

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - CONTRACT STANDARDS AND DEVELOPMENT 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:

<u>STD. NO.</u>	<u>TITLE</u>
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.

- WORK AREA
- REMOVAL
- WEDGE / WIDEN
- TEMPORARY PAVEMENT

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

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

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

PAINT (24")
P2- WHITE STOP BARS

PAINT (12")
P14- 3FT. -9 FT./SP WHITE MINISKIP
PV- YELLOW DIAGONAL

PAINT (8")
PN- WHITE GORELINE

PAINT (4")
P8- 2 FT. -6 FT./SP WHITE MINISKIP
PA- WHITE EDGELINE
PD- 3 FT. -9 FT./SP WHITE MINISKIP
PE- WHITE SOLID LANE LINE
PF- 10 FT YELLOW SKIP
PH- YELLOW SINGLE CENTER
PI- YELLOW DOUBLE CENTER

PAVEMENT MARKING SYMBOLS & CHARACTERS

- QA LEFT TURN ARROW
- QB RIGHT TURN ARROW
- QC STRAIGHT ARROW
- QE COMBO. STRAIGHT / RIGHT

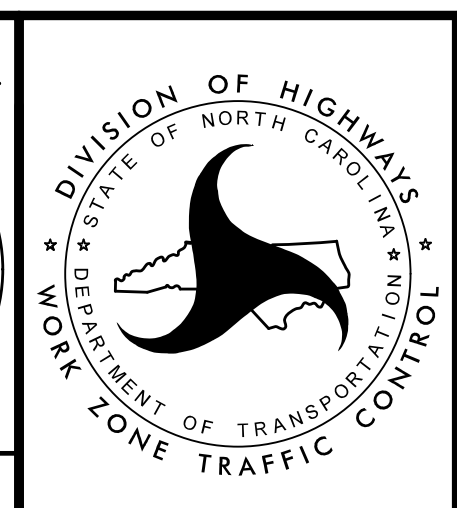
10:04:33 AM
N:\CP\U4906_tc_tmp_01A_rsd.dgn
8/17/2021

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC License No: C-1554

DocuSigned by:
APPROVED: *Helen Shyu*
DATE: 8/17/2021

SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
MANAGEMENT PLAN

**ROADWAY STANDARD
DRAWINGS & LEGEND**

MANAGEMENT STRATEGIES

PHASE I:

USING FLAGGERS, WEDGE AND WIDEN -L- AND -L1- UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

USING DETOUR ROUTE SHOWN ON TMP-2A, CLOSE -Y5- (ROCK CREEK DR) AND REPLACE PIPE. UPON COMPLETION OF PIPE INSTALLATION, OPEN -Y5- TO TRAFFIC.

USING DETOUR ROUTE SHOWN ON TMP-2, CLOSE -L- (GUM BRANCH RD) AND REPLACE PIPE. UPON COMPLETION OF PIPE INSTALLATION, OPEN -L- TO TRAFFIC.

AWAY FROM TRAFFIC AND USING FLAGGERS WHEN NEEDED, CONSTRUCT -Y1- AND -Y2_REV- AS MUCH AS POSSIBLE.

PHASE II:

USING DETOUR ROUTE SHOWN ON TMP-2B, CLOSE -Y1- (COW HORN RD) AND COMPLETE -Y1-. PLACE TEMPORARY PAVEMENT MARKING IN FINAL PATTERN AND OPEN TRAFFIC TO NEW ALIGNMENT.

USING FLAGGERS, WEDGE AND WIDEN -Y2_REV-. PLACE TEMPORARY PAVEMENT MARKING IN FINAL PATTERN AND OPEN TRAFFIC TO NEW ALIGNMENT.

PHASE III:

USING LANE CLOSURES AND FLAGGERS, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR 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
NW BRIDGE ROAD AND ANY ROAD NORTH OF NW BRIDGE ROAD	MONDAY THRU SUNDAY 6:00 AM TO 7:00 PM
ANY ROAD SOUTH OF NW BRIDGE ROAD	MONDAY THRU SUNDAY 5:00 AM TO 8:00 PM

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 5:00 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 5:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 5:00 A.M. FRIDAY TO 8:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 5:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 5:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- FOR LABOR DAY, BETWEEN THE HOURS OF 5:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 5:00 A.M. TUESDAY TO 8:00 P.M. MONDAY.

GENERAL NOTES CONT.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 5:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

9. FOR THE EVENTS LISTED BELOW, BETWEEN THREE (3) HOURS BEFORE THE START, AND THREE (3) HOURS AFTER THE END OF EACH EVENT:
 - RUN FOR THE WARRIOR
 - BEAT THE BRIDGE
 - JACKSONVILLE CHRISTMAS FLOTILLA
 - JACKSONVILLE CHRISTMAS PARADE
 - JACKSONVILLE VETERANS DAY PARADE

C) 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

D) 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.

E) 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.

F) 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.

G) 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.

H) DO NOT INSTALL MORE THAN 2500 FT OF LANE CLOSURE ON (-L-) OR (-L1-) MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

I) DO NOT INSTALL MORE THAN 2 SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON -L-/-L1 (GUM BRANCH ROAD).

J) PROVIDE A MINIMUM OF 1 MILE BETWEEN LANE CLOSURES MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.

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) 350' 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.

TRAFFIC BARRIER

P) 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.

Q) 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.

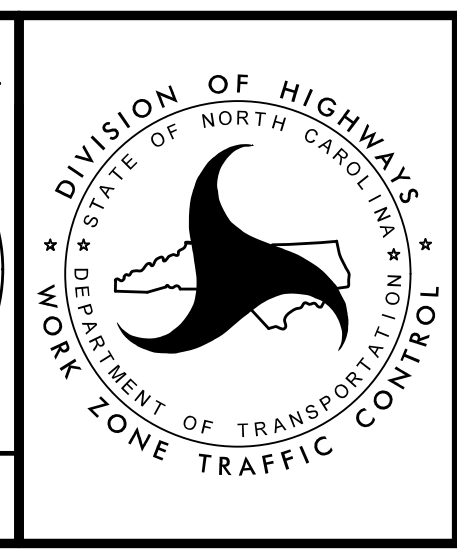
PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

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

10:04:35 AM
 \\TCPLU4906-TC-tmp-01B_notes.dgn
 8/17/2021



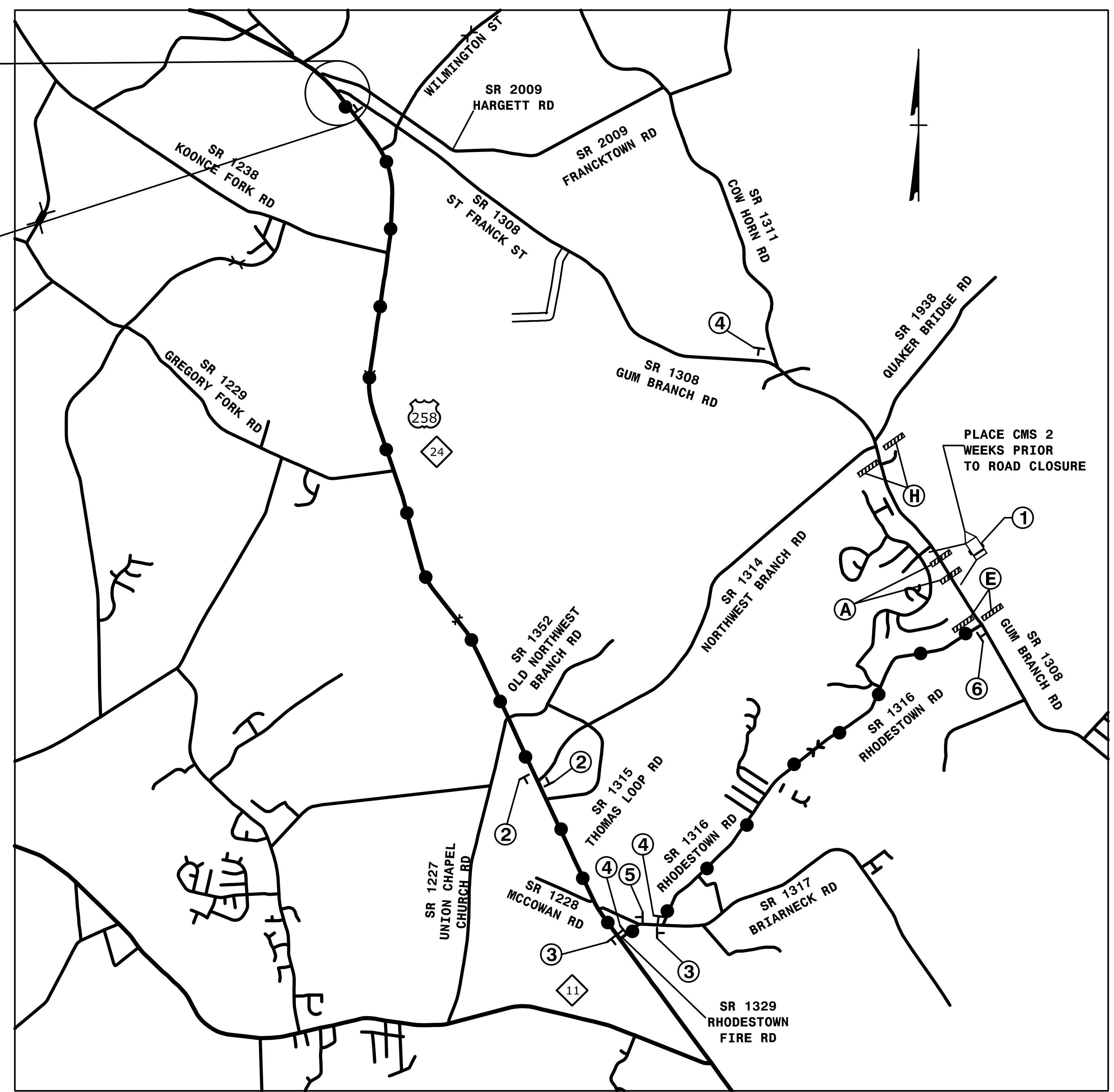
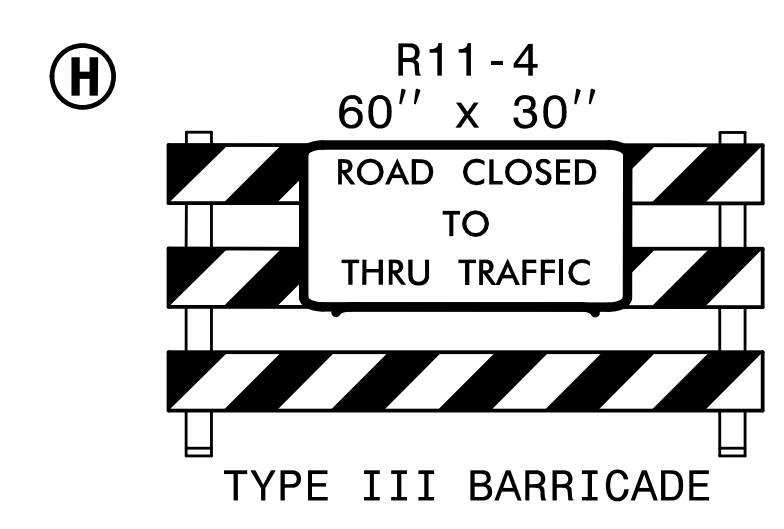
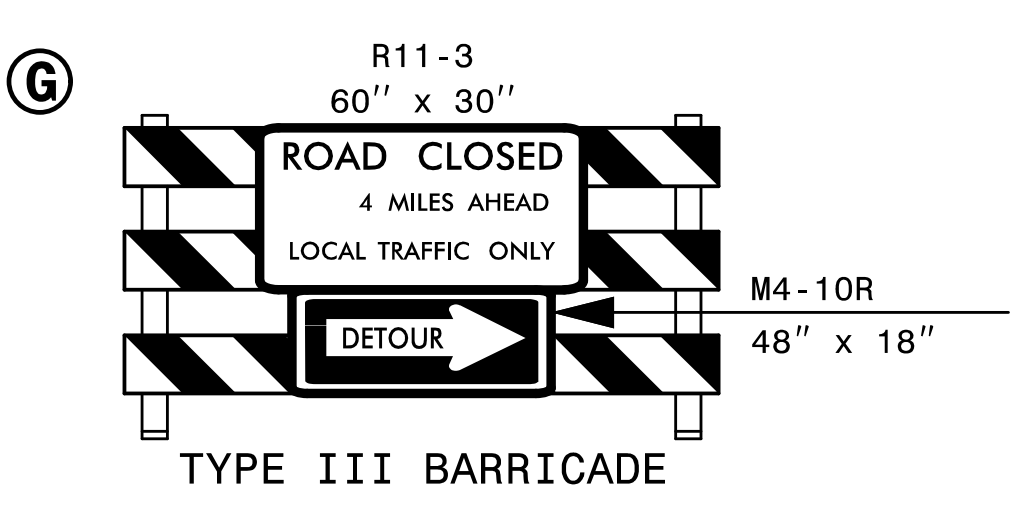
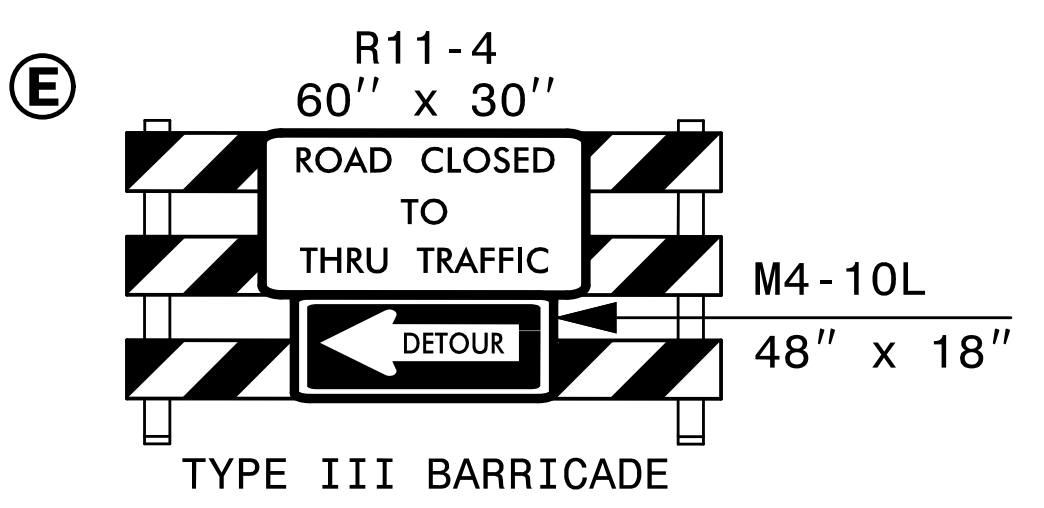
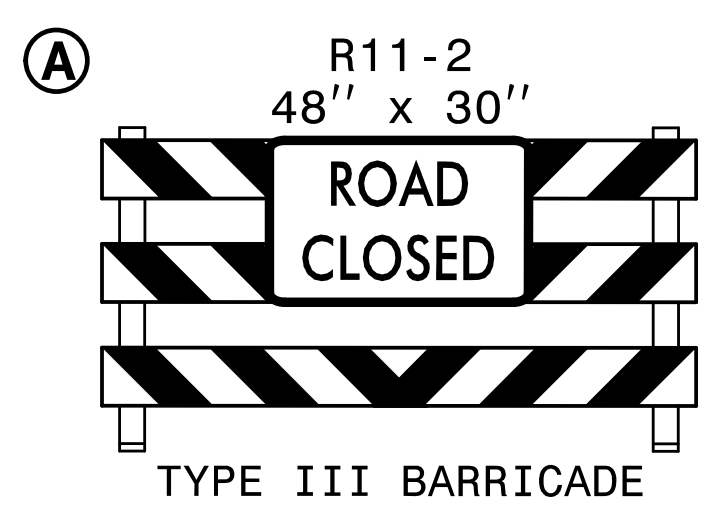
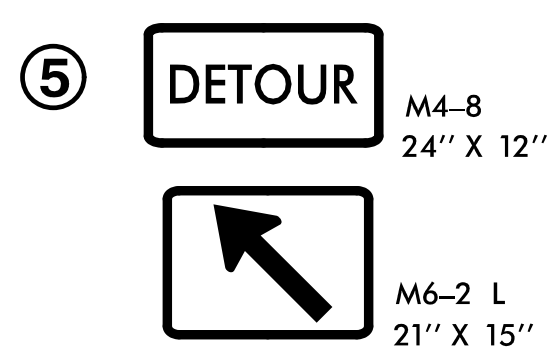
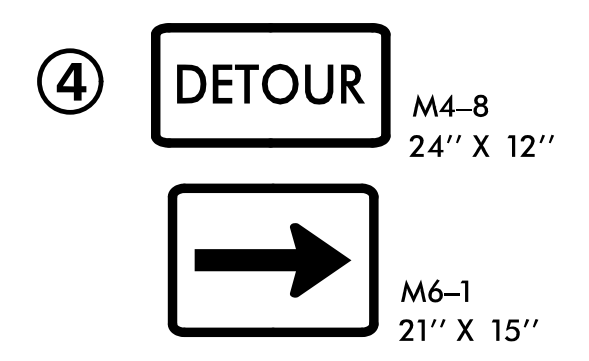
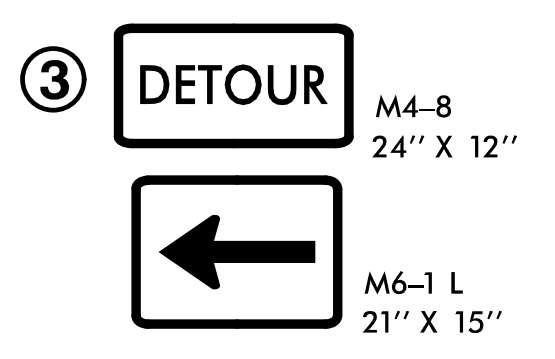
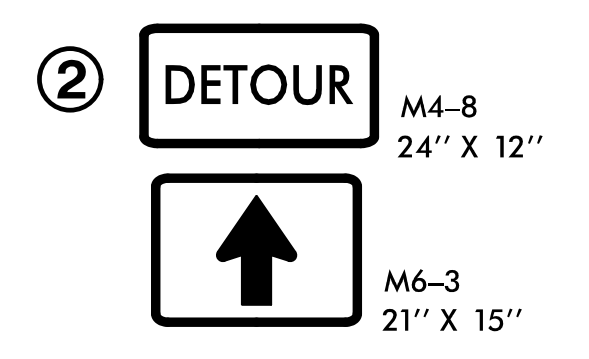
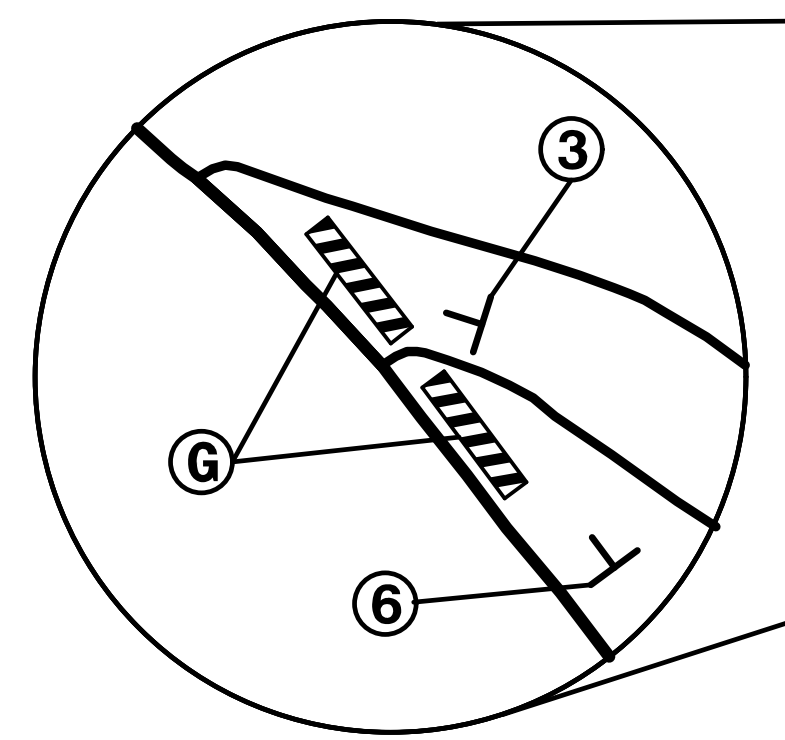
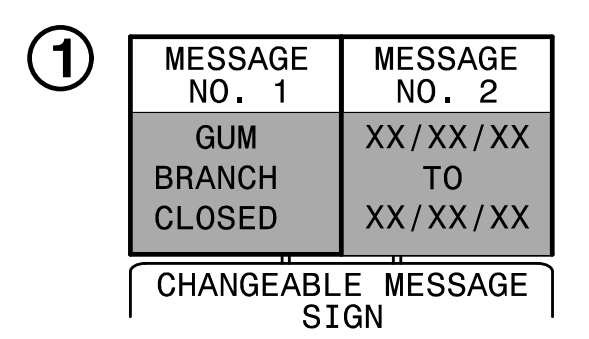
DocuSigned by:
 APPROVED: *Helen Shyu*
 OF15075A95E4E4EF
 DATE: 8/17/2021
 SEAL



