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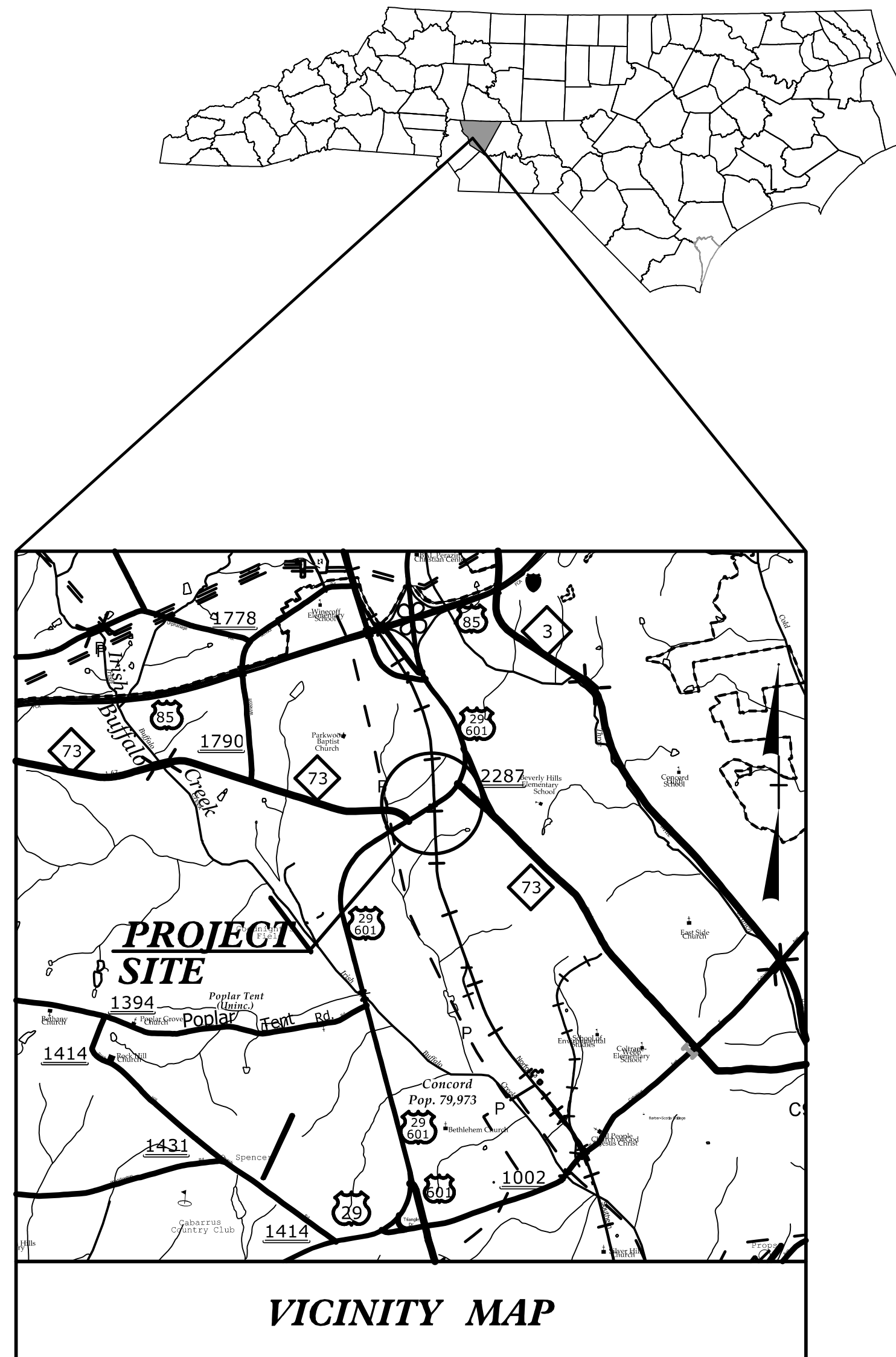
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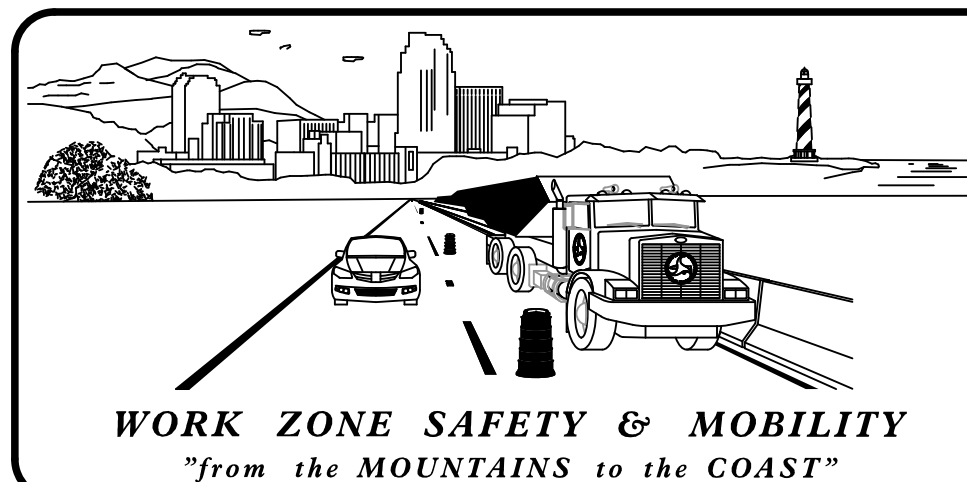
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CABARRUS COUNTY



LOCATION: BRIDGES 66 AND 69 OVER SOUTHERN RAILWAY
ON US 29/US 601



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



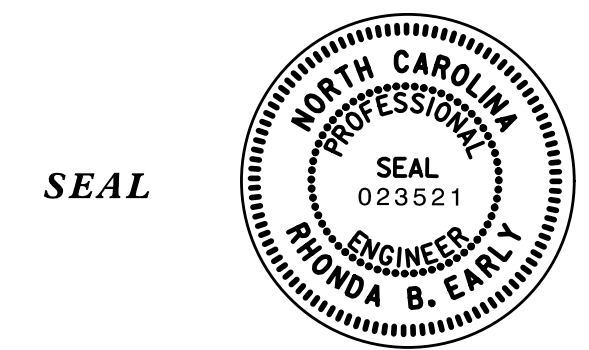
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J. A. PHILLIPS TRAFFIC CONTROL DESIGN ENGINEER

APPROVED: Rhonda Early
DATE: 1/8/2015



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SHEET NO.
TMP-1

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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 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 BOARD
1130.01	DRUMS
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 & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1250.01	PAVEMENT MARKER - TURN LANES
1251.01	RAISED PAVEMENT MARKERS - SYMBOLS AND WORD MESSAGES
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL & BARRIER DELINEATOR - INSTALLATION SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR - 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
- WEDGE / WIDEN
- TEMPORARY PAVEMENT

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

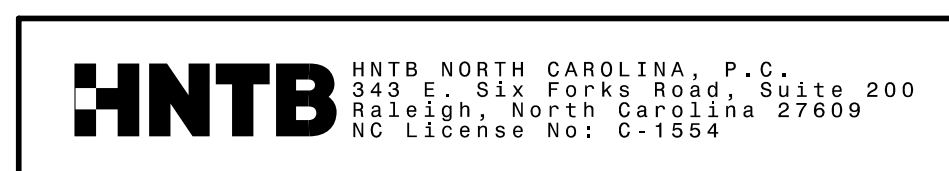
PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

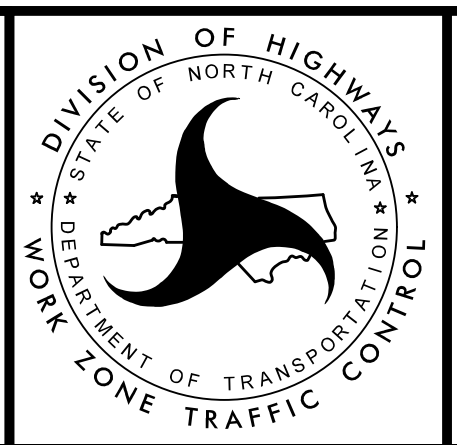
SYMBOL	DESCRIPTION	PAY ITEM
PAVEMENT MARKING LINES		
		COLD APPLIED PLASTIC (4") TYPE 4 - REMOVABLE TAPE
CA	WHITE EDGELINE	PAINT (4")
CB	YELLOW EDGELINE	
CC	WHITE SKIP	
P8	2FT - 6FT/SP WHITE MINISKIP	
PA	WHITE EDGELINE	
PB	YELLOW EDGELINE	PAINT (24")
PC	10FT WHITE SKIP	
PD	3FT - 9FT/SP WHITE MINISKIP	
PE	WHITE LANE LINE	
PI	DOUBLE YELLOW CENTERLINE	
P2	WHITE STOP BAR	TEMPORARY RAISED
PAVEMENT MARKERS		
MB	CRYSTAL & RED	

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APPROVED: *Rhonda Early*
 DATE: 1/8/2015

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 R. EARLY
 023521



TRANSPORTATION MANAGEMENT PLAN

ROADWAY STANDARD DRAWINGS & LEGENDS

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GENERAL NOTES

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) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

- Q) 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.

- R) 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 IMPACT 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:

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

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

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

<u>ROAD NAME</u>	<u>MARKING</u>	<u>MARKER</u>
ASPHALT SURFACES	PAINT	TEMPORARY RAISED
TEMPORARY CONCRETE	PAINT	TEMPORARY RAISED
PERMANENT CONCRETE	COLD APPLIED PLASTIC TYPE 4 - REMOVABLE TAPE	TEMPORARY RAISED

- W) 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.
- X) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Y) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

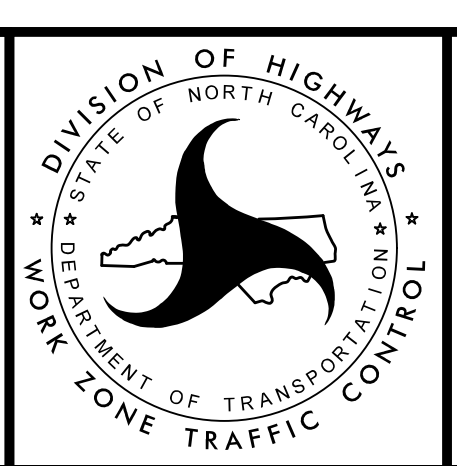
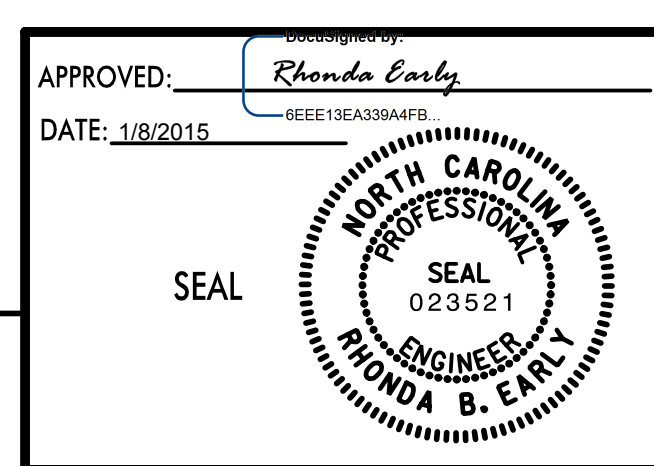
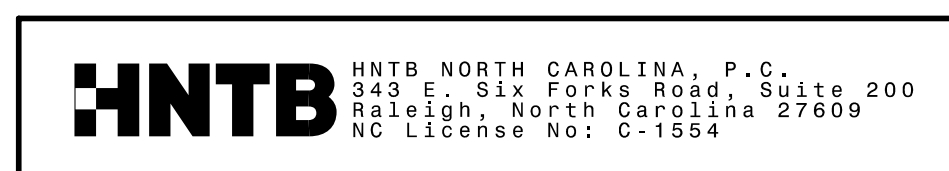
- Z) LAW ENFORCEMENT BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- AA) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

REVISIONS

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TRANSPORTATION
MANAGEMENT PLAN
TRANSPORTATION
OPERATIONS PLAN

(GENERAL NOTES)
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TEMPORARY SHORING DATA

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 26+00 -L-, 52 FT LT, TO STATION 27+00 -L-, 52 FT 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

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 26+00 -L-, 52 FT LT, TO STATION 27+00 -L-, 52 FT 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 26+00 -L-, 52 FT LT, TO STATION 27+00 -L-, 52 FT LT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING AND 1801.02 FOR STANDARD TEMPORARY WALLS.

WHEN BACKFILL FOR RETAINING WALLS &/OR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS &/OR 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 20+41 -L-, 2.6 FT RT TO STATION 21+52 -L-, 0 FT 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 = 646 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 20+41 -L-, 2.6 FT RT, TO STATION 21+52 -L-, 0 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 20+41 -L-, 2.6 FT RT TO STATION 21+52 -L-, 0 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

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 22+20 -L-, 0 FT RT TO STATION 23+72 -L-, 5.3 FT 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 = 651 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 22+20 -L-, 0 FT RT TO STATION 23+72 -L-, 5.3 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 22+20 -L-, 0 FT RT TO STATION 23+72 -L-, 5.3 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

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 22+96 -L-, 10 FT RT, TO STATION 23+68 -L-, 10 FT 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 = 651 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 22+96 -L-, 10 FT RT, TO STATION 23+68 -L-, 10 FT 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 WALL FOR TEMPORARY SHORING FROM STATION 22+96 -L-, 10 FT RT, TO STATION 23+68 -L-, 10 FT RT. SEE STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

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

SHORING LOCATION NO. ⑤

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 26+50 -L-, 50 FT RT TO STATION 28+00 -L-, 50 FT 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 = 664 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 26+50 -L-, 50 FT RT TO STATION 28+00 -L-, 50 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 26+50 -L-, 50 FT RT TO STATION 28+00 -L-, 50 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. ⑥

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 20+55 -L-, 20 FT LT TO STATION 21+42 -L-, 20 FT 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 = 646 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 20+55 -L-, 20 FT LT TO STATION 21+42 -L-, 20 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 20+55 -L-, 20 FT LT TO STATION 21+42 -L-, 20 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. ⑦

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 22+90 -L-, 25 FT LT TO STATION 23+76 -L-, 25 FT 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 = 651 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 22+90 -L-, 25 FT LT TO STATION 23+76 -L-, 25 FT LT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 22+90 -L-, 25 FT LT TO STATION 23+76 -L-, 25 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. ⑧

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.

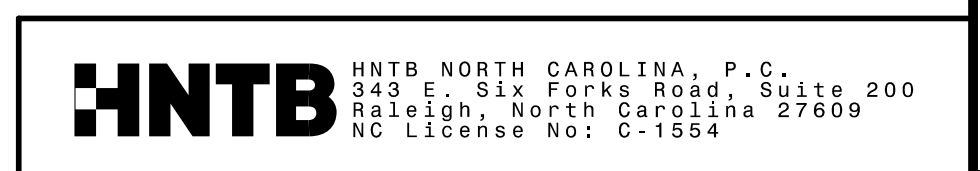
DESIGN TEMPORARY SHORING FROM STATION 22+34 -L-, 70 FT RT TO STATION 22+96 -L-, 70 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF
GROUNDWATER ELEVATION = 651 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 22+34 -L-, 70 FT RT TO STATION 22+96 -L-, 70 FT RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

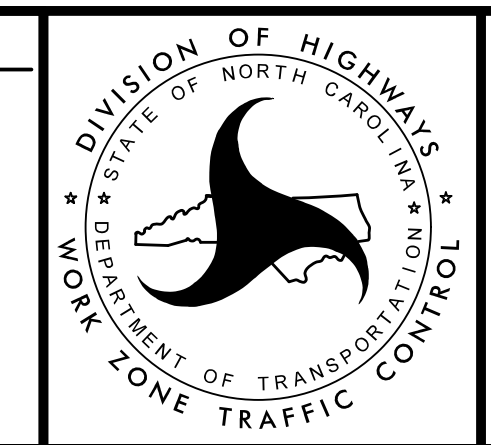
IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 22+34 -L-, 70 FT RT TO STATION 22+96 -L-, 70 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH SEALED DOCUMENTS FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENTS WERE SUBMITTED TO THE WZTC SECTION ON JANUARY 7, 2015 AND SEALED BY PROFESSIONAL ENGINEER, SHANE C. CLARK, P.E., LICENSE # 29869.



APPROVED: *Rhonda Early*
DATE: 1/28/2015

SEAL



TRANSPORTATION MANAGEMENT PLAN
TEMPORARY SHORING NOTES
... \B5136-tmp-TMP-02 Shoring Notes.dgn

REVISIONS

2:05:56 PM tmp-TMP-02 Shoring Notes.dgn
\$\$\$\$\$REVISIONS\$\$\$\$\$
REVIEW: _____
CONCUR: _____
REVISE: _____
VERIFY: _____

PHASING

NOTES:

REPLACE MARKINGS AND 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.

COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE. THIS MAY REQUIRE A COMBINATION OF INSTALLATION OF PROPOSED PIPES, TEMPORARY PIPES, STEEL PLATES, AND TEMPORARY MEDIAN AND OUTSIDE DITCHES.

PAVE PROPOSED CONSTRUCTION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, IN ALL PHASES UNTIL STATED TO INSTALL FINAL LAYER IN THE PHASING.

THE TERM RSD DENOTES "ROADWAY STANDARD DRAWING".

PHASE I (SEE TMP-4 FOR OVERVIEW)

*** REFER TO DETAIL SHEETS TMP-5 THRU TMP-7 ***

STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L- (US 29/601 / CONCORD PKWY), -EY1- (FLORENCE ST), -EY2- (NC 73 / DAVIDSON HWY), -EY5- & -EY6- (NC 73 / DAVIDSON DR), ACCORDING TO RSD 1101.01.

STEP 2: AWAY FROM TRAFFIC, CONSTRUCT -DET- FROM STA 14+00+/- TO STA 20+70+/- (INCLUDING TEMPORARY BRIDGE). (LN-2)

AWAY FROM TRAFFIC, CONSTRUCT THE TEMPORARY RETAINING WALL LEFT OF -DET- AND AS MUCH AS POSSIBLE OF THE PERMANENT RETAINING WALLS LEFT OF -L-. SHORING 1 MAY BE REQUIRED (SEE TMP-6). (LN-1)

NOTE: TO COMPLETE THE WORK IN STEP 3, PART OF THE EXISTING GUARDRAIL MUST BE REMOVED AND TEMPORARY ANCHORS INSTALLED. THE RIGHT SIDE PCB ALONG -DET- FROM STA 19+50+/- TO STA 20+20+/- CANNOT BE COMPLETED UNTIL TRAFFIC IS SHIFTED IN PHASE II. USE TMA TO PROTECT UNFINISHED PCB UNTIL TRAFFIC IS SHIFTED AND CRASH CUSHION IS INSTALLED.

STEP 3: USING RSD 1101.02 (SHEET 3 OF 15) AS NEEDED, COMPLETE THE FOLLOWING UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE:
* WEDGE AND WIDEN -L- FROM STA 25+25+/- TO STA 27+25+/- TO -DET- GRADE AND FEATHER TO EXISTING TO MAINTAIN A SMOOTH GRADE
* CONSTRUCT -DET- FROM STA 11+00+/- TO STA 14+50+/-
* CONSTRUCT -DET- FROM STA 19+70+/- TO -L- STA 27+25+/-

STEP 4: USING RSD 1101.02 (SHEETS 1 & 3 OF 15) AS NEEDED, COMPLETE THE FOLLOWING:
* INSTALL TEMPORARY SIGNAL AT -L- & -EY1-/-EY2-
* INSTALL TEMPORARY SIGNAL AT -L- & -EY5-/-EY6-
* REMOVE EXISTING -EY4- ISLAND AND REPAIR/PAVE FROM -EY4- STA 10+60+/- TO -L- (SBL)

STEP 5: PLACE TEMPORARY PAVEMENT MARKING AND SIGNS ALONG -L- SBL AND -DET- AS SHOWN IN PHASE II (TMP-9 & TMP-10), ACTIVATE TEMPORARY SIGNALS AND SHIFT TRAFFIC TO NEW PATTERN.

USING RSD 1101.02 (SHEET 3 OF 9), COMPLETE INSTALLATION OF -DET- PCB AND CRASH CUSHION.

PHASE II (SEE TMP-8 FOR OVERVIEW)

*** REFER TO DETAIL SHEETS TMP-9 THRU TMP-11 ***

STEP 1: AWAY FROM TRAFFIC, CONSTRUCT THE RETAINING WALLS RIGHT OF -L-. NOTE: SHORING 5 MAY BE REQUIRED TO CONSTRUCT WALL 2.

USING RSD 1101.02 (SHEET 3 OF 15) AS NEEDED, CONSTRUCT THE FOLLOWING:
* WEDGE AND WIDEN -L- FROM STA 11+75+/- TO STA 18+00+/- AND PROVIDE TRANSITION GRADE TO EXISTING NBL FROM STA 17+50+/- TO STA 19+00+/- (LN-4,5)
* TEMPORARY MEDIAN CROSS-OVER FROM -L- STA 16+00+/- TO STA 20+66+/-
* TEMPORARY MEDIAN CROSS-OVER FROM -L- STA 23+47+/- TO STA 27+50+/-
* WEDGE AND WIDEN -L- FROM STA 26+50+/- TO STA 29+50+/- AND PROVIDE TRANSITION GRADE FROM EXISTING NBL (LN-4,5)
* WIDEN -L- FROM STA 29+50+/- TO -EY6- STA 11+42+/-
* REVISE TEMPORARY SIGNAL AT -L- & -EY5-/-EY6- FOR NEW PATTERN

STEP 2: PLACE TEMPORARY PAVEMENT MARKING AND SIGNS ALONG -L- SBL AND NBL AS SHOWN IN PHASE III (TMP-13 & TMP-14), ACTIVATE TEMPORARY SIGNAL AND SHIFT TRAFFIC TO NEW PATTERN.

PHASE III (SEE TMP-12 FOR OVERVIEW)

*** REFER TO DETAIL SHEETS TMP-13 THRU TMP-16 ***

STEP 1: AWAY FROM TRAFFIC, INSTALL SHORING 2 & 3 AND REMOVE EXISTING NB BRIDGE. (LN-2)

AWAY FROM TRAFFIC, CONSTRUCT -L- FROM STA 18+00+/- TO STA 26+50+/- (INCLUDING RIGHT SIDE OF PROPOSED BRIDGE). SHORING 2, 3, 4 & 8 ARE REQUIRED. REFER TO DETAILS TMP-13 & TMP-14. REMOVE SHORING WHEN NO LONGER NEEDED. (LN-2,3)

STEP 2: AWAY FROM TRAFFIC, PLACE TEMPORARY PAVEMENT MARKING ON PROPOSED NBL FROM STA 20+00+/- TO STA 24+50+/- AND INSTALL AS MUCH PCB AS POSSIBLE ALONG PROPOSED NBL. (PCB SHOWN ON TMP-15.) USE TMA AS NEEDED TO PROTECT UNFINISHED PCB. (REFER TO TMP-18 & TMP-19 FOR TEMPORARY PAVEMENT MARKING.)

COMPLETE THE REQUIREMENTS OF PHASE III, STEP 3 IN ONE WEEKEND FROM 10:00 PM FRIDAY TO 6:00 AM THE FOLLOWING MONDAY. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 3: COMPLETE STEPS 3A THRU 3C. REFER TO DETAIL SHEET TMP-15.

3A: USING RSD 1101.02 (SHEETS 1 & 3 OF 15) AS NEEDED, CLOSE THE RIGHT MOST NORTH BOUND LANE OF -L- AND CONSTRUCT THE FOLLOWING:
* -L- FROM STA 17+50+/- TO STA 19+40+/- (NBL)
* -L- FROM STA 25+00+/- TO STA 26+50+/- (NBL)

3B: USING TMA TO PROTECT UNFINISHED PCB, PLACE TEMPORARY PAVEMENT MARKING ON -L- NBL AND SHIFT TRAFFIC TO NEW PATTERN AS SHOWN IN PHASE IV. (SEE TMP-18 & TMP-19.)

3C: COMPLETE INSTALLATION OF PCB AND CRASH CUSHION (-L- STA 18+00+/- TO STA 26+00+/-) AND OPEN BOTH LANES TO TRAFFIC. (SEE TMP-18 & TMP-19.)

