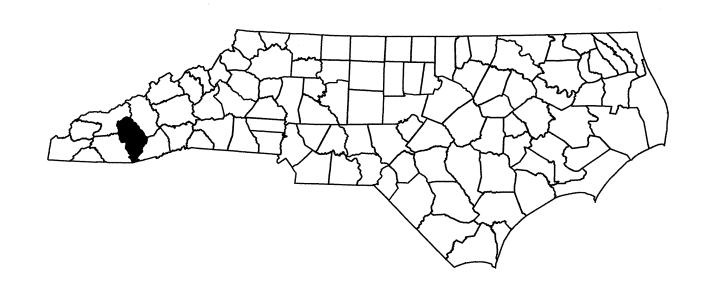
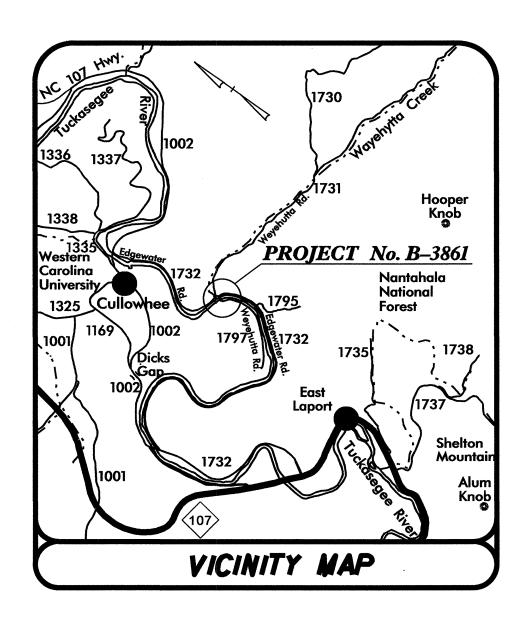
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

JACKSON COUNTY





LOCATION: REPLACEMENT OF BRIDGE No. 107 ON SR 1797 OVER TUCKASEGEE RIVER

WORK ZONE SAFETY & MOBILITY

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL

1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561

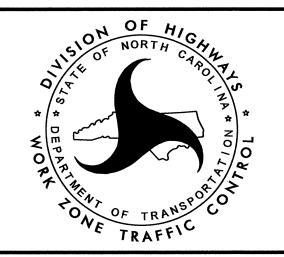
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)

PHONE: (919) 773-2800 FAX: (919) 771-2745

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

G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER

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



INDEX OF SHEETS

SHEET NO.

TITLE

TMP-01

TITLE SHEET, AND INDEX OF SHEETS

TMP-01A

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING

TMP-02

GENERAL NOTES

TMP-01B

TEMPORARY SHORING DATA

TEMPORARY TRAFFIC CONTROL PHASING

TEMPORARY TRAFFIC CONTROL PHASE I DETAIL

TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

TMP-1

APPROVED: DATE:_ SEAL

"from the MOUNTAINS to the COAST"

M. S. ISHAK

TRAFFIC CONTROL DESIGN ENGINEER

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 JULY 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		
1101.05	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		
1130.01	DRUMS		
1135.01	CONES		
1145.01	BARRICADES		
1150.01	FLAGGING DEVICES		
1160.01	TEMPORARY CRASH CUSHION		
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR		
1170.01	PORTABLE CONCRETE BARRIER		
1180.01	SKINNY-DRUM		
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS		
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS		
1205.04	PAVEMENT MARKINGS - INTERSECTIONS		
1205.12	PAVEMENT MARKINGS - BRIDGES		
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		

PROJ. REFERENCE	NO.	SHEET	NO.
B-3861		TMP-	1A

LEGEND

TEMPORARY PAVEMENT MARKING

PAINT 4"

PA WHITE EDGLINE

PI YELLOW DOUBLE CENTER

TEMPORARY MARKERS

MH YELLOW & YELLOW

GENERAL					
—	DIRECTION OF TRAFFIC FLOW				

NORTH ARROW

----- EXIST. PVMT.

PROPOSED PVMT.

WORK AREA

REMOVAL

USER DEFINED (IF NEEDED)

USER DEFINED (IF NEEDED)

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM

TEMPORARY CRASH CUSHION

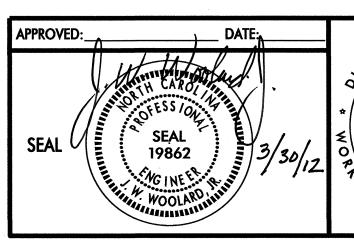
TEMPORARY SIGNING

- STATIONARY SIGN

PAVEMENT MARKINGS

----EXISTING LINES

----TEMPORARY LINES





ROADWAY STANDARD DRAWINGS & LEGEND

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.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) 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.
- B) 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.
- C) 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.
- D) 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.
- E) DO NOT INSTALL MORE THAN OF LANE CLOSURE ON MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- F) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

G) 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.

