

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



STATE PROJECT REFERENCE NO.	SHEET NO.
X-0002BC	TCP-1

X-0002BC

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

ROADWAY STANDARD DRAWINGS

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

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	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

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2	PROJECT NOTES
TCP-3	WRITTEN PHASING
TCP-4 THRU TCP-5	PHASE I OVERVIEW SHEETS
TCP-6	PHASE I DETAIL SHEET
TCP-7	PHASE II DETAIL SHEET
TCP-8	OFF SITE DETOUR DETAIL
TCP-9	ADVANCED WORK ZONE WARNING SIGNS

LEGEND

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
 - NORTH ARROW
 - PROPOSED PVMT. EXIST. PVMT.
 - WORK AREA
 - ONGOING CONSTRUCTION
 - REMOVAL OF EXISTING PAVEMENT
 - GRADING ONLY
- TRAFFIC CONTROL DEVICES**
- TYPE I BARRICADE
 - TYPE II BARRICADE
 - TYPE III BARRICADE
 - CONE
 - DRUM
 - FLASHING ARROW PANEL (TYPE C)
 - TYPE 'B' WARNING LIGHT
 - STATIONARY SIGN
 - PORTABLE SIGN
 - STATIONARY OR PORTABLE SIGN
 - WARNING FLAGS
 - CRASH CUSHION
 - CHANGEABLE MESSAGE SIGN
 - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
 - POLICE
 - FLAGGER
- PAVEMENT MARKINGS**
- CRYSTAL/CRYSTAL PAVEMENT MARKER
 - YELLOW/YELLOW PAVEMENT MARKER
 - CRYSTAL/RED PAVEMENT MARKER
 - PAVEMENT MARKING SYMBOLS

TIP PROJECT:

N.C.D.O.T. TRAFFIC MANAGEMENT SECTION REVIEW AND CONTACT PERSONNEL	
J. STUART BOURNE, P.E.	TRAFFIC CONTROL ENGINEER
J. STEVE KITE, P.E.	TRAFFIC CONTROL PROJECT ENGINEER
DON A. PARKER	TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	TRAFFIC CONTROL DESIGN ENGINEER
	TRAFFIC CONTROL DESIGN TECHNICIAN

PLAN PREPARED IN THE OFFICE OF
PROGRESSIVE
DESIGN GROUP, INC.

ENGINEERS • CONSULTANTS
CHARLOTTE, NC 704.575.5003

APPROVED: DATE: 04/02/10	PLAN PREPARED BY: PROGRESSIVE DESIGN GROUP, INC.
SEAL	TIM AREY, P.E. TRAFFIC CONTROL ENGINEER
	DONALD SPENCE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
	TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	L.D. ASHLEY TRAFFIC CONTROL DESIGN ENGINEER / TECHNICIAN

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
-Y1- MURCHISON ROAD (NORTHBOUND)	7:00AM-9:00AM MONDAY-FRIDAY
-Y1- MURCHISON ROAD (SOUTHBOUND)	3:00PM-6:00PM MONDAY-FRIDAY

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

ROAD NAME

-Y1- MURCHISON ROAD

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 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.
- FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
- 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.

- FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- 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.
- FOR SPRING FEST AND OCTOBER FEST ON FORT BRAGG, BETWEEN THE HOURS OF 7:00 A.M. TWO DAYS PRIOR TO THE BEGINNING OF THE EVENT AND 6:00 P.M. THE FOLLOWING DAY AFTER THE END OF THE EVENT.

C) DO NOT CLOSE ROADS OR STOP TRAFFIC FOR THE PURPOSE OF ERECTING GIRDERS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
-Y1- MURCHISON ROAD	MONDAY-SUNDAY 5:00AM-12:00MIDNIGHT

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.

PROJECT NOTES

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 M 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 1.5m 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 3m 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.

SIGNING

J) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 12m FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

K) PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.

L) COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.

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

TRAFFIC BARRIER

N) 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.

O) 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	4.6m
45 - 50	6m
55	7.6m
60 MPH or HIGHER	9m

TRAFFIC CONTROL DEVICES

P) SPACE CHANNELIZING DEVICES IN WORK AREAS EQUAL IN METERS TO 2/3rds THE POSTED SPEED LIMIT (MPH), EXCEPT 3m ON-CENTER IN RADII, AND 1m 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.

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

R) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES SKINNY DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 150m CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

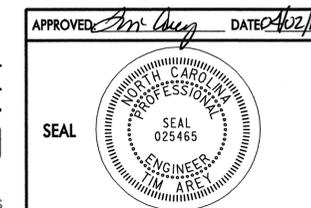
LOCAL NOTES

1) TO ERECT GIRDERS OVER MURCHISON RD., CLOSE MURCHISON AND DETOUR VIA BRAGG BLVD. AS DESCRIBED IN GENERAL NOTE C ON TCP-2, PHASE II, STEP 1 ON TCP-3, AND THE DETOUR DETAIL ON TCP-8. THIS PLAN IS BASED ON THE ASSUMPTION THAT BRAGG BLVD. WILL BE OPEN TO CIVILLIAN TRAFFIC AT THE TIME THE DETOUR IS NEEDED. IF BRAGG BLVD. IS NOT OPEN TO CIVILLIAN TRAFFIC AT THE TIME THE DETOUR IS NEEDED, THEN USE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 9 (ROLLING ROAD BLOCK) AND STOP TRAFFIC AT 20 MINUTE INTERVALS, OR AS DIRECTED BY THE ENGINEER. THE TIME RESTRICTIONS FOR THESE OPERATIONS ARE AS FOLLOWS: DO NOT STOP TRAFFIC ON MURCHISON RD. FOR THE PURPOSE OF GIRDER ERECTION MONDAY THRU SUNDAY, 5:00 AM TO 12:00 MIDNIGHT. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-2

