

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
R-4748	TCP-1

**PLAN FOR PROPOSED  
TRAFFIC CONTROL, MARKING & DELINEATION  
MACON COUNTY**

R-4748

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1261.01	GUARDRAIL AND BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS
1264.02	PLACEMENT OF OBJECT MARKERS
1267.01	FLEXIBLE DELINEATOR INSTALLATION
1267.02	FLEXIBLE DELINEATOR SPACING

**INDEX OF SHEETS**

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2	PROJECT NOTES
TCP-3	PHASING
TCP-4	PHASE I OVERVIEW
TCP-5 - TCP-7	PHASE I DETAILS
TCP-8	PHASE II OVERVIEW
TCP-9	OFFSITE DETOUR MAP FOR SR 1659 (DOWDLE MTN. RD.)
TCP-10 - TCP-11	PHASE II DETAILS
TCP-12	PHASE III OVERVIEW
TCP-13 - TCP-15	PHASE III DETAILS
TCP-16	PHASE IV OVERVIEW
TCP-17	OFFSITE DETOUR MAP FOR sr 1660 (SILER RD.)
TCP-18 - TCP-19	PHASE IV DETAILS
TCP-20 - TCP-21	ADVANCED WORK ZONE WARNING SIGNS
SD-1	SPECIAL SIGN DESIGN (SILER RD.)

**TEMPORARY PAVEMENT MARKING SYMBOLS**

SYMBOL	DESCRIPTION
P4	WHITE STOP BAR
PA	WHITE EDGE LINE
PB	YELLOW EDGE LINE
PC	10 FT WHITE SKIP LINE
PD	2 FT WHITE MINI-SKIP LINE
PE	WHITE SOLID LANE LINE
PI	YELLOW DOUBLE CENTER LINE
QA	LEFT TURN ARROW
QB	RIGHT TURN ARROW
QC	STRAIGHT ARROW
QD	COMBO STRAIGHT/LEFT ARROW
QE	COMBO STRAIGHT/RIGHT ARROW

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
  - PROPOSED PVMT. EXIST. PVMT.
  - WORK AREA
  - REMOVAL OF EXISTING PAVEMENT

- TRAFFIC CONTROL DEVICES**
- TYPE I BARRICADE
  - TYPE II BARRICADE
  - TYPE III BARRICADE
  - CONE
  - DRUM SKINNY DRUM
  - FLASHING ARROW PANEL (TYPE C)
  - STATIONARY SIGN
  - PORTABLE SIGN
  - STATIONARY OR PORTABLE SIGN
  - CRASH CUSHION
  - CHANGEABLE MESSAGE SIGN
  - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
  - POLICE
  - FLAGGER

- PAVEMENT MARKINGS**
- CRYSTAL/CRYSTAL PAVEMENT MARKER
  - YELLOW/YELLOW PAVEMENT MARKER
  - CRYSTAL/RED PAVEMENT MARKER
  - PAVEMENT MARKING SYMBOLS

TIP PROJECT:

27-APR-2010 07:03  
\\dot\dfsroot\0\Pro\TIP\Projects-R\R4748\TrafficControl\TCP\Final\TCP\_032210\AR-4748\_TC\_TCP\_.ldgn  
ojudmi AT WZTC23740

APPROVED: _____ DATE: _____	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
	STUART BOURNE, PE STATE TRAFFIC MANAGEMENT ENGINEER
	JOSEPH ISHAK, PE TRAFFIC CONTROL PROJECT ENGINEER
	JENNIFER L. PORTANOVA, PE TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	ALLA LYUDMIRSKAYA TRAFFIC CONTROL DESIGN ENGINEER

# PROJECT 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.

- A) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

**LANE AND SHOULDER CLOSURE REQUIREMENTS**

- B) 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.

- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING RSD 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

- D) 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 RSD1101.02 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.

- E) 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.

- F) 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.

- G) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON US 64/23/441.

- H) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

**PAVEMENT EDGE DROP OFF REQUIREMENTS**

- I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

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

**TRAFFIC PATTERN ALTERATIONS**

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

**SIGNING**

- L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

- M) PROVIDE PERMANENT SIGNING.

- N) 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.

- O) 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 CONTROL DEVICES**

- R) 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, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

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

- T) 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**

- U) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN THE PAVEMENT MARKING PLAN.

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	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.

- Z) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

**TEMPORARY / FINAL SIGNALS**

- AA) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNALS INSTALLATION BY OTHERS IS REQUIRED.

- BB) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

**MISCELLANEOUS**

- CC) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS 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) AND RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

**LOCAL NOTES**

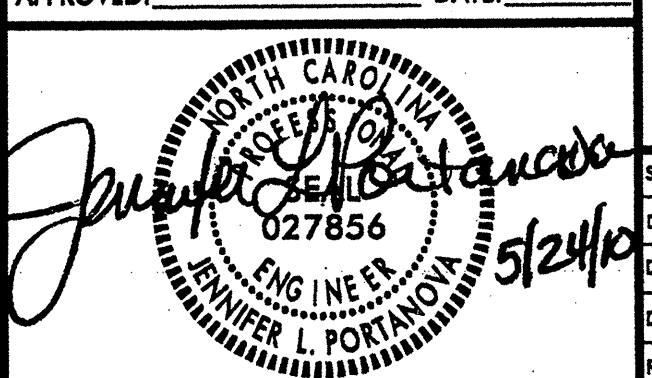

- DD) COMPLETE TRENCHLESS INSTALLATION OF PROPOSED 60" RCP UNDER EXISTING OAK FOREST RD. AT APPROXIMATELY -Y2- STA.18+80+/- PRIOR TO BEGINNING CONSTRUCTION OF -Y2- FROM STA.18+00+/- TO STA.20+50+/- 25' LT.

- EE) COORDINATE WITH SCHOOL AND ENGINEER TO MINIMIZE IMPACT TO SCHOOL TRAFFIC DURING PHASE II, STEP 3.

- FF) INSTALL "BRIDGE CONSTRUCTION AHEAD" SIGNS AT A MINIMUM OF 500 FT ON EACH SIDE OF THE LITTLE TENNESSEE RIVER UPSTREAM OF THE WORK AREA. CONSIDER USING "KEEP RIGHT" AND "KEEP LEFT" SIGNS IF A CAUSEWAY IS USED DURING CONSTRUCTION.

- GG) COORDINATE WITH THE DIVISION FOR CLOSURE OF SECTIONS OF THE LITTLE TENNESSEE RIVER GREENWAY DURING CONSTRUCTION.

24-MAY-2010 08:42  
 \\dot\dfs\0010\Proj\TIPProjects-R\R4748\TrafficContr\TCP\Final\TCP\_032210\AR-4748\_TC.TCP\_2.dgn  
 alvudml AT WZTC237440

APPROVED: _____ DATE: _____	<b>PROJECT NOTES</b>									
	SCALE: NONE	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS							
	REVISIONS									
DATE: MAY-10										
DWG. BY: AYL										
DESIGN BY: AYL										
REVIEWED BY: JLP	<table border="1"> <tr> <td>CADD FILE</td> </tr> </table>	CADD FILE								
CADD FILE										



# PHASING

PROJ. REFERENCE NO.	SHEET NO.
R-4748	TCP-3

**NOTE:**  
MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES WITHIN THE PROJECT LIMIT

## PHASE I

### STEP 1:

- USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), INSTALL ADVANCED WORK ZONE WARNING SIGNS ON ALL ROADS AS REQUIRED IN PROJECT NOTES. (SEE SHEETS TCP-2, TCP-20 AND TCP-21).

### STEP 2:

- 1) RELOCATE EXISTING GUARDRAIL ALONG EAST SIDE OF OAK FOREST RD. AS SHOWN ON SHEET TCP-6
- 2) COMPLETE TRENCHLESS INSTALLATION OF PROPOSED 60" RCP UNDER EXISTING OAK FOREST RD. AT APPROXIMATELY -Y2- STA.18+80+/- PRIOR TO BEGIN CONSTRUCTION OF -Y2- FROM STA.18+00+/- TO STA.20+50+/- 25' LT. (SEE ROADWAY AND HYDRAULICS PLANS).

### STEP 3:

- AWAY FROM TRAFFIC AND USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), AS NEEDED, BEGIN CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE ON THE FOLLOWING (SEE ROADWAY PLANS AND SHEETS TCP-4 THROUGH TCP-7):

\* PROPOSED DRAINAGE

\* PROPOSED ROADWAY AS FOLLOWS:

- L- FROM STA.18+00+/- TO STA.56+10+/- INCLUDING PROPOSED
- GW- FROM -GW- STA.10+00+/- TO -GW- STA.14+96+/-
- DR5- FROM STA.10+50+/- TO STA.13+25+/-
- Y1- FROM STA.10+00+/- TO STA.13+00+/-
- Y2- FROM STA.11+50+/- TO STA.17+40+/- AND WEST SIDE OF -Y2- FROM STA.18+00+/- TO STA.20+50+/- 25' LT
- Y4- FROM STA.12+75+/- TO STA.14+75+/- AND FROM STA.15+25+/- TO STA.15+73+/- INCLUDING -DR1- FROM -DR1- STA.10+00+/- TO -DR1- STA.11+51+/-
- Y5- FROM STA.10+00+/- TO STA.20+00+/- INCLUDING ROUNDABOUT AND -DR3- FROM STA.10+90+/- TO STA.12+11+/-
- Y6- FROM STA.13+90+/- TO STA.15+10+/-.

- USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 9), BEGIN CONSTRUCTION OF PROPOSED WIDENING AND RESURFACING ON -Y3- AT THE FOLLOWING LOCATIONS (SEE SHEETS TCP-6 AND TCP-7):

- \* EB FROM -Y3- STA.10+33+/- TO -Y3- STA.17+77+/- AND
- \* WB FROM -Y3- STA.15+71+/- TO -Y3- STA.26+10+/-

RETURN TRAFFIC TO EXISTING PATTERN AT THE END OF EACH WORK DAY.

### STEP 4:

USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), PERFORM THE FOLLOWING (SEE SHEET TCP-6):

- 1)- BEGIN WEDGING OF EXISTING SR 1659 (DOWDLE MTN. RD.) BETWEEN -Y2- STA.17+40+/- AND -Y2- STA.18+00+/- UP TO PROPOSED BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE.

### NOTE:

WEDGE ENOUGH ALONG SR 1659 (DOWDLE MTN. RD.) TO PROVIDE TRANSITION FROM EXISTING TO THE PROPOSED. FEATHER DOWN ASPHALT TO MAINTAIN TRAFFIC ON DOWDLE MTN. RD. PLACE TEMPORARY PAVEMENT MARKING (PAINT) IN THE EXISTING PATTERN AT THE END OF EACH WORK DAY.

- COMPLETE CONSTRUCTION OF PROPOSED -Y4 FROM STA.12+75+/- TO STA.14+75+/- AND -DR1- FROM DR1- STA.10+00+/- TO -DR1- STA.11+51+/-

- 2) REMOVE EXISTING GUARDRAIL ALONG EB OF SR 1662 (WILEY BROWN RD.) AND USING -Y4- ALIGNMENT CONSTRUCT ACCESS TO -DR1- UP TO EXISTING SR 1662 AT -Y4- STA.12+75+/-.

## PHASE II

### STEP 1:

USING RSD 1101.03, SHEET 1 OF 9, AND SHEET TCP-9, INSTALL AND COVER DETOUR SIGNS FOR THE TEMPORARY OFFSITE DETOUR USED IN PHASE II, STEP 2.

COMPLETE THE WORK REQUIRED IN PHASE II, STEPS 2 THROUGH 5 IN TWENTY-ONE (21) CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

### STEP 2:

1) WORKING IN CONTINUOUS MANNER, PERFORM THE FOLLOWING:

PLACE TYPE III BARRICADES TO CLOSE SR 1659 (DOWDLE MTN. RD.) BETWEEN -Y2- STA.10+00+/- AND SR 1659/SR 1662 INTERSECTION, ADJUST EXISTING PAVEMENT MARKING AT SR 1659/SR 1662 INTERSECTION TO ACCOMMODATE TRAFFIC PATTERN AS SHOWN ON SHEET TCP-10, UNCOVER DETOUR SIGNS INSTALLED IN PHASE II, STEP 1, DETOUR SR 1659 TRAFFIC OFFSITE AS SHOWN ON SHEET TCP-9. REFER TO NOTE 'K' IN PROJECT NOTES PRIOR TO TRAFFIC PATTERN ALTERATIONS.

2) AWAY FROM TRAFFIC, CONSTRUCT PROPOSED UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:

- \*-Y2- FROM STA.10+00+/- TO 11+50+/- AND TIE IN WITH EXISTING SR 1659 (DOWDLE MTN. RD.) FROM -Y2- STA.11+50+/- TO -Y2- STA.12+65+/-
- \*-Y4- FROM STA.14+75+/- TO STA.15+73+/- AND TIE IN AT -Y4- STA.14+75+/-

### STEP 3:

USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), AS NEEDED, COMPLETE CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:

- \*-Y2- FROM STA.11+50+/- TO 17+40+/- AND WEST SIDE OF -Y2- FROM -Y2- STA.18+00+/- TO -Y2- STA.20+50+/- 25' LT INCLUDING THE SECTION OF PROPOSED CONCRETE ISLAND AS SHOWN ON SHEET TCP-14
- \*-Y5- FROM STA.10+00+/- TO STA.20+00+/-, INCLUDING ROUNDABOUT
- \*-DR3- FROM STA.10+90+/- TO STA.12+11+/-

### STEP 4:

AWAY FROM TRAFFIC, BEGIN INSTALLATION OF TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) ON -Y5- AND ROUNDABOUT.

COMPLETE THE WORK REQUIRED IN PHASE II, STEP 5 IN SEVENTY-TWO (72) CONSECUTIVE HOURS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

### NOTE:

COORDINATE WITH SCHOOL AND ENGINEER TO MINIMIZE IMPACT TO SCHOOL TRAFFIC DURING PHASE II, STEP 5.

### STEP 5:

- 1) USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), CONSTRUCT TIE IN UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE AS FOLLOWS (SEE SHEETS TCP-10, TCP-11 AND TCP-14):
  - \* -Y2- WITH EXISTING ROADWAY FROM -Y2- STA.17+40+/- TO 20+50+/-, INCLUDING WEDGING BETWEEN -Y2- STA.17+40+/- AND -Y2- STA.18+00+/-
  - \* -Y4- WITH SR 1662 (WILEY BROWN RD.) FROM -Y4- STA.11+00+/- TO -Y4- STA.13+20+/-
  - \* -Y5- WITH EXISTING SR 1659 (DOWDLE MTN. RD.) FROM -Y5 STA.19+50+/- TO -Y5- STA.21+42+/-

2) WORKING IN CONTINUOUS MANNER TO SHIFT TRAFFIC TO THE PATTERN SHOWN ON SHEET TCP-14, PERFORM THE FOLLOWING (SEE ROADWAY, SIGNING AND FINAL PAVEMENT MARKING PLANS):

- A) AWAY FROM TRAFFIC AND USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), AS NEEDED, PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) AS MUCH AS POSSIBLE ON -Y2-, -Y4-. COMPLETE INSTALLATION OF TEMPORARY PAVEMENT MARKING AND MARKERS ON -Y5- AND ROUNDABOUT. INSTALL PERMANENT SIGNING FOR THE ROUNDABOUT AS INDICATED ON SIGNING PLANS.
- B)- REMOVE TYPE III BARRICADES AND DETOUR SIGNS, INSTALLED IN PHASE II, STEP 1
  - PLACE TYPE III BARRICADES TO CLOSE EXISTING SR 1659 (DOWDLE MTN. RD.) BETWEEN THE INTERSECTIONS OF SR 1659/SR 1662 AND SR 1659/SR 1701
  - ADJUST TRAFFIC SIGNAL AT US 64/23/441
  - OPEN PROPOSED WEST SIDE OF -Y2-, -Y4-, -Y5-, -DR3- AND ROUNDABOUT TO TRAFFIC
- C) USING FLAGGERS, COMPLETE REMAINING TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) ON -Y2- AND -Y4-.

### STEP 6:

- USING RSD 1101.03, SHEET 1 OF 9, AND SHEETS TCP-17 AND SD-1, INSTALL AND COVER DETOUR SIGNS FOR THE TEMPORARY OFFSITE DETOUR USED IN PHASE III, STEP 1.

## PHASE III

### STEP 1:

- AWAY FROM TRAFFIC, COMPLETE CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE ON PROPOSED -L- FROM STA.18+00+/- TO STA.56+10+/-.
- USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), COMPLETE CONSTRUCTION AND TIE IN UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE OF THE FOLLOWING:
  - Y1- FROM STA.10+00+/- TO STA.13+65+/-,
  - DR4- FROM STA.10+04+/- TO STA.12+10+/- AND
  - DR5- FROM STA.10+25+/- TO STA.13+47+/-
- USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), COMPLETE CONSTRUCTION UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE OF PROPOSED EAST SIDE OF -Y2- FROM -Y2- STA.16+50+/- TO -Y2- STA.21+00+/-,
- Y6- FROM STA.13+90+/- TO STA.15+10+/- AND
- DR2- FROM -DR2- STA.10+25+/- TO -DR2- STA.11+76+/-
- USING LANE CLOSURES (RSD 1101.02, SHEET 3 OF 9), COMPLETE CONSTRUCTION OF PROPOSED WIDENING AND RESURFACING ON -Y3-. PLACE PAVEMENT MARKING AND MARKERS AS SHOWN ON FINAL PAVEMENT MARKING PLANS AT THE FOLLOWING LOCATIONS:
  - \* EB FROM -Y3- STA.10+33+/- TO -Y3- STA.17+77+/- AND
  - \* WB FROM -Y3- STA.15+71+/- TO -Y3- STA.26+10+/-.

### STEP 2:

USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) ON -Y6- FROM STA.13+90+/- TO STA.15+10+/-, AND OPEN -Y6- TO PROPOSED PATTERN AS SHOWN ON SHEET TCP-15.

### STEP 3:

- USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) ON EAST SIDE OF -Y2- FROM STA.16+50+/- TO STA.21+00+/-
- REVISE TRAFFIC SIGNAL AT US 64/23/441, AND PLACE -Y2-, -DR2- AND -Y3- TRAFFIC TO PATTERN AS SHOWN ON SHEET TCP-19.
- AWAY FROM TRAFFIC, PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) ON -L- FROM STA.18+00+/- TO STA.56+10+/-

### STEP 4:

- WORKING IN CONTINUOUS MANNER, TO COMPLETE THE WORK REQUIRED TO ACCOMMODATE TRAFFIC PATTERN SHOWN ON SHEETS TCP-18 AND TCP-19, PERFORM THE FOLLOWING:
- REFER TO NOTE 'K' IN PROJECT NOTES PRIOR TO TRAFFIC PATTERN ALTERATIONS.
- USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) ON -Y1- FROM STA.10+50+/- TO STA.13+65+/-
  - PLACE TYPE III BARRICADES TO CLOSE EXISTING SR 1660 (SILER RD.) FROM -L STA.10+90+/- TO -L- STA.18+64+/-.
  - OPEN -L- FROM STA.18+00+/- TO STA.56+10+/-, -DR4- AND -DR5- TO TRAFFIC
  - UNCOVER DETOUR SIGNS, INSTALLED IN PHASE II, STEP 6, AND DETOUR SR 1660 (SILER RD.) TRAFFIC AS SHOWN ON SHEETS TCP-17 AND TCP-18.

## PHASE IV

### STEP 1:

- AWAY FROM TRAFFIC, COMPLETE CONSTRUCTION OF PROPOSED -L- UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE AND PLACE TEMPORARY PAVEMENT MARKING (PAINT) AND TEMPORARY PAVEMENT MARKERS (TEMPORARY RAISED) FROM -L- STA.10+00+/- TO -L- STA.19+00+/-
- USING FLAGGERS, AS NEEDED, COMPLETE CONSTRUCTION OF PROPOSED CONCRETE ISLAND ON -Y2-, BEGUN IN PHASE II (SEE SHEET TCP-19).

