC CONTROL DEVICES.
2. MAINTAIN TRAFFIC ON EXISTING SR-29. CONSTRUCT THE NEW NORTHBOUND ROADWAY OF SR-29, INCLUDING DRAINAGE, THOUGH THE BINDER SURFACE FROM STA 100+70 TO THE END OF THE PROJECT.
3. INSTALL THE DETOUR SIGNS AND OTHER TRAFFIC CONTROL DEVICES ALONG ROCK BRIDGE ROAD. CLOSE EXISTING ROCK BRIDGE ROAD, RIGHT OF SR-29, AS SHOWN.
4. CONSTRUCT ALL SIDE ROADS RIGHT OF SR-29 THROUGH THE BINDER SURFACE.
5. CONSTRUCT THE TEMPORARY PAVING ALONG RAMP A.

PHASE I-A
1. PLACE TRAFFIC ON THE TEMPORARY PAVING FOR RAMP A AND CONSTRUCT THE FULL DEPTH CONCRETE ALONG RAMP A.
2. CONSTRUCT THE FULL DEPTH CONCRETE ALONG RAMP B FROM STA 18+00 TO THE END OF THE RAMP.
3. CONSTRUCT THE NEW ROADWAY FOR SR-29 FROM STA 100+00 TO STA 100+70.
4. CONSTRUCT THE FULL DEPTH CONCRETE FOR THE INSIDE LANE AND SHOULDER FOR RAMP C.

PHASE I-B
1. PLACE TRAFFIC ON THE NEWLY CONSTRUCTED RAMP A AS SHOWN.
2. CLOSE THE OUTSIDE LANE OF RAMP B AS SHOWN. CONSTRUCT THE OUTSIDE LANE OF RAMP B FROM STA 10+00 TO 14+75 AND BOTH OUTSIDE LANES FROM STA 14+75 TO STA 18+00.

PHASE II
1. CONSTRUCT THE TEMPORARY PAVEMENT FOR RAMP C, BETWEEN RAMP C AND RAMP B, FROM STA 31+20 TO STA 35+44.
2. INSTALL TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS AND MARKERS FOR TWO WAY TRAFFIC ON THE NORTHBOUND ROADWAY AS SHOWN. MOVE TRAFFIC TO THE NORTHBOUND ROADWAY.
3. CONSTRUCT THE SOUTHBOUND ROADWAY, INCLUDING DRAINAGE, THROUGH THE WEARING SURFACE.
4. CONSTRUCT ALL SIDE ROADS LEFT OF SR-29 THROUGH THE WEARING SURFACE.
5. CONSTRUCT THE FULL DEPTH CONCRETE PAVEMENT ON THE INSIDE LANE OF RAMP B FROM STA 10+00 TO STA 14+75.
6. CONSTRUCT THE FULL DEPTH CONCRETE PAVEMENT ON THE OUTSIDE LANE OF RAMP C.
7. REMOVE ALL PORTABLE BARRIERS AND OPEN ALL ROADWAYS TO TRAFFIC.
8. PLACE THE WEARING SURFACE ON THE NORTHBOUND ROADWAY AND SIDE ROADS RIGHT OF SR-29 UNDER TRAFFIC.



NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER.

TYPICAL SECTION

TEMPORARY PAVEMENT FOR TRAFFIC CONTROL

TEMPORARY PAVEMENT

BINDER GRADING B-M2 - 2 IN.
BLACK BASE GRADING "A" - 3 IN.
MINERAL AGGREGATE BASE - 6 IN.

TRAFFIC CONTROL SIGNS (712-06)

ROANE CO. I	ROANE CO. II	MORGAN CO. I	MORGAN CO. II	TOTAL REQUIRED	TYPE	SIZE	ROANE QUANT.	MORGAN QUANT.	TOTAL QUANT.
13				13	D3-1	60" x 12"	65.00		65.00
2	4		1	5	R1-1	36" x 36"	36.00	9.00	45.00
	1			1	R1-2	36" x 36"x 36"	3.80		3.80
4	4	4	4	8	R2-1(40)	24" x 30"	20.00	20.00	40.00
1				1	R3-11a	60" x 30"	12.50		12.50
1				1	R5-1	30" x 30"	6.25		6.25
2				2	R6-1	36" x 12"	6.00		6.00
18	17	18	14	36	R11-2	48" x 30"	180.00	180.00	360.00
2				2	M4-8a	24" x 18"	6.00		6.00
13				13	M4-9	30" x 24"	65.00		65.00
1				1	M4-10	48" x 18"	6.00		6.00
			2	2	W1-4	48" x 48"		32.00	32.00
1				1	W1-4BM	36" x 36"	9.00		9.00
1				1	W3-1	36" x 36"	9.00		9.00
2	2			2	W3-5	48" x 48"	32.00		32.00
1				1	W5-4	48" x 48"	16.00		16.00
3	3	1	1	4	W20-1(1 MILE)	48" x 48"	48.00	16.00	64.00
3	3	1	1	4	W20-1(1/2 MILE)	48" x 48"	48.00	16.00	64.00
3	3	1	1	4	W20-1(1000')	48" x 48"	48.00	16.00	64.00
5	5	1	1	6	W20-1(500")	48" x 48"	80.00	16.00	96.00
1	1			1	W20-1(AHEAD)	48" x 48"	16.00		16.00
2				2	W20-2 (AHEAD)	48" x 48"	32.00		32.00
1	1	1	1	2	W20-4 (AHEAD)	48" x 48"	16.00	16.00	32.00
1	1	1	1	2	W20-7 (AHEAD)	48" x 48"	16.00	16.00	32.00
3	3	1	1	4	G20-1	36" x 18"	13.50	4.50	18.00
3	3	1	1	4	G20-2A	36" x 18"	13.50	4.50	18.00
2	2	2	2	4	ADVANCED WARNING SIGN FLAGS	24" x 24"	8.00	8.00	16.00
					TOTAL		811.55	354.00	1165.55

TRAFFIC CONTROL QUANTITIES

ROANE CO I	ROANE CO II	MORGAN CO I	MORGAN CO II	ITEM NO.	DESCRIPTION	UNIT	ROANE CO	MORGAN CO	TOTAL QUANT.	
										(1)
1	1	1	1	705-08.51	PORTABLE IMPACT ANTENUATOR NCHRP350 TL-3	EA	1	1	2	(2)
0.2	0.2	0.3	0.3	712-01	TRAFFIC CONTROL	L.S.	0.4	0.6	1	(3)
2600	1900			712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	2600		2600	
212	212	242	242	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EA	212	242	454	
48	40	48	35	712-05.01	WARNING LIGHTS (TYPE A)	EA	48	48	96	
10	10	10	10	712-05.03	WARNING LIGHTS (TYPE C)	EA	10	10	20	
				712-06	SIGNS (CONSTRUCTION)	S.F.	811.55	354.00	1165.55	
46	46			712-06.01	VERTICAL PANELS	S.F.	46		46	(4)
564	504	576	396	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	564	576	1140	
1	1	1	1	712-08.03	ARROW BOARD (TYPE C)	EA	1	1	2	
1	1	1	1	713-16.01	CHANGEABLE MESSAGE SIGN	EA	1	1	2	
3000	3000	1000	1000	712-09.01	REMOVEABLE PAVEMENT MARKING (LINE)	L.F.	6000	2000	8000	
2.6	5.3	5.2	5.8	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	9	11	20	(5)
5400	2250			716-05.02	PAINTED PAVMT MARKING (8" BARRIERLINE)	L.F.	5400		5400	(5)
	60			716-05.05	PAINTED PAVMT MARKING (STOP LINE)	L.F.	60		60	(5)
1000		1600		716-08.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	1000	3000	4000	

(1) SOME TRAFFIC CONTROL DEVICES WILL BE USED IN DIFFERENT PHASES.

(2) 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.

(3) INCLUDES TRAFFIC CONTROL SUPERVISOR. SEE T.D.O.T. BUREAU OF HIGHWAYS "SPECIAL PROVISION REGARDING TRAFFIC CONTROL SUPERVISOR".

(4) INCLUDES 22 RIGHT PANELS AND 24 LEFT PANELS

(5) TO BE FOR USED FOR TEMPORARY STRIPING.

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TRAFFIC CONTROL NOTES

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103A

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

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.

d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

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Survey & Design Division

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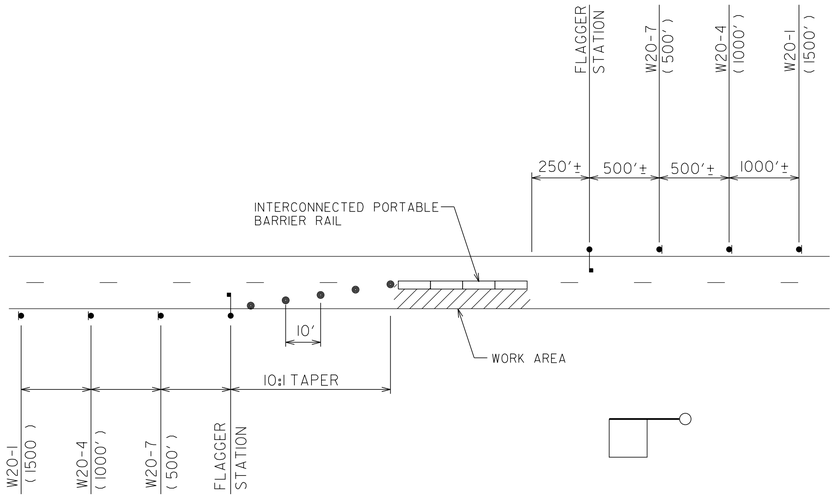
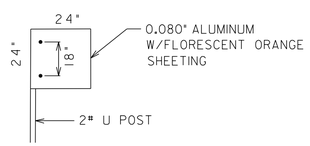
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-29(84)	103B

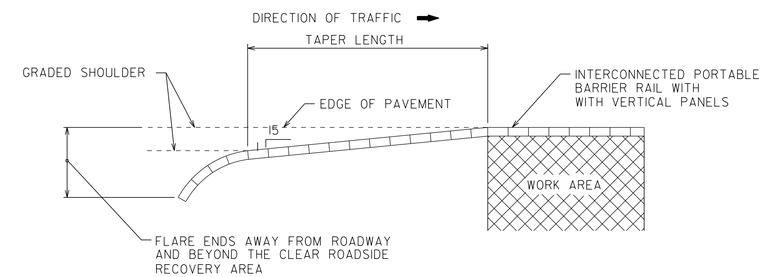


TYPICAL DETAIL OF TRAFFIC CONTROL DEVICES FOR CLOSURE OF ONE LANE OF A TWO LANE ROADWAY

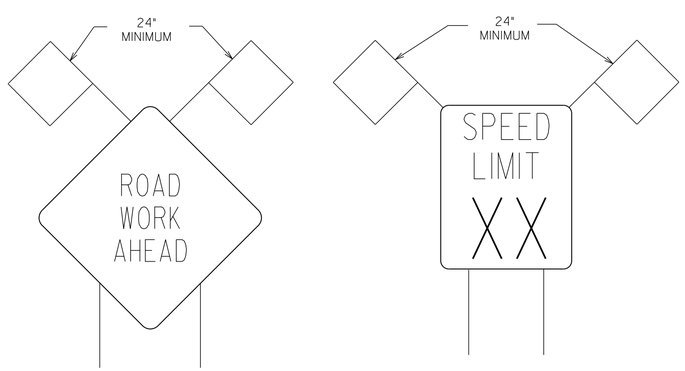
TYPE III BARRICADE ROAD CLOSURE
w/ TYPE A
WARNING LIGHTS



FLAG DETAIL



PORTABLE BARRIER RAIL ALIGNMENT



TYPICAL FLAG DETAIL

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TRAFFIC CONTROL DETAILS

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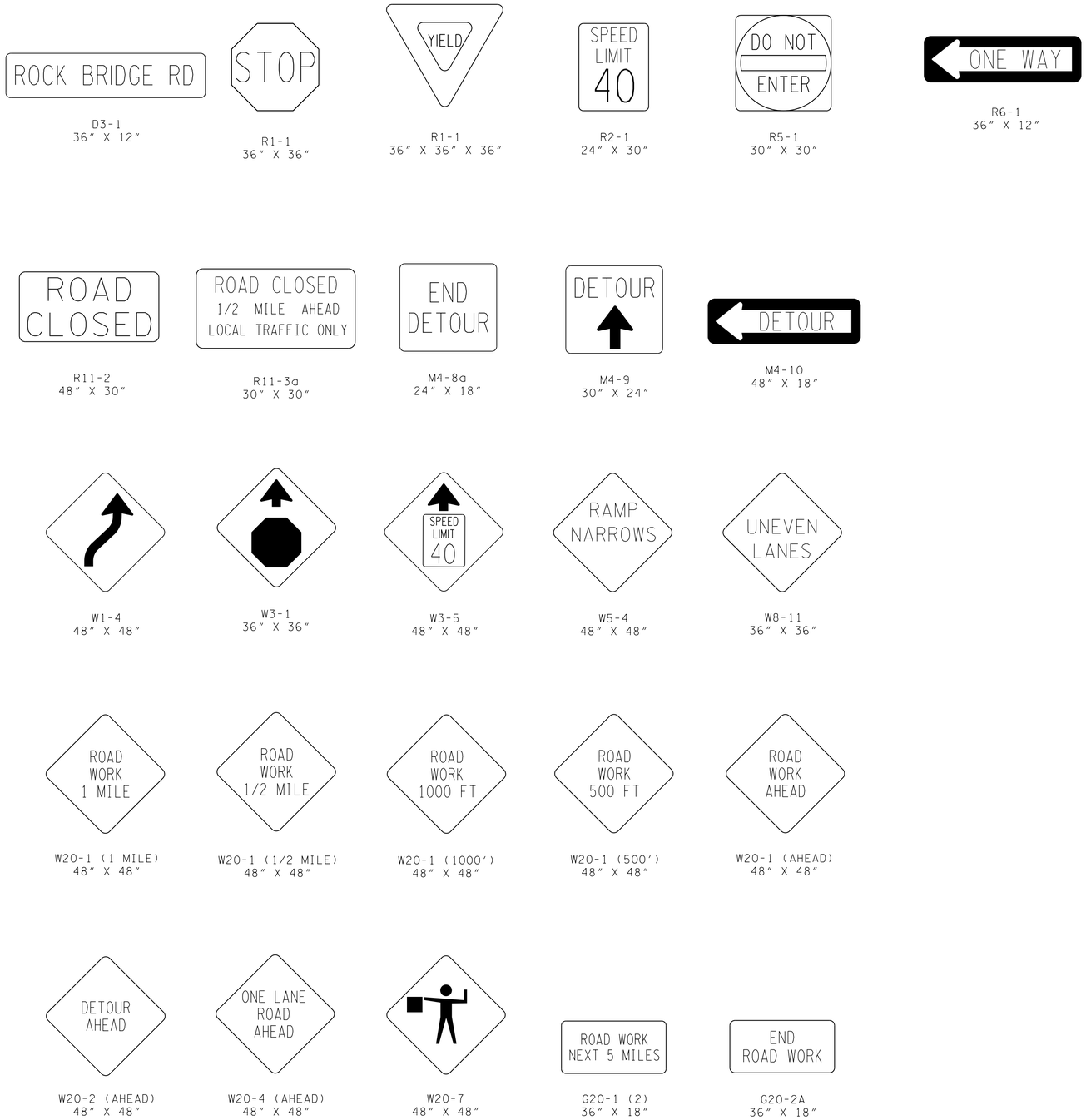
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103C

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



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TRAFFIC CONTROL DETAILS

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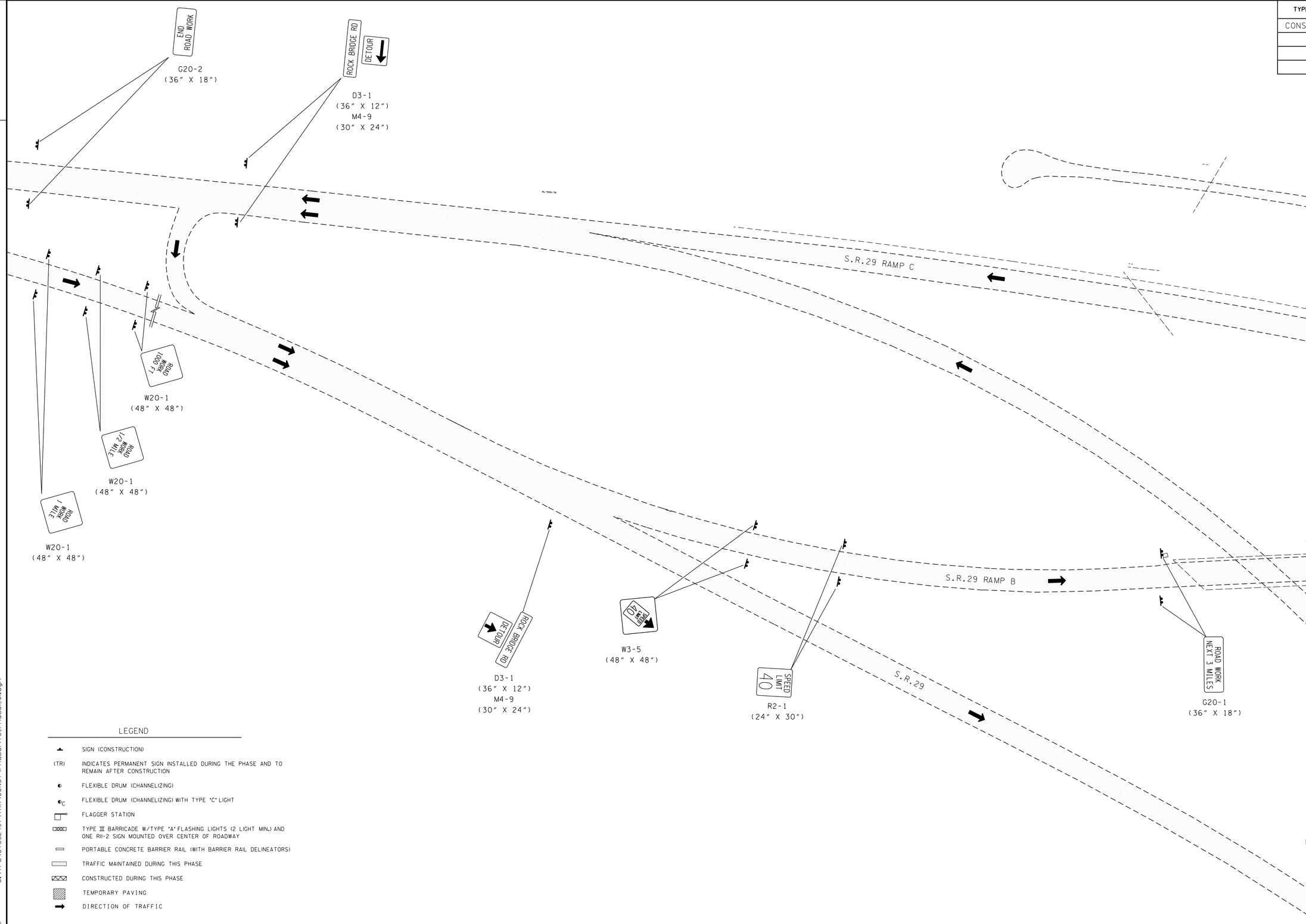
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103D

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



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

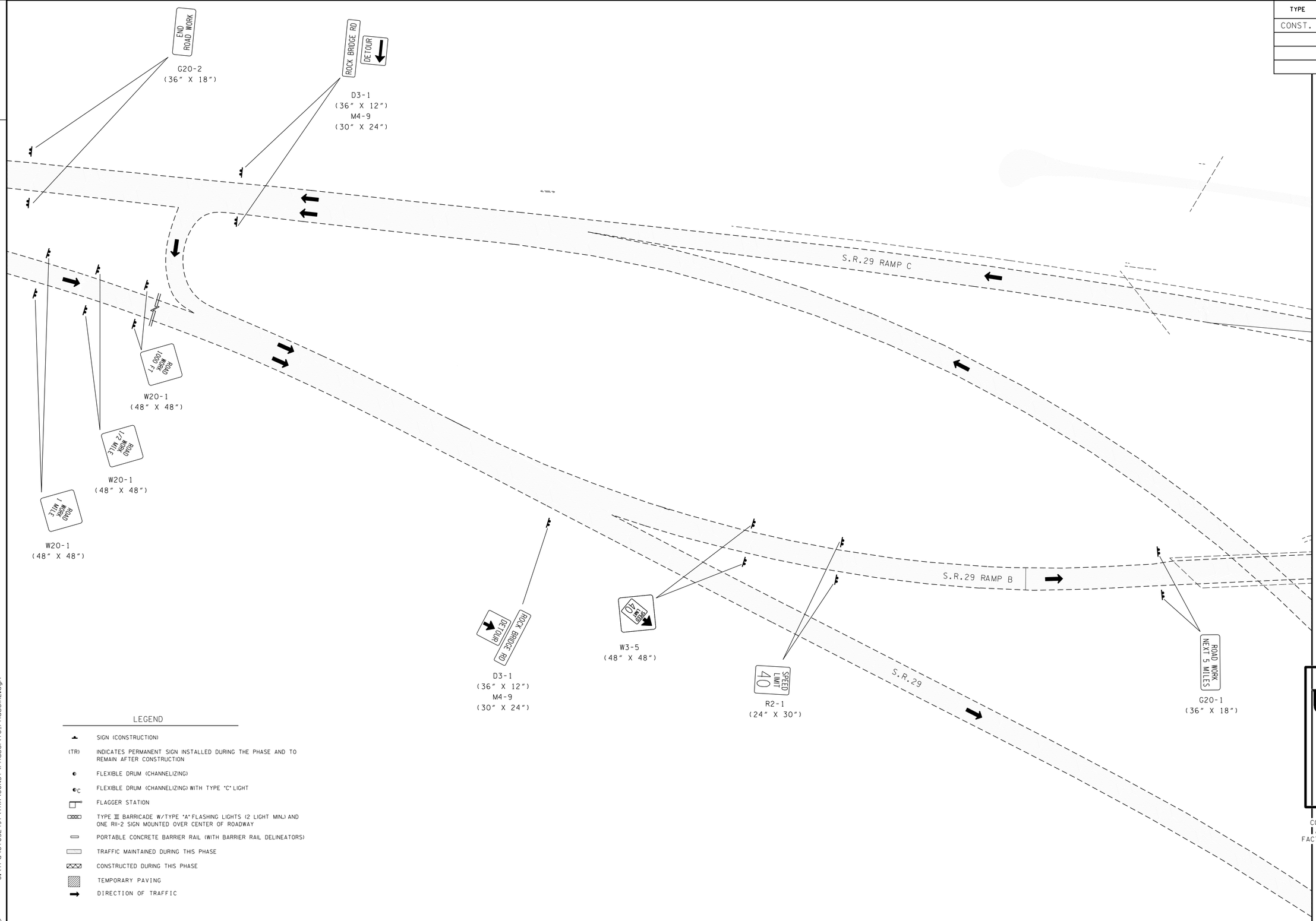
TRAFFIC CONTROL PLAN PHASE I

BEGIN TO STA.10+00

SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103E

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



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

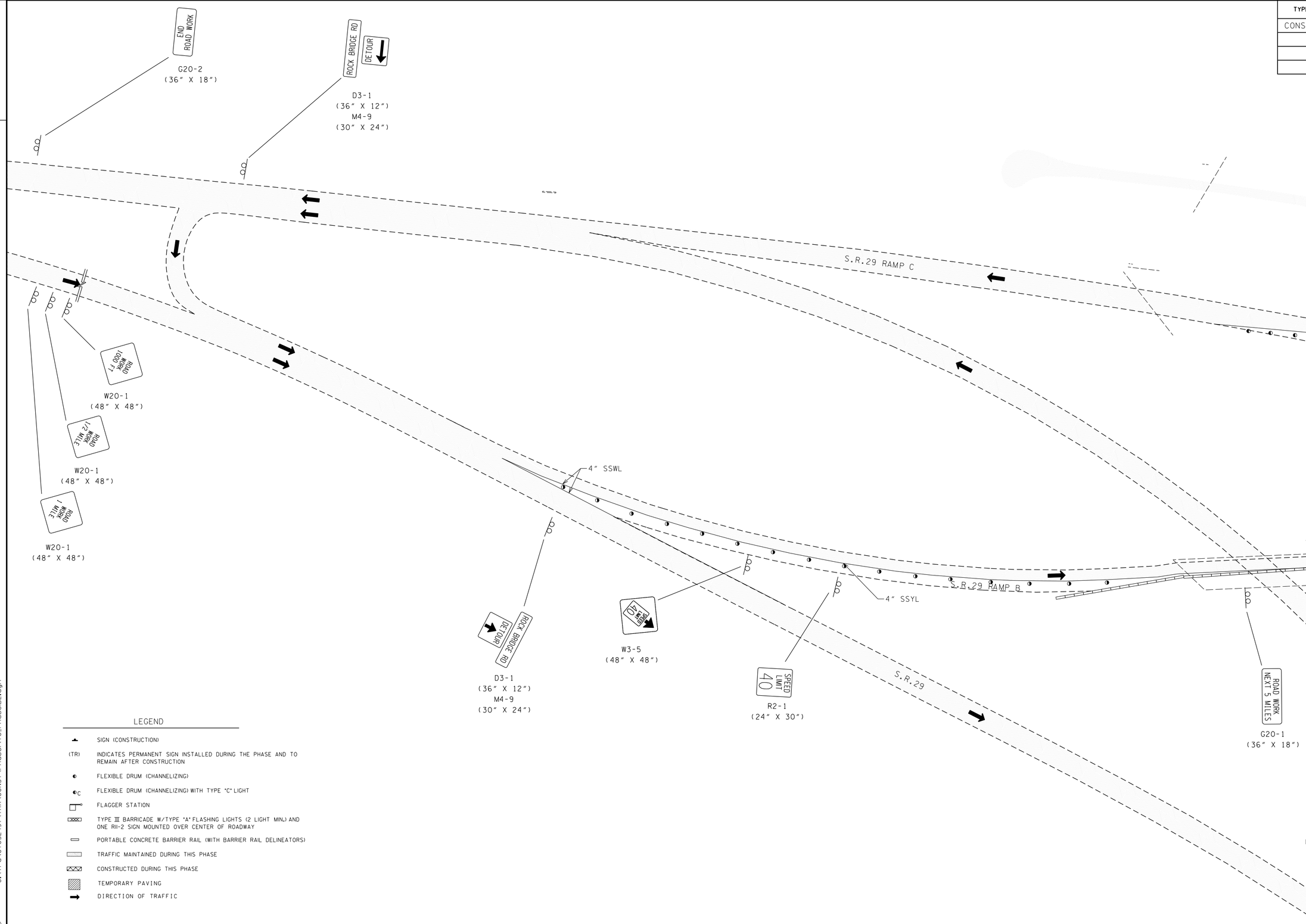
TRAFFIC CONTROL PLAN PHASE IA

BEGIN TO STA.10+00

SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103F

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



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE IB

BEGIN TO STA.10+00

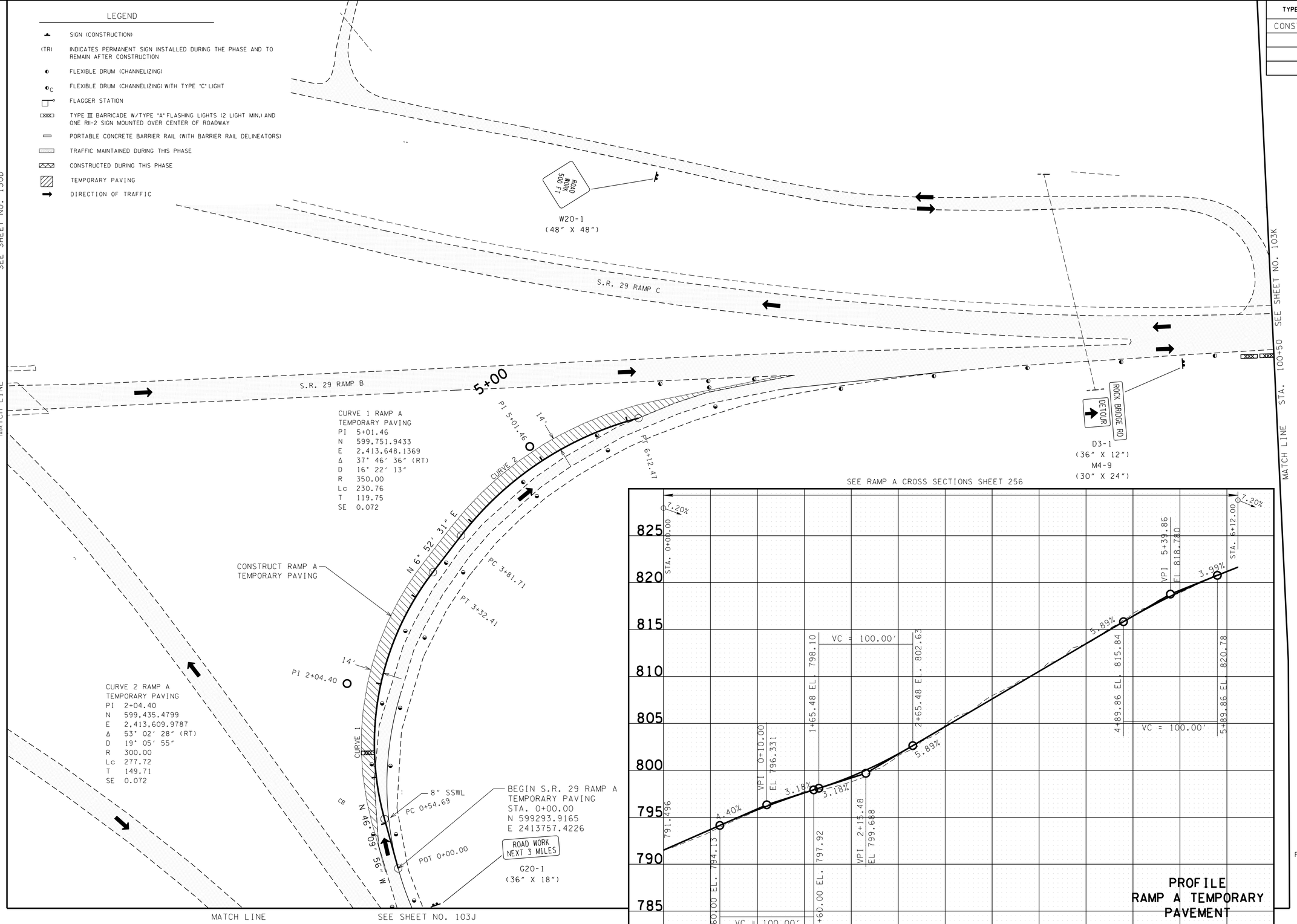
SCALE: 1"=50'

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

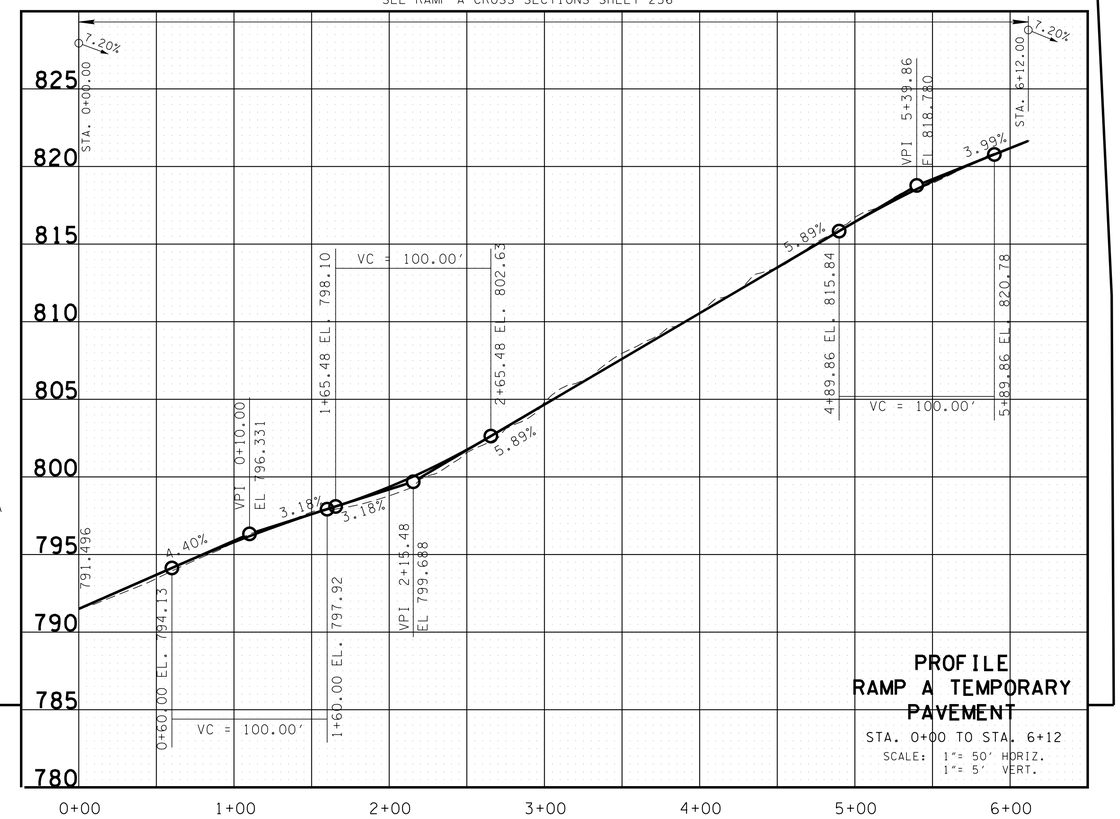
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103G

LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC



SEE RAMP A CROSS SECTIONS SHEET 256



PROFILE
RAMP A TEMPORARY PAVEMENT
STA. 0+00 TO STA. 6+12
SCALE: 1"= 50′ HORIZ.
1"= 5′ VERT.

N

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.0+00 TO STA.6+12.47
RAMP A TEMPORARY
SCALE: 1"=50′

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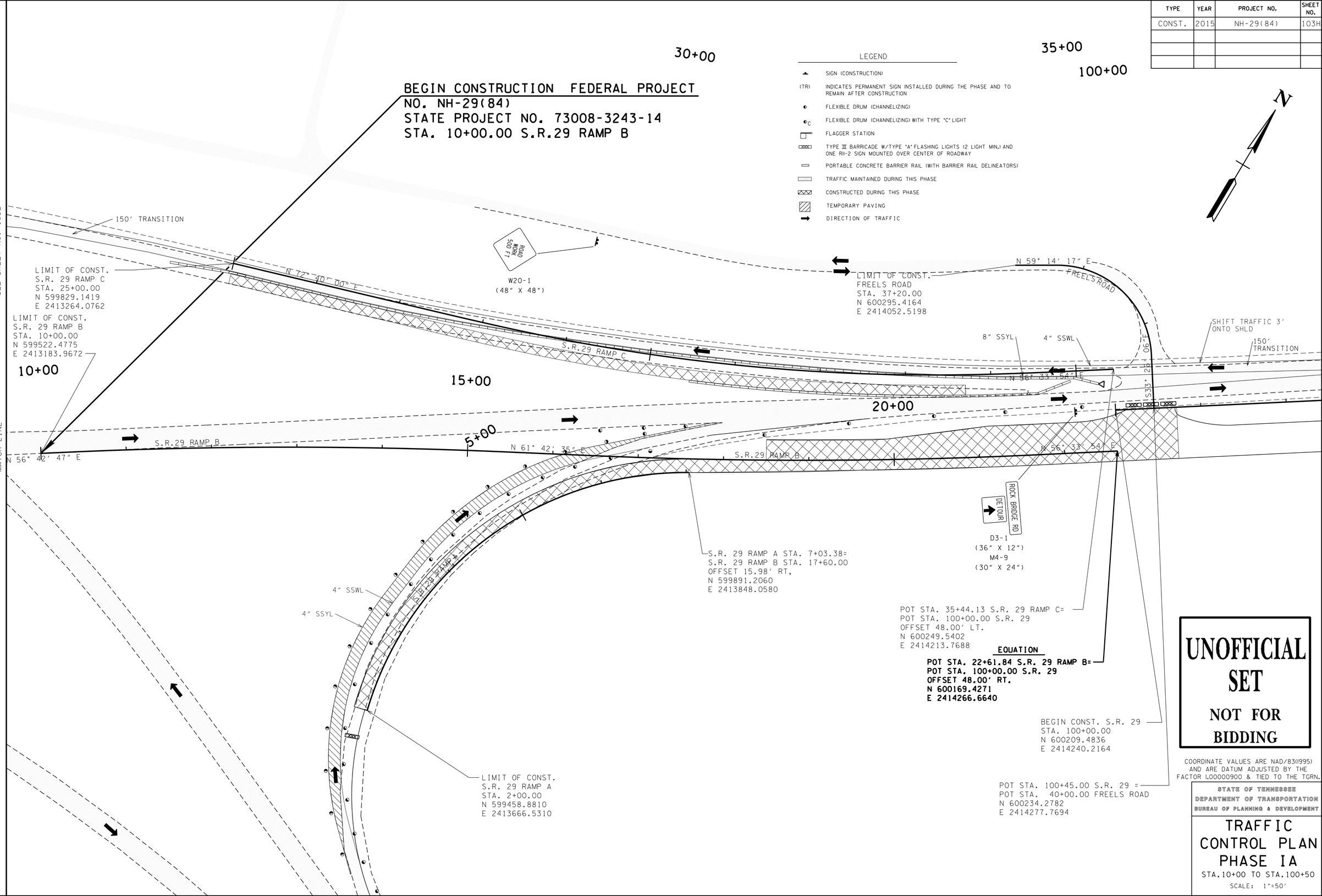
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103H



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE IA

STA.10+00 TO STA.100+50

SCALE: 1"=50'

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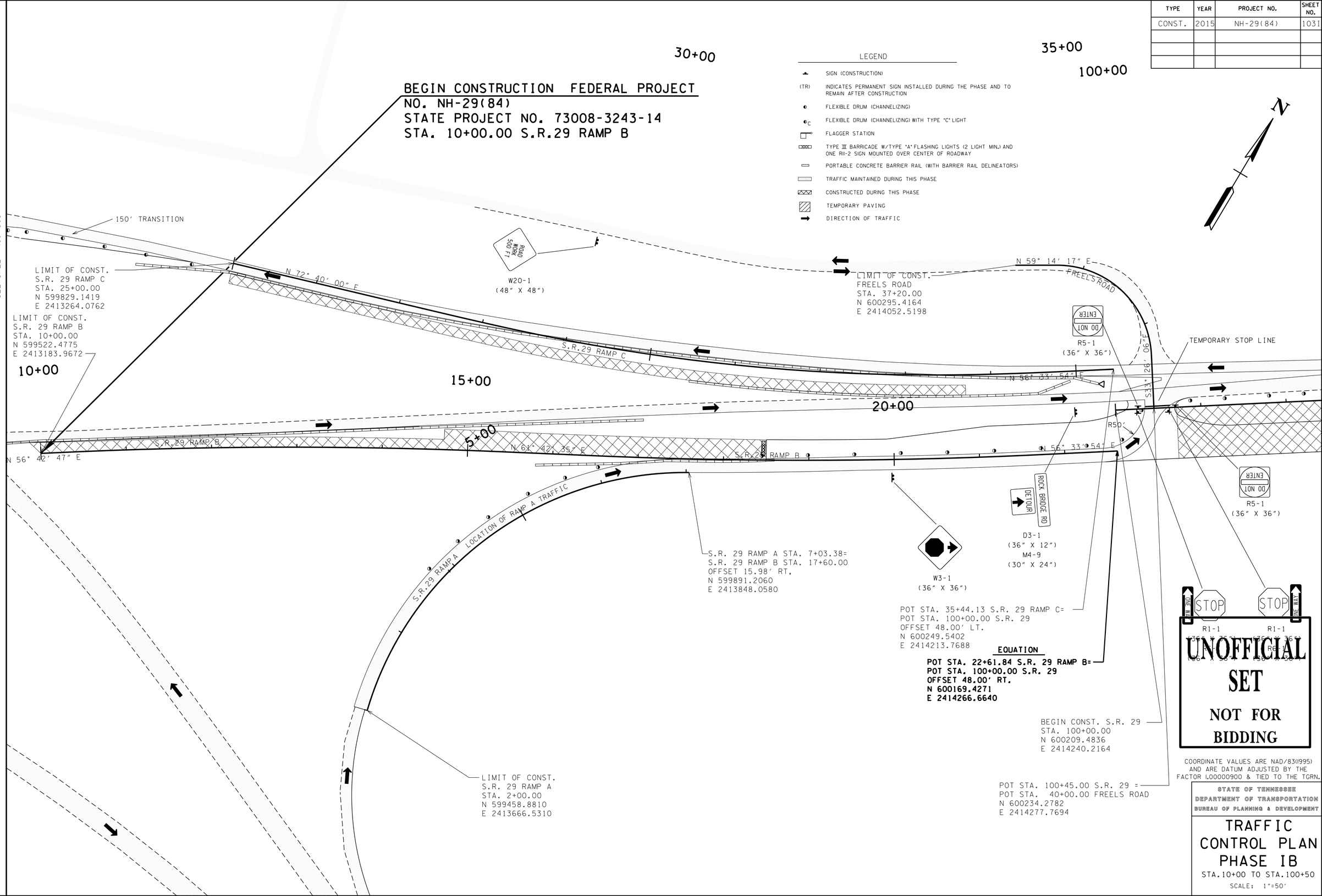
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103I



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE IB

STA.10+00 TO STA.100+50

SCALE: 1"=50'

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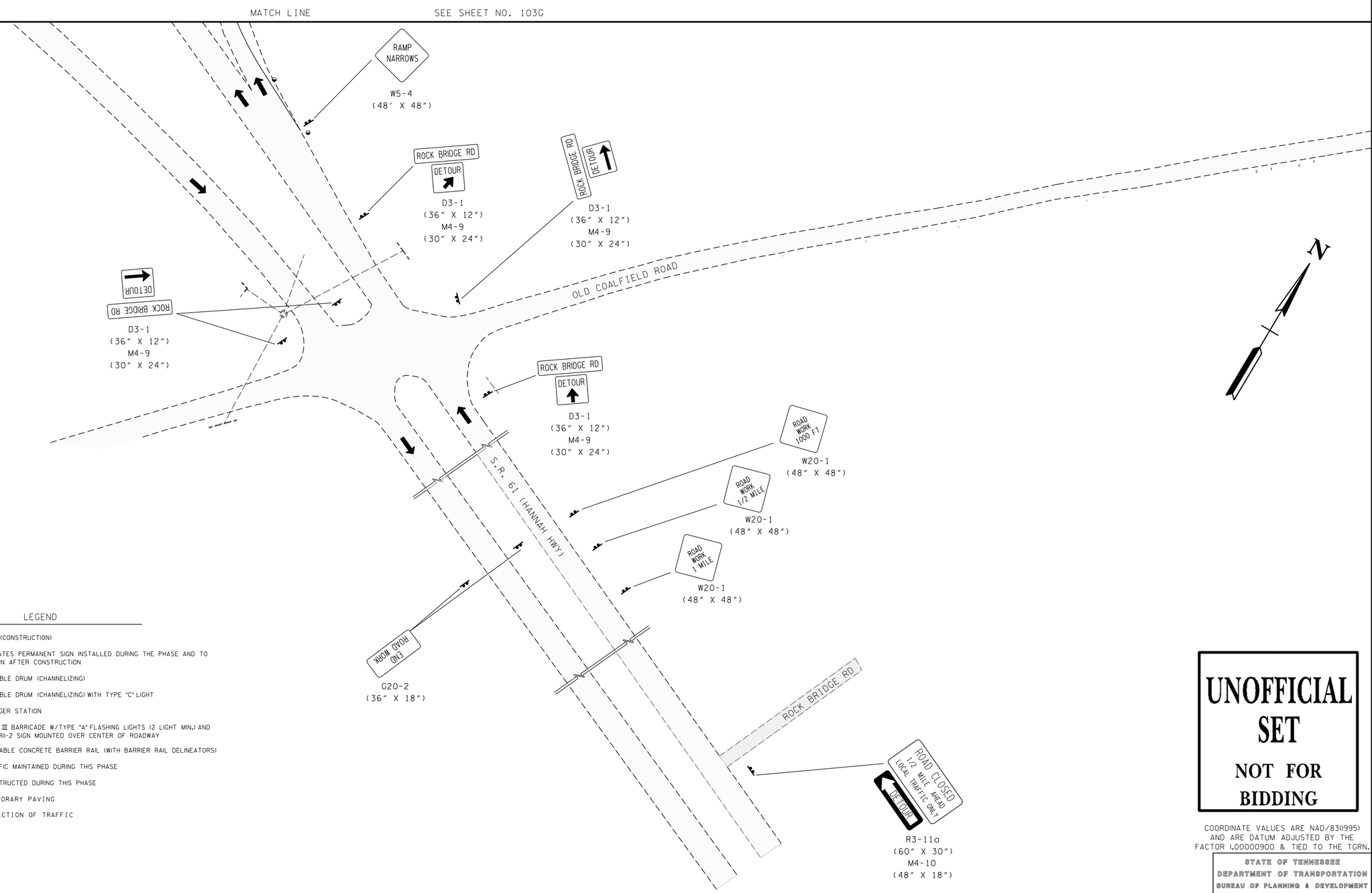
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103J



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

SCALE: 1"=50'

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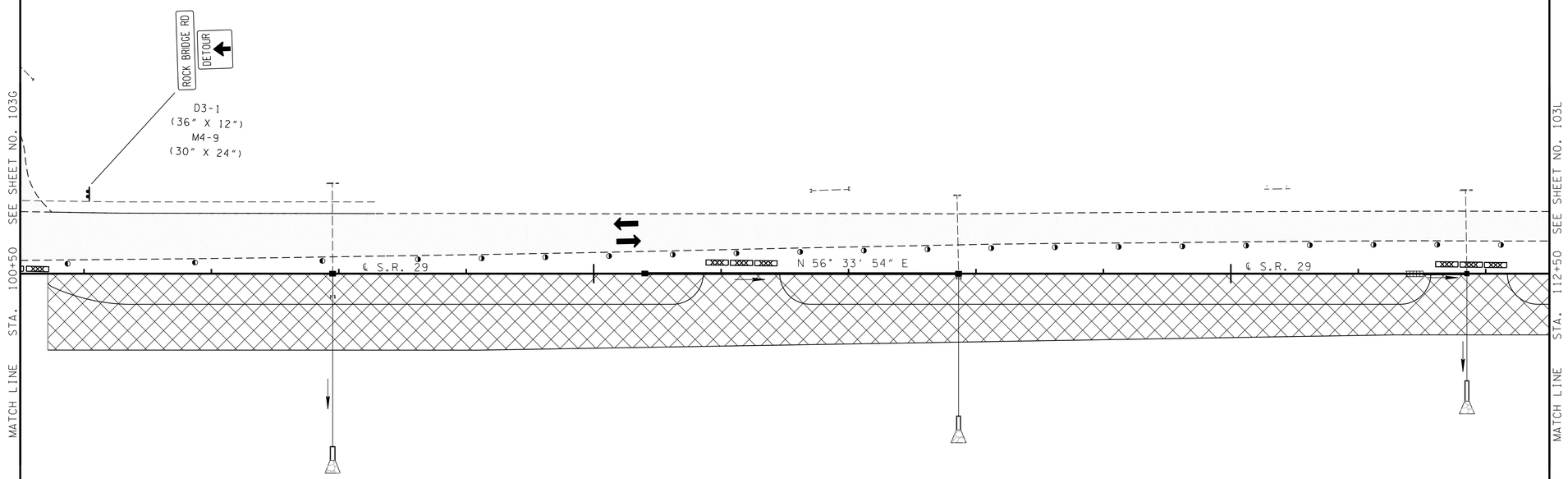
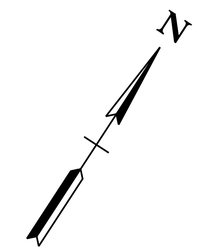
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103K

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





LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

OLD COALFIELD ROAD

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

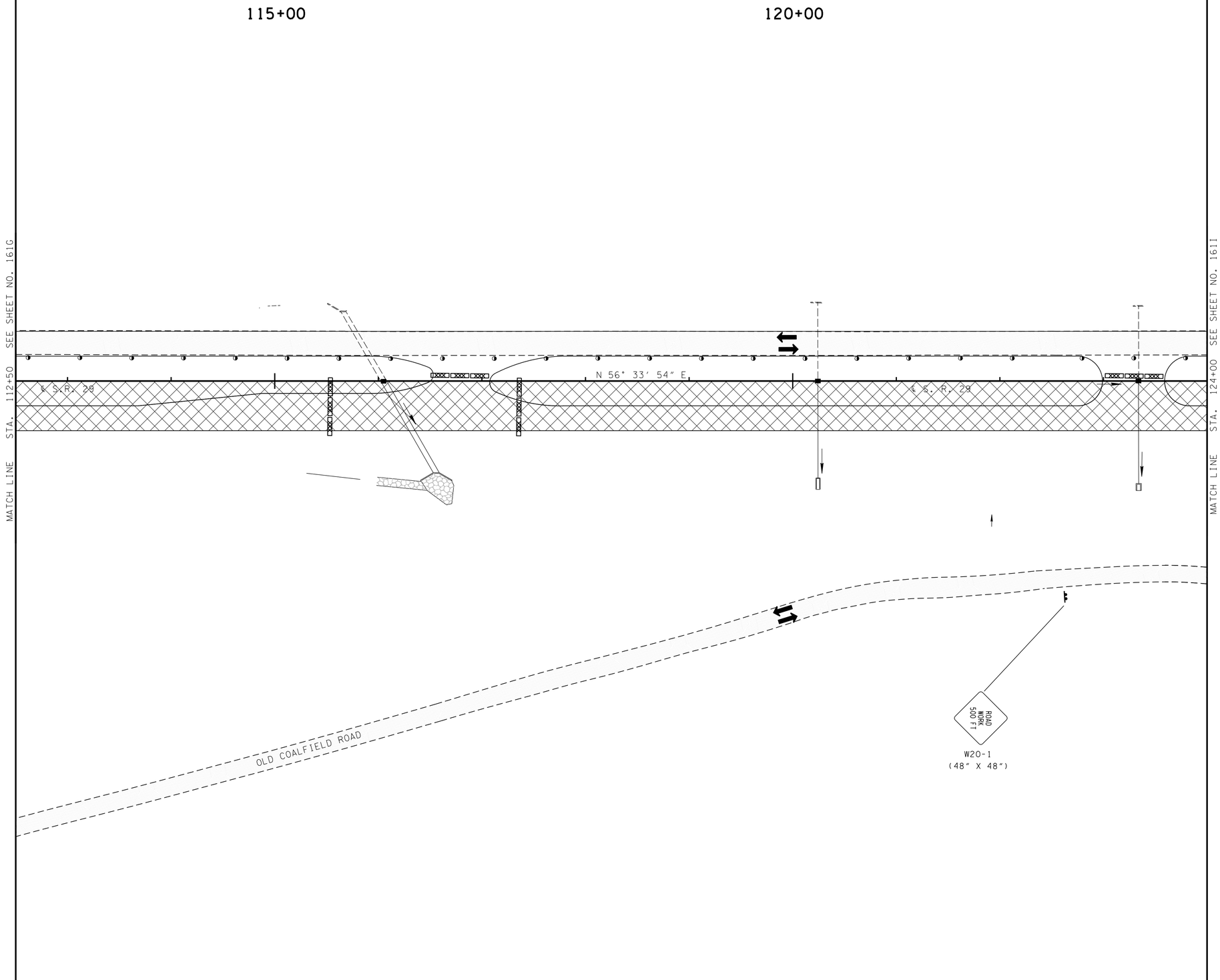
TRAFFIC CONTROL PLAN PHASE I

STA.100+50 TO STA.112+50

SCALE: 1"=50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103L



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.112+50 TO STA.124+00

SCALE: 1"=50'

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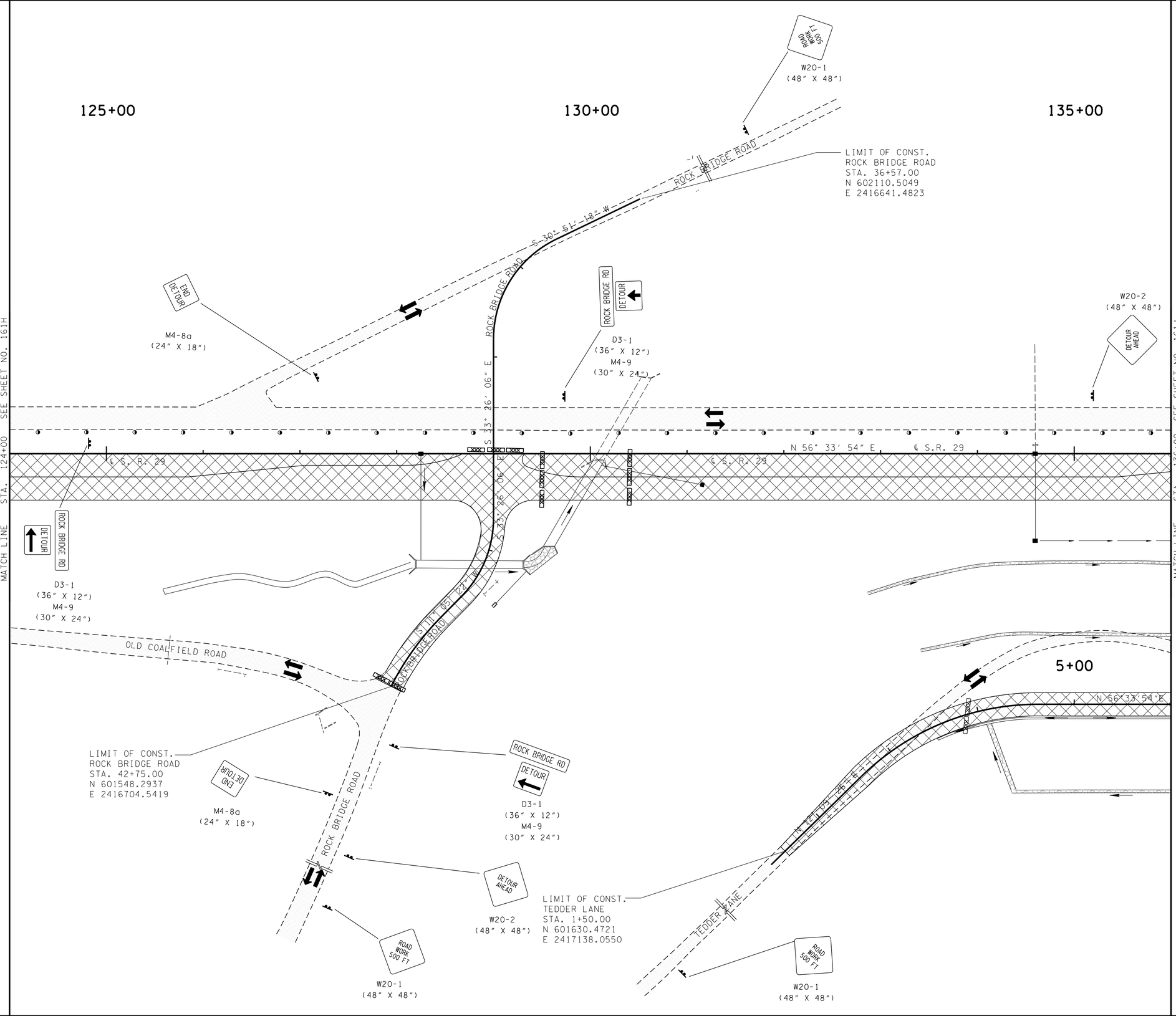
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103M



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.124+00 TO STA.136+00

SCALE: 1"=50'

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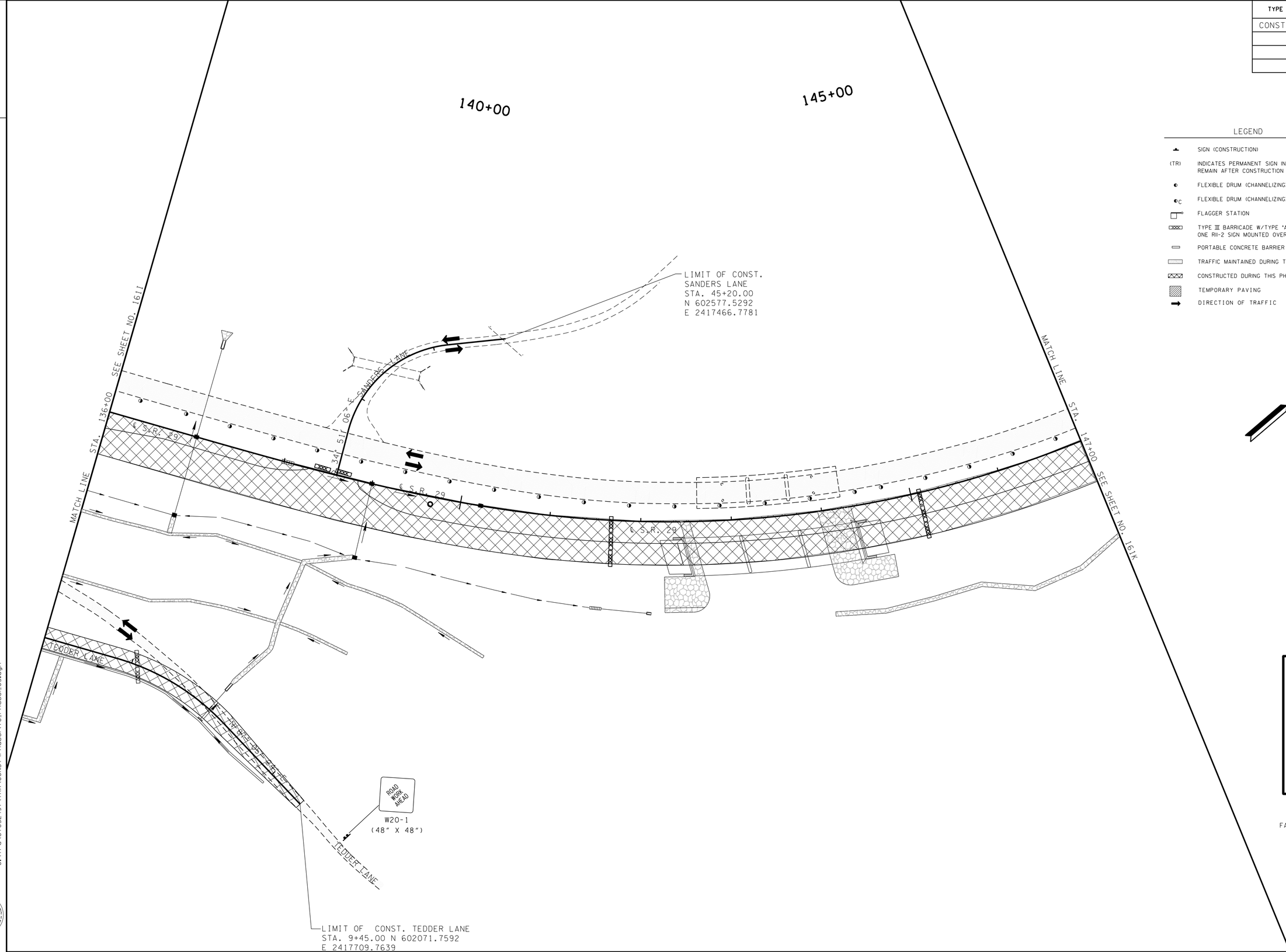
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103N



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.136+00 TO STA.147+00

SCALE: 1"=50'

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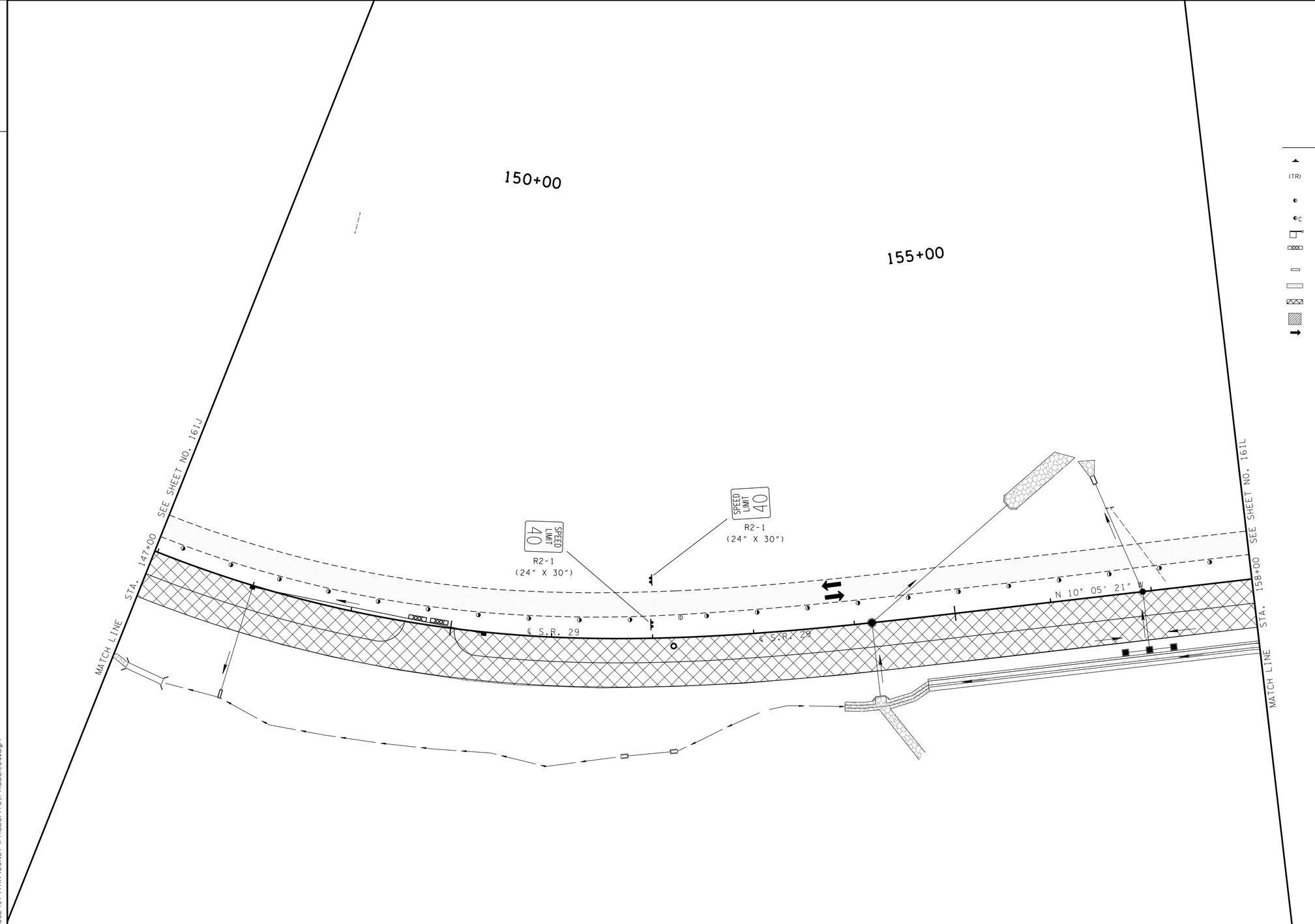
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	1030



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.147+00 TO STA.158+00

SCALE: 1"=50'

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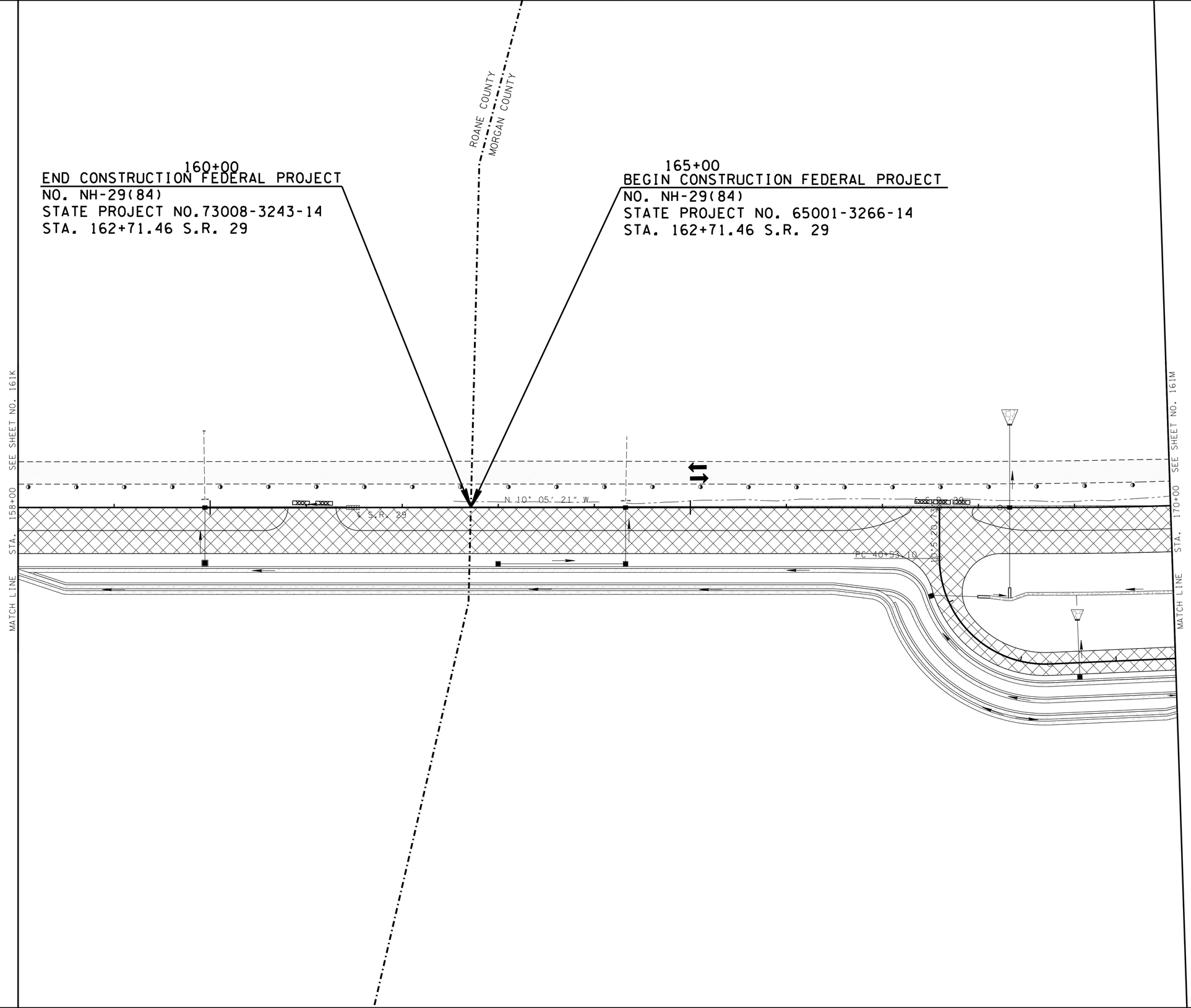
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103P



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.158+00 TO STA.170+00

SCALE: 1"=50'

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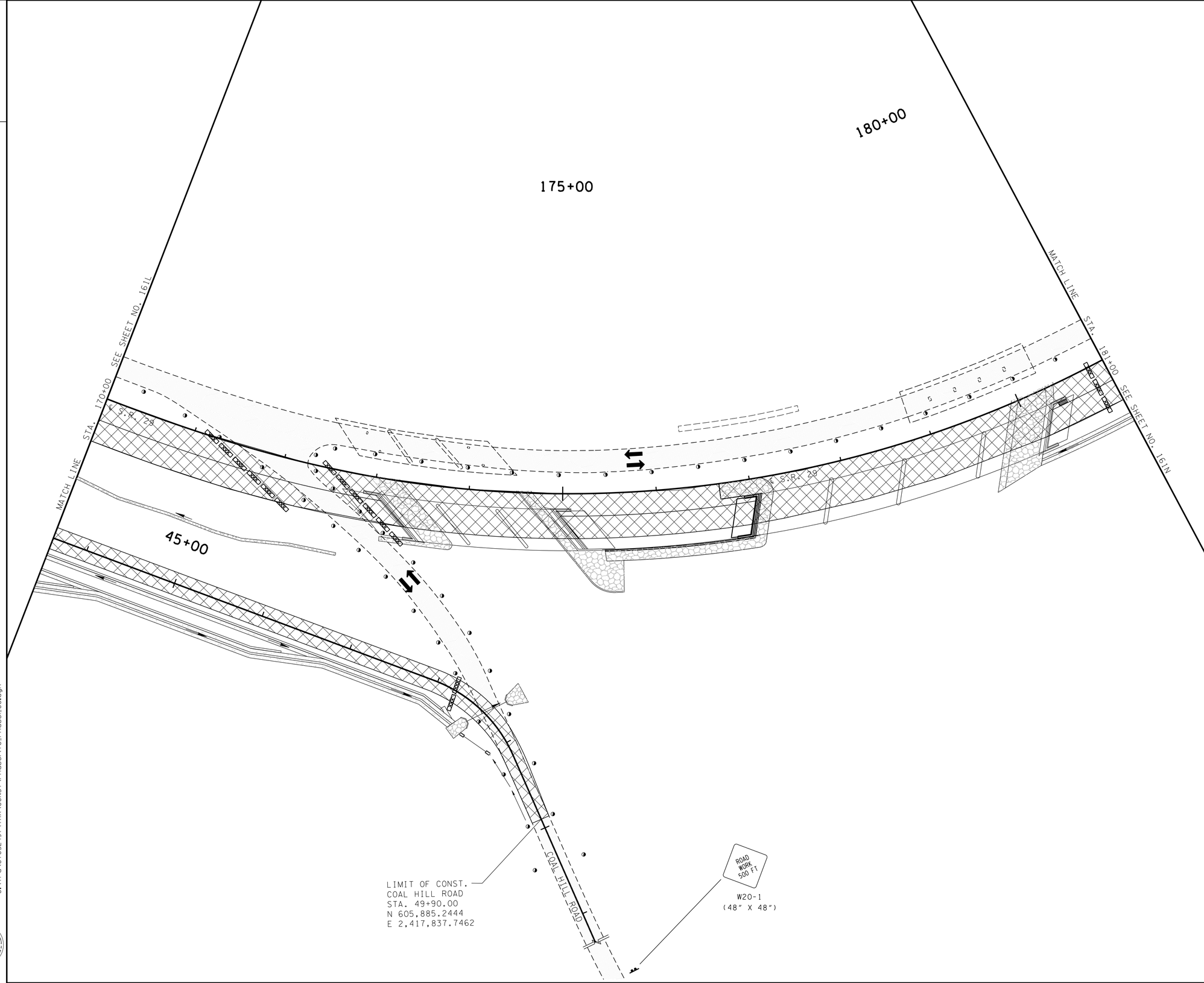
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103Q



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.170+00 TO STA.181+00

SCALE: 1"=50'

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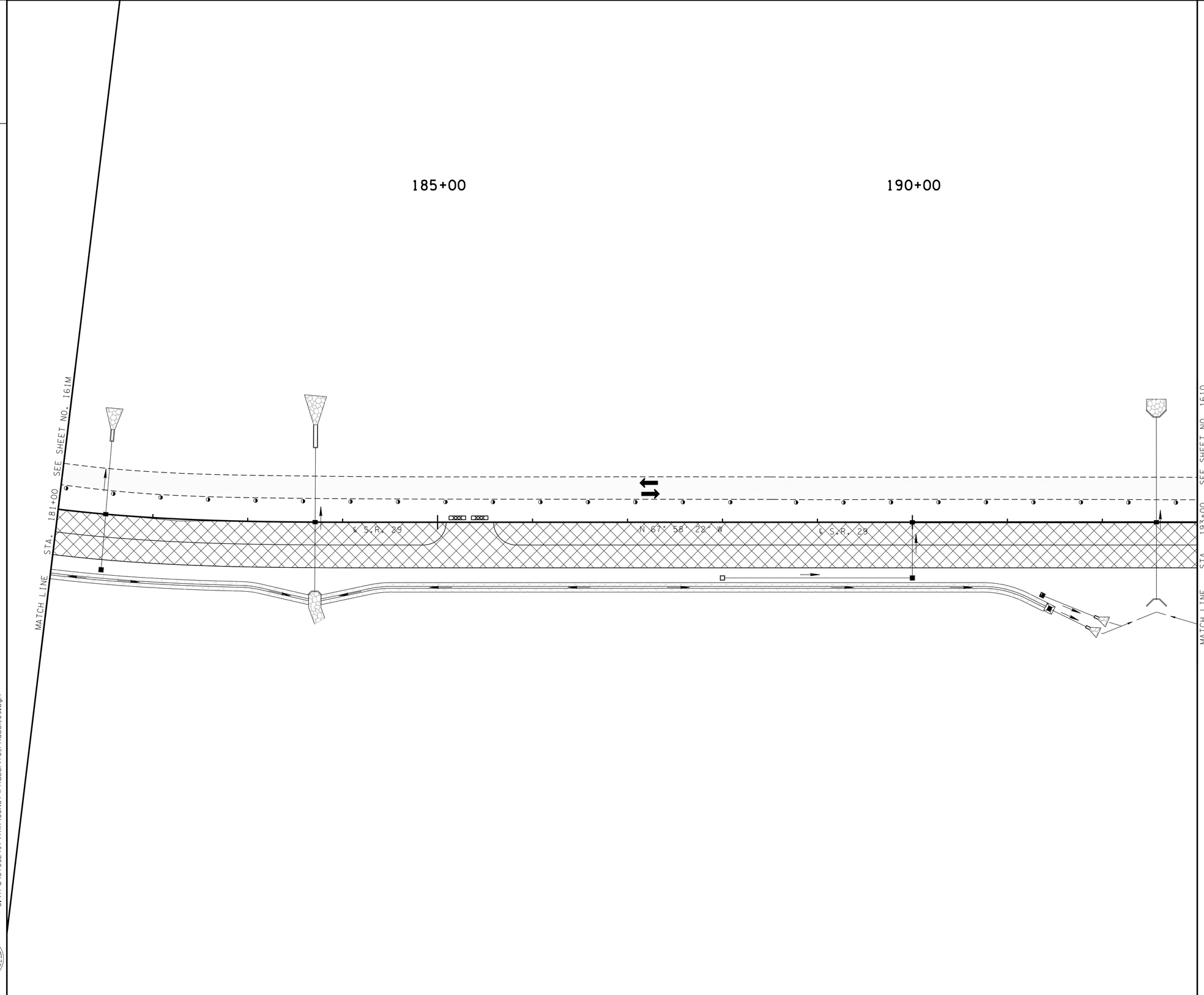
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103R



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.181+00 TO STA.193+00

SCALE: 1"=50'

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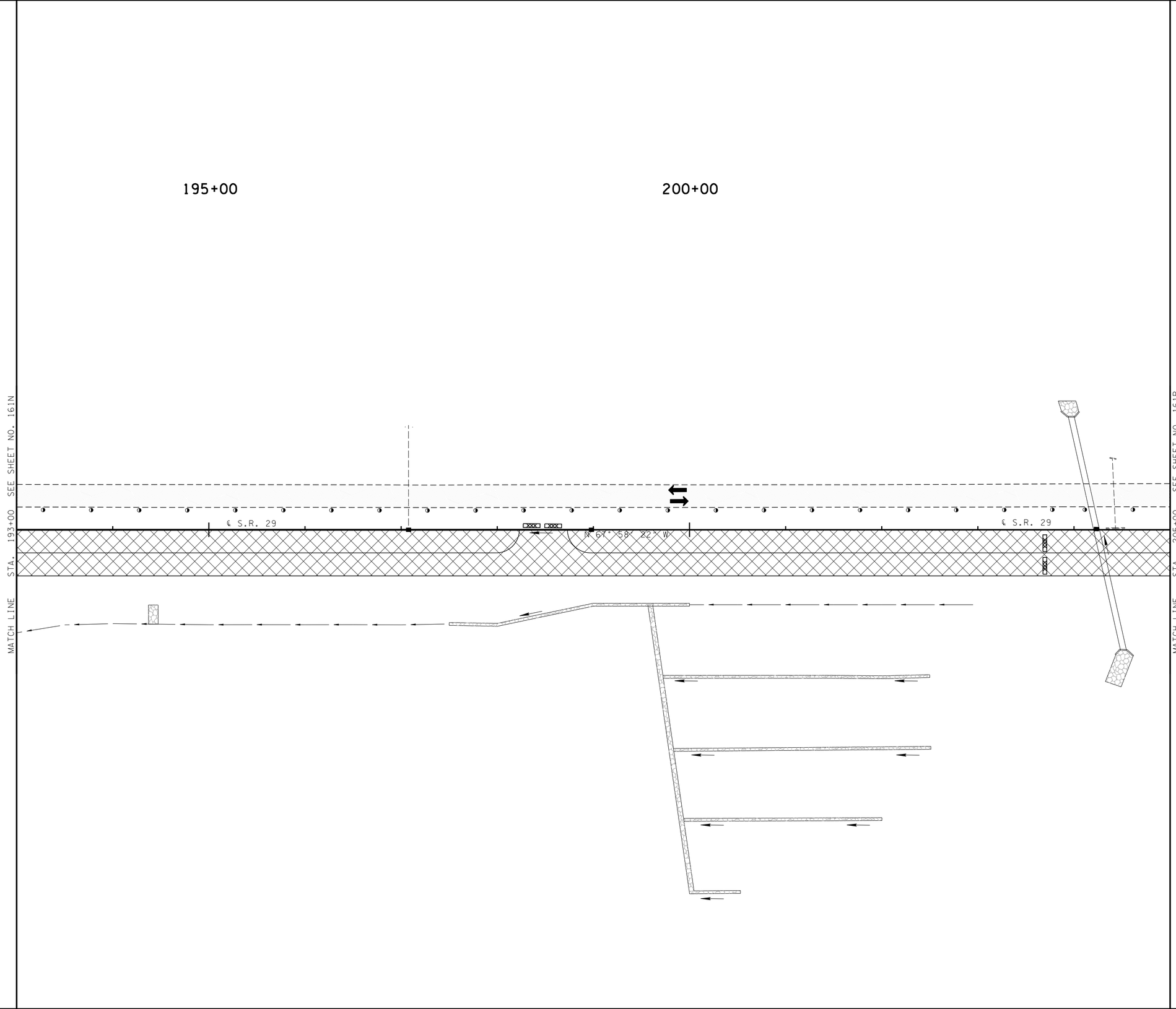
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103S



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.193+00 TO STA.205+00

SCALE: 1"=50'

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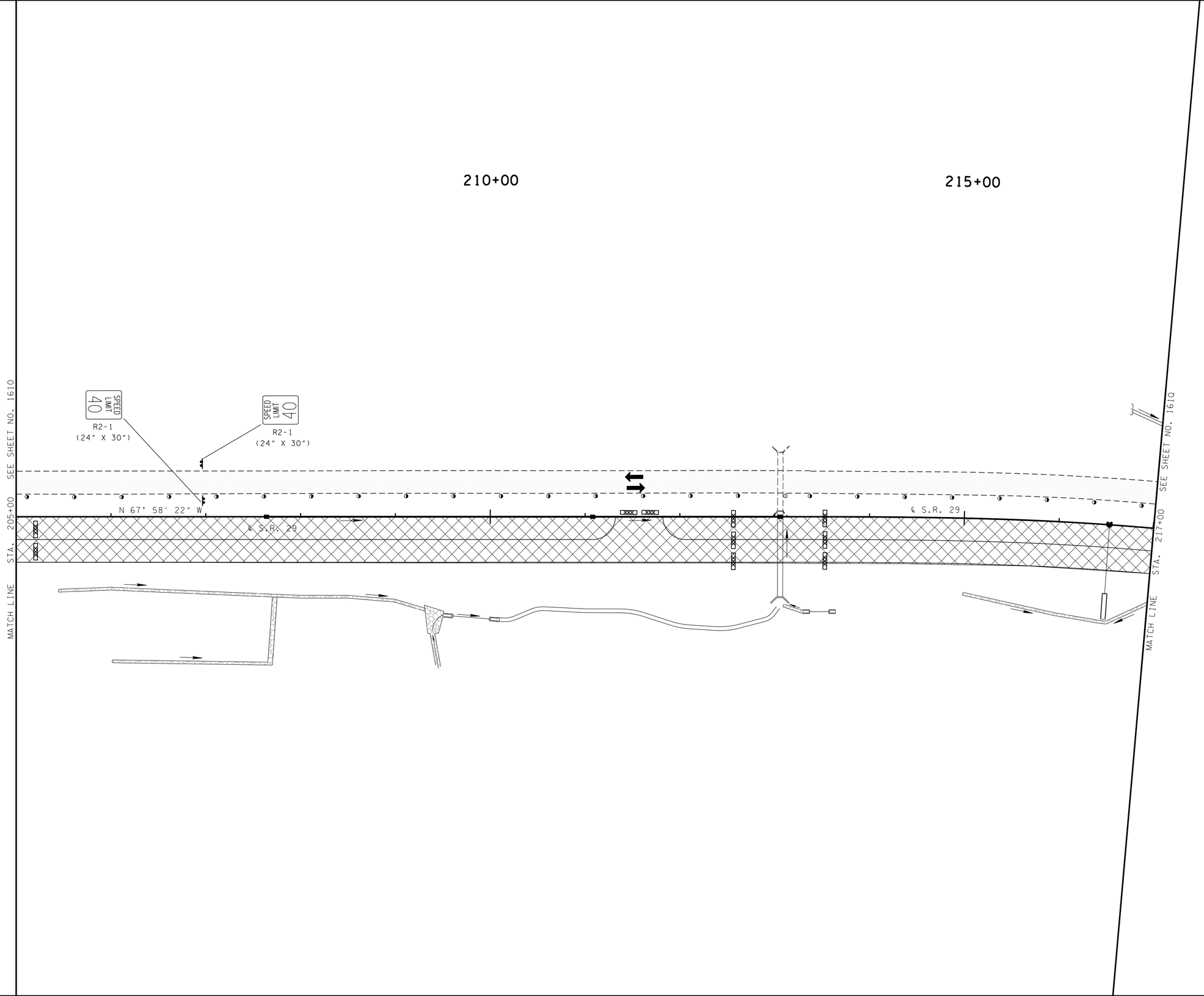
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103T



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.205+00 TO STA.217+00

SCALE: 1"=50'

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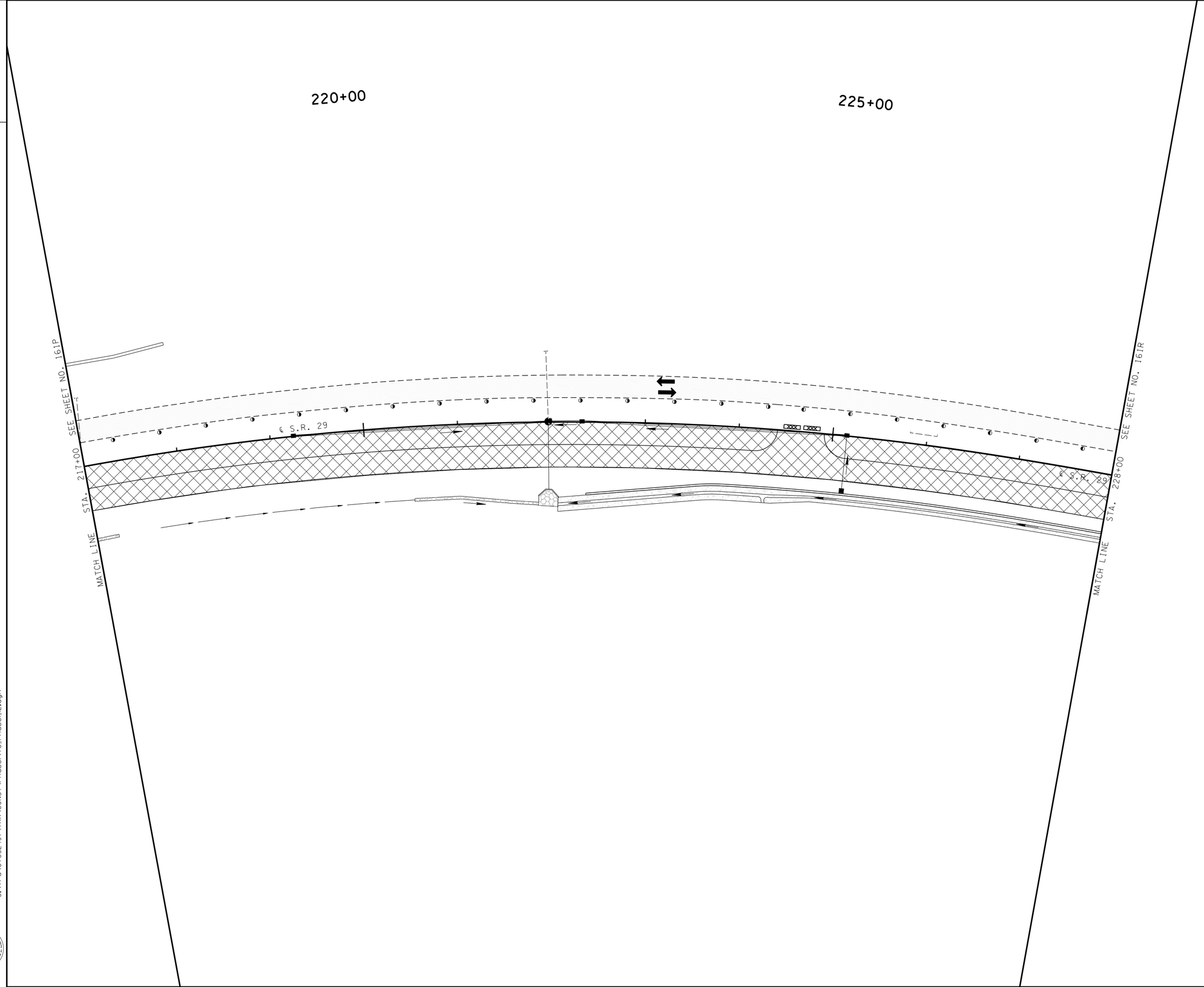
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103U



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.217+00 TO STA.228+00

SCALE: 1"=50'

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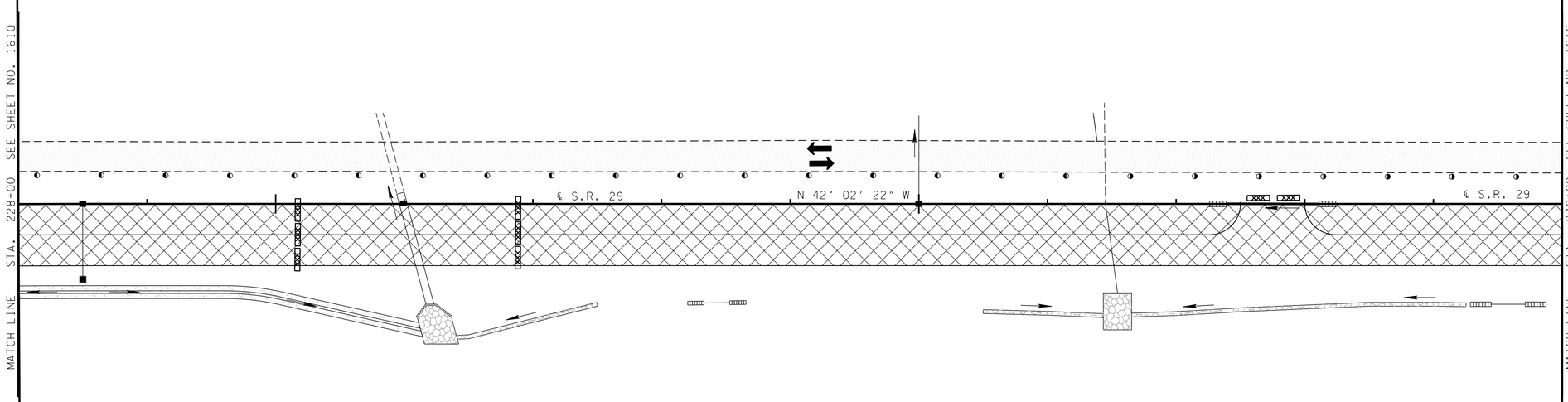
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103V



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.228+00 TO STA.240+00

SCALE: 1"=50'

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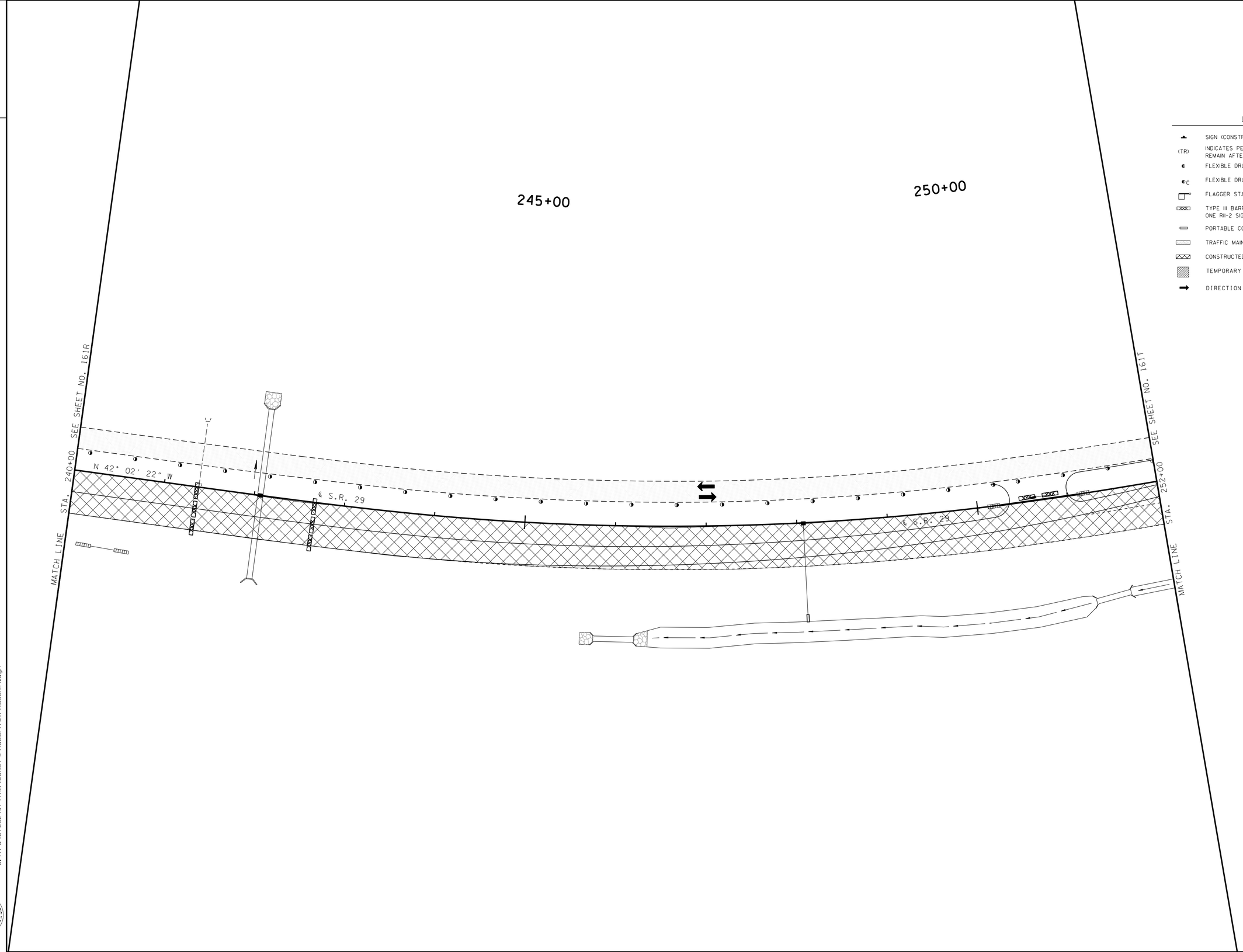
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103W



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.240+00 TO STA.252+00

SCALE: 1"=50'

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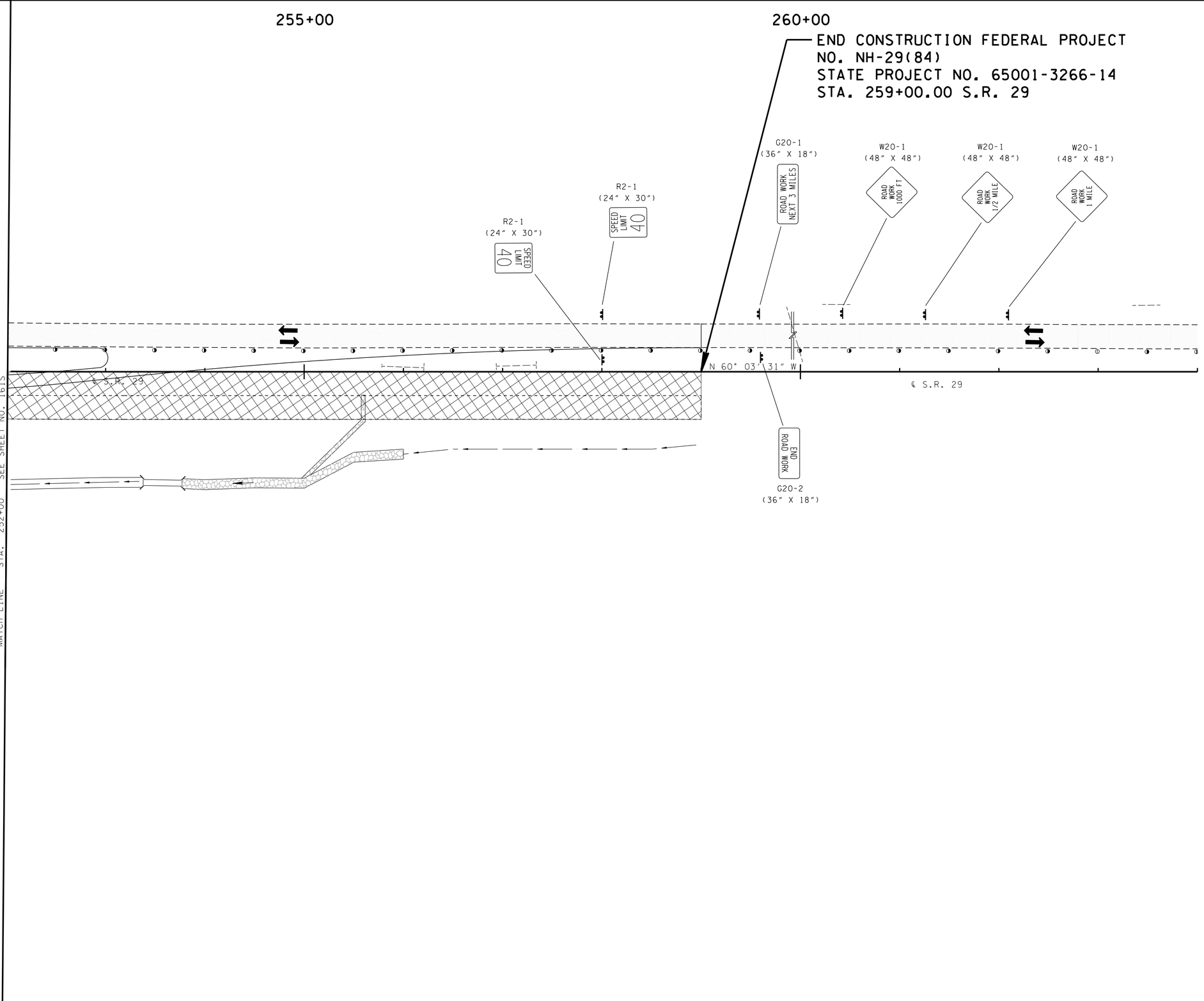
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103X

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



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE I

STA.252+00 TO STA.264+00

SCALE: 1"=50'

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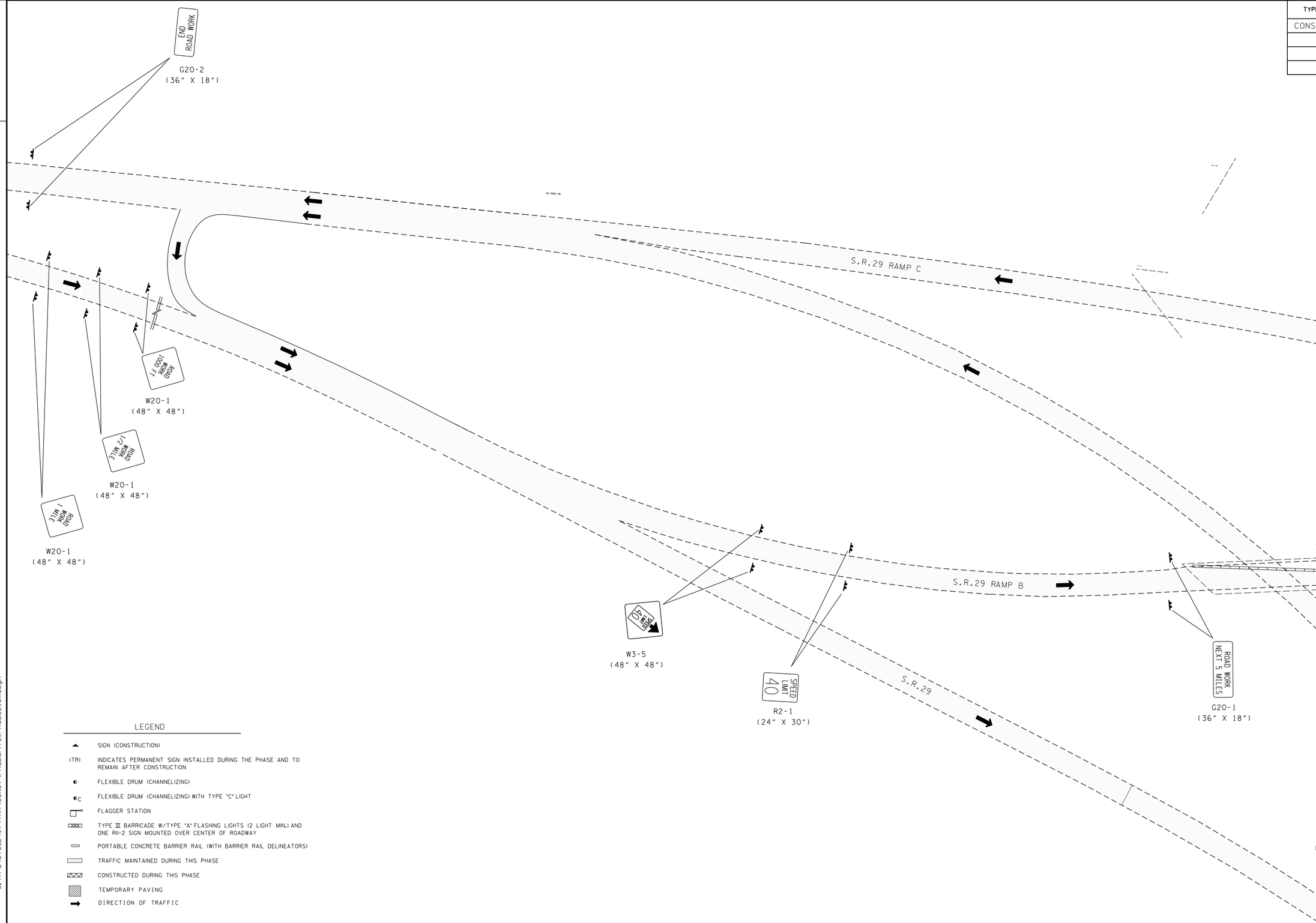
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103Y



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

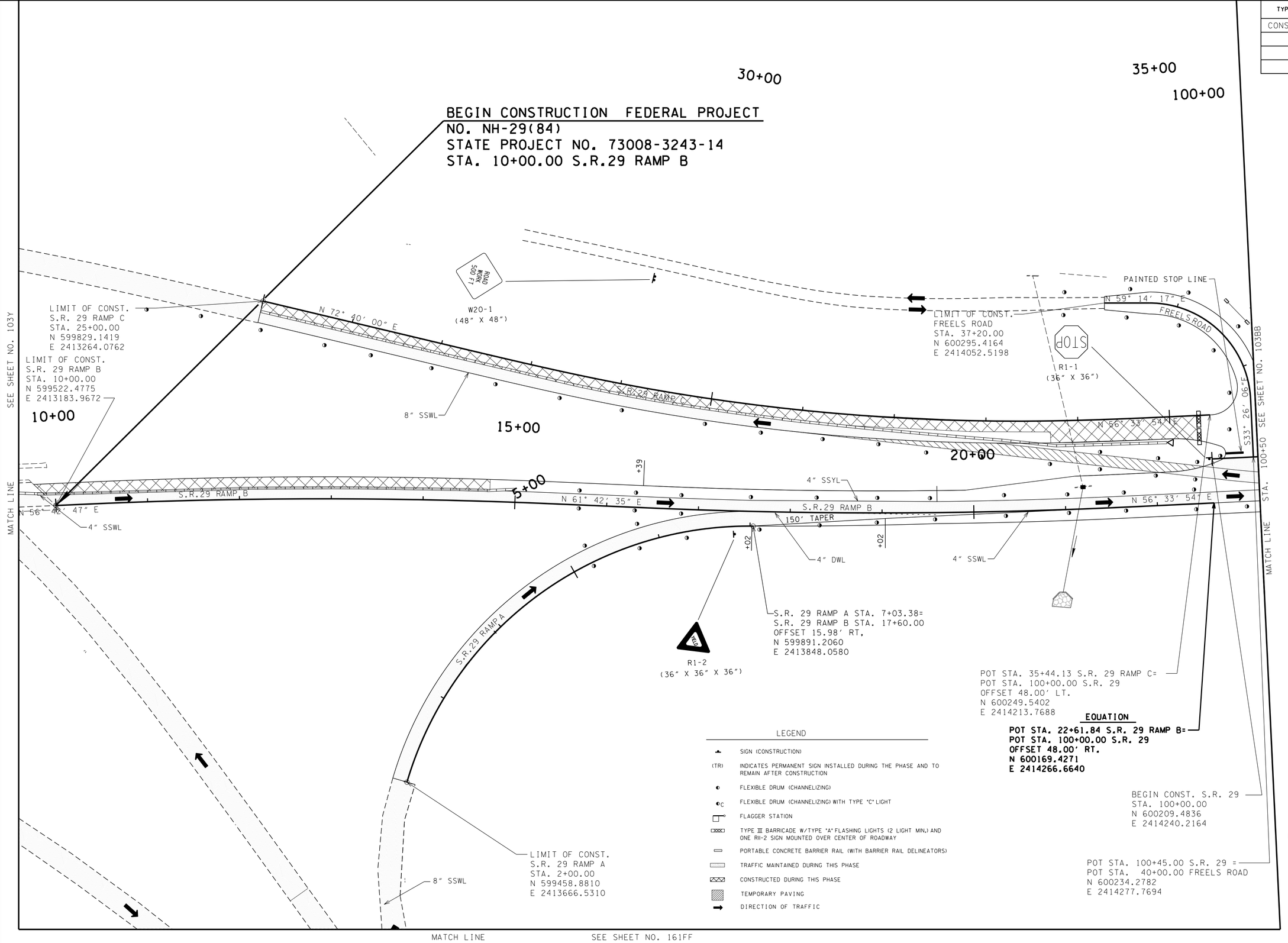
TRAFFIC CONTROL PLAN PHASE II

BEGIN TO STA.10+00

SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103Z

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



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.10+00 TO STA.100+50

SCALE: 1″=50′

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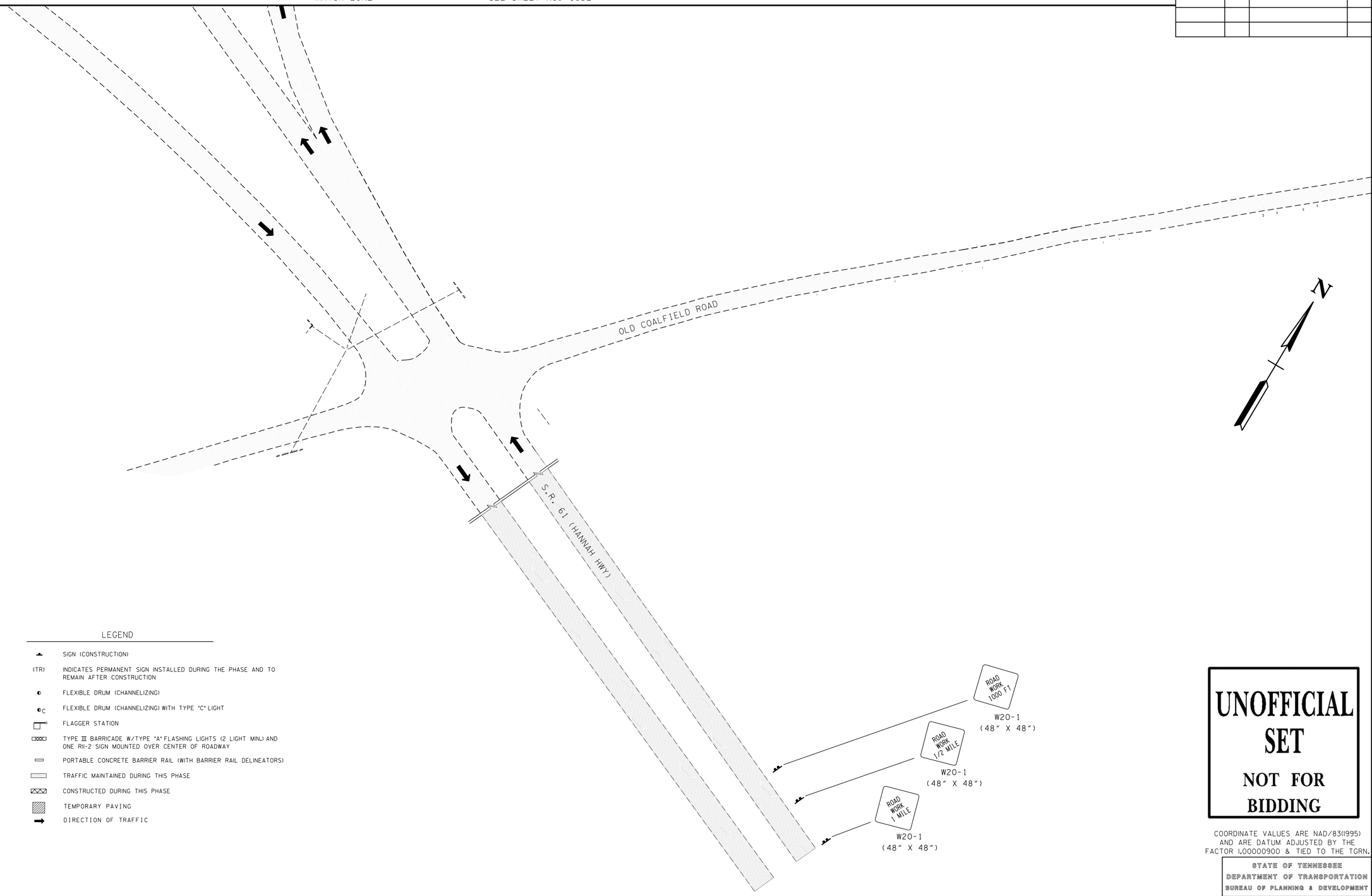
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103AA

MATCH LINE SEE SHEET NO. 103Z



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

SCALE: 1"=50'

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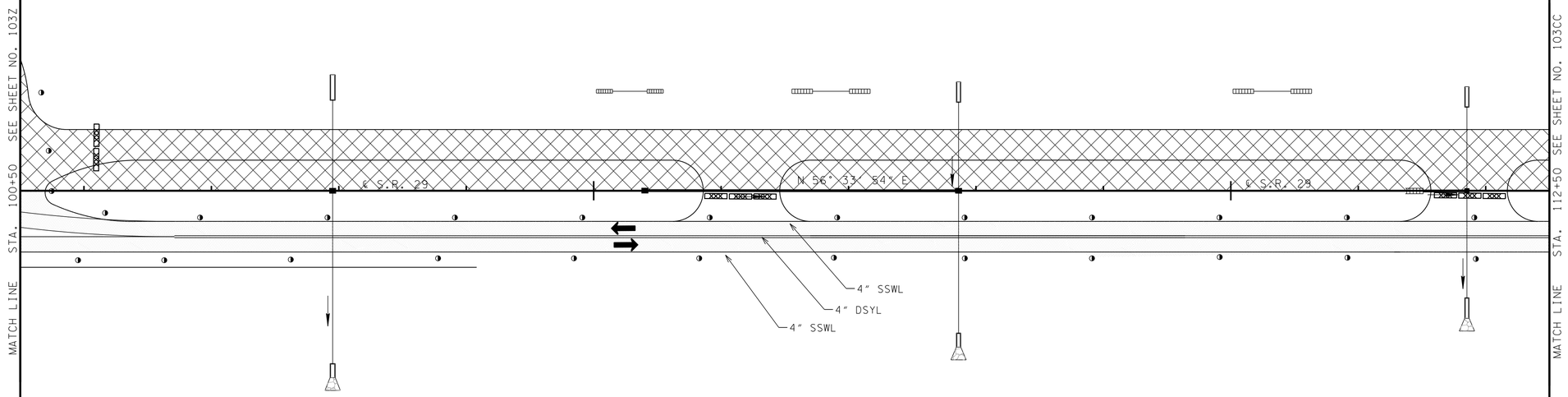
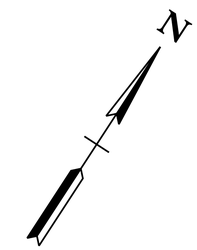
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103BB

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





LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

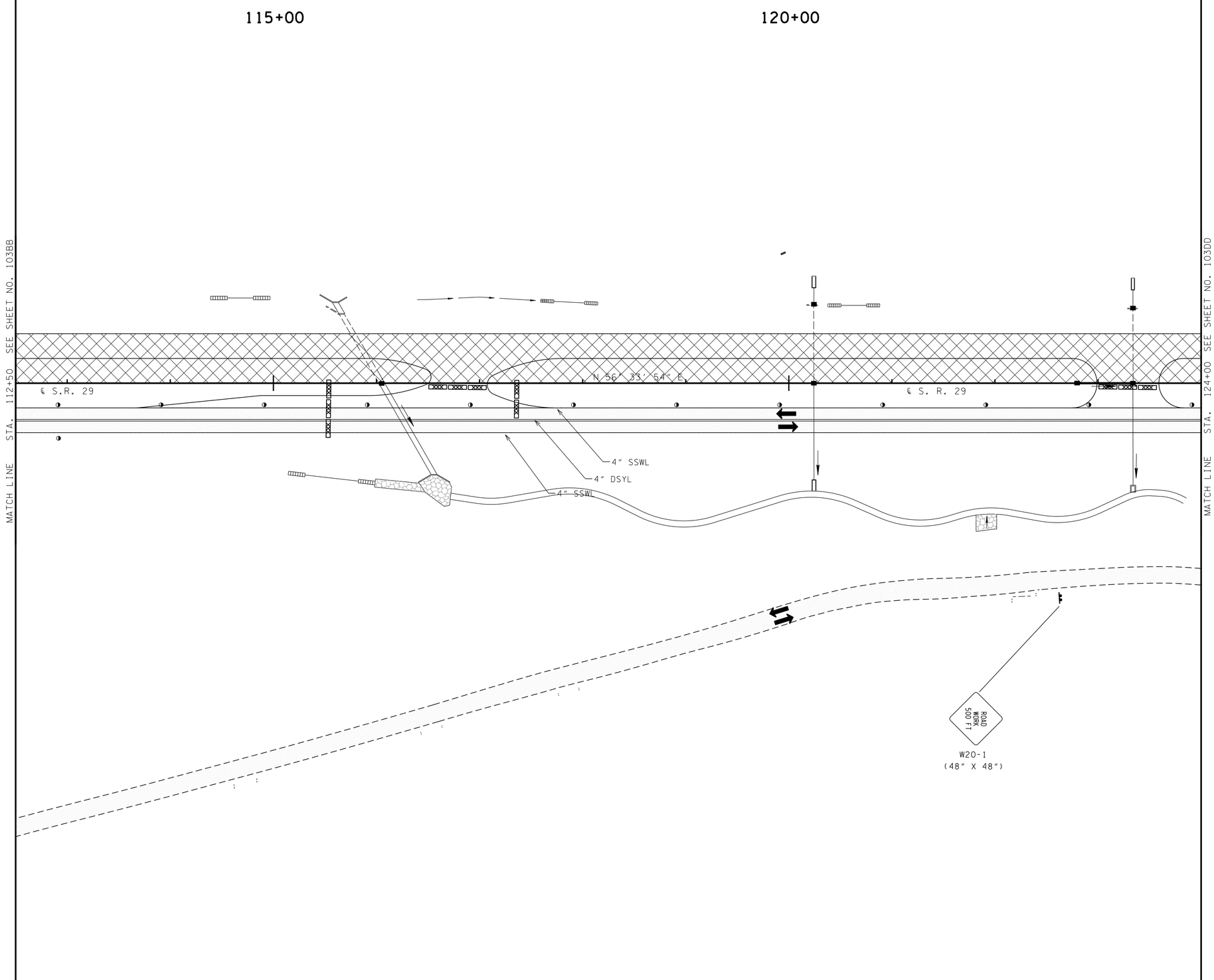
TRAFFIC CONTROL PLAN PHASE II

STA.100+50 TO STA.112+50

SCALE: 1"=50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103CC



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.112+50 TO STA.124+00

SCALE: 1"=50'

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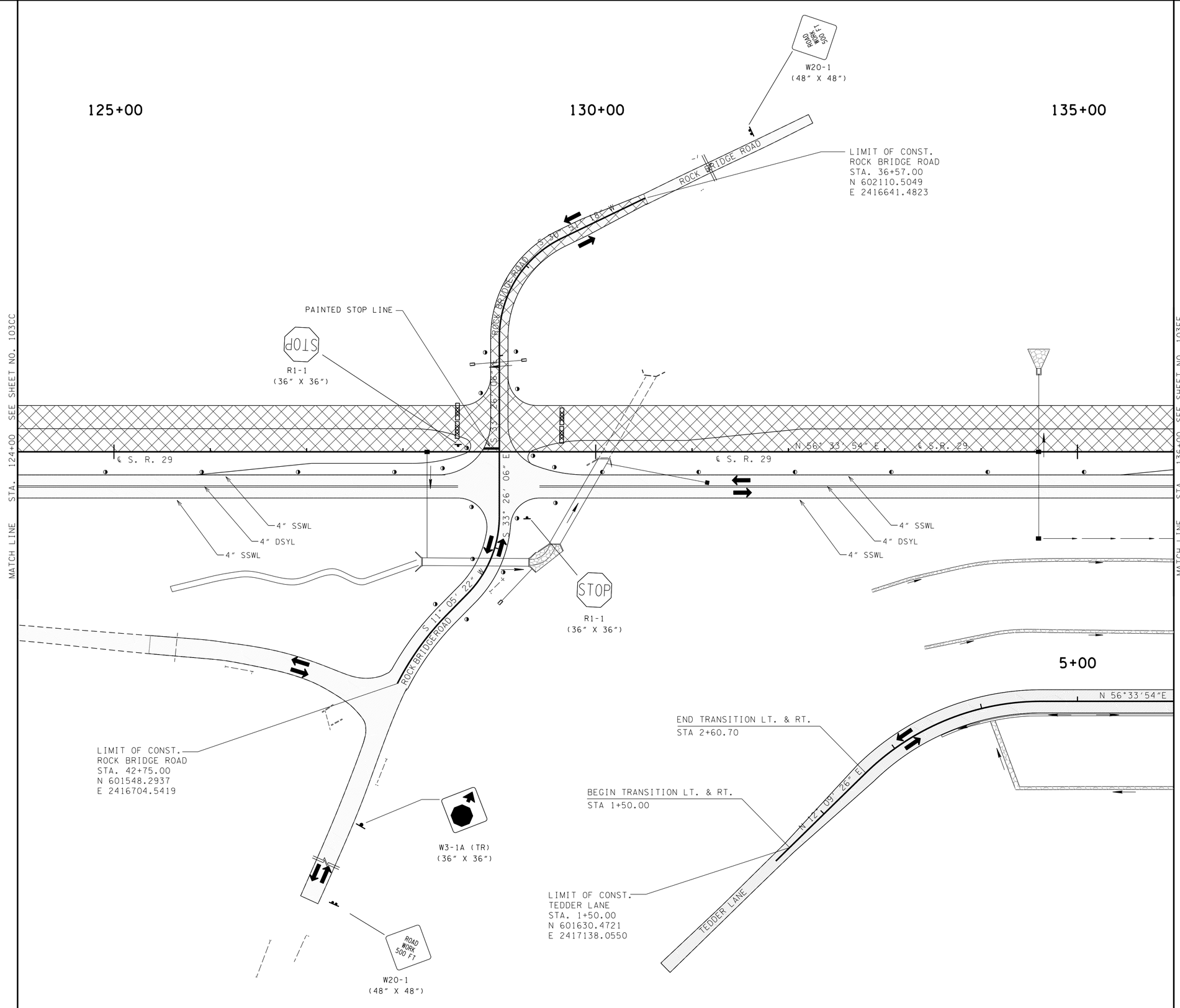
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103DD



