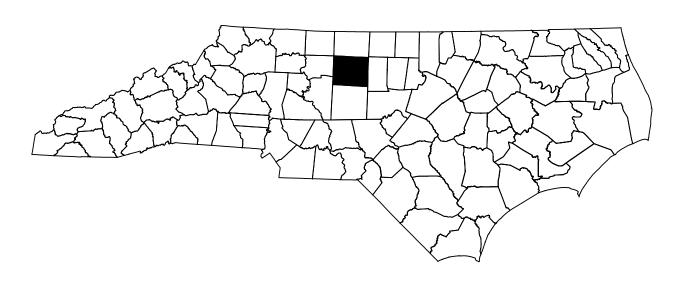
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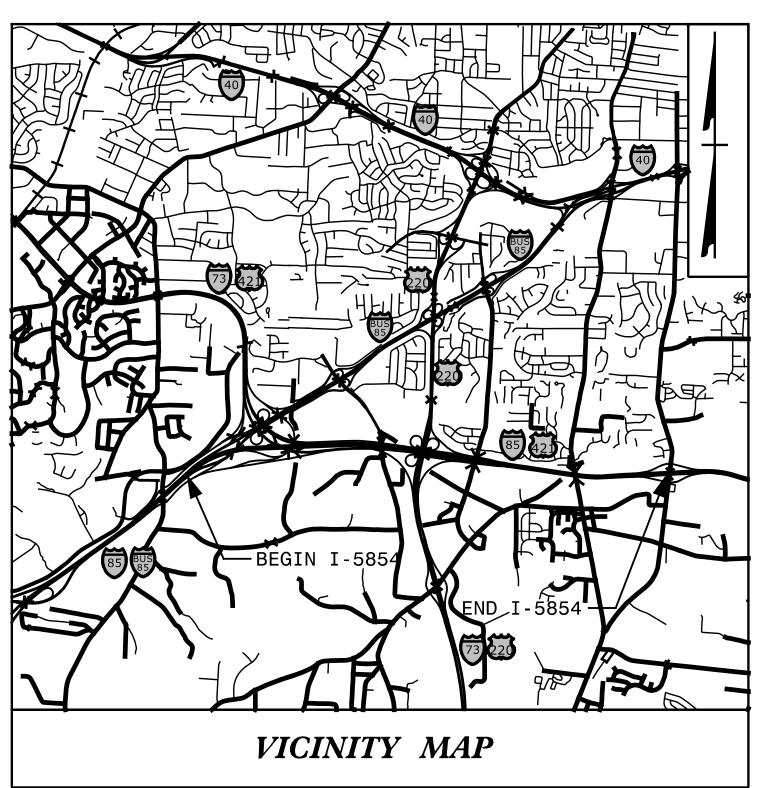
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TRANSPORTATION MANAGEMENT PLAN

GUILFORD COUNTY





LOCATION: I-85 FROM 0.3 MILE NORTH OF BUSINESS I-85 TO SR 3300 (S ELM EUGENE ST)

TYPE OF WORK: PAVEMENT REHABILITATION

INDEX OF SHEETS

SHEET NO.	<u>TITLE</u>
TMP - 1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)
TMP-1C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND PHASING)
TMP-2	SHEET OVERVIEW
TMP-3	SIGN LEGEND
TMP-4-9	OFF-SITE DETOUR DETAILS
TMP - 10	LANE CLOSURE TYPICAL
TMP-11	RAMP CLOSURE TYPICAL

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



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

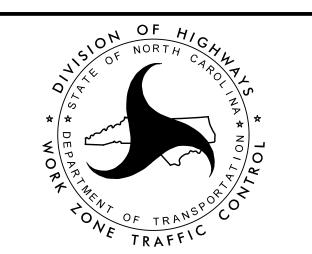
J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER

D. W. BISSETTE, P.E. TRAFFIC CONTROL PROJECT ENGINEER

H. SHYU, P.E.

TRAFFIC CONTROL DESIGN ENGINEER

_ TRAFFIC CONTROL PROJECT DESIGN ENGINEER





APPROVED:_ *DATE*: 6/13/2016 SEAL

SHEET NO.

PROJ. REFERENCE NO. SHEET NO. I-5854 TMP-1A

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:

TITLE STD. NO.

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		
1205.05	PAVEMENT MARKINGS - TURN LANES		
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES		
1205.12	PAVEMENT MARKINGS - BRIDGES		
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS		

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

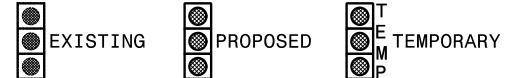
USER DEFINED (IF NEEDED)

USER DEFINED (IF NEEDED)

SIGNALS







PAVEMENT MARKINGS

----EXISTING LINES

TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM SKINNY DRUM O 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

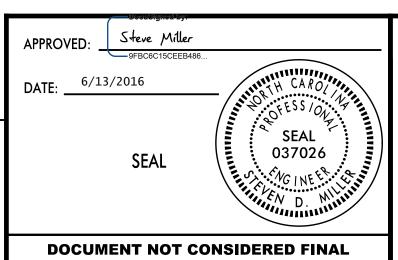
CRYSTAL/CRYSTAL

CRYSTAL/RED ◆ YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

1025 Wade Avenue Raleigh, NC 27605 Tel:919-789-9977 ENGINEERING & Fax:919-789-9591
CONSTRUCTION License: C-2197



UNLESS ALL SIGNATURES COMPLETED



ROADWAY STANDARD DRAWINGS & LEGEND

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 ONE TRAVEL LANE IN A SINGLE DIRECTION AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

T-85, T-85 BUSINESS, AND MULTI-LANE RAMPS AND LOOPS FROM 6:00 A.M. TO 8:00 P.M.

MONDAY TO SUNDAY

B) DO NOT CLOSE OR NARROW TWO TRAVEL LANES IN A SINGLE DIRECTION AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-85, I-85 BUSINESS, AND MULTI-LANE RAMPS AND LOOPS FROM 6:00 A.M. TO 10:00 P.M.

MONDAY TO SUNDAY

C) DO NOT CLOSE OR NARROW THREE TRAVEL LANES IN A SINGLE DIRECTION AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

I-85, I-85 BUSINSS, AND MONDAY THRU SUNDAY MULTI-LANE RAMPS AND LOOPS FROM 6:00 A.M. TO 12:00 A.M. (MIDNIGHT)

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

ROAD NAME

I-85 AND I-85 BUSINESS

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 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 6:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 8:00 P M TUESDAY
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 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 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 8:00 P.M. MONDAY.

- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 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 CITY OF HIGH POINT FURNITURE MARKET, BETWEEN THE HOURS OF 6:00 A.M. THE MONDAY THAT THE MARKET BEGINS AND 8:00 P.M. THE FRIDAY THAT THE MARKET ENDS.
- 10. FOR ANY NASCAR RACE AT THE CHARLOTTE MOTOR SPEEDWAY, BETWEEN THE HOURS OF 6:00 A.M. THE WEDNESDAY BEFORE THE FIRST TRACK EVENT AND 8:00 P.M. THE DAY AFTER THE LAST TRACK EVENT.
- 11. FOR THE WYNDHAM GOLF TOURNAMENT, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF THE TOURNAMENT AND 8:00 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF THE TOURNAMENT.
- E) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS MONDAY TO SUNDAY 6:00 A.M. TO 12:00 A.M. (MIDNIGHT)

SINGLE LANE RAMPS AND LOOPS

LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS. ROADWAY STANDARD DRAWINGS. OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

K) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL. AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

L) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 1000 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

> 1025 Wade Avenue Raleigh, NC 27605 Fax:919-789-9591 ENGINEERING & CONSTRUCTION License: C-2197

TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- INSTALL ADVANCE WORK ZONE WARNING SIGNS NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

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 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.

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

TRAFFIC CONTROL DEVICES

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

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

ROAD NAME ALL ROADS

MARKER

PROJ. REFERENCE NO. SHEET NO

T-5854

TMP-1B

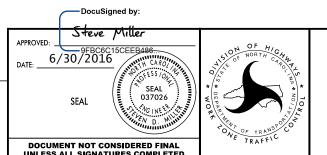
- PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE **ENGINEER.**
- W) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

MARKING

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

MISCELLANEOUS

- LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER
- Z) CONTRACTOR SHALL COORDINATE WORK AND LANE CLOSURES FOR THIS PROJECT (I-5854) WITH PROJECT I-5854A



TRANSPORTATION **OPERATIONS PLAN**

PROJ. REFERENCE NO. SHEET NO. TMP-1C I-5854

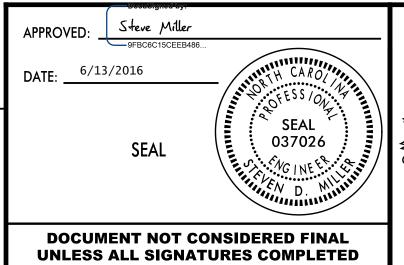
MANAGEMENT STRATEGIES

- MAINTAIN I-85 TRAFFIC THROUGH LANE CLOSURES
- RAMPS AND LOOPS MAY BE CLOSED AND TRAFFIC DETOURED OFF SITE
- PROVIDE THIRTY (30) CALENDAR DAYS NOTICE TO THE ENGINEER, GUILFORD COUNTY EMERGENCY SERVICES, AND GUILFORD COUNTY SCHOOL OFFICIALS PRIOR TO ROAD CLOSURE

PHASING

- STEP 1: USING RSD 1101.01 SHEET 1 OF 3, PLACE ADVANCE WARNING SIGNS ALONG I-85 AND RAMPS WHERE NECESSARY.
- STEP 2: USING RSD 1101.02 SHEETS 4, 8, 9, AND 10 OF 15, COMPLETE PAVEMENT REHABILITATION OPERATIONS FOR THE ESTABLISHED WORK AREA, PLACING TEMPORARY PAVEMENT MARKINGS ON INTERIM LAYERS OF PAVEMENT AS NECESSARY. INTERCHANGE RAMPS AND LOOPS MAY BE CLOSED USING RSD 1101.03 SHEETS 1 AND 2 OF 9. SEE TMP-2 THROUGH TMP-11 FOR ADDITIONAL CLOSURE SIGNS AND THE OFF SITE DETOUR FOR EACH RAMP. RETURN TRAFFIC TO THE EXISTING PATTERN AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL NOT CLOSE ANY RAMP OR LANE OF A RAMP THAT IS INCLUDED AS PART OF AN ACTIVE DETOUR.
- STEP 3: REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

