

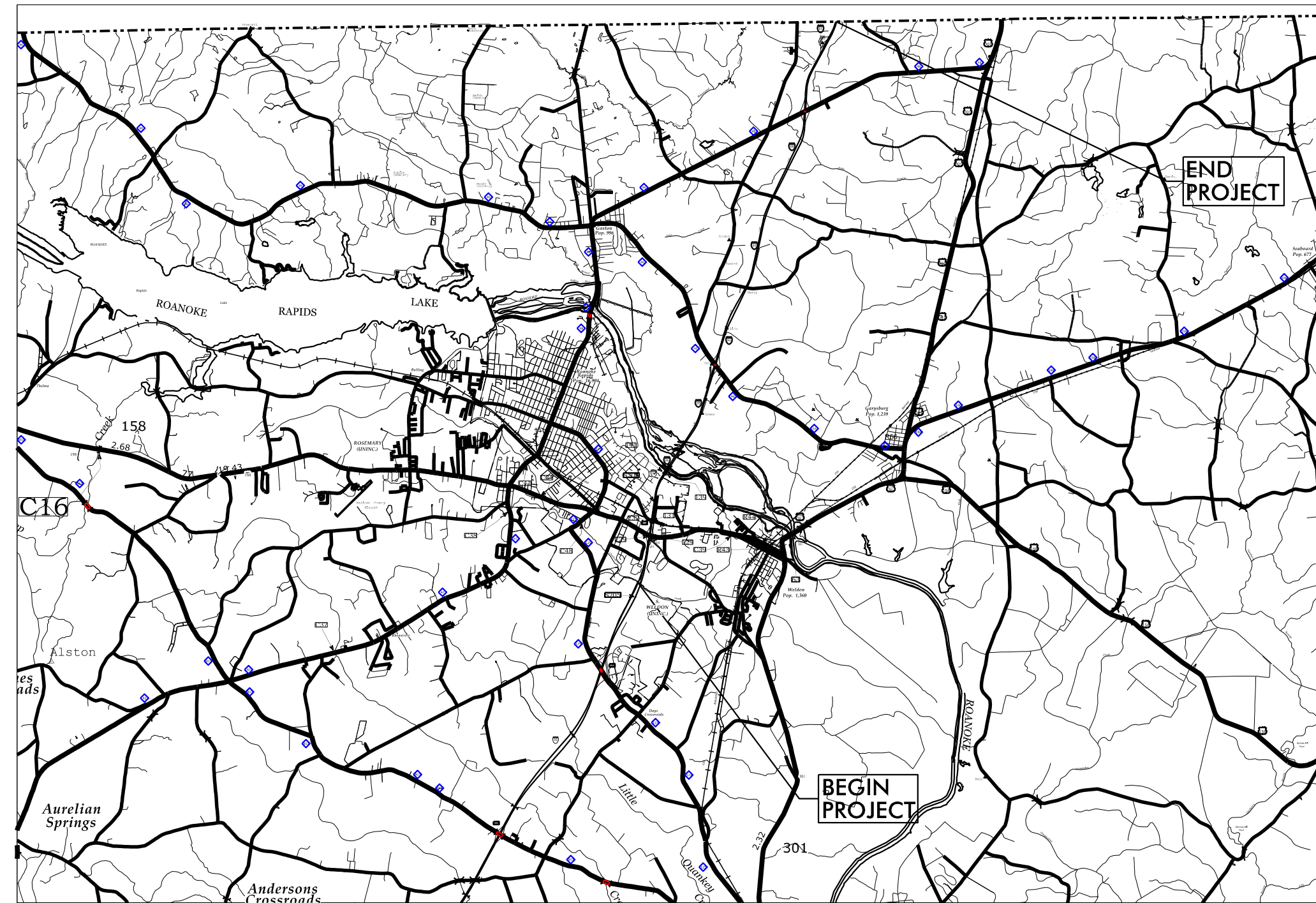
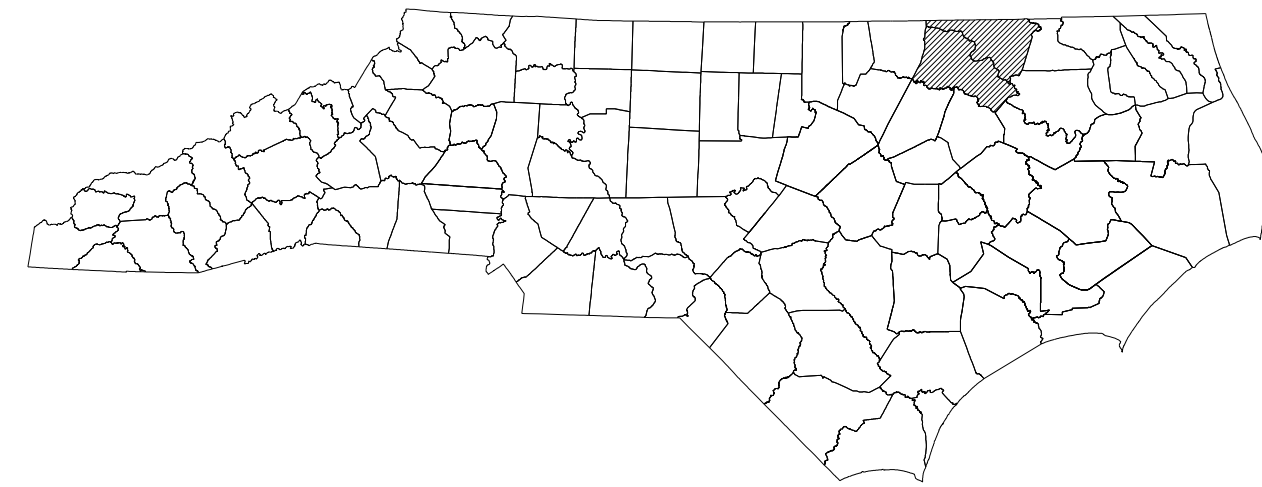
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN
HALIFAX & NORTHAMPTON COUNTY



VICINITY MAP

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2A-2C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES)
TMP-2D	ADVANCE WARNING SIGNS FOR INTERSTATE/FREEWAY RESURFACING PROJECTS
TMP-2E	WORK ZONE VARIABLE SPEED LIMIT DETAIL
TMP-2F	SEQUENTIAL FLASHING WARNING LIGHTS AND WORK ZONE PRESENCE LIGHTING DETAIL
TMP-2G	SHORT TERM CLOSURE AND DETOUR OF INTERSTATE/FREEWAY RAMPS
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4-5	TEMPORARY TRAFFIC CONTROL PHASE I DETAILS

SHEET NO.
TMP-1

I-5839

TIP PROJECT:



