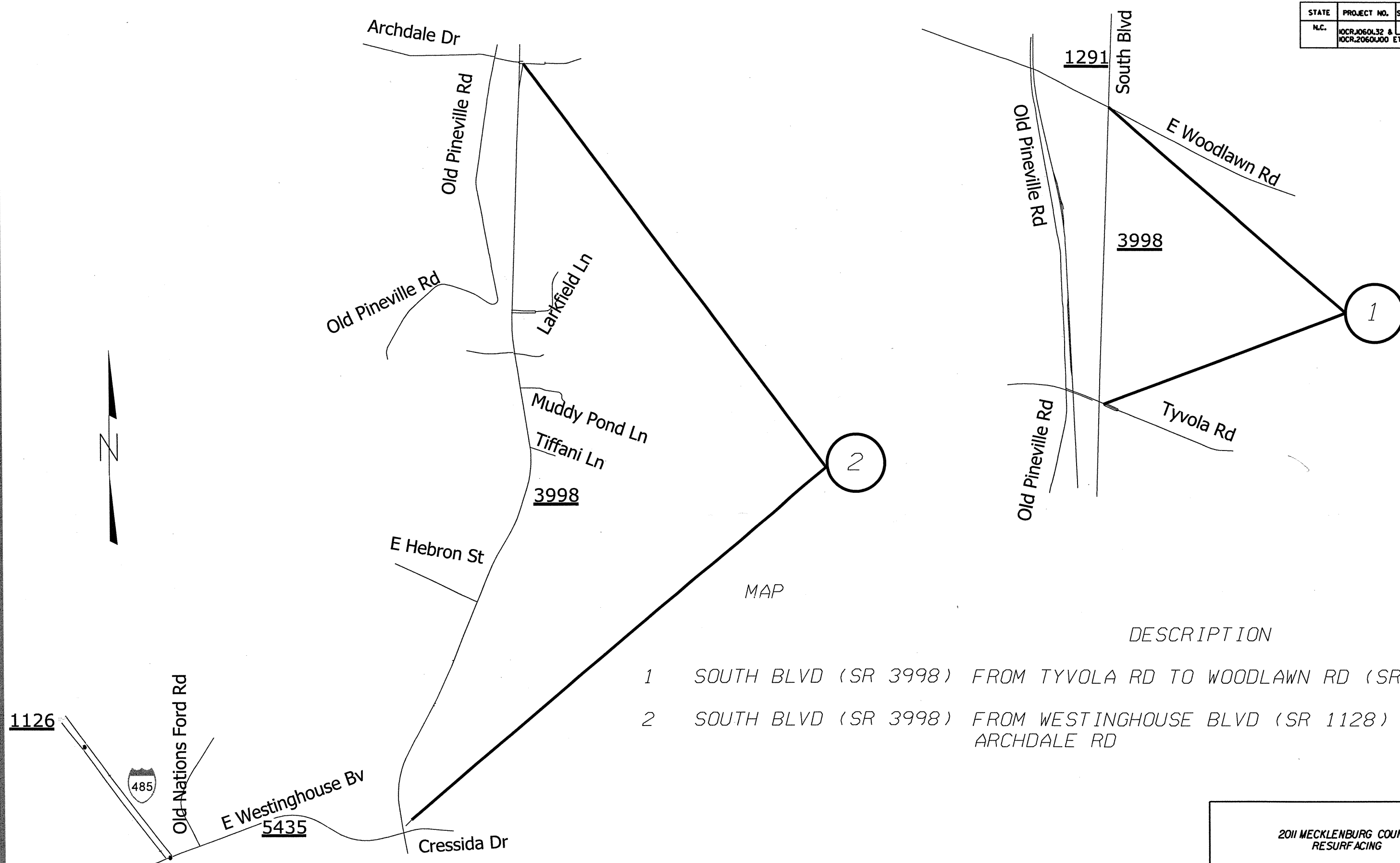


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.060L32 & 10CR.2060L00 ETC.	1	

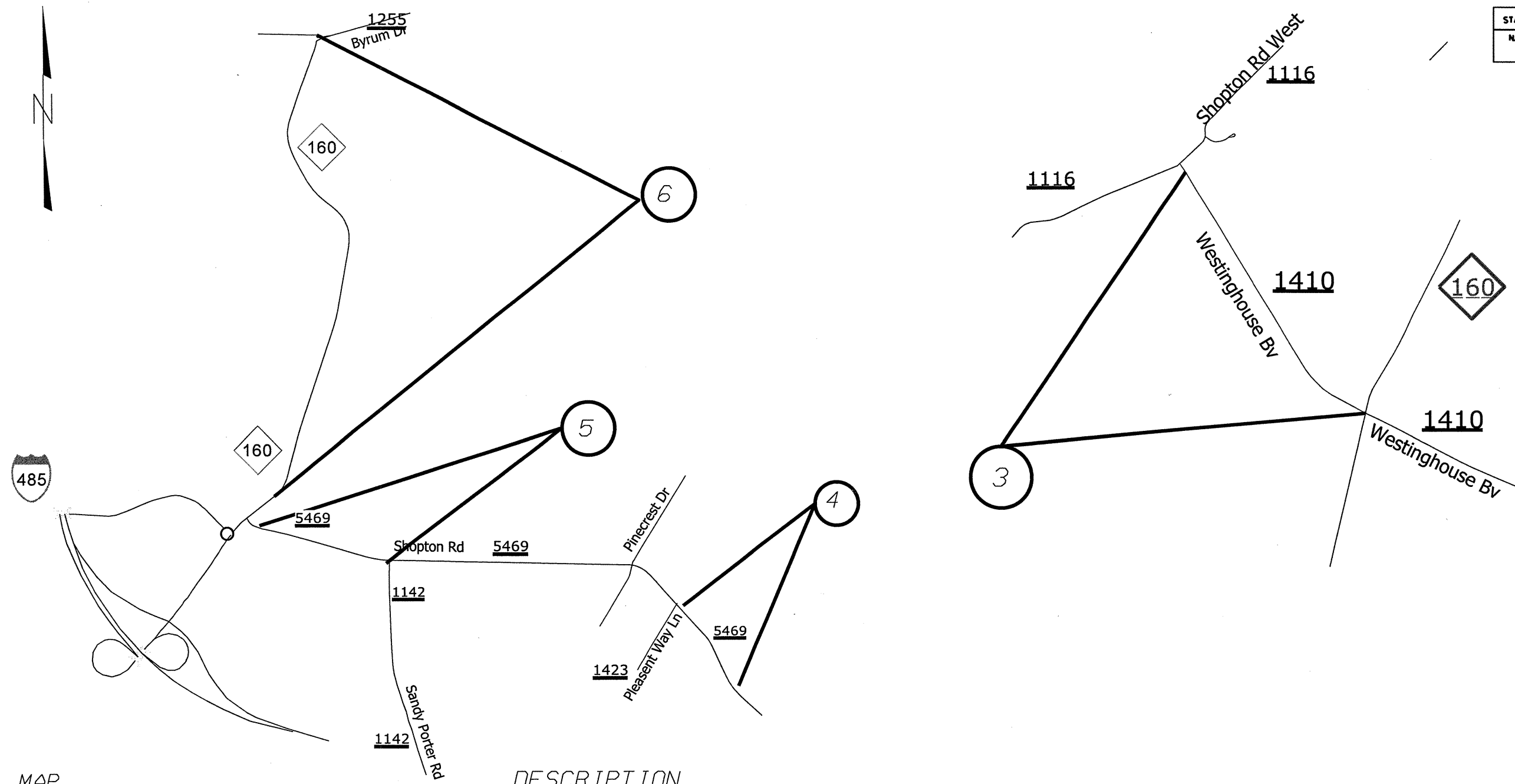


- MAP
- DESCRIPTION
- 1 SOUTH BLVD (SR 3998) FROM TYVOLA RD TO WOODLAWN RD (SR 3814)
 - 2 SOUTH BLVD (SR 3998) FROM WESTINGHOUSE BLVD (SR 1128) TO ARCHDALE RD

2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-	REVISIONS
DATE	01/11	
DWG. BY	JSL	
DESIGN BY	JSL	
APPROVED		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.060L32 & 10CR.2060L00 ETC.	2	



MAP

- 3 WESTINGHOUSE BLVD (SR 1128)
- 4 SHOPTON RD (SR 5469)
- 5 SHOPTON RD (SR 5469)
- 6 STEELE CREEK RD (NC 160)

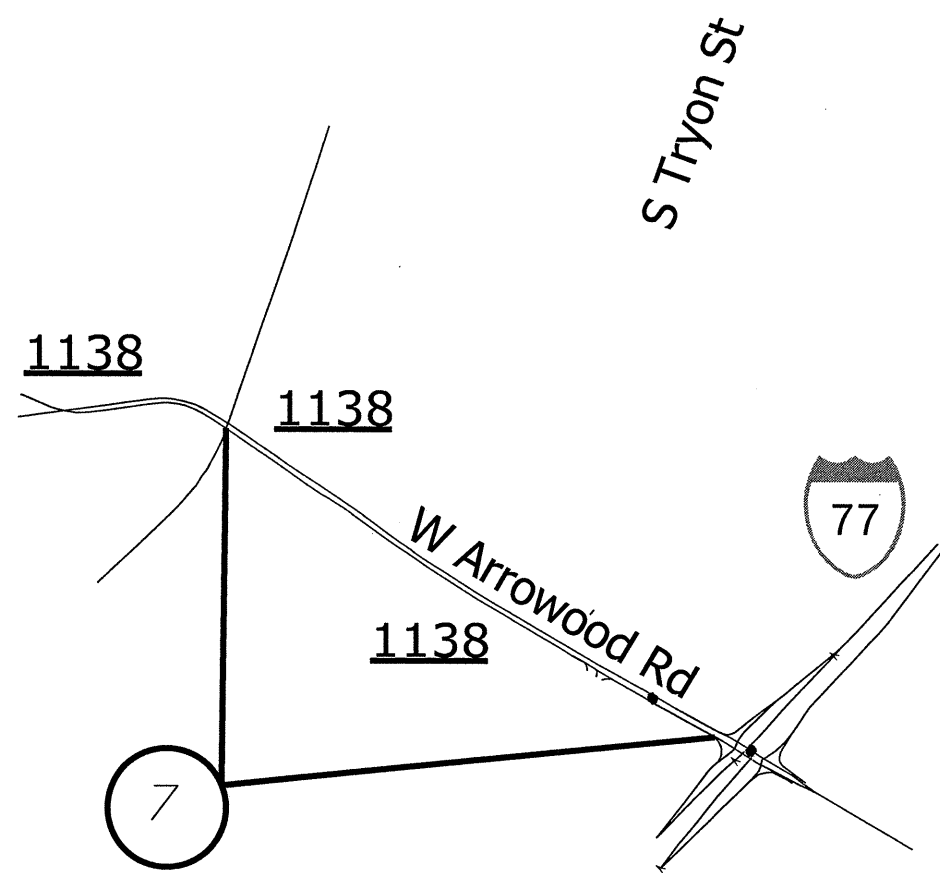
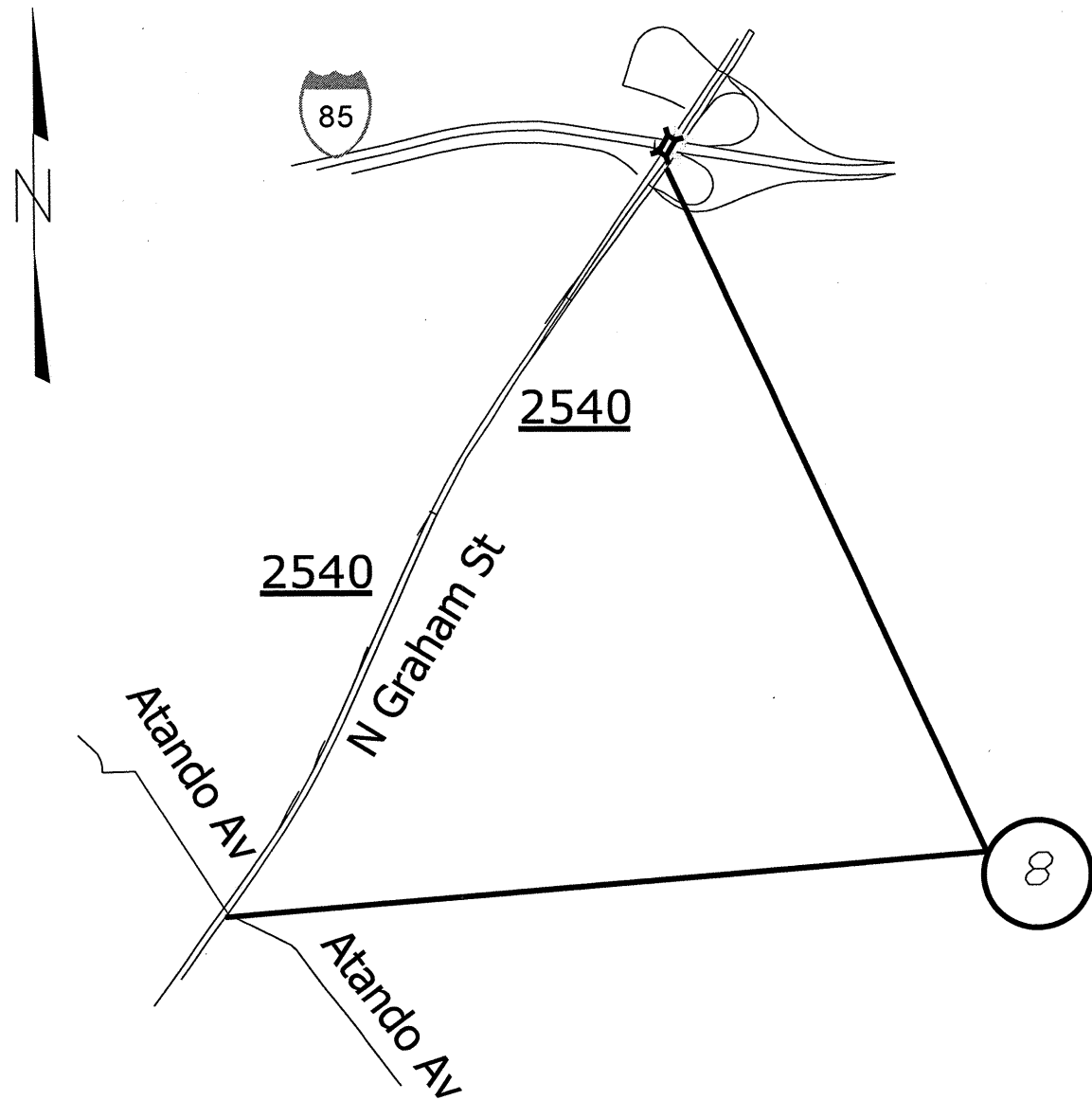
DESCRIPTION

- FROM SHOPTON RD W TO STEELE CREEK (NC 160)
- PVT JT 1300' W. OF PLEASANT WAY DR TO PLEASANT WAY DR
- FROM STEELE CREEK RD (NC 160) TO SANDY PORTER RD (SR 1142)
- FROM BYRUM DR (SR 1255) TO PVT JT AT SHOPTON RD (SR 5469)

2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-		REVISIONS
DATE	01/11		
DWG. BY	JSL		
DESIGN BY	JSL		
APPROVED			

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.0604.32 & 10CR.20604.00 ETC.	3	



MAP

DESCRIPTION

- 7 ARROWWOOD RD (SR 1138)
- 8 N. GRAHAM ST (SR 2540)

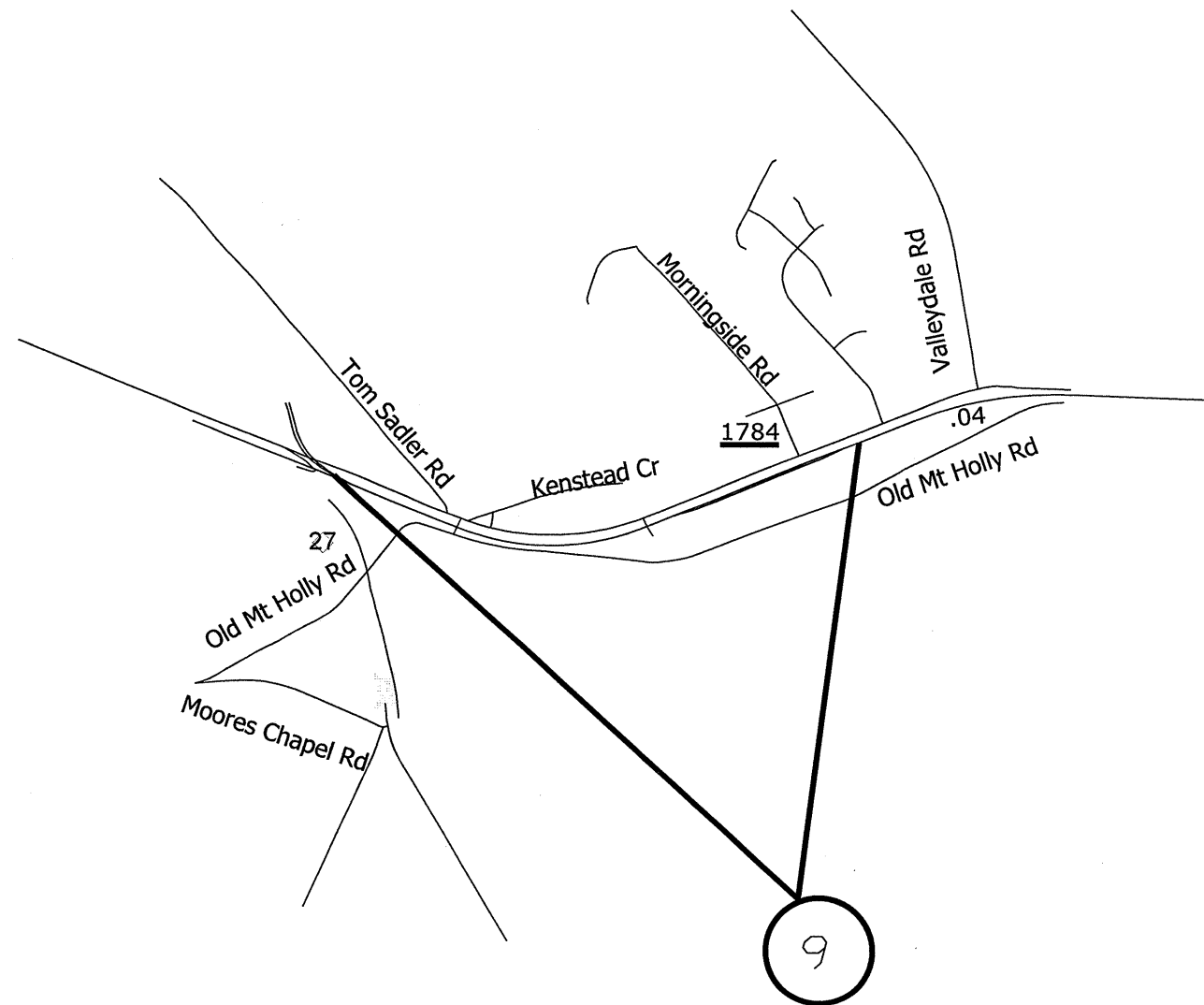
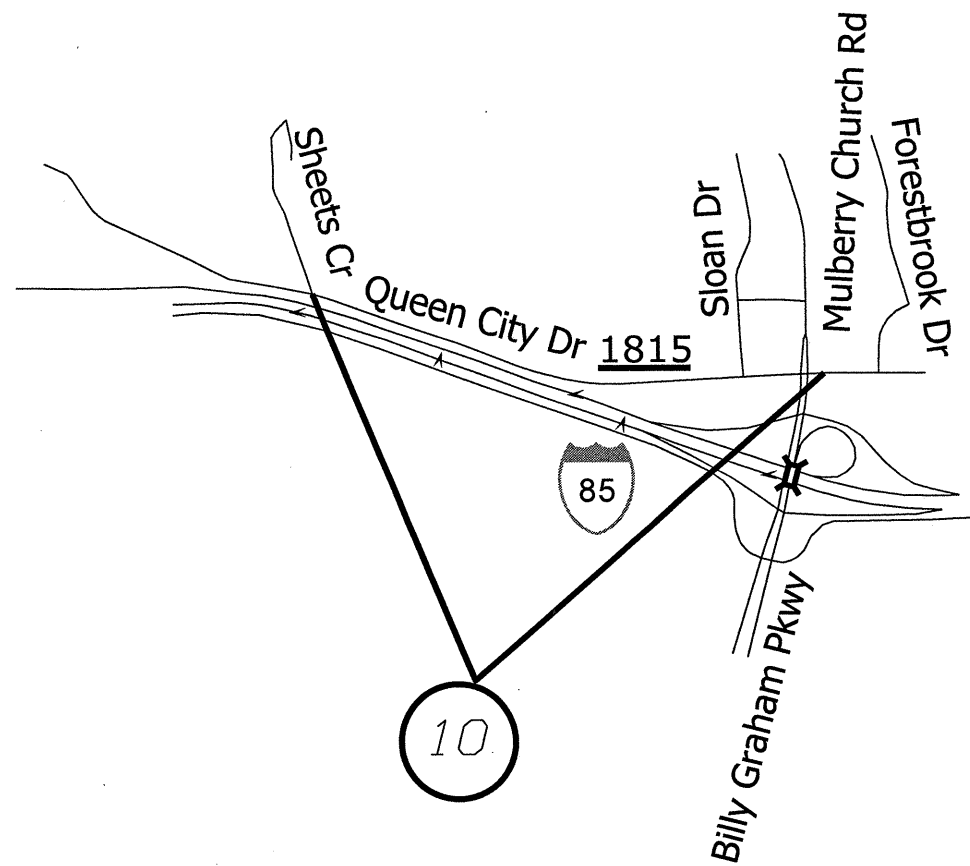
- FROM S. TRYON ST (NC 49) TO I-77
- FROM ATANDO AV TO I-85 BRIDGE