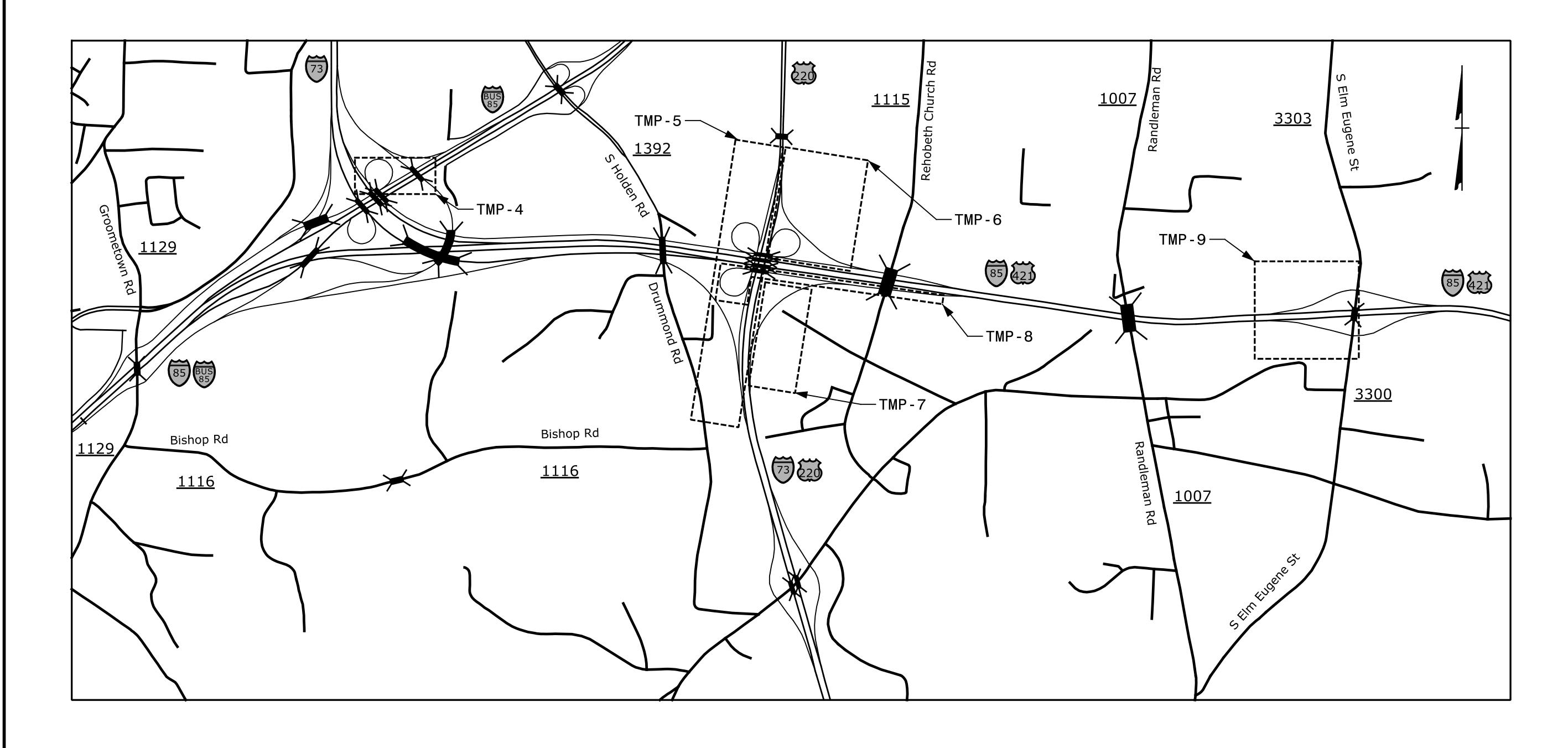




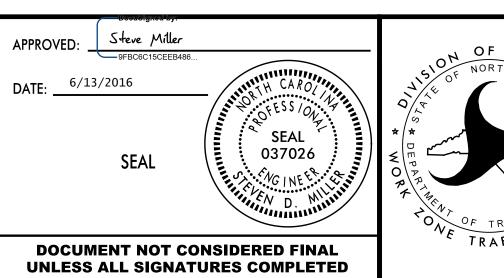
TRANSPORTATION **OPERATIONS PLAN**

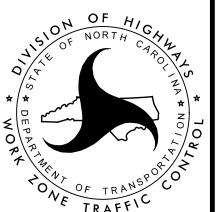
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PROJ. REFERENCE NO.	SHEET NO.
I-5854	TMP-2



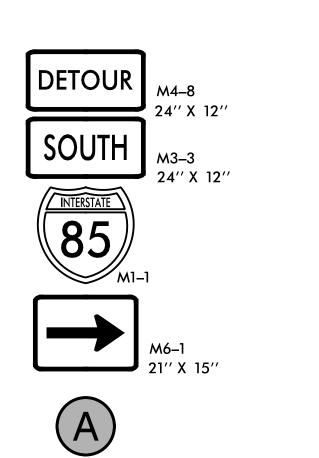
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

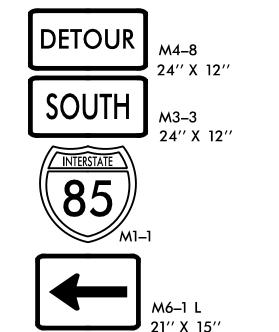




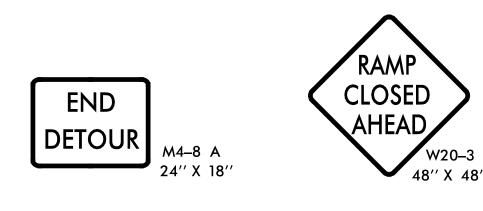
SHEET OVERVIEW

PROJ. REFERENCE NO.	SHEET NO.
I-5854	TMP-3

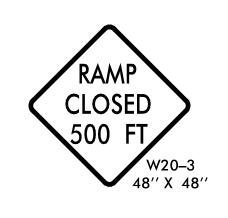




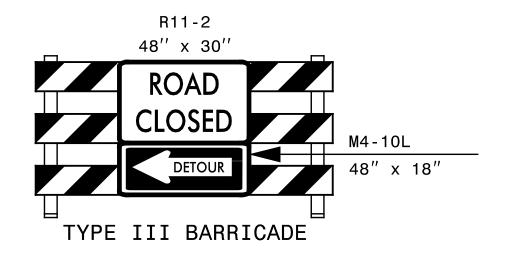
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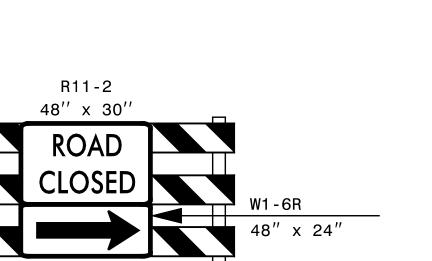


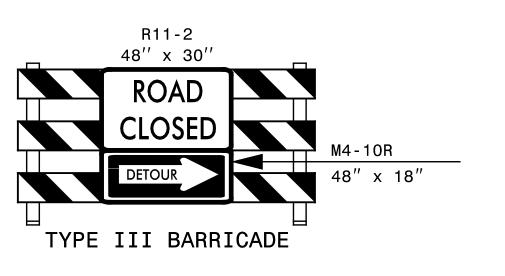






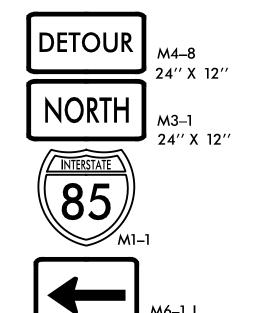


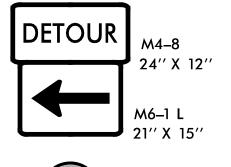




END

(C)