940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

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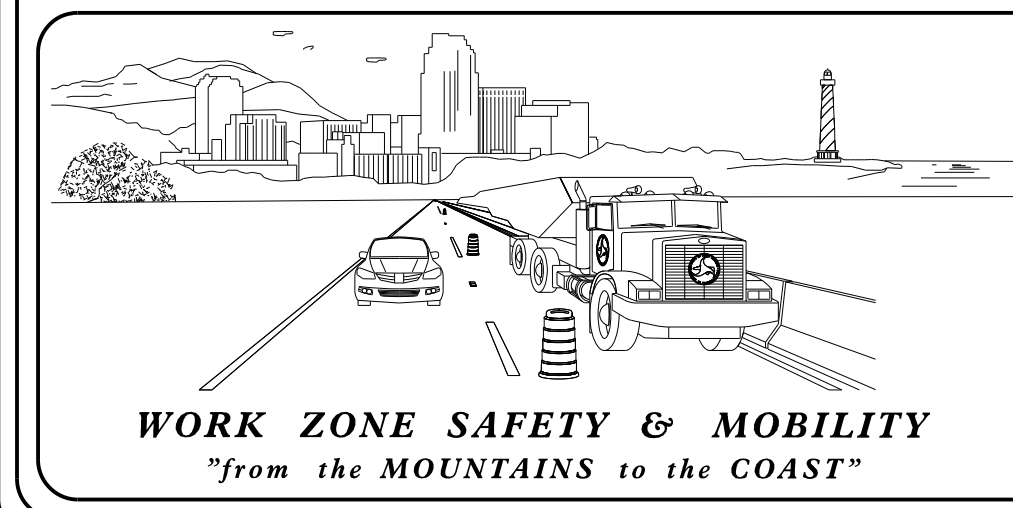
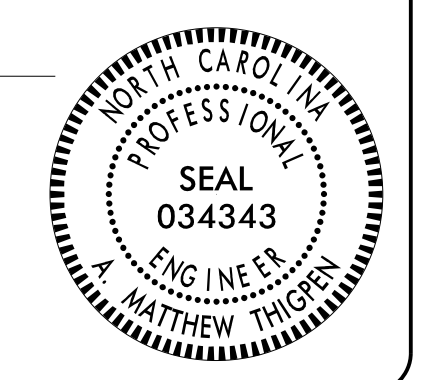
A. MATTHEW THIGPEN, PE
**TRAFFIC CONTROL
PROJECT ENGINEER**

JOSEPH LEWIS, PE
**TRAFFIC CONTROL
PROJECT DESIGN ENGINEER**

APPROVED: _____

DATE: _____

SEAL



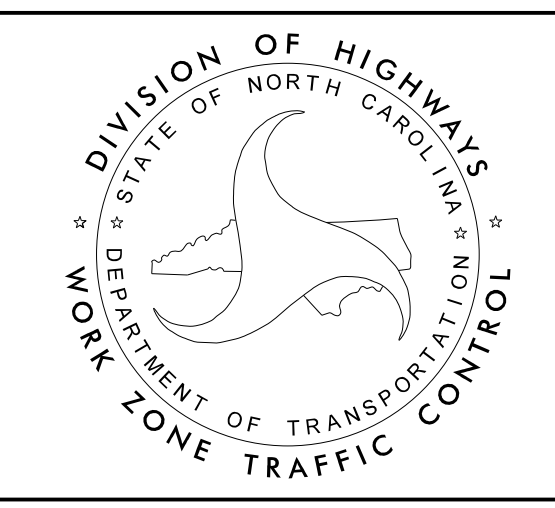
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. **STATE TRAFFIC MANAGEMENT ENGINEER**

STEVE KITE, P.E. **TRAFFIC CONTROL PROJECT ENGINEER**

_____ **TRAFFIC CONTROL PROJECT DESIGN ENGINEER**

_____ **TRAFFIC CONTROL DESIGN ENGINEER**



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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 2012 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
1101.03	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
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 MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
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.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

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

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

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APPROVED: _____			ROADWAY STANDARD DRAWINGS & LEGEND
DATE: _____			
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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) THE CONTRACTOR SHALL NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-95	FOR ALL OPERATIONS MONDAY TO THURSDAY - 7:00 A.M. TO 8:00 P.M. FRIDAY TO SUNDAY - 7:00 A.M. TO 10:00 P.M.
I-95 RAMPS	FOR ALL OPERATIONS TUESDAY TO THURSDAY - 7:00 A.M. TO 10:00 P.M. 7:00 A.M. FRIDAY TO 10:00 P.M. MONDAY
I-95 AND RAMPS	FOR BRIDGE REHABILITATION FROM WEEK BEFORE MEMORIAL DAY TO WEEK AFTER LABOR DAY MONDAY TO THURSDAY 7:00 A.M. TO 8:00 P.M. FROM WEEK AFTER LABOR DAY TO WEEK BEFORE MEMORIAL DAY NOON FRIDAY TO SUNDAY MIDNIGHT
WELCOME CENTER RAMPS	FOR WELCOME CENTER RAMP CONSTRUCTION FROM WEEK BEFORE MEMORIAL DAY TO WEEK AFTER LABOR DAY ALL TIMES FROM WEEK OF THANKSGIVING THROUGH THE WEEK OF NEW YEARS ALL TIMES FROM WEEK AFTER LABOR DAY TO WEEK BEFORE MEMORIAL DAY NOON FRIDAY TO SUNDAY MIDNIGHT

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

ROAD NAME
I-95, RAMPS AND WELCOME CENTER

HOLIDAY

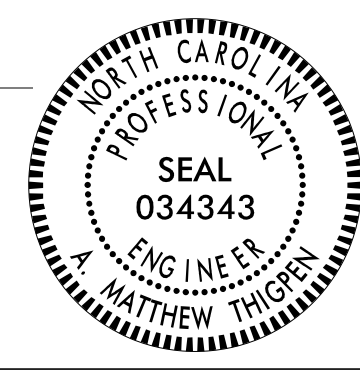
1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S DAY, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 8:00 P.M. TUESDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 8:00 P.M. WEDNESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF INDEPENDENCE DAY AND 8:00 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 8:00 P.M. WEDNESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY AND 8:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
 - D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
 - E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- 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.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
 - G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
 - H) DO NOT INSTALL MORE THAN 5 MILES OF LANE CLOSURE ON I-95 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
 - I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON I-95.

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GENERAL NOTES CONTINUED

PAVEMENT EDGE DROP OFF REQUIREMENTS

J) 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.

K) 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

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

TRAFFIC BARRIER

M) 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.

N) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A 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

SIGNING

O) 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.

P) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRANSPORTATION MANAGEMENT PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRANSPORTATION MANAGEMENT PLANS.

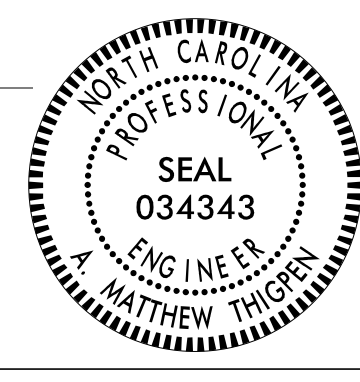
Q) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

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

R) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

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

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GENERAL NOTES CONTINUED

TRAFFIC CONTROL DEVICES

- T) 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.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- V) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

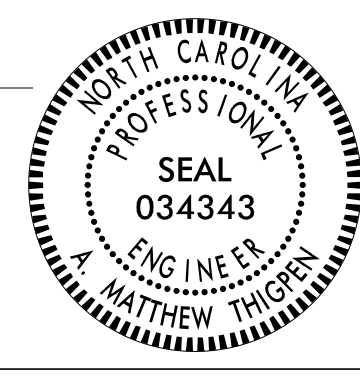
MISCELLANEOUS

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

LOCAL NOTES

- LN-1) THE FOLLOWING OPTIONS ARE AVAILABLE DURING RESURFACING AND MILLING OPERATIONS ON MULTI-LANE FACILITIES WHEN ALL LANES IN ONE DIRECTION ARE TO BE MILLED:
 - (A) MILL A SINGLE LANE AND PAVE BACK BY THE END OF EACH WORK DAY.
- LN-2) ONLY ONE PARKING AREA INSIDE THE NC WELCOME CENTER MAY BE CLOSED FOR CONSTRUCTION AT A TIME WHILE THE WELCOME CENTER IS OPEN. CONSTRUCTION ON THE CENTER PARKING LOT MAY BE COMPLETED WHILE THE WELCOME CENTER IS CLOSED, OTHERWISE, PEDESTRIAN WALKWAY ACCESS MUST BE MAINTAINED AT ALL TIMES.

