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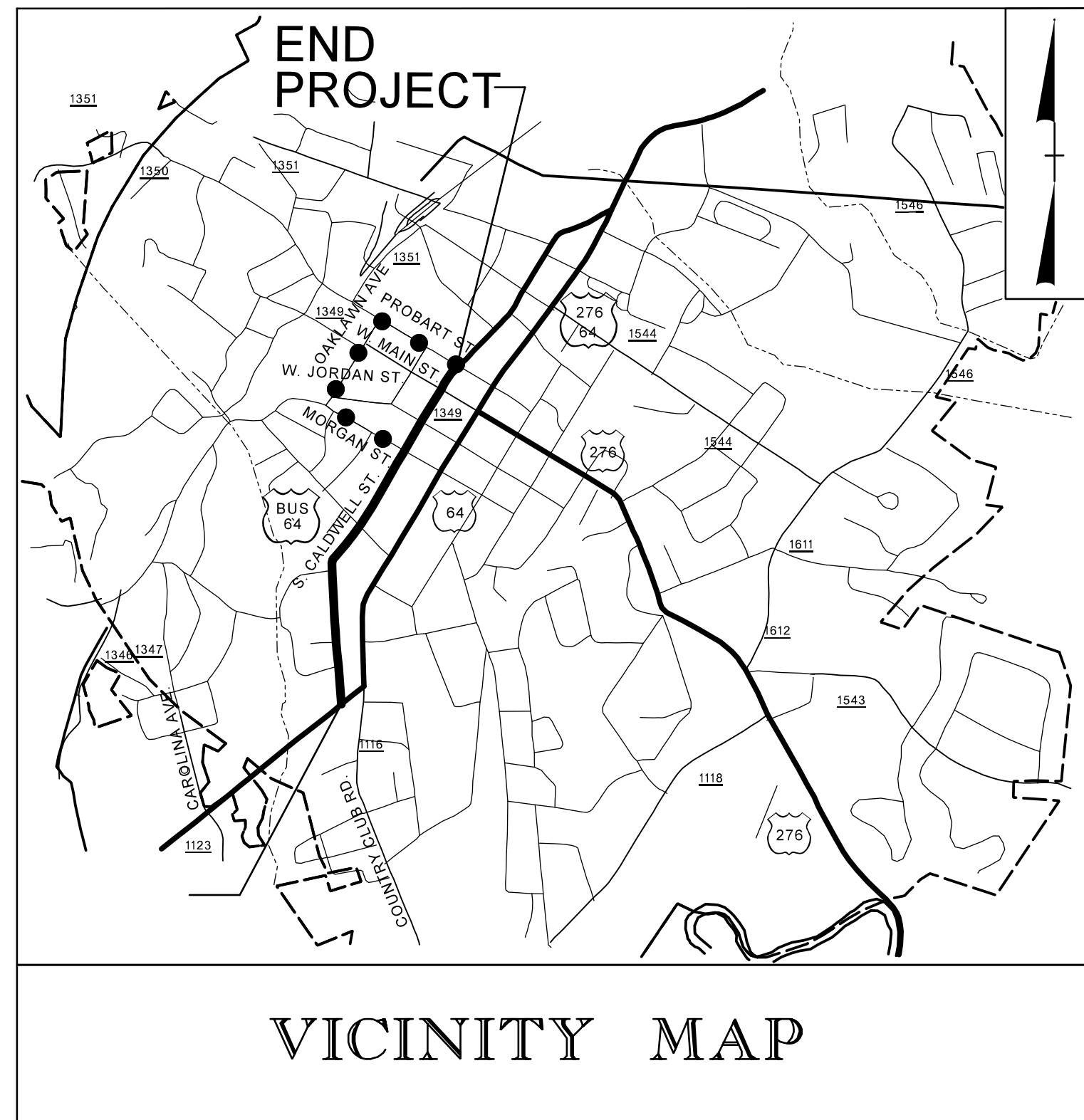
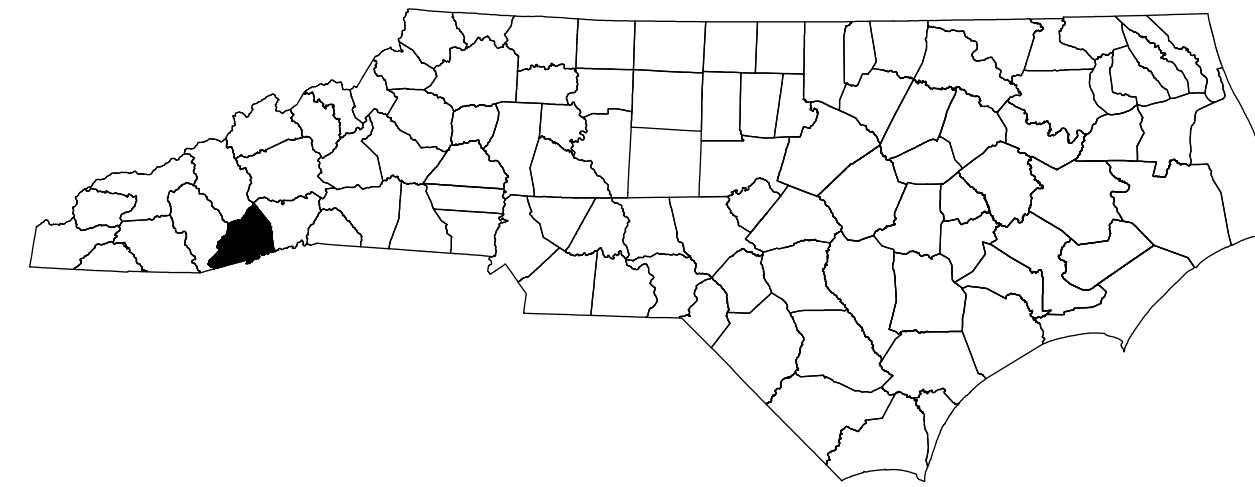
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

TRANSYLVANIA COUNTY



OFF-SITE DETOUR ROUTE
●●●●●●●●

LOCATION: CALDWELL STREET FROM BUS. 64 ROSMAN HIGHWAY (US 64) TO PROBART STREET

TYPE OF WORK: GRADING, DRAINAGE, EROSION CONTROL, PAVING, AND SIGNALS

INDEX OF SHEETS

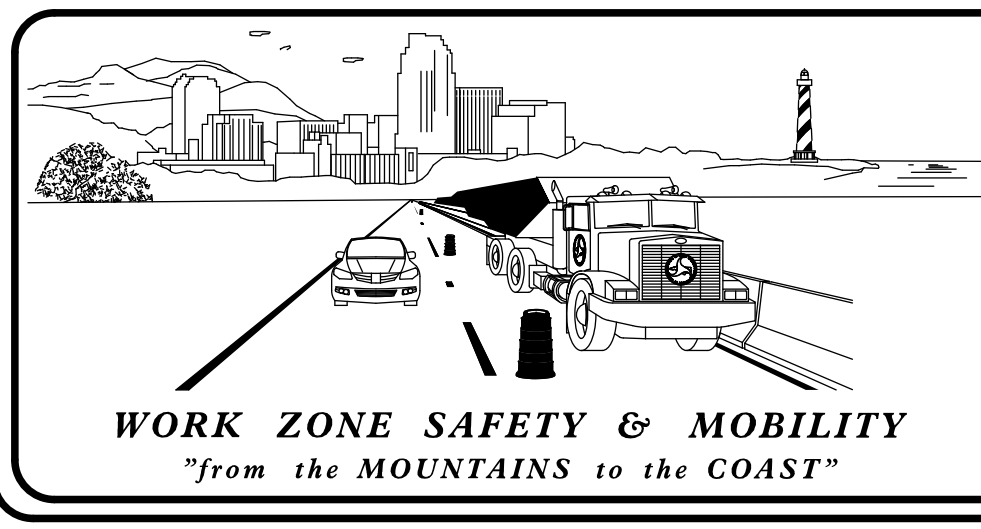
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING SCHEDULE
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES)
TMP-1C	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES AND PHASING)
TMP-2	TEMPORARY SHORING NOTES
TMP-3	SIGN DESIGN
TMP-4-6	PHASE I DETAILS
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SHEET NO.
TMP-1

