# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO. SHEET NO. A-0011BB TCP-1

# PLAN FOR PROPOSED TRAFFIC CONTROL, MARKING & DELINEATION

# CLAY COUNTY

## 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
1101.05	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	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM
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
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT)
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS
1264.02	PLACEMENT OF OBJECT MARKERS

# INDEX OF SHEETS

SHEET NO.	<u>TITLE</u>
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2 & TCP-2A	GENERAL NOTES
TCP-3	PHASING NOTES
TCP-4 THRU TCP-6	PHASE I
TCP-6A	TEMPORARY SHORING NOTES
TCP-7	OFF SITE DETOUR FOR PIPE INSTALLATION
TCP-8 THRU TCP-11	PHASE II
TCP-12	ADVANCED WORK ZONE WARNING SIGNS
PM - 1	PAVEMENT MARKING SCHEDULE
PM-2 THRU PM-4	PAVEMENT MARKING PLAN

## **LEGEND**

### **GENERAL**

◆ DIRECTION OF TRAFFIC FLOW

───── NORTH ARROW

PROPOSED PVMT. ----- EXIST. PVMT.

**WORK AREA** 

REMOVAL OF EXISTING PAVEMENT

## TRAFFIC CONTROL DEVICES

T TYPE I BARRICADE

TYPE III BARRICADE

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

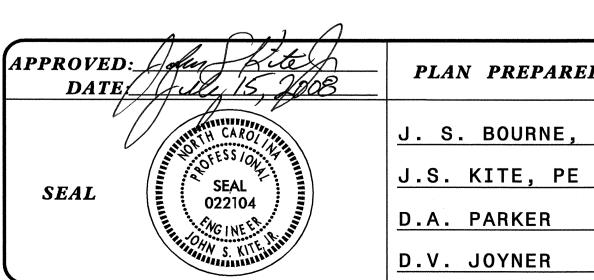
## PAVEMENT MARKINGS

CRYSTAL/CRYSTAL PAVEMENT MARKER

◆ YELLOW/YELLOW PAVEMENT MARKER

CRYSTAL/RED PAVEMENT MARKER

PAVEMENT MARKING SYMBOLS



PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT

J. S. BOURNE, PE TRAFFIC CONTROL ENGINEER

TRAFFIC CONTROL PROJECT ENGINEER

TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN

# GENERAL NOTES

A-0011BB TCP-02

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

#### TIME RESTRICTIONS

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

#### ROAD NAME

1. US 64 (-L-)

#### HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 3:00 P.M. DECEMBER 31st TO 9:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A SATURDAY OR SUNDAY, THEN UNTIL 9:00 A.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 3:00 P.M. THURSDAY AND 9:00 A.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 3:00 P.M. FRIDAY TO 9:00 A.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 3:00 P..M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, THEN BETWEEN THE HOURS OF 3:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 3:00 P.M. FRIDAY TO 9:00 A.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 3:00 P.M. TUESDAY TO 9:00 A.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 3:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 A.M. THE FOLLOWING MONDAY AFTER THE WEEK OF CHRISTMAS.
- 9. FOR ALL WEEKENDS IN OCTOBER, BETWEEN THE HOURS OF 12:00 P.M. FRIDAY AND 9:00 P.M. SUNDAY DUE TO THE FALL FOLIAGE SEASON.
- B) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

1. US 64

6:00 AM TO 10:00 PM MONDAY THRU SUNDAY

C) DO NOT STOP TRAFFIC FOR MORE THAN 30 MINUTES AS FOLLOWS:

ROAD NAME

**OPERATION** 

1. US 64

BLASTING

D) 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

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

### PAVEMENT EDGE DROP OFF REQUIREMENTS

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

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

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

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

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) 500' IN ADVANCE AND A MINIMUM
OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

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GENERAL NOTES

SCALE: NONE

DATE: 01/07

DWG. BY: MVS

DESIGN BY: MVS

REVIEWED BY: DAP

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# GENERAL NOTES (CONT.)

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A-0011BB	TCP-02A	
	10F-02A	

#### 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) PERMANENT SIGNING WILL BE DONE BY STATE FORCES.
- N) PROVIDE DETOUR SIGNING OFF THE PROJECT LIMITS.
- O) COVER OR REMOVE ALL DETOUR SIGNS OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500' IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

#### TRAFFIC BARRIER

R) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL 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 TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

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 TRAFFIC CONTROL 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.

### TRAFFIC CONTROL DEVICES

- S) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER 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.
- 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 CONES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

#### PAVEMENT MARKINGS AND MARKERS

V) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME

MARKING

MARKER

US 64

**POLYUREA** 

SNOWPLOWABLE

- \* NOTE: ALL SYMBOLS ON -L-, INCLUDING RAMPS, SHALL BE THERMOPLASTIC.
- ) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME

MARKING

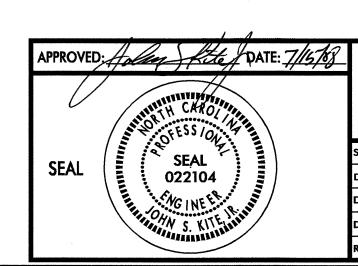
MARKER

ALL ROADS

PAINT

TEMP. RAISED

- X) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- Y) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Z) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.



GENERAL NOTES

SCALE: NONE

DATE: 01/07

DWG. BY: MVS

DESIGN BY: MVS

REVIEWED BY: DAP

NORTH CHARLES

REVISIONS

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**REVISIONS** 

## PHASE I

STEP 1 -- INSTALL ANDVANCE WARNING SIGNS ON US 64 (-L-) AND NC 175 (-Y12-) SEE TCP-12.

NOTE: STEPS 2 AND 3 MAY BE PERFORMED CONCURRENTLY.

STEP 2 -- INSTALL PROPOSED DRAINAGE SYSTEM, INCLUDING CROSSPIPES UNDER EXISTING US 64 AND RIGHT SIDE CULVERT EXTENSIONS (SEE RSD 1101.02, SHEET 1, TCP-6 AND TCP-7)

STEP 3 -- CONSTRUCT RIGHT SIDE WIDENING AND RIGHT SIDE PAVED SHOULDER, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 75+00 +/-TO -L- STA. 282+00 INCLUDING -Y2-, -Y5-, -Y7-, -Y10-. AND -Y12-. PLACE TEMPORARY PAINT PAVEMENT MARKINGS ON THE -Y- LINES. (SEE TCP-4, TCP-5, RSD 1101.02, SHEET 1, AND RSD 1205.04)

NOTE -- WHEN BLASTING OPERATIONS ARE NECESSARY, USE RSD 1101.02 WITH RSD 1101.06 TO STOP TRAFFIC. TRAFFIC MAY NOT BE STOPPED FOR MORE THAN 30 MINUTES AT A TIME. TRAFFIC MAY BE RETURNED TO A ONE LANE TWO WAY TRAFFIC PATTERN DURING DEBRIS REMOVAL. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

> -- AWAY FROM TRAFFIC, CONSTRUCT -Y3- FROM -Y3-STA. 10+00 +/- TO 13+00 +/- UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE

NOTE: COMPLETE STEP 4 IN 14 CALENDAR DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 4 -- A. USE TYPE III BARRICADES TO CLOSE -Y3- AT -L-AT -Y3- STA. 15+75 +/- (MAINTAIN ACCESS TO THE DRIVE AT -Y3- STA. 14+50 +/-.

