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Steven Craig Lamm
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NEEL-SCHAFFER, INC.
210 25TH AVE. NORTH
SUITE 800
NASHVILLE, TN 37203
STEVEN C. LAMM P.E. NO. 111623

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEETS	ROADWAY-SIGN2
TITLE SHEET	1
ROADWAY INDEX, STANDARD ROADWAY DRAWINGS, AND	
STANDARD TRAFFIC DESIGN DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2

YEAR	PROJECT NO.	SHEET NO.
2026	NH-I-81-1(145)	ROADWAY-SIGN2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE
SHEET

10/14/2026 10:00:57 AM
Y:\PROJECTS\0015000\0019000\19049 ON-CALL DESIGN - TDOT\WO5 - RESURFACING_2026-2027\DGN\134025-00 - I81 WASHINGTON\90I081-SHT-SIGNATURE SHEET-002.DGN



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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SHEET NAME	SHEET NO.
SIGNATURE SHEETS	ROADWAY-SIGN1
TITLE SHEET	1
ROADWAY INDEX, STANDARD ROADWAY DRAWINGS, AND STANDARD TRAFFIC DESIGN DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B, 2B1, 2B2
GENERAL NOTES	2C, 2C1
SPECIAL NOTES	2D
ENVIRONMENTAL NOTES	2E
TABULATED QUANTITIES	2F
RAMP DETAILS	2G, 2G1, 2G2
UTILITY NOTES AND UTILITY OWNERS	3
PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL	T1

YEAR	PROJECT NO.	SHEET NO.
2026	NH-I-81-1(145)	ROADWAY-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE
SHEET

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Index Of Sheets
SEE SHEET NO. 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

DOES THIS PROJECT QUALIFY FOR UTILITY CHAPTER 86	YES	NO X
WORK ZONE SIGNIFICANCE DETERMINATION		
SIGNIFICANT	YES X	NO
RAILROAD INVOLVEMENT	YES	NO X

TENN.	YEAR	SHEET NO.
	2026	1
FED. AID PROJ. NO.	NH-I-81-1(145)	
STATE PROJ. NO.	90I081-F8-003	

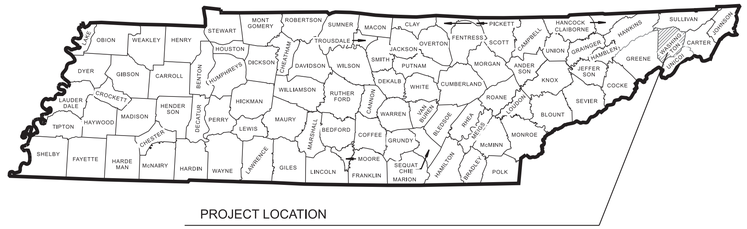
REV. 10/12/26 : REVISED STATE PROJ. NO.

WASHINGTON COUNTY

I-81
FROM GREENE COUNTY LINE
TO SULLIVAN COUNTY LINE

RESURFACE
MILL, CM, OGFC, GUARDRAIL, & PAVEMENT MARKINGS

STATE HIGHWAY NO. N/A F.A.H.S. NO. I-81



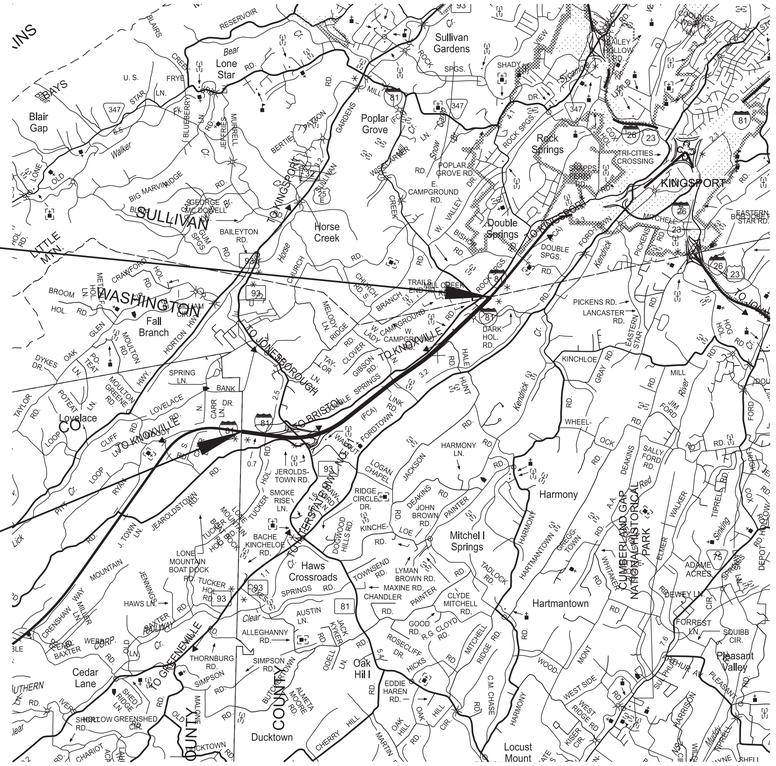
PROJECT LOCATION

BRIDGE ID. # 90I00810001 90I00810002
90I00810005 90I00810007
90I00810008

NO EXCLUSIONS

90I081-F8-003
END PROJECT NO. NH-I-81-1(145) RESURFACE
L.M. 3.94

90I081-F8-003
BEGIN PROJECT NO. NH-I-81-1(145) RESURFACE
L.M. 0.00



PROJECT LENGTH	3.940 MILES
TOTAL LANE MILES RESURFACED	15.760 MILES

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 APRIL 1, 2026 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT PROJECT MANAGER: ERIC WILSON, P.E.

DESIGN FIRM : NEEL-SCHAFFER, INC.

DESIGNER : STEVEN LAMM, P.E. CHECKED BY : ZACH FARRIS, P.E.

P.E. NO. 98012-4199-04 (DESIGN)

PIN NO. 134025.00

TRAFFIC COUNTER & WEATHER STATIONS	
IDENTIFICATION	LOG MILE
TRAFFIC COUNT STATION 117	2.697

TRAFFIC DATA	
ADT (2026)	50,883
POSTED SPEED L.M. 0.00 - L.M. 3.94	70 MPH

SEALED BY

STEVEN C. LAMM
REGISTERED ENGINEER
No. 111632
STATE OF TENNESSEE
10/12/2026

APPROVED:
SHANE HESTER, CHIEF ENGINEER

DATE:

APPROVED:
WILL REID, COMMISSIONER

10/12/2026 6:13:32 PM
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ROADWAY INDEX

SHEET NAME	SHEET NO.
SIGNATURE SHEETS	ROADWAY-SIGN1, ROADWAY-SIGN2
TITLE SHEET	1
ROADWAY INDEX, STANDARD ROADWAY DRAWINGS, AND STANDARD TRAFFIC DESIGN DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B, 2B1, 2B2
GENERAL NOTES	2C, 2C1
SPECIAL NOTES	2D
ENVIRONMENTAL NOTES	2E
TABULATED QUANTITIES	2F
RAMP DETAILS	2G, 2G1, 2G2
UTILITY NOTES AND UTILITY OWNERS	3
PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL	T1

NO UTILITY SHEETS ARE INCLUDED IN THIS PLAN SET.