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.124+00 TO STA.136+00

SCALE: 1"=50'

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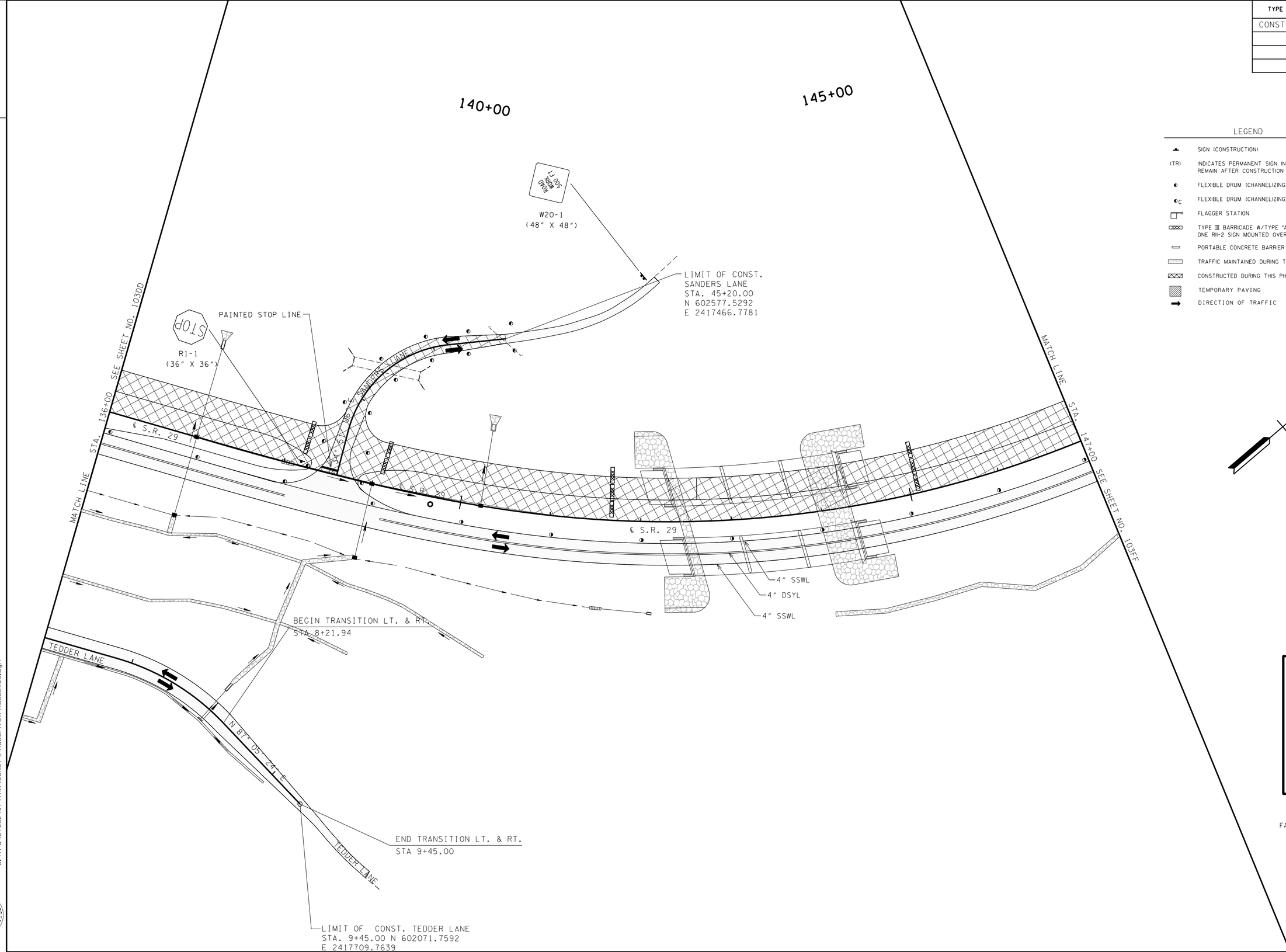
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103EE



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.136+00 TO STA.147+00

SCALE: 1"=50'

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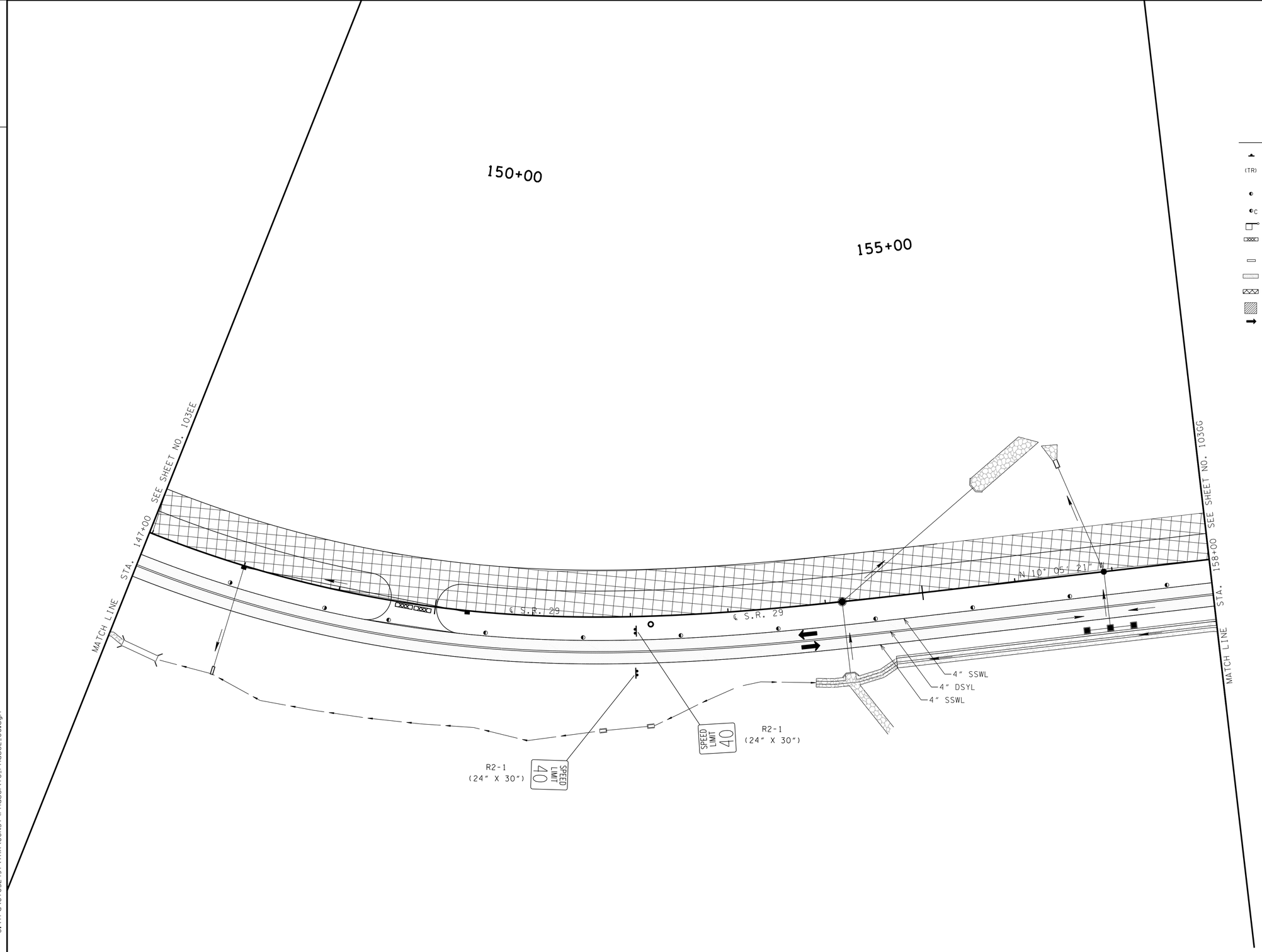
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103FF



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.147+00 TO STA.158+00

SCALE: 1"=50'

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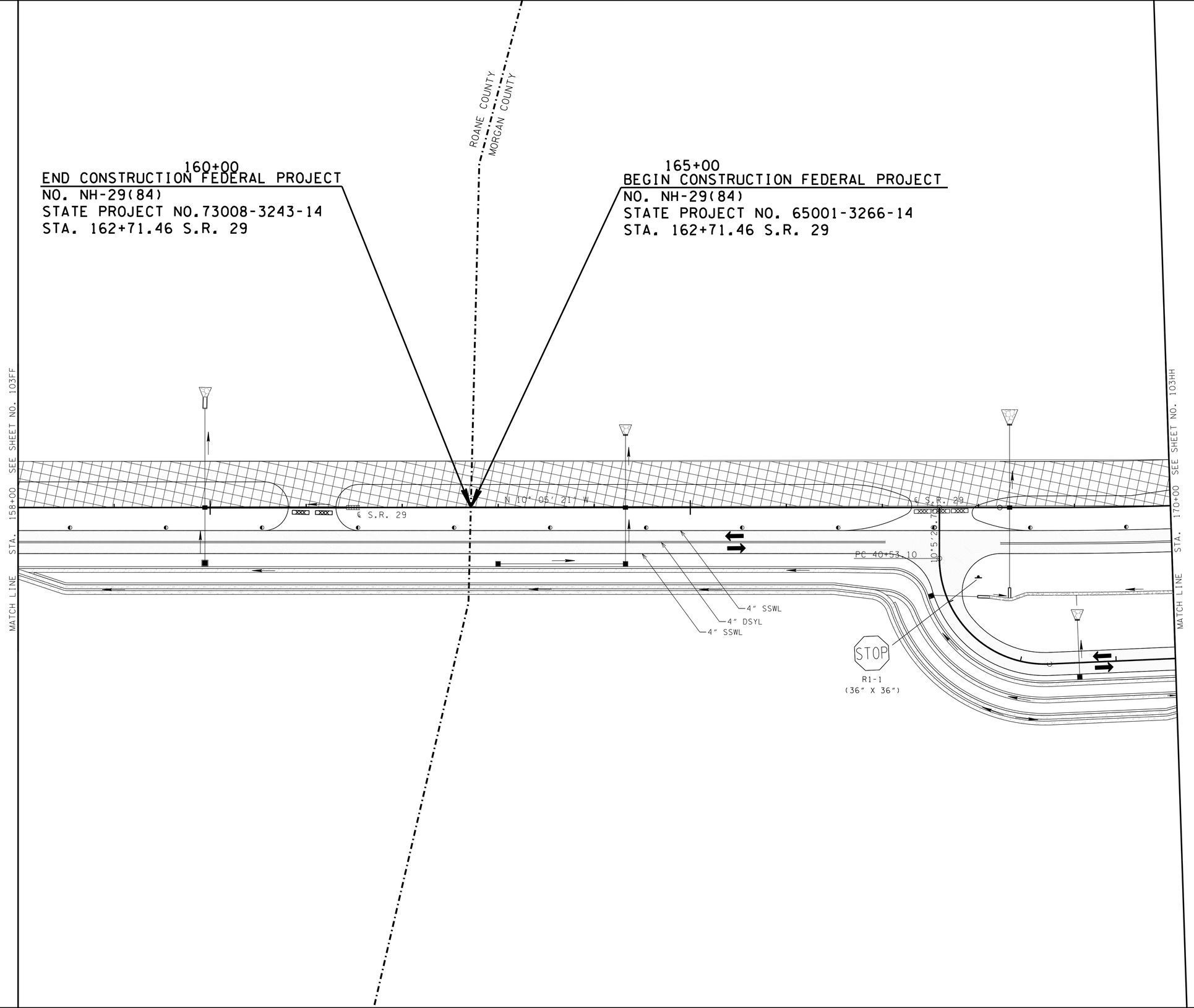
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103GG



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
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- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.158+00 TO STA.170+00

SCALE: 1"=50'

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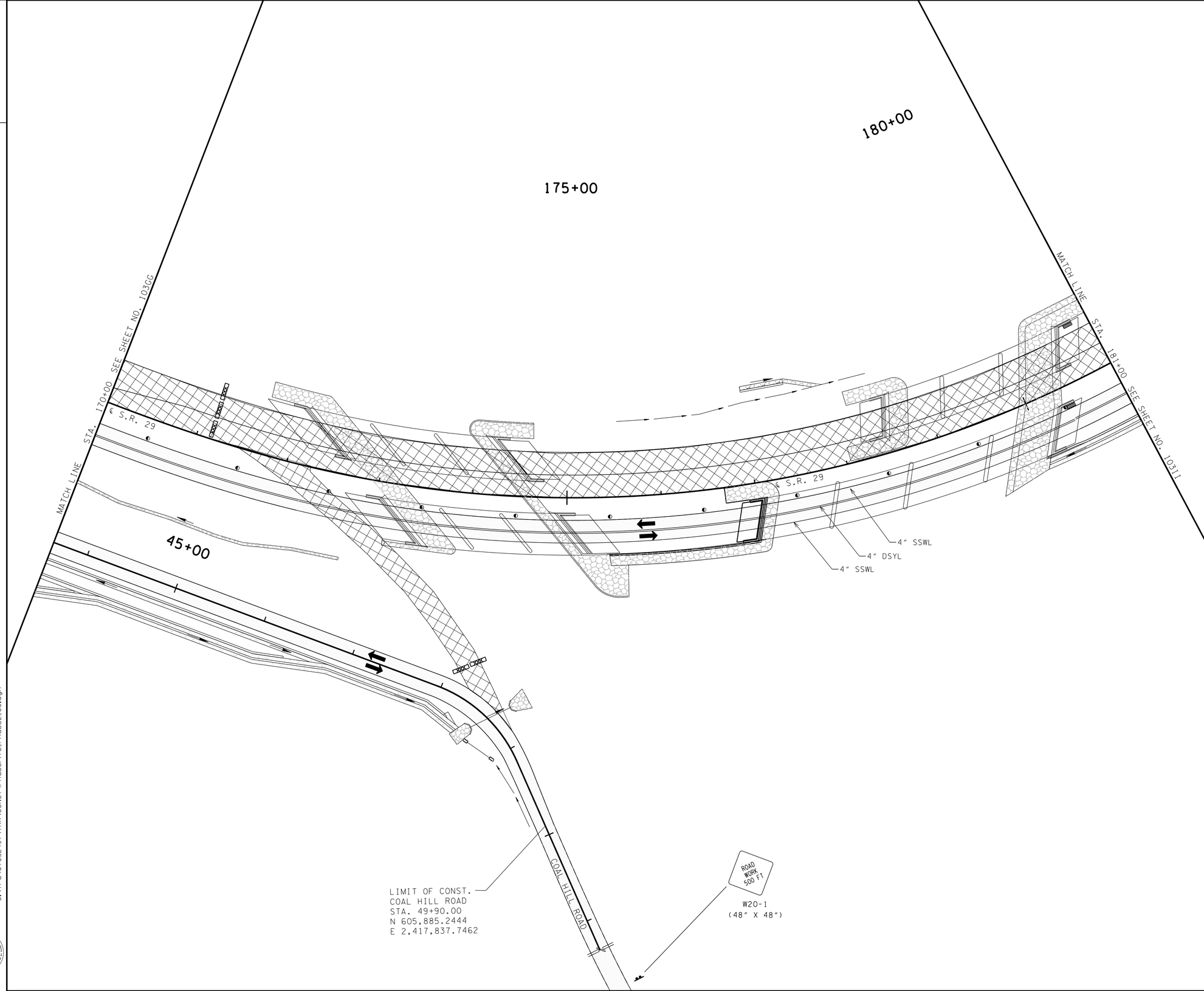
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103HH



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.170+00 TO STA.181+00

SCALE: 1"=50'

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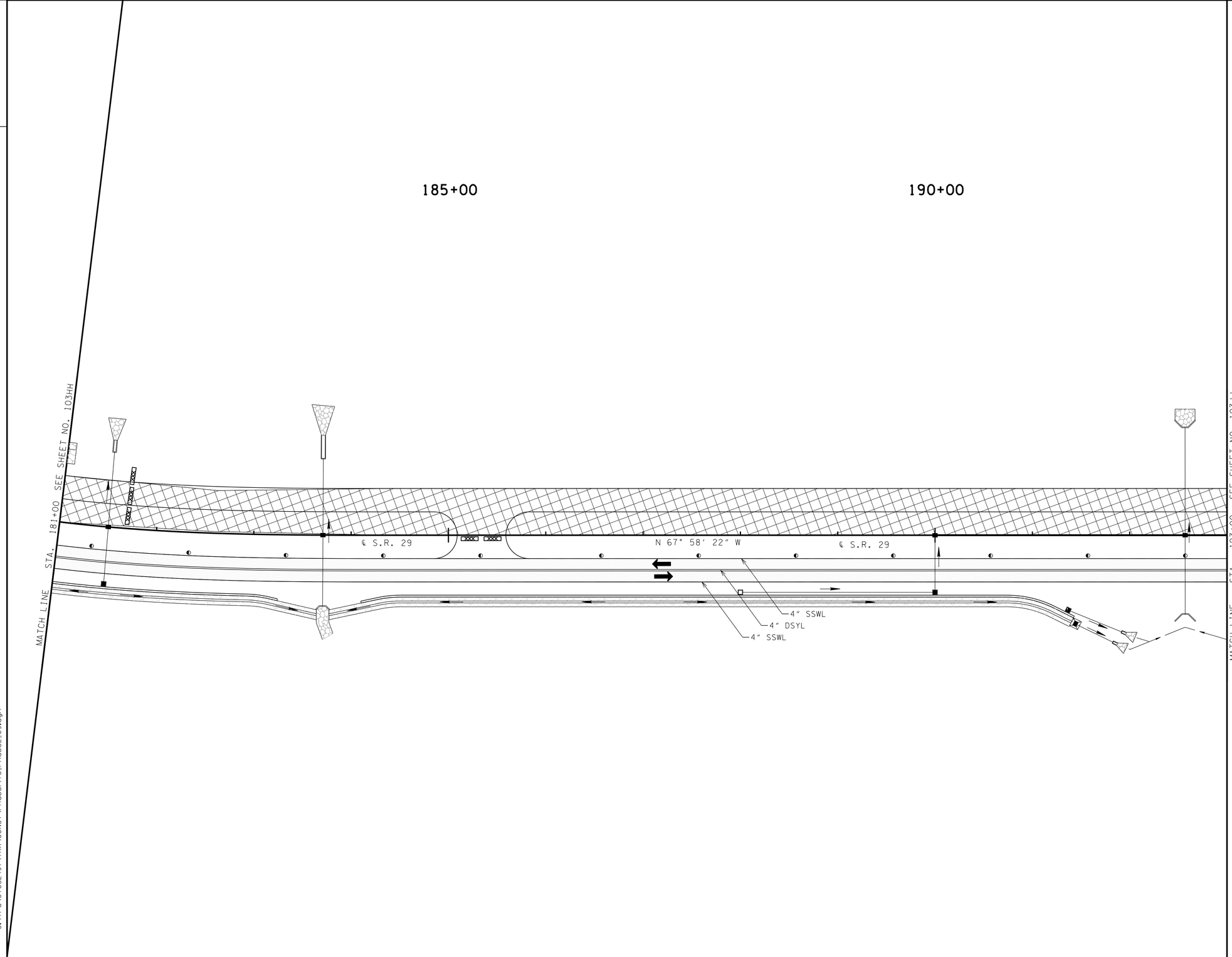
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103II



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.181+00 TO STA.193+00

SCALE: 1″=50′

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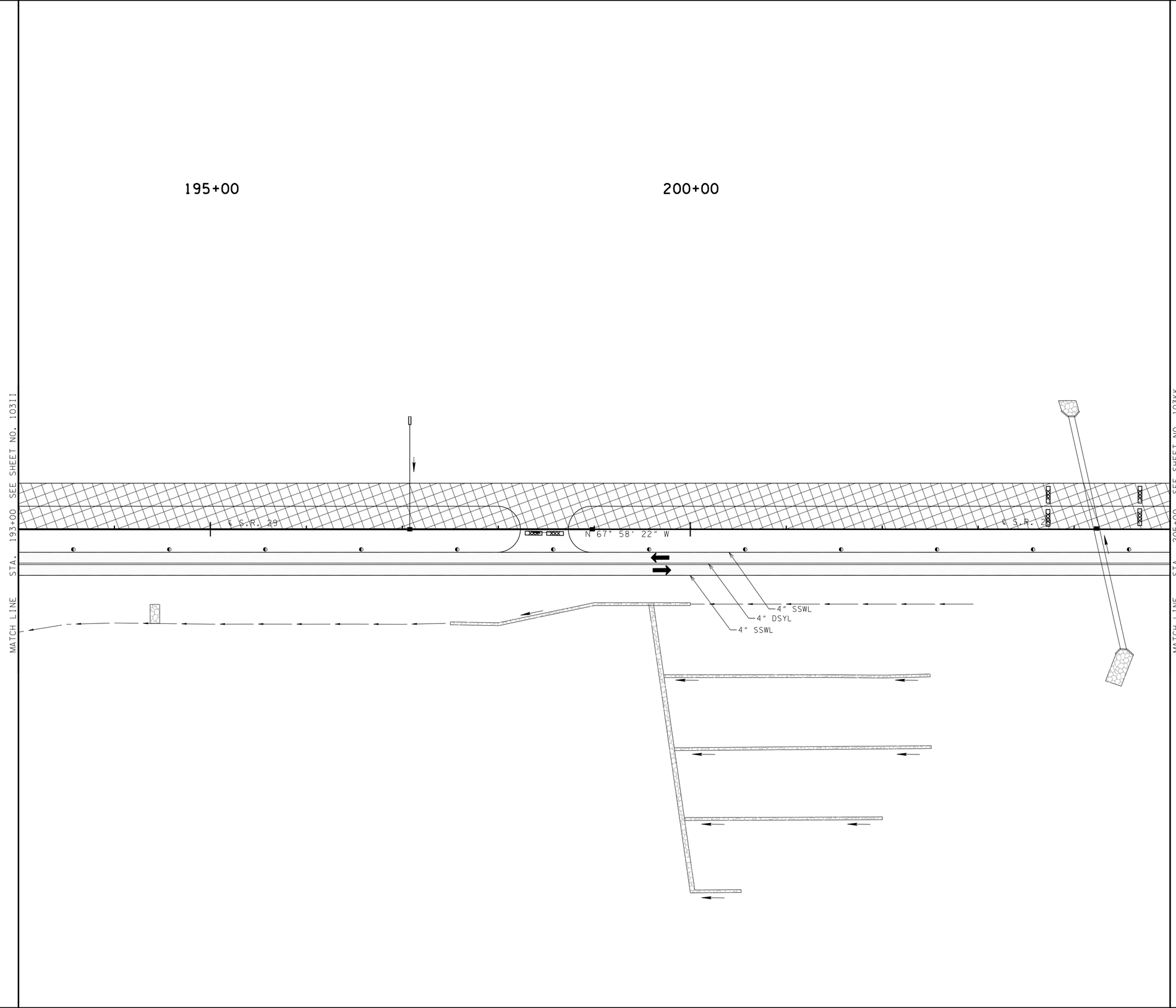
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103JJ



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.193+00 TO STA.205+00

SCALE: 1"=50'

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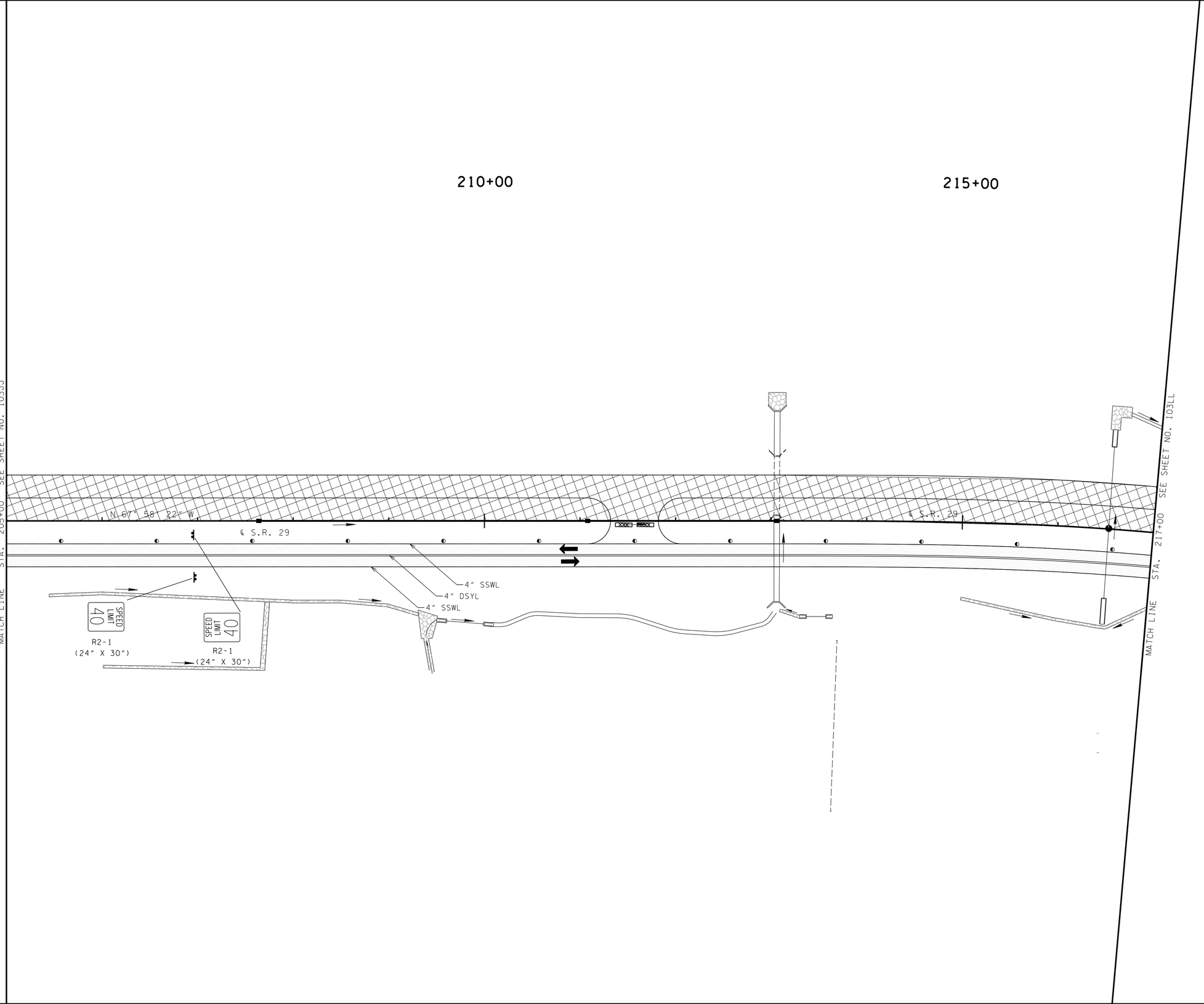
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103KK



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.205+00 TO STA.217+00

SCALE: 1"=50'

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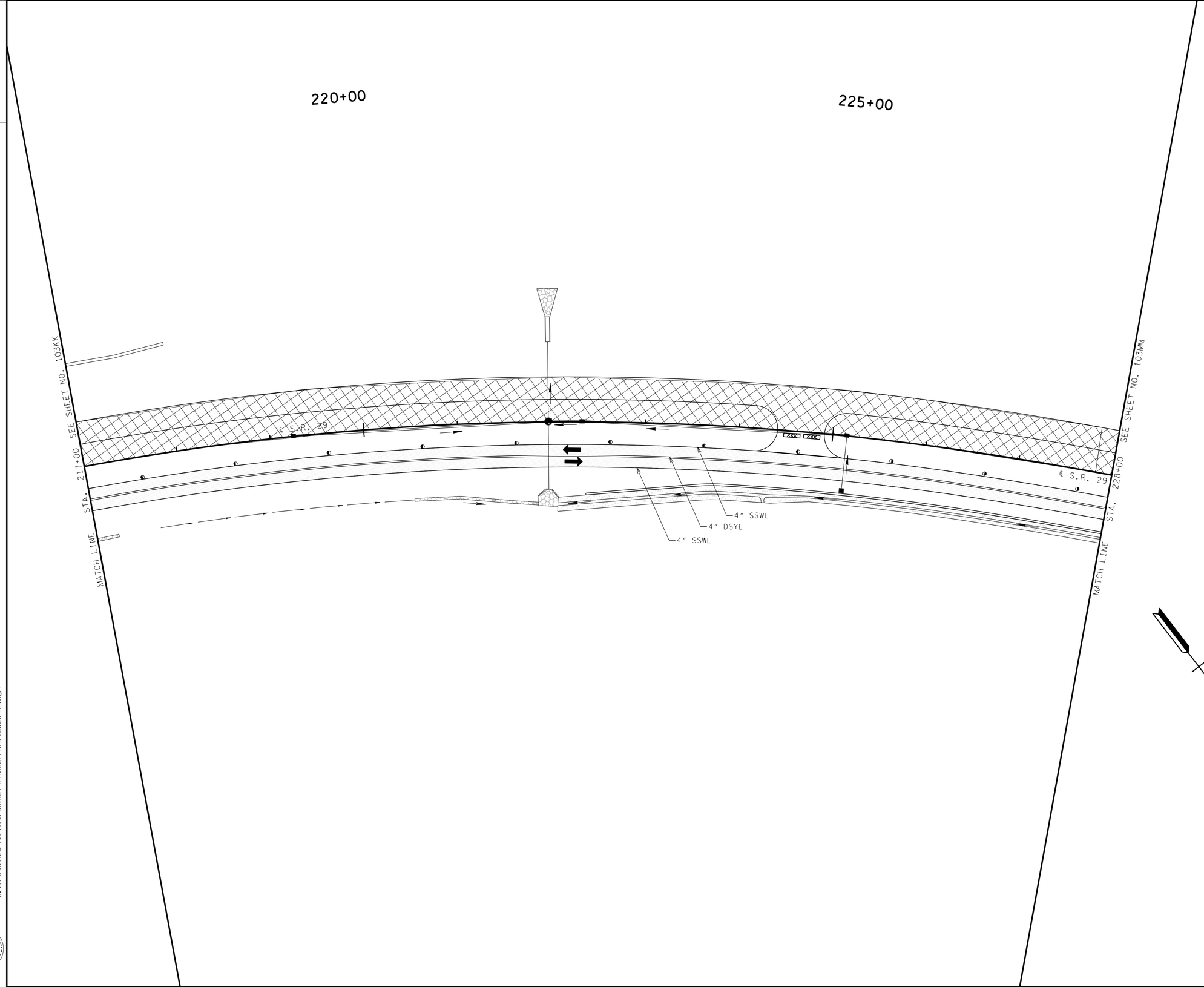
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103LL



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE R11-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.217+00 TO STA.228+00

SCALE: 1"=50'

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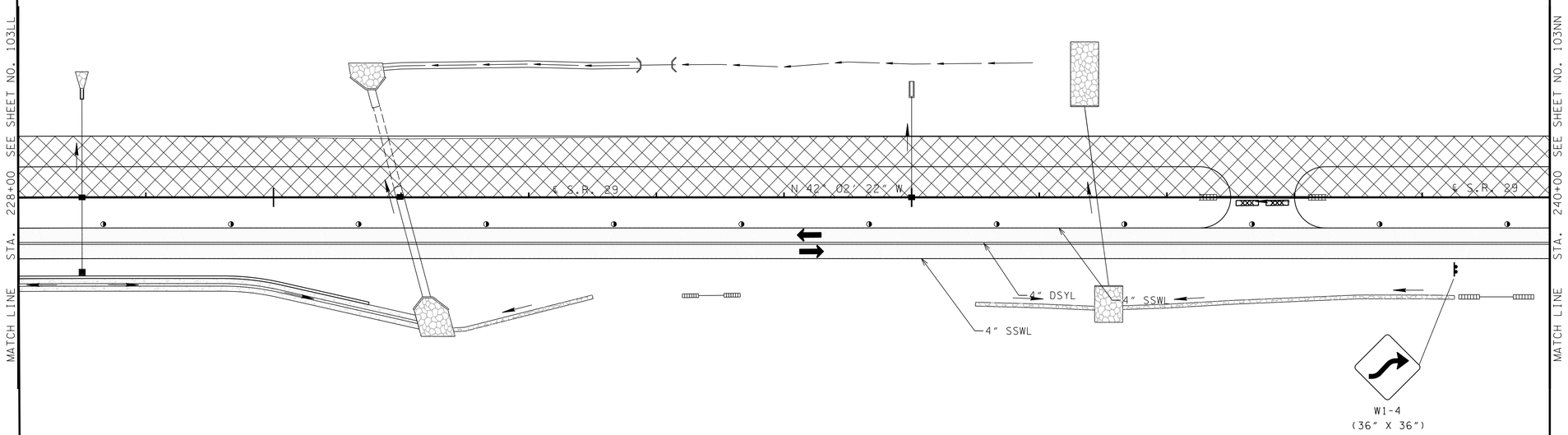
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103MM



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.228+00 TO STA.240+00

SCALE: 1"=50'

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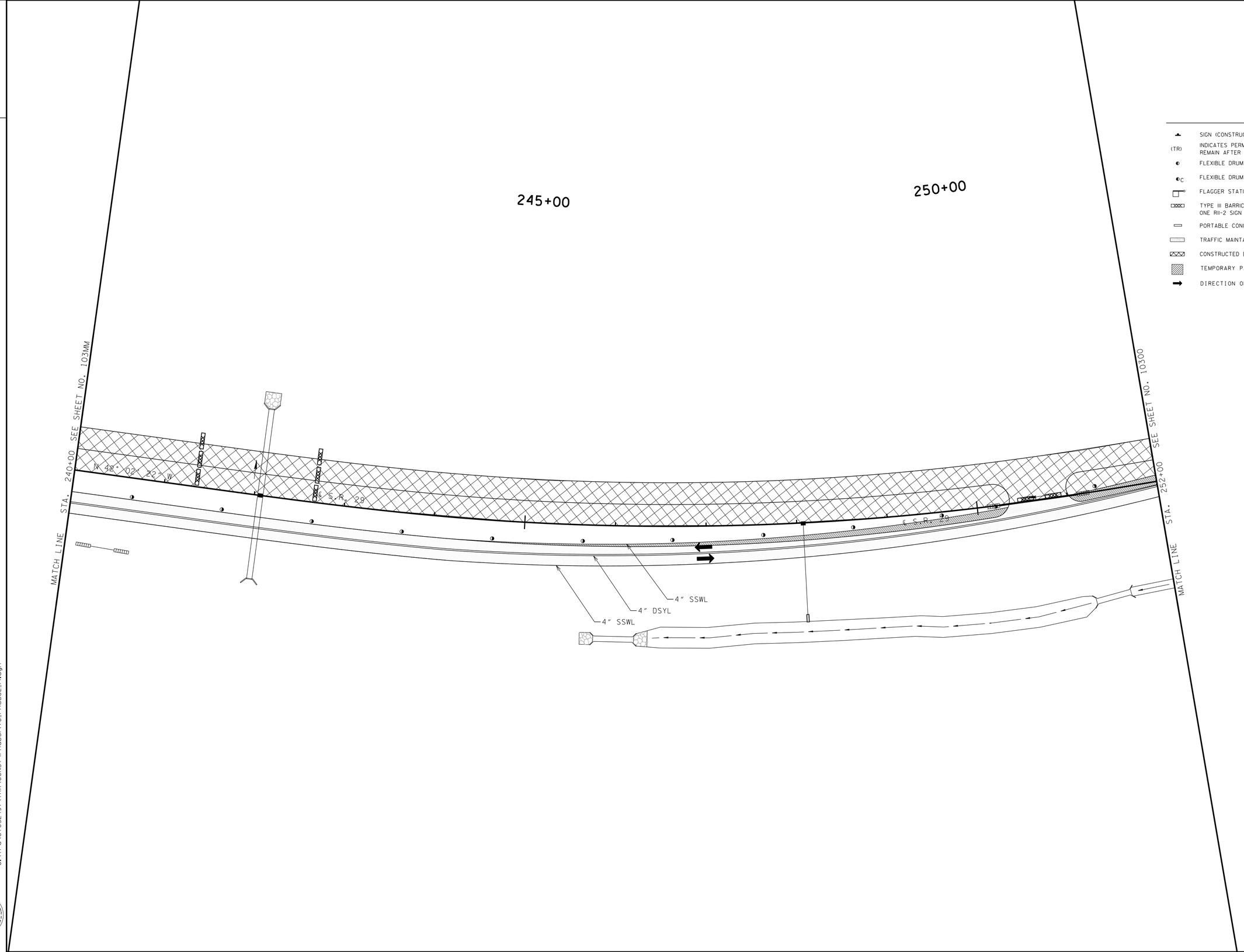
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	103NN



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.240+00 TO STA.252+00

SCALE: 1"=50'

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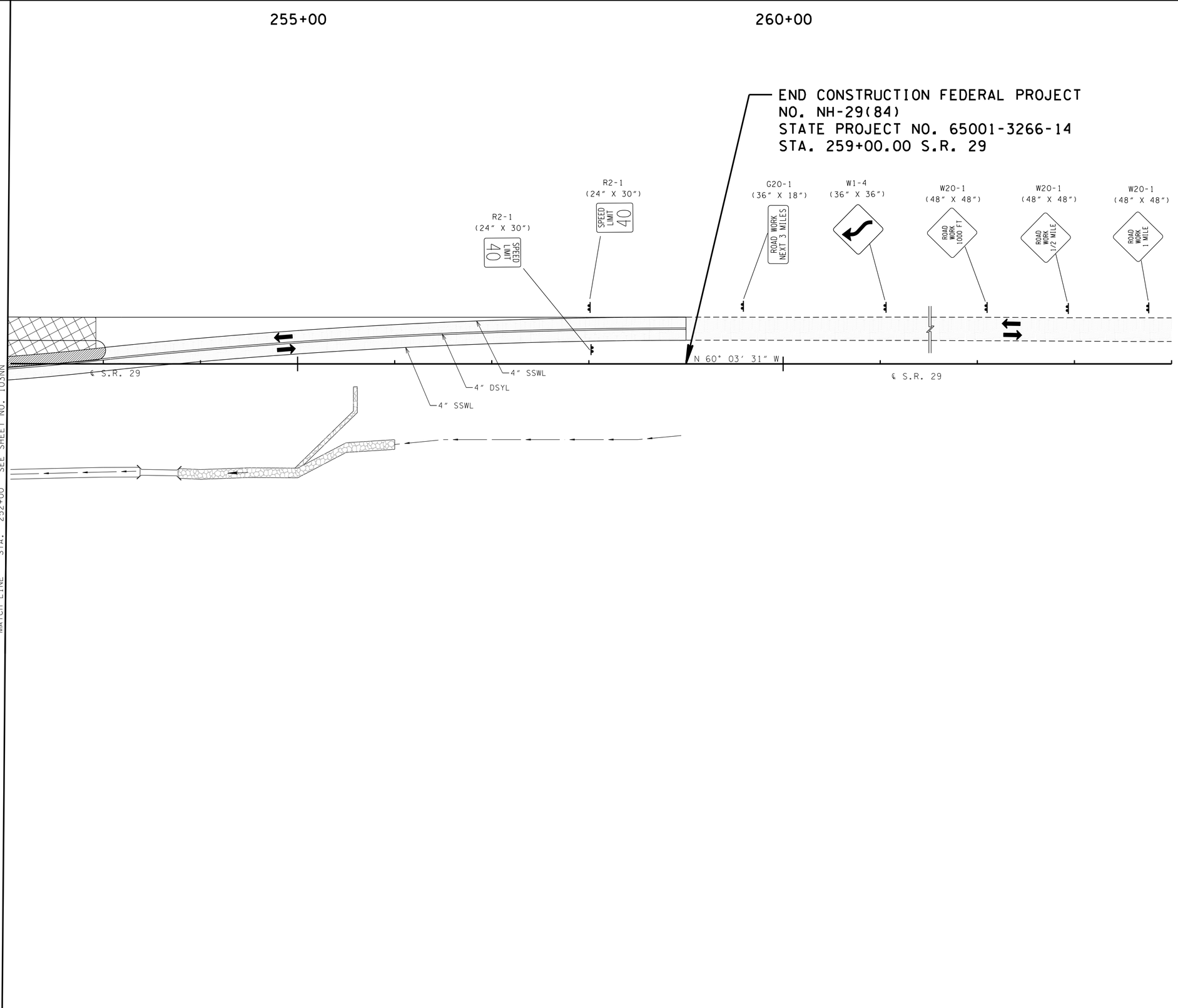
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	10300

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



LEGEND

- SIGN (CONSTRUCTION)
- (TR) INDICATES PERMANENT SIGN INSTALLED DURING THE PHASE AND TO REMAIN AFTER CONSTRUCTION
- FLEXIBLE DRUM (CHANNELIZING)
- C FLEXIBLE DRUM (CHANNELIZING) WITH TYPE "C" LIGHT
- FLAGGER STATION
- TYPE III BARRICADE W/TYPE "A" FLASHING LIGHTS (2 LIGHT MIN.) AND ONE RII-2 SIGN MOUNTED OVER CENTER OF ROADWAY
- PORTABLE CONCRETE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
- TRAFFIC MAINTAINED DURING THIS PHASE
- CONSTRUCTED DURING THIS PHASE
- TEMPORARY PAVING
- DIRECTION OF TRAFFIC

N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

TRAFFIC CONTROL PLAN PHASE II

STA.252+00 TO STA.264+00

SCALE: 1"=50'

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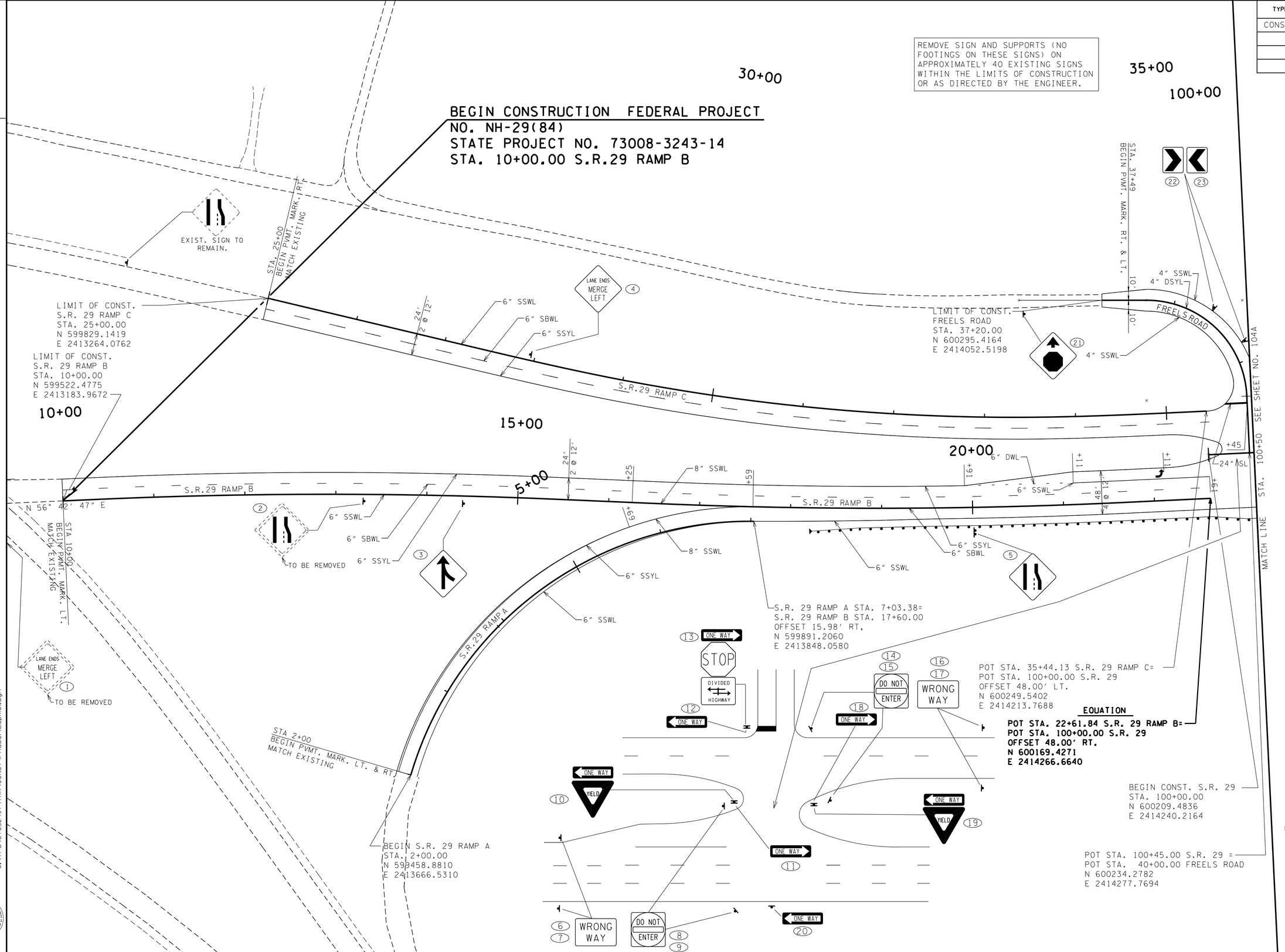
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104



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Survey & Design Division

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

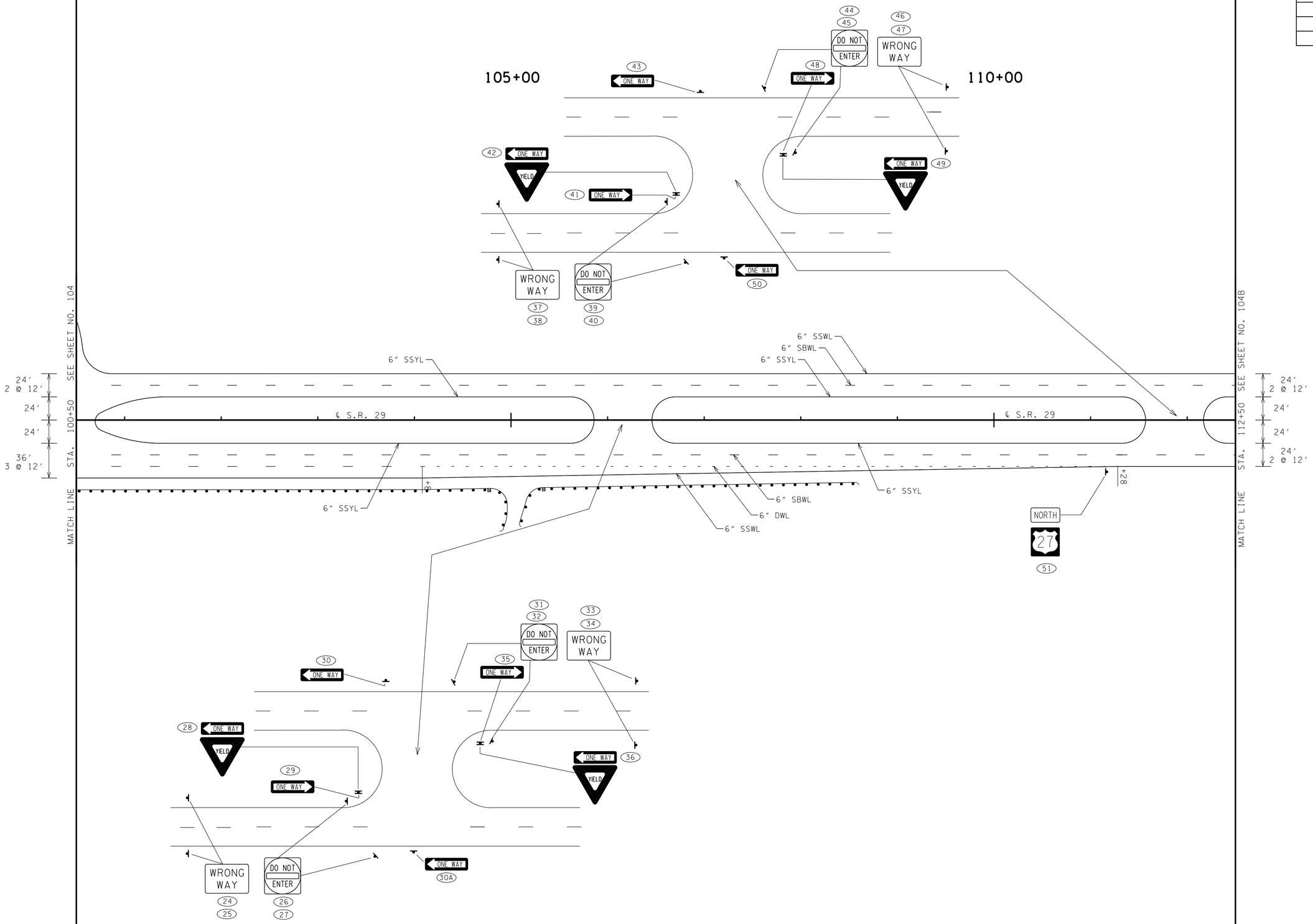
SIGNING AND PAVEMENT MARKING

STA. 10+00 TO STA. 100+50

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104A

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



UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 100+50 TO STA. 112+50

SCALE: 1"= 50'

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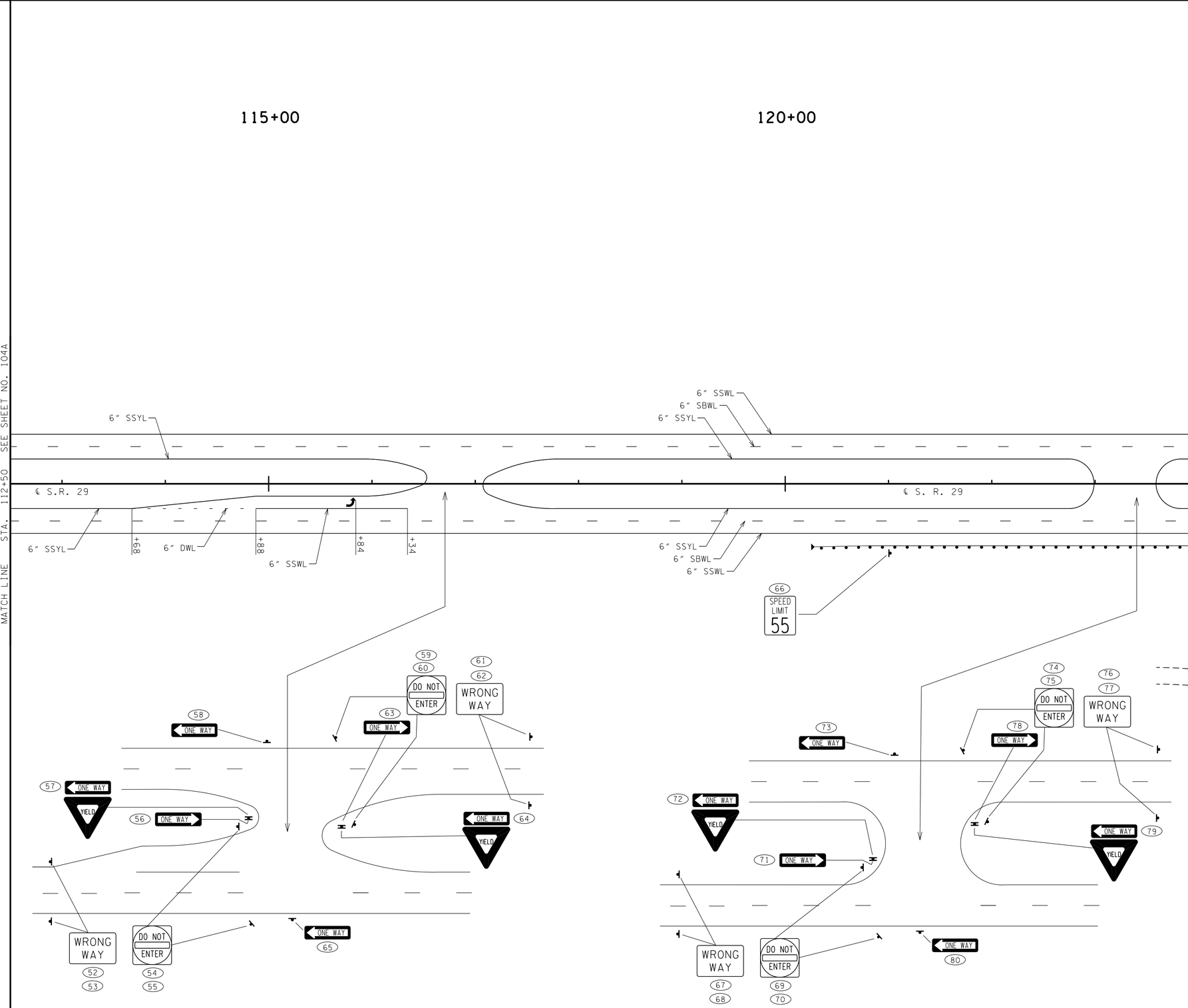
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104B



N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 112+50 TO STA. 124+00

SCALE: 1"= 50'

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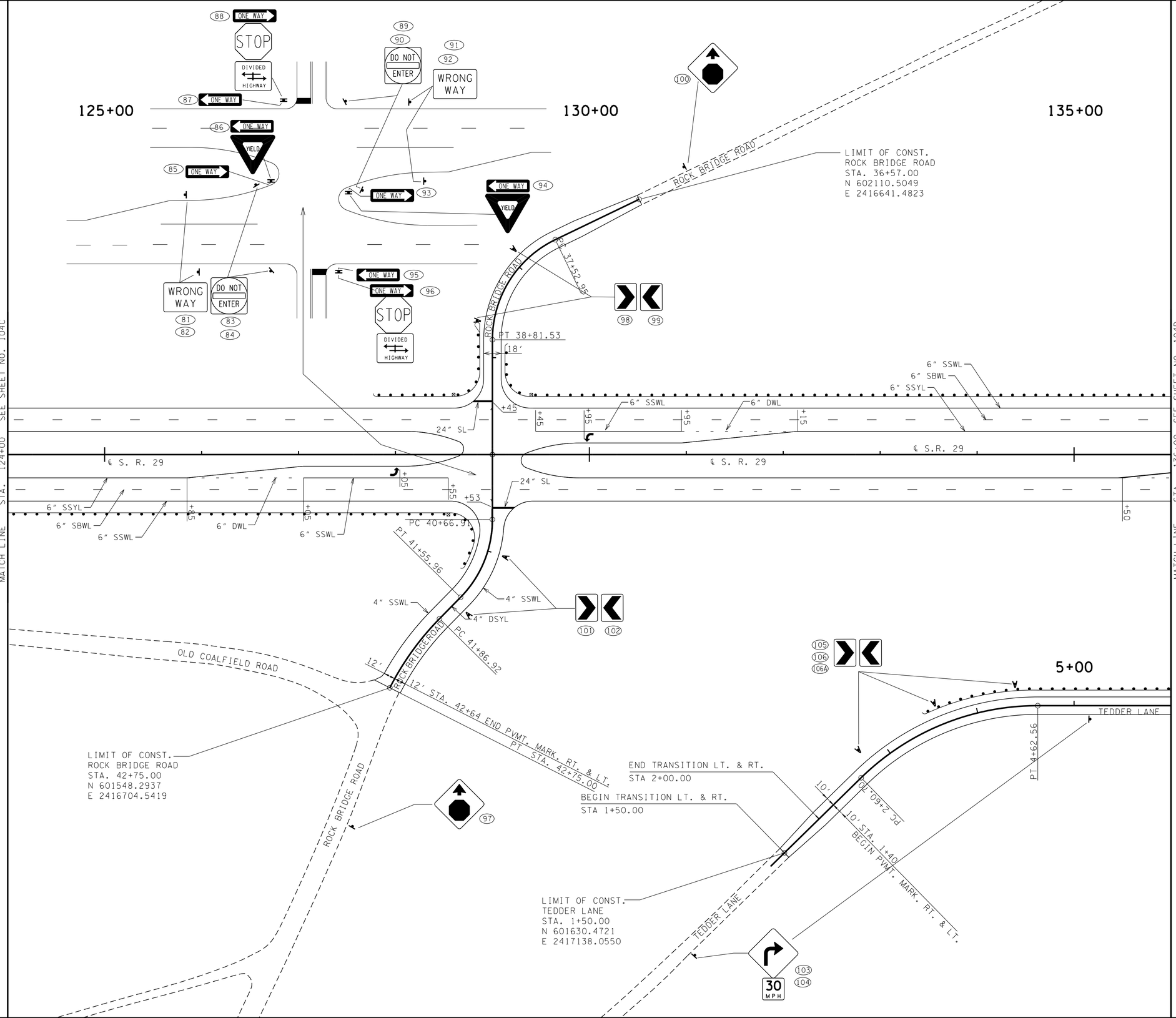
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104C

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



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

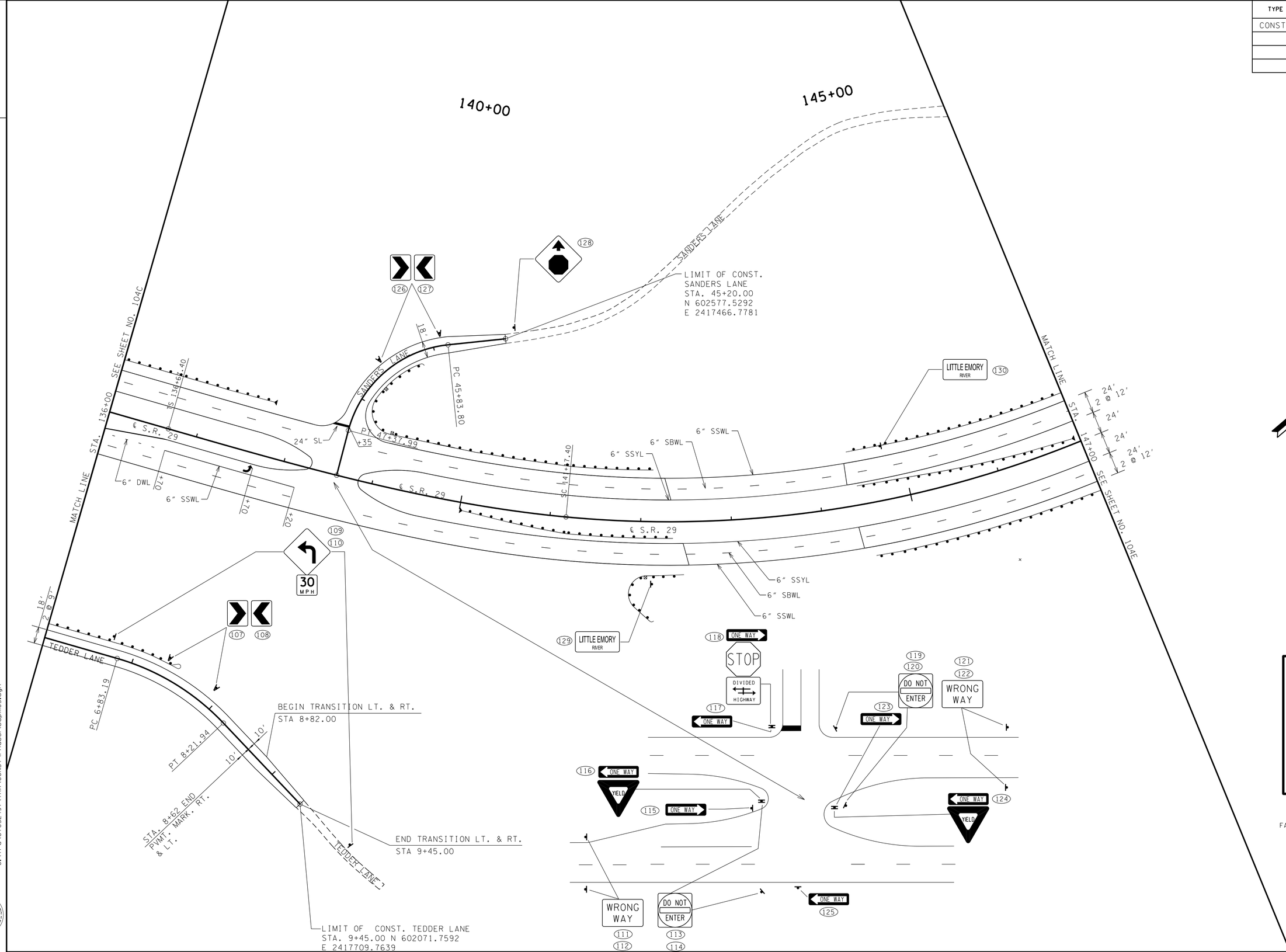
SIGNING AND PAVEMENT MARKING

STA. 124+00 TO STA. 136+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104D

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



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 136+00 TO STA. 147+00

SCALE: 1"= 50'

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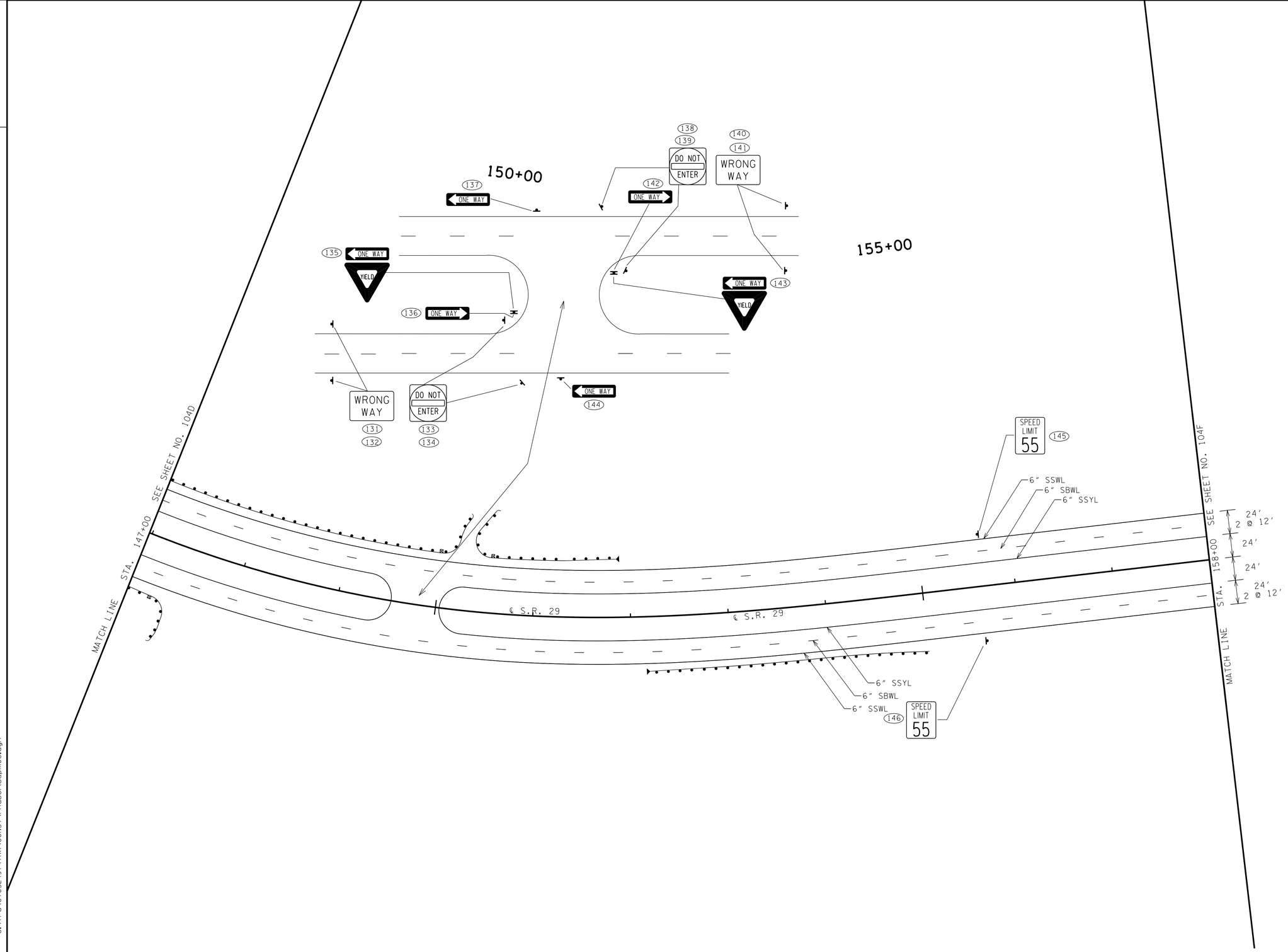
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104E

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



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

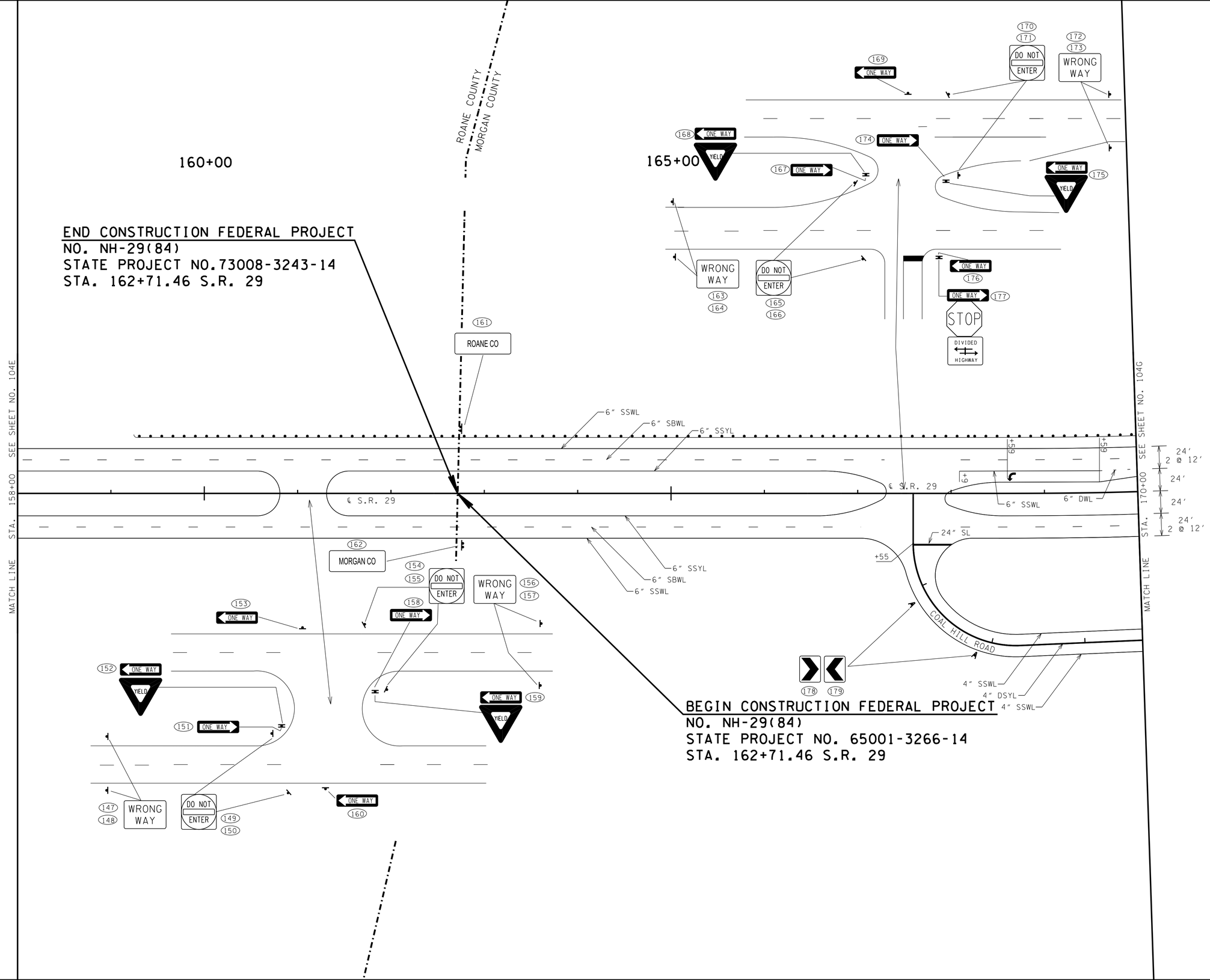
SIGNING AND PAVEMENT MARKING

STA. 147+00 TO STA. 158+00

SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104F



UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 158+00 TO STA. 170+00

SCALE: 1"= 50'

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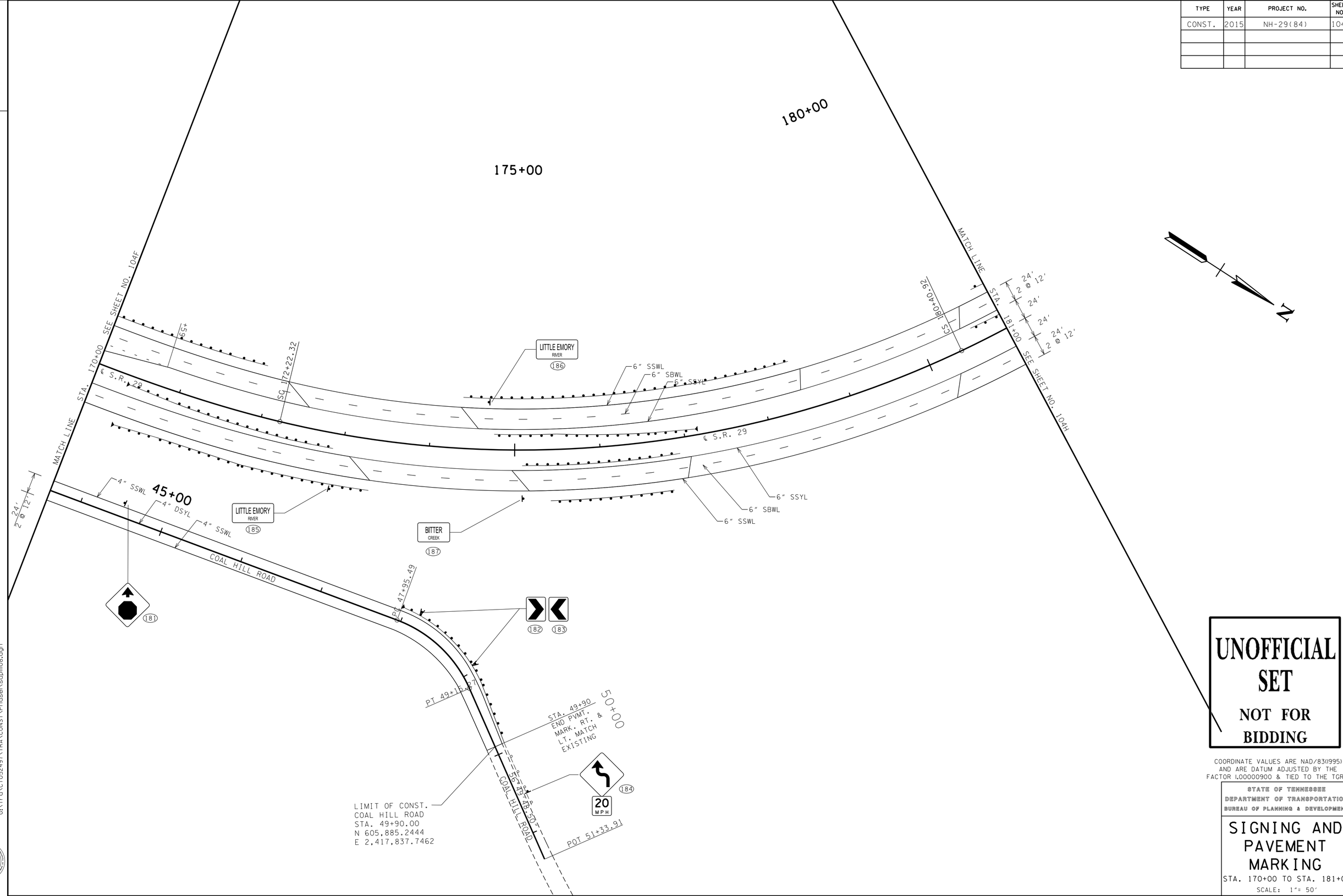
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104G



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 170+00 TO STA. 181+00

SCALE: 1"= 50'

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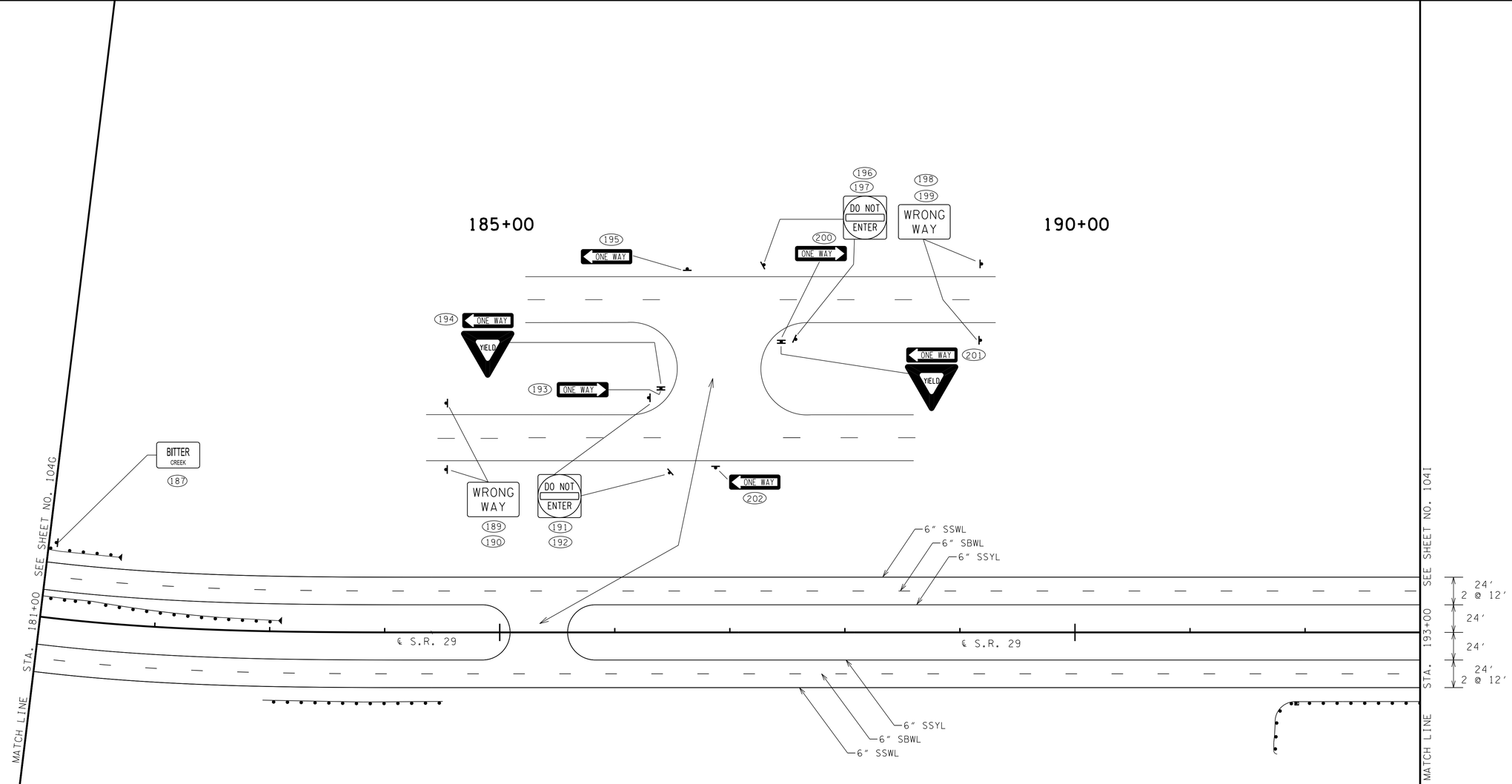
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104H



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UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

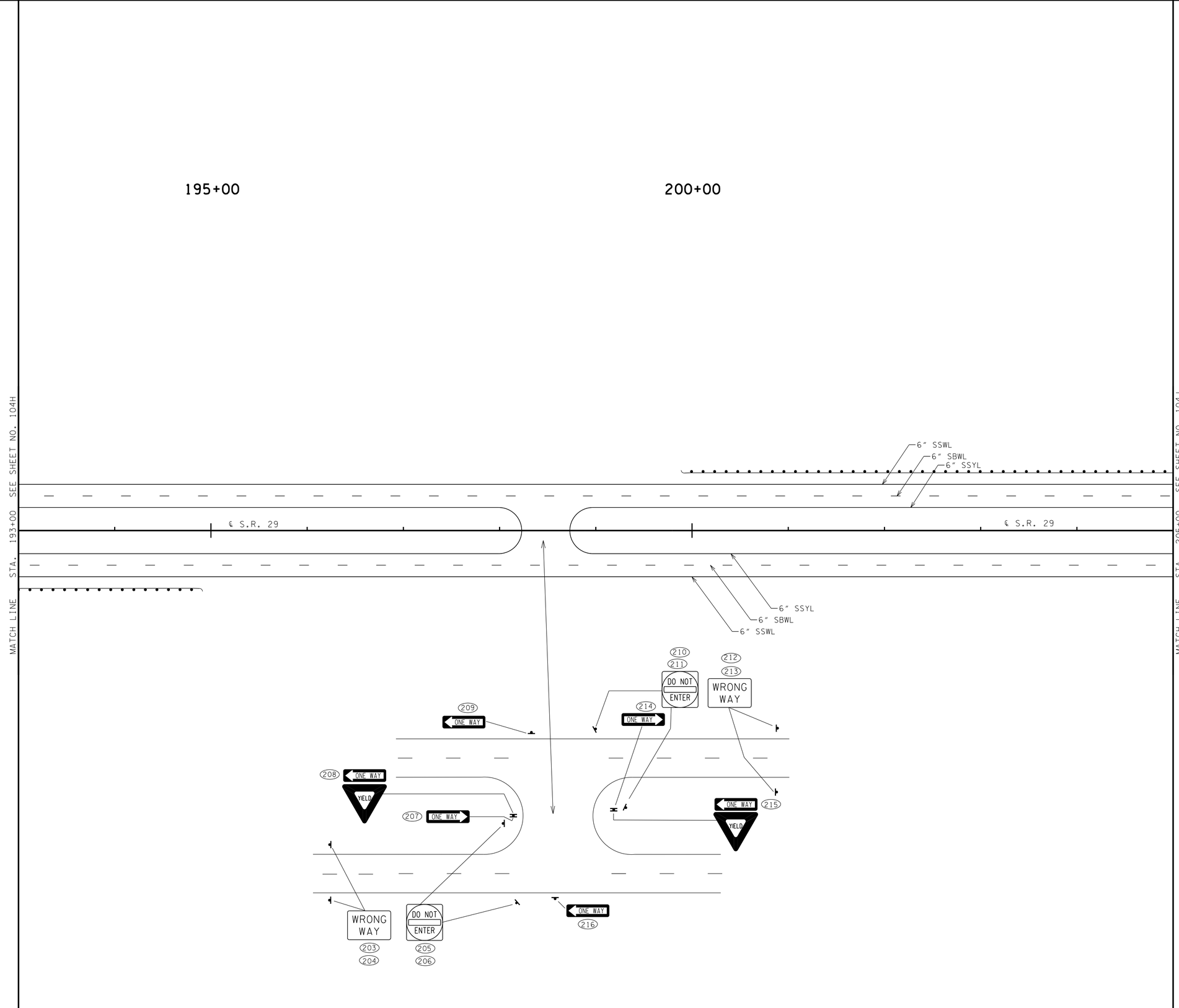
SIGNING AND PAVEMENT MARKING

STA. 181+00 TO STA. 193+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104I

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



N

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 193+00 TO STA. 205+00

SCALE: 1"= 50'

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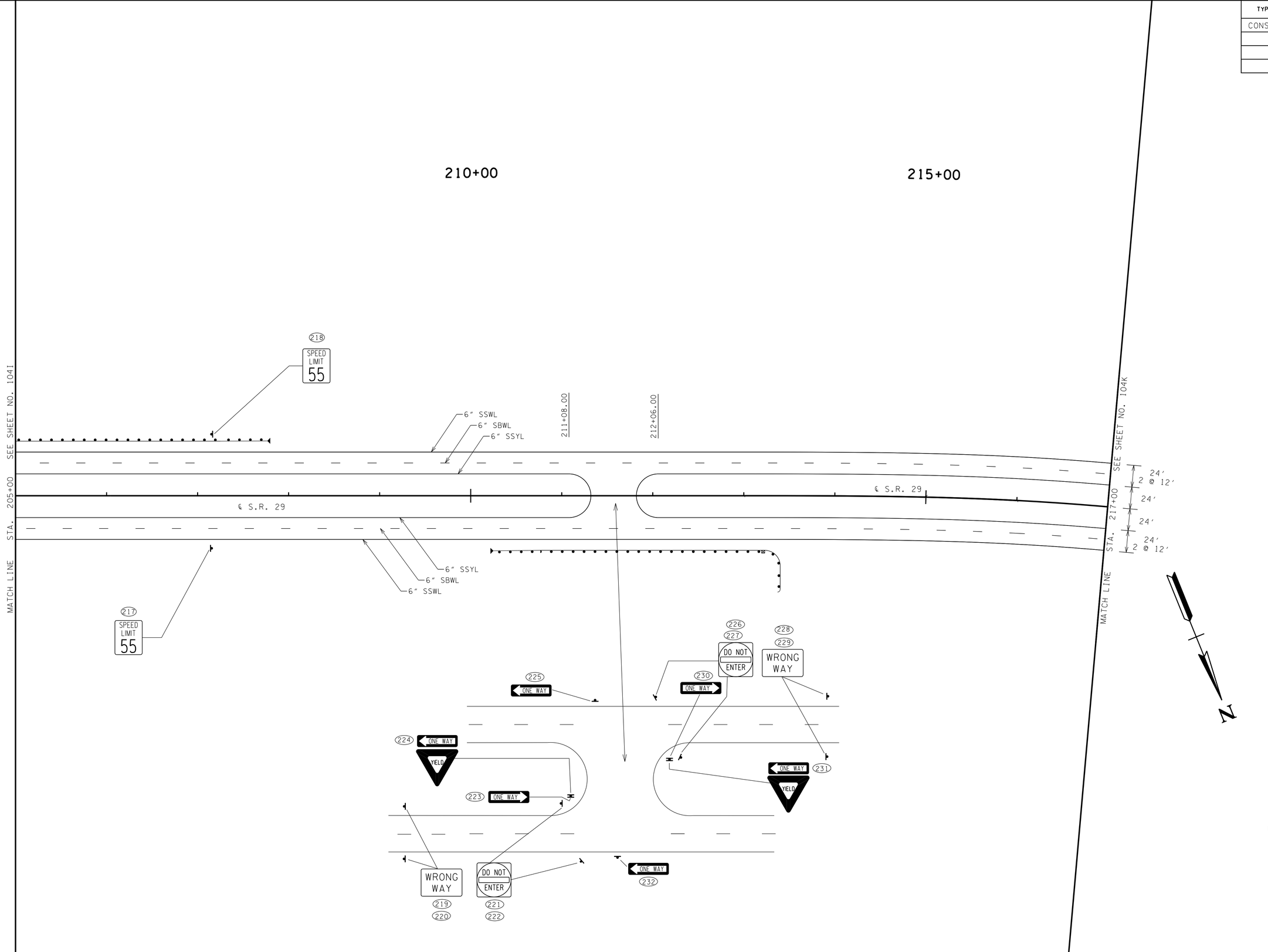
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104J



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 205+00 TO STA. 217+00

SCALE: 1"= 50'

11/21/2014 2:28:53 PM
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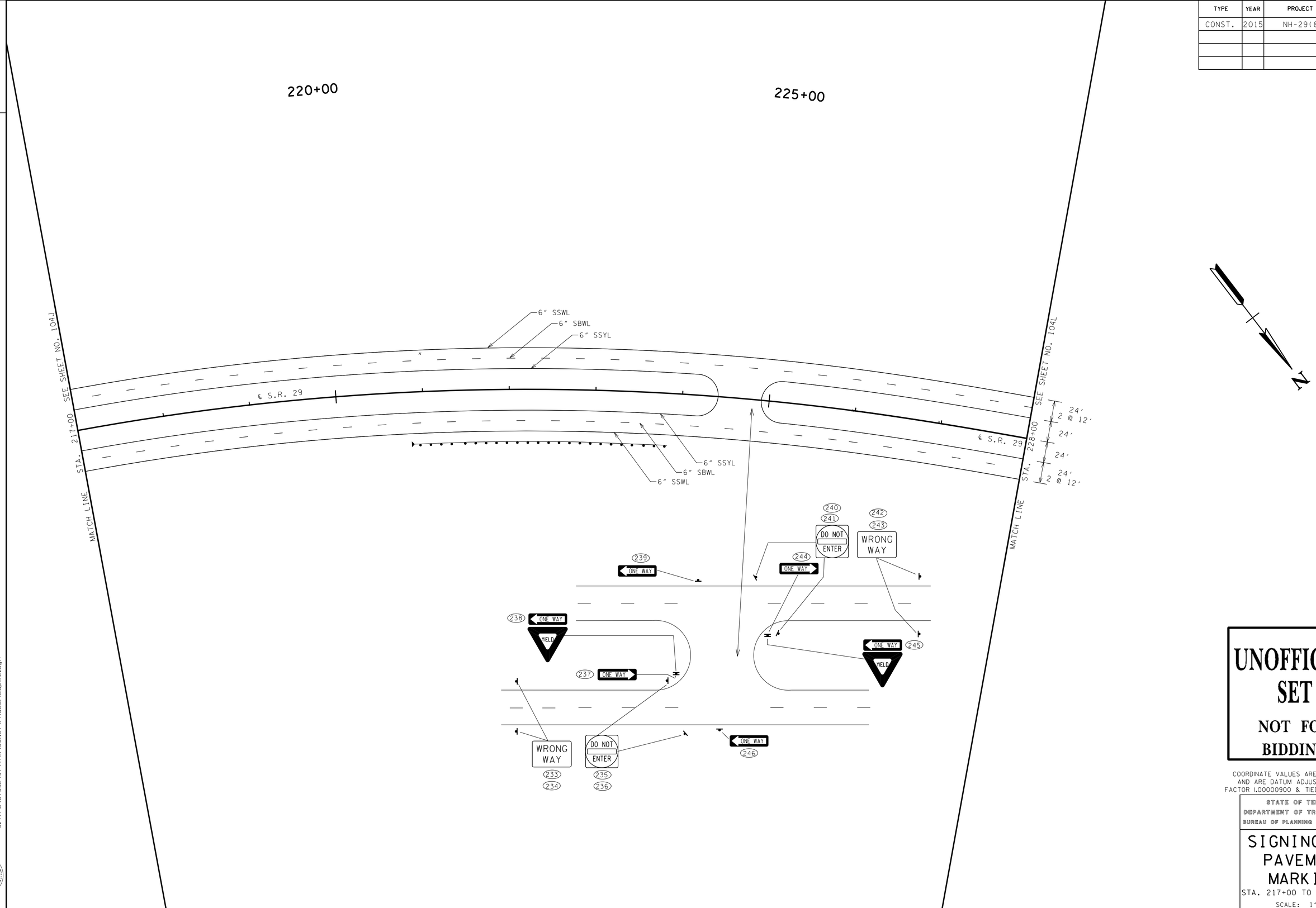
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104K



UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 217+00 TO STA. 228+00

SCALE: 1"= 50'

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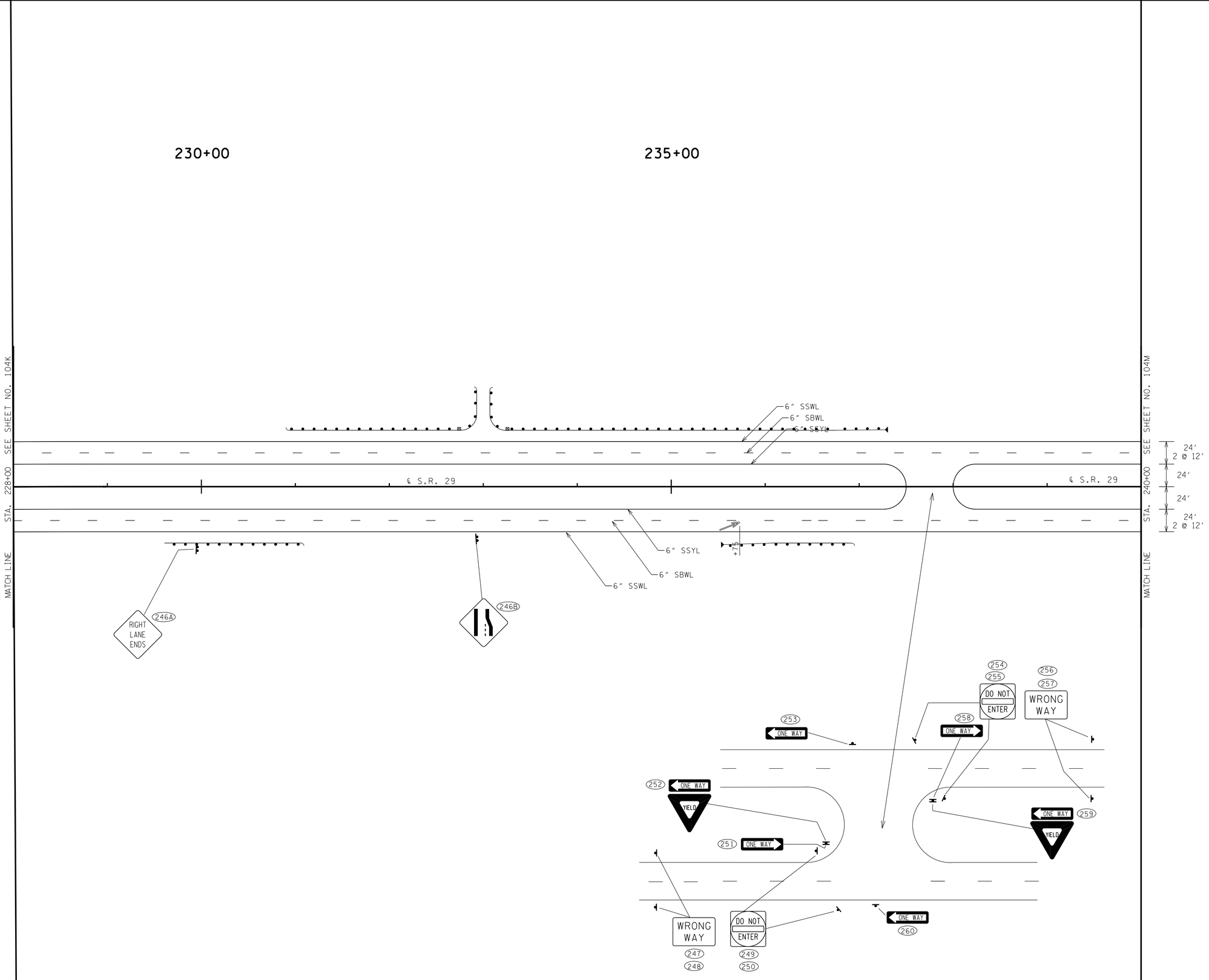
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104L



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Survey & Design Division

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

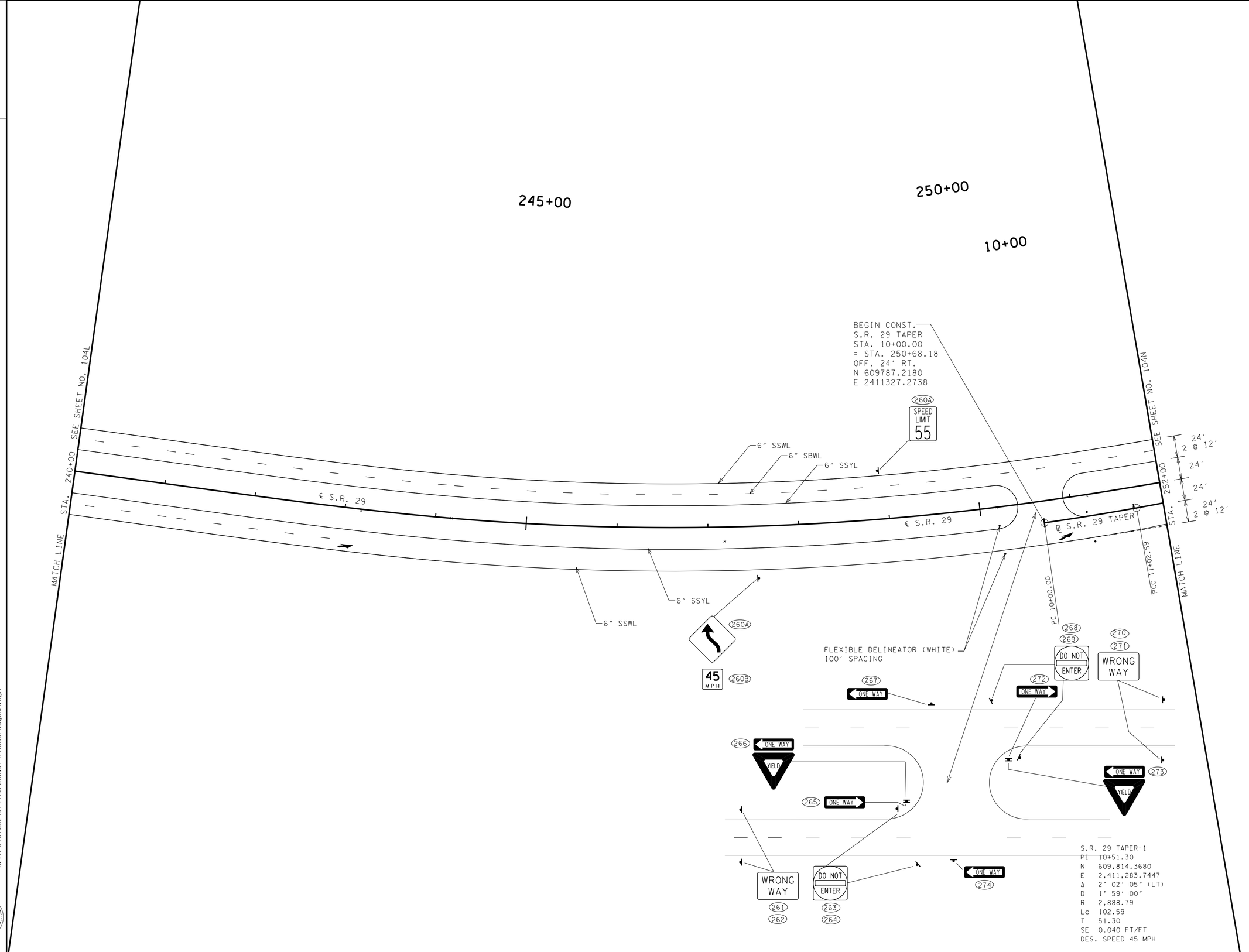
SIGNING AND PAVEMENT MARKING

STA. 228+00 TO STA. 240+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104M

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



S.R. 29 TAPER-1
PI 10+51.30
N 609,814.3680
E 2,411,283.7447
Δ 2° 02' 05" (LT)
D 1° 59' 00"
R 2,888.79
Lc 102.59
T 51.30
SE 0.040 FT/FT
DES. SPEED 45 MPH

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 240+00 TO STA. 252+00

SCALE: 1"= 50'

11/21/2014 2:28:55 PM
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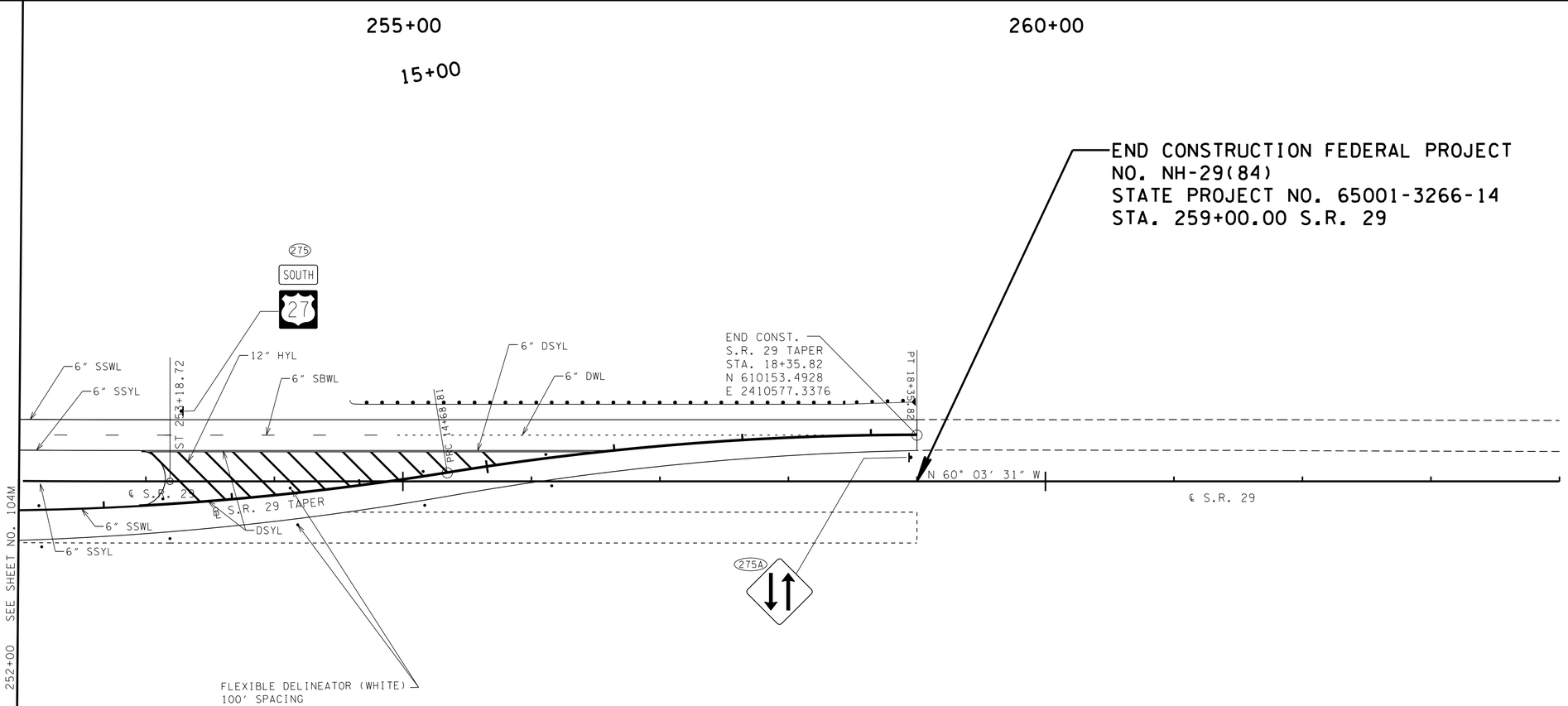
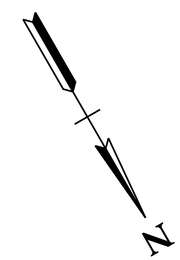
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	104N

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





S.R. 29 TAPER-2
PI 12+86.09
N 609,931.4770
E 2,411,080.2335
Δ 9° 09' 19" (LT)
D 2° 30' 00"
R 2,291.83
Lc 366.22
T 183.50
SE 0.040 FT/FT
DES. SPEED 45 MPH

S.R. 29 TAPER-3
PI 16+52.71
N 610,061.7173
E 2,410,736.6971
Δ 9° 10' 31" (RT)
D 2° 30' 00"
R 2,291.83
Lc 367.01
T 183.90
SE 0.040 FT/FT
DES. SPEED 45 MPH

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGNING AND PAVEMENT MARKING

STA. 252+00 TO STA. 264+00

SCALE: 1"= 50'

11/21/2014 2:28:55 PM
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Survey & Design Division

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	2015	NH-29(84)	105

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
21	W3-1A		36″	36″									(ARROW) BLACK (STOP) RED(REF.)	YELLOW (REF.)	0.100″ SHEET ALUMINUM	P8	h=13′-6″				5′-0″	
97																	h=13′-6″					
100																	h=13′-6″					
128																	h=13′-6″					
181																	h=13′-6″					
~~301~~																	~~h=13′-6″~~					
~~306~~																	~~h=13′-6″~~					
~~320~~																	~~h=13′-6″~~					
~~298~~	STOP R1-1		36″	36″									WHITE (REF.)	RED (REF.)	0.080″ SHEET ALUMINUM	P8	~~h=12′-6″~~				5′-0″	
~~310~~																	~~h=12′-6″~~					
66	SPEED LIMIT 55 R2-1		36″	48″									BLACK	WHITE (REF.)	0.100″ SHEET ALUMINUM	P8	h=13′-6″				5′-0″	
145																	h=13′-6″					
146																	h=13′-6″					
217																	h=13′-6″					
218																	h=13′-6″					
260A																	h=13′-6″					
~~334~~																	~~h=13′-6″~~					
~~292~~	SPEED LIMIT 50 R2-1		36″	48″									BLACK	WHITE (REF.)	0.100″ SHEET ALUMINUM	P8	~~h=13′-6″~~				5′-0″	
~~292A~~																	~~h=13′-6″~~					
~~303~~																	~~h=13′-6″~~					
~~304~~																	~~h=13′-6″~~					
~~313~~																	~~h=13′-6″~~					
~~335~~																	~~h=13′-6″~~					
~~297~~	CENTER LANE ONLY R3-9b		24″	36″									BLACK	WHITE (REF.)	0.080″ SHEET ALUMINUM	U6	~~h=13′-0″~~				5′-0″	
~~302~~																	~~h=13′-0″~~					
~~305~~																	~~h=13′-0″~~					
~~311~~																	~~h=13′-0″~~					
5	W4-2		48″	48″									BLACK	YELLOW (REF.)	0.100″ SHEET ALUMINUM	U3	h1=14′-0″ h2=14′-6″				5′-0″	
246B																	h1=14′-0″ h2=14′-6″					
3	W4-1		36″	36″									BLACK	YELLOW (REF.)	0.100″ SHEET ALUMINUM	P8	h=13′-6″				5′-0″	

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

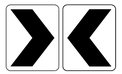
11/19/2014 9:12:46 AM
$$$$DGNSPEC$$$$

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	2015	NH-29(84)	105A

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
22	W1-8R  W1-8L		18″	24″									BLACK	YELLOW (REF.)	0.080″ SHEET ALUMINUM	U1	h1=11′-0″ h2=11′-0″				5′-0″	
23																	h1=11′-0″ h2=11′-0″					
98																	h1=11′-0″ h2=11′-0″					
99																	h1=11′-0″ h2=11′-0″					
101																	h1=11′-0″ h2=11′-0″					
102																	h1=11′-0″ h2=11′-0″					
105																	h1=11′-0″ h2=11′-0″					
106																	h1=11′-0″ h2=11′-0″					
106A																	h1=11′-0″ h2=11′-0″					
107																	h1=11′-0″ h2=11′-0″					
108																	h1=11′-0″ h2=11′-0″					
126																	h1=11′-0″ h2=11′-0″					
127																	h1=11′-0″ h2=11′-0″					
178																	h1=11′-0″ h2=11′-0″					
179																	h1=11′-0″ h2=11′-0″					
182																	h1=11′-0″ h2=11′-0″					
183																	h1=11′-0″ h2=11′-0″					
~~299~~																	~~h1=11′-0″ h2=11′-0″~~					
~~300~~																	~~h1=11′-0″ h2=11′-0″~~					
~~307~~																	~~h1=11′-0″ h2=11′-0″~~					
~~308~~																	~~h1=11′-0″ h2=11′-0″~~					
~~309~~																	~~h1=11′-0″ h2=11′-0″~~					
13	ONE WAY R6-1(R)		36″	12″									BLACK	WHITE (REF.) BLACK	0.080″ SHEET ALUMINUM	P5	16′- 6″				5′-0″	
88	STOP R1-1		36″	36″									WHITE (REF.)	RED (REF.)			16′- 6″					
96																	16′- 6″					
118	DIVIDED HIGHWAY R6-3		30″	24″									BLACK	WHITE (REF.)			16′- 6″					
177																	16′- 6″					
~~295~~	R4-7		24″	30″									BLACK	WHITE (REF.)	0.080″ SHEET ALUMINUM	U3	~~h=12′-6″~~				5′-0″	
~~319~~	YIELD R1-2		36″x36″ x36″										WHITE (REF.)	RED (REF.)	0.080″ SHEET ALUMINUM							~~MOUNT BEHIND SIGN # 318~~
~~325~~																						~~MOUNT BEHIND SIGN # 324~~

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

UNOFFICIAL SET
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

11/19/2014 9:35:28 AM
$$$$DGNSPEC$$$$

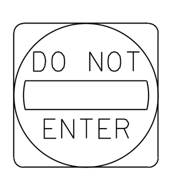
TENNESSEE D.O.T. DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	NH-29(84)	105B

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS		
8																	h=12'-6"					
9																	h=12'-6"					
14																	h=12'-6"					
15																	h=12'-6"					
26																	h=12'-6"					
27																	h=12'-6"					
31																	h=12'-6"					
32																	h=12'-6"					
39																	h=12'-6"					
40																	h=12'-6"					
44																	h=12'-6"					
45																	h=12'-6"					
54																	h=12'-6"					
55																	h=12'-6"					
59																	h=12'-6"					
60																	h=12'-6"					
69																	h=12'-6"					
70																	h=12'-6"					
74																	h=12'-6"					
75																	h=12'-6"					
83																	h=12'-6"					
84	 R5-1		36"	36"									WHITE (REF.)	WHITE (REF.) RED(REF.)	0.100" SHEET ALUMINUM	P8	h=12'-6"				5'-0"	
89																	h=12'-6"					
90																	h=12'-6"					
113																	h=12'-6"					
114																	h=12'-6"					
119																	h=12'-6"					
120																	h=12'-6"					
133																	h=12'-6"					
134																	h=12'-6"					
138																	h=12'-6"					
139																	h=12'-6"					
149																	h=12'-6"					
150																	h=12'-6"					
154																	h=12'-6"					
155																	h=12'-6"					
165																	h=12'-6"					
166																	h=12'-6"					
170																	h=12'-6"					
171																	h=12'-6"					
191																	h=12'-6"					
192																	h=12'-6"					
196																	h=12'-6"					
197																	h=12'-6"					

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

11/19/2014 9:14:07 AM
$$$$DGNSPEC$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

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	2015	NH-29(84)	105C

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
205	DO NOT ENTER R5-1		36"	36"									WHITE (REF.)	WHITE (REF.) RED(REF.)	0.100" SHEET ALUMINUM	P8	h=12'-6"				5'-0"	
206																	h=12'-6"					
210																	h=12'-6"					
211																	h=12'-6"					
221																	h=12'-6"					
222																	h=12'-6"					
226																	h=12'-6"					
227																	h=12'-6"					
235																	h=12'-6"					
236																	h=12'-6"					
240																	h=12'-6"					
241																	h=12'-6"					
249																	h=12'-6"					
250																	h=12'-6"					
254																	h=12'-6"					
255																	h=12'-6"					
260E																	h=12'-6"					
~~263~~																	~~h=12'-6"~~					
~~264~~																	~~h=12'-6"~~					
~~268~~																	~~h=12'-6"~~					
~~269~~																	~~h=12'-6"~~					
~~279~~																	~~h=12'-6"~~					
~~280~~																	~~h=12'-6"~~					
~~284~~																	~~h=12'-6"~~					
~~285~~																	~~h=12'-6"~~					
~~296~~																	~~h=12'-6"~~					
~~318~~																	~~h=12'-6"~~					
~~324~~																	~~h=12'-6"~~					
103	W1-1R		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P5	h=15'-6"				5'-0"	
104	30 MPH W13-1		24"	24"											0.080" SHEET ALUMINUM		h=15'-6"					
109	W1-1L		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P5	h=15'-6"				5'-0"	
110	30 MPH W13-1		24"	24"											0.080" SHEET ALUMINUM		h=15'-6"					
184	W1-3L		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P5	h=15'-6"				5'-0"	
	20 MPH W13-1		24"	24"											0.080" SHEET ALUMINUM							

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

11/19/2014 9:14:58 AM
$$$$DGNSPEC$$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	NH-29(84)	105D

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

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		
6																	h=11'-6"					
7																	h=11'-6"					
16																	h=11'-6"					
17																	h=11'-6"					
24																	h=11'-6"					
25																	h=11'-6"					
33																	h=11'-6"					
34																	h=11'-6"					
37																	h=11'-6"					
38																	h=11'-6"					
46																	h=11'-6"					
47																	h=11'-6"					
52																	h=11'-6"					
53																	h=11'-6"					
61																	h=11'-6"					
62																	h=11'-6"					
67																	h=11'-6"					
68																	h=11'-6"					
76																	h=11'-6"					
77																	h=11'-6"					
81																	h=11'-6"					
82	WRONG WAY R5-1A		36"	24"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM	P8	h=11'-6"				5'-0"	
91																	h=11'-6"					
92																	h=11'-6"					
111																	h=11'-6"					
112																	h=11'-6"					
121																	h=11'-6"					
122																	h=11'-6"					
131																	h=11'-6"					
132																	h=11'-6"					
140																	h=11'-6"					
141																	h=11'-6"					
147																	h=11'-6"					
148																	h=11'-6"					
156																	h=11'-6"					
157																	h=11'-6"					
163																	h=11'-6"					
164																	h=11'-6"					
172																	h=11'-6"					
173																	h=11'-6"					
189																	h=11'-6"					
190																	h=11'-6"					
198																	h=11'-6"					
199																	h=11'-6"					

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

11/19/2014 9:15:50 AM
$$$$DGNSPEC$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

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	2015	NH-29(84)	105E

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
203	WRONG WAY R5-1A		36"	24"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM	P8	h=11'-6"				5'-0"	
204																	h=11'-6"					
212																	h=11'-6"					
213																	h=11'-6"					
219																	h=11'-6"					
220																	h=11'-6"					
228																	h=11'-6"					
229																	h=11'-6"					
233																	h=11'-6"					
234																	h=11'-6"					
242																	h=11'-6"					
243																	h=11'-6"					
247																	h=11'-6"					
248																	h=11'-6"					
256																	h=11'-6"					
257																	h=11'-6"					
260D																	h=11'-6"					
260C																	h=11'-6"					
~~261~~																	~~h=11'-6"~~					
~~262~~																	~~h=11'-6"~~					
~~270~~																	~~h=11'-6"~~					
~~271~~																	~~h=11'-6"~~					
~~277~~																	~~h=11'-6"~~					
~~278~~																	~~h=11'-6"~~					
~~286~~																	~~h=11'-6"~~					
~~287~~																	~~h=11'-6"~~					
~~293~~																	~~h=11'-6"~~					
~~294~~																	~~h=11'-6"~~					
4	LANE ENDS MERGE LEFT R5-1A		48"	48"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	U3	h1=14'-0" h2=14'-6"				5'-0"	
~~276~~	SPEED LIMIT 50 W19-3		48"	48"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	U3	~~h1=14'-0"~~ ~~h2=14'-6"~~				5'-0"	
~~276A~~																	~~h1=14'-0"~~ ~~h2=14'-6"~~					
~~337~~																	~~h1=14'-0"~~ ~~h2=14'-6"~~					
51	NORTH M3-1		24"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	h=13'-0"				5'-0"	
~~328~~	27 M1-4		24"	24"													~~h=13'-0"~~					
275	SOUTH M3-3		24"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	h=13'-0"				5'-0"	
~~317~~	27 M1-4		24"	24"													~~h=13'-0"~~					

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

11/19/2014 9:16:00 AM
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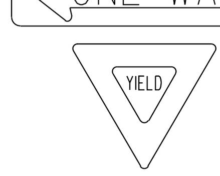
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	NH-29(84)	105F

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS		
10																	h=14'-0"					
19																	h=14'-0"					
28																	h=14'-0"					
36																	h=14'-0"					
42																	h=14'-0"					
49																	h=14'-0"					
57																	h=14'-0"					
64																	h=14'-0"					
72																	h=14'-0"					
79																	h=14'-0"					
86																	h=14'-0"					
94																	h=14'-0"					
116																	h=14'-0"					
124	R6-1(L)		36"	12"									BLACK	WHITE (REF.) BLACK			h=14'-0"				5'-0"	
135																	h=14'-0"					
143	 R1-2		36" x 36" x 36"										RED (REF.)	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h=14'-0"					
152																	h=14'-0"					
159																	h=14'-0"					
168																	h=14'-0"					
175																	h=14'-0"					
194																	h=14'-0"					
201																	h=14'-0"					
208																	h=14'-0"					
215																	h=14'-0"					
224																	h=14'-0"					
231																	h=14'-0"					
238																	h=14'-0"					
245																	h=14'-0"					
252																	h=14'-0"					
259																	h=14'-0"					
~~266~~																	~~h=14'-0"~~					
~~273~~																	~~h=14'-0"~~					
~~282~~																	~~h=14'-0"~~					
~~289~~																	~~h=14'-0"~~					

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

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11/19/2014 9:17:35 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	NH-29(84)	105G

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS		
12																						MOUNTED BEHIND SIGN NO. 13
20																	h=11'-0"				5'-0"	
30																	h=11'-0"				5'-0"	
30A																	h=11'-0"				5'-0"	
58																	h=11'-0"				5'-0"	
65																	h=11'-0"				5'-0"	
73																	h=11'-0"				5'-0"	
80																	h=11'-0"				5'-0"	
87																						MOUNTED BEHIND SIGN NO. 88
95																						MOUNTED BEHIND SIGN NO. 96
117																						MOUNTED BEHIND SIGN NO. 118
125																	h=11'-0"				5'-0"	
137																	h=11'-0"				5'-0"	
144																	h=11'-0"				5'-0"	
153																	h=11'-0"				5'-0"	
160																	h=11'-0"				5'-0"	
169																	h=11'-0"				5'-0"	
176																						MOUNTED BEHIND SIGN NO. 177
195	ONE WAY		36"	12"									BLACK	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM	U1	h=11'-0"				5'-0"	
202	R6-1(L)																h=11'-0"				5'-0"	
209																	h=11'-0"				5'-0"	
216																	h=11'-0"				5'-0"	
225																	h=11'-0"				5'-0"	
232																	h=11'-0"				5'-0"	
239																	h=11'-0"				5'-0"	
246																	h=11'-0"				5'-0"	
253																	h=11'-0"				5'-0"	
260																	h=11'-0"				5'-0"	
~~267~~																	~~h=11'-0"~~				5'-0"	
~~274~~																	~~h=11'-0"~~				5'-0"	
~~283~~																	~~h=11'-0"~~				5'-0"	
~~290~~																	~~h=11'-0"~~				5'-0"	
43																	h=11'-0"				5'-0"	
50																	h=11'-0"				5'-0"	
~~312~~	JCT M2-1		21"	15"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	~~h=13'-6"~~				5'-0"	
~~333~~	338 TN-6B		30"	24"													~~h=13'-6"~~					

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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11/19/2014 9:49:36 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	NH-29(84)	105H

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

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		
11																						MOUNTED BEHIND SIGN NO. 10
18																						MOUNTED BEHIND SIGN NO. 19
29																						MOUNTED BEHIND SIGN NO. 28
35																						MOUNTED BEHIND SIGN NO. 36
56																						MOUNTED BEHIND SIGN NO. 57
63																						MOUNTED BEHIND SIGN NO. 64
71																						MOUNTED BEHIND SIGN NO. 72
78																						MOUNTED BEHIND SIGN NO. 79
85																						MOUNTED BEHIND SIGN NO. 86
93																						MOUNTED BEHIND SIGN NO. 94
115																						MOUNTED BEHIND SIGN NO. 116
123																						MOUNTED BEHIND SIGN NO. 124
136																						MOUNTED BEHIND SIGN NO. 135
142																						MOUNTED BEHIND SIGN NO. 143
151																						MOUNTED BEHIND SIGN NO. 152
158																						MOUNTED BEHIND SIGN NO. 159
167																						MOUNTED BEHIND SIGN NO. 168
174																						MOUNTED BEHIND SIGN NO. 175
193	ONE WAY R6-1(R)		36"	12"									BLACK	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM							MOUNTED BEHIND SIGN NO. 194
200																						MOUNTED BEHIND SIGN NO. 201
207																						MOUNTED BEHIND SIGN NO. 208
214																						MOUNTED BEHIND SIGN NO. 215
223																						MOUNTED BEHIND SIGN NO. 224
230																						MOUNTED BEHIND SIGN NO. 231
237																						MOUNTED BEHIND SIGN NO. 238
244																						MOUNTED BEHIND SIGN NO. 245
251																						MOUNTED BEHIND SIGN NO. 252
258																						MOUNTED BEHIND SIGN NO. 259
~~265~~																						~~MOUNTED BEHIND SIGN NO. 266~~
~~272~~																						~~MOUNTED BEHIND SIGN NO. 273~~
~~281~~																						~~MOUNTED BEHIND SIGN NO. 282~~
~~288~~																						~~MOUNTED BEHIND SIGN NO. 289~~
41																						MOUNTED BEHIND SIGN NO. 42
48																						MOUNTED BEHIND SIGN NO. 49
~~323~~	SOUTH M3-3 338 TN-6B		24" 30"	12" 24"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U3	~~h=13'-0"~~				5'-0"	

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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SIGN SCHEDULE

11/19/2014 9:20:43 AM
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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)

SEE STD. DWG. NO. T-S-19

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
~~314~~	SOUTH 328 ←	M3-3 TN-6B M5-1		24″ 30″ 21″	12″ 24″ 15″									BLACK	WHITE (REF.)	0.080″ SHEET ALUMINUM	P8	~~h=14′-6″~~				5′-0″	
~~331~~	SOUTH 328 →	M3-3 TN-6B M5-1		24″ 30″ 21″	12″ 24″ 15″									BLACK	WHITE (REF.)	0.080″ SHEET ALUMINUM	P8	~~h=14′-6″~~				5′-0″	
~~326~~	SOUTH 328 ←	M3-3 TN-6B M6-1		24″ 30″ 21″	12″ 24″ 15″									BLACK	WHITE (REF.)	0.080″ SHEET ALUMINUM	P8	~~h=14′-6″~~				5′-0″	
~~327~~	SOUTH 328 →	M3-3 TN-6B M6-1		24″ 30″ 21″	12″ 24″ 15″									BLACK	WHITE (REF.)	0.080″ SHEET ALUMINUM	P8	~~h=14′-6″~~				5′-0″	
129	LITTLE EMORY RIVER	TN-5		54″	18″									WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U3	h_1=11′-6″ h_2=12′-0″				5′-0″	
130																		h_1=11′-6″ h_2=12′-0″					
185																		h_1=11′-6″ h_2=12′-0″					
186																		h_1=11′-6″ h_2=12′-0″					
187	BITTER CREEK	TN-5		30″	18″									WHITE (REF.)	GREEN (REF.)	0.080″ SHEET ALUMINUM	U3	h=11′-6″				5′-0″	
188																		h=11′-6″					
~~316~~	← Oakdale ↑ Wartburg	D1-2		66″	30″			6″	4.5″		″D″		6″X9″	WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U6	~~h_1=12′-6″~~ ~~h_2=13′-0″~~				5′-0″	
~~329~~	↑ Harriman Oakdale →	D1-2		66″	30″			6″	4.5″		″D″		6″X9″	WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U6	~~h_1=12′-6″~~ ~~h_2=13′-0″~~				5′-0″	
161	ROANE CO	TN-2		48″	18″									WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U3	h_1=11′-6″ h_2=12′-0″				5′-0″	
162	MORGAN CO	TN-2		54″	18″									WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U3	h_1=11′-6″ h_2=12′-0″				5′-0″	
~~315~~	Harriman 8	D2-1		60″	18″			6″	4.5″	6″	″D″			WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U3	~~h_1=11′-6″~~ ~~h_2=12′-0″~~				5′-0″	
~~332~~	Wartburg 8	D2-1		60″	18″			6″	4.5″	6″	″D″			WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U3	~~h_1=11′-6″~~ ~~h_2=12′-0″~~				5′-0″	
~~321~~	← Wartburg	D1-1		60″	18″			6″	4.5″		″D″		6″X9″	WHITE (REF.)	GREEN (REF.)	0.100″ SHEET ALUMINUM	U3	~~h_1=11′-6″~~ ~~h_2=12′-0″~~				5′-0″	

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	NH-29(84)	1051

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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SIGN SCHEDULE

11/19/2014 9:21:50 AM
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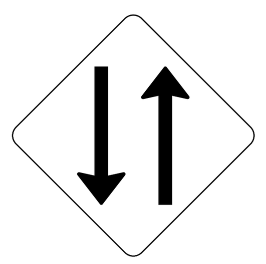
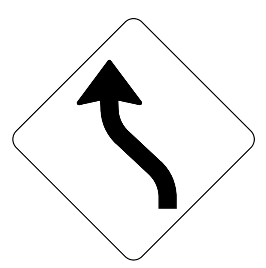
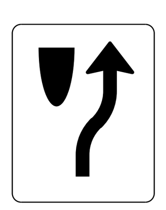
ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2014	NH-29(84)	105J

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		
~~322~~	M3-1 NORTH, SOUTH M3-3 M1-4 27, 27 M1-4 M6-1 ←, → M6-1		24" 24" 21"	12" 24" 15"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	~~h_1=14'-6"~~ ~~h_2=15'-0"~~				5'-0"	
246A	LANE ENDS MERGE LEFT W9-1		48"	48"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	U3	h1=14'-0" h2=14'-6"				5'-0"	
275A	 W6-3		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h=13'-6"				5'-0"	
260A	 W1-4		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P5	h=15'-6"				5'-0"	
260B	45 MPH W13-1P		24"	24"													h=15'-6"					
260F	 R4-7		36"	48"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	P8	h=13'-6"				5'-0"	

U-POST SUBSTITUTION TABLE

BID ITEM 713M11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI 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.

