



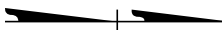


ROADWAY STANDARD DRAWINGS


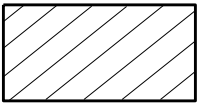
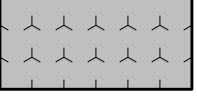

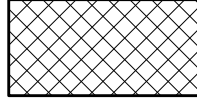
THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER 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
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

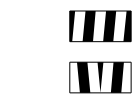


LEGEND

GENERAL

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

-  WORK AREA
-  WEDGING
-  ON GOING CONSTRUCTION
-  WIDENING
-  REMOVAL

TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  DRUM
-  TEMPORARY CRASH CUSHION



TEMPORARY SIGNING

-  STATIONARY SIGN




PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

SIGNALS

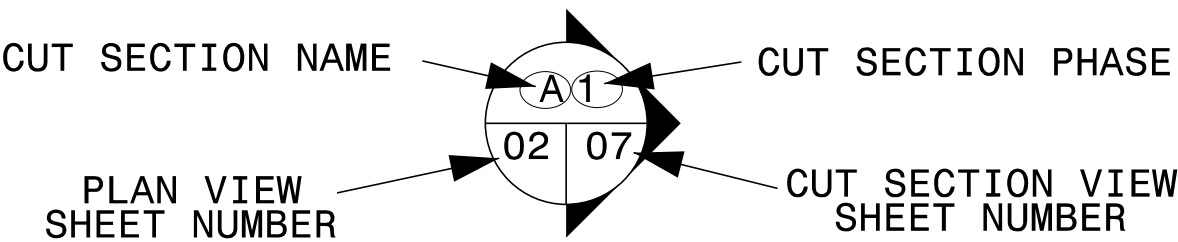
-  EXISTING
-  TEMPORARY

PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES
-  EXISTING PAVEMENT MARKING CALLOUT (SEE CUT SECTIONS)


TEMPORARY PAVEMENT MARKING

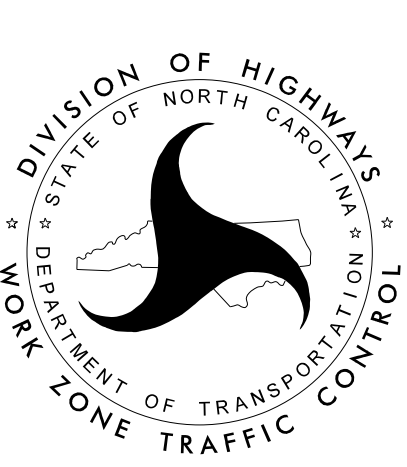
SYMBOL	DESCRIPTION	PAY ITEM
P8	2 FT. - 6 FT./SP WHITE MINISKIP	4" PAINT
PA	WHITE SOLID EDGE/LANE LINE	4" PAINT
PB	YELLOW EDGE/SINGLE CENTER	4" PAINT
PD	3 FT. - 9 FT./SP WHITE MINISKIP	4" PAINT
PI	YELLOW DOUBLE CENTER	4" PAINT
P2	WHITE STOPBAR	24" PAINT



APPROVED: _____

DATE: _____





ROADWAY STANDARD
DRAWINGS & LEGEND

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. NC 105 & SR 1112 (BROADSTONE RD)	6:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M. MONDAY - THURSDAY 6:00 A.M. - 9:00 P.M. FRIDAY - SUNDAY

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

ROAD NAME
1. NC 105
2. SR 1112 (BROADSTONE RD)

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- FOR THE FALL FOLIAGE SEASON, ALL WEEKENDS IN OCTOBER, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 9:00 A.M. MONDAY.
- FOR APPALACHIAN STATE UNIVERSITY HOME FOOTBALL GAMES, BETWEEN THE HOURS OF 12:00 P.M. (NOON) THE DAY BEFORE THE GAME TO 9:00 A.M. THE MONDAY AFTER THE GAME.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
1. NC 105	6:00 A.M. - 10:00 P.M. MONDAY - SUNDAY	30 MINUTES, REMOVING EXISTING BRIDGE AND INSTALLING GIRDERS
2. NC 105	6:00 A.M. - 10:00 P.M. MONDAY - SUNDAY	15 MINUTES, FOR TRAFFIC OPERATIONS, DEBRIS REMOVAL NOT FROM BLASTING
3. SR 1112 (BROADSTONE RD)	6:00 A.M. - 10:00 P.M. MONDAY - SUNDAY	15 MINUTES, FOR TRAFFIC OPERATIONS, DEBRIS REMOVAL NOT FROM BLASTING

D) DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS; INGRESS AND EGRESS FROM RAMPS BE ALLOWED:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. NC 105 & SR 1112 (BROADSTONE RD)	6:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M. MONDAY - THURSDAY 6:00 A.M. - 9:00 P.M. FRIDAY - SUNDAY

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) 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.
- G) 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.
- H) 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.

- I) 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.
- J) 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

K) 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.

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) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER THIRTY (30) 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) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

Q) 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.

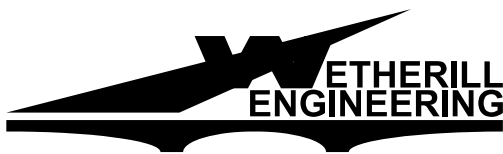
DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

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.

6/11/2021
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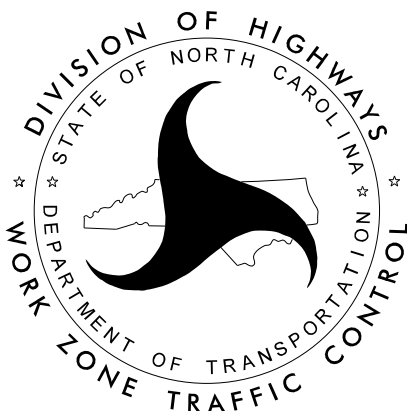
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

APPROVED: 

DATE: 7/22/2021



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GENERAL NOTES

R) 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

S) 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.

T) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

U) 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

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

ROAD NAME	MARKING	MARKER
1. ALL ROADS	PAINT	TEMORARY RAISED

*NOTE: AS DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL INSTALL SNOWPLOWABLE RAISED PAVEMENT MARKERS ON ALL TEMPORARY AND/OR PROPOSED PAVEMENT THAT WILL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 1ST AND MARCH 31 TIME FRAME.

W) 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.

X) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

Y) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

Z) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

AA) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

BB) IN THE EVENT A TIE-IN CANNOT BE MADE 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) 500 FT AND 500 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

CC) MAINTAIN ACCESS TO ALL ROADS AND DRIVEWAYS PER THE DISCRETION OF THE ENGINEER.

DD) CLOSE NC 105 TO BOTH NORTHBOUND AND SOUTHBOUND TRAFFIC AND ANY INTERSECTING -Y- LINES DURING ALL BLASTING OPERATIONS INCLUDING THE REMOVAL OF DEBRIS FROM THE ROADWAY CREATED BY THE BLAST. THE DAYS AND TIMES THAT NC 105 MAY BE CLOSED FOR BLASTING OPERATIONS & DEBRIS REMOVAL ARE AS FOLLOWS (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES):

NOTE: THE TIMES AND DAYS LISTED BELOW SHALL ONLY BE UTILIZED FOR BLASTING OPERATIONS AND DEBRIS REMOVAL FROM THAT OPERATION.

NOTE: AS DIRECTED BY THE ENGINEER BLASTING OPERATIONS MAY BE CONDUCTED OUTSIDE THE TIME FRAMES LISTED BELOW ONLY IF THE SPECIFIC BLASTING OPERATION WILL NOT IMPACT TRAFFIC ON NC 105 AND ANY INTERSECTING -Y- LINE.

DAY	TIME AND DURATIONS
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MONDAY - THURSDAY	BETWEEN THE HOURS OF 11:00 A.M. - 2:00 P.M., 30 MINUTES IN THE MORNING, 30 MINUTES IN THE AFTERNOON
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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 NC 105 AND SR 1112 2 DAYS IN ADVANCE OF THE BLASTING OPERATION TO NOTIFY THE MOTORING PUBLIC OF THE UPCOMING OPERATION.

C. CLOSE NC 105 AND INTERSECTING -Y- LINES WITHIN THE BLASTING ZONE TO TRAFFIC IN ACCODANCE WITH ROADWAY STANDARD DRAWING 1101.03, SHEET 8 OF 9.

D. PERFORM BLASTING OPERATION AND DEBRIS REMOVAL.

E. OPEN NC 105 AND INTERSECTING -Y- LINES TO TRAFFIC.

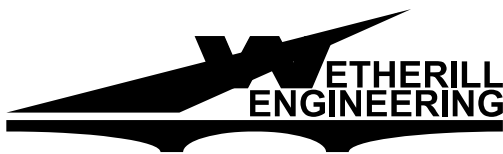
F. IMMEDIATELY DEACTIVATE THE CHANGEABLE MESSAGE SIGNS.

EE) IN PREPARATION FOR PAVING OPERATIONS REMOVE EXISTING SNOWPLOWABLE/TEMPORARY RAISED PAVEMENT MARKERS AND REPAIR THE DAMAGED PAVEMENT AS DIRECTED BY THE ENGINEER. DISPOSE OF THE PAVEMENT MARKERS IN A SUITABLE MANNER AS APPROVED BY THE ENGINEER. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, AS SUCH WORK WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

FF) ALL STATIONS MAY OR MAY NOT BE APPROXIMATE (+/-).

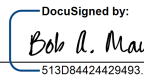
GG) MOUNT 45 MPH ADVISORY SPEED PLAQUES (W13-1, BLACK ON ORANGE) BELOW THE "BEGIN ROAD WORK" SIGNS & THE "ROAD WORK AHEAD" SIGNS ON -L- (NC 105) AND ALL -Y- LINES. IN ADDITION, MOUNT 45 MPH ADVISORY SPEED PLAGUES (W13-1, BLACK ON ORANGE) BELOW ALL "LEFT/RIGHT LANE CLOSED AHEAD" SIGNS (W20-5) AND "LEFT/RIGHT LANE CLOSED" SIGNS (W20-5) WHEN UTILIZING LANE CLOSURES ON -L- (NC 105).

6/11/2021
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

APPROVED: 

DATE: 7/22/2021



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GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
R-2566BA	TMP-02

Shoring Location No. ①

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT FROM STATION -L- 162+59 +/-, 9.5' +/- RT, TO STATION -L- 163+50 +/-, 5.8' +/- RT.

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 -L- 162+59 +/-, 9.5' +/- RT, TO STATION -L- 163+50 +/-, 5.8' +/- RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ)= 30 DEGREES
COHESION (c) = 0 LB/SF
GROUNDWATER ELEVATION = 2730 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 162+59 +/-, 9.5' +/- RT, TO STATION -L- 163+50 +/-, 5.8' +/- RT. 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 -L- 162+59 +/-, 9.5' +/- RT, TO STATION -L- 163+50 +/-, 5.8' +/- RT, MAY NOT PENETRATE BELOW ELEVATION 2727 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 -L- 162+59 +/-, 9.5' +/- RT, TO STATION -L- 163+50 +/-, 5.8' +/- RT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 162+59 +/-, 9.5' +/- RT, TO STATION -L- 163+50 +/-, 5.8' +/- RT. 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.

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE END BENT INSTALLATION FROM STATION -L- 165+33 +/-, 2.6' +/- RT, TO STATION -L- 165+92 +/-, 2.6' +/- RT.

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 -L- 165+33 +/-, 2.6' +/- RT, TO STATION -L- 165+92 +/-, 2.6' +/- RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ)= 30 DEGREES
COHESION (c) = 0 LB/SF
GROUNDWATER ELEVATION = 2740 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 165+33 +/-, 2.6' +/- RT, TO STATION -L- 165+92 +/-, 2.6' +/- RT. 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 -L- 165+33 +/-, 2.6' +/- RT, TO STATION -L- 165+92 +/-, 2.6' +/- RT, MAY NOT PENETRATE BELOW ELEVATION 2742 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 -L- 165+33 +/-, 2.6' +/- RT, TO STATION -L- 165+92 +/-, 2.6' +/- RT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 165+33 +/-, 2.6' +/- RT, TO STATION -L- 165+92 +/-, 2.6' +/- RT. 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.

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 162+57 +/-, 11.5' +/- RT, TO STATION -L- 162.87 +/-, 11.1' +/- RT.

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 -L- 162+57 +/-, 11.5' +/- RT, TO STATION -L- 162.87 +/-, 11.1' +/- RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ)= 30 DEGREES
COHESION (c) = 0 LB/SF
GROUNDWATER ELEVATION = 2730 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 162+57 +/-, 11.5' +/- RT, TO STATION -L- 162.87 +/-, 11.1' +/- 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 A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 162+57 +/-, 11.5' +/- RT, TO STATION -L- 162.87 +/-, 11.1' +/- RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

Shoring Location No. ④

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

TEMPORARY SHORING IS REQUIRED FOR THE BRIDGE BENT INSTALLATION FROM STATION -L- 165+62 +/-, 8.6' +/- RT, TO STATION -L- 165+89 +/-, 8.6' +/- RT.