PHASE IV (SEE TMP-17 FOR OVERVIEW)

*** REFER TO DETAIL SHEETS TMP-18 THRU TMP-21 ***

STEP 1: AWAY FROM TRAFFIC, REMOVE EXISTING SB BRIDGE. (LN-2)

AWAY FROM TRAFFIC, CONSTRUCT -L- (SBL) FROM STA 18+00+/- TO STA 26+00+/- (INCLUDING LEFT SIDE OF PROPOSED BRIDGE). TEMPORARILY PAVE ACROSS AREA FOR FUTURE ISLAND / MEDIAN. SHORING 6 & 7 ARE REQUIRED. REMOVE SHORING 2, 3, 4 & 8 AS NEEDED. REFER TO DETAILS TMP-18 & TMP-19. (LN-2,3)

STEP 2: USING RSD 1101.02 (SHEET 3 OF 15) AS NEEDED, CONSTRUCT THE FOLLOWING:
* WEDGE & WIDEN -L- FROM STA 13+33+/- TO STA 18+00+/- (SBL) AND CONSTRUCT PROPOSED ISLAND FROM STA 13+33+/- TO STA 16+00+/- . PROVIDE SMOOTH TRANSITION GRADE TO EXISTING SB LANES. TEMPORARILY PAVE ACROSS AREA FOR FUTURE ISLAND / MEDIAN FROM STA 16+00+/- TO STA 18+00+/- . (LN-4)
* WEDGE & WIDEN -L- FROM STA 26+00+/- TO STA 29+50. WIDEN -L- FROM STA 29+50+/- TO STA 30+90+/- (SBL). CONSTRUCT PROPOSED ISLAND FROM STA 28+40+/- TO STA 30+50+/- . PROVIDE SMOOTH TRANSITION GRADE TO EXISTING SB LANES. (LN-4)

STEP 3: AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:
* PLACE TEMPORARY PAVEMENT MARKING, AS MUCH AS POSSIBLE WITHOUT CREATING A CONFLICT WITH EXISTING PATTERN, ON -L- SBL FROM STA 19+00+/- TO STA 24+50+/- . (REFER TO TMP-23 & TMP-24.)
* PLACE PCB WITH CRASH CUSHION ALONG LEFT SIDE OF -L- FROM STA 18+50+/- TO STA 26+00+/- .

COMPLETE THE REQUIREMENTS OF PHASE IV, STEPS 4 & 5 IN ONE WEEKEND FROM 10:00 PM FRIDAY TO 6:00 AM THE FOLLOWING MONDAY. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 4: USING RSD 1101.02 (SHEET 3 OF 15), CLOSE THE LEFT MOST SOUTH BOUND LANE OF -L- AND CONSTRUCT -L- FROM STA 26+50+/- TO STA 28+00+/- . REFER TO DETAIL SHEET TMP-20.

STEP 5: KEEPING SB TRAFFIC IN ONE LANE, SHIFT TO NEW PATTERN AS SHOWN IN INSET ON SHEET TMP-20. WEDGE -L- FROM STA 26+50+/- TO STA 28+00+/- . COMPLETE TEMPORARY PAVEMENT MARKING AND OPEN TO TRAFFIC PATTERN AS SHOWN IN PHASE V. (SEE TMP-23 & TMP-24.)

PHASE V (SEE TMP-22 FOR OVERVIEW)

*** REFER TO DETAIL SHEETS TMP-23 THRU TMP-25 ***

STEP 1: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:
* REMOVE TEMPORARY -DET- AND -DET- BRIDGE. REMOVE SHORING 6 & 7 AS NEEDED. (LN-2)
* CONSTRUCT REMAINDER OF -L- BRIDGE (LEFT SIDE) (LN-2)
* REMOVE TEMPORARY RETAINING WALL AND TEMPORARY FILL EXPOSING PARTIALLY CONSTRUCTED RETAINING WALL. COMPLETE PROPOSED WALL AND REPAIR PARKING LOT.
* WIDEN -L- FROM STA 18+00+/- TO BRIDGE AND FROM BRIDGE TO STA 27+00+/- (LT)

STEP 2: USING RSD 1101.02 (SHEETS 1 & 3 OF 15) AS NEEDED, COMPLETE THE FOLLOWING:
* -L- SBL FROM STA 13+88+/- TO STA 18+00+/-
* -L- SBL FROM STA 27+00+/- TO STA 28+23+/- & -EY4- FROM STA 10+60+/- TO -L- (SBL) INCLUDING ISLAND

STEP 3: PLACE TEMPORARY PAVEMENT MARKING AS SHOWN IN PHASE VI (TMP-27 & TMP-28) AND SHIFT TRAFFIC TO NEW PATTERN.

PHASE VI (SEE TMP-26 FOR OVERVIEW)

*** REFER TO DETAIL SHEETS TMP-27 AND TMP-28 ***

STEP 1: USING RSD 1101.02 (SHEET 3 OF 15) AS NEEDED, REMOVE ALL PCB AND CONSTRUCT ISLANDS &/OR MEDIAN FROM -L- STA 16+00+/- TO STA 28+38+/- INCLUDING BRIDGE MEDIAN WORK.

STEP 2: USING RSD 1101.02 (SHEETS 1 & 3 OF 15) AS NEEDED, PLACE FINAL LAYER OF SURFACE COURSE ON ALL ROADS. PLACE PAVEMENT MARKING AND MARKERS AS SHOWN IN FINAL PAVEMENT MARKING PLANS, ACTIVATE FINAL SIGNALS AND OPEN ALL LANES TO TRAFFIC.

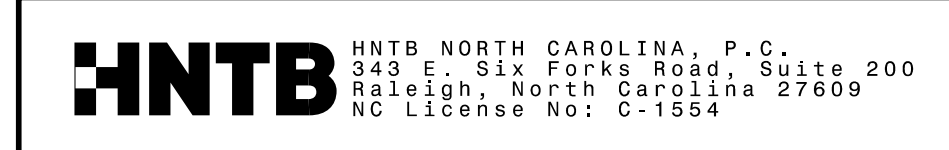
LOCAL NOTES

- LN-1 TEMPORARY RETAINING WALL TIES TO PERMANENT RETAINING WALL AT -L- STA 26+10+/- (LT).
- LN-2 COORDINATE ALL ACTIVITIES AROUND RAILROAD WITH NORFOLK SOUTHERN GENERAL MANAGER. RAILROAD FLAGGER(S) MUST BE PRESENT AT ANY TIME A TRAIN IS EXPECTED WHEN WORK IS OCCURRING AROUND THE RR (UNLESS WORK IS PROTECTED BY A BRIDGE).
- LN-3 REFER TO STRUCTURE PLANS FOR BRIDGE STAGING.
- LN-4 TEMPORARY WEDGING WILL BE NEEDED TO PROVIDE TRANSITION GRADE FROM PROPOSED PAVEMENT / STRUCTURE TO EXISTING PAVEMENT. TRANSITION GRADES SHOULD BE SMOOTH AND SHOULD AVOID PONDING WATER.
- LN-5 RECORD EXISTING PAVEMENT MARKING (ESPECIALLY STOP BARS) PRIOR TO PAVING AND REPLACE IN ORIGINAL LOCATION.

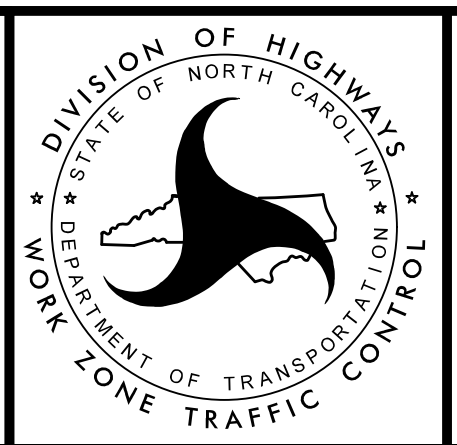
REVISIONS

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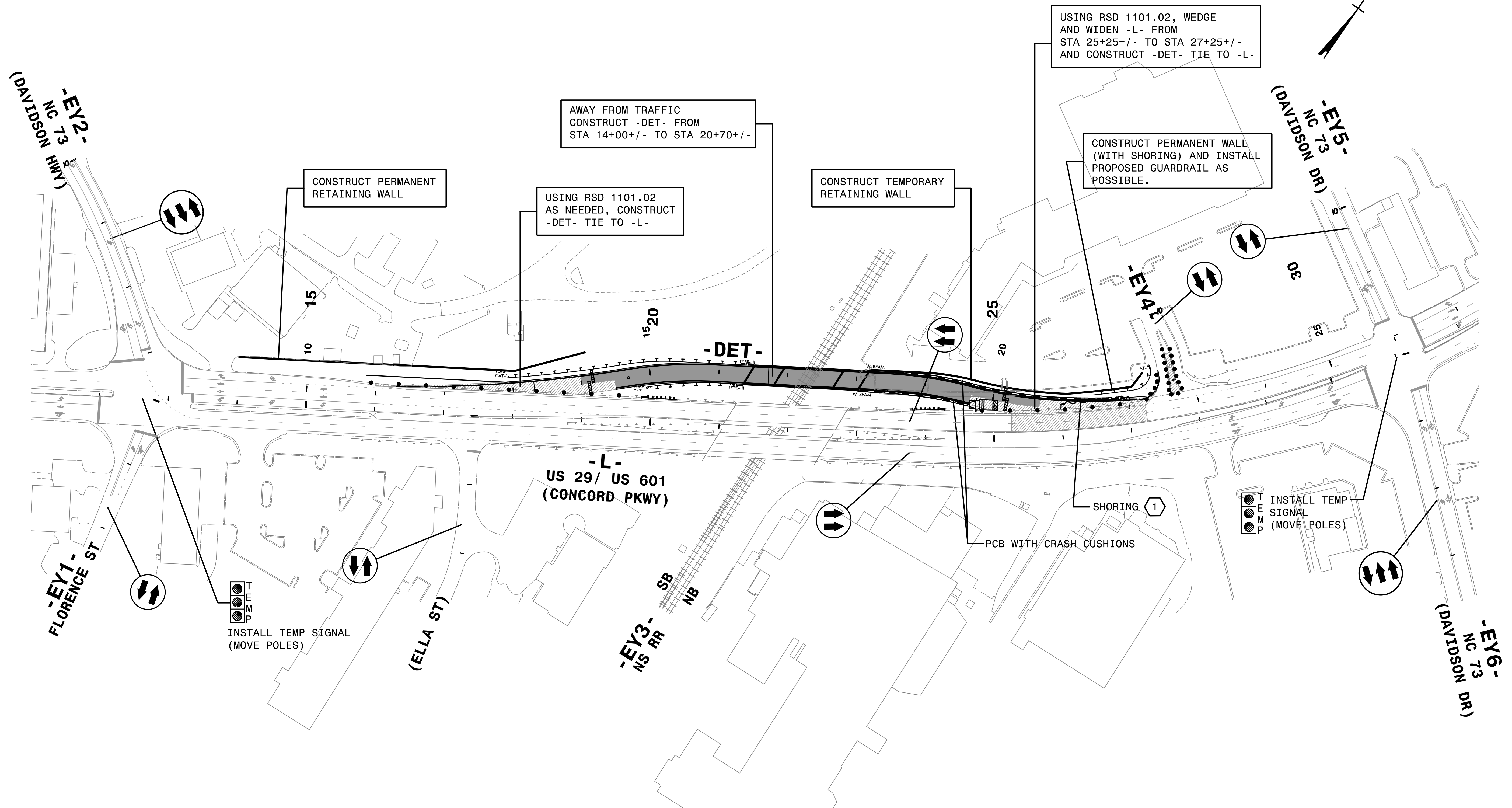
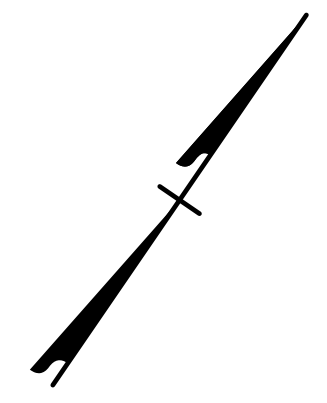
APPROVED: *Rhonda Early*
DATE: 1/8/2015
SEAL



TRANSPORTATION
MANAGEMENT PLAN

PHASING

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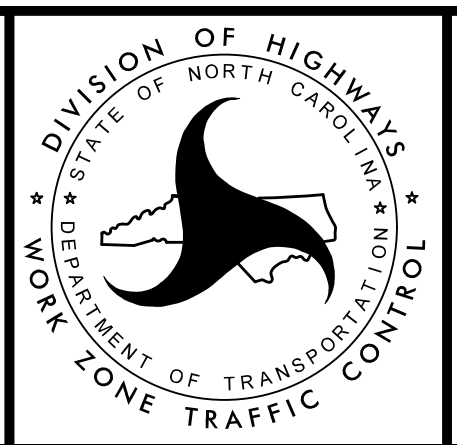


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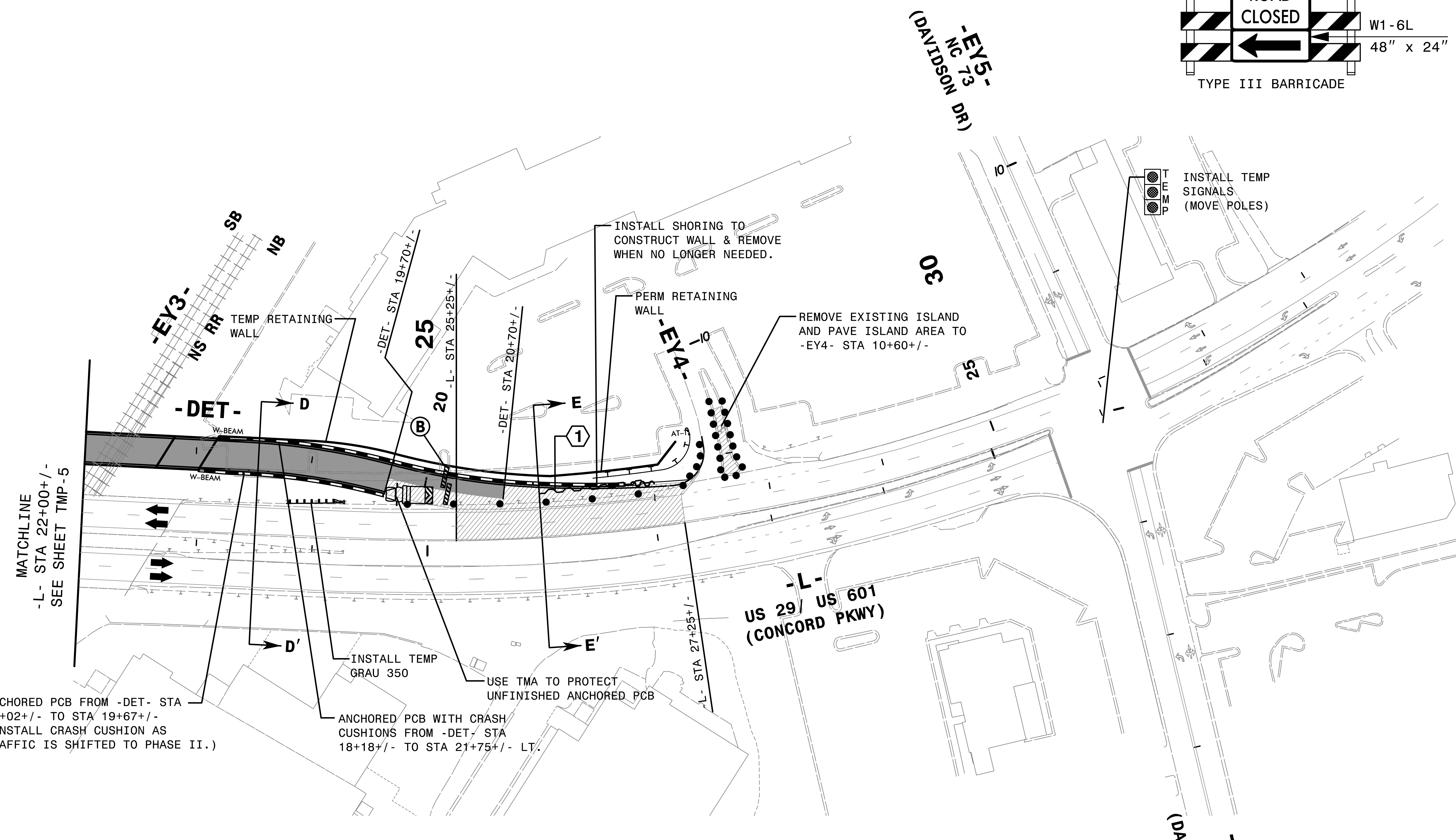
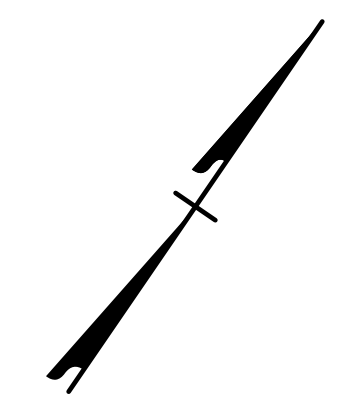
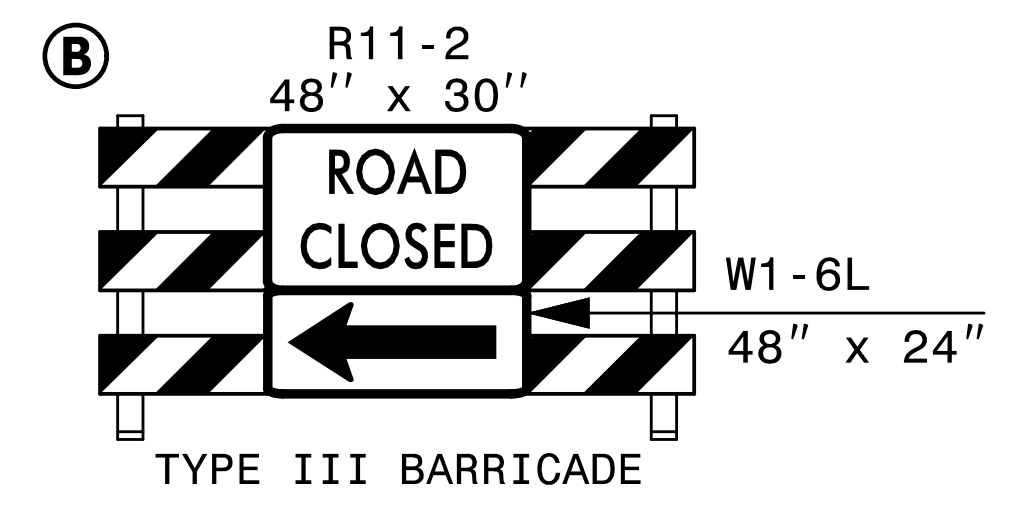
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HNTB
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 NC License No: C-1554

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 DATE: 1/8/2015
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 SEAL 023521
 RHONDA B. EARLY



TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 OVERVIEW
 ...TMP\B5136_tmp_P1 0V.dgn



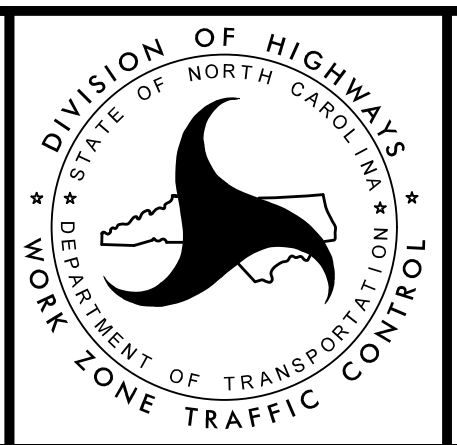
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 TEMPORARY SHORING
 FROM -L- STA 26+00+/-, 52' LT
 TO -L- STA 27+00+/-, 52' LT
 (SEE SHEET TMP-2 FOR TEMPORARY SHORING NOTES)

REFER TO SHEETS TMP-7 FOR CUT SECTION(S).

REVISIONS

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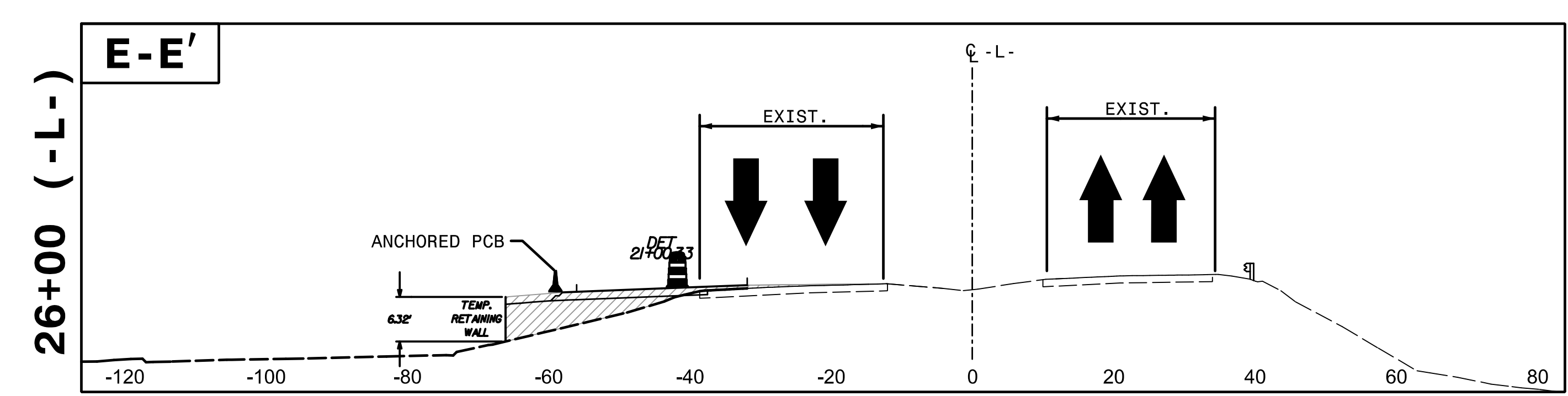
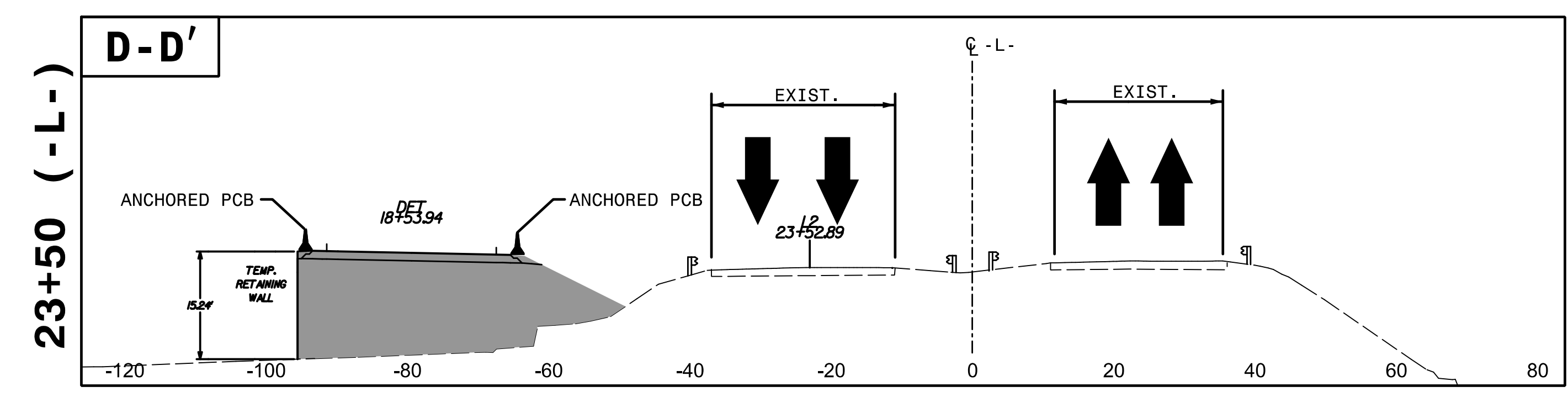
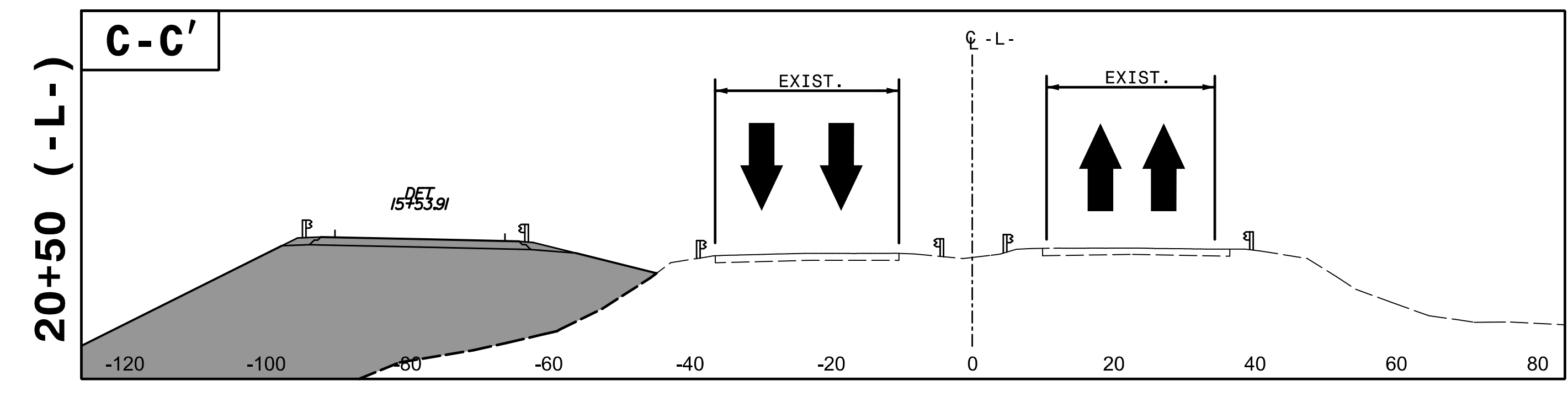
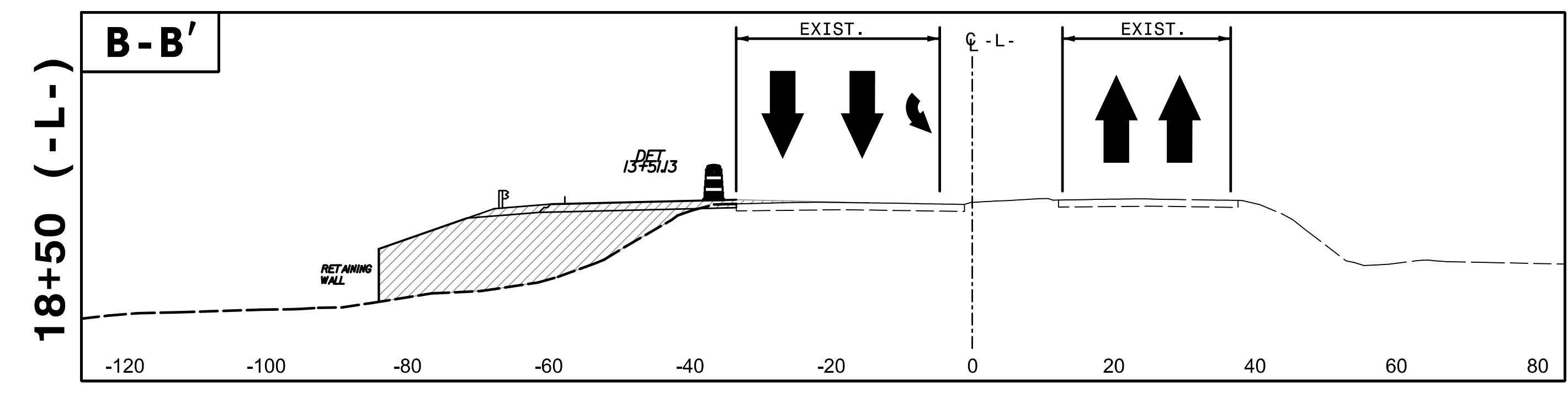
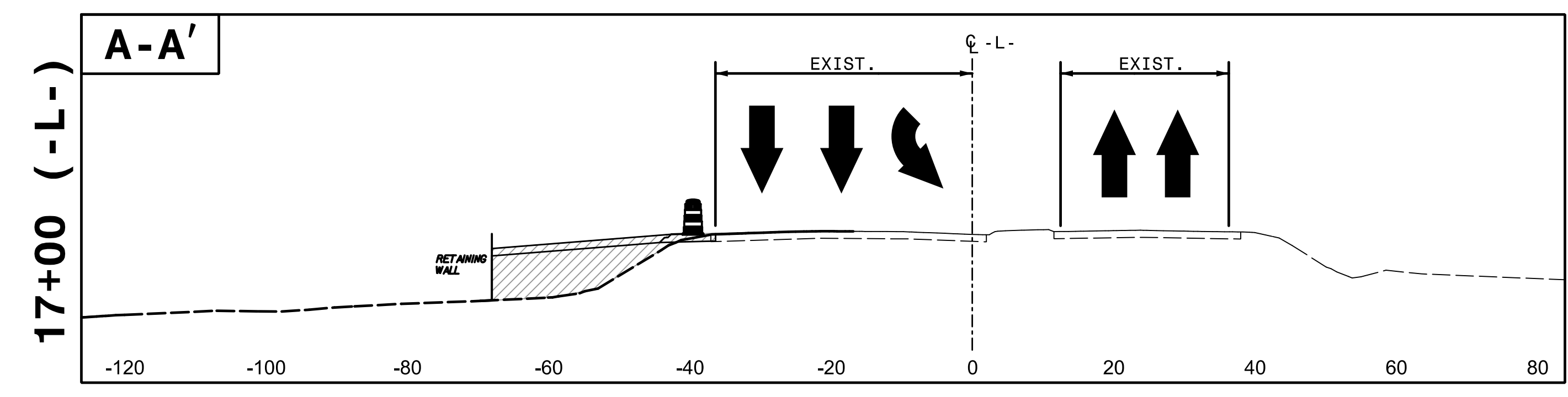
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TRANSPORTATION MANAGEMENT PLAN
 PHASE I
 DETAIL 2