STANDARD ROADWAY DRAWINGS

DWG.	REV.	DESCRIPTION
10-100.00		**STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS**
RD-TP-1	09-26-16	STANDARD ROADWAY DRAWINGS TITLE SHEET
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	01-30-26	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
10-108.00		**SAFETY DESIGN AND GUARDRAILS**
S-CZ-1	06-28-19	CLEAR ZONE CRITERIA
S-PL-1	03-01-23	SAFETY PLAN FOR BARRIER LENGTH OF NEED
S-PL-1A	03-01-23	SAFETY PLAN FOR BARRIER LENGTH OF NEED (FOR RIGID OBJECTS)
S-PL-1B	03-01-23	SAFETY PLAN FOR BARRIER LENGTH OF NEED ON CURVED ROADWAYS
S-PL-6	04-30-26	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE
S-PL-6A	06-28-19	SAFETY PLAN SAFETY HARDWARE PLACEMENT IN MEDIAN
S-GR31-1	10-31-25	GUARDRAIL DETAILS
S-GR31-1A	06-28-19	GUARDRAIL AND BLOCK-OUT DETAILS
S-GR31-1B		GUARDRAIL FASTENING HARDWARE
S-GR31-1C	07-07-23	GUARDRAIL GENERAL NOTES AND POST DETAILS
S-GRS-4	07-31-26	SPECIAL CASE GUARDRAIL HEIGHT TRANSITION DETAIL
S-GRT-2	06-28-19	TYPE 38 GUARDRAIL END TERMINAL
S-GRT-2R	06-28-19	EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL (RETROFIT)
S-GR28-2M	06-28-19	GUARDRAIL HARDWARE DETAILS
S-GR28-3M	01-28-22	GUARDRAIL HEIGHT ADJUSTMENT

STANDARD TRAFFIC DESIGN DRAWINGS

DWG.	REV.	DESCRIPTION
10-204.00		**DESIGN - TRAFFIC CONTROL**
T-M-1	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-5	01-24-25	MARKING DETAIL FOR FREEWAYS
T-M-6	01-24-25	MARKING DETAIL FOR EXPRESSWAY AND FREEWAY INTERCHANGES
T-M-7	01-24-25	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-24-25	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-9	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-9A	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-9B	07-22-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-15	01-24-25	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES
T-M-18	07-31-26	FLEXIBLE DELINEATOR DETAILS
T-M-18A	07-31-26	DELINEATOR MOUNTING DETAILS
T-WZ-10	03-26-25	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-26-25	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-12	03-26-25	ONE LANE CLOSURE DETAIL FOR BRIDGES ON DIVIDED HIGHWAYS
T-WZ-15	03-26-25	INTERIOR LANE CLOSURE FOR EXPRESSWAYS AND FREEWAYS
T-WZ-16	03-26-25	LANE SHIFT FOR DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	03-26-25	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-21	03-26-25	LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
T-WZ-60	03-26-25	FREEWAY RESURFACING SIGNING LAYOUT
T-WZ-63	03-26-25	WORK ZONE IN THE VICINITY OF AN ENTRANCE RAMP
T-WZ-64	03-26-25	WORK ZONE IN THE VICINITY OF AN EXIT
T-WZ-65	03-26-25	LANE CLOSURE WITH LATE MERGE
T-WZ-FAB1	03-26-25	FLASHING YELLOW ARROW BOARD

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	1A

REV. 10/12/26
REVISED INDEX.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX, STANDARD ROADWAY DRAWINGS, AND STANDARD TRAFFIC DESIGN DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2

REV. 10/12/26
REVISED STATE PROJ. NO.

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 90I081-F8-003
(1)	208-01.05	BROOMING & DEGRASSING SHOULDERS	L.M.	16
(2)(3)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	642
(2)	307-03.12	ASPHALT CONCRETE MIX (PG76-22) GRADING CM	TON	10280
(2)(4)	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	63
(2)(5)	411-03.10	ACS MIX(PG76-22) GRADING D	TON	1326
(2)(6)	411-03.23	ACS MIX (PG76-22) OGFC	TON	12366
	411-12.01	SCORING SHOULDERS (CONTINUOUS) (16IN WIDTH)	L.M.	16
(2)	415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	11542
(2)(7)	705-02.10	GUARDRAIL TRANSITION 27IN TO 31IN	EACH	6
(2)(8)	705-04.09	EARTH PAD FOR TYPE 38 GR END TREATMENT	EACH	2
	705-06.01	W BEAM GR (TYPE 2) MASH TL-3	L.F.	175
(2)(8)	705-06.20	TANGENT ENERGY ABSORBING TERM MASH TL3	EACH	6
(2)	706-01	GUARDRAIL REMOVED	L.F.	350
	712-01	TRAFFIC CONTROL	LS	1
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	524
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	262
(9)	712-06	SIGNS (CONSTRUCTION)	S.F.	1956
(10)	712-06.16	SIGNS (CONSTRUCTION)(REDUCED SPEED WARNING)	EACH	4
	712-08.03	ARROW BOARD (TYPE C)	EACH	2
	712-08.08	SPEED FEEDBACK SIGN ASSEMBLY	EACH	4
	712-08.09	DIGITAL SPEED LIMIT SIGN ASSEMBLY	EACH	8
	712-08.12	QUEUE PROTECTION TRUCK	DAY	45
	713-02.11	REMOVAL OF EXISTING DELINEATORS	EACH	80
(11)	713-02.14	FLEXIBLE DELINEATORS (WHITE)	EACH	30
(11)	713-02.15	FLEXIBLE DELINEATORS (YELLOW)	EACH	50
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2
(12)	716-01.23	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR)(2 COLOR)	EACH	750
(13)	716-01.30	REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER	EACH	750
(14)(15)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	30
(14)(15)	716-02.07	PLASTIC PAVEMENT MARKING (24" BARRIER LINE)	L.F.	545
(14)(15)	716-04.06	PLASTIC PAVEMENT MARKING (WRONG WAY ARROW)	EACH	10
(16)	716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	L.F.	1896
(16)	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	21
(14)(17)	716-12.02	ENHANCED FLAT LINE THERMO PVMT MRKNG (6IN LINE)	L.M.	21
(14)	716-12.03	ENHANCED FLAT LINE THERMO PVMT MRKNG (8IN BARRIER LINE)	L.F.	2005
(14)	716-12.05	ENHANCED FLAT LINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	500
	717-01	MOBILIZATION	LS	1
		ALTERNATE AA1		
(2)(18)	403-02.01	TRACKLESS TACK COAT	TON	41
		ALTERNATE AA2		
(2)(19)	403-02.02	HOT APPLIED TACK COAT	TON	122

FOOTNOTES

(1) NO DIRT OR DEBRIS WILL BE LEFT ON THE SHOULDERS INCLUDING UNDER AND AROUND GUARDRAIL. THIS WORK IS TO BE PERFORMED BEFORE ALL OTHER OPERATIONS. SEE SHT. NO. 2C, FINAL PAVEMENT MARKING NOTE 6 FOR MORE INFORMATION.

(2) SEE SHT. NO. 2F FOR TABULATED QUANTITIES.

(3) INCLUDES 35.6 TONS FOR CROSS OVER AT LM 2.93 AND 470.6 TONS FOR RIGHT-SIDE SHOULDERS OF RAMPS.

(4) SEE SECTION 403.05 OF THE STANDARD SPECIFICATIONS FOR DETERMINING APPLICATION RATE IN THE FIELD.

(5) TO BE USED AT BRIDGE AREAS WITHIN PROJECT LIMITS AND ON RAMP SHOULDERS.

(6) INCLUDES 21.2 TONS TO EXTEND NB EXIT DECELERATION LANE TAPER TO CORRESPOND WITH THE EXIT SIGN. SEE SHEET 2G FOR ADDITIONAL INFORMATION.

(7) GUARDRAIL SHALL BE REMOVED SUCH THAT NEW COMBINED GUARDRAIL AND END TERMINAL LENGTH IS EQUAL TO OR GREATER THAN EXISTING.

(8) INCLUDES ALL MATERIAL NECESSARY FOR THE CONSTRUCTION OF THE PAD AND ANY NECESSARY EPSC MATERIALS.

(9) SEE SHT. NO. 2F FOR TABULATED QUANTITIES. THE CONSTRUCTION SIGNING IS TO BE A MINIMUM. ADDITIONAL SIGNS MAY BE REQUIRED AS DIRECTED BY THE TDOT OPERATIONS DISTRICT MANAGER.

(10) ITEM TO BE USED ONLY WHEN REDUCED SPEED LIMIT IS ESTABLISHED WITHIN THE PROJECT CONSTRUCTION WORK ZONE LIMITS. ITEM INCLUDES SIGN FACE, SUPPORTS, AND TWO (2) TYPE "B" FLASHERS PER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TURNING ON THE TYPE "B" FLASHERS WHEN WORKERS ARE IN THE CONSTRCUTION WORK ZONE AND TURNING THEM OFF WHEN WORKERS ARE NO LONGER IN THE CONSTRUCTION ZONE.

(11) TO BE USED AS DIRECTED BY THE TDOT OPERATIONS DISTRICT MANAGER.

(12) INCLUDES 13 (EACH) PER WRONG-WAY ARROW.

(13) CONTRACTOR SHALL REMOVE EXISTING SRPM BY A METHOD THAT DOES NOT DAMAGE THE EXISTING ASPHALT/CONCRETE. IF DAMAGE OCCURS DURING REMOVAL, THE CONTRACTOR SHALL MAKE REPAIRS AT THEIR OWN EXPENSE BEFORE PAVING.

(14) TO BE USED FOR PERMANENT PAVEMENT MARKING ONLY.

