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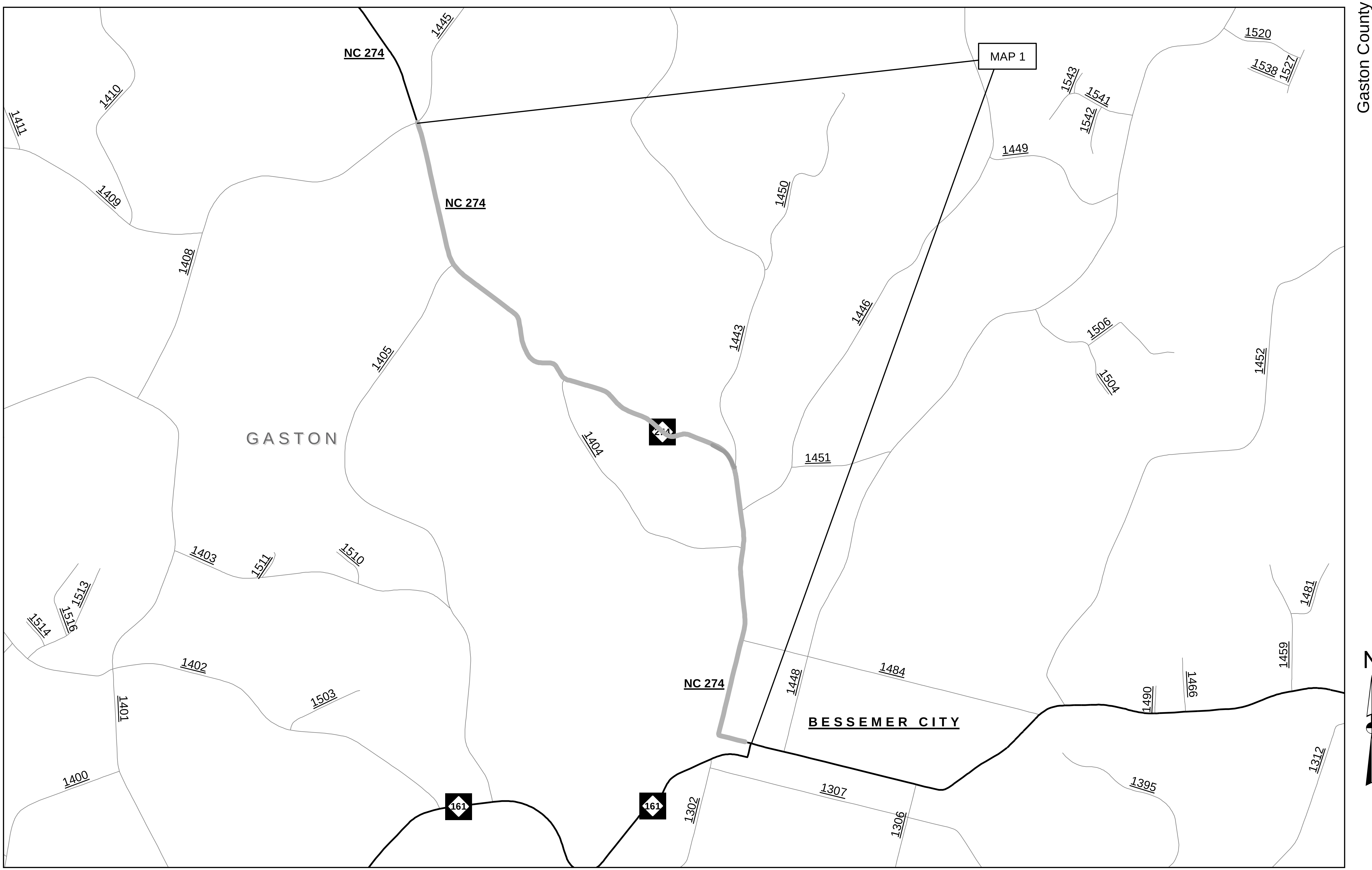


Gaston County
WBS# 2022CPT.12.08.10361
WBS# 2022CPT.12.08.20361

Gaston County

WBS# 2022CPT.12.08.10361

WBS# 2022CPT.12.08.20361

GASTON

SOUTH CAROLINA

MAP 2

1130
1274
1112
1295
1243
1242
1106
1166
1284
1299
1107
1103
1109
1108
1131
1111
1201
1262
2420
2663
2828
2680
2799
1238
1240
1239
2655
321

