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SEE SHEET NO. 1A FOR INDEX

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

BLOUNT COUNTY

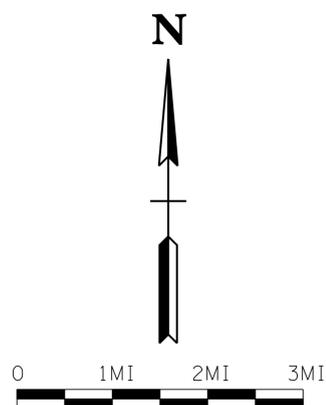
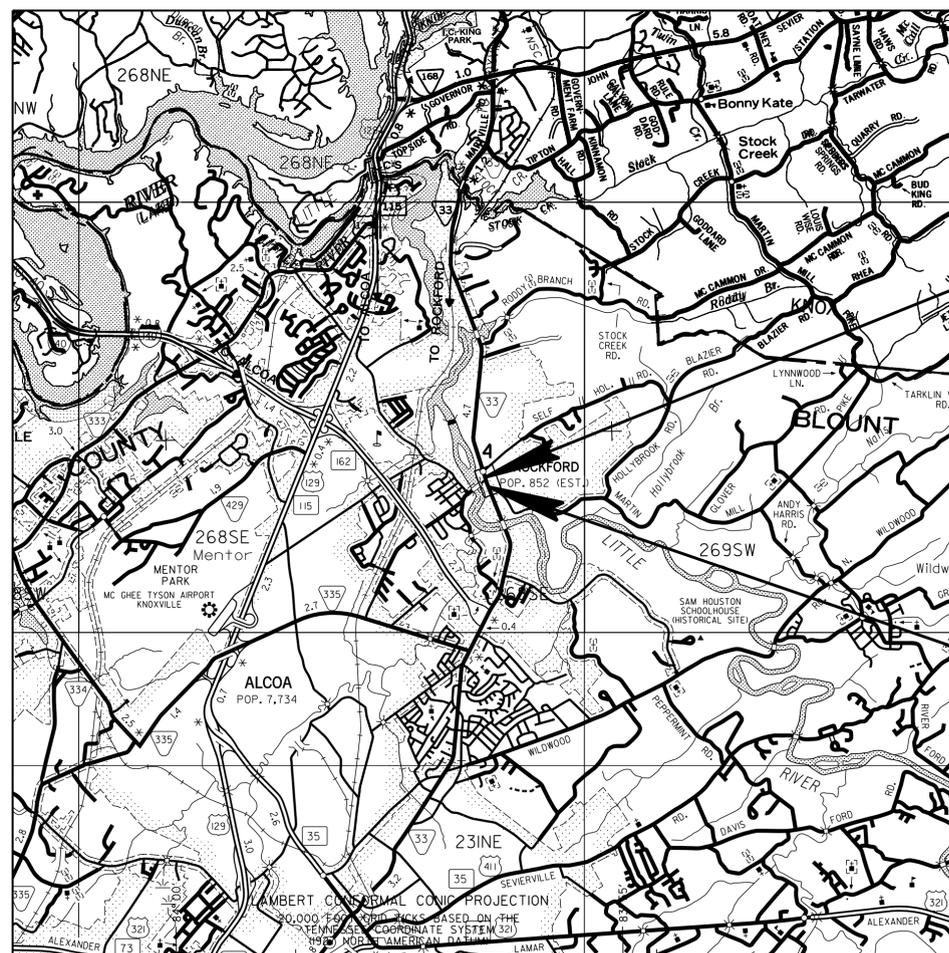
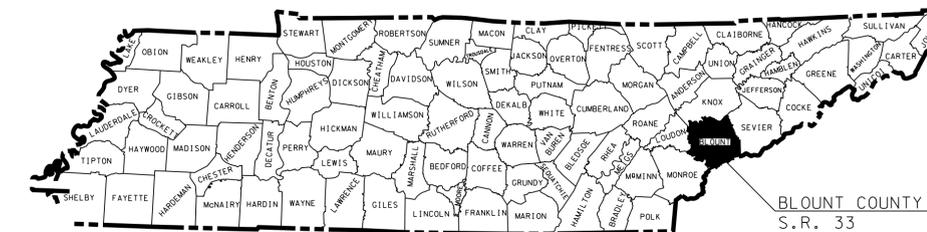
S.R. 33: INTERSECTION AT WILLIAMS
MILL ROAD IN ROCKFORD

GRADE, DRAIN, BASE, PAVE, SIGNAL AND GUARDRAIL

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

TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	NHTSA-HE-33(92)	
STATE PROJ. NO.	97005-3278-04	

S.R. 33 BLOUNT CO.



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 FEBRUARY 4, 2014 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT C.E. MANAGER 1 ROLAND L. JONES, P.E.

DESIGNED BY CANNON & CANNON, INC.

DESIGNER REBECCA HEADRICK, P.E. CHECKED BY ALAN CHILDERS, P.E.

P.E. NO. 97005-1278-04

PIN NO. 116976.00

SCALE: 1" = 1 MILE

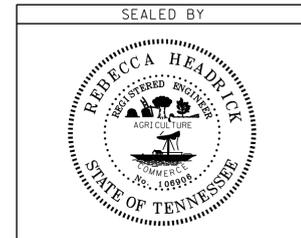
ROADWAY LENGTH	0.123 MILES
BRIDGE LENGTH	0.000 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	0.123 MILES

97005-3278-04
END PROJ. NO. NHTSA-HE-33(92)
STA. 310+90.00 (CONST.)

NO EXCLUSIONS
NO EQUATIONS

97005-3278-04
BEGIN PROJ. NO. NHTSA-HE-33(92)
STA. 304+40.00 (CONST.)

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SET
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BIDDING**



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

DATE: _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

ORIGINAL SURVEY MARCH 2012

TRAFFIC DATA	
ADT (2013)	7,930
ADT (2033)	13,890
DHV (2033)	1,375
D	70 - 30
T (ADT)	3 %
T (DHV)	2 %
V	40 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(92)	1A

INDEX

STANDARD ROADWAY DRAWINGS

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NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS.

DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-8		STANDARD LEGEND FOR NATURAL STREAM DESIGN
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT

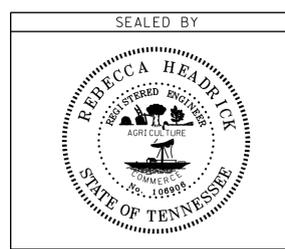
DWG. NO	REV.	DESCRIPTION
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-S-12	08-01-09	CLEAR ZONE CRITERIA
RD01-TS-7	10-15-02	DESIGN STANDARDS 2-LANE HIGHWAY WITH CONTINUOUS 2-WAY LEFT-TURN LANE
SAFETY APPURTENANCES AND FENCE		
S-F-1	05-24-12	HIGH VISIBILITY FENCE
S-GR-11	11-26-07	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL ALTERNATES
S-GR-12	05-27-03	W-BEAM BARRIER POST DETAILS AND SPECIFICATIONS
S-GR-13	05-27-03	BARRIER RAIL MOUNTING, POST BLOCK-OUTS WITH VERTICAL ADJUSTMENT HOLES
S-GR-13A		BARRIER RAIL MOUNTING POST FOR PLASTIC BLOCK-OUTS WITH HORIZONTAL ADJUSTMENT HOLES
S-GR-14	04-17-12	W-BEAM BARRIER FASTENING HARDWARE AND BRIDGE APPROACH DELINEATORS
S-GR-15	06-30-05	W-BEAM BARRIER TERMINAL ELEMENT DETAILS
S-GR-18	05-15-08	GUARDRAIL TERMINAL (TYPE IN-LINE) AND SHOULDER LINE DETAIL
S-GR-21	06-30-09	LENGTH OF NEED AND TERMINAL REQUIREMENTS IN FILLS
S-GR-23	09-11-02	GUARDRAIL ATTACHMENT TO STRUCTURES AND PROTECTIVE GUARDRAIL AT BRIDGE END DETAILS
S-GR-24	05-15-08	GUARDRAIL END TERMINALS AT BRIDGE ENDS
S-GR-38	08-16-12	DETAILS FOR CONSTRUCTION OF EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINAL
S-GR-38A	06-30-05	DETAILS FOR CONSTRUCTION OF ALTERNATE EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINALS
S-GR-43		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) POST LAYOUT AND ERECTION DETAILS
S-GR-44		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) (2 TUBE) GUARDRAIL ELEMENT POST AND ASSEMBLY DETAILS

DWG. NO	REV.	DESCRIPTION
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-19-13	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES

DWG. NO	REV.	DESCRIPTION
T-SG-3	11-11-04	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-5	07-29-04	CONTROLLER CABINET DETAILS
T-SG-7	11-01-11	SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
T-SG-7A	11-01-11	TYPICAL SIGNAL HEAD PLACEMENT
T-SG-9	11-16-07	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A		MISCELLANEOUS SIGNAL DETAILS
T-SG-10	05-06-13	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-12	11-01-11	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-34	08-01-12	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION

S. R. 33 BLOUNT CO.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ROADWAY INDEX
AND STANDARD
DRAWINGS
INDEX**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(92)	2

S.R. 33 BLOUNT CO.

REV. 12/05/13: ADDED FOOTNOTE TO ITEM NOS. 730-15.32 AND 730-16.02.

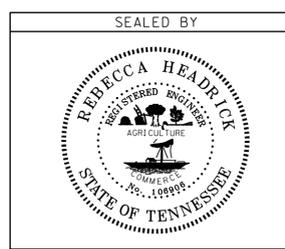
ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
201-01	CLEARING AND GRUBBING	LS	1
(1) 203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	203
203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	684
203-06	WATER	M.G.	2
203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	45
(2)(3) 209-05	SEDIMENT REMOVAL	C.Y.	16
(2)(3) 209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	530
(4) 303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	349
(5) 307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	26
(6) 307-01.08	ASPHALT CONCRETE MIX (PG64-22)(BPMB-HM) GRADNG B-M2	TON	43
(7) 402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	1
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	1.5
(8) 411-01.10	ACS MIX(PG64-22) GRADING D	TON	216
(9) 415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	2730
(10) 705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	88
705-02.03	SINGLE GUARDRAIL (TYPE 2) LONG POST	L.F.	175
705-04.05	GUARDRAIL TERMINAL (TYPE-IN-LINE)	EACH	1
705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	3
706-01	GUARDRAIL REMOVED	L.F.	37
(11) 709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
712-01	TRAFFIC CONTROL	LS	1
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	50
712-05.03	WARNING LIGHTS (TYPE C)	EACH	50
(12) 712-06	SIGNS (CONSTRUCTION)	S.F.	384
712-08.03	ARROW BOARD (TYPE C)	EACH	2
(13) 713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
(14) 713-16.20	SIGNS (R3-8)	EACH	1
(14) 713-16.21	SIGNS (W3-3)	EACH	3
(14) 713-16.22	SIGNS (W11-3)	EACH	1
(15) 716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	75
(15) 716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	4
716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	0.55
716-13.04	SPRAY THERMO PVMT MRKNG (60 mil) (4IN DOTTED LINE)	L.F.	45
716-13.06	SPRAY THERMO PVMT MRKNG (40 mil) (4IN LINE)	L.M.	0.11
716-13.08	SPRAY THERMO PVMT MRKNG (40 mil) (8IN BARRIER LINE)	L.F.	55
717-01	MOBILIZATION	LS	1
730-02.08	SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED)	EACH	1
730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	5
730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE)	EACH	1
730-03.20	INSTALL PULL BOX (TYPE A)	EACH	2
730-03.21	INSTALL PULL BOX (TYPE B)	EACH	6
(16) 730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	650
730-11.01	STEEL CONDUIT RISER ASSEMBLY	EACH	1
730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	440
730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	225
730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	335
730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	EACH	5
730-14.01	SHIELDED DETECTOR CABLE	L.F.	1300
730-14.02	SAW SLOT	L.F.	600
730-14.03	LOOP WIRE	L.F.	1600
(17) 730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	1
(18) 730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(19) 730-23.48	CANTILEVER SIGNAL SUPPORT (1 ARM @ 20')	EACH	1
(19) 730-23.96	CANTILEVER SIGNAL SUPPORT (2 @ 30' & 50')	EACH	1
(2)(3)(11) 740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	85
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	7
801-02	SEEDING (WITHOUT MULCH)	UNIT	9
801-03	WATER (SEEDING & SODDING)	M.G.	2
805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	1010

- FOOTNOTES:
- INCLUDES 84 C.Y. FROM S.R. 33, 23 C.Y. FROM WILLIAMS MILL ROAD, AND 124 C.Y. FROM TOPSOIL FROM EMBANKMENT FROM S.R. 33.
 - SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
 - ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE TDOT SUPERVISOR.
 - INCLUDES 246 TONS FROM S.R. 33, 41 TONS FROM WILLIAMS MILL ROAD, AND 62 TONS FOR DRIVEWAYS.
 - INCLUDES 21 TONS FROM S.R. 33 AND 5 TONS FROM WILLIAMS MILL ROAD.
 - INCLUDES 13 TONS FROM S.R. 33, 3 TONS FROM WILLIAMS MILL ROAD, AND 27 TONS FOR DRIVEWAYS.
 - MAY BE INCREASED OR DECREASED AS DIRECTED BY THE TDOT SUPERVISOR.
 - INCLUDES 155 TONS FOR S.R. 33, 43 TONS FOR WILLIAMS MILL ROAD, AND 18 TONS FOR DRIVEWAYS.
 - INCLUDES 2130 S.Y. FOR S.R. 33 AND 600 S.Y. FOR WILLIAMS MILL ROAD.
 - TO BE USED ON 2:1 SLOPES.
 - TO BE USED ON CONSTRUCTION EXITS. SEE SHEET NO. 7 FOR LOCATION.
 - SEE SHEET NO. 9 FOR CONSTRUCTION SIGN LOCATIONS.
 - INCLUDES REMOVAL OF ONE (1) R1-1 SIGN AND ONE (1) W11-3 SIGN AS SHOWN ON SHEET NO. 11.
 - INCLUDES SIGNS, SUPPORTS (P-POSTS), AND INCIDENTALS NECESSARY FOR COMPLETE INSTALLATION.
 - THE CONTRACTOR SHALL ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
 - INCLUDES CONDUIT, CABLE, AND OTHER ITEMS NECESSARY FOR CONNECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 730-05.01 FOR PAYMENT BY THE CONTRACTOR.
 - CONFLICT MONITOR SHALL BE PEEK DOUBLE DIAMOND, OR EQUAL.
 - CONTROLLER SHALL BE PEEK 3000E WITH MULTI-MODE FIBER OPTIC COMMUNICATION MODULE, OR EQUAL.
 - INCLUDES FOUNDATION.

