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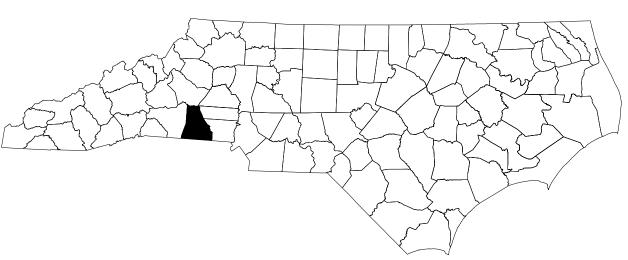
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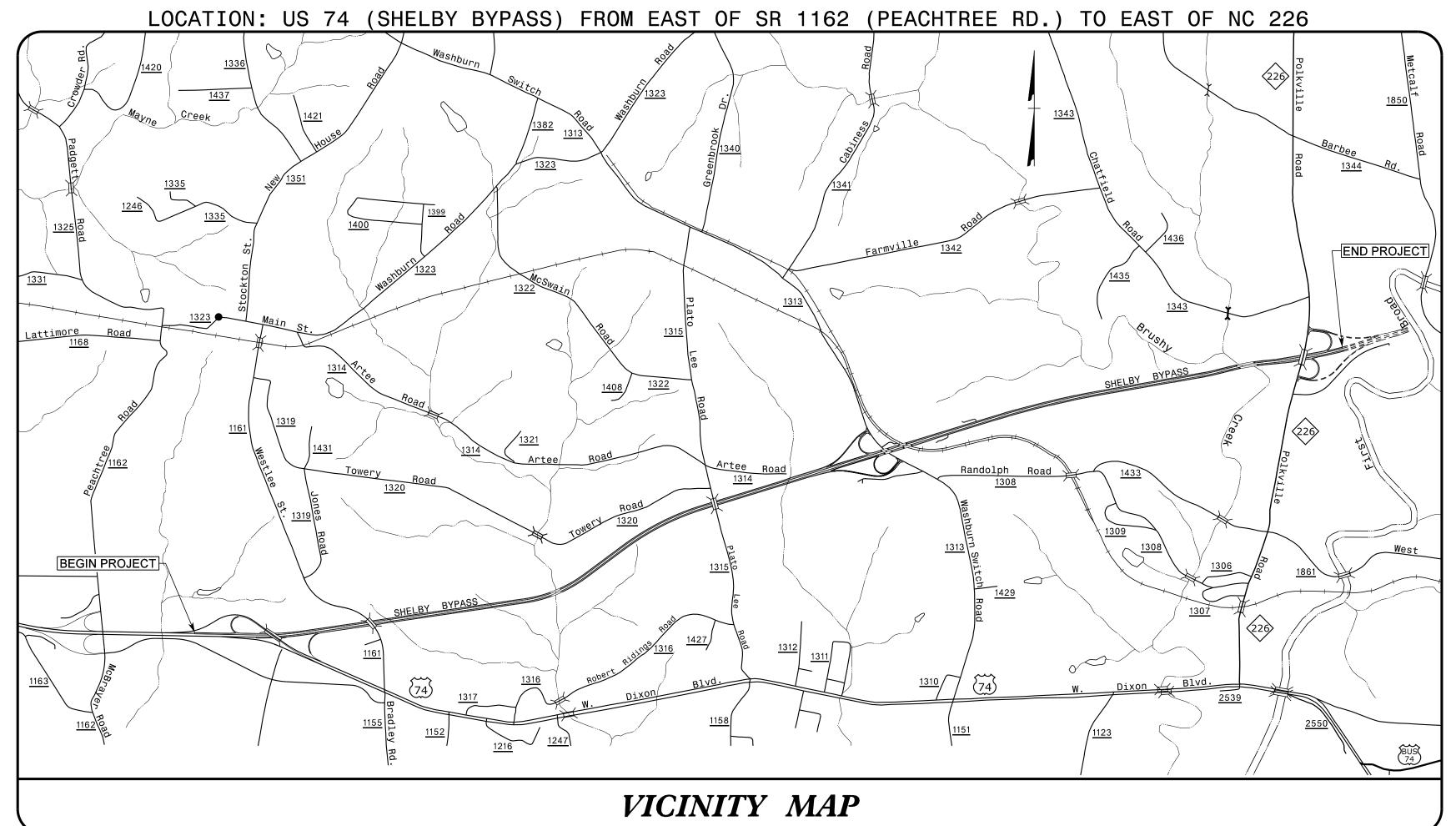
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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CLEVELAND COUNTY

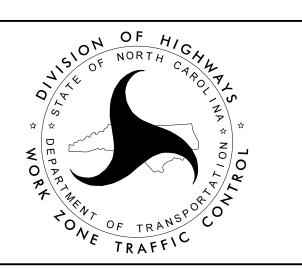




WORK ZONE SAFETY & MOBILITY "from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL 1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561 750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY) PHONE: (919) 773-2800 FAX: (919) 771-2745

J. E. HUMMER, P.E.	STATE TRAFFIC MANAGEMENT ENGINEER
D. A. PARKER, P.E.	TRAFFIC CONTROL PROJECT ENGINEER
K. C. THORNEWELL, JR., P.E.	TRAFFIC CONTROL PROJECT DESIGN ENGINEER
S. B. COATS	TRAFFIC CONTROL DESIGN ENGINEER



INDEX OF SHEETS

SHEET NO.	TITLE
TMP - 1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKINGS
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (TRANSPORTATION OPERATIONS, LOCAL NOTES, AND GENERAL NOTES)
TMP-1C	PHASING
TMP-2	PHASE I DETAILS (-L-)
TMP-3	PHASE I DETAILS (-L-)
TMP-4	PAHSE I DETAILS (-L-)
TMP-5	PHASE I DETAILS (-Y7-)
TMP-6	PHASE I DETAILS (-Y7-)
TMP-7	PHASE I DETAILS (-Y1-)
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TMP-1

-2707F

PROJECT:

P:\TIPProjects-R\R2707F\Traff User:scoats

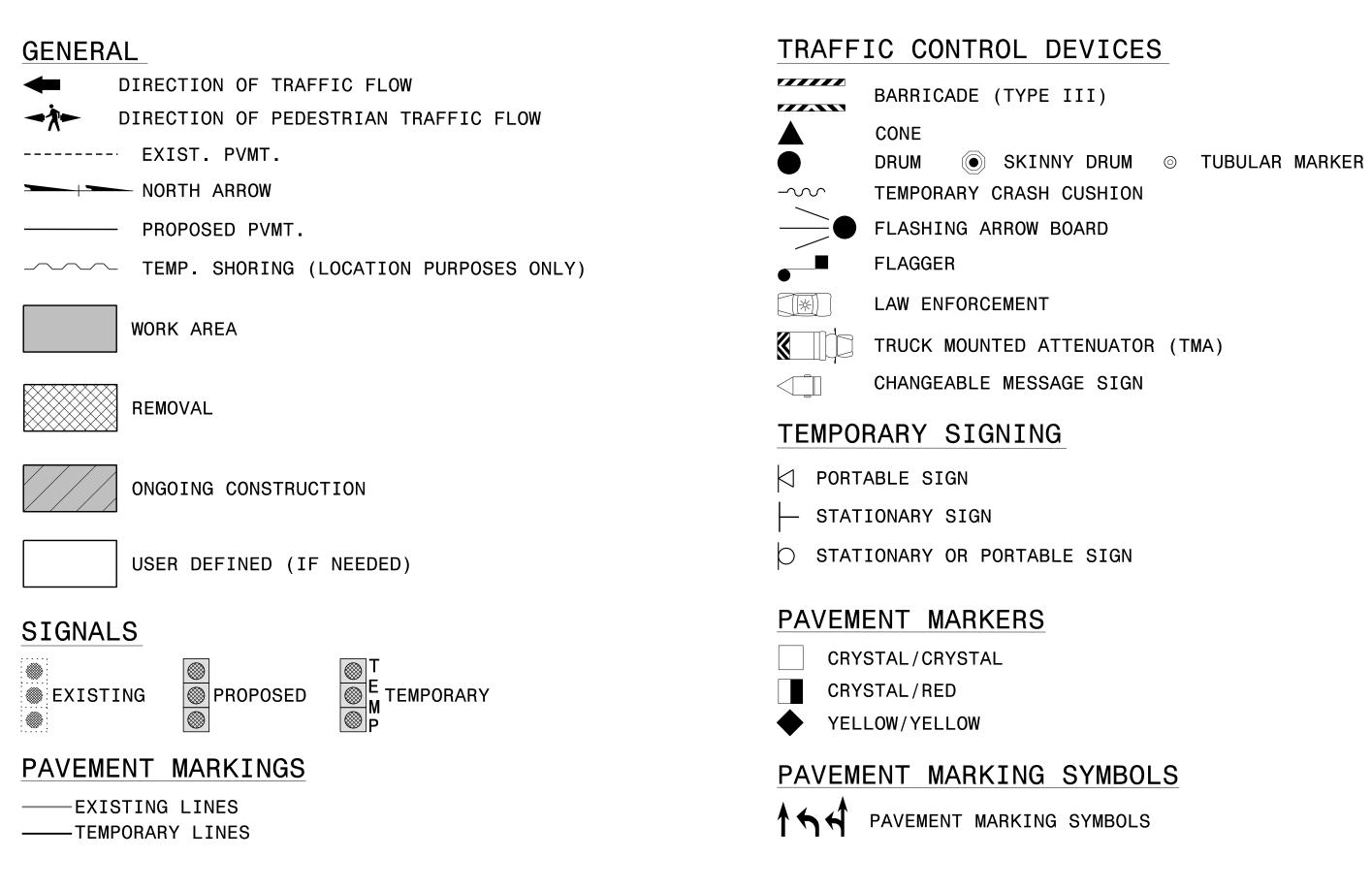
ROADWAY STANDARD DRAWINGS

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
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

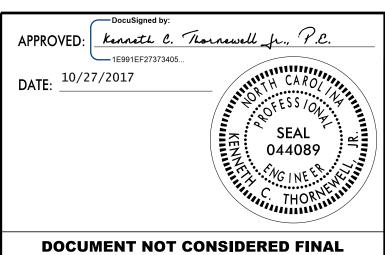
PROJ. REFERENCE NO.	SHEET NO.	
R-2707F	TMP-1A	

LEGEND



TEMPORARY PAVEMENT MARKING

CA - WHITE EDGELINE (COLD APPLIED PLASTIC - TYPE 4) - 4"
CB - YELLOW EDGELINE (COLD APPLIED PLASTIC - TYPE 4) - 4"
PA - WHITE EDGELINE (PAINT) - 4"
PB - YELLOW EDGELINE (PAINT) - 4"
PI - YELLOW DOUBLE CENTER (PAINT) - 4"
PP - YELLOW DIAGONAL (PAINT) - 8"



UNLESS ALL SIGNATURES COMPLETED



ROADWAY STANDARD DRAWINGS & LEGEND

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
US 74 (-L-)

MONDAY THRU FRIDAY
7:00 A.M. TO 9:00 A.M.
4:00 P.M. TO 6:00 P.M.

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

ROAD NAME

US 74 (-L-)

<u>HOLIDAY</u>

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

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR ANY NASCAR EVENT AT CHARLOTTE MOTOR SPEEDWAY BETWEEN THE HOURS OF 7:00 A.M. THE WEDNESDAY BEFORE THE FIRST EVENT AND 6:00 P.M., THE DAY AFTER THE LAST EVENT.
- C) DO NOT STOP TRAFFIC AS FOLLOWS:

DAY AND TIME DURATION AND OPERATION

US 74 (-L-) MONDAY THRU SUNDAY 20 MINUTES FOR OVERHEAD SIGN INSTALLATION

D) 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

- E) 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.
- F) 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.
- 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.

-) 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.
- I) 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.
- J) DO NOT INSTALL MORE THAN 1/2 MILE OF LANE CLOSURE ON ANY ROAD, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ANY ROAD.
- L) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

M) 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.

N) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- P) 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.
- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350 FT. IN ADVANCE OF AN UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

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.

PROJ. REFERENCE NO.

R-2707F

SHEET NO.

TMP-1B

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	<u>MARKING</u>	MARKER
Y1- (NC 226)	COLD APPLIED PLASTIC	TEMPORARY
Y1- (NC 226)	PAINT	TEMPORARY

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

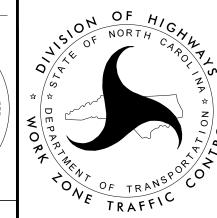
Z) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

APPROVED: Kenneth C. Thornewell Jr., P.C.