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DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER

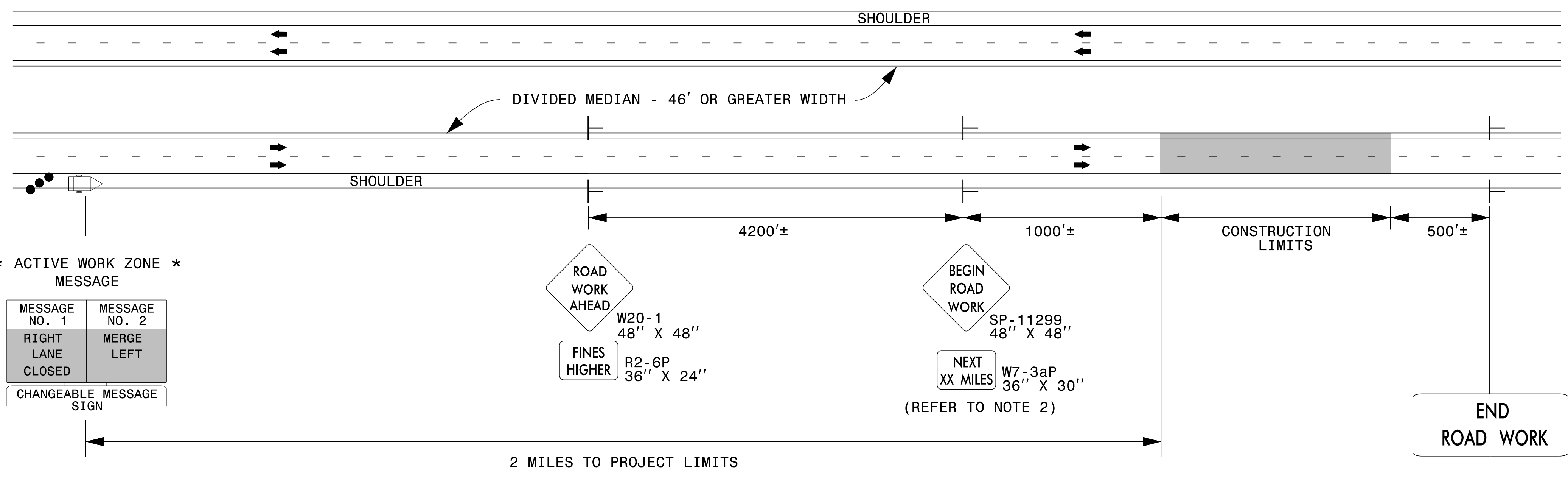
* NOTE: ADVANCE THIS CMS CONTINUOUSLY AS WORK OPERATIONS PROGRESS.

* INACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK	2 MILES AHEAD
CHANGEABLE MESSAGE SIGN	

* ACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
RIGHT LANE CLOSED	MERGE LEFT
CHANGEABLE MESSAGE SIGN	



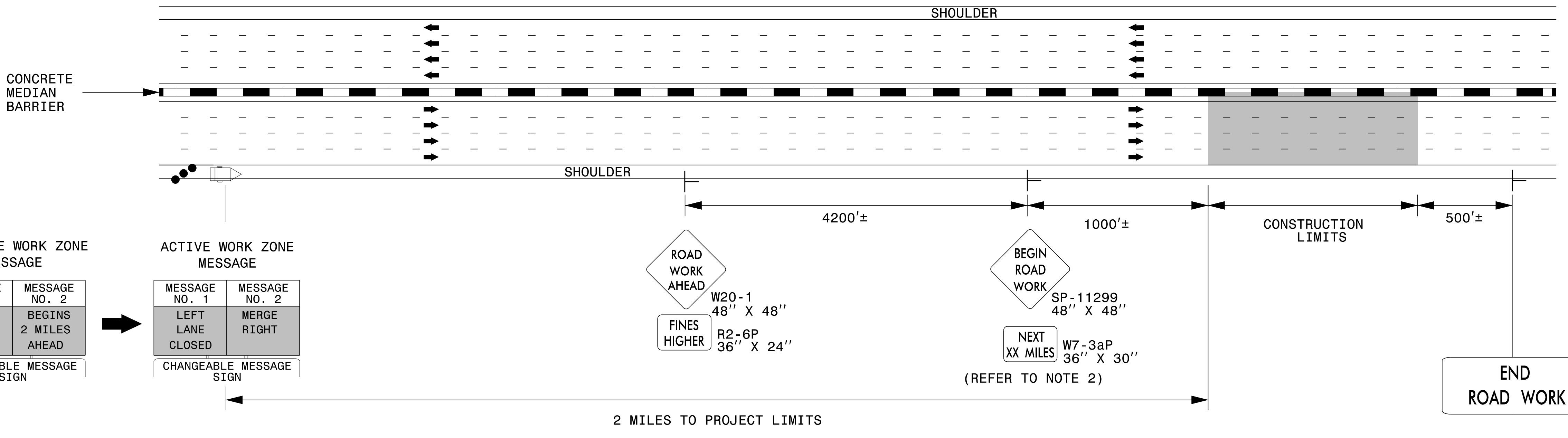
DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

INACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK	BEGINS 2 MILES AHEAD
CHANGEABLE MESSAGE SIGN	

ACTIVE WORK ZONE MESSAGE

MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	MERGE RIGHT
CHANGEABLE MESSAGE SIGN	



NOTES

1. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE WORK ZONE VARIABLE SPEED LIMIT USING DIGITAL SPEED LIMIT SIGNS FOR INTERSTATE/FREEWAY RESURFACING PROJECTS DETAIL.
2. FOR SIGN W7-3aP, ROUND TO THE NEAREST MILE.
3. FOR ENTRANCE AND EXIT RAMP, REFER TO RSD 1101.01, SHEET 1, DETAIL B & C.
4. FOR ADDITIONAL NOTES, REFER TO RSD 1101.01, SHEET 1.

LEGEND

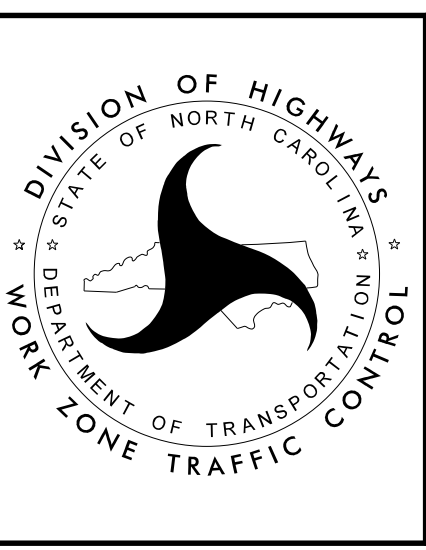
- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM

APPROVED: *Steve Kite*
DATE: 2/23/2017

DocuSigned by:
E27CE30E10FC442...