PROPOSED GUARDRAIL									
SHEET NO.	LOCATION	SIDE		STATION		GUARDRAIL		TERMINAL ANCHORS	
		LT	RT	FROM	TO	SINGLE TYPE 2 GUARDRAIL	SINGLE TYPE 2 LONG POST	TYPE IN-LINE (EACH)	TYPE 38 (EACH)
						705-02.02 (L.F.)	705-02.03 (L.F.)		
4B	S.R. 33	X		306+05 +/-	308+25 +/-		175	1	1
4B	S.R. 33		X	308+95 +/-	310+85 +/-	87.5			2
TOTALS						87.5	175	1	3

ESTIMATED GRADING QUANTITIES					
STATION TO STATION	ROAD & DRAINAGE EXC. (UNCL.)		BORROW	EMB.	TOPSOIL
	COMMON - C.Y.	S. ROCK - C.Y.	COMMON		
			(C.Y.)	(C.Y.)	C.Y.
304+40 TO 310+90	203	0	684	764	0
TOTALS	203	0	684	764	0

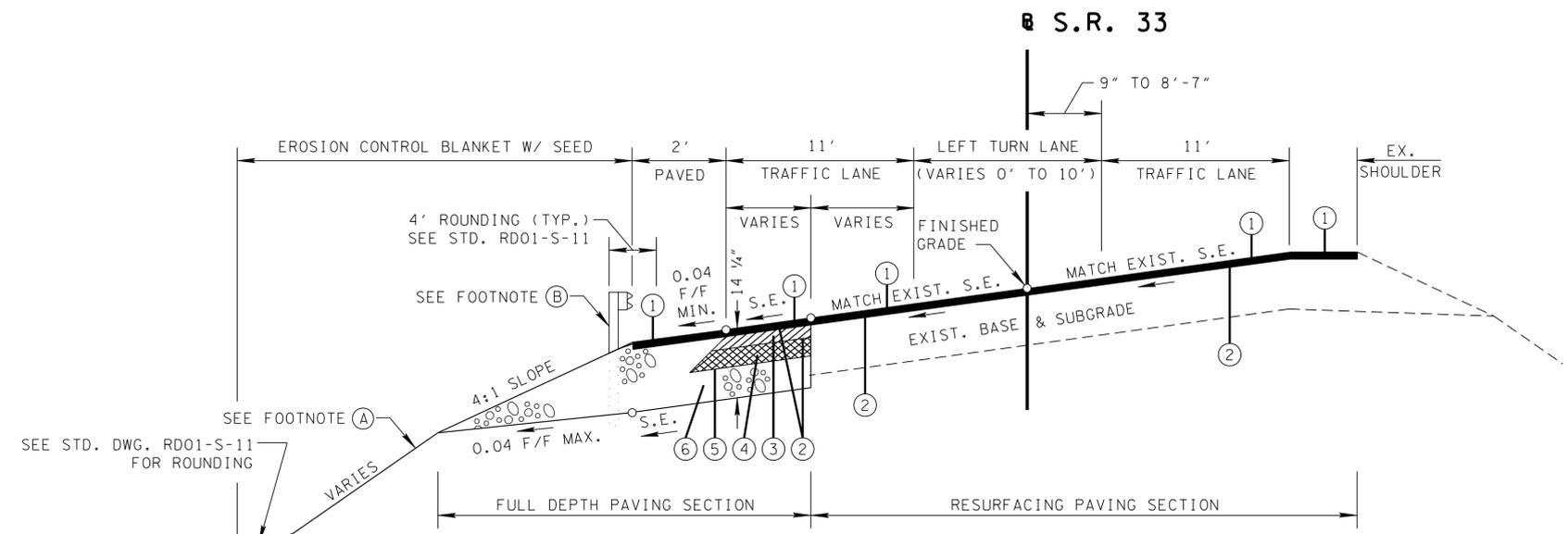
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ESTIMATED ROADWAY QUANTITIES AND TABULATED QUANTITIES

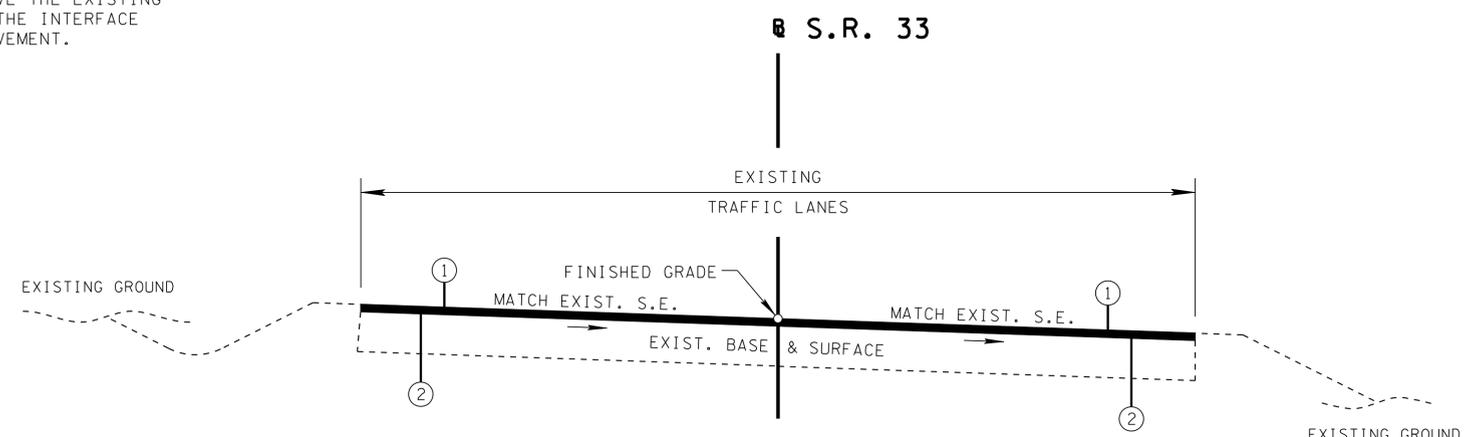
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	2
CONST.	2014	NHTSA-HE-33(92)	2A

S.R. 33 BLOUNT CO.



TYPICAL SUPERELEVATED SECTION OF IMPROVEMENT
(BASED ON STD. DWG. RD01-TS-7)
STA. 305+00.00 TO STA. 309+50.00

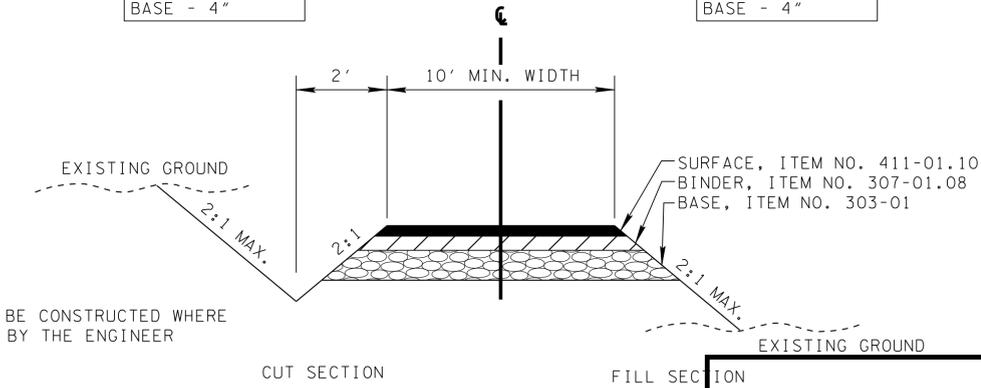
NOTE:
SAWCUT AND REMOVE THE EXISTING PAVEMENT ALONG THE INTERFACE WITH THE NEW PAVEMENT.



TYPICAL CROSS-SECTION OF IMPROVEMENT (RESURFACING)
STA. 304+40.00 TO STA. 305+00.00
STA. 309+50.00 TO STA. 310+60.00

IN THE AREAS THAT ARE TO BE RESURFACED, 1/4" SHALL BE MILLED OFF OF THE EXISTING PAVEMENT.
SEE PROFILE SHEET NO. 4C AND THE CROSS SECTION SHEETS FOR ADDITIONAL INFORMATION.

BUSINESS	FIELD OR RESIDENTIAL
SURFACE - 1 1/4" BINDER - 1 1/4" BASE - 4"	SURFACE - 1 1/2" BINDER - NONE BASE - 4"



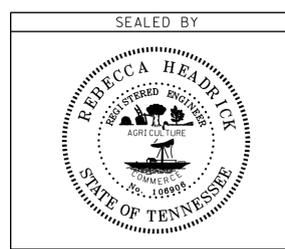
NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER

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

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FOOTNOTES

- (A) SEE ROADWAY CROSS SECTIONS.
- (B) GUARDRAIL SHOWN FOR PLACEMENT PURPOSES ONLY, SEE PLANS FOR PROPOSED LOCATIONS.



PROPOSED PAVEMENT SCHEDULE		
<p>① BITUMINOUS SURFACING (ROADWAY & SIDE ROAD) @ 1 1/4"± THICK (APPROX. 132.5 LBS./SQ.YD.) 411-01.10 ASPHALT CONCRETE MIX (PG64-22) (ACS) GRADING "D"</p>	<p>③ BITUMINOUS BINDER (ROADWAY & SIDE ROAD) @ 2"± THICK (APPROX. 226 LBS./SQ.YD.) 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "B-M2"</p>	<p>⑤ BITUMINOUS MATERIAL FOR PRIME COAT (ROADWAY & SIDE ROAD) 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.35 GAL./SQ.YD.)</p>
<p>② BITUMINOUS MATERIAL FOR TACK COAT (ROADWAY & SIDE ROAD) 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (RATE 0.07 GAL./SQ.YD.)</p>	<p>④ BITUMINOUS AGGREGATE BASE (ROADWAY & SIDE ROAD) @ 3"± THICK (APPROX. 345 LBS./SQ.YD.) 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "A"</p>	<p>⑥ MINERAL AGGREGATE BASE (ROADWAY & SIDE ROAD) @ 8"± THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"</p>

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

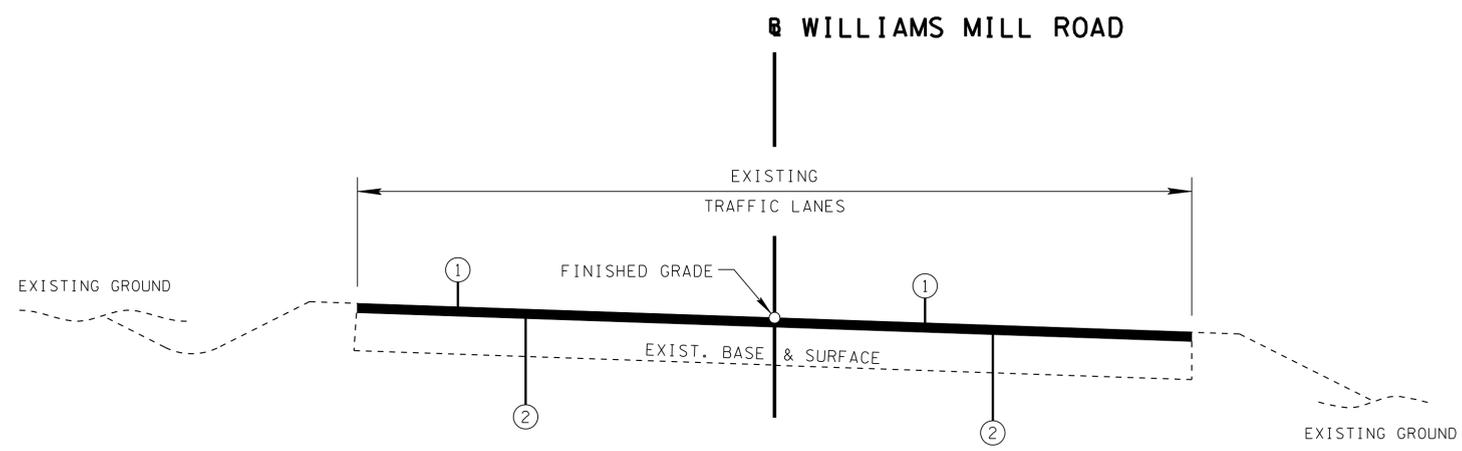
TYPICAL SECTIONS AND PROPOSED PAVEMENT SCHEDULE

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	2A
CONST.	2014	NHTSA-HE-33(92)	2B

S.R. 33

BLOUNT CO.

IN THE AREAS THAT ARE TO BE RESURFACED, 1/4" SHALL BE MILLED OFF OF THE EXISTING PAVEMENT.
SEE PROFILE SHEET NO. 5 AND THE CROSS SECTION SHEETS FOR ADDITIONAL INFORMATION.



TYPICAL CROSS-SECTION OF IMPROVEMENT (RESURFACING)

STA. 408+50.00 TO STA. 409+89.00

NOTE:
SAWCUT AND REMOVE THE EXISTING PAVEMENT ALONG THE INTERFACE WITH THE NEW PAVEMENT.

FOOTNOTES

- (A) SEE ROADWAY CROSS SECTIONS.
- (B) SEE SHEET NO. 2A FOR THE PROPOSED PAVEMENT SCHEDULE.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
SECTIONS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(92)	2C

GENERAL NOTES

GRADING

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF 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

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

GUARDRAIL

- (5) 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.
- (6) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

DRAINAGE

- (7) 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.

MISCELLANEOUS

- (8) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES WHERE AND AS DIRECTED BY THE ENGINEER.
- (9) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

PAVEMENT MARKINGS

FINAL PAVEMENT MARKING IF 4” SPRAY THERMOPLASTIC (60 mil) IS USED

- (10) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4” SPRAY THERMOPLASTIC (60 mil) INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-13.01, SPRAY THERMO PVM T MRKNG (60 mil) (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

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

- (11) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4” SPRAY THERMOPLASTIC (40 mil) INSTALLED TO PERMANENT STANDARDS AT THE

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

FINAL PAVEMENT MARKING IF 8” SPRAY THERMOPLASTIC (40 mil) IS USED

- (12) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 8” SPRAY THERMOPLASTIC (40 mil) INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-13.08, SPRAY THERMO PVM T MRKNG (40 mil) (8IN BARRIER LINE), L.F. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

PAVEMENT

PAVING

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

RESURFACING

- (14) 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.
- (15) 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.
- (16) 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.
- (17) 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.

SIGNING

- (18) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (19) 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.
- (20) 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.
- (21) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.

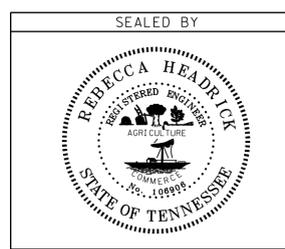
SIGNALIZATION

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

- (23) IF RESURFACING IS INCLUDED IN THE PROJECT, SIGNAL DETECTION LOOPS SHALL BE INSTALLED BEFORE THE FINAL SURFACE IS APPLIED.
- (24) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- (25) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.
- (26) LOOPS SHALL BE INSTALLED IN THE LEVELING COURSE IF A LEVELING COURSE IS PROVIDED.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (27) 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.
- (28) 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.
- (29) 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.
- (30) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (31) 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.
- (32) 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.
- (33) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.



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GENERAL NOTES (CONT.)

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

- (34) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (35) 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.
- (36) 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.
- (37) 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.
- (38) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

SEDIMENT CONTROL

- (39) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (40) 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.
- (41) 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.
- (42) 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.
- (43) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

STREAM/WETLAND

- (44) 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.
- (45) 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.
- (46) 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.
- (47) 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.
- (48) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.
- (49) 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.
- (50) 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.
- (51) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.