### STEP 2:

WORKING IN CONTINUOUS MANNER, PERFORM THE FOLLOWING:

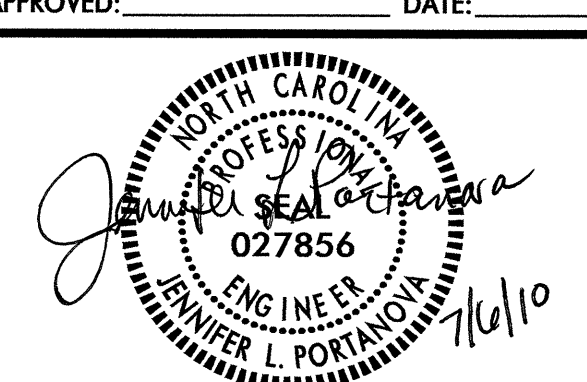
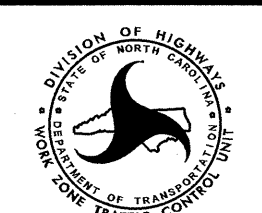
REMOVE TYPE III BARRICADES AND DETOUR SIGNS, INSTALLED IN PHASE II, STEP 6, REVISE TEMPORARY PAVEMENT MARKINGS AT INTERSECTION OF -L- AND -Y1-, PLACE TRAFFIC FROM -L- STA.10+00+/- TO -L- STA.19+00+/- AND FROM -Y1- STA.10+00+/- TO -Y1- STA.13+65+/- IN THE FINAL PATTERN.

### STEP 3:

- USING FLAGGERS (RSD 1101.02, SHEET 1 OF 9), AND FINAL PAVEMENT MARKING PLANS, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKING AND MARKERS ON -L-, -Y1-, -Y2-, -Y4-, -Y5-, -Y6-.

### STEP 4:

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

APPROVED:	DATE:	<b>PHASING</b>	
			
SCALE: NONE	DATE: MAY-10		
DWG. BY: AYL	DESIGN BY: AYL		
REVIEWED BY: JLP			
		REVISIONS	

06-JUL-2010 08:03 \\dot\dfsroot\010\Proj\TIP\Project\SR-1662\Traffic\TrafficControl\TCP-0322\010R-4748\_TCP-3.dgn glyudmi AT WZ1C237440

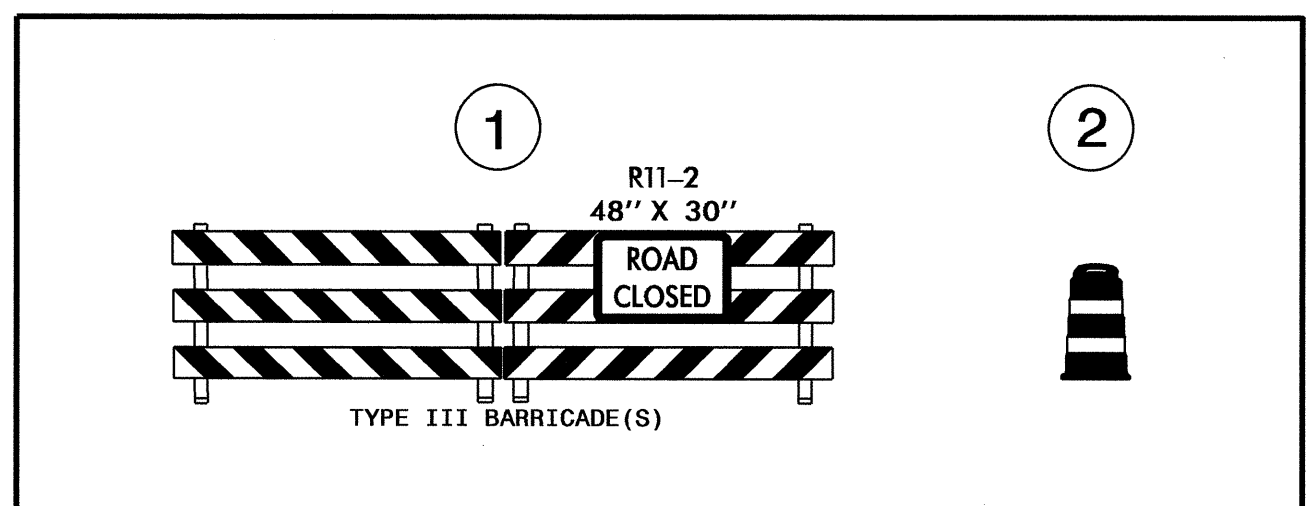
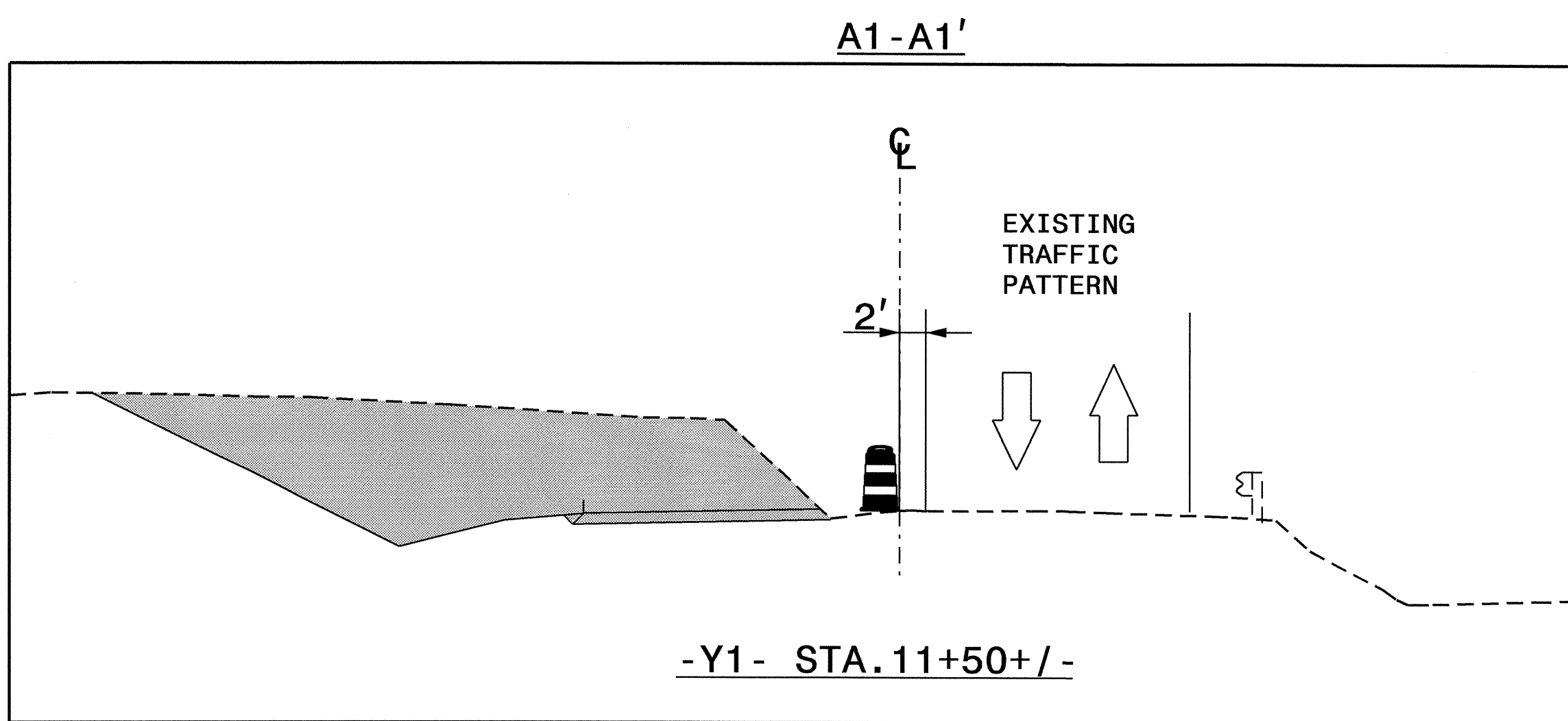
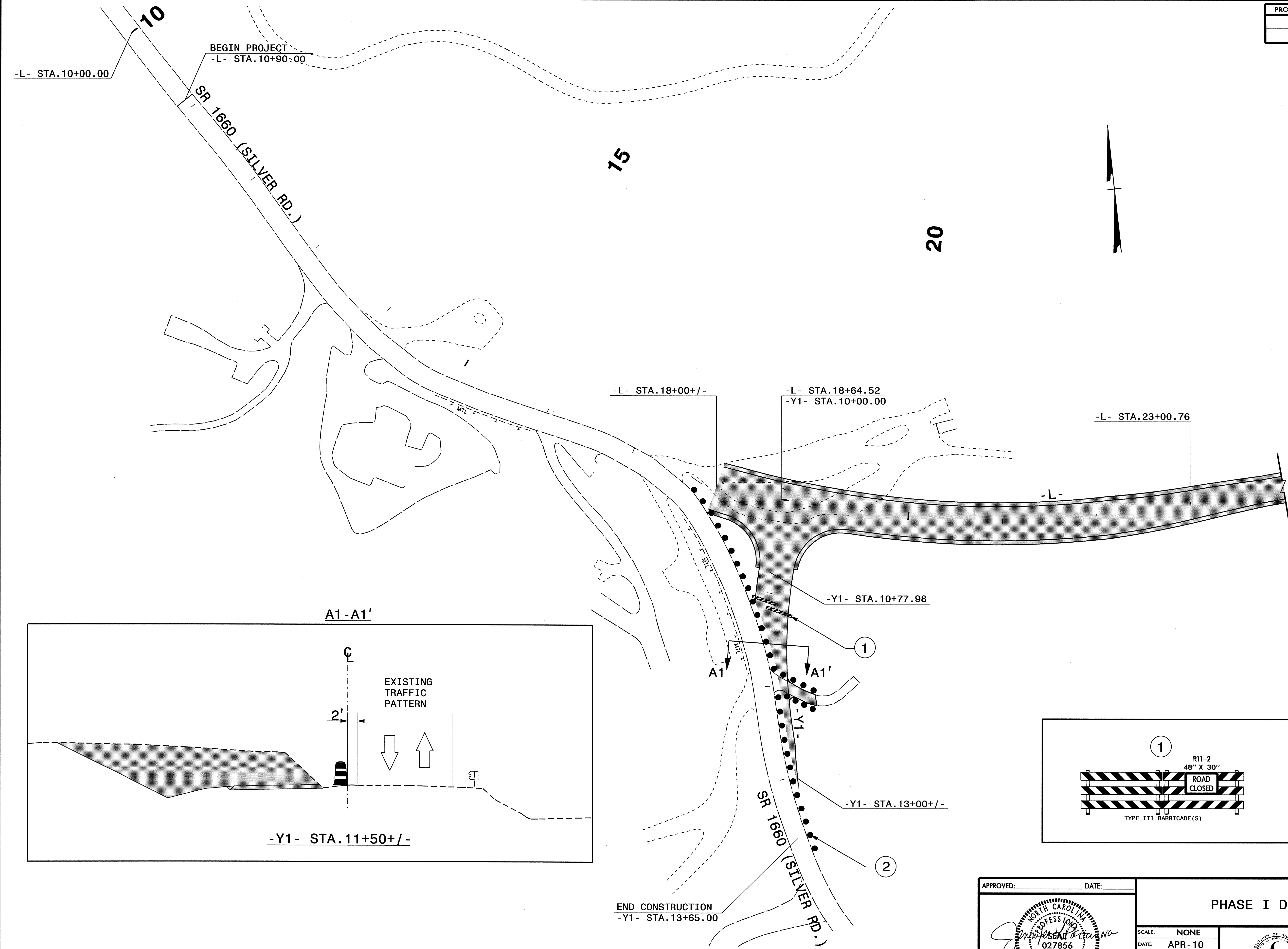
ICT No.1 - TWENTY-ONE (21) CALENDAR DAYS

ICT No.2 - SEVENTY-TWO (72) CONSECUTIVE HOURS



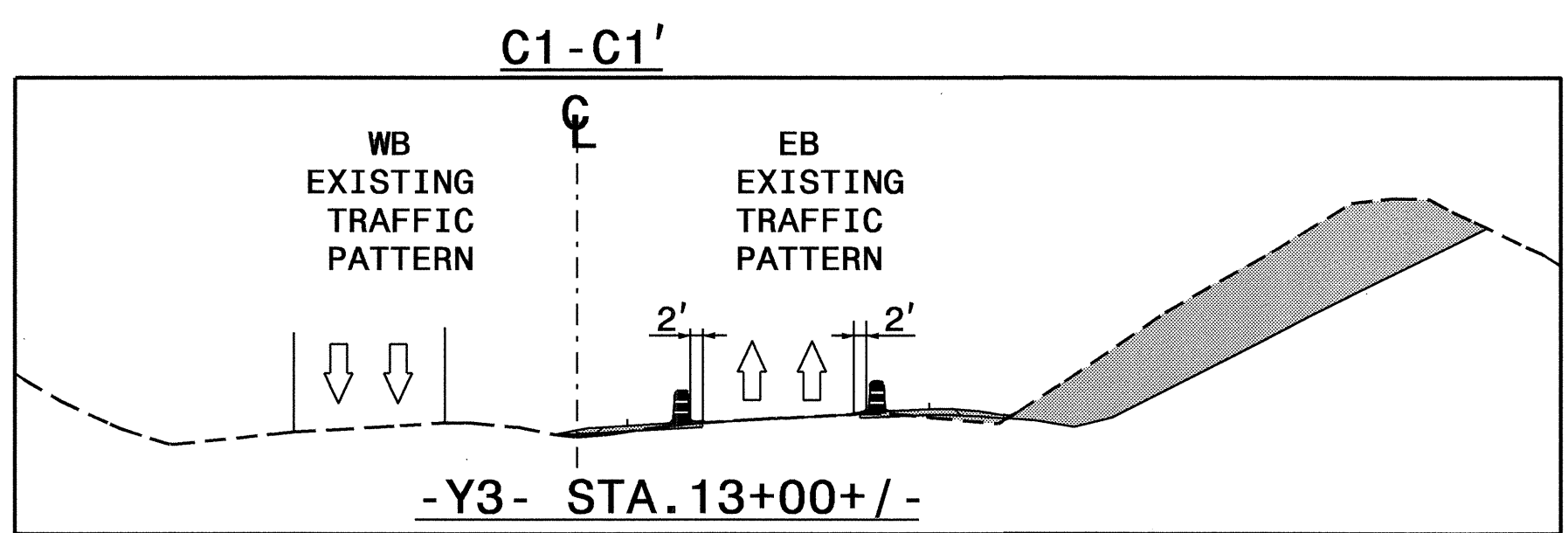
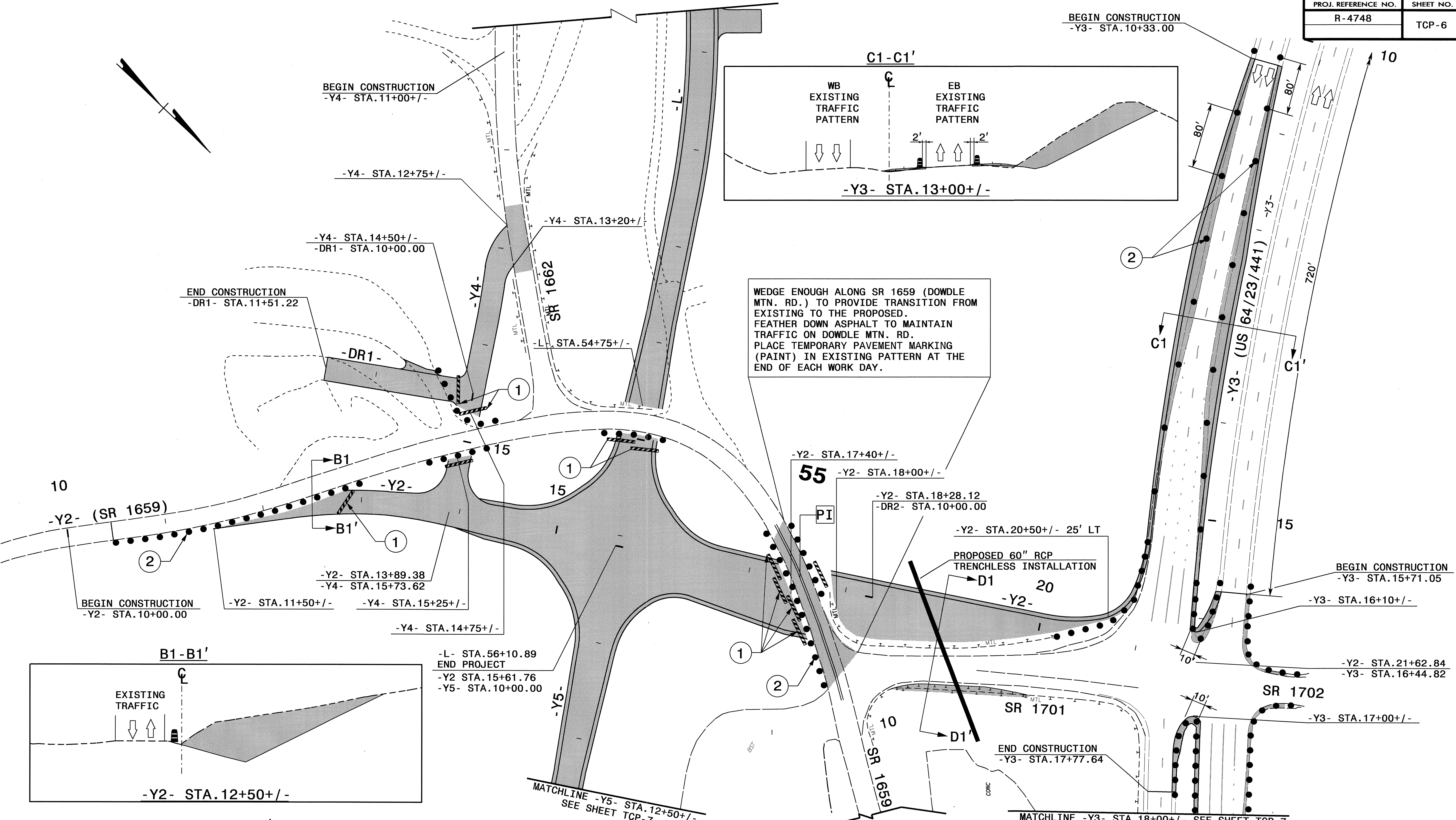