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 -L- 165+62 +/-, 8.6' +/- RT, TO STATION -L- 165+89 +/-, 8.6' +/- RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ)= 30 DEGREES
COHESION (c) = 0 LB/SF
GROUNDWATER ELEVATION = 2740 FT


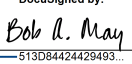

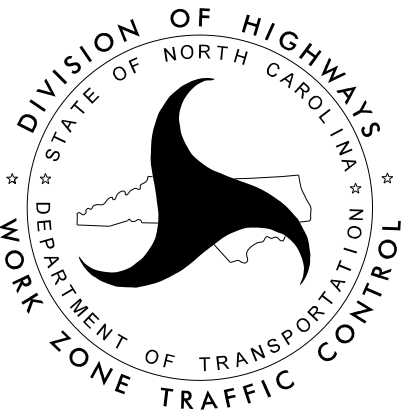
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 165+62 +/-, 8.6' +/- RT, TO STATION -L- 165+89 +/-, 8.6' +/- RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 165+62 +/-, 8.6' +/- RT, TO STATION -L- 165+89 +/-, 8.6' +/- RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

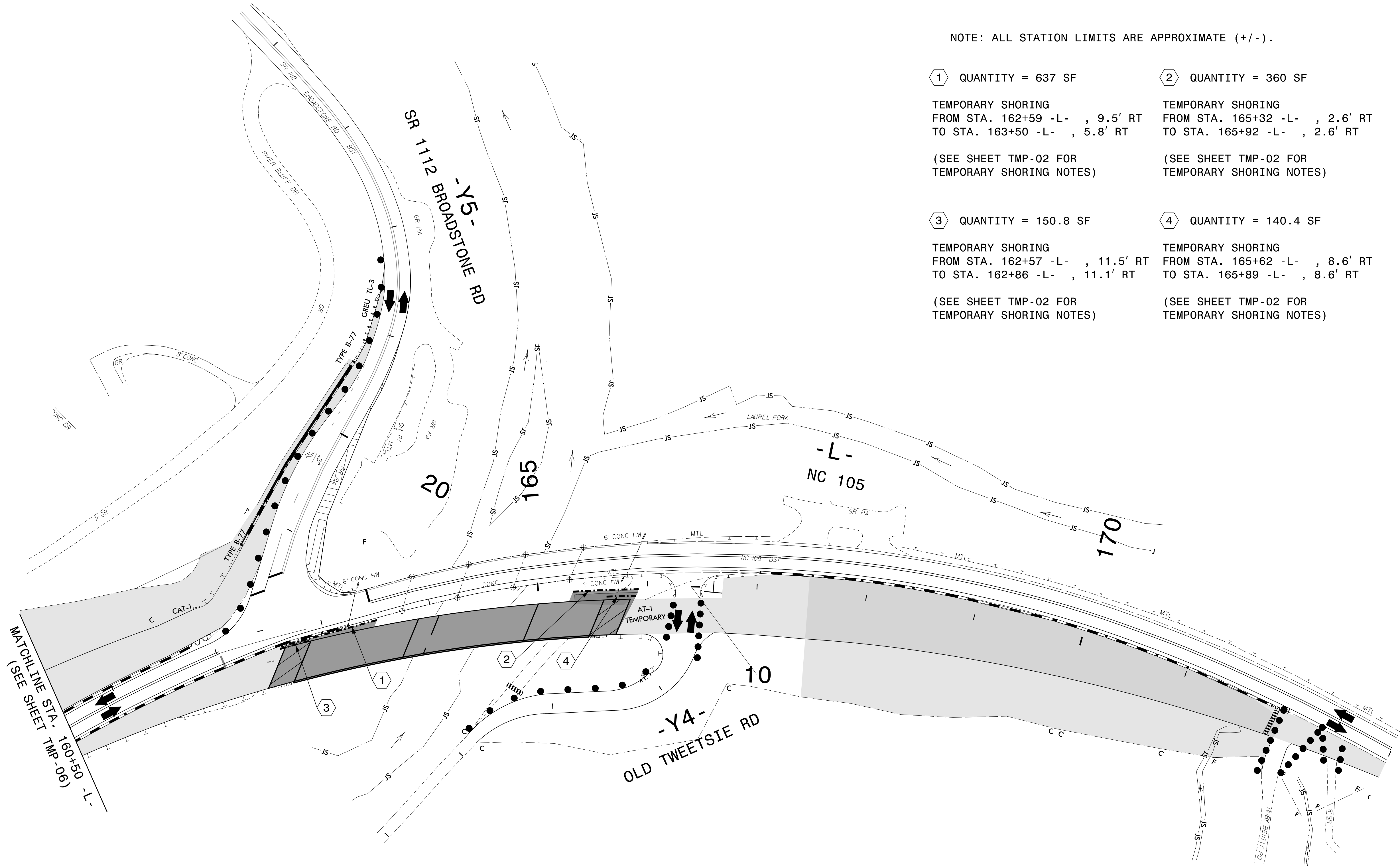
WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON 06/16/21 AND SEALED BY A PROFESSIONAL ENGINEER, SHIPING YANG, LICENSE # 031361.

10/5/2021
P:\2018\1813101_R-2566BA\Traffic\WZTC\TMP\Sheets\T0\N-R-2566BA_TMP_02_TS Data.dgn
User:AHayes

	<div><div>1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107</div></div> <div>TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION</div>	<div>APPROVED:  DATE: 10/5/2021</div> <div></div> <div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>	<div></div>	TEMPORARY SHORING DATA
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PROJ. REFERENCE NO.	SHEET NO.
R-2566BA	TMP-02A



NOTE: ALL STATION LIMITS ARE APPROXIMATE (+/-).

- 1 QUANTITY = 637 SF

TEMPORARY SHORING
FROM STA. 162+59 -L- , 9.5' RT
TO STA. 163+50 -L- , 5.8' RT

(SEE SHEET TMP-02 FOR
TEMPORARY SHORING NOTES)
- 2 QUANTITY = 360 SF

TEMPORARY SHORING
FROM STA. 165+32 -L- , 2.6' RT
TO STA. 165+92 -L- , 2.6' RT

(SEE SHEET TMP-02 FOR
TEMPORARY SHORING NOTES)
- 3 QUANTITY = 150.8 SF

TEMPORARY SHORING
FROM STA. 162+57 -L- , 11.5' RT
TO STA. 162+86 -L- , 11.1' RT

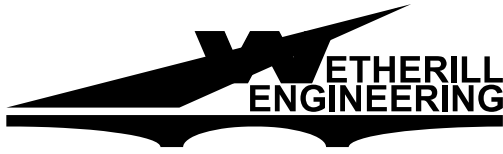
(SEE SHEET TMP-02 FOR
TEMPORARY SHORING NOTES)
- 4 QUANTITY = 140.4 SF

TEMPORARY SHORING
FROM STA. 165+62 -L- , 8.6' RT
TO STA. 165+89 -L- , 8.6' RT

(SEE SHEET TMP-02 FOR
TEMPORARY SHORING NOTES)

NOTE: SEE SHEETS TMP-07 FOR DETAILS.

10/5/2021
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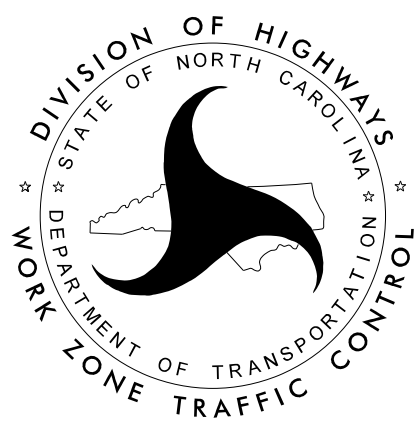
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

APPROVED: Bob H. May

DATE: 10/5/2021



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UNLESS ALL SIGNATURES COMPLETED



TEMPORARY
SHORING LOCATIONS

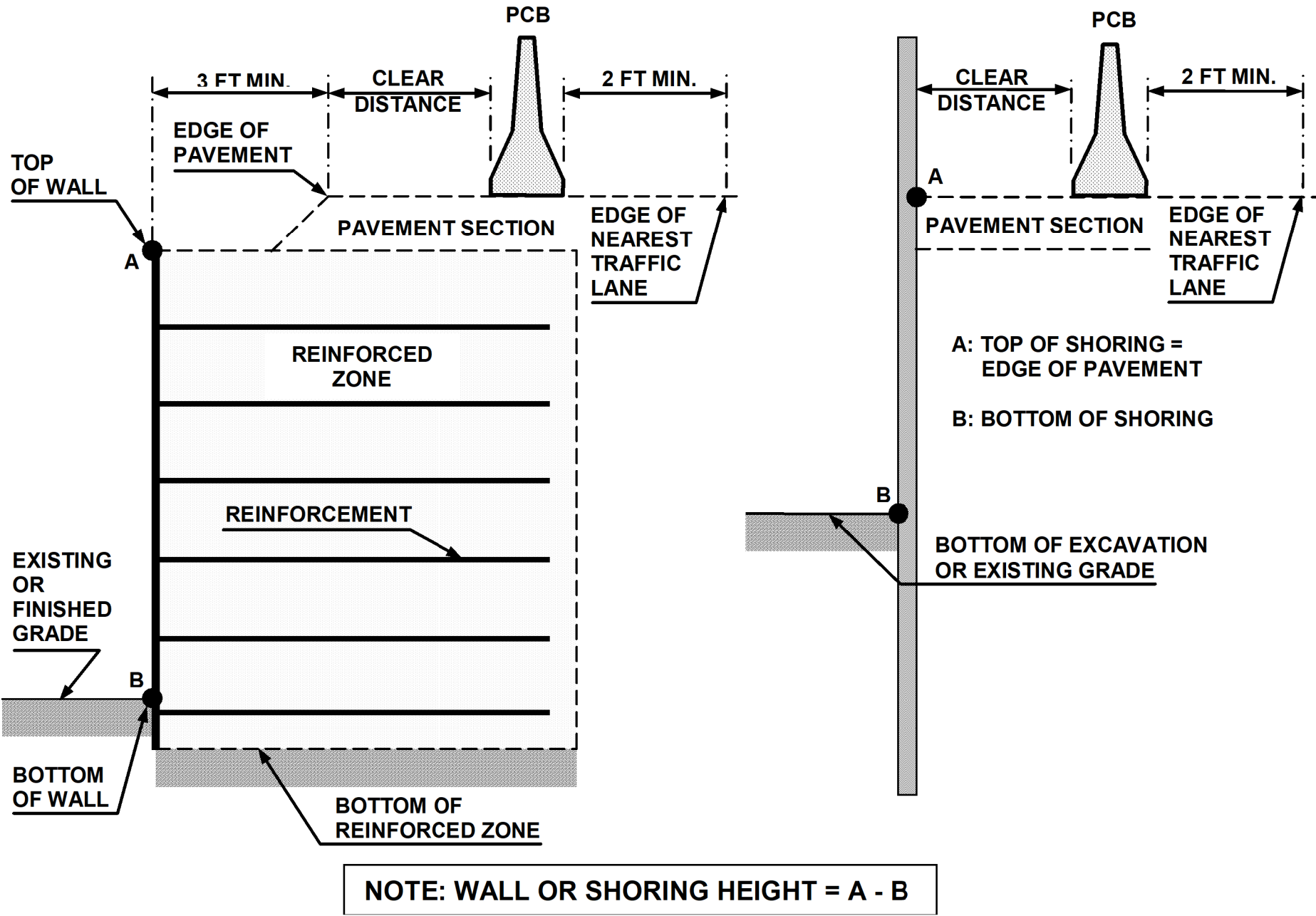


FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.
- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING 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 UNIT 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 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- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 8- 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 AND OR AS APPROVED BY THE ENGINEER.
- 9- 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 THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- 10- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier Type	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	
		44-50	31	35	41	43	46	49	
		50-56	32	36	42	44	47	50	
	Concrete	>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	
		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	
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds						
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds						

* See Figure Below

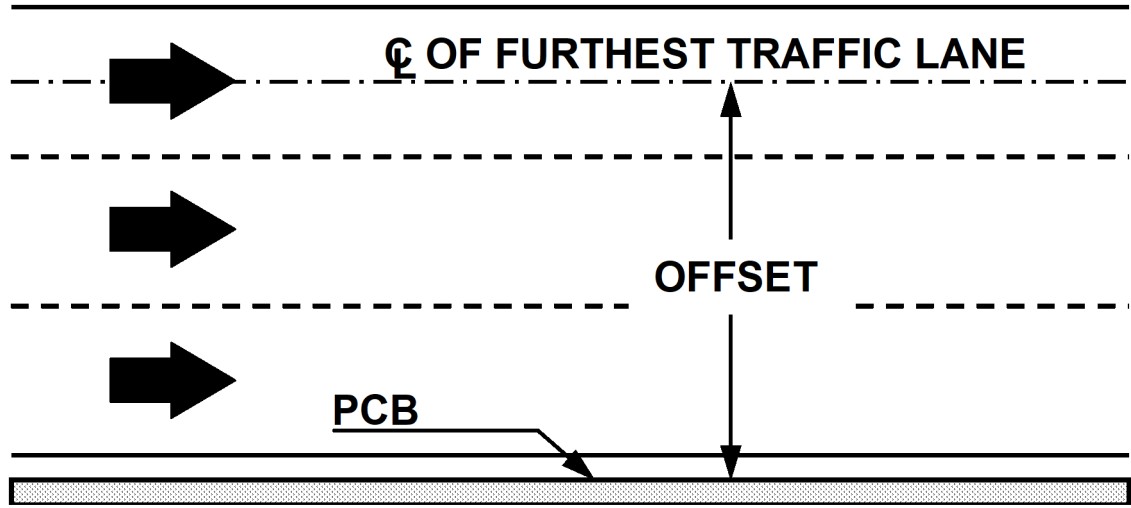


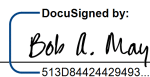
FIGURE B

6/11/2021
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User:AHayes



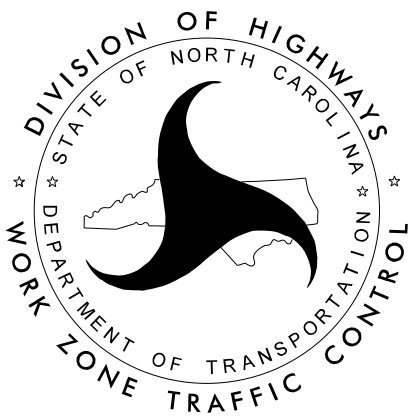
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APPROVED: 
DATE: 7/22/2021