TRANSPORTATION
 MANAGEMENT PLAN

TRANSPORTATION
 OPERATIONS
 PLAN

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



PLACE CMS 2 WEEKS PRIOR TO ROAD CLOSURE

SEE RSD 1101.03 (SHEET 1 AND 2 OF 9) FOR ADDITIONAL SIGNS AND DEVICES

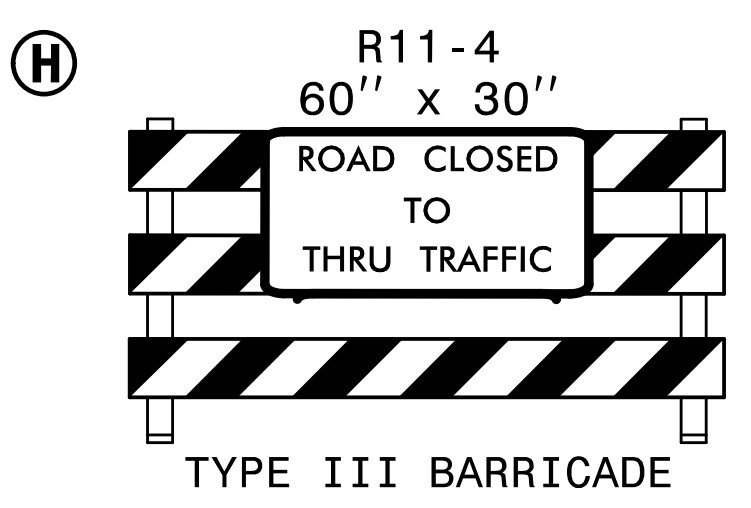
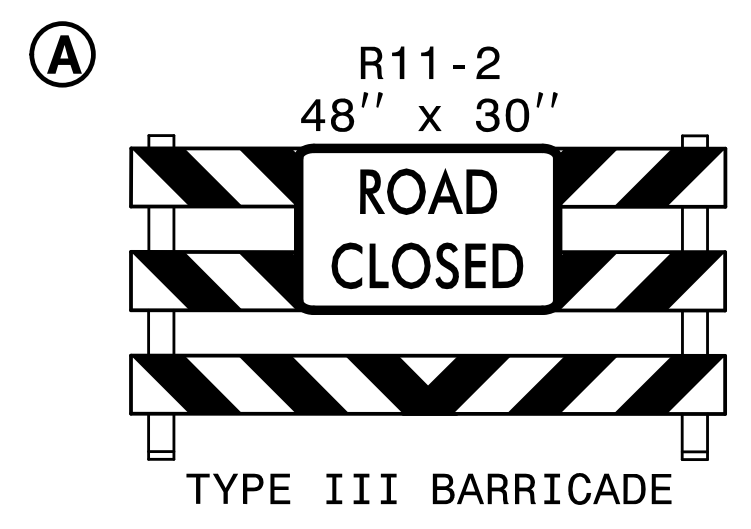
3:14:22 PM
N:\TC\U4906_tc_tmp_02_detour.dgn
1/29/2019

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

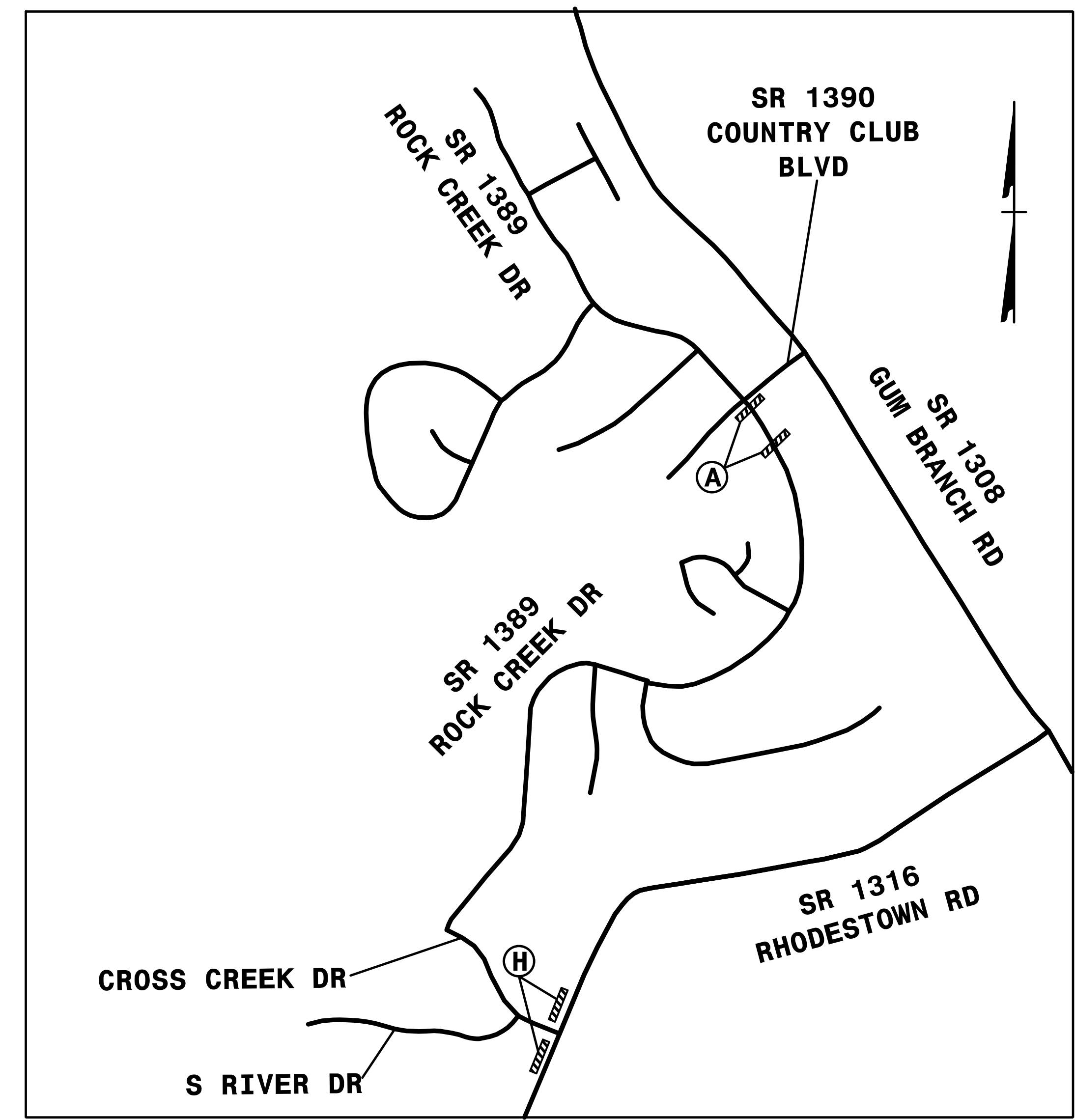
APPROVED: *Helen Shyu*
DATE: 6/29/2021
SEAL
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN
OFFSITE DETOUR (GUM BRANCH)



