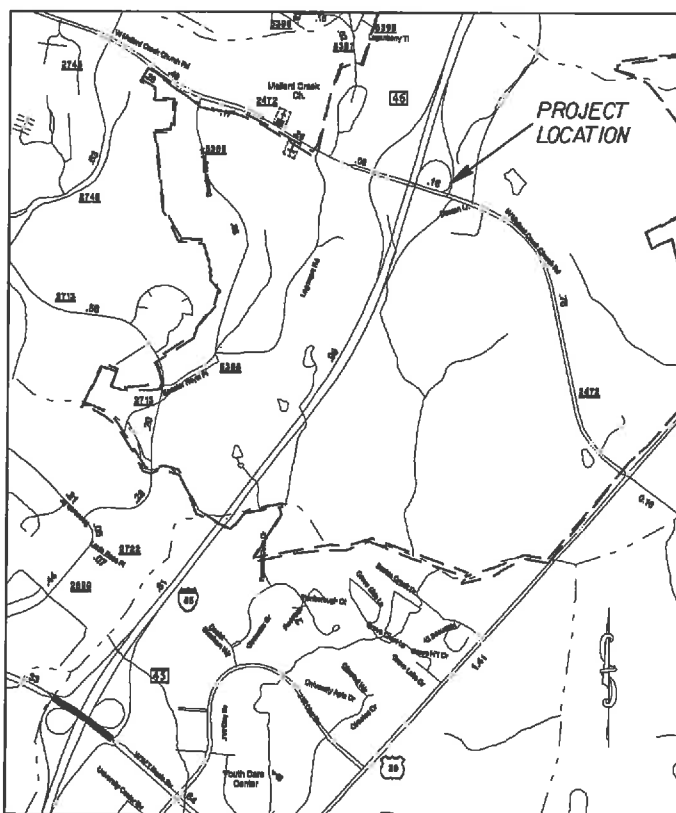


PROJECT: 43310.3.1 TIP:SS-4910A0

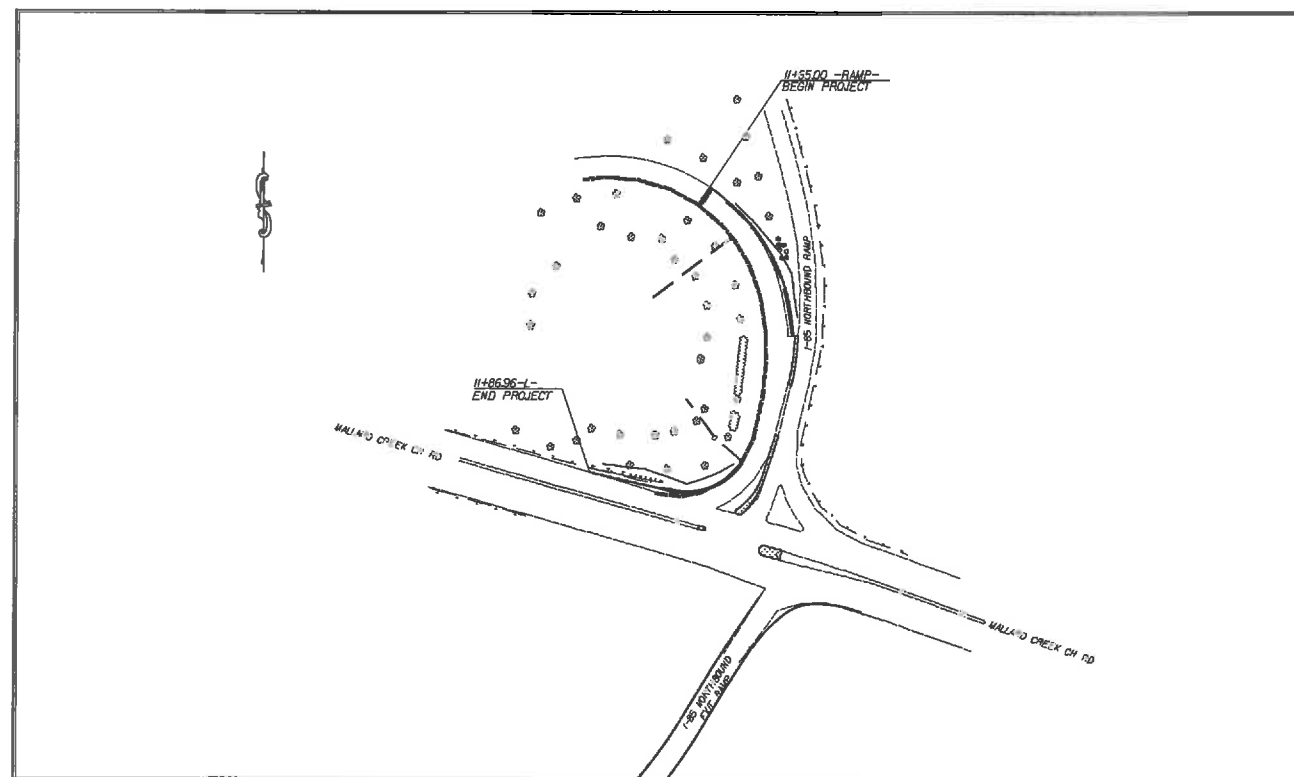


VICINITY MAP

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**MECKLENBURG COUNTY**

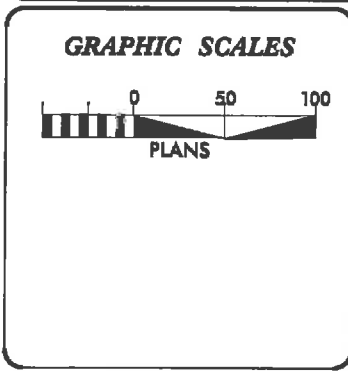
**LOCATION:** I-85 NORTHBOUND RAMP @ SR 2472 (MALLARD CREEK CH. RD)

**TYPE OF WORK:** GRADING, PAVING, MILLING, CONCRETE ISLANDS,  
CURB & GUTTER AND THERMOPLASTIC PAVEMENT MARKERS



CLEARING ON THIS PROJECT SHALL BE TO THE LIMITS ESTABLISHED BY METHOD II AS DESCRIBED IN THE NCDOT STANDARD DRAWINGS

STATE	STATE PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
N.C.	43310.3.1	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
43310.1.1		P.E.	
43310.2.1		R/W	
43310.3.1	HSIP-0852(73)	CONST.	



**DESIGN DATA**

ADT	=	
ADT	=	
DHV	=	%
D	=	%
T	=	%
V	=	MPH

**PROJECT LENGTH**

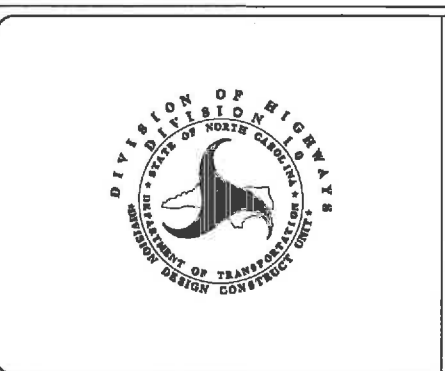
LENGTH OF ROADWAY PROJECT 43310.3.1	=	0.085	MILES
TOTAL LENGTH OF STATE PROJECT 43310.3.1	=	0.085	MILES

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
DIVISION TEN  
DIVISION DESIGN / CONSTRUCT UNIT

---

2012 STANDARD SPECIFICATIONS

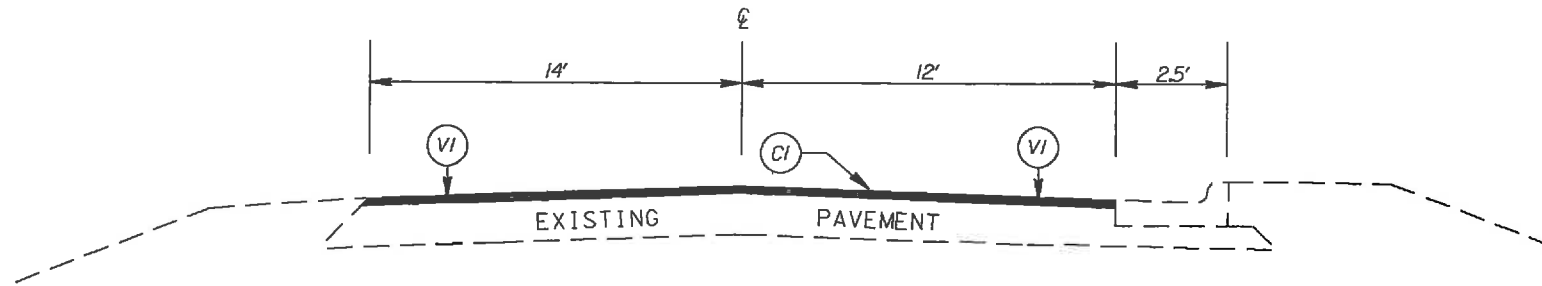
<b>RIGHT OF WAY DATE:</b> _____	<b>RANDY BOWERS</b> PROJECT ENGINEER
<b>LETTING DATE:</b> August 21, 2013	<b>TERRY BURLESON</b> PROJECT DESIGN ENGINEER



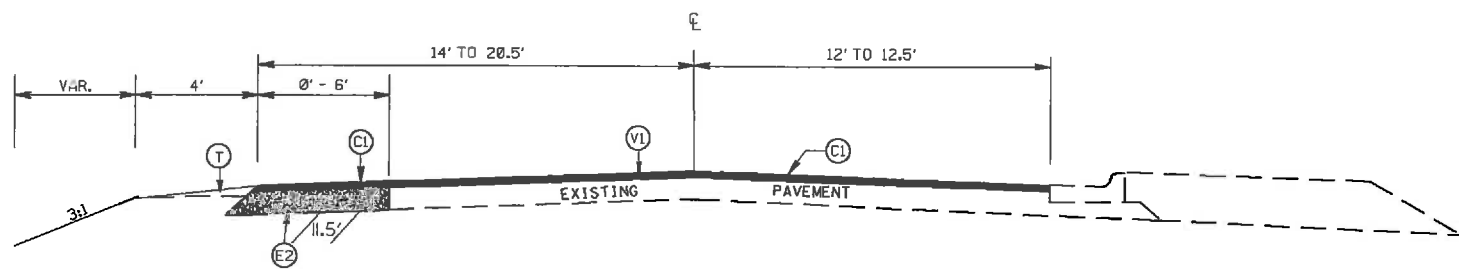
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
EDC ENGINEER

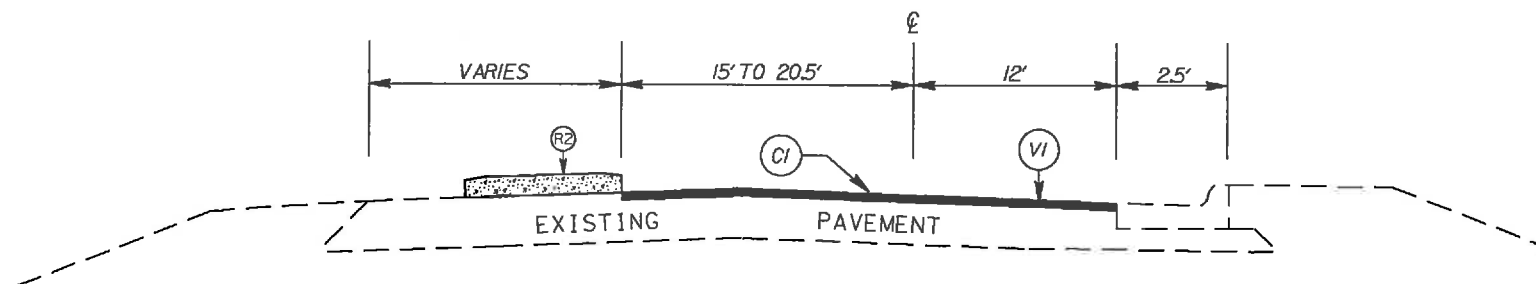
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	4330.3J	2	
F.A. PROJECT NO.			



TYPICAL SECTION NO. 1  
STA. 11+65 TO 11+90 -RAMP-



TYPICAL SECTION NO. 2  
STA. 11+90 TO 13+70.24 -RAMP-



TYPICAL SECTION NO. 3  
STA. 13+70.24 TO 14+25 -RAMP-

PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(D1)	PROP. APPROX. 4" ASPHALT CONC. BINDER COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 5" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
(E2)	PROP. APPROX. 10" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(R1)	PROP. 2'-6" CURB & GUTTER
(R2)	PROP. 5" MONOLITHIC ISLAND
(T)	EARTH MATERIAL
(V1)	MILLING ASPHALT PAVEMENT, 1.5" IN DEPTH

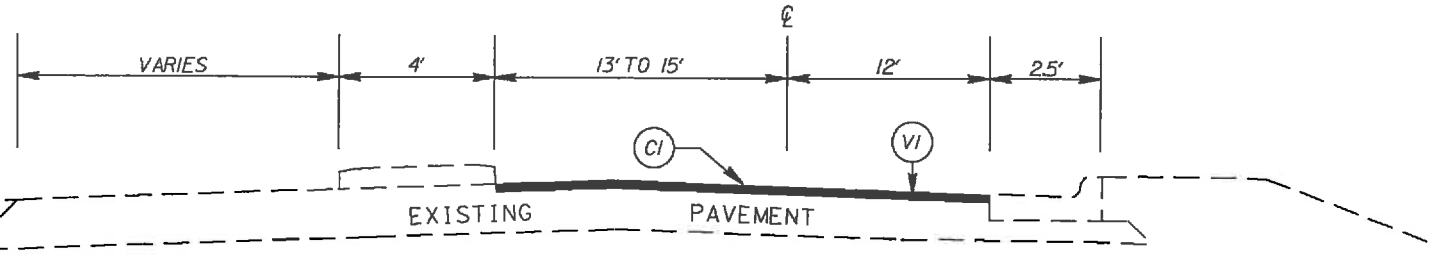
I-85 NORTHBOUND RAMP @  
SR2472 (MALLARD CREEK CHURCH RD)  
IN MECKLENBURG COUNTY

SCALE	-NA-
DATE	10/11
DWG. BY	TWB
DESIGN BY	TWB
APPROVED	RWS



REVISIONS	

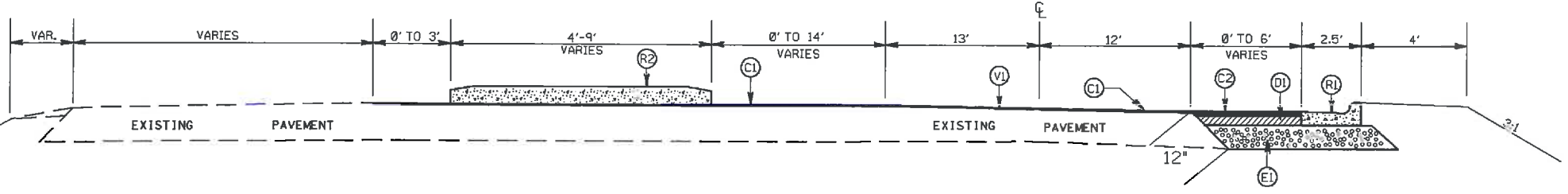
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	43310.3J	2A	
F.A. PROJECT NO.			



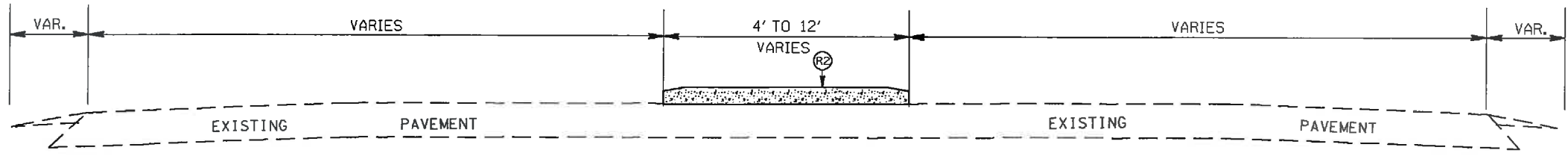
TYPICAL SECTION NO. 4  
STA. 14+25 TO 14+90 -RAMP-

PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(D1)	PROP. APPROX. 4" ASPHALT CONC. BINDER COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 5" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
(E2)	PROP. APPROX. 10" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(R1)	PROP. 2'-6" CURB & GUTTER
(R2)	PROP. 5" MONOLITHIC ISLAND
(T)	EARTH MATERIAL
(V1)	MILLING ASPHALT PAVEMENT, 1.5" IN DEPTH



TYPICAL SECTION NO. 5  
STA. 14+90 TO 15+82 -RAMP-

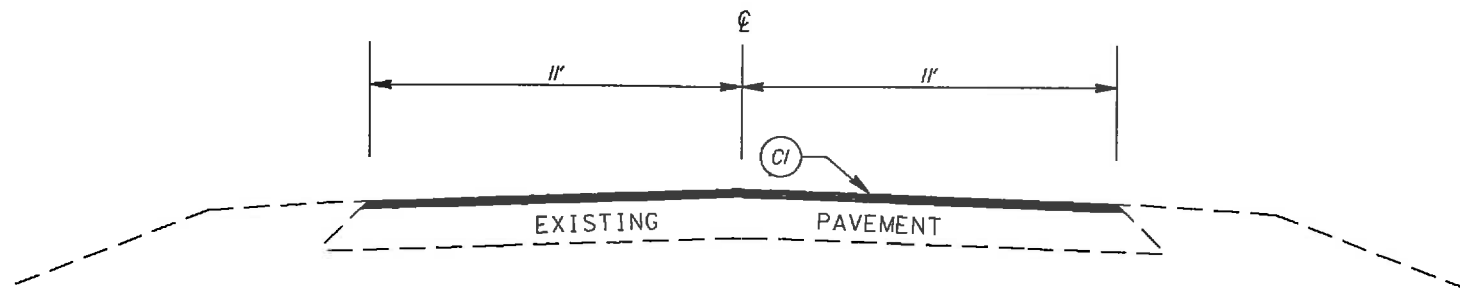


TYPICAL SECTION NO. 6  
STA. 13+35 TO 14+45 -L-

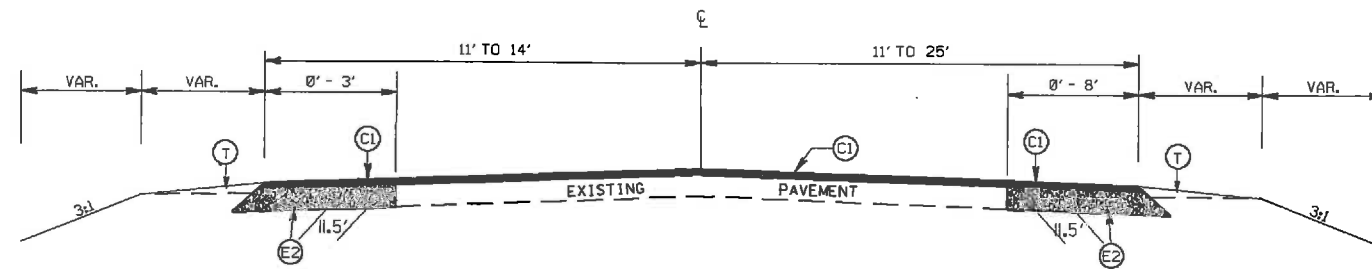
I-85 NORTHBOUND RAMP @  
SR2472 (MALLARD CREEK CHURCH RD)  
IN MECKLENBURG COUNTY

SCALE	-NA-		REVISIONS
DATE	10/11		
DWG. BY	TWB		
DESIGN BY	TWB		
APPROVED	RWB		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	4330.3J	2B	
F.A. PROJECT NO.			



TYPICAL SECTION NO. 7  
STA. 10+00 TO 14+95 -RAMP2-




TYPICAL SECTION NO. 8  
STA. 14+95 TO 19+00 -RAMP2-

PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(D1)	PROP. APPROX. 4" ASPHALT CONC. BINDER COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 5" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
(E2)	PROP. APPROX. 10" ASPHALT CONC. BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
(R1)	PROP. 2'-6" CURB & GUTTER
(R2)	PROP. 5" MONOLITHIC ISLAND
(T)	EARTH MATERIAL
(V1)	MILLING ASPHALT PAVEMENT, 1.5' IN DEPTH

NOTE: ON TYPICAL SECTION #8 REMOVE EXISTING PAVED SHOULDERS AS DIRECTED BY THE ENGINEER.

I-85 NORTHBOUND RAMP @  
SR2472 (MALLARD CREEK CHURCH RD)  
IN MECKLENBURG COUNTY

SCALE	-N/-		REVISIONS
DATE	10/11		
DWG. BY	TWB		
DESIGN BY	TWB		
APPROVED	RWB		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	43310.31	3	
F.A. PROJECT NO.			HSP-0852(7.3)

-L-  
 PI Sta 16+29.53  
 $\Delta = 7^{\circ} 05' 40.2" (RT)$   
 $D = 4^{\circ} 24' 26.5"$   
 $L = 160.97'$   
 $T = 80.59'$   
 $R = 1,300.00'$

-RAMP-  
 PI Sta 12+10.10  
 $\Delta = 85^{\circ} 18' 21.4" (RT)$   
 $D = 27^{\circ} 56' 57.0"$   
 $L = 305.22'$   
 $T = 188.86'$   
 $R = 205.00'$

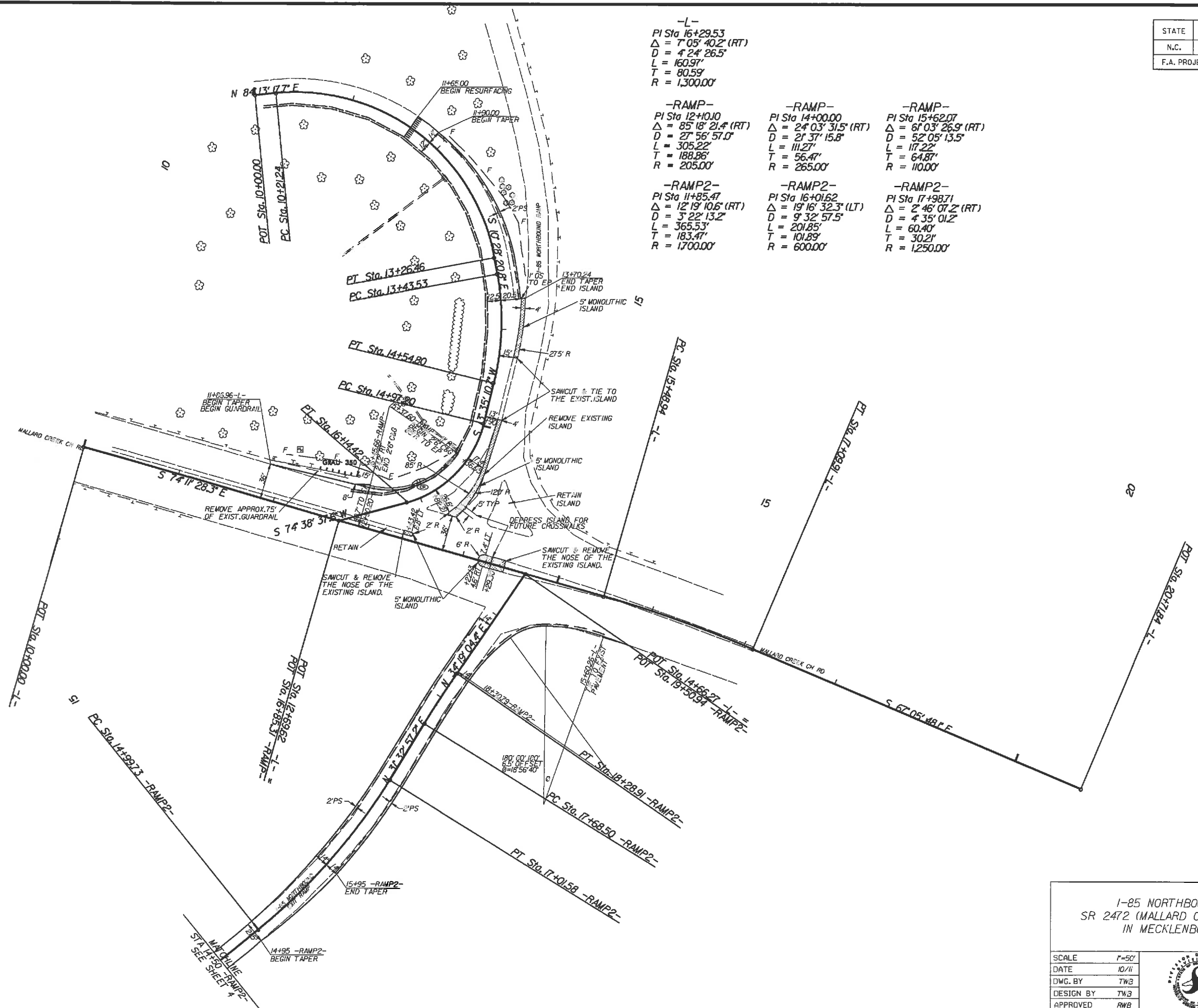
-RAMP2-  
 PI Sta 11+85.47  
 $\Delta = 12^{\circ} 19' 10.6" (RT)$   
 $D = 3^{\circ} 22' 13.2"$   
 $L = 365.53'$   
 $T = 183.47'$   
 $R = 1,700.00'$

-RAMP-  
 PI Sta 14+00.00  
 $\Delta = 24^{\circ} 03' 31.5" (RT)$   
 $D = 21^{\circ} 37' 15.8"$   
 $L = 111.27'$   
 $T = 56.47'$   
 $R = 265.00'$


-RAMP2-  
 PI Sta 16+01.62  
 $\Delta = 19^{\circ} 16' 32.3" (LT)$   
 $D = 9^{\circ} 32' 57.5"$   
 $L = 201.85'$   
 $T = 101.89'$   
 $R = 600.00'$

-RAMP-  
 PI Sta 15+62.07  
 $\Delta = 61^{\circ} 03' 26.9" (RT)$   
 $D = 52^{\circ} 05' 13.5"$   
 $L = 117.22'$   
 $T = 64.87'$   
 $R = 110.00'$

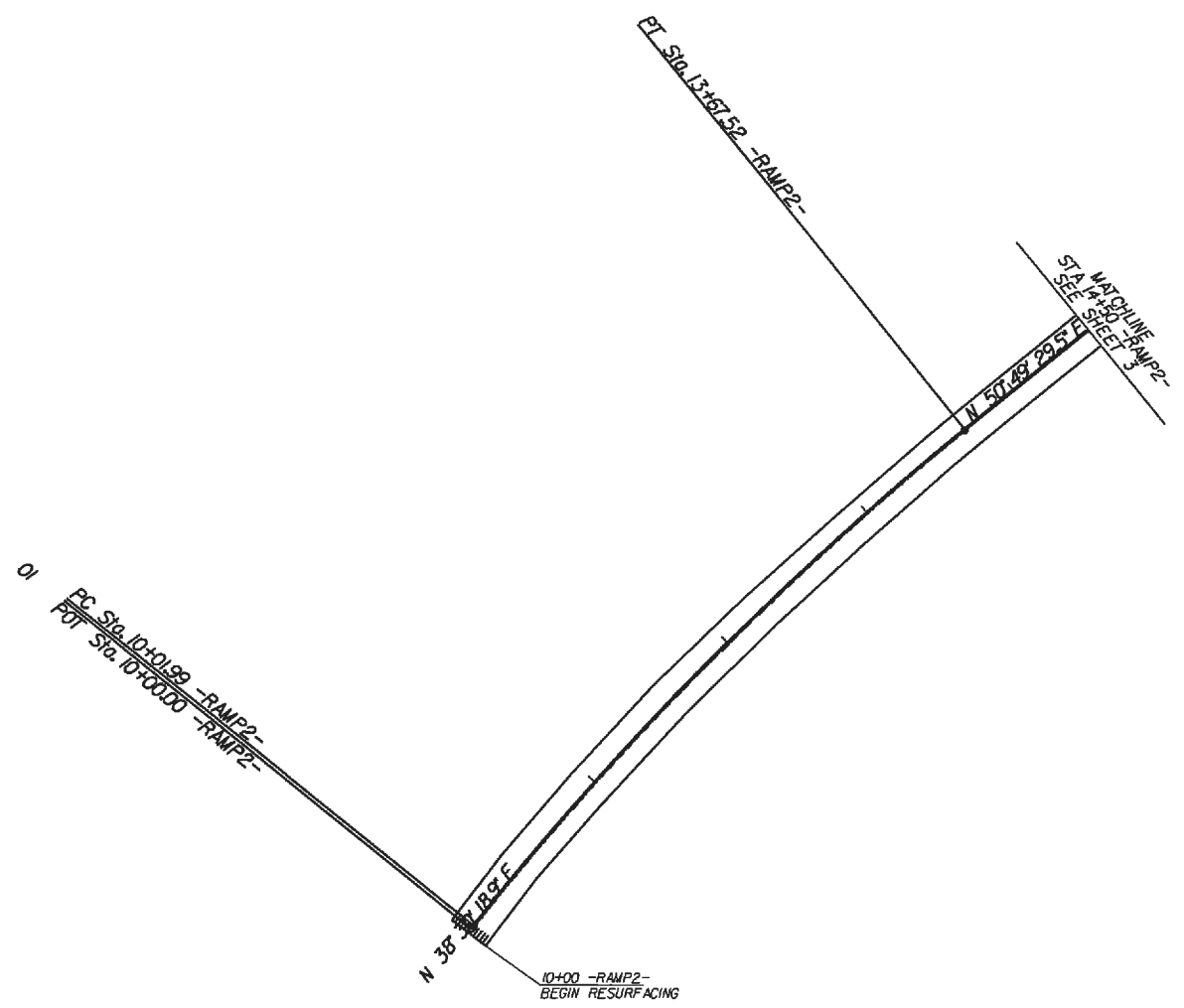
-RAMP2-  
 PI Sta 17+98.71  
 $\Delta = 2^{\circ} 46' 07.2" (RT)$   
 $D = 4^{\circ} 35' 01.2"$   
 $L = 60.40'$   
 $T = 30.21'$   
 $R = 1,250.00'$



I-85 NORTHBOUND RAMP @  
 SR 2472 (MALLARD CREEK CHURCH RD)  
 IN MECKLENBURG COUNTY

SCALE	1"=50'		REVISIONS
DATE	10/11		
DWG. BY	TWB		
DESIGN BY	TWB		
APPROVED	RWB		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	43310.3J	4	
F.A. PROJECT NO. H3IP-085273J			



1-85 NORTHBOUND RAMP @  
SR 2472 (MALLARD CREEK CHURCH RD)  
IN MECKLENBURG COUNTY

SCALE	1"=50'
DATE	10/11
DWG. BY	TWB
DESIGN BY	TWB
APPROVED	RWB



REVISIONS	

**PROJECT: 43310.3.1 TIP: SS-4910A0**

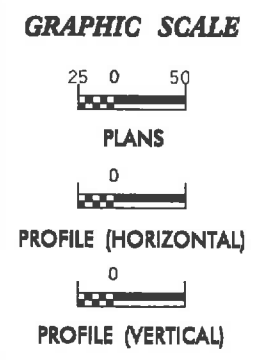
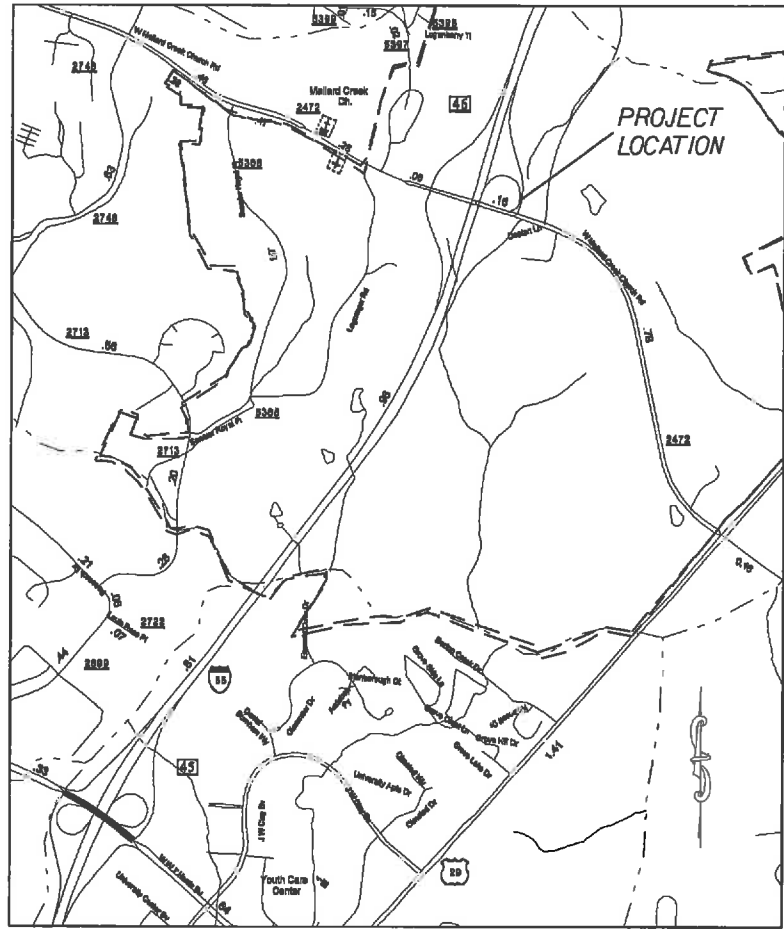
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 PLAN FOR PROPOSED  
 HIGHWAY EROSION CONTROL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	43310.3.1	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	---
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	△△△△△
1622.01	Temporary Berms and Slope Drains	T
1630.02	Silt Basin Type B	▧
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle / Coir Fiber Wattle	○
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	○
1634.01	Temporary Rock Sediment Dam Type-A	▩
1634.02	Temporary Rock Sediment Dam Type-B	▩
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊂
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊂
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

THIS PROJECT CONTAINS  
 EROSION CONTROL PLANS  
 FOR CLEARING AND  
 GRUBBING PHASE OF  
 CONSTRUCTION.



ROADSIDE ENVIRONMENTAL UNIT  
 DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY  
 WITH THE REGULATIONS SET FORTH BY THE  
 NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011  
 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND  
 NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:  
**DDC UNIT DIVISION 10**  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**2012 STANDARD SPECIFICATIONS**

TERRY W. BURLESON 141  
 EROSION CONTROL DESIGNER LEVEL III-A CERTIFICATION #

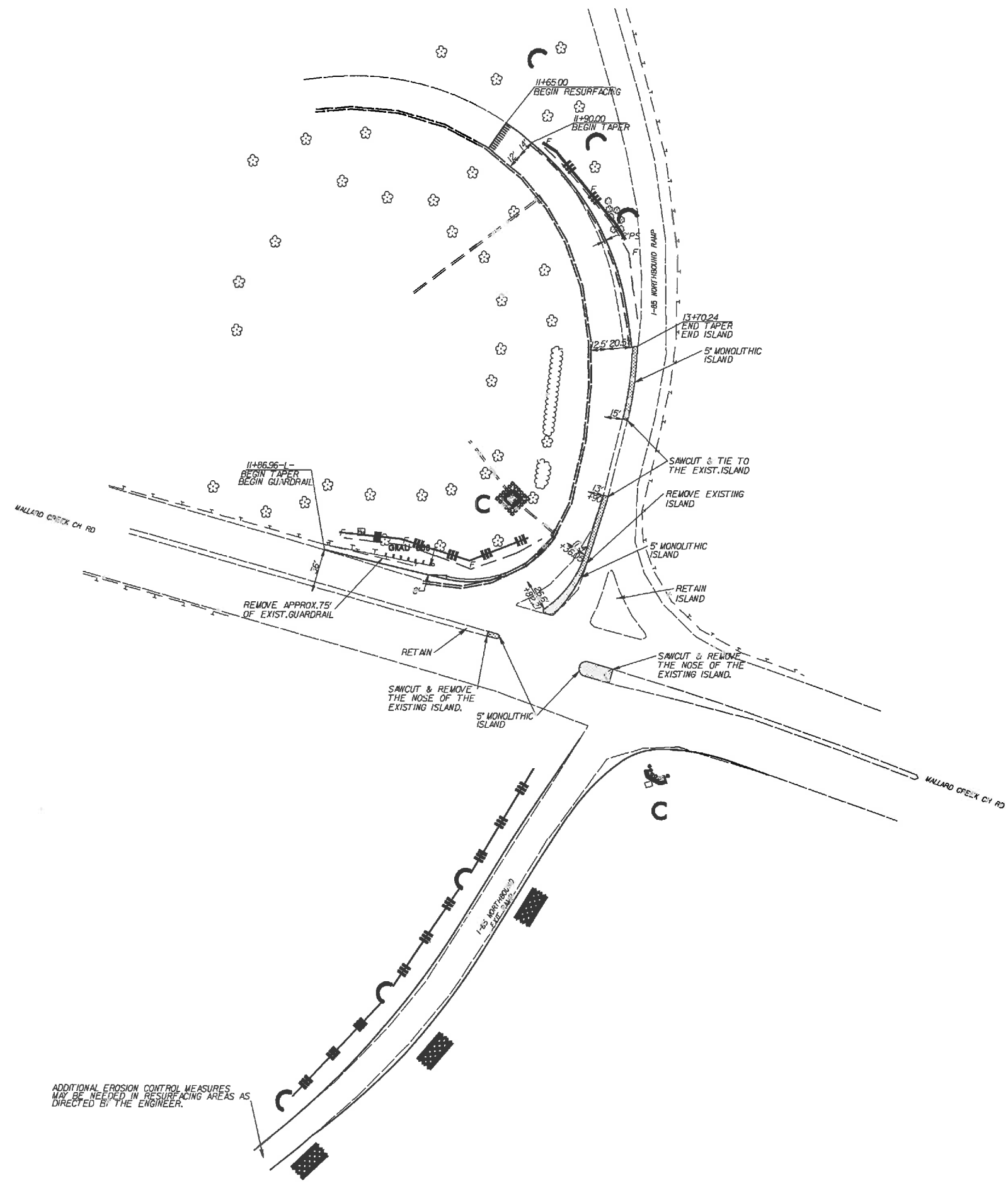
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Silt Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

D:\mjt\_2012\_0816\1685\erocson\mallard\_creek\_ma3\_esp.dgn

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	43310.3J	EC-2	
F.A. PROJECT NO.			HSIP-085373J



ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED IN RESURFACING AREAS AS DIRECTED BY THE ENGINEER.

I-85 NORTHBOUND RAMP @  
SR 2472 (MALLARD CREEK CHURCH RD)  
IN MECKLENBURG COUNTY

SCALE	1"=50'		REVISIONS
DATE	10/11		
DWG. BY	TWB		
DESIGN BY	TWB		
APPROVED	RWB		



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	43310.3J	PMP-1	
F.A. PROJECT NO. HSIP-085273			