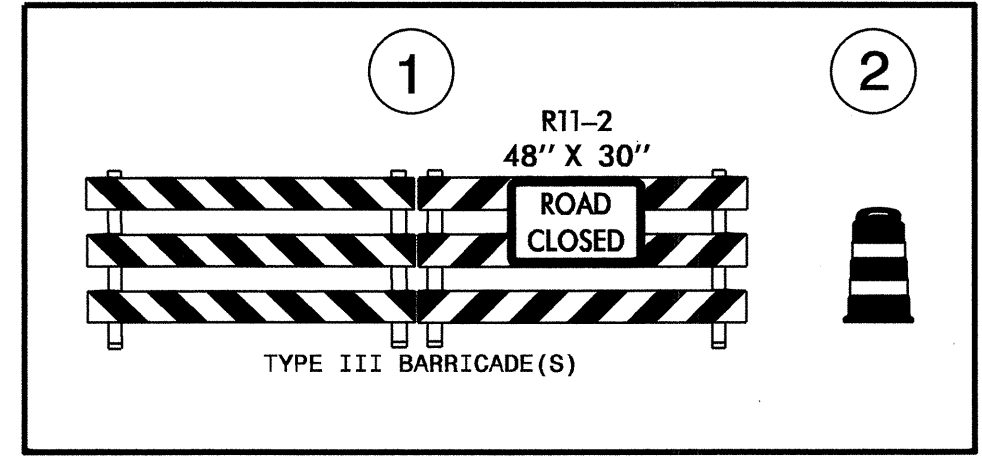
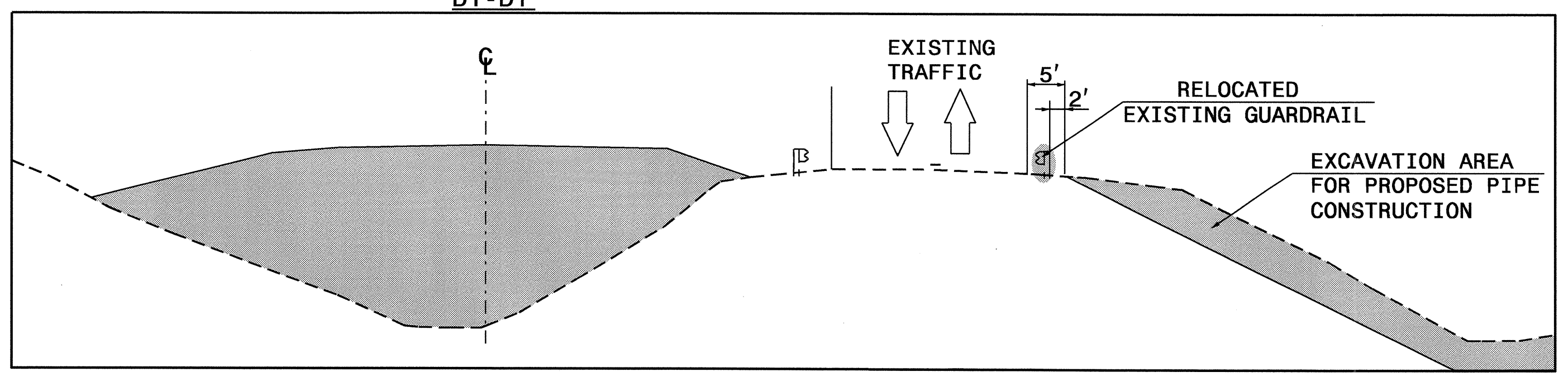
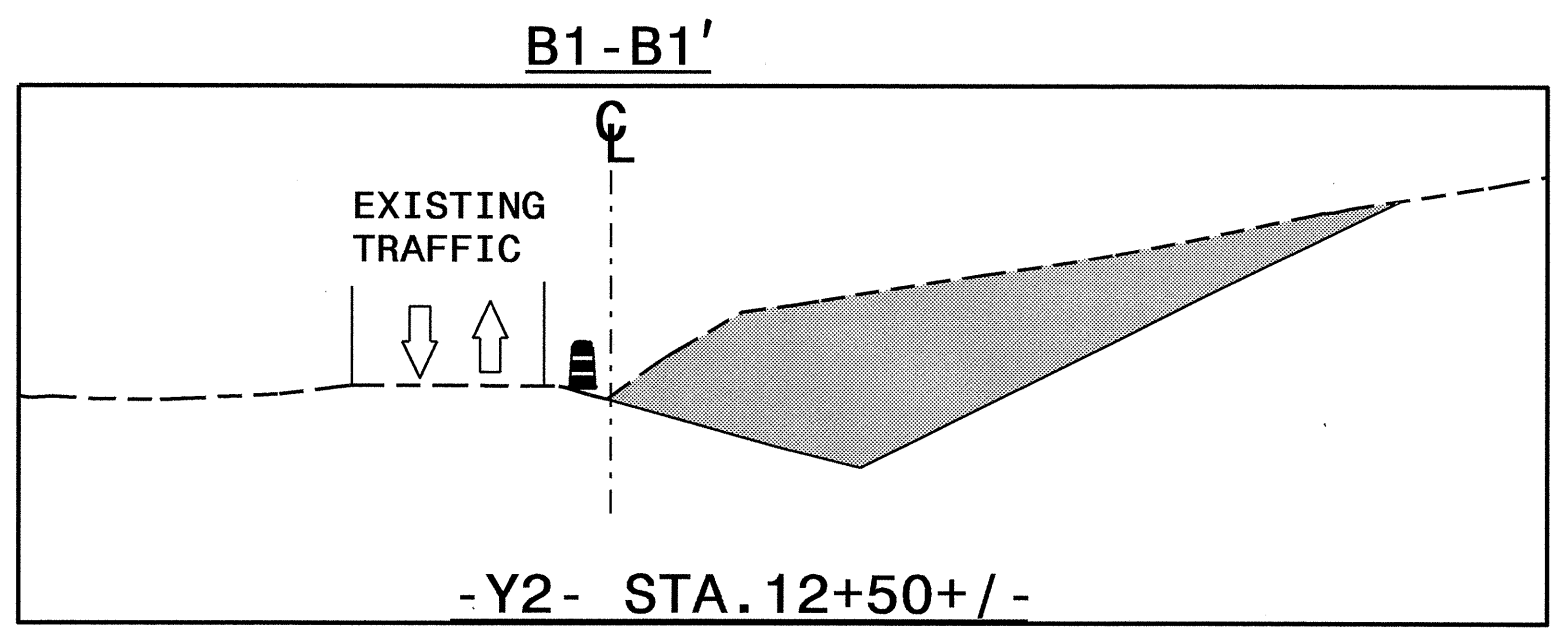


APPROVED: _____ DATE: _____	<b>PHASE I DETAIL 1</b>									
	SCALE: NONE	<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	REVISIONS							
	REVISIONS									
DATE: APR-10										
DWG. BY: AYL										
DESIGN BY: AYL										
REVIEWED BY: JLP										

27-APR-2010 07:00  
 \\dot\dfs\sr\0070\N\IP\Projects-R\4748\Traffic\TrafficControl\TCP\Final\TCP\_032210\VR-4748\_TC\_TCP\_5.dgn  
 aliyudmi AT WZTC237440



WEDGE ENOUGH ALONG SR 1659 (DOWDLE MTN. RD.) TO PROVIDE TRANSITION FROM EXISTING TO THE PROPOSED. FEATHER DOWN ASPHALT TO MAINTAIN TRAFFIC ON DOWDLE MTN. RD. PLACE TEMPORARY PAVEMENT MARKING (PAINT) IN EXISTING PATTERN AT THE END OF EACH WORK DAY.



APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

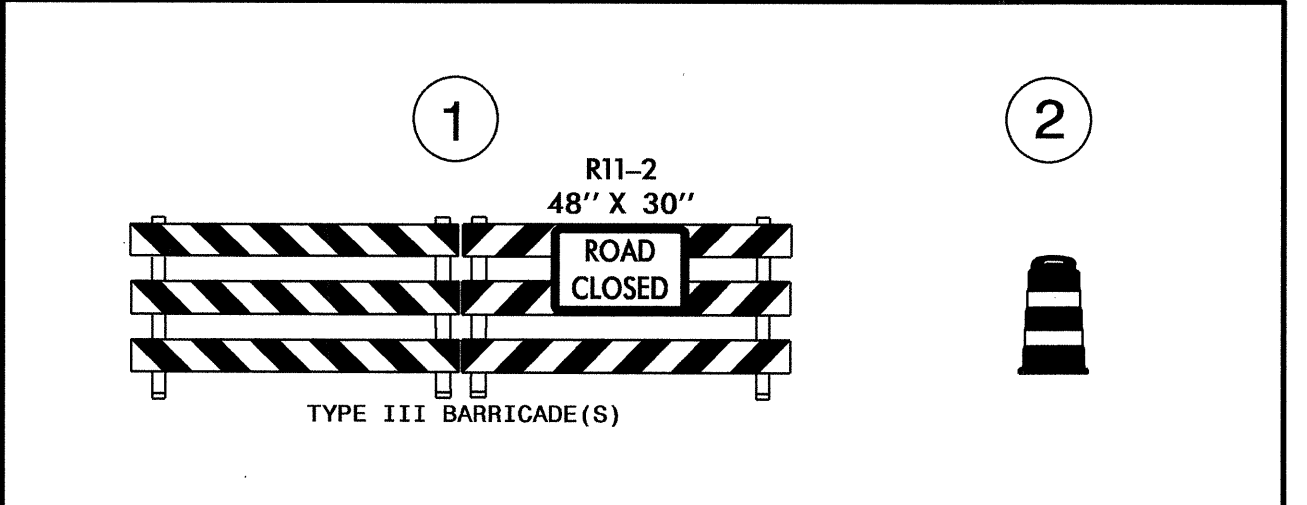
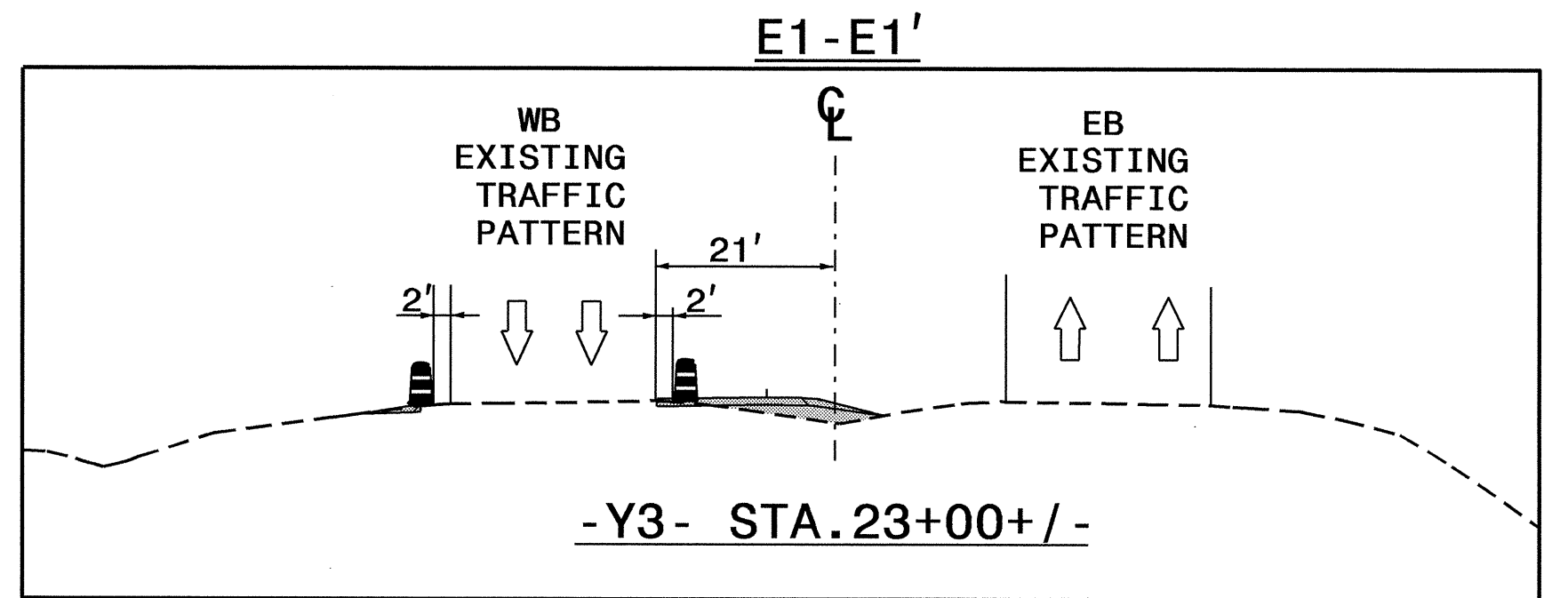
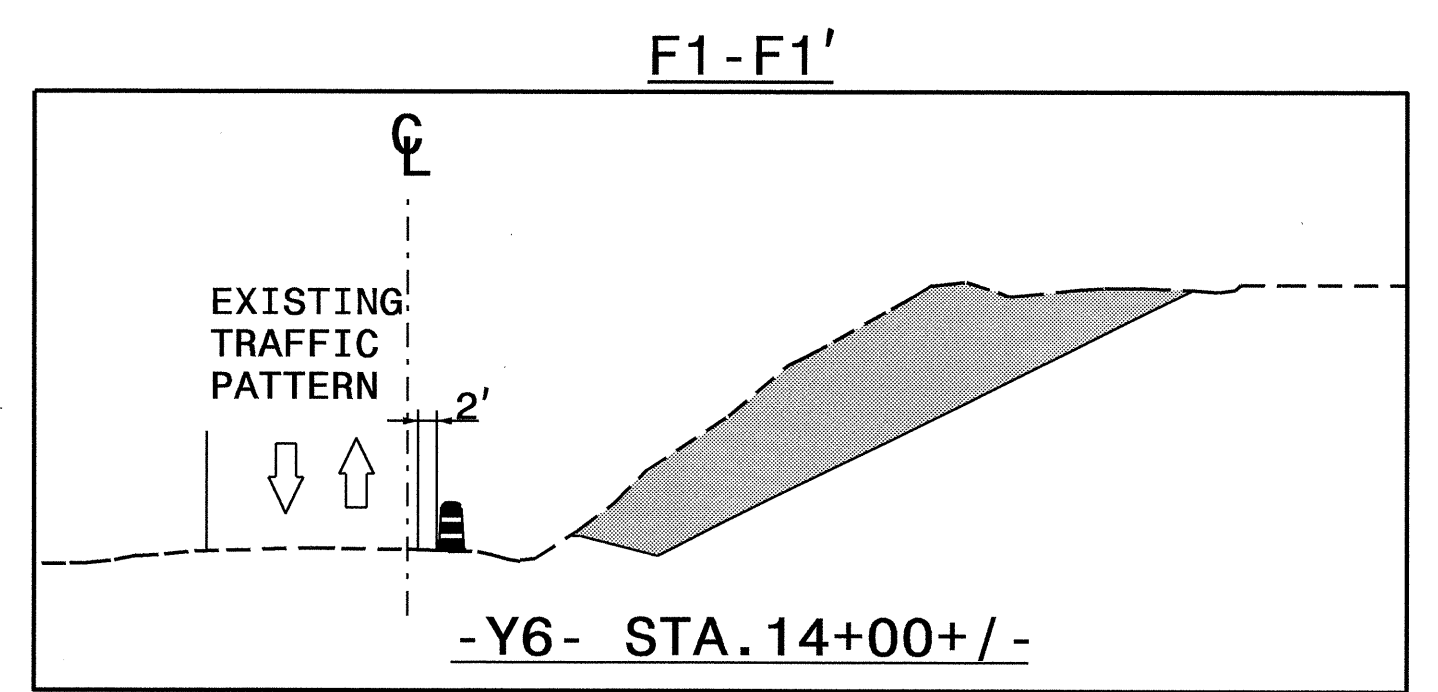
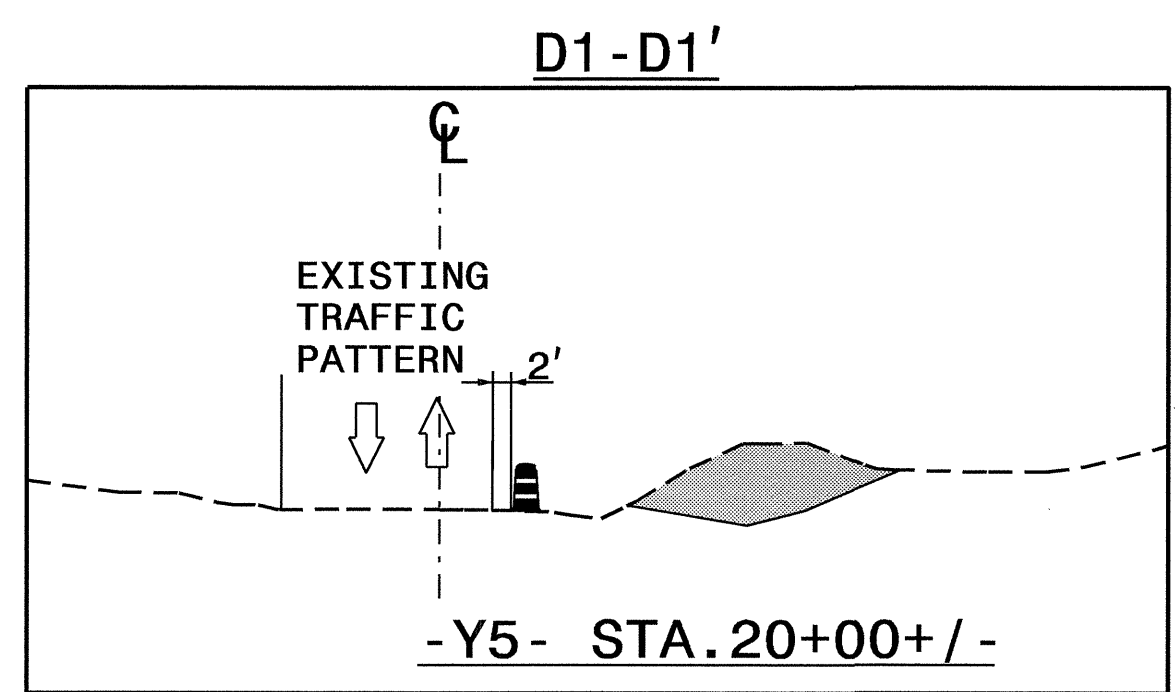
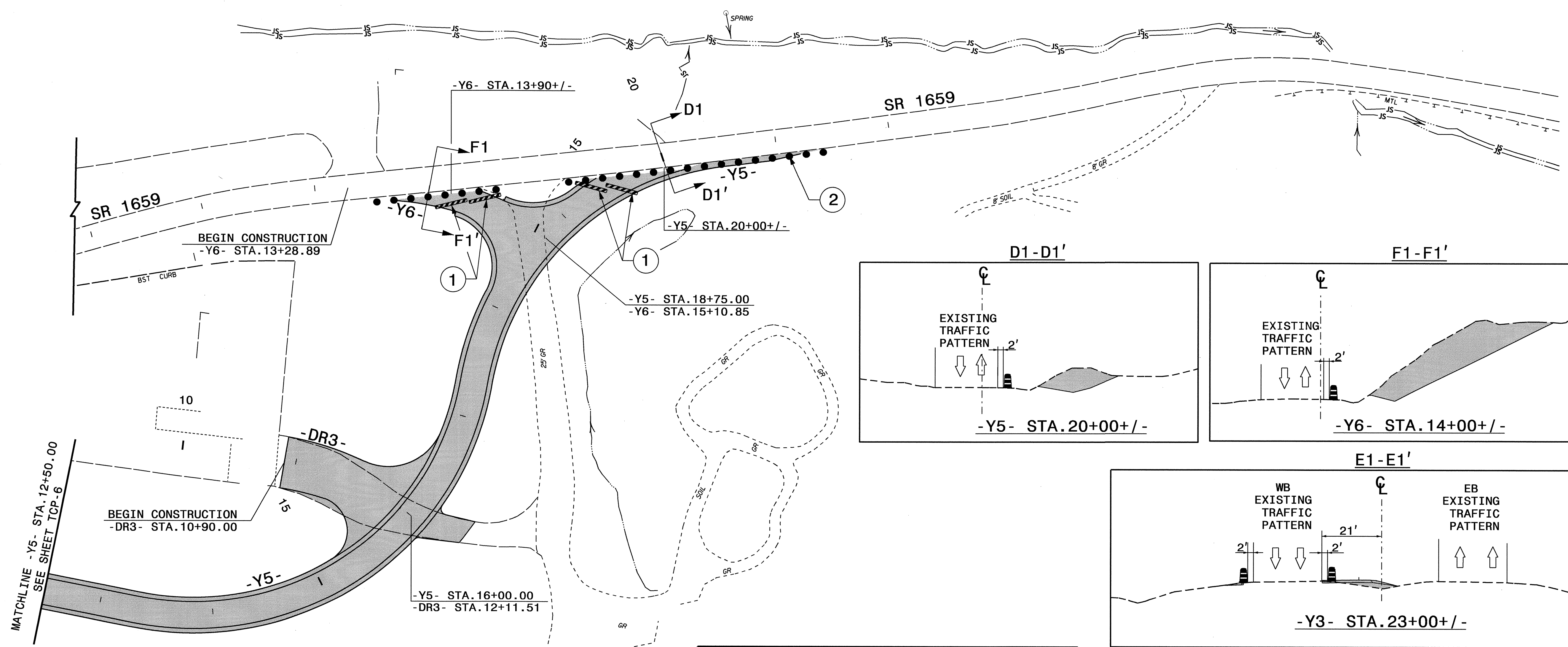
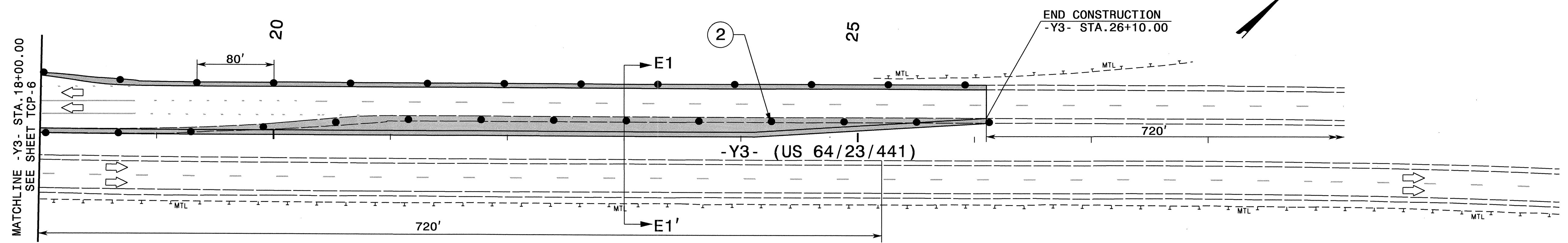
*Professional Engineer Seal*

5/7/10

<b>PHASE I DETAIL 2</b>	
SCALE: NONE	REVISIONS
DATE: APR-10	
DESIGN BY: AYL	
REVIEWED BY: JLP	

I7-MAY-2010 15:09  
 \\dot\dfs\00101\Proj\TIPProjects-R\4748\_TrafficControl\TCP\Final TCP\_032210\R-4748\_TC\_TCP-6.dgn  
 alvudml AT WZ TC237440





APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

Professional Engineer Seal: Jennifer L. Portanova, No. 027856, State of North Carolina.