SEE RSD 1101.03 (SHEET 1 AND 2 OF 9)
FOR ADDITIONAL SIGNS AND DEVICES



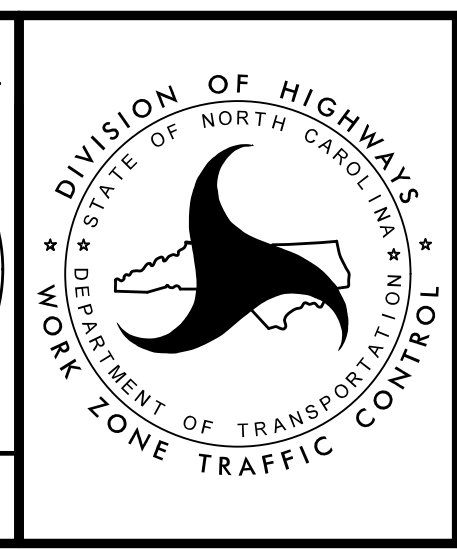
3:14:24 PM
U:\4906_fc_tmp_02a_detailed.dgn
1/29/2019

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

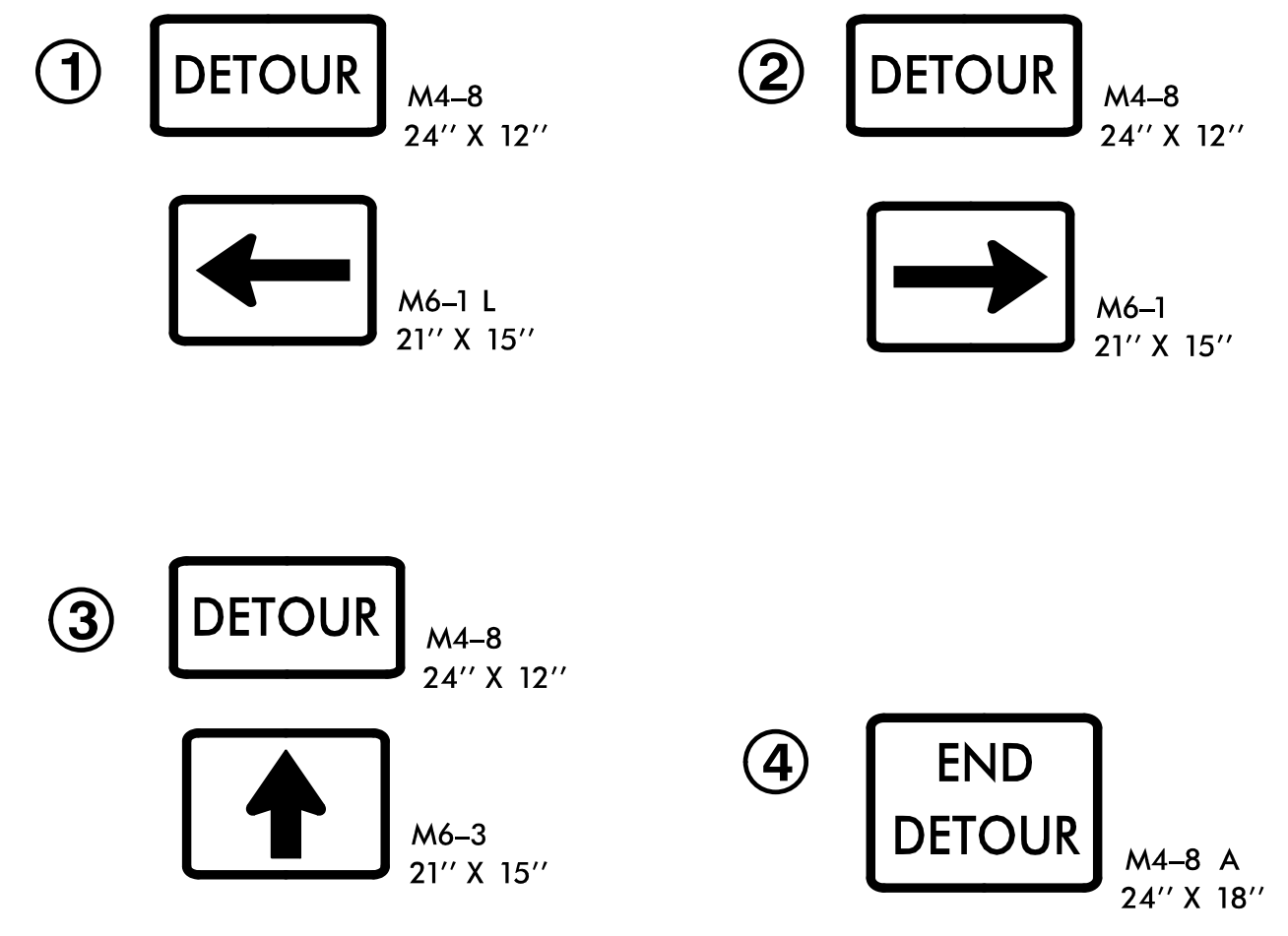
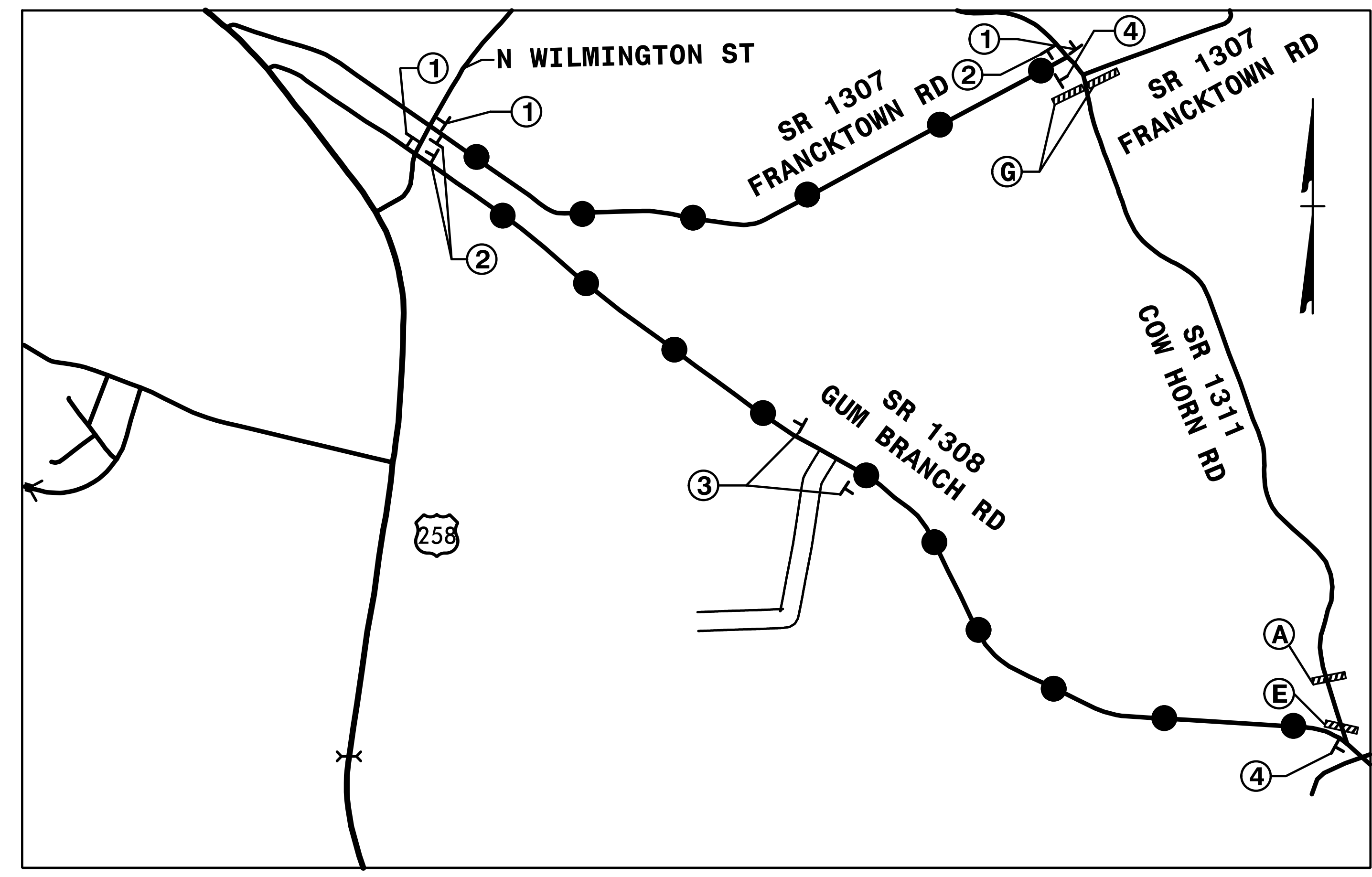
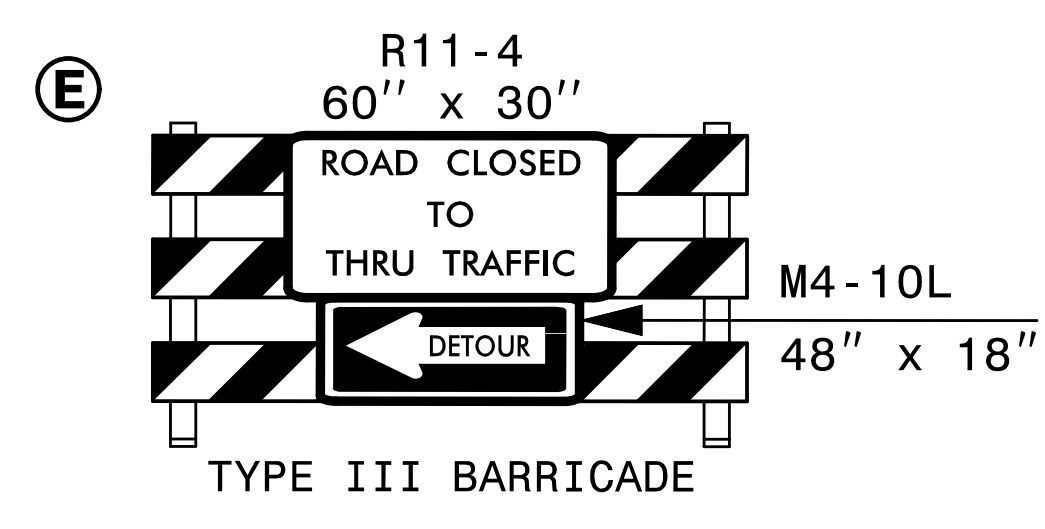
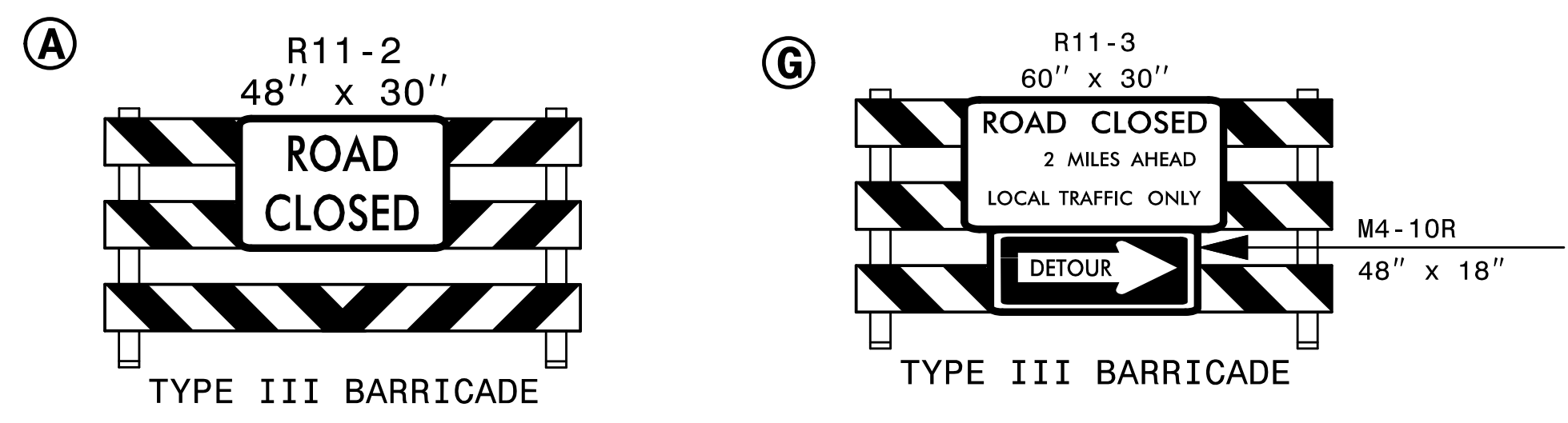
SEAL

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



TRANSPORTATION
MANAGEMENT PLAN

**ROCK CREEK RD
ROAD CLOSURE
DETAIL**

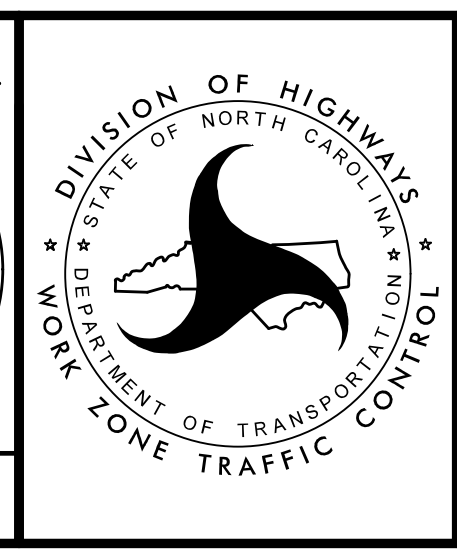


SEE RSD 1101.03 (SHEET 1 AND 2 OF 9)
FOR ADDITIONAL SIGNS AND DEVICES

3:14:26 PM
\\14306-1c-tmp_02B_detour_cow_horn.dgn
1/29/2019

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021
SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
042517
ENGINEER
HELEN SHYU



TRANSPORTATION
MANAGEMENT PLAN

OFFSITE
DETOUR
(COW HORN RD)

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PHASING

NOTES:

REPLACE MARKINGS AND RETURN TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE. THIS MAY REQUIRE A COMBINATION OF INSTALLATION OF PROPOSED PIPES, TEMPORARY PIPES, STEEL PLATES, TEMPORARY MEDIAN, AND OUTSIDE DITCHES.