N

Gaston County

WBS# 2022CPT.12.08.10361

WBS# 2022CPT.12.08.20361

CLEVELAND

GASTON

SOUTH CAROLINA

MAP 3

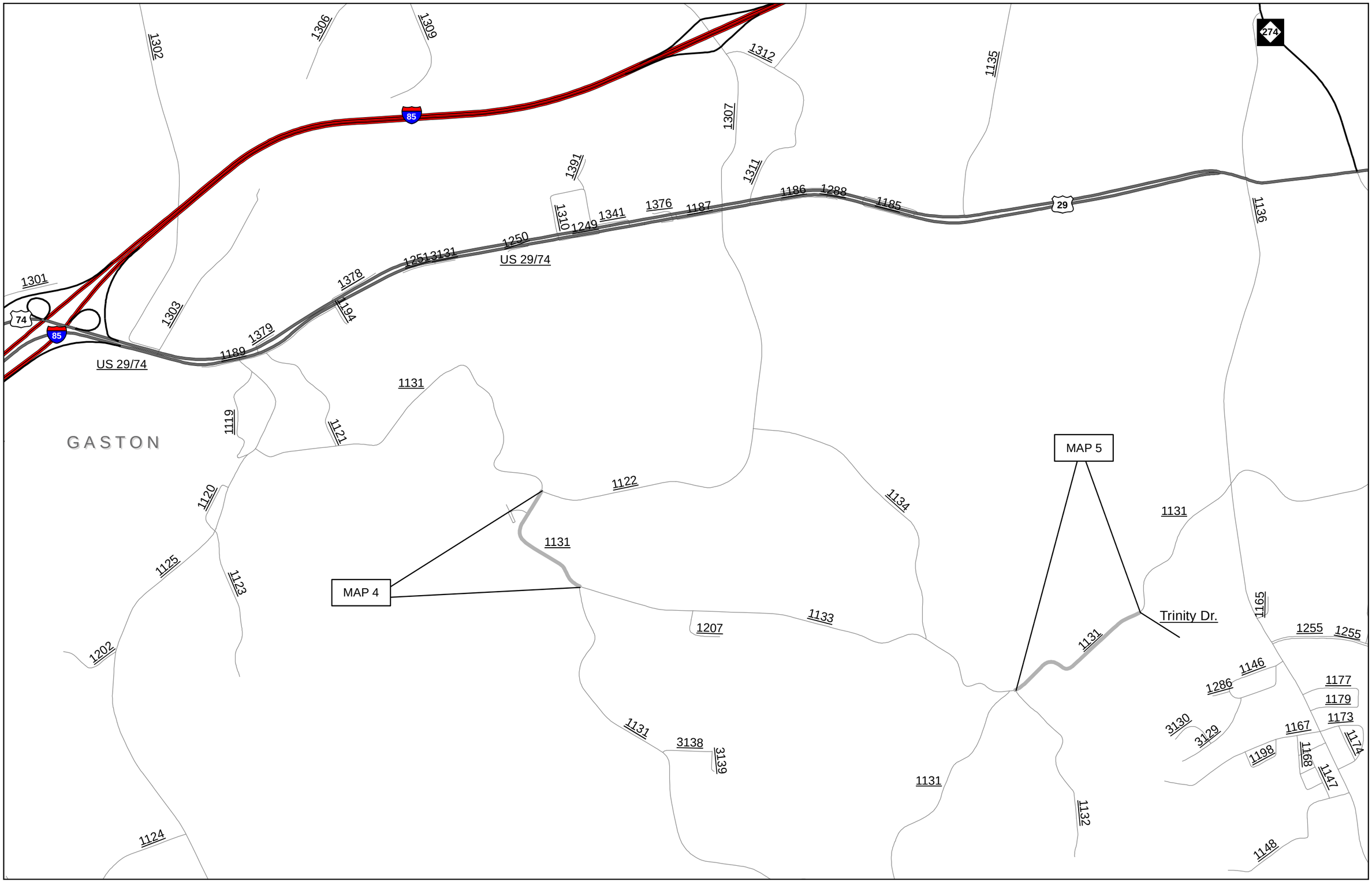
1115 1104 2291 1241 1125 1291 1293 3140 3132 1237 1271 1270 1236 1272 3101 3102 3100 1247 1220 1219 1227 1214 1215 1216 1113 1130 1283 1280 1195 1126 1112 1295 1106 1100 1102 1294 1107 1203 3136 3137 3135 1103 3123 1105 1101

