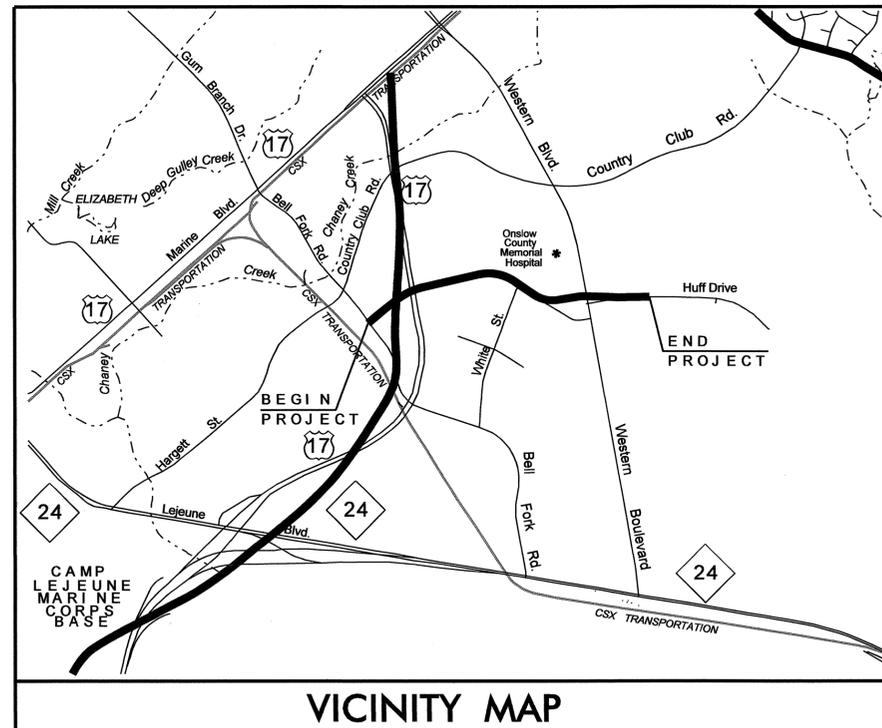


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ONSIOW COUNTY



**LOCATION: SR 1702 (WHITE STREET EXTENSION) FROM SR 1308
(BELL FORK ROAD) TO SR 1470 (WESTERN BOULEVARD)**

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING
TMP-1B - TMP-1C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES)
TMP-2A	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
TMP-2B	TEMPORARY SHORING DATA
TMP-2C	ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)
TMP-2D	DETAIL DRAWING FOR ADVANCED WORK ZONE WARNING SIGN DESIGNS
TMP-2E	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS
TMP-3 - TMP-3A	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 - TMP-11	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-12 - TMP-14	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-15	WHITE STREET DETOUR ROUTE
SD - 1	SPECIAL SIGN DESIGNS

SHEET NO.
TMP-1

U-4007A

TIP PROJECT:

05-APR-2011 14:03 \\dot\dfsroot\proj\TIPProjects-U4007a\TrafficControl\TCP-U4007A-TC-TMP-1.dgn rmgarratt AT E244735



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J.S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
J.S. KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
D.W. BISSETTE, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER
R. M. GARRETT TRAFFIC CONTROL DESIGN ENGINEER



APPROVED:
DATE: April 5, 2011

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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
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 PANELS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - INTERCHANGES
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - THRU LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY & PERMANENT)
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

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

- WORK AREA
- REMOVAL
- USER DEFINED (IF NEEDED)
- USER DEFINED (IF NEEDED)

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

- PAINT (12")
 - P1 WHITE GORELINE
- PAINT (24")
 - P4 WHITE STOPBAR
- PAINT (4")
 - PA WHITE EDGELINE
 - PB YELLOW EDGELINE
 - PC 10 FT. WHITE SKIP
 - PD 2 FT. WHITE MINISKIP
 - PE WHITE SOLID LANE LINE
 - PH YELLOW SINGLE CENTER
 - PI YELLOW DOUBLE CENTER
- PAINT (8")
 - PS WHITE DIAGONAL
 - PV YELLOW DIAGONAL
 - PX WHITE CROSSWALK LINE

PAINT MARKING CHARACTERS

- QI ALPHANUMERIC CHAR.

PAINT MARKING SYMBOLS

- QA LEFT TURN ARROW
- QB RIGHT TURN ARROW
- QC STRAIGHT ARROW
- QE COMBO. STRAIGHT / RIGHT

COLD APPLIED PLASTIC (4") TYPE 4 - REMOVABLE TAPE

- CA WHITE EDGELINE
- CB YELLOW EDGELINE
- CC 10 FT. WHITE SKIP
- CI YELLOW DOUBLE CENTER

COLD APPLIED PLASTIC (8") TYPE 4 - REMOVABLE TAPE

- CV YELLOW DIAGONAL

COLD APPLIED PLASTIC PAVEMENT MARKING CHARACTER TYPE 4 - REMOVABLE TAPE

- DI ALPHANUMERIC CHAR.

COLD APPLIED PLASTIC PAVEMENT MARKING SYMBOL TYPE 4 - REMOVABLE TAPE

- DA LEFT TURN ARROW
- DB RIGHT TURN ARROW

TEMPORARY RAISED PAVEMENT MARKERS

- MH YELLOW & YELLOW

APPROVED: DATE: 4/5/11			<h2 style="margin: 0;">ROADWAY STANDARD DRAWINGS & LEGEND</h2>
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MANAGEMENT STRATEGIES

THE FOLLOWING LISTED STRATEGIES DERIVE FROM ASSESSMENTS OF THE WORK ZONE IMPACTS CONDUCTED DURING THE DEVELOPMENTAL STAGES OF THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED MANAGEMENT STRATEGIES:

- SIGNAL TIMING / COORDINATION IMPROVEMENTS
- STREET / INTERSECTION IMPROVEMENTS
- TURN RESTRICTIONS
- TEMPORARY TRAFFIC BARRIER
- CRASH CUSHIONS
- COORDINATION WITH MEDIA
- LOCAL DETOUR ROUTES
- COOPERATIVE LAW ENFORCEMENT
- INCREASED PENALTIES FOR WORK ZONE VIOLATIONS

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
WESTERN BLVD.	6:00 A.M. - 8:00 P.M. MONDAY THRU FRIDAY
	11:00 A.M. - 8:00 P.M. SATURDAY AND SUNDAY
BELL FORK RD.	6:00 A.M. - 9:00 A.M. MONDAY THRU FRIDAY
	4:00 P.M. - 7:00 P.M. MONDAY THRU FRIDAY
	8:00 A.M. - 2:00 P.M. SUNDAY
HUFF DRIVE	12:00 NOON - 7:00 P.M. MONDAY THRU FRIDAY
US 17 BYPASS	6:00 A.M. - 8:30 A.M. MONDAY THRU FRIDAY
	4:00 P.M. - 6:00 P.M. MONDAY THRU FRIDAY

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

ROAD NAME
ALL ROADS
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 6:00 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.

GENERAL NOTES (CONT'D)

3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
9. FOR VETERANS DAY PARADE OCCURRING ALONG WESTERN BLVD. BETWEEN THE HOURS OF 5:30 A.M. TO 3:00 P.M. THE SATURDAY BEFORE VETERANS DAY.
10. FOR CHRISTMAS PARADE OCCURRING ALONG WESTERN BLVD. BETWEEN THE HOURS OF 5:30 A.M. TO 3:00 P.M. THE SATURDAY BEFORE THANKSGIVING DAY.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
US 17 BYPASS	4:00 A.M. - 11:00 P.M. M-F	30 MIN. HANGING OF BRIDGE GIRDERS

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING 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.

GENERAL NOTES (CONT'D)

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 REMAIN 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 1 MILE OF LANE CLOSURE ON ALL ROADS MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON ALL ROADS.

PAVEMENT EDGE DROP OFF REQUIREMENTS

L) 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 50 MM ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 75 MM 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

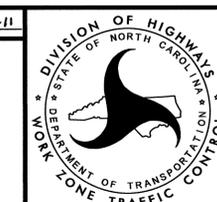
M) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

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

APPROVED:  	DATE: 5-12-11		<h1 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN</h1>
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GENERAL NOTES (CONT'D)

Q) 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.

R) 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.

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

T) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 305 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

U) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

V) 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 OFF SET 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

GENERAL NOTES (CONT'D)

TRAFFIC CONTROL DEVICES

W) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

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

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

PAVEMENT MARKINGS AND MARKERS

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

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

ROAD NAME	MARKING	MARKER
BELL FORK ROAD	COLD APPLIED PLASTIC/REM TAPE	N/A
ALL OTHER ROADS	PAINT	TEMPORARY RAISED PAVEMENT MARKERS

BB) 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.

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

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

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

TEMPORARY / FINAL SIGNALS

FF) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.

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

MISCELLANEOUS

HH) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

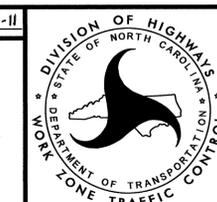
II) ALL WHEELCHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

JJ) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

LOCAL NOTES

- 1) CONTACT ONSLOW COUNTY FIRE DEPARTMENT, EMERGENCY MEDICAL SERVICES, AND HOSPITAL 30 DAYS PRIOR TO HUFF DRIVE CLOSURE.
- 2) EACH PROPOSED SIDEWALK SEGMENT IS TO REMAIN CLOSED UTILIZING TYPE III BARRICADES WITH (R9-9) "SIDEWALK CLOSED" SIGNS MOUNTED ONTO SAME. EACH SEGMENT MAY BE OPENED TO PEDESTRIANS ONCE COMPLETED OR AS DIRECTED BY THE ENGINEER.
- 3) COORDINATE ALL OPERATIONS WITH THE CONTRACTOR OF THE ADJACENT PROJECT U-4007B.
- 4) TRAFFIC SHALL NOT BE STOPPED FOR MORE THAN 15 MINUTES WHILE SHIFTING TRAFFIC ON ANY ROAD.

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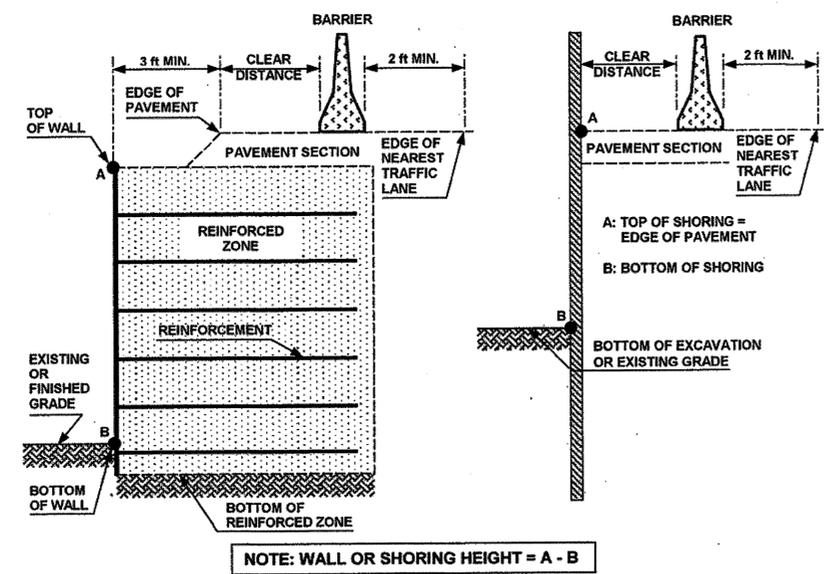


FIGURE A

NOTES

- 1- REFER TO THE TRAFFIC CONTROL PLANS FOR SHORING LOCATIONS AND SOIL PARAMETERS.
- 2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR MORE INFORMATION ABOUT TEMPORARY SHORING, MEASUREMENT AND PAYMENT.
- 3- 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).
- 4- 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.
- 5- 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).
- 6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.
- 7- USE OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH DETAIL DRAWING AND SPECIAL PROVISION OBTAINED FROM: WORK ZONE TRAFFIC CONTROL UNIT WEB PAGE.
- 8- 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.
- 9- 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.
- 10- 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

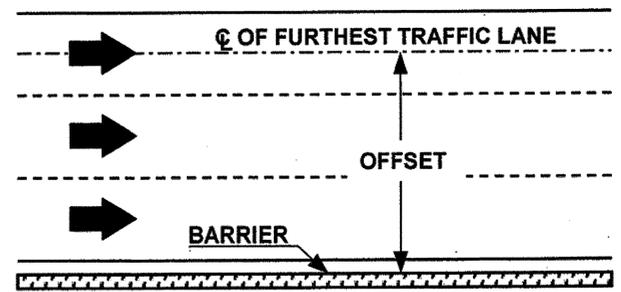
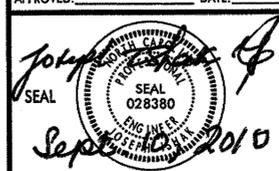


FIGURE B

APPROVED: 	DATE: _____		PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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① QUANTITY = 815± SQ FT

TEMPORARY SHORING NO.1

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING PROVISION.