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

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

J) 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.

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

TRAFFIC BARRIER

M) 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.

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 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.

N) 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

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

PAVEMENT MARKINGS AND MARKERS

- Q) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN THE FINAL PAVEMENT MARKING PLAN.
- R) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME MARKING MARKER

1. SR-1797 -L- PAINT TEMPORARY RAISED

S) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS.

- 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.
- T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

V) 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) X FT AND X FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

Temporary Shoring 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 10+18.00 -L- +/-, 28 FT RIGHT, TO STATION 10+40.00 -L-+/-, 28FT RIGHT, 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 TEMPOARY SHORING FROM STATION 10+18.00 -L- +/-, 28FT RIGHT, TO STATION 10+40.00 -L-, 28FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDTIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR*S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 10+18.00 -L- +/-, 28FT RIGHT, TO STATION 10+40.00 -L-, 28FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS. FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

Temporary Shoring 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 11+70.00 -L- +/-, 18-20 FT RIGHT, TO STATION 11+95.00 -L-+/-, 18-20 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

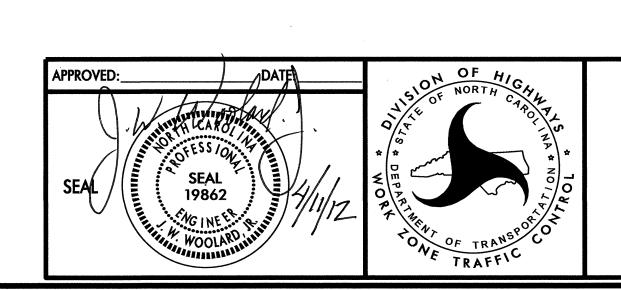
UNIT WEIGHT (γ) = 120 LB/CF FRICTION ANGLE (ϕ) = 30 DEGREES

COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPOARY SHORING FROM STATION 11+70.00 -L- +/-, 18-20 FT RIGHT, TO STATION 11+95.00 -L-, 18-20 FT RIGHT. THE INFORMATION PROVIDED FRO TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDTIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 11+70.00 -L- +/-, 18-20 FT RIGHT, TO STATION 11+95.00 -L-, 18-20 FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGHT A SEALED DOCUMENT FROM THE GEOTECHINCAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON MARCH 19, 2012, BY PROFESSIONAL ENGINEER SHANE C. CLARK, PE.(SEAL# 029869)



TEMPORARY SHORING DATA

PHASE I

STEP 1: CONTRACTOR SHALL INSTALL ALL ADVANCE WORK ZONE SIGNS

STEP 2: CONSTRUCT AS MUCH AS POSSIBLE, AWAY FROM TRAFFIC, PROPOSED DETOUR, BRIDGE AND APPROACHES FROM -DET- STA 10+30 +/- TO TO -DET- STA 12+10 +/- UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSES. (SEE CONSTRUCTION PLANS)

STEP 3: USING ROADWAY STANDARD DRAWING NO 1101.02, SHEET 1 OF 15, CONSTRUCT PROPOSED DETOUR FROM -DET- STA 10+00 +/- TO -DET- STA 10+30 +/- AND FROM -DET- STA 12+10 +/- TO -DET- STA 13+20 +/-, UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE. (SEE CONSTRUCTION PLANS)

PHASE II

STEP 1: -INSTALL TEMPORARY GUARDRAIL. AS SHOWN ON TMP-04.

STEP 2: -USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 15, PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), TEMPORARY RAISED MARKERS AND ADDITIONAL WORK ZONE SIGNS ON DETOUR (-DET-), (SEE ROADWAY STANDARD DRAWINGS NO. 1101.03, SHEET 3 OF 9 AND 1205.12), AND SHIFT TRAFFIC TO DETOUR. AS SHOWN ON TMP-05.

STEP 3: -AWAY FROM TRAFFIC, REMOVE EXISTING BRIDGE.

STEP 4: -INSTALL TEMPORARY SHORING FROM STA 10+18 +/- -L- TO STA 10+40 +/- -L- AND FROM STA 11+70 +/- -L- TO STA 11+95 +/- -L-. SEE TMP-05.