2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-	REVISIONS
DATE	01/11	
DWG. BY	JSL	
DESIGN BY	JSL	
APPROVED		



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.1060L32 & 10CR.2060U00 ETC.	4	



MAP

DESCRIPTION

9 MT. HOLLY RD (SR 1784)

FREEDOM DR (NC 27) TO FRED D. ALEXANDER DR

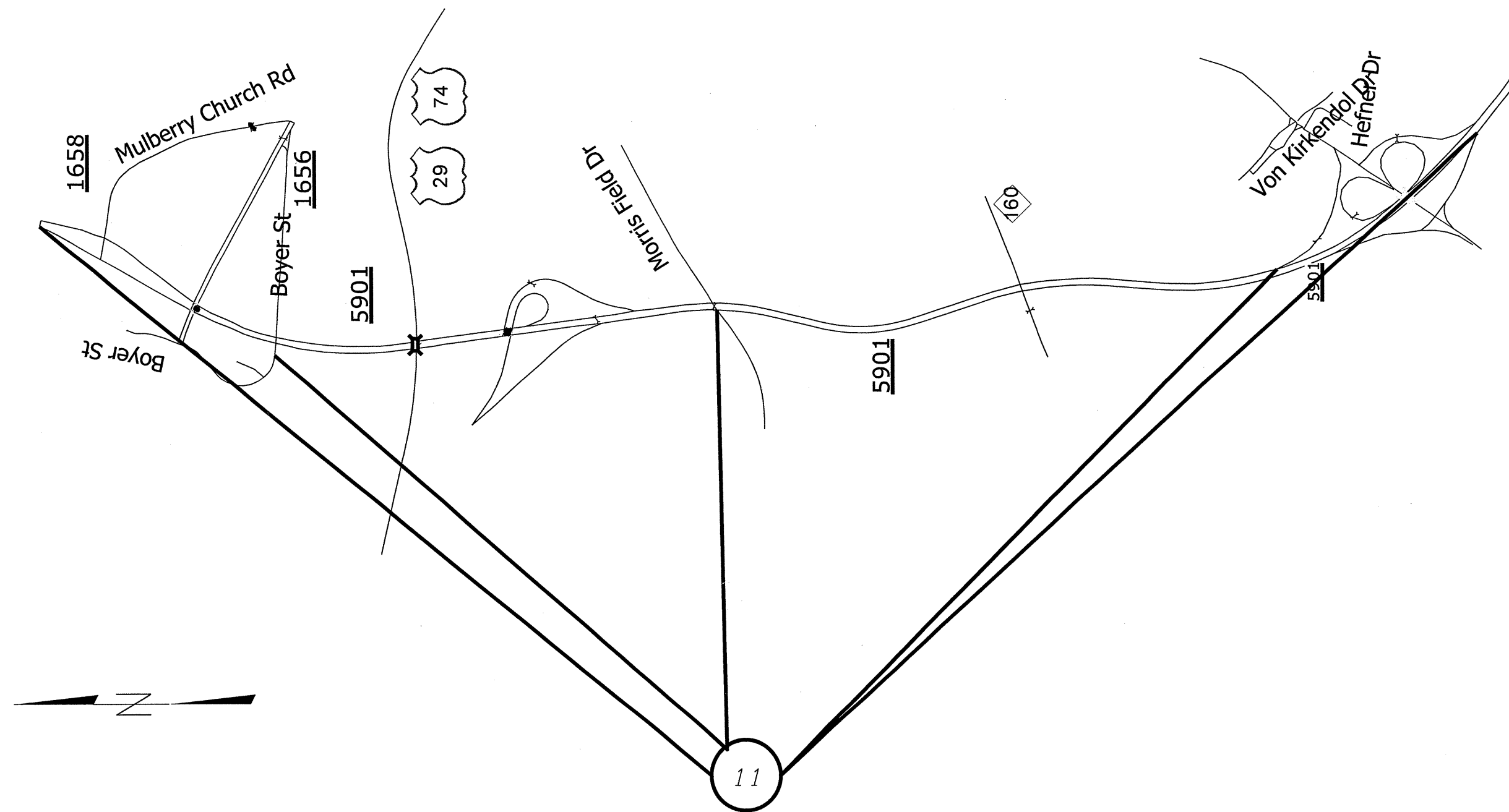
10 QUEEN CITY BLVD (SR 1815)

BILLY GRAHAM PKWY (SR 5901) TO SHEETS CIR

2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-		REVISIONS
DATE	01/11		
DWG. BY	JSL		
DESIGN BY	JSL		
APPROVED			

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	OCR.060132 & OCR.2060100 ETC.	5	



MAP

DESCRIPTION

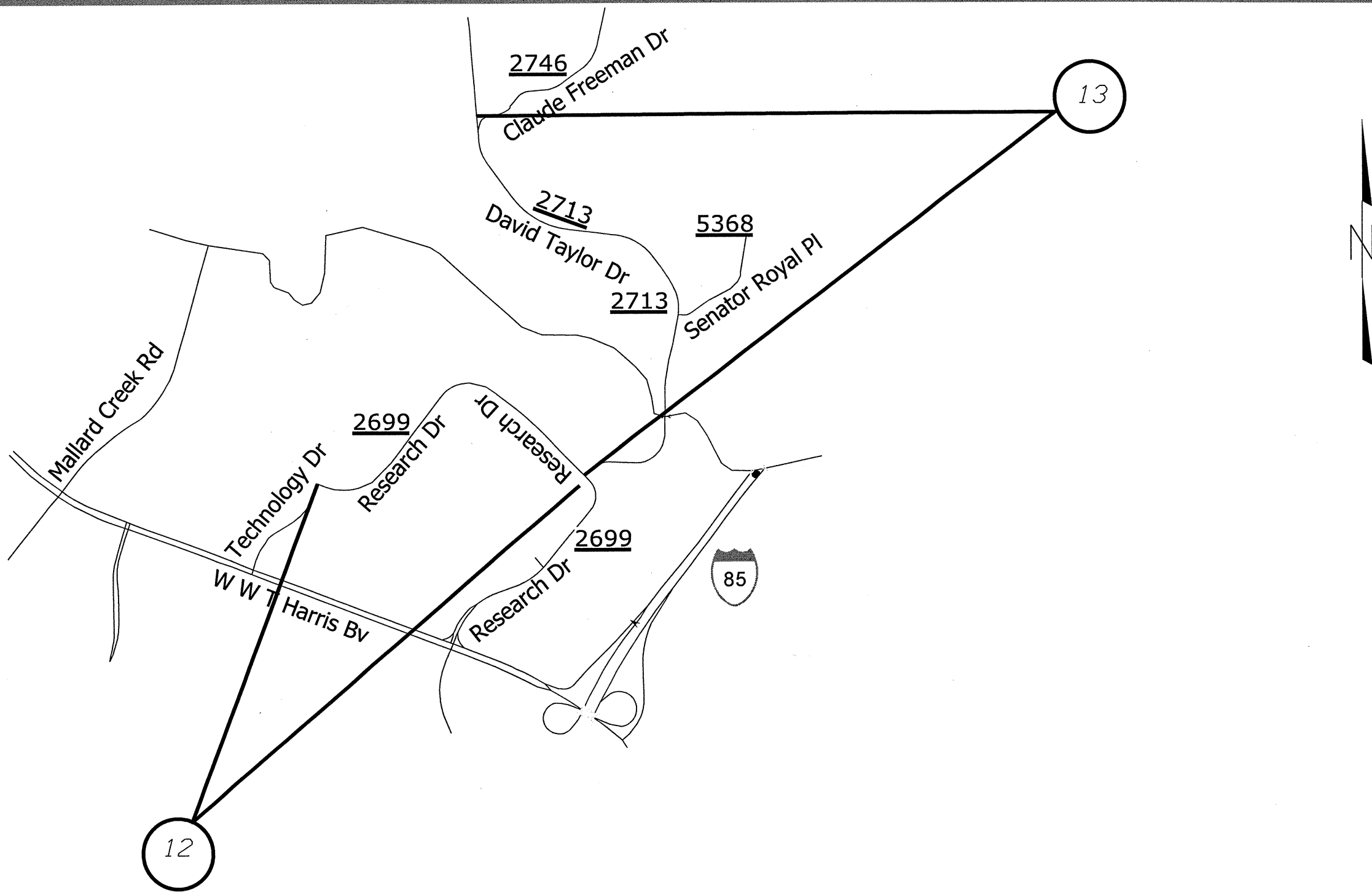
11 BILLY GRAHAM PKWY (SR 5901)

FROM MULLBERRY CHURCH RD (SR 1658) TO
CONCRETE PVT JT AND THE INTERSECTIONS
OF BOYER ST (SR 1656), MORRIS FIELD,
AND TYVOLA RD

2011 MECKLENBURG COUNTY RESURFACING		REVISIONS
SCALE	-NA-	
DATE	01/11	
DWG. BY	JSL	
DESIGN BY	JSL	
APPROVED		



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
	10CR.060L32 & 10CR.2060L00 ETC.	6	



MAP


DESCRIPTION

12 RESEARCH DR (SR 2699)

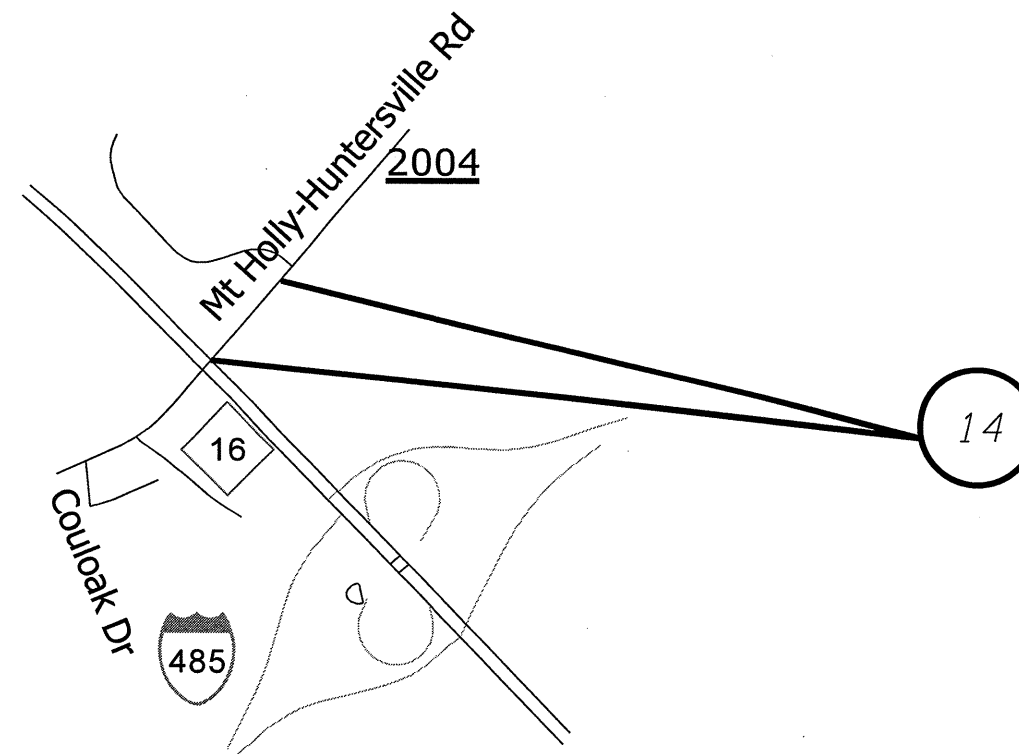
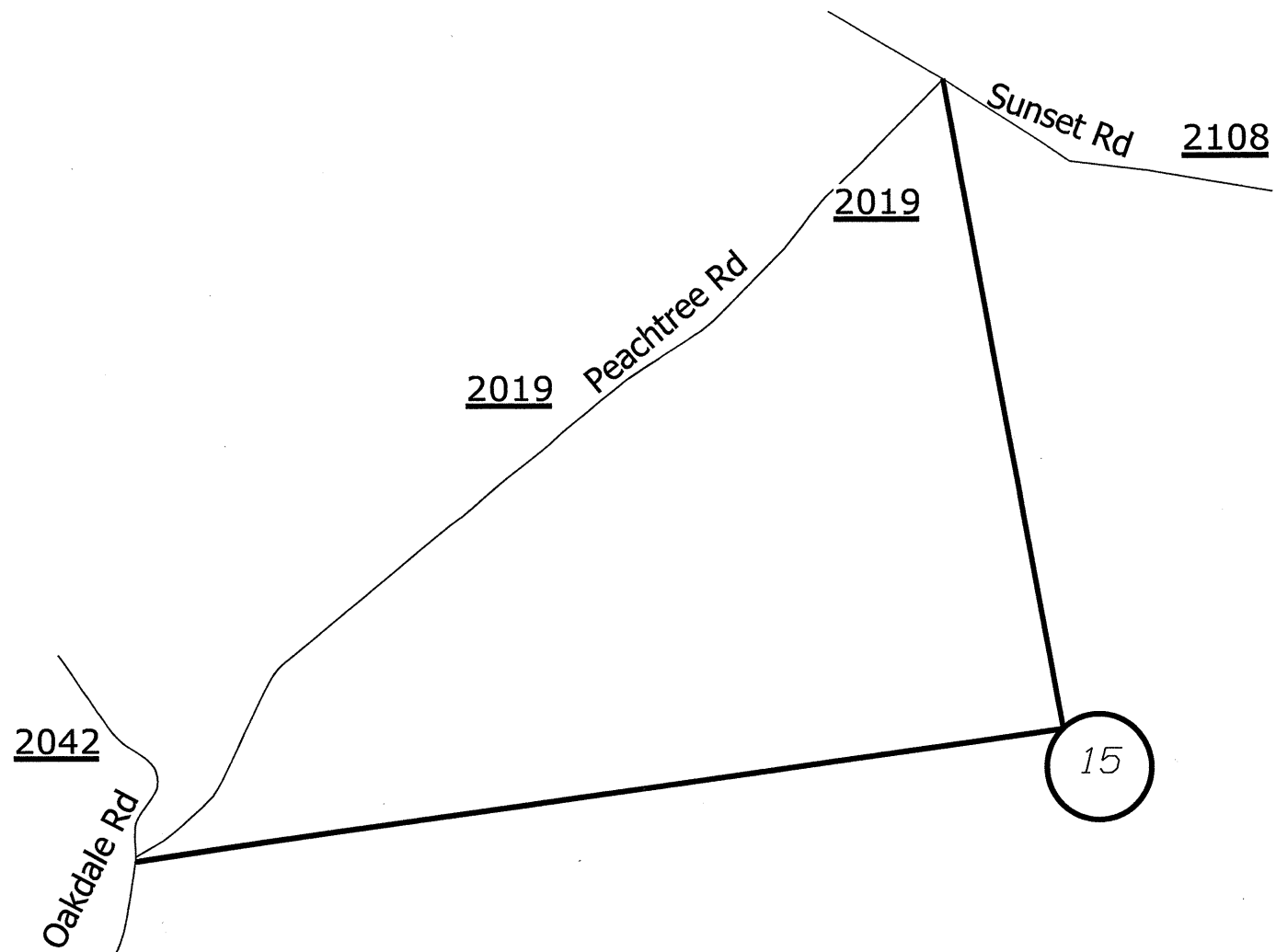
FROM TECHNOLOGY DR (SR 2703) TO DAVID TAYLOR DR (SR 2713)

13 DAVID TAYLOR (SR 2713)

RESEARCH DR (SR 2699) TO CLAUDE FREEMAN DR (SR 2746)