DO NOT USE A TEMPORARY MSE WALL FROM STATION 48+00± -Y2- TO STATION 49+16.41± -Y2-, 15± FT. RIGHT.

WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 48+00± -Y2- TO STATION 49+16.41± -Y2-, 15± FT. RIGHT, DESIGN SHORING FOR THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:

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

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

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

② QUANTITY = 832± SQ FT

TEMPORARY SHORING NO.2

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING PROVISION.

DO NOT USE A TEMPORARY MSE WALL FROM STATION 47+91.41± -Y2- TO STATION 49+10.24± -Y2-, 15± FT. LEFT.

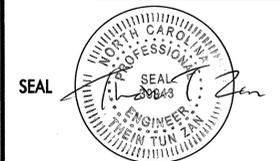
WHEN USING CONTRACTOR DESIGNED SHORING FROM STATION 47+91.41± -Y2- TO STATION 49+10.24± -Y2-, 15± FT. LEFT, DESIGN SHORING FOR THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:

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

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

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

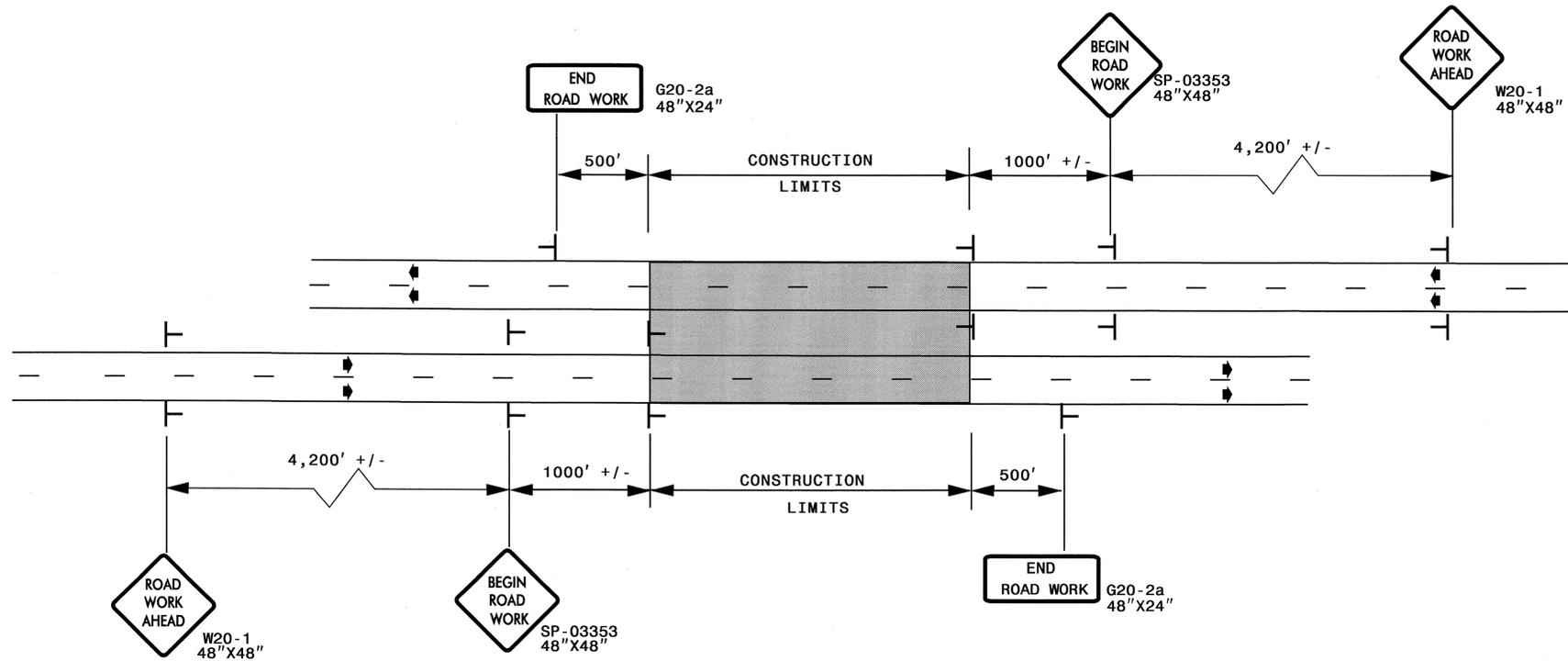
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 AT E244735
 rmgorrett

APPROVED: <i>John Lee</i> DATE: 4/6/11 		TEMPORARY SHORING DATA
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ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

PROJ. REFERENCE NO.	SHEET NO.
U-4007A	TMP-2C

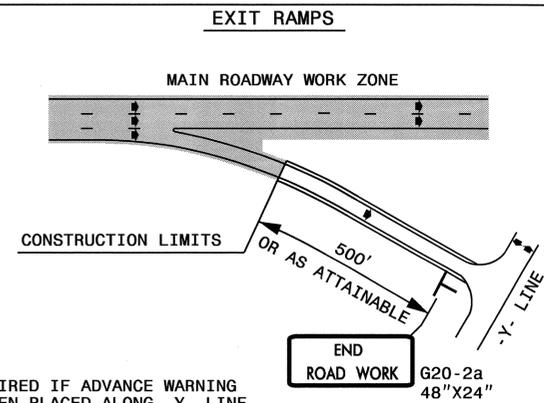
DETAIL A



LEGEND	
	STATIONARY SIGN
▶	DIRECTION OF TRAFFIC FLOW

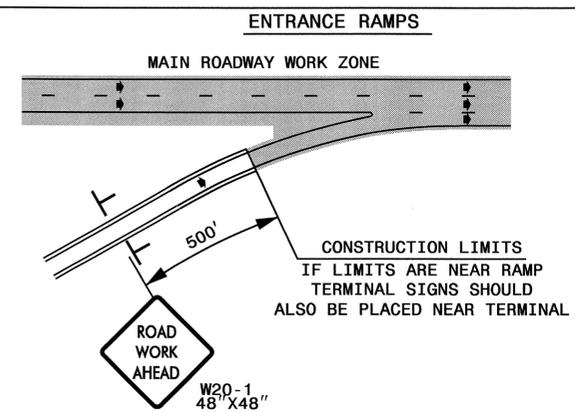
* USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

DETAIL B

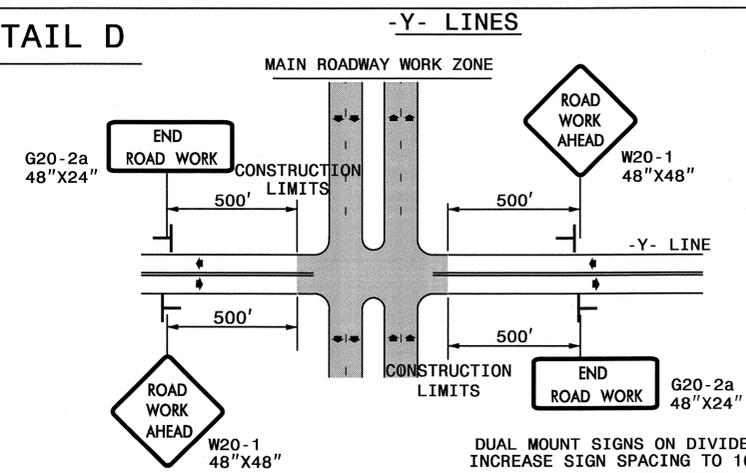


NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



DETAIL D



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

GENERAL NOTES

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

APPROVED: DATE: 4/5/11			ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)
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SP 03353

SIGN NUMBER: SP-03353 TYPE: A QUANTITY: 1 SIGN WIDTH: 4'-0" HEIGHT: 4'-0" TOTAL AREA: 16.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0.59" WIDTH: 0.75" RADII: 1.38" NO. Z BARS: N/A LENGTH: N/A	BACKG COLOR: Fluorescent Orange COPY COLOR: Black	DESIGNER: DOWNEY PROJECT ID: ALL PROJECTS	CHECKED BY: CHECKED DIV: DIV	STD #: W20-1 DATE: Aug 20, 2003
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SYMBOL	X	Y	WID	HT

USE NOTES: 2, 4

- Legend and border shall be direct applied Type VII reflective sheeting.
- Legend and border shall be direct applied non-reflective sheeting.
- Shields shall be Type VII reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
- Background shall be Type VII reflective sheeting.
- Background shall be Type I reflective sheeting.
- Center arrow(s) vertically on sign.
- Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

Letter Spacing Data											Series/Size
	B	E	G	I	N						Text Length
	22.4	5.3	4.6	5.4	2.5	3.8	22.4				C7
		R	O	A	D						21.6
	23.4	5	5.2	5.6	3.8	23.4					C7
		W	O	R	K						19.6
	22.6	6.4	5.6	5.2	4	22.6					C7
											21.2

Spacing Factor is 1 unless specified otherwise

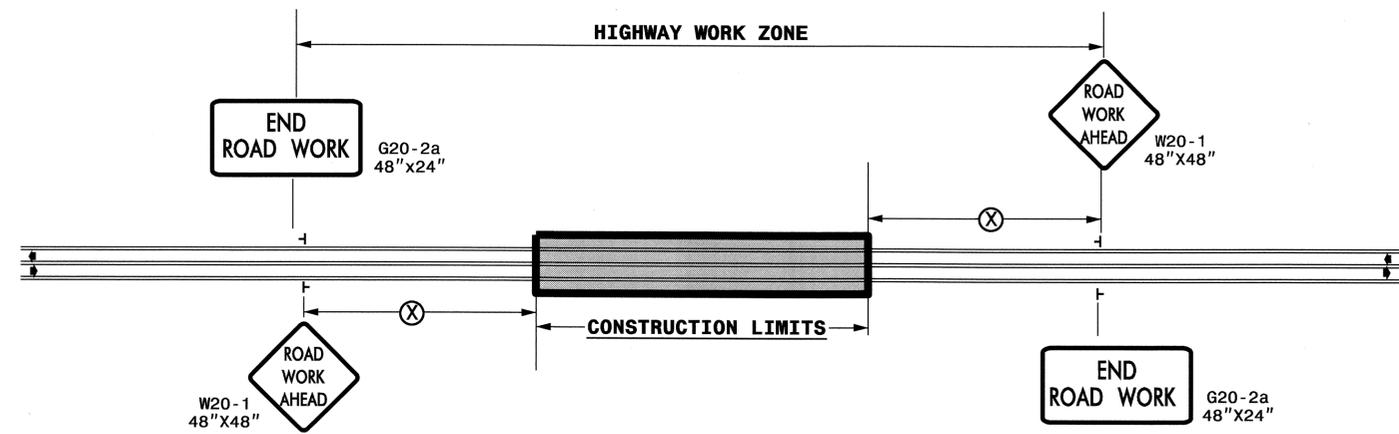
GENERAL NOTES FOR THE "BEGIN ROAD WORK" SIGN

- SIGN SP-03353 "BEGIN ROAD WORK" ONLY APPLIES TO FULL CONTROL AND PARTIAL CONTROL OF ACCESS ROADWAYS
- WHEN USED, INSTALL SIGN SP-03353 "BEGIN ROAD WORK" ACCORDING TO DETAIL A ON SHEET TMP-2C.