PAVEMENT MARKING SCHEDULE

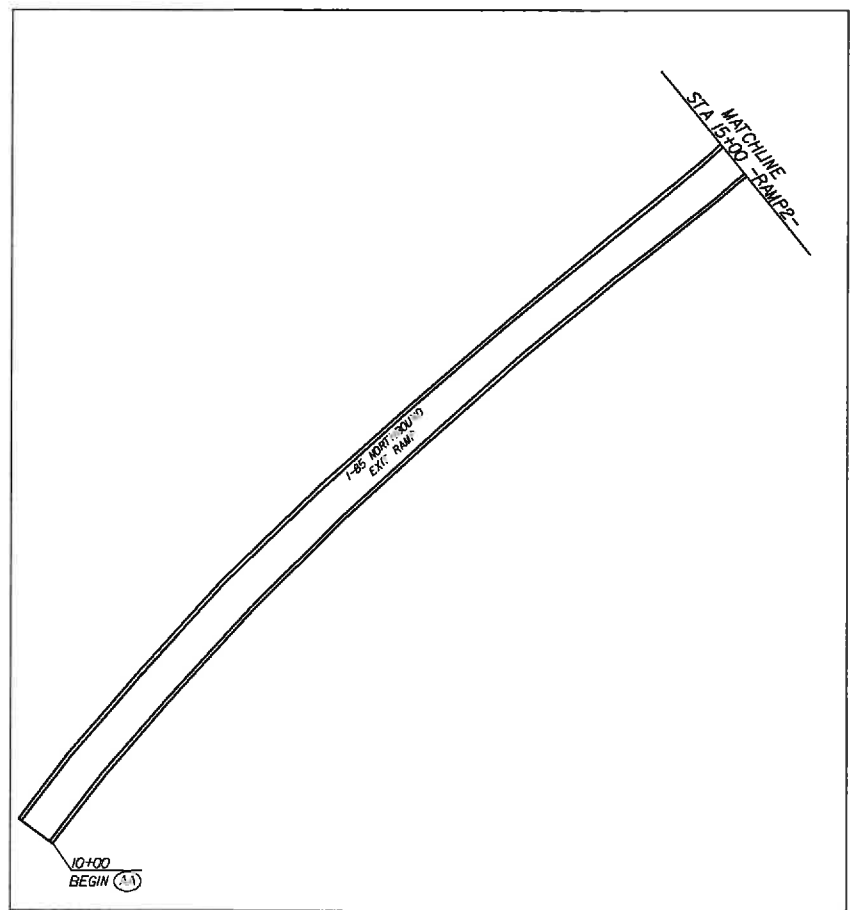
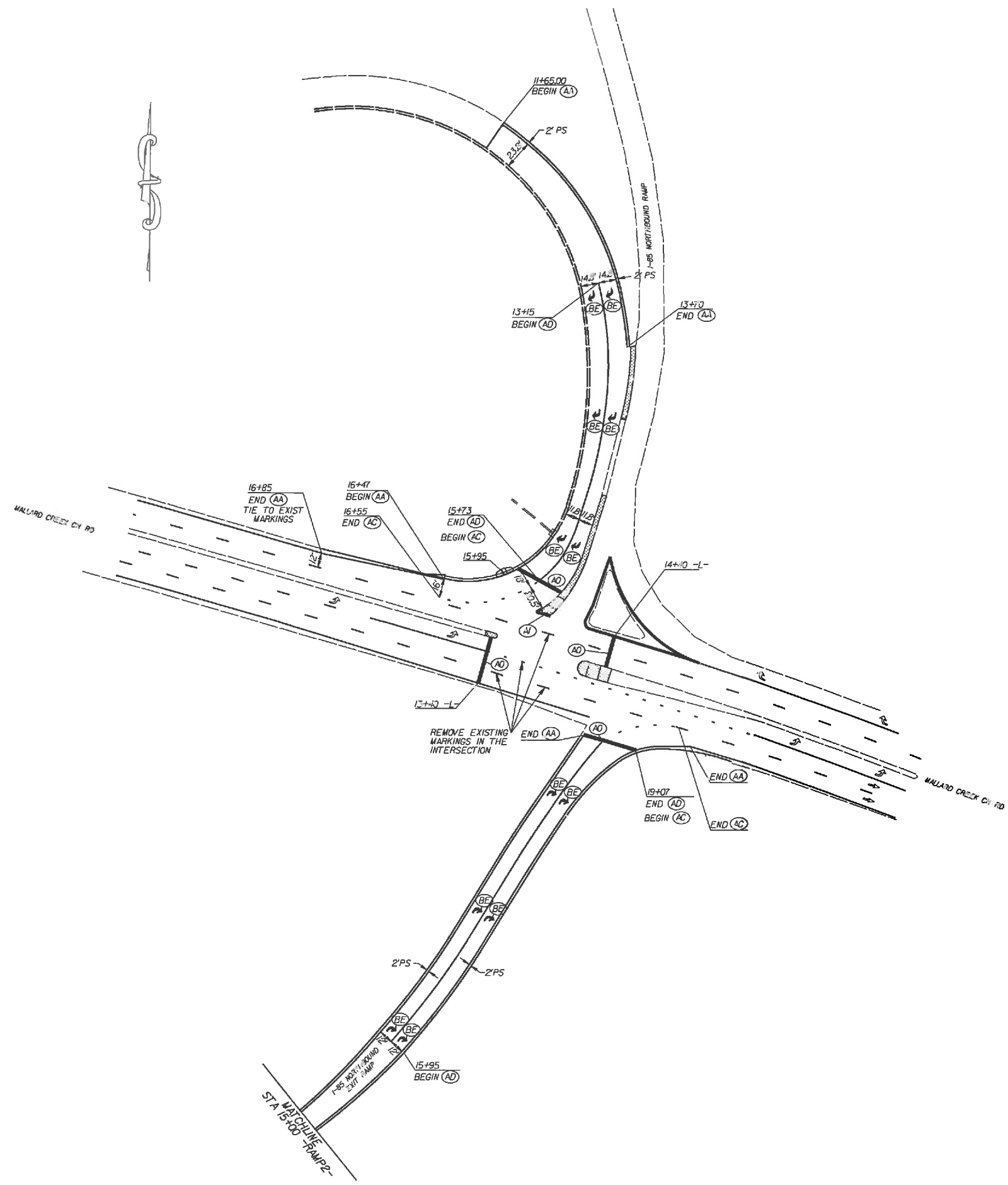
PAY ITEM	DESCRIPTION
----------	-------------

PAVEMENT MARKING LINES


AA - THERMOPLASTIC (4" WHITE, 90 MILS)	EDGE LINE
AB - THERMOPLASTIC (4" WHITE, 120 MILS)	4" X 10' SKIP
AC - THERMOPLASTIC (4" WHITE, 120 MILS)	4" X 2' MINISKIP
AD - THERMOPLASTIC (4" WHITE, 120 MILS)	SOLID LANE LINE
AH - THERMOPLASTIC (8" WHITE, 90 MILS)	EDGE LINE
AI - THERMOPLASTIC (8" WHITE, 90 MILS)	GORE LINE
AJ - THERMOPLASTIC (8" WHITE, 90 MILS)	DIAGONALS
AO - THERMOPLASTIC (24" WHITE, 120 MILS)	STOP BAR
AP - THERMOPLASTIC (24" WHITE, 120 MILS)	CROSSWALK LINE
AO - THERMOPLASTIC (4" YELLOW, 90 MILS)	EDGE LINE
AR - THERMOPLASTIC (4" YELLOW, 120 MILS)	4" X 10' SKIP
AT - THERMOPLASTIC (4" YELLOW, 120 MILS)	SINGLE CENTER
AJ - THERMOPLASTIC (4" YELLOW, 120 MILS)	DOUBLE CENTER LINE
AY - THERMOPLASTIC (8" YELLOW, 90 MILS)	DIAGONALS
AX - THERMOPLASTIC (8" YELLOW, 90 MILS)	EDGE LINE

PAVEMENT MARKING SYMBOLS

BB - THERMOPLASTIC ('SCHOOL', 120 MILS)
BD - THERMOPLASTIC (LEFT TURN ARROW, 90 MILS)
BE - THERMOPLASTIC (RIGHT TURN ARROW, 90 MILS)
BF - THERMOPLASTIC (STRAIGHT ARROW, 90 MILS)
BG - THERMOPLASTIC (YIELD LINE, WHITE 120 MILS 24" BASE)
BH - THERMOPLASTIC (COMBINATION STRAIGHT & RIGHT ARROW, 90 MILS)
BM - THERMOPLASTIC ('STOP', 120 MILS)
BT - THERMOPLASTIC (U-TURN ARROW, 90 MILS)



1-85 NORTHBOUND RAMP @  
SR 2472 (MALLARD CREEK CHURCH RD)  
IN MECKLENBURG COUNTY

SCALE	1"=50'		REVISIONS
DATE	10/11		
DWG. BY	TWB		
DESIGN BY	TWB		
APPROVED	RWB		