SEAL
022104
JOHN S. KITE, II
ENGINEER

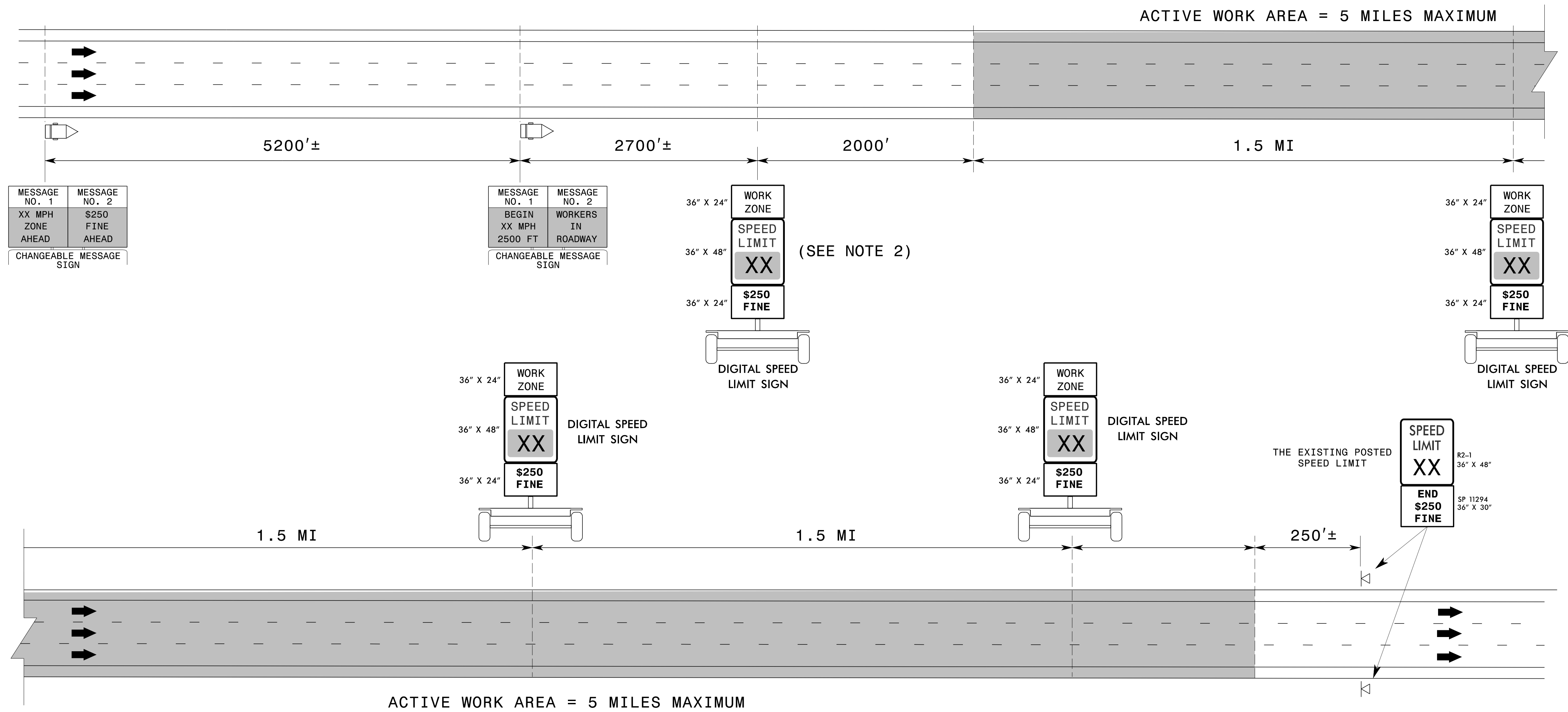
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STATIONARY ADVANCE
WARNING SIGNS FOR
INTERSTATE/FREEWAY
RESURFACING PROJECTS

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INTERSTATE RESURFACING OPERATIONS WITH DIGITAL SPEED LIMIT SIGNS



NOTES

1. THE SPEED LIMITS DISPLAYED WITHIN THE ACTIVE WORK AREA MAY VARY BETWEEN 55 MPH AND 70 MPH, DEPENDENT UPON ROAD WORK CONDITIONS AND THE EXISTING SPEED LIMIT. 55 MPH IS ONLY DISPLAYED DURING ACTIVE LANE CLOSURE OPERATIONS.
2. AT THE FIRST DIGITAL SPEED LIMIT LOCATION, PLACE A DIGITAL SPEED LIMIT SIGN ON BOTH THE INSIDE AND OUTSIDE SHOULDERS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER WHEN THERE IS NOT ENOUGH ROOM ON THE INSIDE SHOULDER DUE TO NARROW MEDIAN AND PERMANENT MEDIAN BARRIER. AT SUBSEQUENT LOCATIONS DOWNSTREAM, PLACE A SINGLE DIGITAL SPEED LIMIT SIGN ON THE OUTSIDE SHOULDER.
3. THE ENGINEER MAY DETERMINE TO INSTALL THE DIGITAL SPEED LIMIT SIGNS ON THE OUTSIDE SHOULDER OR ON THE MEDIAN SIDE IF THE SIGNS ARE NOT HIGHLY VISIBLE TO ALL MOTORISTS. AT THE FIRST DIGITAL SPEED LIMIT
4. THIS APPLICATION IS FOR SHORT-TERM ACTIVITIES. THE MAXIMUM ACTIVE WORK AREA IS 5 MILES.
5. THE DIGITAL SPEED LIMIT SIGNS TAKE PRECEDENCE OVER EXISTING SPEED LIMIT SIGNS. ALL EXISTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED.
6. THE DIGITAL SPEED LIMITS SIGNS WILL BE INSTALLED (TRAILER MOUNTED OR STATIONARY MOUNTED) IN ADVANCE AND SPACED APPROXIMATELY 1.5 MILES THROUGHOUT THE ACTIVE WORK AREA, UNLESS DIRECTED OTHERWISE.
7. NCDOT HAS SOLE AUTHORITY OF THE SPEED LIMITS DISPLAYED ON THE DIGITAL SPEED LIMIT SIGNS.
8. THE WORK ZONE VARIABLE SPEED LIMIT AND THE \$250 SPEEDING PENALTY ARE SEPARATE ORDINANCES THAT MUST BE SIGNED BY THE STATE TRAFFIC ENGINEER TO BE VALID AND ENFORCEABLE. WITHOUT A SIGNED ORDINANCE, THE SPEED LIMIT ON A FACILITY SHALL REMAIN UNCHANGED.

WHEN THERE IS NOT ACTIVE WORK IN THE TRAVEL LANE

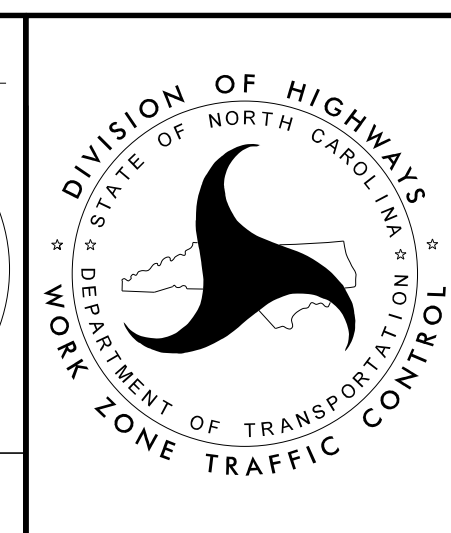
SPEED LIMIT DISPLAY	CONDITIONS	
	DROP-OFFS BETWEEN OPEN TRAVEL LANES	PAVED SHOULDER DROP-OFFS
USE EXISTING SPEED LIMIT	< 1.0"	≤ 3.0"
REDUCE SPEED LIMIT 5 MPH	1.0" - 2.0"	> 3.0"

DROP-OFFS BETWEEN OPEN TRAVEL LANES SHOULD NOT EXCEED 2.0"

