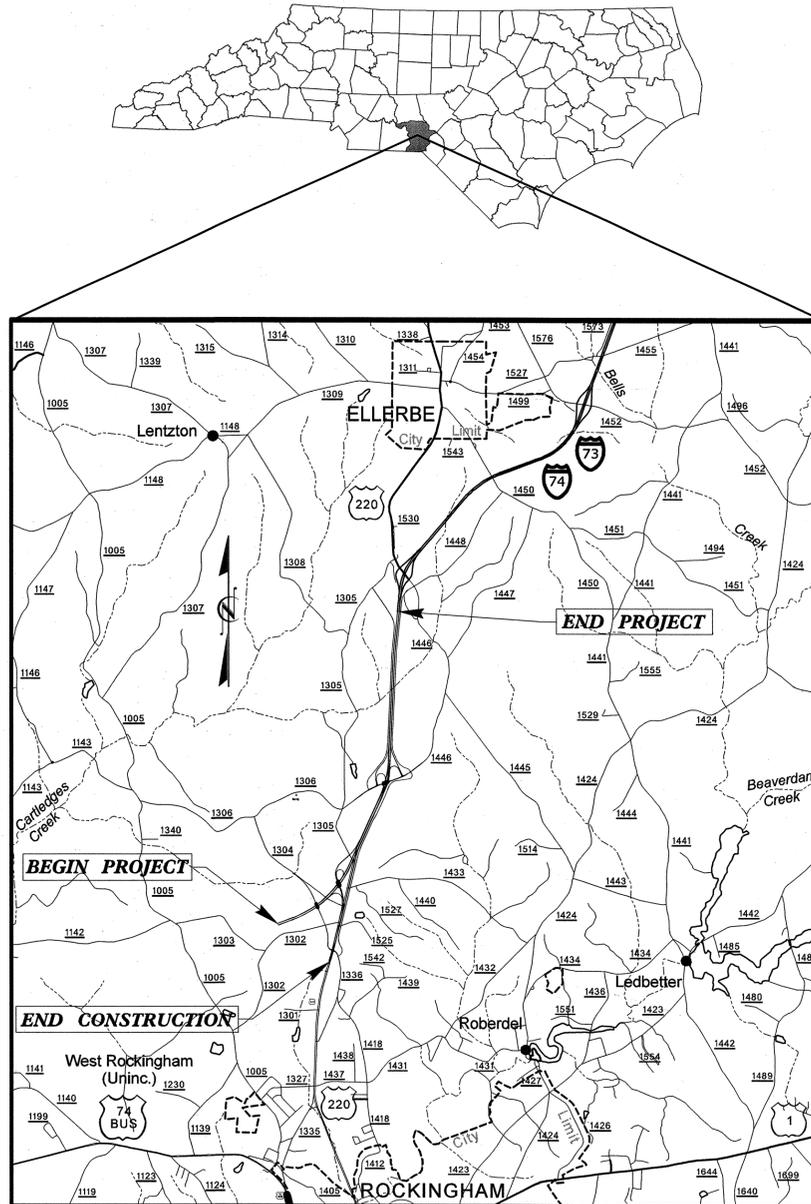


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

RICHMOND COUNTY



INDEX OF SHEETS

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SHEET NO.
TMP-1

R-3421C

TIP PROJECT:

REVISIONS

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



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TRAFFIC CONTROL DESIGN ENGINEER



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APPROVED: [Signature]
DATE: 1.31.15

SEAL

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	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	PORTABLE CONCRETE BARRIER
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMP
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.

- WORK AREA
- REMOVAL
- ONGOING CONSTRUCTION
- WEDGE / WIDEN (USING LANE CLOSURES)
- TEMPORARY PAVEMENT

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION	PAY ITEM
PAVEMENT MARKING LINES		
PA	WHITE EDGELINE	PAINT (4")
PB	YELLOW EDGELINE	
PC	10 FT WHITE SKIP	
PD	2 FT WHITE MINISKIP	
PE	WHITE SOLID LANE LINE	
PI	YELLOW DOUBLE CENTER LINE	
PAVEMENT MARKING SYMBOLS & CHARACTERS		
PN	WHITE GORELINE	PAINT (8")
PS	WHITE DIAGONAL	
PV	YELLOW DIAGONAL	
P4	WHITE STOP BAR	PAINT (24")

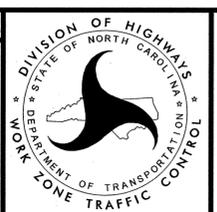
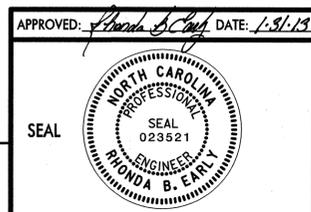
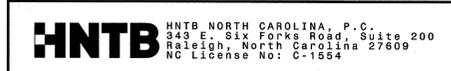
SYMBOL	DESCRIPTION	PAY ITEM
QA	LEFT TURN ARROW	PAINT SYMBOL
QB	RIGHT TURN ARROW	
QC	STRAIGHT ARROW	
QD	STRAIGHT/LEFT ARROW	
QE	STRAIGHT/RIGHT ARROW	
QI	CHARACTERS	

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, REFER TO GENERAL NOTE (CC) FOR NUMBER OF APPLICATIONS.

PAVEMENT MARKERS

MH	YELLOW & YELLOW	TEMPORARY RAISED
MI	CRYSTAL & RED	

8/17/99
 REVISIONS
 QA/QC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:



TRANSPORTATION
 MANAGEMENT PLAN

**ROADWAY STANDARD
 DRAWINGS & LEGENDS**

GENERAL NOTES

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

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

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US 220 (-L-)	MONDAY THRU FRIDAY 7:00 AM - 9:00 AM & 4:00 PM - 6:00 PM

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

ROAD NAME	HOLIDAY
US 220 (-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 7:00 A.M. DECEMBER 31ST TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
3.	FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
4.	FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
5.	FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6.	FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
7.	FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
8.	FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
US 220	MONDAY-SUNDAY: 7:00AM-7:00PM	30 MINUTES FOR TRAFFIC SHIFTS 30 MINUTES FOR GIRDER INSTALLATION

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 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 WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

G) 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.

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.

H) 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 REMAINS WITHIN THE CLOSED TRAVEL LANE.

I) 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.

J) DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE ON US 220 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

K) DO NOT INSTALL MORE THAN TWO (2) SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON US 220.

L) PROVIDE A MINIMUM OF ONE (1) MILE BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.

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

PAVEMENT EDGE DROP OFF REQUIREMENTS

N) 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.

O) 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.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

Q) 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.

R) 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.

S) 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.

T) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

U) 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

V) 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.

W) 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

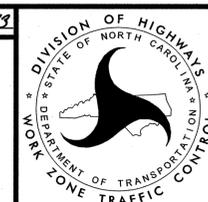
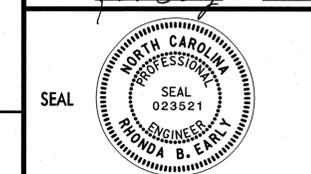
X) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPENED TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

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

Z) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

AA) PROVIDE AND OPERATE 2 ADDITIONAL CMS'S TO BE USED AS DIRECTED BY THE ENGINEER.

APPROVED: *[Signature]* DATE: 1/31/13



TRANSPORTATION
MANAGEMENT PLAN

GENERAL NOTES

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

REVISIONS
 QACQ STAGE:
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 CONCUR:
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 VERIFY:

8/17/99

GENERAL NOTES

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
ALL ROADS	PAINT	TEMPORARY

CC) 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.

DD) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

EE) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

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

GG) INCLUDE TEMPORARY RAISED PAVEMENT MARKERS ALONG THE CENTERLINE AND EDGELINE NEAREST CONSTRUCTION ENTRANCE FOR AT 25' SPACING ON DETOUR CURVES.

MISCELLANEOUS

HH) 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) 500 FT AND 1000 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

II) CURRENT PHASING IS BASED ON AN ASPHALT PAVEMENT DESIGN, IN THE EVENT THAT A CONCRETE OPTION IS SELECTED, ADDITIONAL TRAFFIC CONTROL PHASING WILL BE REQUIRED / PROVIDED.

THE ANTICIPATED ADDITIONAL QUANTITIES REQUIRED ARE AS FOLLOWS:

ITEM	QUANTITY
PORTABLE CONCRETE BARRIER	5700 LF
PORTABLE CONCRETE BARRIER - REMOVE AND RESET	16300 LF
CRASH CUSHION - REMOVE AND RESET	12 EA
PAVEMENT MARKING REMOVAL - 4" WHITE SKIP	2875 LF
4" REMOVABLE TAPE	22000 LF

JJ) LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

LOCAL NOTES

- LN-1 SEE ROADWAY PLANS FOR PAVING / GRADING LIMITS.
- LN-2 THIS WORK IS NOT REQUIRED TO BE COMPLETED UNTIL PHASE III.
- LN-3 WORK IN THIS AREA INCLUDES TEMPORARY WIDENING AS SHOWN IN THE DETAIL.
- LN-4 SHORING IS REQUIRED DURING PIPE INSTALLATION TO STABILIZE EXISTING ROAD ADJACENT TO EXCAVATION AND TO STABILIZE NEW EMBANKMENT. REFER TO CUT SECTIONS, DETAILS AND SHORING NOTES.
- LN-5 WORK INCLUDES INSTALLING TEMPORARY GUARDRAIL AND ANCHORS PRIOR TO SHIFTING TRAFFIC.
- LN-6 SPECIAL ATTENTION MAY BE NECESSARY TO PROVIDE TEMPORARY DRIVEWAY ACCESS TO PROPERTIES IN THIS AREA.
- LN-7 TEMPORARY WEDGING MAY BE NECESSARY TO MAINTAIN -Y16- ACCESS TO EXISTING US 220 DURING PHASE I AND PHASE II.
- LN-8 -TA5- MATCHES LEFT MOST TWO LANES AND SHOULDERS OF -L- (NBL) FROM STA 448+53+/- TO STA 461+02+/-.
- LN-9 EXISTING PAVEMENT MAY NEED TO BE MILLED TO PROVIDE SMOOTH TIE.
- LN-10 THIS AREA INCLUDED CONSTRUCTION OF BOX CULVERT &/OR PIPE INSTALLATION WHERE SHORING IS REQUIRED OR ALREADY IN PLACE.
- LN-11 COORDINATE CONSTRUCTION ACTIVITIES ON -Y8- WITH MOUNT HARMONY CHURCH AND OTHER PROPERTY OWNERS LOCATED ON -Y8- FROM STA 15+00+/- TO STA 19+00+/-.
- LN-12 USE CMS BOARDS WITH APPROPRIATE MESSAGES TO WARN MOTORIST OF NEW PATTERNS FOR A PERIOD OF 30 DAYS. SUPPLEMENT WITH NEW PATTERN SIGNS AS SHOWN IN THE PLANS.
- LN-13 PCB ALONG -L- (US 220):
- * MUST HAVE A MINIMUM OF 33 INCHES BETWEEN BARRIER AND HAZARD / DROP OFF OR BE ANCHORED BARRIER;
 - * LENGTH OF NEED BASED USING A RUN OUT LENGTH OF 425';
 - * MUST HAVE A MINIMUM FLARE OF 14:1 ON APPROACH END.

MANAGEMENT STRATEGIES

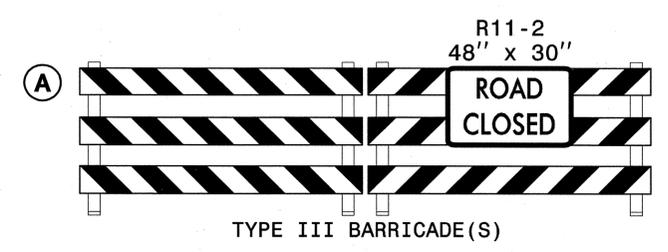
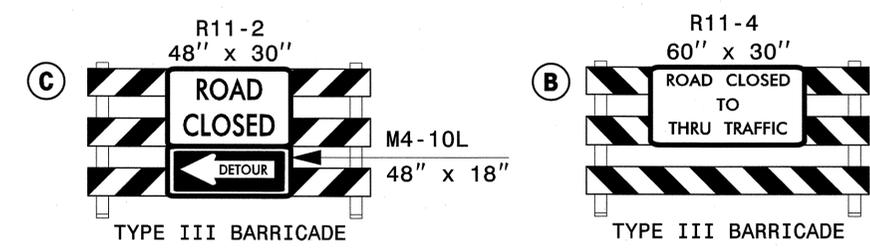
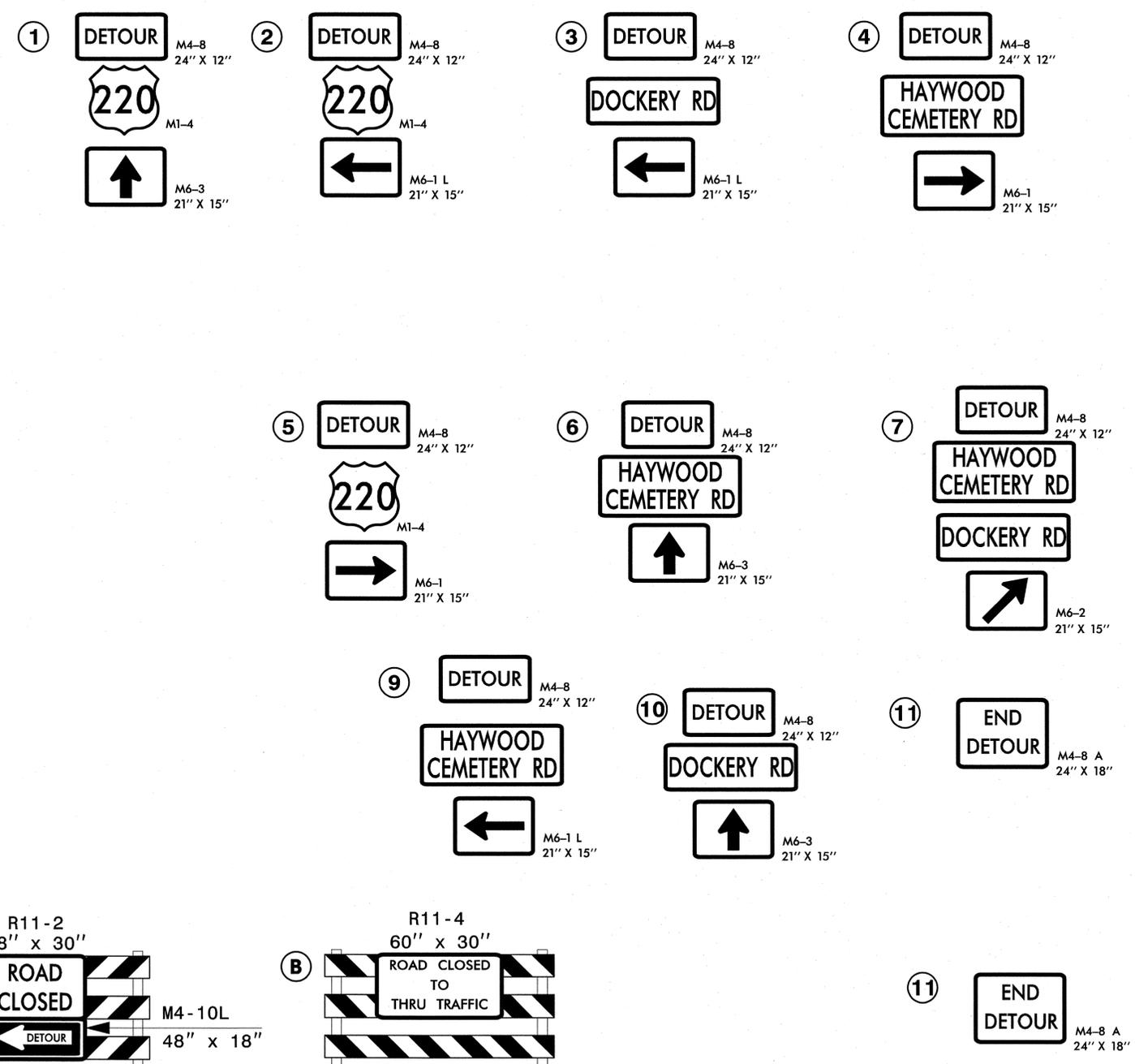
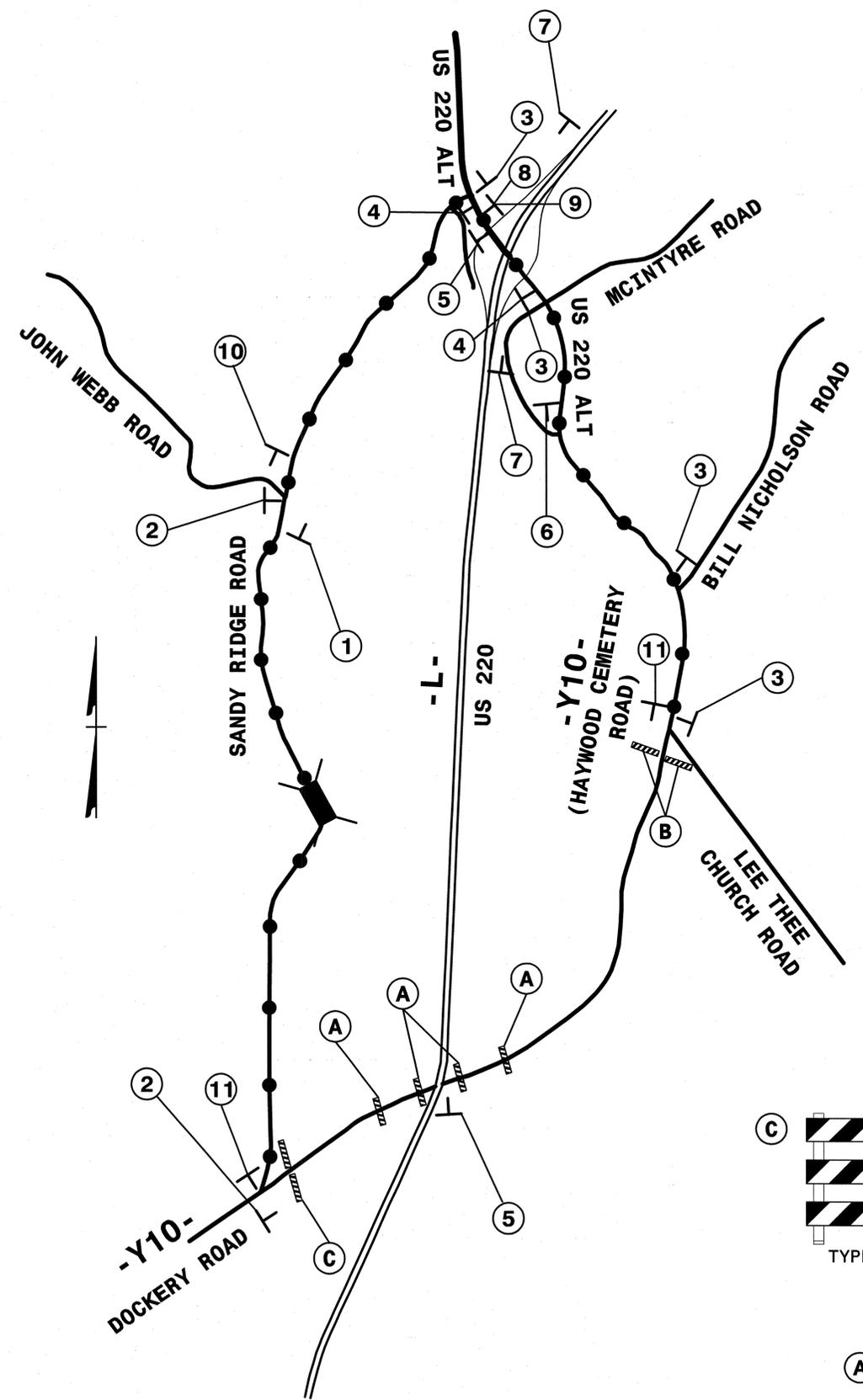
THE OBJECTIVE OF THIS PROJECT IS TO CONVERT THE EXISTING PARTIAL CONTROL FACILITY TO A FULLY CONTROLLED FREEWAY WITH RAMP ACCESS AND SERVICE ROADS. THIS CONCEPT UTILIZES THE FUTURE SERVICE ROADS AS TEMPORARY DIVIDED FREEWAY WHILE THE PERMANENT LOCATION IS CONSTRUCTED AND MAINTAINS A MINIMUM OF TWO LANES IN EACH DIRECTION DURING PEAK HOURS.

DURING PHASE I, THE SERVICE ROADS AND CONNECTING TEMPORARY ALIGNMENTS ARE CONSTRUCTED REQUIRING STAGE CONSTRUCTION OF BOX CULVERT CROSSING AND LARGE DIAMETER PIP CROSSINGS WITH SHORING REQUIRED AT EACH LOCATION. TEMPORARY WIDENING ALONG EXISTING US 220 NBL IS REQUIRED. WORK IS BEGUN AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. -Y10- IS CLOSED TO TRAFFIC AND A TEMPORARY DETOUR ROUTE PROVIDED.

PHASE II BEGINS WITH THE NORTHBOUND US 220 TRAFFIC SHIFTED TO SERVICE ROADS -SR2- AND -SR5- UTILIZING TEMPORARY ALIGNMENTS -TA1-, -TA5- AND -TA7-. THE SOUTHBOUND US 220 TRAFFIC HAS BEEN SHIFTED TO A COMBINATION THE US 220 NBL AND SERVICE ROAD -SR4- UTILIZING TEMPORARY ALIGNMENTS -TA2-, -TA3-, -TA4- AND -TA6-. -TA8- PROVIDES A TEMPORARY CONNECTION ACROSS -L- FOR -Y10-. DURING PHASE II, -Y8REV- IS COMPLETED AND OPENED TO TRAFFIC, -Y10- BRIDGE IS BEGUN (SHORING REQUIRED), -Y9SBL- IS COMPLETED, -L- (SBL) IS COMPLETED FROM THE -Y9- INTERCHANGE TO END OF PROJECT.

PHASE III BEGINS WITH THE SOUTHBOUND TRAFFIC ON THE SHIFTED TO -L- (SBL) AND -Y9SBL-. -TA8- IS CLOSED AND -Y10- IS DETOURED OFFSITE. -TA4- IS REMOVED AND -Y10- WEST OF US 220 AND RAMP/LOOP ACCESS ARE COMPLETED AND OPENED. AT THIS TIME -Y9NBL- IS COMPLETED AND US 220 NORTHBOUND TRAFFIC SHIFTED TO -Y9NBL- & -L- ALLOWING -Y10- EAST OF US 220 (INCLUDING RAMP / LOOP ACCESS) TO BE COMPLETED AND OPENED TO TRAFFIC.

PHASE IV INCLUDES REMOVING ALL REMAINING TEMPORARY OR ABANDONED PAVEMENT, COMPLETION OF REMAINING CONSTRUCTION (AREAS NOT OPENED TO TRAFFIC) AND PLACEMENT OF FINAL SURFACE COURSE, ISLANDS AND FINAL PAVEMENT MARKING / MARKERS.



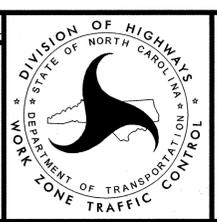
SEE SHEET SD-1 FOR SIGN DESIGNS

INCLUDE SIGNS SHOWN IN ROADWAY STANDARD DRAWING 1101.03 (SHEET 1 OF 9).

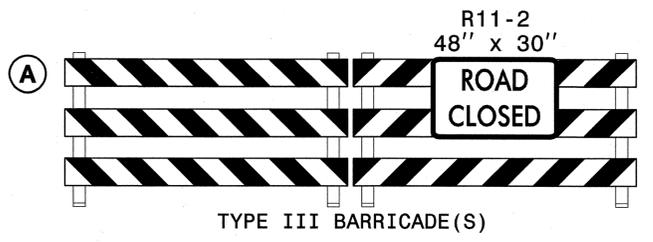
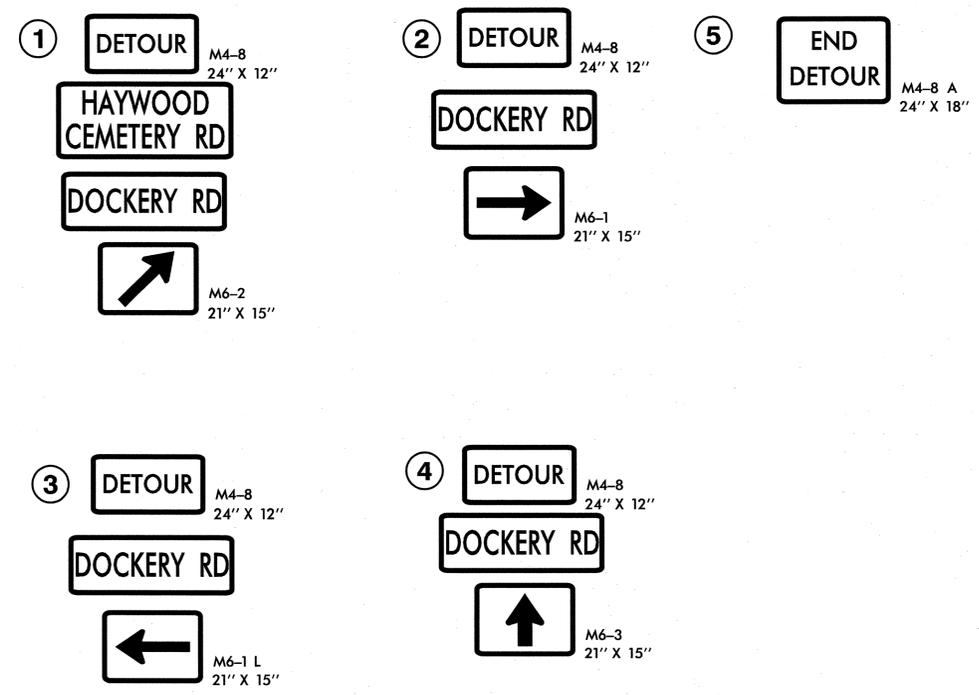
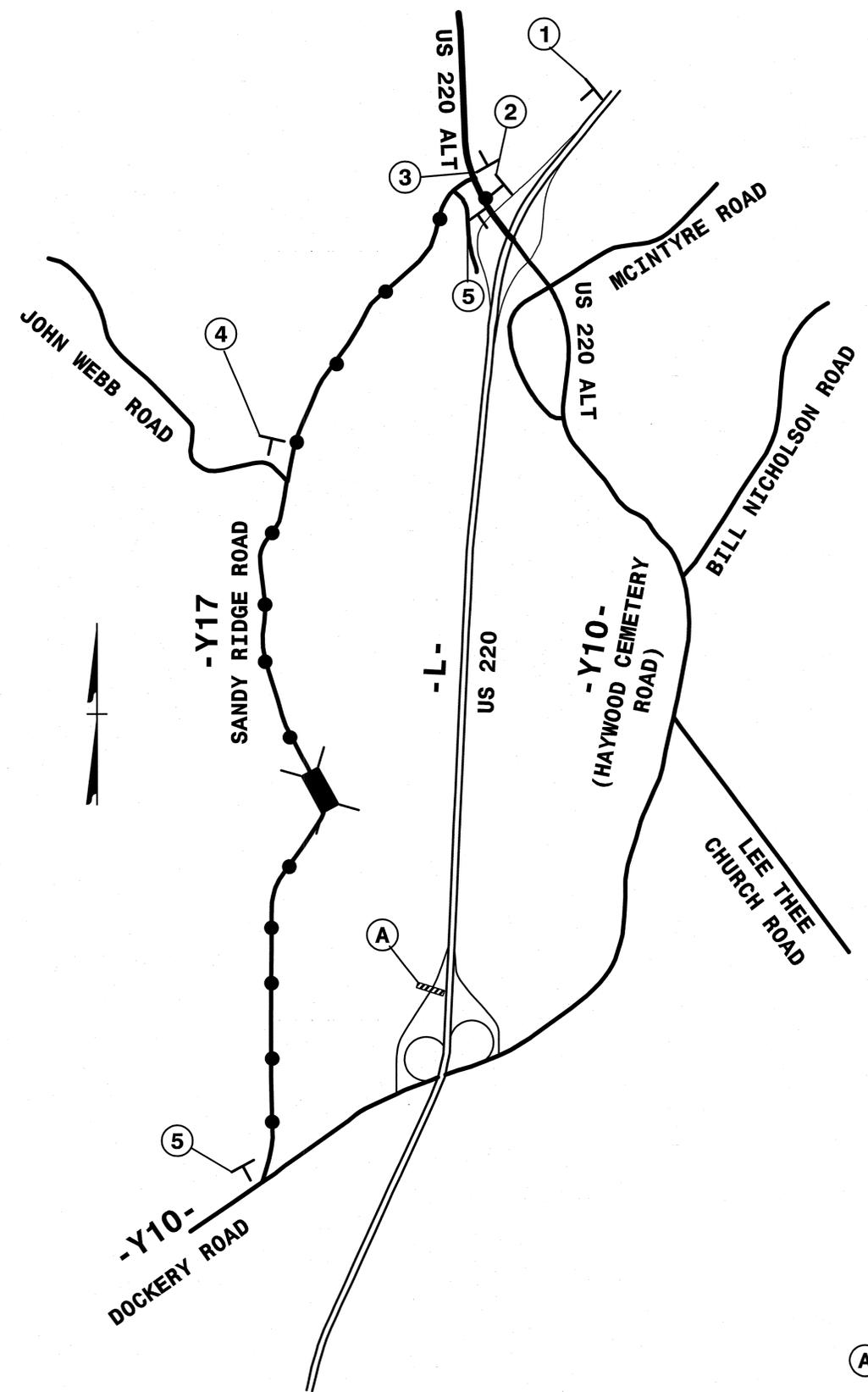
8/17/99
 REVISIONS
 G/M/C STAGE:
 REVIEW:
 CONCLUR:
 REVISE:
 VERIFY:

HNTB
 HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 FLORIDA B. EARLY



TRANSPORTATION MANAGEMENT PLAN
 -Y10- DETOUR



INCLUDE SIGNS SHOWN IN ROADWAY STANDARD DRAWING 1101.03 (SHEET 1 OF 9).

SEE SHEET SD-1 FOR SIGN DESIGNS

8/17/99
 REVISIONS
 GAC STAGE: FINAL SUBMITTAL
 REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____

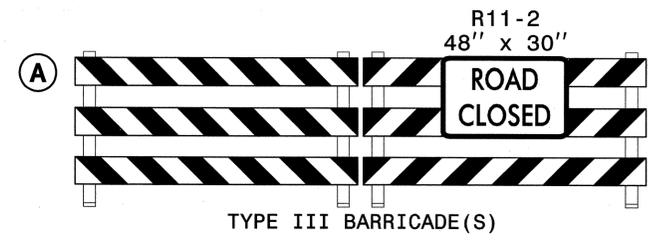
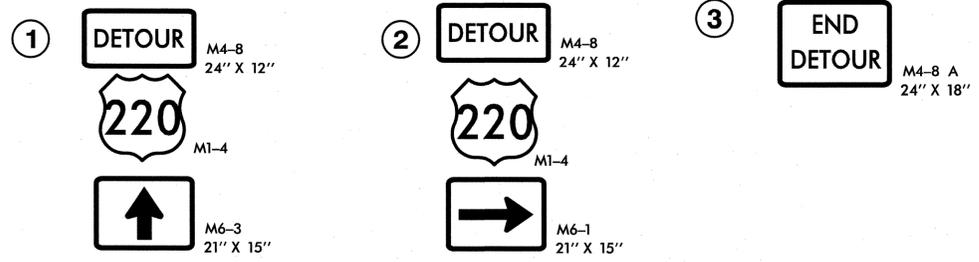
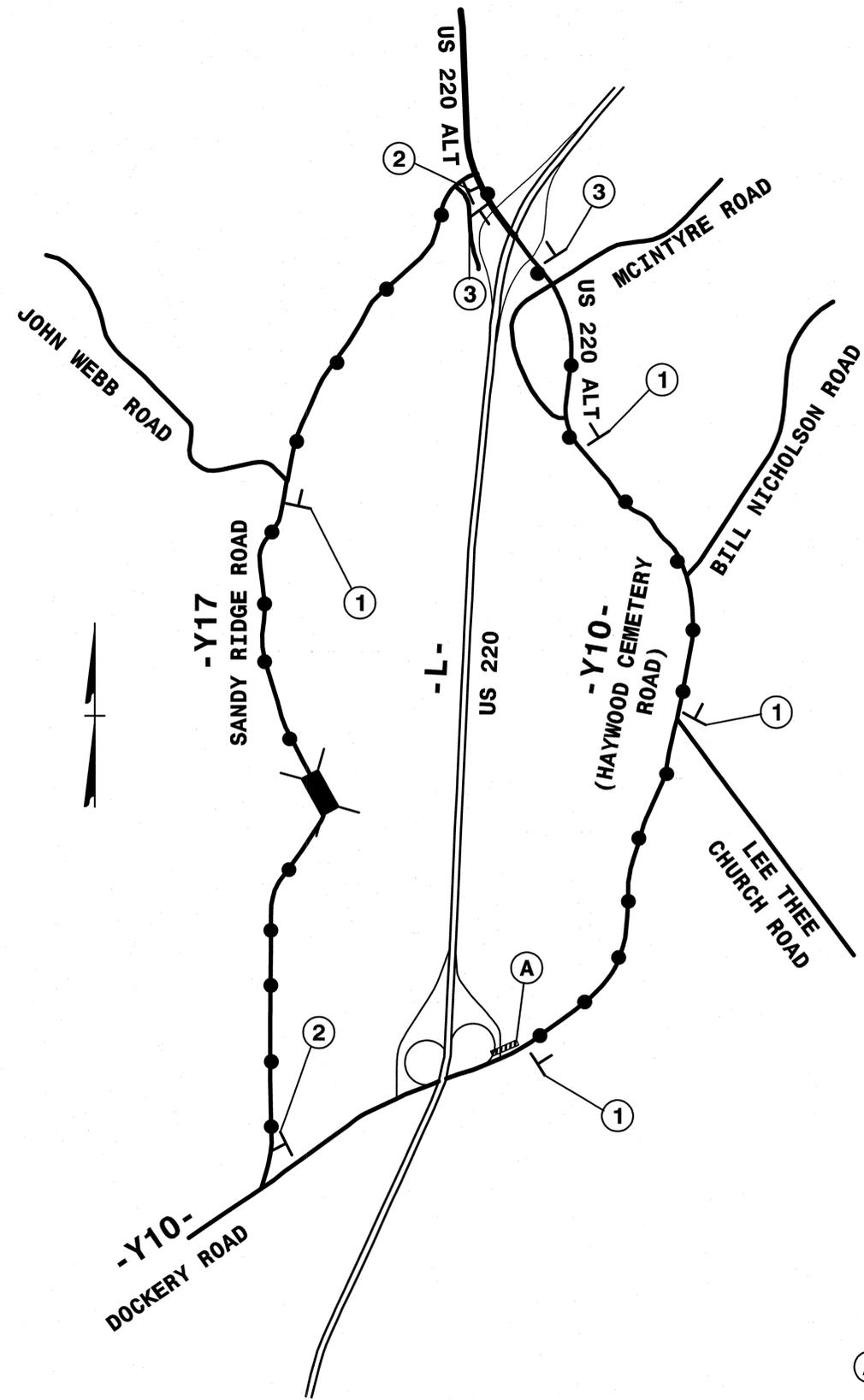
HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *Frank S. Early* DATE: 1/31/13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 FLOYDA B. EARLY



TRANSPORTATION MANAGEMENT PLAN
 -Y10 RAMPA- DETOUR

8/17/99



INCLUDE SIGNS SHOWN IN ROADWAY STANDARD DRAWING 1101.03 (SHEET 1 OF 9).

REVISIONS

FINAL SUBMITTAL

QA/QC STAGE: _____

REVIEW: _____

CONCUR: _____

REVISE: _____

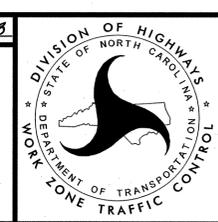
VERIFY: _____

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
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APPROVED: *Rhonda B. Earl* DATE: 1.31.13

SEAL

NORTH CAROLINA
 PROFESSIONAL
 SEAL
 023521
 ENGINEER
 RHONDA B. EARL



TRANSPORTATION
 MANAGEMENT PLAN

-Y10 RAMPD- DETOUR

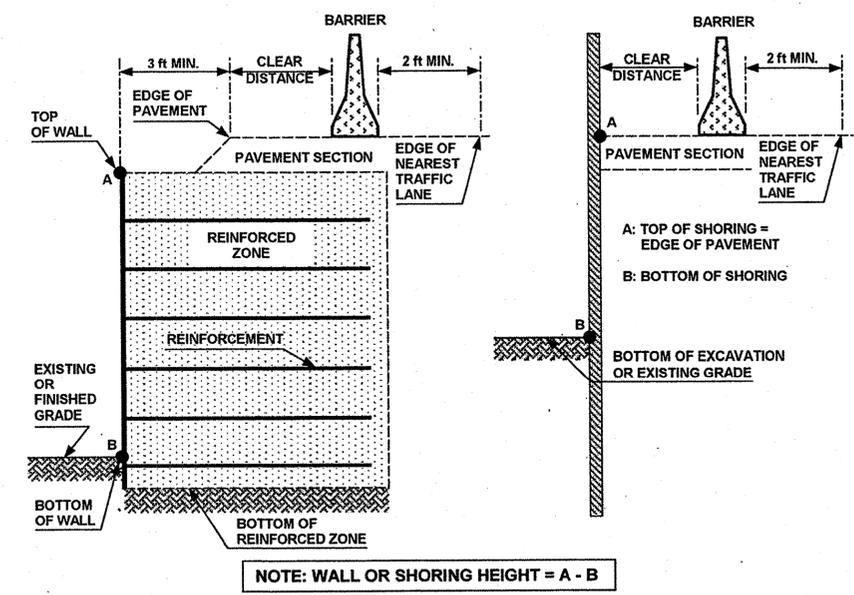


FIGURE A

NOTES

- REFER TO THE TRAFFIC CONTROL PLANS FOR SHORING LOCATIONS AND SOIL PARAMETERS.
- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR MORE INFORMATION ABOUT TEMPORARY SHORING, MEASUREMENT AND PAYMENT.
- PROVIDE PORTABLE CONCRETE BARRIER TO PROTECT TEMPORARY SHORING IF SHORING IS LOCATED WITHIN THE CLEAR ZONE AS DEFINED IN THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED PCB, ANCHORED PCB OR AN OREGON BARRIER FROM THE TABLE SHOWN IN FIGURE B. FOR TRAFFIC LANES AND PORTABLE CONCRETE BARRIER LOCATED ABOVE AND BEHIND TEMPORARY SHORING, THE FOLLOWING ARE DEFINED AS:

CLEAR DISTANCE - HORIZONTAL DISTANCE FROM THE BACK FACE OF THE BARRIER TO THE EDGE OF PAVEMENT FOR TEMPORARY MSE WALL OR TO THE FACE OF NON-ANCHORED TEMPORARY SHORING AS SHOWN IN FIGURE A.

OFFSET - HORIZONTAL DISTANCE FROM THE FRONT FACE OF THE BARRIER TO CENTERLINE OF THE FURTHEST TRAFFIC LANE AS SHOWN IN FIGURE B FOR 3 TRAFFIC LANES.
- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET AN UNANCHORED PCB AGAINST THE TRAFFIC SIDE OF THE SHORING AND DESIGN SHORING FOR TRAFFIC IMPACT OR USE THE "SURCHARGE CASE WITH TRAFFIC IMPACT" FOR THE STANDARD TEMPORARY SHORING. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).
- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- USE OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH DETAIL DRAWING AND SPECIAL PROVISION OBTAINED FROM: WORK ZONE TRAFFIC CONTROL UNIT WEB PAGE.
- UNLESS NOTED OTHERWISE ON THE PLANS, SET PORTABLE CONCRETE BARRIER WITH A MINIMUM DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A.
- FOR PORTABLE CONCRETE BARRIER ABOVE AND BEHIND TEMPORARY MSE WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.
- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200' IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier Type	Pavement Type	Offset * ft	Design Speed, mph					
			<30	31-40	41-50	51-60	61-70	71-80
Unanchored PCB	Asphalt	<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
		38-44	31	34	41	43	45	48
		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
	>56	32	36	42	45	47	51	
	Concrete	<8	17	18	21	22	25	26
		8-14	19	20	23	25	26	29
		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
		26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
50-56		26	26	28	32	35	38	
>56	26	27	29	32	36	38		
Anchored PCB or Oregon Barrier	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB or Oregon Barrier	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

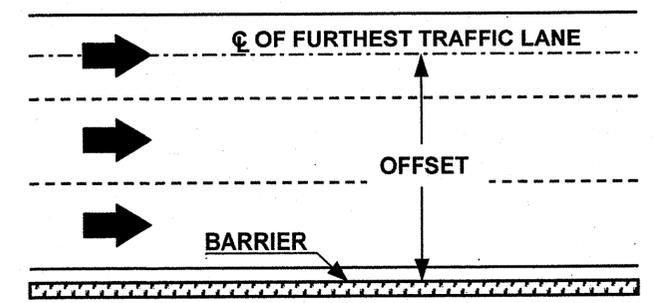


FIGURE B

APPROVED: _____ DATE: _____		PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS

TEMPORARY SHORING NO. 1

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 434+21.5 -L- TO STATION 434+93.5 -L-, OFFSET 109 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 = 345 FT

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 434+21.5 -L- TO STATION 434+93.5 -L-, OFFSET 109 FT. RT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 2

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 433+51.5 -L- TO STATION 434+37.5 -L-, OFFSET 14.7 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 = 345 FT

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING NO. 3

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 35+92.8 -TA9- TO STATION 36+90.3 -TA9-, OFFSET 27 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 = 345 FT

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 35+92.8 -TA9- TO STATION 36+90.3 -TA9-, OFFSET 27 FT. LT.. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 4

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 36+53.8 -TA3- TO STATION 37+31.3 -TA3-, OFFSET 21.3 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 = 345 FT

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 36+53.8 -TA3- TO STATION 37+31.3 -TA3-, OFFSET 21.3 FT. LT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 4A

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 436+66.3 -L- TO STATION 437+25.8 -L-, OFFSET 5.3 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 = 345

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 436+66.3 -L- TO STATION 437+25.8 -L-, OFFSET 5.3 FT. LT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 5

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 475+99 -L- TO STATION 476+48 -L-, OFFSET 99 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 475+99 -L- TO STATION 476+48 -L-, OFFSET 99 FT. RT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

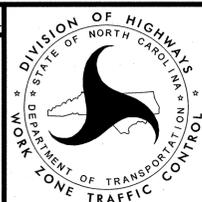
REVISIONS

REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____

THE SHORING NOTES SHOWN ARE COPIED FROM THE TEMPORARY SHORING RECOMMENDATIONS LETTER DATED AUGUST 24, 2012 ISSUED FROM NJOROGE W. WAINAINA, PE, STATE GEOTECHNICAL ENGINEER, TO JOSEPH ISHAK, PE, CENTRAL WORK ZONE TRAFFIC ENGINEER, ORIGINALLY ISSUED AND SEALED BY DAVID L. TEAGUE, PE (#027869).

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: _____ DATE: _____
 TEMPORARY SHORING RECOMMENDATIONS LETTER
 ORIGINALLY ISSUED AND SEALED BY:
 DAVID L. TEAGUE
 N.C. P.E. 027869
 ON 08-24-12



TRANSPORTATION MANAGEMENT PLAN
SHORING NOTES

TEMPORARY SHORING NO. 5A

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 476+77.5 -L- TO STATION 477+40.5 -L-, OFFSET 99 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 = 345 FT

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 476+77.5 -L- TO STATION 477+40.5 -L-, OFFSET 99 FT. LT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 6

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 484+96.5 -L- TO STATION 485+44.5 -L-, OFFSET 80 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 484+96.5 -L- TO STATION 485+44.5 -L-, OFFSET 80 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 A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 484+96.5 -L- TO STATION 485+44.5 -L-, OFFSET 80 FT. RT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 7

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 484+80.5 -L- TO STATION 485+68.5 -L-, OFFSET 68 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING NO. 8

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 485+08.5 -L- TO STATION 485+92.5 -L-, OFFSET 69 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING NO. 9

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 485+33.5 -L- TO STATION 485+77.5 -L-, OFFSET 85 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 485+33.5 -L- TO STATION 485+77.5 -L-, OFFSET 85 FT. LT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 10

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 489+21.5 -L- TO STATION 489+70.0 -L-, OFFSET 83.5 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 489+21.5 -L- TO STATION 489+70.0 -L-, OFFSET 83.5 FT. RT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

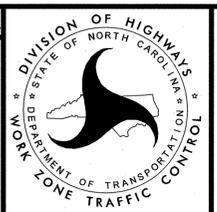
REVISIONS

GAAC STAGE: _____
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HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: _____ DATE: _____
 TEMPORARY SHORING RECOMENDATIONS LETTER ORIGINALLY ISSUED AND SEALED BY:
 DAVID L. TEAGUE
 N.C. P.E. 027869
 ON 08-24-12



TRANSPORTATION MANAGEMENT PLAN
SHORING NOTES

8/17/99

TEMPORARY SHORING NO. 11

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 489+13.3 -L- TO STATION 489+77.8 -L-, OFFSET 73.5 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING NO. 12

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 488+94.8 -L- TO STATION 489+69.3 -L-, OFFSET 75 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 488+94.8 -L- TO STATION 489+69.3 -L-, OFFSET 75 FT. LT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 13

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 488+90.3 -L- TO STATION 489+66.8 -L-, OFFSET 95.5 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 488+90.3 -L- TO STATION 489+66.8 -L-, OFFSET 95.5 FT. LT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 14

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 502+32 -L- TO STATION 503+26 -L-, OFFSET 99 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 502+32 -L- TO STATION 503+26 -L-, OFFSET 99 FT. RT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 15

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 502+45.2 -L- TO STATION 503+05.2 -L-, OFFSET 86 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 502+45.2 -L- TO STATION 503+05.2 -L-, OFFSET 86 FT. RT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 16

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 502+28 -L- TO STATION 502+93 -L-, OFFSET 80.5 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 502+28 -L- TO STATION 502+93 -L-, OFFSET 80.5 FT. LT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

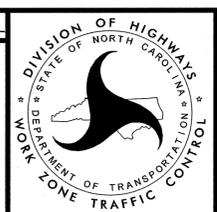
REVISIONS

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

THE SHORING NOTES SHOWN ARE COPIED FROM THE TEMPORARY SHORING RECOMMENDATIONS LETTER DATED AUGUST 24, 2012 ISSUED FROM NJORGE W. WAINAINA, PE, STATE GEOTECHNICAL ENGINEER, TO JOSEPH ISHAK, PE, CENTRAL WORK ZONE TRAFFIC ENGINEER, ORIGINALLY ISSUED AND SEALED BY DAVID L. TEAGUE, PE (#027869).

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27809
 NC License No: C-1554

APPROVED: _____ DATE: _____
 TEMPORARY SHORING RECOMMENDATIONS LETTER
 ORIGINALLY ISSUED AND SEALED BY:
 DAVID L. TEAGUE
 N.C. P.E. 027869
 ON 08-24-12



TRANSPORTATION MANAGEMENT PLAN
SHORING NOTES

TEMPORARY SHORING NO. 17

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 502+27.3 -L- TO STATION 502+90.3 -L-, OFFSET 98 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 502+27.3 -L- TO STATION 502+90.3 -L-, OFFSET 98 FT. LT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 18

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 508+42 -L- TO STATION 509+52 -L-, OFFSET 98 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 = 305 FT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM 508+42 -L- TO STATION 509+52 -L-, OFFSET 98 FT. LT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING NO. 19

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 508+70 -L- TO STATION 509+80 -L-, OFFSET 70 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING NO. 20

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 510+03 -L- TO STATION 510+97 -L-, OFFSET 68 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 = N/A

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

TEMPORARY SHORING NO. 21

FOR TEMPORARY SHORING, AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

DESIGN TEMPORARY SHORING FROM STATION 510+28 -L- TO STATION 511+25 -L-, OFFSET 98 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 = 305 FT.

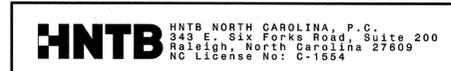
BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 510+28 -L- TO STATION 511+25 -L-, OFFSET 98 FT. RT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY SHORING.

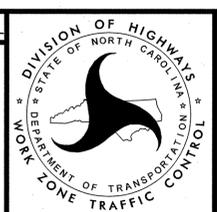
REVISIONS

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

THE SHORING NOTES SHOWN ARE COPIED FROM THE TEMPORARY SHORING RECOMMENDATIONS LETTER DATED AUGUST 24, 2012 ISSUED FROM NJORGE W. WAINAINA, PE, STATE GEOTECHNICAL ENGINEER, TO JOSEPH ISHAK, PE, CENTRAL WORK ZONE TRAFFIC ENGINEER, ORIGINALLY ISSUED AND SEALED BY DAVID L. TEAGUE, PE (#027869).



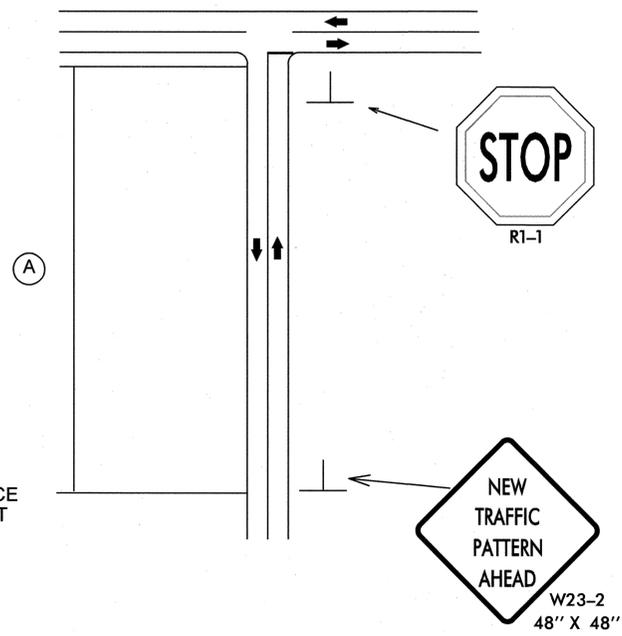
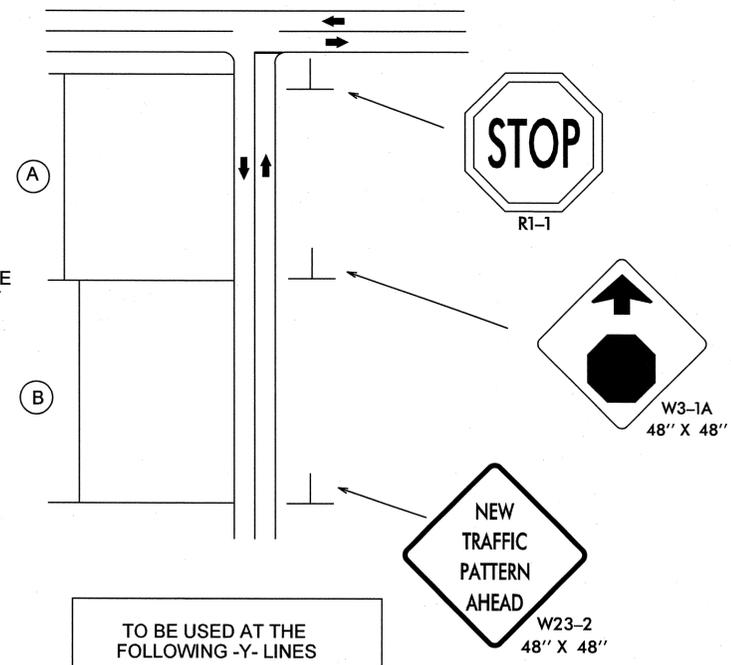
APPROVED: _____ DATE: _____
 TEMPORARY SHORING RECOMMENDATIONS LETTER
 ORIGINALLY ISSUED AND SEALED BY:
 DAVID L. TEAGUE
 N.C. P.E. 027869
 ON 08-24-12



TRANSPORTATION MANAGEMENT PLAN
 SHORING NOTES

8/17/99

REVISIONS



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

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1.31.13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
RIONDA B. EARLY
023521



TRANSPORTATION MANAGEMENT PLAN
INTERSECTION RELOCATION DETAILS

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.

PHASE I (SEE OVERVIEW SHEETS TMP-4 THRU TMP-8)

*** REFER TO SHEETS TMP-9 THRU TMP-28 FOR STEPS 1 THRU 7 ***

STEP 1:

1A: AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF THE FOLLOWING:

- * -L- FROM STA 355+00/- TO STA 384+50+/- (NBL & SBL) (LN-1)
- * -L- FROM STA 387+00/- TO STA 408+00+/- (NBL) (LN-1)
- * -L- FROM STA 387+00/- TO STA 410+00+/- (SBL) (LN-1)
- * -Y9RPC- FROM STA 2+00+/- TO STA 10+75+/- (LN-1)
- * -Y9SBL- FROM STA 11+50+/- TO STA 37+00+/- INCL BRIDGE
- * -Y9LPA- FROM STA 0+00 TO STA 22+50+/- INCL BRIDGE (LN-1)
- * -Y8REV- FROM STA 21+00+/- TO STA 45+00+/- INCL BRIDGE
- * -Y8REV- FROM STA 46+50+/- TO STA 59+00+/- INCL -DR2-
- * -Y10LPA- FROM STA 3+50+/- TO STA 13+10+/-
- * -Y10RPA- FROM STA 9+00+/- TO STA 23+50+/-
- * -Y10LPD- FROM STA 5+50+/- TO STA 13+25+/-
- * -Y10RPD- FROM STA 9+00+/- TO STA 19+00+/-
- * -SR2- FROM STA 99+00+/- TO STA 113+50+/-
- * -SR2- FROM STA 113+50+/- TO STA 126+72+/-
- * -SR2- FROM STA 11+30+/- TO STA 21+00+/- (LN-2)
- * -SR4- FROM STA 10+50+/- TO -TA8-
- * -SR4- FROM STA 105+50+/- TO STA 109+00+/-
- * -SR4- FROM STA 109+00+/- TO STA 128+00+/-
- * -SR5- FROM STA 19+50+/- TO -TA8- (LN-3)
- * -SR5- FROM STA 110+00+/- TO STA 120+00+/-
- * -Y8- FROM -Y8REV- TO STA 10+62+/-
- * -Y18- FROM -SR5- TO STA 10+50+/-
- * -Y19- FROM -SR4- TO STA 11+32+/-

1B: USING RSD 1101.02 (SHEET 1 OF 15) AS NEEDED, BEGIN CONSTRUCTION OF THE FOLLOWING:

- * -SR2- FROM STA 10+81+/- TO STA 11+30+/-
- * -SR2- FROM STA 37+50+/- TO STA 49+50+/- (LN-3)
- * -SR2- FROM STA 51+50+/- TO -TA9-
- * -SR4- FROM -TA4- TO STA 67+50+/- (LN-4,5)
- * -SR4- FROM STA 70+00+/- TO -TA6-
- * -SR4- FROM STA 128+00+/- TO STA 128+50+/-
- * -SR5- FROM -TA5- TO STA 69+00+/- (LN-4,5)
- * -SR5- FROM STA 72+00+/- TO -TA7-

STEP 2: AWAY FROM TRAFFIC, CONSTRUCT PROPOSED CULVERT CROSSING -SR4- AT STA 68+50+/- USING SHORING #18 AND #19 TO RETAIN FILL ADJACENT TO CULVERT. UPON COMPLETION OF RCBC UNDER -SR4- BEGIN CONSTRUCTION OF -SR4- FROM STA 67+50+/- TO STA 70+00+/- . SEE SHEET TMP-18. (LN-5)

AWAY FROM TRAFFIC, CONSTRUCT PROPOSED CULVERT CROSSING -SR5- AT STA 71+00+/- USING SHORING #20 AND #21 TO RETAIN FILL ADJACENT TO CULVERT. UPON COMPLETION OF RCBC UNDER -SR5- BEGIN CONSTRUCTION OF -SR5- FROM STA 69+00+/- TO STA 72+00+/- . SEE SHEET TMP-18. (LN-5)

USING RSD 1101.02 (SHEET 3 OF 15), BEGIN CONSTRUCTION THE FOLLOWING TEMPORARY ALIGNMENTS:

- * -TA1- FROM STA 13+60+/- TO EXIST -Y9NBL- (LN-9)
- * -TA4- FROM STA 52+50+/- TO STA 55+50+/-
- * -TA4- FROM STA 58+00+/- TO -SR4- INCLUDING -Y10LPA- FROM STA 0+00 TO STA 3+50+/- (LN-4,5)
- * -TA5- FROM STA 69+00+/- TO -SR5- (LN-4,5,6)
- * -TA6-
- * -TA7-
- * -TA8- FROM -SR4- TO -TA4-
- * -TA8- FROM -TA5- TO -SR5- (LN-6)

USING RSD 1101.02 (SHEET 3 OF 15), AS NEEDED COMPLETE THE FOLLOWING:

- * WIDEN THE FOLLOWING WITH TEMPORARY PAVEMENT MATCHING EXISTING EDGE, ELEVATION AND SUPER:
 - * -Y9NBL- FROM STA 5+50+/- TO STA 8+54+/- (RTL TO Y17)
 - * -Y9NBL- FROM STA 19+00+/- TO STA 23+46+/- (LTL TO Y16)
- * WEDGE -L-(SBL) AND WIDEN FOR -TA4- FROM -L- STA 439+00+/- TO STA 452+50+/-
- * WEDGE -L-(NBL) FROM STA 439+00+/- TO STA 448+00+/-, TAPER WEDGE TO EXISTING PAVEMENT FROM STA 448+00+/- TO STA 449+00+/-, AND CONSTRUCT -TA9-. (LN-4,5)

PHASE I (CONTINUED)

COMPLETE THE REQUIREMENTS OF PHASE I, STEPS 3 THRU 11 IN 180 CONSECUTIVE DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 3: USING OFF-SITE DETOUR AS SHOWN ON SHEET TMP-2, CLOSE -Y10- TO TRAFFIC AND COMPLETE THE FOLLOWING STEPS.

