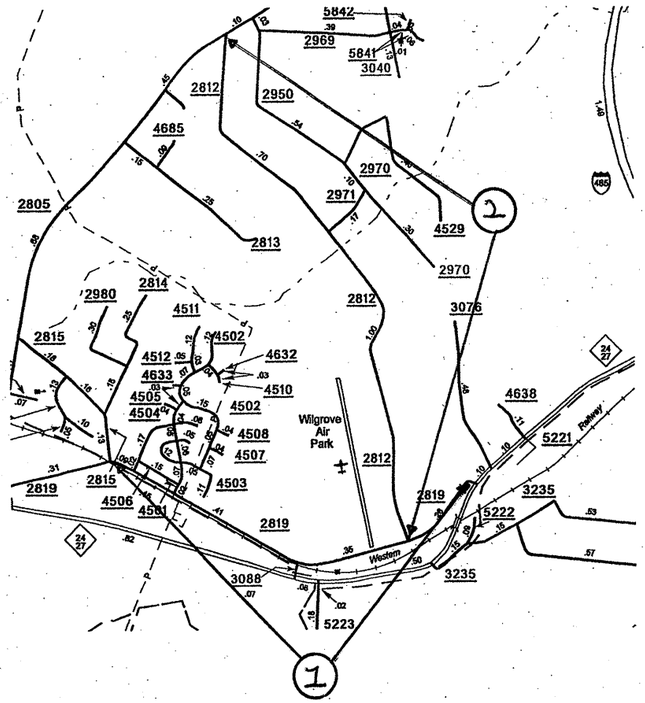
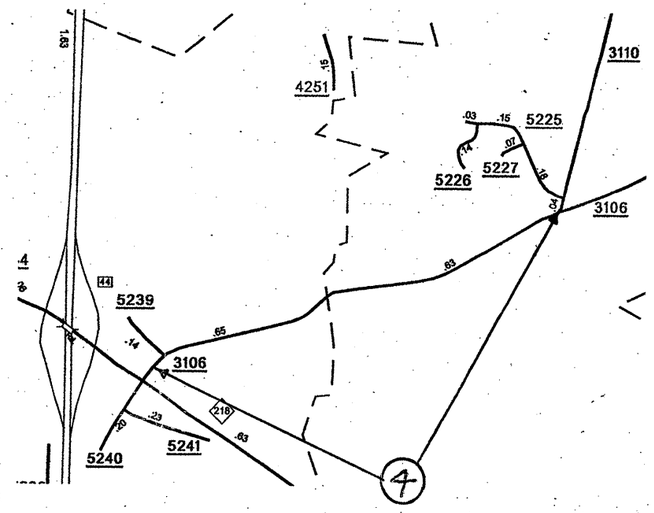
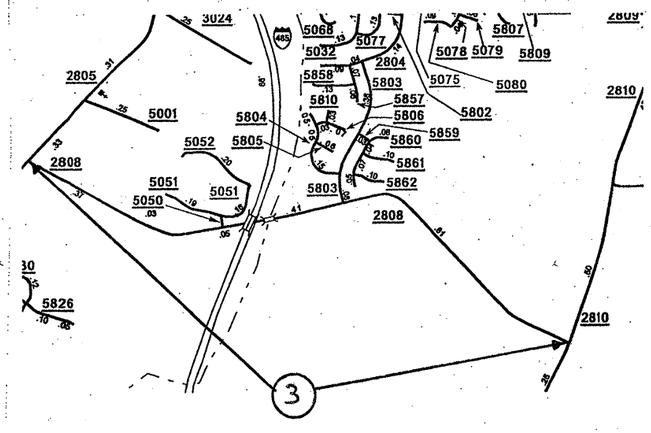
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		1	
F.A. PROJECT NO.	10CR.20601.86 etc.		







ENLARGED MUNICIPAL AND SUBURBAN AREAS

MECKLENBURG COUNTY

NORTH CAROLINA

PREPARED BY THE

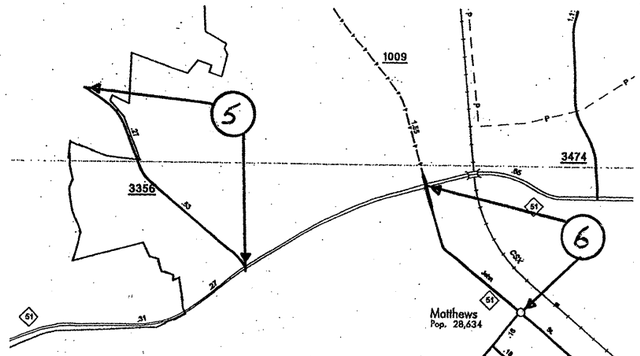
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT

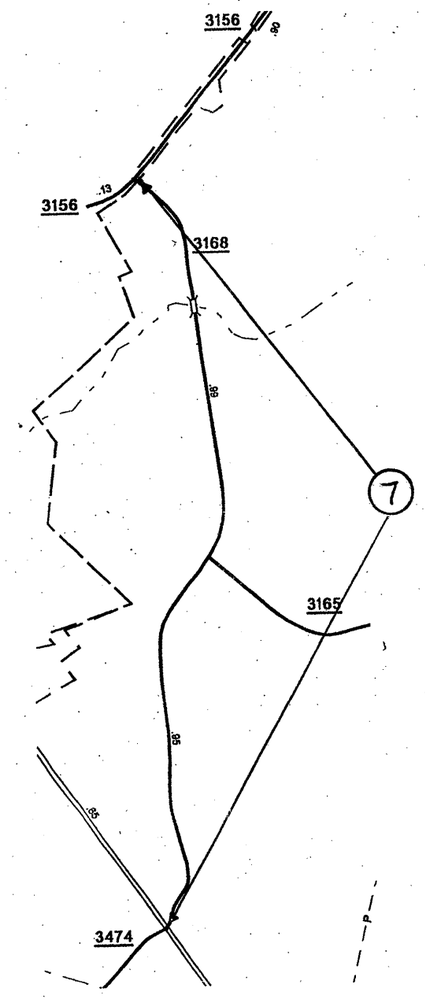
IN COOPERATION WITH THE

U.S.DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MAP #	ROUTE	DESCRIPTION
1	Parkton Rd (SR 2819)	From Misenheimer Rd (SR 2815) to Pvt Jt at Albemarle Rd (NC 24/27)
2	Cedarbrook Rd (SR 2812)	From Harrisburg Rd (SR 2805) to Parkton Rd (SR 2940)
3	Camp Stewart Rd (SR 2808)	From Harrisburg Rd (SR 2805) to Lower Rocky Rd
4	Brief Rd (SR 3106)	From Arlington Church Rd (SR 3110) to Castle Stone Drive

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		2	
F.A. PROJECT NO. 10CR, 20601.86 ETC.			





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ENLARGED MUNICIPAL AND SUBURBAN AREAS

MECKLENBURG COUNTY

NORTH CAROLINA

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT

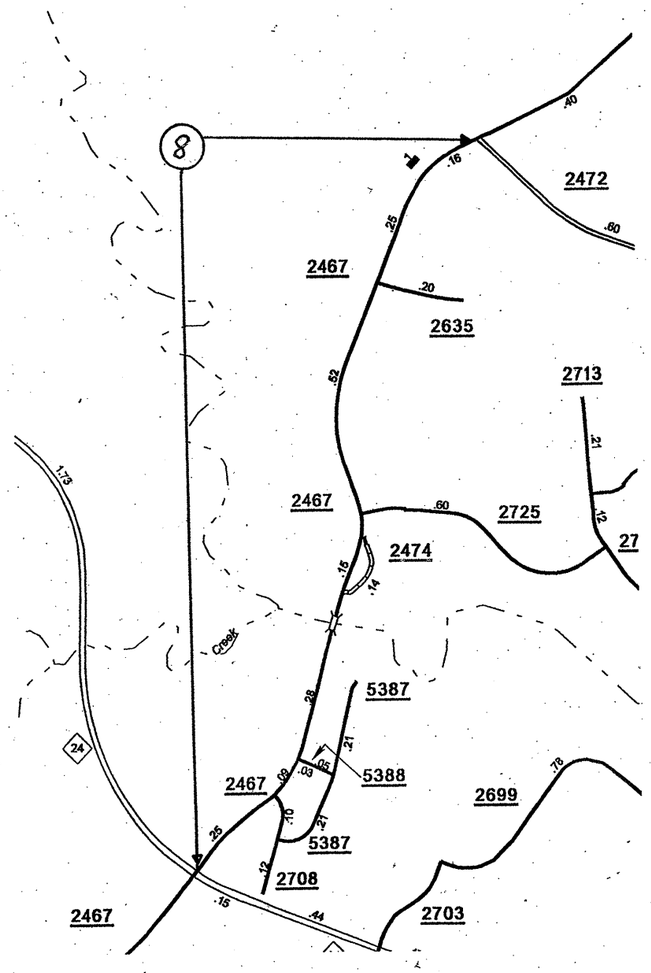
IN COOPERATION WITH THE

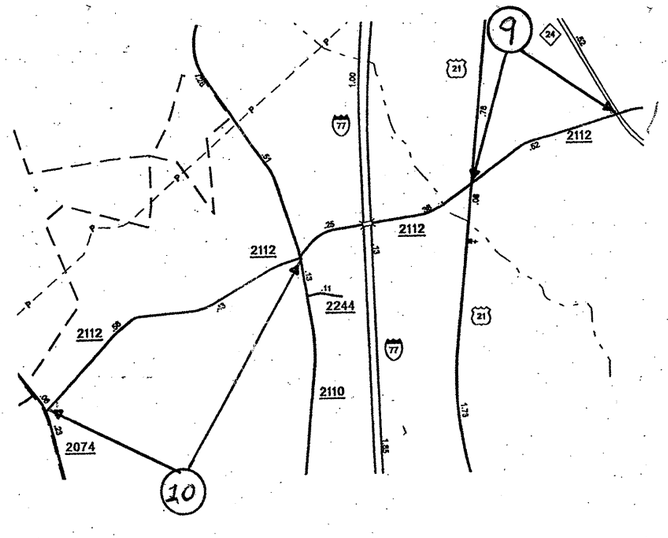
U.S.DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MAP #	ROUTE	DESCRIPTION
5	Sardis Rd (SR 3356)	From NC 51 to End of State Maintenance
6	John St (SR 1009)	From NC 51 to Trade Street
7	Sam Newell Rd (SR 3168)	From Independence Blvd (US 74) to Pvt Jt 400' Margarate Wallace Rd (SR 3156)

STATE	PROJECT NO.	SHEET NO.	SHEETS
N.C.		3	

F.A. PROJECT NO. 10CR.20601.86 etc





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ENLARGED MUNICIPAL AND SUBURBAN AREAS