APPROVED: *Steve Kite*
DATE: 2/23/2017

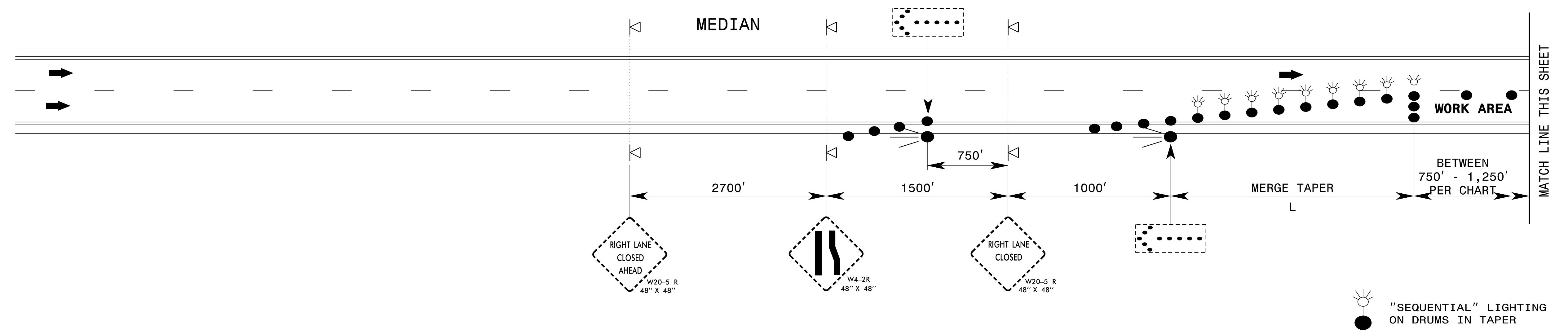
NORTH CAROLINA
PROFESSIONAL
SEAL
022104
ENGINEER
JOHN S. KITE, II

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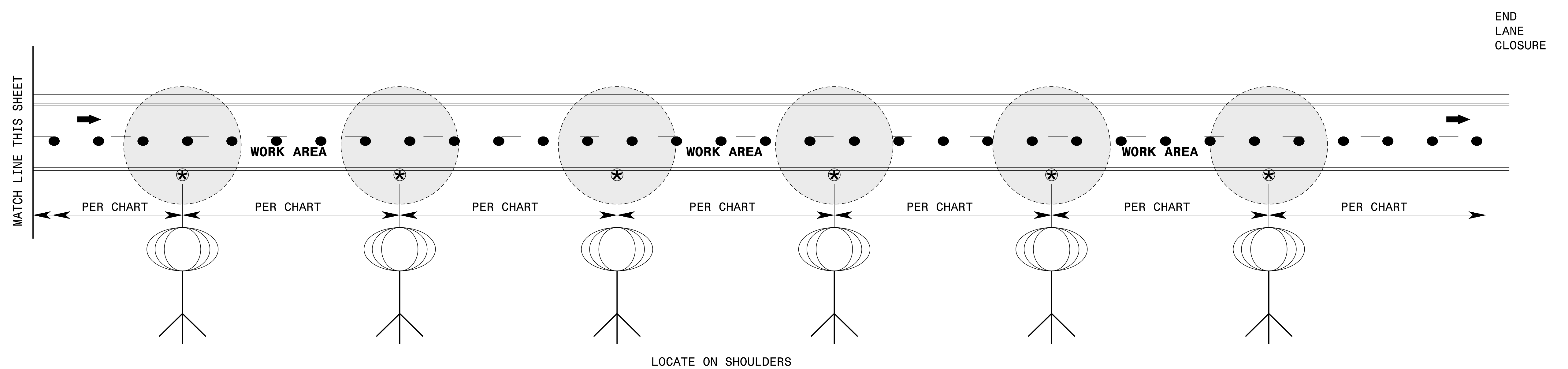


WORK ZONE "VARIABLE"
SPEED LIMIT USING
DIGITAL SPEED LIMIT
SIGNS FOR INTERSTATE/
FREEWAY RESURFACING
PROJECTS

ADVANCE WARNING AREA



WORK ZONE AREA



SPACING CHART

LIGHT OUTPUT (LUMENS)	MINIMUM LIGHTED FIXTURE AREA (SQUARE FEET)	MAXIMUM SPACING (FEET)	LIGHT UNITS (PER MILE)
50,000 TO 65,000	5.5	750'	6
66,000 TO 80,000	5.5	1,000'	5
81,000 TO 100,000	36	1,250'	4

NOTES

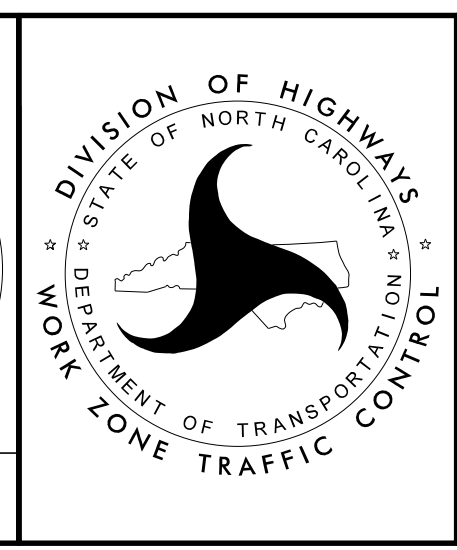
- 1) SPACE LIGHT UNITS ACCORDING TO THE CHART.
- 2) EACH LIGHT UNIT SHALL BE CAPABLE OF ELEVATING TO A MINIMUM HEIGHT OF 14' ABOVE THE PAVEMENT.
- 3) PLACE ON PAVED SHOULDER IF POSSIBLE.

APPROVED: *Matthew V. Springer*
DocuSigned by: Matthew V. Springer
 BC50F6E8B584403