PAVE PROPOSED CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, IN ALL PHASES UNTIL STATED TO INSTALL FINAL LAYER IN PHASING.

THE TERM RSD REFERS TO ROADWAY STANDARD DRAWINGS.

PHASE I

STEP 1:
 USING RSD 1101.01 (SHEET 3 OF 3), INSTALL ADVANCE WARNING SIGNS ON -L-/-L1- (GUM BRANCH ROAD), -Y1- (COW HORN ROAD), -Y2_REV- (QUAKER BRIDGE ROAD/NW BRIDGE ROAD), -Y3- (MENDOVER DRIVE), -Y4- (RAMSEY ROAD), AND -Y5- (ROCK CREEK DRIVE SOUTH).

NOTICE: CONTRACTOR SHOULD ADHERE TO A 6-MONTH DELAY OF ENTRY, OR TO THE DIRECTION OF THE ENGINEER, FOR ANY WORK ACTIVITIES OCCURRING ALONG THE FOLLOWING ROADWAYS:
 -L- STA 30+50+/- TO STA 260+00+/- (EXCEPT FOR -Y5-), -Y1- AND -Y2REV-

NOTE: STEPS 2 THRU 6 AND 13 MAY BE DONE IN ANY ORDER.

STEP 2: COMPLETE STEP 2A THRU 2B.

2A: INSTALL AND COVER DETOUR SIGNS AS SHOWN ON SHEET TMP-2A.

COMPLETE THE REQUIREMENTS OF PHASE I STEP 2B IN FOURTEEN (14) DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

2B: UNCOVER DETOUR SIGNS AND CLOSE -Y5-. AWAY FROM TRAFFIC, INSTALL 87"X63" CAAP AND CONSTRUCT -Y5- FROM -Y5- STA 11+50+/- TO 12+50+/- AS MUCH AS POSSIBLE (FLAGGER TO MAINTAIN DRIVEWAY ACCESS). REPLACE PAVEMENT MARKINGS. OPEN -Y5- BACK TO TRAFFIC AND REMOVE DETOUR SIGNS. (TMP-7)

STEP 3:
 USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14) AND POLICE AND INTERSECTIONS IF NEEDED, WEDGE AND WIDEN -L- FROM -L- STA 260+00+/- TO 280+00+/- AND REPLACE EXISTING PAVEMENT MARKINGS. (TMP-8)

STEP 4:
 USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE AND WIDEN -L1- FROM -L1- STA 14+00+/- TO 23+25+/-, INCLUDING -Y3-, AND INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN. (TMP-9)

STEP 5:
 USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WIDEN -L1- FROM -L1- STA 44+52.5+/- TO 46+70+/- AND INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN.

STEP 6:
 USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, WIDEN -L1- FROM -L1- STA 60+85+/- TO 71+40+/-, -Y4- STA 10+00+/- TO -L1-, INSTALL TEMPORARY SIGNAL, AND INSTALL TEMPORARY PAVEMENT MARKING IN FINAL PATTERN. (TMP-9)

NOTE: STEPS 7 THRU 12 MAY BE DONE IN ANY ORDER.

STEP 7:
 USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE AND WIDEN -L- FROM STA 30+50+/- TO STA 62+50+/-, INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN. (TMP-2)

STEP 8:
 USING RSD 1101.02 (SHEET 1 AND 2 OF 14), MILL AND RESURFACE -L- FROM STA 62+50+/- TO 78+50+/-, INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN.

STEP 9: COMPLETE STEPS 9A AND 9B.

9A: USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE AND WIDEN -L- FROM STA 78+50+/- TO 116+68+/-, INCLUDING -Y1- FROM -L- TO -Y1- STA 16+75+/-, REPLACE EXISTING PAVEMENT MARKINGS. (TMP-5)

9B: AWAY FROM TRAFFIC, CONSTRUCT -Y1- FROM -Y1- STA 15+35+/- TO 16+75+/- AS MUCH AS POSSIBLE. INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN. (TMP-5)

STEP 10: COMPLETE STEPS 10A AND 10B.

10A: USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE AND WIDEN -L- FROM -L- STA 118+09+/- TO 200+00+/-, INCLUDING -Y2_REV- FROM -Y2_REV- STA 12+65+/- TO -L-. REPLACE EXISTING PAVEMENT MARKINGS. (TMP-6)

10B: AWAY FROM TRAFFIC, CONSTRUCT -Y2_REV- FROM -Y2_REV- STA 14+64+/- TO 17+53+/-, INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN. (TMP-6)

STEP 11: COMPLETE STEPS 11A AND 11B.

11A: INSTALL AND COVER DETOUR SIGNS AS SHOWN ON SHEET TMP-2.

COMPLETE THE REQUIREMENTS OF PHASE I STEP 11B FROM FRIDAY 8:00 PM THRU MONDAY 5:00 AM. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

11B: UNCOVER DETOUR SIGNS AND CLOSE -L-. AWAY FROM TRAFFIC, INSTALL 87"X63" CAAP AND WEDGE AND WIDEN -L- FROM STA 200+00+/- TO 202+00+/-, OPEN -L- BACK TO TRAFFIC AND REMOVE DETOUR SIGNS. REPLACE EXISTING PAVEMENT MARKINGS. (TMP-7)

STEP 12:
 USING RSD 1101.02 (SHEET 1, 2, AND 3 OF 14) AND POLICE AND INTERSECTIONS IF NEEDED, WEDGE AND WIDEN -L- FROM -L- STA 202+00+/- TO 260+00+/-, INSTALL PROPOSED SIGNAL, AND REPLACE EXISTING PAVEMENT MARKINGS.

STEP 13: COMPLETE STEPS 13A AND 13B.

13A: USING RSD 1101.02 (SHEET 1 AND 2 OF 14), INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-9A. INSTALL W24-1L AS SHOWN ON TMP-9 AND SHIFT TRAFFIC INTO TEMPORARY PATTERN. USING RSD 1101.02 (SHEET 1 OF 14), INSTALL PCB AS SHOWN ON TMP-9A. BEHIND BARRIER, USE TRENCHBOX TO CONSTRUCT DRAINAGE AND WATER LINE.

13B: USING RSD 1101.02 (SHEET 1 AND 2 OF 14), REMOVE PCB AND TEMPORARY PAVEMENT MARKINGS. RESTORE THERMOPLASTIC PAVEMENT MARKINGS AND SNOWPLOWABLE PAVEMENT MARKERS. SHIFT TRAFFIC BACK TO ORIGINAL PATTERN.

PHASE II

NOTE: STEPS 1 THRU 3 MAY BE DONE IN ANY ORDER.

STEP 1: COMPLETE STEPS 1A THRU 1C IN ORDER.

1A: COMPLETE PHASE I STEP 9A, 9B AND 10A. INSTALL AND COVER DETOUR SIGNS AS SHOWN ON TMP-2B.

COMPLETE THE REQUIREMENTS OF PHASE II STEP 1B FROM FRIDAY 8:00 PM THRU THE SECOND MONDAY AT 5:00 AM, WHEN SCHOOL IS NOT IN SESSION. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

1B: UNCOVER DETOUR SIGNS AND CLOSE -Y1-. AWAY FROM TRAFFIC, COMPLETE -Y1- FROM -Y1- STA 12+25+/- TO -L-. USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE IF NEEDED, INSTALL PROPOSED SIGNAL, COMPLETE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN, CLOSE OLD -Y1- INTERSECTION WITH BARRICADES, AND OPEN TRAFFIC TO FINAL PATTERN. (TMP-10)

1C: USING RSD 1101.02 (SHEET 1 AND 2 OF 14) AND POLICE AS NEEDED, WEDGE AND WIDEN -L- FROM STA 116+68+/- TO 118+09+/-, AWAY FROM TRAFFIC, REMOVE OLD -Y1- PAVEMENT. (TMP-10)

STEP 2:

COMPLETE PHASE I STEP 10A. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE AND WIDEN -Y2_REV- FROM -Y2_REV- STA 12+00+/- TO -L-, INCLUDING DRIVEWAYS, INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN, OPEN TRAFFIC INTO FINAL PATTERN, CLOSE OLD -Y2_REV- INTERSECTION WITH BARRICADES, AND OPEN TRAFFIC TO FINAL PATTERN. (TMP-11)

STEP 3:

COMPLETE PHASE I STEP 10B. USING RSD 1101.02 (SHEET 1 AND 2 OF 14), WEDGE AND WIDEN -Y2_REV- FROM -L- TO -Y2_REV- STA 20+31.25+/-, INCLUDING DRIVEWAYS, INSTALL TEMPORARY PAVEMENT MARKINGS IN FINAL PATTERN, OPEN TRAFFIC INTO FINAL PATTERN, CLOSE OLD -Y2_REV- INTERSECTION WITH BARRICADES, AND OPEN TRAFFIC TO FINAL PATTERN. (TMP-11)

PHASE III

STEP 1:

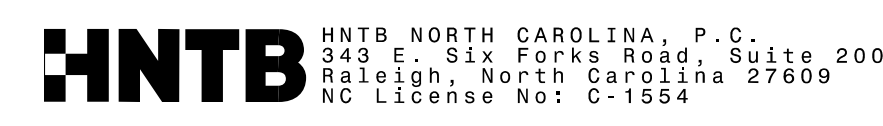
COMPLETE ALL REMAINING WORK.

USING RSD 1101.02 (SHEETS 1, 2, AND 3 OF 14) AS NEEDED, PLACE FINAL LAYER OF SURFACE AND FINAL PAVEMENT MARKINGS AND MARKERS.

STEP 2:

REMOVE ALL TRAFFIC CONTROL DEVICES.

10:04:37 AM
 U:\4906\fc_tmp_03_phasing.dgn
 8/17/2021

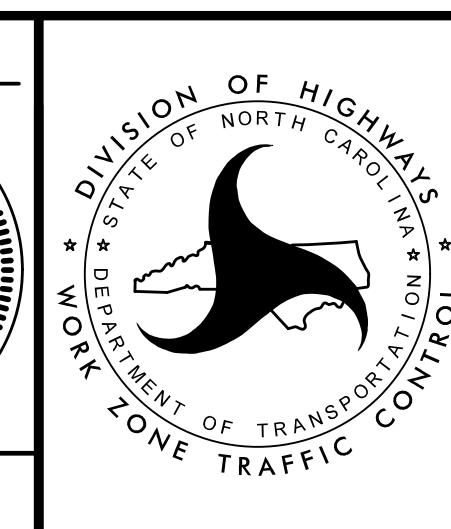


APPROVED: *Helen Shyu*
OF 1975/SA054EAF

DATE: 8/17/2021

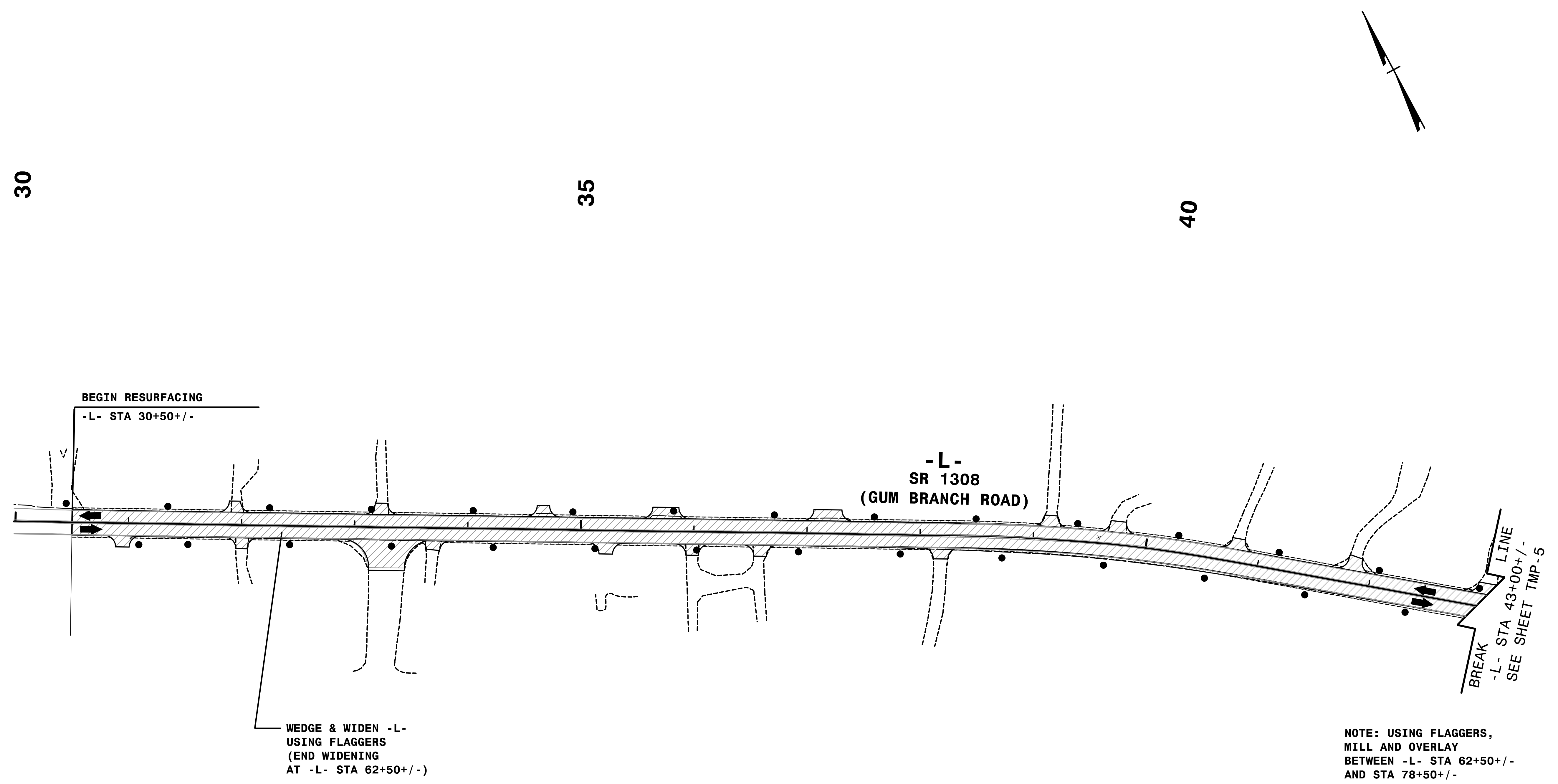
SEAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
MANAGEMENT PLAN

