STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO. SHEET NO. R-2710TCP-1

PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

WATAUGA COUNTY

[ROADWAY STANDARD DRAWINGS]

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT)

TEMPORARY PAVEMENT MARKING SCHEDULE

SYMBOL DESCRIPTION

> TEMPORARY PAVEMENT MARKINGS PAINT(4")

WHÌTE EDGELINE YELLOW DOUBLE CENTER

PAINT(24") WHITE STOPBAR

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, TEMPORARY MARKING SCHEDULE, AND INDEX OF SHEETS
TCP-2	PROJECT NOTES
TCP-2A	TEMPORARY SHORING DATA
TCP-2B	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TCP-3	PHASING
TCP-3A	PROJECT OVERVIEW
TCP-4 THRU 5	SITE 1 DETAIL
TCP-6	OFFSITE DETOUR
TCP-7	SITE 2 DETAIL
TCP-8	SITE 3 DETAIL

SITE 4 DETAIL

TCP-10 THRU 11 SITE 5 DETAIL

TCP-12 THRU 15 SITE 6 DETAIL

TCP-9

TCP-16

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

PROPOSED PVMT. ----- EXIST. PVMT.

WORK AREA

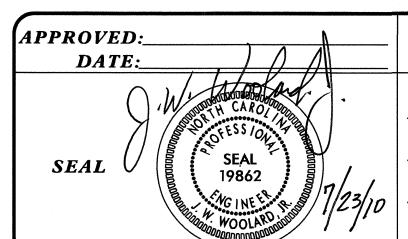
REMOVAL OF EXISTING PAVEMENT

TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

DRUM

- STATIONARY SIGN



PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT

J. S. BOURNE, P.E. TRAFFIC CONTROL ENGINEER

G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER

J. W. WOOLARD, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER

D. A. HAYES, E.I. TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN

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 UNDESIRED 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.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS (APPLIES TO ALL SITES UNLESS OTHERWISE NOTED IN THE PHASING ON SHEET TCP-3):

ROAD NAME

DAY AND TIME RESTRICTIONS

1. NC 194

MONDAY THRU FRIDAY 6:00 A.M.-8:00 A.M. 2:30 P.M.-4:00 P.M.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

1. NC 194

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR THE BLOOD, SWEAT, AND GEARS BIKE RACE HELD EVERY THIRD SATURDAY IN JUNE BETWEEN THE HOURS OF 12:00 A.M. THE DAY OF THE RACE AND 12:00 A.M. THE NEXT DAY OF THE RACE.
- 3. FOR THE VALLEY COUNTRY FAIR HELD EVERY THIRD SATURDAY IN OCTOBER BETWEEN THE HOURS OF 12:00 A.M. THE DAY OF THE FAIR AND 12:00 A.M. THE NEXT DAY OF THE FAIR.
- 4. FOR THE WOOLEY WORM FESTIVAL HELD EVERY THIRD SATURDAY IN OCTOBER BETWEEN THE HOURS OF 12:00 A.M. THE DAY OF THE FESTIVAL AND 12:00 A.M. THE NEXT DAY OF THE FESTIVAL

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN 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.
- E) 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.
- F) 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.
- G) 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.
- H) DO NOT INSTALL MORE THAN 1 MILE OF LANE CLOSURE ON MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON NC 194.
- J) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

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.

GENERAL NOTES

L) 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) 200 FT in ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- N) 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.
- O) PROVIDE PERMANENT SIGNING.
- P) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS AND PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

AND COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

- R) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- S) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

T) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL 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 TRAFFIC CONTROL 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 TRAFFIC CONTROL 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.

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 IMPACT 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:

POSTED SPEED LIMIT 40 OR LESS 45 - 50

MINIMUM OFFSET 15 FT 20 FT

25 FT

30 FT

55 60 MPH or HIGHER

TRAFFIC CONTROL DEVICES

- V) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- W) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- X) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME

MARKING

PAINT

MARKER

1. ENTIRE PROJECT

RAISED

- Z) 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.
- AA) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- BB) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

TEMPORARY / FINAL SIGNALS

CC) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.

MISCELLANEOUS

DD) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS 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) 200 FT AND 200 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

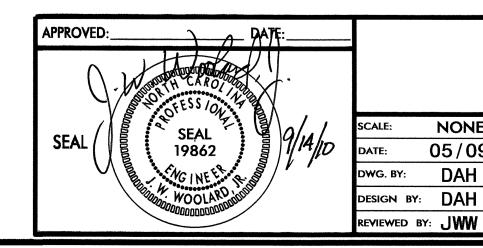
LOCAL NOTES

LOCAL NOTE 1

CLOSE NC 194 TO BOTH NORTHBOUND AND SOUTHBOUND TRAFFIC AND ANY INTERSECTING -Y- LINES DURING ALL BLASTING OPERATIONS AND THE REMOVAL OF DEBRIS FROM THE ROADWAY CREATED BY THE BLASTING. THE DAYS AND TIMES THAT NC 194 MAY BE CLOSED FOR BLASTING OPERATIONS ARE LIMITED TO TUESDAYS AND THURSDAYS BETWEEN THE HOURS OF 12:00 P.M. AND 2:00 P.M. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.) BLASTING OPERATIONS MAY BE CONDUCTED OUTSIDE THIS TIME FRAME ONLY IF THE SPECIFIC BLASTING OPERATION WILL IN NO WAY IMPACT TRAFFIC ON NC 194 (-L-) OR ANY INTERSECTING -Y- LINE AS DIRECTED BY THE ENGINEER.

PERFORM BLASTING OPERATIONS IN THE FOLLOWING SEQUENCE:

- A. NOTIFY THE ENGINEER 10 BUSINESS DAYS PRIOR TO THE FIRST BLASTING OPERATION ON THE PROJECT. NOTIFY THE ENGINEER 2 BUSINESS DAYS PRIOR TO SUBSEQUENT BLASTING OPERATIONS.
- B. ACTIVATE CHANGEABLE MESSAGE SIGNS ALONG THE NC 194 TRUCK ROUTE AS DIRECTED BY THE ENGINEER.
- C. CLOSE NC 194 AND INTERSECTING -Y- LINES WITHIN THE BLASTING ZONE TO TRAFFIC IN ACCORDANCE WITH RSD 1101.03 AND 1101.06.
- D. PERFORM BLASTING OPERATION AND DEBRIS REMOVAL.
 MULTIPLE BLASTING OPERATIONS AT MULTIPLE LOCATIONS
 ARE PERMITTED PROVIDED NC 194 (-L-) AND ANY INTERSECTING
 -Y- LINES ARE REOPENED TO TRAFFIC WITHIN THE SAME TIME
 FRAME AS DESCIBED ABOVE.
- E. OPEN NC 194 TO TRAFFIC.
- F. IMMEDIATELY DEACTIVATE THE CHANGEABLE MESSAGE SIGNS.



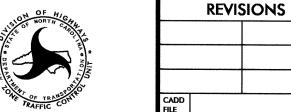
PROJECT NOTES

NONE

05/09

DAH

DAH



O 13128 SROOT ON PROJNTIPProjects-RNR2710NTraffic\TrafficControNtcpNR-2710_TC_TCP_TCP_02_

PROJ. REFERENCE NO.	SHEET NO.
R-2710	TOD 04
	TCP-2A

LOCATION / SHORING TYPE	FROM STATION	TO STATION	OFFSET RANGE
#1 RETAINING WALL	-L- 40+06	-L- 42+25	5' MIN. FROM NB EDGELINE
#2 RETAINING WALL	-L- 44+50	-L- 44+75	5' MIN. FROM NB EDGELINE
#3 RETAINING WALL	-L- 47+00	-L- 48+25	5' MIN. FROM NB EDGELINE
#4 RETAINING WALL	-L- 134+50	-L- 136+00	5' MIN. FROM NB EDGELINE
#5 RETAINING WALL	-L- 137+00	-L- 138+00	5' MIN. FROM NB EDGELINE
#6 RETAINING WALL	-L- 174+00	-L- 175+25	5' MIN. FROM NB EDGELINE
#7 RETAINING WALL	-L- 177+00	-L- 179+00	5' MIN. FROM NB EDGELINE
#8 RETAINING WALL	-L- 185+00	-L- 186+82	5' MIN. FROM NB EDGELINE
#9 RETAINING WALL	-L- 187+25	-L- 188+75	5' MIN. FROM NB EDGELINE

THE FOLLOWING NOTES APPLY TO EACH OF THE ABOVE REFERENCED SHORING LOCATIONS:

DO NOT USE A TEMPORARY MSE WALL AT THE DO NOT USE STANDARD TEMPORARY SHORING. LOCATIONS LISTED ABOVE.

