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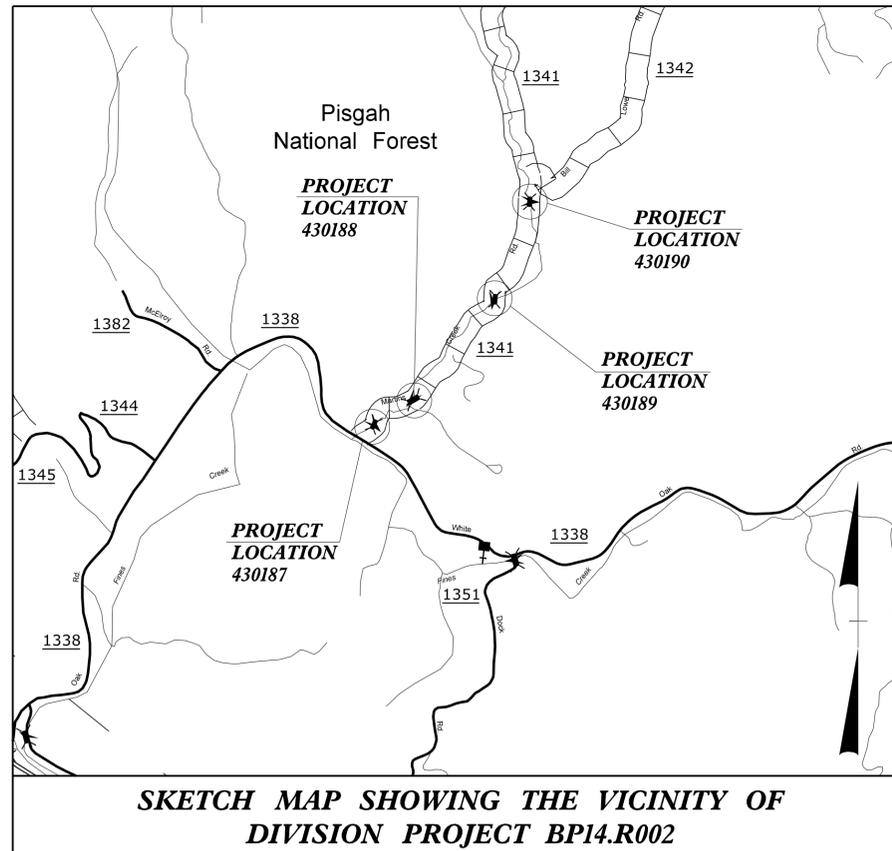
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HAYWOOD COUNTY

LOCATION: CULVERT NOS. 430187, 430188, 430189, AND 430190
OVER MARTINS CREEK ON SR 1341 (MARTINS CREEK ROAD)
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND CULVERTS



SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND MANAGEMENT STRATEGY
TMP-1B	GENERAL AND LOCAL NOTES
TMP-2	PCB AT TEMPORARY SHORING DETAIL
TMP-2A - 2D	TEMPORARY SHORING NOTES
TMP-3	PHASING NOTES
TMP-4	TEMPORARY TRAFFIC CONTROL 187/188 PHASE I DETAIL
TMP-5	TEMPORARY TRAFFIC CONTROL 187/188 PHASE II DETAIL
TMP-6	TEMPORARY TRAFFIC CONTROL 187/188 PHASE III DETAIL
TMP-7	TEMPORARY TRAFFIC CONTROL 187/188 PHASE IV DETAIL
TMP-8	TEMPORARY TRAFFIC CONTROL 189 PHASE I DETAIL
TMP-9	TEMPORARY TRAFFIC CONTROL 189 PHASE II DETAIL
TMP-10	TEMPORARY TRAFFIC CONTROL 190 PHASE I DETAIL
TMP-11	TEMPORARY TRAFFIC CONTROL 190 PHASE II DETAIL
TMP-12	TEMPORARY TRAFFIC CONTROL 190 PHASE III DETAIL

SHEET NO.
TMP-1

BP14.R002

WBS PROJECT:

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PLANS PREPARED BY:
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BRIDGE PROGRAM
MANAGER



RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615

APPROVED: 
DATE: 11/24/2025
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8/7/2025
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ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1170.01	PORTABLE CONCRETE BARRIER
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

MANAGEMENT STRATEGY

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:

- LANE SHIFTS OR CLOSURES
- SHOULDER CLOSURES
- ONE-LANE, TWO WAY OPERATION (FLAGGING)
- ONE-LANE, TWO WAY OPERATION (SIGNALIZED)
- NIGHT WORK

WORK ZONE SAFETY & MOBILITY STRATEGIES:

- AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADS)

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

- WORK AREA
- REMOVAL
- TEMPORARY PAVEMENT/ABC WIDENING

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN
- TEMPORARY PORTABLE SIGNAL SYSTEM

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

- P1 WHITE EDGELINE (4" PAINT)

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GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- F) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- G) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 100 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- H) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- I) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- K) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

- L) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

- M) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

- N) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

- O) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
MARTINS CREEK RD	PAINT	N/A

- P) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- Q) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- R) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

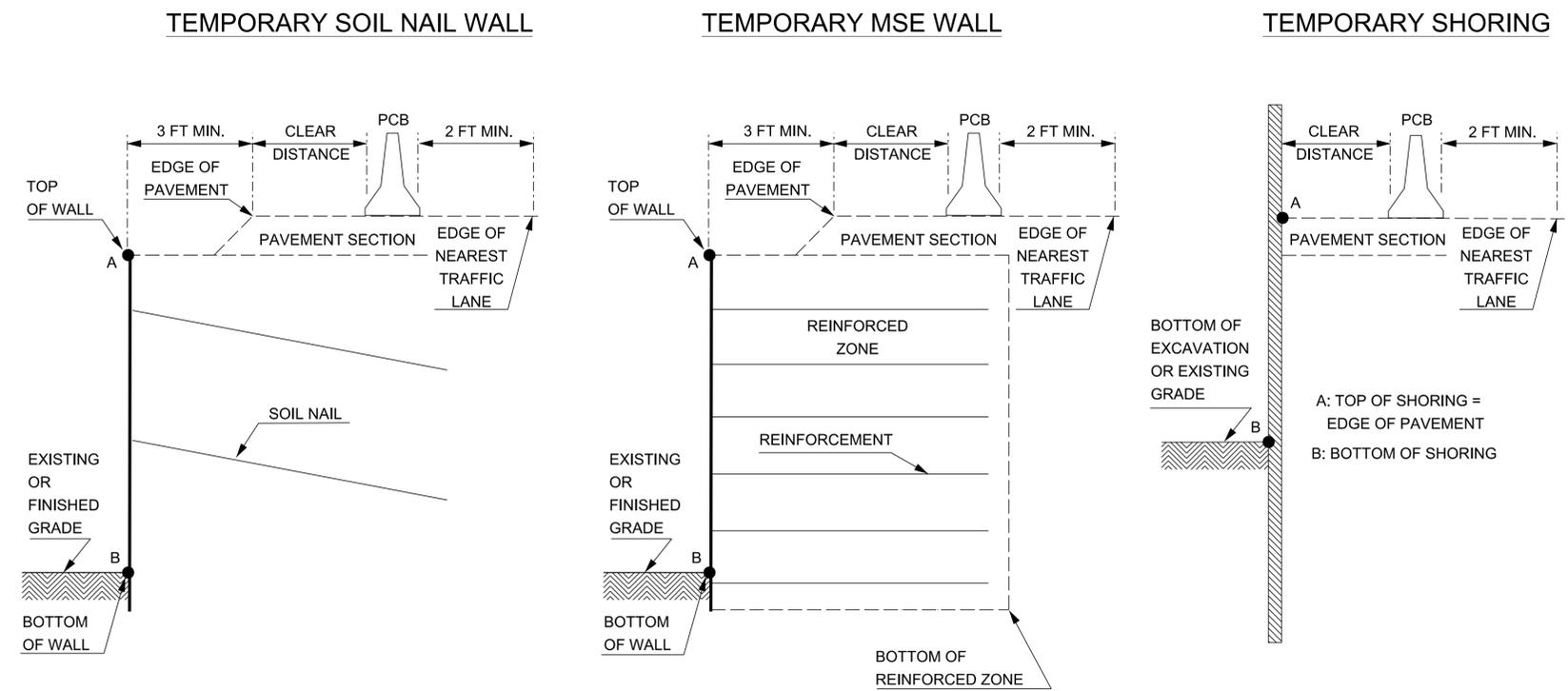
- S) IN THE EVENT A TIE-IN CANNOT BE MAKE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 100 FT AND 100 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

LOCAL NOTES

- NOTIFY ENGINEER AT LEAST 30 DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- NOTIFY HAYWOOD COUNTY SCHOOLS TRANSPORTATION DIRECTOR OF THE BRIDGE REMOVAL 30 DAYS PRIOR TO CLOSURE (IF NEEDED).
- NOTIFY HAYWOOD EMERGENCY MANAGEMENT SERVICES DIRECTOR OF BRIDGE REMOVAL 30 DAYS PRIOR TO ROAD CLOSURE.
- ACCESS TO ALL RESIDENCES AND BUSINESSES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AT ALL TIMES.

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NOTE: WALL OR SHORING HEIGHT = A-B

FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" STANDARD PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING/WALL IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING/WALLS EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS OR APPROVED BY THE ENGINEER.
- 8- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THIS MINIMUM REQUIRED DISTANCE IS NOT AVAILABLE, CONTACT THE ENGINEER.
- 9- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS.

MINIMUM REQUIRED CLEAR DISTANCE, inches

	Pavement Type	Offset * ft	Design Speed, mph					
			<30	31-40	41-50	51-60	61-70	71-80
Unanchored PCB	Asphalt	<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
		38-44	31	34	41	43	45	48
	Concrete	44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
		>56	32	36	42	45	47	51
		<8	17	18	21	22	25	26
		8-14	19	20	23	25	26	29
		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
Anchored PCB	Asphalt	26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
		50-56	26	26	28	32	35	38
		>56	26	27	29	32	36	38
		All Offsets	24 for All Design Speeds					
			12 for All Design Speeds					

* See Figure Below

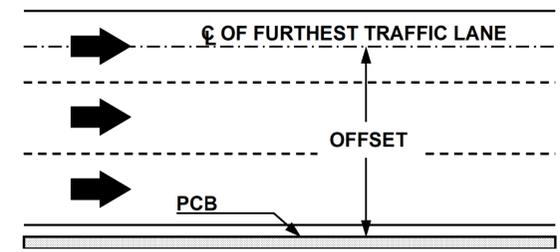


FIGURE B

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PORTABLE CONCRETE BARRIER
 AT
 TEMPORARY SHORING LOCATIONS

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TEMPORARY SHORING NOTES

SHORING LOCATION NO. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L187- STATION 12+12 +/-, 6.5 FT LT, TO STATION 12+47, 7.9 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = 2389 +/- FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L187- STATION 12+12 +/-, 6.5 FT LT, TO STATION 12+47, 7.9 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM -L187- STATION 12+12 +/-, 6.5 FT LT, TO STATION 12+47, 7.9 FT LT MAY NOT PENETRATE BELOW ELEVATION 2386 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L187- STATION 12+12 +/-, 6.5 FT LT, TO STATION 12+47, 7.9 FT LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L187- STATION 12+12 +/-, 6.5 FT LT, TO STATION 12+47, 7.9 FT LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L187- STATION 12+12 +/-, 6.5 FT LT, TO STATION 12+47, 7.9 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 2

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L187- 12+79 +/-, 6.8 FT LT, TO STATION 12+94, 12 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 GROUNDWATER ELEVATION:
 UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = 2389 +/- FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L187- 12+79 +/-, 6.8 FT LT, TO STATION 12+94, 12 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L187- 12+79 +/-, 6.8 FT LT, TO STATION 12+94, 12 FT LT MAY NOT PENETRATE BELOW ELEVATION 23+86 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L187- 12+79 +/-, 6.8 FT LT, TO STATION 12+94, 12 FT LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L187- 12+79 +/-, 6.8 FT LT, TO STATION 12+94, 12 FT LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L187- 12+79 +/-, 6.8 FT LT, TO STATION 12+94, 12 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 3

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+63, 6.1 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+63, 6.1 FT RT.

THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+63, 6.1 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

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TEMPORARY SHORING NOTES

SHORING LOCATION NO. 4

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+66, 9.1 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+66, 9.1 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+66, 9.1 FT RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+66, 9.1 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L188- 12+43 +/-, 6.1 FT RT, TO STATION 12+66, 9.1 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 5

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L188- STATION 12+90 +/-, 6.0 FT RT, TO STATION 13+21, 6.4 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L188- STATION 12+90 +/-, 6.0 FT RT, TO STATION 13+21, 6.4 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L188- STATION 12+90 +/-, 6.0 FT RT, TO STATION 13+21, 6.4 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

SHORING LOCATION NO. 6

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L188- STATION 12+85 +/-, 10.4 FT RT, TO STATION 13+21, 6.4 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L188- STATION 12+85 +/-, 10.4 FT RT, TO STATION 13+21, 6.4 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L188- STATION 12+85 +/-, 10.4 FT RT, TO STATION 13+21, 6.4 FT RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L188- STATION 12+85 +/-, 10.4 FT RT, TO STATION 13+21, 6.4 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L188- STATION 12+85 +/-, 10.4 FT RT, TO STATION 13+21, 6.4 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

9/9/2025
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 User:McLaughR

RS&H 8521 SIX FORKS ROAD, SUITE 400
 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

APPROVED:  <small>Signed by: E741D04D67CA471</small> DATE: 11/24/2025			<h3>TEMPORARY SHORING NOTES</h3>
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TEMPORARY SHORING NOTES

SHORING LOCATION NO. 7

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L189- STATION 11+10 +/-, 5.3 FT LT, TO STATION 11+27, 9.6 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT = 120 PCF
- FRICTION ANGLE = 30 DEGREES
- COHESION (c) = 0 PSF
- GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L189- STATION 11+10 +/-, 5.3 FT LT, TO STATION 11+27, 9.6 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L189- STATION 11+10 +/-, 5.3 FT LT, TO STATION 11+27, 9.6 FT LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L189- STATION 11+10 +/-, 5.3 FT LT, TO STATION 11+27, 9.6 FT LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L189- STATION 11+10 +/-, 5.3 FT LT, TO STATION 11+27, 9.6 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 8

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L189- STATION 11+49 +/-, 11.2 FT LT, TO STATION 11+64, 11.2 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

- UNIT WEIGHT = 120 PCF
- FRICTION ANGLE = 30 DEGREES
- COHESION (c) = 0 PSF
- GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L189- STATION 11+49 +/-, 11.2 FT LT, TO STATION 11+64, 11.2 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L189- STATION 11+49 +/-, 11.2 FT LT, TO STATION 11+64, 11.2 FT LT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L189- STATION 11+49 +/-, 11.2 FT LT, TO STATION 11+64, 11.2 FT LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L189- STATION 11+49 +/-, 11.2 FT LT, TO STATION 11+64, 11.2 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 9

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+66, 4.0 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

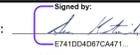
- UNIT WEIGHT = 120 PCF
- FRICTION ANGLE = 30 DEGREES
- COHESION (c) = 0 PSF
- GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+66, 4.0 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO -L190- STATION 13+66, 4.0 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

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RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

APPROVED:  <small>Signed by: 6741DD4DFCA471</small> DATE: 11/24/2025			<h2>TEMPORARY SHORING NOTES</h2>
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TEMPORARY SHORING NOTES

SHORING LOCATION NO. 10

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+58, 8.5 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+58, 8.5 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+58, 8.5 FT RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+58, 8.5 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L190- STATION 13+42 +/-, 4.4 FT RT, TO STATION 13+58, 8.5 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 11

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L190- STATION 13+78 +/-, 8.8 FT RT, TO STATION 14+11, 4.4 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L190- STATION 13+78 +/-, 8.8 FT RT, TO STATION 14+11, 4.4 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L190- STATION 13+78 +/-, 8.8 FT RT, TO STATION 14+11, 4.4 FT RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L190- STATION 13+78 +/-, 8.8 FT RT, TO STATION 14+11, 4.4 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L190- STATION 13+78 +/-, 8.8 FT RT, TO STATION 14+11, 4.4 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 12

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -L190- STATION 13+92 +/-, 4.0 FT RT, TO STATION 14+11, 4.4 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:
 UNIT WEIGHT = 120 PCF
 FRICTION ANGLE = 30 DEGREES
 COHESION (c) = 0 PSF
 GROUNDWATER ELEVATION = BOTTOM OF CULVERT

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM -L190- STATION 13+92 +/-, 4.0 FT RT, TO STATION 14+11, 4.4 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

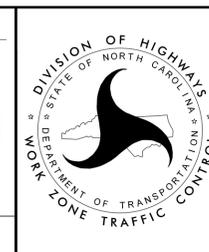
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User:McLaughlin

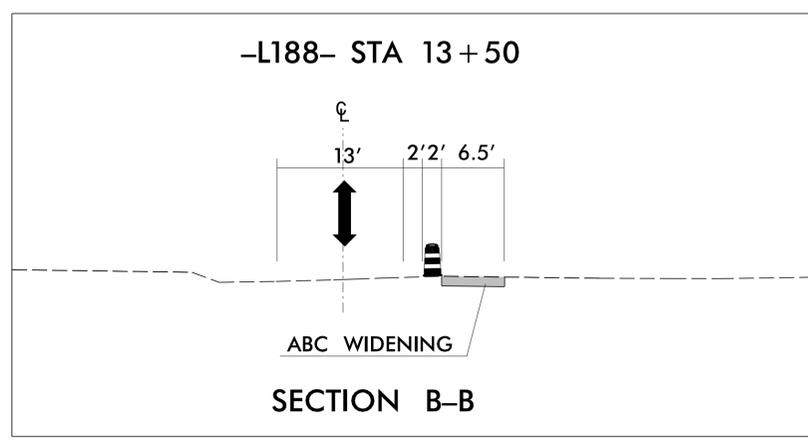
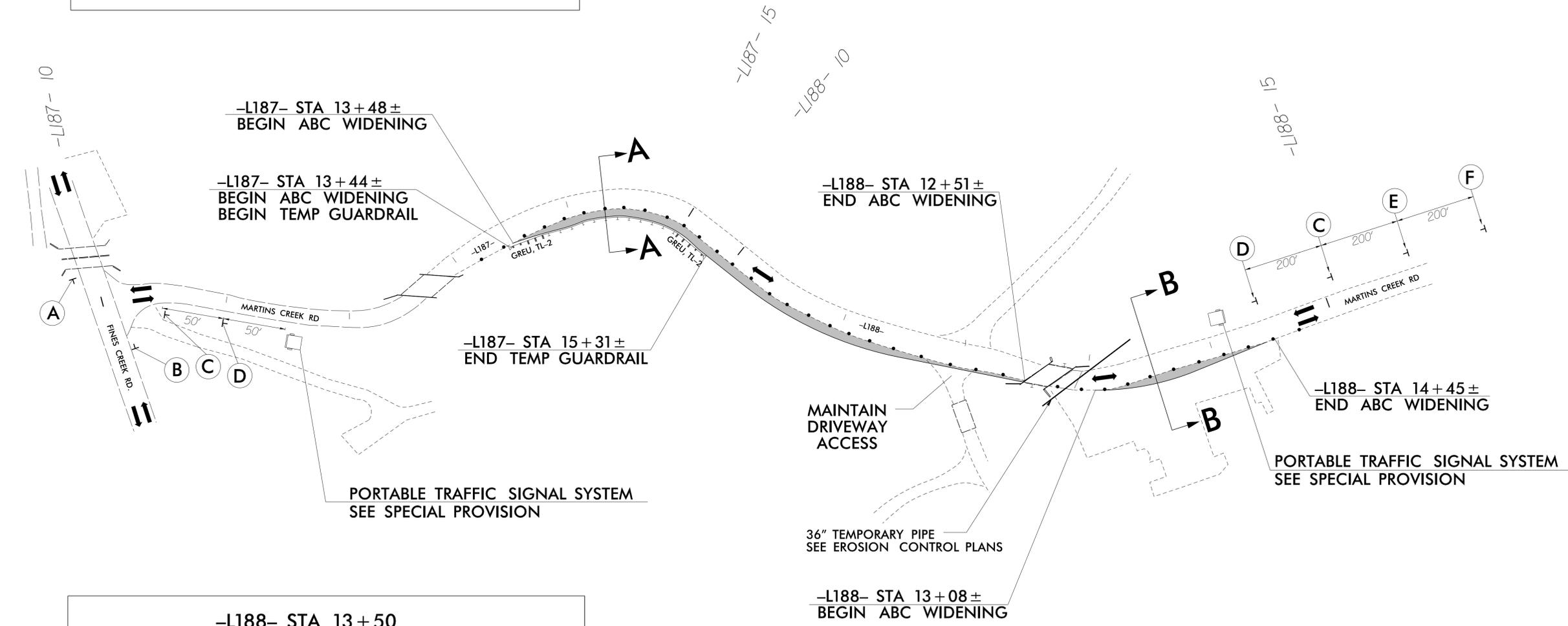
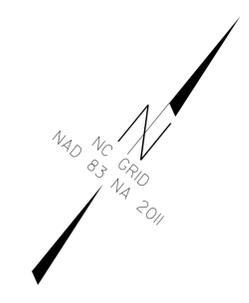
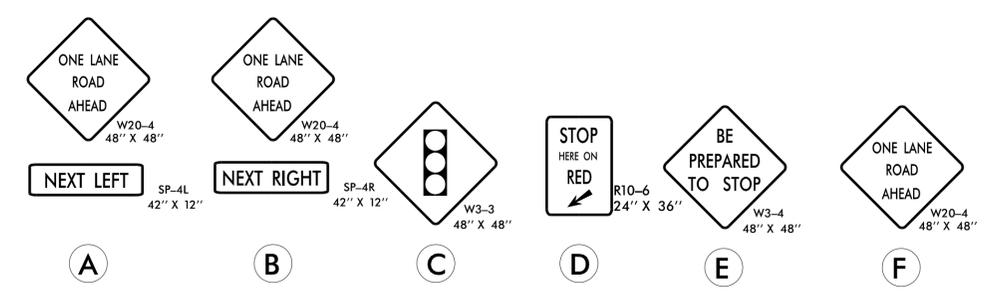
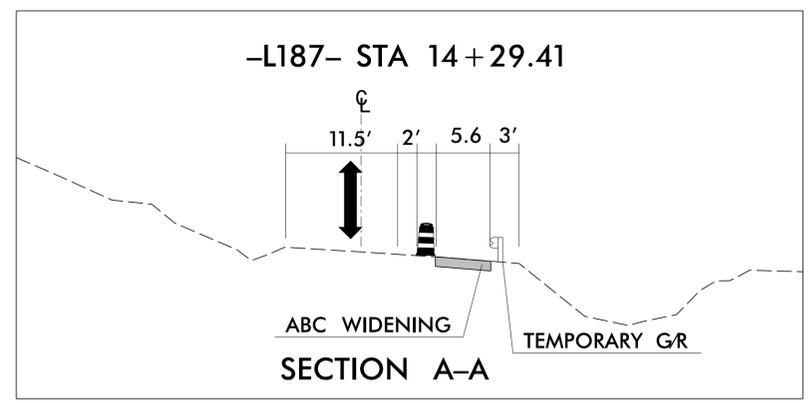
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 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

APPROVED: 
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TEMPORARY SHORING NOTES



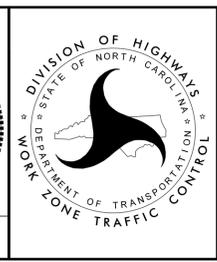
1/13/2026
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 User: harris