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

(16) TO BE USED FOR TEMPORARY PAVEMENT MARKING ONLY.

(17) CONTRACTOR SHALL USE THE EXTRUDED OR RIBBION METHOD FOR APPLICATION.

(18) USE AN APPROVED TRACKLESS TACK FROM QPL 40-F APPLIED WITH A DISTRIBUTOR AT A MINIMUM RATE OF 0.25 GAL/SY (APPROXIMATE RESIDUAL RATE 0.13-0.15 GAL/SY). PAVING SHALL NOT BEGIN UNTIL THE DEPARTMENT IS SATISFIED THE APPLICATION RATE IS ACHIEVED AND THE EMULSION HAS FULLY BROKEN. MULTIPLE PASSES MAY BE REQUIRED, OR EMULSION TYPE CQS-1HP MAY BE APPLIED WITH A SPRAY PAVER SHALL BE A SINGLE PIECE OF EQUIPMENT THAT APPLIES THE TACK COAT AND SPREADS THE BITUMINOUS PAVEMENT. THE SPRAY PAVER SHALL MEET, AT A MINIMUM, THE PAVER REQUIREMENTS OF 407.06 AND THE DISTRIBUTOR REQUIREMENTS IN 402.03.

(19) HOT APPLIED TRACKLESS TACK MAY BE EITHER HOT APPLIED ASPHALT BINDER OR AN APPROVED HOT APPLIED TRACKLESS TACK COAT FROM QPL 40, SECTION F. IF USING ASPHALT BINDER THE MINIMUM GRADE SHALL BE PG64-22 BUT A HIGHER GRADE MAY BE USED.

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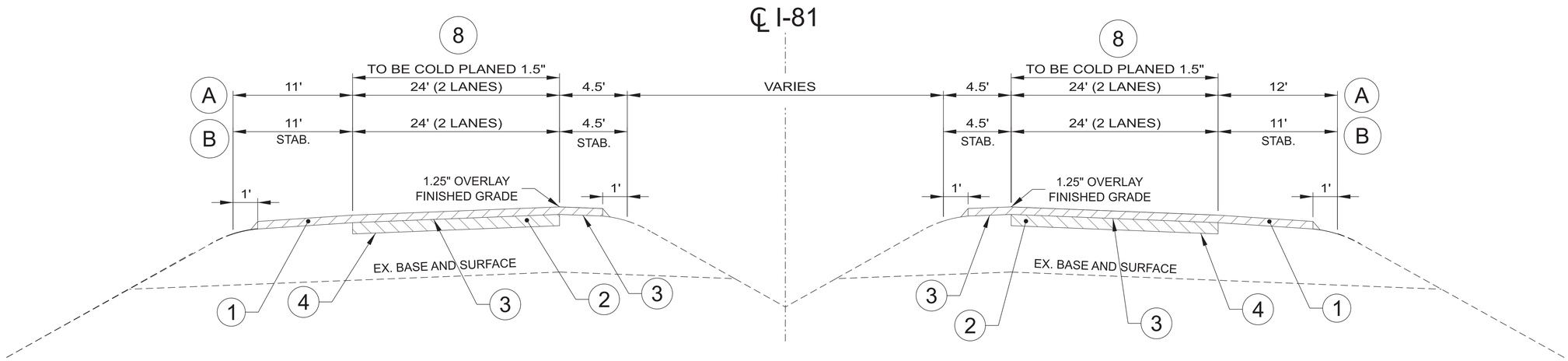


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2B



TANGENT SECTION

(A) FROM: LM 0.00 TO LM 1.26

(B) FROM: LM 1.26 TO LM 3.94

NOTE: SEE BRIDGE RECOMMENDATIONS TABLE ON SHEET 2F.

PROPOSED PAVEMENT SCHEDULE

(1) **ASPHALTIC CONCRETE SURFACE (HM) @ 1.25"± THICK (APPROX. 117.5 LBS./S.Y.)** ITEM 411-03.23 ACS MIX (PG76-22) OGFC	(6) **ASPHALTIC CONCRETE SURFACE (HM) @ 1.25"± THICK (APPROX. 132.5 LBS./S.Y.)** ITEM 411-03.10 ACS MIX (PG76-22) GRADING "D"
(2) **BITUMINOUS COURSE @ 1.50"± THICK (APPROX. 165.0 LBS./S.Y.)** ITEM 307-03.12 ASPHALT CONCRETE MIX (PG76-22) GRADING "CM"	(7) **COLD PLANING @ 1.25"± THICK (APPROX. 131.25 LBS./S.Y.)** ITEM 415-01.01 COLD PLANING BITUMINOUS PAVEMENT
(4) **TACK COAT** ITEM 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD	(8) **COLD PLANING @ 1.50"± THICK (APPROX. 157.5 LBS./S.Y.)** ITEM 415-01.01 COLD PLANING BITUMINOUS PAVEMENT
(5) **MINERAL AGGREGATE @ 2.00" - 5.00"± THICK FOR SHOULDERS** ITEM 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"	(9) **COLD PLANING @ 2.75"± THICK (APPROX. 288.75 LBS./S.Y.)** ITEM 415-01.01 COLD PLANING BITUMINOUS PAVEMENT
ALTERNATE AA1	ALTERNATE AA2
(3) **TRACKLESS TACK COAT** ITEM 403-02.01 TRACKLESS TACK COAT (TC) SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD	(3) **TACK COAT (TC) (APPROX. 0.15 GAL./S.Y.)** ITEM 403-02.02 HOT APPLIED TACK COAT

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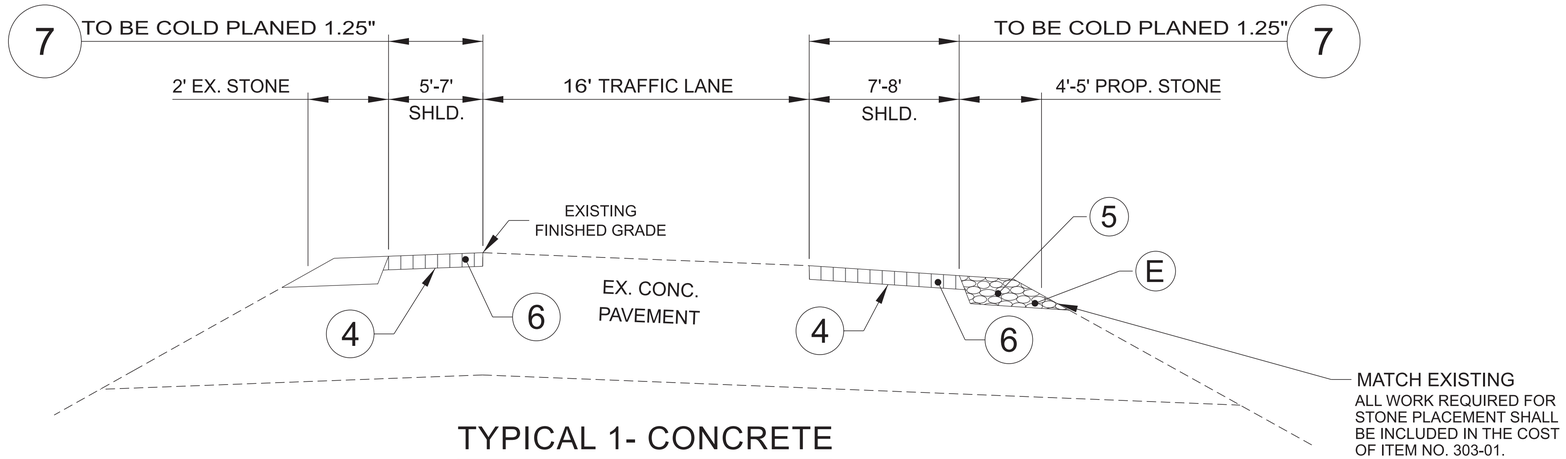
STEVEN C. LAMM
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 111625
09/08/2026
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