APPROVED:  DATE: 4/5/11			<p>DETAIL DRAWING FOR ADVANCED WORK ZONE WARNING SIGN DESIGNS</p>
SEAL			

04-APR-2011 15:08
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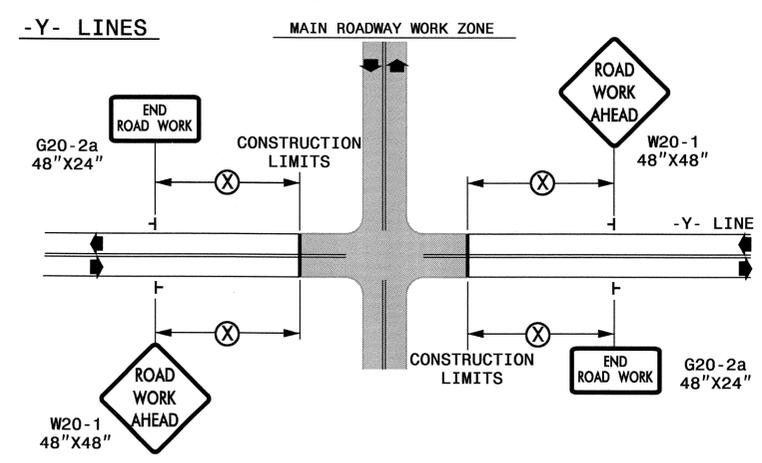
TWO-WAY UNDIVIDED ** (L-LINES)



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

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

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



DETAIL DRAWING FOR
 TWO-WAY UNDIVIDED
 WORK ZONE WARNING SIGNS

GENERAL NOTES

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

LEGEND

└ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

APPROVED: *[Signature]* DATE: 4/5/11

SEAL

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS
 WORK ZONE WARNING SIGNS

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NOTES:
THE CONTRACTOR IS TO FURNISH, INSTALL, MAINTAIN, RELOCATE AND REMOVE CHANGEABLE MESSAGE BOARDS DURING VARIOUS STAGES OF CONSTRUCTION AT THE DISCRETION OF THE ENGINEER TO ADEQUATELY INFORM MOTORISTS OF CHANGING WORK ZONE CONDITIONS.

COMPLETE ANY PROPOSED OR TEMPORARY WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE.

USING INCIDENTAL STONE AS NECESSARY, MAINTAIN VEHICULAR ACCESS TO ALL DRIVEWAYS DURING THE LIFE OF THE CONTRACT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

REMOVE TEMPORARY LANE CLOSURES AT THE END OF EACH WORKDAY AND RESTORE TRAFFIC TO EXISTING PATTERNS.

PHASE I

STEP 1. INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L- AND ALL -Y- LINES AS SHOWN ON SHEETS TMP-2C, TMP-2D AND TMP-2E.

STEP 2. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 9 AS NEEDED BEGIN CONSTRUCTION OF THE PROPOSED ROADWAY SECTIONS UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE IN THE FOLLOWING LOCATIONS: (SEE ROADWAY PLANS AND SHEETS TMP-4 THROUGH TMP-8)

- L- STA. 10+44+/- TO STA. 20+36+/- EB & WB LANES
- L- STA. 22+58+/- TO STA. 45+35+/- EB & WB LANES
- L- STA. 45+35+/- TO STA. 52+50+/- EB LANES ONLY
- L- STA. 52+50+/- TO STA. 61+30+/- EB & WB LANES (INCLUDING TEMPORARY CROSS-OVER PAVEMENT FOR HOSPITAL ACCESS WITHIN THE PROPOSED MEDIAN AREA OF -L-)
- L- STA. 62+16+/- TO STA. 66+85+/- EB & WB LANES
- LOOPA- STA. 1+20+/- TO STA. 7+44+/-
- RAMPA- STA. 2+45+/- TO STA. 13+22+/-
- LOOPB- STA. 1+27+/- TO STA. 9+24+/-
- RAMPB- STA. 2+39+/- TO STA. 17+86+/-

STEP 3. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02 SHEETS 1 AND 3 OF 9 AS NEEDED BEGIN INSTALLATION OF PROPOSED SIGNALS AT THE INTERSECTIONS OF -L- (WHITE ST. EXT.) WITH -Y1- (BELL FORK RD.), -L- (WHITE ST. EXT.) WITH -Y3- (WHITE ST.) AND -L- (WHITE ST. EXT.) WITH -Y5- (WESTERN BLVD.) (SEE SHEETS TMP-4, TMP-7, TMP-8 AND SIGNAL PLANS).

STEP 4. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9 AND ROADWAY STANDARD DRAWING 1101.03, SHEET 9 OF 9 BEGIN CONSTRUCTION OF THE PROPOSED STRUCTURE -L- (WHITE ST. EXT.) STA. 20+36+/- TO STA. 22+58+/- AND -Y2- (US 17) WIDENING FROM RIGHT OF -Y2- STA. 27+48+/- TO STA. 62+00+/- AND LEFT OF -Y2- STA. 27+89+/- TO STA. 62+00+/- AS SHOWN ON SHEETS TMP-5 AND TMP-6 AND AS DESCRIBED IN THE FOLLOWING SEQUENCE:

- A. INSTALL PORTABLE CONCRETE BARRIER ON THE OUTSIDE SHOULDERS RIGHT OF -Y2- (US 17) STA. 27+00+/- TO STA. 48+00+/- AND LEFT OF -Y2- (US 17) STA. 27+48+/- TO STA. 49+00+/- AND BEGIN CONSTRUCTION OF END BENT 1 AND END BENT 2. (SEE LOCAL NOTE 3)
- B. INSTALL PORTABLE CONCRETE BARRIER ON THE MEDIAN SHOULDERS RIGHT OF -Y2- (US 17) STA. 45+70+/- TO STA. 50+20+/- AND LEFT OF -Y2- (US 17) STA. 46+90+/- TO STA. 51+40+/-.
- C. INSTALL TEMPORARY SHORING LOCATION 1 AND LOCATION 2. (SEE SHEETS TMP-2A AND TMP-2B)
- D. CONSTRUCT BENT 1, BACK FILL, AND REMOVE SHORING.

- E. COMPLETE CONSTRUCTION OF PROPOSED STRUCTURE -L- (WHITE ST. EXT.) STA. 20+36+/- TO STA. 22+58+/- AND -Y2- (US 17) WIDENING FROM RIGHT OF -Y2- STA. 27+48+/- TO STA. 62+00+/- AND LEFT OF -Y2- STA. 27+89+/- TO STA. 62+00+/- UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. NOTE: ALL RAMPS AND LOOPS LEADING TO OR FROM -Y2- (US 17) ARE TO REMAIN CLOSED AT THIS TIME.
- F. REMOVE ANY PORTABLE CONCRETE BARRIER WHEN IT IS NO LONGER NEEDED.

NOTE: STEPS 5 THROUGH 7 CAN BE PERFORMED IN ANY ORDER. STEPS 5 OR 6 CAN BE PERFORMED CONCURRENTLY WITH THE WORK IN STEP 7. STEPS 5 AND 6 SHALL NOT BE PERFORMED CONCURRENTLY WITH EACH OTHER.

THE CONTRACTOR SHALL COMPLETE THE WORK OF PHASE I, STEP 5 IN A CONTINUOUS MANNER FOR A PERIOD NOT TO EXCEED 21 DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

STEP 5. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9 AND LAW ENFORCEMENT AS NEEDED CONSTRUCT PROPOSED ROADWAY WIDENING UP TO THE EDGE AND ELEVATION OF THE EXISTING ROADWAY SURFACE RIGHT OF -Y5- (WESTERN BLVD) STA. 10+07+/- TO STA. 16+25+/- (SEE ROADWAY PLANS AND SHEET TMP-8).

REOPEN THE EXISTING LANE TO TRAFFIC. KEEP THE WIDENED PORTION OF -Y5- (WESTERN BLVD) CLOSED WITH DRUMS. (SEE SHEET TMP-8)

THE CONTRACTOR SHALL COMPLETE THE WORK OF PHASE I, STEP 6 IN A CONTINUOUS MANNER FOR A PERIOD NOT TO EXCEED 21 DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

STEP 6. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9 AND LAW ENFORCEMENT AS NEEDED CONSTRUCT PROPOSED ROADWAY WIDENING UP TO THE EDGE AND ELEVATION OF THE EXISTING ROADWAY SURFACE LEFT OF -Y5- (WESTERN BLVD) STA. 14+35+/- TO STA. 18+69+/- (SEE ROADWAY PLANS AND SHEET TMP-8).

REOPEN THE EXISTING LANE TO TRAFFIC. KEEP THE WIDENED PORTION OF -Y5- (WESTERN BLVD) CLOSED WITH DRUMS. (SEE SHEET TMP-8)

THE WORK DESCRIBED IN PHASE I, STEP 7 IS TO COMMENCE ONLY AFTER THE CLOSING OF THE CURRENT SCHOOL YEAR. THE CONTRACTOR SHALL COMPLETE THE WORK OF PHASE I, STEP 7 IN A CONTINUOUS MANNER FOR A PERIOD NOT TO EXCEED 42 DAYS. (SEE INTERMEDIATE TIME AND LIQUIDATED DAMAGES)

STEP 7. CONSTRUCT THE WIDENING OF -Y1- (BELL FORK RD.) AS SHOWN ON SHEETS TMP-9, TMP-10 AND TMP-11 AND AS DESCRIBED IN THE FOLLOWING SEQUENCE:

- A. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, INSTALL TEMPORARY PAVEMENT MARKINGS, MARKERS AND TRAFFIC CONTROL DEVICES AND PLACE -Y1- (BELL FORK ROAD) TRAFFIC INTO A 2-LANE, 2-WAY PATTERN WITHIN THE EXISTING WESTBOUND LANES AS SHOWN ON SHEETS TMP-9 AND TMP-11.

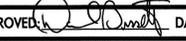
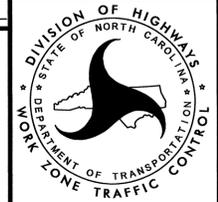
B. CONSTRUCT PROPOSED ROADWAY WIDENING UP TO THE EDGE AND ELEVATION OF THE EXISTING -Y1- ROADWAY SURFACE IN THE EASTBOUND DIRECTION. (SIDEWALK AND ANY UTILITY RELOCATION WORK MAY BEGIN AT THIS TIME BUT, DOES NOT HAVE TO BE COMPLETED DURING THIS INTERMEDIATE CONTRACT TIME.)

C. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, INSTALL TEMPORARY PAVEMENT MARKINGS, MARKERS AND TRAFFIC CONTROL DEVICES AND PLACE -Y1- (BELL FORK ROAD) TRAFFIC INTO A 2-LANE, 2-WAY PATTERN WITHIN THE EXISTING EASTBOUND LANES AS SHOWN ON SHEETS TMP-10 AND TMP-11.

D. CONSTRUCT PROPOSED ROADWAY WIDENING UP TO THE EDGE AND ELEVATION OF THE EXISTING -Y1- ROADWAY SURFACE IN THE WESTBOUND DIRECTION.

E. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9, INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS AND RETURN -Y1- TO THE EXISTING 4-LANE 2-WAY PATTERN. KEEP THE WIDENED PORTIONS OF -Y1- CLOSED WITH DRUMS AND BARRICADES SEPARATING TRAFFIC FROM CONSTRUCTION ON -L- (WHITE STREET EXTENSION).