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8/17/99



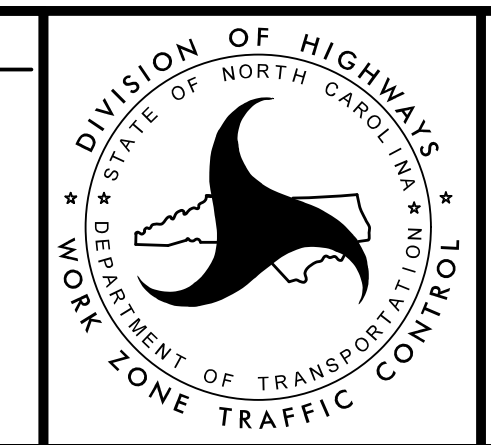
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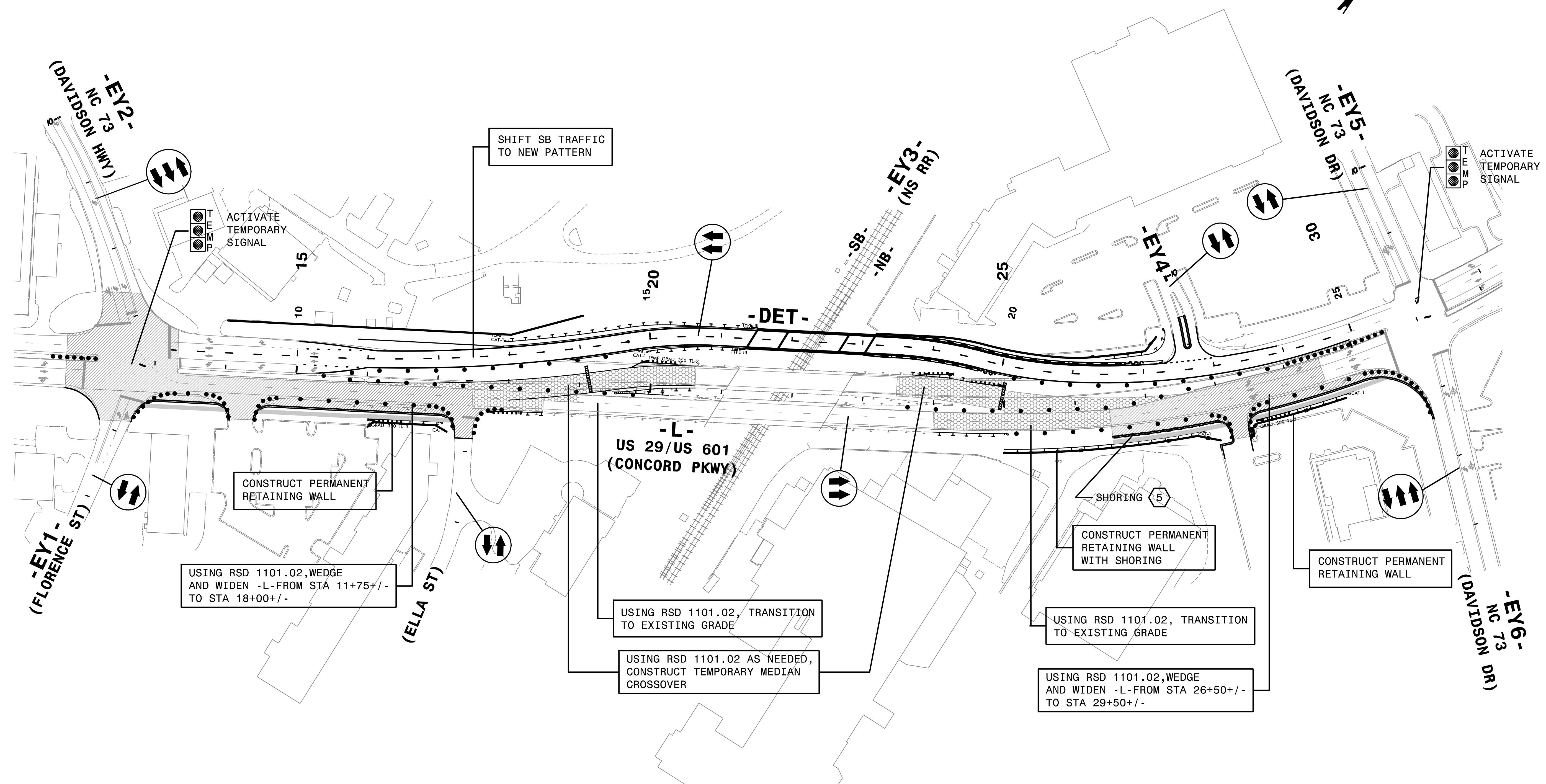
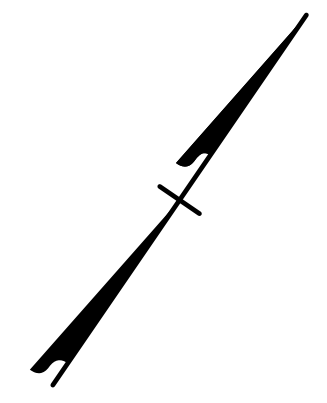
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VERIFY:	

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APPROVED: *Rhonda Early*
DATE: 1/8/2015
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RHONDA B. EARLY
023521



TRANSPORTATION MANAGEMENT PLAN
PHASE I CUT SECTIONS
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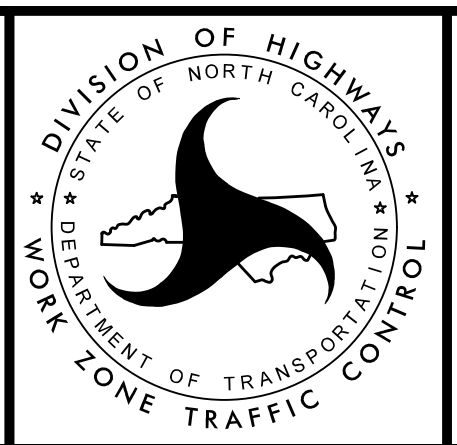


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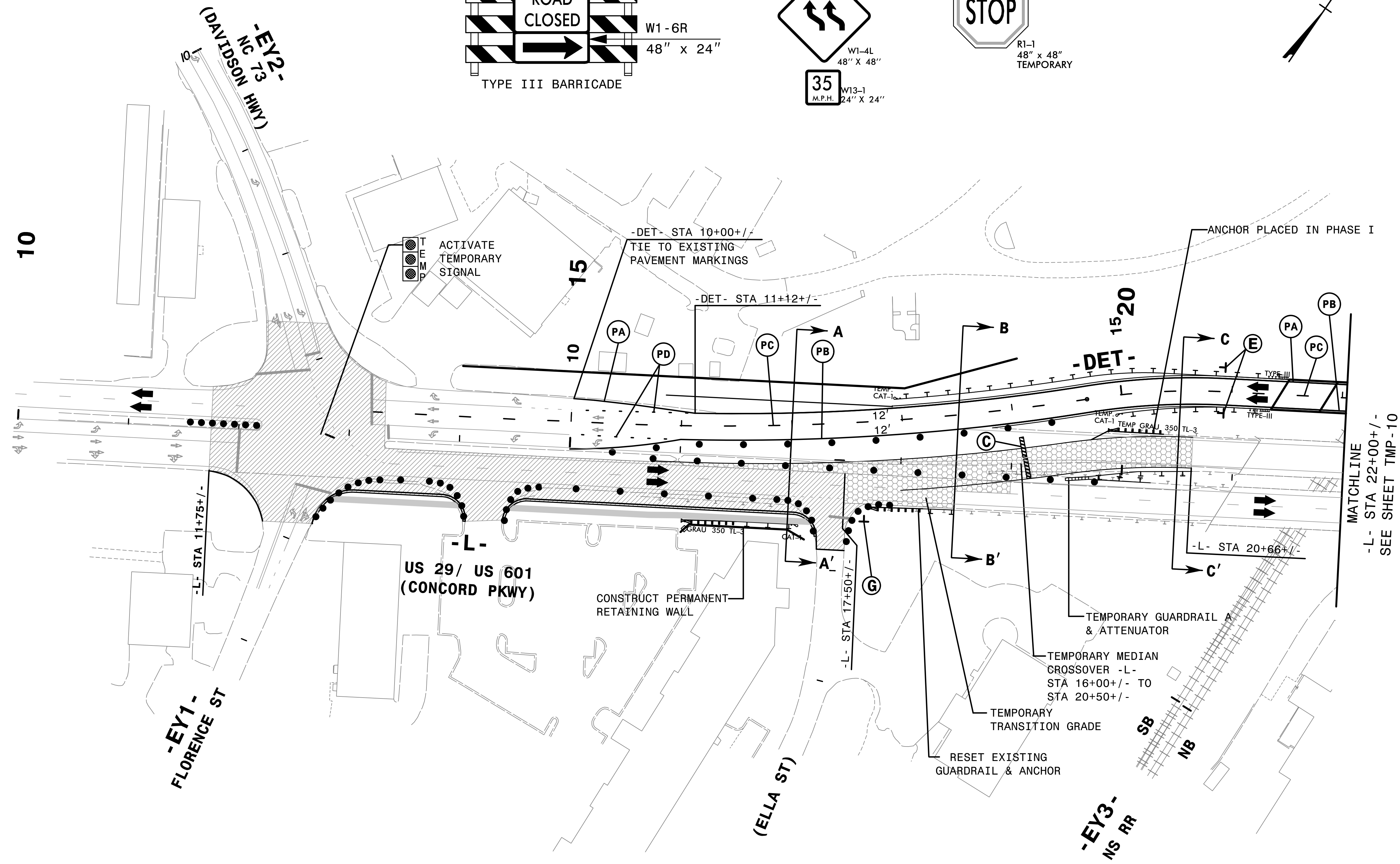
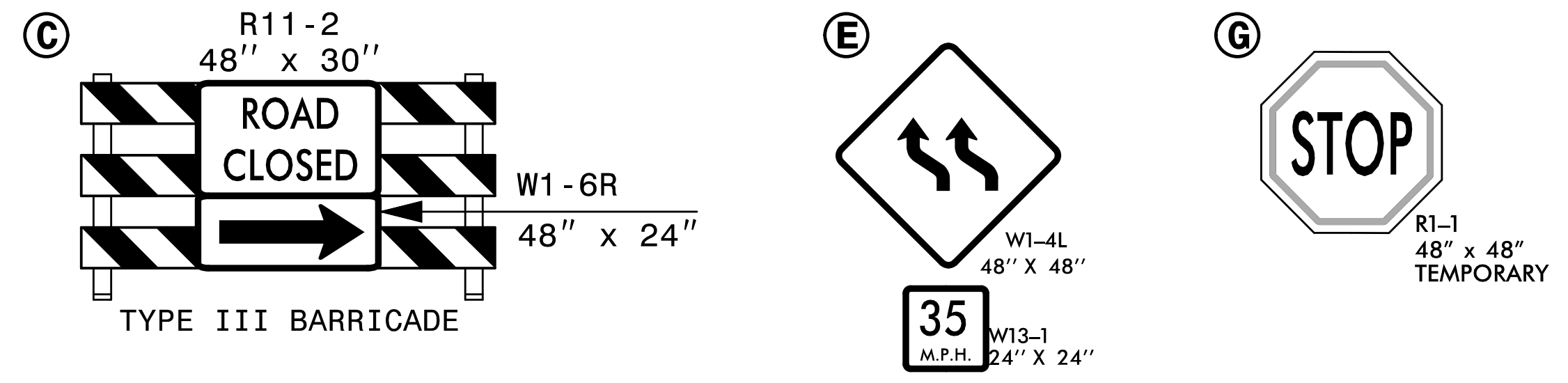
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 Raleigh, North Carolina 27609
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 DATE: 1/8/2015
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 SEAL 023521
 RHONDA B. EARLY



TRANSPORTATION MANAGEMENT PLAN
 PHASE II OVERVIEW
 ... \TMP\B5136_tmp_P2_0V.dgn



REVISIONS

REFER TO SHEET TMP-11 FOR CUT SECTIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

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QA/QC STAGE:

REVIEW:

CONCUR:

REVISE:

VERIFY:

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 NC License No: C-1554

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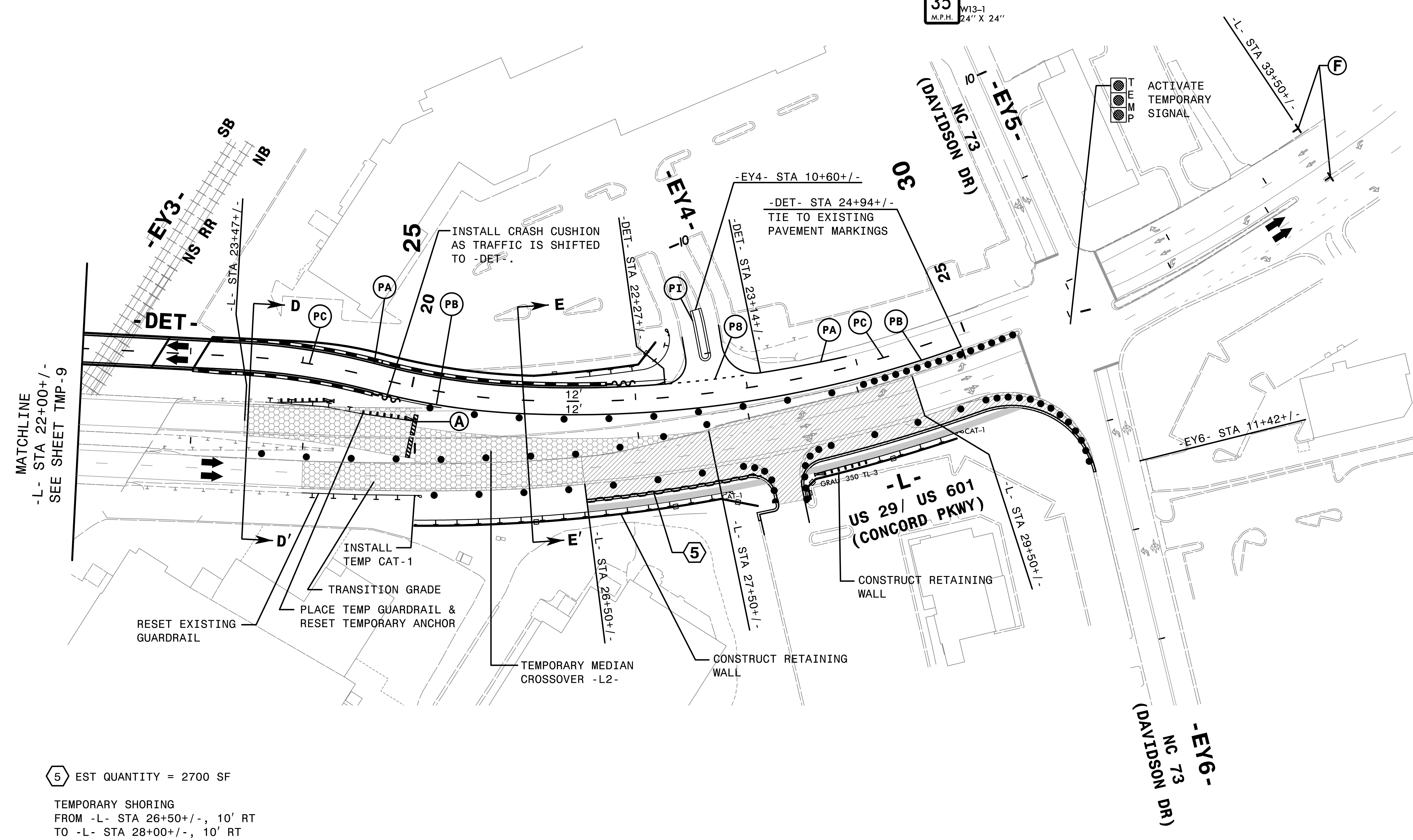
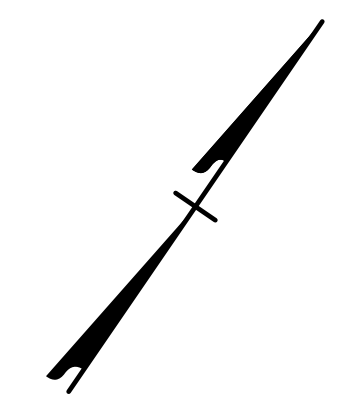
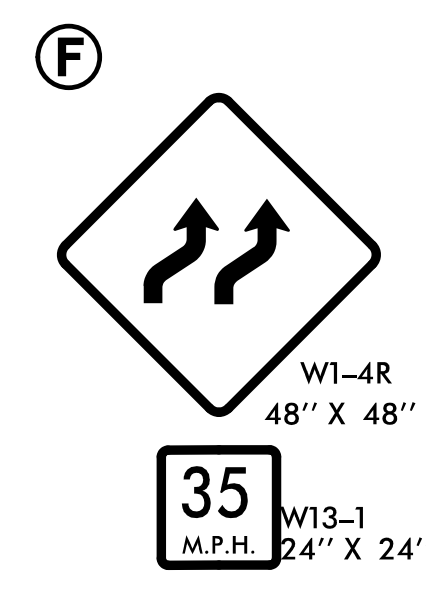
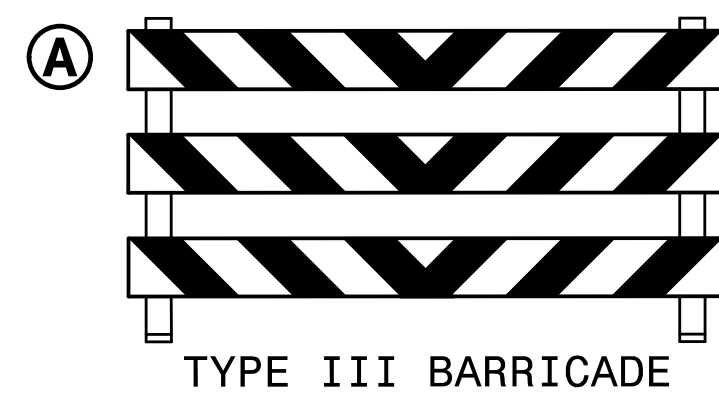
NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 RHONDA B. EARLY

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

TRANSPORTATION MANAGEMENT PLAN

PHASE II
 DETAIL 1

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QA/QC STAGE:

REVIEW: _____

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(5) EST QUANTITY = 2700 SF

TEMPORARY SHORING
FROM -L- STA 26+50+/-, 10' RT
TO -L- STA 28+00+/-, 10' RT

(SEE SHEET TMP-2 FOR
TEMPORARY SHORING NOTES)

REFER TO SHEET TMP-11 FOR CUT SECTIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

HNTB

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343 E. SIX FORKS ROAD, SUITE 200
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NC License No: C-1554