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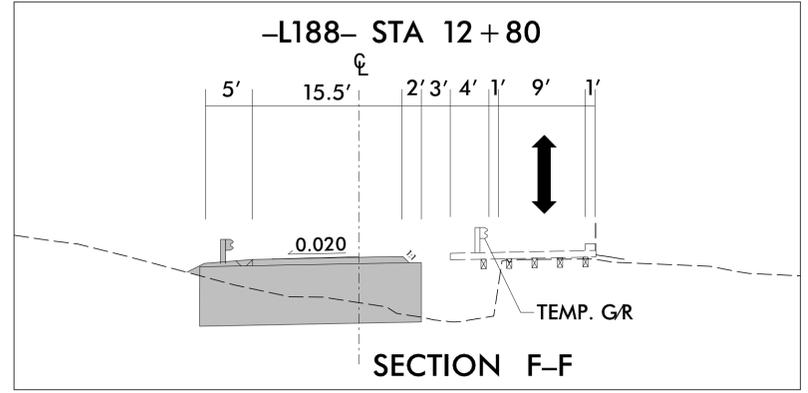
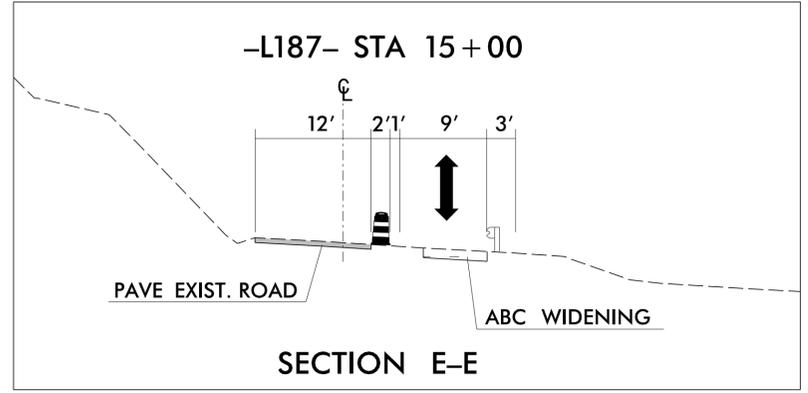
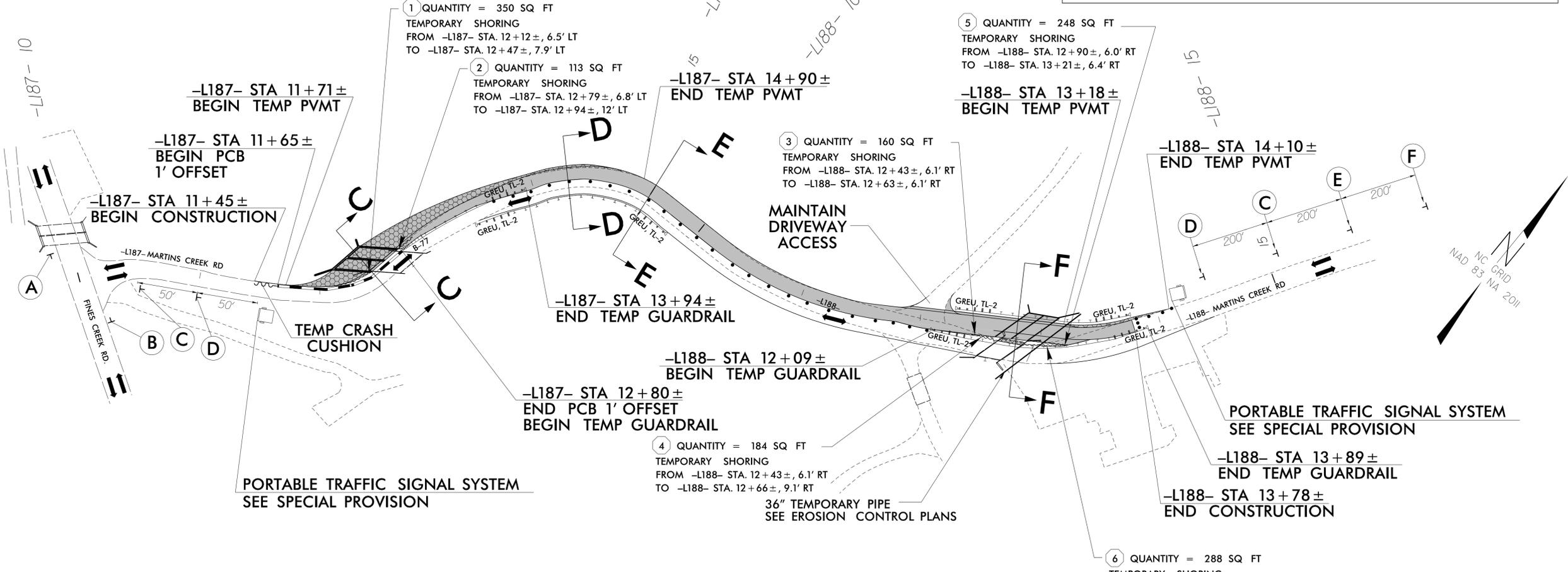
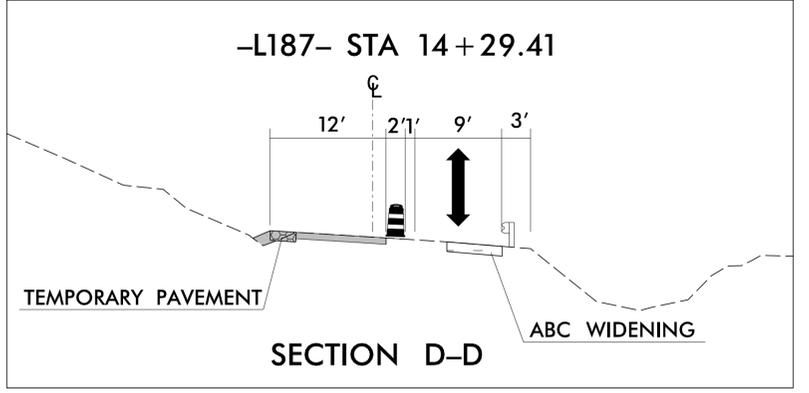
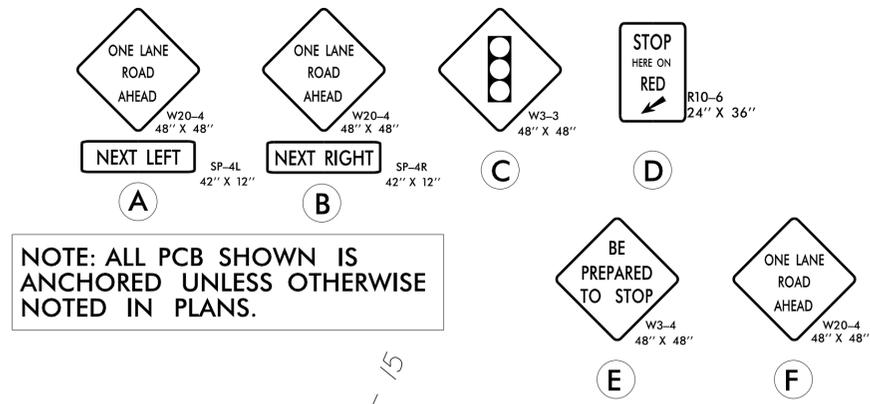
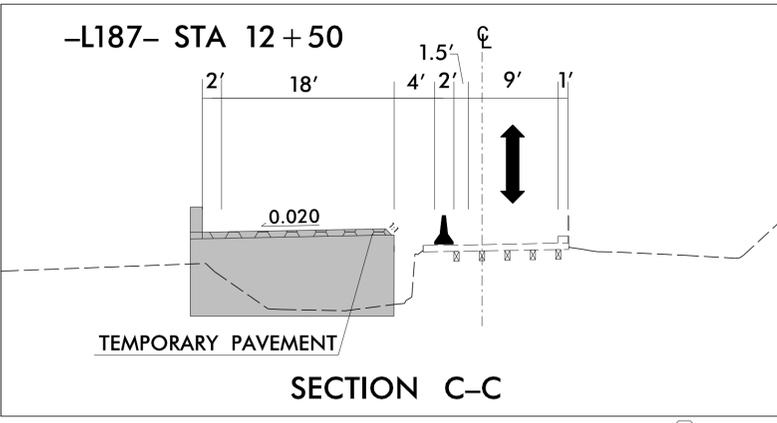
APPROVED: 
 DATE: 1/13/2026

SEAL
 044511
 SEAN M. KONTOTOYICH
 PROFESSIONAL ENGINEER

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TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
-L187-/-L188-



1/13/2026 R:\Traffic\TrafficControl\173 BRIDGES_430187_188_TC_TMP_Phase2_NEW.dgn User:Harris

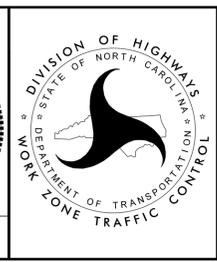
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DATE: 1/13/2026

PROFESSIONAL SEAL 044511

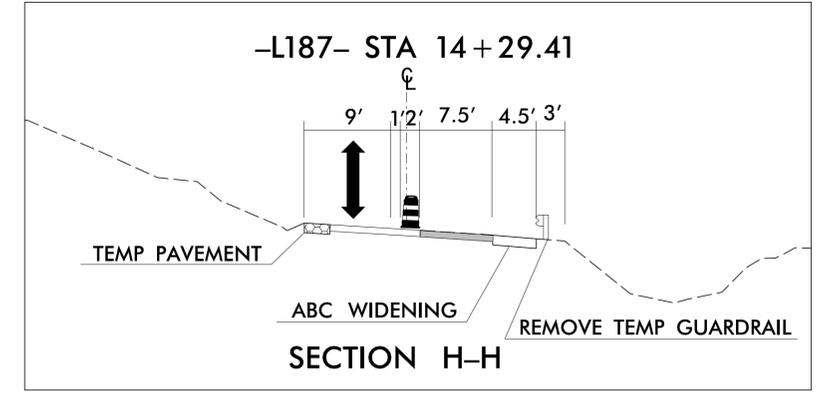
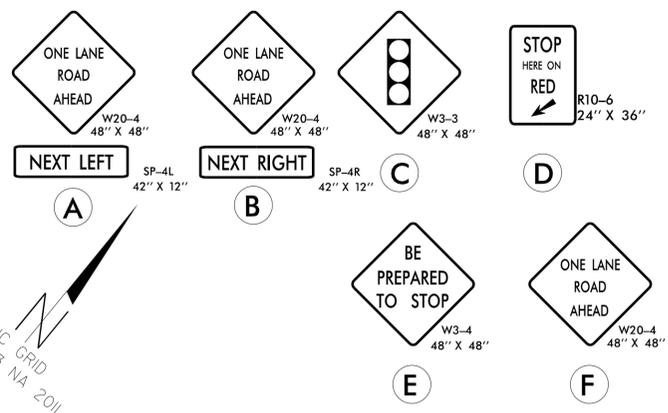
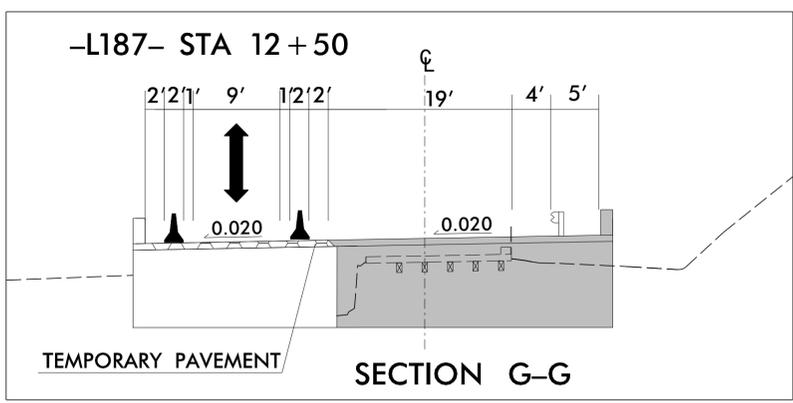
SEAN M. KOTTOUCH

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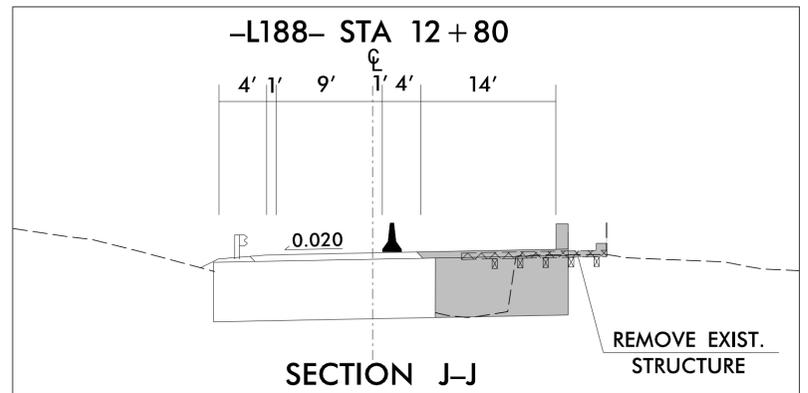
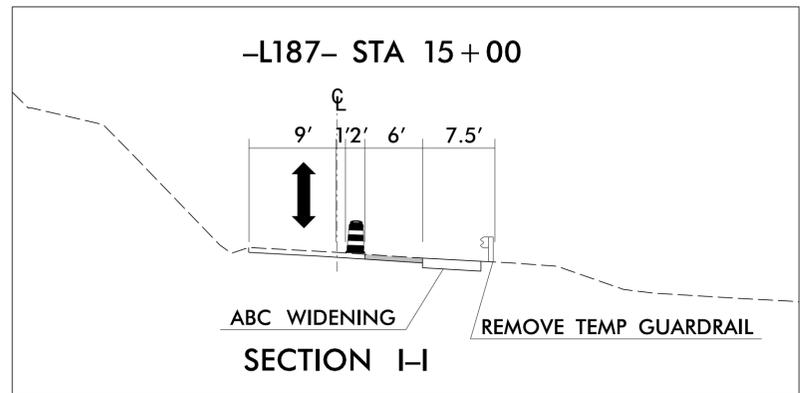
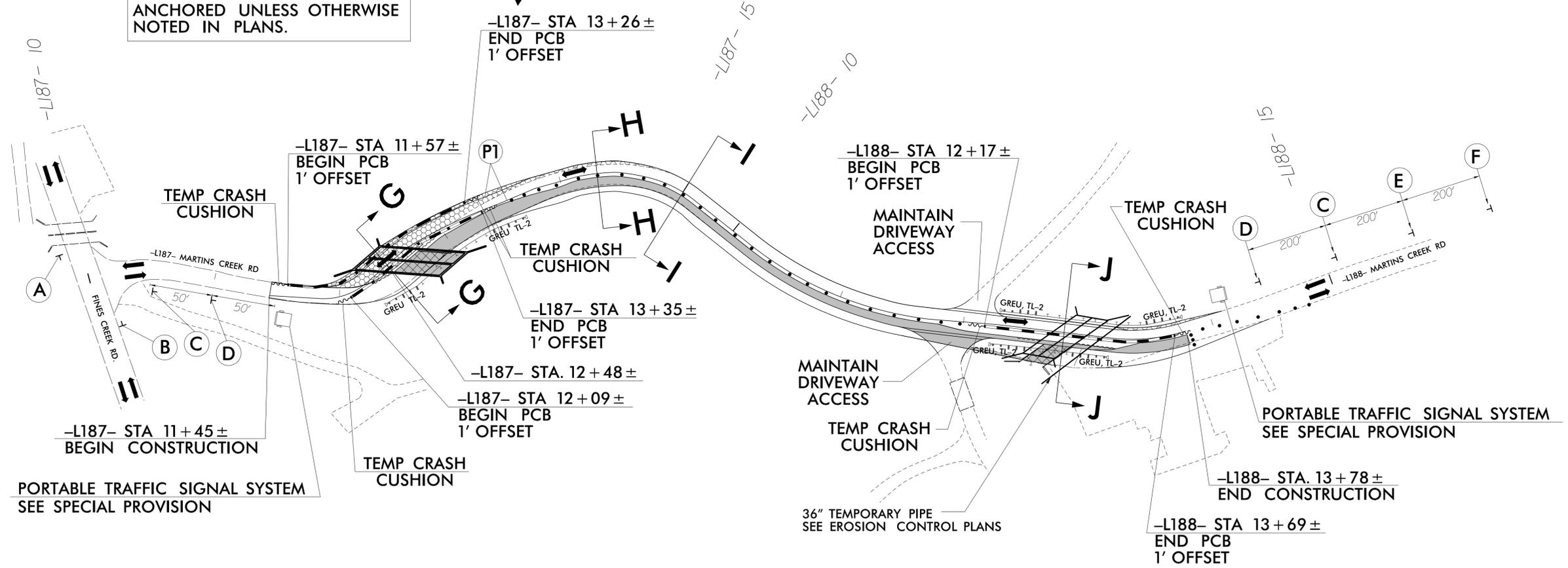


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TEMPORARY TRAFFIC CONTROL PHASE II DETAIL -L187-/L188-



NOTE: ALL PCB SHOWN IS ANCHORED UNLESS OTHERWISE NOTED IN PLANS.