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE
 DESIGN GROUP, INC.
 ENGINEERS • CONSULTANTS



PROJECT NOTES

SCALE:	
DATE:	04/10
DWG. BY:	LDA
DESIGN BY:	TMA
REVIEWED BY:	TMA



REVISIONS	



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-3

PHASE I

STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -Y2- AND ALONG HONEYCUTT ROAD AT THE -Y2- INTERSECTION ACCORDING TO SHEET TCP-9.

NOTE: STEPS 2 AND 3 MAY BE PERFORMED CONCURRENTLY

COMPLETE THE WORK OF STEP 2 IN ACCORDANCE WITH INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 2: AWAY FROM TRAFFIC, CONSTRUCT SMITH LAKE RD. UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -Y2- STA. 10+09+/- TO STA. 34+97+/- . (SEE TCP-5)

STEP 3: BEGIN CONSTRUCTION ON THE FOLLOWING AWAY FROM TRAFFIC AS SHOWN ON SHEETS TCP-4 THRU TCP-6: NOTE THE ROADWAYS AND LOCATIONS WHERE GRADING ONLY IS REQUIRED IS SHOWN IN THE ROADWAY DESIGN PLANS AND ON SHEETS TCP-4 THRU TCP-6.

- L- (LEFT SIDE): FROM STA. 66+65+/- TO STA. 76+31+/- AND FROM STA. 78+57+/- TO STA. 83+40+/- .
- L- (RIGHT SIDE): FROM STA. 66+72+/- TO STA. 76+31+/- AND FROM STA. 78+57+/- TO STA. 83+40+/- .
- CDR-: FROM STA. 66+75+/- TO STA. 76+31+/- AND FROM STA. 78+57+/- TO STA. 83+40+/- .
- L-: BOTH BRIDGES AT STA. 77+50+/- .
- L-: EASTERN MOST END BENTS FOR THE THREE -L- BRIDGES OVER -Y1- .

USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9 INSTALL PORTABLE CONCRETE BARRIER ALONG THE SOUTHBOUND OUTSIDE SHOULDER OF PROPOSED -Y1- FROM STA. 28+80+/- TO STA. 30+95+/- AS SHOWN ON SHEETS TCP-4 AND TCP-6 AND BEGIN CONSTRUCTION ON THE FOLLOWING:

- L-: WESTERN MOST END BENTS FOR THE THREE -L- BRIDGES OVER -Y1- .
- L- (LEFT SIDE): FROM STA. 65+50+/- TO STA. 65+66+/- .
- L- (RIGHT SIDE): FROM STA. 65+50+/- TO STA. 65+75+/- .
- CDR-: FROM STA. 66+60+/- TO STA. 65+82+/- .

PHASE II

NOTE: THE MURCHISON ROAD TRAFFIC SHIFT SHOWN ON SHEET TCP-7 IS CURRENTLY SCHEDULED TO BE COMPLETED IN MARCH 2011 BY THE X-0002B CONTRACTOR. CENTER PIER CONSTRUCTION FOR THE THREE -L- LINE BRIDGES OVER MURCHISON ROAD CAN NOT BEGIN UNTIL AFTER MURCHISON ROAD TRAFFIC IS SHIFTED INTO THE PATTERN SHOWN ON SHEET TCP-7.

STEP 1: COMPLETE THE FOLLOWING AFTER MURCHISON ROAD TRAFFIC IS SHIFTED TO THE PATTERN SHOWN ON SHEET TCP-7:

USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 9 INSTALL PORTABLE CONCRETE BARRIER ALONG THE NORTHBOUND OUTSIDE TRAVEL LANE OF PROPOSED -Y1- FROM STA. 28+80+/- TO STA. 30+95+/- AS SHOWN ON SHEET TCP-7 AND CONSTRUCT THE PROPOSED CENTER PIERS FOR THE THREE -L- BRIDGES OVER -Y1- . UTILIZE THE OFFSITE DETOUR SIGNING AND TRAFFIC CONTROL DEVICES SHOWN ON SHEET TCP-8 FOR DETOURING MURCHISON ROAD TRAFFIC DURING GIRDER INSTALLATION FOR THE THREE -L- BRIDGES OVER MURCHISON ROAD. SEE LOCAL NOTE NO. 1 ON SHEET TCP-2.

STEP 2: COMPLETE CONSTRUCTION ON REMAINING BRIDGES AND ROADWAYS AND REMOVE ALL TRAFFIC CONTROL DEVICES.