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APPROVED:  DATE: 05/23/11			<p style="text-align: center; font-weight: bold;">PHASE I PHASING</p>
SEAL			

PHASE II

STEP 1. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 9 AS NEEDED CONSTRUCT -L- (WHITE STREET EXTENSION) STA. 45+35+/- TO STA. 52+50+/- EB LANES AND STA. 52+50+/- TO STA. 54+00+/- UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. INSTALL TEMPORARY PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES AS SHOWN ON SHEET TMP-12 AND OPEN TO HOSPITAL TRAFFIC.

STEP 2. USING ROADWAY STANDARD DRAWING 1101.03, SHEETS 1 AND 2 OF 9 CLOSE -Y3- (WHITE STREET) AND -Y6- (WHITE STREET) TO THROUGH TRAFFIC AS SHOWN ON SHEET TMP-12 AND DETOUR TRAFFIC ALONG STATION ST. AND CENTER ST. AS SHOWN ON SHEET TMP-15.

STEP 3. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 9 AS NEEDED COMPLETE THE CONSTRUCTION OF THE FOLLOWING PROPOSED ROADWAY SECTIONS UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE IN THE FOLLOWING LOCATIONS:

- L- STA. 45+35+/- TO STA. 52+50+/- EB LANES
- L- STA. 54+00+/- TO STA. 65+92+/- EB & WB LANES
- Y3- STA. 10+00+/- TO STA. 12+00+/-

STEP 4. USING ROADWAY STANDARD DRAWING 1101.02, SHEETS 1 AND 3 OF 9 AND WORKING CONTINUOUSLY COMPLETE THE FOLLOWING:

- WEDGE -L- (HUFF DRIVE) FROM STA. 65+92+/- TO STA. 68+31+/- UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. (SEE ROADWAY PLANS AND SHEET TMP-14)

- INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN IN THE FOLLOWING LOCATIONS: (SEE PAVEMENT MARKING PLANS)

- L- STA. 45+35+/- TO STA. 68+31+/- (BOTH DIRECTIONS)
- Y3- STA. 10+00+/- TO STA. 12+00+/- (BOTH DIRECTIONS)
- Y5- STA. 10+00+/- TO STA. 18+72+/- (BOTH DIRECTIONS)

- INSTALL R1-1 (STOP) AND R1-4 (ALL WAY) SIGNS ON -Y3- (WHITE ST.) ON EACH SIDE OF -L- (WHITE STREET EXT.) AND ON THE WB SIDE OF -L- AT -Y3-. PLACE BARRICADES ACROSS -L- (WHITE STREET EXT.) STA. 45+60+/- (THE PROPOSED SIGNAL AT THIS LOCATION IS TO REMAIN DEACTIVATED AND COVERED AT THIS TIME.)

- COMPLETE AND ACTIVATE THE PROPOSED SIGNAL AT -L- (WHITE STREET EXT. / HUFF DRIVE) AND -Y5- (WESTERN BLVD), AND OPEN -Y3- (WHITE ST.), -Y6- (WHITE ST.), STATION ST. AND -L- (WHITE STREET EXT. / HUFF DRIVE) FROM STA. 45+35+/- TO STA. 68+31+/- . CLOSE TEMPORARY CROSS-OVER PAVEMENT AT -L- STA. 53+40+/- TO TRAFFIC.

STEP 5. USING ROADWAY STANDARD DRAWING 1101.02, SHEET 3 OF 9 REMOVE THE TEMPORARY CROSS-OVER PAVEMENT USED FOR HOSPITAL ACCESS AND COMPLETE THE INSTALLATION OF THE MEDIAN CURB AND GUTTER (BOTH SIDES) BETWEEN -L- STA. 53+00 TO STA. 53+77.

STEP 6. USING ROADWAY STANDARD DRAWING 1101.02, SHEETS 1, 3, 4 AND 5 OF 9 AND LAW ENFORCEMENT AS NEEDED COMPLETE ALL WORK BEGAN IN THE PREVIOUS STEPS AND COMPLETE ALL ROADWAY SECTIONS UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

STEP 7. USING ROADWAY STANDARD DRAWING 1101.02 SHEET 3, 4 AND 5 OF 9 AS NEEDED PLACE THE FINAL LAYER OF SURFACE COURSE ON -Y5- (WESTERN BLVD.) STA. 10+07+/- TO STA. 18+72+/- . PLACE FINAL PAVEMENT MARKINGS ON SAME.

STEP 8. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02 SHEET 3 AND 4 OF 9 AS NEEDED PLACE THE FINAL LAYER OF SURFACE COURSE ON -L- (WHITE ST. EXT.) STA. 10+44+/- TO STA. 20+36+/- , STA. 22+58+/- TO STA. 61+30+/- AND STA. 62+16+/- TO STA. 68+31+/- . PLACE FINAL PAVEMENT MARKINGS ON SAME. (KEEP -L- CLOSED FROM STA. 10+44+/- TO STA. 45+35+/- .)

STEP 9. USING ROADWAY STANDARD DRAWING 1101.02 SHEET 3 AND 4 OF 9 AS NEEDED PLACE THE FINAL LAYER OF SURFACE COURSE ON -Y1- (BELL FORK RD.) STA. 11+08+/- TO STA. 18+95+/- . PLACE FINAL PAVEMENT MARKINGS ON SAME. (KEEP -Y1- LANES ACCESSING -L- CLOSED.)

STEP 10. AWAY FROM TRAFFIC AND / OR USING ROADWAY STANDARD DRAWING 1101.02 SHEET 3, 4 AND 5 OF 9 AS NEEDED PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS ON THE FOLLOWING:

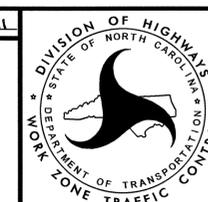
- Y2- STA. 27+89+/- TO STA. 62+00+/-
- LOOPA- STA. 1+20+/- TO STA. 7+44+/-
- RAMP A- STA. 2+45+/- TO STA. 13+22+/-
- LOOPB- STA. 1+27+/- TO STA. 9+24+/-
- RAMPB- STA. 2+39+/- TO STA. 17+86+/-

STEP 11. COMPLETE CONSTRUCTION OF THE ALL REMAINING SIGNALS AND SIMULTANEOUSLY REMOVE ALL TRAFFIC CONTROL DEVICES CURRENTLY MAINTAINING -L- IN A CLOSED MANNER, ACTIVATE THE SIGNALS AND OPEN -L- TO TRAFFIC.

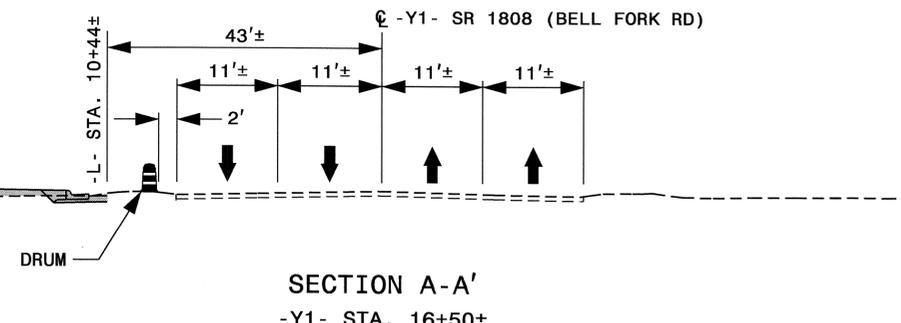
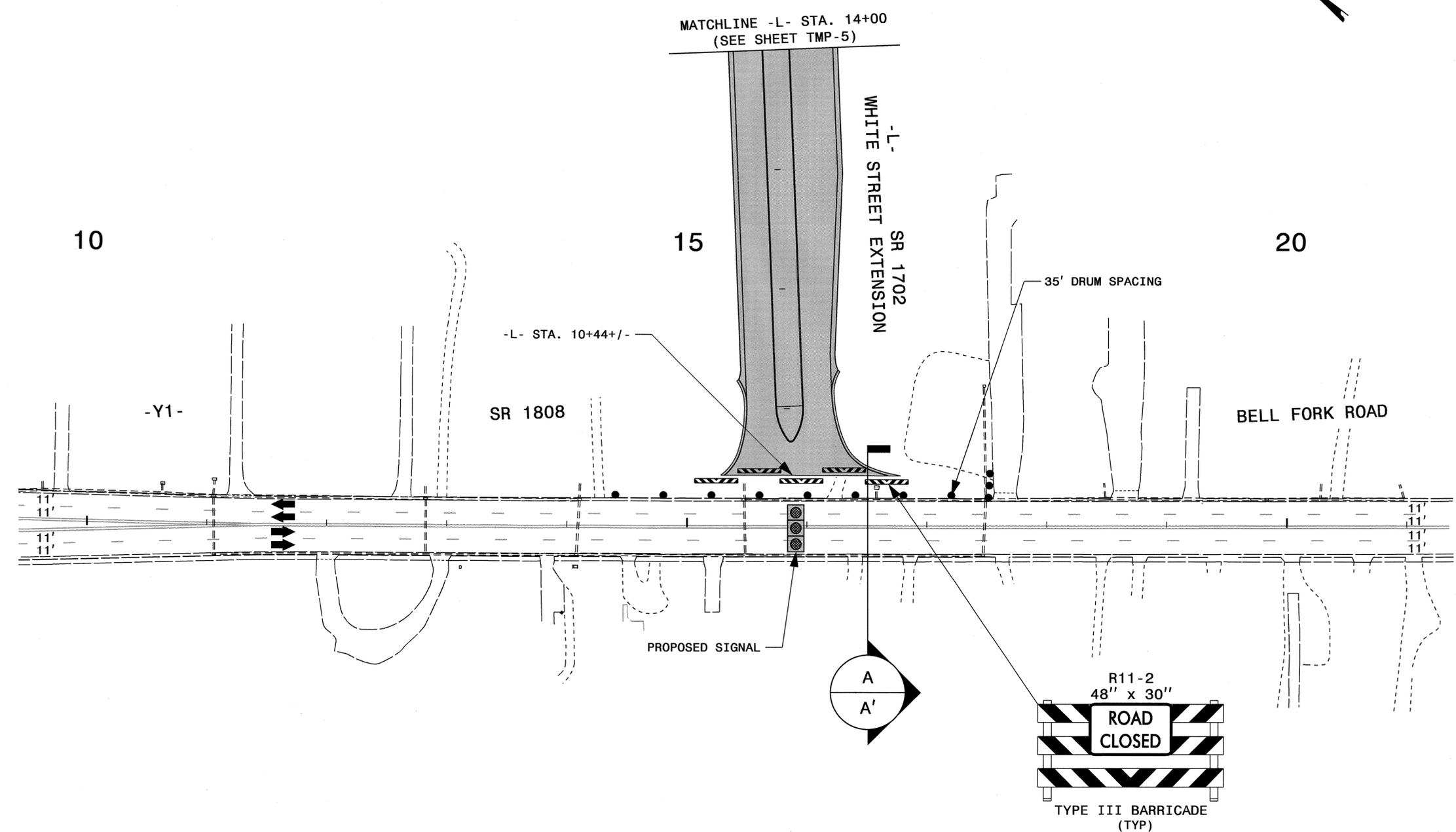
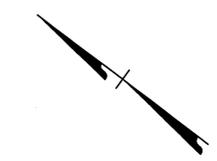
STEP 12. REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES.