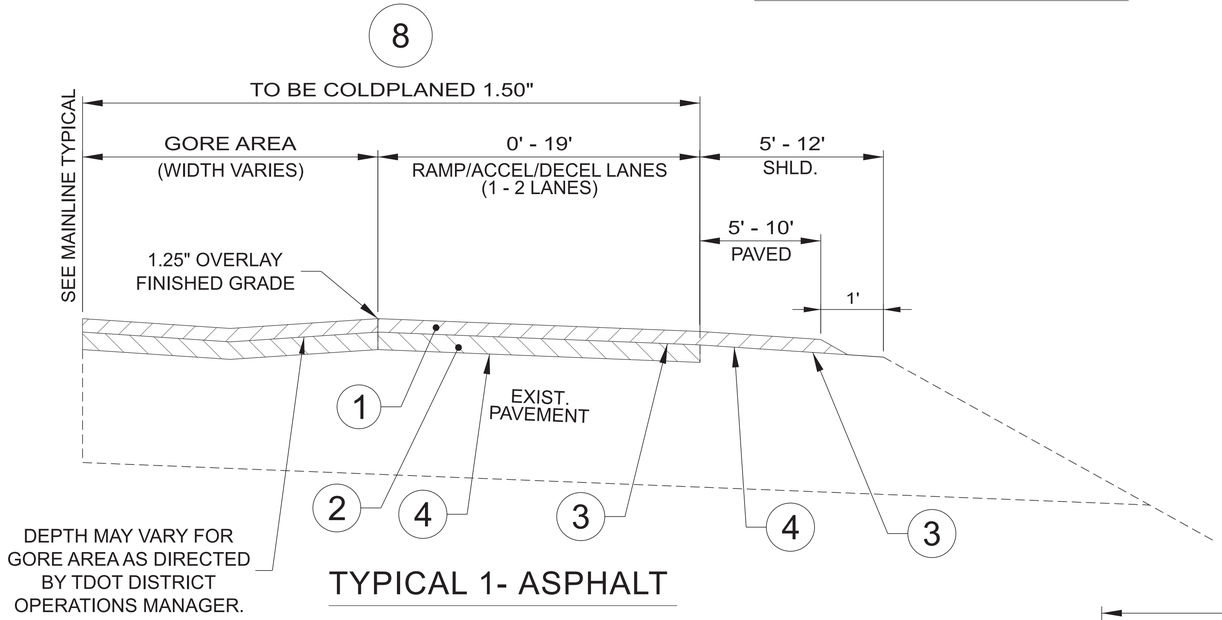
TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2B1



TYPICAL 1- CONCRETE

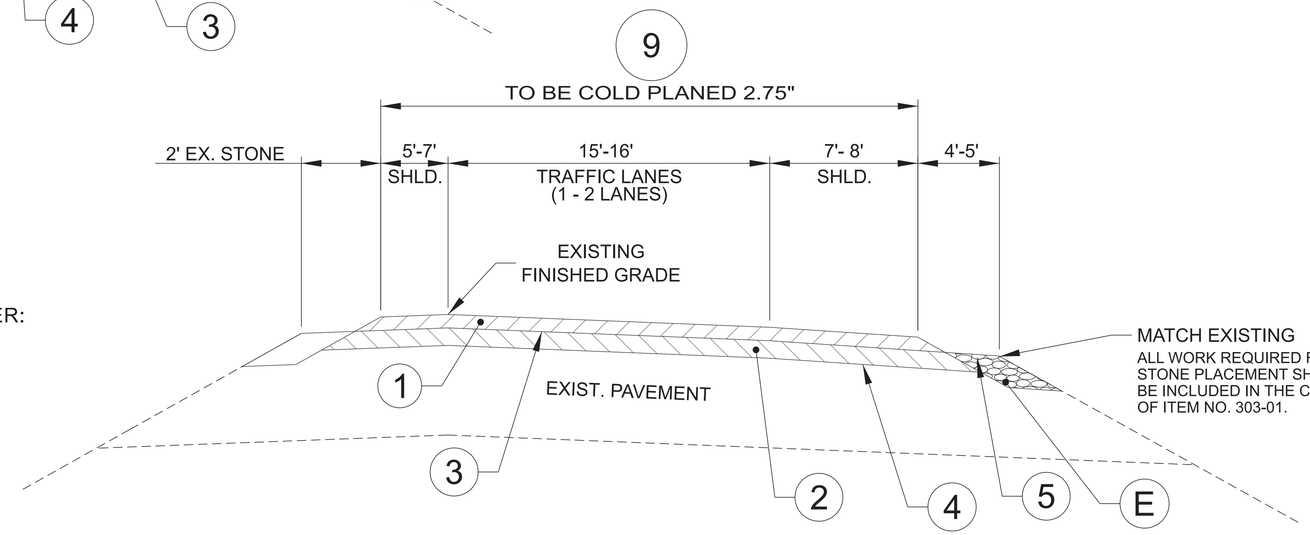


TYPICAL 1- ASPHALT

SEE SHT. NO. 2B FOR PAVEMENT SCHEDULE.

SEE SHT. NO. 2G-2G2 FOR RAMP DETAILS.

E NOTE: FOR STONE PLACEMENT ON RT. SHOULDER:
SB OFF RAMP : 4" DEEP 5' WIDE
NB ON RAMP : 2" DEEP 4' WIDE
NB OFF RAMP : 2" DEEP 4' WIDE
SB ON RAMP : 5" DEEP 5' WIDE



TYPICAL 2- ASPHALT

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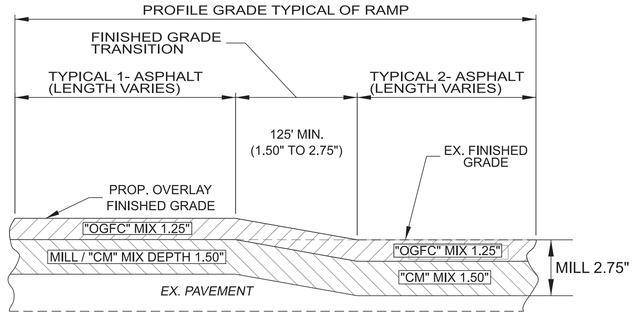
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS AND
PAVEMENT
SCHEDULE

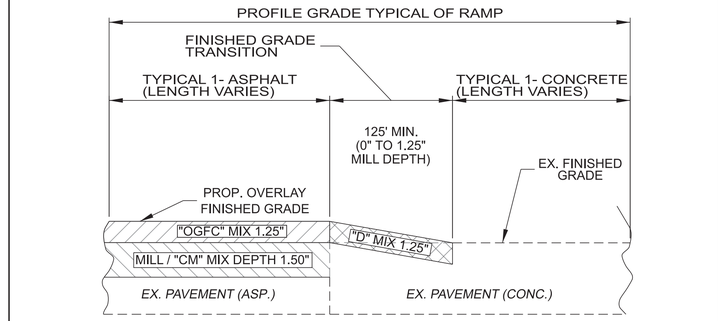
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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2B2

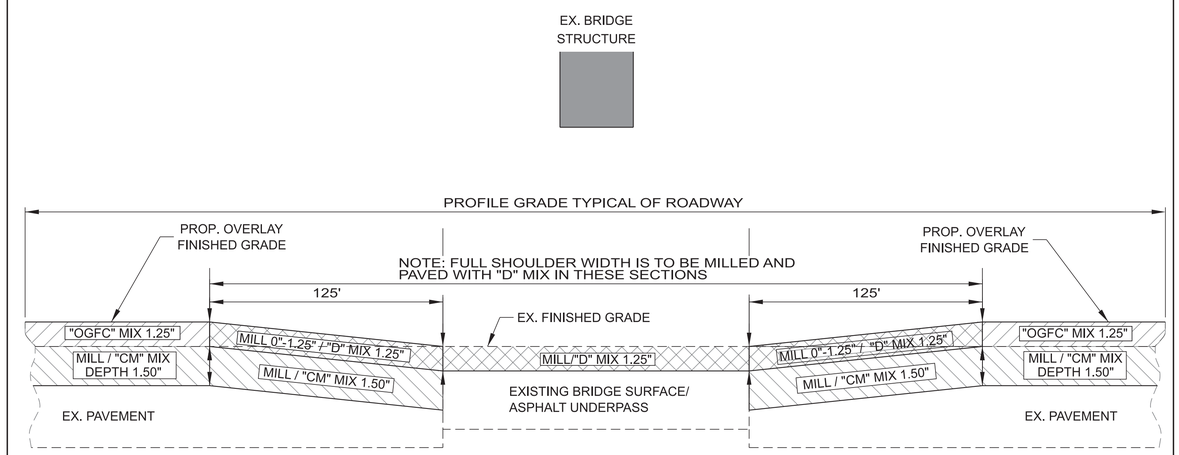
PAVEMENT DETAIL A



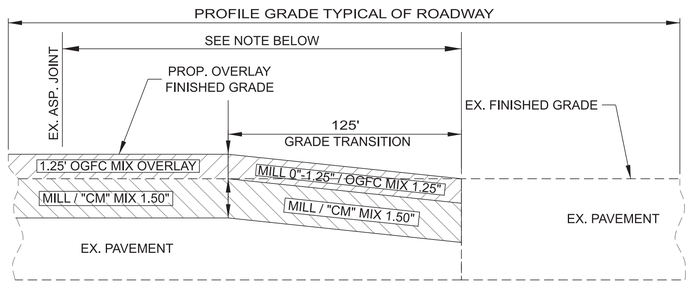
PAVEMENT DETAIL B



BRIDGE / BRIDGE UNDERPASS DETAIL (MILL/OVERLAY)



PROJECT LIMIT TIE-IN DETAIL



NOTE: AT LOCATIONS WHERE THE PROPOSED PAVEMENT IS SET TO TIE-IN AT AN EXISTING PAVEMENT JOINT, THE CONTRACTOR SHALL PAVE BEYOND THE EXISTING PAVEMENT JOINT AT A DISTANCE SET BY THE TDOT OPERATIONS DISTRICT MANAGER.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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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.

