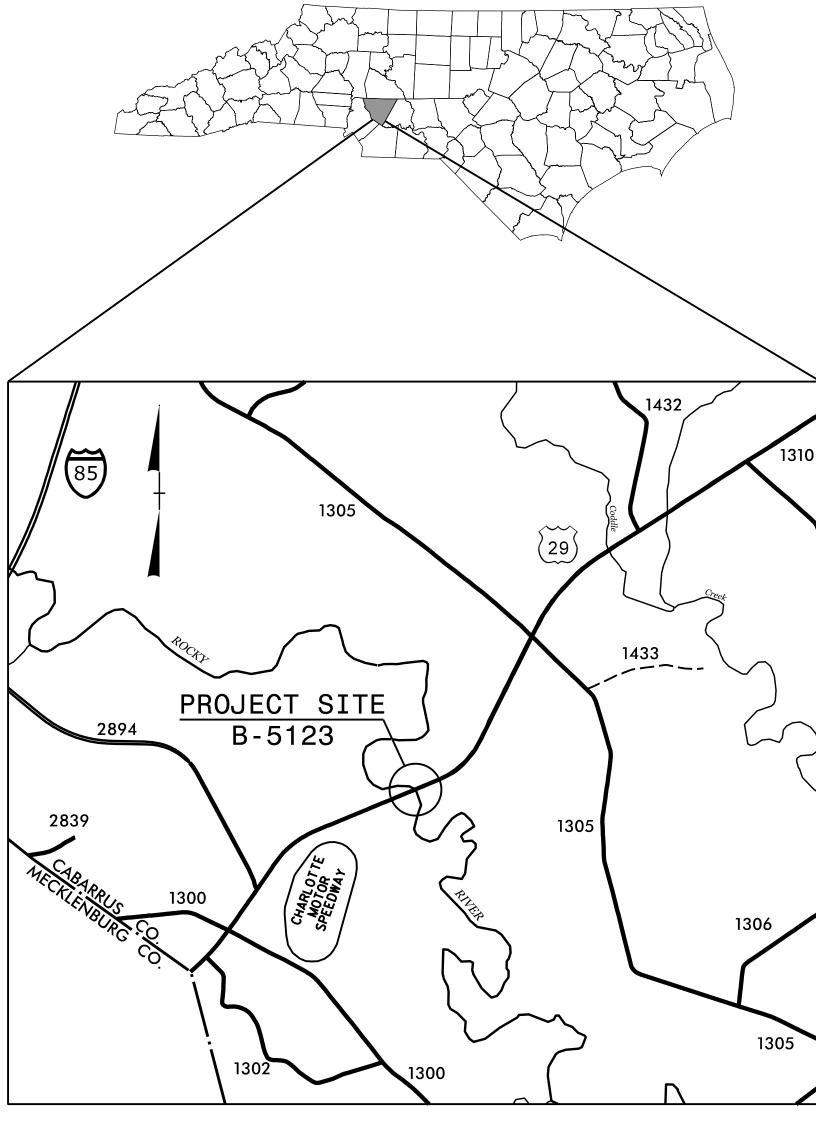
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VICINITY MAP

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

ROGER M. GARRETT

TRAFFIC CONTROL DESIGN ENGINEER



# INDEX OF SHEETS

SHEET NO.

<u>TITLE</u> TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS TMP-1

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND TMP-1A

TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES) TMP-1B & TMP-1C

PORTABLE CONCRETE BARRIER AT TEMPORARY TMP-2

SHORING LOCATIONS

TMP-2A TEMPORARY SHORING DATA

TMP-2B TRAFFIC CONTROL SAFETY FENCE FOR PEDESTRIAN

DETOUR AND SAFETY

TMP-3 TEMPORARY TRAFFIC CONTROL PHASING

TEMPORARY TRAFFIC CONTROL PHASE 1 DETAILS TMP-4 & TMP-5 TMP-6 & TMP-7 TEMPORARY TRAFFIC CONTROL PHASE 2 DETAILS TEMPORARY TRAFFIC CONTROL PHASE 3 DETAILS TMP-8 TO TMP-11 TMP-12 TO TMP-17 TEMPORARY TRAFFIC CONTROL PHASE 4 DETAILS

TMP-18 TO TMP-21 TEMPORARY TRAFFIC CONTROL PHASE 5 DETAILS

BENJAMIN SCHOENBAUER, P.E. TRAFFIC CONTROL PROJECT ENGINEER CHRIS HARNDEN

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APPROVED: Ben Schoenbeuer
984F9EEC53BC49E...

**DATE:** 1/29/2016

SEAL



WORK ZONE SAFETY & MOBILITY "from the MOUNTAINS to the COAST"

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

J. W. WOOLARD, P.E. TRAFFIC CONTROL PROJECT ENGINEER

TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER

SHEET NO.

TMP-1

N

M

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
1101.11	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
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
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
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

# **LEGEND**

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SHEET NO.

PROJ. REFERENCE NO.

# GENERAL

DIRECTION OF TRAFFIC FLOW

DIRECTION OF PEDESTRIAN TRAFFIC FLOW

——— EXIST. PVMT.

────── NORTH ARROW

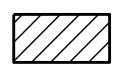
— PROPOSED PVMT.