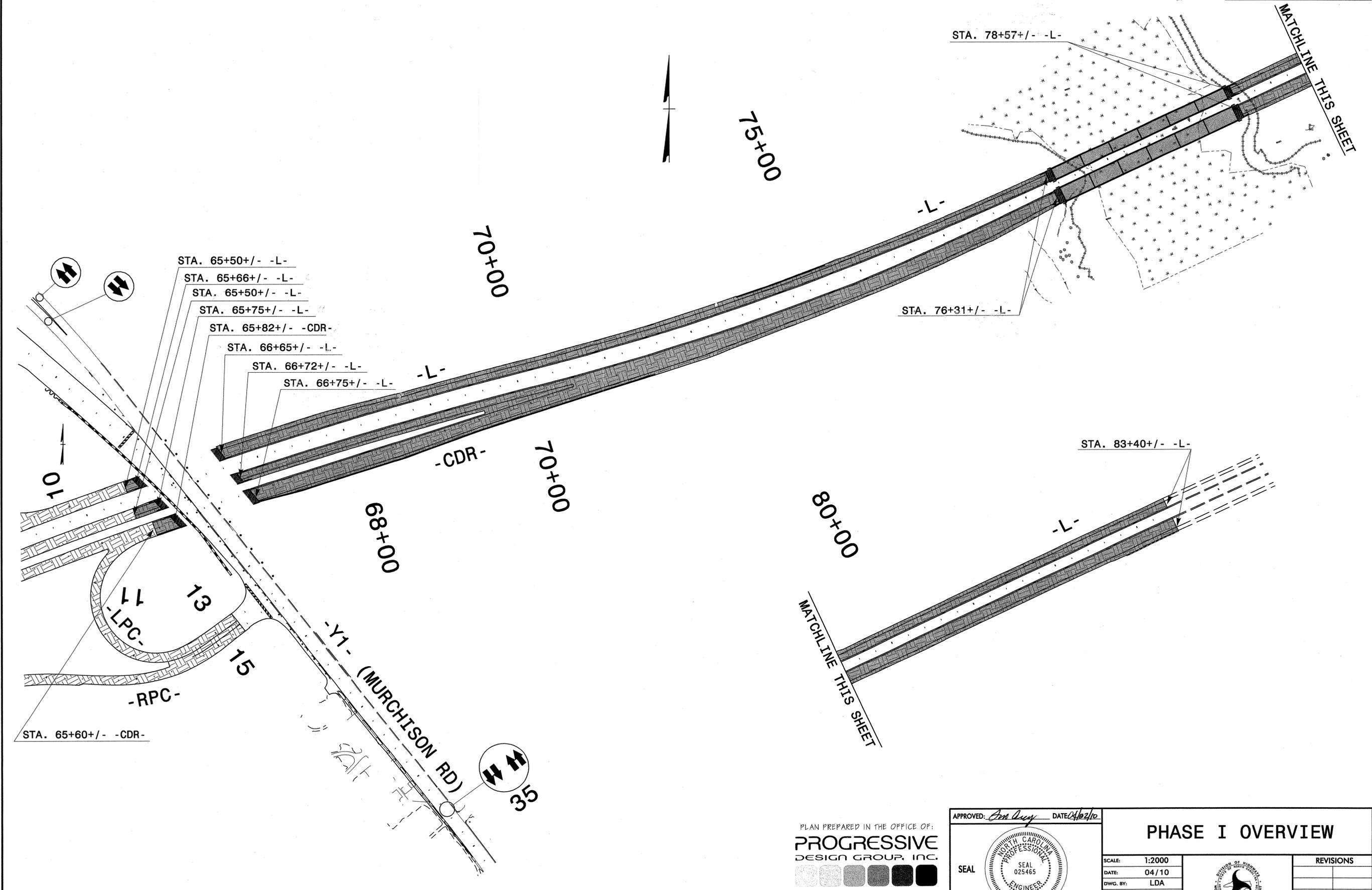
PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE
 DESIGN GROUP, INC.

 ENGINEERS • CONSULTANTS

APPROVED: <i>Jim Gray</i>	DATE: 10/21/10	PHASING									
	SCALE: NONE										
	DATE: 04/10	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		REVISIONS							
	REVISIONS										
DWG. BY: LDA	<table border="1"> <tr> <td>CADD FILE</td> <td> </td> </tr> </table>		CADD FILE								
CADD FILE											
DESIGN BY: TMA	REVIEWED BY: TMA										



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-4



PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE
 DESIGN GROUP, INC.
 ENGINEERS • CONSULTANTS

APPROVED: *Jim Dwyer* DATE: 04/10/10

SEAL

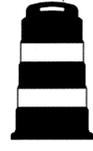
PHASE I OVERVIEW		REVISIONS	
SCALE: 1:2000			
DATE: 04/10			
DWG. BY: LDA			
DESIGN BY: TMA			
REVIEWED BY: TMA			