APPROVED: *Rhonda Early*

DATE: 1/8/2015

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023521

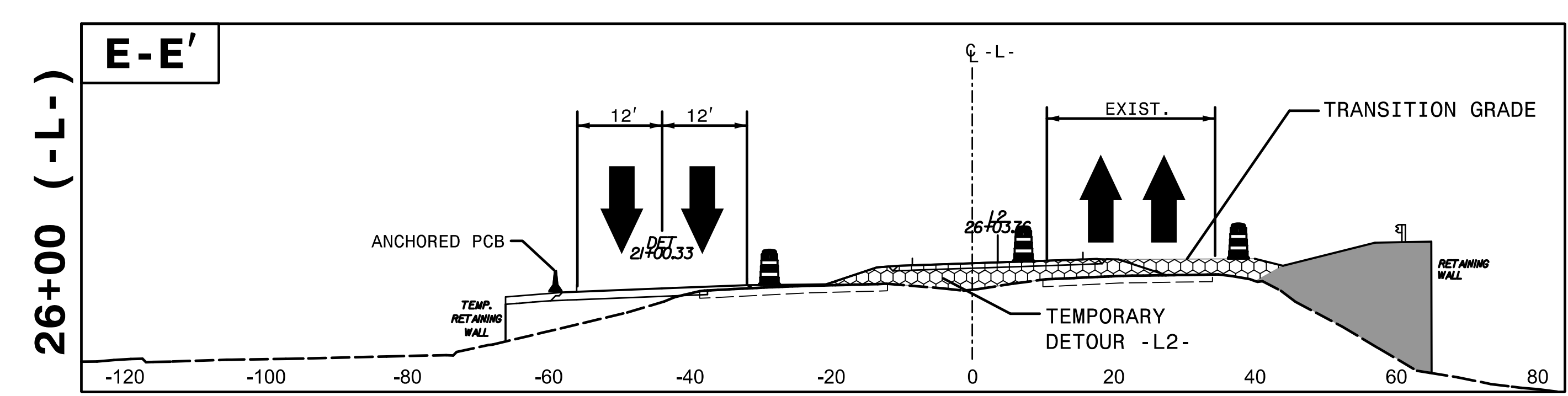
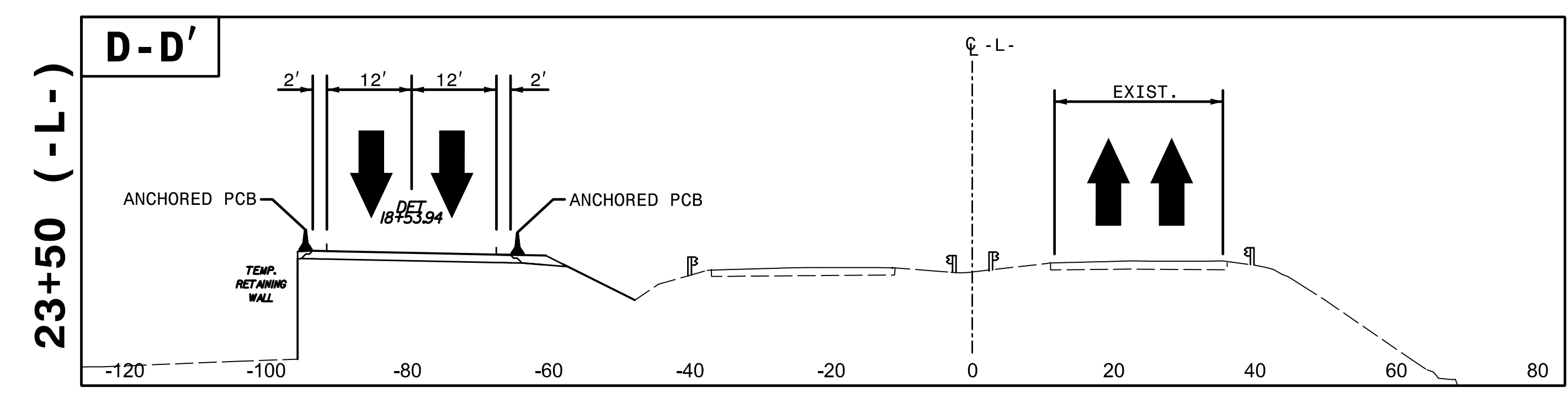
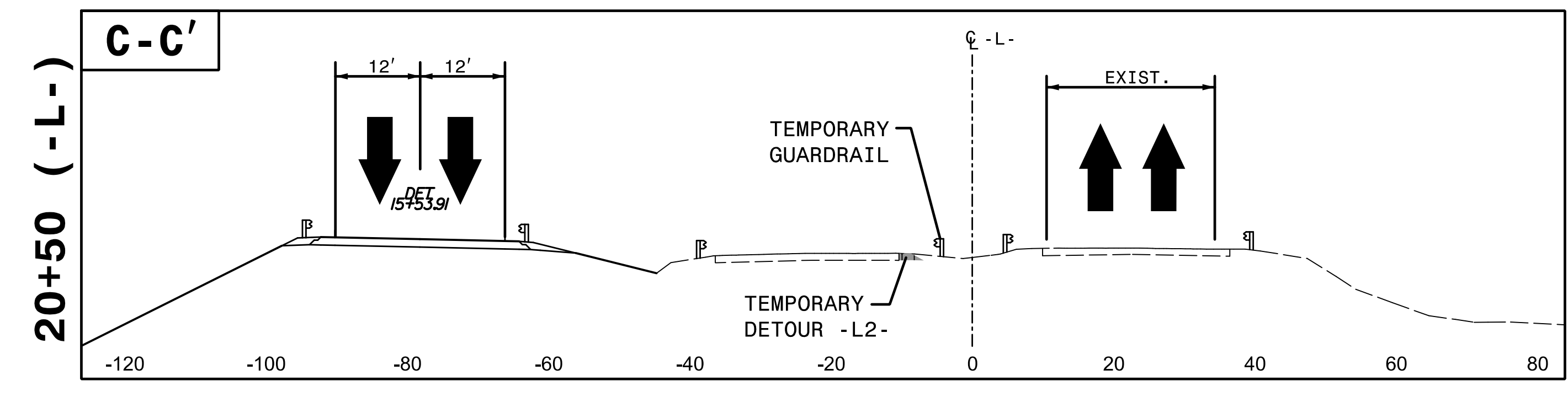
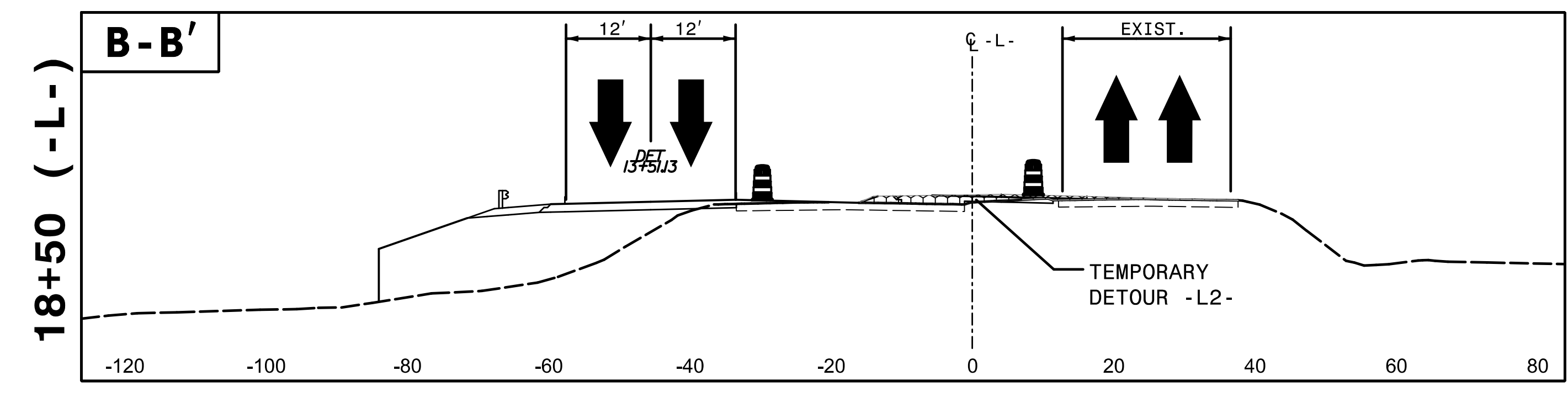
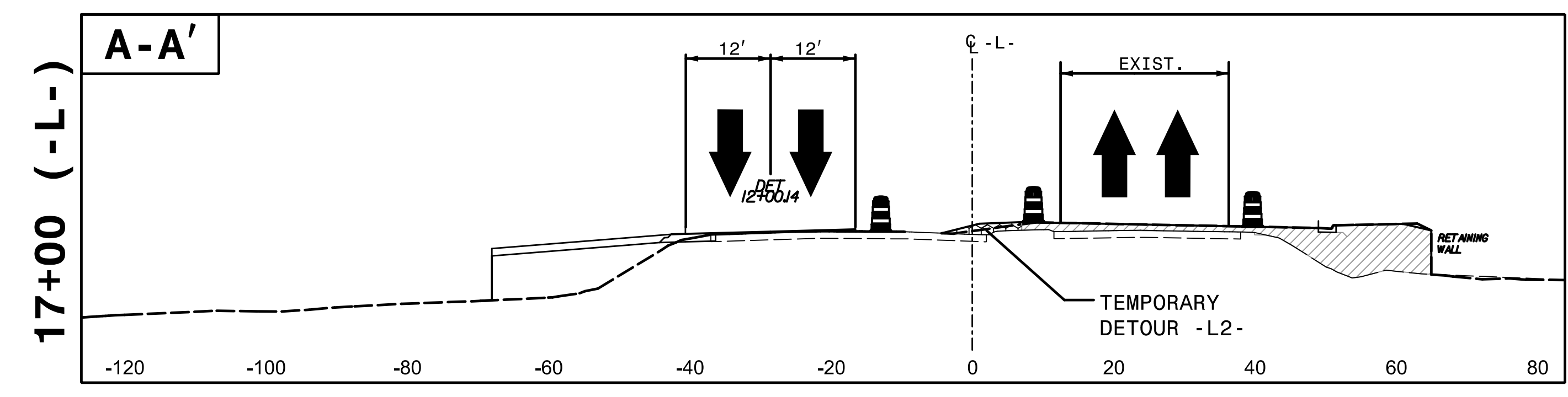
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL 2

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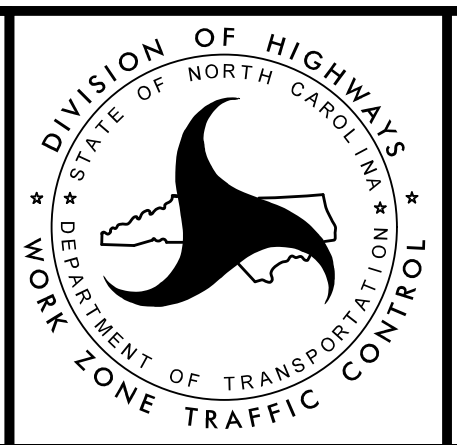
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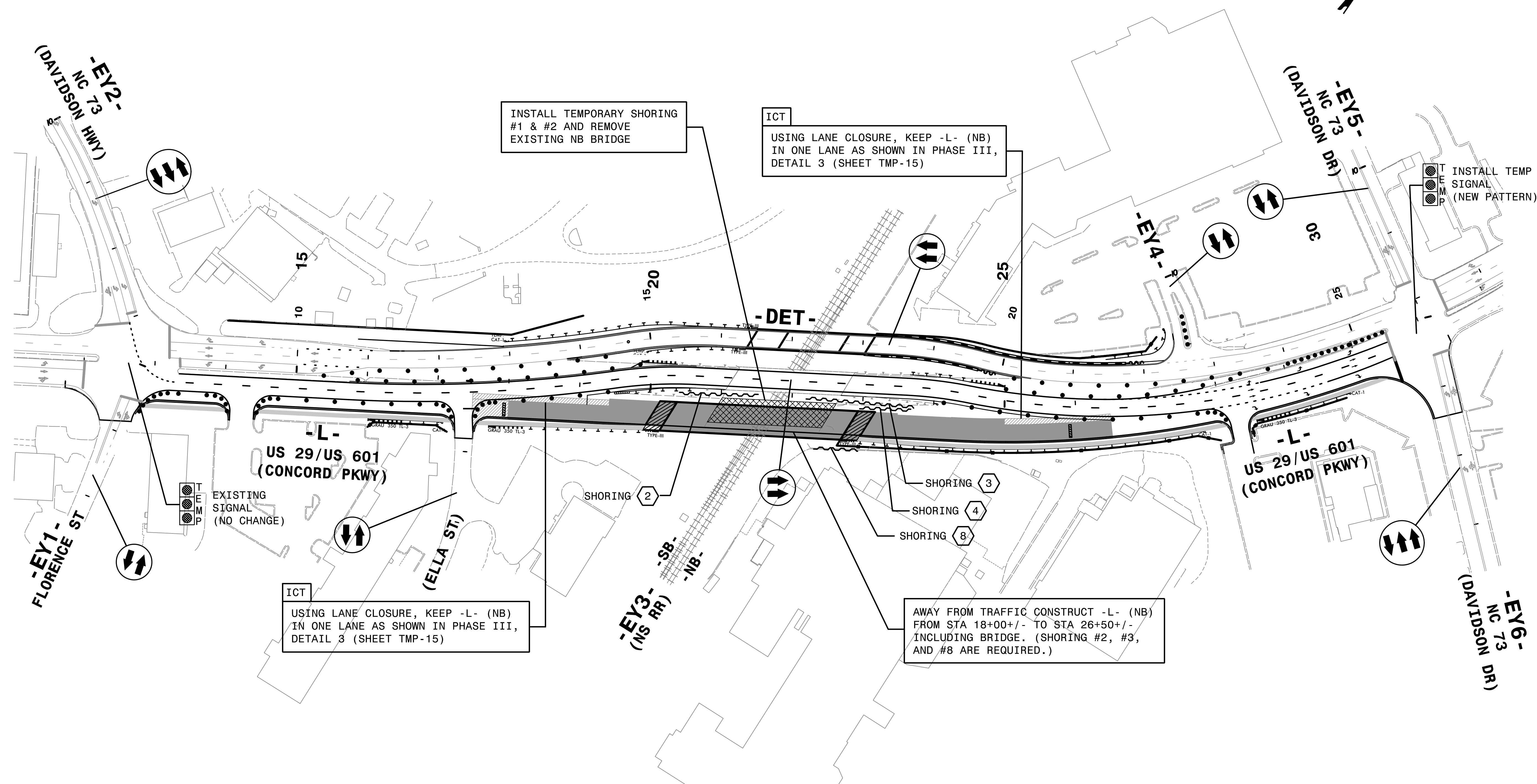
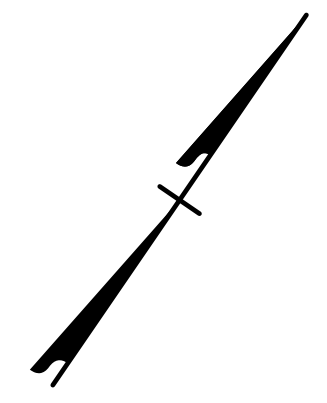
QA/QC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:

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 DATE: 1/8/2015
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 RYONDA B. EARLY
 023521



TRANSPORTATION MANAGEMENT PLAN
 PHASE II CUT SECTIONS
 ...\\TMP\B5136_tmp_P2cuts.dgn



REVISIONS

1452-F:\B\5136 tmp_P3 0V.dgn
 \$\$\$USER\$\$\$
 Q/A/C STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:

ICT
 USING LANE CLOSURE, KEEP -L- (NB)
 IN ONE LANE AS SHOWN IN PHASE III,
 DETAIL 3 (SHEET TMP-15)

INSTALL TEMPORARY SHORING
 #1 & #2 AND REMOVE
 EXISTING NB BRIDGE

ICT
 USING LANE CLOSURE, KEEP -L- (NB)
 IN ONE LANE AS SHOWN IN PHASE III,
 DETAIL 3 (SHEET TMP-15)

AWAY FROM TRAFFIC CONSTRUCT -L- (NB)
 FROM STA 18+00+/- TO STA 26+50+/-
 INCLUDING BRIDGE. (SHORING #2, #3,
 AND #8 ARE REQUIRED.)

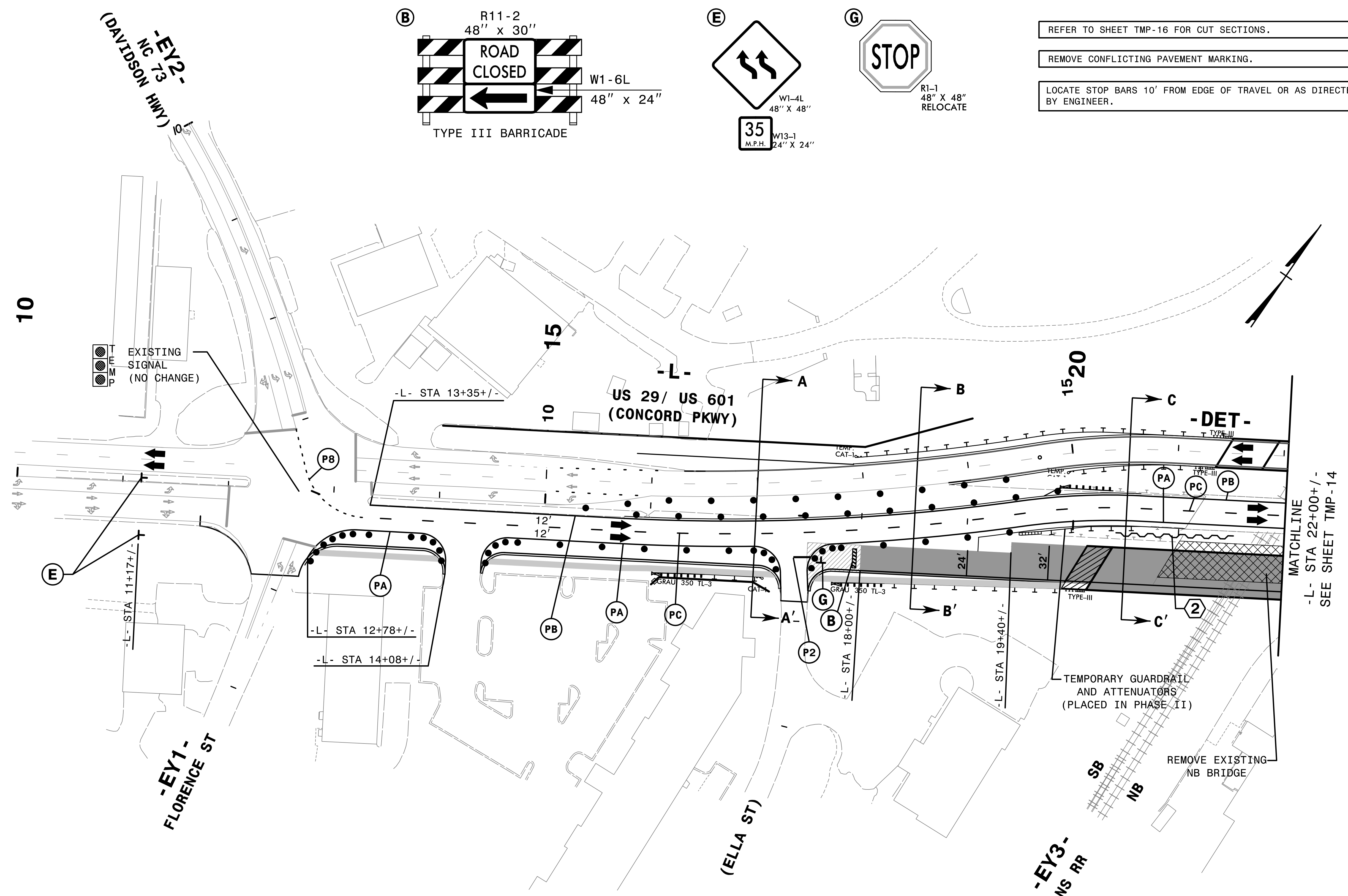
INSTALL TEMP
 SIGNAL
 (NEW PATTERN)

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 ENGINEER
 023521
 RHONDA B. EARLY

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

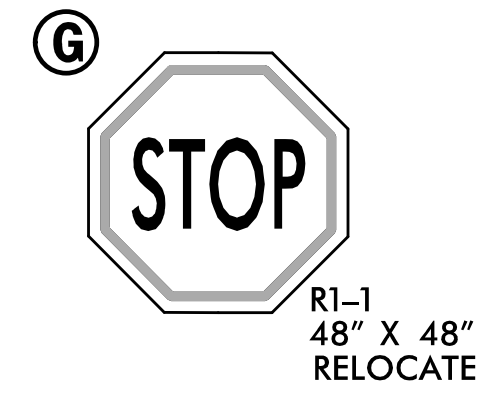
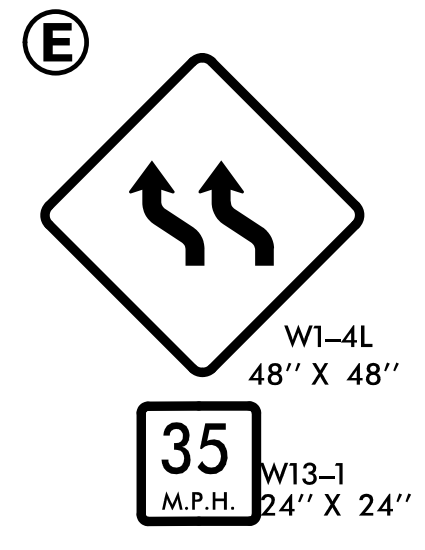
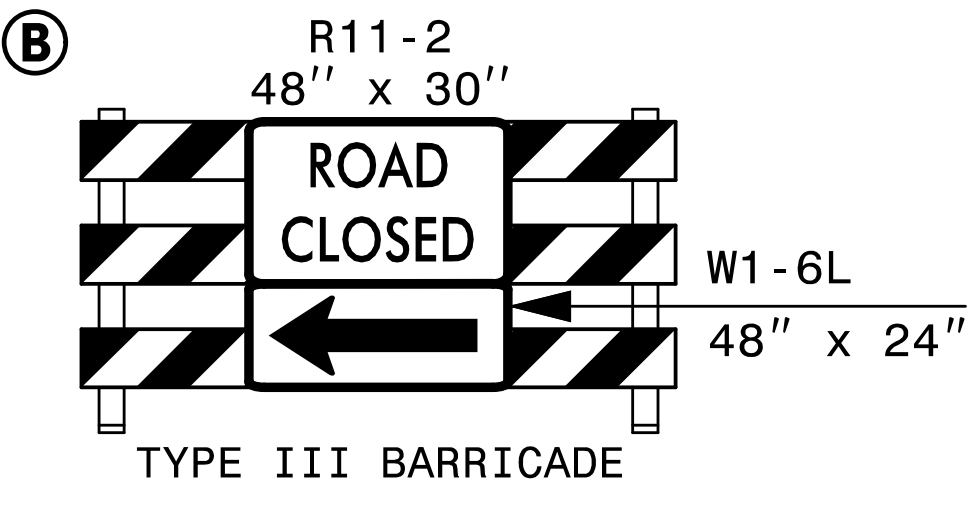
TRANSPORTATION
 MANAGEMENT PLAN
 PHASE III
 OVERVIEW



REFER TO SHEET TMP-16 FOR CUT SECTIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

LOCATE STOP BARS 10' FROM EDGE OF TRAVEL OR AS DIRECTED BY ENGINEER.