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DATE:

| CAROLUMAN | CAROL



TRANSPORTATION
OPERATIONS
PLAN

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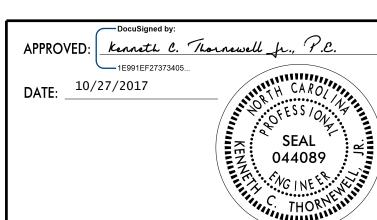
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R-2707F	TMP-1C

PHASING

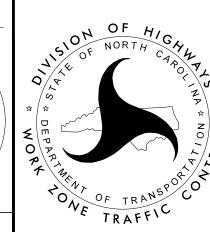
NOTE: BEFORE BEGINNING CONSTRUCTION THE CONTRACTOR SHALL PLACE ADVANCE WORK ZONE WARNING SIGNS ALONG -L- LINE AND -Y- LINES, (SEE RSD 1101.01, SHEET 2 AND 3 OF 3).

PHASE I

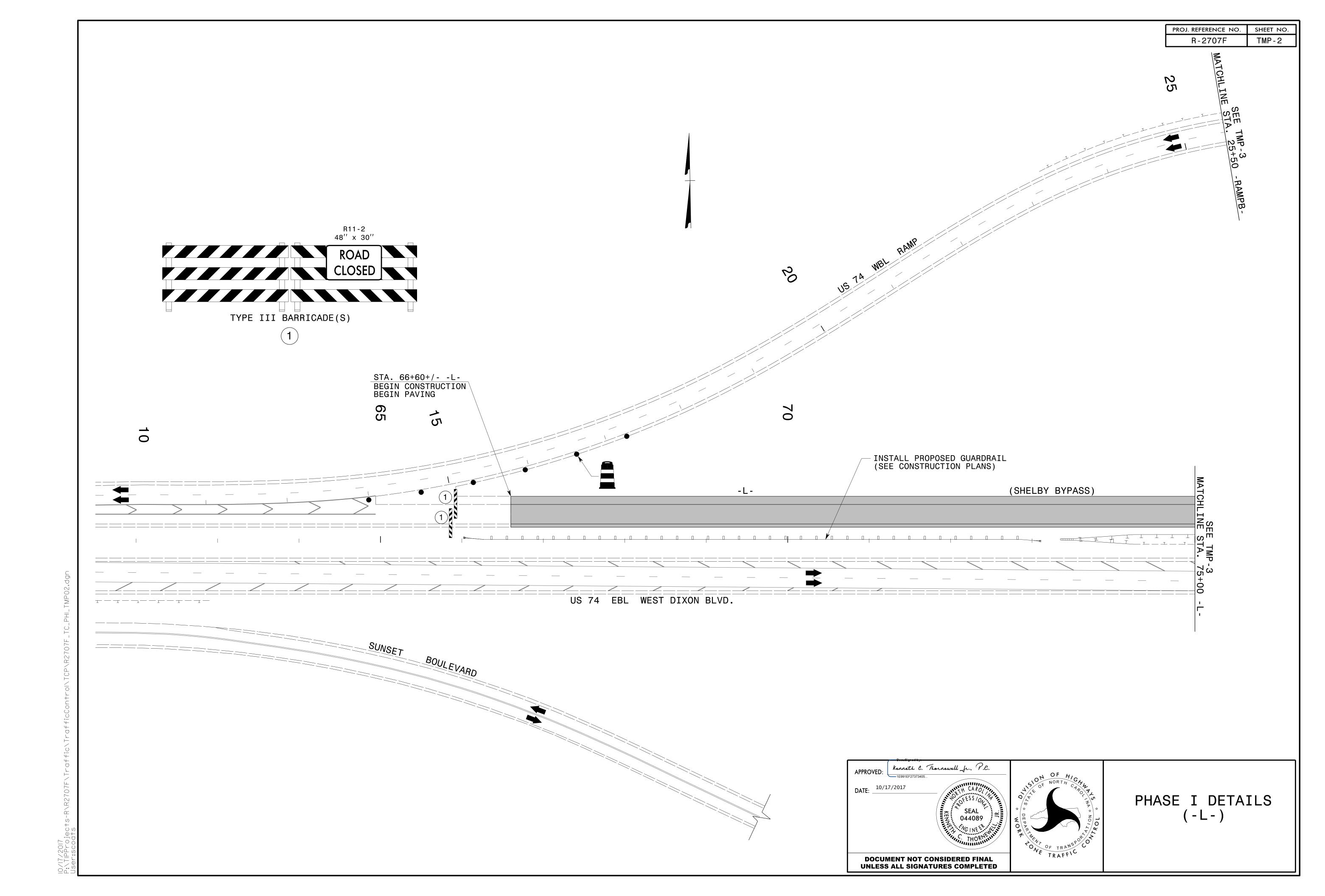
- STEP 1. AWAY FROM TRAFFIC, CONSTRUCT PROPOSED US 74 (-L-), INCLUDING RAMPS, SHOULDERS, CURB AND GUTTER, MONOLITHIC CONCRETE ISLANDS, AND PROPOSED GUARDRAIL, UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE CONSTRUCTION PLANS AND TMP-2 THRU TMP-8).
- STEP 2. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), COMPLETE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON NC 226 (-Y1-) (SEE TMP-7 THRU TMP-9).
 - SHIFT TRAFFIC FROM A TWO-LANE, TWO-WAY TRAFFIC PATTERN TO THE NEW TRAFFIC PATTERN AS SHOWN ON TMP-7 THRU TMP-9.
- STEP 3. AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 1 OF 14), CONSTRUCT MONOLITHIC CONCRETE ISLANDS ON NC 226 (-Y1-) AS SHOWN ON TMP-7 THRU TMP-9 (SEE CONSTRUCTION PLANS).
 - INSTALL/CONSTRUCT TEMPORARY SIGNALS AT THE INTX OF NC 226 (-Y1-) AND -LPD1-, BUT DO NOT ACTIVATE (SEE SIGNALS PLAN).
- STEP 4. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), PAVE THE FINAL LAYER OF SURFACE COURSE ON NC 226 (-Y1-) AND SR 1313 (-Y7-).
- STEP 5. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON NC 226 (-Y1-) AND SR 1313 (-Y7-).
- STEP 6. AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 3 OF 14), INSTALL OVERHEAD SIGNS AND COVER ON US 74. REMOVE WATER FILLED BARRIER SHOWN ON TMP-3 & 4 AND DELIVER TO NCDOT CLEVELAND COUNTY MAINTENANCE FACILTY (SEE SPECIAL PROVISIONS).
- STEP 7. AWAY FROM TRAFFIC, PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON US 74, INCLUDING LOOPS AND RAMPS (SEE FINAL PAVEMENT MARKING PLAN).
- STEP 8. AFTER COMPLETION OF PHASE 1 STEPS 1 THRU 7, REMOVE ALL TRAFFIC CONTROL DEVICES WITH EXCEPTION OF DEVICES TO REMAIN ON PROJECT [SHOWN ON TMP-7 (-RPA1-) AND TMP-8 (-RPD1- AND -L-)(SEE SPECIAL PROVISIONS)], ACTIVATE SIGNALS AT INTX OF NC 226 (-Y1-) AND -LPD1-USING LAW ENFORCEMENT AND PCMS, AND UNCOVER OVERHEAD SIGNS ON US 74. OPEN US 74 (-L-), SR 1313 (-Y7-) LOOPS AND RAMPS, AND NC 226 (-Y1-) LOOPS TO TRAFFIC.