04-APR-2011 15:11 \\dot\dfsroot\proj\TipProjects-U\U4007a\TrafficControl\TCP\U4007A_TC_TMP_3A.dgn mgarrrett AT 12:47:35

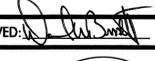
APPROVED: *[Signature]* DATE: 4/5/11

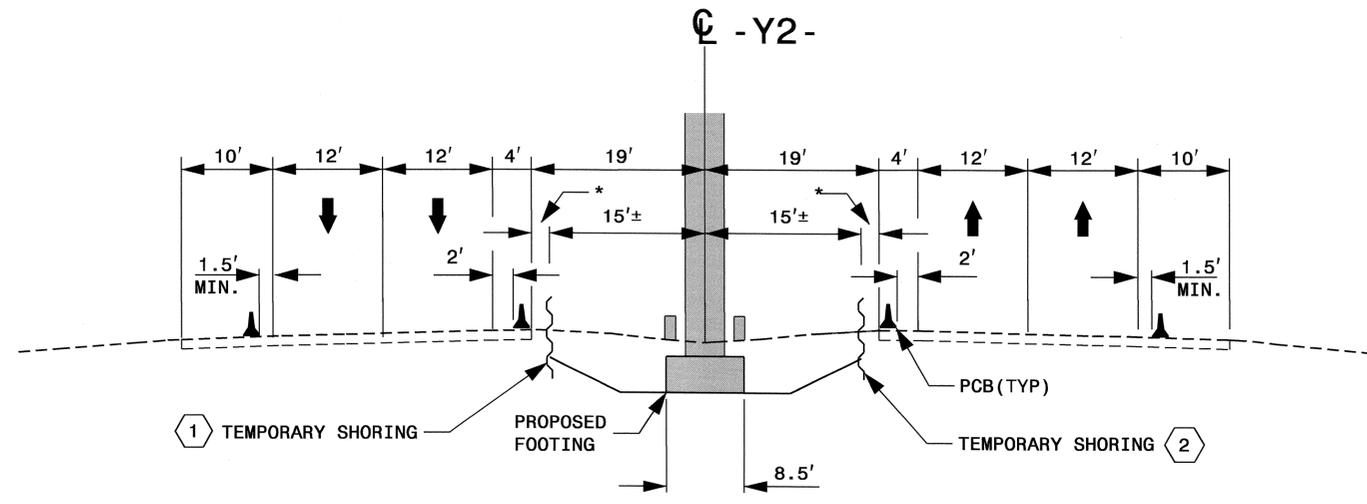
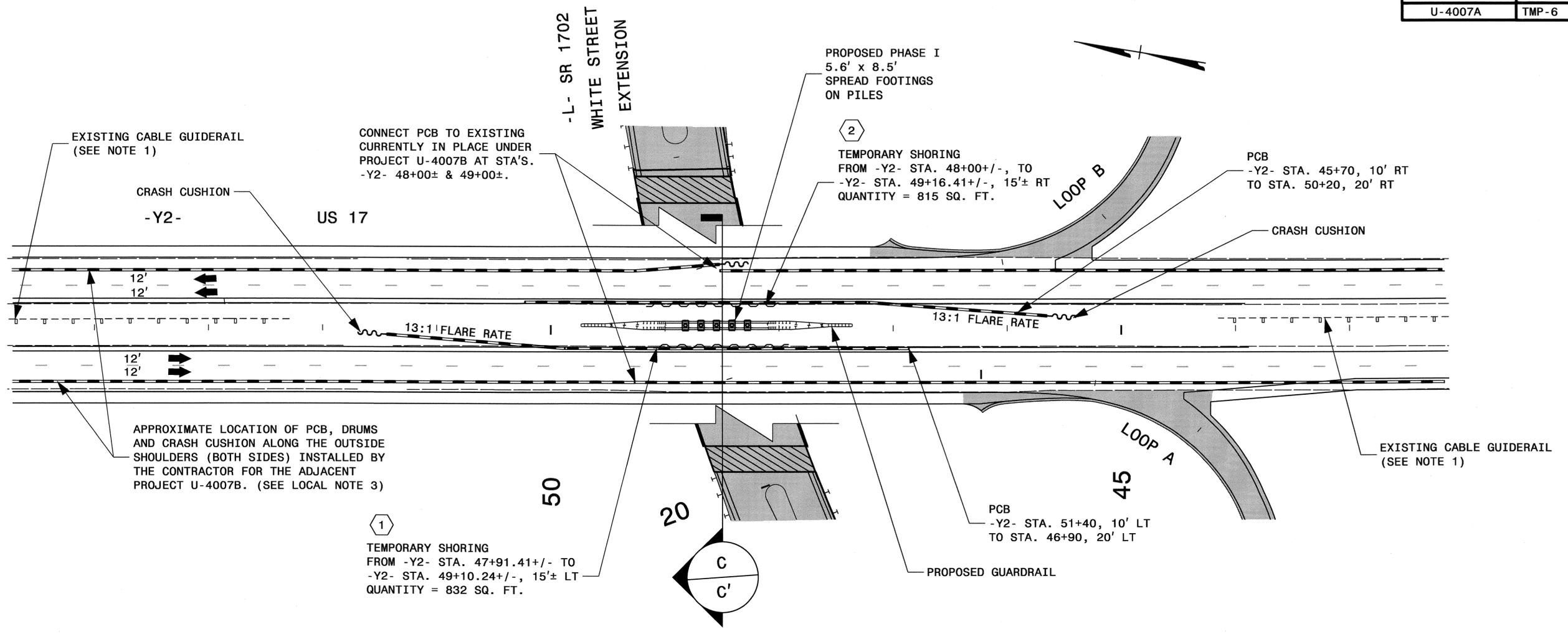


PHASE II PHASING



04-APR-2011 15:42
 \\dot\dfs-0010\proj\A1\TIP\Projects-U\4007a\Traffic\TrafficControl\TCP\U4007A_TC_TMP_4.dgn
 ringdr.rvt
 A1 TE244135

APPROVED:  DATE: 4/5/11 		<p>PHASE I</p>
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* MAINTAIN A MINIMUM CLEAR DISTANCE OF 38" BETWEEN THE SHORING AND THE BACK OF PCB. (SEE SHEET TMP-2A)

- NOTES:
- 1) REMOVE SUFFICIENT PORTIONS OF THE EXISTING CABLE GUIDERAIL TO PERFORM NECESSARY WORK WITHIN THE -Y2- US 17 BYPASS MEDIAN AREA.

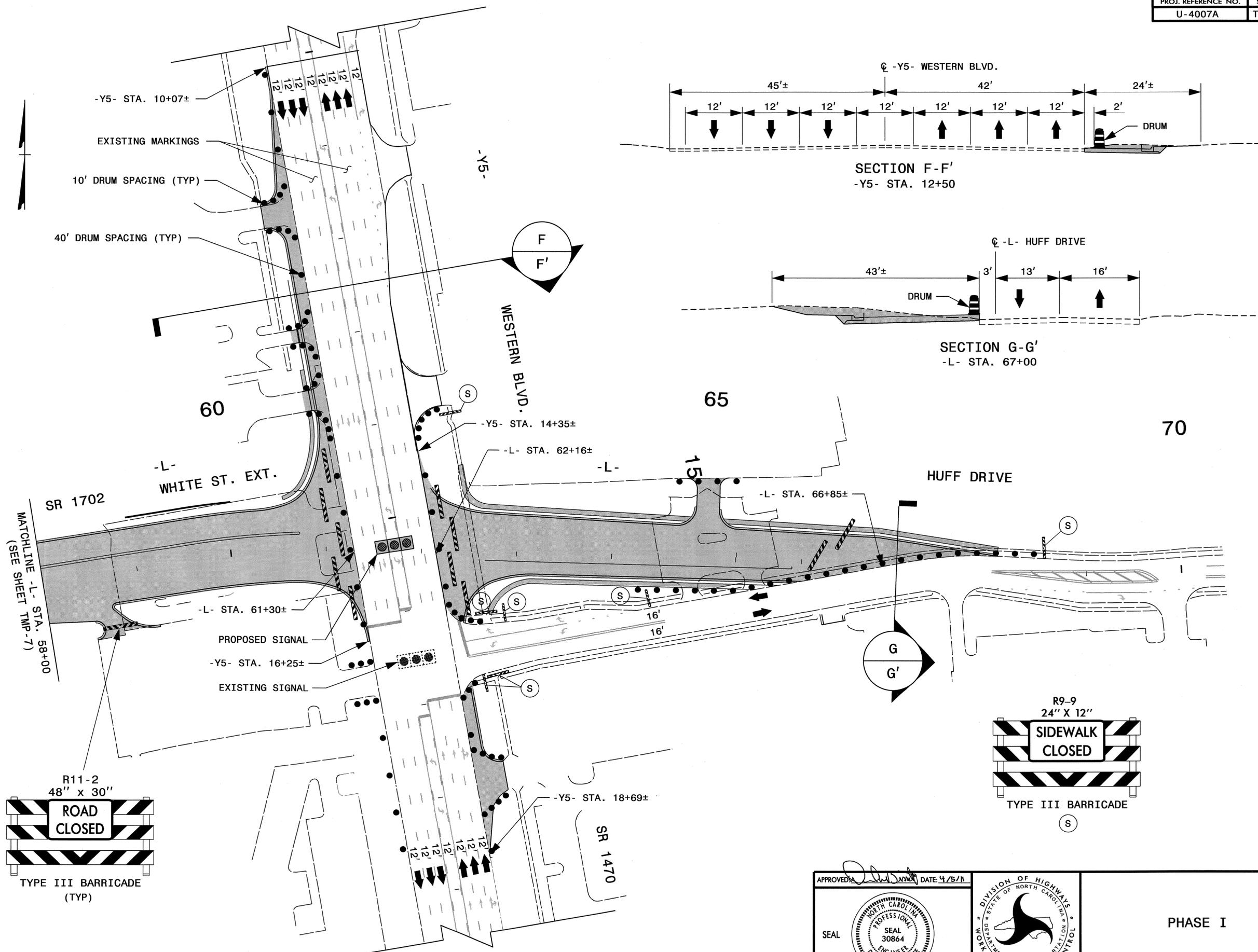
APPROVED: *[Signature]* DATE: 4/5/11

SEAL

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

PHASE I
INSET

04-APR-2011 15:14 \\dot\dfsroot\proj\TipProjects-U\U4007a\TrafficControl\TCP\U4007A-TC-TMP-6.dgn AT: TE244735



APPROVED: [Signature] DATE: 4/5/11

SEAL

PHASE I

04-APR-2011 15:16
 \\dot\dfsroot\01\proj\11\proj\TrafficControl\TCPU4007A_TC_TMP_8.dgn
 mgarrett AT 1E24435

DETAIL "A"

