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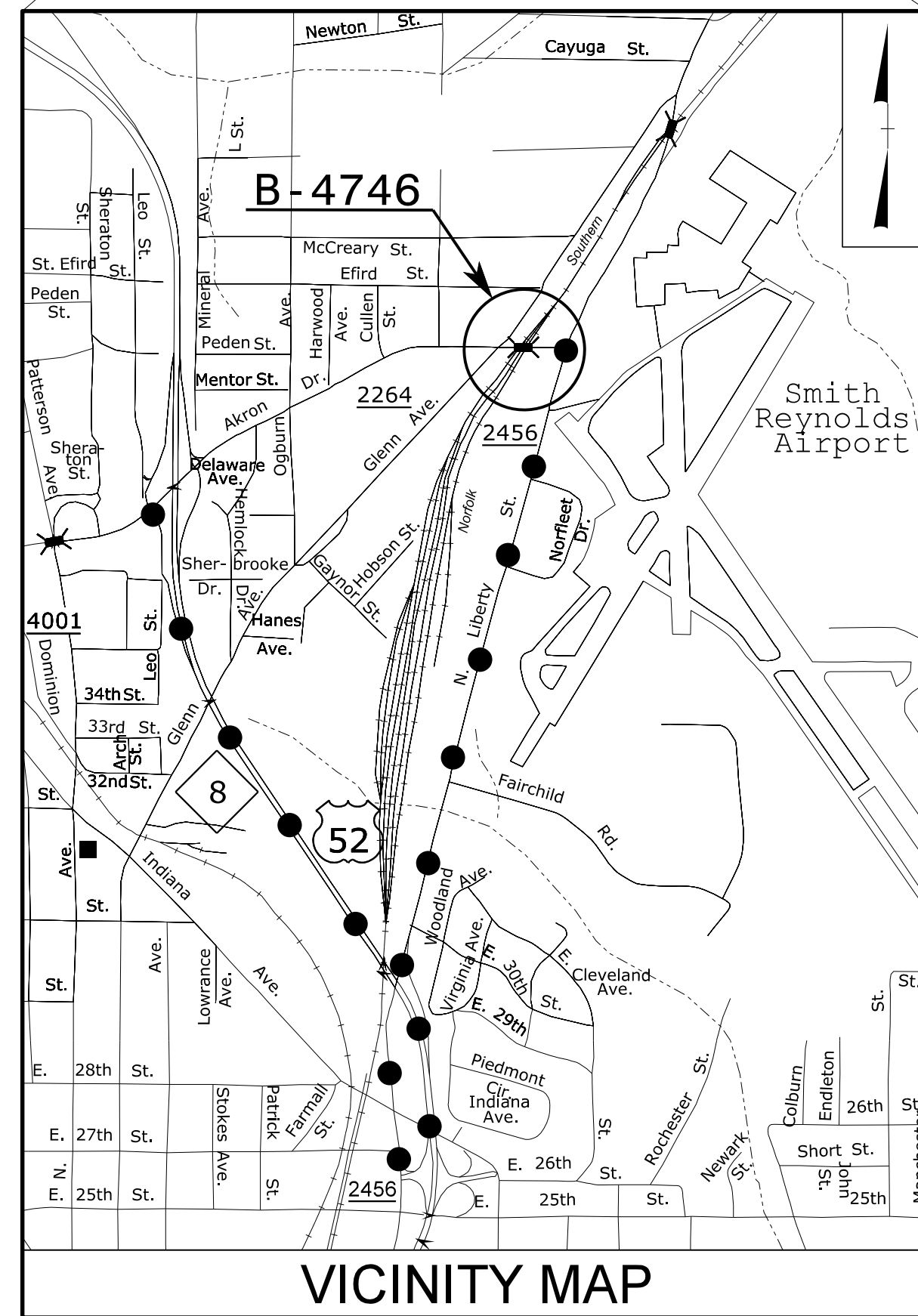
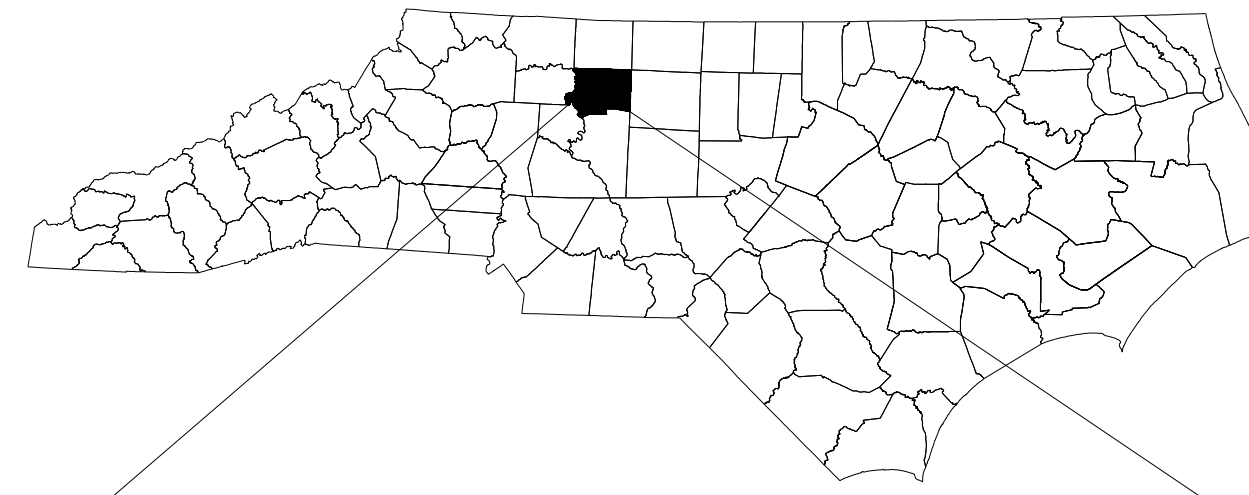
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

FORSYTH COUNTY



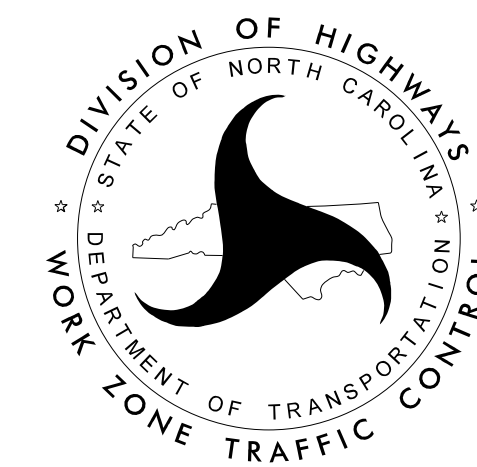
● ● ● OFFSITE DETOUR

LOCATION: BRIDGE NO. 229 OVER NORFOLK SOUTHERN RAILROAD ON SR 2264 (AKRON DRIVE)
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE



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


JOE HUMMER, PhD, PE STATE TRAFFIC MANAGEMENT ENGINEER
KENNETH THORNEWELL, PE TRAFFIC CONTROL PROJECT ENGINEER
JUSTIN BEAVER, PE TRAFFIC CONTROL PROJECT DESIGN ENGINEER
ALLA LYUDMIRSKAYA TRAFFIC CONTROL DESIGN ENGINEER



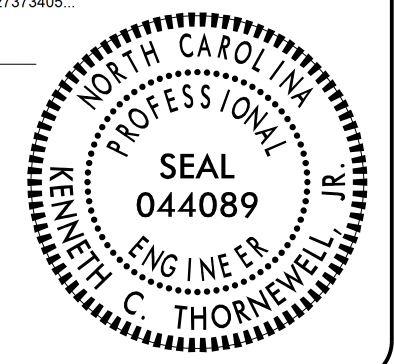
INDEX OF SHEETS

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APPROVED: 
DATE: 7/3/2018

SEAL



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SHEET NO.
TMP-1

B-4746

TIP PROJECT:

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	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
1150.01	FLAGGING DEVICES
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
1205.04	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
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

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

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TEMPORARY PAVEMENT MARKINGS

- PAVEMENT MARKINGS - PAINT (4")
- P8 2 FT.-6 FT./SP WHITE MINISKIP
 - PA WHITE EDGLINE
 - PB YELLOW EDGLINE
 - PD 3FT.-9FT./SP WHITE MINISKIP
 - PE WHITE SOLID LANE LINE
 - PI YELLOW DOUBLE CENTER
- PAVEMENT MARKINGS - PAINT (8")
- PO WHITE DIAGONAL
 - PP YELLOW DIAGONAL
- PAVEMENT MARKINGS - PAINT (24")
- P2 WHITE STOPBAR
- PAVEMENT MARKING CHARACTERS - PAINT
- Q1 ALPHANUMERIC CHARACTER
- PAVEMENT MARKING SYMBOLS - PAINT
- QA LEFT TURN ARROW
 - QB RIGHT TURN ARROW
 - QD COMBO. STRAIGHT/LEFT
 - QE COMBO. STRAIGHT/RIGHT
 - QF COMBO. LEFT/RIGHT
 - QN 24" YIELD LINE TRIANGLE

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: DATE: 7/3/2018 SEAL			<p style="text-align: center;">ROADWAY STANDARD DRAWINGS, LEGEND AND TEMPORARY PAVEMENT MARKING SCHEDULE</p>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			

MANAGEMENT STRATEGIES

RECOMMENDED MANAGEMENT STRATEGIES RELATIVE TO THIS TMP ARE AS FOLLOWS:

ROAD CLOSURE

- AKRON DRIVE TRAFFIC TO BE MAINTAINED ON OFFSITE DETOUR TO THE SOUTH VIA US 52 AND SR 2456 (N. LIBERTY ST.) WHILE REPLACED EXISTING STRUCTURE OVER NORFOLK SOUTHERN RAILROAD
- PARTIAL CLOSURE OF AKRON DR. AND N. GLENN AVE. INTERSECTION FOR BRIDGE CONSTRUCTION. SEE LOCAL NOTE 1.

LANE CLOSURE

- INTERSECTION IMPROVEMENTS AT N. GLENN AVE./N. LIBERTY ST. (MODIFY PART OF THE CURB AT RIGHT TURN NORTHBOUND LANE AREA FROM N. GLENN AVE. ONTO N. LIBERTY ST.). COMPLETE THIS WORK UNDER INTERMEDIATE CONTRACT TIME - IN ONE WEEK
- TEMPORARY INTERSECTION MODIFICATIONS AT N. GLENN AVE./N. LIBERTY ST. (REMOVE CONCRETE ISLAND TO PERMIT LEFT TURNS FROM N. LIBERTY ST. TO GLENN AVE. DURING AKRON DR. CLOSURE)
- ADJUST/MODIFY TRAFFIC SIGNALS AT THE INTERSECTIONS OF N.GLENN AVE./AKRON DR., N. LIBERTY ST./AKRON AVE., N. GLENN AVE./N. LIBERTY ST.
- REMOVE TEMPORARY CONCRETE ISLAND AND REPLACE PROPOSED MONOLITHIC CONCRETE ISLAND INTO EXISTING LOCATION AT N. LIBERTY ST./N. GLENN AVE. INTERSECTION.