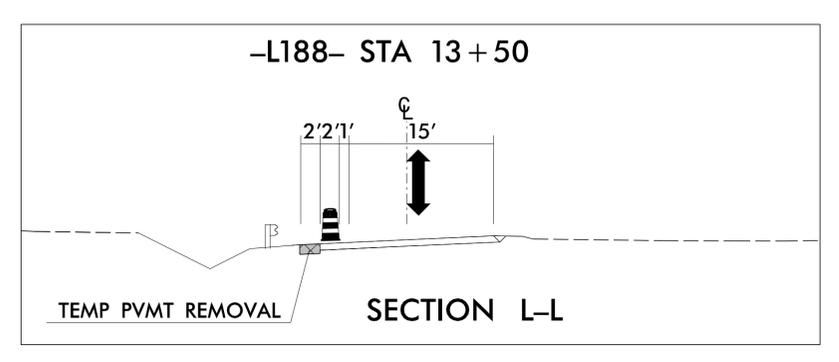
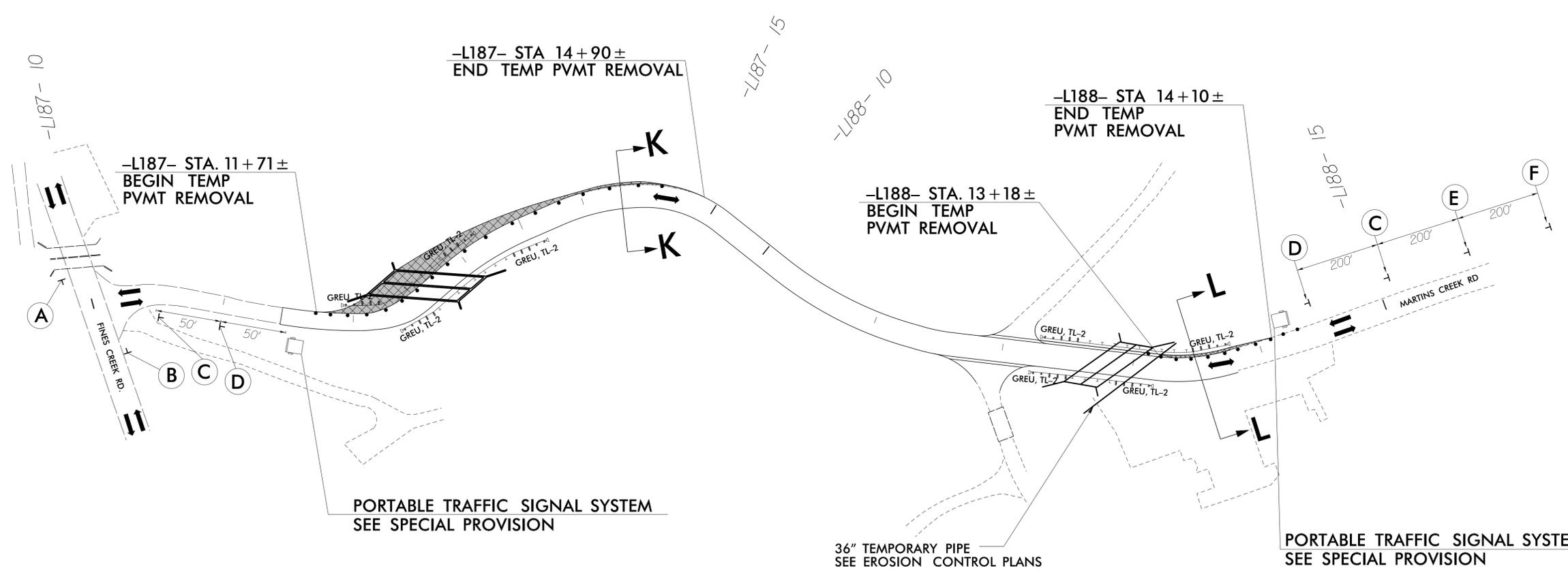
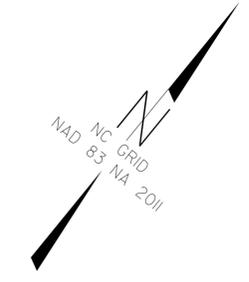
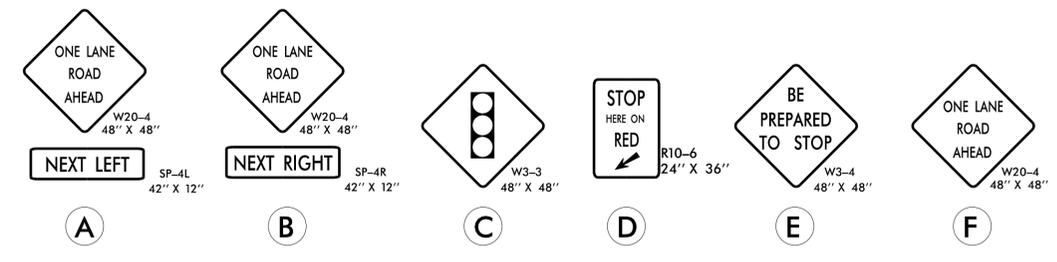
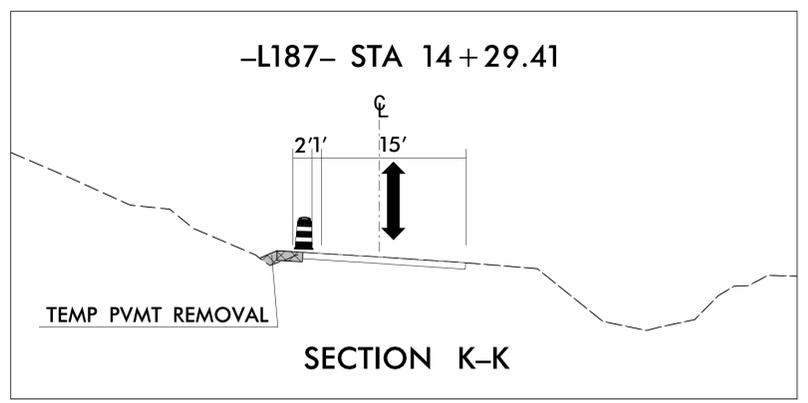
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DATE: 1/13/2026
SEAL: 044511
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TEMPORARY TRAFFIC CONTROL PHASE III DETAIL -L187-/-L188-

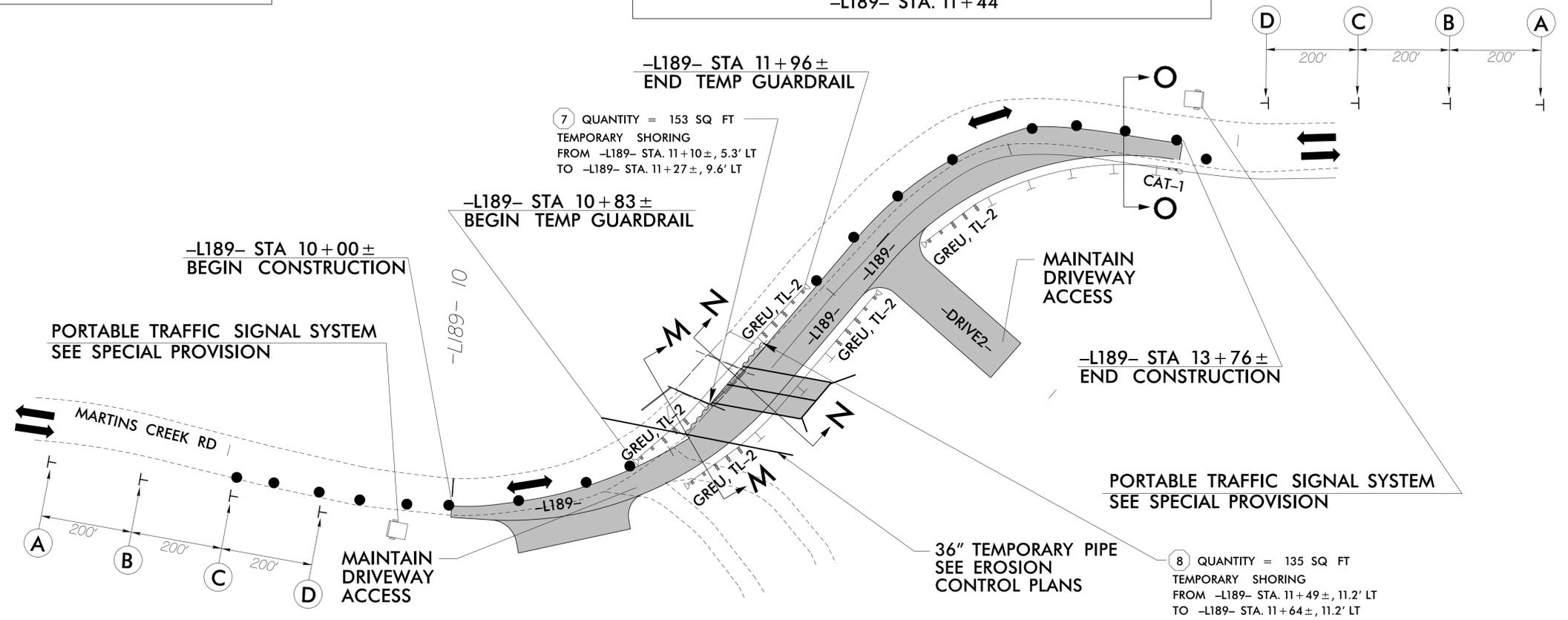
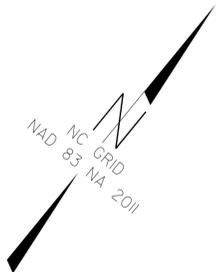
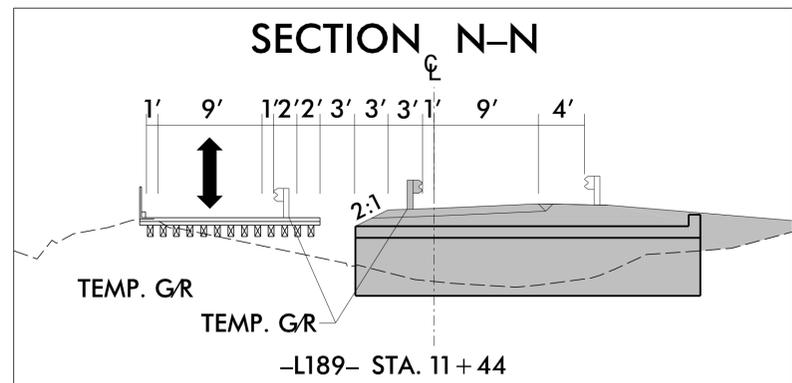
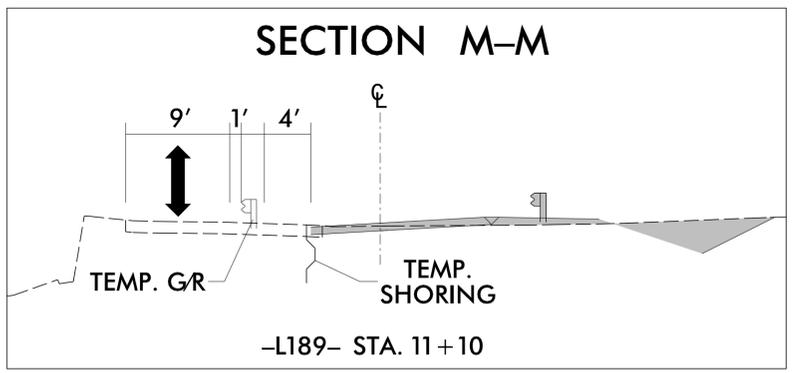
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1/13/2026
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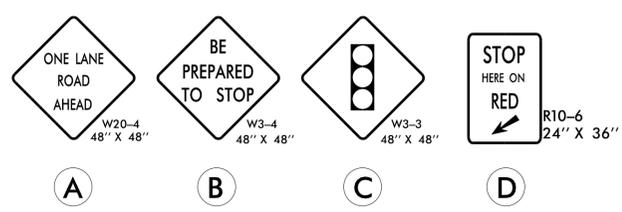
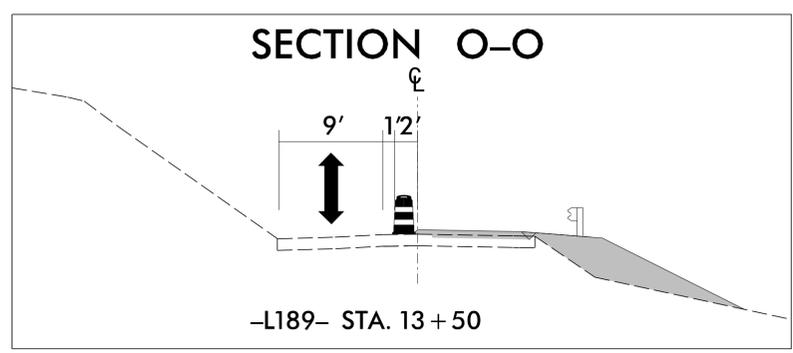
RS&H
 8521 SIX FORKS ROAD, SUITE 400
 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