-USING ROADWAY STANDARD DRAWING NO.1101.02, SHEET 1 OF 15, CONSTRUCT SR 1797 (-L-) FROM STA 10+25 +/- TO STA 11+89 +/- L-, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. SEE TMP-05

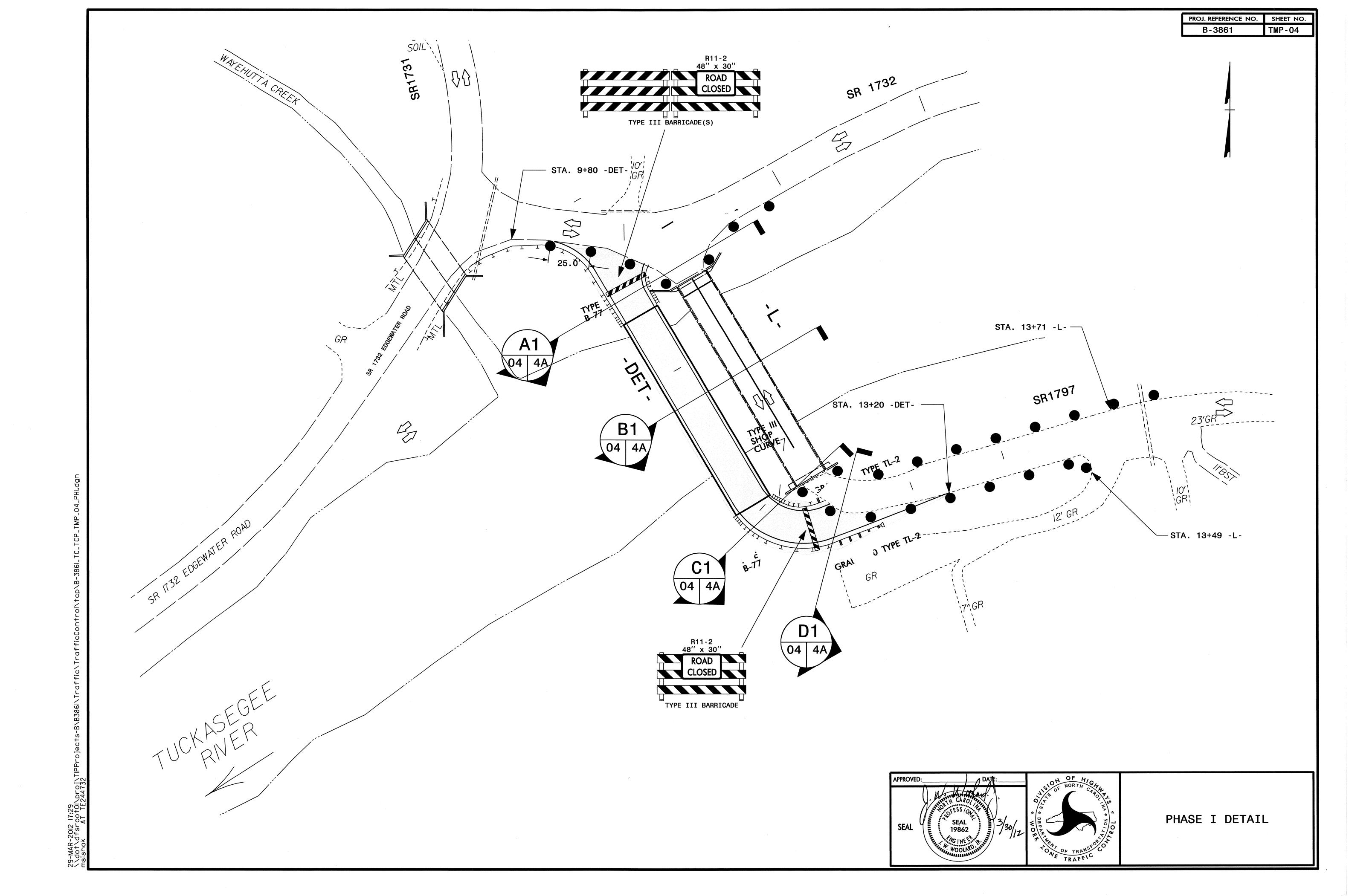
PHASE III

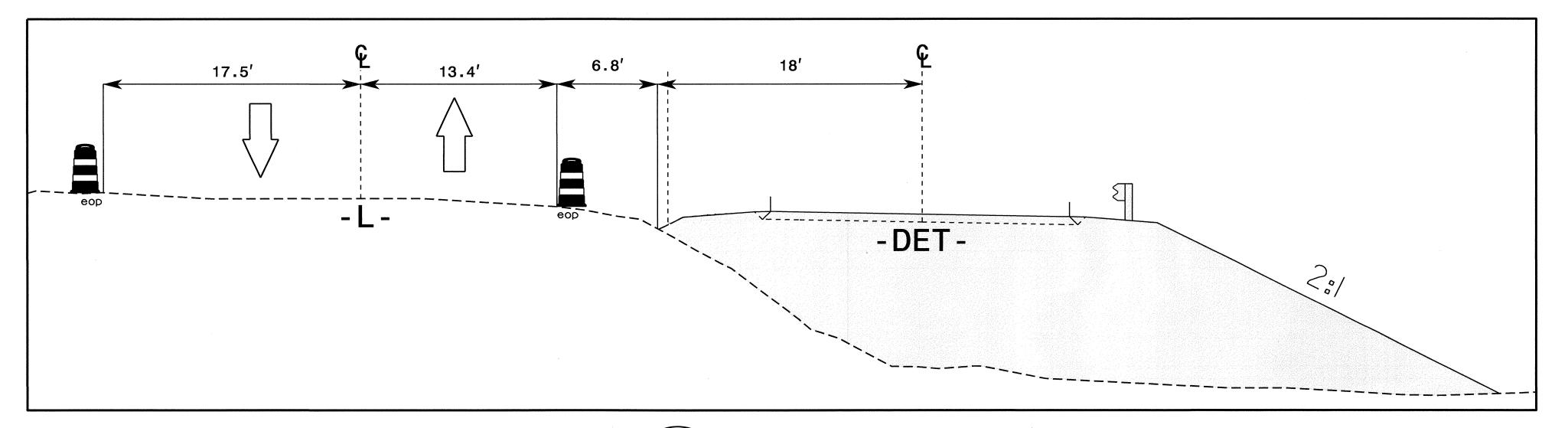
STEP 1: -USING RSD 1101.02, SHEET 1 OF 15 AS NEEDED, REMOVE TEMPORARY GUARDRAIL, CONCRETE BARRIER AND TEMPORARY CRASH CUSHIONS.