3A: CONSTRUCT -TA4- FROM STA 55+50+/- TO STA 58+00+/- .

COMPLETE THE FOLLOWING: -TA4- FROM STA 52+50+/- TO STA 55+50+/-, -TA4- FROM STA 58+00+/- TO -SR4- INCLUDING -Y10LPA- FROM STA 0+00 TO STA 3+50+/-, -TA8- FROM -SR4- TO -TA4-, -SR4- FROM -TA4- TO -TA6-, & -TA6- (ALL).

USE RSD 1101.02 (SHEET 1 OF 15) TO WEDGE AND WIDEN -Y10- FROM STA 13+00+/- TO STA 24+00+/- (INCL TIE TO -SR4-), COMPLETE -SR4- FROM -Y10- TO -TA8- (BEGUN IN PHASE I, STEP 1).

USE RSD 1101.02 (SHEET 1 OF 15) TO WEDGE AND WIDEN -Y10- FROM STA 47+00+/- TO STA 56+50+/- (INCL TIES TO -SR2- & -SR5-). COMPLETE -SR2- FROM STA 113+50+/- TO -Y10-, -TA8- FROM -TA5- TO -SR5-, AND -SR5- FROM -Y10- TO -TA8- (BEGUN IN PHASE I, STEP 1) PLACE TEMPORARY PAVEMENT MARKING AND OPEN FOR DRIVEWAY ACCESS. (LN-6)

3B: AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF -Y10- FROM STA 24+00+/- TO BRIDGE INCLUDING TURNOUT TO -Y10RPA- AND -Y10- FROM STA 37+00+/- TO STA 47+00+/- INCLUDING TURNOUT TO -Y10RPD- .

STEP 4: COMPLETE REMAINING WORK ON -SR4- FROM STA 109+00+/- TO STA 128+50+/-

USING RSD 1101.02 (SHEET 1 OF 15) AS NEEDED, BEGIN CONSTRUCTION OF THE FOLLOWING, PLACE TEMPORARY PAVEMENT MARKINGS AND OPEN TO TRAFFIC WHEN COMPLETED:
* -SR4- FROM STA 109+00+/- TO STA 128+50+/-
* -Y19- FROM -SR4- TO STA 12+55+/-

STEP 5: PLACE TEMPORARY PAVEMENT MARKING ON -TA4-, -SR4-, -TA6- & -TA8- (FROM -SR4- TO -TA4); SEE SHEETS TMP-32 THRU TMP-34 FOR -TA4- & -TA8- & PHASE II DETAILS FOR -SR4- & -TA6-. SHIFT SB US 220 TRAFFIC TO -TA4-, -SR4-, AND -TA6-. BEGIN CONSTRUCTION OF -Y10- END BENT AT -L- SBL AND -Y10- FROM STA 30+50+/- TO BRIDGE. (LN-12)

STEP 6: USING RSD 1101.02 (SHEET 1 OF 15), CONSTRUCT THE FOLLOWING:
* -SR2- FROM STA 49+50+/- TO STA 51+50+/-
* -Y16- FROM -Y9NBL- TO STA 12+50+/- (LN-7)

COMPLETE CONSTRUCTION OF THE FOLLOWING:
* -SR2- FROM STA 37+50+/- TO STA 49+50+/- (LN-3)
* -SR2- FROM STA 51+50+/- TO -TA9-
* -SR5- FROM -TA5- TO -TA7-
* -TA1- FROM -Y9NBL- TO -SR2-
* -TA5- FROM STA 69+00+/- TO -SR5-
* -TA7-

WORK IN A CONTINUOUS MANNER TO COMPLETE THE REQUIREMENTS OF STEPS 7 THRU 11.

STEP 7: USING RSD 1101.02 (SHEET 1 OF 15), CONSTRUCT -SR2- FROM -TA1- TO STA 37+50+/- (INCL DRIVEWAY TIES), TEMPORARY ACCESS TO EXISTING -Y9NBL- AT -SR2- STA 39+50+/- AND -Y14- FROM -SR2- TO STA 13+25+/- . PLACE TYPE III BARRIADACES ON -SR2- AND -Y14- AND USE FOR TWO-LANE TWO-WAY ACCESS UNTIL NB TRAFFIC IS SHIFTED TO -SR2- IN STEP 9. (SEE SHEETS TMP-24 & TMP-25.) (LN-12)

STEP 8: USING RSD 1101.02 (SHEET 1 & 3 OF 15) AS NEEDED, CONSTRUCT THE FOLLOWING: (SEE SHEETS TMP-32 THRU TMP-34.)
* -TA5- FROM STA 48+50+/- TO STA 62+50+/- (LN-8)
* -TA5- FROM STA 62+50+/- TO STA 64+50+/- LEFT MOST LANE
* -TA5- FROM STA 64+50+/- TO STA 69+00

COMPLETE THE REQUIREMENTS OF PHASE I, STEPS 9 AND 10 IN 58 CONSECUTIVE HOURS FROM 8:00 PM FRIDAY NIGHT TO 6:00 AM MONDAY MORNING. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 9: USING RSD 1101.02 (SHEET 3 OF 15), CLOSE RIGHT LANE OF -L- NB TRAFFIC, PLACE TEMPORARY PAVEMENT MARKING & MARKERS ON -TA1-, -SR2- & -TA9-, INSTALL PCB W/ CRASH CUSHION FROM STA 480+00+/- TO STA 465+50+/- AND SHIFT TRAFFIC AS SHOWN ON SHEETS TMP-29 THRU TMP-36. THEN USING RSD 1101.02 (SHEET 3 OF 15) AS NEEDED, CONSTRUCT -TA5- FROM STA 62+50+/- TO STA 64+50+/- AND BEGIN CONSTRUCTION OF -L- NBL FROM STA 442+50+/- TO STA 464+50+/- .

STEP 10: REMOVE PCB & PLACE TEMPORARY PAVEMENT MARKING, MARKERS AND SIGNS ON -TA5-, -SR5- AND -TA7- AS SHOWN ON SHEETS TMP-37 THRU TMP-39. (REFER TO PHASE II DETAILS FOR -SR5- AND -TA7- MARKING.) SHIFT TRAFFIC TO TEMPORARY ALIGNMENT. (LN-12)

PHASE I (CONTINUED)

STEP 11: AWAY FROM TRAFFIC, CONSTRUCT -TA8- FROM -TA4- TO -TA5- AND -L- FROM STA 472+00+/- TO STA 473+00+/- (NBL & SBL). SEE TMP-39. PLACE TEMPORARY PAVEMENT MARKING AS SHOWN IN PHASE II (TMP-54). OPEN -TA8- TO TRAFFIC AND COVER DETOUR SIGNS.

STEP 12: BEGIN -Y10- BRIDGE OVER -L- AND -Y10- FROM BRIDGE TO STA 37+00+/- .

COMPLETE THE REQUIREMENTS OF PHASE I, STEP 13 IN 30 CONSECUTIVE DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 13: IF TEMPORARY BRIDGE SUPPORTS ARE NEEDED AND TO BE PLACED IN THE TRAVEL LANE, THEN COMPLETE THE PARTS LISTED THIS STEP. IF THEY ARE NOT NEEDED, ALL OF STEP 13 MAY BE OMITTED.

13A: USING RSD 1101.02 (SHEET 3 OF 15), PLACE PCB AND TEMPORARY PAVEMENT MARKING AS SHOWN ON SHEETS TMP-37 & TMP-38.

13B: CONSTRUCT TEMPORARY BRIDGE SUPPORTS AND PROPOSED BRIDGE. CONSTRUCT AS MUCH OF BRIDGE NECESSARY TO ALLOW REMOVAL OF TEMPORARY SUPPORTS.

13C: REMOVE SUPPORTS. REMOVE PCB AND REPAIR PAVEMENT MARKING.

STEP 14: USING RSD 1101.02 (SHEET 1 OF 15), WEDGE AND WIDEN THE FOLLOWING:
* -Y8REV- FROM STA 45+00+/- TO STA 46+50+/-
* -Y8REV- FROM STA 59+00+/- TO -Y9SBL- INCL -DR1-
* -Y15- FROM STA 10+75+/- TO STA 17+30+/- INCL CULDESAC

COMPLETE -Y8REV- AND -DR2- BEGUN IN PHASE I, STEP 1A.

STEP 15: PLACE TEMPORARY PAVEMENT MARKING ON -Y8REV- FROM STA 21+00+/- TO STA 45+00+/- . USE TYPE III BARRICADE TO KEEP -Y8REV- CLOSED TO TRAFFIC AT STA 45+40+/- (AT -Y15). PERMANENTLY CLOSE EXISTING ACCESS FROM -Y15- TO US 220.

USING RSD 1101.02 (SHEET 3 OF 15), CONSTRUCT THE FOLLOWING TEMPORARY ALIGNMENTS:
* -TA2- (SEE TMP-29 & TMP-30)
* -TA3- (SEE TMP-31 & TMP-32)

STEP 16: PLACE TEMPORARY PAVEMENT MARKING, SIGNS AND MARKERS ON -TA2-, OLD US 220 NBL AND -TA3- IN A TWO-LANE, ONE-WAY PATTERN AS SHOWN IN PHASE II. SHIFT US 220 SOUTHBOUND TRAFFIC TO TEMPORARY ALIGNMENT. (LN-12)

REVISIONS
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BY
DESCRIPTION

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REVIEW:
CONCUR:
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VERIFY:

APPROVED: *[Signature]* DATE: 1.31.13

TRANSPORTATION
MANAGEMENT PLAN

PHASING

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PHASING

PHASE II

(SEE OVERVIEW SHEETS TMP-43 THRU TMP-47)

STEP 1: AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF THE FOLLOWING:

- * REMOVE ABANDONED PAVEMENT ON US 220 SBL BETWEEN -Y8- AND -Y17-
- * REMOVE ABANDONED PAVEMENT FOR -Y15-
- * -L- FROM STA 412+25+/- TO -L- STA 439+00+/- (SBL) (LN-4)
- * -L- FROM STA 462+50+/- TO STA 472+00+/- (SBL)
- * -L- FROM STA 468+50+/- TO STA 472+00+/- (NBL)
- * -L- FROM STA 473+00+/- TO STA 545+00+/- (NBL & SBL) (LN-10)
- * -Y9SBL- FROM STA 0+00 TO STA 9+50+/-

STEP 2: COMPLETE -Y8REV- FROM STA 21+00+/- TO STA 45+00+/- INCLUDING BRIDGE. PLACE TEMPORARY PAVEMENT MARKING. (KEEP CLOSED)

STEP 3: WORKING IN A CONTINUOUS MANNER, COMPLETE THE FOLLOWING: (LN-11)

- 3A: USING RSD 1101.02 (SHEET 1 OF 15), WEDGE AND WIDEN -Y8REV- FROM STA 13+25+/- TO STA 21+00+/-, PLACE TEMPORARY PAVEMENT MARKING AND SHIFT -Y8- TRAFFIC TO -Y8REV-.
- 3B: CLOSE -Y8- TO TRAFFIC FROM STA 12+00+/- TO STA 15+00+/-, INSTALL 60" PIPE AND REPAIR PAVEMENT. (LN-11)

USING 1101.02 (SHEET 1 OF 15) AS NEEDED, CONSTRUCT -Y8- FROM -Y8REV- TO STA 18+21+/-.
- 3C: OPEN TO TRAFFIC MOVING CLOSURE TO STA 19+00+/- AND PERMANENTLY CLOSE EXISTING ACCESS FROM -Y8- TO US 220. (LN-11)

STEP 4: CONSTRUCT -Y8- CULDESAC. PLACE TEMPORARY PAVEMENT MARKING ON -Y8-. BEGIN CONSTRUCTION OF -L- FROM STA 384+50+/- TO STA 387+00+/- (NBL & SBL). REMOVE -Y8- ABANDONED PAVEMENT.

CLOSE -Y17- TO TRAFFIC, CONSTRUCT CULDESAC AND AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF THE FOLLOWING:

- * -L- FROM STA 410+00+/- TO STA 412+25+/- (SBL)
- * -Y9SBL- FROM STA 9+50+/- TO STA 11+50+/-
- * -Y9SBL- FROM STA 37+00+/- TO STA 55+00+/-
- * -Y9RPC- FROM STA 10+75+/- TO STA 12+77+/-
- * -Y9LPA- FROM STA 22+50+/- TO STA 24+82+/-
- * REMOVE -Y17- ABANDONED PAVEMENT

STEP 5: COMPLETE CONSTRUCTION OF -Y10- FROM STA 24+00+/- TO STA 47+00+/- INCL BRIDGE OVER -L-. PLACE TEMPORARY PAVEMENT MARKING AND OPEN -Y10- TO TRAFFIC. USE DRUMS AND TYPE III BARRICADES TO KEEP RAMPS AND LOOPS CLOSED.

USING RSD 1101.02 (SHEET 1 & 3 OF 15), WEDGE AND WIDEN -Y9SBL- FROM STA 55+00+/- TO STA 72+60+/-.

USING RSD 1101.02 (SHEET 1 OF 15), WEDGE AND WIDEN -SR5- FROM STA 120+00+/- TO STA 128+40+/- AND -Y18- TIE TO -SR5-. COMPLETE -SR5- FROM STA 119+00+/- TO STA 120+00+/- PLACE TEMPORARY PAVEMENT MARKING AND SHIFT -Y18- TO NEW PATTERN. REMOVE ABANDONED -Y18-.

COMPLETE CONSTRUCTION OF THE FOLLOWING:

- * -Y9SBL- FROM STA 0+00+/- TO STA 9+50+/-
- * -Y9SBL- FROM STA 9+50+/- TO STA 11+50+/-
- * -Y9SBL- FROM STA 11+50+/- TO STA 37+00+/-
- * -Y9SBL- FROM STA 37+00+/- TO STA 55+00+/-
- * -L- FROM STA 462+50+/- TO STA 472+00+/- (SBL)
- * -L- FROM STA 468+50+/- TO STA 472+00+/- (NBL)
- * -L- FROM STA 473+00+/- TO STA 545+00+/- (NBL & SBL)
- * -L- FROM STA 410+00+/- TO STA 439+00+/- (SBL)
- * -Y10LPD- FROM STA 3+00+/- TO -Y10-
- * -Y10RPD- FROM STA 9+00+/- TO -Y10-

USING RSD 1101.02 (SHEET 3 OF 15), WIDEN FOR -SR4- FROM STA 100+00+/- TO STA 105+50+/- MATCHING EXISTING EDGE AND ELEVATION OF -TA6-. TRANSITION TO MATCH -SR4- AT STA 100+50+/- USE TYPE III BARRICADES AND DRUMS TO KEEP THIS SECTION CLOSED TO TRAFFIC.

USING RSD 1101.02 (SHEET 3 OF 15), MILL, WEDGE AND WIDEN -L- SBL FROM STA 548+50+/- TO STA 551+60+/-.

AS MUCH AS POSSIBLE AWAY FROM TRAFFIC, PLACE TEMPORARY PAVEMENT MARKING ON -Y9SBL- AND -L- FROM STA 527+00+/- TO STA 551+60+/- AS SHOWN IN PHASE III.

INSTALL AND COVER DETOUR SIGNS FOR -Y10RPA- AS SHOWN ON SHEET TMP-2A.

PHASE II (CONTINUED)

WORKING IN A CONTINUOUS MANNER, COMPLETE THE REQUIREMENTS OF STEPS 6 THRU 10.

*** REFER TO SHEET TMP-67 FOR STEPS 6 THRU 10. ***

STEP 6: USING RSD 1101.02 (SHEET 3 OF 15), SHIFT TRAFFIC TO ONE LANE AND INSTALL PCB WITH CRASH CUSHION ON -TA6- FROM STA 106+00+/- TO STA 110+00+/- AS SHOWN ON SHEET TMP-67.

STEP 7: AWAY FROM TRAFFIC CONSTRUCT -L- SBL FROM STA 545+00+/- TO 548+50+/- COMPLETE ANY REMAINING TEMPORARY PAVEMENT MARKING ON -L- SBL & -Y9SBL-.

COMPLETE THE REQUIREMENTS OF PHASE II, STEPS 8 & 9 IN 5 CONSECUTIVE DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 8: UNCOVER DETOUR SIGNS FOR -Y10RPA- (TMP-2A). RESTRIPE -SR4- FOR TWO-LANE TWO-WAY TRAFFIC. (LN-12) USING RSD 1101.02 (SHEET 3 OF 15) AND TMA AT UNPROTECTED APPROACHES, REMOVE PCB FROM -TA6- STA 109+00+/- TO STA 110+00+/- AND PLACE PCB ON -L- SBL FROM STA 546+00+/- TO STA 549+00+/- SHIFT -L- SBL TO PHASE III PATTERN AND COMPLETE INSTALLATION OF PCB AND CRASH CUSHION TO STA 110+00+/- (SEE TMP-67)

STEP 9: CONSTRUCT -L- SBL- FROM STA 547+00+/- TO STA 548+50+/- REMOVE PCB AND REPAIR PAVEMENT MARKING.

CONSTRUCT -Y10RPA- FROM STA 3+00+/- TO STA 9+00+/- PLACE TEMPORARY PAVEMENT MARKING, OPEN TO TRAFFIC AND COVER DETOUR SIGNS.

KEEPING -SR4- OPEN FOR DRIVEWAY ACCESS ONLY, WEDGE -SR4- TO PROPOSED ELEVATION FROM STA 98+00+/- TO STA 105+50+/- PLACE TEMPORARY MARKINGS FOR TWO LANE TWO WAY.

STEP 10: USING RSD 1101.02 (SHEET 1 OF 15), WIDEN FOR -SR4- FROM STA 31+50+/- TO -TA4- / -SR4- TIE MATCHING EXISTING EDGE AND ELEVATION OF -TA4-. SHIFT TRAFFIC TO NEW ALIGNMENT AND WEDGE -SR4- TO PROPOSED ELEVATION FROM STA 31+50+/- TO STA 42+00+/- PLACE TEMPORARY PAVEMENT MARKING AND OPEN -SR4- TO TRAFFIC.

PHASE III

(SEE OVERVIEW SHEETS TMP-69 THRU TMP-72)

STEP 1: AWAY FROM TRAFFIC BEGIN CONSTRUCTION OF THE FOLLOWING:

- * -Y9NBL- FROM STA 0+00+/- TO STA 50+50+/-
- * -Y9LPA- FROM STA 24+82+/- TO STA 31+17+/-
- * -L- NBL FROM STA 408+00+/- TO STA 438+00+/-
- * -SR2- FROM STA 93+00+/- TO STA 99+00+/-

USING RSD 1101.04 AS NEEDED, CONSTRUCT PROPOSED NOISE WALL LEFT OF -L- STA 545+97+/- TO STA 565+48+/-.

USING RSD 1101.02 (SHEETS 1 & 3 OF 15) AS NEEDED, COMPLETE THE FOLLOWING:

- * REMOVE -TA2-
- * REMOVE ABANDONED MEDIAN AND LEFT TURN LANE ALONG -SR2- AT -Y16-
- * REMOVE -TA3-
- * COMPLETE -L- (NBL) FROM STA 438+00+/- TO STA 448+00+/-
- * REMOVE -TA4-
- * WEDGE AND WIDEN -Y9NSL- FROM STA 50+50+/- TO STA 53+00+/-
- * WEDGE AND WIDEN -Y9NSL- FROM STA 53+00+/- TO STA 65+50+/-
- * WEDGE AND WIDEN -Y13- FROM -Y9NBL- TO STA 15+25+/-

STEP 2: USING RSD 1101.02 (SHEET 3 OF 15), COMPLETE THE FOLLOWING:

- * WIDEN -TA9- FOR -SR2- FROM STA 87+00+/- TO STA 93+00+/-
- * WIDEN -TA7- FOR -SR5- FROM STA 102+00+/- TO STA 110+00+/-
- * CONSTRUCTION OF -Y10LPD- FROM STA 5+50+/- TO -Y10-
- * CONSTRUCTION OF -Y10RPD- FROM STA 9+00+/- TO -Y10-

STEP 3: AS MUCH AS POSSIBLE AWAY FROM TRAFFIC AND WITHOUT INTERFERING WITH CURRENT PATTERN, PLACE TEMPORARY MARKINGS ALONG -L- NBL AND -Y9NBL-.

INSTALL AND COVER DETOUR SIGNS FOR -Y10RPD- AS SHOWN ON SHEET TMP-2B.

PHASE III (CONTINUED)

COMPLETE THE REQUIREMENTS OF PHASE III, STEPS 4 THRU 8 IN 5 CONSECUTIVE DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.)

STEP 4: UNCOVER DETOUR SIGNS AND CLOSE -SR5- AND -TA8- TO TRAFFIC USING OFF-SITE DETOUR. (TMP-2B)

WORKING IN A CONTINUOUS MANNER WITHOUT CEASING, COMPLETE THE WORK REQUIRED IN STEP 5:

STEP 5: USING DRUMS CLOSE LEFT LANE OF NORTHBOUND TRAFFIC AND PLACE MARKINGS FOR TWO-LANE TWO-WAY PATTERN.

USING RSD 1101.02 (SHEET 3 OF 15), WEDGE -L- NBL AND -TA7- TO PROPOSED GRADE FROM STA 545+00+/- TO STA 552+50+/- AND SHIFT NORTHBOUND TRAFFIC TO -Y9NBL- AND -L- NBL. PLACE TEMPORARY PAVEMENT MARKING ALONG -L- NBL IN FINAL PATTERN.

STEP 6: USING RSD 1101.02 (SHEET 1 OF 15), WIDEN FOR -SR5- FROM STA 31+30+/- TO STA 39+00+/- UP TO EXISTING EDGE AND ELEVATION OF -TA5-. THEN WEDGE UP TO PROPOSED ELEVATION SHIFTING TRAFFIC AS POSSIBLE. PLACE TEMPORARY PAVEMENT MARKING WHEN TIE IS COMPLETE. (SEE SHEET TMP-78.)

STEP 7: AWAY FROM TRAFFIC CONSTRUCT -Y10RPD- FROM STA 2+00+/- TO STA 9+00+/- PLACE TEMPORARY MARKINGS AND OPEN TO TRAFFIC.

STEP 8: REMOVE DETOUR SIGNS.

STEP 9: USING RSD 1101.02 (SHEET 1 OF 15) AS NEEDED, CONSTRUCT -SR2- FROM STA 21+00+/- TO STA 31+50+/- AND REMOVE -TA1-. PLACE TEMPORARY PAVEMENT MARKING AND OPEN TO TRAFFIC.

STEP 10: USING RSD 1101.02 (SHEET 1 OF 15), COMPLETE -SR2- AND -SR5-.

PHASE IV

(NOT SHOWN)

STEP 1: USING RSD 1101.02 (SHEET 1 & 3 OF 15) AS NEEDED, COMPLETE THE FOLLOWING:

- * REMOVE ANY REMAINING TEMPORARY PAVEMENT
- * REMOVE ANY REMAINING ABANDONED PAVEMENT
- * -L- FROM STA 355+00+/- TO STA 412+25+/- (SBL)
- * -L- FROM STA 355+00+/- TO STA 412+00+/- (NBL)
- * -Y9RPC- FROM STA 0+00+/- TO STA 10+75+/-
- * -Y9LPA- FROM STA 0+00+/- TO STA 24+82+/-

STEP 2: USING RSD 1101.02 (SHEETS 1,3,9,10,11 & 12) AS NEEDED, CONSTRUCT PROPOSED ISLANDS, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKING ON ALL ROADS. (REFER TO FINAL PAVEMENT MARKING PLANS.)

REVISIONS

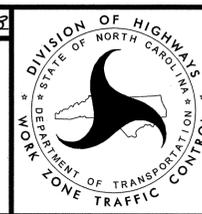
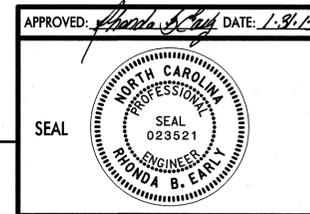
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REVIEW: _____

CONCUR: _____

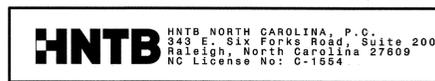
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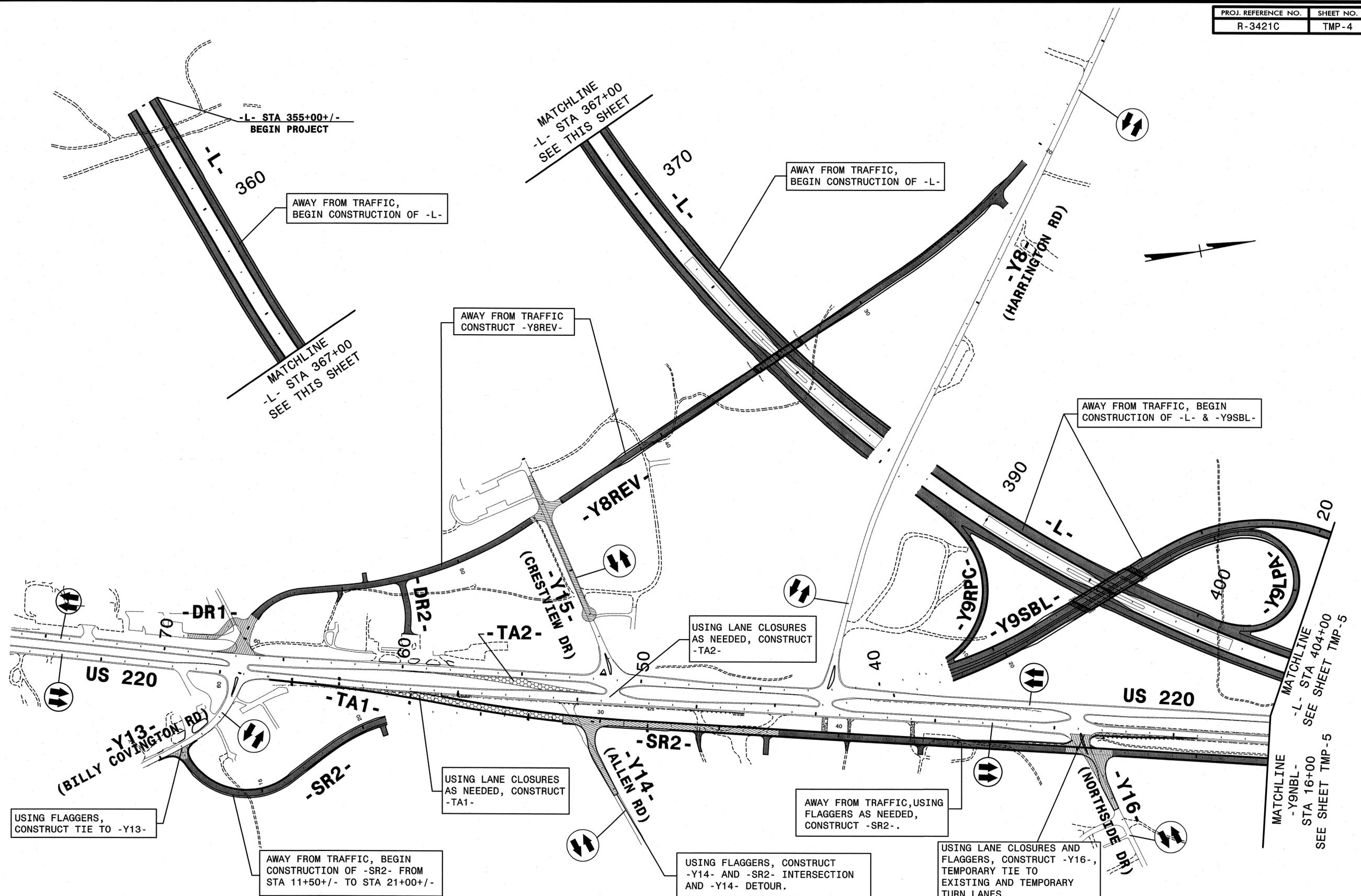
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TRANSPORTATION
MANAGEMENT PLAN

PHASING





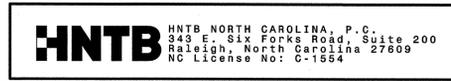
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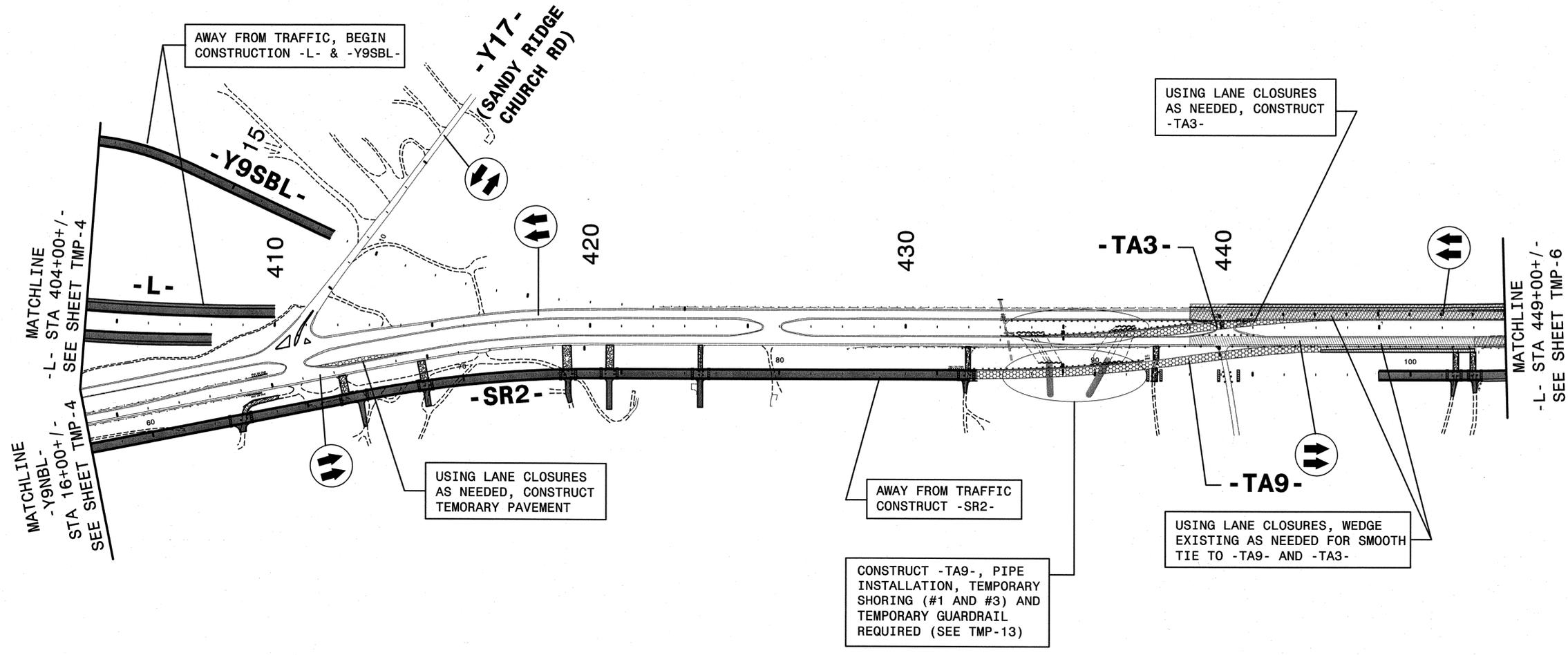


TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 OVERVIEW



8/17/99

REVISIONS



SYSTEMS DESIGN
 REVIEW: _____
 CONCUR: _____
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 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554

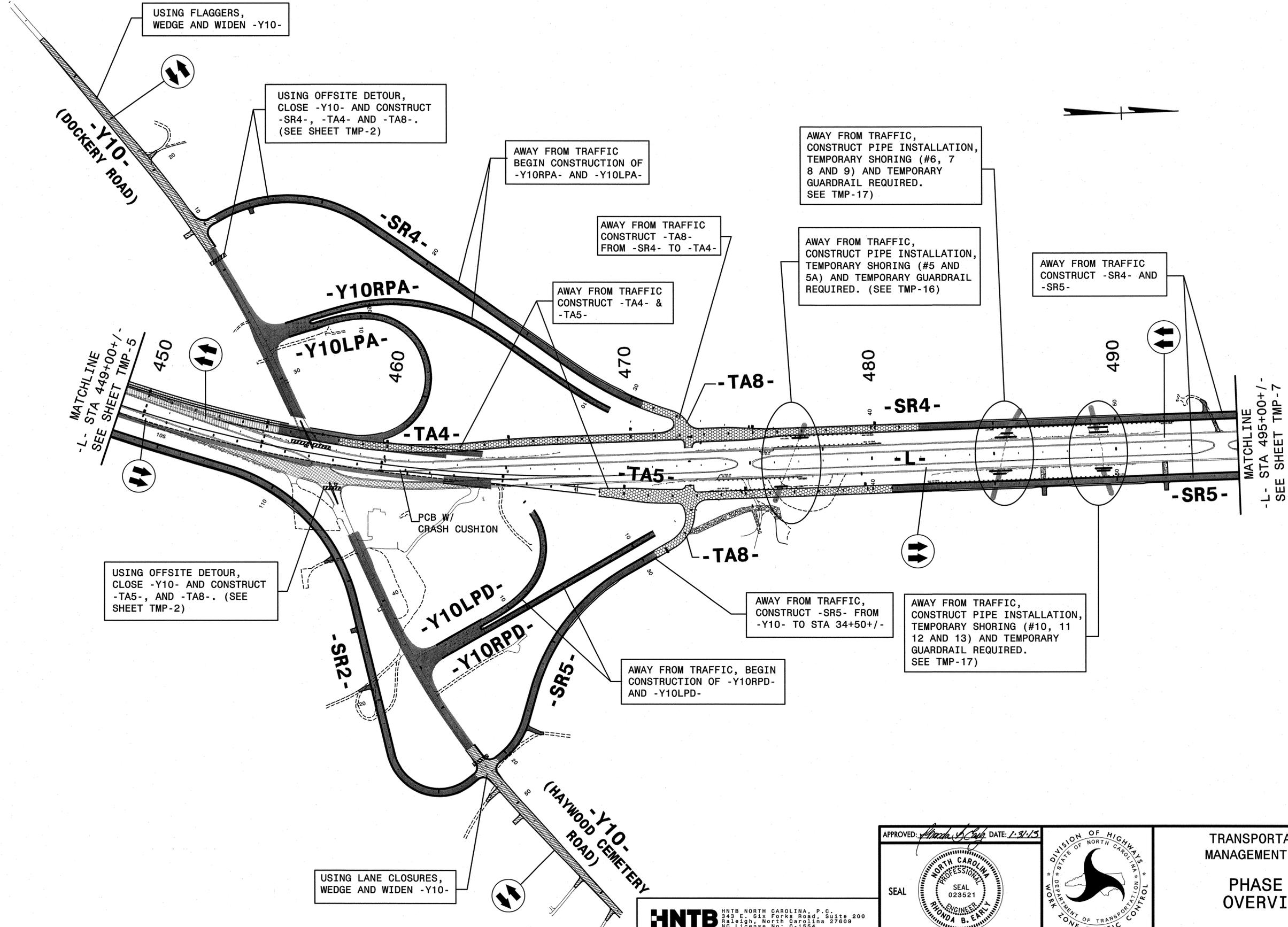
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 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 WYONDA B. EARLY



TRANSPORTATION MANAGEMENT PLAN

PHASE I OVERVIEW



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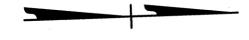
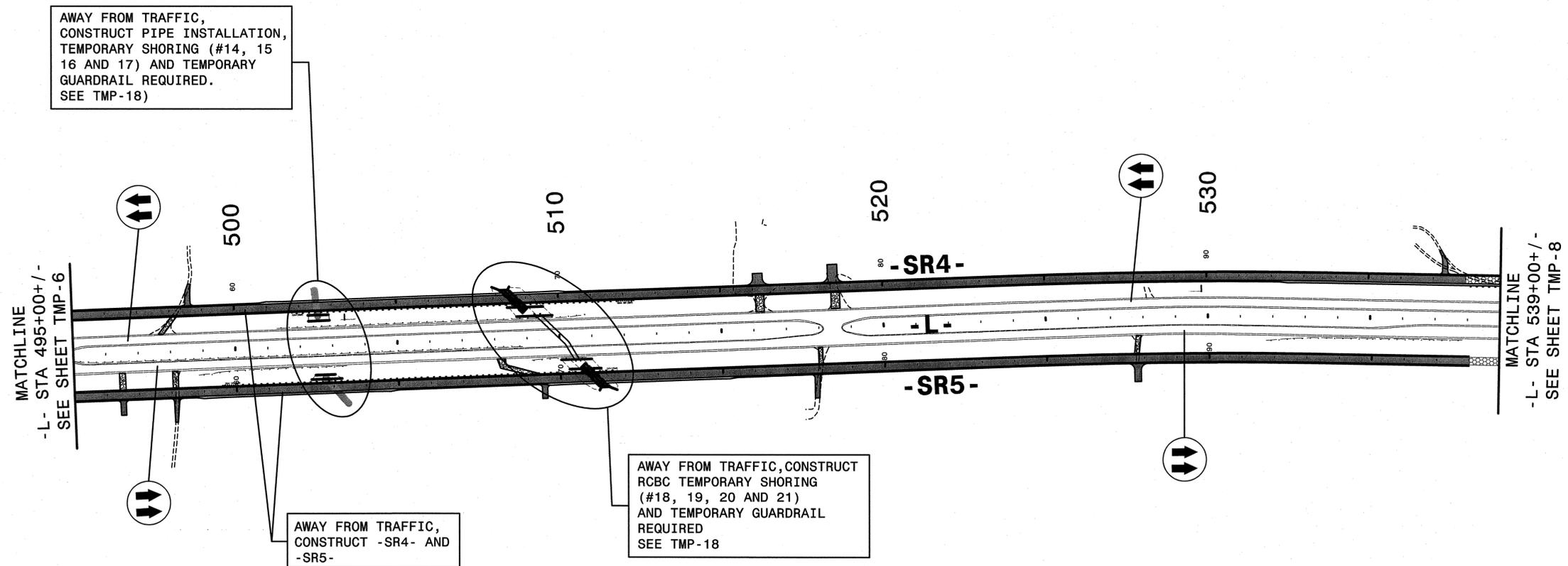
TRANSPORTATION MANAGEMENT PLAN

PHASE I OVERVIEW

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023521 FLOYDA B. EARLY

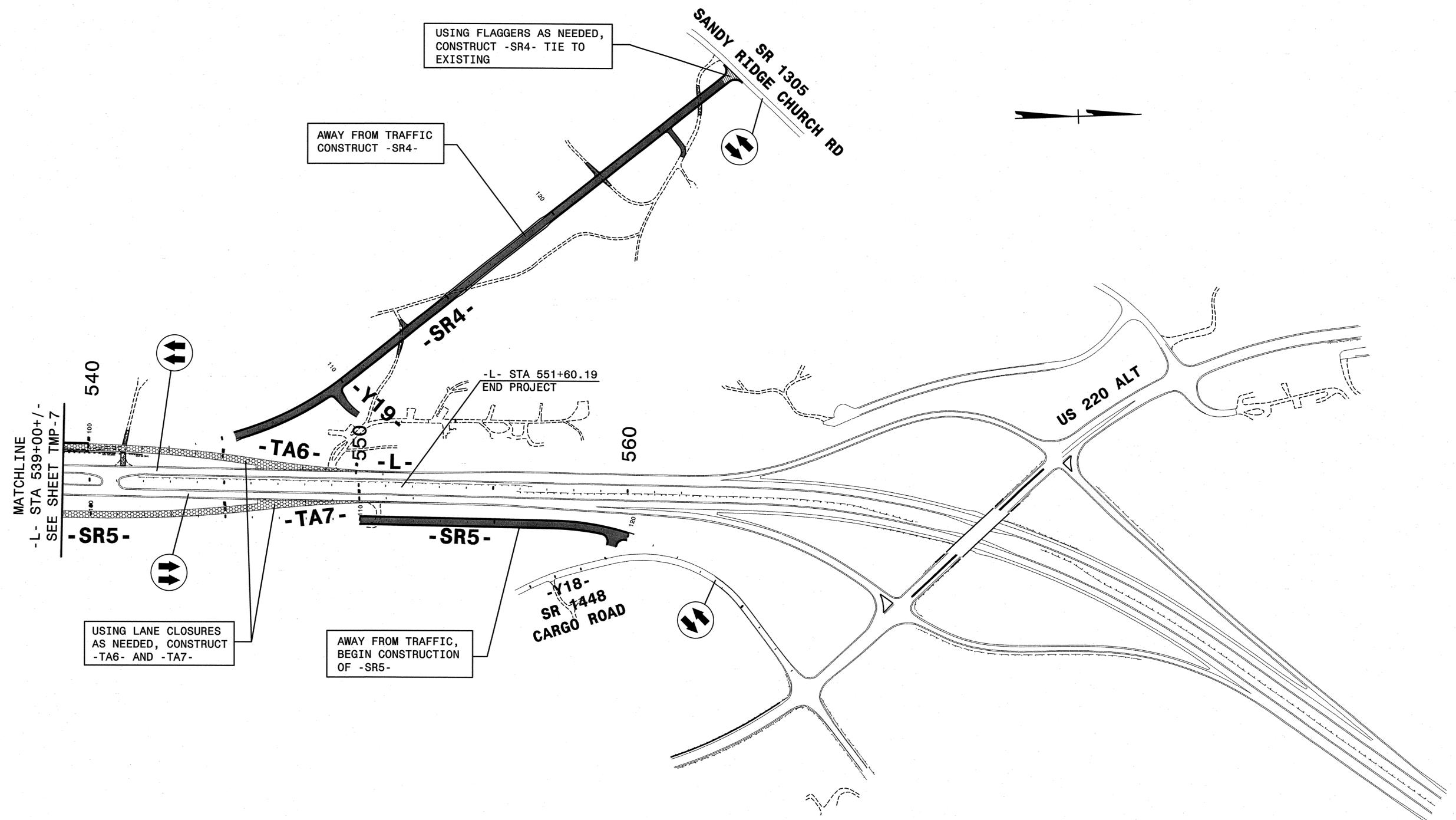


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USING FLAGGERS AS NEEDED,
CONSTRUCT -SR4- TIE TO
EXISTING

AWAY FROM TRAFFIC
CONSTRUCT -SR4-

MATCHLINE
-L- STA 539+00 +/-
SEE SHEET TMP-7

-L- STA 551+60.19
END PROJECT

-SR5-

-TA7-

-SR5-

USING LANE CLOSURES
AS NEEDED, CONSTRUCT
-TA6- AND -TA7-

AWAY FROM TRAFFIC,
BEGIN CONSTRUCTION
OF -SR5-

-Y18-
SR 1448
CARGO ROAD

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TRANSPORTATION
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PHASE I
OVERVIEW

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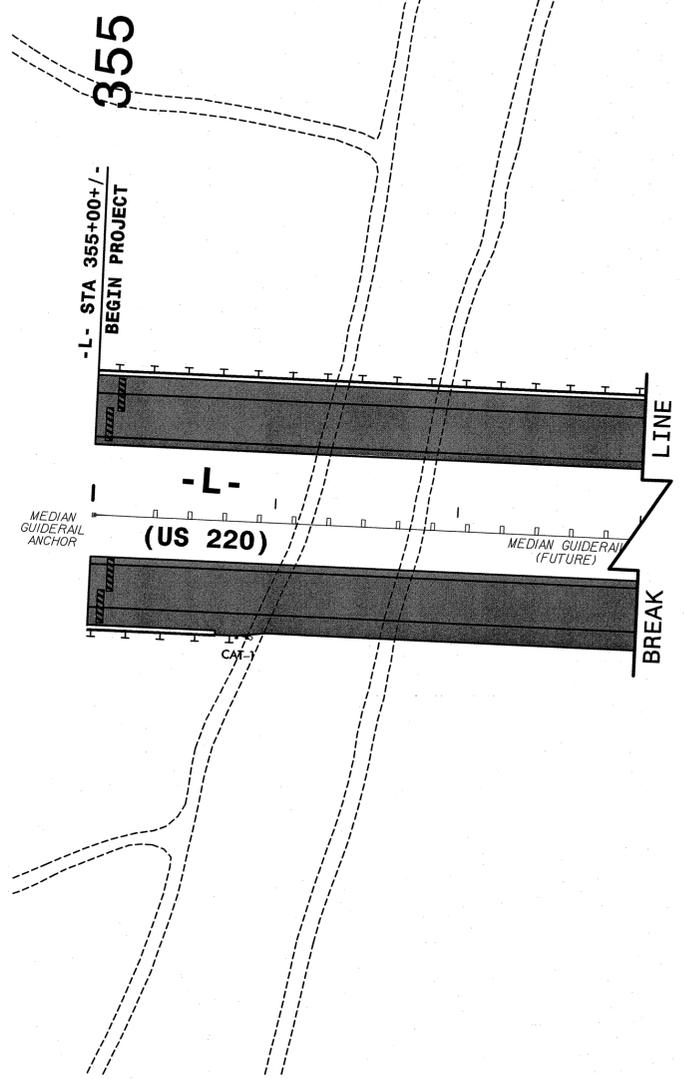
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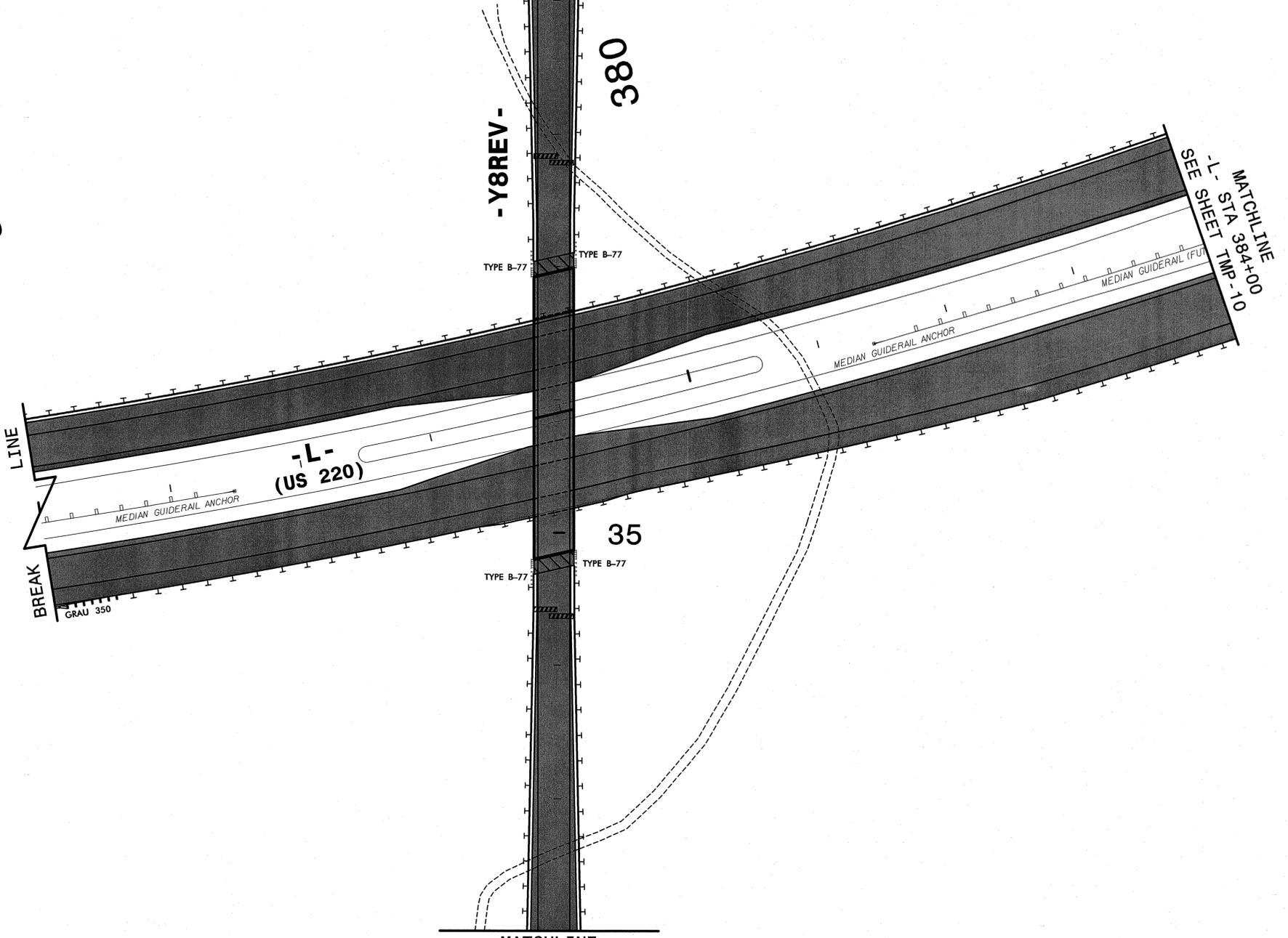


MATCHLINE
-Y8REV- STA 30+00
SEE SHEET TMP-21

MATCHLINE
-Y8REV- STA 38+00
SEE SHEET TMP-22



375



8/17/99

REVISIONS

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SYSTEMS
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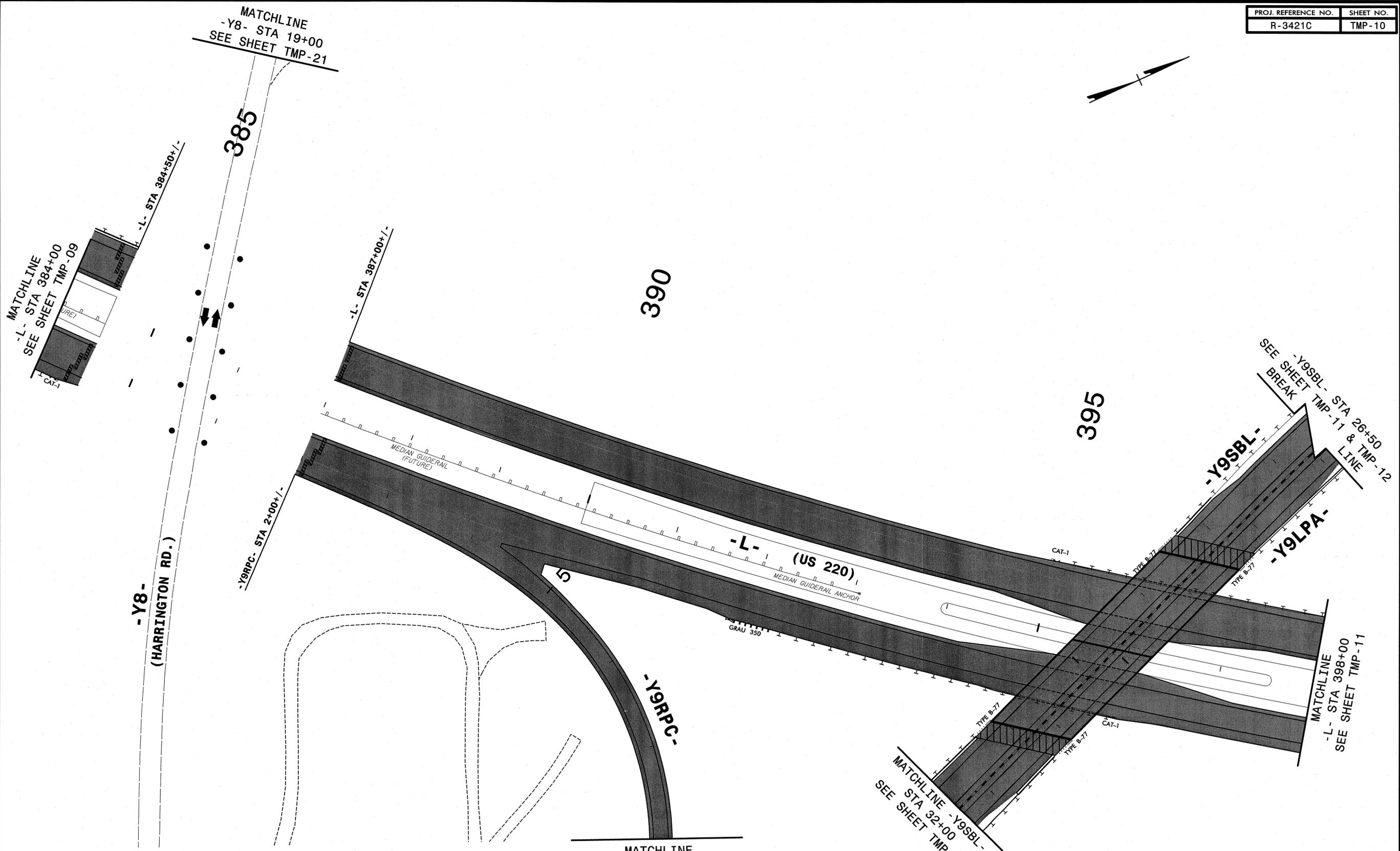
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TRANSPORTATION
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PHASE I
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 VERIFY:

MATCHLINE
 -Y9RPC- STA 8+00
 SEE SHEET TMP-25

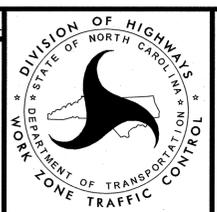
MATCHLINE
 STA 32+00
 SEE SHEET TMP-25

SEE SHEET
 BREAK
 -Y9SBL- STA 26+50
 & TMP-12
 LINE

MATCHLINE
 -L- STA 398+00
 SEE SHEET TMP-11

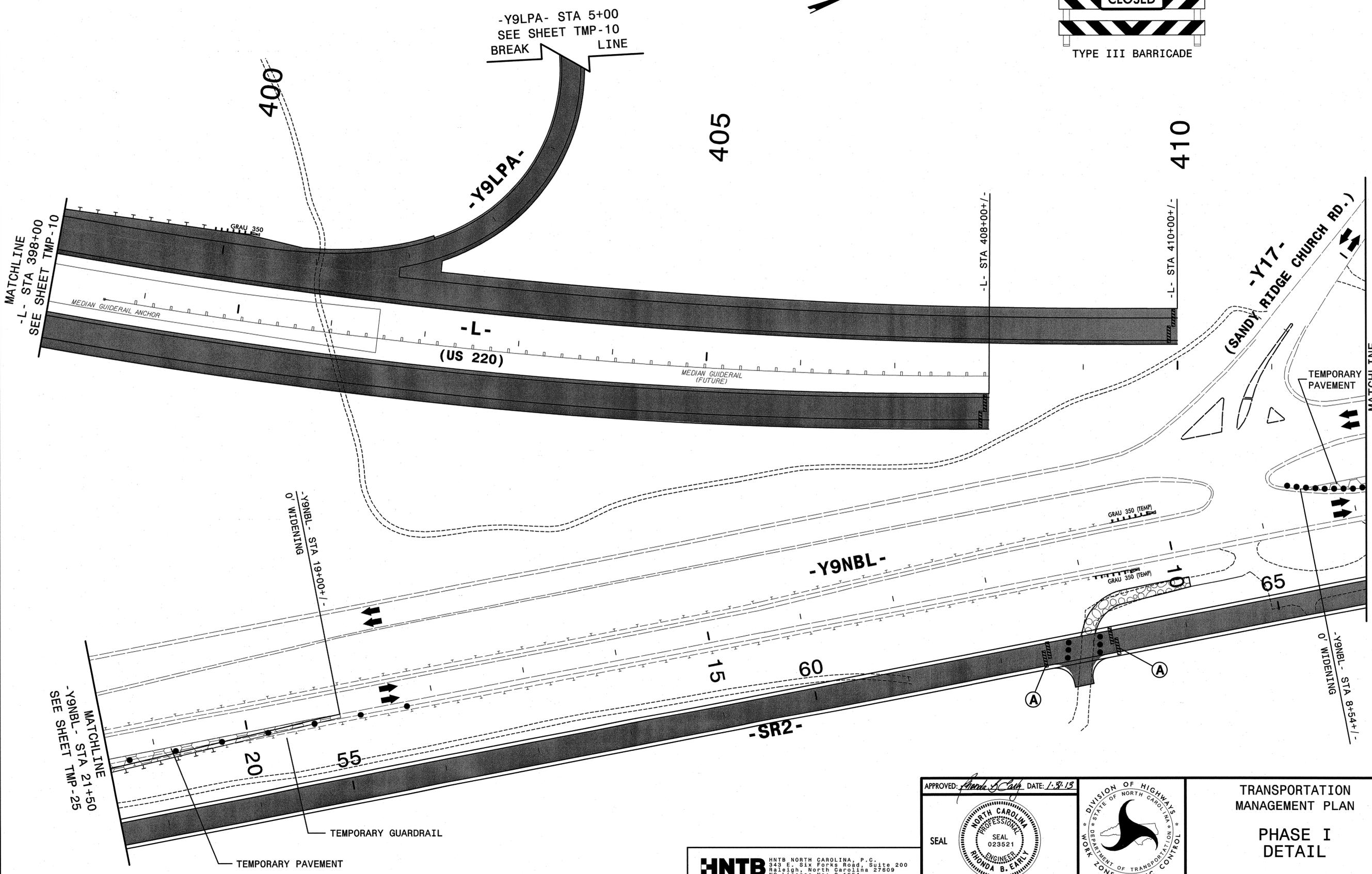
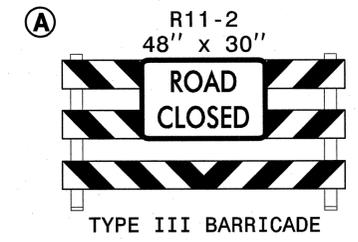
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 PHASE I
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MATCHLINE
-L- STA 398+00
SEE SHEET TMP-10

MATCHLINE
-Y9NBL- STA 21+50
SEE SHEET TMP-25

MATCHLINE
-L- STA 412+00
SEE SHEET TMP-12

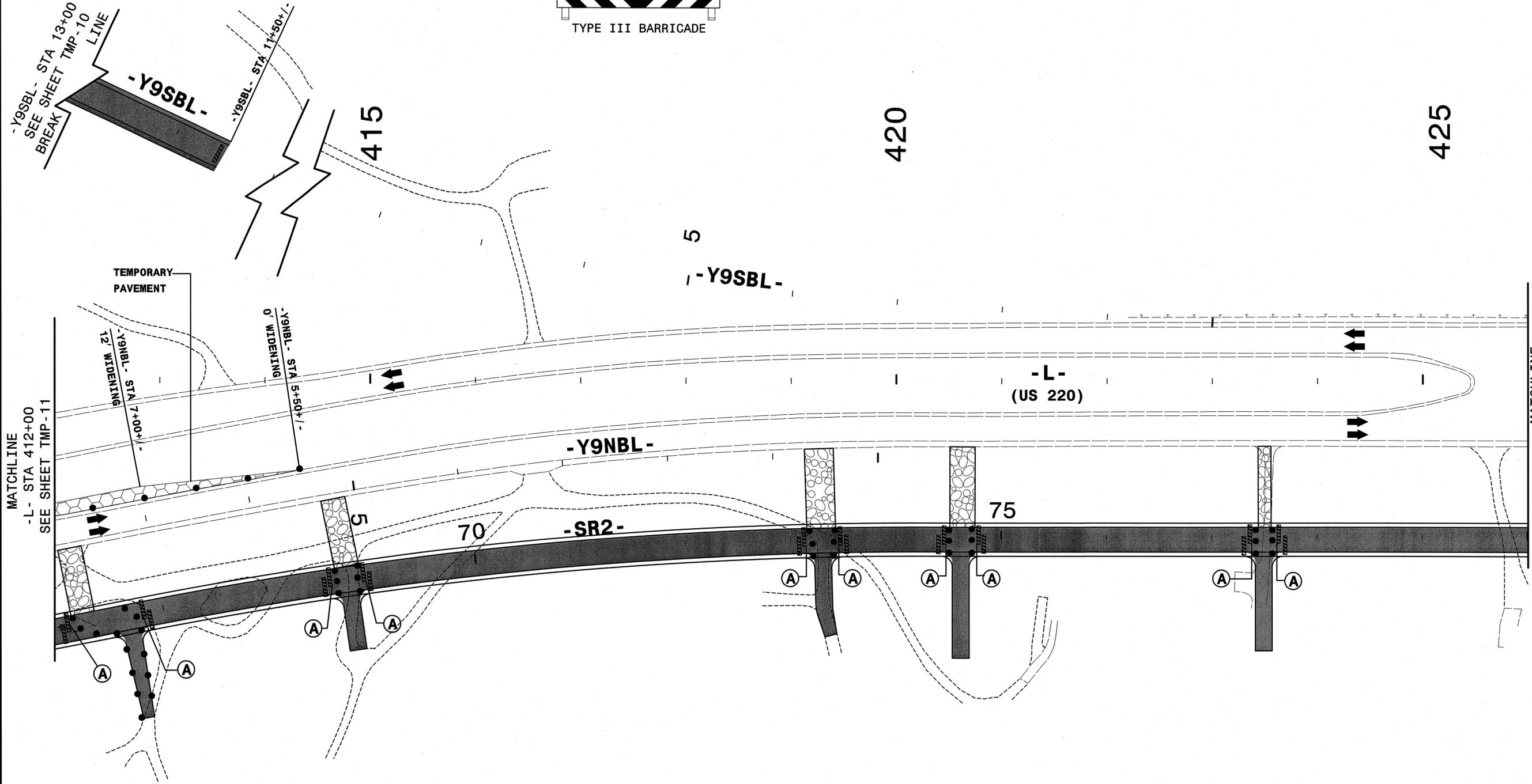
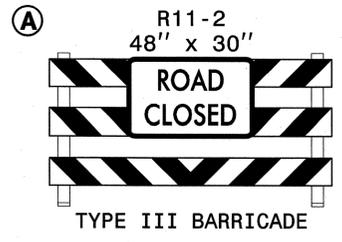
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TRANSPORTATION MANAGEMENT PLAN
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MATCHLINE
-L- STA 426+00
SEE SHEET TMP-13

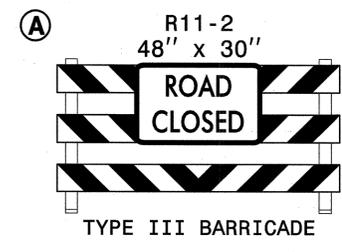
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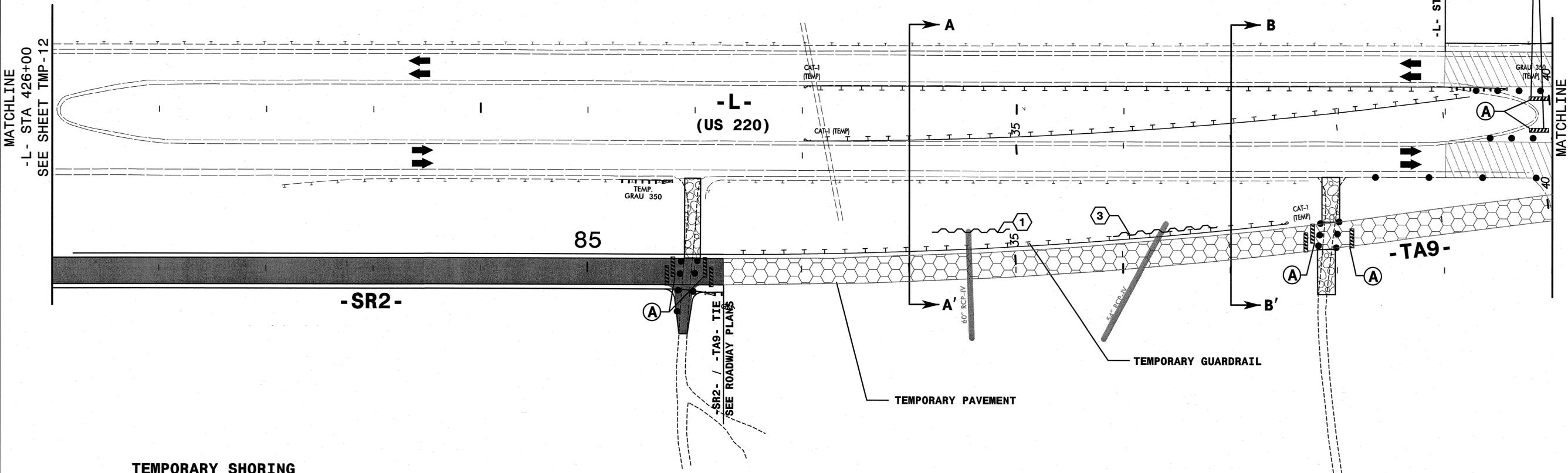
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NC LICENSE NO: C-1554



430

435

CLOSE MEDIAN CROSS-OVER
USING DRUMS AND TYPE III
BARRICADES



TEMPORARY SHORING

- 1 FROM -L- STA 434+21.50 (109' RT) TO STA 434+93.50 (109' RT)
EST. LENGTH OF 72 FT; AVERAGE HEIGHT: 8.3 FT
- 3 FROM -TA9- STA 35+95.75 (27' LT) TO STA 36+93.25 (27' LT)
EST. LENGTH OF 98 FT; AVERAGE HEIGHT: 11.6 FT

REFER TO SHEETS TMP-42 FOR CUT SECTION(S).

REVISIONS

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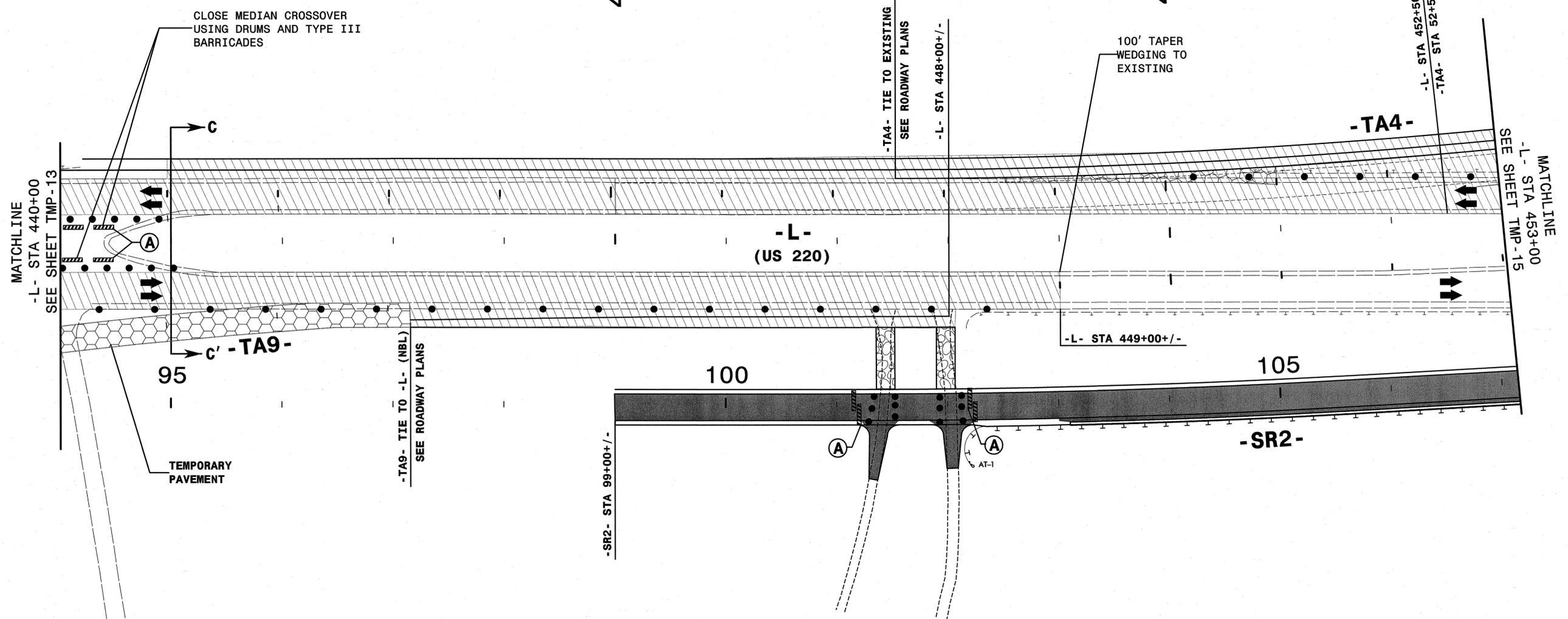
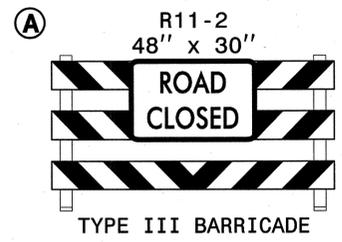
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023521

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

TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



450

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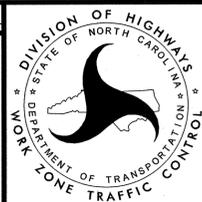
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VERIFY:	

REFER TO SHEET TMP-42 FOR CUT SECTION(S)

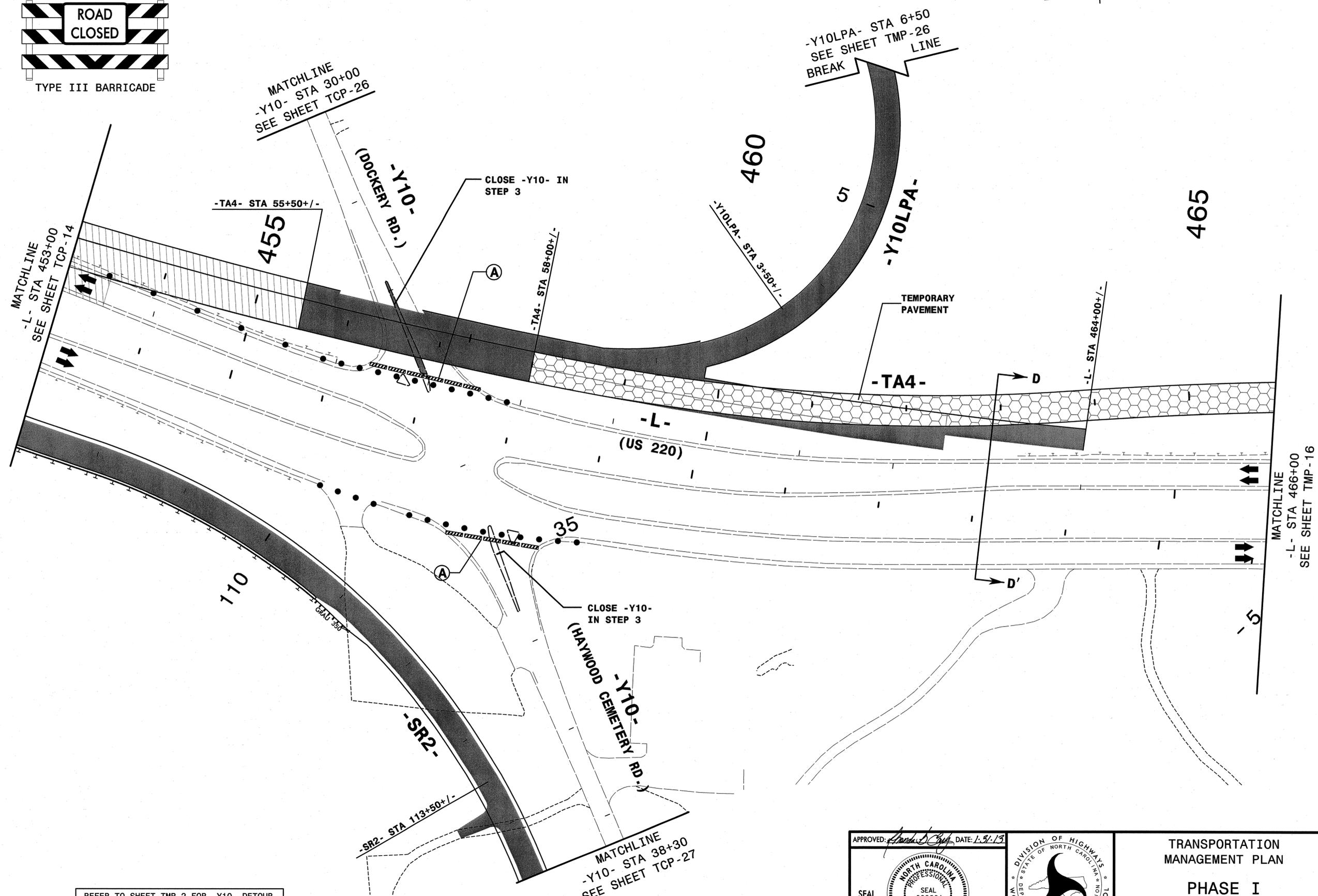
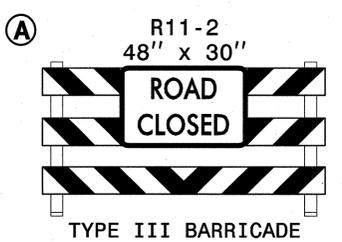
HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Anna D. Early* DATE: 1-31-13

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
FLORIDA B. EARLY
SEAL 023521



TRANSPORTATION MANAGEMENT PLAN
PHASE I
DETAIL



REVISIONS

GA/C STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

REFER TO SHEET TMP-2 FOR -Y10- DETOUR.

REFER TO SHEET TMP-42 FOR CUT SECTIONS

MATCHLINE
-Y10- STA 38+30
SEE SHEET TCP-27

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HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

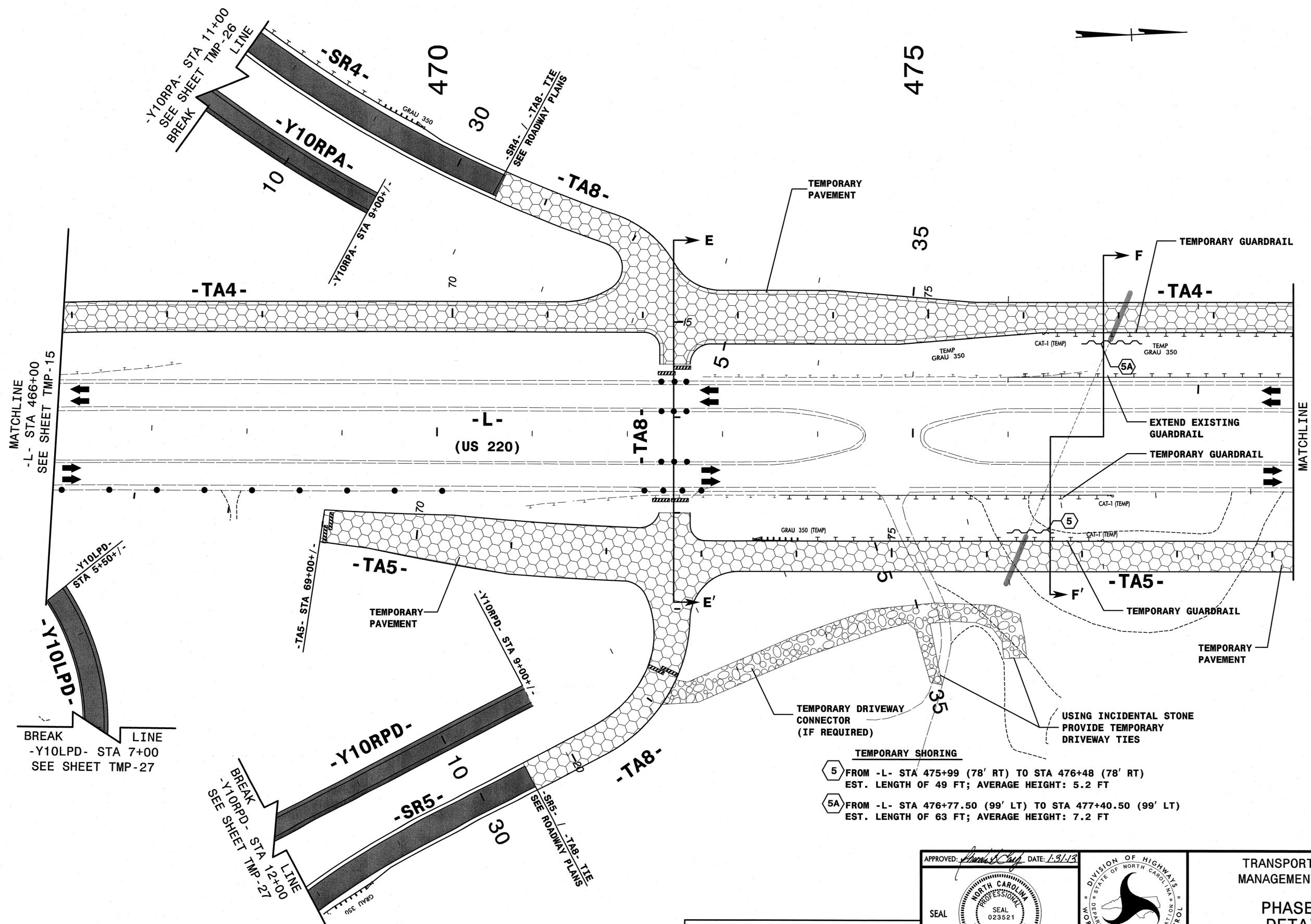
APPROVED: *[Signature]* DATE: 1.31.13

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
RHYONDA B. EARLY
023521

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

TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



MATCHLINE
-L- STA 466+00
SEE SHEET TMP-15

MATCHLINE
-L- STA 479+00
SEE SHEET TMP-17

BREAK LINE
-Y10LPD- STA 7+00
SEE SHEET TMP-27

BREAK LINE
-Y10RPD- STA 12+00
SEE SHEET TMP-27

- TEMPORARY SHORING**
- 5 FROM -L- STA 475+99 (78' RT) TO STA 476+48 (78' RT)
EST. LENGTH OF 49 FT; AVERAGE HEIGHT: 5.2 FT
 - 5A FROM -L- STA 476+77.50 (99' LT) TO STA 477+40.50 (99' LT)
EST. LENGTH OF 63 FT; AVERAGE HEIGHT: 7.2 FT

REVISIONS

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

REFER TO SHEET TMP-42A FOR CUT SECTION(S)

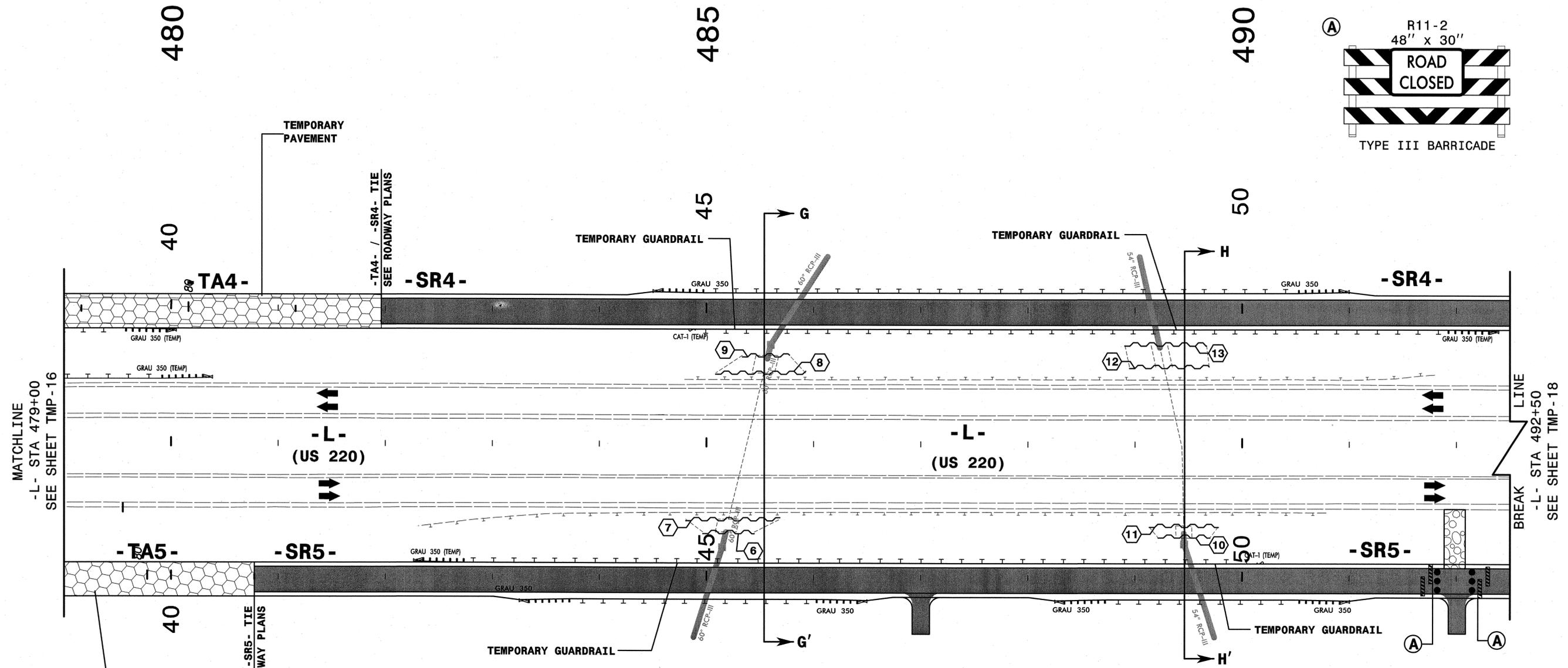
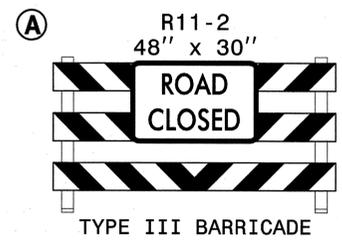
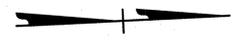
HNTB HNTB NORTH CAROLINA, P.C.
349 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1/31/13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 023521
FRONDA B. EARLY



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



- TEMPORARY SHORING**
- 6 FROM -L- STA 484+96.50 (80' RT) TO STA 485+44.50 (80' RT)
EST. LENGTH OF 48 FT; AVERAGE HEIGHT: 5.0 FT
 - 7 FROM -L- STA 484+80.50 (68' RT) TO STA 485+68.50 (68' RT)
EST. LENGTH OF 88 FT; AVERAGE HEIGHT: 10.5 FT
 - 8 FROM -L- STA 485+08.50 (69' LT) TO STA 485+92.50 (69' LT)
EST. LENGTH OF 84 FT; AVERAGE HEIGHT: 9.9 FT
 - 9 FROM -L- STA 485+33.50 (85' LT) TO STA 485+77.50 (85' LT)
EST. LENGTH OF 44 FT; AVERAGE HEIGHT: 4.4 FT

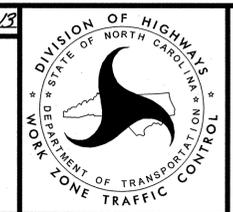
- TEMPORARY SHORING**
- 10 FROM -L- STA 489+21.45 (83.5' RT) TO STA 489+69.95 (83.5' RT)
EST. LENGTH OF 49 FT; AVERAGE HEIGHT: 5.1 FT
 - 11 FROM -L- STA 489+13.25 (73.5' RT) TO STA 489+77.75 (73.5' RT)
EST. LENGTH OF 65 FT; AVERAGE HEIGHT: 7.3 FT
 - 12 FROM -L- STA 488+94.75 (75' LT) TO STA 489+69.25 (75' LT)
EST. LENGTH OF 75 FT; AVERAGE HEIGHT: 7.9 FT
 - 13 FROM -L- STA 488+90.25 (95.5' LT) TO STA 489+66.75 (95.5' LT)
EST. LENGTH OF 77 FT; AVERAGE HEIGHT: 8.0 FT

REFER TO SHEETS TMP-42A FOR CUT SECTION(S).

REVISIONS

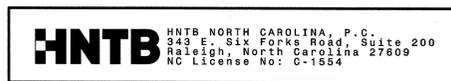
Q&QC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:

APPROVED: *[Signature]* DATE: 1.31.13

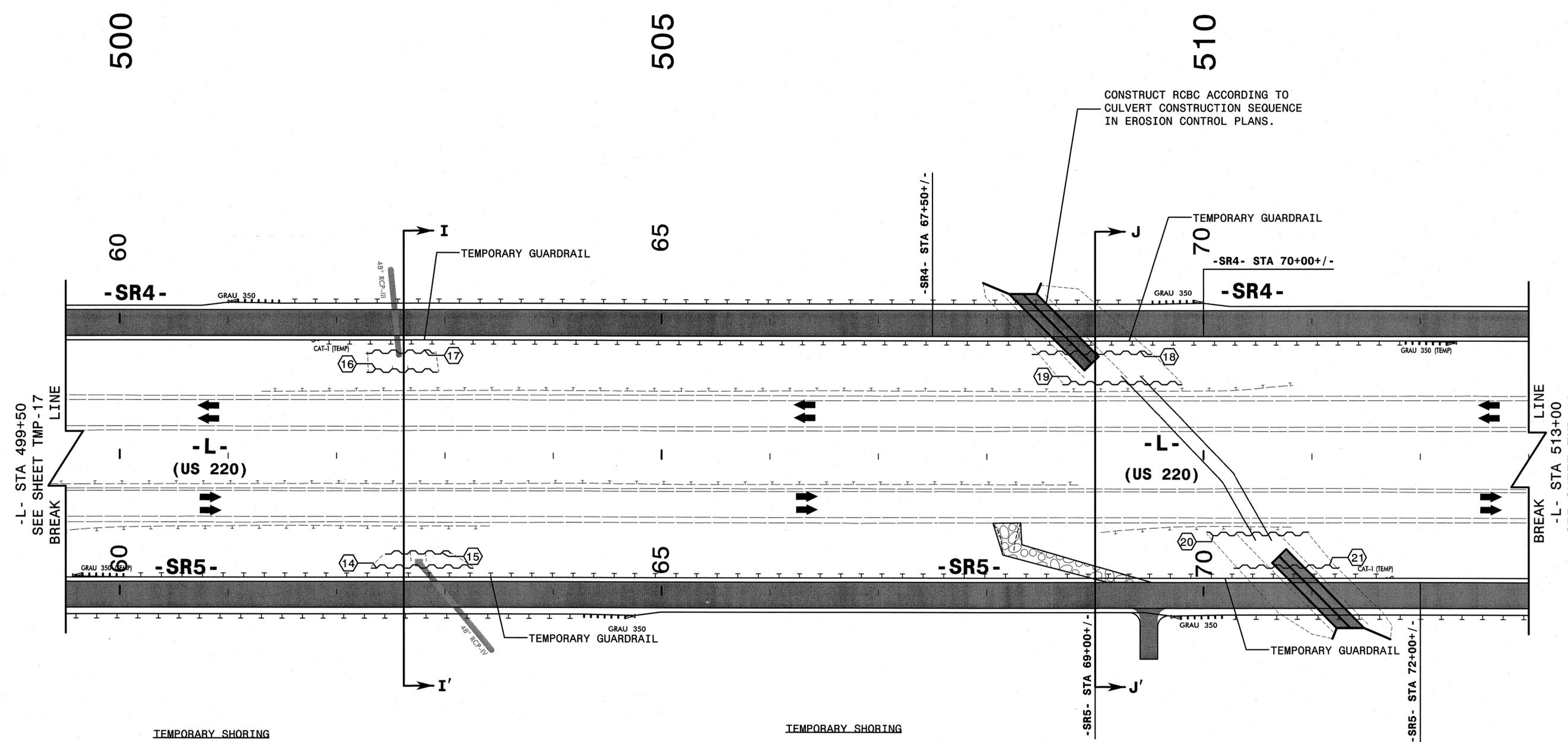


TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



8/17/99



CONSTRUCT RBC ACCORDING TO
CULVERT CONSTRUCTION SEQUENCE
IN EROSION CONTROL PLANS.

-L- STA 499+50
SEE SHEET TMP-17
BREAK LINE

BREAK LINE
-L- STA 513+00
SEE SHEET TMP-19

TEMPORARY SHORING

- 14 FROM -L- STA 502+32 (99' RT) TO STA 503+26 (99' RT)
EST. LENGTH OF 94 FT; AVERAGE HEIGHT: 11.8 FT
- 15 FROM -L- STA 502+45.20 (86' RT) TO STA 503+05.20 (86' RT)
EST. LENGTH OF 60 FT; AVERAGE HEIGHT: 7.1 FT
- 16 FROM -L- STA 502+28 (80.5' LT) TO STA 502+93 (80.5' LT)
EST. LENGTH OF 65 FT; AVERAGE HEIGHT: 7.6 FT
- 17 FROM -L- STA 502+27.30 (98' LT) TO STA 502+90.30 (98' LT)
EST. LENGTH OF 63 FT; AVERAGE HEIGHT: 7.3 FT

TEMPORARY SHORING

- 18 FROM -L- STA 508+42 (98' LT) TO STA 509+52 (98' LT)
EST. LENGTH OF 105 FT; AVERAGE HEIGHT: 9.4 FT
- 19 FROM -L- STA 508+70 (70' LT) TO STA 509+80 (70' LT)
EST. LENGTH OF 89 FT; AVERAGE HEIGHT: 9.5 FT
- 20 FROM -L- STA 510+03 (68' RT) TO STA 510+97 (68' RT)
EST. LENGTH OF 89 FT; AVERAGE HEIGHT: 9.6 FT
- 21 FROM -L- STA 510+28 (98' RT) TO STA 511+25 (98' RT)
EST. LENGTH OF 87 FT; AVERAGE HEIGHT: 9.3 FT

REFER TO SHEETS TMP-42B FOR CUT SECTION(S).

REVISIONS

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

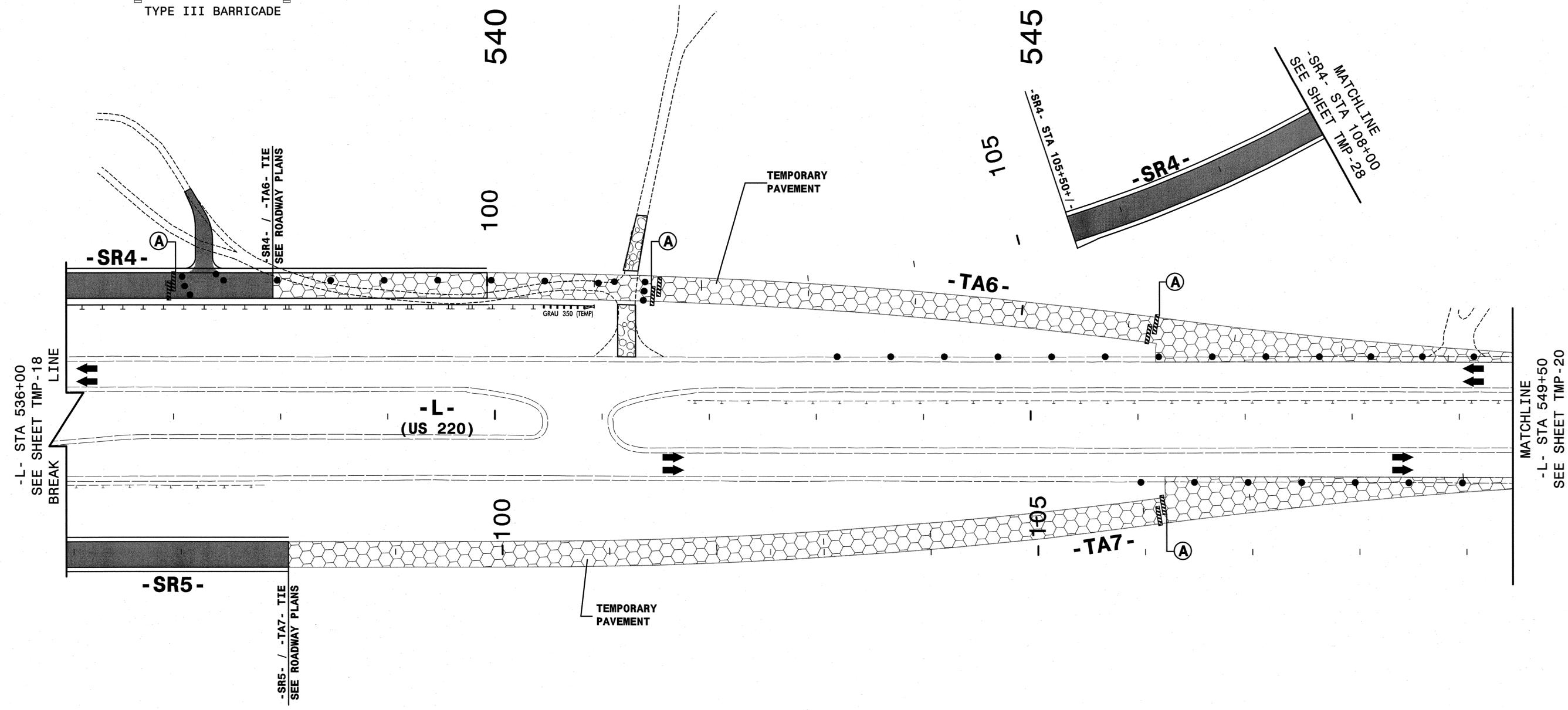
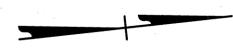
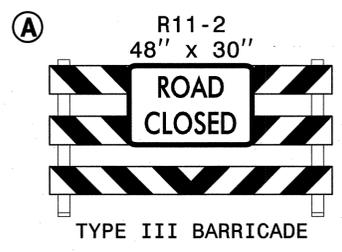
APPROVED: *[Signature]* DATE: 1-31-13



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL





REVISIONS

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

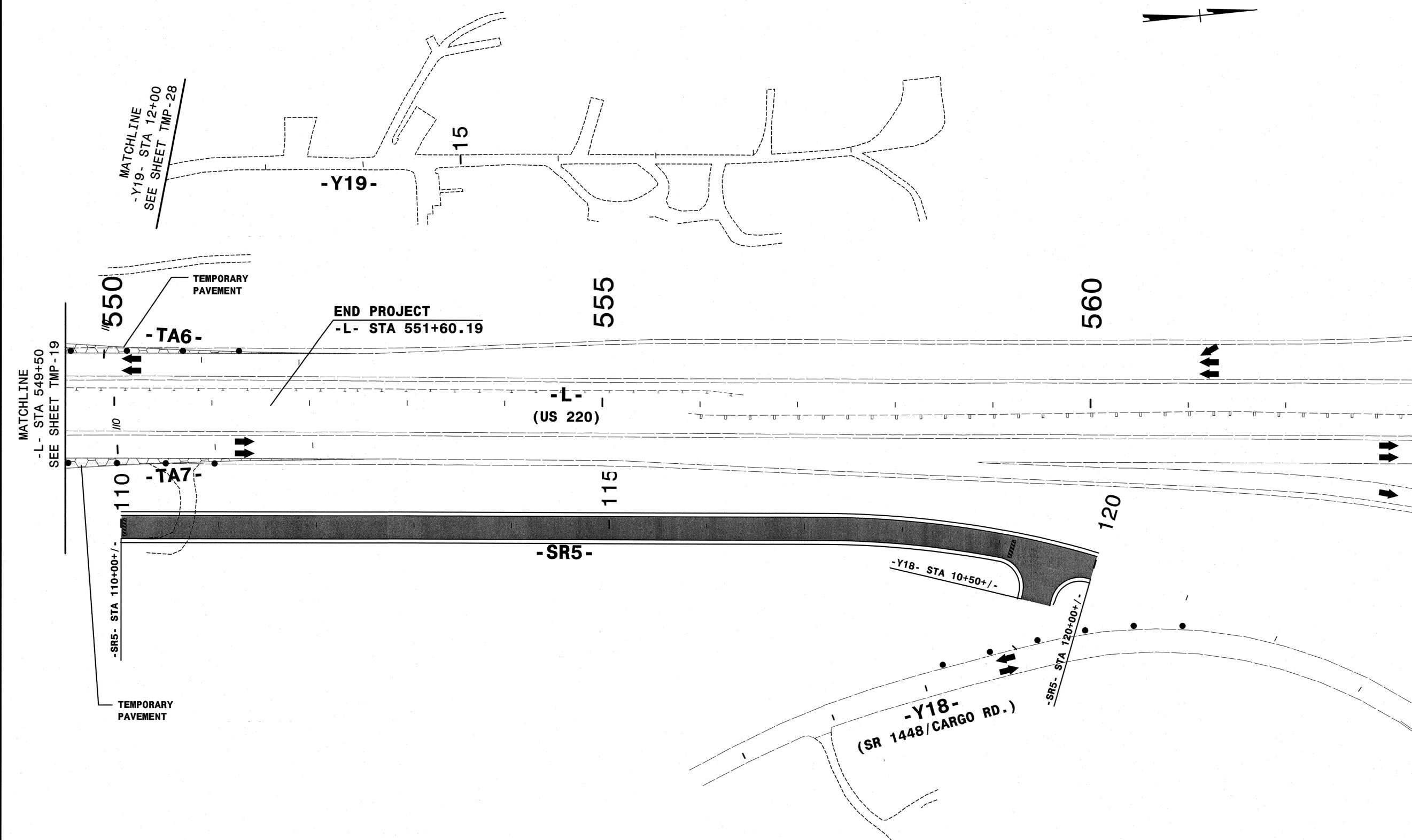
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Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *[Signature]* DATE: 1/31/13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
023521
MONDA B. EARLY



TRANSPORTATION
MANAGEMENT PLAN
**PHASE I
DETAIL**

8/17/99

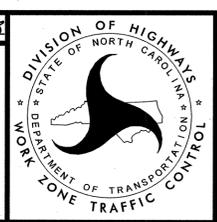


REVISIONS

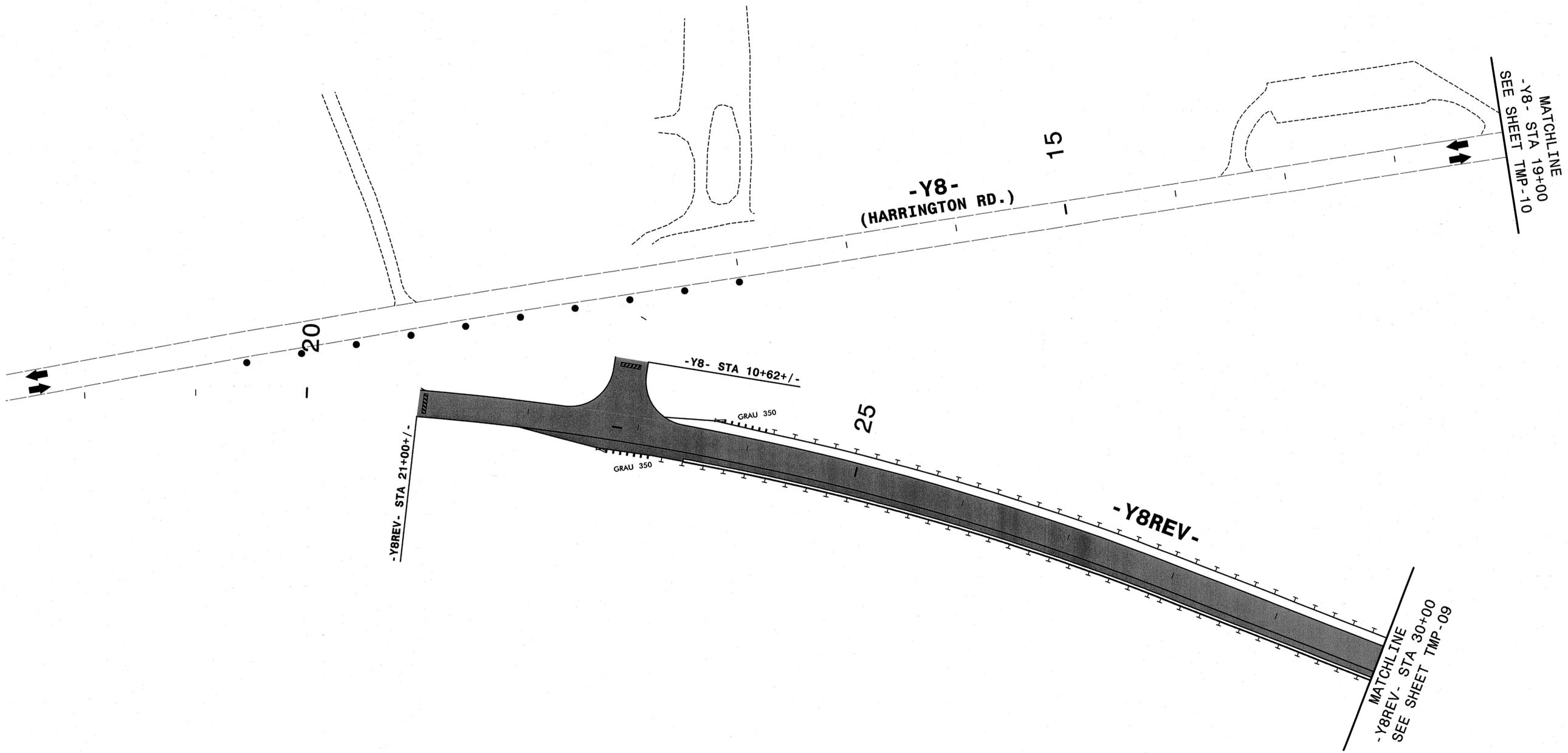
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 REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____

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 NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
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 NORTH CAROLINA
 PROFESSIONAL
 ENGINEER
 PHOENIX B. EARLY



TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 DETAIL

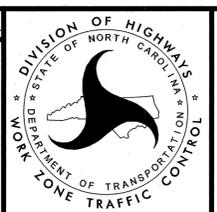


REVISIONS

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

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Raleigh, North Carolina 27609
NC License No: C-1554

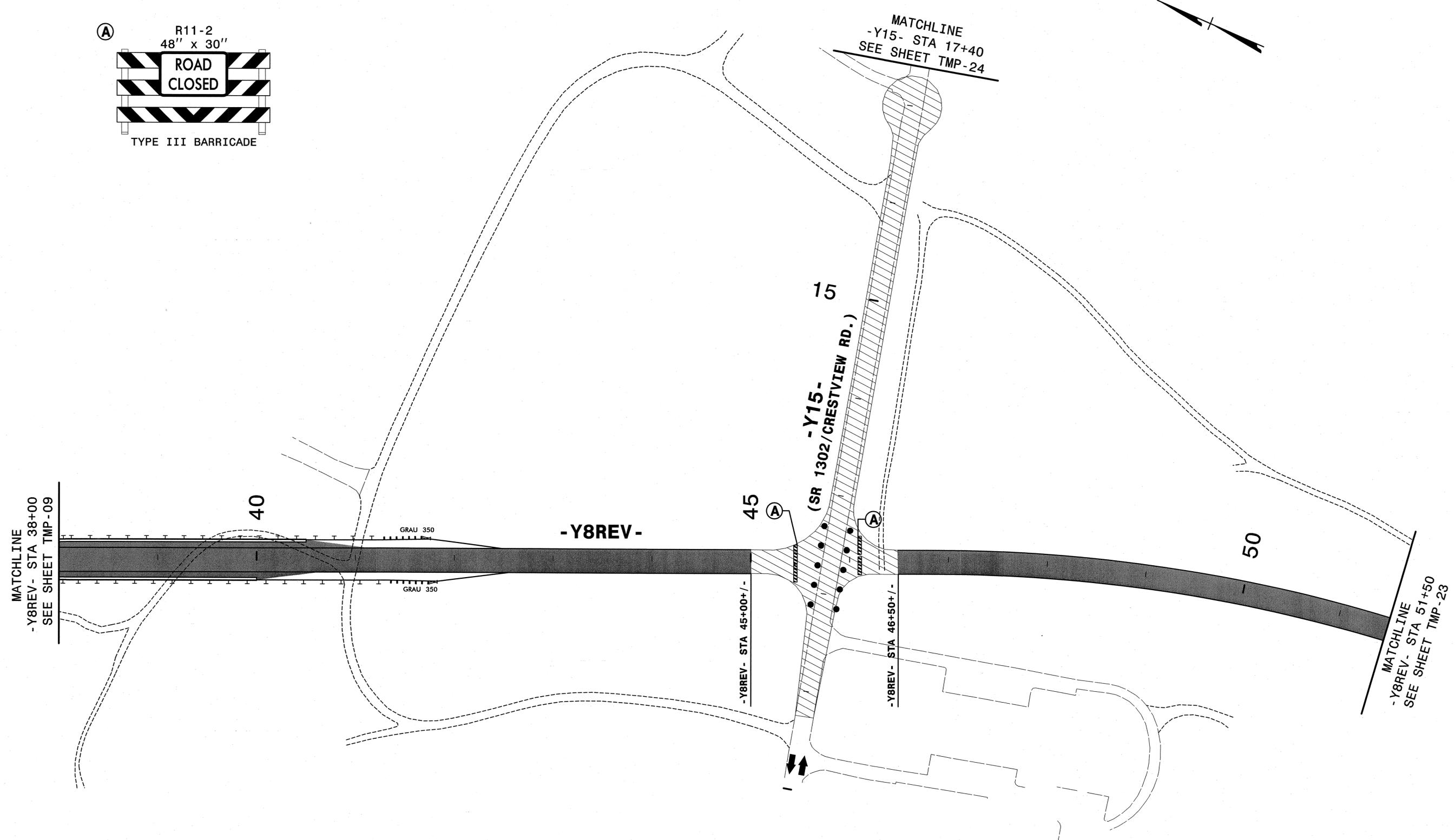
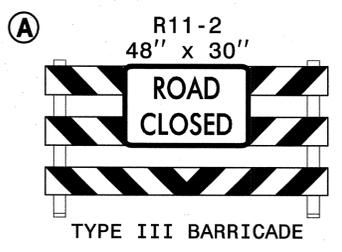
APPROVED: *[Signature]* DATE: 1/31/13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
RHYONDA B. EARLY
023521



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

8/17/99



REVISIONS

QA/QC STAGE:

REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

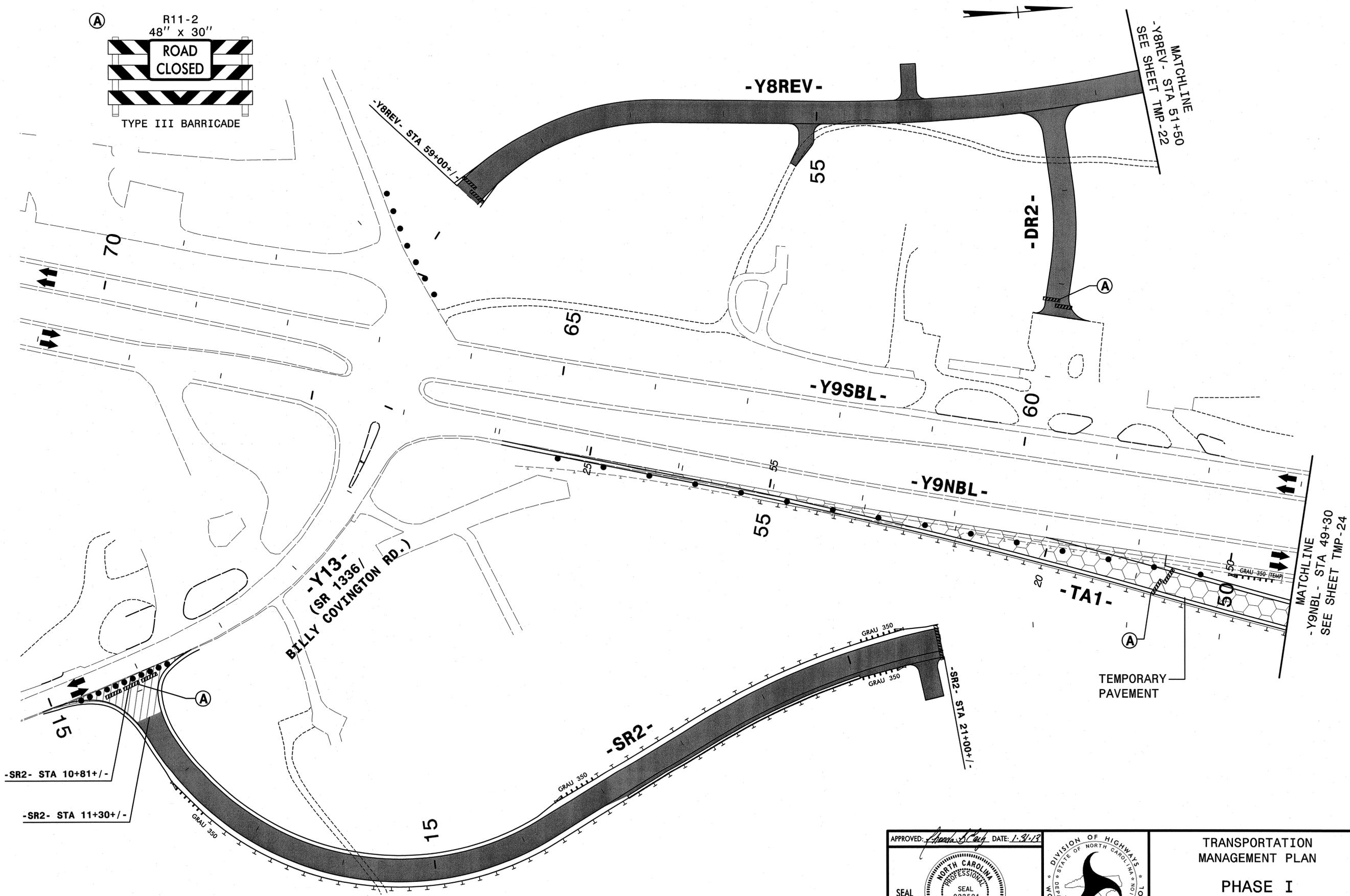
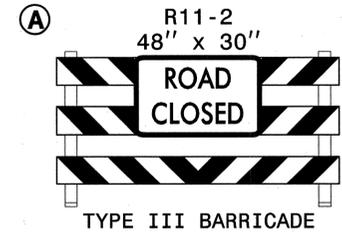
APPROVED: *Thonda B. Early* DATE: 1-31-13

SEAL



TRANSPORTATION
MANAGEMENT PLAN

**PHASE I
DETAIL**



REVISIONS

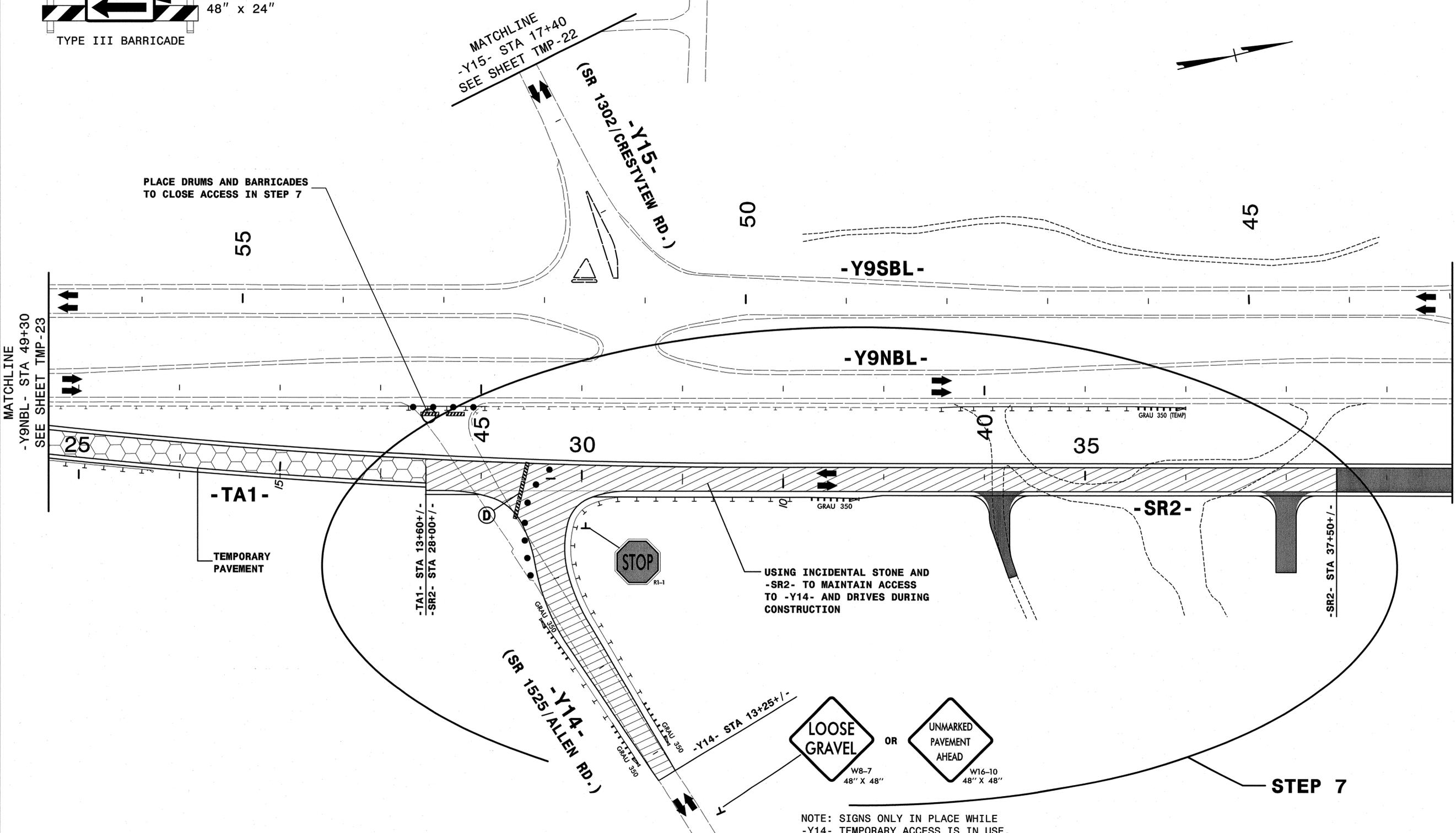
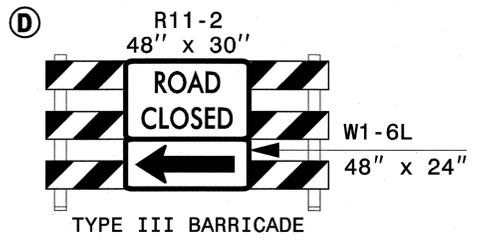
QA/QC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

HNTB HNTB NORTH CAROLINA, P.C.
349 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
023521
RYONDA B. EMBRY

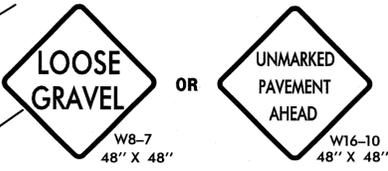
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
MANAGEMENT PLAN
PHASE I
DETAIL



REVISIONS

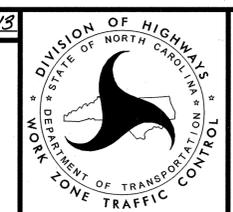
REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____
 G/M/C STAGE: _____



NOTE: SIGNS ONLY IN PLACE WHILE -Y14- TEMPORARY ACCESS IS IN USE.