> B. AWAY FROM TRAFFIC, CONTRUCT THE TIE IN OF THE PROPOSED -Y3- ALIGNMENT WITH EXISTING, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. PLACE TEMPORARY PAINT PAVEMENT MARKINGS (SEE RSD 1205.04, SHEET 1)

C. REOPEN -Y3- TO TRAFFIC

### TRAFFIC SHIFT TO PHASE II PATTERN

STEP 5 -- SHIFT TRAFFIC TO THE RIGHT IN THE FOLLOWING SEQUENCE, OR AS DIRECTED BY THE ENGINEER:

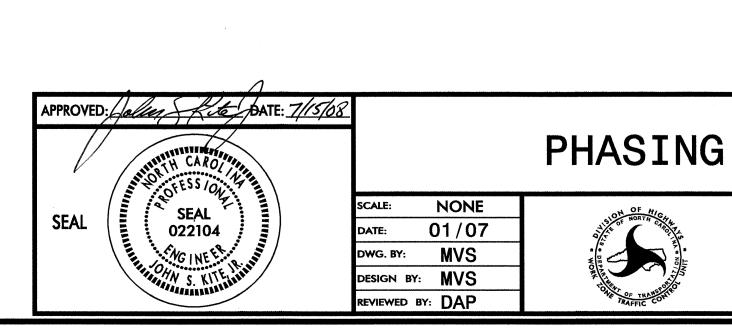
- A. ADJUST STOP BAR LOCATIONS AT ALL RIGHT SIDE -Y- LINES AND RELOCATE EXISTING STOP SIGNS TO ACCOMMODATE THE PHASE II TRAFFIC PATTERN. (SEE TCP-10, TCP-11, AND RSD 1205.04, SHEET 1)
- B. INSTALL A 48" X 48" W1-4R (RIGHT SHIFT) BLACK ON ORANGE WARNING SIGN WITH 24" X 24" W13-1 ADVISORY SPEED PANEL (45MPH) AT -L- STA. 80+00 +/- FOR WB TRAFFIC. INSTALL A W1-4L (LEFT SHIFT) WITH ADVISORY SPEED PANEL (45MPH) AT -L- STA. 195+00 +/- FOR EB TRAFFIC.
- C. USING FLAGGERS, PLACE TRAFFIC IN A 1 LANE-2 WAY PATTERN IN THE EASTBOUND DIRECTION. REMOVE THE EXISTING WHITE EDGELINE FROM STA. 75+00 +/- TO STA. 282+00 +/- RETURN TRAFFIC TO THE EXISTING PATTERN AT THE END OF THE WORK PERIOD. (SEE RSD 1101.02, SHEET 1.)
- D. USING FLAGGERS PLACE TRAFFIC IN A 1 LANE-2 WAY PATTERN IN THE EASTBOUND DIRECTION. REMOVE THE EXISTING DOUBLE YELLOW CENTERLINE AND PLACE TEMPORARY PAINT DOUBLE YELLOW CENTERLINE TO ACCOMMODATE THE PHASE II TRAFFIC PATTERN AND OPEN -L- TO PHASE II TRAFFIC PATTERN. (SEE RSD 1101.02, SHEET 1).
- E. USING FLAGGERS PLACE TEMPORARY PAINT WHITE EDGELINE FOR BOTH DIRECTIONS AND INSTALL TEMPORARY RAISED PAVEMENT MARKERS ALONG THE DOUBLE YELLOW CENTERLINE FOR THE ENTIRE LENGTH OF THE PROJECT. (SEE RSD 1101.02, SHEET 1)