U-5104

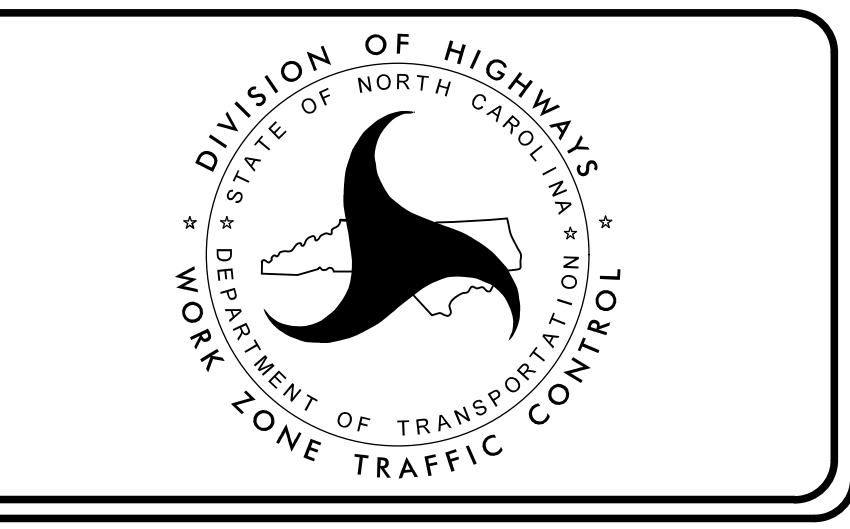
TIP PROJECT:

7/16/2015 7:46:00 AM C:\pcc\day\RO06_003_00 (Caldwell St. Improvements)\Traffic\TrafficControl\TCP-U-5104 TMP-1.dgn



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
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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
TRAFFIC CONTROL PROJECT DESIGN ENGINEER
TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: *Steve Miller*
DATE: 8/14/2015

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
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES - TYPE III
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 MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA
- REMOVAL
- WEDGING
- USER DEFINED (IF NEEDED)

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

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
	TEMPORARY PAVEMENT MARKINGS
	PAINT (4")
P8	2FT - 6FT/SP WHITE MINI SKIP
PA	WHITE EDGELINE
PI	YELLOW DOUBLE CENTER
	MARKERS
	TEMPORARY RAISED PAVEMENT MARKERS
MH	YELLOW & YELLOW

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SEPI ENGINEERING & CONSTRUCTION
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APPROVED: Steve Miller
 DATE: 8/14/2015
 SEAL

ROADWAY STANDARD DRAWINGS,
 LEGEND, & TEMPORARY
 PAVEMENT MARKING SCHEDULE

MANAGEMENT STRATEGIES

- MAINTAIN DRIVEWAY ACCESS WITHIN PROJECT LIMITS
- PROVIDE ONE MONTH NOTICE TO THE ENGINEER, TRANSYLVANIA COUNTY EMERGENCY SERVICES, AND TRANSYLVANIA COUNTY SCHOOL OFFICIALS PRIOR TO CONSTRUCTION

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
1 CALDWELL ST	MEMORIAL DAY TO LABOR DAY 10:00 P.M. THURSDAY TO 6:00 A.M. MONDAY MONDAY THROUGH THURSDAY 10:00 P.M. TO 6:00 A.M.
2 CALDWELL ST	LABOR DAY TO MEMORIAL DAY 10:00 P.M. FRIDAY TO 6:00 A.M. SATURDAY 10:00 P.M. SATURDAY TO 6:00 A.M. MONDAY MONDAY THROUGH FRIDAY 4:00 P.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY 10:00 P.M. TO 6:00 A.M.

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

ROAD NAME
CALDWELL STREET

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR CHRISTMAS AND NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 18TH AND 10:00 P.M. JANUARY 4TH.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 10:00 P.M. TUESDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY TO 10:00 P.M. TUESDAY.
5. 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 10:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A TUESDAY, WEDNESDAY, OR THURSAY THEN BETWEEN THE HOURS OF 12:00 P.M. THE FRIDAY BEFORE INDEPENDENCE DAY AND 8:00 A.M. THE MONDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY BEFORE LABOR DAY AND 10:00 P.M. TUESDAY AFTER LABOR DAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 10:00 P.M. MONDAY.
8. FOR STREET EVENTS HELD BY THE CITY OF BREVARD - DATES AND TIMES TO BE COORDINATED WITH THE ENGINEER.
9. FOR THE HIGH ACTIVITY DAYS OF BREVARD COLLEGE - DATES AND TIMES TO BE COORDINATED WITH THE ENGINEER.

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.
- 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 TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- H) DO NOT INSTALL MORE THAN 800 FT OF LANE CLOSURE ON CALDWELL ST MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- I) DO NOT INSTALL MORE THAN 2 SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON CALDWELL STREET.
- J) PROVIDE A MINIMUM OF 800 FT BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.

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

TRAFFIC PATTERN ALTERATIONS

- M) NOTIFY THE ENGINEER ONE MONTH 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.
- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC BARRIER

- R) 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.

- S) 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

- T) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUM), 1135 (CONES) AND 1180 (SKINNY-DRUM) FOR ADDITIONAL REQUIREMENTS.
- U) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- V) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

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DATE: 8/14/2015
SEAL

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

GENERAL NOTES (CONT.)

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
CALDWELL STREET	PAINT	TEMPORARY RAISED

- X) 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.
- Y) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Z) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- AA) PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

- BB) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- CC) 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.
- DD) 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.).

PHASING

PHASE I

- STEP 1: USING RSD 1101.01, SHEETS 2 AND 3 OF 3, INSTALL ADVANCE WARNING SIGNS ON -L- LINE AND ALL -Y- LINES.
 - STEP 2: USING RSD 1101.02, SHEET 1 OF 15, INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-5 AND SHIFT TRAFFIC TO THE TEMPORARY PATTERN.
 - STEP 3: USING RSD 1101.02, SHEET 1 OF 15, INSTALL PORTABLE CONCRETE BARRIER (PCB) FROM -L- STA 10+45 TO 13+13 AND FROM 20+10 TO 22+00. INSTALL TEMPORARY SHORING LOCATION 1 AND TEMPORARY SHORING LOCATION 2. BEGIN -L- AND -Y- LINE CONSTRUCTION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. REMOVE PCB WHEN A HAZARD NO LONGER EXISTS. -Y- LINES MAY BE CLOSED USING RSD 1101.03 AS SHOWN IN THE EXAMPLE ON TMP-8 IN ORDER TO CONSTRUCT CROSSWALKS ACROSS THE -Y- LINES.
- COMPLETE STEP 4 IN THE TIME INDICATED IN THE ICT. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 4: USING RSD 1101.03 SHEETS 1 AND 2 OF 9, CLOSE CALDWELL STREET AND DETOUR TRAFFIC OFF SITE AS SHOWN ON TMP-7. PLACE SIGNALS IN FLASH MODE. CONSTRUCT ALL CROSSWALKS ACROSS CALDWELL STREET.

- STEP 5: USING RSD 1101.02, SHEET 1 OF 15, COMPLETE -L- AND -Y- LINE CONSTRUCTION INCLUDING THE FINAL LAYER OF SURFACE COURSE. INSTALL FINAL PAVEMENT MARKINGS AS SHOWN ON THE PAVEMENT MARKING PLANS. SHIFT TRAFFIC TO THE FINAL PATTERN.
- STEP 6: REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

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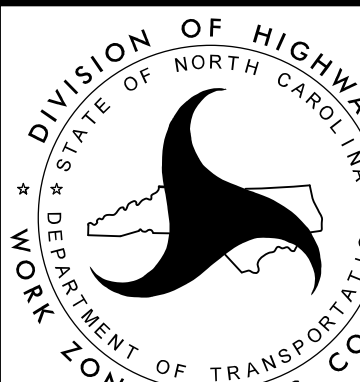


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DATE: 8/14/2015

SEAL

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

**TRANSPORTATION
OPERATIONS
PLAN**

TEMPORARY SHORING NOTES

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 -L- 10+50 ±, 20.0' (LT), TO STATION -L- 13+50 ±, 20.0' (LT), FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = UNKNOWN

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 10+50 ±, 20.0' (LT), TO STATION -L- 13+50 ±, 20.0' (LT). 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- 10+50 ±, 20.0' (LT), TO STATION -L- 13+50 ±, 20.0' (LT). SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 10+50 ±, 20.0' (LT), TO STATION -L- 13+50 ±, 20.0' (LT). FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