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PORTABLE CONCRETE BARRIER
AT TEMPORARY
SHORING LOCATIONS

PROJ. REFERENCE NO.	SHEET NO.
R-2566BA	TMP-03

PHASE I

STEP 1) USING 1101.01, INSTALL ADVANCE WARNING SIGNING ON -L- (NC 105), -Y4- (OLD TWEETSIE RD), AND -Y5- (SR 1112 BROADSTONE RD), AND ANY OTHER ROAD/DRIVEWAY PER THE DISCRETION OF THE ENGINEER. IN ADDITION MOUNT 45 MPH ADVISORY SPEED PLAQUES (BLACK ON ORANGE) BELOW THE "BEGIN ROAD WORK" SIGNS AND THE "ROAD WORK AHEAD" SIGNS ON -L- (NC 105) AND ALL -Y- LINES.

INSTALL ONE (1) CHANGEABLE MESSAGE SIGN (CMS) ON EACH APPROACH TO THE INTERSECTION OF -L- AND -Y5- AS DIRECTED BY THE ENGINEER. THESE CMS DEVICES ARE TO BE UTILIZED TO INFORM AND ALERT THE TRAVELLING PUBLIC TO TRAFFIC CONDITIONS AND MAY BE UTILIZED FOR TRAFFIC MANAGEMENT OPERATIONS DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.

STEP 2) USING ROADWAY STANDARD DRAWING (RSD) 1101.02, INSTALL SHOULDER WIDENING ON THE RIGHT SIDE OF -L- (NC 105), INSTALL TEMPORARY PAVEMENT MARKINGS ON -L- AND -Y5-, INSTALL PHASE I TEMPORARY SIGNAL, AND SHIFT TRAFFIC ONTO THE TEMPORARY PATTERN. INSTALL PORTABLE CONCRETE BARRIER AND TEMPORARY GUARDRAIL ALONG -L-. BEGIN CONSTRUCTION OF -L- 'LEFT' FROM BEGIN CONSTRUCTION LIMITS TO -Y5- AND INSTALL WIDENING ALONG -L- 'LEFT' FROM THE BEGIN CONSTRUCTION LIMITS TO -Y5- UP TO AND INCLUDING THE EXISTING EDGE AND ELEVATION. BEGIN CONSTRUCTION OF -L- RIGHT FROM EXISTING -Y4- TO THE END CONSTRUCTION LIMITS. [REFER TO SHEETS TMP-04, 05, & 14]

BEHIND DRUMS AND GUARDRAIL, CONSTRUCT -Y4- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE. CONSTRUCT ENOUGH OF -L- 'RIGHT' AT -Y4- TO ALLOW FOR -Y4- TRAFFIC TO ACCESS -L-. [REFER TO SHEET TMP-05]

USING RSD 1101.02, CONSTRUCT WIDENING ON -Y5- 'LEFT' UP TO THE EXISTING EDGE AND ELEVATION. THIS WIDENING WILL BE USED TO ALLOW FOR TURNING MOVEMENTS OF TRUCKS. [REFER TO SHEET TMP-05]

STEP 3) USING RSD 1101.02, SHIFT/RESET PCB ON -L- FROM BEGIN CONSTRUCTION LIMITS TO -Y5- ONTO THE WIDENING INSTALLED ON -L- 'LEFT' IN PHASE I, STEP 2. INSTALL TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA. 159+08 TO -Y5-, ADJUST THE TEMPORARY SIGNAL, AND SHIFT TRAFFIC ONTO THE TEMPORARY PATTERN. THEN, INSTALL PCB ALONG -L- 'RIGHT' FROM STA. 158+05 TO STA. 162+64 AND CONSTRUCT -L- 'RIGHT' FROM STA. 159+08 TO ENDBENT #1 UP TO AND INCLUDING THE EXISTING EDGE AND ELEVATION, STAGE 1 OF THE BRIDGE INCLUDING THE ENDBENTS AND TEMPORARY SHORING, AND -L- 'RIGHT' FROM ENDBENT #2 TO -Y4- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE. [REFER TO SHEETS TMP-06, 07, 14, & 16 - 19]

USING RSD 1101.02, CONSTRUCT -Y5- 'RIGHT' INCLUDING THE RETAINING WALL UP TO AND INCLUDING THE EXISTING EDGE AND ELEVATION FROM BEGIN CONSTRUCTION LIMITS TO -L- 'LEFT'. [REFER TO SHEET TMP-07, & 20 - 21]]

REMOVE THE TEMPORARY GUARDRAIL PLACED IN STEP 2 AS NEEDED AND INSTALL TEMPORARY GUARDRAIL WITH SHOP CURVE AND SHIFT -Y4- ONTO THE FINAL PATTERN. [REFER TO SHEET TMP-07]

PHASE II

STEP 1) AWAY FROM TRAFFIC INSTALL TEMPORARY MARKINGS AS MUCH AS POSSIBLE ON -L- FROM STA. 157+87 TO 165+95 AND INSTALL PHASE II TEMPORARY SIGNAL. INSTALL PCB ON STAGE 1 OF THE BRIDGE AND REMOVE PCB ON -L- 'RIGHT' FROM STA. 162+05 TO STA. 162+64 AND FROM -Y4- TO ROBY BENTLEY ROAD. THEN USING RSD 1101.02, WEDGE -L- FROM STA. 158+50 TO ENDBENT #1, -L- FROM STA. 171+00 TO END CONSTRUCTION LIMITS, AND -Y5- 'RIGHT' FROM BEGIN CONSTRUCTION LIMITS TO -L- UP TO BUT NOT INCLUDING THE FINAL LIFT OF SURFACE COURSE. ACTIVATE TEMPORARY SIGNAL, SHIFT TRAFFIC ONTO THE PHASE II PATTERN, AND INSTALL REMAINING TEMPORARY PAVEMENT MARKINGS ON -L- FROM STA. 157+87 TO STA. 176+50, AND -Y5- FROM BEGIN CONSTRUCTION LIMITS TO -L-. USING RSD 1101.02 INSTALL THE REMAINING PHASE II PCB ON -L- AND -Y5-. [REFER TO SHEETS TMP-08, 09, 14, & 16 - 21]

STEP 2) AWAY FROM TRAFFIC CONSTRUCT AND COMPLETE CONSTRUCTION OF -L- 'LEFT', STAGE 2 OF THE BRIDGE INCLUDING THE ENDBENTS, AND -Y5- 'LEFT'. CONSTRUCT -L- SB FROM THE BEGIN CONSTRUCTION LIMITS TO -Y5-, REPLACING THE MEDIAN CURB AND GUTTER WITH 2' OF PAVED SHOULDER. INSTALL THE PHASE III TEMPORARY SIGNAL. [REFER TO SHEETS TMP-08, 09, 14, & 16 - 21]

PHASE III

STEP 1) AWAY FROM TRAFFIC, INSTALL AS MUCH OF THE PHASE III TEMPORARY MARKINGS AS POSSIBLE. THEN, USING RSD 1101.02, REMOVE PCB FROM THE ENTIRE PROJECT, WEDGE -L- FROM STA. 152+00 TO STA. 155+50, INSTALL THE REMAINING TEMPORARY PAVEMENT MARKINGS, ACTIVATE THE PHASE III TEMPORARY SIGNAL, AND SHIFT TRAFFIC ONTO THE TEMPORARY PATTERN. [REFER TO SHEETS TMP-10 ,11 15, AND FINAL PAVEMENT MARKING PLAN FOR -Y5- MARKINGS, ETC.]

STEP 2) USING RSD 1101.02 AS NEEDED, CONSTRUCT -L- 'RIGHT' FROM STA. 155+50 TO STA. 162+15 AND REMOVE EXISTING -L- AS NEEDED. INSTALL THE PHASE IV TEMPORARY SIGNAL. [REFER TO SHEETS TMP-10, 11, & 15]

PHASE IV

STEP 1) AWAY FROM TRAFFIC, INSTALL THE TEMPORARY PAVEMENT MARKINGS AS MUCH AS POSSIBLE. THEN, USING RSD 1101.02, SHIFT TRAFFIC ONTO THE PHASE IV PATTERN, AND ACTIVATE THE TEMPORARY SIGNAL. [REFER TO SHEETS TMP-12, 13, & 15]

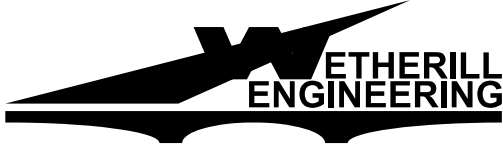
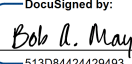

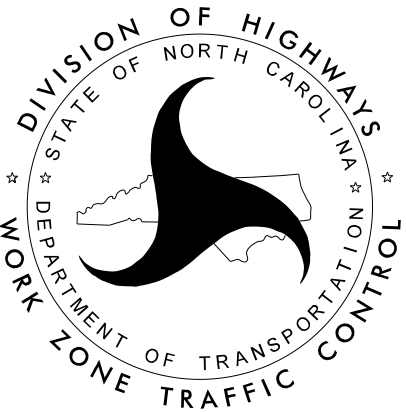
STEP 2) USING RSD 1101.02 AS NEEDED, COMPLETE CONSTRUCTION OF THE MEDIAN, REMOVING THE PAVED SHOULDER INSTALLED IN PHASE II, AND REPLACE WITH CURB AND GUTTER. INSTALL THE FINAL SIGNAL. [REFER TO SHEETS TMP-12, 13, & 15]

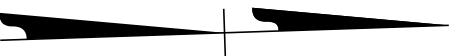
PHASE V

STEP 1) USING RSD 1101.02, INSTALL THE FINAL LIFT OF SURFACE COURSE, FINAL PAVEMENT MARKINGS AND MARKERS, ACTIVATE THE FINAL SIGNAL, AND SHIFT TRAFFIC ONTO THE FINAL TRAFFIC PATTERN. [REFER TO THE FINAL PAVEMENT MARKING PLAN]

STEP 2) REMOVE ALL TRAFFIC MANAGEMENT DEVICES AND SIGNING.