EXISTING SIGNAL
(NO CHANGE)

(2) EST QUANTITY = 2775 SF

TEMPORARY SHORING
FROM -L- STA 20+41+/-, 2.6' RT
TO -L- STA 21+52+/-, 0' LT

(SEE SHEET TMP-2 FOR
TEMPORARY SHORING NOTES)

REVISIONS

452446 PM 136 tmp_P3D1.dgn
\$\$\$\$\$
QA/QC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

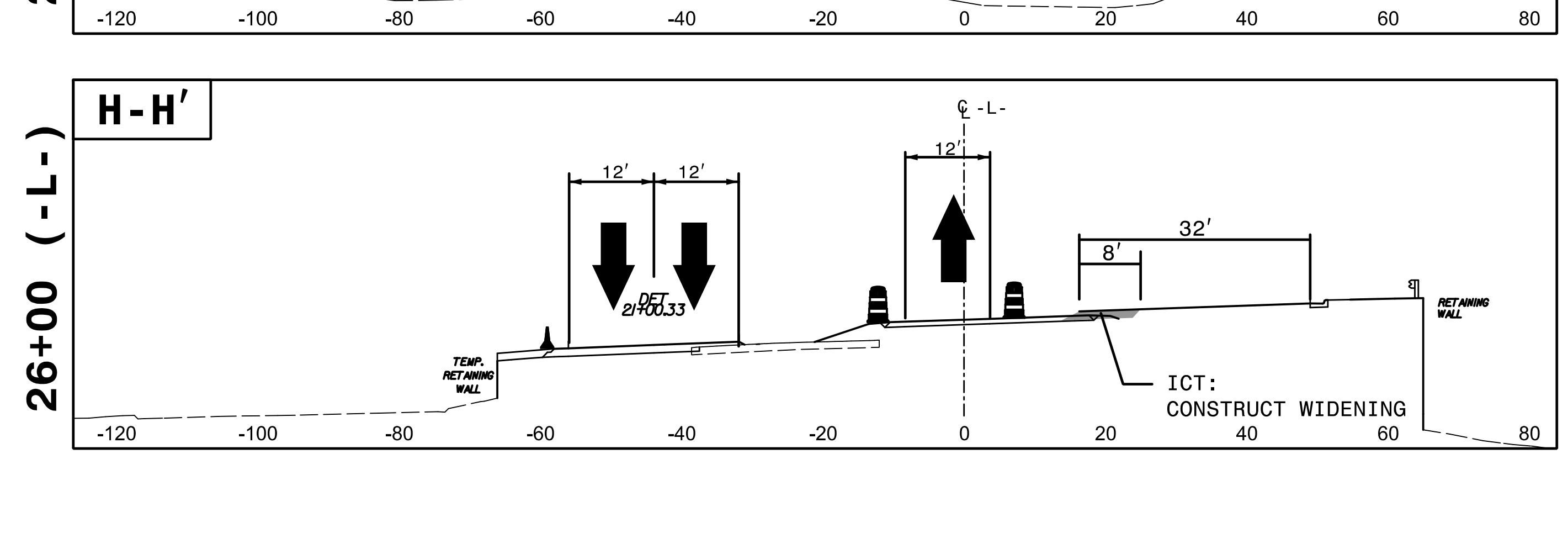
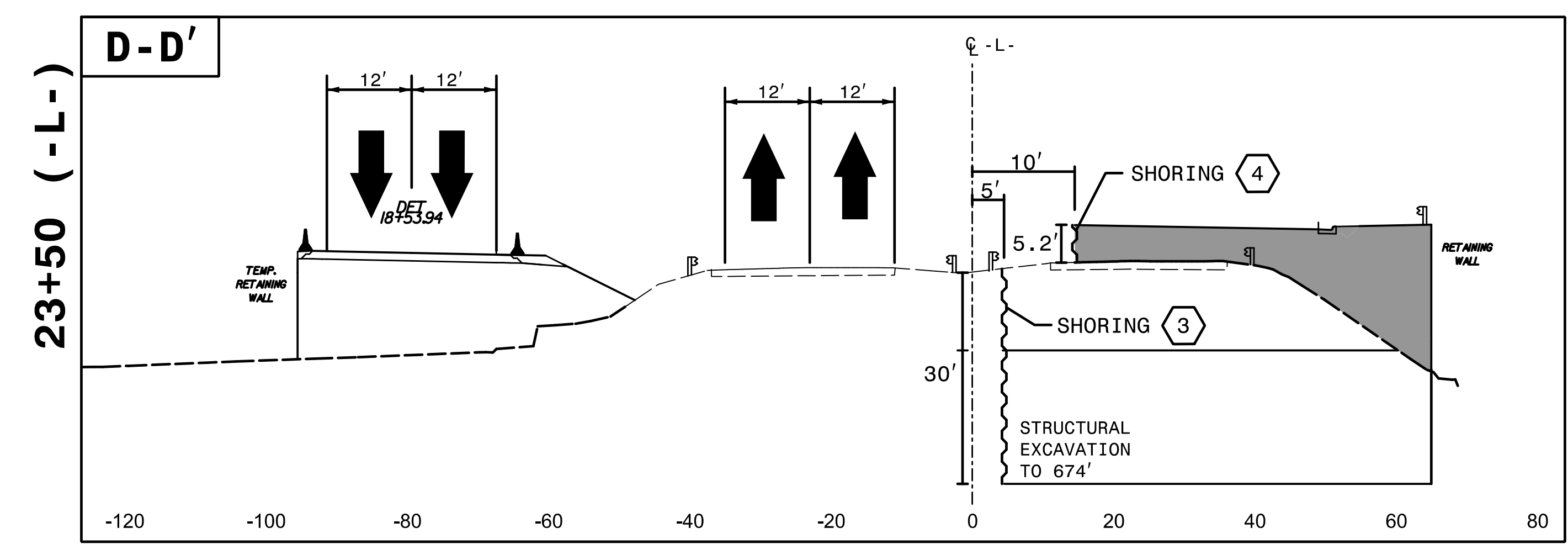
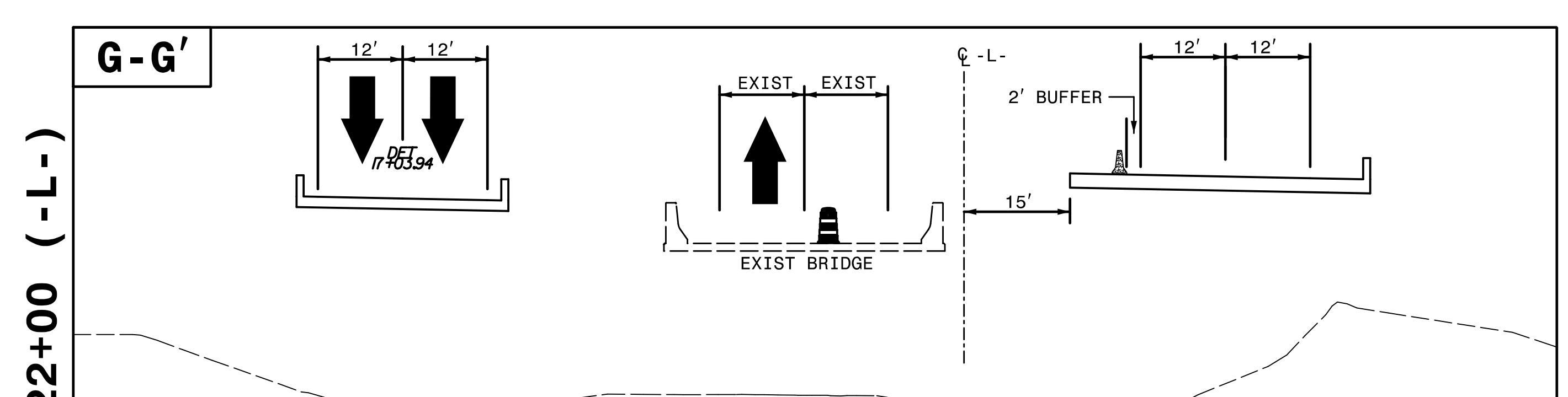
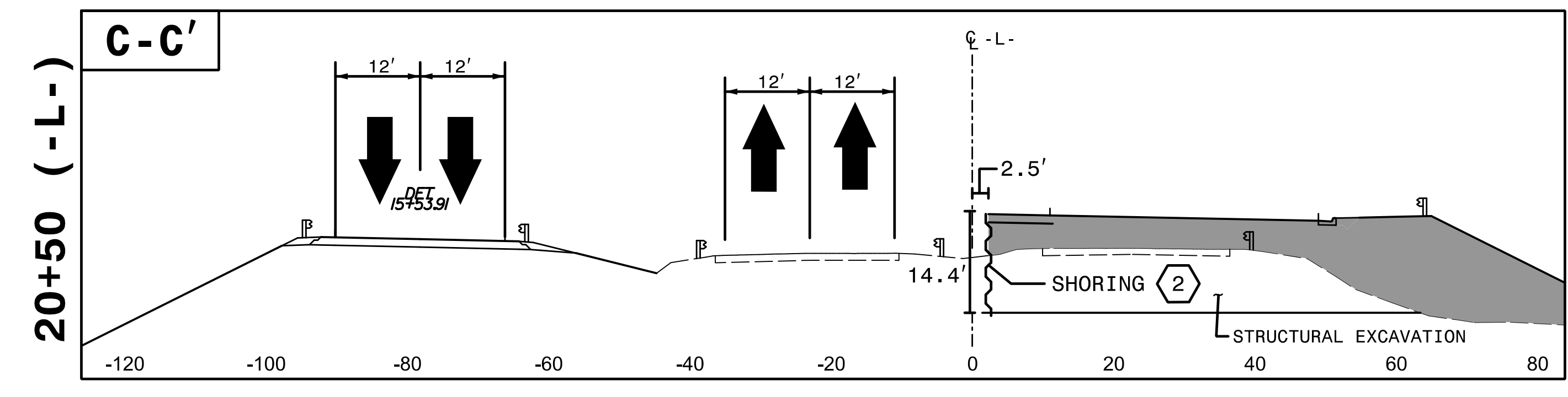
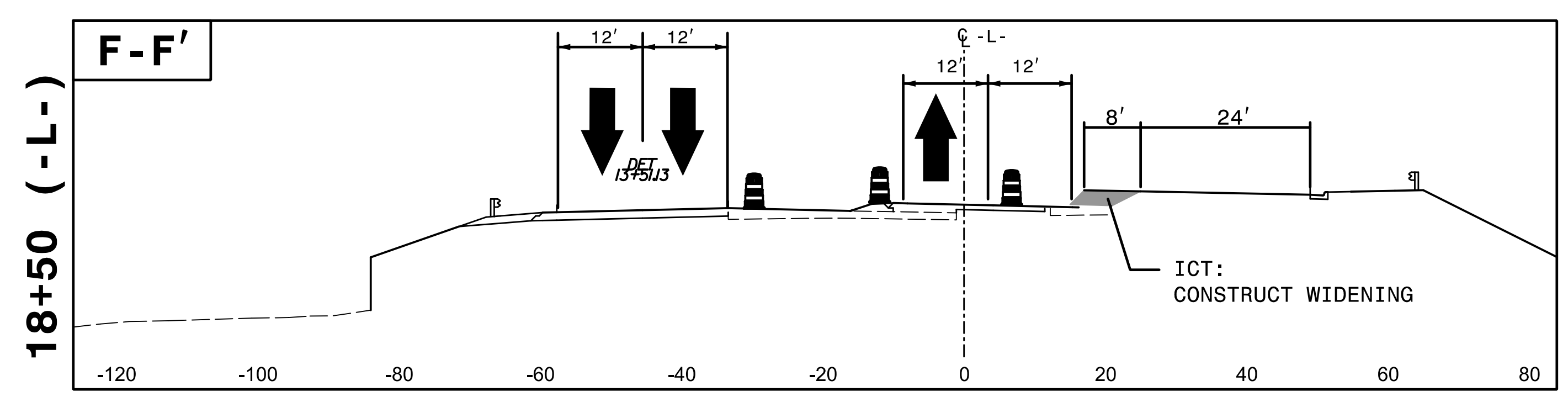
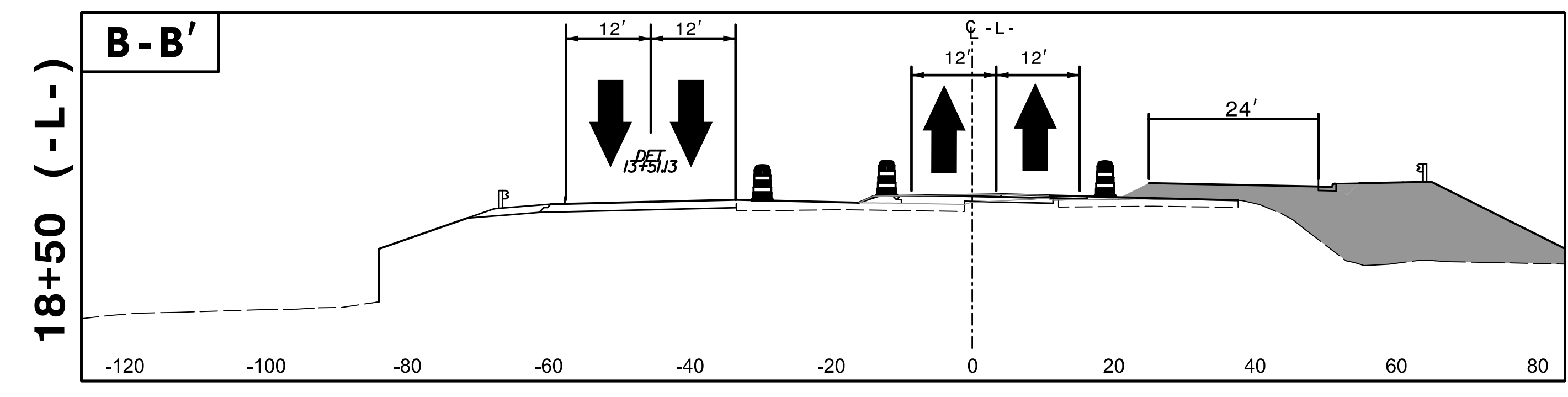
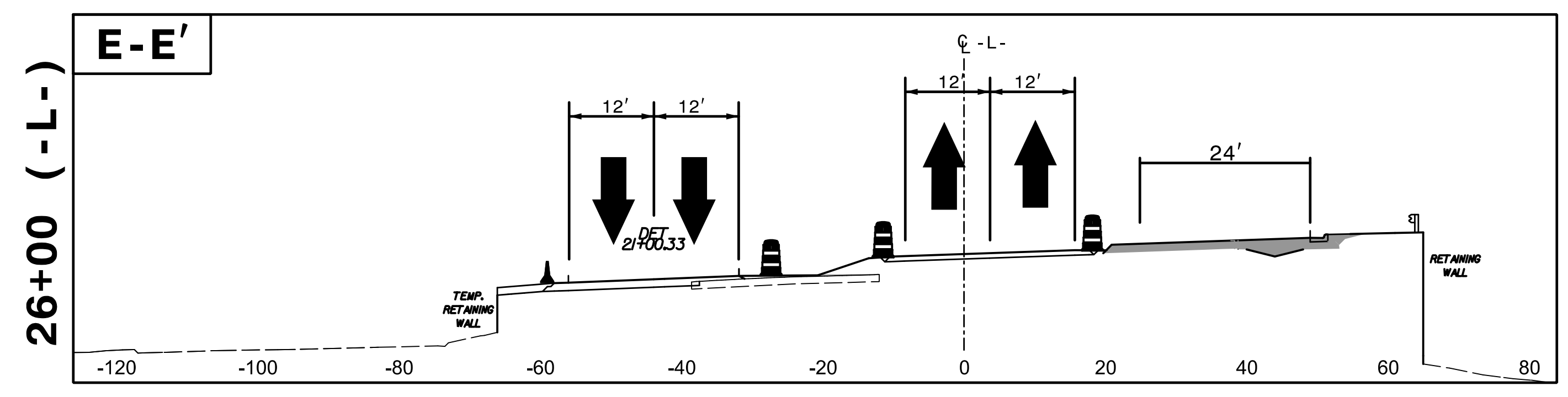
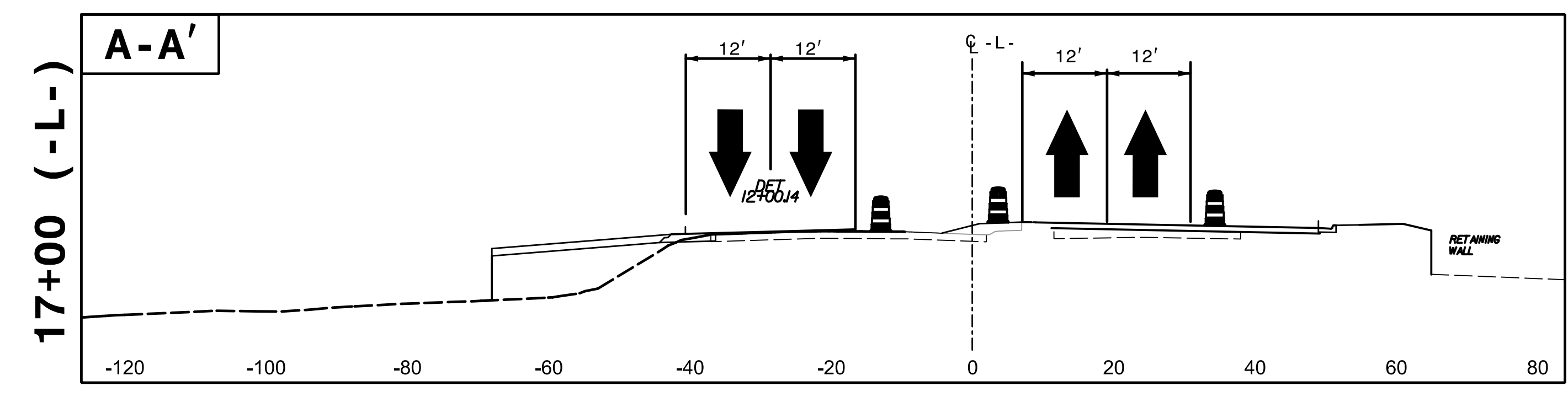
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023521

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DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

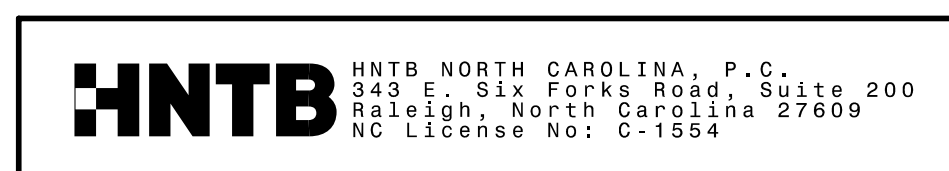
TRANSPORTATION
MANAGEMENT PLAN
PHASE III
DETAIL 1

8/17/99

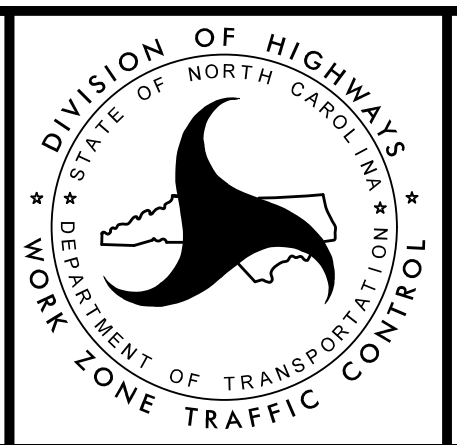


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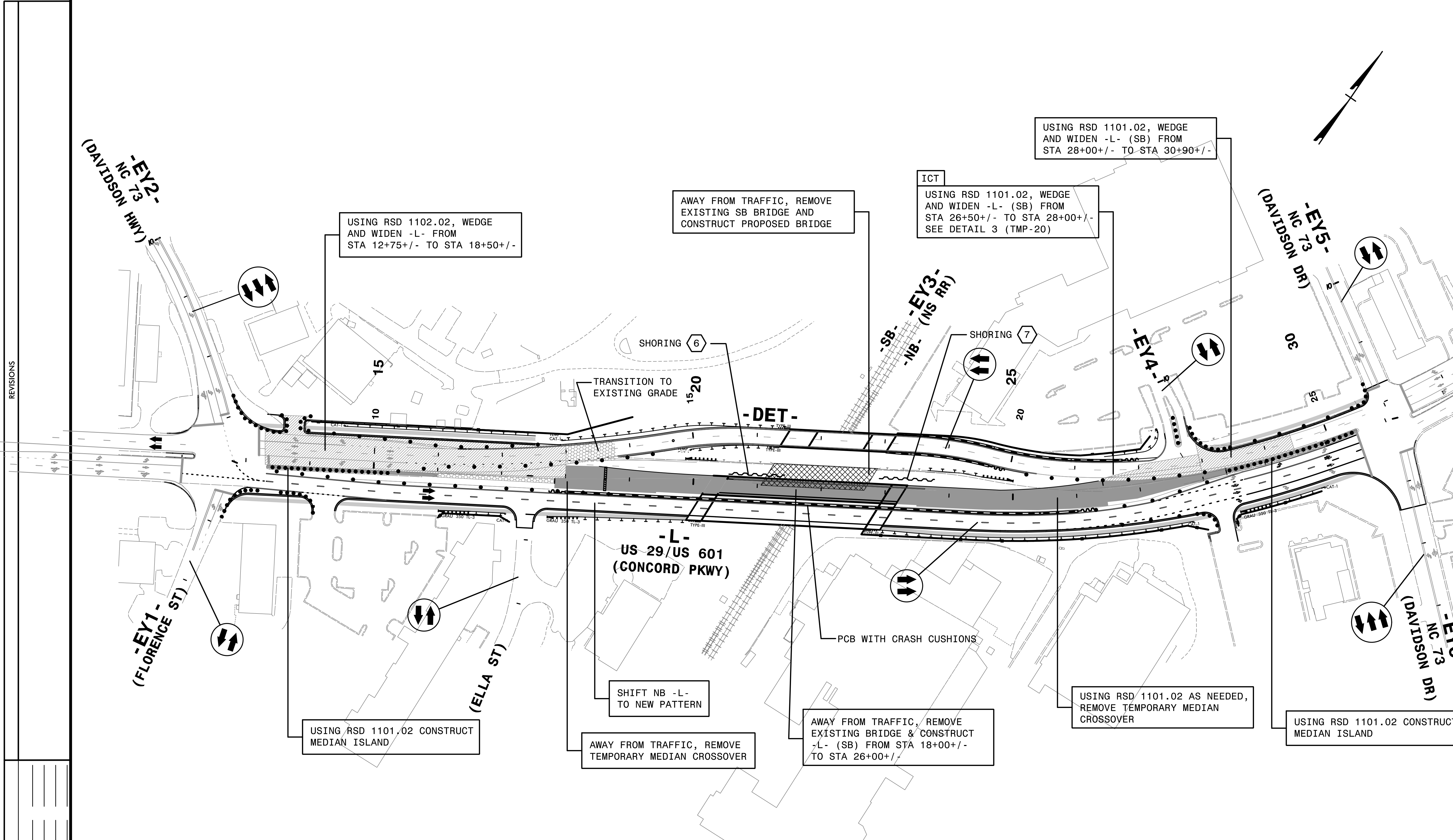
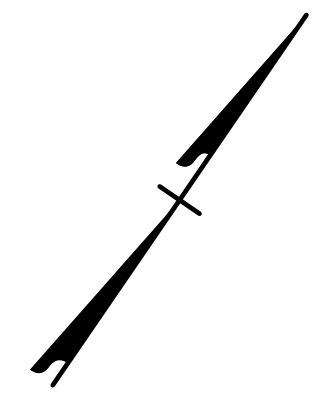
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 CONCUR:
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TRANSPORTATION MANAGEMENT PLAN
 PHASE III CUT SECTIONS
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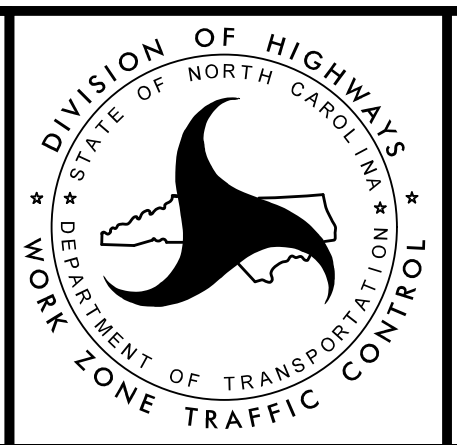


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 REVISE:
 VERIFY:

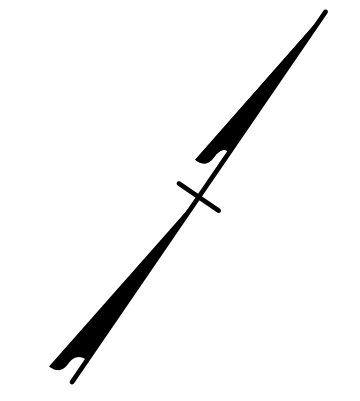
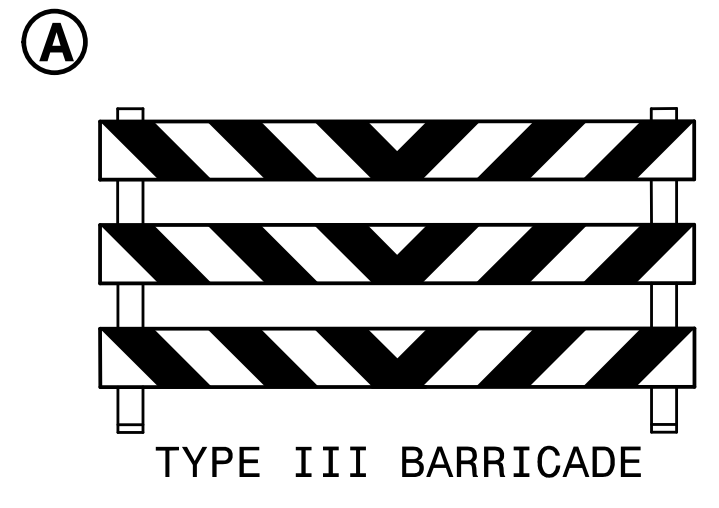
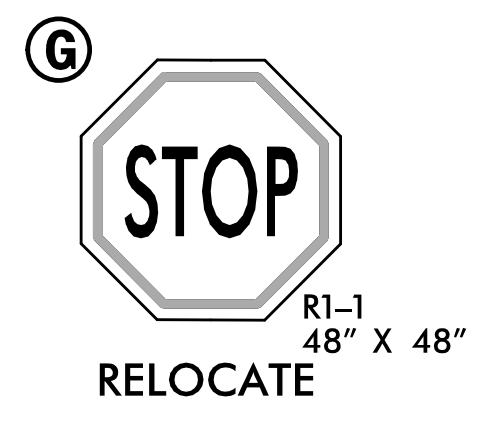
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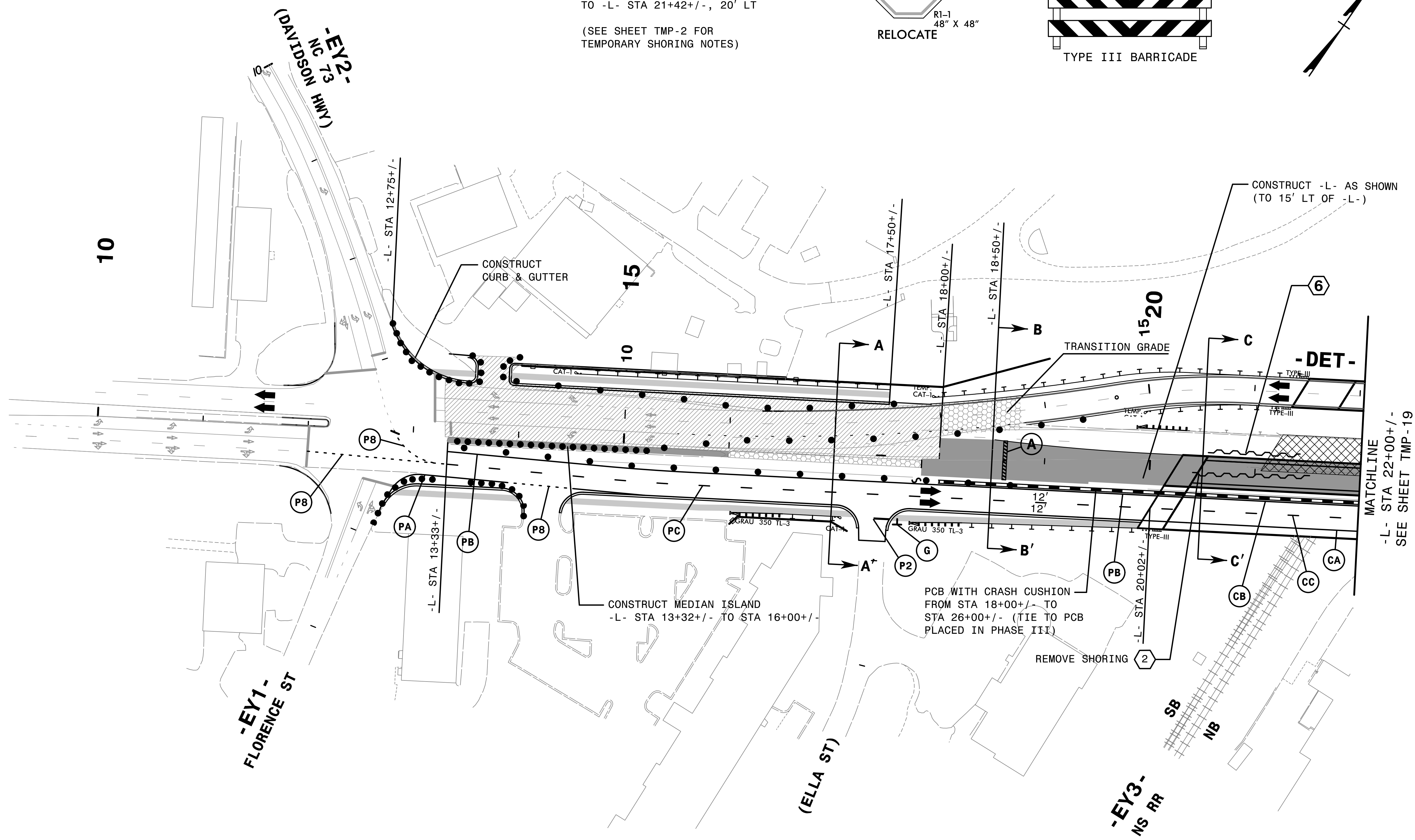