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+50 ±, 17.1' (RT), TO STATION -L- 22+00 ±, 17.1' (RT), FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (C) = 0 LB/SF
 GROUNDWATER ELEVATION = 2174 FT

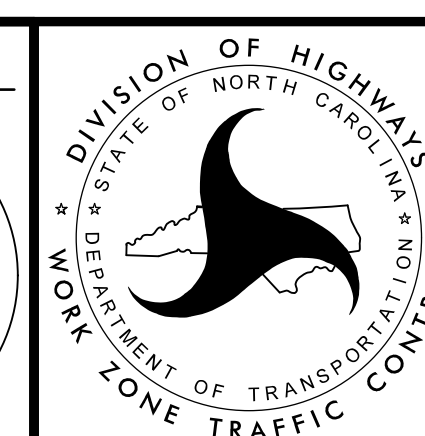
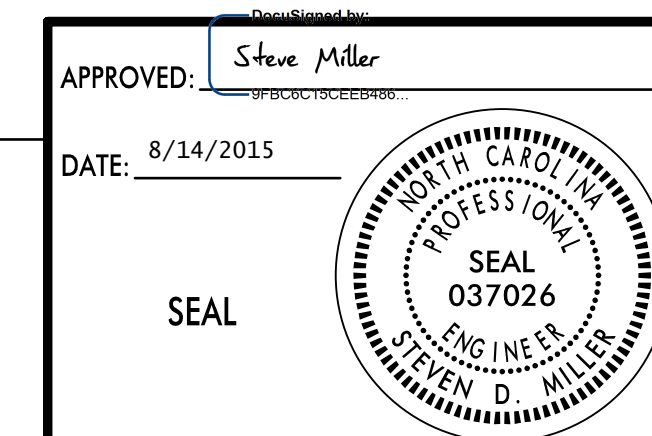
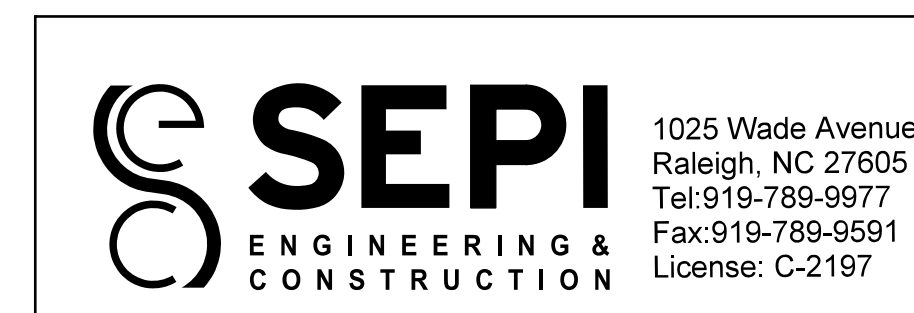
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION -L- 19+50 ±, 17.1' (RT), TO STATION -L- 22+00 ±, 17.1' (RT). THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -L- 19+50 ±, 17.1' (RT), TO STATION -L- 22+00 ±, 17.1' (RT). SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 19+50 ±, 17.1' (RT), TO STATION -L- 22+00 ±, 17.1' (RT). FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION

8/5/2015 8:54 Roadway_VR006.003.00 (Caldwell St. Improvements)\TrafficControl\TCP-U-5104 TMP-2.dgn SMiller

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO SEPI ENGINEERING ON AUGUST 4, 2015 AND SEALED BY A PROFESSIONAL ENGINEER, SHANE CLARK, P.E. LICENSE # 029869



TEMPORARY SHORING NOTES



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TRANSPORTATION TRAFFIC SURVEYING ENVIRONMENTAL SITE CIVIL INSPECTIONS CONSTRUCTION

<p>SIGN NUMBER: SP-1 BACKG COLOR: Fluorescent Orange TYPE: STATIONARY COPY COLOR: Black QUANTITY: SEE PLANS</p> <p>SIGN WIDTH: 42" HEIGHT: 36" TOTAL AREA: 10.5 Sq.Ft.</p> <p>BORDER TYPE: RECESSED RECESS: 0.38" WIDTH: 0.63" RADII: 1.5"</p> <p>MAT'L: 0.125" (3.2 mm) ALUMINUM 0.079" COMPOSITE</p>	<p>DESIGN BY: R DRAYTON CHECKED BY: S. MILLER PROJECT ID: U-5104 DIV: 14 DATE: Oct 27, 2011</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------

BORDER
 R=1.5"
 TH=0.63"
 IN=0.38"

Spacing Factor is 1 unless specified otherwise

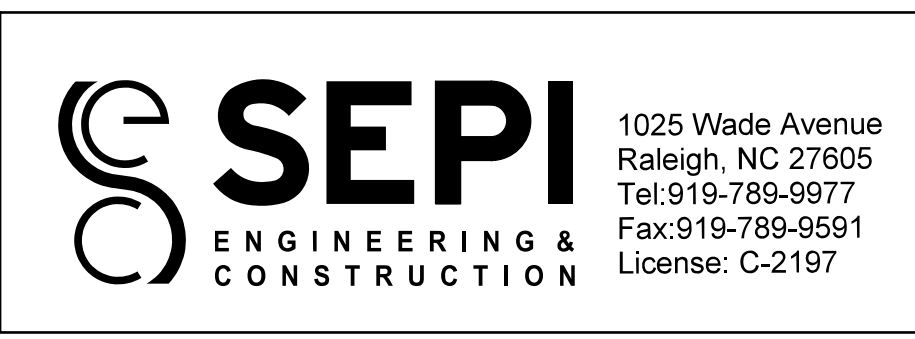
LETTER POSITIONS

Letter spacings are to start of next letter

											Series/Size Text Length	
		S	O	U	T	H						C 2000
	10.8	4.3	4.7	4.2	3.9	3.4	10.8					20.5
		C	A	L	D	W	E	L	L			C 2000
	4.4	4.1	4.7	3.9	4.1	5.4	4.1	3.9	3.1	4.4		33.2
		S	T	R	E	E	T					C 2000
	9.5	3.9	3.9	4.4	4.1	3.6	3.1	9.6				22.9

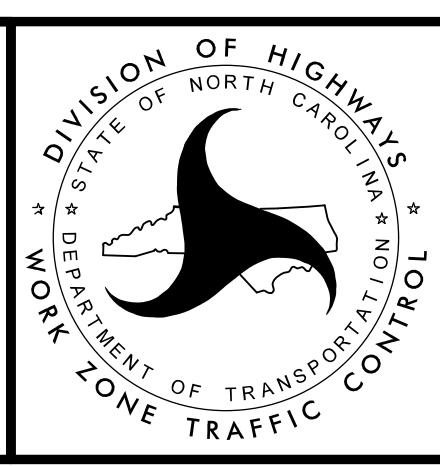
FILENAME: Detour SEPI ENGINEERING & CONSTRUCTION SIGN DETAIL

7/16/2015 9:00:00 AM C:\pccawday\RO06.003.00 (Caldwell St. Improvements)\TrafficControl\TCP\U-5104 TMP-3.dgn S.Miller



