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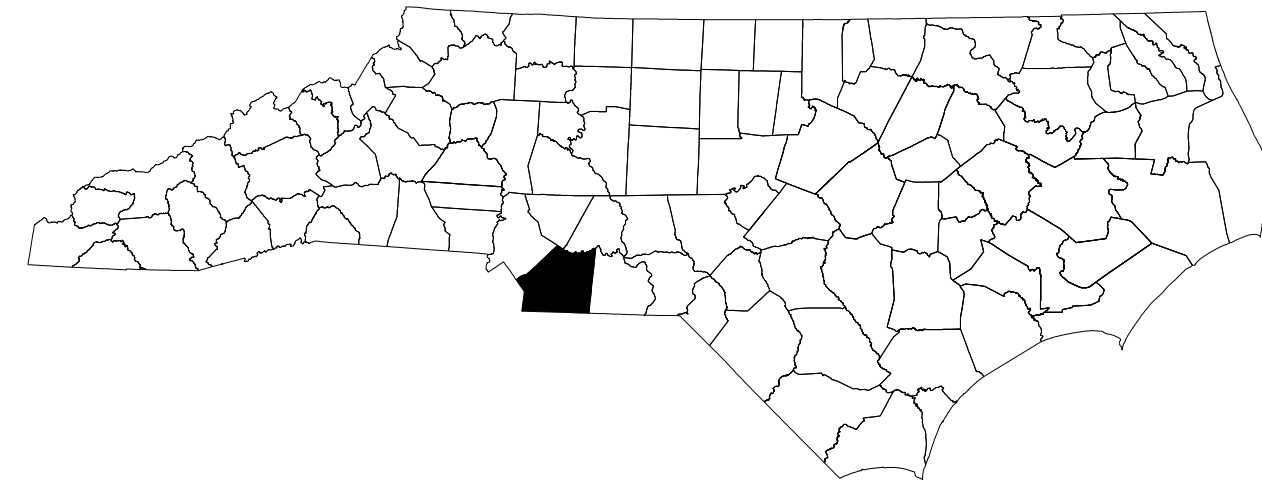
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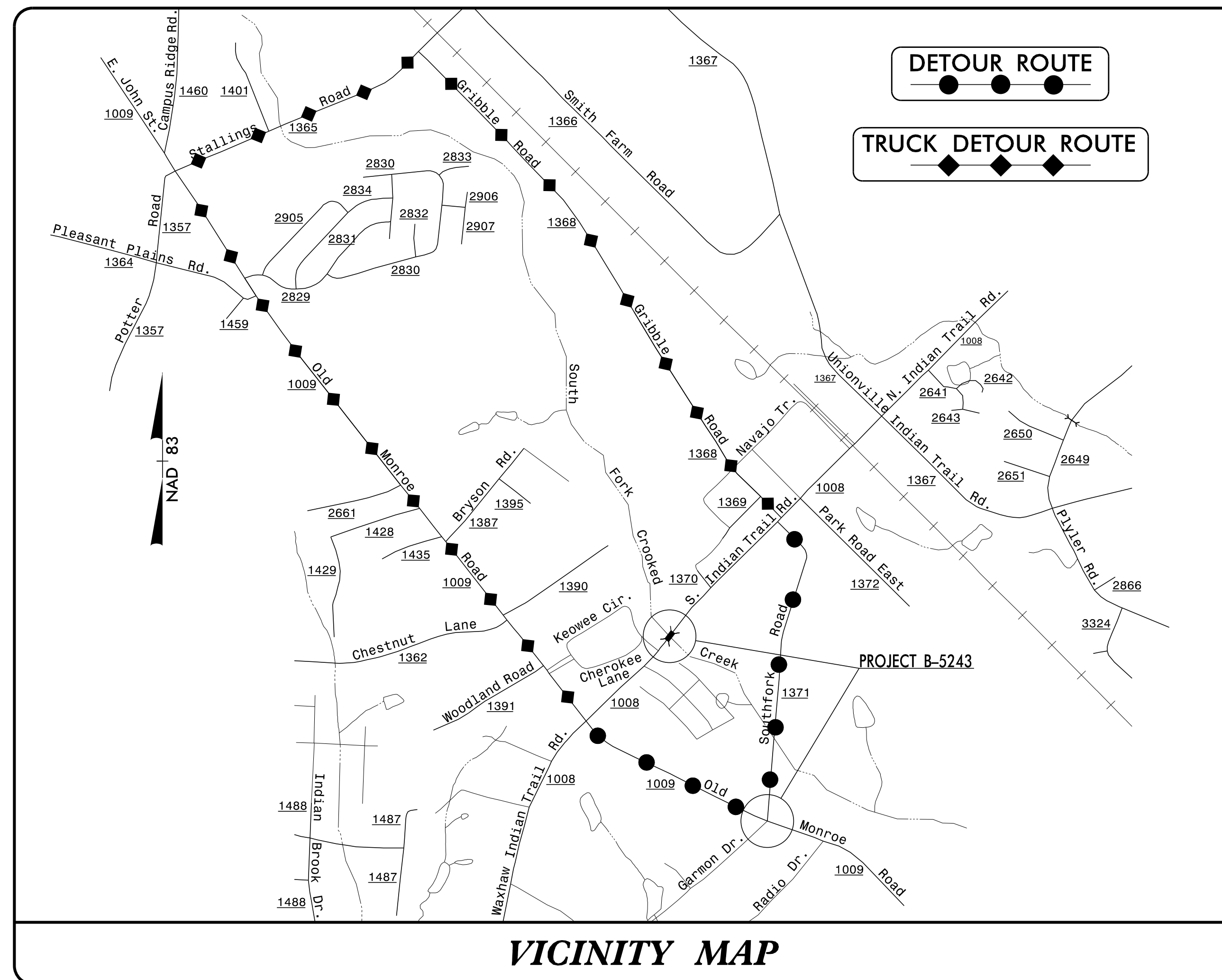
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**UNION COUNTY**