PHASE I DETAIL 3

SCALE: NONE

DATE: APR-10

DWG. BY: AYL

DESIGN BY: AYL

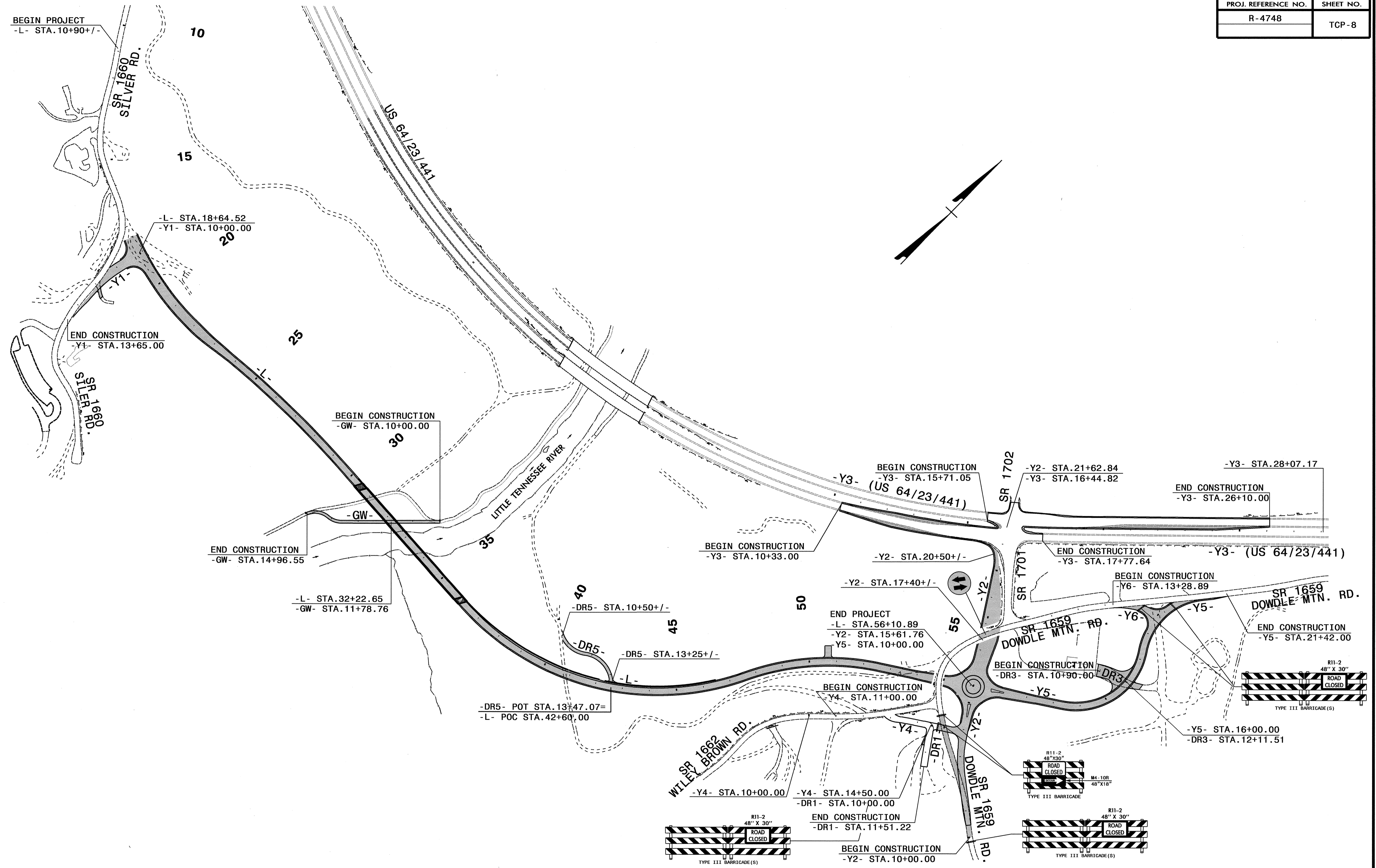
REVIEWED BY: JLP

REVISIONS

CADD FILE

27-APR-2010 06:59  
 \\dot\dfs\dot\010\Proj\TIP\Projects-R\4748\Traffic\TrafficControl\TCP\Final\TCP\_0322\0\NR-4748\_TC\_TCP\_7.dgn  
 glyudmi AT WZTC237440

PROJ. REFERENCE NO.	SHEET NO.
R-4748	TCP-8



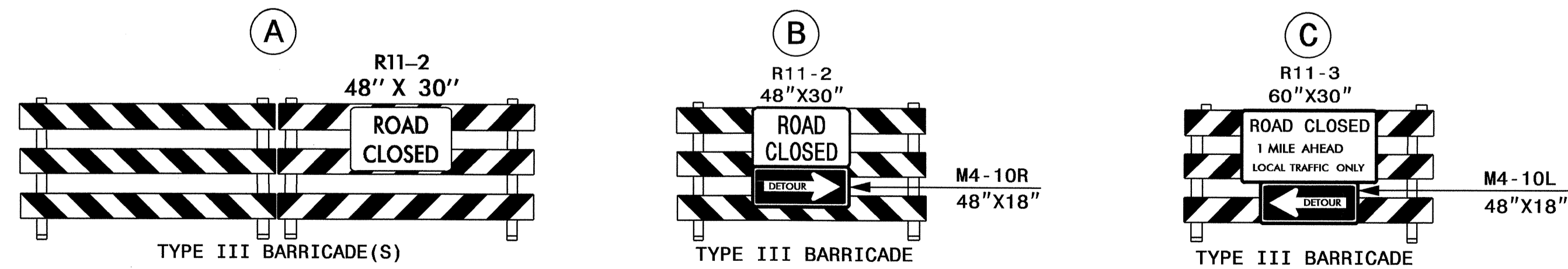
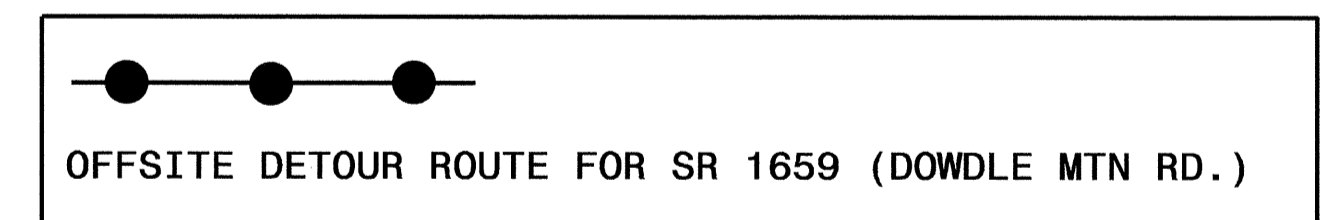
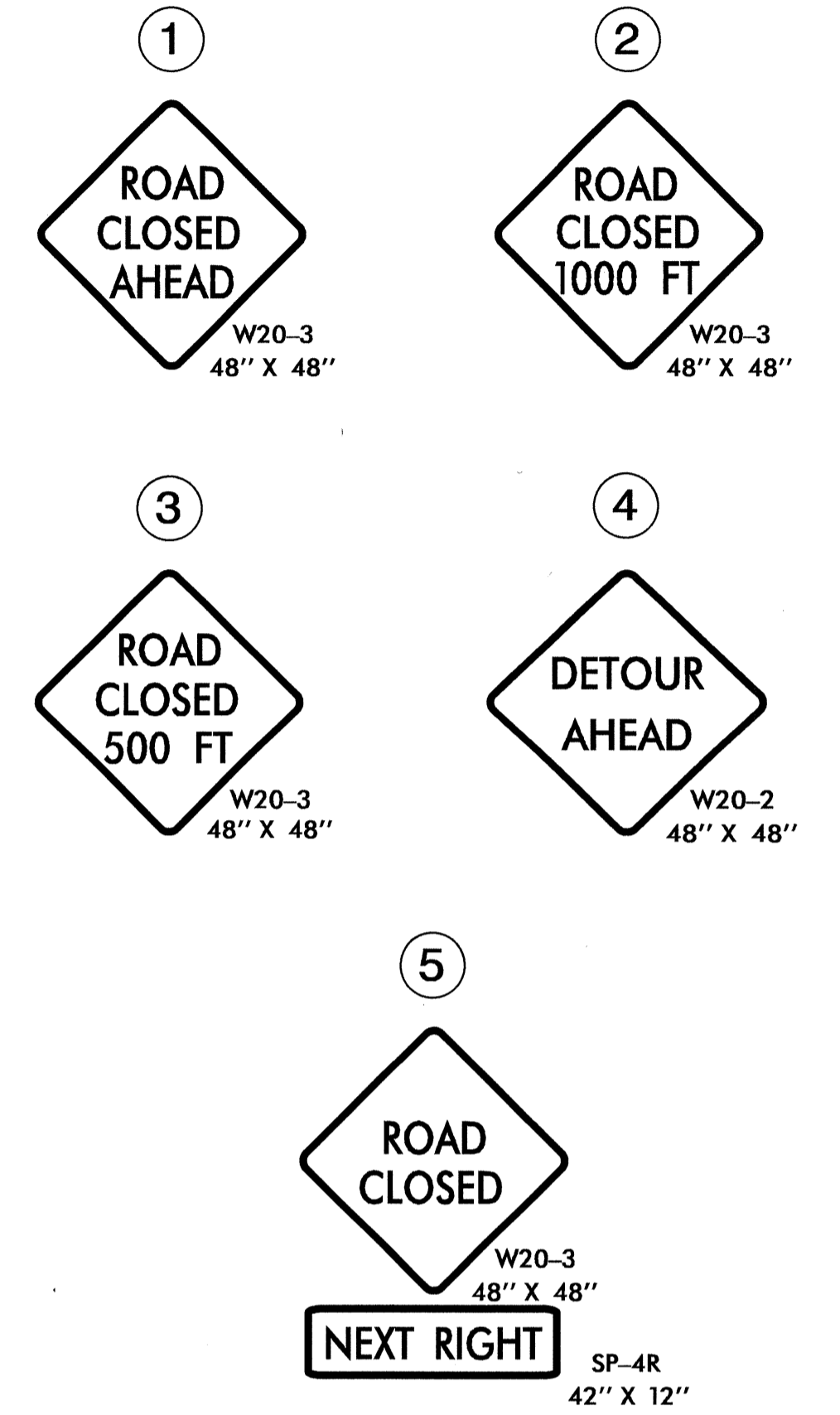
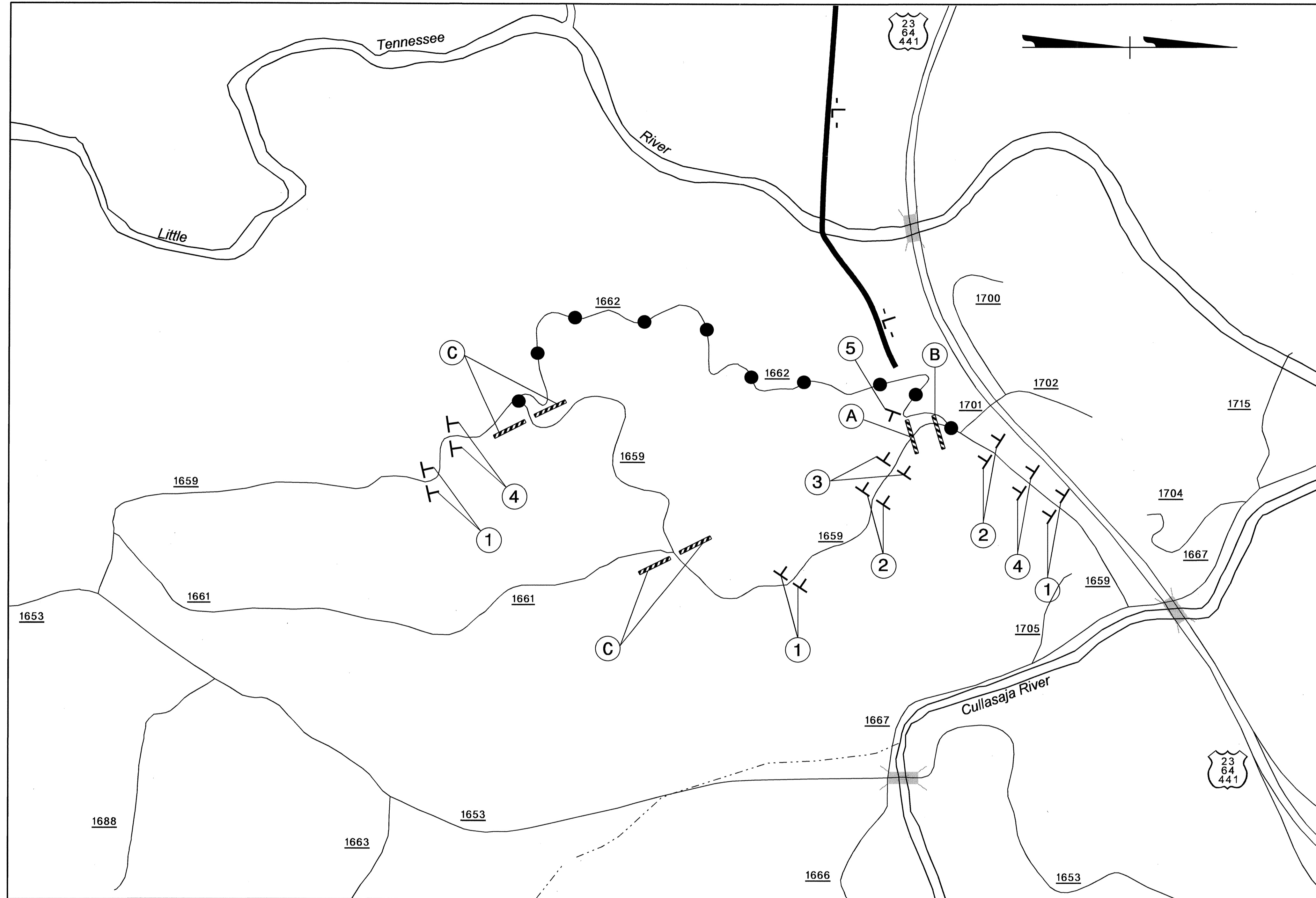
27-APR-2010 06:58  
 \\dot\dfs\dot\101\TIP\Projects-R\R4748\TrafficControl\TCP\Final\TCP-8\_Ph II OVERVIEW.dgn  
 ayudmi AT WZTC237440

APPROVED:	DATE:	<b>PHASE II OVERVIEW</b>	
SCALE:	NONE		REVISIONS
DATE:	APR-10		
DWG. BY:	AYL		
DESIGN BY:	AYL		
REVIEWED BY:	AYL		CADD FILE



MACON COUNTY  
VICINITY MAP

PROJ. REFERENCE NO.	SHEET NO.
R-4748	TCP-9



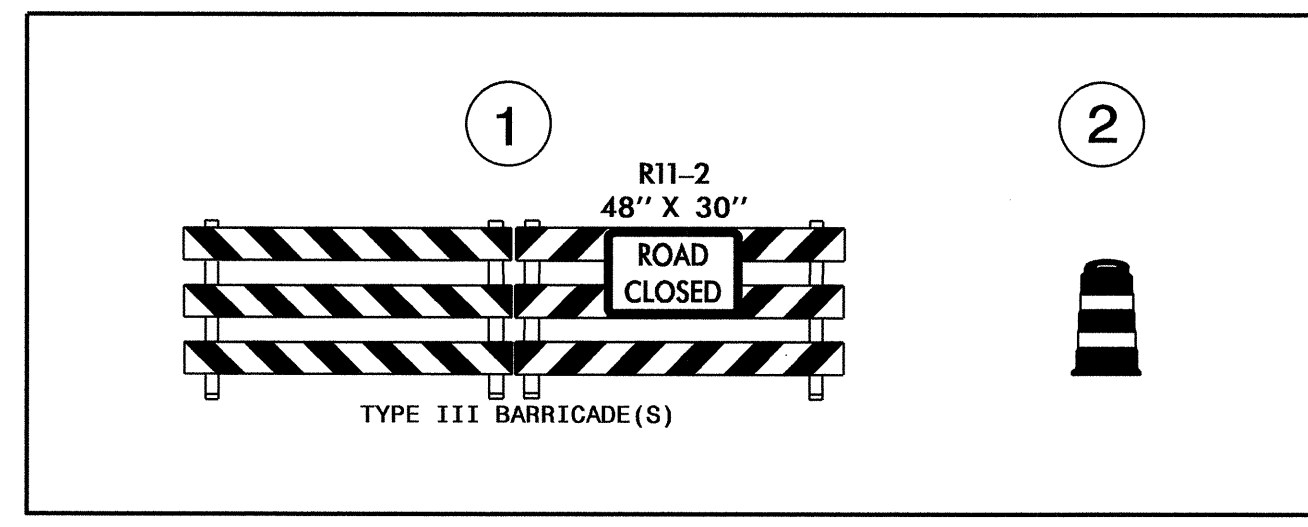
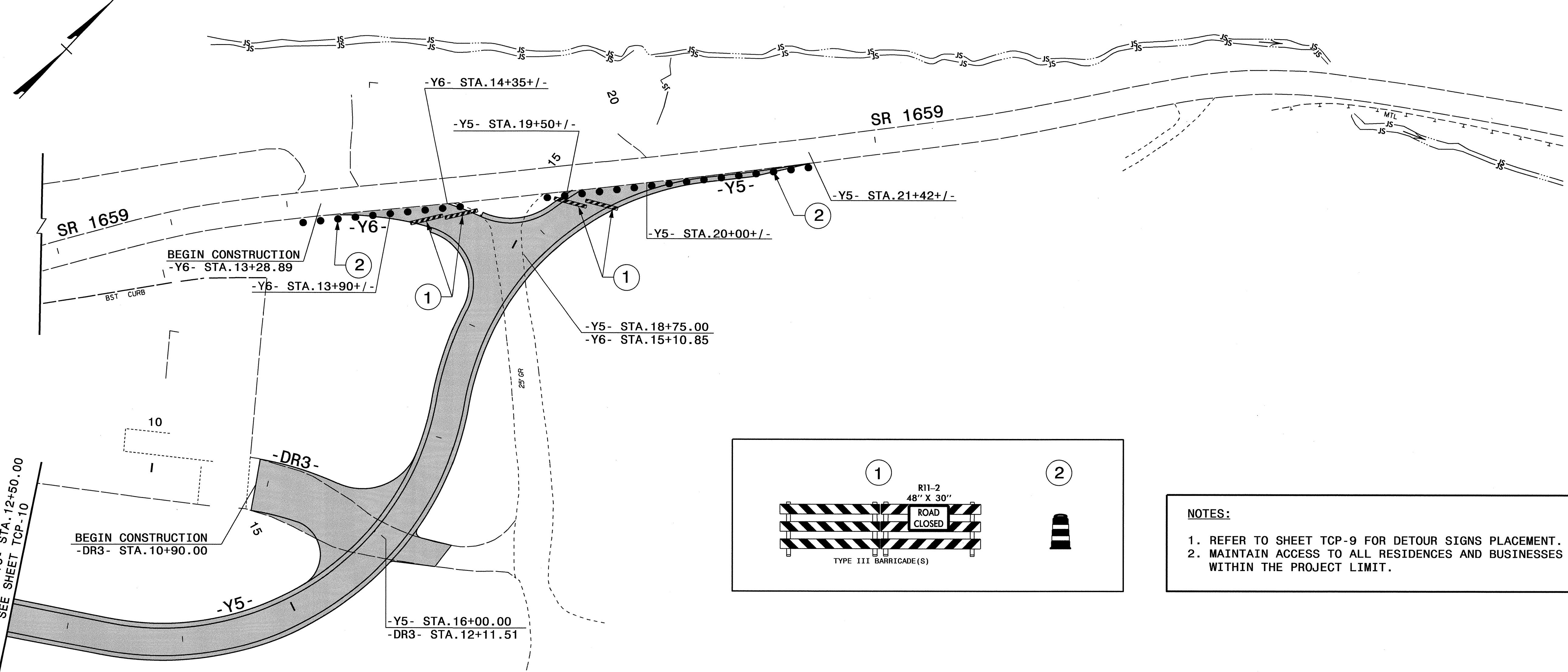
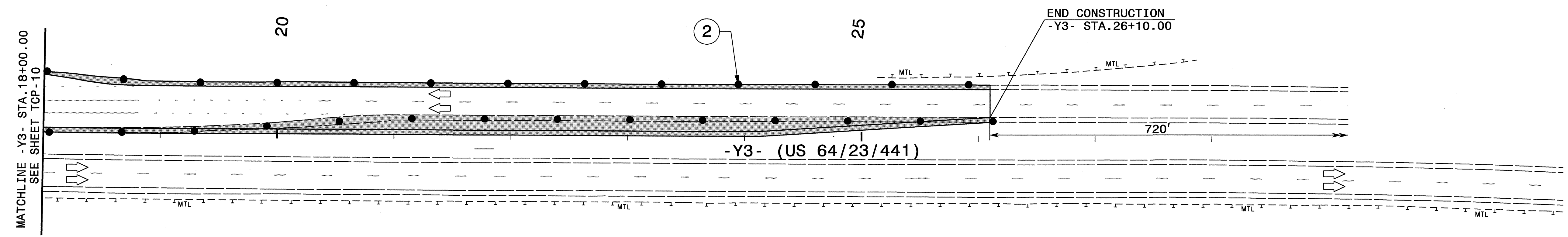
**NOTES:**  
 1. REFER TO NOTE 'K' IN PROJECT NOTES PRIOR TRAFFIC PATTERN ALTERATION.  
 2. SEE RSD 1101.03, SHEETS 1 OF 9 AND 2 OF 9, FOR SIGN SPACING DISTANCES.