APPROVED: Steve Miller
 DATE: 8/14/2015

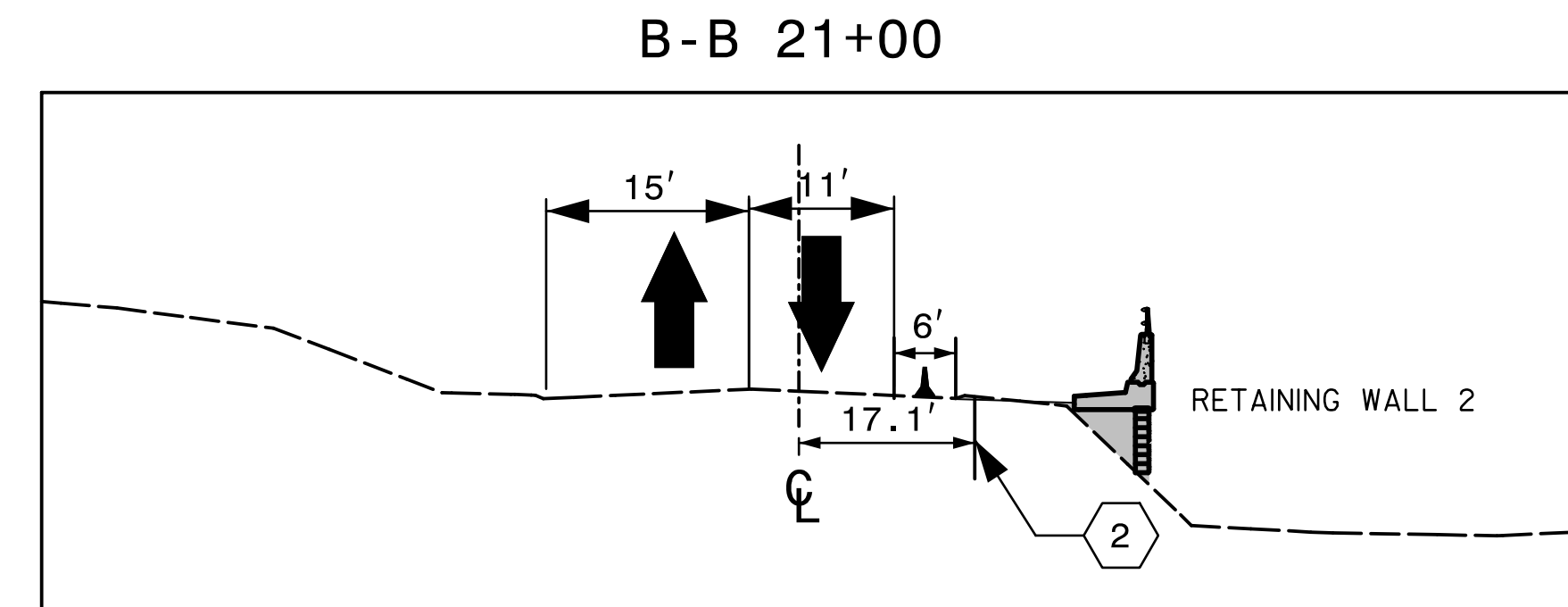
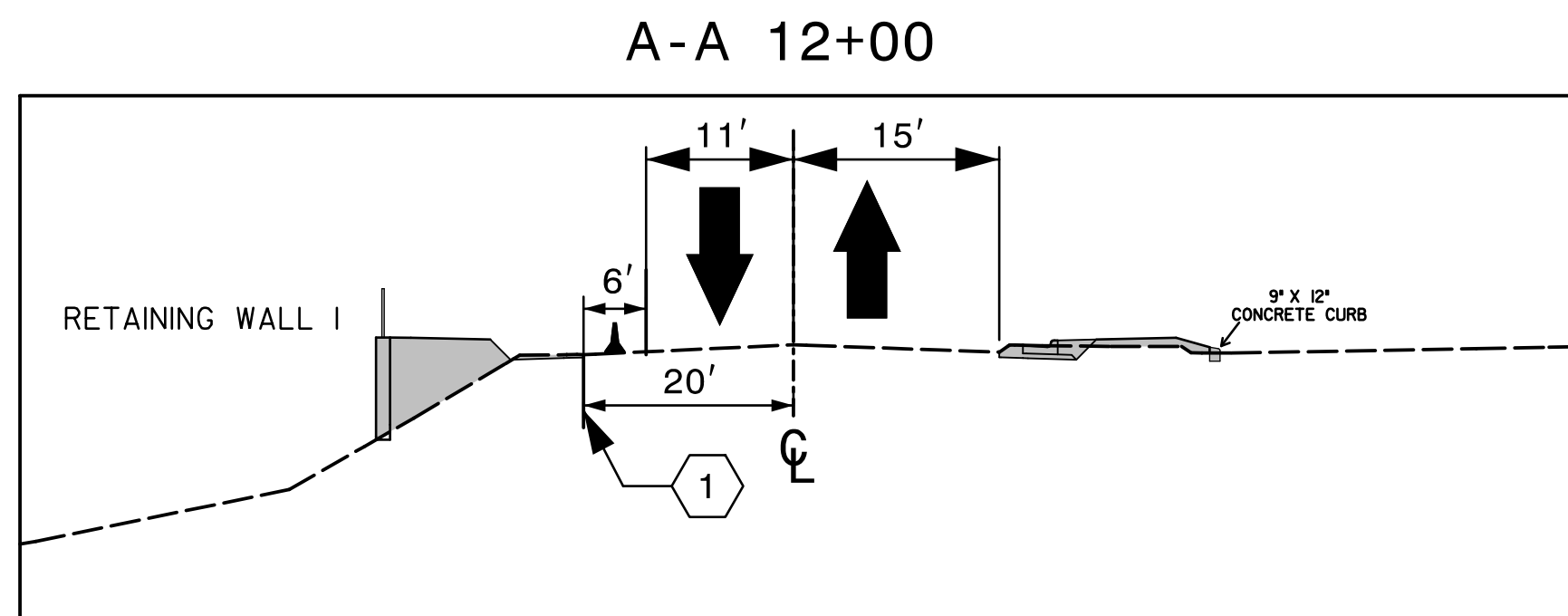
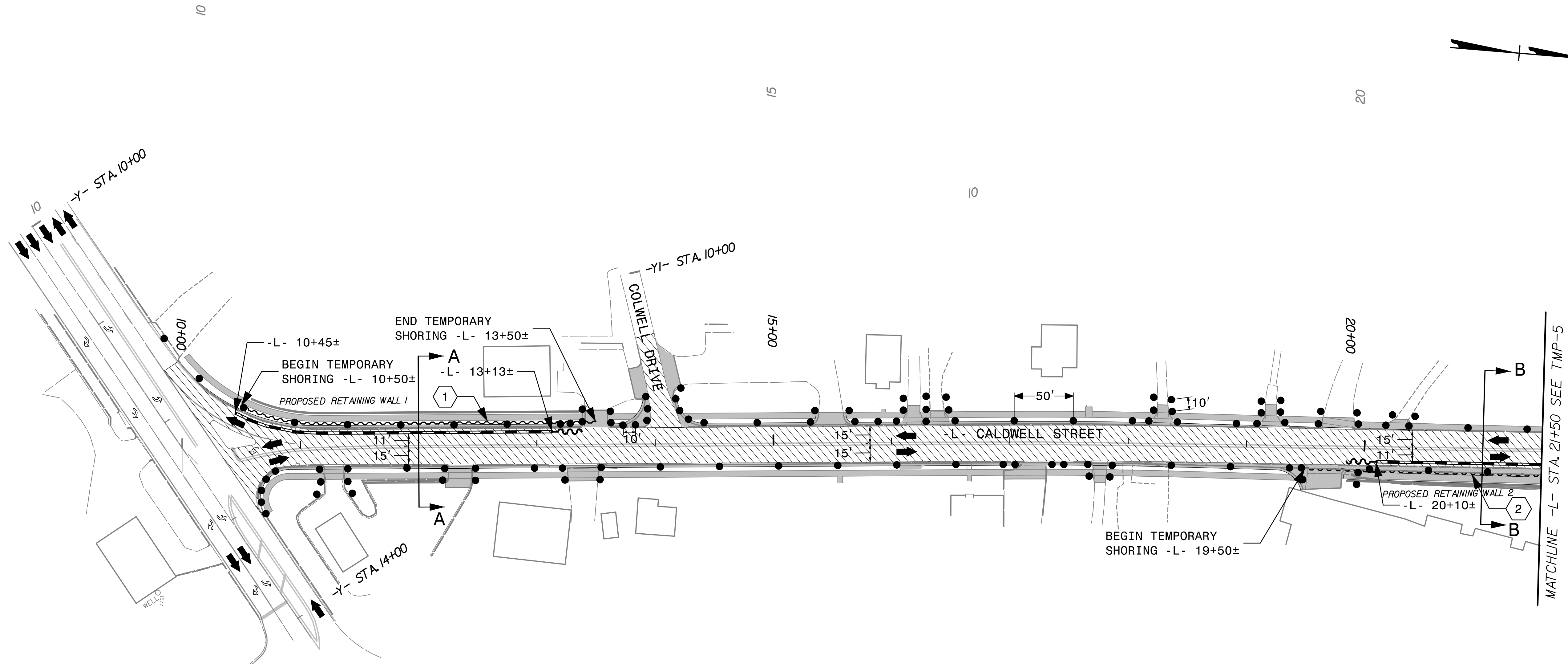
SEAL