LOCATION: BRIDGE 258 ON SR 1008 OVER SOUTH FORK CROOKED CREEK AND IMPROVEMENT OF THE INTERSECTION OF SR 1009 AND SR 1371



**INDEX OF SHEETS**

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKINGS
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (TRANSPORTATION OPERATIONS AND GENERAL NOTES)
TMP-2	SPECIAL SIGN DESIGN - S. INDIAN TRAIL ROAD
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING AND OFF-SITE DETOUR - S. INDIAN TRAIL ROAD - SR 1008
TMP-4	TRUCK TRAFFIC OFF-SITE DETOUR - S. INDIAN TRAIL ROAD - SR 1008
TMP-5	PHASE I DETAILS
TMP-6	PHASE II DETAILS

SHEET NO.  
TMP-1

**B-5243**

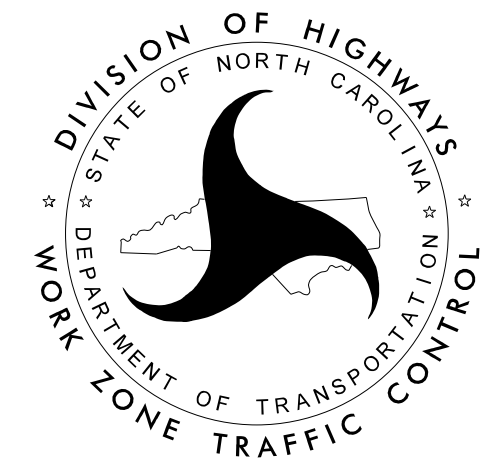
**TIP PROJECT:**

10/22/2015  
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User:tscoats



**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. W. WOOLARD, P.E. — TRAFFIC CONTROL PROJECT ENGINEER  
L. D. STOUCHKO, P.E. — TRAFFIC CONTROL PROJECT DESIGN ENGINEER  
S. B. COATS — TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: *Lori D. Stouhko*  
DATE: 10/22/2015

SEAL

# 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
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
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
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
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)



## SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

## 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

## TEMPORARY PAVEMENT MARKING

- PA - WHITE EDGELINE (PAINT) - 4"
- PB - YELLOW EDGELINE (PAINT) - 4"
- PD - 3 FT. WHITE MINISKIP (PAINT) - 4"
- PE - WHITE SOLID LANE LINE (PAINT) - 4"
- PI - YELLOW DOUBLE CENTER (PAINT) - 4"
- PP - YELLOW DIAGONAL (PAINT) - 8"
- P2 - WHITE STOP BAR (PAINT) - 24"
- QA - LEFT TURN ARROW
- QG - COMBO. LEFT/RIGHT/STRAIGHT ARROW

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APPROVED: <i>Lori Stouchko</i> <small>902CRD18918146C</small> DATE: 9/17/2015 SEAL			ROADWAY STANDARD DRAWINGS & LEGEND
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## TRANSPORTATION OPERATIONS

### CONSTRUCTION

IMPROVEMENT OF THE INTERSECTION OF SR 1009 (OLD MONROE RD.) AND SR 1371 (SOUTHFORK RD.). CULVERT REMOVAL AND REPLACEMENT OF EXISTING STRUCTURE AND ROADWAY APPROACHES ON SR 1008 (S. INDIAN TRAIL RD.) ALIGNMENT AS SHOWN IN THE CONSTRUCTION PLANS.

### TMP DESIGN PARAMETERS

UTILIZE FLAGGERS, SIGNAGE, TRAFFIC CONTROL DEVICES, AND TEMPORARY SIGNALS FOR THE IMPROVEMENT OF THE INTERSECTION OF SR 1009 AND SR 1371. TRAFFIC WILL BE DETOURED OFF-SITE DURING THE CONSTRUCTION OF CULVERT AND APPROACHES ON S. INDIAN TRAIL RD. (SR 1008). THE OFF-SITE DETOUR WILL INCLUDE OLD MONROE RD. (SR 1009) AND SOUTHFORK RD. (SR 1371). UTILIZE FLAGGERS AND TRAFFIC CONTROL DEVICES TO MAINTAIN TRAFFIC ON KEOWEE CIRCLE AND COVENTRY DRIVE INSIDE CONSTRUCTION LIMITS DURING ROAD CLOSURE.

### 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
SR 1008 (-L-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.
SR 1009 (-Y-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.
SR 1371 (-Y4-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M. 4:00 P.M. - 7:00 P.M.

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

ROAD NAME
SR 1008 (-L-)
SR 1009 (-Y-)
SR 1371 (-Y4-)

#### HOLIDAY

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

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION & OPERATION
SR 1008 (-L-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M.	15 MINUTES FOR TRAFFIC SHIFTS, PAVEMENT TIE-INS, PAVEMENT MARKING TIE-INS
SR 1009 (-Y-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M.	15 MINUTES FOR TRAFFIC SHIFTS, PAVEMENT TIE-INS, PAVEMENT MARKING TIE-INS
SR 1371 (-Y4-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M.	15 MINUTES FOR TRAFFIC SHIFTS, PAVEMENT TIE-INS, PAVEMENT MARKING TIE-INS

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

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

- I) 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.
- J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

#### TRAFFIC PATTERN ALTERATIONS

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

#### SIGNING

- L) 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.
- M) 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.
- N) 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.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

#### 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   | TEMPORARY |
- 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 DRUMS TO DELINEATE PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.
- W) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN FINAL PAVEMENT MARKING PLAN.