PHASING

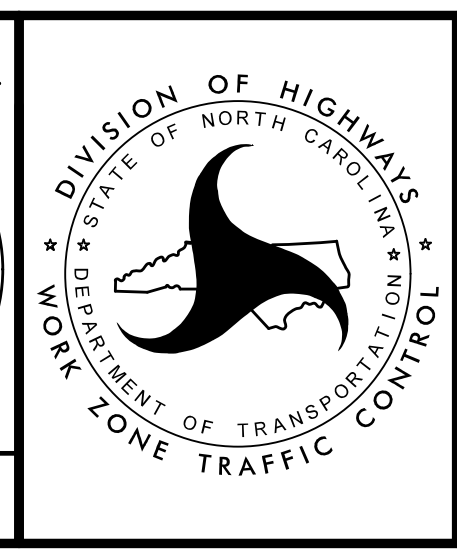


NOTE: USING FLAGGERS,
MILL AND OVERLAY
BETWEEN -L- STA 62+50+/-
AND STA 78+50+/-

3:14:31 PM
\\TC\N\4906-TC_P\LD01.dgn
1/29/2019

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

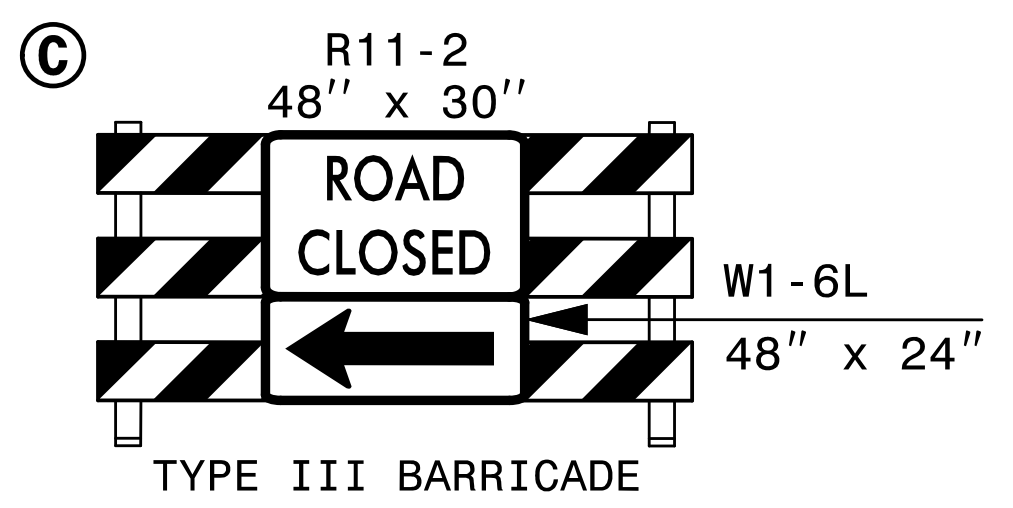
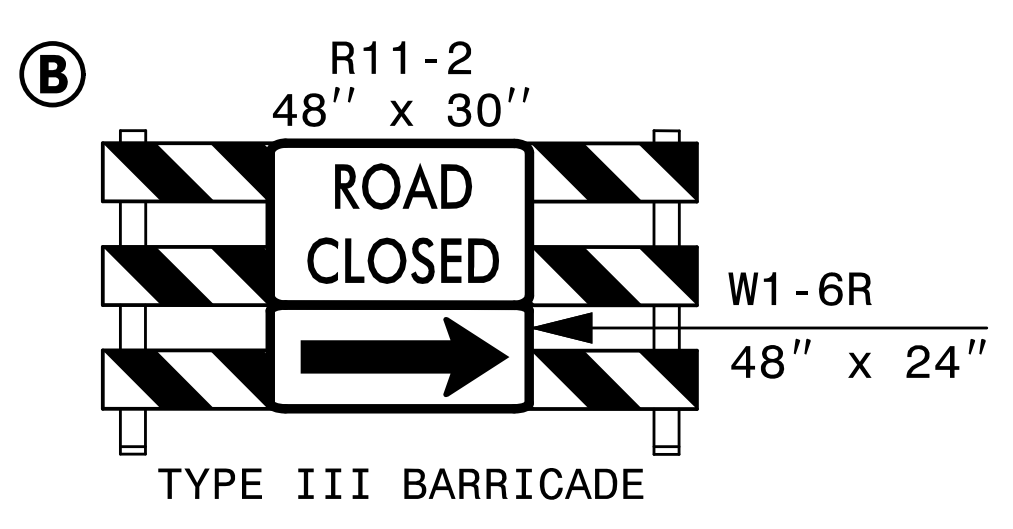
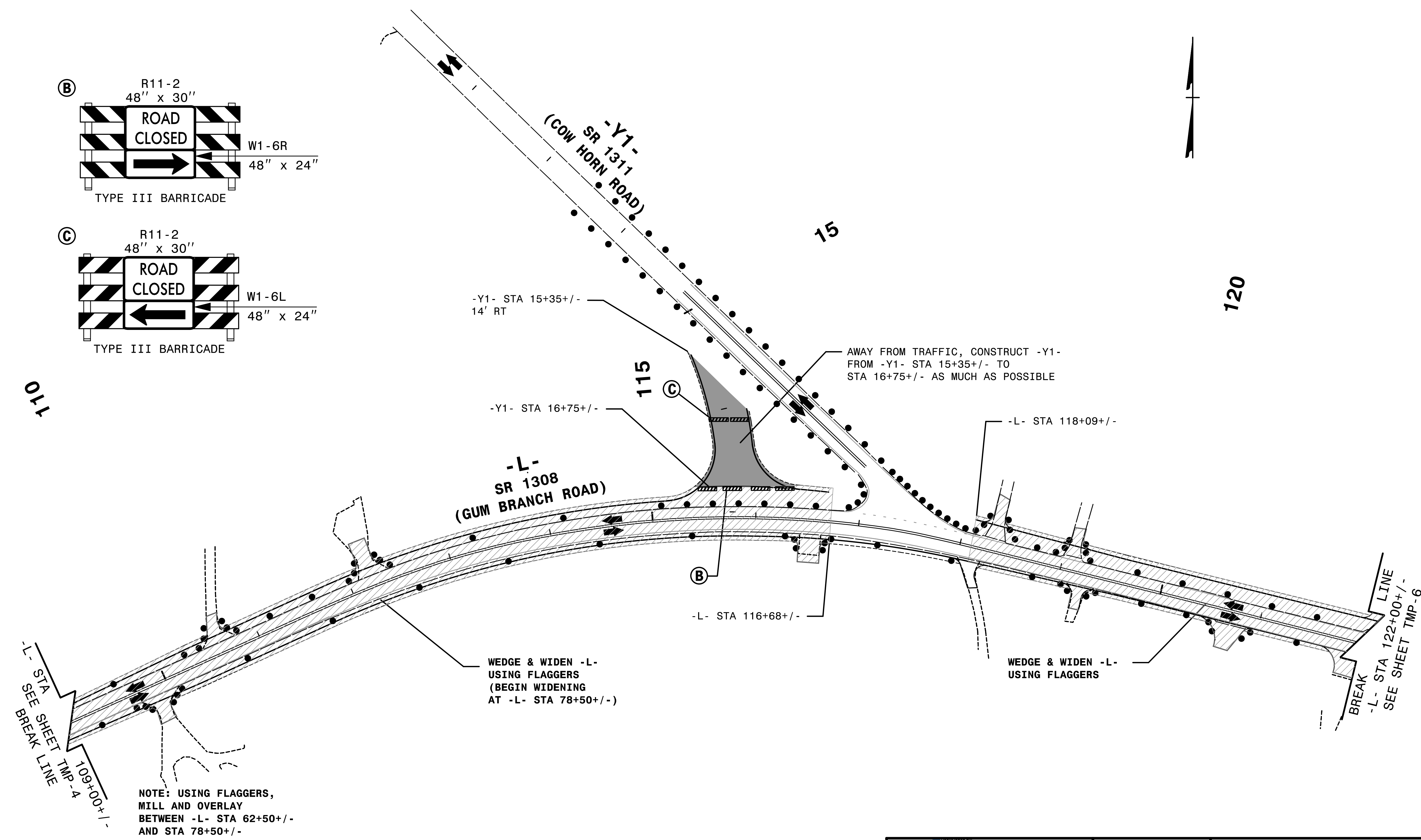
APPROVED: *Helen Shyu*
DATE: 6/29/2021
SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
042517
ENGINEER
HELEN SHYU



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



3:14:33 PM
\\TC\N\U4906-TC_PIL.D02.dgn
1/29/2019

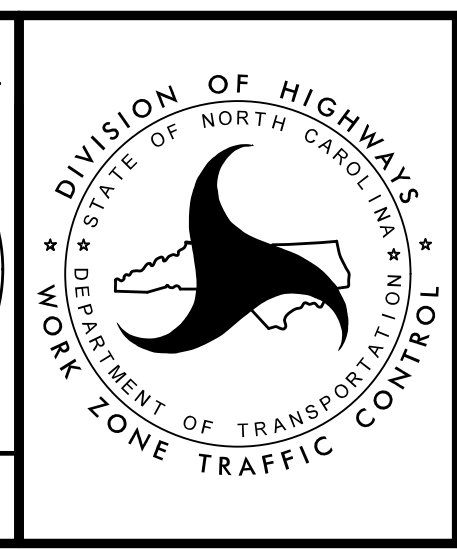
NOTE: USING FLAGGERS,
MILL AND OVERLAY
BETWEEN -L- STA 62+50+/-
AND STA 78+50+/-

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

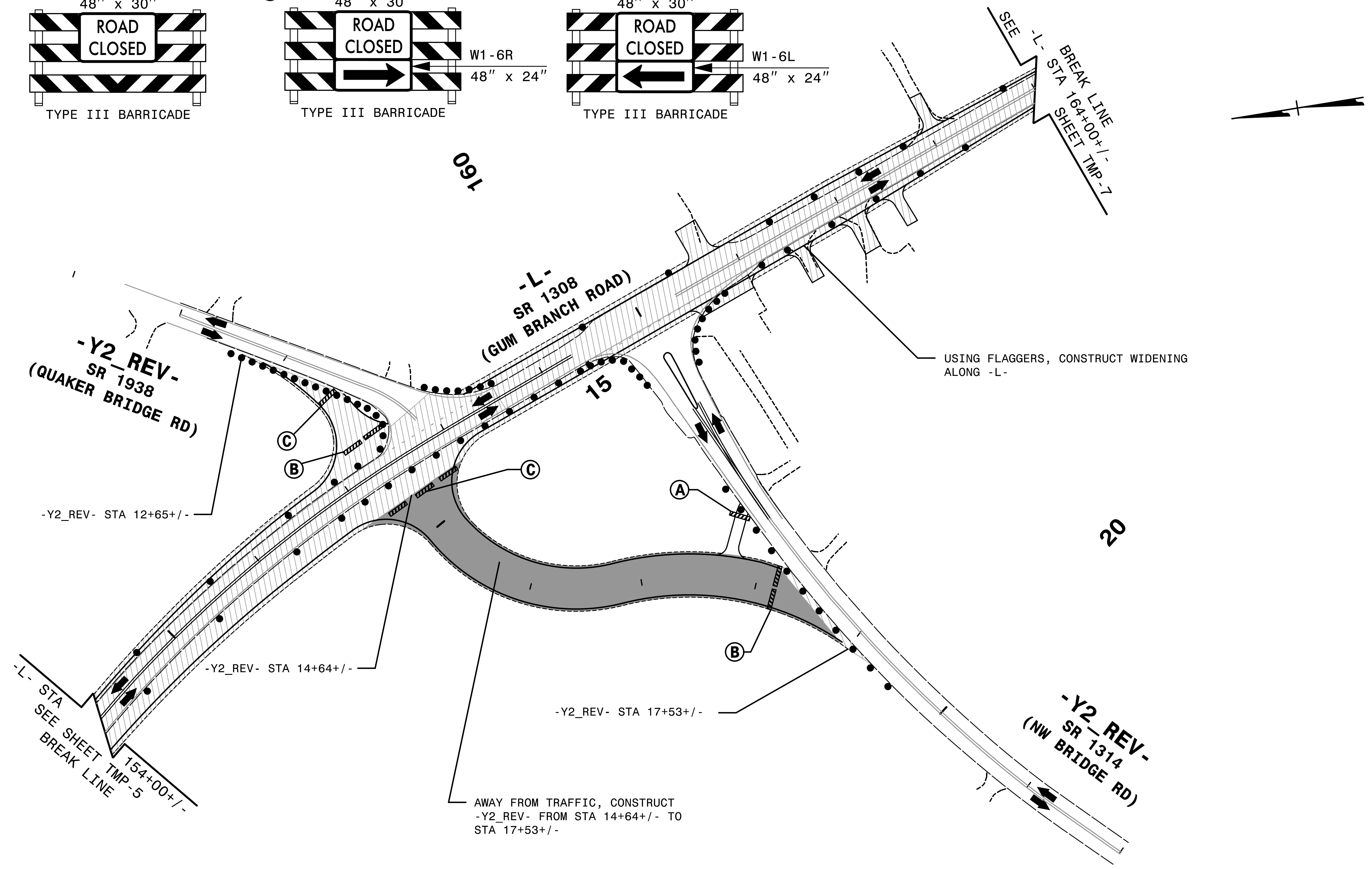
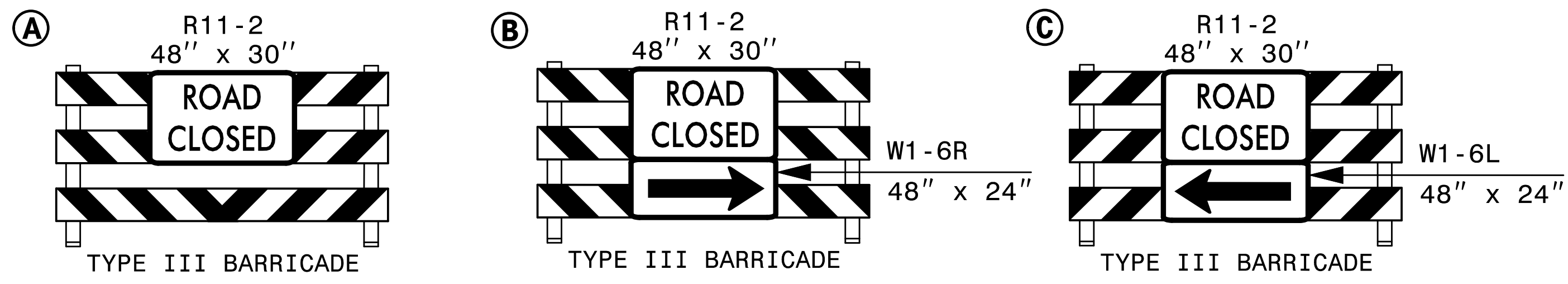
SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