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BUREAU OF PLANNING & DEVELOPMENT

SIGN SCHEDULE

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

11/19/2014 9:23:06 AM
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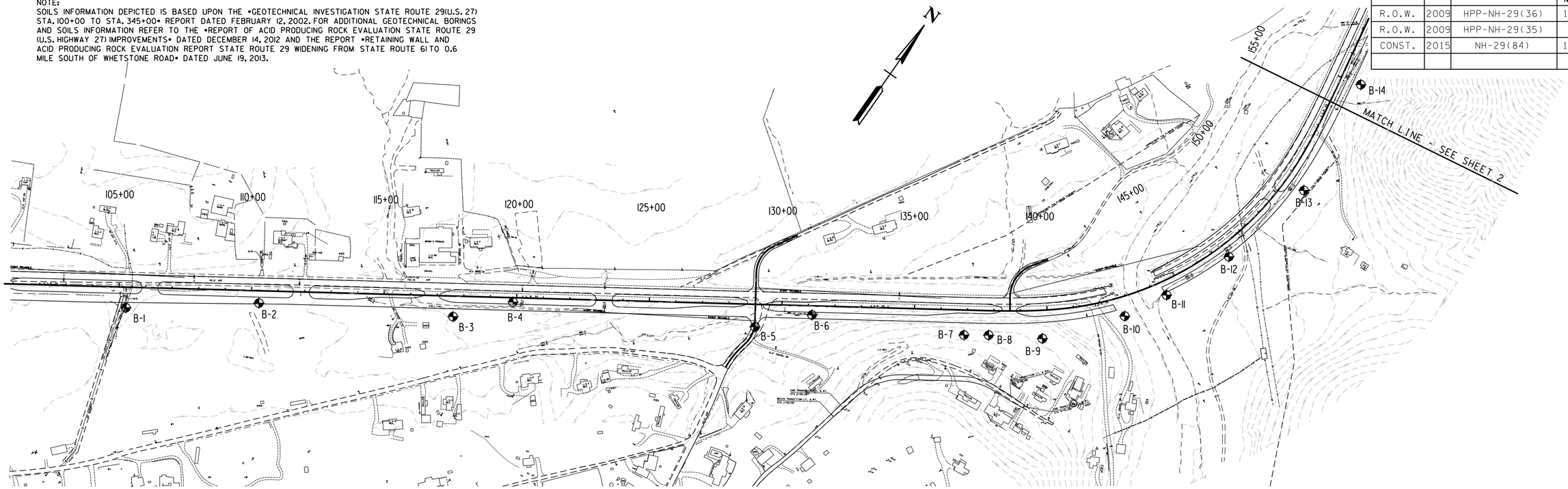
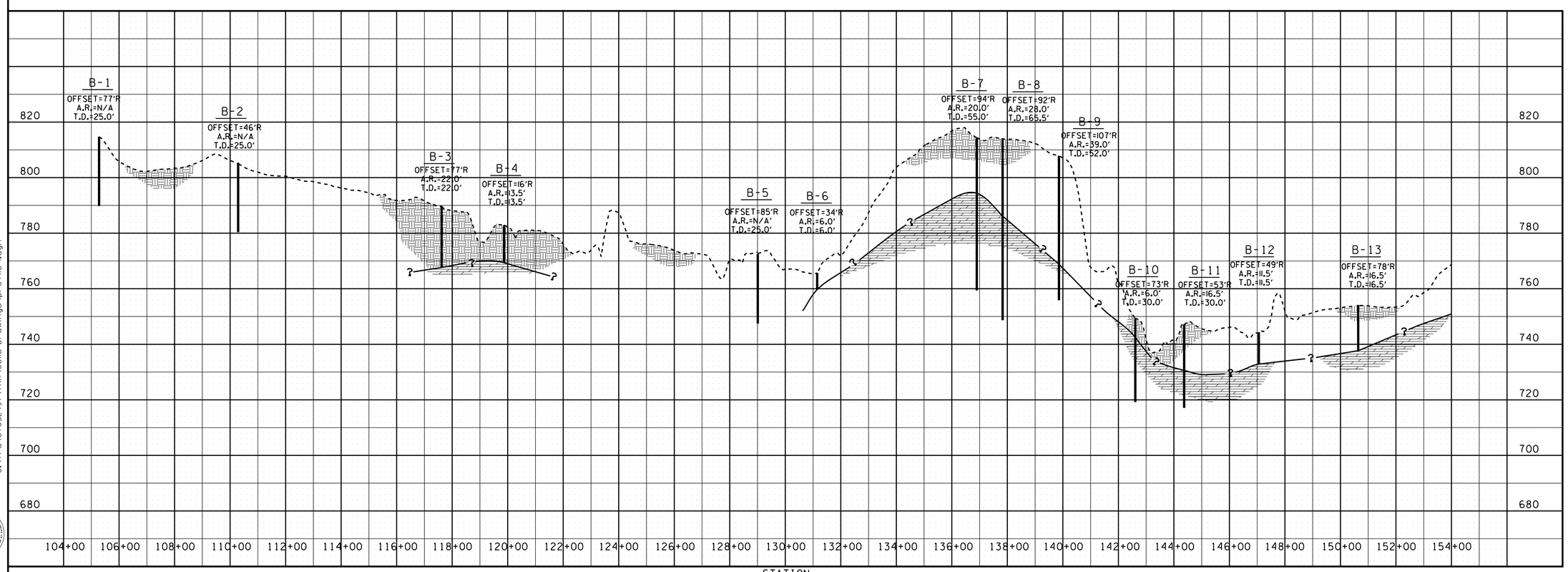
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

NOTE:
SOILS INFORMATION DEPICTED IS BASED UPON THE "GEOTECHNICAL INVESTIGATION STATE ROUTE 29(U.S. 27) STA. 100+00 TO STA. 345+00" REPORT DATED FEBRUARY 12, 2002. FOR ADDITIONAL GEOTECHNICAL BORINGS AND SOILS INFORMATION REFER TO THE "REPORT OF ACID PRODUCING ROCK EVALUATION STATE ROUTE 29 (U.S. HIGHWAY 27) IMPROVEMENTS" DATED DECEMBER 14, 2012 AND THE REPORT "RETAINING WALL AND ACID PRODUCING ROCK EVALUATION REPORT STATE ROUTE 29 WIDENING FROM STATE ROUTE 61 TO 0.6 MILE SOUTH OF WHETSTONE ROAD" DATED JUNE 19, 2013.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	153
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	106





LEGEND

- OVERBURDEN
- PARTIALLY WEATHERED ROCK
- BEDROCK

B-12 - BORING NO.
OFFSET - DISTANCE FROM CENTERLINE
A.R. - ROCK REVEALED
T.D. - TERMINATION DEPTH

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SOILS PROFILE

STA.105+00 TO STA.154+00

SHEET 1 OF 5

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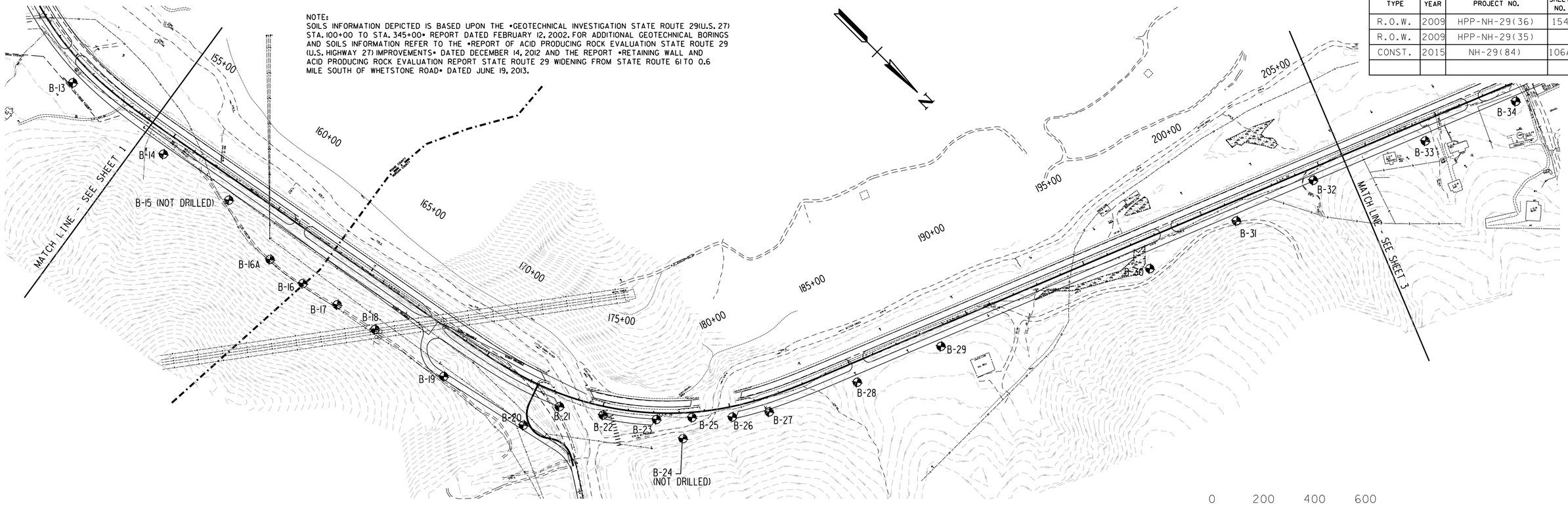
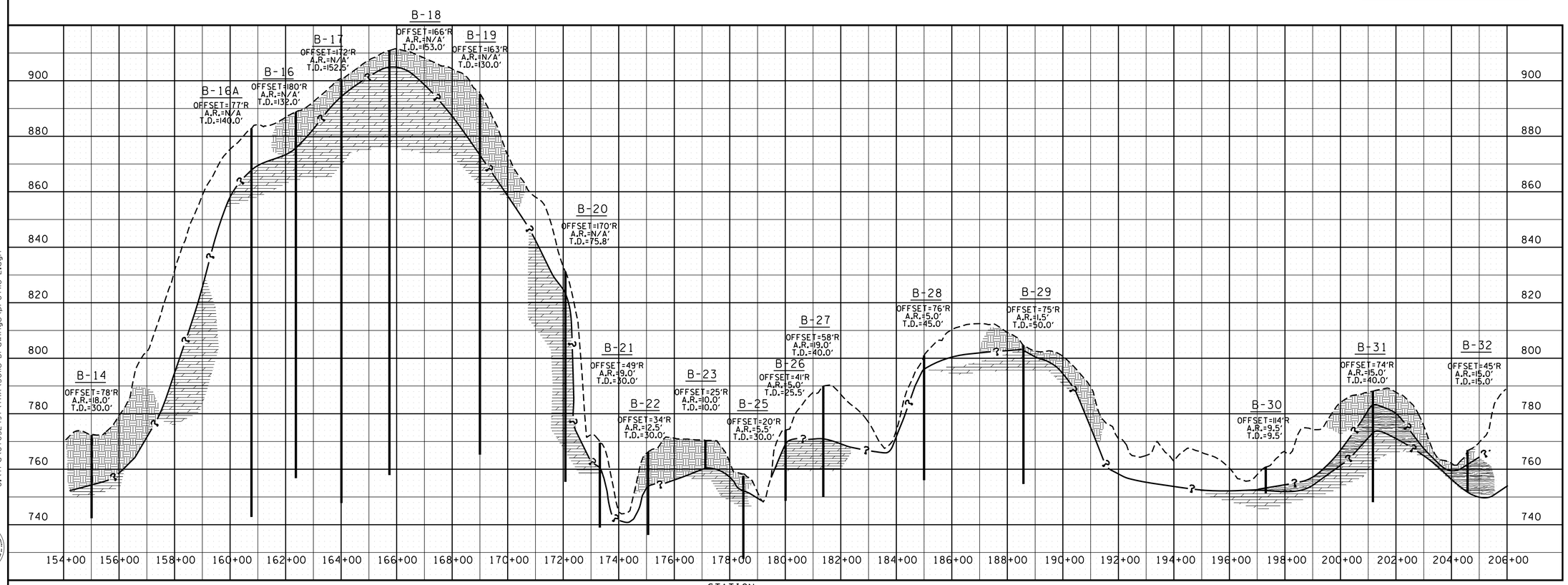
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	154
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	106A

NOTE:
SOILS INFORMATION DEPICTED IS BASED UPON THE •GEOTECHNICAL INVESTIGATION STATE ROUTE 29(U.S. 27) STA. 100+00 TO STA. 345+00• REPORT DATED FEBRUARY 12, 2002. FOR ADDITIONAL GEOTECHNICAL BORINGS AND SOILS INFORMATION REFER TO THE •REPORT OF ACID PRODUCING ROCK EVALUATION STATE ROUTE 29 (U.S. HIGHWAY 27) IMPROVEMENTS• DATED DECEMBER 14, 2012 AND THE REPORT •RETAINING WALL AND ACID PRODUCING ROCK EVALUATION REPORT STATE ROUTE 29 WIDENING FROM STATE ROUTE 61 TO 0.6 MILE SOUTH OF WHETSTONE ROAD• DATED JUNE 19, 2013.





LEGEND

- OVERBURDEN
- PARTIALLY WEATHERED ROCK
- BEDROCK
- B-12 - BORING NO.

OFFSET - DISTANCE FROM CENTERLINE
A.R. - ANGLE REFUSAL
T.D. - TERMINATION DEPTH

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SOILS PROFILE

STA. 154+00 TO STA. 206+00

SHEET 2 OF 5

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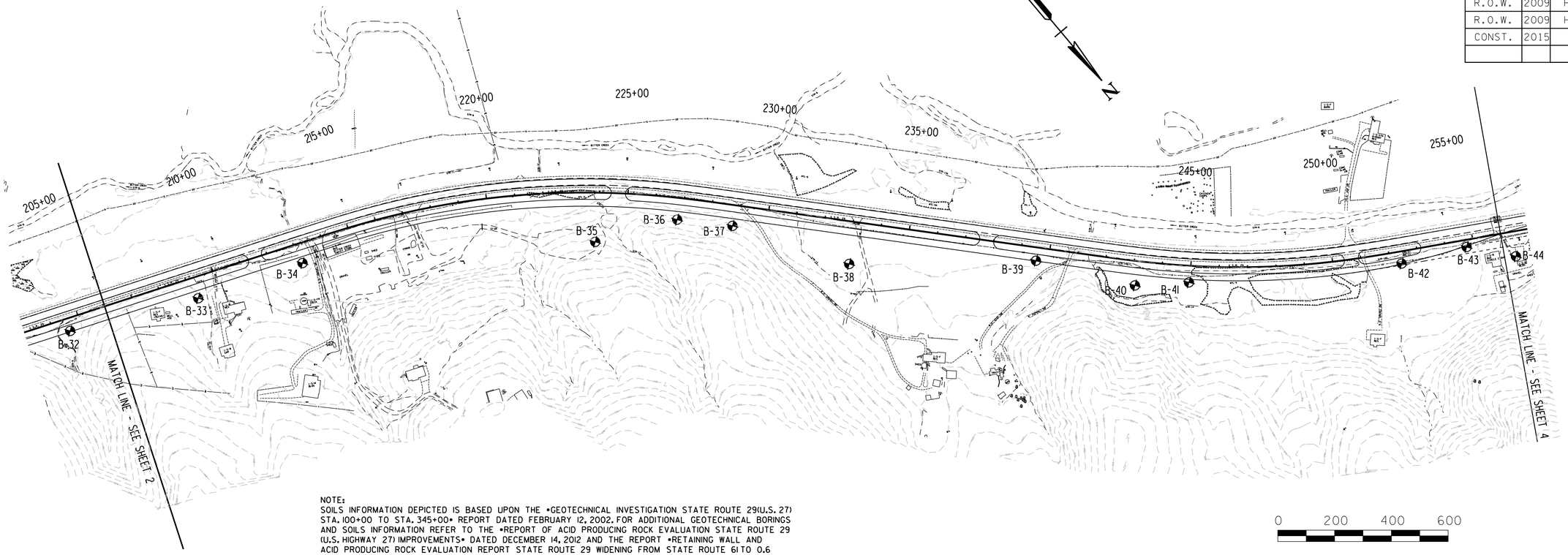
Survey & Design Division

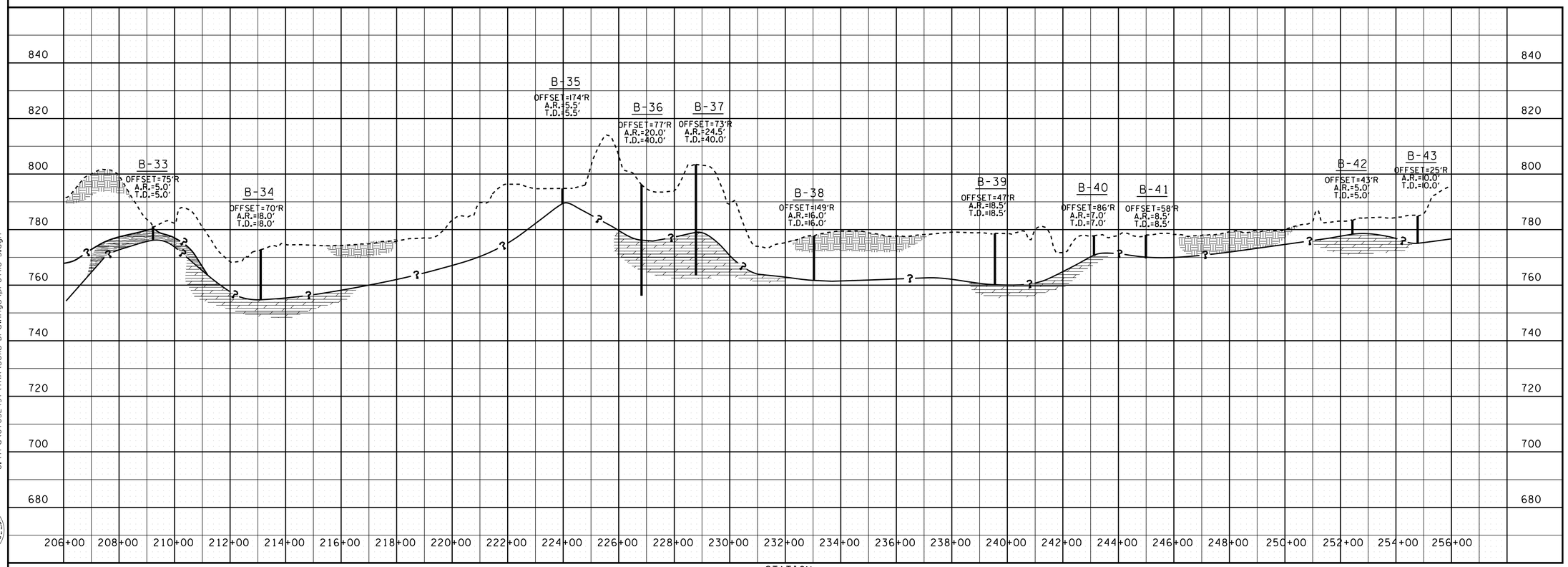
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	155
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	106B



NOTE:
SOILS INFORMATION DEPICTED IS BASED UPON THE "GEOTECHNICAL INVESTIGATION STATE ROUTE 29(U.S. 27) STA. 100+00 TO STA. 345+00" REPORT DATED FEBRUARY 12, 2002. FOR ADDITIONAL GEOTECHNICAL BORINGS AND SOILS INFORMATION REFER TO THE "REPORT OF ACID PRODUCING ROCK EVALUATION STATE ROUTE 29 (U.S. HIGHWAY 27) IMPROVEMENTS" DATED DECEMBER 14, 2012 AND THE REPORT "RETAINING WALL AND ACID PRODUCING ROCK EVALUATION REPORT STATE ROUTE 29 WIDENING FROM STATE ROUTE 61 TO 0.6 MILE SOUTH OF WHETSTONE ROAD" DATED JUNE 19, 2013.

0 200 400 600



LEGEND

- OVERBURDEN
- PARTIALLY WEATHERED ROCK
- BEDROCK
- B-12 - BORING NO.
- OFFSET - DISTANCE FROM CENTERLINE
- A.R. - AUGER REFUSAL
- T.D. - TERMINATION DEPTH

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SOILS PROFILE

STA.206+00 TO STA.256+00

SHEET 3 OF 5

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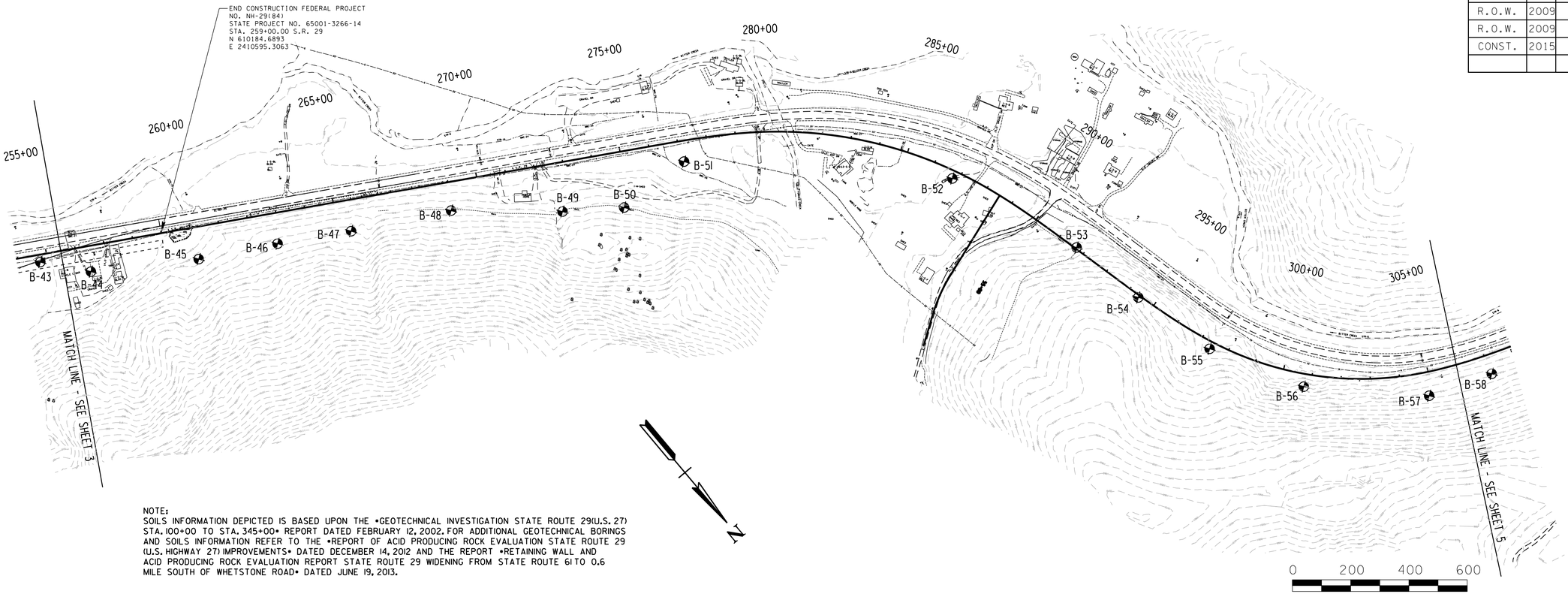
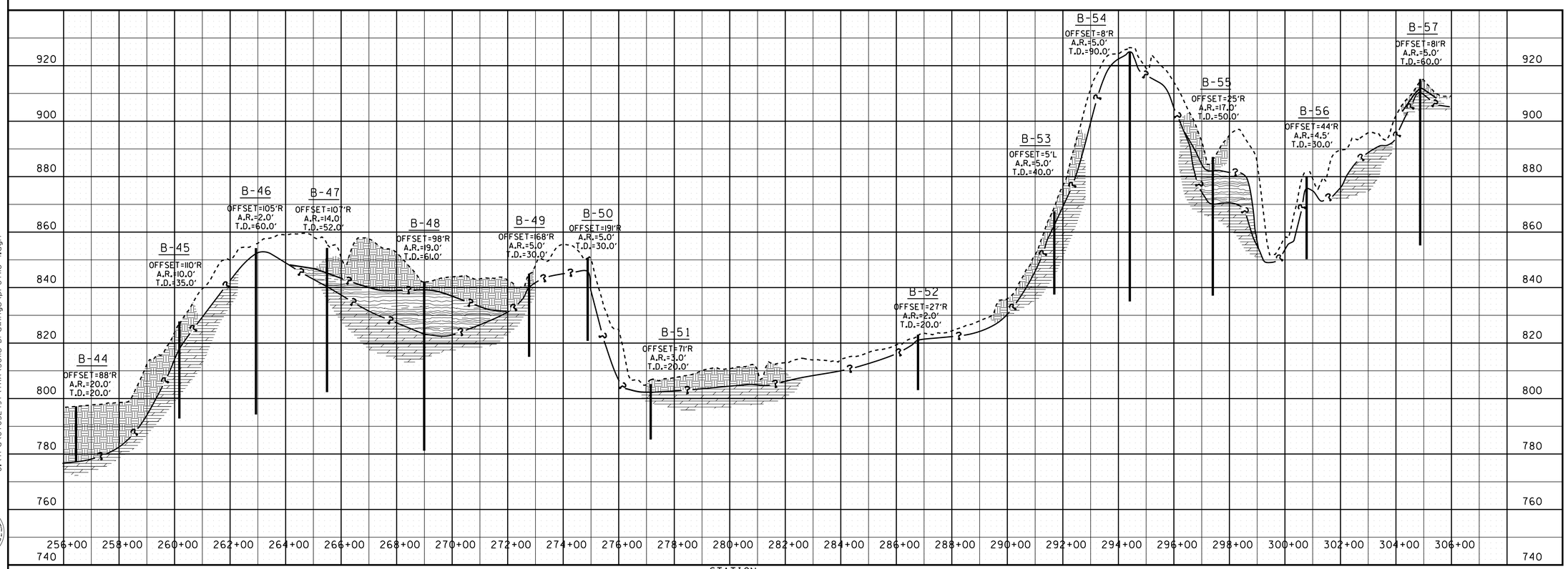
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(36)	156
R.O.W.	2009	HPP-NH-29(35)	
CONST.	2015	NH-29(84)	106C



NOTE:
SOILS INFORMATION DEPICTED IS BASED UPON THE •GEOTECHNICAL INVESTIGATION STATE ROUTE 29(U.S. 27) STA. 100+00 TO STA. 345+00• REPORT DATED FEBRUARY 12, 2002. FOR ADDITIONAL GEOTECHNICAL BORINGS AND SOILS INFORMATION REFER TO THE •REPORT OF ACID PRODUCING ROCK EVALUATION STATE ROUTE 29 (U.S. HIGHWAY 27) IMPROVEMENTS• DATED DECEMBER 14, 2012 AND THE REPORT •RETAINING WALL AND ACID PRODUCING ROCK EVALUATION REPORT STATE ROUTE 29 WIDENING FROM STATE ROUTE 61 TO 0.6 MILE SOUTH OF WHETSTONE ROAD• DATED JUNE 19, 2013.



LEGEND

- OVERBURDEN
- PARTIALLY WEATHERED ROCK
- BEDROCK

B-12 - BORING NO.
OFFSET - DISTANCE FROM CENTERLINE
A.R. - AUGER REFUSAL
T.D. - TERMINATION DEPTH

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SOILS PROFILE

STA.256+00 TO STA.306+00

SHEET 4 OF 5

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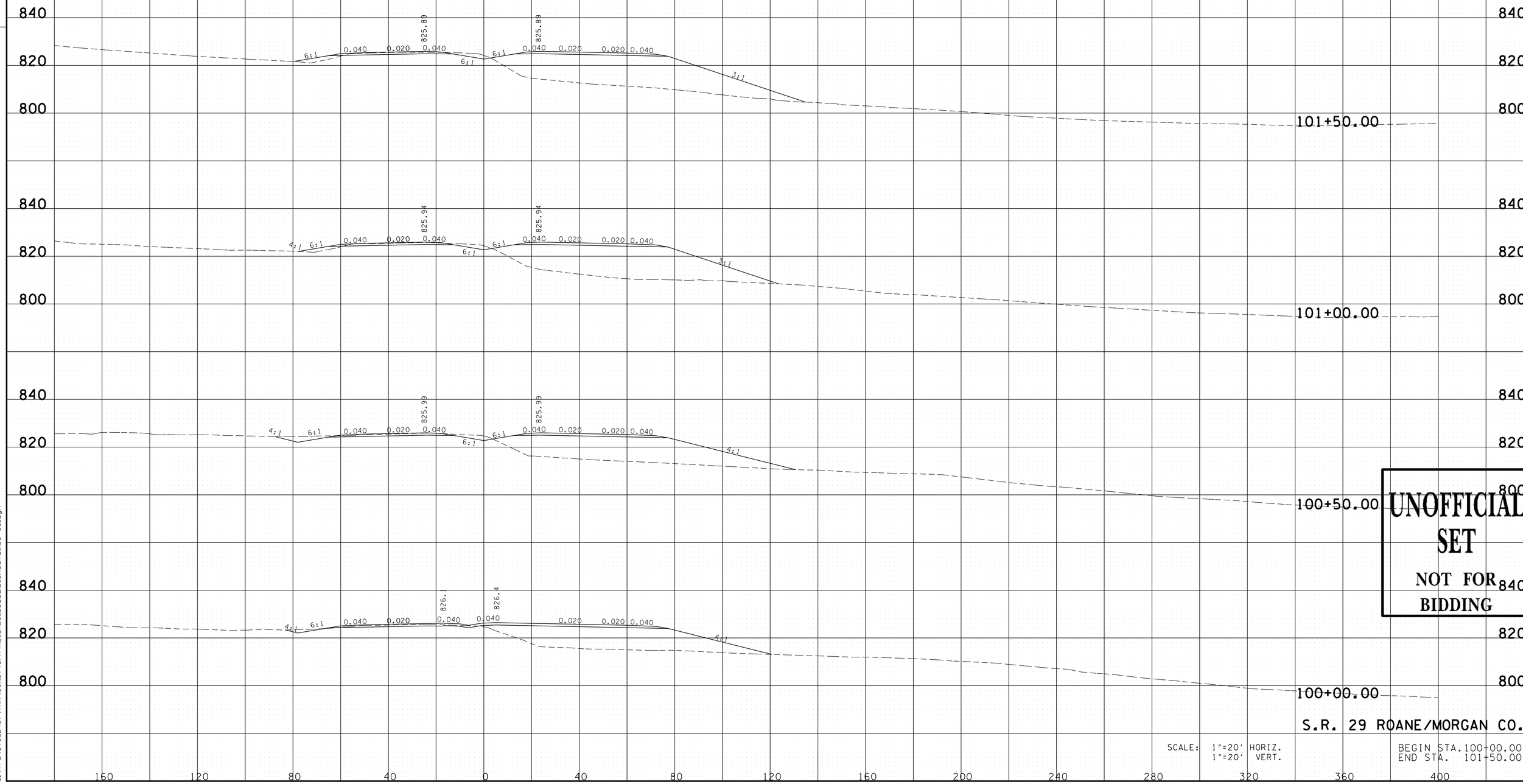
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	200
CONST.	2015	NH-29(84)	107

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 100+00.00
END STA. 101+50.00

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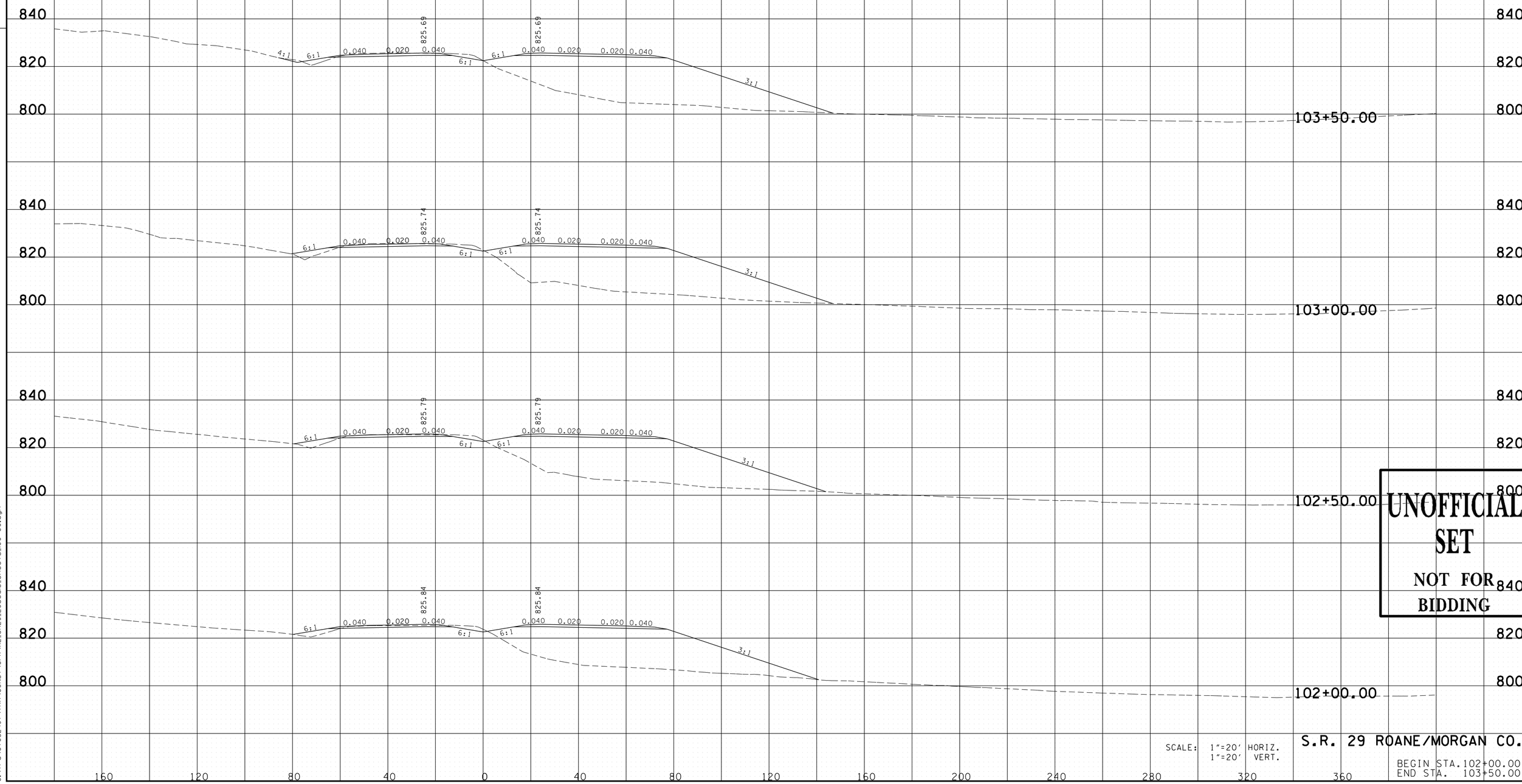
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	201
CONST.	2015	NH-29(84)	108

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 102+00.00
END STA. 103+50.00

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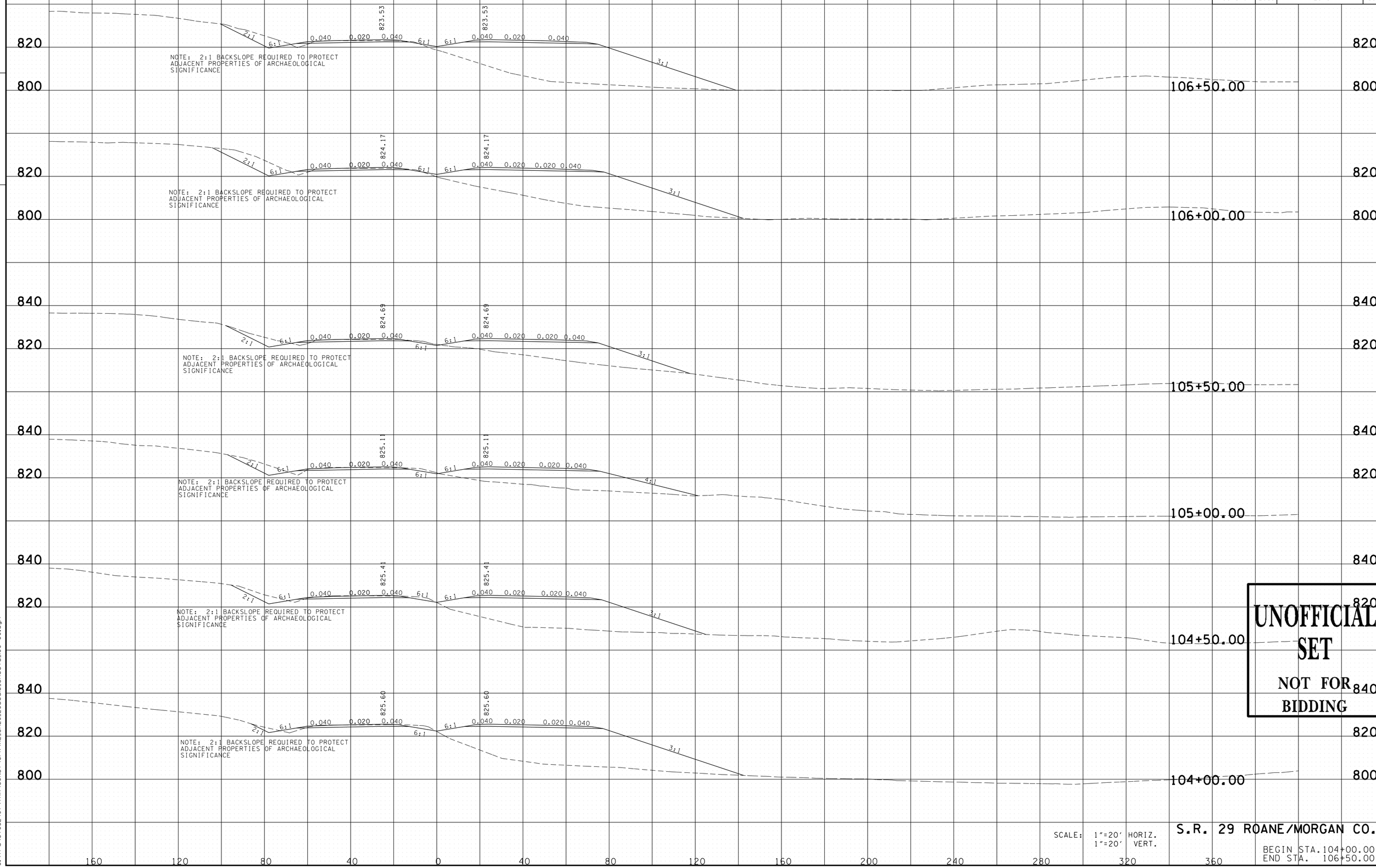
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	202
CONST.	2015	NH-29(84)	109



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 104+00.00
END STA. 106+50.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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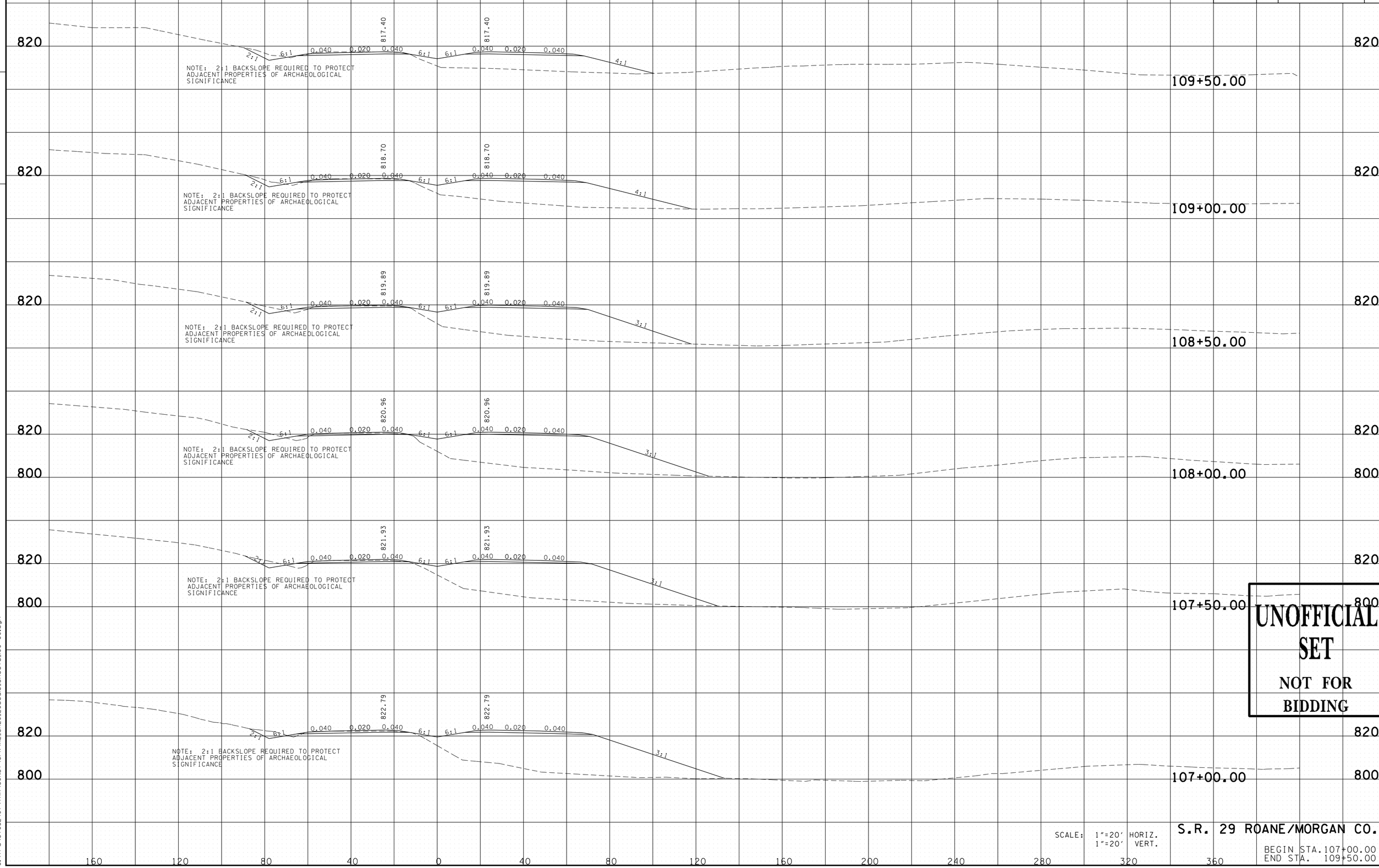
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	203
CONST.	2015	NH-29(84)	110

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 107+00.00
END STA. 109+50.00

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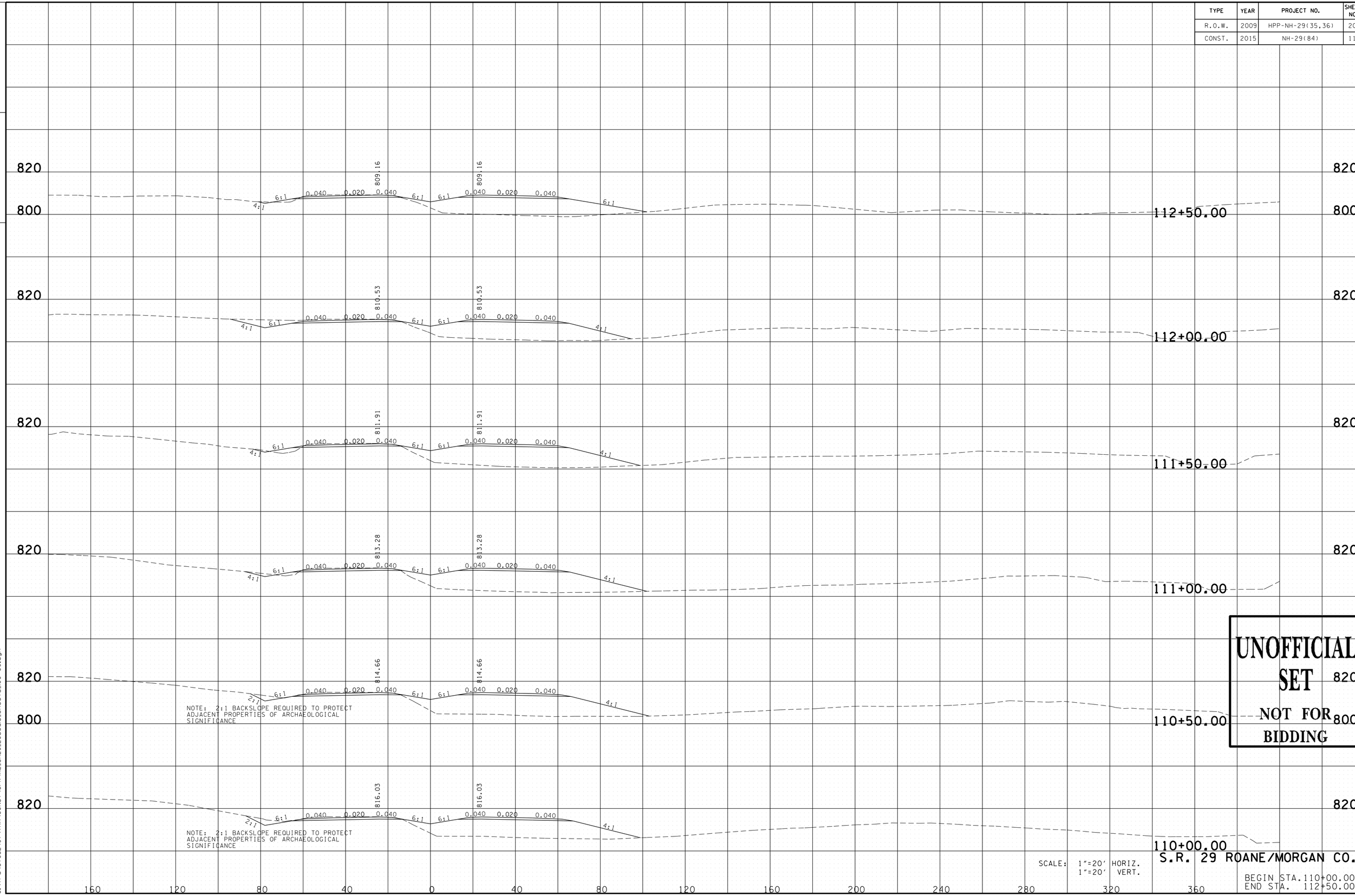
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	204
CONST.	2015	NH-29(84)	111

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.110+00.00
END STA. 112+50.00

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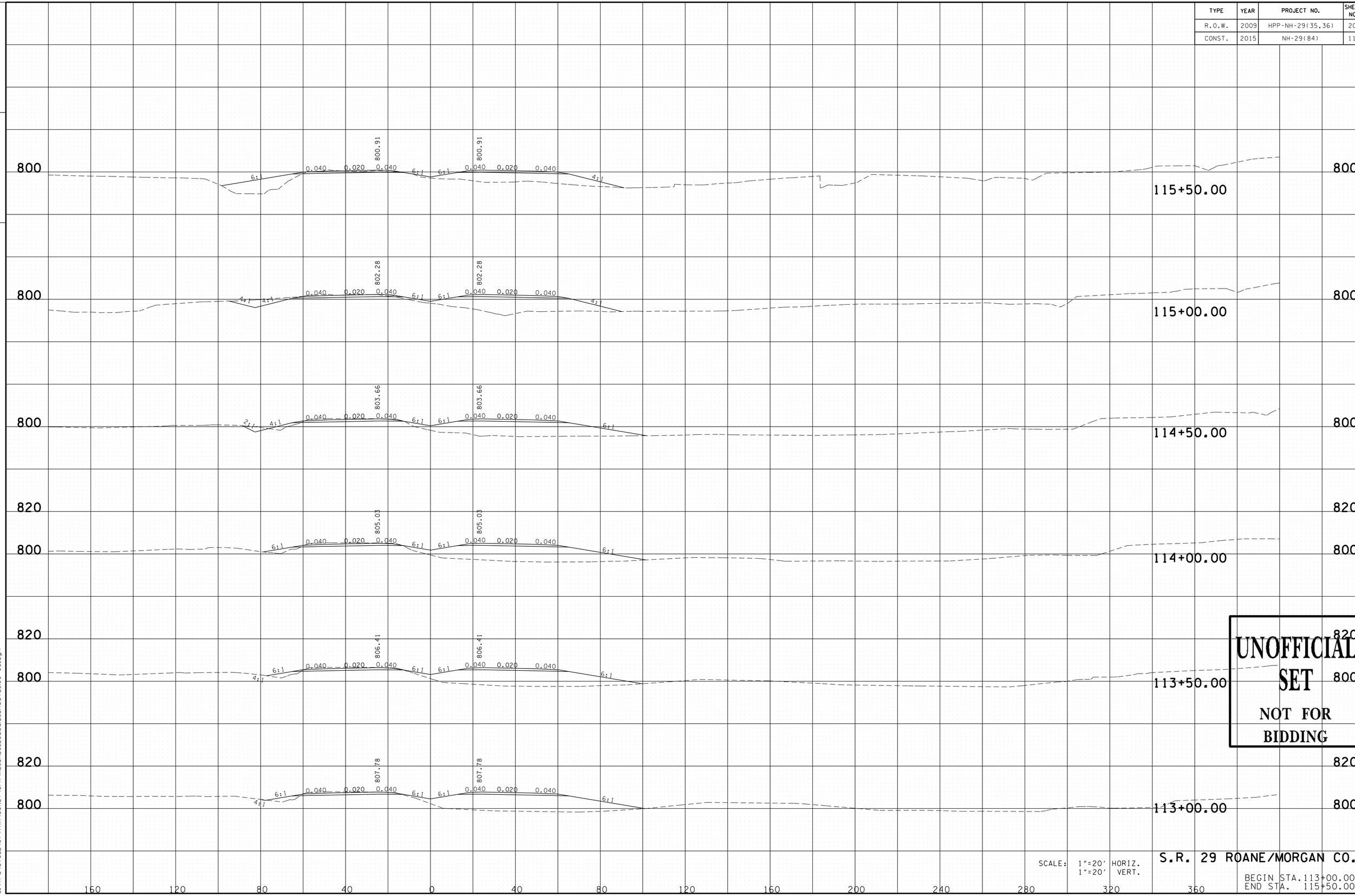
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	205
CONST.	2015	NH-29(84)	112

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.113+00.00
END STA. 115+50.00

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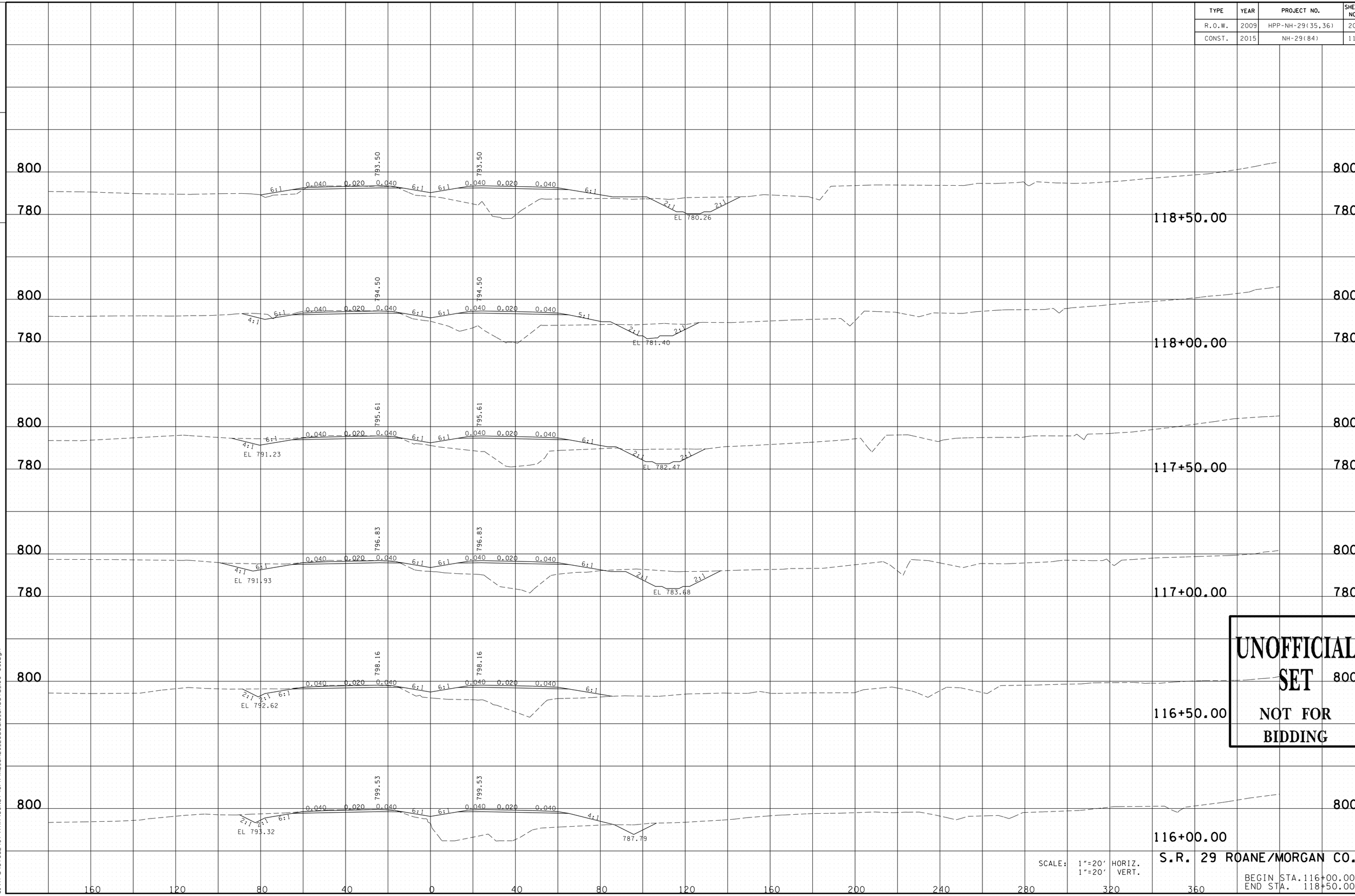
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	206
CONST.	2015	NH-29(84)	113

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 116+00.00
END STA. 118+50.00

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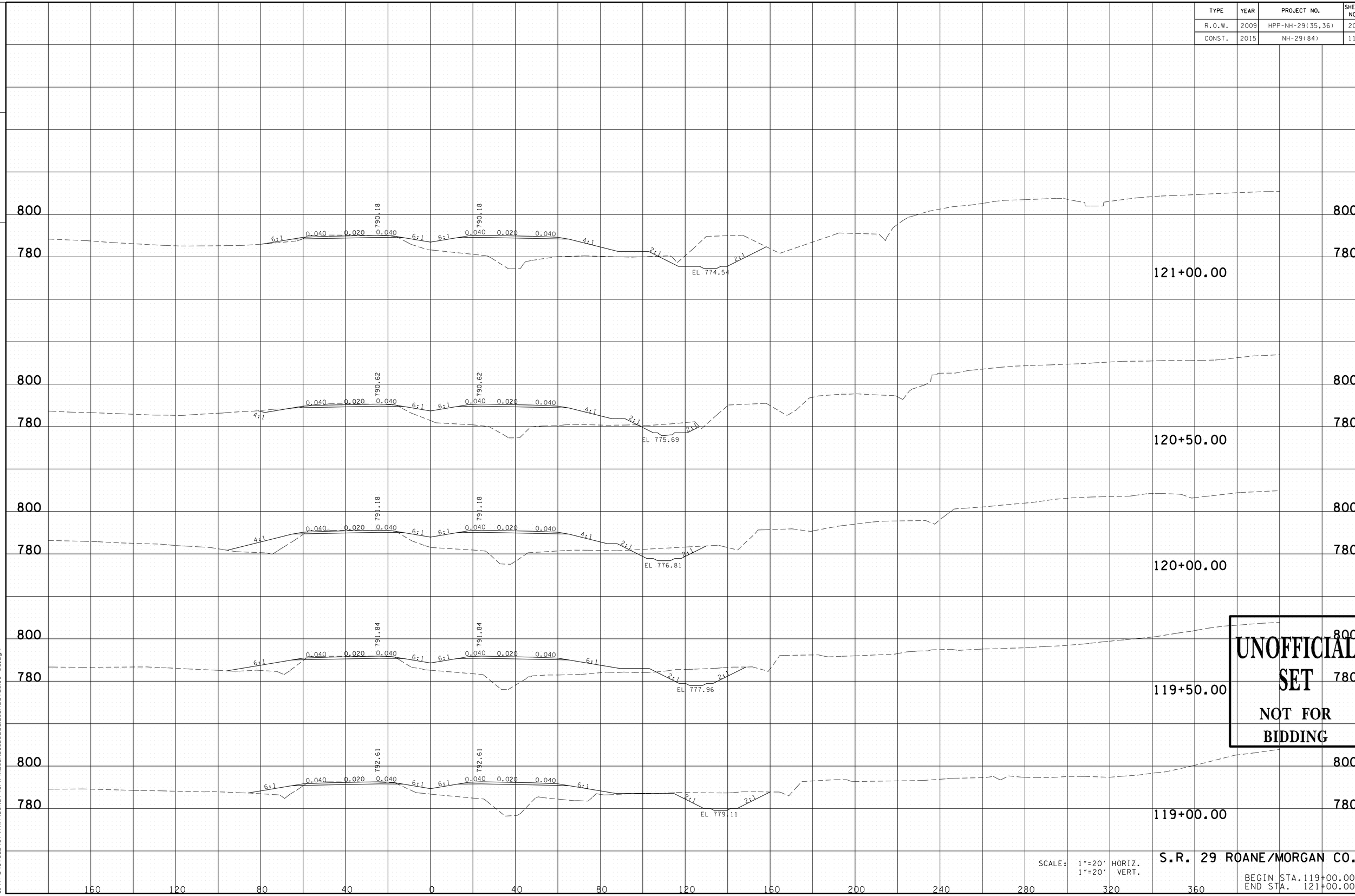
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	207
CONST.	2015	NH-29(84)	114

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.119+00.00
END STA. 121+00.00

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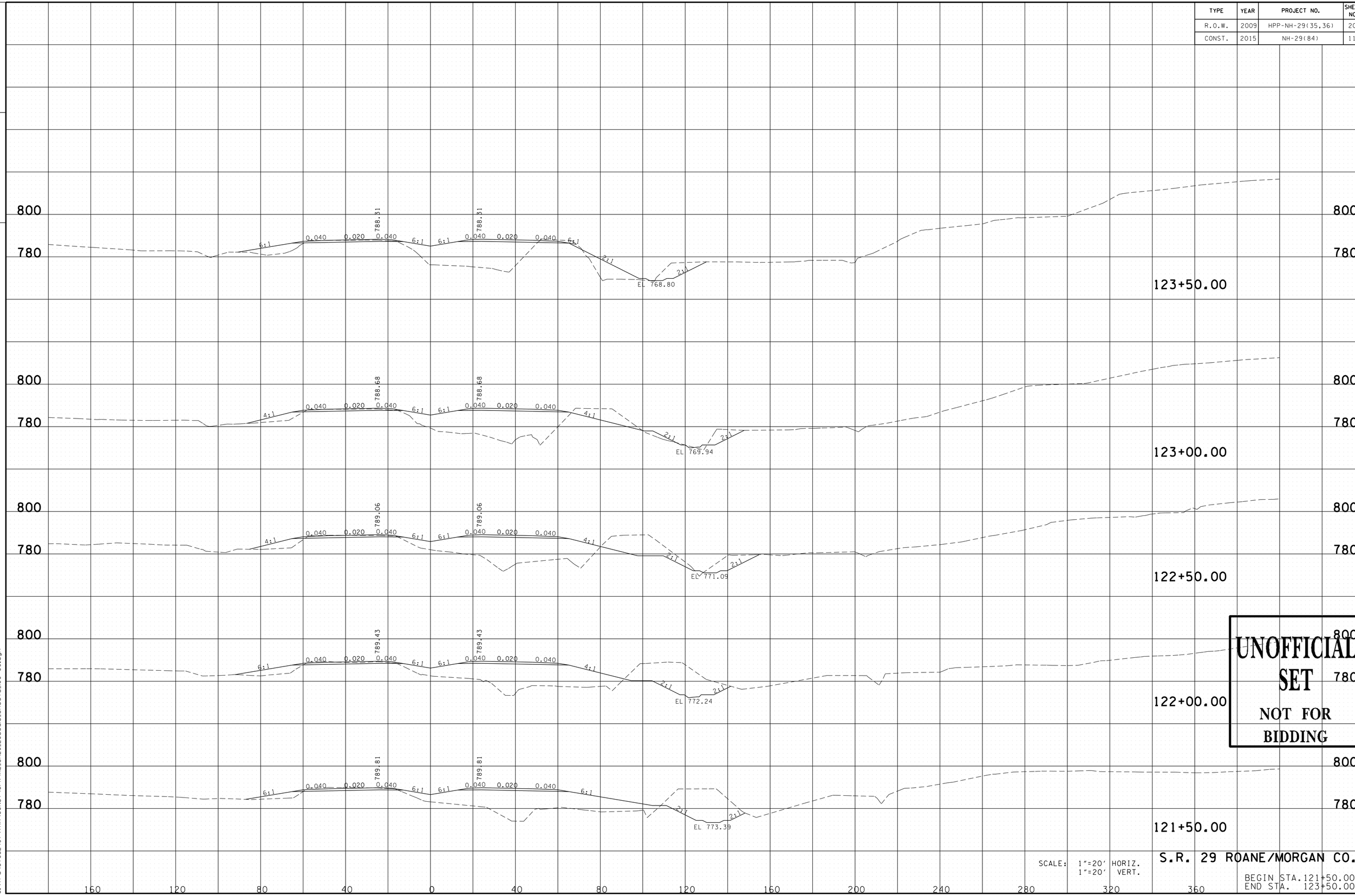
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	208
CONST.	2015	NH-29(84)	115

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 121+50.00
END STA. 123+50.00

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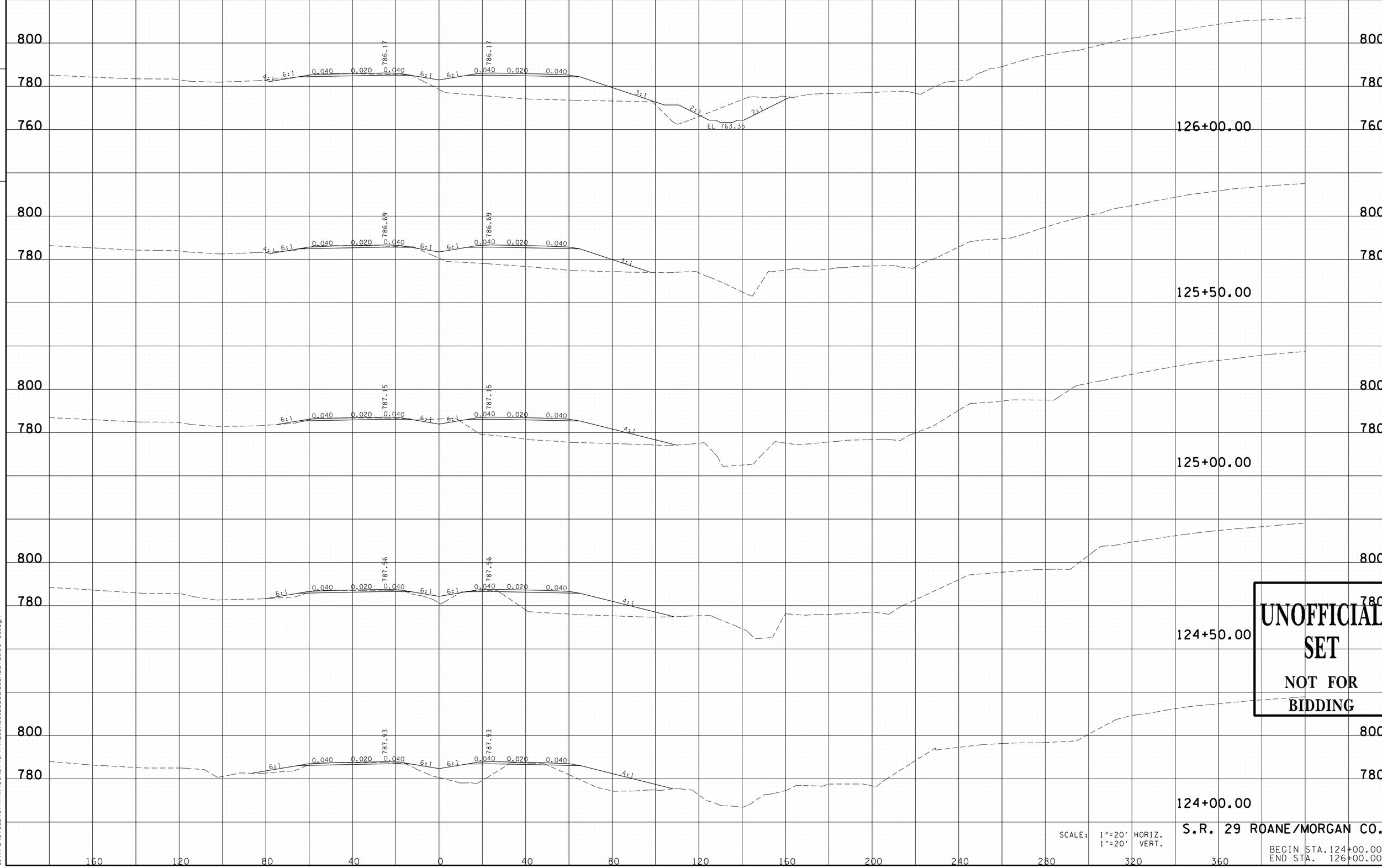
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	209
CONST.	2015	NH-29(84)	116

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 124+00.00
END STA. 126+00.00

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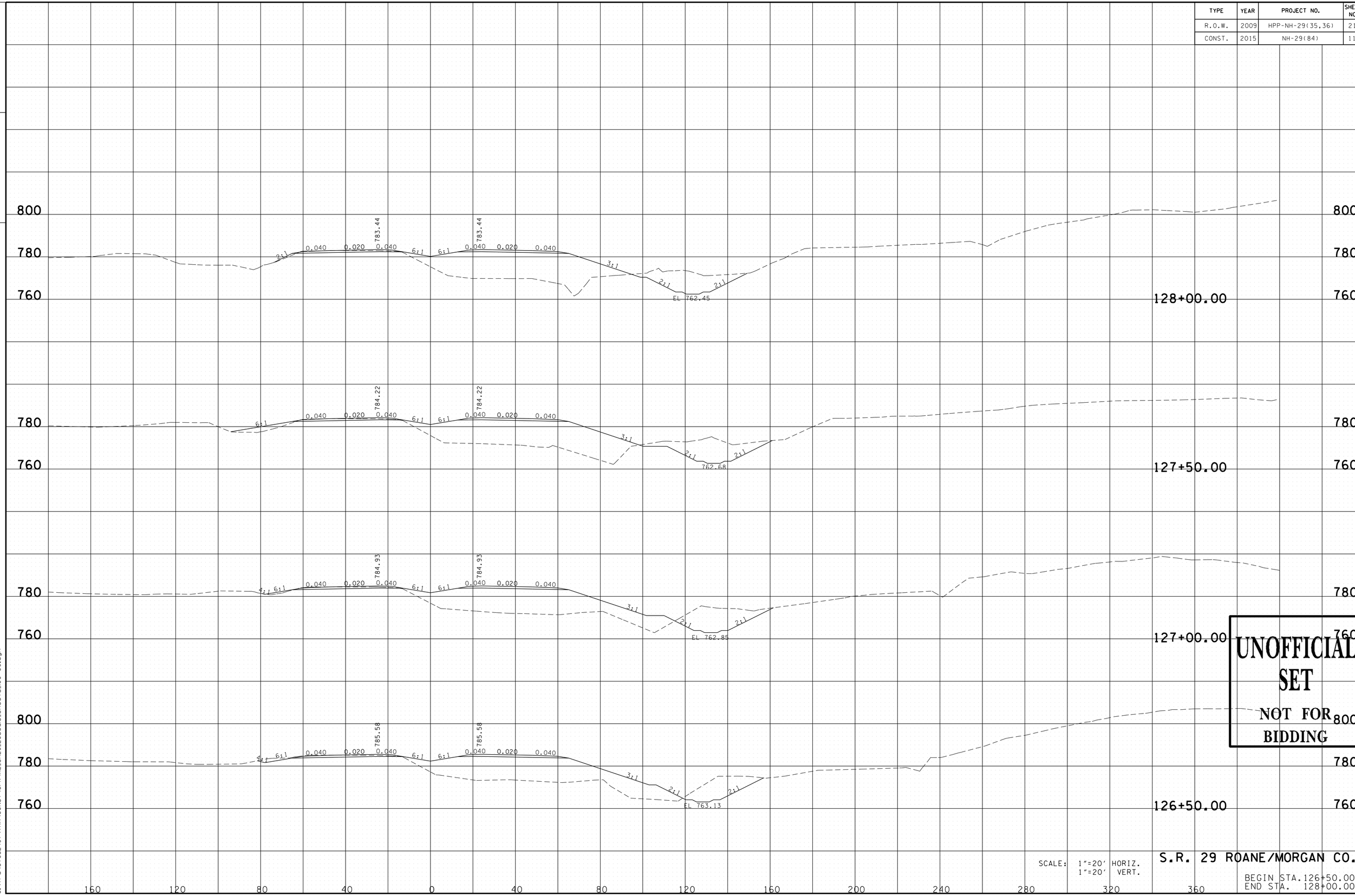
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	210
CONST.	2015	NH-29(84)	117

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 126+50.00
END STA. 128+00.00

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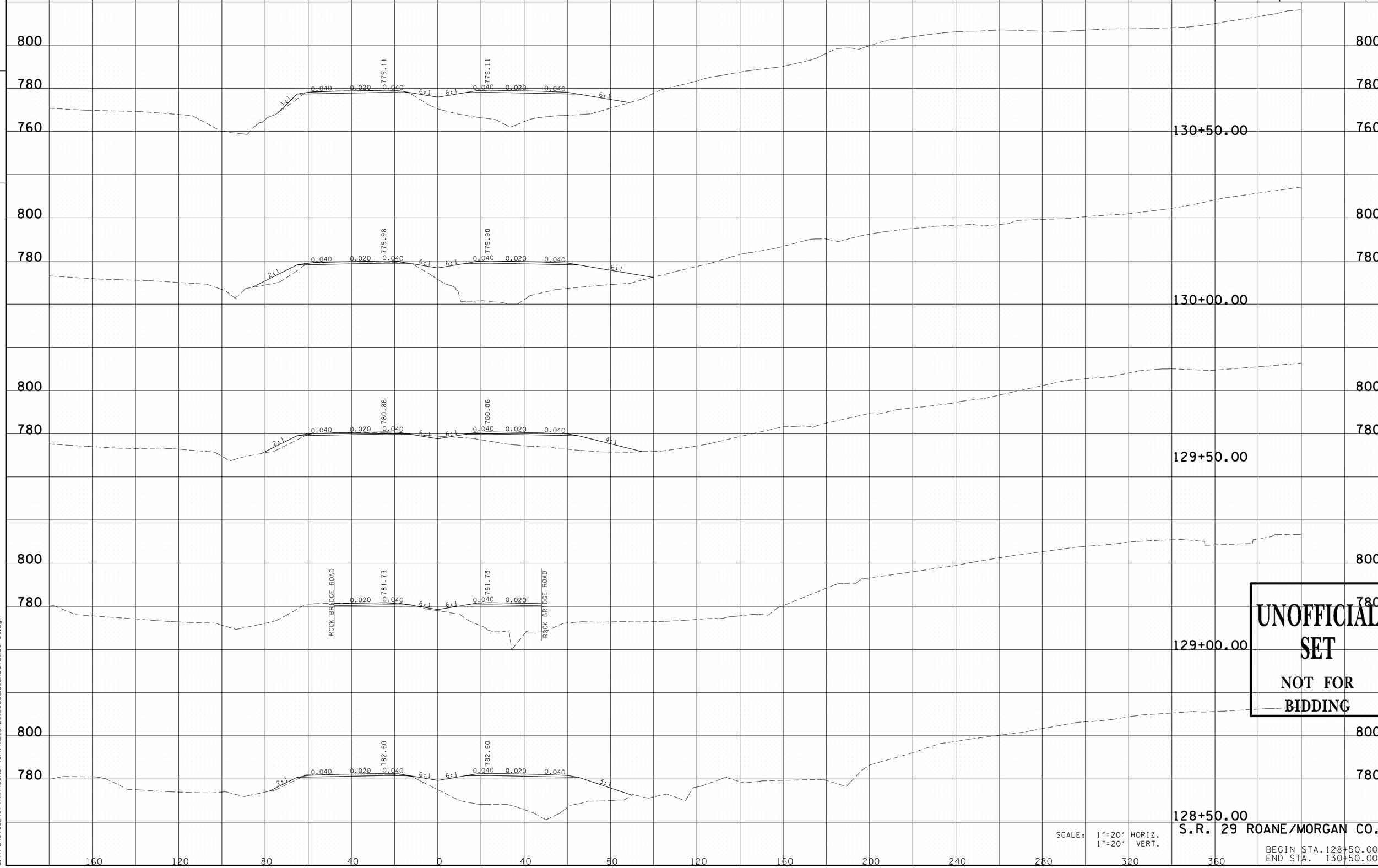
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	211
CONST.	2015	NH-29(84)	118

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 128+50.00
END STA. 130+50.00

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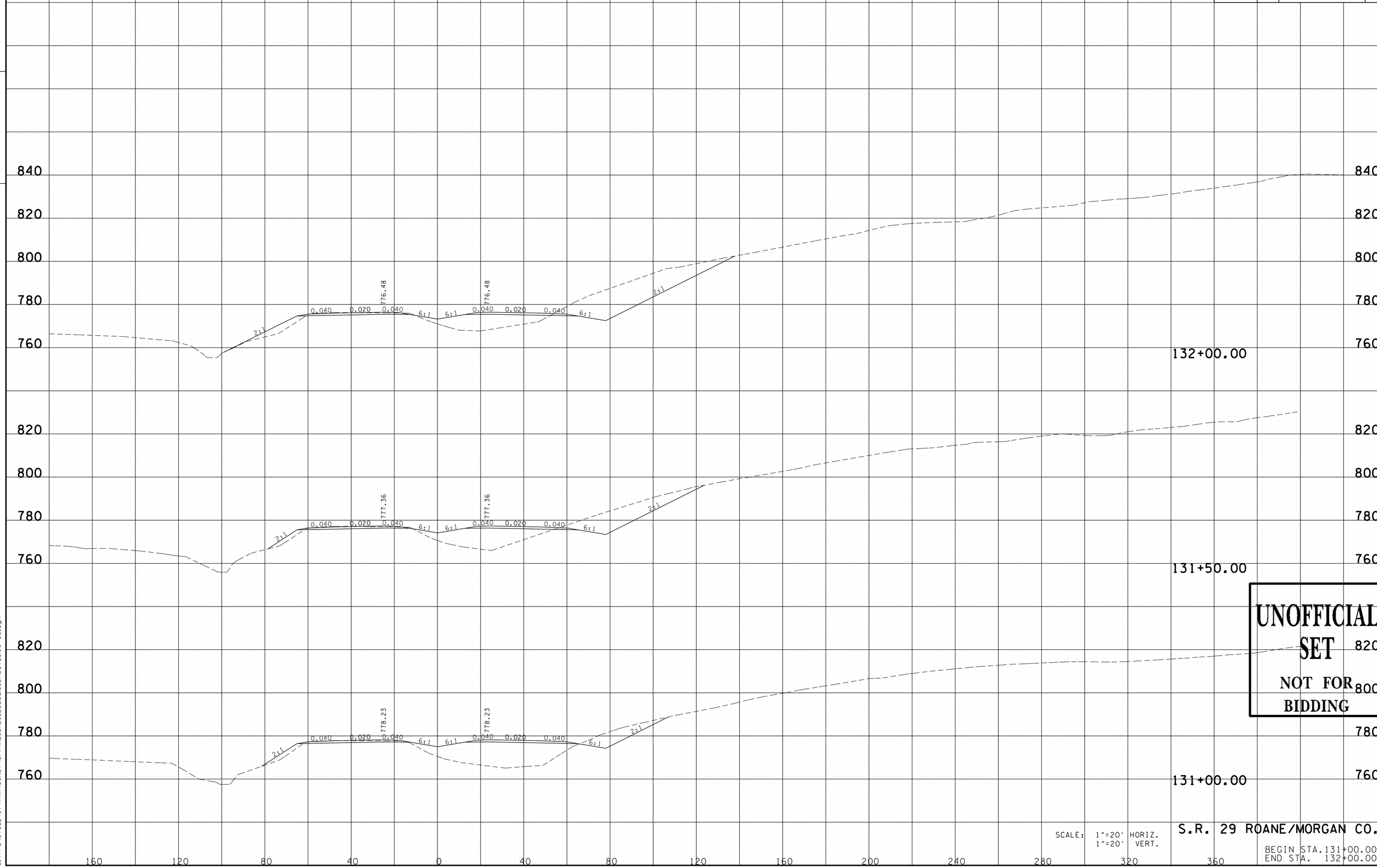
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	212
CONST.	2015	NH-29(84)	119

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 131+00.00
END STA. 132+00.00

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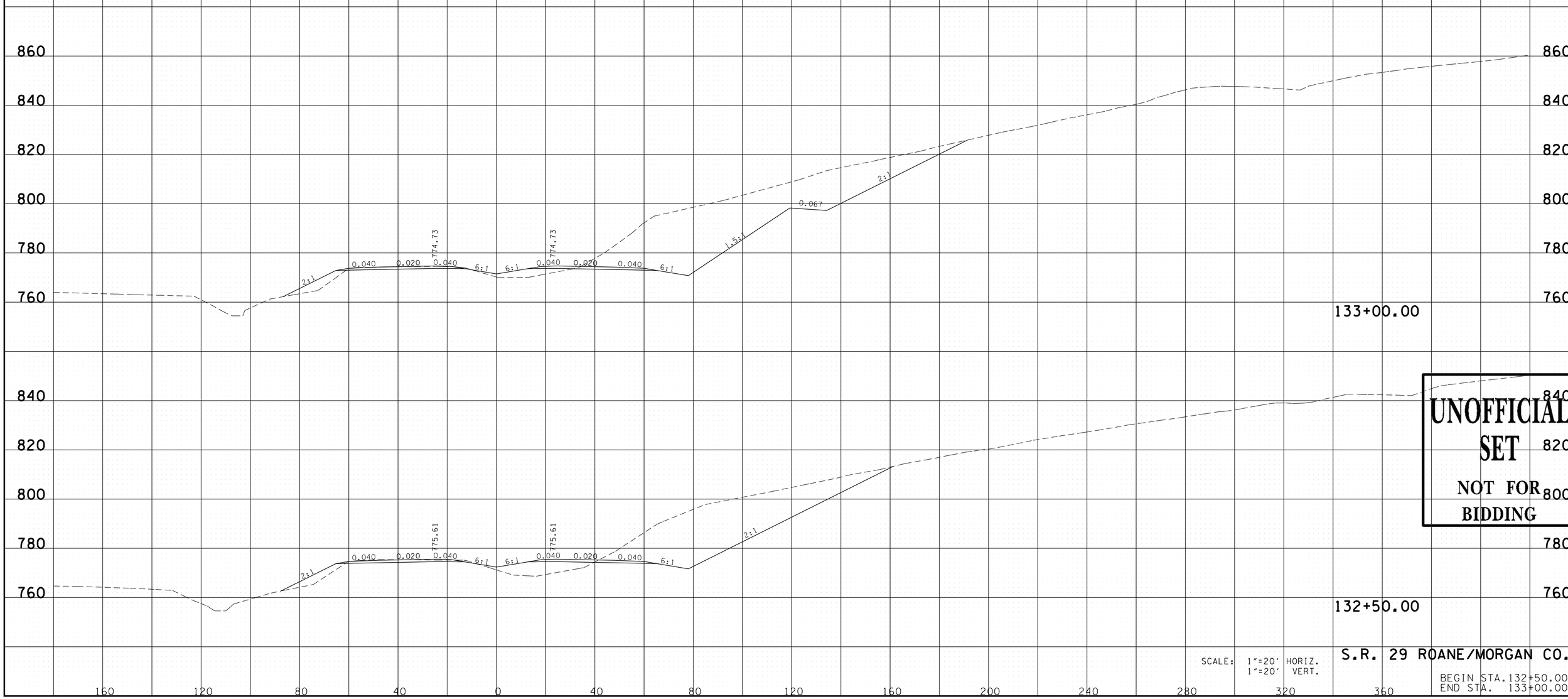
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	213
CONST.	2015	NH-29(84)	120

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 132+50.00
END STA. 133+00.00

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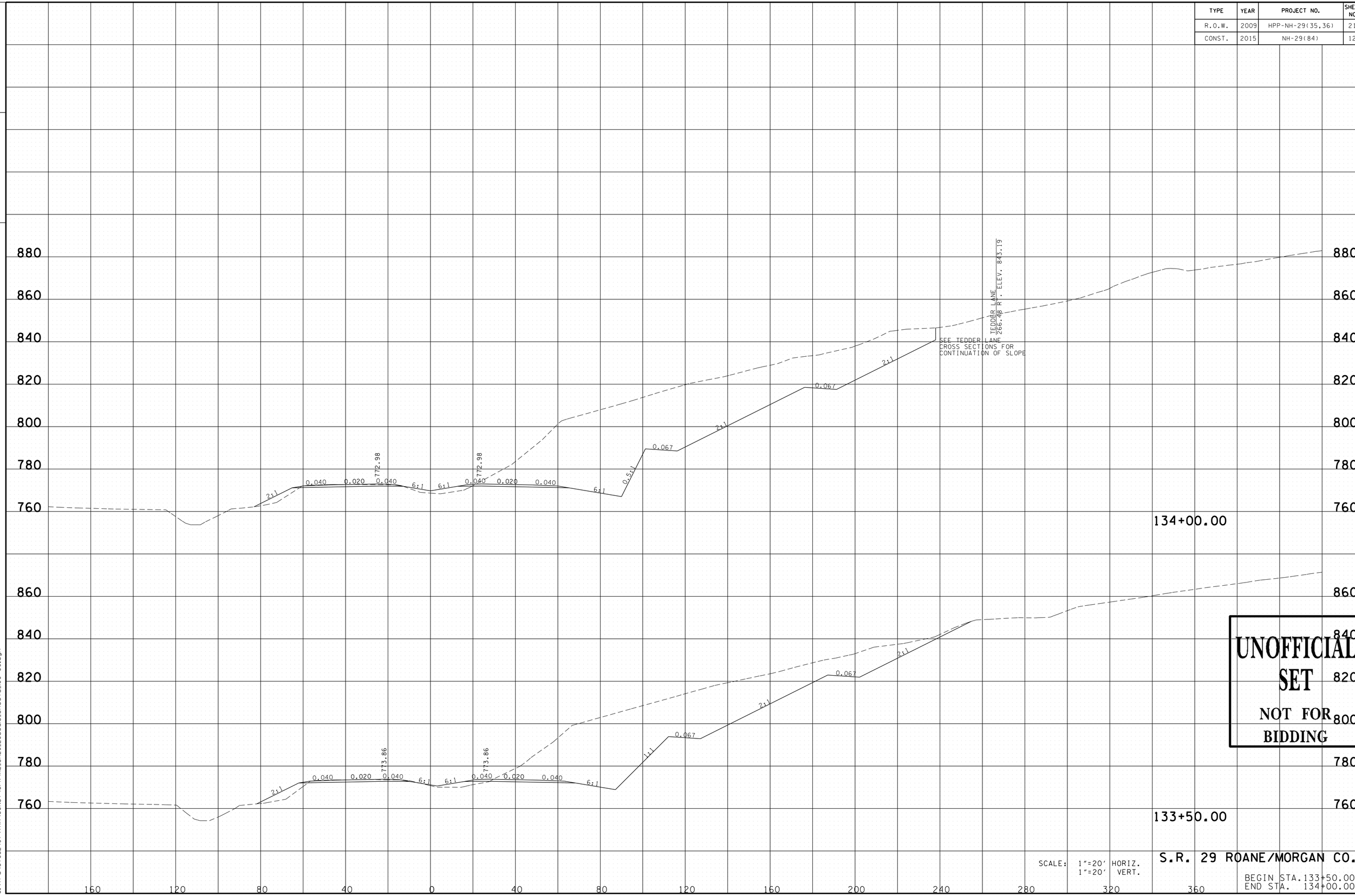
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	214
CONST.	2015	NH-29(84)	121

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.133+50.00
END STA. 134+00.00

11/24/2014 12:22:56 PM
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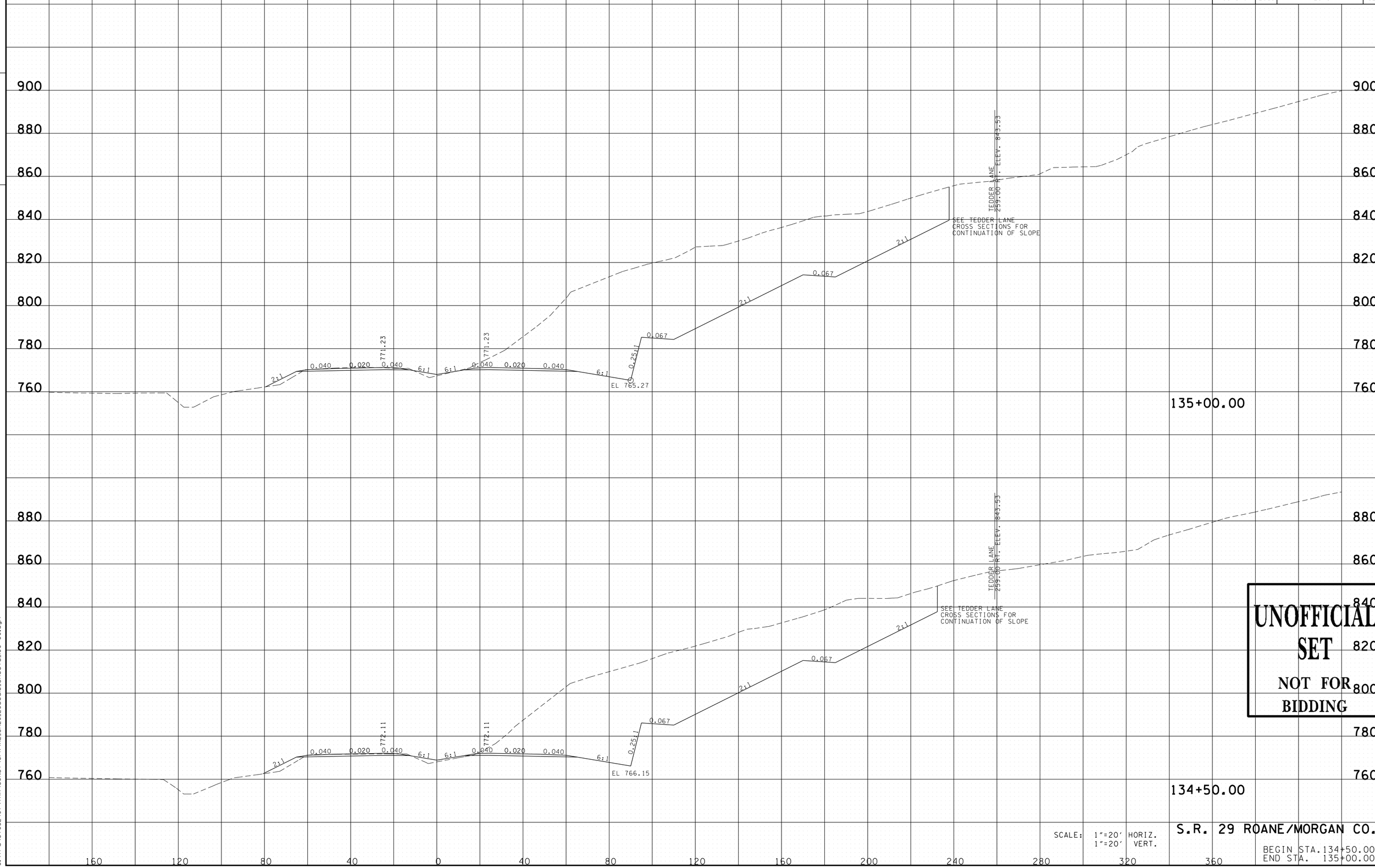
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	215
CONST.	2015	NH-29(84)	122

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 134+50.00
END STA. 135+00.00

11/24/2014 12:22:56 PM
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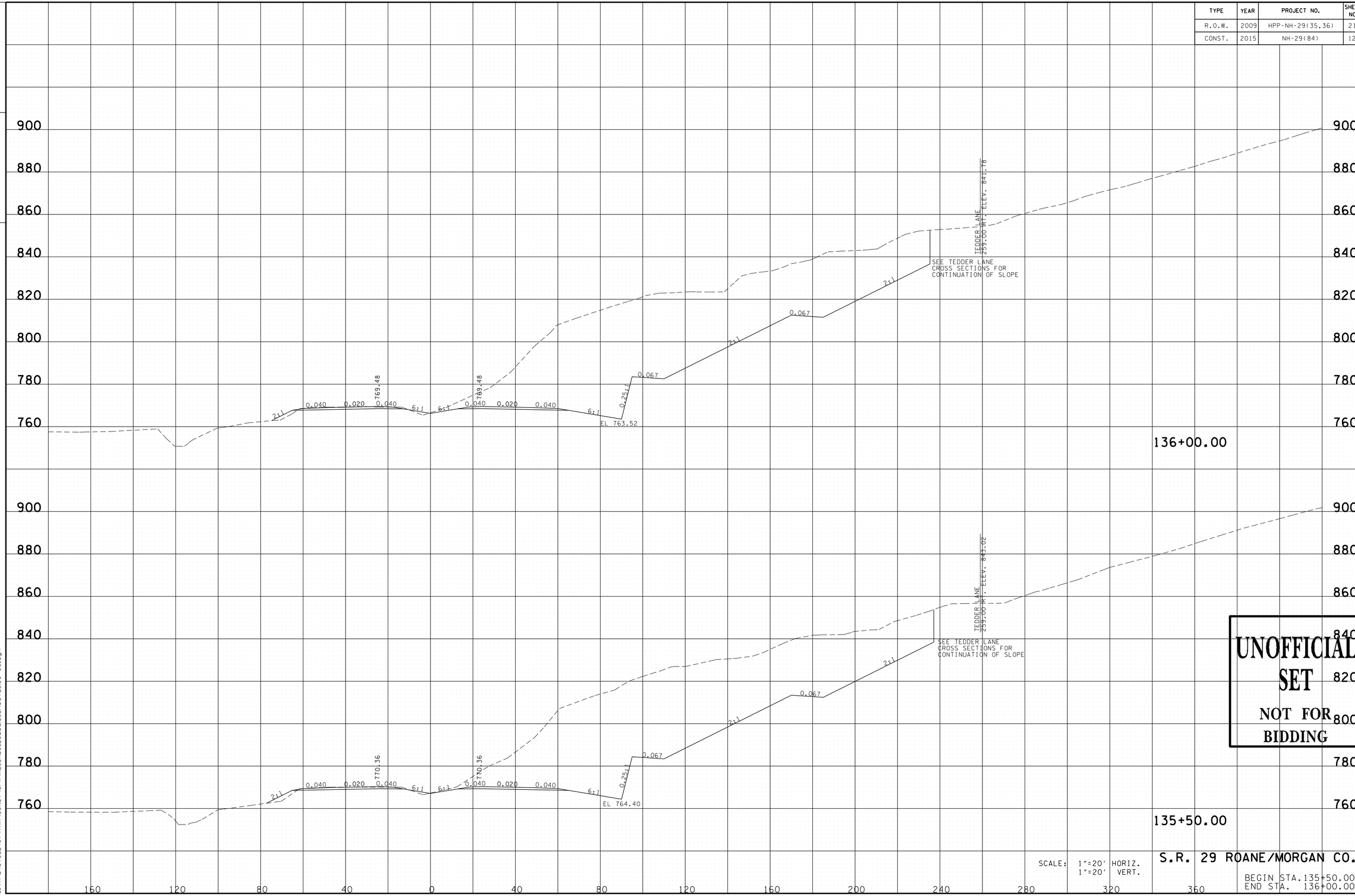
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	216
CONST.	2015	NH-29(84)	123

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 135+50.00
END STA. 136+00.00

11/24/2014 12:22:56 PM
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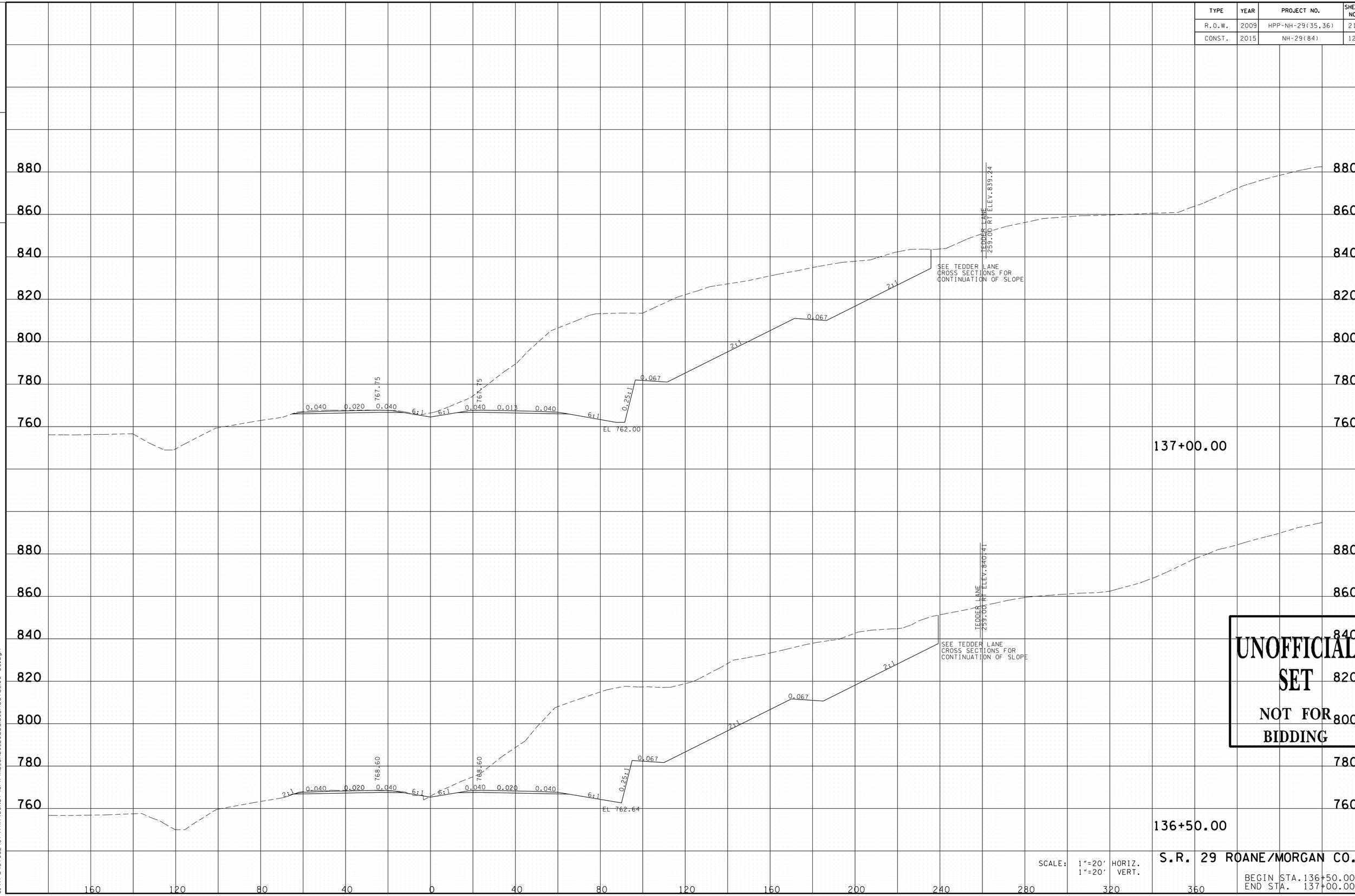
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	217
CONST.	2015	NH-29(84)	124

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.136+50.00
END STA. 137+00.00

11/24/2014 12:22:57 PM
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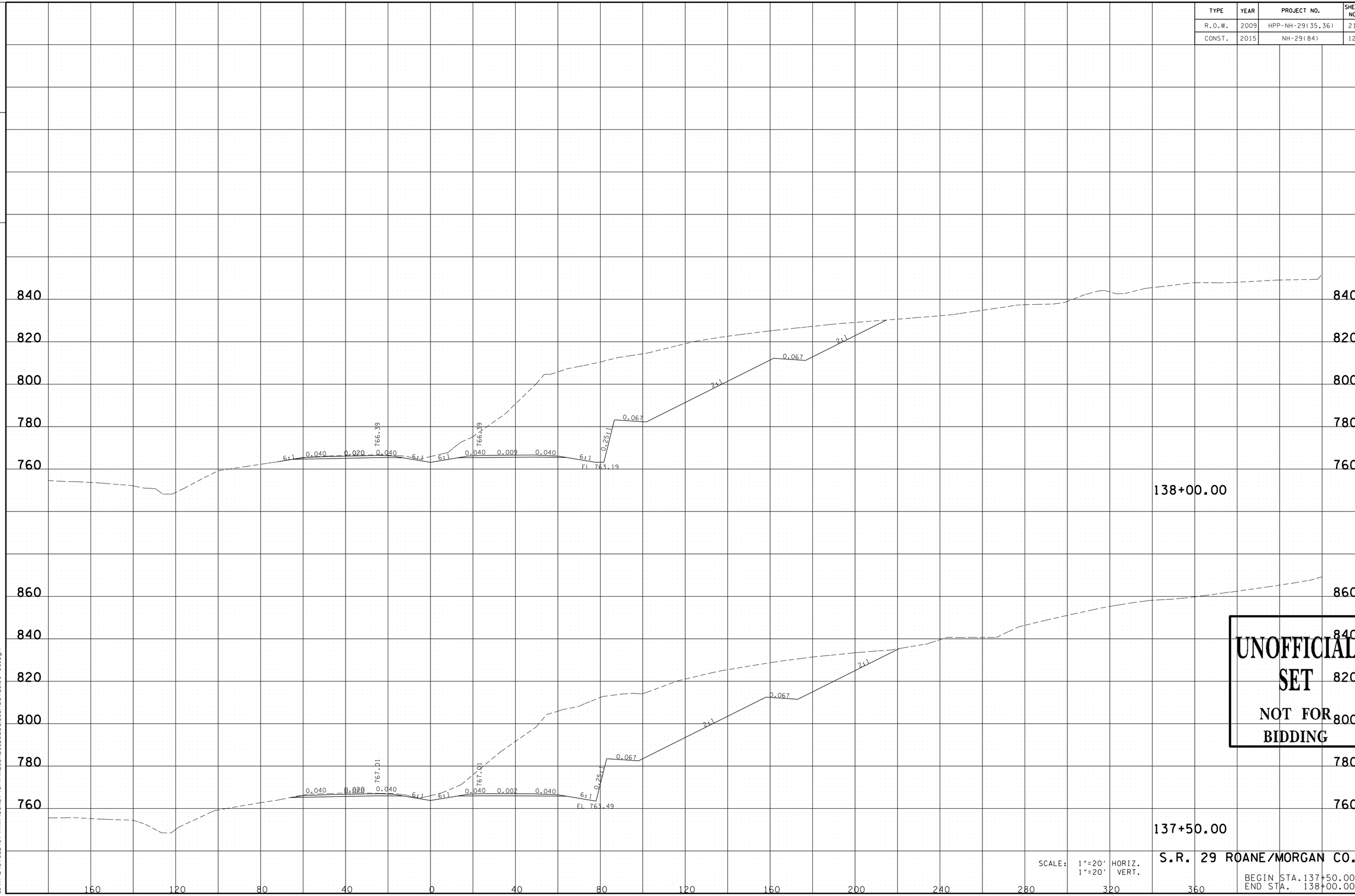
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	218
CONST.	2015	NH-29(84)	125

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 137+50.00
END STA. 138+00.00

11/24/2014 12:22:57 PM
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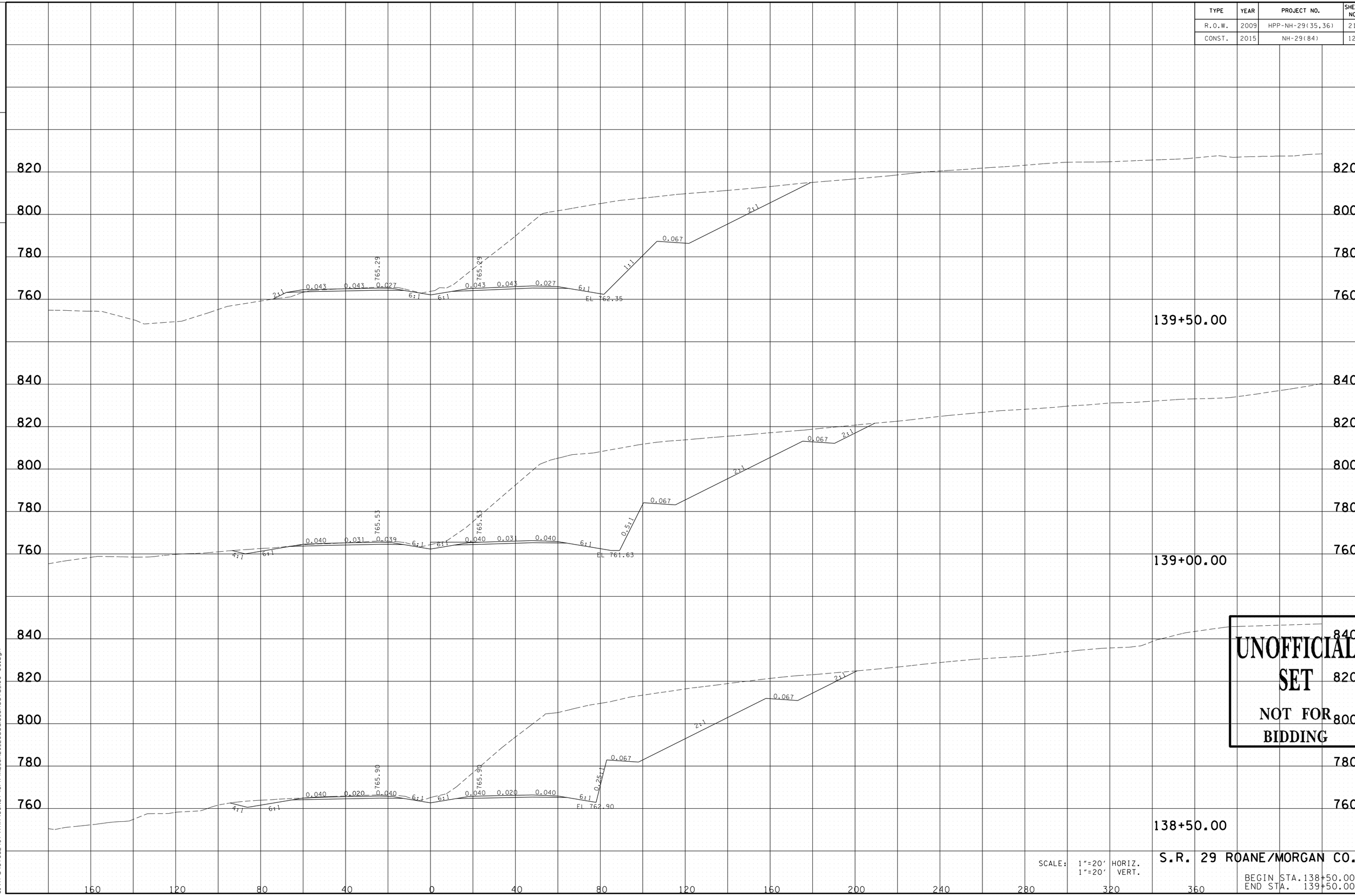
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	219
CONST.	2015	NH-29(84)	126

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 138+50.00
END STA. 139+50.00

11/24/2014 12:22:58 PM
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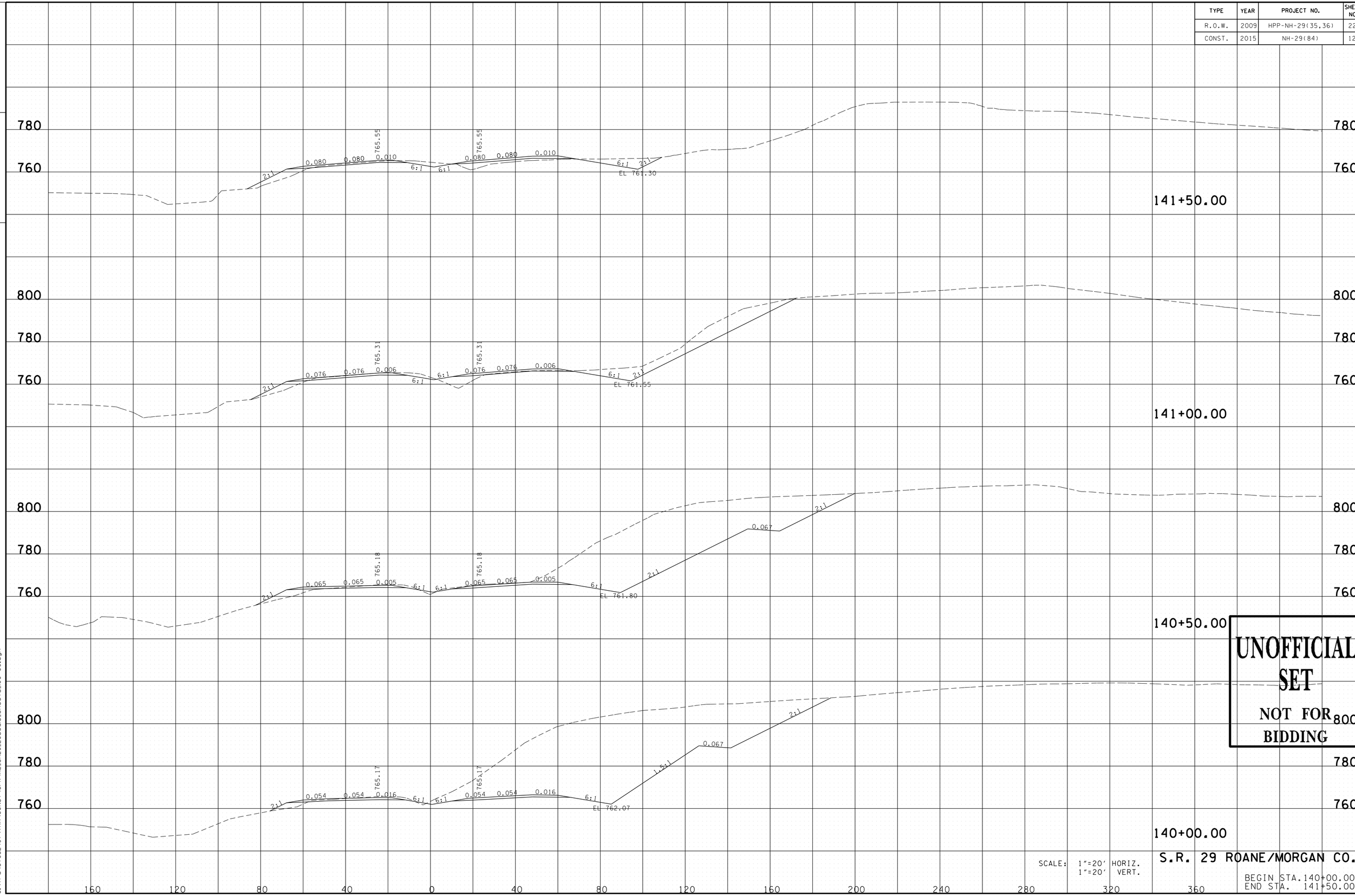
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	220
CONST.	2015	NH-29(84)	127

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

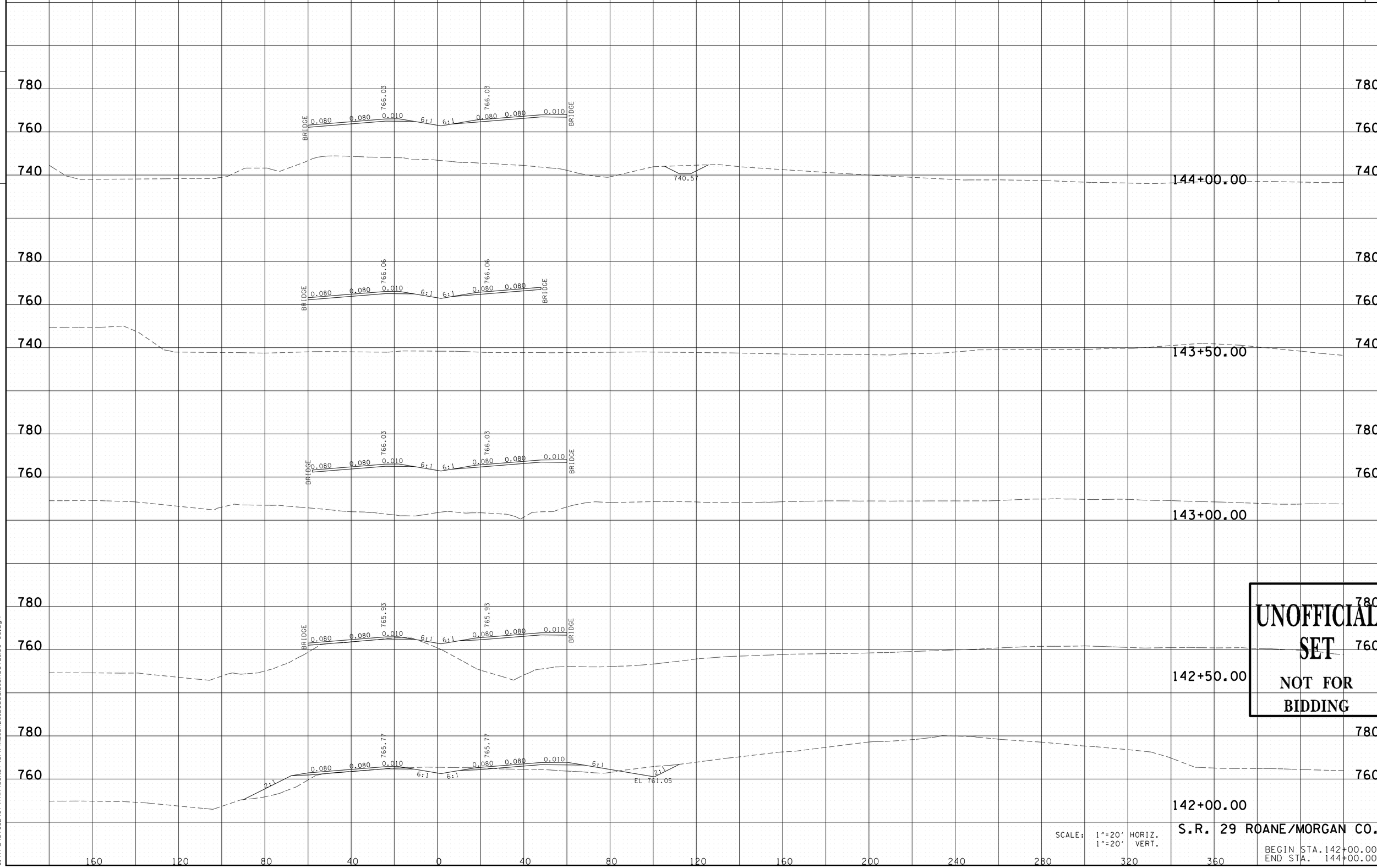
BEGIN STA.140+00.00
END STA. 141+50.00

11/24/2014 12:22:58 PM
G:\trg\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	221
CONST.	2015	NH-29(84)	128