(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 (FEMA) WITHOUT APPROVAL BY FEMA. 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.

GUARDRAIL

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

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

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

MISCELLANEOUS

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

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS

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

(3) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02, PAINTED PAVEMENT MARKING (8” BARRIER LINE), L.F.

FINAL PAVEMENT MARKING

6) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK:

a. BROOMING & DE-GRASSING SHOULDERS SHALL INCLUDE CLIPPING OF MATERIAL INTERFERING WITH PROPER DRAINAGE OF ROADWAY (INCLUDING PAVED AND GRAVEL SHOULDERS), AS DIRECTED BY THE ENGINEER.

b. ALL MATERIAL FROM CLIPPING, BROOMING AND DE-GRASSING SHOULDERS SHALL BE PICKED UP, REMOVED AND PROPERLY DISPOSED AS DIRECTED BY THE ENGINEER.

c. ALL COSTS ASSOCIATED WITH PICKING UP, REMOVAL AND PROPER DISPOSAL SHALL BE PAID FOR UNDER ITEM NO. 208-01.05.

d. REMOVE ALL GARBAGE AND CONSTRUCTION DEBRIS FROM PROJECT. THE COST FOR THIS WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(8) 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.

(9) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 8” ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.03, ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE), L.F. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

SNOWPLOWABLE REFLECTIVE PAVEMENT MARKERS

(19) REMOVE EXISTING SNOWPLOWABLE MARKERS PRIOR TO PAVING AND/OR COLD PLANING. REMOVE ALL ADHESIVES PRIOR TO PAVING. PATCH ANY HOLES OR DIVOTS RESULTING FROM THE REMOVAL OF A MARKER IN A MANNER WHICH ENSURES A UNIFORM PAVED SURFACE. PATCH WORK SHALL BE INCLUDED WITH COST OF OTHER ITEMS OF CONSTRUCTION.

PAVEMENT

PAVING

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

RESURFACING

(9) 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

(10) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.

TRAFFIC CONTROL DIRECTIONAL SIGNING

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

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

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

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

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

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2C

SEALED BY

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REGISTERED ENGINEER
ARCHITECTURE
ENGINEERING
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No. 111423
STATE OF TENNESSEE
09/08/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2C1

GENERAL NOTES (CONT'D.)

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, 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 AN 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 FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

(9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING CONSTRUCTION SIGNS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM NO. 712-06, SIGNS (CONSTRUCTION), S.F.

SEALED BY

STEVEN C. LAMM
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09/08/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL
NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2D

SPECIAL NOTES

PAVEMENT

RESURFACING

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

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

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

C. THE MILLED SURFACE SHALL BE PAVED WITHIN 72 HOURS IF THE CURRENT ADT IS ≥ 70,000 OR WITHIN 96 HOURS IF THE CURRENT ADT IS < 70,000.

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

E. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD. SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (W8-15 AND W8-15P) PLACED IN ADVANCE OF ANY MILLED AREAS

F. IF MILLED SURFACE BEGINS TO DETERIORATE, PAVING TO COVER UP DETERIORATING MILLED SURFACES SHOULD OCCUR AS DIRECTED BY THE ENGINEER DURING THE NEXT WORKING DAY. IF SEVERE DISTRESS OCCURS, IMMEDIATE RESPONSE WILL BE REQUIRED.

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

(2) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK:

A. BROOMING & DEGRASSING SHALL INCLUDE NOTCHING THE GRAVEL SHOULDER PRIOR TO MILLING. THE NOTCH SHALL BE 1.5 IN DEEP AND 2 FT WIDE, OR AS DIRECTED BY THE TDOT PROJECT ENGINEER.

B. ALL MATERIAL FROM NOTCHING AND BROOMING SHOULDERS SHALL BE PICKED UP, REMOVED AND PROPERLY DISPOSED AS DIRECTED BY THE TDOT PROJECT ENGINEER.

C. ALL COSTS ASSOCIATED WITH NOTCHING, PICKING UP, REMOVAL AND PROPER DISPOSAL SHALL BE PAID FOR UNDER ITEM NO. 208-01.05.

COLD PLANING

(1) IF MILLED SURFACE BEGINS TO DETERIORATE, PAVING TO COVER UP DETERIORATING MILLED SURFACES SHOULD OCCUR AS DIRECTED BY THE TDOT PROJECT ENGINEER DURING THE NEXT WORKING DAY. IF SEVERE DISTRESS OCCURS, IMMEDIATE RESPONSE WILL BE REQUIRED.

(5) THE CONTRACTOR SHALL TAKE EXTREME CARE WHEN COLD PLANING THE EXISTING ASPHALT OFF BRIDGE DECK SO AS NOT TO DAMAGE THE EXISTING DECK SEALANT AND/OR EXPANSION JOINT MEMBERS (STEEL PLATES, BARS, AND/OR HEADERS). IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY REPAIRS TO ALL DAMAGED MEMBERS TO THE SATISFACTION OF THE PROJECT ENGINEER AT NO ADDITIONAL COST.

OGFC

(1) AT THE START OF EACH NIGHT'S PAVING OF ACS MIX OGFC PRODUCE APPROXIMATELY 15 TONS OF THE BITUMINOUS PAVEMENT (OGFC) FOR THE PURPOSE OF PLANT START UP AND HEATING UP THE MATERIAL TRANSFER DEVICE (MTD). THIS MATERIAL SHALL BE UNLOADED INTO THE MTD AT A MINIMUM TEMPERATURE OF 280F AND THE ENTIRE LOAD DISCHARGED THROUGH THE MTD AND WASTED OFF THE PROJECT SITE IMMEDIATELY PRIOR TO THE COMMENCING PAVING OPERATIONS.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(2) ANY WORK REQUIRING LANE CLOSURES INCLUDING PAVEMENT MARKING OPERATIONS SHALL BE AT NIGHT BETWEEN THE HOURS OF 7:00 P.M. AND 6:00 A.M. (SUNDAY THROUGH THURSDAY) AND 10:00 PM AND 8 AM (FRIDAY THROUGH SATURDAY) UNLESS OTHERWISE DIRECTED BY THE TDOT OPERATIONS DISTRICT MANAGER.

(4) NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS (FRIDAY – SUNDAY) WHEN THERE IS A SCHEDULED NASCAR RACE IN BRISTOL UNLESS OTHERWISE APPROVED BY THE TDOT OPERATIONS DISTRICT MANAGER AND THE REGIONAL TRAFFIC INCIDENT MANAGEMENT COORDINATOR.

(5) NO LANE CLOSURES WILL BE ALLOWED ON SATURDAYS WHEN THE UNIVERSITY OF TENNESSEE PLAYS FOOTBALL IN KNOXVILLE UNLESS OTHERWISE APPROVED BY THE TDOT OPERATIONS DISTRICT MANAGER AND THE REGIONAL TRAFFIC INCIDENT MANAGEMENT COORDINATOR.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL NOTES

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ENVIRONMENTAL NOTES

ENVIRONMENTAL GENERAL NOTES

NATURAL RESOURCES

(4) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.

(9) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

(11) SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).

(12) IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE TDOT SUPERVISOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, ECOLOGY SECTION IMMEDIATELY.

PERMITS, PLANS & RECORDS

(15) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE PROJECT MANAGER SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED

ENVIRONMENTAL SPECIAL NOTES

ENVIRONMENTAL

(1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE SHALL BE INVITED TO ALL FIELD REVIEW MEETINGS.

