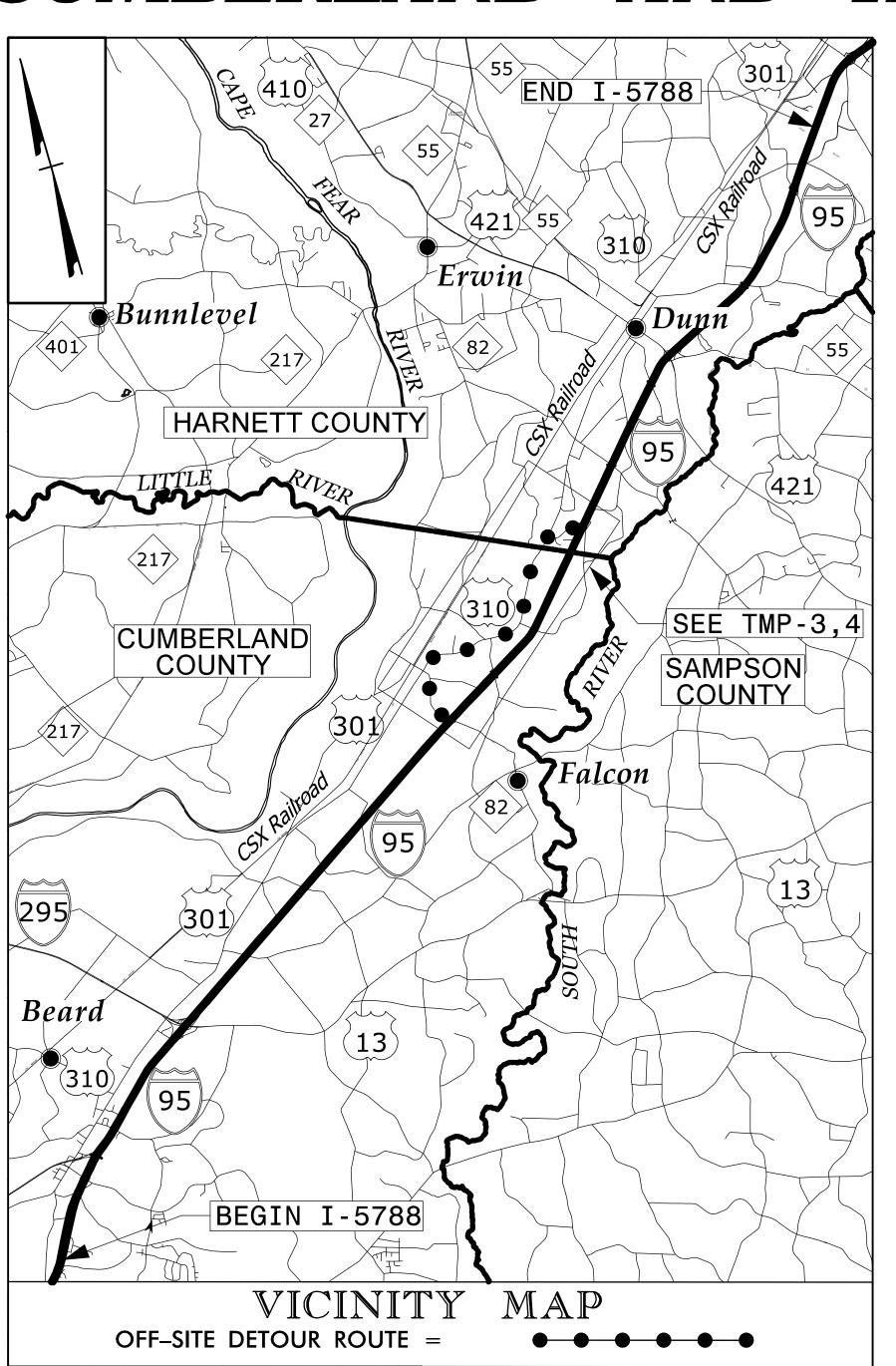
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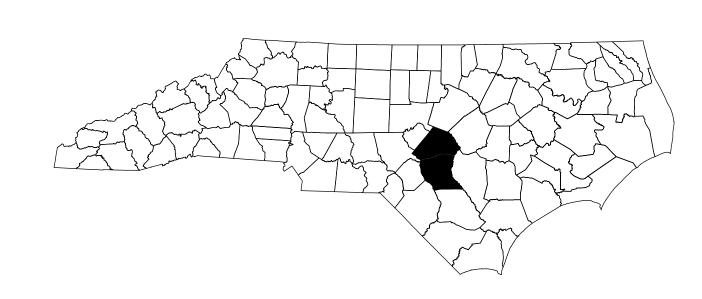
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TRANSPORTATION MANAGEMENT PLAN