7/6/2021
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User:AHayes

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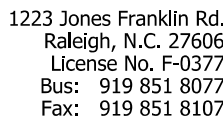


REMOVE AND REPLACE/WIDEN EXISTING SHOULDER

A1a
04 14

MATCHLINE STA. 160+50 - L -
(SEE SHEET TMP-05)

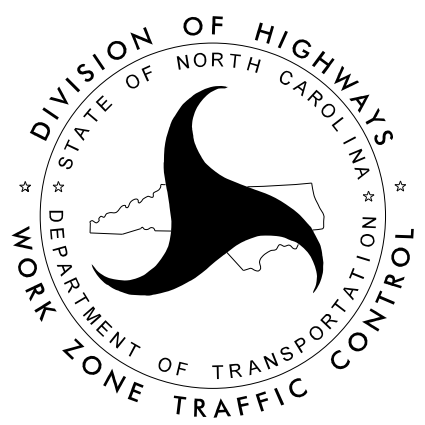
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

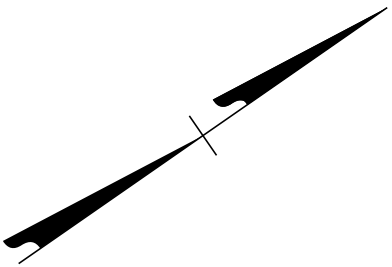
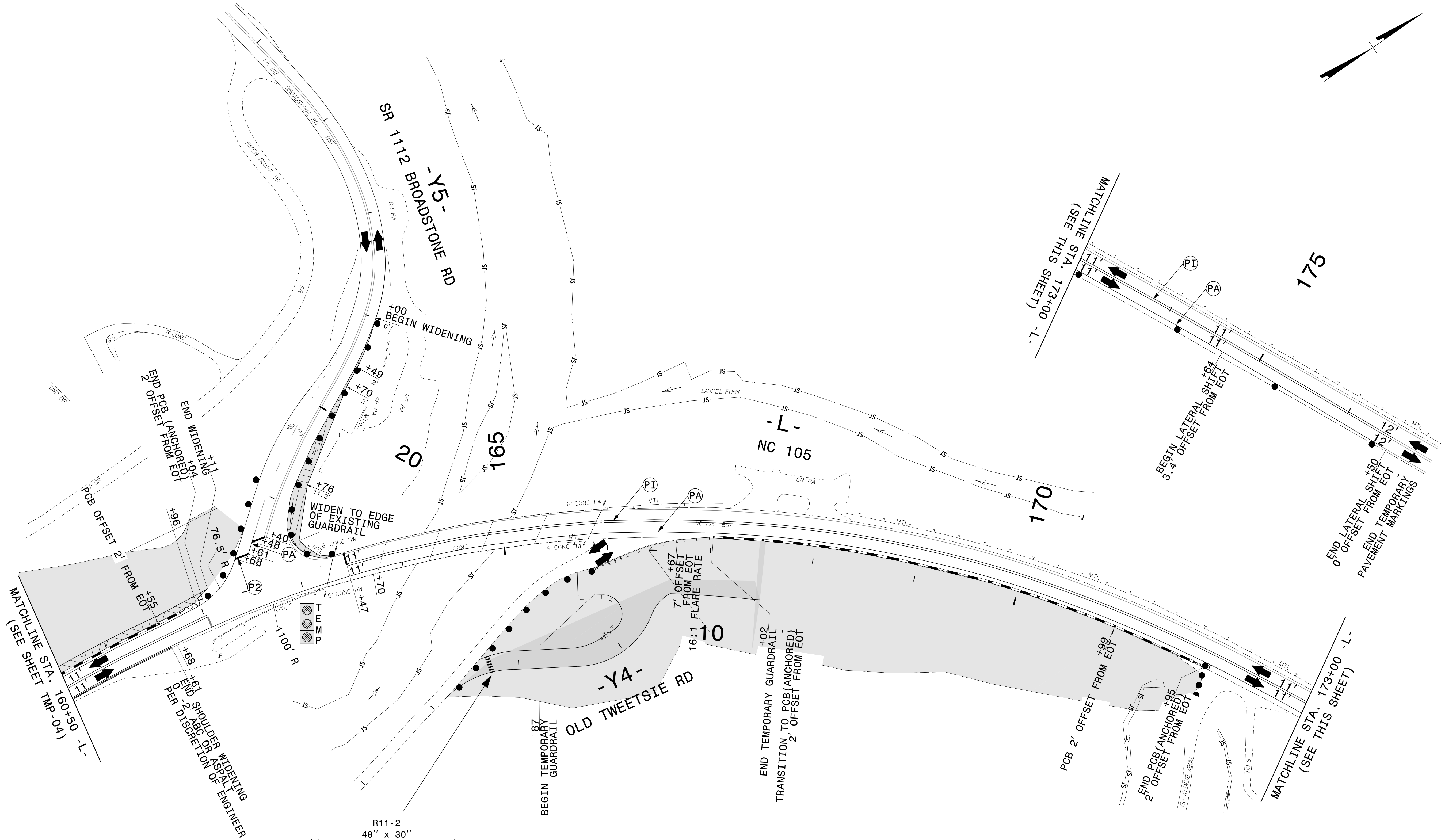
APPROVED: Bob A. Mau

DATE: 7/22/2021



PHASE I, STEP 2 DETAIL

PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 05

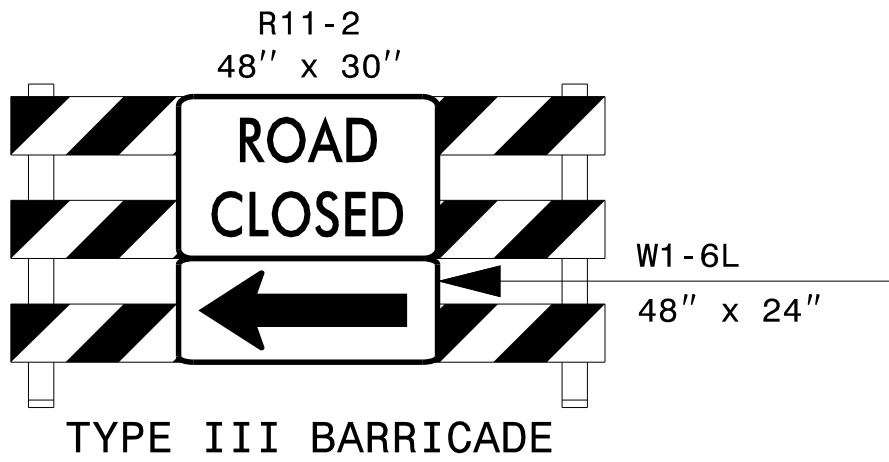


MATCHLINE STA. 160+50 -L-
(SEE SHEET TMP-04)

END WIDENING
END PCB (ANCHORED)
END OFFSET FROM EOT

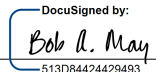
PCB OFFSET 2' FROM EOT


END SHOULDER WIDENING
END 2' ABC OR ASPHALT
PER DISCRETION OF ENGINEER





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APPROVED: 
DATE: 7/22/2021

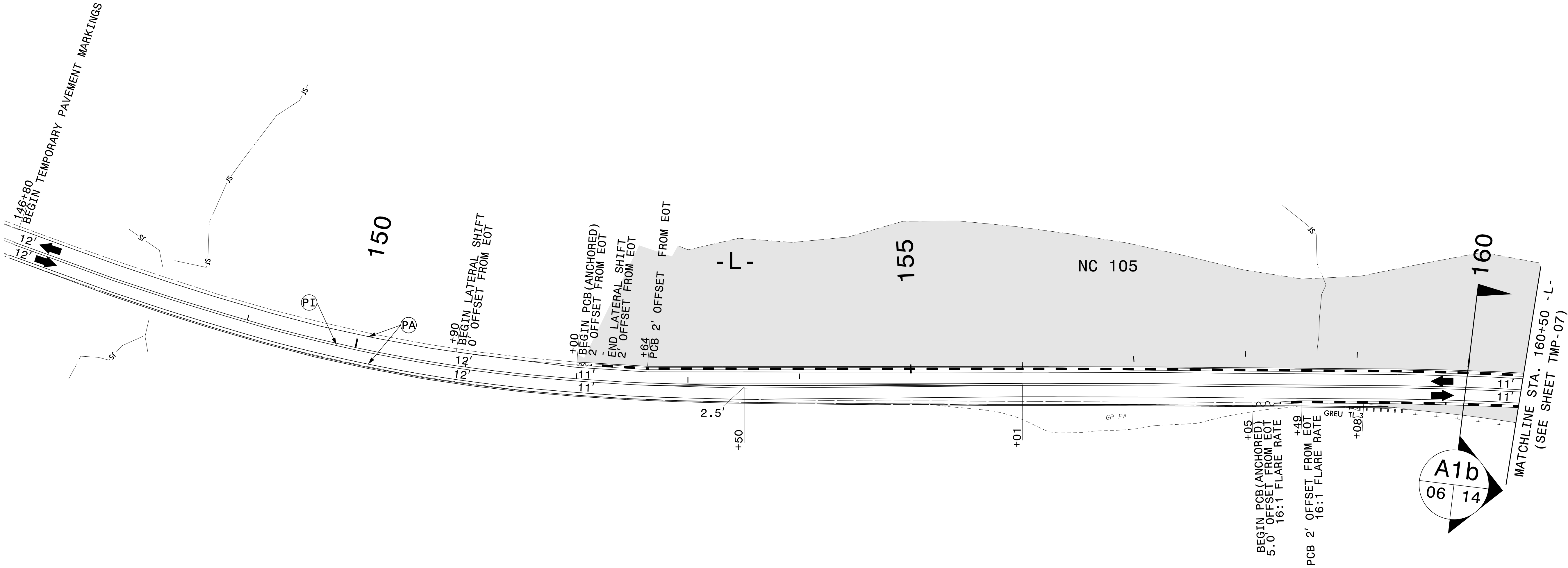


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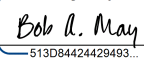
PHASE I, STEP 2
DETAIL


PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 06



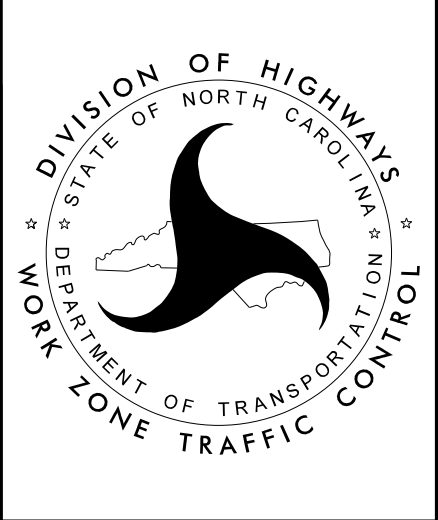
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CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: 
DATE: 7/22/2021

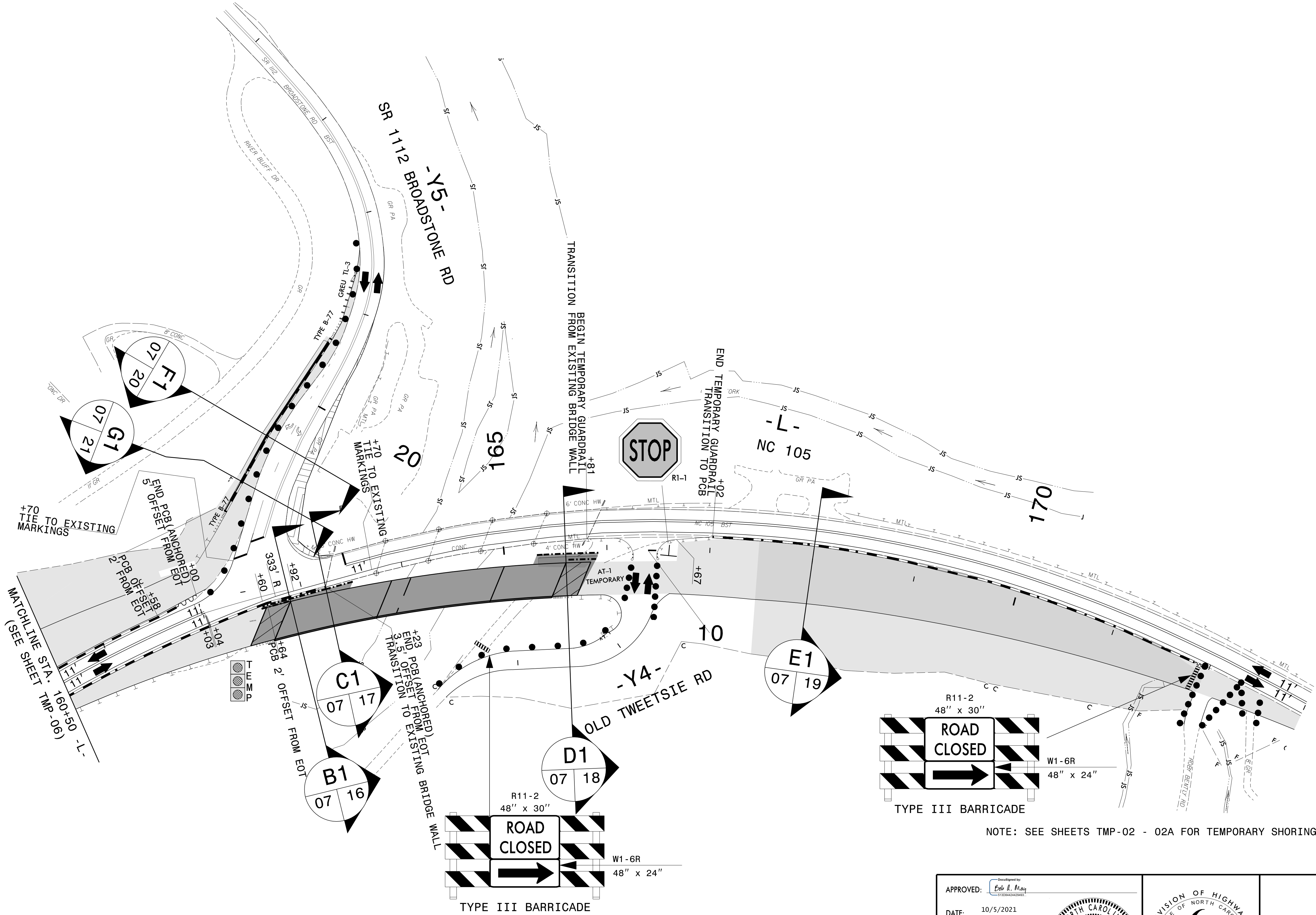
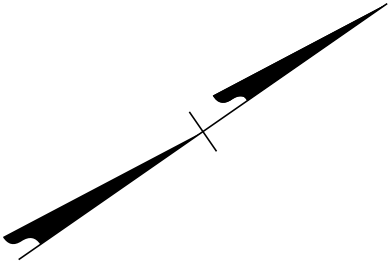


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PHASE I, STEP 3
DETAIL

PROJ. REFERENCE NO.	SHEET NO.
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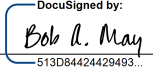
NOTE: SEE SHEETS TMP-02 - 02A FOR TEMPORARY SHORING LIMITS AND DATA.