TEMP. SHORING (LOCATION PURPOSES ONLY)

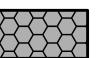
WORK AREA

CONTINUING CONSTRUCTION

REMOVAL



WEDGING



TEMPORARY PAVEMENT

## TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

SKINNY DRUM 

TUBULAR MARKER

O

TUBULAR MARKER

TEMPORARY CRASH CUSHION FLASHING ARROW PANEL (TYPE C)



FLAGGER



LAW ENFORCEMENT



TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)



CHANGEABLE MESSAGE SIGN

# TEMPORARY SIGNING

TEMPORARY SIGNING (INSTALLED PREVIOUS PHASE)

PORTABLE SIGN STATIONARY SIGN

PORTABLE SIGN ... STATIONARY SIGN

STATIONARY OR PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

# SIGNALS







# PAVEMENT MARKINGS

——EXISTING LINES ——TEMPORARY LINES

# PAVEMENT MARKERS

CRYSTAL/CRYSTAL

CRYSTAL/RED YELLOW/YELLOW

# PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

# TEMPORARY PAVEMENT MARKING

8" WHITE 3'-9'/SP. MINI-SKIP (COLD APPLIED PLASTIC)

4" WHITE EDGE LINE (COLD APPLIED PLASTIC)

4" YELLOW EDGE LINE (COLD APPLIED PLASTIC)

4" WHITE 10'-30'/SP. SKIP (COLD APPLIED PLASTIC)

4" WHITE LANE LINE (COLD APPLIED PLASTIC)

CRYSTAL/RED TEMPORARY RAISED MARKERS

8" WHITE 3'-9'/SP. MINI-SKIP (PAINT)

4'' WHITE 2'-6'/SP. MINI-SKIP (PAINT)

4" YELLOW 2'-6'/SP. MINI-SKIP (PAINT)

4" WHITE EDGE LINE (PAINT)

4" YELLOW EDGE LINE (PAINT)

4" WHITE 10'-30'/SP. SKIP (PAINT)

4" WHITE 3'-9'/SP. MINI-SKIP (PAINT)

4" WHITE LANE LINE (PAINT)

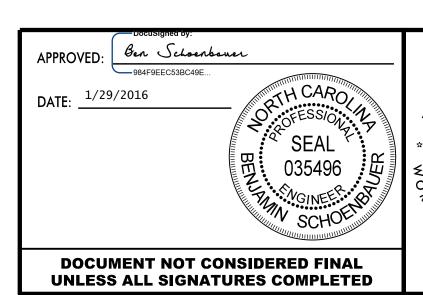
4" DOUBLE YELLOW CENTER (PAINT)

8" WHITE LANE LINE (PAINT)

LEFT ARROW (PAINT)

RIGHT ARROW (PAINT)

ALPHANUMERIC CHARACTER (PAINT)





ROADWAY STANDARD DRAWINGS & LEGEND THE PRIMARY TRAFFIC MANAGEMENT STRATEGY FOR THIS PROJECT WILL BE THE USE OF AN ON-SITE DETOUR WITH A TEMPORARY BRIDGE.

A SECONDARY ON-SITE DETOUR WILL INCLUDE A MEDIAN CROSS-OVER.

ADDITIONAL STRATEGIES INCLUDE TEMPORARY PEDESTRIAN DETOURS. LANE CLOSURES. FLAGGING, TEMPORARY SHORING, TEMPORARY BARRIER AND COORDINATION WITH SPEEDWAY EVENTS.

AN OFF-SITE DETOUR WILL BE USED TO RECONSTRUCT THE SERVICE ROAD AND REMOVE THE DETOUR BRIDGE.

# 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

US 29

6:00AM-7:00PM MONDAY-FRIDAY

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

ROAD NAME

US 29, SERVICE ROAD

### 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 6:00AM DECEMBER 31st AND 7:00PM JANUARY 2nd. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00PM THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00AM THURSDAY AND 7:00PM MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY AND 7:00PM TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00AM JULY 3rd AND 7:00PM JULY 5th. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00PM THE TUESDAY AFTER INDEPENDENCE
- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY AND 7:00PM TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00AM TUESDAY AND 7:00PM MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR ANY RACE EVENTS AT THE CHARLOTTE MOTOR SPEEDWAY, ZMAX DRAGWAY, OR THE DIRT TRACK BETWEEN THE HOURS OF 6:00AM THE WEDNESDAY BEFORE THE FIRST TRACK EVENT UNTIL 7:00PM THE DAY AFTER THE LAST TRACK EVENT.
- 10. FOR THE CHARLOTTE AUTO FAIR, BETWEEN THE HOURS OF 6:00AM THE WEDNESDAY OF THE WEEK OF THE FAIR UNTIL 6:00AM THE FOLLOWING MONDAY AFTER THE FAIR.

# GENERAL NOTES (CONTINUED)

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C) DO NOT STOP TRAFFIC AS FOLLOWS:

US 29

DAY AND TIME RESTRICTIONS ROAD NAME

MONDAY - SUNDAY

6:00AM-7:00PM

OPERATION FIFTEEN (15) MINUTES

**DURATION AND** 

TRAFFIC SHIFTS

D) TEMPORARILY SUSPEND ALL WORK OPERATIONS AS FOLLOWS:

FOR EACH PERIOD DESCRIBED BELOW, NO WORK OPERATIONS, LANE CLOSURES, OR ANY DISRUPTION TO TRAFFIC SHALL BE PERMITTED. MOVE ALL EQUIPMENT TO CONSTRUCTION STAGING AREAS, ACCEPTABLE TO THE ENGINEER. PROVIDE PARKING AREAS FOR EVENTS.