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.142+00.00
END STA. 144+00.00

11/24/2014 12:22:59 PM
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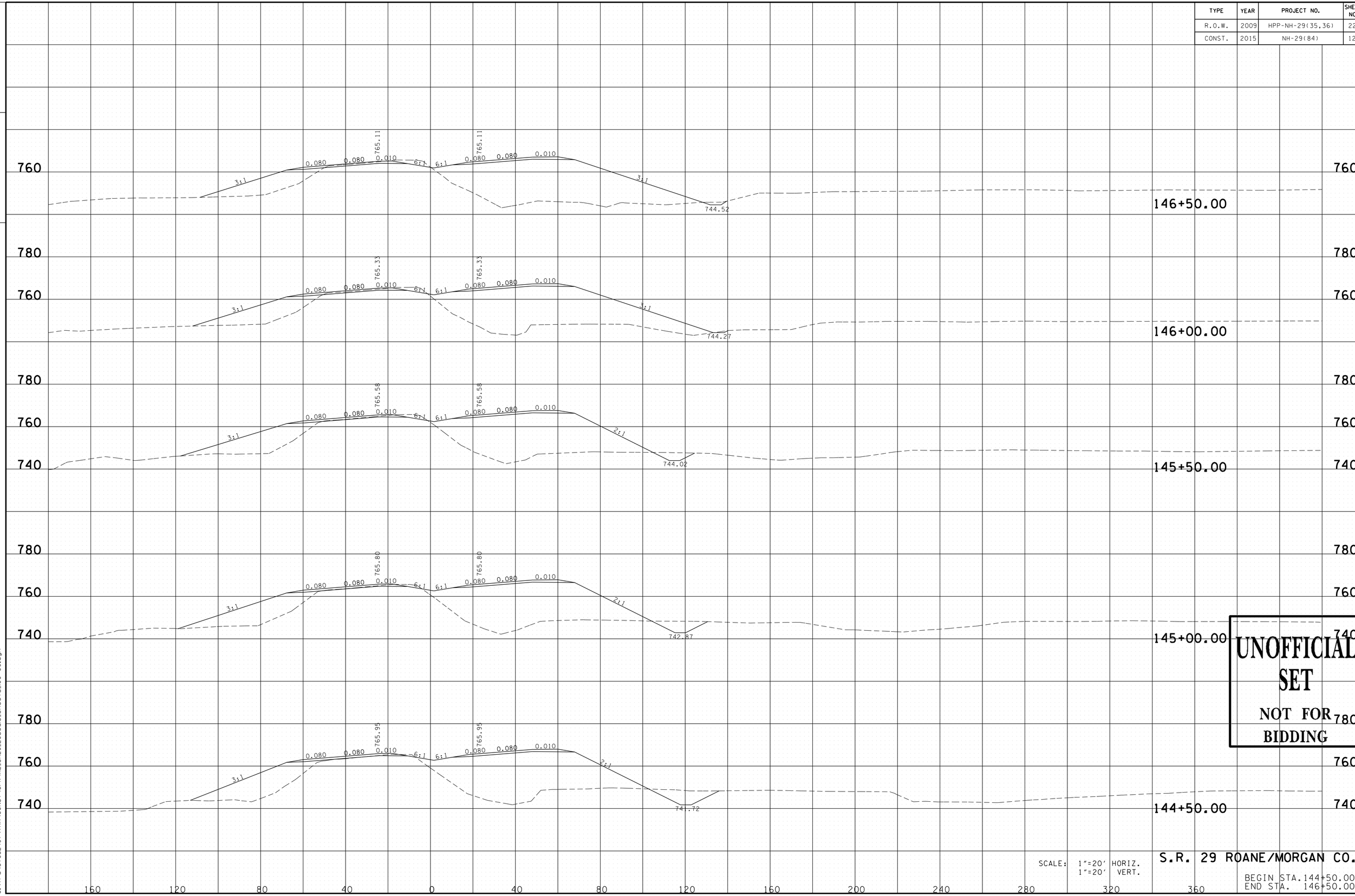
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	222
CONST.	2015	NH-29(84)	129

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

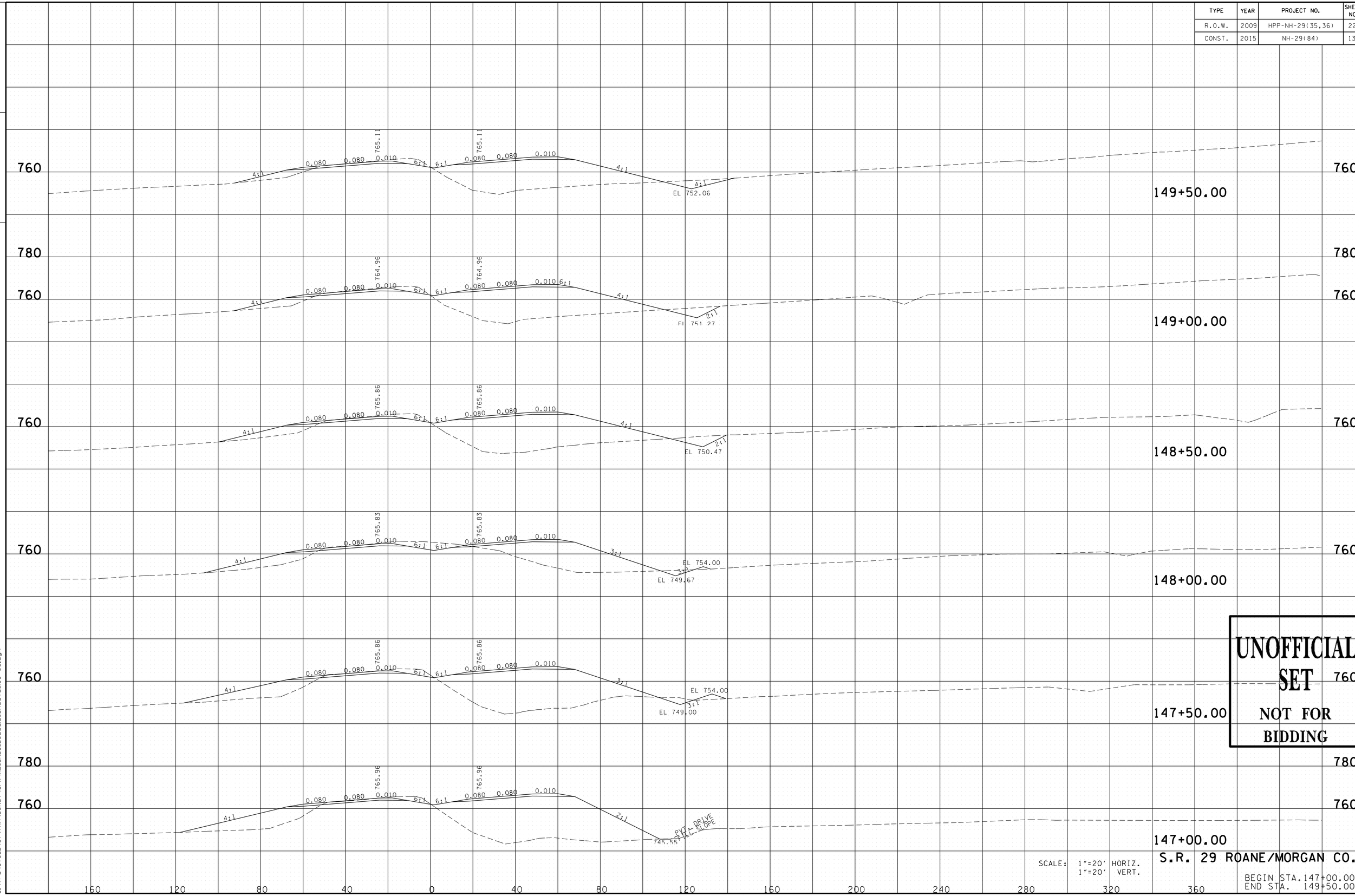
BEGIN STA. 144+50.00
END STA. 146+50.00

11/24/2014 12:22:59 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	223
CONST.	2015	NH-29(84)	130

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 147+00.00
END STA. 149+50.00

11/24/2014 12:23:00 PM
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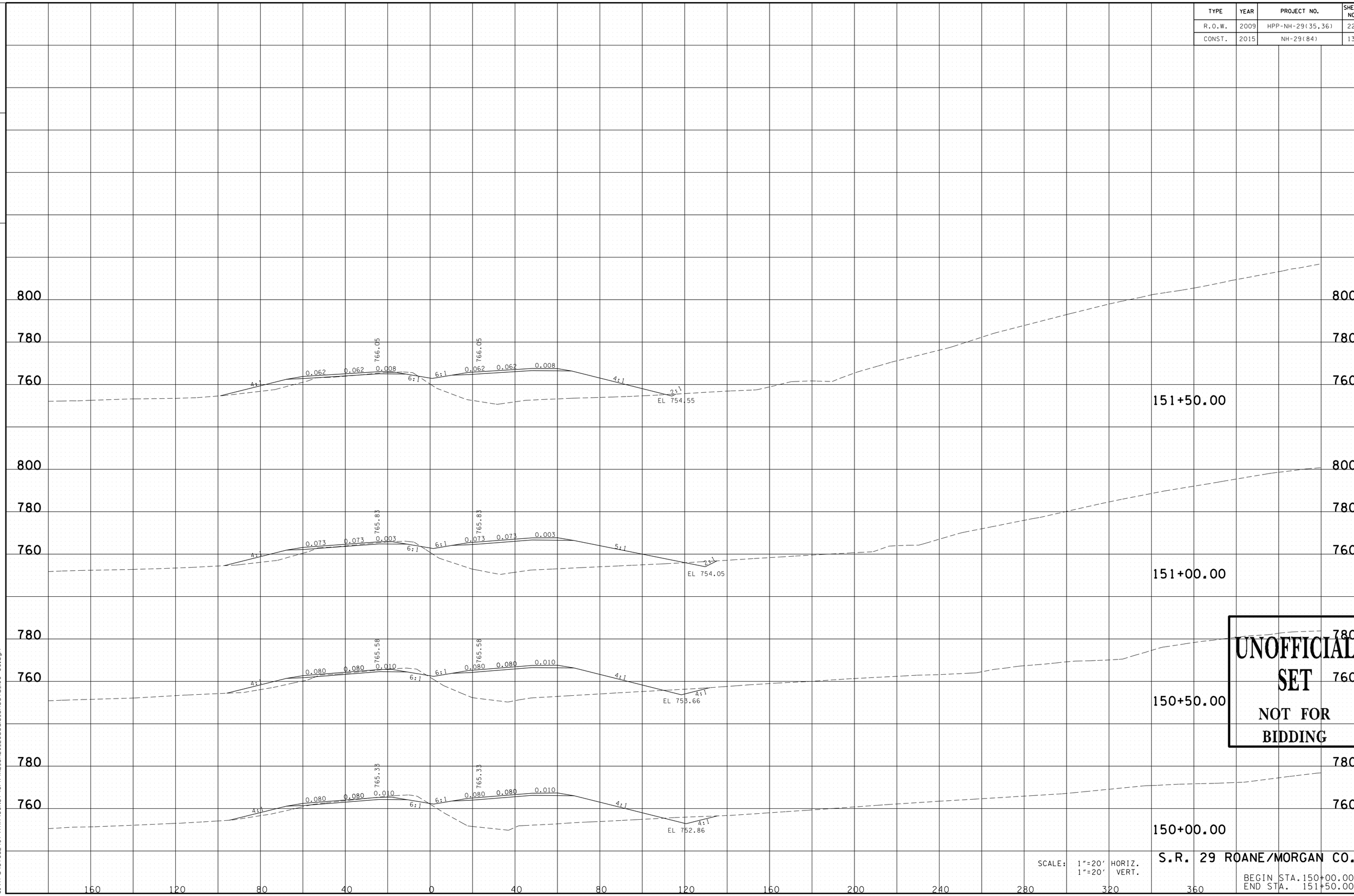
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	224
CONST.	2015	NH-29(84)	131

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 150+00.00
END STA. 151+50.00

11/24/2014 12:23:00 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	225
CONST.	2015	NH-29(84)	132

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

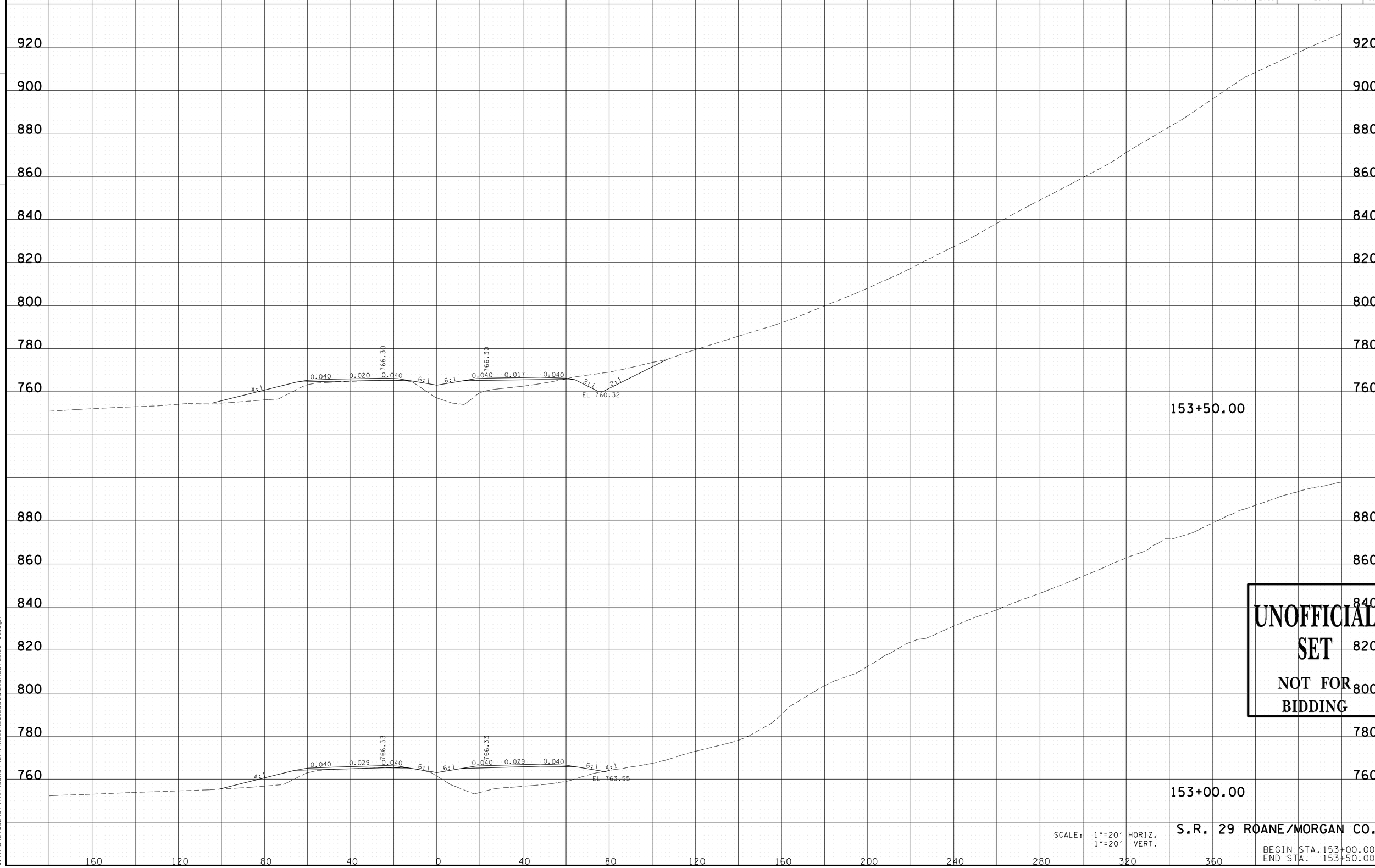
BEGIN STA. 152+00.00
END STA. 152+50.00

11/24/2014 12:23:00 PM
G:\tra\CT052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	226
CONST.	2015	NH-29(84)	133

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 153+00.00
END STA. 153+50.00

11/24/2014 12:23:01PM
G:\trg\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	227
CONST.	2015	NH-29(84)	134

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET
NOT FOR BIDDING

154+00.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

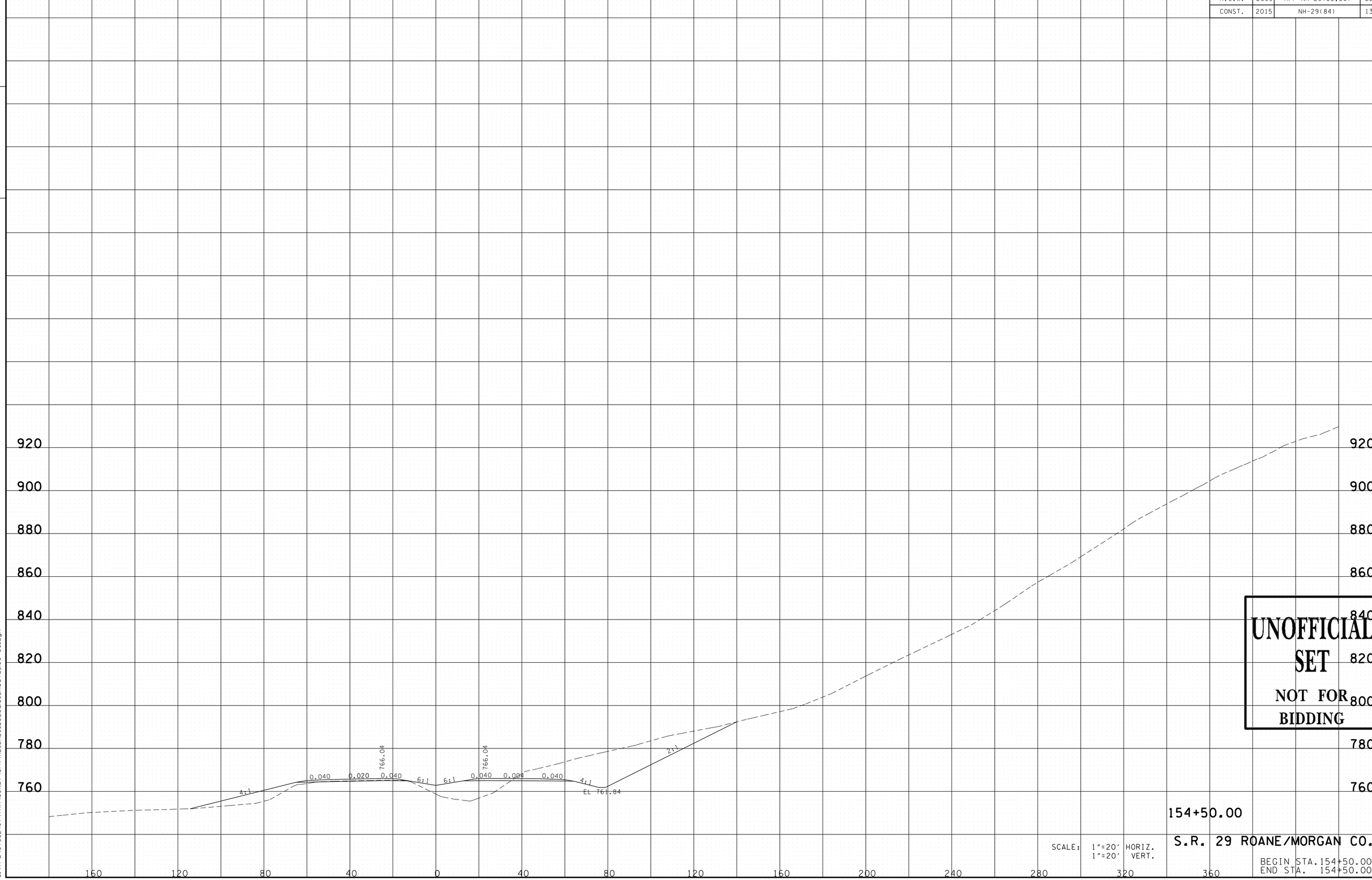
BEGIN STA. 154+00.00
END STA. 154+00.00

11/24/2014 12:23:01PM
G:\tro\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	228
CONST.	2015	NH-29(84)	135

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

154+50.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

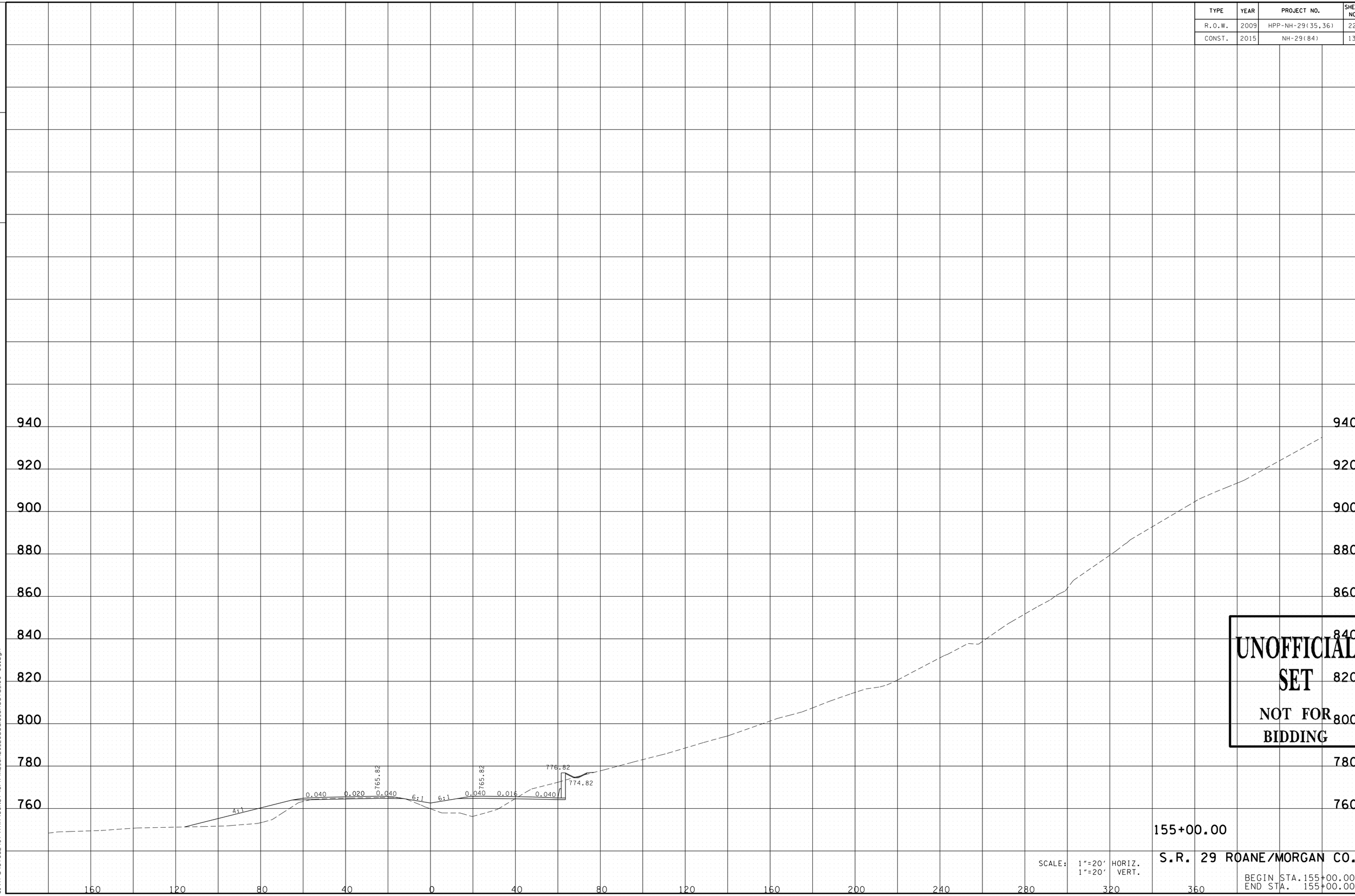
BEGIN STA. 154+50.00
END STA. 154+50.00

11/24/2014 12:23:02 PM
G:\tro\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	229
CONST.	2015	NH-29(84)	136

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

155+00.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

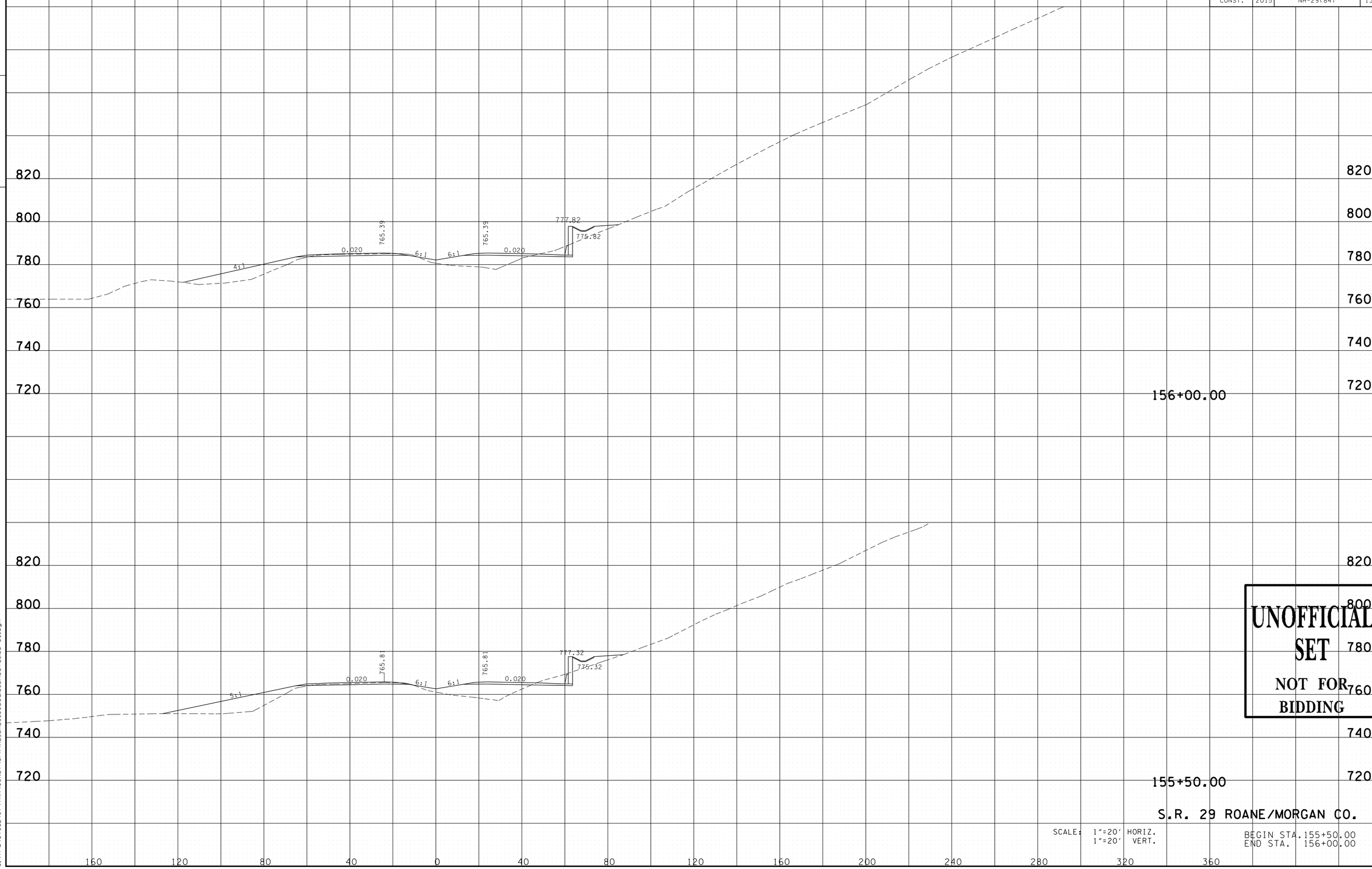
BEGIN STA. 155+00.00
END STA. 155+00.00

11/24/2014 12:23:02 PM
G:\trg\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_100+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	230
CONST.	2015	NH-29(84)	137

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

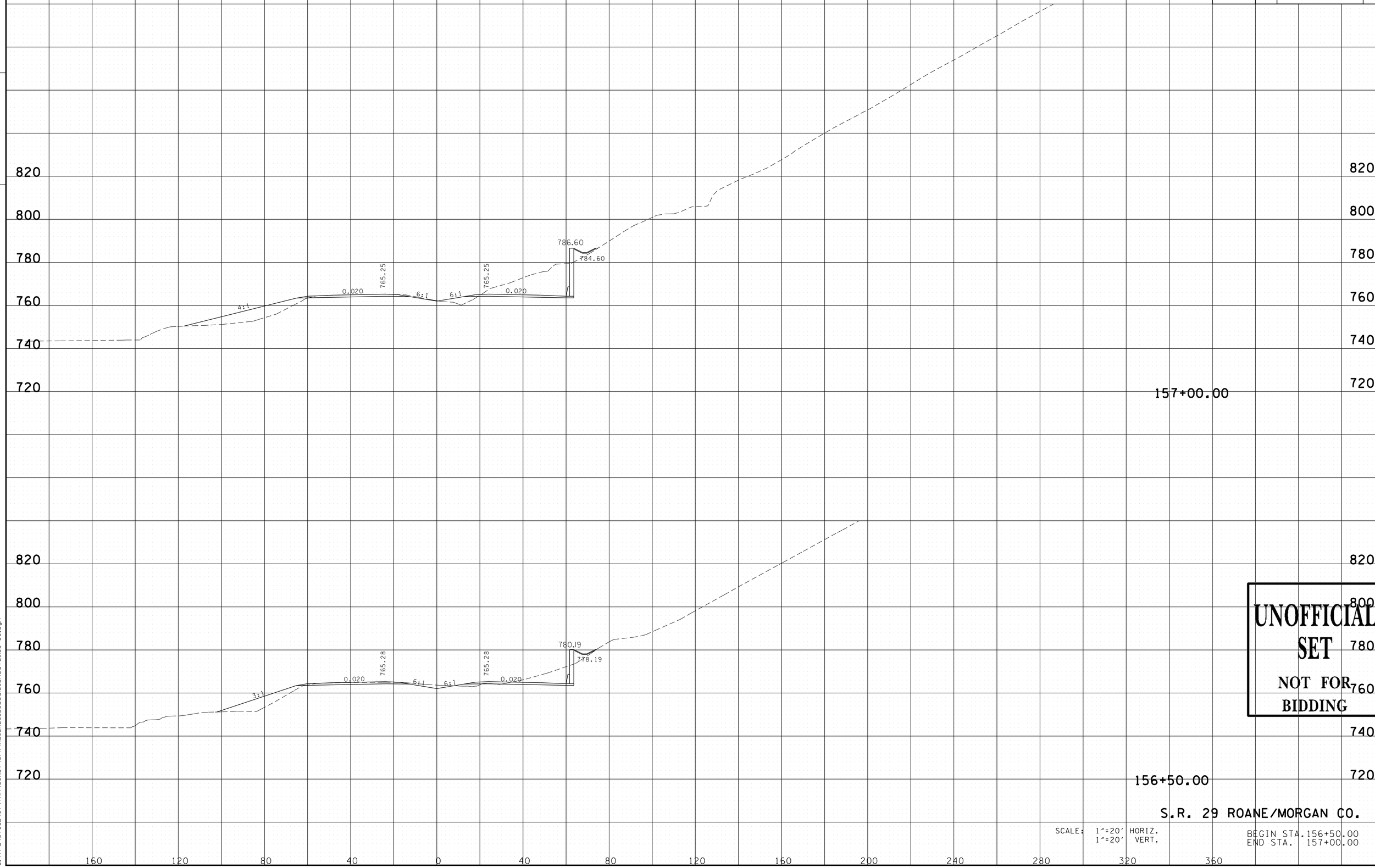
BEGIN STA. 155+50.00
END STA. 156+00.00

11/24/2014 12:23:03 PM
G:\tra\Ct052497\TRA\CONST\GPK\XL_SR29_50scale_Sheets_155+50.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	231
CONST.	2015	NH-29(84)	138

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 156+50.00
END STA. 157+00.00

11/24/2014 12:23:04 PM
G:\tra\Ct052497\TRA\CONST\GPK\XL_SR29_50scale_Sheets_155+50.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	232
CONST.	2015	NH-29(84)	139

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET
NOT FOR BIDDING

157+50.00

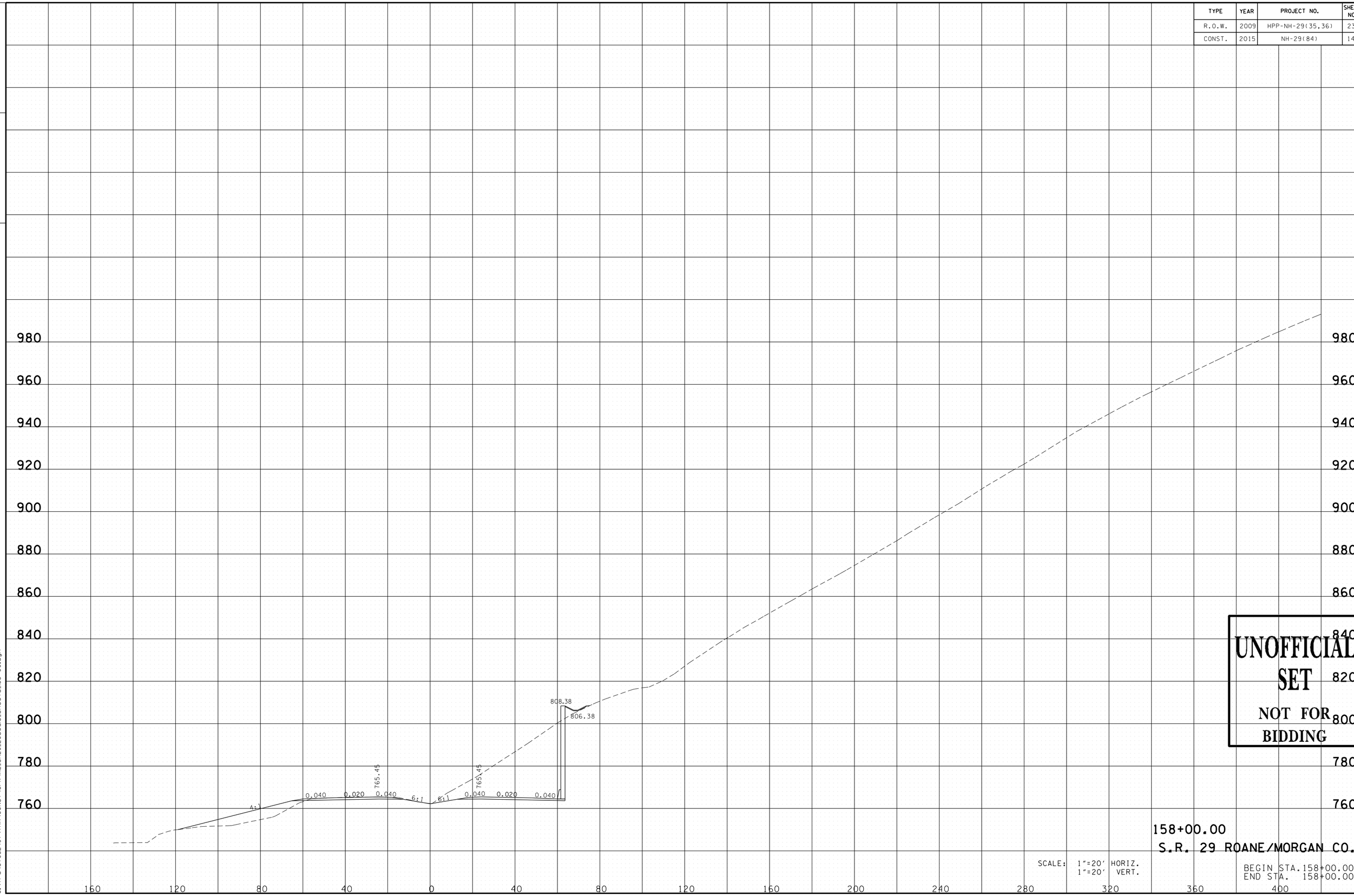
S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 157+50.00
END STA. 157+50.00

11/24/2014 12:23:04 PM
G:\tra\CT052497\TRA\CONST\GPK\XL_SR29_50scale_Sheets_155+50.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	233
CONST.	2015	NH-29(84)	140



UNOFFICIAL SET
NOT FOR BIDDING

158+00.00
S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 158+00.00
END STA. 158+00.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

11/24/2014 12:23:05 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	234
CONST.	2015	NH-29(84)	141

UNOFFICIAL SET
NOT FOR BIDDING

158+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 158+50.00
END STA. 158+50.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

11/24/2014 12:23:05 PM
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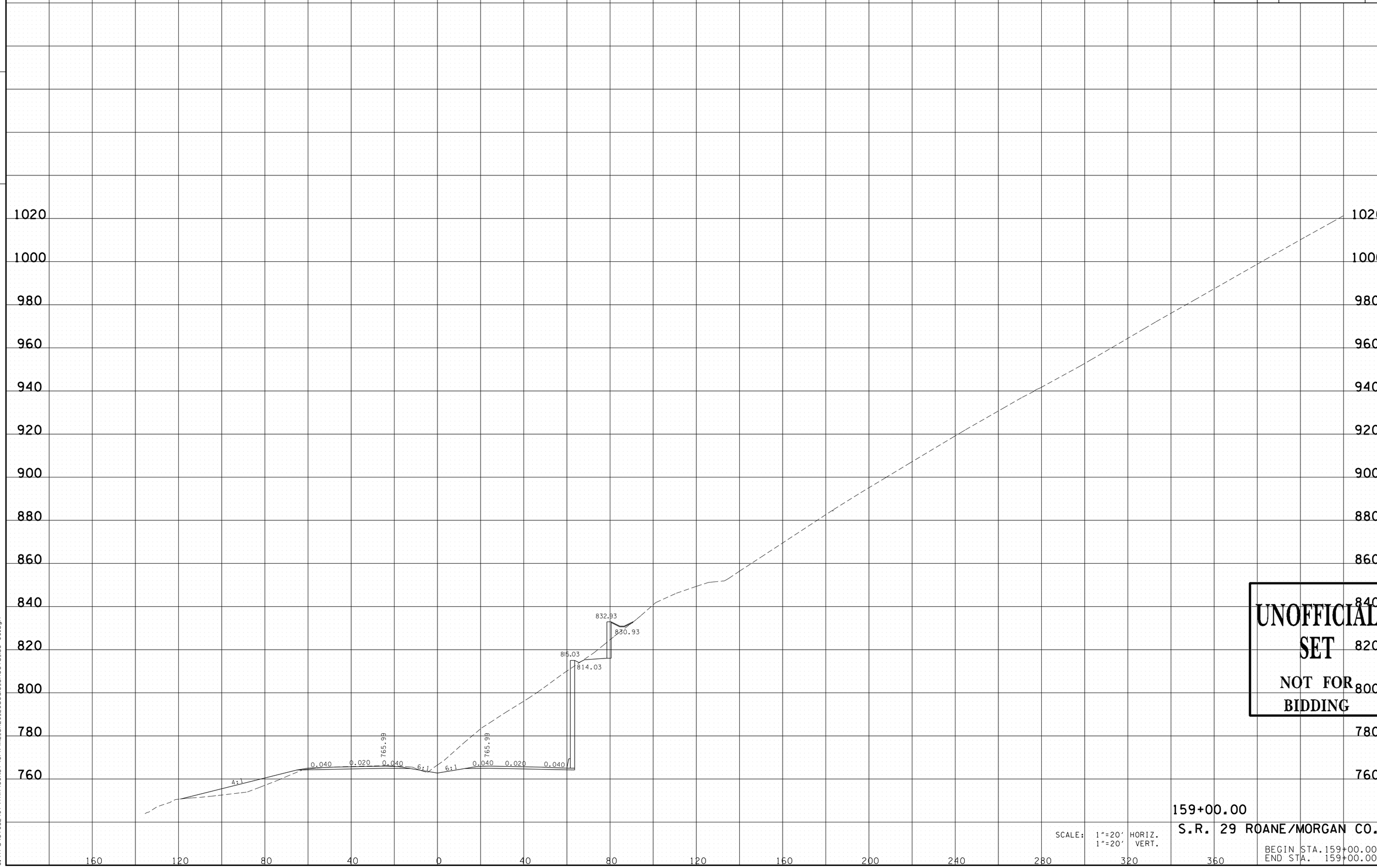
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	235
CONST.	2015	NH-29(84)	142

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

159+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

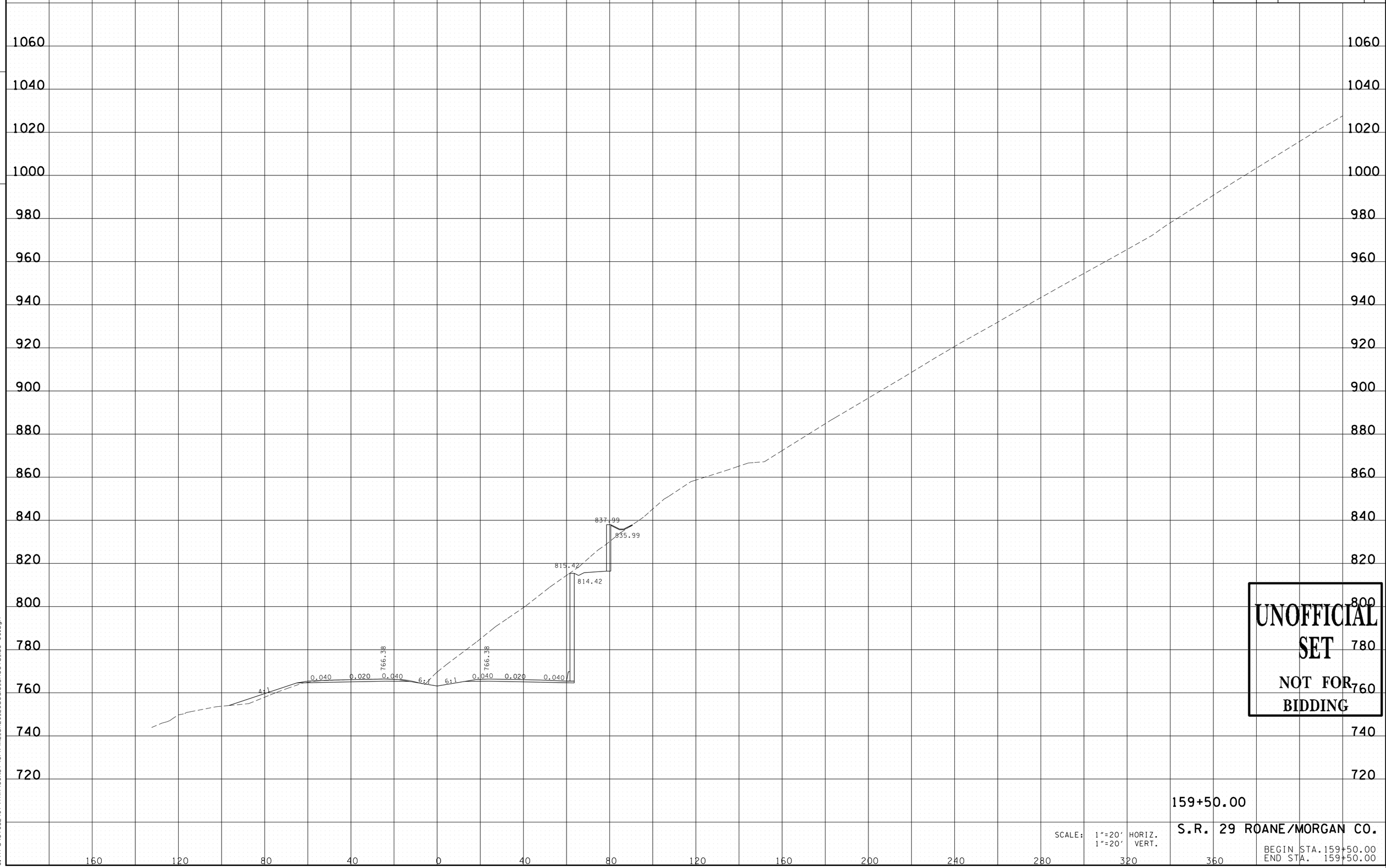
BEGIN STA. 159+00.00
END STA. 159+00.00

11/24/2014 12:23:05 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	236
CONST.	2015	NH-29(84)	143

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

159+50.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 159+50.00
END STA. 159+50.00

11/24/2014 12:23:06 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	237
CONST.	2015	NH-29(84)	144

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

UNOFFICIAL SET
NOT FOR BIDDING

160+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

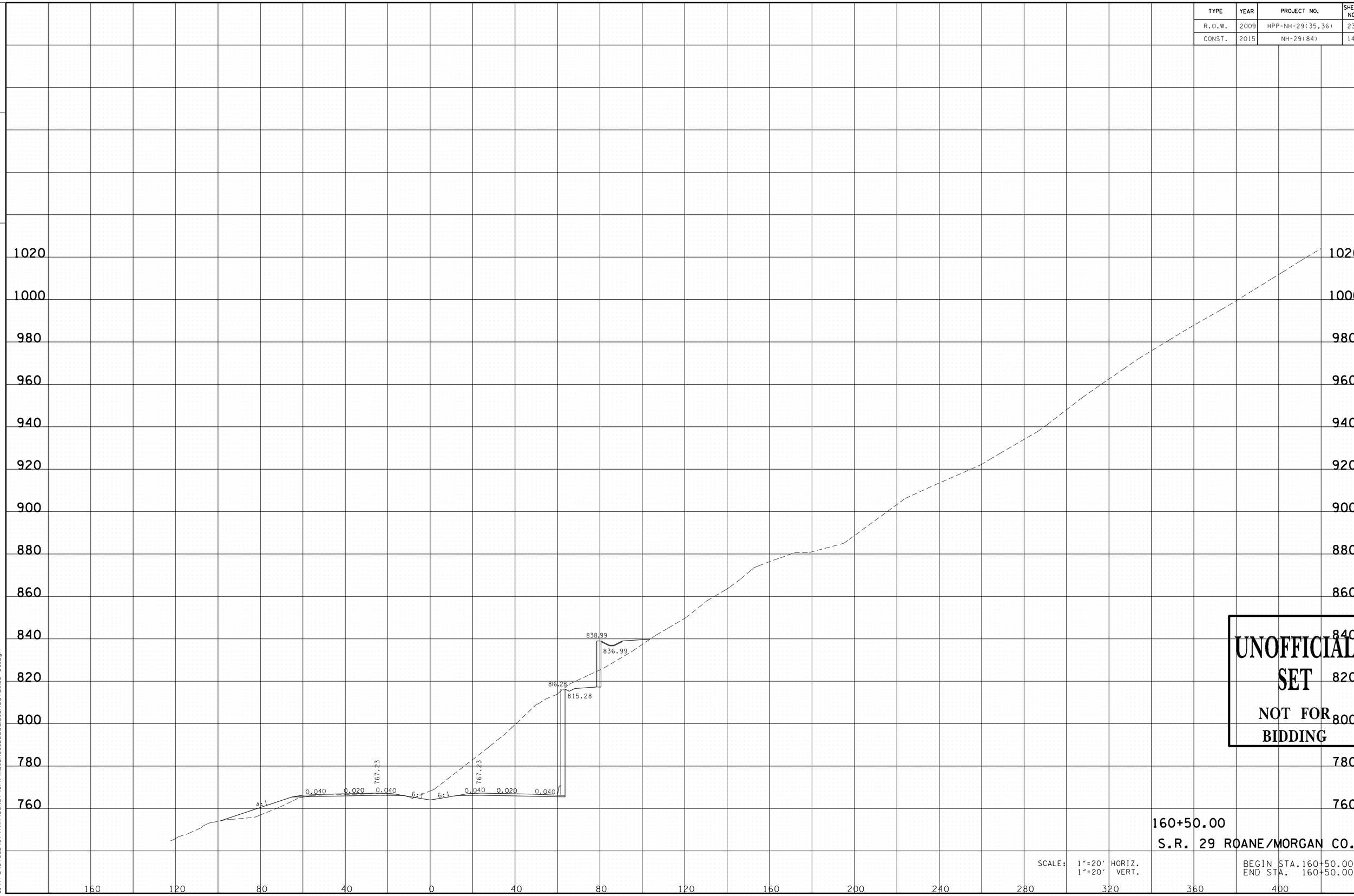
BEGIN STA. 160+00.00
END STA. 160+00.00

11/24/2014 12:23:06 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	238
CONST.	2015	NH-29(84)	145

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

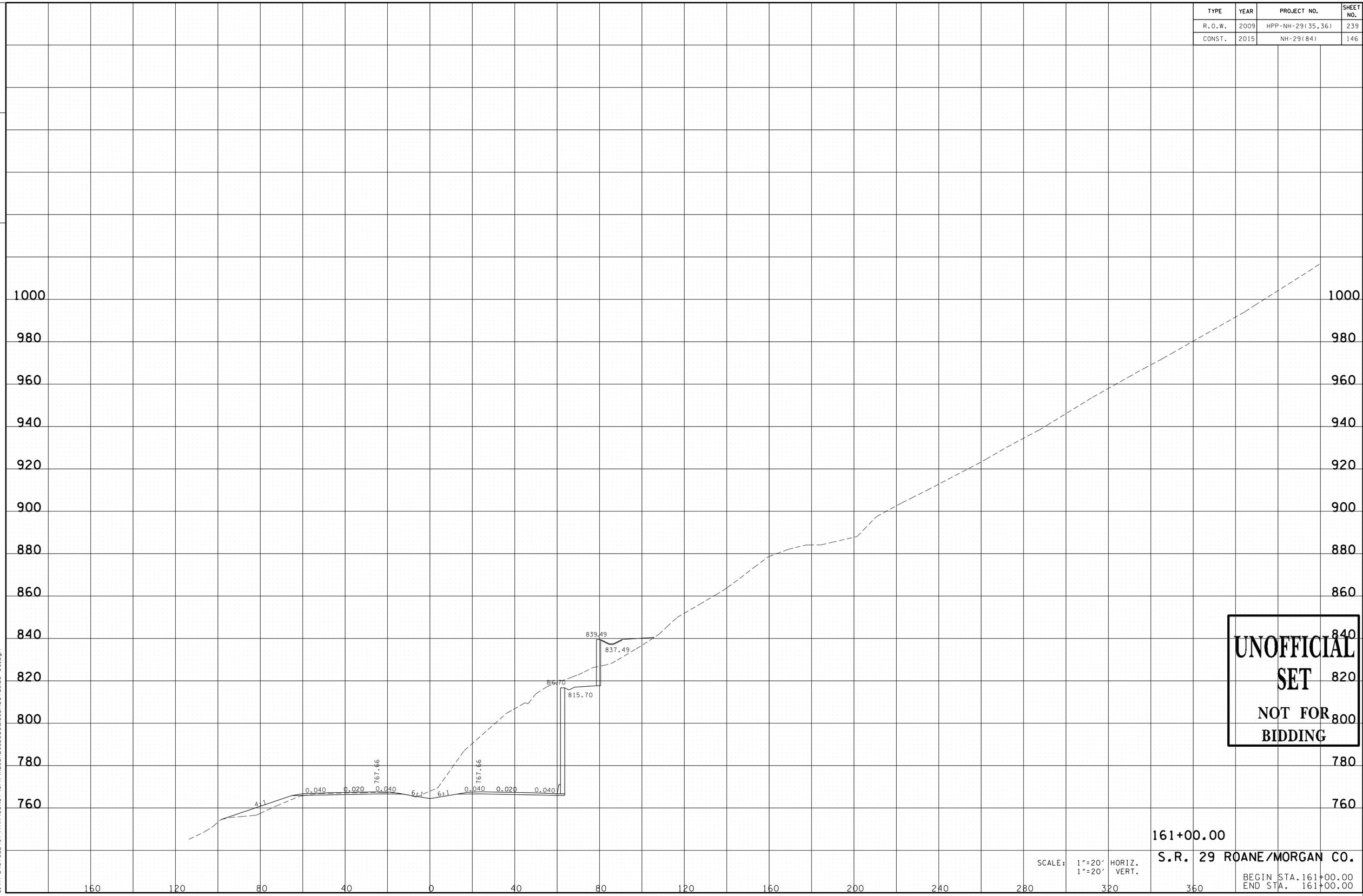
160+50.00
S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 160+50.00
END STA. 160+50.00

11/24/2014 12:23:07 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	239
CONST.	2015	NH-29(84)	146



UNOFFICIAL SET
NOT FOR BIDDING

161+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 161+00.00
END STA. 161+00.00

TENNESSEE D.O.T.
DESIGN DIVISION

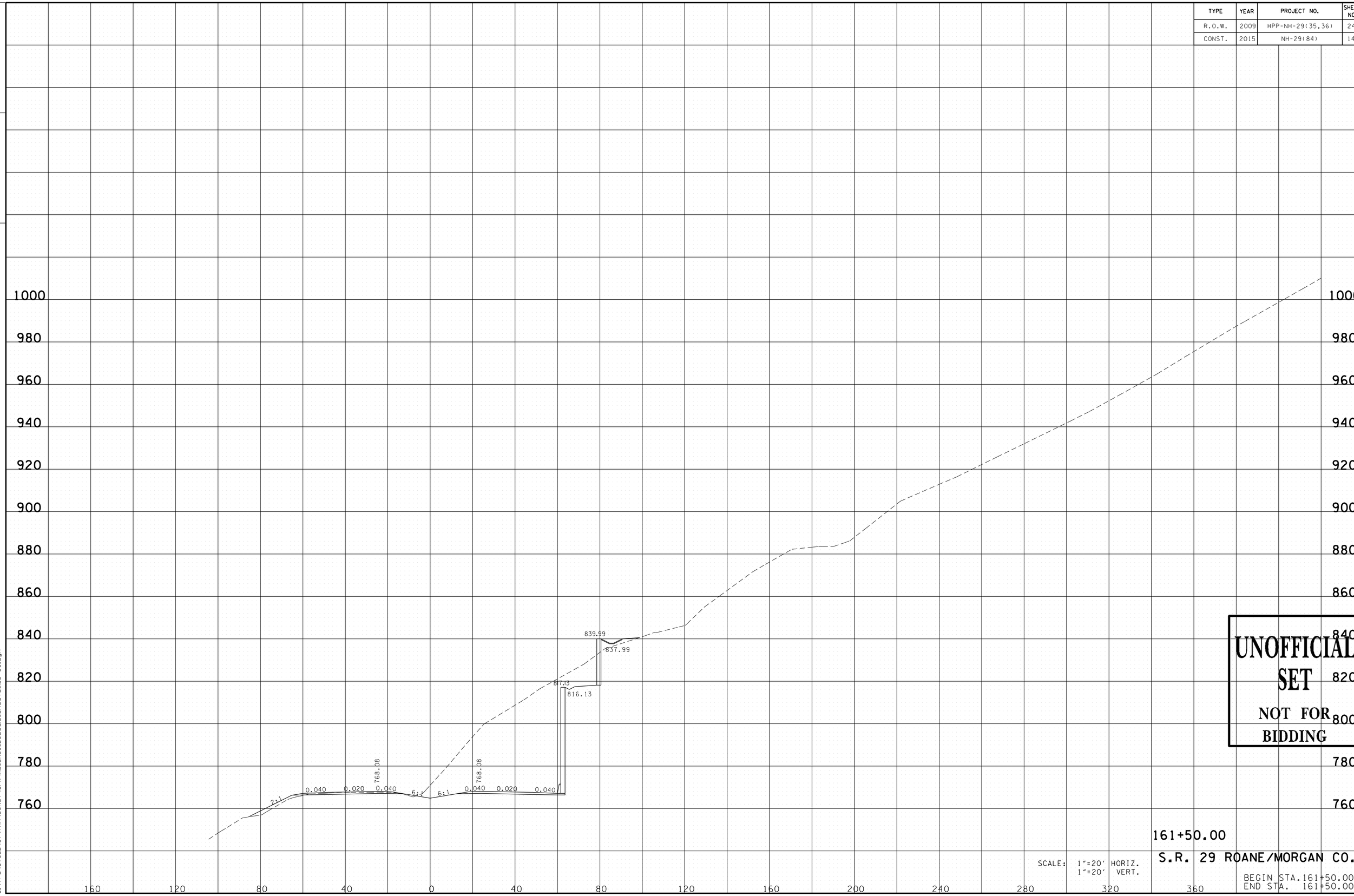
FILE NO.

11/24/2014 12:23:07 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	240
CONST.	2015	NH-29(84)	147

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

161+50.00

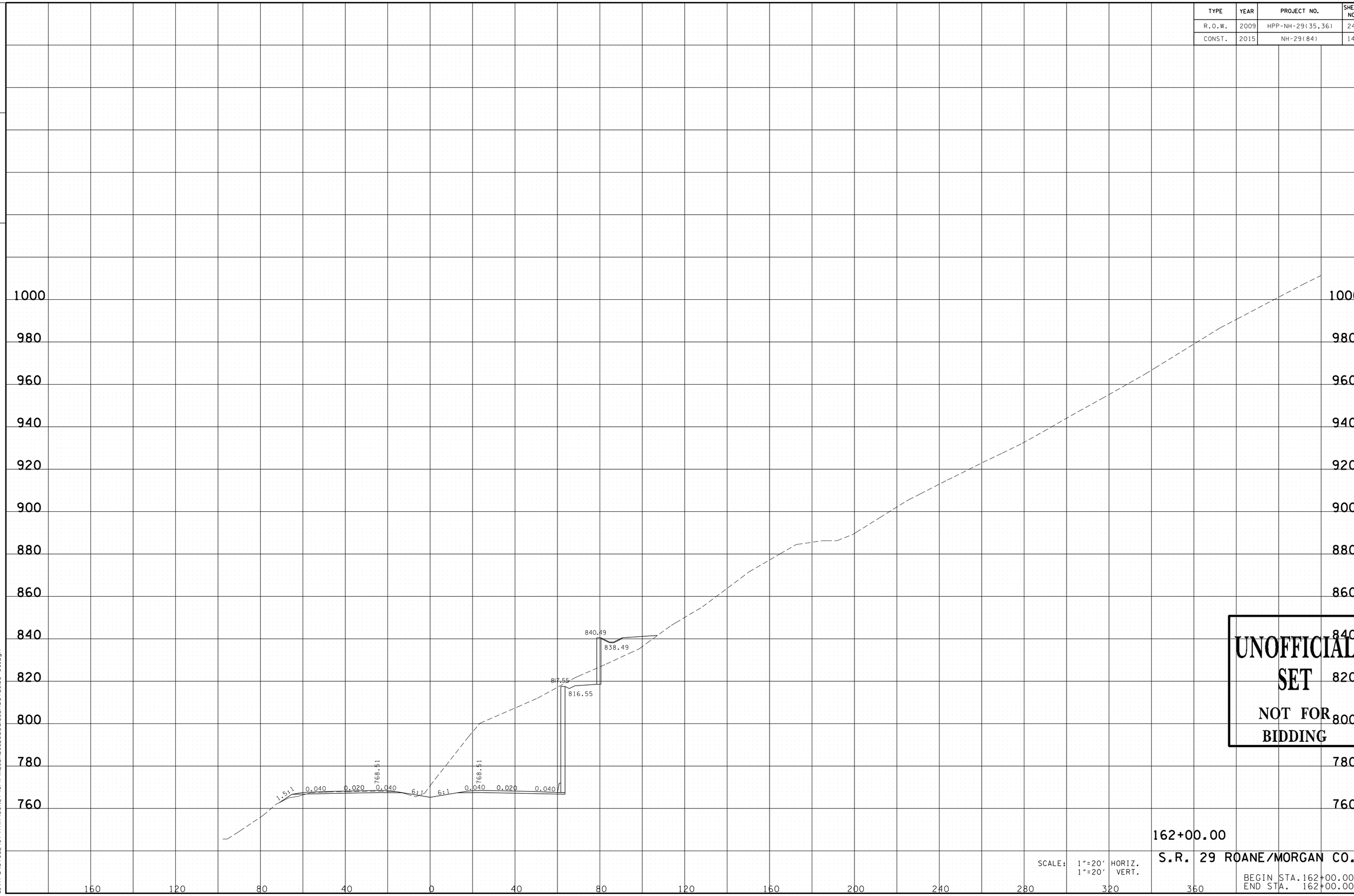
S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 161+50.00
END STA. 161+50.00

11/24/2014 12:23:07 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	241
CONST.	2015	NH-29(84)	148



UNOFFICIAL SET
NOT FOR BIDDING

162+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

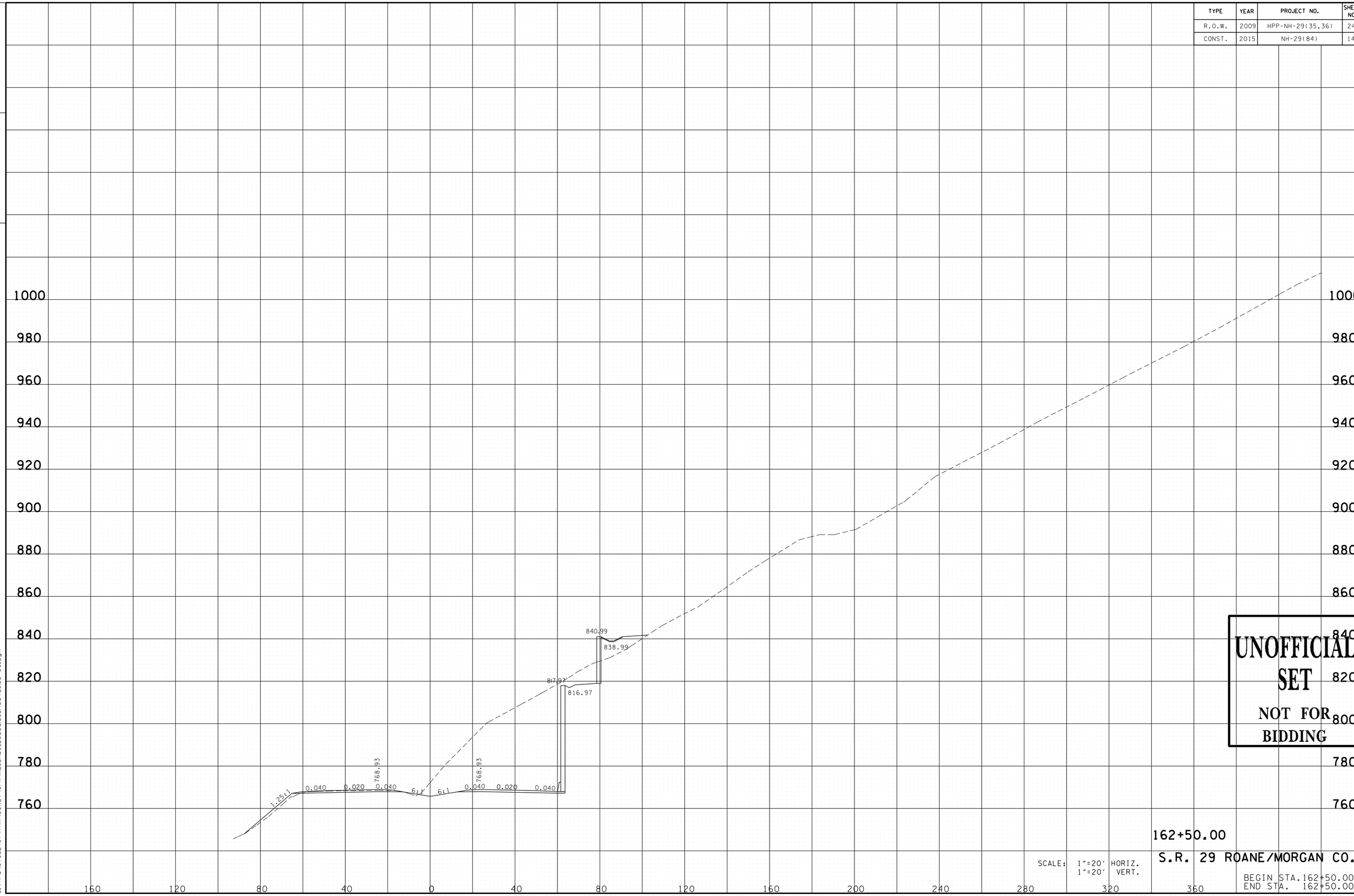
BEGIN STA. 162+00.00
END STA. 162+00.00

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

11/24/2014 12:23:08 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	242
CONST.	2015	NH-29(84)	149



UNOFFICIAL SET
NOT FOR BIDDING

162+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 162+50.00
END STA. 162+50.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

11/24/2014 12:23:08 PM
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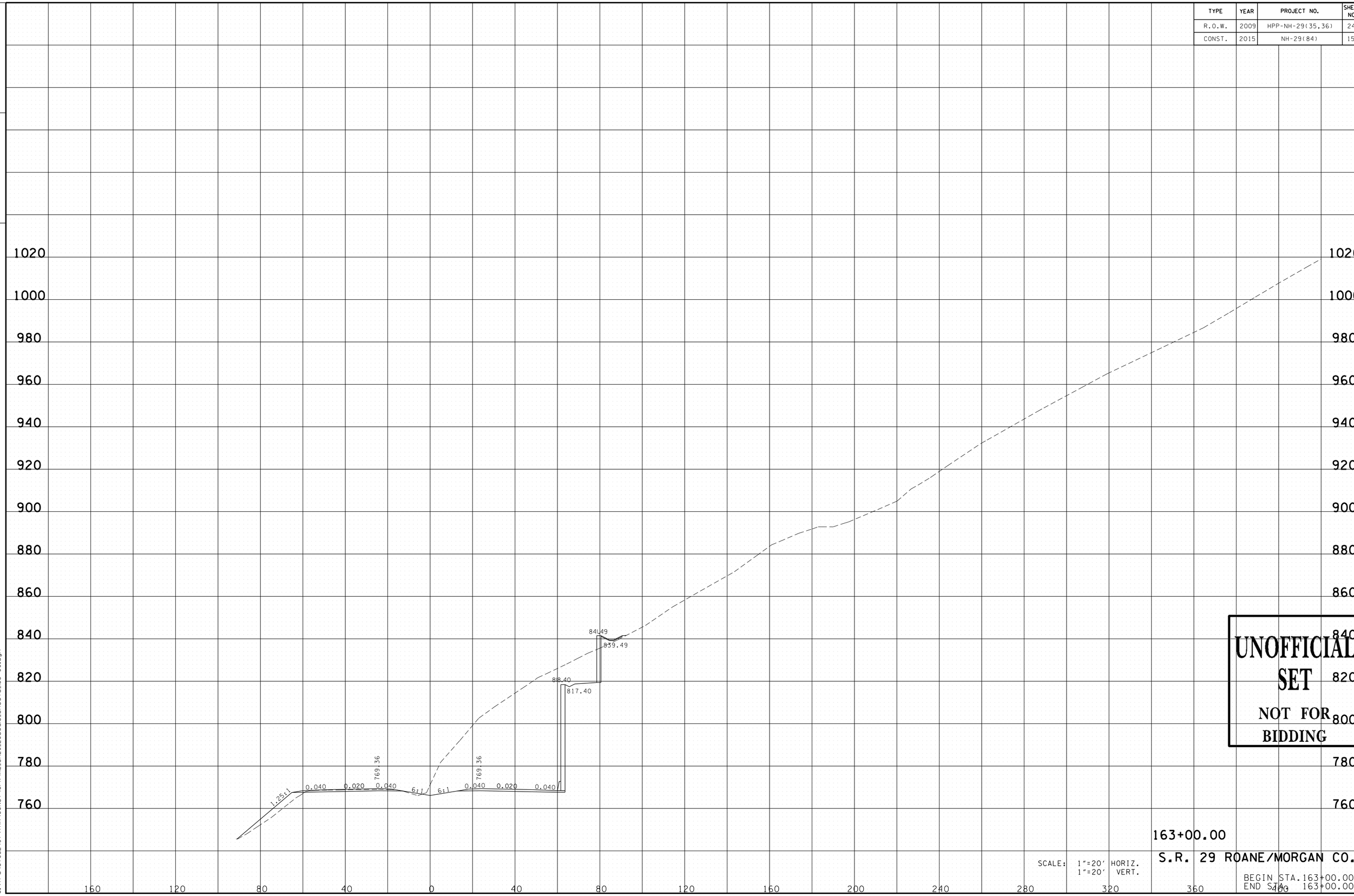
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	243
CONST.	2015	NH-29(84)	150

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

163+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 163+00.00
END STA. 163+00.00

11/24/2014 12:23:09 PM
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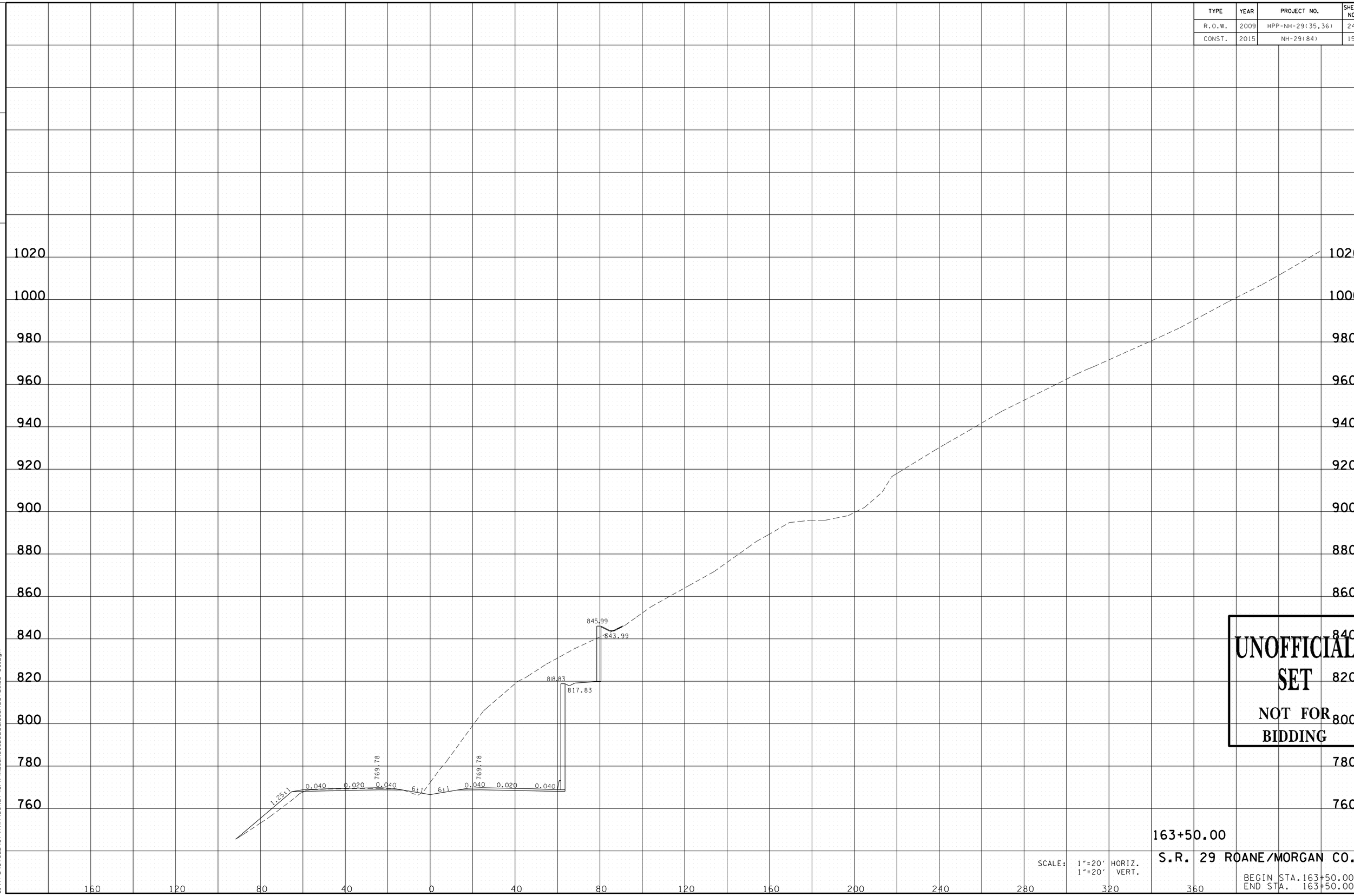
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	244
CONST.	2015	NH-29(84)	151

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

163+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 163+50.00
END STA. 163+50.00

11/24/2014 12:23:09 PM
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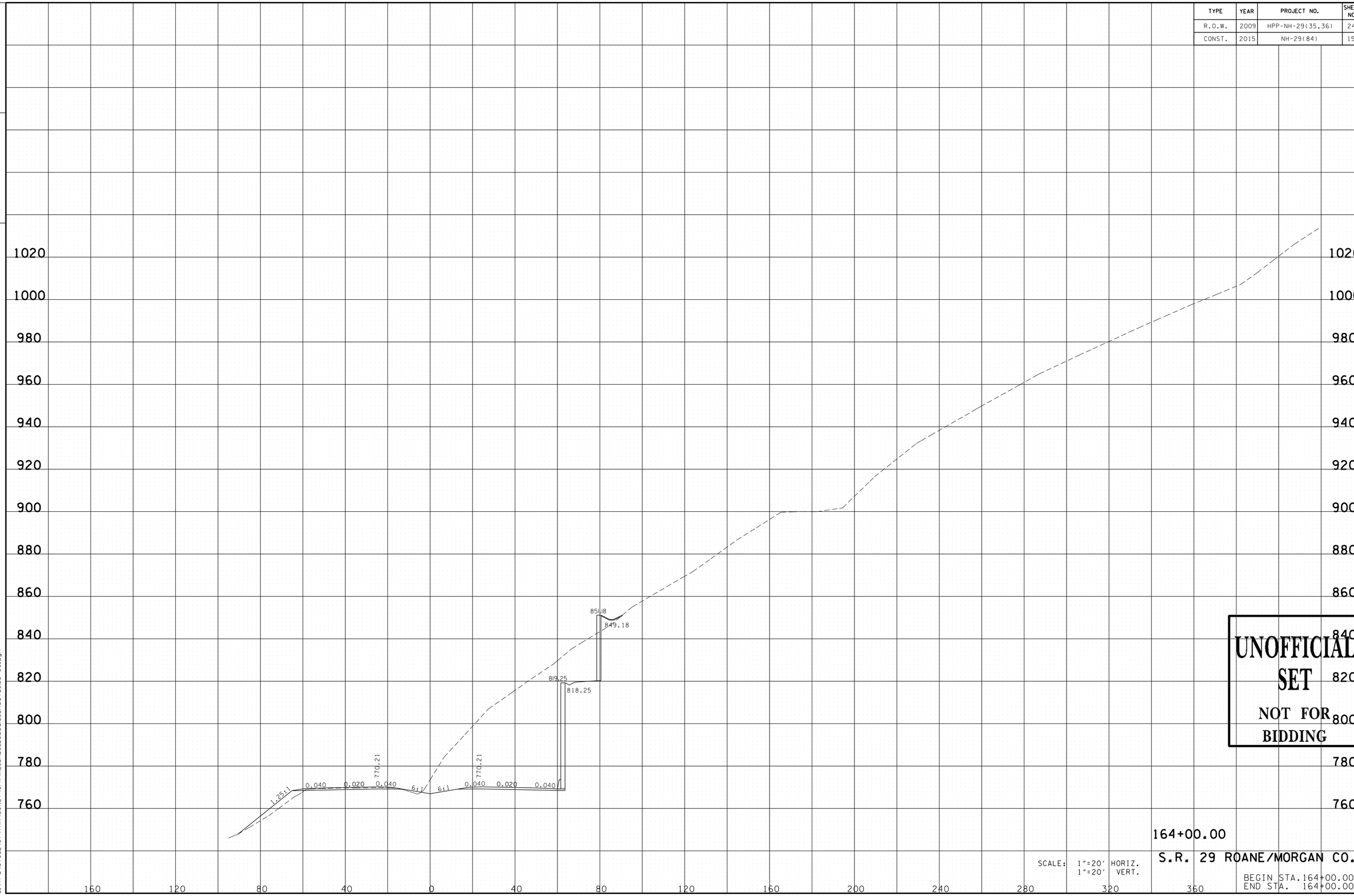
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	245
CONST.	2015	NH-29(84)	152

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

164+00.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 164+00.00
END STA. 164+00.00

11/24/2014 12:23:10 PM
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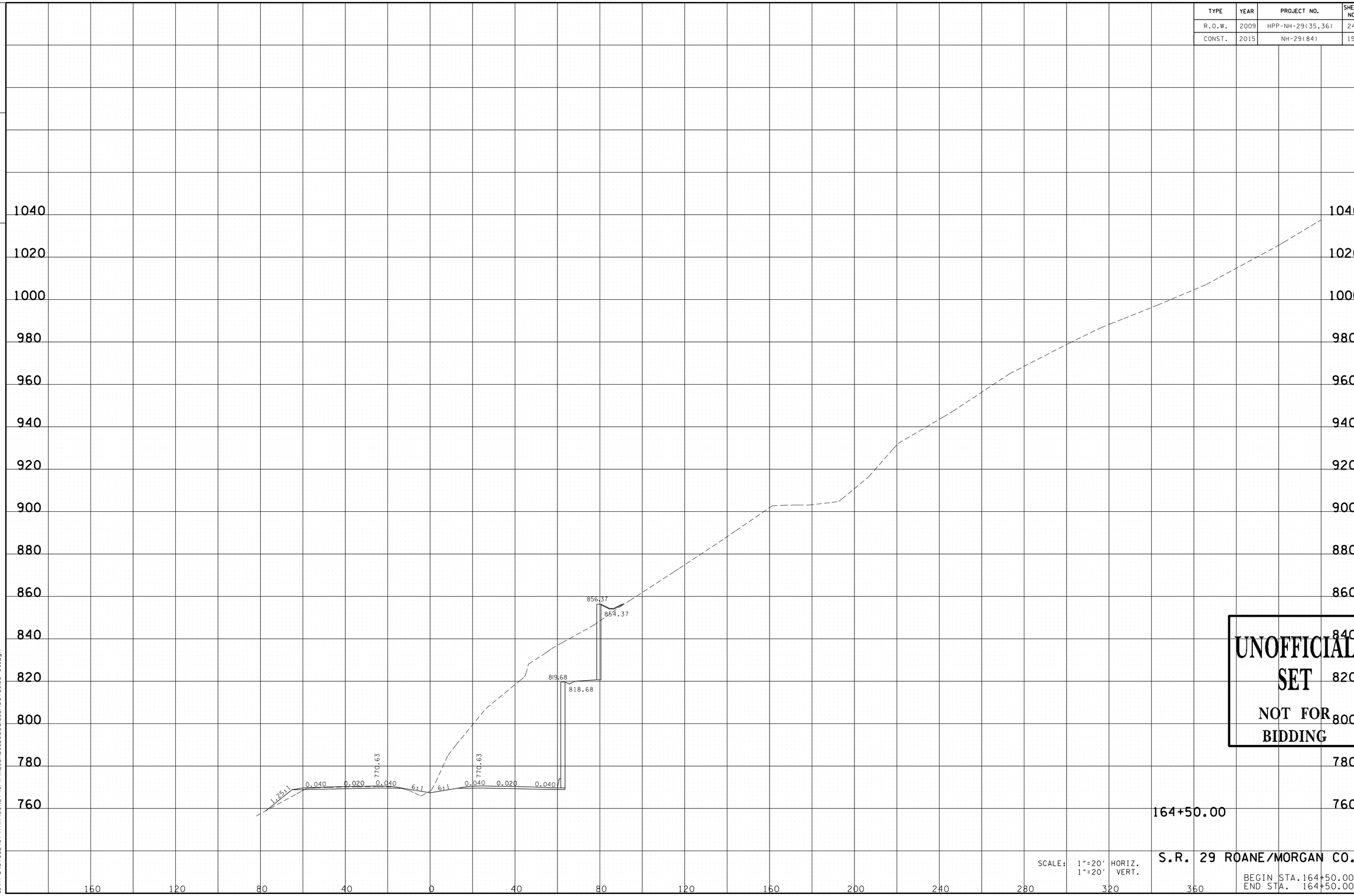
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	246
CONST.	2015	NH-29(84)	153

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 164+50.00
END STA. 164+50.00

11/24/2014 12:23:10 PM
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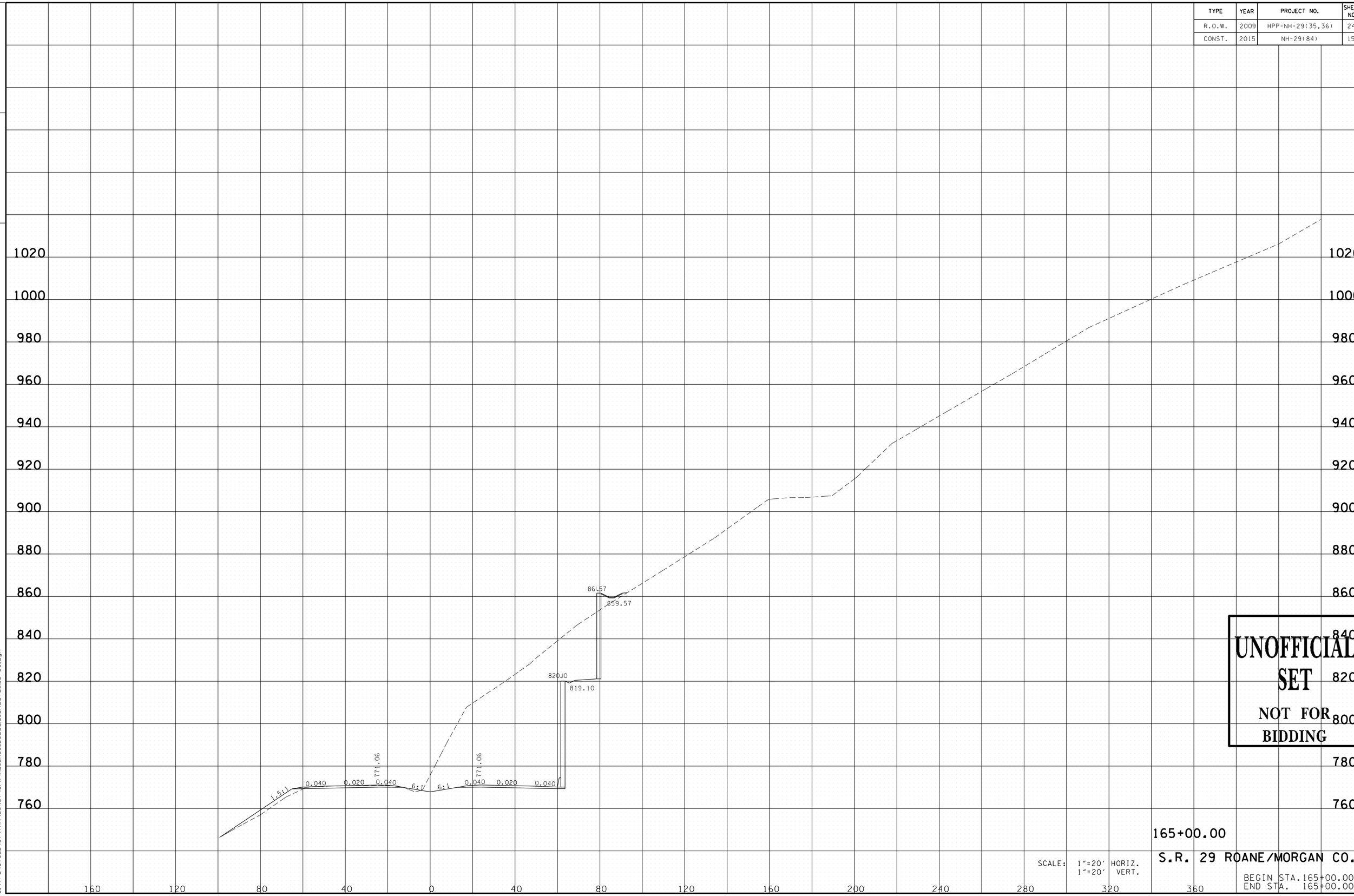
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	247
CONST.	2015	NH-29(84)	154

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

165+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 165+00.00
END STA. 165+00.00

11/24/2014 12:23:10 PM
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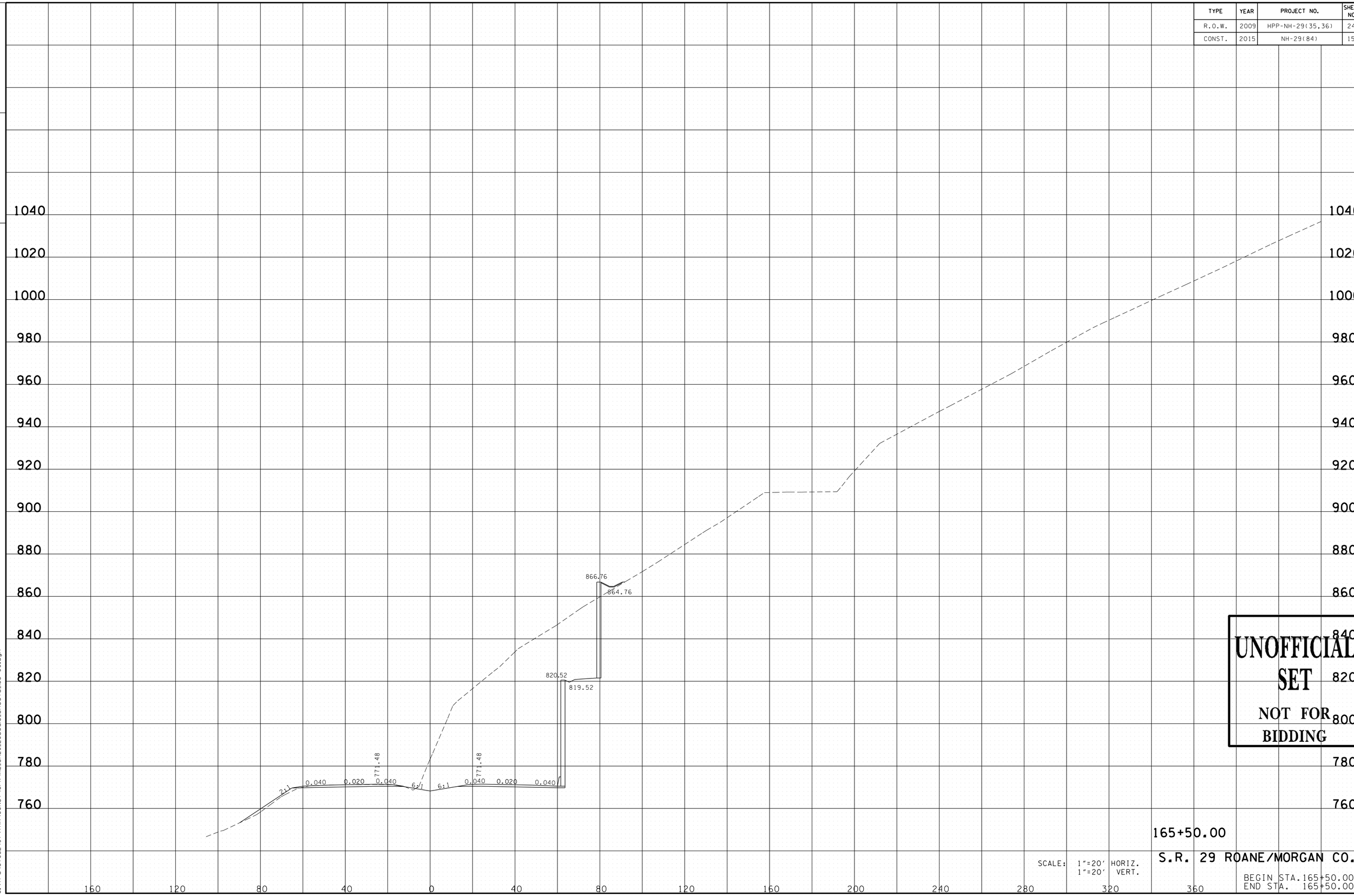
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	248
CONST.	2015	NH-29(84)	155

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

165+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 165+50.00
END STA. 165+50.00

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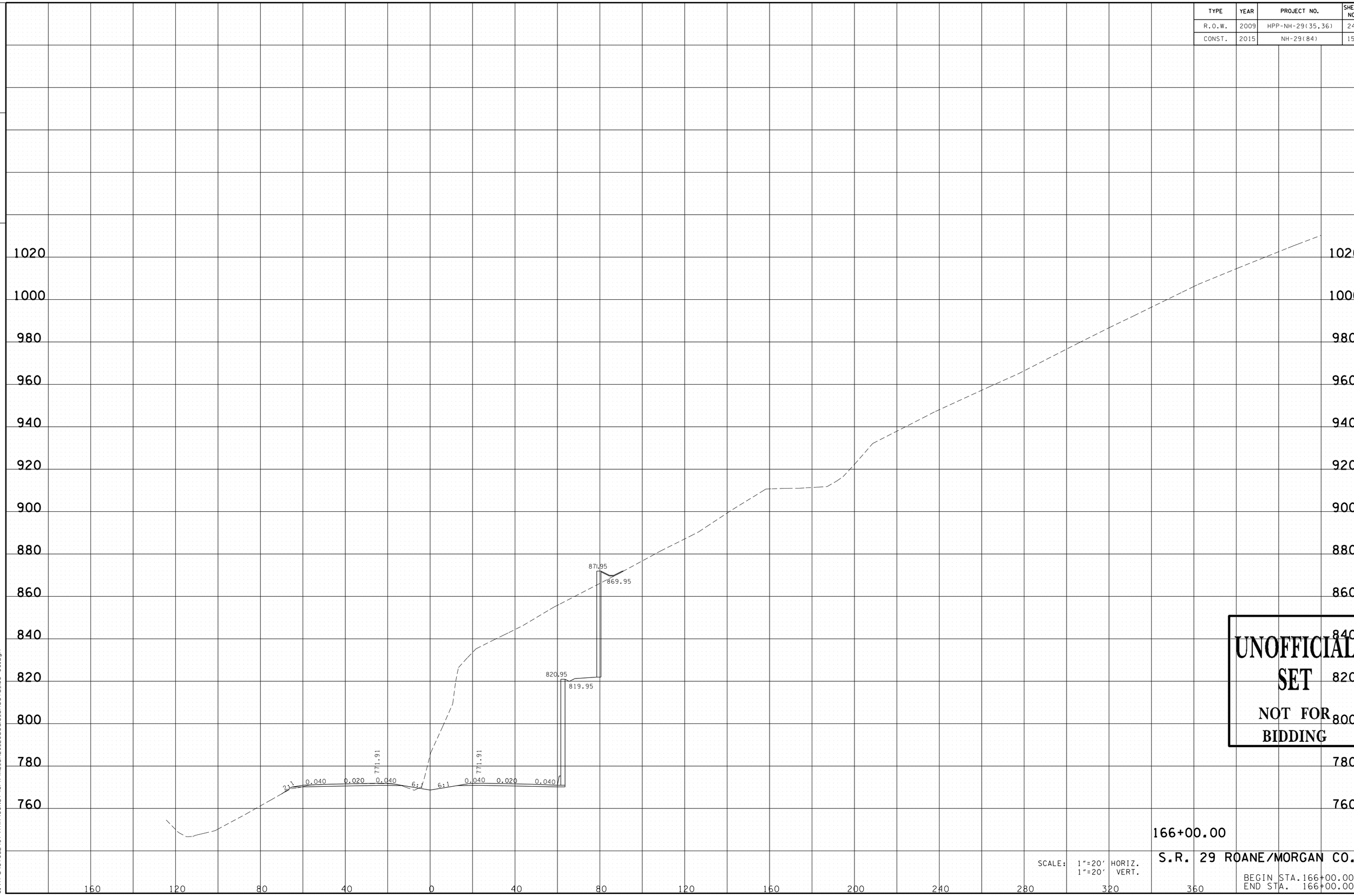
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	249
CONST.	2015	NH-29(84)	156

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

166+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 166+00.00
END STA. 166+00.00

11/24/2014 12:23:11 PM
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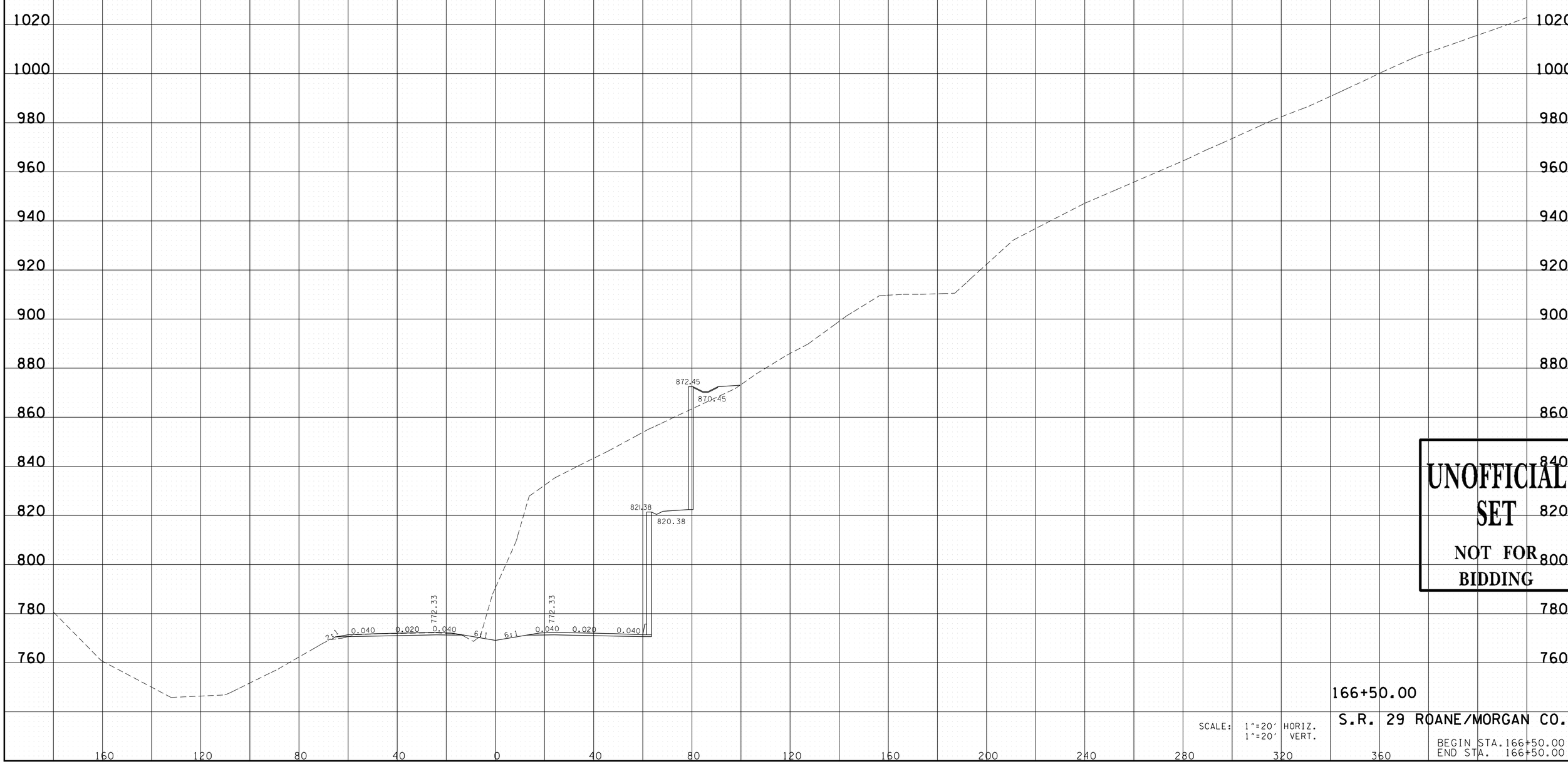
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	250
CONST.	2015	NH-29(84)	157

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

166+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 166+50.00
END STA. 166+50.00

11/24/2014 12:23:12 PM
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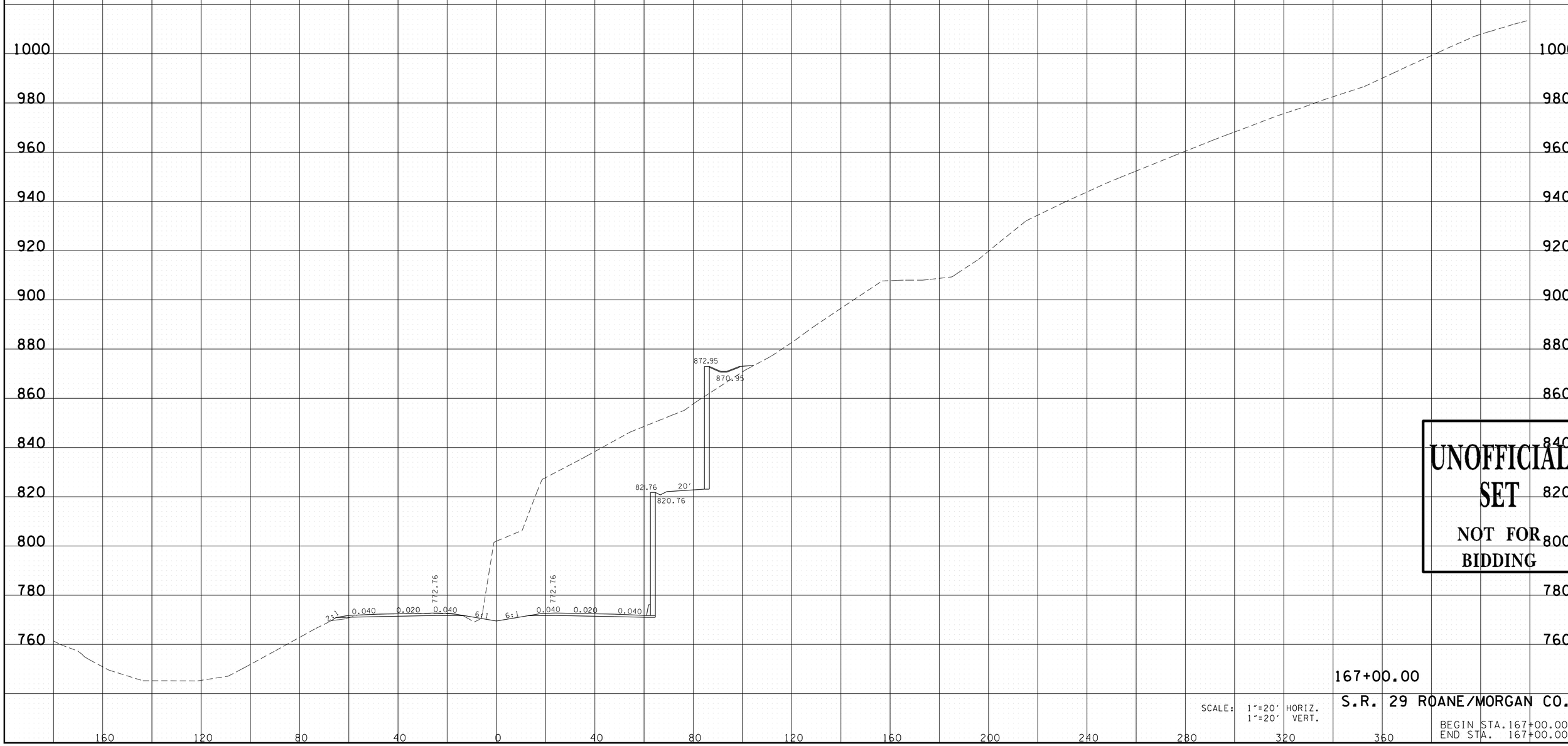
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	251
CONST.	2015	NH-29(84)	158

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

167+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 167+00.00
END STA. 167+00.00

11/24/2014 12:23:12 PM
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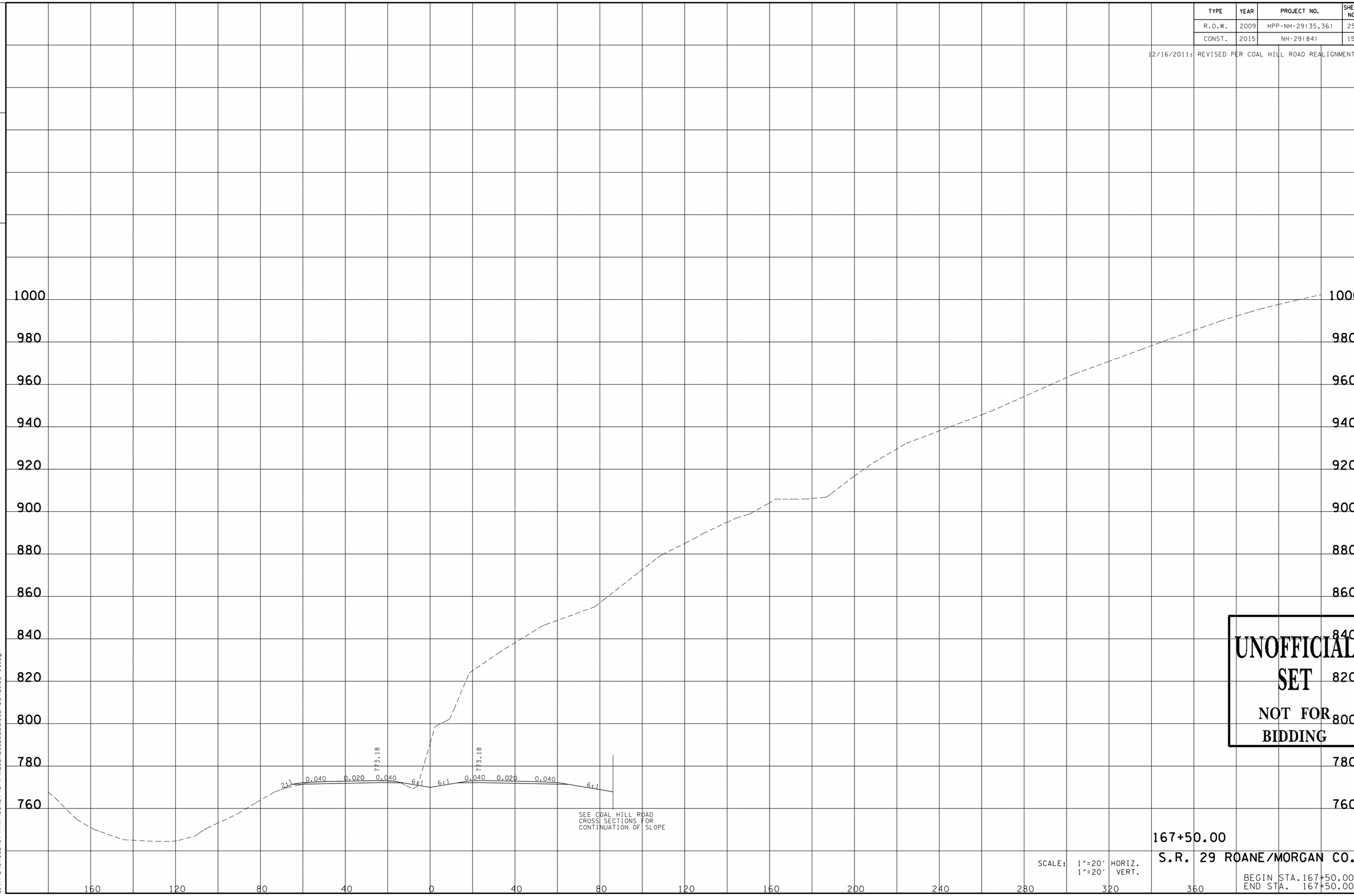
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	252
CONST.	2015	NH-29(84)	159

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

167+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 167+50.00
END STA. 167+50.00

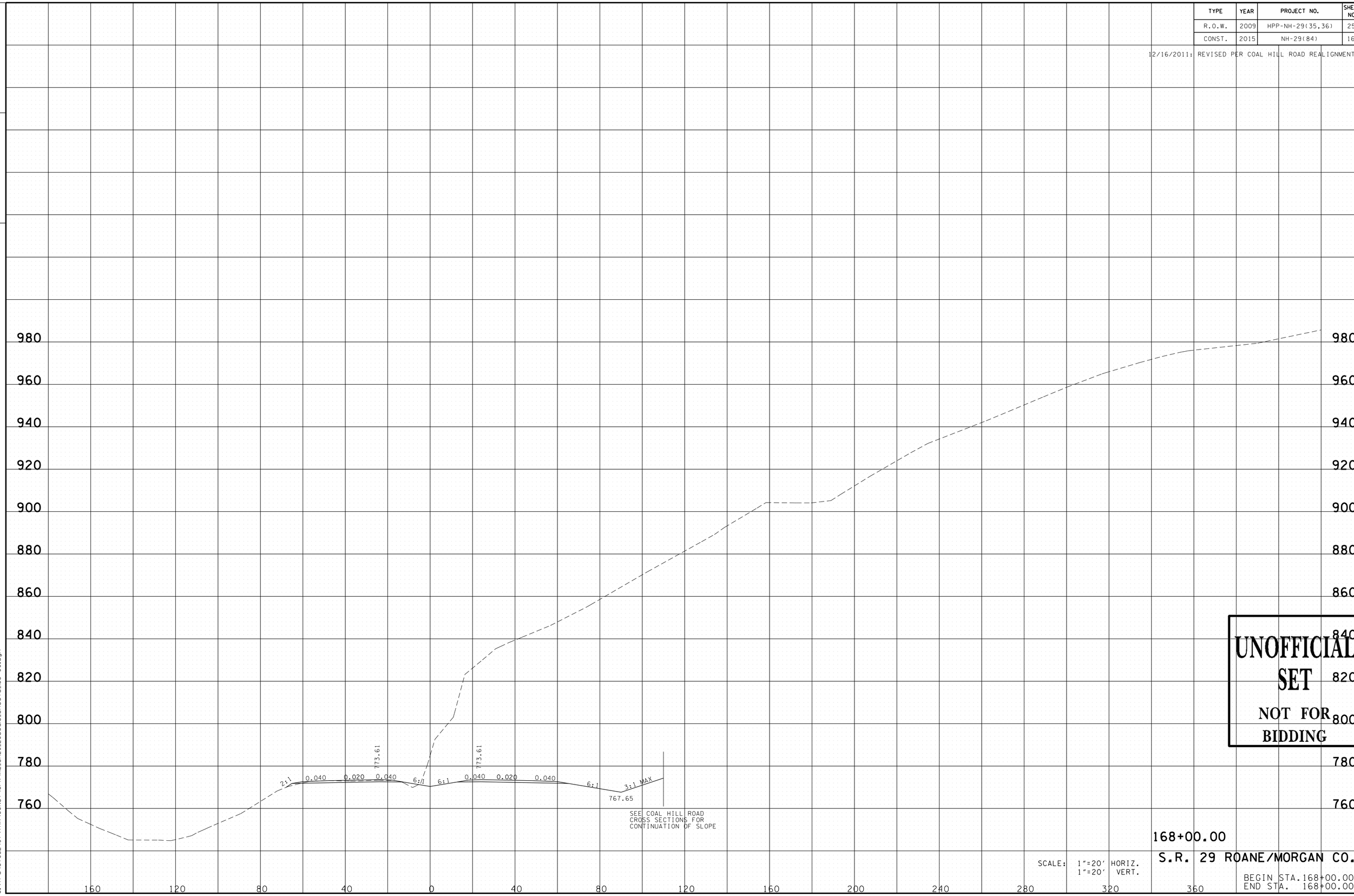
11/24/2014 12:23:12 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	253
CONST.	2015	NH-29(84)	160

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

168+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 168+00.00
END STA. 168+00.00

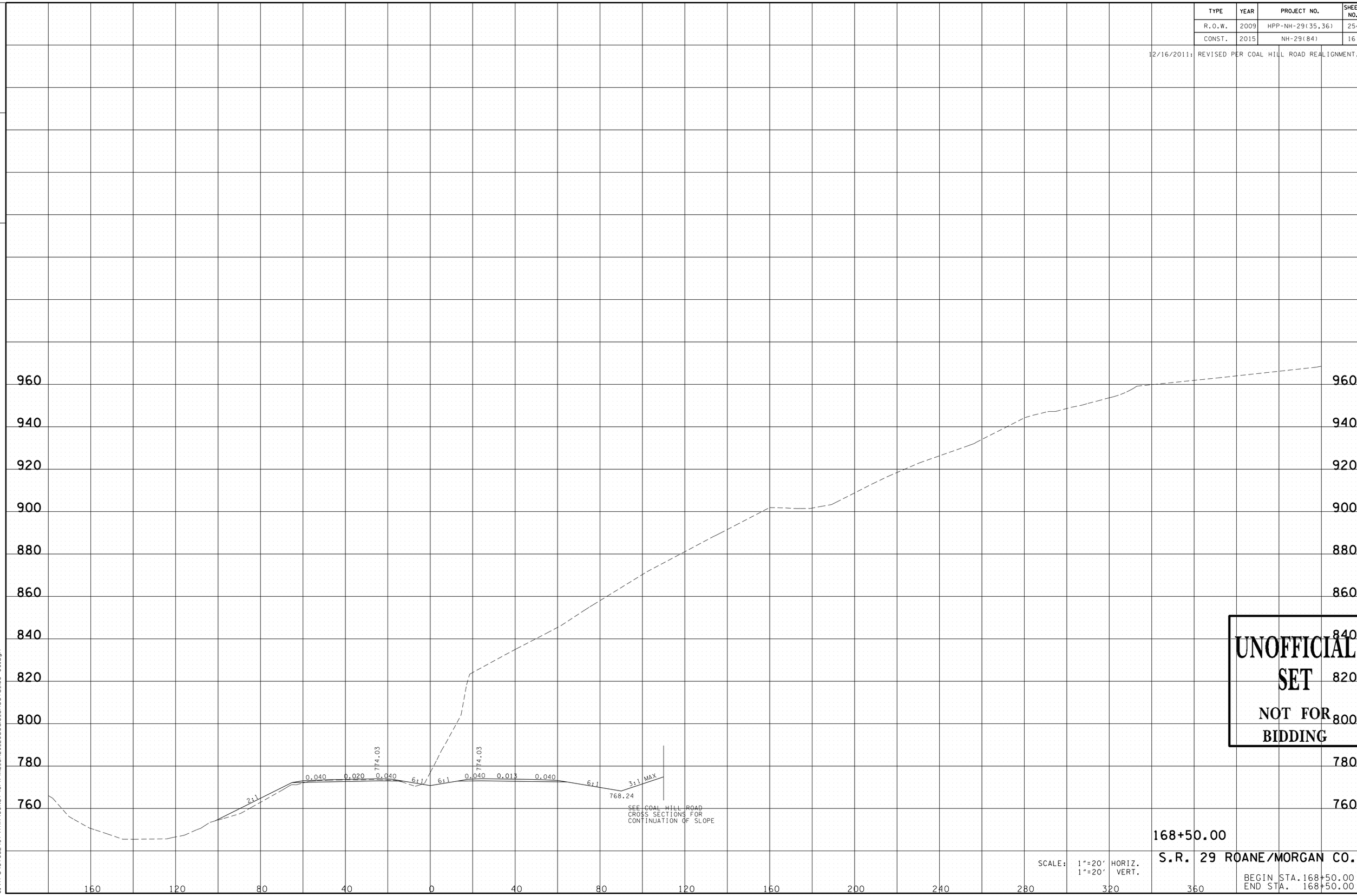
11/24/2014 12:23:13 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	254
CONST.	2015	NH-29(84)	161

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

168+50.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 168+50.00
END STA. 168+50.00

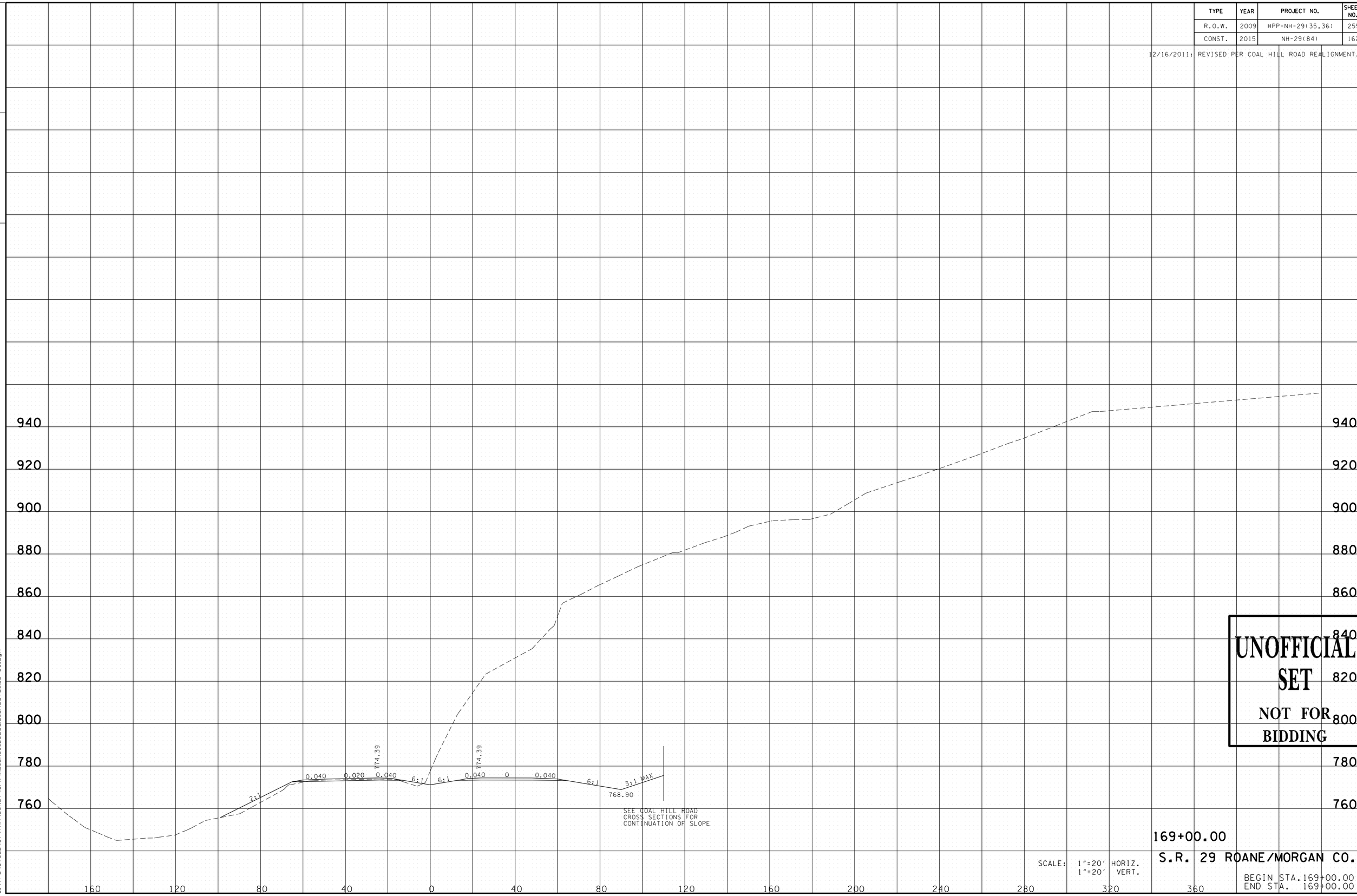
11/24/2014 12:23:13 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	255
CONST.	2015	NH-29(84)	162

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

169+00.00

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 169+00.00
END STA. 169+00.00

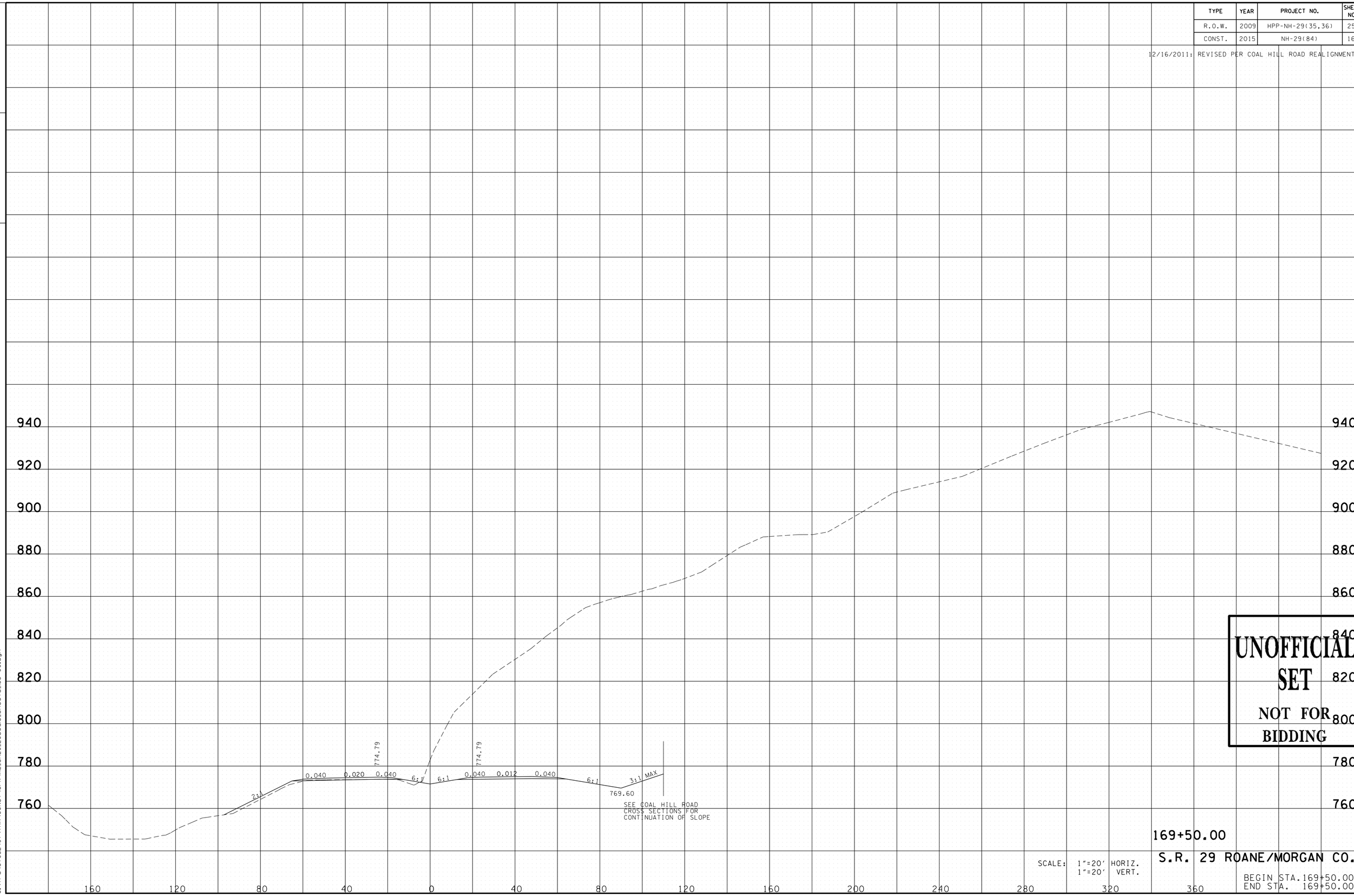
11/24/2014 12:23:14 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	256
CONST.	2015	NH-29(84)	163

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

169+50.00

S.R. 29 ROANE/MORGAN CO.