SIGN DESIGN

1 TEMPORARY SHORING FROM -L- STA 10+50±
 35.5' LEFT TO 13+50± 20' LEFT
 MAXIMUM HEIGHT: 9', AVERAGE HEIGHT: 7'
 QUANTITY = 2100 SF

2 TEMPORARY SHORING FROM -L- STA 19+50±
 17.1' RIGHT TO 22+00± 17.1' RIGHT
 MAXIMUM HEIGHT: 10', AVERAGE HEIGHT: 8'
 QUANTITY = 2000 SF



8/5/2015 8:50 Roadway\Roadway\006\003\00 (Caldwell St. Improvements)\TrafficControl\TCP-U-5104 TMP-4.dgn SMiller

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 DATE: 8/14/2015
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PHASE I

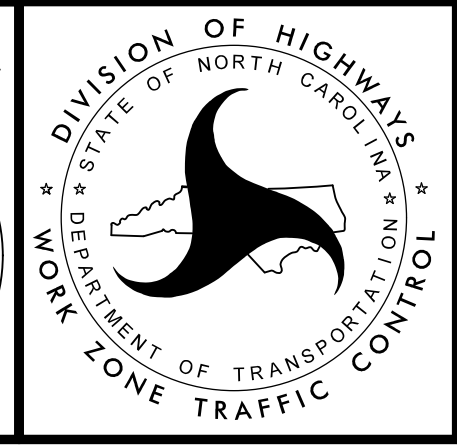
2 TEMPORARY SHORING FROM -L- STA 19+50±
 17.1' RIGHT TO 22+00± 17.1' RIGHT
 MAXIMUM HEIGHT: 10', AVERAGE HEIGHT: 8'
 QUANTITY = 2000 SF



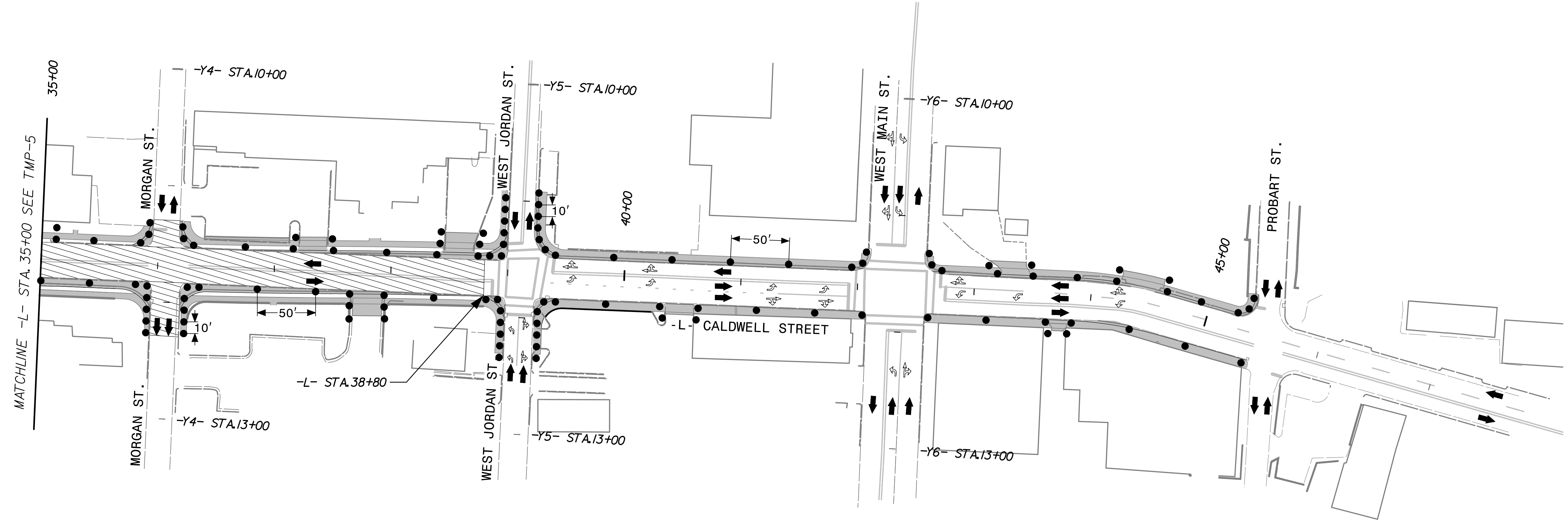
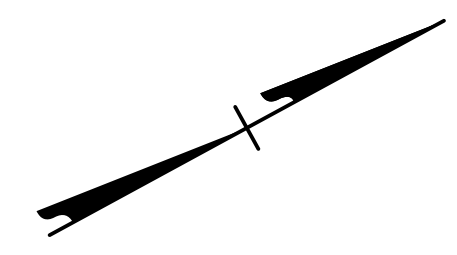
8/5/2015
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 SMiller

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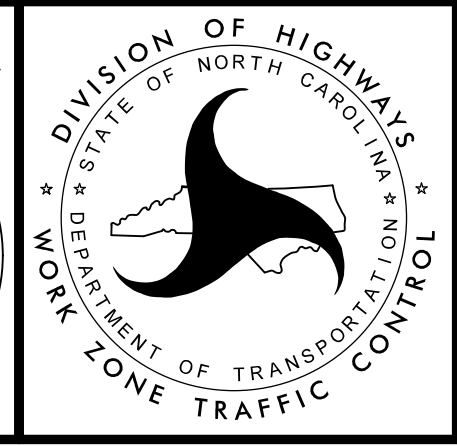
PHASE I