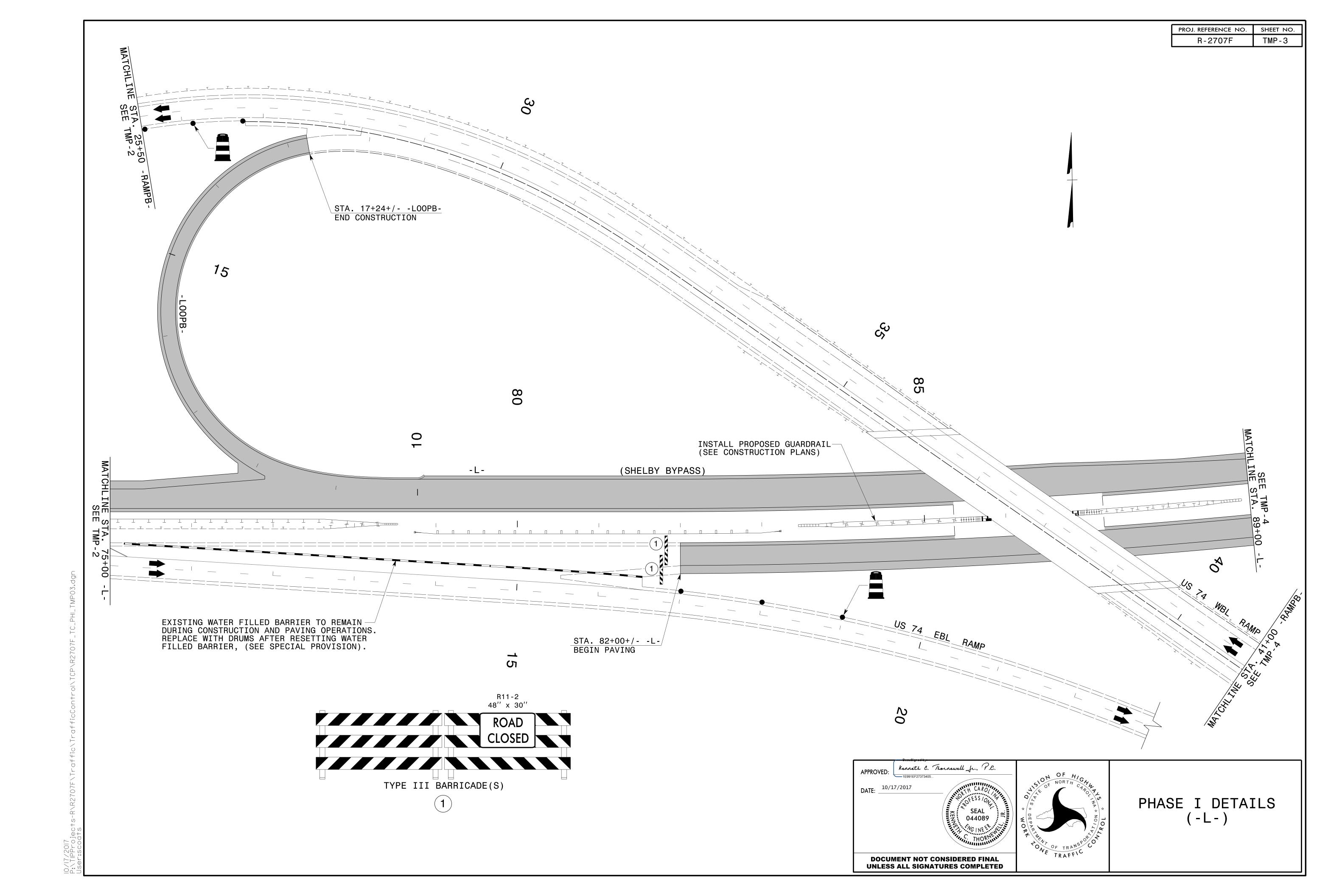


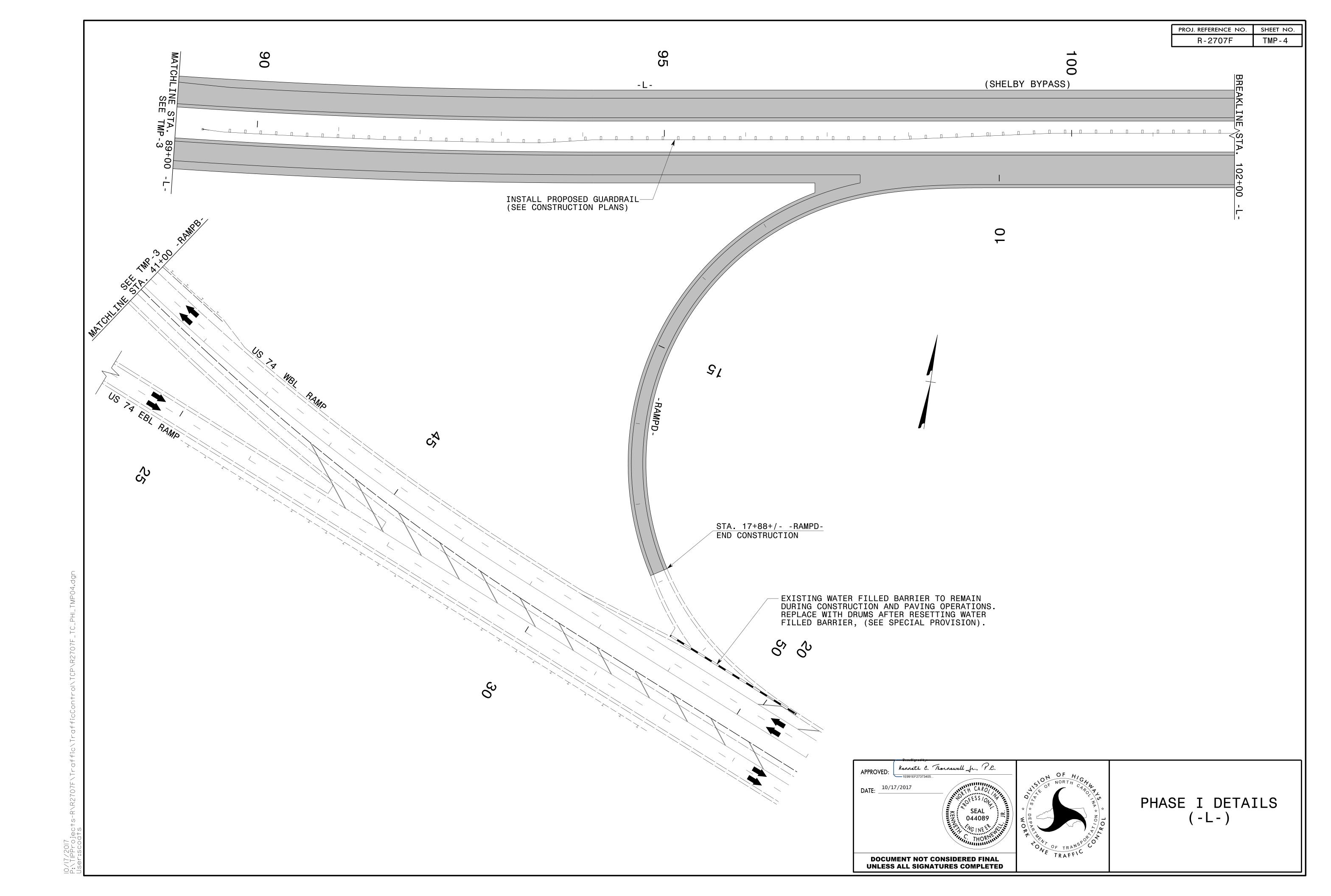