MECKLENBURG COUNTY

NORTH CAROLINA

PREPARED BY THE

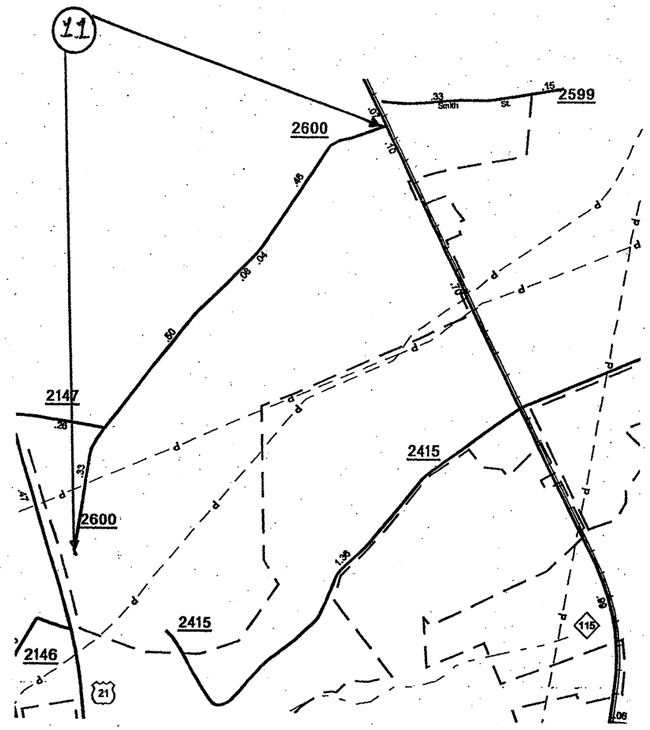
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT

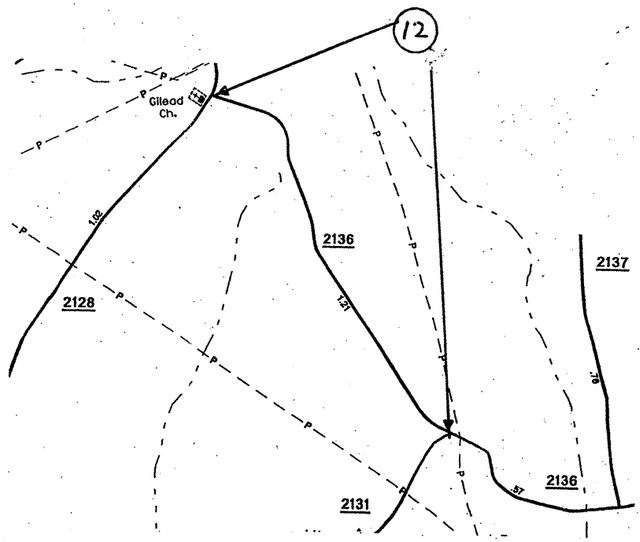
IN COOPERATION WITH THE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MAP #	ROUTE	DESCRIPTION
8	Mallard Creek Rd (SR 2467)	From W.T. Harris (NC 24) to Pvt Jt at Mallard Creek Church Rd (SR 2472)
9	Lakeview Rd (SR 2112)	From W.T. Harris (NC 24) to Statesville Rd (US 21)
10	Lakeview Rd (SR 2112)	From Reames Rd (SR 2110) to Beatties Ford Rd (SR 2074)

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		4	
F.A. PROJECT NO.	10CR.20601, 86 etc		





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ENLARGED MUNICIPAL AND SUBURBAN AREAS

MECKLENBURG COUNTY

NORTH CAROLINA

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT

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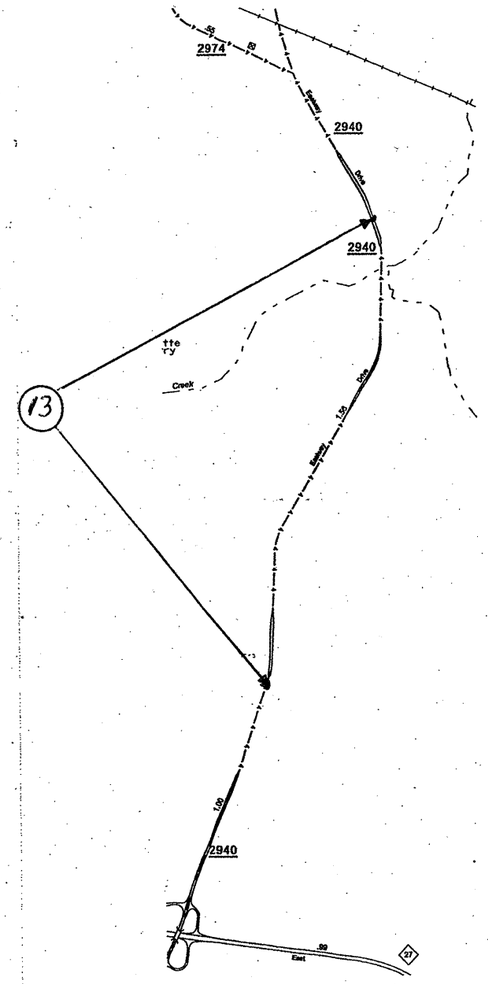
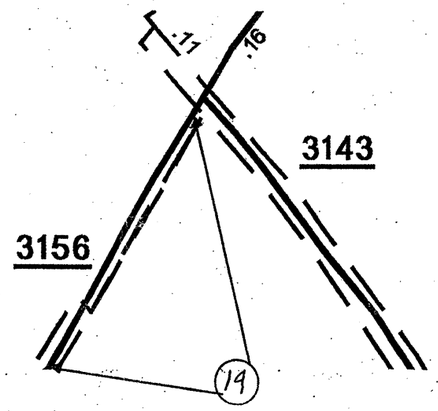
U.S.DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MAP #	ROUTE	DESCRIPTION
11	Washum-Potts Rd (SR 2600)	From Old Stateville Rd (NC 115) to Pvt Jt 400' Bailey Rd
12	Gilead Rd (SR 2136)	From Beatties Ford Rd (SR 2128) to Old Bud Henderson Rd (SR 2131)

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		5	
F.A. PROJECT NO. IOCR, 20601.86 etc			





ENLARGED MUNICIPAL AND SUBURBAN AREAS

MECKLENBURG COUNTY

NORTH CAROLINA

PREPARED BY THE

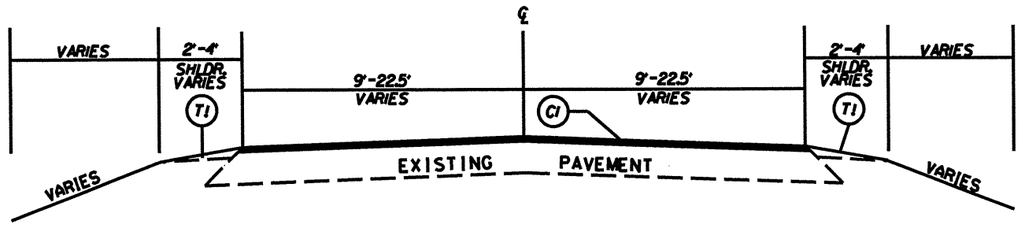
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - GIS UNIT

IN COOPERATION WITH THE

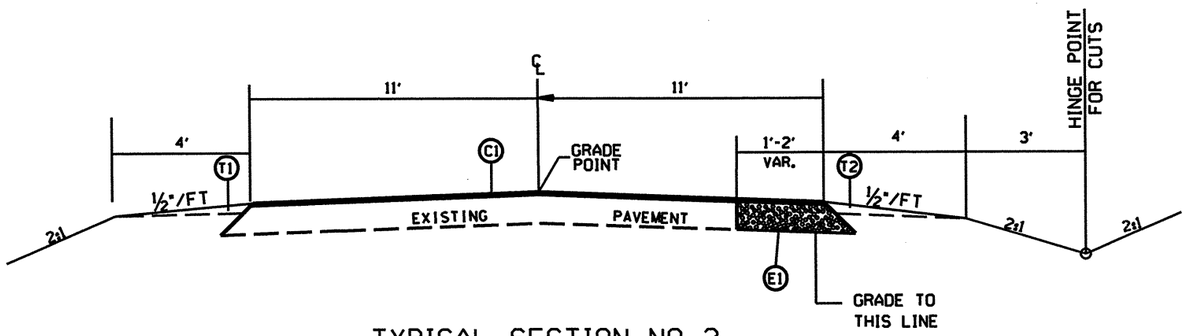
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MAP #	ROUTE	DESCRIPTION
13	Eastway Drive (SR 2940)	From Shamrock Dr to Central Ave
14	Margarate Wallace Rd (SR 3156)	From Idlewild Rd (SR 3143) to Olde Creek

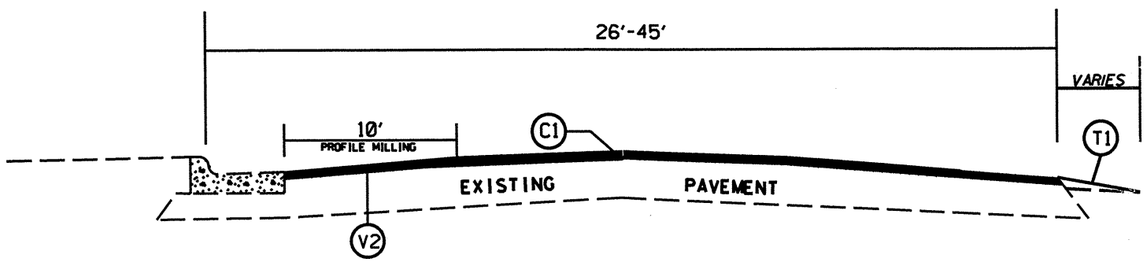
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		6	
F.A. PROJECT NO.	10CR.20601.86 ETC.		



TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 2



TYPICAL SECTION NO. 3

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYER'S
T1	SHOULDER RECONSTRUCTION.
T2	SHOULDER CONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"

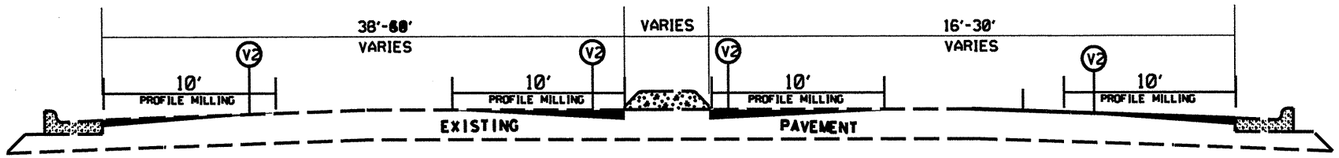
2011 MECKLENBURG COUNTY RESURFACING

SCALE	-NA-
DATE	12/10
DWG. BY	JSL
DESIGN BY	JSL
APPROVED	

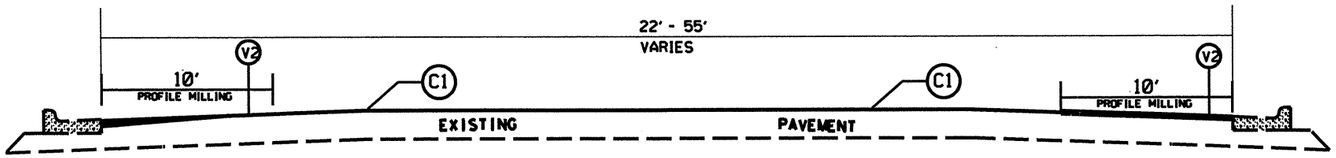
DIVISION OF HIGHWAYS

REVISIONS	

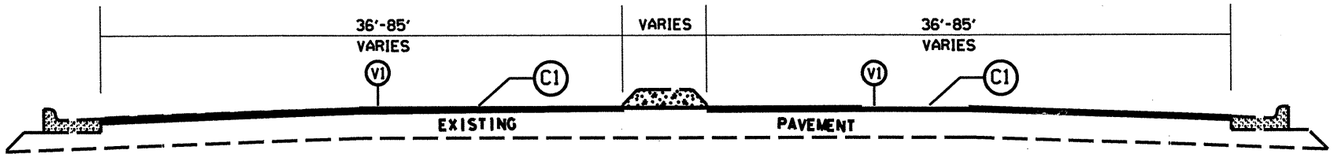
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		7	
F.A. PROJECT NO.	10CR.20601.86 ETC.		