THE SHORING DESIGNER SHALL CONSULT WITH THE RETAINING WALL DESIGNER FOR LOCATIONS WHERE PERMANENT SOIL NAIL SHORING WILL BE INSTALLED FOR CONSTRUCTION OF THE SMSE WALL SYSTEM. NO ADDITIONAL COMPENSATION WILL BE MADE FOR LOCATIONS WHERE PERMANENT SOIL NAIL SHORING IS USED FOR MSE WALL CONSTRUCTION AND TEMPORARY SHORING IS NOT REQUIRED. THE FINAL DETERMINATION WILL BE MADE BY THE ENGINEER.

WHEN USING CONTRACTOR DESIGNED SHORING, DESIGN SHORING FOR THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS: UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\mathscr{I}=120$ PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma = 130$ PCF FRICTION ANGLE, / = 30 DEGREES COHESION, c = 0 PSF

FOR CONTRACTOR DESIGNED SHORING, SEE ANCHORED TEMPORARY SHORING OR TEMPORARY SOIL NAIL SHORING SPECIAL PROVISIONS.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

ESTIMATED QUANTITIES

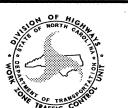
TEMPORARY SHORING FOR THE MAINTENANCE OF TRAFFIC

2000 SQ.FT.

APPROVED: Soluk DATE: 7/21/10

TEMPORARY SHORING DATA

NONE 6/10 DWG. BY: JTW DESIGN BY: SCC REVIEWED BY: SCC



REVISIONS

PROJ. REFERENCE NO.	SHEET NO.
R-2710	TCP-3
	107-3

PHASE I

SITE 1

- STEP 1) INSTALL ADVANCE WARNING SIGNING NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION (SEE SHEET TCP-16).
- NOTE: WHENEVER THE WORK OF SITE 1 STEPS 2 & 3 REQUIRES A BLASTING OPERATION, SEE LOCAL NOTE 1 ON SHEET TCP-2, INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 2) USING RSD 1101.02, PLACE TRAFFIC ONTO A ONE LANE, TWO WAY PATTERN, INSTALL PORTABLE CONCRETE BARRIER (PCB) (ANCHORED), TEMPORARY PAVEMENT MARKINGS, TEMPORARY SIGNALS, AND CONSTRUCT -L- AND RETAINING WALLS AS SHOWN ON TCP-4 AND 5.
- NOTE: SITE 1, STEP 3 SHALL BE COMPLETED SIMULTANEOUSLY WITH SITE 2, STEP 3.
- NOTE: GENERAL NOTE 'A' FOUND ON TCP-2 DOES NOT APPLY TO SITE 1, STEP 3.
- NOTE: SITE 1, STEP 3 SHALL BE COMPLETED IN 120 CONSECUTIVE DAYS. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.
- STEP 3) INSTALL OFFSITE DETOUR SIGNING (SEE SHEET TCP-6), OFFSITE -L-TRAFFIC ALONG SR 1131 (PIGEON ROOST RD), AND COMPLETE CONSTRUCTION OF -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, PLACE TEMPORARY PAVEMENT MARKINGS, REMOVE OFFSITE DETOUR AND OPEN -L- TO TRAFFIC. REMOVE PCB AND TEMPORARY SIGNALS.
- STEP 4) USING RSD 1101.02, WEDGE UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN).

SITE 2

- STEP 1) INSTALL ADVANCE WARNING SIGNING NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION (SEE SHEET TCP-16).
- STEP 2) USING RSD 1101.02 CONSTRUCT -L- RIGHT UP TO EXISTING EDGE AND ELEVATION. TRAFFIC SHALL RETURN TO A TWO LANE, TWO WAY PATTERN AT THE END OF THE WORK DAY (SEE SHEET TCP-7).
- NOTE: SITE 2, STEP 3 SHALL BE COMPLETED SIMULTANEOUSLY WITH SITE 1 STEP 3.
- NOTE: SITE 2, STEP 3 SHALL BE COMPLETED IN 120 CONSECUTIVE DAYS. SEE SPECIAL PROVISIONS FOR LIQUIDATED DAMAGES.
- NOTE: WHENEVER THE WORK OF SITE 2 STEP 3 REQUIRES A BLASTING OPERATION, SEE LOCAL NOTE 1 ON SHEET TCP-2, INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 3) COMPLETE CONSTRUCTION OF -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, PLACE TEMPORARY PAVEMENT MARKINGS. REMOVE OFFSITE DETOUR AND OPEN -L- TO TRAFFIC. (SEE ROADWAY PLANS).
- STEP 4) USING RSD 1101.02, WEDGE UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN).

SITE 3 & 4

- STEP 1) INSTALL ADVANCE WARNING SIGNING NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION (SEE SHEET TCP-16).
- NOTE: GENERAL NOTE 'A' FOUND ON TCP-2 DOES NOT APPLY TO SITE 3 & 4. STEP 2.
- NOTE: WHENEVER THE WORK OF SITE 3 & 4, STEPS 2 & 4 REQUIRES A BLASTING OPERATION, SEE LOCAL NOTE 1 ON SHEET TCP-2. INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 2) USING RSD 1101.02, PLACE TRAFFIC IN A ONE LANE, TWO WAY PATTERN, INSTALL PORTABLE CONCRETE BARRIER (PCB) (ANCHORED). TEMPORARY PAVEMENT MARKINGS, AND TEMPORARY SIGNALS, AND CONSTRUCT -L- AND RETAINING WALLS AS SHOWN ON TCP-8 AND 9.
- STEP 3) REMOVE PCB, WEDGE -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, SHIFT TRAFFIC ONTO FINAL PATTERN, REMOVE TEMPORARY SIGNALS, AND INSTALL TEMPORARY PAVEMENT MARKINGS.
- STEP 4) USING RSD 1101.02, CONSTRUCT THE LEFT SIDE OF -L- (SHOULDER WORK) AS SHOWN ON THE ROADWAY PLANS. TRAFFIC SHALL RETURN TO A TWO WAY, TWO LANE PATTERN AT THE END OF THE WORK DAY.
- STEP 5) USING RSD 1101.02, WEDGE UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN).

SITE 5

- STEP 1) INSTALL ADVANCE WARNING SIGNING NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION (SEE SHEET TCP-16).
- NOTE: GENERAL NOTE 'A' FOUND ON TCP-2 DOES NOT APPLY TO SITE 5. STEP 2.
- NOTE: WHENEVER THE WORK OF SITE 5 STEP 2 REQUIRES A BLASTING OPERATION, SEE LOCAL NOTE 1 ON SHEET TCP-2, INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 2) USING RSD 1101.02, PLACE TRAFFIC ONTO A ONE LANE, TWO WAY PATTERN, INSTALL PORTABLE CONCRETE BARRIER (PCB) (ANCHORED), TEMPORARY PAVEMENT MARKINGS, AND TEMPORARY SIGNALS, AND CONSTRUCT -L- AND RETAINING WALLS UP TO THE EXISTING EDGE AND ELEVATION (SEE SHEET TCP-10).
- STEP 3) REMOVE PCB, REVISE TEMPORARY SIGNALS, AND USING RSD 1101.02, SHIFT TRAFFIC TO THE RIGHT MAINTAINING A ONE LANE, TWO WAY PATTERN. CONSTRUCT -L- LEFT UP TO EXISTING EDGE AND ELEVATION (SEE SHEET TCP-11 AND ROADWAY PLANS).
- STEP 4) USING RSD 1101.02, WEDGE -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE AND TEMPORARY MARKINGS. REMOVE TEMPORARY SIGNALS. MAINTAIN ACCESS TO -Y5-.
- STEP 5) USING RSD 1101.02, WEDGE UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN).