STEP 7

APPROVED: *[Signature]* DATE: 1-31-13



TRANSPORTATION MANAGEMENT PLAN

PHASE I
DETAIL

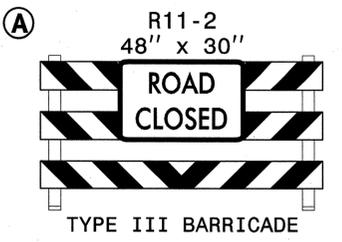
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

8/17/99

(SR 1304/HARRINGTON RD.)

MATCHLINE
-Y9RPC- STA 8+00
SEE SHEET TMP-10

MATCHLINE -Y9SBL-
STA 32+00
SEE SHEET TMP-10



MATCHLINE
-Y9NBL- STA 35+35
SEE SHEET TMP-24

MATCHLINE
-Y9NBL- STA 21+50
SEE SHEET TMP-11



NOTE: SIGNS ONLY IN PLACE WHILE
-Y14- TEMPORARY ACCESS IS IN USE.

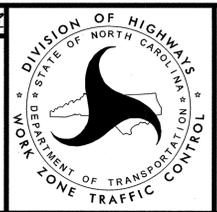
REFER TO SHEETS TMP-42B FOR CUT SECTION(S).

REVISIONS

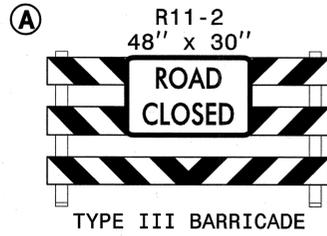
QA/QC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

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HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *[Signature]* DATE: 1.31.18
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
PIRONDA B. EARLY
023521

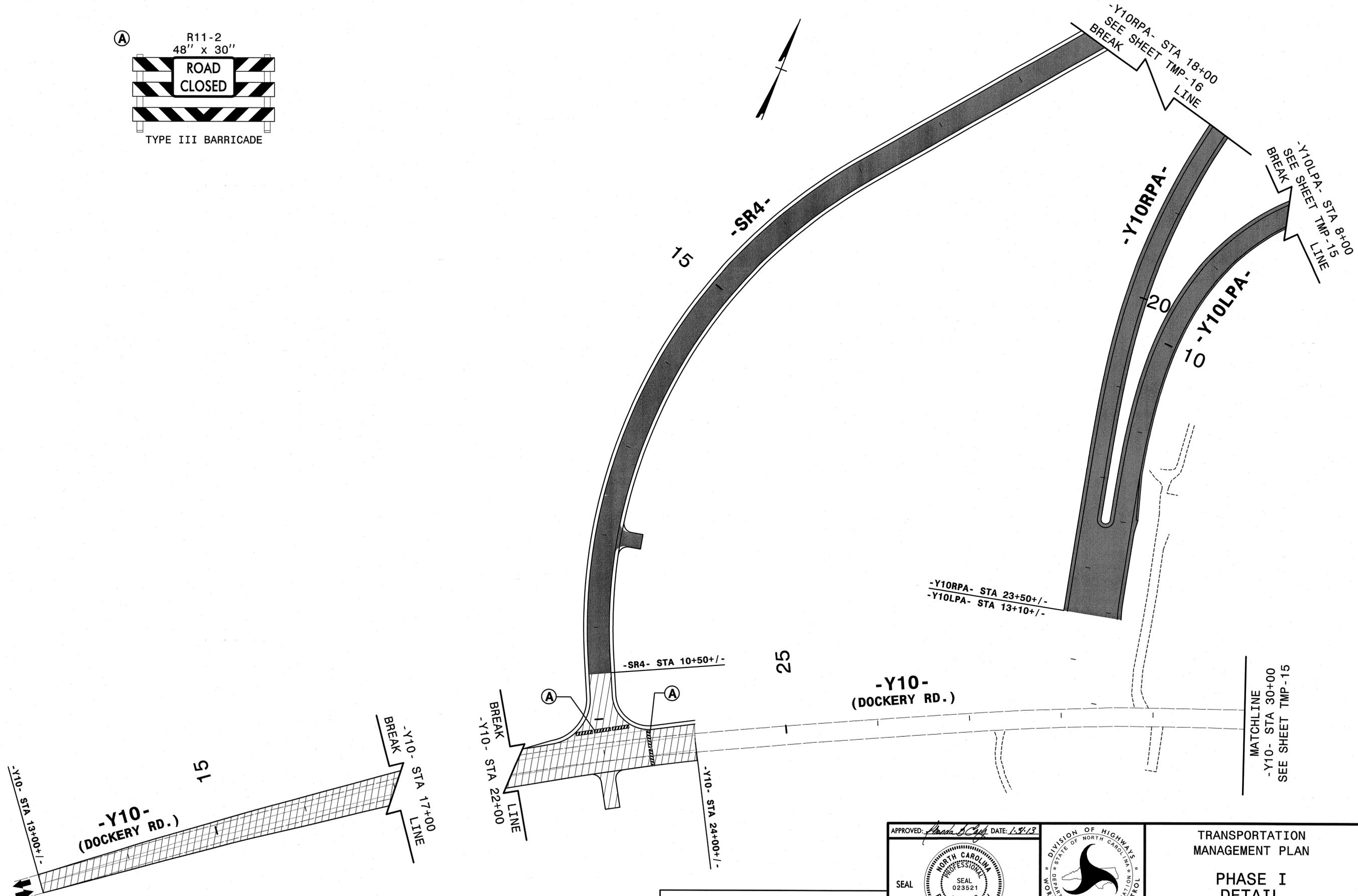


TRANSPORTATION
MANAGEMENT PLAN
PHASE I
DETAIL



REVISIONS

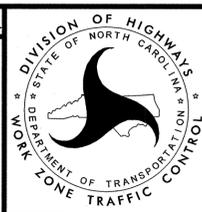
QA/QC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:



SEE SHEET TMP-2 FOR -Y10- DETOUR DETAIL.

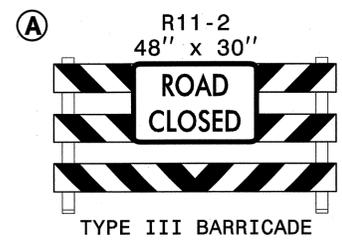
HNTB
HNTB NORTH CAROLINA, P.C.
843 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *Archie B. Cliff* DATE: 1.31.13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
ARONDA B. ERLY



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

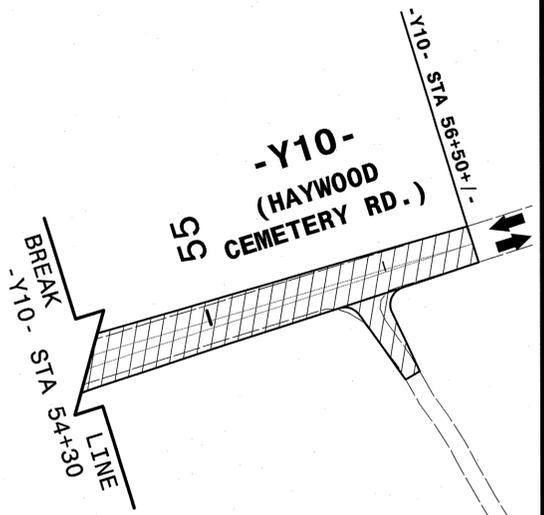
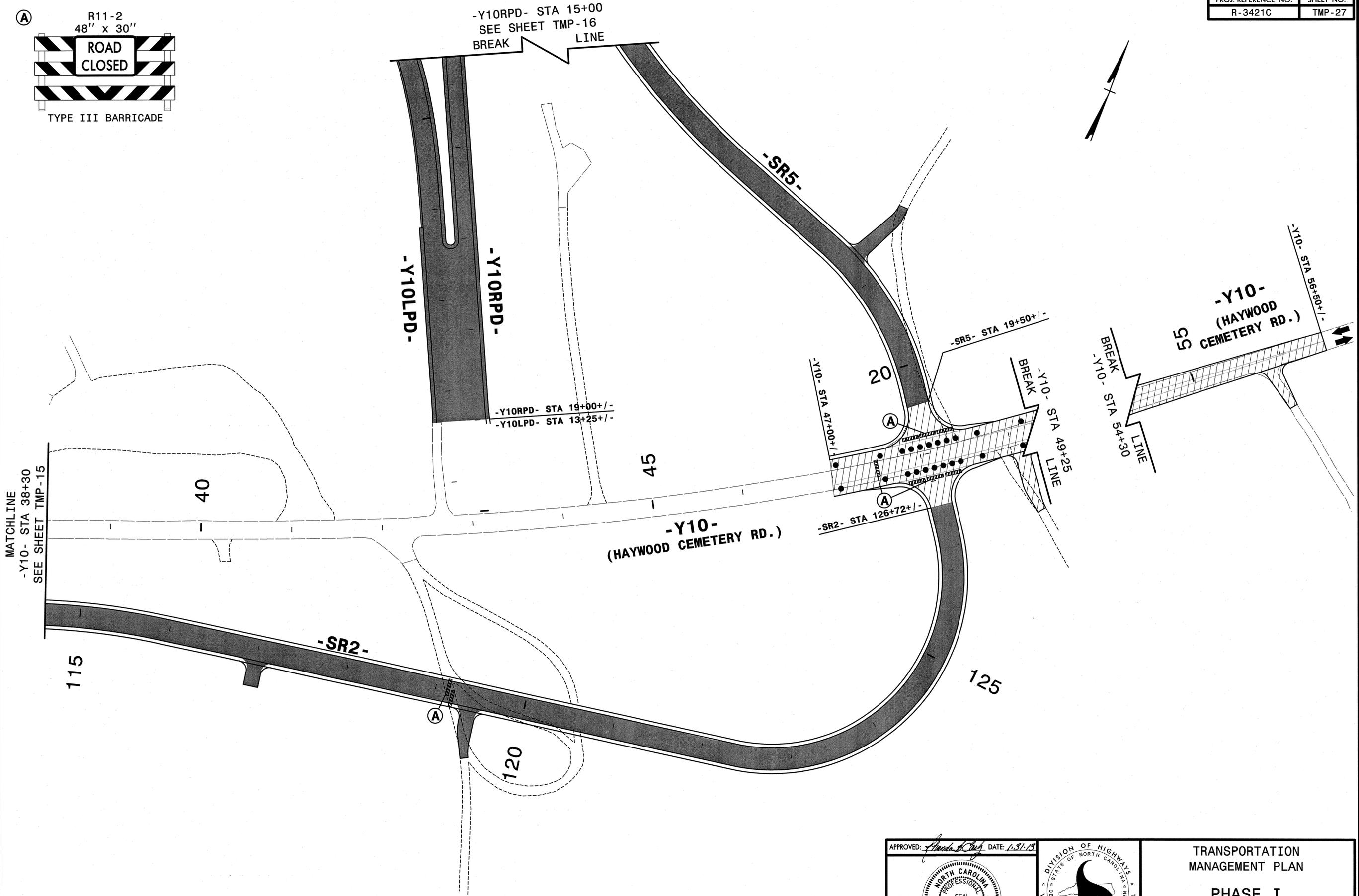


TYPE III BARRICADE

-Y10RPD- STA 15+00
SEE SHEET TMP-16
BREAK LINE



MATCHLINE
-Y10- STA 38+30
SEE SHEET TMP-15



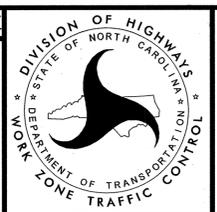
REVISIONS

QACQ STAGE:	
REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

REFER TO SHEET TMP-2X FOR -Y10- DETOUR DETAIL.

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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

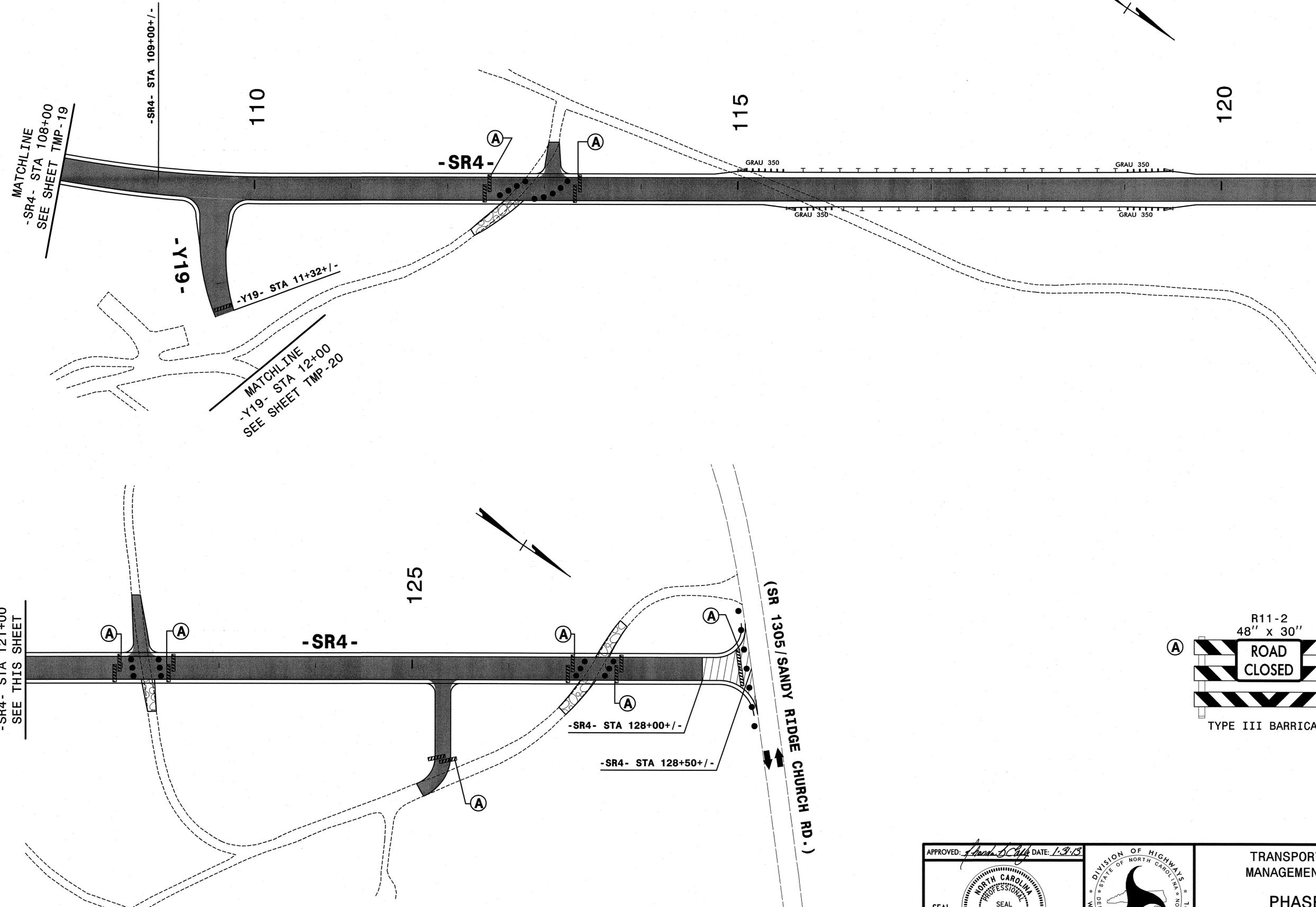
APPROVED: *[Signature]* DATE: 1.31.13



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

8/17/99

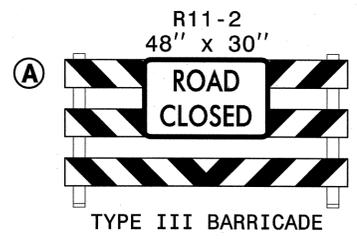


MATCHLINE
-SR4- STA 108+00
SEE SHEET TMP-19

MATCHLINE
-SR4- STA 121+00
SEE THIS SHEET

MATCHLINE
-Y19- STA 12+00
SEE SHEET TMP-20

MATCHLINE
-SR4- STA 121+00
SEE THIS SHEET

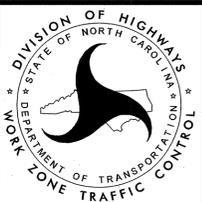


REVISIONS

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

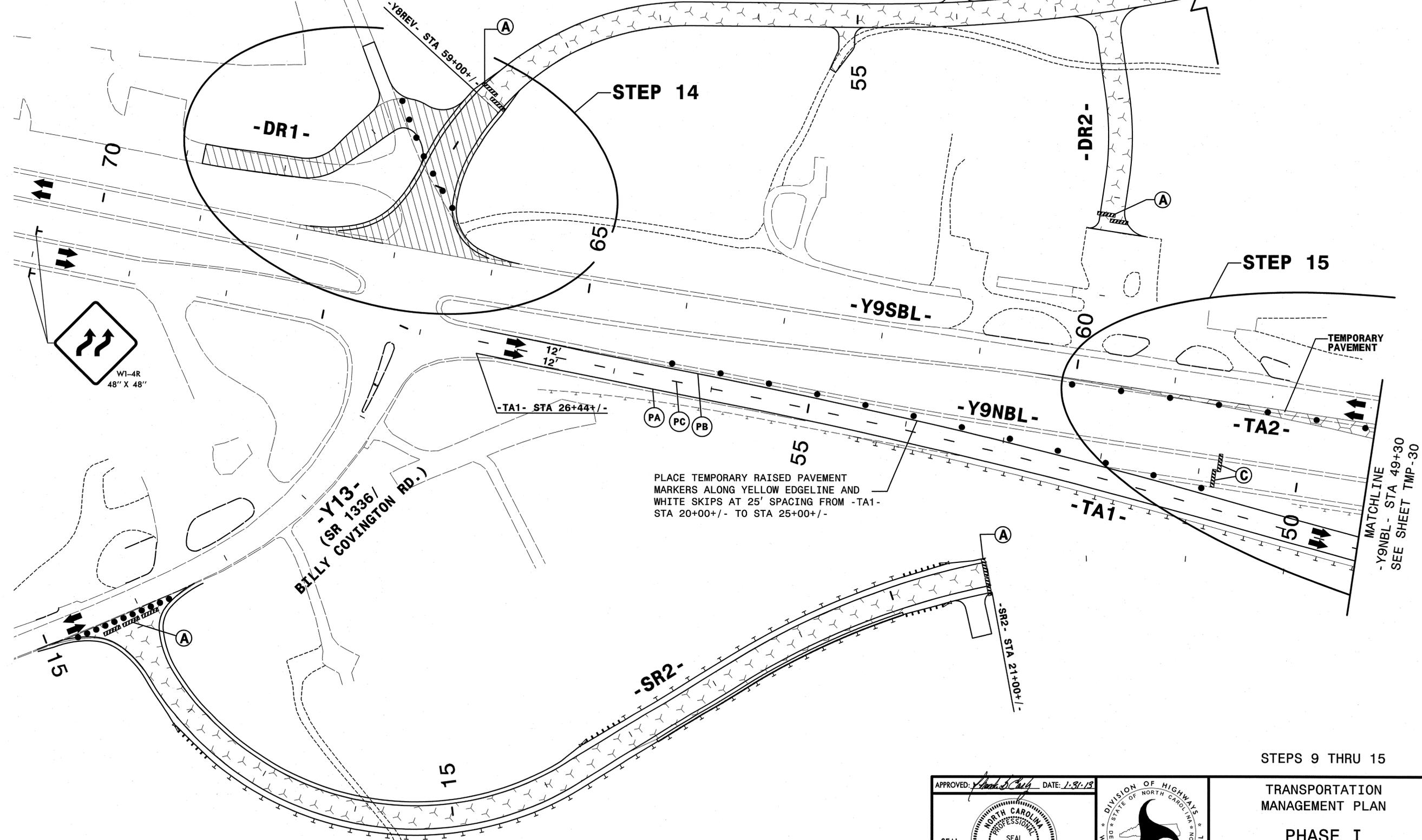
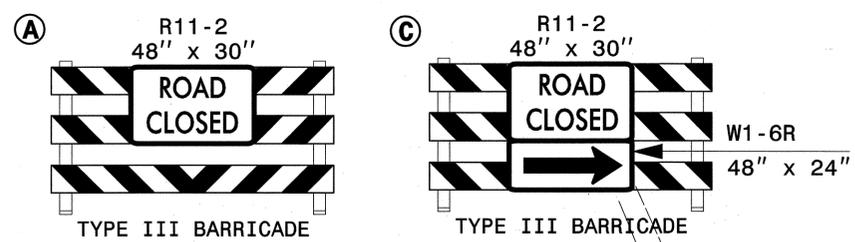
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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No. C-1584

APPROVED: *Phonda B. Early* DATE: 1.31.13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 023521
PHONDA B. EARLY



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



PLACE TEMPORARY RAISED PAVEMENT MARKERS ALONG YELLOW EDGELINE AND WHITE SKIPS AT 25' SPACING FROM -TA1- STA 20+00+/- TO STA 25+00+/-

MATCHLINE -Y9NBL- STA 49+30 SEE SHEET TMP-30

PLACE LANE SHIFT SIGNS (W1-4) ON BOTH LEFT AND RIGHT SHOULDERS 500' +/- PRIOR TO SHIFT.

REVISIONS
 GAQC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:

STEPS 9 THRU 15

TRANSPORTATION MANAGEMENT PLAN

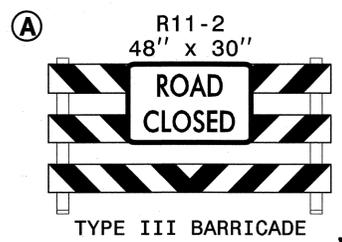
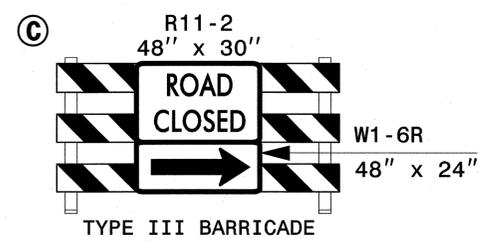
PHASE I
DETAIL

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: *[Signature]* DATE: 1-31-13

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 HYONDA B. EARY

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

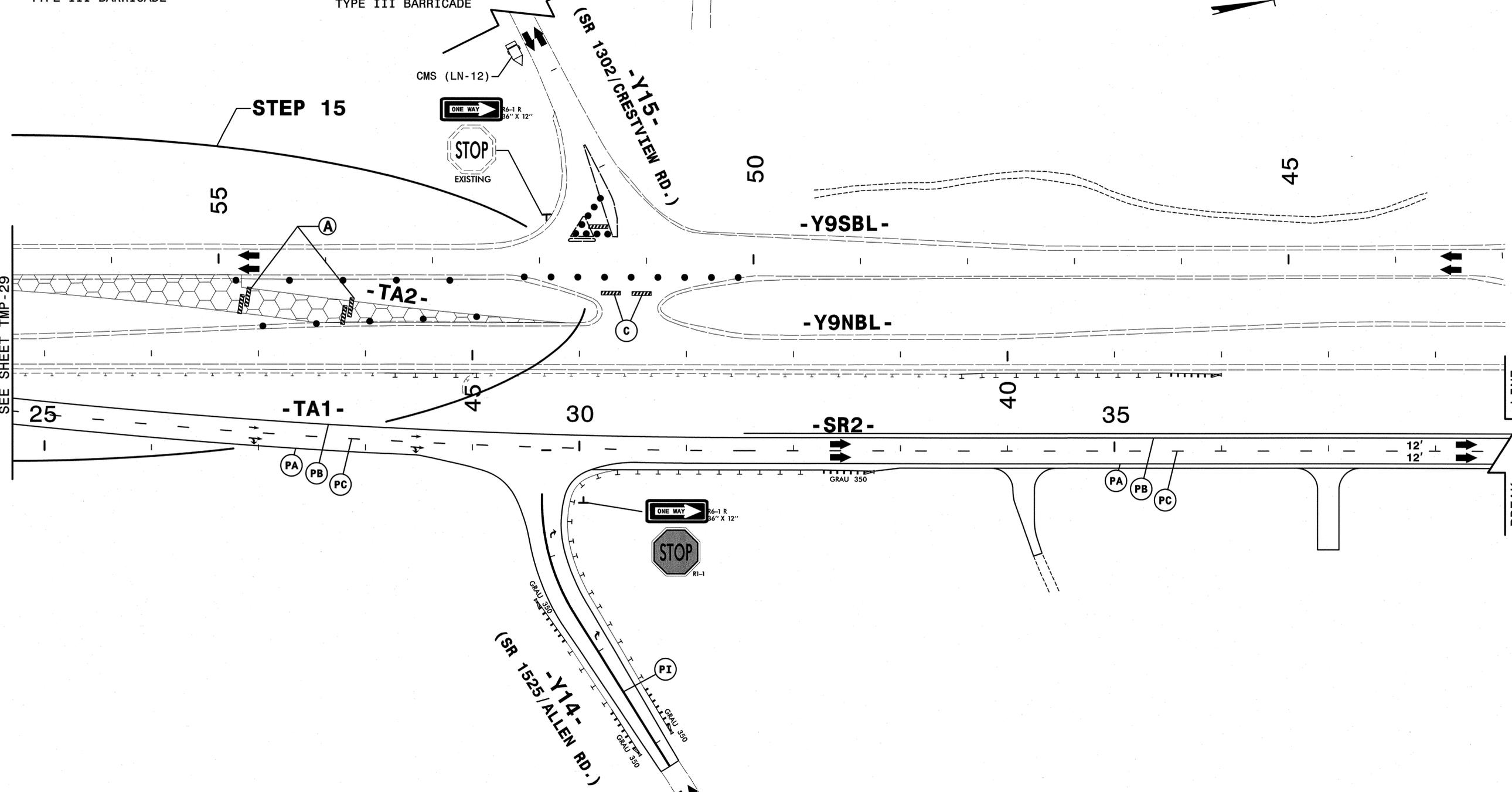


8/17/99

REVISIONS

MATCHLINE
-Y9NBL - STA 49+30
SEE SHEET TMP-29

LINE
-SR2 - STA 38+65+/-
SEE SHEET TMP-31



G:\QC STAGE:

REVIEW:

CONCUR:

REVISE:

VERIFY:

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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *[Signature]* DATE: 1/31/13

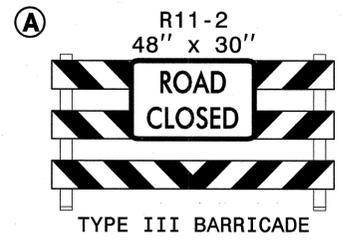
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PROFESSIONAL
ENGINEER
RONDA B. EARLY
023521



STEPS 9 THRU 15

TRANSPORTATION
MANAGEMENT PLAN

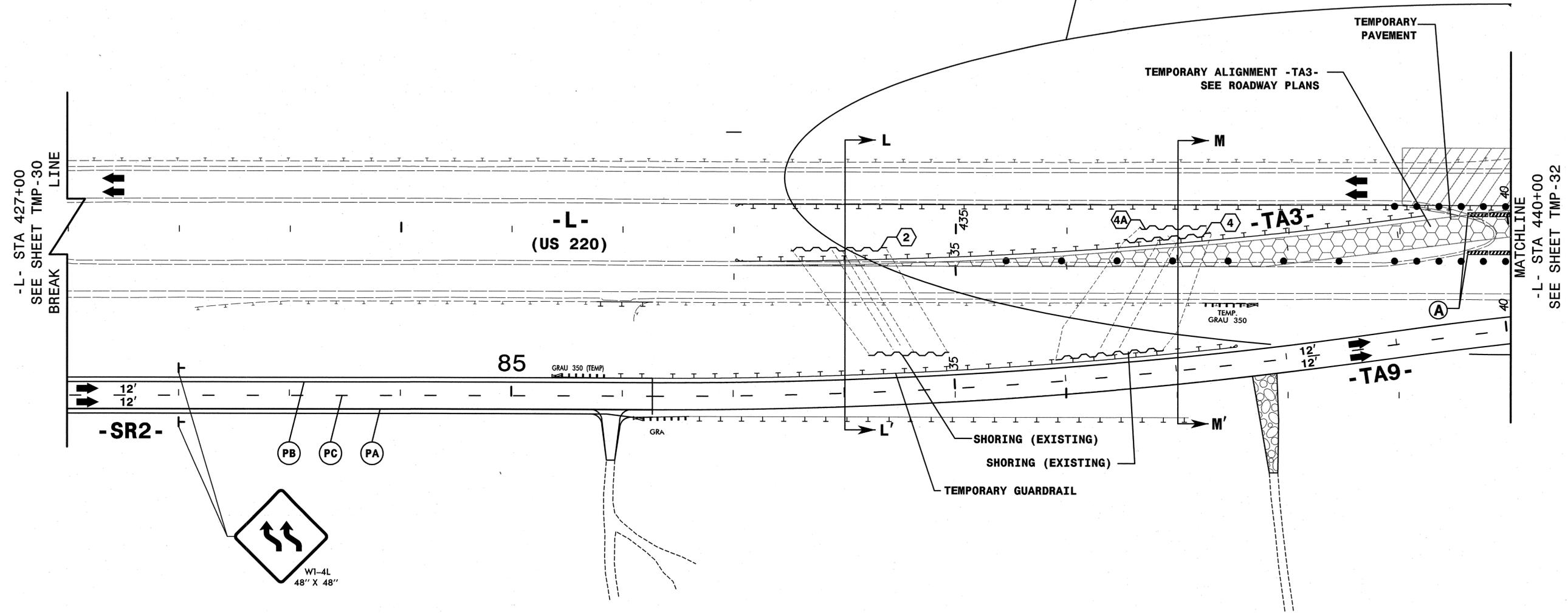
PHASE I
DETAIL



430

435

STEP 15



TEMPORARY SHORING

- 2 FROM -L- STA 433+51.50 (14.7' RT) TO STA 434+37.50 (14.7' RT)
EST. LENGTH OF 86 FT; AVERAGE HEIGHT: 10.2 FT
- 4 FROM -TA9- STA 36+53.75 (21.3' LT) TO STA 37+31.25 (21.3' LT)
EST. LENGTH OF 78 FT; AVERAGE HEIGHT: 8.9 FT
- 4A FROM -L- STA 436+66.25 (5.3' LT) TO STA 437+25.75 (5.3' LT)
EST. LENGTH OF 60 FT; AVERAGE HEIGHT: 6.6 FT

REFER TO SHEETS TMP-42B & TMP-42C FOR CUT SECTION(S).

PLACE LANE SHIFT SIGNS (W1-4) ON BOTH LEFT AND RIGHT SHOULDERS 500' +/- PRIOR TO SHIFT.

REVISIONS

QA/QC STAGE:

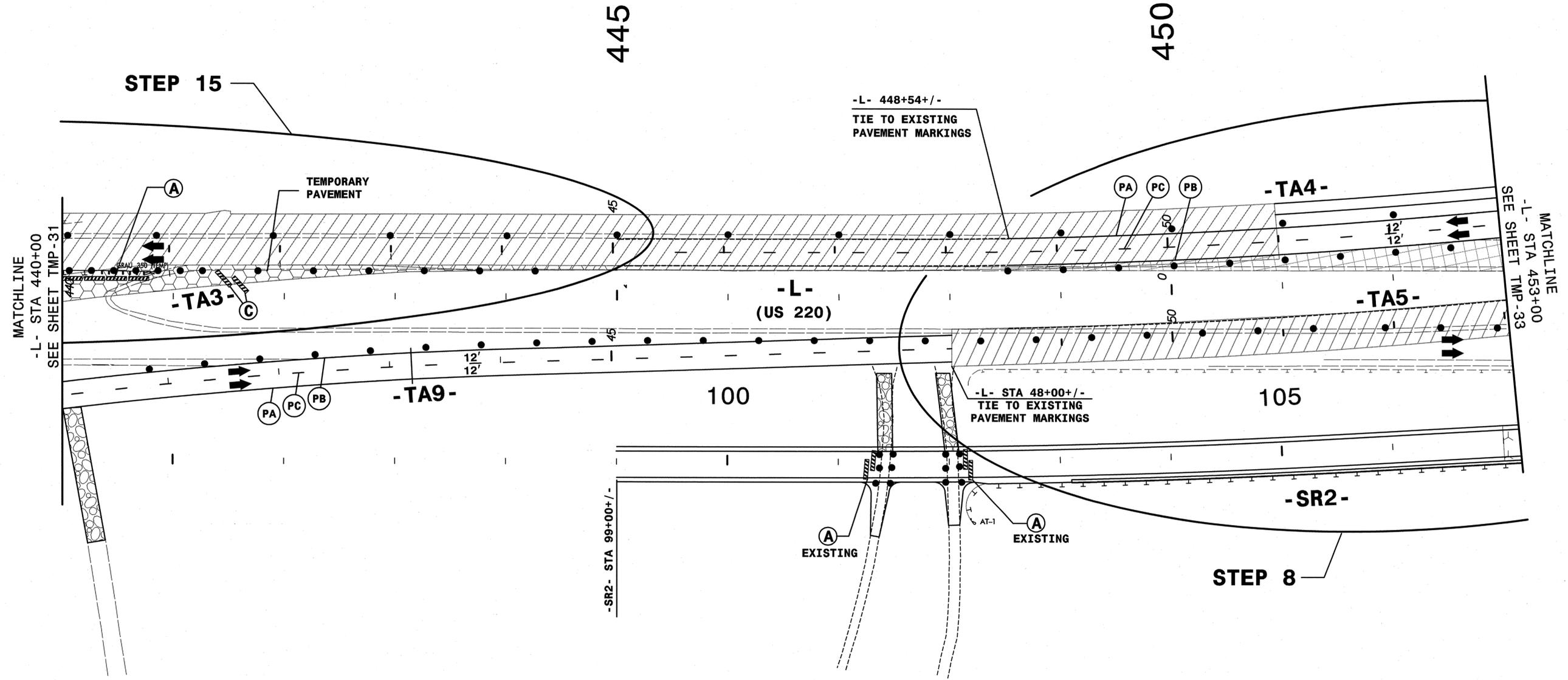
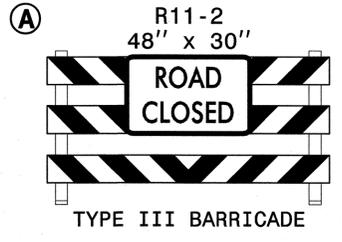
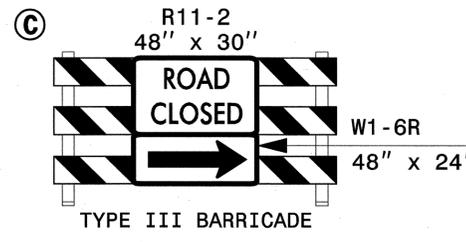
REVIEW:
CONCUR:
REVISE:
VERIFY:

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 023521
RYONDA B. EIRLY

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

STEPS 9 THRU 15
TRANSPORTATION
MANAGEMENT PLAN
PHASE I
DETAIL



REVISIONS

QA/QC STAGE: _____
REVIEW: _____
CONCLUR: _____
REVISE: _____
VERIFY: _____

STEPS 8 THRU 15

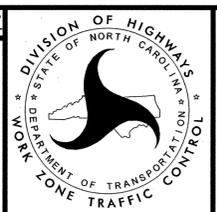
TRANSPORTATION
MANAGEMENT PLAN

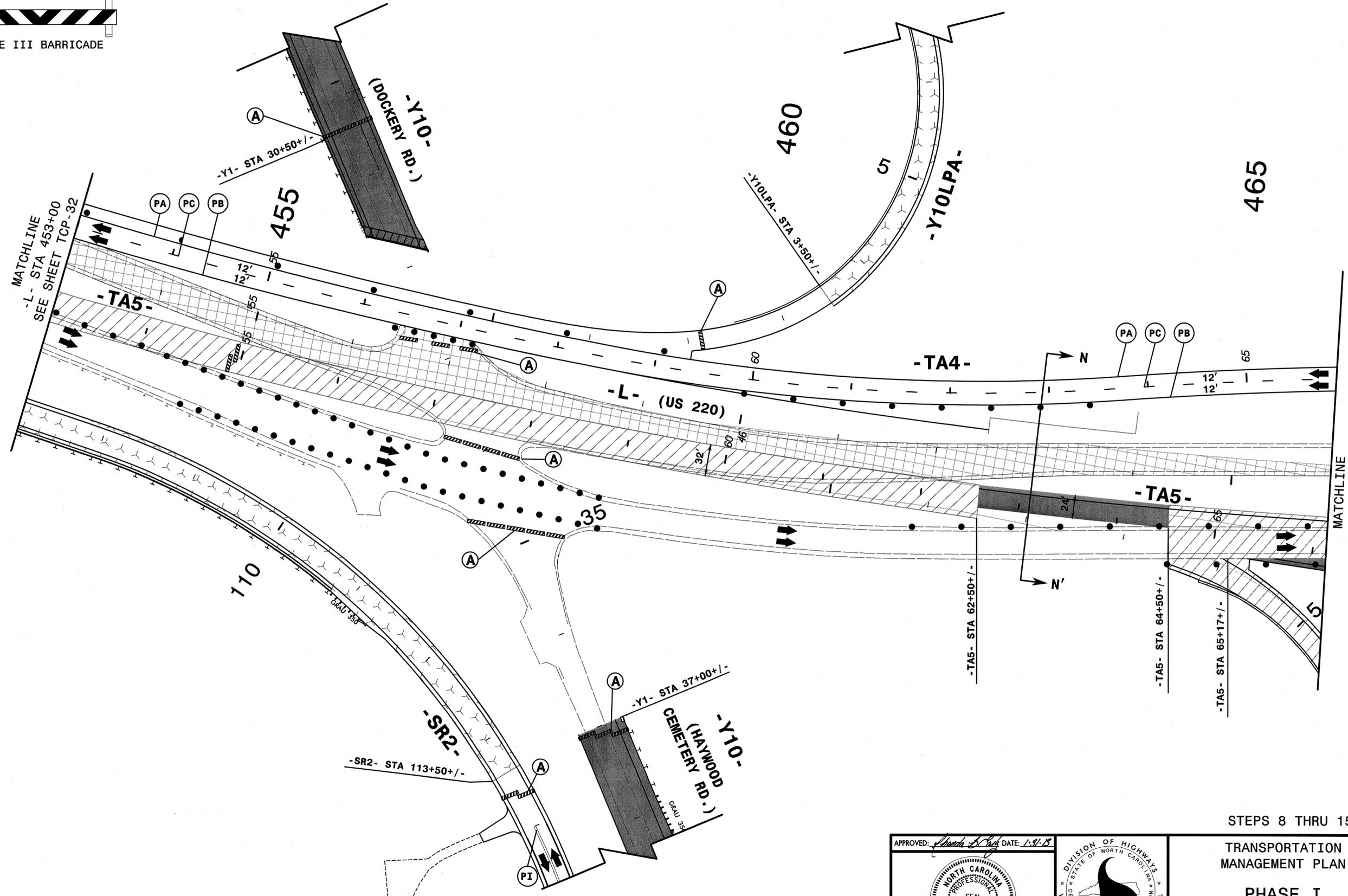
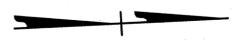
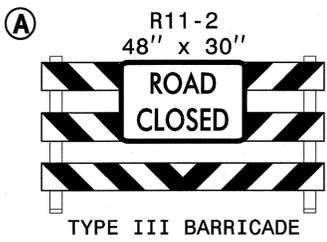
PHASE I
DETAIL

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343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1/31/13

SEAL





REVISIONS

GAQC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

REFER TO SHEETS TMP-42C FOR CUT SECTION(S).

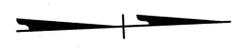
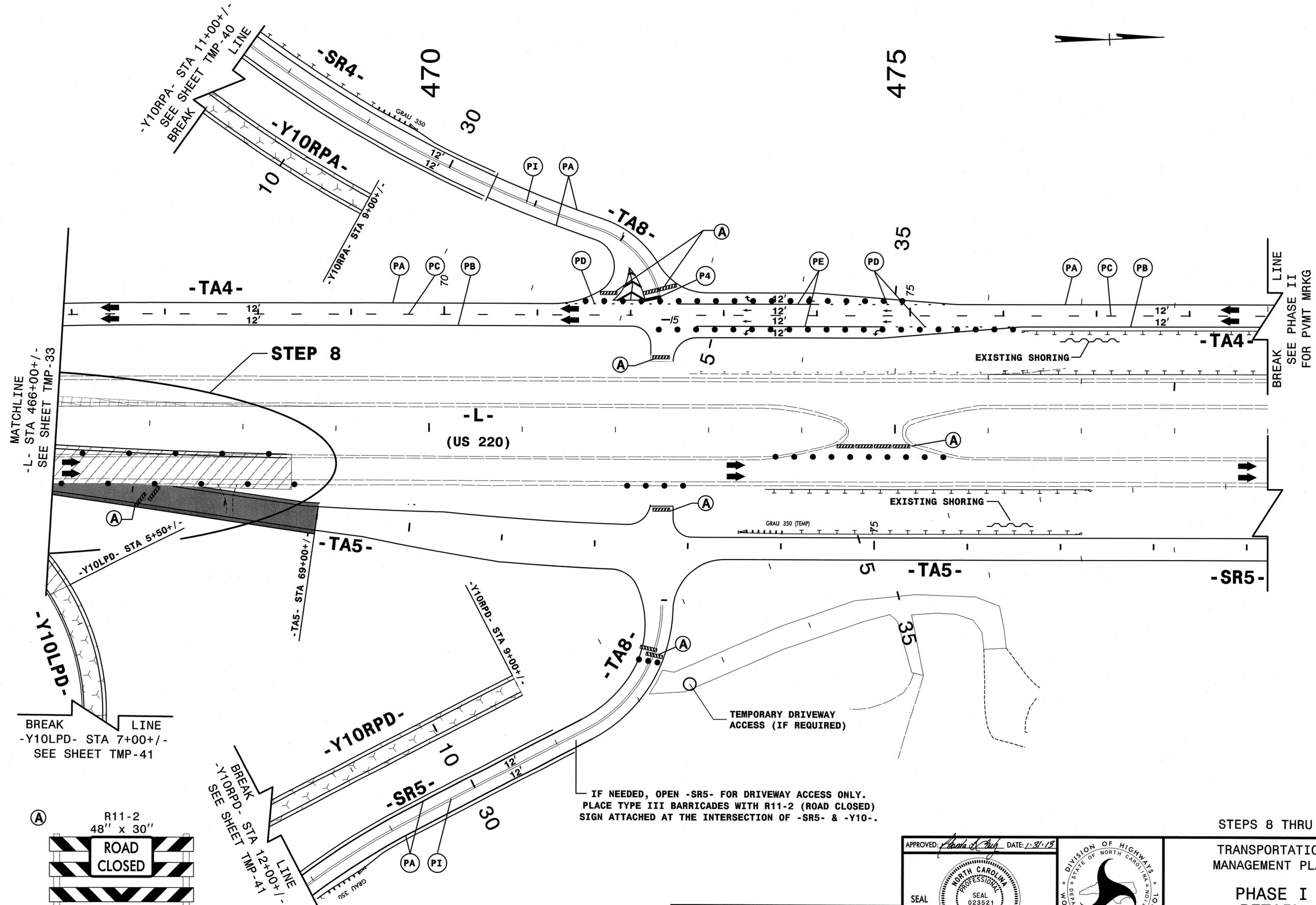
HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *David S. Kelly* DATE: 1-31-13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
023521
DAVID S. KELLY



STEPS 8 THRU 15
TRANSPORTATION
MANAGEMENT PLAN
PHASE I
DETAIL

8/17/99



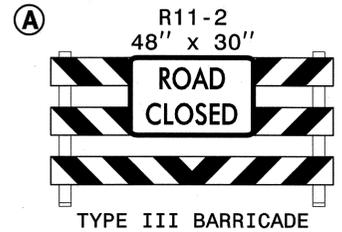
REVISIONS

MATCHLINE
-L- STA 466+00+/-
SEE SHEET TMP-33

BREAK LINE
-Y10LPA- STA 7+00+/-
SEE SHEET TMP-41

BREAK LINE
-Y10RPA- STA 12+00+/-
SEE SHEET TMP-41

BREAK LINE
SEE PHASE II
FOR PVMT MRKG



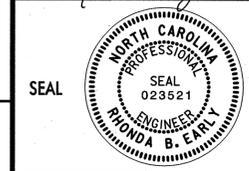
IF NEEDED, OPEN -SR5- FOR DRIVEWAY ACCESS ONLY.
PLACE TYPE III BARRICADES WITH R11-2 (ROAD CLOSED)
SIGN ATTACHED AT THE INTERSECTION OF -SR5- & -Y10-.