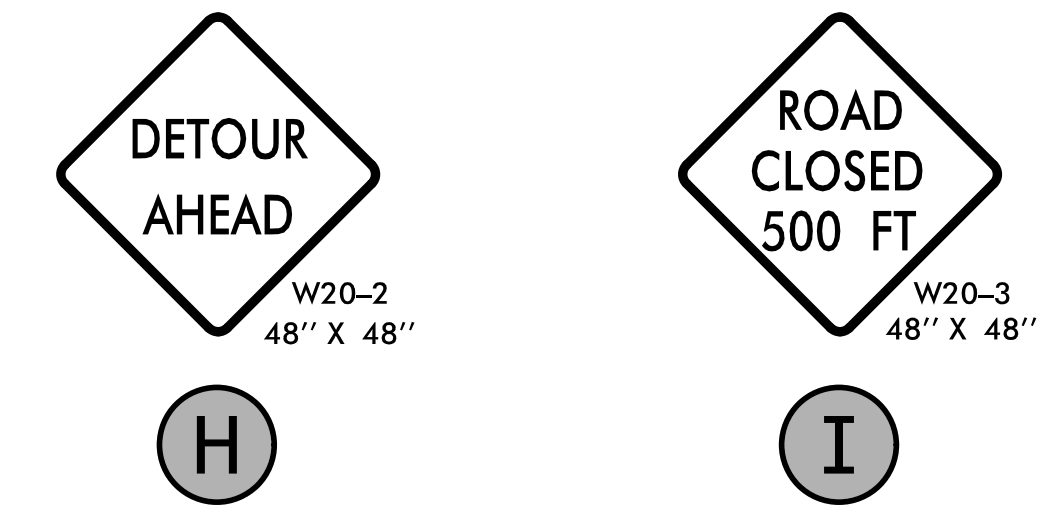
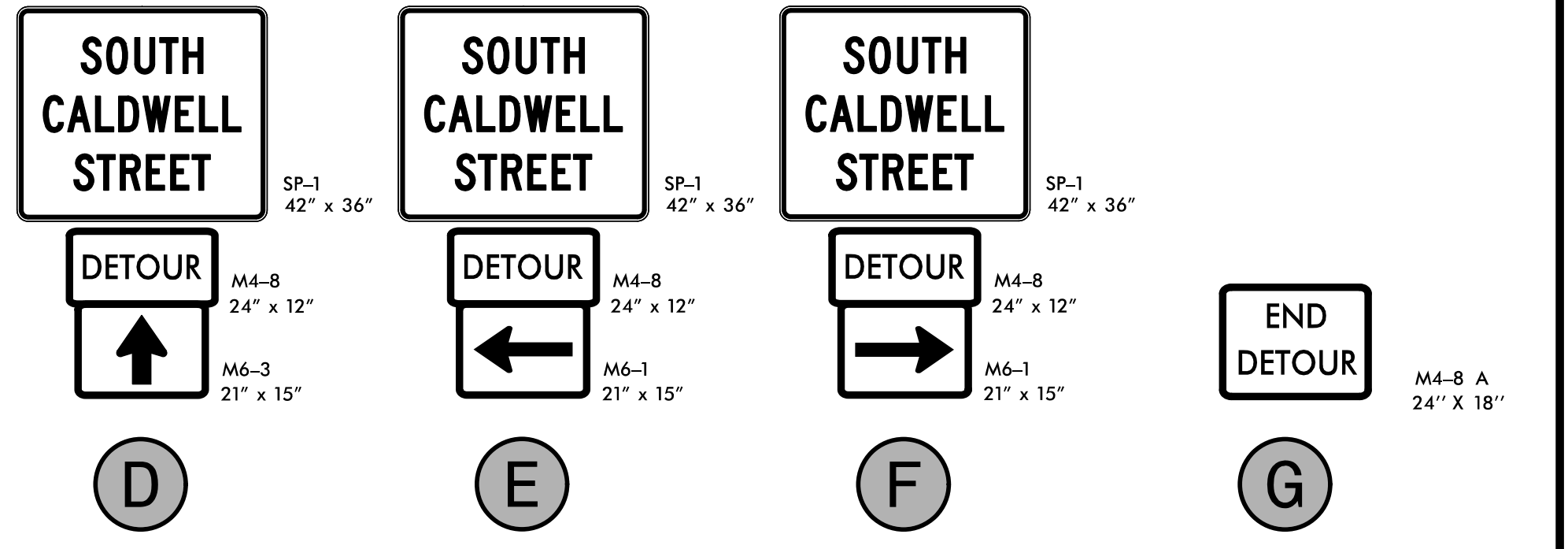
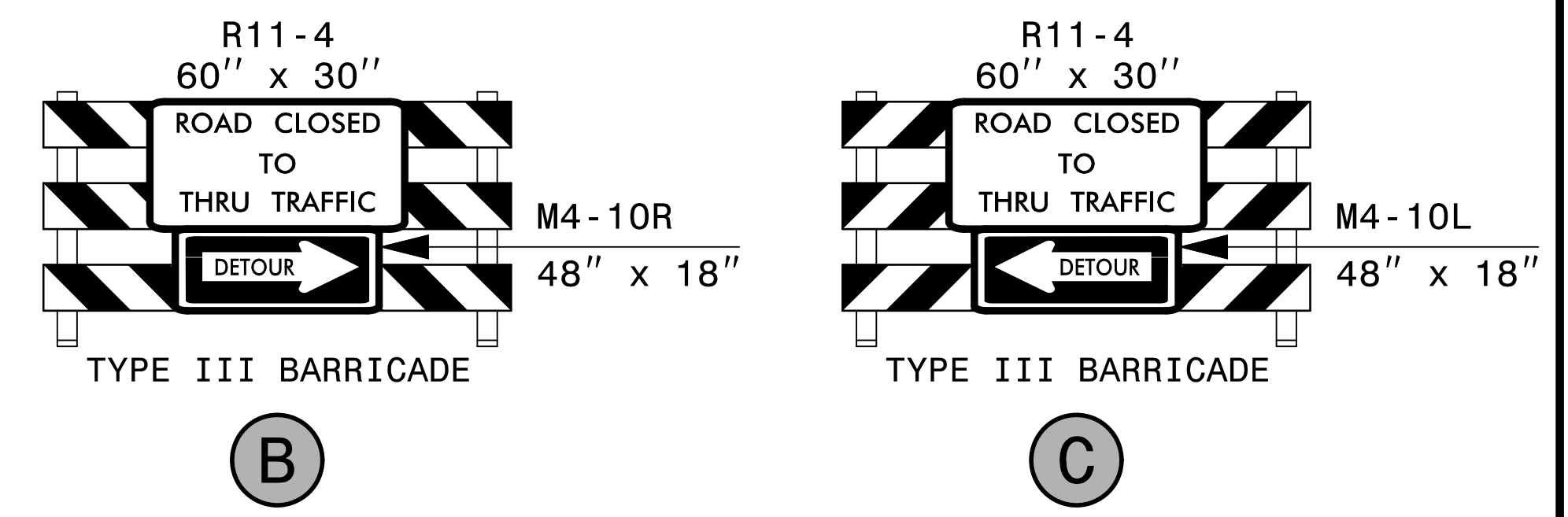
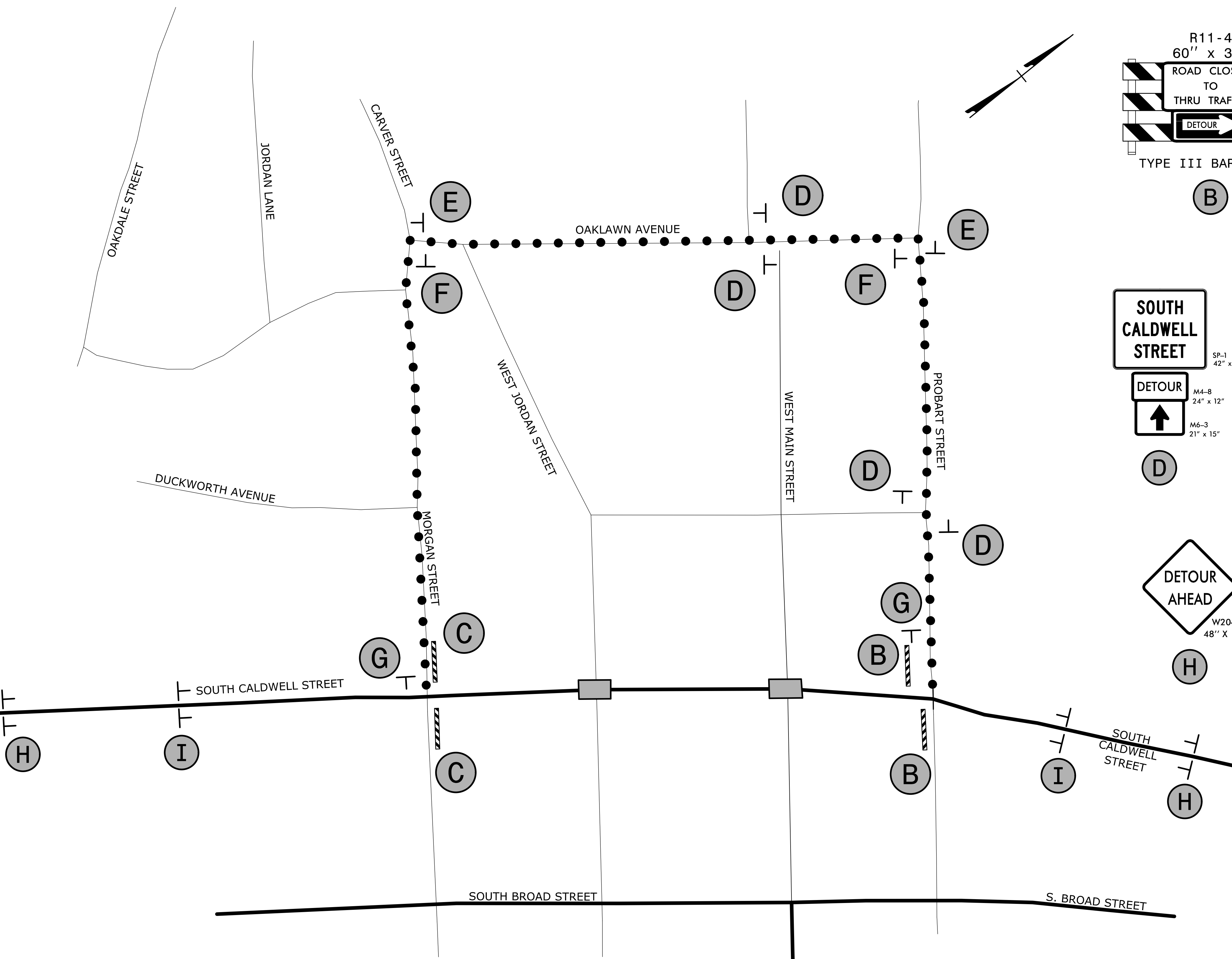
7/30/2015
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PHASE I