10/5/2021
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User: AHayes



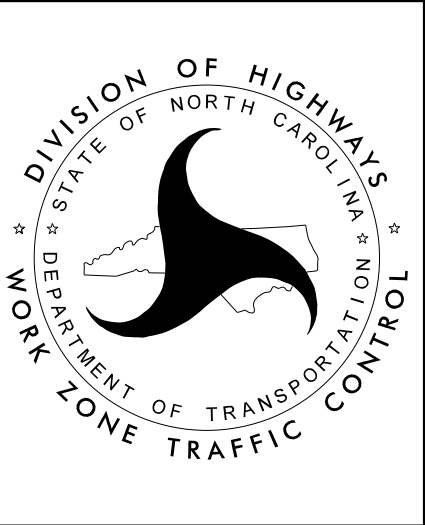
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: 
DATE: 10/5/2021

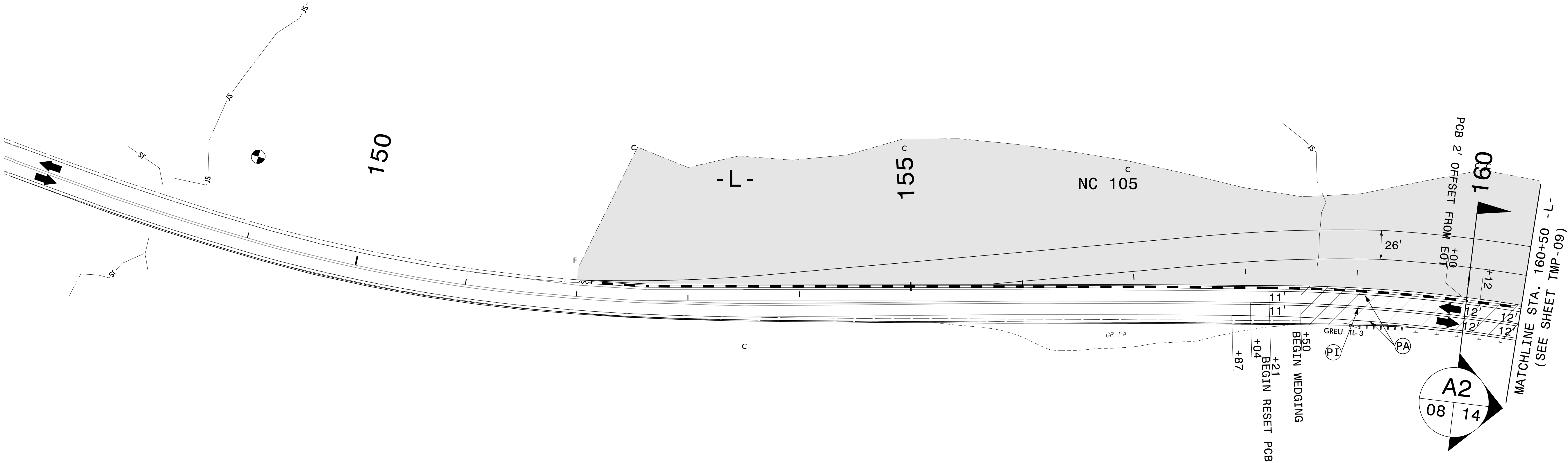


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PHASE I, STEP 3
DETAIL

PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 08

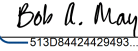


6/11/2021
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User: AHayes



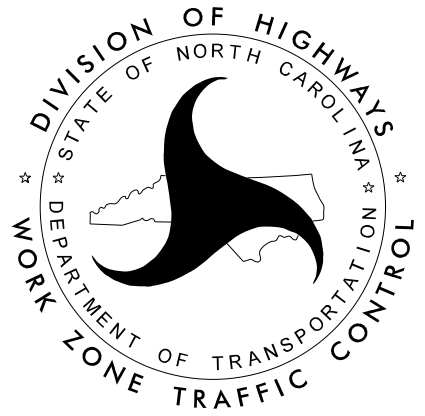
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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

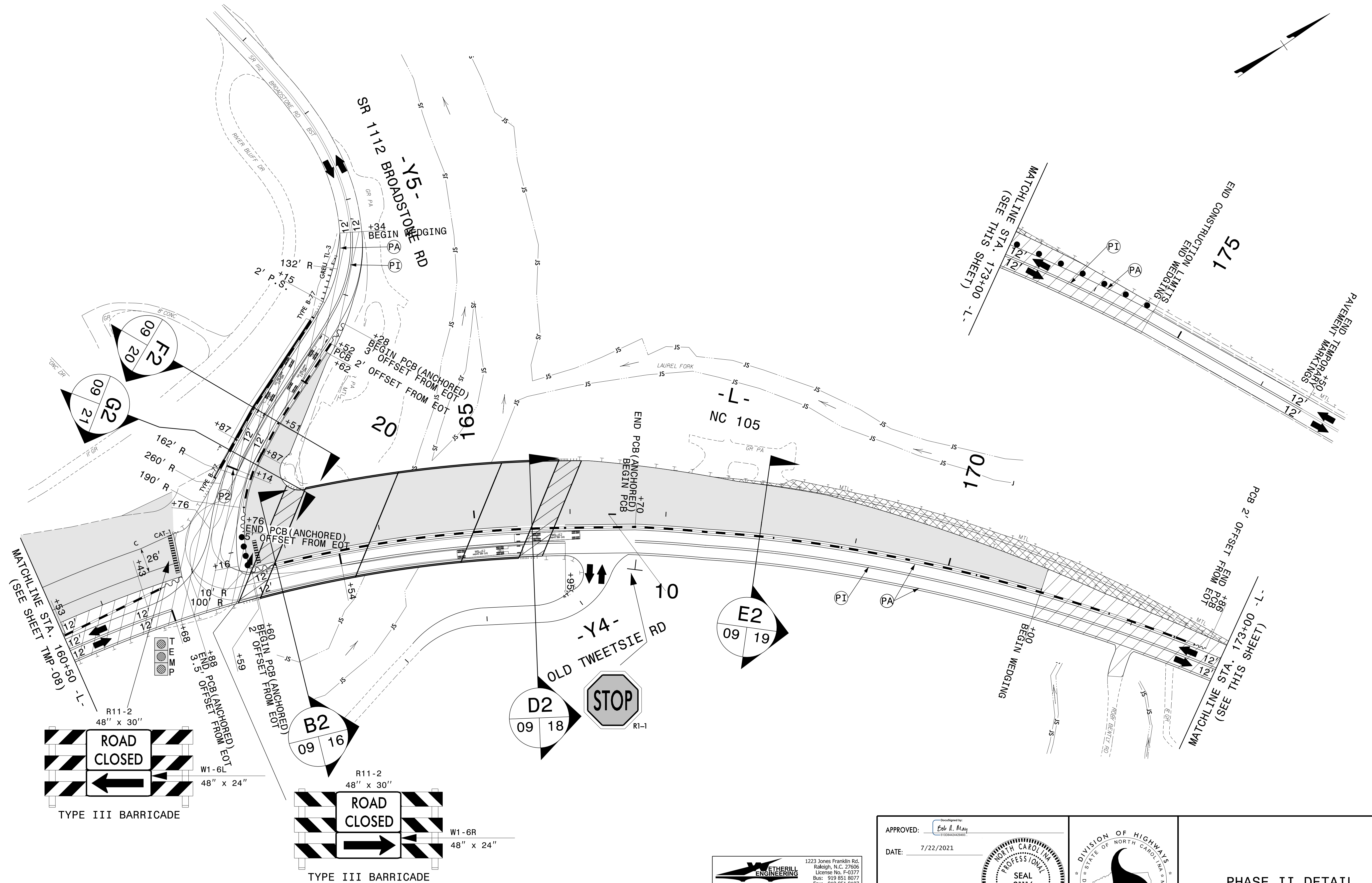
APPROVED: 
DATE: 7/22/2021



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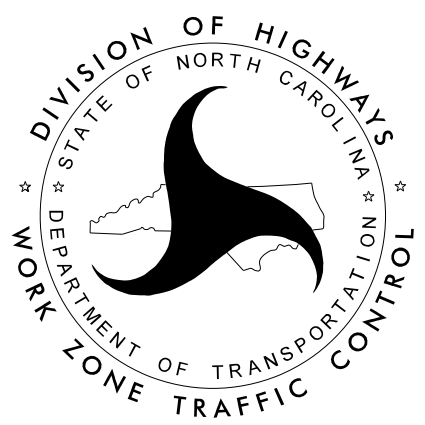


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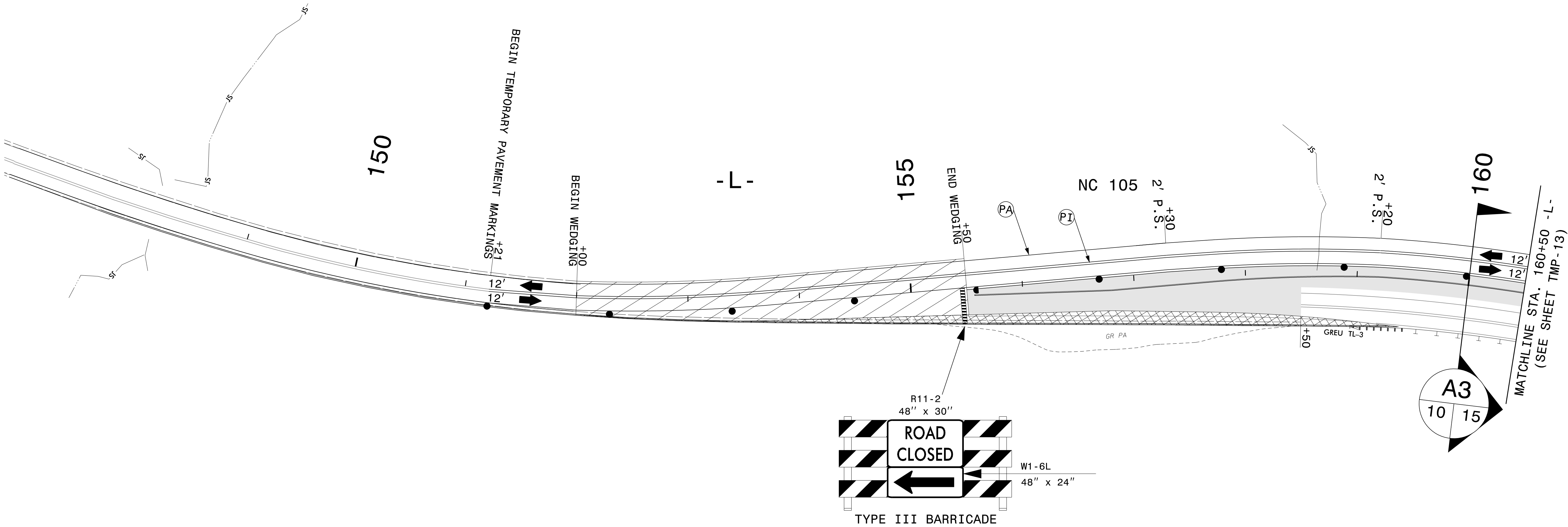
APPROVED: Bob A.