STEPS 8 THRU 15

TRANSPORTATION
MANAGEMENT PLAN

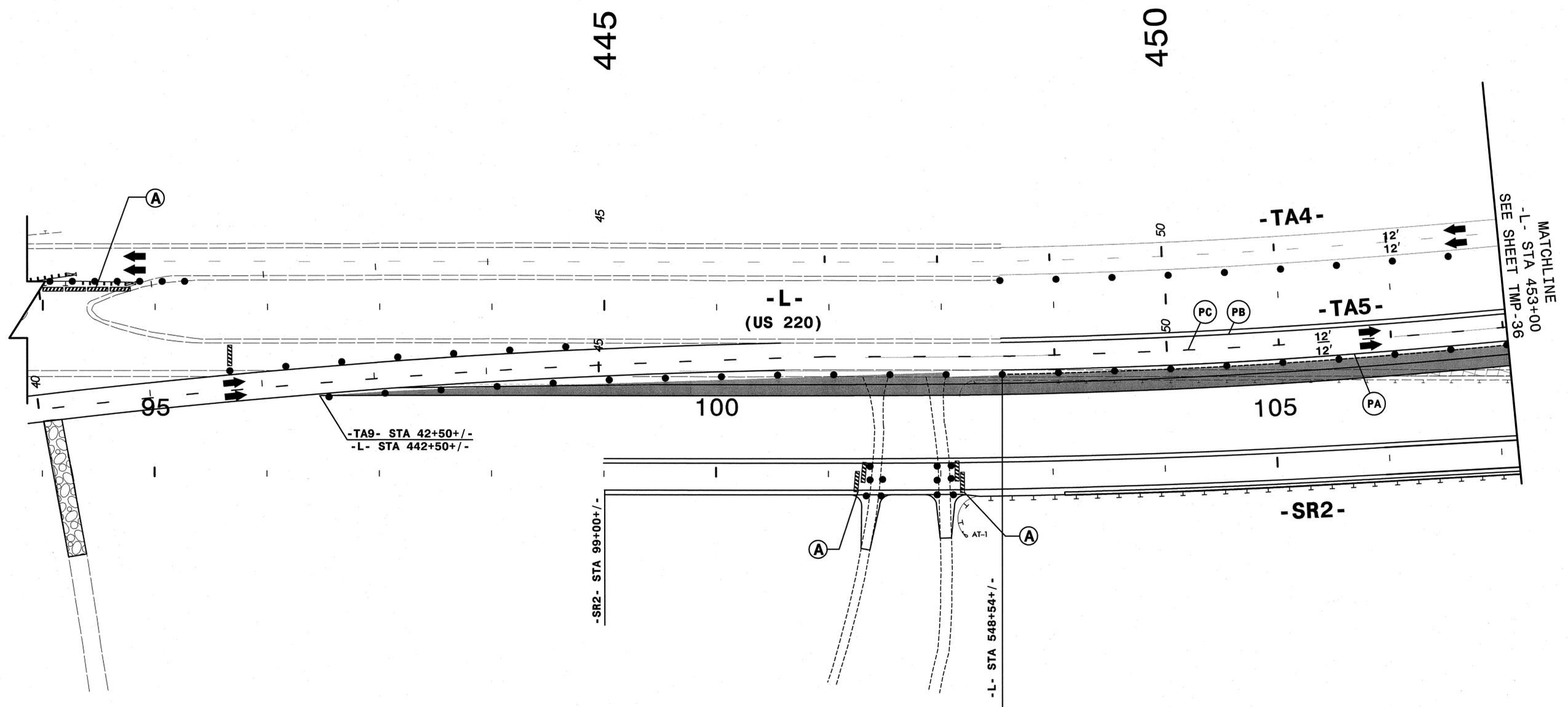
PHASE I
DETAIL

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NC License No: C-1554

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



REVISIONS

Q/ACC STAGE:	
REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

STEPS 9 THRU 15

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 NC License No: C-1554

APPROVED: *[Signature]* DATE: 1-31-13

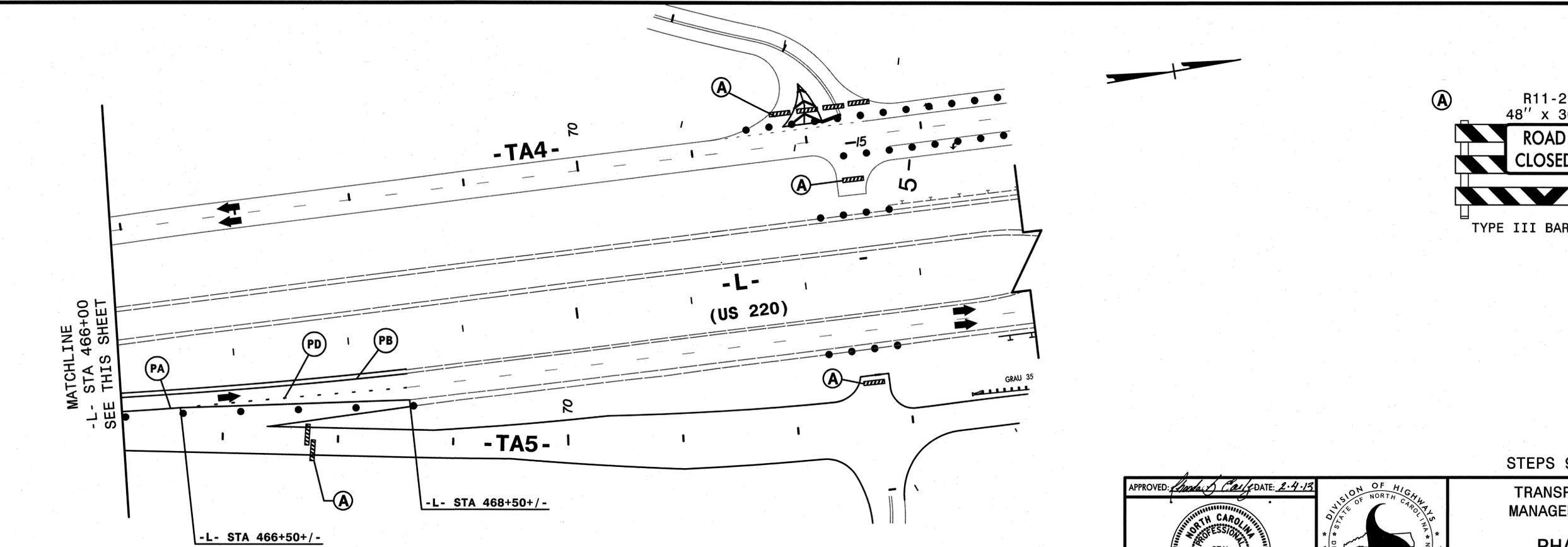
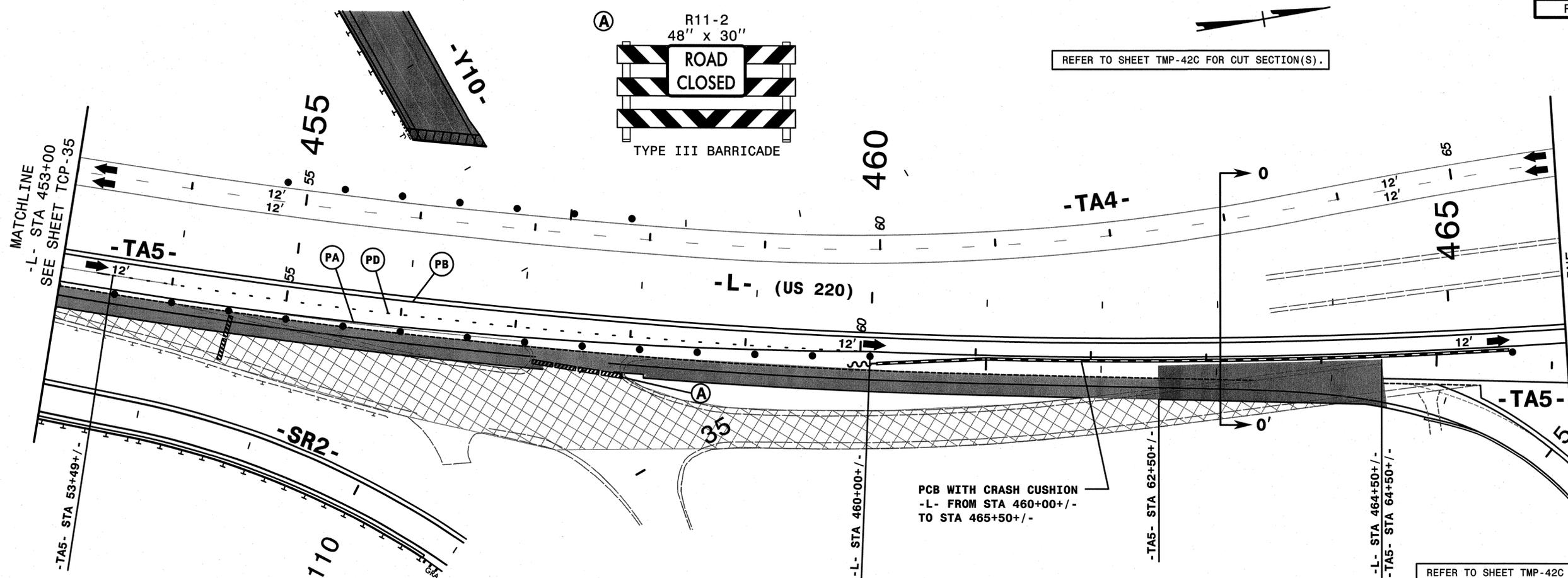
SEAL



TRANSPORTATION
 MANAGEMENT PLAN

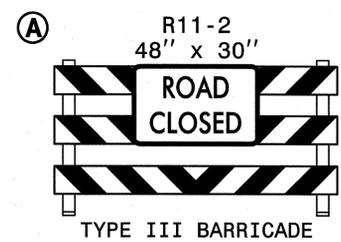
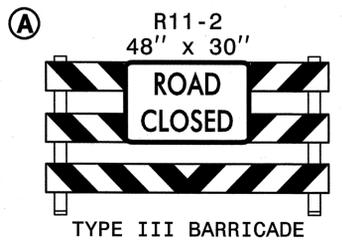
PHASE I
 DETAIL

8/17/99



REVISIONS

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



APPROVED: *[Signature]* DATE: 2-4-13

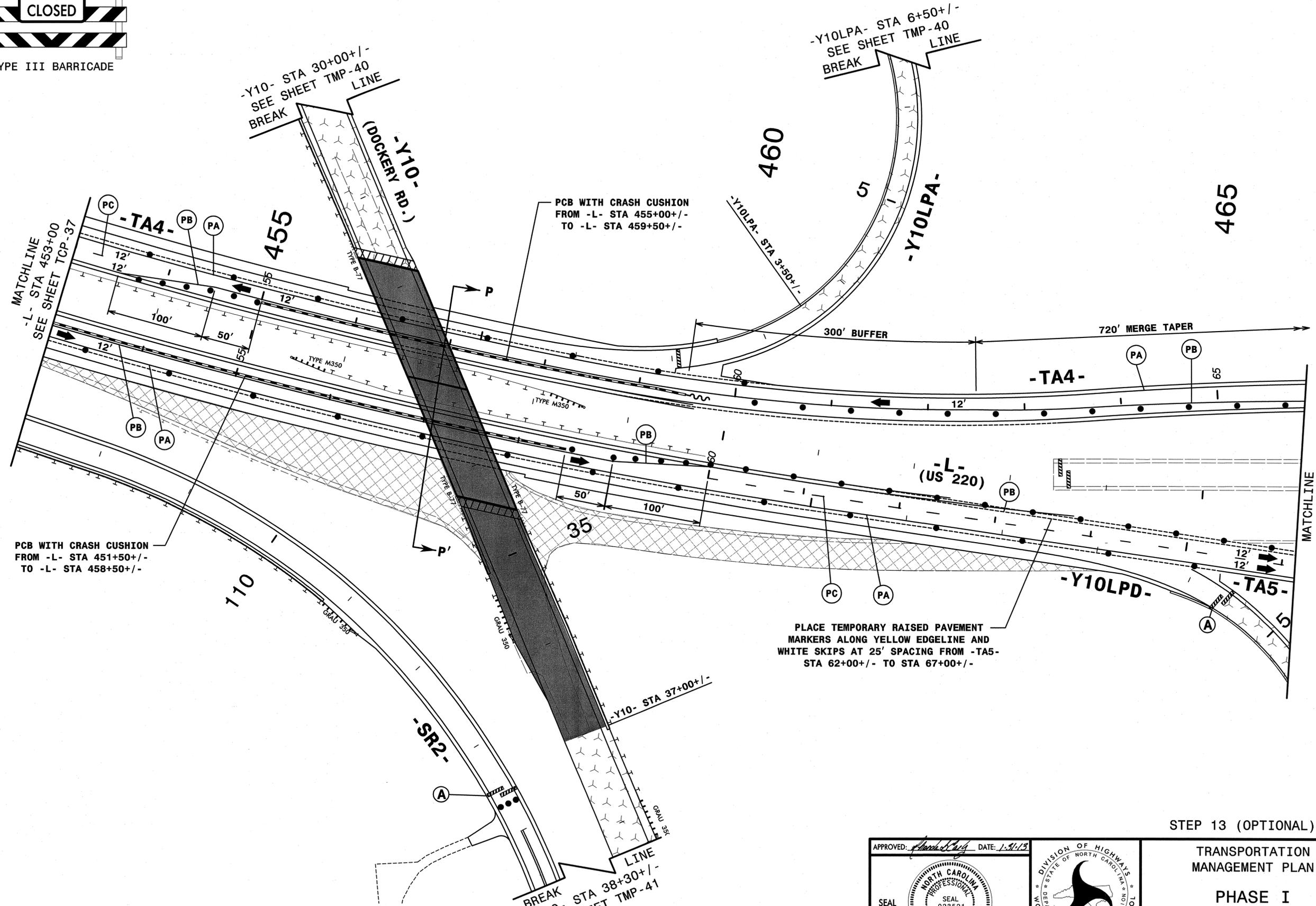
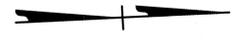
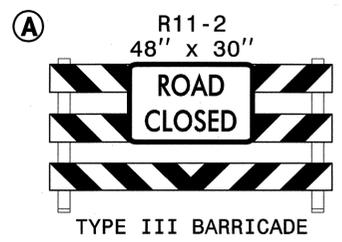
SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023521 WYONDA B. EARY

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

STEPS 9 THRU 15
 TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 DETAIL

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 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554



PCB WITH CRASH CUSHION FROM -L- STA 451+50+/- TO -L- STA 458+50+/-

PCB WITH CRASH CUSHION FROM -L- STA 455+00+/- TO -L- STA 459+50+/-

PLACE TEMPORARY RAISED PAVEMENT MARKERS ALONG YELLOW EDGELINE AND WHITE SKIPS AT 25' SPACING FROM -TA5- STA 62+00+/- TO STA 67+00+/-

REFER TO SHEETS TMP-42C FOR CUT SECTION(S).

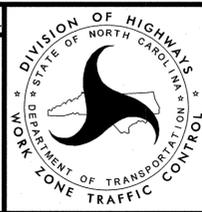
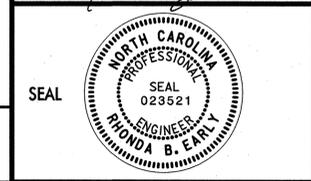
REVISIONS

QA/QC STAGE:

REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

STEP 13 (OPTIONAL)

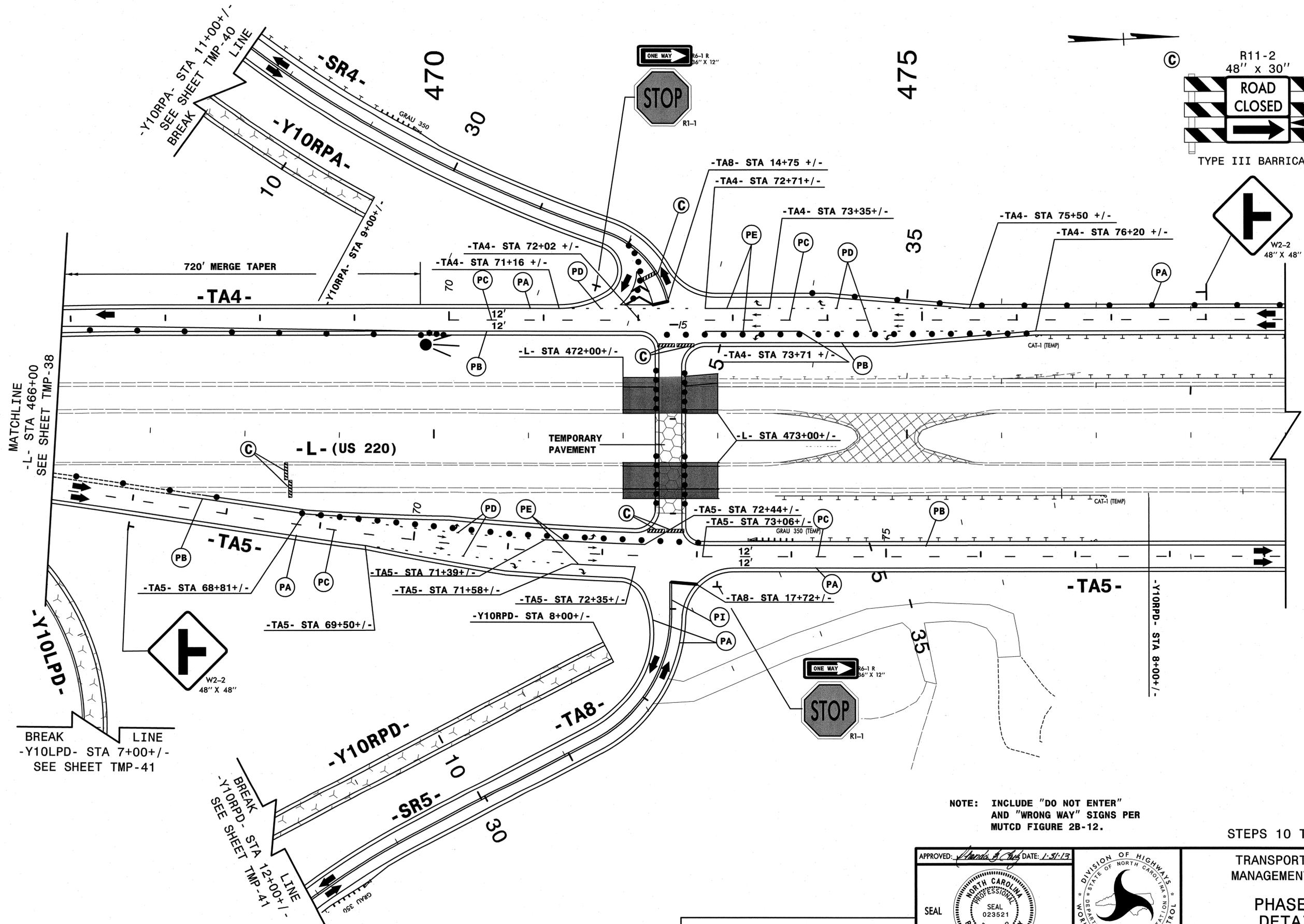
APPROVED: *[Signature]* DATE: 1-9-13



TRANSPORTATION MANAGEMENT PLAN
PHASE I
DETAIL

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Raleigh, North Carolina 27609
NC License No: C-1554

B/17/99



MATCHLINE
-L- STA 466+00
SEE SHEET TMP-38

BREAK LINE
-Y10LPD- STA 7+00 +/-
SEE SHEET TMP-41

BREAK LINE
-Y10RPD- STA 12+00 +/-
SEE SHEET TMP-41

NOTE: INCLUDE "DO NOT ENTER" AND "WRONG WAY" SIGNS PER MUTCD FIGURE 2B-12.

STEPS 10 THRU 11

TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL

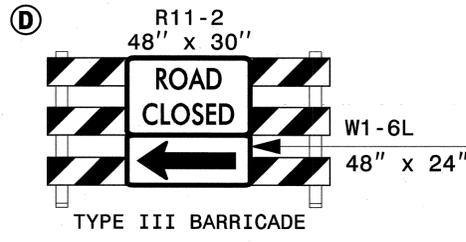
REVISIONS

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

HNTB HNTB NORTH CAROLINA, P.C.
349 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. C-1554

APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
HYONDA B. EARLY





REVISIONS

DATE: 1/17/99

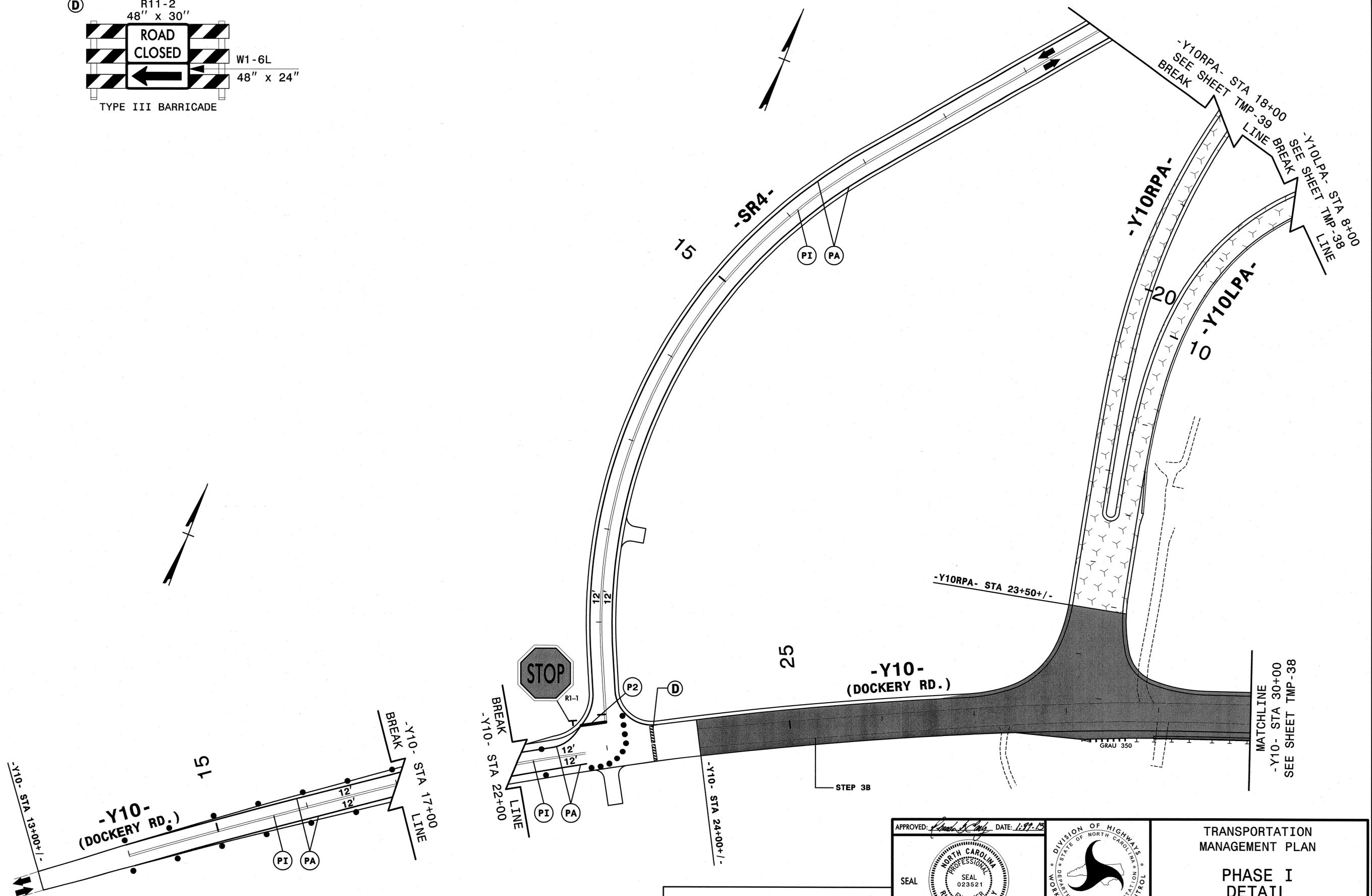
STAGE: _____

REVIEW: _____

CONCUR: _____

REVISE: _____

VERIFY: _____



SEE SHEET TMP-2 FOR -Y10- DETOUR DETAIL.

HNTB HNTB NORTH CAROLINA, P.C.
349 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
No. License No: C-1554

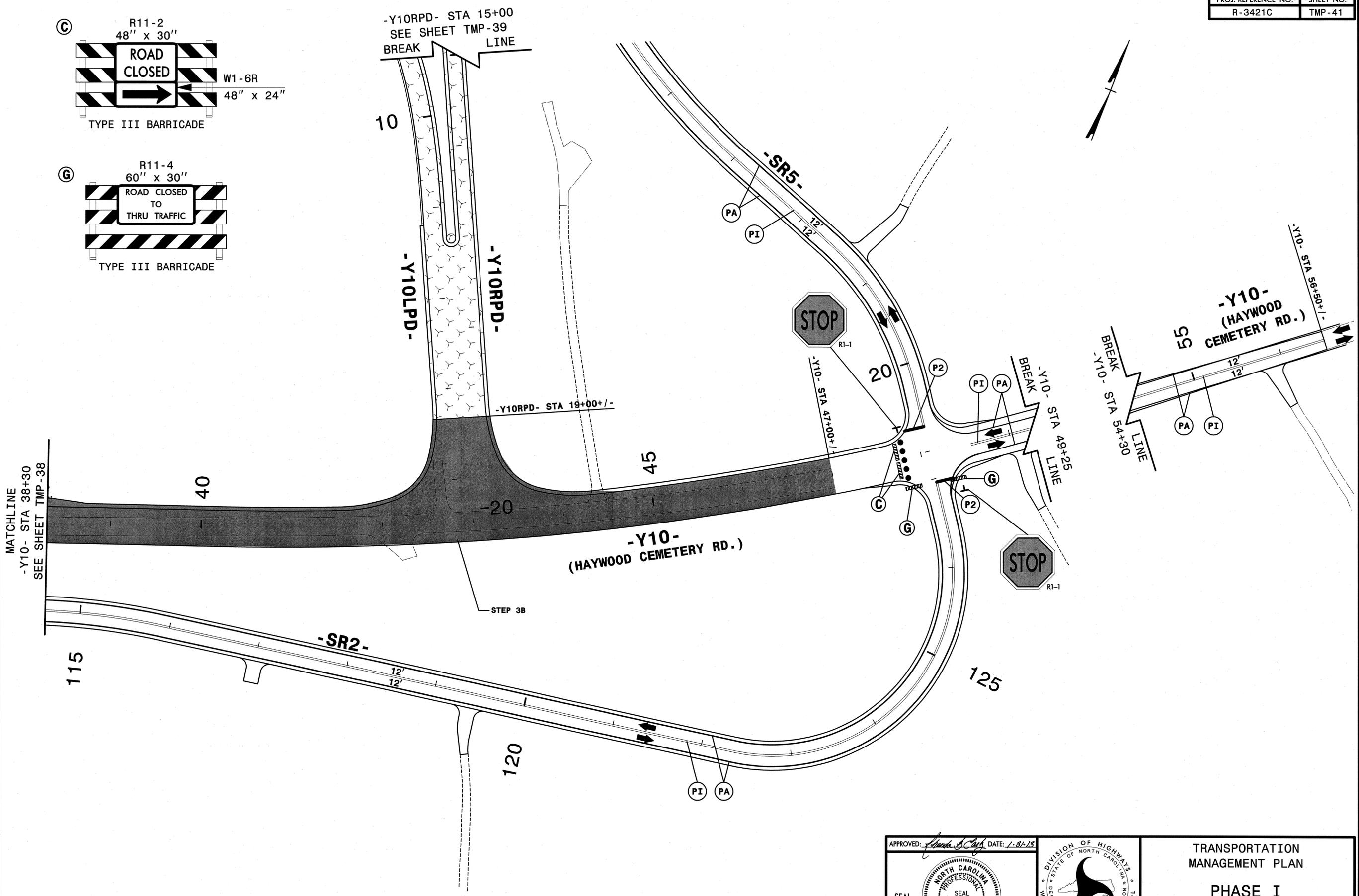
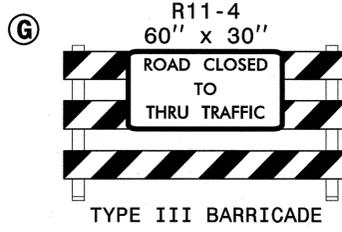
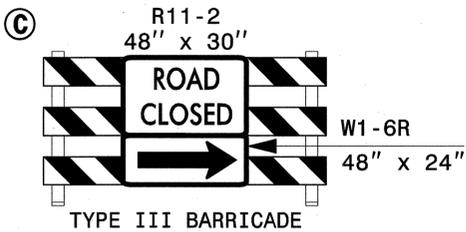
APPROVED: *[Signature]* DATE: 1/17/99

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
FRONDA B. EARLY
023521



TRANSPORTATION
MANAGEMENT PLAN

PHASE I
DETAIL



REVISIONS

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

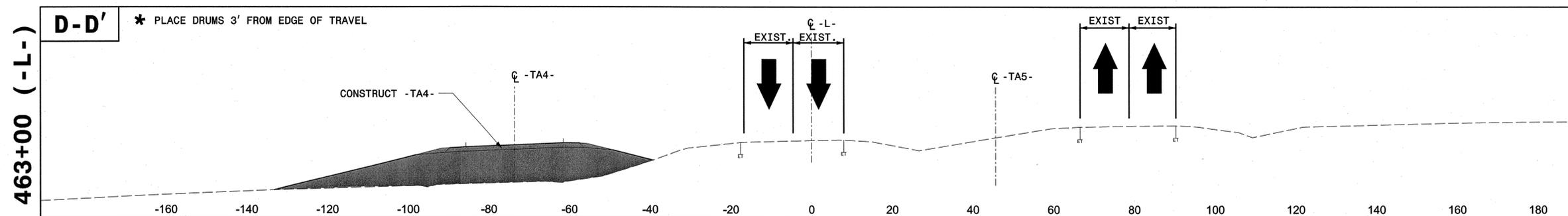
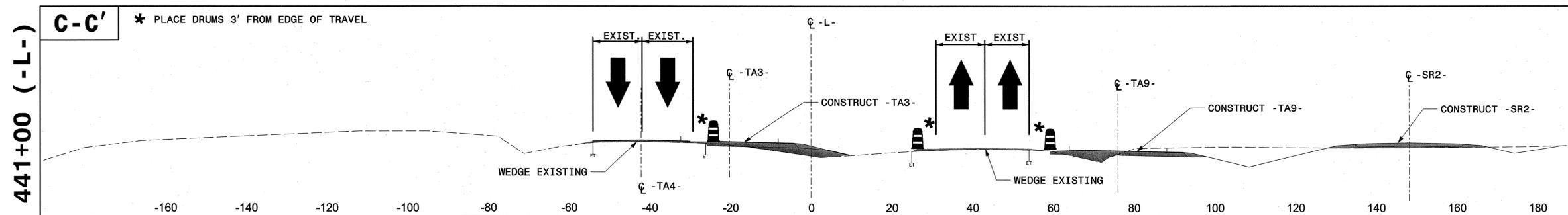
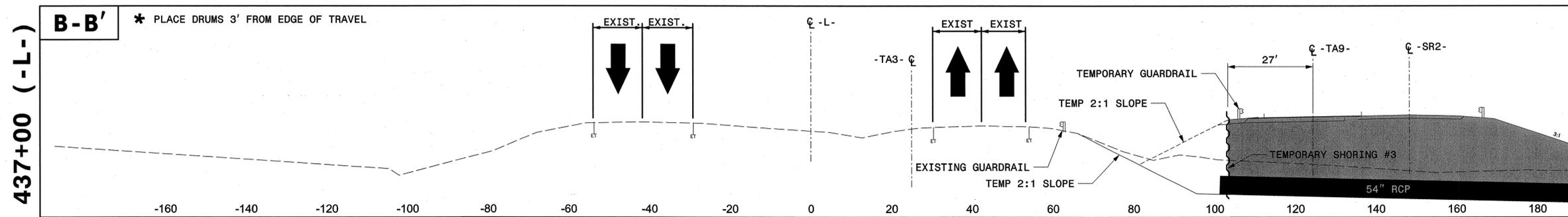
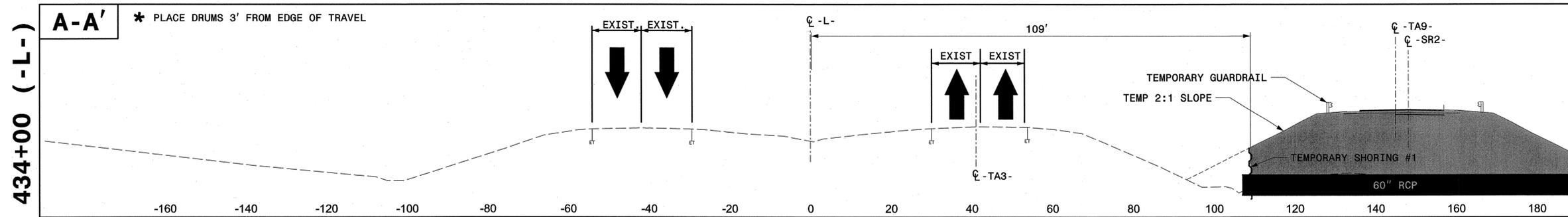
SEE SHEET TMP-2 FOR -Y10- DETOUR DETAIL.

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
WYONDA B. EARLY
023521

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

TRANSPORTATION
MANAGEMENT PLAN
PHASE I
DETAIL



REVISIONS

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

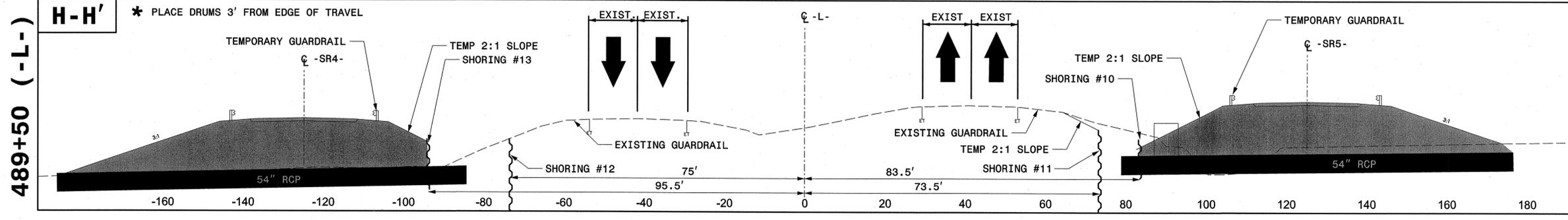
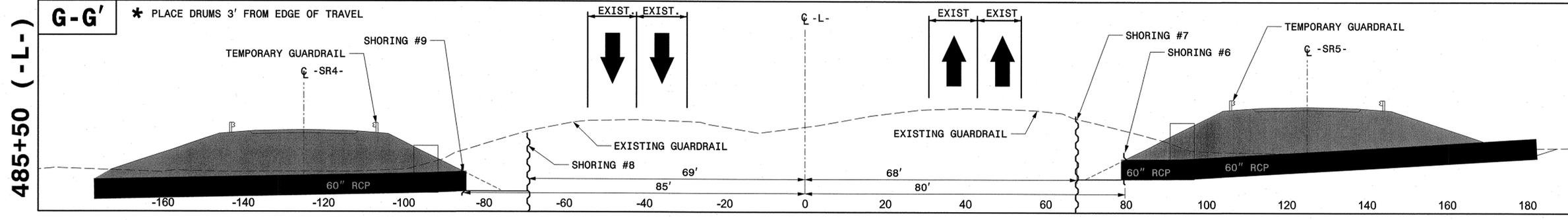
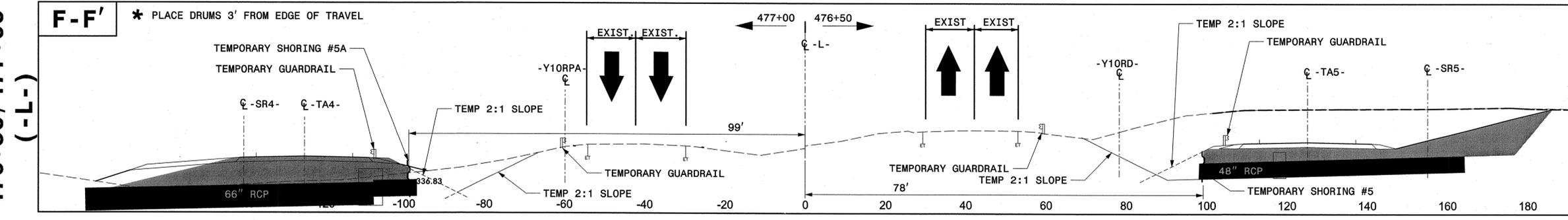
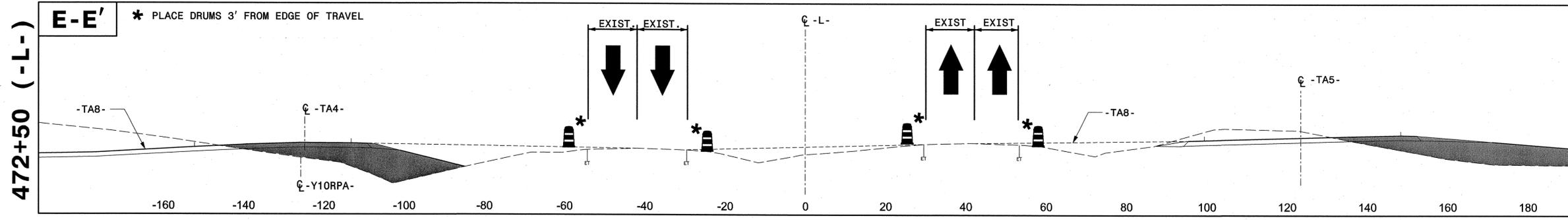
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 PRONDA B. EARLY



TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 CUT SECTIONS

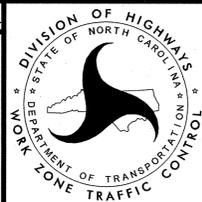
8/17/99



REVISIONS

QA/QC STAGE:
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CONCUR:
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VERIFY:

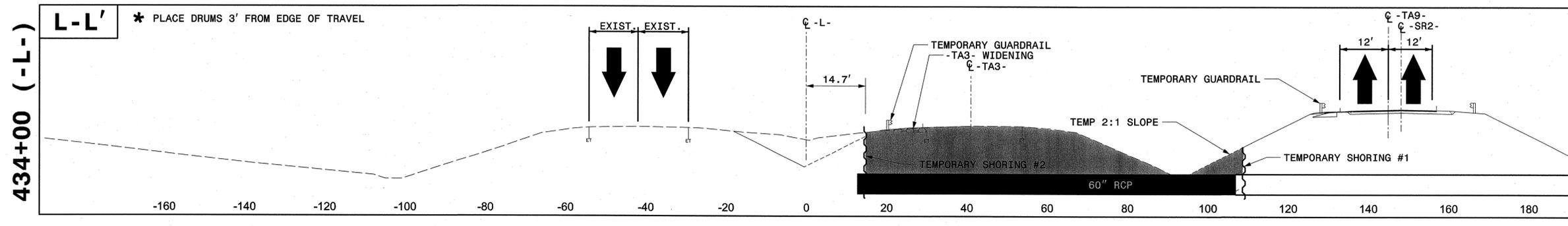
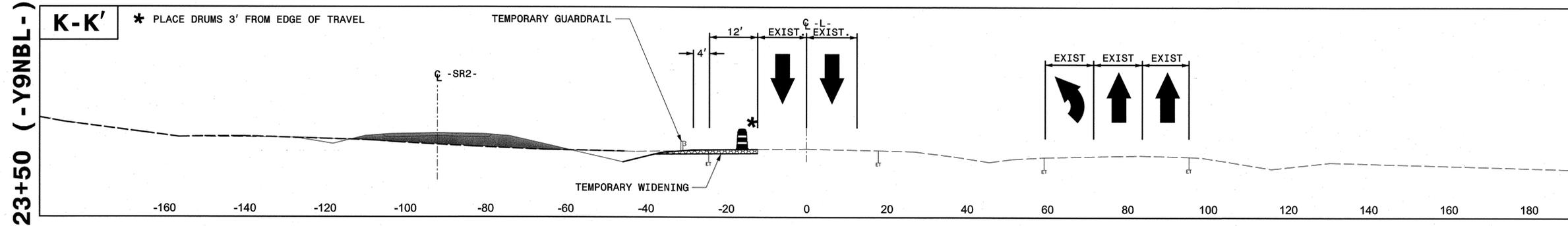
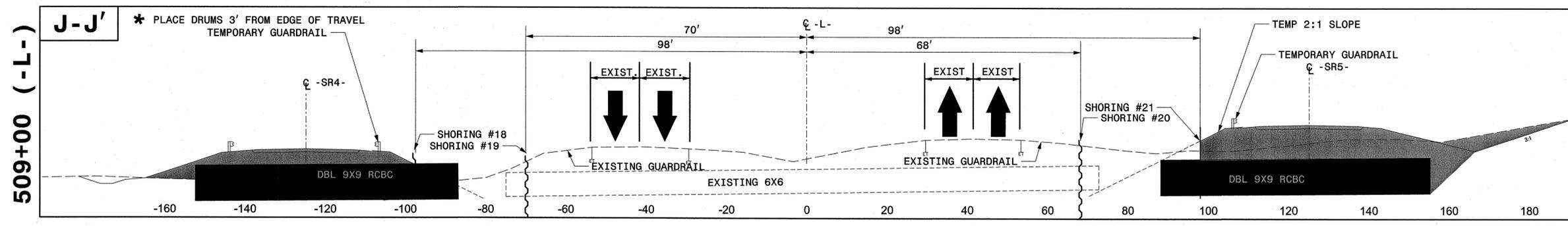
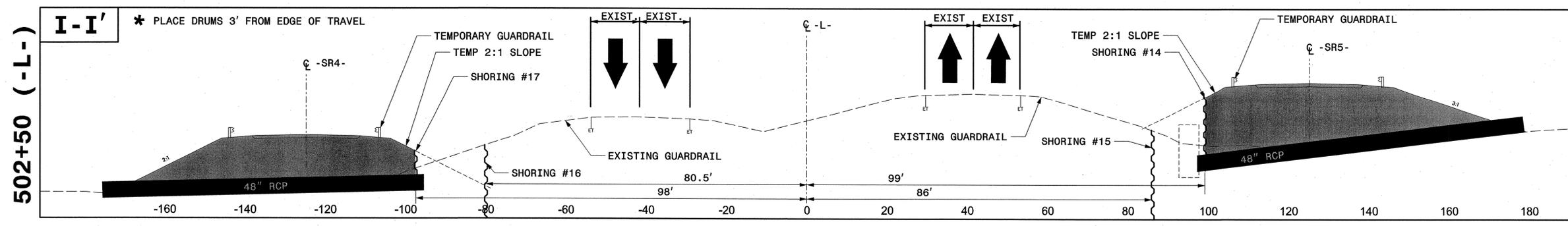
APPROVED: *[Signature]* DATE: 1.31.13



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RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

TRANSPORTATION
MANAGEMENT PLAN

PHASE I
CUT SECTIONS



REVISIONS

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

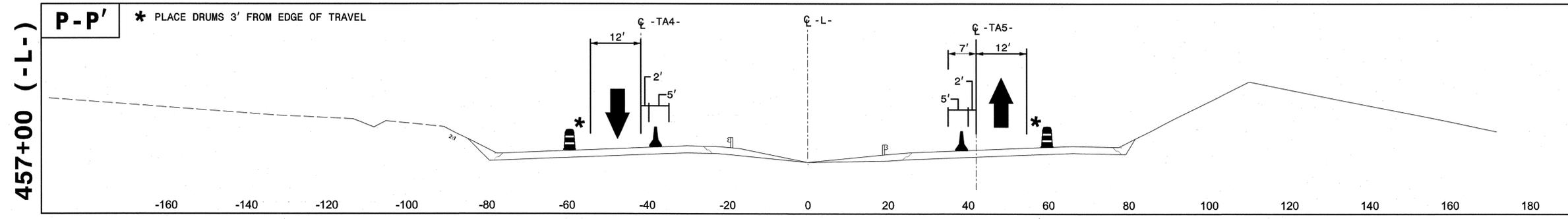
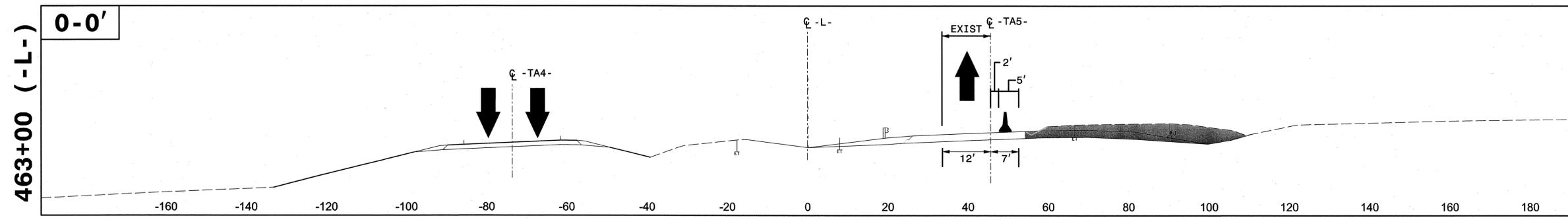
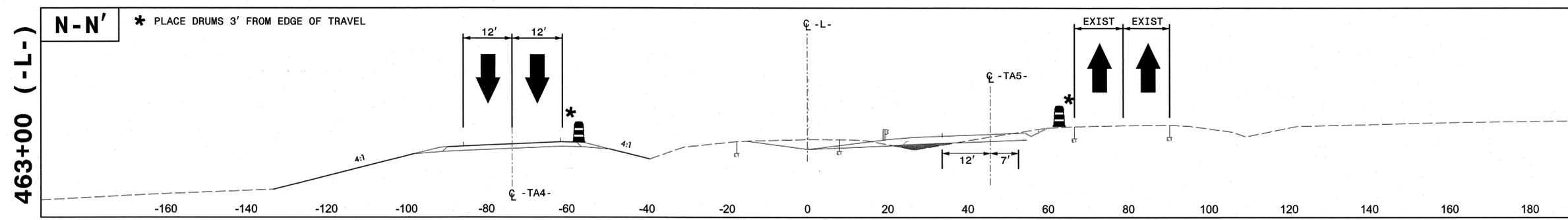
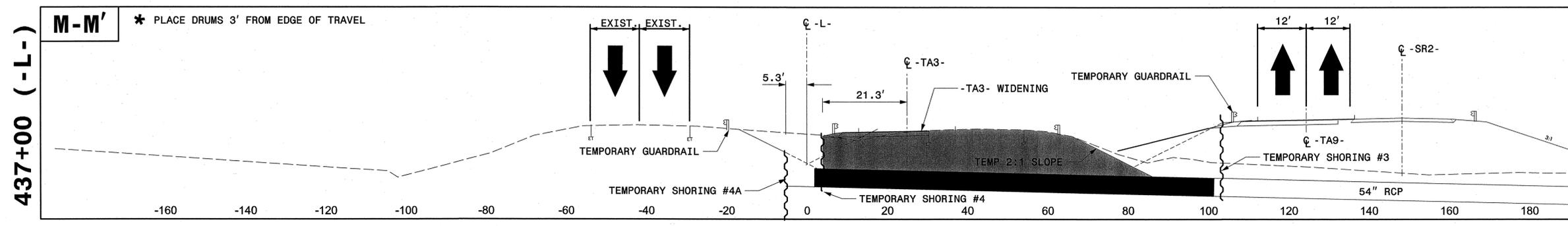
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
 SEAL
 NORTH CAROLINA
 PROFESSIONAL
 ENGINEER
 PIONDA B. EARLY
 023521



TRANSPORTATION
 MANAGEMENT PLAN
 PHASE I
 CUT SECTIONS

8/17/99



REVISIONS

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

APPROVED: *[Signature]* DATE: 1.31.13

SEAL

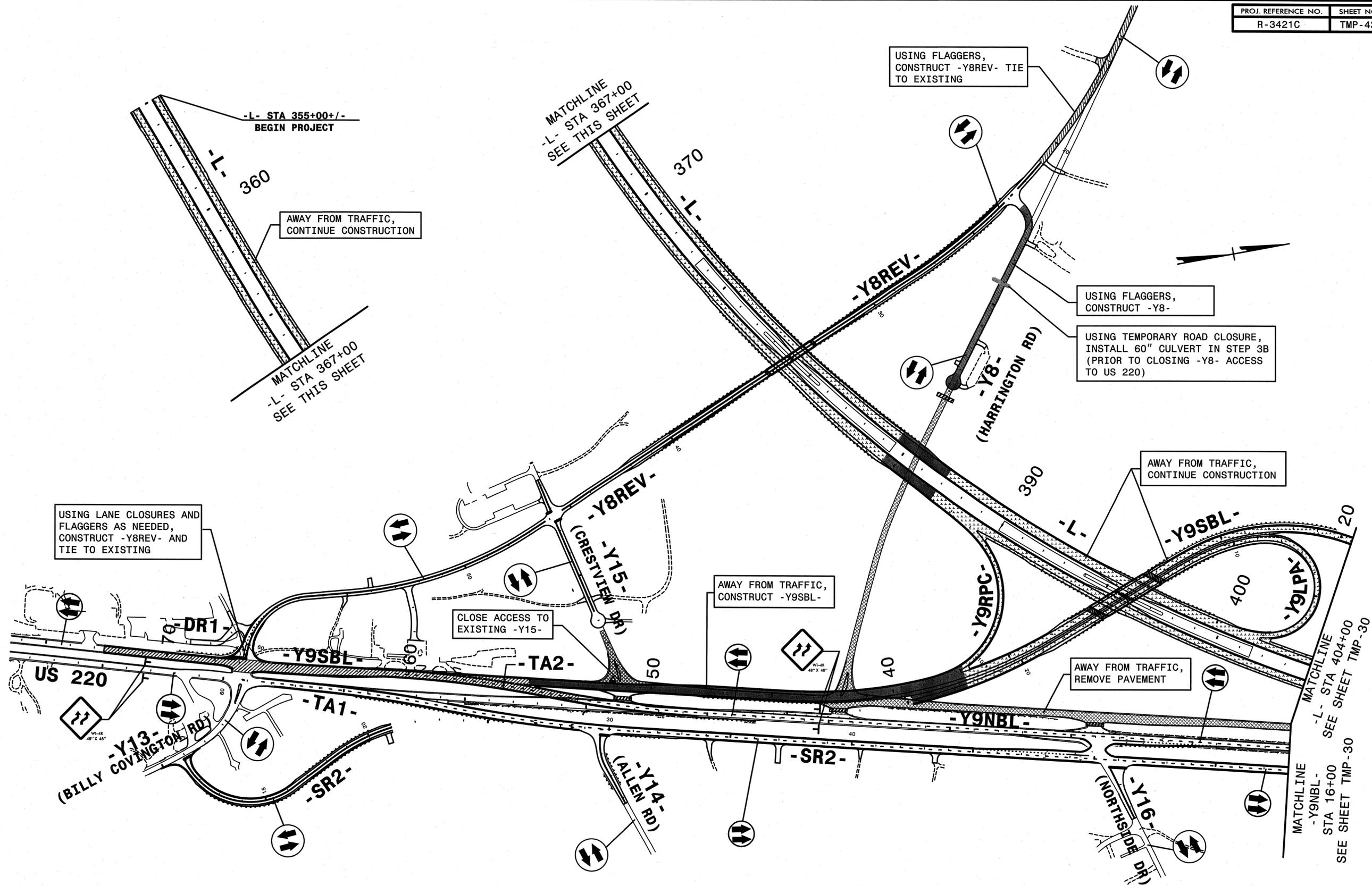


TRANSPORTATION
MANAGEMENT PLAN

PHASE I
CUT SECTIONS

HNTB

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554



REVISIONS

QA/QC STAGE:

REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____

PLACE LANE SHIFT SIGNS (W1-4) ON LEFT AND RIGHT SHOULDERS, 500'+/- PRIOR TO SHIFT

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 NC License No: C-1554

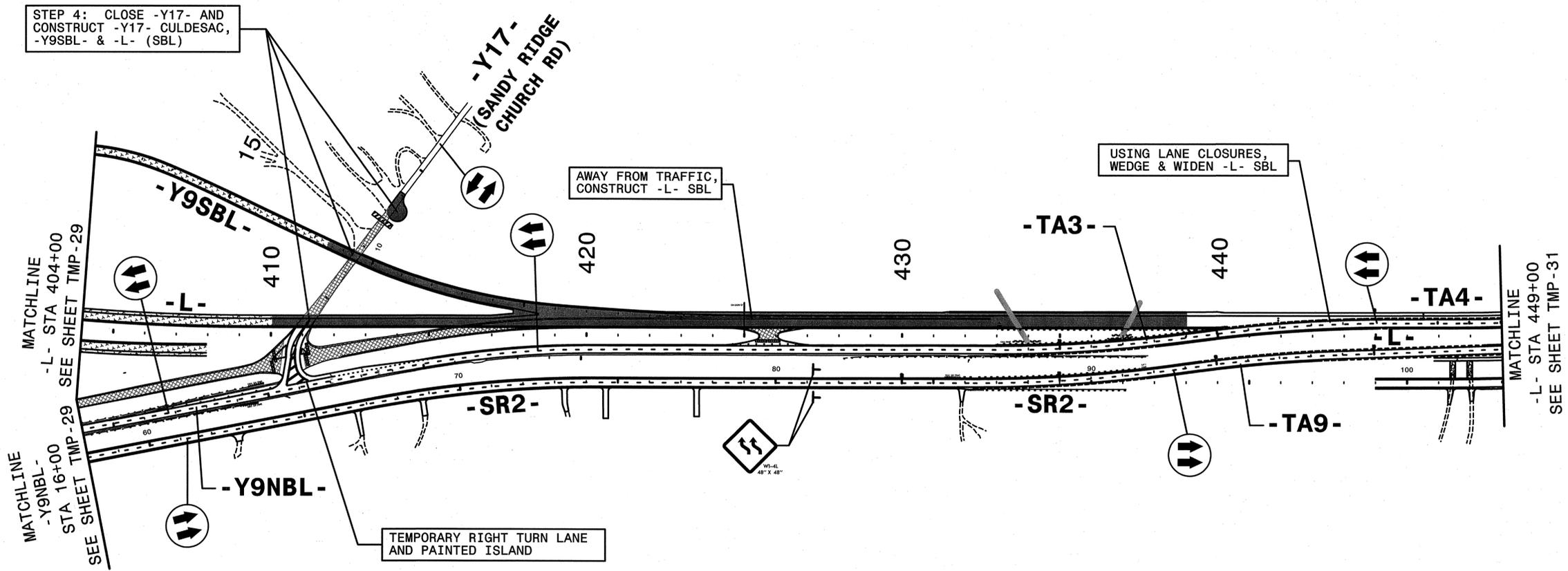
APPROVED: *[Signature]* DATE: 1/31/15

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 HYONDA B. EARLY



TRANSPORTATION MANAGEMENT PLAN
 PHASE II OVERVIEW

8/17/99



REVISIONS

Q/A/QC STAGE: _____
 REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____

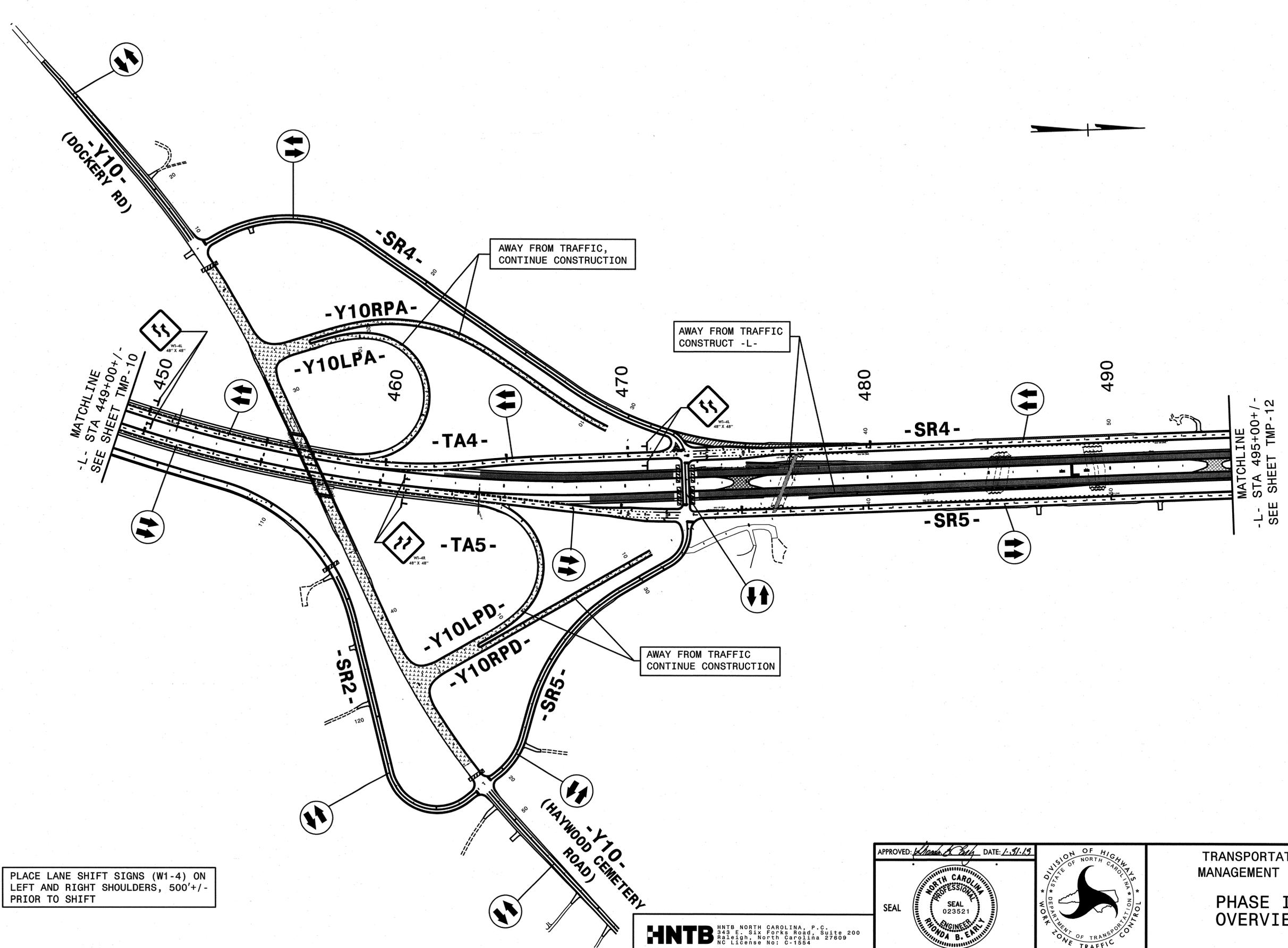
APPROVED: *[Signature]* DATE: 1-31-13



TRANSPORTATION
 MANAGEMENT PLAN
 PHASE II
 OVERVIEW

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 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1954

8/17/99



PLACE LANE SHIFT SIGNS (W1-4) ON LEFT AND RIGHT SHOULDERS, 500' +/- PRIOR TO SHIFT

REVISIONS

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

APPROVED: *[Signature]* DATE: 1-31-13

SEAL

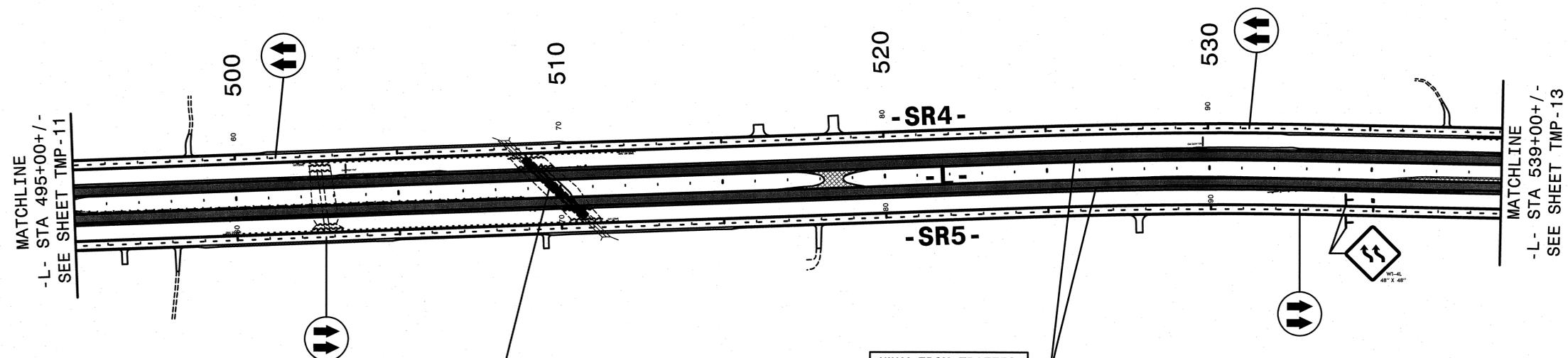
TRANSPORTATION MANAGEMENT PLAN

PHASE II OVERVIEW

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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

8/17/99

REVISIONS



AWAY FROM TRAFFIC, CONSTRUCT RCBC
(SEE ERSOSION CONTROL PLANS FOR
DRAINAGE CONSTRUCTION SEQUENCE.)

