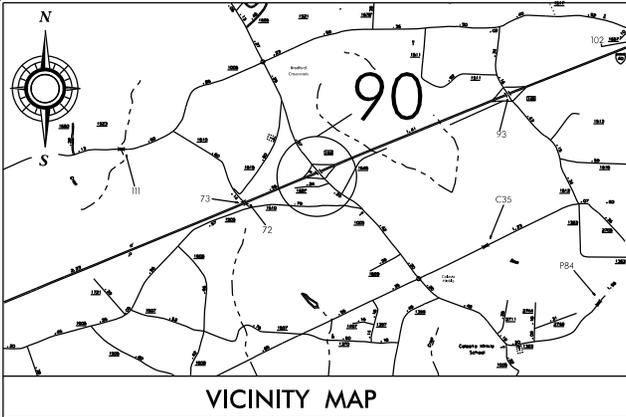


PROJECT I-5212

CONTRACT DL00026



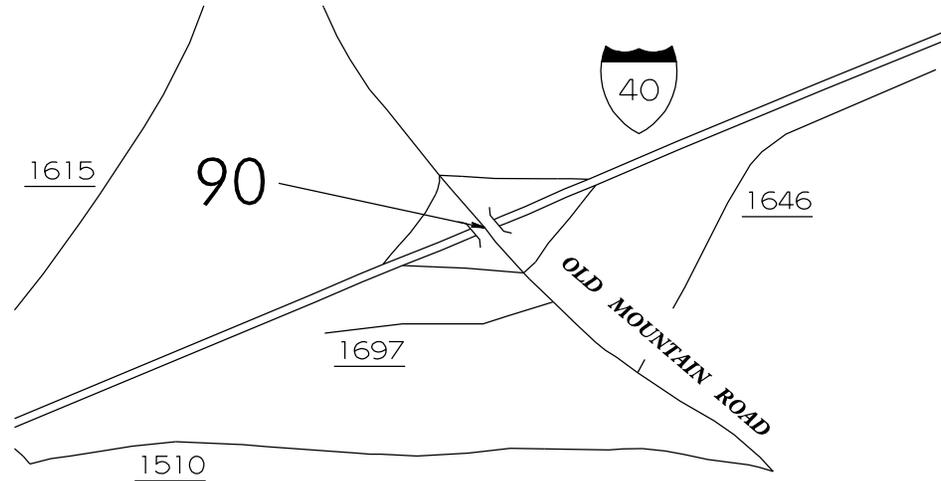
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY

LOCATION: BRIDGE #90 SR-1005 OVER I-40

TYPE OF WORK: BRIDGE DECK PRESERVATION
HYDRODEMOLITION, LMC OVERLAY

STATE	STATE PROJECT REFERENCE NO.	REPORT NO.	TOTAL SHEETS
N.C.	I-5212	1	1
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47058.1.2	N/A	PE	
47058.3.2	N/A	CONST	