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-5

MATCHLINE THIS SHEET

HONEYCUTT ROAD



STA. 10+09+/- -Y2-



15+00

SMITH LAKE ROAD -Y2-

25+00

SMITH LAKE ROAD -Y2-

20+00

MATCHLINE THIS SHEET

30+00

STA. 34+97+/- -Y2-

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
 ENGINEERS • CONSULTANTS

APPROVED: *Jim Arvey* DATE: 04/02/10

PHASE I OVERVIEW

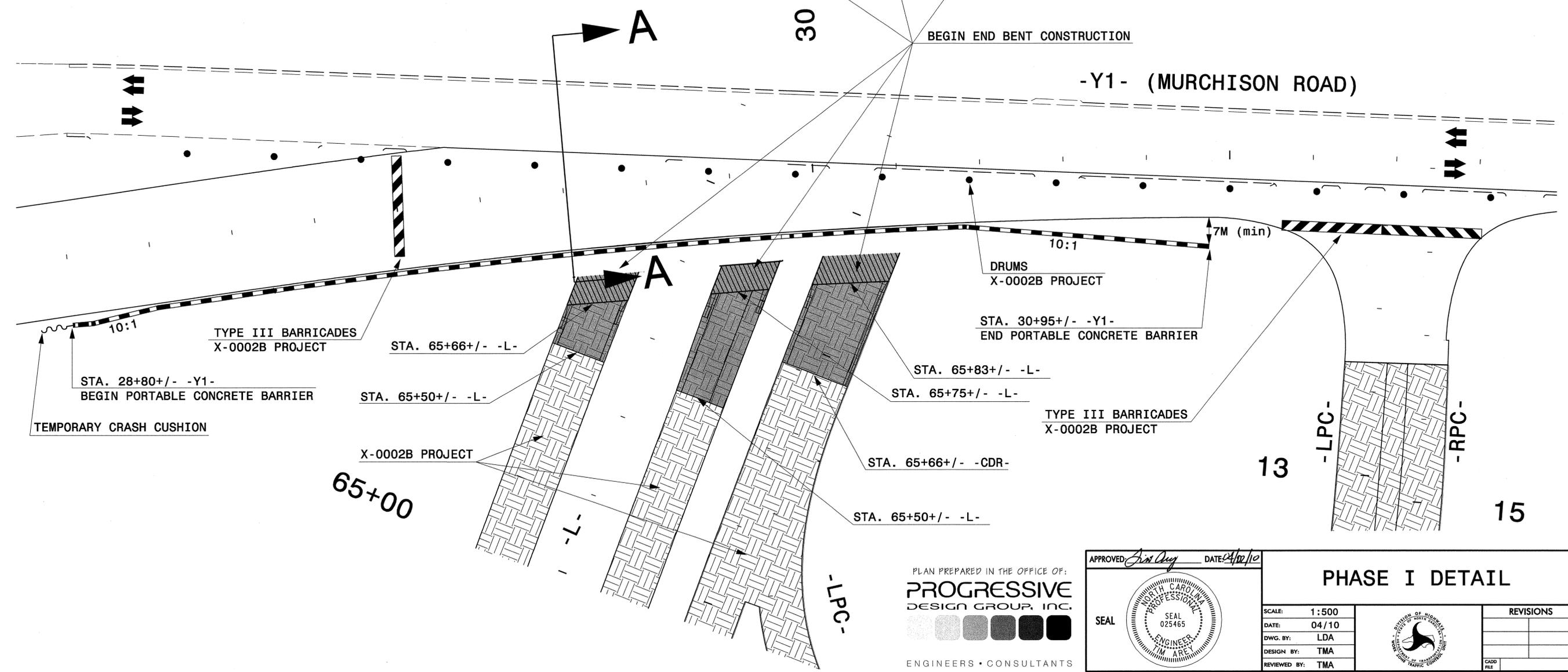
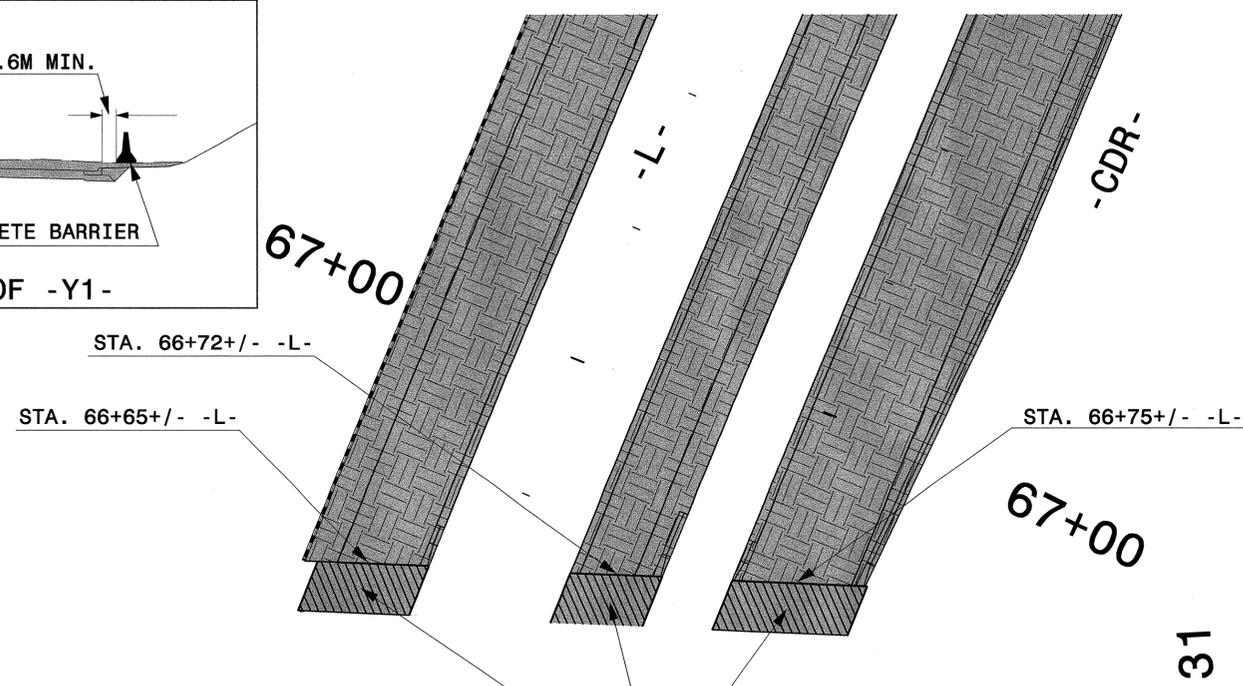
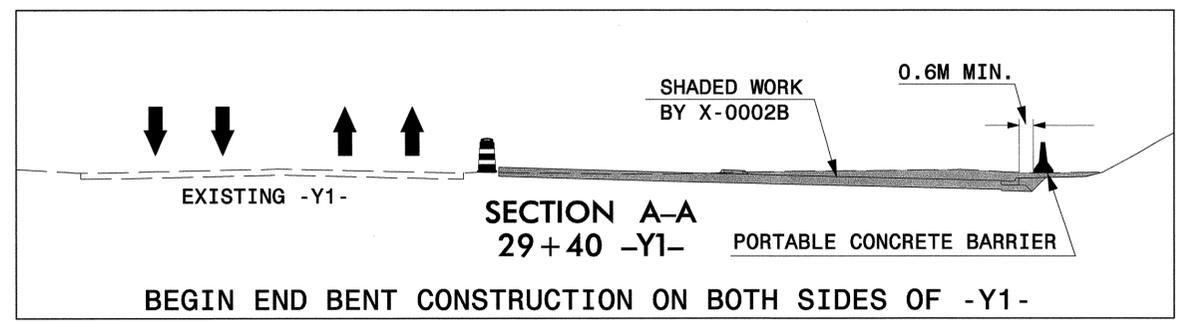
SCALE: 1:2000
 DATE: 04/10
 DWG. BY: LDA
 DESIGN BY: TMA
 REVIEWED BY: TMA