DATE: 5/24/2017

SEAL 042546
 ENGINEER
 MATTHEW V. SPRINGER

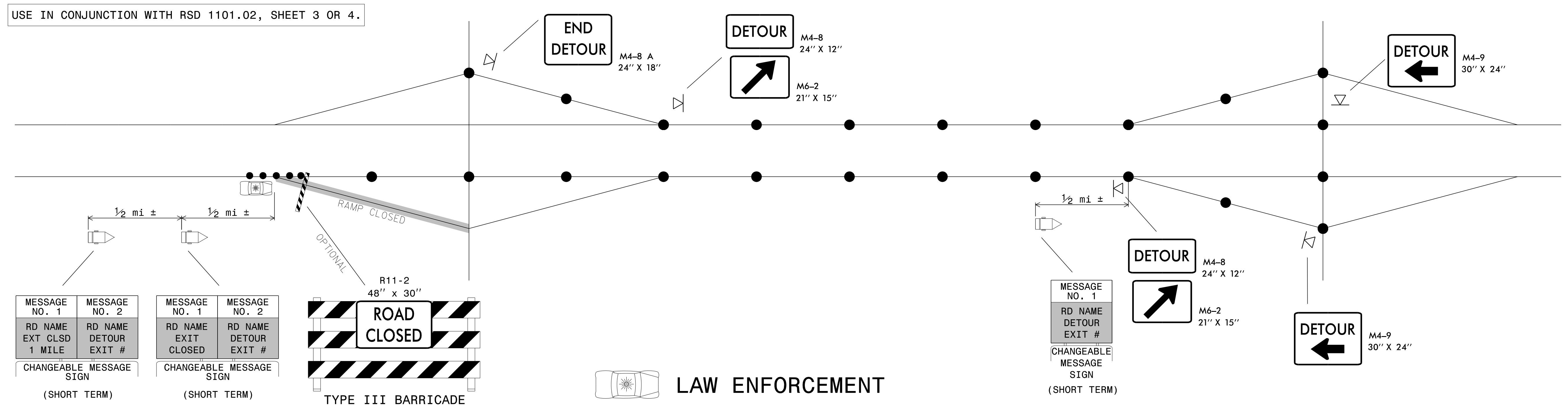
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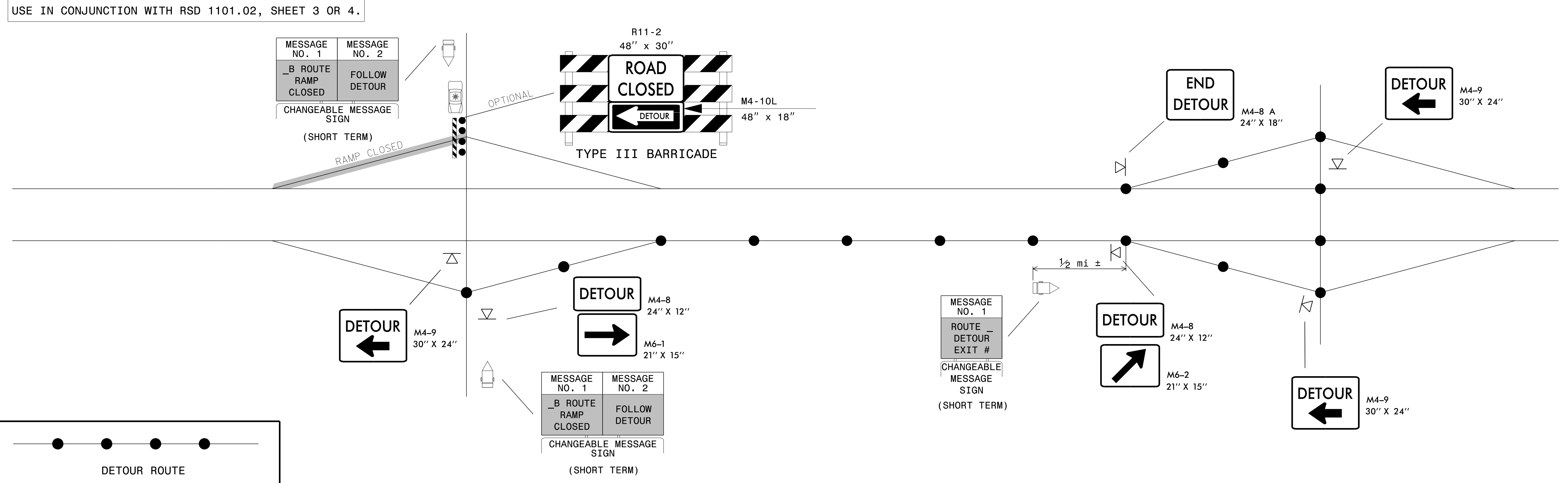
**SEQUENTIAL FLASHING
 WARNING LIGHTS
 AND
 WORK ZONE
 PRESENCE LIGHTING**

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SHORT TERM CLOSURE AND DETOUR OF OFF-RAMP TO ADJACENT INTERCHANGE



SHORT TERM CLOSURE AND DETOUR OF ON-RAMP TO ADJACENT INTERCHANGE



GENERAL NOTES:

1. THIS DRAWING IS INTENDED FOR USE DURING SHORT TERM CLOSURES OF INTERSTATE AND FREEWAY RAMPS.
2. RAMP CLOSURES SHALL BE APPROVED BY THE ENGINEER.
3. IF RAMP CLOSURE RESTRICTIONS APPLY, SEE SPECIAL PROVISION, "INTERMEDIATE CONTRACT TIMES AND LIQUIDATED DAMAGES".
4. ADDITIONAL CHANGEABLE MESSAGE SIGNS AND POSSIBLE DETOUR SIGNS MAY BE NECESSARY FOR MORE COMPLEX CLOSURES/DETOURS. COMPENSATION FOR ADDITIONAL DEVICES SHALL BE MADE BASED ON THE UNIT BID PRICE FOR THE RESPECTIVE DEVICE.

APPROVED: *Steve Kite*
DATE: 2/23/2017

DocuSigned by:
Steve Kite
E27CE30E10FC442...

SEAL
022104
JOHN S. KITE, II
ENGINEER

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**SHORT TERM CLOSURE
AND DETOUR OF
INTERSTATE/FREEWAY
RAMPS**

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CONSTRUCTION NARRATIVE

PHASING

THIS PROJECT CONSISTS OF MILLING AND RESURFACING, WIDENING OF SHOULDERS, REPAIR AND REPLACEMENT OF DRAINAGE STRUCTURES IN MEDIAN RAMP AREAS, WIDENING OF RAMPS, INSTALLATION OF SHOULDER BERM GUTTER AND FUNNEL DRAINS, BRIDGE DECK AND SUBSTRUCTURE REPAIRS, INSTALLATION OF CONCRETE SLABS AT OFF RAMP FOR I-95 SB AT NC WELCOME CENTER AND THE INSTALLATION OF RUMBLE STRIPS, PAVEMENT MARKERS AND PAVEMENT MARKINGS ALONG A ROADWAY SECTION OF I-95. THE PROCEDURE TO ACCOMPLISH THE CONSTRUCTION IS DETAILED BELOW:

TRAFFIC MANAGEMENT PROCEDURE:
 TEMPORARY CONCRETE BARRIER IS TO BE INSTALLED ALONG THE EXIT AND ENTRANCE RAMPS NB AND THE EXIT RAMP SB AT THE INTERCHANGE WITH I-95 AND US 158. I-95 RAMPS WILL BE CLOSED AND PLACED ON THE OFF SITE DETOUR AS SHOWN ON SHEET TMP-2G DURING CONSTRUCTION. CONSTRUCTION WILL TAKE PLACE WITHIN THE ALLOWABLE OVERNIGHT TIME PERIOD STATED IN THE INTERMEDIATE CONTRACT TIME. RAMPS WILL BE OPENED TO TRAFFIC BY 7:00 AM.

ALL CONSTRUCTION FOR THE RAMPS AT THE NC WELCOME CENTER ARE TO BE DONE WHILE THE NC WELCOME CENTER IS CLOSED.

ALL WORK ON I-95 IS TO BE DONE USING LANE CLOSURES AS STATED IN THE PHASING NOTES. SEE INTERMEDIATE CONTRACT TIMES FOR LANE CLOSURE RESTRICTIONS. ALL CONSTRUCTION SHOULD BE COORDINATED SO THAT ALL LANES OF I-95 CAN BE OPENED TO TRAFFIC DURING THE TIMES STATED IN THE INTERMEDIATE CONTRACT TIME.

STEP 1
 INSTALL WORK ZONE ADVANCE WARNING SIGNS. SEE RSD 1101.02.

INSTALL AND COVER THE OFF SITE DETOUR SIGNING SHOWN ON SHEET TMP-2G.

THE CONTRACTOR SHALL COMPLETE THE WORK IN STEPS 2-3 ON I-95 RAMPS OVER SUCCESSIVE OVERNIGHT WORK PERIODS UNTIL ALL REQUIRED CONSTRUCTION HAS BEEN COMPLETED ON I-95 RAMPS. WORK MAY BE PERFORMED ON RAMPS AT THE INTERCHANGES OF I-95 WITH US 158, NC 46 AND NC 48 AWAY FROM TRAFFIC AND BEHIND PORTABLE CONCRETE BARRIER OR GUARDRAIL WHILE RAMPS ARE OPEN TO TRAFFIC

CONTRACTOR SHALL COMPLETE WORK OF STEPS 2-3 ON I-95 RAMPS, WHEN RAMP IS CLOSED TO TRAFFIC, BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM SUNDAY THRU FRIDAY. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

CONTRACTOR SHALL COORDINATE RAMP CLOSURES SO THAT RAMPS ALONG DETOUR ROUTES REMAIN OPEN WHEN DETOUR IS IN EFFECT.