- 1. FOR THE COCA-COLA 600 RACE EVENT, THE CONTRACTOR SHALL SUSPEND ALL WORK OPERATIONS BY 12:00AM THE SATURDAY TWO WEEKS BEFORE THE DAY OF THE EVENT AND RESUME WORK OPERATIONS AT 6:00AM THE FOLLOWING TUESDAY AFTER THE EVENT.
- 2. FOR THE BANK OF AMERICA 500 RACE EVENT, THE CONTRACTOR SHALL SUSPEND ALL WORK OPERATIONS BY 12:00AM THE SATURDAY ONE WEEK BEFORE THE DAY OF THE EVENT AND RESUME WORK OPERATIONS AT 6:00AM THE FOLLOWING MONDAY AFTER THE EVENT.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) 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.
- F) 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.
- G) 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.

- H) 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.
- I) 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.
- J) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 29.

Ben Schoenbauer APPROVED: 984F9EEC53BC49E... DATE: 3/1/2016 **DOCUMENT NOT CONSIDERED FINAL** 

**UNLESS ALL SIGNATURES COMPLETED** 

TRANSPORTATION **OPERATIONS** PLAN

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) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

- N) 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.
- O) 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.

P) 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.
- R) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

### TRAFFIC BARRIER

S) 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.

# GENERAL NOTES (CONTINUED)

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

### TRAFFIC CONTROL DEVICES

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

### PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER		
US 29 (ASPHALT) US 29 (CONCRETE)	PAINT COLD APPLIED PLASTIC TYPF IV	TEMPORARY RAISED TEMPORARY RAISED		

- Y) 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.
- Z) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- AA) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- BB) TRACE THE MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION OF MONOLITHIC ISLANDS. PLACE TEMPORARY PAINT TO DELINEATE ANY MONOLITHIC ISLANDS.

### MISCELLANEOUS

- CC) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- DD) 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) 350 FT AND 350 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- EE) 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.

# GENERAL NOTES (CONTINUED)

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- 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.).
  - PROVIDE TWO (2) CHANGEABLE MESSAGE BOARDS FOR THE PROJECT, IN ADDITION TO THOSE REQUIRED IN THE ROADWAY STANDARD DRAWINGS AND THOSE SHOWN ON TMP PLAN SHEETS. FOR USE IN NOTIFYING MOTORISTS OF TRAFFIC OPERATIONS AND ALTERNATE ROUTES, AS DIRECTED BY THE ENGINEER.

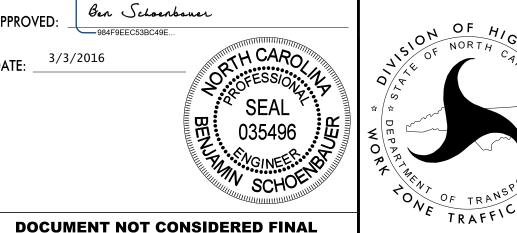
# LOCAL NOTES

COORDINATE WITH THE ENGINEER TO ENSURE THAT THE OVERSIZE OVERWEIGHT PERMIT UNIT IS NOTIFIED PRIOR TO SHIFTING SOUTHBOUND US 29 TRAFFIC ONTO THE TEMPORARY DETOUR STRUCTURE. COORDINATE WITH ENGINEER TO ENSURE THAT DIVISION FORCES INSTALL OVERSIZE RESTRICTIVE SIGNING PRIOR TO CHANGING THE TRAFFIC PATTERN. (SEE GENERAL NOTE M ON THIS SHEET)

> OVERSIZE/OVERWEIGHT UNIT CONTACT NUMBERS: (888)221-8166 OR (919)814-3700

- PROVIDE AND MAINTAIN PEDESTRIAN FENCE(S) TO SEPARATE PEDESTRIAN TRAFFIC FROM WORK AREAS.
- MAINTAIN ACCESS TO DRIVEWAY(S) AT ALL TIMES, AS DIRECTED BY LN3) ENGINEER.
- ENSURE COOPERATION WITH LAW ENFORCEMENT AND STATE FORCES IN CONNECTION WITH CHARLOTTE MOTOR SPEEDWAY EVENTS, AS DIRECTED BY ENGINEER.
- MAINTAIN ACCESS THROUGH SERVICE ROAD -SRVRD- FOR CHARLOTTE MOTOR SPEEDWAY SERVICE VEHICLES AT ALL TIMES, WITH THE EXCEPTION OF PHASE 5, STEP 2A, AS DIRECTED BY THE ENGINEER.