N

Gaston County

WBS# 2022CPT.12.08.10361

WBS# 2022CPT.12.08.20361



Gaston County

WBS# 2022CPT.12.08.10361

WBS# 2022CPT.12.08.20361

MAP 9

MAP 8

MAP 6

BESSEMER CITY

GASTON

CLEVELAND

N

Gaston County

WBS# 2022CPT.12.08.10361

WBS# 2022CPT.12.08.20361

279

275

321

GASTON

GASTON COLLEGE

MAP 7

Chief Ct

1600
1457
1517
1494
1471
1463
1461
1495
1462
1464
1465
1458
1469
1696
1695
1710
1694
1711
1848
1800
1001
1700
1701
1702
1343
2278
1336
1390
1394
1369
1370
1488
2348
2275
2276
1367

N

Gaston County
WBS# 2022CPT.12.08.10361
WBS# 2022CPT.12.08.20361

CHERRYVILLE
GASTON
CLEVELAND

MAP 10
MAP 11
MAP 12

274
150
279

1650 1638 1641 1638 1658 1638 1640 1651 1652 1470 1426 1427 1001 2000 1540 1425 1467 1424 1422 1421 1423 1418 1419 1507 1428 1420 1431 1417 1637 1634 1674 1636 1002 1722 1628 1622 1708 1728 1627 1630 1631 1500 1626 1705 1673 1492 1436 1416 1499 1437 1438 1439

N

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
GASTON COUNTY 2022-2023	9	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2022CPT.12.08.10361		
2022CPT.12.08.20361		

PAVEMENT SCHEDULE

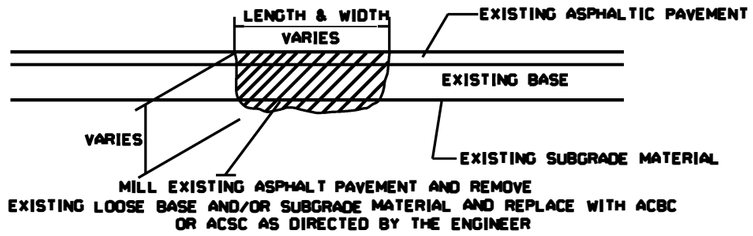
C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
V2	MILL ASPHALT PAVEMENT APPROX. 3" - 5" AS DIRECTED BY ENGINEER
V3	MILLED RUMBLE STRIP CENTERLINE AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION
Z	INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

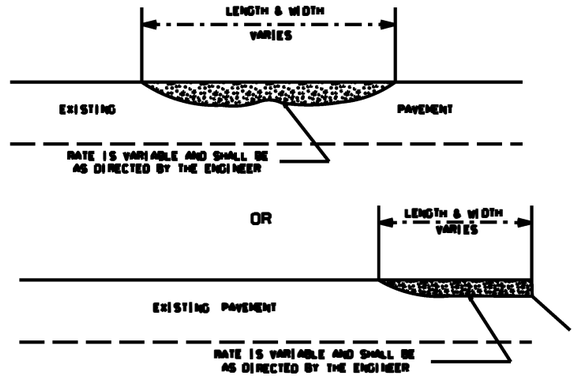
MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.

MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.

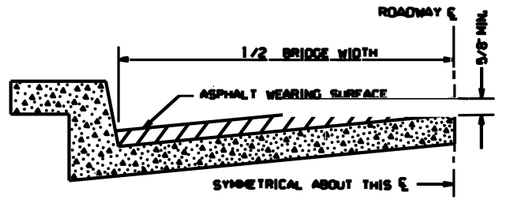
MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.