2011 MECKLENBURG COUNTY RESURFACING		
SCALE	-NA-	
DATE	01/11	
DWG. BY	JSL	
DESIGN BY	JSL	
APPROVED		
		REVISIONS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NC.	OCR.060L32 & OCR.2060U00 ETC.	7	



MAP

DESCRIPTION

14 MT. HOLLY_HUNTERSVILLE RD (SR 2004)

FROM BROOKSHIRE BLVD (NC 16) TO 1800'
NORTH OF BROOKSHIRE BLVD (NC 16)

15 PEACHTREE RD (SR 2019)

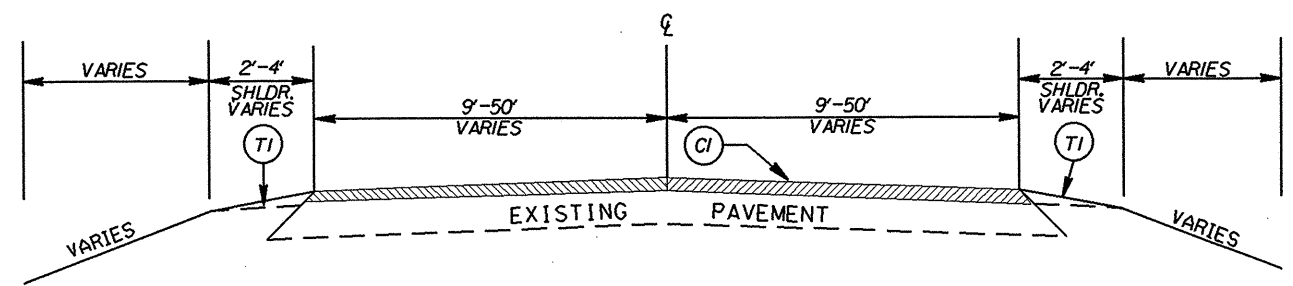
FROM OAKDALE RD (SR 2042) TO SUNSET RD
(SR 2108)



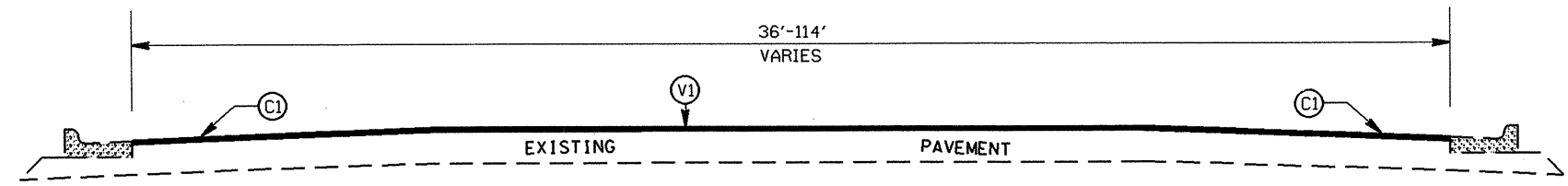
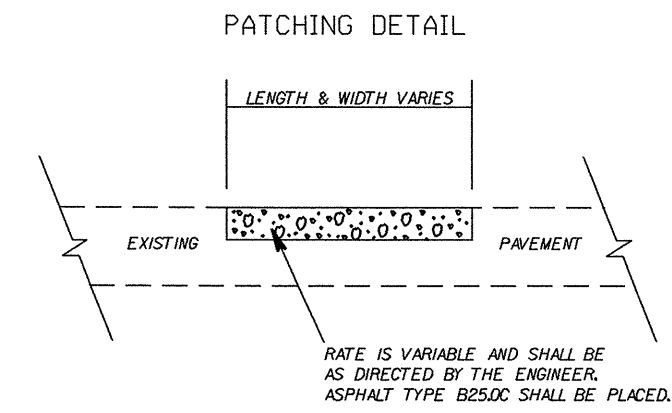
2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-		REVISIONS
DATE	01/11		
DWG. BY	JSL		
DESIGN BY	JSL		
APPROVED			

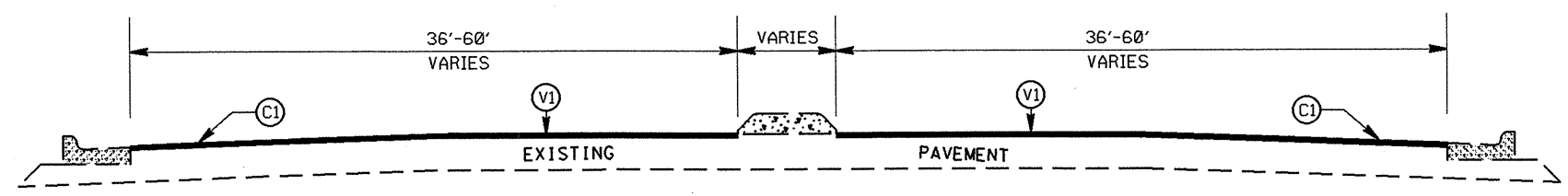
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	8	



TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 2



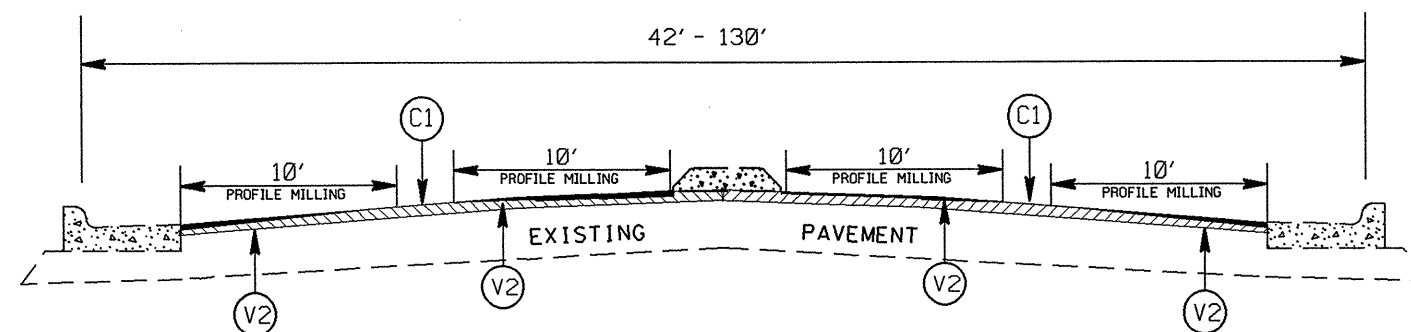
TYPICAL SECTION NO. 1

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"
V3	MILLING 4.0" DEPTH
V4	MILLING 8.0" DEPTH

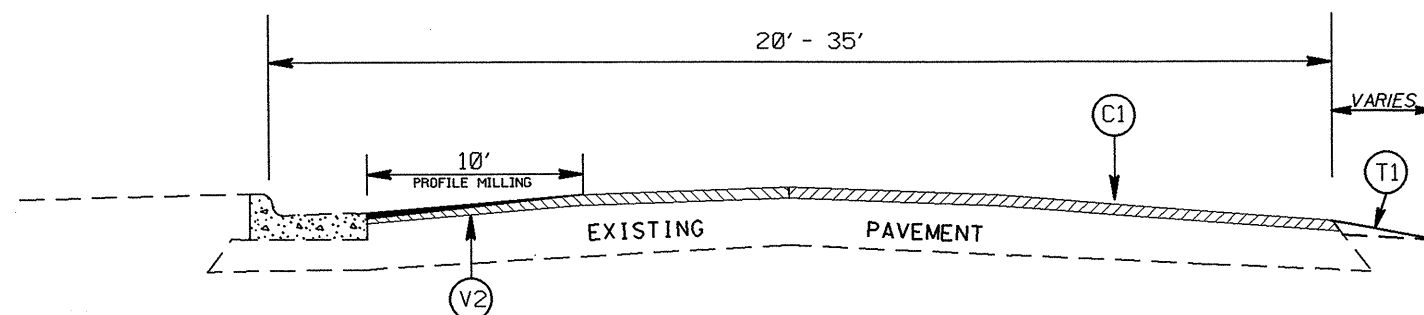
2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-		REVISIONS
DATE	01/11		
DWG. BY	JSL		
DESIGN BY	JSL		
APPROVED			

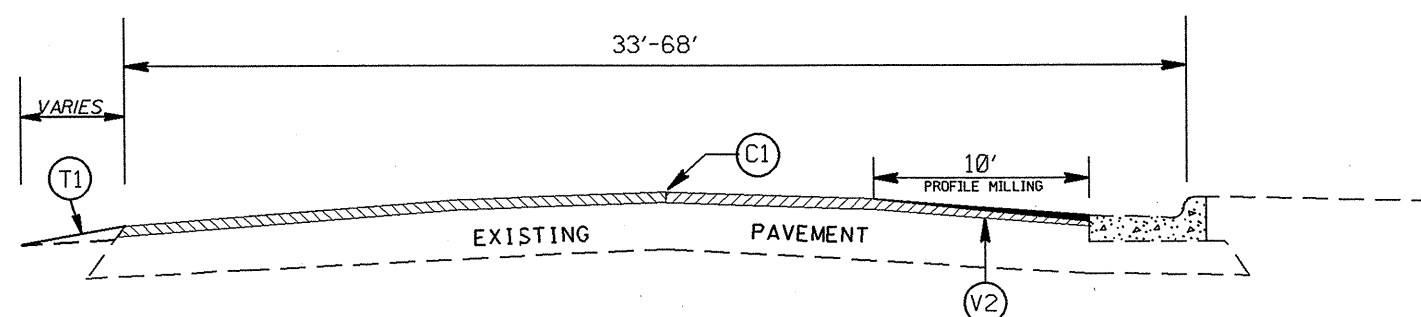
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	9	



TYPICAL SECTION NO. 6



TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"
V3	MILLING 4.0" DEPTH
V4	MILLING 8.0" DEPTH

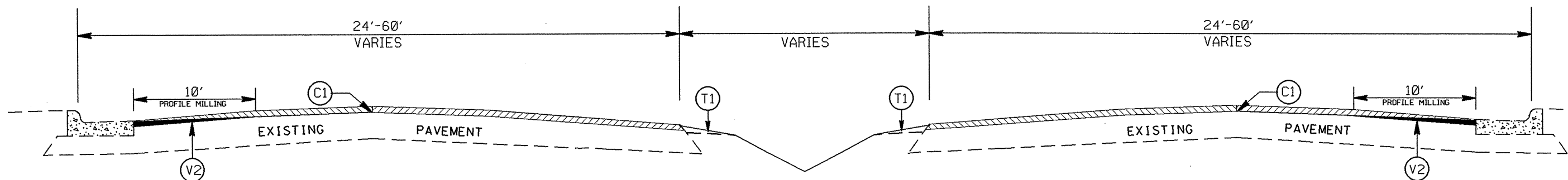
2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-
DATE	01/11
DWG. BY	JSL
DESIGN BY	JSL
APPROVED	

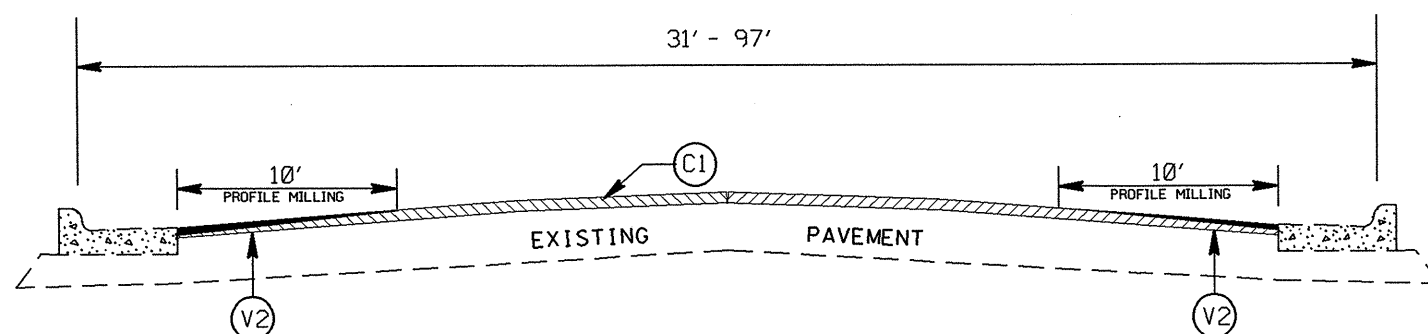


REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	10	

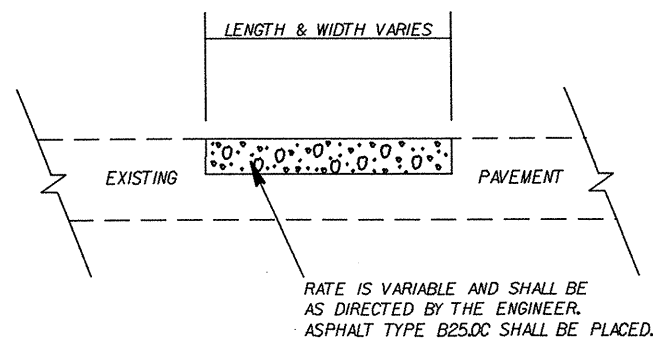


TYPICAL SECTION NO. 8



TYPICAL SECTION NO. 7

PATCHING DETAIL

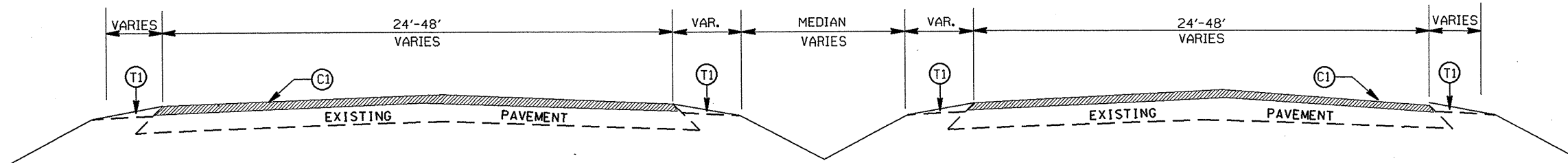


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"
V3	MILLING 4.0" DEPTH
V4	MILLING 8.0" DEPTH

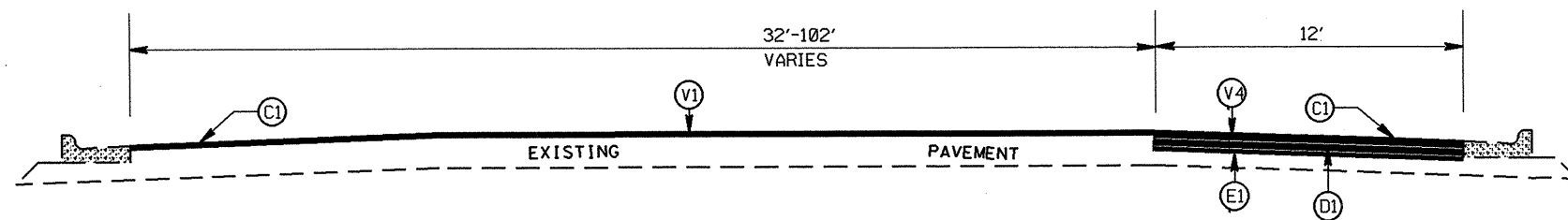
2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-		REVISIONS
DATE	01/11		
DWG. BY	JSL		
DESIGN BY	JSL		
APPROVED			

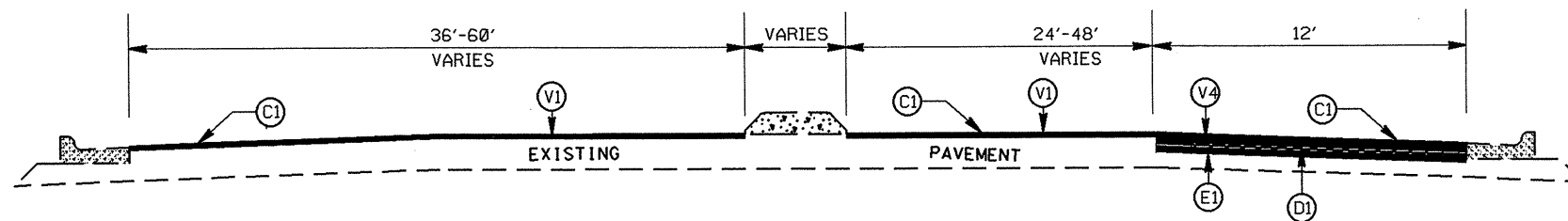
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	II	



TYPICAL SECTION NO.11



TYPICAL SECTION NO.10



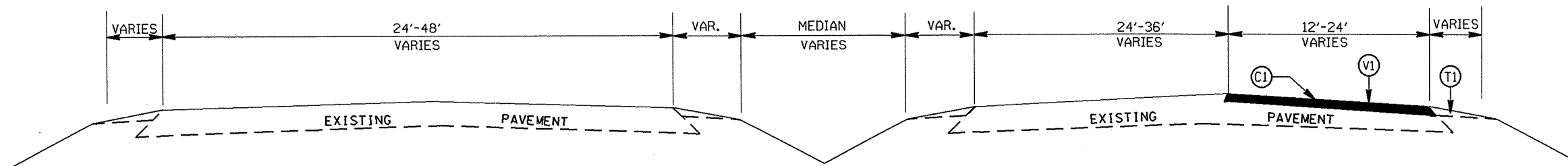
TYPICAL SECTION NO.9

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"
V3	MILLING 4.0" DEPTH
V4	MILLING 8.0" DEPTH

2011 MECKLENBURG COUNTY
RESURFACING

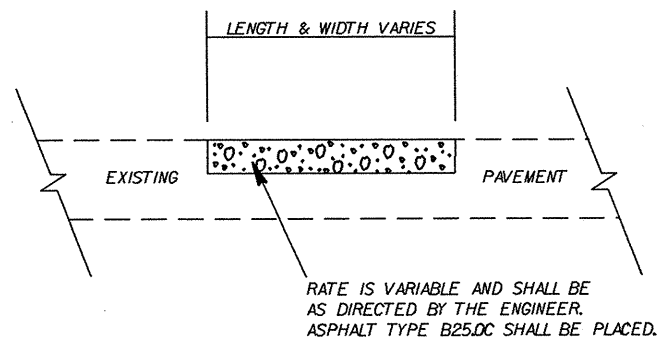
SCALE	-NA-		REVISIONS
DATE	01/11		
DWG. BY	JSL		
DESIGN BY	JSL		
APPROVED			

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	12	

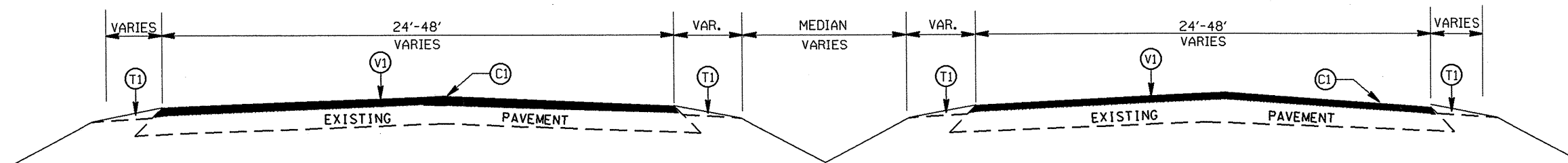


TYPICAL SECTION NO.13

PATCHING DETAIL



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"
V3	MILLING 4.0" DEPTH
V4	MILLING 8.0" DEPTH