**UNLESS ALL SIGNATURES COMPLETED** 

APPROVED: \_ DATE: 3/3/2016

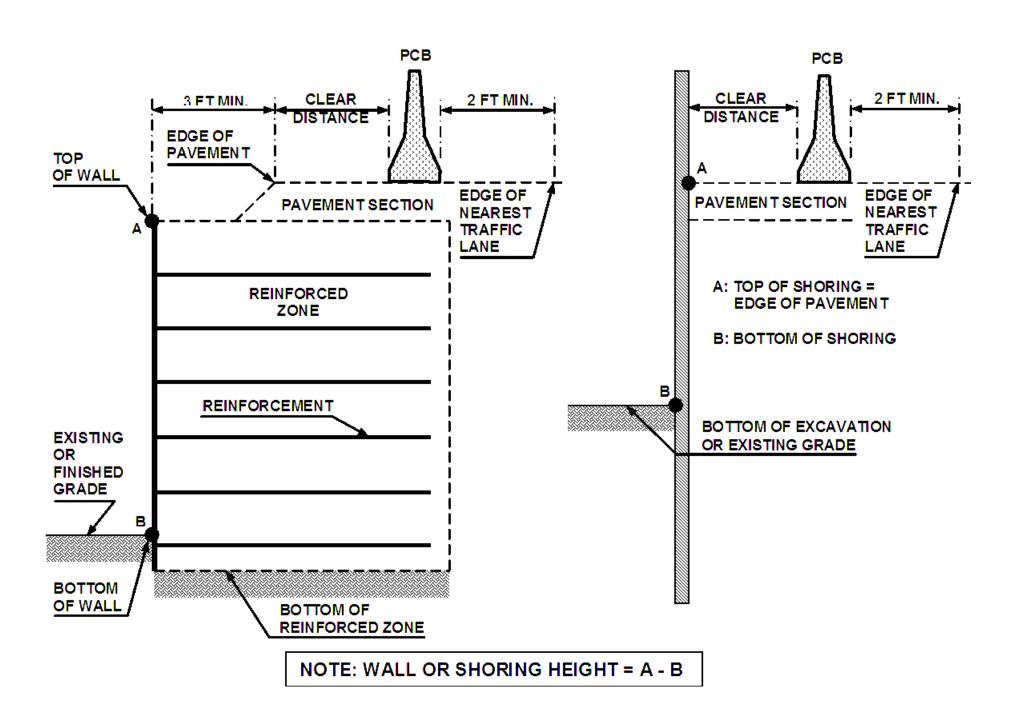


FIGURE A

**NOTES** 

1- REFER TO THE TRAFFIC CONTROL PLANS FOR TEMPORARY SHORING LOCATIONS AND NOTES.

- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR INFORMATION ABOUT TEMPORARY SHORING AND PORTABLE CONCRETE BARRIER (PCB).
- 3- PCB IS REQUIRED IF TEMPORARY SHORING IS LOCATED WITHIN THE CLEAR ZONE IN ACCORDANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- 4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED OR ANCHORED PCB FROM THE TABLE SHOWN IN FIGURE B. CLEAR DISTANCE IS DEFINED AS SHOWN IN FIGURE A AND OFFSET IS DEFINED AS SHOWN IN FIGURE B.
- 5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET PCB NEXT TO AND UP AGAINST THE TRAFFIC SIDE OF THE TEMPORARY SHORING EXCEPT FOR BARRIER ABOVE TEMPORARY WALLS. PCB WITH THE MINIMUM REQUIRED CLEAR DISTANCE IS REQUIRED ABOVE TEMPORARY WALLS.
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- PCB REQUIREMENTS FOR TEMPORARY WALLS APPLY TO TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS AND TEMPORARY SOIL NAIL WALLS.
- 8- SET PCB WITH A MINIMUM HORIZONTAL DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A UNLESS OTHERWISE SHOWN IN THE PLANS AND OR AS APPROVED BY THE ENGINEER.
- 9- FOR PCB ABOVE AND BEHIND TEMPORARY WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- 10- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200 FT IN LENGTH AND WET OR DRY PAVEMENT.

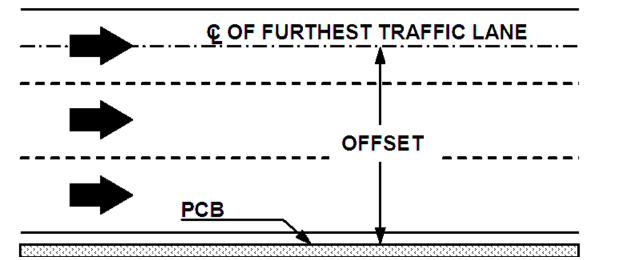
PROJ. REFERENCE NO.	SHEET NO.
B-5123	TMP-2

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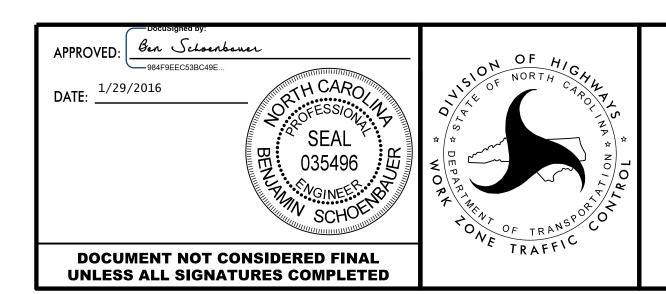
MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier	Pavement	Offset *	Design Speed, mph					
Type	Type	ft	<30	31-40	41-50	51-60	61-70	71-80
VI		<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
	Asphalt	26-32	29	32	36	39	42	45
	risphare	32-38	30	34	38	41	43	46
<b>8</b>		38-44	31	34	41	43	45	48
PCB		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
re		>56	32	36	42	45	47	51
<b>h</b> 0		<8	17	18	21	22	25	26
Unanchored		8-14	19	20	23	25	26	29
na		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
	Concrete	26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
		50-56	26	26	28	32	35	38
		>56	26	27	29	32	36	38
Anchored PCB	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