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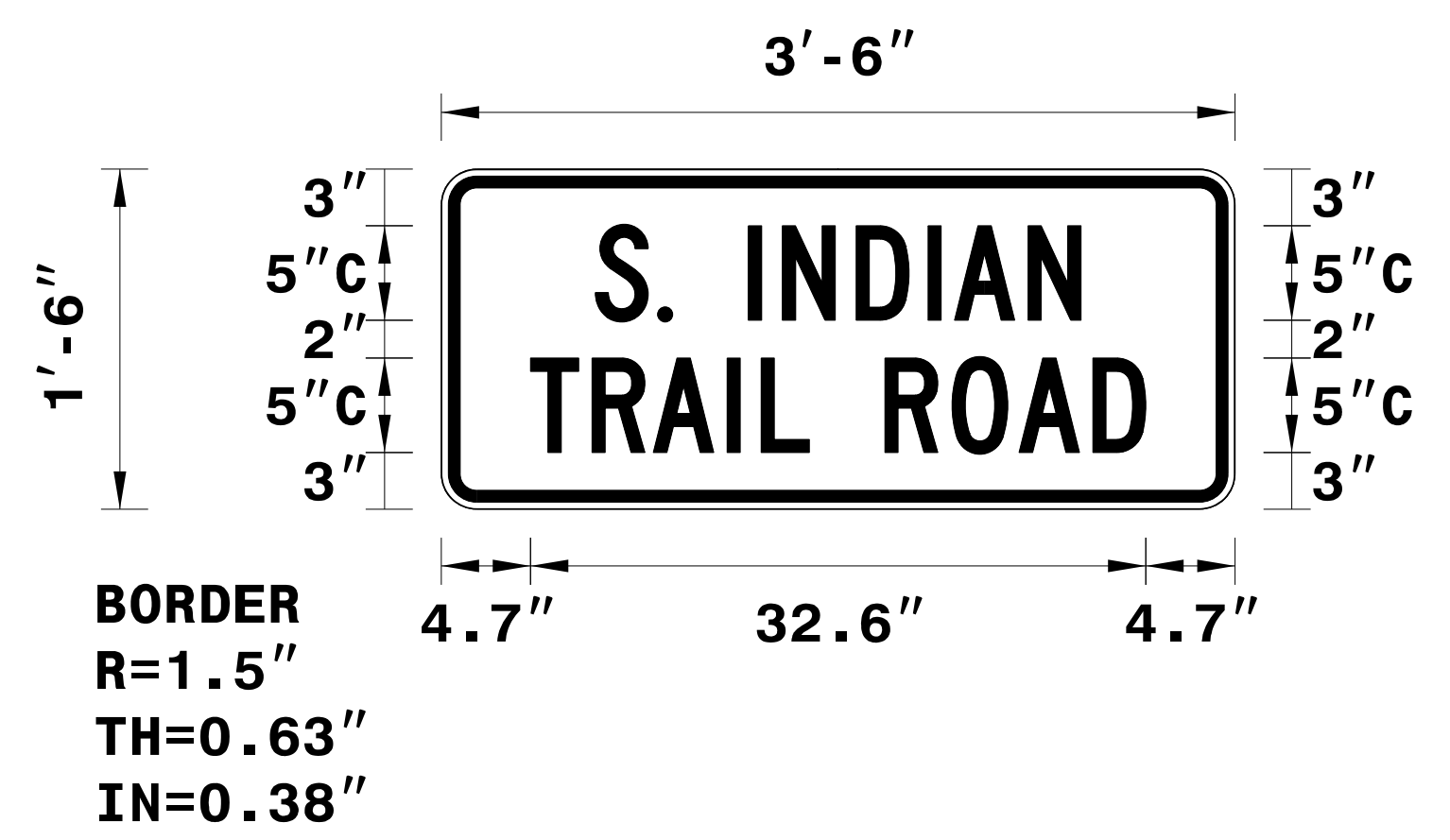
APPROVED: <i>Lori D. Stouchko</i> <small>922CB018916148C</small> DATE: 11/17/2015			<h2 style="text-align: center;">TRANSPORTATION OPERATIONS PLAN</h2>
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SIGN NUMBER: SP15034  
 TYPE: STATIONARY  
 QUANTITY: SEE PLANS  
 SIGN WIDTH: 3'-6"  
 HEIGHT: 1'-6"  
 TOTAL AREA: 5.3 Sq.Ft.  
 BORDER TYPE: INSET  
 RECESS: 0.38"  
 WIDTH: 0.63"  
 RADII: 1.5"  
 NO. Z BARS:  
 LENGTH:

BACKG COLOR: Orange  
 COPY COLOR: Black  
 MAT'L: 0.080" (2.0 mm) ALUMINUM

SYMBOL	X	Y	WID	HT

DESIGN BY: J.Navarrete  
 PROJECT ID: B-5243  
 CHECKED BY:  
 DIV: WZTC  
 Feb 27, 2015



USE NOTES: 1,2

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Letter Spacing Data												Series/Size	
S	.	I	N	D	I	A	N					Text Length	
8.2	3.3	0.8	4	1.8	3.9	3.8	1.4	3.9	2.8	8.2			C 2000
													25.7
T	R	A	I	L	R	O	A	D				Text Length	
4.7	3.2	3.2	3.9	1.8	2.6	4	3.5	3.5	3.9	2.8	4.7		C 2000
													32.6