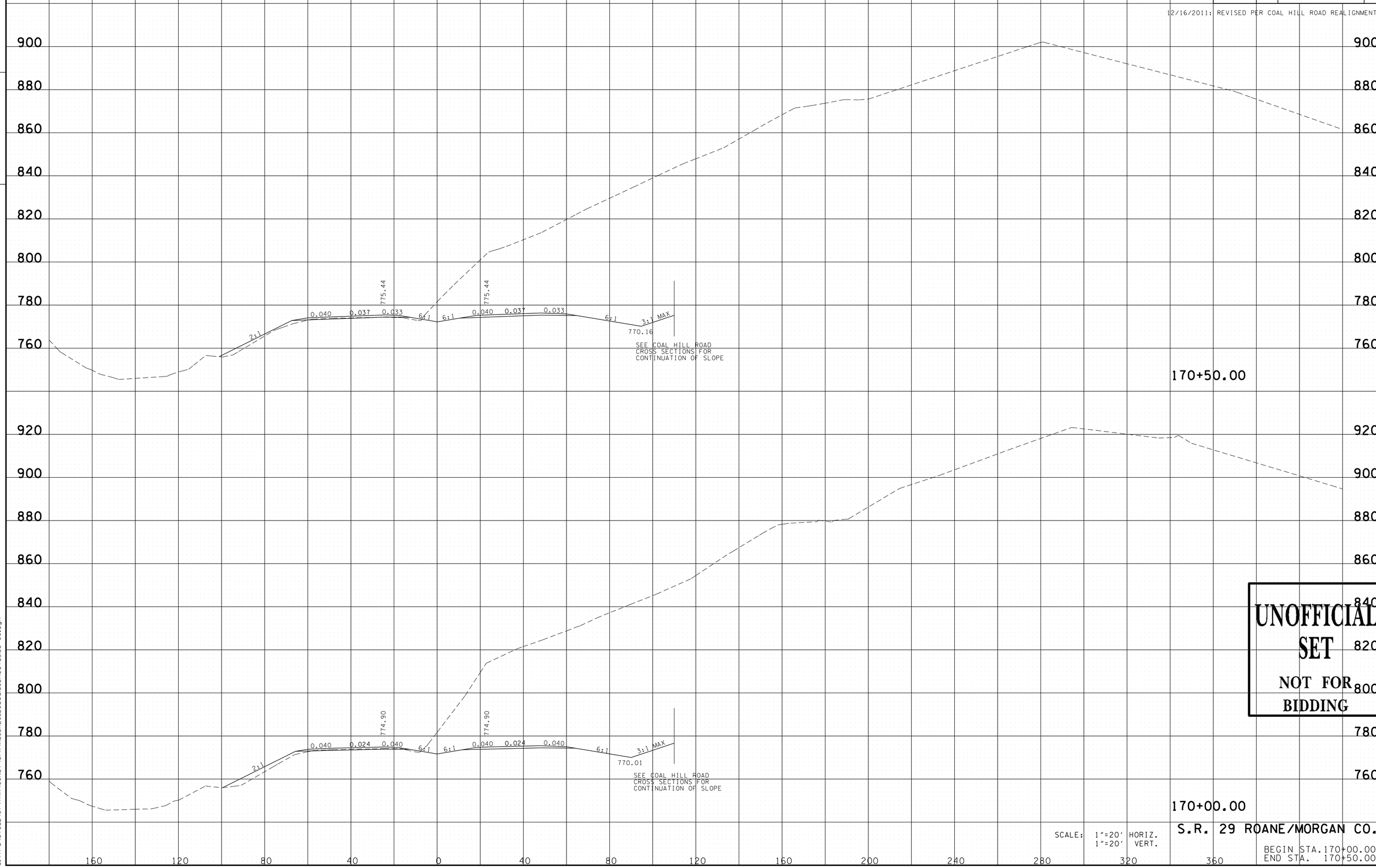
SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA.169+50.00
END STA. 169+50.00

11/24/2014 12:23:14 PM
G:\trg\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_158+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	257
CONST.	2015	NH-29(84)	164

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 170+00.00
END STA. 170+50.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

11/24/2014 12:23:14 PM
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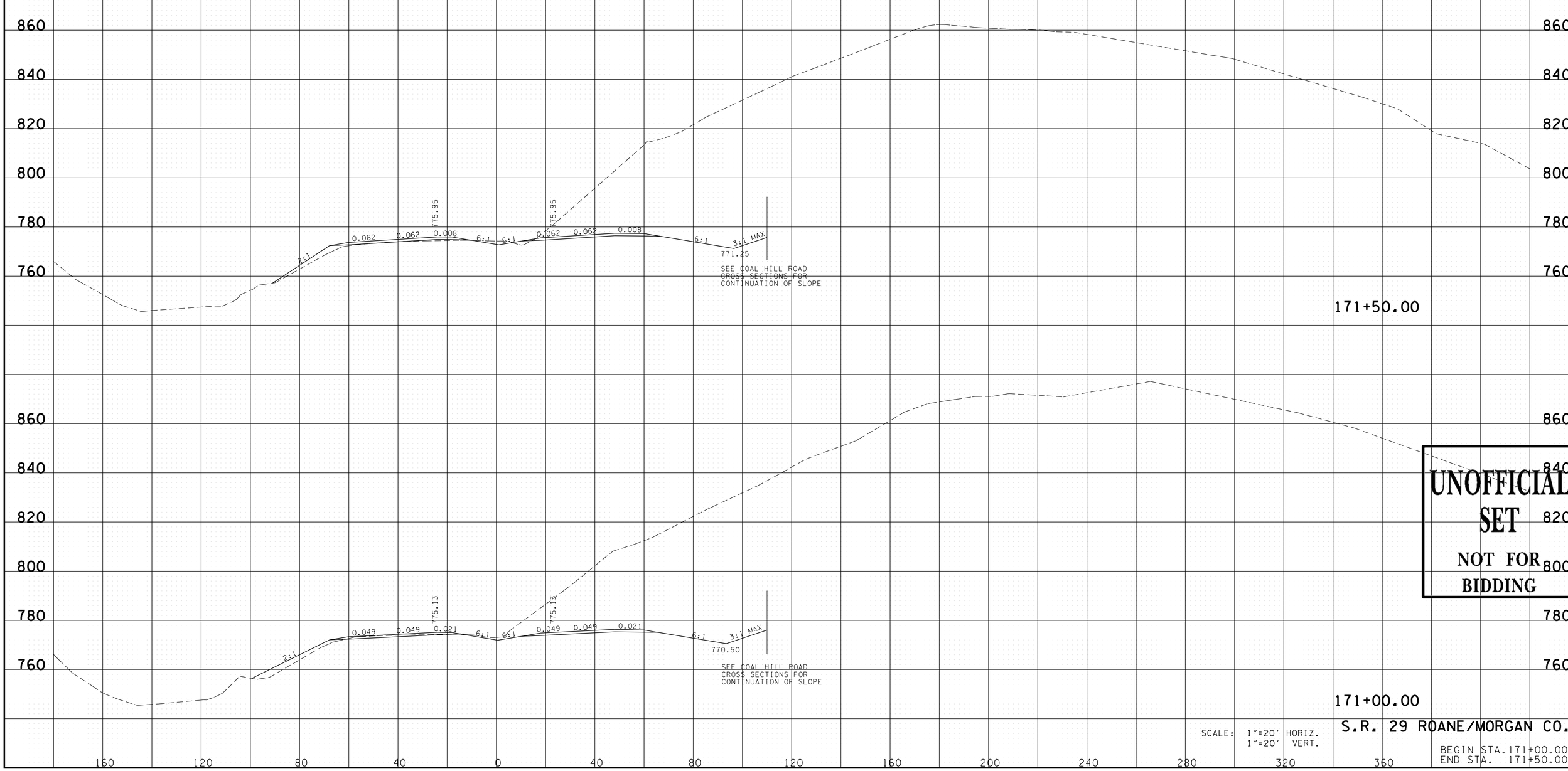
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	258
CONST.	2015	NH-29(84)	165

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.171+00.00
END STA. 171+50.00

11/24/2014 12:23:15 PM
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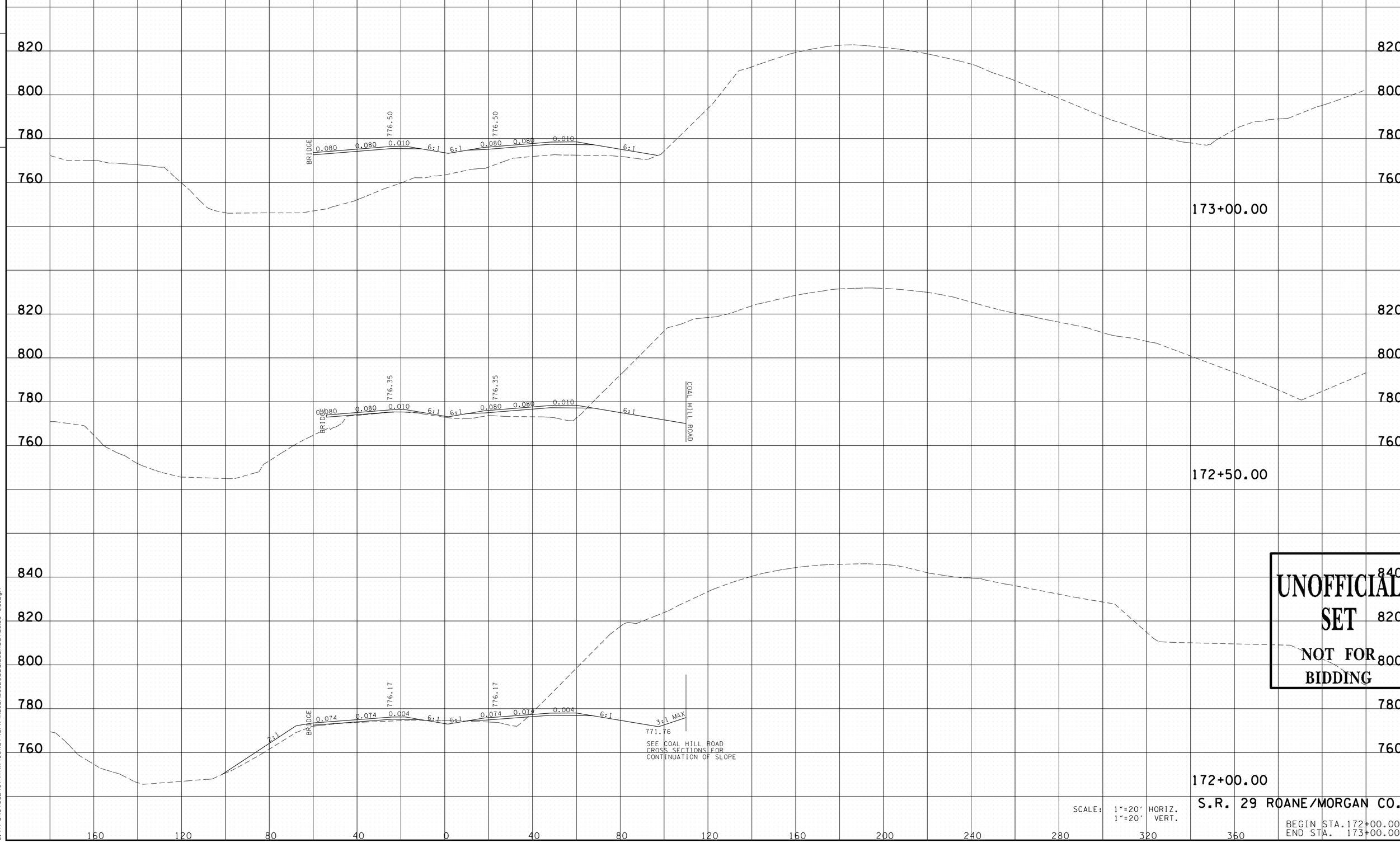
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	259
CONST.	2015	NH-29(84)	166

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 172+00.00
END STA. 173+00.00

11/24/2014 12:23:15 PM
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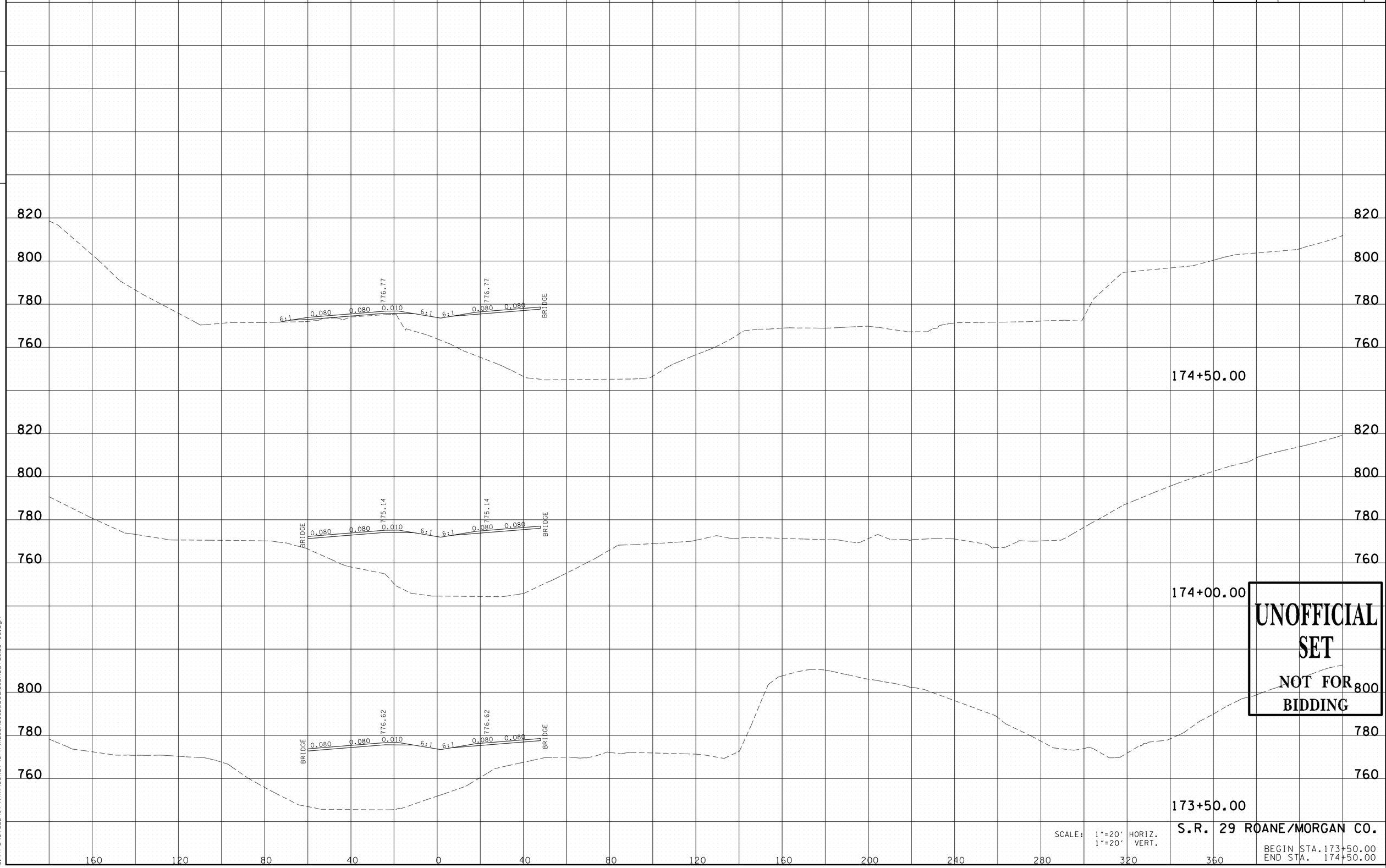
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	260
CONST.	2015	NH-29(84)	167

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 173+50.00
END STA. 174+50.00

11/24/2014 12:23:16 PM
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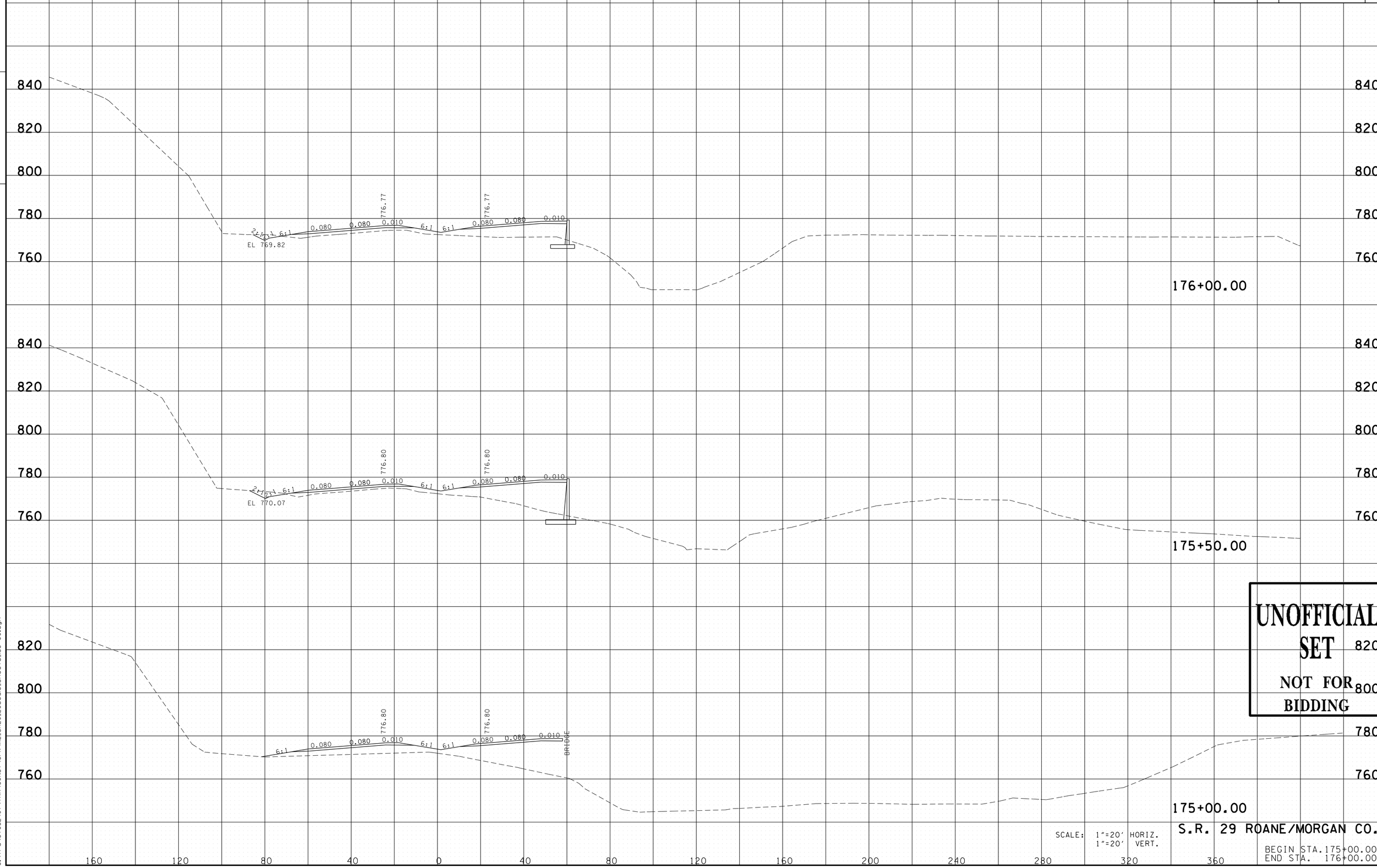
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	261
CONST.	2015	NH-29(84)	168

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 175+00.00
END STA. 176+00.00

11/24/2014 12:23:16 PM
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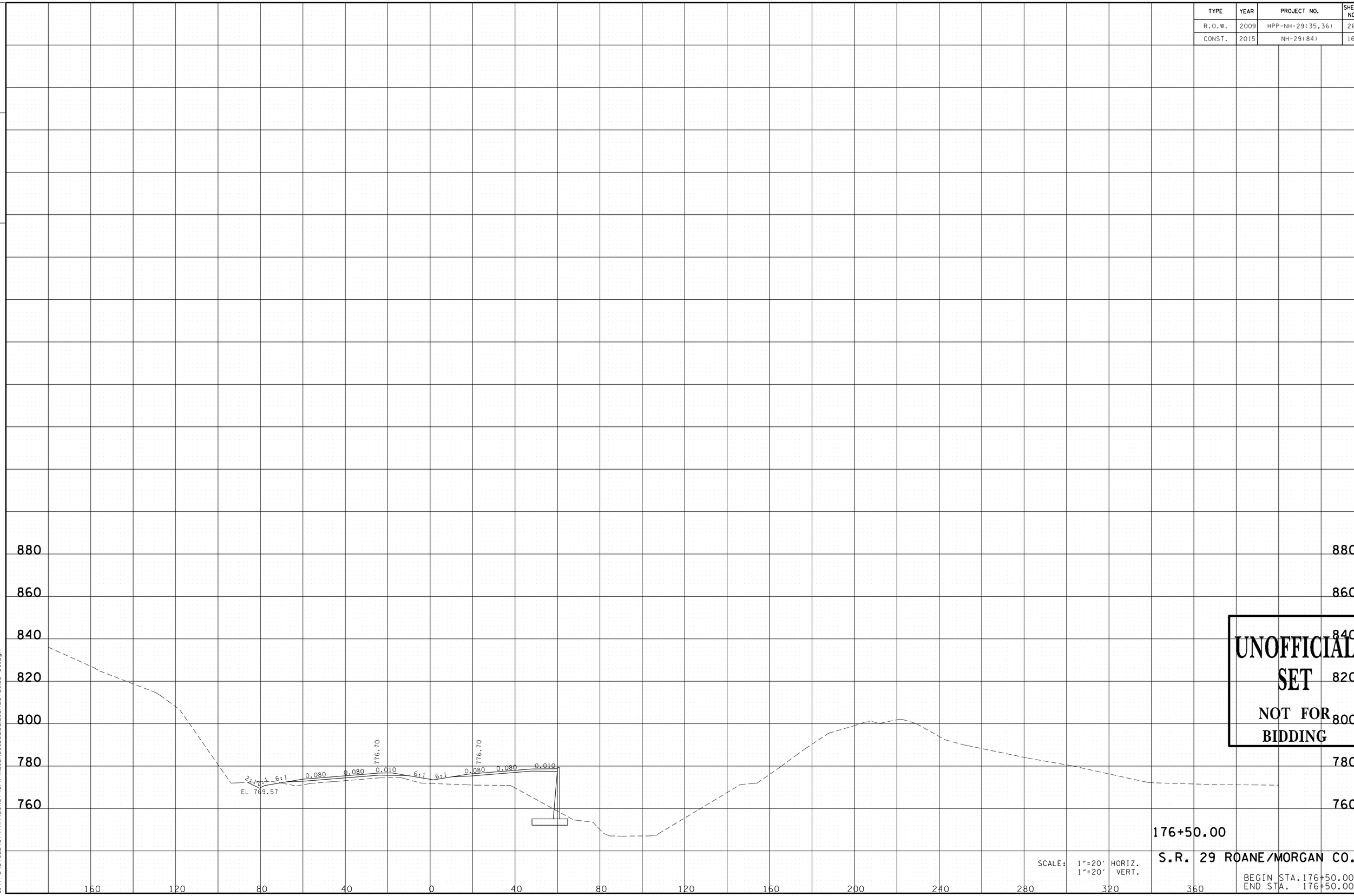
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	262
CONST.	2015	NH-29(84)	169

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

176+50.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 176+50.00
END STA. 176+50.00

11/24/2014 12:23:16 PM
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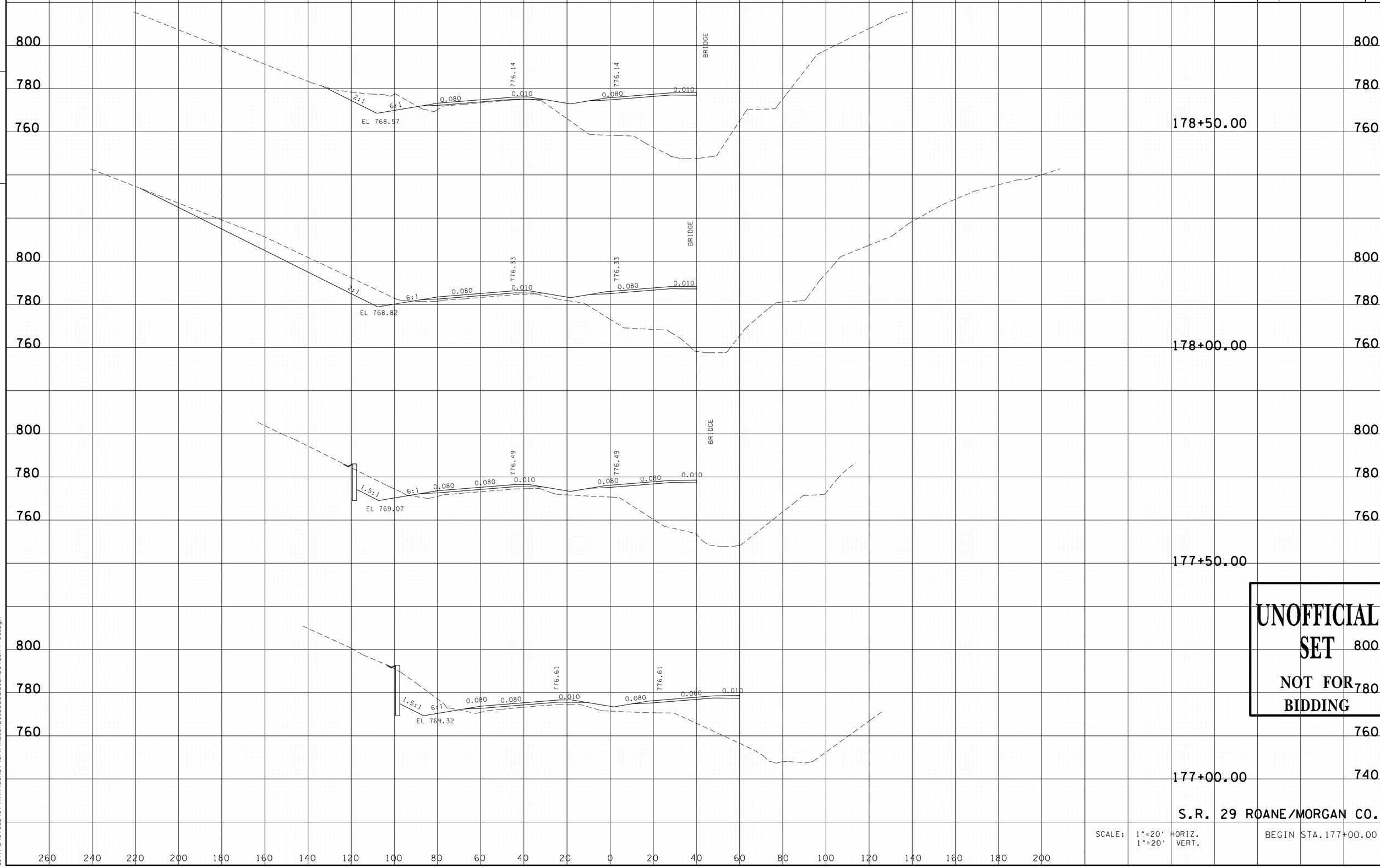
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	263
CONST.	2015	NH-29(84)	170

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

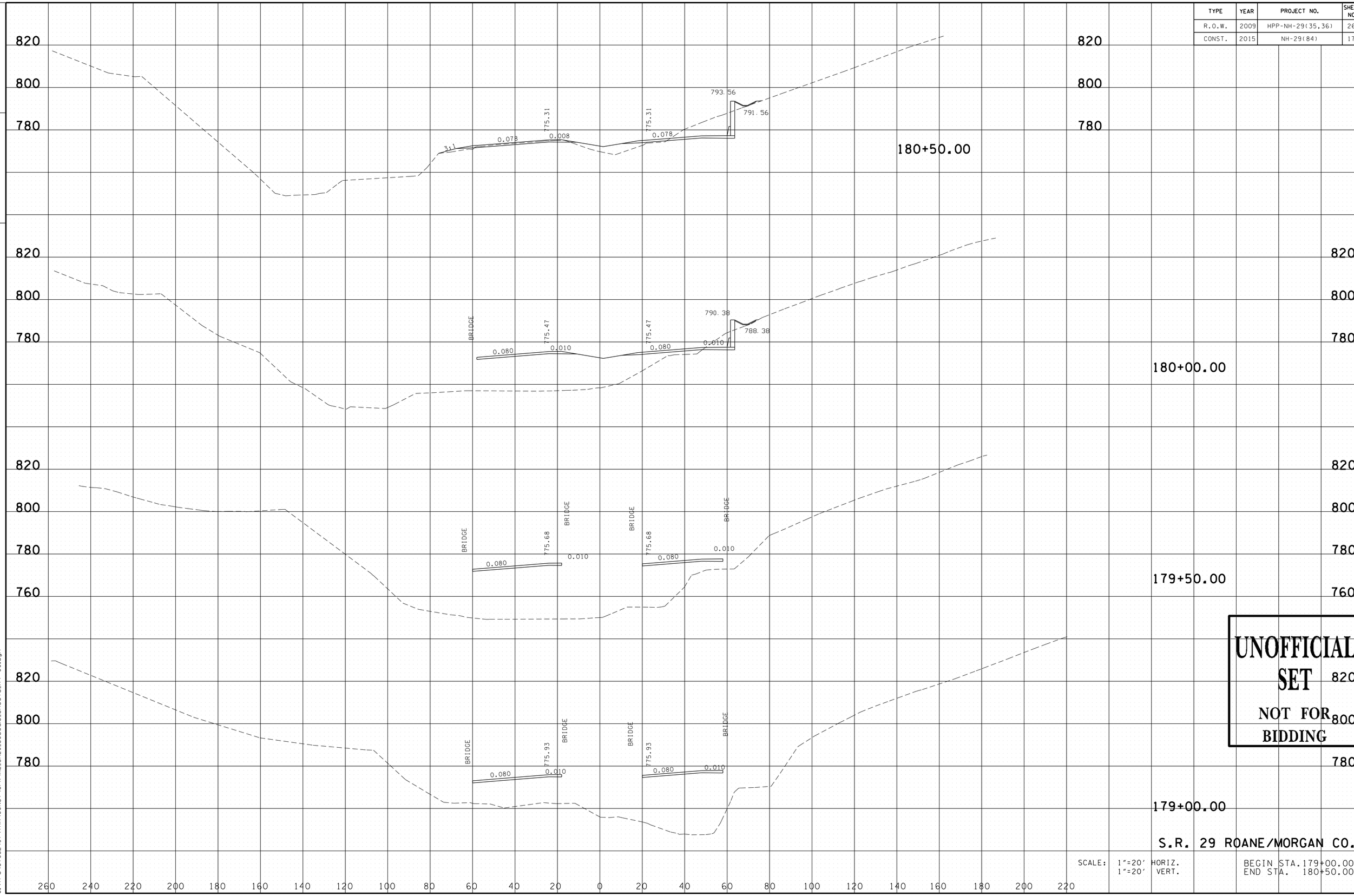
S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA.177+00.00

11/24/2014 12:23:17 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29.50scale_Sheets_177+00.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	264
CONST.	2015	NH-29(84)	171



UNOFFICIAL SET
NOT FOR BIDDING

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA. 179+00.00
END STA. 180+50.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

11/24/2014 12:23:17 PM
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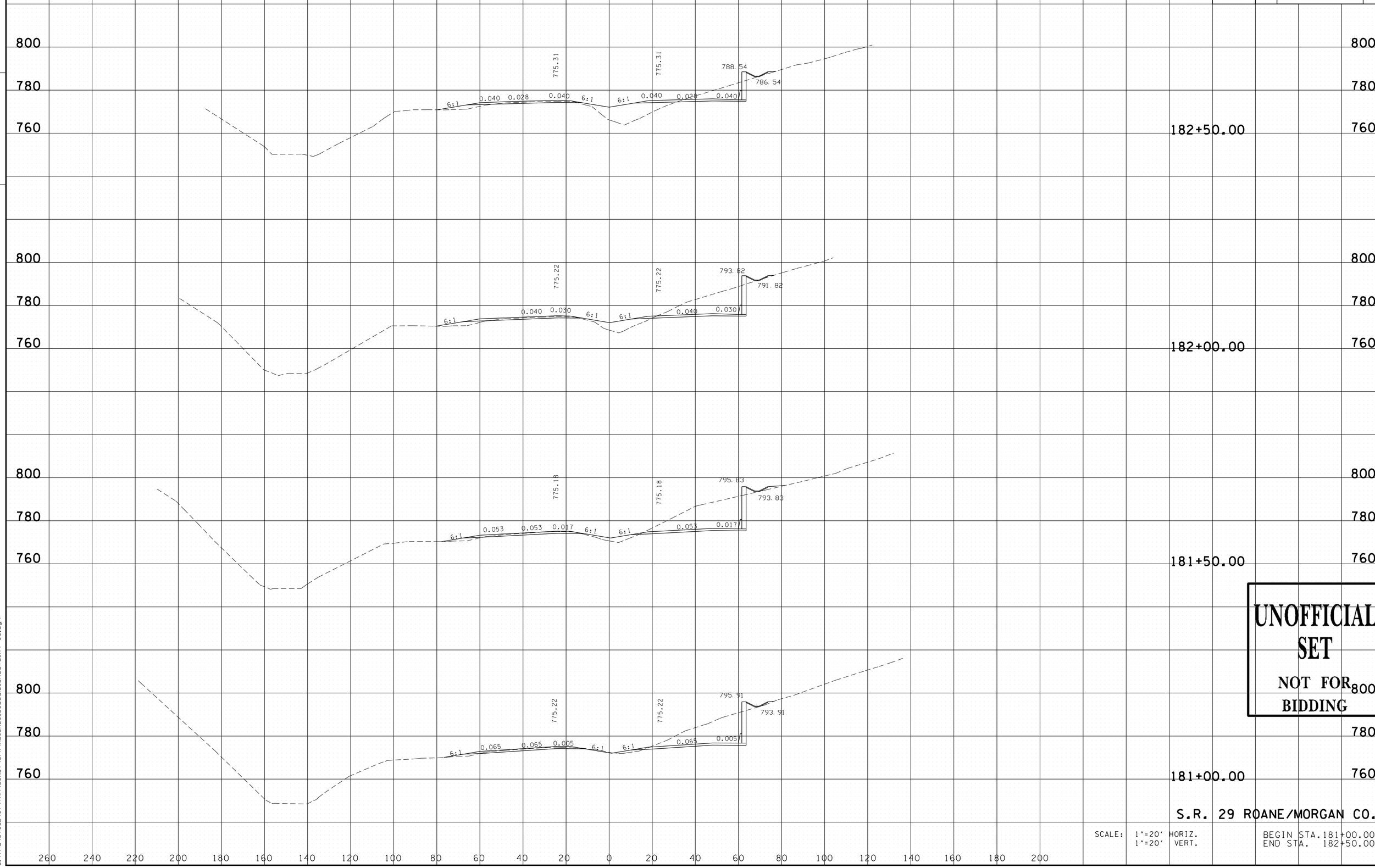
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	265
CONST.	2015	NH-29(84)	172



UNOFFICIAL SET

NOT FOR BIDDING

S.R. 29 ROANE/MORGAN CO.

SCALE: 1"=20' HORIZ.
1"=20' VERT.

BEGIN STA.181+00.00
END STA. 182+50.00

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

11/24/2014 12:23:18 PM
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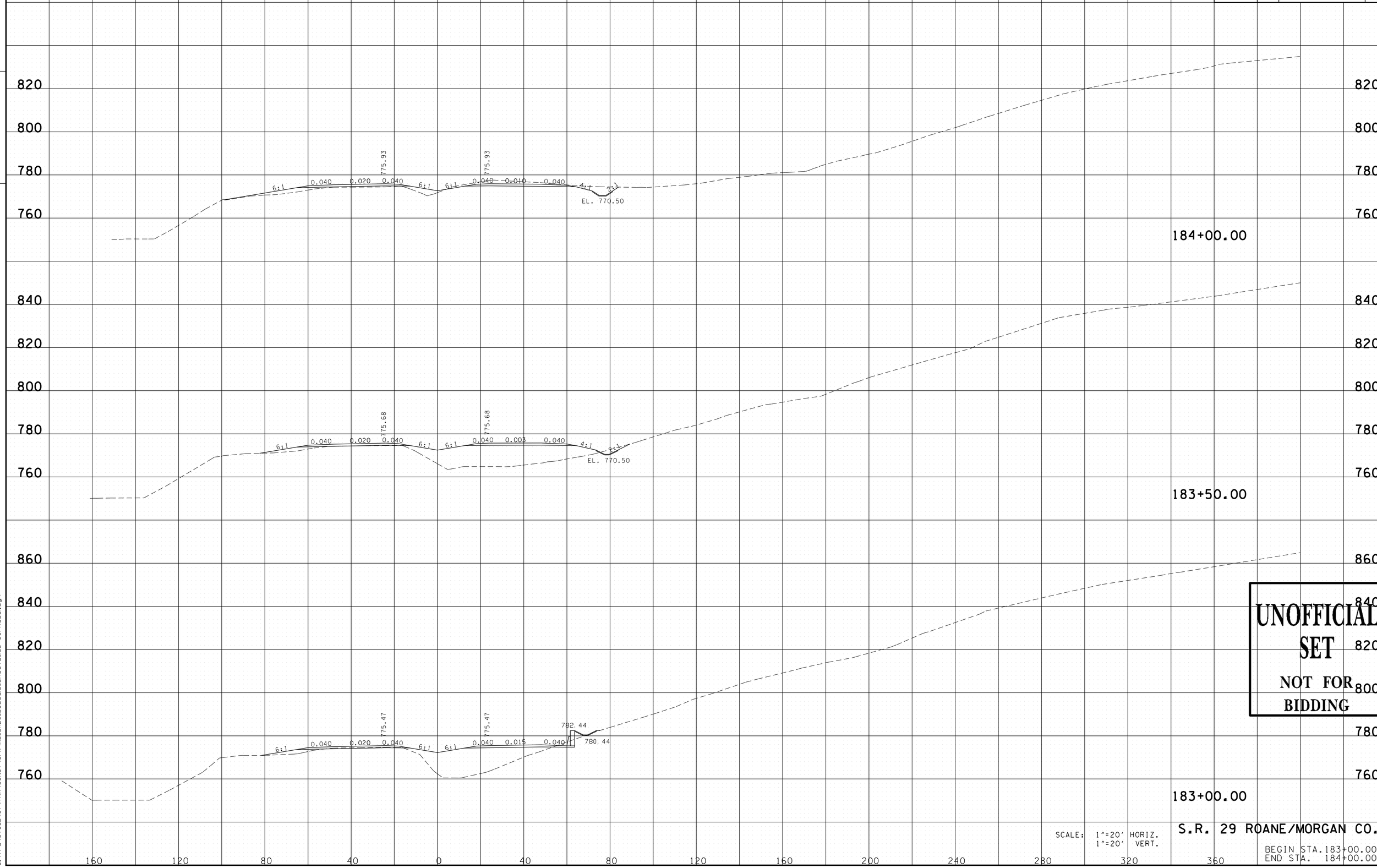
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	266
CONST.	2015	NH-29(84)	173

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 183+00.00
END STA. 184+00.00

11/24/2014 12:23:19 PM
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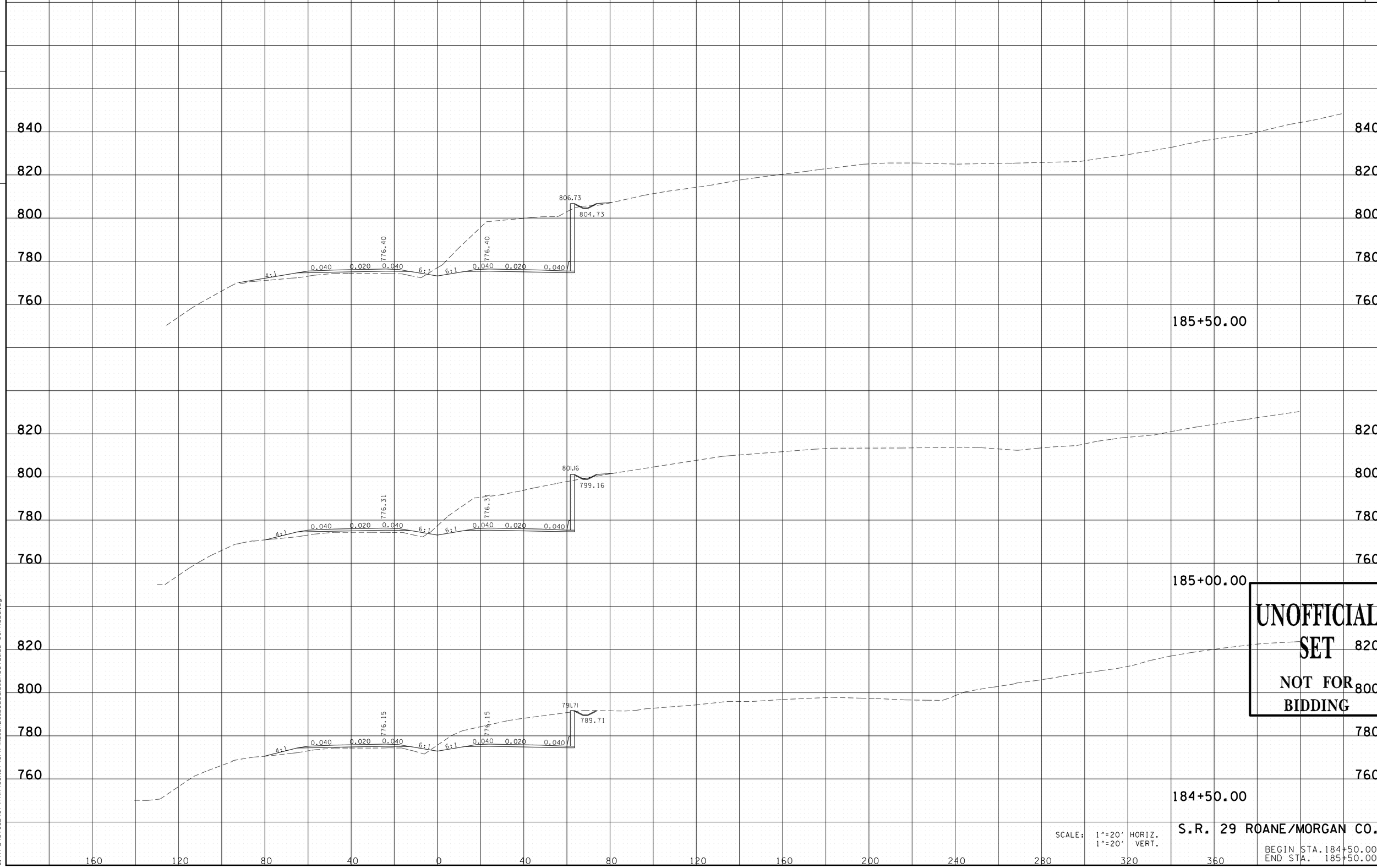
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	267
CONST.	2015	NH-29(84)	174



SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 184+50.00
END STA. 185+50.00

UNOFFICIAL SET
NOT FOR BIDDING

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

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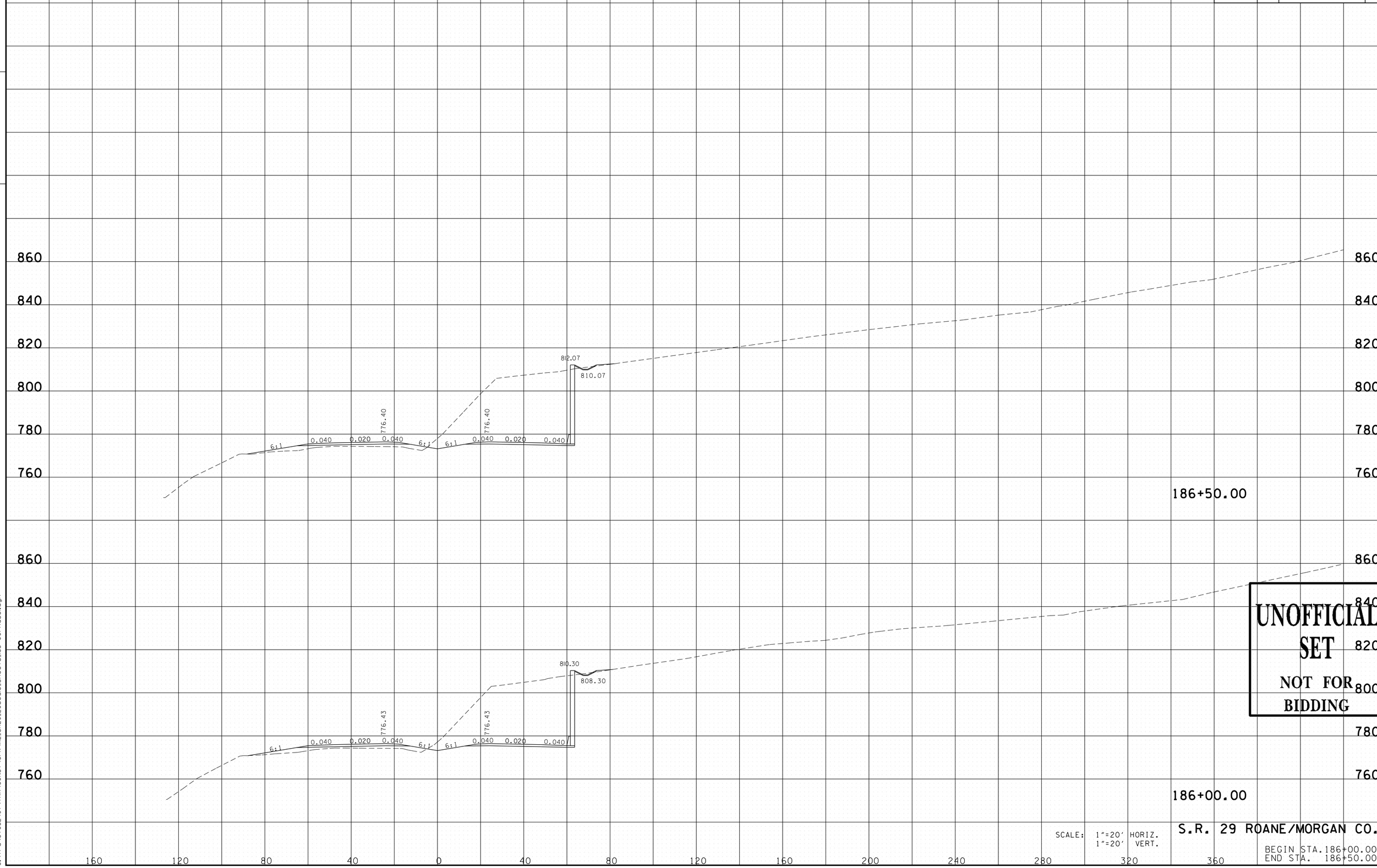
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	268
CONST.	2015	NH-29(84)	175

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.186+00.00
END STA. 186+50.00

11/24/2014 12:23:20 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	269
CONST.	2015	NH-29(84)	176

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

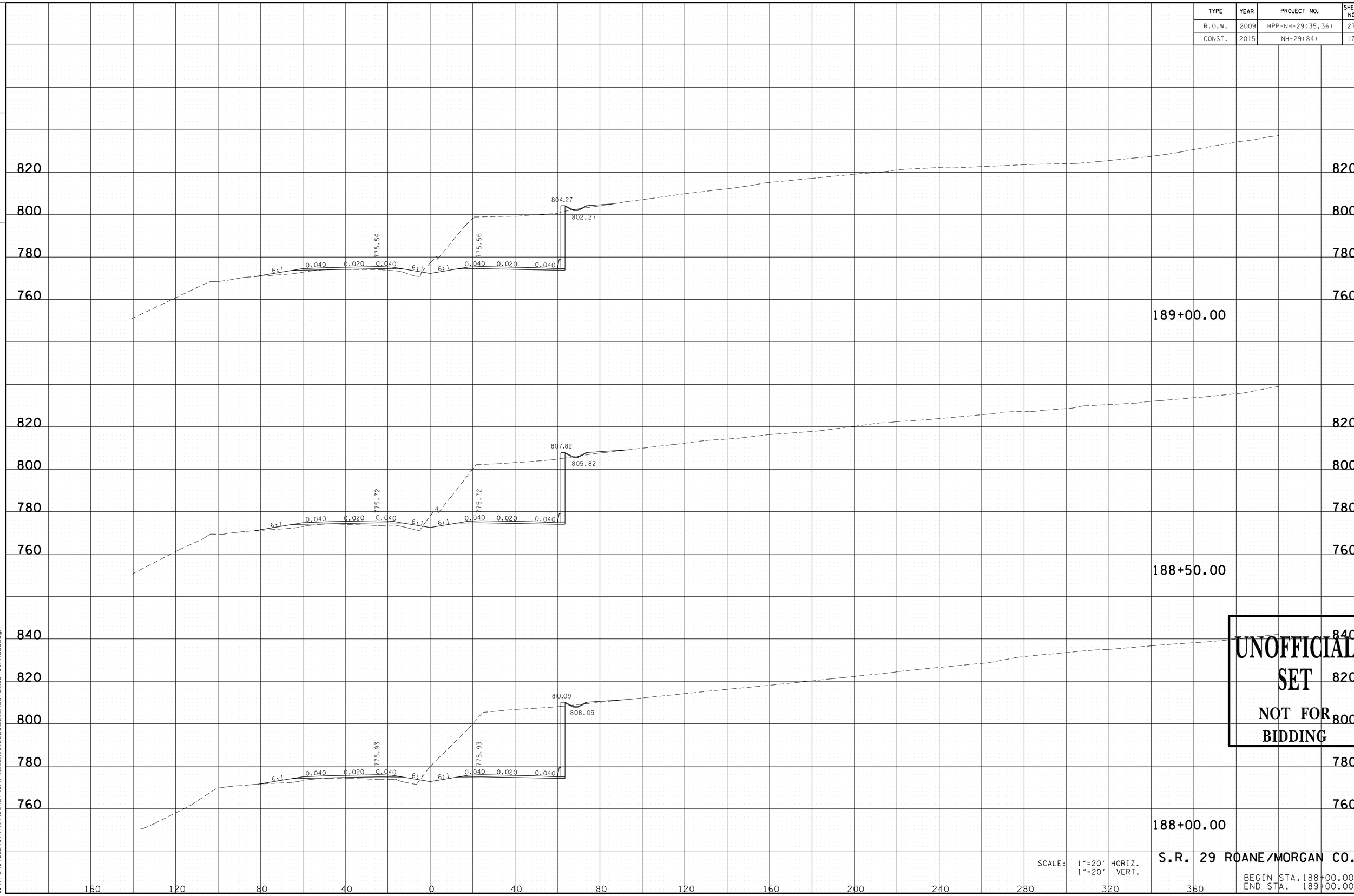
BEGIN STA.187+00.00
END STA. 187+50.00

11/24/2014 12:23:20 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	270
CONST.	2015	NH-29(84)	177

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 188+00.00
END STA. 189+00.00

11/24/2014 12:23:21PM
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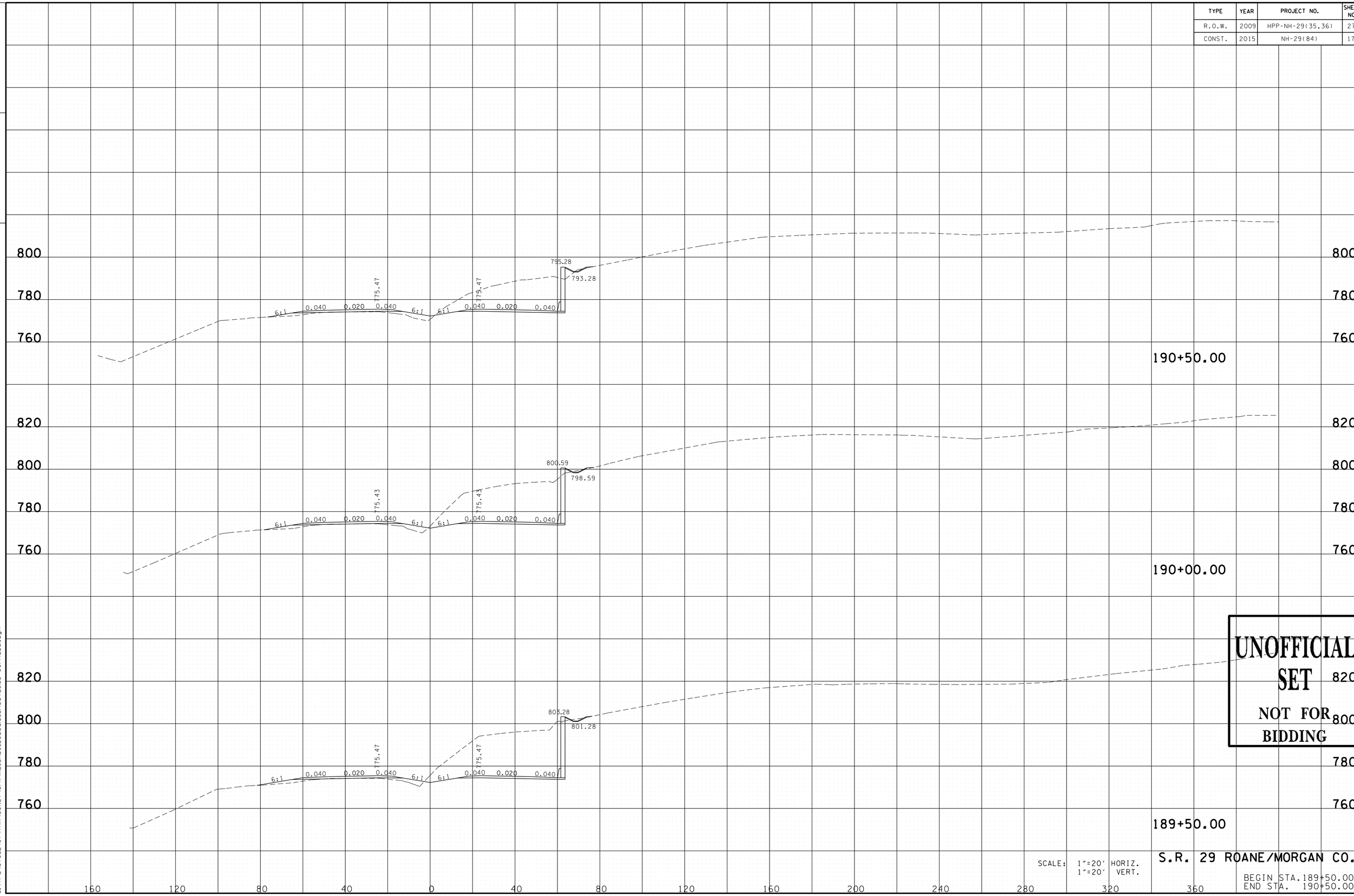
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	271
CONST.	2015	NH-29(84)	178

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.189+50.00
END STA. 190+50.00

11/24/2014 12:23:21 PM
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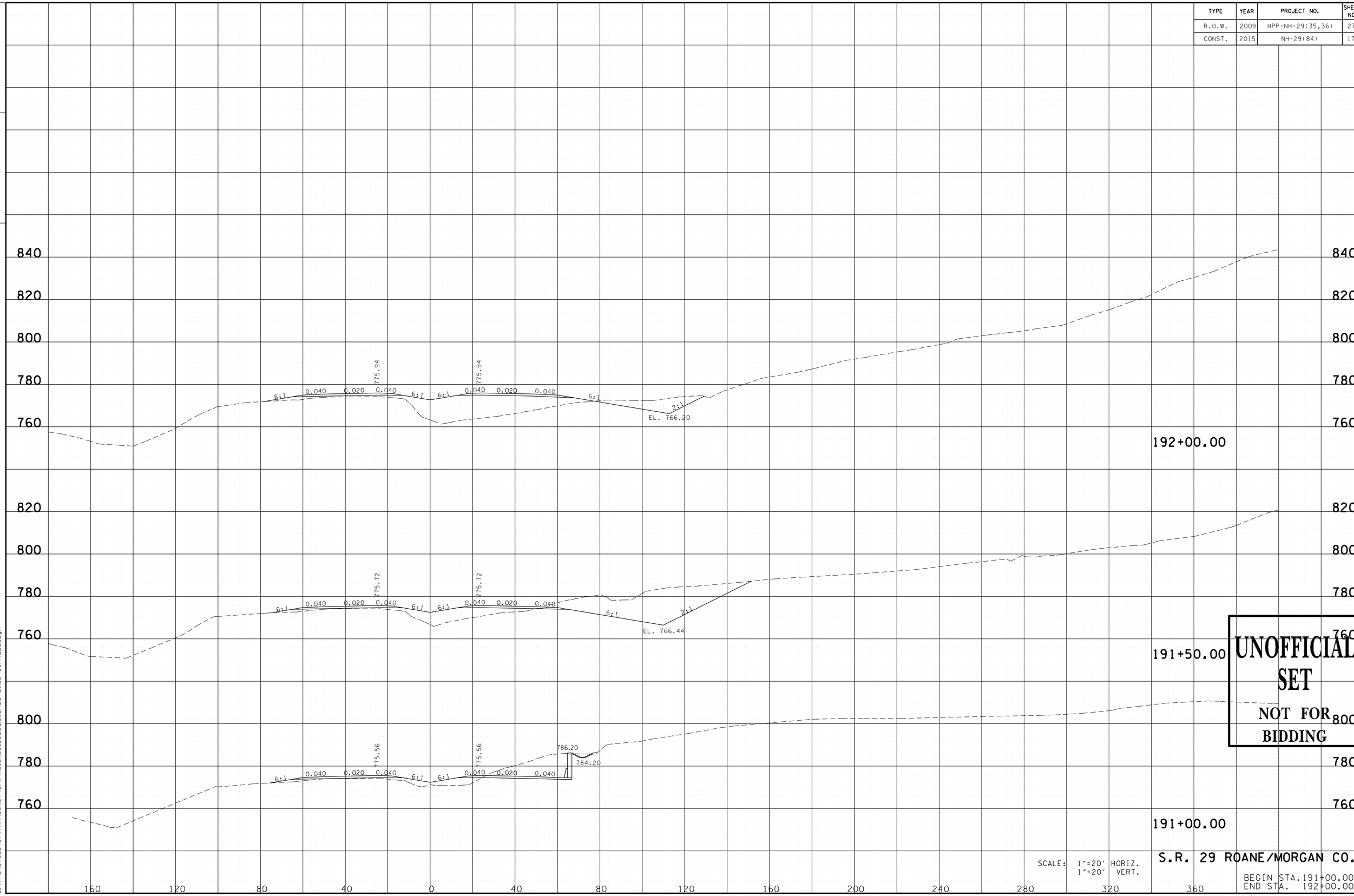
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	272
CONST.	2015	NH-29(84)	179

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

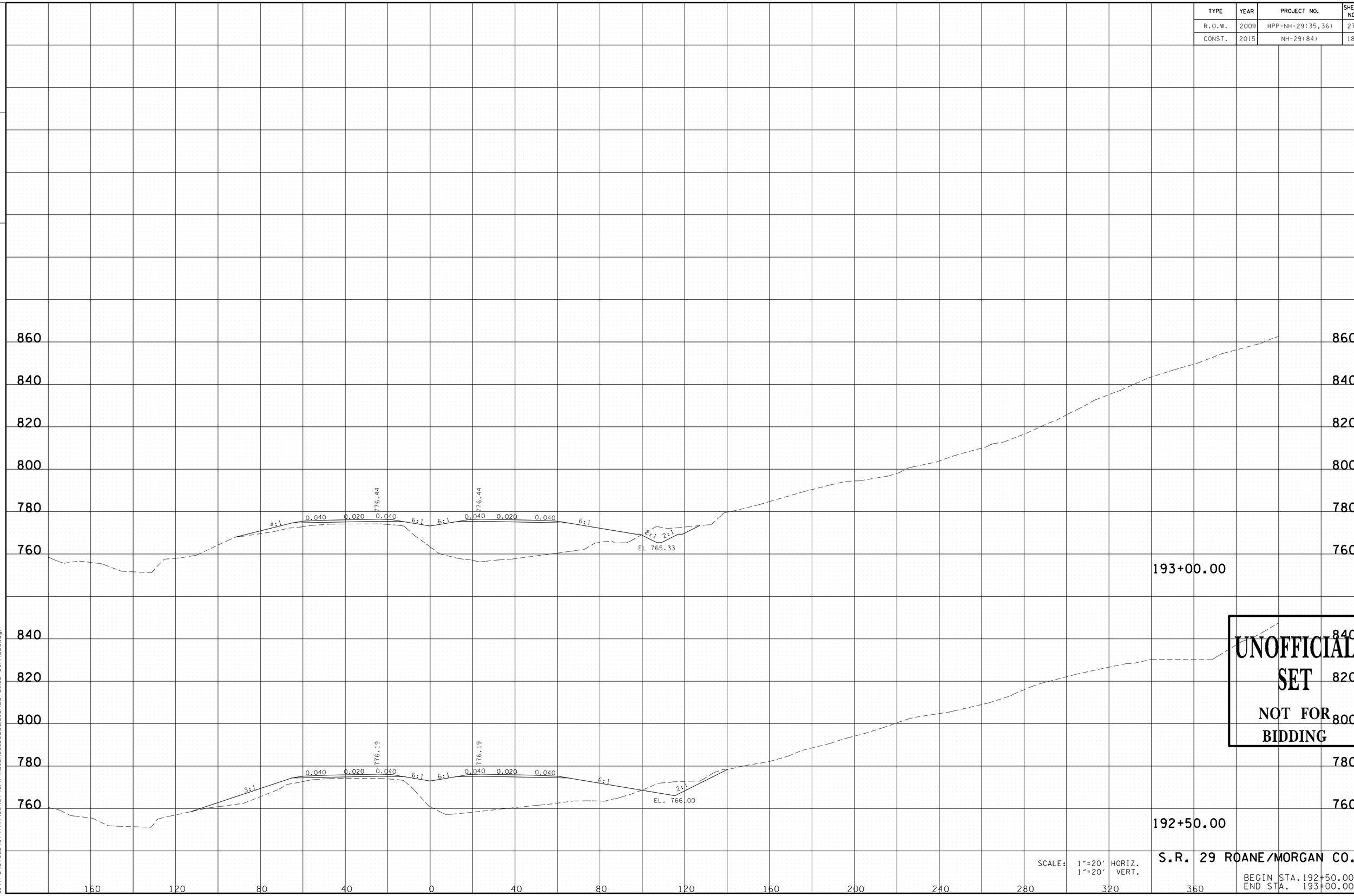
BEGIN STA. 191+00.00
END STA. 192+00.00

11/24/2014 12:23:21 PM
G:\tra\CT052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	273
CONST.	2015	NH-29(84)	180

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

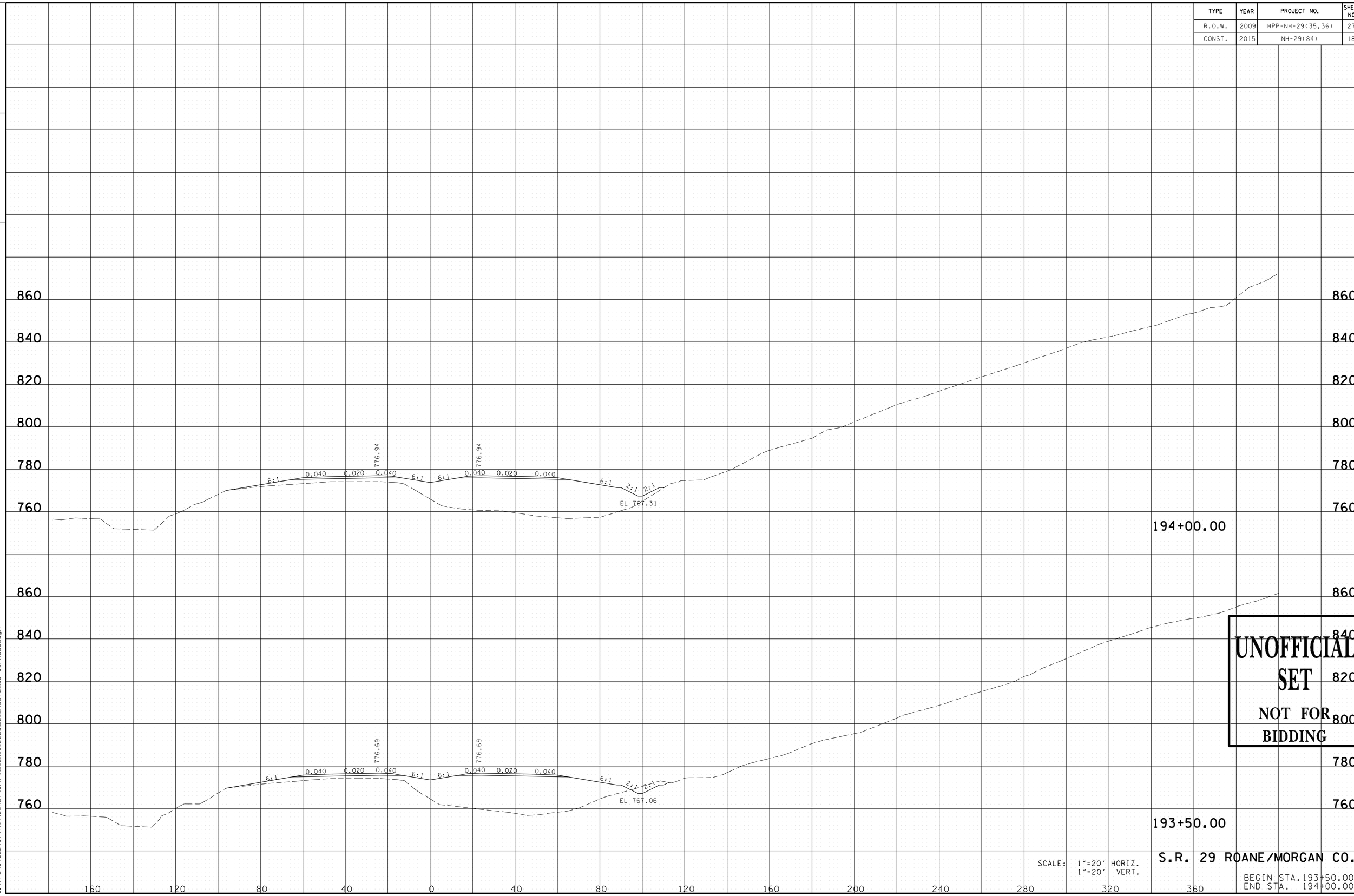
BEGIN STA.192+50.00
END STA. 193+00.00

11/24/2014 12:23:22 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	274
CONST.	2015	NH-29(84)	181

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 193+50.00
END STA. 194+00.00

11/24/2014 12:23:22 PM
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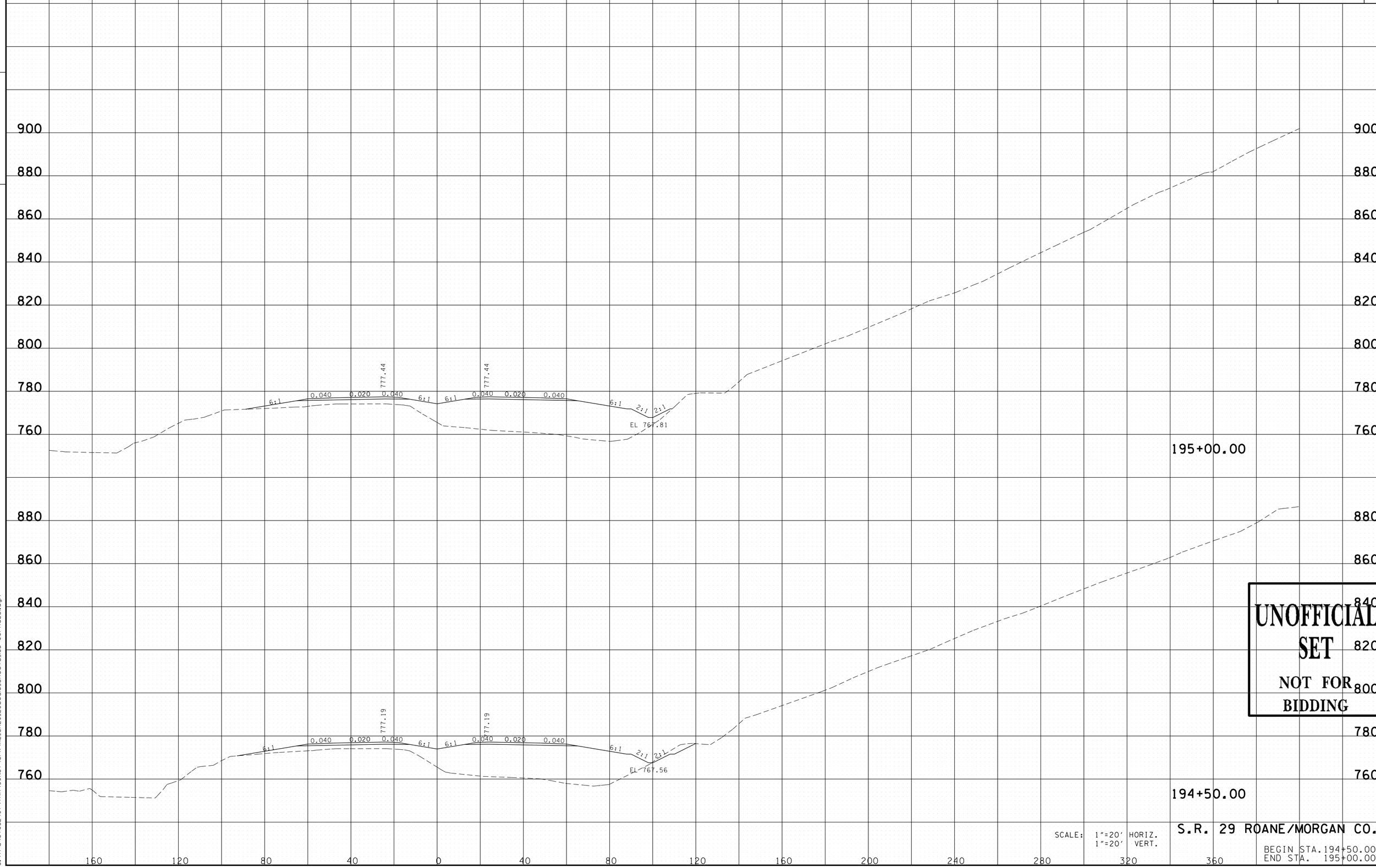
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	275
CONST.	2015	NH-29(84)	182

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 194+50.00
END STA. 195+00.00

11/24/2014 12:23:23 PM
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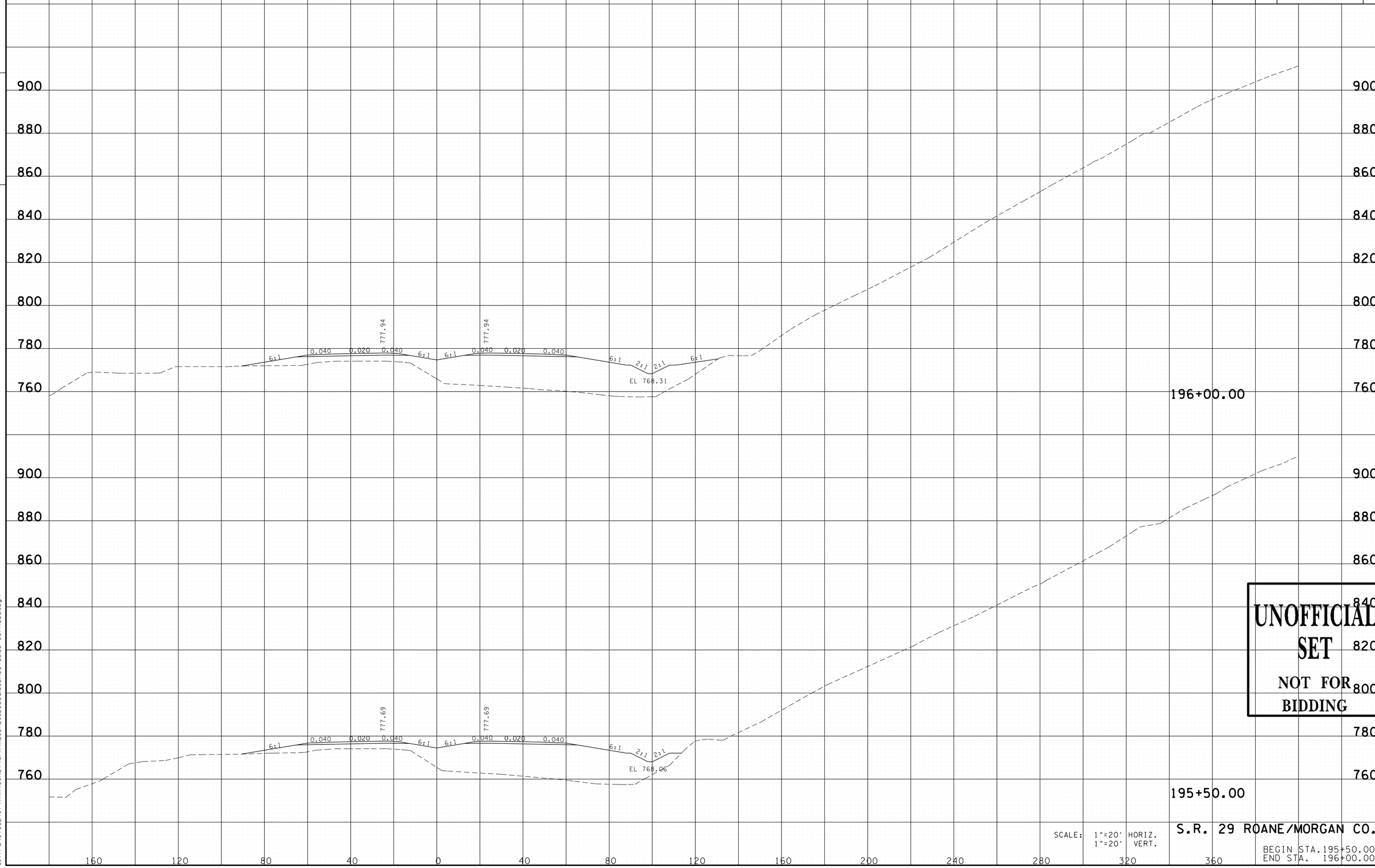
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	276
CONST.	2015	NH-29(84)	183

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.195+50.00
END STA. 196+00.00

11/24/2014 12:23:23 PM
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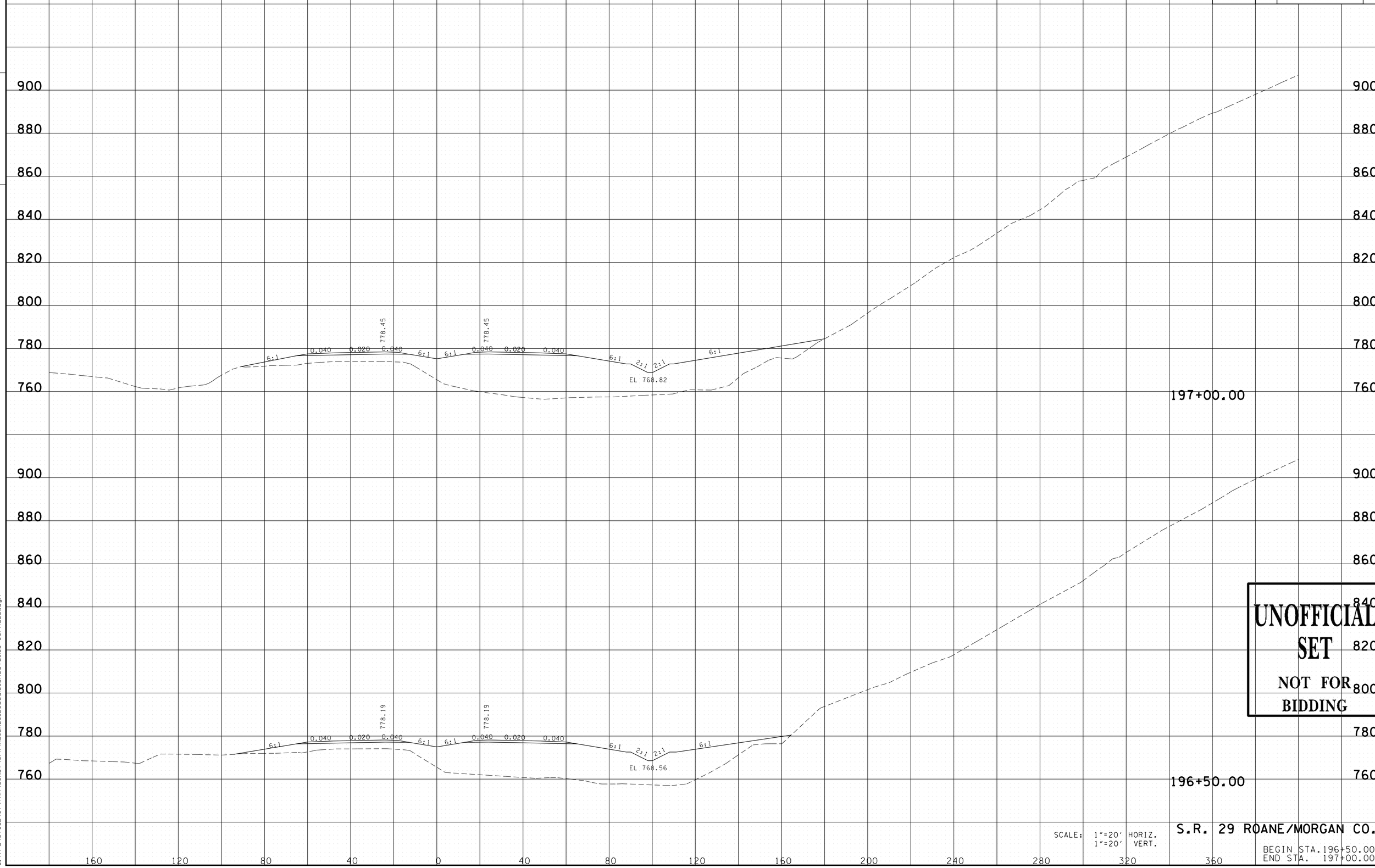
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	277
CONST.	2015	NH-29(84)	184

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.196+50.00
END STA. 197+00.00

11/24/2014 12:23:24 PM
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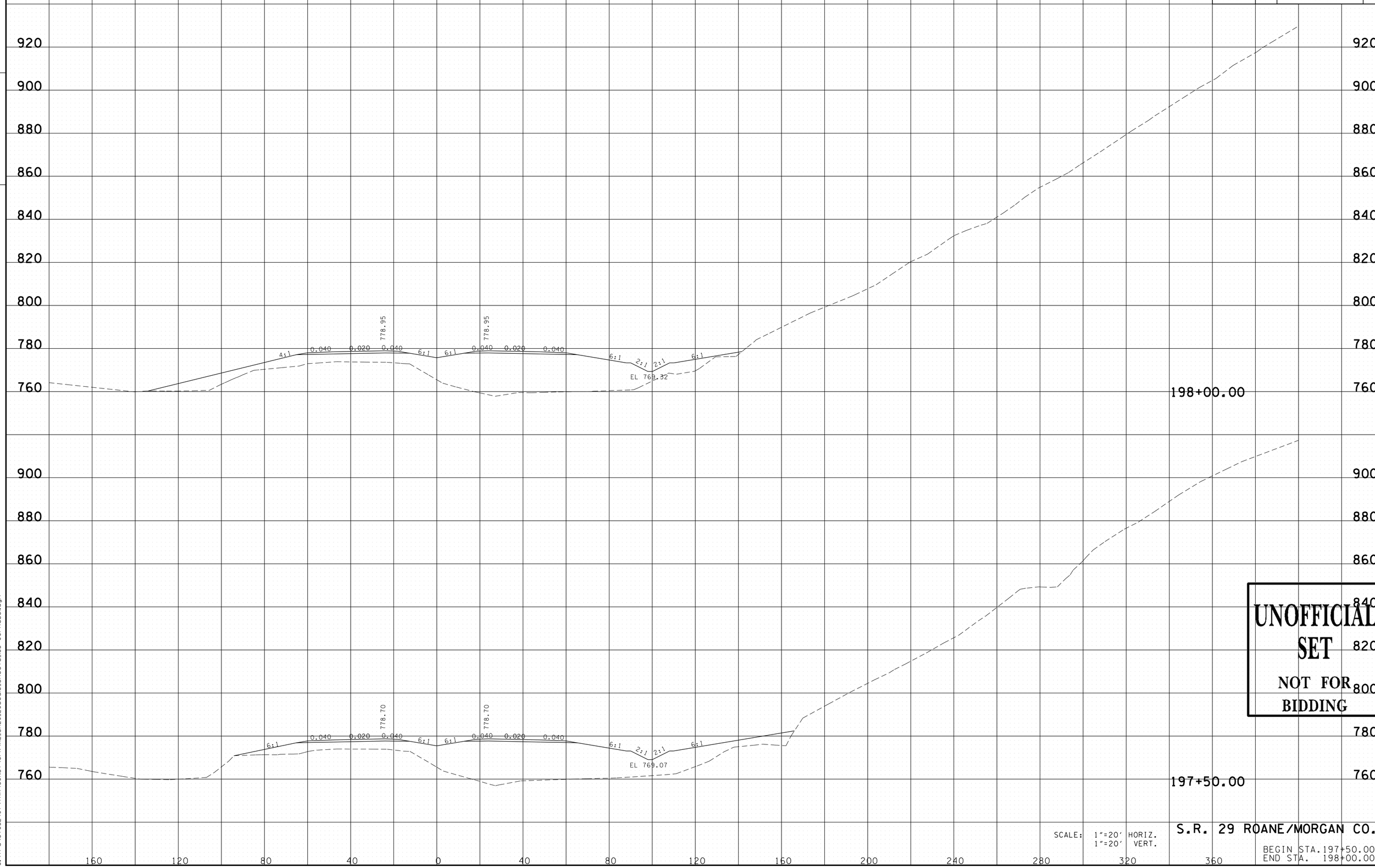
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	278
CONST.	2015	NH-29(84)	185

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 197+50.00
END STA. 198+00.00

11/24/2014 12:23:24 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	279
CONST.	2015	NH-29(84)	186

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

UNOFFICIAL SET
NOT FOR BIDDING

198+50.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

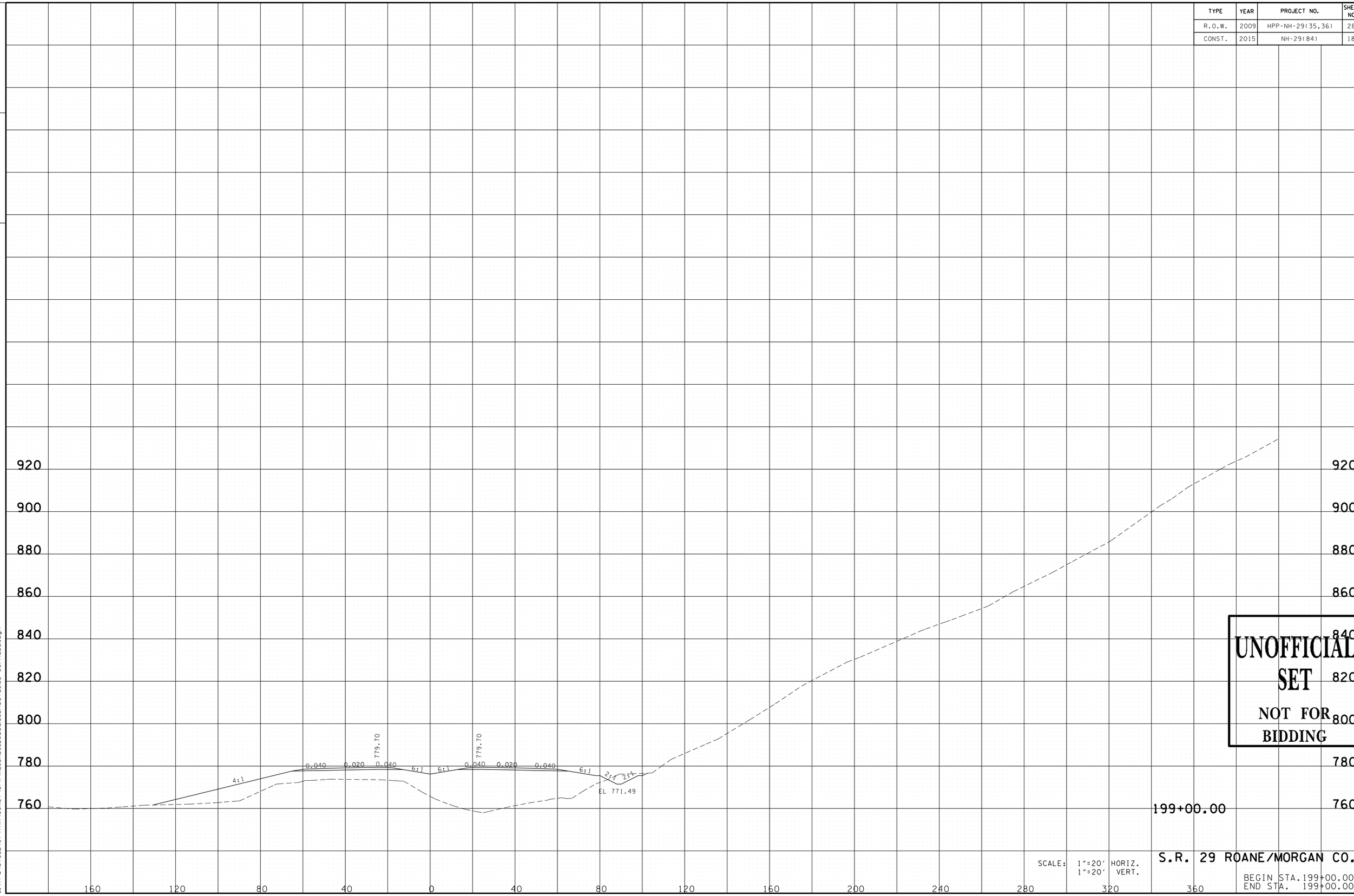
BEGIN STA. 198+50.00
END STA. 198+50.00

11/24/2014 12:23:25 PM
G:\tra\C+052497\TRA\CONST\GPK\XL_SR29.20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	280
CONST.	2015	NH-29(84)	187

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

199+00.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

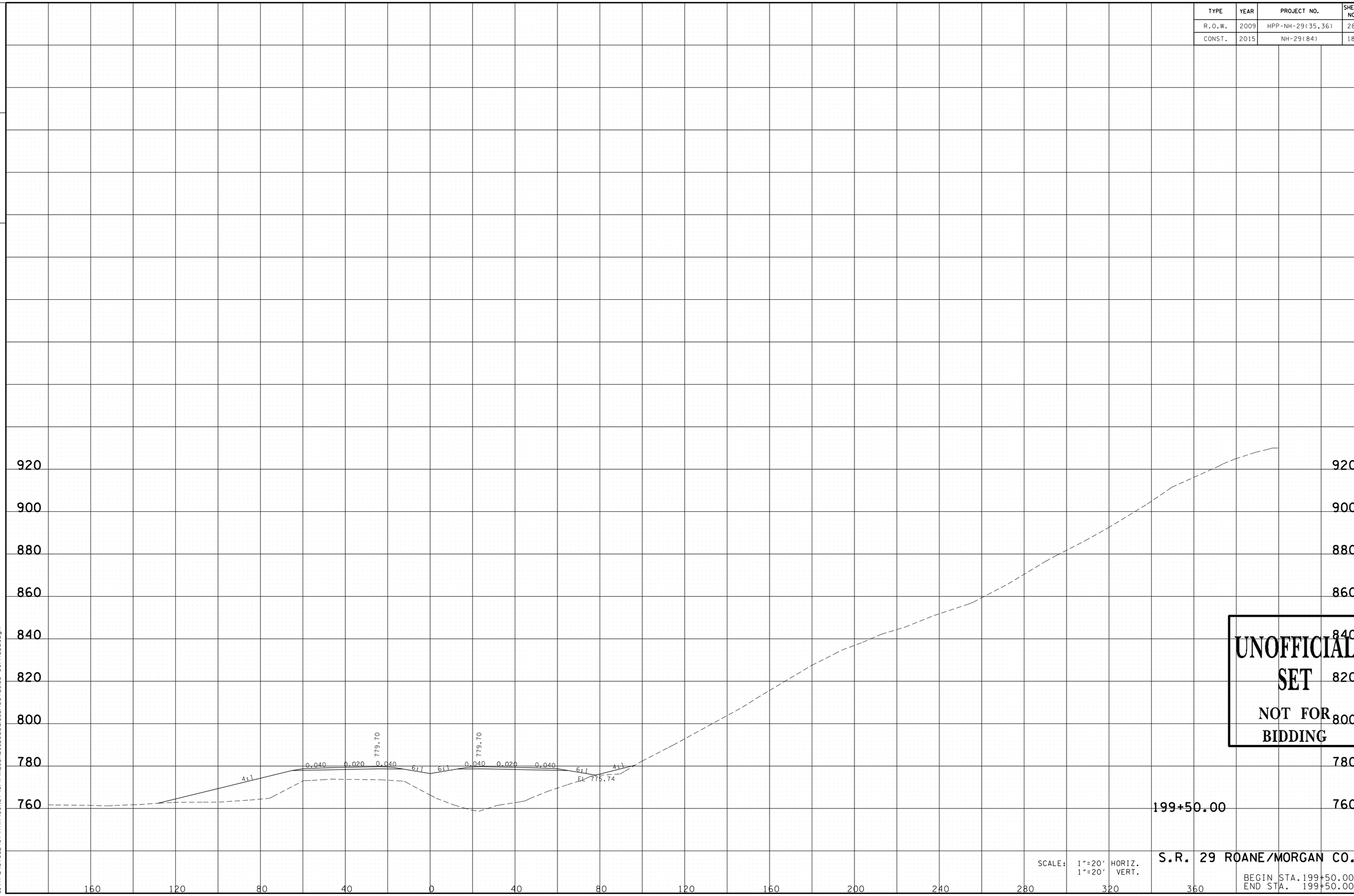
BEGIN STA. 199+00.00
END STA. 199+00.00

11/24/2014 12:23:25 PM
G:\tra\C+052497\TRA\CONST\GPK\XL_SR29.20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	281
CONST.	2015	NH-29(84)	188

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 199+50.00
END STA. 199+50.00

11/24/2014 12:23:25 PM
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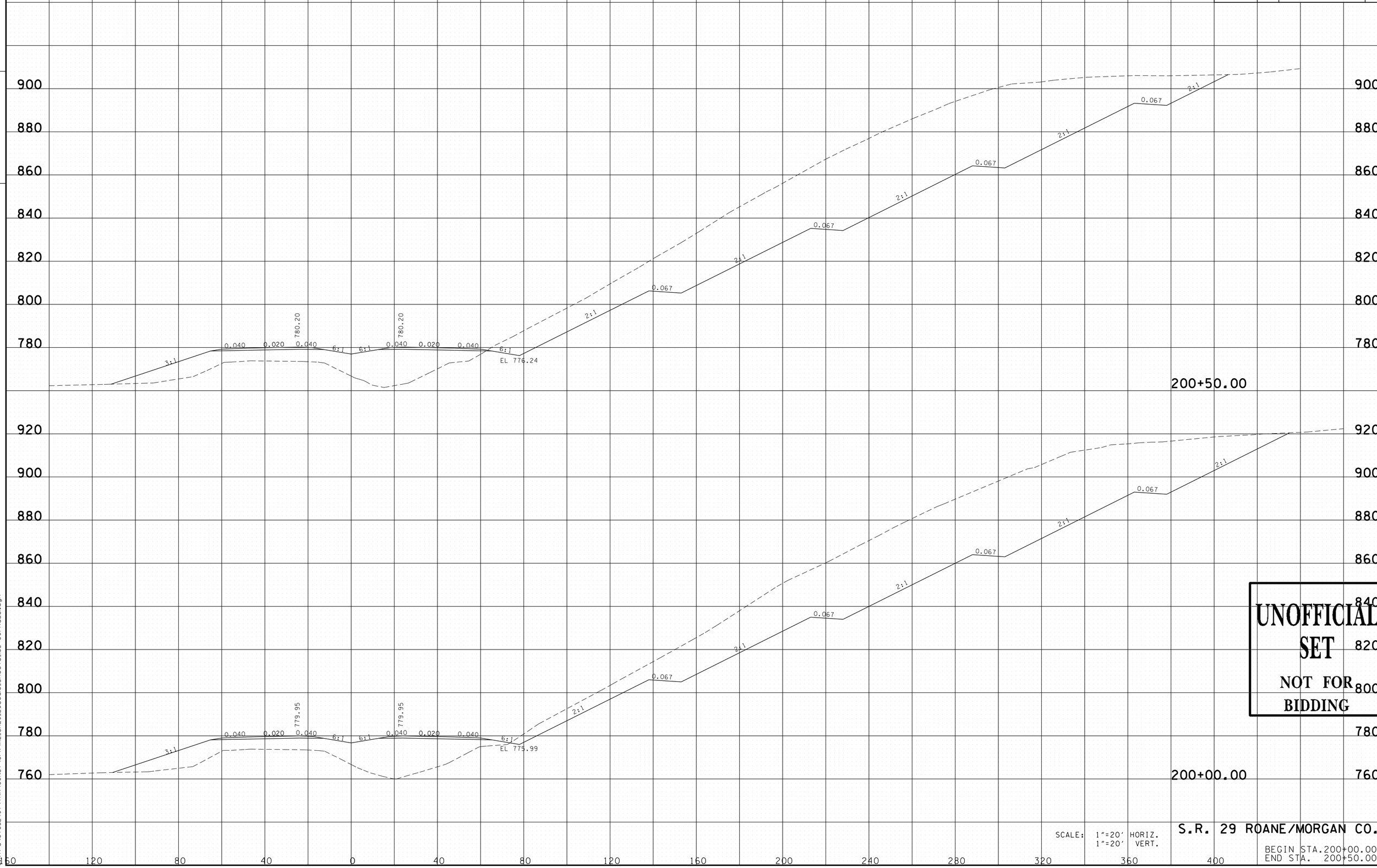
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	282
CONST.	2015	NH-29(84)	189

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

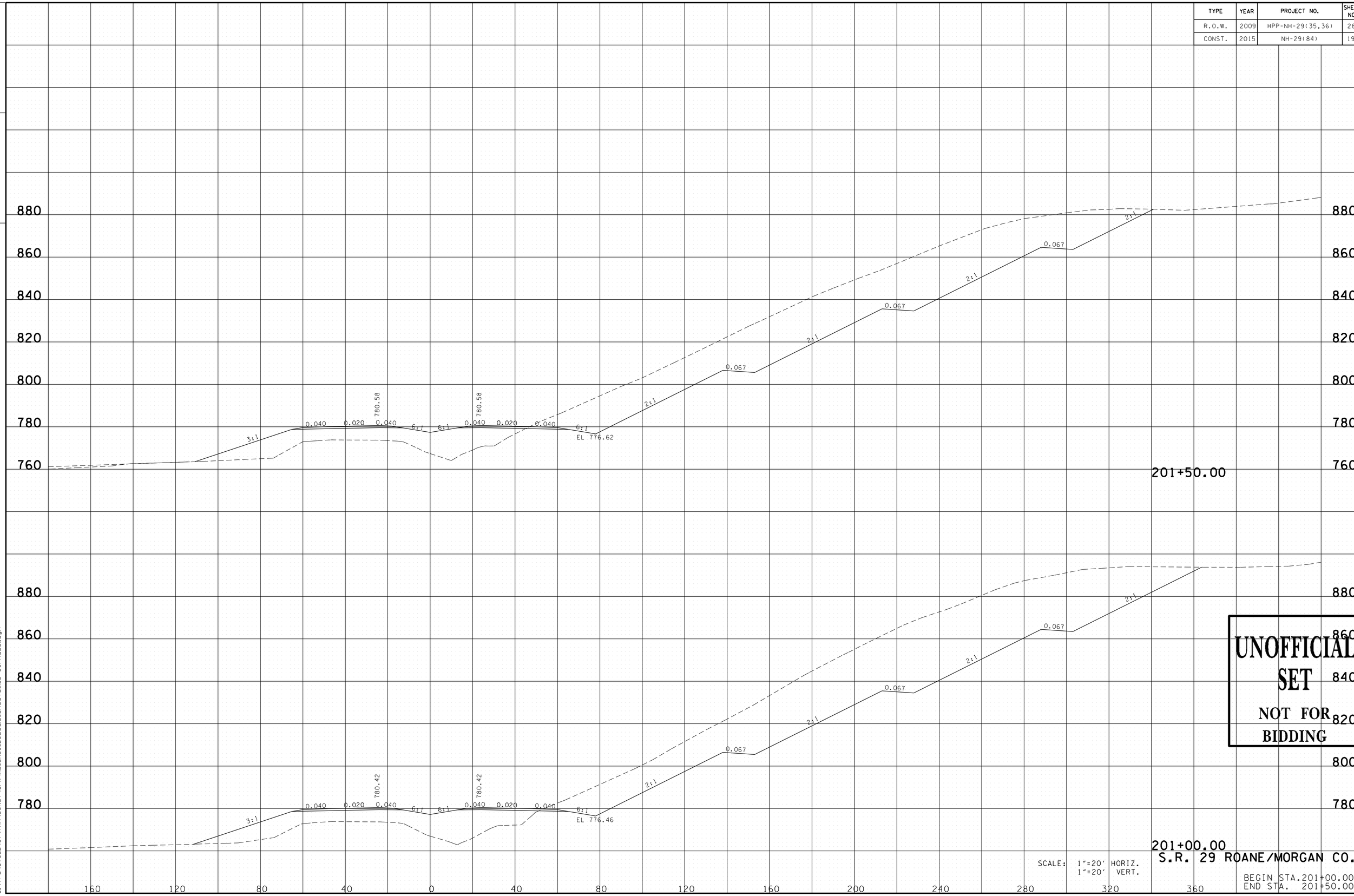
BEGIN STA.200+00.00
END STA. 200+50.00

11/24/2014 12:23:26 PM
G:\tra\C+052497\TRA\CONST\GPK\XL_SR29.20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	283
CONST.	2015	NH-29(84)	190

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.201+00.00
END STA. 201+50.00

11/24/2014 12:23:26 PM
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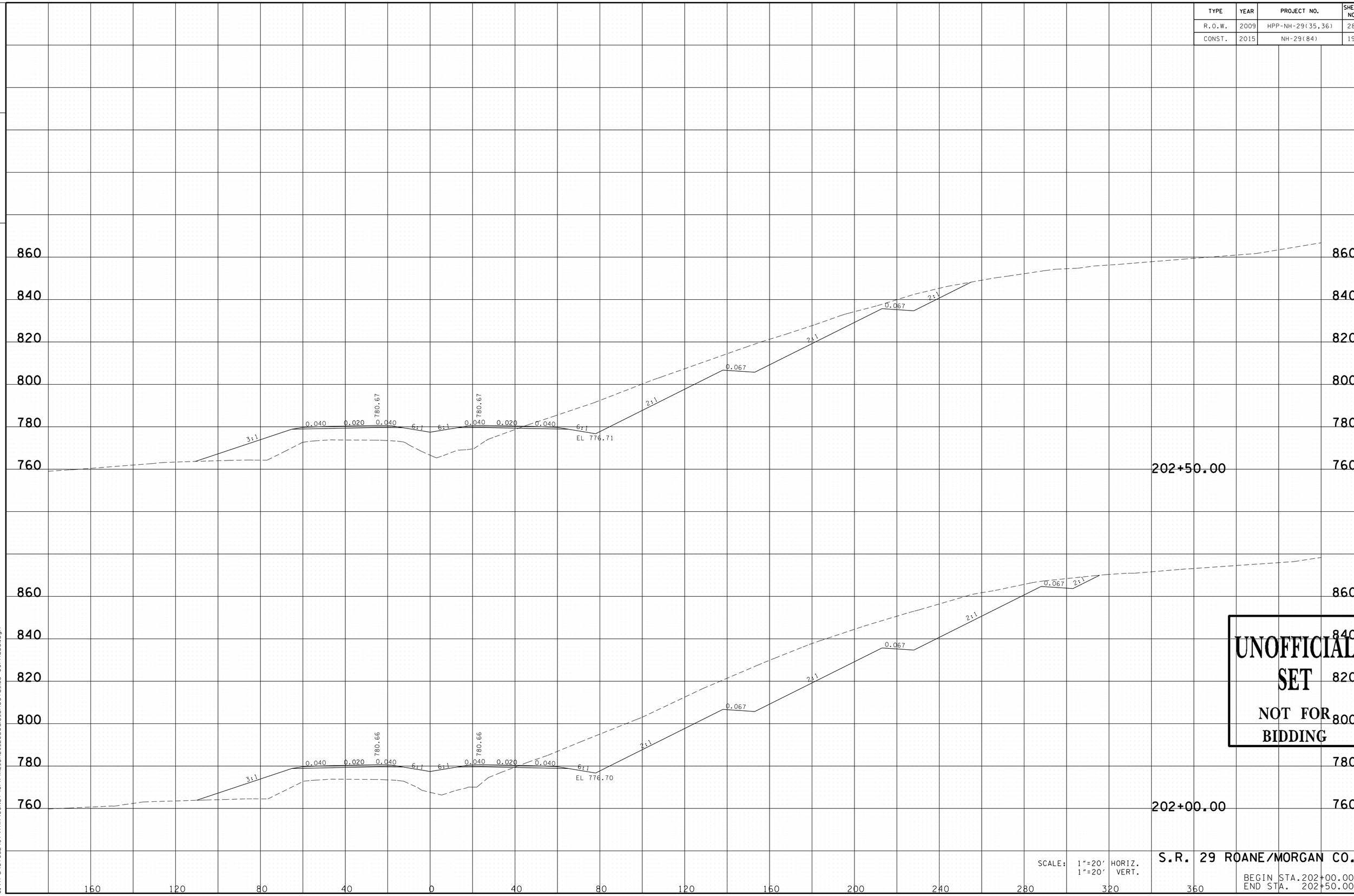
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	284
CONST.	2015	NH-29(84)	191

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.202+00.00
END STA. 202+50.00

11/24/2014 12:23:27 PM
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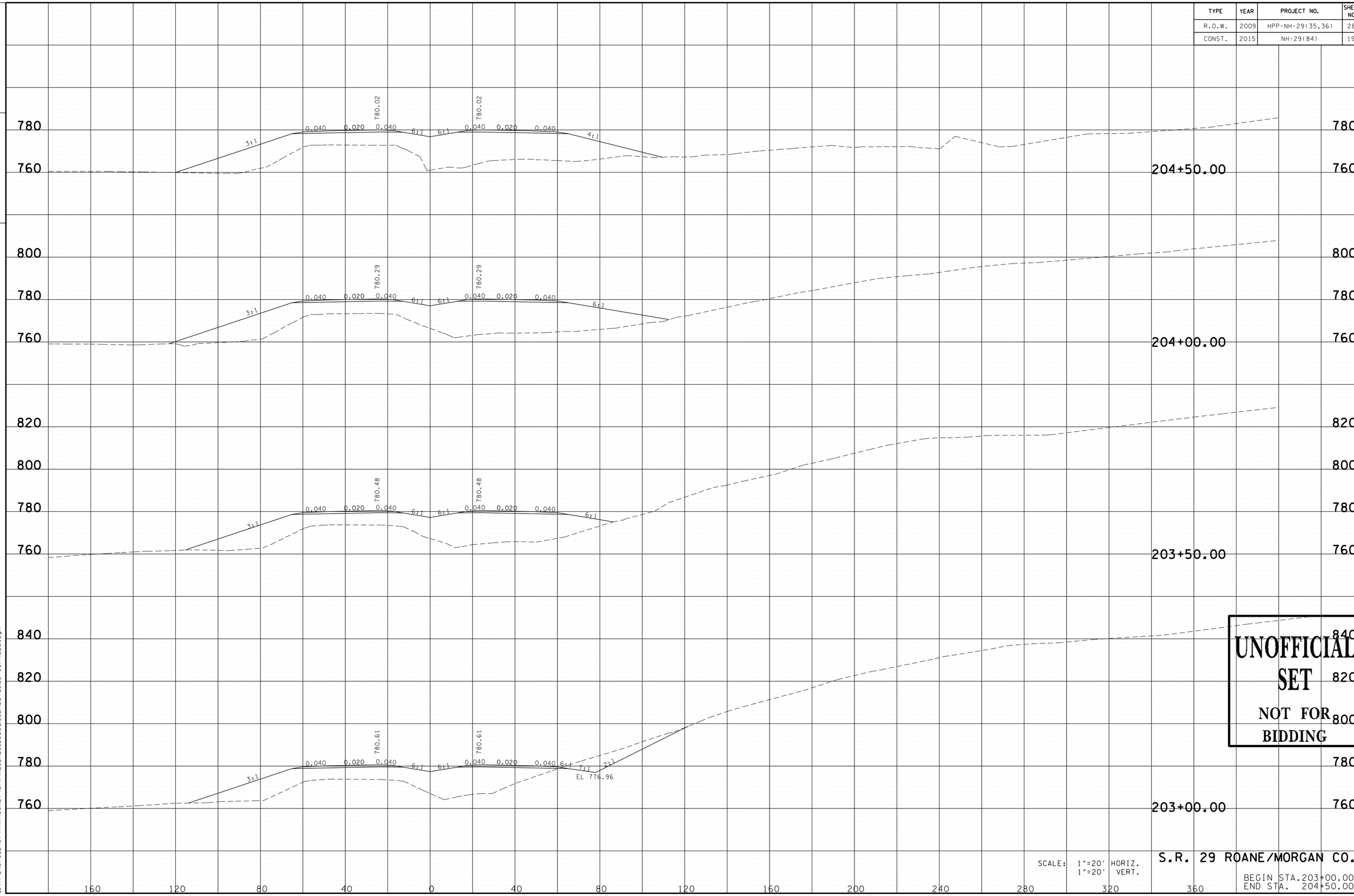
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	285
CONST.	2015	NH-29(84)	192

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.203+00.00
END STA. 204+50.00

11/24/2014 12:23:27 PM
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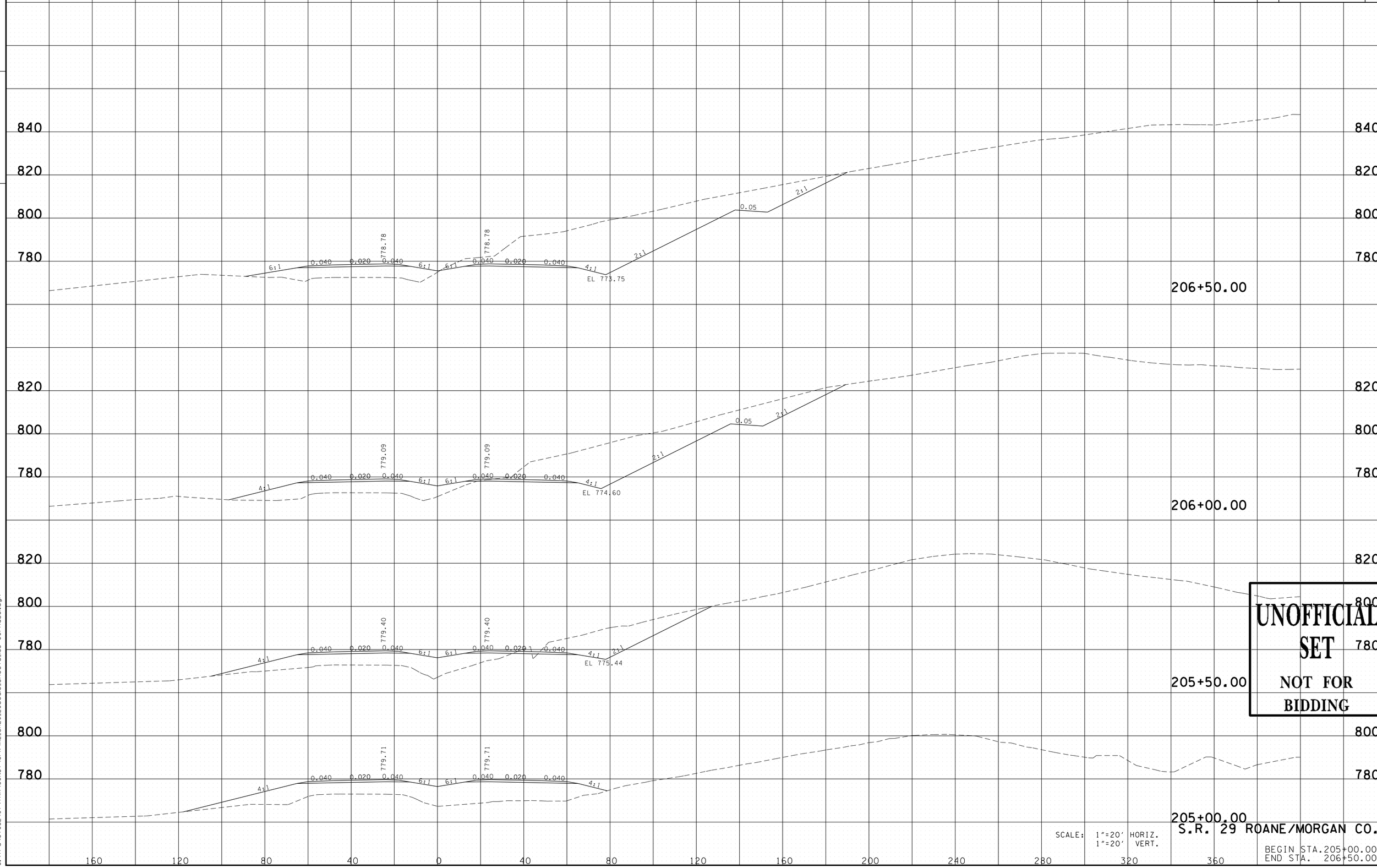
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	286
CONST.	2015	NH-29(84)	193

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

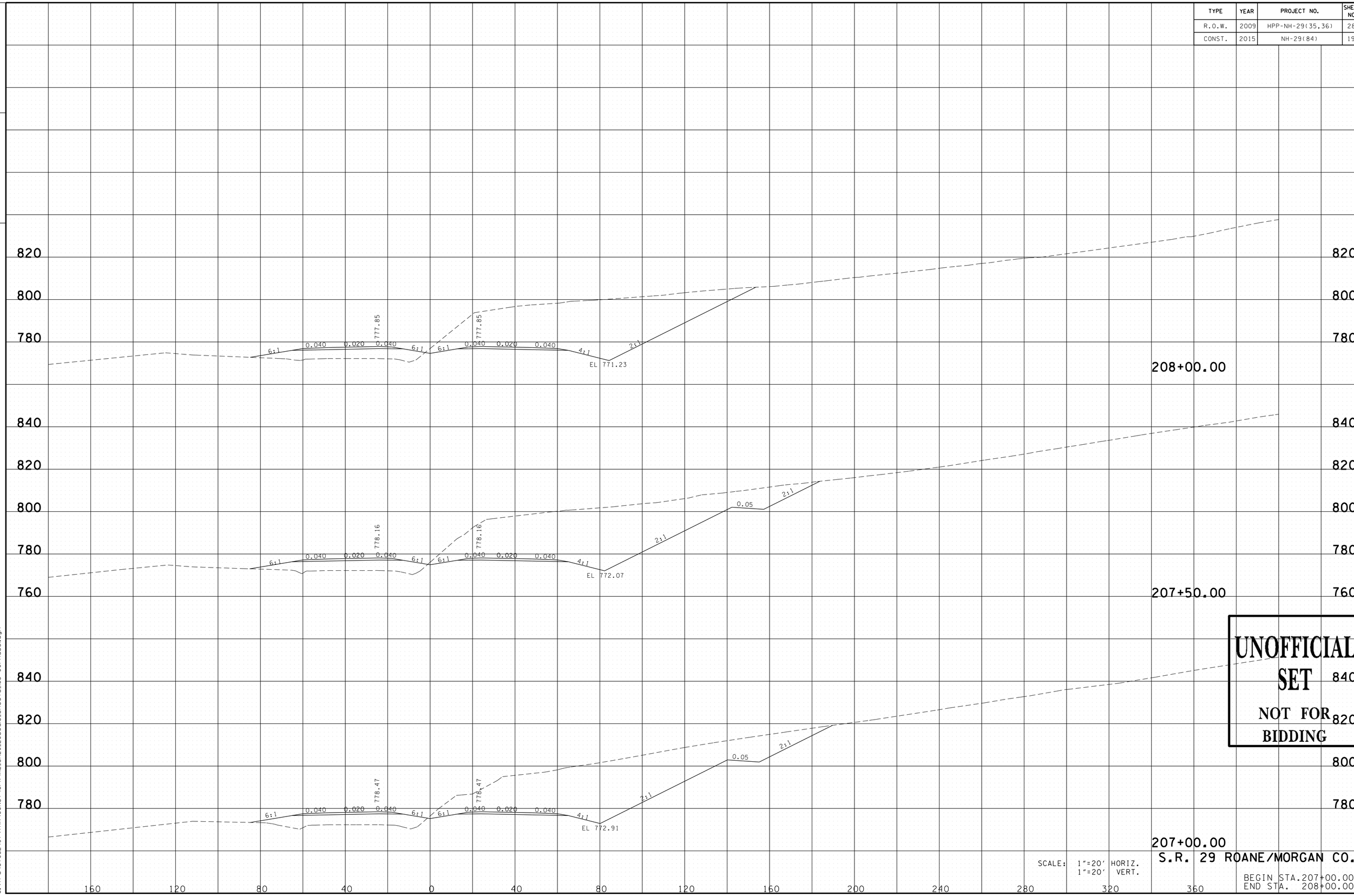
BEGIN STA.205+00.00
END STA. 206+50.00

11/24/2014 12:23:28 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	287
CONST.	2015	NH-29(84)	194

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.207+00.00
END STA. 208+00.00