F

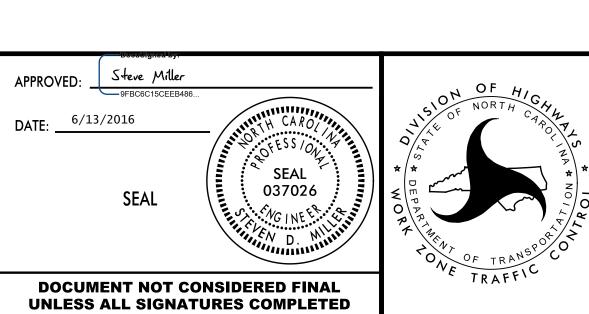


TYPE III BARRICADE

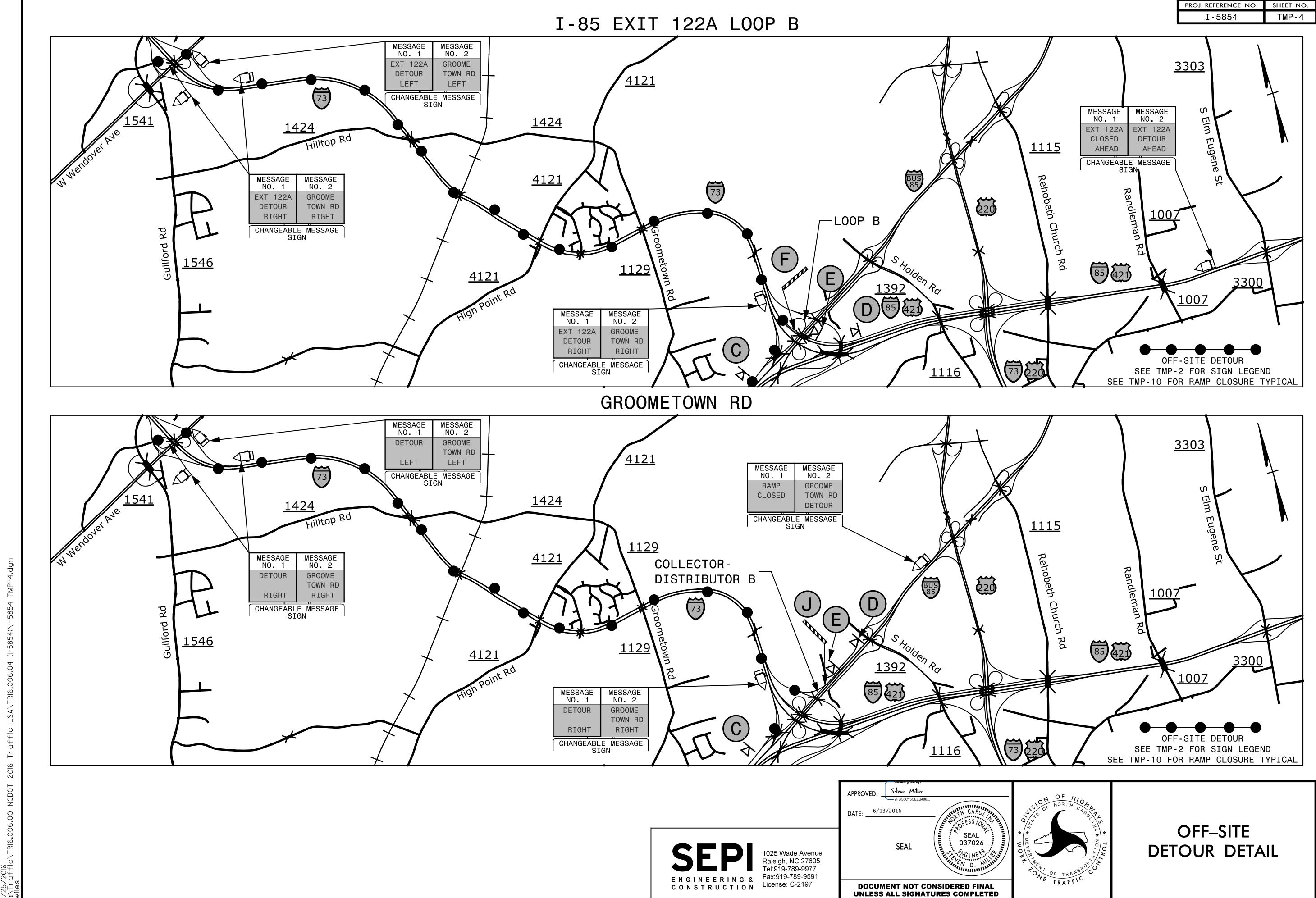