CUMBERLAND AND HARNETT COUNTIES





LOCATION: I-95 FROM MILE MARKER 53 TO MILE MARKER 78 (JOHNSTON/HARNETT COUNTY LINE)

TYPE OF WORK: MILLING, RESURFACING, REPLACING GUARDRAIL ANCHOR UNITS AND BRIDGE REHABILITATION

INDEX OF SHEETS

SHEET NO.	<u>TITLE</u>
TMP - 1	TITLE SHEET, VICINITY MAP, INDEX OF SHEETS, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND TEMPORARY PAVEMENT MARKINGS
TMP-1A-1B	TRANSPORTATION OPERATIONS PLAN: (WORK ZONE TRAFFIC CONTROL REQUIREMENTS AND NARRATIVE)
TMP-2	WORK ZONE "VARIABLE" SPEED LIMIT REDUCTION
TMP-2A	RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES \geq 60 MPH
TMP-3	I-95 ROAD CLOSURE
TMP-4	I-95 SOUTHBOUND DETOUR ROUTE
TMP-5	I-95 NORTHBOUND DETOUR ROUTE
TMP-6	EXIT 73 BRIDGE CLOSURE

ROADWAY STANDARD DRAWINGS

DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<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	DRUM
1135.01	CONES
1145.01	BARRICADES - TYPE III
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.06	PAVEMENT MARKINGS - LANE DROPS
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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



APPROVED:_ DATE: 12/1/2015

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. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER J. S. KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER

D. A. PARKER TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER



TMP-1

WORK ZONE TRAFFIC CONTROL GENERAL REQUIREMENTS

LANE CLOSURE RESTRICTIONS

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 (SEE SPECIAL PROVISION, INTERMEDIATE CONTRACT TIME, AND LIQUIDATED DAMAGES)

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-95/I-95 BUS RAMPS & LOOPS MONDAY THROUGH THURSDAY FROM 6:00 AM TO 7:00 PM

FRIDAY 6:00 AM TO SUNDAY 9:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

US 421/NC 55

MONDAY THROUGH FRIDAY FROM
7:00 AM TO 9:00 AM AND
4:00 PM TO 6:00 PM

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

ROAD NAME

I-95/I-95 BUSINESS RAMPS & LOOPS US 421/NC 55

HOLIDAY

- 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 6:00 AM DECEMBER 31ST TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 AM THURSDAY AND 9:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 9:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 9:00 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 AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY AND 9:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 AM TUESDAY TO 9:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR THE DAYTONA 500, BETWEEN THE HOURS OF 6:00 AM THE DAY OF THE EVENT AND 9:00 P.M. THE DAY AFTER THE EVENT.

10. FOR THE MYRTLE BEACH BIKE WEEKENDS, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY BEFORE THE WEEKEND OF THE MYRTLE BEACH BIKE WEEKENDS TO 7:00 P.M. MONDAY AFTER THE WEEKEND OF THE MYRTLE BEACH BIKE WEEKENDS.

D) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-95

MONDAY THROUGH THURSDAY FROM 6:00 A.M. TO 9:00 P.M.

FRIDAY 6:00 A.M. TO SUNDAY 9:00 P.M.

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.

WORK ZONE SIGNING:

(A) INSTALLATION

IF THERE IS A PERIOD OF CONSTRUCTION INACTIVITY LONGER THAN 14 CALENDAR DAYS, REMOVE OR COVER ADVANCE/GENERAL WARNING WORK ZONE SIGNS. UNCOVER ADVANCE/GENERAL WARNING WORK ZONE SIGNS NO MORE THAN 7 CALENDAR DAYS BEFORE WORK RESUMES. ALL OTHER OPERATIONS MAY BE SUSPENDED UPON FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS. SUCH SUSPENDED OPERATIONS WOULD NOT BE RESUMED UNTIL THE ABOVE REQUIREMENTS ARE FULFILLED.