11/24/2014 12:23:28 PM
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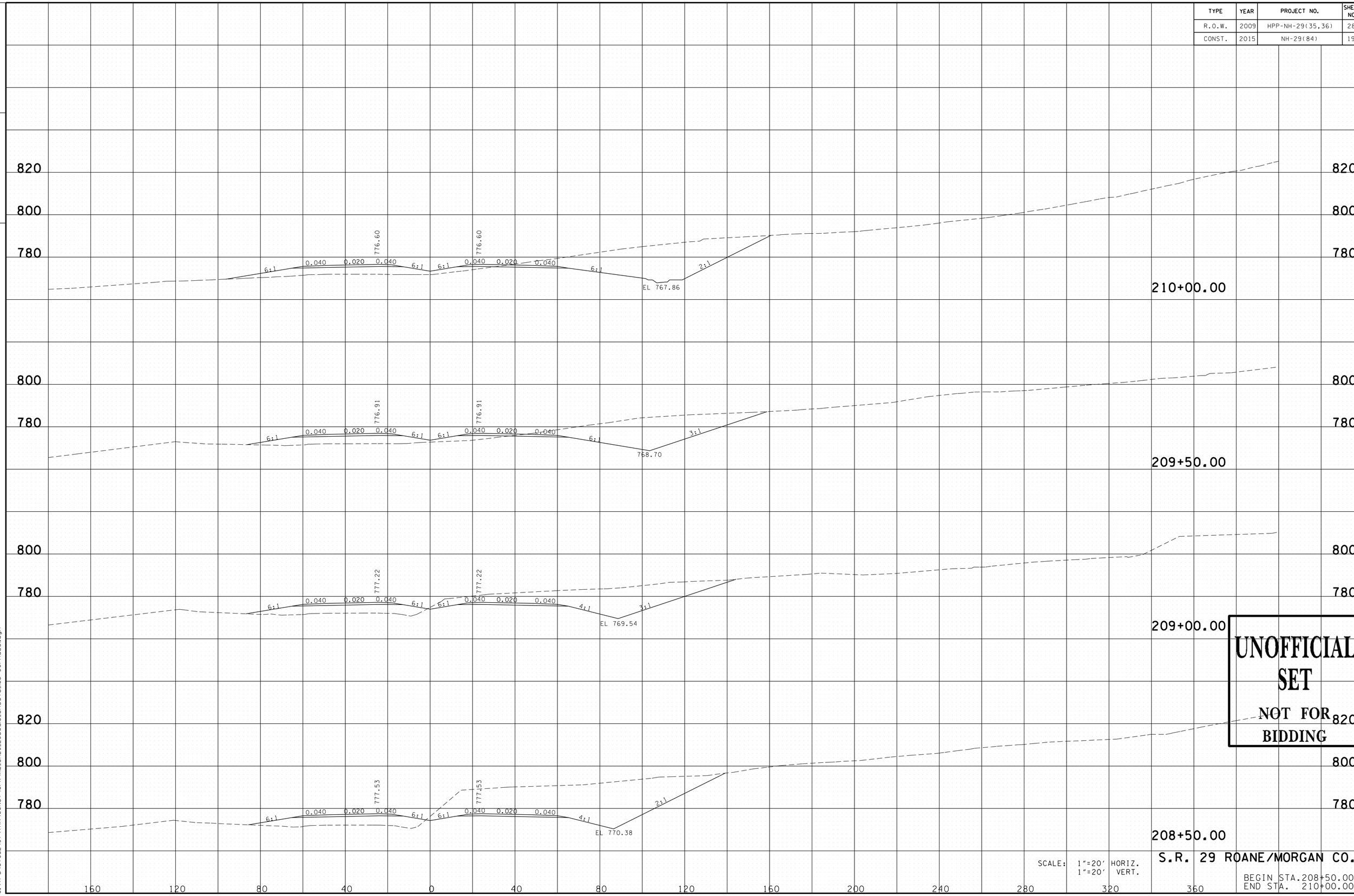
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	288
CONST.	2015	NH-29(84)	195

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.208+50.00
END STA. 210+00.00

11/24/2014 12:23:29 PM
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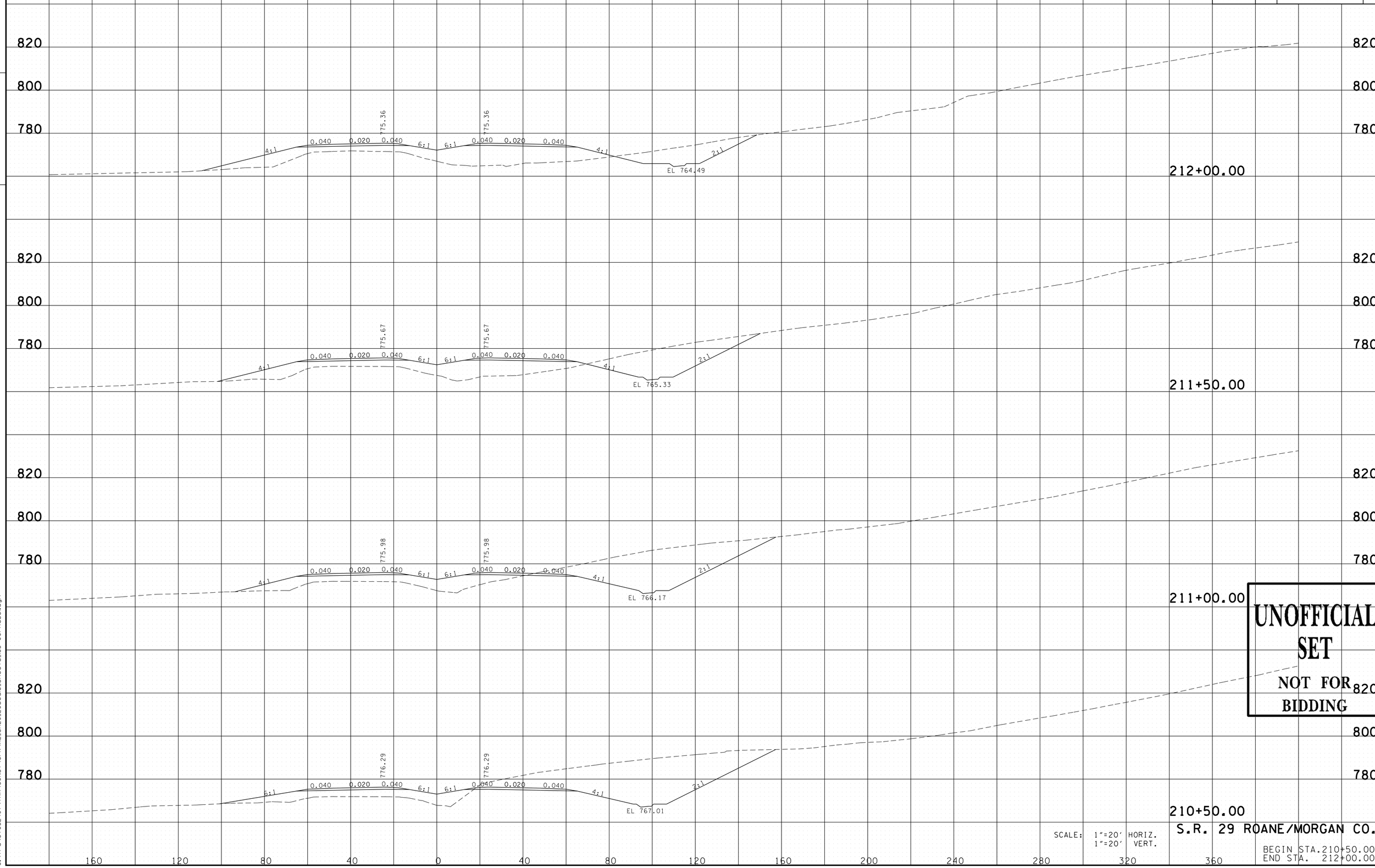
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	289
CONST.	2015	NH-29(84)	196

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.210+50.00
END STA. 212+00.00

11/24/2014 12:23:29 PM
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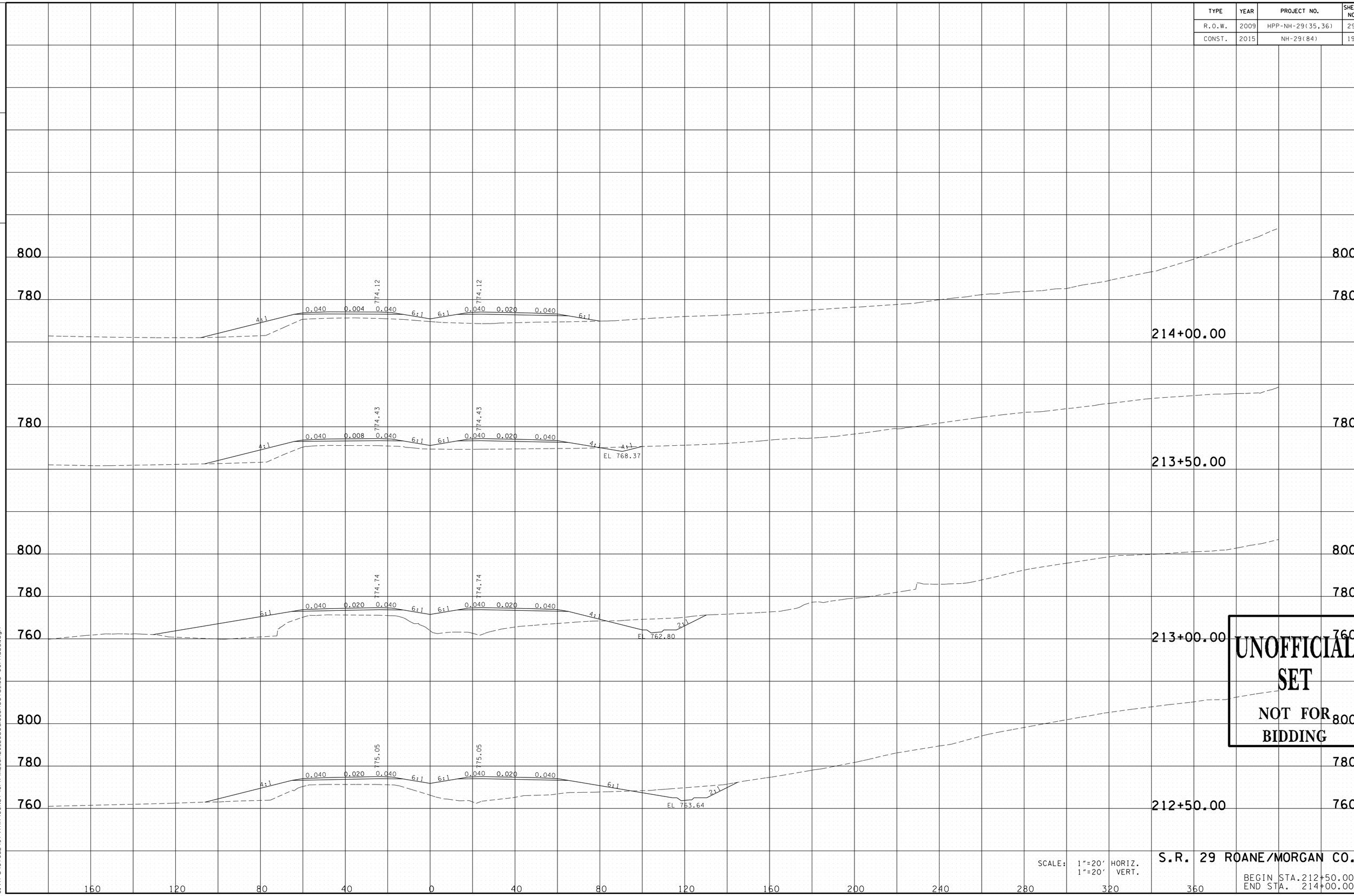
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	290
CONST.	2015	NH-29(84)	197

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 212+50.00
END STA. 214+00.00

11/24/2014 12:23:30 PM
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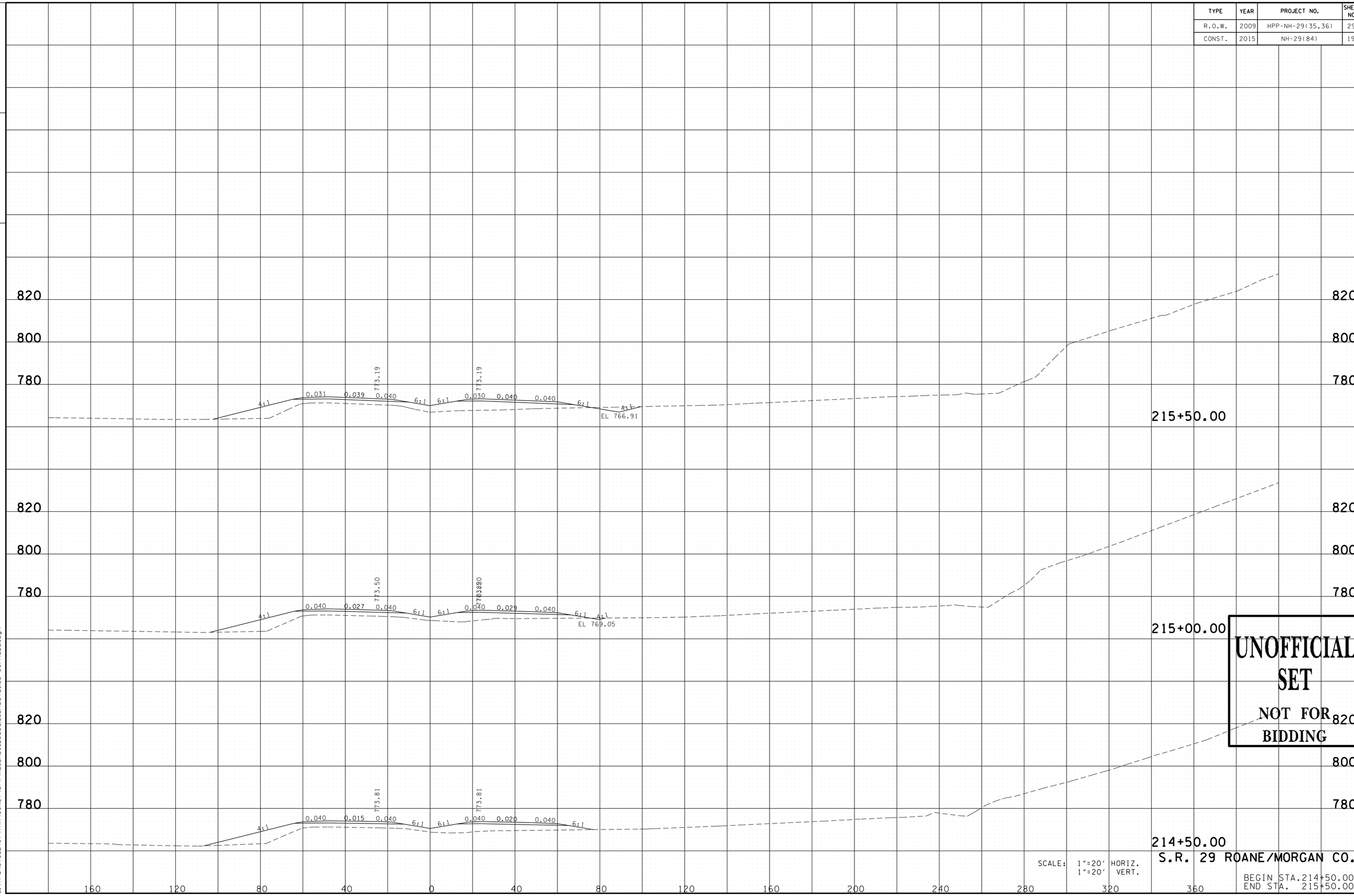
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	291
CONST.	2015	NH-29(84)	198

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.214+50.00
END STA. 215+50.00

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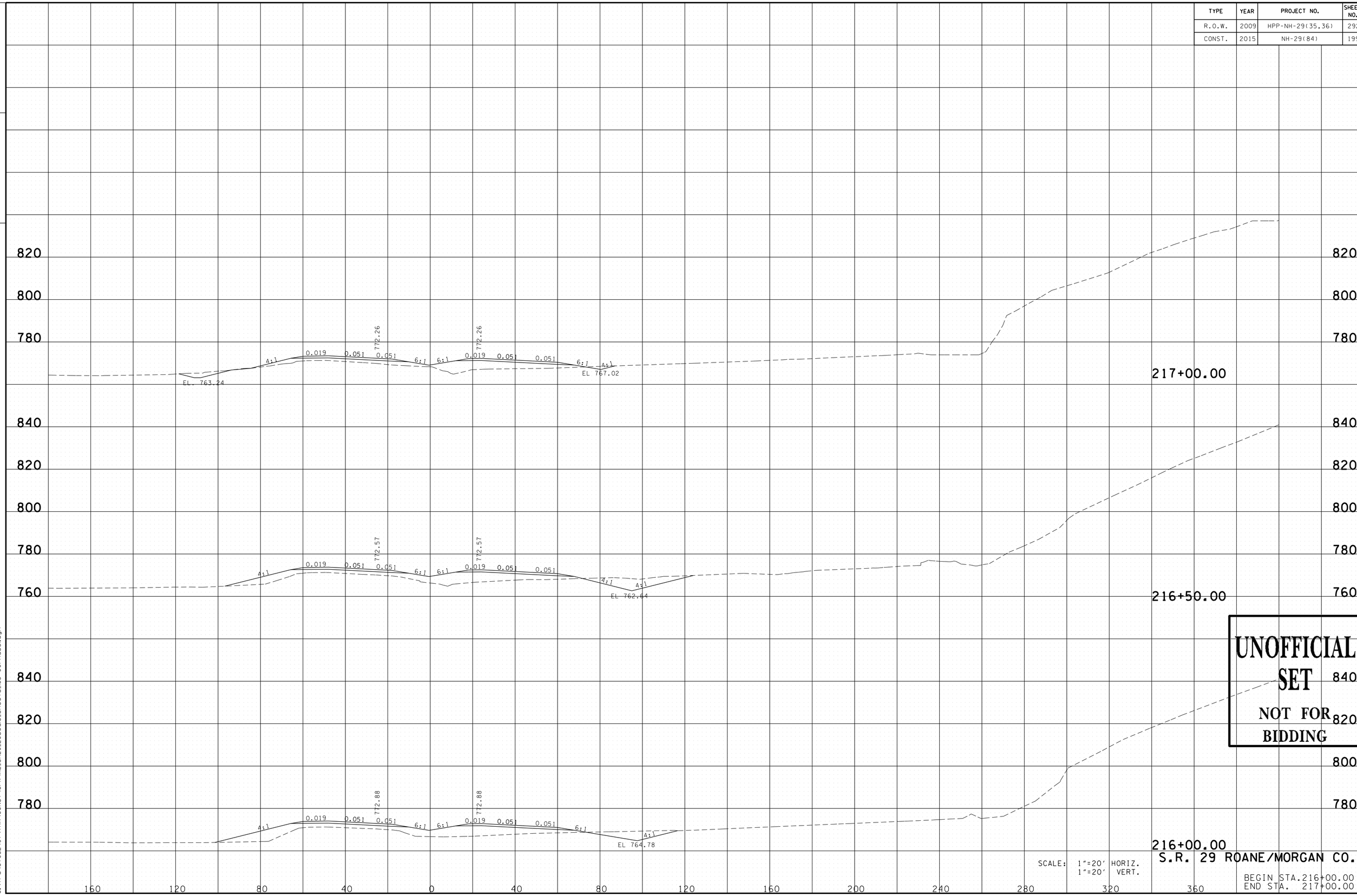
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	292
CONST.	2015	NH-29(84)	199

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.216+00.00
END STA. 217+00.00

11/24/2014 12:23:30 PM
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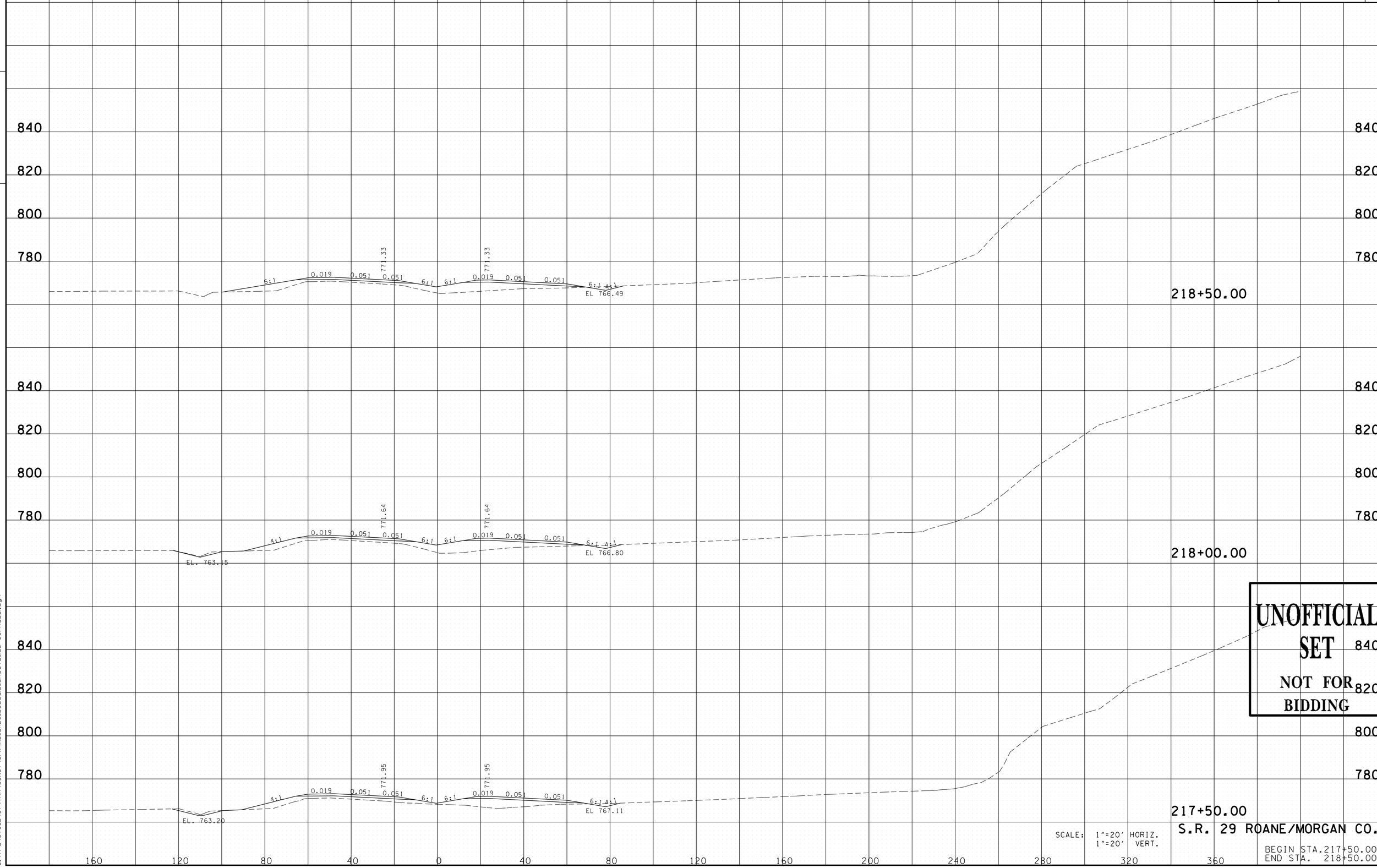
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	293
CONST.	2015	NH-29(84)	200

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.217+50.00
END STA. 218+50.00

11/24/2014 12:23:31 PM
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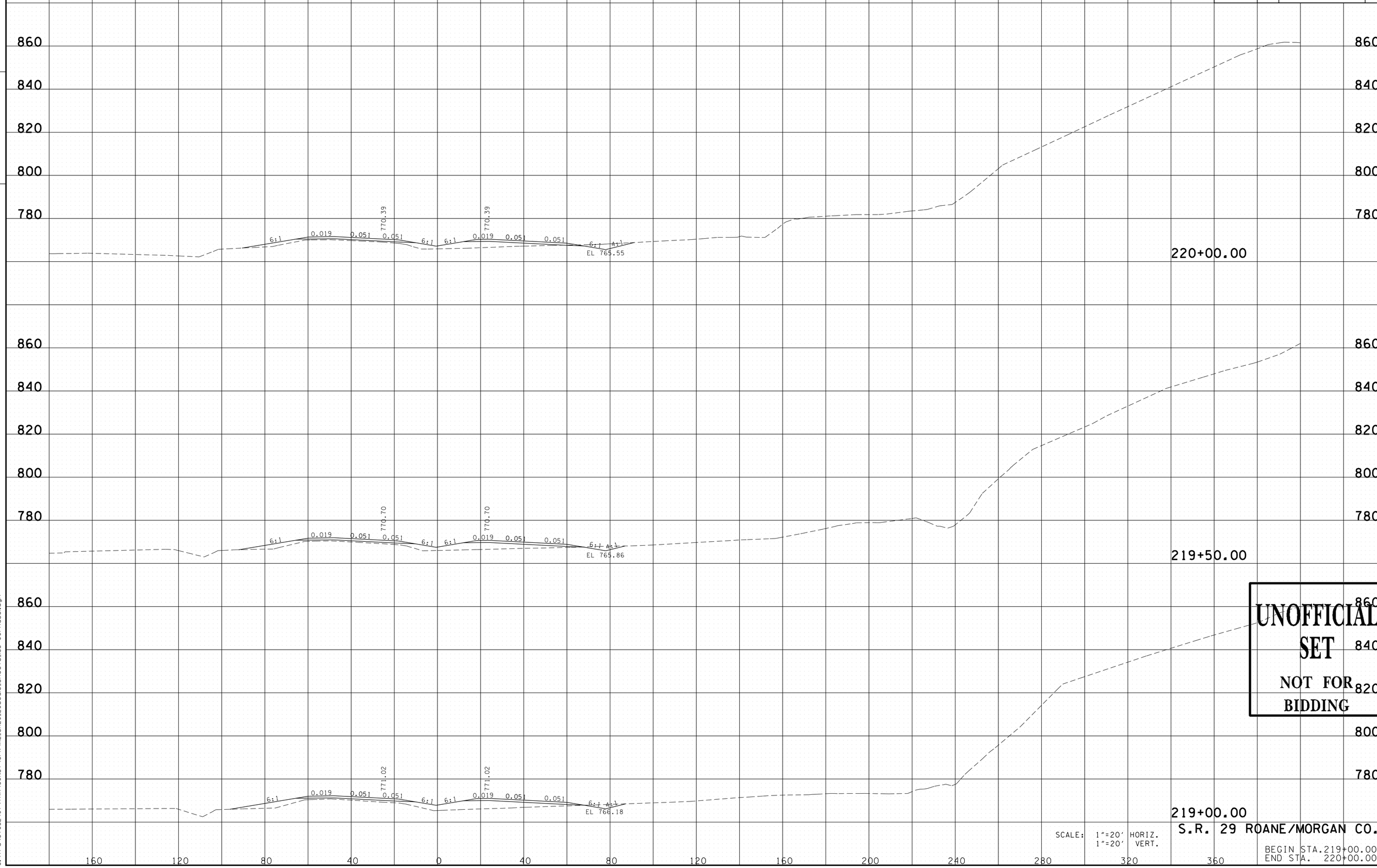
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	294
CONST.	2015	NH-29(84)	201

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.219+00.00
END STA. 220+00.00

11/24/2014 12:23:31PM
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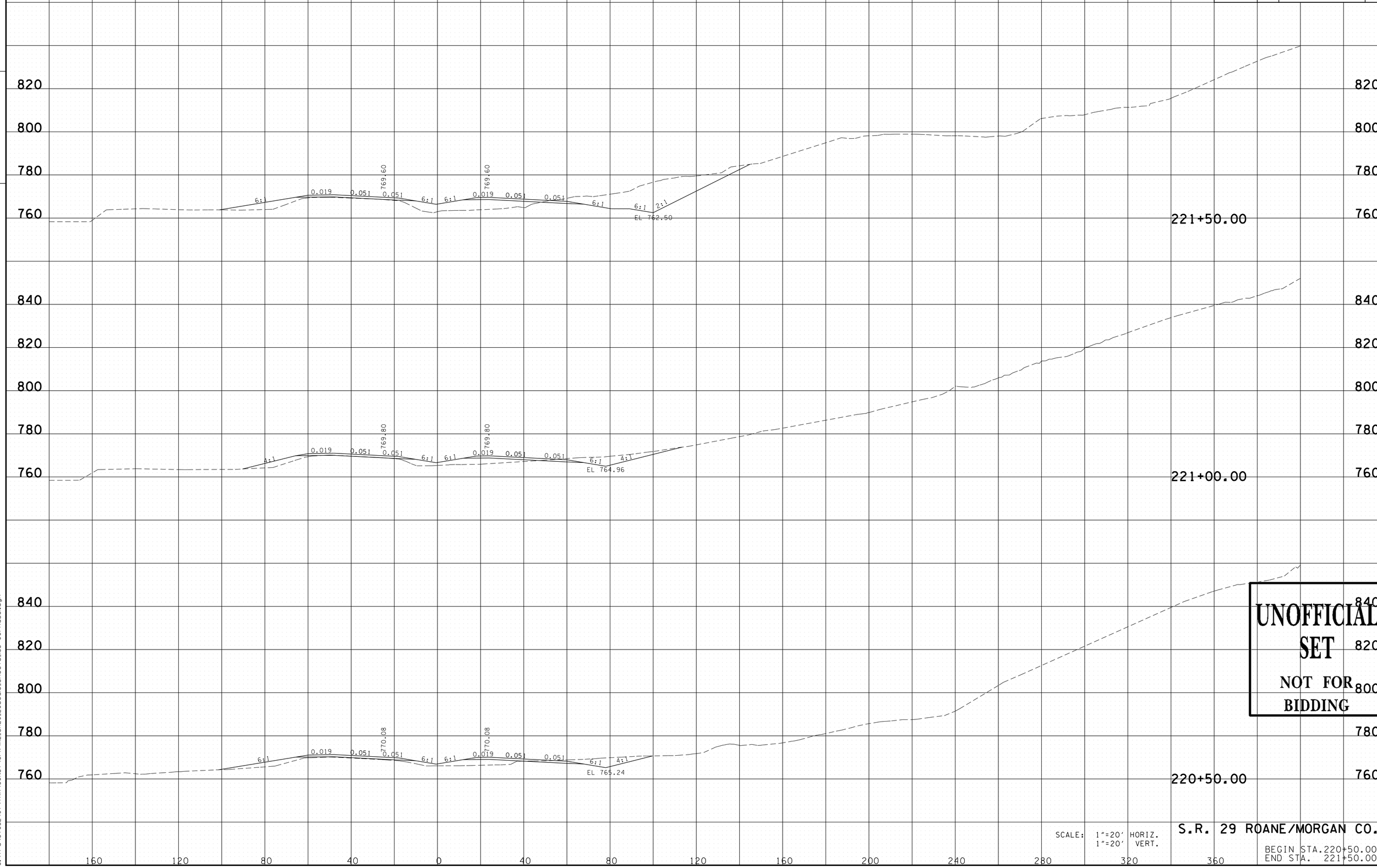
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	295
CONST.	2015	NH-29(84)	202

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.220+50.00
END STA. 221+50.00

11/24/2014 12:23:32 PM
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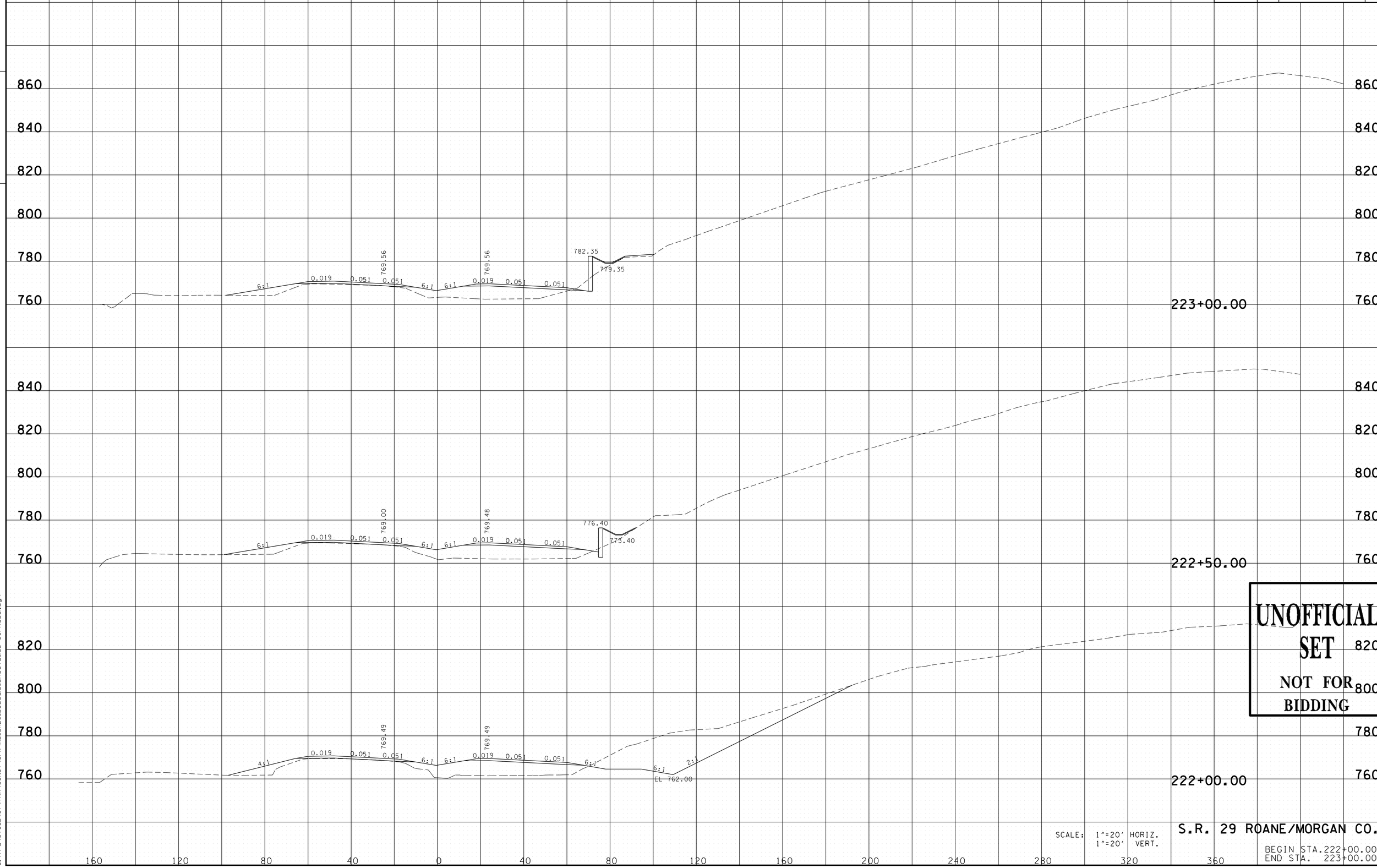
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	296
CONST.	2015	NH-29(84)	203

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

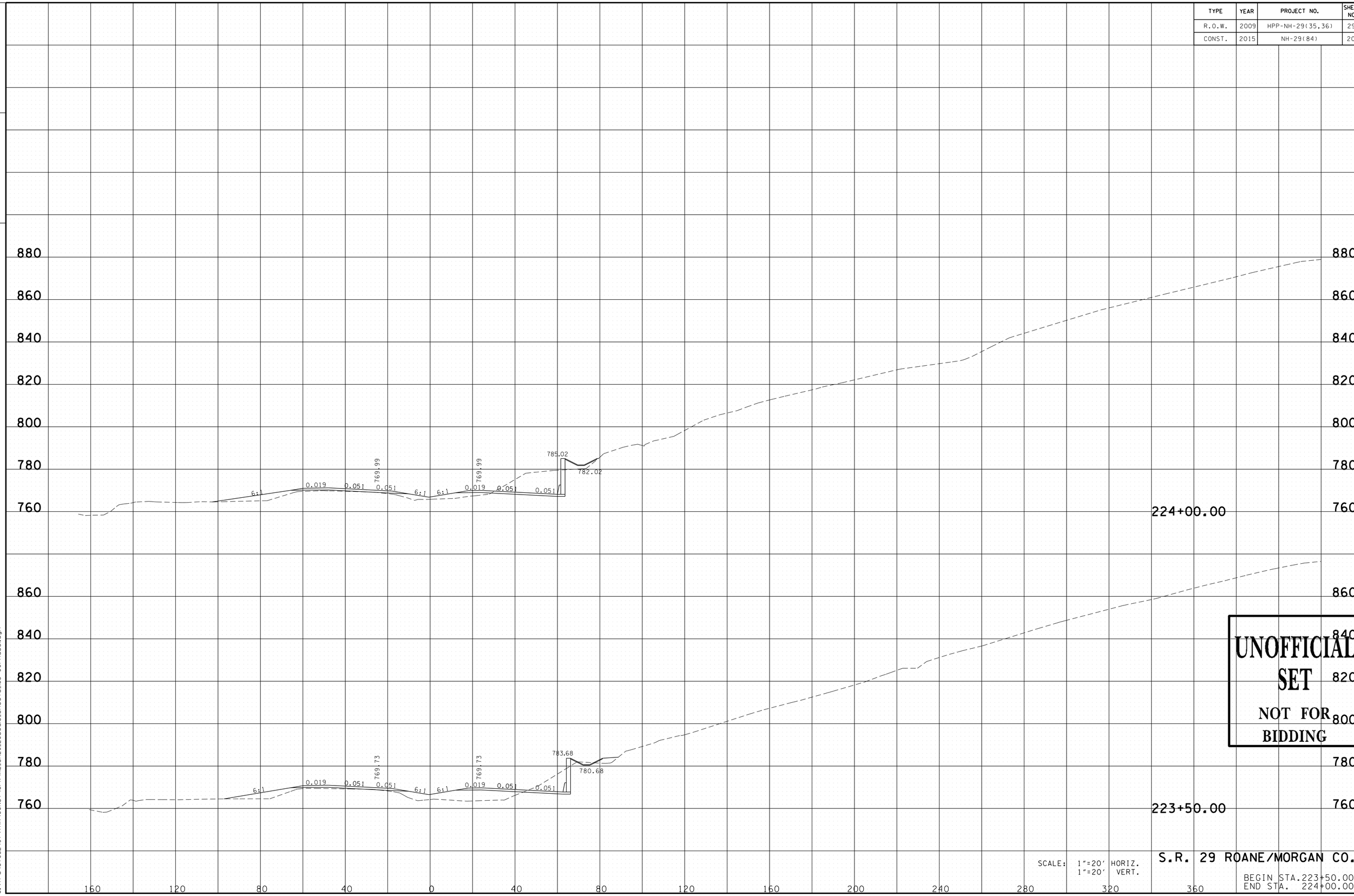
BEGIN STA.222+00.00
END STA. 223+00.00

11/24/2014 12:23:32 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	297
CONST.	2015	NH-29(84)	204

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.223+50.00
END STA. 224+00.00

11/24/2014 12:23:33 PM
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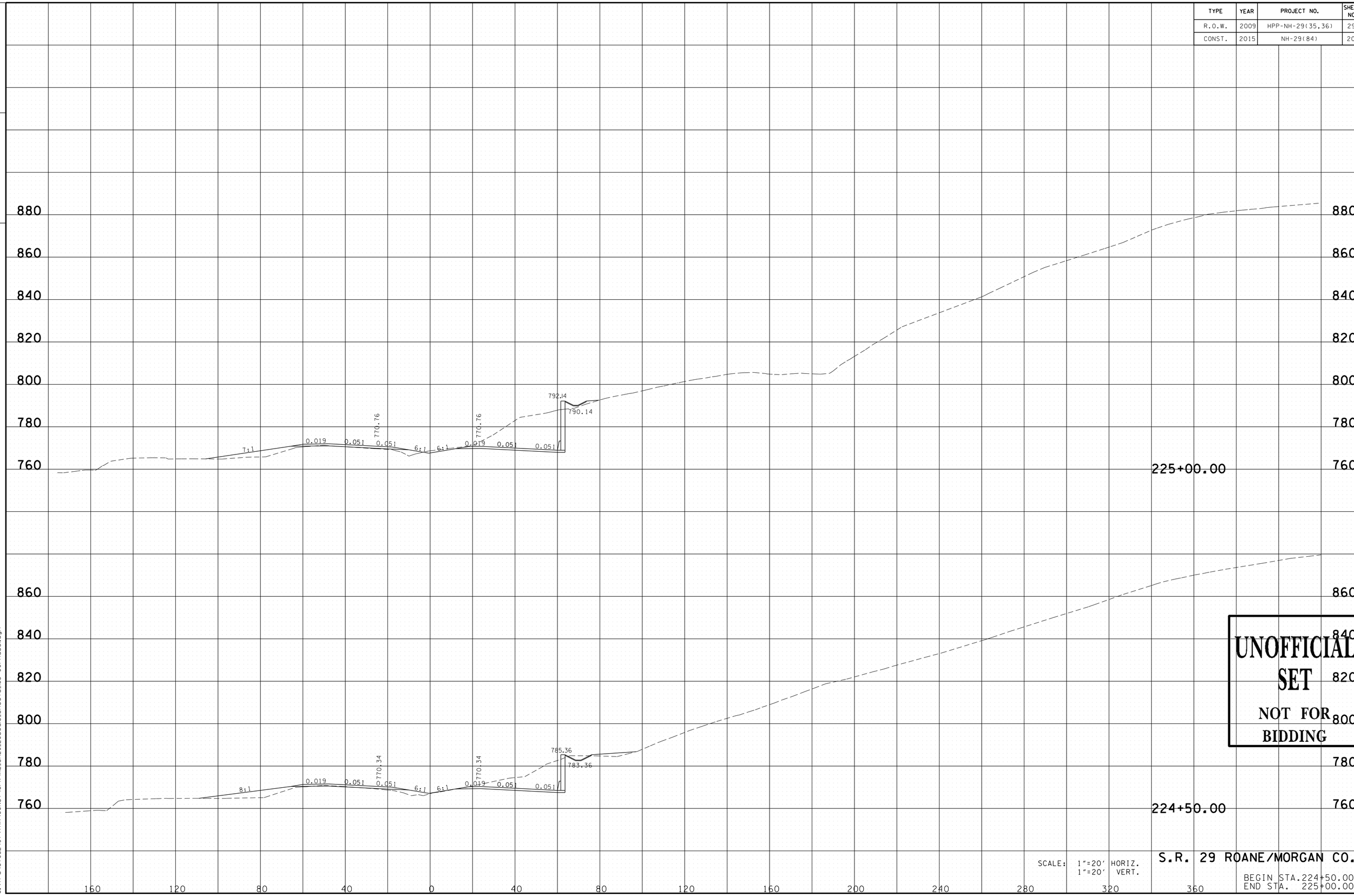
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	298
CONST.	2015	NH-29(84)	205

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

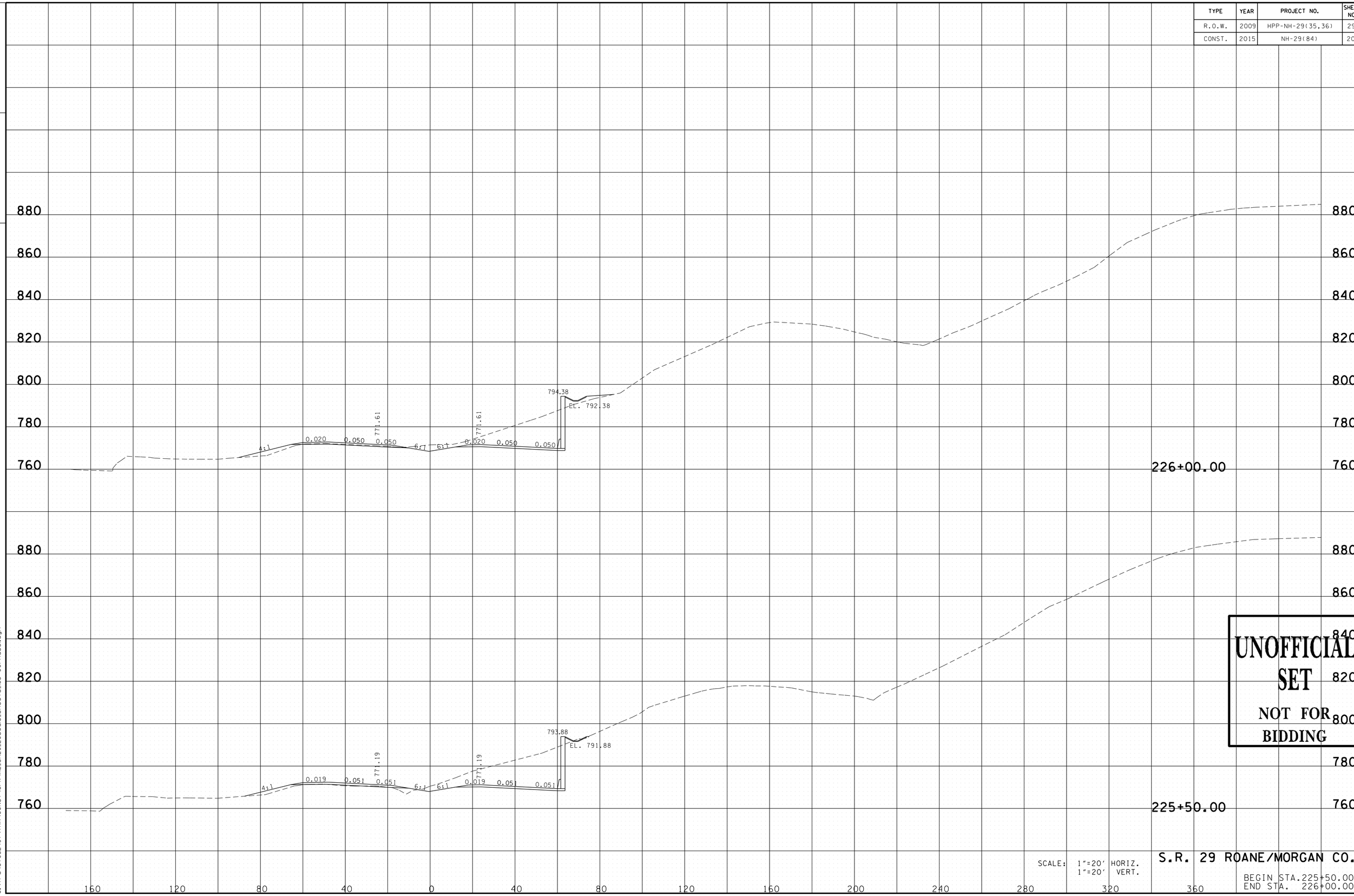
BEGIN STA.224+50.00
END STA. 225+00.00

11/24/2014 12:23:33 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	299
CONST.	2015	NH-29(84)	206

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.225+50.00
END STA. 226+00.00

11/24/2014 12:23:34 PM
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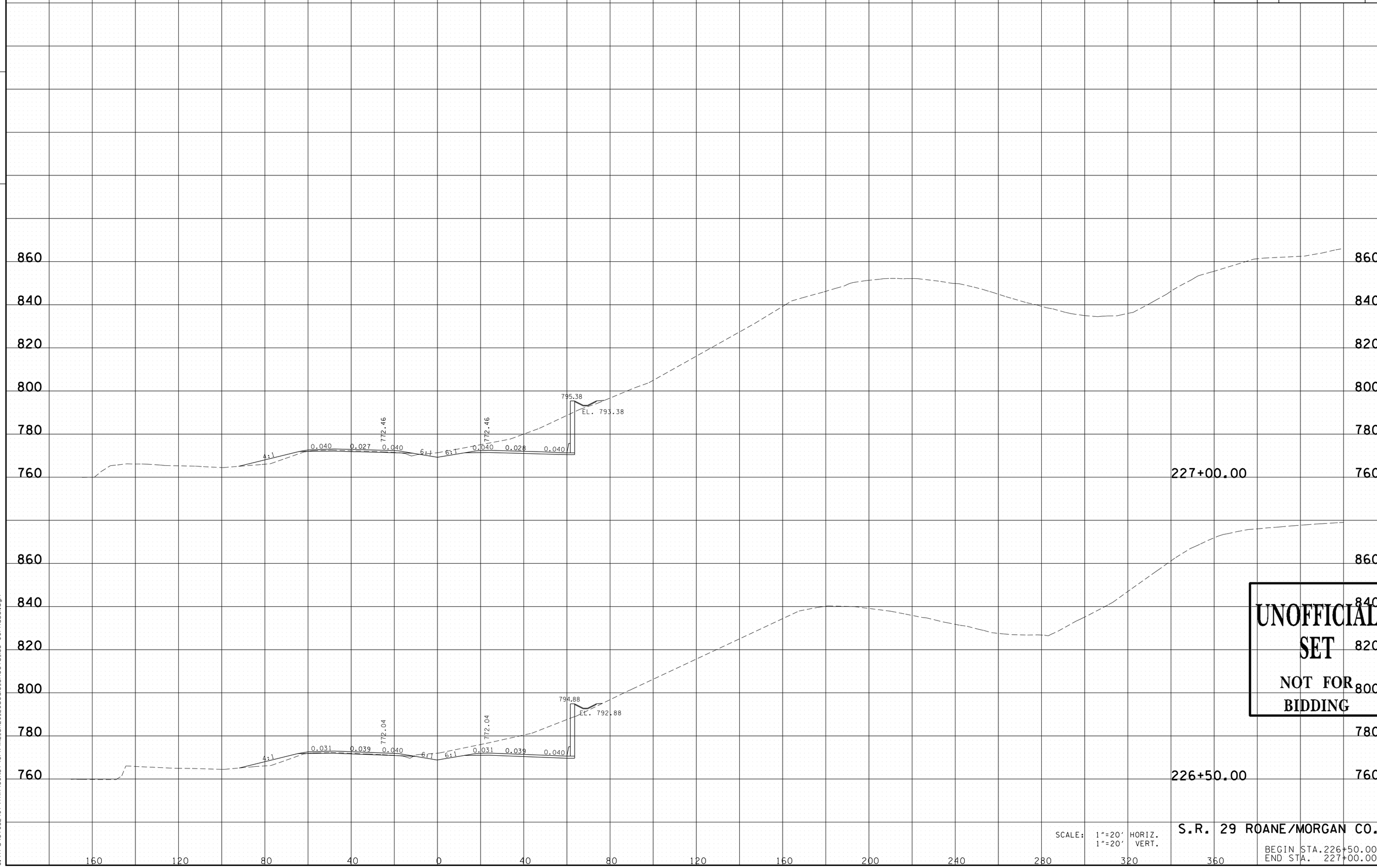
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	300
CONST.	2015	NH-29(84)	207

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.226+50.00
END STA. 227+00.00

11/24/2014 12:23:40 PM
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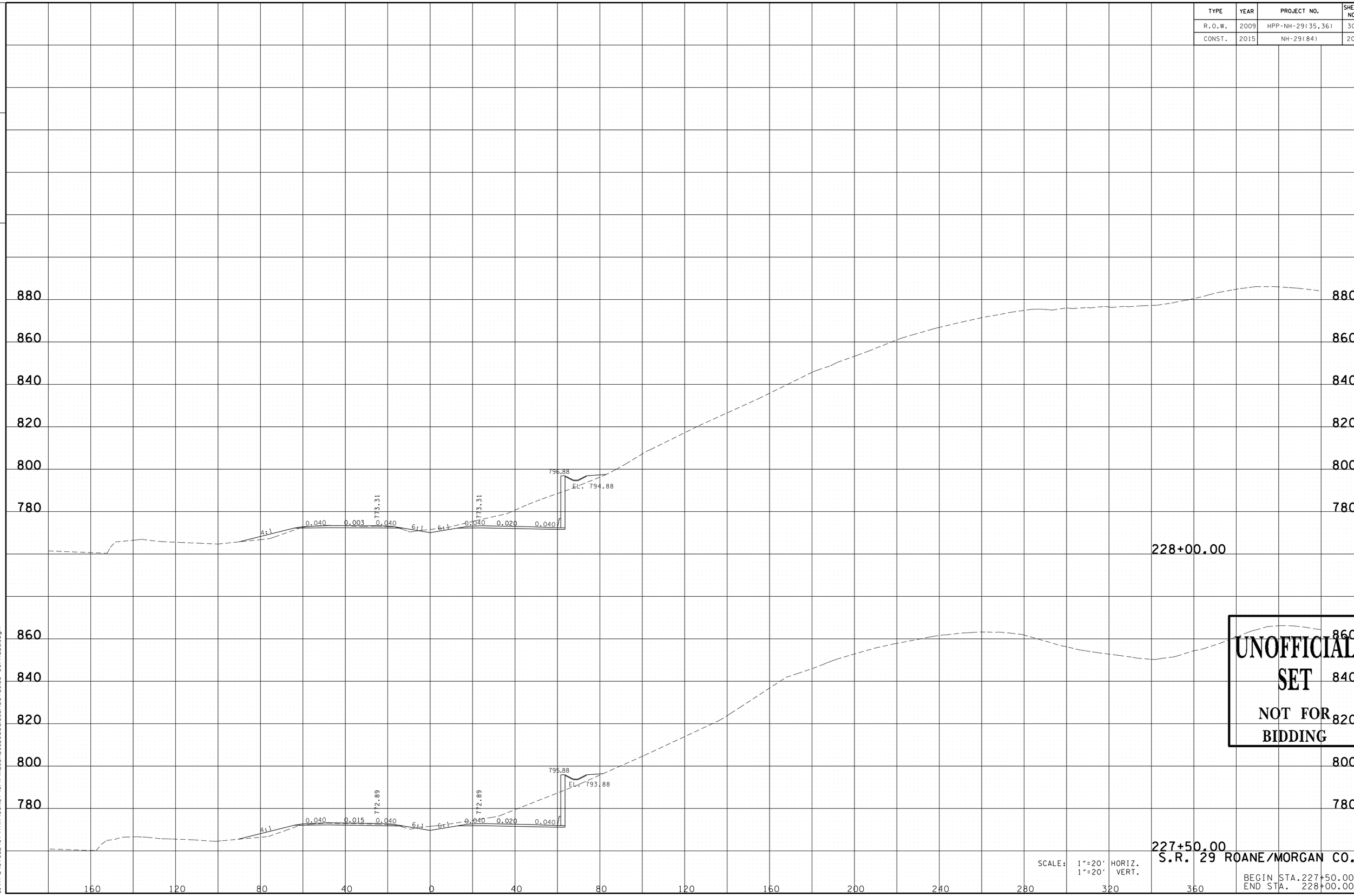
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	301
CONST.	2015	NH-29(84)	208

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.227+50.00
END STA. 228+00.00

11/24/2014 12:23:40 PM
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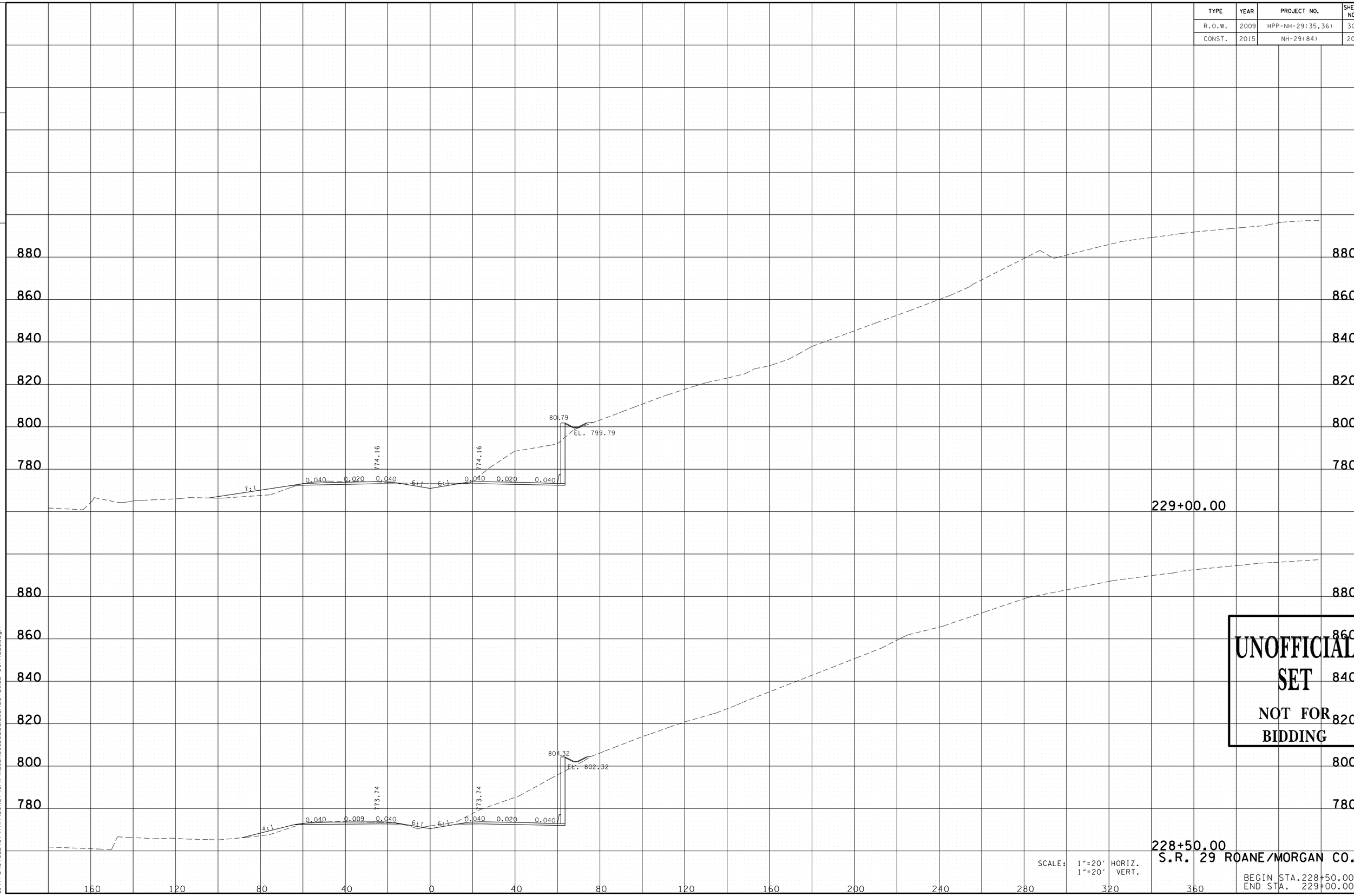
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	302
CONST.	2015	NH-29(84)	209

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.228+50.00
END STA. 229+00.00

11/24/2014 12:23:41PM
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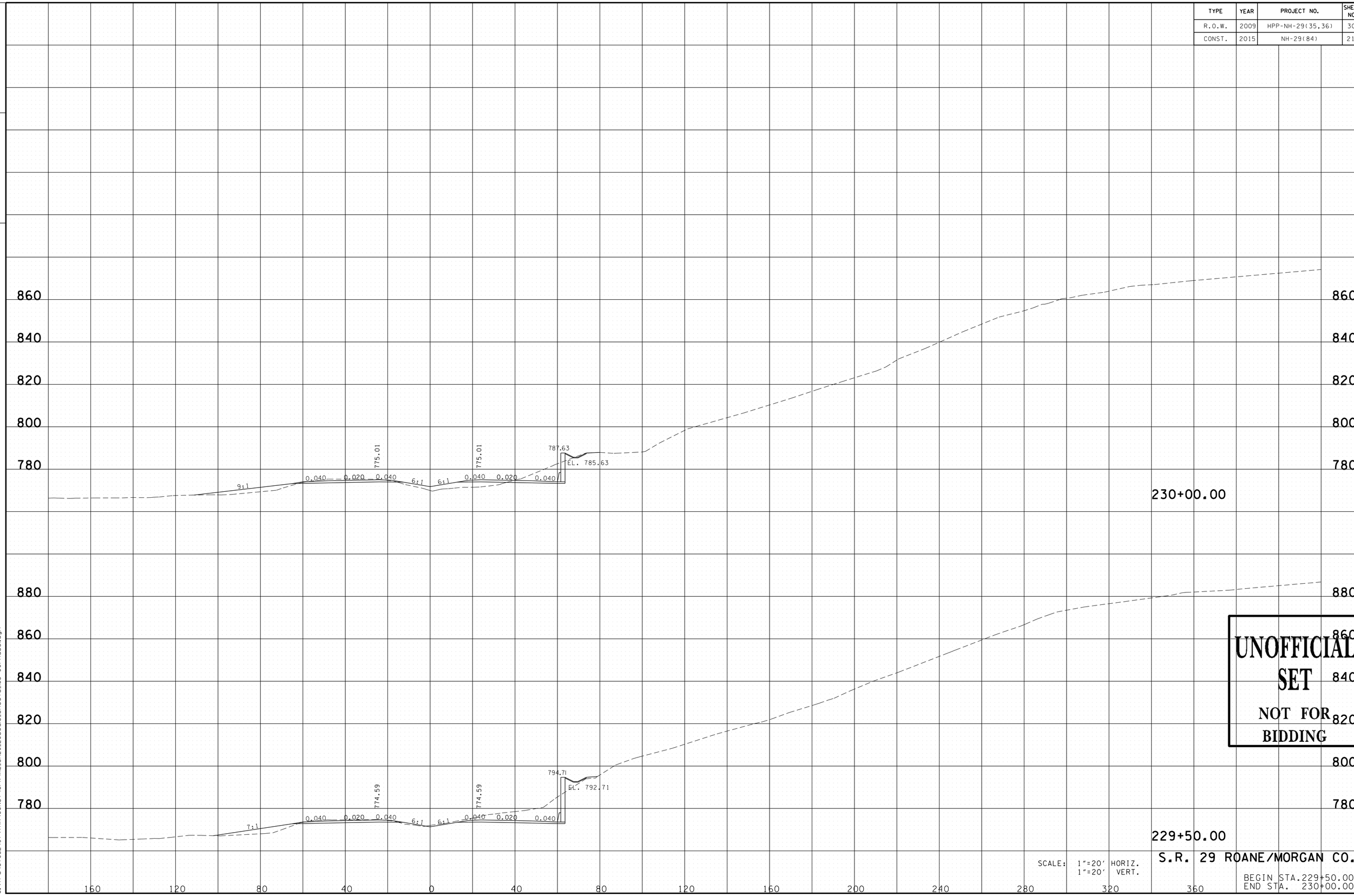
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	303
CONST.	2015	NH-29(84)	210

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.229+50.00
END STA. 230+00.00

11/24/2014 12:23:41PM
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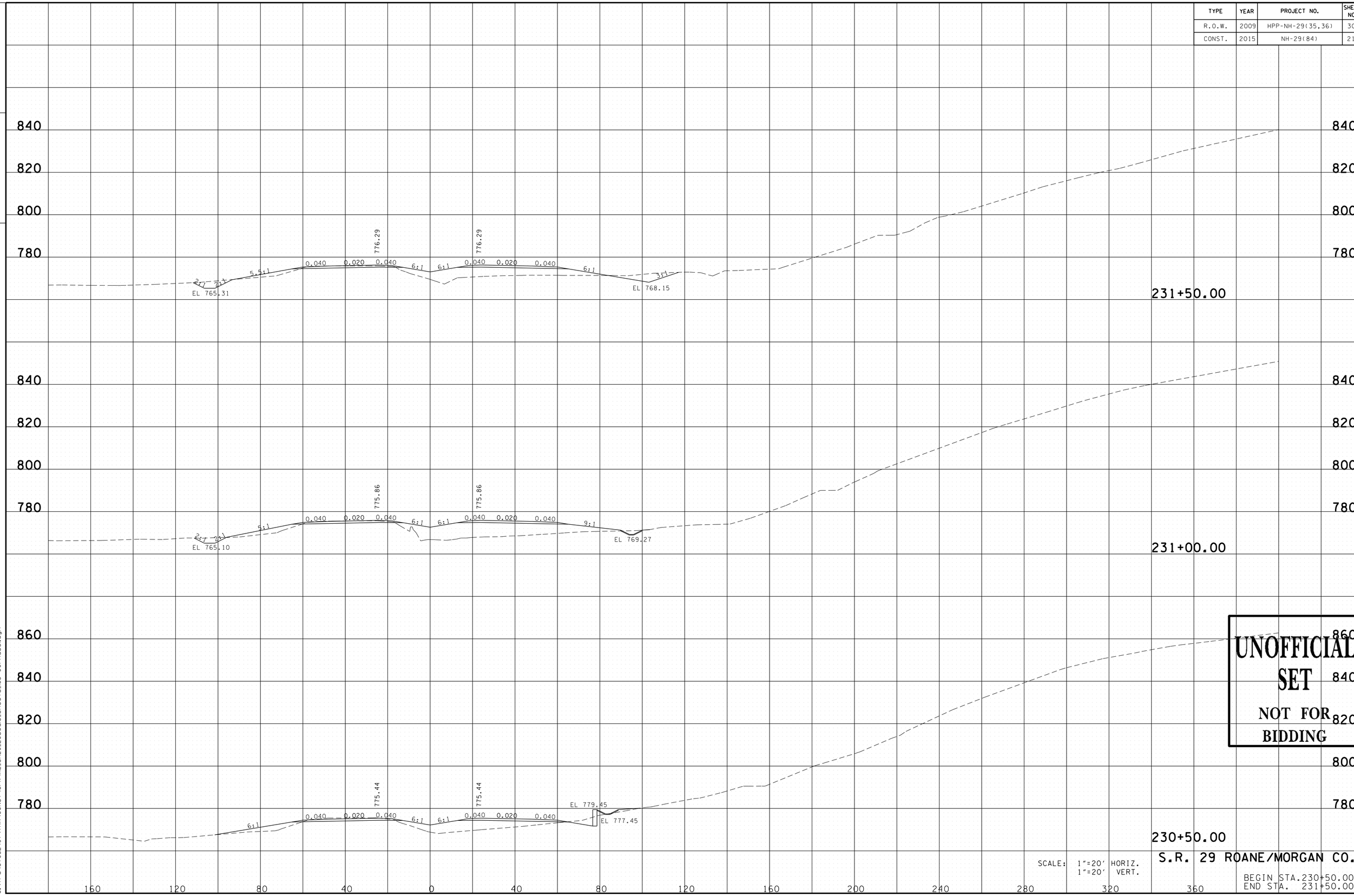
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	304
CONST.	2015	NH-29(84)	211

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.230+50.00
END STA. 231+50.00

11/24/2014 12:23:42 PM
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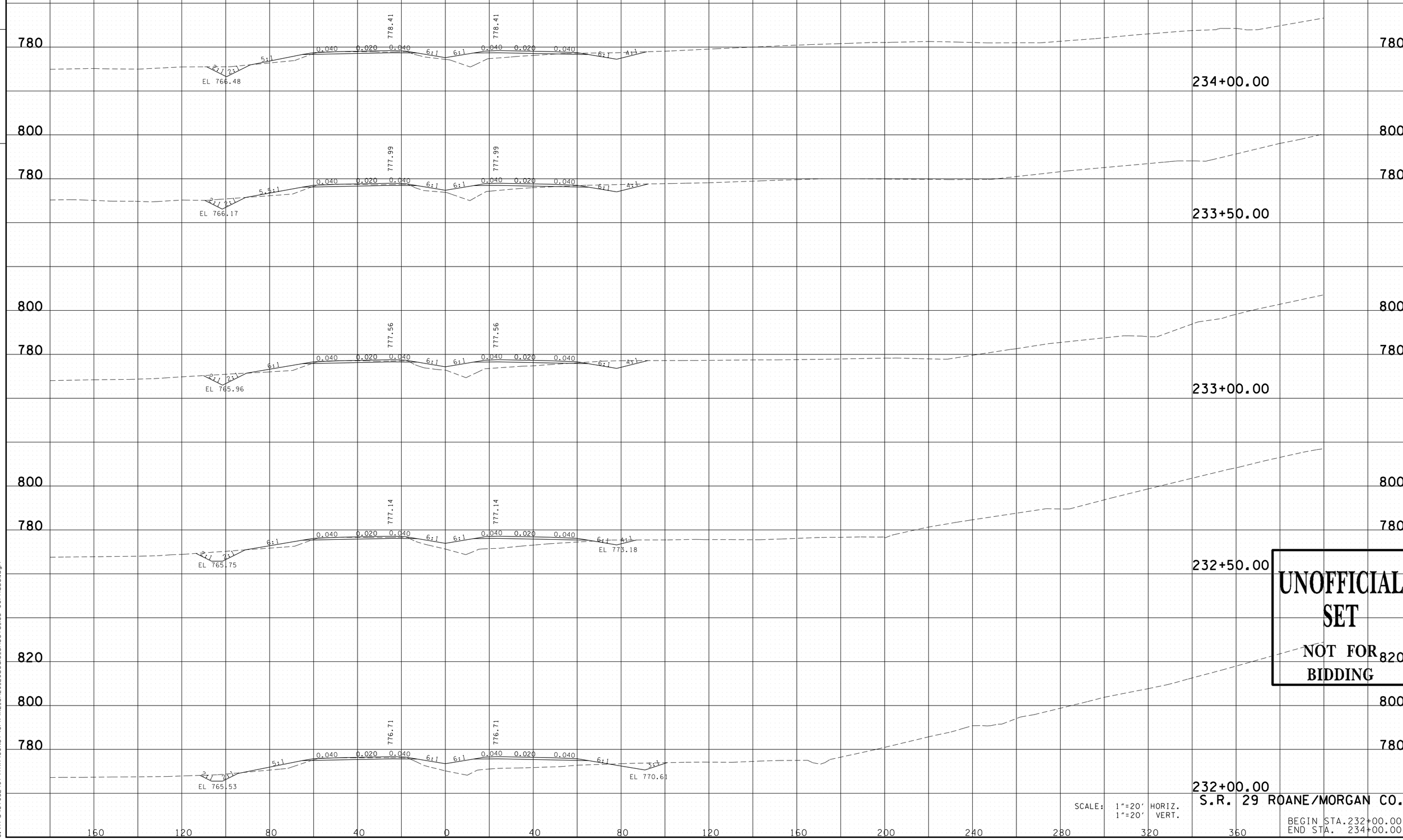
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	305
CONST.	2015	NH-29(84)	212

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.232+00.00
END STA. 234+00.00

UNOFFICIAL SET
NOT FOR BIDDING

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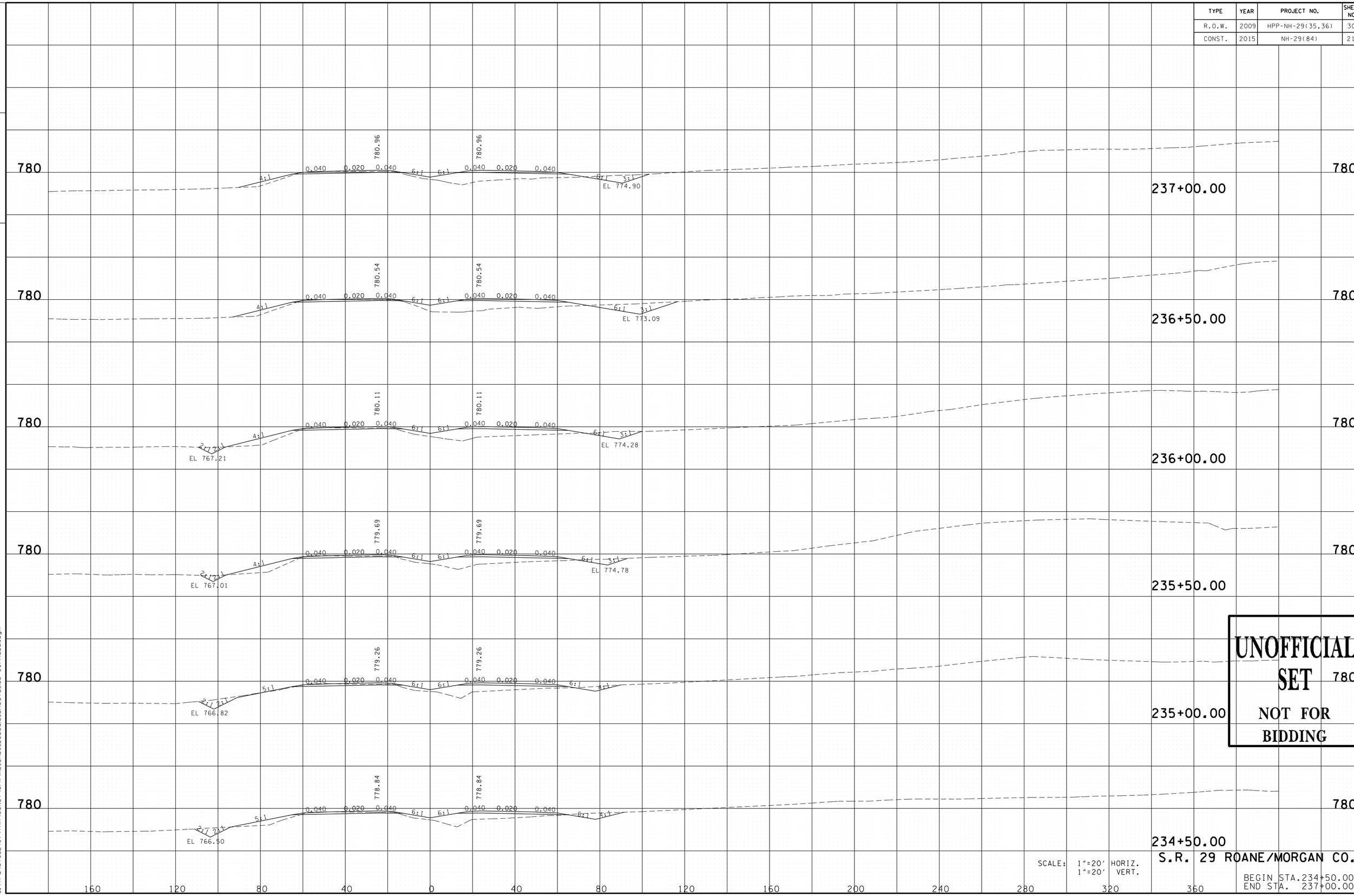
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	306
CONST.	2015	NH-29(84)	213

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.234+50.00
END STA. 237+00.00

11/24/2014 12:23:43 PM
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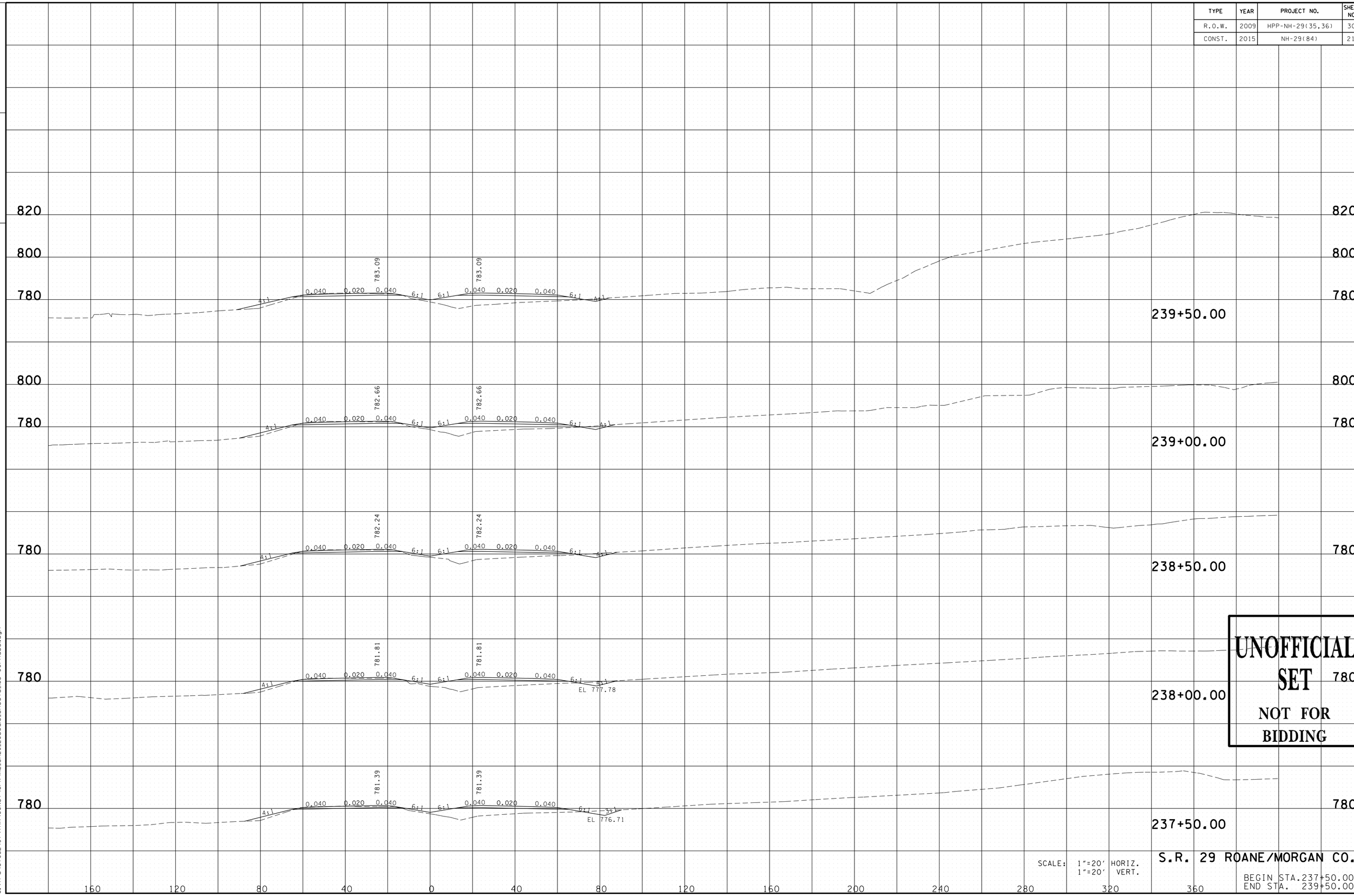
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	307
CONST.	2015	NH-29(84)	214

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.237+50.00
END STA. 239+50.00

11/24/2014 12:23:43 PM
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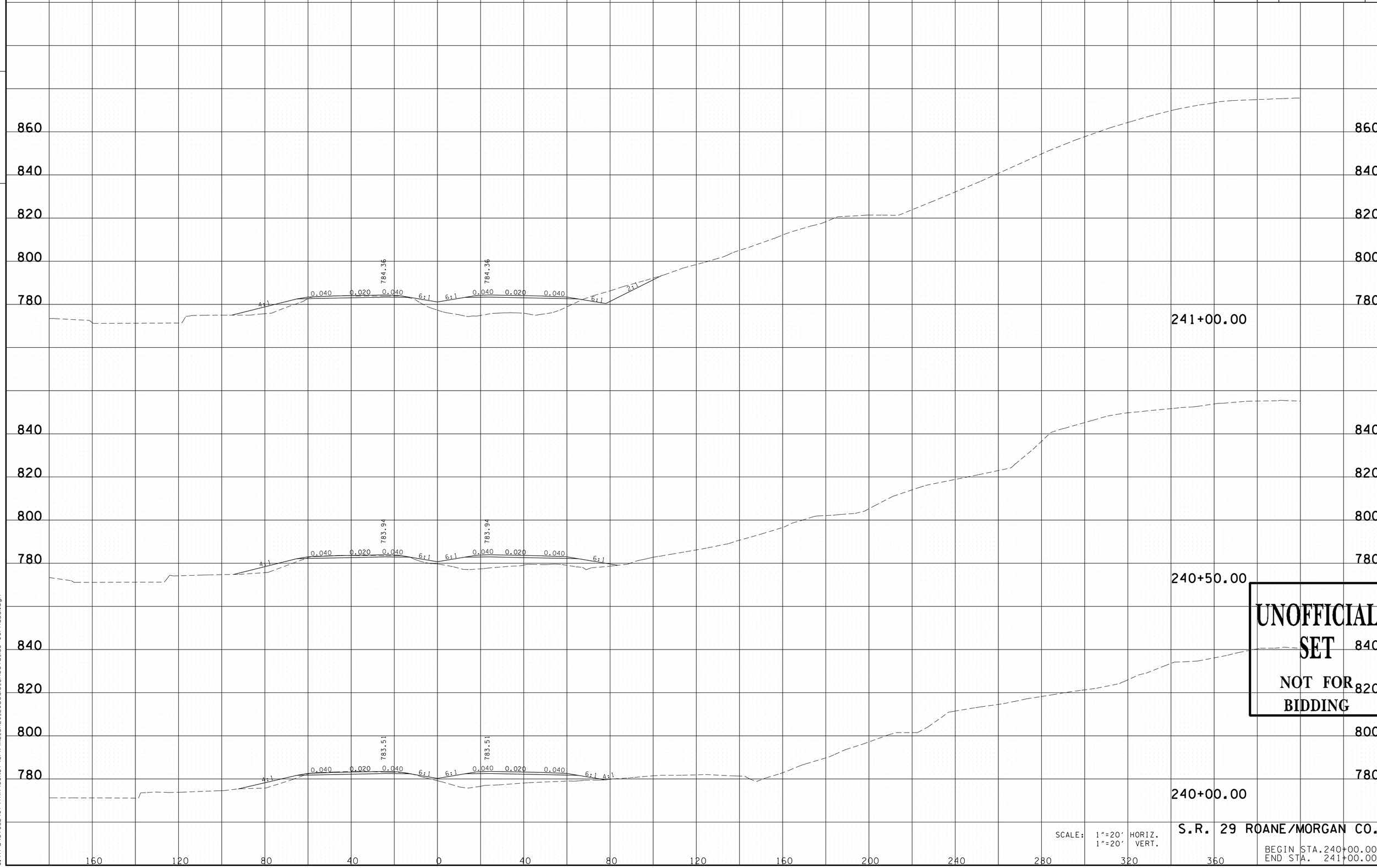
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	308
CONST.	2015	NH-29(84)	215

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 240+00.00
END STA. 241+00.00

11/24/2014 12:23:44 PM
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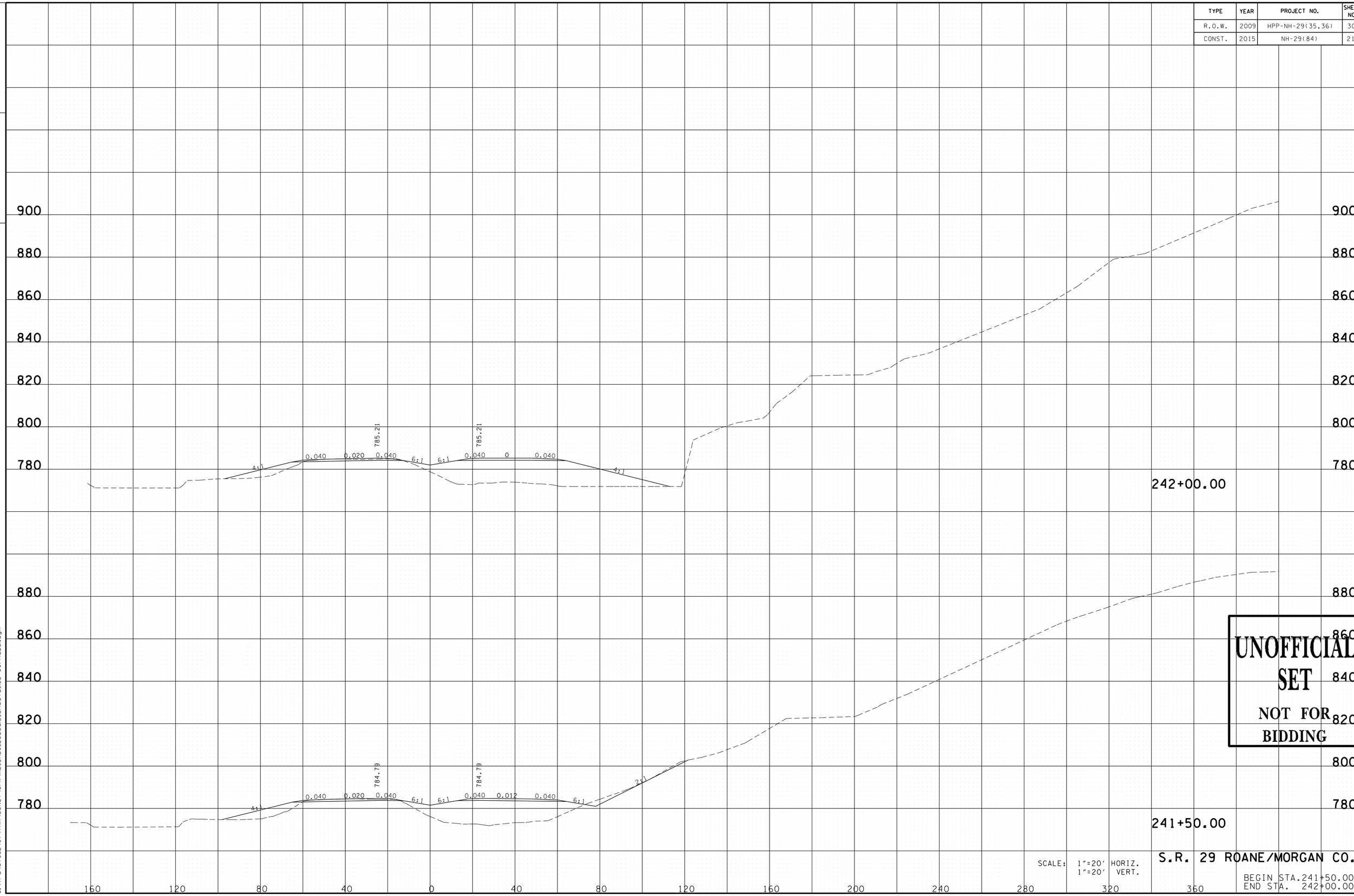
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	309
CONST.	2015	NH-29(84)	216

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA. 241+50.00
END STA. 242+00.00

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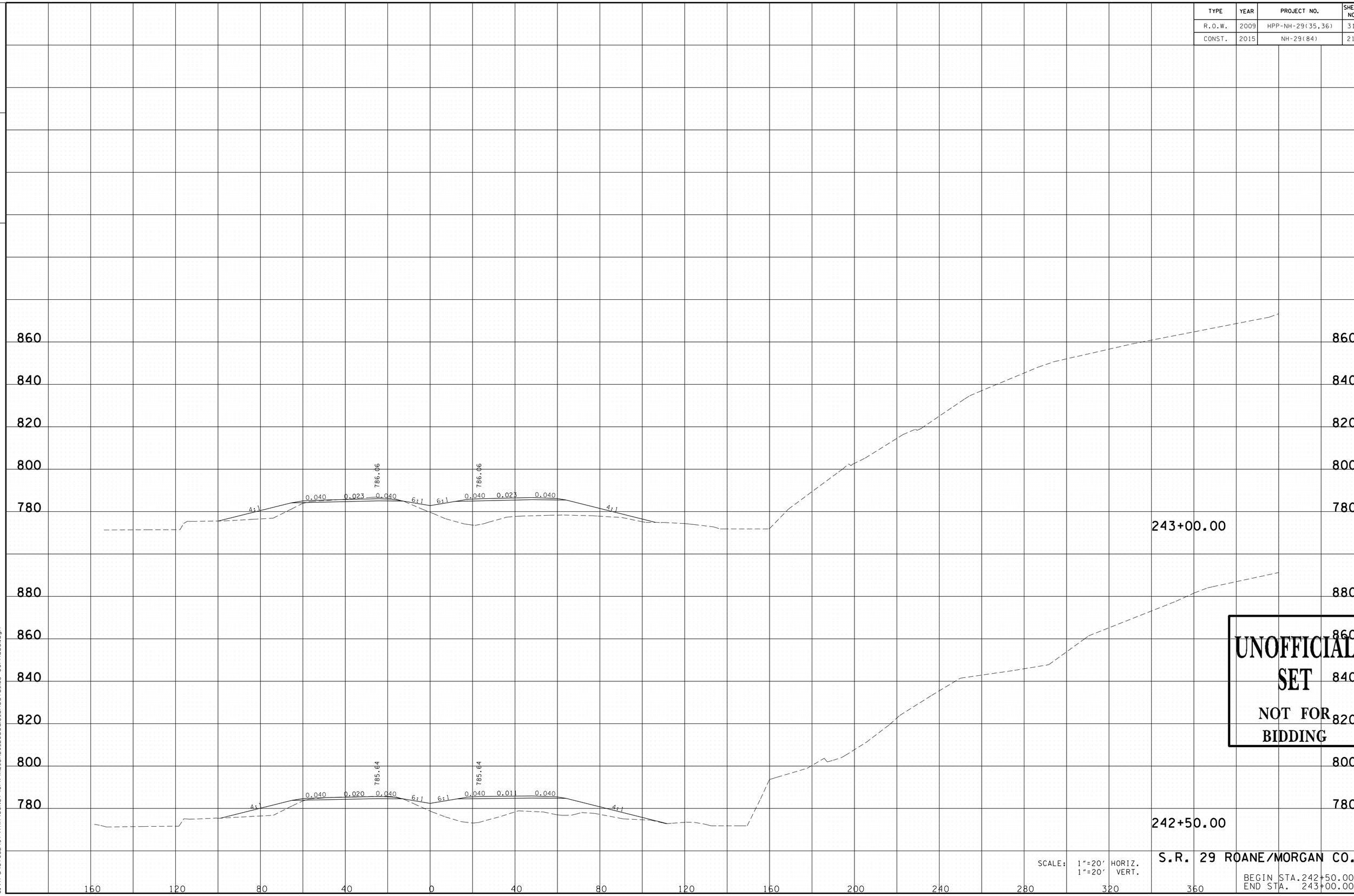
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	310
CONST.	2015	NH-29(84)	217

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.242+50.00
END STA. 243+00.00

11/24/2014 12:23:45 PM
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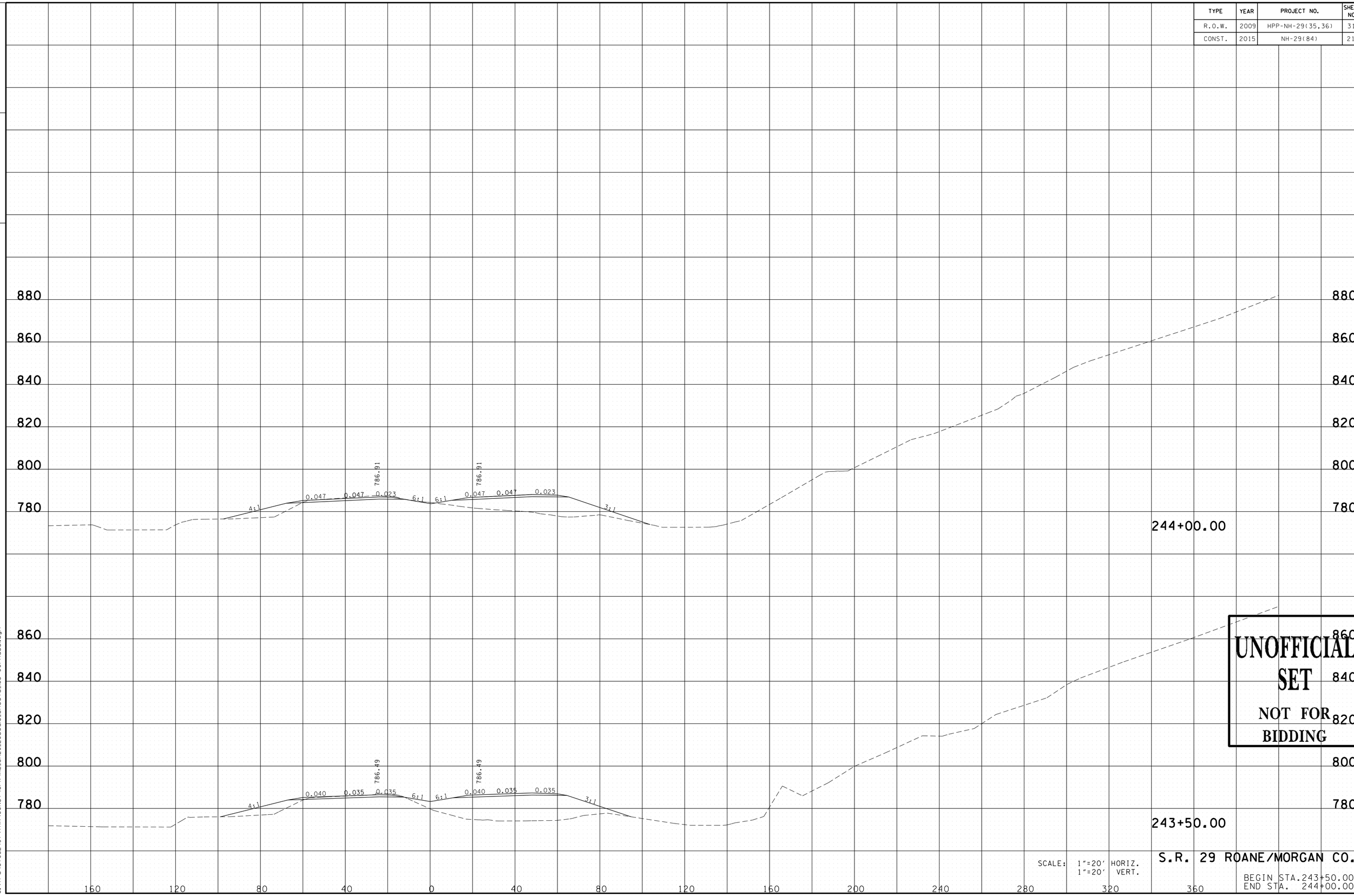
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	311
CONST.	2015	NH-29(84)	218



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.243+50.00
END STA. 244+00.00

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

11/24/2014 12:23:45 PM
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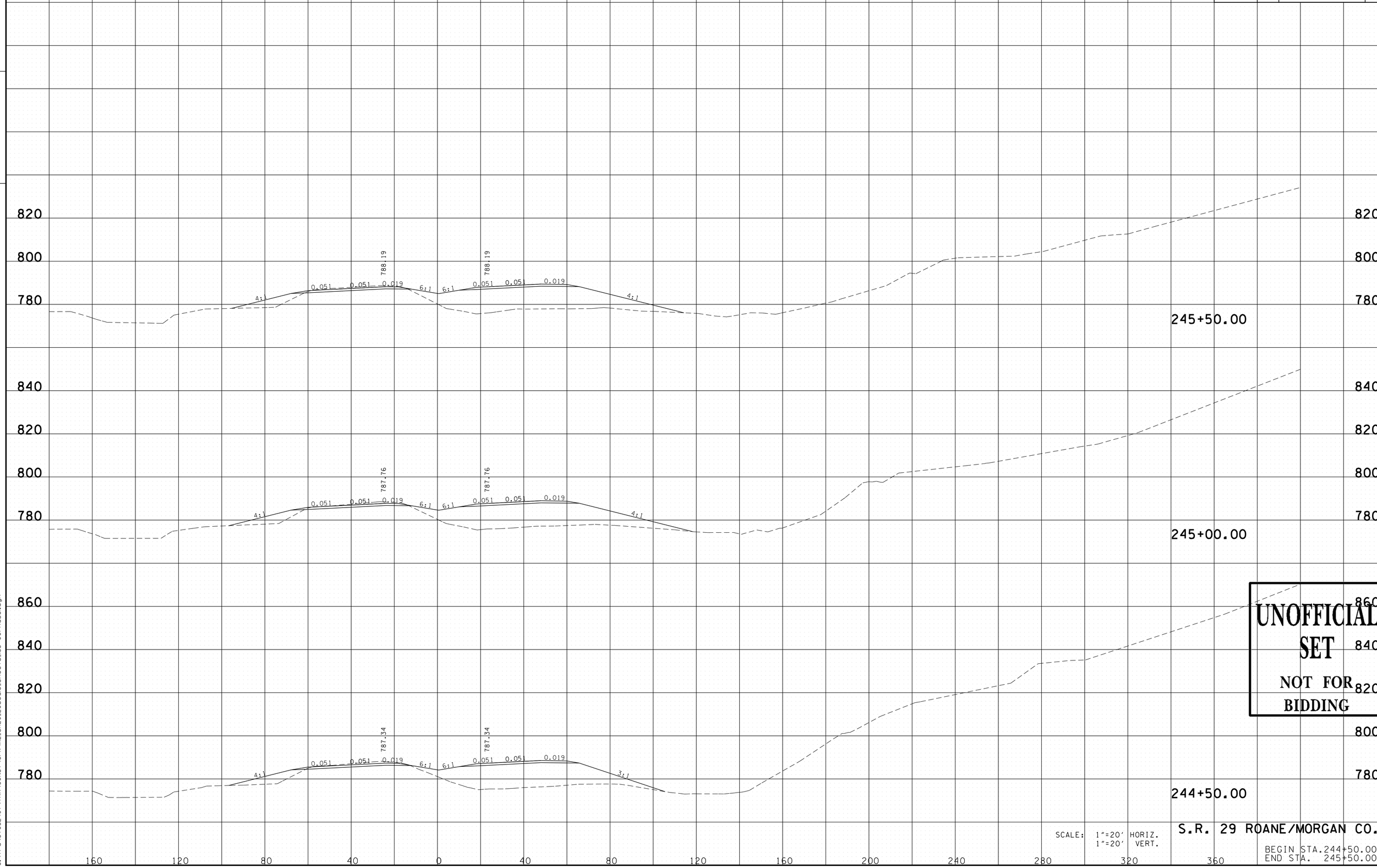
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	312
CONST.	2015	NH-29(84)	219

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

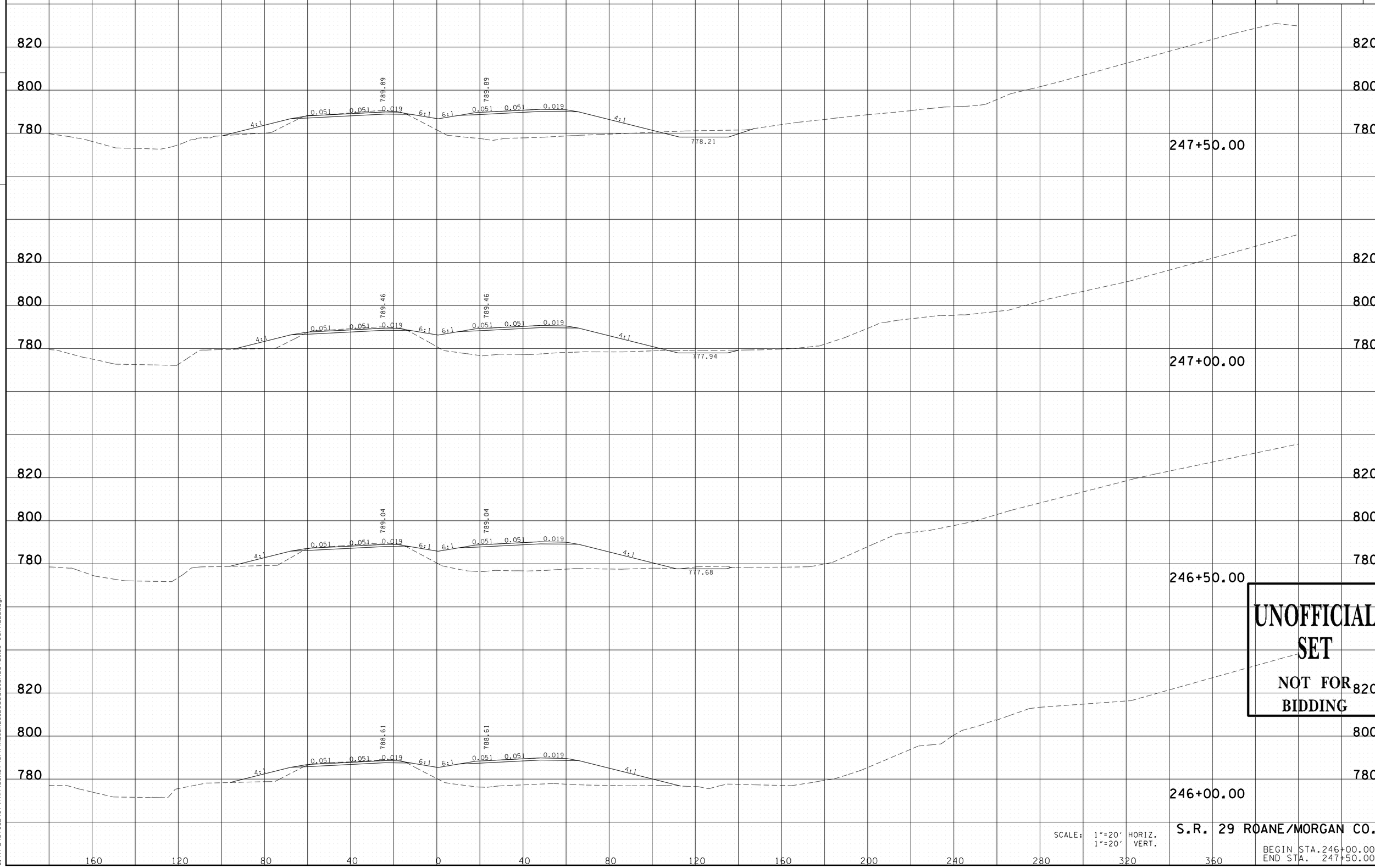
BEGIN STA.244+50.00
END STA. 245+50.00

11/24/2014 12:23:45 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	313
CONST.	2015	NH-29(84)	220

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

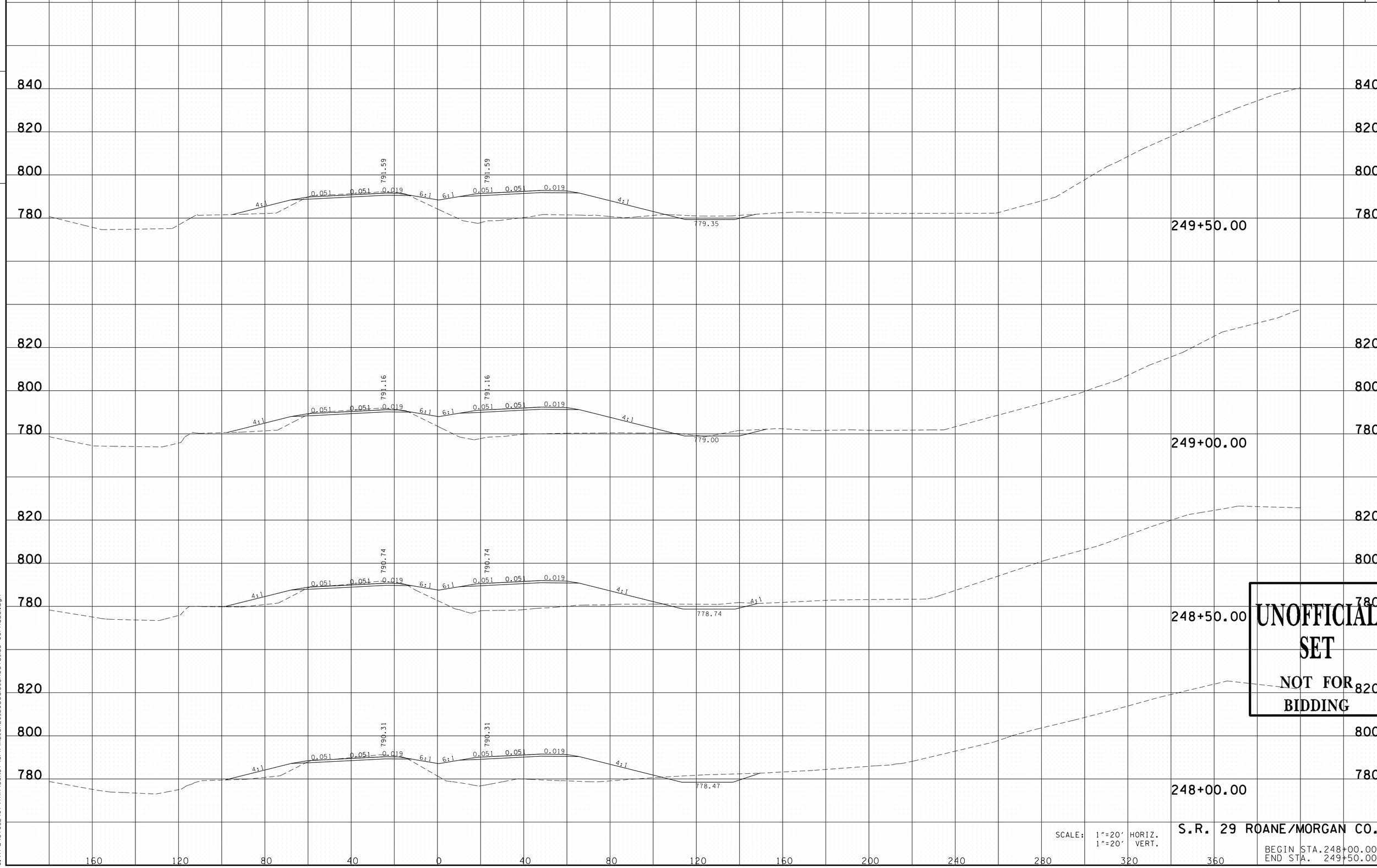
BEGIN STA.246+00.00
END STA. 247+50.00

11/24/2014 12:23:46 PM
G:\tra\C105249\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	314
CONST.	2015	NH-29(84)	221

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

BEGIN STA.248+00.00
END STA. 249+50.00

11/24/2014 12:23:46 PM
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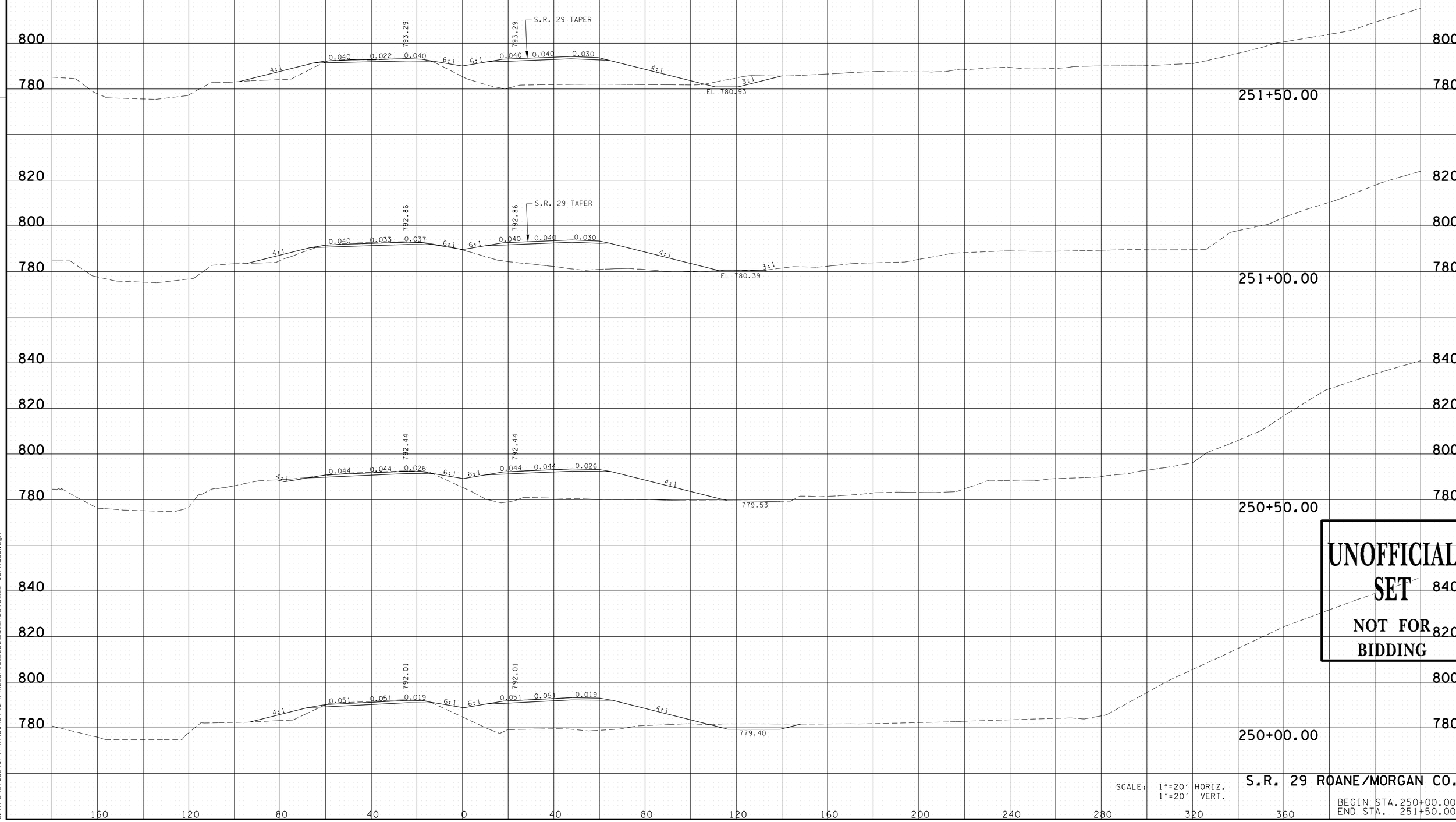
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	315
CONST.	2015	NH-29(84)	222

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

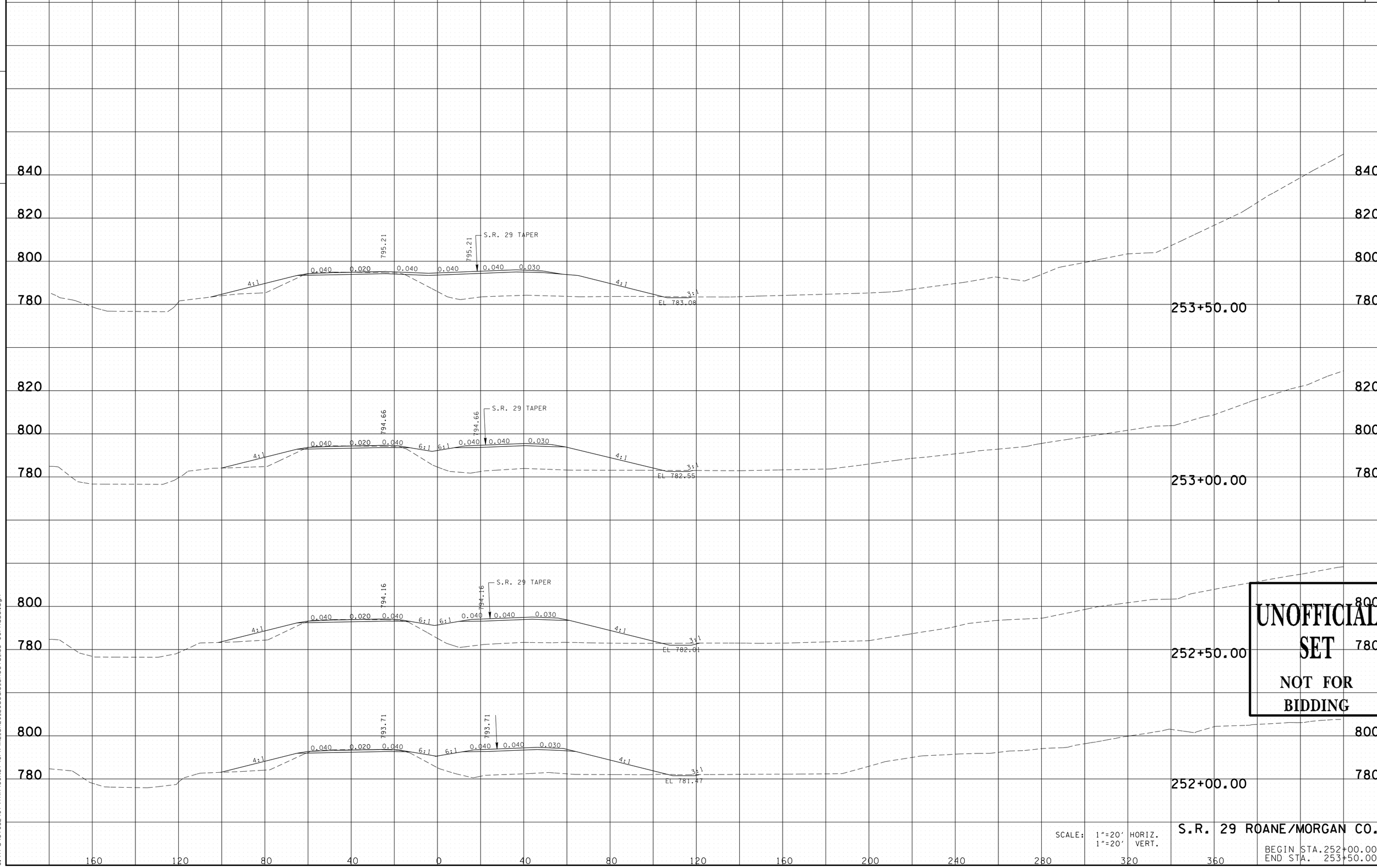
BEGIN STA. 250+00.00
END STA. 251+50.00

11/24/2014 12:23:47 PM
G:\tra\C+052497\TRA\CONST\GPK\XL_SR29.20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	316
CONST.	2015	NH-29(84)	223

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

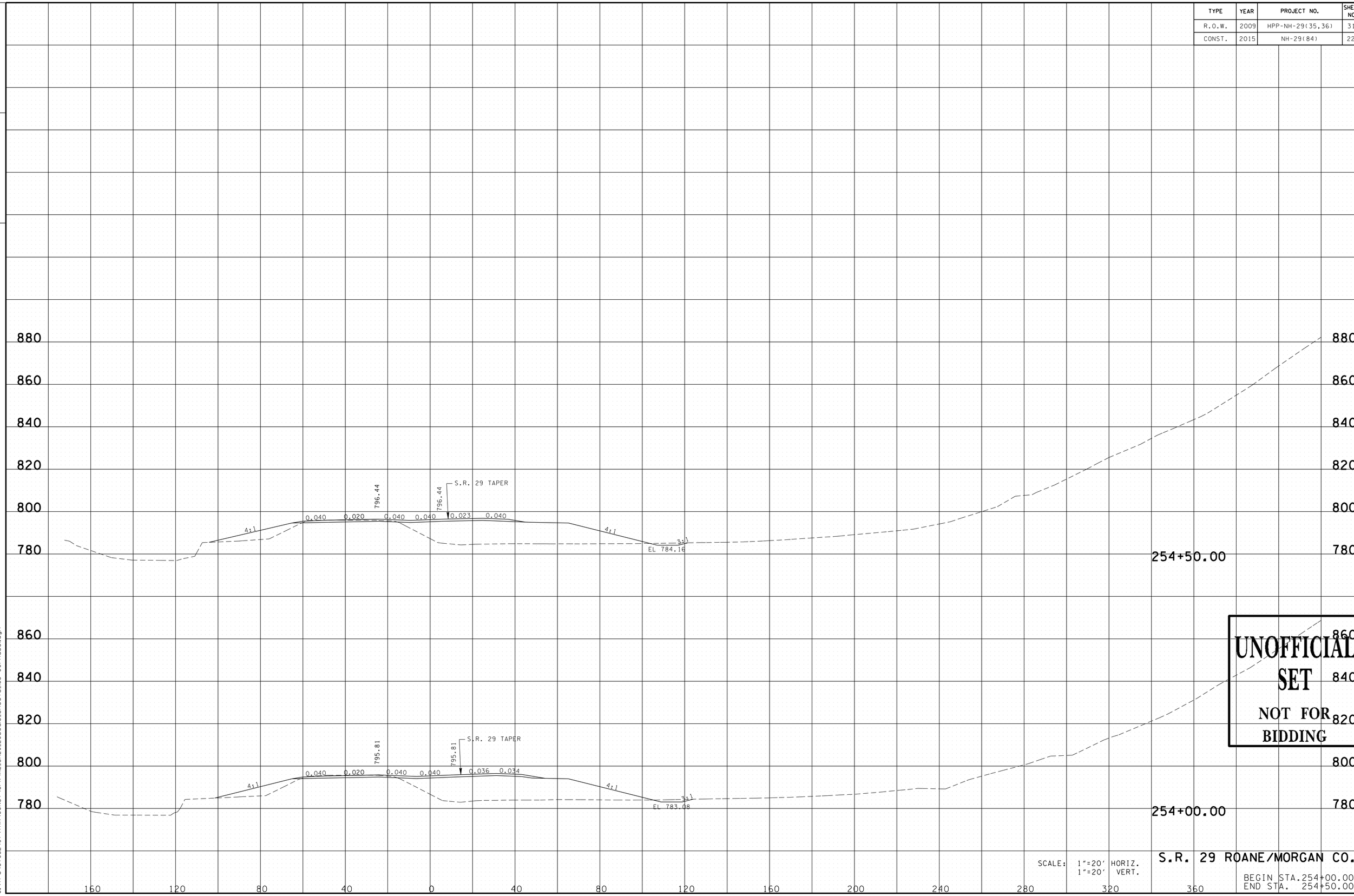
BEGIN STA.252+00.00
END STA. 253+50.00

11/24/2014 12:23:47 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	317
CONST.	2015	NH-29(84)	224