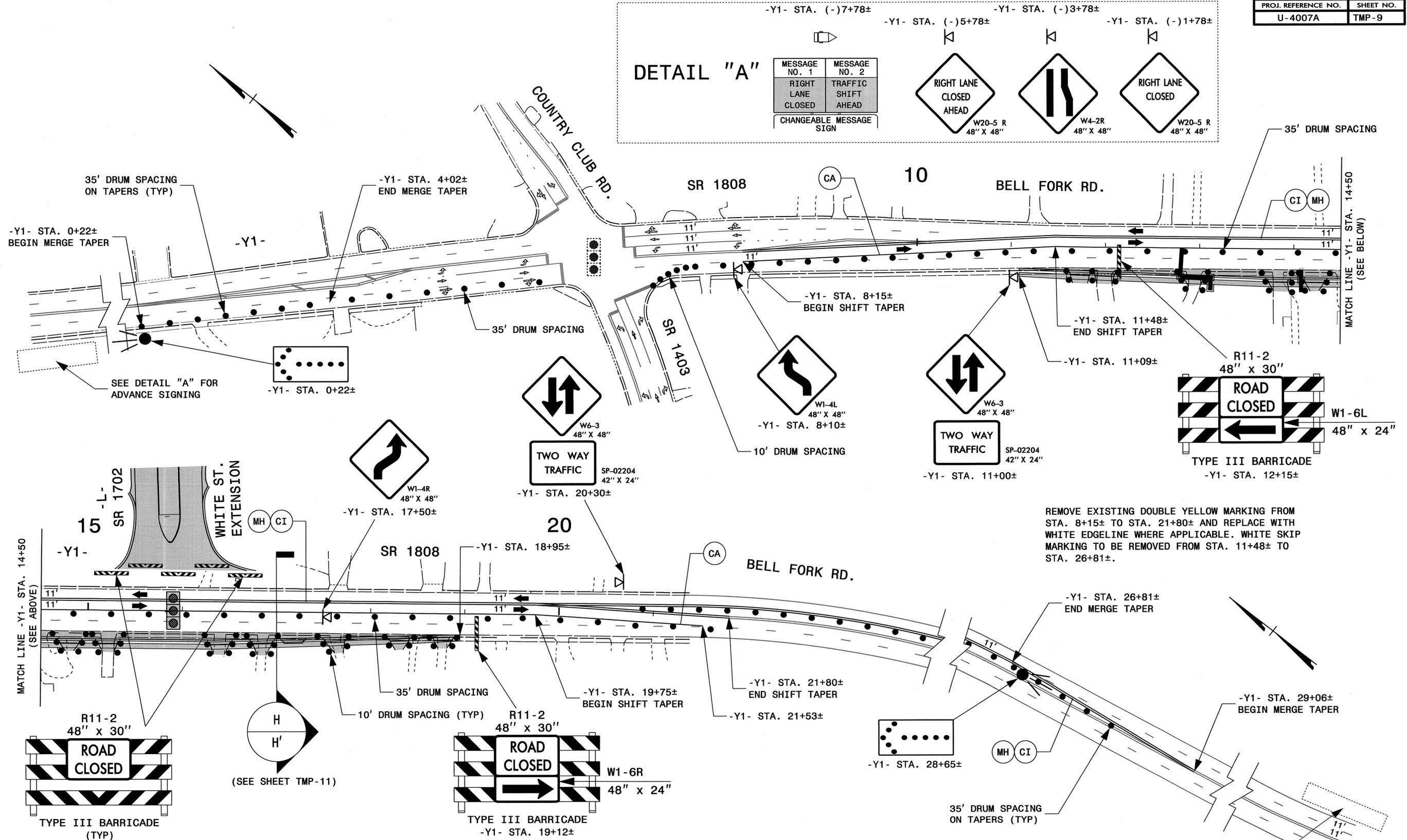
MESSAGE NO. 1	MESSAGE NO. 2
RIGHT LANE CLOSED AHEAD	TRAFFIC SHIFT AHEAD

CHANGEABLE MESSAGE SIGN

RIGHT LANE CLOSED AHEAD (W20-5 R 48" X 48")

TRAFFIC SHIFT AHEAD (W4-2R 48" X 48")

RIGHT LANE CLOSED (W20-5 R 48" X 48")



REMOVE EXISTING DOUBLE YELLOW MARKING FROM STA. 8+15± TO STA. 21+80± AND REPLACE WITH WHITE EDGELINE WHERE APPLICABLE. WHITE SKIP MARKING TO BE REMOVED FROM STA. 11+48± TO STA. 26+81±.

DETAIL "B"

MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	MERGE RIGHT

CHANGEABLE MESSAGE SIGN

LEFT LANE CLOSED AHEAD (W20-5 L 48" X 48")

MERGE RIGHT (W4-2L 48" X 48")

LEFT LANE CLOSED (W20-5 L 48" X 48")

Stationing: -Y1- 31+06±, -Y1- 33+06±, -Y1- 35+06±, -Y1- 37+06±

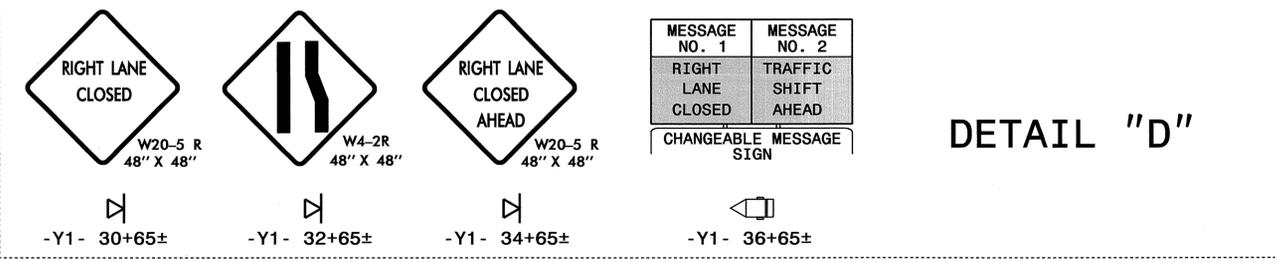
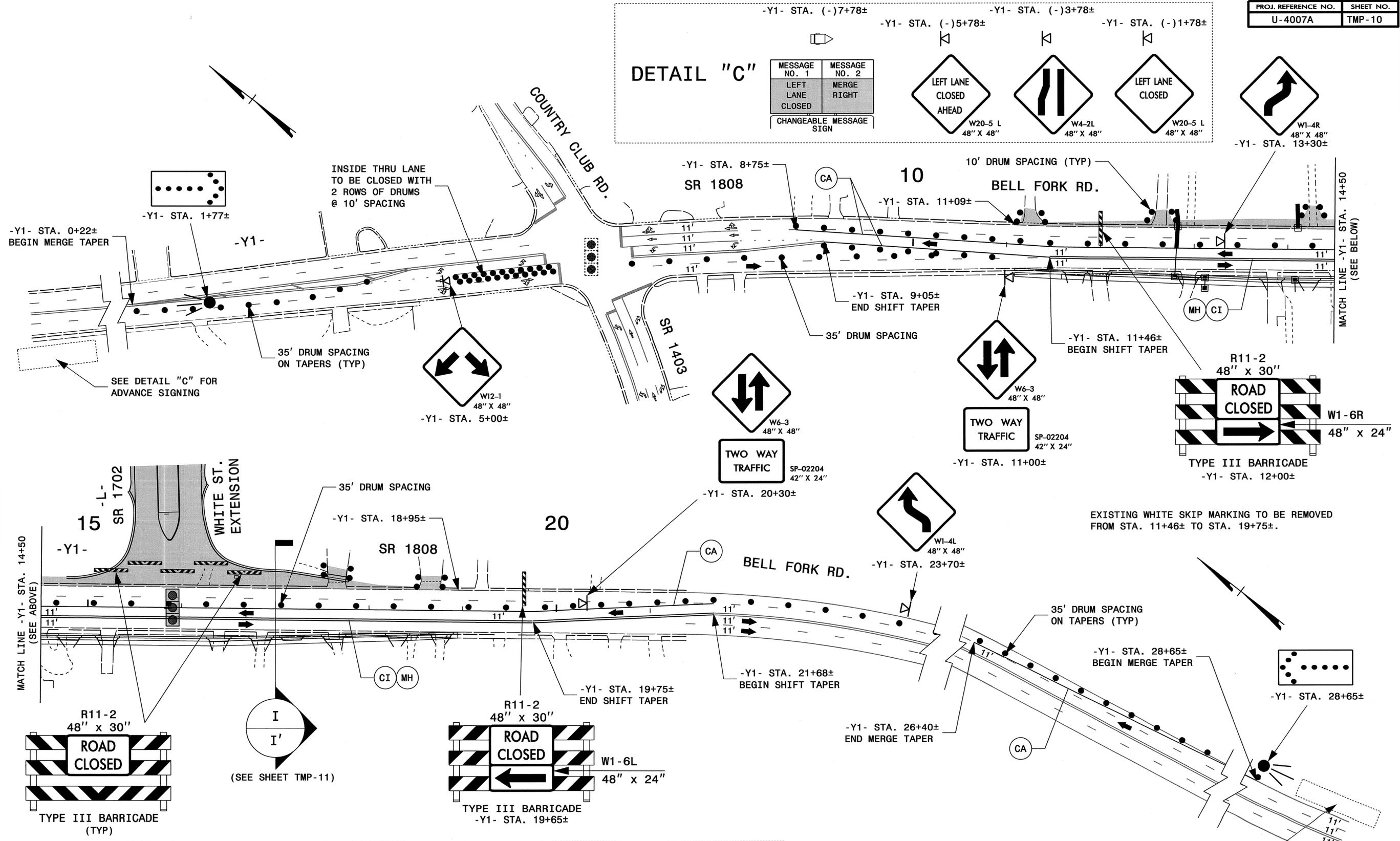
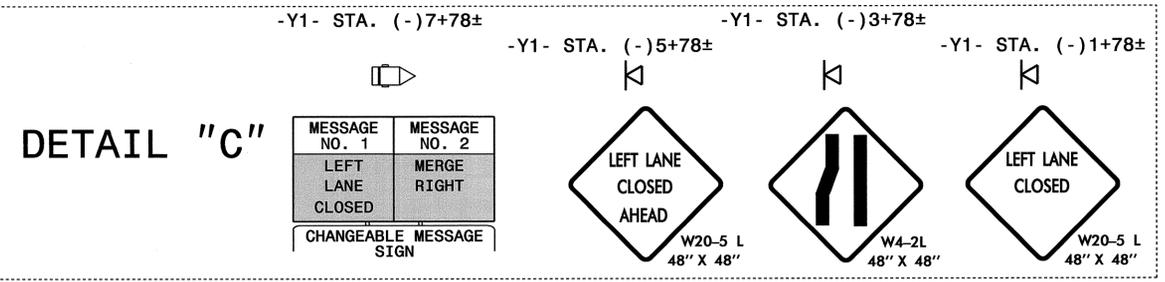
APPROVED: [Signature] DATE: 05/23/11

SEAL: [Professional Engineer Seal]

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WORK ZONE TRAFFIC CONTROL

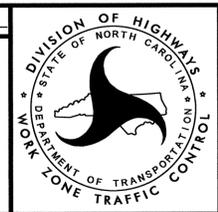
**-Y1- BELL FORK ROAD
PHASE I, STEP 7A**

23-MAY-2011 07:33 \\dot\dfsroot\01\proj\TIP\Projects-U\4007a\TrafficControl\TCP\U4007A_TC_TMP_9.dgn



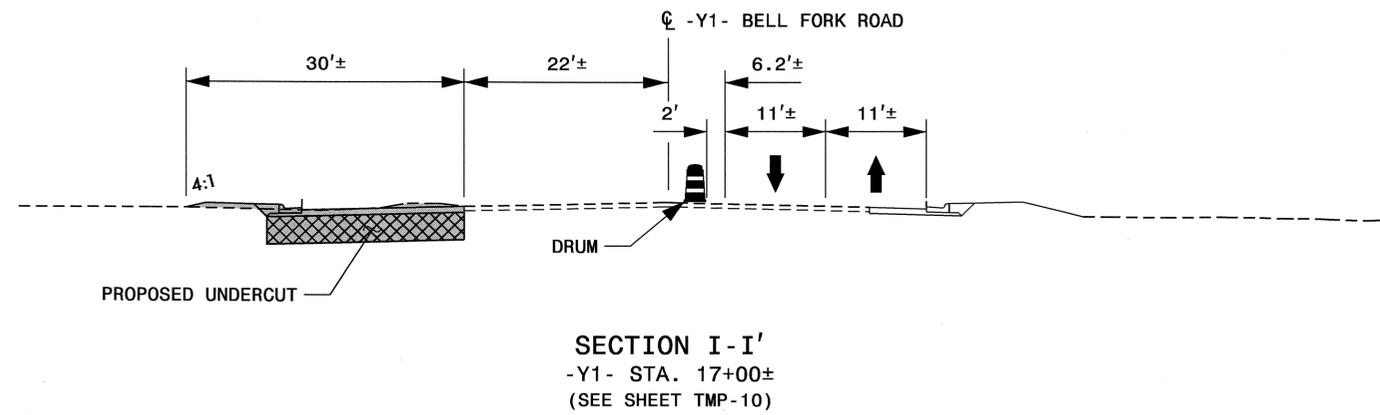
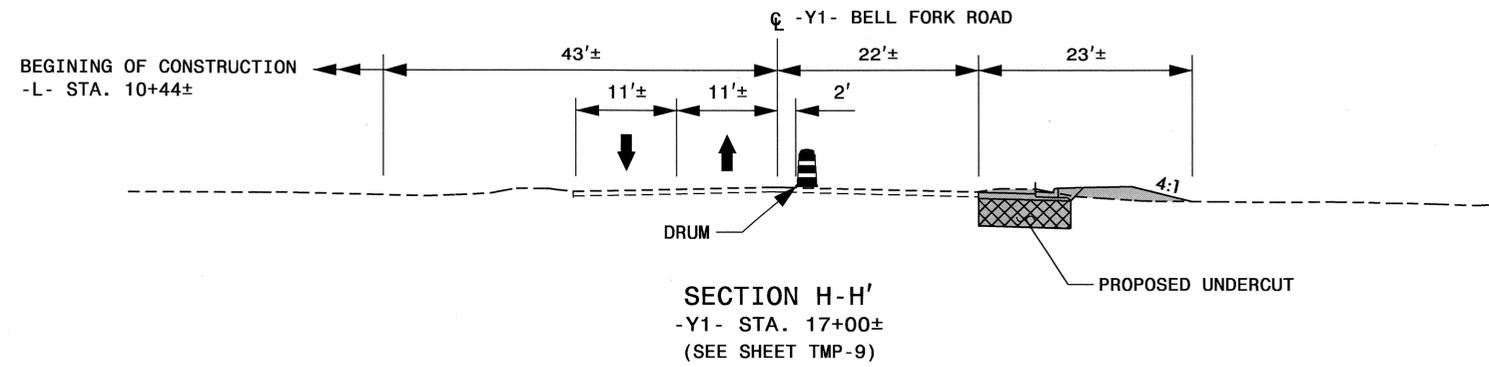
APPROVED: *[Signature]* DATE: 05/23/11