DESIGN DATA
BRIDGE #90
ADT 2008=9800

PROJECT LENGTH
BRIDGE #90 = 0.06 MILE

Prepared In the Office of:
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

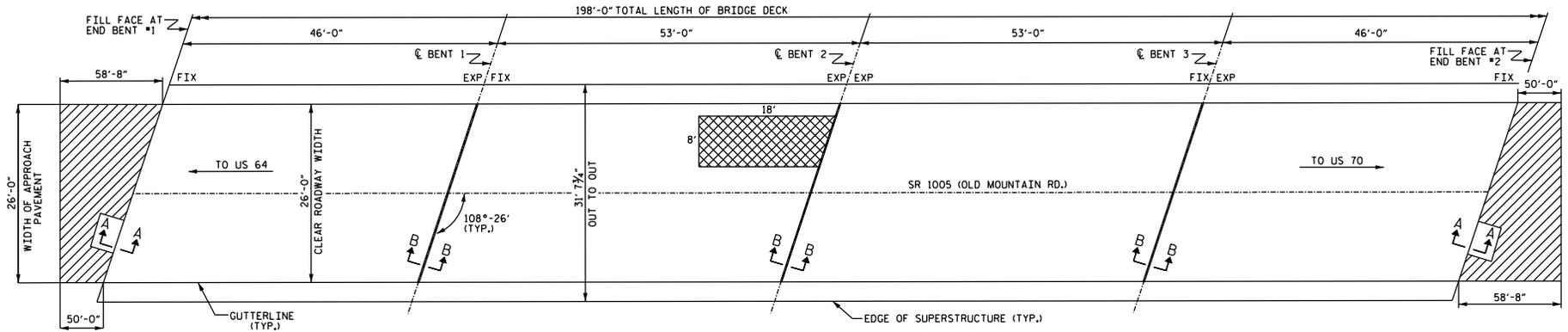
RICK NELSON, P.E.
PROJECT ENGINEER

LETTING DATE: AUGUST 28, 2012

ENGINEER



DAVID SNOKE, P.E.
PROJECT DESIGN ENGINEER



SURFACE PREPARATION PLAN

NOTES

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECK.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR "HYDRO-DEMOLITION OF BRIDGE DECK", SEE SPECIAL PROVISIONS.

INCIDENTAL MILLING IS INCLUDED TO ENSURE A SMOOTH TRANSITION ONTO THE BRIDGE FLOOR. DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SCARIFY AS REQUIRED TO PROVIDE A SMOOTH TRANSITION TO THE ROADWAY AT BOTH ENDS OF BRIDGE. FOR TYPICAL SECTIONS SEE SHEET S-2.

FOR DEMOLITION DETAILS AT BENTS AND END BENTS SEE SHEET S-3.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE. THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK, SEE "TYP. "BLOW THRU" CONTAINMENT AND FORMWORK" DETAIL.

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER FROM THE HYDRO-DEMOLITION PROCESS. SEE "MANAGING HYDRODEMOLITION WATER" SPECIAL PROVISION.

FOR OVERLAY OF BRIDGE WITH "LATEX MODIFIED CONCRETE", SEE SPECIAL PROVISIONS

FOR "FOAM JOINT SEALS", SEE SPECIAL PROVISIONS.

FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVISIONS.

FOR TRAFFIC STAGING, SEE THE TRAFFIC MANAGEMENT PLANS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

- BRIDGE FLOOR SCARIFICATION AND HYDRO-DEMOLITION
- INCIDENTAL MILLING OF APPROACH ROADWAY
- APPROX. AREA CLASS III REPAIR

PROJECT NO. I-5212
IREDELL COUNTY
 BRIDGE NO. 90

SHEET 1 OF 3

TOTAL BILL OF MATERIAL										
INCIDENTAL MILLING	SCARIFYING BRIDGE DECK	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO-DEMOLITION OF BRIDGE DECK	LATEX MODIFIED CONCRETE	PLACING & FINISHING LATEX MODIFIED CONCRETE	FOAM JOINT SEALS	GROOVING BRIDGE FLOOR	ASPHALT CONC. SURF. COURSE TYPE S9.5C
SO.YDS.	SO.YDS.	SO.YDS.	SO.YDS.	SO.YDS.	SO.YDS.	C.Y.	SO.YDS.	LUMP SUM	SO. FT.	TON
315	572	0	0	16	572	42	572	LUMP SUM	4450	26

* QUANTITY SHOWN IS FOR INFORMATION ONLY.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION PLAN AND BILL OF MATERIAL

DRAWN BY : R.WEISZ DATE : 6/12
 CHECKED BY : D.SNOKE DATE : 7/12

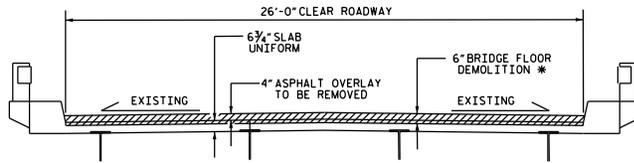
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 *****USER*****