APPROVED: DATE: 1/13/2026 		TEMPORARY TRAFFIC CONTROL PHASE IV DETAIL -L187-/-L188-
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



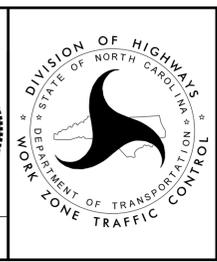
7 QUANTITY = 153 SQ FT
TEMPORARY SHORING
FROM -L189- STA. 11+10±, 5.3' LT
TO -L189- STA. 11+27±, 9.6' LT

8 QUANTITY = 135 SQ FT
TEMPORARY SHORING
FROM -L189- STA. 11+49±, 11.2' LT
TO -L189- STA. 11+64±, 11.2' LT



RS&H 8521 SIX FORKS ROAD, SUITE 400
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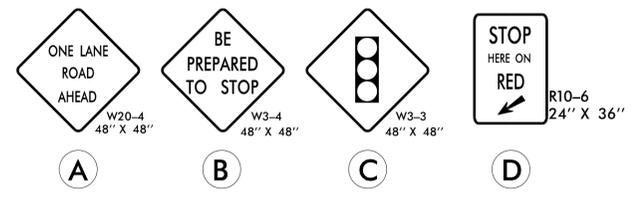
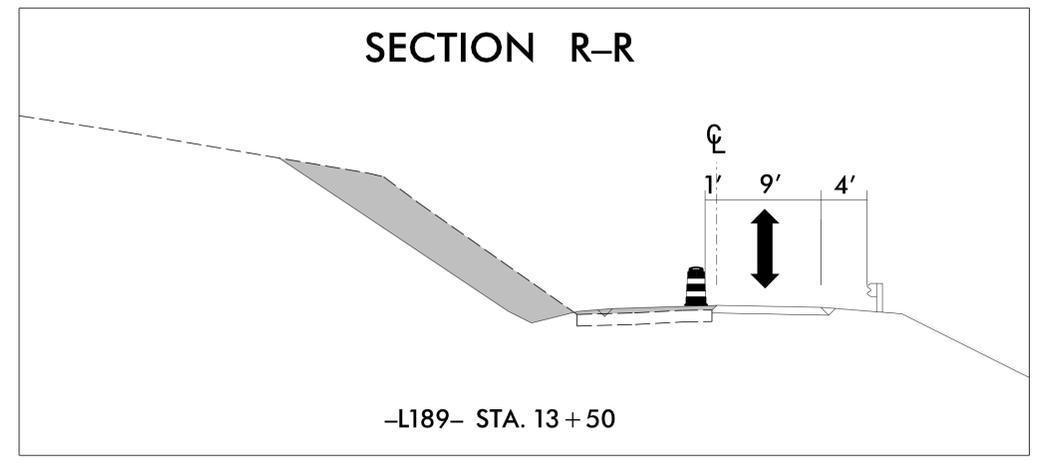
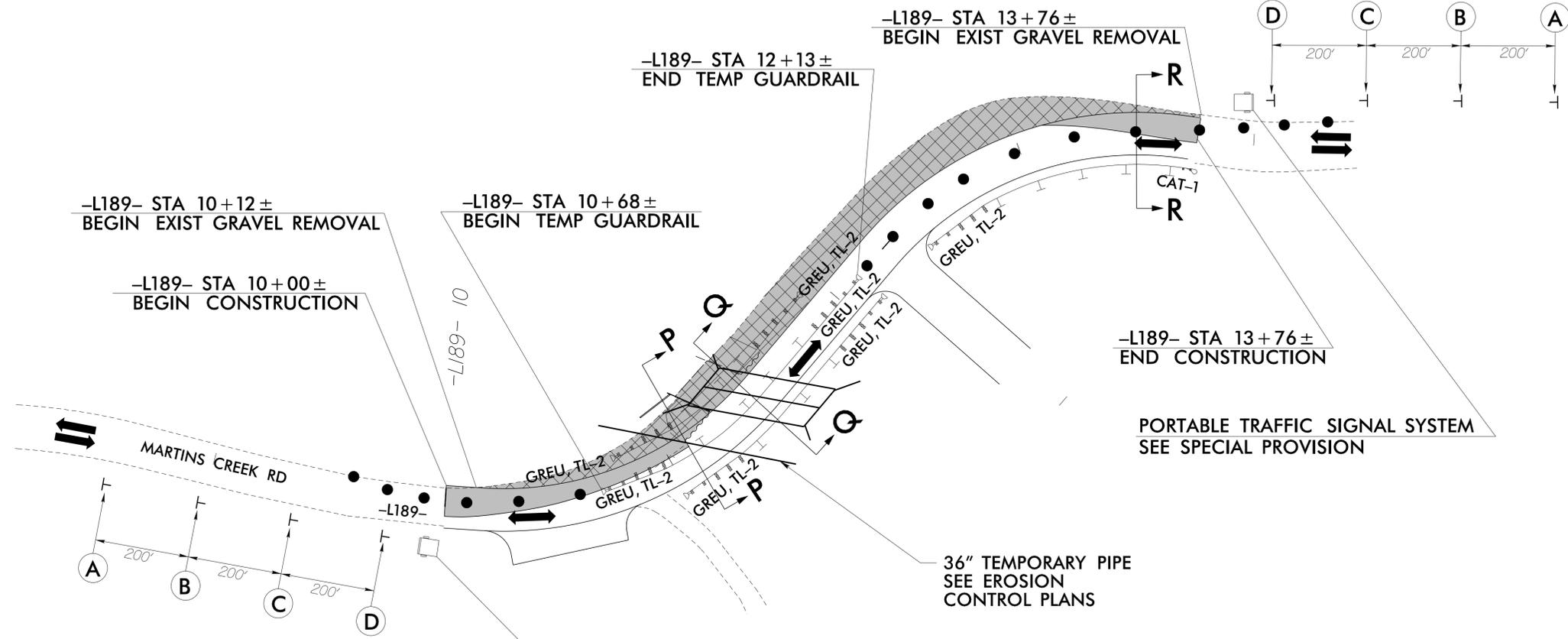
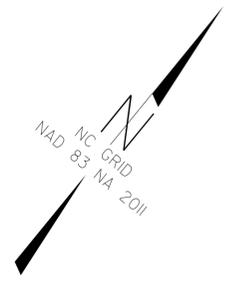
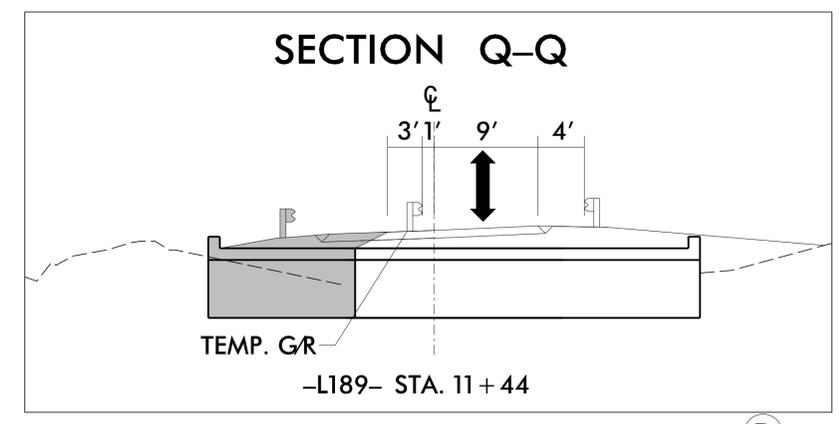
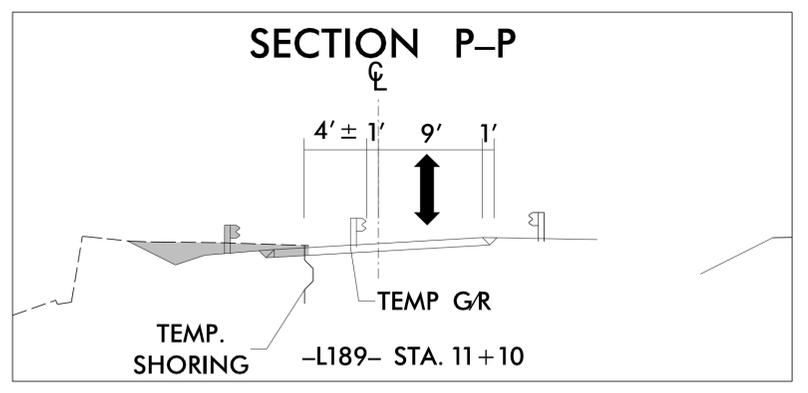
APPROVED:
DATE: 1/13/2026
SEAL 044511
STEPHEN M. KORTOVICH
REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA



TEMPORARY TRAFFIC CONTROL PHASE I DETAIL -L189-

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

1/13/2026 R:\TrafficControl\TrafficControl\173 BRIDGES_430189_TC_TMP_PhaseI.dgn User:harris



RS&H 8521 SIX FORKS ROAD, SUITE 400
 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

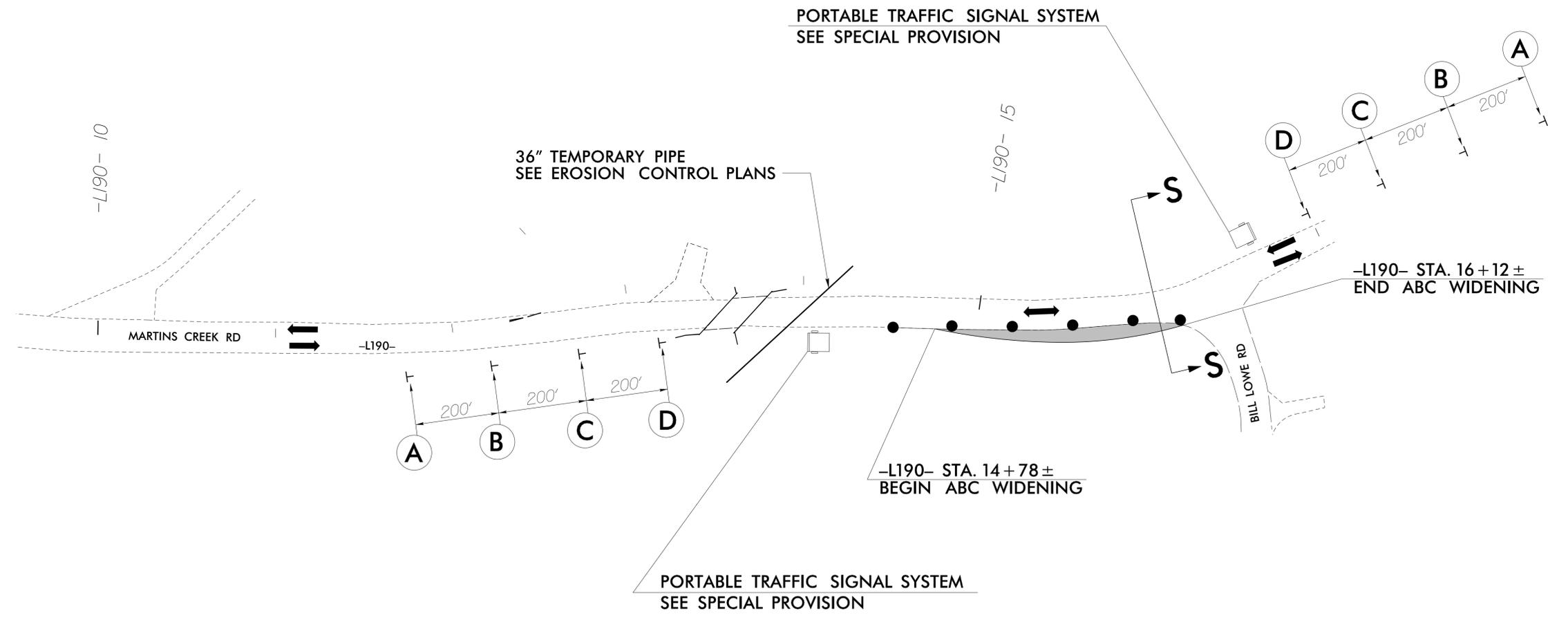
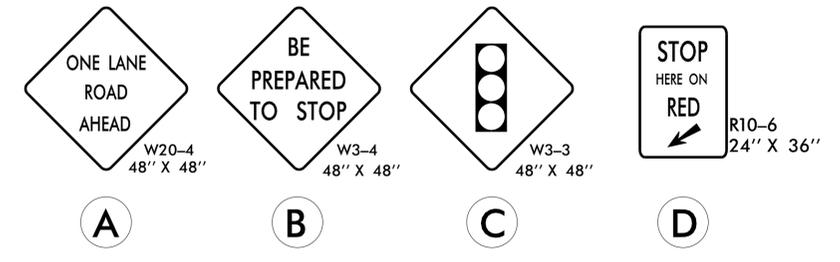
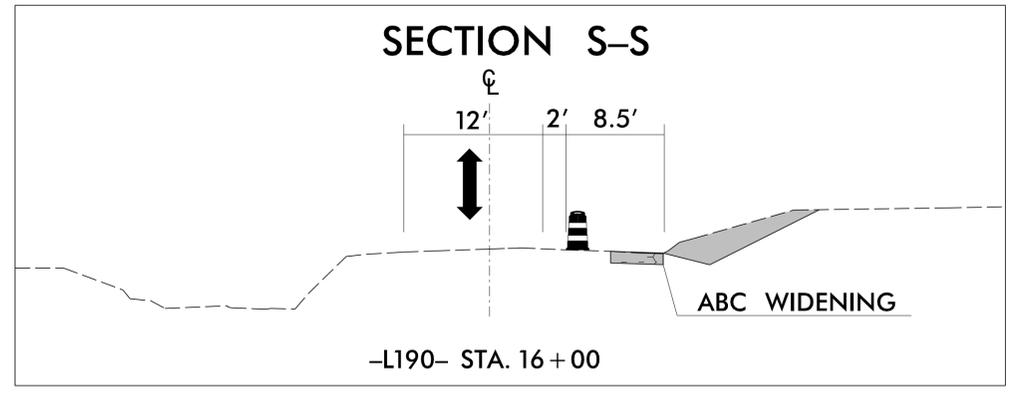
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 DATE: 1/13/2026