TRANSPORTATION MANAGEMENT PLAN
 PHASE IV OVERVIEW
 ... \TMP\B5136 tmp_P4 0V.dgn

6 EST QUANTITY = 653 SF
 TEMPORARY SHORING
 FROM -L- STA 20+55+/-, 20' LT
 TO -L- STA 21+42+/-, 20' LT
 (SEE SHEET TMP-2 FOR
 TEMPORARY SHORING NOTES)



1454108.dwg
 1/8/15
 136 tmp_P4D1.dgn
 \$\$\$USER\$
 \$\$\$SERIAL\$
 \$\$\$NAME\$
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 Q&QC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:



- REFER TO SHEETS TMP-21 FOR CUT SECTIONS.
- REMOVE CONFLICTING PAVEMENT MARKING.
- LOCATE STOP BARS 10' FROM EDGE OF TRAVEL OR AS DIRECTED BY ENGINEER.

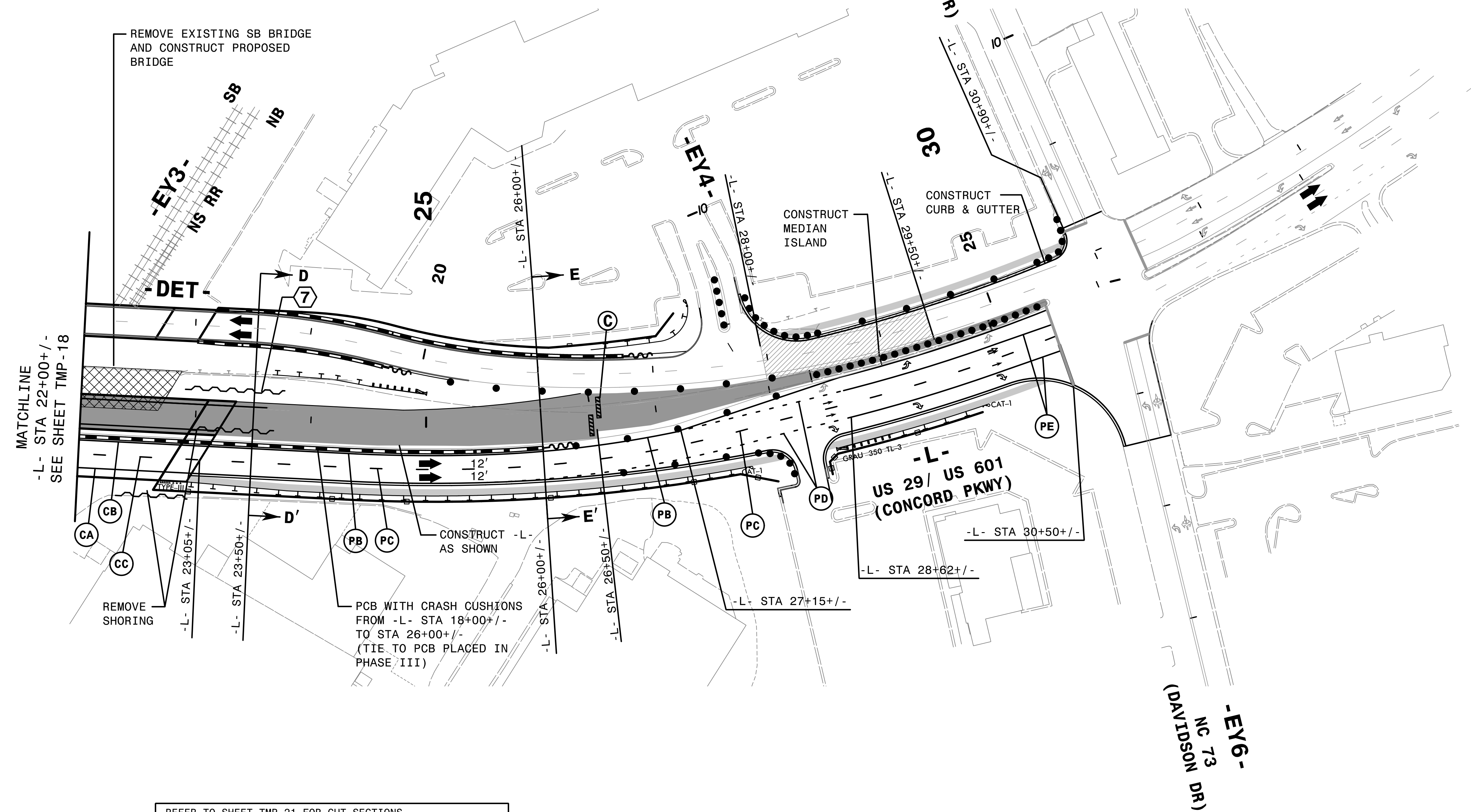
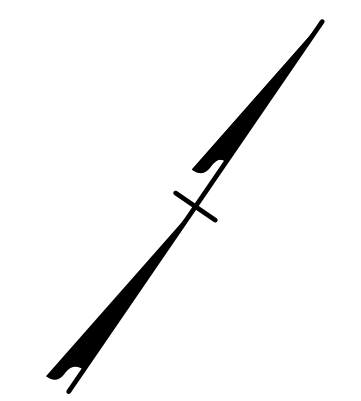
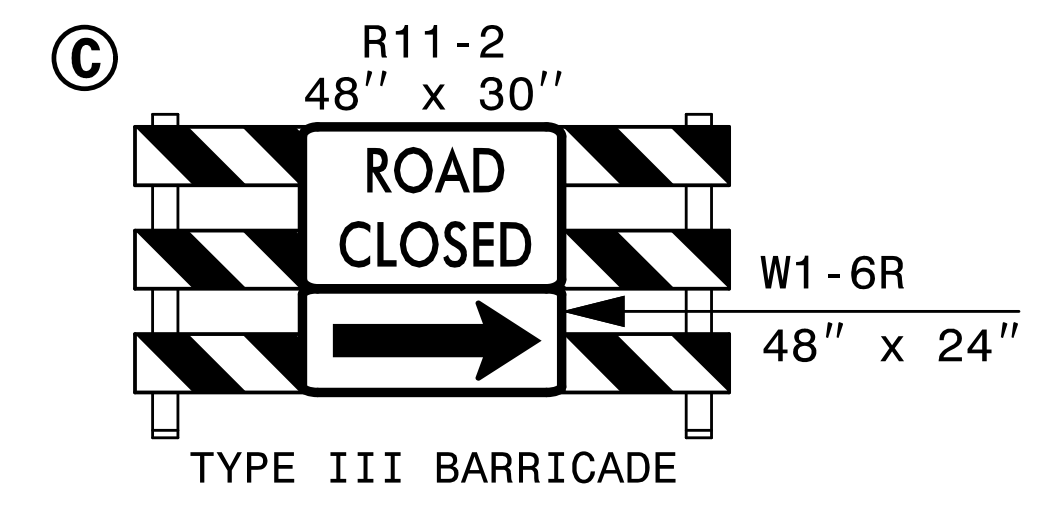
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 DEPARTMENT OF TRANSPORTATION
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TRANSPORTATION MANAGEMENT PLAN
 PHASE IV
 DETAIL 1
 ... \TMP\B5136 tmp_P4D1.dgn

⑦ EST QUANTITY = 688 SF
 TEMPORARY SHORING
 FROM -L- STA 22+90+/-, 25' LT
 TO -L- STA 23+76+/-, 25' LT
 (SEE SHEET TMP-2 FOR
 TEMPORARY SHORING NOTES)



- REFER TO SHEET TMP-21 FOR CUT SECTIONS.
- REMOVE CONFLICTING PAVEMENT MARKING.
- LOCATE STOP BARS 10' FROM EDGE OF TRAVEL OR AS DIRECTED BY ENGINEER.

REVISIONS

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 Q/A/C STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:

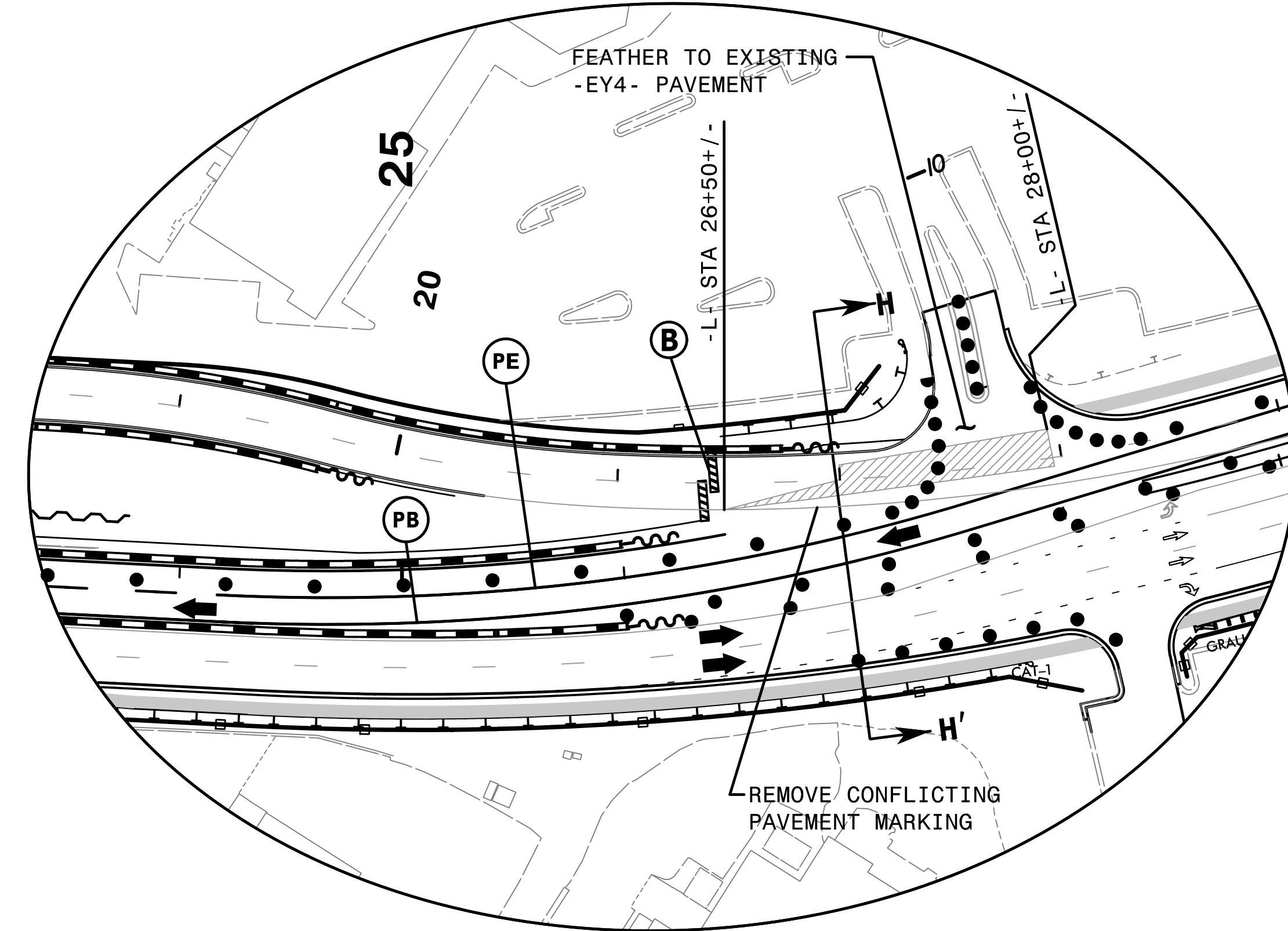
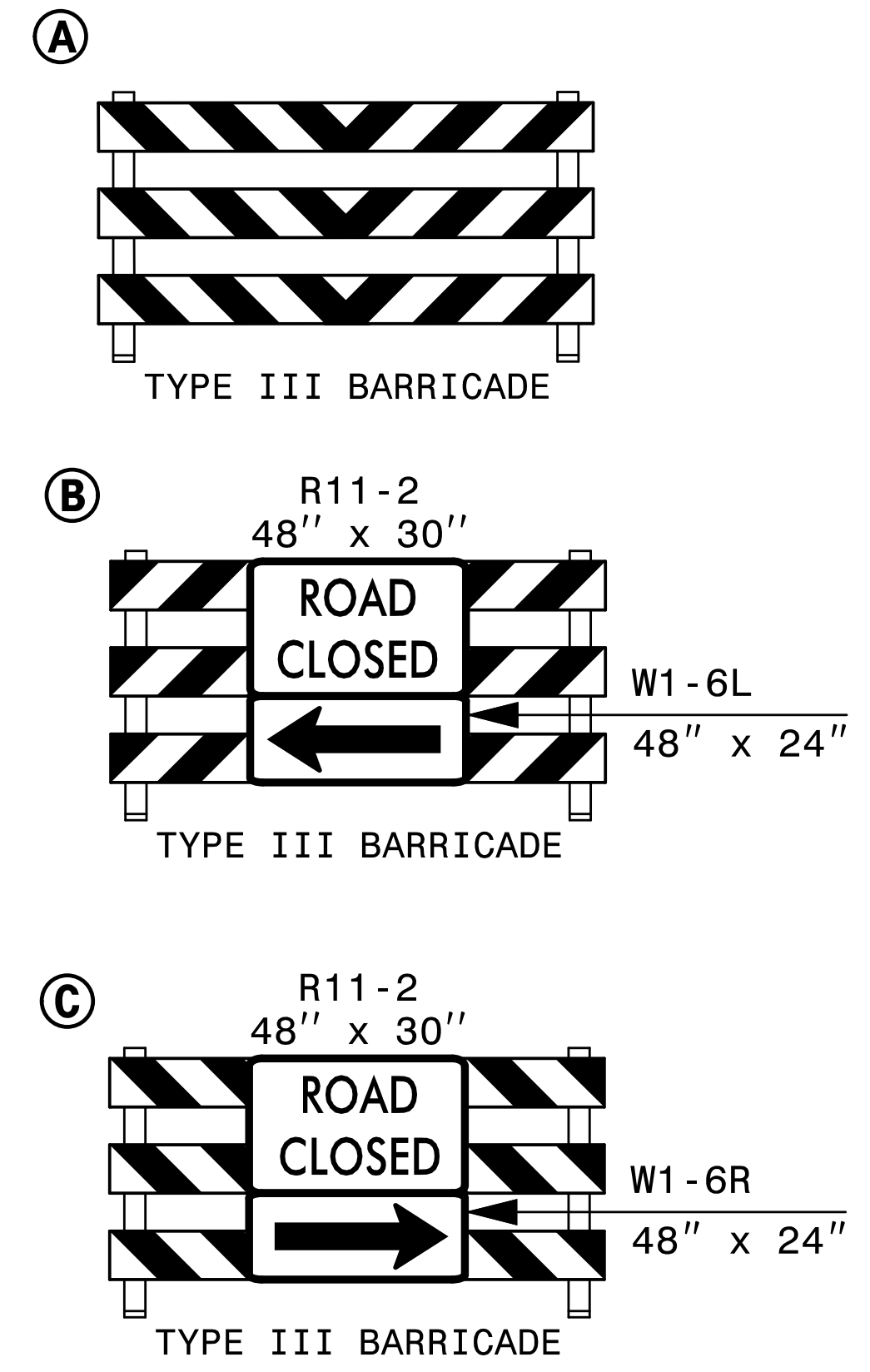
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 023521

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 WORK ZONE TRAFFIC CONTROL

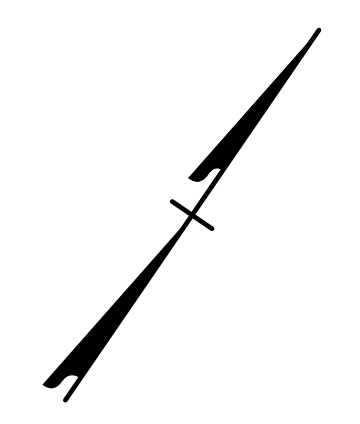
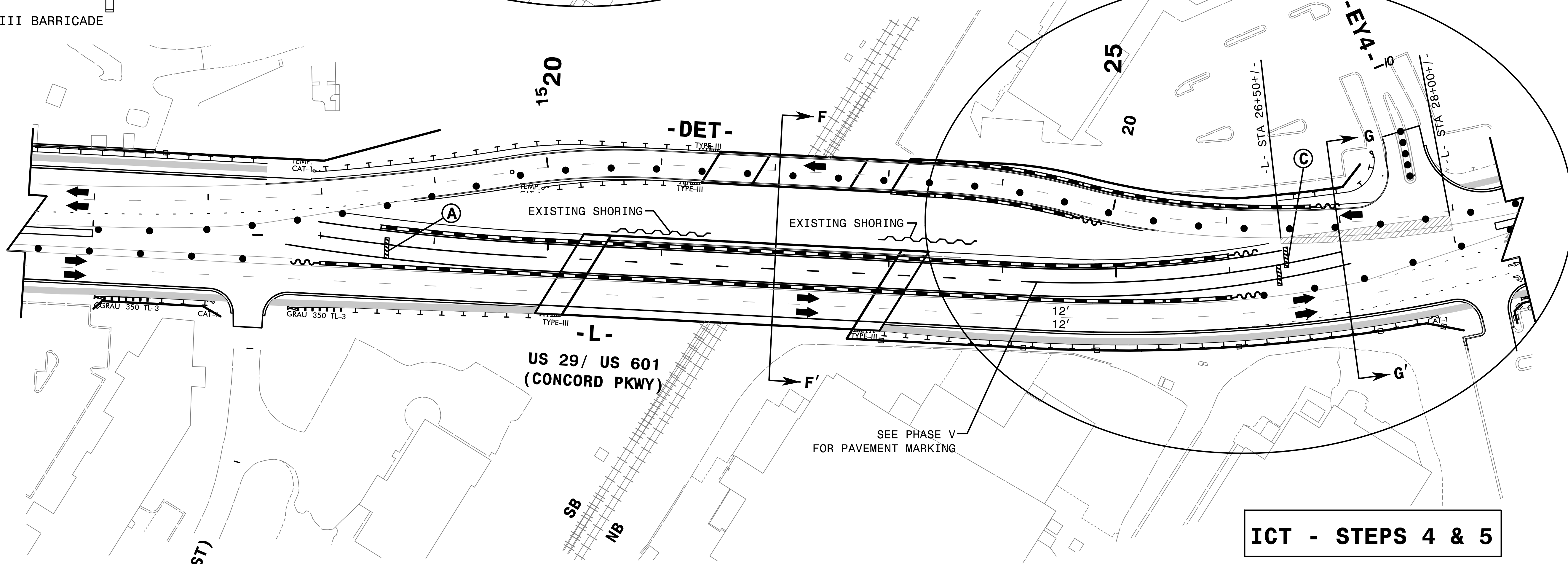
TRANSPORTATION MANAGEMENT PLAN
 PHASE IV
 DETAIL 2

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STEP 5

STEP 4



REVISIONS

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\$\$\$\$\$USERNAME\$\$\$\$\$

QA/QC STAGE:	
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REFER TO SHEET TMP-21 FOR CUT SECTIONS.