FLAGGER OPERATION

- COMPLETE CONSTRUCTION ON -L- AND -Y- LINES (WEDGING, FINAL LAYER OF SURFACE COURSE, PAVEMENT MARKINGS AND MARKERS).

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
AKRON DR. (-L-) GLENN AVE. (-Y1-) NORTH LIBERTY ST. (-Y2-)	MONDAY THROUGH FRIDAY FROM 6:00AM TO 9:00AM AND FROM 4:00PM TO 6:00PM

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

ROAD NAME
AKRON DR. (-L-) GLENN AVE. (-Y1-) NORTH LIBERTY ST. (-Y2-)

SPECIAL EVENTS

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR THE DIXIE CLASSIC FAIR IN WINSTON-SALEM BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE THE START OF THE DIXIE CLASSIC FAIR AND 6:00 PM THE FOLLOWING DAY AFTER THE END OF THE DIXIE CLASSIC FAIR.
3. FOR WAKE FOREST UNIVERSITY FOOTBALL GAMES, OCCURRING AT BB&T FIELD BETWEEN FOUR (4) HOURS BEFORE THE START AND FOUR (4) HOURS AFTER THE END OF THE WAKE FOREST UNIVERSITY FOOTBALL GAMES.
4. FOR WINSTON-SALEM AIR SHOW BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE THE START OF WINSTON-SALEM AIR SHOW AND 6:00 PM THE FOLLOWING DAY AFTER THE END OF WINSTON-SALEM AIR SHOW.

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 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.
- G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVEL WAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- H) 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 45MPH 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.
- I) 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) 200 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- K) 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.
- L) 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.
- M) 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.
- N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT. IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- P) 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.

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

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	NONE
S)	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.	
T)	TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.	
U)	REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.	
V)	TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE CONES TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.	

MISCELLANEOUS

- W) LAW ENFORCEMENT MAY USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- X) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 200 FT. AND 200 FT. RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- Y) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- Z) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

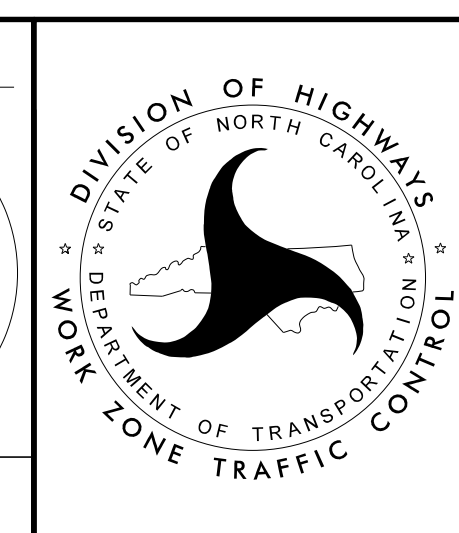
LOCAL NOTES

1. THE PARTIAL INTERSECTION CLOSURE OF AKRON DR. AND N. GLENN AVE. (SEE TMP-6B) SHOULD BE UTILIZED ONLY IN THE EVENT THE CRANE MUST BE PLACED WITHIN THE INTERSECTION FOR BRIDGE CONSTRUCTION. IF THE INTERSECTION IS NOT CLOSED, THE ROAD CLOSURE ADVANCE WARNING SIGNS ON THE NORTHERN PORTION OF N. GLENN AVE. SHOULD BE REMOVED OR COVERED.
2. THE OFFSITE BIKE DETOUR (SEE TMP-2C) SHOULD BE UTILIZED DURING THE PARTIAL INTERSECTION CLOSURE OF AKRON DR. AND N. GLENN AVE., AND MAINTAINED FOR THE DURATION OF THE SAME. IF THIS INTERSECTION IS NOT CLOSED, THE BIKE DETOUR SIGNS SHOULD BE COVERED OR REMOVED.
3. COORDINATE WITH LOCAL TRUCK BUSINESSES ON N. GLENN AVE. PRIOR BEGIN INTERSECTION IMPROVEMENTS AT N. LIBERTY ST. AND N. GLENN AVE. ALL TRUCKS SHOULD MAINTAIN OFFSITE TRUCK DETOUR ROUTE VIA N. GLENN AVE. AND AKRON DR. (SEE TMP-2A) WHILE INTERSECTION IMPROVEMENTS ARE COMPLETED.
4. COORDINATE WITH THE RAIL DIVISION PRIOR TO BEGIN CONSTRUCTION OF THE PROJECT.

APPROVED: *Kenneth C. Hornswell, Jr., P.E.*
1E981EF27373405...
 DATE: 7/11/2018

SEAL
044089
ENGINEER
K. THORNEWELL

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**TRANSPORTATION
OPERATIONS PLAN:
MANAGEMENT STRATEGIES,
GENERAL NOTES,
AND LOCAL NOTES**

SP-1

SIGN NUMBER: WORKZONE TYPE: STATIONARY QUANTITY: SEE PLANS SIGN WIDTH: 3'-0" HEIGHT: 1'-0" TOTAL AREA: 3.0 Sq.Ft. BORDER TYPE: INSET RECESS: 0.38" WIDTH: 0.63" RADII: 1.5" NO. Z BARS: LENGTH:	BACKG COLOR: Fluorescent Orange COPY COLOR: Black SYMBOL	DESIGN BY: S.JOHN PROJECT ID: B-4746	CHECKED BY: R.ROACH LOCATION: SR 2264 - FORSYTH COUNTY	Apr 30, 2015 DIV: 9
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BORDER
R=1.5"
TH=0.63"
IN=0.38"

Spacing Factor is 1 unless specified otherwise

Letter spacings are to start of next letter											Series/Size
	A	K	R	O	N	D	R				Text Length
	3.9	3.7	3.4	3.3	3.7	2.8	5	3.5	2.8	3.9	C 2000
											28.2

USE NOTES: 1,2
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

FILENAME: B-4746_WZSgn Design
NORTH CAROLINA D.O.T. SIGN DETAIL

SP-2

SIGN NUMBER: WORKZONE TYPE: STATIONARY QUANTITY: SEE PLANS SIGN WIDTH: 3'-6" HEIGHT: 1'-0" TOTAL AREA: 3.5 Sq.Ft. BORDER TYPE: INSET RECESS: 0.38" WIDTH: 0.63" RADII: 1.5" NO. Z BARS: LENGTH:	BACKG COLOR: Fluorescent Orange COPY COLOR: Black SYMBOL	DESIGN BY: S.JOHN PROJECT ID: B-4746	CHECKED BY: R.ROACH LOCATION: SR 2264 - FORSYTH COUNTY	May 11, 2015 DIV: 9
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BORDER
R=1.5"
TH=0.63"
IN=0.38"

Spacing Factor is 1 unless specified otherwise

Letter spacings are to start of next letter													Series/Size	
	N	L	I	B	E	R	T	Y	S	T			Text Length	
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USE NOTES: 1,2
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

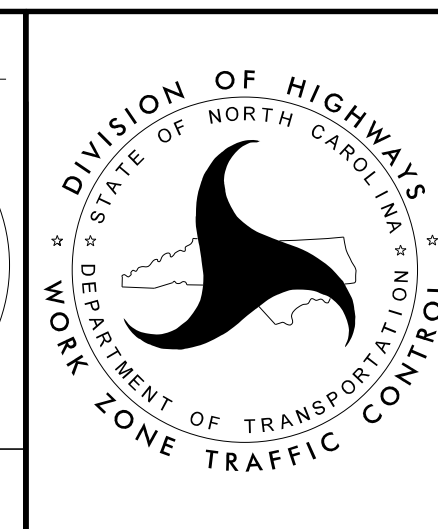
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NORTH CAROLINA D.O.T. SIGN DETAIL