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

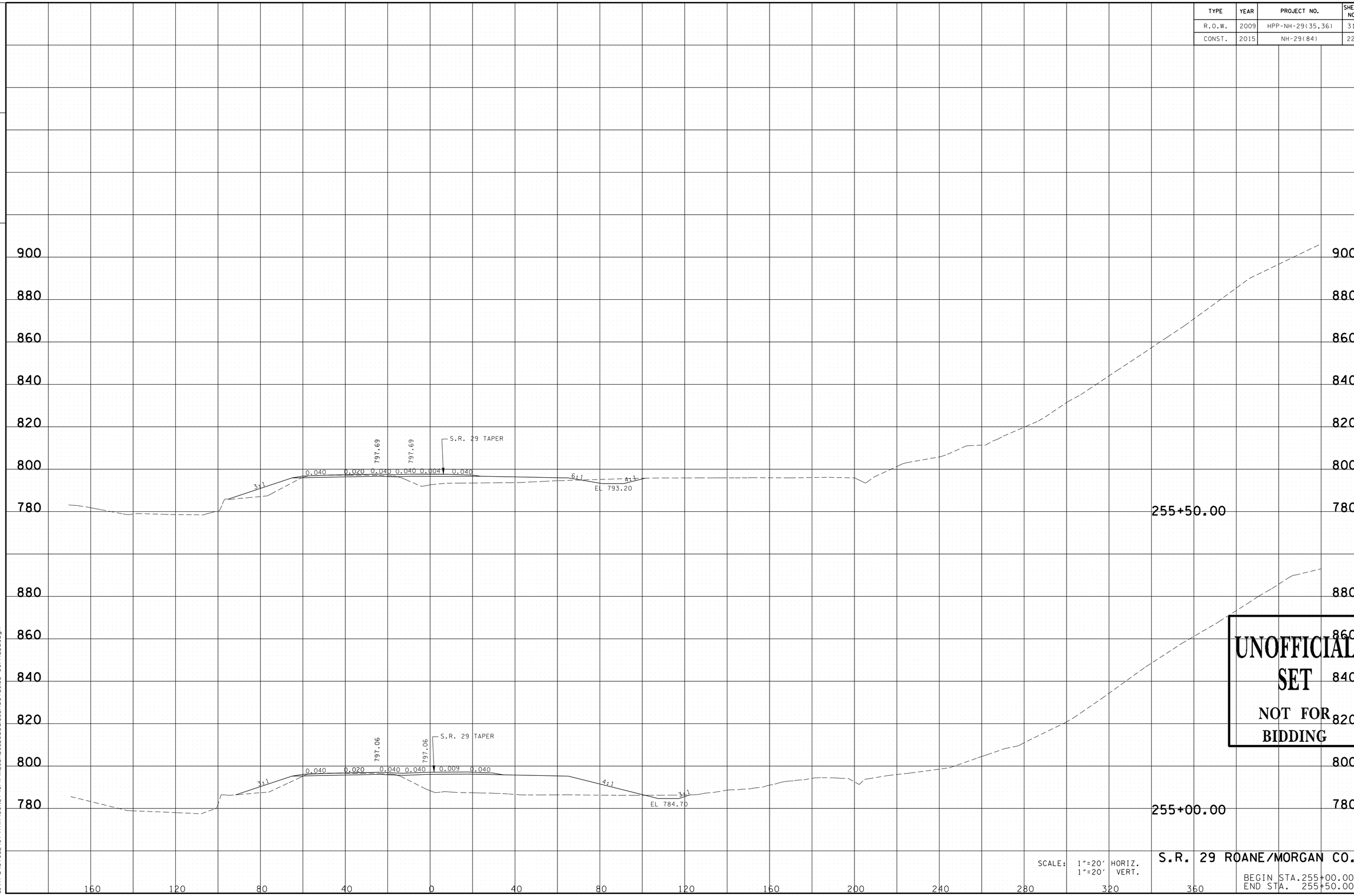
BEGIN STA.254+00.00
END STA. 254+50.00

11/24/2014 12:23:48 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	318
CONST.	2015	NH-29(84)	225

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

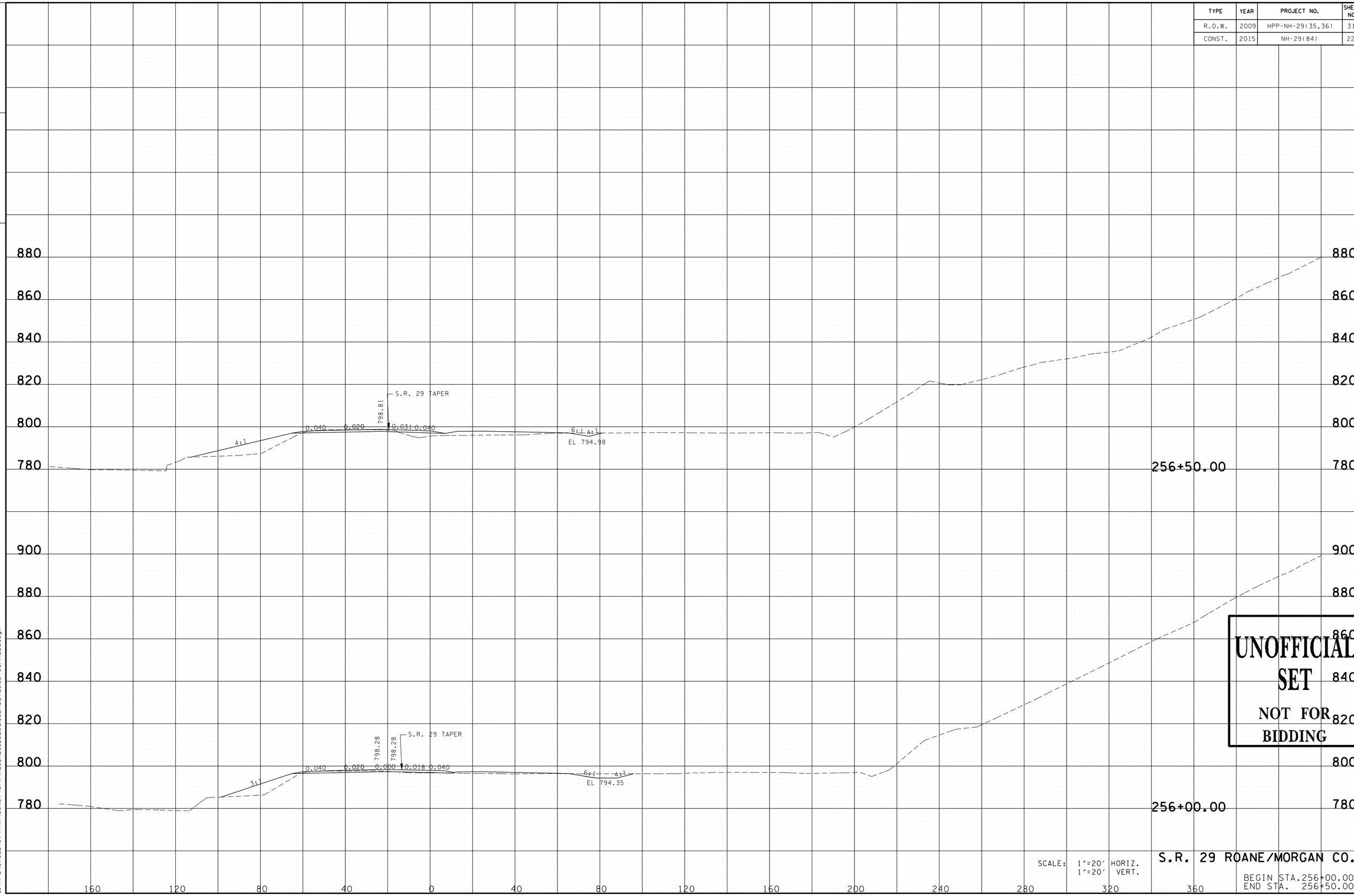
BEGIN STA.255+00.00
END STA. 255+50.00

11/24/2014 12:23:48 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	319
CONST.	2015	NH-29(84)	226

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

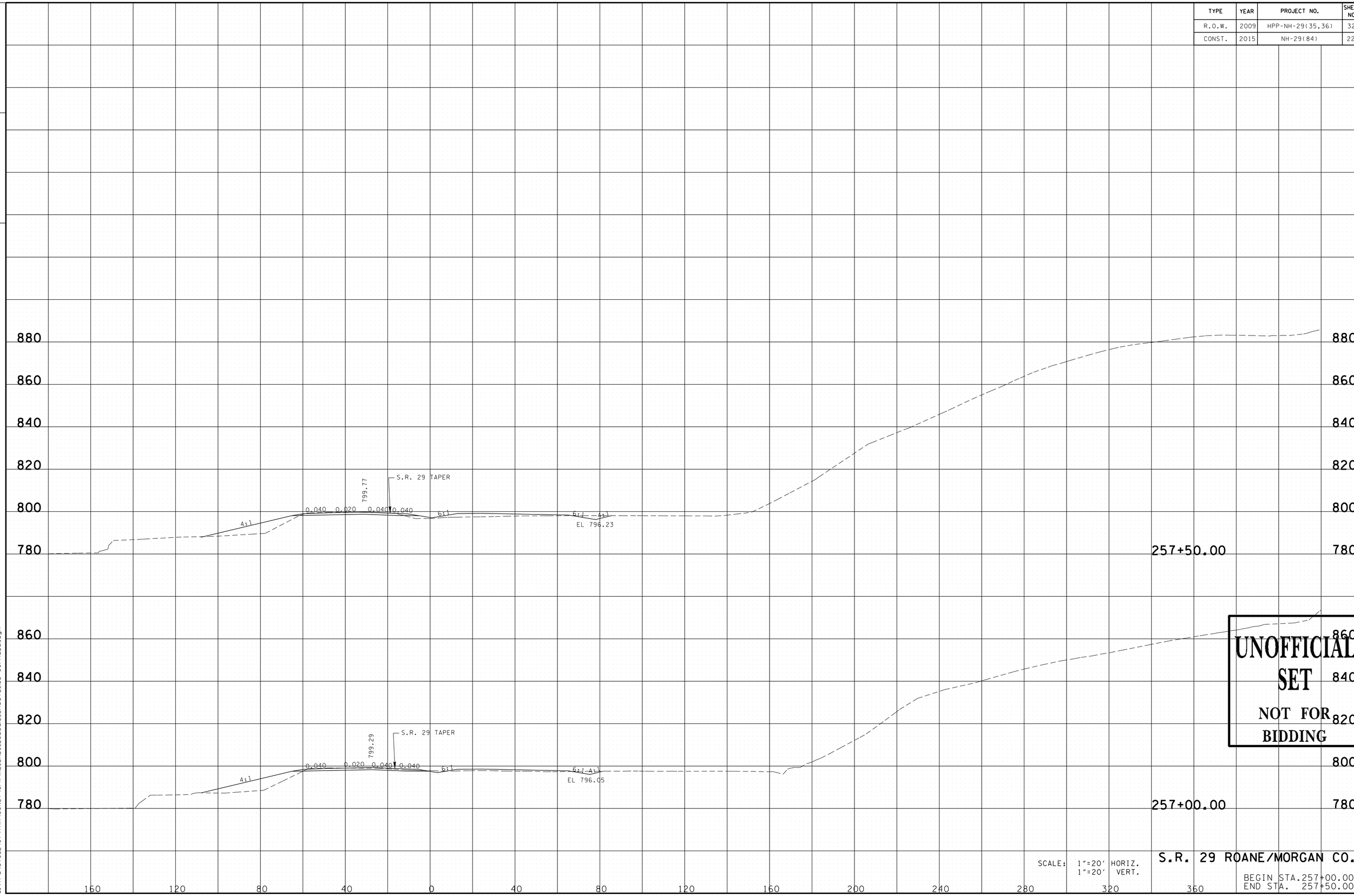
BEGIN STA.256+00.00
END STA. 256+50.00

11/24/2014 12:23:49 PM
G:\tro\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	320
CONST.	2015	NH-29(84)	227

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

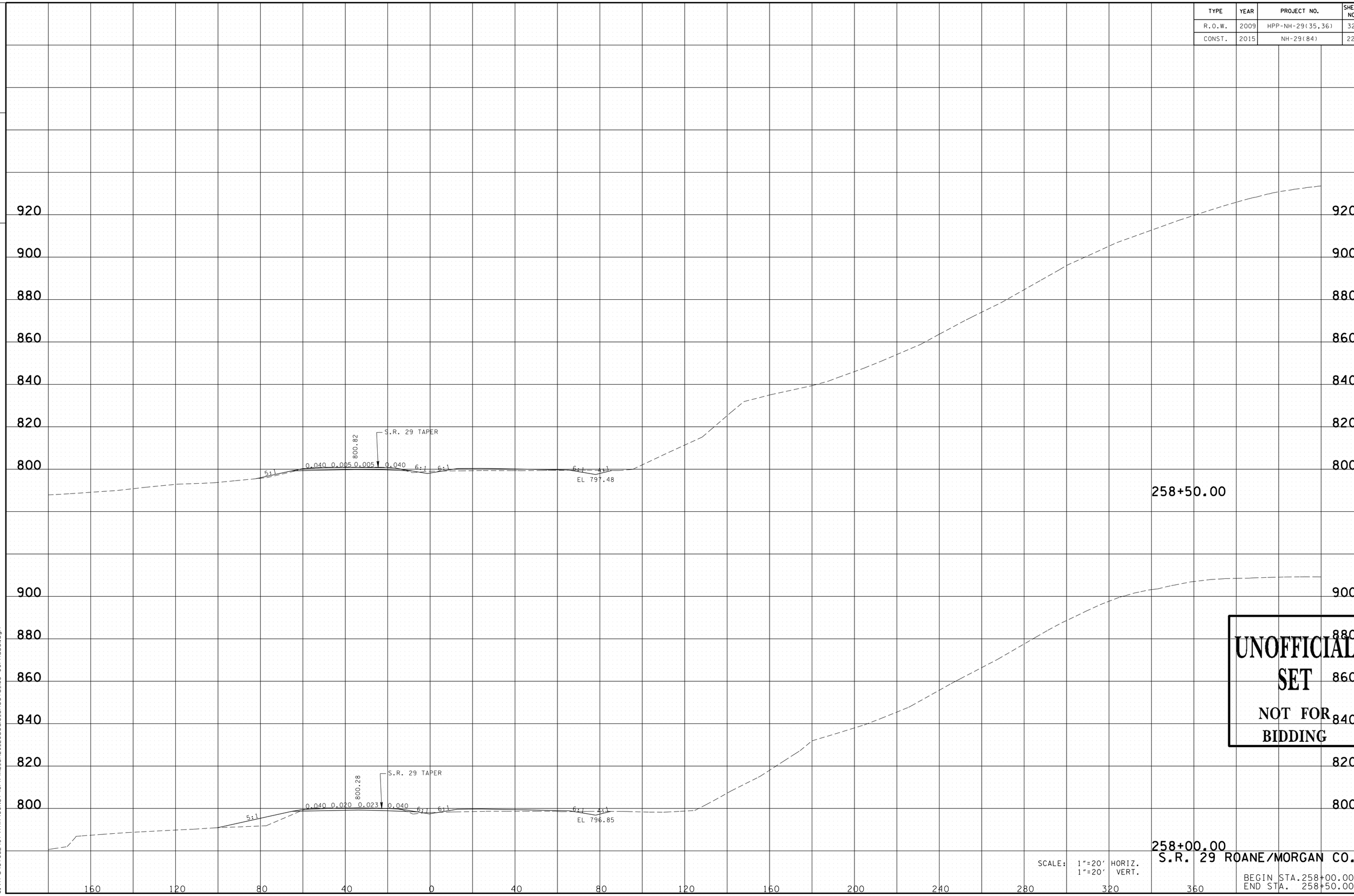
BEGIN STA.257+00.00
END STA. 257+50.00

11/24/2014 12:23:49 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	321
CONST.	2015	NH-29(84)	228

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

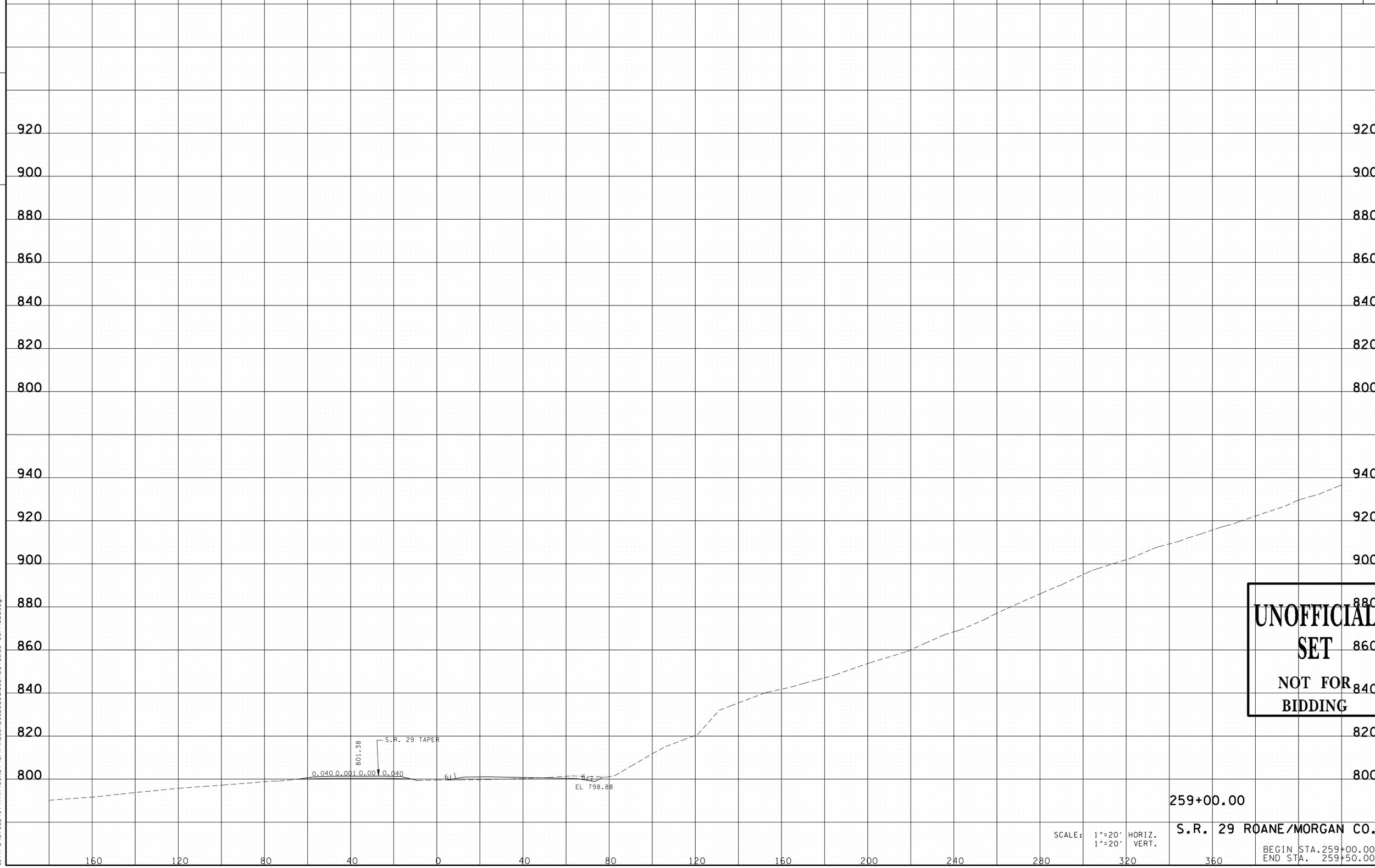
BEGIN STA.258+00.00
END STA. 258+50.00

11/24/2014 12:23:49 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	322
CONST.	2015	NH-29(84)	229

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

259+00.00

SCALE: 1"=20' HORIZ.
1"=20' VERT.

S.R. 29 ROANE/MORGAN CO.

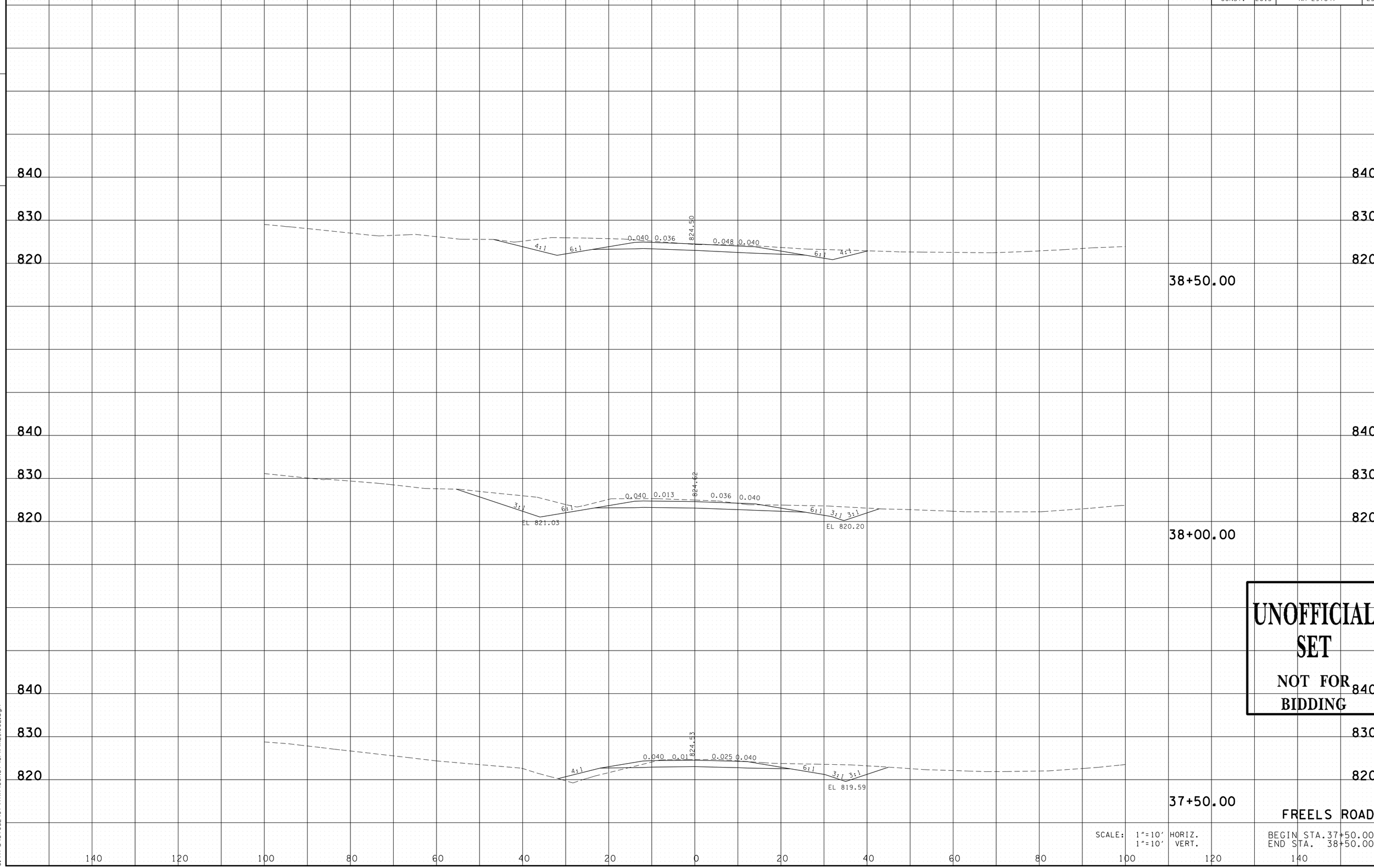
BEGIN STA.259+00.00
END STA. 259+50.00

11/24/2014 12:23:50 PM
G:\tra\Ct052497\TRA\CONST\GPK\XL_SR29_20scale_Sheets_183+00Phase1.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	428
CONST.	2015	NH-29(84)	230

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

FREELS ROAD

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

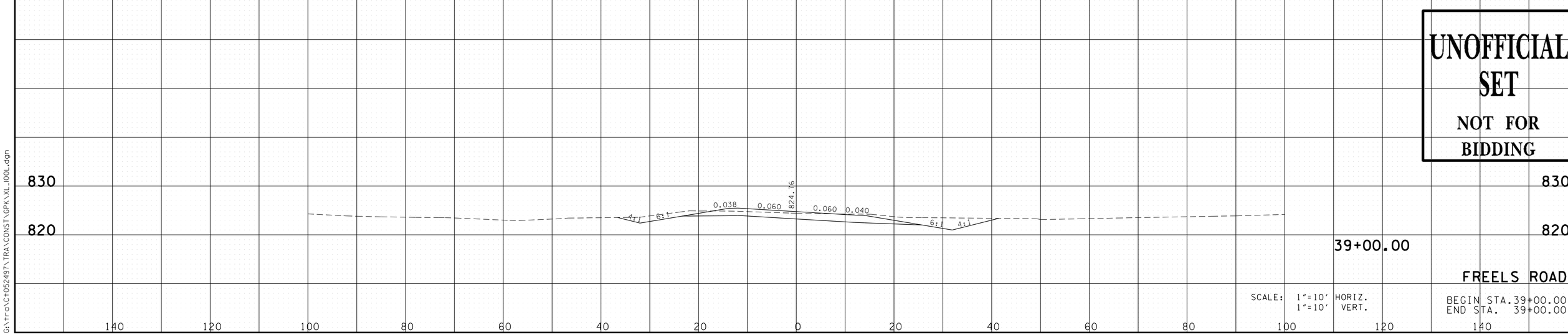
BEGIN STA. 37+50.00
END STA. 38+50.00

11/24/2014 3:01:38 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_100L.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	429
CONST.	2015	NH-29(84)	231

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

FREELS ROAD

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

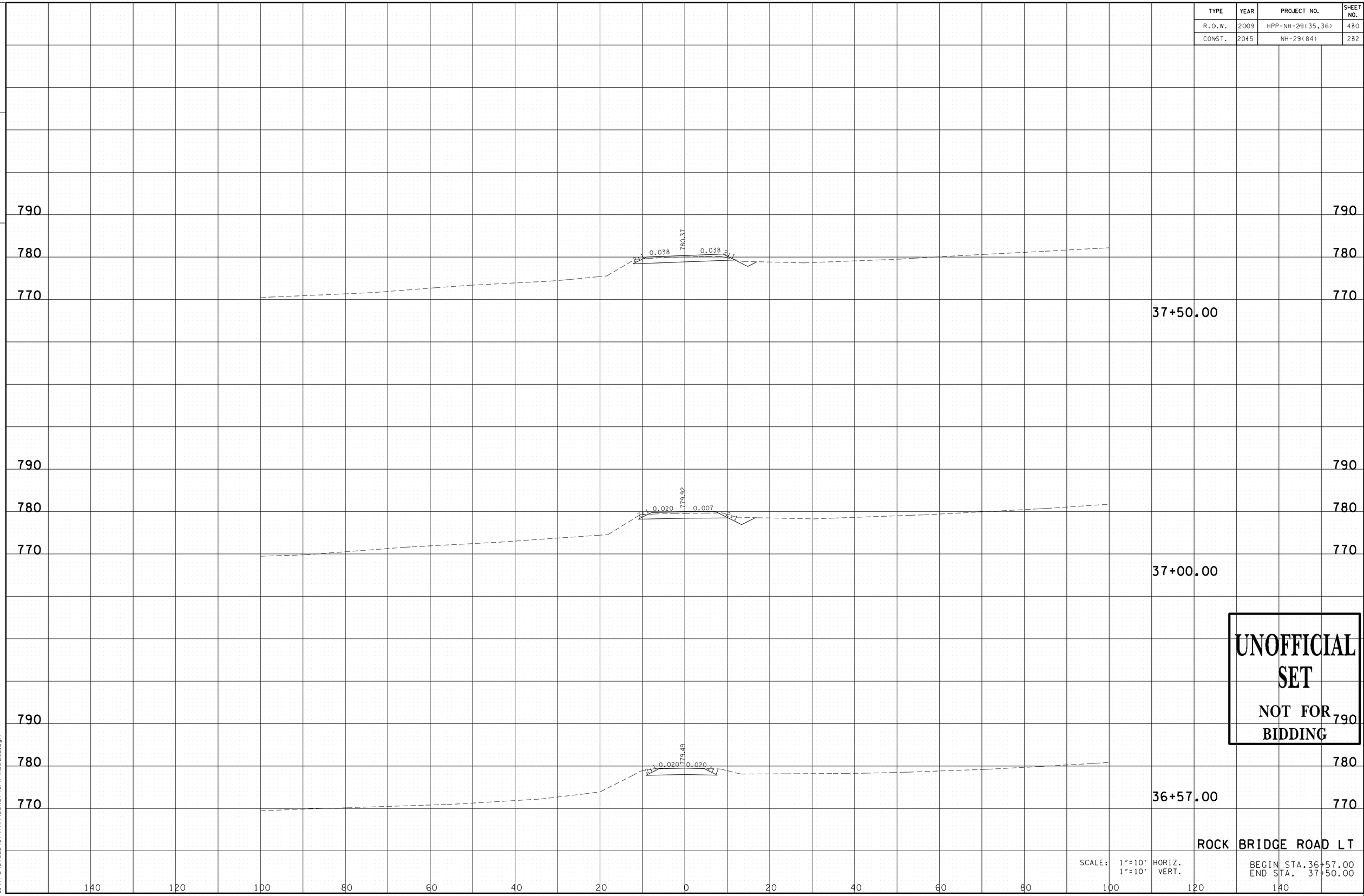
BEGIN STA.39+00.00
END STA. 39+00.00

11/24/2014 3:01:38 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_100L.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	430
CONST.	2015	NH-29(84)	232

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

ROCK BRIDGE ROAD LT

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

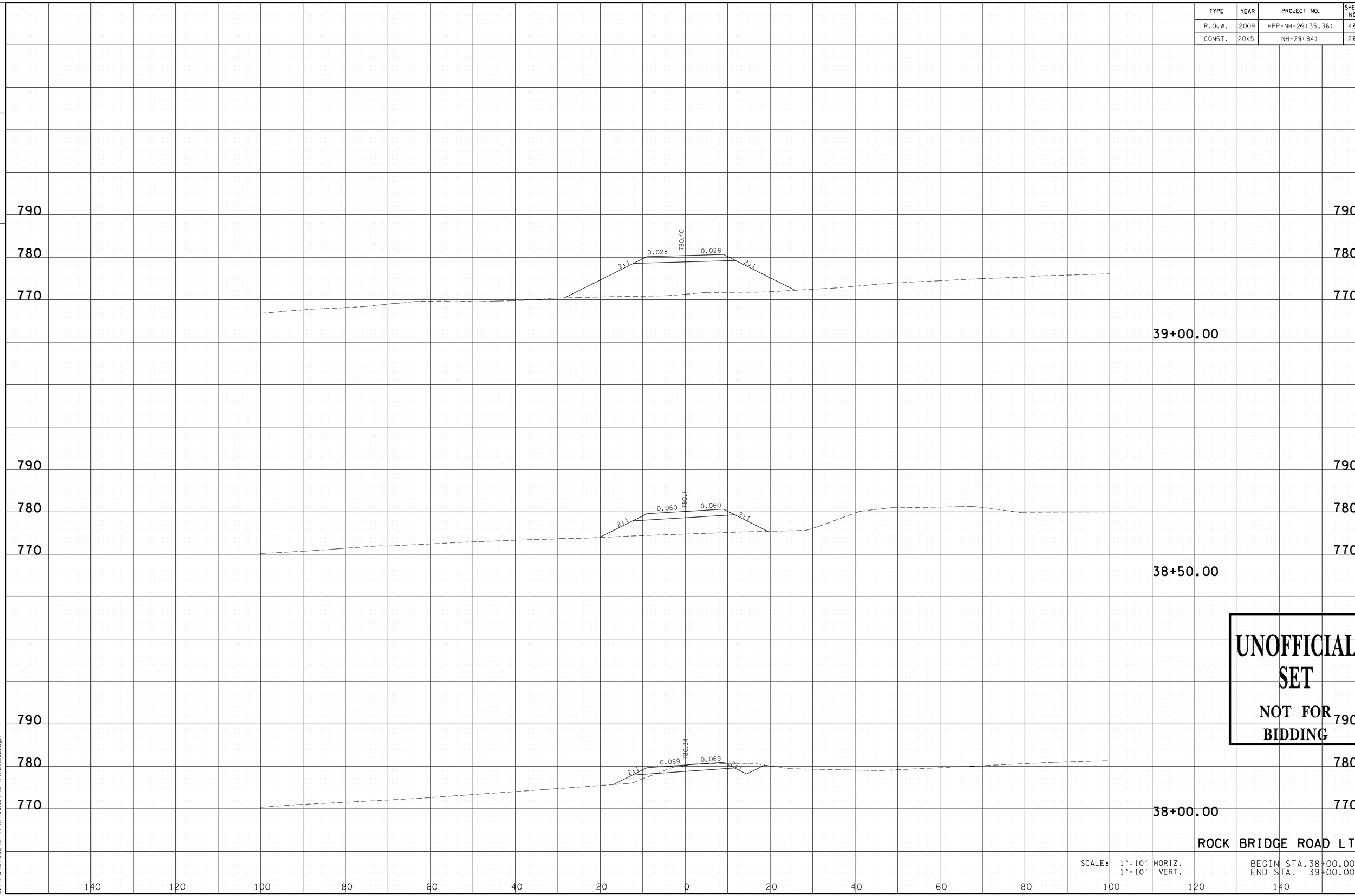
BEGIN STA.36+57.00
END STA. 37+50.00

11/24/2014 3:01:39 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_L29L.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	431
CONST.	2015	NH-29(84)	233

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

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

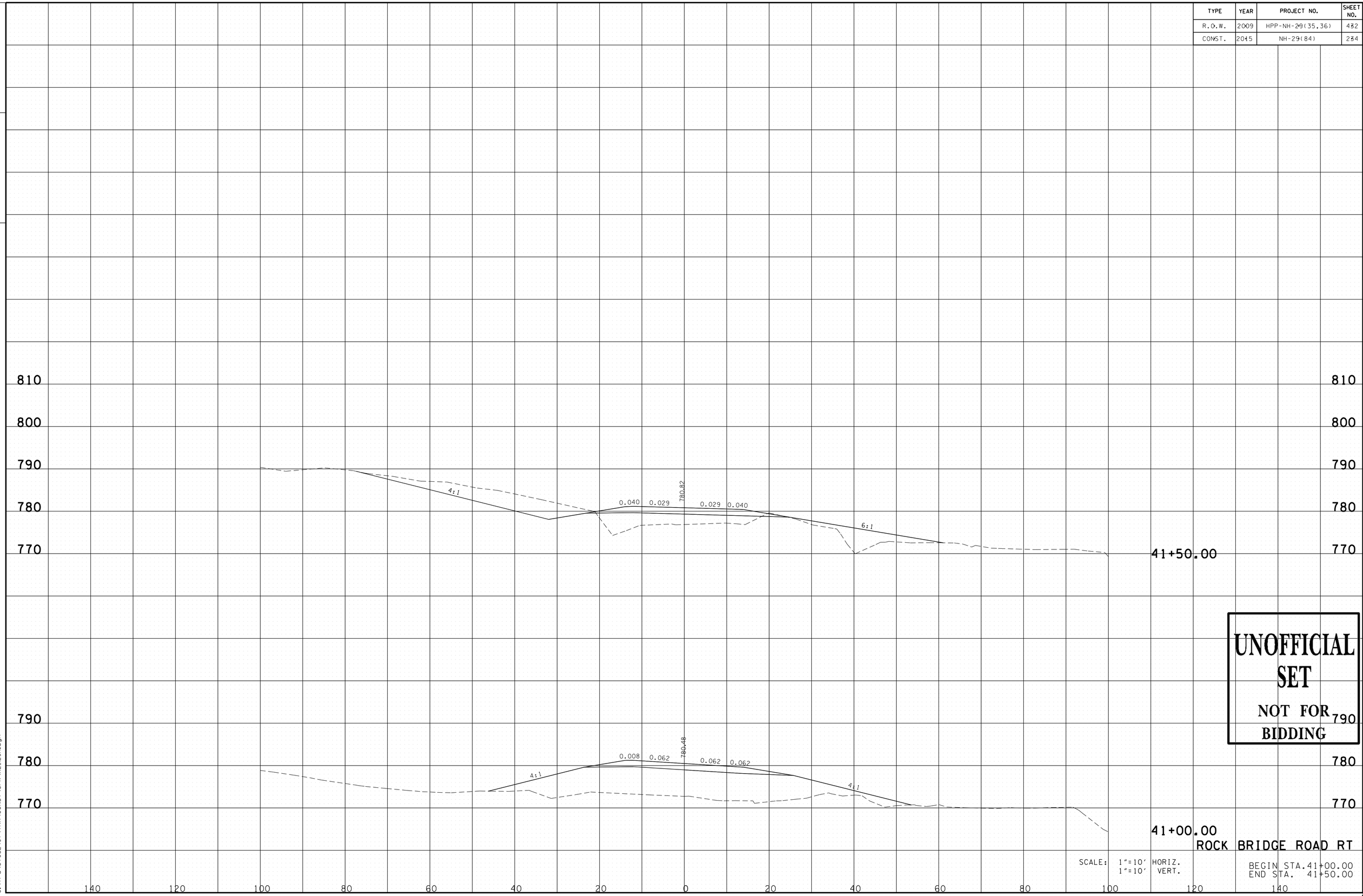
BEGIN STA. 38+00.00
END STA. 39+00.00

11/24/2014 3:01:39 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_129L.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	432
CONST.	2015	NH-29(84)	234

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

ROCK BRIDGE ROAD RT

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

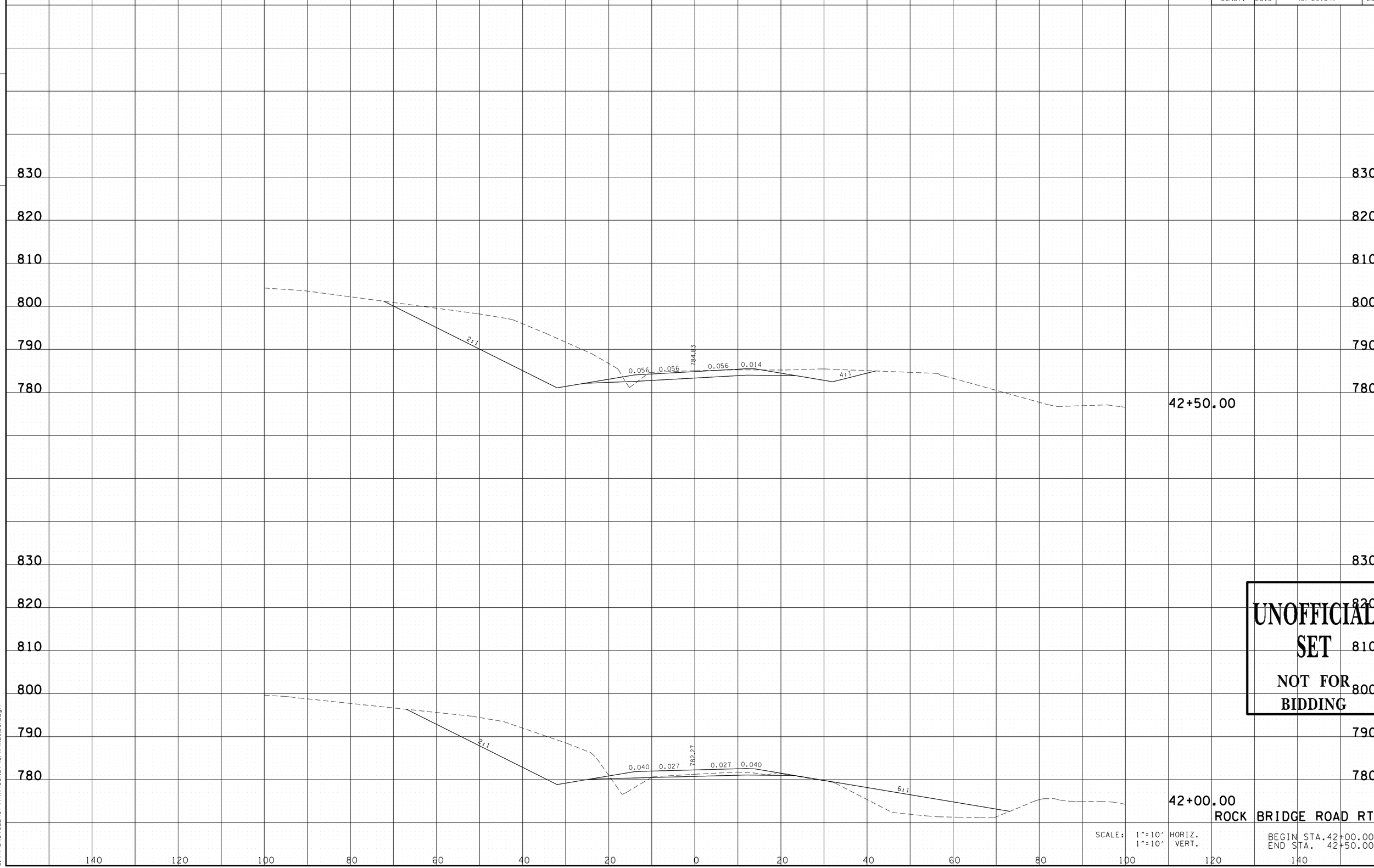
BEGIN STA.41+00.00
END STA. 41+50.00

11/24/2014 3:01:40 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_I29R.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	433
CONST.	2015	NH-29(84)	235

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

ROCK BRIDGE ROAD RT

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

BEGIN STA. 42+00.00
END STA. 42+50.00

11/24/2014 3:01:40 PM
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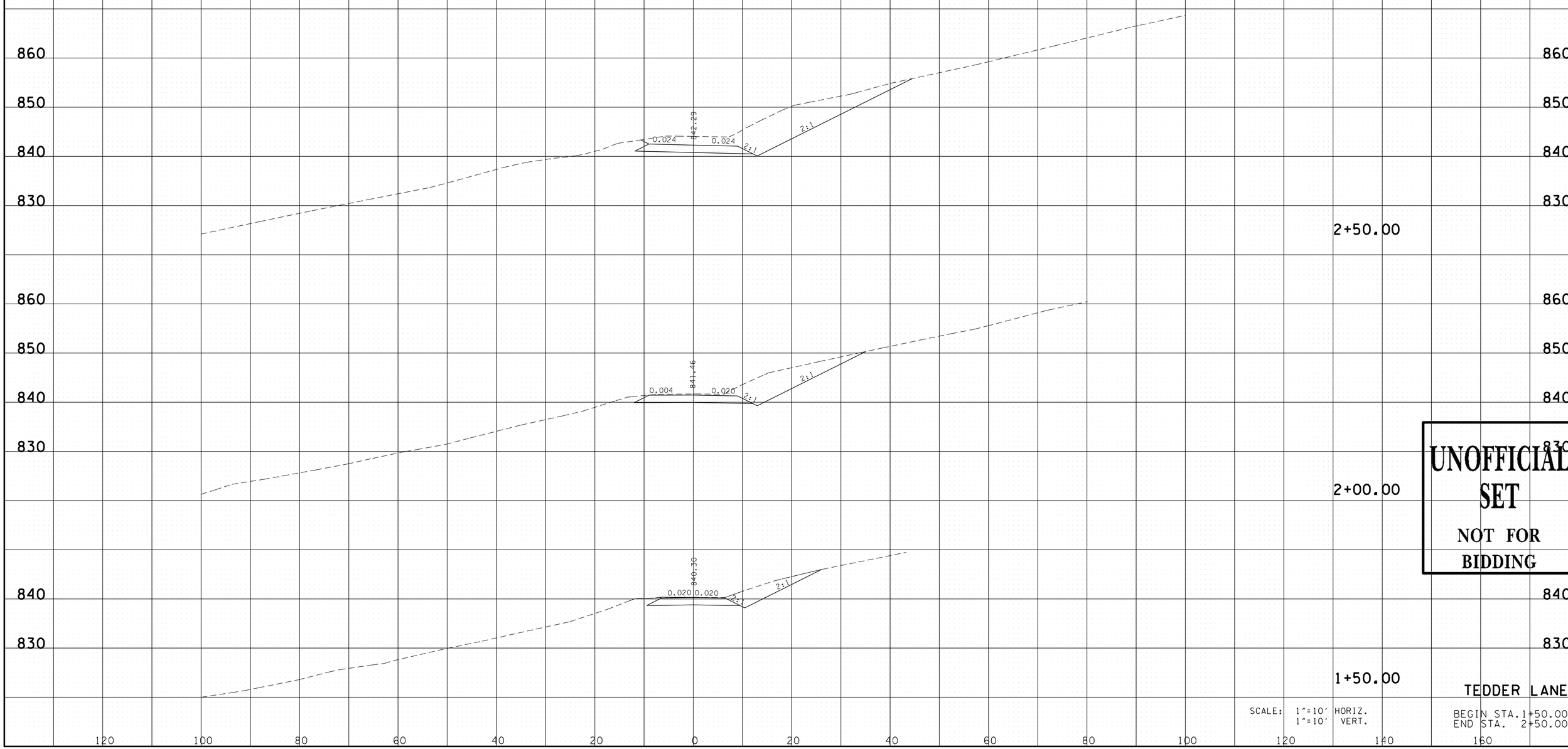
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	434
CONST.	2015	NH-29(84)	236

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

TEDDER LANE

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

BEGIN STA. 1+50.00
END STA. 2+50.00

11/24/2014 3:01:40 PM
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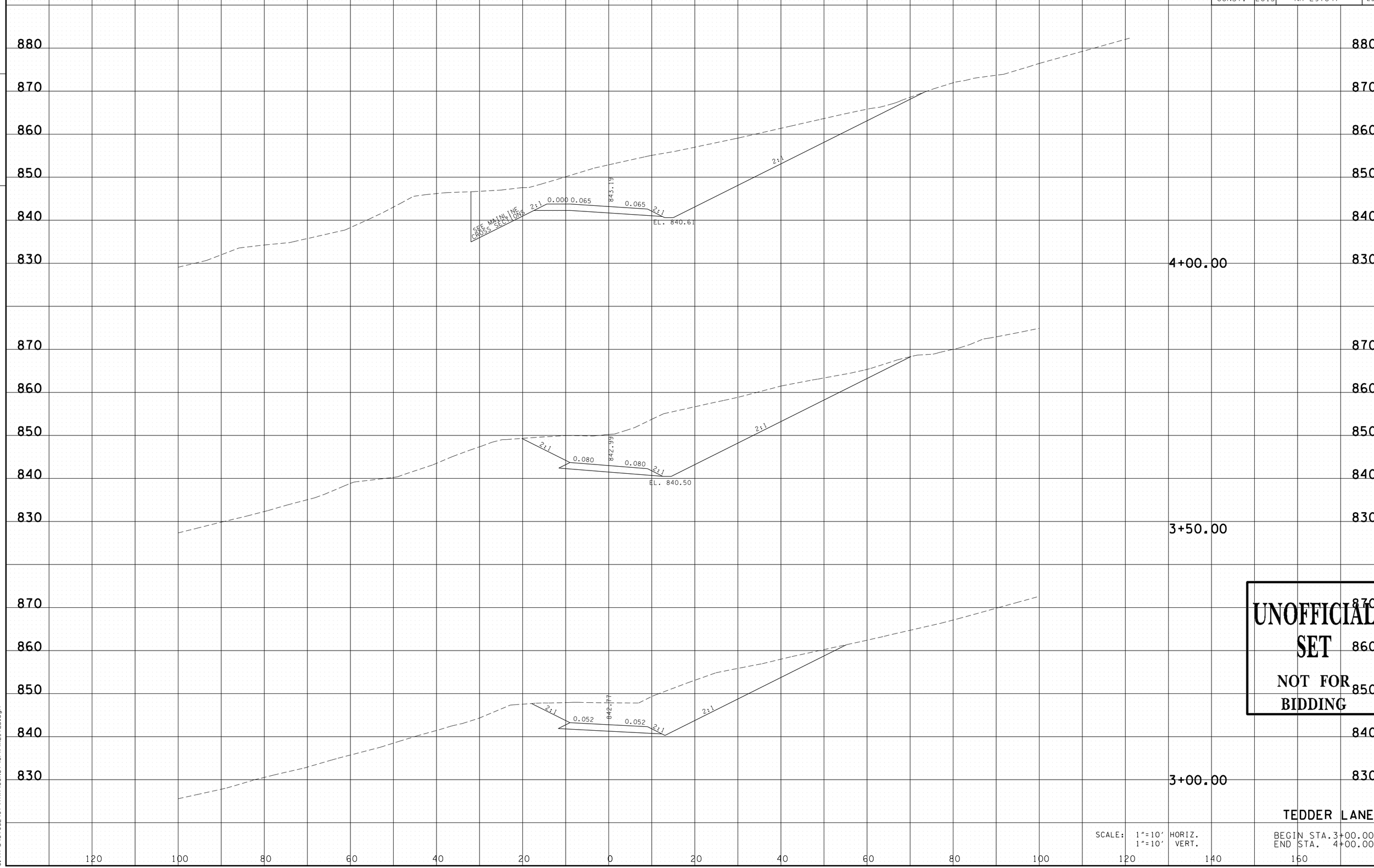
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	435
CONST.	2015	NH-29(84)	237

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

TEDDER LANE

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

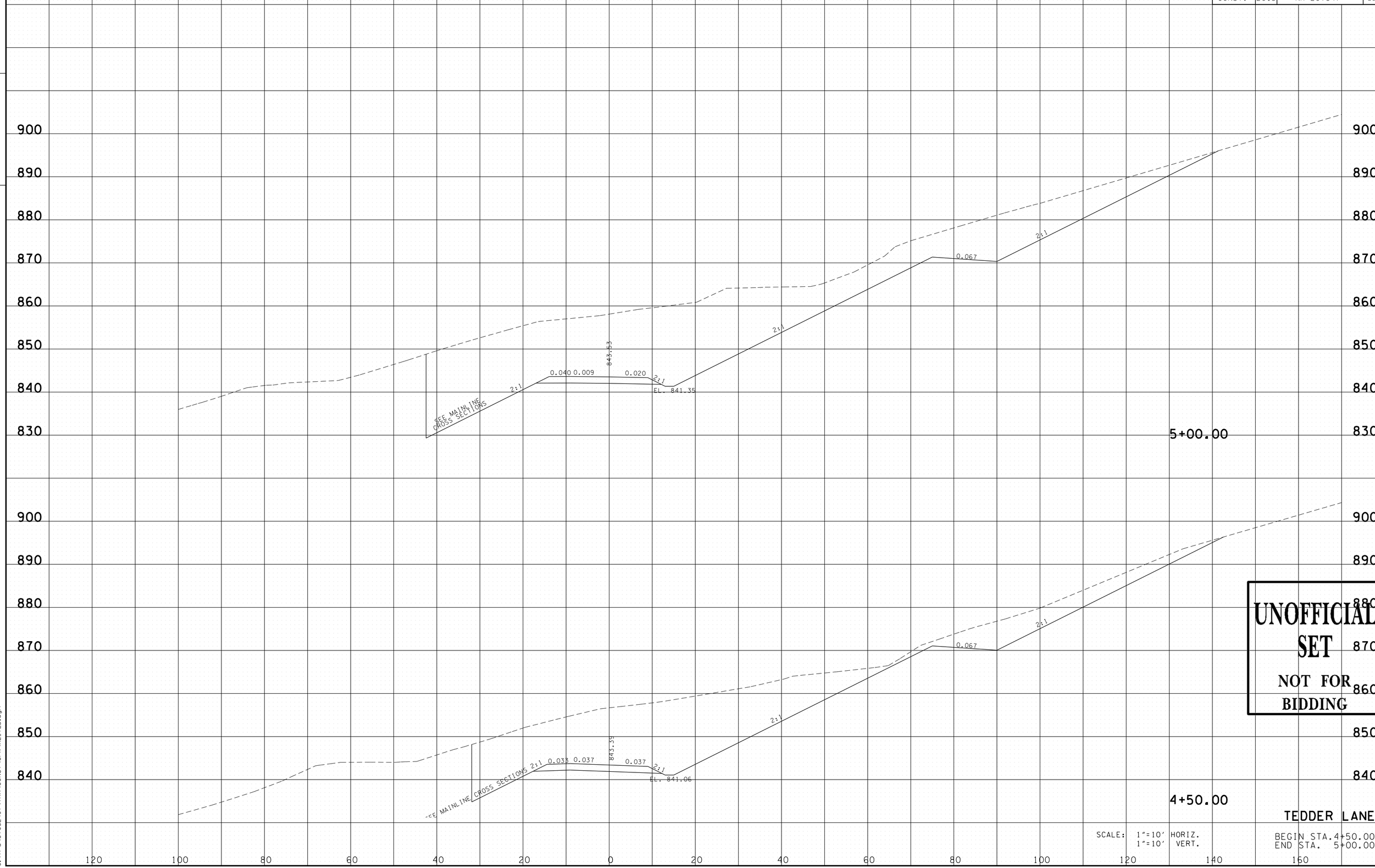
BEGIN STA. 3+00.00
END STA. 4+00.00

11/24/2014 3:01:41 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_TED.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	436
CONST.	2015	NH-29(84)	238

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

TEDDER LANE

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

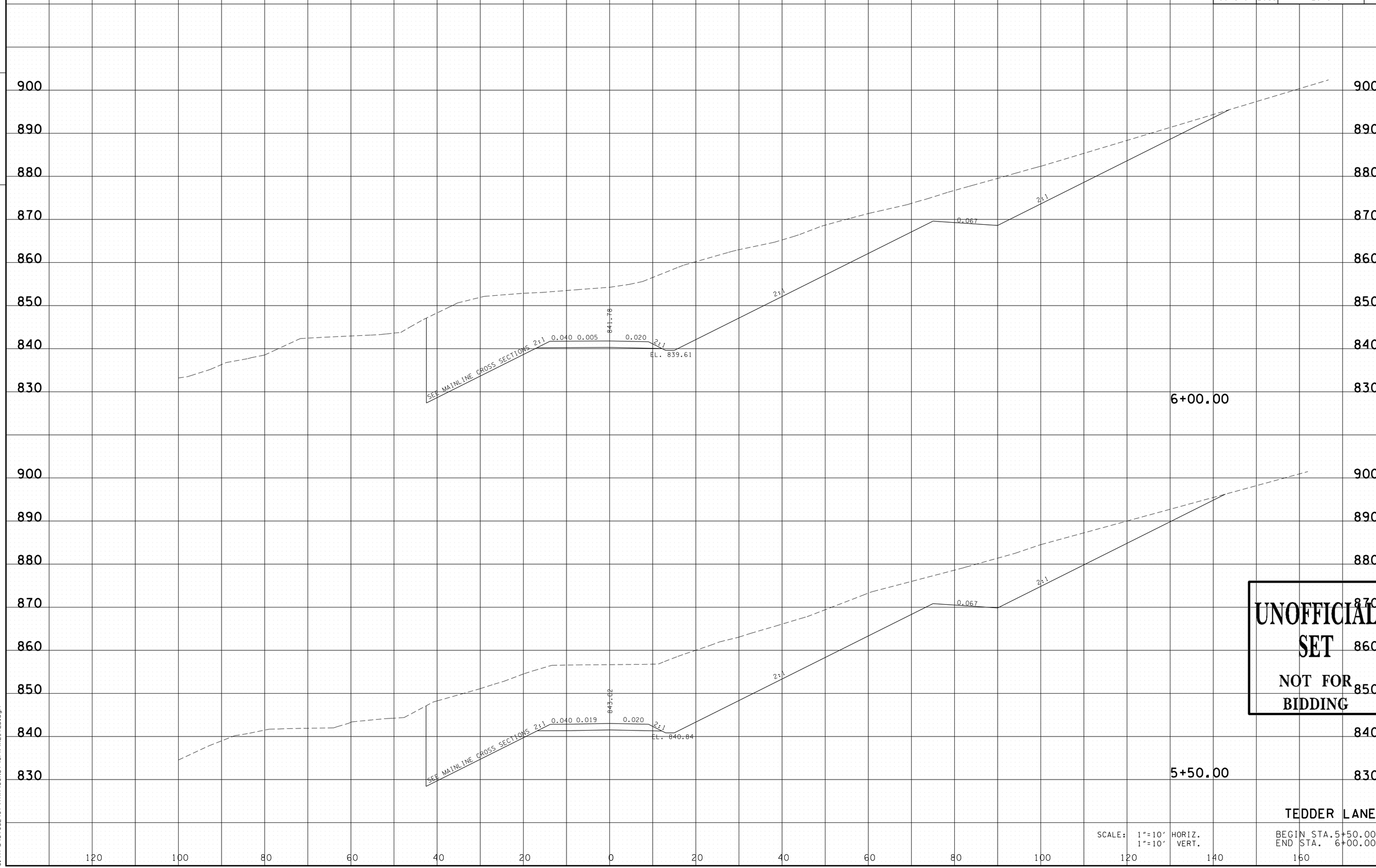
BEGIN STA. 4+50.00
END STA. 5+00.00

11/24/2014 3:01:41 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_TED.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	437
CONST.	2015	NH-29(84)	239

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

TEDDER LANE

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

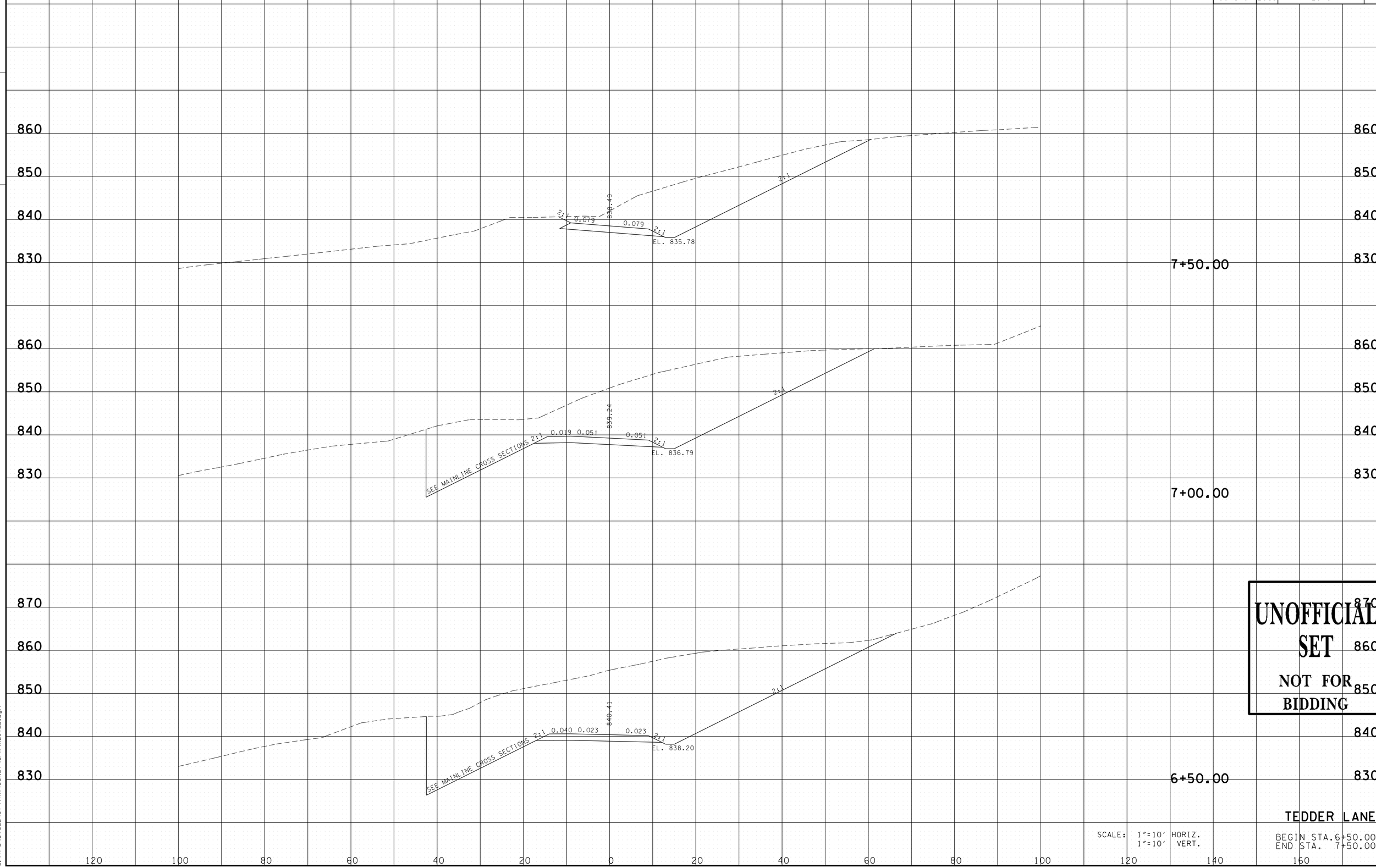
BEGIN STA.5+50.00
END STA. 6+00.00

11/24/2014 3:01:42 PM
G:\trg\Ct052497\TRA\CONST\GPK\XL_TED.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	438
CONST.	2015	NH-29(84)	240

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

TEDDER LANE

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

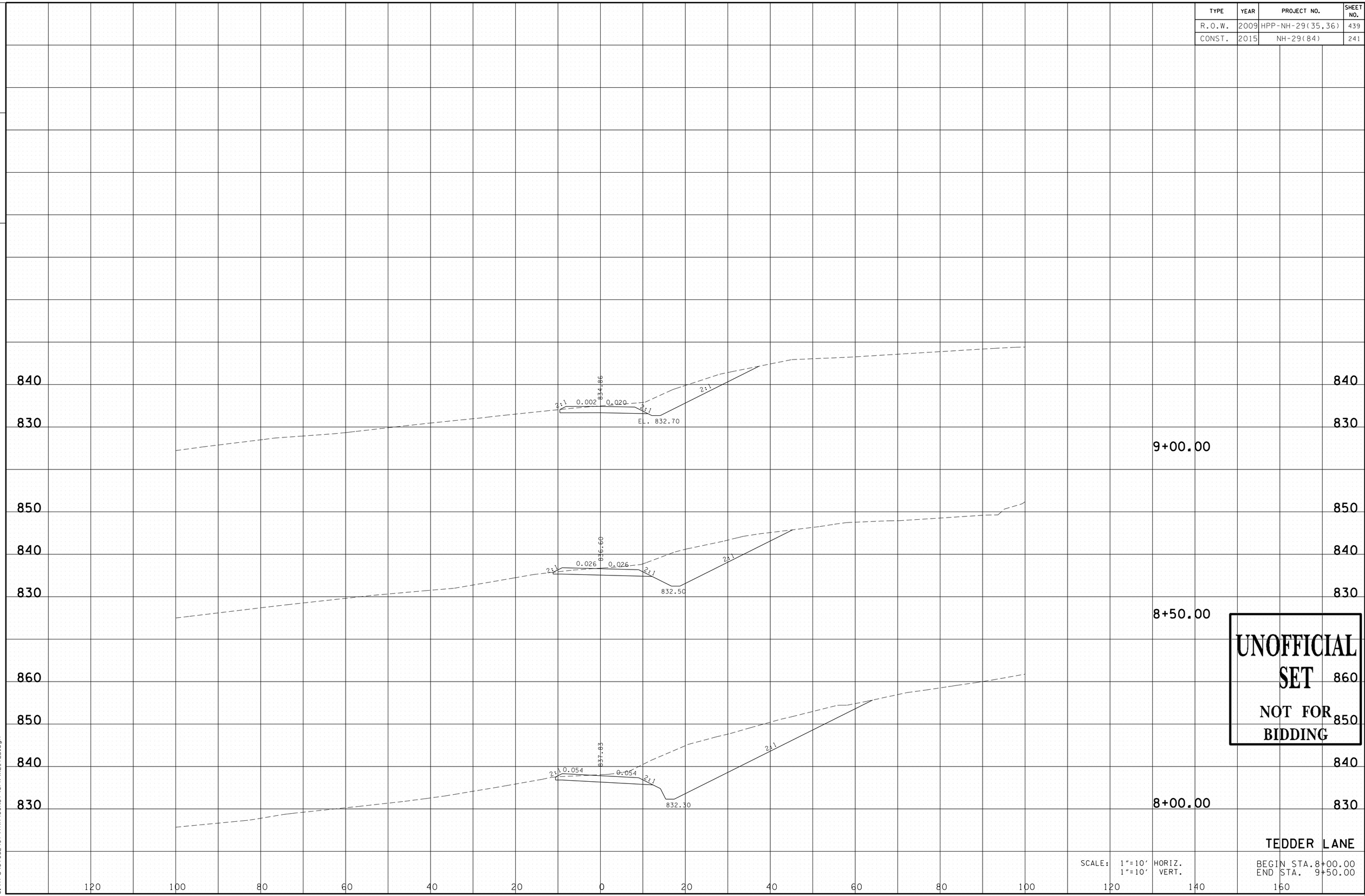
BEGIN STA.6+50.00
END STA. 7+50.00

11/24/2014 3:01:42 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_TED.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	439
CONST.	2015	NH-29(84)	241

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

TEDDER LANE

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

BEGIN STA.8+00.00
END STA. 9+50.00

11/24/2014 3:01:42 PM
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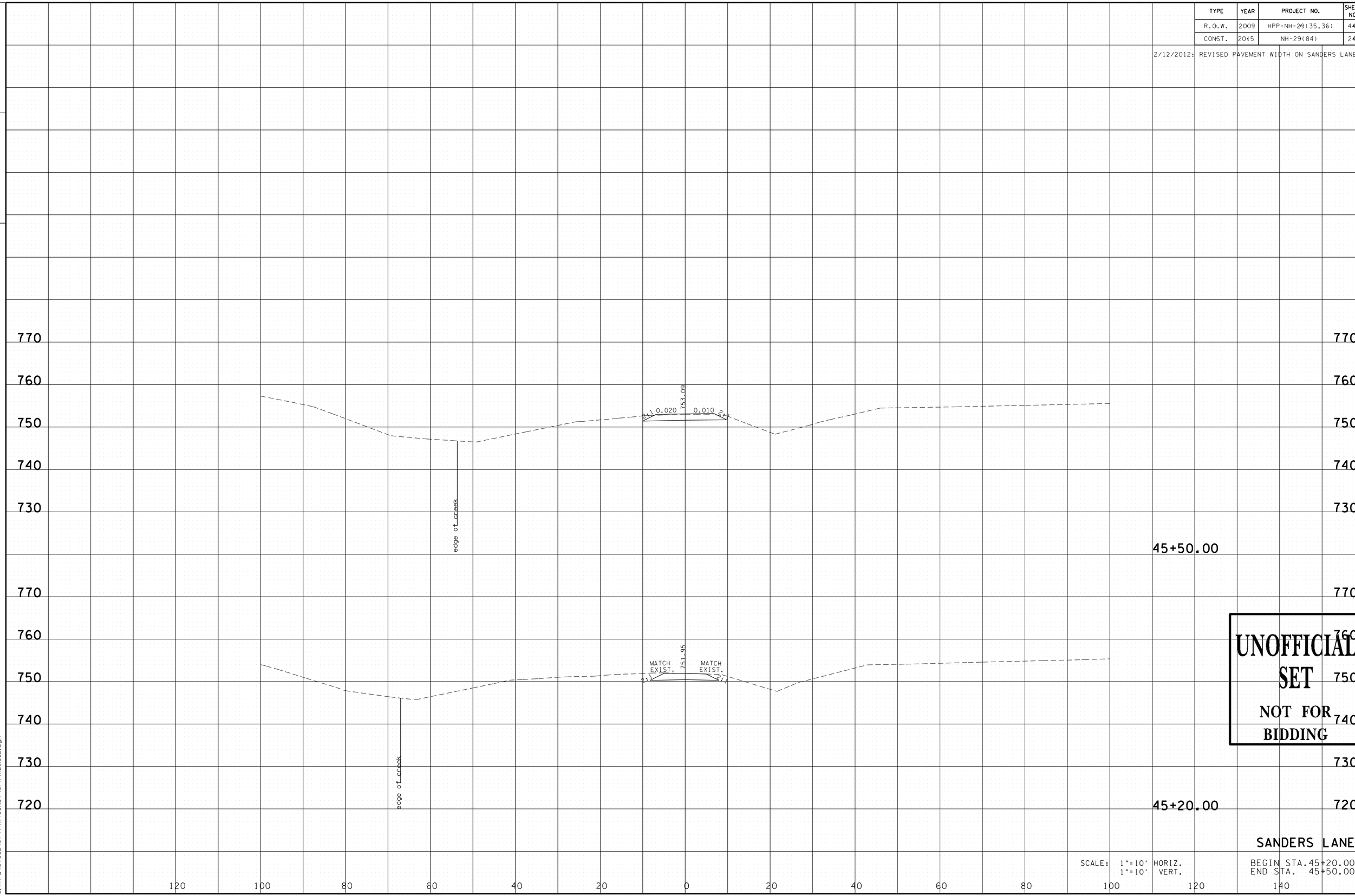
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	440
CONST.	2015	NH-29(84)	242

2/12/2012: REVISED PAVEMENT WIDTH ON SANDERS LANE.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SANDERS LANE

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

BEGIN STA. 45+20.00
END STA. 45+50.00

11/24/2014 3:01:43 PM
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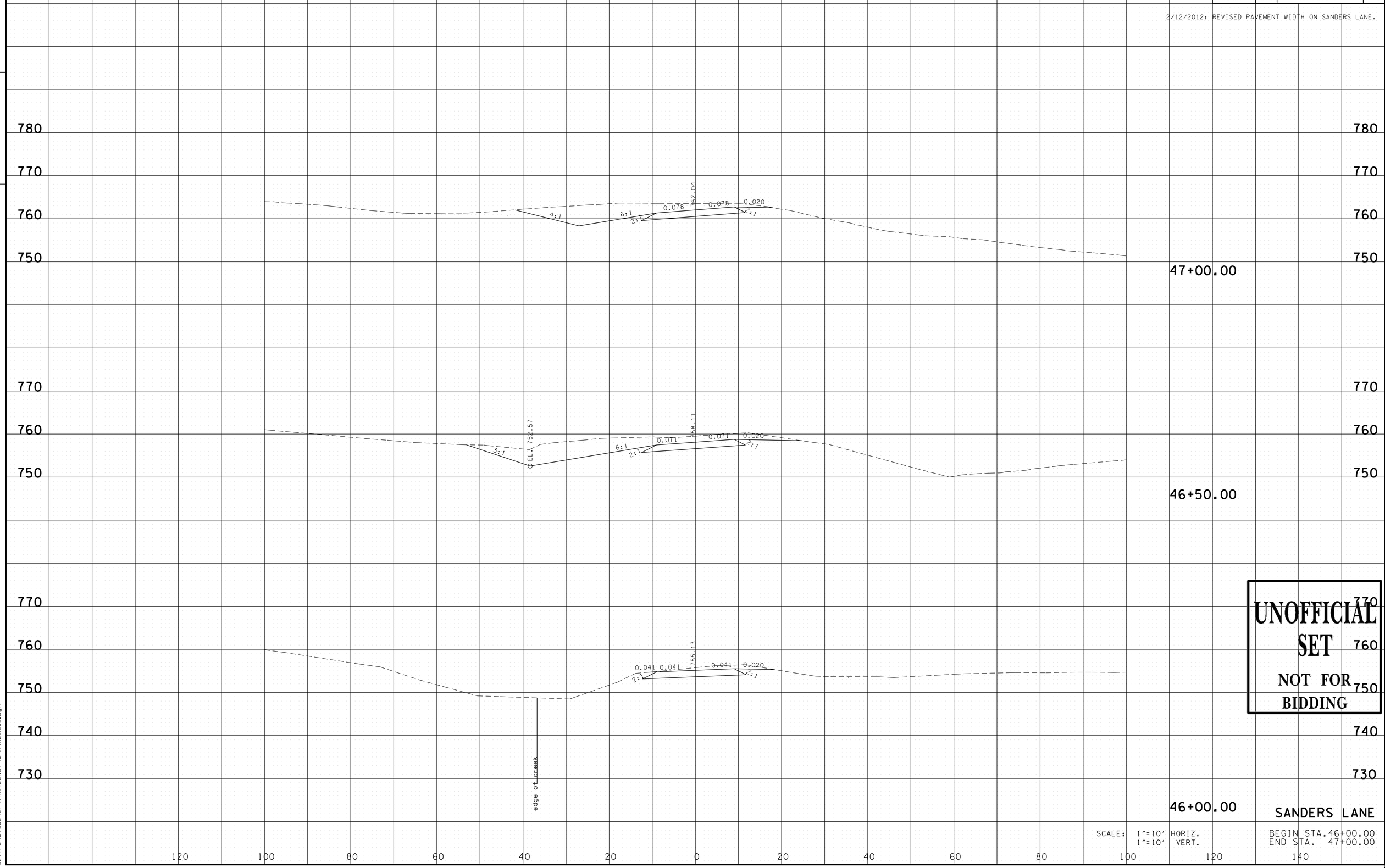
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	441
CONST.	2015	NH-29(84)	243

2/12/2012: REVISED PAVEMENT WIDTH ON SANDERS LANE.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

SANDERS LANE

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

BEGIN STA.46+00.00
END STA. 47+00.00

11/24/2014 3:01:43 PM
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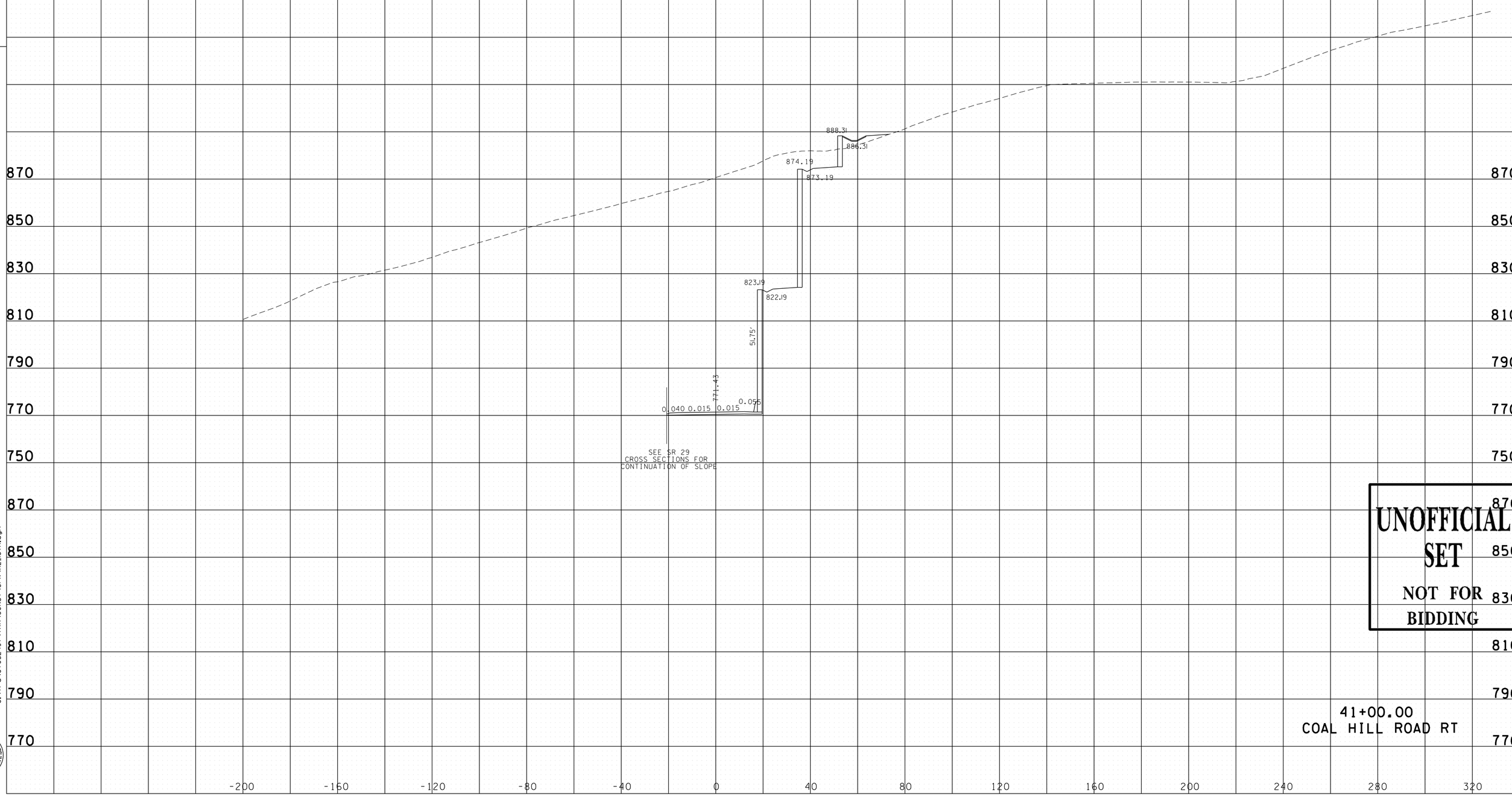
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	442
CONST.	2015	NH-29(84)	244

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

41+00.00
COAL HILL ROAD RT

11/24/2014 3:01:44 PM
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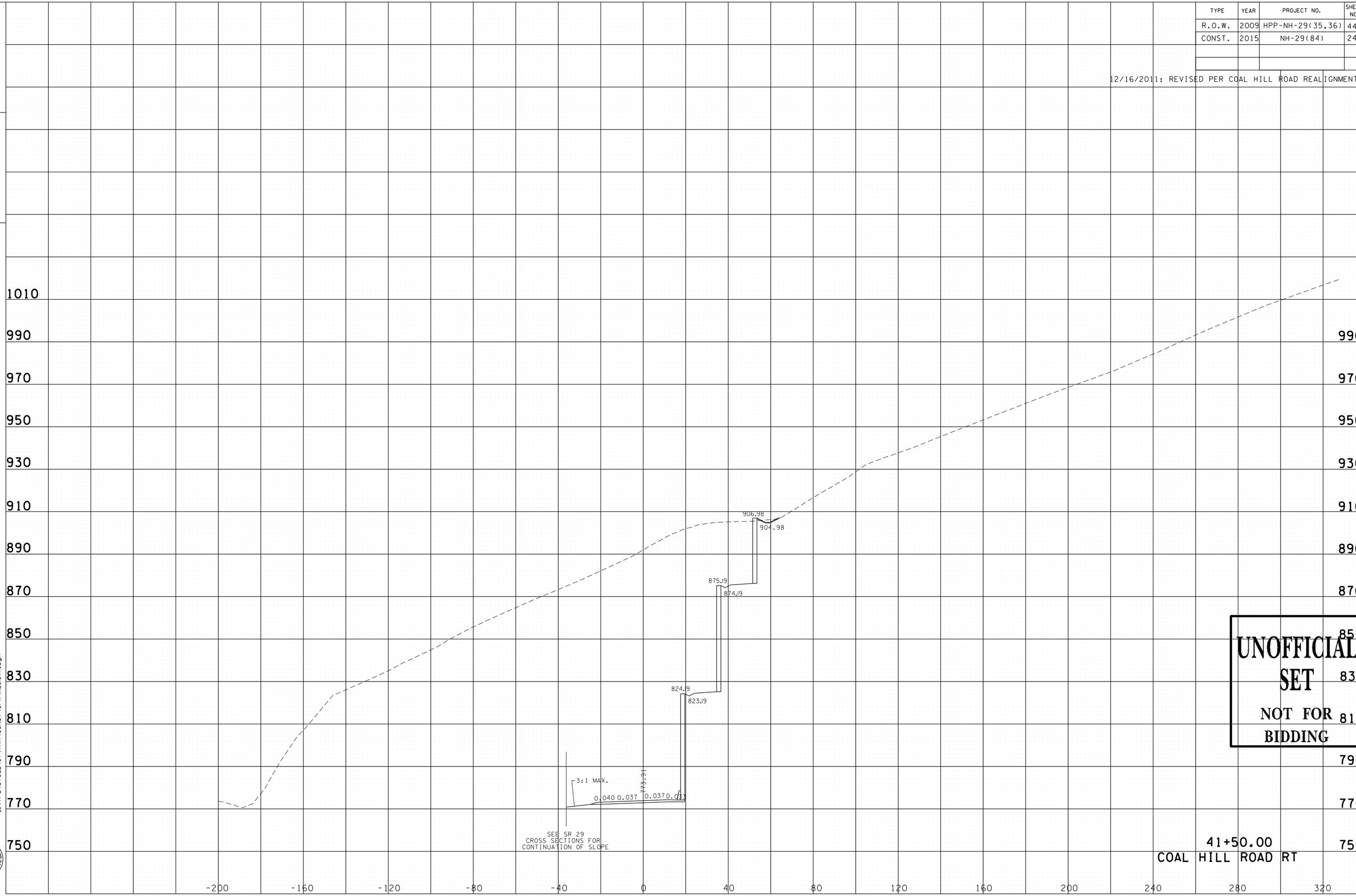
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	443
CONST.	2015	NH-29(84)	245

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



41+50.00
COAL HILL ROAD RT

UNOFFICIAL SET
NOT FOR BIDDING

11/24/2014 3:01:44 PM
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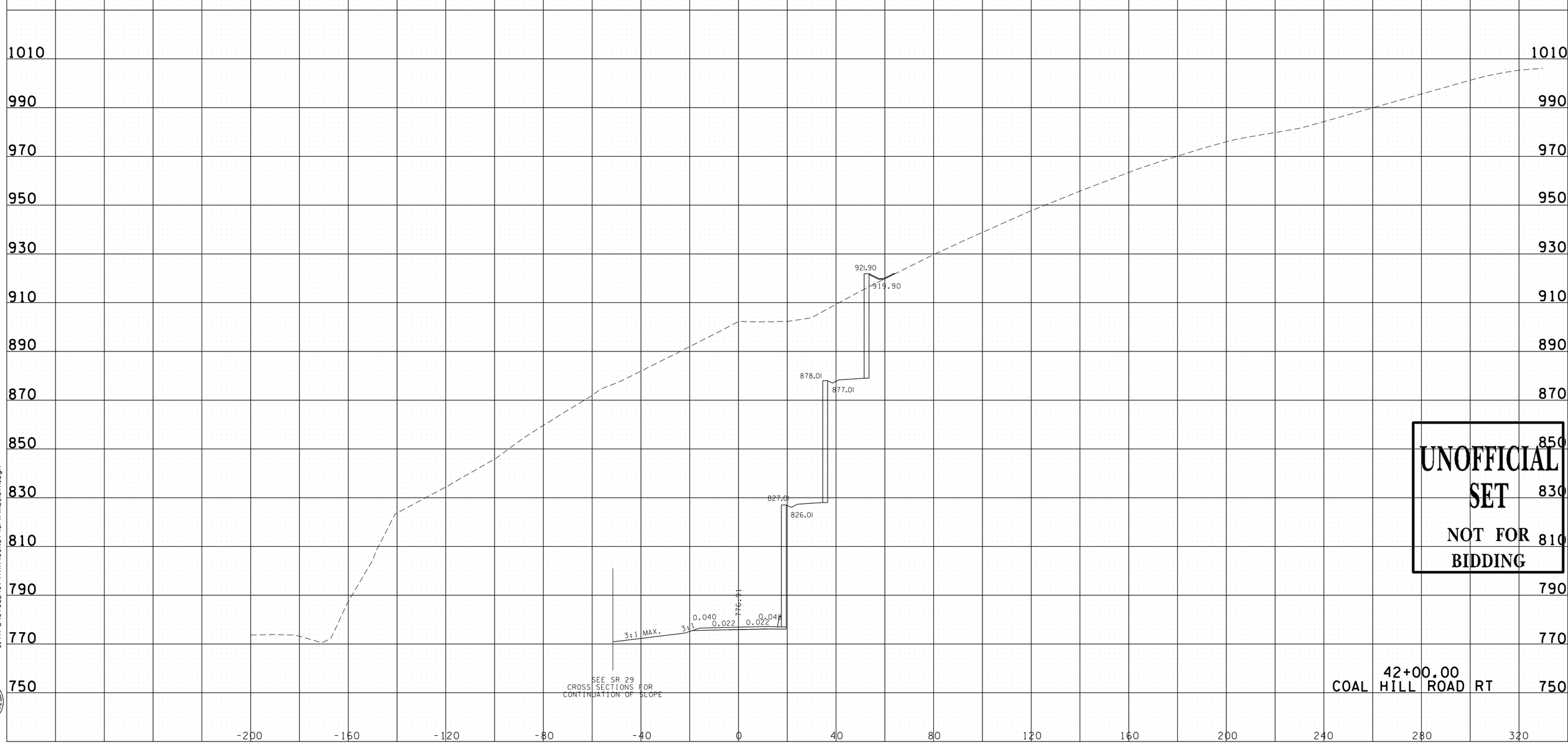
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	444
CONST.	2015	NH-29(84)	246

12/16/2011: REVISED PER COAL HILL ROAD REALIGNMENT.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

11/24/2014 3:01:44 PM
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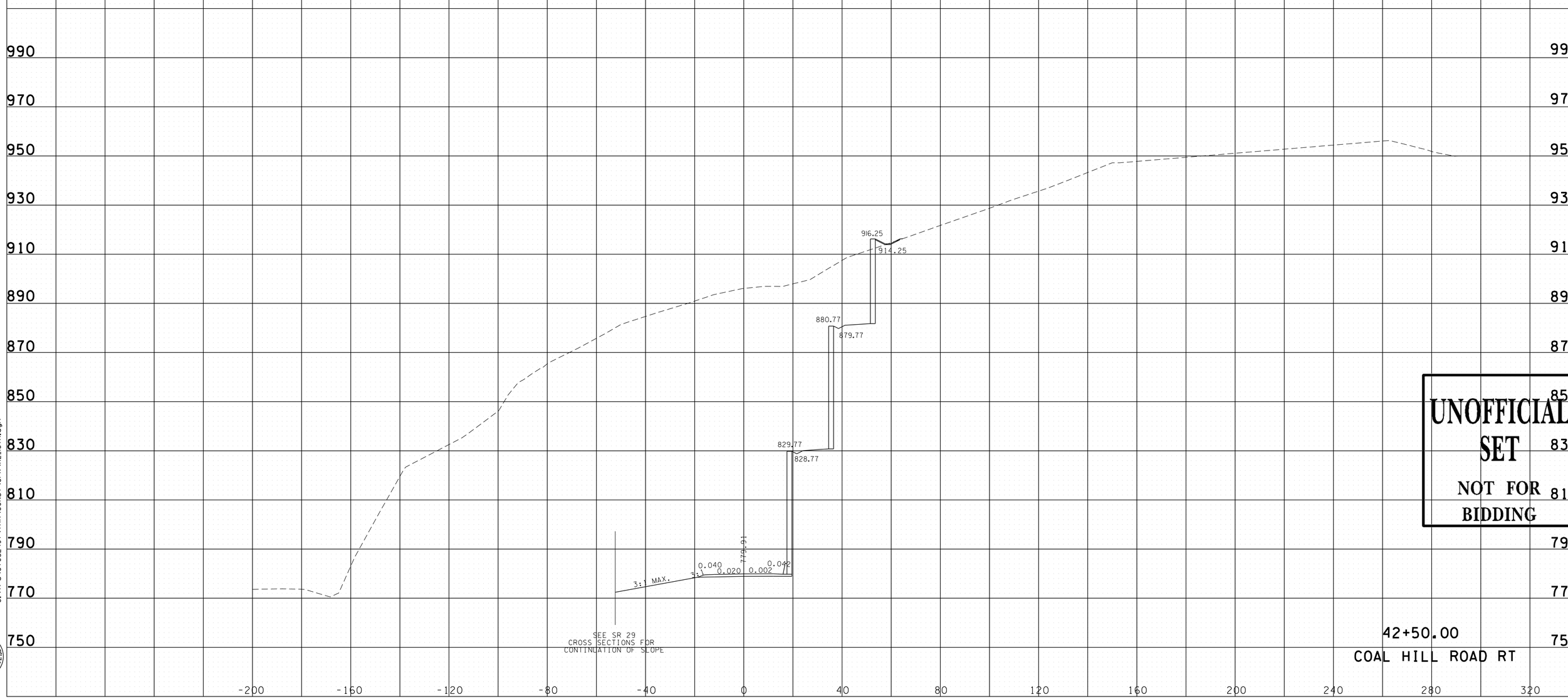
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	247

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.



42+50.00

COAL HILL ROAD RT

UNOFFICIAL SET

NOT FOR BIDDING

11/24/2014 3:01:45 PM
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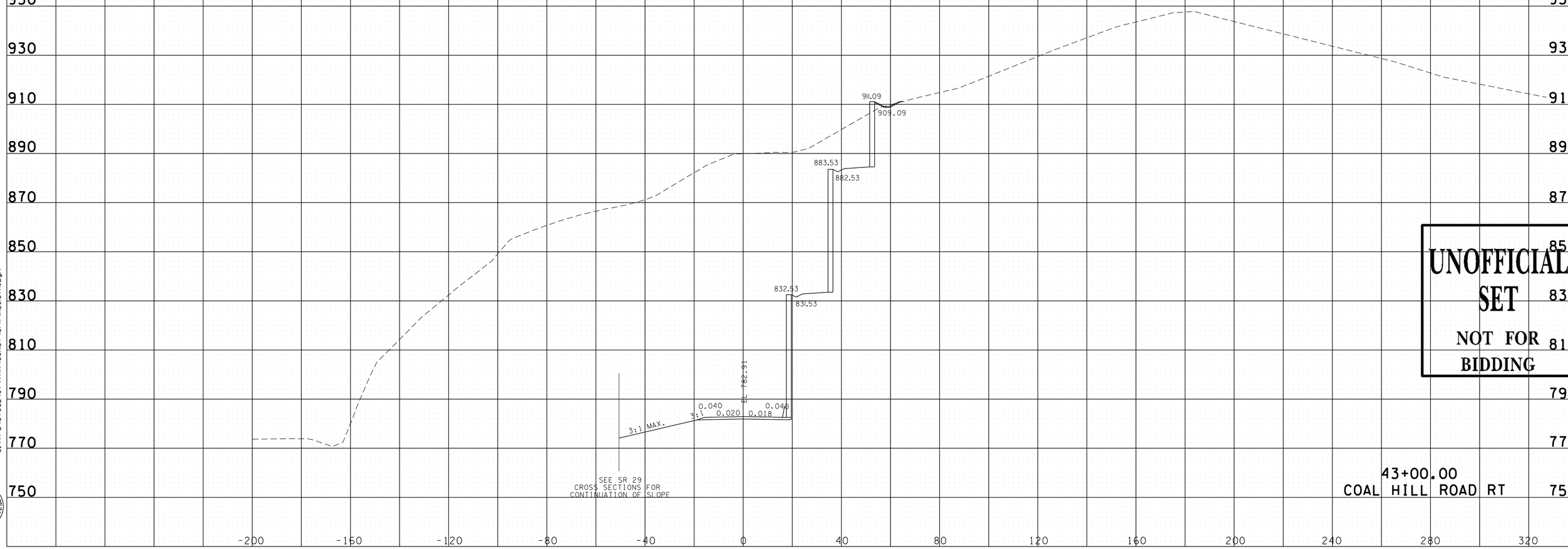
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	248

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.



43+00.00
COAL HILL ROAD RT

UNOFFICIAL SET
NOT FOR BIDDING

11/24/2014 3:01:45 PM
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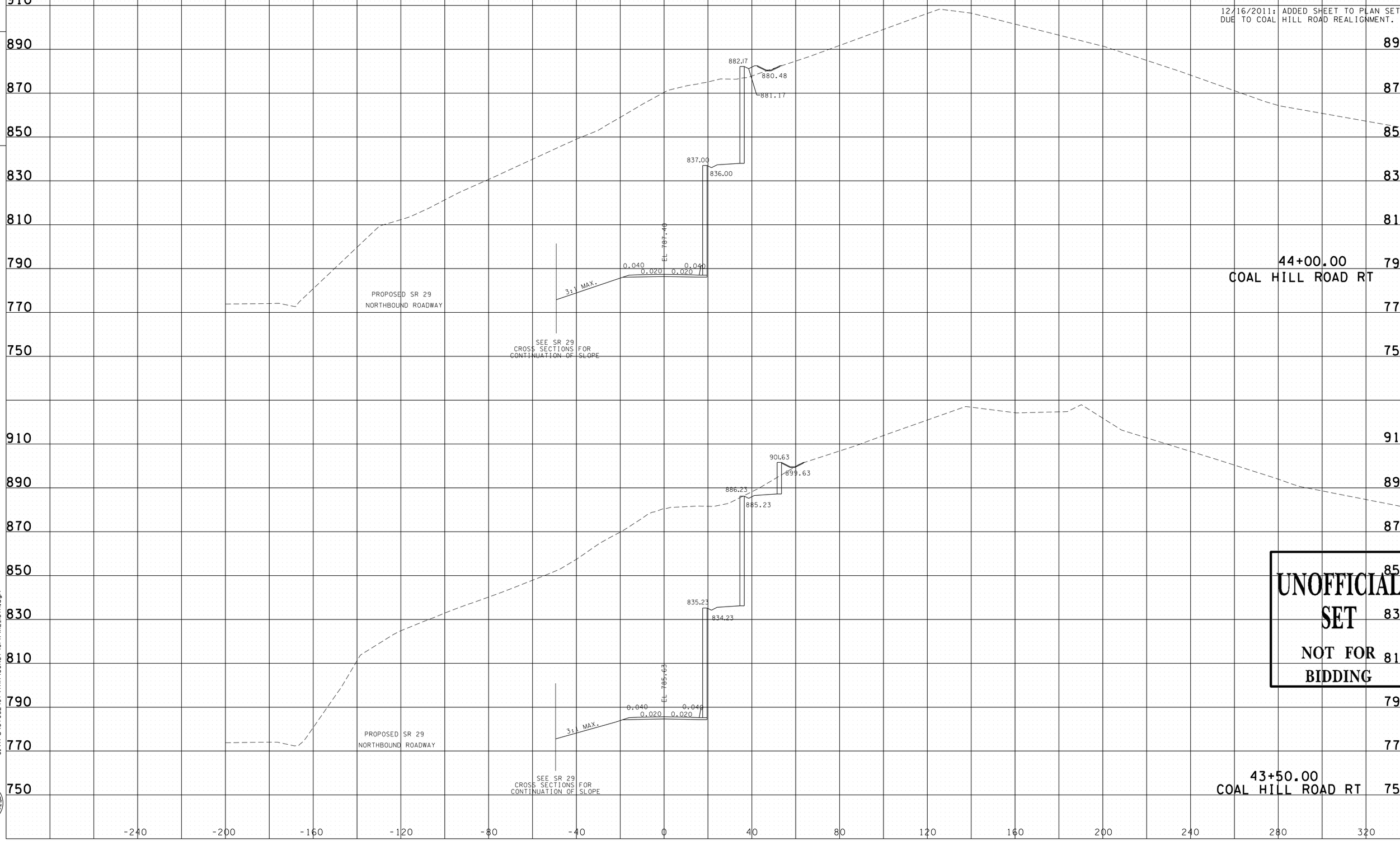
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	249

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.



UNOFFICIAL SET

NOT FOR BIDDING

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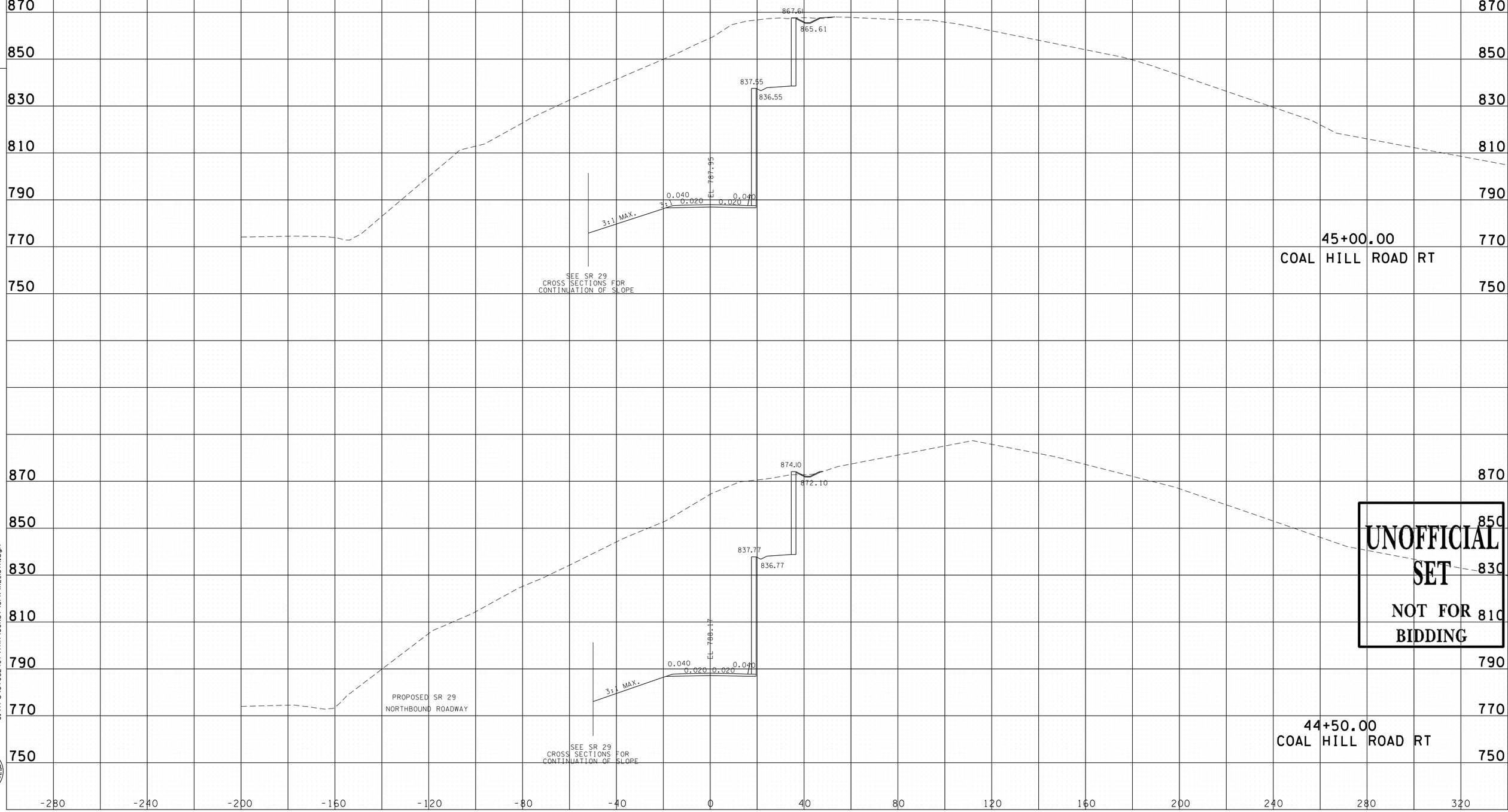
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	250

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.



UNOFFICIAL SET

NOT FOR BIDDING

11/24/2014 3:01:46 PM
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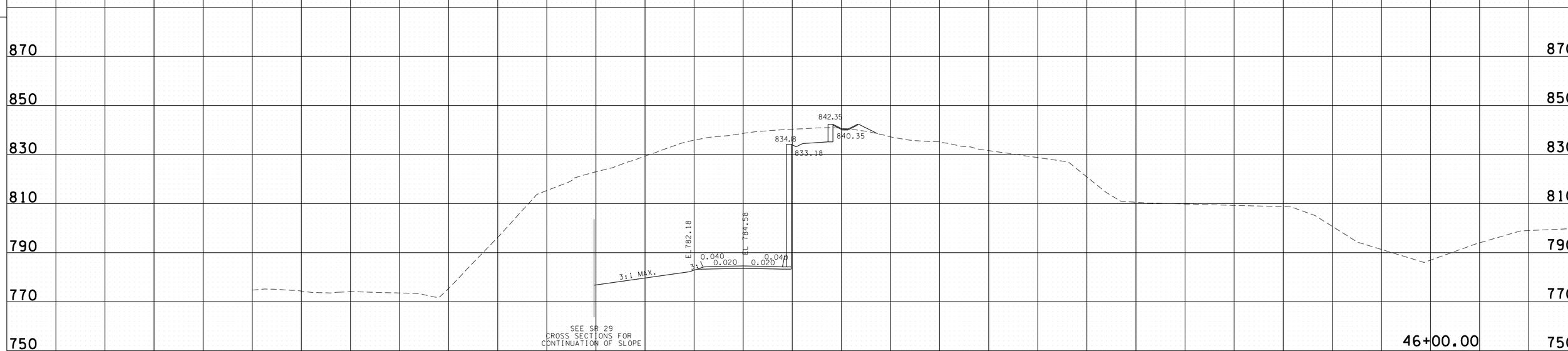
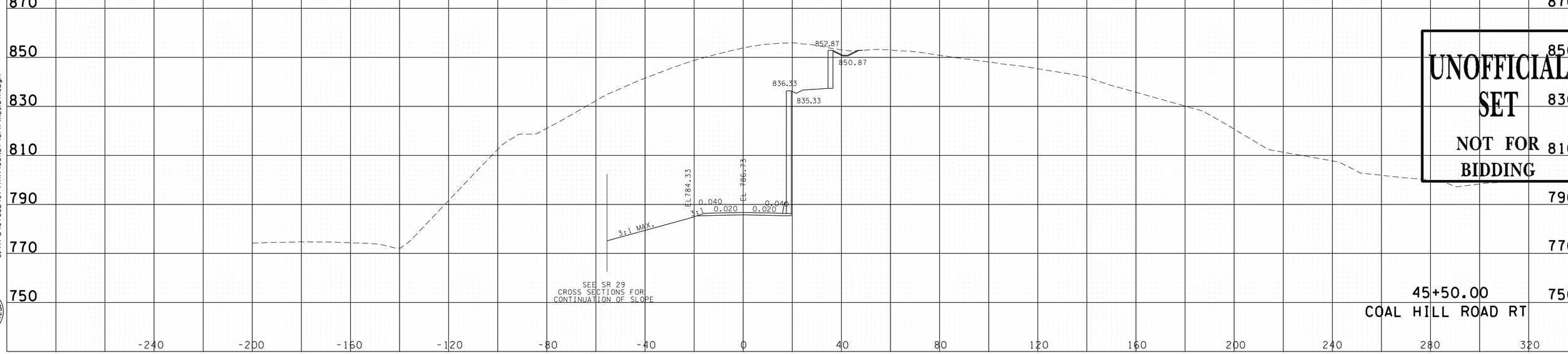
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	251

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.





UNOFFICIAL SET

NOT FOR BIDDING

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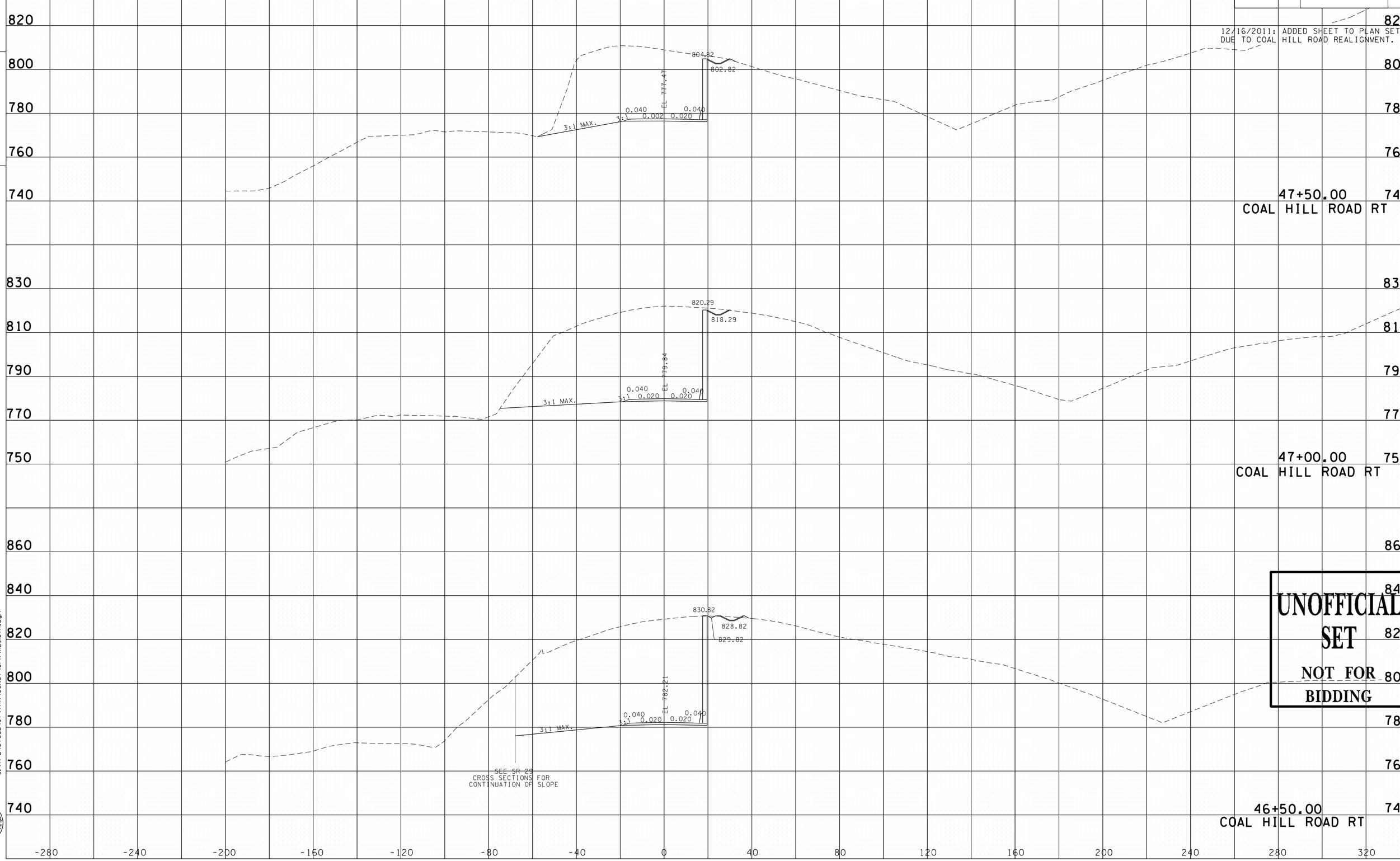
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	252

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.



UNOFFICIAL SET

NOT FOR BIDDING

11/24/2014 3:01:47 PM
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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	253

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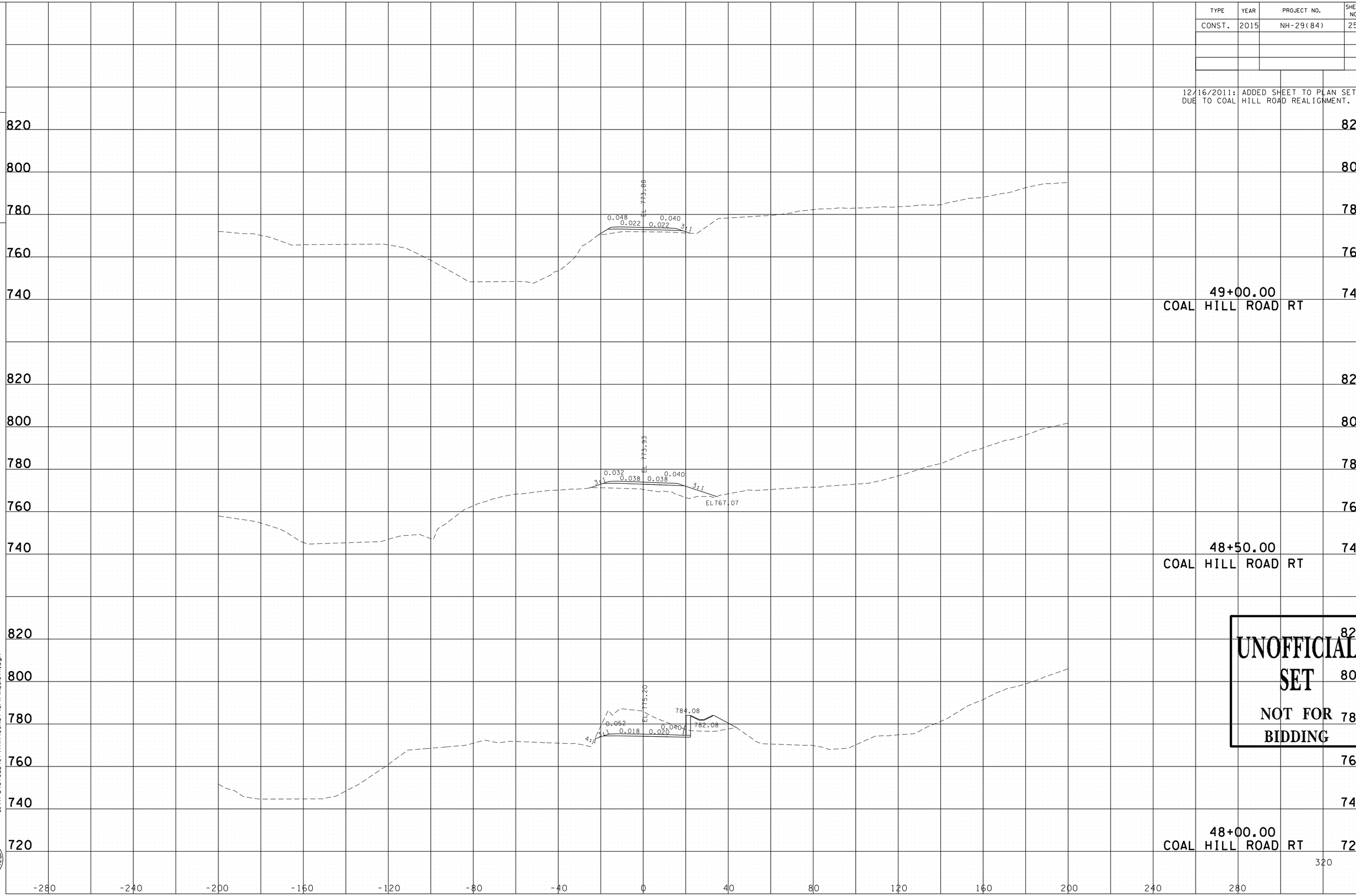

UNOFFICIAL SET
NOT FOR BIDDING

11/24/2014 3:01:47 PM
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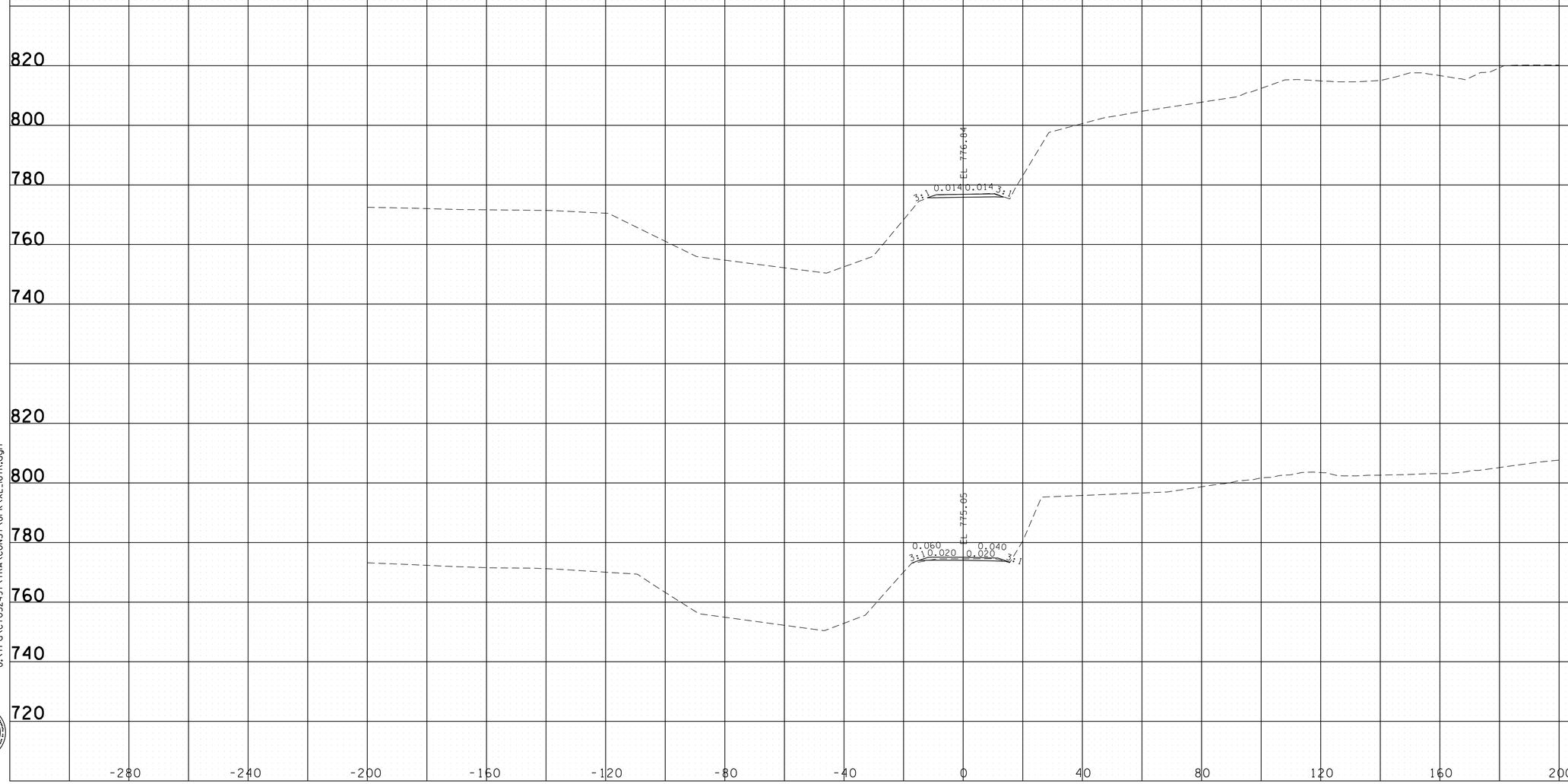
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	254

12/16/2011: ADDED SHEET TO PLAN SET DUE TO COAL HILL ROAD REALIGNMENT.