DATE: 7/22/2021

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R - 2566BA	TMP - 10

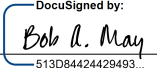


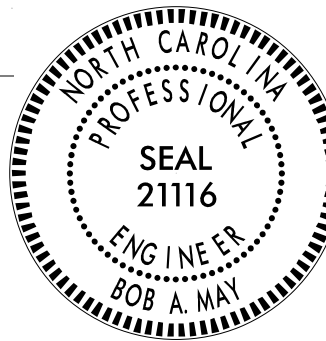
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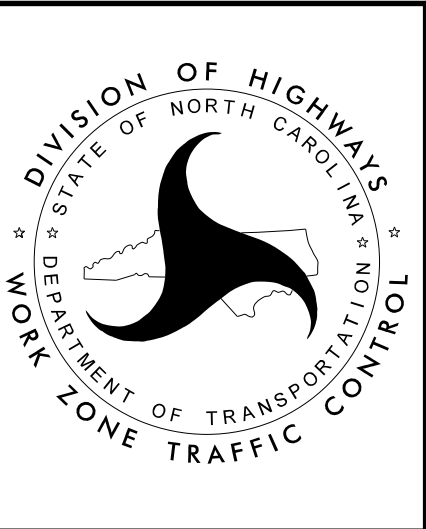
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CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

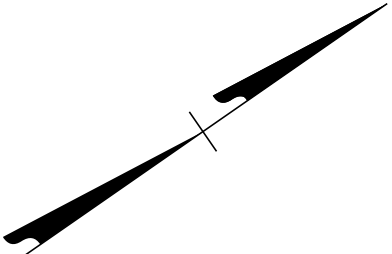
APPROVED: 
DATE: 7/22/2021



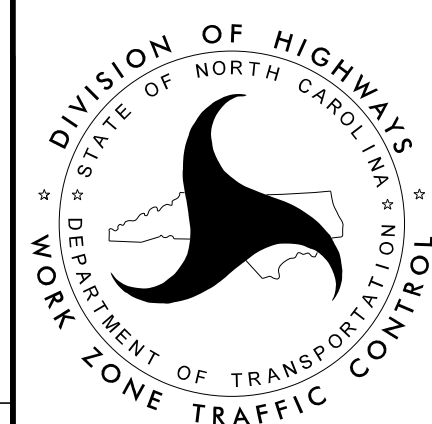
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PHASE III DETAIL

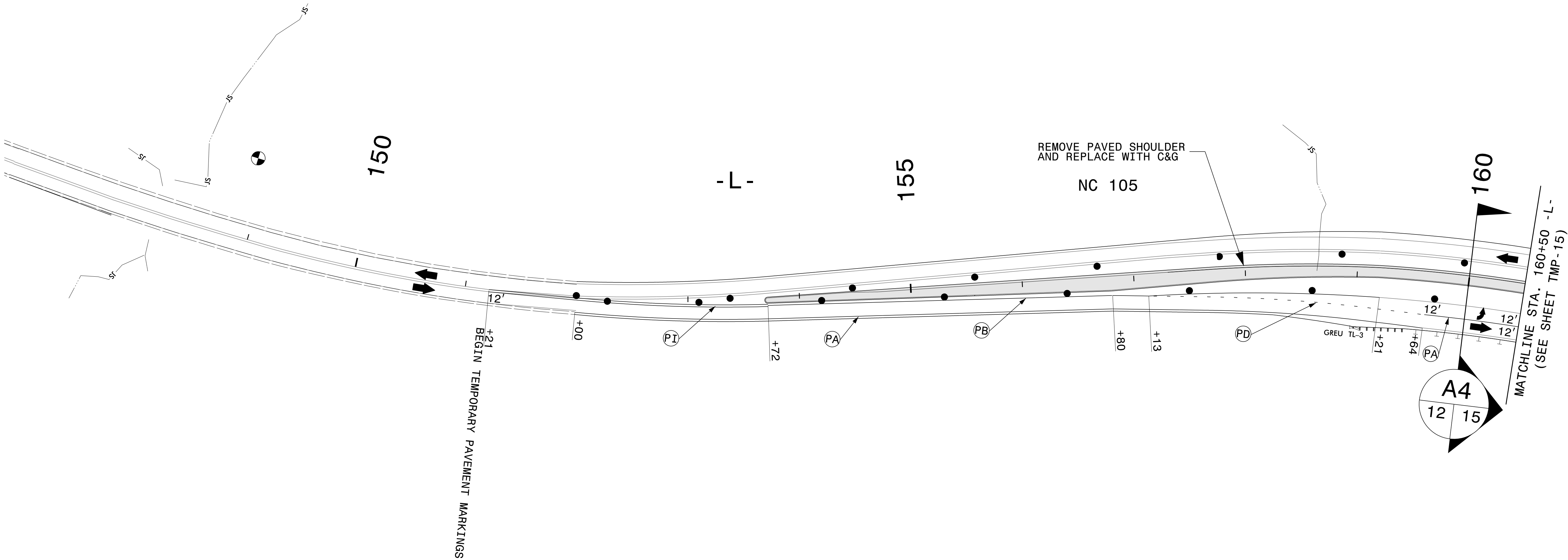
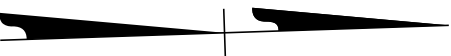


PHASE III DETAIL



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R - 2566BA	TMP - 12

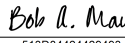


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User: AHayes



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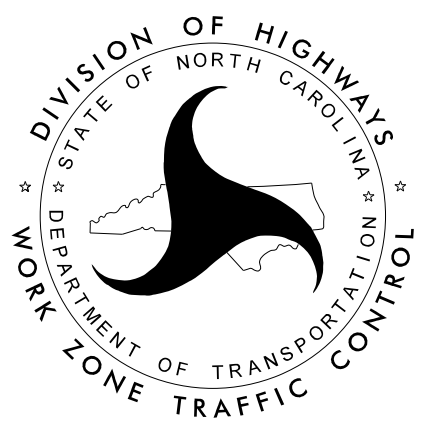
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: 

DATE: 7/22/2021

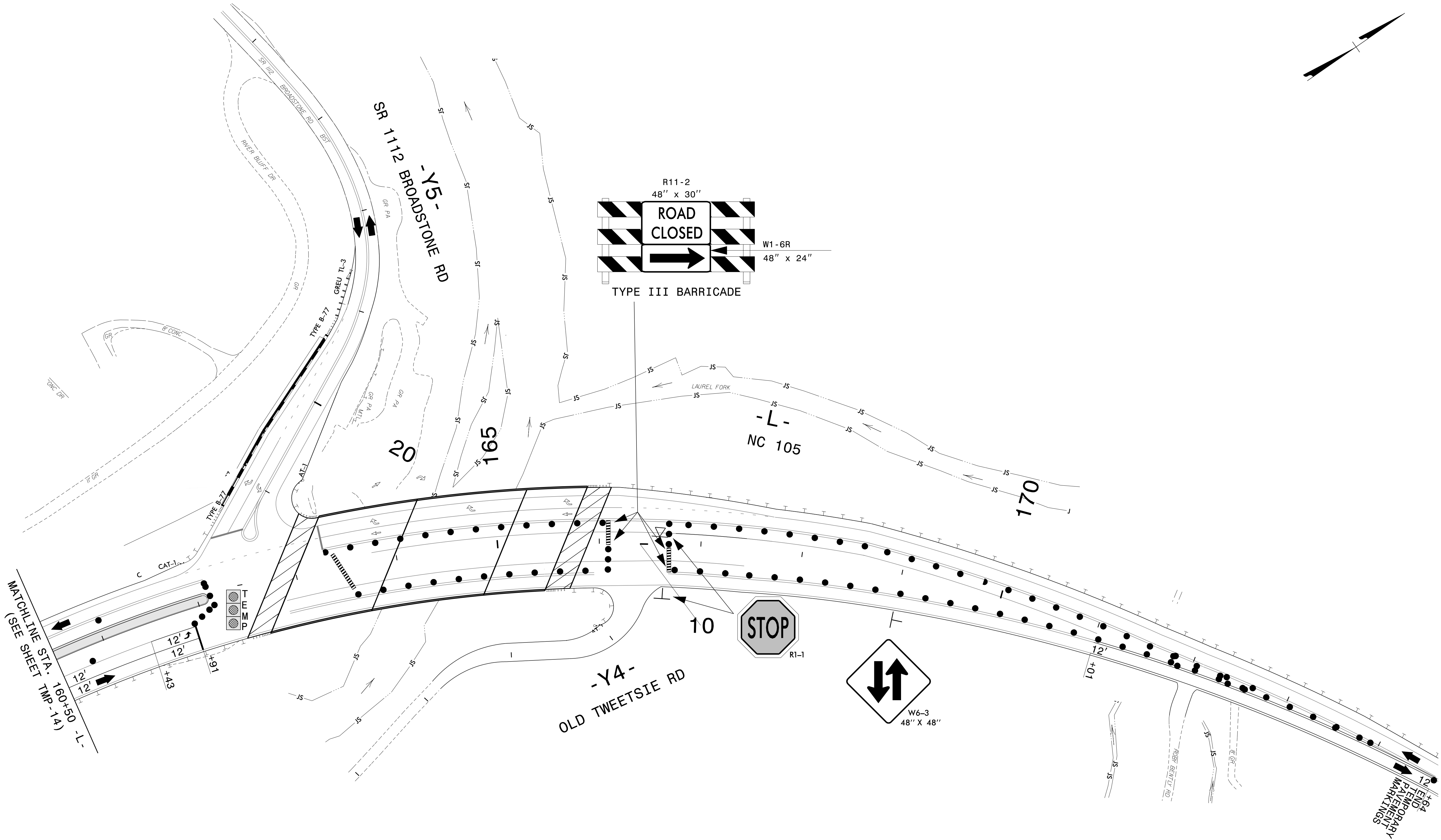
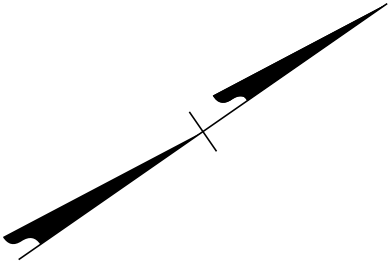


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PHASE IV DETAIL

PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 13

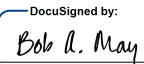


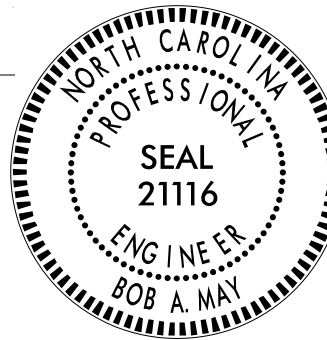
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User: AHayes



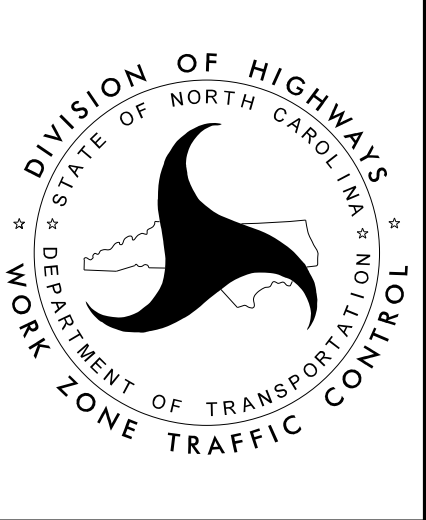
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: 
DATE: 7/22/2021

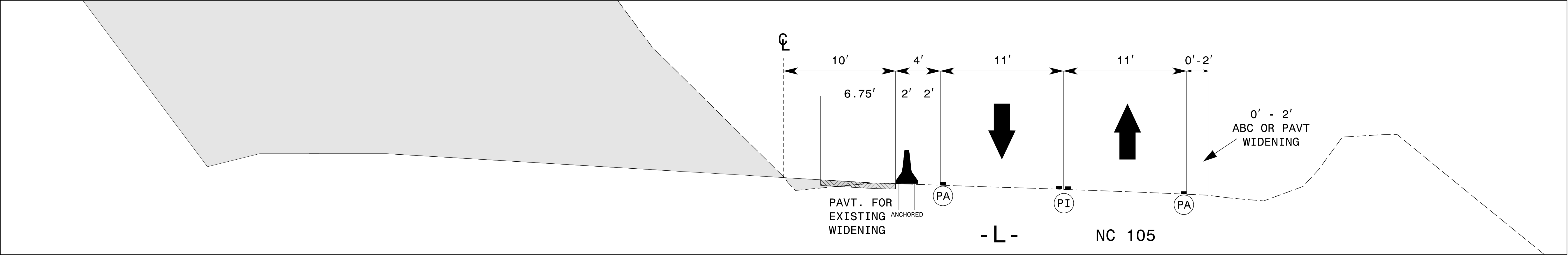


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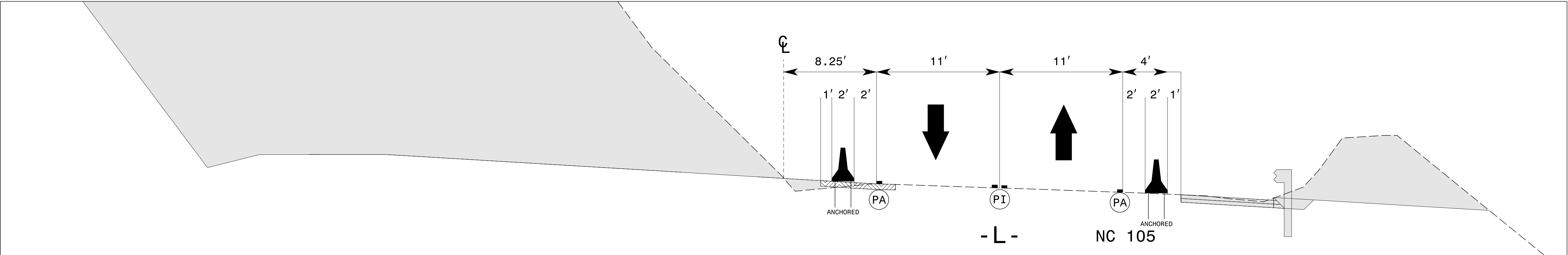


PHASE IV DETAIL

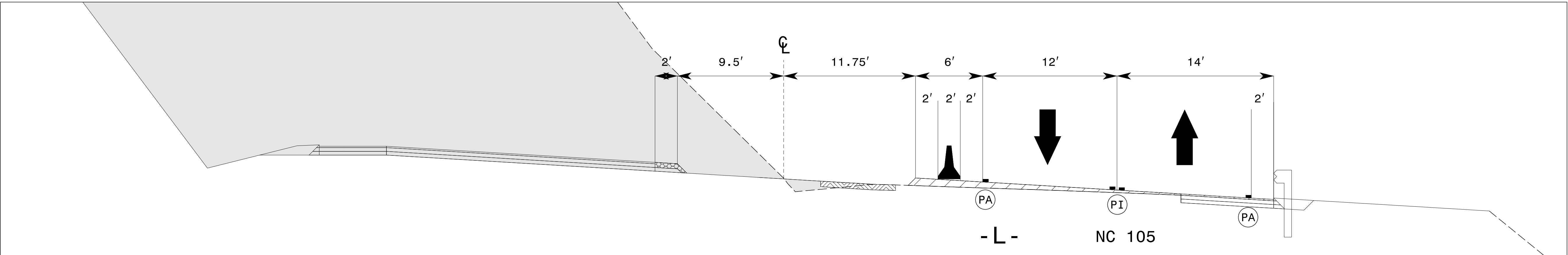
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R-2566BA	TMP-14