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 User: slyudm1

APPROVED: *Samuel D. Coleman*
 DATE: 1/16/2018

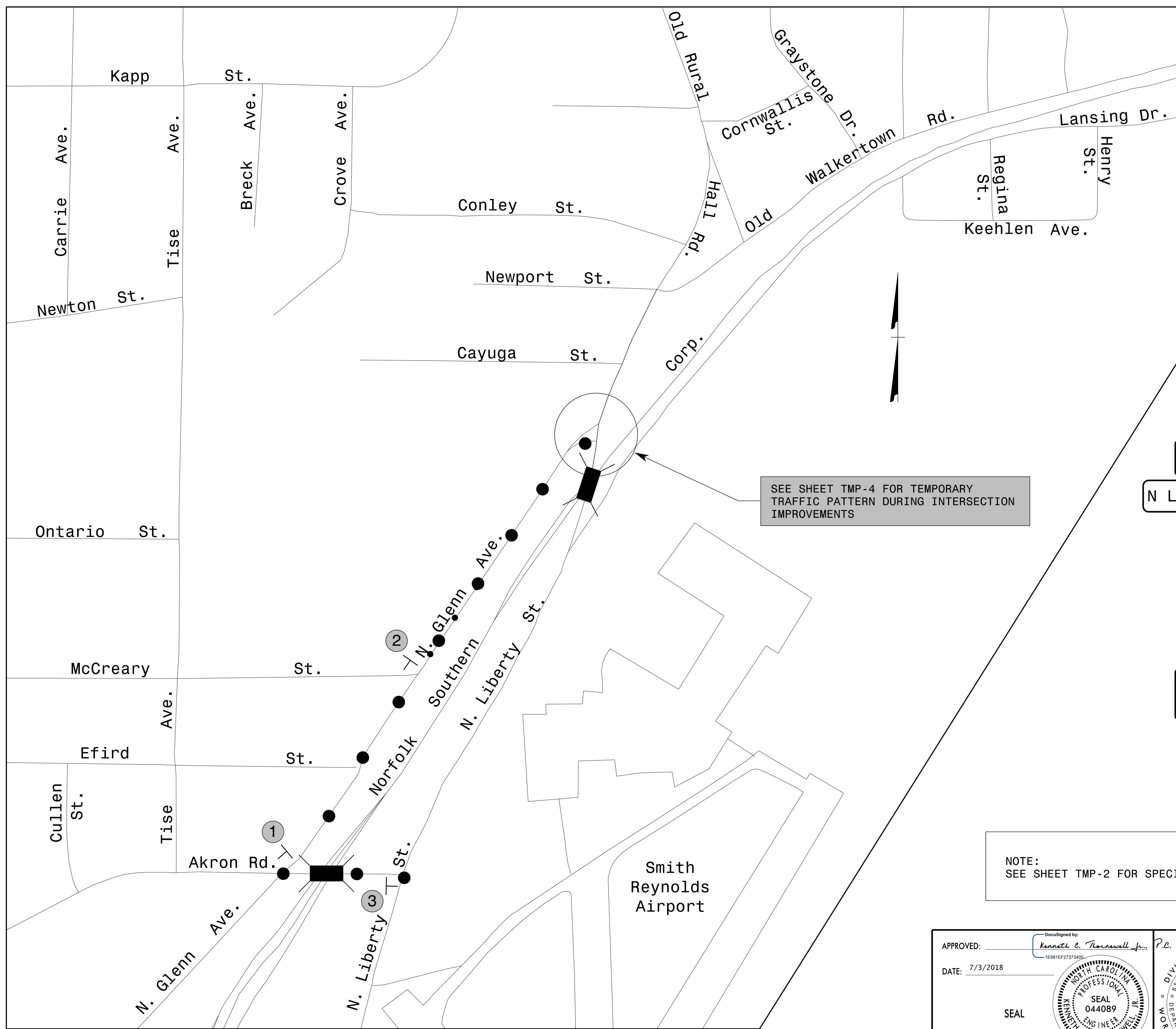
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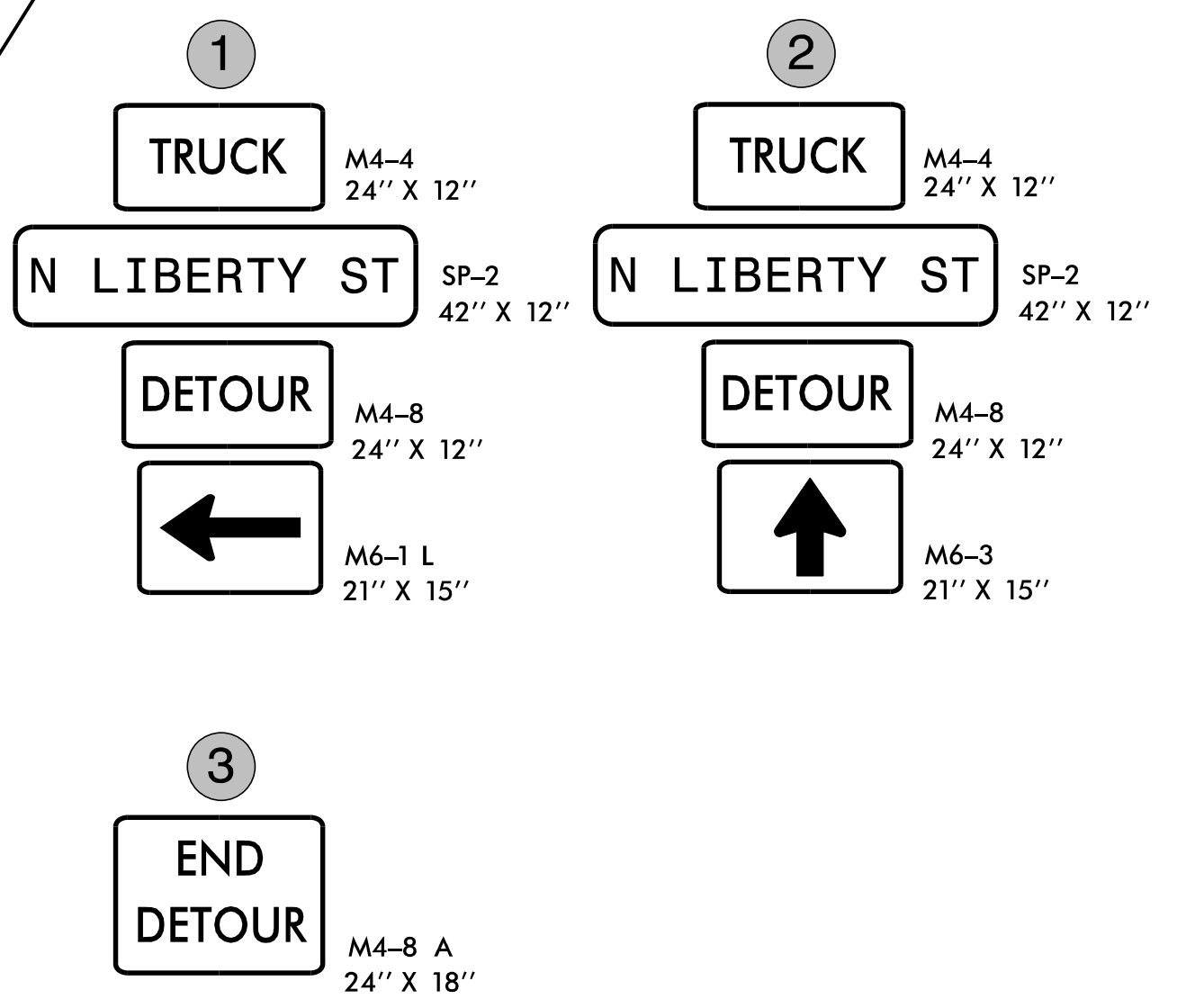


SPECIAL SIGN
DESIGNS

FORSYTH COUNTY



SEE SHEET TMP-4 FOR TEMPORARY TRAFFIC PATTERN DURING INTERSECTION IMPROVEMENTS



NOTE:
SEE SHEET TMP-2 FOR SPECIAL SIGN DESIGN SP-2.

● ● ● - OFFSITE DETOUR ROUTE

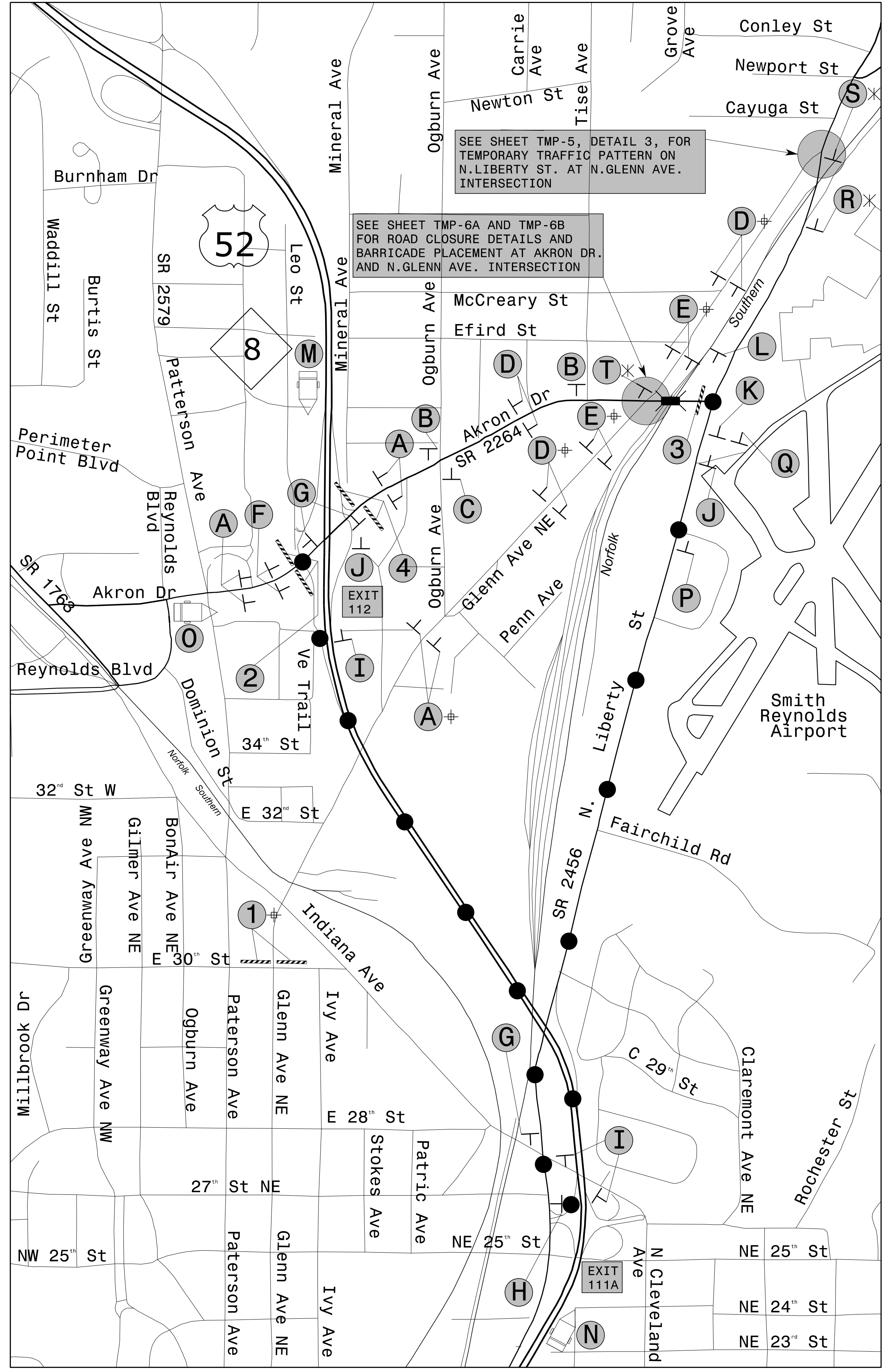
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APPROVED: *Kenneth C. Thornwell Jr., P.E.*
 DATE: 7/3/2018
 SEAL