<sup>\*</sup> See Figure Below



# FIGURE B



PORTABLE CONCRETE BARRIER TEMPORARY SHORING LOCATIONS

Shoring Location No. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -LDET- 13+25±, 22 FT LEFT, TO STATION -LDET- 14+54±, 27 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma) = 120 \text{ LB/CF}$ FRICTION ANGLE (♠) = 30 DEGREES COHESION (C) = 0 LB/SFGROUNDWATER ELEVATION = 560 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -LDET- 13+25±, 22 FT LEFT, TO STATION -LDET- 14+54±, 27 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR\*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -LDET- 13+25±, 22 FT LEFT, TO STATION -LDET- 14+54±, 27 FT RIGHT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR RETAINING WALLS AND BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS AND BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

Shoring Location No. 2

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L- 19+38±, 1 FT LEFT. TO STATION -L- 20+60±, 1 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma) = 120 \text{ LB/CF}$ FRICTION ANGLE (♠) = 30 DEGREES COHESION (C) = 0 LB/SFGROUNDWATER ELEVATION = 560 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 19+38±, 1 FT LEFT, TO STATION -L- 20+60±, 1 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR\*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 19+38±, 1 FT LEFT, TO STATION -L- 20+60±, 1 FT LEFT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

WHEN BACKFILL FOR RETAINING WALLS AND BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS AND BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

Shoring Location No. 3

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION. SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L- 22+07±, 67 FT LEFT. TO STATION -L- 22+82±, 67 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma)$  = 120 LB/CF FRICTION ANGLE (♠) = 30 DEGREES COHESION (C) = 0 LB/SFGROUNDWATER ELEVATION = 560 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 22+07±, 67 FT LEFT, TO STATION -L- 22+82±, 67 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR\*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 22+07±. 67 FT LEFT. TO STATION -L- 22+82±, 67 FT LEFT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

WHEN BACKFILL FOR RETAINING WALLS AND BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS AND BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

Shoring Location No. 4

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

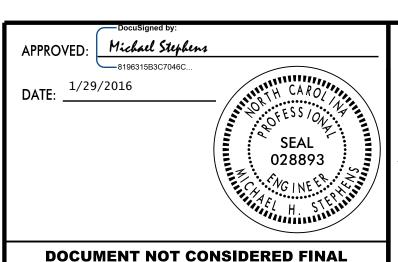
DESIGN TEMPORARY SHORING FROM STATION -L- 22+33±, 1 FT LEFT, TO STATION -L- 23+10±, 1 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma)$  = 120 LB/CF FRICTION ANGLE (♠) = 30 DEGREES COHESION (C) = 0 LB/SFGROUNDWATER ELEVATION = 560 FT

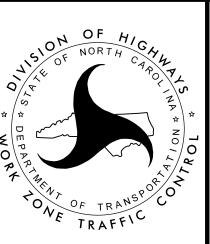
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 22+33±, 1 FT LEFT, TO STATION -L- 23+10±, 1 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 22+33±, 1 FT LEFT, TO STATION -L- 23+10±, 1 FT LEFT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

WHEN BACKFILL FOR RETAINING WALLS AND BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS AND BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.



**UNLESS ALL SIGNATURES COMPLETED** 



TEMPORARY SHORING NOTES

PROJ. REFERENCE NO.