STEP 2: -USING RSD 1101.02 AS NEEDED REMOVE DETOUR AND COMPLETE SHOULDER CONSTRUCTION ON -L- RIGHT.

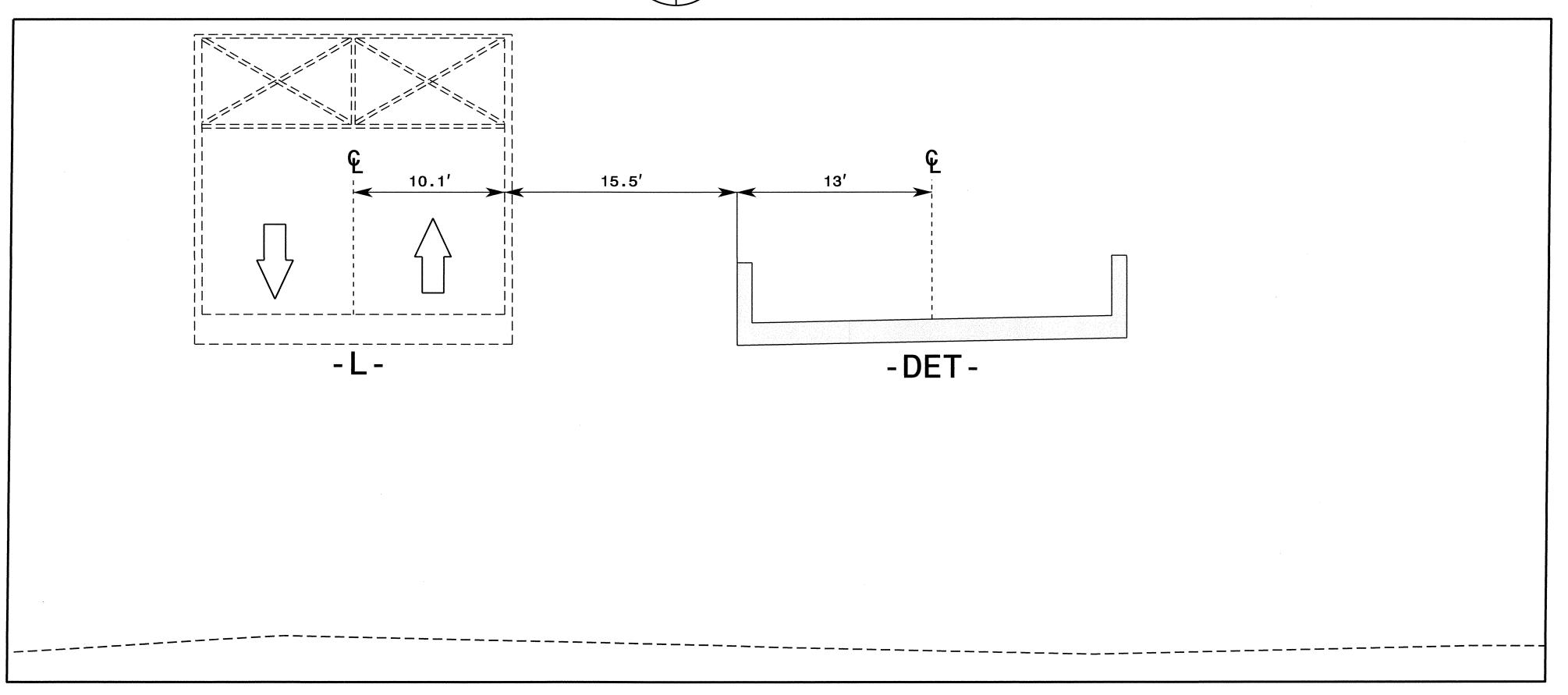
STEP 3: -USING RSD 1101.02, SHEET 1 OF 15, PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS AND MARKERS, AND PLACE TRAFFIC IN THE FINAL PATTERN.