TYPICAL SECTION NO.12

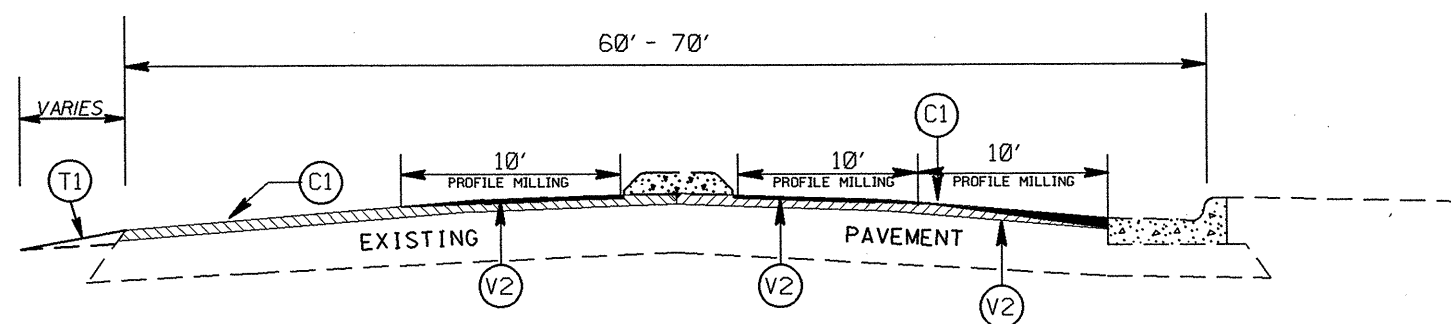
2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-
DATE	01/11
DWG. BY	JSL
DESIGN BY	JSL
APPROVED	

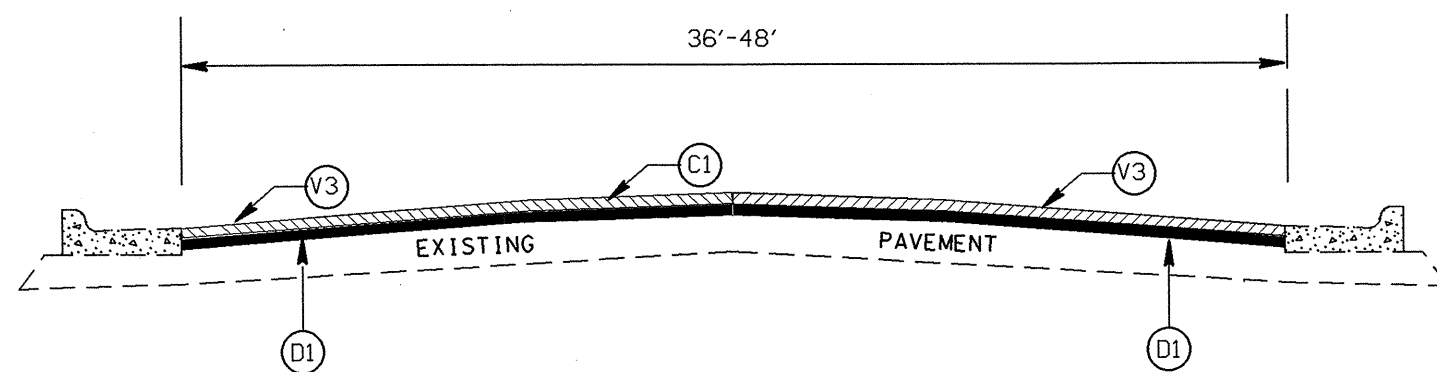


REVISIONS	

	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	13	



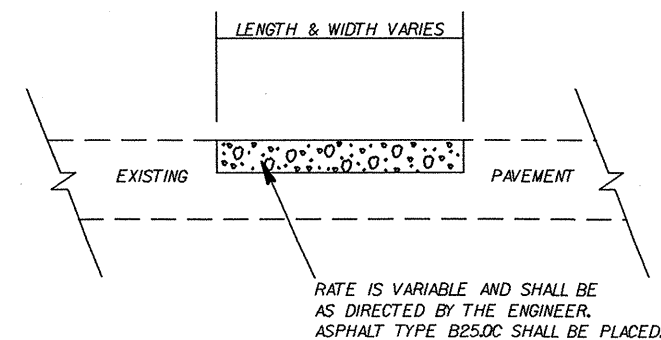
TYPICAL SECTION NO. 15



TYPICAL SECTION NO. 14

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"
V3	MILLING 4.0" DEPTH
V4	MILLING 8.0" DEPTH

PATCHING DETAIL



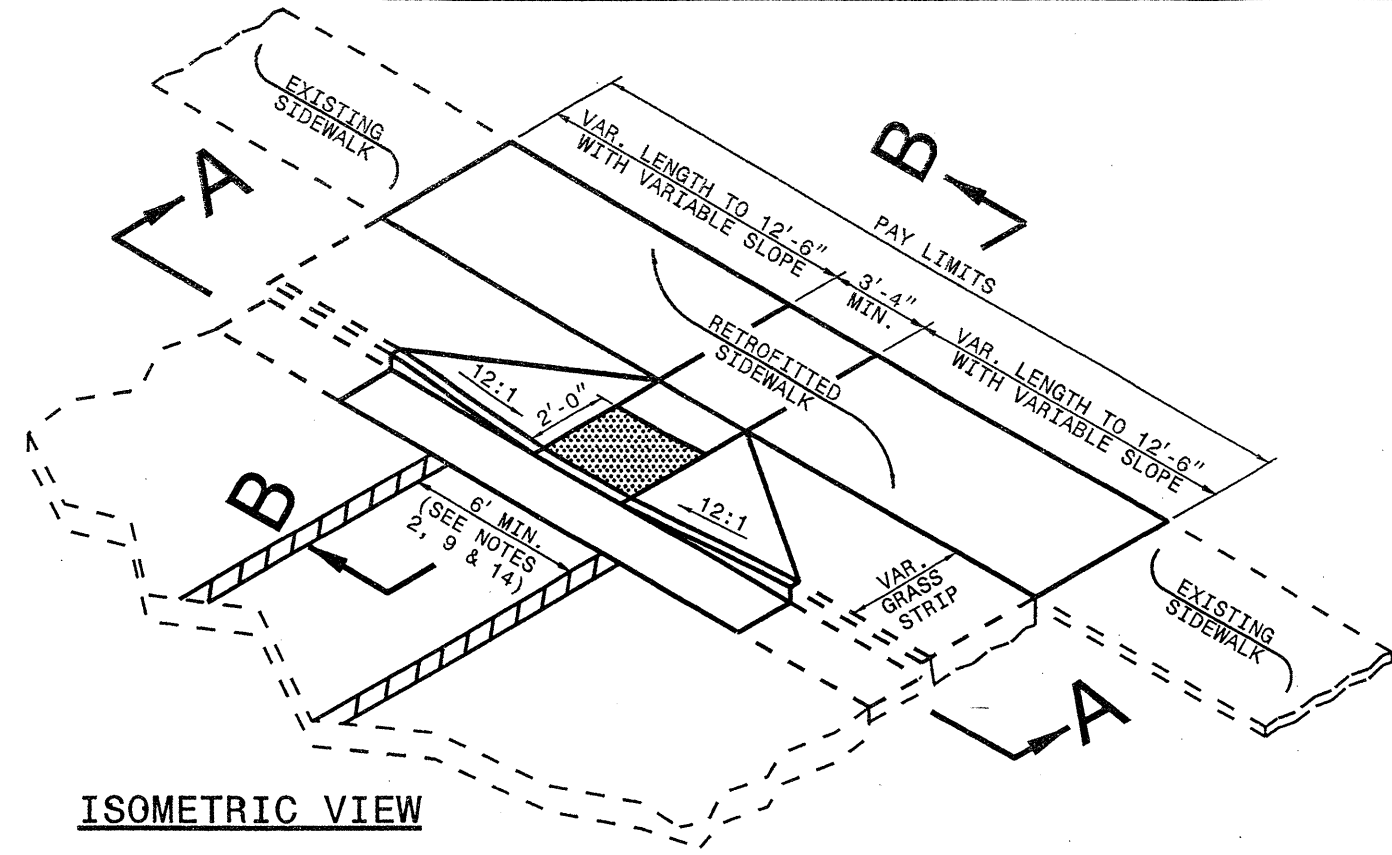
2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-
DATE	01/11
DWG. BY	JSL
DESIGN BY	JSL
APPROVED	

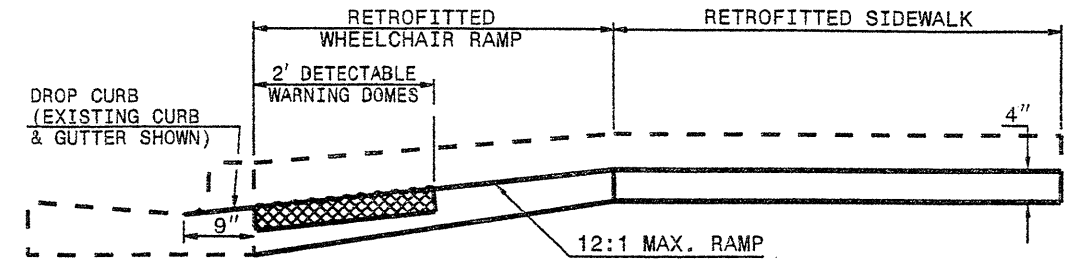


REVISIONS	

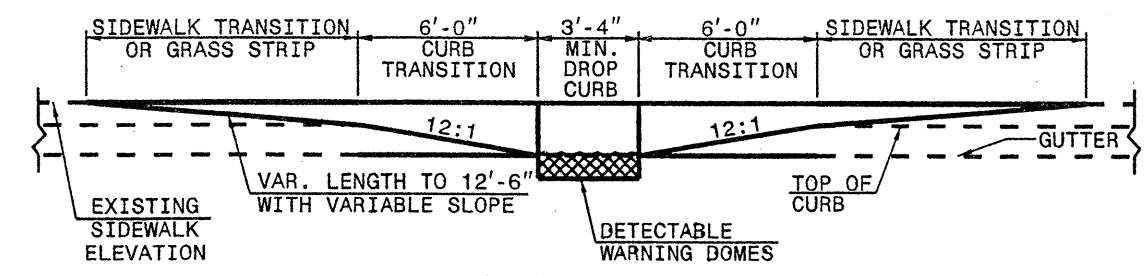
WHEELCHAIR RAMP AND EXISTING SIDEWALK WITH GRASS STRIP



ISOMETRIC VIEW

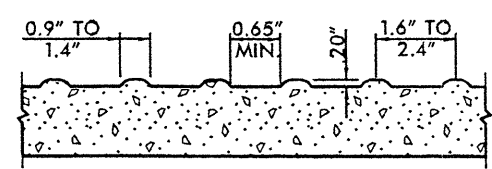
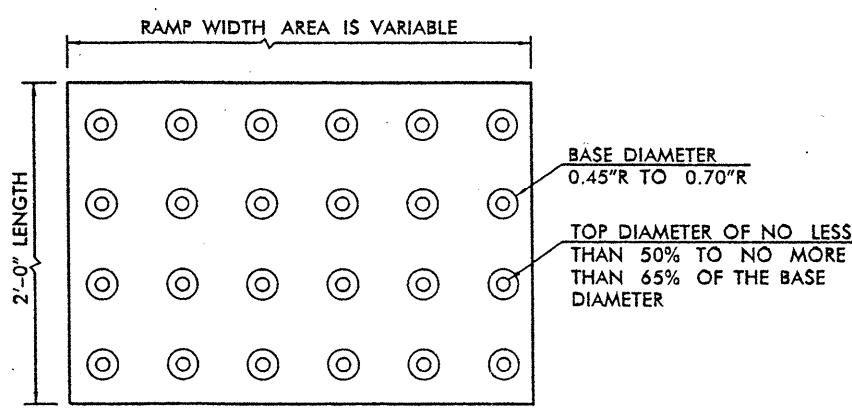


SECTION B-B

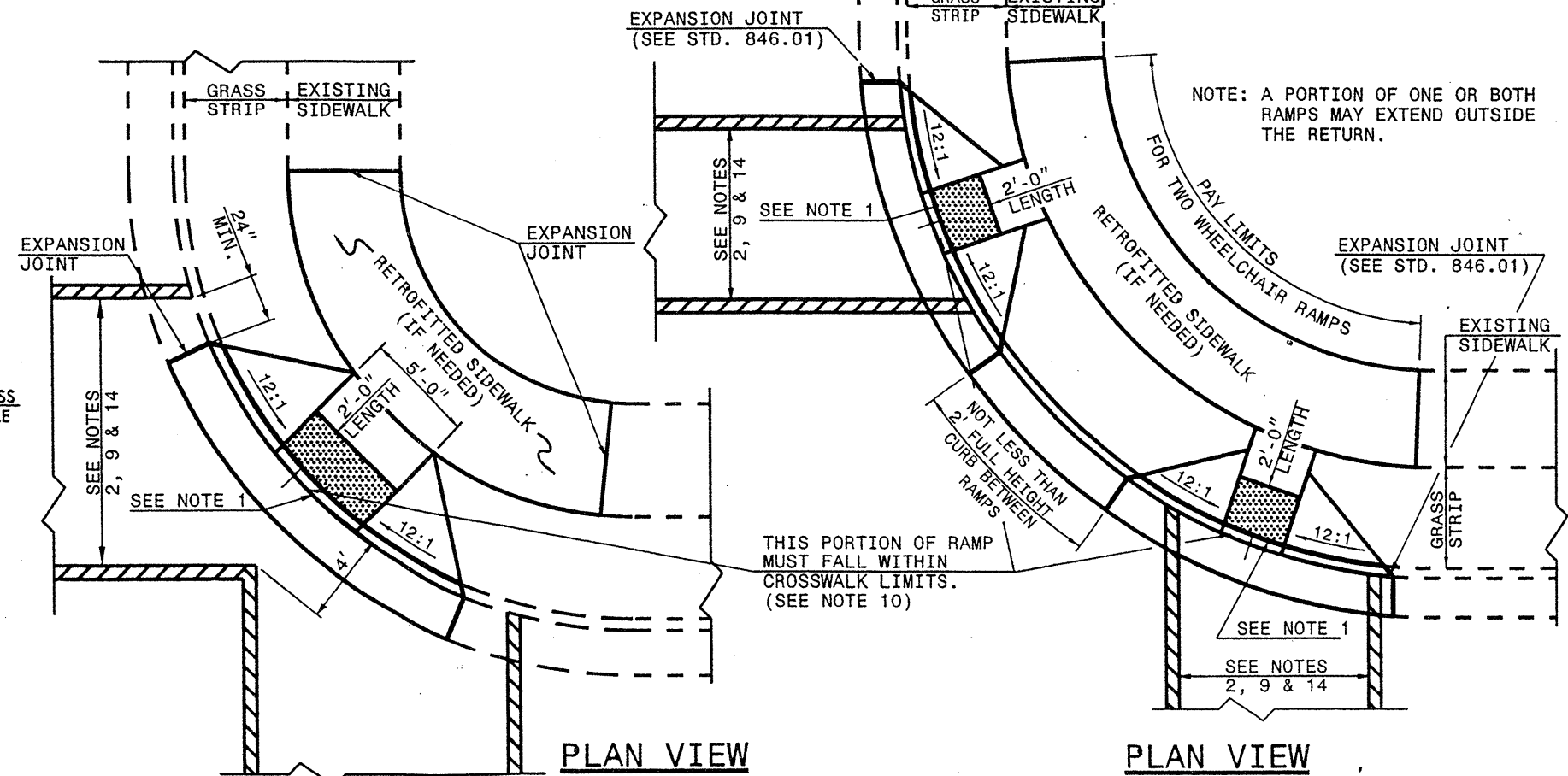


SECTION A-A

- NOTES:**
1. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. OBTAIN 70% CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING DOMES



PLAN VIEW

DIAGONAL RAMP
MAX. 25' RADII
(60" MIN. FLOOR WIDTH)

PLAN VIEW

DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

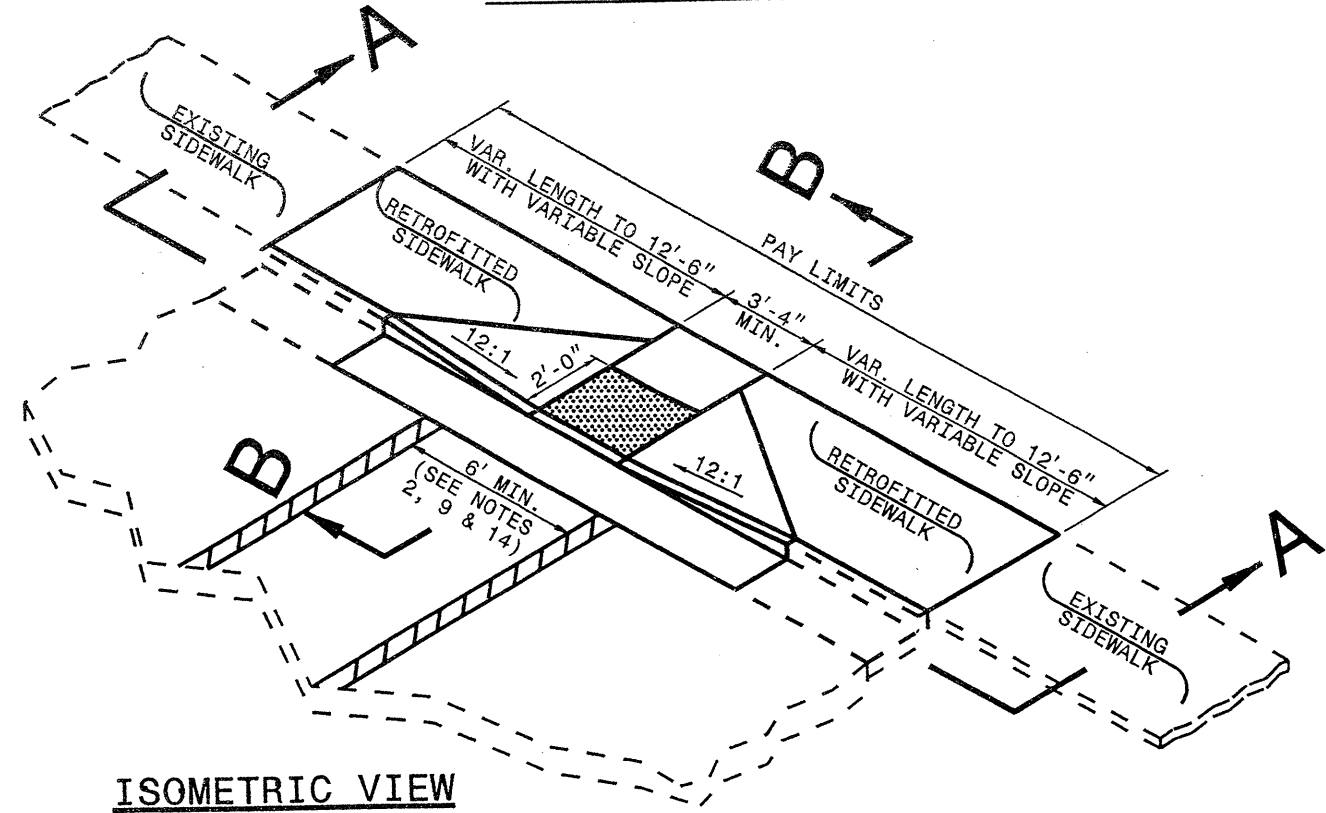
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