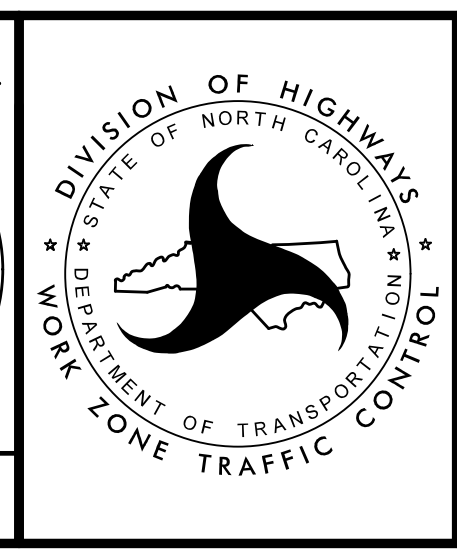
4:24:30 PM
TCP_U4906-TC_PL1.D03.dgn
5/7/2021

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

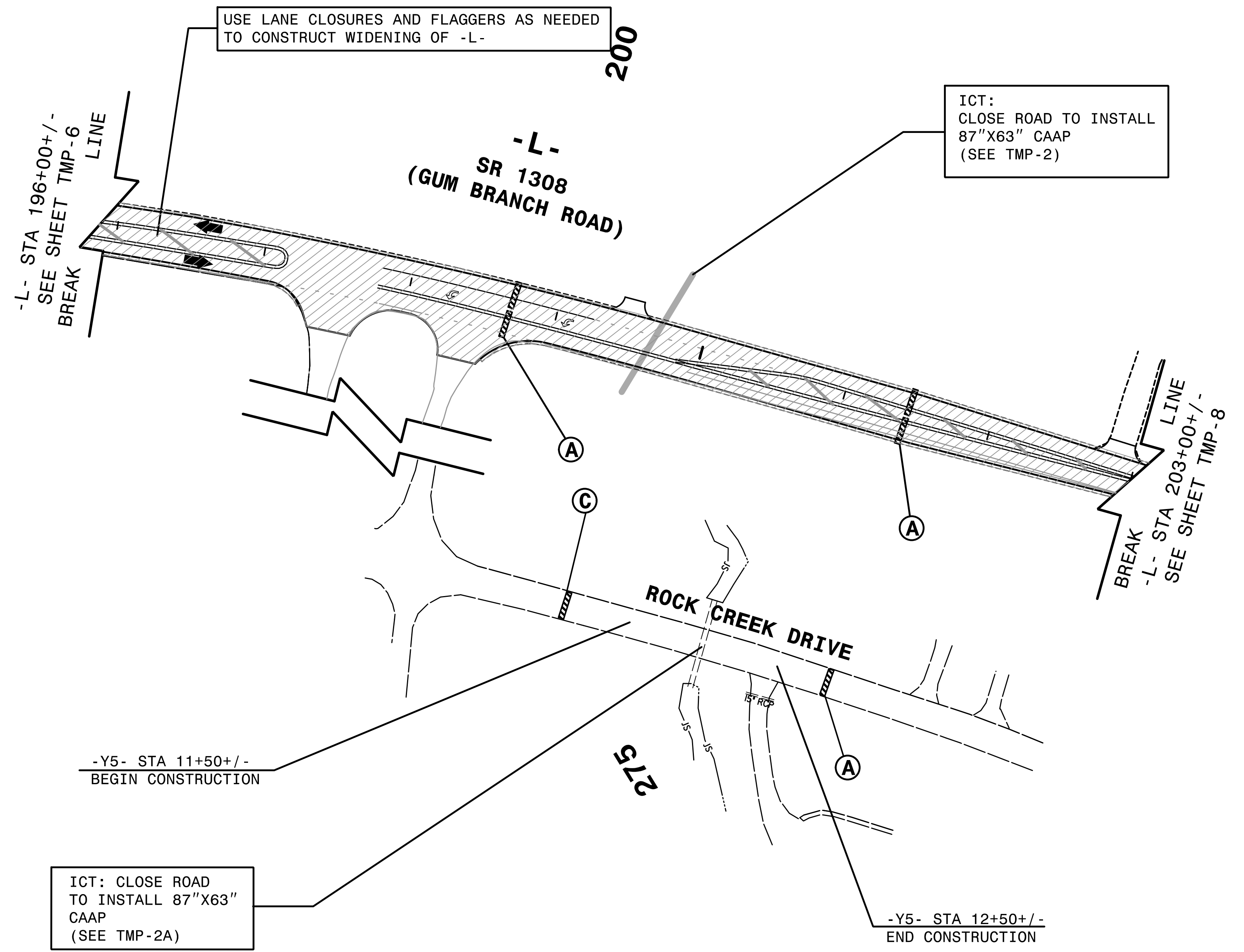
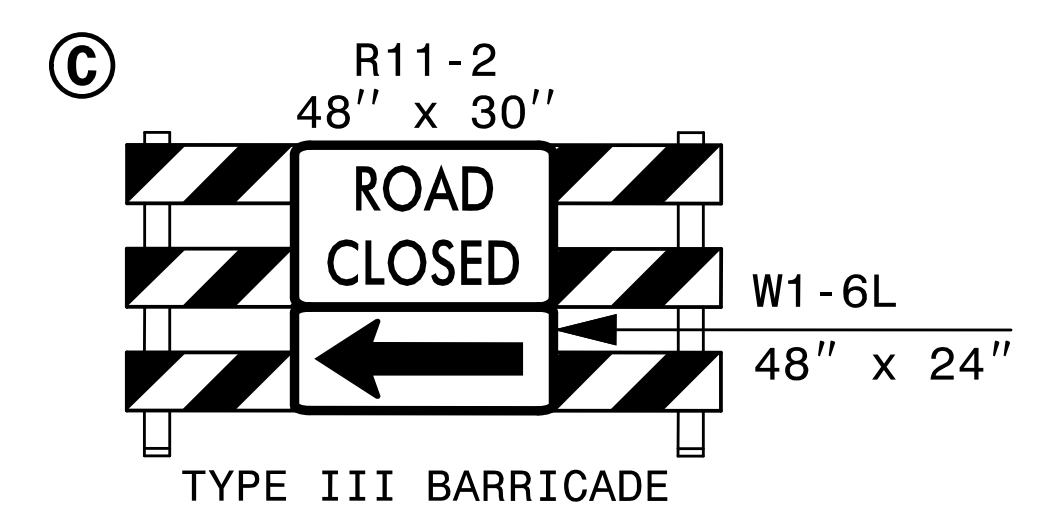
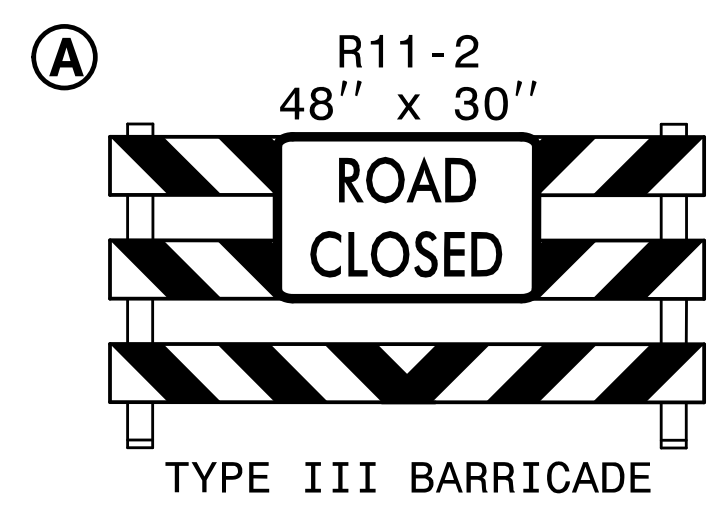
SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



3:14:38 PM
\\TCPL\U4906-TC_PLD04.dgn
1/29/2019

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

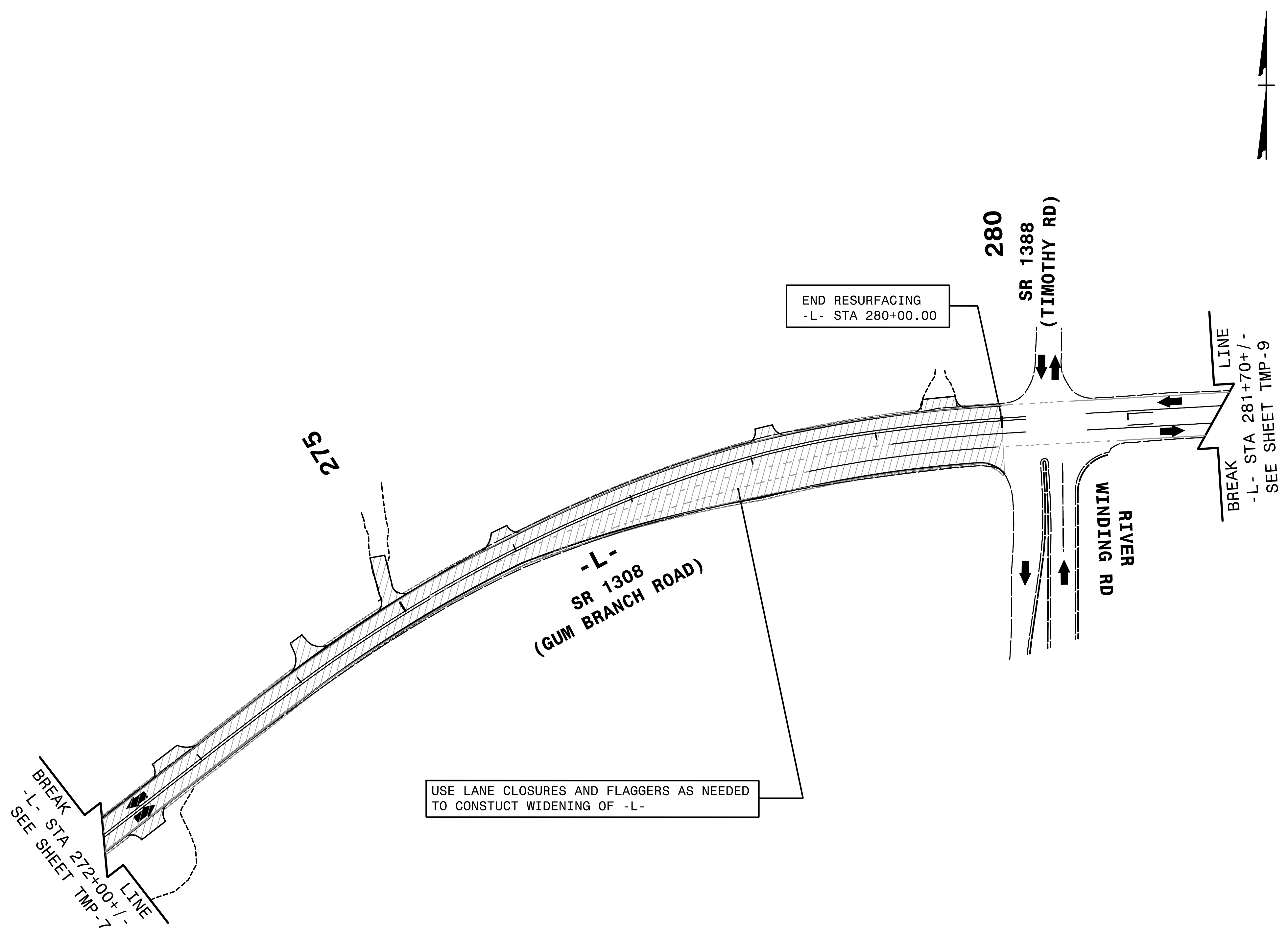
SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