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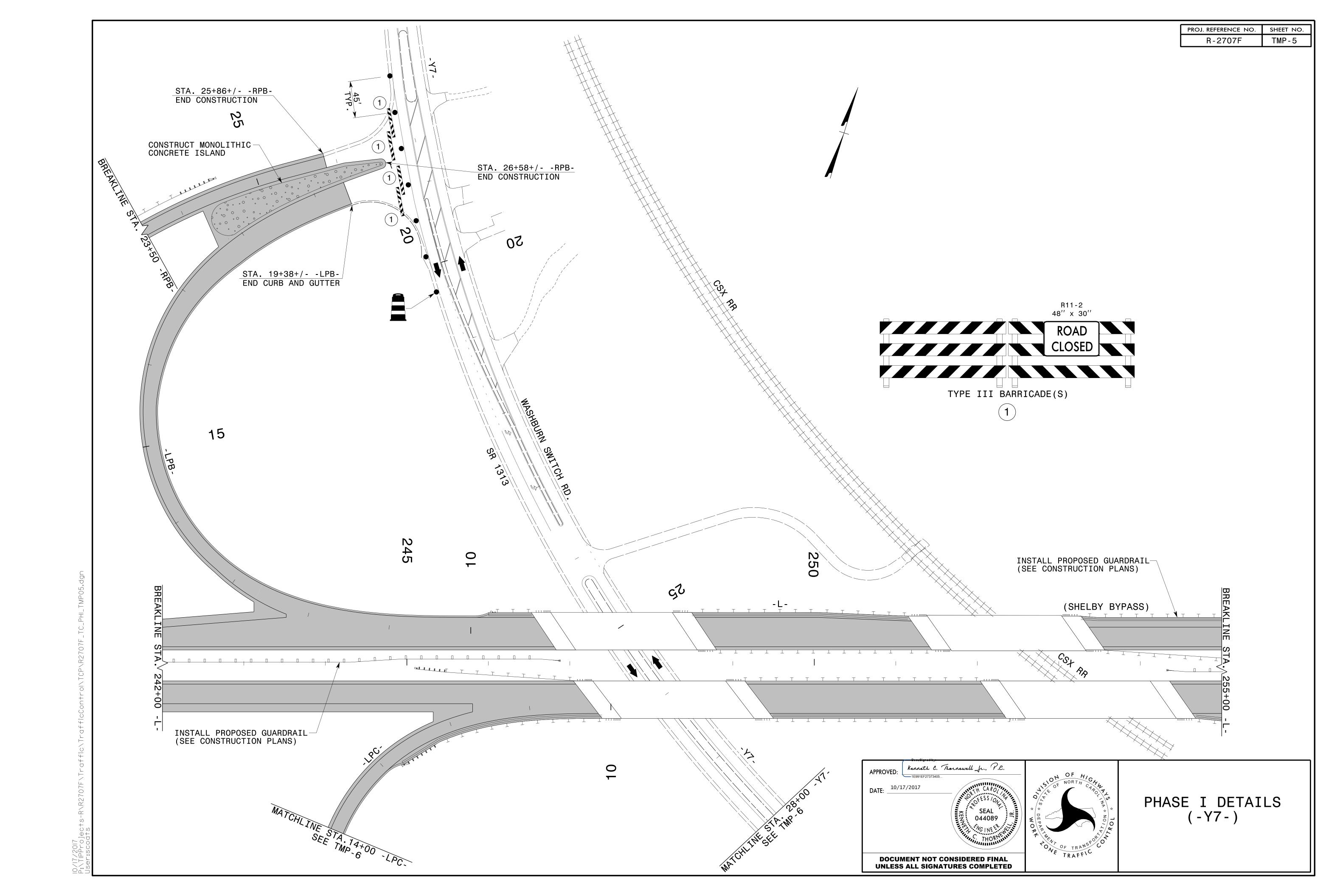