STEP 2
 USING RSD 1101.02, SHEETS 1, 2 AND 4 OF 15, BEGIN CONSTRUCTION OF THE FOLLOWING ACTIVITIES ON I-95:
 -WIDENING
 -ADJUST/REPLACE GUARDRAIL
 -BRIDGE REHABILITATION

DURING OVERNIGHT CLOSURE AND PRIOR TO OPENING RAMP TO TRAFFIC, INSTALL PORTABLE CONCRETE BARRIER ON THE NORTHBOUND I-95 EXIT AND ENTRANCE RAMPS AND ON THE SOUTHBOUND I-95 EXIT RAMP AT THE US 158 & I-95 INTERCHANGE. (SEE TMP-4 FOR PORTABLE CONCRETE BARRIER DETAILS) (SEE TMP-2G FOR RAMP CLOSURE DETOUR DETAILS)

STEP 3
 USING RSD 1101.02, SHEET 4 OF 15, COMPLETE CONSTRUCTION OF THE FOLLOWING ACTIVITIES ON I-95:
 -ALL ACTIVITIES BEGUN IN STEP 2 (COMPLETE MILLING AND FILLING OF EXISTING PAVEMENT AFTER COMPLETION OF INTERMEDIATE COURSE)
 -MILLING & RESURFACING (SEE LOCAL NOTE LN-1)
 -INSTALL PAVEMENT MARKINGS AND MARKERS
 -INSTALL RUMBLE STRIPS

USING DRUMS (SPACED AT A MAXIMUM OF 25 FEET) AND BARRICADES TO CLOSE I-95 INTERCHANGE RAMPS, UNCOVER DETOUR SIGNING AND DETOUR TRAFFIC ALONG ROUTE SHOWN ON TMP-2G AND PERFORM CONSTRUCTION ON RAMPS.

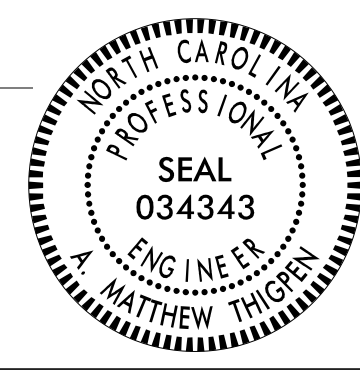

CONTRACTOR SHALL COMPLETE WORK OF STEP 4 OVER A 5 DAY PERIOD. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

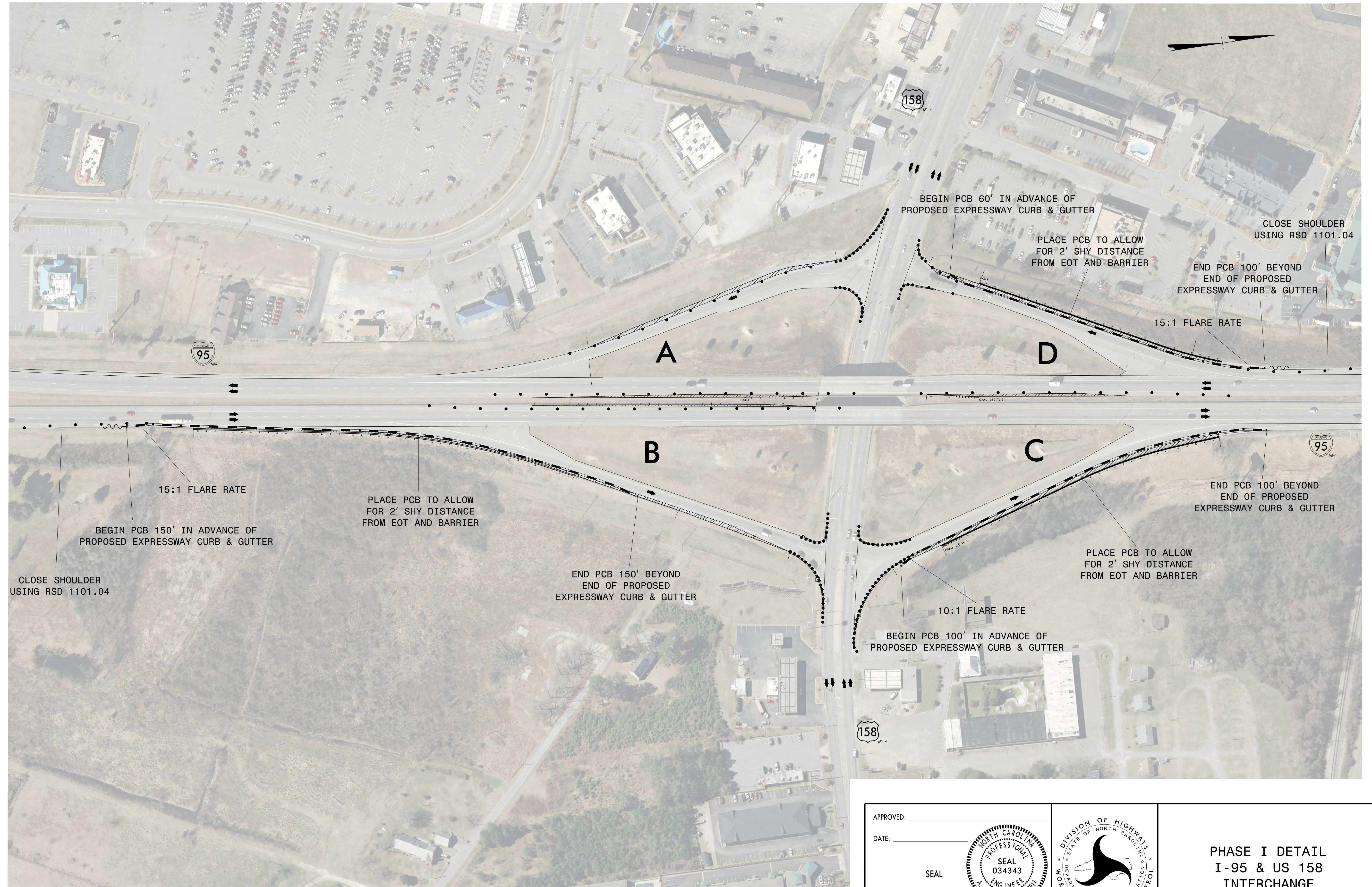
STEP 4
 CLOSE RAMP TO NC WELCOME CENTER AND COMPLETE ALL CONSTRUCTION ON RAMPS (SEE TMP-5). SEE LOCAL NOTE LN-2 FOR ALL WORK INSIDE NC WELCOME CENTER.

STEP 5
 USING ROADWAY STANDARD DRAWING 1101.02 (SHEET 4 OF 15) AND RAMP CLOSURE DETOURS PERFORM THE FOLLOWING:
 -PLACE FINAL LAYER OF FRICTION COURSE ON ALL LANES.
 -PLACE TEMPORARY MARKINGS ON ALL LANES IN THE FINAL TRAFFIC PATTERN.
 -REMOVE ALL ROAD CLOSURE AND DETOUR SIGNING, REMOVE ALL ROAD CLOSURE BARRICADES AND OPEN ALL LANES TO TRAFFIC.