AWAY FROM TRAFFIC,
CONSTRUCT -L-

PLACE LANE SHIFT SIGNS (W1-4) ON
LEFT AND RIGHT SHOULDERS, 500'+/-
PRIOR TO SHIFT

###SYTIME###
###CONTRACTOR###
###DATE###
###DRAWN###
###CHECKED###
###SCALE###
###SHEET###
###TOTAL###

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

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

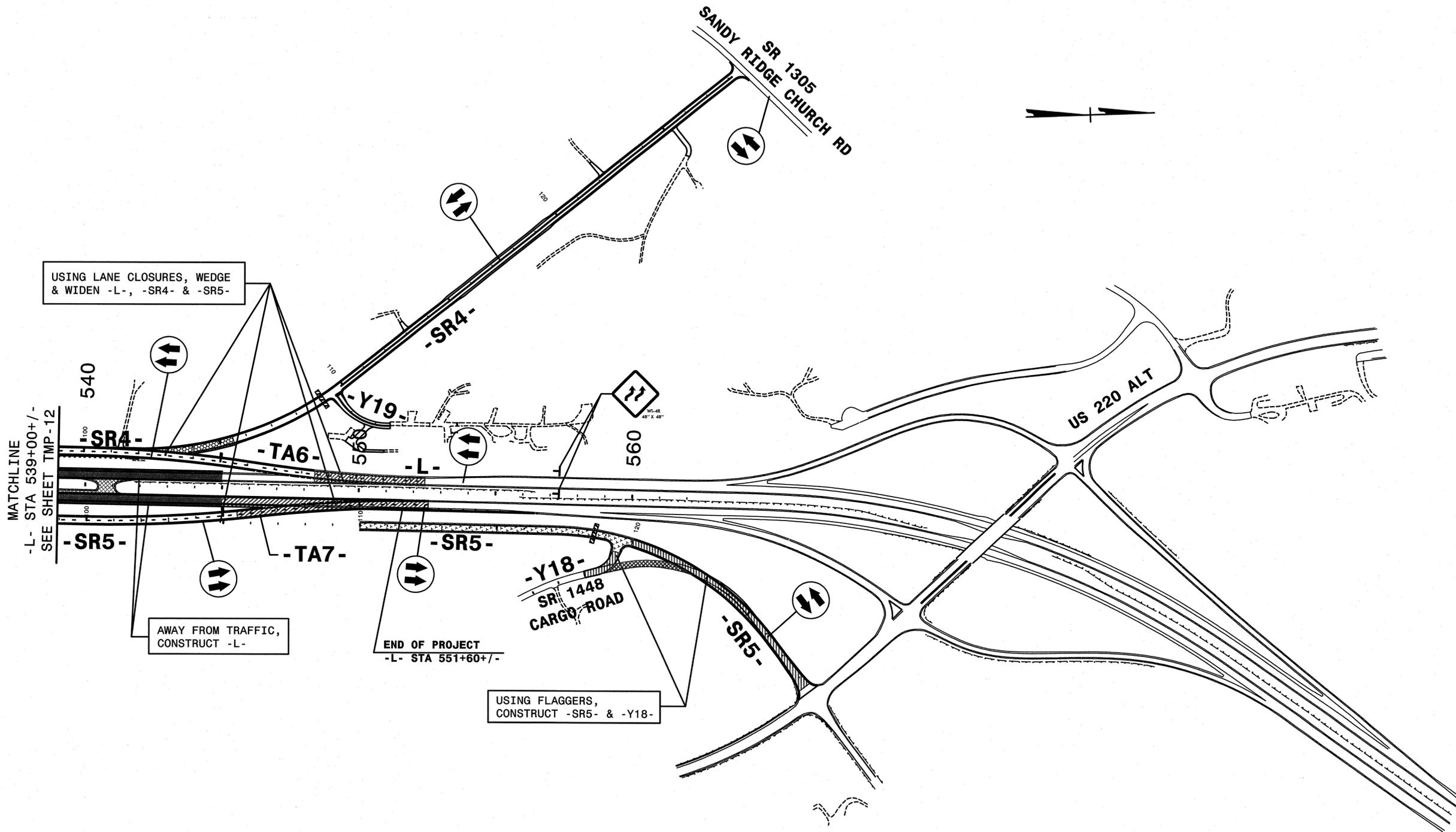
APPROVED: *Wanda B. Early* DATE: 1-31-13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
WANDA B. EARLY
023521



TRANSPORTATION
MANAGEMENT PLAN

PHASE II
OVERVIEW

8/17/99



USING LANE CLOSURES, WEDGE & WIDEN -L-, -SR4- & -SR5-

AWAY FROM TRAFFIC, CONSTRUCT -L-

END OF PROJECT
-L- STA 551+60+/-

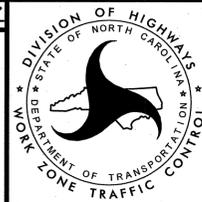
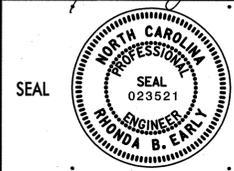
USING FLAGGERS, CONSTRUCT -SR5- & -Y18-

PLACE LANE SHIFT SIGNS (W1-4) ON LEFT AND RIGHT SHOULDERS, 500'+/- PRIOR TO SHIFT

REVISIONS

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

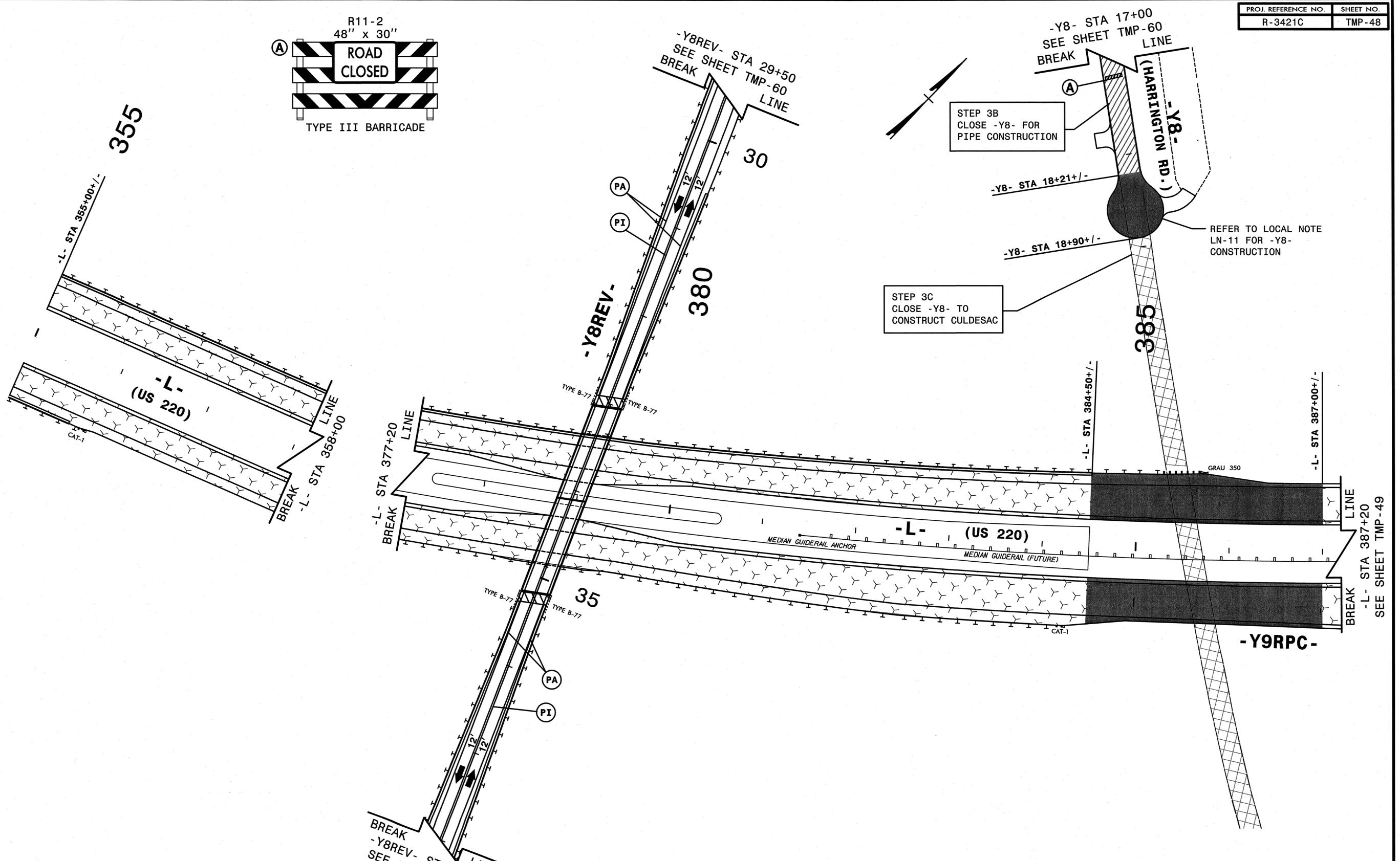
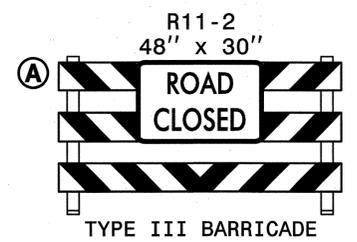
APPROVED: *[Signature]* DATE: 1-31-13



TRANSPORTATION
MANAGEMENT PLAN

PHASE II
OVERVIEW

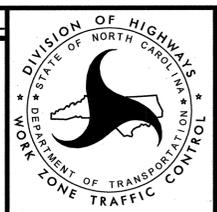
HNTB HNTB NORTH CAROLINA, P.C.
349 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554



REVISIONS

Q&QC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

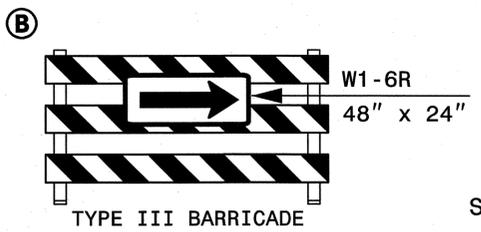
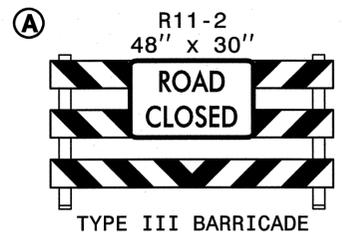
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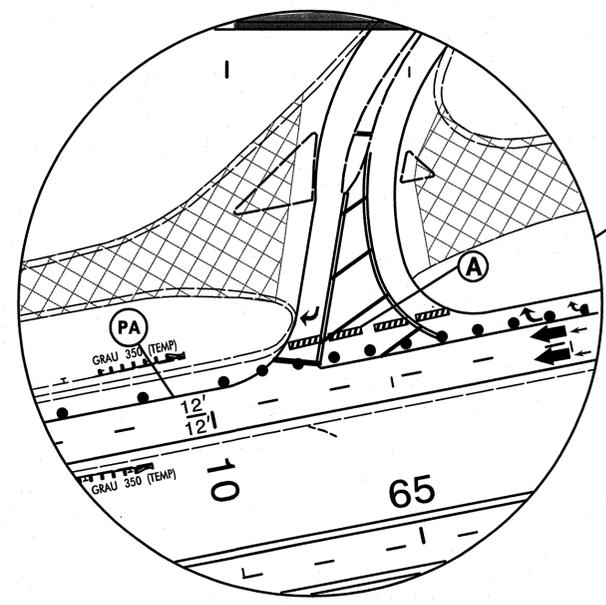
TRANSPORTATION
MANAGEMENT PLAN

**PHASE II
DETAIL**

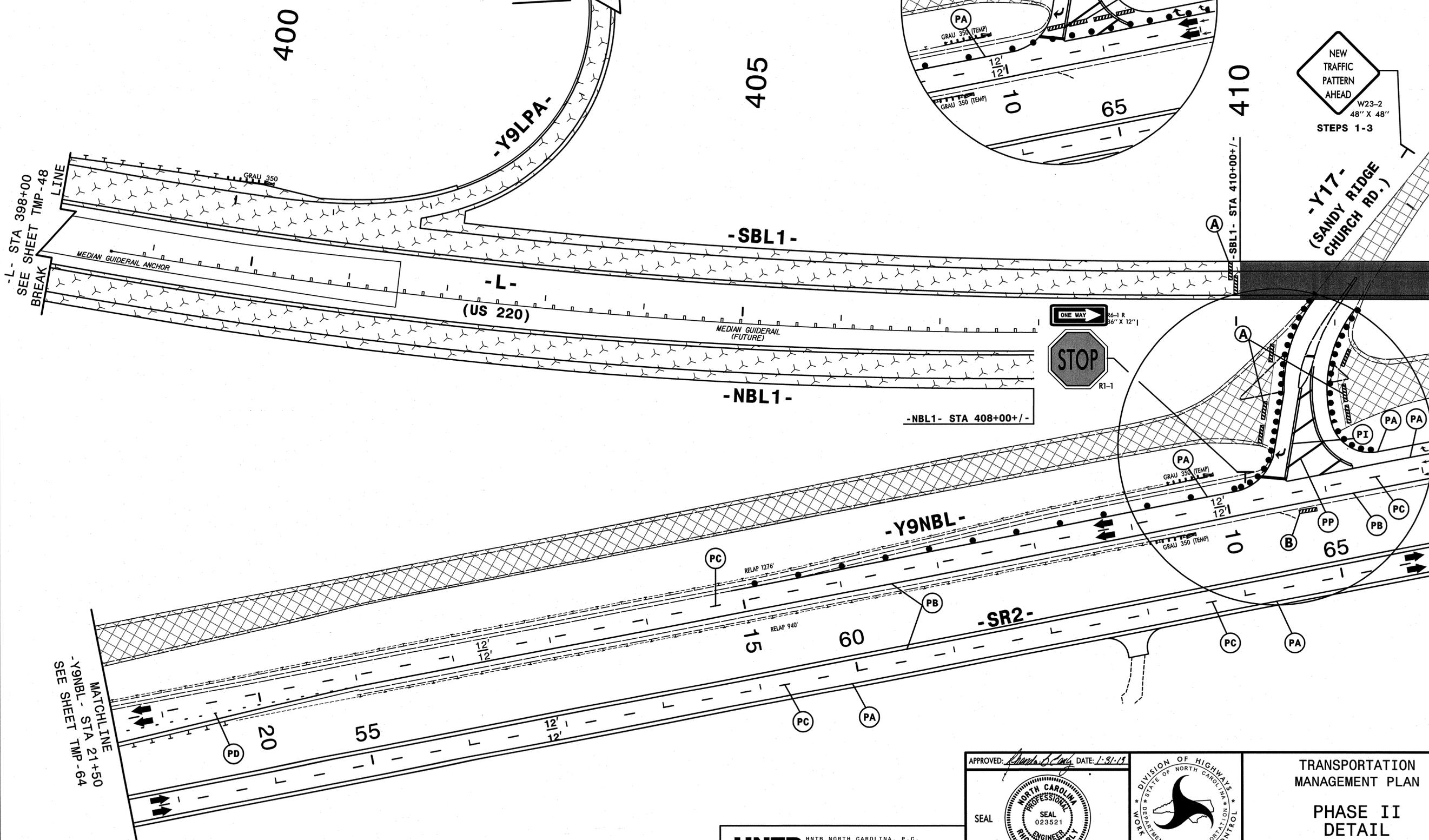
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HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554



SEE SHEET TMP-64
-Y9LPA- STA 5+00
BREAK LINE



STEP 4
CLOSE -Y17- USING DRUMS
AND TYPE III BARRICADES



-L- STA 398+00
SEE SHEET TMP-48
BREAK LINE

410

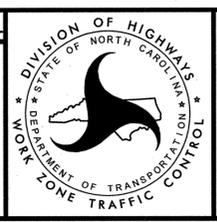
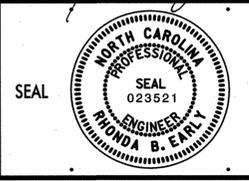
MATCHLINE
-L- STA 412+00
SEE SHEET TMP-50

MATCHLINE
-Y9NBL- STA 21+50
SEE SHEET TMP-64

REVISIONS

GAQC STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

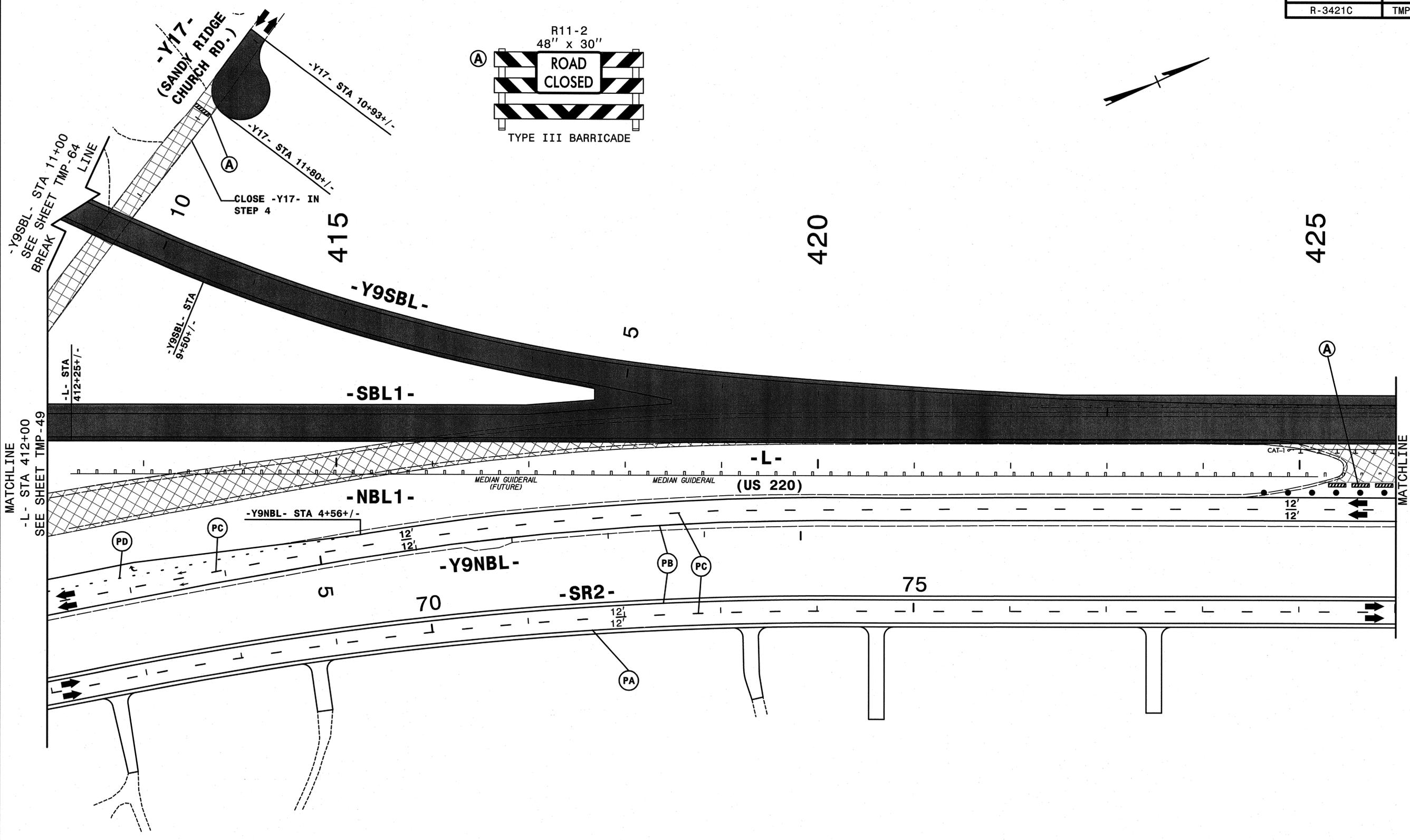
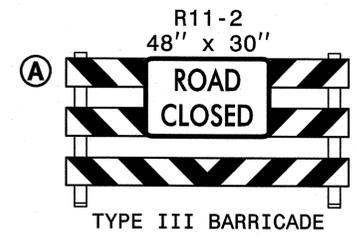
APPROVED: *[Signature]* DATE: 1-31-17



TRANSPORTATION
MANAGEMENT PLAN
**PHASE II
DETAIL**

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HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
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NC License No: C-1554

8/17/99



REVISIONS

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

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

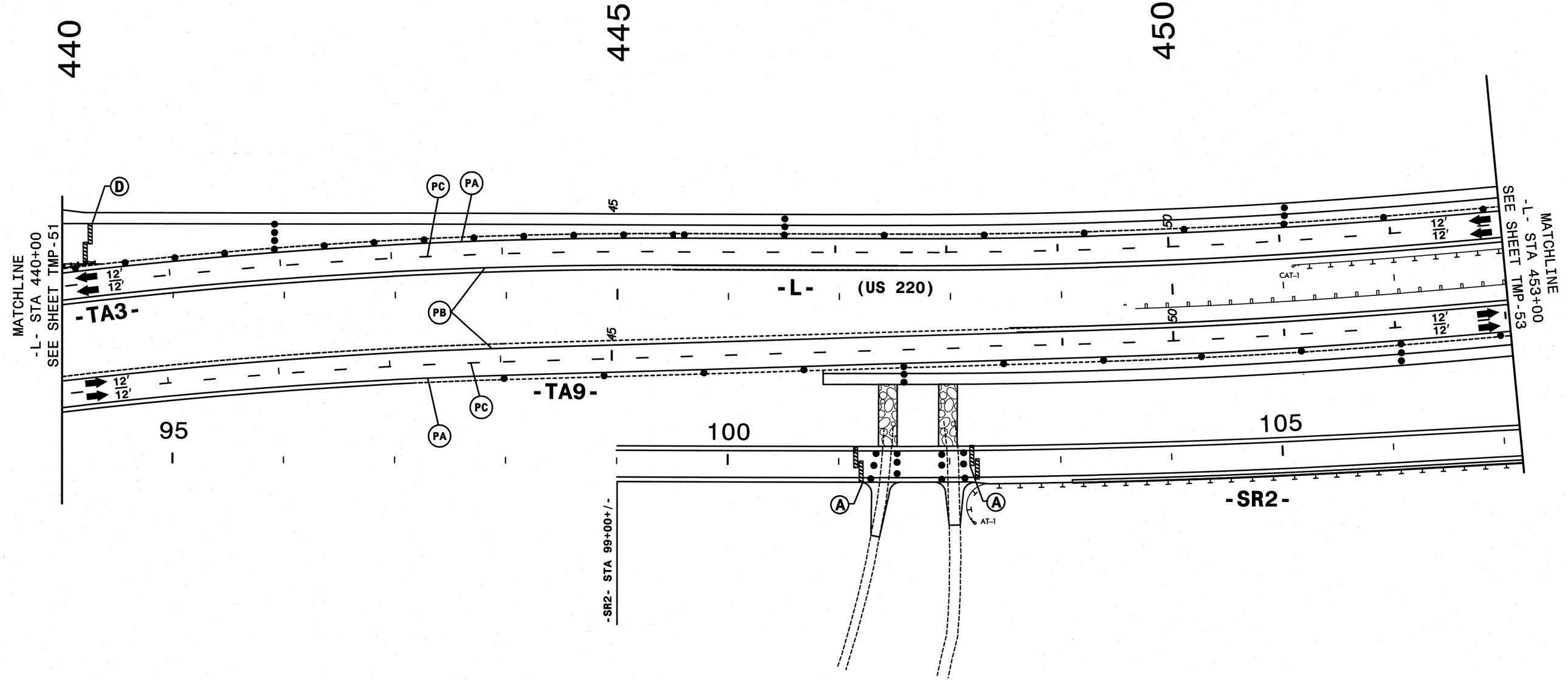
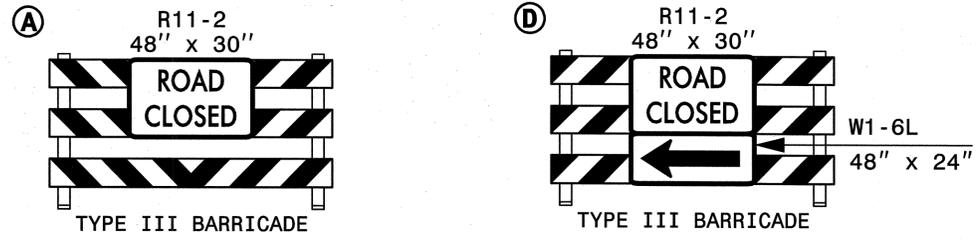
APPROVED: *Flonda B. Early* DATE: 1-31-13

SEAL



TRANSPORTATION
 MANAGEMENT PLAN

PHASE II
 DETAIL



REVISIONS

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

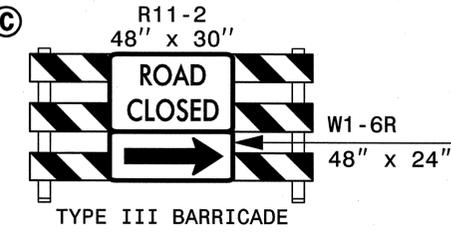
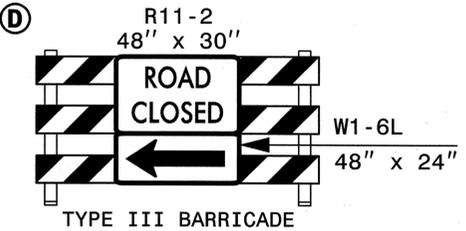
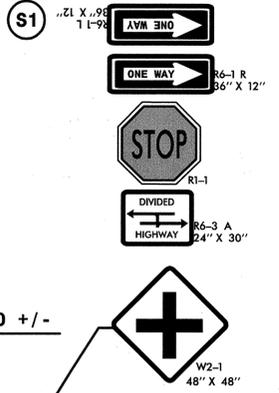
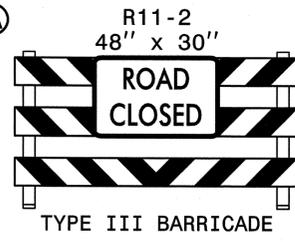
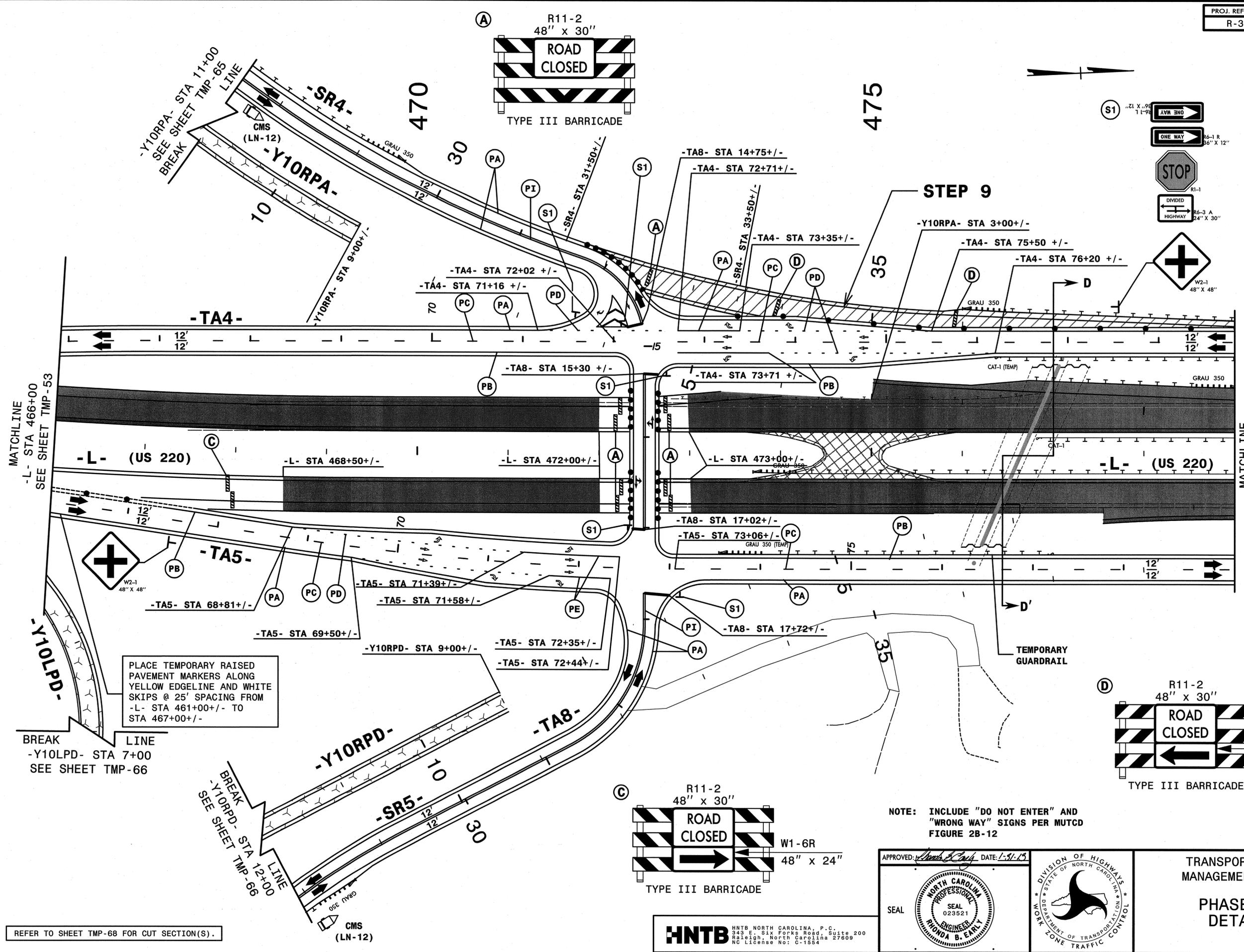
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: *[Signature]* DATE: 1-31-13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 RONDA B. EARLY
 023521



TRANSPORTATION MANAGEMENT PLAN
 PHASE II
 DETAIL

8/17/99



PLACE TEMPORARY RAISED PAVEMENT MARKERS ALONG YELLOW EDGELINE AND WHITE SKIPS @ 25' SPACING FROM -L- STA 461+00+/- TO STA 467+00+/-

NOTE: INCLUDE "DO NOT ENTER" AND "WRONG WAY" SIGNS PER MUTCD FIGURE 2B-12

REFER TO SHEET TMP-68 FOR CUT SECTION(S).

REVISIONS

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

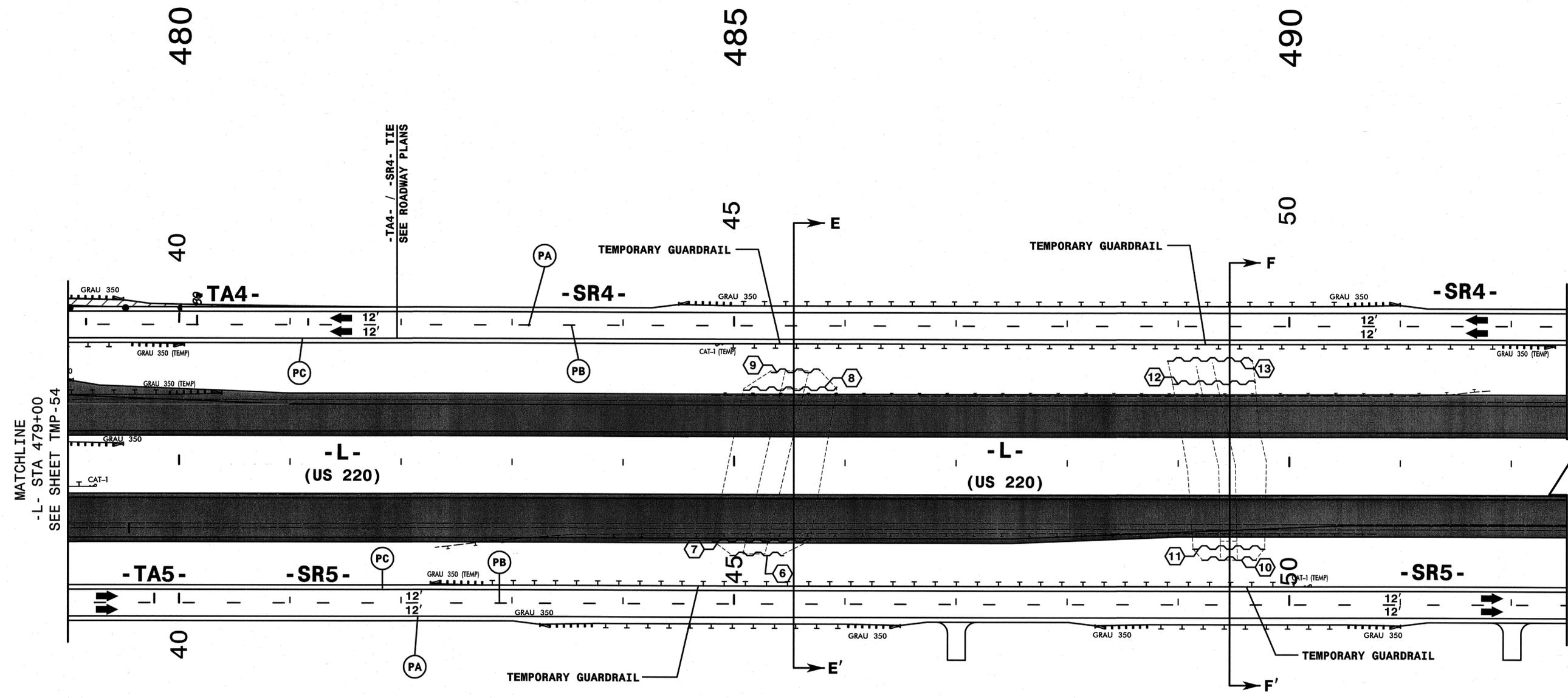
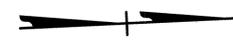
APPROVED: *[Signature]* DATE: 1-31-13



TRANSPORTATION MANAGEMENT PLAN
PHASE II
DETAIL

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

8/17/99



REVISIONS

MATCHLINE
-L- STA 479+00
SEE SHEET TMP-54

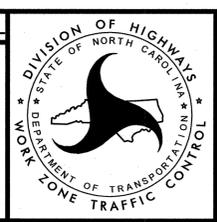
LINE
BREAK
-L- STA 492+50
SEE SHEET TMP-56

QACQ STAGE:
REVIEW:
CONCUR:
REVISE:
VERIFY:

REFER TO SHEETS TMP-68A FOR CUT SECTION(S).

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

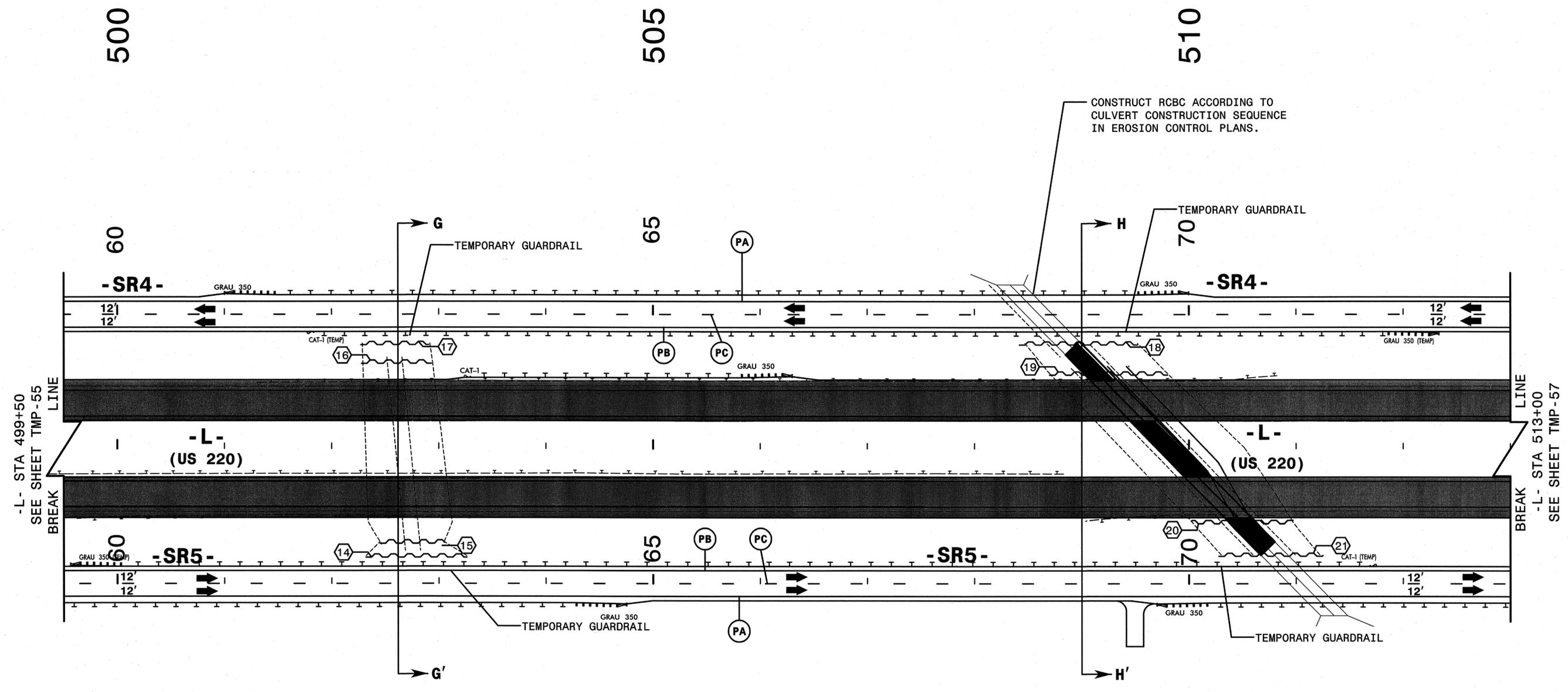
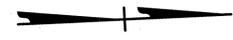
APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
THOMAS B. EARLY
023521



TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL

8/17/99



REVISIONS

-L- STA 499+50
SEE SHEET TMP-55
BREAK LINE

BREAK LINE
-L- STA 513+00
SEE SHEET TMP-57

-L-
(US 220)

-L-
(US 220)

-SR5-

-SR5-

REFER TO SHEETS TMP-68A FOR CUT SECTION(S).

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Theresa S. Early* DATE: 1-31-15
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
THONDA B. EARLY
023521



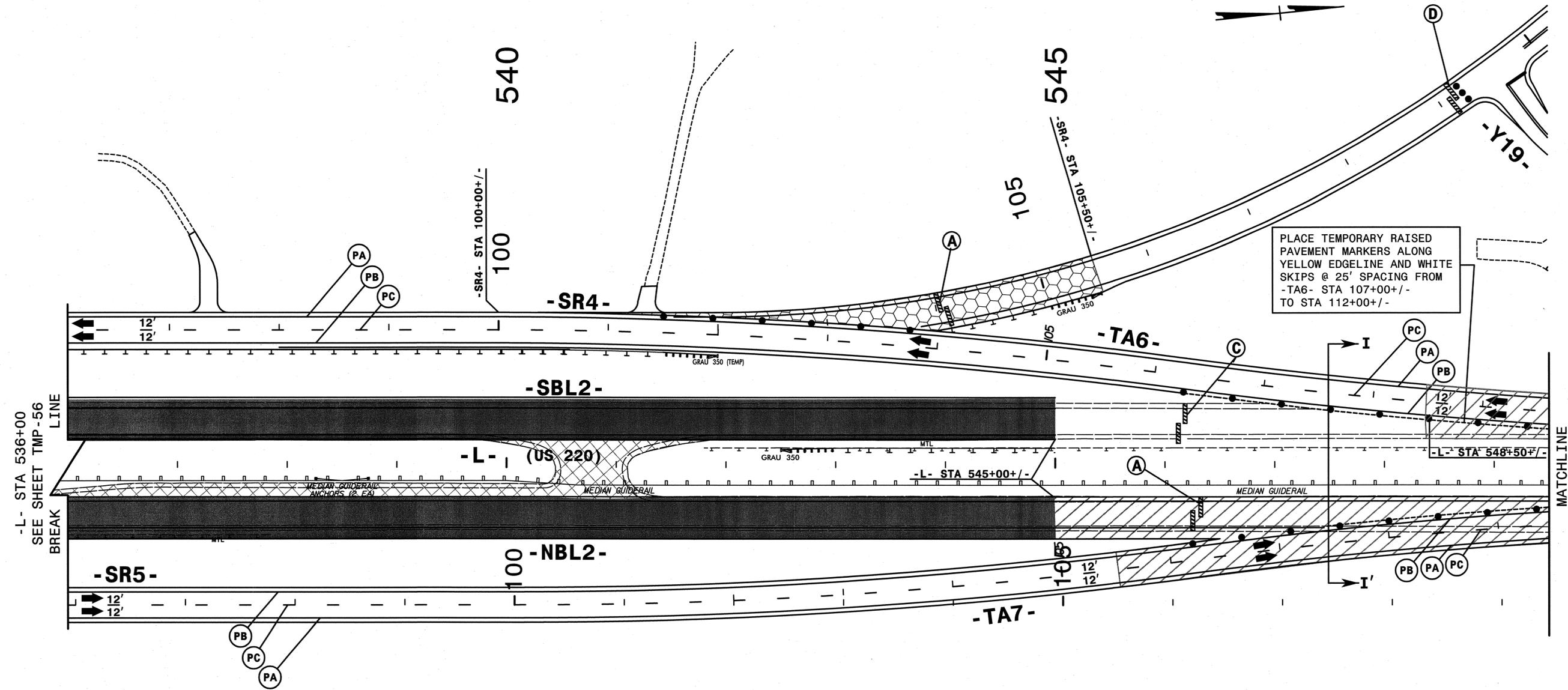
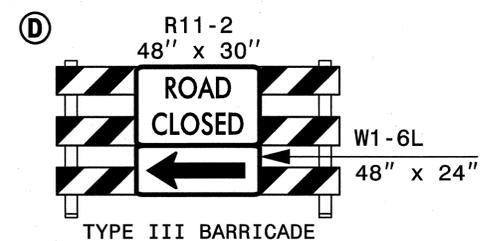
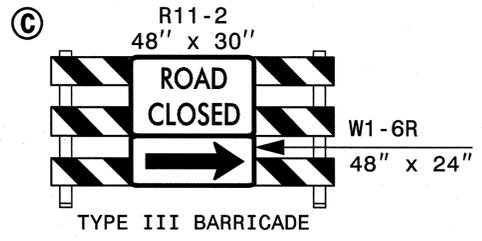
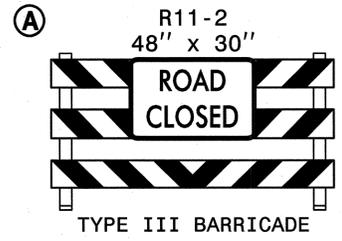
TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL

SYSTEMS
CONCURRED
REVISIONS
DATE
BY
CHECKED
DATE
BY
QA/QC STAGE

REVIEW:
CONCUR:
REVISE:
VERIFY:

8/17/99



REVISIONS

-L- STA 536+00
SEE SHEET TMP-56
BREAK
LINE

MATCHLINE
-L- STA 549+50
SEE SHEET TMP-58

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

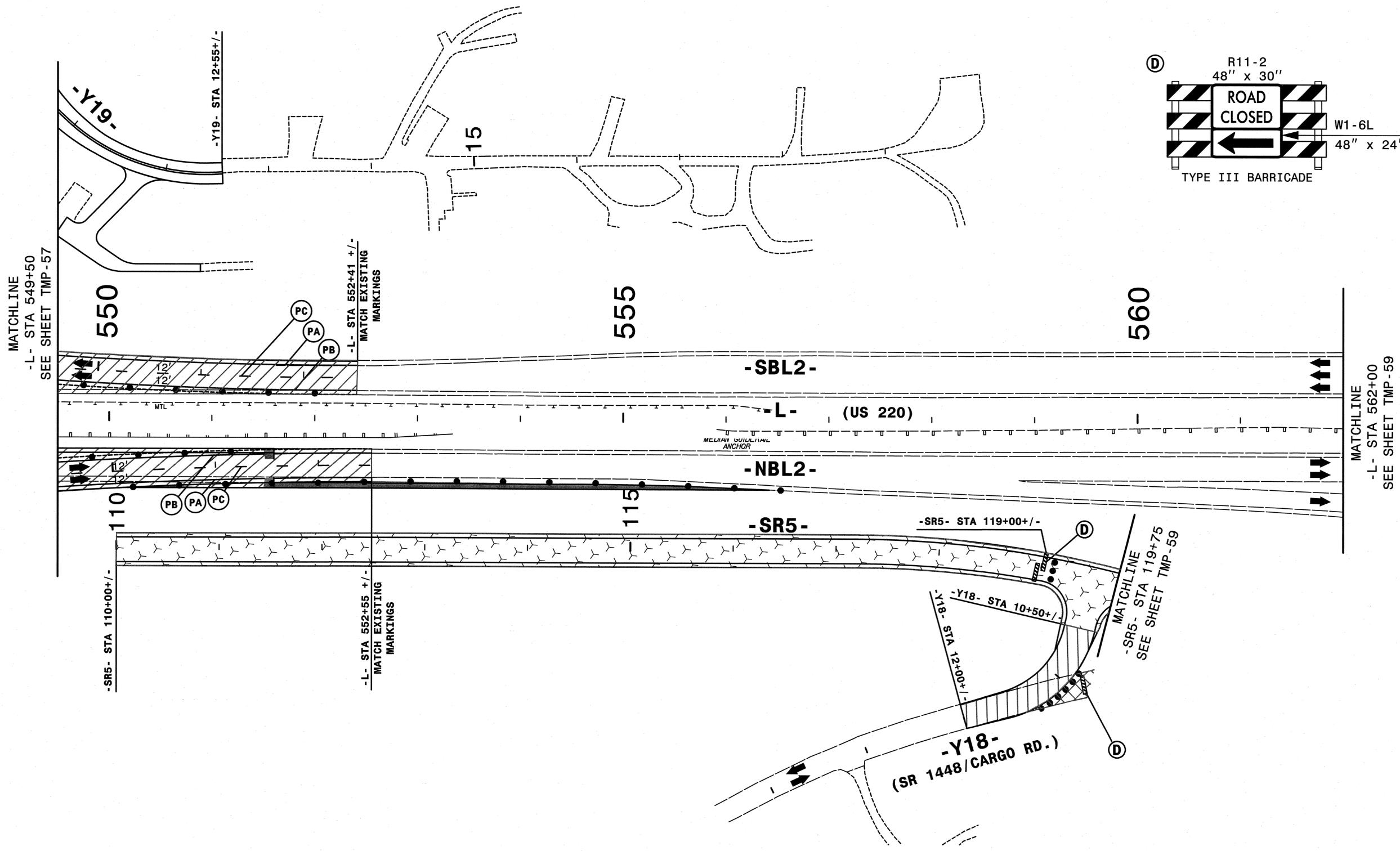
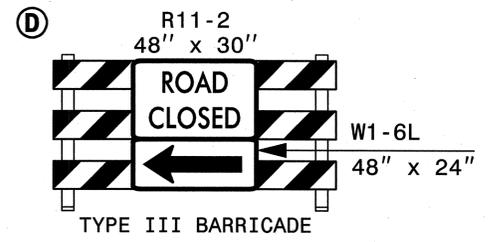
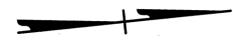
REFER TO SHEET TMP-68B FOR CUT SECTION(S).