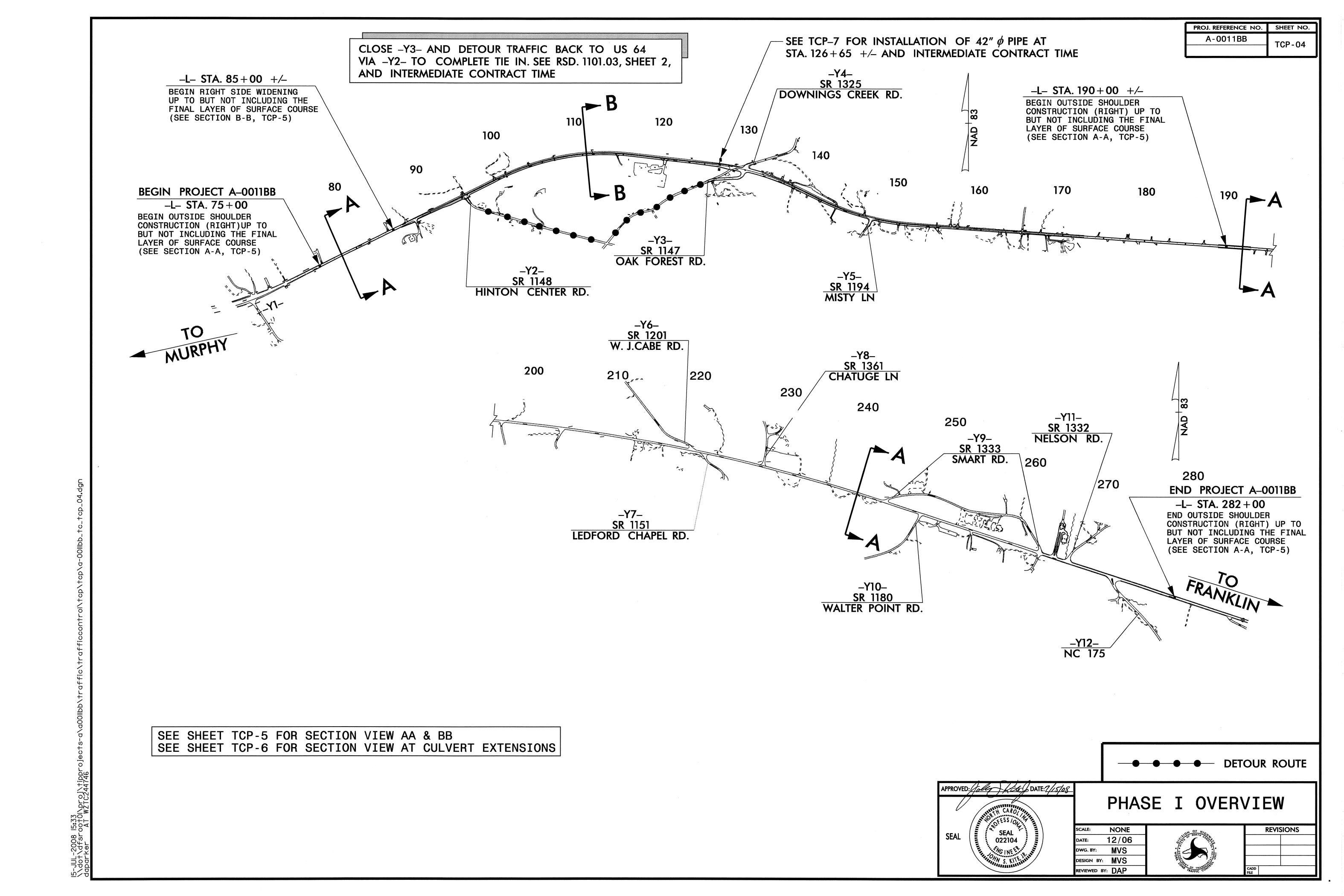
## PHASE II

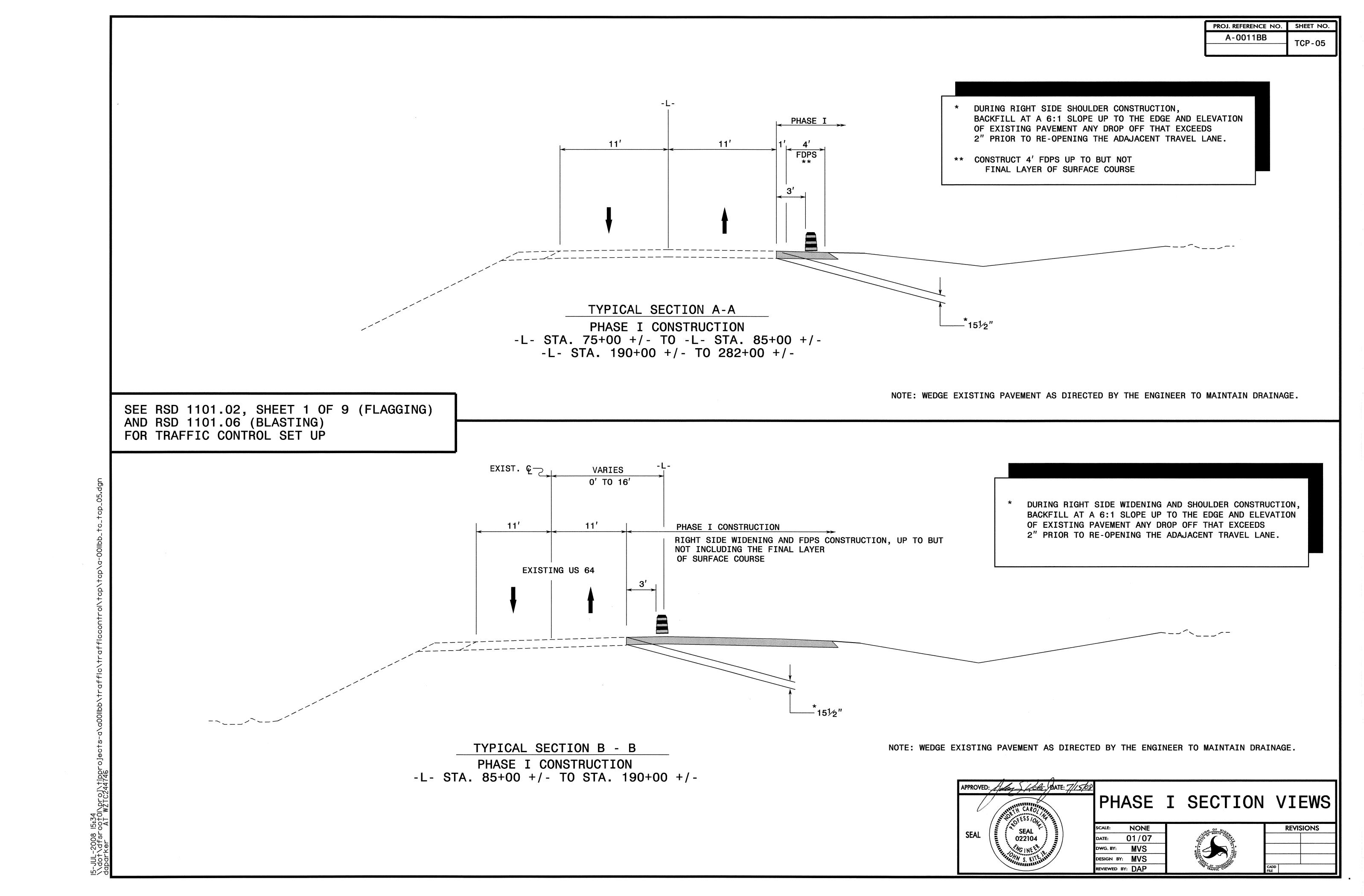
STEP 1 -- CONSTRUCT LEFT SIDE PAVED SHOULDER, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 75+00 +/- TO -L- STA. 282+00 INCLUDING -Y4-, -Y6-, -Y8-, -Y9-, AND -Y11-. PLACE TEMPÓRARY PAINT PAVEMENT MARKINGS ON THE -Y-LINES. (SEE TCP-8 THRU TCP-11, RSD 1101.02, SHEET 1, AND RSD 1205.04)