**OFFSITE TRUCK
 DETOUR ROUTE
 DURING INTERSECTION
 IMPROVEMENTS
 AT N. LIBERTY ST.
 AND N. GLENN AVE.**

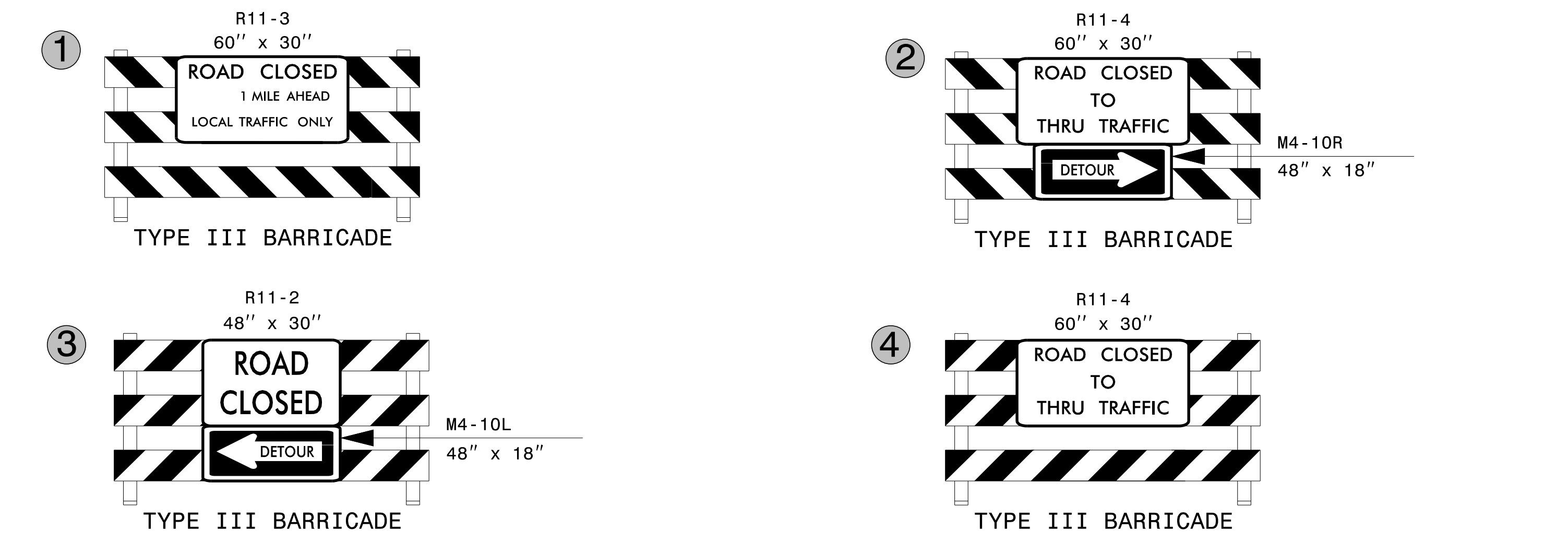
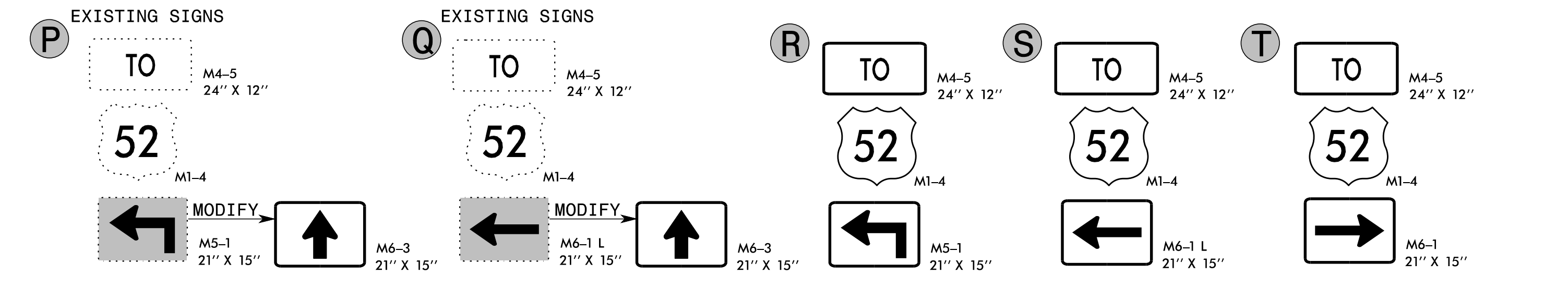
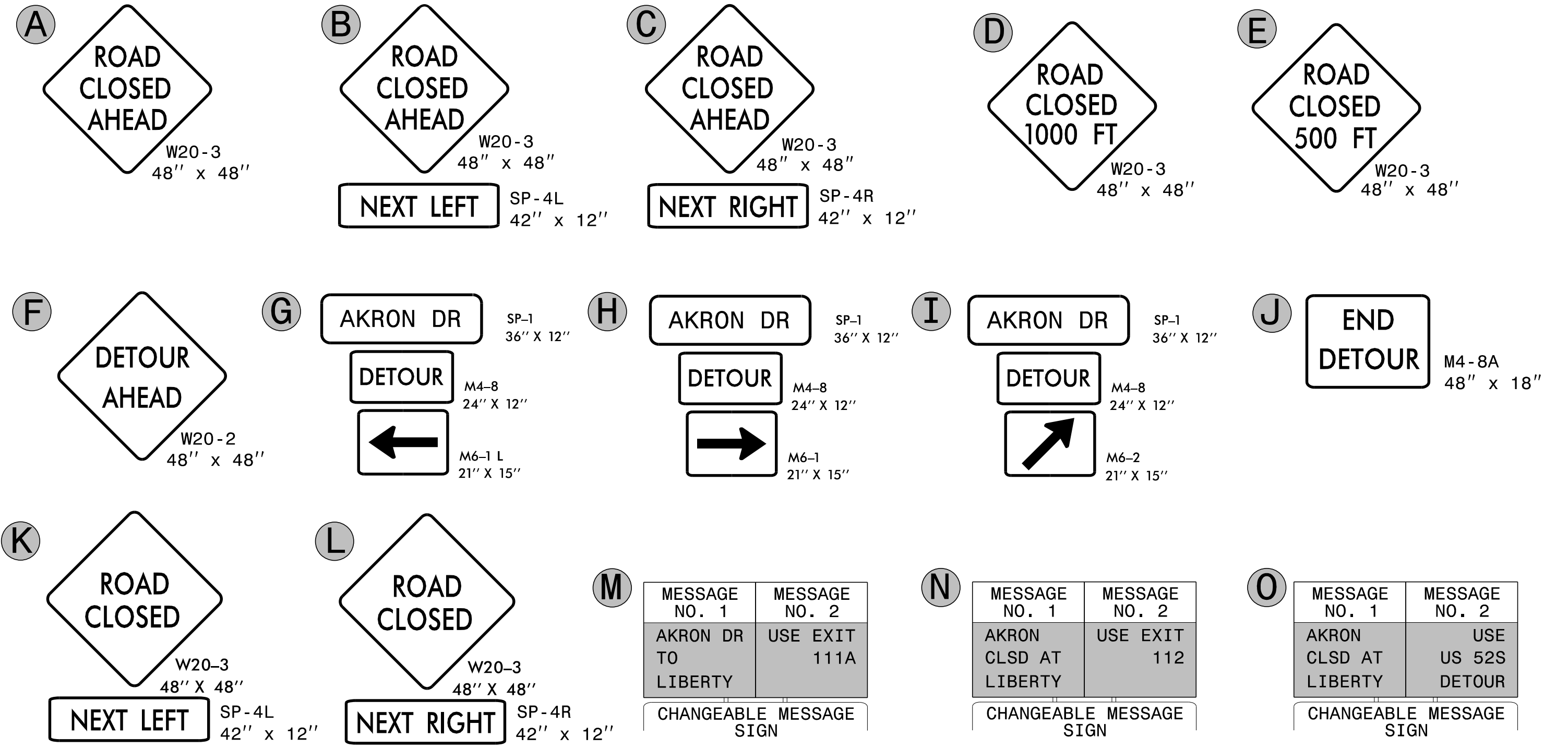
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FORSYTH COUNTY



SEE SHEET TMP-5, DETAIL 3, FOR TEMPORARY TRAFFIC PATTERN ON N. LIBERTY ST. AT N. GLENN AVE. INTERSECTION

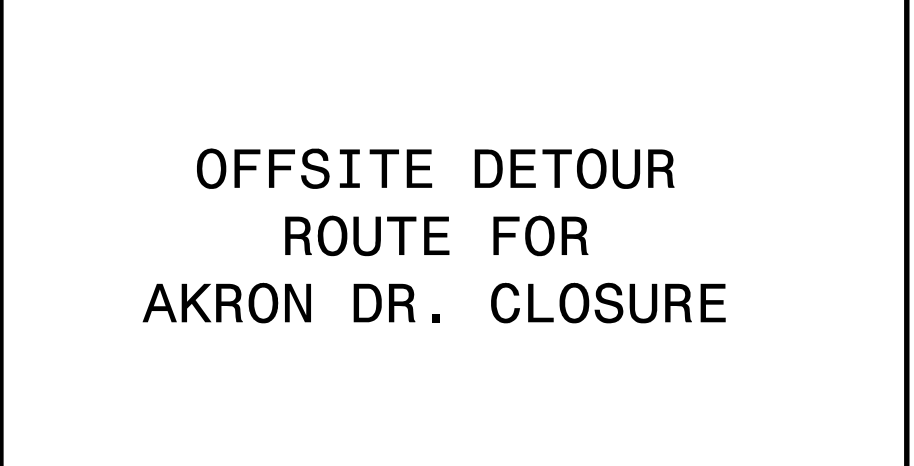
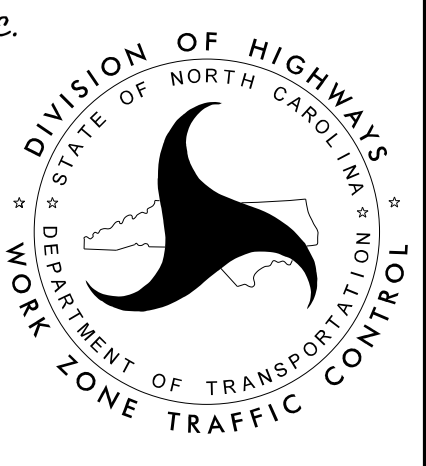
SEE SHEET TMP-6A AND TMP-6B FOR ROAD CLOSURE DETAILS AND BARRICADE PLACEMENT AT AKRON DR. AND N. GLENN AVE. INTERSECTION



- NOTES:**
- REFER TO RSD 1101.03, SHEETS 1 AND 2 OF 9, FOR SIGN DISTANCES AND APPLICABLE NOTES.
 - SEE SHEET TMP-2C FOR OFFSITE BIKE DETOUR ROUTE.
 - MODIFY EXISTING DIRECTIONAL SIGNS TO US 52, LOCATED ON N. LIBERTY ST.
 - SEE SHEET TMP-2 FOR SPECIAL SIGN DESIGN SP-1.