SPECIES

- (52) 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

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

- (54) 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.

- (55) 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.

MATERIALS

- (56) 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

- (57) 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.

- (58) 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.

LITTER, DEBRIS, WASTE, PETROLEUM

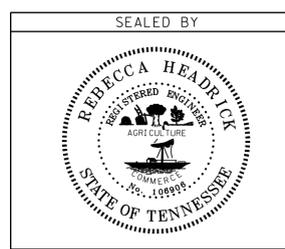
- (59) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED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

- (60) 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.

S.R. 33

BLOUNT CO.

**UNOFFICIAL
SET
NOT FOR
BIDDING**



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(92)	2E

S.R. 33

BLOUNT CO.

SPECIAL NOTES

PAVEMENT RESURFACING

- (1) TRAFFIC WILL BE ALLOWED TO TEMPORARILY DRIVE ON THE MILLED SURFACE OF THE ROADWAY UNDER THE FOLLOWING CONDITIONS ONLY:
 - A. THE MILLED SURFACE IS FINE TEXTURED. THE FINE TEXTURE SHALL BE OBTAINED BY A MILLING MACHINE UTILIZING A MILLING HEAD WITH TEETH SPACING 3/8" OR LESS OPERATING AT LESS THAN 80 FEET PER MINUTE.
 - B. THE SURFACE SHALL BE SWEEPED AND CLEANED OF ALL LOOSE MATERIALS.
 - C. THE DIFFERENCE IN ELEVATION BETWEEN THE MILLED SURFACE AND THE ADJACENT LANE SHALL NOT EXCEED 1 1/2 INCHES.
 - D. THE MILLED SURFACE SHALL BE PAVED WITHIN 48 HOURS.
 - E. RAIN OR INCLEMENT WEATHER IS NOT EXPECTED OR FORECASTED WITHIN 48 HOURS AFTER MILLING.
 - F. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (TN-64) PLACED IN ADVANCE OF ANY MILLED AREAS.
 - G. IF RAVELING OR DETERIORATION OF THE MILLED SURFACE IS OCCURRING WHILE TRAFFIC IS DRIVING ON THE MILLED SURFACE, THEN THIS PRACTICE WILL NOT BE ALLOWED AND PAVING SHALL BE COMPLETED IMMEDIATELY AFTER MILLING.
 - H. ONLY ONE LANE IN EACH DIRECTION SHALL HAVE A MILLED SURFACE AT ONE TIME.

SIGNALIZATION

- (2) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.
- (3) LOCATIONS OF SIGNAL POLES AND PULL BOXES ARE APPROXIMATE AND CAN BE ADJUSTED UP TO 5 FEET IN THE FIELD TO AVOID UTILITY CONFLICT, SUBJECT TO APPORVAL OF THE TDOT INSPECTOR.
- (4) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.
- (5) CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED / EXTENDED VIEW.
- (6) ARROW INDICATIONS SHALL MEET "ITE VTCSH-3 LED ARROW SPECIFICATION" FOR EXPANDED/EXTENDED VIEW.
- (7) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.
- (8) COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.
- (9) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE YEAR WARRANTLY FOR OPERATION OF THE UNIT.
- (10) QUADRUPOLE LOOP DETECTORS SHALL BE POSITIONED 5 FEET IN FRONT OF STOP BAR.
- (11) CONDUIT UNDER EXISTING ROADWAY PAVEMENT AND PAVED DRIVEWAYS SHALL BE JACKED AND BORED INSTALLATION.
- (12) ALL STATION AND OFFSETS ARE TO CENTERLINE OF S.R.33.

EROSION PREVENTION AND SEDIMENT CONTROL

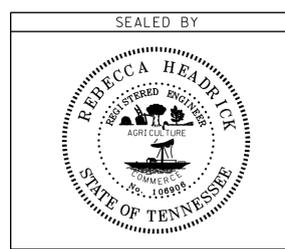
- (13) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

SCOPE OF WORK

THE PROJECT INCLUDES THE GRADING, BASE AND PAVEMENT OF S.R. 33 AND WILLIAMS MILL ROAD TO LINES AND GRADES AS INDICATED ON THE TYPICAL CROSS SECTIONS AND PLAN AND PROFILE SHEETS OR AS DIRECTED BY THE TDOT SUPERVISOR.

ALL SLOPES, THE INSTALLATION OF GUARDRAIL AND OTHER DESIGN FEATURES, INSTALLATION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF S.R. 33 AND WILLIAMS MILL ROAD, THE INSTALLATION OF TRAFFIC CONTROL DEVICES AND EROSION PREVENTION AND SEDIMENT CONTROL DEVICES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT SUPERVISOR.

**UNOFFICIAL
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SPECIAL NOTES
AND SCOPE
OF WORK**

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.

RIGHT - OF - WAY NOTES

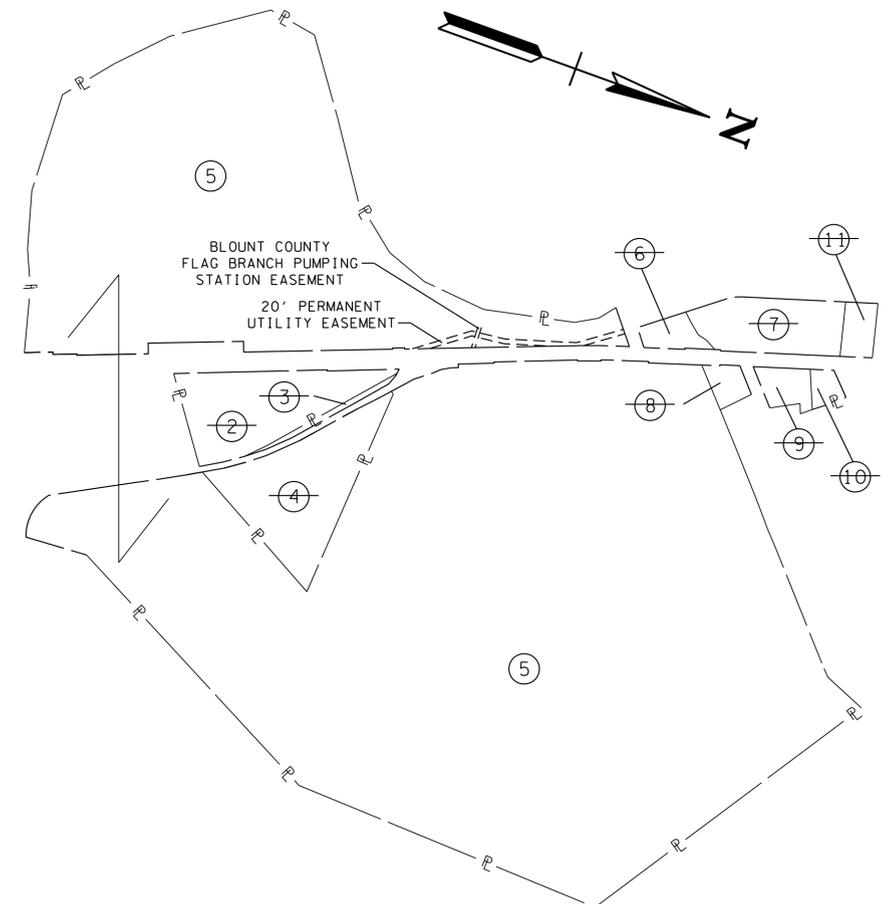
- (1) IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, ROADWAY DESIGN DIVISION IS TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.
- (2) ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.
- (3) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.
- (4) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.
- (5) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.
- (6) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.
- (7) 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 FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.
- (9) 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.

07-01-13: ADDED TRACT NO. 5 AND TRACT 1 BECAME PART OF TRACT 5. UPDATED PROP. R.O.W. TAKE AND PROP. SLOPE AND CONSTRUCTION EASEMENT. UPDATED RIGHT-OF-WAY ACQUISITION TABLE ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	3A
CONST.	2014	NHTSA-HE-33(92)	3A

S.R. 33

BLOUNT CO.

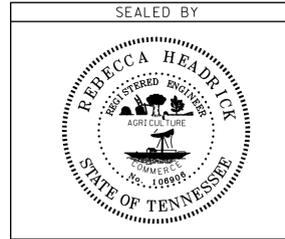


R.O.W. ACQUISITION TABLE

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)		
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.
				BK.	PAGE											
1	Linda Jo Hall	18-K "B"	42.00	2235	5624	44.362		44.362			44.362					
2	Nolia Ann & Samuel Larry Cummings	27	5.01	412	211		4.933	4.933				4.933				
3	Alexander & Linda Berry McTeer	27	5.02	N/A	N/A	0.314		0.314			0.314					
4	Alexander & Linda Berry McTeer	27	5.02	N/A	N/A		5.956	5.956				5.956				
5	Rockford Manufacturing Company	27	5.00	632	487	44.362	103.999	148.361	330 S.F.	330 S.F.	44.362	103.991		3285	4170	
6	Carroll & Linda Shetterly	27	5.03	607	527	0.713		0.713			0.713					
7	Rockford Manufacturing Company	18-K "A"	18.00	86	87	3.141		3.141			3.141					
8	Mark T. Dixon	18-K "B"	42.01	569	821		0.565	0.565				0.565				
9	Arock, Inc.	18-K "B"	29.00	2255	111		0.794	0.794				0.794				
10	Ronald C. Baker	18-K "B"	28.00	609	223		0.413	0.413				0.413				
11	Henry III & Ann McDonald	18-K "A"	17.00	386	542	0.719		0.719			0.719					

UTILITY OWNERS	
ELECTRIC:	CITY OF MARYVILLE OPERATIONS CENTER 332 HOME AVENUE MARYVILLE, TN 37801 JAMES BOND: (865) 273-3328 NO UNDERGROUND ELECTRIC MARKED IN FIELD
TELEPHONE:	AT&T SOUTHEAST REGION 9733 PARKSIDE DRIVE KNOXVILLE, TN 37922 DAVID OVERMAN: (865) 539-8579
WATER:	CITY OF ALCOA 725 UNIVERSAL STREET ALCOA, TN 37701 KENNY WIGGINS: (865) 380-4800
SEWER:	CITY OF MARYVILLE OPERATIONS CENTER (NOT ON PROJECT) 332 HOME AVENUE MARYVILLE, TN 37801 JESSE MCHORTER: (865) 273-3301 CITY OF ALCOA 725 UNIVERSAL STREET ALCOA, TN 37701 KENNY WIGGINS: (865) 380-4800
GAS:	ATMOS ENERGY CORPORATION 1639 ROBERT C. JACKSON DRIVE MARYVILLE, TN 37801 JIMMY WALKER: (865) 567-5294 DAVID SWECKER
CABLE:	CHARTER 1774 HENRY G. LANE STREET MARYVILLE, TN 37801 BILLY CLICK: (865) 273-2761 XFINITY (COMCAST) 5720 ASHEVILLE HIGHWAY KNOXVILLE, TN 37924 JOSHUA JONES: (865) 719-7590

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. NOTES, R.O.W. ACQUISITION TABLE, UTILITY OWNERS & UTILITY NOTES

SCALE: 1"=400'

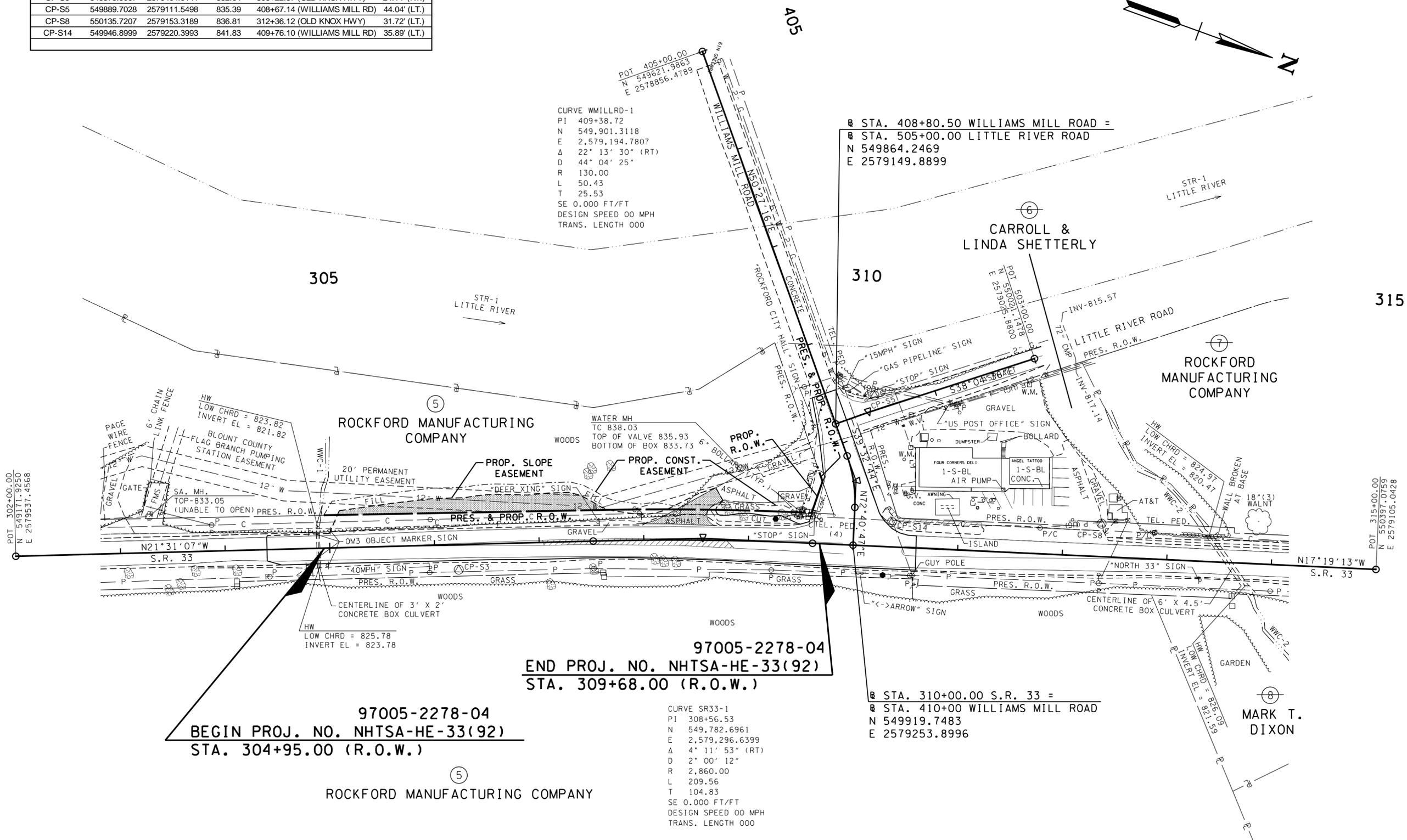
07-01-13: ADDED TRACT NO. 5 AND TRACT 1 BECAME PART OF TRACT 5.
ELIMINATED SHOULDER WIDENING ON WILLIAMS MILL ROAD.
UPDATED PROP. R.O.W. TAKE AND PROP. SLOPE AND CONSTRUCTION EASEMENT.
UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	4
CONST.	2014	NHTSA-HE-33(92)	4

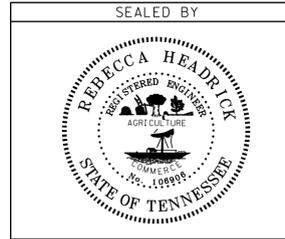
S.R. 33

BLOUNT CO.