SITE 6

- STEP 1) INSTALL ADVANCE WARNING SIGNING NO MORE THAN THREE (3) DAYS PRIOR TO CONSTRUCTION (SEE SHEET TCP-16).
- NOTE: WHENEVER THE WORK OF SITE 6 STEP 2 REQUIRES A BLASTING OPERATION, SEE LOCAL NOTE 1 ON SHEET TCP-2, INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.
- STEP 2) AWAY FROM TRAFFIC, CONSTRUCT -L- FROM STA. 233+50 -L- TO STA. 237+50 -L-, -D1- FROM STA. 11+90 -D1- TO -L-, AND -D2- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE (SEE SHEET TCP-12 AND 13).
 - USING RSD 1102, CONSTRUCT -L- FROM STA. 233+04 -L- TO STA. 233+50 -L-, -L- FROM STA. 237+25 -L- TO STA. 238+50 -L-, AND -D1- FROM STA. 11+22 -D1- TO STA. 11+90 -D1- UP TO THE EXISTING EDGE AND ELEVATION (SEE SHEET TCP-12 AND 13).
- STEP 3) USING RSD 1101.02, MILL -L- (1.5") FROM STA. 232+00 TO STA. 233+10 -L-. WEDGE -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE FROM STA. 230+00 -L- TO STA. 233+50, AND FROM STA. 237+25 -L- TO STA. 238+50 -L-, AND SHIFT TRAFFIC ONTO FINAL PATTERN. INSTALL TEMPORARY PAVEMENT MARKINGS FROM STA. 230+00 -L- TO STA. 238+50 -L- (SEE SHEET 14 AND 15).
- STEP 4) AWAY FROM TRAFFIC, COMPLETE CONSTRUCTION OF -D1- FROM STA. 11+22 -D1- TO -L- AND CONSTRUCT -D1- FROM STA. 10+34 -D1-TO STA. 11+22 -D1- (SEE TCP-14).
- STEP 5) USING RSD 1101.02, WEDGE UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE. TEMPORARY PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN).

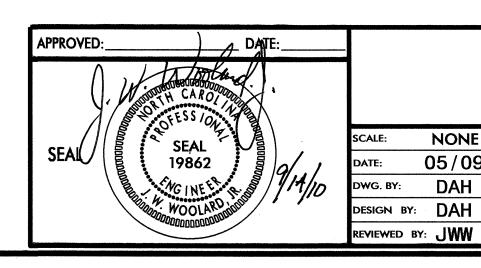
SITE 7 (-L- NC 194)

STEP 1) USING RSD 1101.02, MILL AND RESURFACE -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN.

PHASE II

STEP 1) USING RSD 1101.02, INSTALL THE FINAL LIFT OF SURFACE COURSE. FINAL PAVEMENT MARKINGS AND MARKERS (REFER TO FINAL PAVEMENT MARKING PLAN), AND REMOVE ALL TRAFFIC CONTROL DEVICES AND SIGNING.

NOTE: THIS PROJECT IS BROKEN INTO SITES. WORK CAN BE PERFORMED ON ANY SITE SIMULTANEOUSLY, BUT SHALL PROGRESS THROUGH THE STEP REQUIREMENTS IN EACH SITE.



PHASING

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RAFFIC CO

NONE

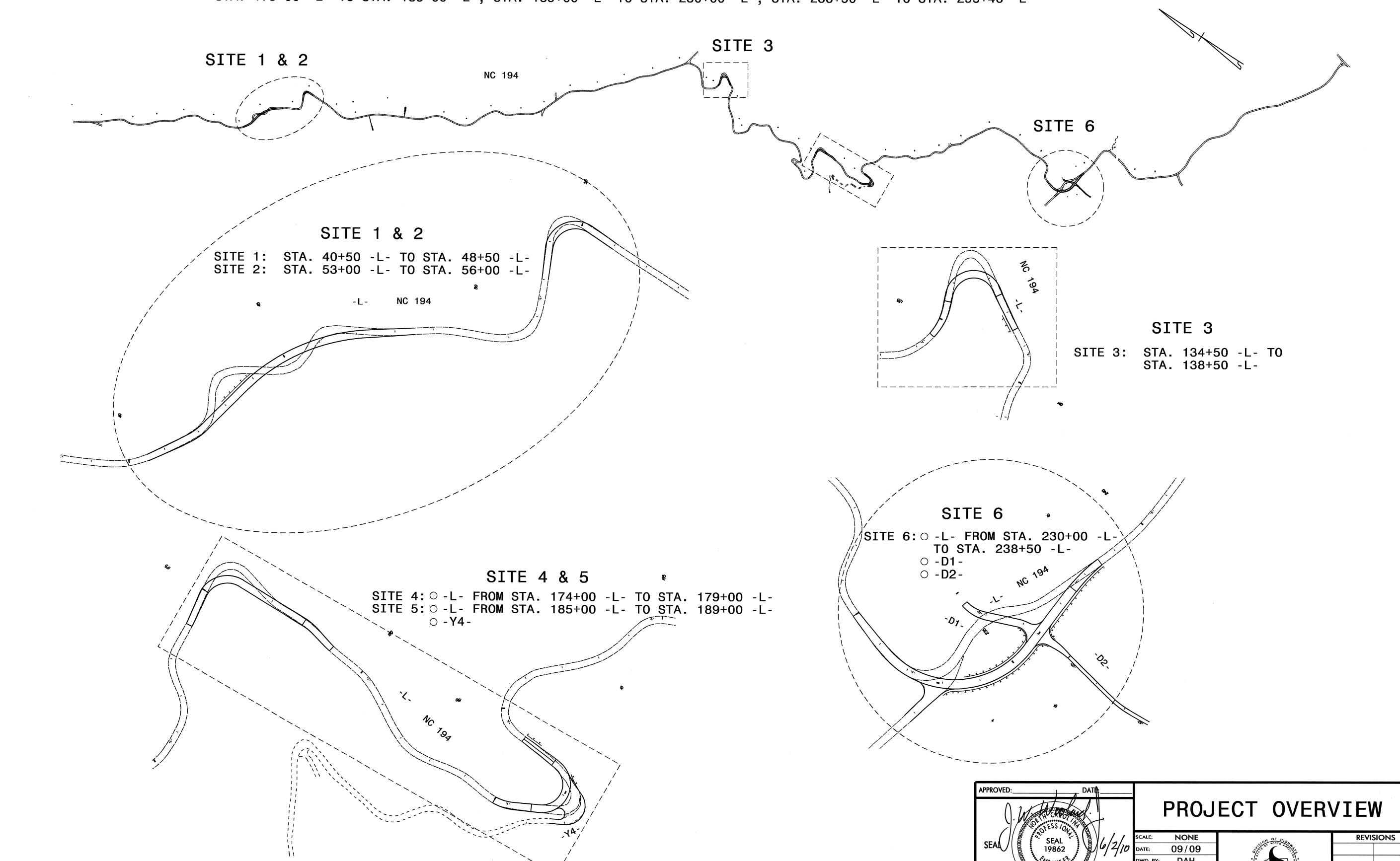
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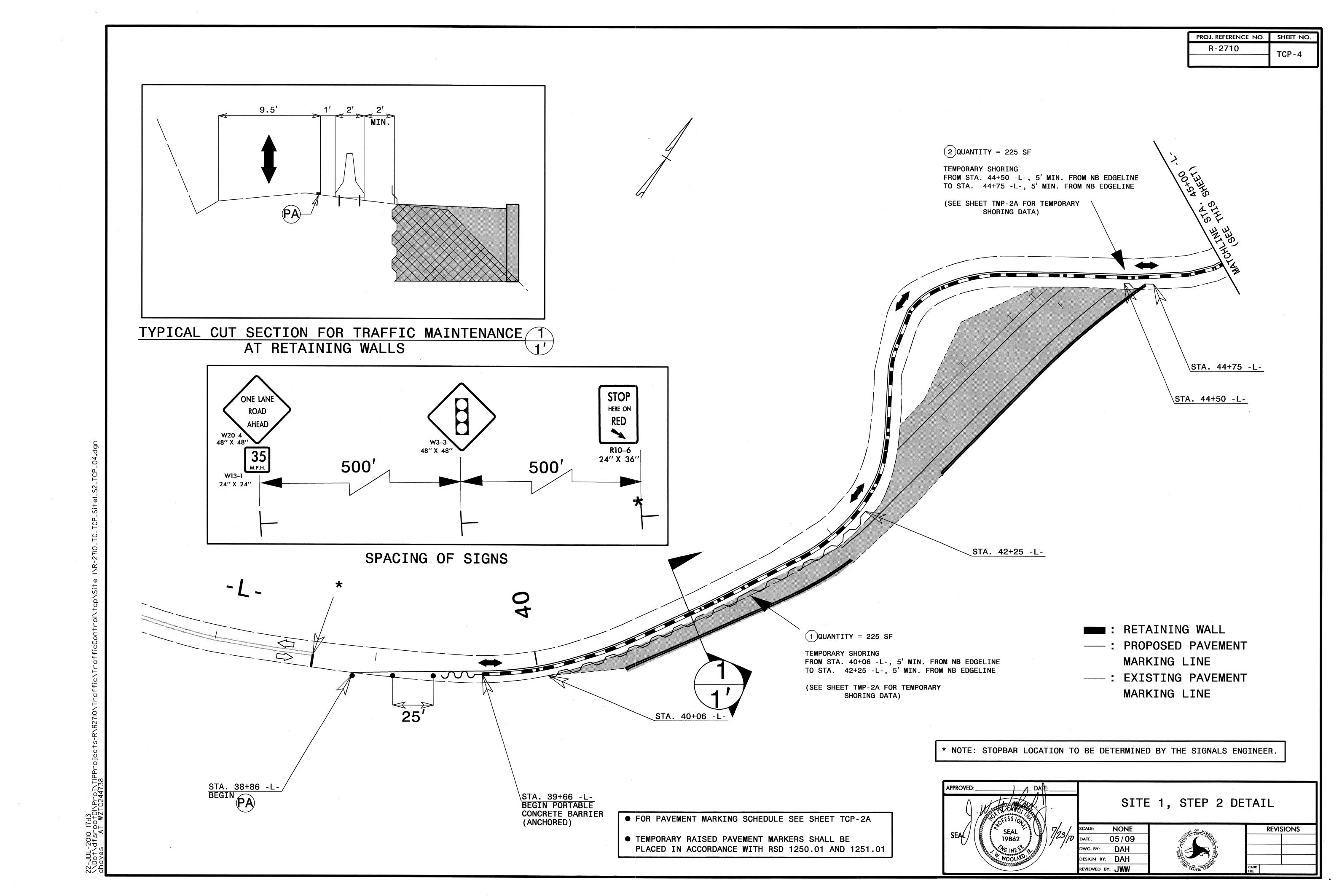
REVISIONS