B-5123

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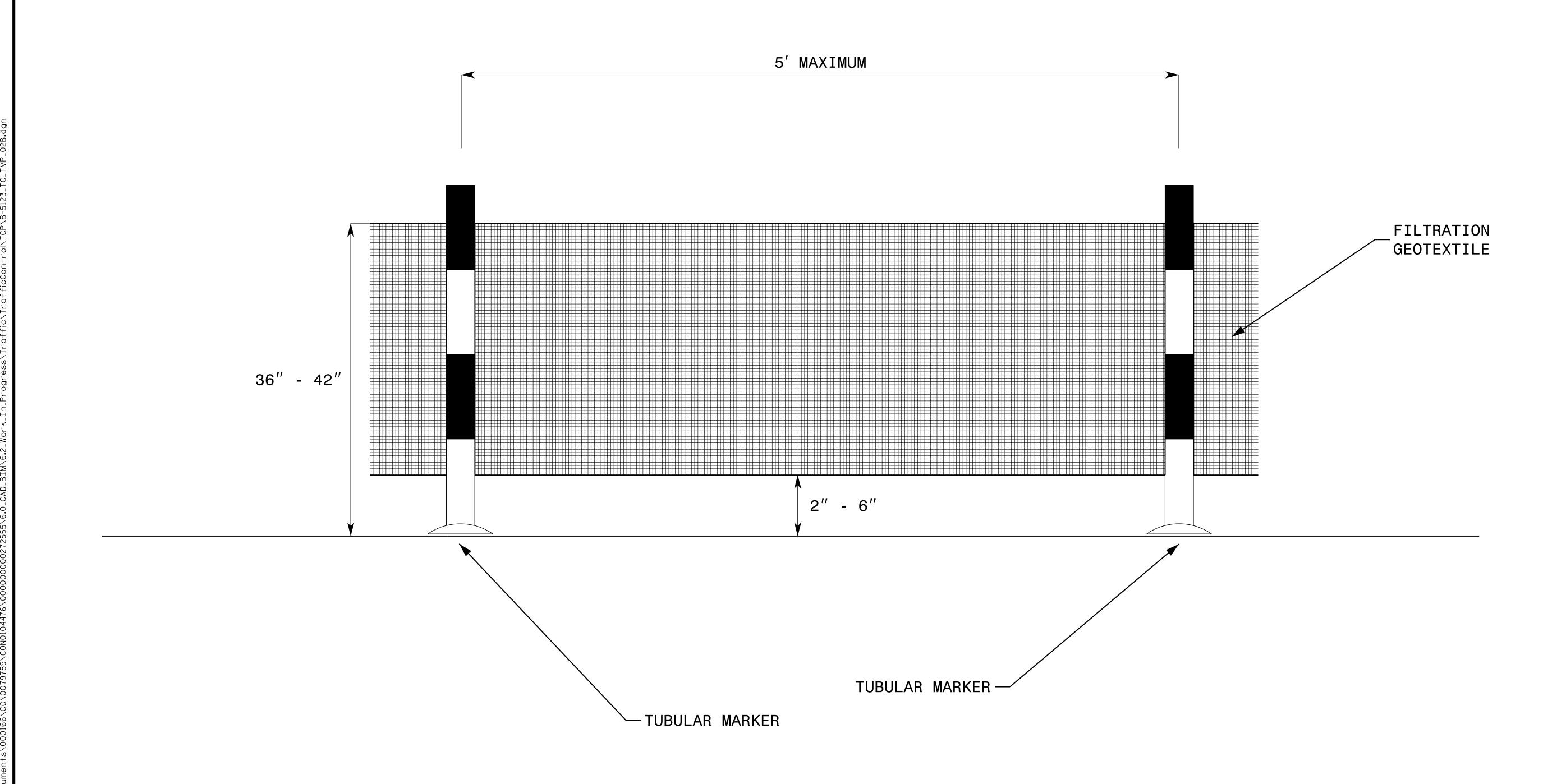
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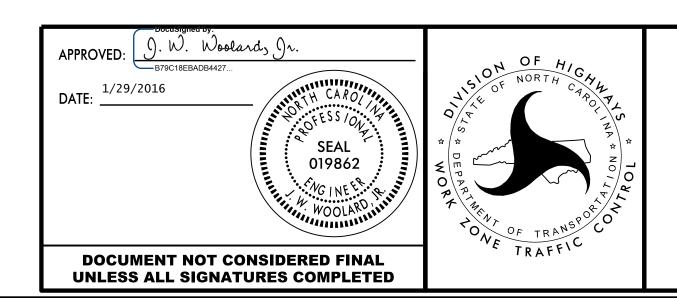
TMP-2A

PROJ. REFERENCE NO. SHEET NO.

B-5123 TMP-2B

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TRAFFIC CONTROL SAFETY
FENCE FOR PEDESTRIAN
DETOUR AND SAFETY

### NOTES:

INSTALL WORK ZONE ADVANCE WARNING SIGNS USING RSD 1101.01, SHEET 2 OF 3 PRIOR TO BEGINNING ANY WORK. (SEE GENERAL NOTE N ON SHEET TMP-1C)

RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER. (SEE LOCAL NOTE LN3 ON SHEET TMP-1C)

MAINTAIN PEDESTRIAN ACCESS AND TRAFFIC ALONG US 29 AND SERVICE ROAD AT ALL TIMES UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER. (SEE GENERAL NOTE FF ON SHEET TMP-1C AND LOCAL NOTE LN2 ON SHEET TMP-1C)

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE.

LAW ENFORCEMENT MAY BE USED FOR TRAFFIC SHIFTS, IN ADDITION TO TRAFFIC CONTROL STATED IN THE PHASING BELOW.

CONTRACTOR SHALL COOPERATE WITH LAW ENFORCEMENT AND STATE FORCES FOR EVENTS AT CHARLOTTE MOTOR SPEEDWAY, AS DIRECTED BY ENGINEER. (SEE LOCAL NOTE LN4 ON SHEET TMP-1C)

### PHASE 1

### STEP 1:

USING LANE CLOSURES AND SHOULDER CLOSURES (RSD 1101.02, SHEET 3 OF 15 AND 1101.04), AS NECESSARY, PLACE DRUMS AND OTHER TRAFFIC CONTROL DEVICES FOR DETOUR -DET2- CONSTRUCTION.

USING LANE CLOSURES (RSD 1101.02, SHEET 1 OF 15), AS NECESSARY, PLACE WATER-FILLED BARRIER (WFB) ALONG BOTH SHOULDERS OF SERVICE ROAD FROM -SRVRD- STA. 12+00 TO -SRVRD- STA. 16+50 AND OTHER TRAFFIC CONTROL DEVICES FOR DETOUR -DET2- CONSTRUCTION. (SEE TMP-4)

### STEP 2:

AWAY FROM TRAFFIC, CONSTRUCT DETOUR -DET2- FROM -DET2- STA. 11+07.50+/TO -DET2- STA. 21+48+/-, INCLUDING TEMPORARY PAVEMENT, TEMPORARY SHORING
NO. 1, TEMPORARY GUARDRAIL, AND DETOUR BRIDGE.

USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 15), AS NECESSARY, CONSTRUCT DETOUR -DET2- ADJACENT TO TRAFFIC FROM -L- STA. 13+00+/- TO -L- STA. 30+00+/-, INCLUDING SHOULDER RECONSTRUCTION, WIDENING, AND TEMPORARY PAVEMENT. (SEE TMP-4 AND TMP-5)

### STEP 3:

AWAY FROM TRAFFIC, INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY RAISED MARKERS ALONG DETOUR -DET2-.

### PHASE 2

### STEP 1:

USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 15), AS NECESSARY, SHIFT SB TRAFFIC TO DETOUR -DET2-, COMPLETE TEMPORARY PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS, INSTALL PORTABLE CONCRETE BARRIER (PCB) WITH CRASH CUSHION (CC) ALONG -DET2- FROM -DET2- STA. 18+20+/- TO -DET2- STA. 21+50+/- PLACE DRUMS AND OTHER TRAFFIC CONTROL DEVICES, INCLUDING 2 CMS AND WARNING SIGNS FOR DETOUR PATTERN AND ADVISORY SPEEDS, FOR PHASE 2 PATTERN. (SEE TMP-6 AND TMP-7)

# STEP 2:

AWAY FROM TRAFFIC, CONSTRUCT PROPOSED SOUTHBOUND (SB) LANES FROM -L- STA. 15+97+/- TO -L- STA. 25+70+/-, INCLUDING PROPOSED BRIDGE, ROADWAY PAVEMENT, TEMPORARY SHORING NOS. 2, 3, AND 4, TEMPORARY PAVEMENT FOR PHASE 3 PATTERN AND GUARDRAIL. (SEE TMP-6, TMP-7)

### STEP 3:

AWAY FROM TRAFFIC, BEGIN INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY RAISED MARKERS, WFB, AND OTHER TRAFFIC CONTROL DEVICES FOR PHASE 3 PATTERN. (SEE TMP-8 AND TMP-9)

### PHASE 3

### STEP 1:

USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 15), AS NECESSARY, SHIFT NORTHBOUND (NB) TRAFFIC TO PHASE 3 DETOUR PATTERN, COMPLETE TEMPORARY PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS, COMPLETE INSTALL WFB (-L- STA. 16+46+/- TO -L- STA. 26+84+/-), INSTALL ALL TEMPORARY PAVEMENT NECESSARY TO COMPLETE PEDESTRIAN DETOUR, INSTALL PEDESTRIAN FENCES (SEE LOCAL NOTE LN2 ON SHEET TMP-1C AND TMP-2B), AND SHIFT PEDESTRIAN TRAFFIC TO PEDESTRIAN PHASE 3 DETOUR. PLACE DRUMS AND OTHER TRAFFIC CONTROL DEVICES, INCLUDING 2 CMS AND WARNING SIGNS FOR DETOUR PATTERN AND ADVISORY SPEEDS, FOR PHASE 3 PATTERN. (SEE TMP-8 AND TMP-9)

### STEP 2:

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF PROPOSED NORTHBOUND (NB) LANES FROM -L- STA. 16+50+/- TO -L- STA. 24+00, INCLUDING PROPOSED BRIDGE, ROADWAY PAVEMENT, AND SIDEWALK. BEGIN CONSTRUCTION PAVEMENT WIDENING AND SIDEWALK FROM -L- STA. 24+00 TO -L- STA. 27+07+/-. (SEE TMP-8 AND TMP-9)

USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 15), AS NECESSARY, BEGIN CONSTRUCTION PAVEMENT WIDENING FROM -L- STA. 27+46+/- TO -L- STA. 30+00. (SEE TMP-9)

UPON COMPLETION OF PROPOSED NB BRIDGE AND SIDEWALK, SHIFT PEDESTRIAN TRAFFIC TO FINAL PATTERN OVER NB BRIDGE. REMOVE PEDESTRIAN FENCE FROM PREVIOUS PATTERN. REMOVE TEMPORARY SHORING NOS. 2 AND 4. (SEE TMP-10 AND TMP-11)

### INTERMEDIATE CONTRACT TIME #6:

THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION REQUIRED OF PHASE 3, STEP 3 AND PHASE 4, STEP 1 AS STATED BELOW FROM 7:00PM FRIDAY TO 6:00AM MONDAY.

THE CONTRACTOR SHALL NOT ELECT TO BEGIN PHASE 3, STEP 3 ON ANY HOLIDAY OR EVENT DESCRIBED IN GENERAL NOTE B.