STEP 4: -REMOVE ALL TRAFFIC CONTROL DEVICES.

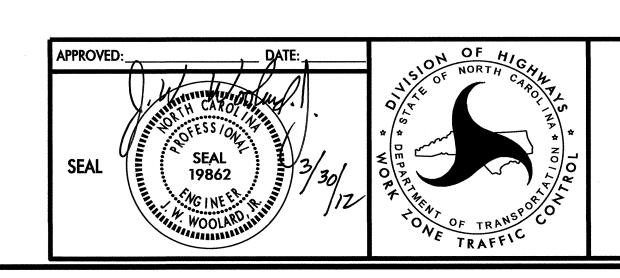




A1 CUT SECTION
04 4A STA. 10+25 -L-

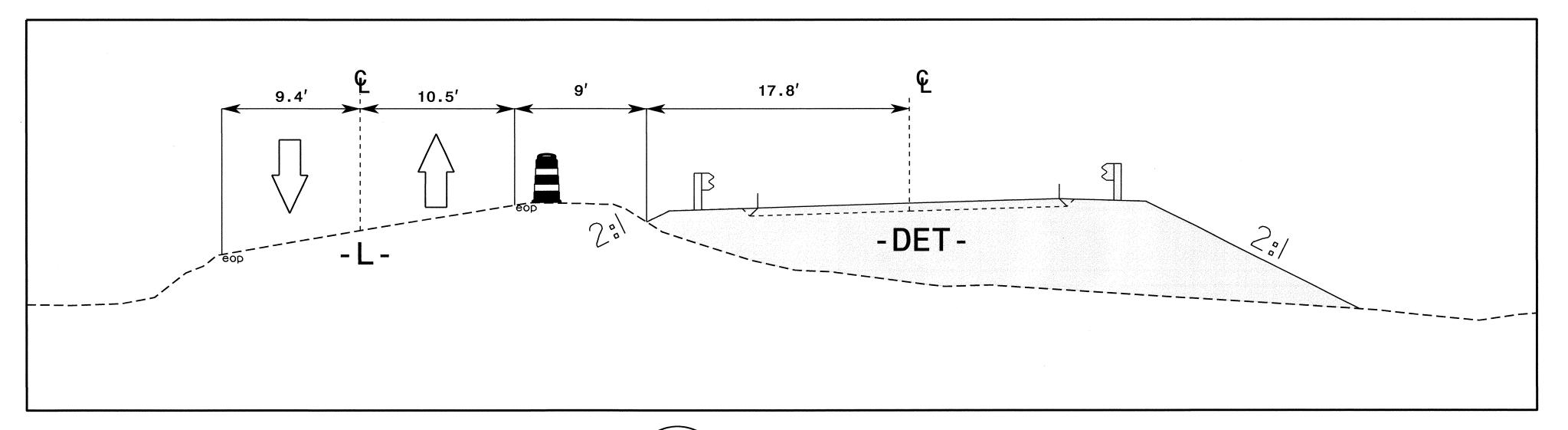


B1 CUT SECTION
04 4A STA. 11+00 -L-

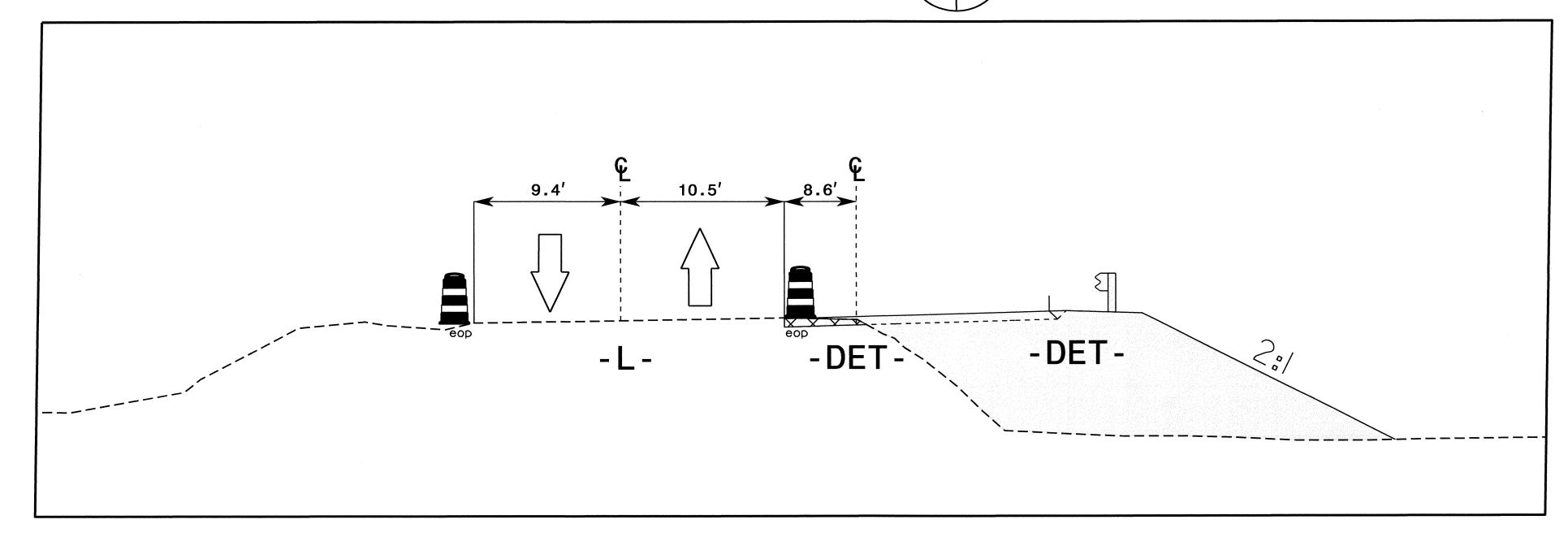


PHASE I DETAIL

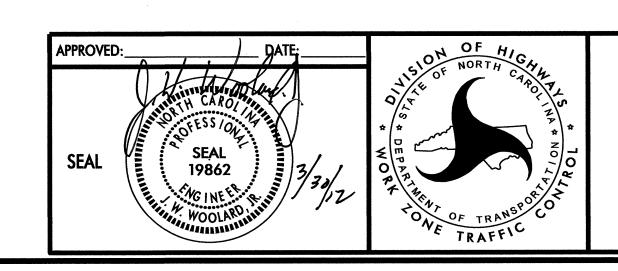
PROJ. REFERENCE NO. SHEET NO. B-3861 TMP-04B