APPROVED: _____ DATE: _____	<b>OFFSITE DETOUR MAP FOR SR 1659 (DOWDLE MTN. RD.)</b>		REVISIONS	
			SCALE: NONE	
	DATE: APR-10			
	DWG. BY: AYL			
	DESIGN BY: AYL			
	REVIEWED BY: JLP			

27-APR-2010 06:57  
 \\dot\dfs\o070\Projects-R\4748\TrafficControl\TCP\Final\TCP\_032210\R-4748\_Tc\_TCP\_9.dgn  
 aljudmi AT WZTC237440





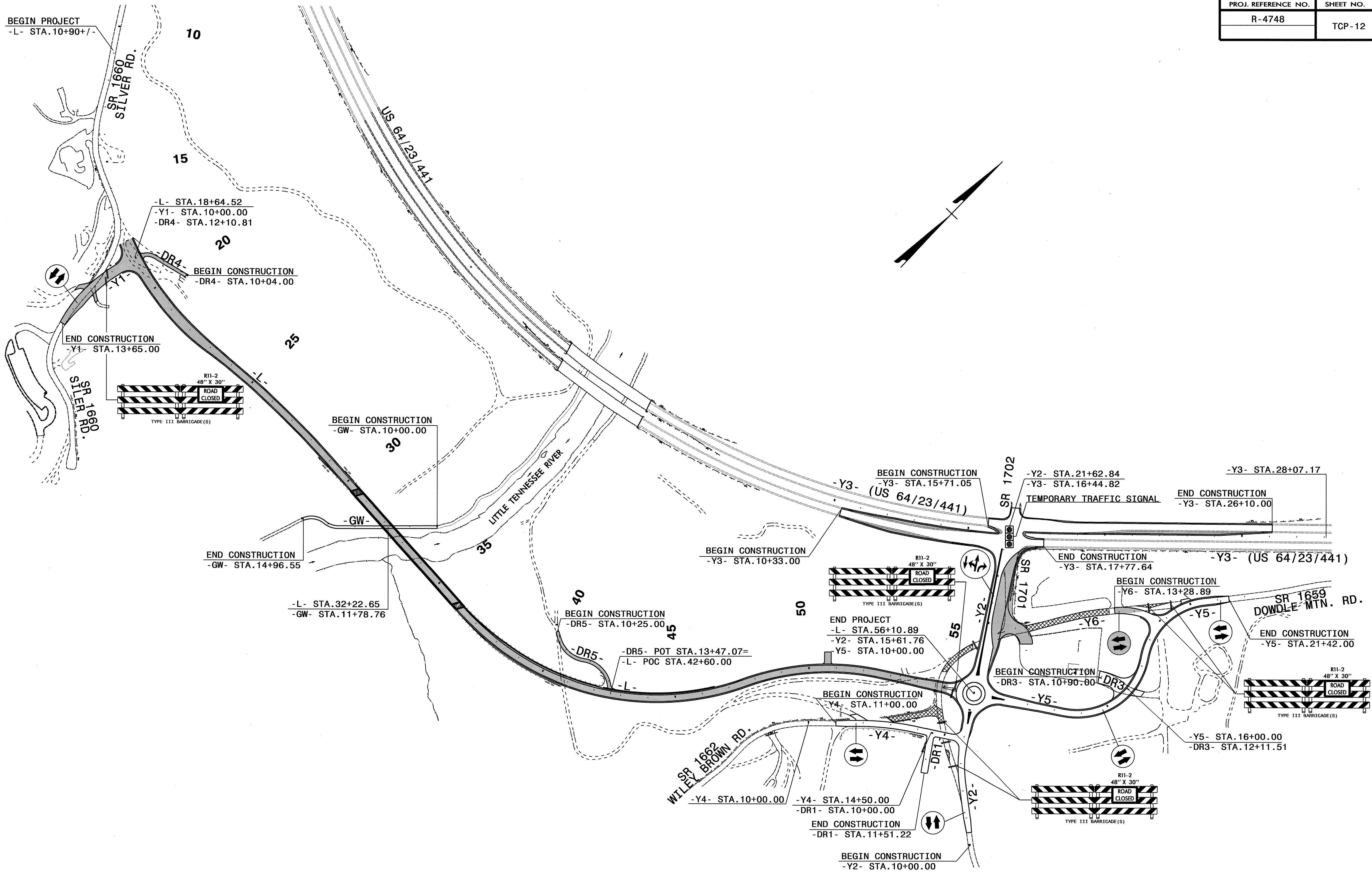


**NOTES:**

1. REFER TO SHEET TCP-9 FOR DETOUR SIGNS PLACEMENT.
2. MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES WITHIN THE PROJECT LIMIT.

27-APR-2010 06:56  
 \\dot\dfs\0010\Proj\TIP\Projects-R\4748\Traffic\Control\TCP\Final\TCP\_032210-R-4748\_TC\_TCP.ilddgn  
 dlyucmi AT W7TC23740

APPROVED: _____ DATE: _____	<b>PHASE II DETAIL 2</b>	
SCALE: NONE		REVISIONS
DATE: APR-10		
DWG. BY: AYL		
DESIGN BY: AYL		
REVIEWED BY: JLP		CADD FILE

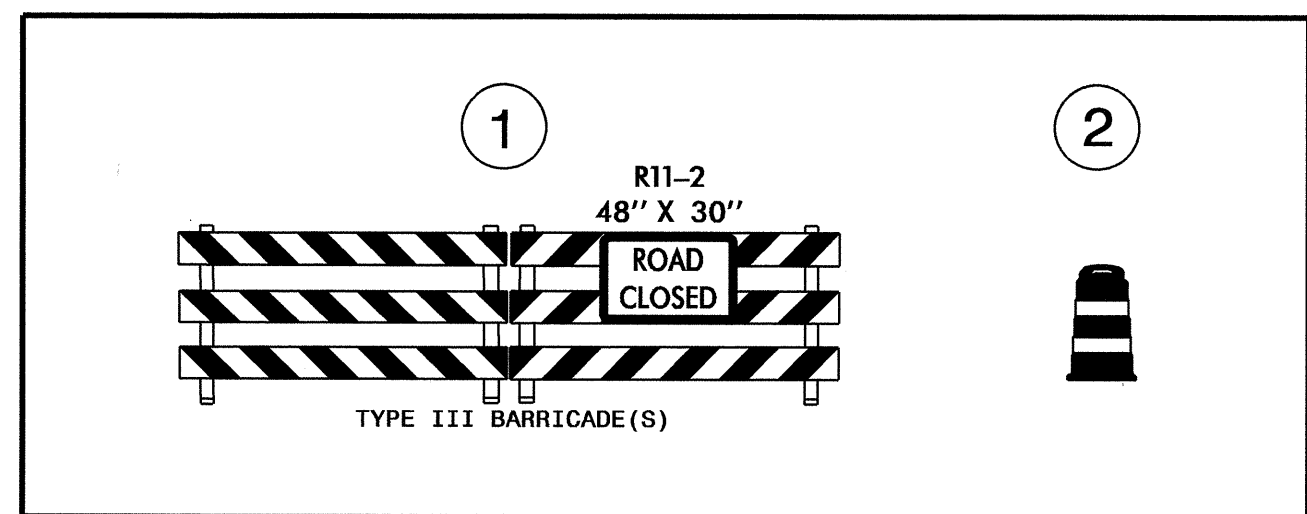
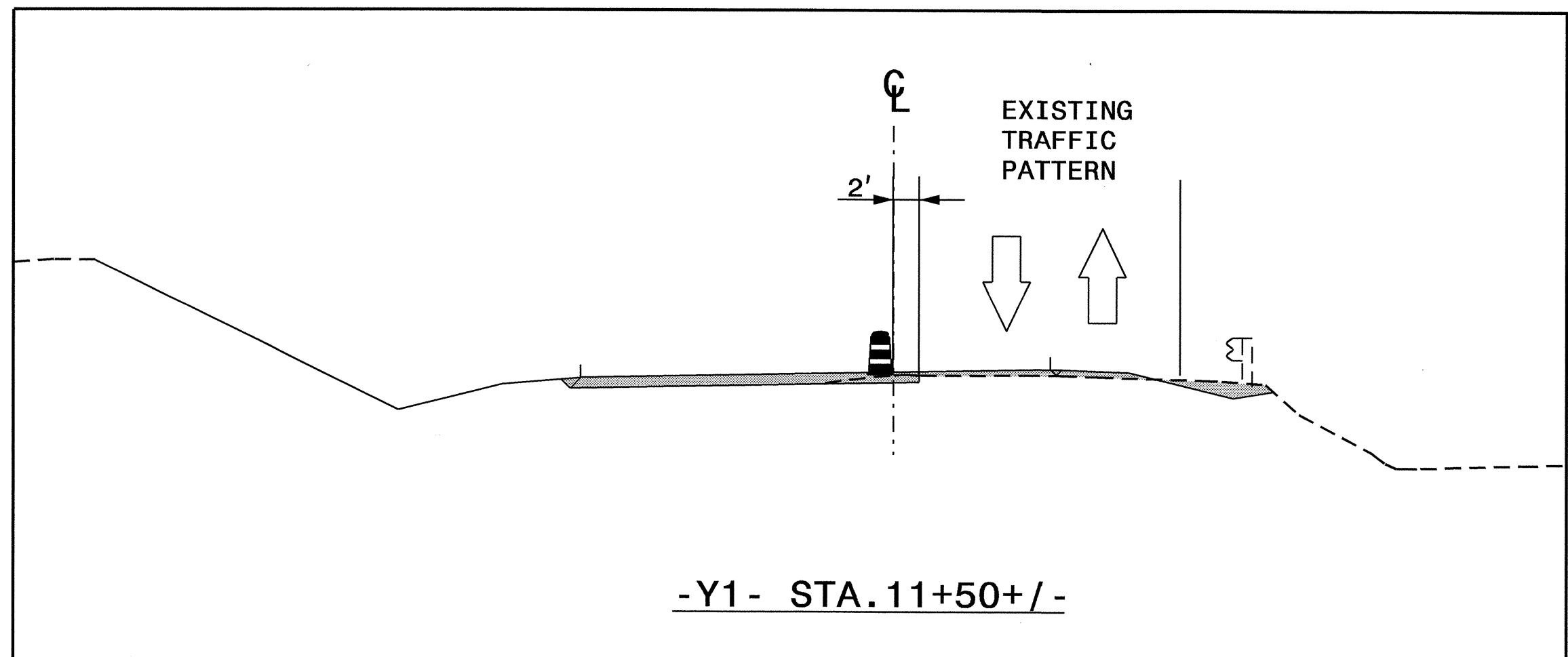
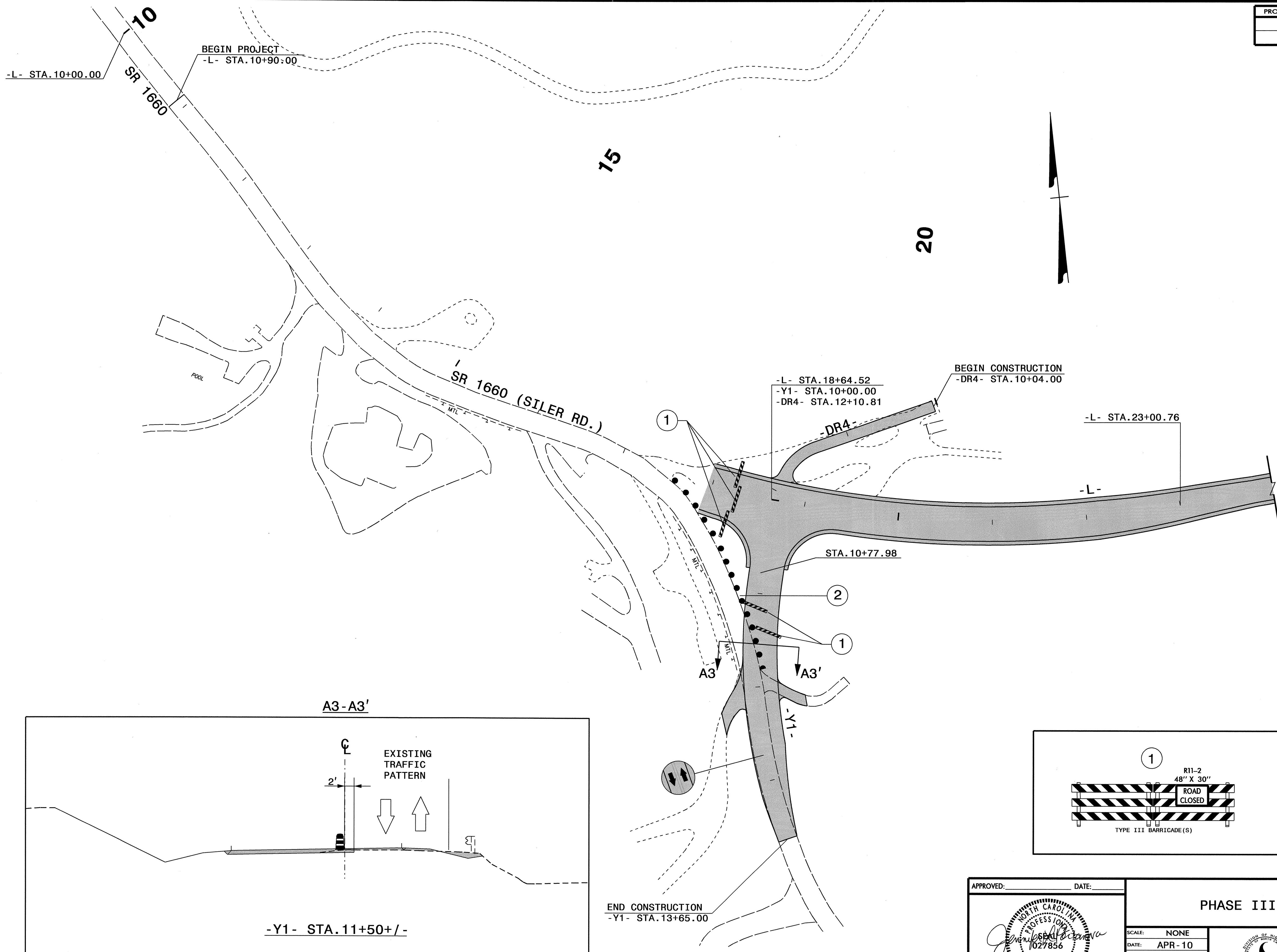


27-APR-2010 06:55  
 \\dot\dfs\root\0\Proj\TIP\Projects-RN4748\TrafficControl\TCP\Final\TCP-12\_Ph\_III\_Overview.dgn  
 aliyudmi AT WZTC237440

APPROVED: _____ DATE: _____	<b>PHASE III OVERVIEW</b>	
SCALE: NONE		REVISIONS
DATE: APR-10		
DWG. BY: AYL		
DESIGN BY: AYL		
REVIEWED BY: AYL		CADD FILE



PROJ. REFERENCE NO.	SHEET NO.
R-4748	TCP-13

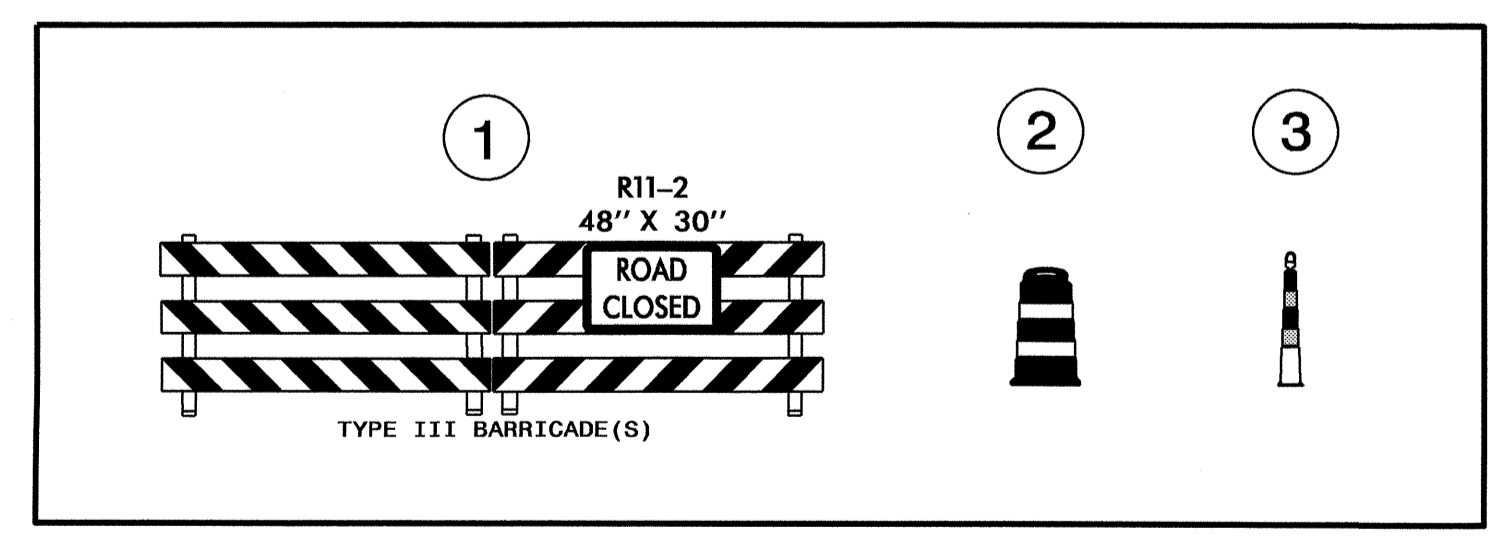
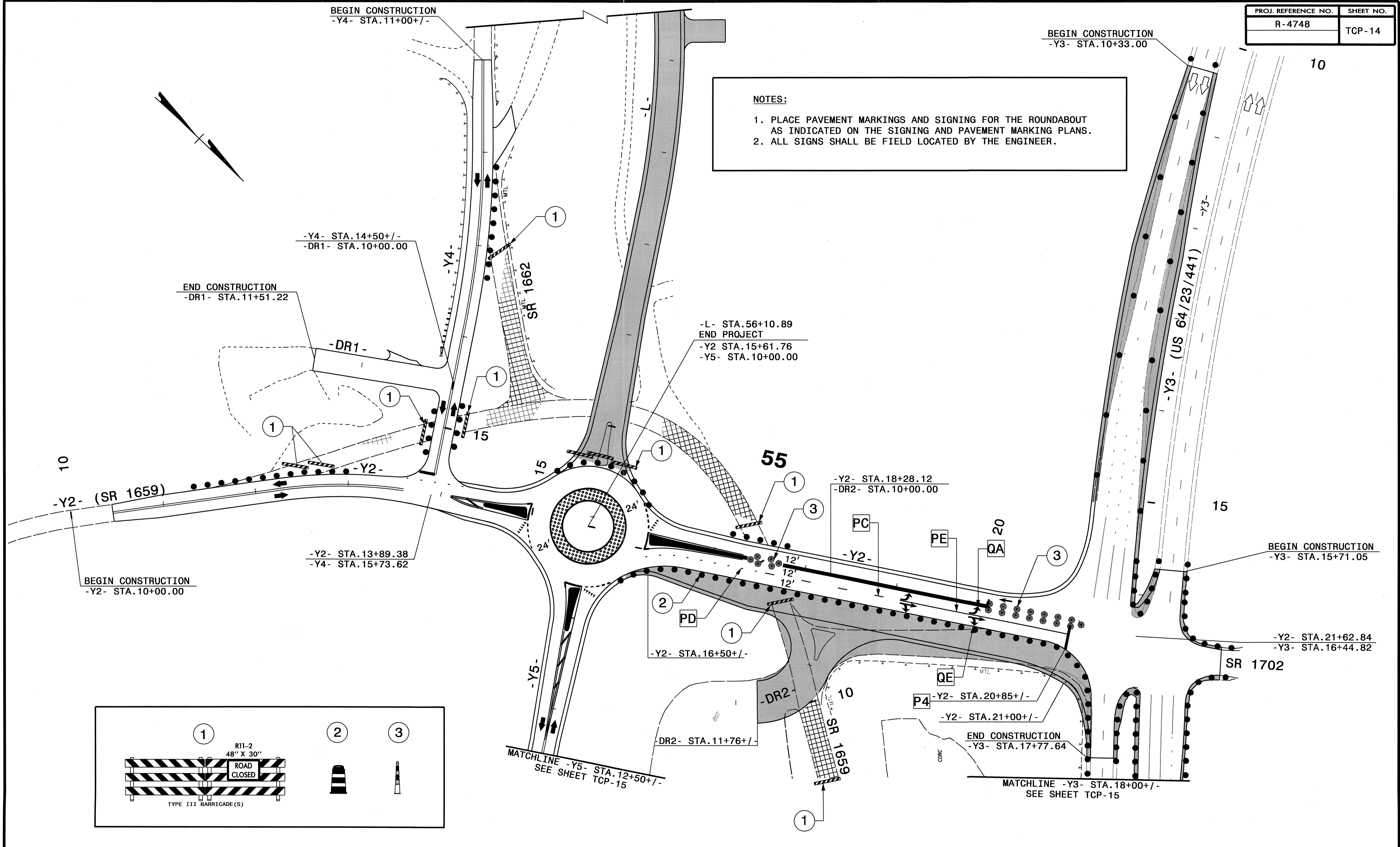