FILENAME: Special Signs4 NORTH CAROLINA D.O.T. SIGN DETAIL

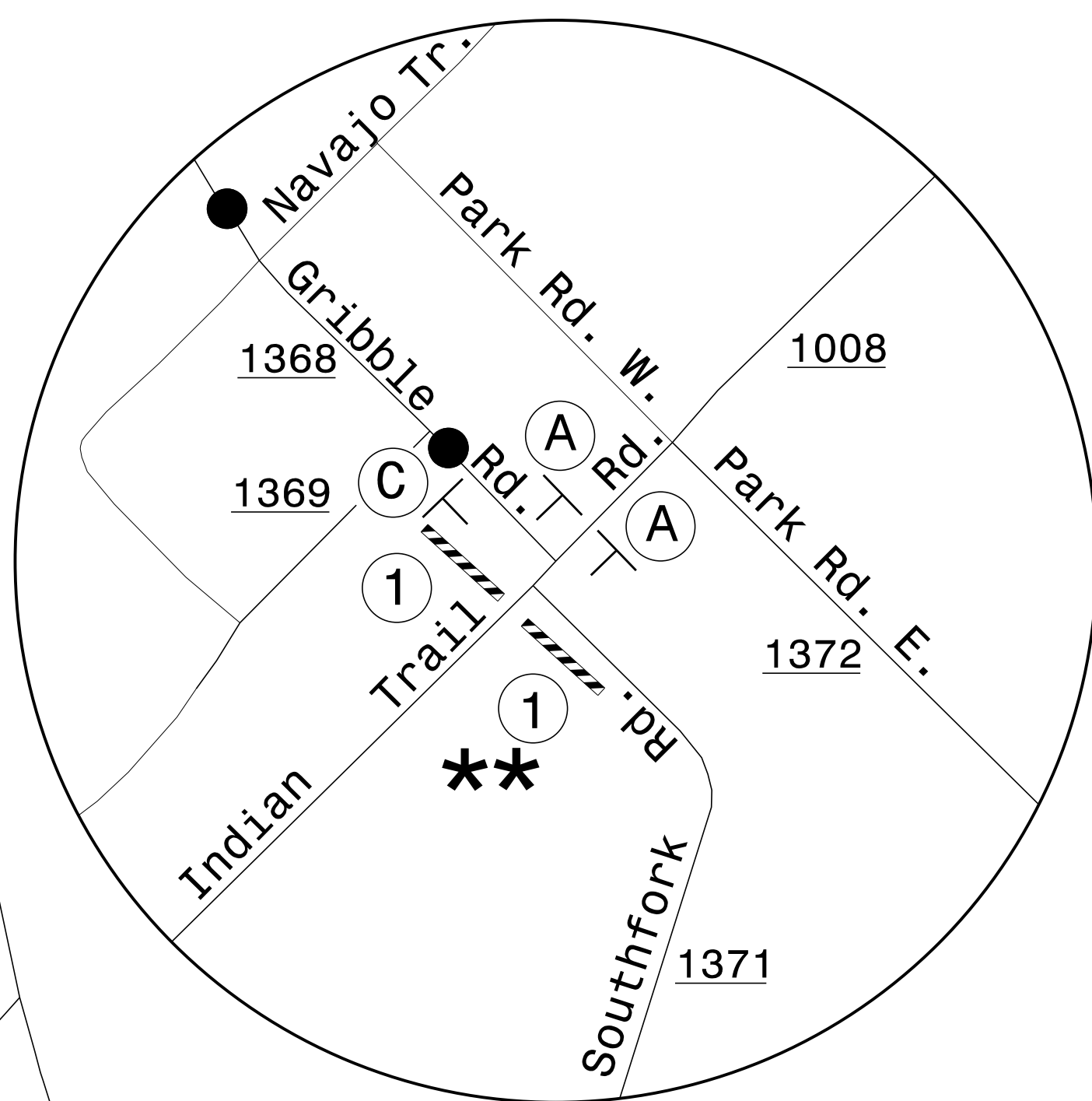
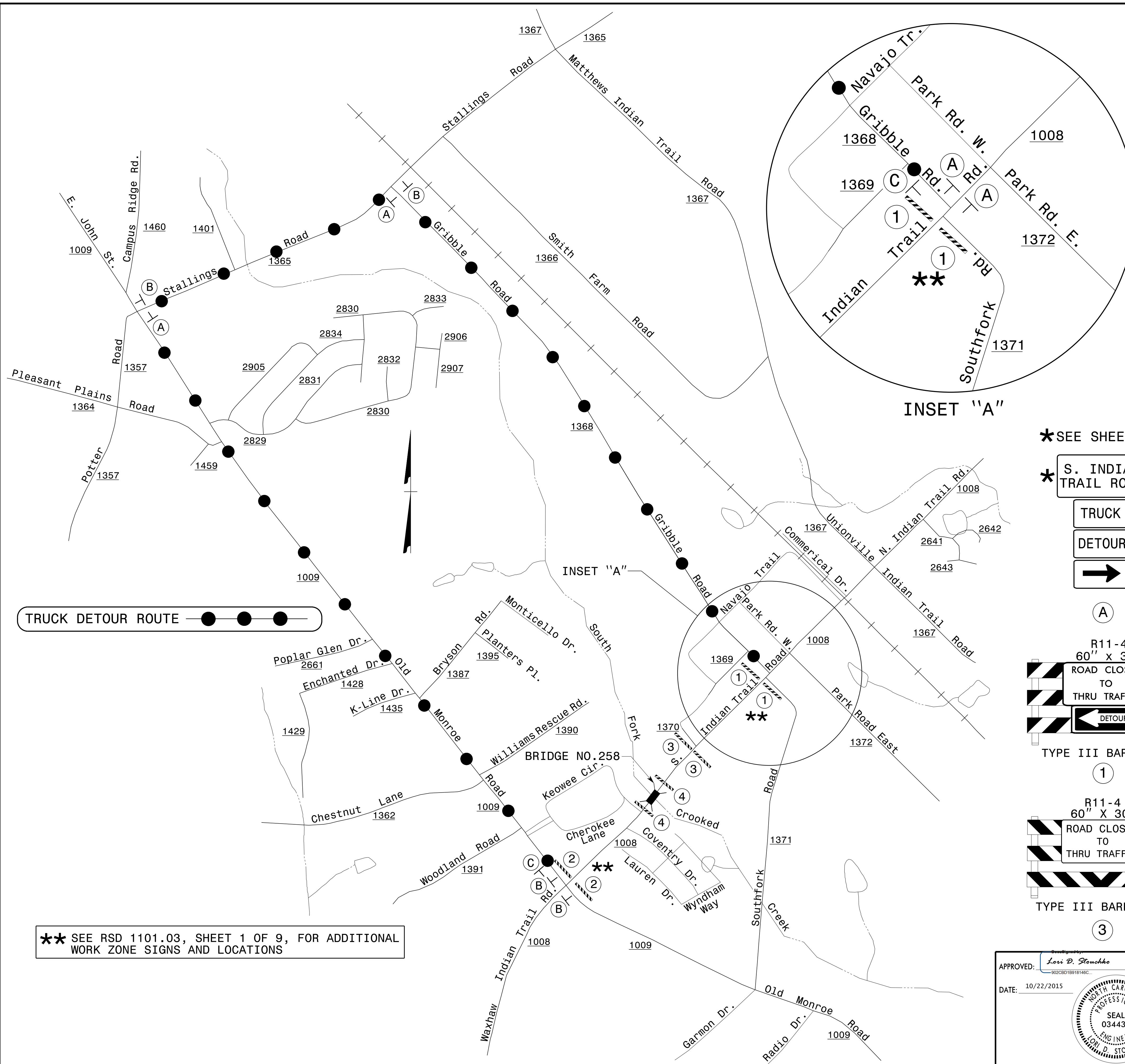
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APPROVED: <i>Ren King</i> DATE: 