A1a
04 | 14
STA. 160+00 -L-
CUT SECTION



A1b
06 | 14
STA. 160+00 -L-
CUT SECTION



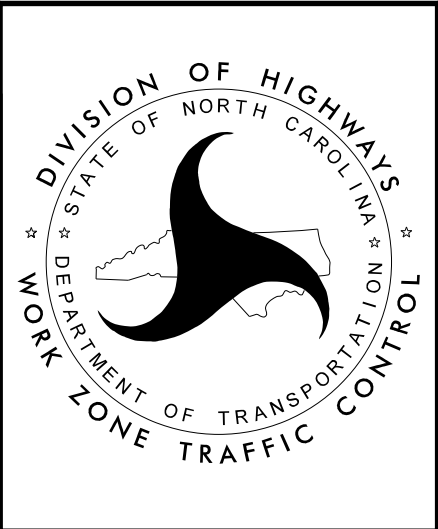
A2
08 | 14
STA. 160+00 -L-
CUT SECTION

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CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: *Bob A. May*
DATE: 7/22/2021

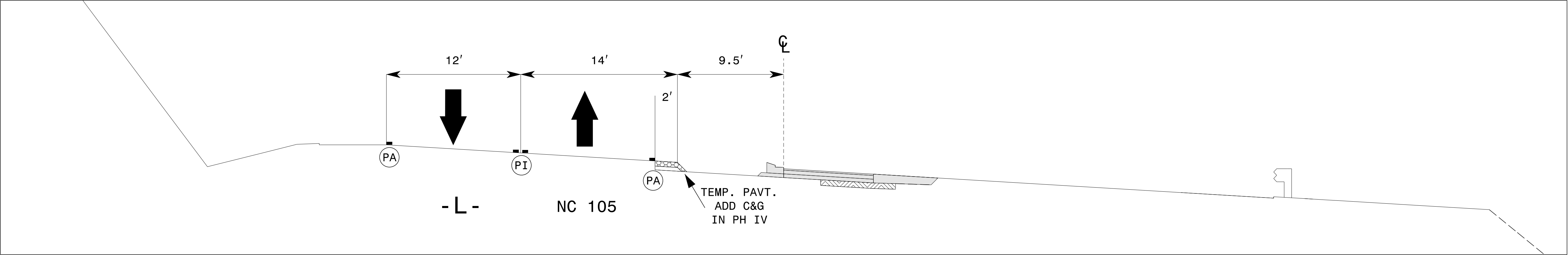
SEAL 21116
ENGINEER
BOB A. MAY

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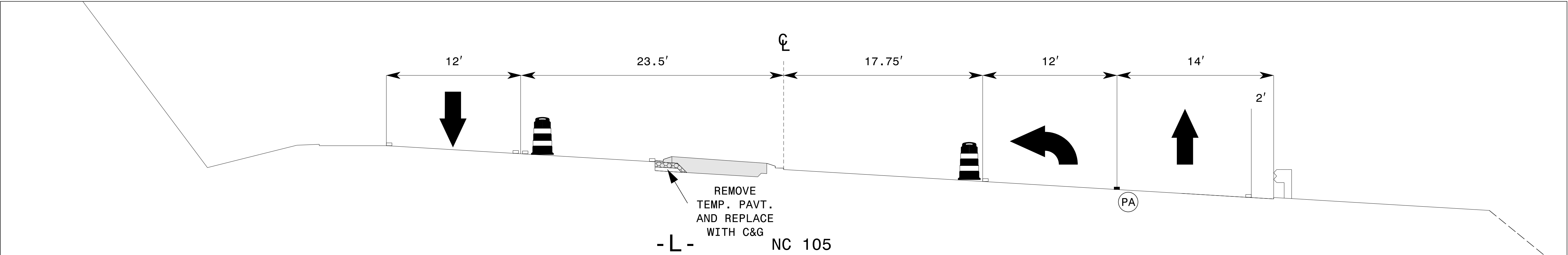


**TEMPORARY CUT SECTION A
PHASE I & II**

PROJ. REFERENCE NO.	SHEET NO.
R-2566BA	TMP-15



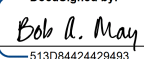
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10 15 STA. 160+00 -L-
CUT SECTION




A4
12 15 STA. 160+00 -L-
CUT SECTION

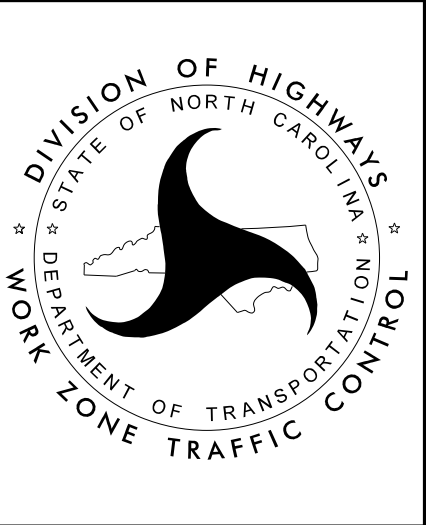
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User:AHayes

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CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

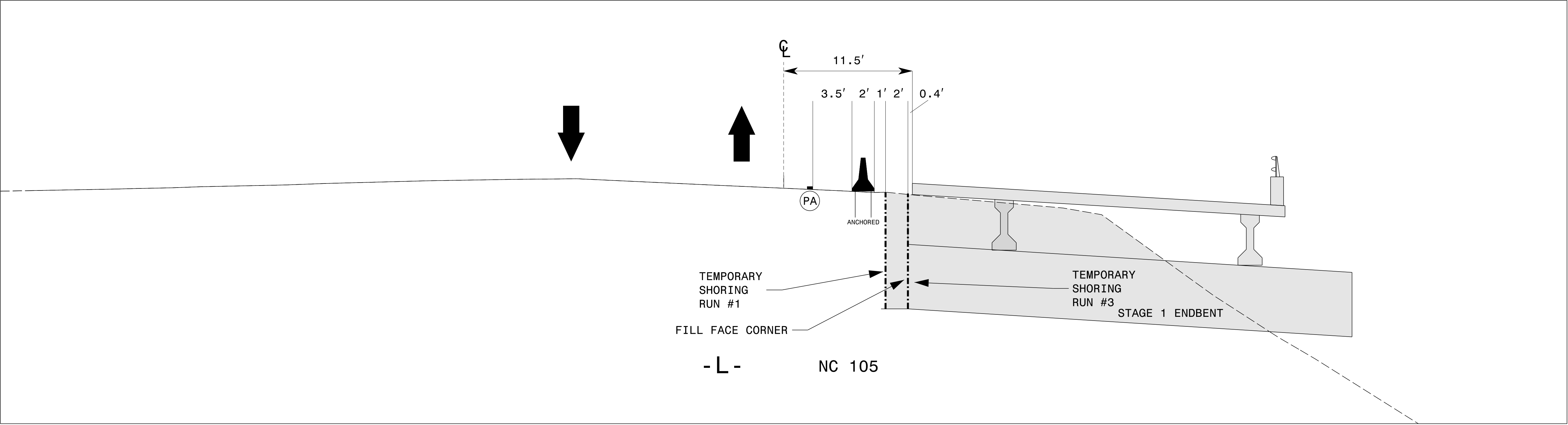
APPROVED: 
DATE: 7/22/2021



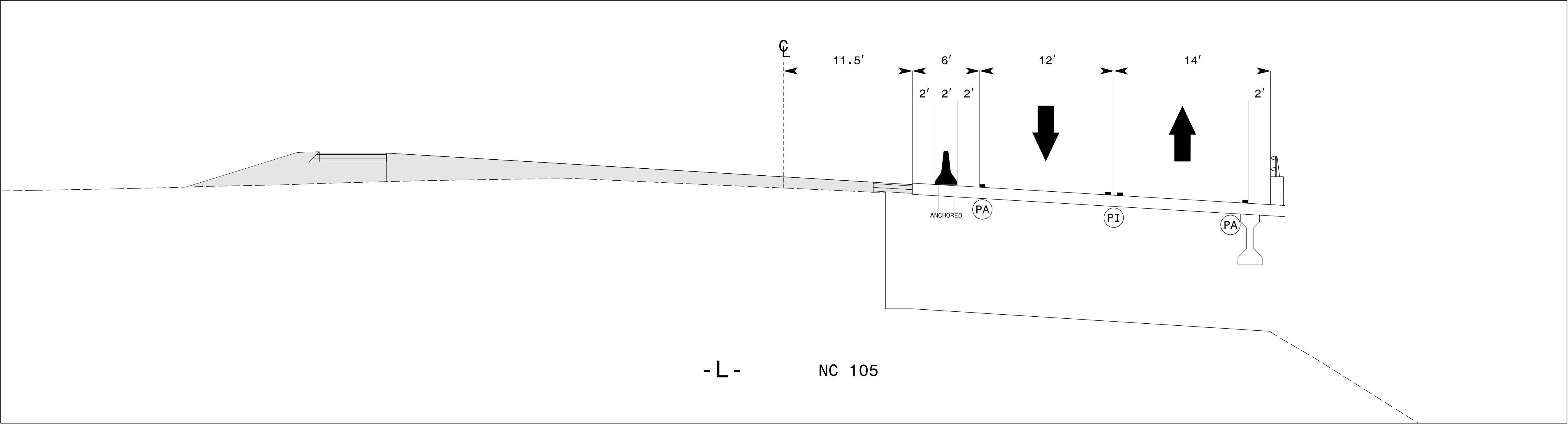
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TEMPORARY CUT SECTION A
PHASE III & IV



B1
07 16 STA. 162+87 -L-
CUT SECTION



B2
09 16 STA. 162+87 -L-
CUT SECTION

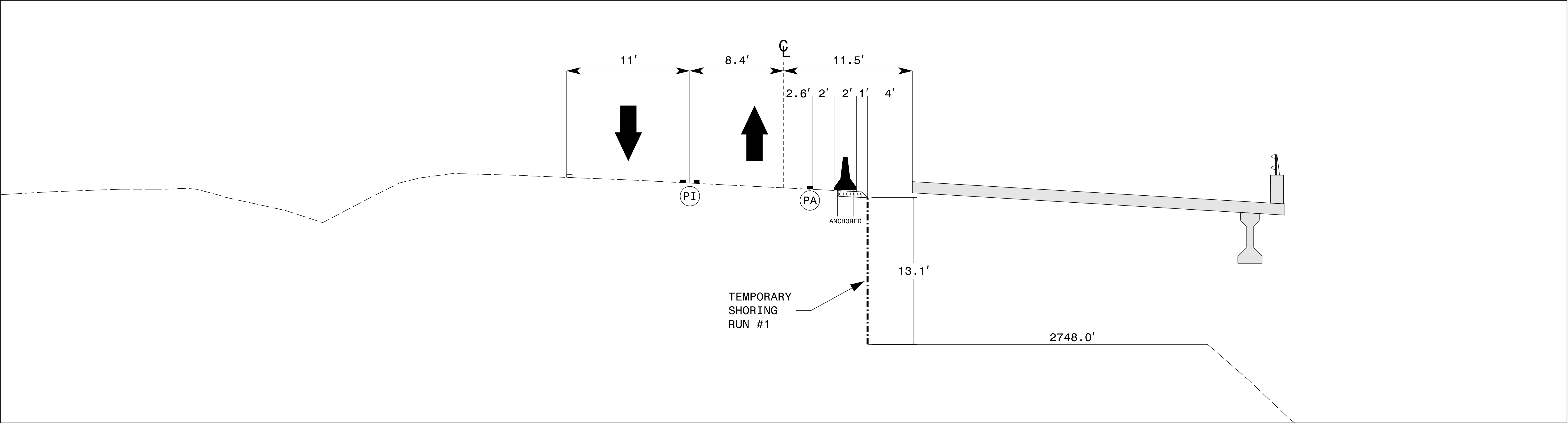
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Fax: 919 891 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: *Bob A. May*
DATE: 10/5/2021
SEAL 21116
NORTH CAROLINA
PROFESSIONAL
ENGINEER
BOB A. MAY
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TEMPORARY CUT SECTION B

PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 17



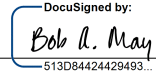
C1
07 | 17
STA. 163+23 -L-
CUT SECTION


6/11/2021
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User: AHayes



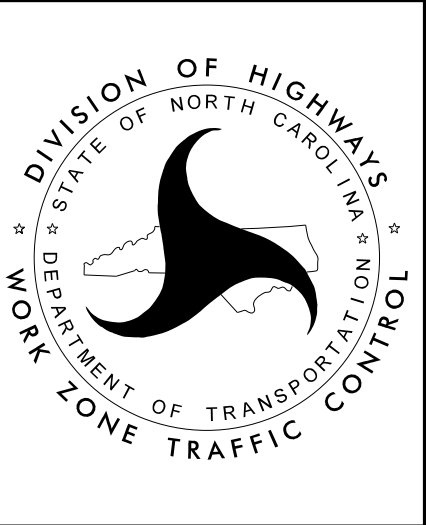
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: 
DATE: 7/22/2021