PATCHING EXISTING PAVEMENT



ASPHALT CONCRETE SURFACE COURSE
TYPE S9.5B & C (LEVELING COURSE)



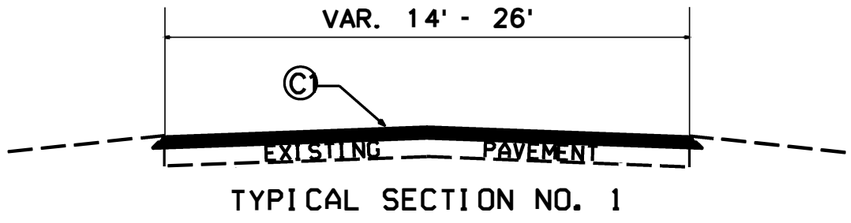
BRIDGE HALF TYPICAL SECTION

FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

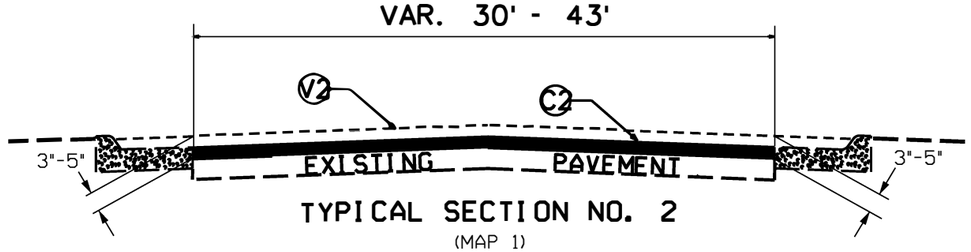
THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

NOTES

ALL UNPAVED S.R. ROADS TO BE SURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE NOTED.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



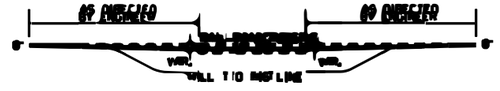
TYPICAL SECTION NO. 1
(MAP 11)



TYPICAL SECTION NO. 2
(MAP 1)

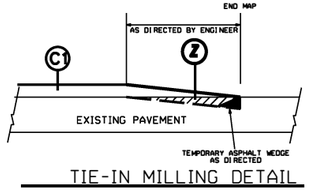
INCIDENTAL MILLING DETAILS

BRIDGE PROFILE



RAILROAD PROFILE

END OF MILLING PROFILE

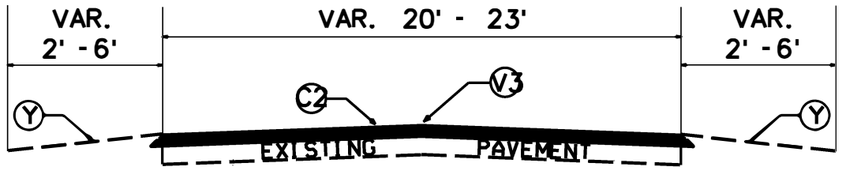


TIE-IN MILLING DETAIL

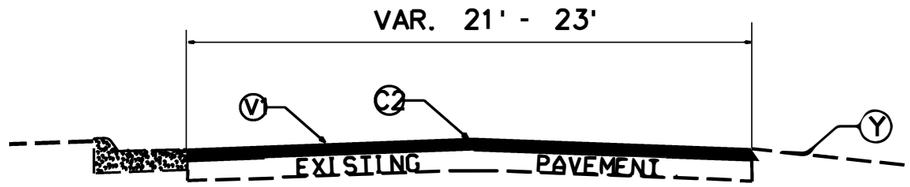
PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
GASTON COUNTY 2020-2021	10	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
2022CPT.12.08.10361		
2022CPT.12.08.20361		

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT APPROX. 1-1/2" AS DIRECTED BY ENGINEER
V2	MILL ASPHALT PAVEMENT APPROX. 3" - 5" AS DIRECTED BY ENGINEER
V3	MILLED RUMBLE STRIP CENTERLINE AS DIRECTED BY ENGINEER
Y	SHOULDER RECONSTRUCTION
Z	INCIDENTAL MILLING AS DIRECTED BY THE ENGINEER.

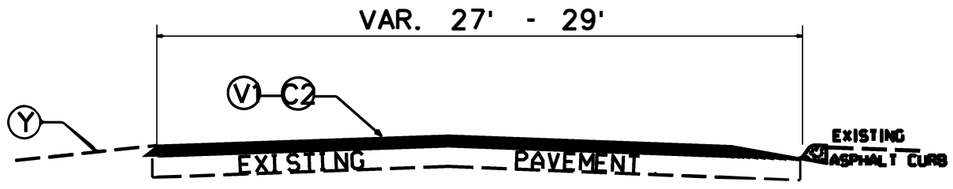
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
MILL BRIDGE APPROACHES & RXR APPROACHES 100' TO PROVIDE A SMOOTH TRANSITION AS DIRECTED.
MILL INTO GUTTER LINE WHERE SHOWN AND AS DIRECTED.
MAINTAIN PROPER CROWN FOR DRAINAGE OF THE ROAD SURFACE.