(B) SIGN REMOVAL

ALL STATIONARY WORK ZONE SIGNS SHALL BE REMOVED ONCE THE PROJECT IS SUBSTANTIALLY COMPLETE. THE PROJECT IS SUBSTANTIALLY COMPLETE WHEN THE RESURFACING OPERATIONS ARE COMPLETED AND THE SHOULDERS ARE BROUGHT UP TO THE SAME ELEVATION AS THE PROPOSED PAVEMENT AND WHEN PAVEMENT MARKINGS ARE INSTALLED. THE PAVEMENT MARKING DOESN'T HAVE TO BE THE FINAL MARKING MATERIAL TO BE CONSIDERED SUBSTANTIALLY COMPLETE. ANY REMAINING PUNCH LIST ITEMS ARE TO BE COMPLETED WITH PORTABLE WORK ZONE SIGNING.

(C) LANE CLOSURE WORK ZONE SIGNS

INSTALL ANY REQUIRED LANE CLOSURE SIGNING NEEDED DURING THE LIFE OF THE PROJECT IN ACCORDANCE WITH THE STANDARD DRAWING NO. 1101.02, 1101.11, AND 1110.02 OF THE 2012 ROADWAY STANDARD DRAWINGS.

(D) ROAD CLOSURE SIGNS

NOTIFY THE ENGINEER FOURTEEN (14) CALENDAR DAYS PRIOR TO ROAD CLOSURE. PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS AND PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS. COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD AND ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION. ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

PAVEMENT MARKING AND MARKERS:

DESCRIPTION

TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWINGS 1205.01 THROUGH 1205.13 OF THE 2012 ROADWAY STANDARD DRAWINGS AND SECTION 1205 OF THE 2012 STANDARD SPECIFICATIONS.

(A) MARKERS

REMOVE EXISTING SNOWPLOWABLE PAVEMENT MARKERS IN PREPARATION FOR PAVING. REPAIR ANY PAVEMENT DAMAGE DUE TO EXISTING PAVEMENT MARKER REMOVAL PRIOR TO THE END OF THE WORK DAY. DISPOSE OF EXISTING PAVEMENT MARKERS AS DIRECTED BY THE ENGINEER. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK AS IT WILL BE INCIDENTAL TO THE PAVING OPERATION.

INSTALL PERMANENT PAVEMENT MARKERS WITHIN 60 CALENDAR DAYS AFTER COMPLETING THE RESURFACING. PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING 1205.12 AND STANDARD DRAWINGS 1250.01 THROUGH 1253.01 OF THE 2012 ROADWAY STANDARD DRAWINGS AND SECTIONS 1250 THROUGH 1253 OF THE 2012 STANDARD SPECIFICATIONS.

(B) MARKING AND MARKERS

FOR TEMPORARY PAVEMENT MARKING USE RSD 1205.01, 1205.02, 1205.03, 1205.06, 1205.08, 1205.12, 1205.13.

FOR TEMPORARY RAISED PAVEMENT MARKERS USE RSD 1250.01 AND 1251.01.

TEMPORARY TRAFFIC CONTROL (TTC):

MAINTAIN TRAFFIC IN ACCORDANCE WITH DIVISIONS 10, 11, AND 12 OF THE 2012 STANDARD SPECIFICATIONS AND THE FOLLOWING PROVISIONS:

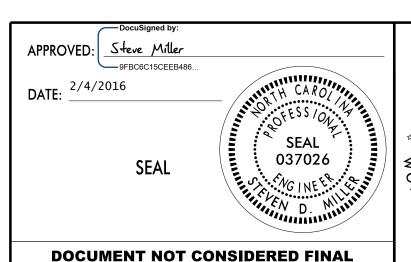
INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH THE DETAIL DRAWING PROVIDED IN THESE PLANS PRIOR TO BEGINNING ANY OTHER WORK.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AND WITHIN 10 FEET OF OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING STANDARD DRAWING NO. 1101.02 OF THE 2012 ROADWAY STANDARD DRAWINGS. 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, 2012 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.

WHEN UTILIZING A SLOW-MOVING OPERATION FOR SUCH ITEMS AS PAVEMENT MARKING AND MARKER PLACEMENT, AS A MINIMUM THE SLOW MOVING OPERATION CARAVAN SHALL CONSIST OF THE VEHICLES AND DEVICES SHOWN ON THE MOVING OPERATION CARAVAN DETAILS ACCORDING TO ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 13 OF THE 2012 ROADWAY STANDARD DRAWINGS. TRAFFIC CONES MAY BE USED WHEN NECESSARY TO PROVIDE ADDITIONAL PROTECTION OF WET PAVEMENT MARKINGS. BALLAST ALL TRAFFIC CONES SO THEY WILL NOT BE BLOWN OVER BY TRAFFIC.