● - OFFSITE DETOUR ROUTE ✕ REMOVE OR COVER DURING CRANE OPERATIONS ⊕ REMOVE OR COVERED EXCEPT DURING CRANE OPERATIONS

APPROVED: *Kenneth C. Townsell, Jr., P.E.*
 DATE: 7/3/2018
 SEAL

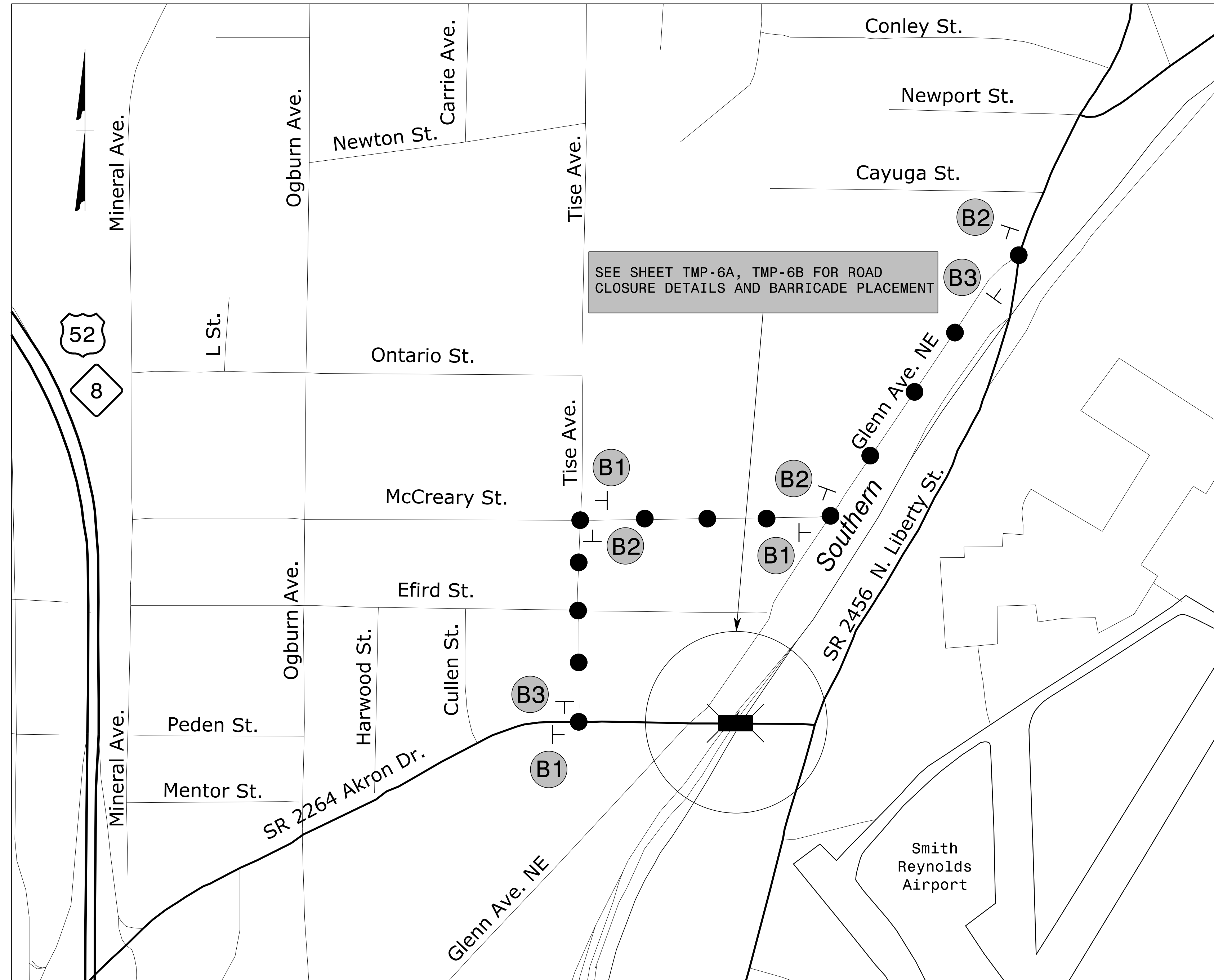


**OFFSITE DETOUR
ROUTE FOR
AKRON DR. CLOSURE**

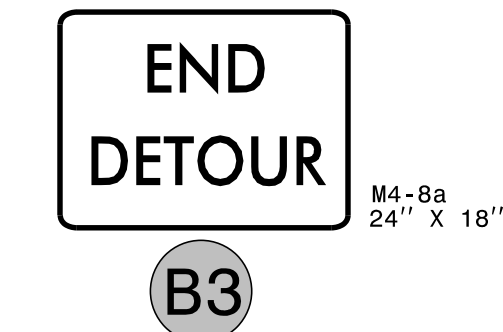
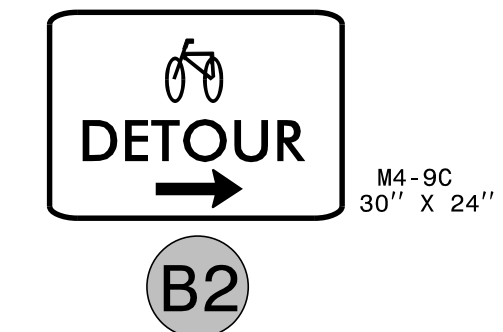
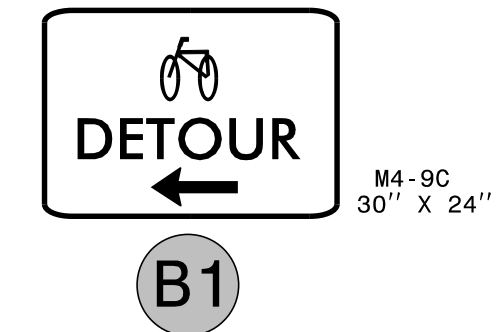
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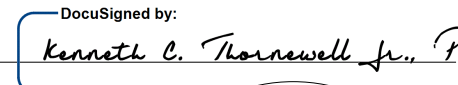
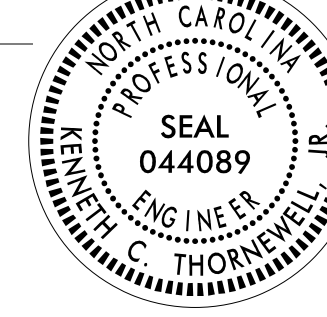

FORSYTH COUNTY



● — OFFSITE BIKE DETOUR ROUTE



7/2/2018
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APPROVED:  DATE: 7/3/2018 SEAL: 		<h2 style="margin: 0;">OFFSITE BIKE DETOUR ROUTE</h2>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

PHASING

PHASE I

STEP 1:
 USING ROADWAY STANDARD DRAWING 1101.01, SHEET 3 OF 3, INSTALL WORK ZONE ADVANCE WARNING SIGNS ON SR 2264 (AKRON DR.), SR 2456 (N. LIBERTY ST.) AND GLENN AVE.

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN PHASE I, STEP 2 IN ONE WEEK (7 CONSECUTIVE CALENDAR DAYS).
 SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

NOTE:
 COORDINATE WITH LOCAL TRUCK BUSINESSES ON N. GLENN AVE. PRIOR TO BEGINNING INTERSECTION IMPROVEMENTS AT N.GLENN AVE./N. LIBERTY ST. ALL TRUCK TRAFFIC SHOULD MAINTAIN OFFSITE TRUCK DETOUR ROUTE WHILE INTERSECTION IMPROVEMENTS ARE COMPLETED.

STEP 2:
 A) USING SHEETS TMP-2 AND TMP-2A, INSTALL DETOUR SIGNS, AND PLACE TRUCK TRAFFIC OFFSITE VIA N. GLENN AVE. AND AKRON DR.
 B) USING RSD 1101.02, SHEET 7 OF 14, AND SHEET TMP-4, CLOSE THE FOLLOWINGS:
 - RIGHT THROUGH SOUTHBOUND LANE ON N. LIBERTY ST.
 - RIGHT TURN NORTHBOUND LANE FROM N. GLENN AVE.
 - ADJUST SIGNAL TIMING AT THE INTERSECTION SIGNALS, AS NECESSARY, OR AS DIRECTED BY THE ENGINEER, TO ACCOMODATE ACTUAL VEHICLE TRAFFIC PATTERN.
 C) COMPLETE INTERSECTION IMPROVEMENTS AT N.GLENN AVE./N. LIBERTY ST. (SEE ROADWAY PLANS).
 D) REMOVE OFFSITE DETOUR SIGNS, AND RETURN ALL TRAFFIC TO EXISTING PATTERN.

STEP 3:
 A) USING RSD 1101.03, SHEET 3 OF 9, AND SHEET TMP-5, PERFORM THE FOLLOWING:
 - TEMPORARILY MODIFY TRAFFIC PATTERN AT N. LIBERTY ST./N. GLENN AVE. INTERSECTION (SEE SHEET TMP-5, DETAIL 2)
 - REMOVE EXISTING CONCRETE ISLAND, PATCH ISLAND REMOVAL AREA AND CONSTRUCT TEMPORARY CONCRETE ISLAND AT N. LIBERTY ST./GLENN AVE. INTERSECTION (SEE ROADWAY PLANS).
 - PLACE TEMPORARY PAVEMENT MARKINGS AT THE INTERSECTION (SEE SHEET TMP-5, DETAIL 3).
 B) RETURN THE INTERSECTION TRAFFIC TO EXISTING PATTERN.

STEP 4:
 USING RSD 1101.02, SHEET 7 OF 14, PERFORM THE FOLLOWING:
 - TEMPORARILY MODIFY EXISTING PAVEMENT MARKINGS ON NORTHBOUND OF N. LIBERTY ST. (TO ALLOW LEFT TURN TRAFFIC MOVEMENTS FROM N. LIBERTY ST. TO N.GLENN AVE.)
 - TEMPORARILY ADJUST INTERSECTION TRAFFIC SIGNALS AT N. LIBERTY ST./GLENN AVE. (SEE SIGNAL PLANS).

STEP 5:
 - USING SHEET TMP-2B, INSTALL OFFSITE DETOUR SIGNS FOR MOTOR VEHICLES AND WORK ZONE TRAFFIC CONTROL DEVICES.
 - USING RSD 1101.02, SHEET 1 OF 14 AND TMP-6A, INSTALL WORK ZONE TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS FOR THE ALL WAY STOP. DEACTIVATE AND REMOVE EXISTING TRAFFIC SIGNAL AT N. GLENN AVE. AND AKRON DR.
 - USING RSD 1101.03, SHEET 1 AND 2 OF 14, AND TMP-6A, INSTALL WORK ZONE TRAFFIC CONTROL DEVICES TO CLOSE SR 2264 (AKRON DR.) AND DETOUR TRAFFIC OFFSITE.
 - USING RSD 1101.02, SHEET 7 OF 14, TEMPORARILY ADJUST INTERSECTION TRAFFIC SIGNALS AT N. LIBERTY ST./AKRON DR. (SEE SIGNAL PLANS).

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED IN PHASE I, STEP 6 (CRANE OPERATIONS) IN SEVENTY-TWO (72) CONSECUTIVE HOURS. THIS OPERATION MAY BE USED A MAXIMUM OF TWO (2) TIMES.
 SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 6:
 AWAY FROM TRAFFIC, REMOVE EXISTING BRIDGE NO. 229, AND CONSTRUCT PROPOSED BRIDGE AND FULL DEPTH ROADWAY SECTIONS FROM -L- STA. 16+40± TO -L- STA. 20+91± UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. PLACE TEMPORARY PAVEMENT MARKINGS ON -L- (AKRON DR.).

CRANE OPERATIONS (FOR BRIDGE DEMOLITION AND GIRDER ERECTION):
 A) USING RSD 1101.03, SHEET 1 AND 2 OF 14, TMP-2B, TMP-2C, TMP-5, AND TMP-6B, ADJUST AND INSTALL TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS TO PARTIALLY CLOSE THE N. GLENN AVE. AND AKRON DR. INTERSECTION.
 B) COMPLETE CRANE OPERATIONS AS REQUIRED.
 C) REMOVE TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS AND RETURN TRAFFIC TO THE OFF-SITE DETOUR LAYOUT AS SHOWN ON TMP-6A.

NOTE:
 REFER TO LOCAL NOTE 1, LOCAL NOTE 2, AND TMP-6B. WHEN THE INTERSECTION CLOSURE IS UNNECESSARY, REMOVE OR ADJUST BICYCLE DETOUR SIGNS AND THE APPROPRIATE WORK ZONE TRAFFIC CONTROL DEVICES TO RETURN THE INTERSECTION TO THE CONFIGURATION AS SHOWN ON SHEET TMP-6A.