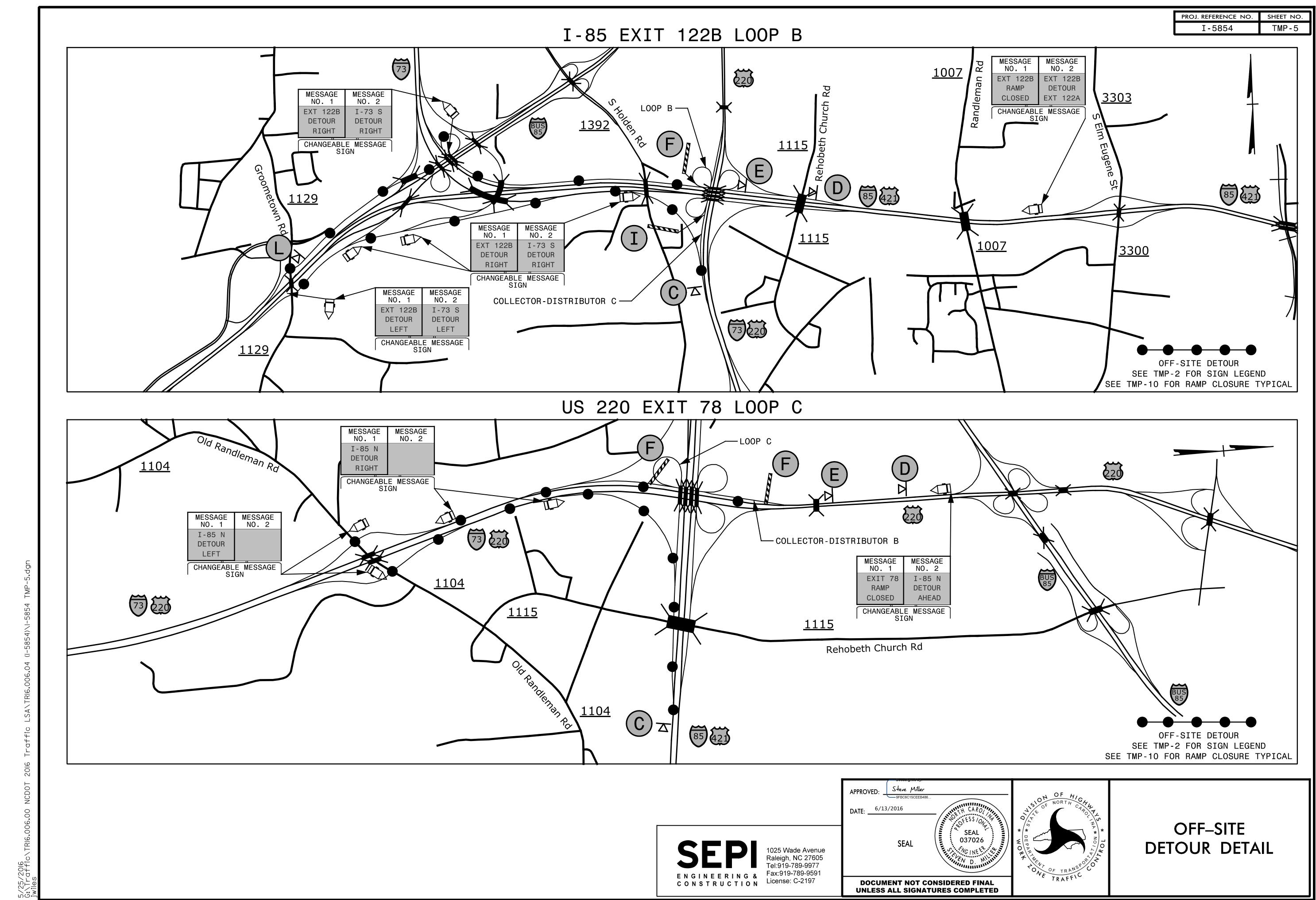


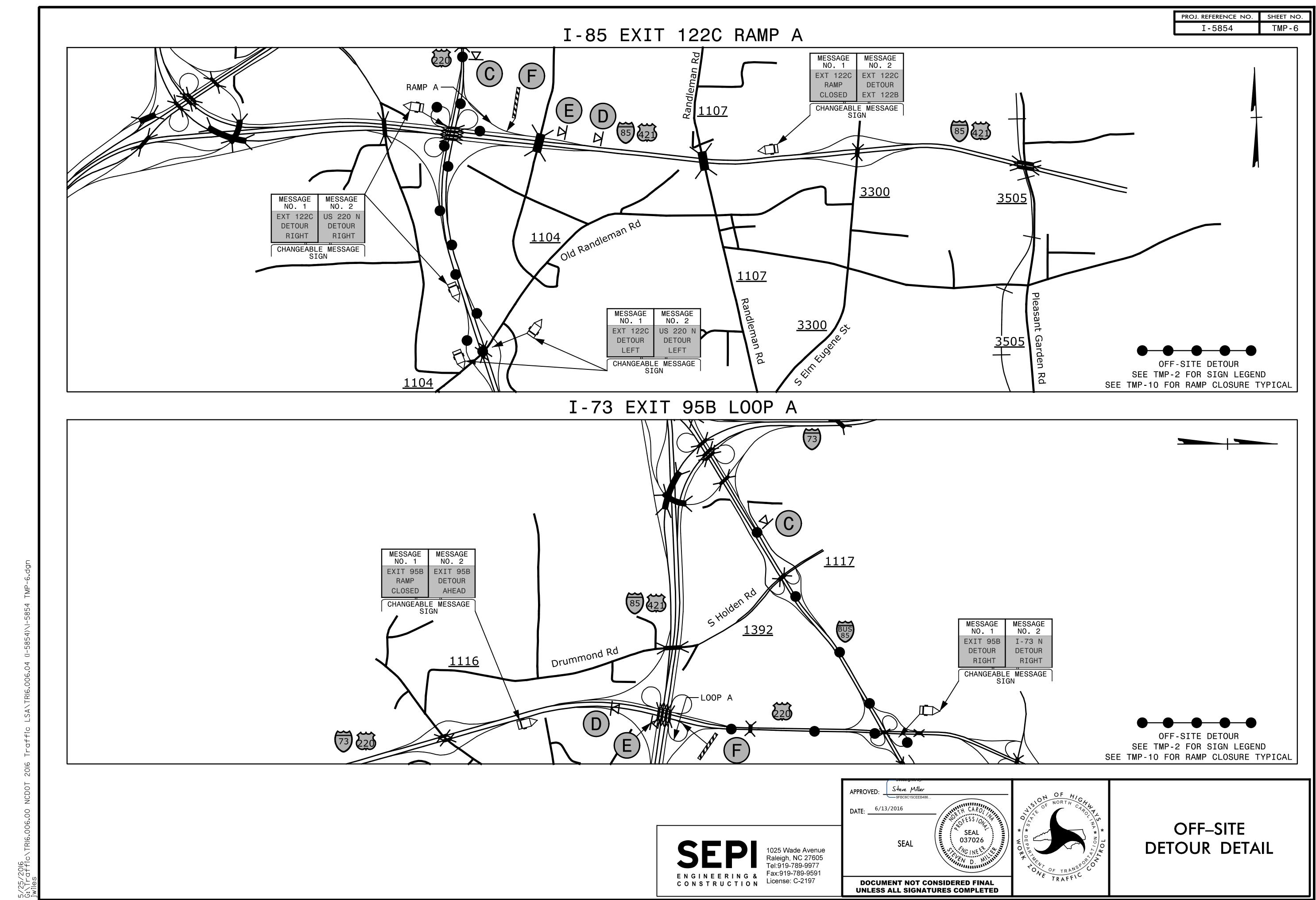


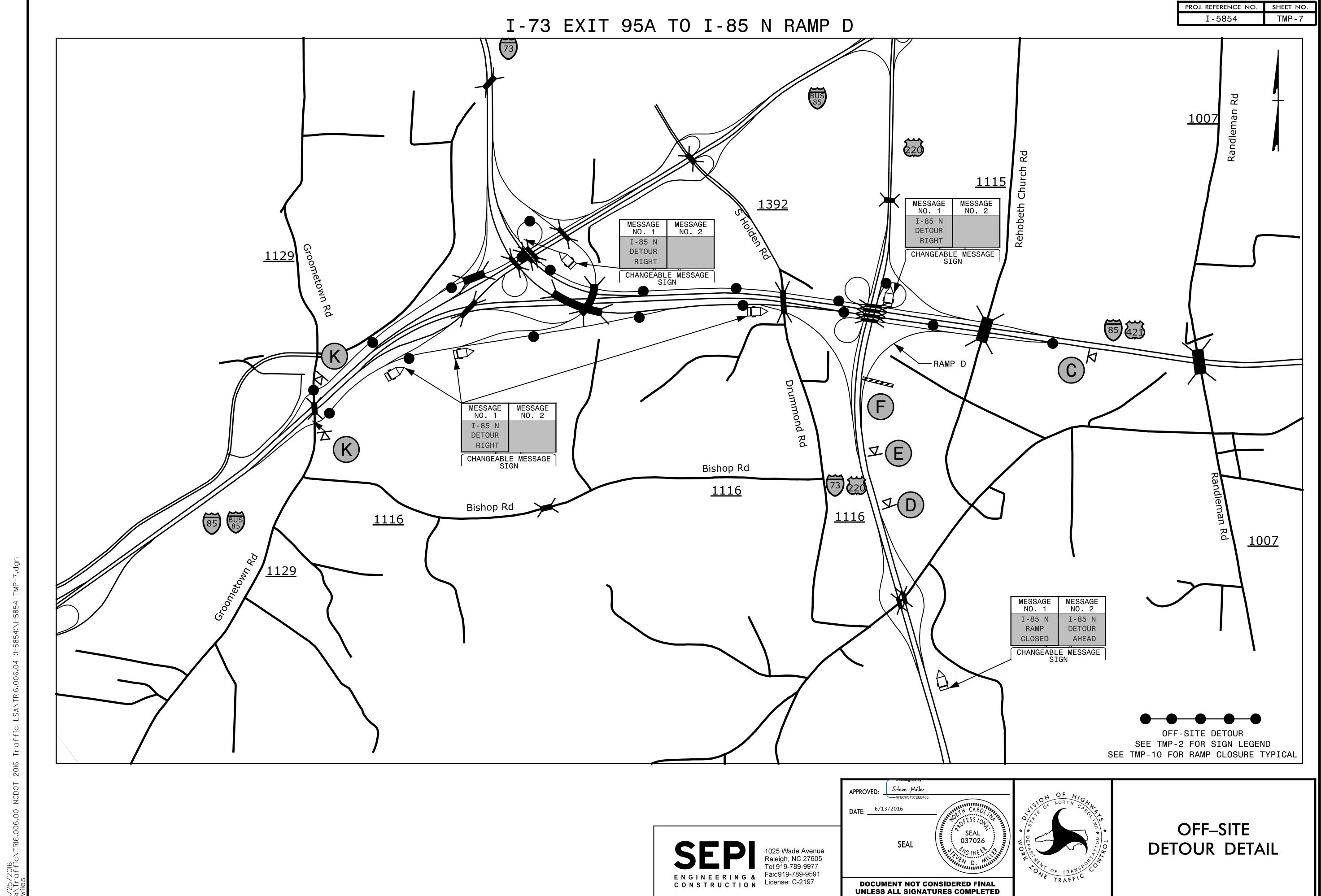