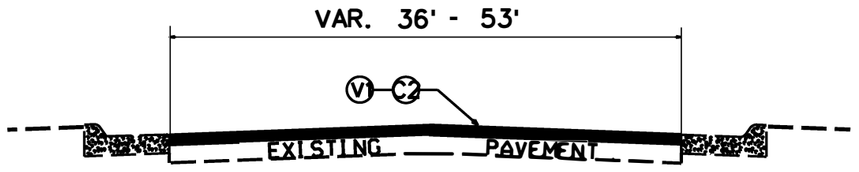
TYPICAL SECTION NO. 5
(MAP 1)



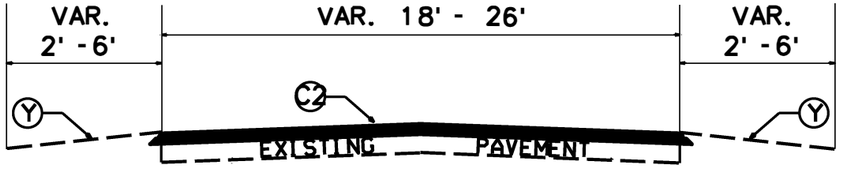
TYPICAL SECTION NO. 6
(MAP 5, 6)



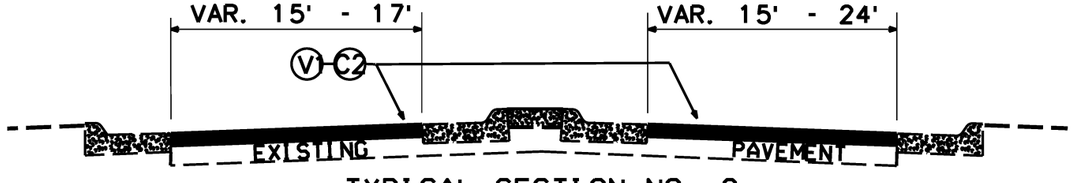
TYPICAL SECTION NO. 3
(MAP 1)



TYPICAL SECTION NO. 7
(MAP 7)



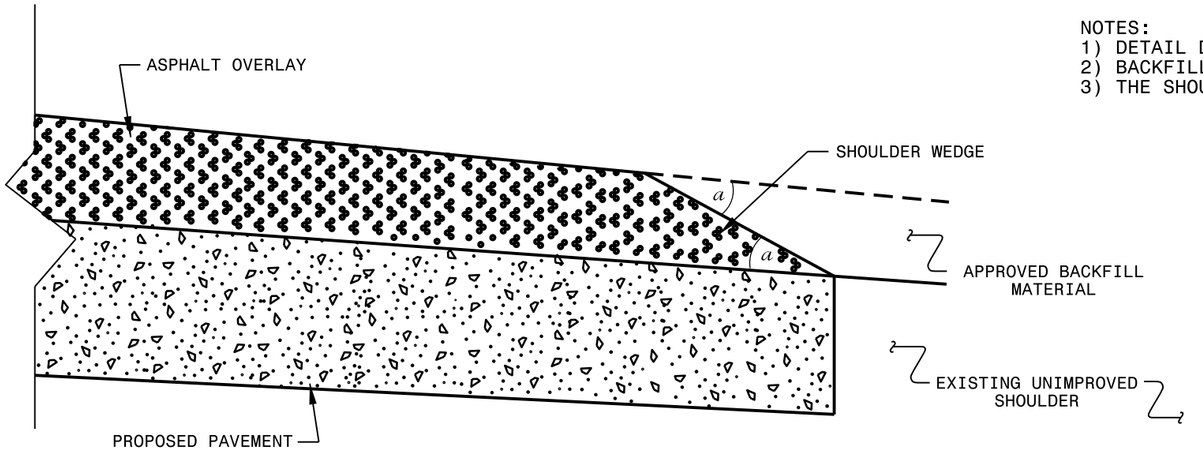
TYPICAL SECTION NO. 4
(MAP 1-6, 8-10, 12)