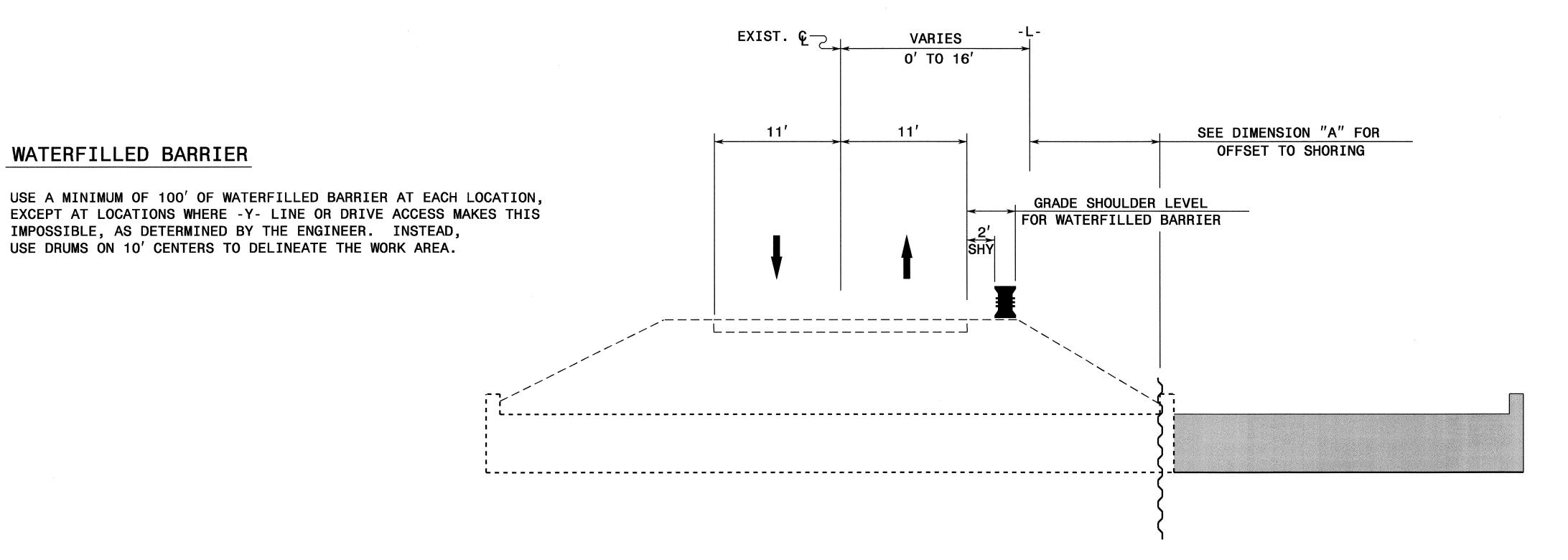
STEP 2 -- USING RSD 1101.02, SHEET 1, PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS IN THE FINAL PATTERN. (SEE RSD 1101.02, SHEET 1, AND PM-1 THRU PM-4)

STEP 3 -- REMOVE ALL TRAFFIC CONTROL DEVICES.





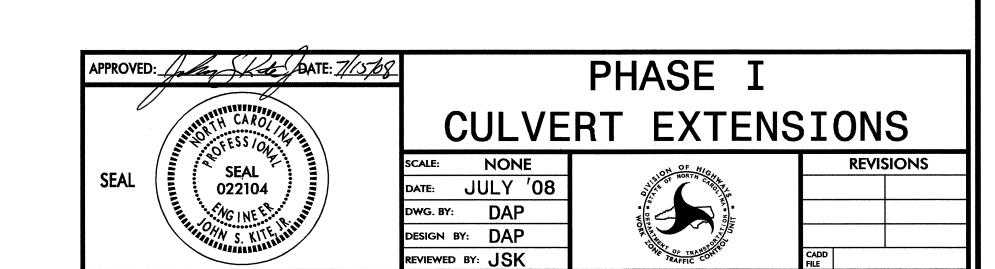




TYPICAL	SECTION	FOR	<b>CULVERT</b>	<b>EXTENSIONS</b>	REQUIRING	<b>TEMPORARY</b>	SHORING

LOCATION	BEGIN	END	DIMENSION "A"
1	-L- STA. 90+93 +/-	-L- STA. 91+28 +/-	15' +/- RIGHT
2	-L- STA. 116+00 +/-	-L- STA. 116+30 +/-	9' +/- RIGHT
3	-L- STA. 137+55 +/-	-L- STA. 137+81 +/-	6' +/- RIGHT
4	-L- STA. 144+00 +/-	-L- STA. 144+31 +/-	13' +/- RIGHT
5	-L- STA. 162+70 +/-	-L- STA. 162+96 +/-	9' +/- RIGHT
6	-L- STA. 171+51 +/-	-L- STA. 171+73 +/-	10' +/- RIGHT

SEE SHEET TCP-6A FOR TEMPORARY SHORING NOTES



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# PROJ. REFERENCE NO. SHEET NO. A-0011BB TCP-6A

## TEMPORARY SHORING NOTES

#### TEMPORARY SHORING NO: 1

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 90+93.00+/- -L-, 15 FT. RIGHT OF -L-, TO STATION 91+28.00+/- -L-, 15 FT. RIGHT OF -L-, USE THE FOLLOWING SOIL PARAMETERS:

UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma$  = 120 PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma$  = 60 PCF FRICTION ANGLE,  $\phi$  = 30 DEGREES COHESION, c = 0 PSF

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 90+93.00+/- -L-, 15 FT. RIGHT OF -L-, TO STATION 91+28.00+/- -L-, 15 FT. RIGHT OF -L-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

#### TEMPORARY SHORING NO: 2

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 116+00.00+/- -L-, 9 FT. RIGHT OF -L-, TO STATION 116+30.00+/- -L-, 9 FT. RIGHT OF -L-, USE THE FOLLOWING SOIL PARAMETERS:

UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma$  = 120 PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma$  = 60 PCF FRICTION ANGLE,  $\phi$  = 30 DEGREES COHESION, c = 0 PSF

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 116+00.00+/- -L-, 9 FT. RIGHT OF -L-, TO STATION 116+30.00+/- -L-, 9 FT. RIGHT OF -L-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

### TEMPORARY SHORING NO: 3

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 137+55.00+/- -L-, 6 FT. RIGHT OF -L-, TO STATION 137+81.00+/- -L-, 6 FT. RIGHT OF -L-, USE THE FOLLOWING SOIL PARAMETERS:

UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma$  = 120 PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma$  = 60 PCF FRICTION ANGLE,  $\phi$  = 30 DEGREES COHESION, c = 0 PSF

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 137+55.00+/- -L-, 6 FT. RIGHT OF -L-, TO STATION 137+81.00+/- -L-, 6 FT. RIGHT OF -L-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

#### TEMPORARY SHORING NO: 4

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 144+00.00+/- -L-, 13 FT. RIGHT OF -L-, TO STATION 144+31.00+/- -L-, 13 FT. RIGHT OF -L-, USE THE FOLLOWING SOIL PARAMETERS:

UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma$  = 120 PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma$  = 60 PCF FRICTION ANGLE,  $\phi$  = 30 DEGREES COHESION, c = 0 PSF

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 144+00.00+/- -L-, 13 FT. RIGHT OF -L-, TO STATION 144+31.00+/- -L-, 13 FT. RIGHT OF -L-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

#### TEMPORARY SHORING NO: 5

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 162+70.00+/- -L-, 9 FT. RIGHT OF -L-, TO STATION 162+96.00+/- -L-, 9 FT. RIGHT OF -L-, USE THE FOLLOWING SOIL PARAMETERS:

UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma$  = 120 PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma$  = 60 PCF FRICTION ANGLE,  $\phi$  = 30 DEGREES COHESION, c = 0 PSF

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 162+70.00+/- -L-, 9 FT. RIGHT OF -L-, TO STATION 162+96.00+/- -L-, 9 FT. RIGHT OF -L-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