TYPICAL SECTION NO.4



TYPICAL SECTION NO.5



TYPICAL SECTION NO. 6

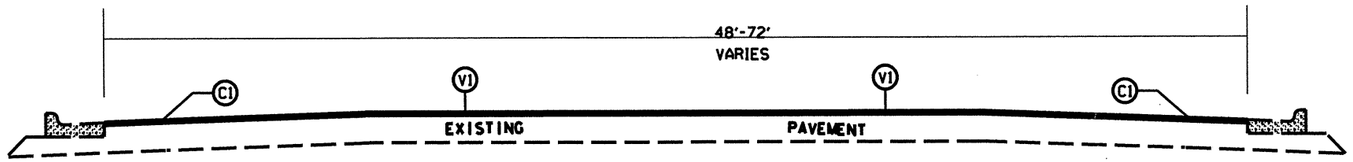
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYER'S
T1	SHOULDER RECONSTRUCTION.
T2	SHOULDER CONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"

2011 MECKLENBURG COUNTY RESURFACING

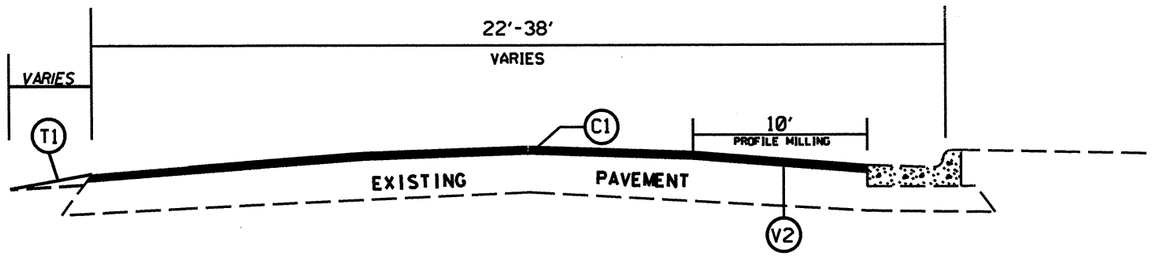
SCALE	-NA-
DATE	12/10
DWG. BY	JSL
DESIGN BY	JSL
APPROVED	

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		8	
F.A. PROJECT NO.	10CR.20601.86 ETC.		



TYPICAL SECTION NO.7



TYPICAL SECTION NO. 8

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COERCE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYER'S
T1	SHOULDER RECONSTRUCTION.
T2	SHOULDER CONSTRUCTION.
V1	MILLING 1.5" DEPTH
V2	PROFILE MILLING 0" TO 1.5"

2011 MECKLENBURG COUNTY
RESURFACING

SCALE	-NA-
DATE	12/10
DWG. BY	JSL
DESIGN BY	JSL
APPROVED	

REVISIONS	

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

ENGLISH DETAIL DRAWING FOR

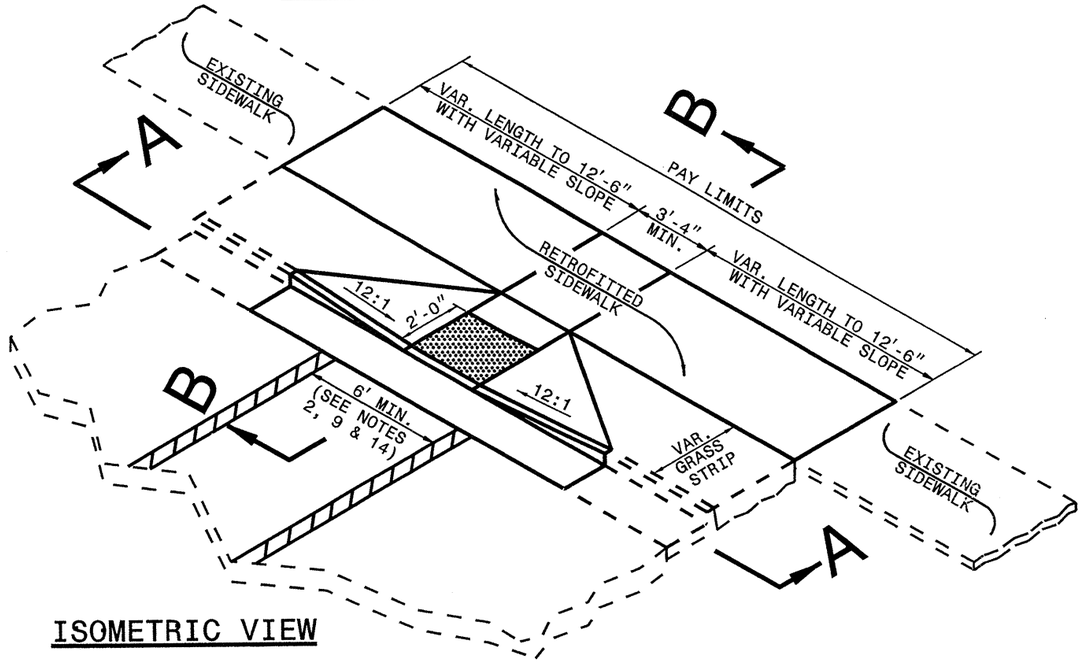
WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

SHEET 1 OF 5

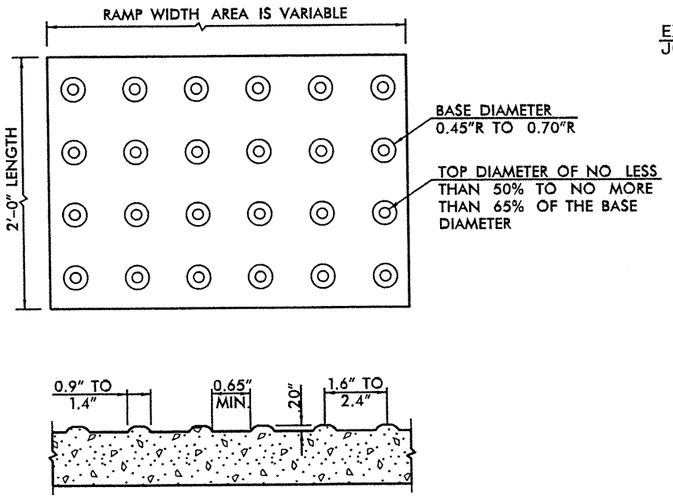
848D06

WHEELCHAIR RAMP AND EXISTING SIDEWALK WITH GRASS STRIP

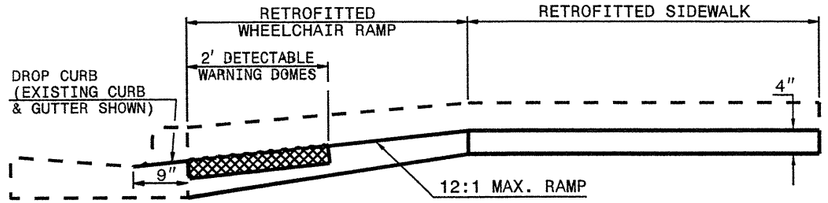


ISOMETRIC VIEW

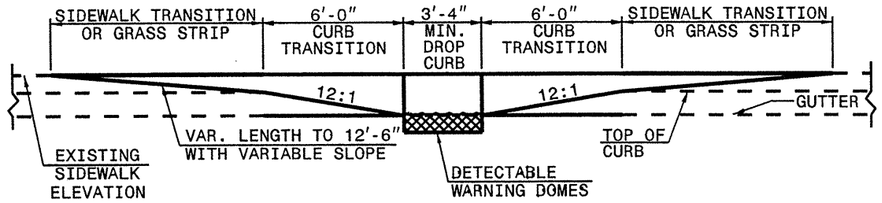
NOTES:
1. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. OBTAIN 70% CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