ECOLOGY

(2) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRECONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.

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

(4) ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

SCOPE OF WORK

(6) THE PROJECT INCLUDES COLD PLANING, PLACING NEW ASPHALT SURFACE, PAVEMENT MARKINGS, GUARDRAIL, TRAFFIC CONTROL, AND BROOMING AND DEGRASSING.

EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

(29) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.

(30) 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. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.

(31) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.

(32) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.

(33) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

(34) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.

(35) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.

(36) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

(37) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

(38) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.

(39) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.

(40) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SPILL PREVENTION, MANAGEMENT & NOTIFICATION

(44) ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.

(45) FOR ALL HAZARDOUS MATERIALS STORED ONSITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED. SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.

(46) APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

(47) ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

(48) THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.

(49) IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION SHALL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR SHALL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.

(50) FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.

(51) IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. 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.

(52) WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD, SEE THE LATEST TENNESSEE GENERAL PERMIT NO. TNR100000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.

(53) CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ONSITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE CONTAINERS WITH A COMBINED CAPACITY OF 1320 GALLONS OR MORE SHALL HAVE SECONDARY CONTAINMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THE BULK STORAGE AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO STORING 1320 GALLONS ON SITE.

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2E

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2F

TRAFFIC CONTROL SIGN TABULATION (RESURFACING)

M.U.T.C.D. SIGN NO.	LEGEND \ DESCRIPTION	SIZE IN INCHES L x W	S.F.	TOTAL NUMBER REQUIRED	ITEM NO. 712-06 S.F.
E5-1	EXIT	18 x 24	4	2	8
G20-1	ROAD WORK NEXT 4 MILES	48" x 24"	4	4	16
G20-2	END ROAD WORK	48" x 24"	8	6	48
R1-2	YIELD	48" x 48"	16	2	32
R2-1	SPEED LIMIT	36" x 18"	5	8	36
TN-64	WORKERS PRESENT REDUCE SPEED	78" x 60"	33	4	130
W1-4L	LEFT SHIFT ARROW	48" x 48"	16	4	64
W1-4R	RIGHT SHIFT ARROW	48" x 48"	16	4	64
W3-2	YIELD AHEAD	48" x 48"	16	2	32
W4-2L	LANE ENDS	48" x 48"	16	4	64
W4-2R	LANE ENDS	48" x 48"	16	4	64
W8-17	UNEVEN LANES	48" x 48"	16	24	384
W8-15	GROOVED PAVEMENT	48" x 48"	16	24	384
W8-15AP	MOTORCYCLE (PLAQUE)	30" x 24"	5	24	120
W20-1	ROAD WORK AHEAD	48" x 48"	16	6	96
W20-1	ROAD WORK 1 MILE	48" x 48"	16	4	64
W20-1	ROAD WORK 1/2 MILE	48" x 48"	16	4	64
W20-1	ROAD WORK 1000 FT	48" x 48"	16	4	64
W20-5L	LEFT LANE CLOSED AHEAD	48" x 48"	16	4	64
W20-5R	RIGHT LANE CLOSED AHEAD	48" x 48"	16	4	64
W21-2	FRESH OIL	48" x 48"	16	4	64
W21-5AL	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	16	4	64
W21-5AR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	16	4	64
				TOTAL	2046

BRIDGE DECK RECOMMENDATIONS (RESURFACING)

BRIDGE NUMBER	LOCATION LOG MILE	CROSSING OVER/UNDER	BRIDGE LENGTH	BRIDGE DECK RECOMMENDATIONS
90I00810001	0.72 RT.	SR-93	296'-9"	COLD PLANE 1.25" OF THE EXISTING ASPHALT AND REPLACE WITH 1.25" OF NEW ASPHALT. IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
90I00810002	0.69 LF.	SR-93	288'	COLD PLANE 1.25" OF THE EXISTING ASPHALT AND REPLACE WITH 1.25" OF NEW ASPHALT. IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
90I00810005 UNDERPASS	2.23	LINK RD.		MAINTAIN MINIMUM VERTICAL CLEARANCE OF THE UNDERPASS. SEE BRIDGE UNDERPASS DETAIL ON SHEET 2B2 FOR ADDITIONAL INFORMATION. (EBL 16'-6", WBL 17'-5")
90I00810007	3.71 RT.	DARK HOLLOW RD.	101'-0"	COLD PLANE 1.25" OF THE EXISTING ASPHALT AND REPLACE WITH 1.25" OF NEW ASPHALT. IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.
90I00810008	3.71 LF.	DARK HOLLOW RD.	98'-0"	COLD PLANE 1.25" OF THE EXISTING ASPHALT AND REPLACE WITH 1.25" OF NEW ASPHALT. IF COLD PLANING IS NOT IN THE PROJECT LEAVE BRIDGE AS IS.

SPECIAL NOTE:
THE CONTRACTOR SHOULD TAKE EXTREME CARE WHEN COLD PLANING THE EXISTING ASPHALT OFF BRIDGE DECK, SO AS TO NOT DAMAGE THE EXISTING DECK SEALANT AND/OR EXPANSION JOINT MEMBERS (STEEL PLATES, BARS, AND/OR HEADERS).
IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY REPAIRS ON ALL DAMAGED MEMBERS TO THE SATISFACTION OF THE PROJECT ENGINEER AT NO ADDITIONAL COST.

GUARDRAIL TABULATION

LOG MILE	GUARDRAIL				
	GUARDRAIL TRANSITION 27IN TO 31IN 705-02.10 EACH	EARTH PAD TYPE 38 GR END TREATMENT 705-04.09 EACH	W BEAM GR (TYPE 2) MASH TL3 705-06.01 (L.F)	GUARDRAIL REMOVED 706-01 (L.F.)	TYPE 38 MASH TL3 705-06.20 EACH
SB 0.628 EX. 50 ON RT	1		25.0	50.0	1
SB 0.906 RT	1	1	25.0	50.0	1
SB 0.906 EX. 50 OFF RT	1		25.0	50.0	1
NB 1.124 EX. 50 ON RT	1		25.0	50.0	1
SB 1.821 LT	1	1	25.0	50.0	1
NB 3.653 RT	1		50.0	100.0	1
TOTALS	6	2	175.0	350.0	6

PAVEMENT QUANTITIES

LOCATION (ROADWAY)	TYPE - GRADE - PAY ITEM (TON)							COLD PLANING BITUMINOUS PLANT MIX
	MINERAL AGG.	BITUMINOUS PLANT MIX BASE (HOT MIX)	TACK COAT			ASPHALTIC CONCRETE SURFACE (HOT MIX)		
	D	CM				D	OGFC	TON
	303-01	307-03.12	403-01	ALTERNATE(AA1) 403-02.01	ALTERNATE(AA2) 403-02.02	411-03.10	411-03.23	415-01.01
MAINLINE (INCLUDES GORE AREAS)	53.3	9751.0	51.2	39.8	119.3		12170.9	9396.4
RAMPS	588.2	197.6	4.7	0.6	1.9	581.2	194.4	865.3
BRIDGES		331.0	6.6			744.0		1279.3
TOTALS	642	10280	63	41	122	1326	12366	11542

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2G

LEGEND (SEE SHT. NO. 2B1-2B2)