### TEMPORARY SHORING NO: 6

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION

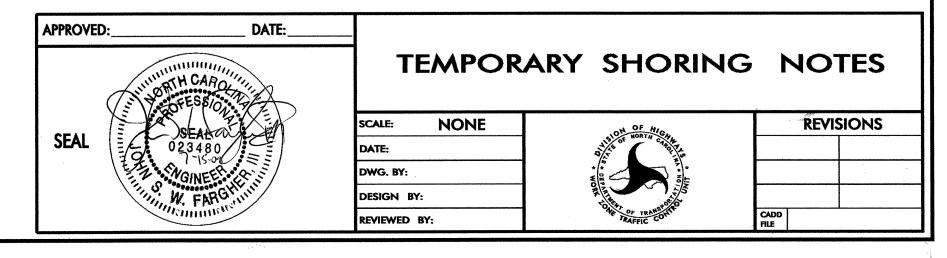
FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 171+51.00+/- -L-, 10 FT. RIGHT OF -L-, TO STATION 171+73.00+/- -L-, 10 FT. RIGHT OF -L-, USE THE FOLLOWING SOIL PARAMETERS:

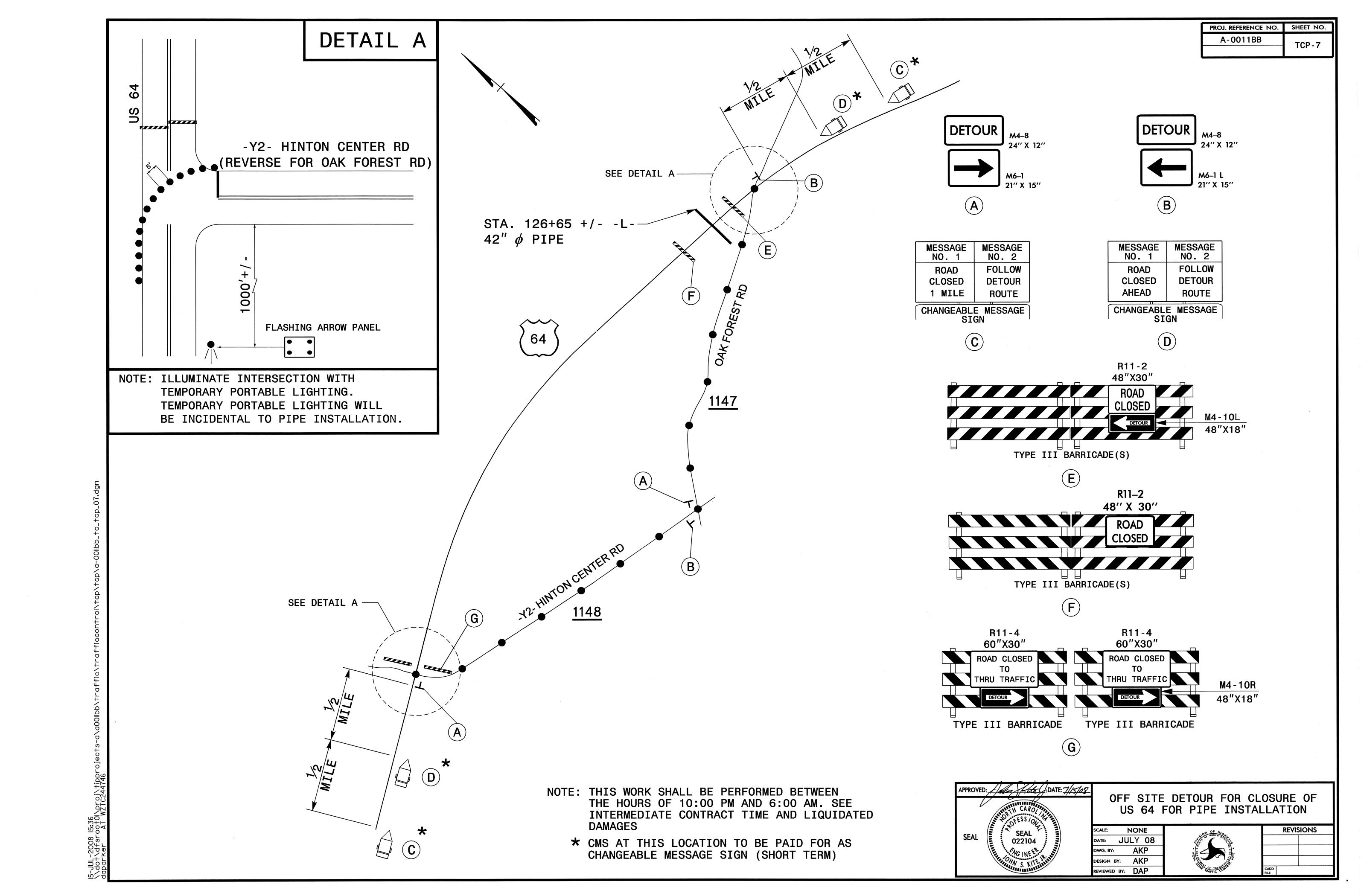
UNIT WEIGHT OF SOIL ABOVE WATER TABLE,  $\gamma$  = 120 PCF UNIT WEIGHT OF SOIL BELOW WATER TABLE,  $\gamma$  = 60 PCF FRICTION ANGLE,  $\phi$  = 30 DEGREES COHESION, c = 0 PSF