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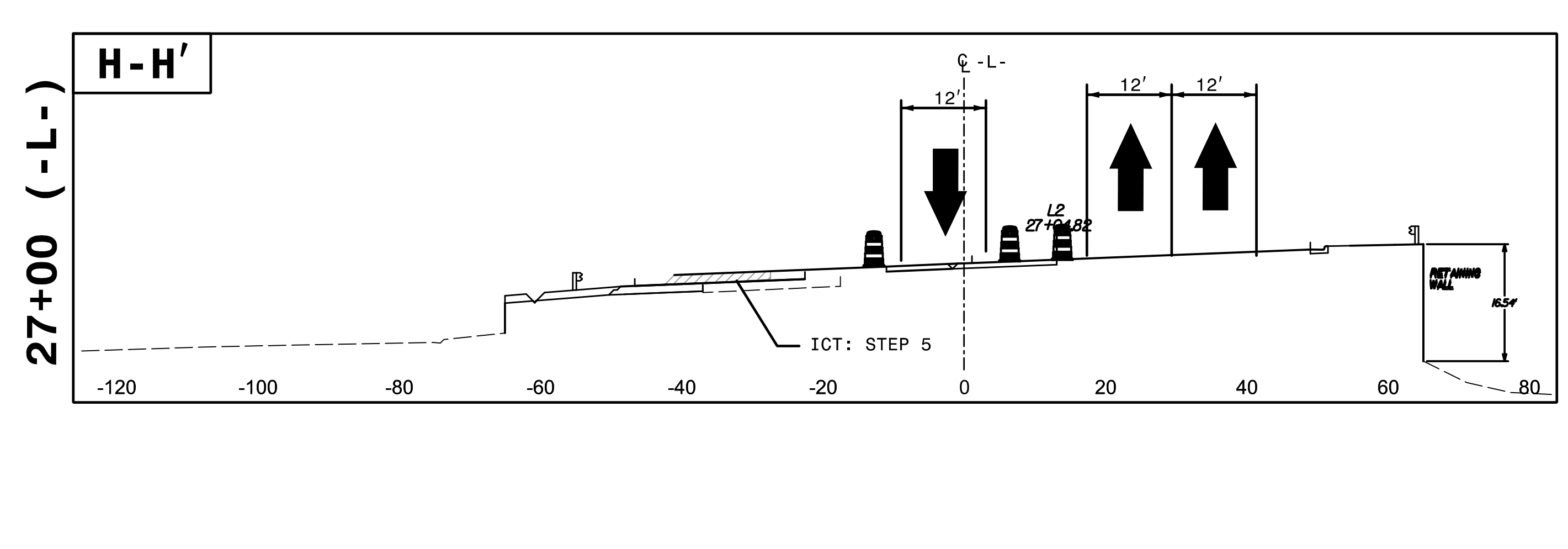
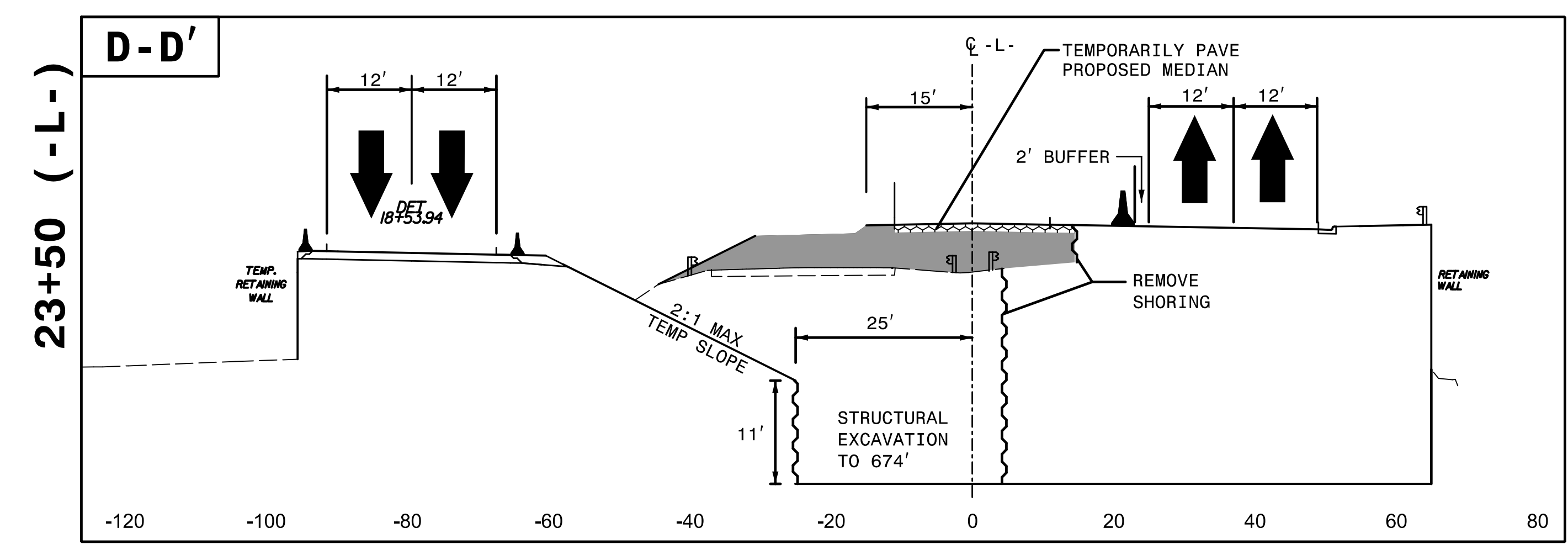
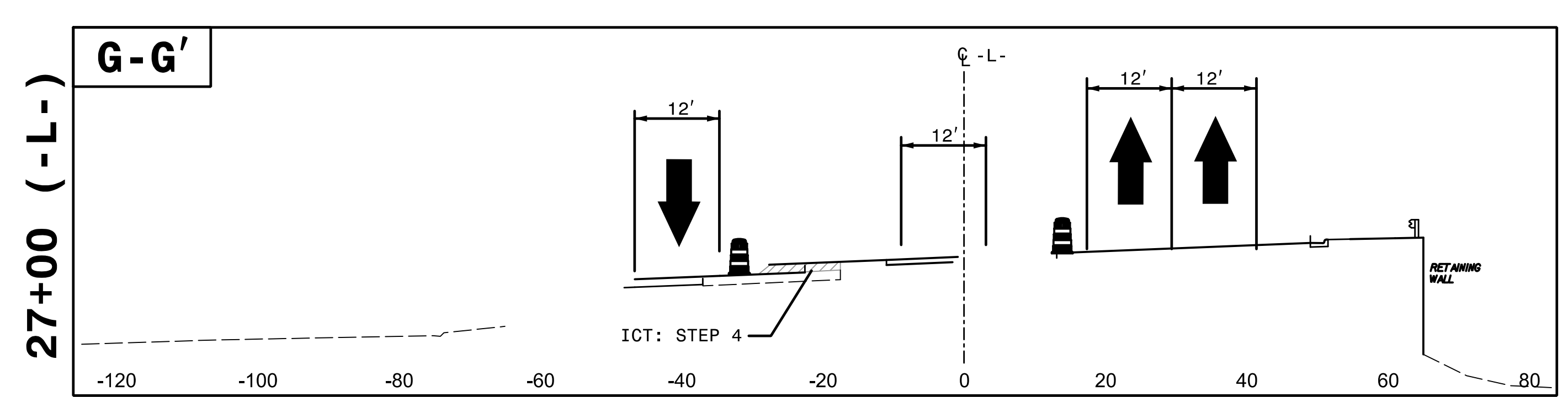
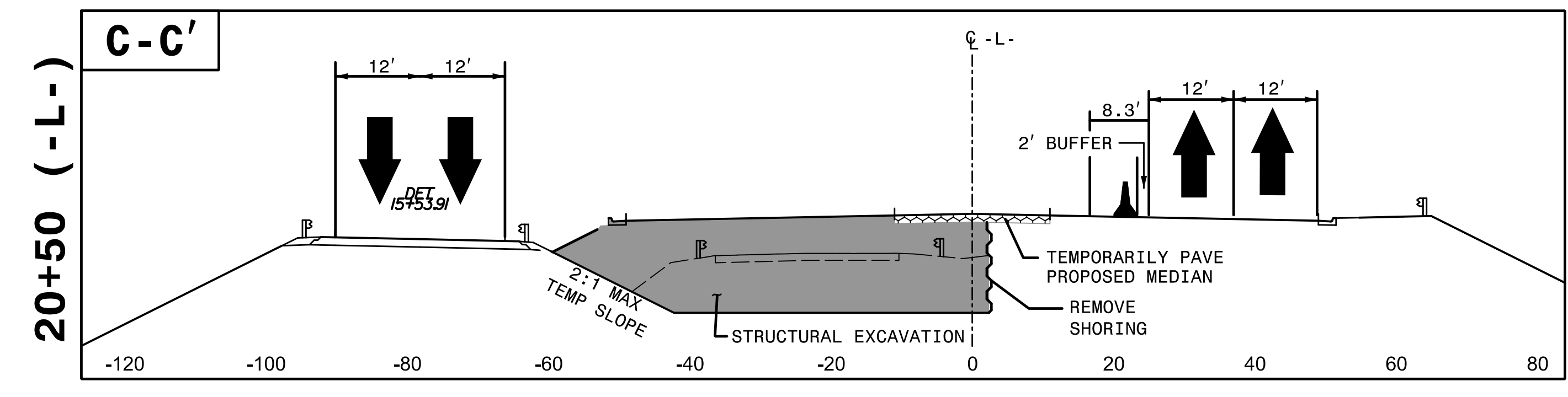
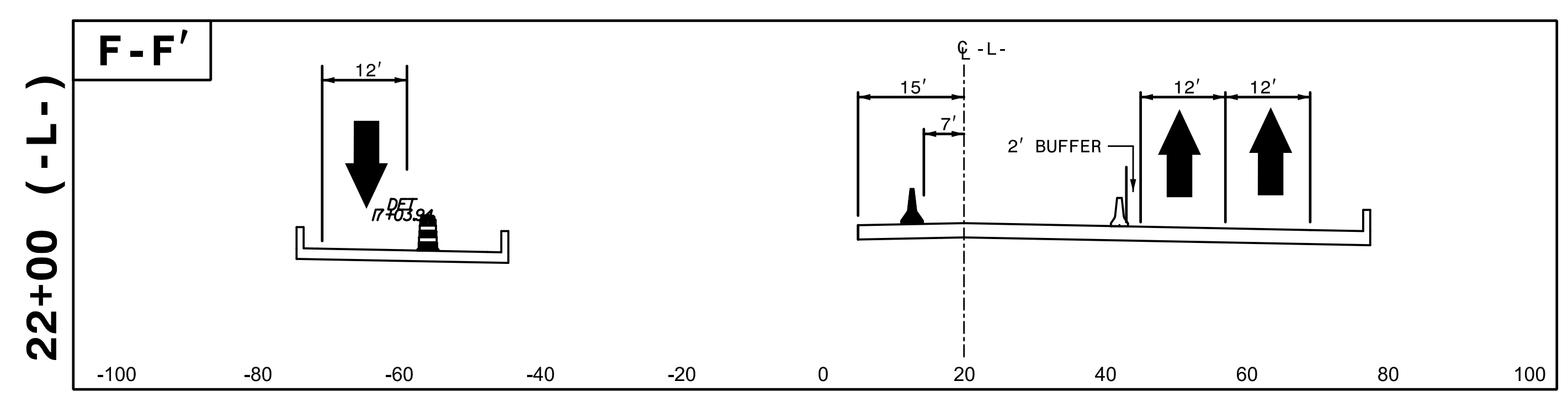
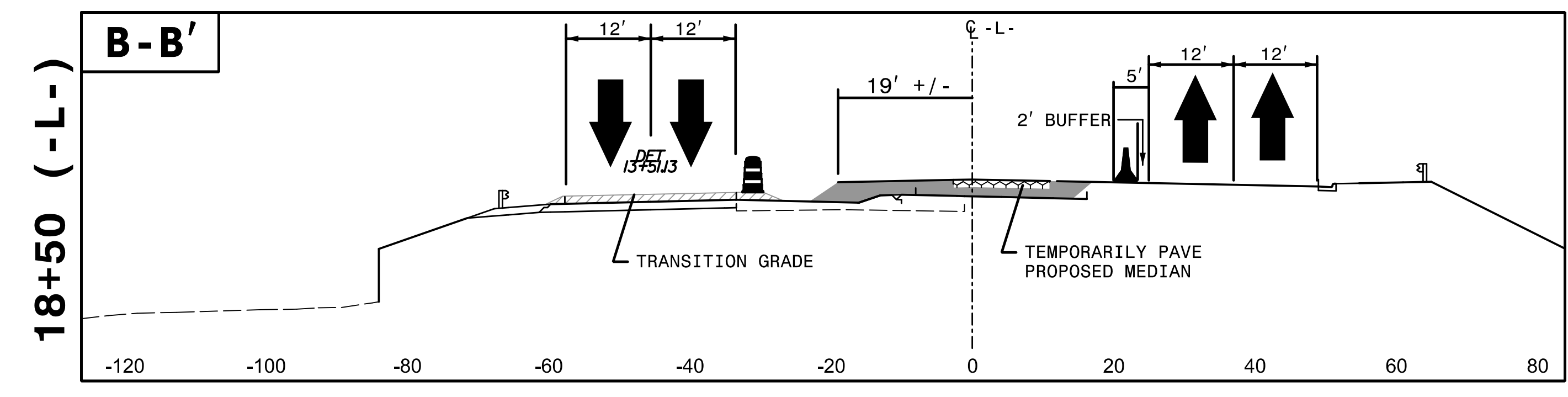
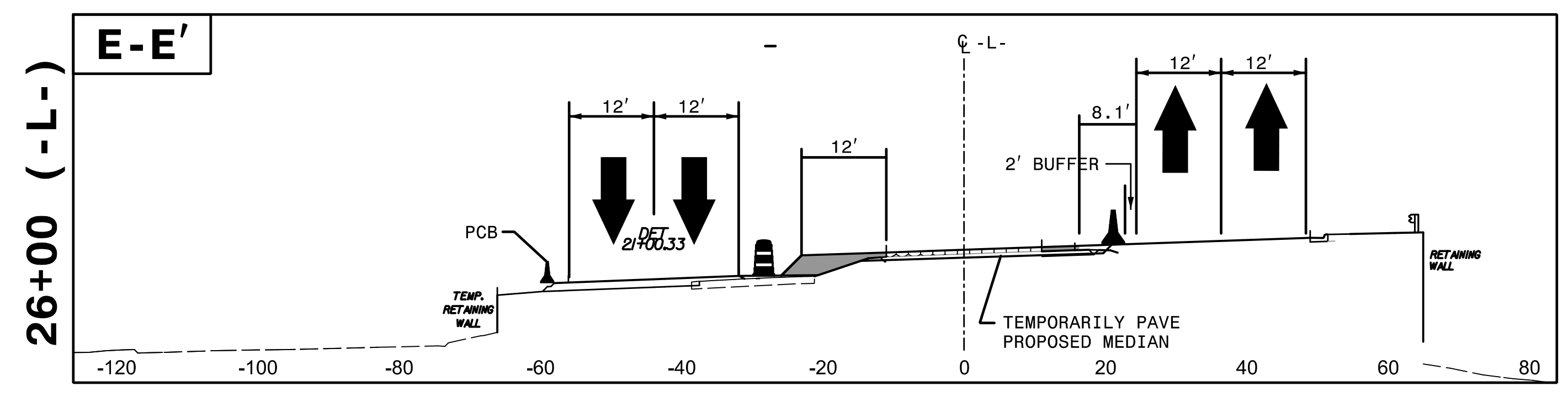
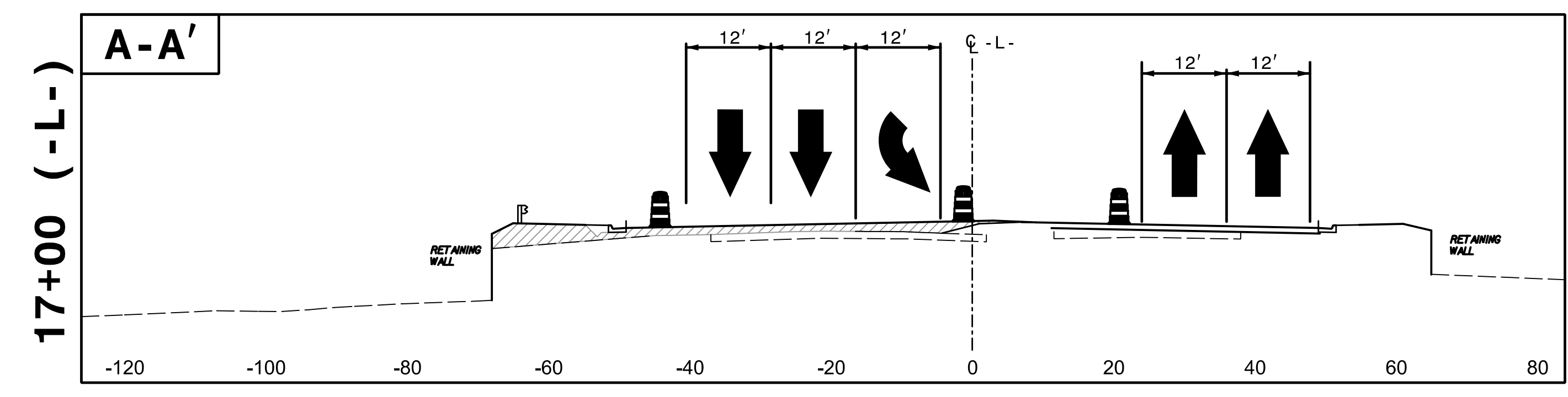
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ENGINEER
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
MANAGEMENT PLAN

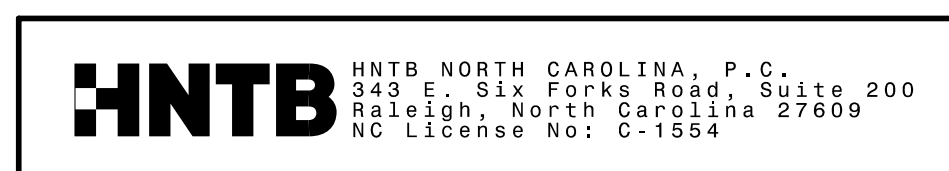
PHASE IV
DETAIL 3

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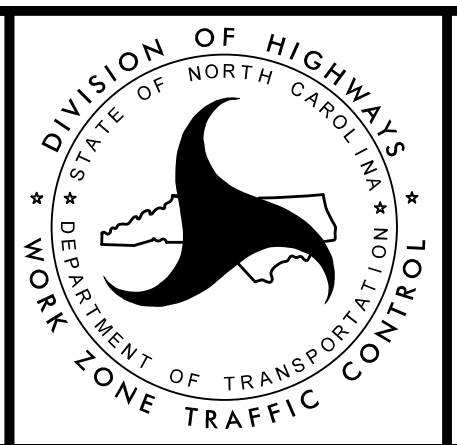


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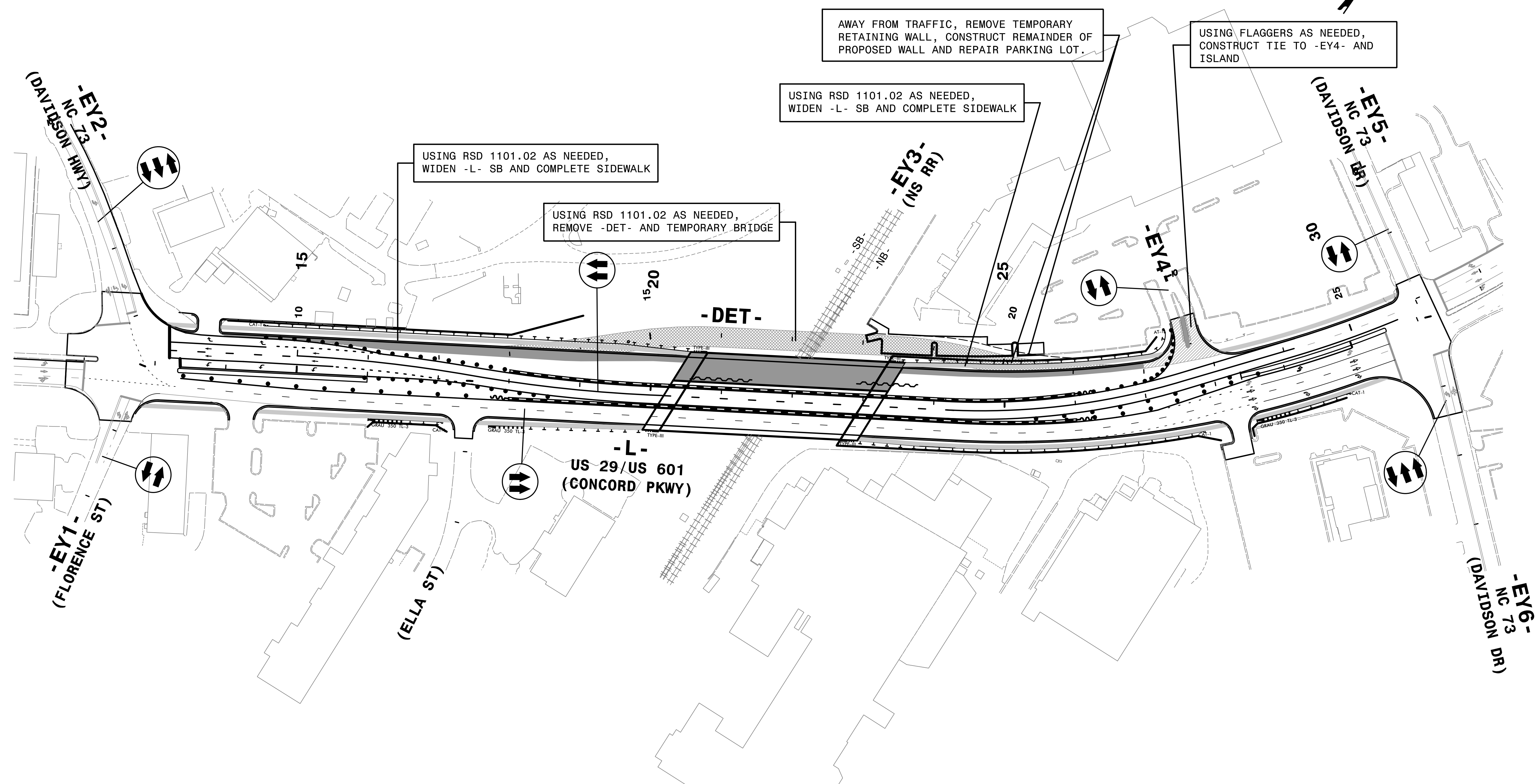
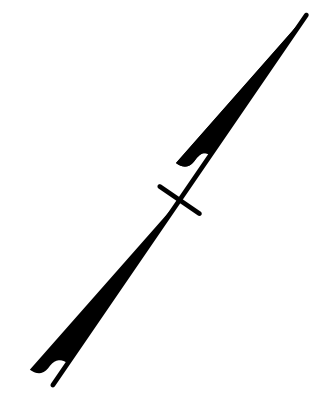
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 QA/QC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
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TRANSPORTATION MANAGEMENT PLAN
 PHASE IV CUT SECTIONS
 ...\\TMP\B5136_tmp_P4cuts.dgn



REMOVE CONFLICTING PAVEMENT MARKING.

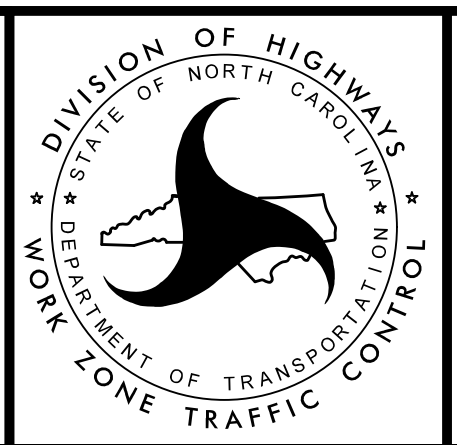
REVISIONS

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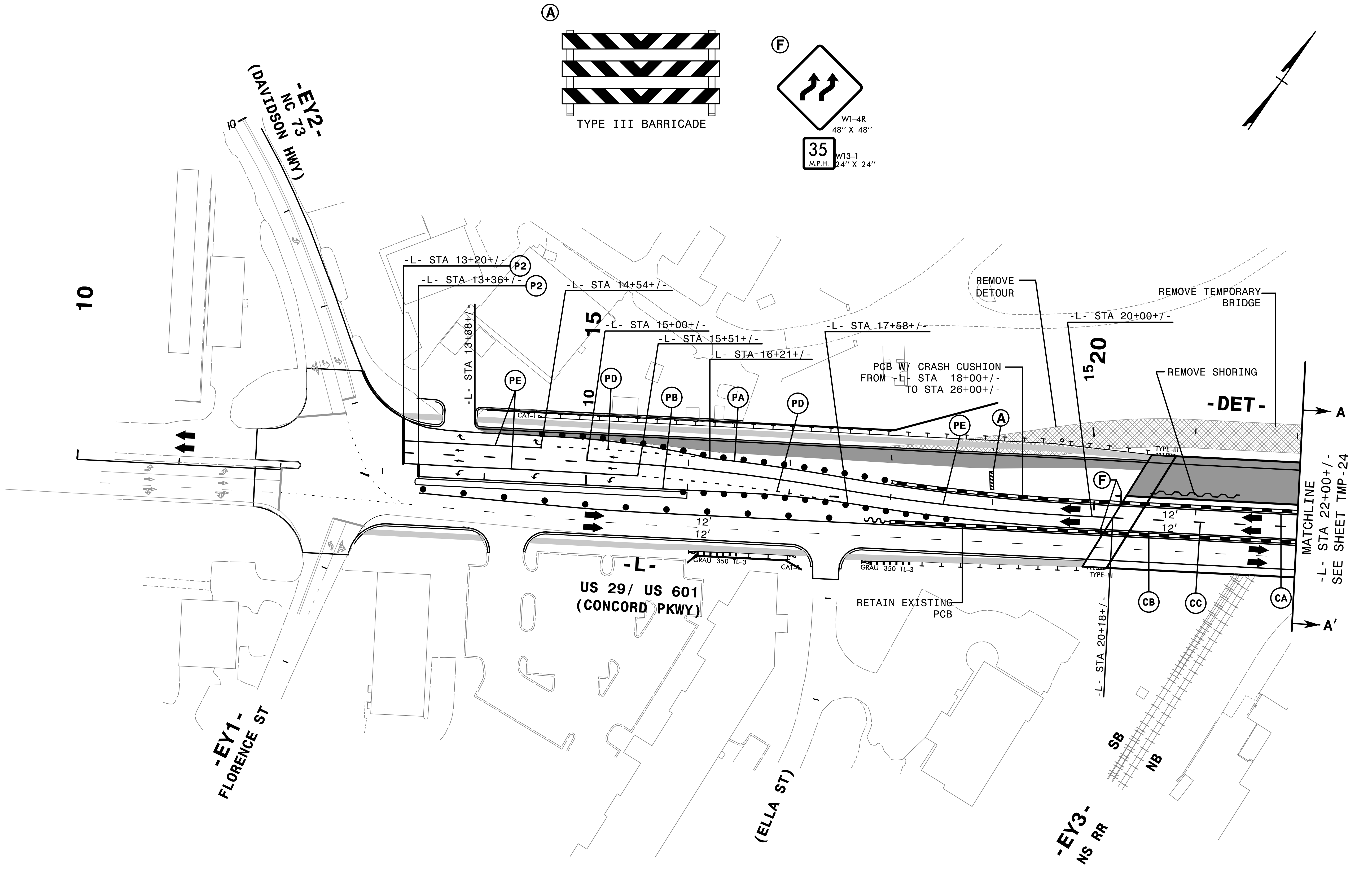
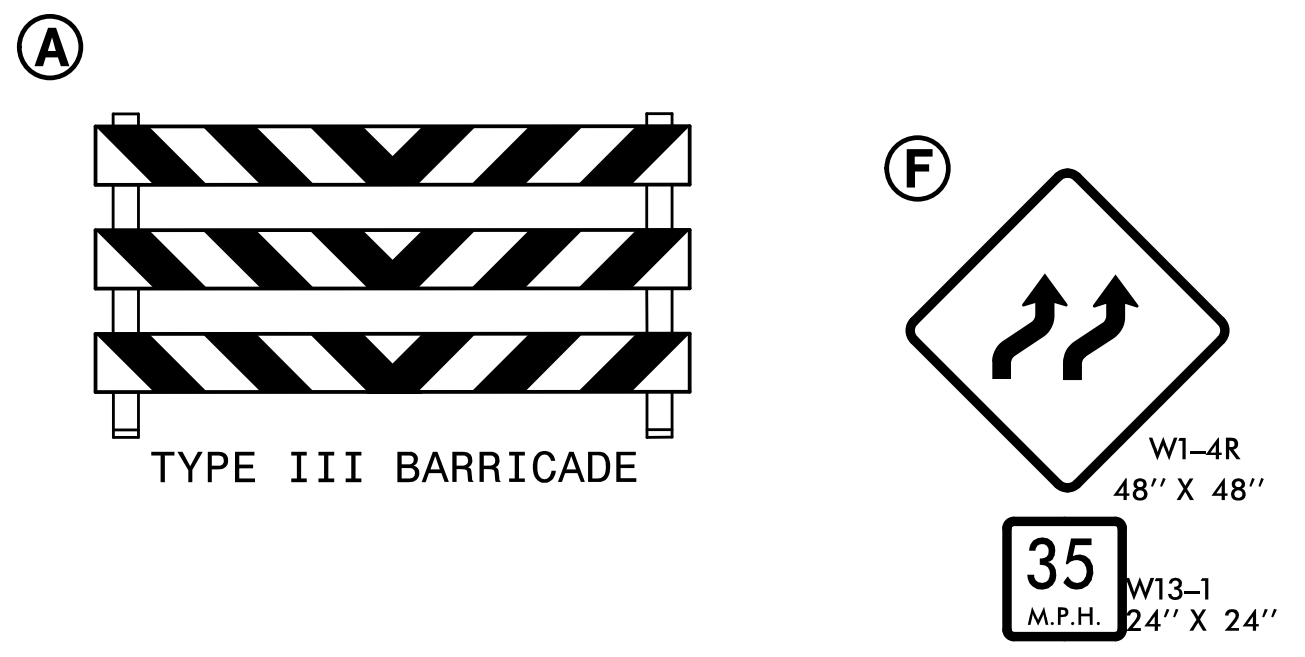
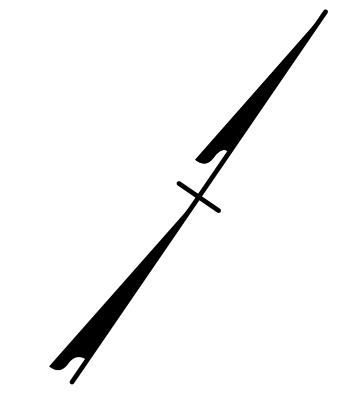
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REVIEW:	
CONCUR:	
REVISE:	
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TRANSPORTATION MANAGEMENT PLAN
 PHASE V OVERVIEW
 ... \TMP\B5136 tmp_P5_0V.dwg