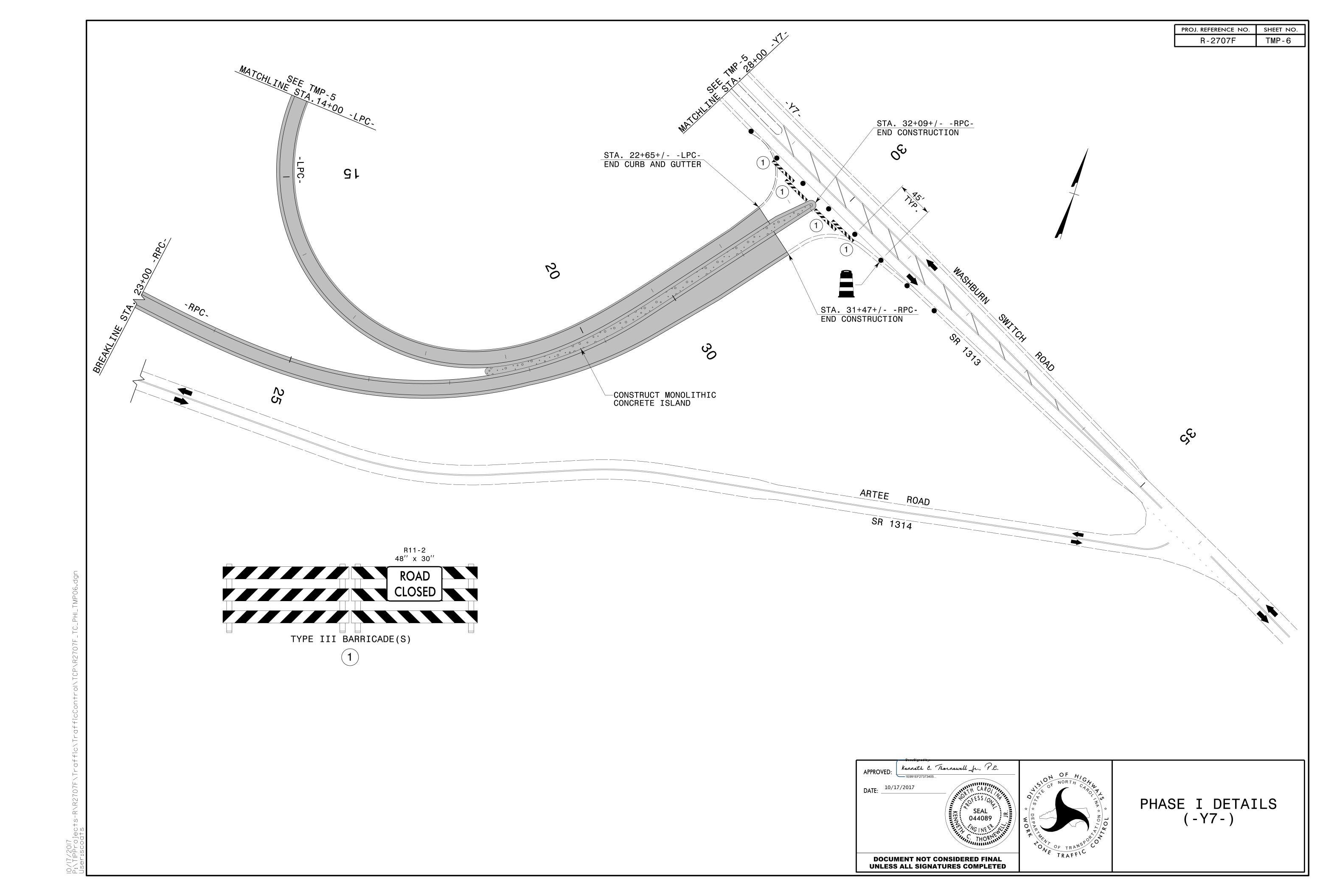
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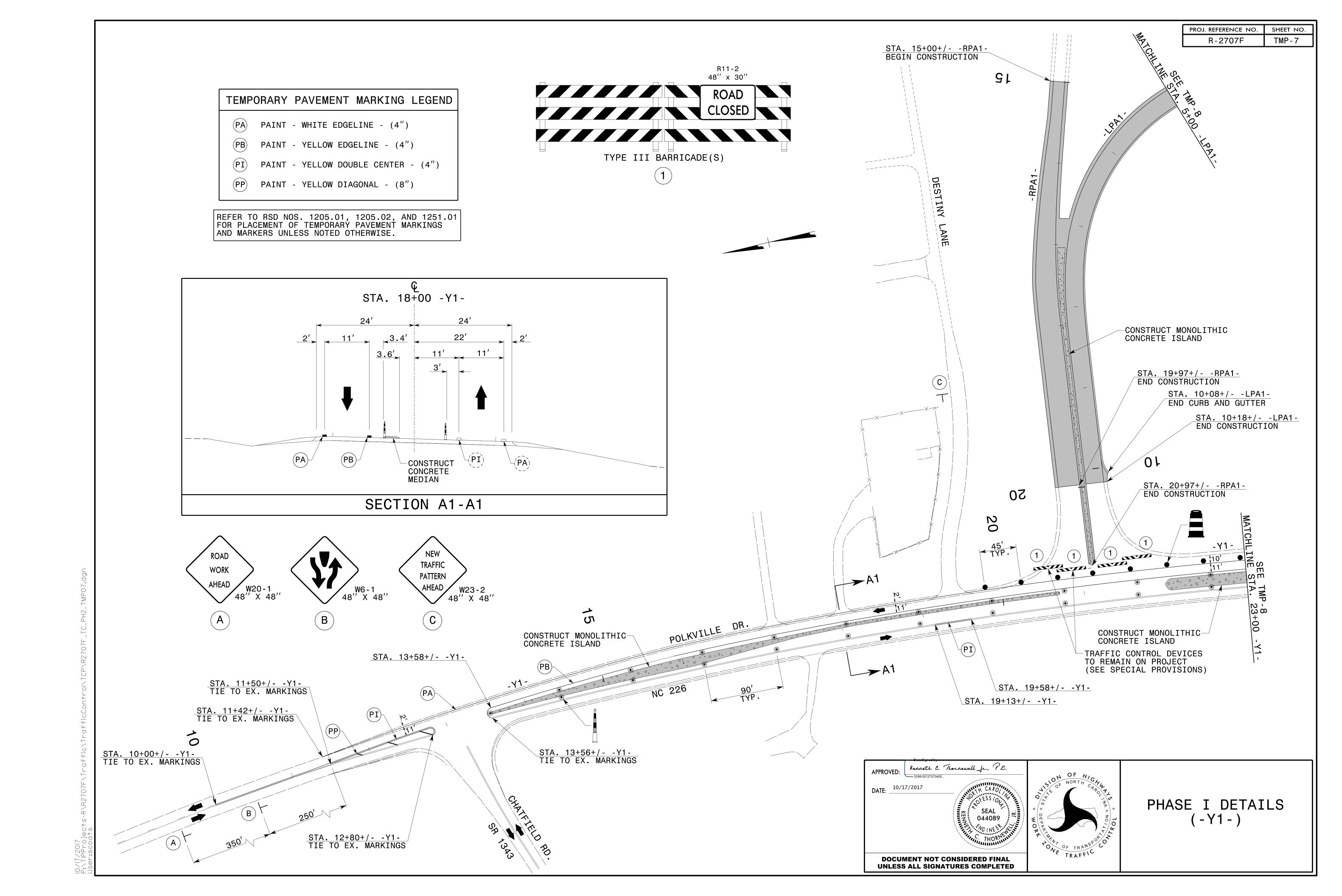