 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



TEMPORARY TRAFFIC CONTROL PHASE II DETAIL -L189-

1/13/2026
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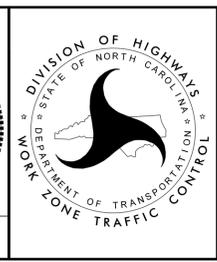
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RS&H 8521 SIX FORKS ROAD, SUITE 400
 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

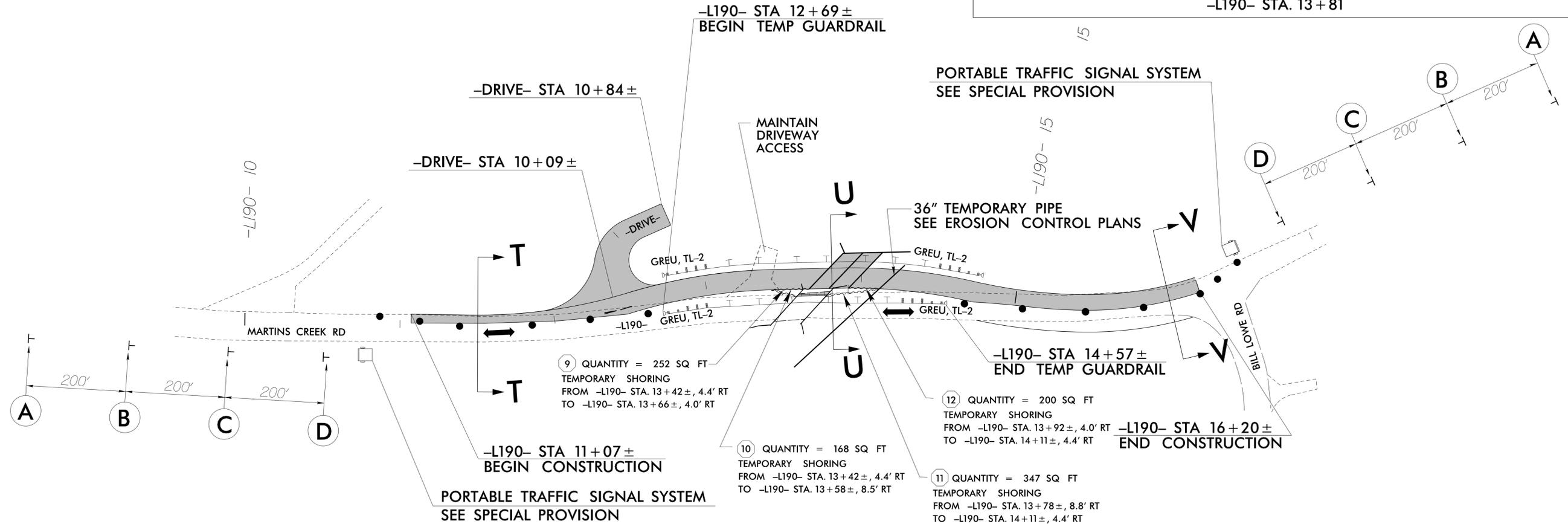
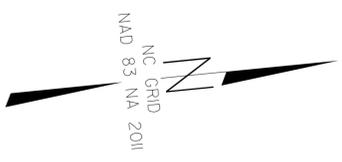
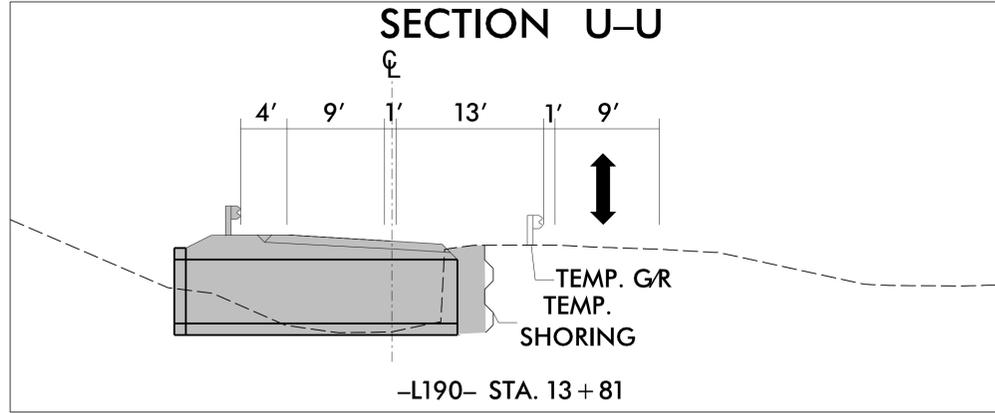
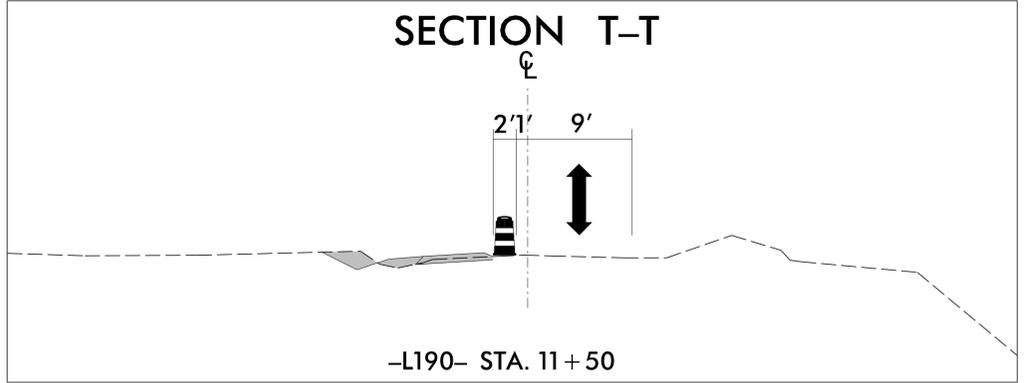
APPROVED: 
 DATE: 11/24/2025

SEAL
 044511
 SEAN M. KONTOYICH
 PROFESSIONAL ENGINEER

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



TEMPORARY TRAFFIC CONTROL PHASE I DETAIL -L190-

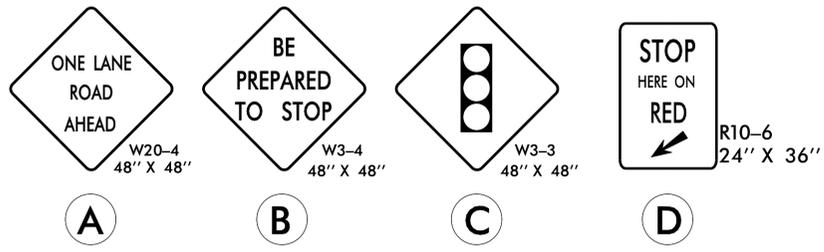
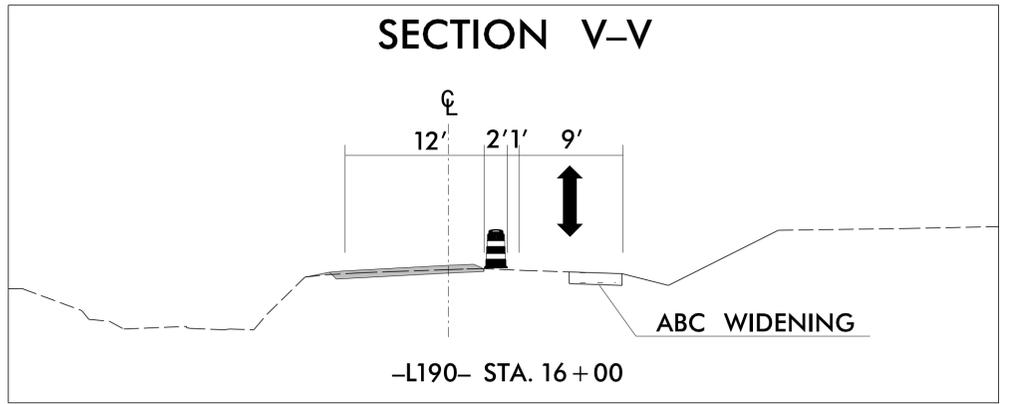