CONSTRUCTION OPERATIONS:

- 1. CONTRACTOR SHALL MILL AND PAVE LANES IN AN ORDER SUCH THAT WATER SHALL NOT ACCUMULATE.
- 2. CONTRACTOR SHALL MILL AND PAVE BACK ASPHALT SURFACE COURSE AND PLACE TEMPORARY PAVEMENT MARKINGS AND TEMPORARY MARKERS BY THE END OF EACH WORK DAY. REMOVE LANE CLOSURE AND REOPEN TO EXISTING TRAFFIC PATTERN BY THE END OF EACH WORK PERIOD. (SEE INTERMEDIATE CONTRACT TIME FOR ALLOWABLE LANE CLOSURE TIMES).
- 3. REMOVE/REPLACE ANY CONFLICTING OR DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- 4. OPERATE EQUIPMENT AND CONDUCT OPERATIONS IN THE SAME DIRECTION AS THE FLOW OF TRAFFIC. MAINTAIN VEHICULAR ACCESS IN ACCORDANCE WITH ARTICLE 1101-05 OF THE 2012 STANDARD SPECIFICATIONS.
- 5. DO NOT INSTALL MORE THAN 2 MILES OF LANE CLOSURE ON I-95, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE, AND DO NOT INSTALL ANY MORE THAN ONE PER DIRECTION.



UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION OPERATIONS PLAN

/4/2016

PROJ. REFERENCE NO. SHEET NO. I - 5788 TMP - 1B

WORK ZONE TRAFFIC CONTROL NARRATIVE

MILLING AND RESURFACING:

RESURFACING AND FULL WIDTH MILLING:

FOR MILLING AND RESURFACING OF I-95, USE WORK ZONE 'VARIABLE' SPEED LIMIT REDUCTION (TMP-2B) AND RSD 1101.02 SHEETS 4, 9, AND 10. MILL AND PAVE BACK BY THE END OF EACH WORK DAY.

DURING A RESURFACING ONLY OPERATION, BRING ALL NEWLY RESURFACED LANES TO THE SAME ELEVATION WITHIN 24 HOURS FOR NOMINAL LIFTS OF 1.5 INCHES OR LESS OF ASPHALT COURSE AND BY THE END OF EACH WORK DAY FOR NOMINAL LIFTS OF GREATER THAN 1.5 INCHES OF ASPHALT COURSE.

SLOPE THE PAVEMENT AT THE BEGINNING AND ENDING OF THE DAILY MILLING OPERATION AS DIRECTED BY THE ENGINEER. SWEEP AND REMOVE ALL MILLED MATERIAL FROM THE ROADWAY AS SOON AS THE DAILY MILLING OPERATION IS COMPLETED. CONTINUE MILLING OPERATIONS UNTIL THE PARTICULAR SECTION OF ROADWAY BEING MILLED IS COMPLETE. REMOVE ANY EXISTING PAVEMENT ADJACENT TO THE MILLED AREA THAT HAS BEEN DAMAGED AND REPLACE WITH PATCH MATERIAL AS DIRECTED BY THE ENGINEER.

OPERATE EQUIPMENT AND CONDUCT OPERATIONS IN THE SAME DIRECTION AS THE FLOW OF TRAFFIC. MAINTAIN VEHICULAR ACCESS IN ACCORDANCE WITH ARTICLE 1101-05 OF THE 2012 STANDARD SPECIFICATIONS.

REPAIR OF BRIDGES:

LATEX MODIFIED CONCRETE OVERLAY - VERY EARLY STRENGTH:

COMPLETE THE MILLING, REPAIR AND OVERLAY OF EACH BRIDGE OVER SUCCESSIVE NIGHTS IN ACCORDANCE WITH THE ROAD CLOSURE TIME RESTRICTIONS.

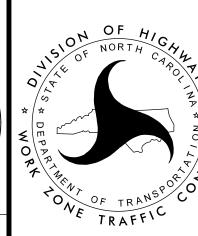
CLOSE ONE DIRECTION OF I-95 AND DETOUR TRAFFIC AS SHOWN ON TMP-3 THRU TMP-6. COMPLETE EACH NIGHT'S OPERATION AND PLACE TEMPORARY PAVEMENT MARKINGS BEFORE RE-OPENING THE ROADWAY.