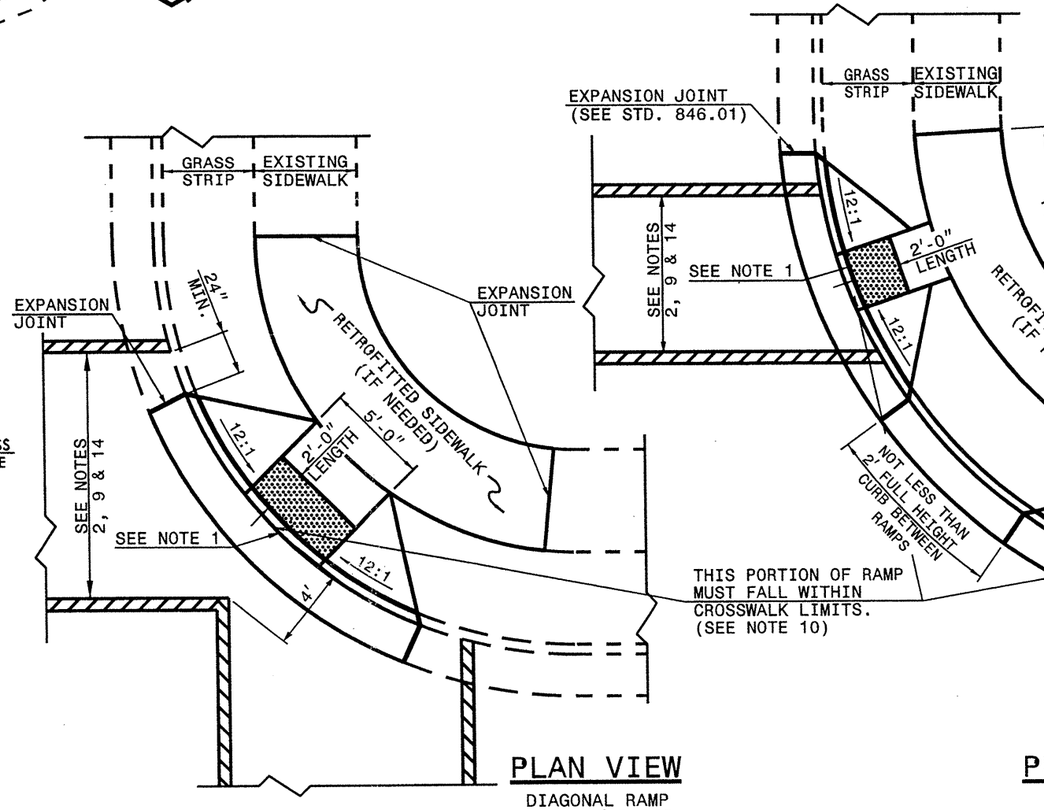
DETECTABLE WARNING DOMES



SECTION B-B



SECTION A-A



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

SHEET 1 OF 5

848d06

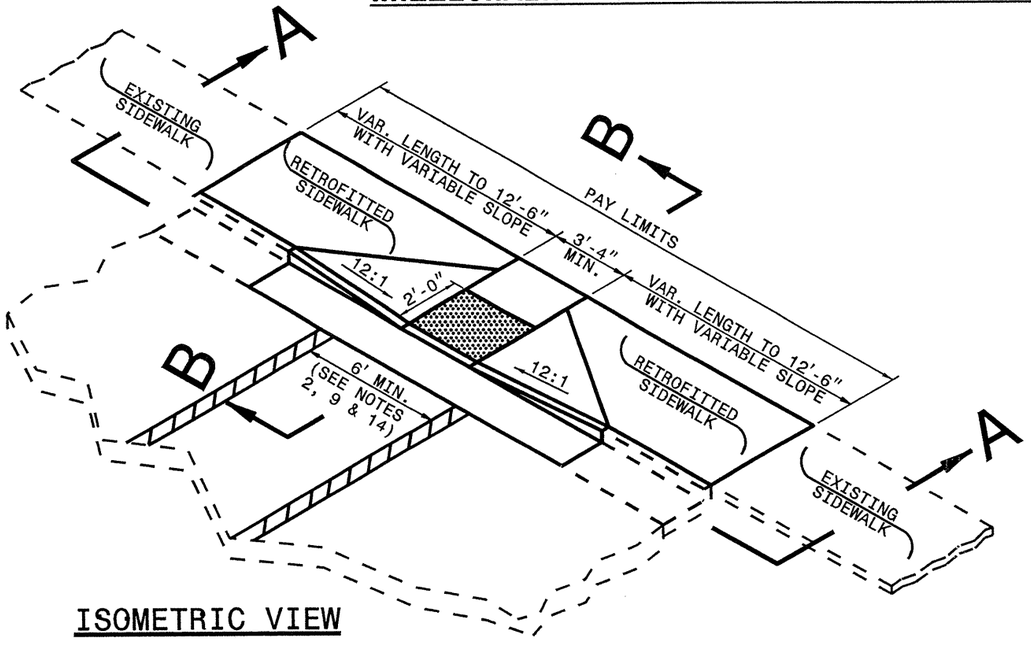
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

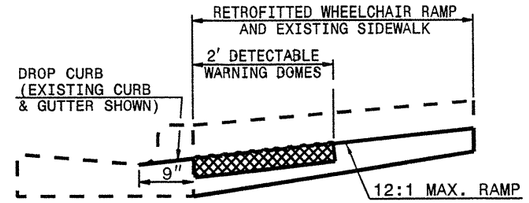
WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

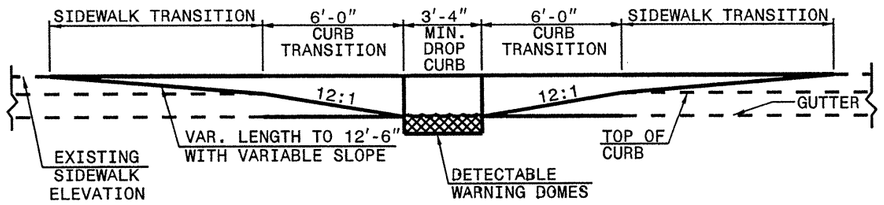
WHEELCHAIR RAMP AND EXISTING SIDEWALK ADJACENT TO CURB



ISOMETRIC VIEW

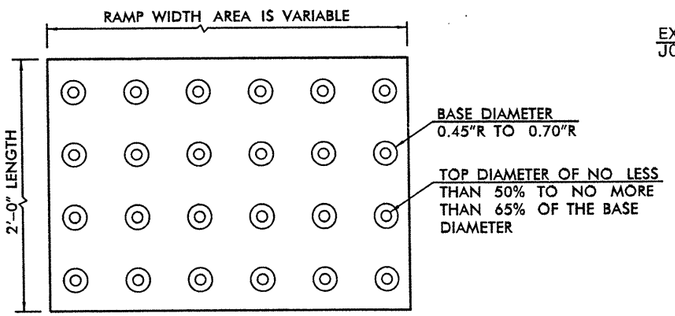


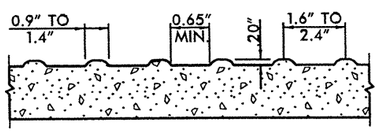
SECTION B-B



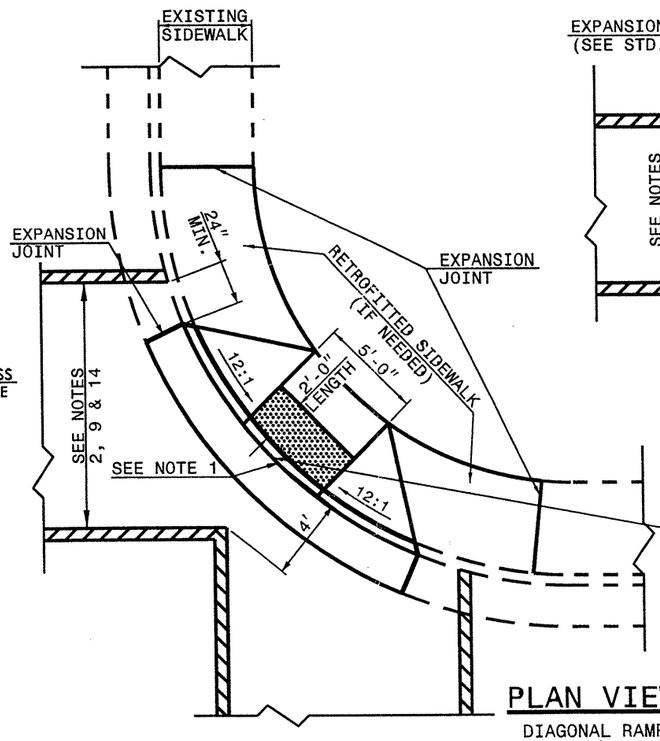
SECTION A-A

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.

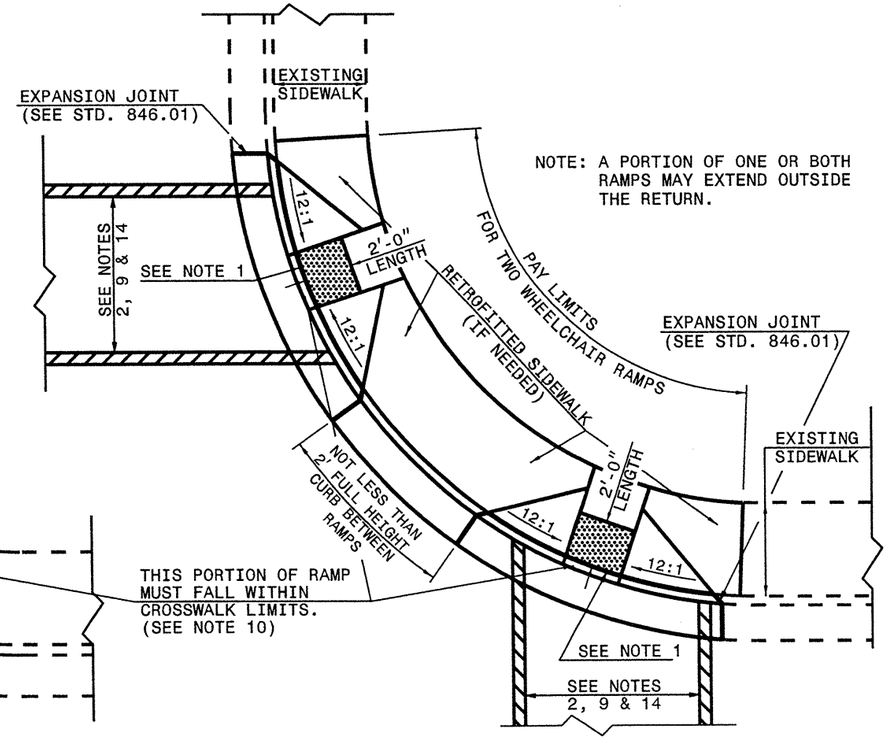




DETECTABLE WARNING DOMES



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



PLAN VIEW
DUAL 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

SHEET 2 OF 5
848D06

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

ENGLISH DETAIL DRAWING FOR

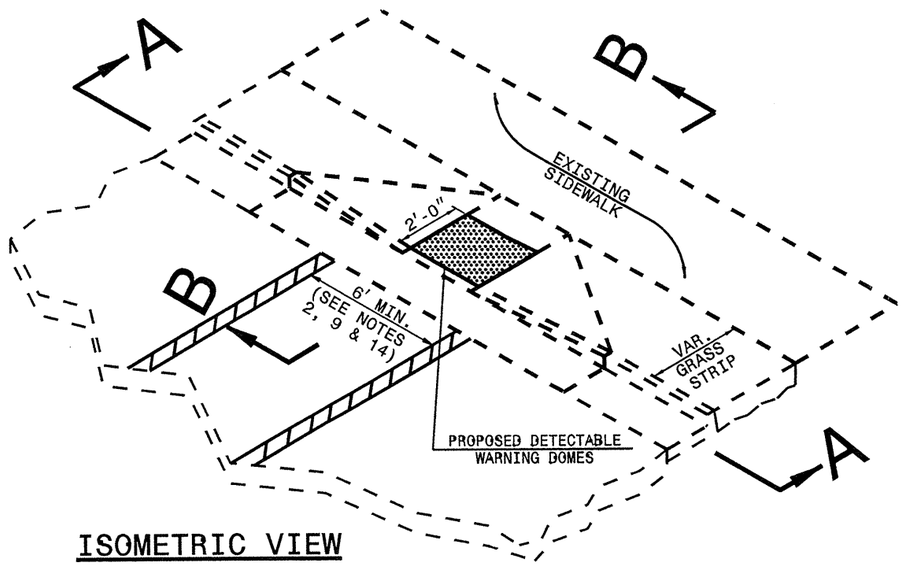
WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