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *[Signature]* DATE: 1/31/13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
RHONDA B. EARLY
023521



TRANSPORTATION MANAGEMENT PLAN
PHASE II
DETAIL



REVISIONS

REVIEW:	_____
CONCUR:	_____
REVISE:	_____
VERIFY:	_____

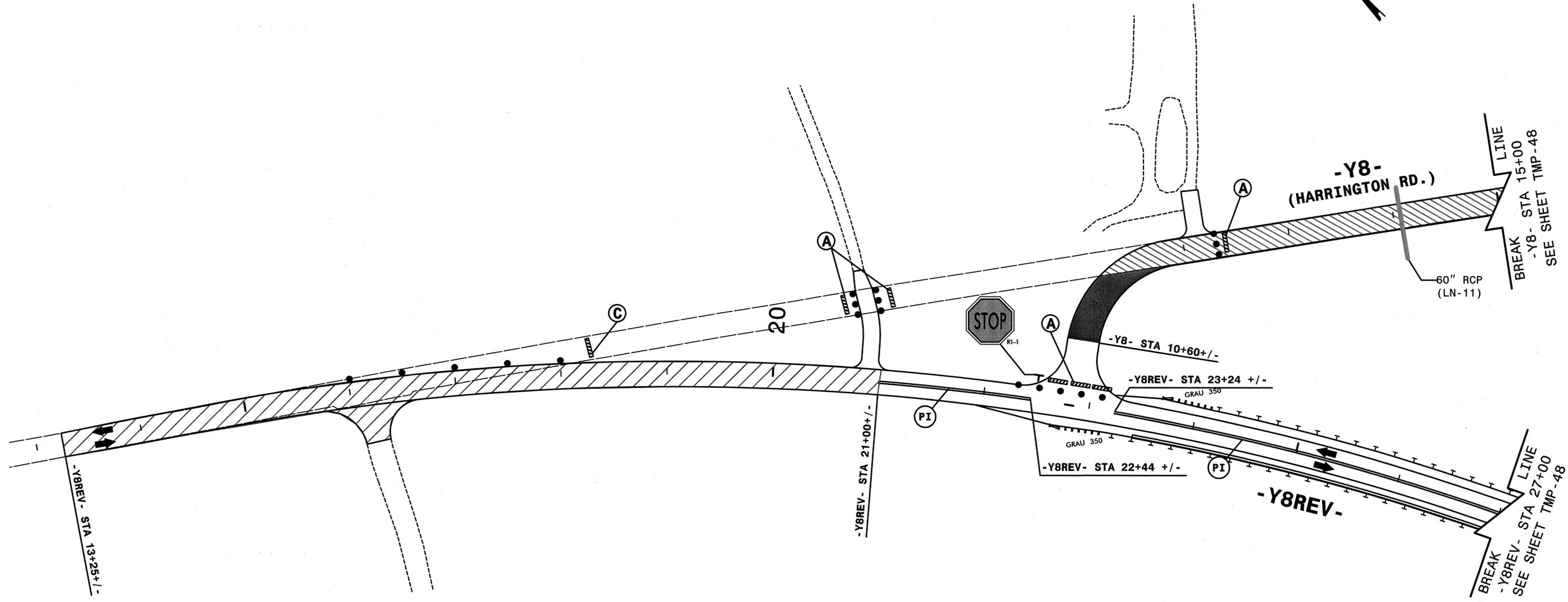
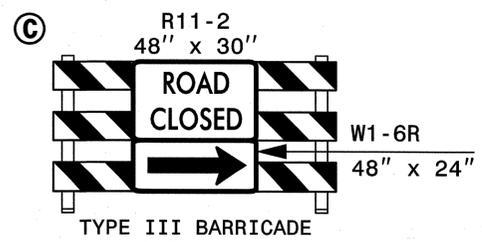
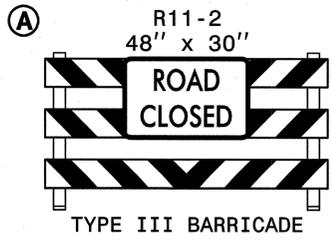
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HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NO LICENSE NO: C-1554

APPROVED: *Thonda B. Early* DATE: 1-31-13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
THONDA B. EARLY
023521



TRANSPORTATION MANAGEMENT PLAN
PHASE II
DETAIL



REVISIONS

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

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

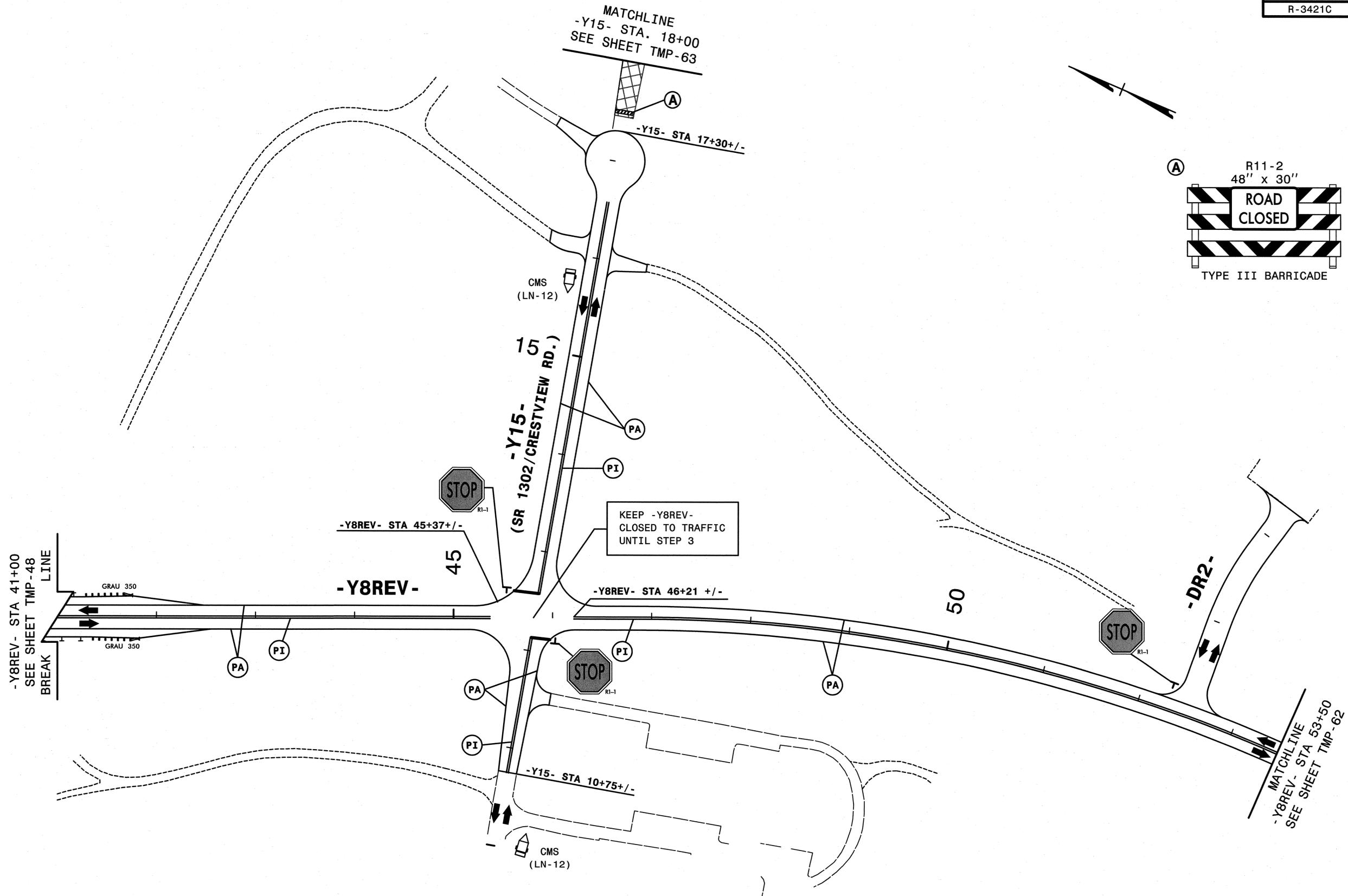
APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
FLORIDA B. EARLY
023521



TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL

8/17/99



REVISIONS

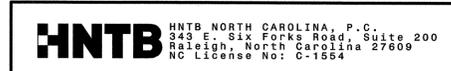
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REVIEW:
CONCUR:
REVISE:
VERIFY:

APPROVED: *Handwritten Signature* DATE: 1-31-13

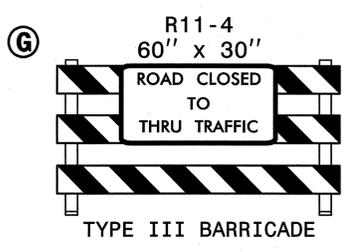
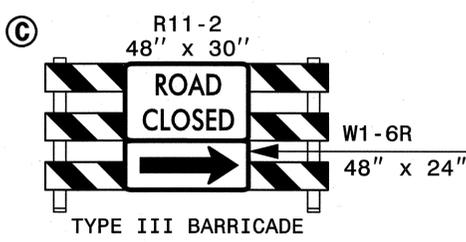
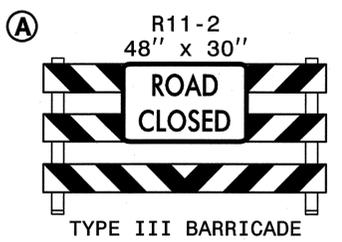
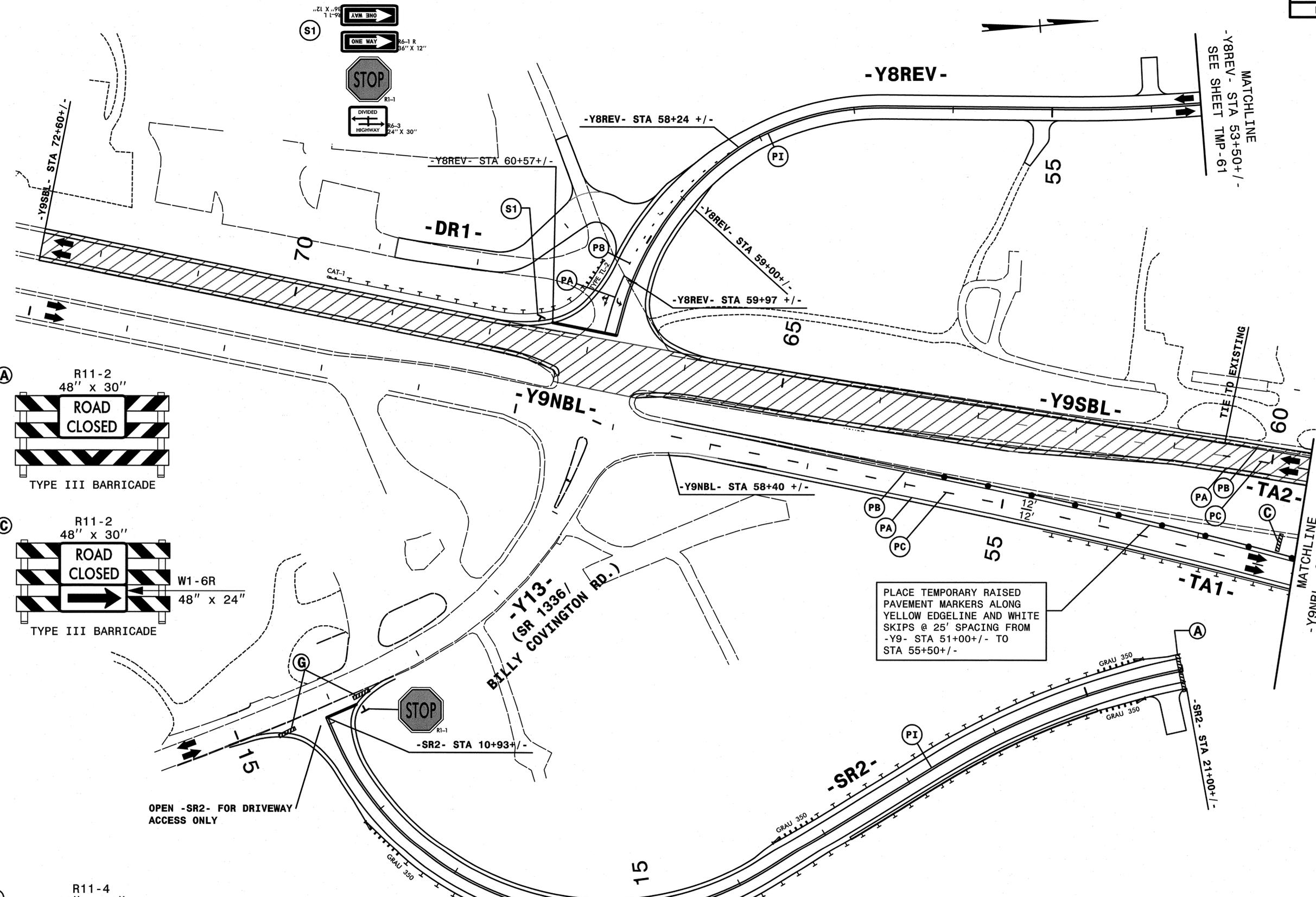


TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL



8/17/99



PLACE TEMPORARY RAISED PAVEMENT MARKERS ALONG YELLOW EDGELINE AND WHITE SKIPS @ 25' SPACING FROM -Y9- STA 51+00+/- TO STA 55+50+/-

OPEN -SR2- FOR DRIVEWAY ACCESS ONLY

REVISIONS

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

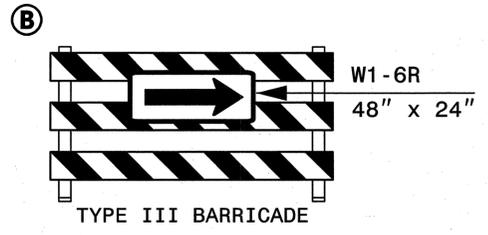
APPROVED: *[Signature]* DATE: 1.31.13



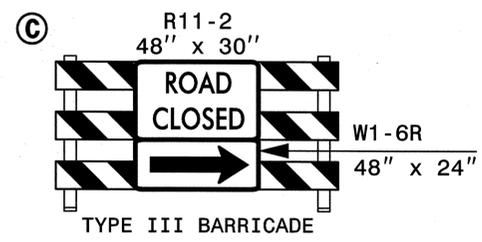
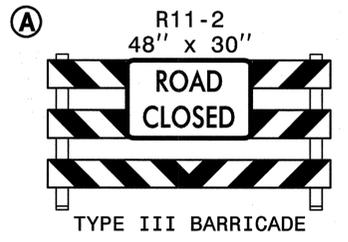
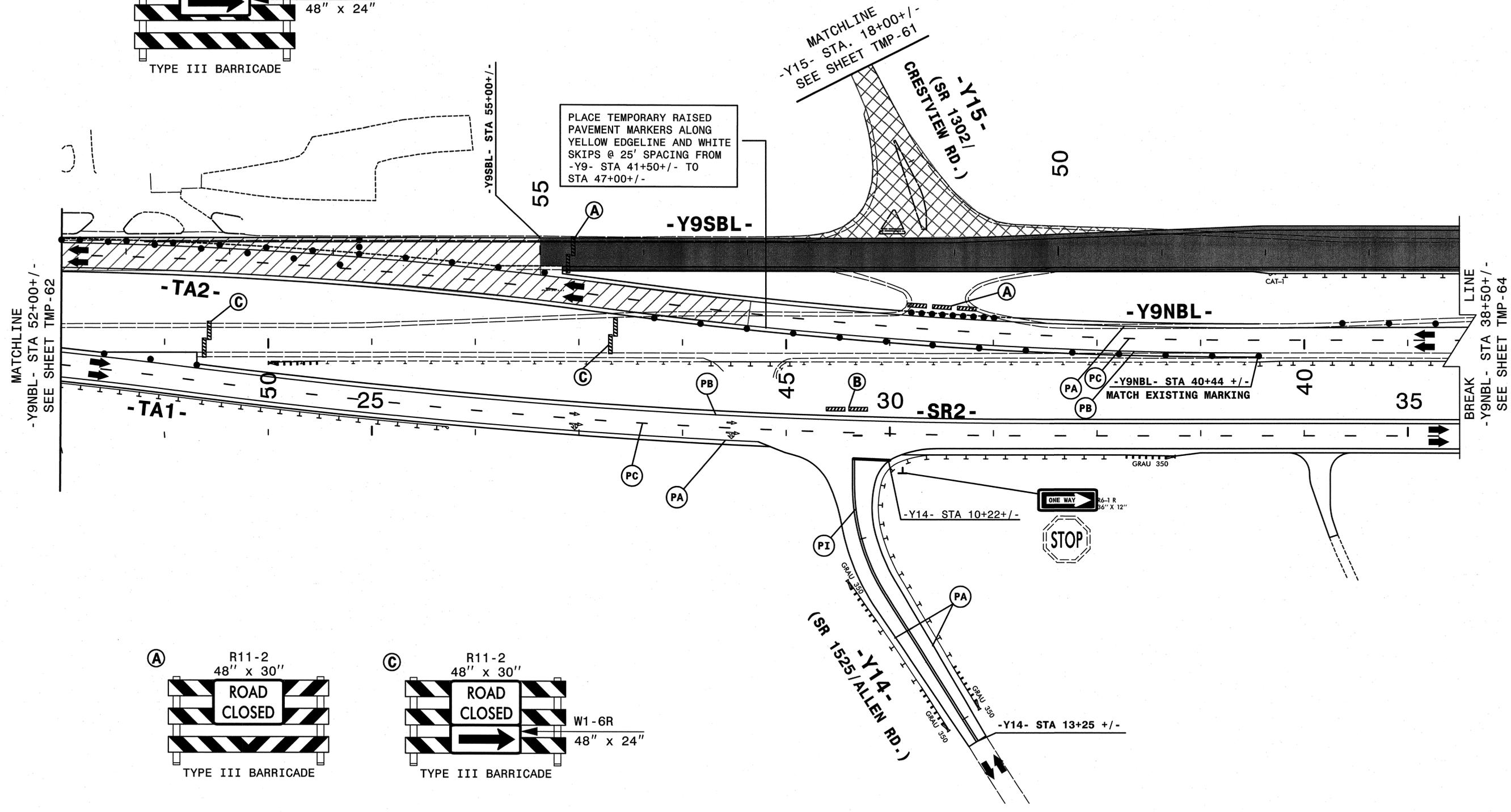
TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL

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343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554



PLACE TEMPORARY RAISED PAVEMENT MARKERS ALONG YELLOW EDGELINE AND WHITE SKIPS @ 25' SPACING FROM -Y9- STA 41+50+/- TO STA 47+00+/-



REVISIONS

QA/QC STAGE:

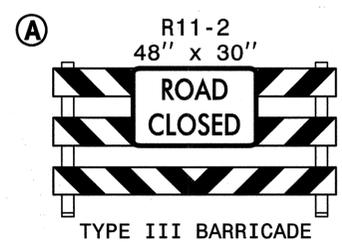
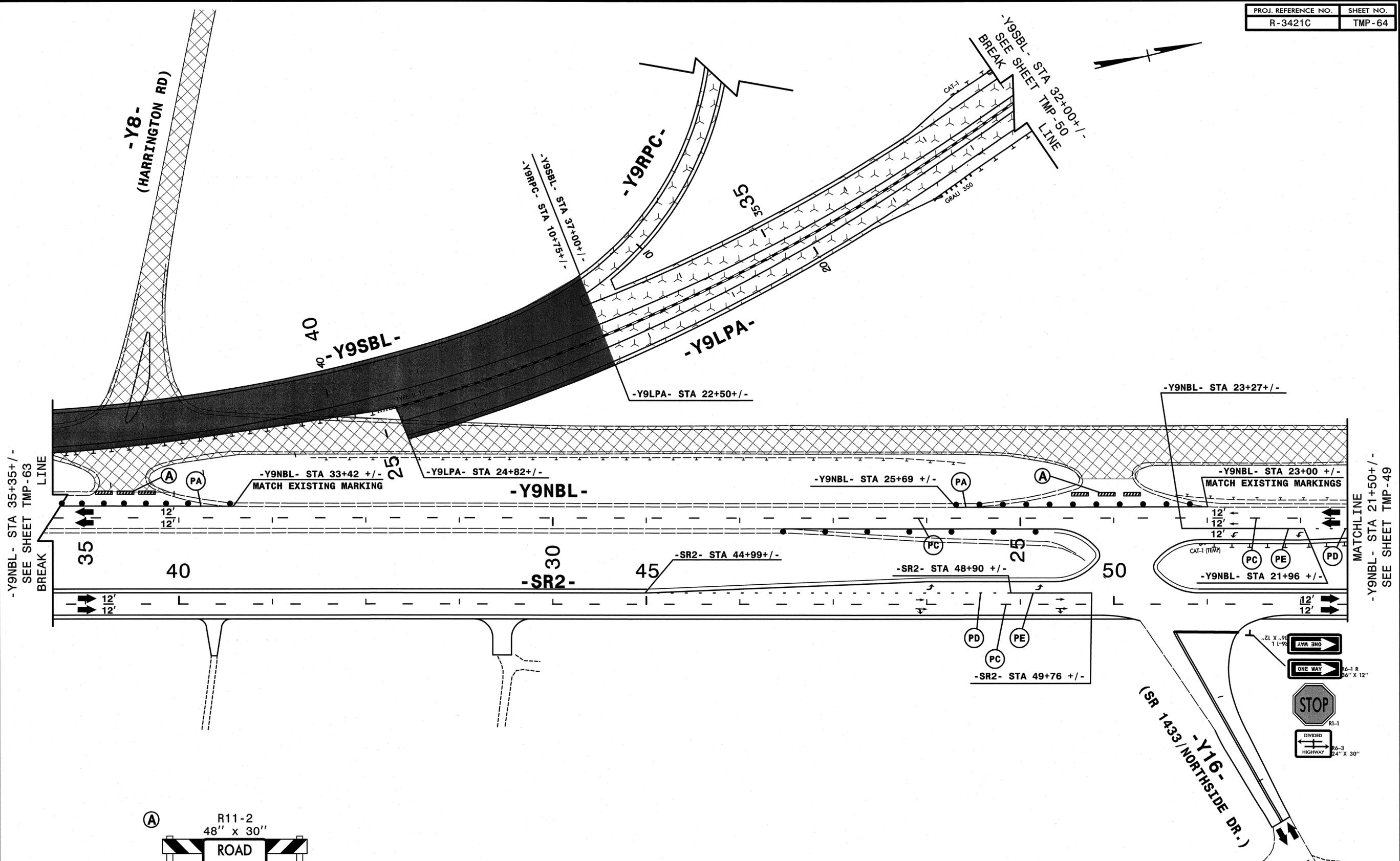
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CONCUR: _____
REVISE: _____
VERIFY: _____

APPROVED: *[Signature]* DATE: 1-2-13



TRANSPORTATION MANAGEMENT PLAN
**PHASE II
DETAIL**

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343 E. SIX FORKS ROAD, SUITE 200
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NC LICENSE NO: C-1554



REVISIONS

QA/QC STAGE:

REVIEW:
CONCUR:
REVISE:
VERIFY:

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

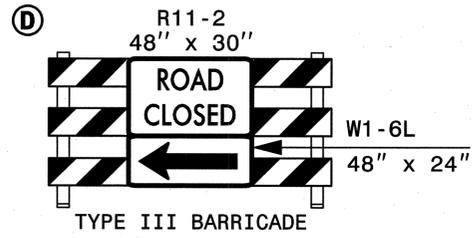
APPROVED: *[Signature]* DATE: 1-31-13

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
FLORIDA B. EARLY
023521

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

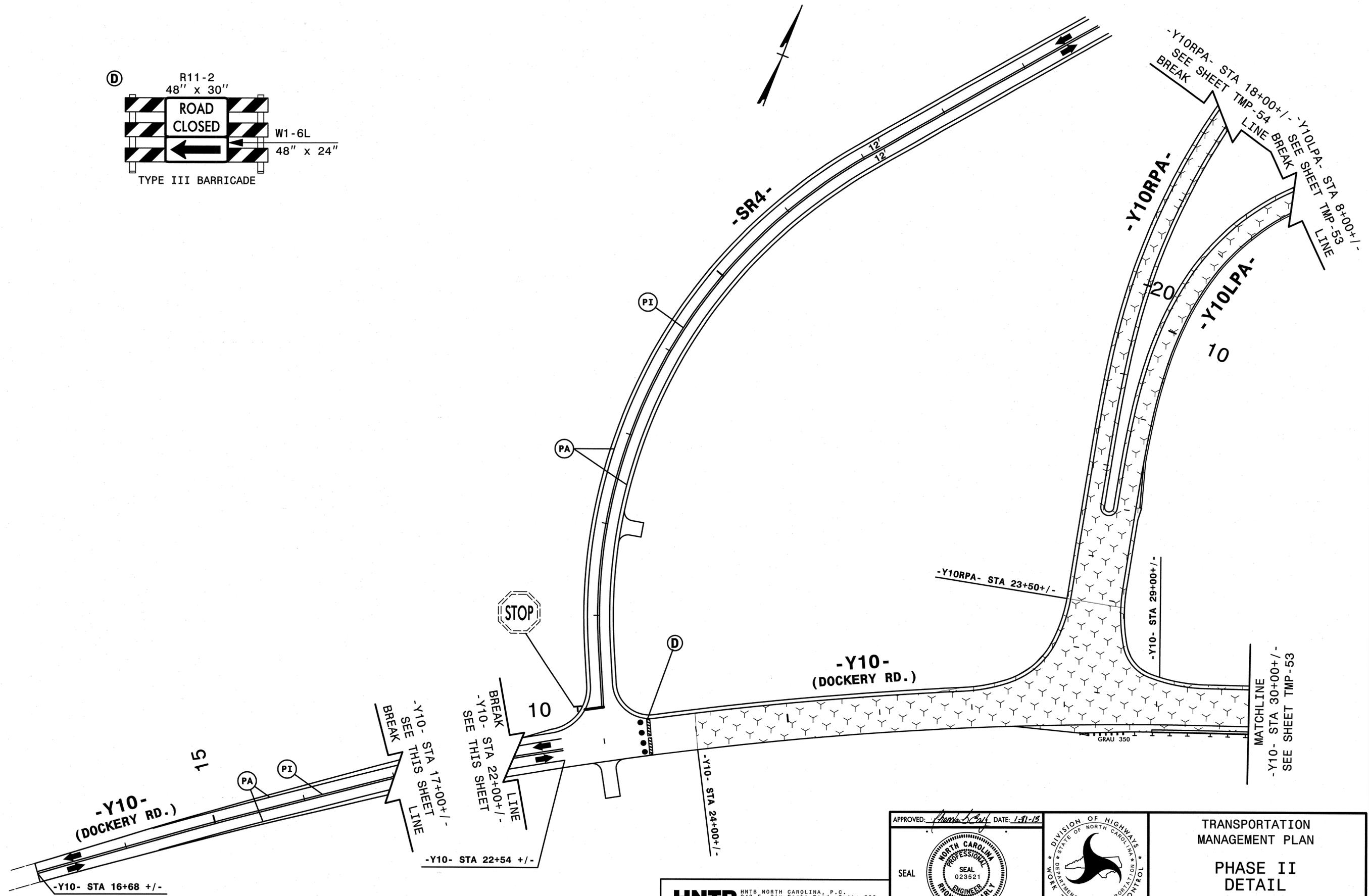
TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL



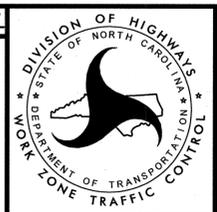
REVISIONS

GAQC STAGE: _____
 REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____



APPROVED: *[Signature]* DATE: 1-31-13

SEAL

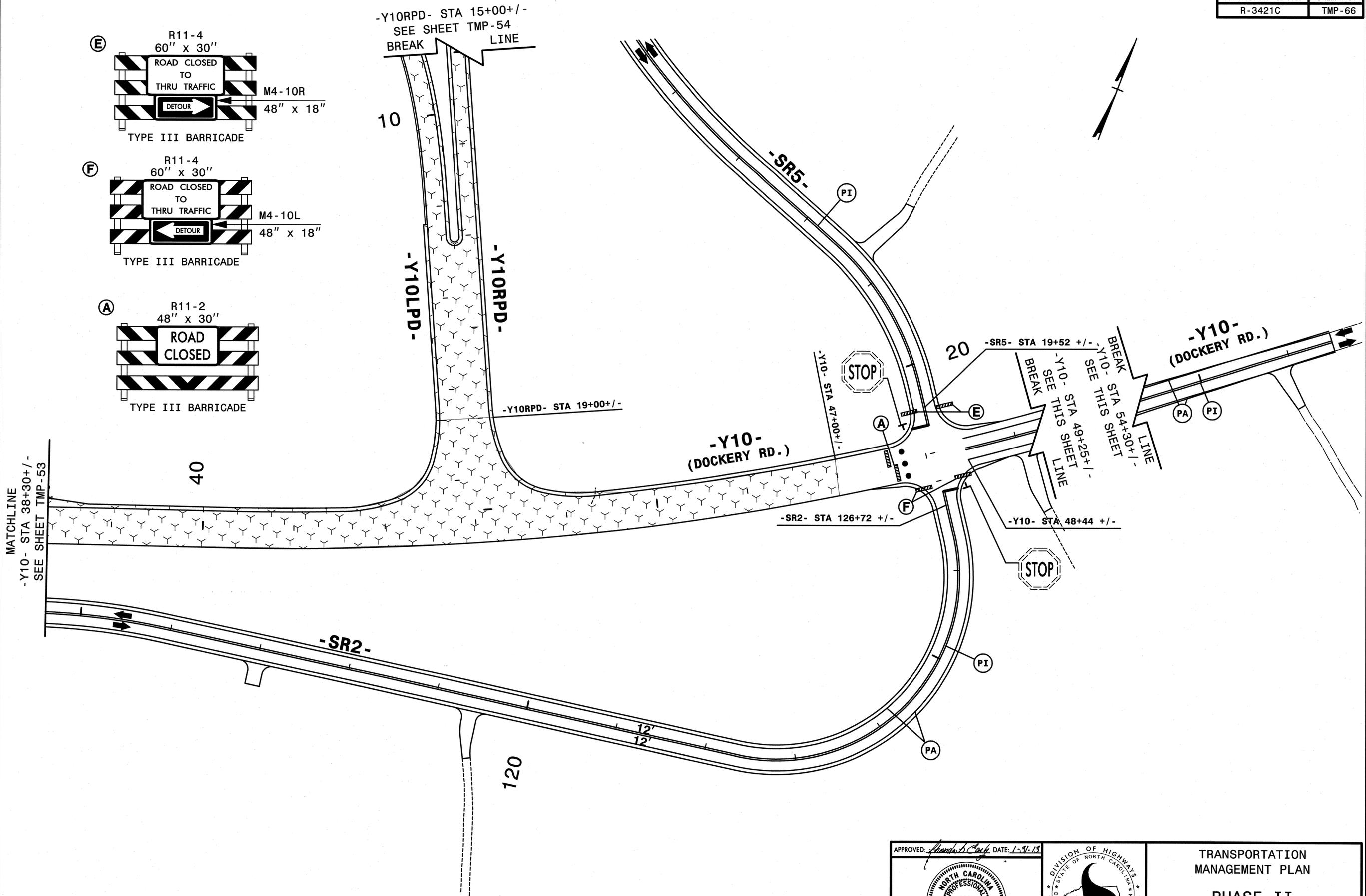
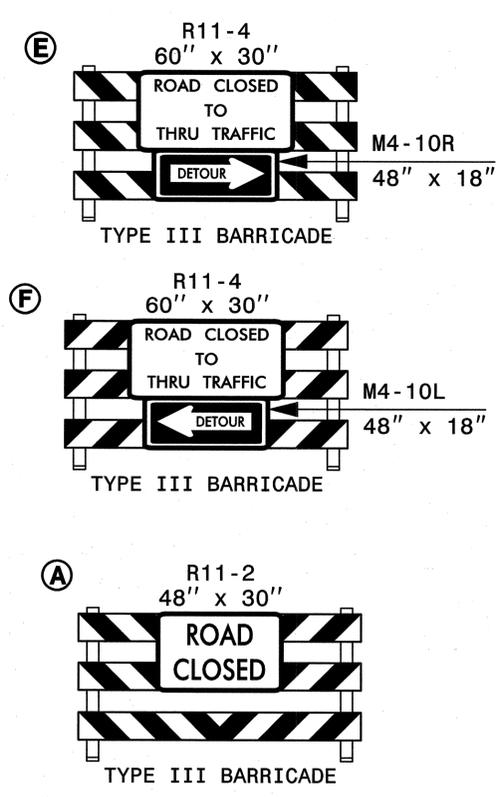


TRANSPORTATION
 MANAGEMENT PLAN

PHASE II
 DETAIL

HNTB

HNTB NORTH CAROLINA, P.C.
 243 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
 NC License No: C-1554

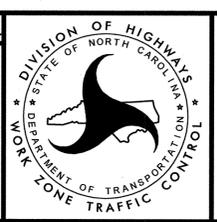


REVISIONS

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

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554

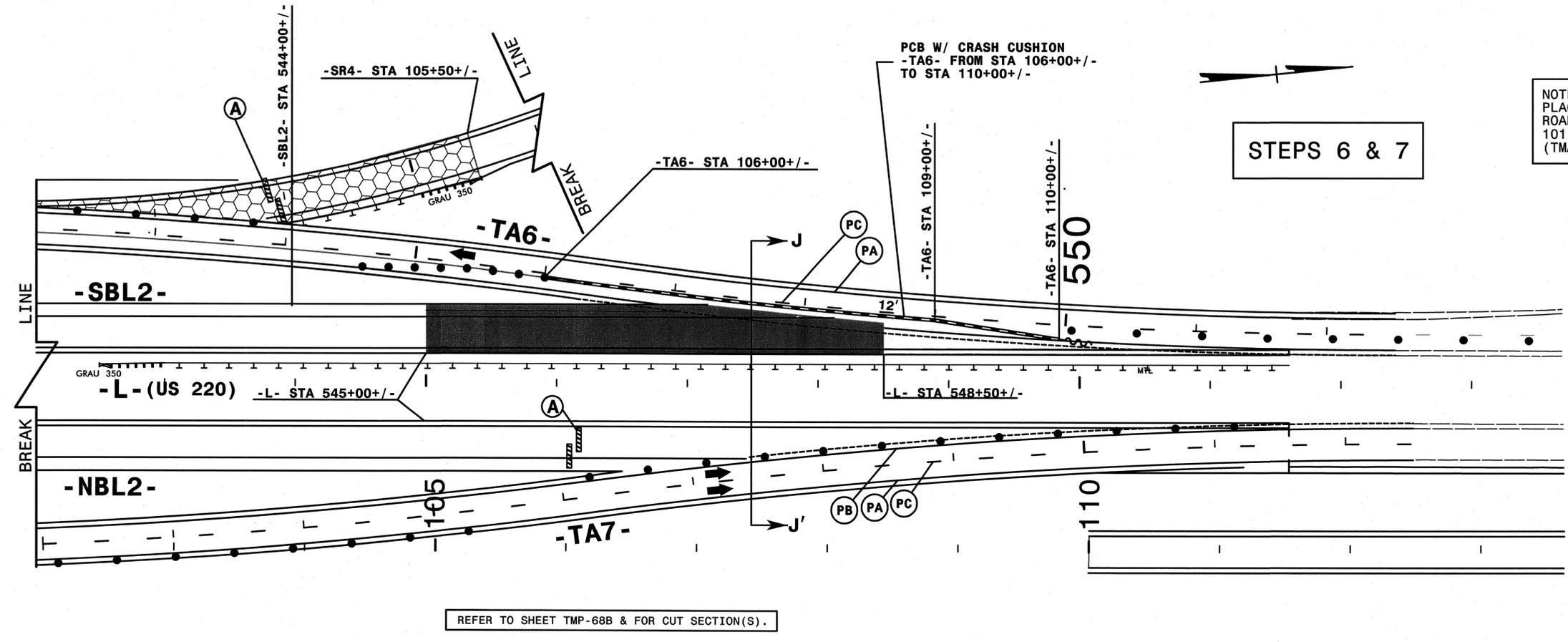
APPROVED: *Thom B. Early* DATE: 1-31-13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 THOMAS B. EARLY
 023521



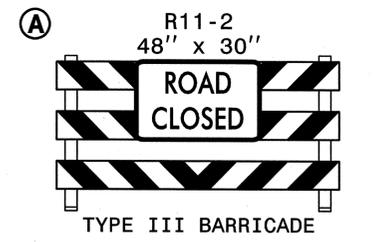
TRANSPORTATION MANAGEMENT PLAN
 PHASE II
 DETAIL

NOTE:
PLACE DEVICES ACCORDING TO
ROADWAY STANDARD DRAWING
1011.02 (SHEET 3 OF 15).
(TMA NOT REQUIRED)

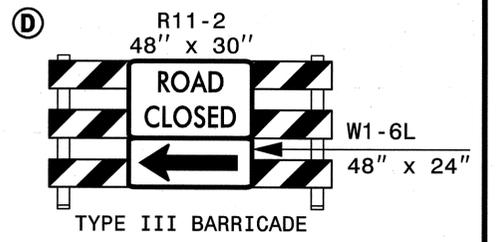
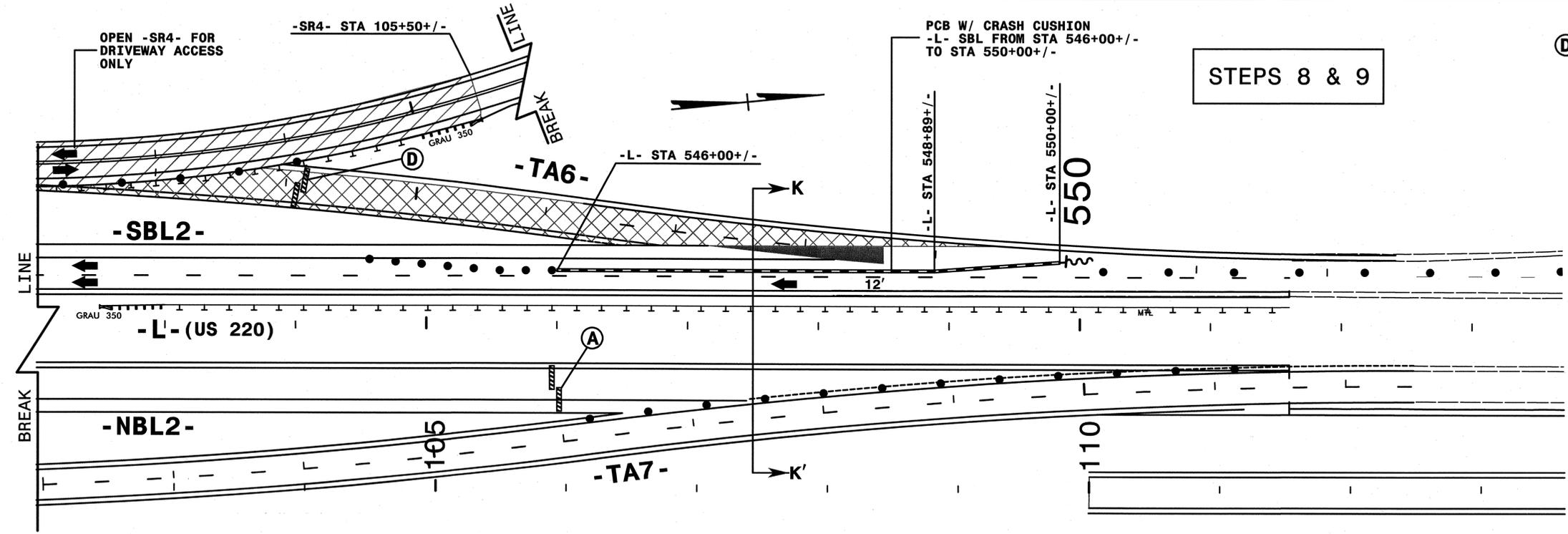
STEPS 6 & 7



REFER TO SHEET TMP-68B & FOR CUT SECTION(S).



STEPS 8 & 9



NOTE:
PLACE DEVICES ACCORDING TO
ROADWAY STANDARD DRAWING
1011.02 (SHEET 3 OF 15).
(TMA NOT REQUIRED)

SEE PHASE III
FOR PAVEMENT MARKINGS

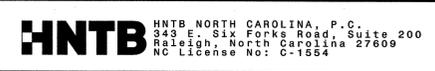
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APPROVED: *[Signature]* DATE: 1-31-13



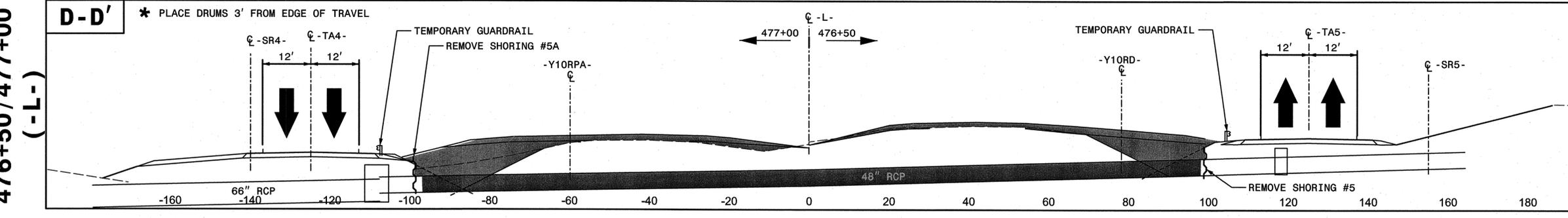
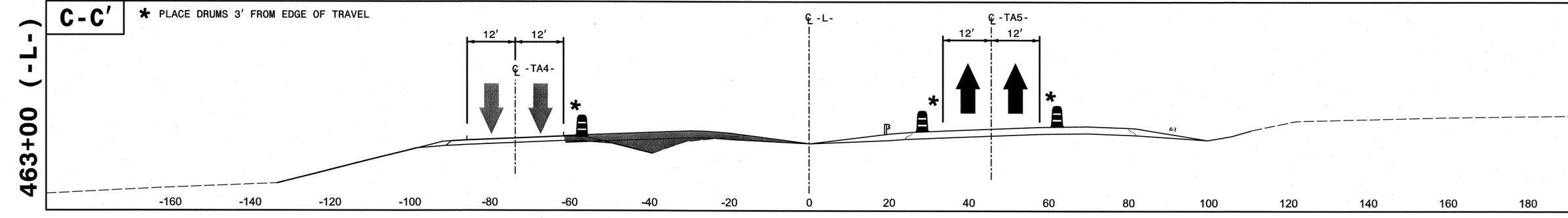
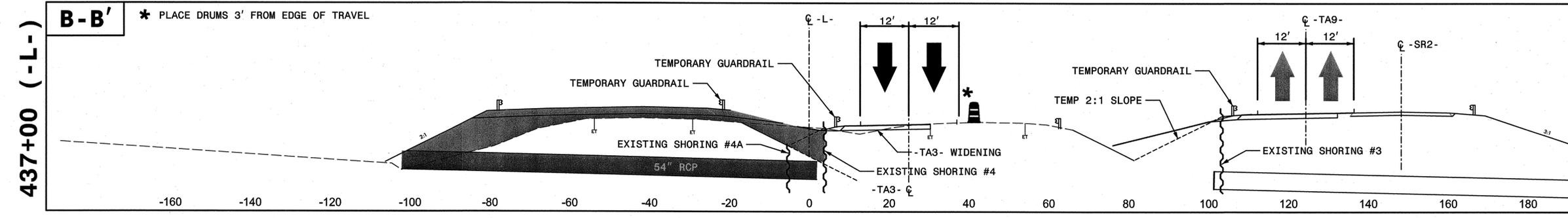
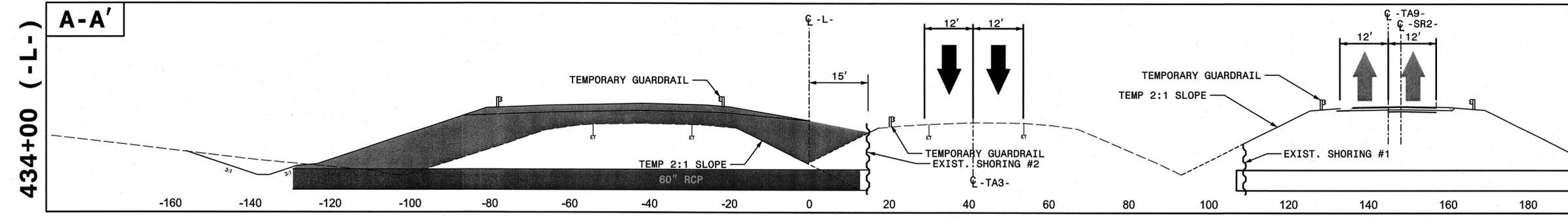
TRANSPORTATION
MANAGEMENT PLAN

PHASE II
DETAIL



REVISIONS

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



REVISIONS

QA/QC STAGE:

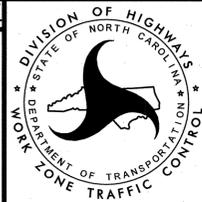
REVIEW:

CONCUR:

REVISE:

VERIFY:

APPROVED: *[Signature]* DATE: 2-4-13

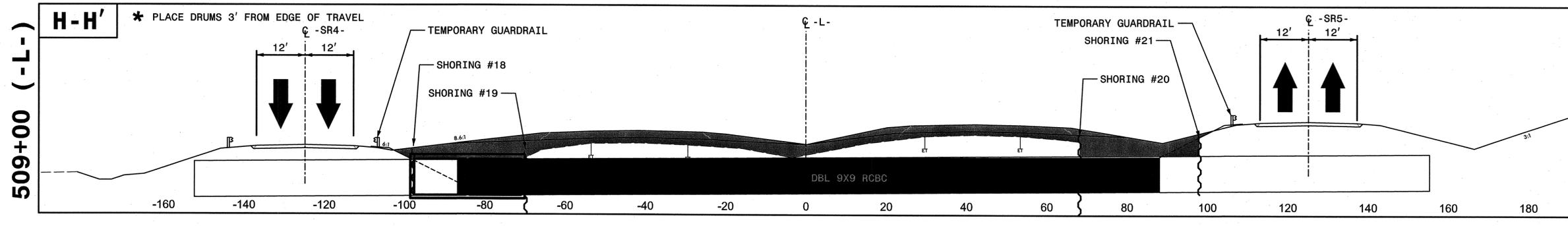
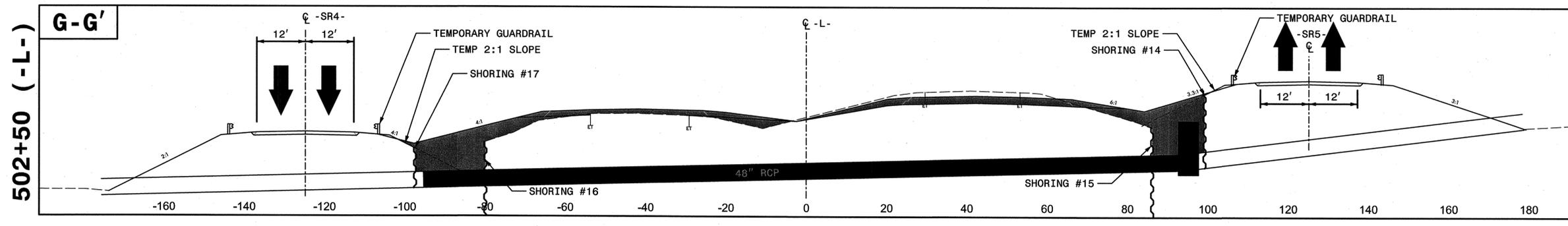
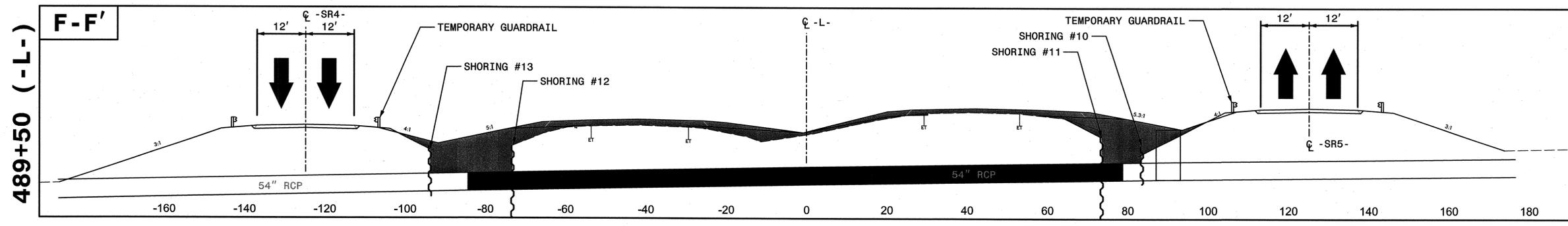
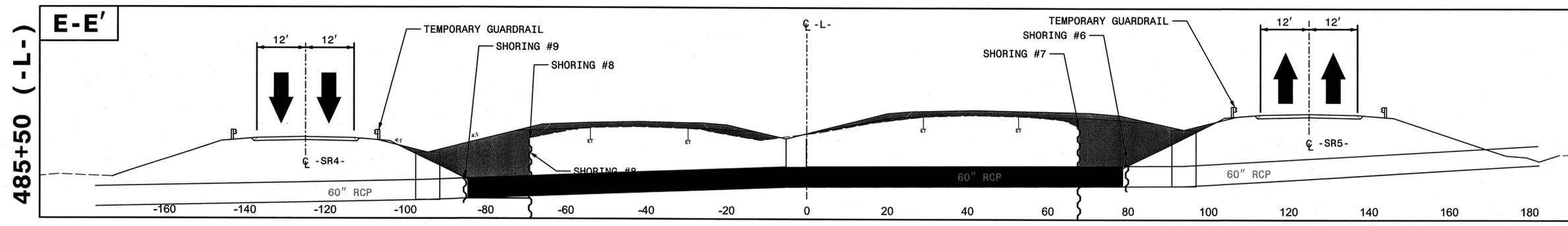


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NC License No: C-1554

TRANSPORTATION
MANAGEMENT PLAN

PHASE II
CUT SECTIONS

8/17/99



REVISIONS

QA/QC STAGE:
REVIEW:
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REVISE:
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RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

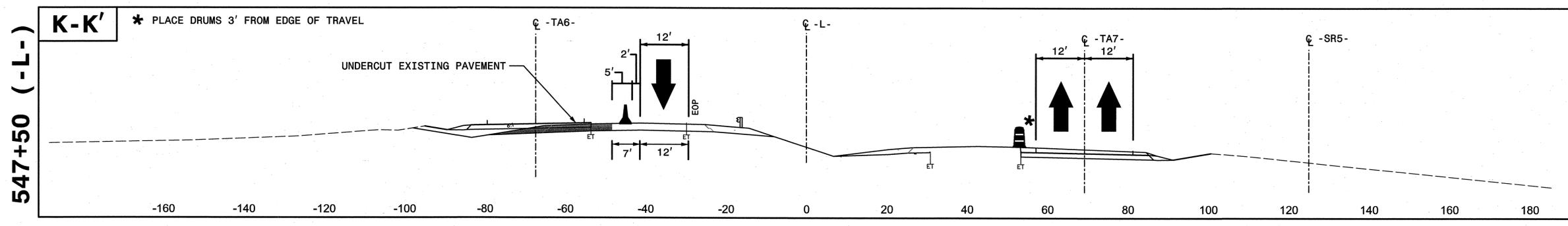
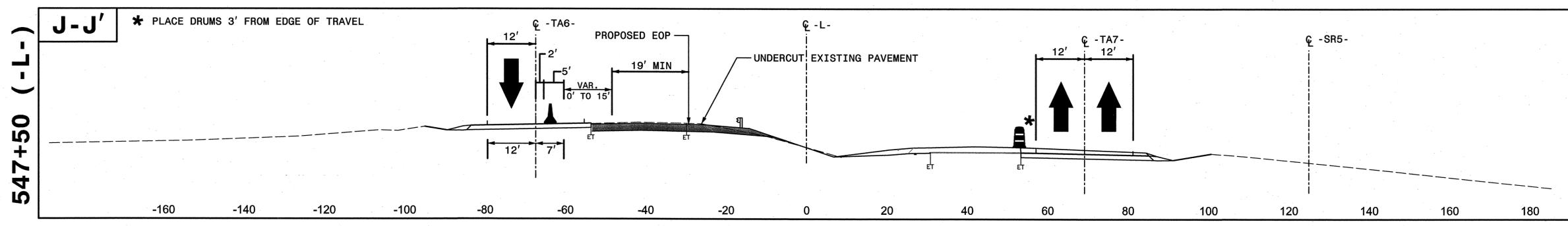
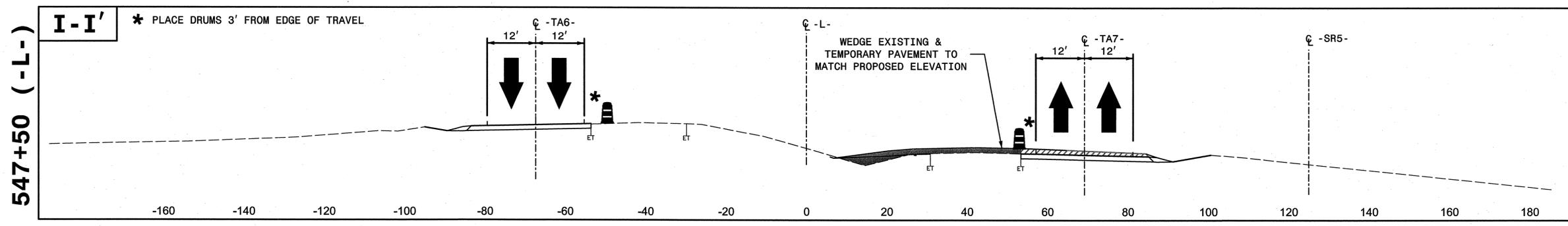
APPROVED: *[Signature]* DATE: 1-31-13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
FLORIDA B. EARLY
023521



TRANSPORTATION
MANAGEMENT PLAN

PHASE II
CUT SECTIONS

8/17/99

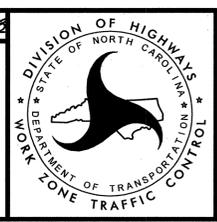


REVISIONS

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 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:

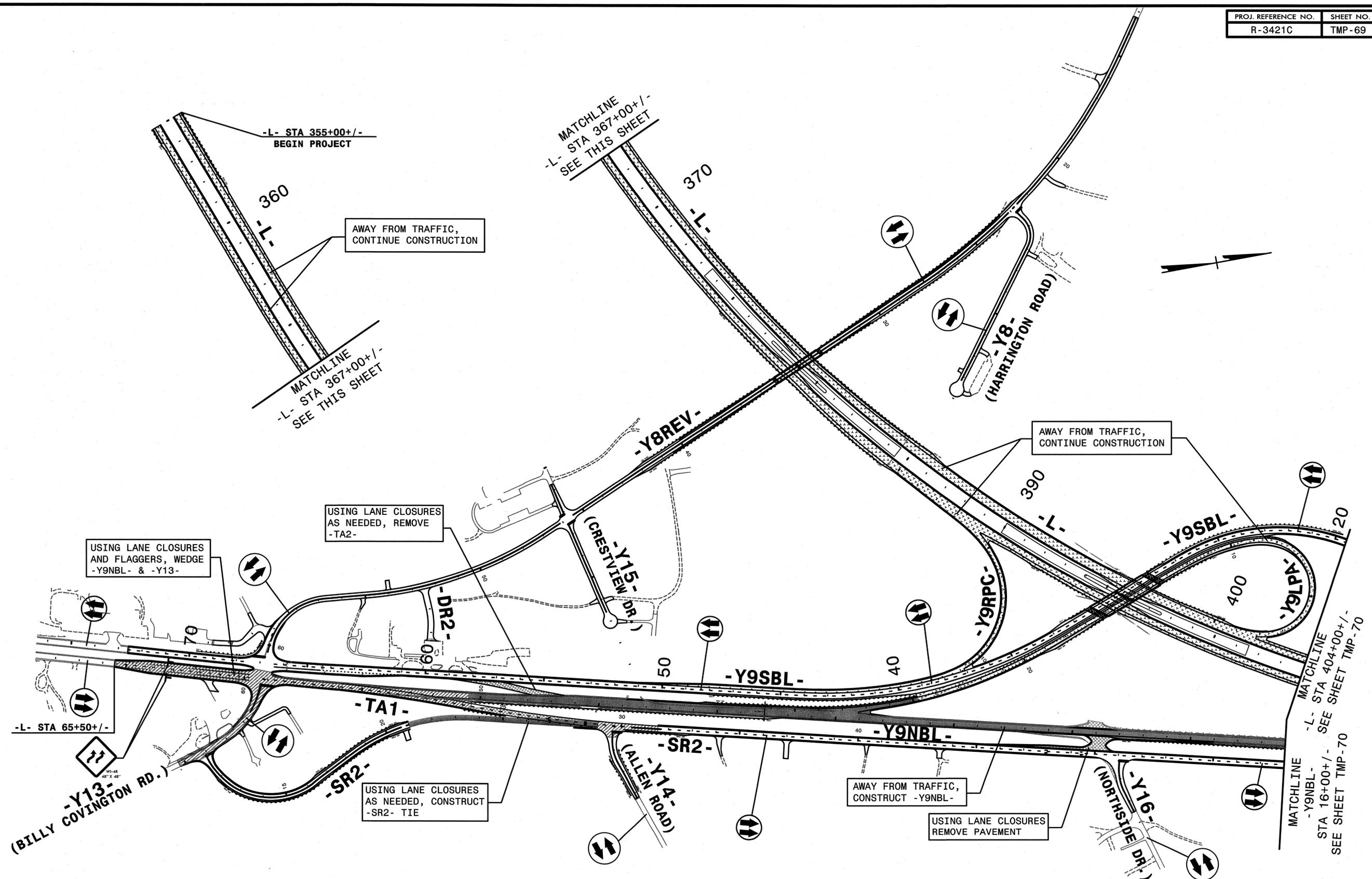
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554

APPROVED: *Phonda B. Early* DATE: 2-4-13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 PHONDA B. EARLY
 023521



TRANSPORTATION MANAGEMENT PLAN
 PHASE II CUT SECTIONS

8/17/99

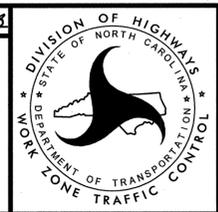


REVISIONS

PLACE LANE SHIFT SIGNS (W1-4) ON LEFT AND RIGHT SHOULDERS, 500'+/- PRIOR TO SHIFT

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

APPROVED: *[Signature]* DATE: 2/12/13

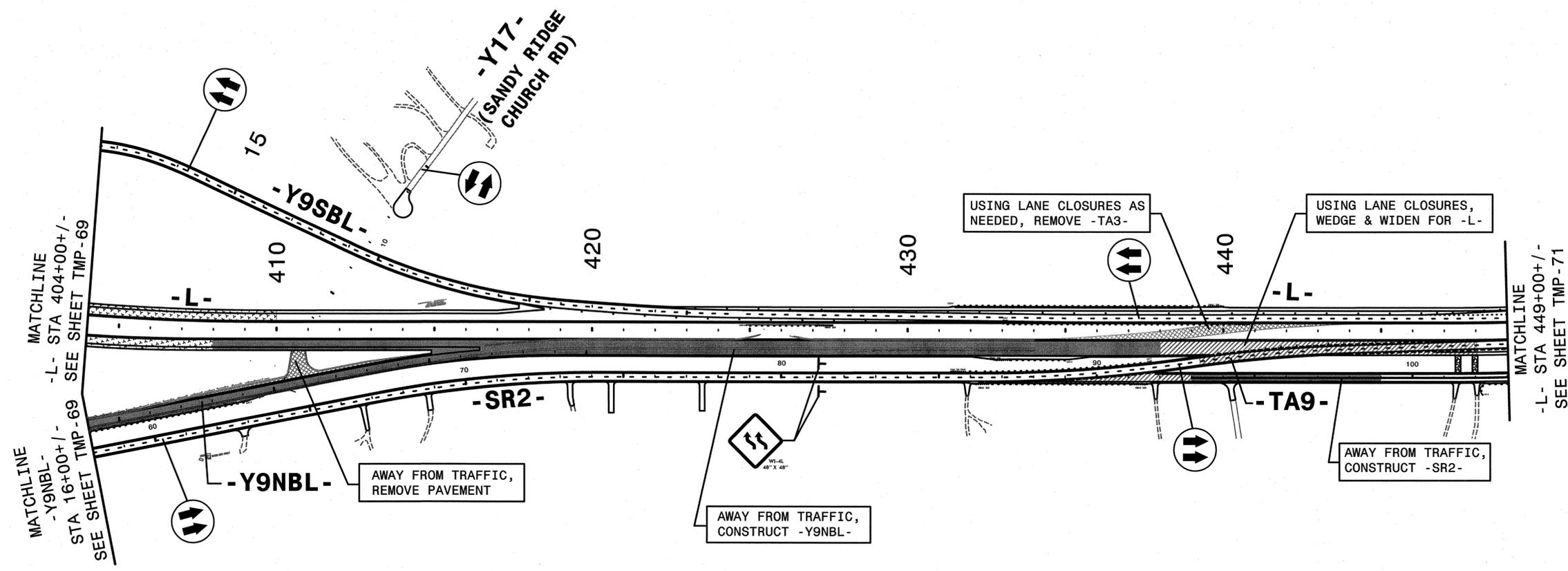


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TRANSPORTATION
 MANAGEMENT PLAN
 PHASE III
 OVERVIEW
 SHEET 1 OF 4

8/17/95

REVISIONS



PLACE LANE SHIFT SIGNS (W1-4) ON LEFT AND RIGHT SHOULDERS, 500'+/- PRIOR TO SHIFT

i:\5014\PM-3421C_TC_P30V2.dgn
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REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____