27-APR-2010 06:55  
 \\dot\dfs\00101\Proj\TIP\Projects-R\4748\Traffic\Control\TCP\Final\TCP\_032220\N\R-4748\_TC\_TCP\_13.dgn  
 aljudmi AT WZTC237440

APPROVED:	DATE:	<b>PHASE III DETAIL 1</b>	
SCALE:	NONE		REVISIONS
DATE:	APR - 10		
DWG. BY:	AYL		
DESIGN BY:	AYL		
REVIEWED BY:	JLP		

**NOTES:**

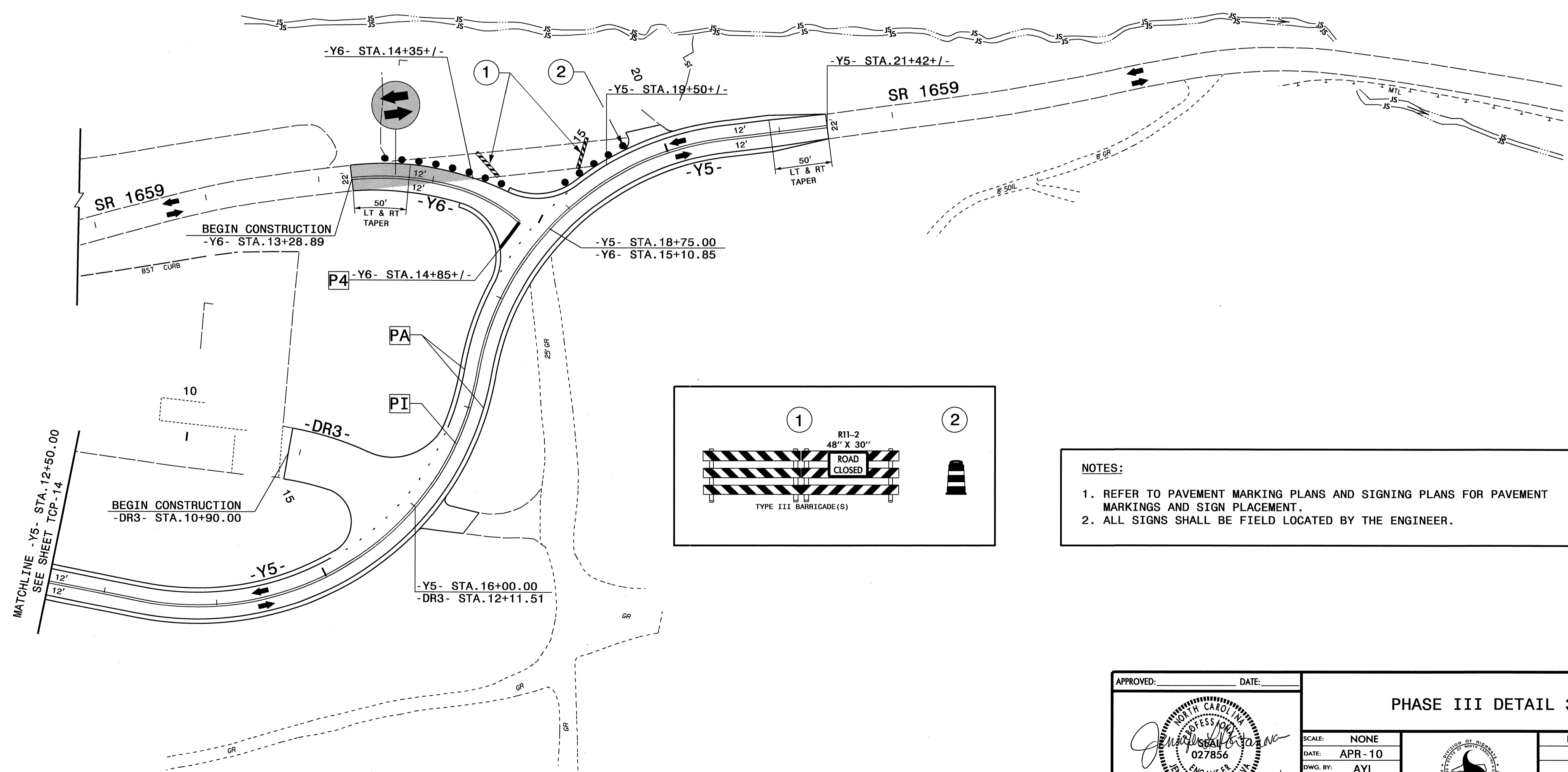
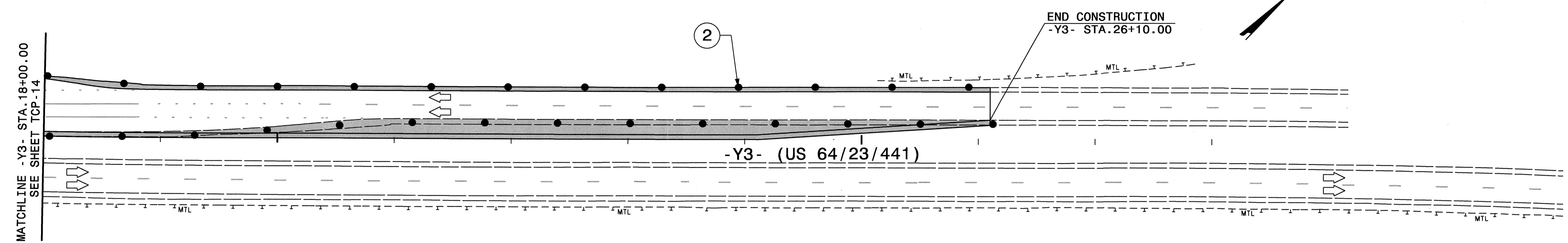
1. PLACE PAVEMENT MARKINGS AND SIGNING FOR THE ROUNDABOUT AS INDICATED ON THE SIGNING AND PAVEMENT MARKING PLANS.
2. ALL SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.



APPROVED:	DATE:	<b>PHASE III DETAIL 2</b>									
SCALE:	NONE	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		REVISIONS							
REVISIONS											
DATE:	APR - 10										
DWG. BY:	AYL										
DESIGN BY:	AYL										
REVIEWED BY:	JLP										

24-MAY-2010 13:26  
 \\dot\dfs\00101\Proj\TIPProjects\R\4748\TrafficControl\TCP\Final\TCP\_032210\R-4748\_TC\_TCP\_14.dgn  
 glyudmi AT WZTC237440



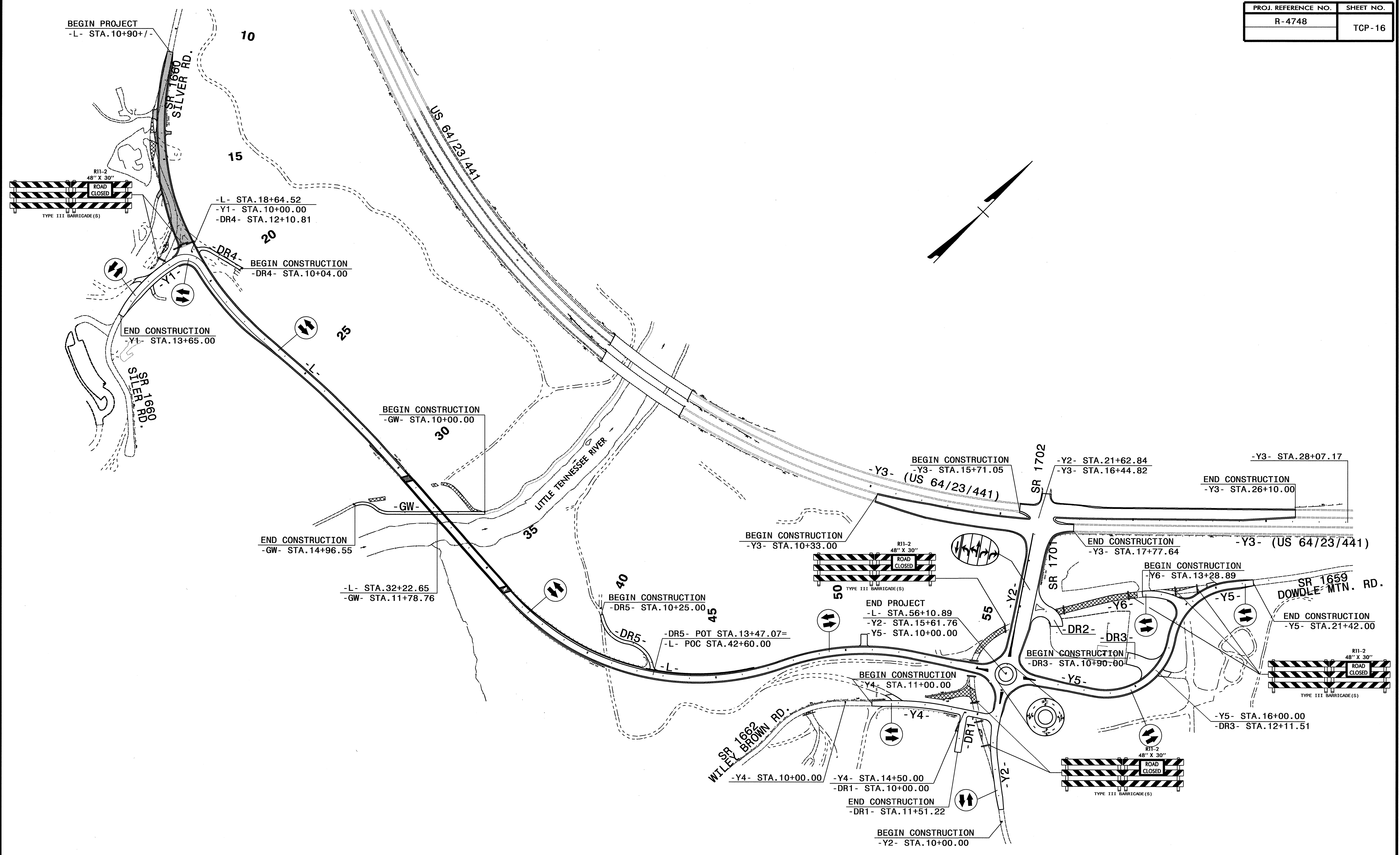


**NOTES:**

- REFER TO PAVEMENT MARKING PLANS AND SIGNING PLANS FOR PAVEMENT MARKINGS AND SIGN PLACEMENT.
- ALL SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.

24-MAY-2010 13:26  
 C:\cwt\proj\01\TIP\Projects-RN4748\Traffic\TrafficControl\TCP\Final\TCP\_032210\R-4748\_TC\_TCP\_15.dgn  
 gby\adm1 AT WZTC237440

APPROVED: _____	DATE: _____	<b>PHASE III DETAIL 3</b>	
SCALE: NONE	DATE: APR - 10		REVISIONS
DWG. BY: AYL	DESIGN BY: AYL		
REVIEWED BY: JLP			

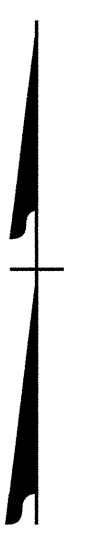
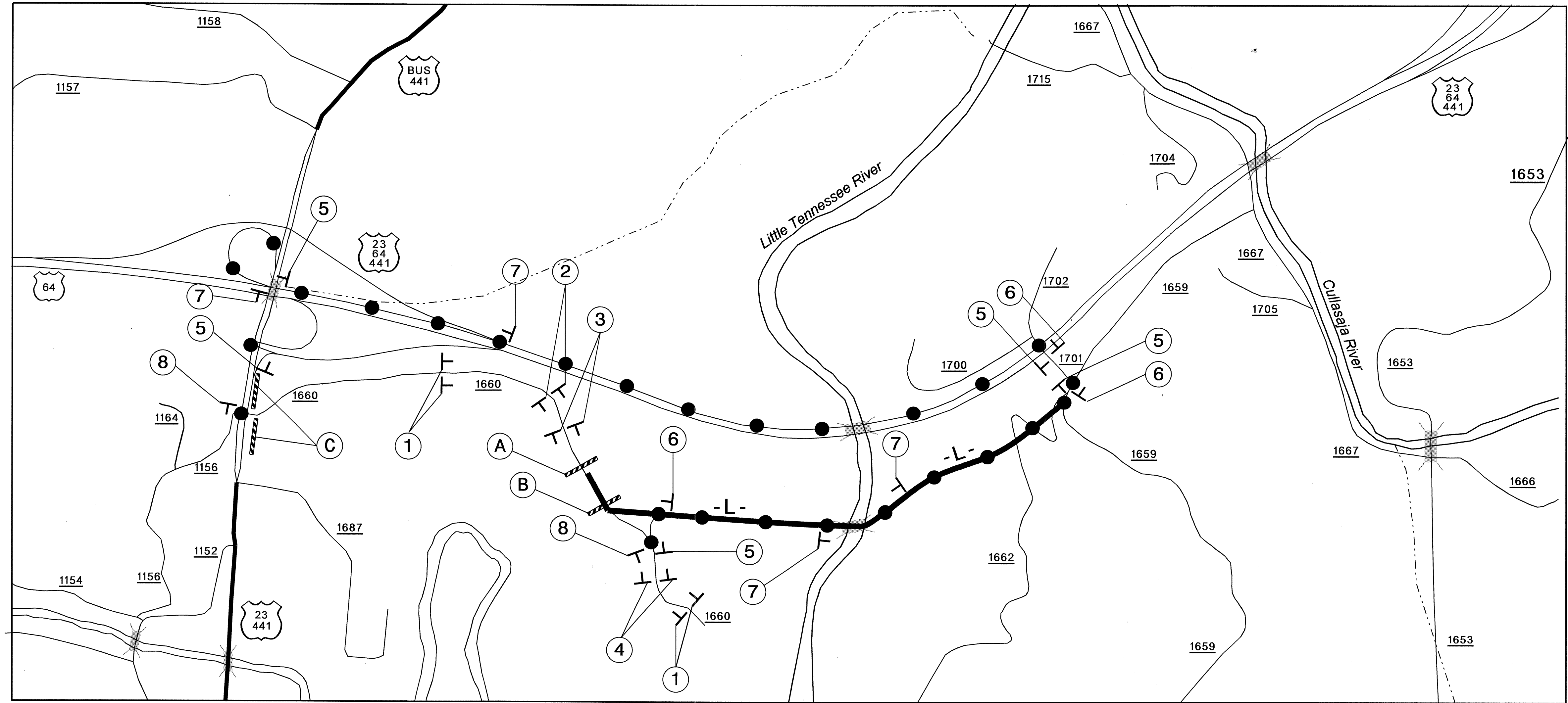


27-APR-2010 06:53  
 \\dot\dfsroot\0010\Proj\TIP\Projects-R\4748\TrafficControl\TCP\Final\TCP\_032210\R-4748\_TC\_TCP-16\_Ph\_IV\_OVERVIEW.dgn  
 dlyudmi AT W7TC23740

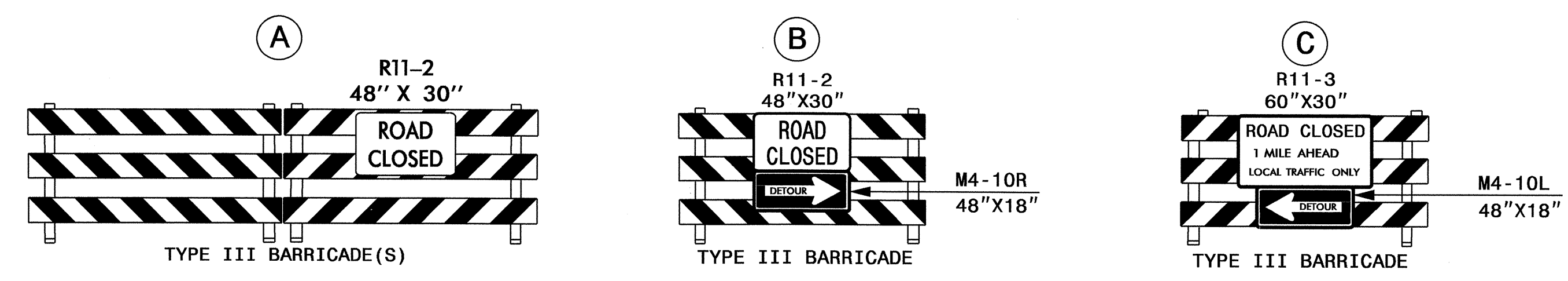
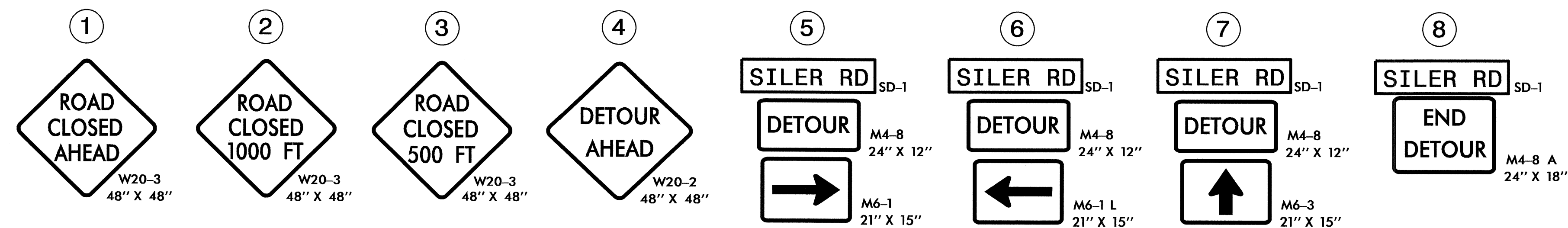
APPROVED:	DATE:	<b>PHASE IV OVERVIEW</b>									
SCALE:	NONE		<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS							
REVISIONS											
DATE:	APR-10										
DWG. BY:	AYL										
DESIGN BY:	AYL										
REVIEWED BY:	AYL	CADD									
		FILE									