REVISIONS	



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-6



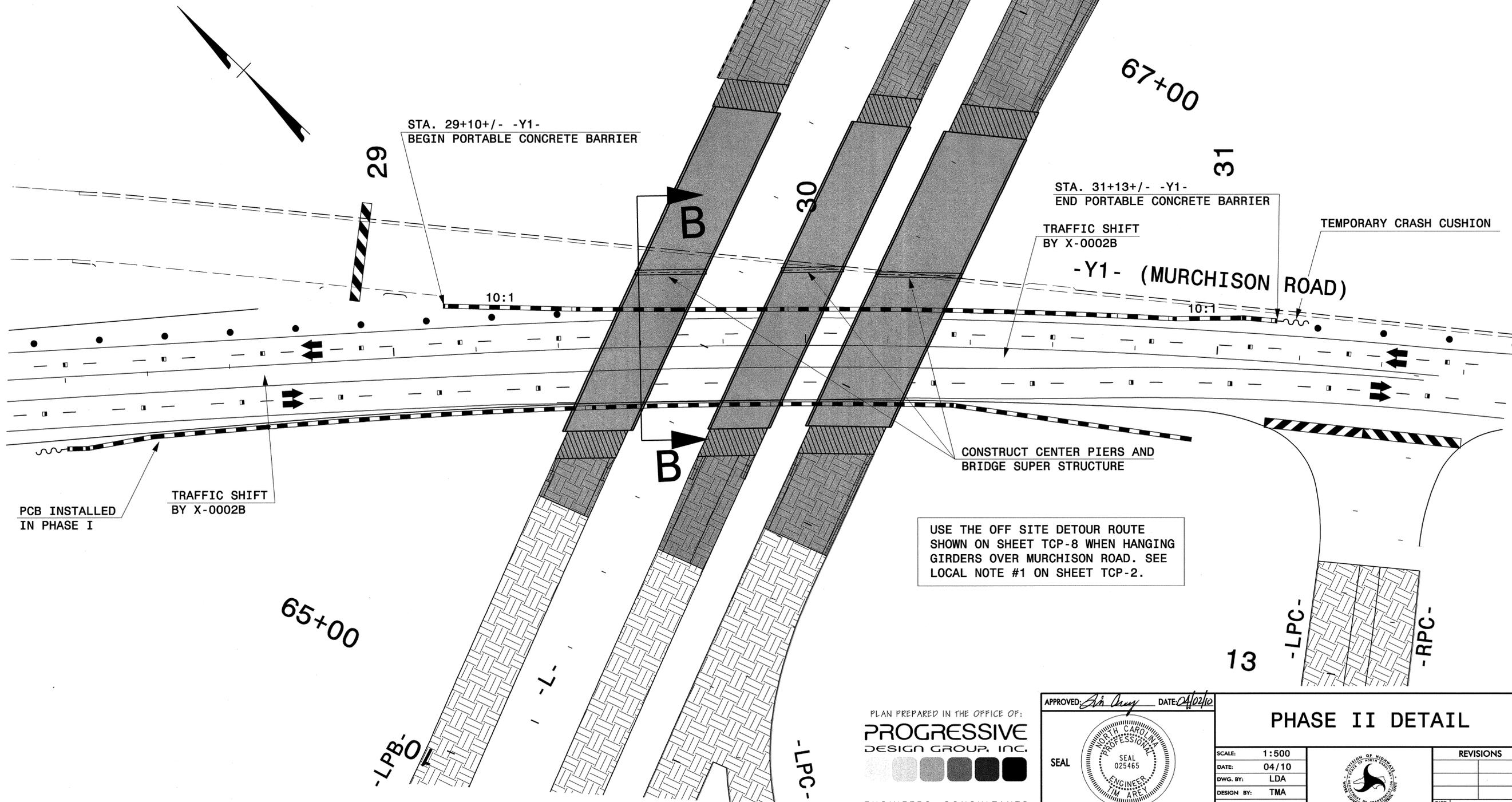
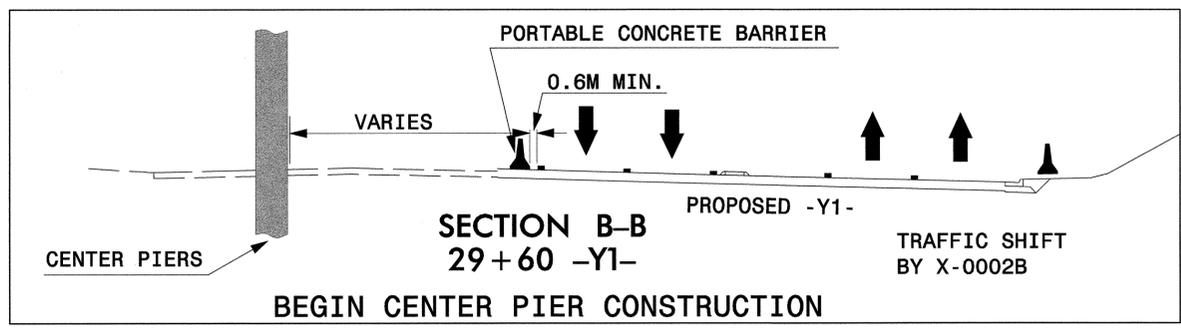
PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
 ENGINEERS • CONSULTANTS