NOTE:
 ONCE AKRON DR. IS OPEN TO TRAFFIC, RETURN TO EXISTING DIRECTIONAL SIGNS TO US 52, LOCATED ON N. LIBERTY ST.

STEP 7:
 USING RSD 1101.02, SHEETS 2 AND 7 OF 14, MODIFY INTSERSECTION TRAFFIC SIGNALS AT N.GLENN AVE./AKRON DR. AND AT N. LIBERTY ST./AKRON DR. (SEE SIGNAL PLANS). REMOVE TRAFFIC CONTROL DEVICES AND OPEN AKRON DR. TO TRAFFIC.

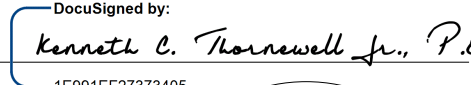
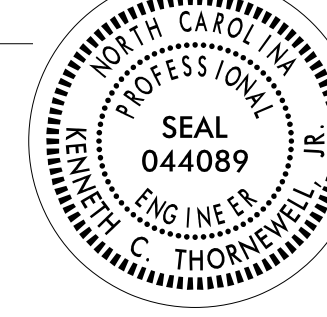
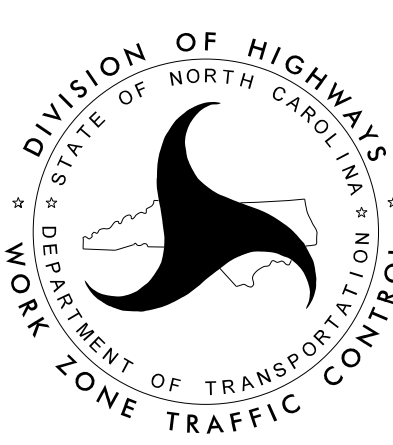
PHASE II

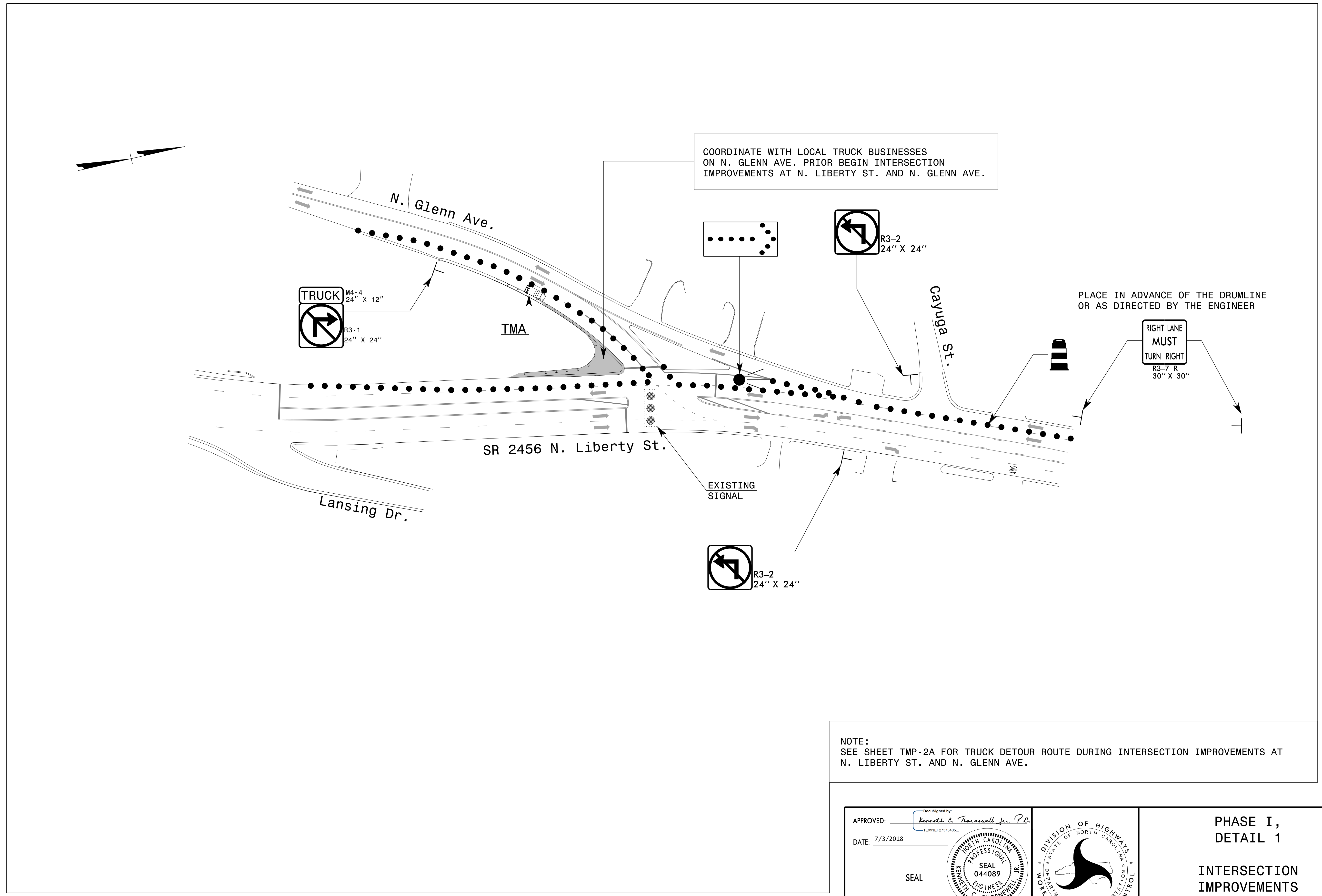
STEP 1:
 - USING RSD 1101.02, SHEETS 1, 2, AND 7 OF 14, COMPLETE PROPOSED CONSTRUCTION ON -L- (AKRON DR.), -Y1- (N. GLENN AVE.) AND -Y2- (N. LIBERTY ST.), INCLUDING FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS.
 - USING RSD 1101.02, SHEETS 2 AND 7 OF 14, MODIFY INTERSECTION TRAFFIC SIGNALS AT N. LIBERTY ST./GLENN AVE. (SEE SIGNAL PLANS).

STEP 2:
 A) USING RSD 1101.02, SHEET 7 OF 14, AND SHEET TMP-7, PERFORM THE FOLLOWING:
 - TEMPORARILY MODIFY TRAFFIC PATTERN AT N. LIBERTY ST./N. GLENN AVE. INTERSECTION
 - REMOVE TEMPORARY CONCRETE ISLAND, CONSTRUCTED ON PHASE I, STEP 3, AND REPLACE PROPOSED MONOLITHIC CONCRETE ISLAND INTO EXISTING LOCATION AT N. LIBERTY ST./GLENN AVE. INTERSECTION (SEE ROADWAY PLANS).
 - PLACE FINAL PAVEMENT MARKINGS AT THE INTERSECTION (SEE PAVEMENT MARKING PLANS).
 B) RETURN THE INTERSECTION TRAFFIC TO EXISTING PATTERN.

STEP 3:
 REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

7/2/2018
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APPROVED:  DATE: 7/3/2018 <div style="text-align: center;">  SEAL </div>		<h1 style="font-size: 2em; margin: 0;">PHASING</h1>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



COORDINATE WITH LOCAL TRUCK BUSINESSES ON N. GLENN AVE. PRIOR BEGIN INTERSECTION IMPROVEMENTS AT N. LIBERTY ST. AND N. GLENN AVE.

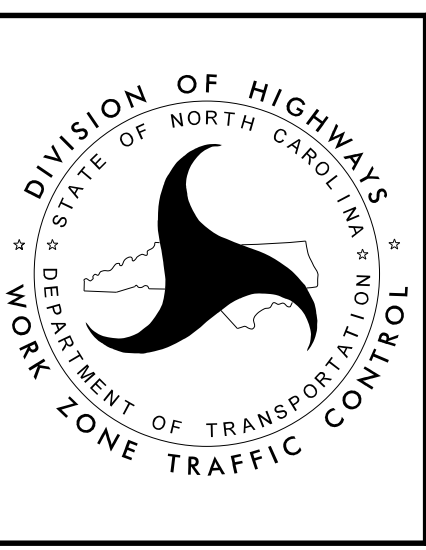
PLACE IN ADVANCE OF THE DRUMLINE OR AS DIRECTED BY THE ENGINEER

NOTE:
SEE SHEET TMP-2A FOR TRUCK DETOUR ROUTE DURING INTERSECTION IMPROVEMENTS AT N. LIBERTY ST. AND N. GLENN AVE.

APPROVED: *Kenneth C. Thornwell Jr., P.E.*
DocuSigned by: Kenneth C. Thornwell Jr., P.E. 1E991EF27373405
 DATE: 7/3/2018