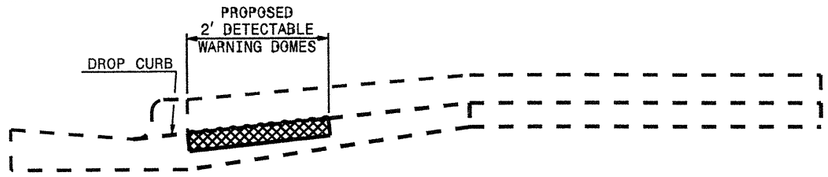
SHEET 3 OF 5

848D06

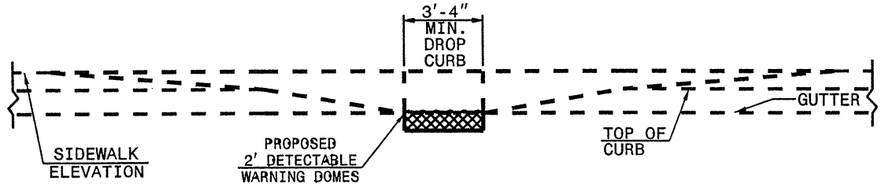
RETROFITTING DETECTABLE WARNING DOMES ONTO EXISTING WHEELCHAIR RAMP



ISOMETRIC VIEW

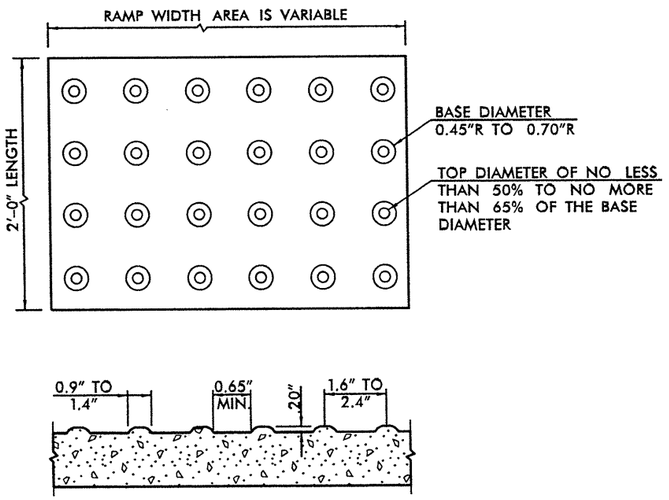


SECTION B-B

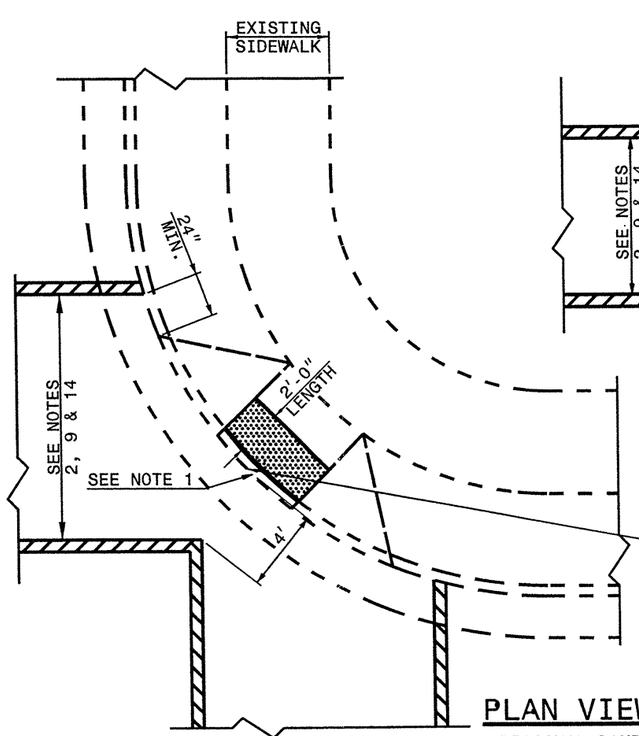


SECTION A-A

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.

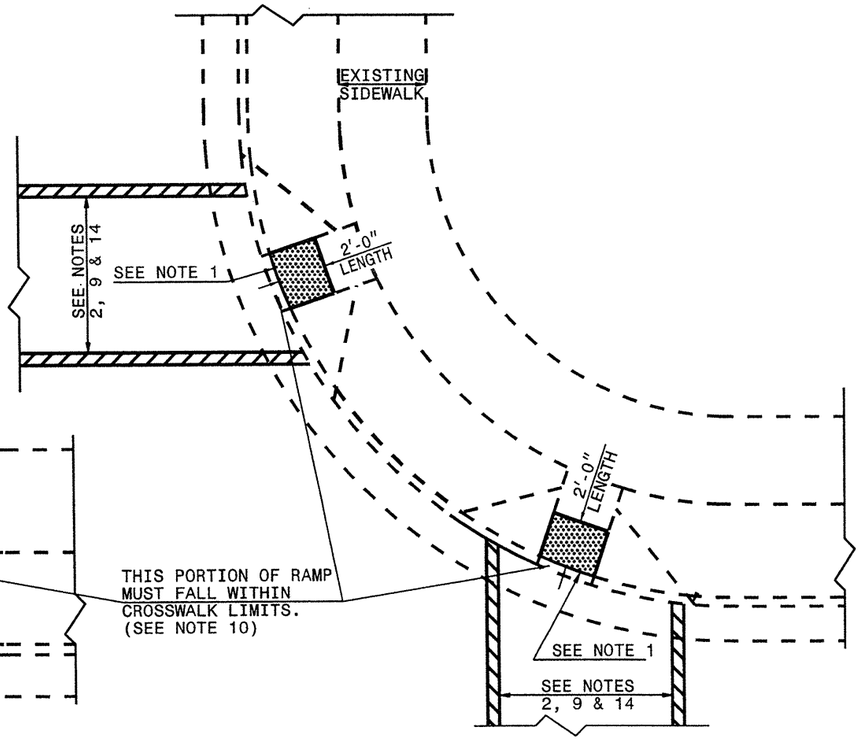


DETECTABLE WARNING DOMES



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

SHEET 3 OF 5

848D06

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

ENGLISH DETAIL DRAWING FOR

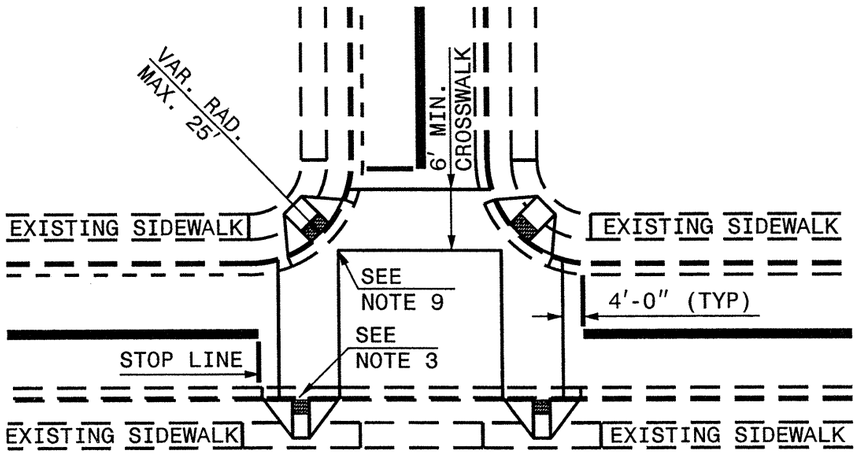
WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

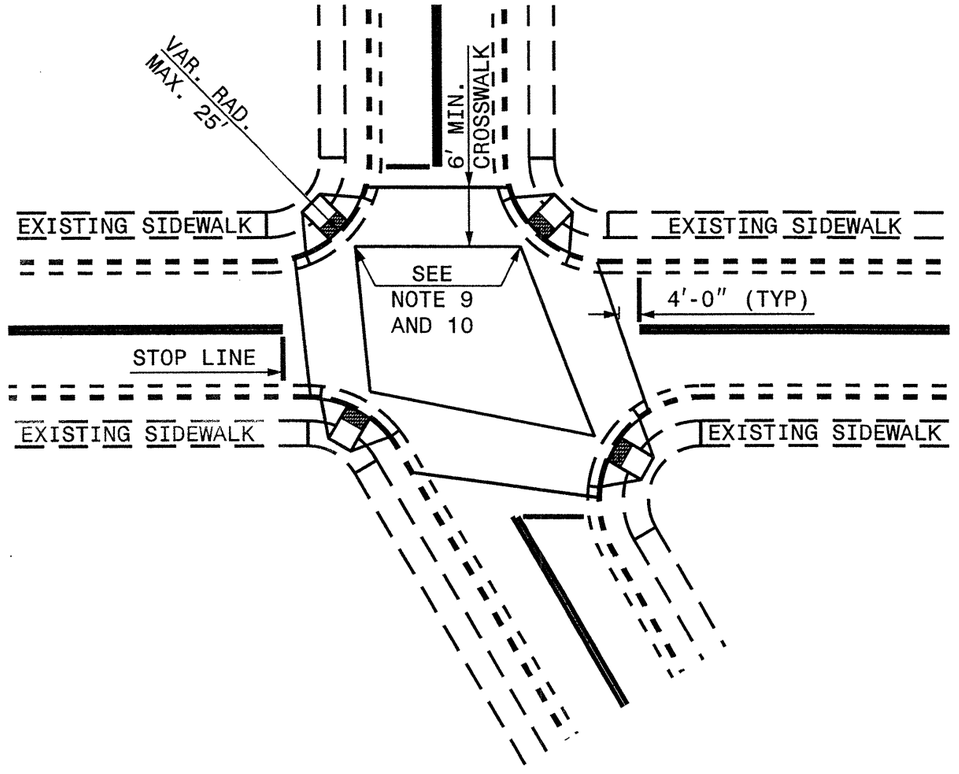
SHEET 4 OF 5

848D06

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

PROPOSED WHEELCHAIR RAMP FOR RESURFACING PROJECTS

EXISTING SIDEWALK

ALLOWABLE LOCATIONS

DIAGONAL RAMP RADII...MAX. 25'

STATE OF
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DEPT. OF TRANSPORTATION
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WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

SHEET 4 OF 5

848D06

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
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ENGLISH DETAIL DRAWING FOR

WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

SHEET 5 OF 5

848D06

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 ½" 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
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ENGLISH DETAIL DRAWING FOR

WHEELCHAIR RAMP

EXISTING CURB AND GUTTER

SHEET 5 OF 5

848D06

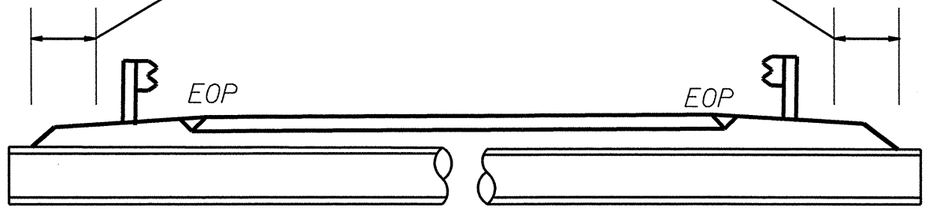
PROJECT REFERENCE NO.	SHEET NO.
	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION CONTROL DETAIL