9 QUANTITY = 252 SQ FT
TEMPORARY SHORING
FROM -L190- STA. 13+42±, 4.4' RT
TO -L190- STA. 13+66±, 4.0' RT

10 QUANTITY = 168 SQ FT
TEMPORARY SHORING
FROM -L190- STA. 13+42±, 4.4' RT
TO -L190- STA. 13+58±, 8.5' RT

12 QUANTITY = 200 SQ FT
TEMPORARY SHORING
FROM -L190- STA. 13+92±, 4.0' RT
TO -L190- STA. 14+11±, 4.4' RT

11 QUANTITY = 347 SQ FT
TEMPORARY SHORING
FROM -L190- STA. 13+78±, 8.8' RT
TO -L190- STA. 14+11±, 4.4' RT



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NC FIRM LICENSE No: F-0493

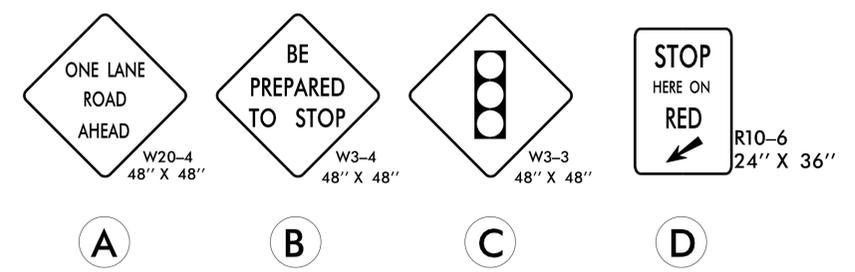
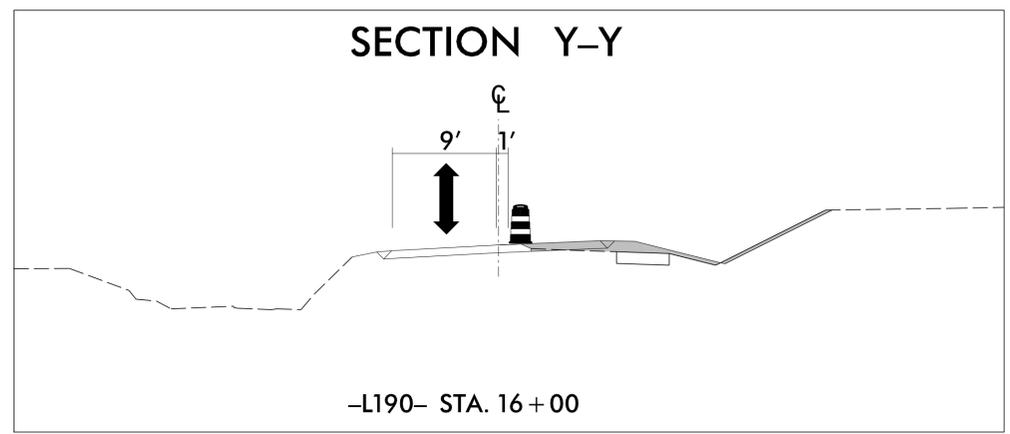
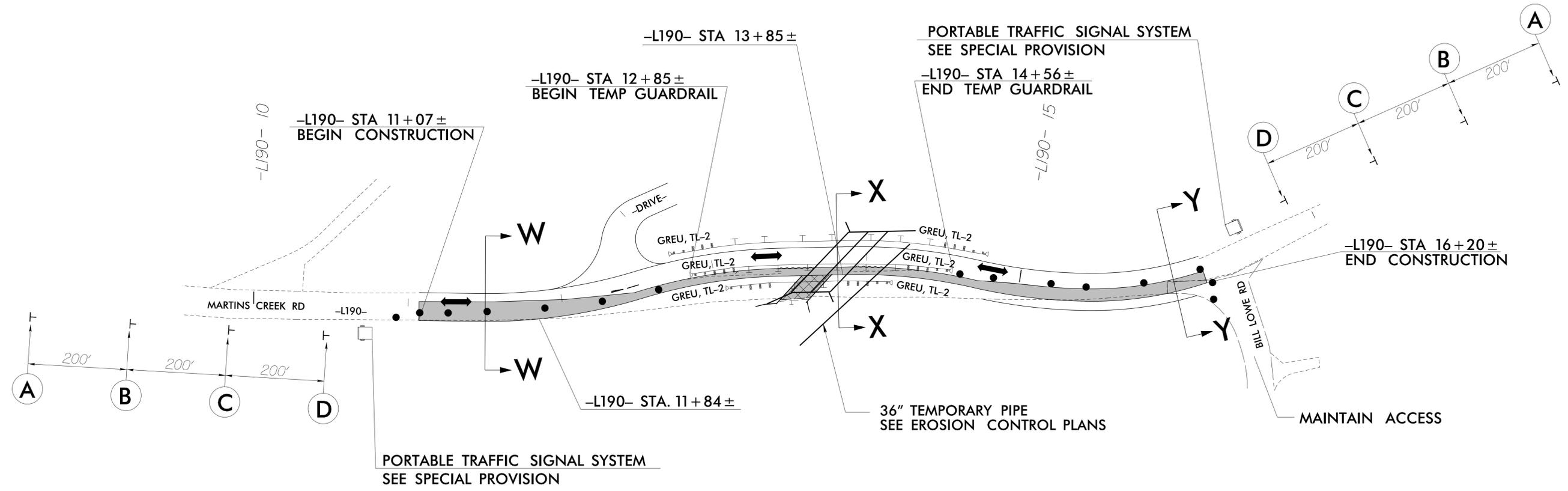
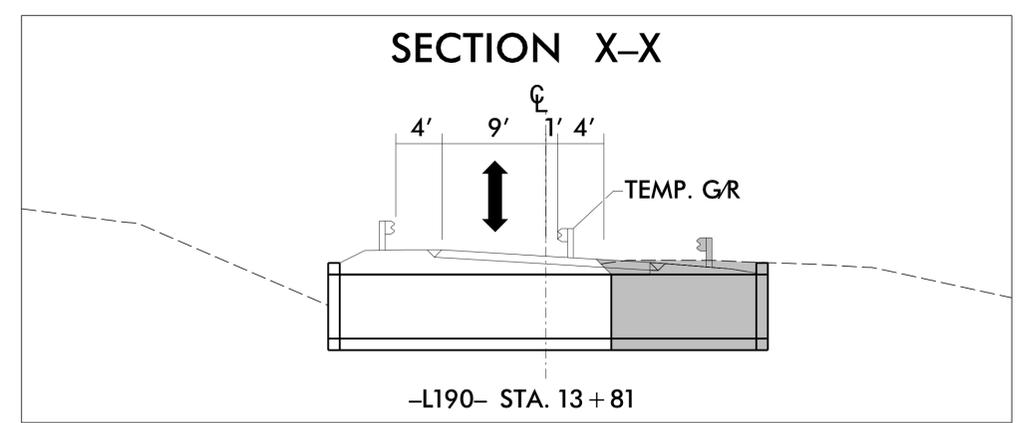
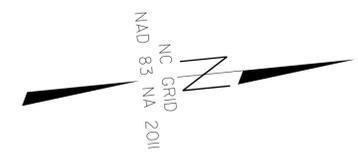
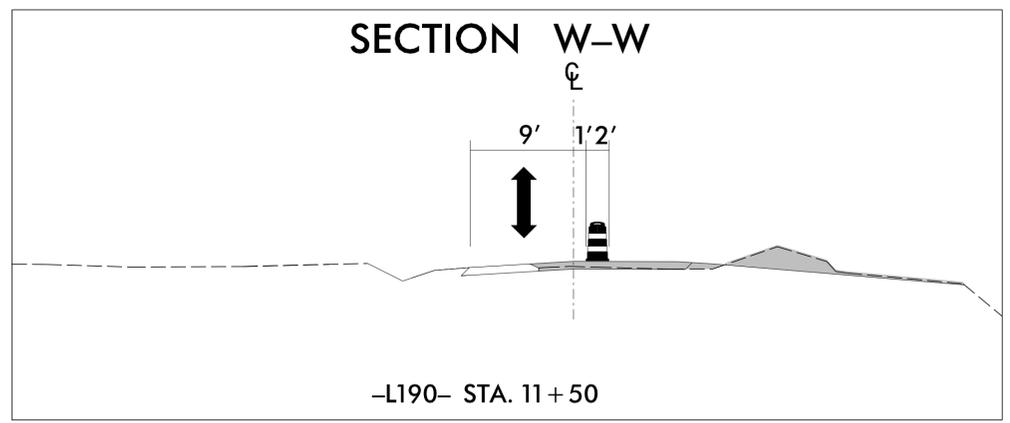
APPROVED: 
DATE: 11/24/2025

SEAL 044511
SEAN M. KOTTOUCH
PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

TEMPORARY TRAFFIC CONTROL PHASE II DETAIL -L190-

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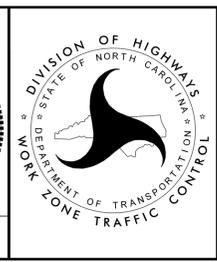


RS&H 8521 SIX FORKS ROAD, SUITE 400
 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

APPROVED: *[Signature]*
 DATE: 11/24/2025

SEAL
 044511
 M. KONTOLYICH
 PROFESSIONAL ENGINEER

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**



**TEMPORARY TRAFFIC CONTROL
 PHASE III DETAIL
 -L190-**

8/7/2025
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TIP NO.	SHEET NO.
BP14.R002	PMP-1
APPROVED: 	
DATE: 2/17/2026	
SEAL	
	
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**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
HAYWOOD COUNTY**

**LOCATION: CULVERTS 430187, 430188, 430189 AND 430190 OVER
MARTINS CREEK ON SR 1341 (MARTINS CREEK RD)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND CULVERTS

WBS: BP14.R002

CONTRACT: DN01153

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2	-L187-/-L188- PAVEMENT MARKING DETAIL

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
MARTINS CREEK RD	PAINT	N/A
 - B) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.
 - C) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
 - D) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
 - E) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

PAVEMENT MARKING SCHEDULE

P1	WHITE EDGELINE	PAINT (4")
P5	2 FT. -6 FT/SP WHITE MINISKIP	PAINT (4")
P13	YELLOW DOUBLE CENTER	PAINT (4")

PLAN SUBMITTED TO: NCDOT DIVISION 14
ZACH SHULER, PE BRIDGE PROGRAM MANAGER

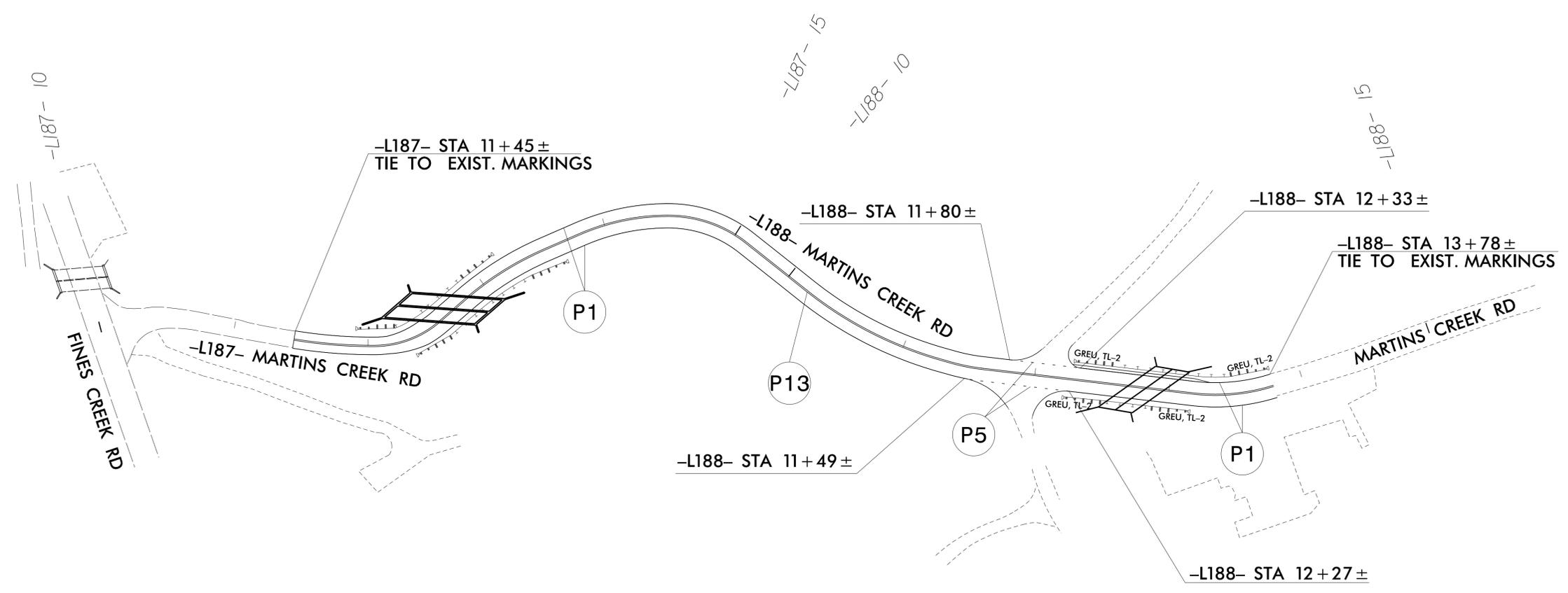


PLAN PREPARED BY: RS&H
SEAN KORTOVICH, PE PROJECT ENGINEER
REBECCA WRIGHT, PE PROJECT DESIGNER

RS&H

8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

TIP NO.	SHEET NO.
BP14.R002	PMP-2
APPROVED: 	
DATE: 11/24/2025	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



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RS&H 8521 SIX FORKS ROAD, SUITE 400
 RALEIGH, NC 27615
 NC FIRM LICENSE No: F-0493

PAVEMENT MARKING DETAIL

09.08/2019

WBS: BP14.R002

CONTRACT: DN01153

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

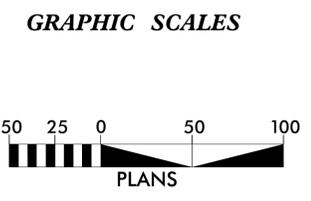
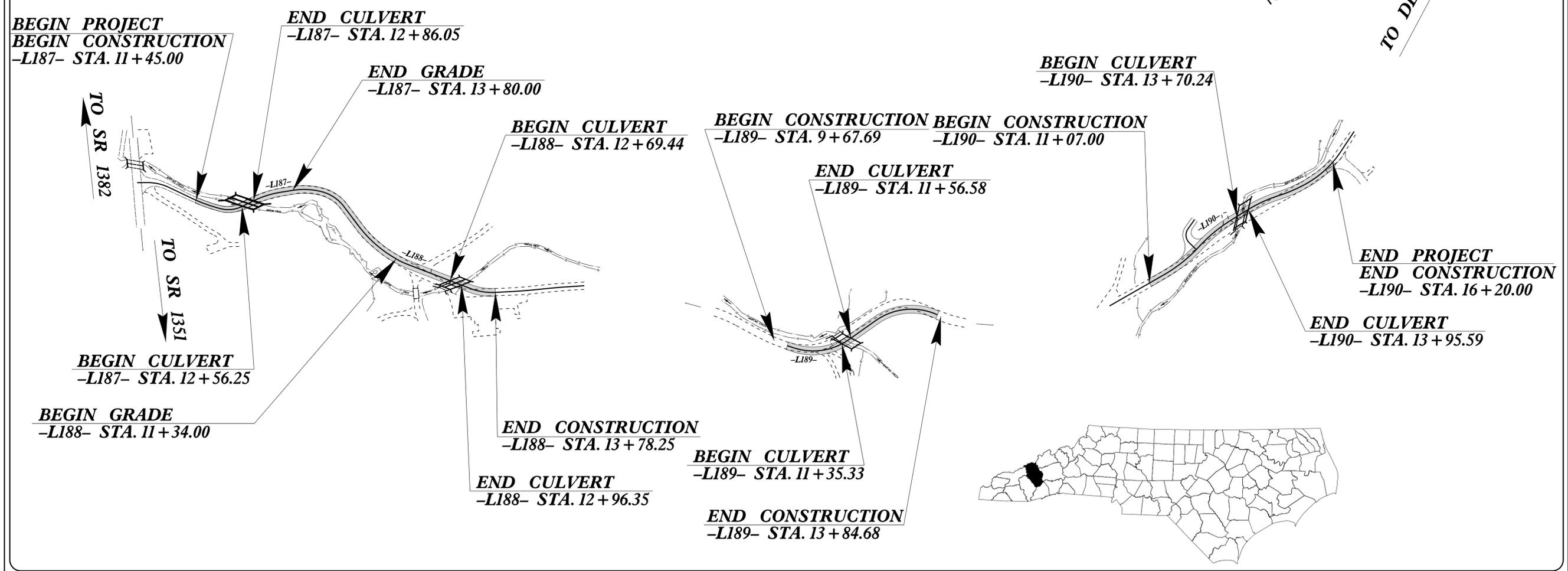
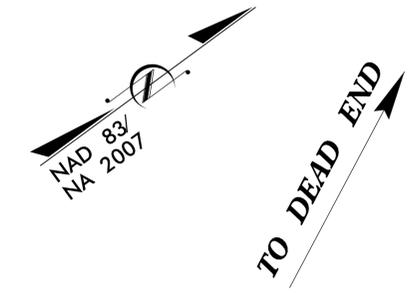
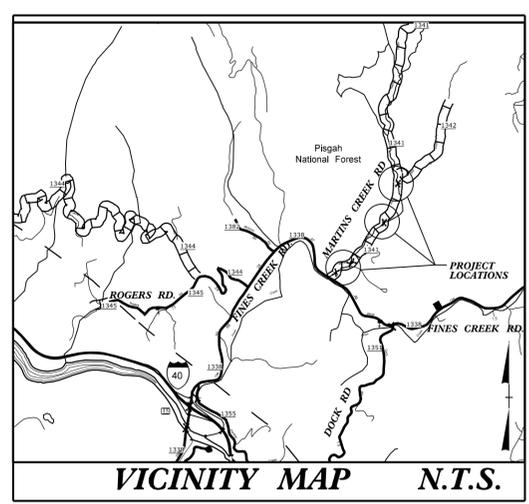
PROJECT REFERENCE NO.	SHEET NO.
BP14.R002	UO-1