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION (ROAD NAME)	OFFSET
CP-S3	549573.9007	2579404.9141	832.64	306+22.57 (OLD KNOX HWY)	24.14' (RT.)
CP-S5	549889.7028	2579111.5498	835.39	408+67.14 (WILLIAMS MILL RD)	44.04' (LT.)
CP-S8	550135.7207	2579153.3189	836.81	312+36.12 (OLD KNOX HWY)	31.72' (LT.)
CP-S14	549946.8999	2579220.3993	841.83	409+76.10 (WILLIAMS MILL RD)	35.89' (LT.)



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 302+00 TO STA. 315+00

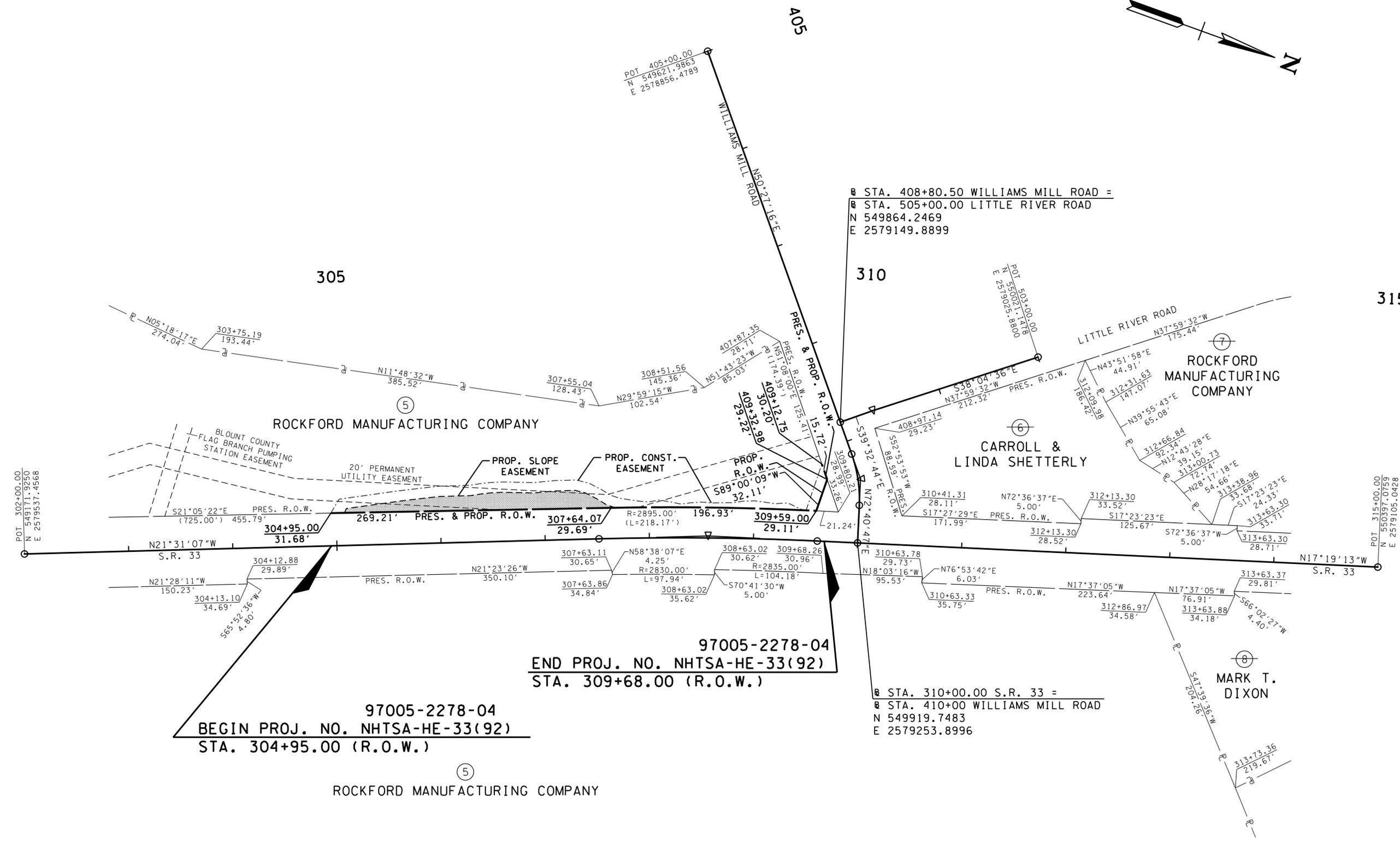
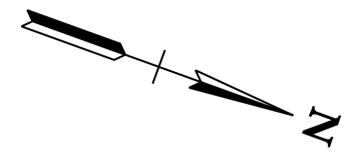
SCALE: 1" = 50'

07-01-13: ADDED TRACT NO. 5 AND TRACT 1 BECAME PART OF TRACT 5.
UPDATED PROP. R.O.W. TAKE AND PROP. SLOPE AND CONSTRUCTION
EASEMENT.
UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

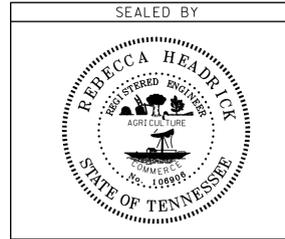
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	4A
CONST.	2014	NHTSA-HE-33(92)	4A

S.R. 33

BLOUNT CO.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**R.O.W.
DETAILS**

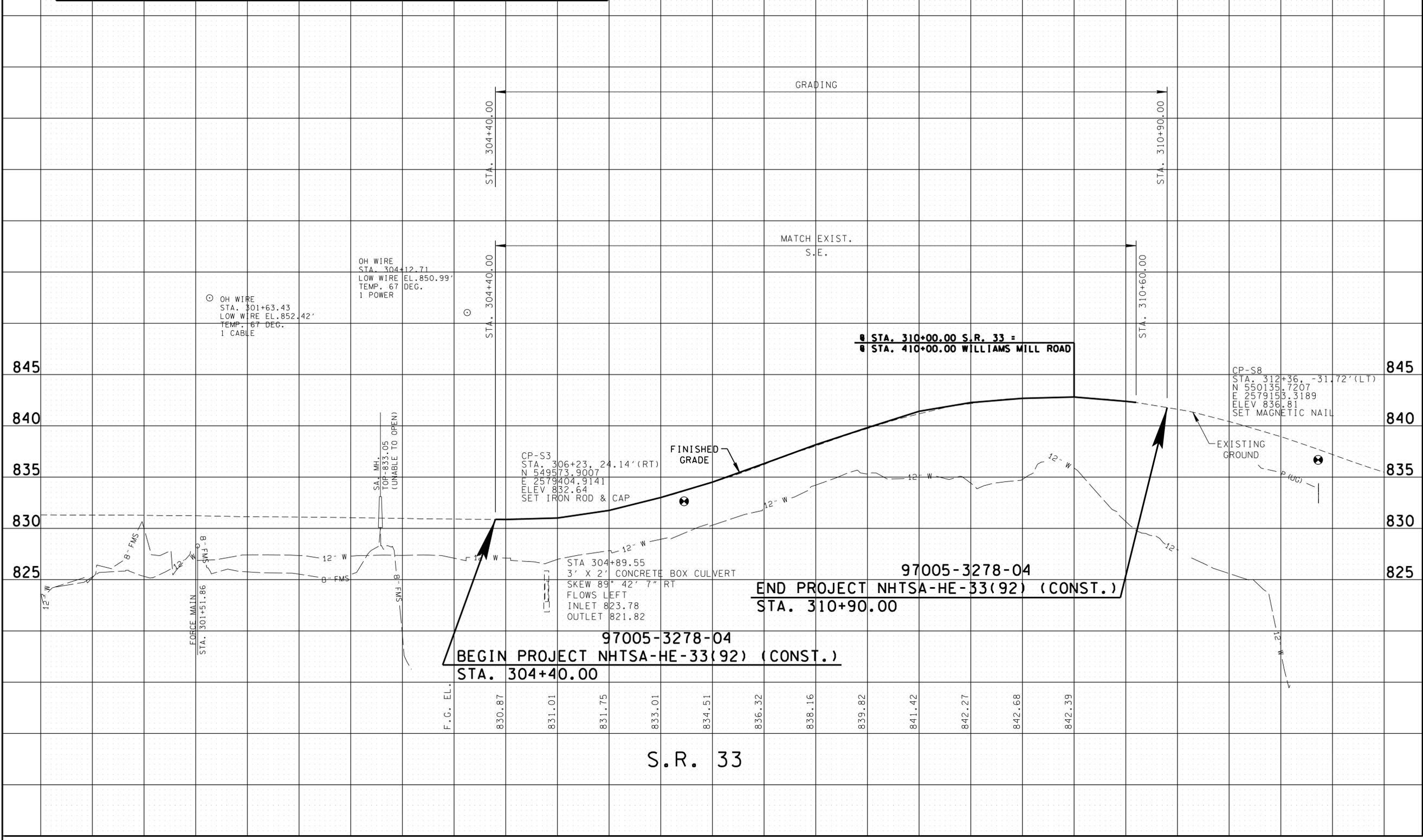
STA. 302+00 TO STA. 315+00

SCALE: 1" = 50'

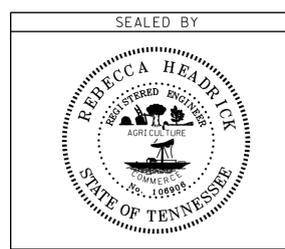
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	4C
CONST.	2014	NHTSA-HE-33(92)	4C

S.R. 33
BLOUNT CO.
07-01-13: UPDATED EARTHWORK.

EXC. (COMMON)	203 C.Y.	INCLUDES 84 C.Y. FROM S.R. 33 AND 119 C.Y. FROM TOPSOIL FROM EMB.
EXC. BORROW (UNCL.)	684 C.Y.	
EMB. (UNCL.)	764 C.Y.	INCLUDES 626 C.Y. FROM S.R. 33; 119 C.Y. FROM TOPSOIL FROM EMB.; AND 19 C.Y. DRIVEWAYS.
COMMON SHRINKAGE	5%	



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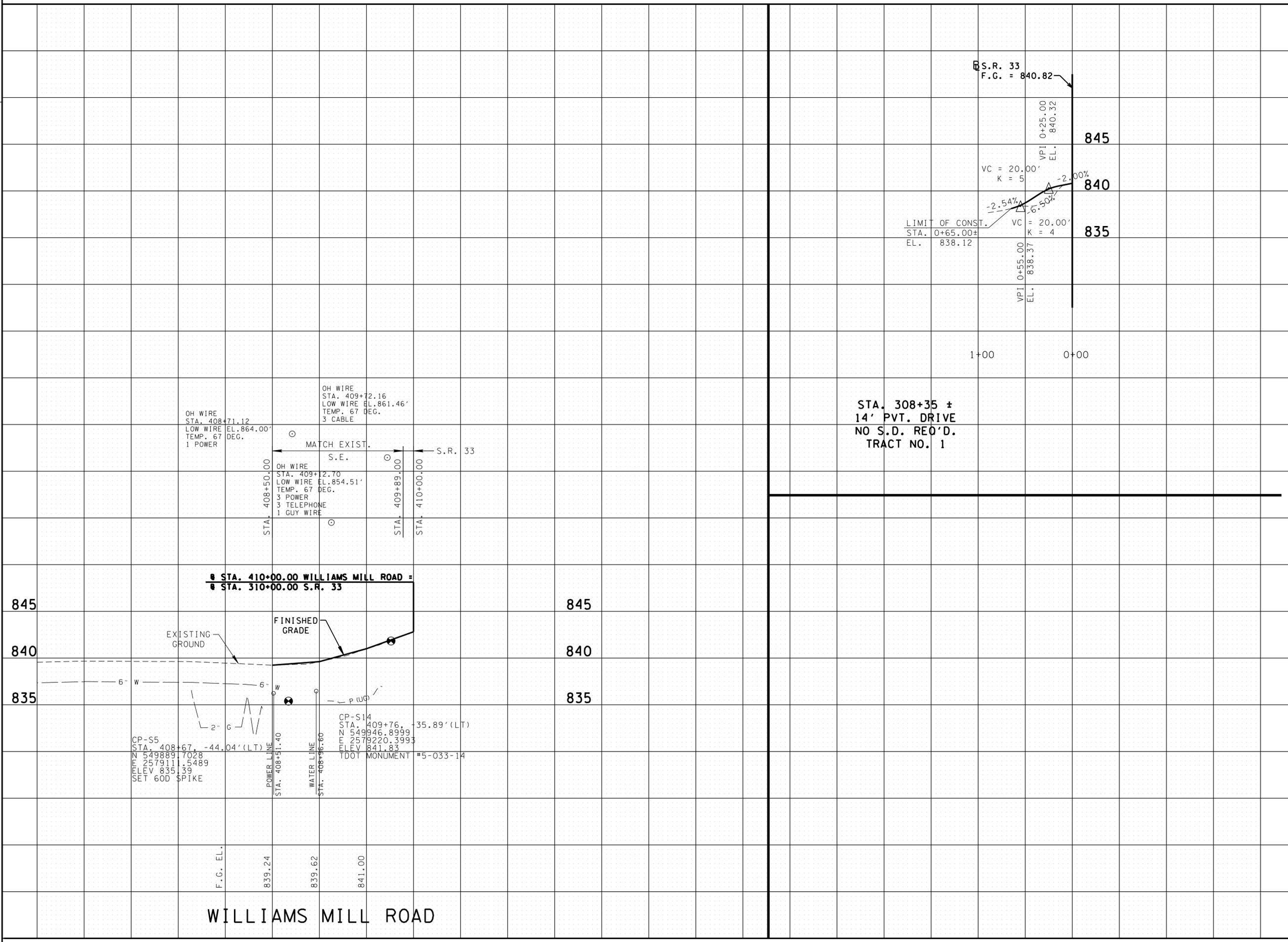
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

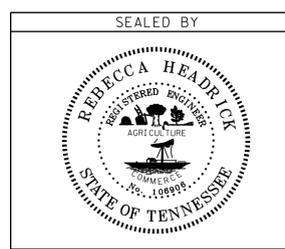
STA. 304+40 TO STA. 310+90
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	5
CONST.	2014	NHTSA-HE-33(92)	5

S.R. 33
BLOUNT CO.
07-01-13: ELIMINATED DRIVEWAY AT STA. 409+04.