① TYPICAL 1 - ASPHALT

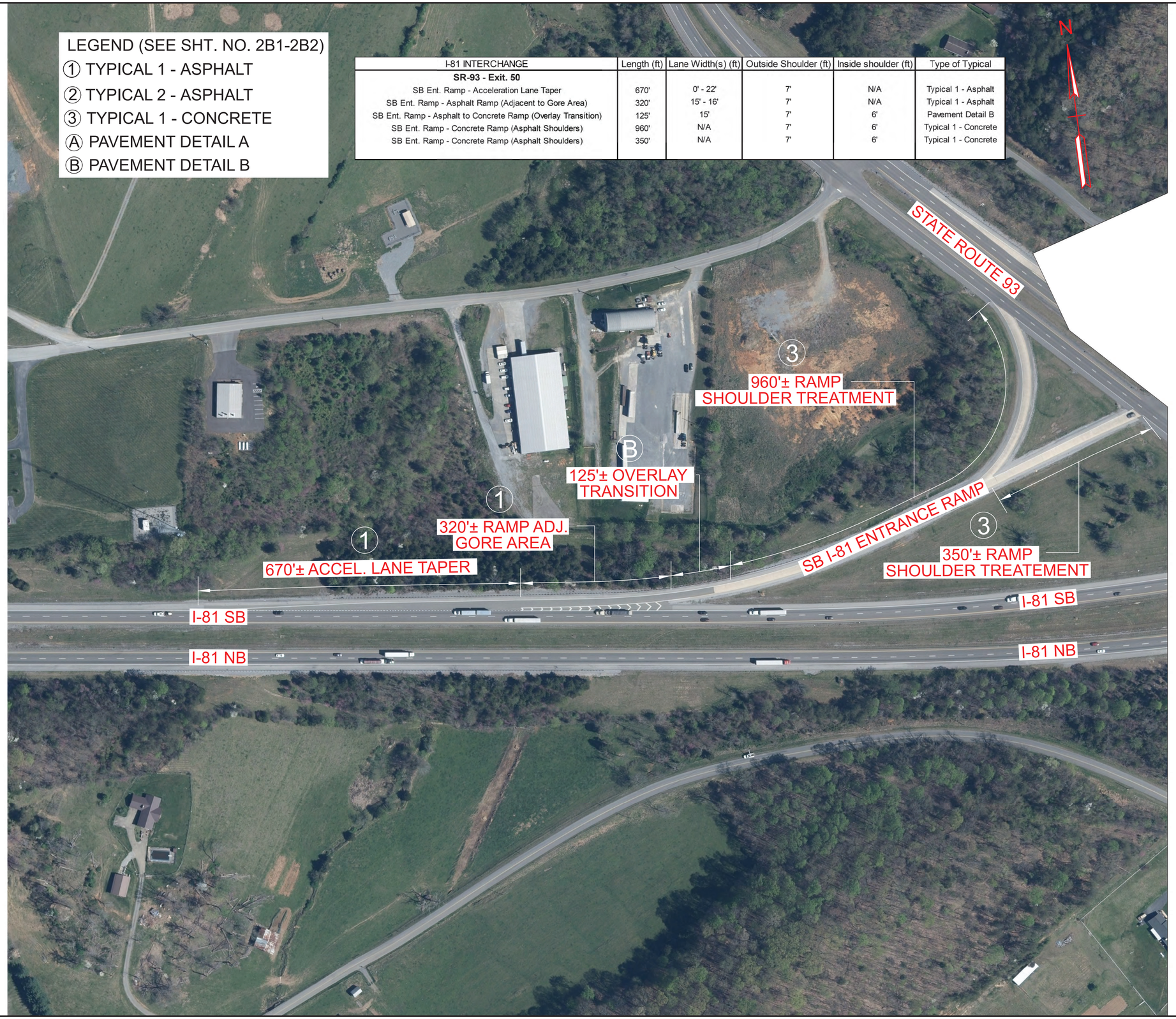
② TYPICAL 2 - ASPHALT

③ TYPICAL 1 - CONCRETE

Ⓐ PAVEMENT DETAIL A

Ⓑ PAVEMENT DETAIL B

I-81 INTERCHANGE	Length (ft)	Lane Width(s) (ft)	Outside Shoulder (ft)	Inside shoulder (ft)	Type of Typical
SR-93 - Exit. 50					
SB Ent. Ramp - Acceleration Lane Taper	670'	0' - 22'	7'	N/A	Typical 1 - Asphalt
SB Ent. Ramp - Asphalt Ramp (Adjacent to Gore Area)	320'	15' - 16'	7'	N/A	Typical 1 - Asphalt
SB Ent. Ramp - Asphalt to Concrete Ramp (Overlay Transition)	125'	15'	7'	6'	Pavement Detail B
SB Ent. Ramp - Concrete Ramp (Asphalt Shoulders)	960'	N/A	7'	6'	Typical 1 - Concrete
SB Ent. Ramp - Concrete Ramp (Asphalt Shoulders)	350'	N/A	7'	6'	Typical 1 - Concrete