REVISIONS					SHEET NO.
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO. 5-1
 TOTAL SHEETS 3

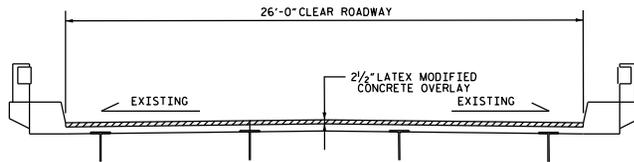
NOTES

FOR SHOULDER RECONSTRUCTION, SEE SPECIAL PROVISIONS

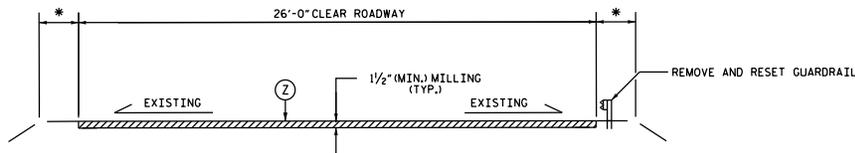


TYPICAL BRIDGE FLOOR DEMOLITION SECTION

* DEMOLITION INCLUDES DECK SCARIFICATION AND HYDRO-DEMOLITION

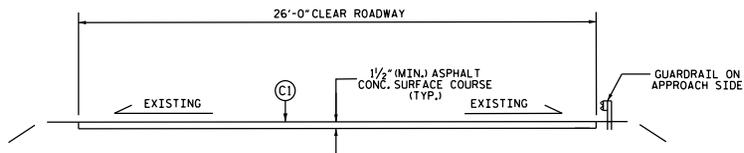


PROPOSED TYPICAL BRIDGE FLOOR SECTION



TYPICAL ROADWAY MILLING SECTION

* RE-GRADE OUTSIDE SHOULDERS TO NEW PAVED SHOULDER ASPHALT SURFACE.



TYPICAL PROPOSED ROADWAY SECTION

Z	INCIDENTAL VARIABLE DEPTH ASPHALT MILLING
C1	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1/2" IN DEPTH OR GREATER THAN 2" DEPTH.

PROJECT NO. I-5212
IREDELL COUNTY
 BRIDGE NO: 90
 SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTIONS

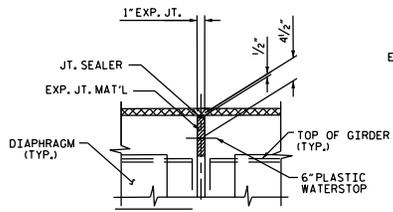
REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
1			3	
2			4	

S-2
TOTAL SHEETS
3

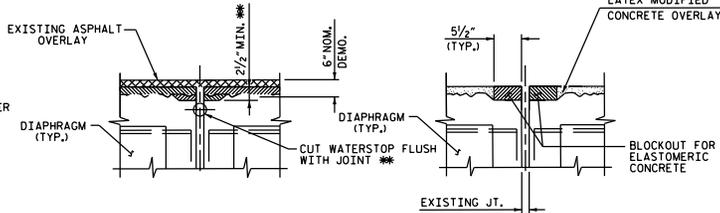
NC006

DRAWN BY : R.WEISZ DATE : 6/12
 CHECKED BY : D.SNOKE DATE : 7/12

*****SYSTEM*****
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 *****SERNAME*****

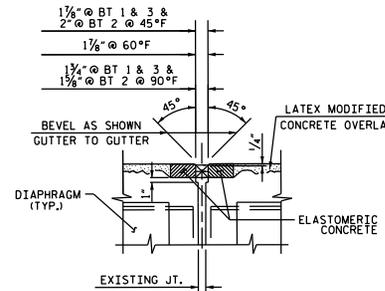


SECTION B-B
(EXISTING JOINT)



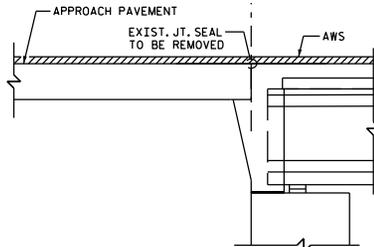
SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)

SECTION B-B
(PROPOSED FOAM JOINT SEAL PRE-SAWED DIMENSIONS)

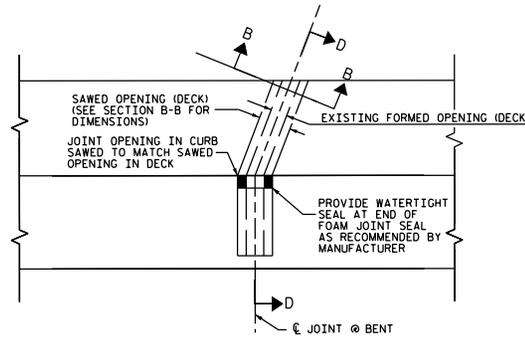


SECTION B-B
(PROPOSED EVAZOTE JOINT SEAL EXPANSION)

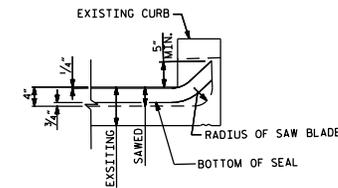
*** ALL LOOSE AND UNSOUND CONCRETE SHALL BE REMOVED. IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE, THE ENTIRE WATERSTOP SHALL BE REMOVED.



EXISTING SECTION AT END BENT 1
END BENT 2 SIMILAR
SECTION A-A



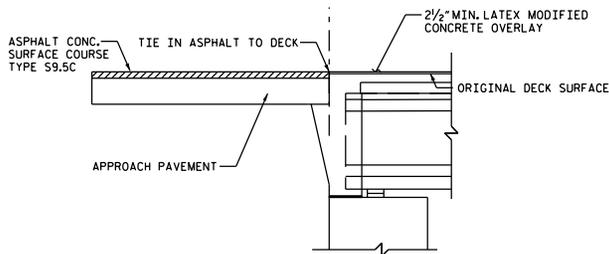
FOAM JOINT SEAL DETAILS



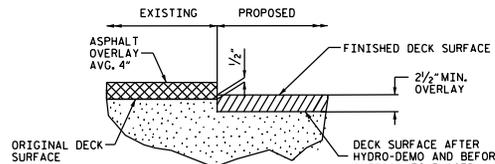
SECTION D-D

ELASTOMERIC CONCRETE	
BENT 1	5.23 (CU. FT.)
BENT 2	5.23 (CU. FT.)
BENT 3	5.23 (CU. FT.)
* TOTAL	15.69 (CU. FT.)

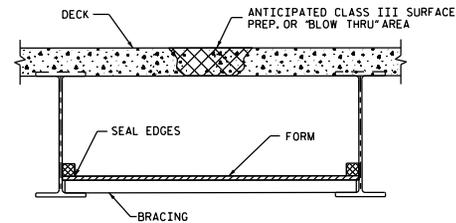
* BASED ON THE MINIMUM BLOCKOUT SHOWN.



PROPOSED SECTION AT END BENT 1
END BENT 2 SIMILAR
SECTION A-A



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY



TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

A METHOD TO CAPTURE WATER AND DEBRIS FROM BLOW THRU DURING HYDRO-DEMOLITION SHALL BE INSTALLED IN AREAS INDICATED AS CLASS III SURFACE PREPARATION. SUBMIT DETAILS OF PROPOSED FORM WORK FOR APPROVAL PRIOR TO BEGINNING WORK. COST FOR INSTALLING AND REMOVING FORM WORK SHALL BE INCIDENTAL TO THE PRICE PER SQ. YARD OF HYDRO-DEMOLITION.

NOTES

FOR FOAM JOINT SEAL, SEE SPECIAL PROVISIONS.
THE INSTALLED FOAM JOINT SEALS SHALL BE WATERTIGHT.
NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2 1/2\"/>

PROJECT NO. I-5212
IREDELL COUNTY
BRIDGE NO. 90

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT DETAILS

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-3
1			3			JWH
2			4			3

NC006

DRAWN BY: R.WEISZ DATE: 6/12
CHECKED BY: D.SNOKE DATE: 7/12

*****SYSTEM*****
*****USER*****

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

IREDELL COUNTY

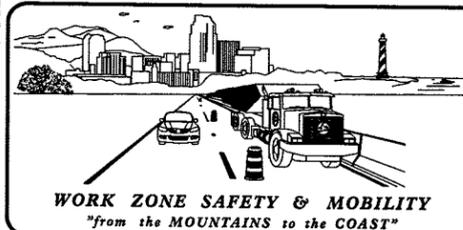


INDEX OF SHEETS

SHEET NO.	TITLE
TMP-TITLE	TITLE SHEET, AND INDEX OF SHEETS
TMP-1	DETAIL EXIT 141
TMP-2	DETAIL EXIT 144
TMP-3	DETAIL EXIT 146
TMP-4	SPECIAL SIGN DESIGN

SHEET NO.
TMP-TITLE

I2-JUL-2012 16:06
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 msishak AT 1E244732



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

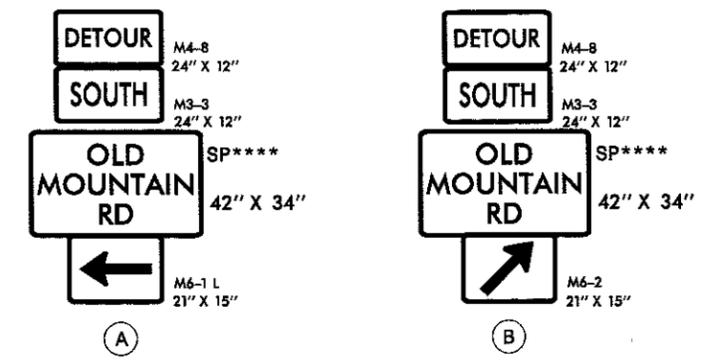
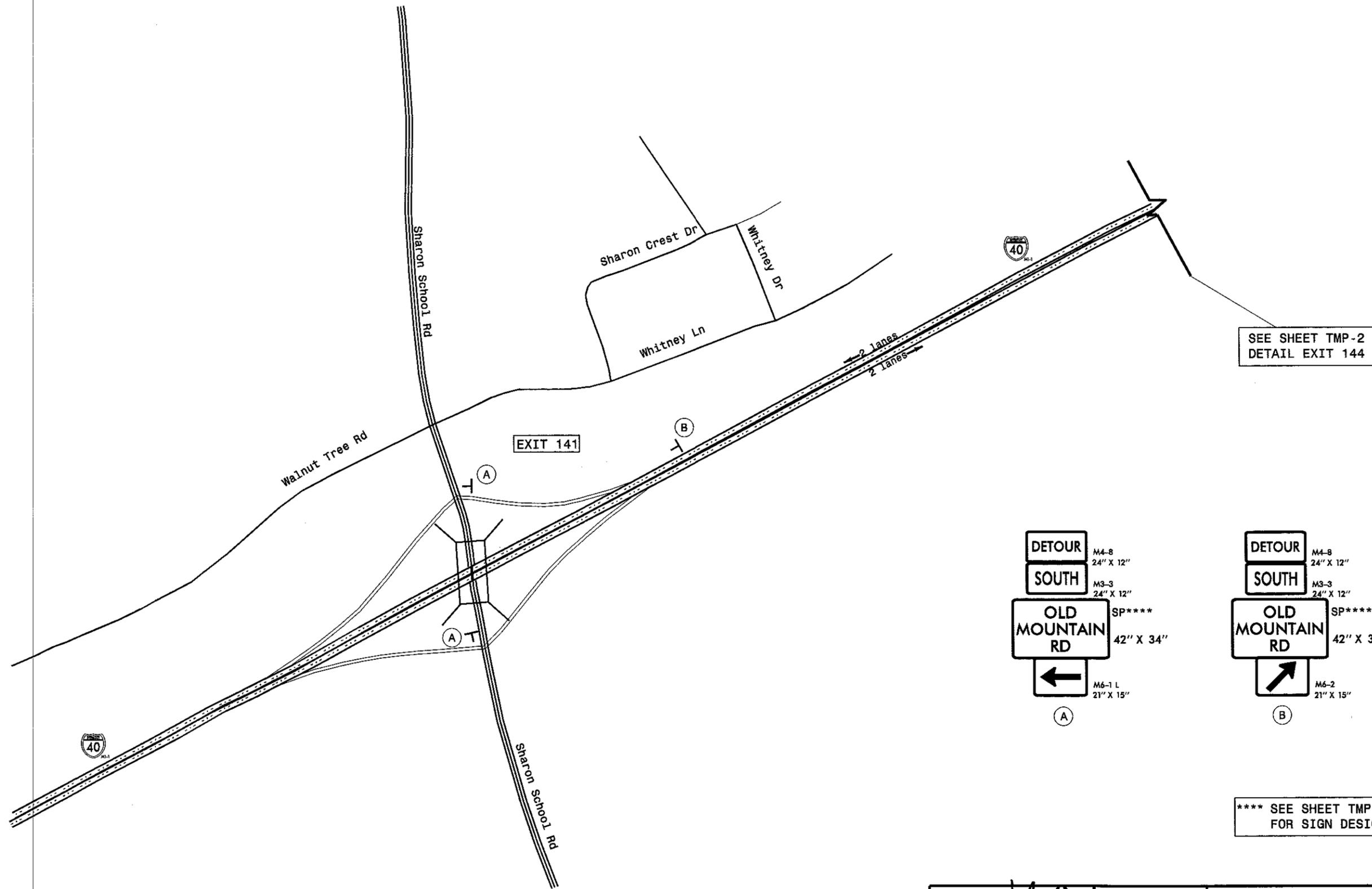
J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
 J. W. WOOLARD, PE TRAFFIC CONTROL PROJECT ENGINEER
 J. W. GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER
 M. S. ISHAK TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: *J. W. Woolard*
 DATE: 7/13/12

SEAL

TIP PROJECT: I-5212A

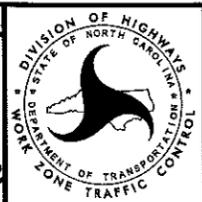


**** SEE SHEET TMP-4 FOR SIGN DESIGN

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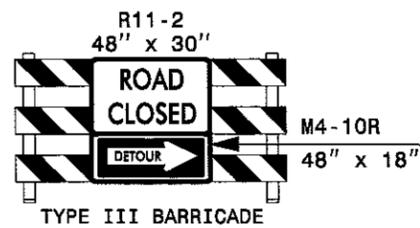
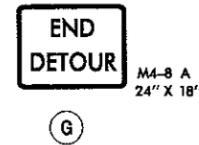
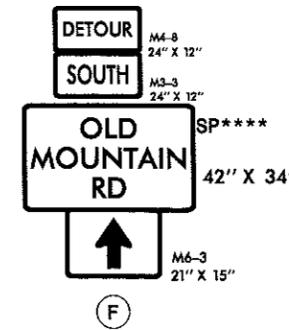
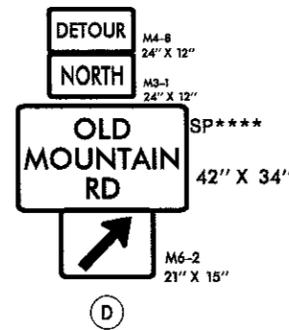
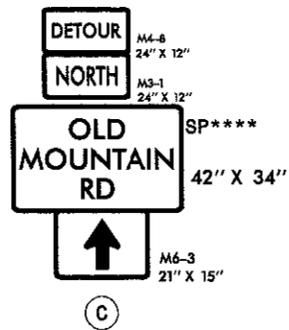
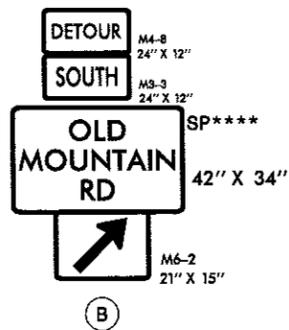
APPROVED: *J. W. [Signature]* DATE: 6/21/12

SEAL: PROFESSIONAL ENGINEER SEAL 19862 W. WOOLAND



DETAIL
EXIT 141

**** SEE SHEET TMP-4
FOR SIGN DESIGN



SEE SHEET TMP-1
DETAIL EXIT 141

*** PLACE CMS 2 MILES PRIOR
TO EXIT 144 AS DIRECTED
BY THE ENGINEER

MESSAGE NO. 1	MESSAGE NO. 2
N OLD MTN ROAD CLOSED	USE EXIT 146

CHANGEABLE MESSAGE SIGN

2

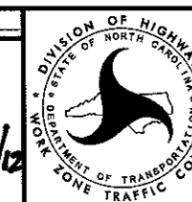
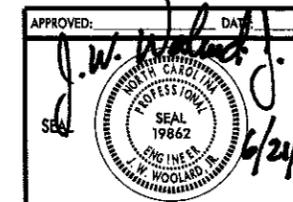
* USE RSD NO. 1101.03, SHEET 2 OF 9
TO CLOSE OLD MOUNTAIN ROAD.
"STOP AHEAD" (W3-1) AND "STOP" (R1-1)
SIGNS ARE NOT REQUIRED.

** PLACE CMS 1.5 MILES PRIOR
TO EXIT 144 AS DIRECTED
BY THE ENGINEER

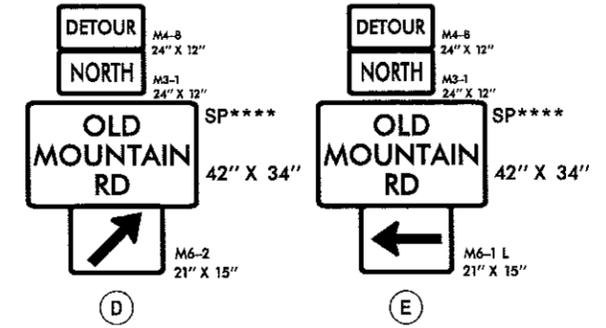
MESSAGE NO. 1	MESSAGE NO. 2
S OLD MTN ROAD CLOSED	USE EXIT 141

CHANGEABLE MESSAGE SIGN

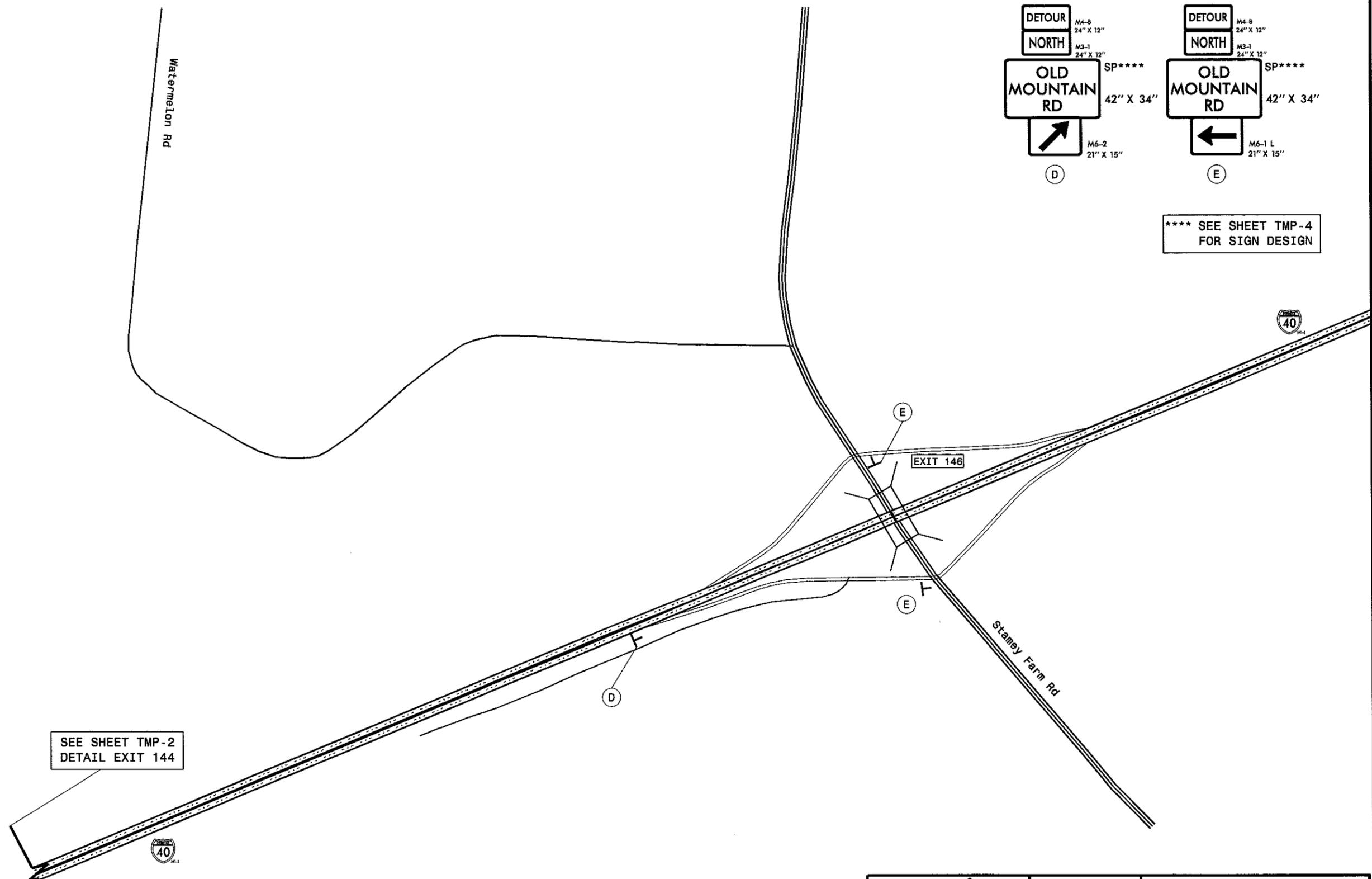
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DETAIL
EXIT 144



**** SEE SHEET TMP-4
FOR SIGN DESIGN

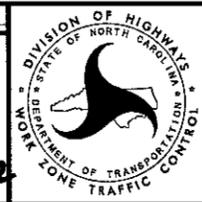


SEE SHEET TMP-2
DETAIL EXIT 144

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 LGISTRGP - ALL TEXT

APPROVED: *J.W. Woodland* DATE: 6/21/12

SEAL: PROFESSIONAL ENGINEER SEAL 19862 W. WOOLAND



**DETAIL
EXIT 146**