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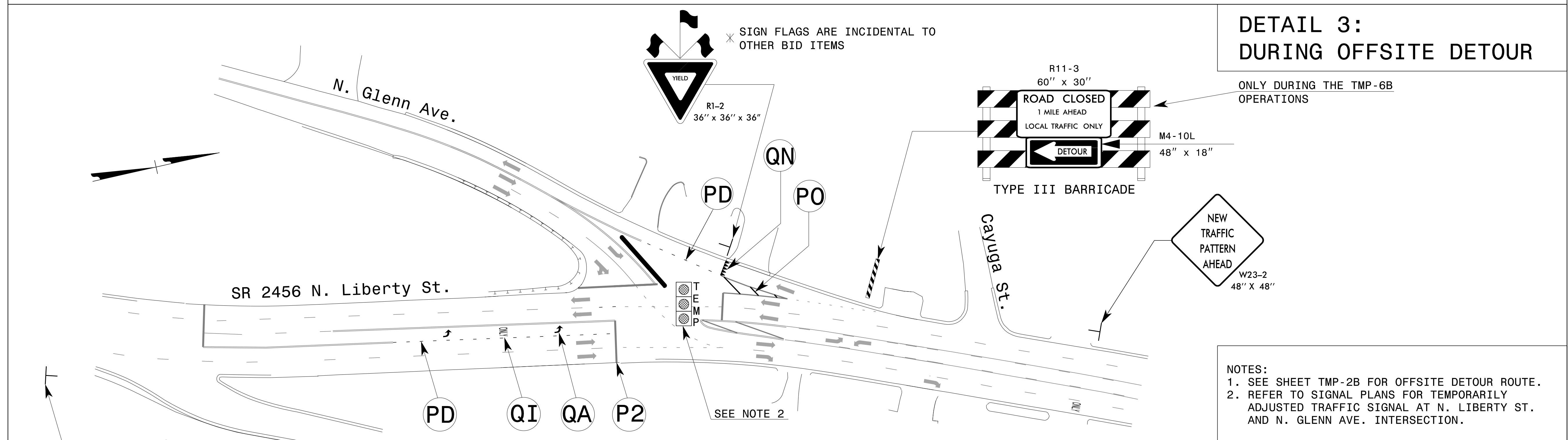
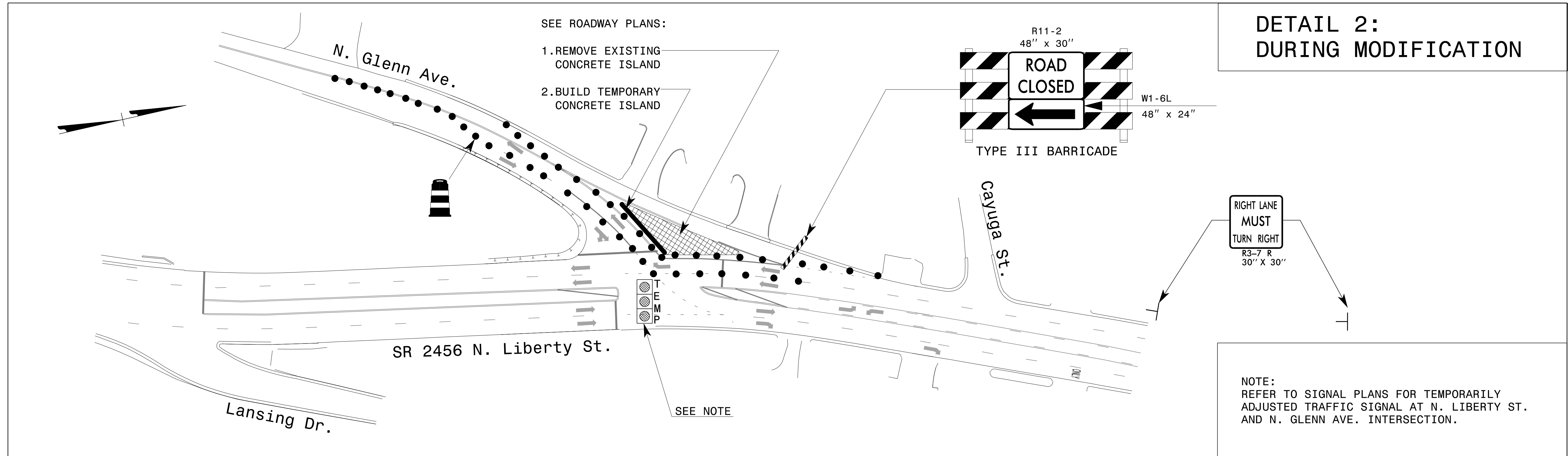
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PHASE I,
DETAIL 1

INTERSECTION IMPROVEMENTS
AT N. LIBERTY ST.
AND N. GLENN AVE.

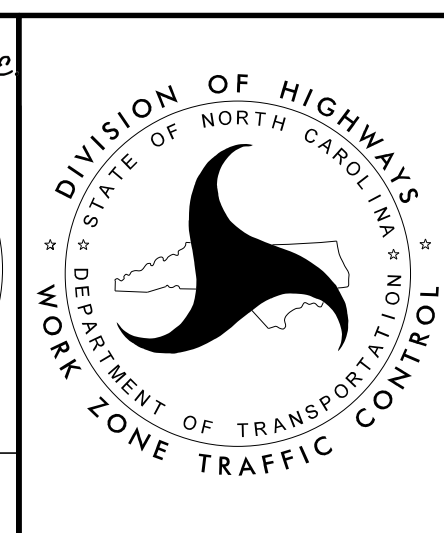
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APPROVED: *Kenneth C. Thornwell, Jr., P.E.*
DATE: 7/3/2018

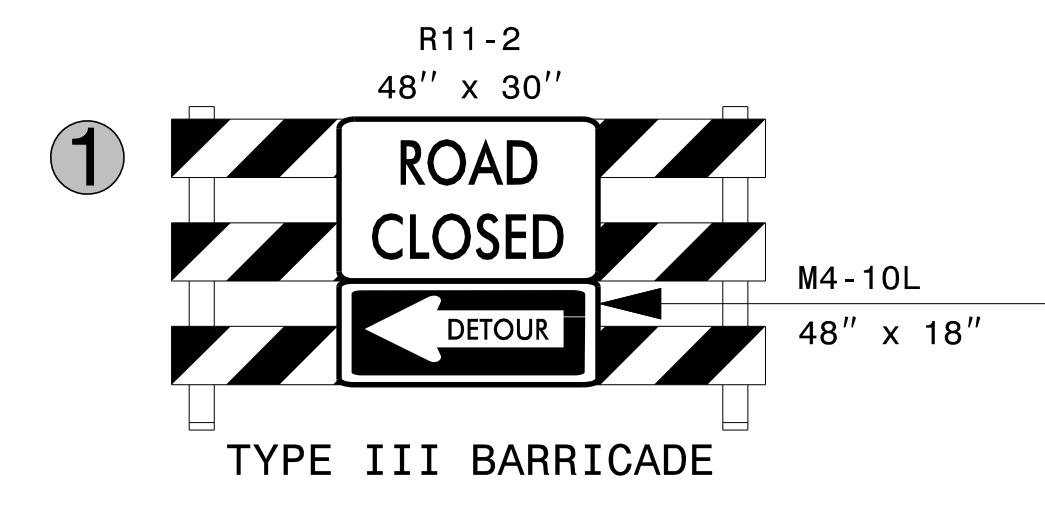
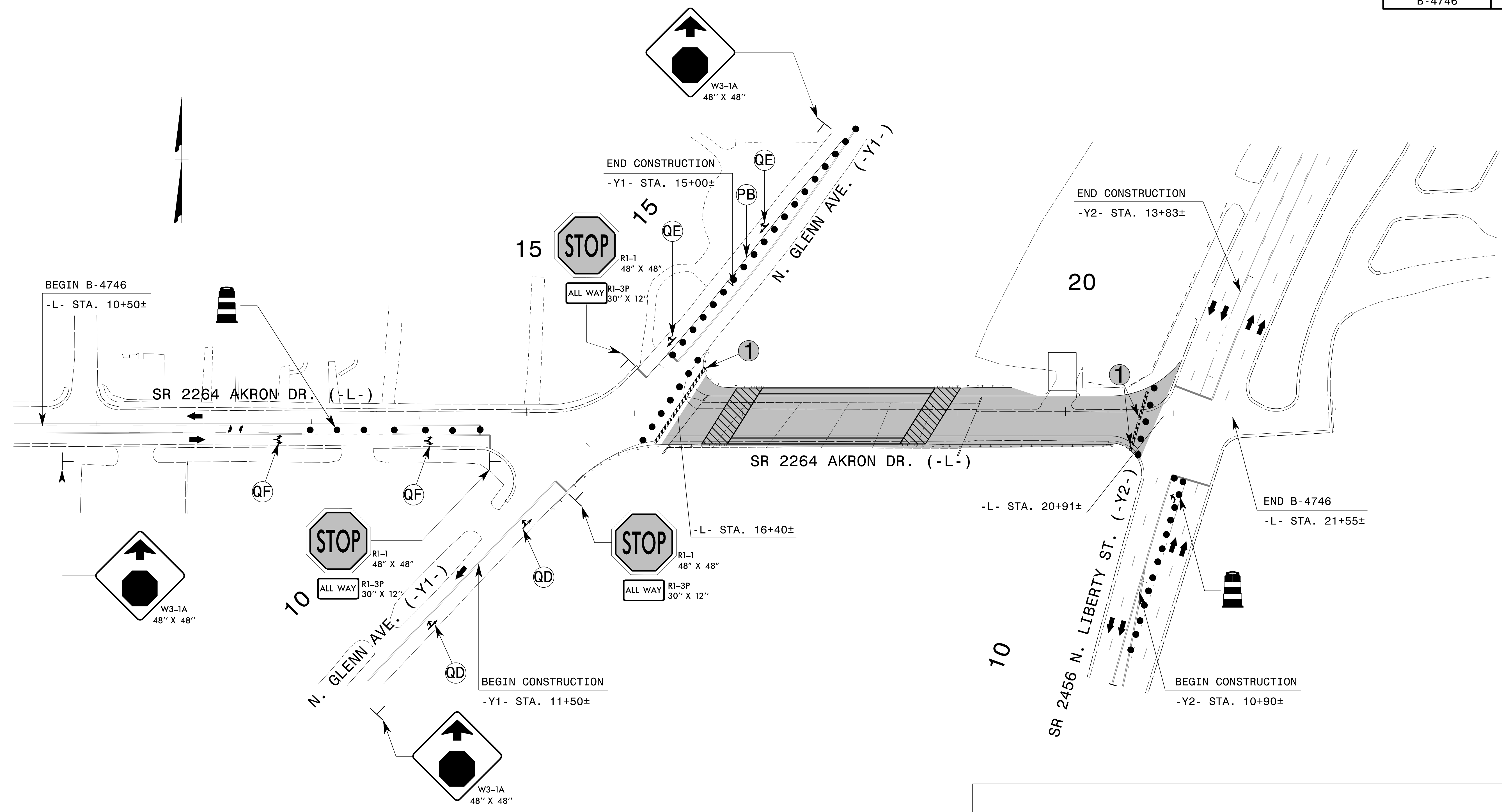
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**PHASE I,
DETAILS 2 AND 3**

**TEMPORARY TRAFFIC PATTERN
AT N. LIBERTY ST.
AND GLENN AVE.
INTERSECTION**



NOTES:

1. REFER TO RSD 1101.03, SHEET 2 OF 9, FOR SIGNS, SIGN DISTANCES AND APPLICABLE NOTES.
2. SEE SHEETS TMP-2B AND TMP-2C FOR DETOUR ROUTES DURING CONSTRUCTION OF PROPOSED STRUCTURE OVER NORFOLK SOUTHERN RAILROAD ON AKRON DR.