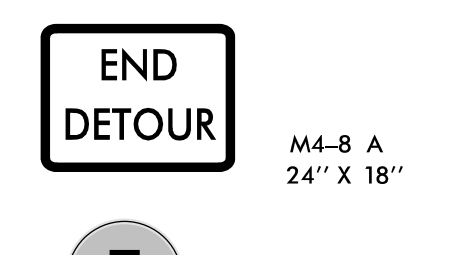
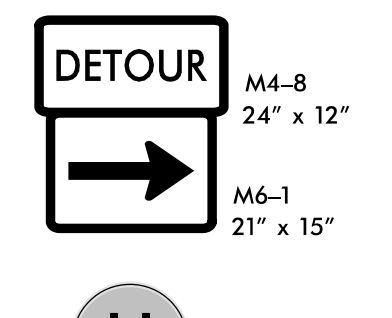
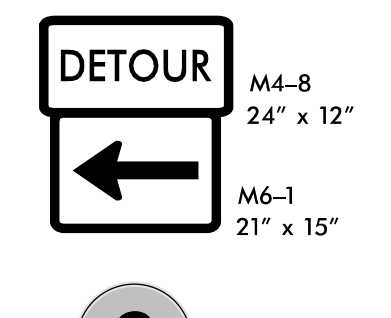
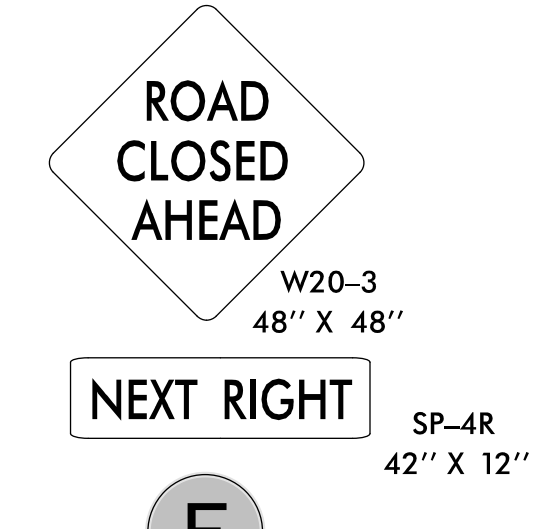
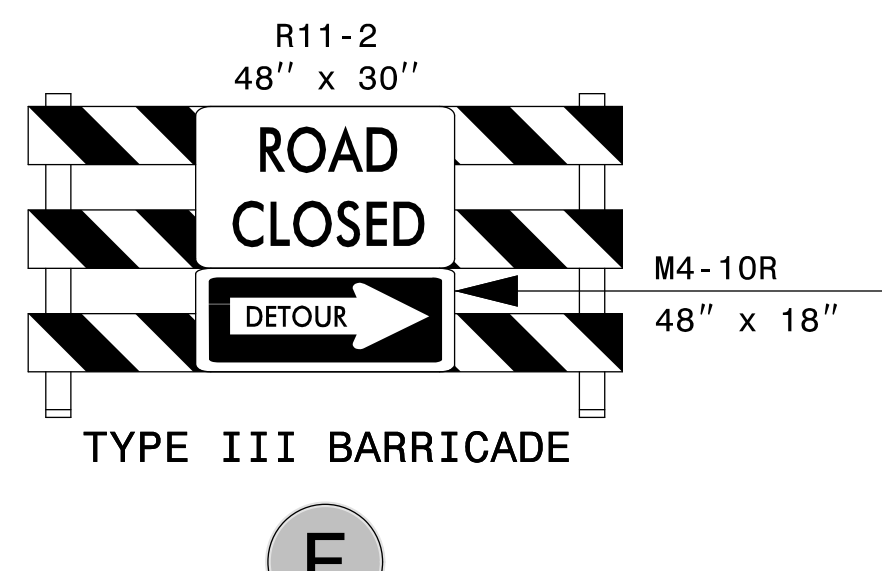
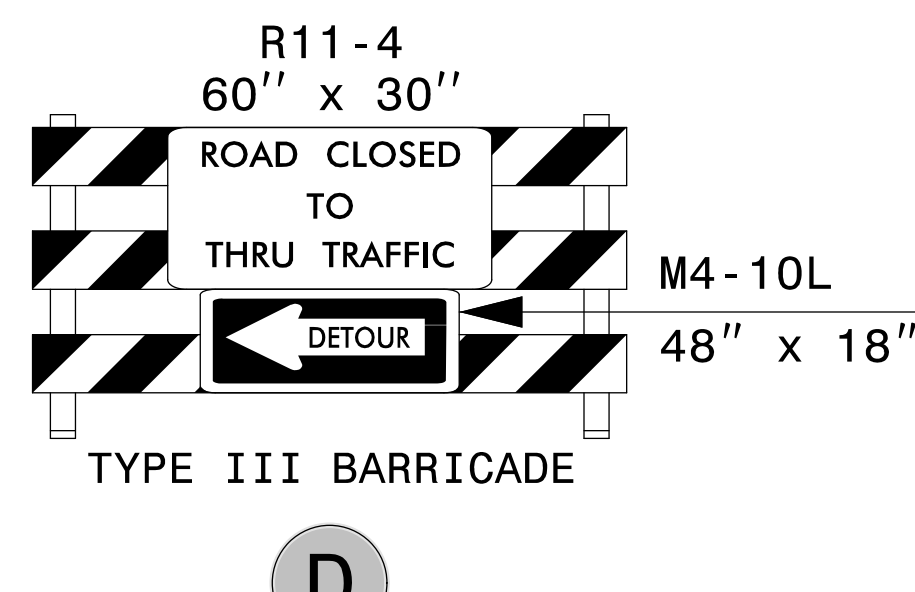
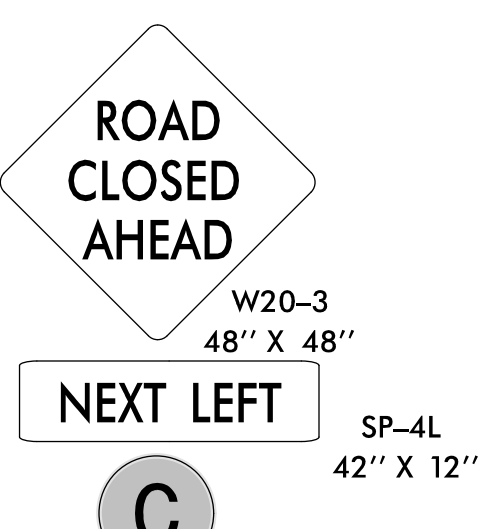
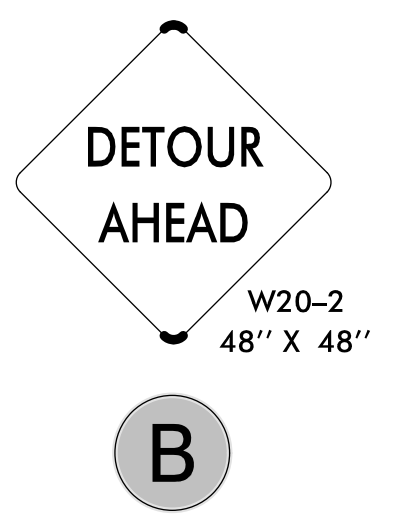