3:14:41 PM
N:\TCP\U\4906- tc_PIL D04.dgn
1/29/2019

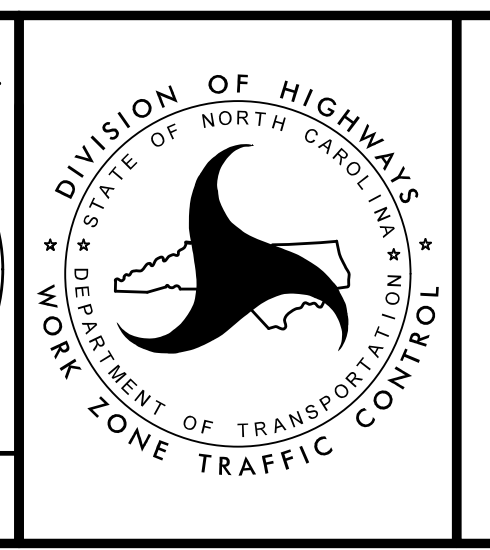
HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

SEAL

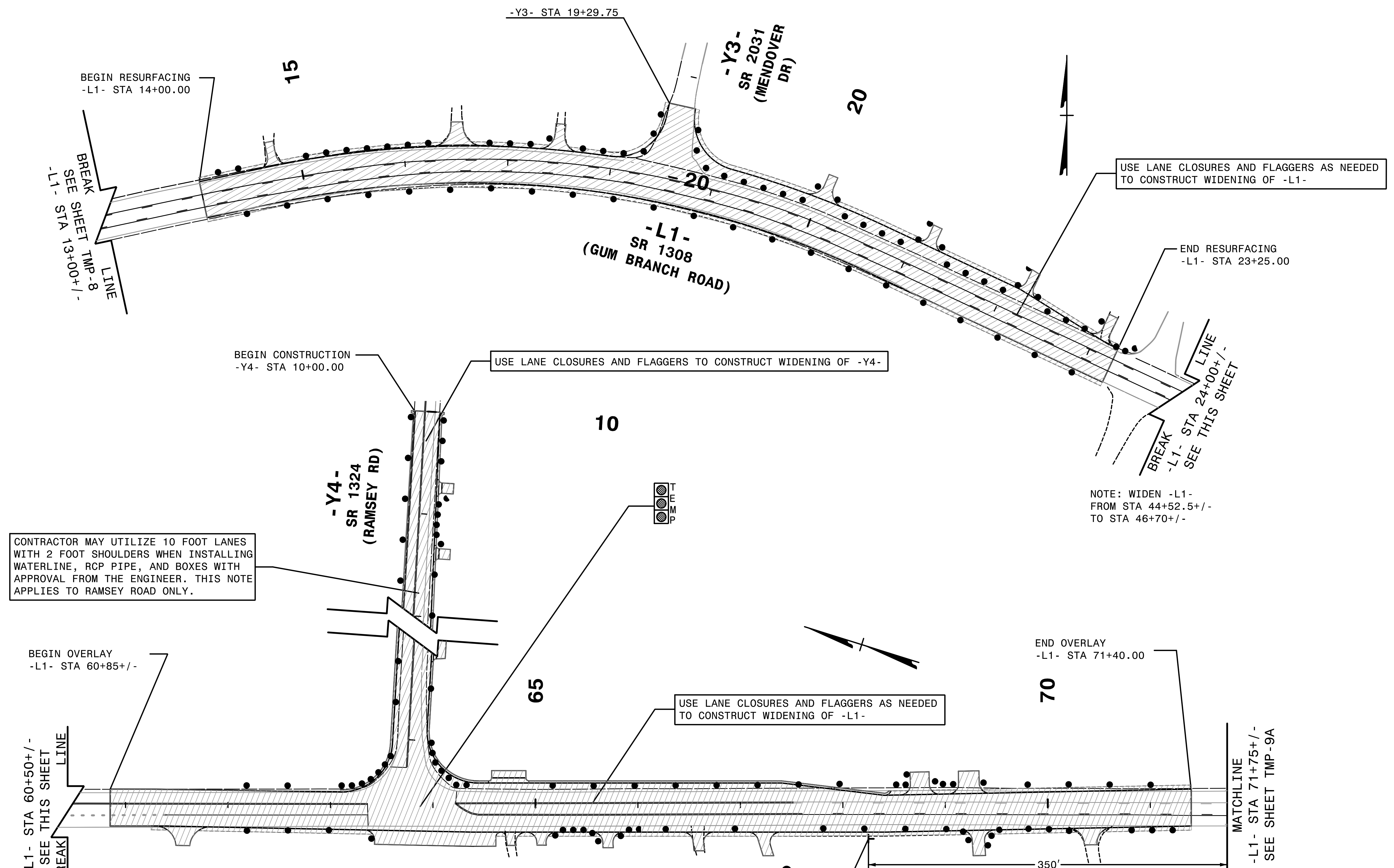
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
HELEN SHYU
042517

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



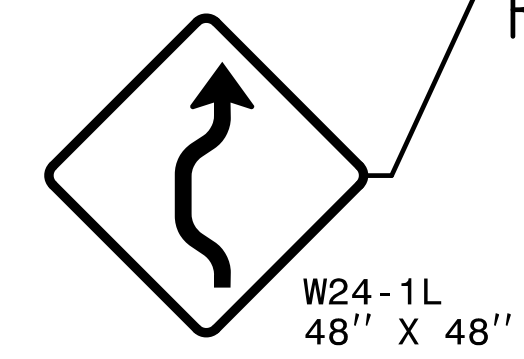
TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



CONTRACTOR MAY UTILIZE 10 FOOT LANES WITH 2 FOOT SHOULDERS WHEN INSTALLING WATERLINE, RCP PIPE, AND BOXES WITH APPROVAL FROM THE ENGINEER. THIS NOTE APPLIES TO RAMSEY ROAD ONLY.

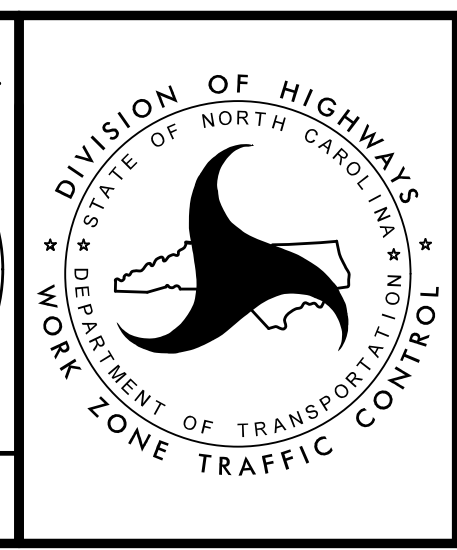
NOTE: WIDEN -L1- FROM STA 44+52.5+/- TO STA 46+70+/-



APPROVED: *Helen Shyu*
DocuSigned by:
 Helen Shyu
 0F15075A85E44EF
 DATE: 8/17/2021

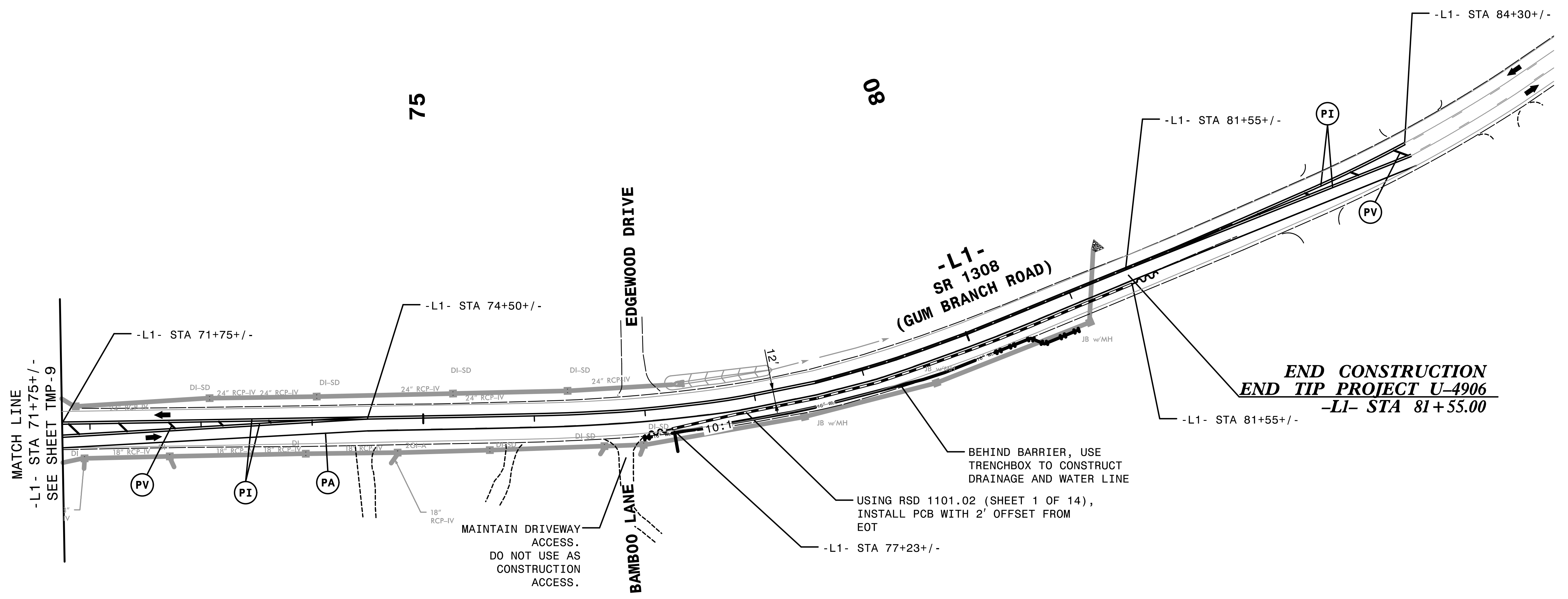
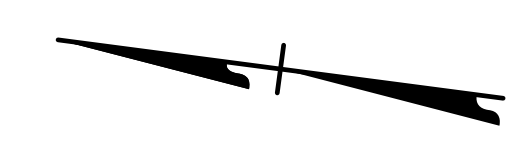
SEAL

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



TRANSPORTATION
 MANAGEMENT PLAN

PHASE I
 DETAIL



MATCH LINE
-L1- STA 71+75+/-
SEE SHEET TMP-9

DRAINAGE AND UTILITY INFORMATION SHOWN ON THIS SHEET IS NOT FOR CONSTRUCTION. CONTRACTOR SHOULD REFER TO ROADWAY AND UTILITY PLANS FOR DETAILS.

MAINTAIN DRIVEWAY ACCESS.
DO NOT USE AS CONSTRUCTION ACCESS.

BEHIND BARRIER, USE TRENCHBOX TO CONSTRUCT DRAINAGE AND WATER LINE

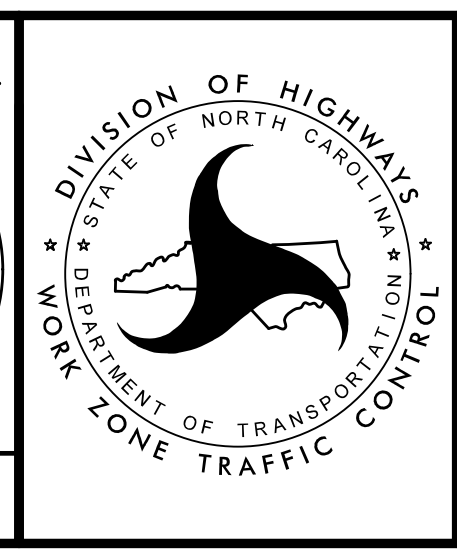
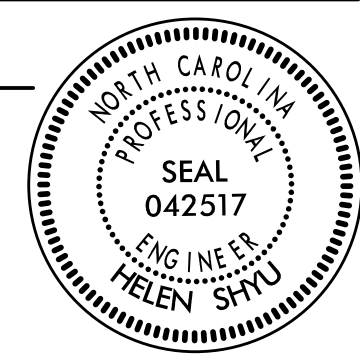
USING RSD 1101.02 (SHEET 1 OF 14), INSTALL PCB WITH 2' OFFSET FROM EOT