(SEE TMP-1B AND INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

### STEP 3:

USING LANE CLOSURES (RSD 1101.02, SHEETS 3 AND 8 OF 15) AND DETOUR PATTERNS, CLOSE PARKING ENTRANCE FROM NB LANES (RSD 1101.03, SHEET 2 OF 9 AND TMP-10). COMPLETE CONSTRUCTION OF PAVEMENT WIDENING, RESURFACING AND WEDGING OF NB LANES FROM -L- STA. 13+00 TO -L- STA. 16+50 AND FROM -L- STA 24+00 TO -L- STA. 30+00. (SEE TMP-10 AND TMP-11)

AWAY FROM TRAFFIC, BEGIN INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY RAISED MARKERS FOR PHASE 4 PATTERNS. (SEE TMP-12 AND TMP-13)

### PHASE 4

### STEP 1:

USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 15), AS NECESSARY, SHIFT NB TRAFFIC TO PHASE 4, STEP 1 PATTERN, COMPLETE RESURFACING AND WEDGING OF NB LANES FOR PHASE 4, STEP 2 PATTERN, TEMPORARY PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS. PLACE DRUMS AND OTHER TRAFFIC CONTROL DEVICES FOR PHASE 4, STEP 2 PATTERN. (SEE TMP-12 AND TMP-13)

SHIFT NB TRAFFIC TO PHASE 4, STEP 2 PATTERN. (SEE TMP-14 AND TMP-15)

### STEP 2:

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF MEDIAN IMPROVEMENTS AND SB LANES, INCLUDING PAVEMENT RECONSTRUCTION, WIDENING, RESURFACING, WEDGING, PAVEMENT REMOVAL, AND RAISED CONCRETE ISLANDS FROM -L- STA. 13+00 TO -L- STA. 30+80+/-. (SEE TMP-14 AND TMP-15)

### PHASE 4 (CONTINUED)

### INTERMEDIATE CONTRACT TIME #7:

THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION REQUIRED OF PHASE 4, STEP 3 AND PHASE 5, STEP 1 AS STATED BELOW FROM 7:00PM FRIDAY TO 6:00AM MONDAY.

THE CONTRACTOR SHALL NOT ELECT TO BEGIN PHASE 4, STEP 3 ON ANY HOLIDAY OR EVENT DESCRIBED IN GENERAL NOTE B.

(SEE TMP-1B AND INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

### STEP 3:

USING LANE CLOSURES (RSD 1101.02, SHEETS 3 OF 15), COMPLETE CONSTRUCTION PAVEMENT WIDENING, RESURFACING AND WEDGING OF SB LANES FROM -L- STA. 13+00 TO -L- STA. 17+00+/- AND FROM -L- STA 24+55+/- TO -L- STA. 30+00.

AWAY FROM TRAFFIC, BEGIN INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY RAISED MARKERS FOR PHASE 5, STEP 1 PATTERN. (SEE TMP-16 AND TMP-17)

### PHASE 5

### STEP 1:

USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 15), AS NECESSARY, SHIFT SB TRAFFIC TO PHASE 5, STEP 1 PATTERN, COMPLETE WIDENING, WEDGING AND RESURFACING OF SB LANES, TEMPORARY PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS. PLACE DRUMS AND OTHER TRAFFIC CONTROL DEVICES FOR PHASE 5, STEP 2 PATTERN. (SEE TMP-18 AND TMP-19)

SHIFT SB TRAFFIC TO PHASE 5, STEP 2 PATTERN. (SEE TMP-20 AND TMP-21)

### STEP 2:

USING DETOUR SIGNS AS SHOWN IN PLANS, CLOSE SERVICE ROAD UNDER BRIDGE. (STEPS 2A AND 2B ARE CONCURRENT)
(SEE LOCAL NOTE LN5 ON SHEET TMP-1C)

### INTERMEDIATE CONTRACT TIME #8:

THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION REQUIRED OF PHASE 5, STEP 2A AS STATED BELOW IN 7 CONSECUTIVE DAYS.
(SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

### STEP 2A:

REMOVE THAT PORTION OF THE TEMPORARY DETOUR -DET2- ALIGNMENT (STRUCTURE) LYING DIRECTLY OVER THE SERVICE ROAD AND REOPEN TO TRAFFIC.

### STEP 2B:

AWAY FROM TRAFFIC REMOVE THE REMAINDER OF THE TEMPORARY DETOUR ALIGNMENT -DET2- INCLUDING TEMPORARY PAVEMENT, TEMPORARY SHORING NO. 3 AND TEMPORARY BRIDGE.(SEE TMP-20 AND TMP-21)

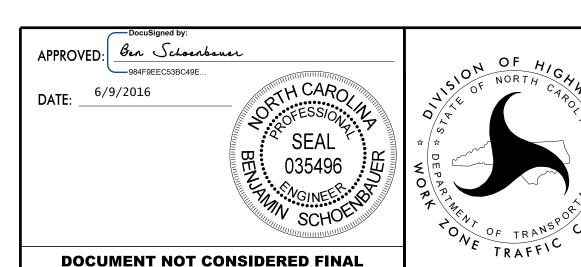
CONSTRUCT SERVICE ROAD, SB SIDEWALK ALONG US 29, AND ALL REMAINING IMPROVEMENTS. TEMPORARY SHORING NO. 1 SHALL BE MODIFIED FOR PROPOSED WALL.

USING LANE CLOSURES (RSD 1101.02, SHEETS 3 AND 8 OF 15), AS NECESSARY, PLACE FINAL SURFACE LAYER, FINAL PAVEMENT MARKINGS AND FINAL PAVEMENT MARKERS ON US 29.

(SEE ROADWAY PLANS, FINAL PAVEMENT MARKING PLANS, TMP-20 AND TMP-21)

### STEP 3:

OPEN ALL ROADS TO FINAL TRAFFIC PATTERNS AND REMOVE ALL TRAFFIC CONTROL SIGNS AND DEVICES.



**UNLESS ALL SIGNATURES COMPLETED** 