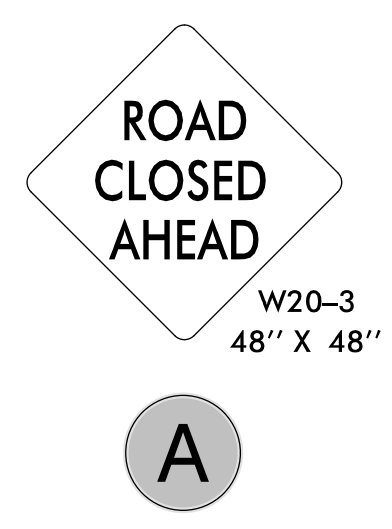
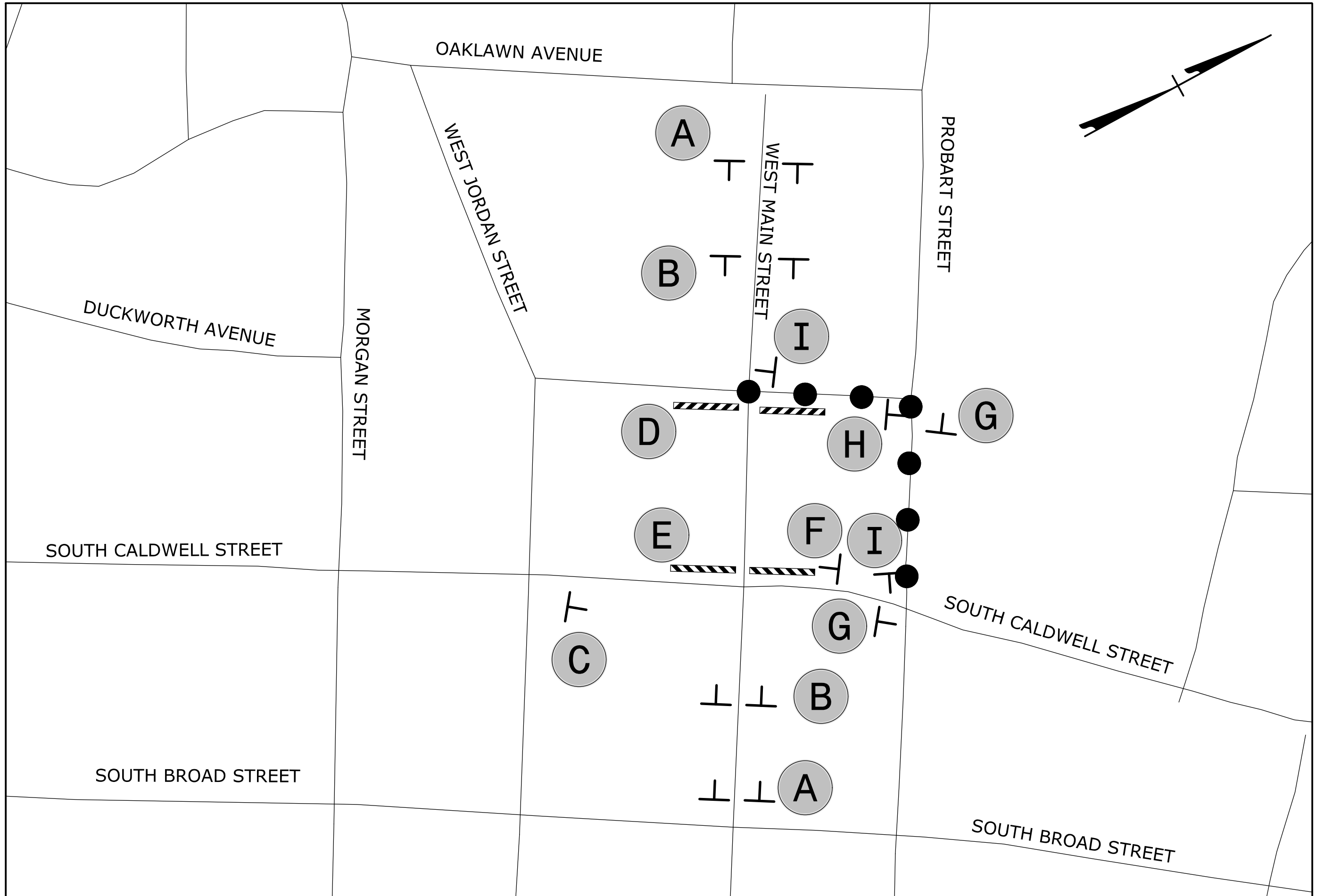
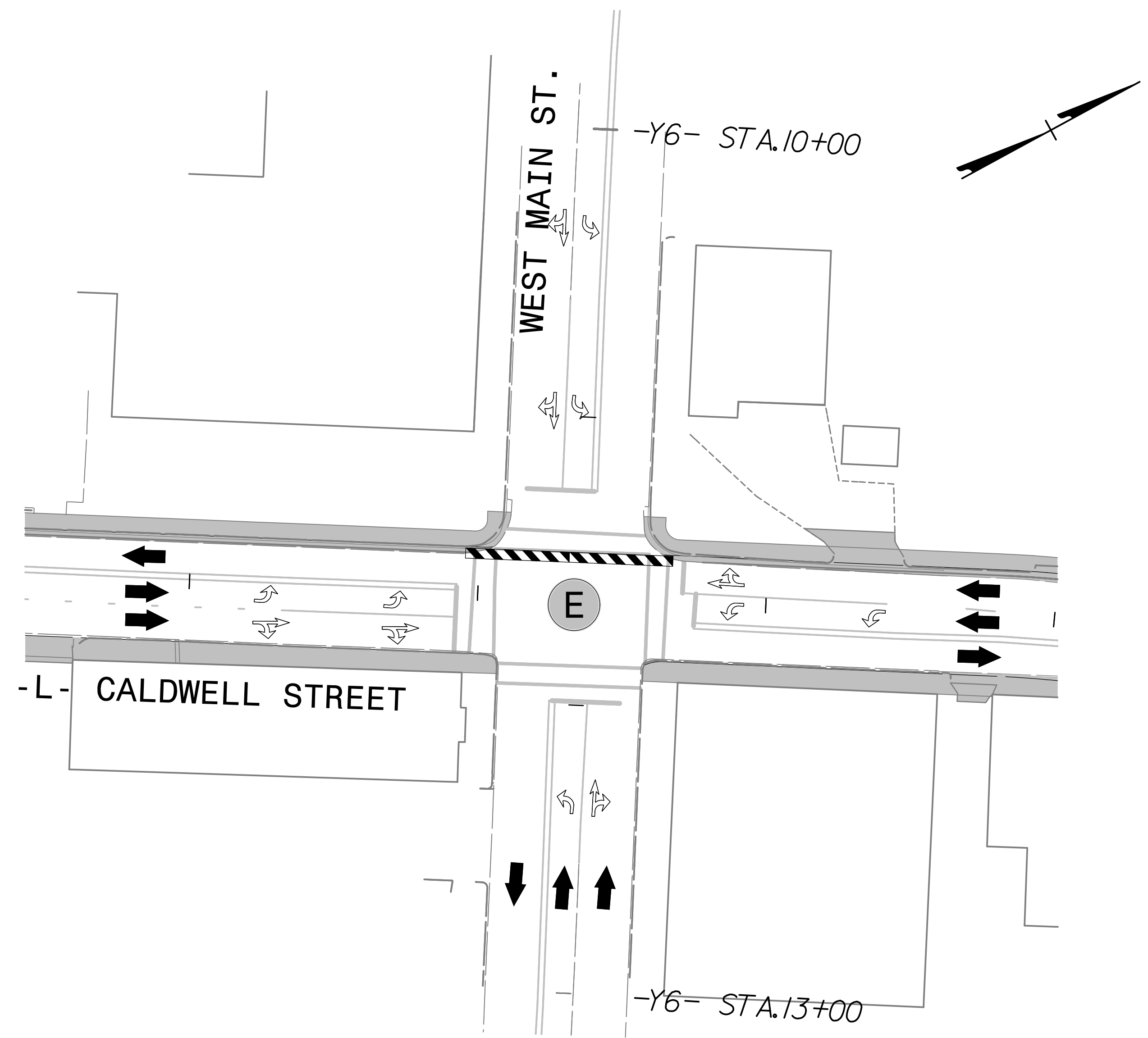


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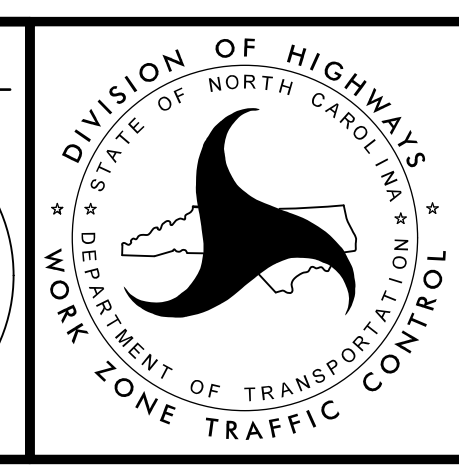
**OFFSITE
 DETOUR**



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CROSSWALK DETOUR