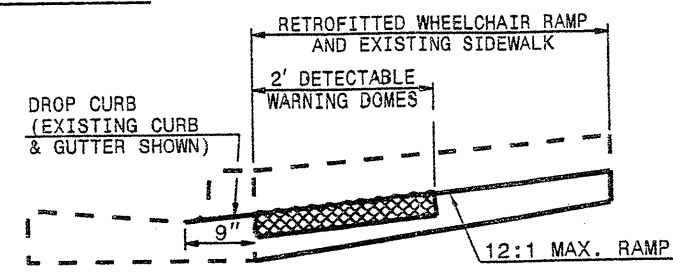
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

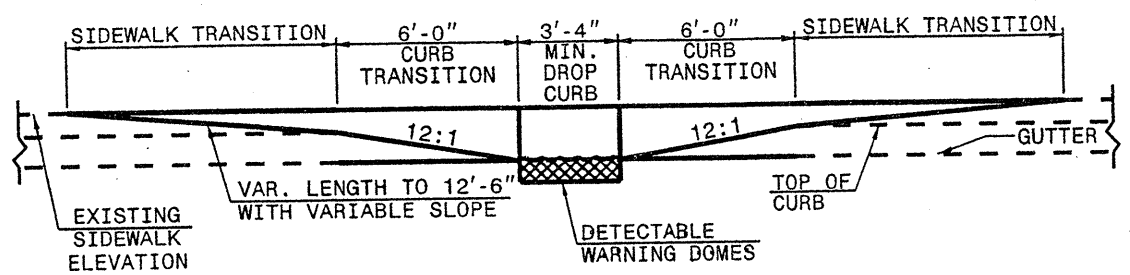
WHEELCHAIR RAMP AND EXISTING SIDEWALK ADJACENT TO CURB



ISOMETRIC VIEW

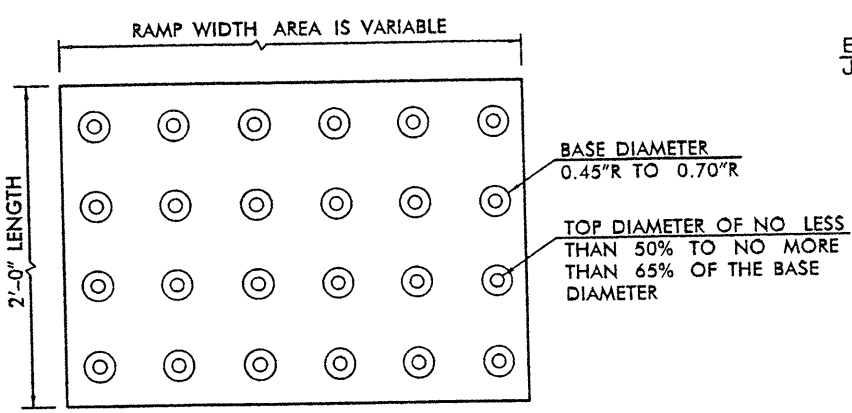


SECTION B-B

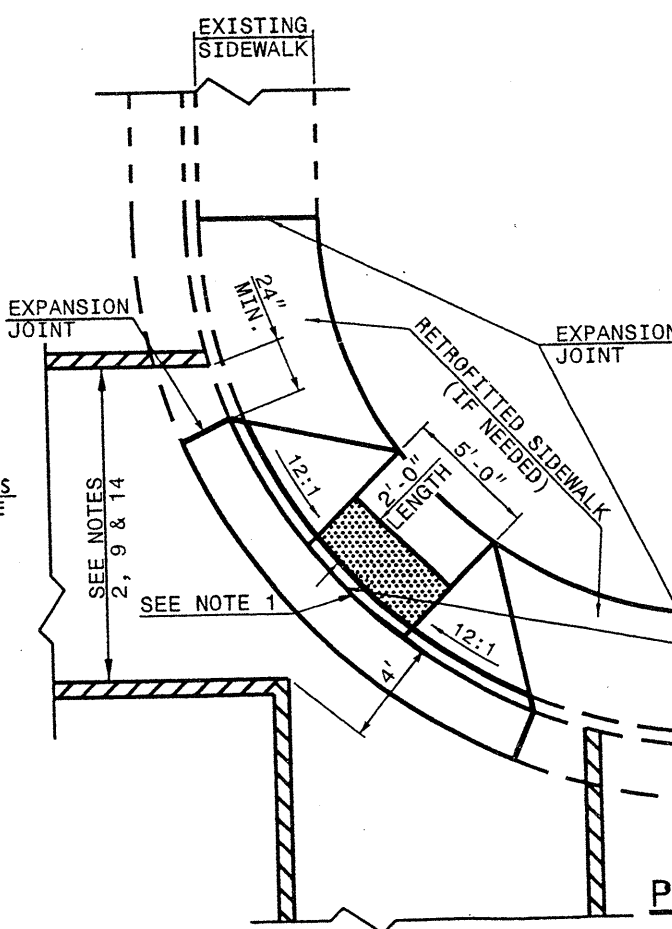


SECTION A-A

- NOTES:
1. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. OBTAIN 70% CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

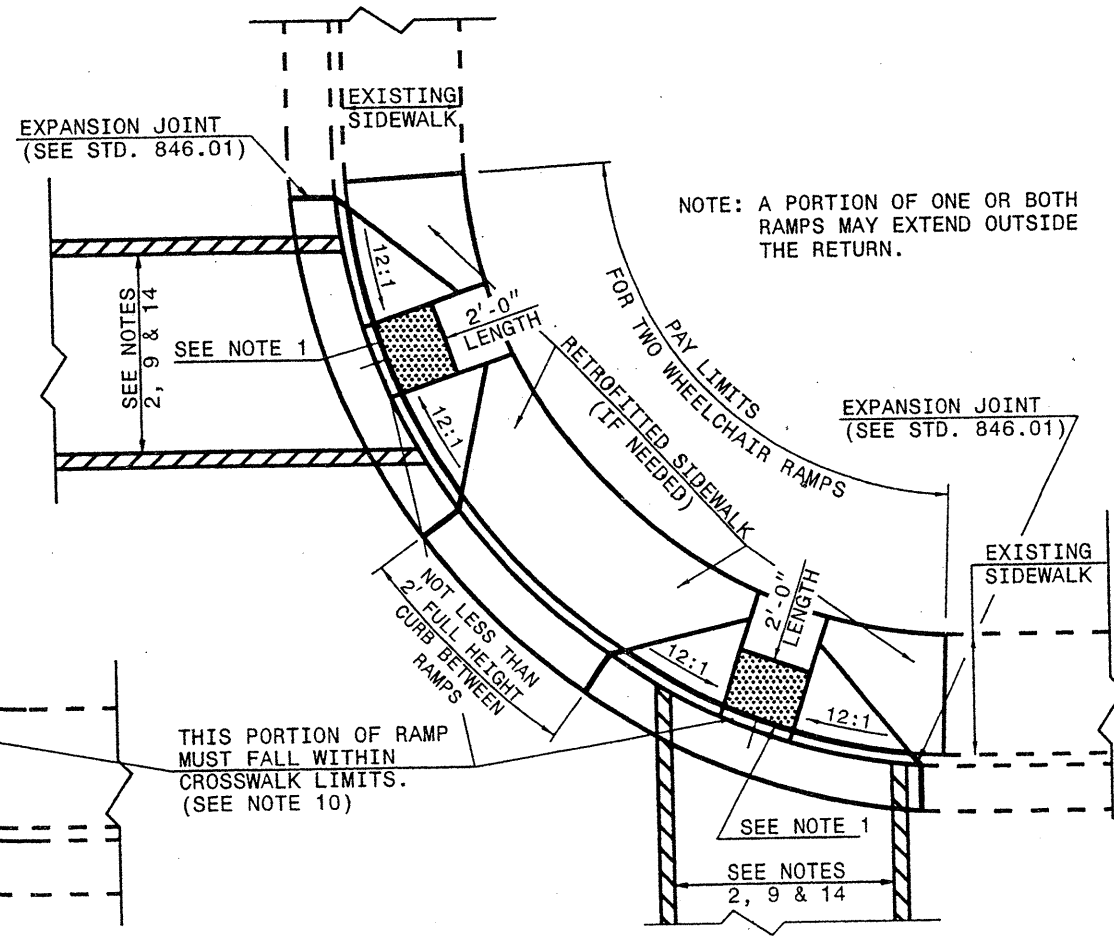


DETECTABLE WARNING DOMES



PLAN VIEW

DIAGONAL RAMP
MAX. 25' RADII
(60" MIN. FLOOR WIDTH)



PLAN VIEW

DUAL RAMP
ANY RADII
(40" MIN. FLOOR WIDTH)

NOTE: A PORTION OF ONE OR BOTH RAMP MAY EXTEND OUTSIDE THE RETURN.

THIS PORTION OF RAMP MUST FALL WITHIN CROSSWALK LIMITS. (SEE NOTE 10)

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

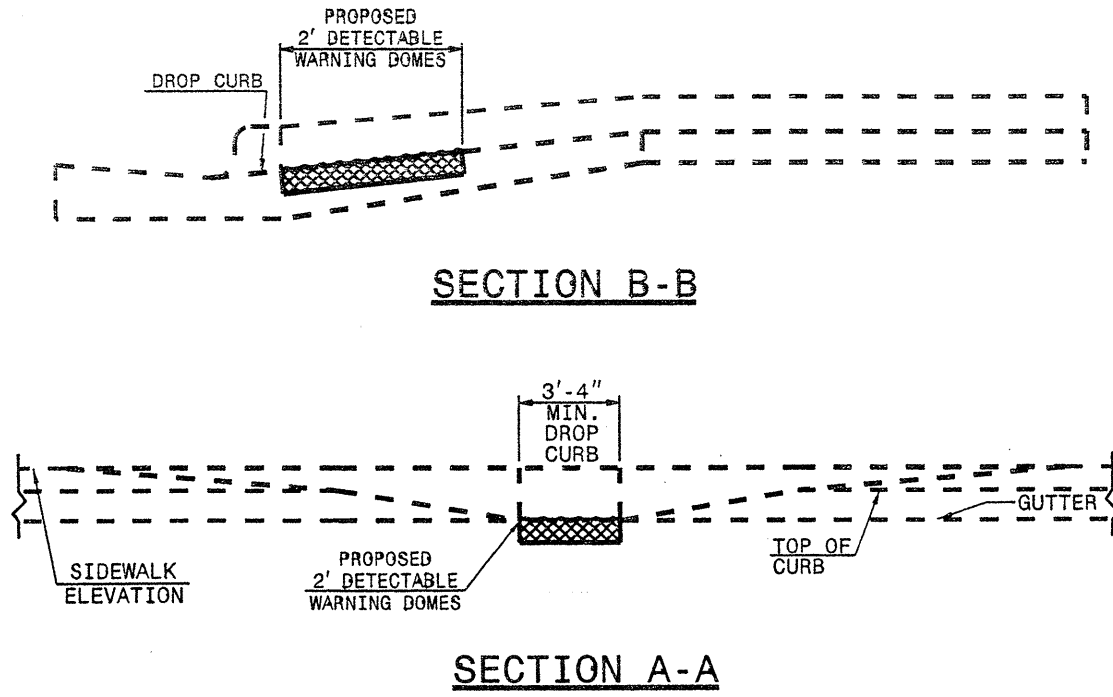
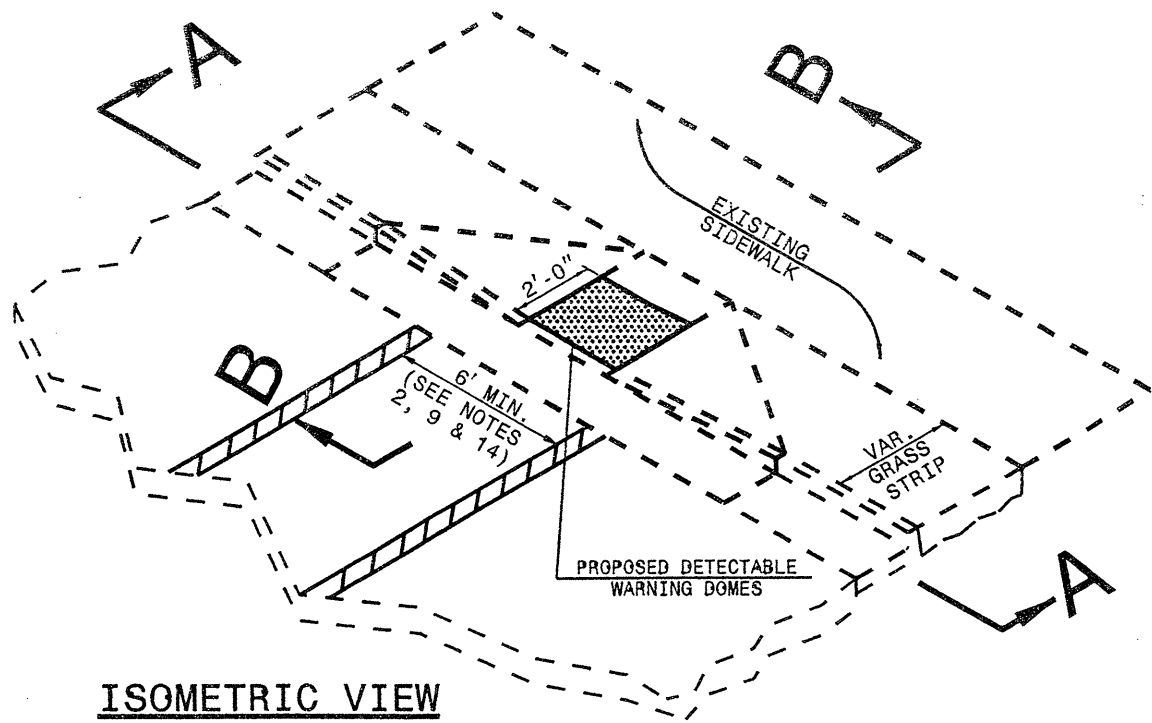
ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

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

ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

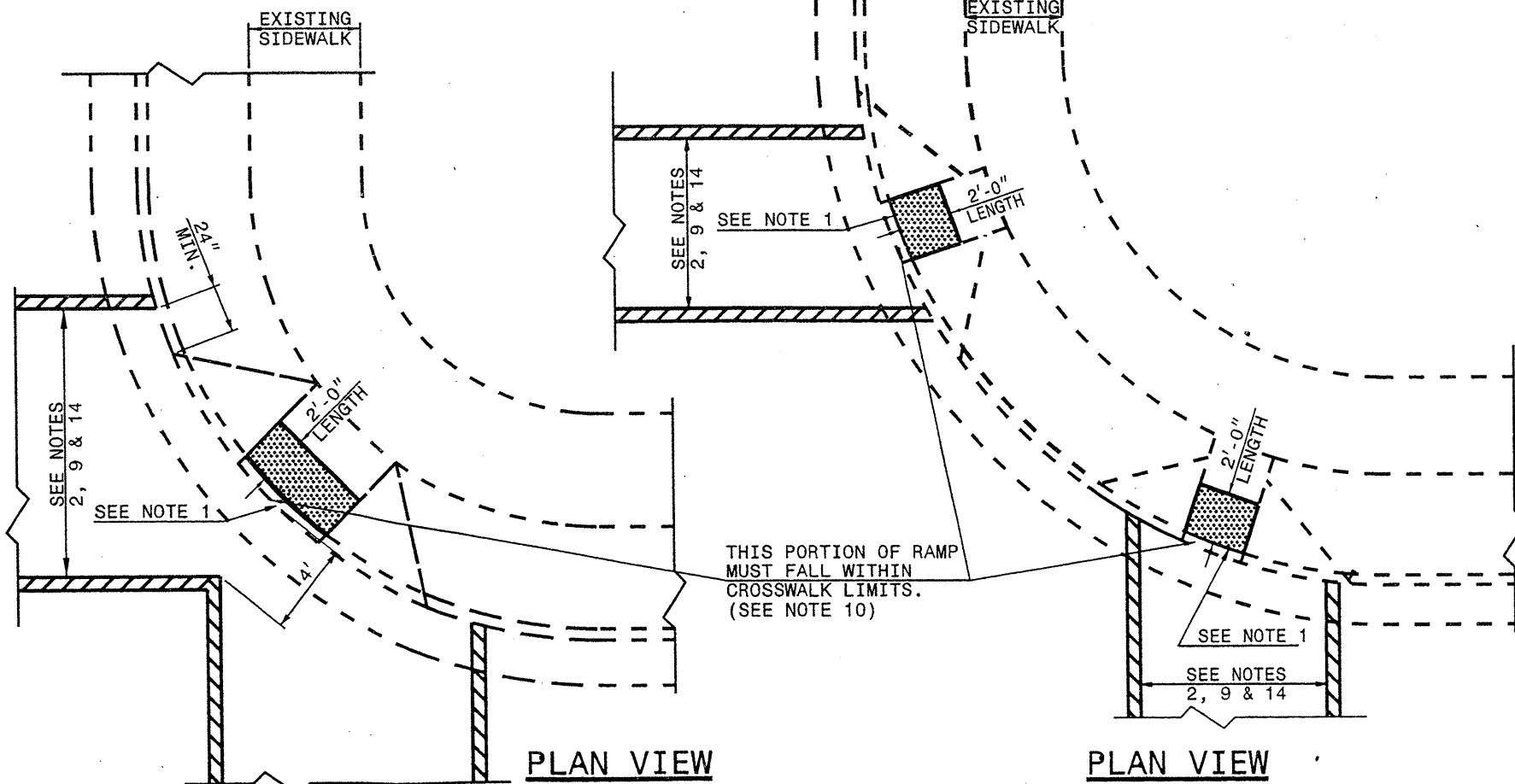
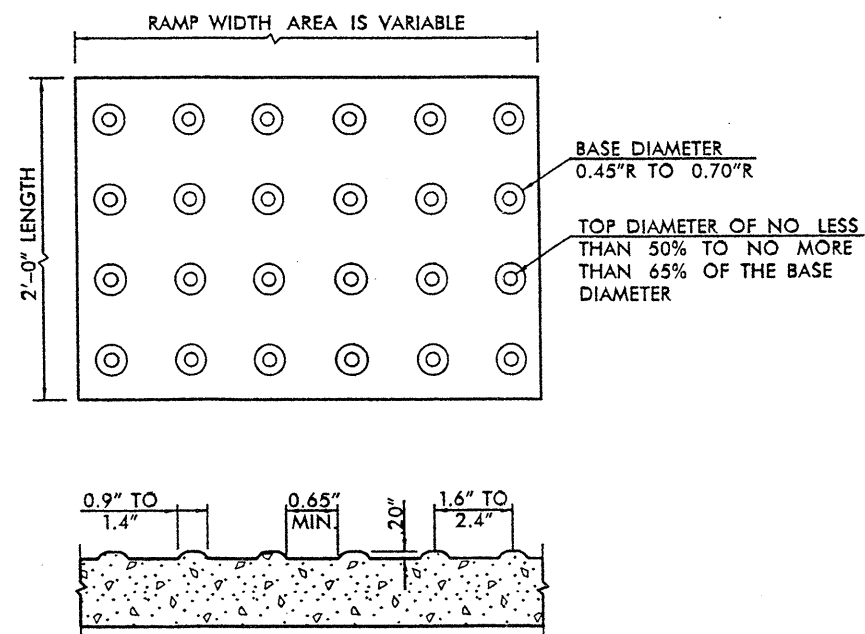
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.100, ETC.	16	