**UTILITIES BY OTHERS PLANS
HAYWOOD COUNTY**

LOCATION: CULVERTS 430188, 430189 AND 430190 OVER
MARTINS CREEK ON SR 1341 (MARTINS CREEK RD)

TYPE OF WORK: POWER (DISTRIBUTION) AND COMMUNICATIONS

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET IS DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-5	UBO PLAN SHEETS

- UTILITY OWNERS ON PROJECT
- (1) POWER - HAYWOOD EMC
 - (2) COMMUNICATIONS - AT&T
 - (3) COMMUNICATIONS - SKYRUNNER
 - (4) COMMUNICATIONS - SPECTRUM

PREPARED IN THE OFFICE OF:

Freddie Bunn UTILITY PROJECT MANAGER
Sean Kortovich, PE PROJECT UTILITY COORDINATOR

DIVISION OF HIGHWAYS
DIVISION 14
DIV ADDRESS
253 Webster Rd
Sylva, NC 28779-9621

Bob Golding DIVISION UTILITY ENGINEER

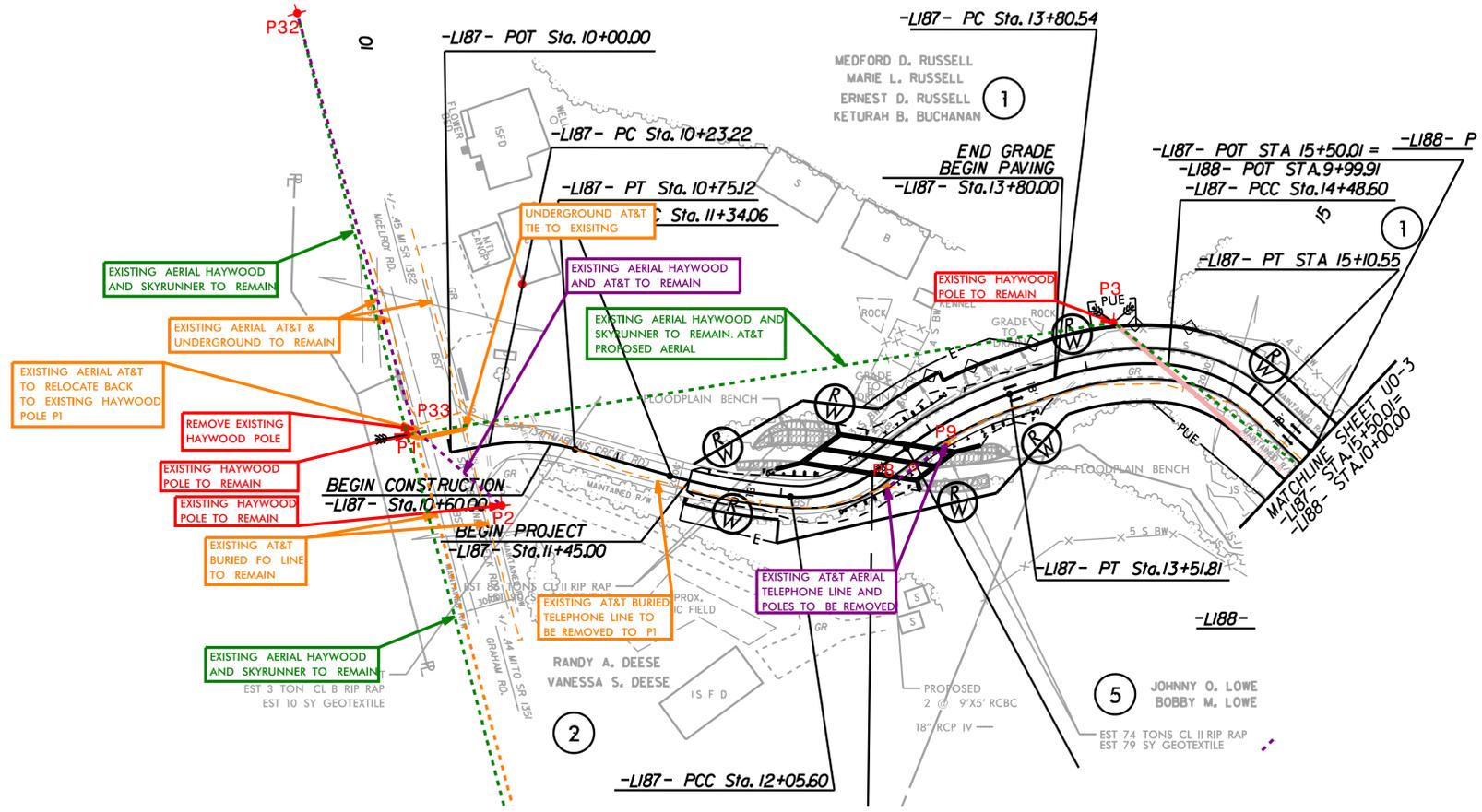
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Harris

CULVERT NO. 430187

PROJECT REFERENCE NO.	SHEET NO.
BP14.R002	UO-02
THIS SHEET CORRESPONDS TO RDY- 4	

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

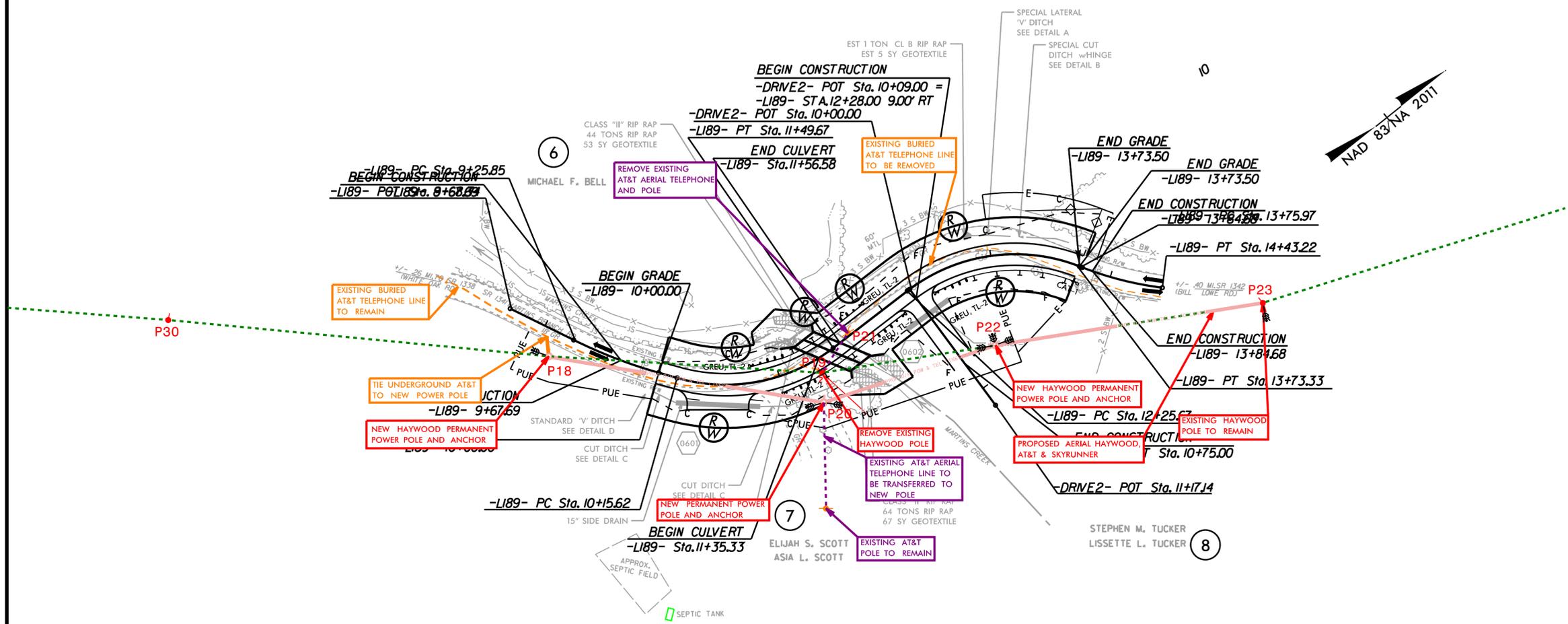


CULVERT NO. 430189

PROJECT REFERENCE NO.	SHEET NO.
BP14.R002	UO-04
THIS SHEET CORRESPONDS TO RDY- 6	

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.



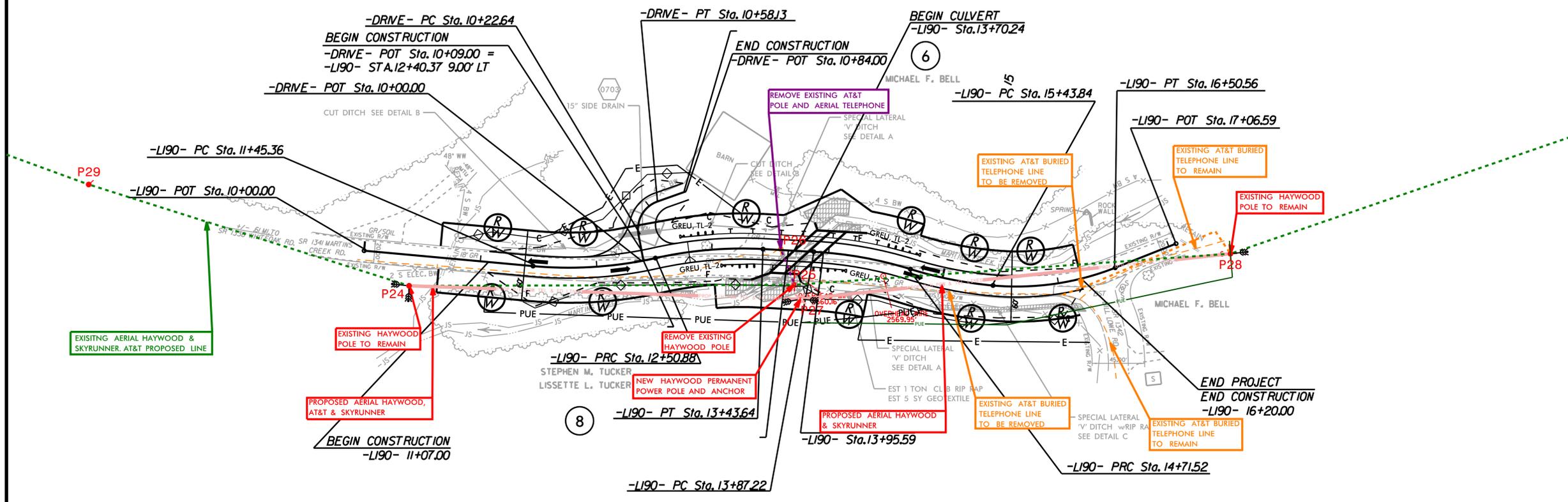
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BP14.R002	UO-05
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UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

-DRIVE- CURVE DATA
 PI Sta 10+44.12
 $\Delta = 81^{\circ} 19' 22.6"$ (RT)
 $D = 229' 10" 59.2"$
 $L = 35.48'$
 $T = 21.47'$
 $R = 25.00'$



5/14/99

12/11/2024 BRIDGES_UO-5.dgn