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DEPARTMENT OF TRANSPORTATION

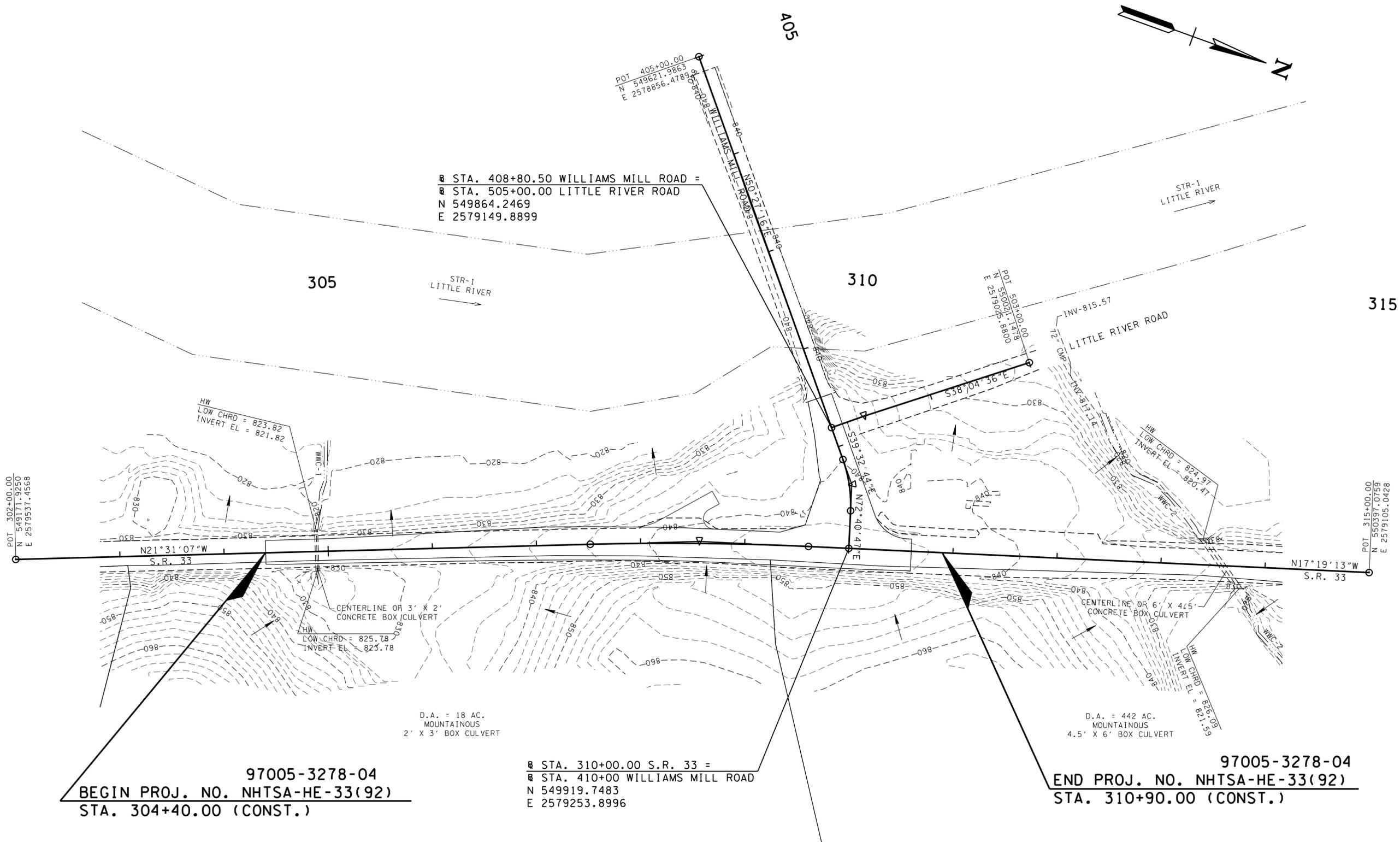
**PROFILE OF
SIDE ROADS
AND DRIVES**
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

07-01-13: ELIMINATED SHOULDER WIDENING ON WILLIAMS MILL ROAD.
ELIMINATED DRIVEWAY, STA. 409+04, LT.
UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	6
CONST.	2014	NHTSA-HE-33(92)	6

S.R. 33

BLOUNT CO.



97005-3278-04
BEGIN PROJ. NO. NHTSA-HE-33(92)
STA. 304+40.00 (CONST.)

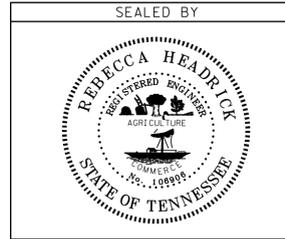
STA. 310+00.00 S.R. 33 =
STA. 410+00 WILLIAMS MILL ROAD
N 549919.7483
E 2579253.8996

97005-3278-04
END PROJ. NO. NHTSA-HE-33(92)
STA. 310+90.00 (CONST.)

D.A. = 18 AC.
MOUNTAINOUS
2' X 3' BOX CULVERT

D.A. = 442 AC.
MOUNTAINOUS
4.5' X 6' BOX CULVERT

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**DRAINAGE
MAP**

STA. 304+40 TO STA. 310+90
SCALE: 1" = 50'

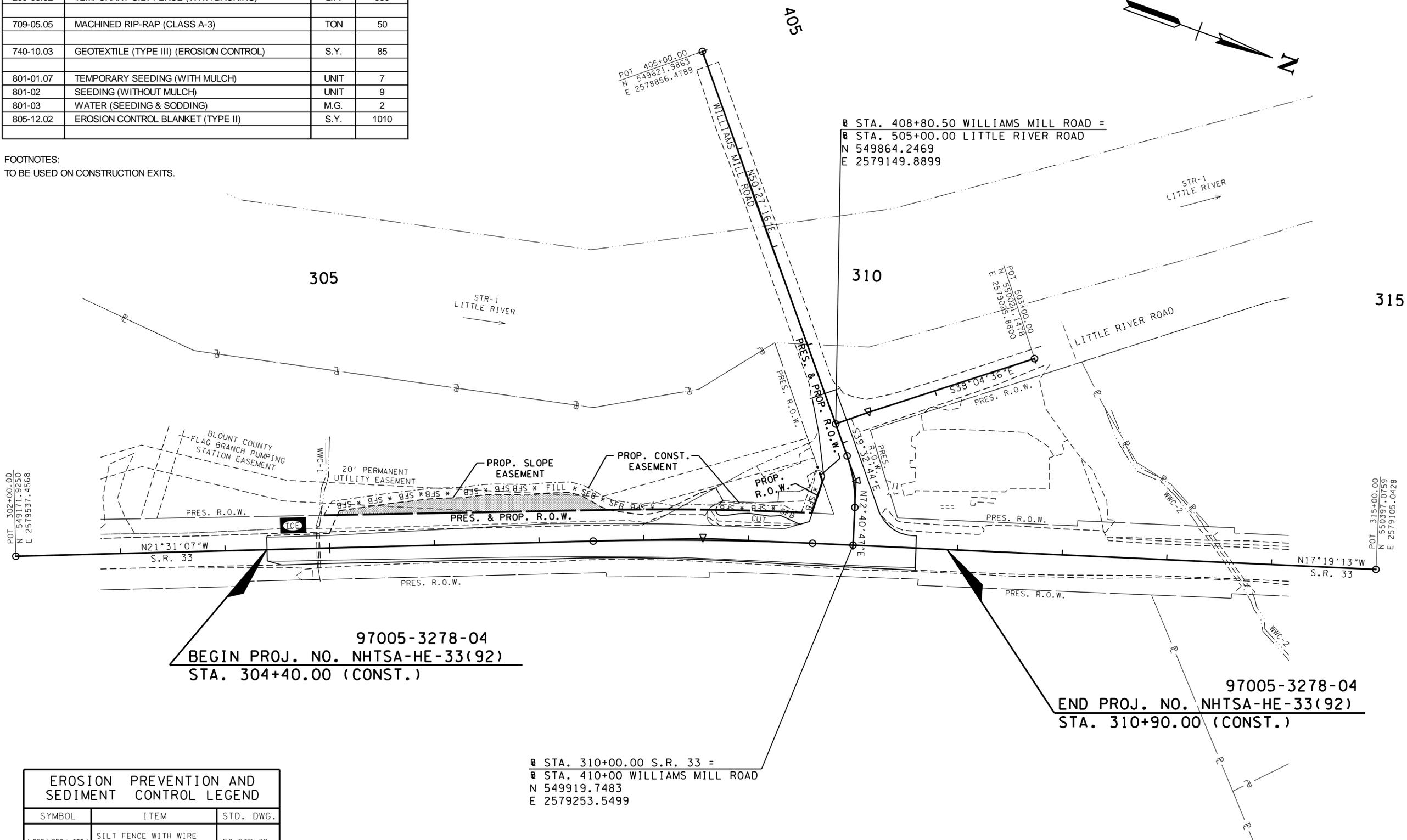
EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-05	SEDIMENT REMOVAL	C.Y.	16
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	530
(1) 709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
(1) 740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	85
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	7
801-02	SEEDING (WITHOUT MULCH)	UNIT	9
801-03	WATER (SEEDING & SODDING)	M.G.	2
805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	1010

07-01-13: ELIMINATED SHOULDER WIDENING ON WILLIAMS MILL ROAD.
UPDATED PROP. R.O.W. TAKE AND PROP. SLOPE AND CONSTRUCTION EASEMENT.
ELIMINATED DRIVEWAY, STA. 409+04, LT.
UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	7
CONST.	2014	NHTSA-HE-33(92)	7

S.R. 33 BLOUNT CO.

FOOTNOTES:
(1) TO BE USED ON CONSTRUCTION EXITS.



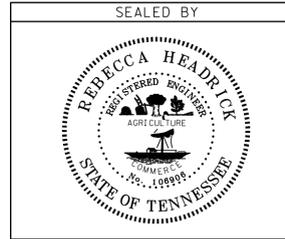
97005-3278-04
BEGIN PROJ. NO. NHTSA-HE-33(92)
STA. 304+40.00 (CONST.)

97005-3278-04
END PROJ. NO. NHTSA-HE-33(92)
STA. 310+90.00 (CONST.)

STA. 310+00.00 S.R. 33 =
STA. 410+00 WILLIAMS MILL ROAD
N 549919.7483
E 2579253.5499

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
*SFB*SFB*SFB*	SILT FENCE WITH WIRE BACKING	EC-STR-3C
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

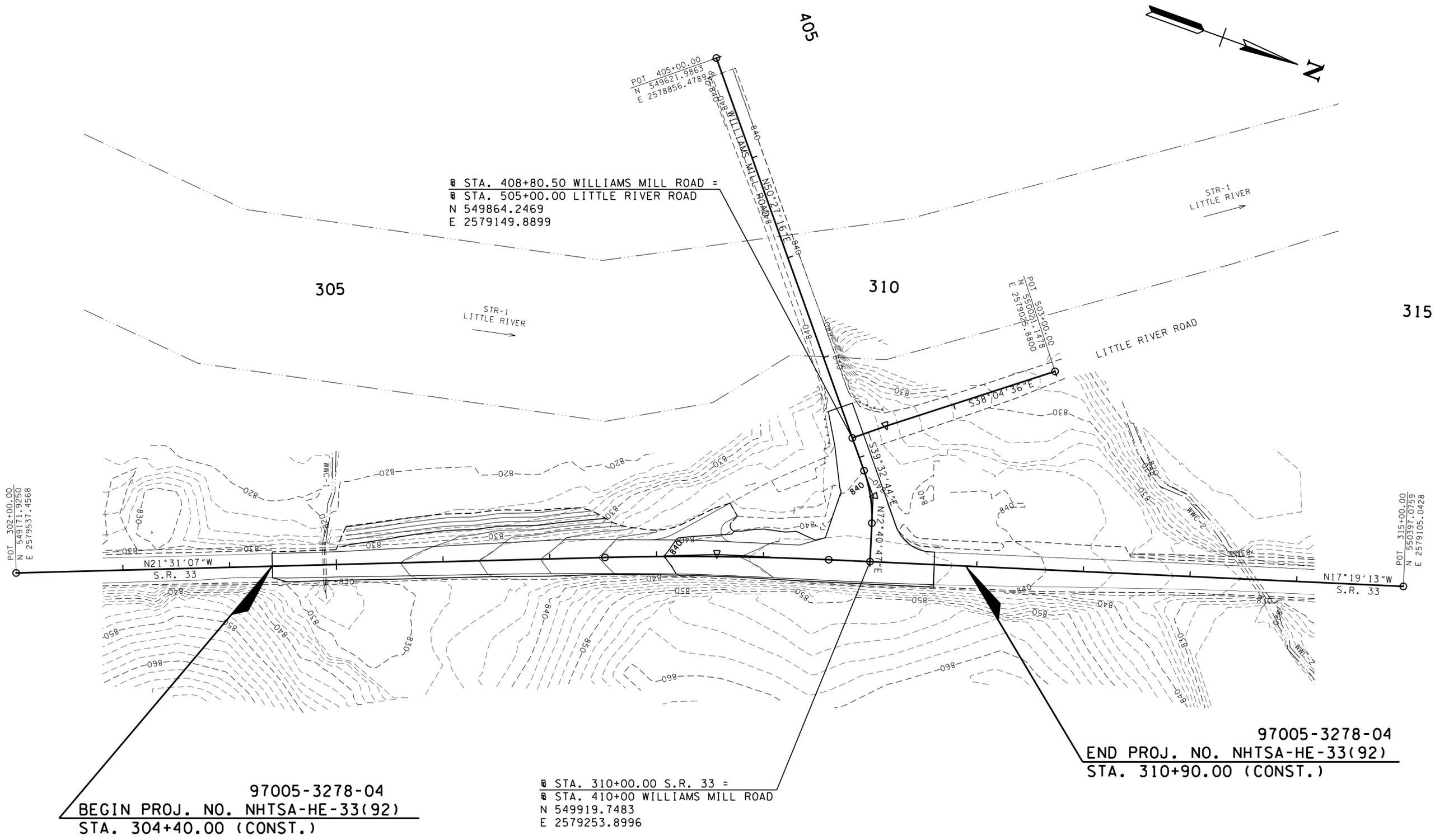
STA. 304+40 TO STA. 310+90
SCALE: 1" = 50'

07-01-13: ELIMINATED SHOULDER WIDENING ON WILLIAMS MILL ROAD.
ELIMINATED DRIVEWAY, STA. 409+04, LT.
UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	8
CONST.	2014	NHTSA-HE-33(92)	8

S.R. 33

BLOUNT CO.

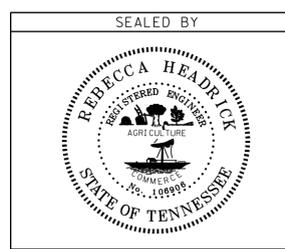


97005-3278-04
BEGIN PROJ. NO. NHTSA-HE-33(92)
STA. 304+40.00 (CONST.)

STA. 310+00.00 S.R. 33 =
STA. 410+00 WILLIAMS MILL ROAD
N 549919.7483
E 2579253.8996

97005-3278-04
END PROJ. NO. NHTSA-HE-33(92)
STA. 310+90.00 (CONST.)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROPOSED
CONTOURS**

STA. 304+40 TO STA. 310+90

SCALE: 1" = 50'

TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY, OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

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 OF UNIFORM TRAFFIC CONTROL DEVICES."

THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

THE CONTRACTOR IS TO HAVE TWO FLAGGERS ON THE PROJECT ANY TIME TRAFFIC NEEDS TO BE RESTRICTED TO ONE LANE. COST OF THE FLAGGERS IS TO BE INCLUDED IN THE COST OF ITEM NO. 712-01, TRAFFIC CONTROL (LUMP SUM).



FLAGMAN AHEAD SIGNS, SHOULDER DROP-OFF SIGNS, AND ONE LANE ROAD AHEAD SIGNS ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT, TO BE LOCATED AS DIRECTED BY THE T.D.O.T. SUPERVISOR. COST IS TO BE INCLUDED IN THE COST OF ITEM 712-06.

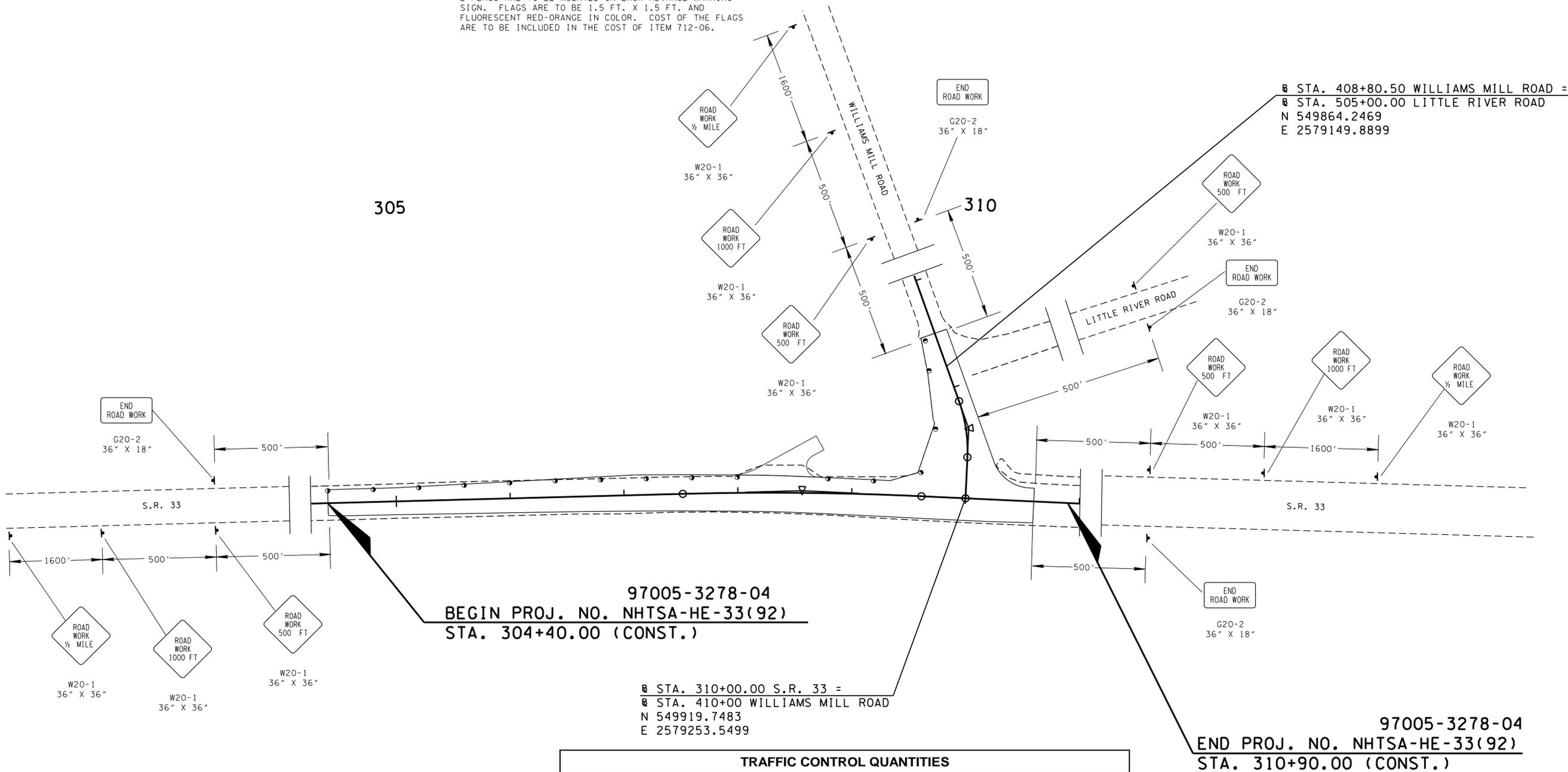
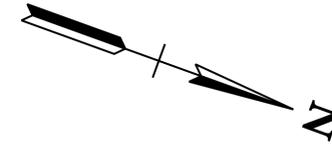
2 FLAGS ARE TO BE MOUNTED ON EACH ADVANCE WARNING SIGN. FLAGS ARE TO BE 1.5 FT. X 1.5 FT. AND FLUORESCENT RED-ORANGE IN COLOR. COST OF THE FLAGS ARE TO BE INCLUDED IN THE COST OF ITEM 712-06.

07-01-13: ELIMINATED SHOULDER WIDENING ON WILLIAMS MILL ROAD. UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	9
CONST.	2014	NHTSA-HE-33(92)	9

S.R. 33

BLOUNT CO.



305

310

S.R. 33

S.R. 33

97005-3278-04
BEGIN PROJ. NO. NHTSA-HE-33(92)
STA. 304+40.00 (CONST.)

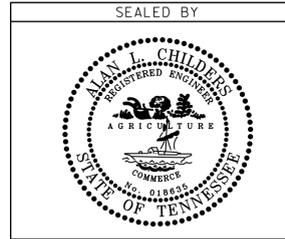
STA. 310+00.00 S.R. 33 =
STA. 410+00 WILLIAMS MILL ROAD
N 549919.7483
E 2579253.5499

97005-3278-04
END PROJ. NO. NHTSA-HE-33(92)
STA. 310+90.00 (CONST.)

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
○	FLEXIBLE DRUMS (CHANNELIZING)
⊢	SIGN (CONSTRUCTION)

TRAFFIC CONTROL QUANTITIES							
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	ITEM NO. 712-06 (S.F.)	SIZE	M.U.T.C.D. NO.	REMARKS
712-01	TRAFFIC CONTROL	L.S.	1				
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	50				
712-05.03	WARNING LIGHTS (TYPE C)	EACH	50				
712-06	SIGNS (END ROAD WORK)	S.F.	4	32	48" x 24"	G20-2	
712-06	SIGNS (ROAD WORK 1/2 MILE)	S.F.	3	48	48" x 48"	W20-1	
712-06	SIGNS (ROAD WORK 1000 FEET)	S.F.	3	48	48" x 48"	W20-1	
712-06	SIGNS (ROAD WORK 500 FEET)	S.F.	4	64	48" x 48"	W20-1	
712-06	SIGNS (ONE LANE ROAD AHEAD)	S.F.	4	64	48" x 48"	W20-4	TO BE USED AS NEEDED
712-06	SIGNS (SHOULDER DROP-OFF)	S.F.	4	64	48" x 48"	W8-9A	TO BE USED AS NEEDED
712-06	SIGNS (FLAGGER (SYMBOL))	S.F.	4	64	48" x 48"	W20-7A	TO BE USED AS NEEDED
712-08.03	FLASHING ARROW BOARD (TYPE C)	EACH	2				TO BE USED AS NEEDED
TOTAL				384			

UNOFFICIAL SET
NOT FOR BIDDING



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

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NHTSA-HE-33(92)	10

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.

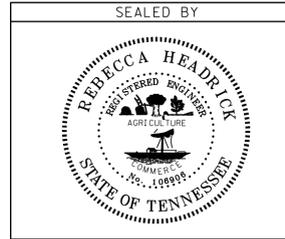
THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE 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.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

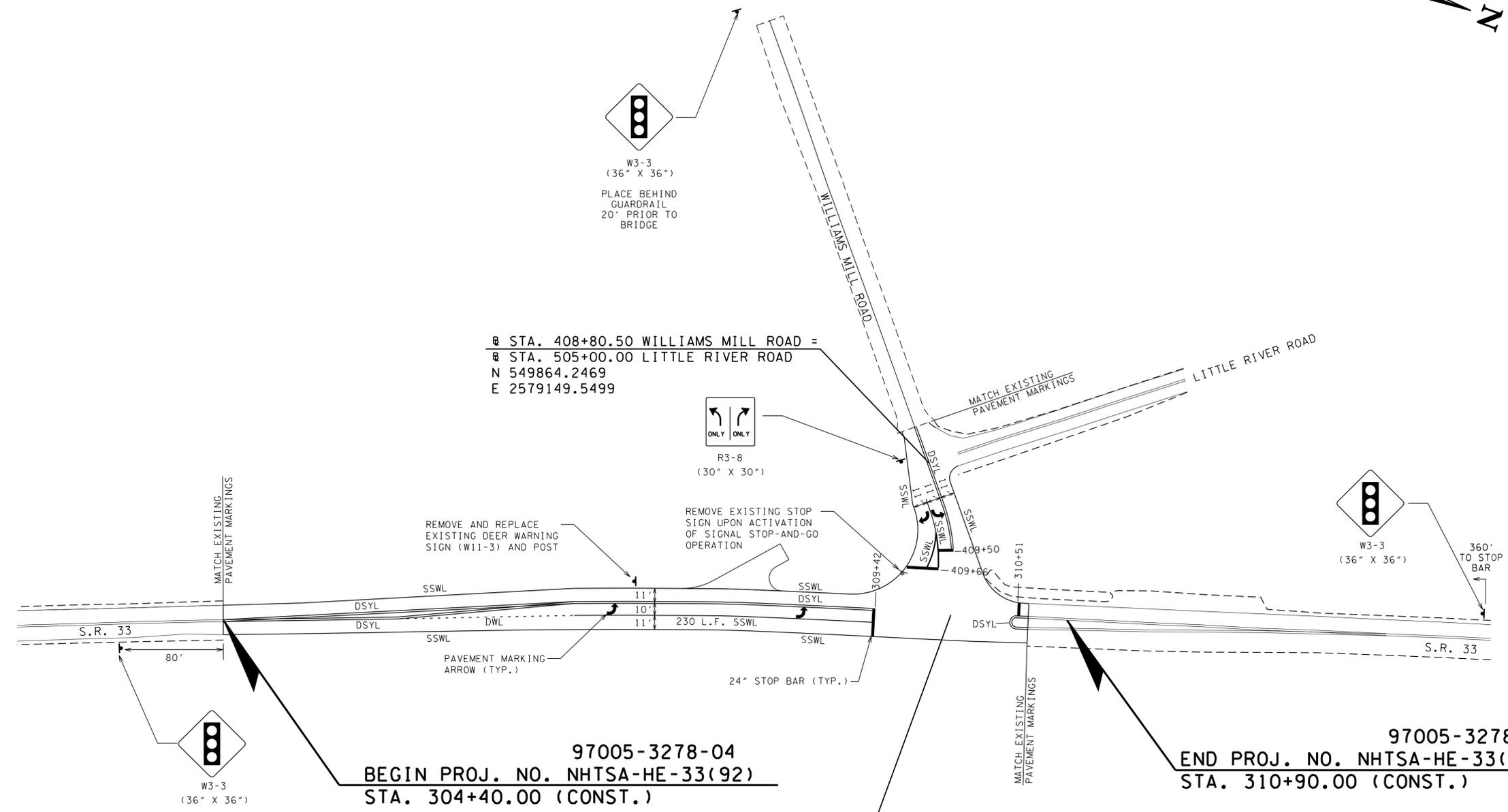
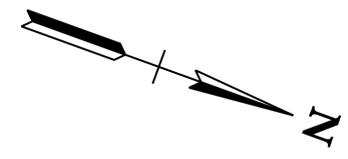
**PAVEMENT EDGE
DROP-OFF
TRAFFIC CONTROL
NOTES**

07-01-13: ELIMINATED SHOULDER WIDENING ON WILLIAMS MILL ROAD.
UPDATED END OF PROJECT AND VARIOUS COORDINATES ACCORDINGLY.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	10
CONST.	2014	NHTSA-HE-33(92)	11

S.R. 33

BLOUNT CO.



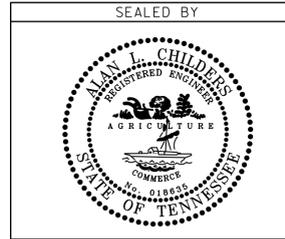
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 @ STA. 505+00.00 LITTLE RIVER ROAD
 N 549864.2469
 E 2579149.5499

97005-3278-04
 BEGIN PROJ. NO. NHTSA-HE-33(92)
 STA. 304+40.00 (CONST.)

@ STA. 310+00.00 S.R. 33 =
 @ STA. 410+00 WILLIAMS MILL ROAD
 N 549919.7483
 E 2579253.5499

97005-3278-04
 END PROJ. NO. NHTSA-HE-33(92)
 STA. 310+90.00 (CONST.)

**UNOFFICIAL
SET
NOT FOR
BIDDING**



COORDINATES ARE NAD/83(1995),
 ARE DATUM ADJUSTED BY THE
 FACTOR OF 1.00009 AND TIED TO
 THE TGRN. ALL ELEVATIONS ARE
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**PAVEMENT
MARKING &
SIGNING PLAN**

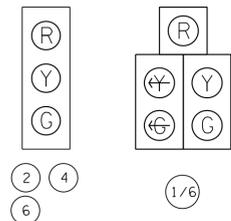
SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	11
CONST.	2014	NHTSA-HE-33(92)	12

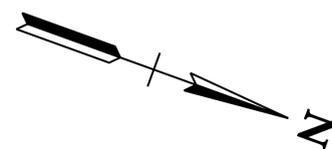
PROPOSED SIGNS

SEE SHEET NO. 11 FOR DETAILS OF PROPOSED SIGNS, WHICH SHALL BE INSTALLED PRIOR TO ACTIVATION OF TRAFFIC SIGNAL STOP-AND-GO OPERATION.

SIGNAL HEAD DETAILS



310



POLE NO.	STATION	OFFSET (FT.)	NORTHING	EASTING	GROUND ELEV.	ARM LENGTH (FT.)	FOOTING DEPTH (FT.)
A	309+25.50	22' L	549841.6890	2579255.5545	840.83	20'	15'
B	310+29.50	27.5' R	549956.1331	2579271.3598	843.98	30' 50'	15'

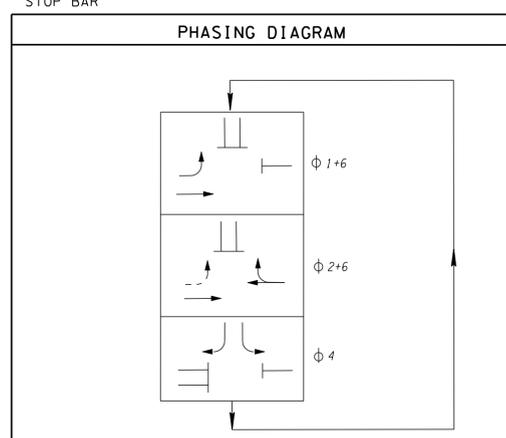
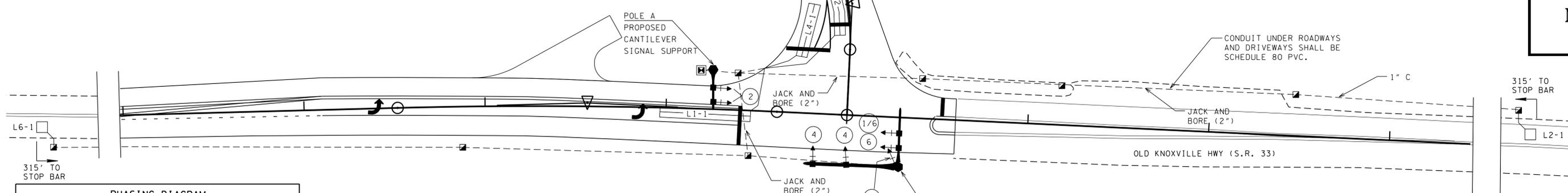
- NOTES:
- SEE STANDARD DRAWING NO. T-SG-9 FOR INFORMATION AND DETAILS REGARDING THE VIBRATION DAMPER PLATE. COST INCLUDED IN BID PRICE FOR POLES.