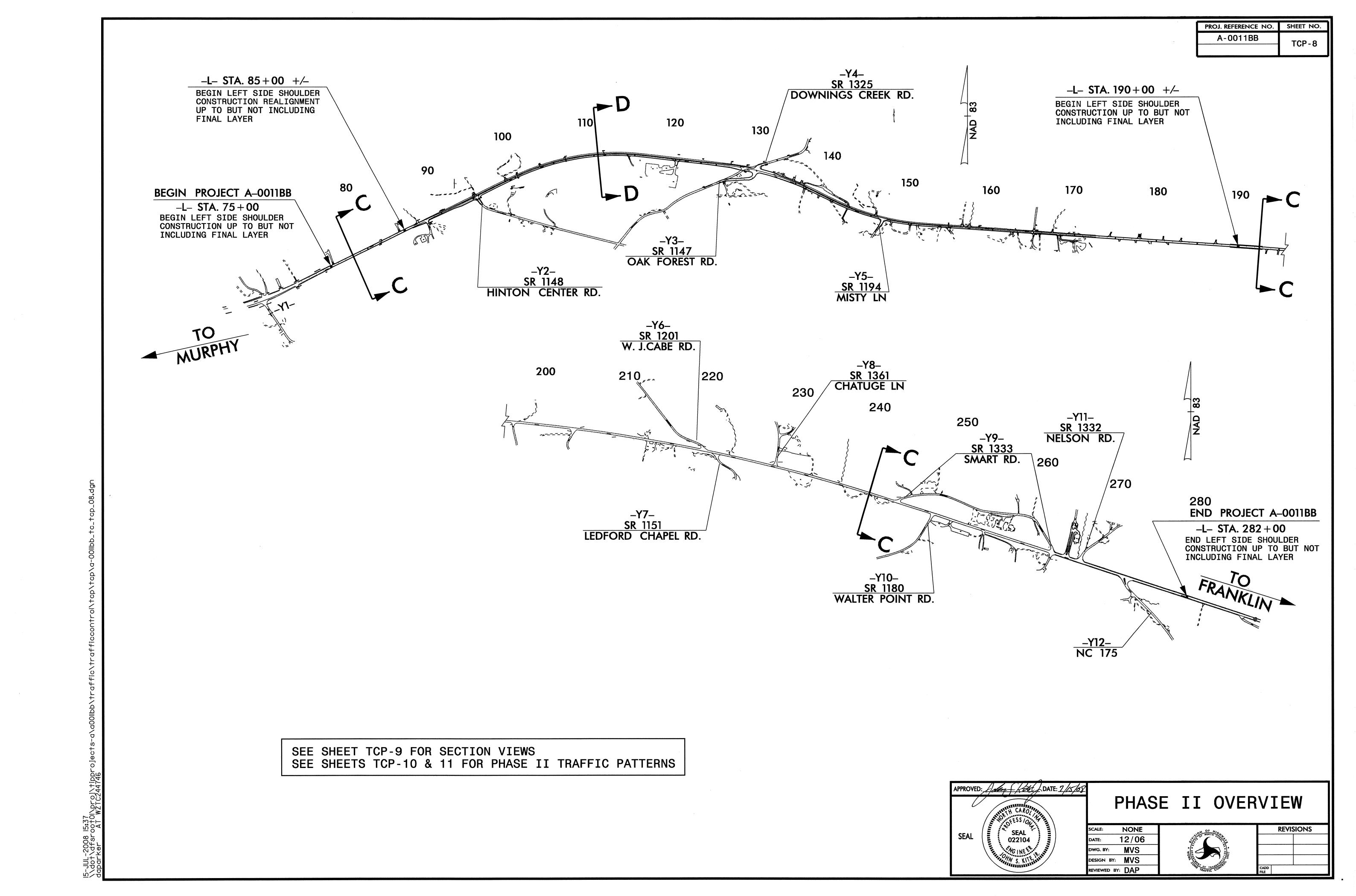
NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF THE TEMPORARY SHORING FROM STATION 171+51.00+/- -L-, 10 FT. RIGHT OF -L-, TO STATION 171+73.00+/- -L-, 10 FT. RIGHT OF -L-. THE INFORMATION PROVIDED FOR DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

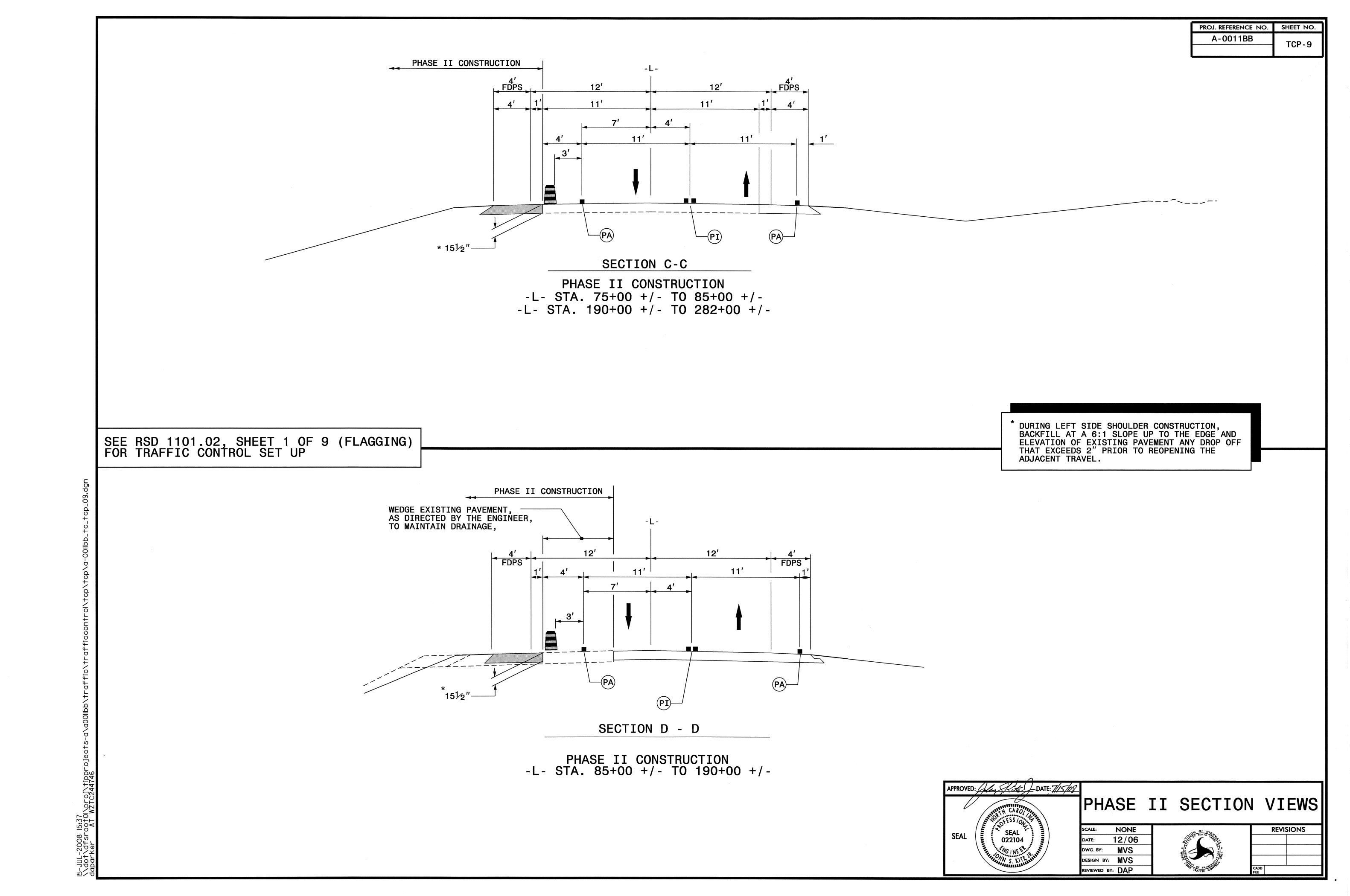
FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.