BEFORE REOPENING ROADWAY TO TRAFFIC, MILL EXISTING PAVEMENT ON THE LEADING AND TRAILING ENDS OF REPAIRED DECK SURFACE.

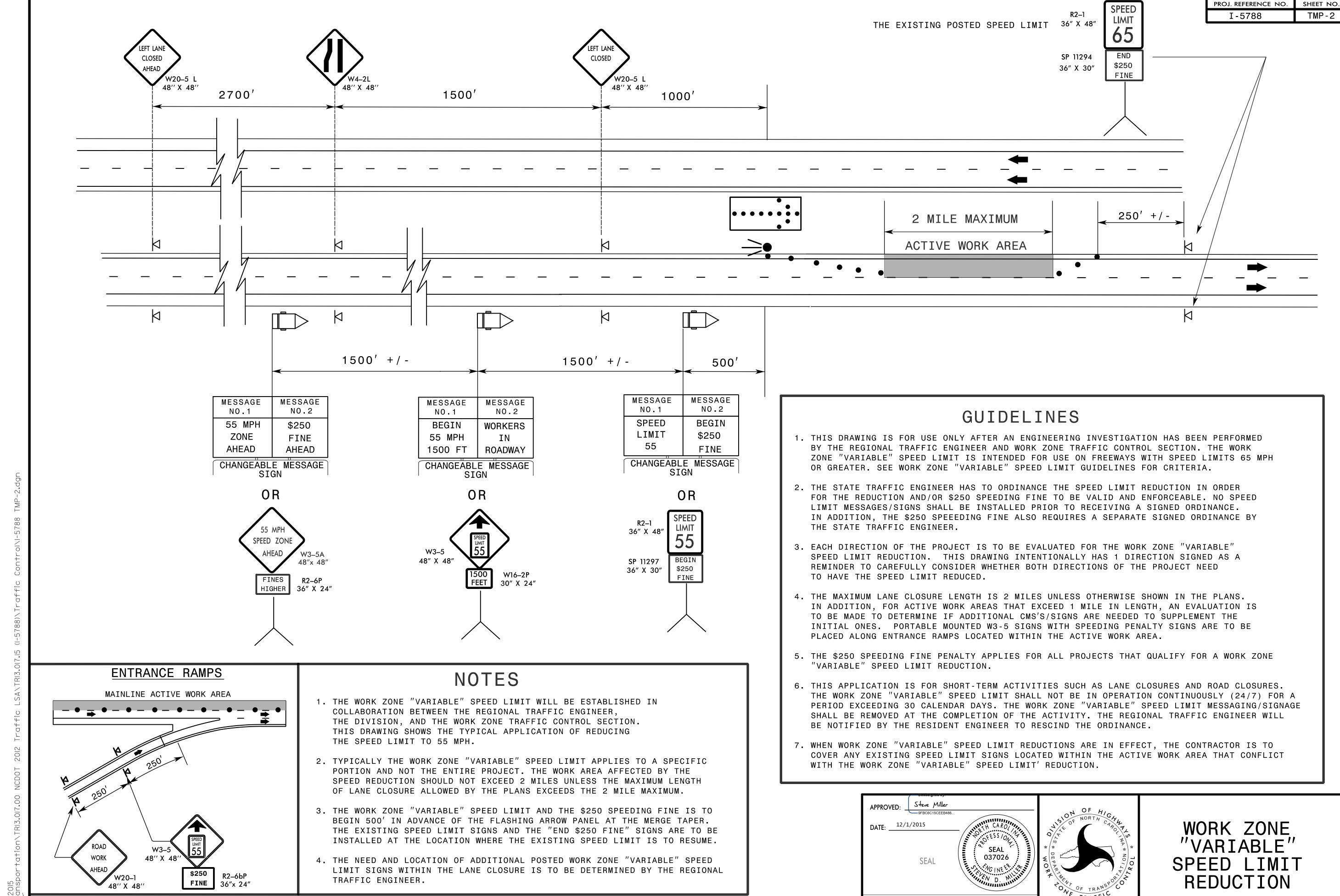
COMPLETE THE REPAIR AND OVERLAY WORK ON ONE BRIDGE BEFORE BEGINNING THE WORK ON ANOTHER.