TYPICAL SECTION NO. 8
(MAP 7)

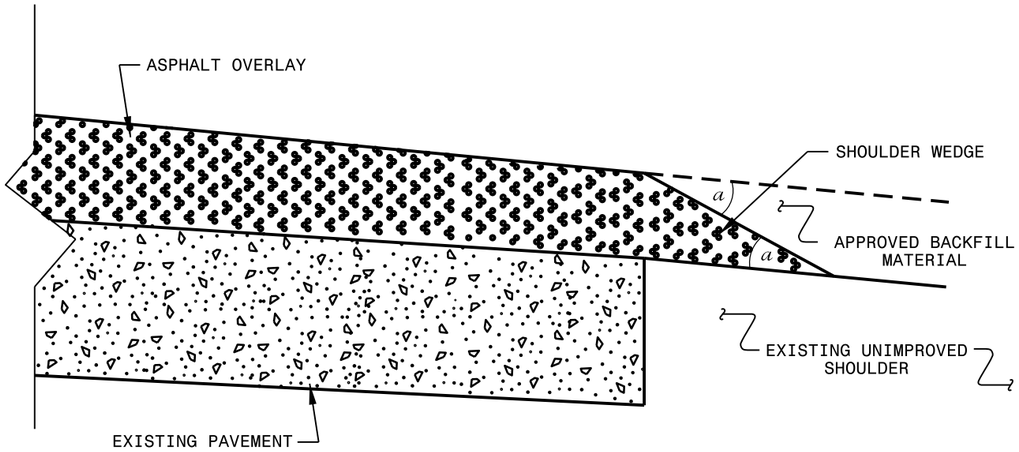
PROJECT REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	11

NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



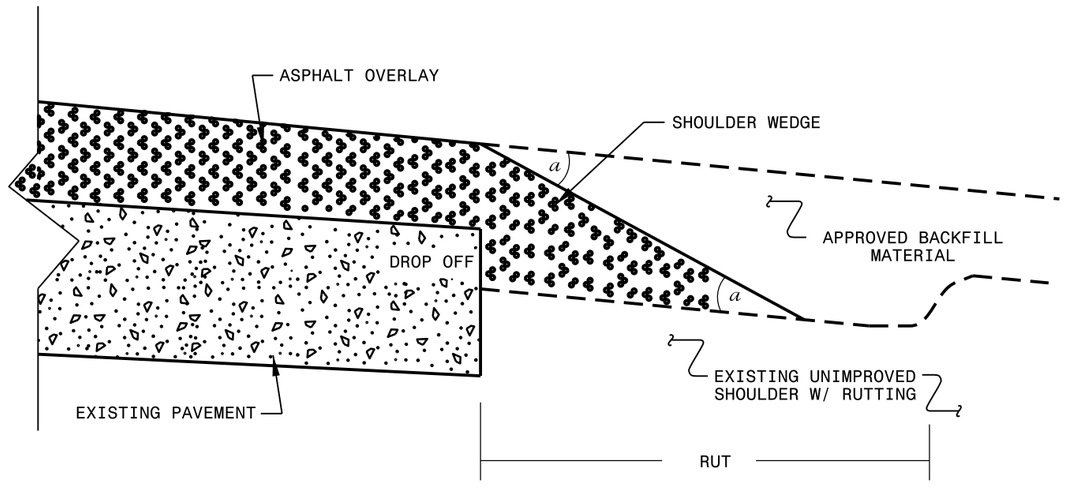
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