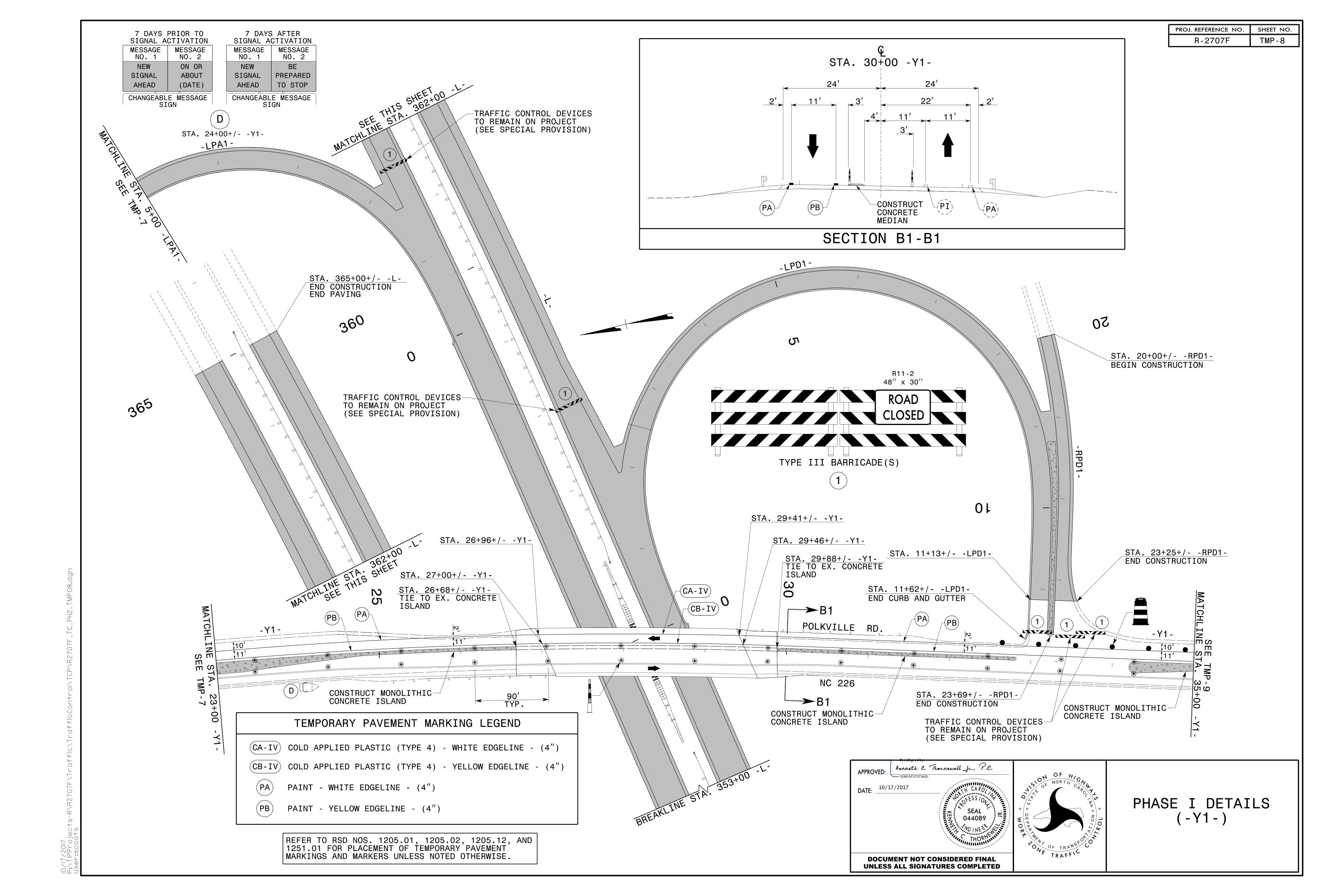




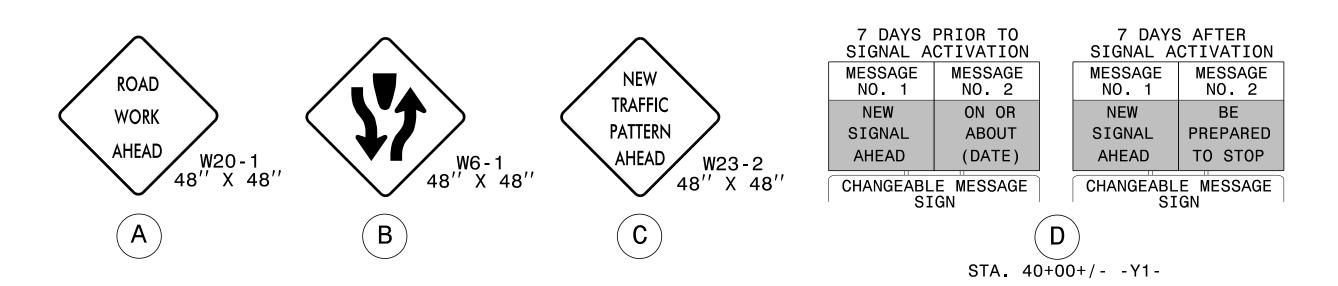


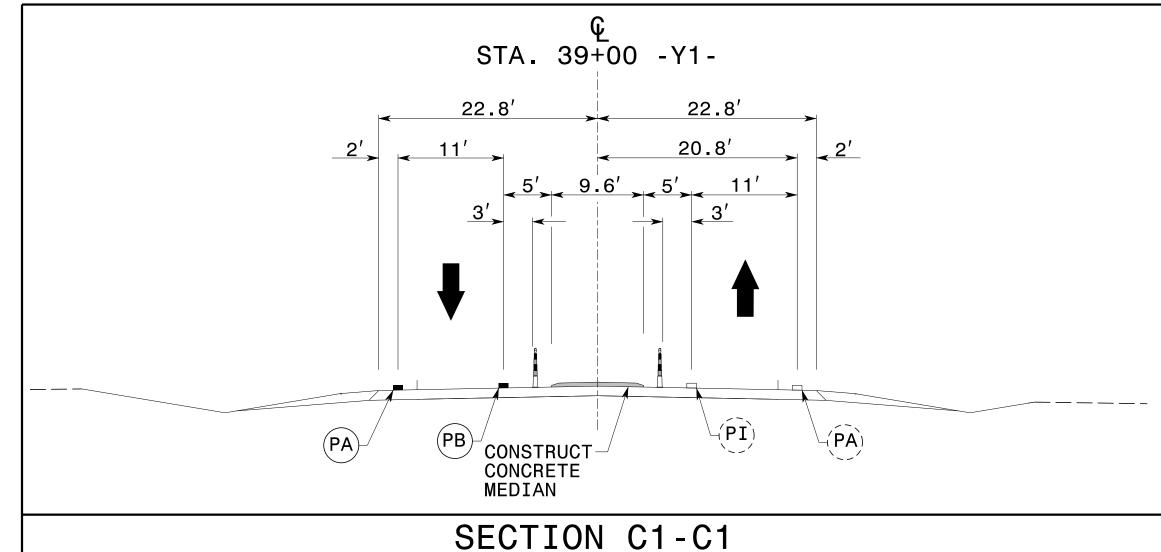


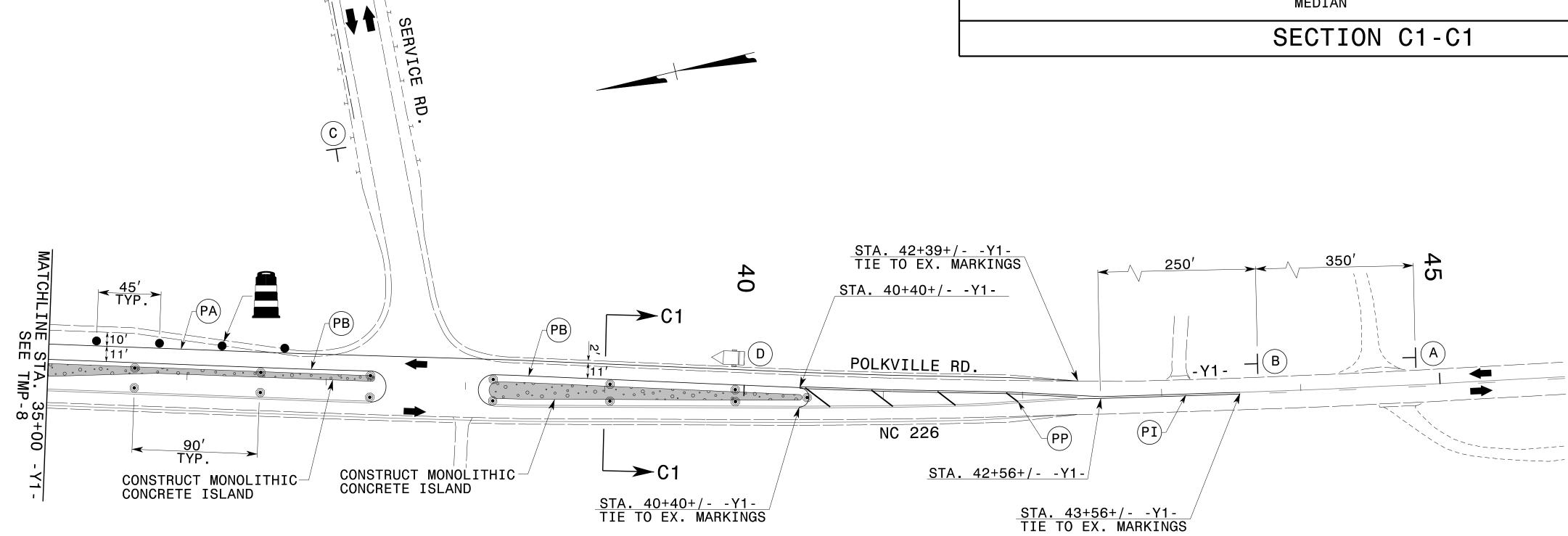




PROJ. REFERENCE NO. R-2707F TMP-9



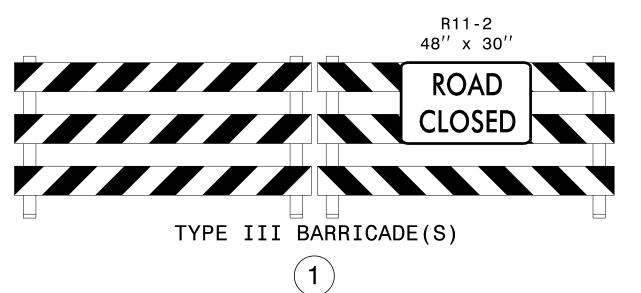


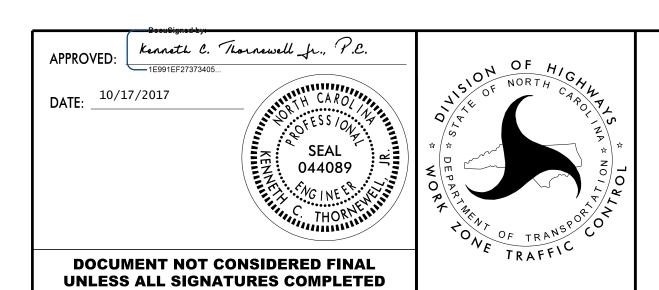


TEMPORARY PAVEMENT MARKING LEGEND

- (PA) PAINT WHITE EDGELINE (4")
- PAINT YELLOW EDGELINE (4")
- PAINT YELLOW DOUBLE CENTER (4")
- PAINT YELLOW DIAGONAL (8")

REFER TO RSD NOS. 1205.01, 1205.02, AND 1251.01 FOR PLACEMENT OF TEMPORARY PAVEMENT MARKINGS AND MARKERS UNLESS NOTED OTHERWISE.





PHASE I DETAILS (-Y1-)