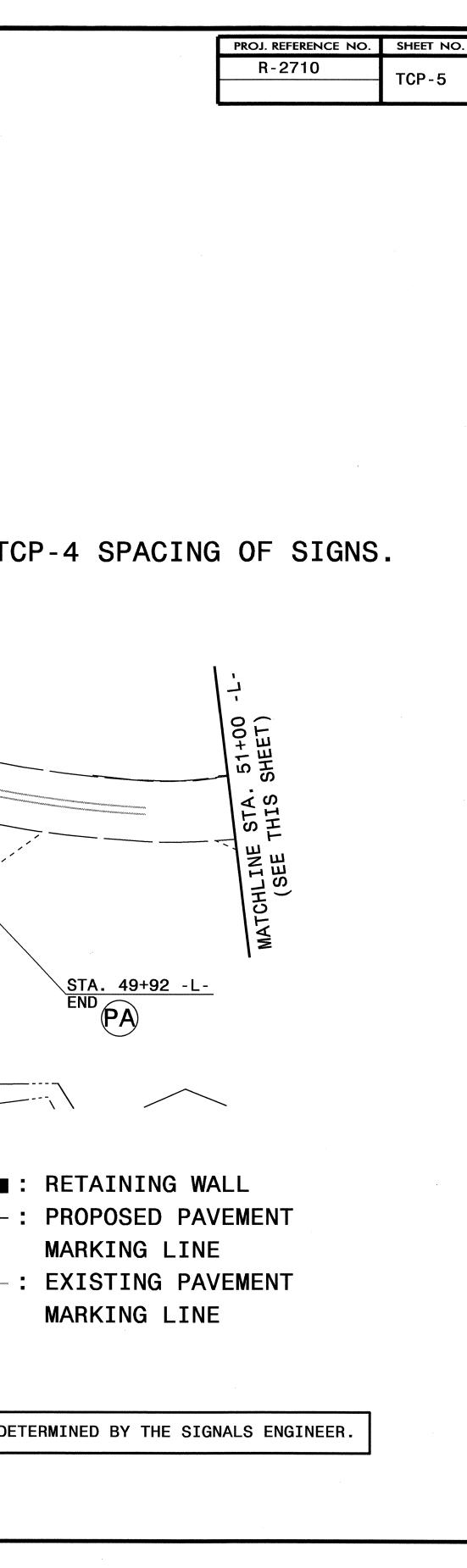
PROJ. REFERENCE NO. SHEET NO. R-2710 TCP-3A

SITE 7: RESURFACING- STA. 10+00 -1- TO STA. 40+50 -L-, STA. 48+50 -L- TO STA. 53+00 -L-, STA. 56+00 -L- TO STA. 134+50 -L-, STA. 138+50 -L- TO STA. 174+00 -L-, STA. 179+00 -L- TO STA. 185+00 -L-, STA. 189+00 -L- TO STA. 230+00 -L-, STA. 238+50 -L- TO STA. 295+46 -L-



REVIEWED BY: JWW





SITE 1, STEP 2 DETAIL

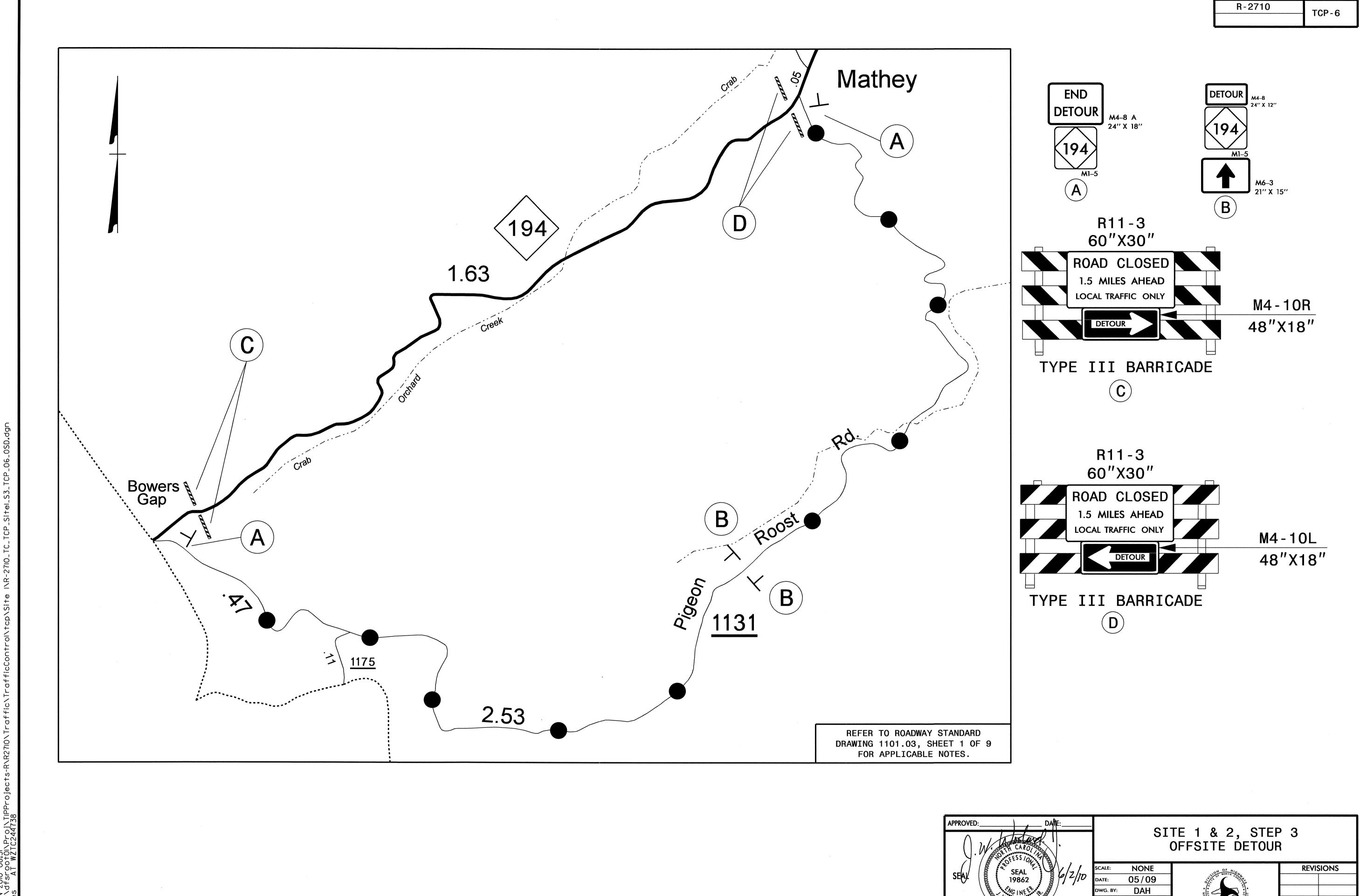
NONE 05/09 REVISIONS

STA. 49+00 -L-SEE SHEET TCP-4 SPACING OF SIGNS. STA. 47+00 -L-STA. 48+25 -L-STA. 49+03 -L-STA. 45+68 -L-STA. 48+75 -L-END PORTABLE CONCRETE BARRIER (ANCHORED) 3 QUANTITY = 250 SF TEMPORARY SHORING
FROM STA. 47+00 -L-, 5' MIN. FROM NB EDGELINE
TO STA. 48+25 -L-, 5' MIN. FROM NB EDGELINE (SEE SHEET TMP-2A FOR TEMPORARY SHORING DATA) : RETAINING WALL ---: PROPOSED PAVEMENT : EXISTING PAVEMENT * NOTE: STOPBAR LOCATION TO BE DETERMINED BY THE SIGNALS ENGINEER. SEE SHEET TCP-4 FOR TYPICAL CUT-SECTION 1-1'.

● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01

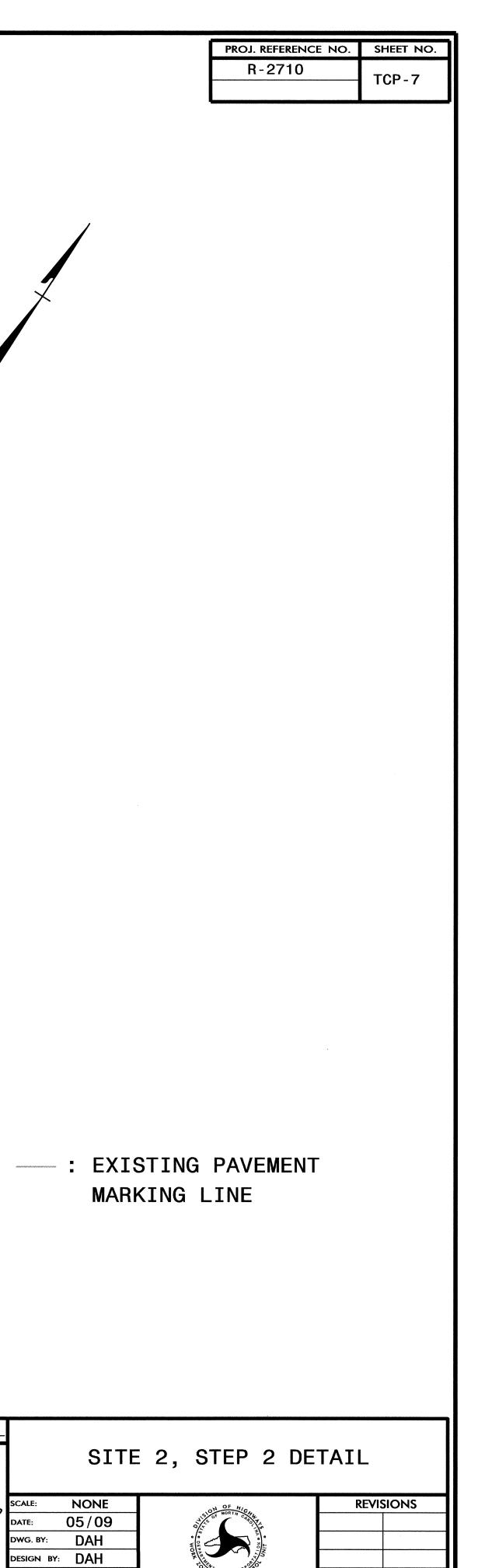
• TEMPORARY RAISED PAVEMENT MARKERS SHALL BE

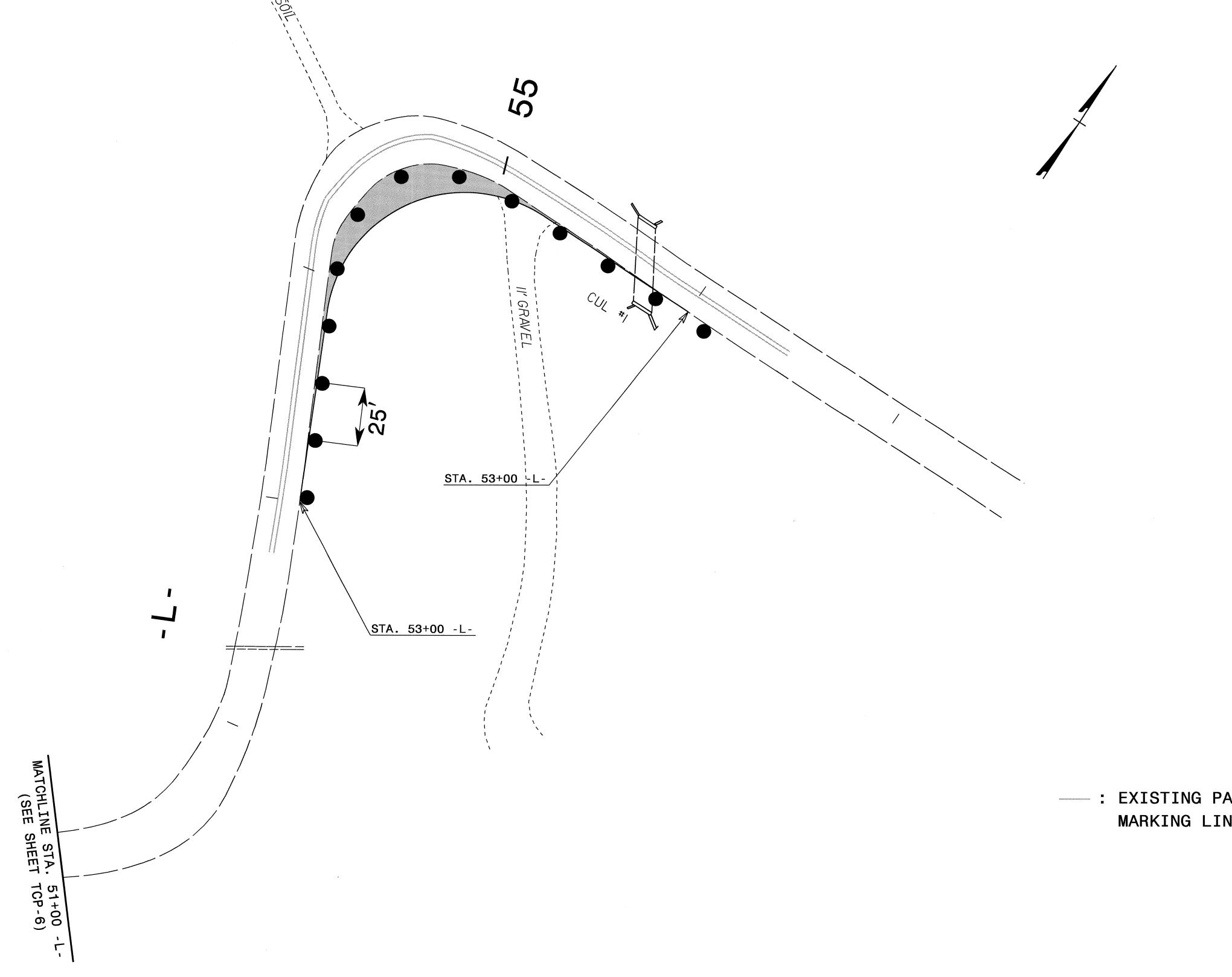


PROJ. REFERENCE NO.