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

BMP Options: Wattle or Silt Fence

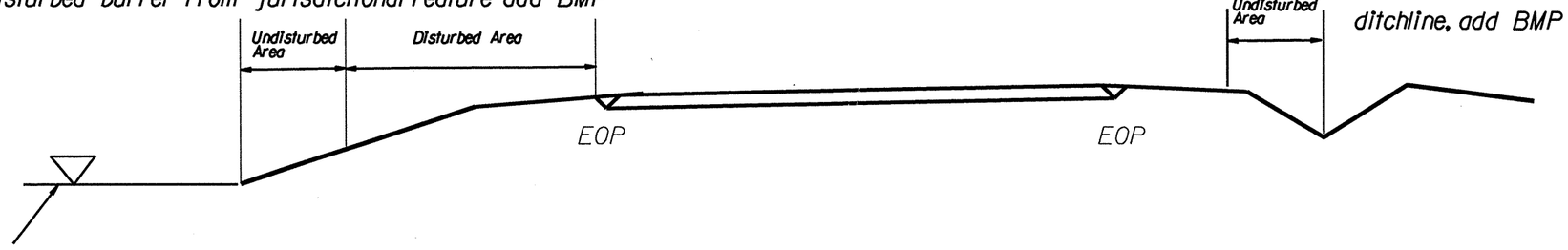
< 5' - 10' Undisturbed buffer add BMP



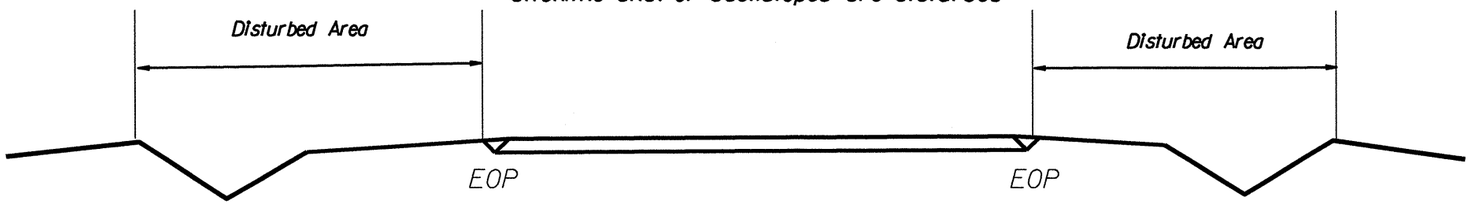
Pipe/Culvert

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

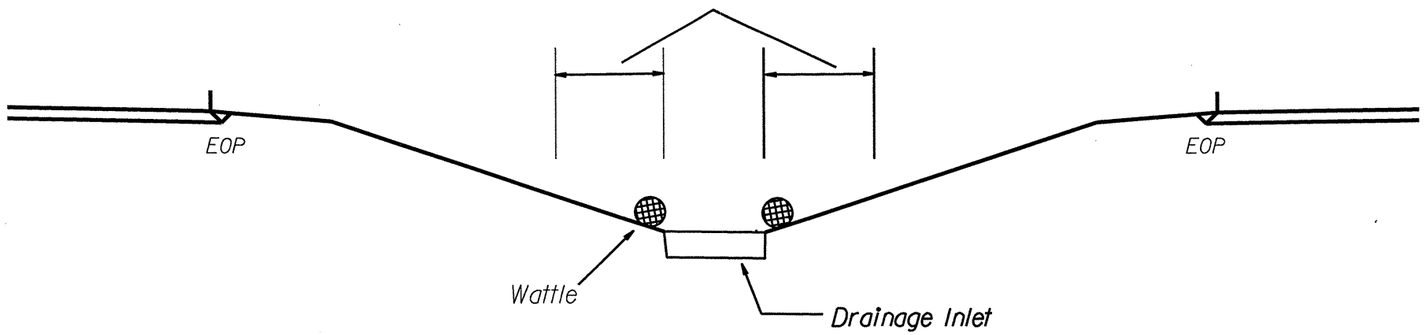
< 5' - 10' Undisturbed buffer from ditchline, add BMP



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 NO.	SHEET NO.	TOTAL NO.
0CR.20601.86, 10CR.20601.8	15	
10CR.20601.89, ETC.		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER CONSTRUCTION SMI	SHOULDER RECONSTRUCTION SMI	1½" MILLING SY	0" TO 1.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0C TONS	SURFACE COURSE, S9.5C TONS	LEVELING COURSE, S9.5C TONS	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	RETROFIT EXIST. WHEELCHAIR RAMP EA	ADJ. OF CATCH BASIN EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	SEED & MULCHING AC
10CR.20601.86	Mecklenburg	1	PARKTON RD (SR 2819)	FROM MISENHEIMER RD (SR 2815) TO PVT JT AT ALBEMARLE RD (NC 24/27)	1,2, 3	NO	1.3	24	50	10	1.80	0.30		1,650	135	400	1,700	150	17	112	200						200	2.0
TOTAL FOR PROJ NO. 10CR.20601.86							1.3		50	10	1.80	0.30		1,650	135	400	1,700	150	17	112	200						200	2.0
10CR.20601.88	Mecklenburg	4	BRIEF RD (SR 3106)	FROM ARLINGTON CHURCH RD (SR 3110) TO CASTLE STONE DRIVE	1	NO	0.95	21.5		10		1.75			125		1,114	230		82	230							0.7
TOTAL FOR PROJ NO. 10CR.20601.88							0.95			10		1.75			125		1,114	230		82	230							0.7
10CR.20601.89	Mecklenburg	7	SAM NEWELL (SR 3168)	FROM INDEPENDENCE BLVD (US74) TO PVT JT 400' FROM MARGARATE WALLACE	1,3,5,8	NO	1.95	26.5		20		2.70		3,300	450		2,814	400		195	490			2	8	0.14		1.0
TOTAL FOR PROJ NO. 10CR.20601.89							1.95			20		2.70		3,300	450		2,814	400		195	490			2	8	0.14		1.0
10CR.20601.90	Mecklenburg	5	SARDIS RD (SR 3356)	FROM NC 51 TO END OF STATE MAINTENANCE	1,3,4,5	NO	0.8	29				1.25		2,600	215		1,148			69	75	6.00		1	9			0.8
TOTAL FOR PROJ NO. 10CR.20601.90							0.8					1.25		2,600	215		1,148			69	75	6.00		1	9			0.8
10CR.20601.91	Mecklenburg	6	JOHN ST WEST (SR 1009)	FROM NC 51 TO TRADE STREET	6,7	NO	0.51	76.5					22,889				2,778			167	175	8.00	5	15	11	0.14		
TOTAL FOR PROJ NO. 10CR.20601.91							0.51						22,889				2,778			167	175	8.00	5	15	11	0.14		
10CR.20601.92	Mecklenburg	2	CEDARBROOK RD (SR 2812)	FROM HARRISBURG RD (SR 2805) TO PARKTON RD (SR 2819)	1	NO	1.76	19.5		40		3.50			120		1,872	150		122	100							1.5
TOTAL FOR PROJ NO. 10CR.20601.92							1.76			40		3.50			120		1,872	150		122	100							1.5
10CR.20601.93	Mecklenburg	8	MALLARD CREEK RD (SR 2467)	FROM W. T. HARRIS BLVD (NC 24) TO PVT JT AT MALLARD CREEK CHURCH RD (SR 2472)	7	NO	1.7	60.5					60,339				5,587			335	600	37.00		2	10	0.14		
TOTAL FOR PROJ NO. 10CR.20601.93							1.7						60,339				5,587			335	600	37.00		2	10	0.14		
10CR.20601.94	Mecklenburg	9	LAKEVIEW RD (SR2112)	FROM W.T. HARRIS BLVD (NC 24) TO STATESVILLE RD (US 21)	1,3	NO	0.6	37		15		1.10		500	200		1,207	210		86	210					0.14		0.7
TOTAL FOR PROJ NO. 10CR.20601.94							0.6			15		1.10		500	200		1,207	210		86	210					0.14		0.7
10CR.20601.95	Mecklenburg	10	LAKEVIEW RD (SR 2112)	FROM REAMES RD (SR 2110) TO BEATTIES FORD RD (SR 2074)	1	NO	1	31		15		1.90			200		1,687	200		114	350	3.00				0.14		1.1
TOTAL FOR PROJ NO. 10CR.20601.95							1			15		1.90			200		1,687	200		114	350	3.00				0.14		1.1
10CR.20601.96	Mecklenburg	11	WASHAM POTTS RD (SR 2600)	FROM PVT JT AT OLD STATESVILLE RD (NC 115) TO PVT JT 400' FROM BAILEY RD	1,3	NO	1.35	21.5		25		2.60		500	115		1,583	300		114	475			1				0.9
TOTAL FOR PROJ NO. 10CR.20601.96							1.35			25		2.60		500	115		1,583	300		114	475			1				0.9
10CR.20601.97	Mecklenburg	13	EASTWAY DRIVE (SR 2940)	FROM SHAMROCK DRIVE TO CENTRAL AVENUE	6,7	NO	1.53	52					46,675				4,323			259	535			6	6	0.14		
TOTAL FOR PROJ NO. 10CR.20601.97							1.53						46,675				4,323			259	535			6	6	0.14		
10CR.20601.98	Mecklenburg	14	MARGARATE WALLACE (SR 3156)	PVT JT AT IDLEWILD RD (SR 3143) TO OLDE CREEK	1,3,5	NO	0.51	31.5		10		0.65		2,200	170		874	100		59	125				3			0.4
TOTAL FOR PROJ NO. 10CR.20601.98							0.51			10		0.65		2,200	170		874	100		59	125				3			0.4
10CR.20601.99	Mecklenburg	12	GILEAD RD (SR 2136)	FROM BEATTIES FORD RD (SR 2128) TO OLD BUD HENDERSON RD (SR 2131)	1	NO	1.2	27.5		30		2.00			140		1,797	250		124	420				3	0.14		1.4
TOTAL FOR PROJ NO. 10CR.20601.99							1.2			30		2.00			140		1,797	250		124	420				3	0.14		1.4
10CR20601.87	Mecklenburg	3	CAMP STEWART RD (SR 2808)	FROM HARRISBURG RD (SR 2805) TO LOWER ROCKY RIVER RD	1	NO	1.8	27		10		3.40			155		2,647	1,000		224	630			1	1			2.0
TOTAL FOR PROJ NO. 10CR20601.87							1.8			10		3.40			155		2,647	1,000		224	630			1	1			2.0
GRAND TOTAL							16.96		50	185	1.80	21.15	129,903	10,750	2,025	400	31,131	2,990	17	2,062	4,615	54.00	5	28	51	0.98	200	12.5