STEP 6
 USING ROADWAY STANDARD DRAWING 1101.02 (SHEET 4 OF 15), INSTALL FINAL PAVEMENT MARKINGS AND MARKERS.

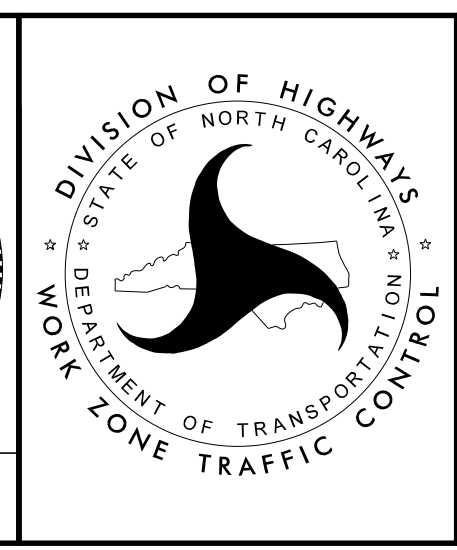
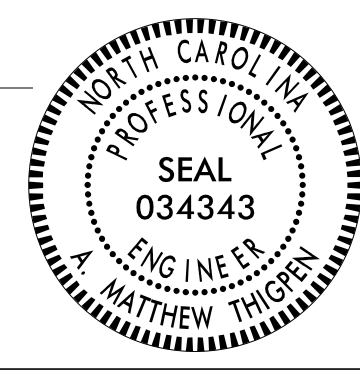
STEP 7
 REMOVE ALL REMANING TRAFFIC CONTROL DEVICES.

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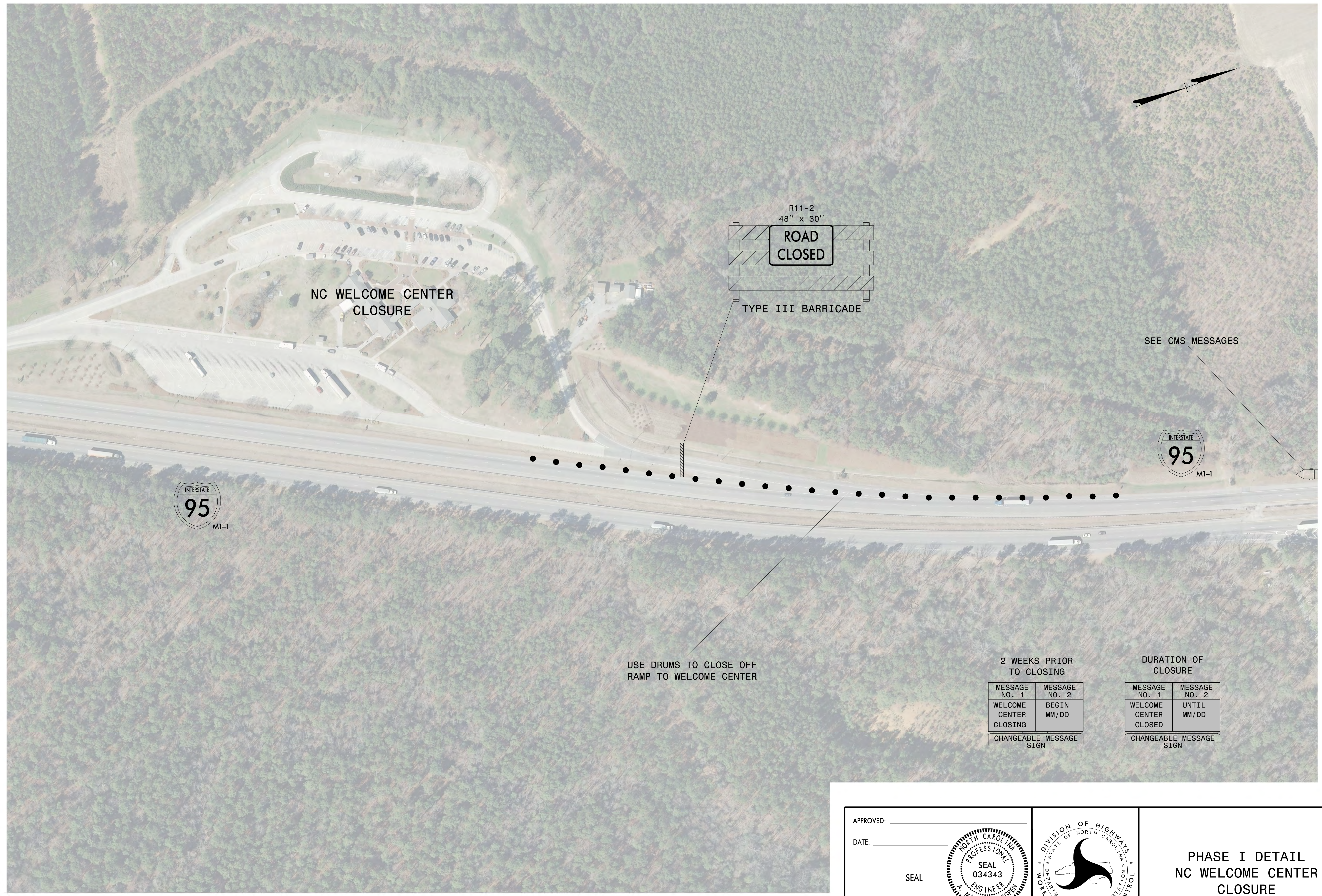
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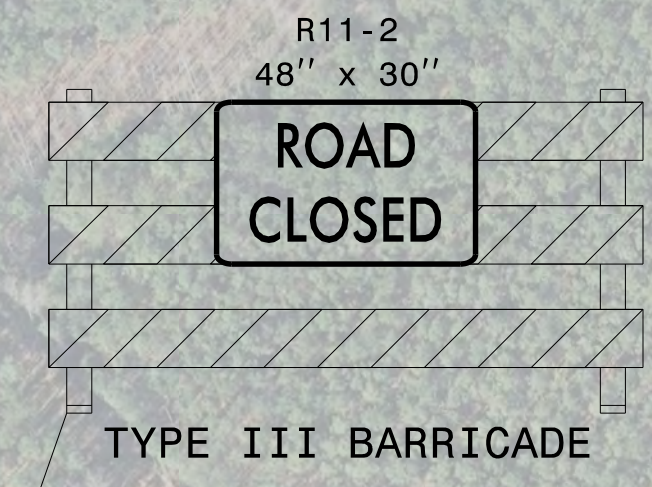


PHASE I DETAIL
I-95 & US 158
INTERCHANGE

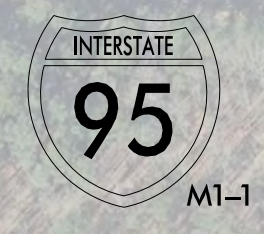
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NC WELCOME CENTER
CLOSURE



SEE CMS MESSAGES



USE DRUMS TO CLOSE OFF
RAMP TO WELCOME CENTER

2 WEEKS PRIOR
TO CLOSING

MESSAGE NO. 1	MESSAGE NO. 2
WELCOME CENTER CLOSING	BEGIN MM/DD
CHANGEABLE MESSAGE SIGN	CHANGEABLE MESSAGE SIGN

DURATION OF
CLOSURE

MESSAGE NO. 1	MESSAGE NO. 2
WELCOME CENTER CLOSED	UNTIL MM/DD
CHANGEABLE MESSAGE SIGN	CHANGEABLE MESSAGE SIGN

5/2/2017
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APPROVED: _____ DATE: _____ SEAL			<p>PHASE I DETAIL NC WELCOME CENTER CLOSURE</p>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			