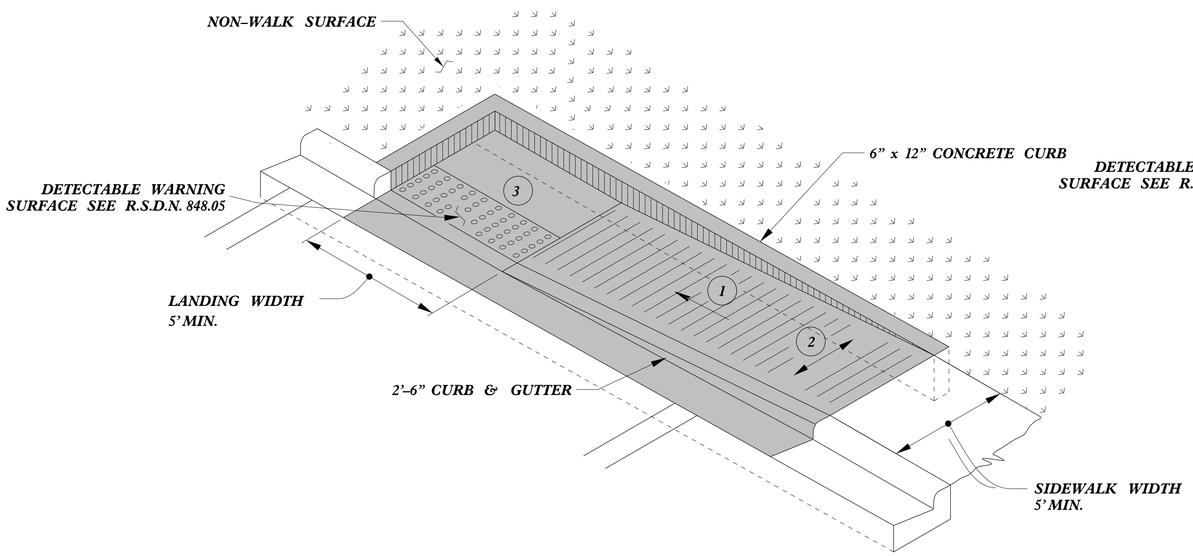
SHOULDER WEDGE DETAILS

ORIGINAL BY: T.SPELL DATE: 7-19-11
MODIFIED BY: _____ DATE: 10/16/12
CHECKED BY: _____ DATE: _____
FILE SPEC.: $:usr/details/stand/shoulderwedgedetail.dgn

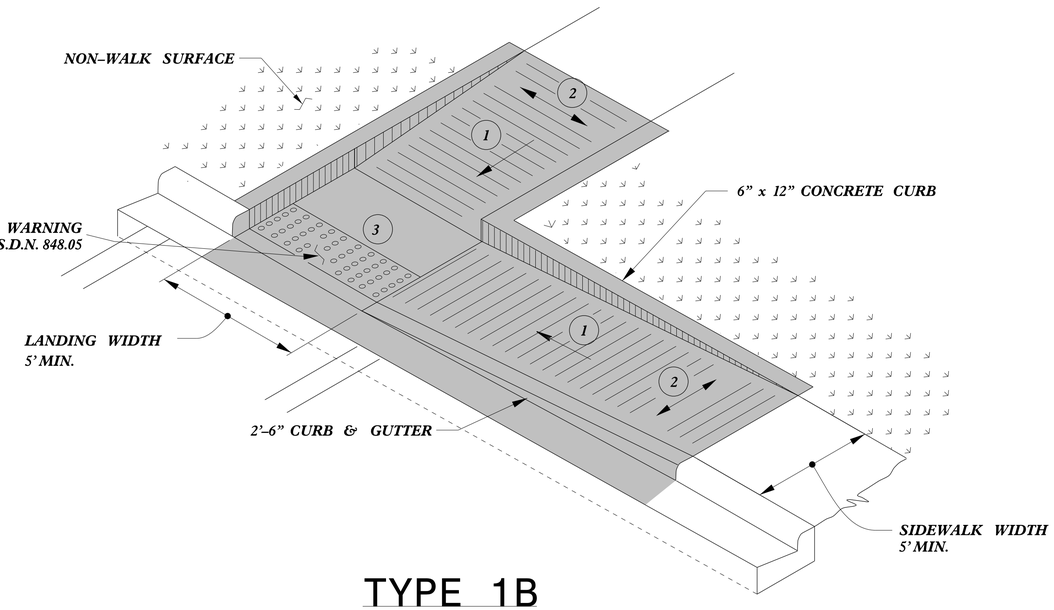
$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	12