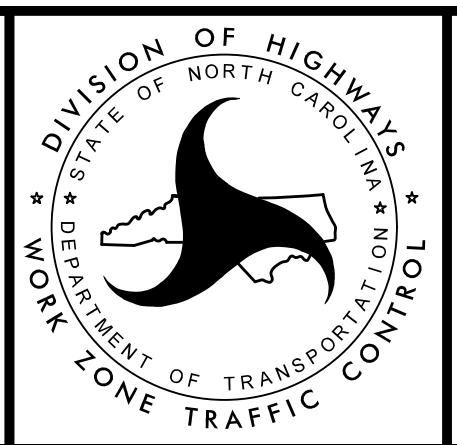
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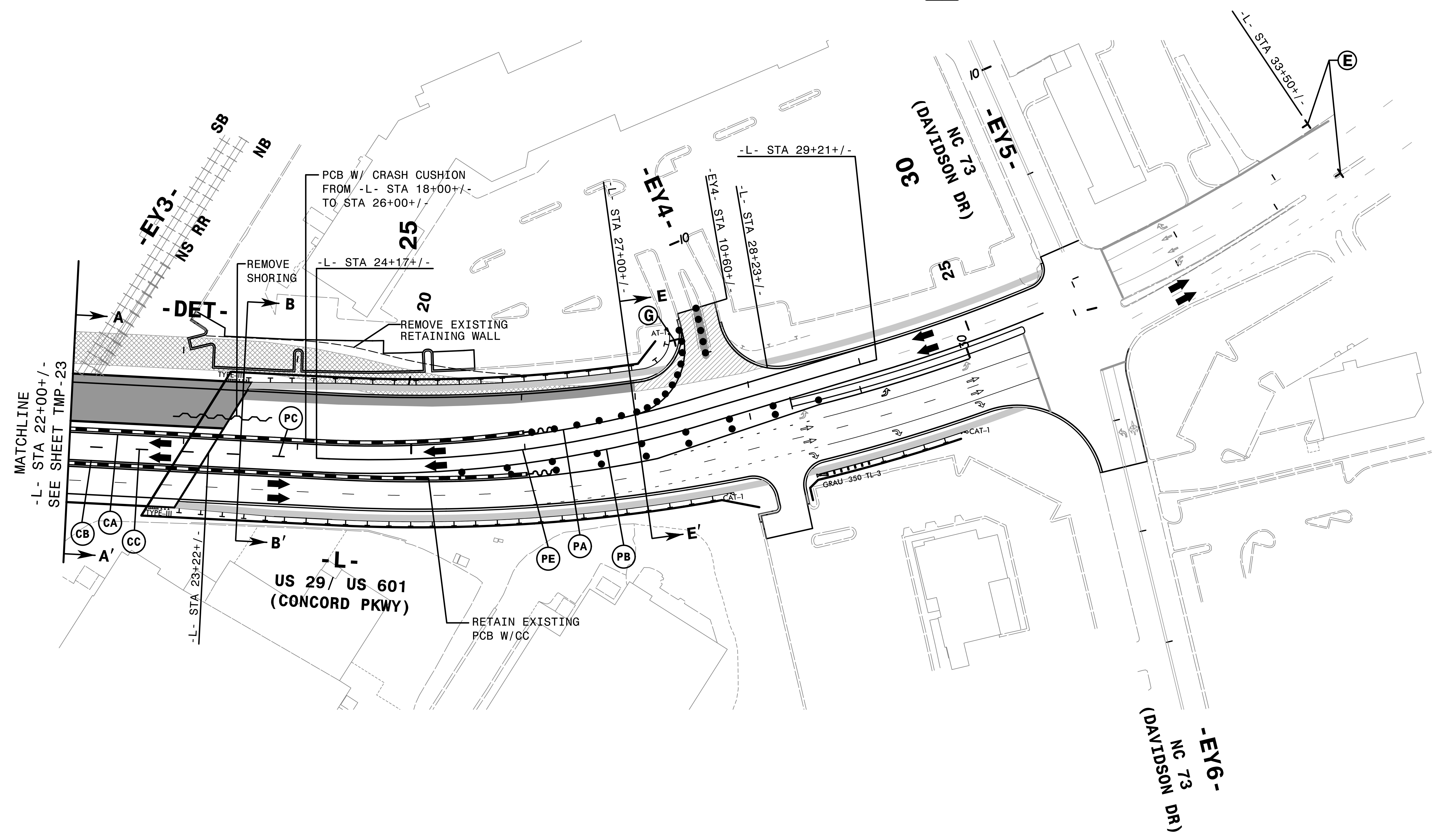
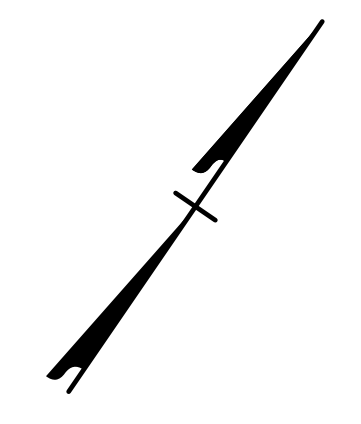
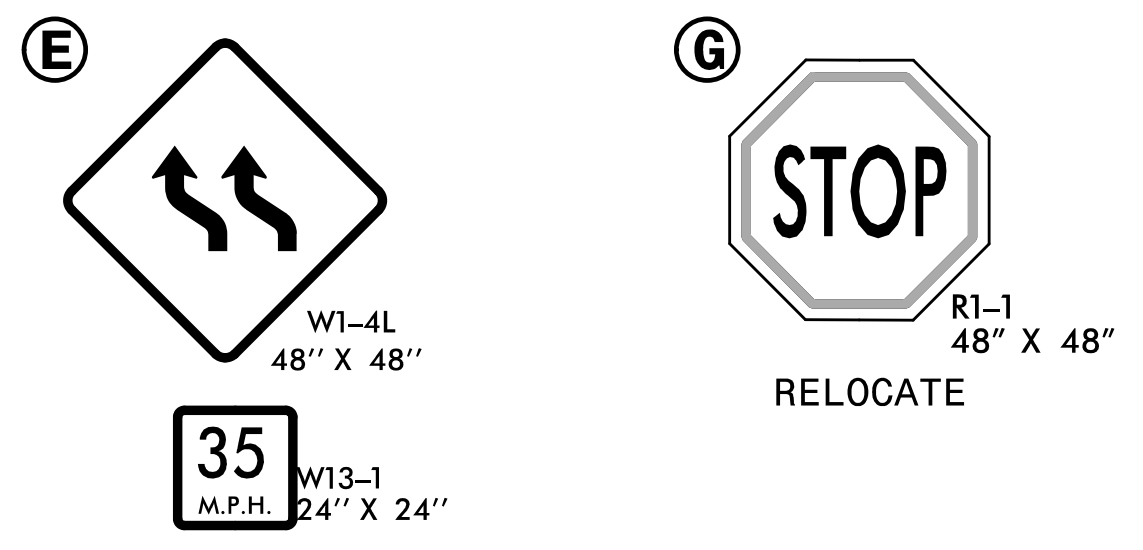
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TRANSPORTATION MANAGEMENT PLAN
 PHASE V
 DETAIL 1

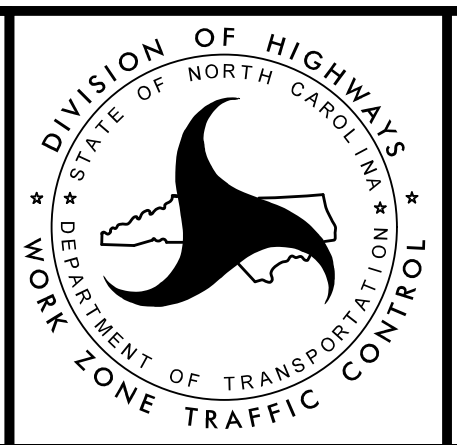


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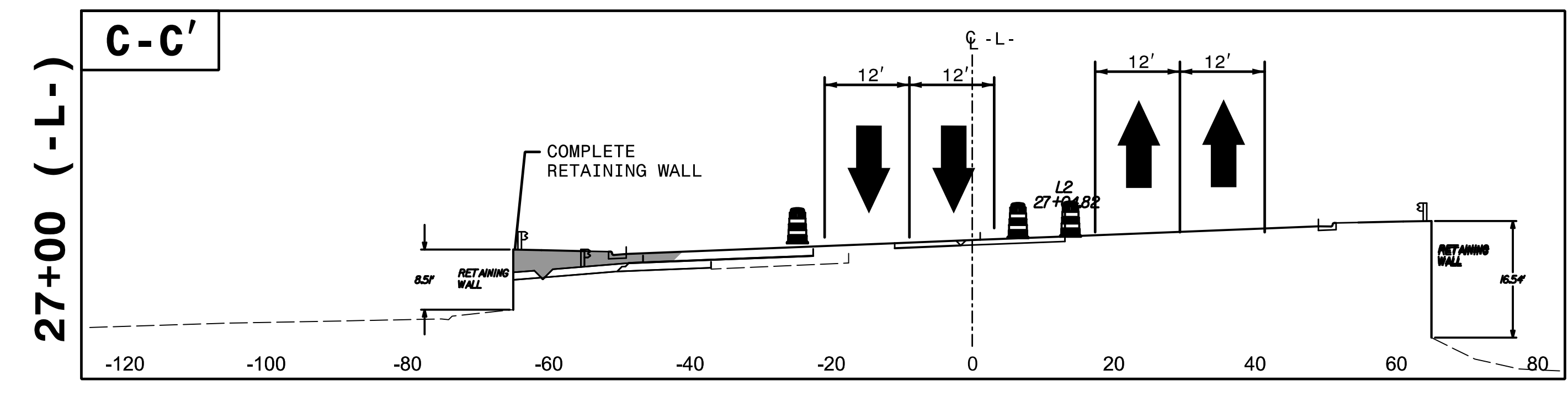
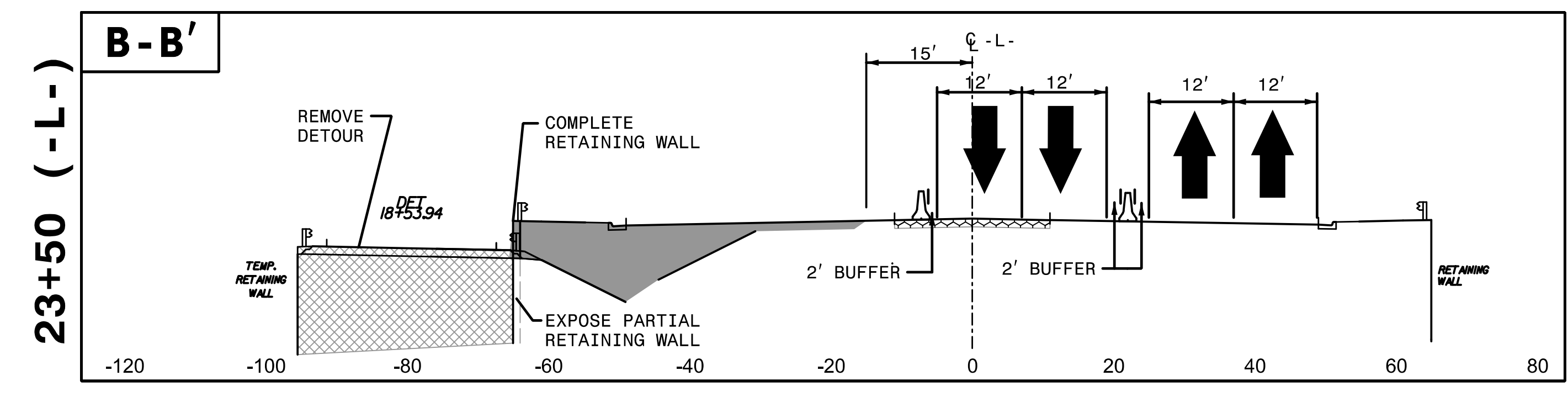
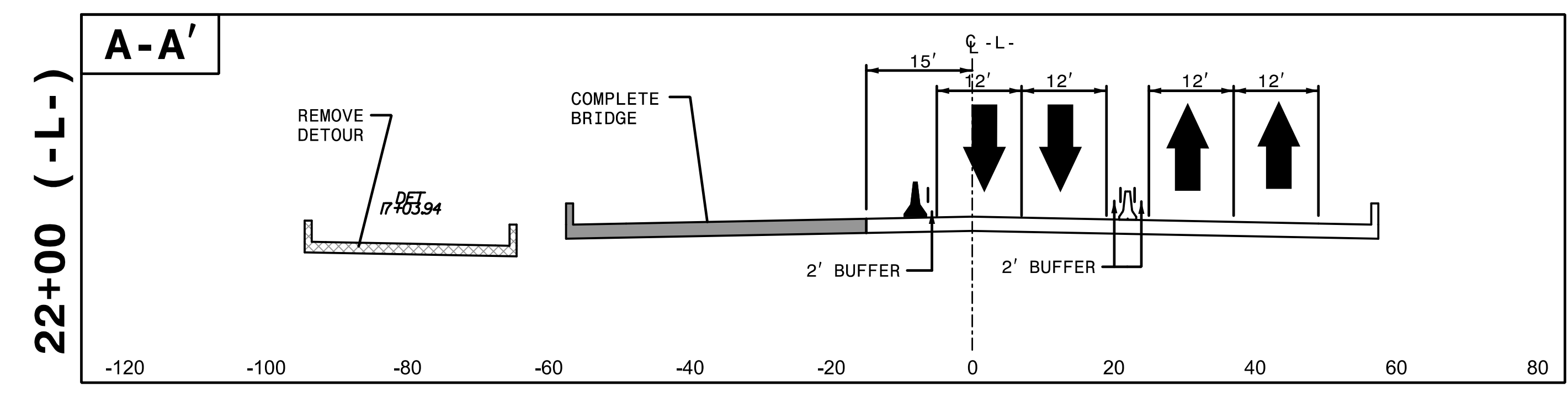
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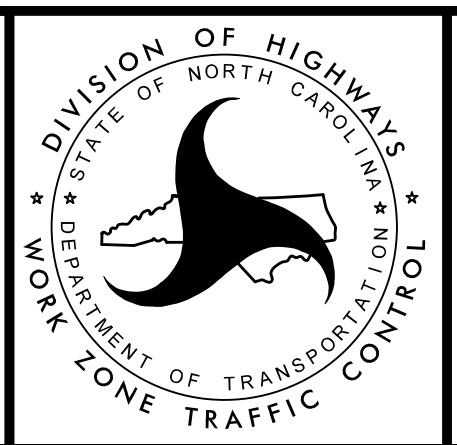
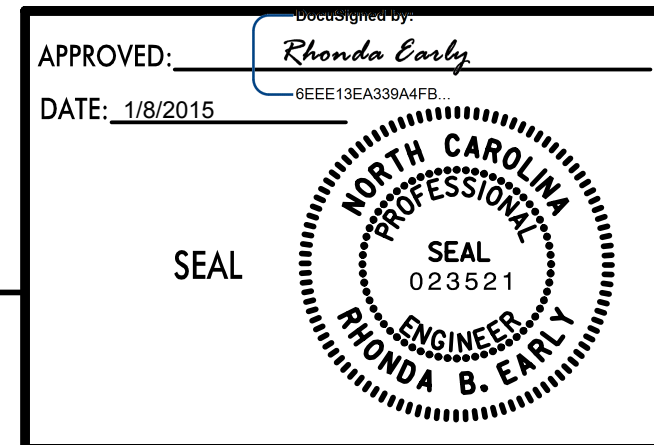
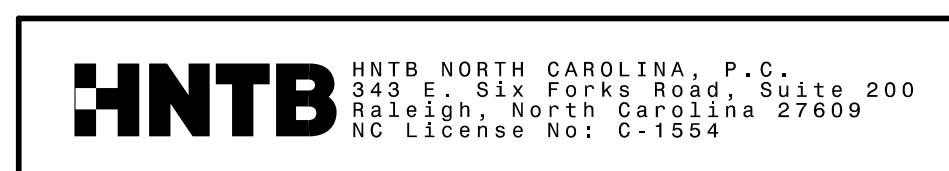
TRANSPORTATION
 MANAGEMENT PLAN
 PHASE V
 DETAIL 2
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8/17/99

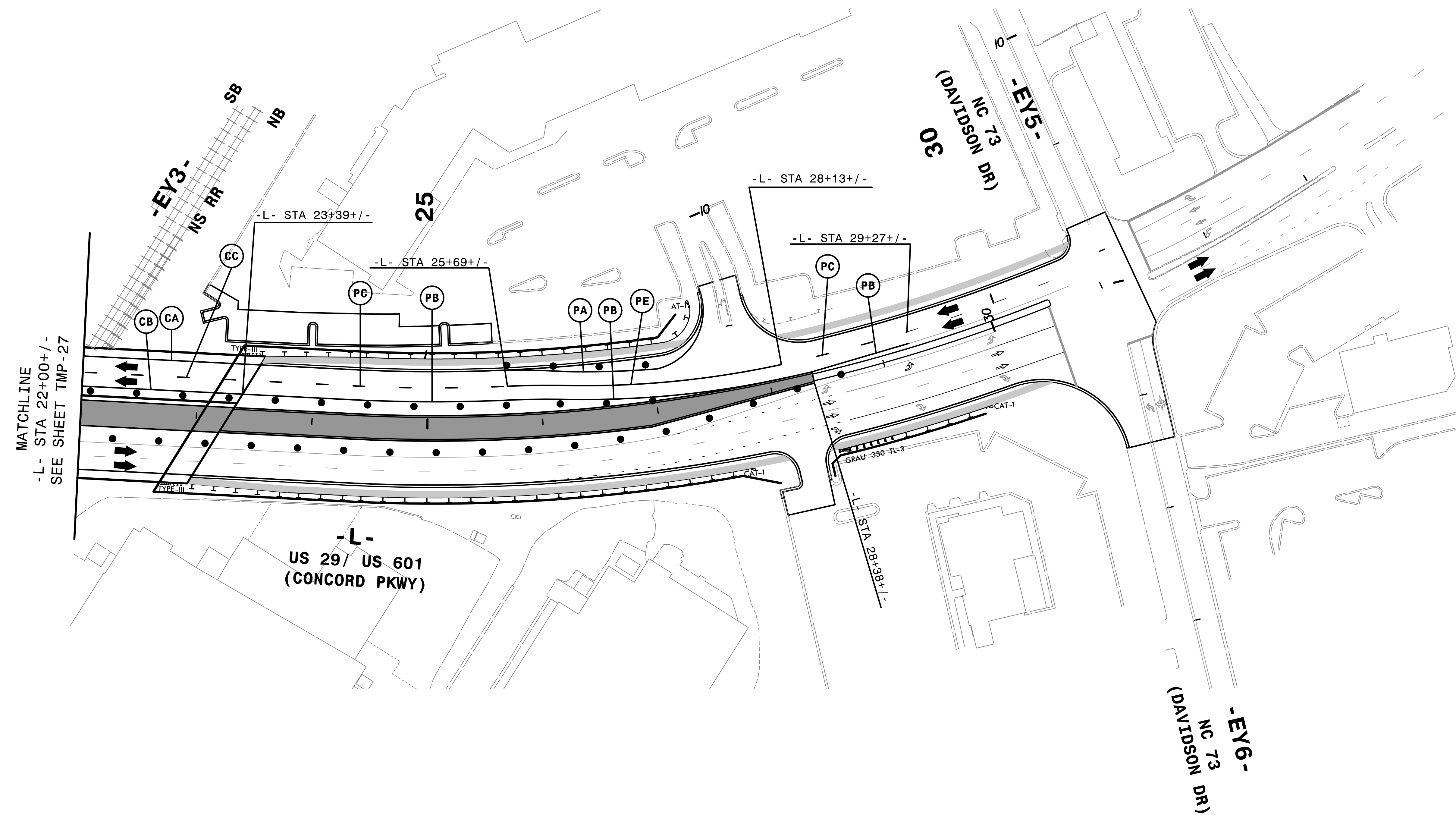
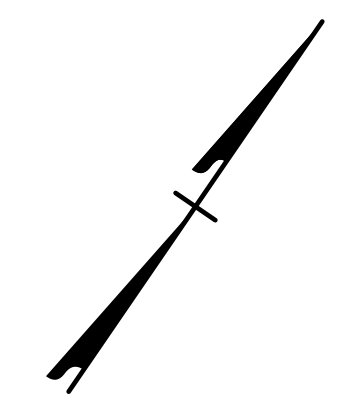


REVISIONS

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 \$\$\$USERNAME\$\$\$
 Q/A/QC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:



TRANSPORTATION
 MANAGEMENT PLAN
 PHASE V
 CUT SECTIONS
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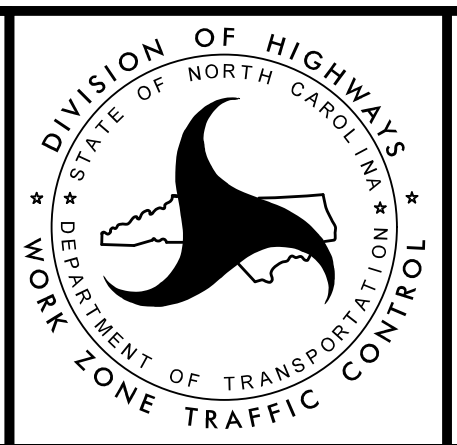
REVISIONS

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QA/QC STAGE:	
REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

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TRANSPORTATION
MANAGEMENT PLAN

**PHASE VI
DETAIL 2**

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