MATCHLINE SEE SHEET NO. 2G1

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

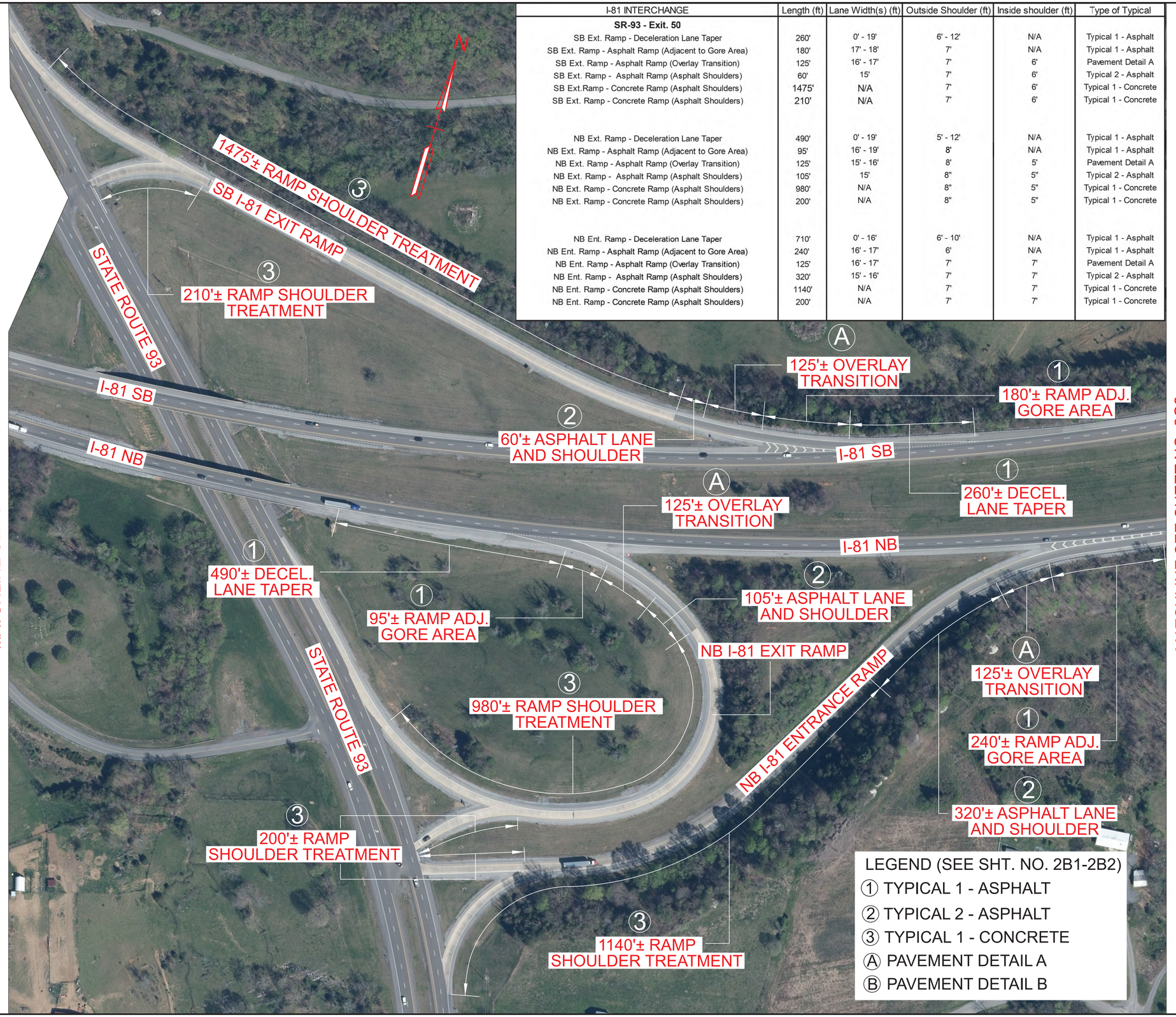
RAMP
DETAILS

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I-81 INTERCHANGE	Length (ft)	Lane Width(s) (ft)	Outside Shoulder (ft)	Inside shoulder (ft)	Type of Typical
SR-93 - Exit. 50					
SB Ext. Ramp - Deceleration Lane Taper	260'	0' - 19'	6' - 12'	N/A	Typical 1 - Asphalt
SB Ext. Ramp - Asphalt Ramp (Adjacent to Gore Area)	180'	17' - 18'	7'	N/A	Typical 1 - Asphalt
SB Ext. Ramp - Asphalt Ramp (Overlay Transition)	125'	16' - 17'	7'	6'	Pavement Detail A
SB Ext. Ramp - Asphalt Ramp (Asphalt Shoulders)	60'	15'	7'	6'	Typical 2 - Asphalt
SB Ext.Ramp - Concrete Ramp (Asphalt Shoulders)	1475'	N/A	7'	6'	Typical 1 - Concrete
SB Ext. Ramp - Concrete Ramp (Asphalt Shoulders)	210'	N/A	7'	6'	Typical 1 - Concrete
NB Ext. Ramp - Deceleration Lane Taper	490'	0' - 19'	5' - 12'	N/A	Typical 1 - Asphalt
NB Ext. Ramp - Asphalt Ramp (Adjacent to Gore Area)	95'	16' - 19'	8'	N/A	Typical 1 - Asphalt
NB Ext. Ramp - Asphalt Ramp (Overlay Transition)	125'	15' - 16'	8'	5'	Pavement Detail A
NB Ext. Ramp - Asphalt Ramp (Asphalt Shoulders)	105'	15'	8"	5"	Typical 2 - Asphalt
NB Ext. Ramp - Concrete Ramp (Asphalt Shoulders)	980'	N/A	8"	5"	Typical 1 - Concrete
NB Ext. Ramp - Concrete Ramp (Asphalt Shoulders)	200'	N/A	8"	5"	Typical 1 - Concrete
NB Ent. Ramp - Deceleration Lane Taper	710'	0' - 16'	6' - 10'	N/A	Typical 1 - Asphalt
NB Ent. Ramp - Asphalt Ramp (Adjacent to Gore Area)	240'	16' - 17'	6'	N/A	Typical 1 - Asphalt
NB Ent. Ramp - Asphalt Ramp (Overlay Transition)	125'	16' - 17'	7'	7'	Pavement Detail A
NB Ent. Ramp - Asphalt Ramp (Asphalt Shoulders)	320'	15' - 16'	7'	7'	Typical 2 - Asphalt
NB Ent. Ramp - Concrete Ramp (Asphalt Shoulders)	1140'	N/A	7'	7'	Typical 1 - Concrete
NB Ent. Ramp - Concrete Ramp (Asphalt Shoulders)	200'	N/A	7'	7'	Typical 1 - Concrete

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2G1



LEGEND (SEE SHT. NO. 2B1-2B2)

① TYPICAL 1 - ASPHALT
② TYPICAL 2 - ASPHALT
③ TYPICAL 1 - CONCRETE
Ⓐ PAVEMENT DETAIL A
Ⓑ PAVEMENT DETAIL B

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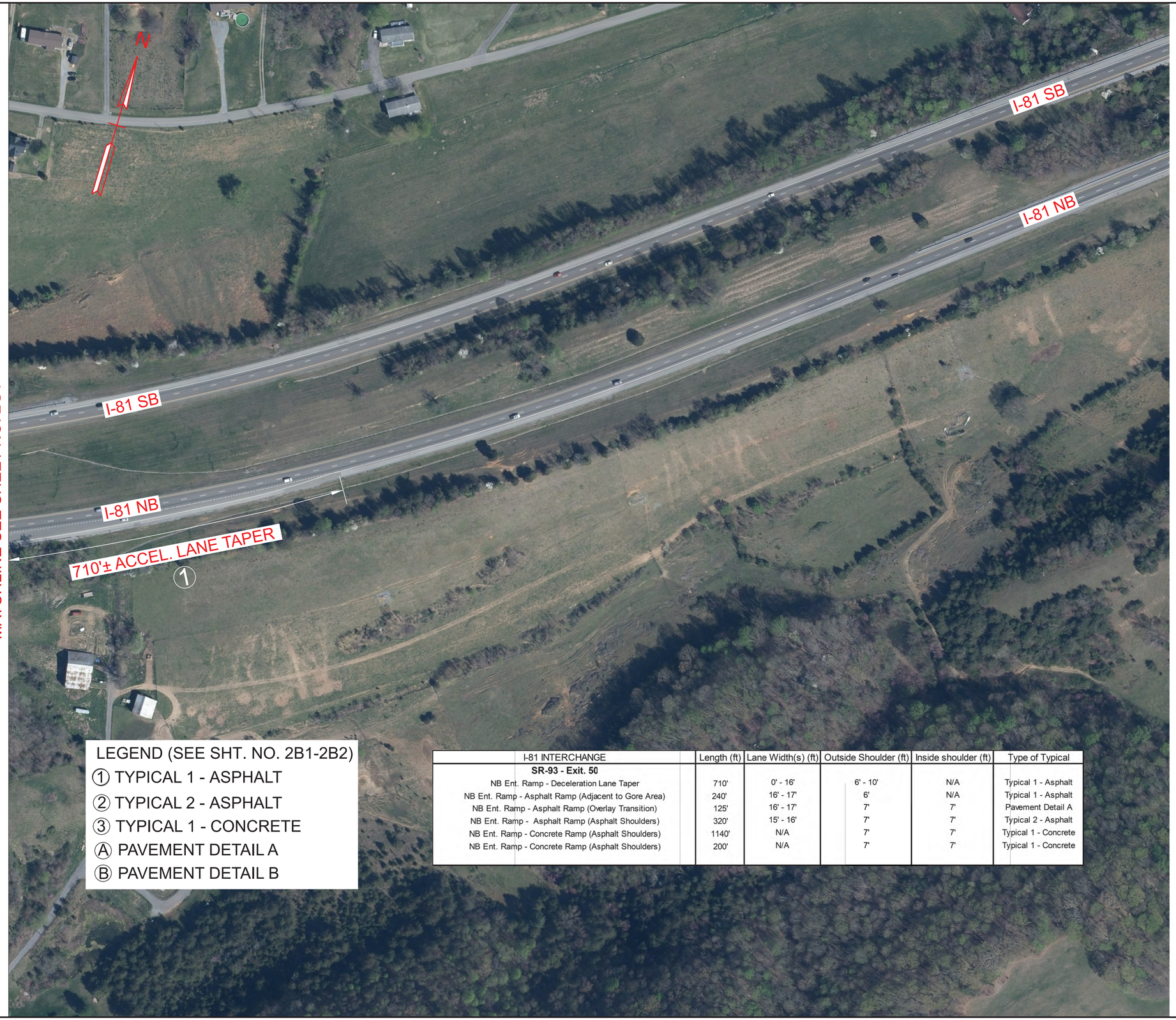
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP
DETAILS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	2G2



MATCHLINE SEE SHEET NO. 2G1

LEGEND (SEE SHT. NO. 2B1-2B2)

① TYPICAL 1 - ASPHALT

② TYPICAL 2 - ASPHALT

③ TYPICAL 1 - CONCRETE

Ⓐ PAVEMENT DETAIL A

Ⓑ PAVEMENT DETAIL B

I-81 INTERCHANGE	Length (ft)	Lane Width(s) (ft)	Outside Shoulder (ft)	Inside shoulder (ft)	Type of Typical
SR-93 - Exit. 50					
NB Ent. Ramp - Deceleration Lane Taper	710'	0' - 16'	6' - 10'	N/A	Typical 1 - Asphalt
NB Ent. Ramp - Asphalt Ramp (Adjacent to Gore Area)	240'	16' - 17'	6'	N/A	Typical 1 - Asphalt
NB Ent. Ramp - Asphalt Ramp (Overlay Transition)	125'	16' - 17'	7'	7'	Pavement Detail A
NB Ent. Ramp - Asphalt Ramp (Asphalt Shoulders)	320'	15' - 16'	7'	7'	Typical 2 - Asphalt
NB Ent. Ramp - Concrete Ramp (Asphalt Shoulders)	1140'	N/A	7'	7'	Typical 1 - Concrete
NB Ent. Ramp - Concrete Ramp (Asphalt Shoulders)	200'	N/A	7'	7'	Typical 1 - Concrete

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP DETAILS

SCALE: 1" = 100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	3

UTILITY NOTES

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS 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. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED.

UTILITY OWNERS

ELECTRIC:

AMERICAN ELECTRIC POWER
40 FRANKLIN ROAD SW
ROANOKE, VA 24011
CONTACT: ALEX FAIR
OFFICE PHONE:
CELL PHONE: 540 759 5531
Email: apfair@aep.com

TELEPHONE:

BRIGHTSPEED
101 NORTH ROAN STREET
JOHNSON CITY, TN 37601
CONTACT: ANDREW ICE
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY NOTES
AND
UTILITY OWNERS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2026	NH-I-81-1(145)	T1

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 1.75 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. 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 1.75 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 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE REGIONAL TRAFFIC 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 6 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 0.75 INCH AND NOT EXCEEDING 2 INCHES.

   a. 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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