RETROFITTING DETECTABLE WARNING DOMES ONTO EXISTING WHEELCHAIR RAMP



NOTES:

1. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. OBTAIN 70% CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



PLAN VIEW
DIAGONAL RAMP
MAX. 25' RADII
(60" MIN. FLOOR WIDTH)

PLAN VIEW
DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

DETECTABLE WARNING DOMES

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

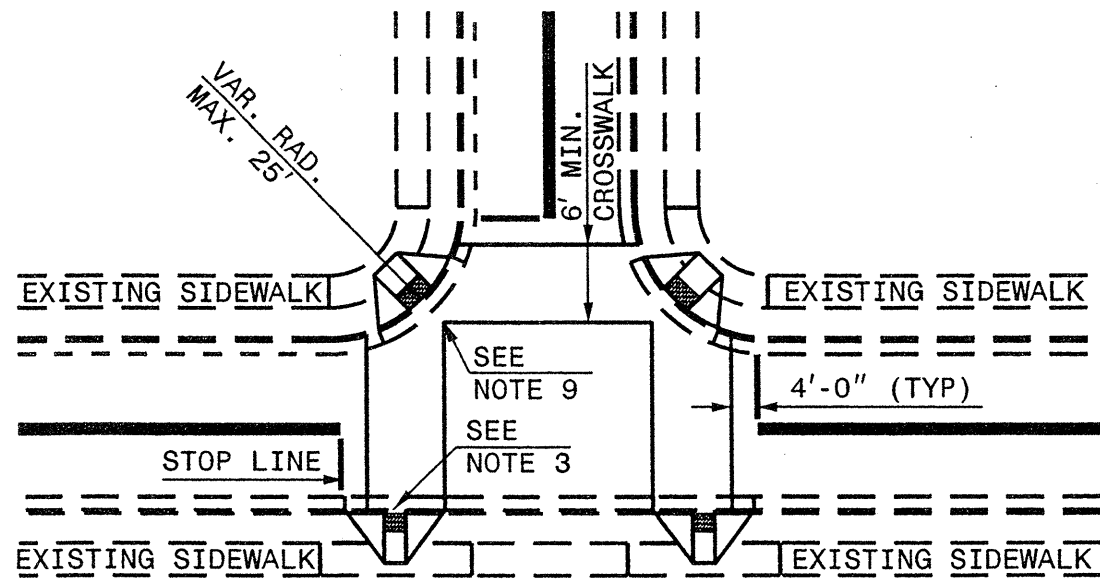
ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

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

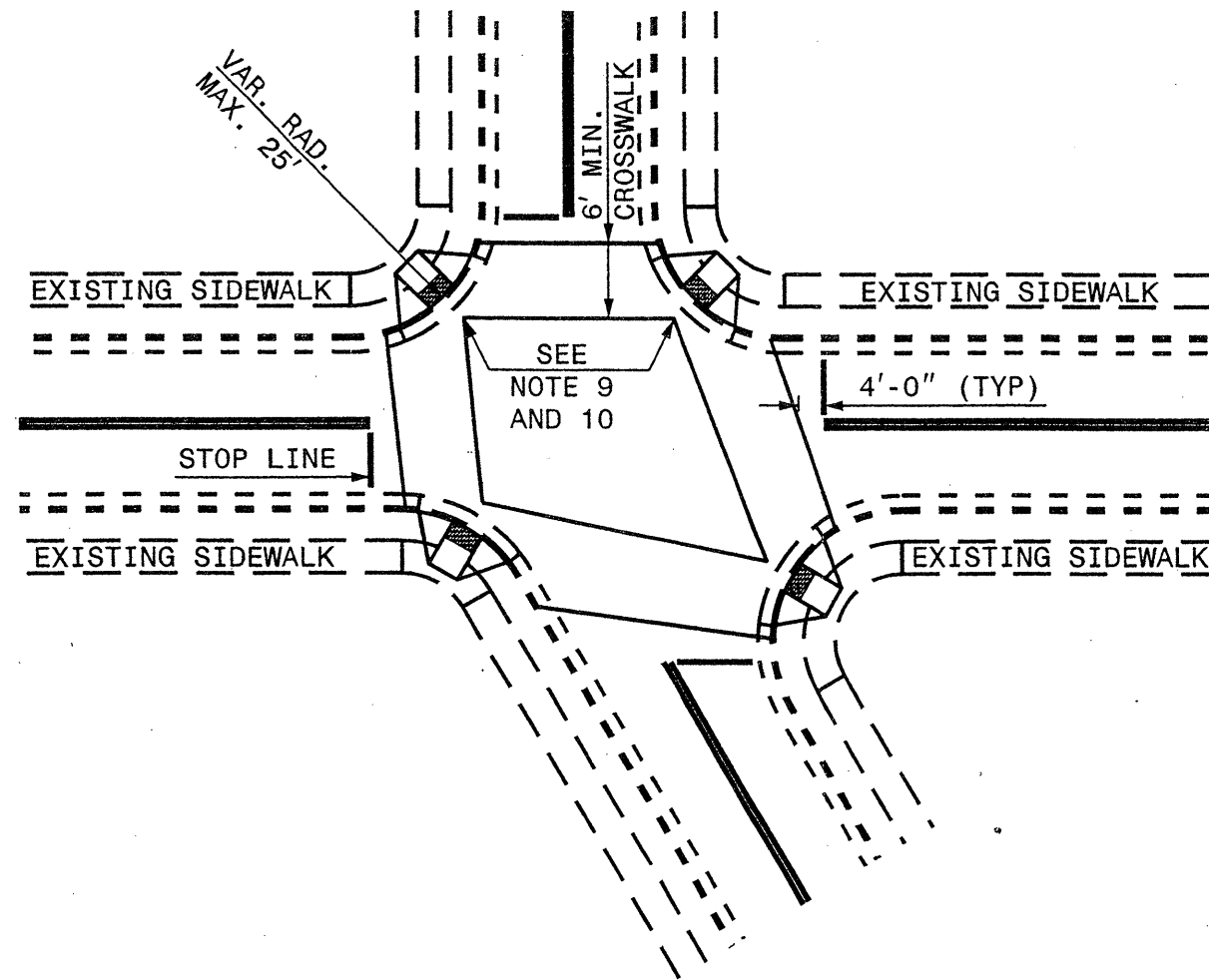
ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	10CR.10601.32 10CR.20601.00, ETC.	17	

WHEELCHAIR RAMP AND EXISTING SIDEWALK

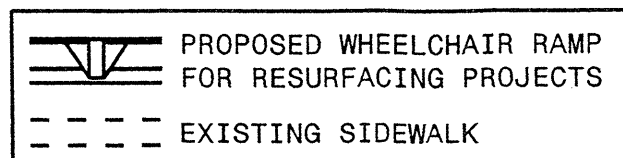


DETAIL SHOWING TYPICAL LOCATION OF WHEELCHAIR RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS



DETAIL SHOWING TYPICAL LOCATION OF WHEELCHAIR RAMPS, PEDESTRIAN CROSSWALKS AND STOP LINES

RESURFACING PROJECTS



ALLOWABLE LOCATIONS

 DIAGONAL RAMP RADII...MAX. 25'

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

ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
 EXISTING CURB AND GUTTER

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

ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
 EXISTING CURB AND GUTTER

WHEELCHAIR RAMP AND EXISTING SIDEWALK

NOTES:

1. CONSTRUCT THE WALKING SURFACE WITH SLIP RESISTANCE AND A 70% CONTRASTING COLOR TO THE SIDEWALK.
2. CROSSWALK WIDTHS AND CONFIGURATION VARY, BUT MUST CONFORM TO TRAFFIC DESIGN STANDARDS.
3. NORTH CAROLINA GENERAL STATUTE 136-44.14 REQUIRES THAT ALL STREET CURBS BEING CONSTRUCTED OR RECONSTRUCTED FOR MAINTENANCE PROCEDURES, TRAFFIC OPERATIONS, REPAIRS, CORRECTION OF UTILITIES OR ALTERED FOR ANY REASON AFTER SEPTEMBER 1, 1973 SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY DISABLED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTER AND SIDEWALKS ARE PROVIDED AND AT OTHER POINTS OF PEDESTRIAN FLOW.

IN ADDITION, SECTION 228 OF THE 1973 FEDERAL AID HIGHWAY SAFETY ACT REQUIRES PROVISION OF CURB RAMPS ON ANY CURB CONSTRUCTION AFTER JULY 1, 1976 WHETHER A SIDEWALK IS PROPOSED INITIALLY OR IS PLANNED FOR A FUTURE DATE.

THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990 EXTENDS TO INDIVIDUALS WITH DISABILITIES, COMPREHENSIVE CIVIL RIGHTS PROTECTIONS SIMILIAR TO THOSE PROVIDED TO PERSONS ON THE BASIS OF RACE, SEX, NATIONAL ORIGIN AND RELIGION UNDER THE CIVIL RIGHTS ACT OF 1964. THESE CURB RAMPS HAVE BEEN DESIGNED TO COMPLY WITH THE CURRENT ADA STANDARDS.

4. PROVIDE WHEELCHAIR RAMPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATE WHEELCHAIR RAMPS AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. WHERE TWO RAMPS ARE INSTALLED PLACE NOT LESS THAN 2 FEET OF FULL HEIGHT CURB BETWEEN THE RAMPS. PLACE DUAL RAMPS AS NEAR PERPENDICULAR TO THE TRAVEL LANE BEING CROSSED AS POSSIBLE.
5. DO NOT EXCEED 0.08 (12:1) SLOPE ON THE WHEELCHAIR RAMP IN RELATIONSHIP TO THE GRADE OF THE STREET.
6. CONSTRUCT WHEELCHAIR RAMPS 40" (3'-4") OR GREATER FOR DUAL RAMPS AND 60" (5'-0") OR GREATER FOR DIAGONAL RAMPS.
7. USE CLASS "B" CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.
8. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE WHEELCHAIR RAMP JOINS THE CURB AND AS SHOWN ON STD. DWG. 848.01.
9. PLACE THE INSIDE PEDESTRIAN CROSSWALK LINES NO CLOSER IN THE INTERSECTION BY BISECTING THE INTERSECTION RADII, WITH ALLOWANCE OF A 4' CLEAR ZONE IN THE VEHICULAR TRAVELWAY WHEN ONE RAMP IS INSTALLED. (SEE NOTE 14)
10. COORDINATE THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SO THE FLOOR OF THE WHEELCHAIR RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES. PLACE DIAGONAL RAMPS WITH FLARED SIDES SO 24" OF FULL HEIGHT CURB FALLS WITHIN THE CROSSWALK MARKINGS ON EACH SIDE OF THE FLARES.
11. CONSTRUCT THE PEDESTRIAN CROSSWALK A MINIMUM OF 6 FEET. A CROSSWALK WIDTH OF 10 FEET OR GREATER IS DESIRABLE.
12. USE STOP LINES, NORMALLY PERPENDICULAR TO THE LANE LINES, WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT. AN UNUSUAL APPROACH SKEW MAY REQUIRE THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTING ROADWAY.
13. TERMINATE PARKING A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK.
14. PLACE ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.

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

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

ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

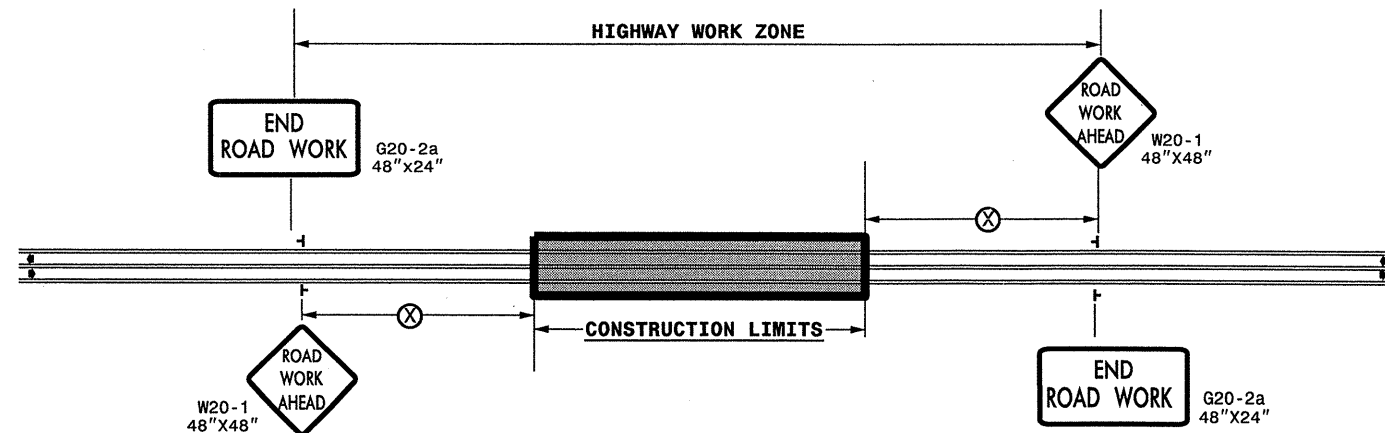
ENGLISH DETAIL DRAWING FOR
WHEELCHAIR RAMP
EXISTING CURB AND GUTTER

PROJECT NO.	SHEET NO.	TOTAL NO.
10CR.10601.32	19	
10CR.10601.32, ETC.		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1 1/2" MILLING SY	4" MILLING SY	8" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0C TONS	INTERMEDIATE COURSE, H9.0C TONS	LEVELING COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	LEVELING COURSE, S9.5C TONS	ASPHALT BINDER FOR PLANT MIX PG 64-?? TONS	ASPHALT BINDER FOR PLANT MIX PG 70-?? TONS	PATCHING EXISTING PAVEMENT TONS	RETROFIT EXISTING WHEELCHAIR RAMP EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	MATTING (EROSION CONTROL) SY	WATTLE LF	
10CR.10601.32	Mecklenburg	6	STEELE CREEK RD (NC 160)	FROM BYRUM DR (SR 1255) TO PVT JT AT SHOPTON RD (SR 5469)	3	NO	1.31	26	85	50	2.60					150				1,771	300		124	700						300	150	100.00
10CR.20601.100	Mecklenburg	1	SOUTH BLVD (SR 3998)	FROM TYVOLA RD TO WOODLAWN RD (SR 3814)	1, 2	NO	0.8	68				34,308								2,954			177	400			6	1.00				
10CR.20601.101	Mecklenburg	2	SOUTH BLVD (SR 3998)	FROM WESTINGHOUSE (SR 1128) TO ARCHDALE RD	1, 2	NO	2.17	59.5				75,748								6,695			402	1,085	3	6	6	*				
10CR.20601.102	Mecklenburg	3	WESTINGHOUSE BLVD (SR 1128)	SHOPTON RD W. TO STEELE CREEK RD (NC160)	3	NO	1	33	60		1.95					265				1,714	300		121	500						400	200	200.00
10CR.20601.103	Mecklenburg	4	SHOPTON RD (SR 5469)	FROM PVT JT 1300' WEST OF PLEASANT WAY (SR 1423) TO PVT JT AT PLEASANT WAY (SR 1423)	4	NO	0.25	34	10		0.25				1,440	190				441			26	125						100	50	100.00
10CR.20601.104	Mecklenburg	5	SHOPTON RD (SR 5469)	PORTER RD (SR 1142)	4, 5, 6	NO	0.31	37.5	10		0.28				2,000	210				604	50		39	150	2					100	50	100.00
10CR.20601.105	Mecklenburg	7	ARROWWOOD RD (SR 1138)	FROM S. TRYON ST (NC 49) TO I-77	3, 6, 7, 8	NO	1.29	81.5	85		0.93				4,500	655				5,448	450		354	645	5	6	6		300	125	100.00	
10CR.20601.106	Mecklenburg	8	N GRAHAM ST (SR 2540)	FROM ATANDO TO I-85 BRIDGE	9, 10	NO	1.22	52				28,700		8,600			2,150	1,350		3,291		156	197	610	6	1	5	*				
10CR.20601.107	Mecklenburg	9	MT HOLLY RD (SR 1784)	FROM FREEDOM DR (NC 27) TO PVT JT AT FRED D. ALEXANDER PKWY	3, 5	NO	0.85	26.5	50	30	1.55				875	140			200	1,171		12	70	400						200	100	100.00
10CR.20601.108	Mecklenburg	10	QUEEN CITY DR (SR 1815)	FROM BILLY GRAHAM PKWY (SR 5901) TO SHEETS CIRCLE	3, 5, 7	NO	0.68	27.5	20	25	0.60				4,500	300				972	340		79	340						200	100	200.00
10CR.20601.109	Mecklenburg	11	BILLY GRAHAM PKWY (SR 5901) PAVED INTERSECTIONS	BILLY GRAHAM (SR 5901) FROM MULBERRY CHURCH RD (SR 1658) TO CONCRET PVT JT AND THE INTERSECTIONS OF BOYER ST (SR1656), MORRIS FIELD & TYVOLA	4, 11, 12, 13	NO	0.26	80	85		6.44	19,000			50	3,300				2,493			150	850								100.00
10CR.20601.110	Mecklenburg	12	RESEARCH DRIVE (SR 2699)	FROM TECHNOLOGY DRIVE (SR 2703) TO DAVID TAYLOR DRIVE (SR 2713)	14	NO	0.748	36					15,798					2,491		1,465		117	88			5						
10CR.20601.111	Mecklenburg	13	DAVID TAYLOR DR (SR 2713)	FROM RESEARCH DR (SR 2699) TO CLAUDE FREEMAN DR (SR 2746)	2	NO	1.17	38				26,083								2,308			138	750			10	5				
10CR.20601.112	Mecklenburg	14	MT HOLLY-HUNTERSVILLE RD (SR 2004)	FROM BROOKSHIRE BLVD (NC 16) TO PVT JT 1800' NORTH	3, 4, 15	NO	0.34	49	30		0.50				1,100	270				864	170		62	170			1	2		200	75	100.00
10CR.20601.113	Mecklenburg	15	PEACHTREE RD (SR 2019)	FROM OAKDALE RD (SR 2042) TO SUNSET RD (2108)	3, 4, 5, 7	NO	1.61	22	95		2.89				2,000	110				1,843	300		129	750						300	200	200.00
GRAND TOTAL							14.01		530	105	17.99	183839	15798	8600	16465	5590	2150	3841	200	34034	1910	285	2156	7475	16	29	32	1	2100	1050	1300	