DESIGN BY: DAH
REVIEWED BY: JWW

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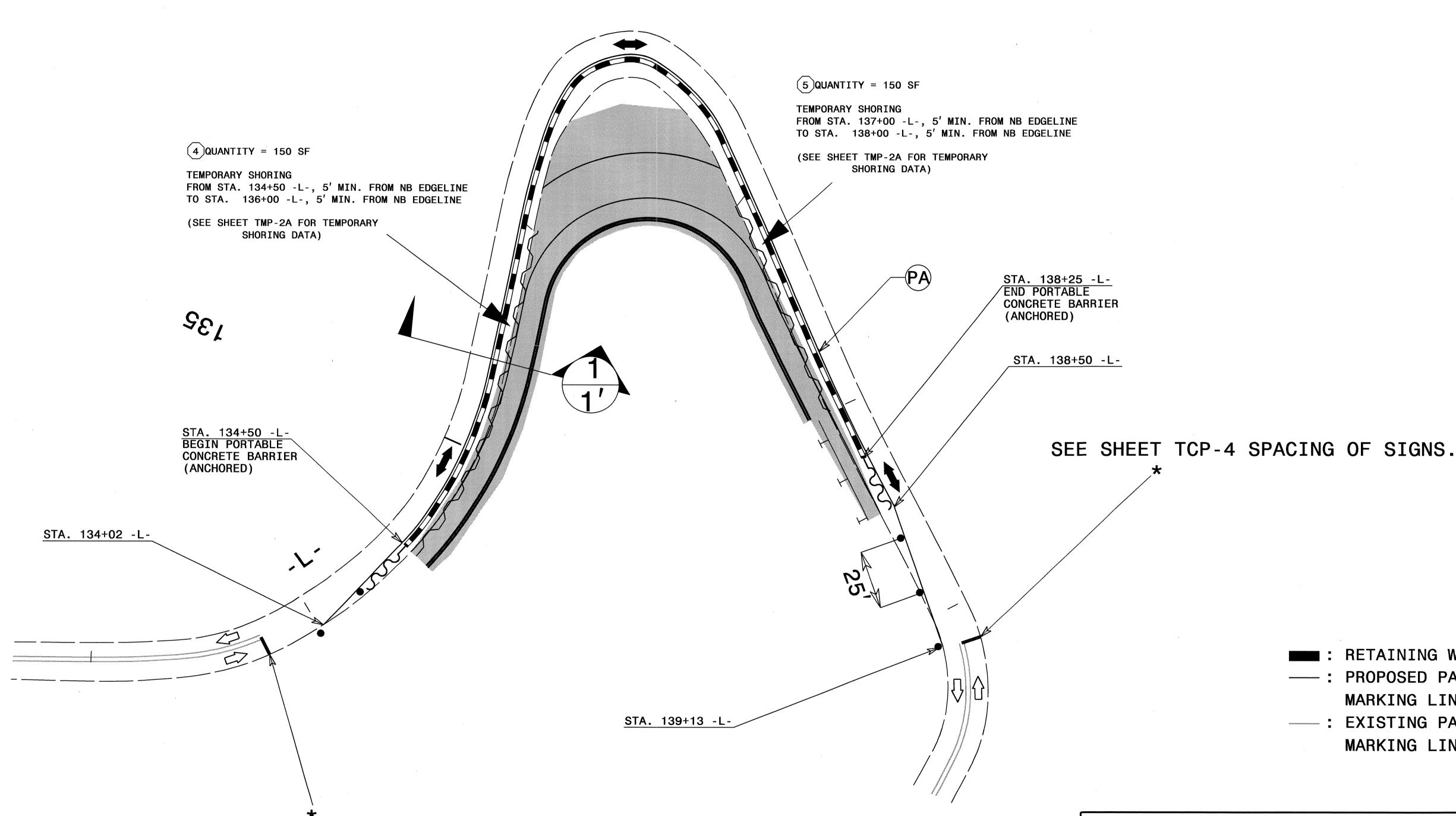


● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01

● TEMPORARY RAISED PAVEMENT MARKERS SHALL BE

PROJ. REFERENCE NO. SHEET NO. R-2710



RETAINING WALL

---: PROPOSED PAVEMENT MARKING LINE

: EXISTING PAVEMENT

MARKING LINE

* NOTE: STOPBAR LOCATION TO BE DETERMINED BY THE SIGNALS ENGINEER.

SITE 3, STEP 2 DETAIL

05/09

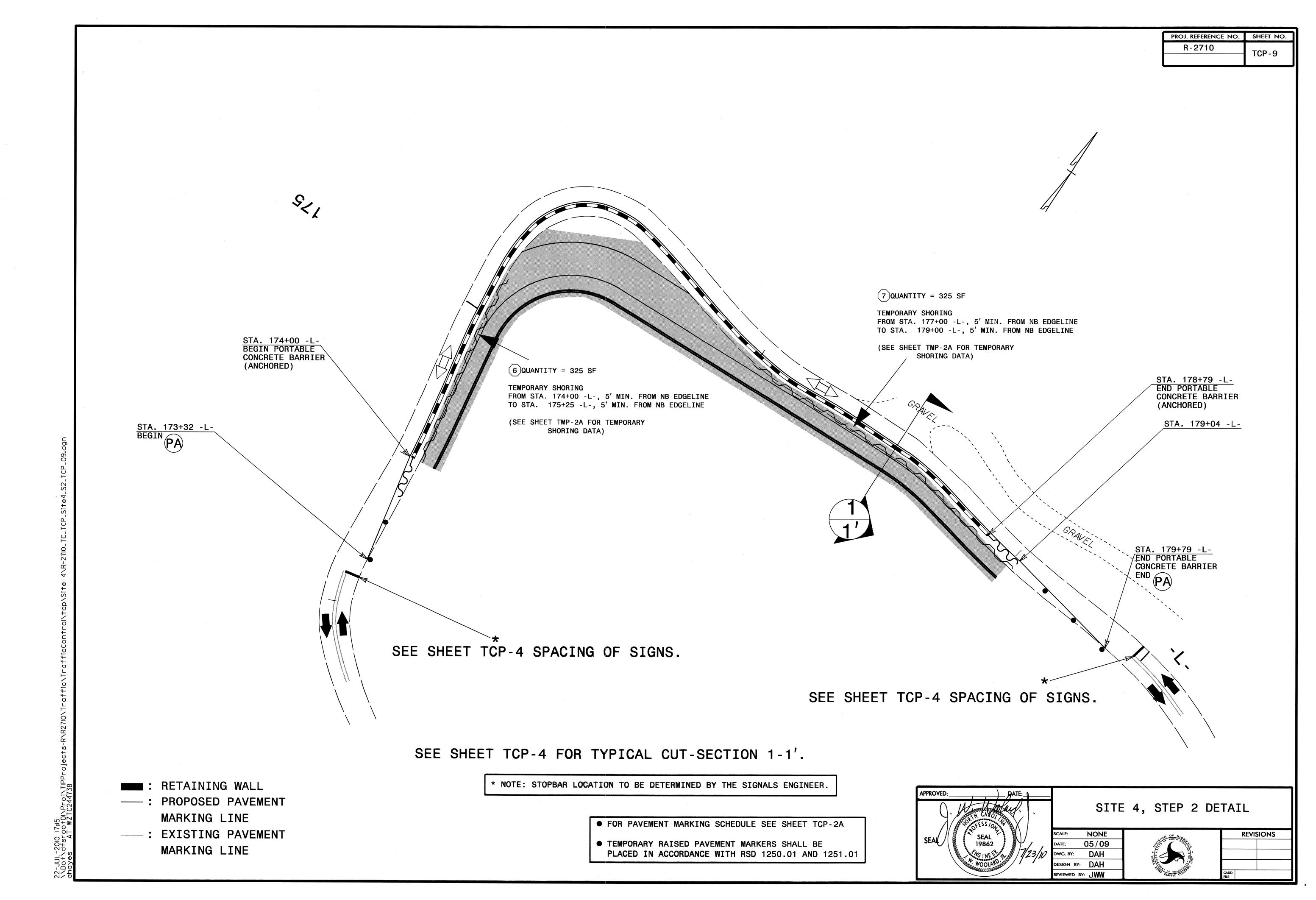
REVISIONS

SEE SHEET TCP-4 FOR TYPICAL CUT-SECTION 1-1'.

SEE SHEET TCP-4 SPACING OF SIGNS.

● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

• TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01



PROJ. REFERENCE NO. R-2710 TCP-10

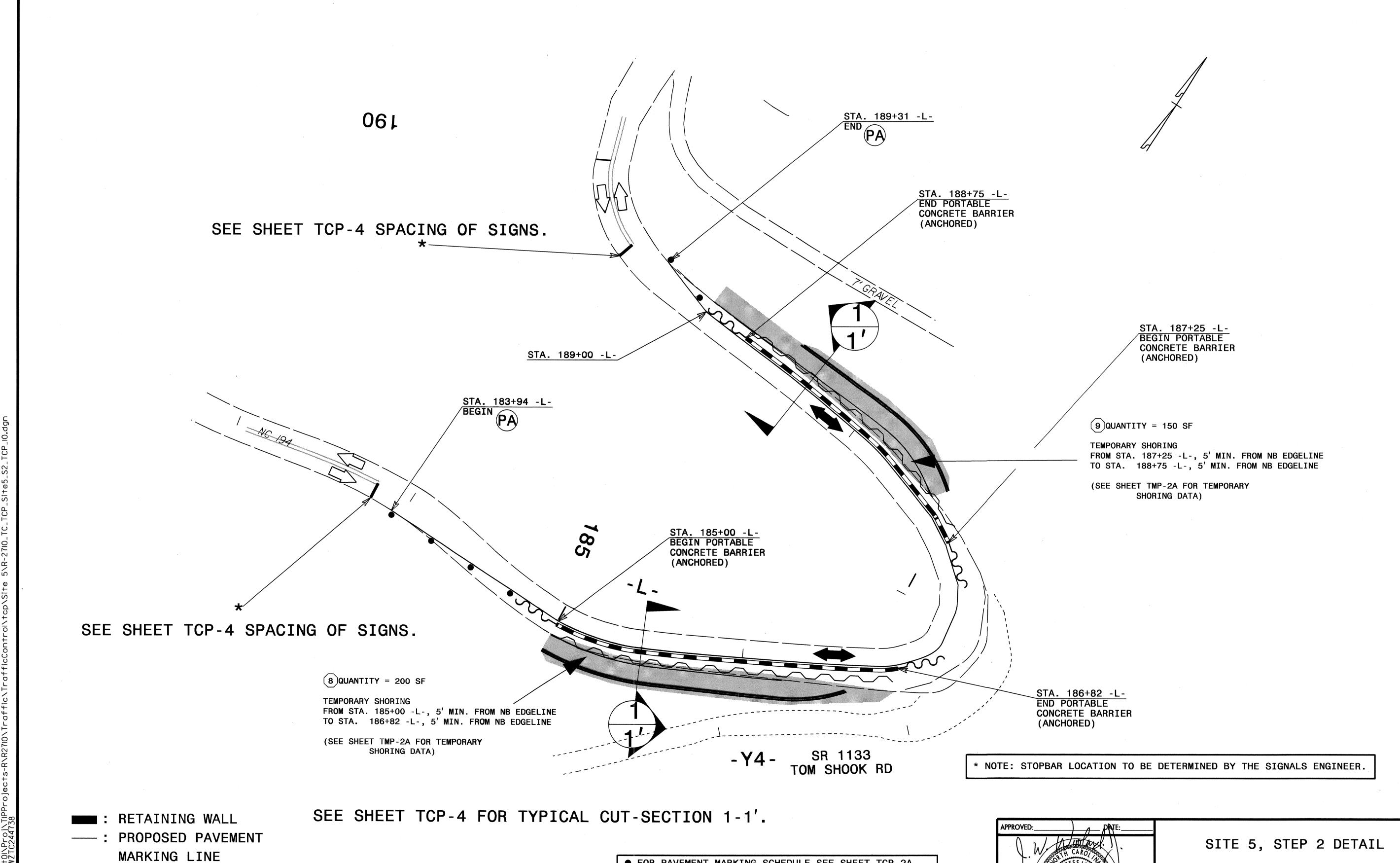
REVISIONS

NONE

05/09

DAH

DESIGN BY: DAH REVIEWED BY: JWW



● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01

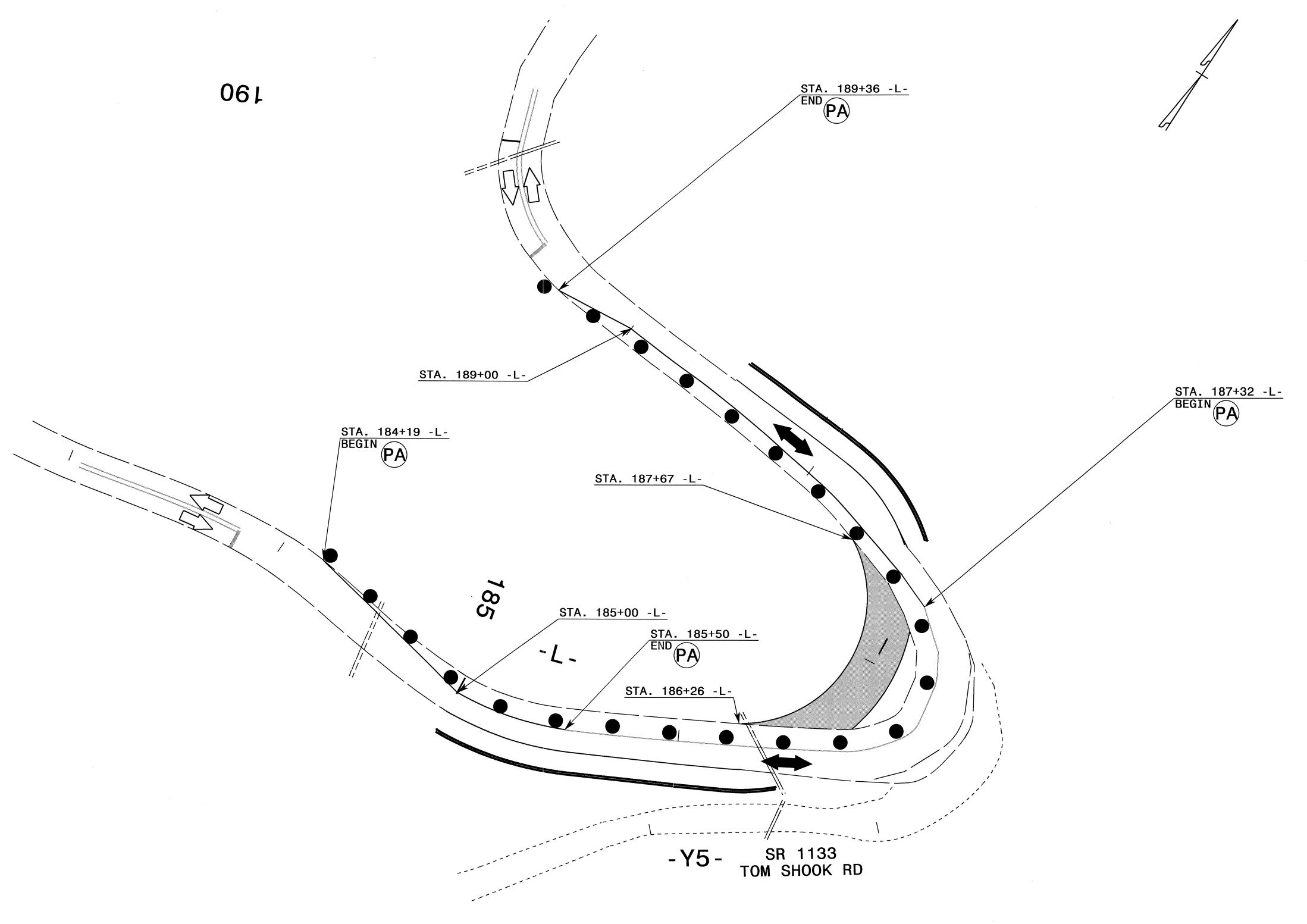
• TEMPORARY RAISED PAVEMENT MARKERS SHALL BE

---: EXISTING PAVEMENT

MARKING LINE

PROJ. REFERENCE NO. SHEET NO.

R-2710
TCP-11



---: PROPOSED PAVEMENT MARKING LINE

: EXISTING PAVEMENT
MARKING LINE

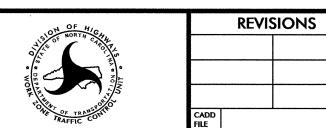
● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

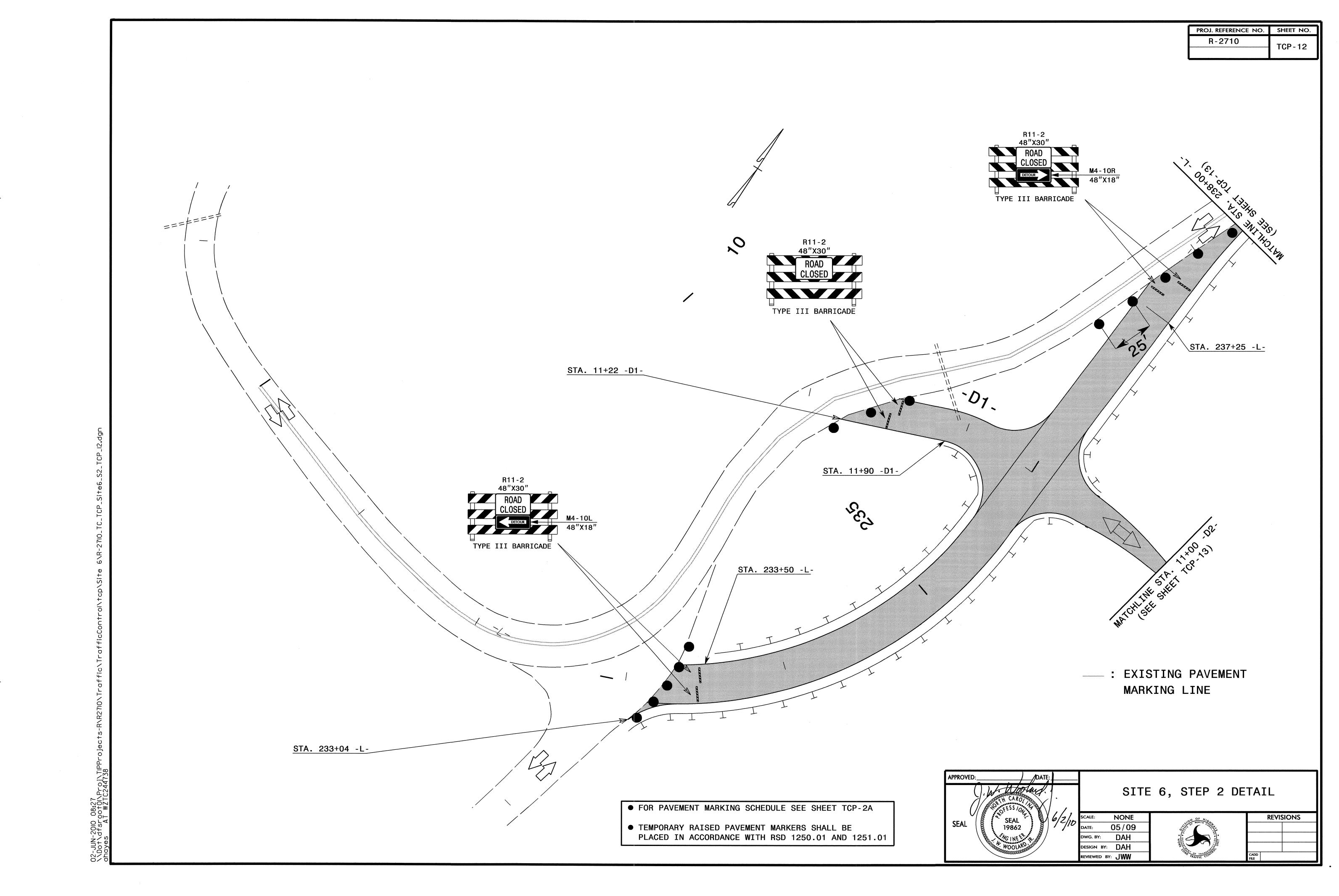
● TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01