C1 CUT SECTION
04 4A STA. 11+75 -L-

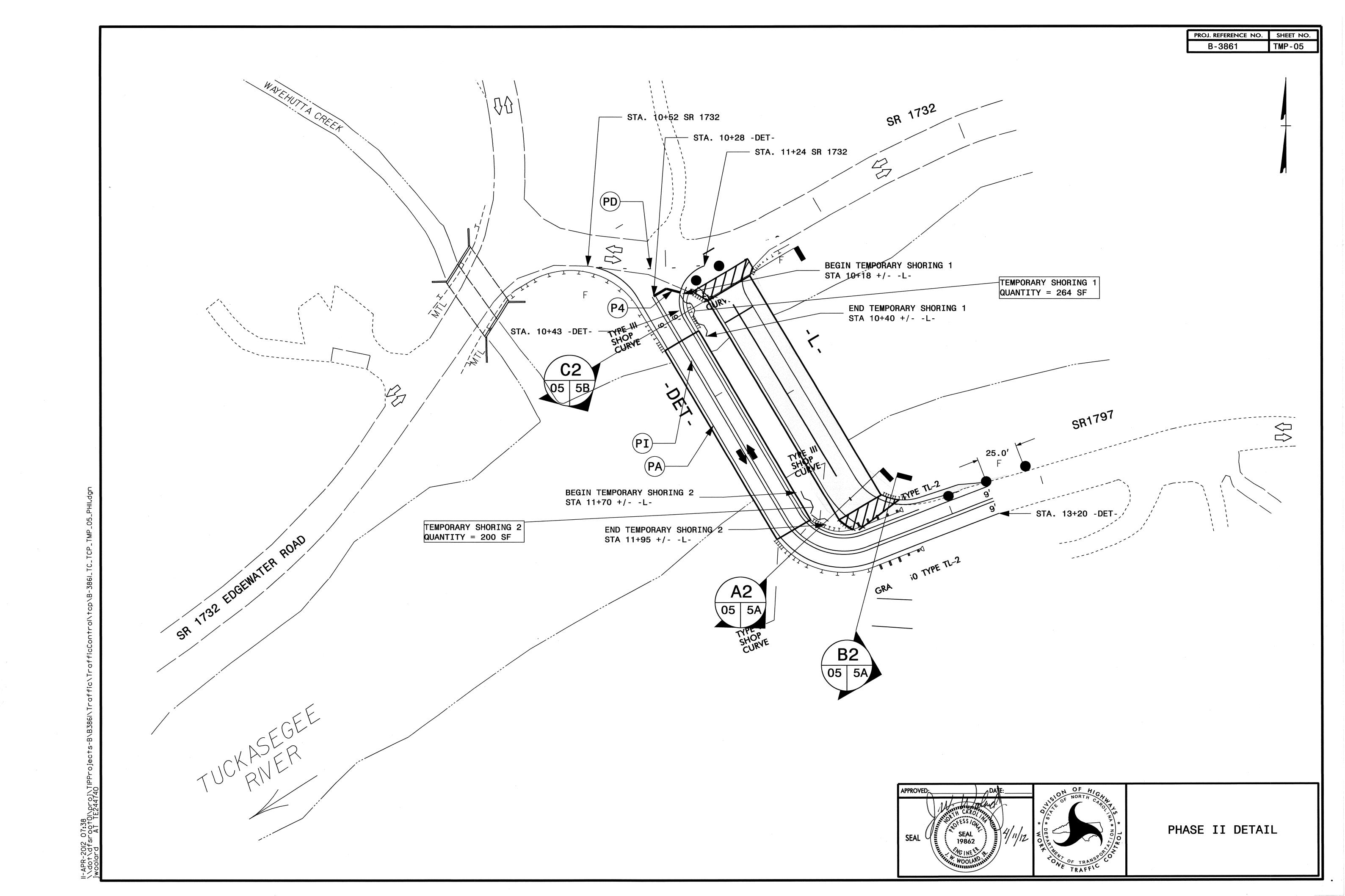


D1 CUT SECTION
04 4A STA. 12+00 -L-

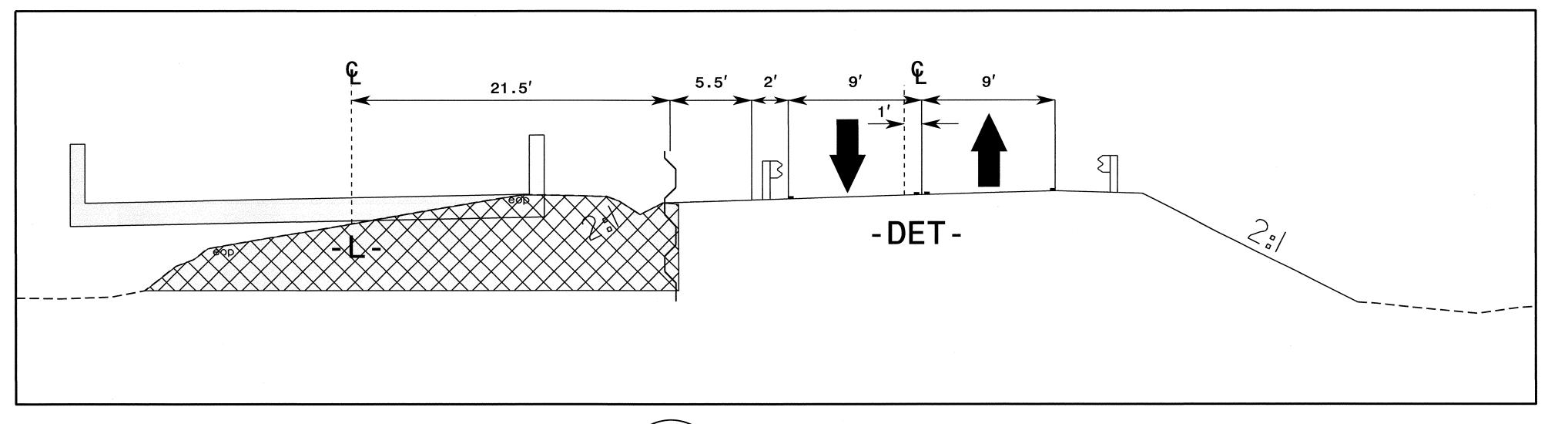


PHASE I DETAIL

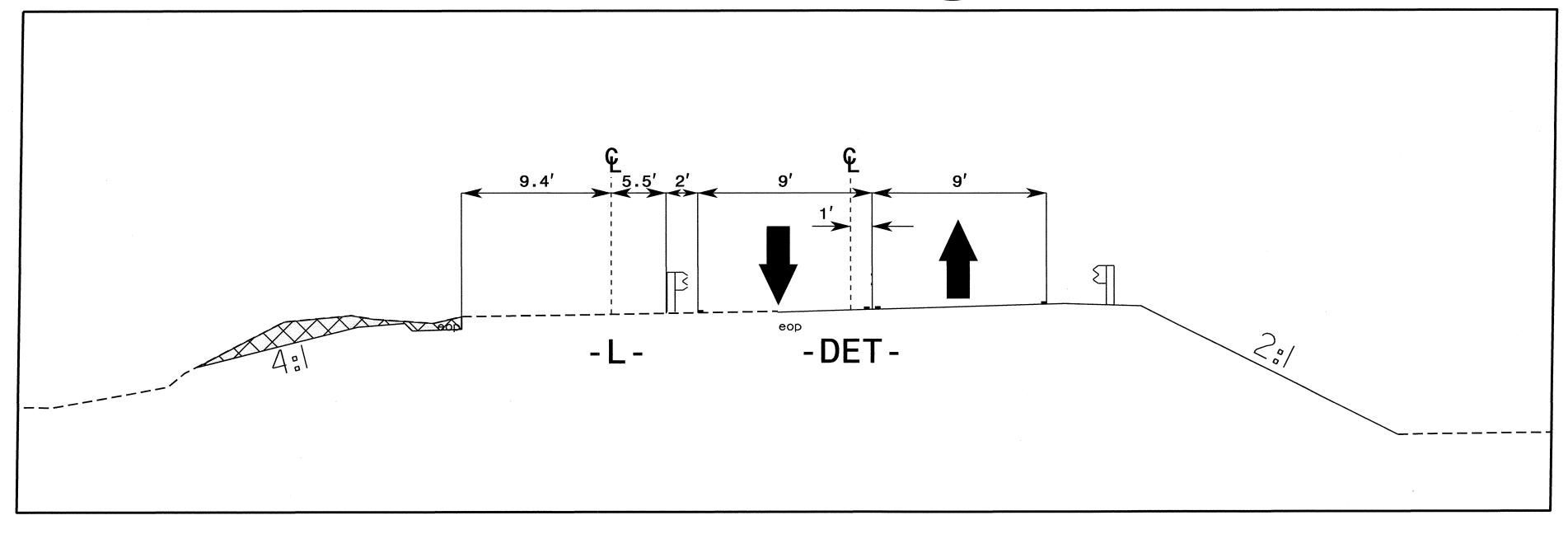
2012 17:30 IfsrootollyprojlTIPProjects-BlB3861\Traffic\TrafficControl\tcp



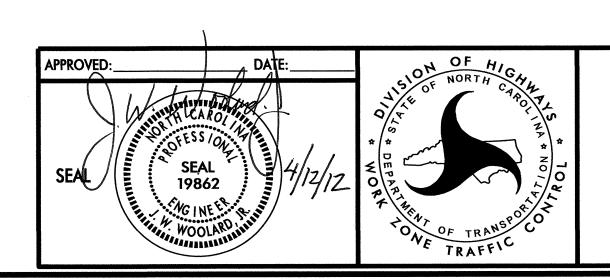
SHEET NO. TMP-5A B-3861



CUT SECTION 05 5A STA. 11+75 -L-

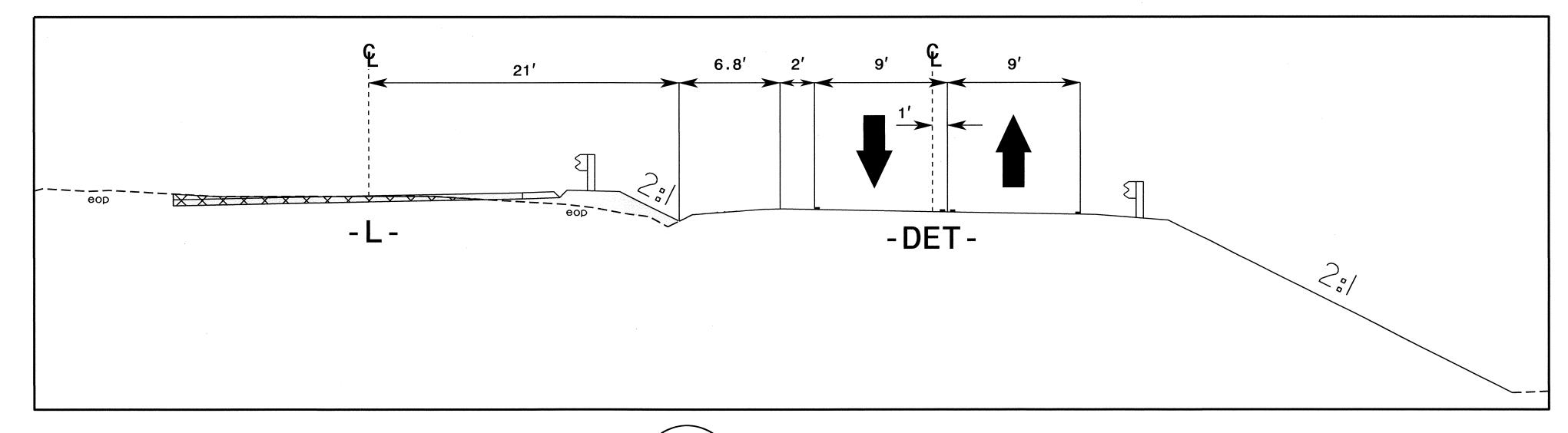


B2 CUT SECTION
05 5A STA. 12+00 -L-



PHASE II DETAIL

PROJ. REFERENCE NO. SHEET NO. B-3861 TMP-05B



C2 CUT SECTION
05 5B STA. 10+25 -L-

SEAL 19862

SEAL 19862

TRAFFIC

PHASE II DETAIL