APPROVED: *[Signature]* DATE: 04/10/10

PHASE I DETAIL			REVISIONS	
SCALE: 1:500	DATE: 04/10			
DWG. BY: LDA	DESIGN BY: TMA			
REVIEWED BY: TMA				



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-7



PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
 ENGINEERS • CONSULTANTS

APPROVED: *[Signature]* DATE: *04/10*

SEAL

PHASE II DETAIL

SCALE: 1:500
 DATE: 04/10
 DWG. BY: LDA
 DESIGN BY: TMA
 REVIEWED BY: TMA



REVISIONS	

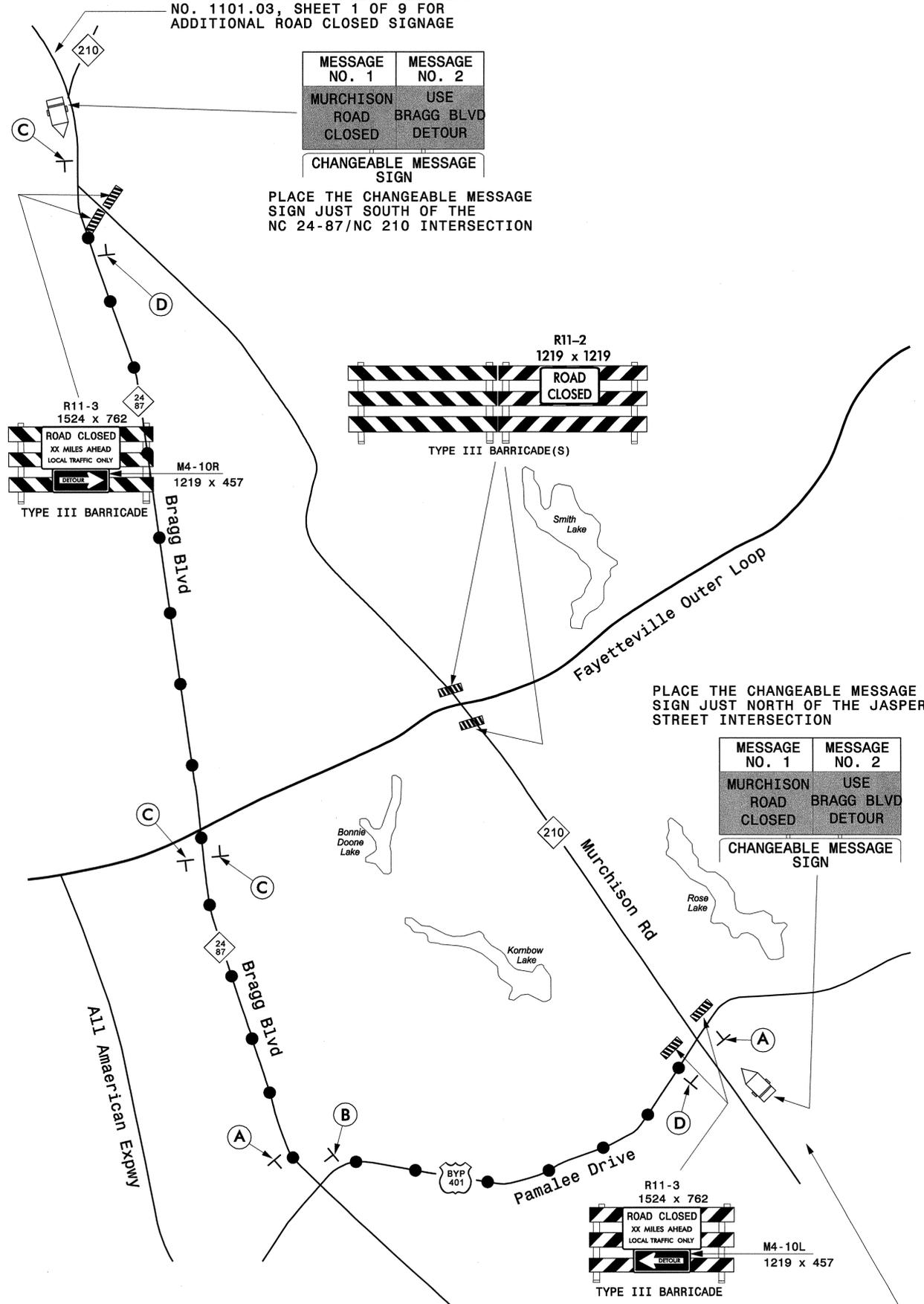


UTILIZE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9 FOR ADDITIONAL ROAD CLOSED SIGNAGE

MESSAGE NO. 1	MESSAGE NO. 2
MURCHISON ROAD CLOSED	USE BRAGG BLVD DETOUR

CHANGEABLE MESSAGE SIGN

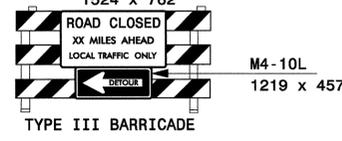
PLACE THE CHANGEABLE MESSAGE SIGN JUST SOUTH OF THE NC 24-87/NC 210 INTERSECTION



PLACE THE CHANGEABLE MESSAGE SIGN JUST NORTH OF THE JASPER STREET INTERSECTION

MESSAGE NO. 1	MESSAGE NO. 2
MURCHISON ROAD CLOSED	USE BRAGG BLVD DETOUR

CHANGEABLE MESSAGE SIGN



UTILIZE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9 FOR ADDITIONAL ROAD CLOSED SIGNAGE

SIGN NUMBER: name TYPE: D QUANTITY: 8	BACKG COLOR: Orange COPY COLOR: Black	DESIGN BY: TMA PROJECT ID: X-0002B/U-2519E	CHECKED BY: PDG DIV: 6	DATE: July 16, 2008
---	--	---	---------------------------	---------------------

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 3'-0"
HEIGHT: 1'-8"
TOTAL AREA: 5.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.47"
WIDTH: 0.63"
RADI: 1.5"

NO. Z BARS: MAT'L: 0.063" (1.6 mm) ALUMINUM
LENGTH: 0.080" (2.0 mm) ALUMINUM
 0.125" (3.2 mm) ALUMINUM

USE NOTES: 2,5

- Legend and border shall be direct applied encapsulated lens reflective sheeting.
- Legend and border shall be direct applied non-reflective sheeting.
- Shields shall be encapsulated lens reflective sheeting on 0.8mm aluminum and demountable.
- Background shall be encapsulated lens reflective sheeting.
- Background shall be Type VII, VIII, or IX (prismatic) fluorescent orange retroreflective sheeting.
- Center arrows vertically on sign.