9/17/2015 		SPECIAL SIGN DESIGN S. INDIAN TRAIL ROAD
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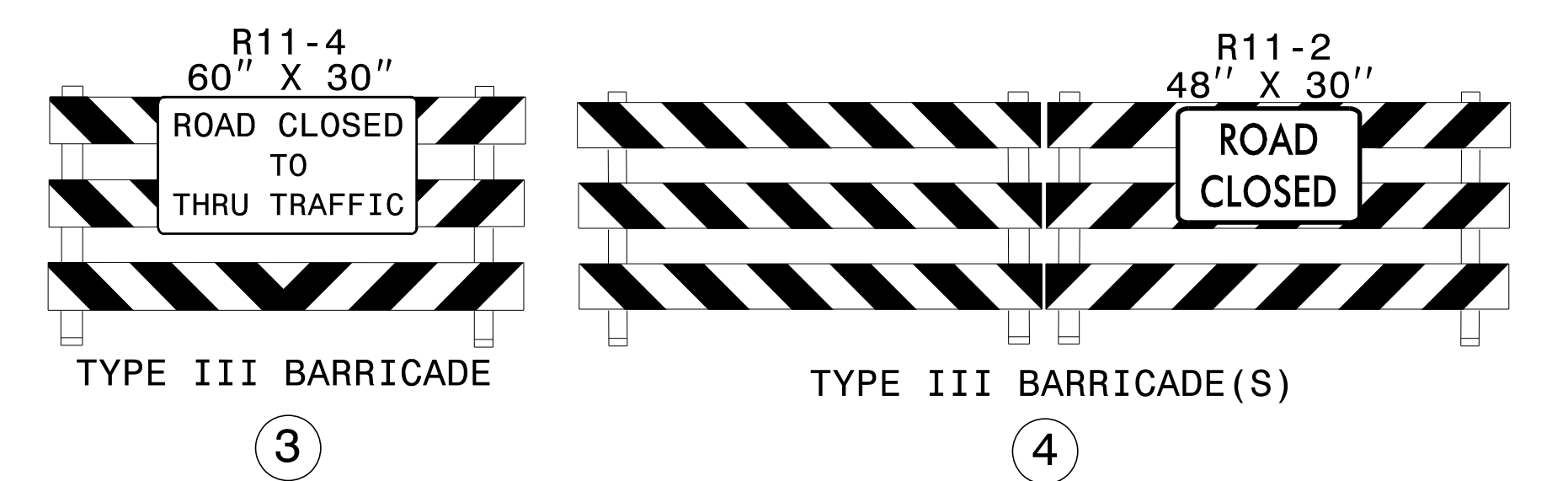
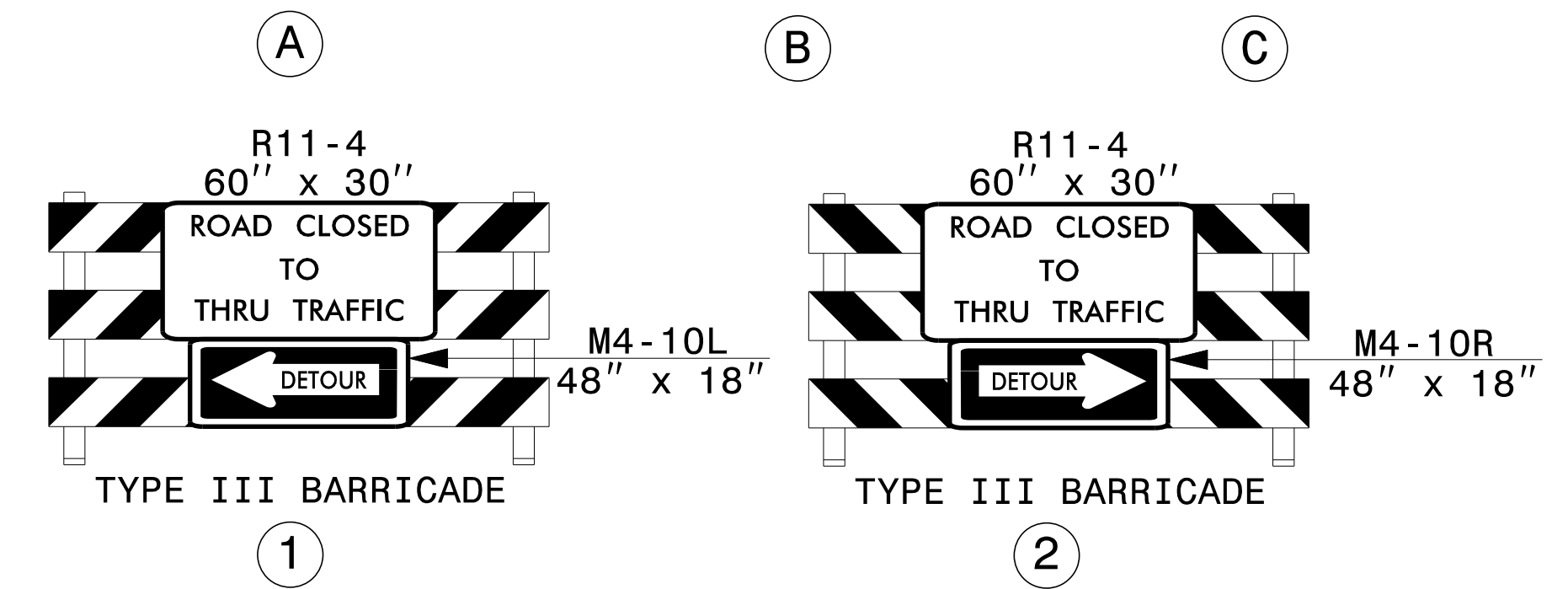
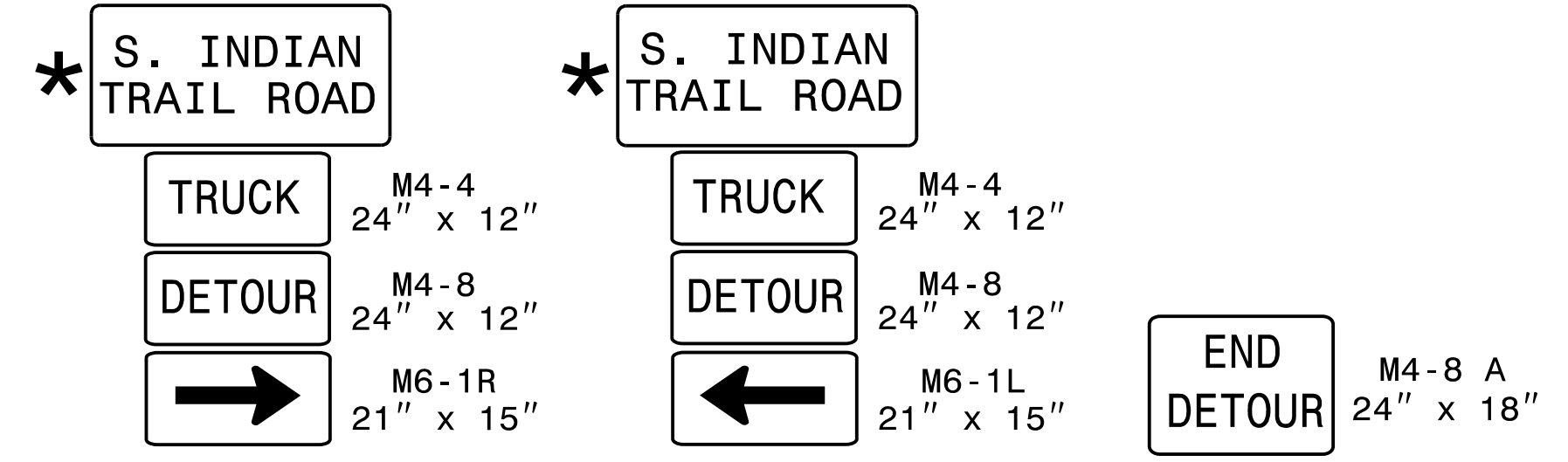