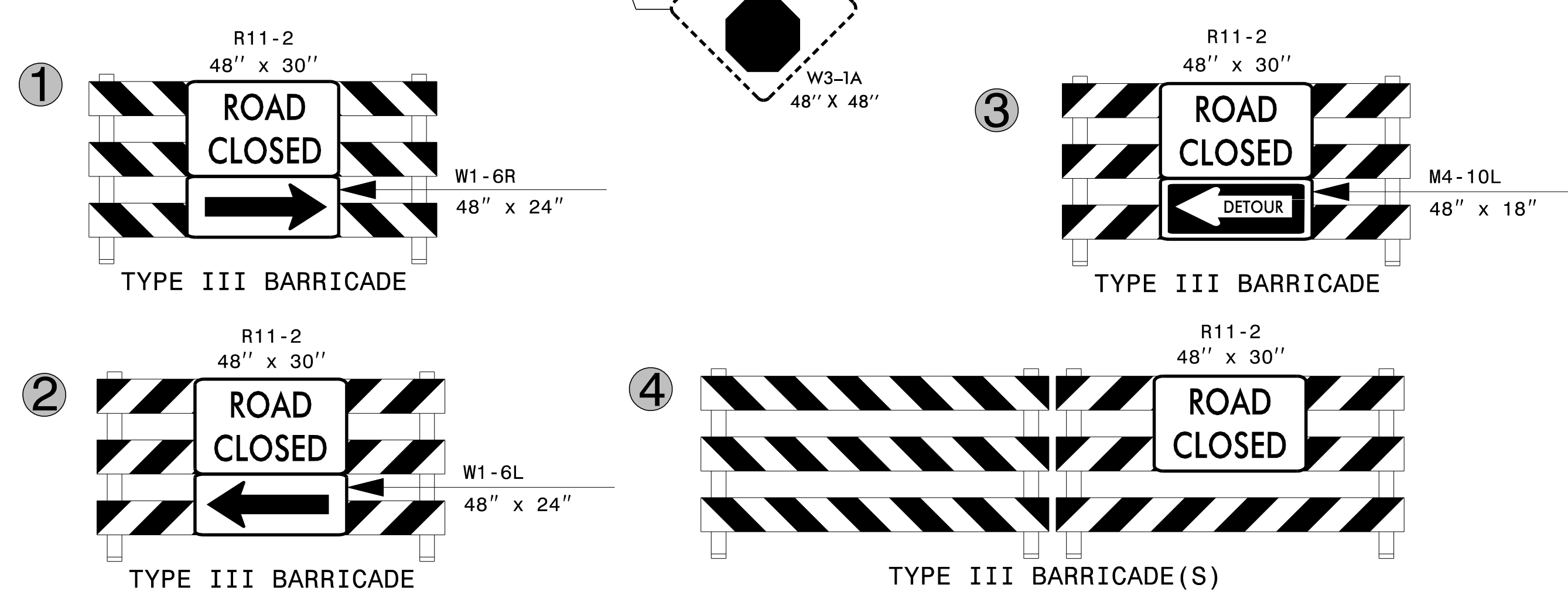
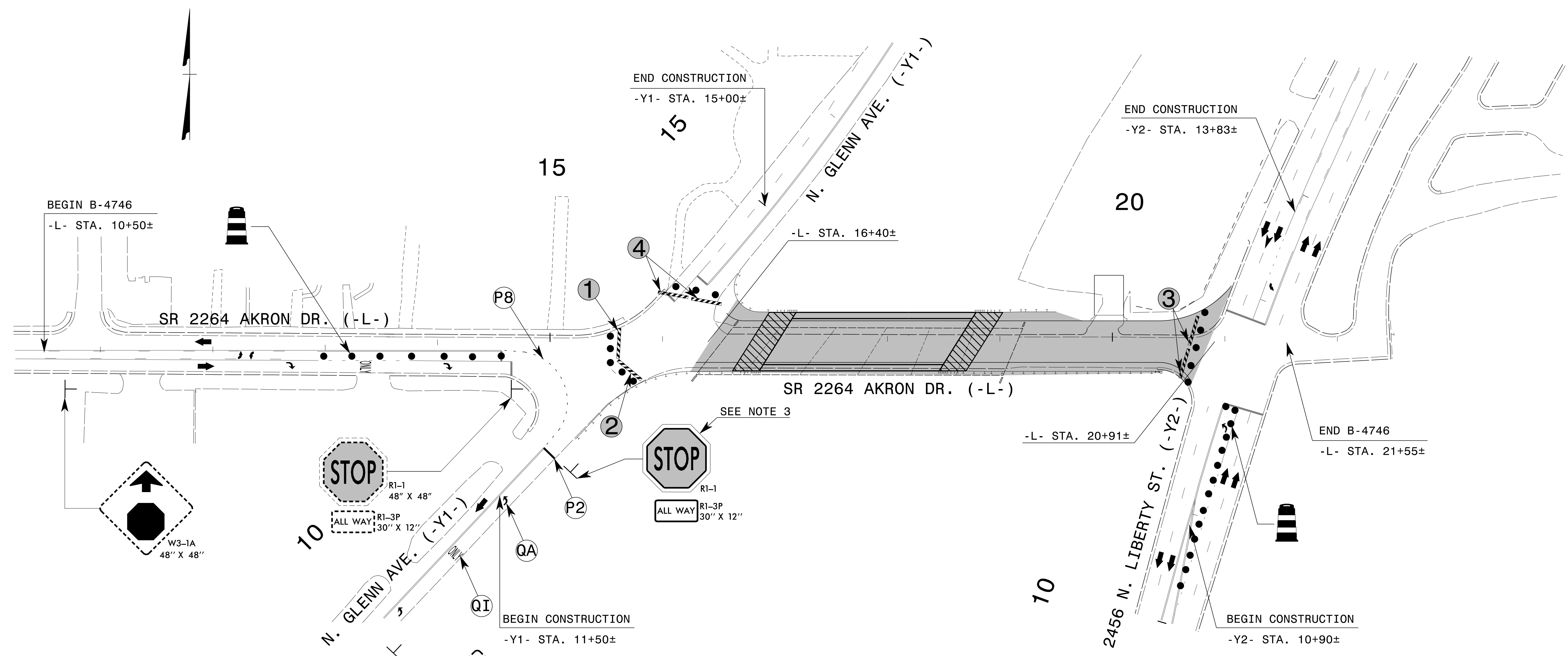
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 DATE: 7/3/2018
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PHASE I,
 DETAIL 4

TEMPORARY TRAFFIC PATTERN
 DURING CONSTRUCTION
 OF PROPOSED STRUCTURE
 ON AKRON DR.

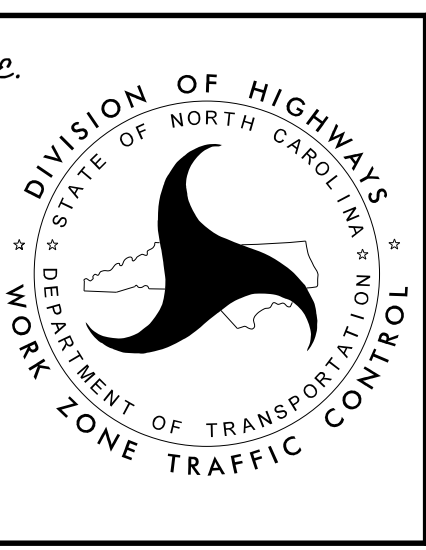
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 User: jdbaeve1



NOTES:

- REFER TO RSD 1101.03, SHEET 2 OF 9, FOR SIGNS, SIGN DISTANCES AND APPLICABLE NOTES.
- SEE SHEETS TMP-2B AND TMP-2C FOR DETOUR ROUTES DURING CONSTRUCTION OF PROPOSED STRUCTURE OVER NORFOLK SOUTHERN RAILROAD ON AKRON DR.
- ADJUST SIGN LOCATION FROM ORIGINAL LOCATION AS SHOWN ON TMP-6A.

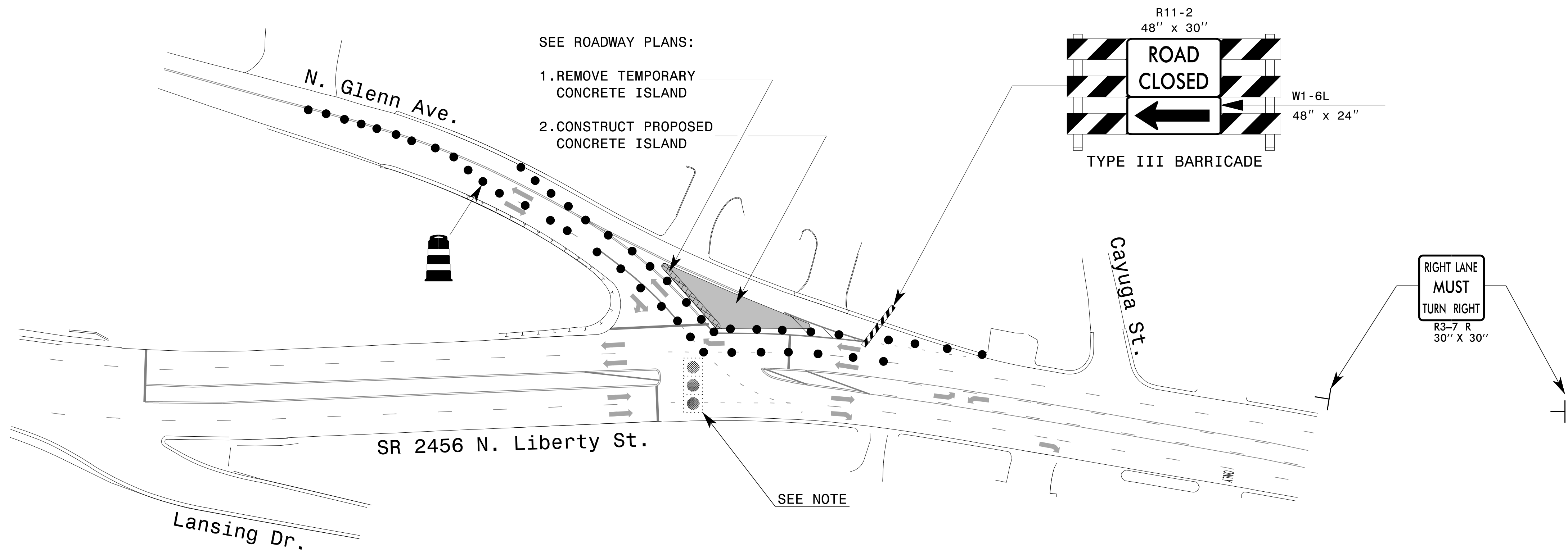
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 DATE: 7/3/2018
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PHASE I, DETAIL 5

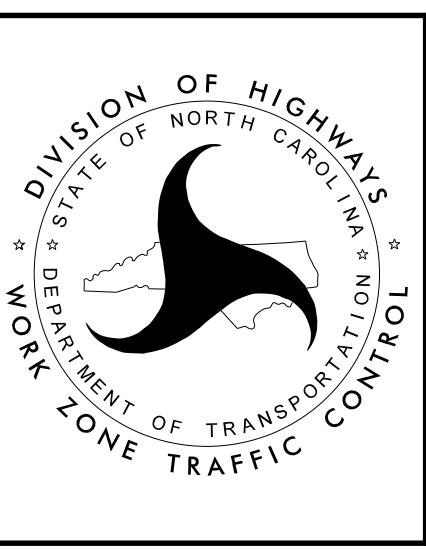
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NOTE:
 MODIFY INTERSECTION TRAFFIC SIGNAL (SEE SIGNAL PLANS), AND PLACE TRAFFIC IN TEMPORARY PATTERN PRIOR TO BEGIN CONSTRUCTION OF PROPOSED CONCRETE ISLAND AT N. LIBERTY ST./N.GLENN AVE.

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PHASE II,
 DETAIL
 TEMPORARY TRAFFIC PATTERN
 AT N. LIBERTY ST.
 AND GLENN AVE.
 INTERSECTION

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