49+90.00
COAL HILL ROAD RT

49+50.00
COAL HILL ROAD RT

UNOFFICIAL SET
NOT FOR BIDDING

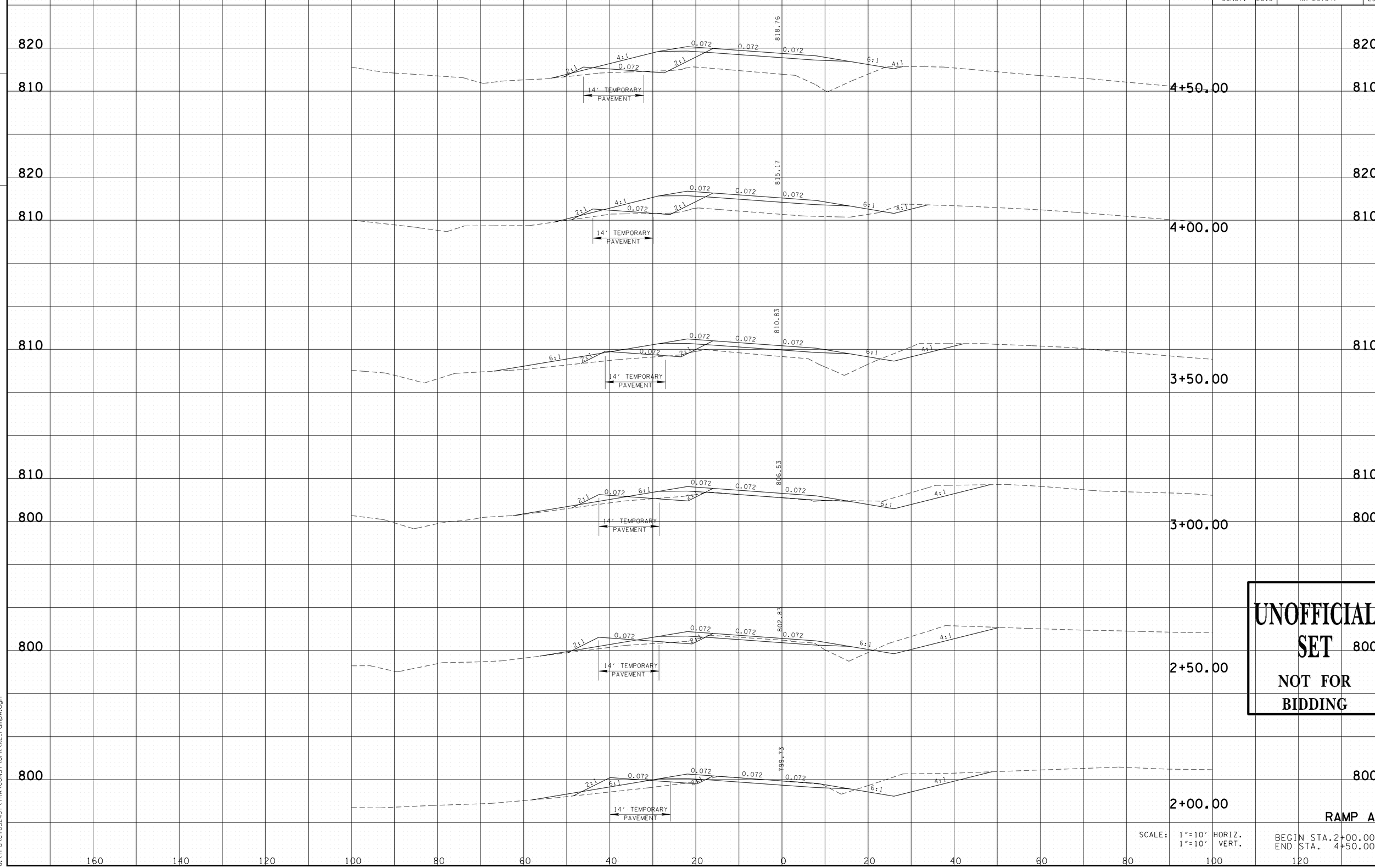
11/24/2014 3:01:48 PM
G:\tra\C+052497\TRA\CONST\GPK\XL_I67R.dgn

Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	453
CONST.	2015	NH-29(84)	255

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

RAMP A

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

BEGIN STA. 2+00.00
END STA. 4+50.00

11/24/2014 3:01:48 PM
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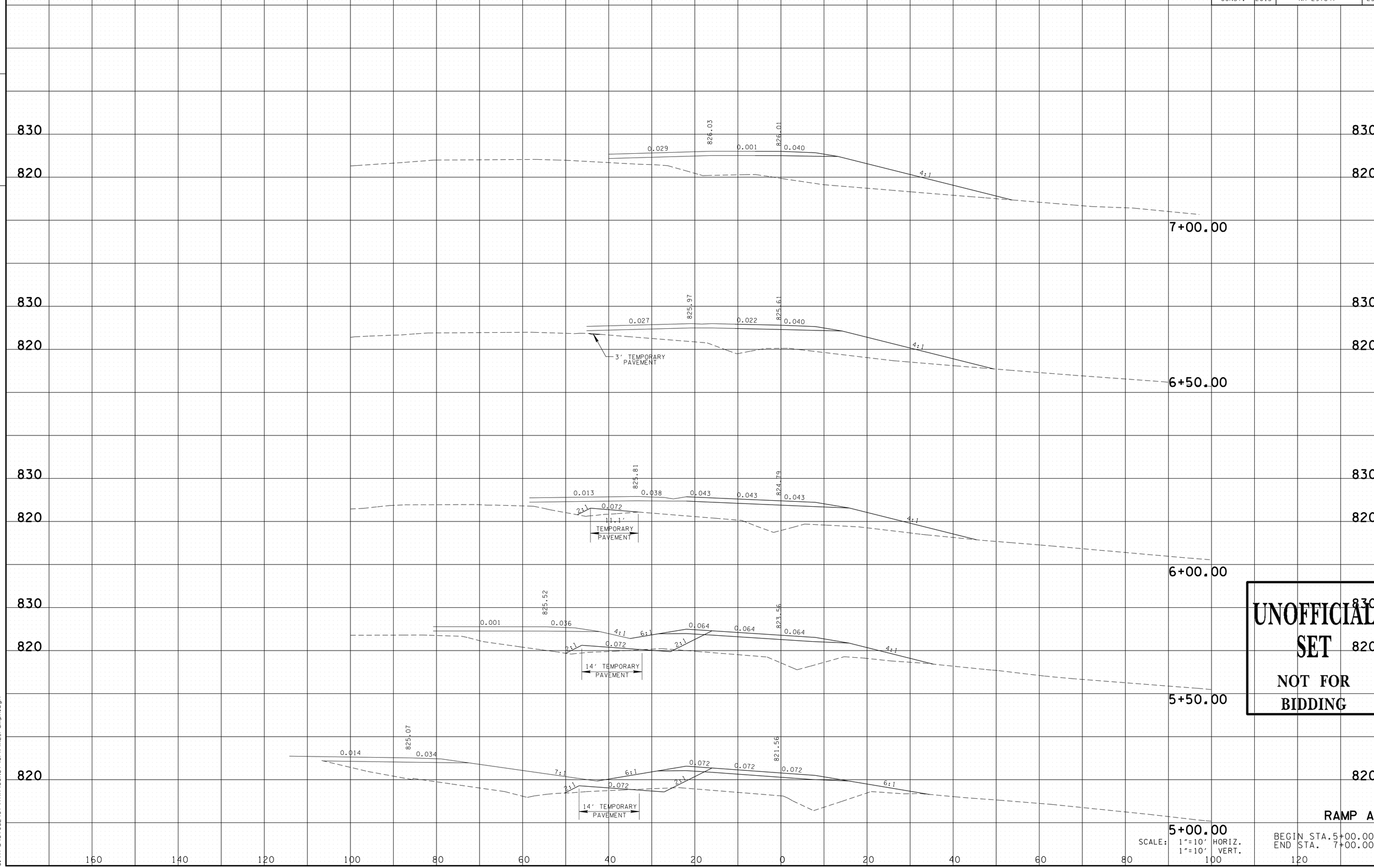
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	454
CONST.	2015	NH-29(84)	256

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

RAMP A

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

BEGIN STA. 5+00.00
END STA. 7+00.00

11/24/2014 3:01:49 PM
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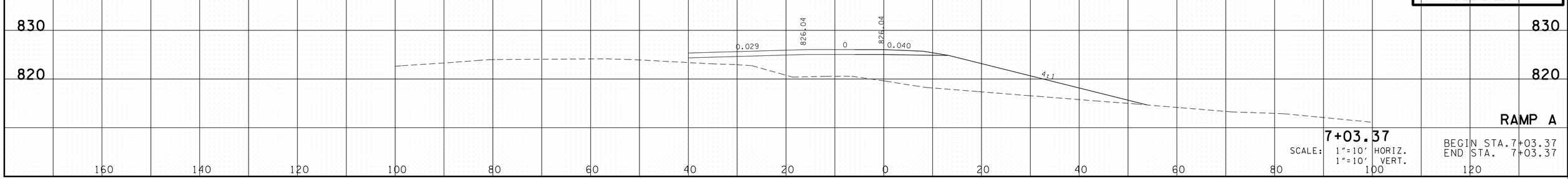
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35,36)	455
CONST.	2015	NH-29(84)	257

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

RAMP A

7+03.37

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

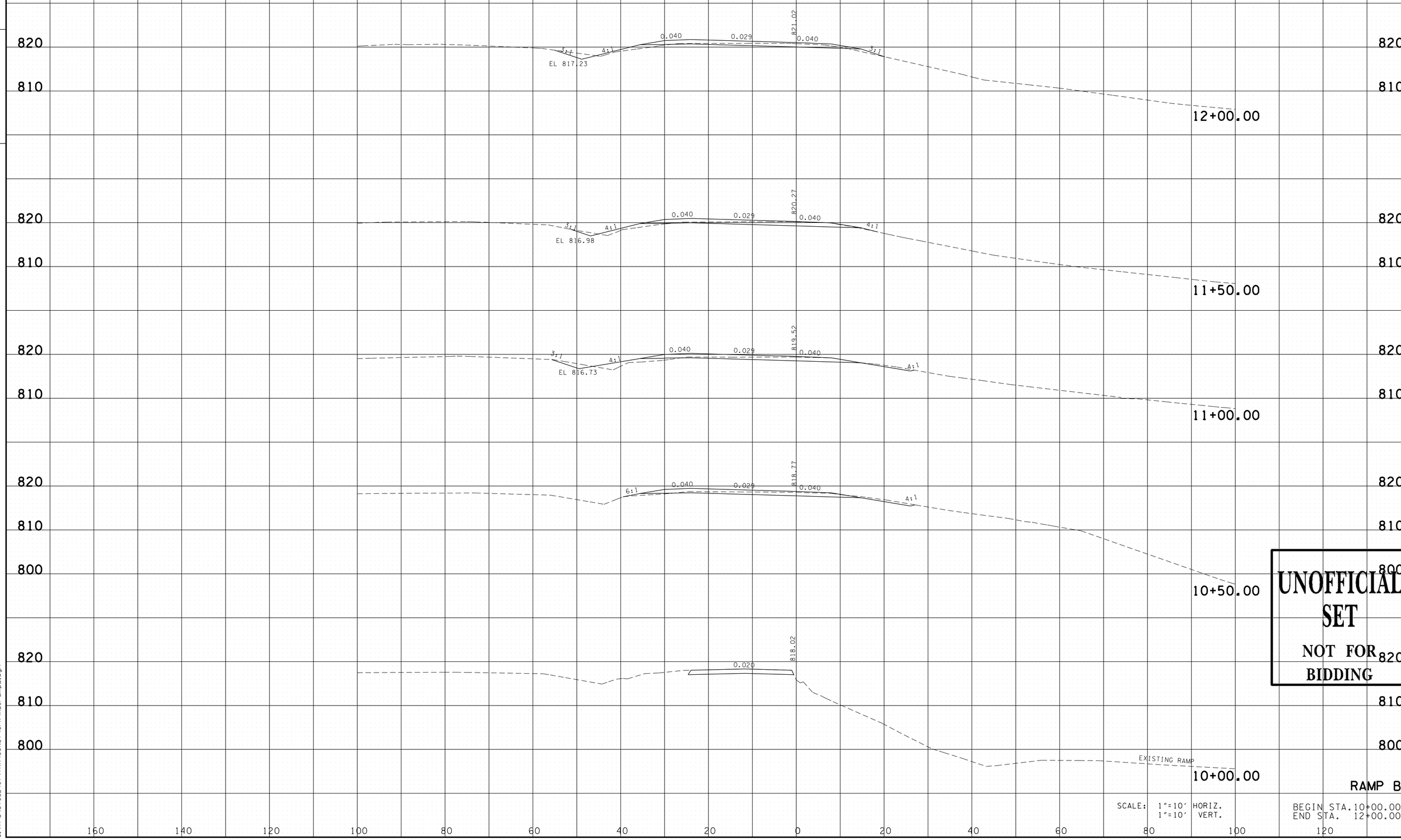
BEGIN STA. 7+03.37
END STA. 7+03.37

11/24/2014 3:01:49 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_rampA.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	456
CONST.	2015	NH-29(84)	258

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

RAMP B

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

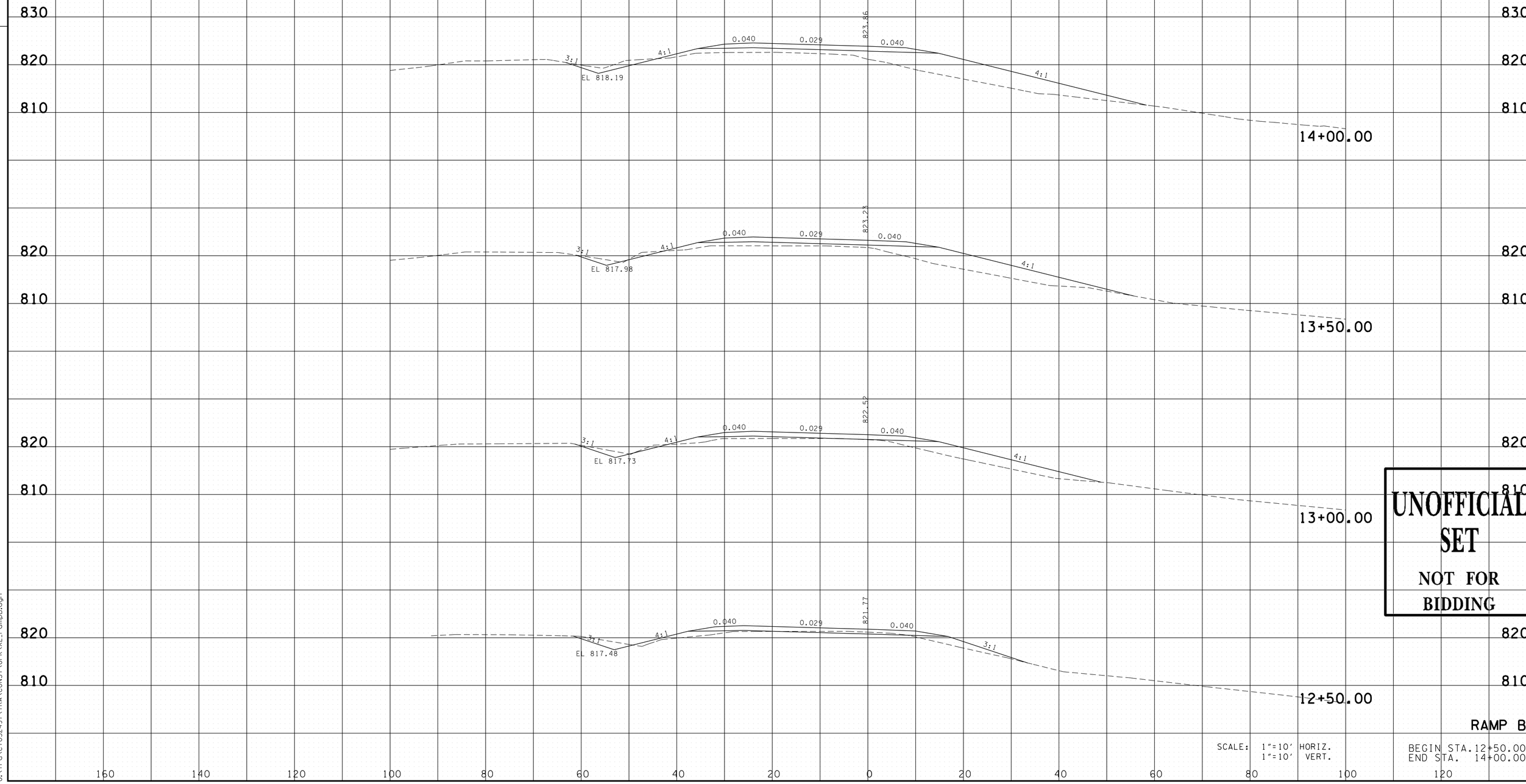
BEGIN STA. 10+00.00
END STA. 12+00.00

11/24/2014 3:01:49 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_rampB.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	457
CONST.	2015	NH-29(84)	259

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

RAMP B

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

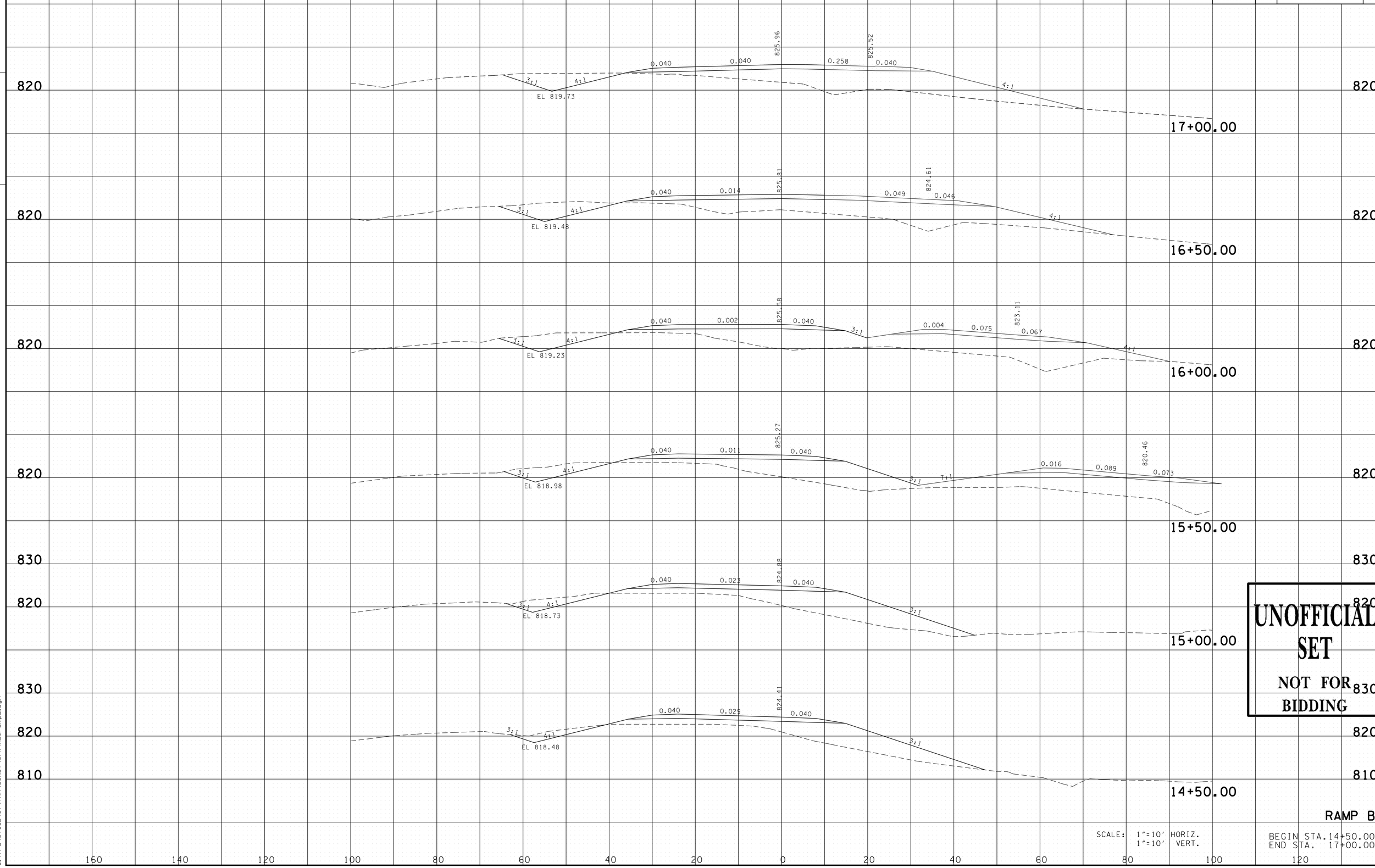
BEGIN STA. 12+50.00
END STA. 14+00.00

11/24/2014 3:01:50 PM
G:\trg\Ct052497\TRA\CONST\GPK\XL_rampB.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	458
CONST.	2015	NH-29(84)	260

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

RAMP B

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

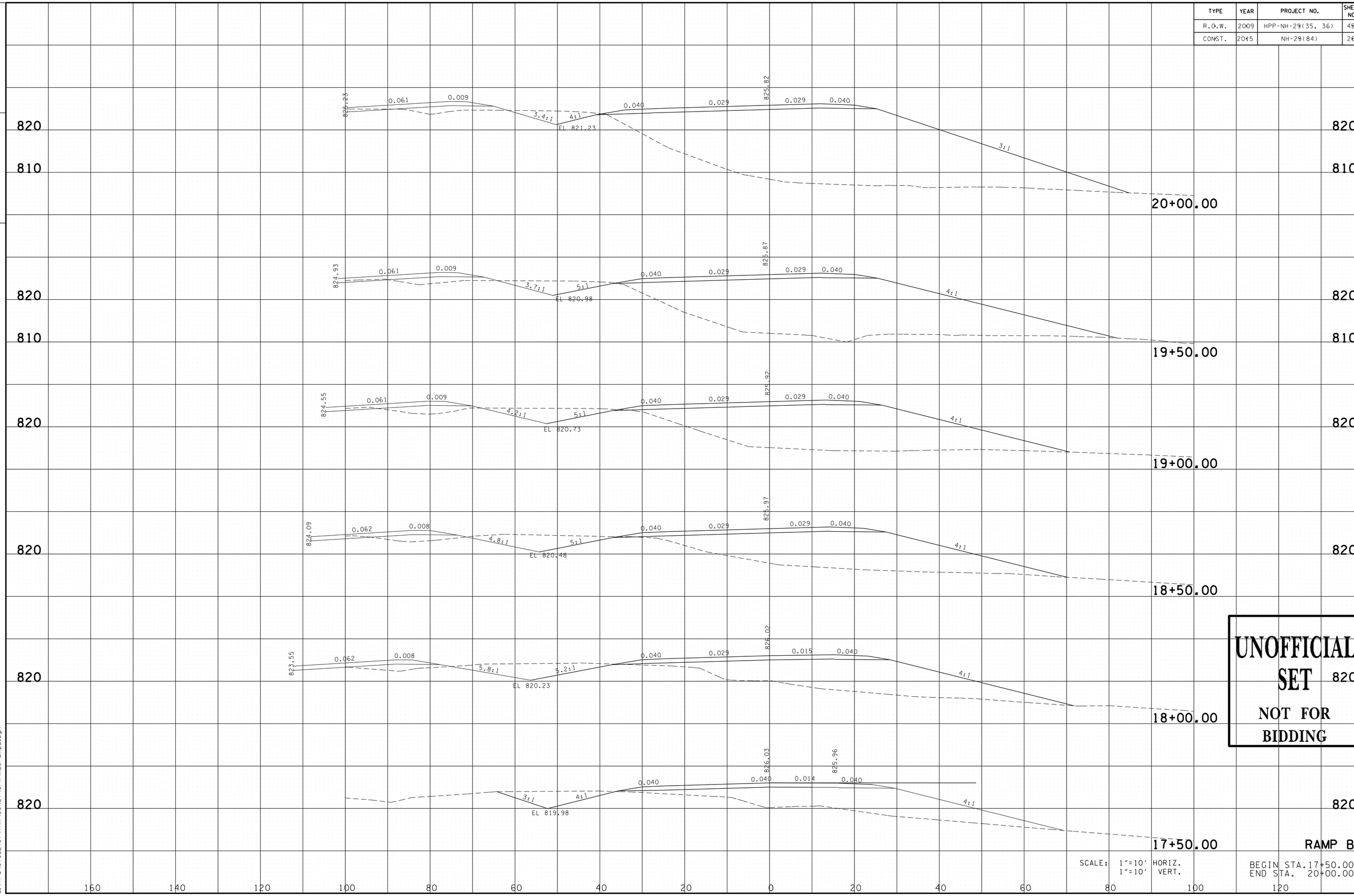
BEGIN STA. 14+50.00
END STA. 17+00.00

11/24/2014 3:01:50 PM
G:\tra\CT052497\TRA\CONST\GPK\XL_rampB.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	459
CONST.	2015	NH-29(84)	261

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

RAMP B

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

BEGIN STA. 17+50.00
END STA. 20+00.00

11/24/2014 3:01:51 PM
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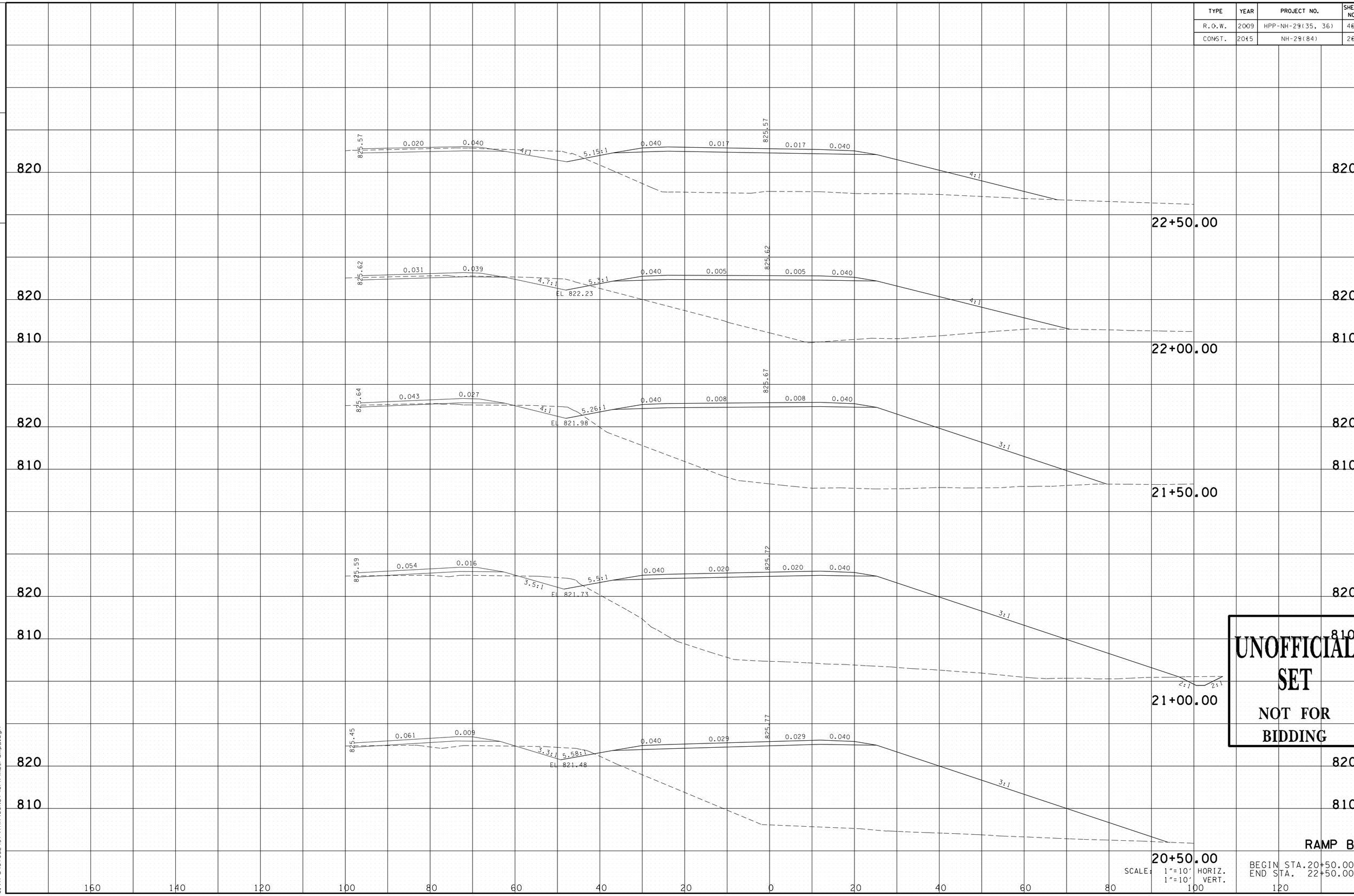
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	460
CONST.	2015	NH-29(84)	262

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET
NOT FOR BIDDING

RAMP B

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

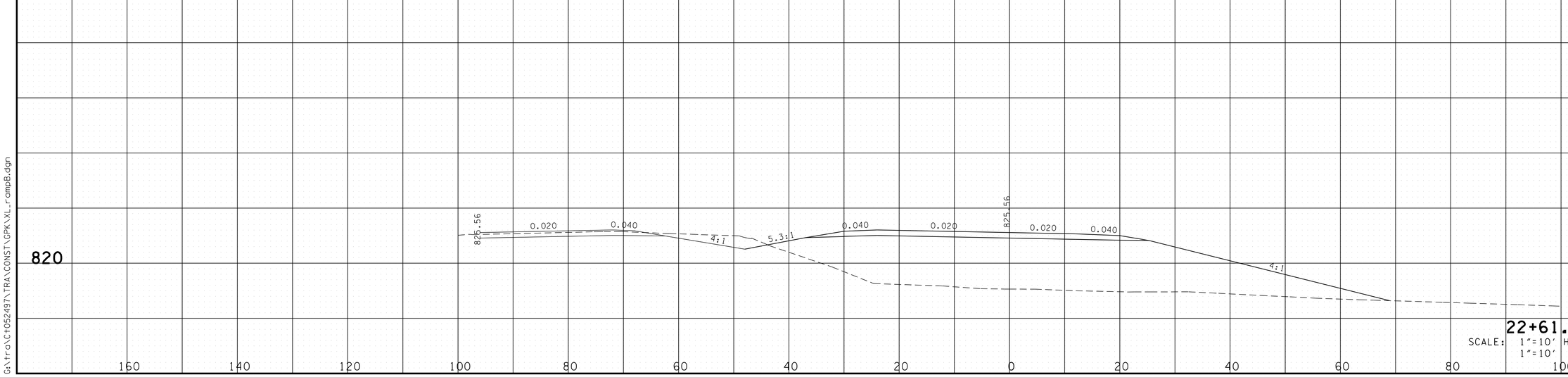
BEGIN STA. 20+50.00
END STA. 22+50.00

11/24/2014 3:01:51 PM
G:\tro\C+052497\TRA\CONST\GPK\XL_rampB.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	461
CONST.	2015	NH-29(84)	263

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

RAMP B

22+61.83

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

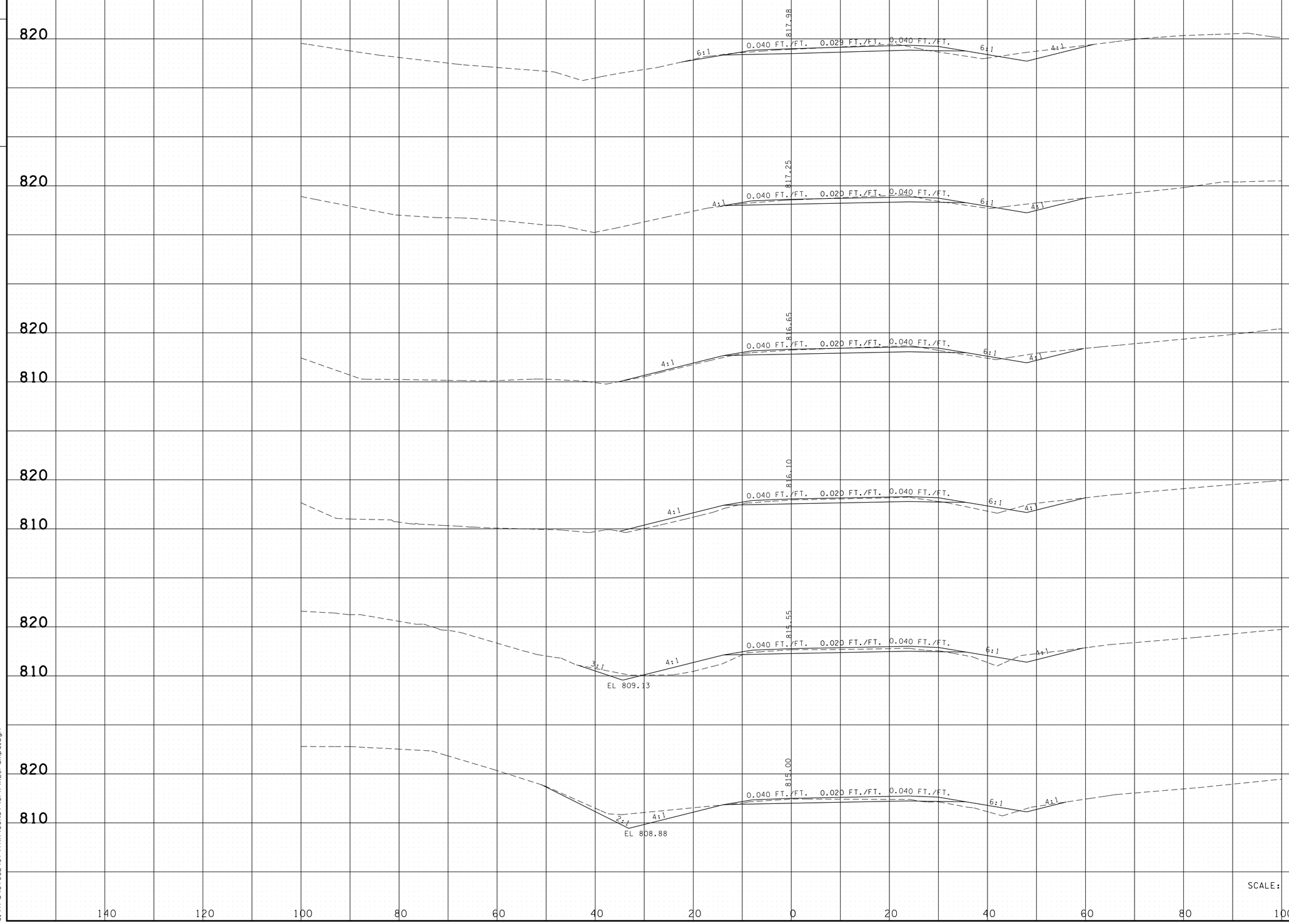
BEGIN STA.22+61.83
END STA. 22+61.83

11/24/2014 3:01:51 PM
G:\tra\CT052497\TRA\CONST\GPK\XL_rampB.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	462
CONST.	2015	NH-29(84)	264

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

RAMP C

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

BEGIN STA.25+00.00
END STA. 27+50.00

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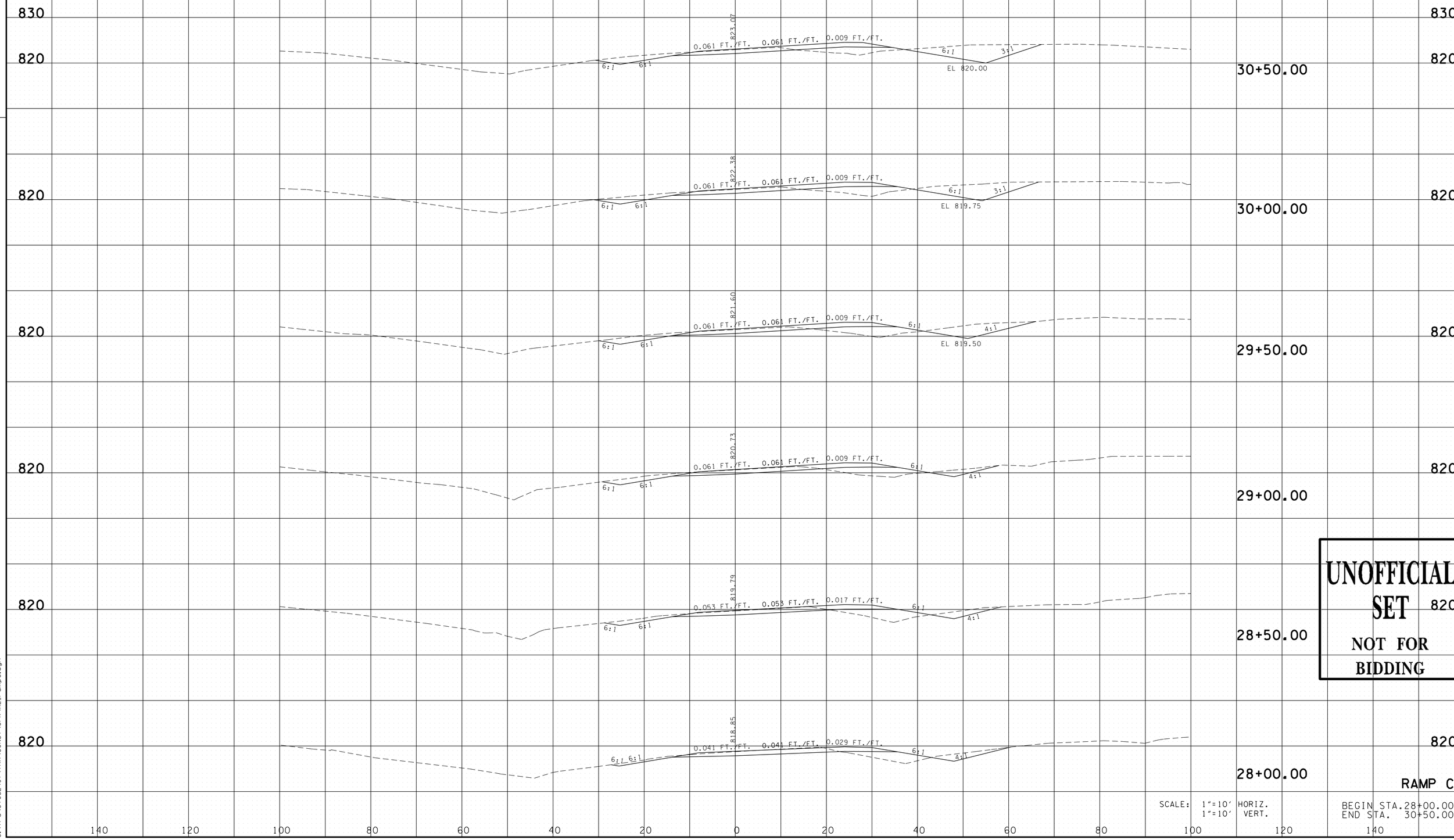
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	463
CONST.	2015	NH-29(84)	265

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET

NOT FOR BIDDING

RAMP C

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

BEGIN STA.28+00.00
END STA. 30+50.00

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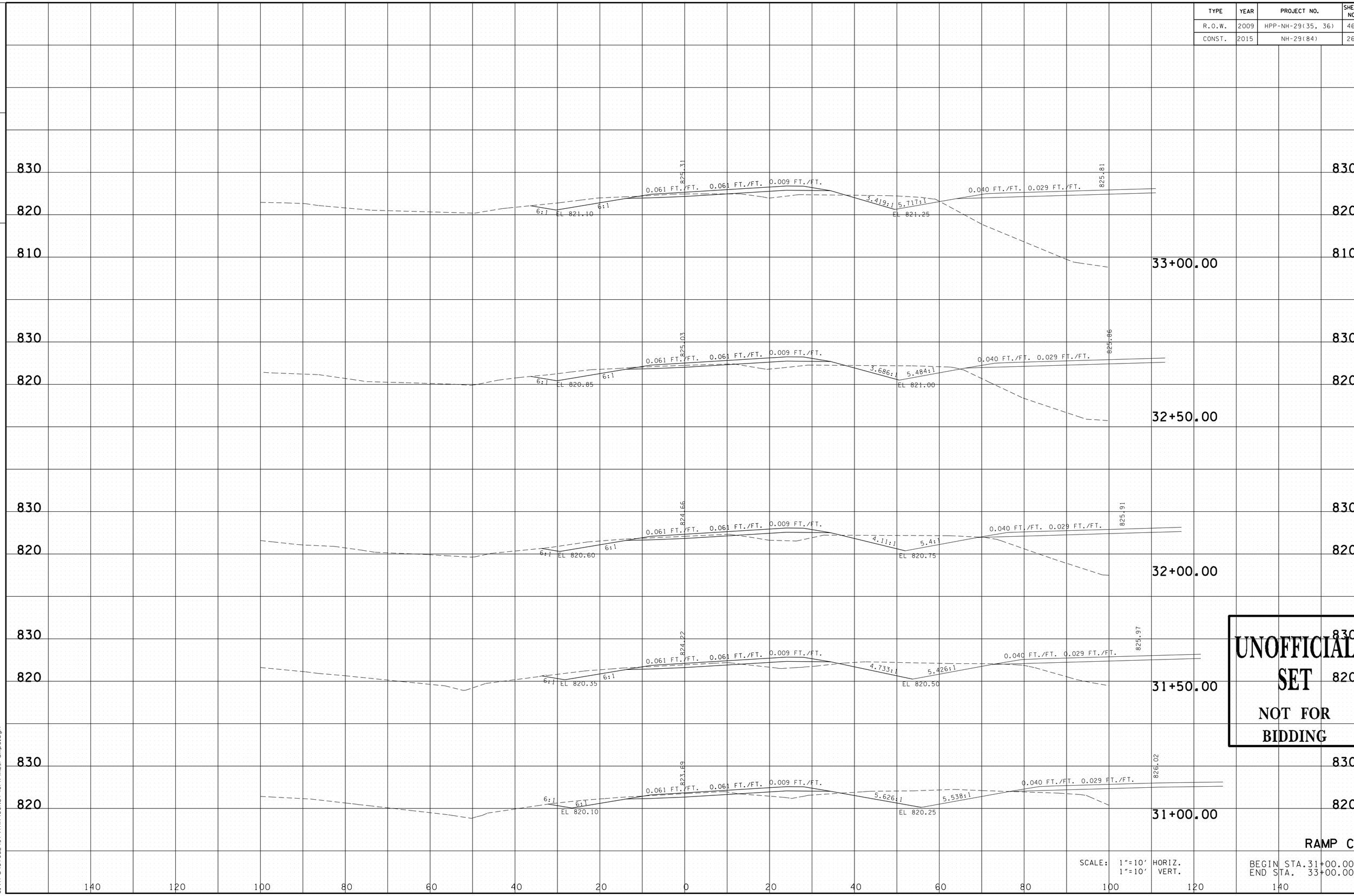
G:\tra\Ct052497\TRA\CONST\GPK\XL_rampC.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	464
CONST.	2015	NH-29(84)	266

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



UNOFFICIAL SET

NOT FOR BIDDING

RAMP C

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

BEGIN STA.31+00.00
END STA. 33+00.00

11/24/2014 3:01:53 PM
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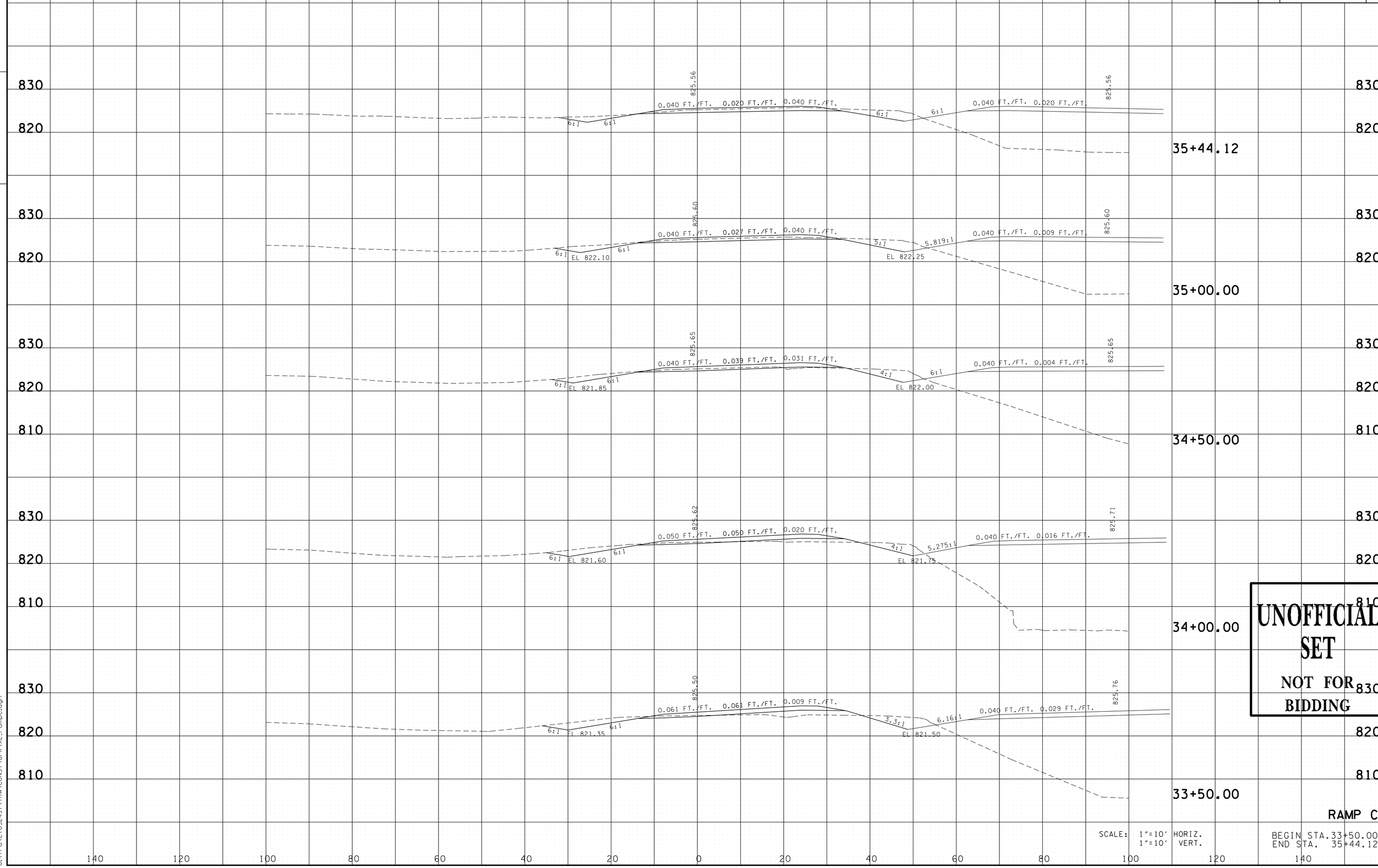
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2009	HPP-NH-29(35, 36)	465
CONST.	2015	NH-29(84)	267

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION



UNOFFICIAL SET
NOT FOR BIDDING

RAMP C

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

BEGIN STA.33+50.00
END STA. 35+44.12

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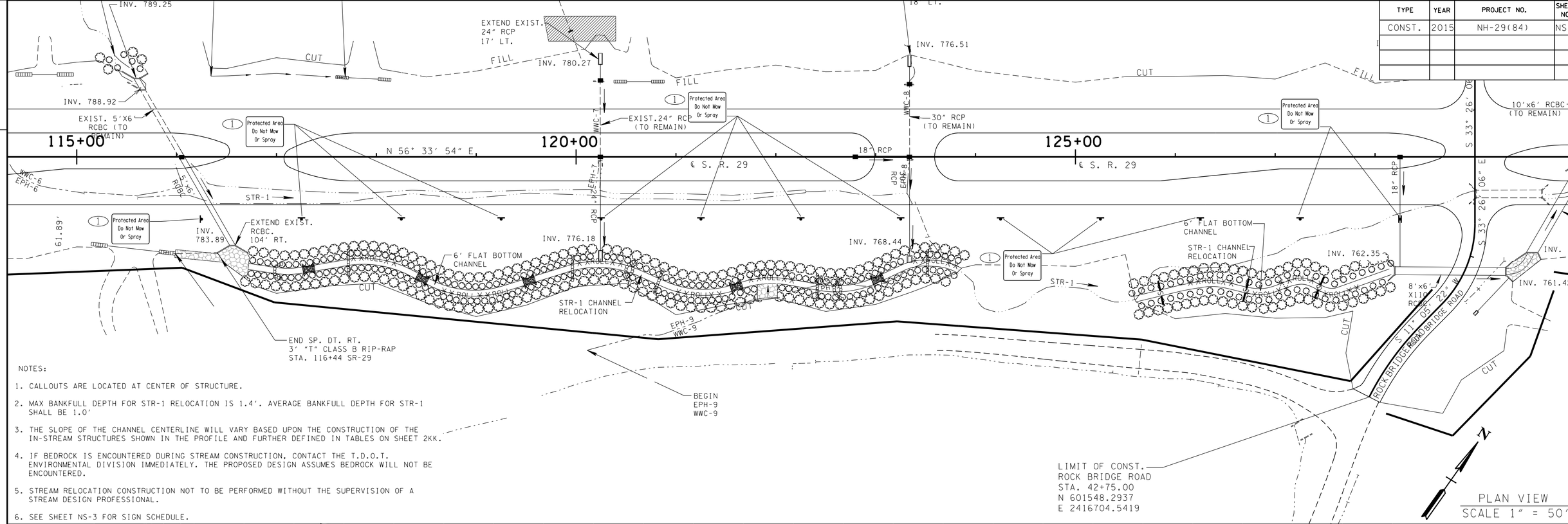
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

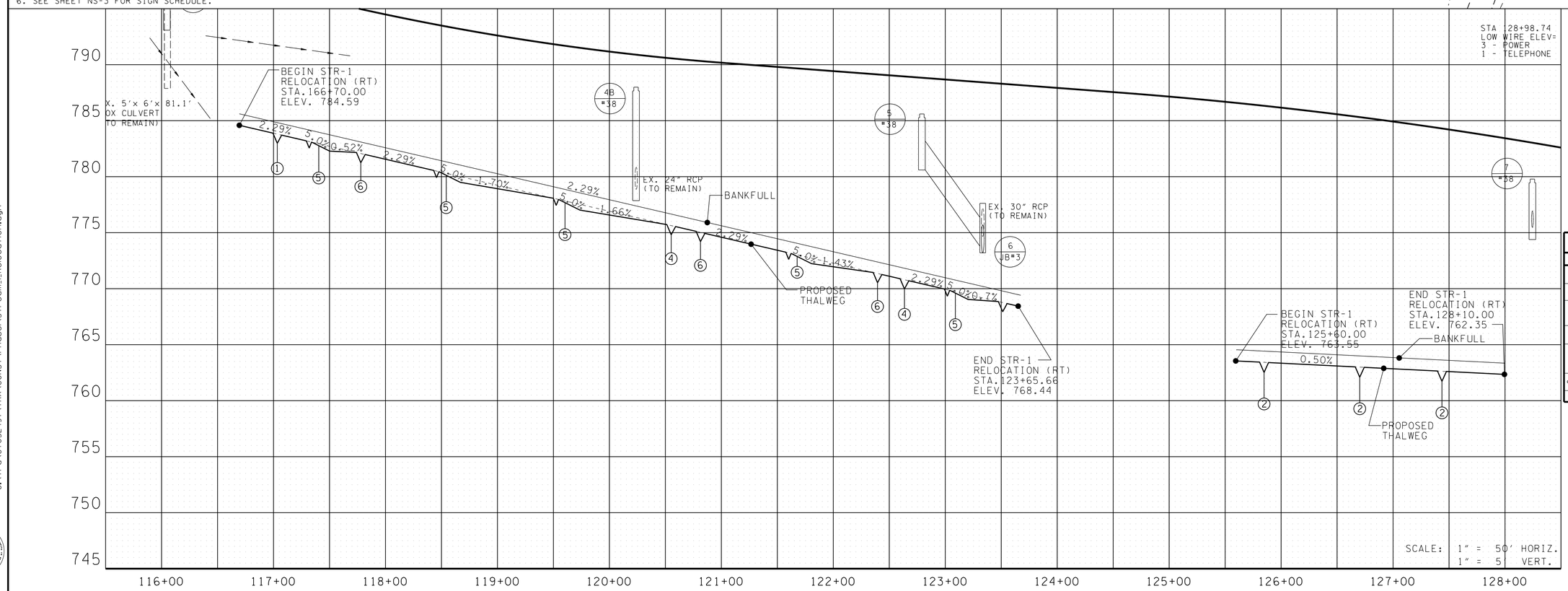
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	NS-1



PLAN VIEW
SCALE 1" = 50'

NOTES:

1. CALLOUTS ARE LOCATED AT CENTER OF STRUCTURE.
2. MAX BANKFULL DEPTH FOR STR-1 RELOCATION IS 1.4'. AVERAGE BANKFULL DEPTH FOR STR-1 SHALL BE 1.0'
3. THE SLOPE OF THE CHANNEL CENTERLINE WILL VARY BASED UPON THE CONSTRUCTION OF THE IN-STREAM STRUCTURES SHOWN IN THE PROFILE AND FURTHER DEFINED IN TABLES ON SHEET 2KK.
4. IF BEDROCK IS ENCOUNTERED DURING STREAM CONSTRUCTION, CONTACT THE T.D.O.T. ENVIRONMENTAL DIVISION IMMEDIATELY. THE PROPOSED DESIGN ASSUMES BEDROCK WILL NOT BE ENCOUNTERED.
5. STREAM RELOCATION CONSTRUCTION NOT TO BE PERFORMED WITHOUT THE SUPERVISION OF A STREAM DESIGN PROFESSIONAL.
6. SEE SHEET NS-3 FOR SIGN SCHEDULE.



STREAM RELOCATION LEGEND			
SYMBOL	DESCRIPTION	REFERENCE NOTE	DWG.
	CROSS VANE	1	D-NSD-1
	LOG DROP STRUCTURE	2	D-NSD-1
	LOG VANE DEFLECTOR	3	D-NSD-1
	STEP POOL	4	SEE SHEET 2II
	ROCK VANE	5	D-NSD-1
	BOULDER STEP POOL	6	SEE SHEET 2II
X ROLL X	COCONUT FOOTY ROLL	7	D-NSD-1

UNOFFICIAL SET NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SR-29 STR-1 RELOCATION PLAN & PROFILE

SCALE: AS SHOWN

11/21/2014 2:31:50 PM
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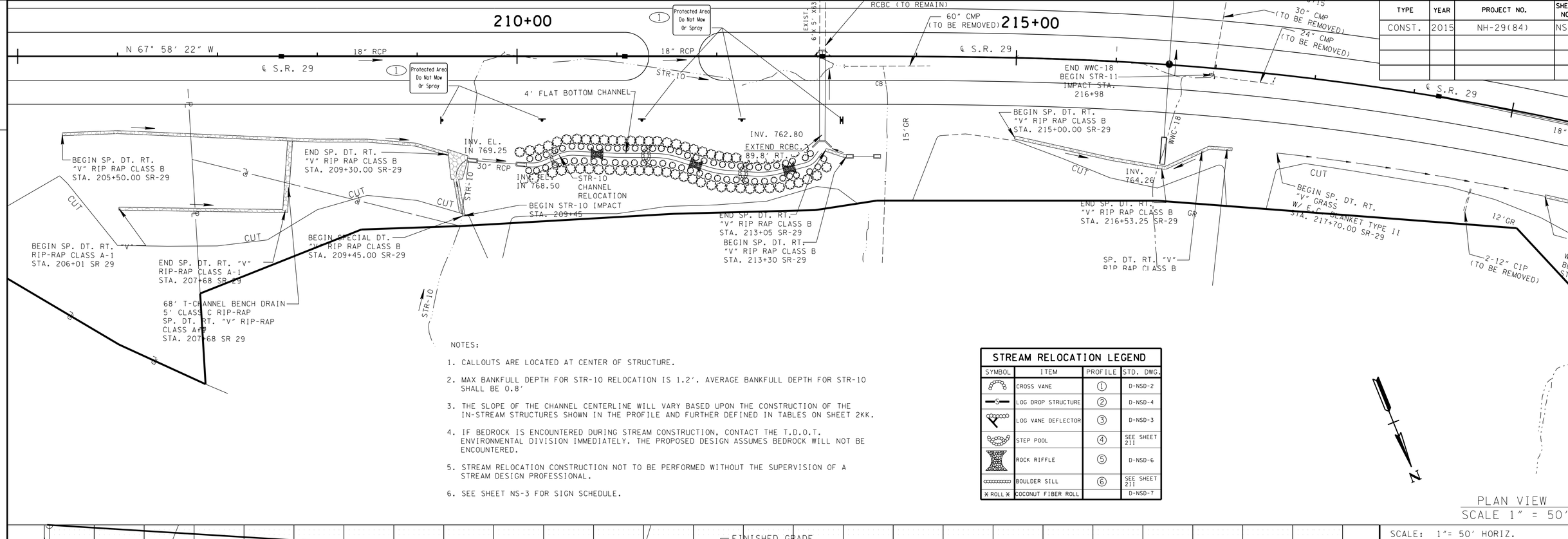
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	NS-2



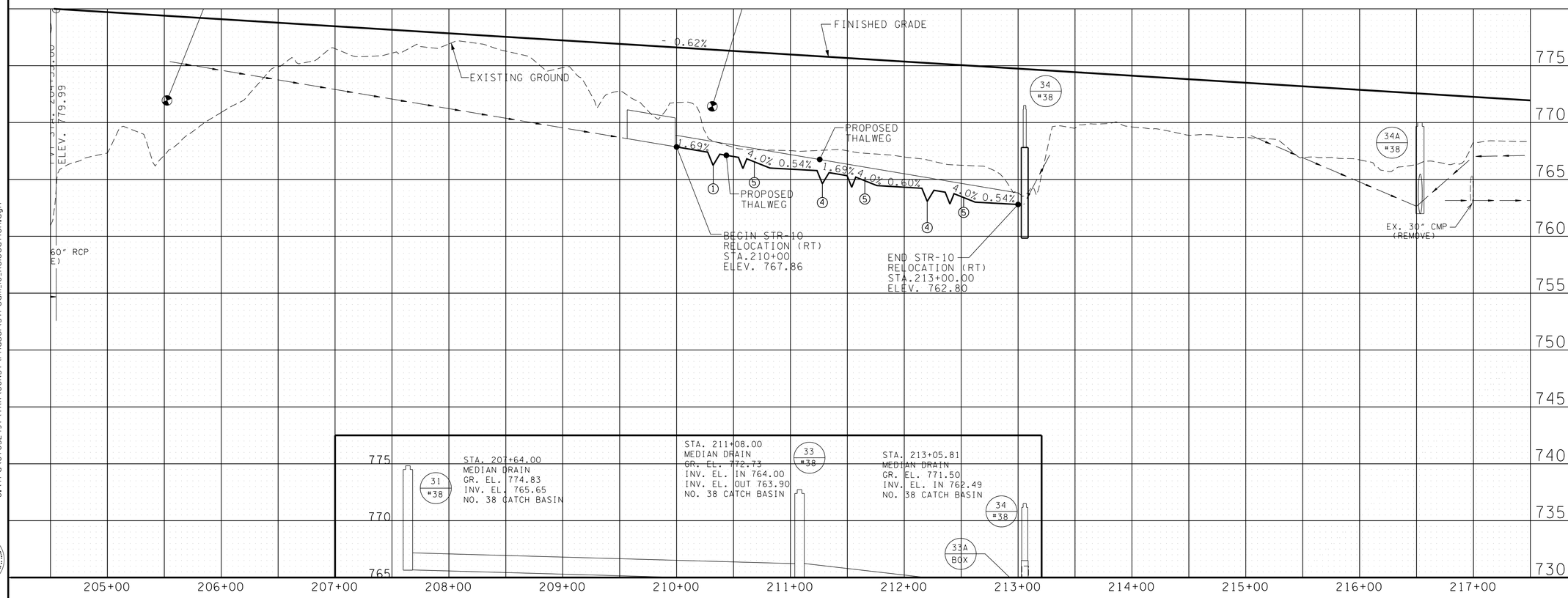
NOTES:

1. CALLOUTS ARE LOCATED AT CENTER OF STRUCTURE.
2. MAX BANKFULL DEPTH FOR STR-10 RELOCATION IS 1.2′. AVERAGE BANKFULL DEPTH FOR STR-10 SHALL BE 0.8′
3. THE SLOPE OF THE CHANNEL CENTERLINE WILL VARY BASED UPON THE CONSTRUCTION OF THE IN-STREAM STRUCTURES SHOWN IN THE PROFILE AND FURTHER DEFINED IN TABLES ON SHEET 2KK.
4. IF BEDROCK IS ENCOUNTERED DURING STREAM CONSTRUCTION, CONTACT THE T.D.O.T. ENVIRONMENTAL DIVISION IMMEDIATELY. THE PROPOSED DESIGN ASSUMES BEDROCK WILL NOT BE ENCOUNTERED.
5. STREAM RELOCATION CONSTRUCTION NOT TO BE PERFORMED WITHOUT THE SUPERVISION OF A STREAM DESIGN PROFESSIONAL.
6. SEE SHEET NS-3 FOR SIGN SCHEDULE.

STREAM RELOCATION LEGEND

SYMBOL	ITEM	PROFILE	STD. DWG.
	CROSS VANE	1	D-NSD-2
	LOG DROP STRUCTURE	2	D-NSD-4
	LOG VANE DEFLECTOR	3	D-NSD-3
	STEP POOL	4	SEE SHEET 2II
	ROCK RIFFLE	5	D-NSD-6
	BOULDER SILL	6	SEE SHEET 2II
ROLL	COCONUT FIBER ROLL		D-NSD-7

PLAN VIEW
SCALE 1″ = 50′



SCALE: 1″= 50′ HORIZ.
1″= 5′ VERT.

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SR-29 STR-10 RELOCATION PLAN & PROFILE
SCALE: AS SHOWN

11/21/2014 2:31:51 PM
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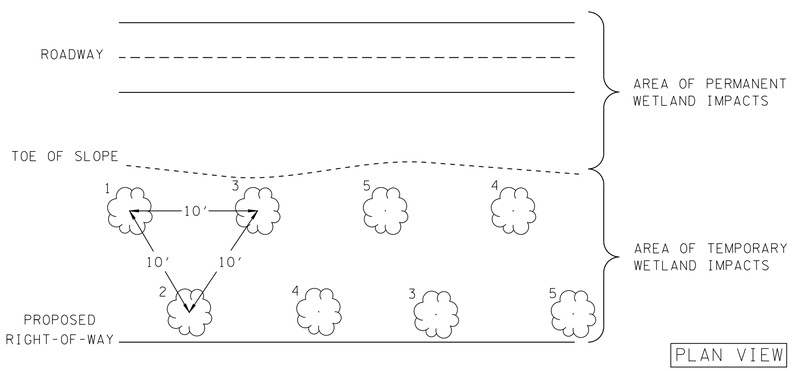
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	NS-3

TREE PLANTING SCHEME FOR TEMPORARY WETLAND IMPACT AREAS



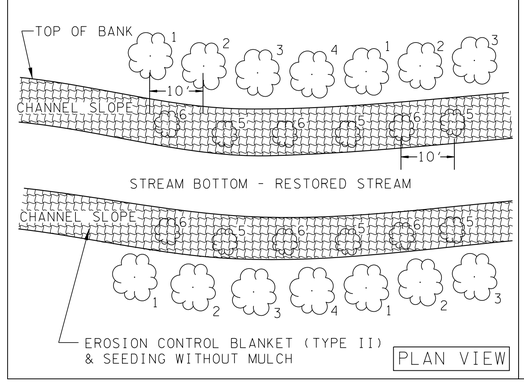
ESTIMATED TREE QUANTITIES - WTL-8 MORGAN COUNTY			
ITEM NO.		DESCRIPTION	QUANTITY
802-12.26	1	AMERICAN SYCAMORE (PLATANUS OCCIDENTALIS)	28
802-12.19	2	TULIP POPLAR (LIRIODENDRON TULIPIFERA)	28
802-11.18	3	SWEETGUM (LIQUIDAMBAR STYRACIFLUA)	28
802-11.02	4	RED MAPLE (ACER RUBRUM)	28
802-13.01	5	HAZEL ALDER (ALNUS SERRULATA)	28

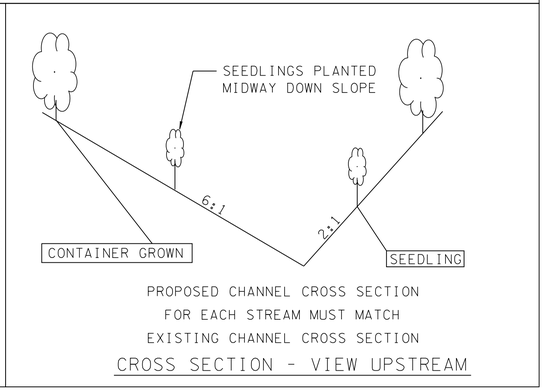
SPECIAL NOTES FOR WETLAND MITIGATION:

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

THE AREA OF TEMPORARY WETLAND IMPACT SHALL BE RESTORED TO PRECONSTRUCTION ELEVATION AND RESEEDED AS SOON AS POSSIBLE FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES.

TYPICAL CHANNEL RESTORATION & TREE PLANTING DETAIL FOR STREAM RELOCATION - STR-7





ESTIMATED TREE QUANTITIES - STR-7 MORGAN COUNTY			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
802-11.19	1 LIRIODENDRON TULIPIFERA (TULIP POPLAR) 3-GALLON CONTAINER-GROWN	EACH	4
802-11.18	2 LIQUIDAMBAR STYRACIFLUA (SWEETGUM) 3-GALLON CONTAINER-GROWN	EACH	4
802-11.02	3 ACER RUBRUM (RED MAPLE) 3-GALLON CONTAINER-GROWN	EACH	4
802-11.26	4 PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE) 3 GALLON CONTAINER-GROWN	EACH	4
802-02.01	5 CORNUS AMMOMUM (SILKY DOGWOOD), 18-24INCH BARE ROOT SEEDLINGS	EACH	6
802-02.02	6 ASIMINA TRILOBA (PAWPAW) 18-24INCH BARE ROOT SEEDLINGS	EACH	6

NO SUBSTITUTION FOR ANY OF THESE SPECIES WILL BE ACCEPTED WITHOUT PERMISSION FROM TDOT ENVIRONMENTAL PLANNING AND PERMITS DIVISION. NO CLONES OR COLTIVARS WILL BE ACCEPTED. ANY TREES FOUND TO BE INCORRECT SPECIES, IMPROPERLY PLANTED, OR WHICH DO NOT SURVIVE, AT ANY TIME PRIOR TO TERMINATION OF THE CONTRACT, SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE. STAKES AND WIRES WILL BE REMOVED IMMEDIATELY PRIOR TO CONTRACT TERMINATION.

STANDARD STREAM MITIGATION:

1) IF THE RELOCATED CHANNEL FLOWS INTO A PROPOSED CULVERT, THE NEW CHANNEL SHALL BE RELOCATED PRIOR TO INSTALLATION OF THE CULVERT TO ENSURE CORRECT ELEVATION LEVELS ARE SET FOR THE INLET. THE NEW CHANNEL SHALL BE EXCAVATED AND STABILIZED DURING A LOW-WATER PERIOD. RIP-RAP (ONLY AS SHOWN ON PLANS), SEEDING OR SOD SHALL BE INSTALLED IMMEDIATELY FOLLOWING CHANNEL COMPLETION. TREES SHALL BE INSTALLED IN THE FIRST PLANTING SEASON FOLLOWING CHANNEL EXCAVATION. WATER SHALL BE DIVERTED INTO THE NEW CHANNEL ONLY AFTER IT IS COMPLETELY STABILIZED, AND ONLY DURING A LOW WATER PERIOD. STABILIZED MEANS THAT ALL SPECIFIED ROCK AND EROSION CONTROL BLANKET IS IN PLACE, AND SEEDING AND SOD ARE IN PLACE AND ESTABLISHED.
2) CHANNEL RELOCATION SEQUENCE:
   A. FLAG THE EDGE OF THE NEW CHANNEL TOP OF BANK PRIOR TO CLEARING. DO NOT CLEAR LARGE TREES IN POSITION TO SHADE THE NEW CHANNEL, LEAVE AS MANY TREES AND SHRUBS AS POSSIBLE BETWEEN THETOE OF THE NEW HIGHWAY SLOPE AND THE STREAM.
   B. EXCAVATE THE NEW CHANNEL 'IN THE DRY' BY LEAVING AREAS OF UNDISTURBED EARTH (DIVERSION BERMS) IN PLACE AT BOTH ENDS.
   C. SHAPE CHANNEL TO SPECIFICATIONS SHOWN. REMOVE LOOSE SOILS AND DEBRIS.
   D. PLACE TOPSOIL, EROSION CONTROL BLANKET, SEED AND SOD AS SPECIFIED.
   E. REMOVE DIVERSION BERMS, BEGINNING WITH THE MOST DOWN STREAM. BANKS AND BOTTOM ELEVATION OF THE OLD CHANNEL SHOULD TRANSITION SMOOTHLY INTO THE NEW CHANNEL. THE ELEVATIONS OF THE NEW CHANNEL BOTTOM AT EACH END OF THE RELOCATION SEQUENCE SHOULD MATCH THE ELEVATIONS OF THE EXISTING CHANNEL, AND A STEADY PERCENT SLOPE SHOULD BE MAINTAINED THROUGHOUT THE RELOCATED CHANNEL CENTERLINE OR AS SPECIFIED.
   F. INSTALL TREES ACCORDING TO STANDARD SPECIFICATIONS SECTION 802.
3) ONLY RIP-RAP SHOWN ON PLANS SHOULD BE USED IN THE RELOCATED CHANNEL REACH. ANY OTHER PROPOSED RIP-RAP SHOULD BE COORDINATED WITH THE ENVIRONMENTAL DIVISION.
4) REQUESTS BY ANY AGENCY THAT WOULD REQUIRE THE MODIFICATION OF CHANNELS, DITCHES, ELEVATIONS, RIP-RAP OR ANY OTHER STREAM MITIGATION ITEMS ASSOCIATED WITH THE CHANNEL RELOCATIONS SHALL BE REFERRED TO THE TOOT ENVIRONMENTAL DIVISION VIA THE HEADQUARTERS CONSTRUCTION OFFICE FOR THE COORDINATION WITH ALL AGENCIES AND TOOT DIVISIONS. THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION MAY MAKE RECOMMENDATIONS CONCERNING EROSION CONTROL VIA THE ENGINEER WITHOUT SUCH REFERRAL.

TREES:

1. NO SUBSTITIONS OF TREE SPECIES OR SIZES SHALL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF TDOT ENVIRONMENTAL DIVISION. TREES SHALL BE THE VARIETY REQUESTED AND FIRST QUALITY. NO CLONES OR CULTIVARS WILL BE ACCEPTED. ANY FOUND TO BE INCORRECT SPECIES, OR IMPROPERLY PLANTED, AT ANY TIME PRIOR TO TERMINATION OF THE CONTRACT SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE. STAKES AND WIRES SHALL BE REMOVED IMMEDIATELY PRIOR TO CONTRACT TERMINATION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHOULD ARRANGE SEVERAL MONTHS AHEAD OF TIME TO OBTAIN THE CORRECT TREE SPECIES, AS SOME MAY REQUIRE SOME TIME TO LOCATE.
3. TREES SHALL BE WATERED AS REQUIRED THROUGH THE PERIOD OF ESTABLISHMENT TO ENSURE SURVIVAL.

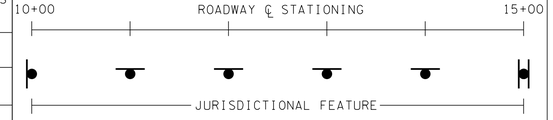
ALL SIGNS SHOWN ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE "TN-SUPPLEMENT TO HIGHWAY SIGNS" (CURRENT EDITIONS)

SEE STD. DWG. NO. T-S-19

SIGN NO.	LEGEND	SIZE		SIGN FACE			STEEL DESIGN (BREAK-AWAY)		MIN. VERTICAL CLEARANCE
		LENGTH	HEIGHT	COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	
1	Protected Area Do Not Mow Or Spray	24"	18"	BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	h=13'-6"	5'

"PROTECTED AREA DO NOT MOW OR SPRAY" SIGN LAYOUT TABLE				
FEATURE	STATION FROM	STATION TO	SPACING	NO. OF SIGNS
STR-1	116+25	128+25	100'	14
STR-7	192+00	193+00	50'	4
STR-10	209+25	213+25	100'	6
WTL-8	241+50	245+50	100'	6

SEE TABLE FOR SPACING



FOR STANDARDIZATION OF LOCATION AND LATERAL CLEARANCE SEE SUBSECTIONS 2A-16 AND 2A-19 OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SR-29 STREAM RELOCATION & SIGN DETAILS

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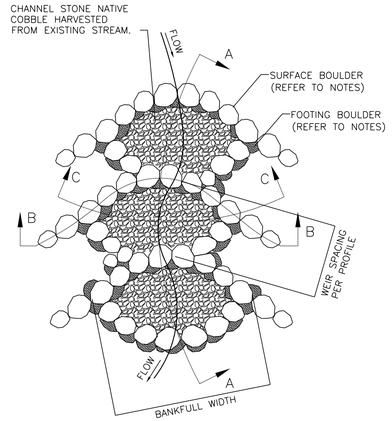
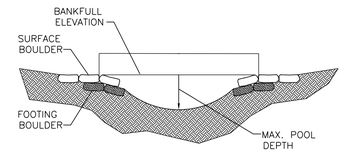
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	NS-4

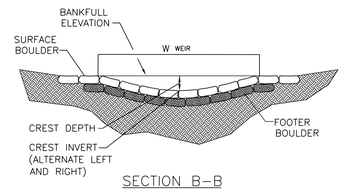
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



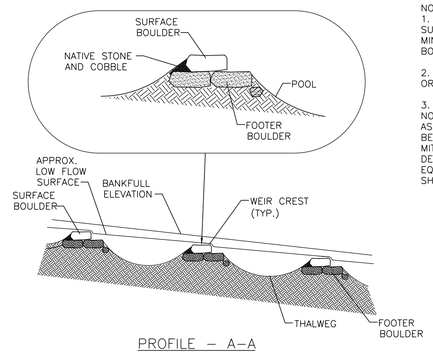
PLAN



SECTION C–C



SECTION B–B



PROFILE – A–A

NOTES:
1. MINIMUM ROCK DIAMETER FOR FOOTING AND SURFACE BOULDERS FOR STEP POOLS SHALL BE 1.0ft. MINIMUM. ROCK DIAMETER FOR FOOTING AND SURFACE BOULDERS ON BOULDER DROP SHALL BE 2.0ft.

2. ROCK SHALL BE NATIVE STONE HARVESTED LOCALLY OR FROM EXISTING STREAM.

3. STEP POOL IS TO BE PAID FOR UNDER ITEM NO.209–03.36. STREAM MITIGATION–STEP POOL, PER EACH, AS SHOWN IN DETAIL 4. BOULDER DROP STEP POOL IS TO BE PAID FOR UNDER ITEM NO. 209–03.55. STREAM MITIGATION–BOULDER SILL, PER EACH, AS SHOWN IN DETAIL 6. PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO CONSTRUCT AS SHOWN IN DETAIL.

4 DETAIL – STEP POOLS
N.T.S.

SCOPE

A BOULDER SILL IS PRIMARILY USED FOR GRADE CONTROL. THIS STRUCTURE SERVES TO MAINTAIN THE INTEGRITY OF THE UPSTREAM PROFILE FEATURE AND PREVENT A HEADCUT. BOULDERS ARE PLACED IN THE CHANNEL BOTTOM FOR STABILITY. EXISTING COARSE CHANNEL SUBSTRATE SHALL BE USED FOR BACKFILL. THE QUANTITY OF BOULDER SILLS MAY BE INCREASED, DECREASED, OR ELIMINATED ENTIRELY AT THE DIRECTION OF THE DESIGNER.

MATERIALS

ALL MATERIALS SHALL MEET THE REQUIREMENTS OF STRUCTURE BOULDERS AS OUTLINED IN SPECIAL PROVISION ?STRUCTURE BOULDERS, SECTION 4.01.

CONSTRUCTION METHOD

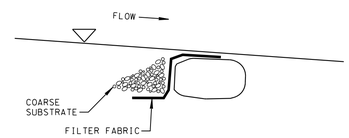
A TRENCH SHALL BE DUG IN SUCH A MANNER THAT THE BOULDERS ARE BURIED BENEATH THE BED SURFACE ELEVATION. THE ELEVATION AT THE TOP OF THE BOULDER IN THE CENTER OF THE STREAM SHOULD BE THE DESIGN ELEVATION. REFER TO THE CONSTRUCTION PLANS FOR EXACT INSTALLATION GUIDE AND LOCATIONS OF BOULDER SILLS TO BE CONSTRUCTED. AN EXCAVATOR, WITH A BUCKET THAT INCLUDES A HYDRAULIC THUMB, SHALL BE USED TO PLACE BOULDERS UNDER THE SUPERVISION OF DESIGNER. BOULDERS SHALL BE SELECTED AND POSITIONED SUCH THAT THEY BUTT TIGHTLY TOGETHER AND THERE ARE MULTIPLE CONTACT POINTS BETWEEN ALL BOULDERS (FLAT SMOOTH SURFACES THAT FIT TOGETHER). LARGE GAPS BEHIND BOULDERS SHALL BE CHINKED BEFORE LAYING DOWN FILTER FABRIC TO PREVENT PIPING ISSUES, SEALING UP–STREAM SIDE OF STRUCTURE. FILTER FABRIC SHALL BE PLACED ON THE UPSTREAM SIDE OF THE STRUCTURE. FILTER FABRIC SHALL BE PLACED THE ENTIRE LENGTH OF THE STRUCTURE. GAPS BETWEEN BOULDERS SHALL BE FILLED WITH A COARSE CHANNEL SUBSTRATE WHEN AVAILABLE UNTIL PLUGGED. IF EXISTING CHANNEL SUBSTRATE IS NOT AVAILABLE, A COMBINATION OF CLASS A AND NO. 57 STONE CAN BE USED. BOULDERS AT BOTH BANKS SHALL BE TIED IN SECURELY TO THE BANK IN SUCH A WAY THAT ELIMINATES THE CUTTING AROUND THE STRUCTURE. STRUCTURES SHALL BE BUILT TO THE APPROVAL OF THE DESIGNER. THE DESIGNER MAY ADJUST THE NUMBER AND PLACEMENT OF STRUCTURES IN THE FIELD.

METHOD OF MEASUREMENT

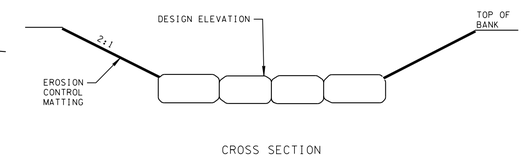
THE QUANTITY OF BOULDER SILLS TO BE PAID FOR WILL BE MEASURED IN THE NUMBER OF BOULDER SILLS PROPERLY CONSTRUCTED AND APPROVED BY THE DESIGNER. BOULDERS, NO. 57 STONE, CLASS A STONE, AND FILTER FABRIC WILL BE INCIDENTAL.

BASIS OF PAYMENT

PAYMENT FOR CONSTRUCTION OF BOULDER SILL SHALL BE FOR AS OUTLINED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, HAULING, PLACING, HANDLING, SORTING, FITTING, MATERIALS, AND INCIDENTALS NECESSARY TO CONSTRUCT THE BOULDER SILL (IE. BOULDERS, FILTER FABRIC, ETC.).



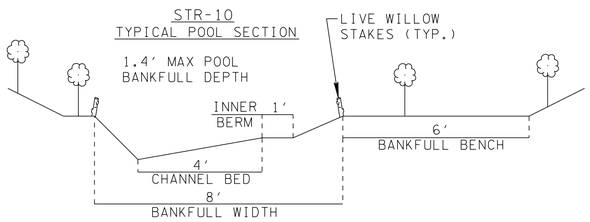
PROFILE VIEW



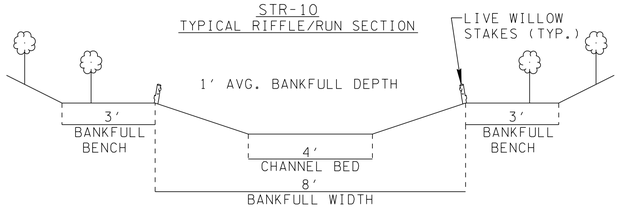
CROSS SECTION

6 DETAIL – BOULDER SILL
N.T.S.

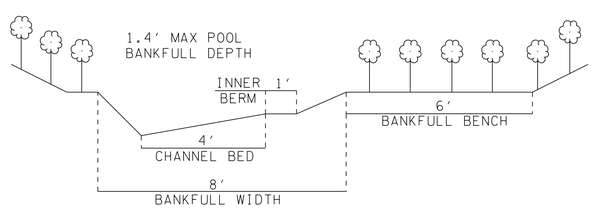
STR-10
TYPICAL POOL SECTION



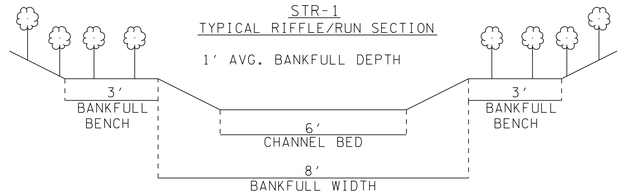
STR-10
TYPICAL RIFFLE/RUN SECTION



STR-1
TYPICAL POOL SECTION



STR-1
TYPICAL RIFFLE/RUN SECTION



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SR-29 STREAM RELOCATION DETAILS

SCALE: AS SHOWN

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	NS-5

ENVIRONMENTAL – ECOLOGY

1. THE NEW CHANNEL MUST BE CONSTRUCTED TO ALLOW NATIVE STONE (BOULDERS, COBBLES, ETC.) FROM THE EXISTING CHANNEL TO BE HARVESTED FOR PLACEMENT IN THE NEW CHANNEL.

2. THE FOLLOWING IS THE RECOMMENDED CONSTRUCTION SEQUENCE:

   A. FLAG EDGE OF THE NEW CHANNEL TOP BANK PRIOR TO CLEARING. DO NOT CLEAR LARGE TREES IN POSITION TO SHADE THE NEW CHANNEL. LEAVE AS MANY TREES AND SHRUBS AS POSSIBLE AS A STREAM BUFFER.
   B. EXCAVATE CHANNEL "IN THE DRY" LEAVING AREAS OF UNDISTURBED EARTH AT BOTH ENDS.
   C. INSTALL GRAVITY BYPASS PIPE FOR EXISTING STR–1.

   D. SHAPE CHANNEL TO SPECIFICATIONS SHOWN. REMOVE LOOSE SOILS AND DEBRIS.
   E. IF SUFFICIENT NATIVE STONE (AS APPROVED BY ENGINEER) IS NOT ENCOUNTERED WITHIN THE NEW CHANNEL EXCAVATION, THEN EXCAVATE NATIVE STONE FROM EXISTING STR–1.
   F. PLACE TOPSOIL, SEED & EROSION CONTROL BLANKET AS SPECIFIED.
   G. REMOVE DIVERSION BERMS, BEGINNING WITH THE MOST DOWNSTREAM BERM. BANKS AND BOTTOM ELEVATION OF THE OLD CHANNEL SHOULD TRANSITION SMOOTHLY INTO THE NEW CHANNEL. THE ELEVATIONS OF THE NEW CHANNEL BOTTOM AT EACH END OF THE RELOCATION SEQUENCE SHOULD MATCH THE ELEVATIONS OF THE EXISTING CHANNEL, AND A STEADY PERCENT SLOPE SHOULD BE MAINTAINED THROUGHOUT THE RELOCATED CHANNEL CENTERLINE OR AS SPECIFIED.
   H. INSTALL TREES ACCORDING TO DETAIL.

3. CONTRACTOR IS ENCOURAGED TO EXCAVATE THE MAIN PROFILE OF THE NEW CHANNEL FIRST, THEN, AS DROP STRUCTURES ARE CONSTRUCTED WITHIN THE NEW CHANNEL, POOLS CAN BE EXCAVATED ACCORDING TO THE TYPICAL PROFILE FOR THE GIVEN STR–1.

4. STABILIZE THE BANKS OF THE NEW CHANNEL WITH SEED AND COIR EROSION CONTROL BLANKET BEFORE ANTICIPATED RAINFALL.

5. THE NEW CHANNEL SHALL BE EXCAVATED AND STABILIZED DURING A LOW–WATER PERIOD. LIVE STAKES, BIOENGINEERING MEASURES, SEEDING, AND SOD SHALL BE INSTALLED IMMEDIATELY FOLLOWING CHANNEL COMPLETION. TREES SHALL BE INSTALLED IN THE FIRST PLANTING SEASON FOLLOWING CHANNEL EXCAVATION. WATER SHALL BE DIVERTED INTO THE NEW CHANNEL ONLY AFTER IT IS COMPLETELY STABILIZED, AND ONLY DURING A LOW–WATER PERIOD. STABILIZED MEANS THAT ALL SPECIFIED ROCK AND EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER IS IN PLACE, AND SEEDING AND SOD ARE IN PLACE AND ESTABLISHED.

6. REQUESTS BY ANY AGENCY THAT WOULD REQUIRE THE MODIFICATION OF CHANNELS, DITCHES, ELEVATIONS, RIP–RAP OR ANY OTHER STREAM MITIGATION ITEMS ASSOCIATED WITH THE CHANNEL RELOCATIONS SHALL BE REFERRED TO THE PROJECT ENGINEER.

SPECIAL NOTES

1. THIS IS A STREAM RELOCATION PROJECT THAT IS TO BE DONE IN ACCORDANCE WITH 404/401 WATER QUALITY CERTIFICATION.

2. ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE WITH SEED/STRAW MULCH OR HYDROSEED UNLESS OTHERWISE NOTED IN THE PLANS OR BY THE ENGINEER.

TREES & SHRUBS:

NO SUBSTITUTIONS OF TREE SPECIES OR SIZES SHALL – BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER/LANDSCAPE ARCHITECT. CONCERNING STREAM MITIGATION, TREES SHALL BE OF THE VARIETY REQUESTED, BARE ROOT (ROOTS MUST BE KEPT MOIST AT ALL TIMES), AND FIRST QUALITY. ANY FOUND TO BE INCORRECT SPECIES, OR IMPROPERLY PLANTED, AT ANY TIME PRIOR TO TERMINATION OF THE CONTRACT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. STAKES AND WIRES SHALL BE REMOVED IMMEDIATELY PRIOR TO CONTRACT TERMINATION, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.

TREE SPECIES SHOULD BE 3–GALLON CONTAINER GROWN OR BALL AND BURLAP STOCK. TREES SHOULD BE PLACED ON 10–FOOT CENTERS. SHRUB SPECIES (ALDER AND PAW PAW) SHOULD BE 1–GALLON OR SEEDLINGS AND SHOULD BE PLACED ON 10–FT CENTERS. LIVE STAKE ELDERBERRY, SILKY DOGWOODS AND/OR BLACK WILLOWS WILL ALSO BE USED ALONG THE STREAMBANK. CONSTRUCTION SPECIFICATIONS FOR LIVE STAKES.

1. HARVESTING:

A. LIVE STAKES MAY CONSIST OF A COMBINATION OF SILKY DOGWOOD AND ELDERBERRY.

B. STAKES SHOULD BE HARVESTED AND. PLANTED WHEN THE WILLOWS OR OTHER CHOSEN SPECIES ARE DORMANT. THIS PERIOD IS GENERALLY FROM LATE FALL TO EARLY SPRING, OR BEFORE THE BUDS START TO BREAK.

C. WHEN HARVESTING CUTTINGS, SELECT HEALTHY, LIVE WOOD THAT IS REASONABLY STRAIGHT.

D. USE LIVE WOOD AT LEAST 1 YEAR OLD OR OLDER. THE BEST WOOD IS 2 TO 5 YEARS OLD WITH SMOOTH BARK THAT IS NOT DEEPLY FURROWED.

E. MAKE CLEAN CUTS WITH UNSPLIT ENDS. TRIM BRANCHES FROM CUTTING AS CLOSE AS POSSIBLE. CUT THE BUTT END OF THE CUTTING AT AN ANGLE (r–45 DEGREES) AND THE TOP END SQUARE.

F. THE TOP. (SQUARE CUT END) SHOULD BE PAINTED AND SEALED BY DIPPING THE TOP 1–INCH TO 2–INCHES INTO A 50–50 MIX OF LIGHT COLORED LATEX PAINT AND WATER. THIS REDUCES THE POSSIBILITY OF DESICCATION AND DISEASE CAUSING MORTALITY AND MAKES THEM MORE VISIBLE FOR SUBSEQUENT PLANTING EVALUATIONS. ASSURE THE STAKES ARE PLANTED WITH THE TOP UP.

G. CUTTINGS SHOULD GENERALLY BE BETWEEN 0.5–INCHES TO 2–INCHES IN DIAMETER BUT CAN BE LARGER DEPENDING ON THE SPECIES. HIGHEST SURVIVAL RATES ARE OBTAINED FROM USING CUTTINGS 2–INCHES TO 3–INCHES IN DIAMETER. LARGER DIAMETER CUTTINGS ARE NEEDED FOR PLANTING INTO ROCK RIPRAP.

H. CUTTINGS. OF SMALL DIAMETER (UP TO 1.5–INCHES) SHOULD BE 18 INCHES LONG MINIMUM. THICKER CUTTINGS SHOULD BE LONGER.

I. STAKES SHOULD BE CUT SO A TERMINAL BUD SCAR IS WITHIN 1–INCH TO 4–INCHES OF THE TOP. AT LEAST TWO BUDS AND/OR BUD SCARS SHOULD BE ABOVE THE GROUND AFTER PLANTING.

2. INSTALLATION:

A. STAKES MUST BE PLANTED WITH BUTT–ENDS INTO THE GROUND. LEAF BUD SCARS OR EMERGING BUDS SHOULD ALWAYS POINT UP.

B. STAKES MUST NOT BE ALLOWED TO DRY OUT. THE CUTTINGS NOT PLANTED THE DAY THEY ARE HARVESTED SHOULD BE SOAKED IN WATER FOR A MINIMUM OF 24 HOURS AS SOAKING SIGNIFICANTLY INCREASES THE SURVIVAL RATE OF THE CUTTINGS.

C. PLANT STAKES 4 FEET APART AND ALTERNATE SPECIES.

D. SET THE STAKE AS DEEP AS POSSIBLE INTO THE SOIL, PREFERABLY WITH '80 PERCENT OF ITS LENGTH BURIED BUT NO LESS THAN ONE–HALF OF THE TOTAL LENGTH BURIED.

E. TAMP THE SOIL AROUND THE CUTTING.

USE AN IRON STAKE OR BAR TO MAKE A PILOT HOLE IN FIRM SOIL OR BETWEEN RIPRAP. DRIVE LIVE STAKES INTO THE SOIL WITH A RUBBER MALLET OR DEAD–BLOW HAMMER.

MULCHING OF SEEDED AREAS

ALL SEEDED AREAS ARE TO BE COVERED BY STRAW MULCH. HYDROSEEDING IN WHICH SEED, TACKIFIER, AND MULCH IS IN THE MIX MAY BE USED IN LIEU OF STRAW MULCH.

STANDARD STREAM MITIGATION

1. CHANNEL LENGTH PLACED IN SPRING–BOXES OR CULVERTS COUNTS AS PART OF THE NEW CHANNEL LENGTH (BUT MAY REQUIRE OFF–SITE COMPENSATORY MITIGATION THAT WOULD NOT BE REQUIRED FOR AN OPEN CHANNEL).

2. THE USE OF RIP–RAP SHOULD BE AVOIDED IF POSSIBLE. IF RIP–RAP IS REQUIRED, THE RIP–RAP SHOULD BE IMBEDDED INTO THE SOIL SO THE TOP OF THE RIP–RAP IS FLUSH WITH THE BOTTOM AND SIDES OF THE CHANNEL.

3. PLANT TWO ALTERNATING ROWS OF TREE OR SHRUB SPECIES ON BOTH SIDES OF THE NEW CHANNELS; THE FIRST ROW SHALL BE BARE ROOT SEEDLINGS THAT ARE PLANTED ON THE CHANNEL SLOPE, CENTERED ON THE MIDPOINT OF THE SLOPE. ALONG THE TOP OF BANK, 3–GALLON CONTAINER–GROWN TREES ARE TO BE PLANTED WITHIN ONE FOOT OF THE TOP OF BANK.

4. RIP–RAP, IF REQUIRED, SHOULD BE LIMITED TO ENDS OF CULVERTS.

5. ALL RELOCATED CHANNELS AND THEIR ACCOMPANYING MITIGATION FEATURES, INCLUDING TREES, ARE TO BE PLACED IN RIGHT–OF–WAY RATHER THAN EASEMENTS.

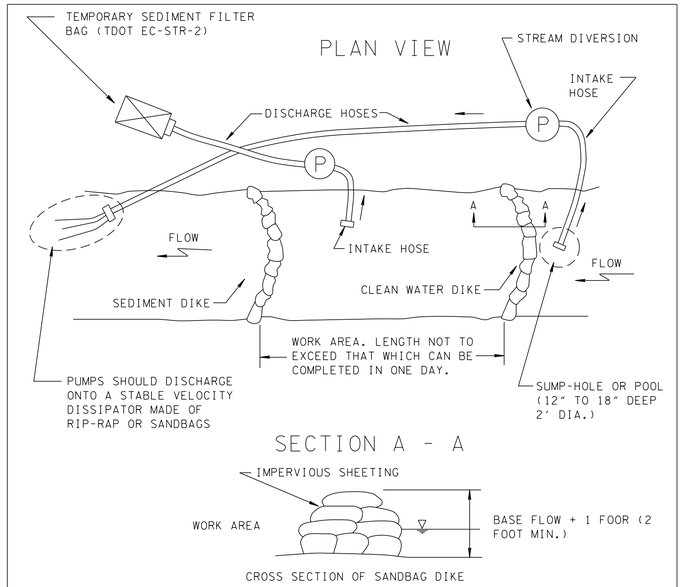
CHANNEL RELOCATION SEQUENCE AND IMPELEMENTATION NOTES FOR RELOCATED STREAM CHANNELS (IGNORE REFERENCES TO ITEMS NOT SPECIFIED)

1. THE NEW CHANNEL SHALL BE EXCAVATED AND STABILIZED DURING A LOW–WATER PERIOD. RIP–RAP (ONLY AS SHOWN ON PLANS), SEEDING, AND SOD SHALL BE INSTALLED IMMEDIATELY FOLLOWING CHANNEL COMPLETION. TREES SHALL BE INSTALLED IN THE FIRST PLANTING SEASON FOLLOWING CHANNEL EXCAVATION. WATER SHALL BE DIVERTED INTO THE NEW CHANNEL ONLY AFTER IT IS COMPLETELY STABILIZED, AND ONLY DURING A LOW–WATER PERIOD. STABILIZED MEANS THAT ALL SPECIFIED ROCK AND EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER IS IN PLACE, AND SEEDING AND SOD ARE IN PLACE AND ESTABLISHED.

2. CHANNEL RELOCATION SEQUENCE:
   A. FLAG EDGE OF THE NEW CHANNEL TOP BANK PRIOR TO CLEARING. DO NOT CLEAR LARGE TREES IN POSITION TO SHADE THE NEW CHANNEL. LEAVE AS MANY TREES AND SHRUBS AS POSSIBLE BETWEEN THE TOE OF THE NEW HIGHWAY SLOPE AND THE STREAM.
   B. EXCAVATE THE NEW CHANNEL "IN THE DRY" BY LEAVING AREAS OF UNDISTURBED EARTH (DIVERSION BERMS) IN PLACE AT BOTH ENDS.
   C. SHAPE CHANNEL TO SPECIFICATIONS SHOWN. REMOVE LOOSE SOILS AND DEBRIS.
   D. PLACE TOPSOIL, EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER, SEED AND SOD AS SPECIFIED
   E. REMOVE DIVERSION BERMS, BEGINNING WITH THE MOST DOWNSTREAM, BANKS AND BOTTOM ELEVATION OF
   THE OLD CHANNEL SHOULD TRANSITION SMOOTHLY INTO THE NEW CHANNEL. THE ELEVATIONS OF THE NEW CHANNEL BOTTOM AT EACH END OF THE RELOCATION SEQUENCE SHOULD MATCH THE ELEVATIONS OF THE EXISTING CHANNEL, AND A STEADY PERCENT SLOPE SHOULD BE MAINTAINED THROUGHOUT THE RELOCATED CHANNEL CENTERLINE OR AS SPECIFIED.
   F. INSTALL TREES ACCORDING TO STANDARD SPECIFICATIONS SECTION 802.
3. ONLY RIP–RAP SHOWN ON PLANS SHOULD BE USED IN THE RELOCATED CHANNEL REACH. ANY OTHER PROPOSED RIP–RAP SHOULD BE COORDINATED WITH THE ENVIRONMENTAL DIVISION THROUGH THE TDOT HEADQUARTERS CONSTRUCTION OFFICE.
4. REQUESTS BY ANY AGENCY THAT WOULD REQUIRE THE MODIFICATION OF CHANNELS, DITCHES, ELEVATIONS, RIP–RAP OR ANY OTHER STREAM MITIGATION ITEMS ASSOCIATED WITH THE CHANNEL RELOCATIONS SHALL BE REFERRED TO THE TDOT ENVIRONMENTAL DIVISION VIA THE HEADQUARTERS CONSTRUCTION OFFICE FOR COORDINATION WITH ALL INVOLVED AGENCIES AND TDOT DIVISIONS.

TREES

1. NO SUBSTITUTIONS OF TREE SPECIES OR SIZES SHALL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE TOOT ENVIRONMENTAL DIVISION. CONCERNING STREAM MITIGATION, TREES SHALL BE OF THE VARIETY REQUESTED, AND FIRST QUALITY. CONCERNING TEMPORARY WETLAND MITIGATION, TREES SHALL BE OF THE VARIETY REQUESTED, WELL BRANCHED, BARE ROOT (ROOTS MUST BE KEPT MOIST AN ALL TIMES), AND FIRST QUALITY. NO CLONES OR CULTIVARS WILL BE ACCEPTED. ANY FOUND TO BE INCORRECT SPECIES, OR IMPROPERLY PLANTED, AT ANY TIME PRIOR TO TERMINATION OF THE CONTR ACT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. STAKES AND WIRES SHALL BE REMOVED IMMEDIATELY PRIOR TO CONTRACT TERMINATION, UNLESS OTHER WISE DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHOULD ARRANGE SEVERAL MONTHS AHEAD OF TIME TO OBTAIN THE CORRECT TREE SPECIES, AS SOME MAY REQUIRE SOME TIME TO LOCATE.
3. ALL TREES PLANTED SHALL BE WRAPPED AS PER SECTION 802.07 OF TDOT STANDARD SPECIFICATIONS FOR THE ROAD AND BRIDGE CONSTRUCTION.
4. TREES SHALL BE WATERED AS REQUIRED THROUGH THE PERIOD OF ESTABLISHMENT TO ENSURE SURVIVAL.



NOTE: ALL IN STREAM WORK IS TO BE PERFORMED IN THE DRY, SEPERATED FROM FLOWING WATER.

PUMP AROUND TYPICAL

N.T.S.

SOURCE: MARYLAND'S WATERWAY CONSTRUCTION GUIDELINES, NOVEMBER 2000

DESCRIPTION

THE WORK SHOULD CONSIST OF INSTALLING A TEMPORARY PUMP AROUND AND SUPPORTING MEASURES TO DIVERT FLOW AROUND IN—STREAM CONSTRUCTION SITES.

IMPLEMENTATION SEQUENCE

SEDIMENT CONTROL MEASURES, PUMP—AROUND PRACTICES, AND ASSOCIATED CHANNEL AND BANK CONSTRUCTION SHOULD BE COMPLETED IN THE FOLLOWING SEQUENCE

1. CONSTRUCTION ACTIVITIES INCLUDING THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES SHOULD NOT BEGIN UNTIL ALL NECESSARY EASEMENTS AND/OR RIGHT-OF-WAYS HAVE BEEN ACQUIRED. ALL EXISTING UTILITIES SHOULD BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT MAY RESULT FROM CONSTRUCTION AND SHOULD REPAIR THE DAMAGE AT HIS/HER OWN EXPENSE TO THE CITY'S, COUNTY'S OR UTILITY COMPANY'S SATISFACTION.
2. THE CONTRACTOR SHOULD STAKE OUT ALL LIMITS OF DISTURBANCE PRIOR TO THE PRE-CONSTRUCTION MEETING SO THEY MAY BE REVIEWED. THE PARTICIPANTS WILL ALSO DESIGNATE THE CONTRACTOR'S STAGING AREAS AND FLAG OLL TREES WITHIN THE LIMIT OF DISTURBANCE WHICH WILL BE REMOVED FOR CONSTRUCTION ACCESS. TREES SHOULD NOT BE REMOVED WITHIN THE LIMIT OF DISTURBANCE WITHOUT APPROVAL FROM T.D.O.T. OR THEIR DESIGNATED REPRESENTATIVE.
3. CONSTRUCTION SHOULD NOT BEGIN UNTIL ALL SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE ENGINEER AND THE SEDIMENT CONTROL INSPECTOR. THE CONTRACTOR SHOULD STAY WITHIN THE LIMITS OF THE DISTURBANCE AS SHOWN ON THE PLANS AND MINIMIZE DISTURBANCE WITHIN THE WORK AREA WHENEVER POSSIBLE.
4. UPON INSTALLATION OF ALL SEDIMENT CONTROL MEASURES AND APPROVAL BY THE SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR SHOULD BEGIN WORK AT THE UPSTREAM SECTION AND PROCEED DOWNSTREAM BEGINNING WITH THE ESTABLISHMENT OF STABILIZED CONSTRUCTION ENTRANCES. IN SOME CASES, WORK MAY BEGIN DOWNSTREAM, IF APPROPRIATE, THE CONTRACTOR SHOULD ONLY BEGIN WORK IN AN AREA WHICH CAN BE COMPLETED BY THE END OF THE DAY INCLUDING GRADING ADJACENT TO THE CHANNEL. AT THE END OF EACH WORK DAY, THE WORK AREA MUST BE STABILIZED AND THE PUMP AROUND REMOVED FROM THE CHANNEL. WORK SHOULD NOT BE CONDUCTED IN THE CHANNEL DURING RAIN EVENTS.
5. SANDBAG DIKES SHOULD BE SITUATED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE WORK AREA AS SHOWN ON THE PLANS, AND STREAM FLOW SHOULD BE PUMPED AROUND THE WORK AREA. THE PUMP SHOULD DISCHARGE ONTO A STABLE VELOCITY DISSIPATER MADE OF RIPRAP OR SANDBAGS.
6. WATER FROM THE WORK AREA SHOULD BE PUMPED TO A SEDIMENT FILTERING MEASURE SUCH AS A DEWATERING BASIN, SEDIMENT BAG, OR OTHER APPROVED SOURCE. THE MEASURE SHOULD BE LOCATED SUCH THAT THE WATER DRAINS BACK INTO THE CHANNEL BELOW THE DOWNSTREAM SANDBAG DIKE.
7. TRAVERSING A CHANNEL REACH WITH EQUIPMENT WITHIN THE WORK AREA WHERE NO WORK IS PROPOSED SHOULD BE AVOIDED. IF EQUIPMENT HAS TO TRAVERSE SUCH A REACH FOR ACCESS TO ANOTHER AREA, THEN TIMBER MATS OR SIMILAR MEASURES SHOULD BE USED TO MINIMIZE DISTURBANCE TO THE CHANNEL. TEMPORARY STREAM CROSSINGS SHOULD BE USED ONLY WHEN NECESSARY AND ONLY WHERE NOTED ON THE PLANS OR SPECIFIED.
8. ALL STREAM RESTORATION MEASURES SHOULD BE INSTALLED AS INDICATED BY THE PLANS AND ALL BANKS GRADED IN ACCORDANCE WITH THE GRADING PLANS AND TYPICAL CROSS—SECTIONS. ALL GRADING MUST BE STABILIZED AT THE END OF EACH DAY WITH SEED AND MULCH OR SEED AND MATTING AS SPECIFIED ON THE PLANS.
9. AFTER AN AREA IS COMPLETED AND STABILIZED, THE CLEAN WATER DIKE SHOULD BE REMOVED. AFTER THE FIRST SEDIMENT FLUSH, A NEW CLEAN WATER DIKE SHOULD BE ESTABLISHED UPSTREAM FROM THE OLD SEDIMENT DIKE. FINALLY, UPON ESTABLISHMENT OF A NEW SEDIMENT DIKE BELOW THE OLD ONE, THE OLD SEDIMENT DIKE SHOULD BE REMOVED.
10. A PUMP AROUND MUST BE INSTALLED ON ANY TRIBUTARY OR STORM DRAIN OUTFALL WHICH CONTRIBUTES BASEFLOW TO THE WORK AREA. THIS SHOULD BE ACCOMPLISHED BY LOCATING A SANDBAG DIKE AT THE DOWNSTREAM END OF THE TRIBUTARY OR STORM DRAIN OUTFALL AND PUMPING THE STREAM FLOW AROUND THE WORK AREA. THIS WATER SHOULD DISCHARGE ONTO THE SAME VELOCITY DISSIPATER USED FOR THE MAIN STEM PUMP AROUND.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ACCESS TO AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES UNTIL THE SEDIMENT CONTROL INSPECTOR APPROVES THEIR REMOVAL.
12. AFTER CONSTRUCTION, OIL DISTURBED AREAS SHOULD BE REGRADED AND REVEGETATED AS PER THE PROJECT SPECIFICATIONS.

UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SR-29 STREAM RELOCATION DETAILS

SCALE: AS SHOWN

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Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-29(84)	NS-6

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

ESTIMATED STREAM QUANTITIES - STREAM-1 - ROANE COUNTY			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
802-11.16	1 FRAXINUS PENNSYLVANICA (GREEN ASH) 3 GALLON CONTAINER-GROWN	EACH	53
802-11.19	2 LIRIODENDRON TULIPIFERA (TULIP POPLAR) 3-GALLON CONTAINER-GROWN	EACH	53
802-11.02	3 ACER RUBRUM (RED MAPLE) 3-GALLON CONTAINER-GROWN	EACH	53
802-11.26	4 PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE) 3 GALLON CONTAINER-GROWN	EACH	53
802-02.01	5 ALNUS SERRULATA (HAZEL ALDER), 18-24 INCH BARE ROOT SEEDLINGS	EACH	108
802-02.02	6 ASIMINA TRILOBA (PAWPAW) 18-24 INCH BARE ROOT SEEDLINGS	EACH	108
201-01	CLEARING AND GRUBBING	LS	N/A
203-01.79	BACKFILL	CY	N/A
203-08	CHANNEL EXCAVATION (UNCLASSIFIED)	CY	N/A
209-03.35	STREAM MITIGATION - LOG DROP STRUCTURES	L.F.	60
209-03.36	STREAM MITIGATION - STEP POOL	EACH	2
209-03.55	STREAM MITIGATION - BOULDER SILL	EACH	4
209-03.37	STREAM MITIGATION - CROSS VANE STRUCTURE	EACH	1
209-03.57	STREAM MITIGATION - COIR ROLLS	LF	650
209-03.44	STREAM MITIGATION - WILLOW POLES (WILLOW, ELDERBERRY, OR SILKY DOGWOOD	EACH	654
209-08.02	TEMPORARY SILT FENCE (WITH BACKING) FOR OLD CHANNEL	LF	650
209-65.01	TEMPORARY STREAM DIVERSION (PUMP AROUND)	LS	0.5
209-65.02	TEMPORARY STREAM DIVERSION (PIPE AROUND)	LS	0.5
209-65.14	TEMPORARY STREAM DIVERSION (IN CHANNEL)	LS	0.5
(1) 801-01.34	GRASS SEED MIX (RPNZN/FLPL)	UNIT	29
(1) 801-01.30	COVER CROP SEED MIX (RIPZN/FLPL) W/MULCH	UNIT	66
805-12.04	EROSION CONTROL BLANKET (TYPE IV)	SY	600
805-12.08	700 GRAM COIR FIBER EROSION CONTROL BLANKET	SY	600
709-05.81	ROCK RIFFLES	LS	0.3
709-05.83	EMBEDED RIP-RAP	TON	20

ESTIMATED QUANTITIES - STR-10 - MORGAN COUNTY			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
802-11.19	1 LIRIODENDRON TULIPIFERA (TULIP POPLAR), 3-GALLON CONTAINER GROWN	EACH	16
802-11.18	2 LIQUIDAMBAR STYRACIFLUA (SWEETGUM), 3-GALLON CONTAINER-GROWN	EACH	16
802-11.02	3 ACER RUBRUM (RED MAPLE) 3-GALLON CONTAINER-GROWN	EACH	16
802-11.26	4 PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE) 3 GALLON CONTAINER-GROWN	EACH	16
802-02.01	5 ALNUS SERRULATA (HAZEL ALDER), 18-24 INCH BARE ROOT SEEDLINGS	EACH	32
802-02.02	6 ASIMINA TRILOBA (PAWPAW) 18-24 INCH BARE ROOT SEEDLINGS	EACH	32
201-01	CLEARING AND GRUBBING	LS	N/A
203-01.79	BACKFILL	CY	N/A
203-08	CHANNEL EXCAVATION (UNCLASSIFIED)	CY	N/A
209-03.35	STREAM MITIGATION - LOG DROP STRUCTURES	L.F.	0
209-03.36	STREAM MITIGATION - STEP POOL	EACH	2
209-03.55	STREAM MITIGATION - BOULDER SILL	EACH	0
209-03.37	STREAM MITIGATION - CROSS VANE STRUCTURE	EACH	1
209-03.57	STREAM MITIGATION - COIR ROLLS	LF	650
209-03.44	STREAM MITIGATION - WILLOW POLES (WILLOW, ELDERBERRY, OR SILKY DOGWOOD	EACH	194
209-08.02	TEMPORARY SILT FENCE (WITH BACKING) FOR OLD CHANNEL	LF	650
209-65.01	TEMPORARY STREAM DIVERSION (PUMP AROUND)	LS	0.5
209-65.02	TEMPORARY STREAM DIVERSION (PIPE AROUND)	LS	0.5
209-65.14	TEMPORARY STREAM DIVERSION (IN CHANNEL)	LS	0.5
(1) 801-01.34	GRASS SEED MIX (RPNZN/FLPL)	UNIT	29
(1) 801-01.30	COVER CROP SEED MIX (RIPZN/FLPL) W/MULCH	UNIT	66
805-12.04	EROSION CONTROL BLANKET (TYPE IV)	SY	200
805-12.08	700 GRAM COIR FIBER EROSION CONTROL BLANKET	SY	200
709-05.81	ROCK RIFFLES	LS	0.4
709-05.83	EMBEDED RIP-RAP	TON	13

FOOTNOTE:

(1) PLANTING RATE FOR ITEM NO. 801-01.34 IS 40lbs/ac.
PLANTING. RATE FOR ITEM NO. 801-01.30 IS 100lbs/ac.

NOTES:

NO SUBSTITUTION FOR ANY OF THESE SPECIES WILL BE ACCECPTED WITHOUT PERMISSION FROM TDOT ENVIRONMENTAL PLANNING AND PERMITS DIVISION. NO CLONES OR COLTIVARS WILL BE ACCEPTED. ANY TREES FOUND TO BE INCORRECT SPECIES, IMPROPERLY PLANTED, OR WHICH DO NOT SURVIVE, AT ANY TIME PRIOR TO TERMINATION OF THE CONTRACT, SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENCE. STAKES AND WIRES WILL BE REMOVED IMMEDIATELY PRIOR TO CONTRACT TERMINATION.

PROPOSED MORPHOLOGY FOR STREAM 1 (STA. 125+60 – 128+10) ROANE COUNTY

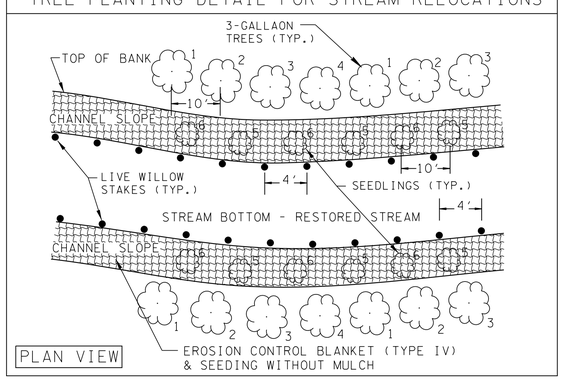
PARAMETER	STREAM 1	
	MIN	MAX
MEAN DEPTH @ BANKFULL (BKF)[1] (FT)	0.8	
WETTED POOL DEPTH @ BASEFLOW (FT)	4	5
MAX POOL DEPTH @ BKF (FT)	1.2	1.8
POOL WIDTH @ BKF (FT)	7	10
POOL LENGTH (FT)	3	10
SLOPE POOL (FT/FT)	0	
RUN LENGTH @ BKF (FT)	60	80
RUN WIDTH @ BKF (FT)	8	
RUN DEPTH @ BKF (FT)	1	
SLOPE RUN (FT/FT)	0.5%	
RIFFLE LENGTH @ BKF (FT)	N/A	
RIFFLE WIDTH @ BKF (FT)	N/A	
RIFFLE DEPTH @ BKF (FT)	N/A	
SLOPE RIFFLE (FT/FT)	N/A	
RIFFLE DMIN, D50[2], DMAX (IN)	N/A	
DROP FOR LOG DROP STRUCTURE (FT)	0.25	

PROPOSED MORPHOLOGY FOR STREAM 10 MORGAN COUNTY

PARAMETER	STREAM 10	
	MIN	MAX
MEAN DEPTH @ BANKFULL (BKF)[1] (FT)	0.8	
WETTED POOL DEPTH @ BASEFLOW (FT)	4	5
MAX POOL DEPTH @ BKF (FT)	1.2	1.8
POOL WIDTH @ BKF (FT)	7	10
POOL LENGTH (FT)	3	10
SLOPE POOL (FT/FT)	0	
RUN LENGTH @ BKF (FT)	20	70
RUN WIDTH @ BKF (FT)	8	
RUN DEPTH @ BKF (FT)	1	
SLOPE RUN (FT/FT)	0.5%	2.61%
RIFFLE LENGTH @ BKF (FT)	5	15
RIFFLE WIDTH @ BKF (FT)	5	7
RIFFLE DEPTH @ BKF (FT)	0.9	1.0
SLOPE RIFFLE (FT/FT)	4%	7%
RIFFLE DMIN, D50[2], DMAX (IN)	1, 3, 5	
TOTAL DROP STEP POOLS (FT)	0.8	

[1] AVERAGE DEPTH ACROSS SECTION AT BANKFULL.
[2] D50 IS THE AVERAGE SUBSTRATE SIZE OBSERVED AT FEATURE (I.E., RIFFLE, RUN, POOL) IN EXISTING CHANNEL. PROPOSED CHANNEL FEATURES SHOULD BE CONSTRUCTED WITH SUBSTRATE FROM THE EXISTING CHANNEL. PROPOSED NEWBURY RIFFLES MAY BE ALSO CONSTRUCTED USING CLASS A1 RIPRAP; HOWEVER, CONTRACTOR SHOULD BE CAREFUL WHEN SELECTING APPROPRIATE SUBSTRATE DIAMETER SIZES.

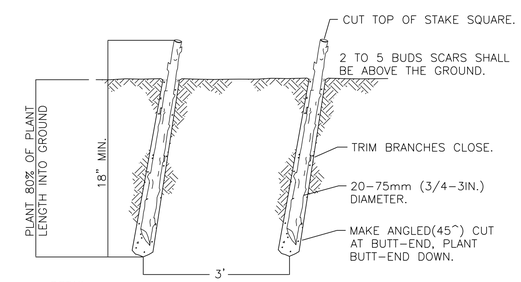
TYPICAL CHANNEL RESTORATION & TREE PLANTING DETAIL FOR STREAM RELOCATIONS



PROPOSED MORPHOLOGY FOR STREAM 1 (STA. 116+73 – 123+85)

PARAMETER	STREAM 1	
	MIN	MAX
MEAN DEPTH @ BANKFULL (BKF)[1] (FT)	0.8	
WETTED POOL DEPTH @ BASEFLOW (FT)	4	5
MAX POOL DEPTH @ BKF (FT)	1.2	1.8
POOL WIDTH @ BKF (FT)	7	10
POOL LENGTH (FT)	3	10
SLOPE POOL (FT/FT)	0	
RUN LENGTH @ BKF (FT)	20	70
RUN WIDTH @ BKF (FT)	8	
RUN DEPTH @ BKF (FT)	1	
SLOPE RUN (FT/FT)	0.7%	2.29%
RIFFLE LENGTH @ BKF (FT)	5	15
RIFFLE WIDTH @ BKF (FT)	5	7
RIFFLE DEPTH @ BKF (FT)	0.9	1.0
SLOPE RIFFLE (FT/FT)	3%	6%
RIFFLE DMIN, D50[2], DMAX (IN)	1, 3, 5	
AVG. DROP FOR CROSS VANE, LOG DROPS, AND SINGLE LOG VANE (FT)	0.5	
AVG. DROP FOR BOULDER SILLS (FT)	0.3	
TOTAL DROP STEP POOLS (FT)	0.8	

[1] AVERAGE DEPTH ACROSS SECTION AT BANKFULL.
[2] D50 IS THE AVERAGE SUBSTRATE SIZE OBSERVED AT FEATURE (I.E., RIFFLE, RUN, POOL) IN EXISTING CHANNEL. PROPOSED CHANNEL FEATURES SHOULD BE CONSTRUCTED WITH SUBSTRATE FROM THE EXISTING CHANNEL. PROPOSED NEWBURY RIFFLES MAY BE ALSO CONSTRUCTED USING CLASS A1 RIPRAP; HOWEVER, CONTRACTOR SHOULD BE CAREFUL WHEN SELECTING APPROPRIATE SUBSTRATE DIAMETER SIZES.



DETAIL:
LIVE STOUT STAKES SHOULD BE LONG ENOUGH TO REACH BELOW THE GROUNDWATER TABLE. (GENERALLY, A LENGTH OF 2 TO 3 FEET) ADDITIONALLY, THE STAKES SHOULD HAVE A DIAMETER IN THE RANGE OF 0.75 TO 3.0 INCHES.

NOTES:
1. HARVEST AND PLANT STAKES DURING THE DORMANT SEASON.
2. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD.
3. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION: USE AN IRON BAR AND PILOT HOLE IN FIRM SOILS.
4. SOAK CUTTINGS FOR AT LEAST 24 HOURS PRIOR TO INSTALLATION. SOAK FOR 5-7 DAYS FOR BEST RESULTS.
5. TAMP THE SOIL AROUND THE STAKE.

LIVE STAKES
N.T.S.

UNOFFICIAL SET
NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE DATUM ADJUSTED BY THE FACTOR 1.00000900 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SR-29 STREAM RELOCATION DETAILS

SCALE: AS SHOWN

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Survey & Design Division