INSET "A"

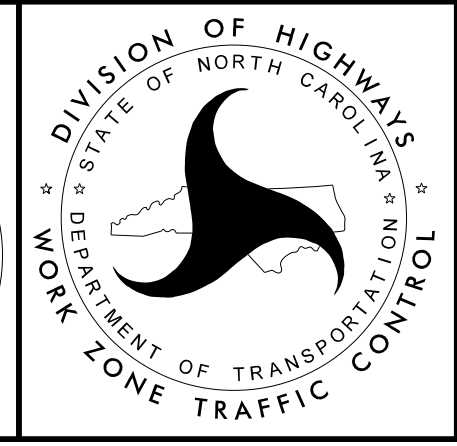


**\*\* SEE RSD 1101.03, SHEET 1 OF 9, FOR ADDITIONAL WORK ZONE SIGNS AND LOCATIONS**

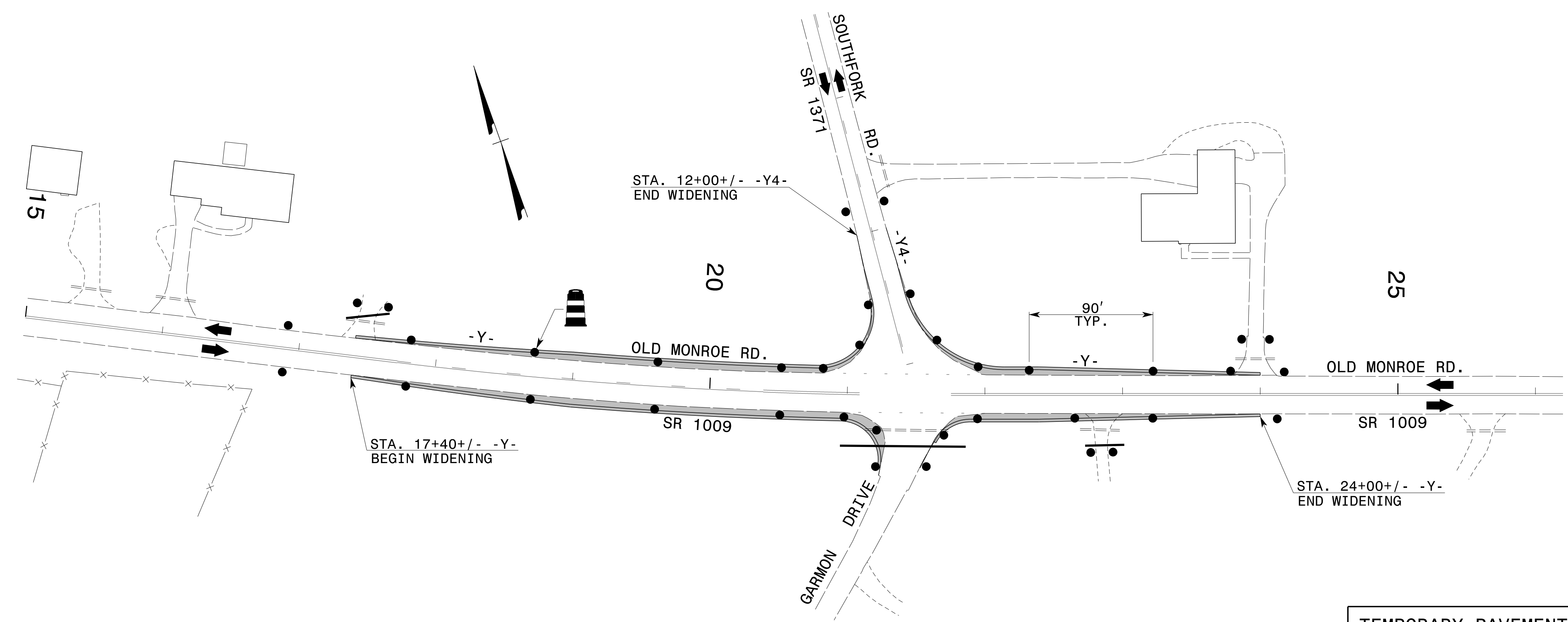
**\* SEE SHEET TMP-2 FOR SIGN DESIGN**



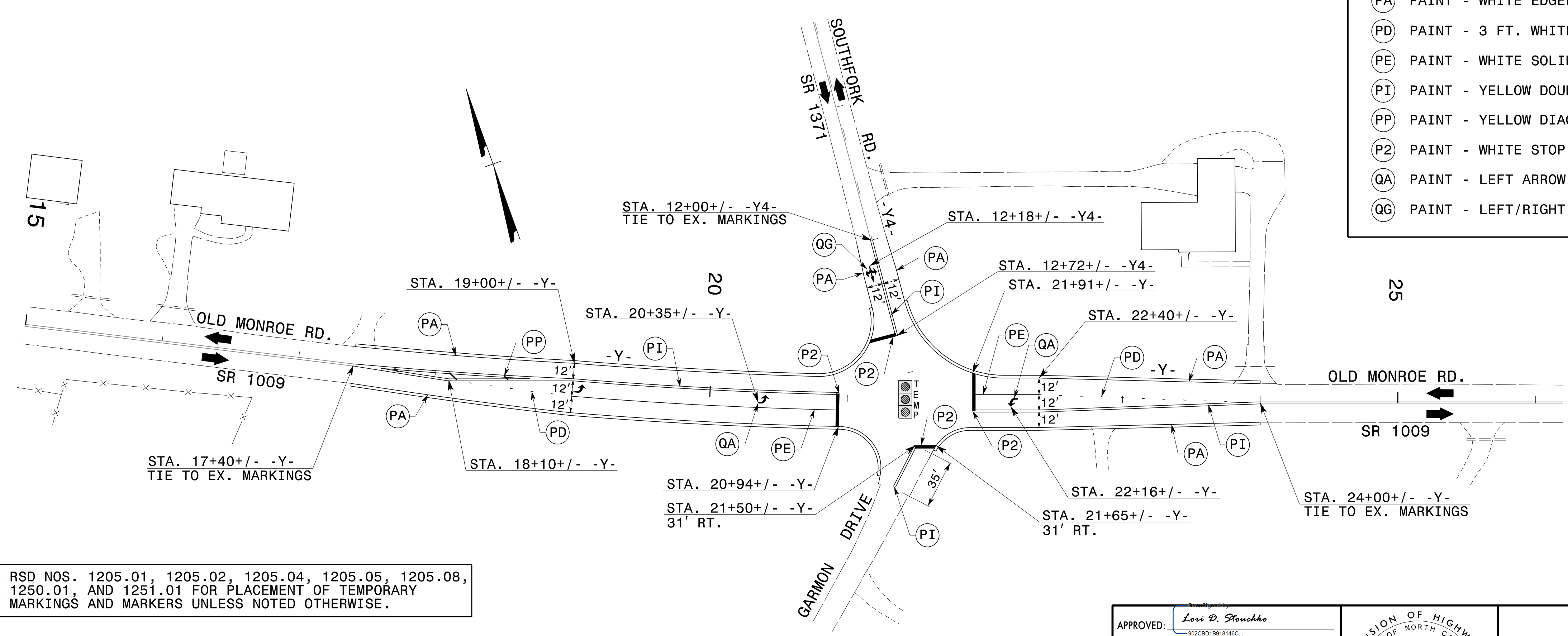
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 DATE: 10/22/2015



**TRUCK TRAFFIC  
 OFF-SITE DETOUR  
 S. INDIAN TRAIL ROAD  
 SR 1008**



TEMPORARY PAVEMENT MARKING LEGEND	
(PA)	PAINT - WHITE EDGELINE - (4")
(PD)	PAINT - 3 FT. WHITE MINISKIP - (4")