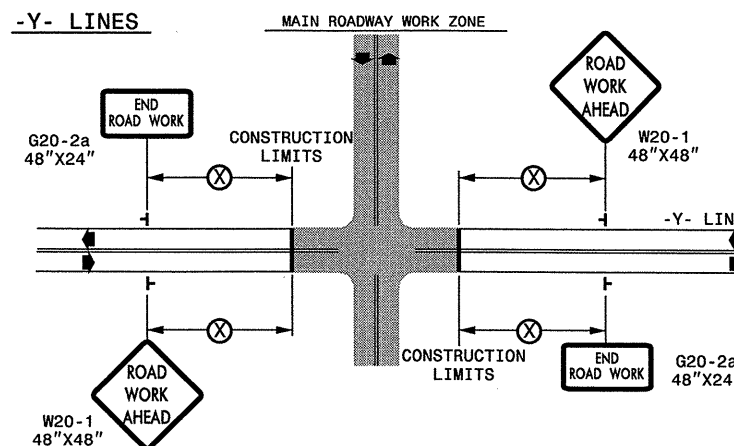
TWO-WAY UNDIVIDED ** (L-LINES)



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

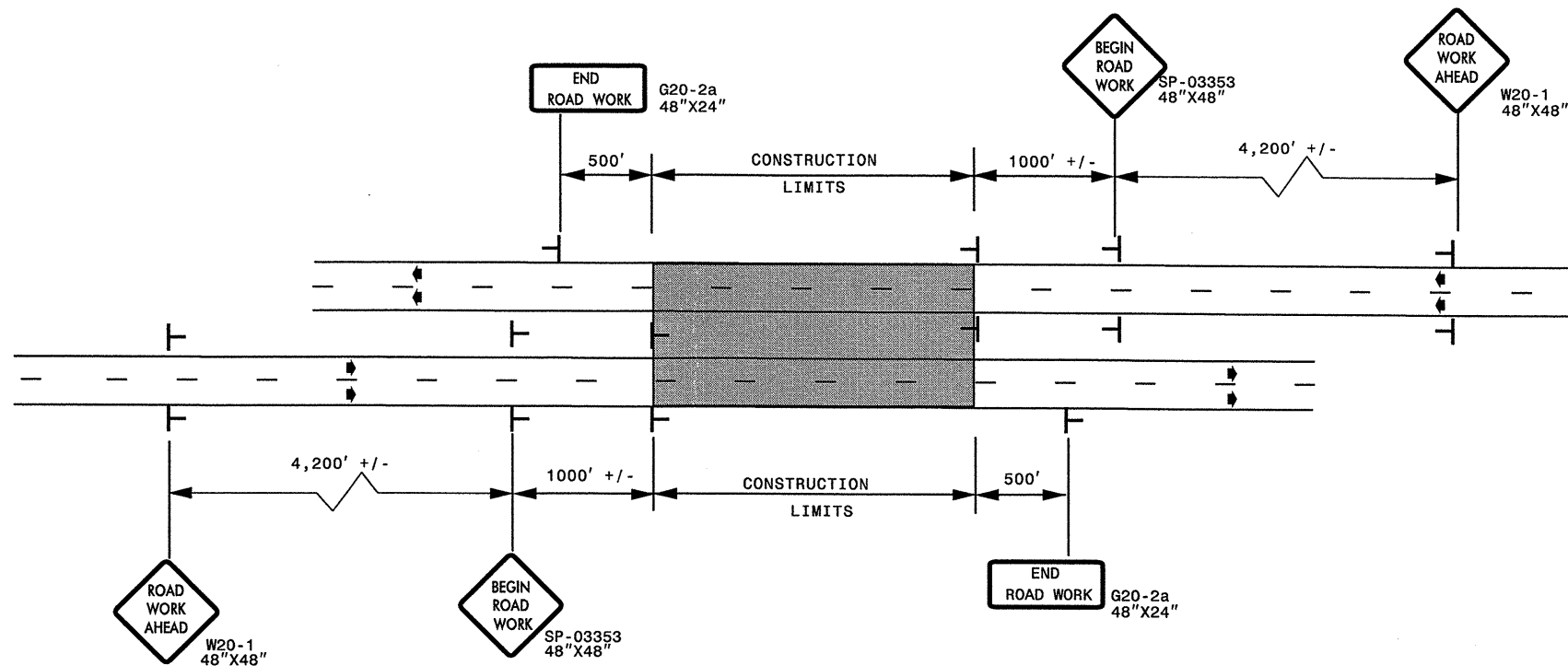
APPROVED: _____ DATE: _____	DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS	
SEAL	SCALE: NONE	REVISIONS
	DATE: _____	7-98 10/01
	DWG. BY: _____	10-98 03/04
	DESIGN BY: _____	01/01 11/04
REVIEWED BY: _____		

09-FEB-2011 14:43
 \DDOT\DP-SR00\TON\GROUPS-WZ\TCCC\TMU\WZTC\Resurfacing\2011\Western\2011\Div\0\C2027_IDCR.10601.32x15_Mecklenburg_NC160\C2027_IDCR.10601.32x15_2woy_Undiv.&_Urban_Frwys_stationary.dgn
 shg/een AT 11:24:13

ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

PROJ. REFERENCE NO.	SHEET NO.
10CR.10601.32 x 15	TCP-2

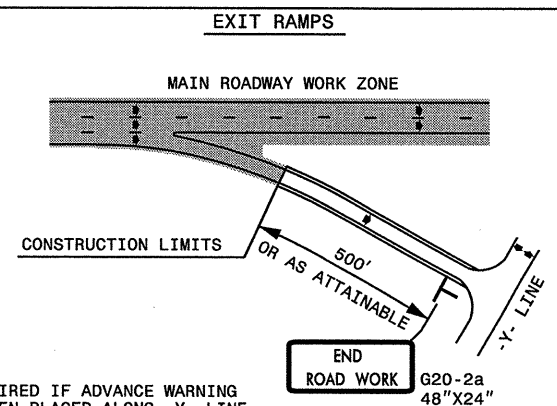
DETAIL A



LEGEND	
	STATIONARY SIGN
▶	DIRECTION OF TRAFFIC FLOW

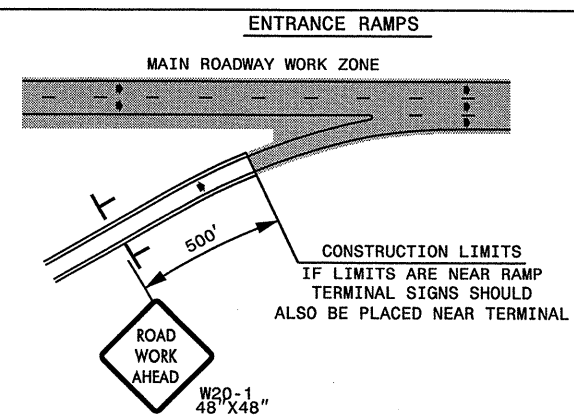
* USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

DETAIL B



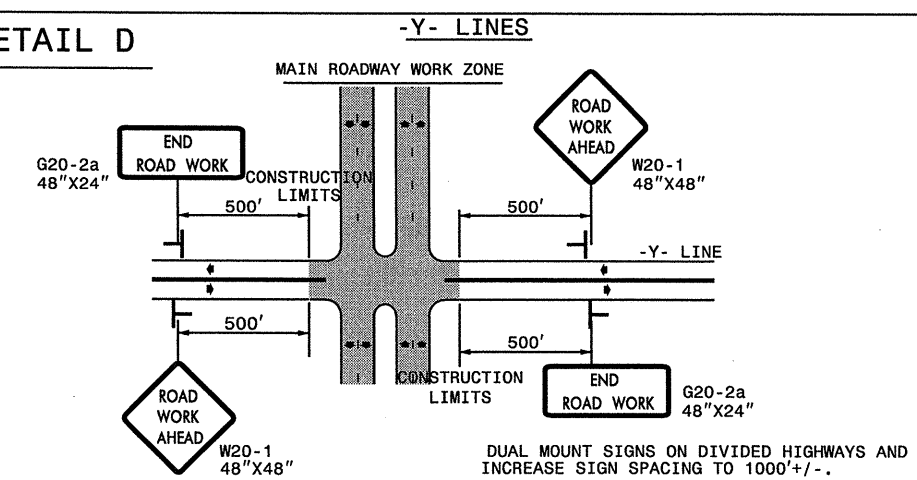
NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



CONSTRUCTION LIMITS IF LIMITS ARE NEAR RAMP TERMINAL SIGNS SHOULD ALSO BE PLACED NEAR TERMINAL

DETAIL D



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

GENERAL NOTES

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






APPROVED: _____ DATE: _____	ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)	
<div style="border: 1px solid black; border-radius: 50%; width: 60px; height: 60px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> SEAL </div>	SCALE: NONE	REVISIONS
	DATE: 8/03	03/04
	DWG. BY: JI	
	DESIGN BY: JI	
REVIEWED BY: _____		CADD

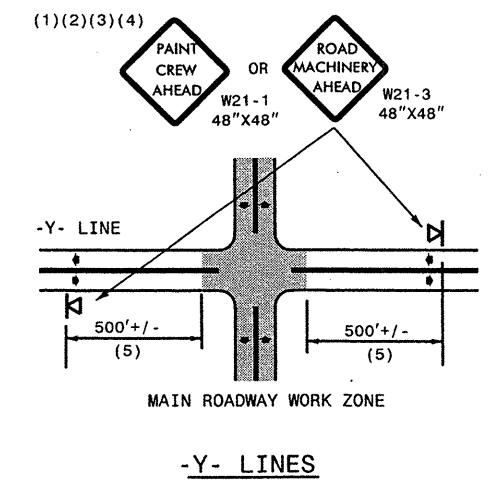
09-FEB-2011 14:44 \\001\XP5R001\01\GROUPS-WZTC\Resur-facng\2010\Western\2010\Div10\C2027_10CR.10601.32x15-Mecklenburg-NO160\C2027_10CR.10601.32x15-freeways_4lanes_or_greater_stationary.dgn

GENERAL NOTES

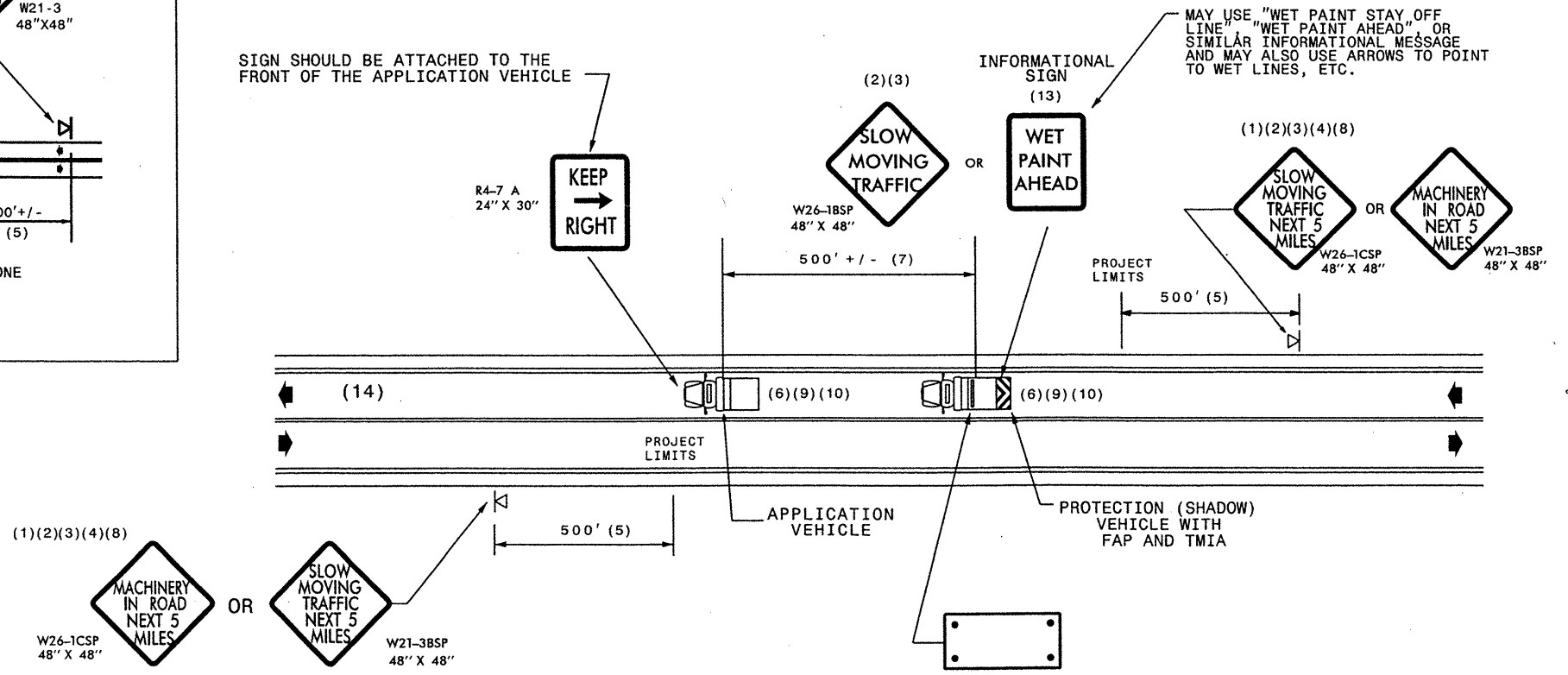
- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
 - A. TRUCK MOUNTED SIGNS
 - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
 - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST CIRCLE TO PICK UP SIGNS)
 - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE CIRCLE TO PICK UP SIGNS)
- (2) ALL ADVANCE WARNING SIGNS MUST BE 48" X 48" WITH FLUORESCENT ORANGE TYPE VII, VIII OR IX SHEETING. IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48" X 48" SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.
- (4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND TO BOTTOM OF SIGN.
- (5) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.
- (6) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.
- (7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMODATE SIGHT DISTANCE NEEDS.
- (8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.
- (9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.
- (10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.
- (13) INFORMATIONAL SIGNS SHOULD BE ACTIVITY SPECIFIC, i.e. "PAINT CREW IN ROAD". SIGNS MAY BE RECTANGULAR OR DIAMOND SHAPE. SIGN SIZE SHOULD BE BASED ON THE MOTORIST ABILITY TO RECOGNIZE SIGN WHEN TRAVELING FIVE (5) MILES ABOVE POSTED SPEED LIMIT.
- (14) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

LEGEND

-  PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH LIGHT BAR
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
-  FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), "CAUTION MODE"