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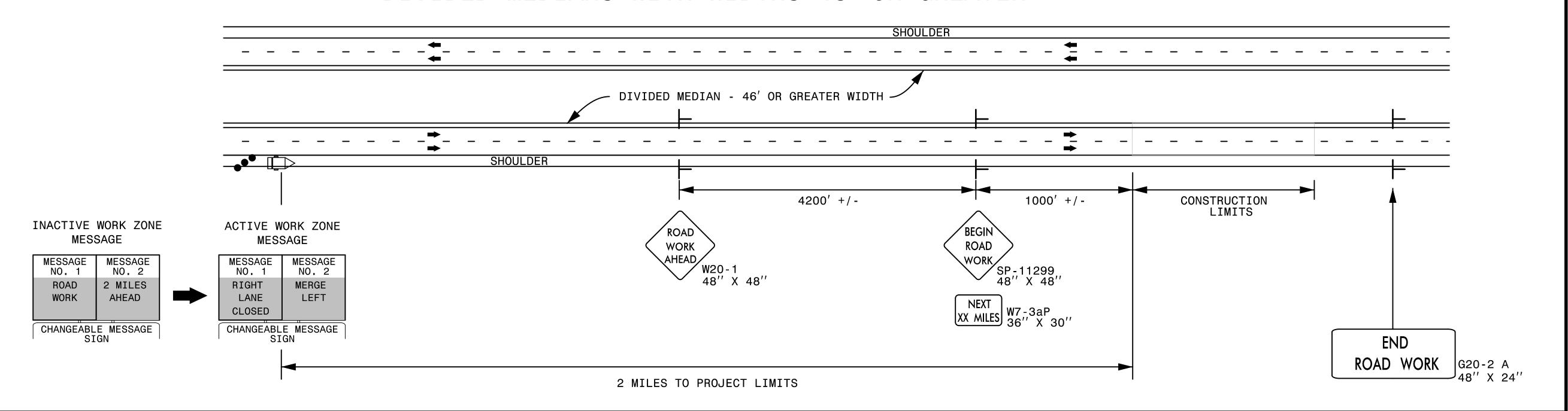


TRANSPORTATION OPERATIONS PLAN

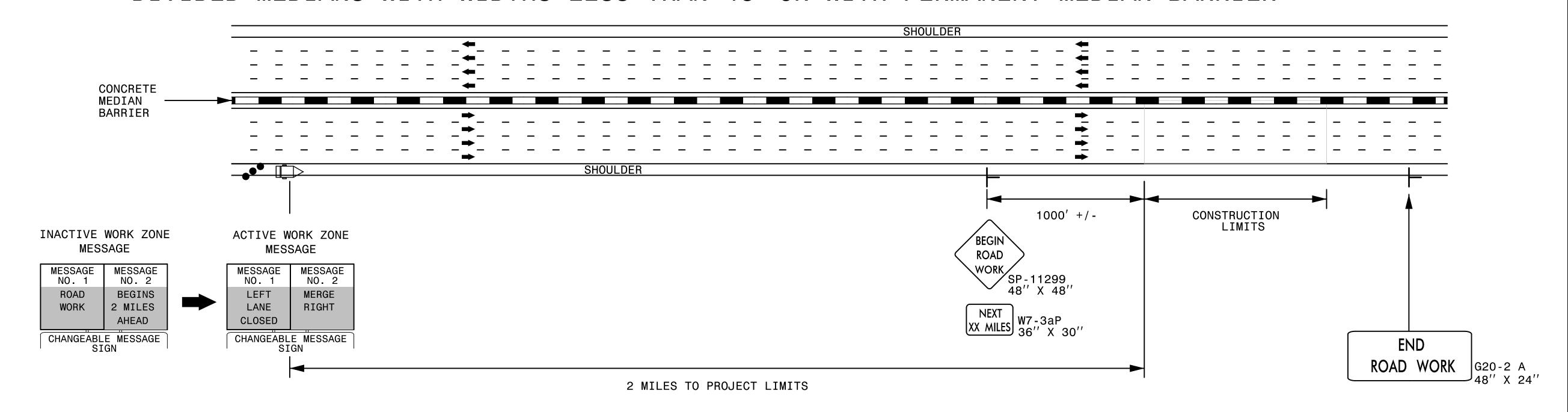


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DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER

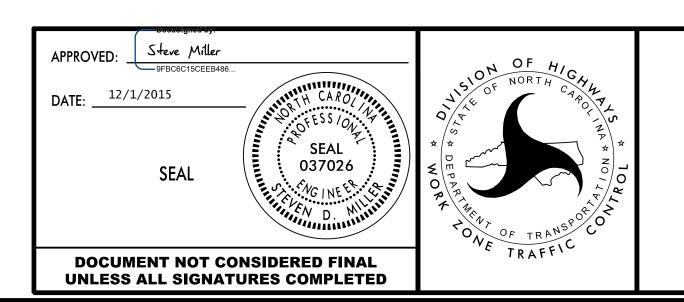


DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER



NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6^\prime AS MEASURED FROM THE EDGE OF PAVEMENT.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMPS 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMPS WITHIN THE WORK ZONE.
- 6) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.



RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH

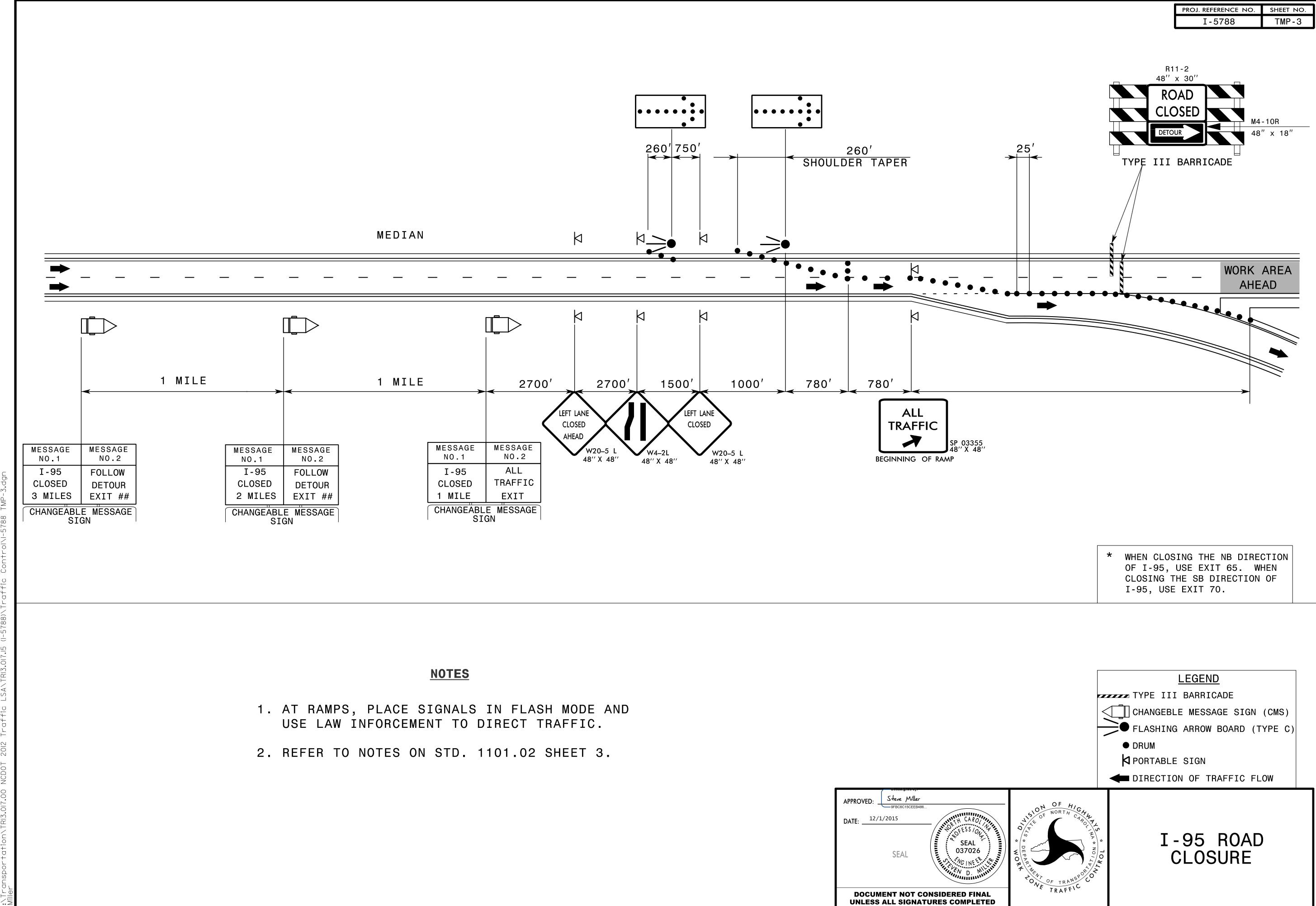
LEGEND

DIRECTION OF TRAFFIC

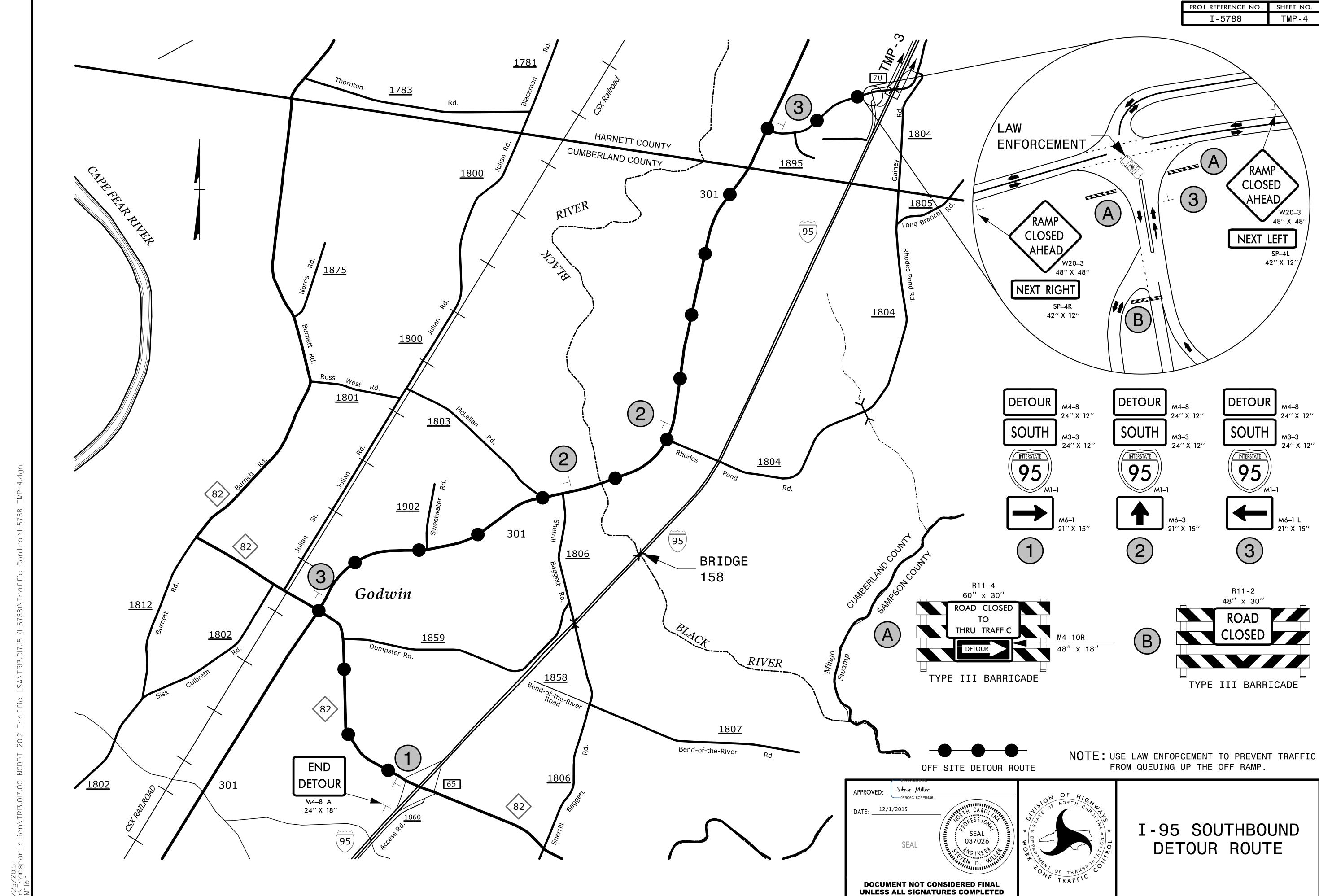
CHANGEABLE MESSAGE SIGN (CMS)

STATIONARY SIGN

TRAFFIC DRUM



11/25/2015



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