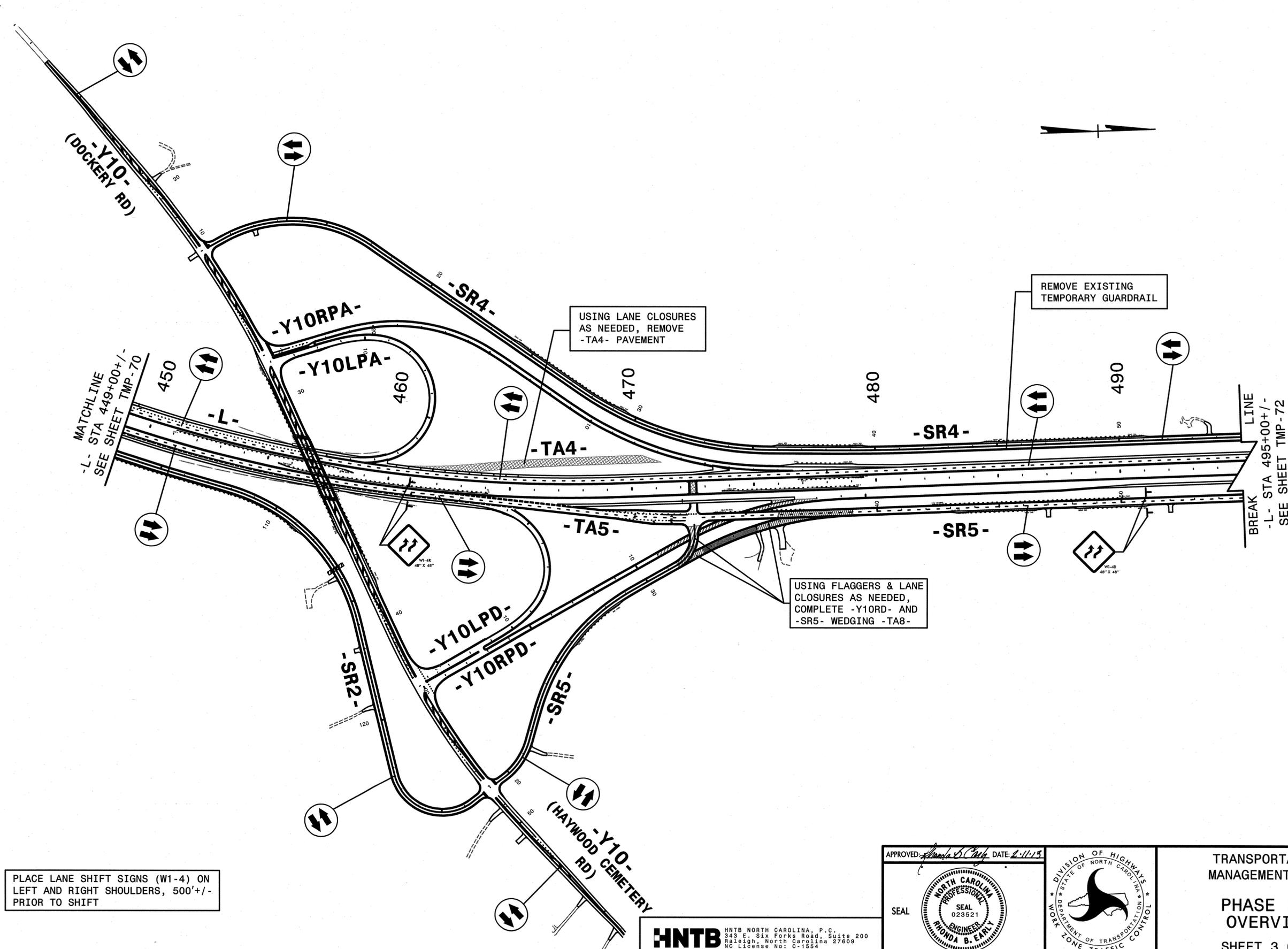
HNTB HNTB NORTH CAROLINA, P.C.
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 Raleigh, North Carolina 27609
 NC License No: C-1554

APPROVED: *[Signature]* DATE: 2/1/13
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 NORTH CAROLINA PROFESSIONAL ENGINEER
 RONDA B. EARLY
 023521



TRANSPORTATION MANAGEMENT PLAN
 PHASE III OVERVIEW
 SHEET 2 OF 4

8/17/99



REVISIONS

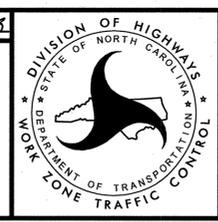
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 QA/QC STAGE:

REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

PLACE LANE SHIFT SIGNS (W1-4) ON LEFT AND RIGHT SHOULDERS, 500'+/- PRIOR TO SHIFT

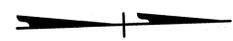
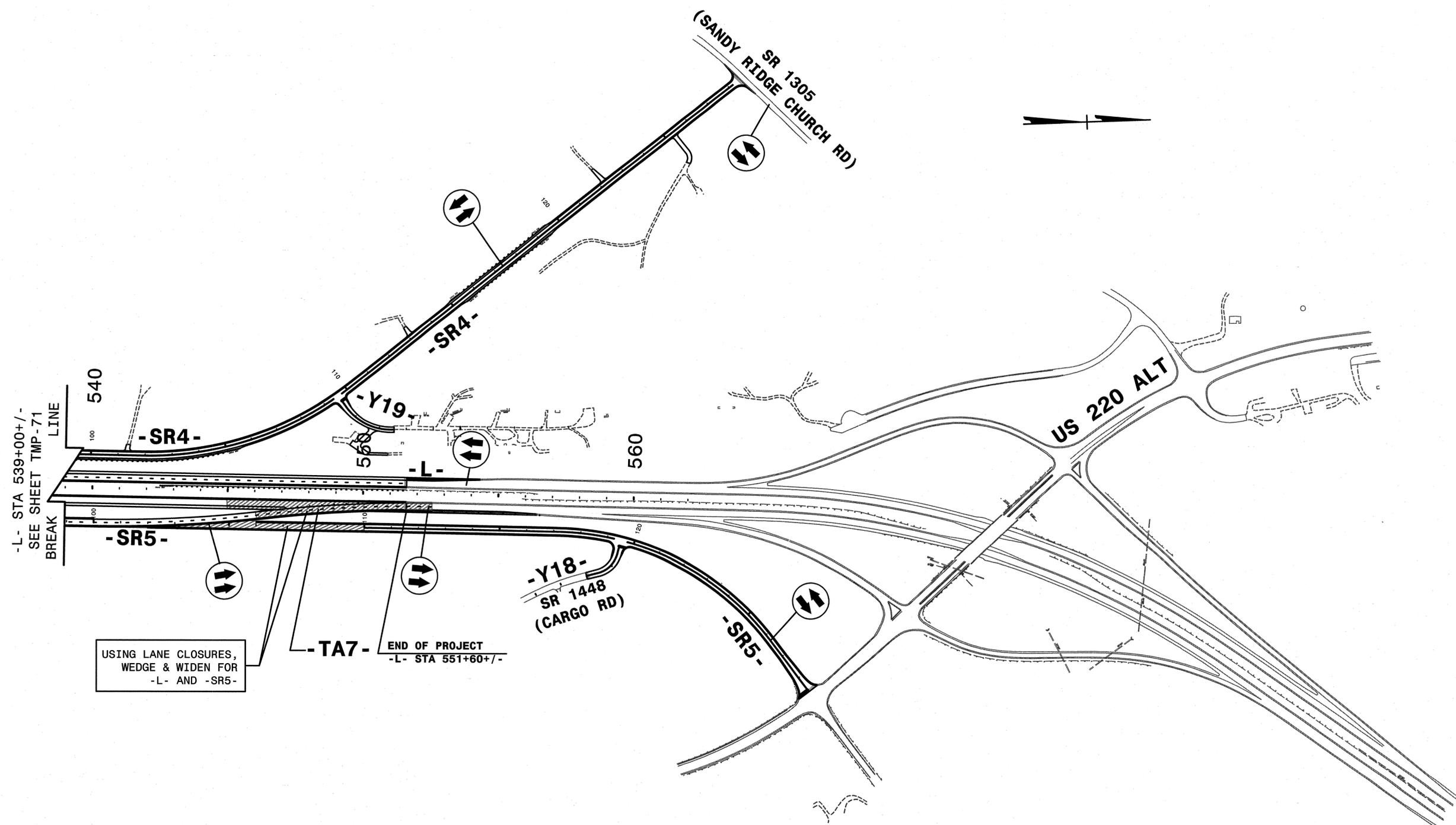
HNTB
 HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No. C-1554

APPROVED: *[Signature]* DATE: 2-11-15
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 NORTH CAROLINA PROFESSIONAL ENGINEER
 PRONDA B. EARLY
 023521



TRANSPORTATION MANAGEMENT PLAN
 PHASE III OVERVIEW
 SHEET 3 OF 4

8/17/99



-L- STA 539+00+/-
SEE SHEET TMP-71
BREAK
LINE

USING LANE CLOSURES,
WEDGE & WIDEN FOR
-L- AND -SR5-

END OF PROJECT
-L- STA 551+60+/-

PLACE LANE SHIFT SIGNS (W1-4) ON
LEFT AND RIGHT SHOULDERS, 500'+/-
PRIOR TO SHIFT

REVISIONS

1:59:42 PM
I:\5942 PM
R-3421C-TC-P30V4.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$
QA/QC STAGE:

REVIEW:
CONCUR:
REVISE:
VERIFY:

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NC License No: C-1554

APPROVED: *[Signature]* DATE: 2-11-15
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
RIONDA B. EARLY
023521

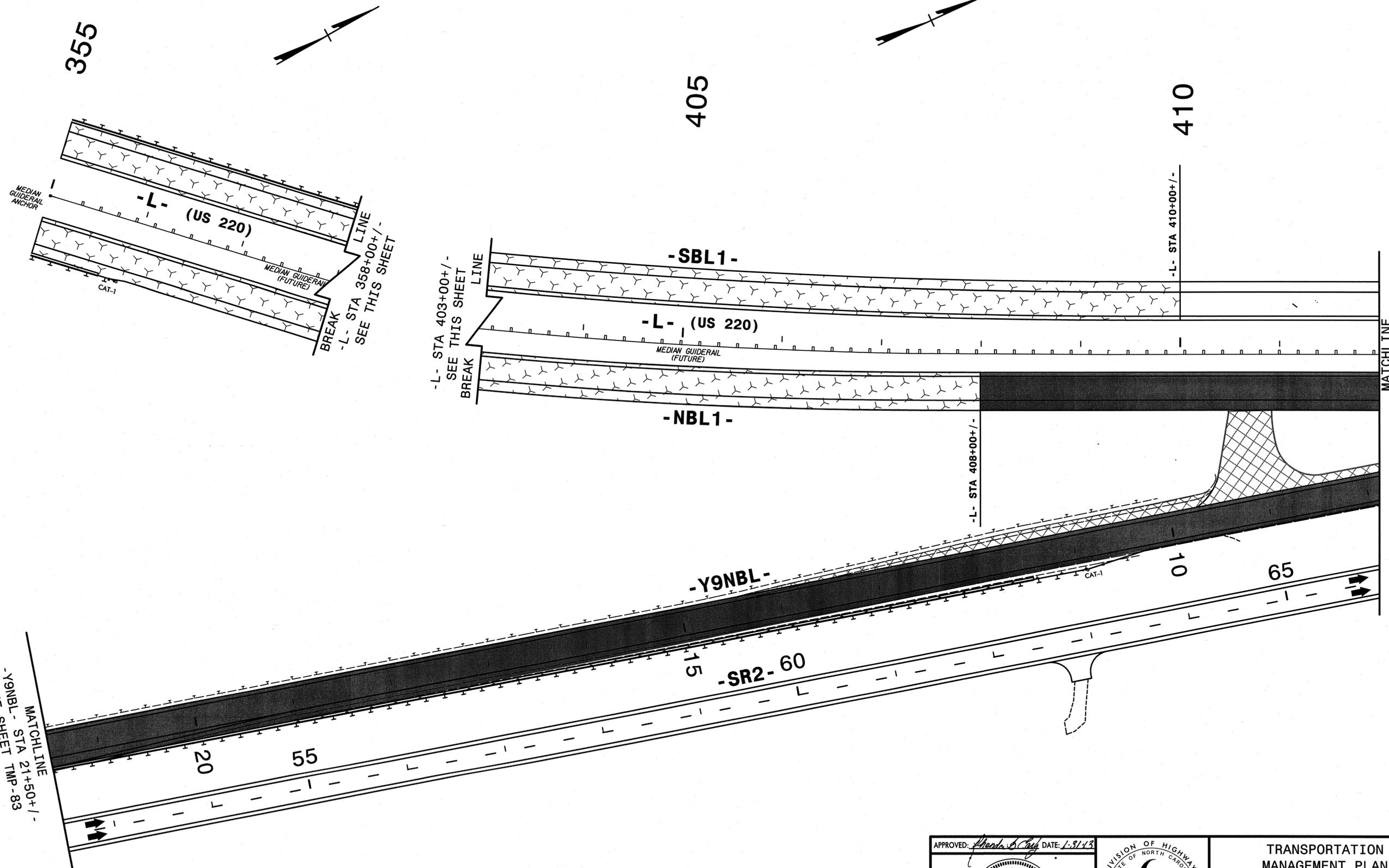


TRANSPORTATION
MANAGEMENT PLAN

PHASE III
OVERVIEW

SHEET 4 OF 4

8/17/99



REVISIONS

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

MATCHLINE
 -Y9NBL- STA 21+50+/-
 SEE SHEET TMP-83

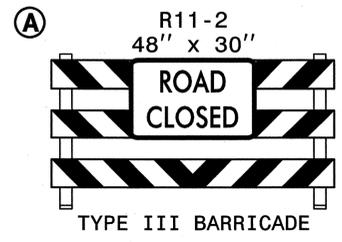
MATCHLINE
 -L- STA 412+00+/-
 SEE SHEET TMP-74

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 SEAL
 NORTH CAROLINA
 PROFESSIONAL
 ENGINEER
 SEAL
 023521
 WYONDA B. EARLY

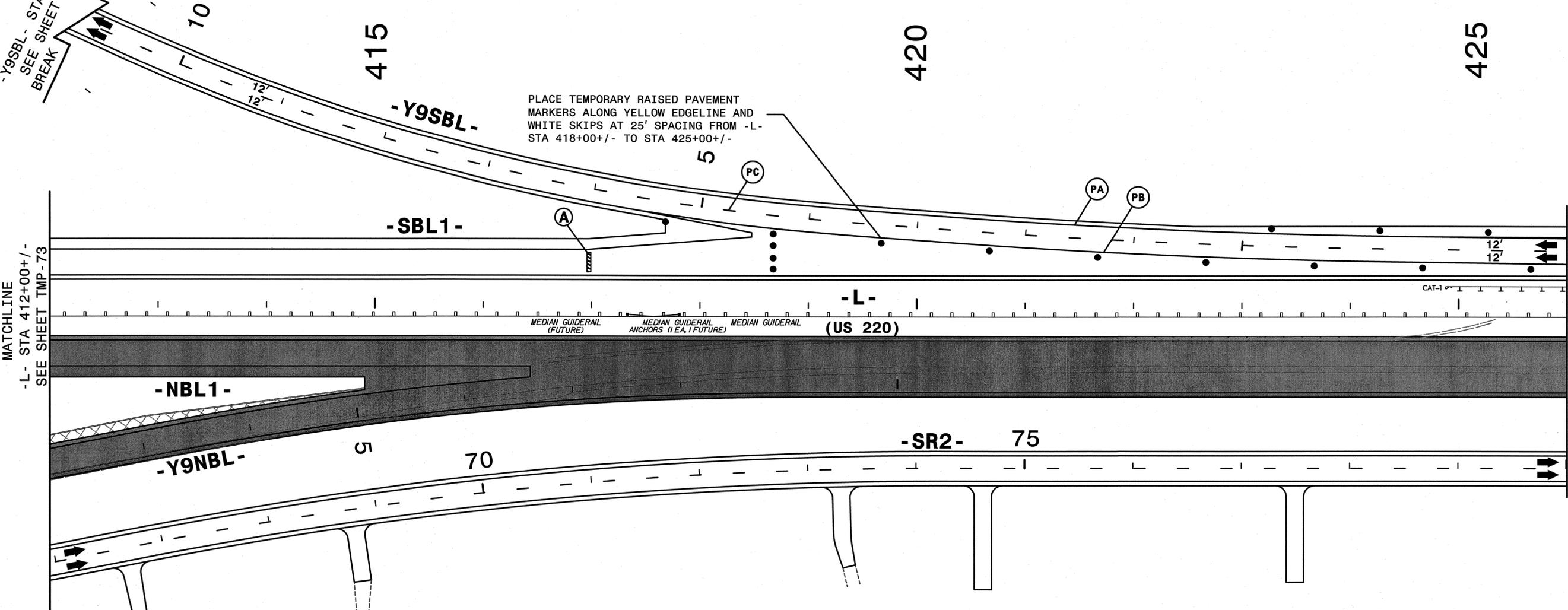
DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

TRANSPORTATION
 MANAGEMENT PLAN
 PHASE III
 DETAIL



8/17/99

-Y9SBL- STA 11+00+/-
SEE SHEET TMP-83
BREAK
LINE



PLACE TEMPORARY RAISED PAVEMENT MARKERS ALONG YELLOW EDGELINE AND WHITE SKIPS AT 25' SPACING FROM -L- STA 418+00+/- TO STA 425+00+/-

MATCHLINE
-L- STA 412+00+/-
SEE SHEET TMP-73

MATCHLINE
-L- STA 426+00+/-
SEE SHEET TMP-75

REVISIONS

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\$\$\$\$\$USER\$\$\$\$\$

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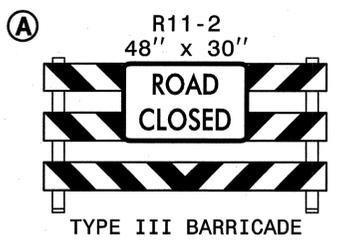
REVIEW:
CONCUR:
REVISE:
VERIFY:

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Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *[Signature]* DATE: 2/11/13
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
RONDA B. EARLY
023521



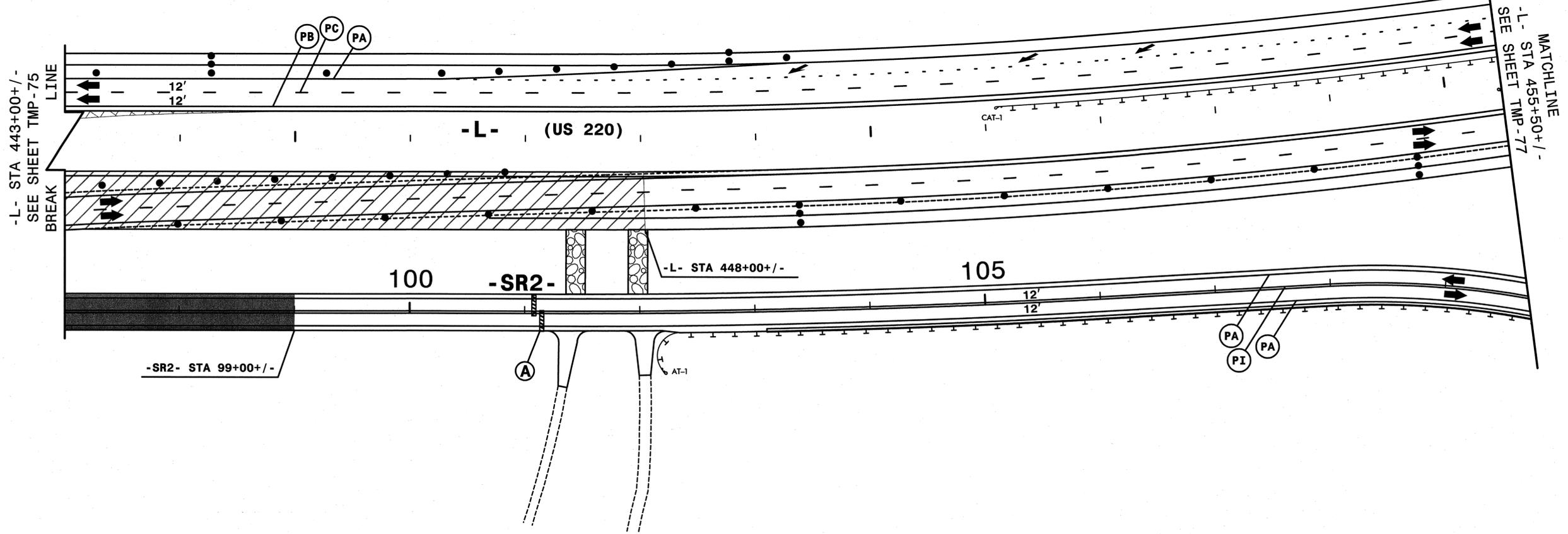
TRANSPORTATION MANAGEMENT PLAN
PHASE III
DETAIL



445

450

455



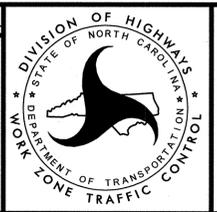
REVISIONS

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

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

APPROVED: *Charles B. Eirly* DATE: 1-31-13

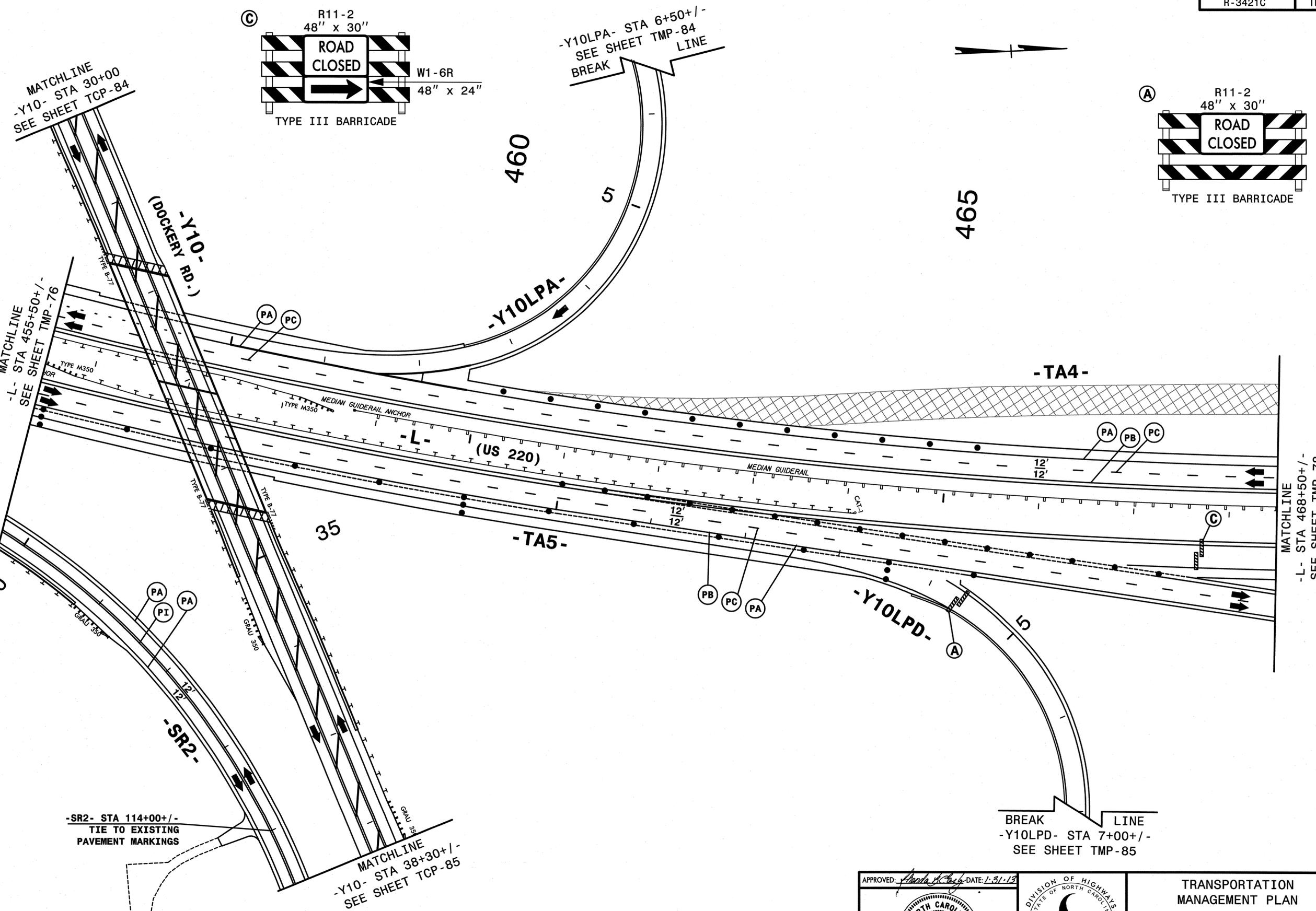
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
023521
WYONDA B. EIRLY



TRANSPORTATION
MANAGEMENT PLAN

PHASE III
DETAIL

8/17/99

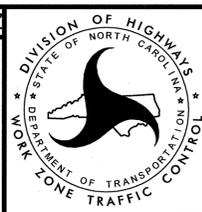


REVISIONS

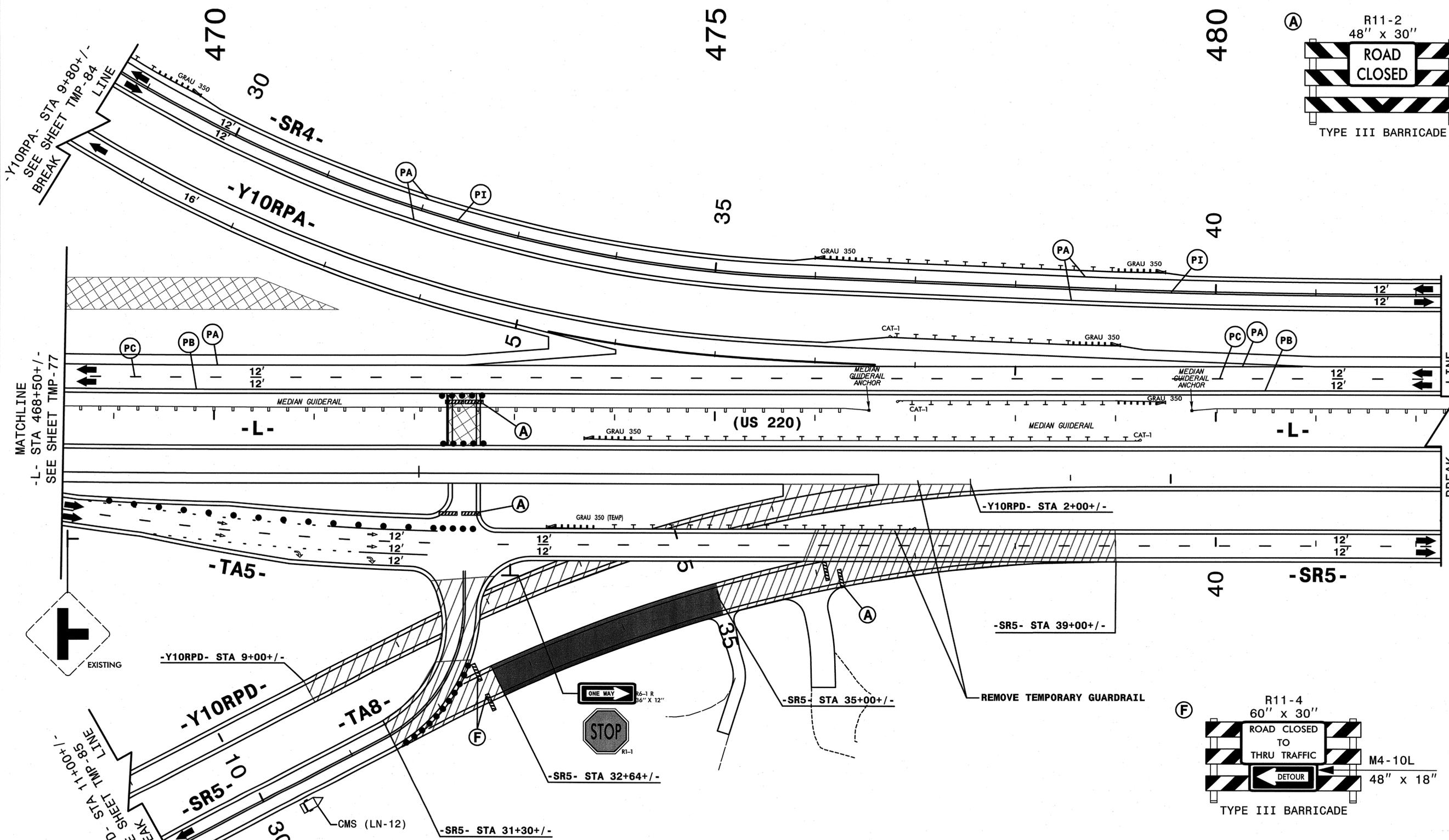
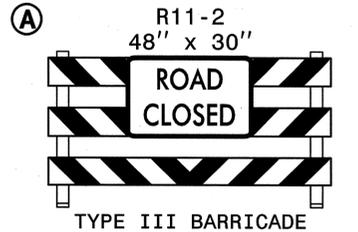
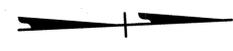
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REVIEW:	
CONCUR:	
REVISE:	
VERIFY:	

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. SIX FORKS ROAD, SUITE 200
 RALEIGH, NORTH CAROLINA 27609
 NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1.31.13
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 023521
 WYONDA B. EARLY

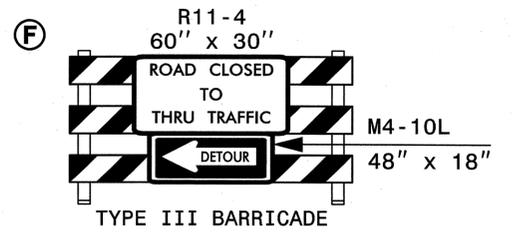


TRANSPORTATION MANAGEMENT PLAN
 PHASE III
 DETAIL



LINE
-L- STA 482+25+/-
SEE SHEET TMP-79

MATCHLINE
-L- STA 468+50+/-
SEE SHEET TMP-77



REVISIONS

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

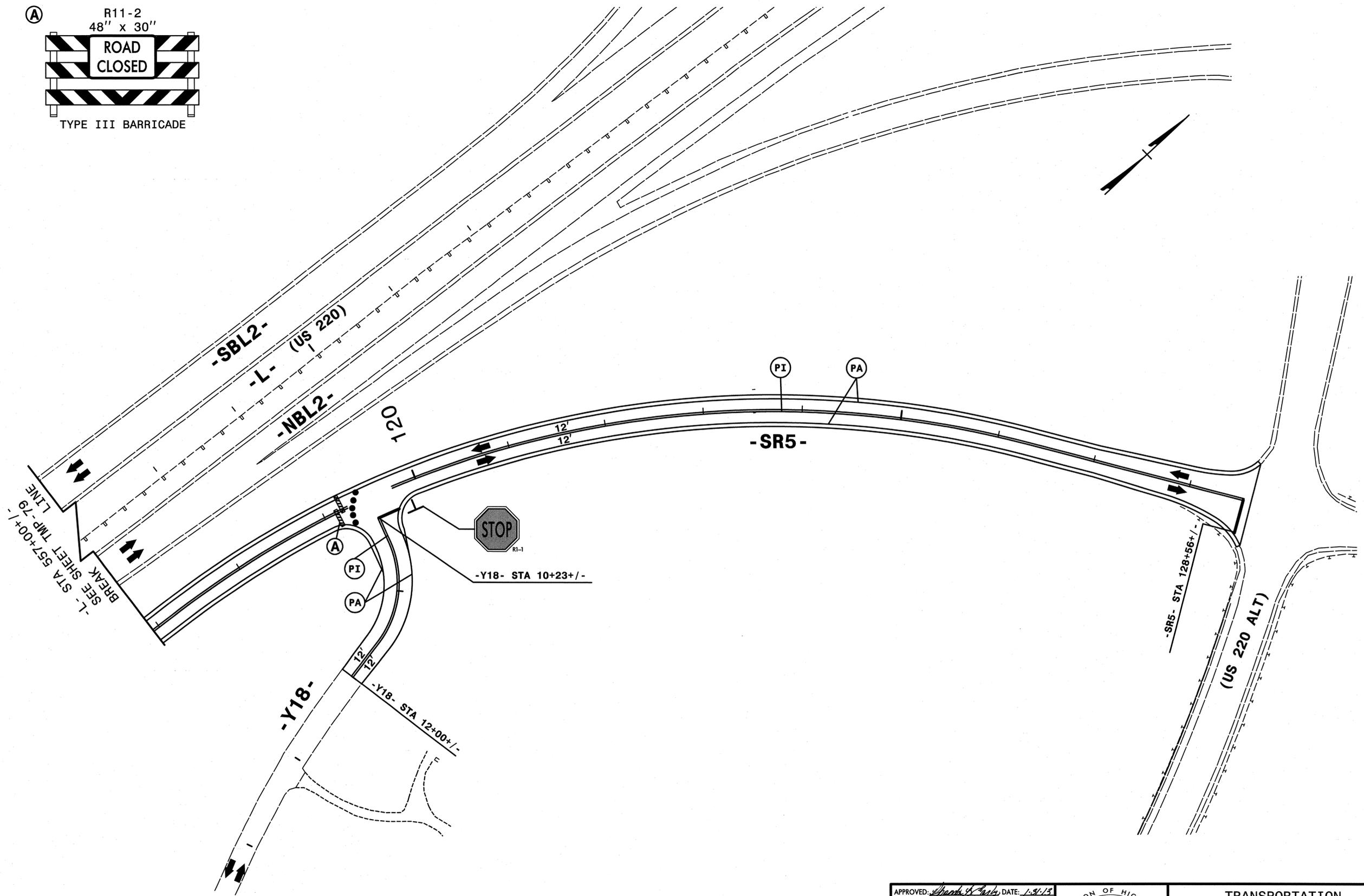
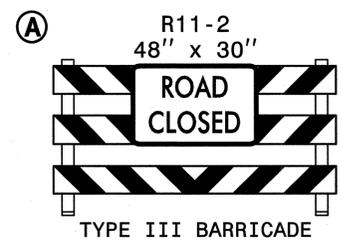
APPROVED: *[Signature]* DATE: 1.31.13



TRANSPORTATION
MANAGEMENT PLAN

PHASE III
DETAIL

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REVISIONS

REVIEW:	CONCUR:
REVISE:	VERIFY:

DATE: 1/9/13

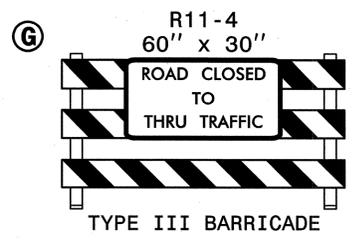
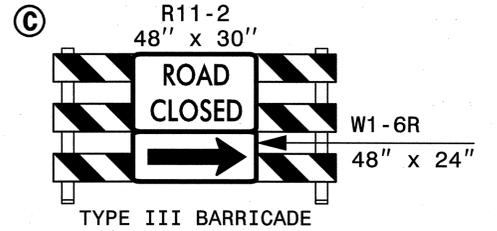
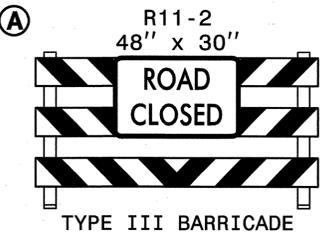
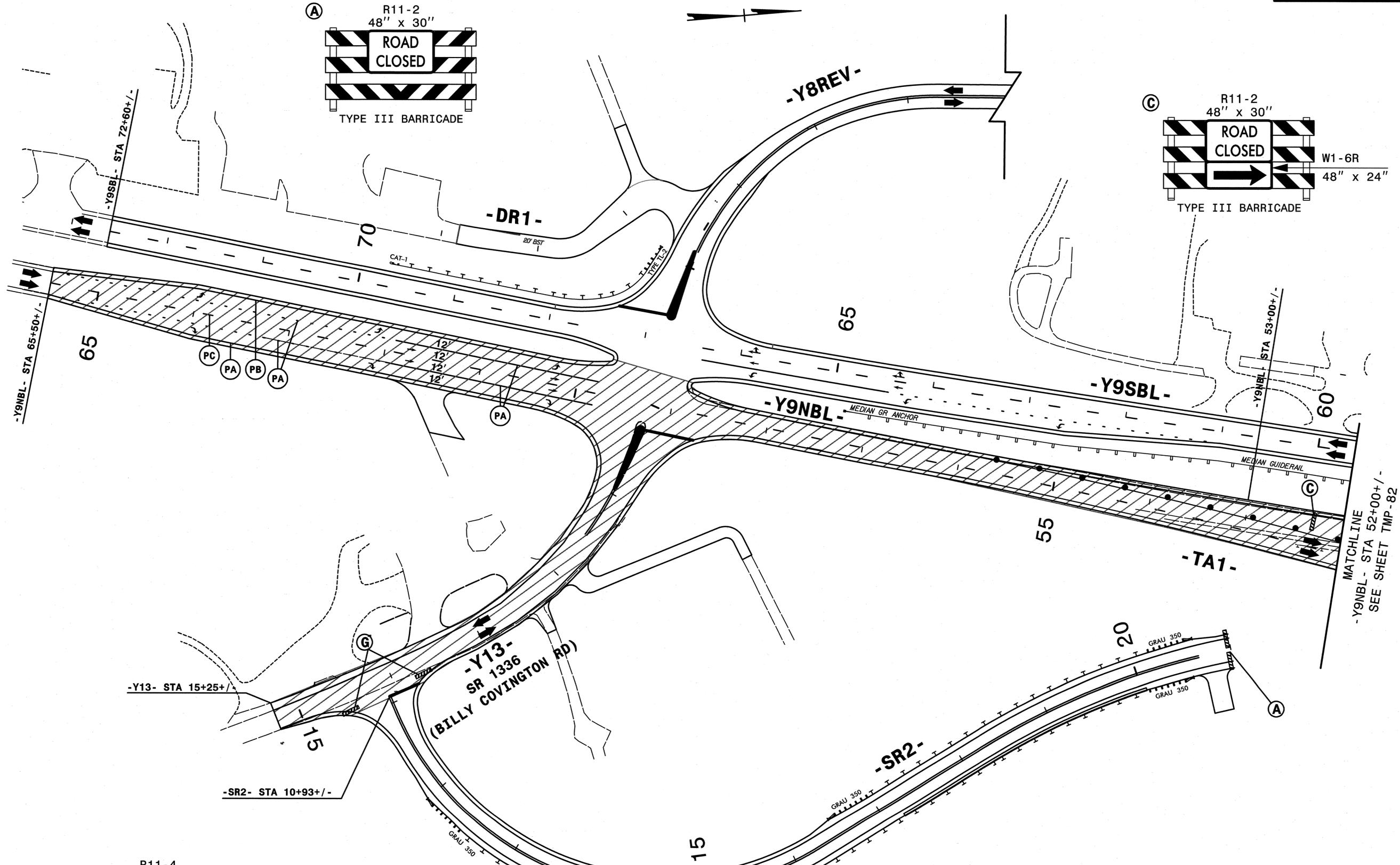
HNTB HNTB NORTH CAROLINA, P.C.
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NC License No: C-1554

APPROVED: *[Signature]* DATE: 1/9/13

TRANSPORTATION
MANAGEMENT PLAN

PHASE III
DETAIL

8/17/99



REVISIONS

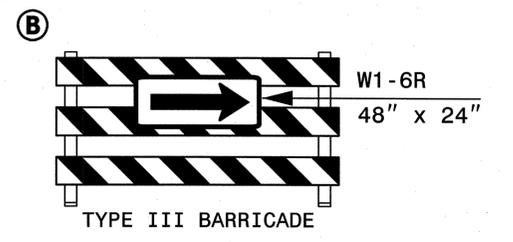
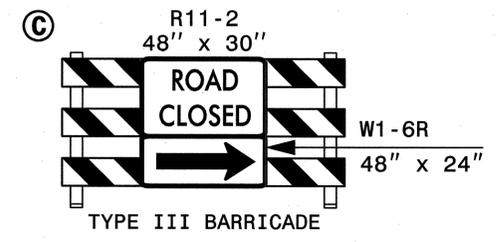
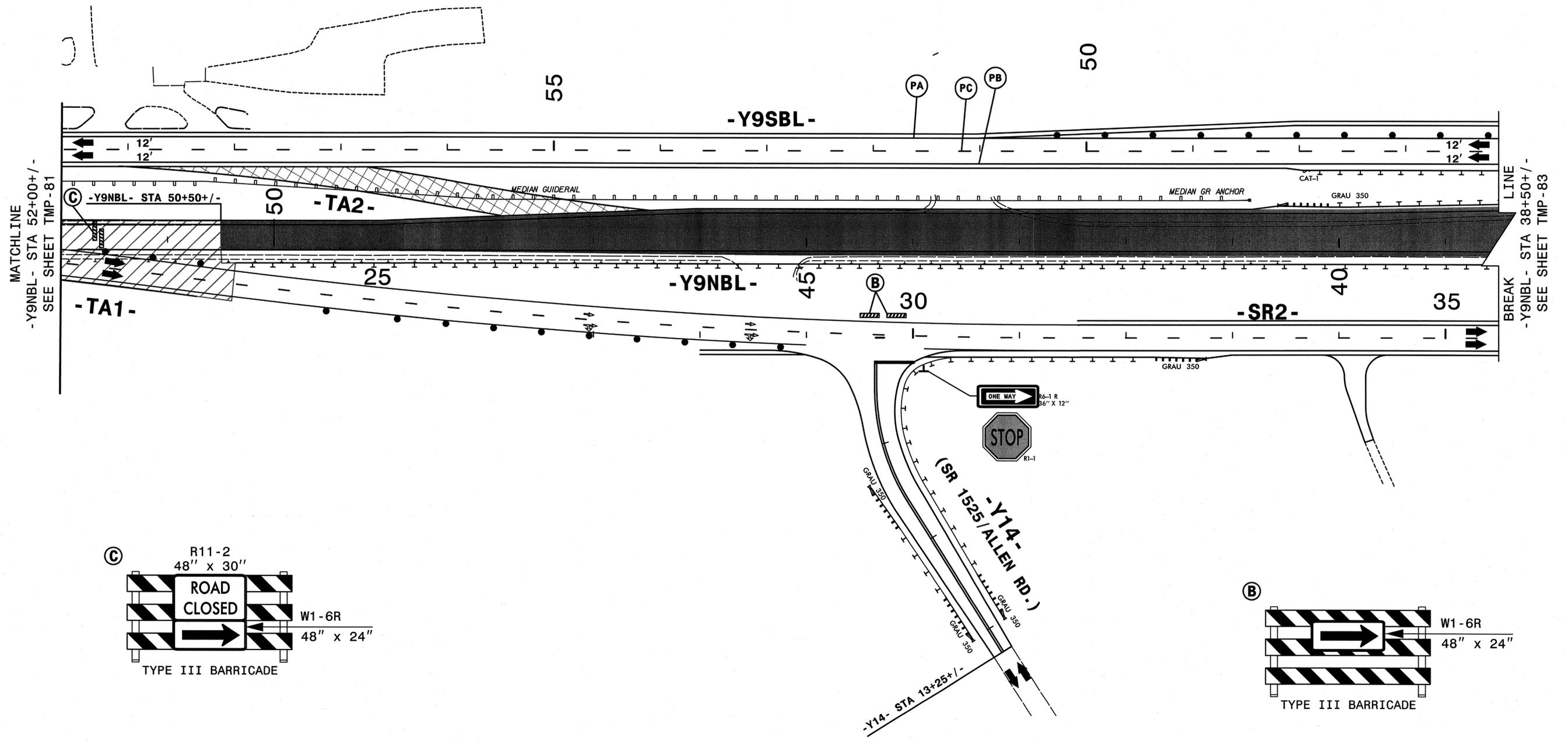
REVIEW:	CONCUR:
REVISE:	VERIFY:

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349 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

APPROVED: *[Signature]* DATE: 1-31-15
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
WANDA B. EARLY
023521



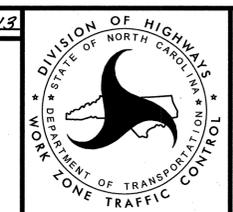
TRANSPORTATION MANAGEMENT PLAN
PHASE III DETAIL



REVISIONS

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

APPROVED: *[Signature]* DATE: 1.31.13

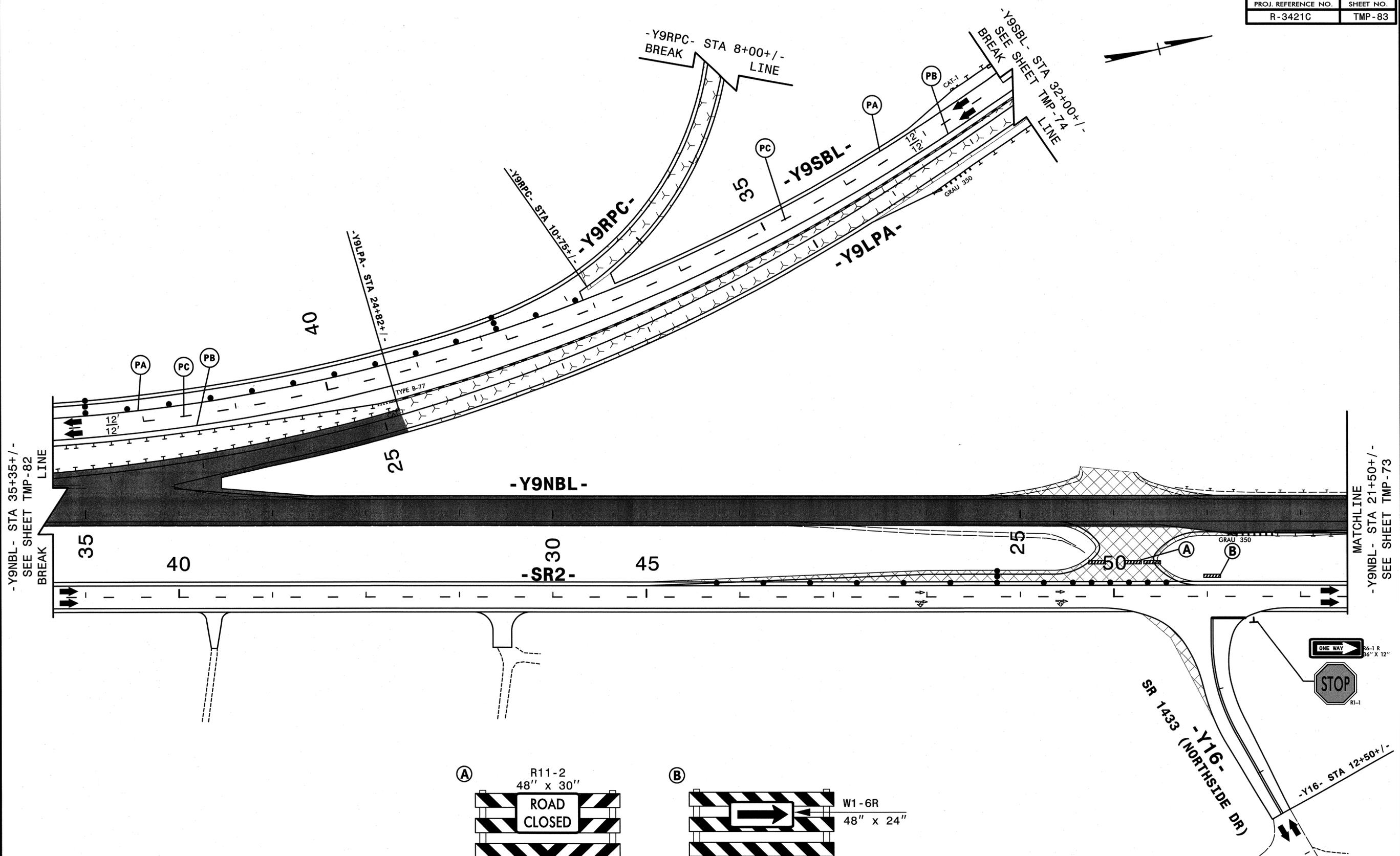


TRANSPORTATION
MANAGEMENT PLAN

PHASE III
DETAIL

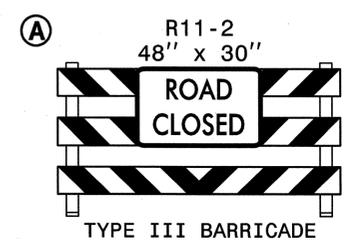
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HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO: C-1554

8/17/99



REVISIONS

GAQC STAGE:
 REVIEW:
 CONCUR:
 REVISE:
 VERIFY:



APPROVED: *[Signature]* DATE: 1-31-13

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 NORTH CAROLINA
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 PHONDA B. EARLY
 023521

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

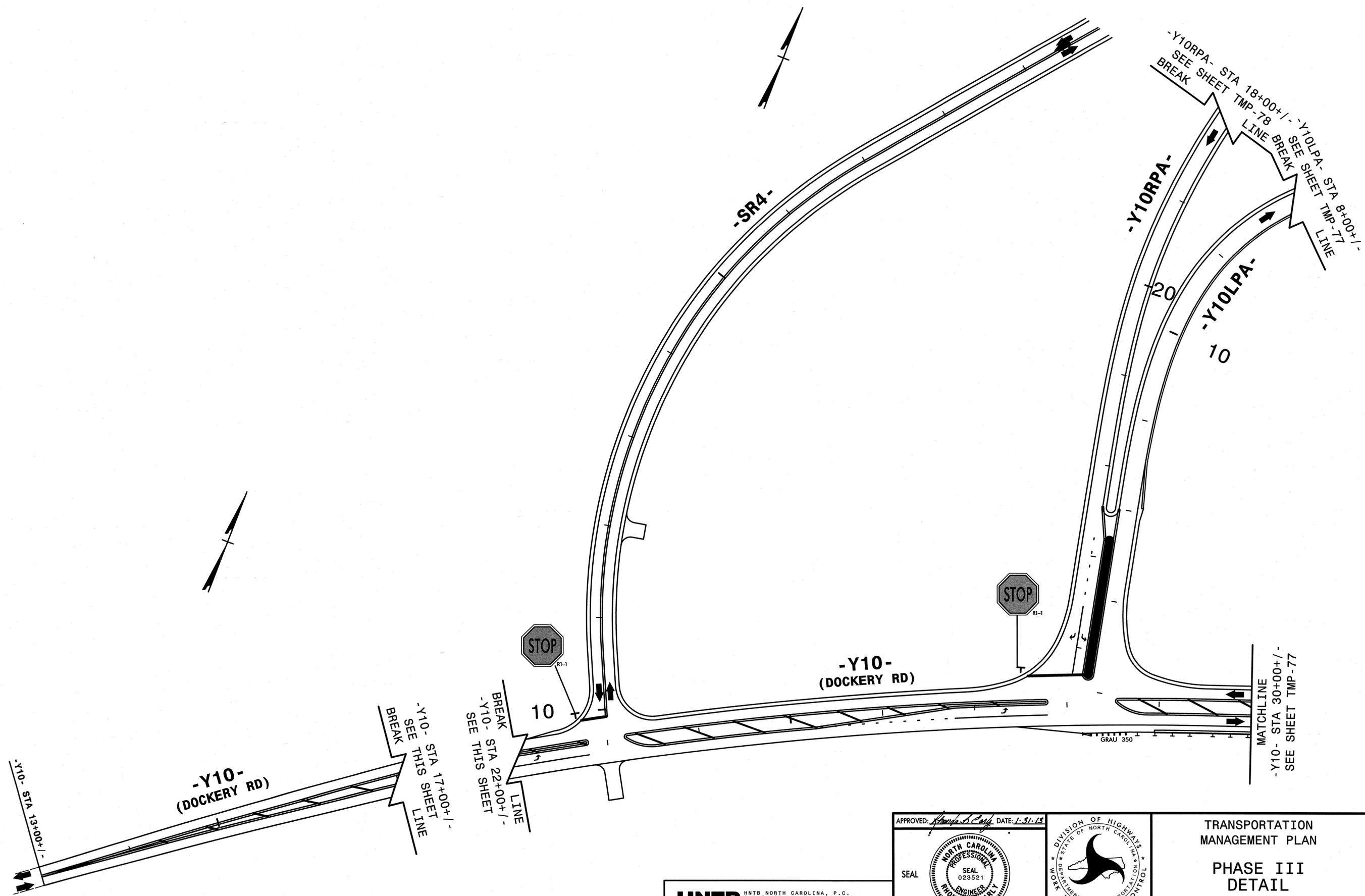
TRANSPORTATION
 MANAGEMENT PLAN
 PHASE III
 DETAIL

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 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

8/17/99

REVISIONS

GAQC STAGE: _____
 REVIEW: _____
 CONCUR: _____
 REVISE: _____
 VERIFY: _____



APPROVED: *[Signature]* DATE: 1-31-13

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NORTH CAROLINA
 PROFESSIONAL ENGINEER
WANDA B. EARLY
 023521

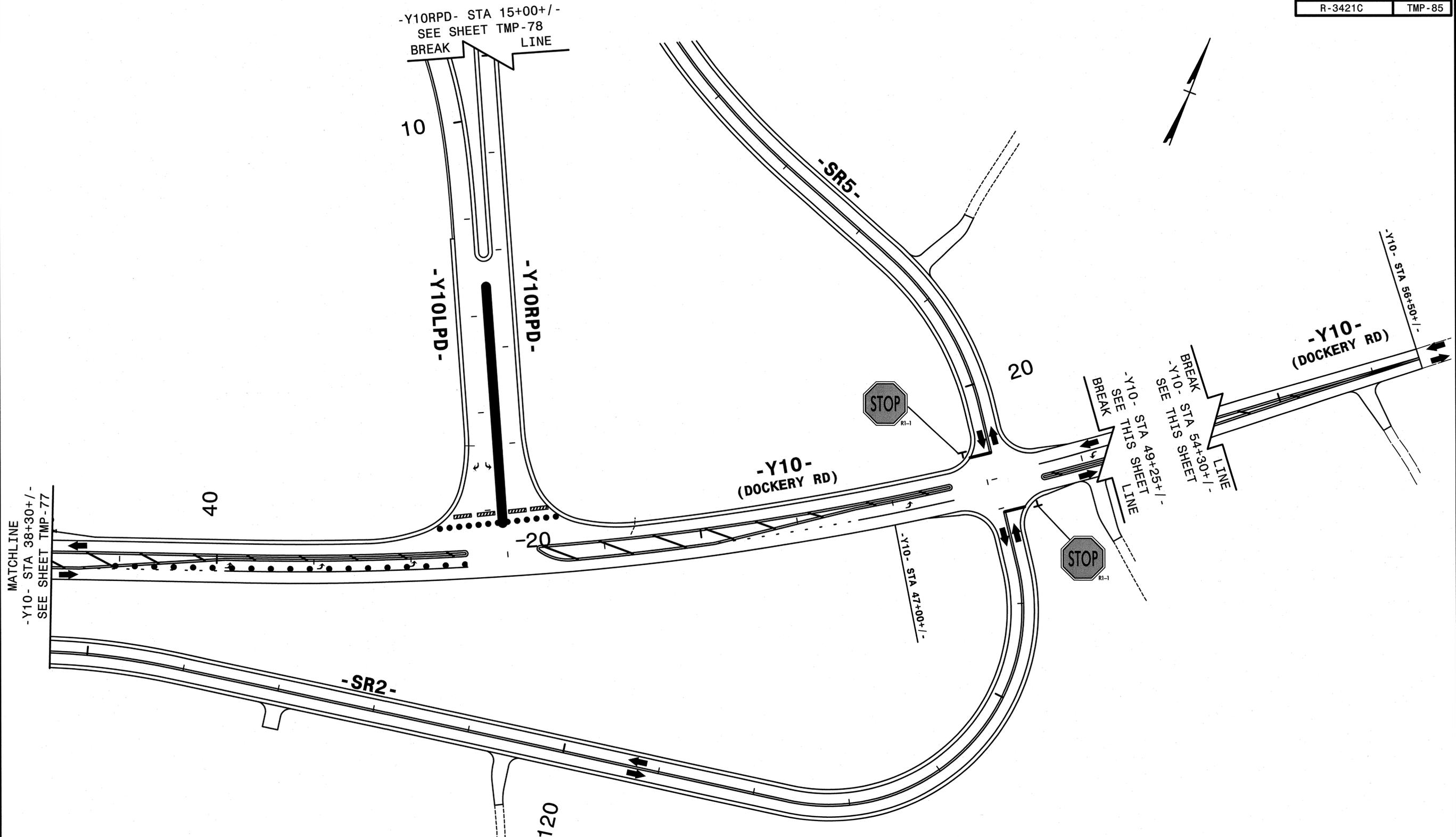


TRANSPORTATION
 MANAGEMENT PLAN

**PHASE III
 DETAIL**

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8/17/99



REVISIONS

REVIEW:	CONCUR:	REVISE:	VERIFY:

NOTE: REFER TO FINAL PAVEMENT MARKING PLAN FOR MARKING ON -Y10-

APPROVED: *[Signature]* DATE: 1.31.13

SEAL



TRANSPORTATION MANAGEMENT PLAN

PHASE III DETAIL

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