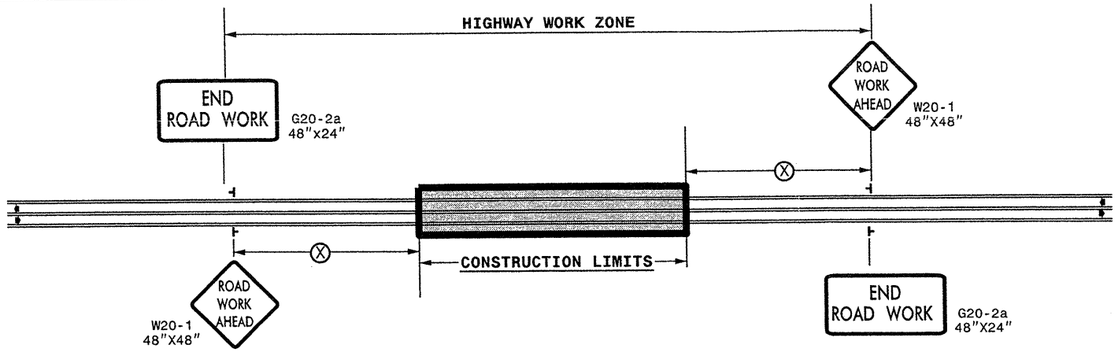
PROJECT NO.	SHEET NO.	TOTAL NO.
10CR.20601.86, 10CR.20601.8 10CR.20601.89, ETC.	16	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4589000000-N TRAFFIC CONTROL LS	4685000000-E 4" X 90 M WHITE THERMO LF	4685000000-E 4" X 90 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4695000000-E 8" X 90 M YELLOW THERMO LF	4695000000-E 8" X 90 M WHITE THERMO LF	4697000000-E 8" X 120 M WHITE THERMO LF	4697000000-E 8" X 120 M YELLOW THERMO LF	4705000000-E 16" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO RXR 120 M EA	4721000000-E THERMO MSG ONLY 120 M EA	4721000000-E THERMO MSG SCHOOL 120 M EA	4721000000-E THERMO MSG LANE 120 M EA	4721000000-E THERMO MSG ENDS 120 M EA	4721000000-E THERMO MSG AHEAD 120 M EA	4721000000-E THERMO MSG STOP 120 M EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO STR ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4900000000-N CRYSTAL & RED MARKERS EA	4900000000-N YELLOW & YELLOW MARKERS EA	4905000000-N SNOW PLOWABLE MARKERS EA
10CR.20601.86	Mecklenburg	1	PARKTON RD (SR 2819)	FROM MISENHEIMER RD (SR 2815) TO PVT JT AT ALBEMARLE RD (NC 24/27)	0	10,935		200	13,000	200				50	25	2							3						10	90	
TOTAL FOR MAP NO. 1					0	10,935		200	13,000	200				50	25	2							3						10	90	
TOTAL FOR PROJ NO. 10CR.20601.86					0	10,935		200	13,000	200				50	25	2							3						10	90	
						10,935		13,200		200					2								3						100		
10CR.20601.88	Mecklenburg	4	BRIEF RD (SR 3106)	FROM ARLINGTON CHURCH RD (SR 3110) TO CASTLE STONE DRIVE	0	9,700			9,800																					65	
TOTAL FOR MAP NO. 4					0	9,700			9,800																					65	
TOTAL FOR PROJ NO. 10CR.20601.88					0	9,700			9,800																					65	
						9,700			9,800																					65	
10CR.20601.89	Mecklenburg	7	SAM NEWELL (SR 3168)	FROM INDEPENDENCE BLVD (US74) TO PVT JT 400' FROM MARGARATE WALLACE	0	17,500		1,200	20,500	1,500	200				136		8	12					19	4					40	150	
TOTAL FOR MAP NO. 7					0	17,500		1,200	20,500	1,500	200				136		8	12					19	4					40	150	
TOTAL FOR PROJ NO. 10CR.20601.89					0	17,500		1,200	20,500	1,500	200				136		8	12					19	4					40	150	
						17,500		21,700		1,700					20								23						190		
10CR.20601.90	Mecklenburg	5	SARDIS RD (SR 3356)	FROM NC 51 TO END OF STATE MAINTENANCE	0	7,000	450	400	7,700	300		110			24								6	6					10	55	
TOTAL FOR MAP NO. 5					0	7,000	450	400	7,700	300		110			24								6	6					10	55	
TOTAL FOR PROJ NO. 10CR.20601.90					0	7,000	450	400	7,700	300		110			24								6	6					10	55	
						7,450		8,100		300		110											12						65		
10CR.20601.91	Mecklenburg	6	JOHN ST WEST (SR 1009)	FROM NC 51 TO TRADE STREET	0		1,100	3,000	5,000	300	290				135		12		5	4			15	5	4	3	3,000	5,000	75	40	
TOTAL FOR MAP NO. 6					0		1,100	3,000	5,000	300	290				135		12		5	4			15	5	4	3	3,000	5,000	75	40	
TOTAL FOR PROJ NO. 10CR.20601.91					0		1,100	3,000	5,000	300	290				135		12		5	4			15	5	4	3	3,000	5,000	75	40	
						1,100		8,000		590					21								27				8,000		115		
10CR.20601.92	Mecklenburg	2	CEDARBROOK RD (SR 2812)	FROM HARRISBURG RD (SR 2805) TO PARKTON RD (SR 2819)	0																										
TOTAL FOR MAP NO. 2					0																										
TOTAL FOR PROJ NO. 10CR.20601.92					0																										
10CR.20601.93	Mecklenburg	8	MALLARD CREEK RD (SR 2467)	FROM W. T. HARRIS BLVD (NC 24) TO PVT JT AT MALLARD CREEK CHURCH RD (SR 2472)	0			5,000	11,220						450			54					65	3	15	8	5,000	11,000			500
TOTAL FOR MAP NO. 8					0			5,000	11,220						450			54					65	3	15	8	5,000	11,000			500
TOTAL FOR PROJ NO. 10CR.20601.93					0			5,000	11,220						450			54					65	3	15	8	5,000	11,000			500
								16,220							54								91				16,000				
10CR.20601.94	Mecklenburg	9	LAKEVIEW RD (SR2112)	FROM W.T. HARRIS BLVD (NC 24) TO STATESVILLE RD (US 21)	0	5,800		300	3,960	500					45								4	2	2					40	20
TOTAL FOR MAP NO. 9					0	5,800		300	3,960	500					45								4	2	2					40	20
TOTAL FOR PROJ NO. 10CR.20601.94					0	5,800		300	3,960	500					45								4	2	2					40	20
						5,800		4,260		500													8						40		
10CR.20601.95	Mecklenburg	10	LAKEVIEW RD (SR 2112)	FROM REAMES RD (SR 2110) TO BEATTIES FORD RD (SR 2074)	0	10,760		450	9,000	400					148		12			5	4		7	3					30	70	
TOTAL FOR MAP NO. 10					0	10,760		450	9,000	400					148		12			5	4		7	3					30	70	
TOTAL FOR PROJ NO. 10CR.20601.95					0	10,760		450	9,000	400					148		12			5	4		7	3					30	70	
						10,760		9,450		400								21					10						100		
10CR.20601.96	Mecklenburg	11	WASHAM POTTS RD (SR 2600)	FROM PVT JT AT OLD STATESVILLE RD (NC 115) TO PVT JT 400' FROM BAILEY RD	0	13,900		100					14,300		100															100	
TOTAL FOR MAP NO. 11					0	13,900		100					14,300		100															100	
TOTAL FOR PROJ NO. 10CR.20601.96					0	13,900		100					14,300		100															100	
						13,900		100					14,300																	100		
10CR.20601.97	Mecklenburg	13	EASTWAY DRIVE (SR 2940)	FROM SHAMROCK DRIVE TO CENTRAL AVENUE	0		3,400	5,500			1,400				280		12						12		8	5	5,000		250	100	
TOTAL FOR MAP NO. 13					0		3,400	5,500			1,400				280		12						12		8	5	5,000		250	100	
TOTAL FOR PROJ NO. 10CR.20601.97					0		3,400	5,500			1,400				280		12						12		8	5	5,000		250	100	
						3,400		5,500		1,400					12								25				5,000		350		
10CR.20601.98	Mecklenburg	14	MARGARATE WALLACE (SR 3156)	PVT JT AT IDLEWILD RD (SR 3143) TO OLDE CREEK	0	4,175		665	5,300														6						32	50	
TOTAL FOR MAP NO. 14					0	4,175		665	5,300														6						32	50	
TOTAL FOR PROJ NO. 10CR.20601.98					0	4,175		665	5,300														6						32	50	
						4,175		5,965															6						82		
10CR.20601.99	Mecklenburg	12	GILEAD RD (SR 2136)	FROM BEATTIES FORD RD (SR 2128) TO OLD BUD HENDERSON RD (SR 2131)	0	12,800		450	8,000	235													5						20	80	
TOTAL FOR MAP NO. 12					0	12,800		450	8,000	235													5						20	80	
TOTAL FOR PROJ NO. 10CR.20601.99					0	12,800		450	8,000	235													5						20	80	
						12,800		8,450		235													5						100		
10CR20601.87	Mecklenburg	3	CAMP STEWART RD (SR 2808)	FROM HARRISBURG RD (SR 2805) TO LOWER ROCKY RIVER RD	0	18,500		500	19,000	1,000					24								9	3					20	130	
TOTAL FOR MAP NO. 3					0	18,500		500	19,000	1,000					24								9	3					20	130	
TOTAL FOR PROJ NO. 10CR20601.87					0	18,500		500	19,000	1,000					24								9	3					20	130	
						18,500		19,500		1,000													12						150		
GRAND TOTAL					1	111,070	4,950	17,765	112,480	4,435	1,890	110	14,300	50	1,367	2	20	90	5	4	5	4	151	26	29	16	13,000	16,000	487	970	520
						116,020		130,245		6,325		14,410			130								222				29,000		1,457		

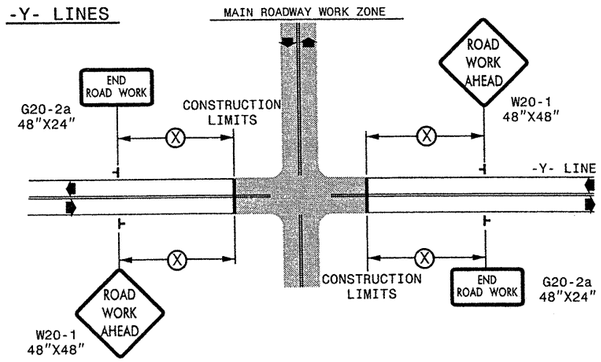
PROJ. REFERENCE NO.	SHEET NO.
10CR.20601.86 thru 10CR.20601.99	TCP-1

TWO-WAY UNDIVIDED ** (L-LINES)