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SITE 5, STEP 3 DETAIL

SCALE:	NONE	
DATE:	05/09	
DWG. BY:	DAH	
DESIGN BY:	DAH	
REVIEWED B	Y: JWW	

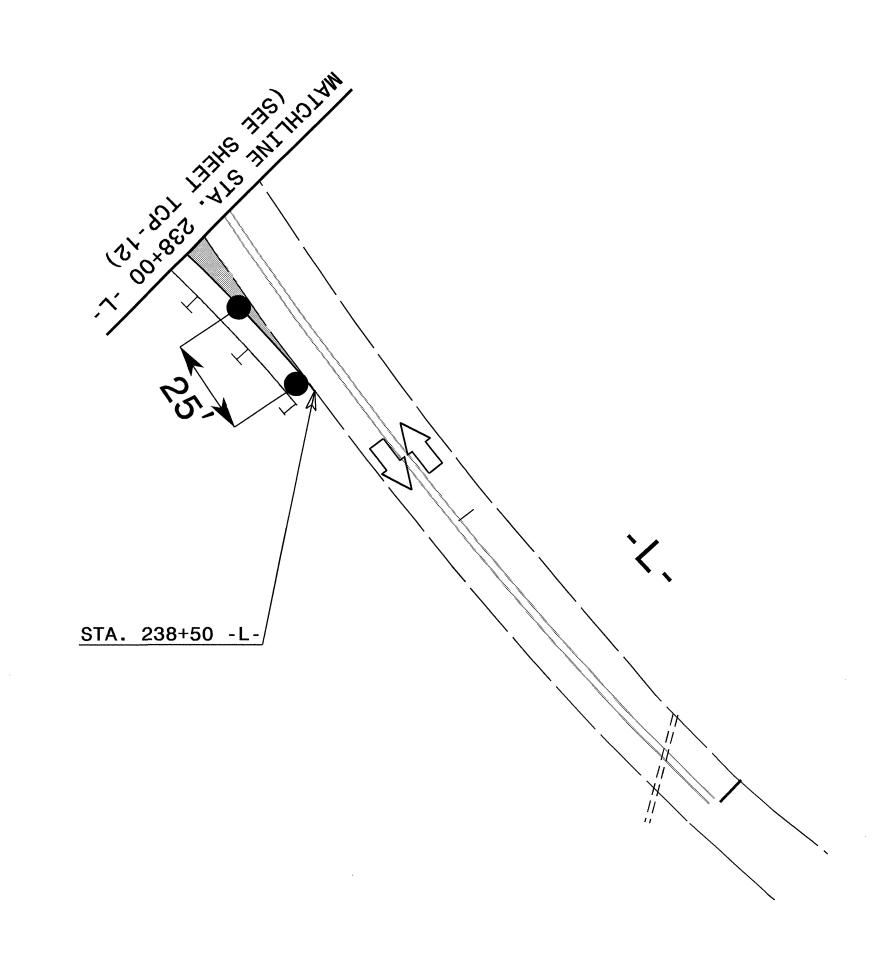




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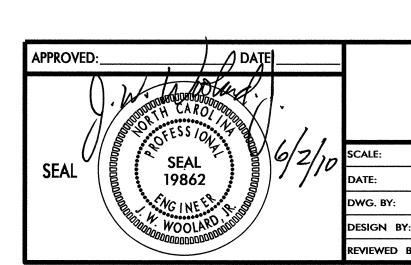
R-2710
TCP-13

STA. 13+73 -D2-



● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

● TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01



SITE 6, STEP 2 DETAIL

SCALE: NONE

DATE: 05/09

DWG. BY: DAH

DESIGN BY: DAH

REVIEWED BY: JWW



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R-2710 TCP-14 STA. 10+34 -D1-STA. 230+00 -L-STA. 11+90 -D1-TYPE III BARRICADE ---: PROPOSED PAVEMENT MARKING LINE **:** EXISTING PAVEMENT MARKING LINE SITE 6, STEP 3 & 4 DETAIL ● FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A REVISIONS 05/09 ● TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01

PROJ. REFERENCE NO.	SHEET NO.
R-2710	TCP-15
	105-13

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• FOR PAVEMENT MARKING SCHEDULE SEE SHEET TCP-2A

● TEMPORARY RAISED PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH RSD 1250.01 AND 1251.01

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SITE 6, STEP 3 & 4 DETAIL

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PROJ. REFERENCE NO. R-2710 TCP-16

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RECOMMENDED MINIMUM SIGN SPACING POSTED SPEED LIMIT (M.P.H.) ≤ 50 500'

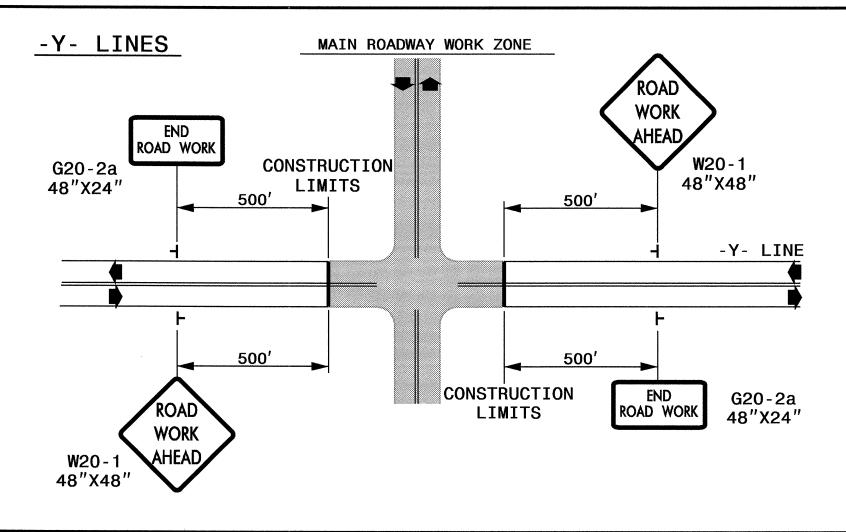
TRANSPORTATION CAROLINA HIGHWAYS NORTH OF DIVISION **0**F OF STATE DEPT

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)

END

ROAD WORK G20-2a 48"X24"

TWO-WAY UNDIVIDED ** (L-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.

END

ROAD WORK G20-2a 48"x24"

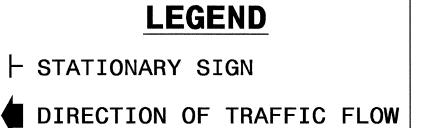
500'

- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.

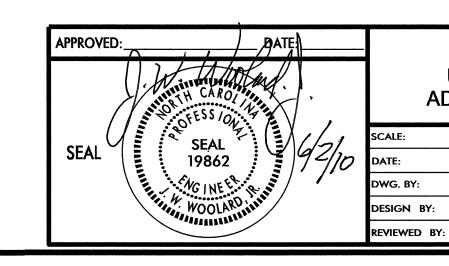
HIGHWAY WORK ZONE

-CONSTRUCTION LIMITS---

- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.



SHEET 1 OF 1



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