VICINITY MAP  
MACON COUNTY



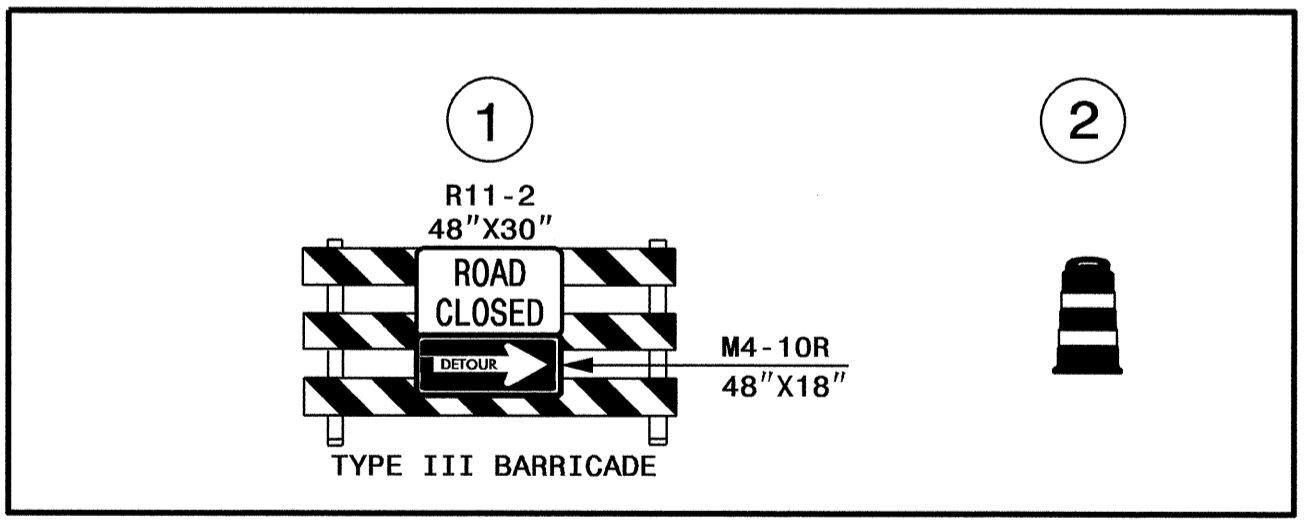
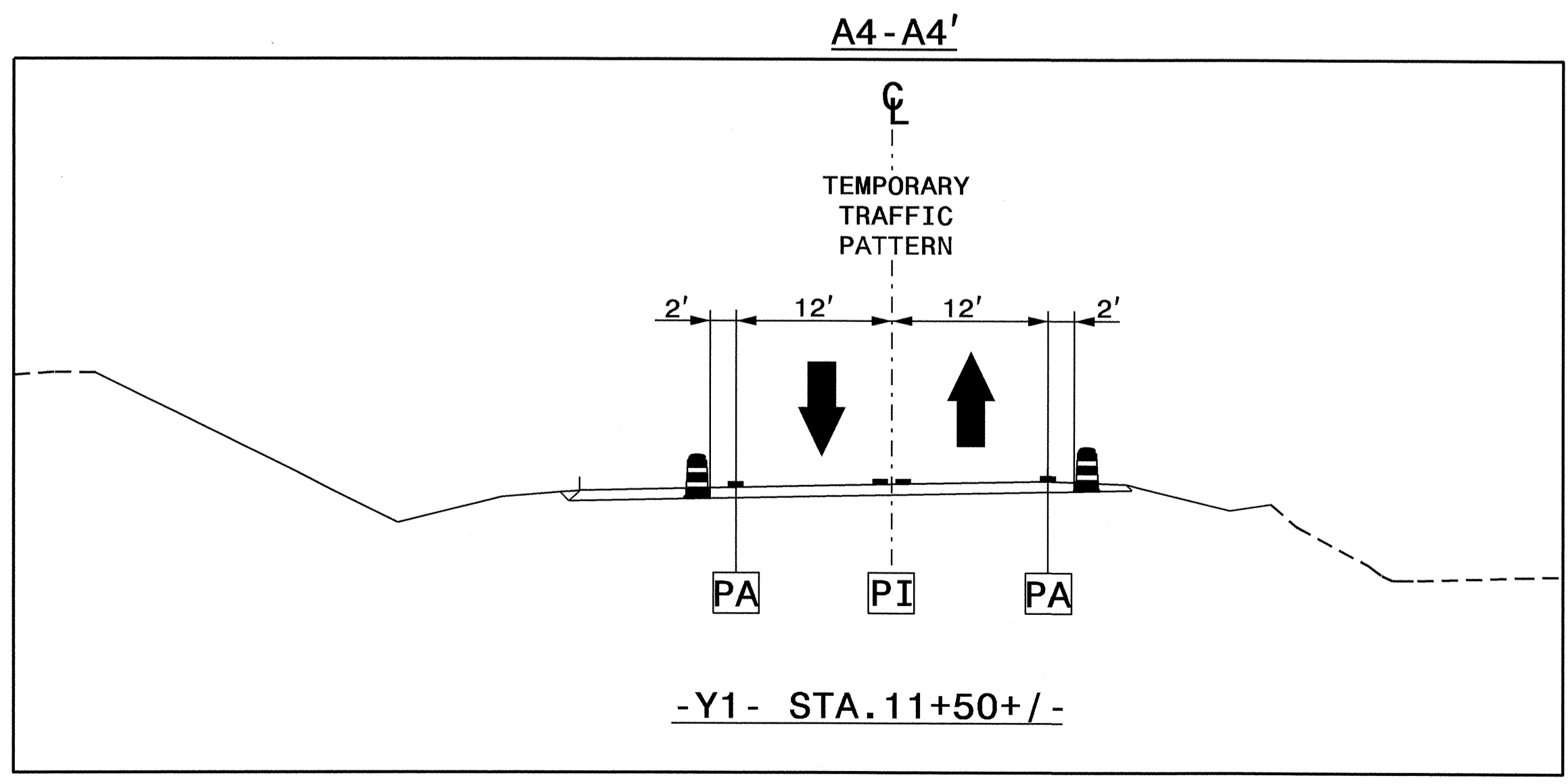
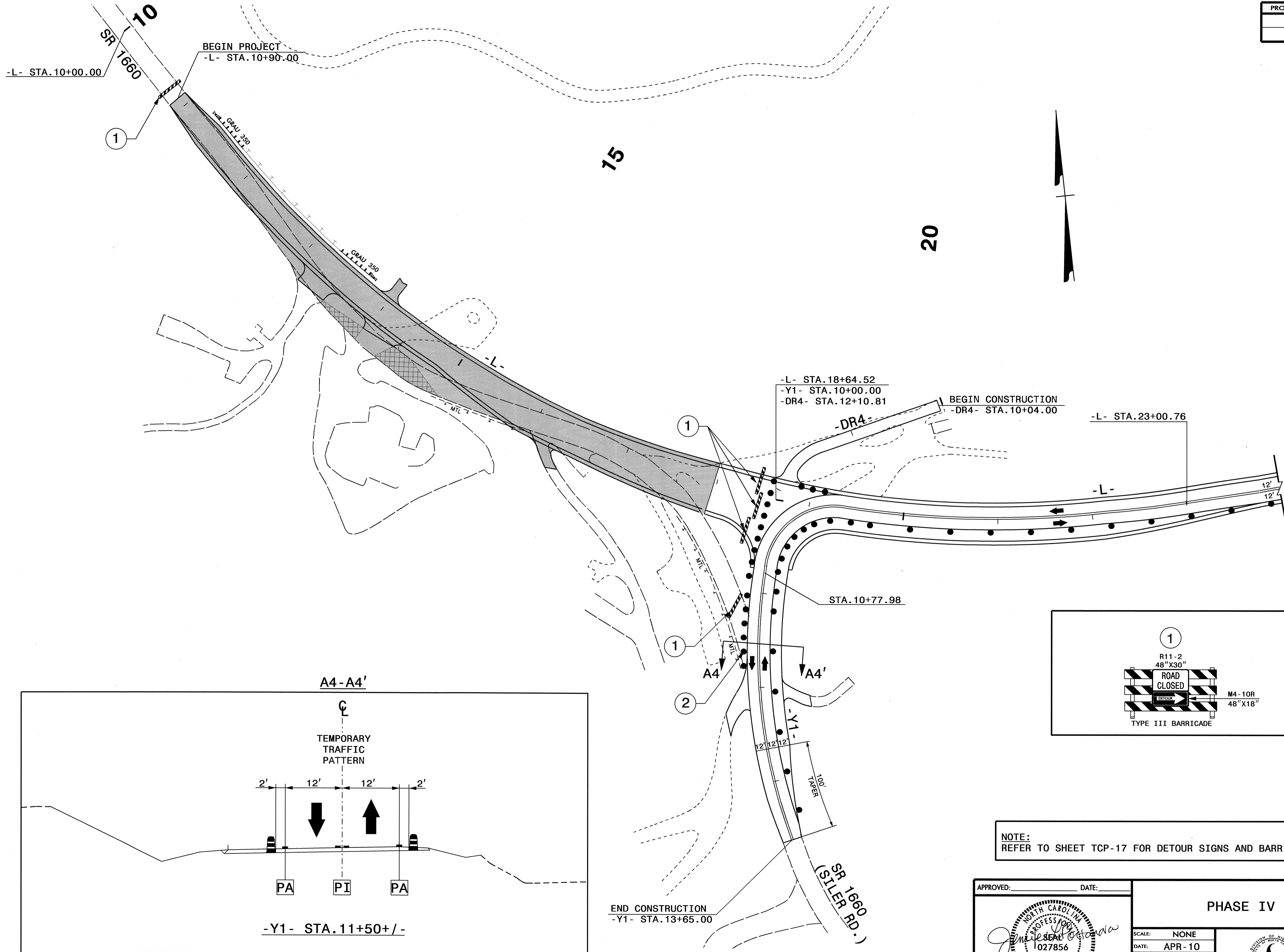
●—●—●  
OFFSITE DETOUR ROUTE FOR SILER RD.



NOTES:  
1. REFER TO NOTE 'K' IN PROJECT NOTES PRIOR TRAFFIC PATTERN ALTERATION.  
2. SEE RSD 1101.03, SHEETS 1 OF 9 AND 2 OF 9, FOR SIGN SPACING DISTANCES.  
3. REFER TO SHEET SD-1 FOR THE SPECIAL SIGN DESIGN.

APPROVED:	DATE:	<b>OFFSITE DETOUR MAP FOR SR 1660 (SILER RD.)</b>									
				SCALE: NONE	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
		REVISIONS									
		DATE: APR-10									
		DWG. BY: AYL									
		DESIGN BY: AYL									
		REVIEWED BY: JLP									

27-APR-2010 06:51  
 C:\projects\TrafficControl\Pro\TIP\Projects-R\4748\TrafficControl\TCP\Final\TCP\_032210\R-4748\_TC\_TCP\_17.dgn  
 ayudml AT W12323740



NOTE:  
REFER TO SHEET TCP-17 FOR DETOUR SIGNS AND BARRICADES PLACEMENT.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

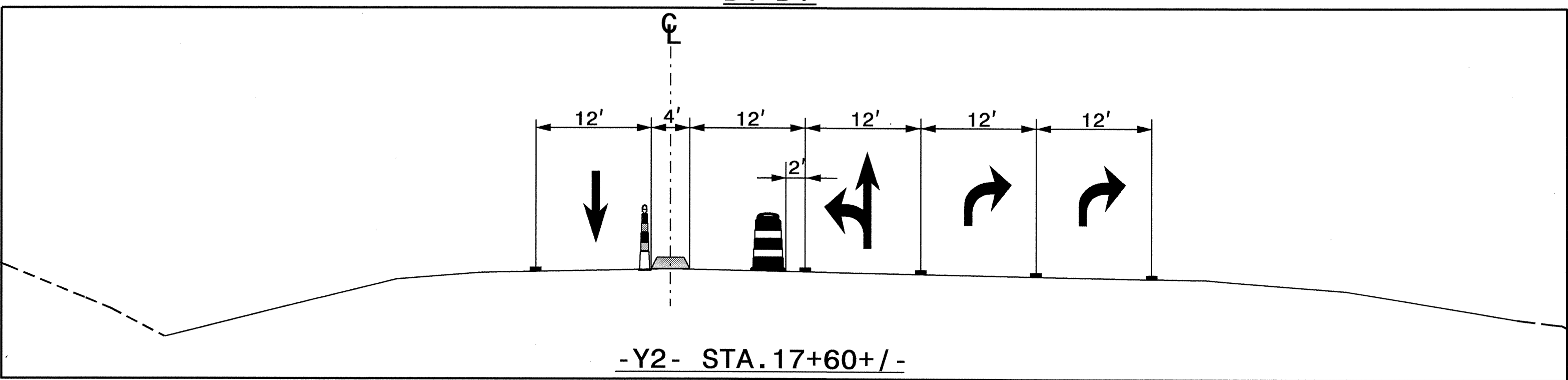
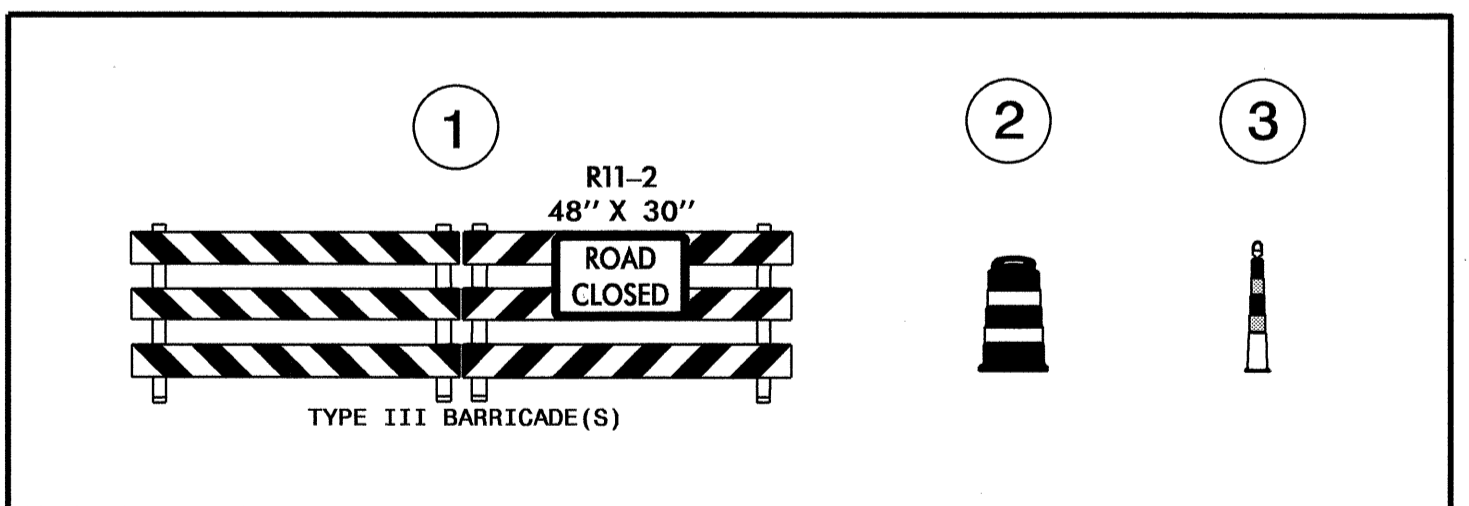
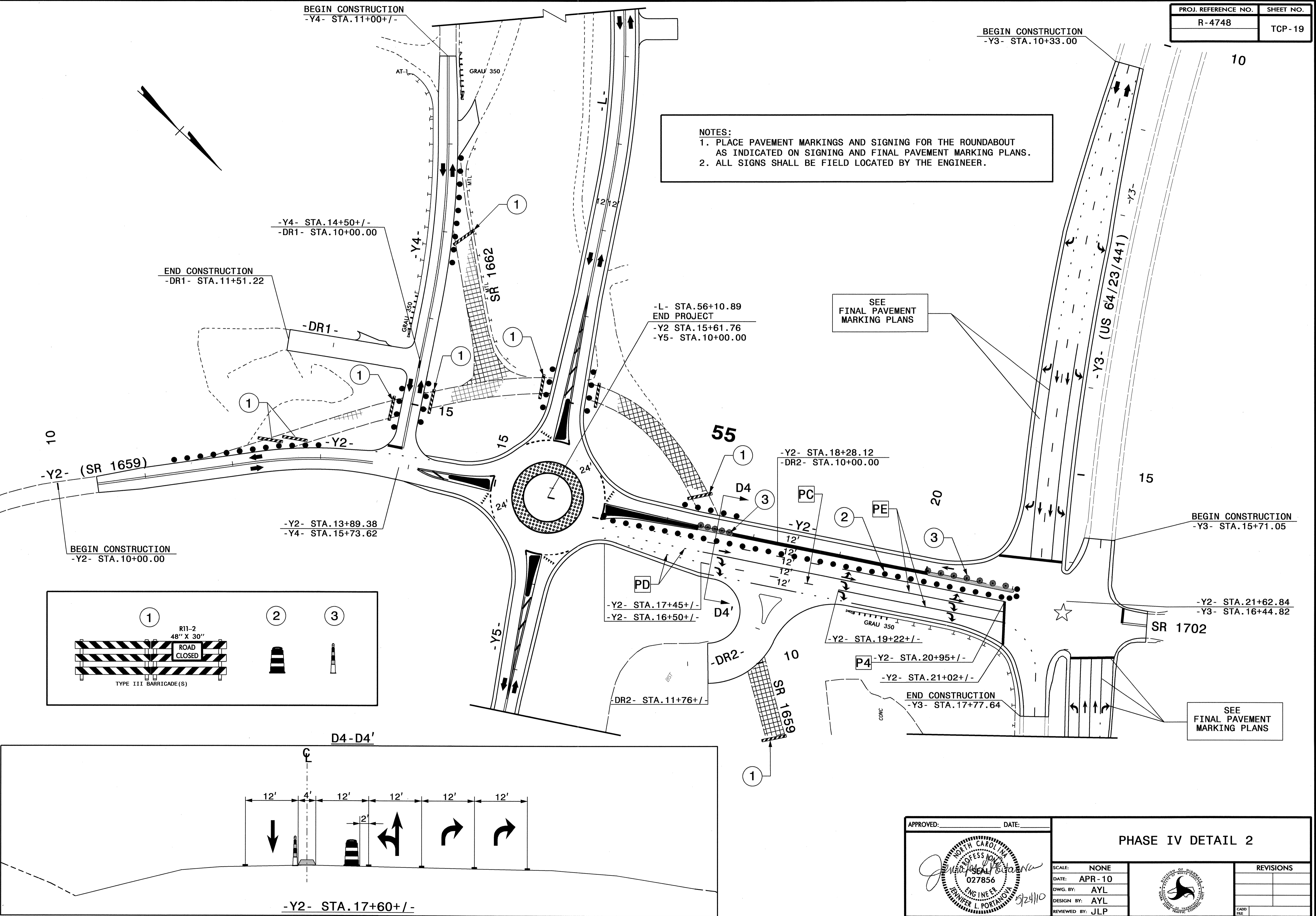
**PHASE IV DETAIL 1**

SCALE: NONE		REVISIONS
DATE: APR-10		
DWG. BY: AYL		
DESIGN BY: AYL		
REVIEWED BY: JLP		

27-APR-2010 06:50  
 \\dot\dfsroot\Pro\IP\Projects-R\4748\TrafficControl\TCP\Final\TCP\_032210\R-4748\_TC\_TCP\_18.dgn  
 ayudmi AT W7TC237440



**NOTES:**  
 1. PLACE PAVEMENT MARKINGS AND SIGNING FOR THE ROUNDABOUT AS INDICATED ON SIGNING AND FINAL PAVEMENT MARKING PLANS.  
 2. ALL SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.