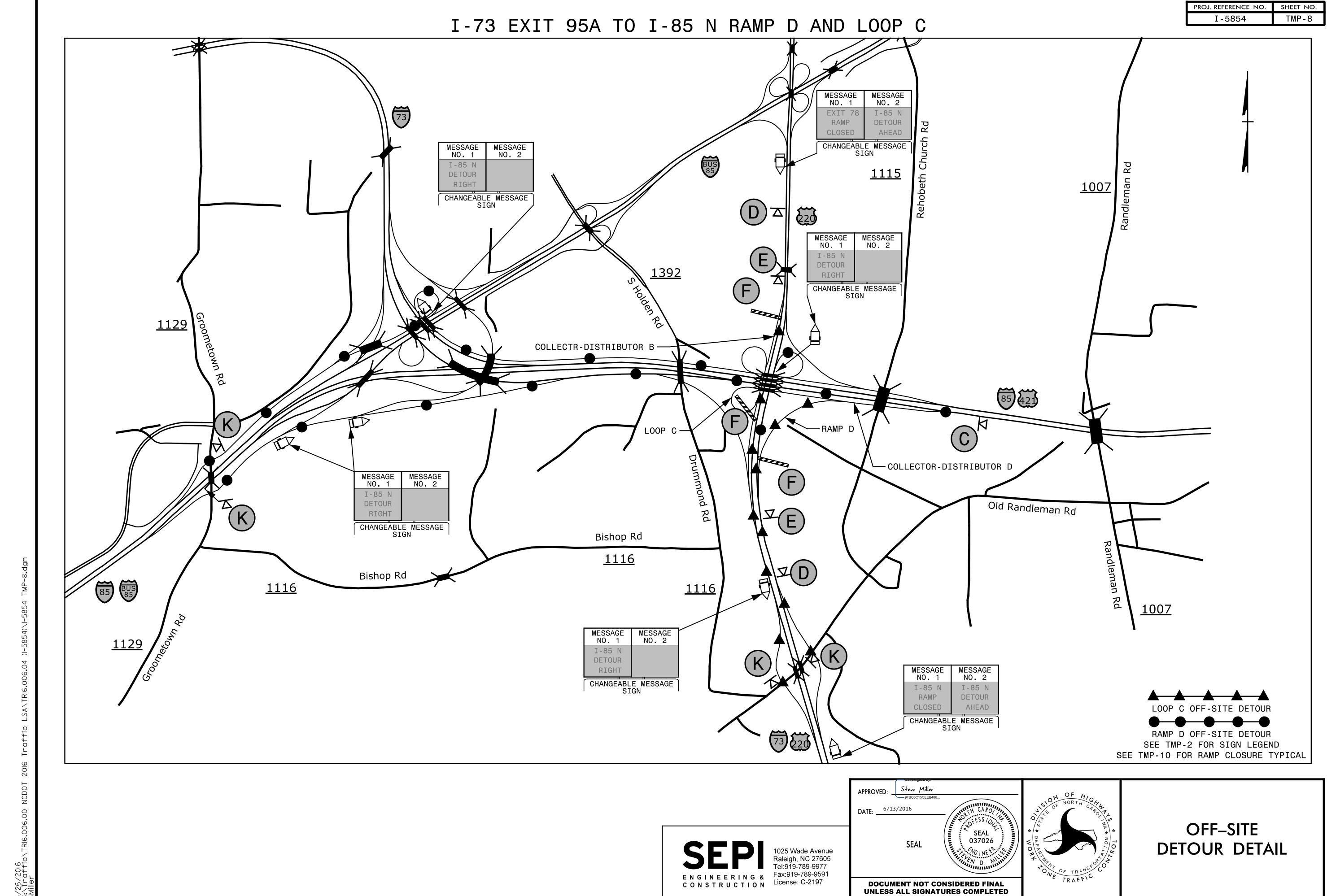
SIGN LEGEND

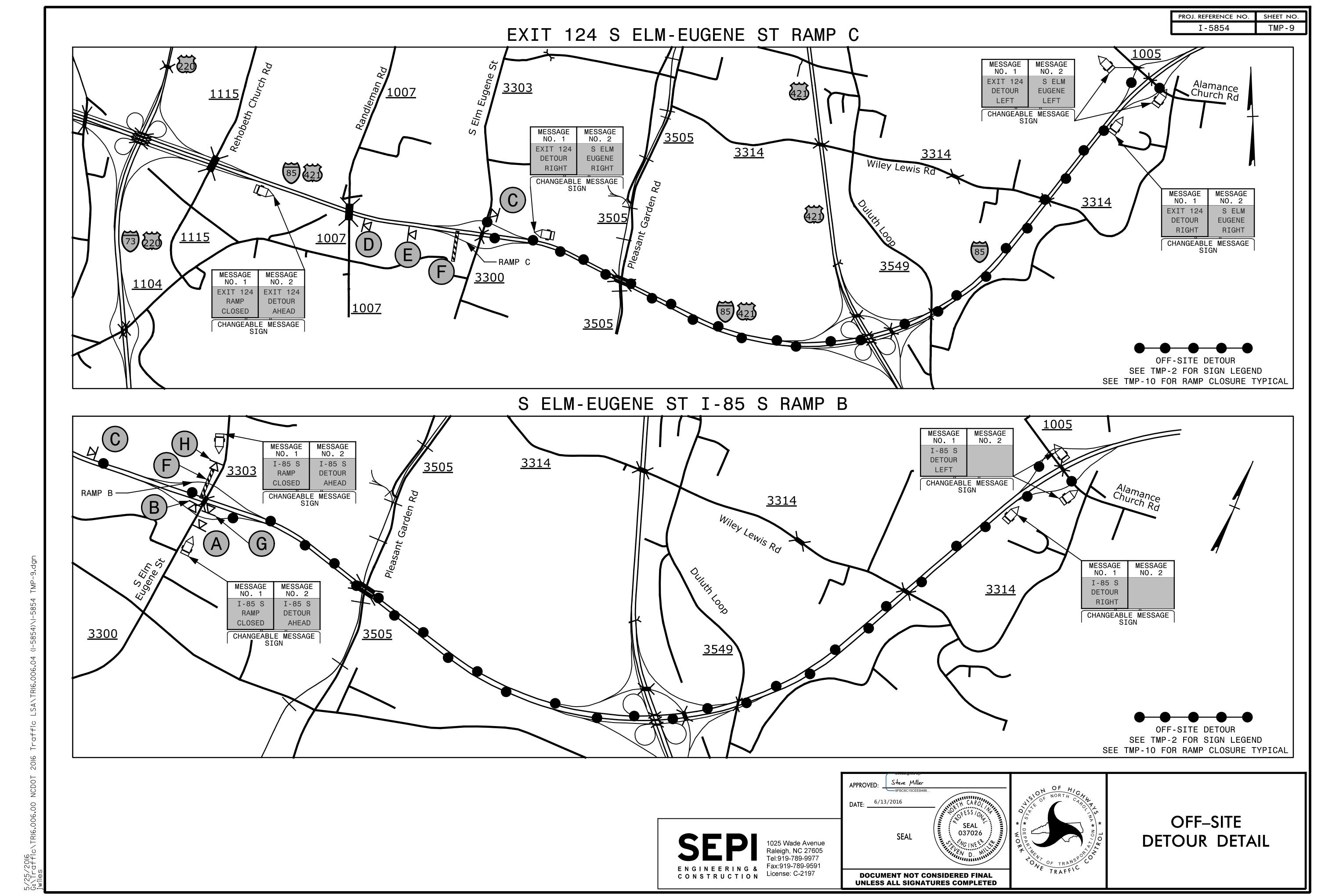