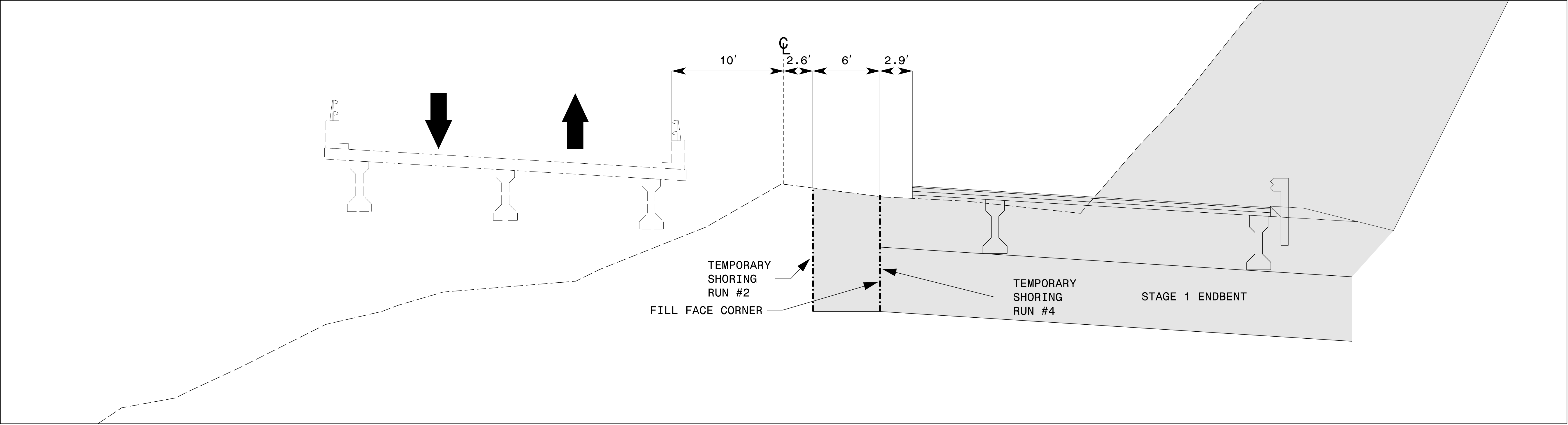


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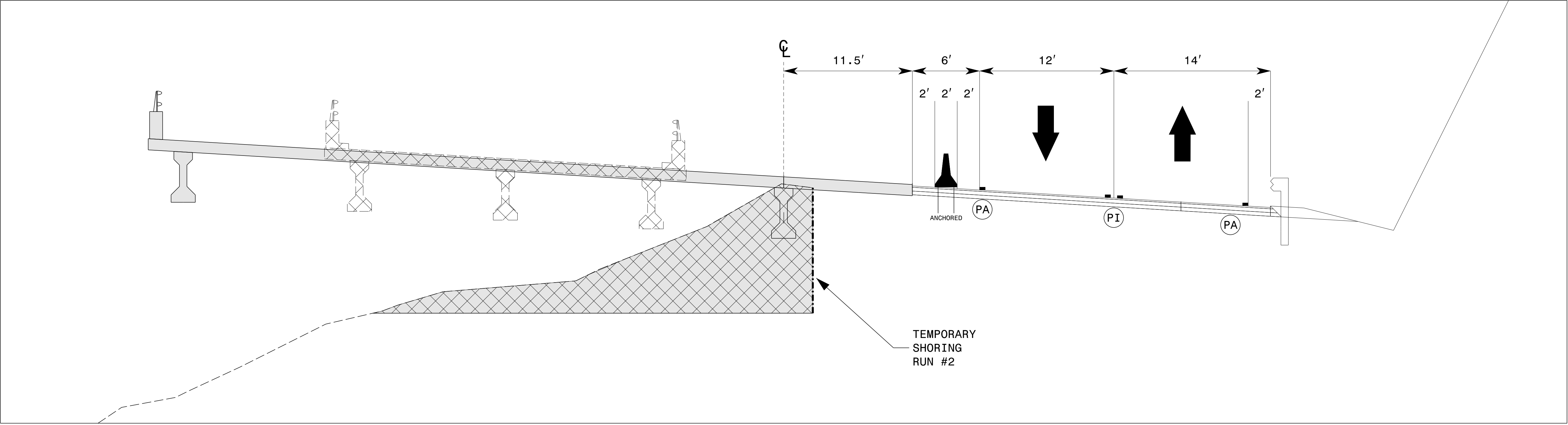


TEMPORARY CUT SECTION C

PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 18



D1
07 18
STA. 165+60 -L-
CUT SECTION



D2
09 18
STA. 165+60 -L-
CUT SECTION

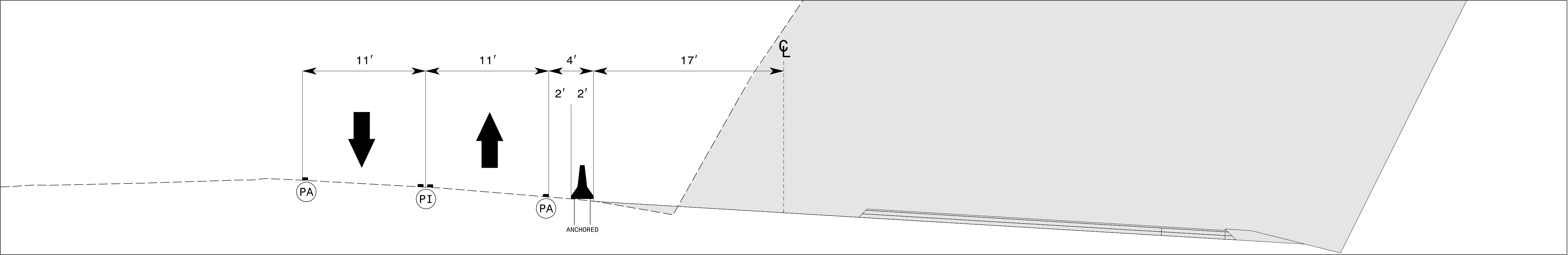
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ENGINEERING
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License No. F-0377
Bus: 919 881 8077
Fax: 919 891 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: *Bob A. May*
DATE: 10/5/2021
SEAL
21116
ENGINEER
BOB A. MAY

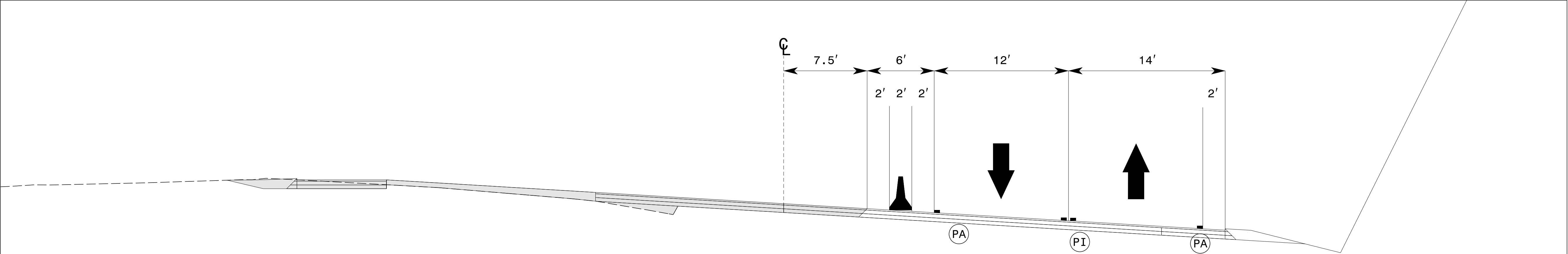


TEMPORARY CUT SECTION D

PROJ. REFERENCE NO.	SHEET NO.
R-2566BA	TMP-19



E1
07 19 STA. 168+00 -L-
CUT SECTION



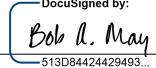
E2
09 19 STA. 168+00 -L-
CUT SECTION


6/1/2021
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User:AHayes



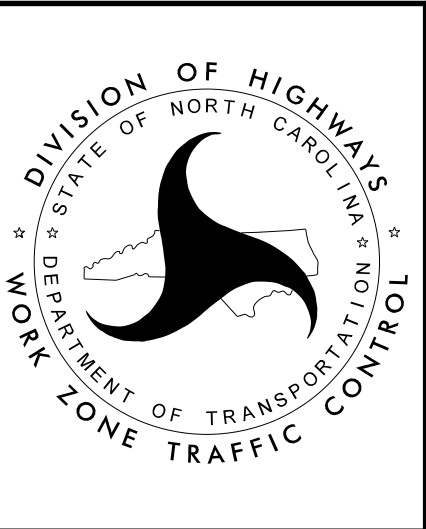
1223 Jones Franklin Rd.
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GROUPS - CONSTRUCTION OBSERVATION

APPROVED: 
DATE: 7/22/2021

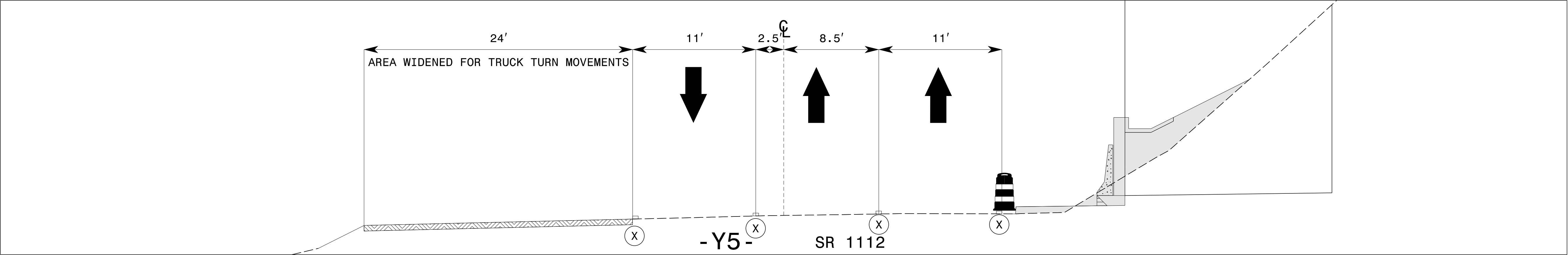


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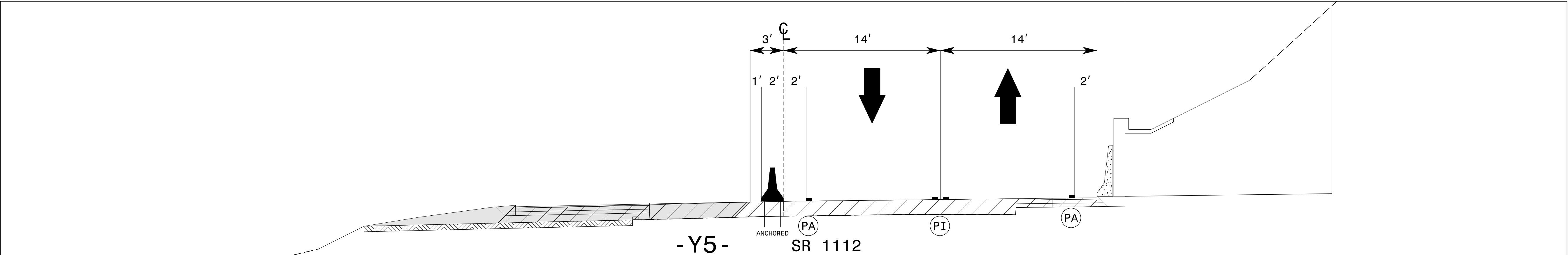


TEMPORARY CUT SECTION E

PROJ. REFERENCE NO.	SHEET NO.
R - 2566BA	TMP - 20



F1
07 20 STA. 20+50 -Y5-
CUT SECTION



F2
09 20 STA. 20+50 -Y5-
CUT SECTION

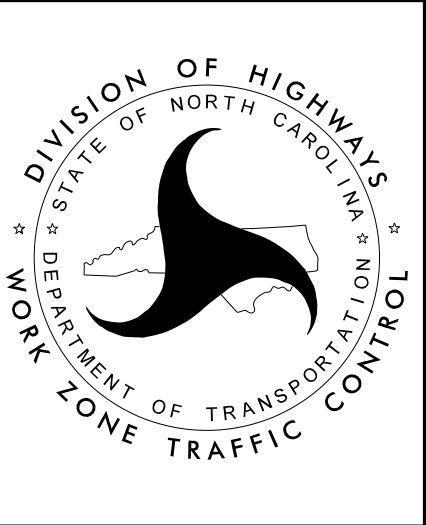
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User: AHayes

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CIVIL/SITE DESIGN - GEOTECH - CONSTRUCTION OBSERVATION

APPROVED: *Bob A. May*
DATE: 7/22/2021

SEAL
21116
ENGINEER
BOB A. MAY

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TEMPORARY CUT SECTION F