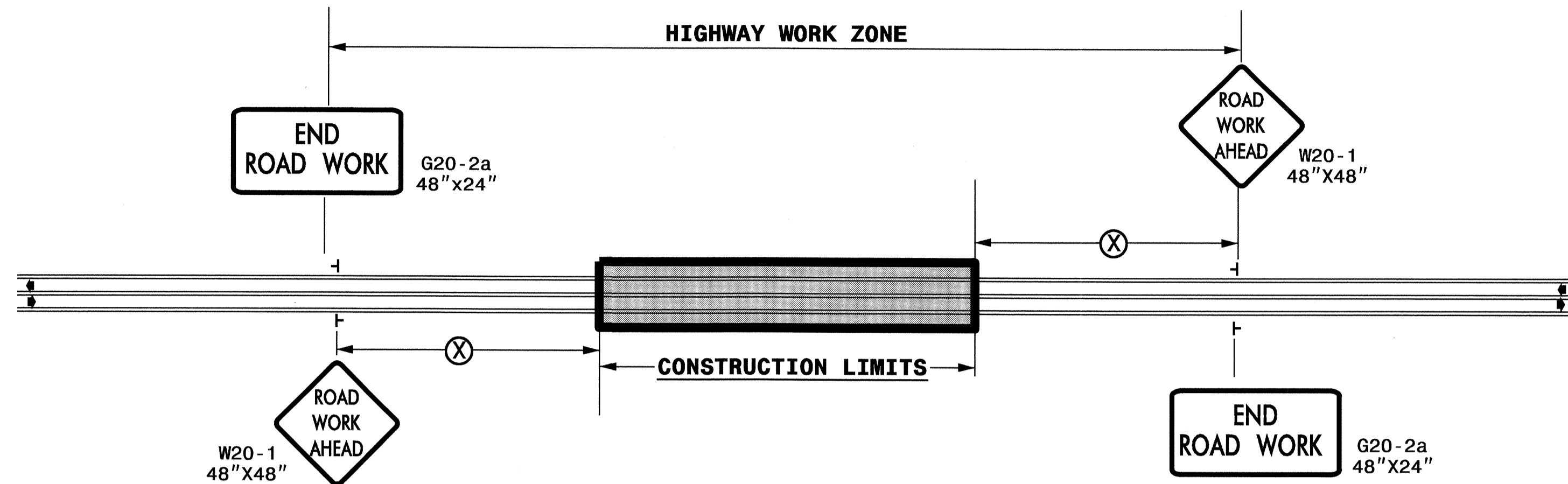
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

*J. L. P.*  
 JUNIOR PROFESSIONAL ENGINEER  
 027856  
 PORTLAND, OREGON

<b>PHASE IV DETAIL 2</b>			<b>REVISIONS</b>	
SCALE:	NONE			
DATE:	APR-10			
DWG. BY:	AYL			
DESIGN BY:	AYL			
REVIEWED BY:	JLP			

24-MAY-2010 15:25 Proj:\TIP\Projects-R\4748\TrafficControl\TCP\Final\TCP-032210\R-4748-TC-TCP-19.dgn  
 User: jlp  
 Plot: TCP-19.dwg  
 Plot Date: 4/12/10 11:44:00

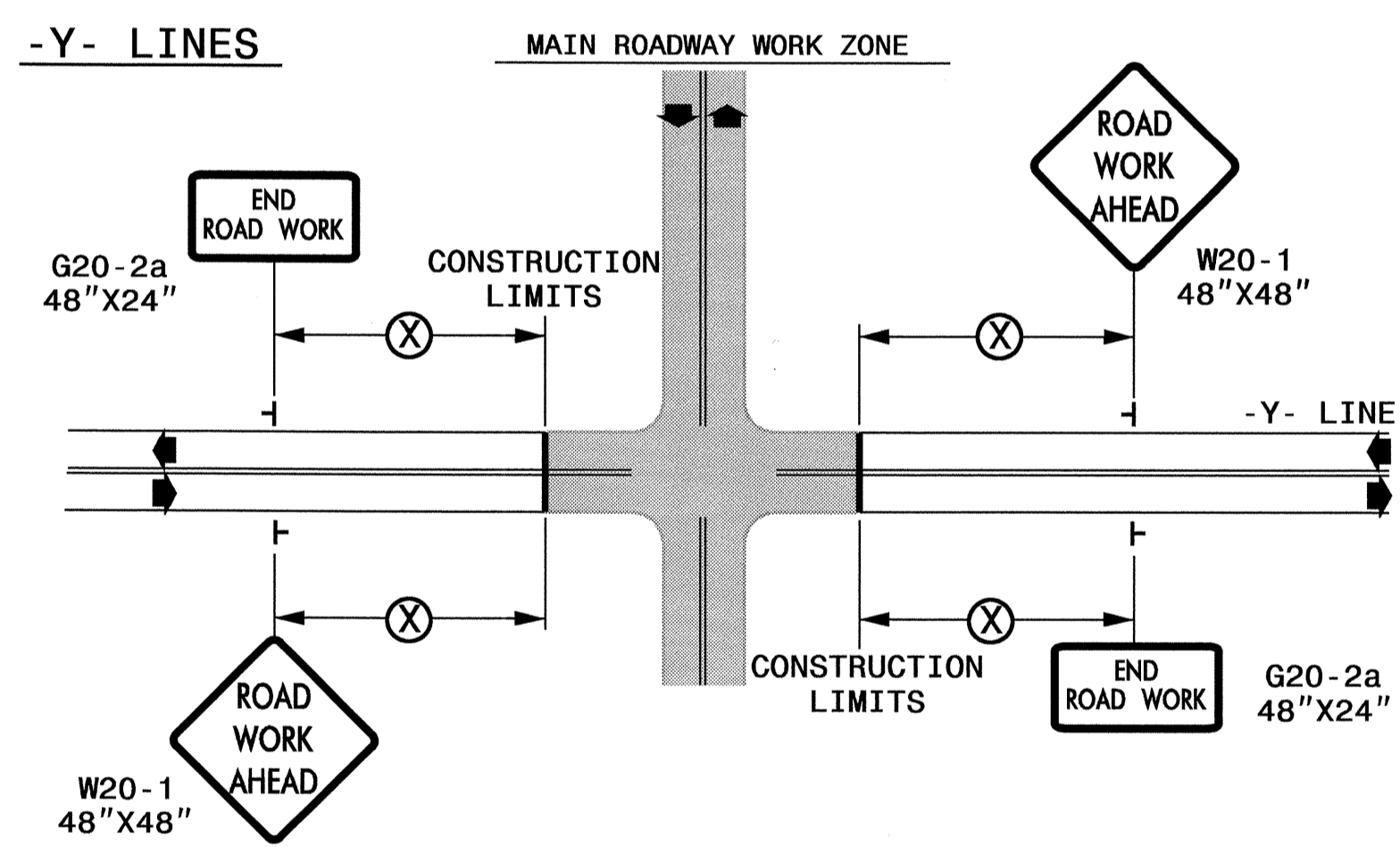
**TWO-WAY UNDIVIDED \*\* (L-LINES)**



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING
≤ 50	500'
≥ 55	1000'

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

**ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)**



**GENERAL NOTES**

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- \*\* TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

**LEGEND**

⊥	STATIONARY SIGN
◀	DIRECTION OF TRAFFIC FLOW

DETAIL DRAWING FOR  
TWO-WAY UNDIVIDED  
WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
	SCALE: NONE	REVISIONS
	DATE: APR-10	7-98 10/01
	DWG. BY: AYL	10-98 03/04
	DESIGN BY: AYL	01/01 11/04
REVIEWED BY: JLP	CADD FILE	

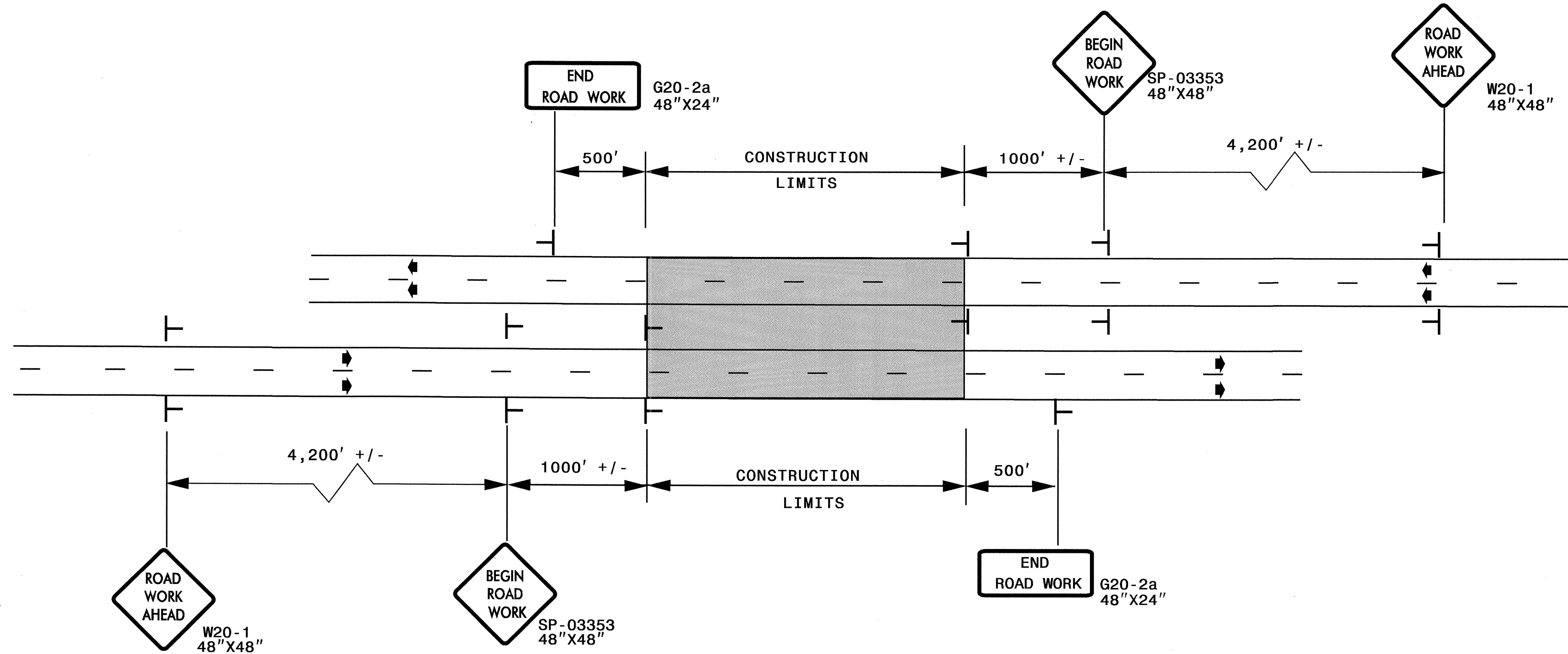
27-APR-2010 06:49  
 \\dot\dfs\root\Proj\TIP\Projects-R\4748\TrafficControl\TCP\Final\TCP\_032210\R-4748\_TC\_TCP\_20.dgn  
 aliyudml AT W27C237440



# ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

PROJ. REFERENCE NO. R-4748	SHEET NO. TCP-21
-------------------------------	---------------------

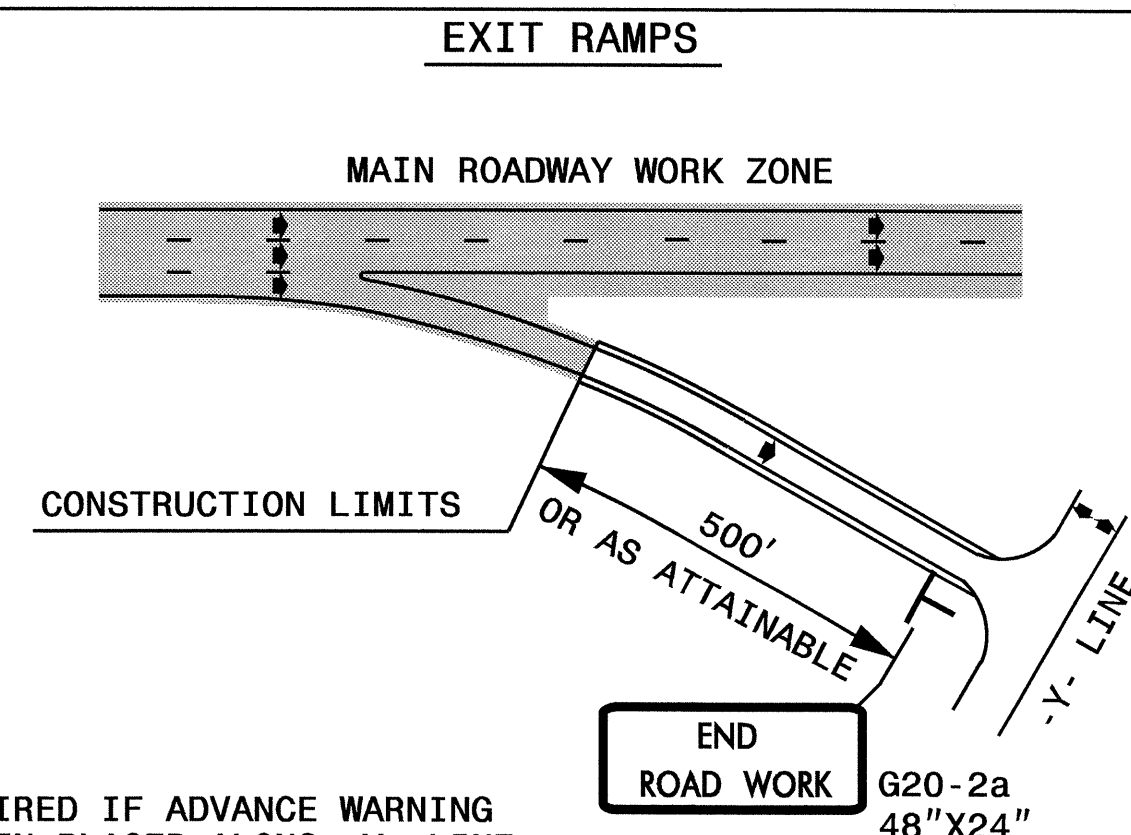
## DETAIL A



LEGEND	
	STATIONARY SIGN
◆	DIRECTION OF TRAFFIC FLOW

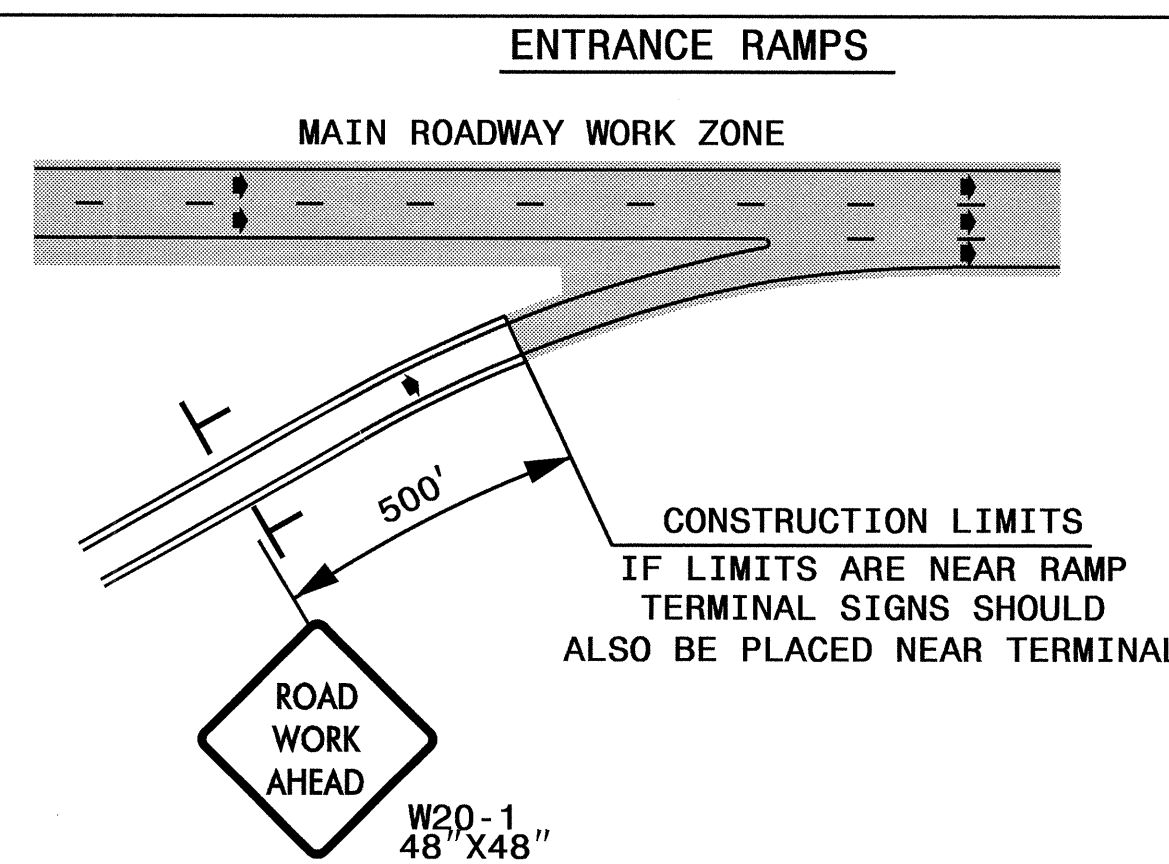
\* USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

## DETAIL B



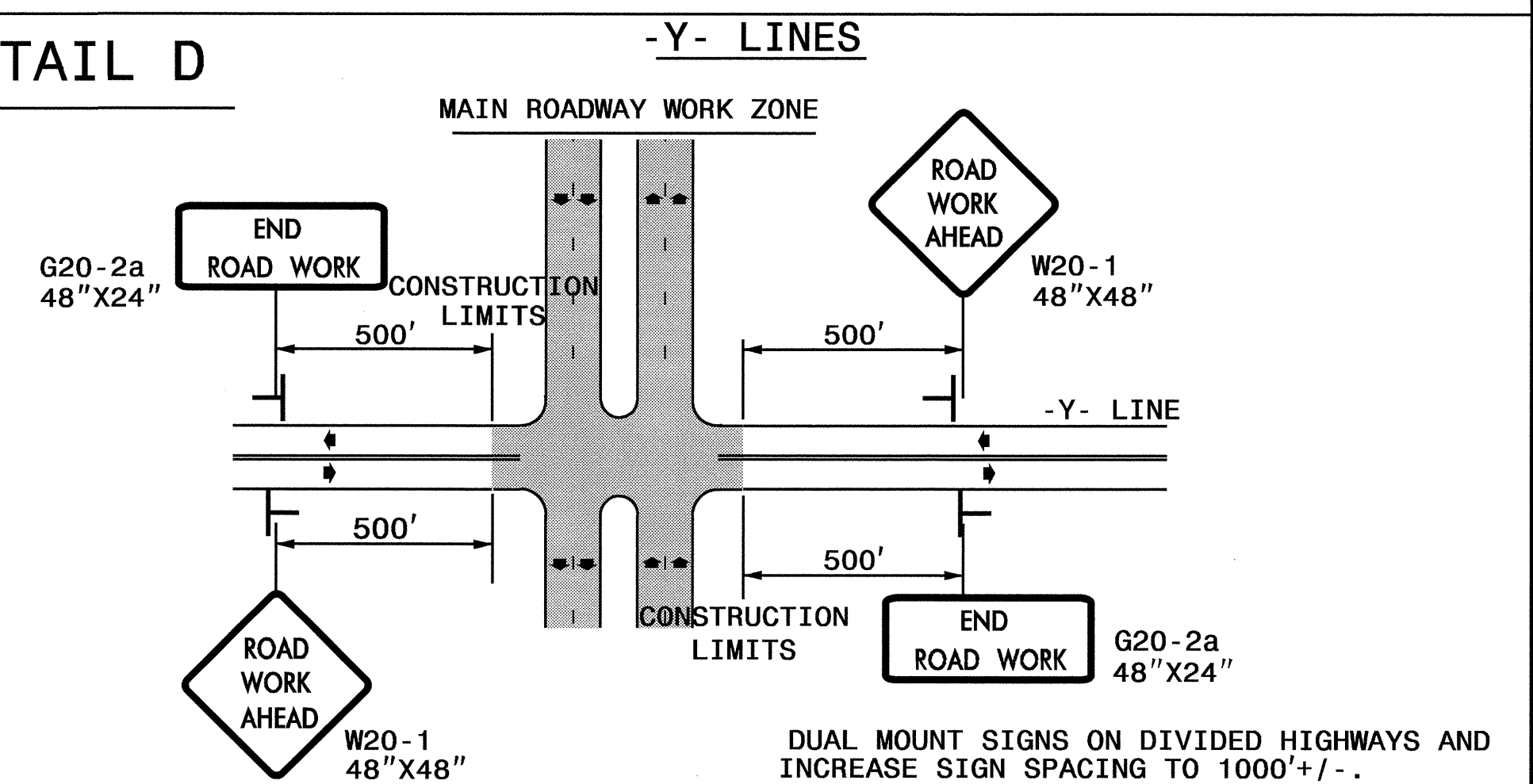
NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

## DETAIL C



CONSTRUCTION LIMITS IF LIMITS ARE NEAR RAMP TERMINAL SIGNS SHOULD ALSO BE PLACED NEAR TERMINAL

## DETAIL D



DUAL MOUNT SIGNS ON DIVIDED HIGHWAYS AND INCREASE SIGN SPACING TO 1000' +/-.

## GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.

APPROVED: _____	DATE: _____	<b>ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)</b>		
	SCALE: NONE			
	DATE: 8/03			REVISIONS
	DWG. BY: JI			03/04
	DESIGN BY: JI			
REVIEWED BY: _____		CADD FILE		

27-APR-2010 06:49 \\dot\dfs\00101\Proj\TIP\Projects-R\4748\TrafficControl\TCP\Final\TCP\_032210\VR-4748-TC-TCP-21.dgn AT WZTC237440