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OJ. REFERENCE NO.	SHEET NO.	
A-0011BB	TCP-10	
	107-10	

## TEMPORARY PAVEMENT MARKING SCHEDULE

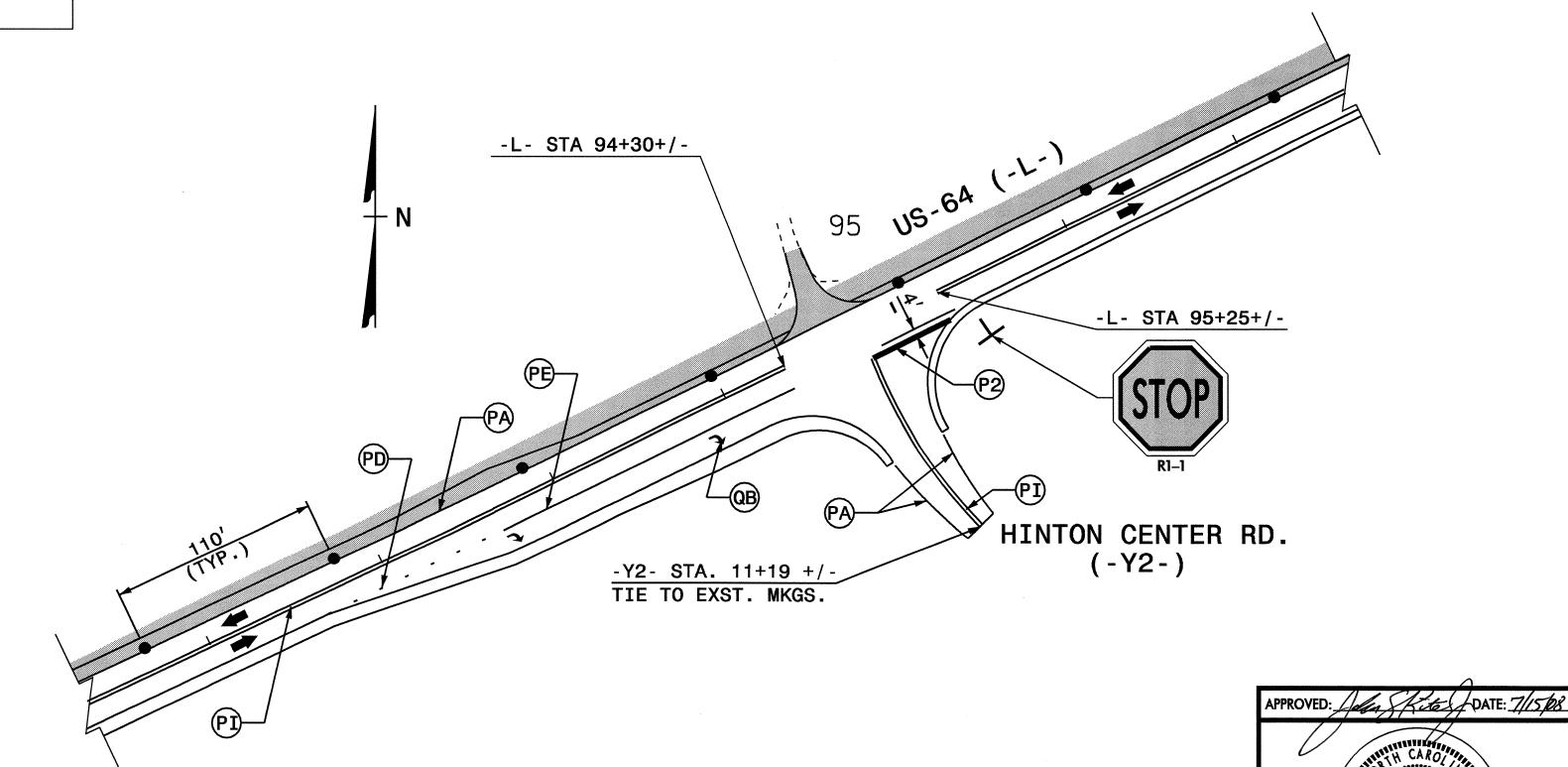
SYMBOL	DESCRIPTION	QUANTITY BREAKDOWN	TOTAL QUANTITY
PA PD PE PI	WHITE EDGELINE 2 FT. WHITE MINISKIP WHITE SOLID LANE LINE YELLOW DOUBLE CENTER	PAINT (4")  133,860 LF  330 LF  2160 LF  133,860 LF	
			TOTAL 270,210 LF
P2	WHITE STOPBAR	PAINT (24") 1050 LF	TOTAL 1050 L5
			TOTAL 1050 LF
QB	RIGHT TURN ARROW	PAINT SYMBOLS 10 EA	
			TOTAL 10 EA
MH MI	YELLOW & YELLOW CRYSTAL & RED	TEMPORARY RAISED PAVEMENT MARKERS  260 EA 25 EA	
			TOTAL 285 EA

NOTE: SEE SECTION C-C ON SHT. TCP-7 AND SECTION D-D ON SHT. TCP-8 FOR RELATIONSHIP BETWEEN EDGE OF FULL DEPTH PAVED SHOULDER (PHASE I CONST.) AND WHITE EDGELINE (PA).

ALL LANES SHALL BE 11' WIDE.

SPACE TEMPORARY RAISED PAVEMENT MARKERS AT 80' SPACING ALONG TEMPORAY DOUBLE YELLOW CENTERLINE PI.

NOTE: FOR SHIFTING TRAFFIC TO THE RIGHT SIDE SHOULDER AND WIDENING, SEE RSD 1101.11, SHEET 1, TO DETERMINE SHIFTING TAPER.