(PE)	PAINT - WHITE SOLID LANE LINE - (4")
(PI)	PAINT - YELLOW DOUBLE CENTER - (4")
(PP)	PAINT - YELLOW DIAGONAL - (8")
(P2)	PAINT - WHITE STOP BAR - (24")
(QA)	PAINT - LEFT ARROW
(QG)	PAINT - LEFT/RIGHT/STRAIGHT ARROW



REFER TO RSD NOS. 1205.01, 1205.02, 1205.04, 1205.05, 1205.08, 1205.09, 1250.01, AND 1251.01 FOR PLACEMENT OF TEMPORARY PAVEMENT MARKINGS AND MARKERS UNLESS NOTED OTHERWISE.

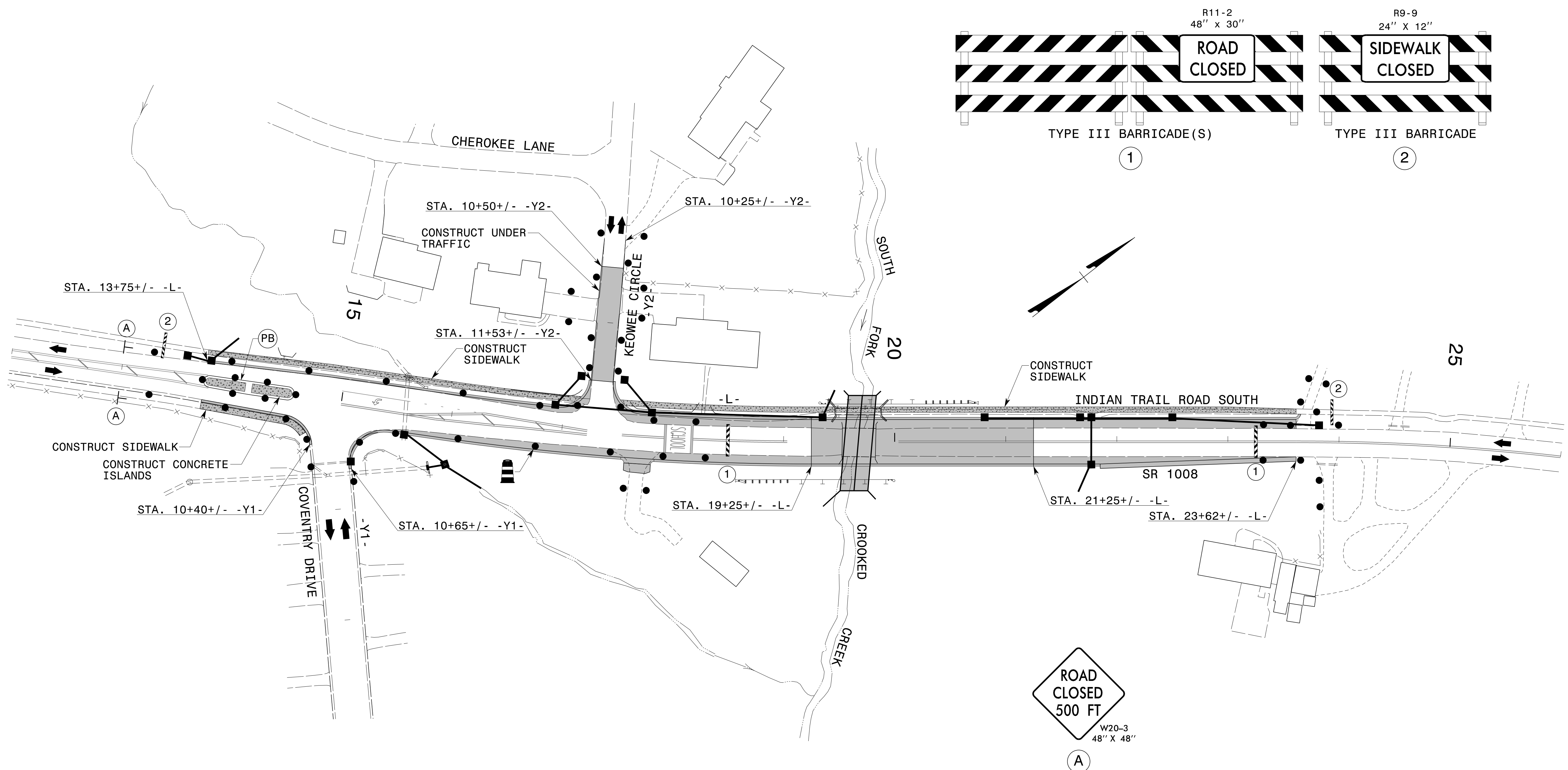
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 DATE: 10/22/2015