END CONSTRUCTION
END TIP PROJECT U-4906
-L1- STA 81+55.00

10:04:45 AM
\\TCPLU4906-TC-PL.D06.dgn
8/17/2021

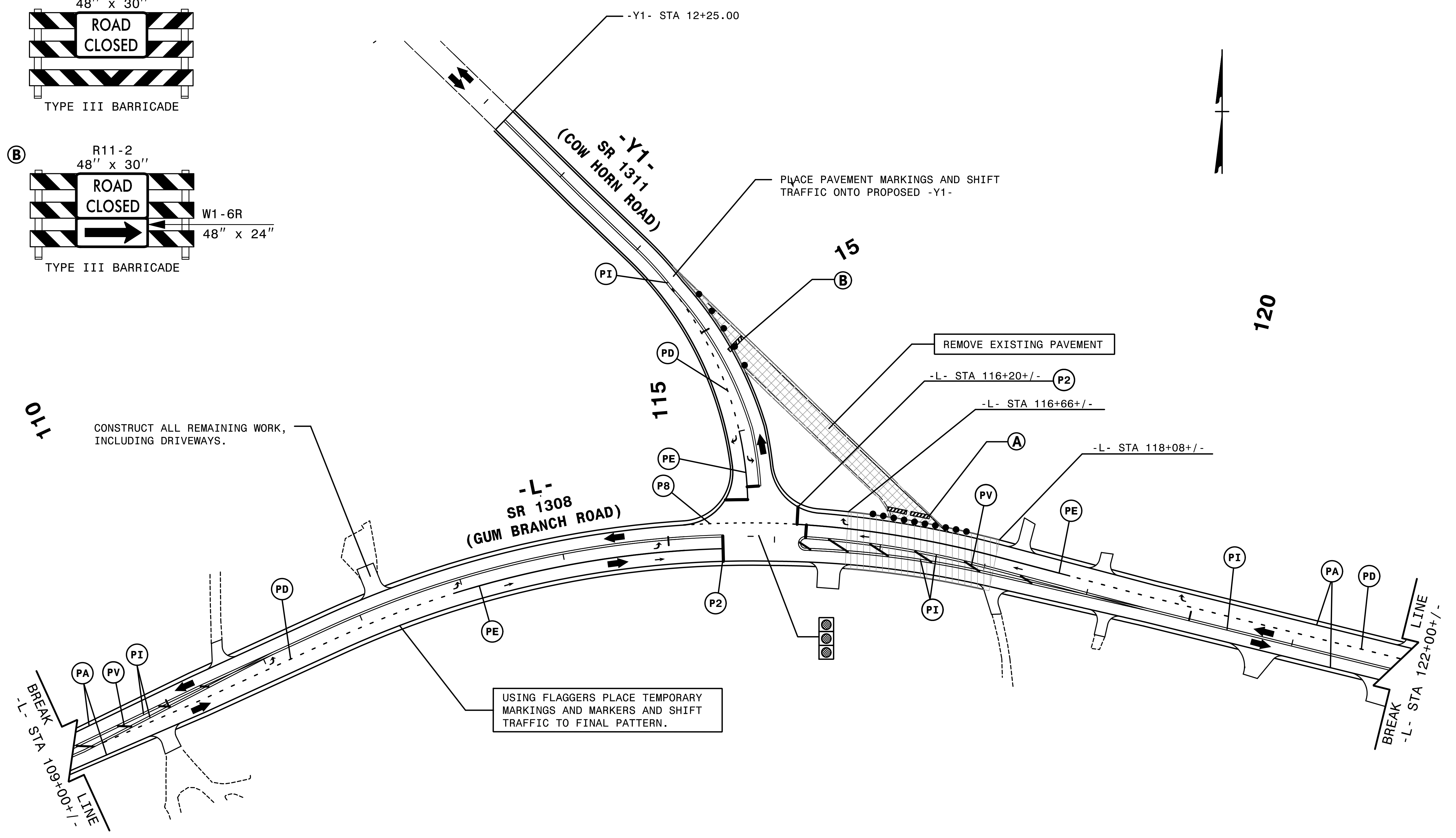
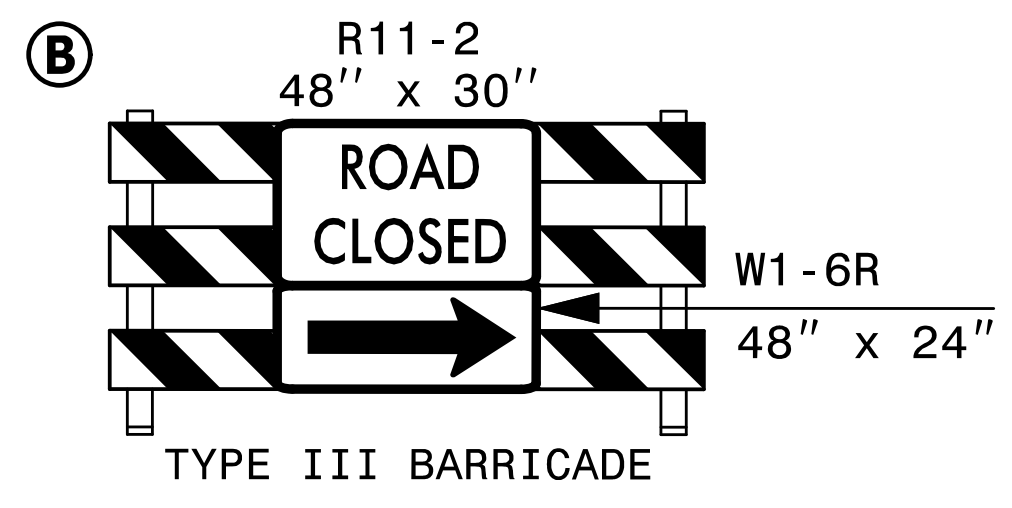
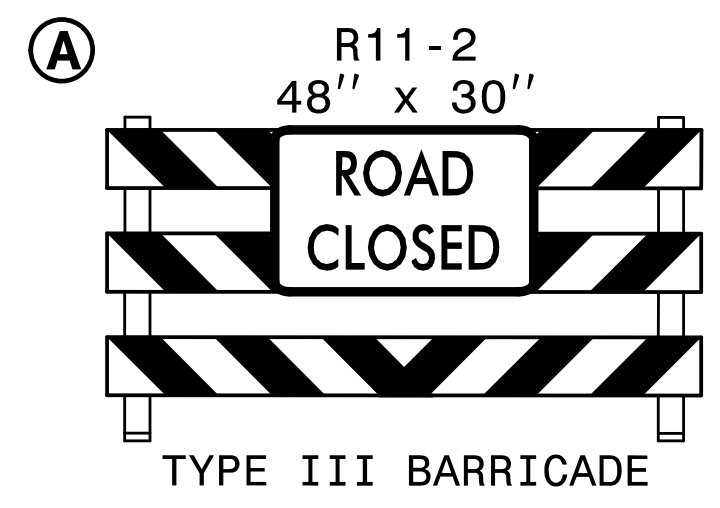
HNTB
HNTB NORTH CAROLINA, P.C.
349 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC License No: C-1554

DocuSigned by:
HELEN SHYU
APPROVED: *Helen Shyu*
DATE: 8/17/2021
SEAL



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



REFER TO PAVEMENT MARKING PLANS FOR PLACEMENT OF PAVEMENT MARKINGS.

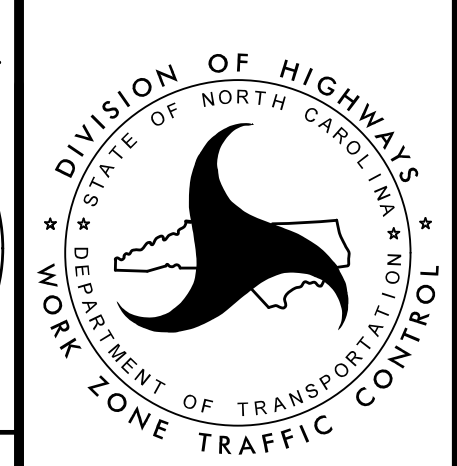
3:14:45 PM
\\TCPL\U4906-TC-PL\0202a.dgn
1/29/2019

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

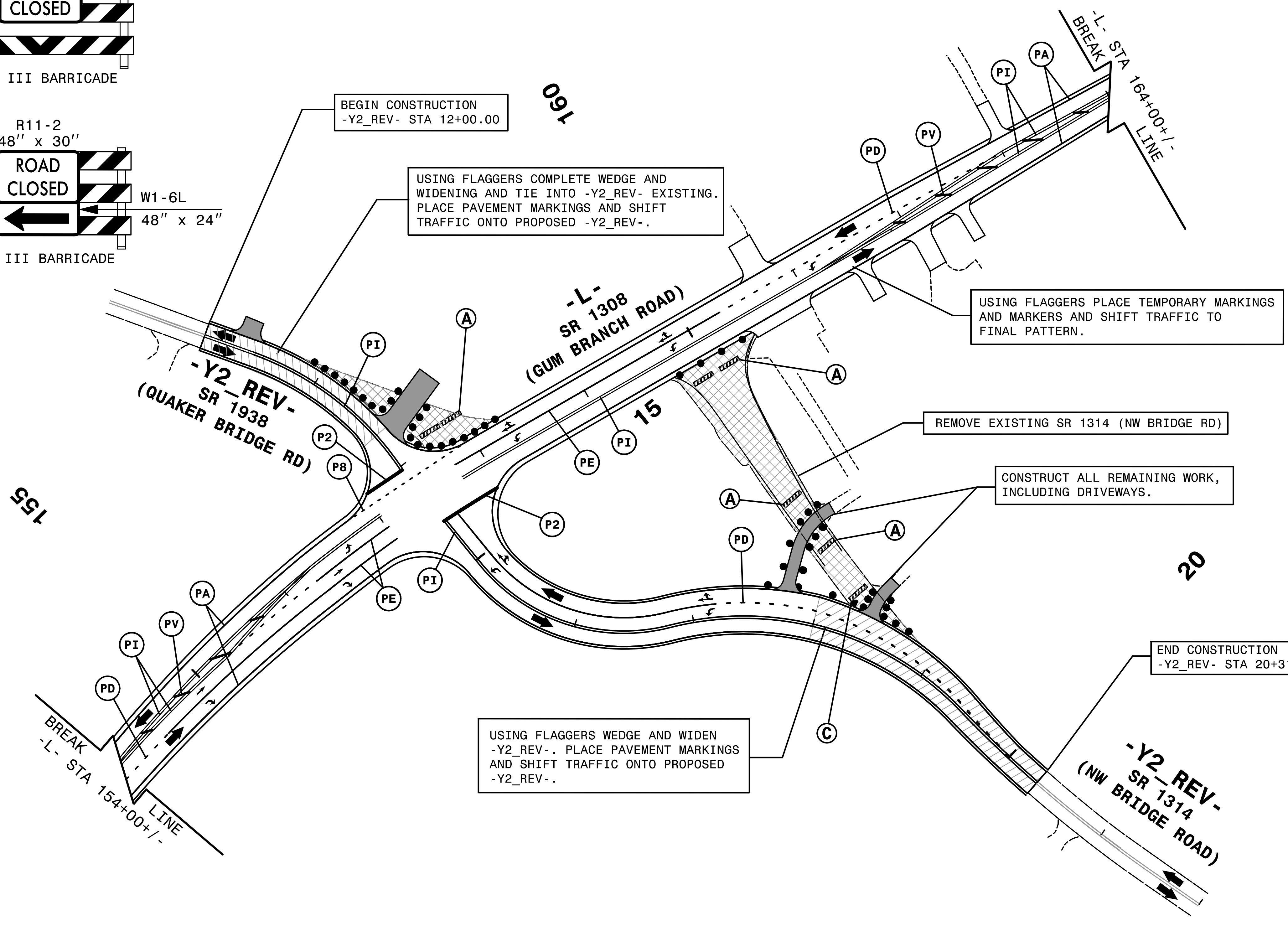
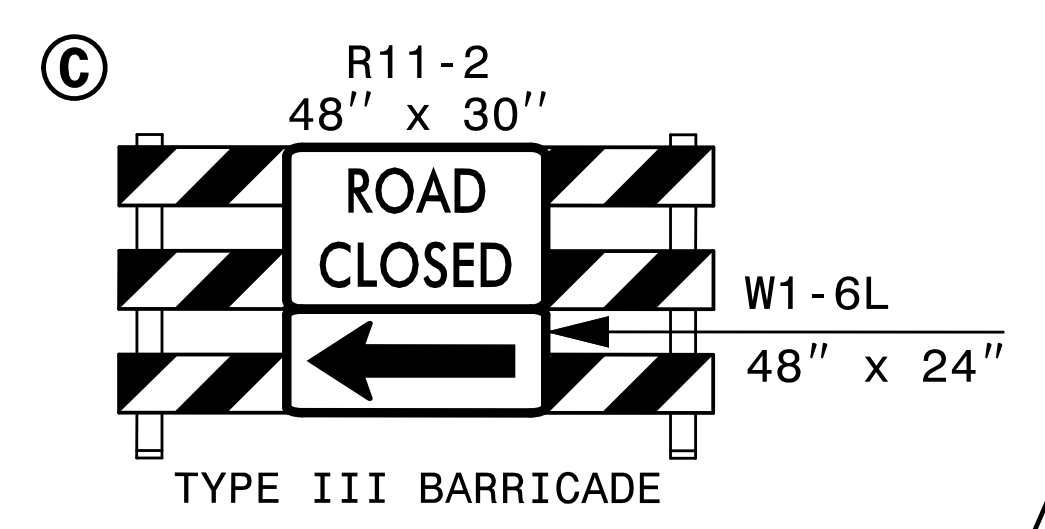
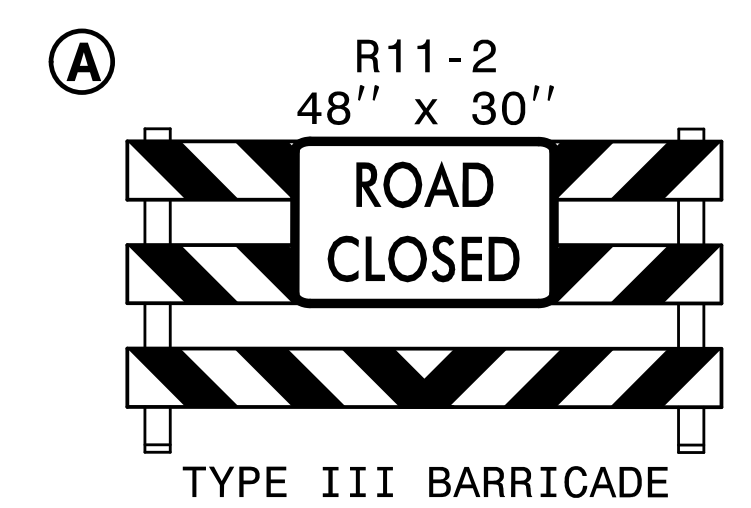
SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL



USING FLAGGERS COMPLETE WEDGE AND WIDENING AND TIE INTO -Y2_REV- EXISTING. PLACE PAVEMENT MARKINGS AND SHIFT TRAFFIC ONTO PROPOSED -Y2_REV-.

USING FLAGGERS PLACE TEMPORARY MARKINGS AND MARKERS AND SHIFT TRAFFIC TO FINAL PATTERN.

REMOVE EXISTING SR 1314 (NW BRIDGE RD)

CONSTRUCT ALL REMAINING WORK, INCLUDING DRIVEWAYS.

END CONSTRUCTION
-Y2_REV- STA 20+31.25+/-

USING FLAGGERS WEDGE AND WIDEN -Y2_REV-. PLACE PAVEMENT MARKINGS AND SHIFT TRAFFIC ONTO PROPOSED -Y2_REV-.

REFER TO PAVEMENT MARKING PLANS FOR PLACEMENT OF PAVEMENT MARKINGS.

3:14:48 PM
TCPU4906-rc_PL1003ca.dgn
1/29/2019

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Helen Shyu*
DATE: 6/29/2021

SEAL

SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL