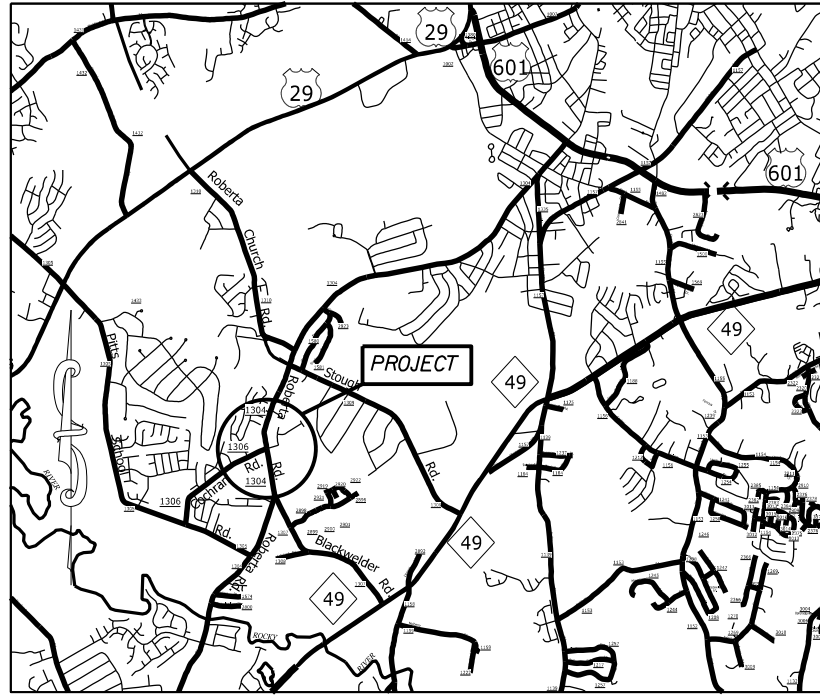


PROJECT: 48485.3.1 TIP: SS-4910DM



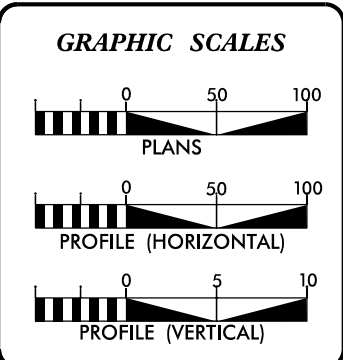
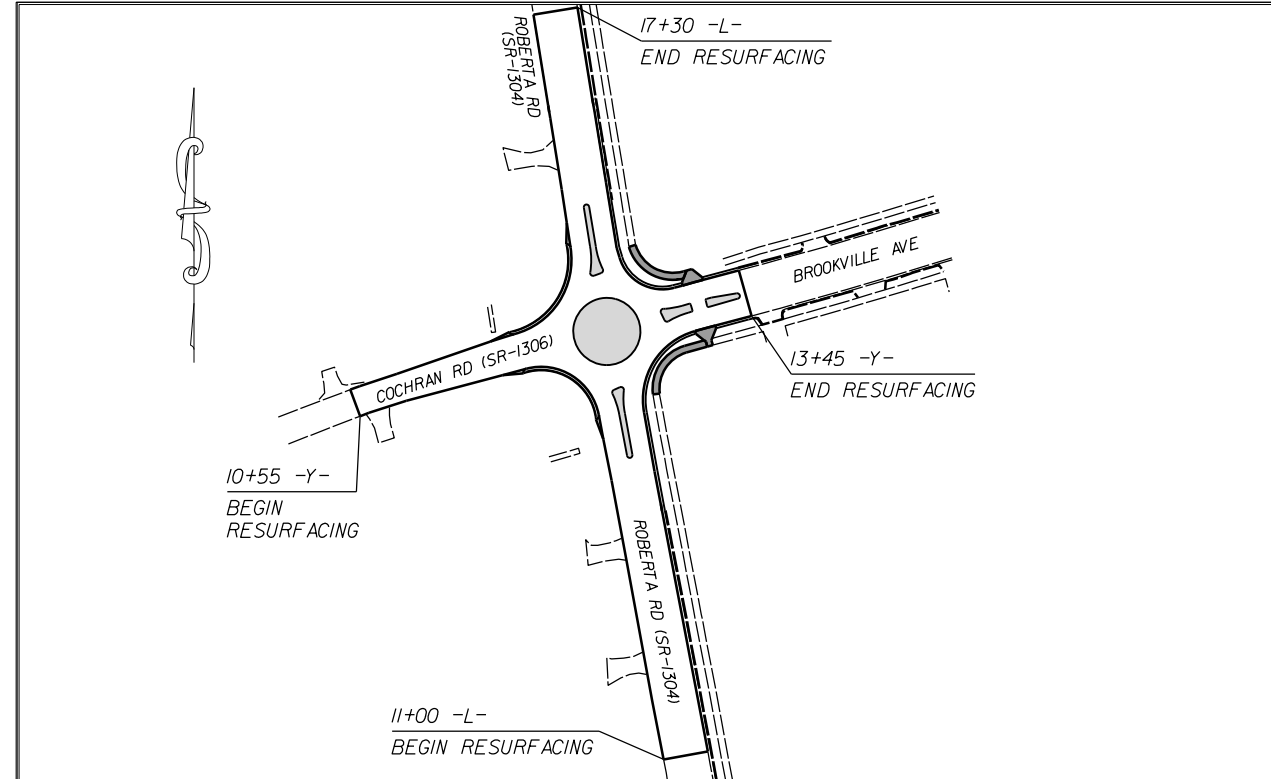
VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CABARRUS COUNTY

LOCATION: INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

TYPE OF WORK: GRADING, PAVING, MILLING, MONOLITHIC CONCRETE ISLANDS, CURB & GUTTER, SIDEWALK, AND THERMOPLASTIC PAVEMENT MARKINGS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	48485.3.1	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48485.1.1		P.E.	
48485.2.1		R/W	
48485.3.1		CONST.	



DESIGN DATA

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

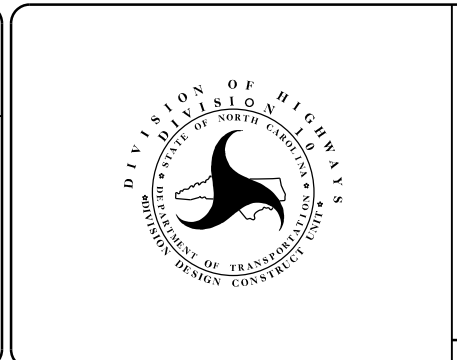
PROJECT LENGTH

LENGTH OF ROADWAY PROJECT SS-4910DM	=	0.17	MILES
TOTAL LENGTH OF STATE PROJECT SS-4910DM	=	0.17	MILES

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

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A	DONALD HARWARD PROJECT ENGINEER
LETTING DATE: JUNE 2022	JASON BROOKS PROJECT DESIGN ENGINEER



ROADWAY DESIGN ENGINEER

Designed by:
Jason Brooks
A92E75CC0FFB43B...

SIGNATURE

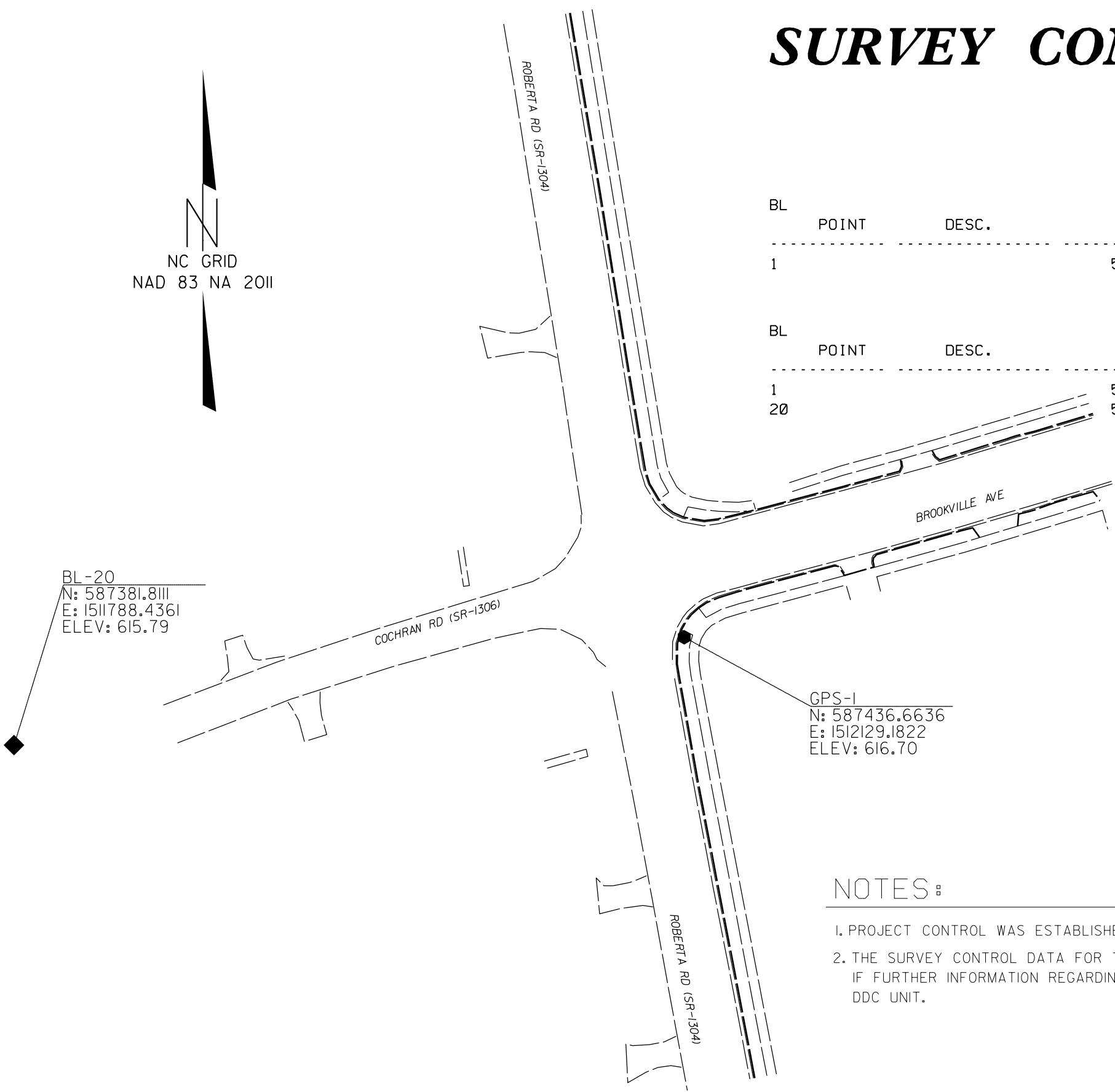
PROJECT NO.	SHEET NO.
48485.3.1	1A
F.A. PROJECT NO.	

SURVEY CONTROL SHEET



BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1			587436.6636	1512129.1822	616.70	13+76.92	24.32 RT

BL	POINT	DESC.	NORTH	EAST	ELEVATION	Y STATION	OFFSET
1			587436.6636	1512129.1822	616.70	12+63.53	33.77 RT
20			587381.8111	1511788.4361	615.79	OUTSIDE PROJECT LIMITS	



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS-1" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 587436.664(±) EASTING: 1512129.182(±) ELEVATION: 616.70(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987415

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS-1" TO -L- STATION 10+00 IS
S 6° 47' 07" E 377.70'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTES :

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED BY THE DIVISION IO DDC UNIT. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE DIVISION IO DDC UNIT.

MINI ROUNDABOUT AT THE INTERSECTION OF
ROBERTA RD.(SR-1304), COCHRAN RD.(SR-1306),
AND BROOKVILLE AVE.

SCALE	1"=30'		REVISIONS
DATE	8-2021		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JCB		

PROJECT NO.	SHEET NO.
48485.3.1	1B
F.A. PROJECT NO.	

PROPOSED ALIGNMENT SHEET

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	587061.6054	1512173.8066
POT	14+08.56	587463.3523	1512099.5161
POT	18+24.86	587874.1808	1512032.2169

L				
POINT	N	E	BEARING	DIST
POT	587061.605	1512173.807		
LINE			N 10°28'36.2" W	408.56
POT	587463.352	1512099.516		
LINE			N 09°18'11.5" W	416.30
POT	587874.181	1512032.217		

Y			
TYPE	STATION	NORTH	EAST
POT	10+00.00	587392.5836	1511868.1243
PC	10+49.34	587409.8289	1511914.3536
PT	12+42.27	587463.3523	1512099.5161
POT	14+94.74	587532.2097	1512342.4141

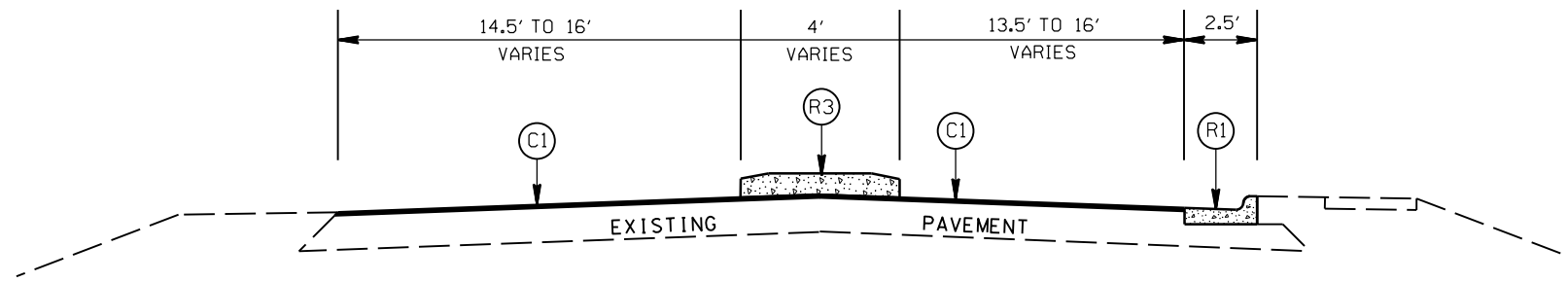
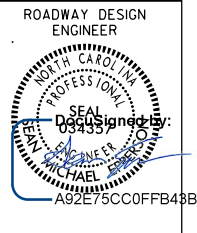
Y									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	587392.584	1511868.124							
LINE			N 69°32'33.3" E	49.34					
PC	587409.829	1511914.354							
CURVE			N 73°52'38.8" E	192.74	08°40'11.0"(RT)	04°29'37.6"	192.93	96.65	1275.00
PT	587463.352	1512099.516							
LINE			N 74°10'22.4" E	252.47					
POT	587532.210	1512342.414							

NOTES:

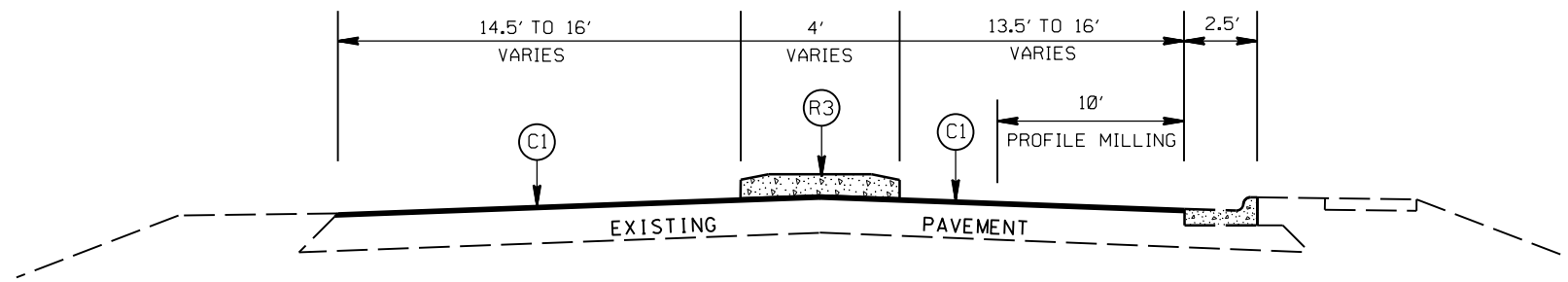
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED BY THE DIVISION IO DDC UNIT.
IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE DIVISION IO DDC UNIT.

MINI ROUNDABOUT AT THE INTERSECTION OF
ROBERTA RD.(SR-1304), COCHRAN RD.(SR-1306),
AND BROOKVILLE AVE.

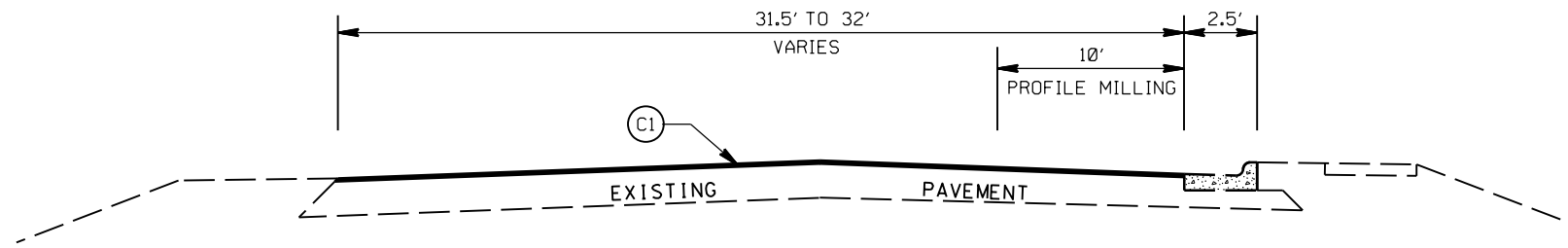
SCALE	N/A		REVISIONS
DATE	8-2021		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		



TYPICAL SECTION NO. 3
STA. 13+20.00 TO 13+33.25 -L-



TYPICAL SECTION NO. 2
STA. 13+16.58 TO 13+20.00 -L-



TYPICAL SECTION NO. 1
STA. 11+25.00 TO 13+16.58 -L-
STA. 14+95.00 TO 17+30.00 -L-

PAVEMENT SCHEDULE

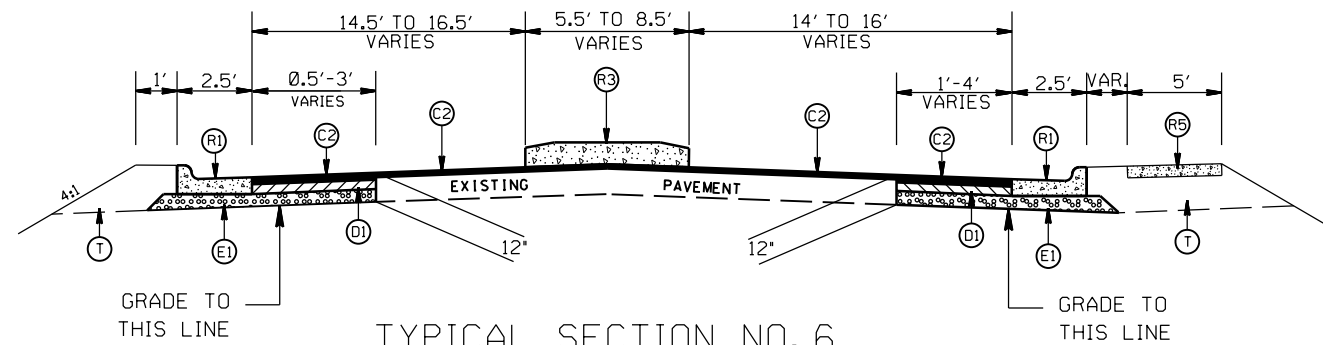
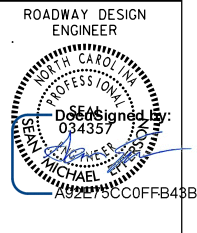
(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
(D1)	PROP. APPROX. 4" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, 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.
(R1)	PROP. 2'-6" CONC. CURB & GUTTER
(R2)	PROP. 1'-6" CONC. CURB & GUTTER, CLASS AA CONCRETE
(R3)	PROP. 5" MONOLITHIC CONC. ISLAND (SURFACE MOUNTED)
(R4)	PROP. 8" MONOLITHIC CONC. ISLAND (KEYED IN), CLASS AA CONCRETE
(R5)	PROP. 4" CONC. SIDEWALK
(T)	EARTH MATERIAL

MINI ROUNDABOUT AT THE INTERSECTION OF
ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306),
AND BROOKVILLE AVE.

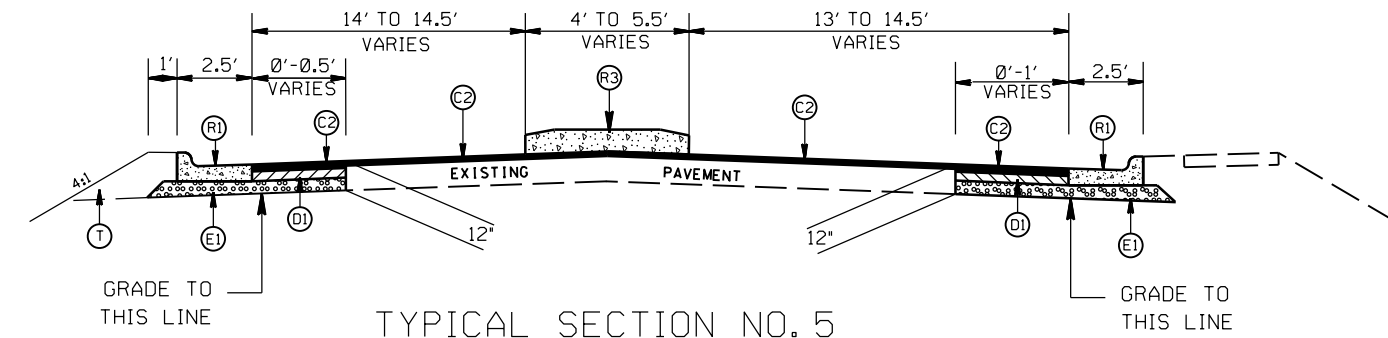
SCALE	N/A
DATE	1-2022
DWG. BY	JCB
DESIGN BY	JCB
APPROVED	JDH



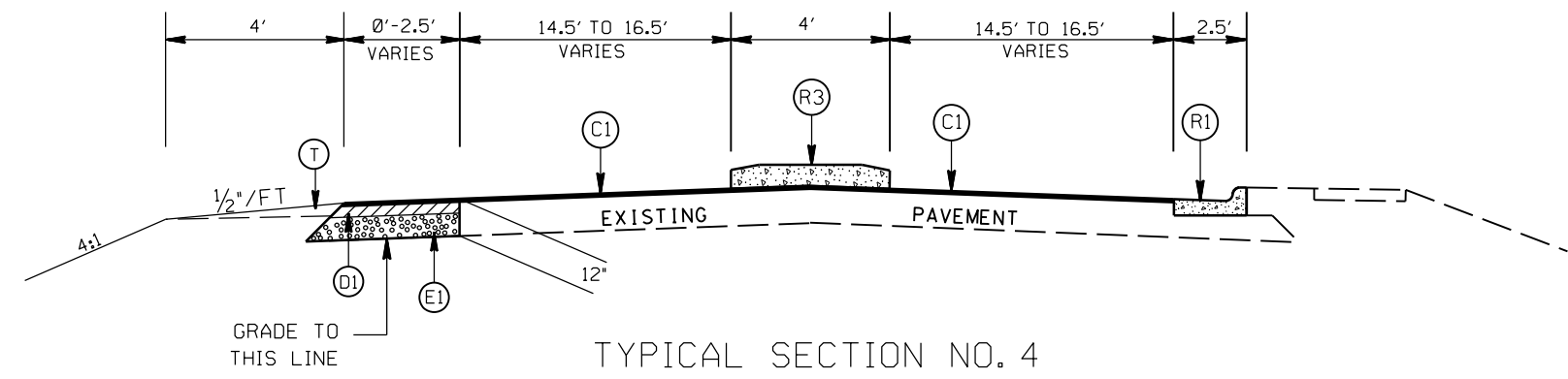
REVISIONS	



TYPICAL SECTION NO. 6
 STA. 13+57.94 TO 13+68.56 -L-



TYPICAL SECTION NO. 5
 STA. 13+46.55 TO 13+57.94 -L-



TYPICAL SECTION NO. 4
 STA. 13+33.25 TO 13+46.55 -L-

PAVEMENT SCHEDULE

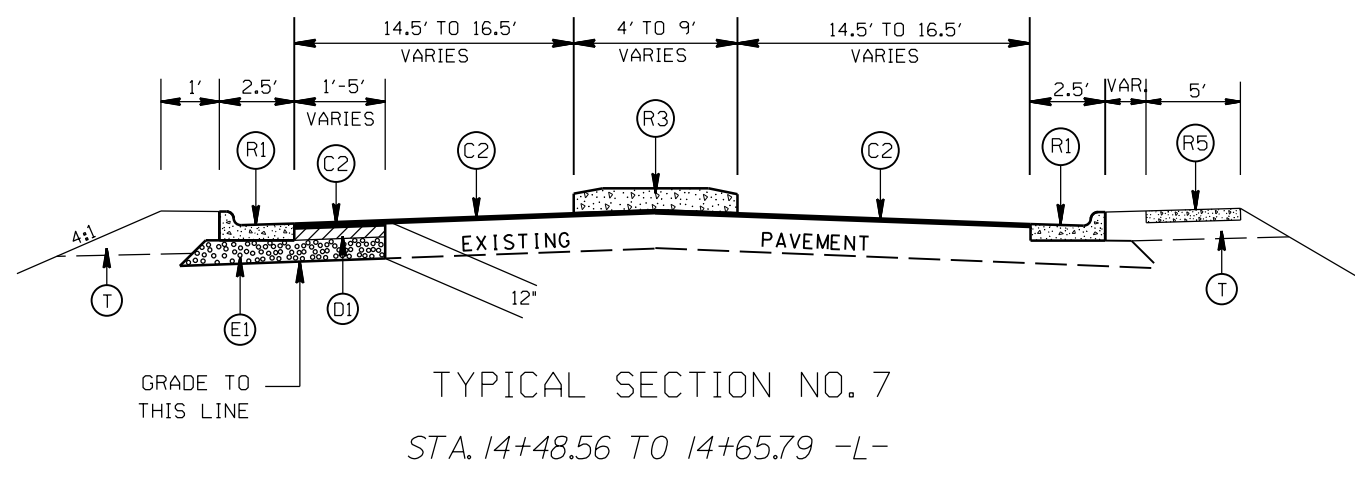
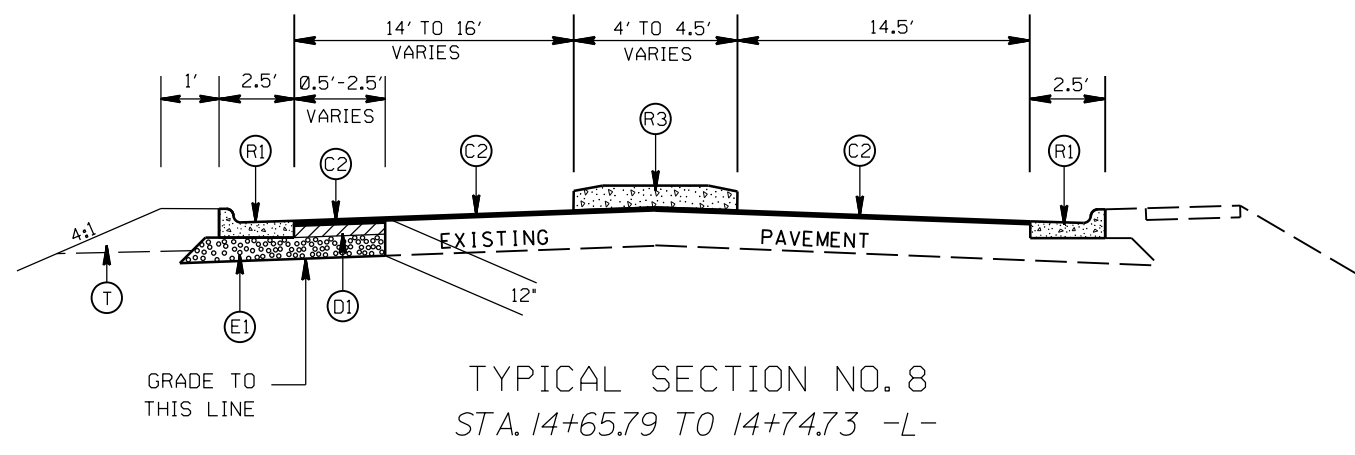
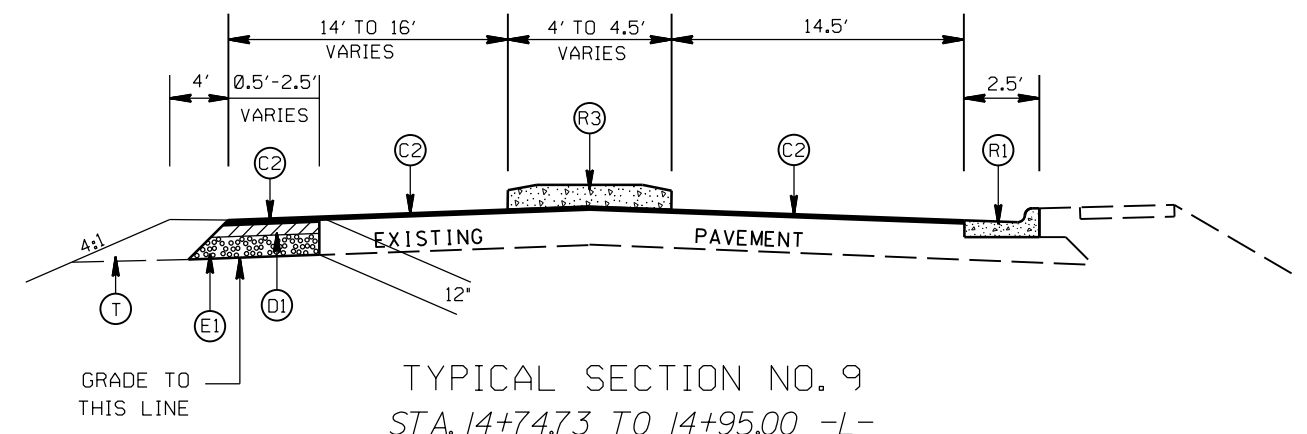
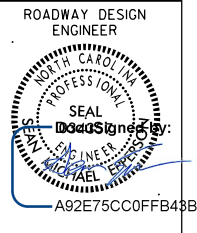
(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
(D1)	PROP. APPROX. 4" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, 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.
(R1)	PROP. 2'-6" CONC. CURB & GUTTER
(R2)	PROP. 1'-6" CONC. CURB & GUTTER, CLASS AA CONCRETE
(R3)	PROP. 5" MONOLITHIC CONC. ISLAND (SURFACE MOUNTED)
(R4)	PROP. 8" MONOLITHIC CONC. ISLAND (KEYED IN), CLASS AA CONCRETE
(R5)	PROP. 4" CONC. SIDEWALK
(T)	EARTH MATERIAL

MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

SCALE	N/A
DATE	1-2022
DWG. BY	JCB
DESIGN BY	JCB
APPROVED	JDH



REVISIONS	

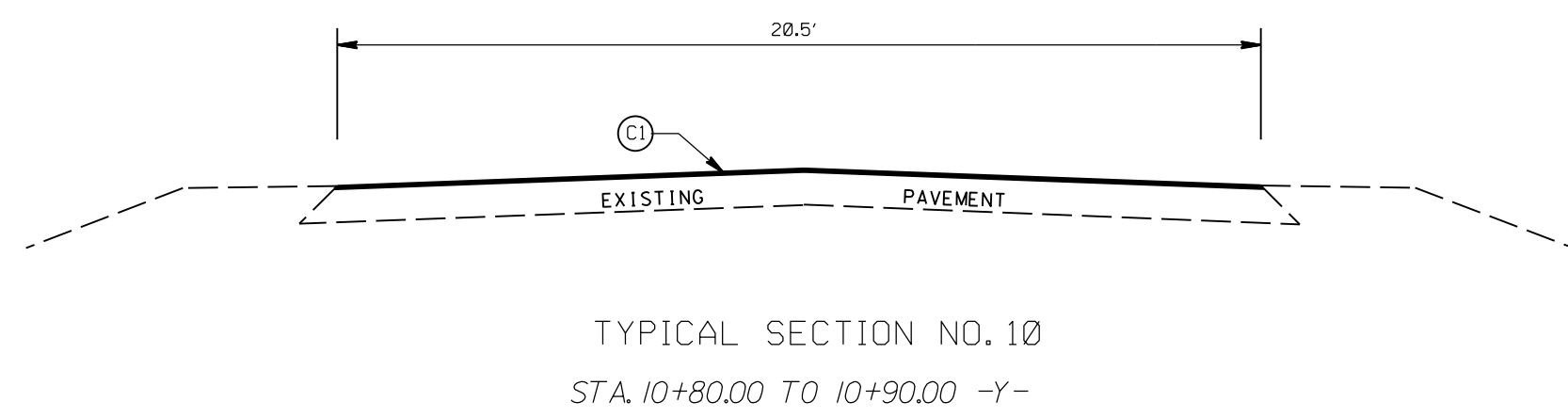
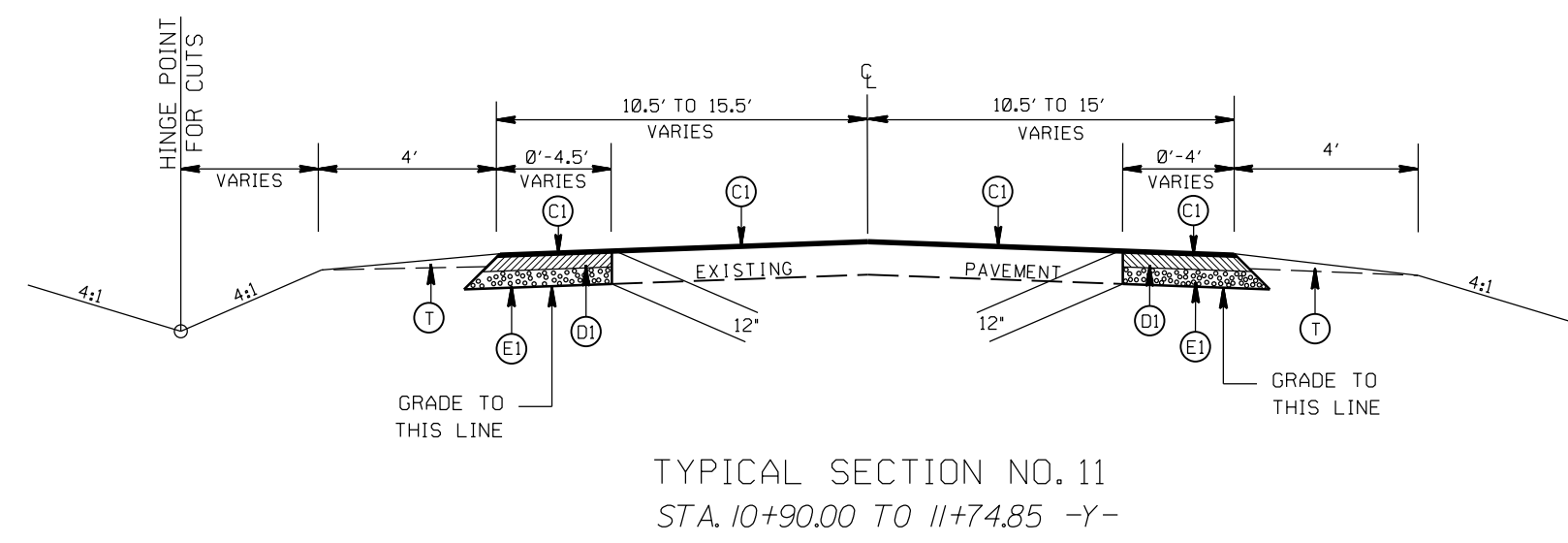
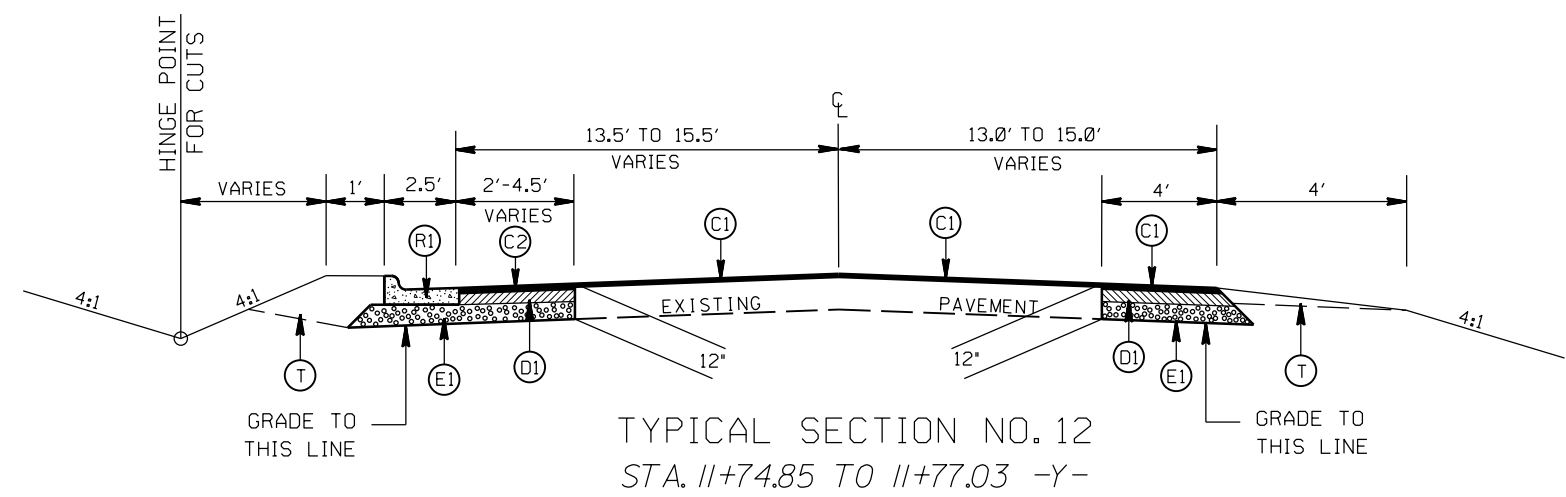
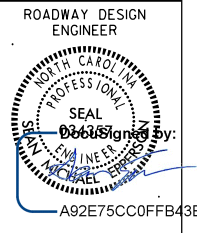


PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
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(R4)	PROP. 8" MONOLITHIC CONC. ISLAND (KEYED IN), CLASS AA CONCRETE
(R5)	PROP. 4" CONC. SIDEWALK
(T)	EARTH MATERIAL

MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

SCALE	N/A		REVISIONS
DATE	1-2022		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		



PAVEMENT SCHEDULE

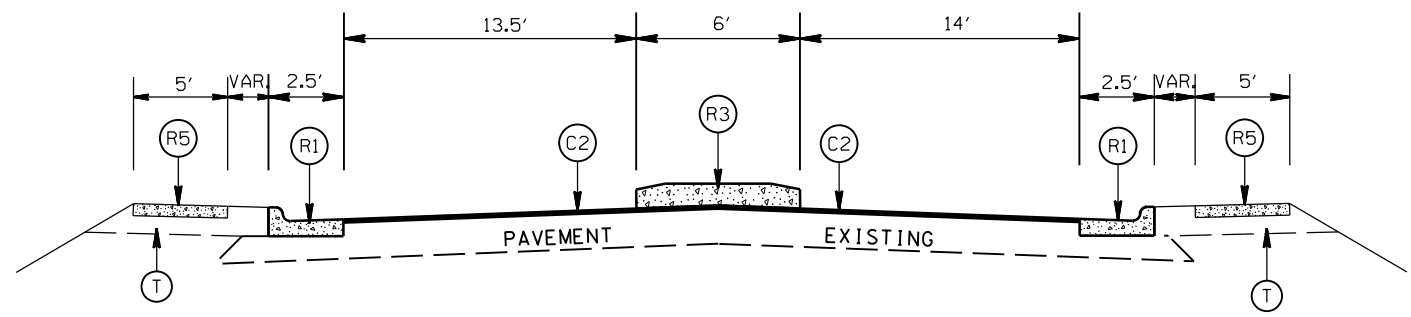
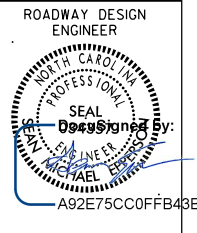
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MINI ROUNDABOUT AT THE INTERSECTION OF
ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306),
AND BROOKVILLE AVE.

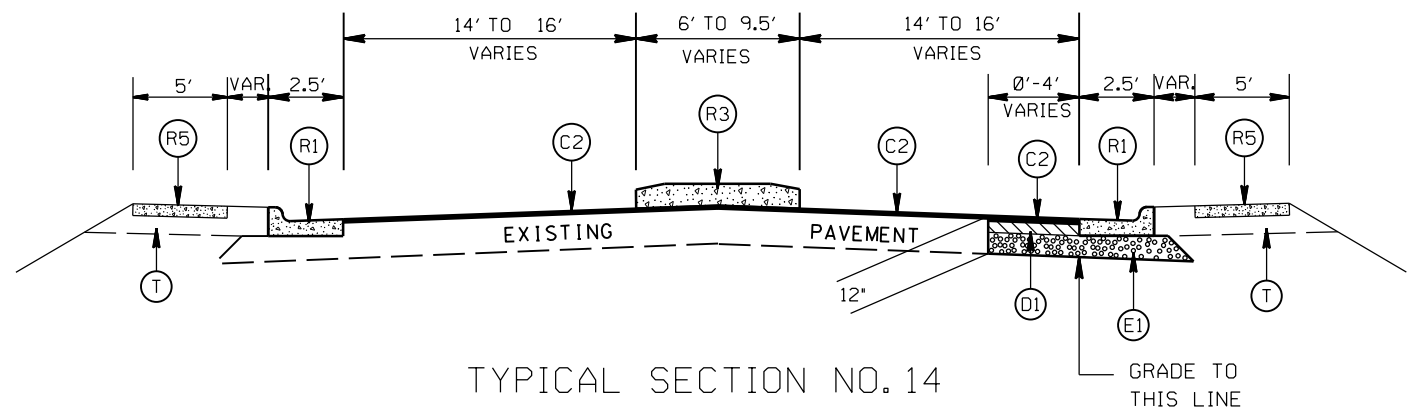
SCALE	N/A
DATE	1-2022
DWG. BY	JCB
DESIGN BY	JCB
APPROVED	JDH



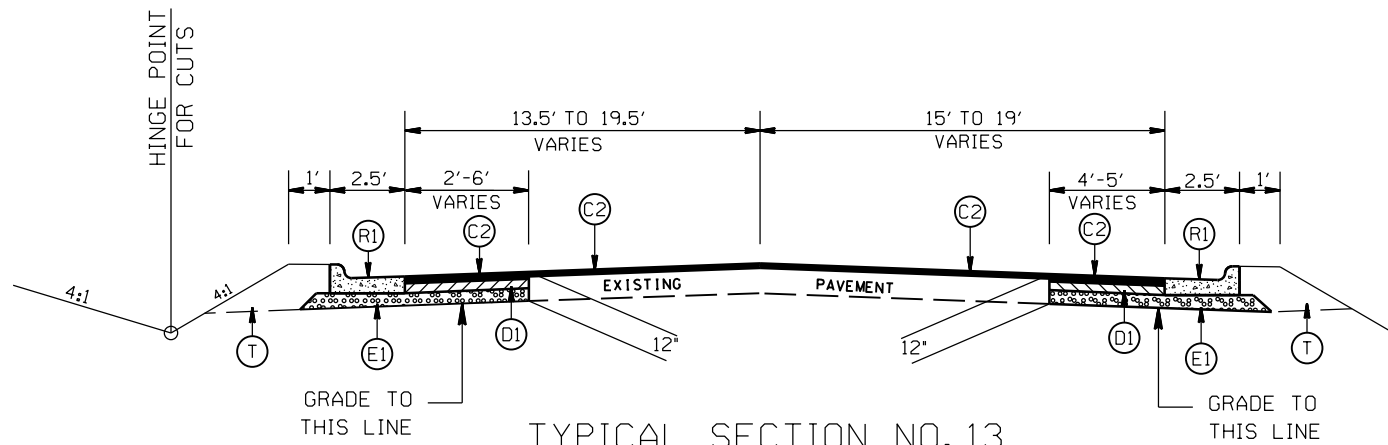
REVISIONS	



TYPICAL SECTION NO. 15
STA. 13+02.81 TO 13+18.17 -Y-



TYPICAL SECTION NO. 14
STA. 12+82.27 TO 13+02.81 -Y-



TYPICAL SECTION NO. 13
STA. 11+77.03 TO 12+02.27 -Y-

PAVEMENT SCHEDULE

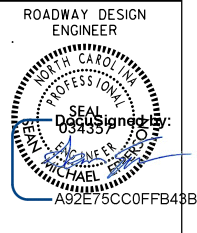
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(T)	EARTH MATERIAL

MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

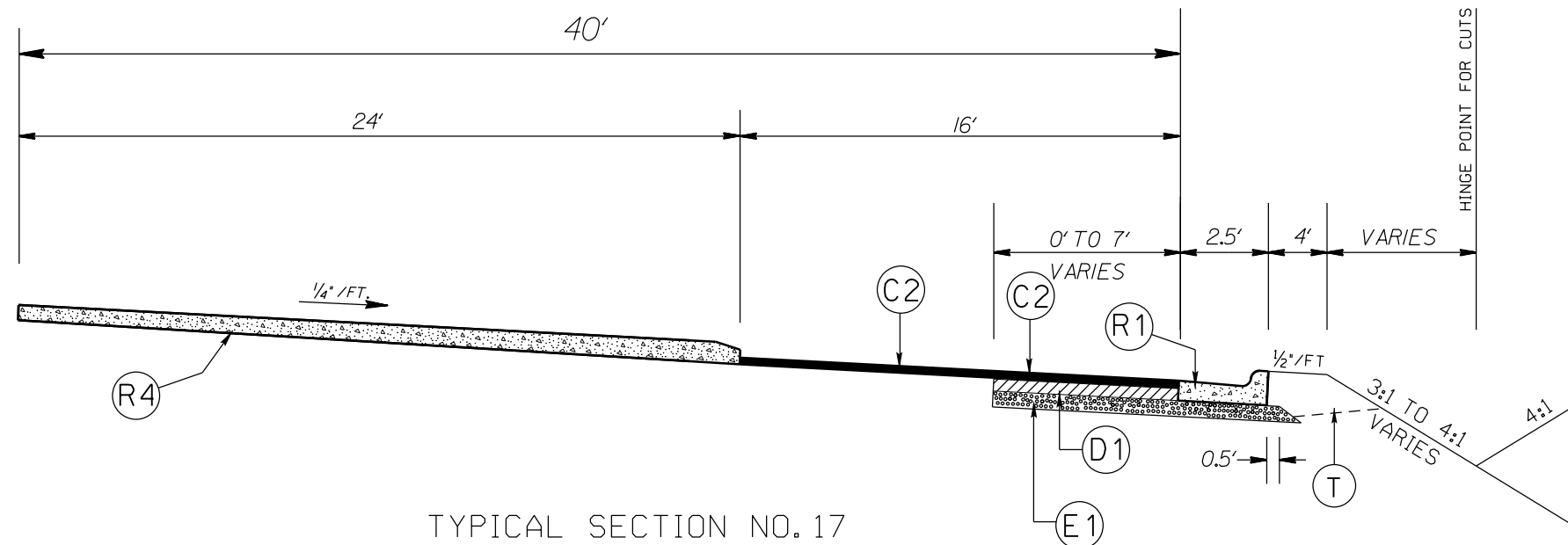
SCALE	N/A
DATE	1-2022
DWG. BY	JCB
DESIGN BY	JCB
APPROVED	JDH



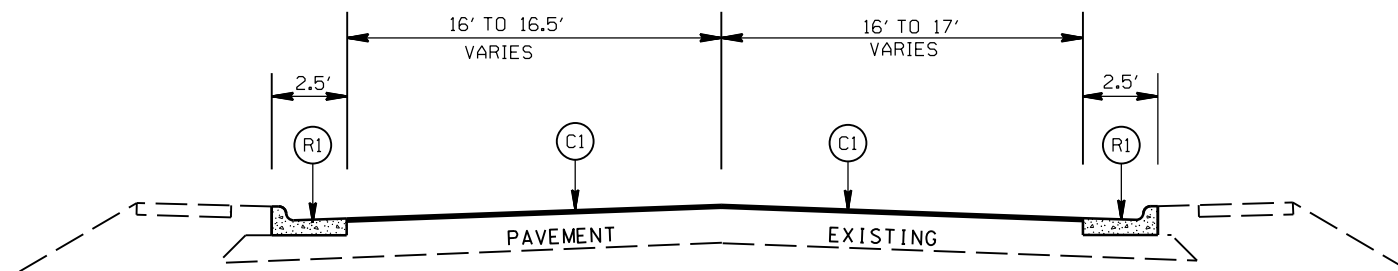
REVISIONS	



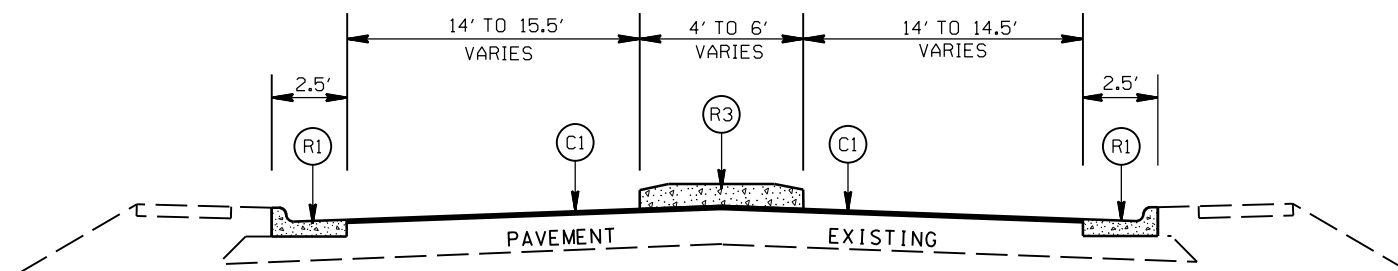
*UTILIZE WELDED WIRE MESH (EITHER 4X4 W3.5XW3.5 OR 6X6 W5XW5)
IN PROP. 8" MONOLITHIC CONC. ISLAND (R4)



TYPICAL SECTION NO. 17
ROUNDABOUT



TYPICAL SECTION NO. 17
STA. 13+40.80 TO 13+45.00 -Y-



TYPICAL SECTION NO. 16
STA. 13+18.17 TO 13+40.80 -Y-

PAVEMENT SCHEDULE

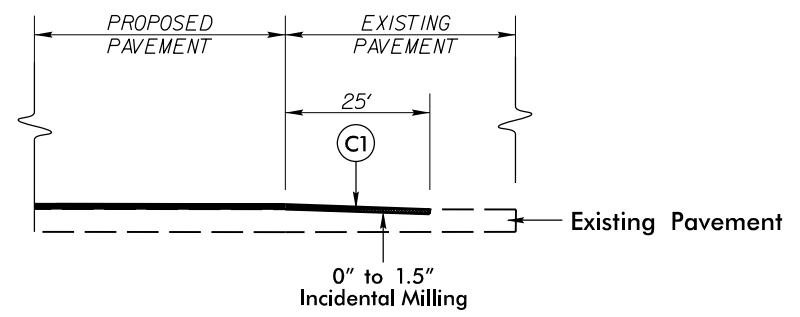
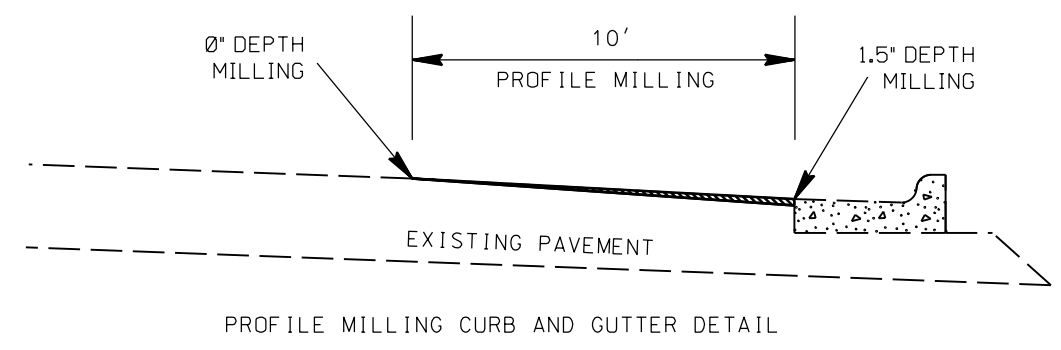
(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
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(R4)	PROP. 8" MONOLITHIC CONC. ISLAND (KEYED IN), CLASS AA CONCRETE
(R5)	PROP. 4" CONC. SIDEWALK
(T)	EARTH MATERIAL

MINI ROUNDABOUT AT THE INTERSECTION OF
ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306),
AND BROOKVILLE AVE.

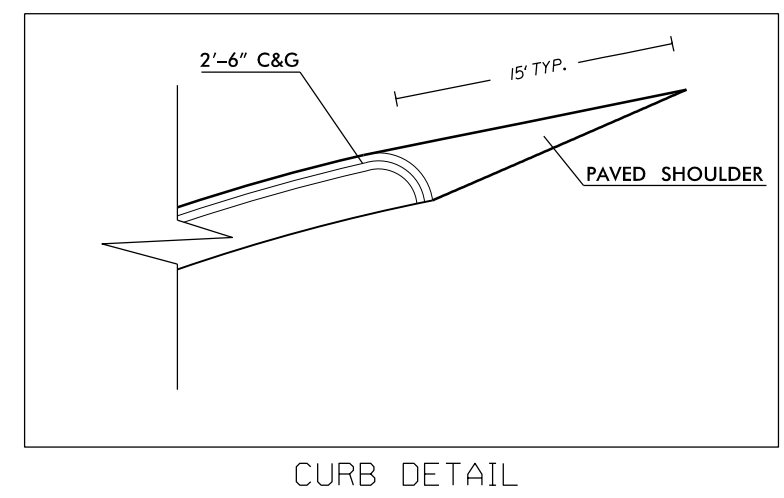
SCALE	N/A
DATE	1-2022
DWG. BY	JCB
DESIGN BY	JCB
APPROVED	JDH



REVISIONS	

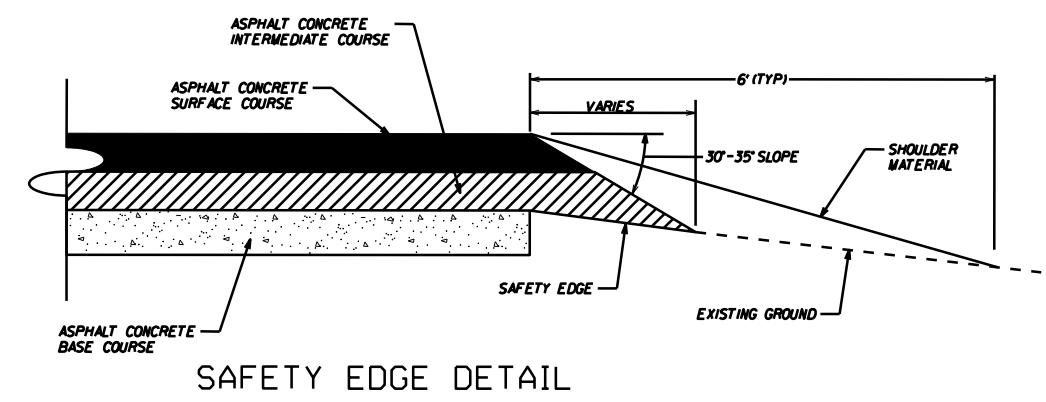


**INCIDENTAL MILLING DETAIL
EXISTING ROAD TIE-IN
PROJECT TIE-INS**




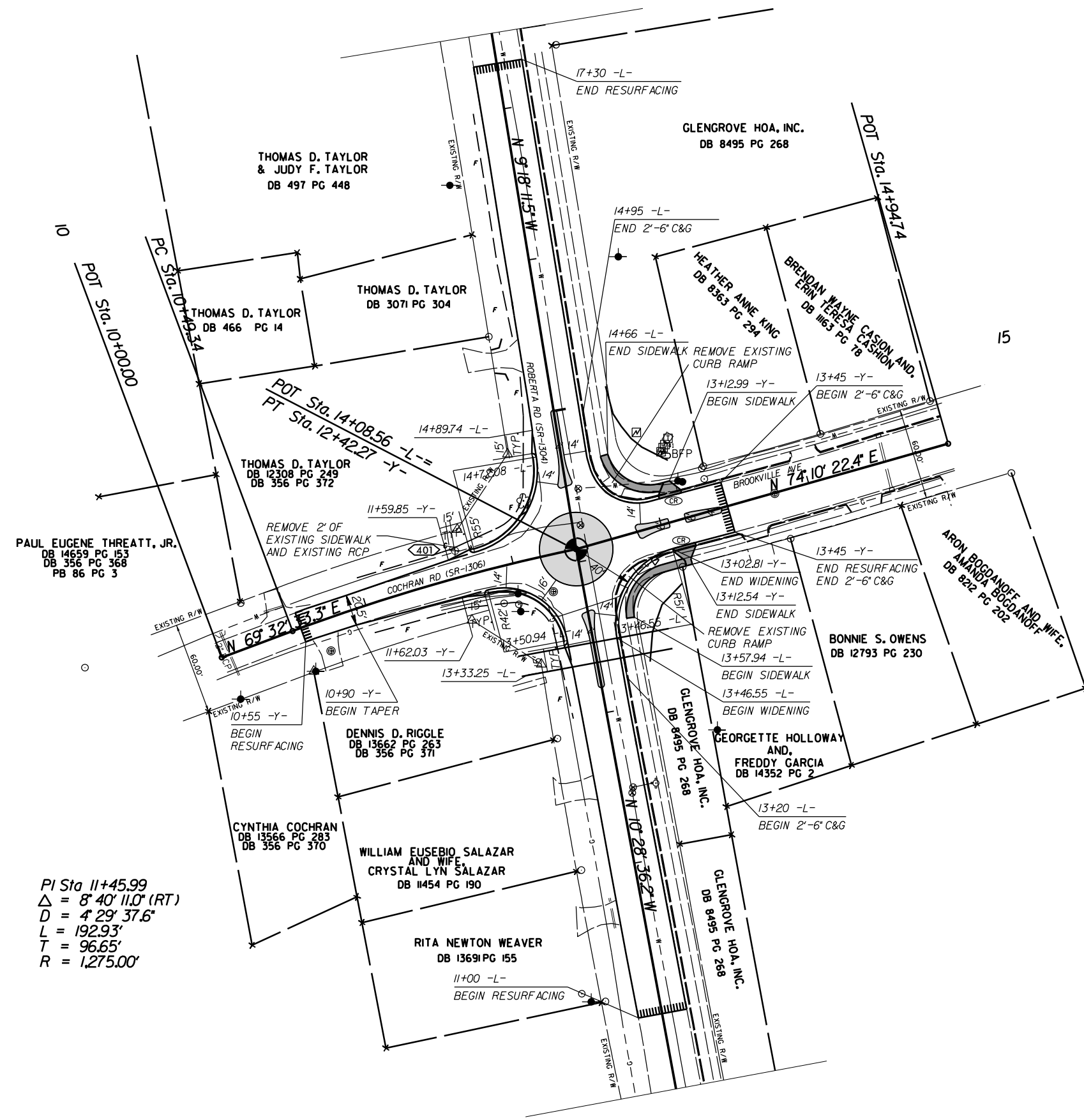
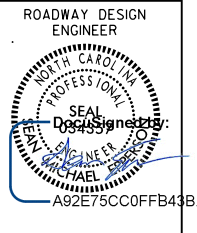
PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
(D1)	PROP. APPROX. 4" ASPHALT CONC. INTERMEDIATE 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.
(R1)	PROP. 2'-6" CONC. CURB & GUTTER
(R2)	PROP. 1'-6" CONC. CURB & GUTTER, CLASS AA CONCRETE
(R3)	PROP. 5" MONOLITHIC CONC. ISLAND (SURFACE MOUNTED)
(R4)	PROP. 8" MONOLITHIC CONC. ISLAND (KEYED IN), CLASS AA CONCRETE
(R5)	PROP. 4" CONC. SIDEWALK
(T)	EARTH MATERIAL



MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

SCALE	N/A		REVISIONS
DATE	1-2022		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		



PI Sta 11+45.99
 $\Delta = 8' 40'' 11.0'' (RT)$
 $D = 4' 29'' 37.6''$
 $L = 192.93'$
 $T = 96.65'$
 $R = 1,275.00'$

NOTE: INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING ASPHALT PAVEMENT.

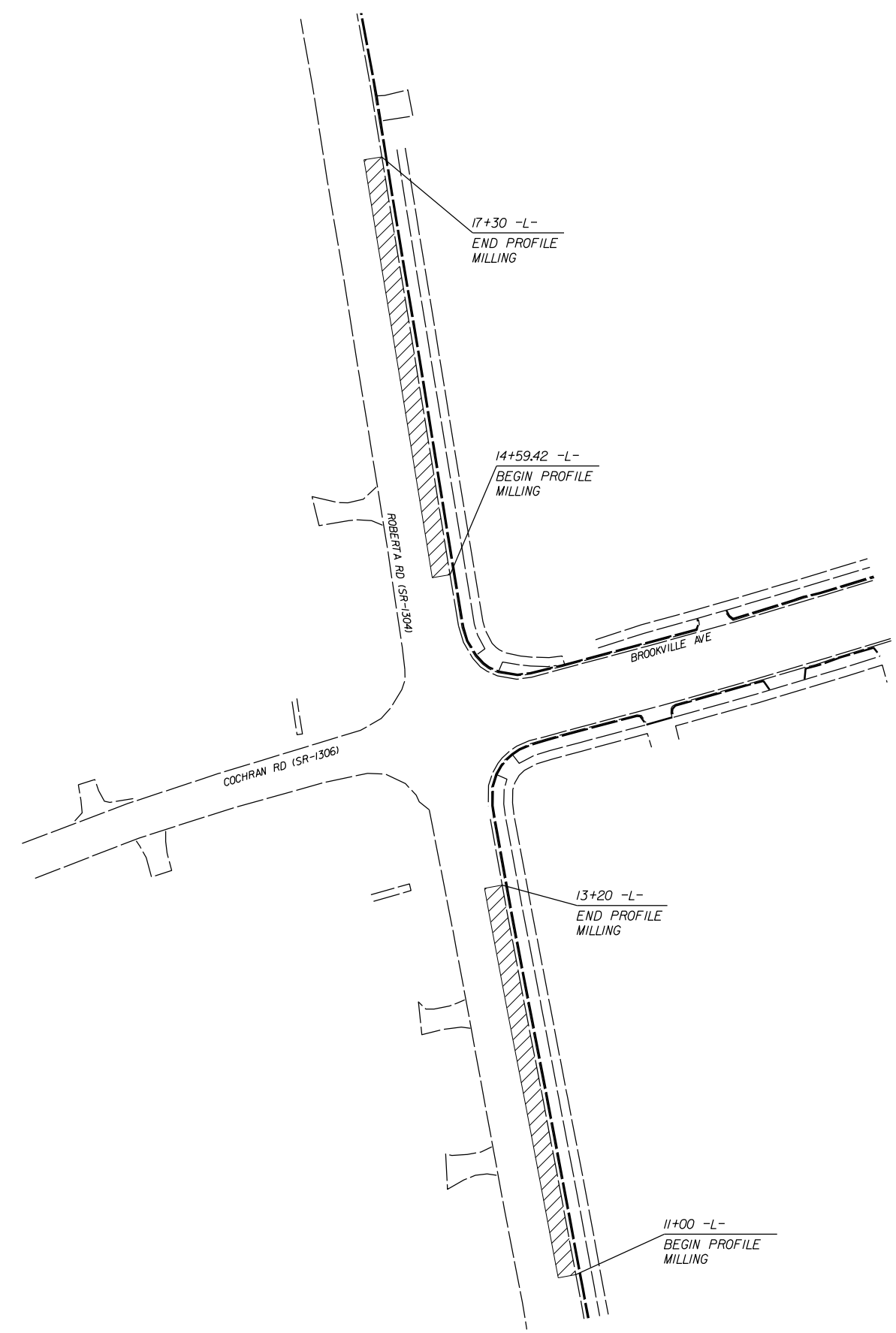
MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

SCALE	1"=40'		REVISIONS
DATE	5-2022		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		

PROJECT NO.	SHEET NO.
48485.3.1	4A
F.A. PROJECT NO.	


ROADWAY DESIGN
ENGINEER

SEAL
MICHAEL J. D.
A92E75CC0FFB43B

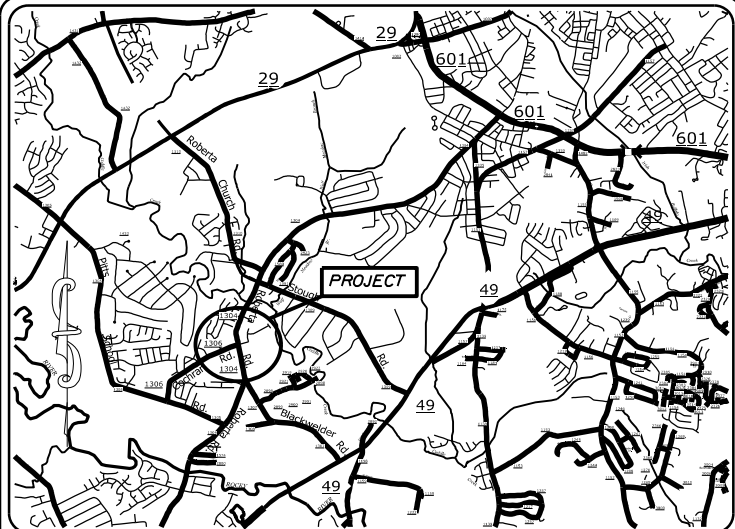


 PROFILE MILLING AREA
SEE DETAIL SHEET 2F

MINI ROUNDABOUT AT THE INTERSECTION OF
ROBERTA RD.(SR-1304), COCHRAN RD.(SR-1306),
AND BROOKVILLE AVE.

SCALE	1"=40'		REVISIONS
DATE	4-2022		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		

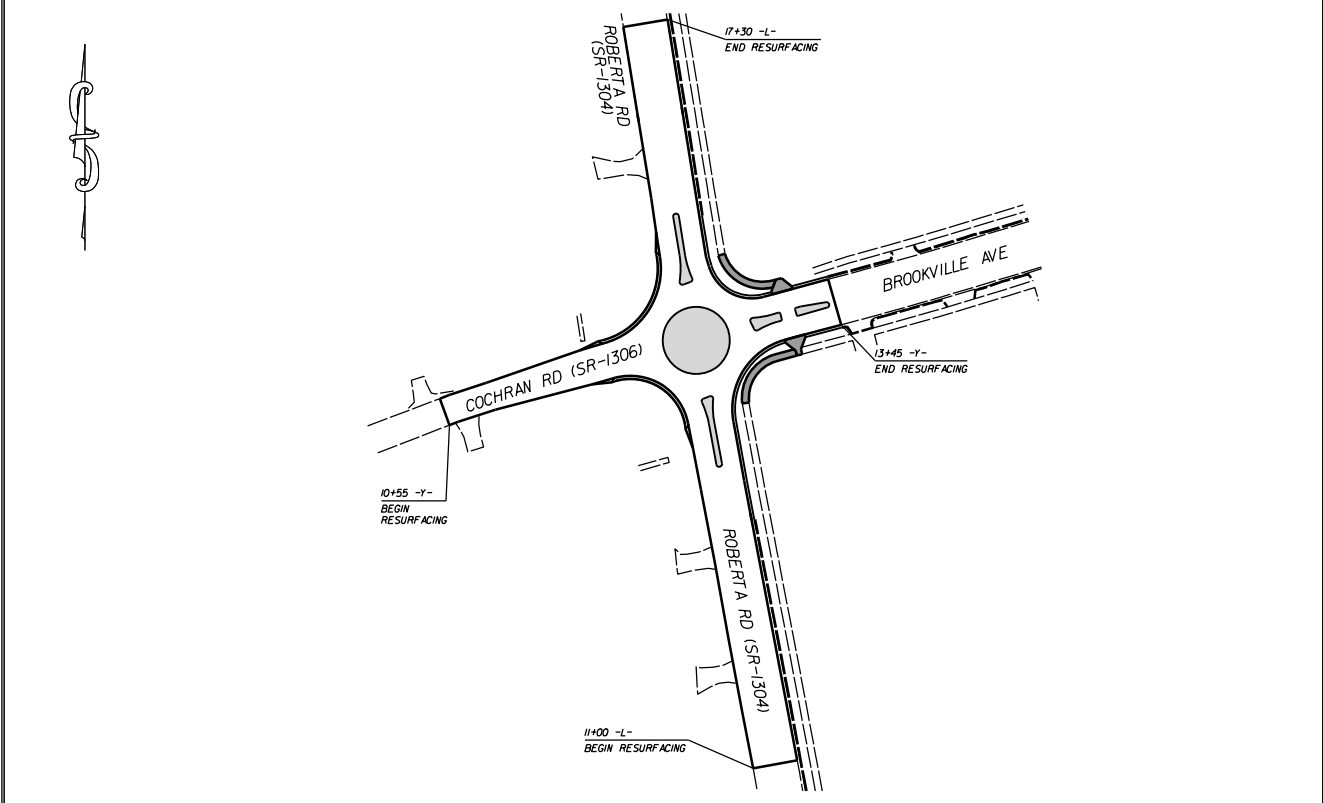
TIP PROJECT: SS-4910DM



VICINITY MAP
NOT TO SCALE

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

LOCATION: INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.



INSTALL PERIMETER EROSION CONTROL MEASURES DURING INITIAL CLEARING PHASE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SS-4910DM	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48485.1.1		P.E.	
48485.2.1		R/W	
48485.3.1		CONST.	

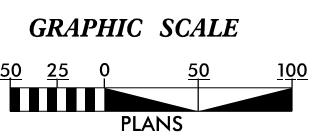
EROSION AND SEDIMENT CONTROL MEASURES

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

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT

High Quality Water Zone(s) Exist From Sta. Begin Project to Sta. End Project

Refer To E. C. Special Provisions for Special Considerations.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared In the Office of:
DDC UNIT DIVISION 10
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Designed by:
JASON BROOKS 4369
NAME LEVEL III CERTIFICATION NO.

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 2018 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 J
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 J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
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 J
1630.05 Temporary Diversion	1640.01 Coir Fiber Jaffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

04-MAY-2023 08:42 20M.Roberta.Cochran.Erosion.SS-4910DM.Roberta.Cochran.ce2.ec.tsh.dgn

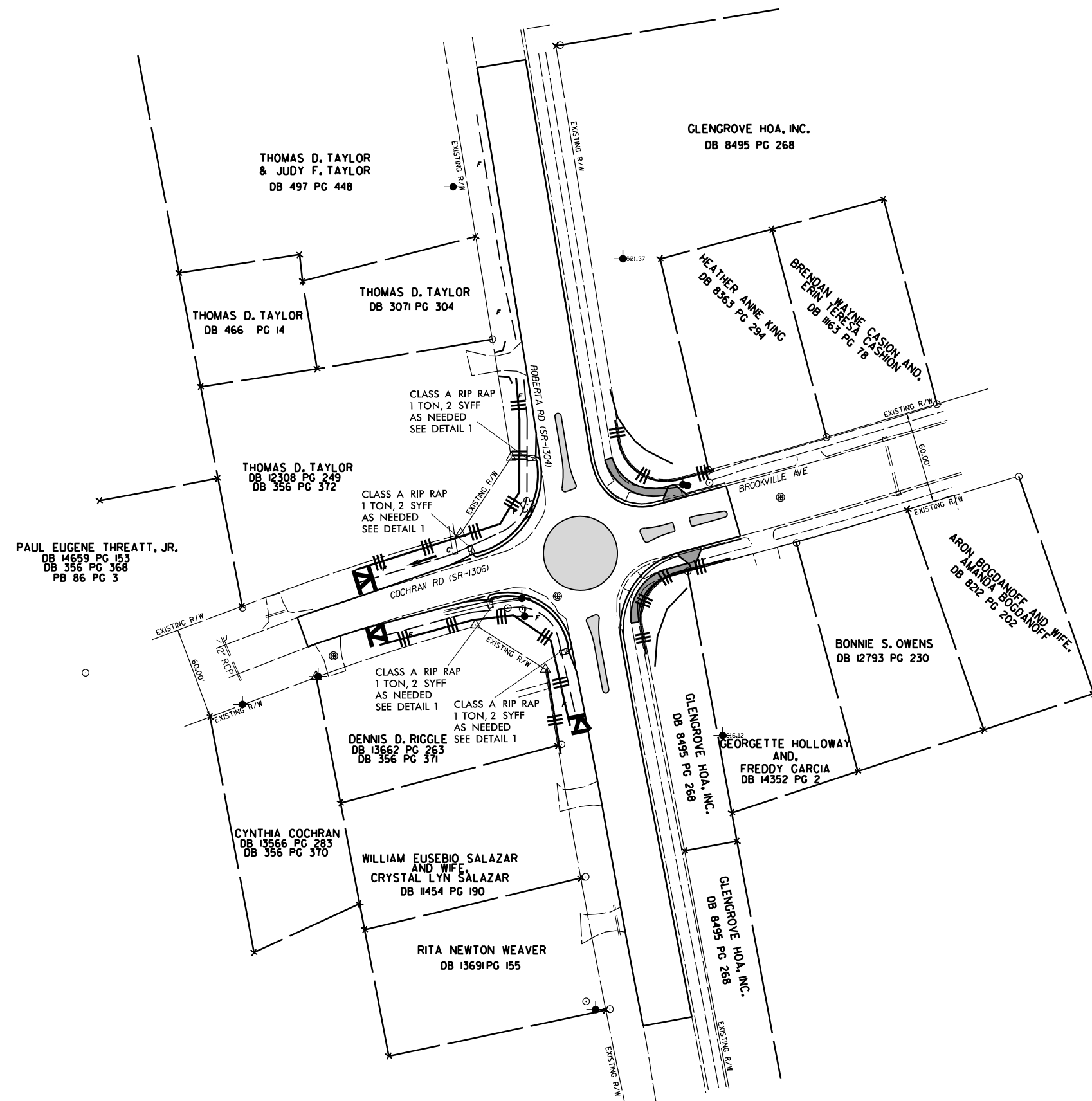
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. 48485.3.1	SHEET NO. EC-2
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

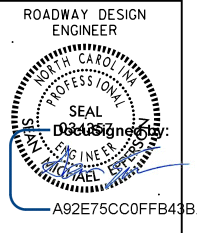
PROJECT NO.	SHEET NO.
48485.3.1	EC-3
F.A. PROJECT NO.	



EROSION CONTROL MEASURES MAY BE CHANGED, IN FIELD AS DIRECTED BY THE ENGINEER.

MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD.(SR-1304), COCHRAN RD.(SR-1306), AND BROOKVILLE AVE.

SCALE	1"=40'		REVISIONS
DATE	4-2022		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		



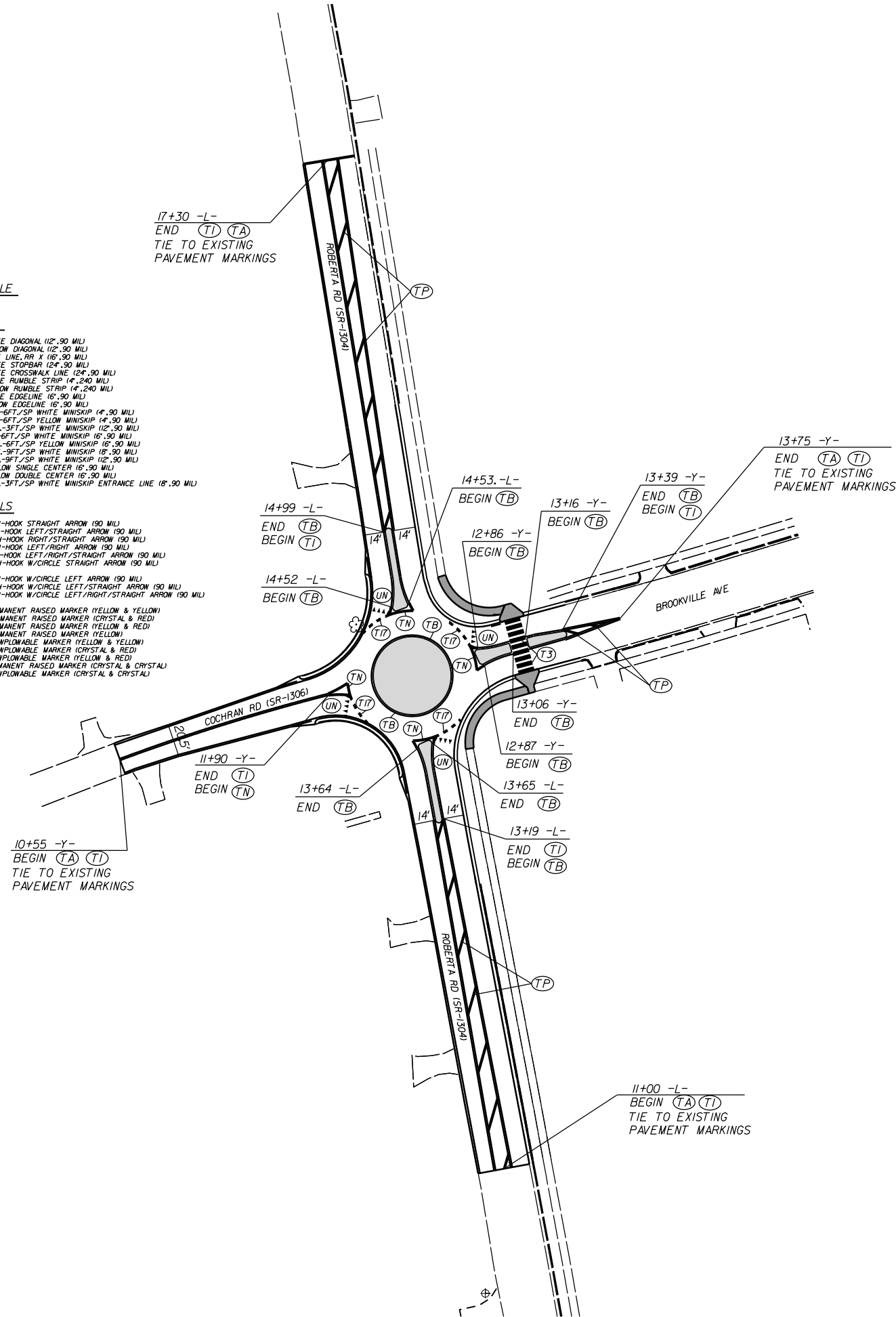
PAVEMENT MARKING SCHEDULE

PAVEMENT MARKING LINES

- | | |
|---|--|
| TA - WHITE EDGELINE (4'.90 MIL) | TU - WHITE DIAGONAL (12'.90 MIL) |
| TB - YELLOW EDGELINE (4'.90 MIL) | TV - YELLOW DIAGONAL (12'.90 MIL) |
| TC - 10FT. WHITE SKIP (4'.90 MIL) | TW - WHITE LINE, RR X (16'.90 MIL) |
| TD - 3FT.-3FT./SP WHITE MINISKIP (4'.90 MIL) | T2 - WHITE STOPBAR (24'.90 MIL) |
| TE - WHITE SOLID LANE LINE (4'.90 MIL) | T3 - WHITE CROSSWALK LINE (24'.90 MIL) |
| TF - 10FT. YELLOW SKIP (4'.90 MIL) | T4 - WHITE RUMBLE STRIP (4'.240 MIL) |
| TH - YELLOW SINGLE CENTER (14'.90 MIL) | T5 - YELLOW RUMBLE STRIP (4'.240 MIL) |
| TI - YELLOW DOUBLE CENTER (14'.90 MIL) | T6 - WHITE EDGELINE (16'.90 MIL) |
| TJ - 10FT. WHITE SKIP (16'.90 MIL) | T7 - YELLOW EDGELINE (16'.90 MIL) |
| TK - 3FT.-3FT./SP WHITE MINISKIP (16'.90 MIL) | T8 - 2FT.-6FT./SP WHITE MINISKIP (4'.90 MIL) |
| TL - WHITE SOLID LANE LINE (16'.90 MIL) | T9 - 2FT.-6FT./SP YELLOW MINISKIP (4'.90 MIL) |
| TM - 10FT. YELLOW SKIP (16'.90 MIL) | T10 - 3FT.-3FT./SP WHITE MINISKIP (12'.90 MIL) |
| TN - WHITE GORELINE (18'.90 MIL) | T11 - 2FT.-6FT./SP WHITE MINISKIP (16'.90 MIL) |
| TO - WHITE DIAGONAL (18'.90 MIL) | T12 - 2FT.-6FT./SP YELLOW MINISKIP (16'.90 MIL) |
| TP - YELLOW DIAGONAL (18'.90 MIL) | T13 - 3FT.-3FT./SP WHITE MINISKIP (18'.90 MIL) |
| TQ - WHITE CROSSWALK LINE (18'.90 MIL) | T14 - 3FT.-3FT./SP WHITE MINISKIP (12'.90 MIL) |
| TR - WHITE SOLID LANE LINE (18'.90 MIL) | T15 - YELLOW SINGLE CENTER (16'.90 MIL) |
| TS - WHITE GORELINE (12'.90 MIL) | T16 - YELLOW DOUBLE CENTER (16'.90 MIL) |
| TT - WHITE SOLID LANE LINE (12'.90 MIL) | T17 - 3FT.-3FT./SP WHITE MINISKIP ENTRANCE LINE (18'.90 MIL) |

PAVEMENT MARKING SYMBOLS

- | | |
|--|--|
| UA - LEFT TURN ARROW (90 MIL) | UU - FISH-HOOK STRAIGHT ARROW (90 MIL) |
| UB - RIGHT TURN ARROW (90 MIL) | UV - FISH-HOOK LEFT/STRAIGHT ARROW (90 MIL) |
| UC - STRAIGHT ARROW (90 MIL) | UN - FISH-HOOK RIGHT/STRAIGHT ARROW (90 MIL) |
| UD - COMBO. LEFT/STRAIGHT ARROW (90 MIL) | UX - FISH-HOOK LEFT/RIGHT ARROW (90 MIL) |
| UE - COMBO. RIGHT/STRAIGHT ARROW (90 MIL) | UY - FISH-HOOK LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UF - COMBO. LEFT/RIGHT ARROW (90 MIL) | UZ - FISH-HOOK W/CIRCLE STRAIGHT ARROW (90 MIL) |
| UG - COMBO. LEFT/RIGHT/STRAIGHT ARROW (90 MIL) | |
| UH - HANDICAP PARKING (90 MIL) | WA - FISH-HOOK W/CIRCLE LEFT ARROW (90 MIL) |
| UI - ALPHANUMERIC CHAR. (90 MIL) | WB - FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL) |
| UJ - BICYCLE SYMBOL (90 MIL) | WC - FISH-HOOK W/CIRCLE LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UK - BICYCLE STRAIGHT ARROW (90 MIL) | |
| UL - BICYCLE CHAR. (90 MIL) | MA - PERMANENT RAISED MARKER (YELLOW & YELLOW) |
| UM - 12" YIELD LINE TRIANGLE (90 MIL) | MB - PERMANENT RAISED MARKER (CRYSTAL & RED) |
| UN - 8" YIELD LINE TRIANGLE (90 MIL) | MC - PERMANENT RAISED MARKER (YELLOW & RED) |
| UP - BICYCLE LEFT ARROW (90 MIL) | MD - PERMANENT RAISED MARKER (YELLOW) |
| UQ - MERGE ARROW (90 MIL) | ME - SNOWPLOWABLE MARKER (YELLOW & YELLOW) |
| UR - RAMP ARROW SYMBOL (90 MIL) | MF - SNOWPLOWABLE MARKER (CRYSTAL & RED) |
| US - SHARROW (90 MIL) | MG - SNOWPLOWABLE MARKER (YELLOW & RED) |
| UT - BICYCLE LOOP DETECTOR (90 MIL) | ML - PERMANENT RAISED MARKER (CRYSTAL & CRYSTAL) |
| UU - U-TURN ARROW (90 MIL) | MO - SNOWPLOWABLE MARKER (CRYSTAL & CRYSTAL) |



MINI ROUNDABOUT AT THE INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306), AND BROOKVILLE AVE.

SCALE	1"=40'		REVISIONS
DATE	4-2022		
DWG. BY	JCB		
DESIGN BY	JCB		
APPROVED	JDH		

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
CABARRUS COUNTY**

**LOCATION: INTERSECTION OF ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306),
AND BROOKVILLE AVE.**

PROJECT REFERENCE NO. SS-4910DM	SHEET NO. SIGN-01
APPROVED: 447DB418C88461	
DATE: 01/11/2022	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

CONTRACT: 48485.3.1 T.I.P.: SS-4910DM

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
910.40	SINGLE/TWO LANE ROUNDABOUT WITH PEDESTRIAN

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	225	L.F.
4102000000	904	SIGN ERECTION, TYPE E	16	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	2	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET E SIGNS
SIGN-2	SIGN DESIGNS
SIGN-3	SIGNING PLAN SHEET

TYPE "E" SIGNS

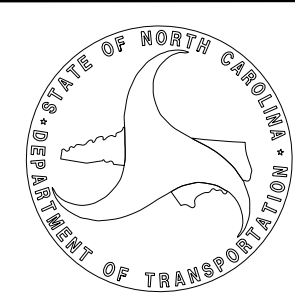
<p>401 QUANTITY REQ'D <u>4</u></p> <p style="font-size: 8px;">36 X 36 W2-6</p> <p style="font-size: 8px;">MOUNT ABOVE SIGN 406 IN 1 INSTALLATIONS</p> <p style="font-size: 8px;">MOUNT ABOVE SIGN 407 IN 1 INSTALLATIONS</p> <p style="font-size: 8px;">ONE "U" POST PER SIGN</p>	<p>402 QUANTITY REQ'D <u>2</u></p> <p style="font-size: 8px;">30 X 30 W3-2</p> <p style="font-size: 8px;">ONE "U" POST PER SIGN</p>	<p>403 QUANTITY REQ'D <u>4</u></p> <p style="font-size: 8px;">36 X 36 X 36 R1-2</p> <p style="font-size: 8px;">ONE "U" POST PER SIGN</p>	<p>404 QUANTITY REQ'D <u>2</u></p> <p style="font-size: 8px;">36 X 36 W11-2</p> <p style="font-size: 8px;">YELLOW/GREEN REFLECTIVE SHEETING</p> <p style="font-size: 8px;">ONE "U" POST PER SIGN</p>
<p>405 QUANTITY REQ'D <u>2</u></p> <p style="font-size: 8px;">24 X 12 W16-7</p> <p style="font-size: 8px;">YELLOW/GREEN REFLECTIVE SHEETING</p> <p style="font-size: 8px;">MOUNT BELOW SIGN 404 IN 2 INSTALLATIONS</p>	<p>406 QUANTITY REQ'D <u>1</u></p> <p style="font-size: 8px;">48 X 15 W16-8a</p> <p style="font-size: 8px;">TWO "U" POSTS PER SIGN</p>	<p>407 QUANTITY REQ'D <u>1</u></p> <p style="font-size: 8px;">48 X 15 W16-8a</p> <p style="font-size: 8px;">TWO "U" POSTS PER SIGN</p>	

GENERAL NOTES

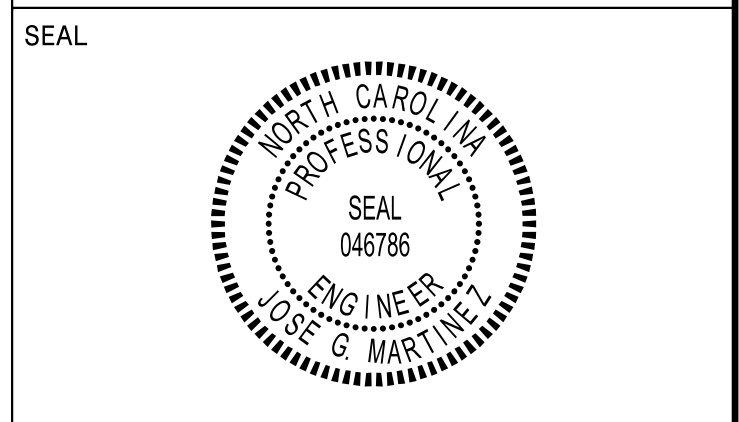
- . SIGNS FURNISHED BY STATE
- . CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

K. L. JORDAN SIGNING & DELINEATION REGIONAL ENGINEER
J. G. MARTINEZ, PE SIGNING & DELINEATION PROJECT DESIGN ENGINEER



APPROVED: *Jose G. Martinez*
4470B418C886451
 DATE: 01/11/2022



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

SIGN NUMBER: 406 **BACKG COLOR: Yellow**
TYPE: E **COPY COLOR: Black**
QUANTITY: 1

SYMBOL	X	Y	WID	HT
AR_Type D	6	8.5	4	6
AR_Type D	33.2	2.5	4	6

SIGN WIDTH: 4'-0"
HEIGHT: 1'-3"
TOTAL AREA: 5.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.5"
WIDTH: 0.75"
RADII: 1.38"

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: jgm **CHECKED BY:** **Dec 10, 2021**
PROJECT ID: SS-4910DM **LOCATION:** **DIV: 10**

USE NOTES: 1,2

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size		
													Text Length		
16	2.2	1.3	1.9	2	1.8	2.1	1.2	1.2	1	5.5	2.4	2	1.5	6	B 2000
C o c h r o n R d													20.4		
8.8	2.2	1.9	1.9	2	1.2	2.1	5.4	2.1	1.5	18.8				B 2000	
B r o o k v i l l e A v e													26		

FILENAME: AA-4810DM_SignDesigns **NORTH CAROLINA D.O.T. SIGN DETAIL**

SIGN NUMBER: 407 **BACKG COLOR: Yellow**
TYPE: E **COPY COLOR: Black**
QUANTITY: 1

SYMBOL	X	Y	WID	HT
AR_Type D	8.8	8.5	4	6
AR_Type D	36	2.5	4	6

SIGN WIDTH: 4'-0"
HEIGHT: 1'-3"
TOTAL AREA: 5.0 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0.5"
WIDTH: 0.75"
RADII: 1.38"

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: jgm **CHECKED BY:** **Dec 10, 2021**
PROJECT ID: SS-4910DM **LOCATION:** **DIV: 10**

USE NOTES: 1,2

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size		
													Text Length		
18.8	2.2	1.9	1.9	2	1.2	2.1	5.4	2.1	1.5	8.8				B 2000	
C o c h r o n R d													20.4		
6	2.2	1.3	1.9	2	1.8	2.1	1.2	1.2	1	5.5	2.4	2	1.5	16	B 2000
B r o o k v i l l e A v e													26		

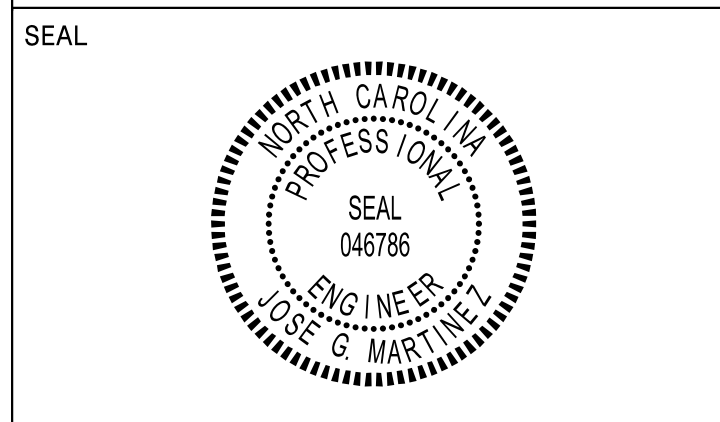
FILENAME: AA-4810DM_SignDesigns **NORTH CAROLINA D.O.T. SIGN DETAIL**

U:\Projects\2021 Sign Designs\Div 10\SS-4910DM\CADD\SS-4910DM_Signing.dgn
 User: jmartinez

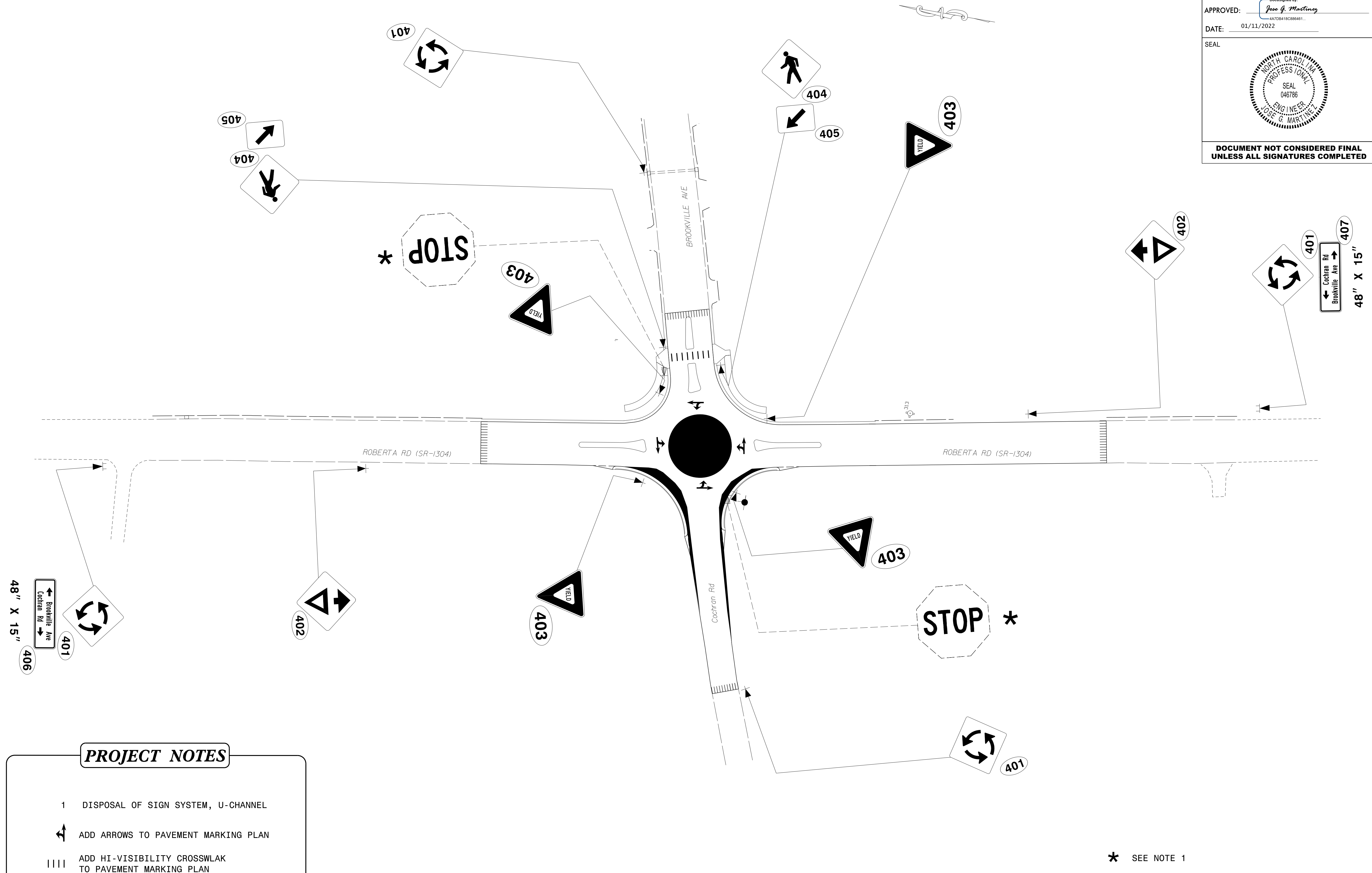
SIGN DESIGNS

APPROVED: *Jose G. Martinez*
DocuSigned by:
Jose G. Martinez
447DB418C886461

DATE: 01/11/2022



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



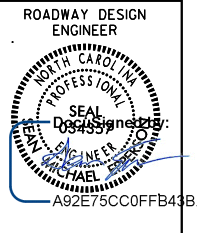
- PROJECT NOTES**
- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
 - ADD ARROWS TO PAVEMENT MARKING PLAN
 - ADD HI-VISIBILITY CROSSWLAK TO PAVEMENT MARKING PLAN
- (PAVEMENT MARKING PLAN TO BE PROVIDED BY OTHERS)

* SEE NOTE 1

EXISTING & PROPOSED SIGN

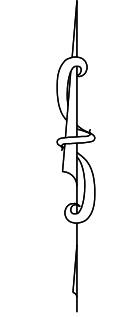
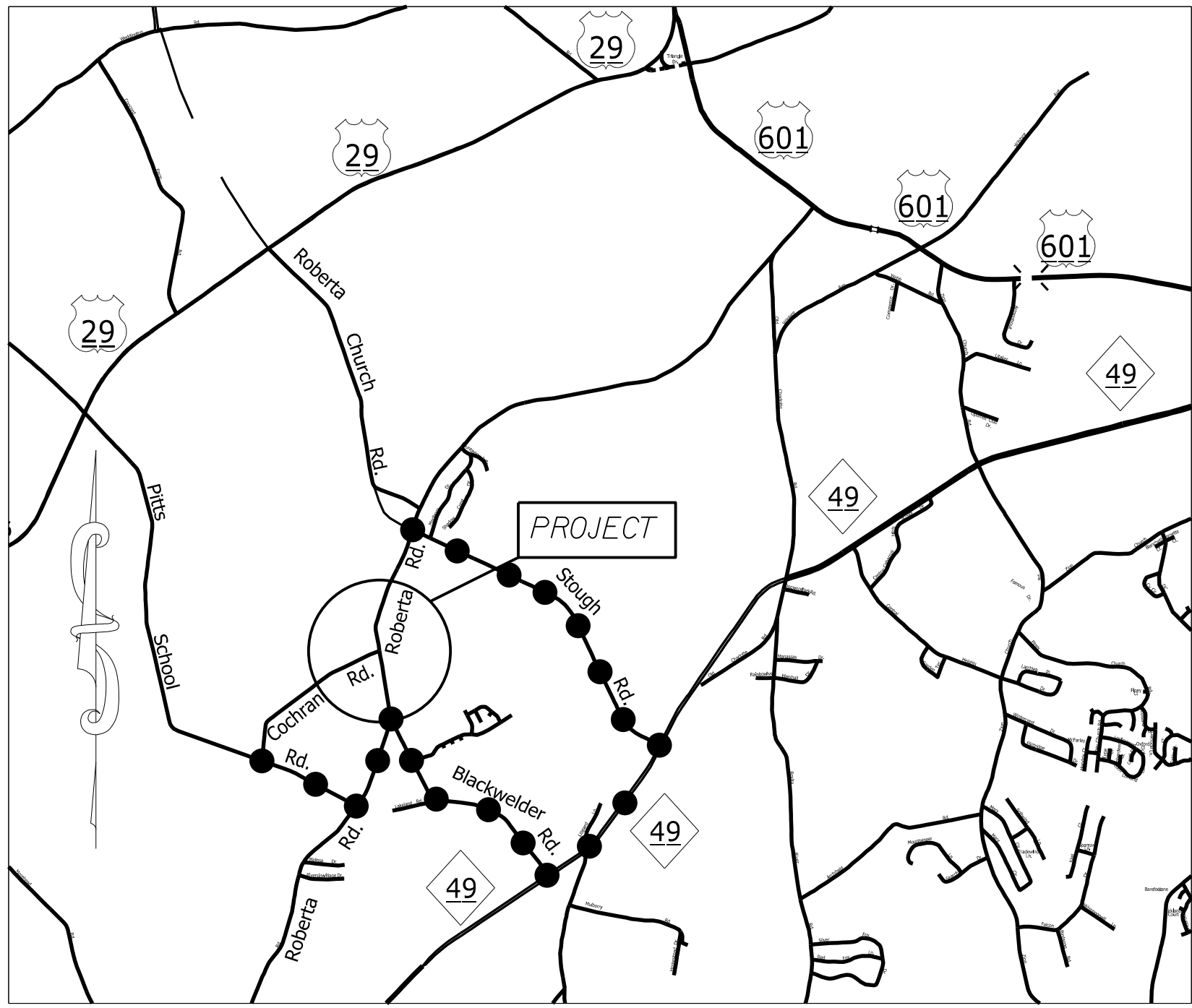
01/11/22
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 Jose G. Martinez

PROJECT NO.	SHEET NO.
48485.3.1	TCP-1

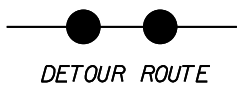


OFFSITE DETOUR

OFFSITE DETOUR TO BE INSTALLED AND MAINTAINED BY NCDOT.
 THE CONTRACTOR IS RESPONSIBLE FOR THE BARRACADES ON THE PROJECT. SEE SHEET TCP-2



NOTE: CONTRACTOR SHALL CONTACT
 SALINA BLALOCK AT 704-244-8270
 TWO WEEKS PRIOR TO ROAD CLOSURE.