LOOP NO.	DETECTOR / CHANNEL	TURNS*	LOOP LENGTH (FT.)	ASSOC. PHASE	AMP MODE	COMMENTS
L1-1	1	2-4-2	50	1	PRES.	DELAY/NORMAL W/ 3 SEC. DELAY**
L2-1	2	4	6	2	PRES.	
L4-1	3	2-4-2	30	4	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY**
L4-2	4	2-4-2	50	4	PRES.	DELAY/NORMAL W/ 3 SEC. DELAY**
L6-1	5	4	6	6	PRES.	

* ALL STOP BAR LOOPS ARE QUADRUPOLE TYPE.

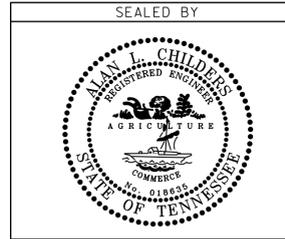
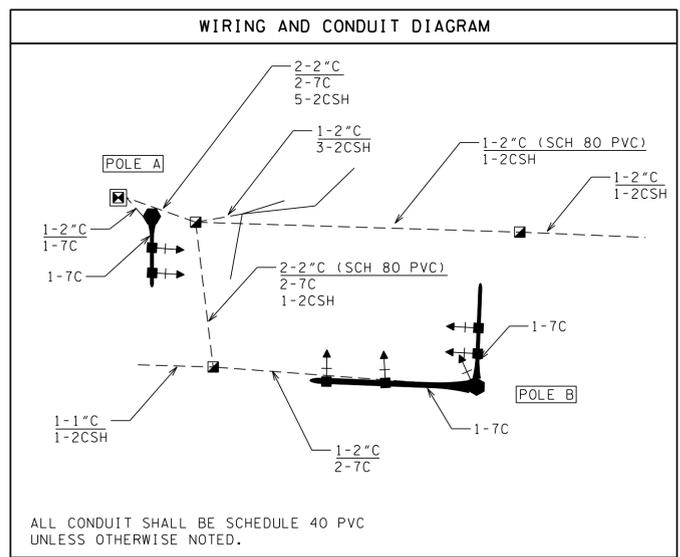
** DETECTORS SPECIFIED AS DELAY/NORMAL SHALL HAVE A TIME DELAYED OUTPUT WHEN ASSOCIATED PHASE NOT GREEN. DELAY SETTINGS AS SPECIFIED. OUTPUT SHALL BE NORMAL WHEN ASSOCIATED PHASE IS GREEN.

**UNOFFICIAL
SET
NOT FOR
BIDDING**



1	2	3	4
5	6	7	8

PHASE	MINIMUM INITIAL	VEHICLE INTERVAL	MAX I	MAX II	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION	LEFT TURN OPERATION
					YELLOW	ALL RED	WALK	FLASHING DON'T WALK			
1	6	3.0	15	15	4.0	1.5			MIN	OFF	PROT + PERM
2	20	5.0	40	40	4.5	1.5					
4	8	3.0	20	20	4.0	2.0					
6	20	5.0	40	40	4.5	1.5			MIN	OFF	



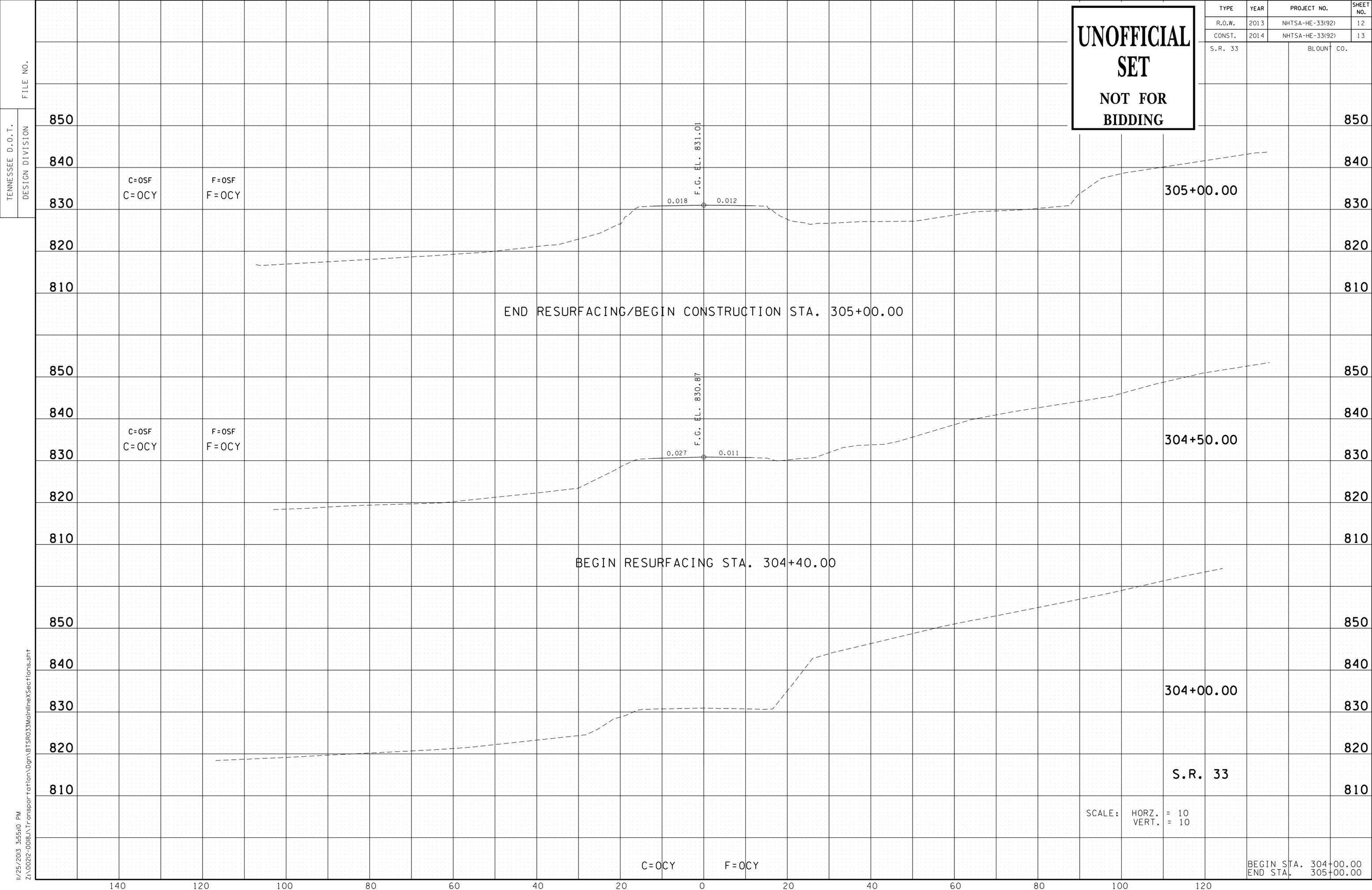
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROPOSED
SIGNAL LAYOUT**
OLD KNOXVILLE HWY.
AT
WILLIAMS MILL RD.
SCALE: 1"=30'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	12
CONST.	2014	NHTSA-HE-33(92)	13
S.R. 33		BLOUNT CO.	

**UNOFFICIAL
SET
NOT FOR
BIDDING**



TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

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END RESURFACING/BEGIN CONSTRUCTION STA. 305+00.00

BEGIN RESURFACING STA. 304+40.00

SCALE: HORZ. = 10
VERT. = 10

BEGIN STA. 304+00.00
END STA. 305+00.00

S.R. 33

304+50.00

305+00.00

C=OCY F=OCY

0.018 0.012

0.027 0.011

F.G. EL. 831.01

F.G. EL. 830.87

140

120

100

80

60

40

20

0

20

40

60

80

100

120

850

840

830

820

810

850

840

830

820

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810

TENNESSEE D.O.T.

DESIGN DIVISION

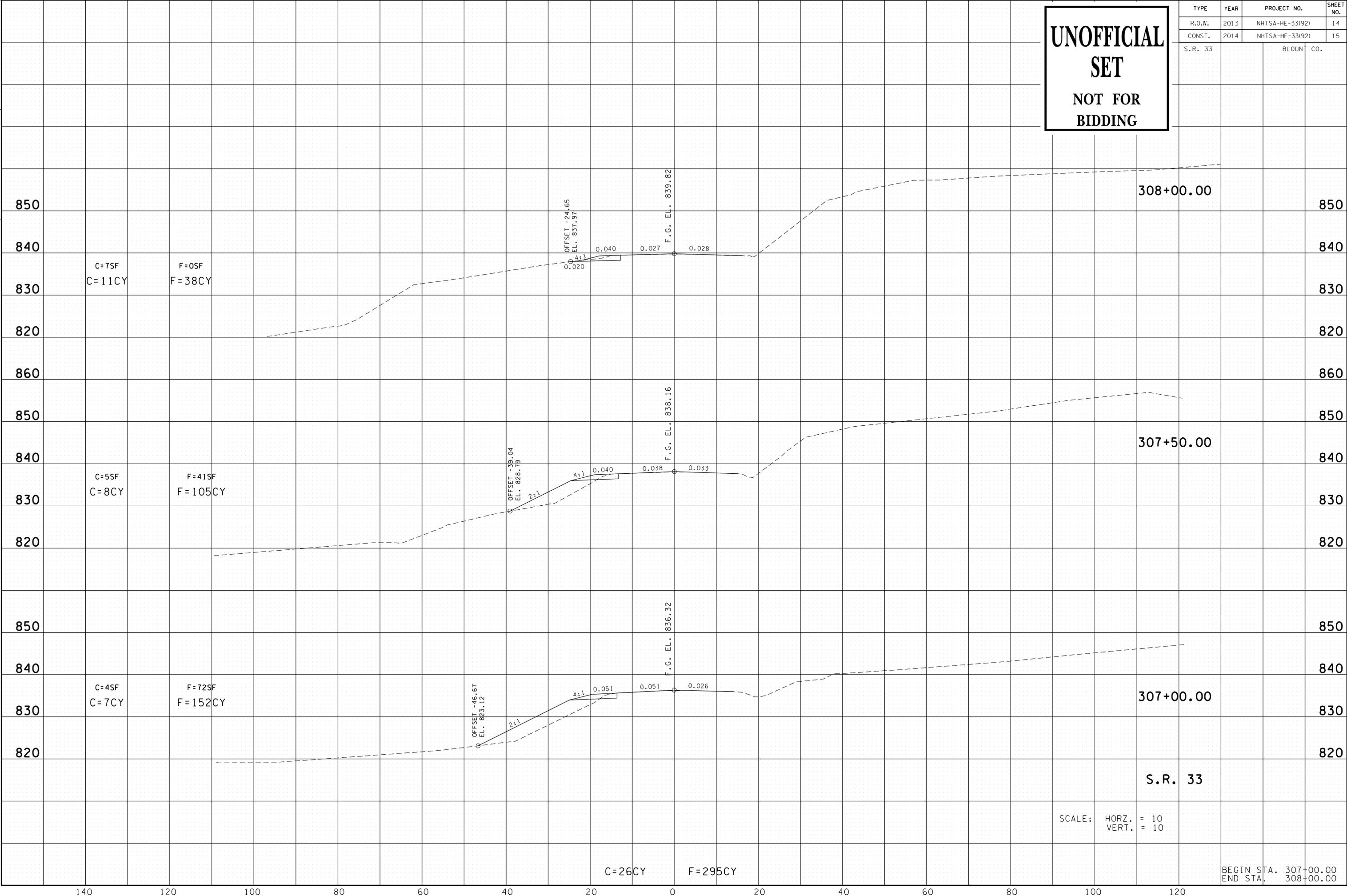
FILE NO.

**UNOFFICIAL
SET
NOT FOR
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	14
CONST.	2014	NHTSA-HE-33(92)	15

S.R. 33 BLOUNT CO.

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C=26CY F=295CY

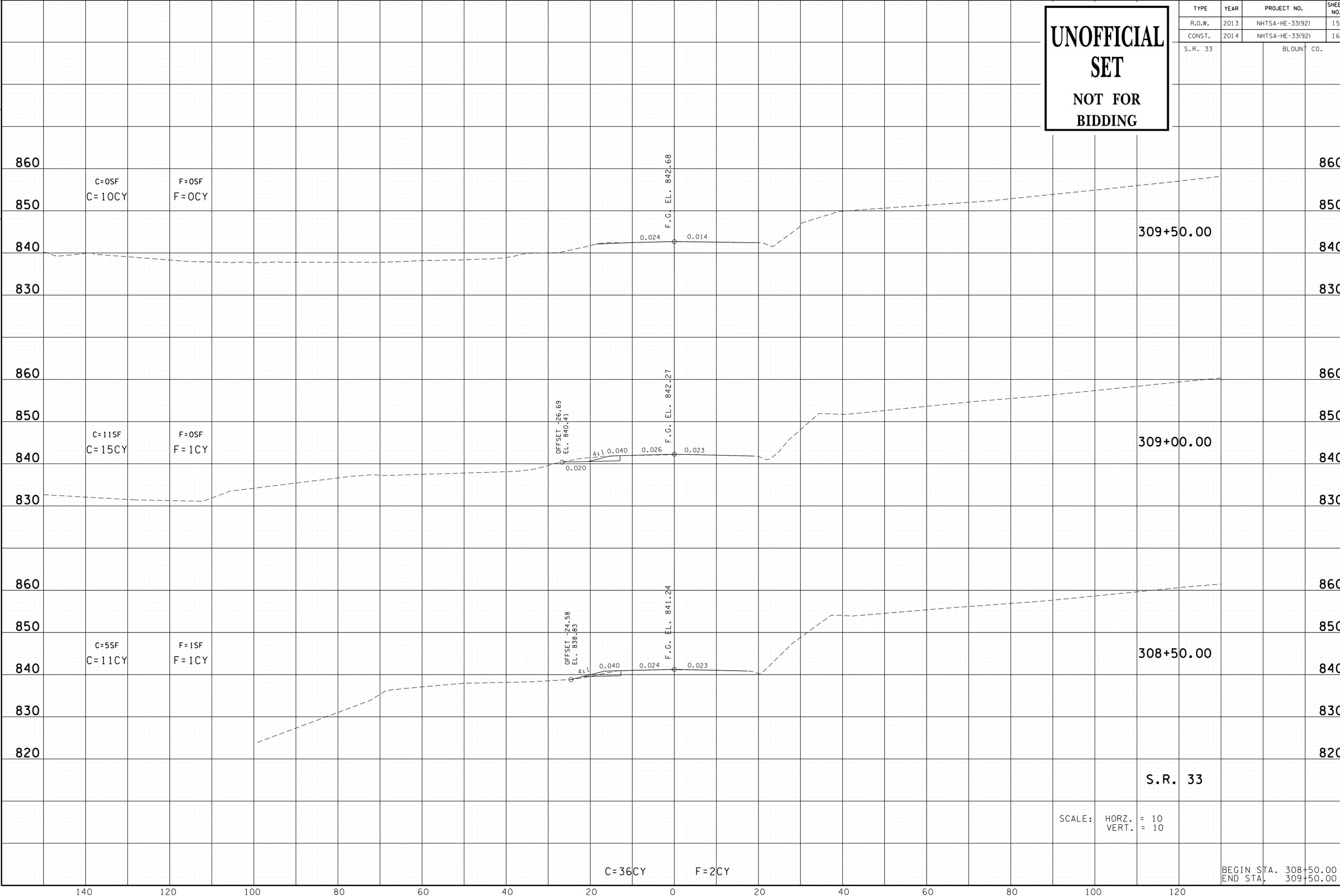
SCALE: HORZ. = 10
 VERT. = 10

BEGIN STA. 307+00.00
END STA. 308+00.00

**UNOFFICIAL
SET
NOT FOR
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	15
CONST.	2014	NHTSA-HE-33(92)	16

S.R. 33 BLOUNT CO.