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

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

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

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

SHEET 1 OF 1

APPROVED:_____ DATE:_____

SEAL

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

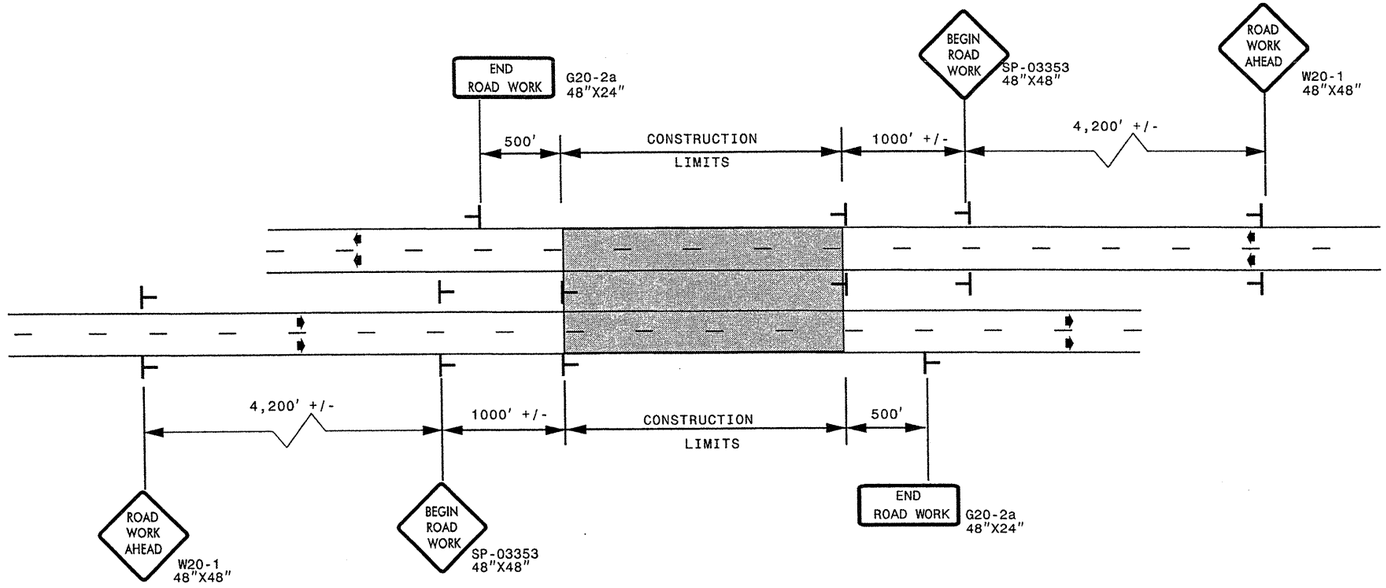
SCALE:	NONE
DATE:	
DWG. BY:	
DESIGN BY:	
REVIEWED BY:	
CADD FILE	

REVISIONS	
7-98	10/01
10-98	03/04
01/01	11/04

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

PROJ. REFERENCE NO.	SHEET NO.
10CR.20601.86 thru 10CR.20601.99	TCP-2

DETAIL A

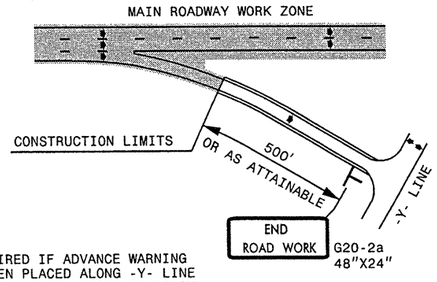


LEGEND
- ⊢ STATIONARY SIGN
- ➧ DIRECTION OF TRAFFIC FLOW

✱ 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

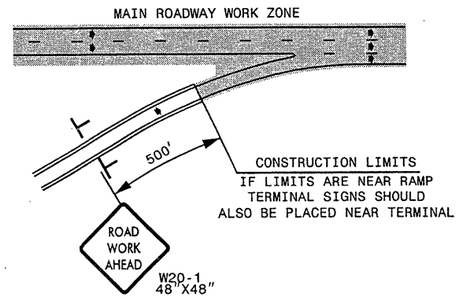
EXIT RAMPS



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.

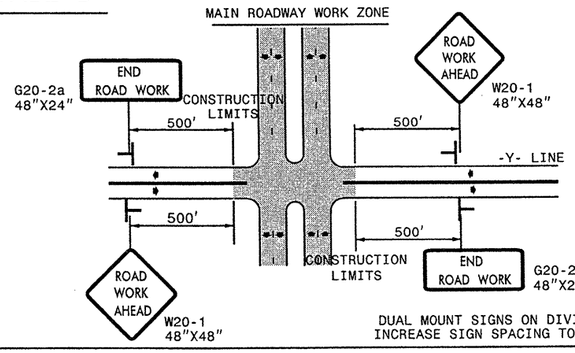
DETAIL C

ENTRANCE RAMPS



DETAIL D

-Y- LINES



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:_____

SEAL

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

SCALE:	NONE
DATE:	8/03
DWG. BY:	JI
DESIGN BY:	JI
REVIEWED BY:	

REVISIONS	
03/04	
CADD FILE	

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.

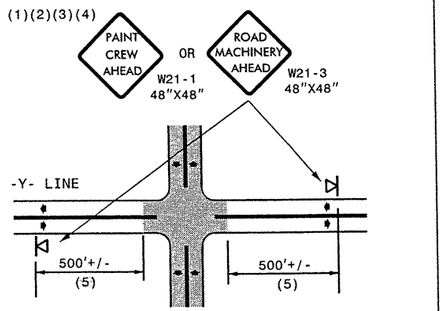
(12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.

(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.

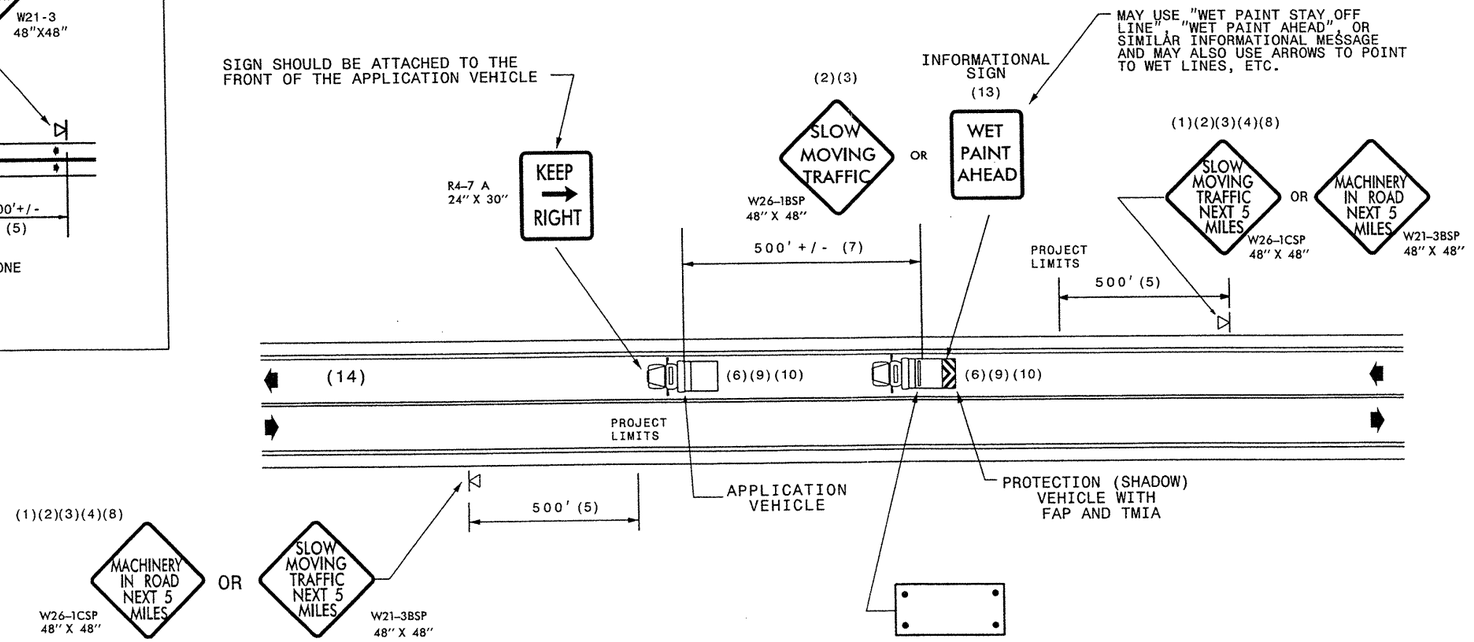
(14) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

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"



-Y- LINES



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 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.

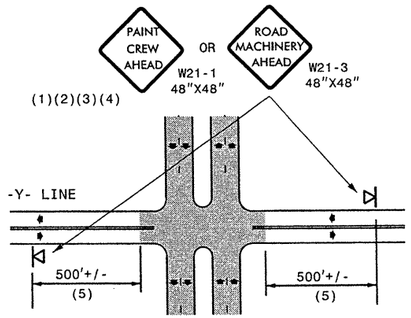
(10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.

(11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.

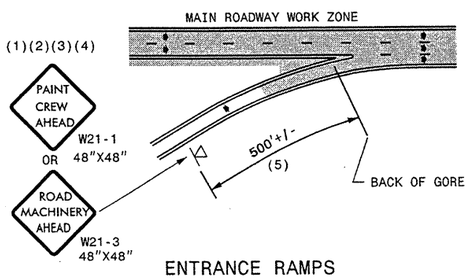
(12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.

LEGEND

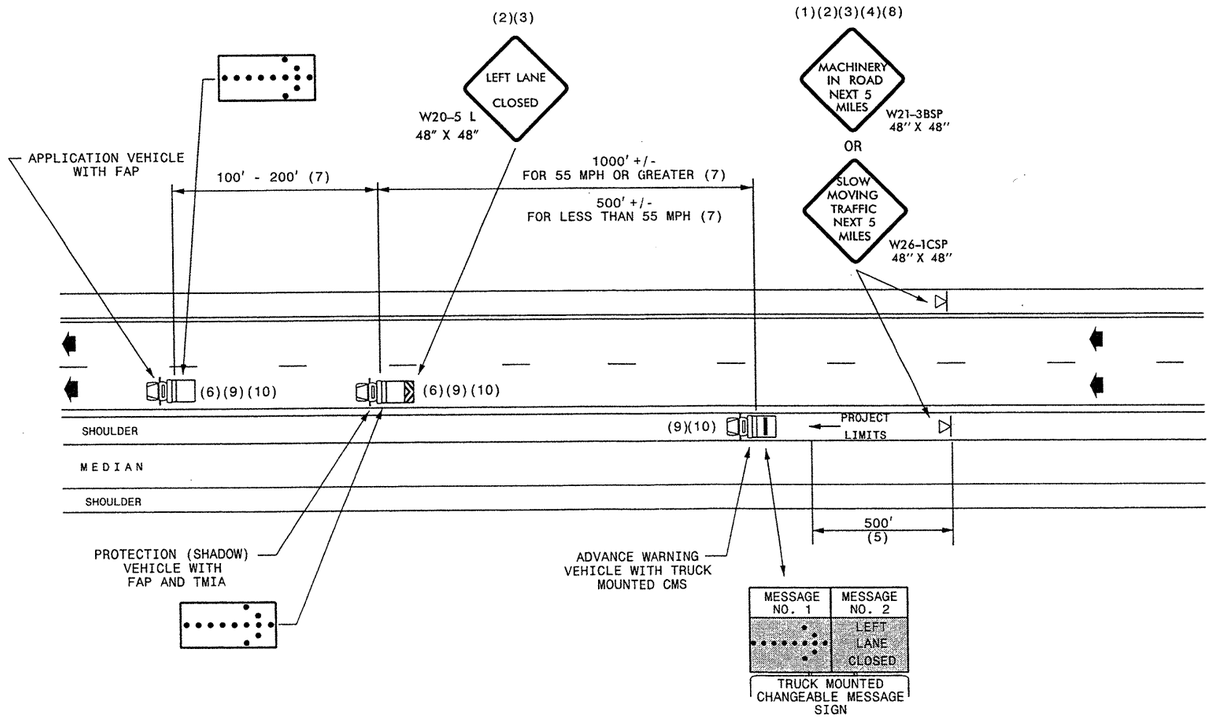
- PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
- DIRECTION OF TRAFFIC FLOW
- APPLICATION VEHICLE WITH LIGHT BAR
- PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
- ADVANCE WARNING VEHICLE WITH TRUCK MOUNTED CHANGEBLE 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



-Y- LINES



ENTRANCE RAMPS



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