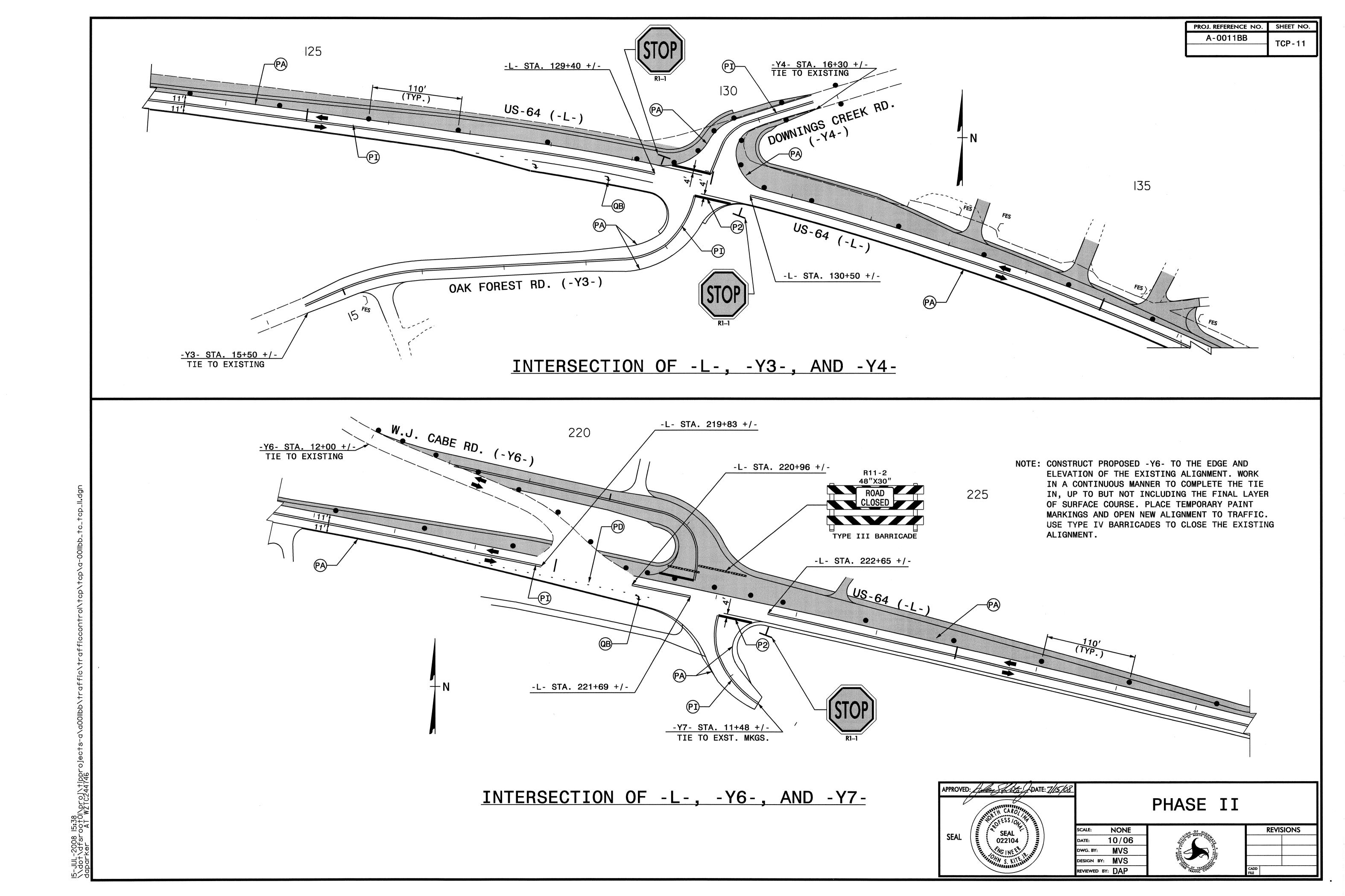


INTERSECTION OF -L- AND -Y2-

PHASE II

NONE 10/06 DWG. BY: MVS REVIEWED BY: DAP

REVISIONS



PROJ. REFERENCE NO. A-0011BB TCP-12 CLAY

HIGHWAYS

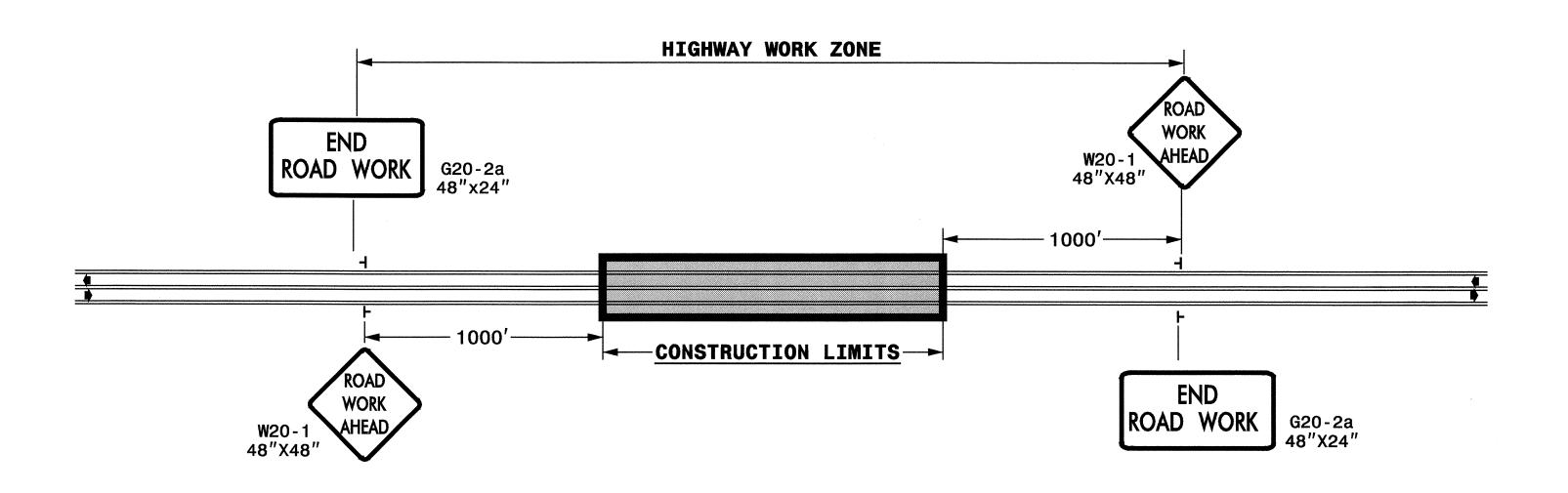
0F

DIVISION

S.

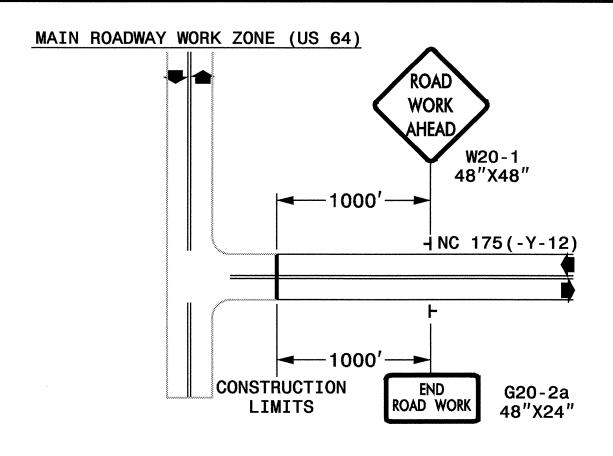
RALEIGH

## US 64 (-L-)



TRANSPORTATION CAROLINA NORTH **OF** OF STATE DEPT

## NC 175 (-Y 12-)



## GENERAL NOTES

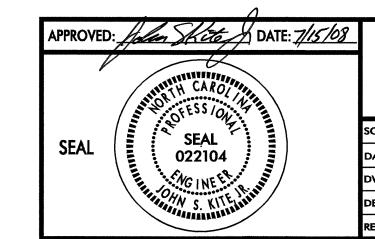
- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, 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

SHEET 1 OF 1



DETAIL	. DRA	WING	FOR	TWO-V	VAY
UNDIVID	ED A	ND U	<b>RBAN</b>	FREE	WAYS
ADVANCED	WORK	ZONI	E WAR	RNING	SIGNS

1	NONE	0,
	7/08	
	DVJ	0 L
3Y:	DVJ	
RV.	DAD	7

8	REV	REVISIONS		
3 ×	7–98	10/01		
NCT &	10–98	03/04		
<i>!</i>	01/01	11/04		
	CADD			