SEAL



-Y1- BELL FORK ROAD
PHASE I, STEP-7C

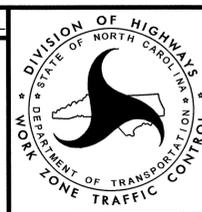
23-MAY-2011 10:43:35 \\dot\dfsroot\proj\TIP\Projects-U\4007a\TrafficControl\TCP\U4007A-TC-TMP-10.dgn rmgarratt AT FE24735



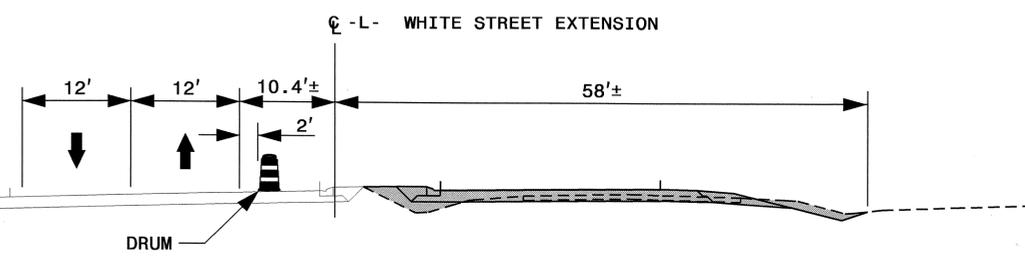
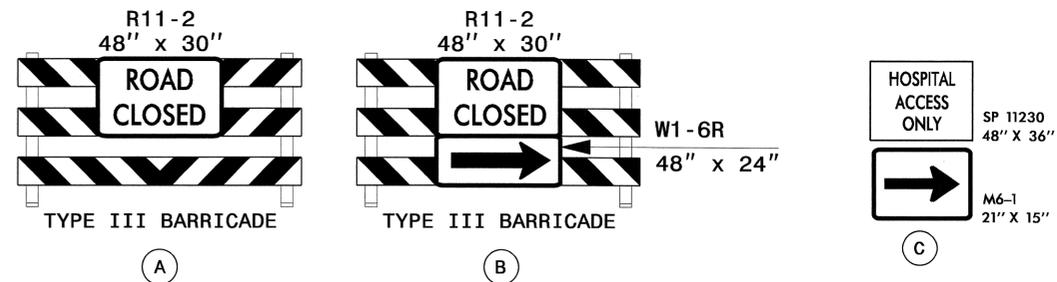
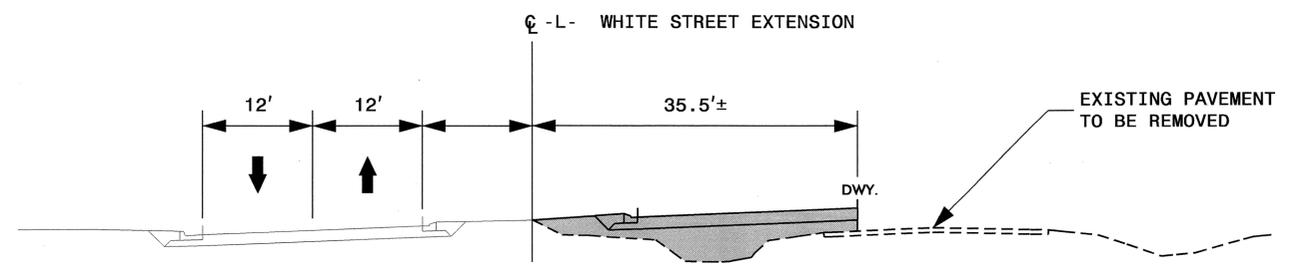
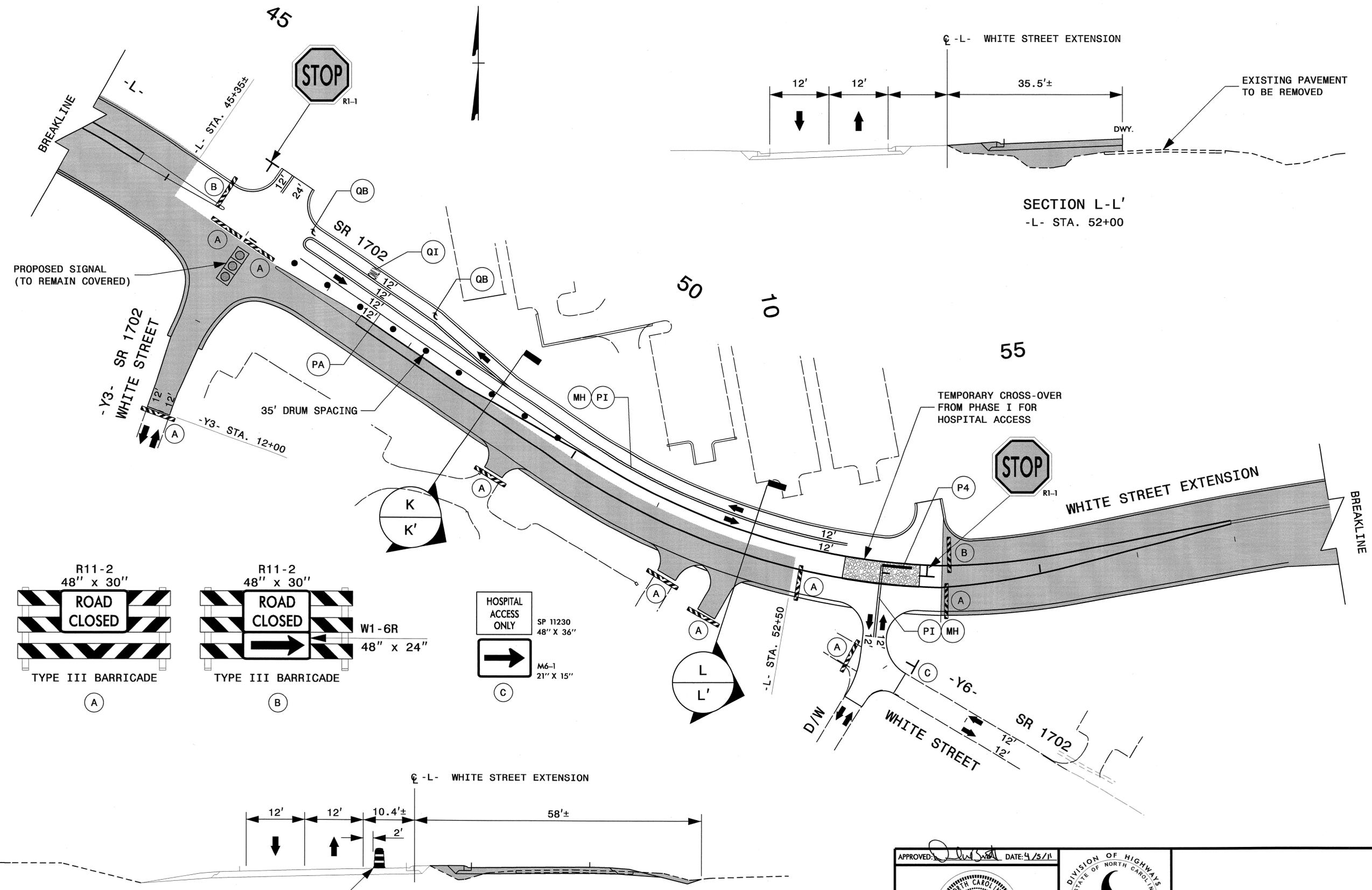
04-APR-2011 15:19
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 rmgarrett AI TE24735

APPROVED: *[Signature]* DATE: 9/5/11

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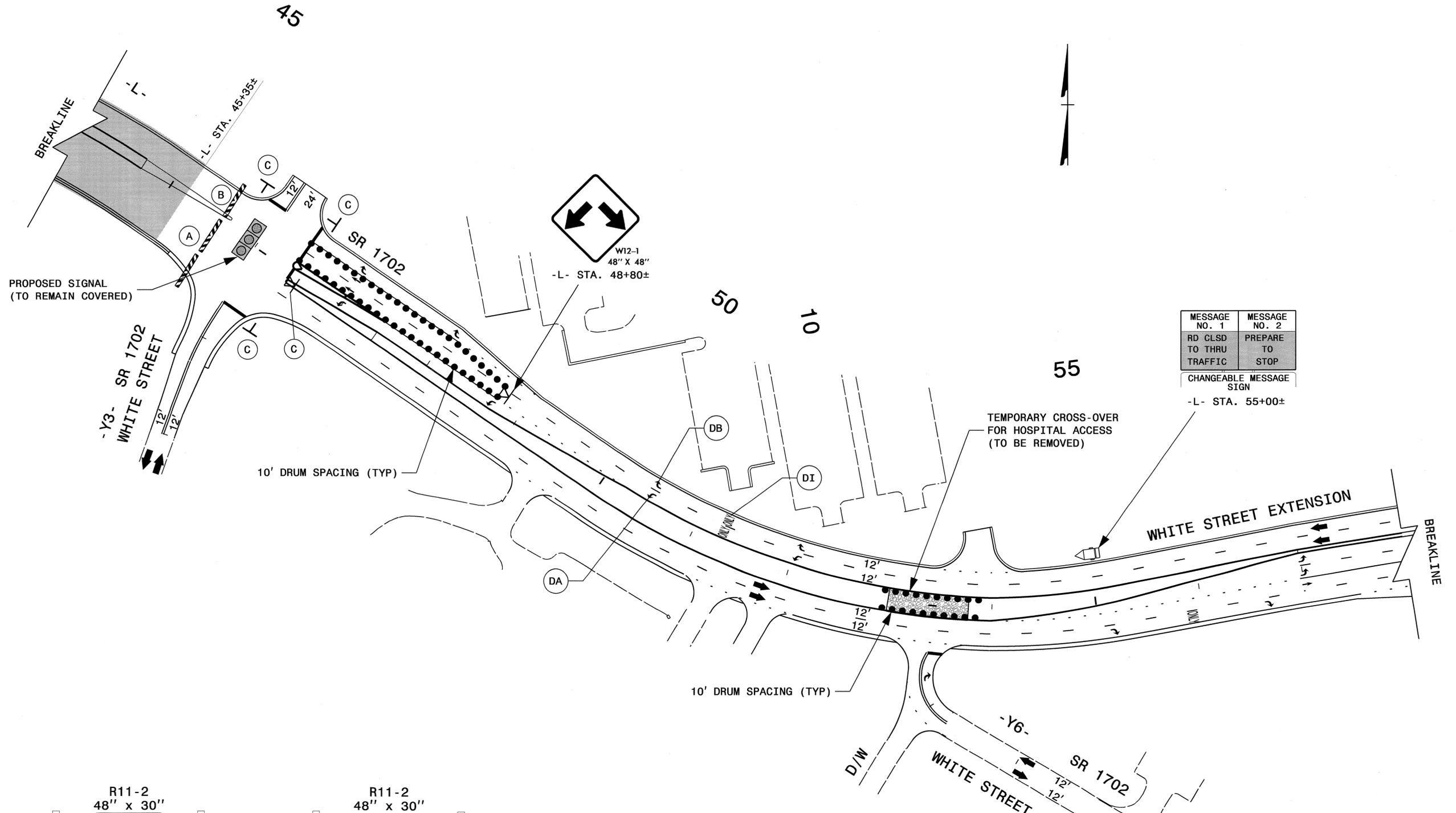