C=36CY F=2CY

SCALE: HORZ. = 10
 VERT. = 10

S.R. 33

BEGIN STA. 308+50.00
END STA. 309+50.00

TENNESSEE D.O.T.

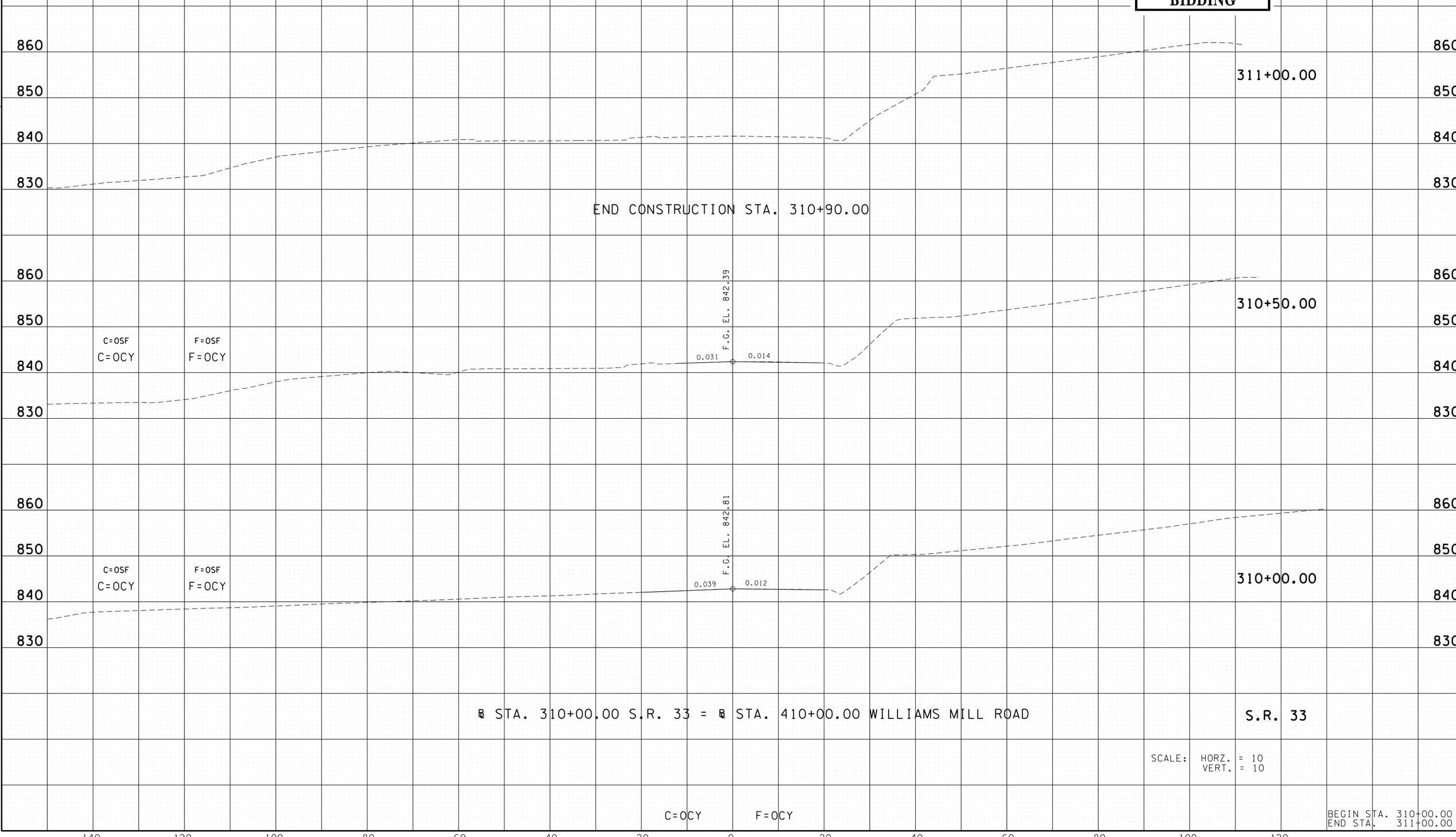
DESIGN DIVISION

FILE NO.

**UNOFFICIAL
SET
NOT FOR
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	16
CONST.	2014	NHTSA-HE-33(92)	17

S.R. 33 BLOUNT CO.



STA. 310+00.00 S.R. 33 = STA. 410+00.00 WILLIAMS MILL ROAD

S.R. 33

SCALE: HORZ. = 10
 VERT. = 10

C=OCY F=OCY

BEGIN STA. 310+00.00
END STA. 311+00.00

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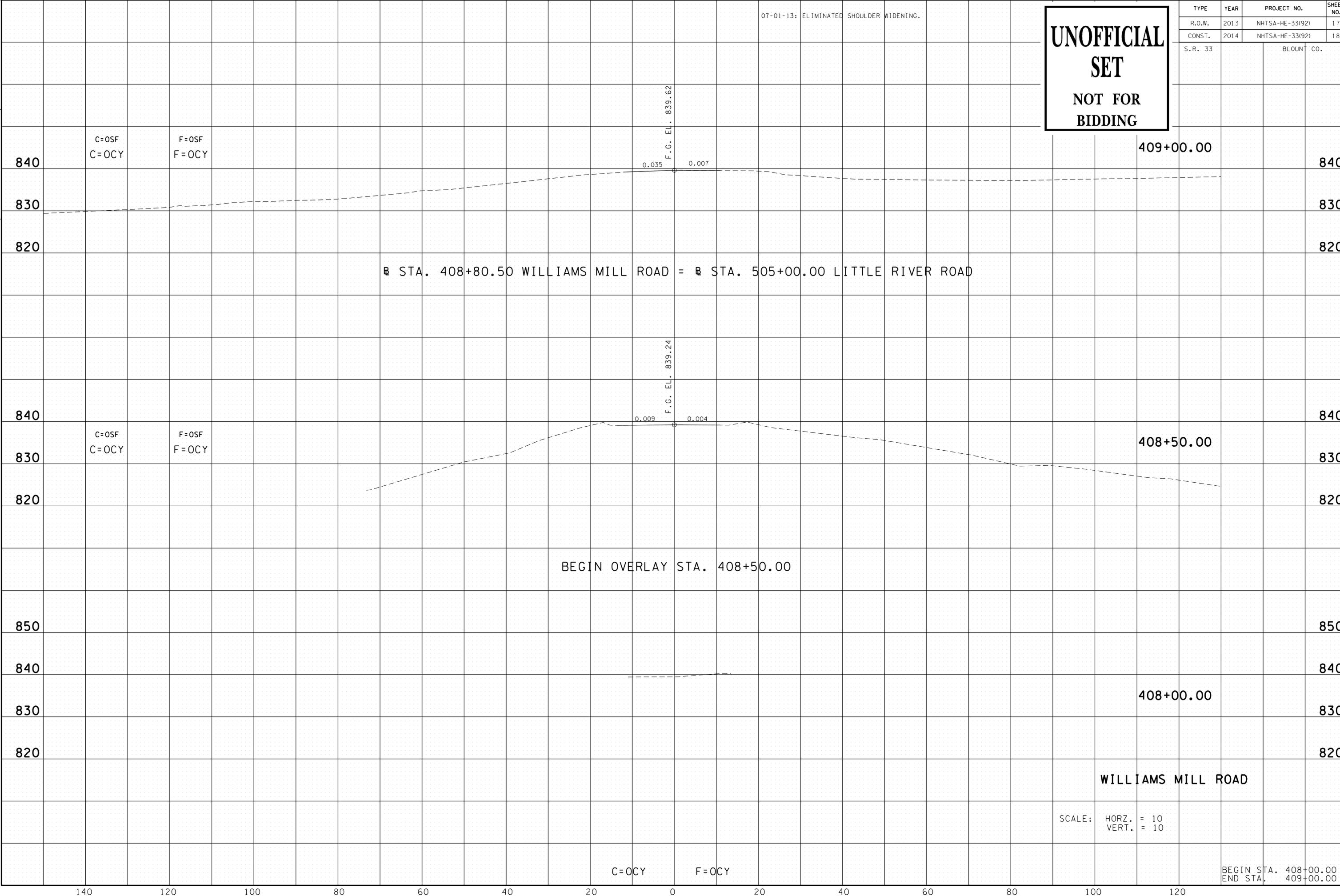
07-01-13: ELIMINATED SHOULDER WIDENING.

**UNOFFICIAL
SET
NOT FOR
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	17
CONST.	2014	NHTSA-HE-33(92)	18
S.R. 33		BLOUNT CO.	

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



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SCALE: HORZ. = 10
VERT. = 10

BEGIN STA. 408+00.00
END STA. 409+00.00

C=OCY F=OCY

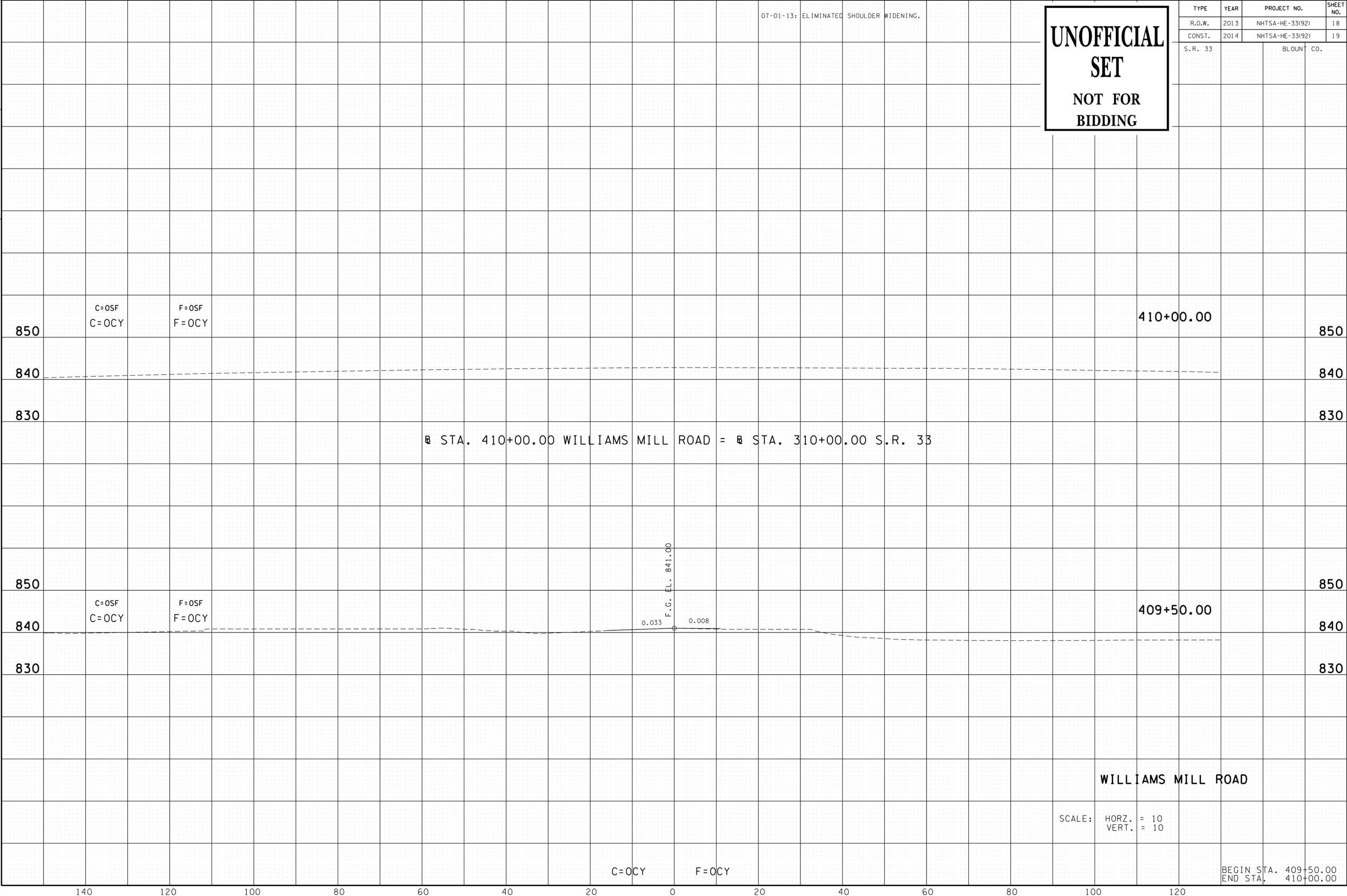
07-01-13: ELIMINATED SHOULDER WIDENING.

**UNOFFICIAL
SET
NOT FOR
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	NHTSA-HE-33(92)	18
CONST.	2014	NHTSA-HE-33(92)	19
S.R. 33		BLOUNT CO.	

TENNESSEE D.O.T.
DESIGN DIVISION

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140 120 100 80 60 40 20 0 20 40 60 80 100 120

C=OCY F=OCY

BEGIN STA. 409+50.00
END STA. 410+00.00

SCALE: HORZ. = 10
VERT. = 10

WILLIAMS MILL ROAD

409+50.00

410+00.00

STA. 410+00.00 WILLIAMS MILL ROAD = STA. 310+00.00 S.R. 33

F.C. EL. 841.00
0.033 0.008