PHASE I DETAILS

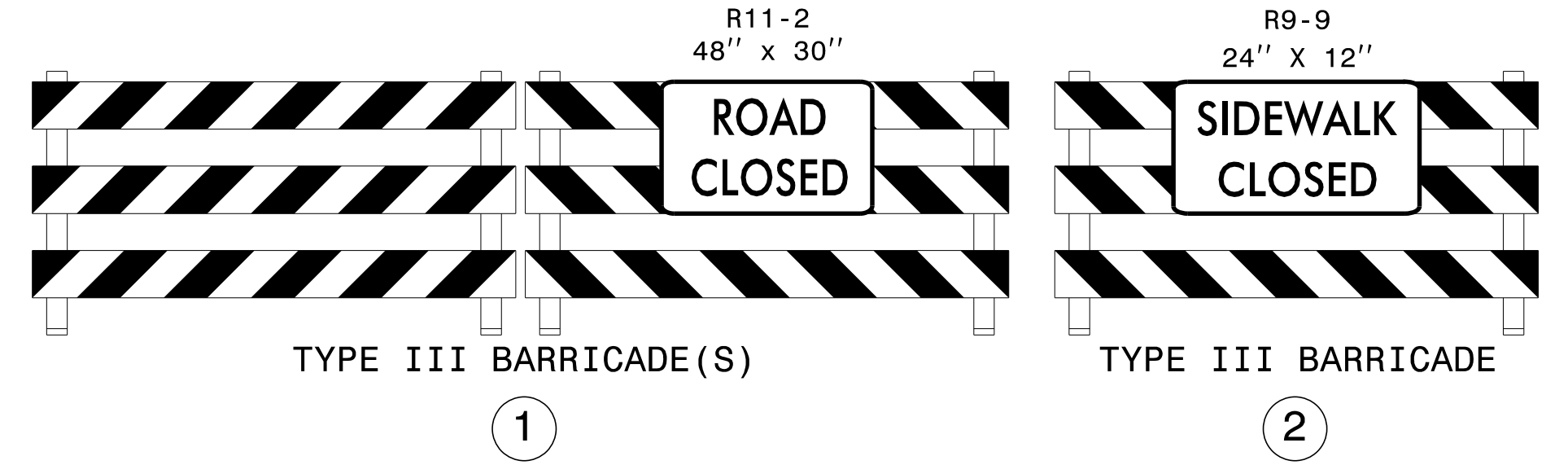
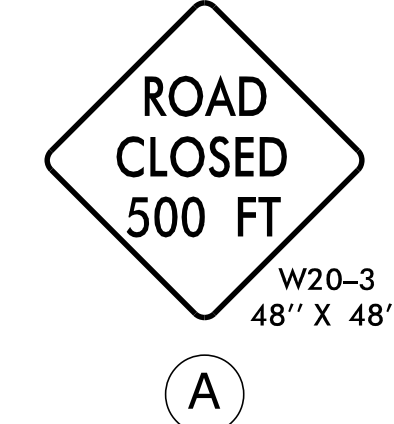
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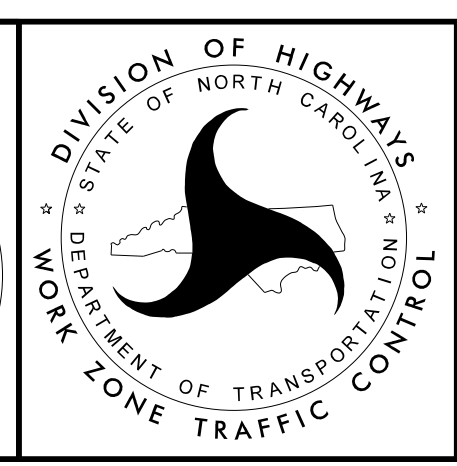


TEMPORARY PAVEMENT MARKING LEGEND	
(PB)	PAINT - YELLOW EDGELINE - (4")

REFER TO RSD NOS. 1205.01, 1205.02, 1205.12, 1250.01, AND 1251.01 FOR PLACEMENT OF TEMPORARY PAVEMENT MARKINGS AND MARKERS UNLESS NOTED OTHERWISE.



APPROVED: *Lori D. Stouchko*  
DATE: 10/22/2015



PHASE II DETAILS

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