Spacing Factor is 1 unless specified otherwise

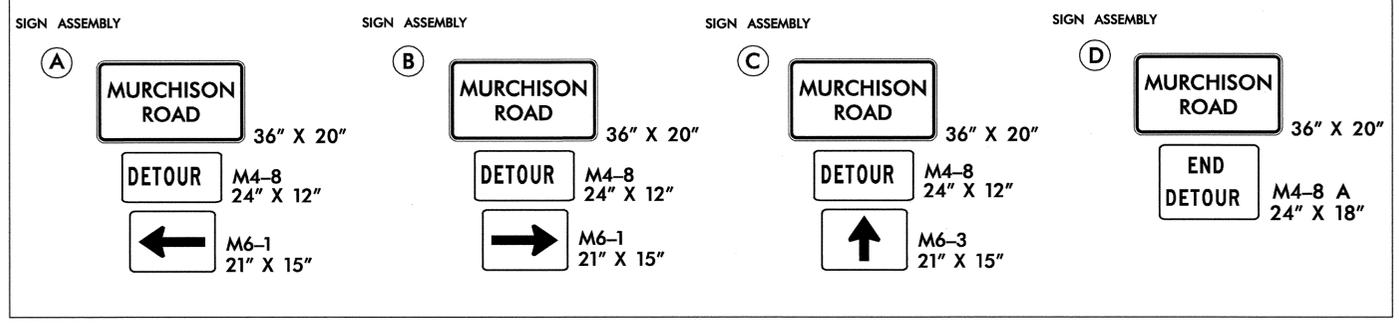
LETTER POSITIONS

Letter widths are shown

Letter	M	U	R	C	H	I	S	O	N	Series/Size	Text Length
M	2.6	2.2	2.2	2.2	2.2	0.6	2.2	2.4	2.2	C 2000	25.1
R	2.2	2.4	2.6	2.2						C 2000	11

FILENAME: Off-site Detour Sign Designs

NORTH CAROLINA D.O.T. SIGN DETAIL



NOTE:
1. ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE. FINAL PLACEMENT AS DIRECTED BY ENGINEER.

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE DESIGN GROUP, INC.
ENGINEERS • CONSULTANTS

APPROVED: *[Signature]* DATE: 04/10/10

SEAL:

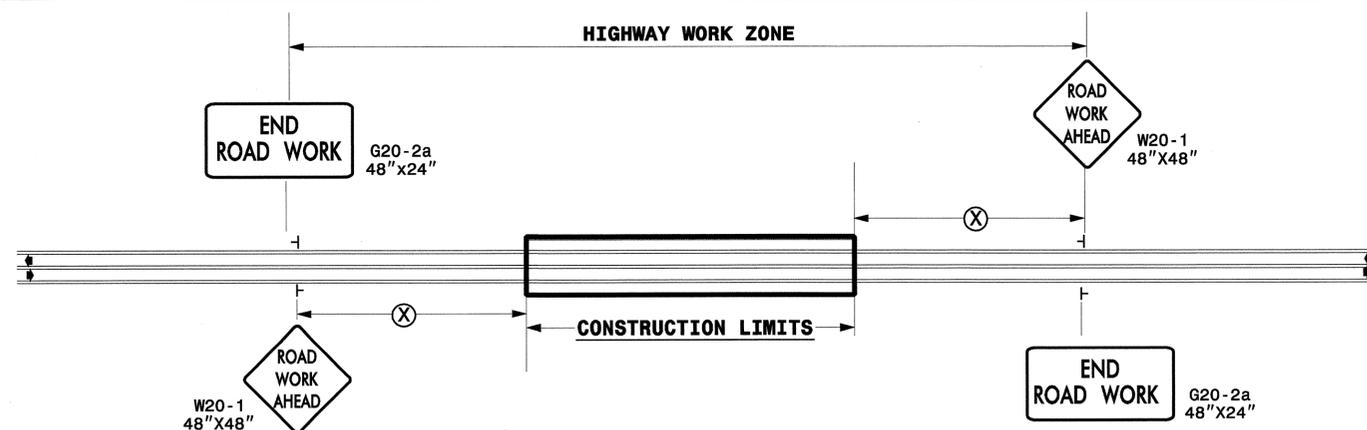
OFFSITE DETOUR SIGNING

SCALE: NONE		REVISIONS
DATE: 04/10		
DWG. BY: LDA		
DESIGN BY: TMA		
REVIEWED BY: TMA		



PROJ. REFERENCE NO.	SHEET NO.
X-0002BC	TCP-9

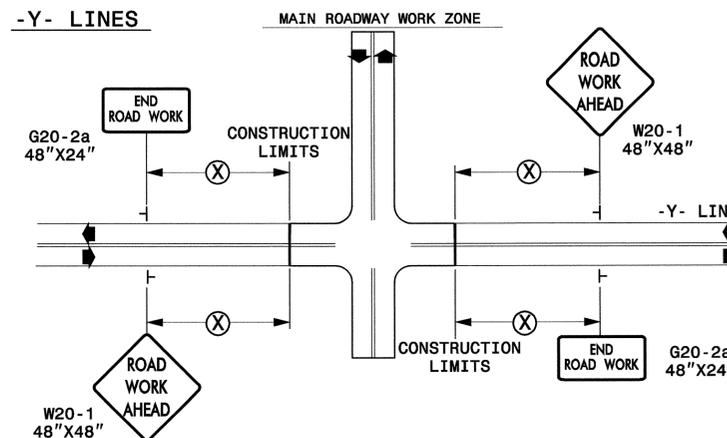
TWO-WAY UNDIVIDED ** (L-LINES)



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

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

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



GENERAL NOTES

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

LEGEND

- STATIONARY SIGN
- ◀ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

DETAIL DRAWING FOR
TWO-WAY UNDIVIDED
WORK ZONE WARNING SIGNS

PLAN PREPARED IN THE OFFICE OF:
PROGRESSIVE
DESIGN GROUP, INC.
ENGINEERS • CONSULTANTS

APPROVED: *Sally* DATE: 04/02/10

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

SCALE:	DATE: 04/10		REVISIONS
DWG. BY: LDA	DESIGN BY: TMA		
REVIEWED BY: TMA			