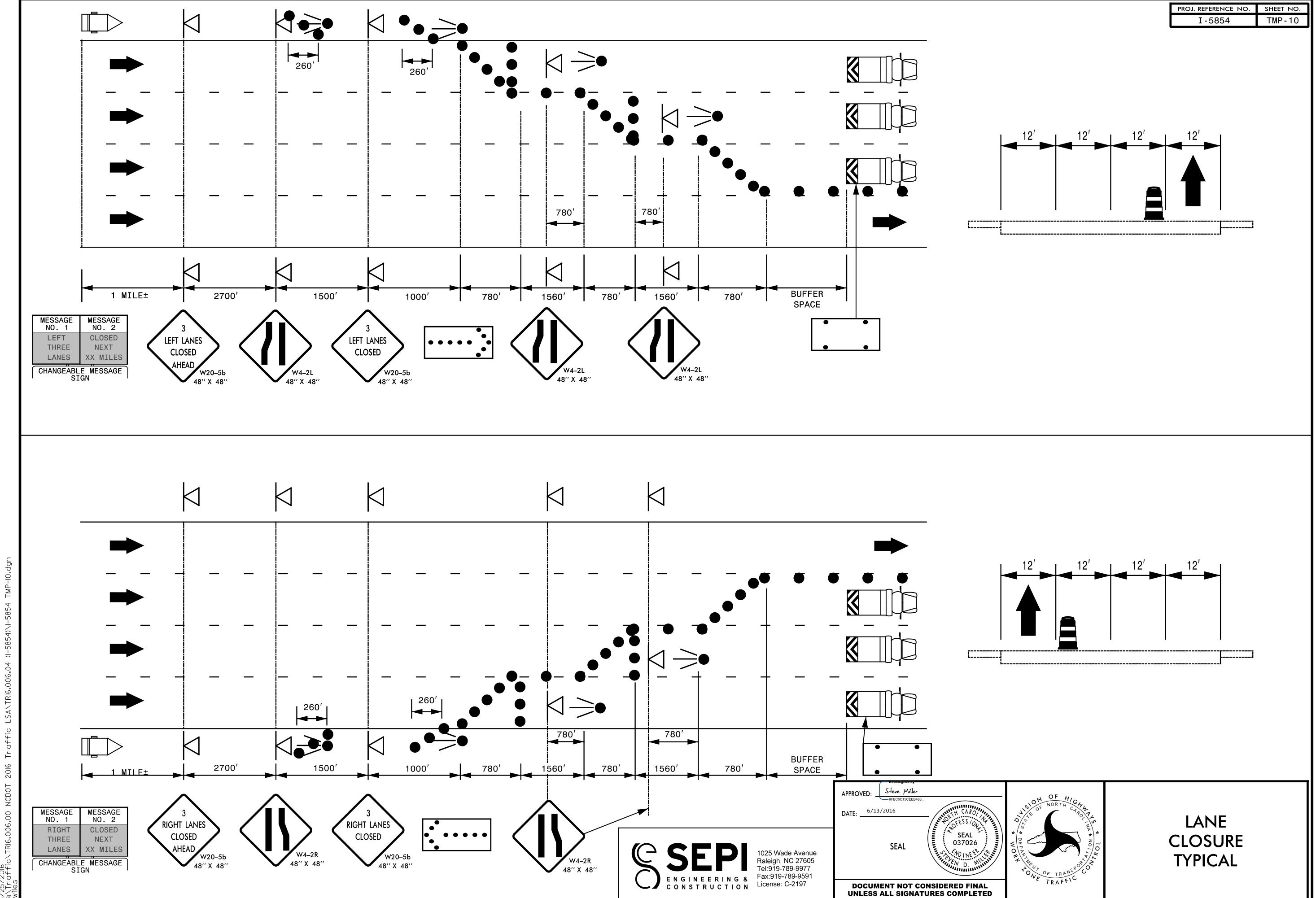


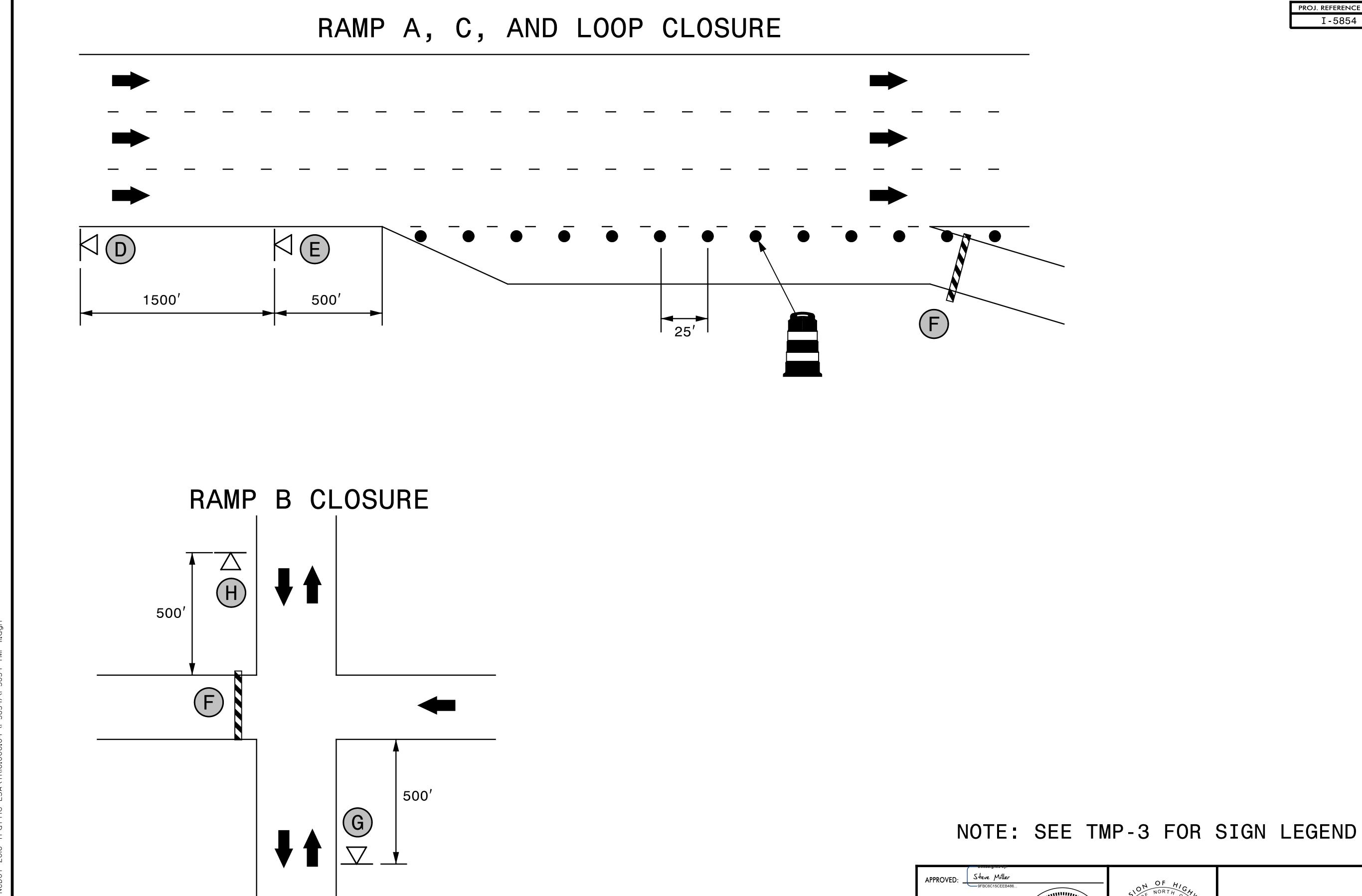












3/23/2016 G:\Traffic\TRI6.006.00 NCDOT 2016 Traffic |

enue 605 77 591

NORTH CAROLIZA NOLLANDE PARILLANDE TRAFFIC

RAMP CLOSURE TYPICAL