SIGN SHOULD BE ATTACHED TO THE FRONT OF THE APPLICATION VEHICLE



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)
PLACING PAVEMENT MARKING OR MARKERS
ON TWO-LANE TWO-WAY ROADWAYS

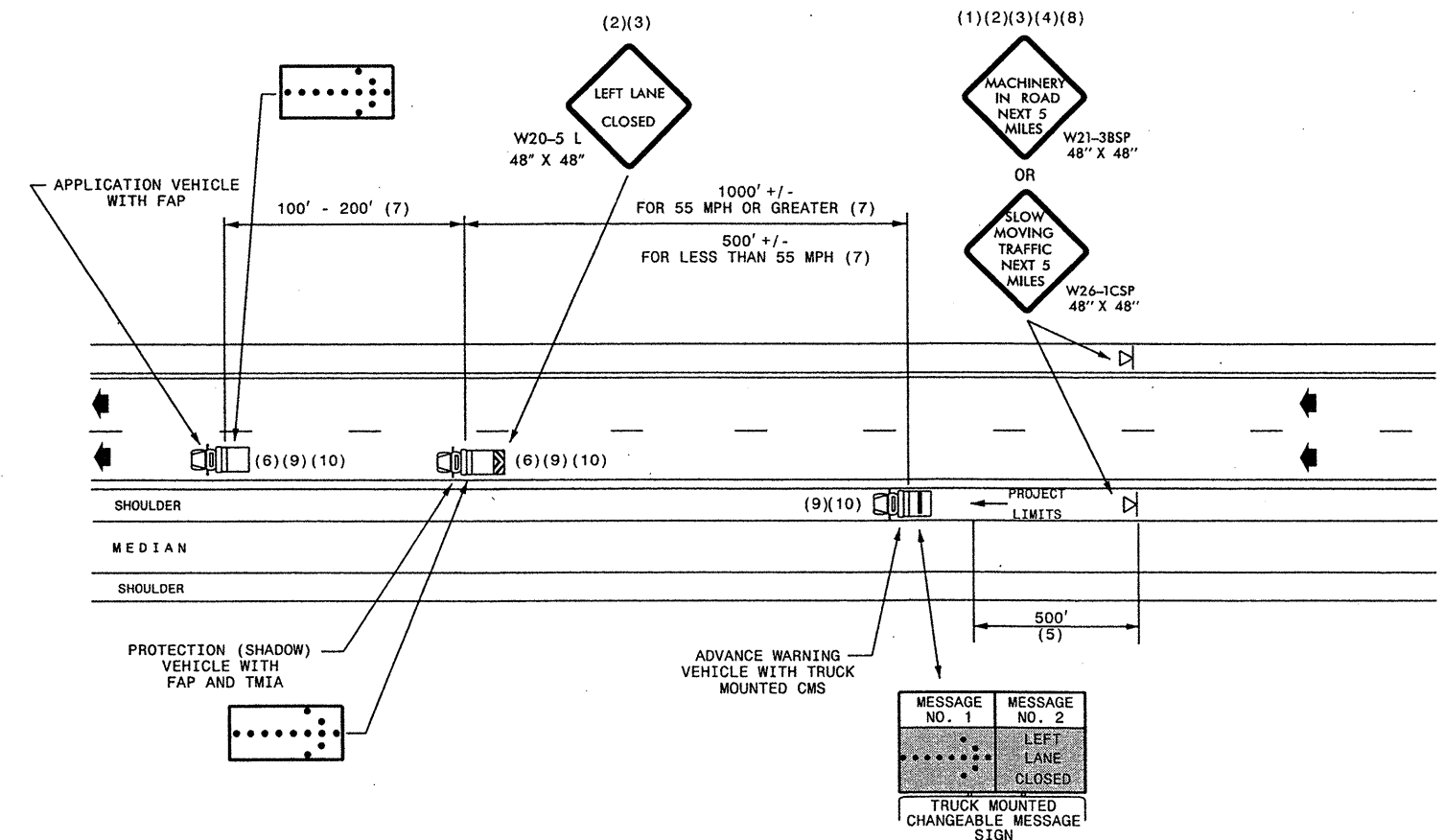
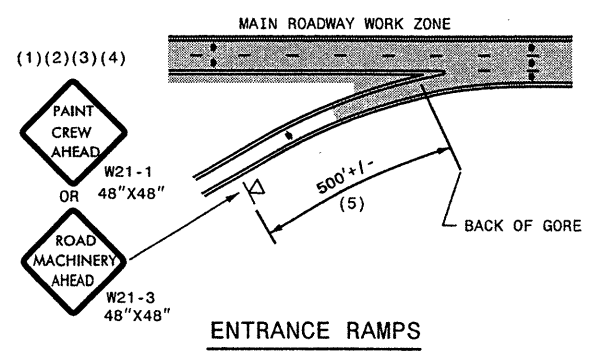
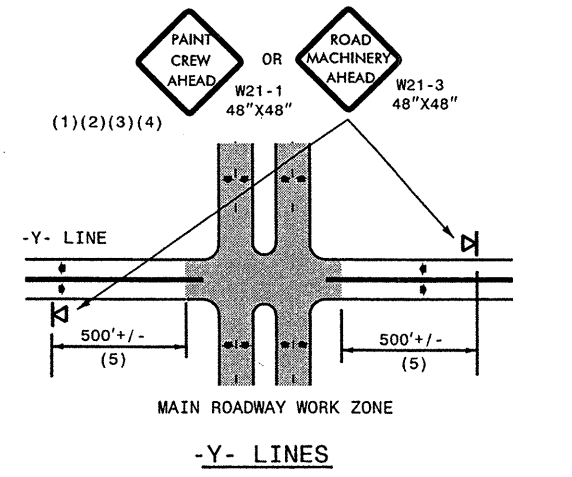
DRAWING NUMBER 6
IMPLEMENTATION DATE: 07/01/97
REVISED: 11/03/04

GENERAL NOTES

- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
 - A. TRUCK MOUNTED SIGNS
 - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
 - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST CIRCLE TO PICK UP SIGNS)
 - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE CIRCLE TO PICK UP SIGNS)
- (2) ALL ADVANCE WARNING SIGNS MUST BE 48" X 48" WITH FLUORESCENT ORANGE TYPE VII, VIII OR IX SHEETING. IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48" X 48" SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.
- (4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF FIVE (5) FEET FROM THE GROUND TO BOTTOM OF SIGN.
- (5) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.
- (6) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.
- (7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMMODATE SIGHT DISTANCE NEEDS.
- (8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.
- (9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.
- (10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.

LEGEND

- PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
- DIRECTION OF TRAFFIC FLOW
- APPLICATION VEHICLE WITH LIGHT BAR
- PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
- ADVANCE WARNING VEHICLE WITH TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS) AND LIGHT BAR. MESSAGE SIGN LETTER HEIGHT SHOULD BE A MINIMUM OF 10 INCHES.
- FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), APPROPRIATE DIRECTION INDICATED
- CHANGEABLE MESSAGE SIGN



MOVING OPERATION CARAVAN
 (OPERATIONS TRAVELING 3 MPH OR FASTER)
 PLACING PAVEMENT MARKING OR MARKERS
 ON NON-INTERSTATE MULTILANE DIVIDED ROADWAYS

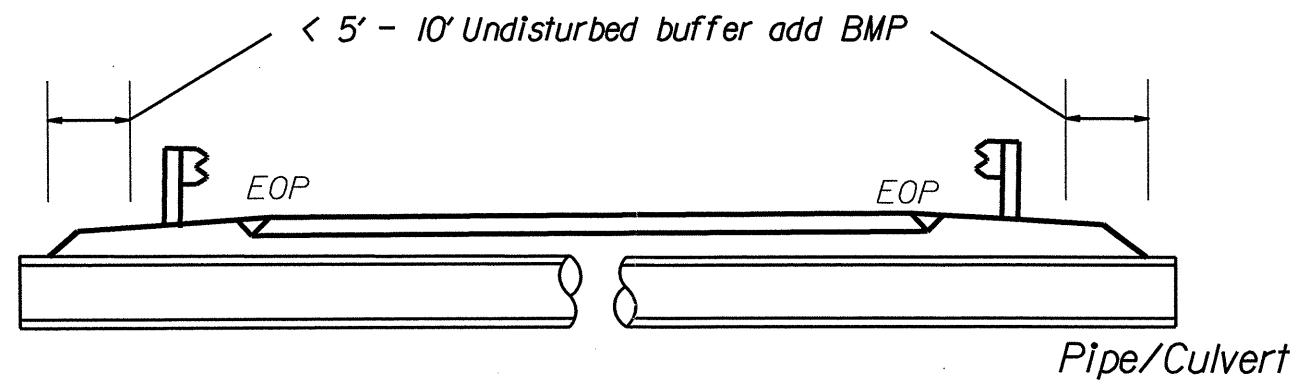
DRAWING NUMBER 7
 IMPLEMENTATION DATE: 07/01/97
 REVISED: 11/03/04

PROJECT REFERENCE NO.	SHEET NO.
OC200012 & OC200013, ETC.	EC-1
BY: SHEET NO.	DATE:
ROADWAY DESIGN ENGINEER	PROJECT ENGINEER

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

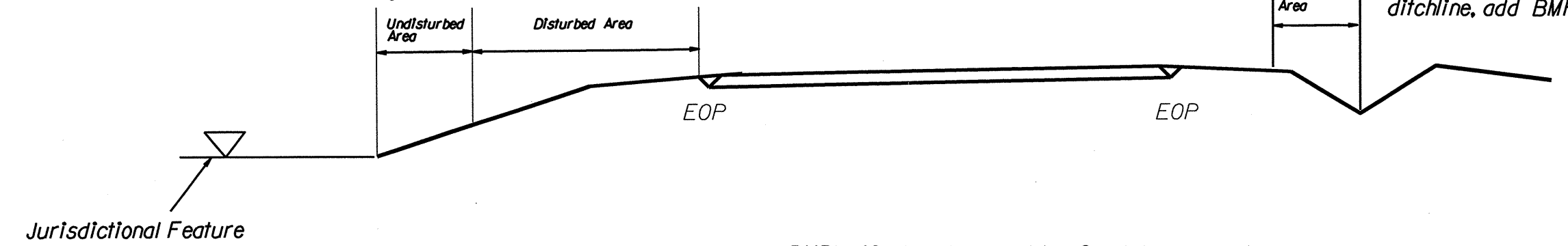
BMP Options: Wattle or Silt Fence

EROSION CONTROL DETAIL

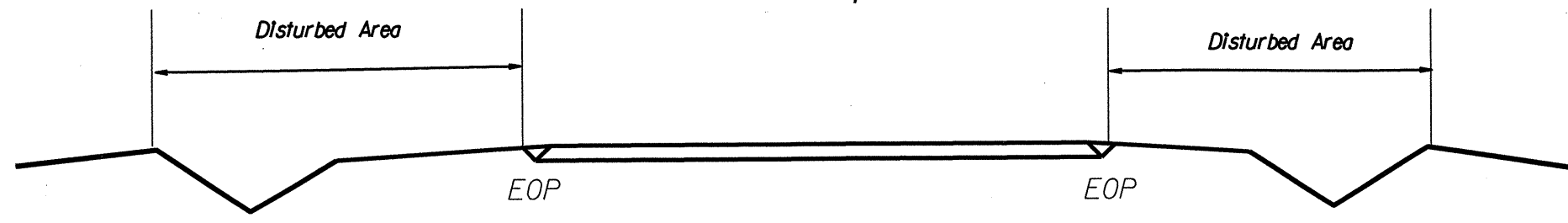


< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP

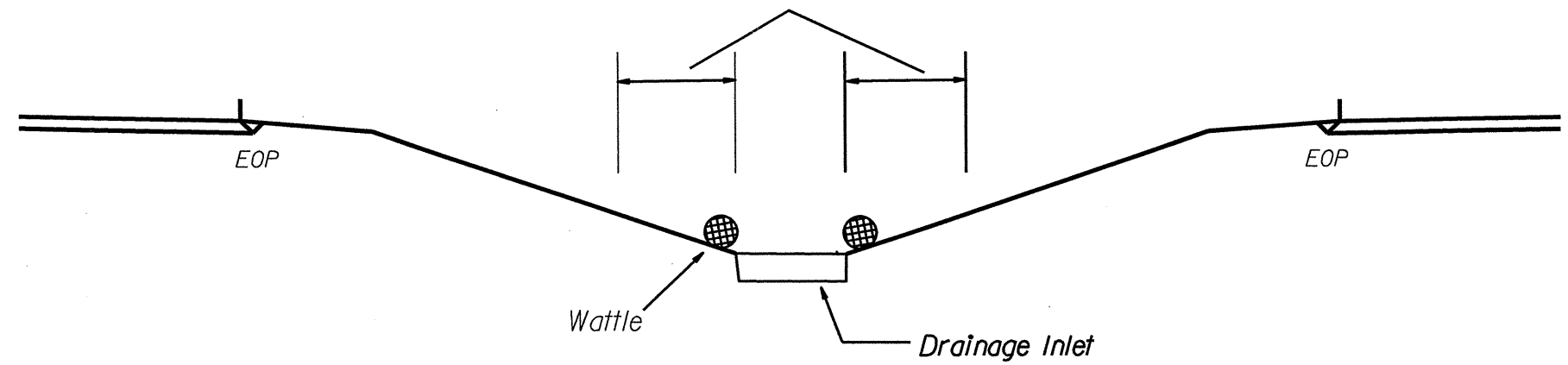
< 5' - 10' Undisturbed buffer from ditchline, add BMP



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



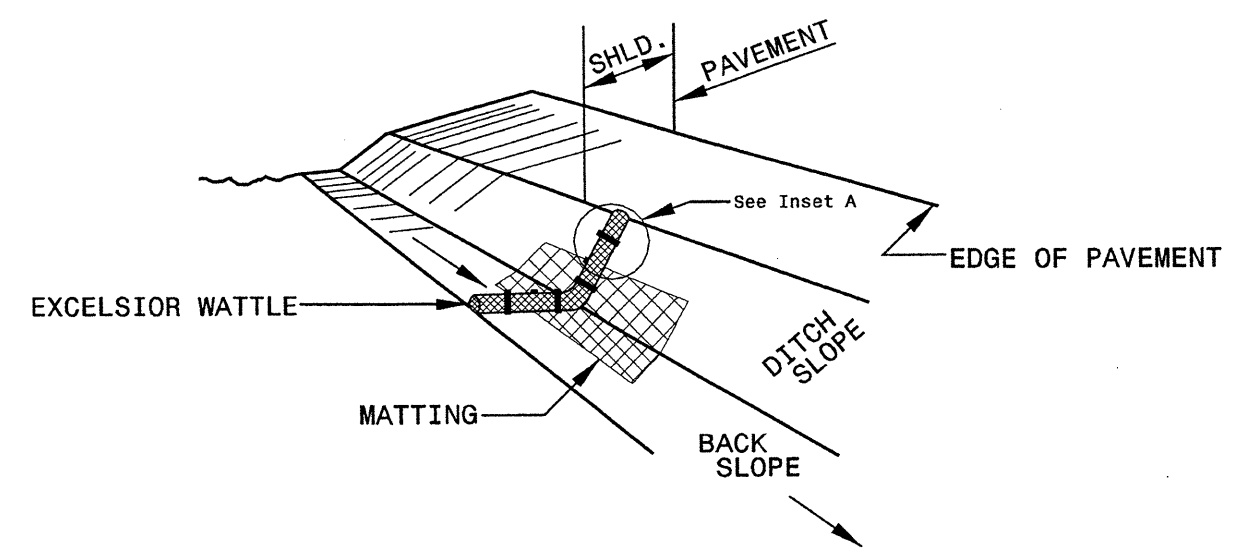
< 5' - 10' Undisturbed buffer from inlet, add wattle



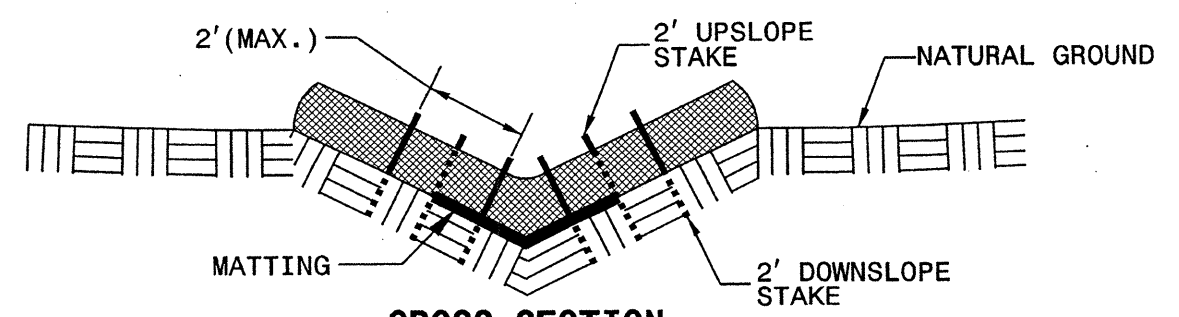
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

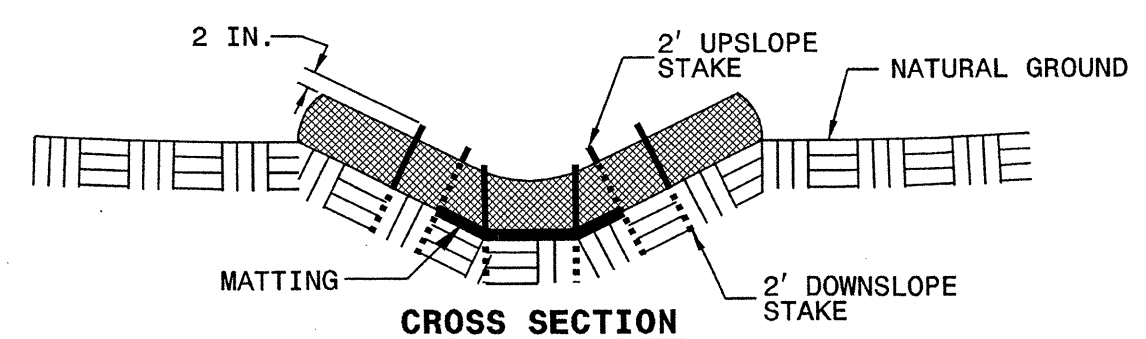
WATTLE DETAIL



ISOMETRIC VIEW



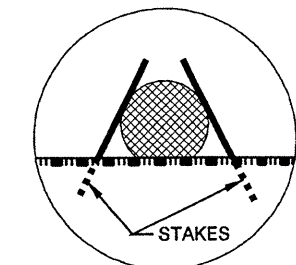
CROSS SECTION VEE DITCH



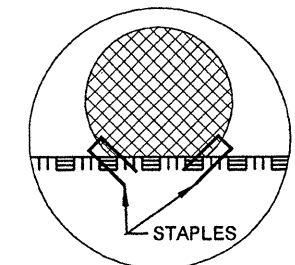
CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

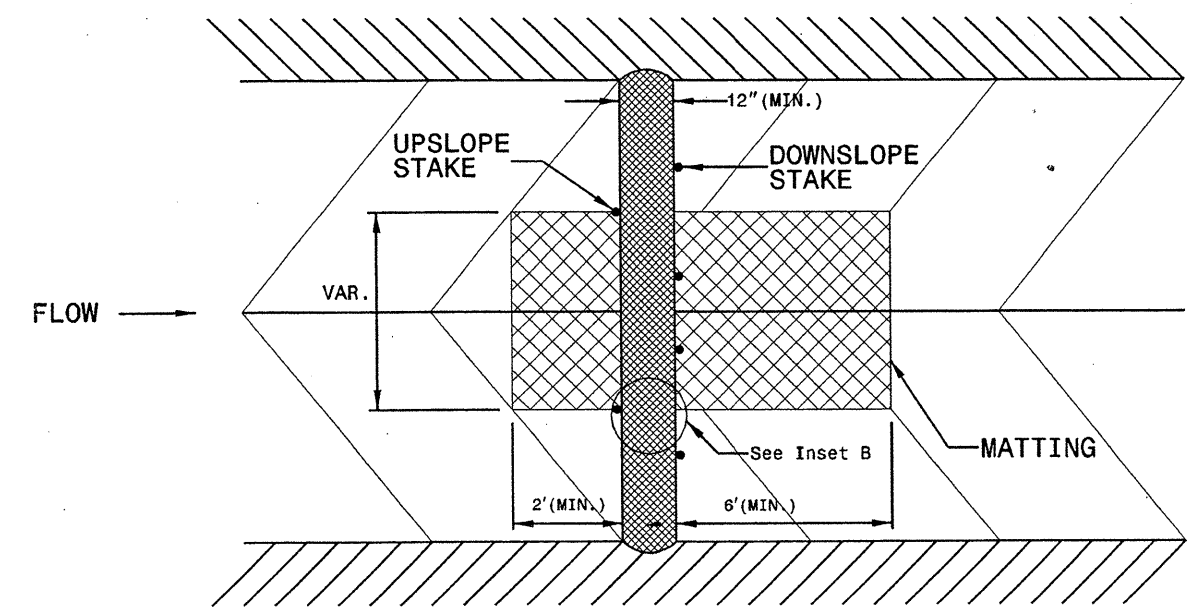
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



INSET B



TOP VIEW