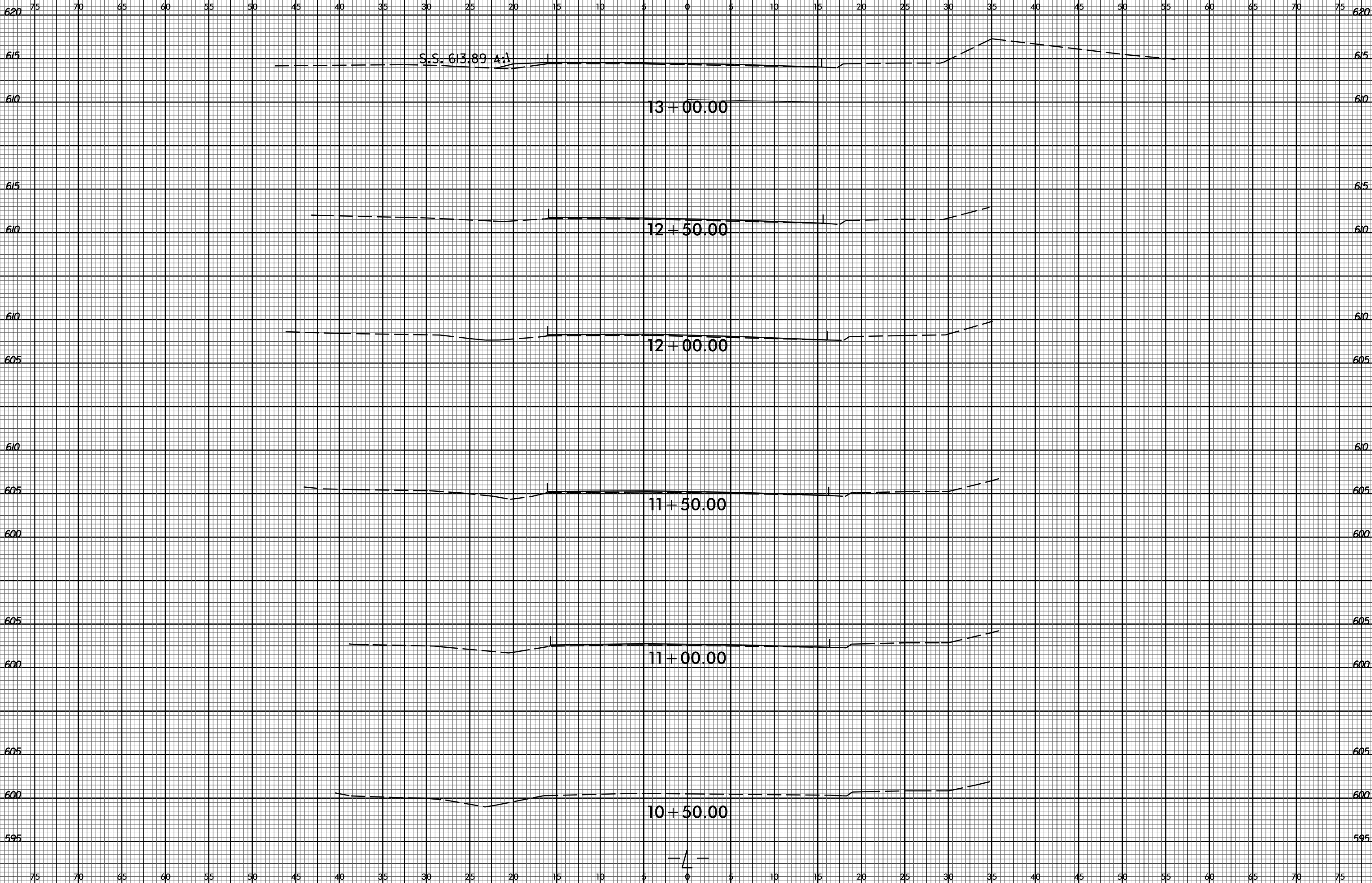


MINI ROUNDABOUT AT THE INTERSECTION OF
 ROBERTA RD. (SR-1304), COCHRAN RD. (SR-1306),
 AND BROOKVILLE AVE.

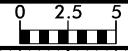
SCALE	N/A
DATE	10-2021
DWG. BY	JCB
DESIGN BY	JCB
APPROVED	JDH



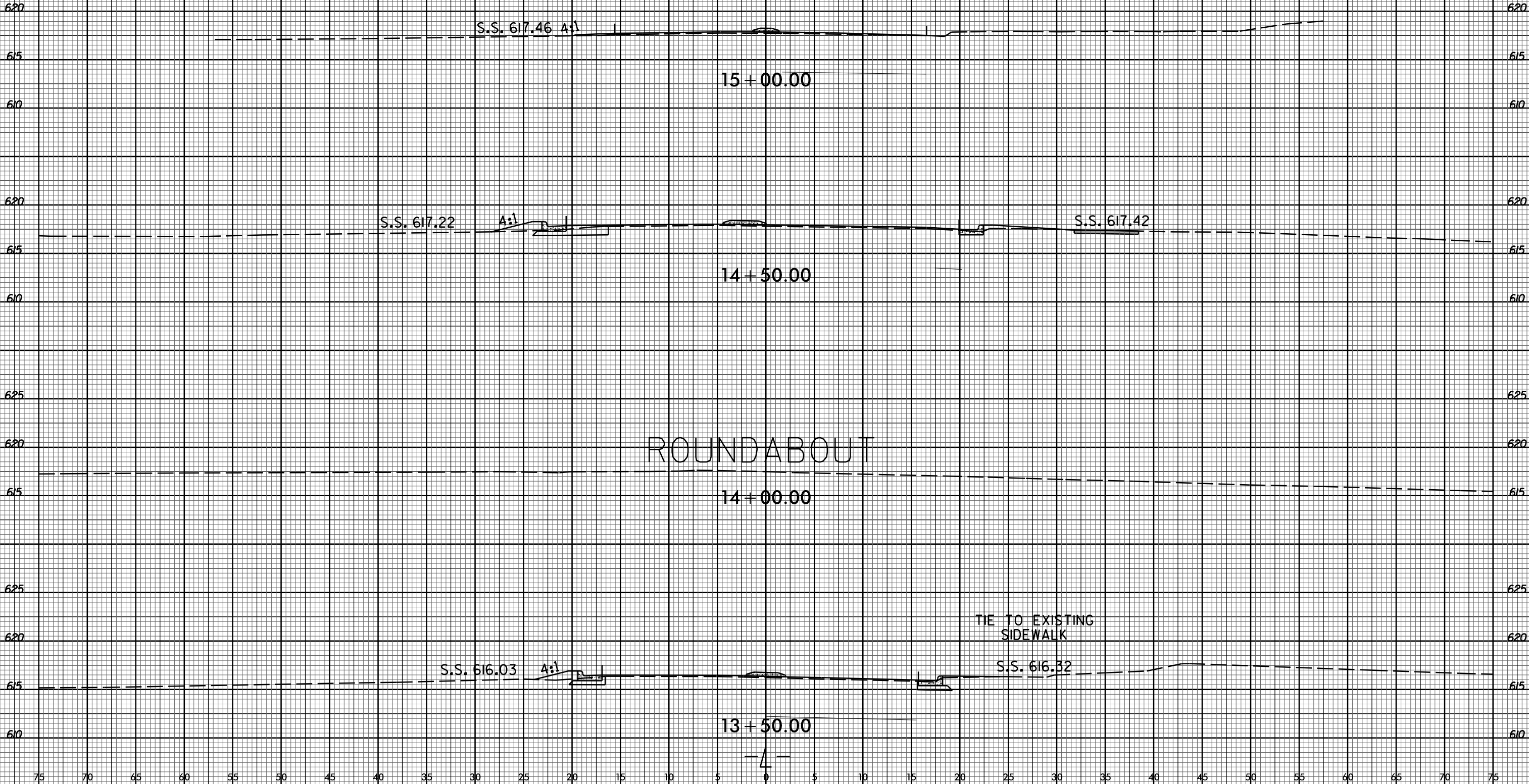
REVISIONS	



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\$\$\$\$\$SERNAME\$\$\$\$\$



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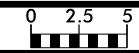


ROUNDABOUT

TIE TO EXISTING
SIDEWALK

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6/23/16



PROJ. REFERENCE NO.
48485.3.1

SHEET NO.
X-3

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615 615

610 610

605 605

17+50.00

615 615

S.S. 610.85

4:1

610 610

17+00.00

620 620

S.S. 613.04

4:1

615 615

16+50.00

610 610

620 620

S.S. 614.94

4:1

615 615

16+00.00

610 610

625 625

TIE TO EXISTING
SIDEWALK

S.S. 616.97

S.S. 617.06

620 620

15+50.00

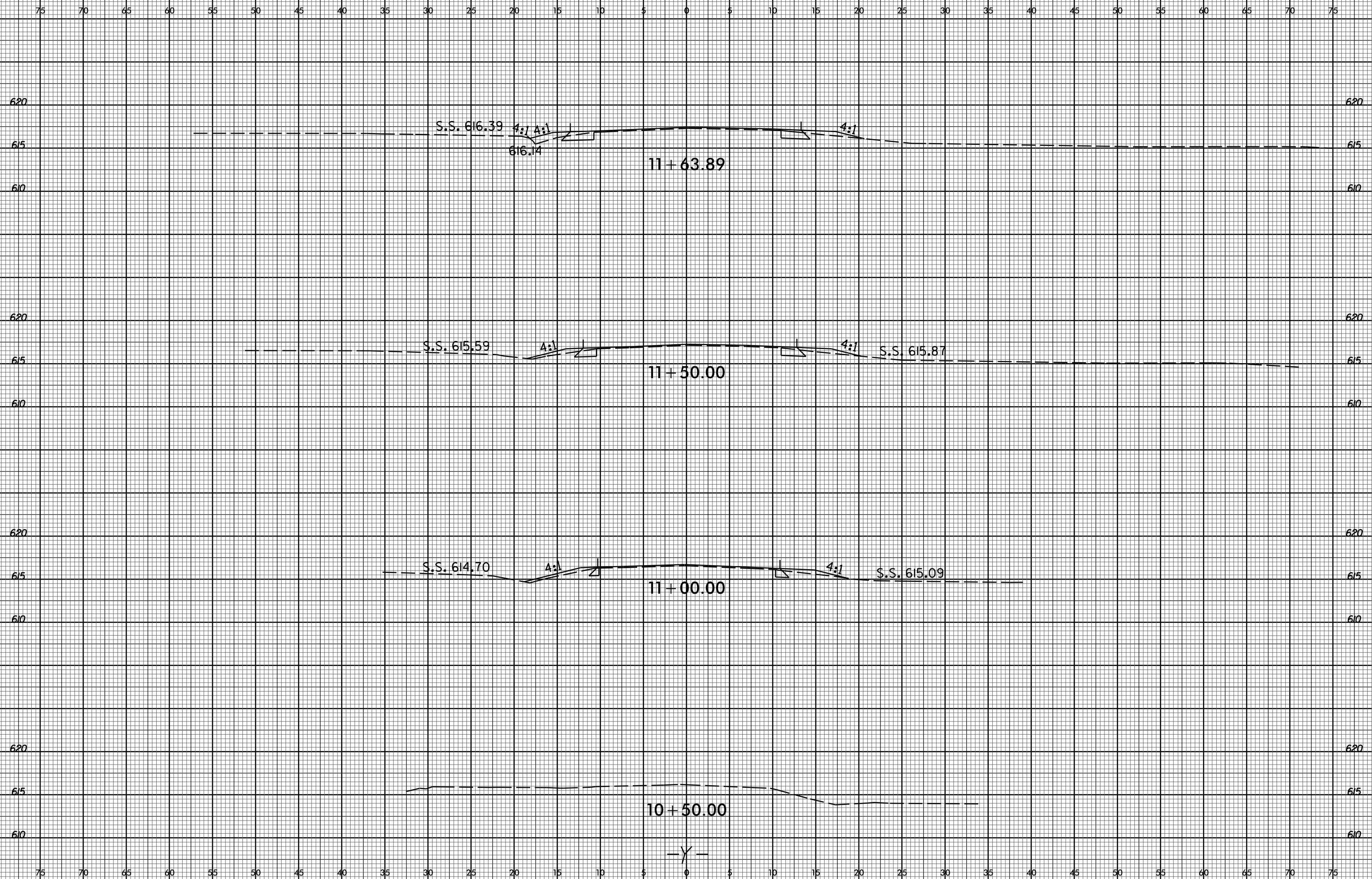
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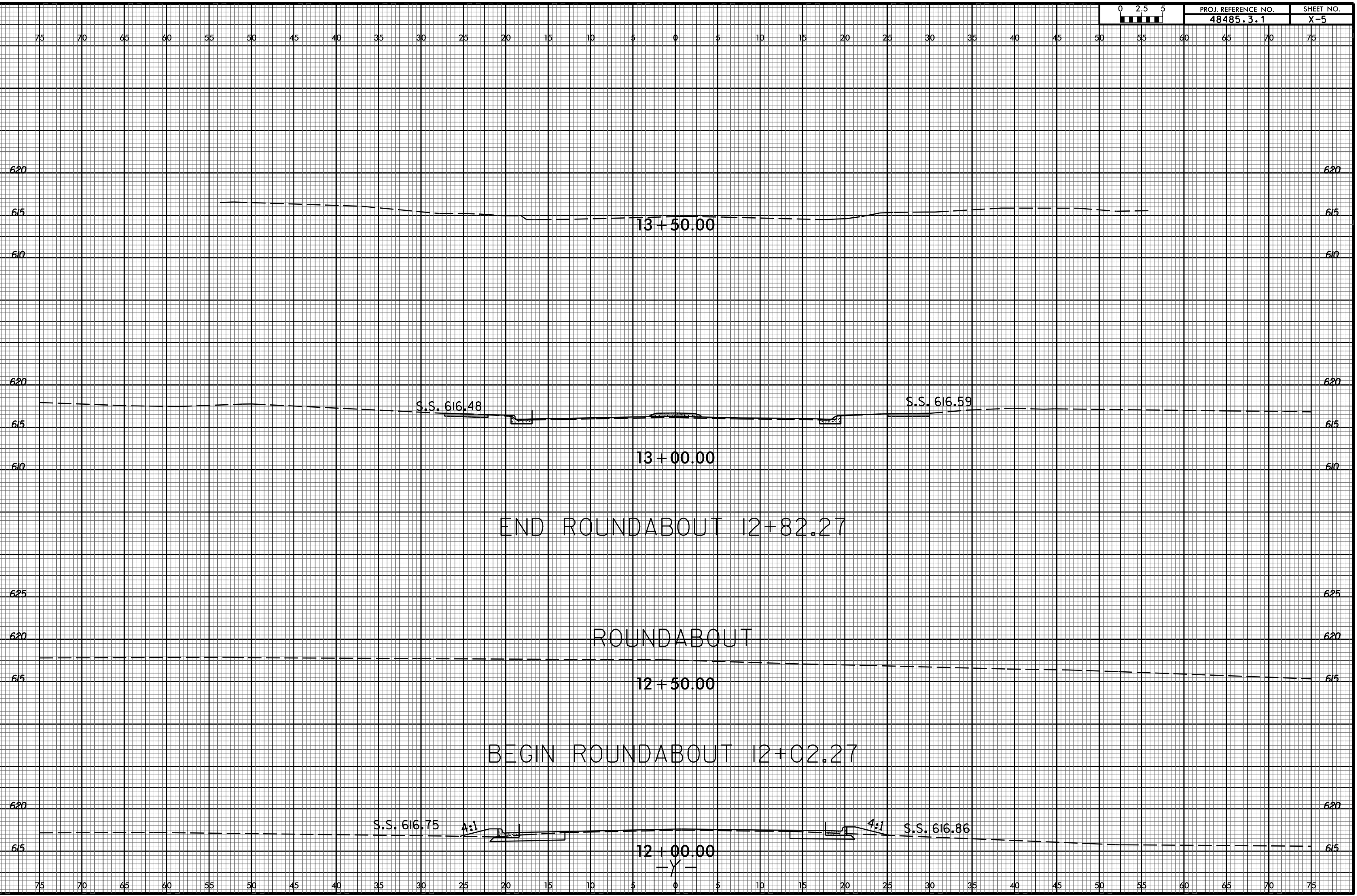
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6/23/16



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6/23/16



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