-Y1- BELL FORK ROAD
SECTIONS H-H' & I-I'
PHASE I, STEPS-2C & 2D

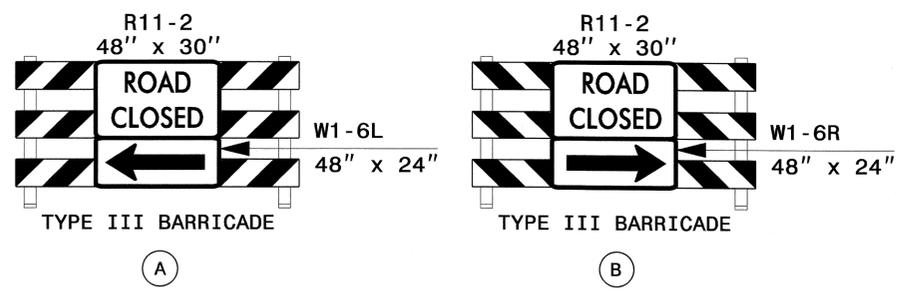


APPROVED: <i>[Signature]</i> DATE: 4/5/11 		PHASE II
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04-APR-2011 15:49
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 rmdrreth AT 12:44:35



MESSAGE NO. 1	MESSAGE NO. 2
RD CLSD TO TRAFFIC	PREPARE TO STOP
CHANGEABLE MESSAGE SIGN	
-L- STA. 55+00±	

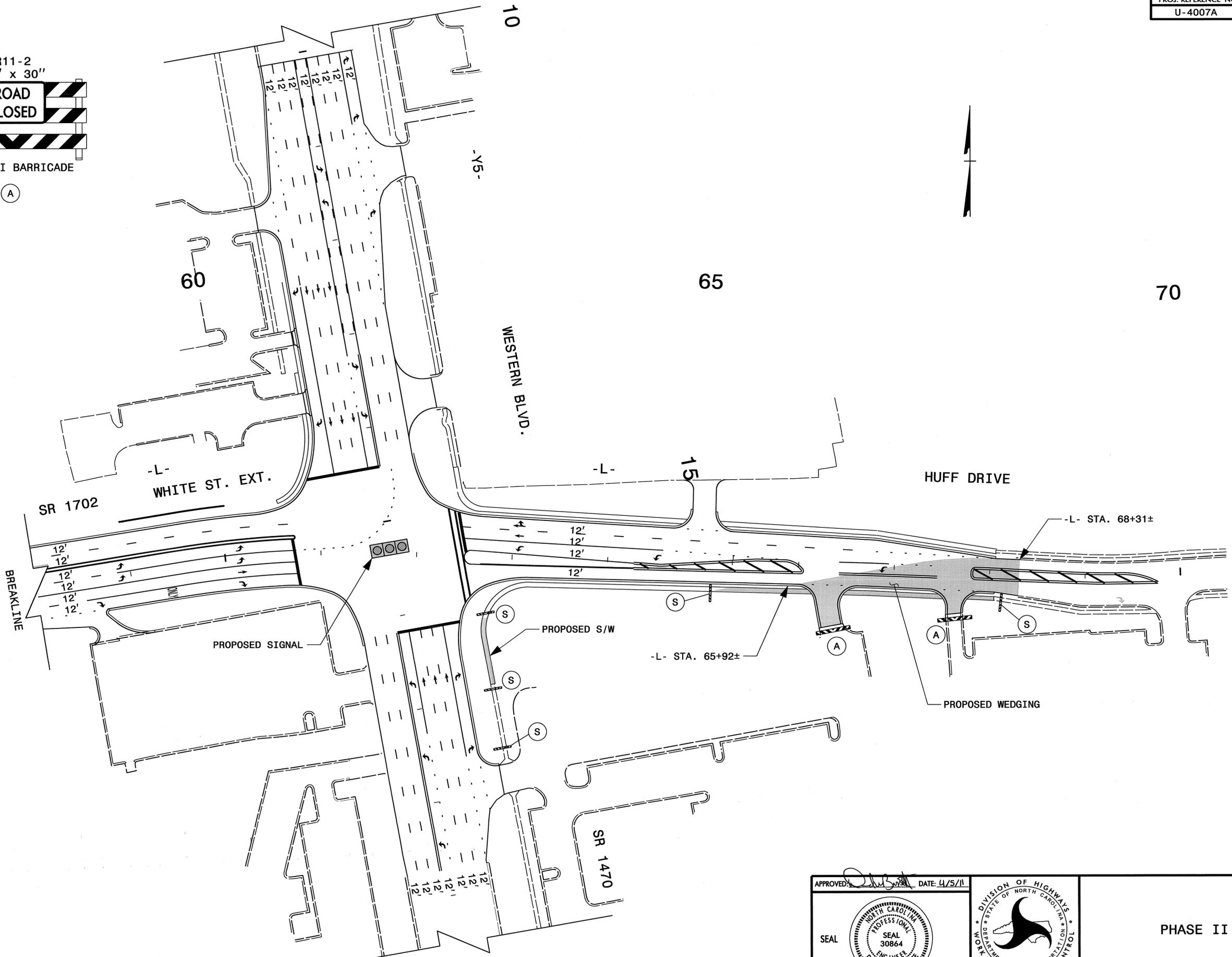


APPROVED: *[Signature]* DATE: 4/5/11

SEAL

PHASE II

04-APR-2011 15:20 \\dot\dfsroot\proj\TIP\Projects-U\4007a\TrafficControl\TCP-U4007A-TC-TMP-13.dgn
 mgarrrett AT 1E24735

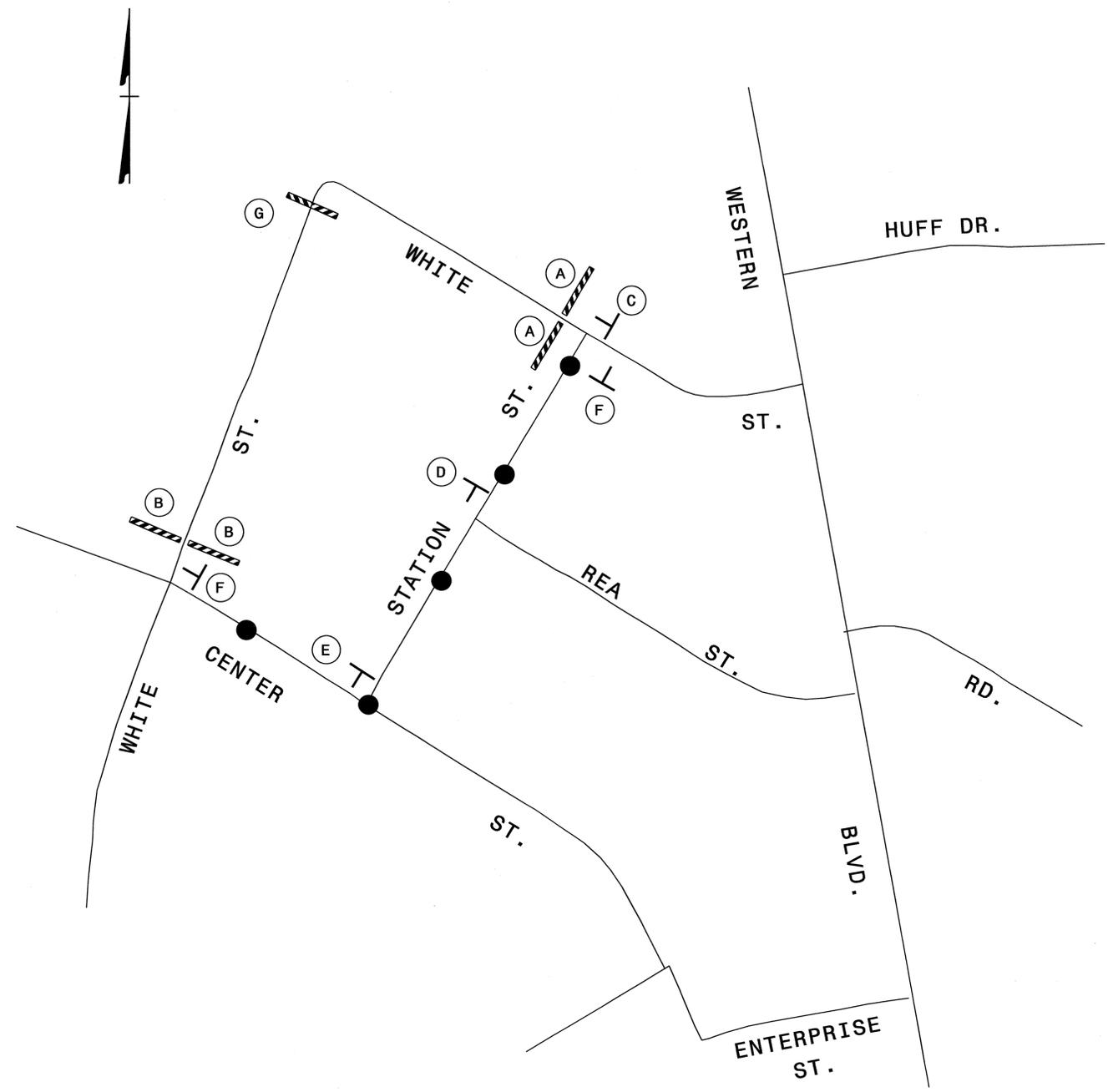


05-APR-2011 14:12
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 rmgorrett AT E244735

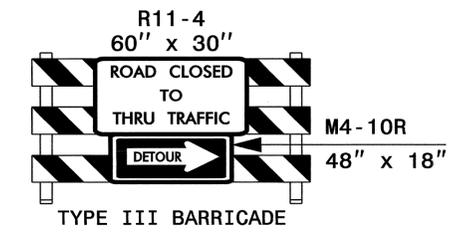
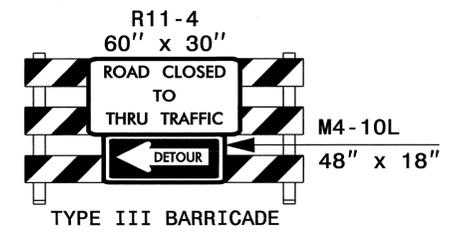
APPROVED: *[Signature]* DATE: 4/5/11



PHASE II

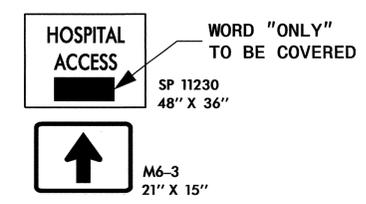


● — ● = DETOUR ROUTE



(A)

(B)



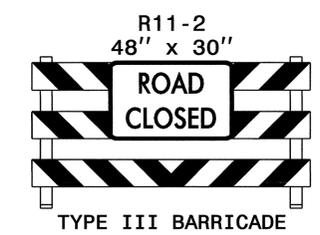
(C)

(D)



(E)

(F)



(G)

APPROVED: DATE: 4/14/11

SEAL

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

WHITE STREET
 DETOUR ROUTE

I:\APR-2011\08155
 \dot\cvs\root\proj\TrafficControl\U4007A\TC_TMP_15_detour_sketch.dgn
 rmgortett AT 1E24735