TYPE 1A



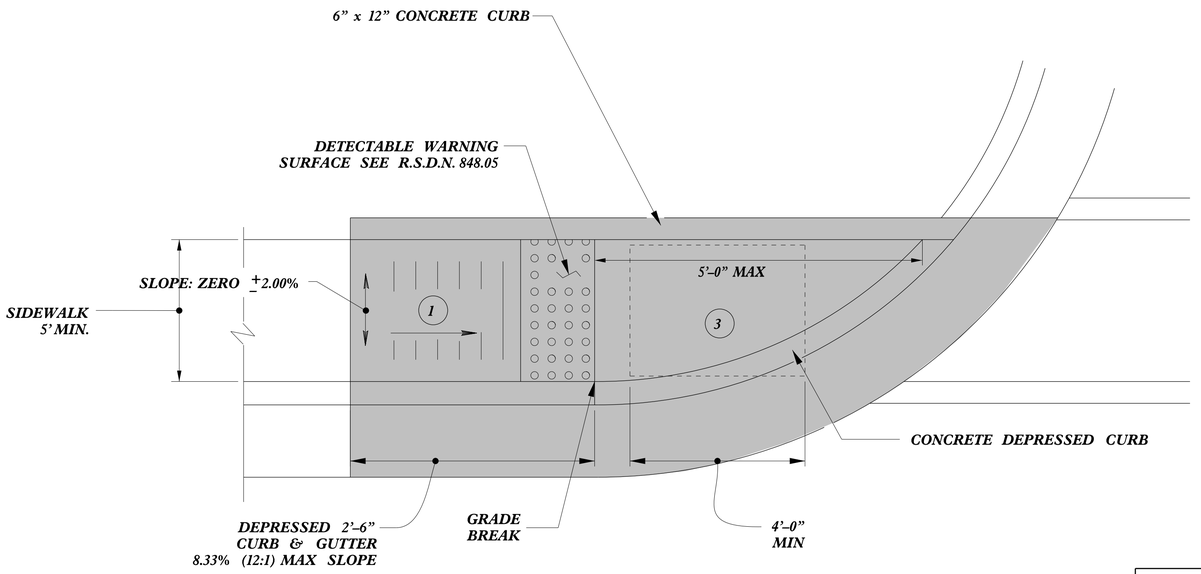
TYPE 1B

PAY LIMITS FOR 1 CURB RAMP

(1) *8.33% (12:1) MAX RAMP SLOPE*

(2) *CROSS SLOPE: 2.00%*

(3) *CURB RAMPS REQUIRE A (4'–0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.*



TYPE 1

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

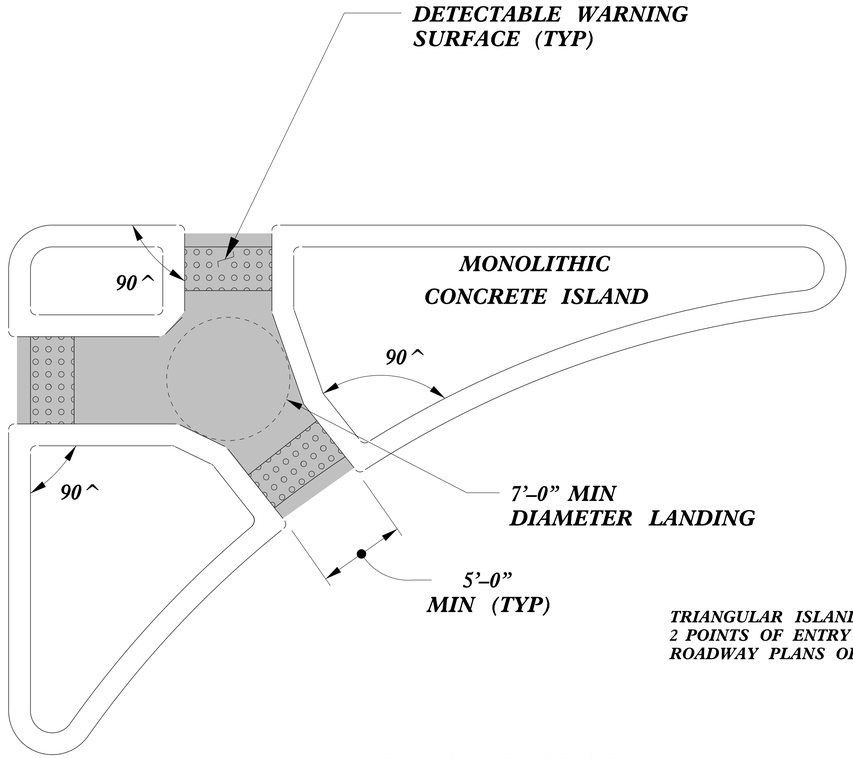
Directional Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

$$$$SYSTIME$$$$
$$$$USERNAME$$$$

5/14/99

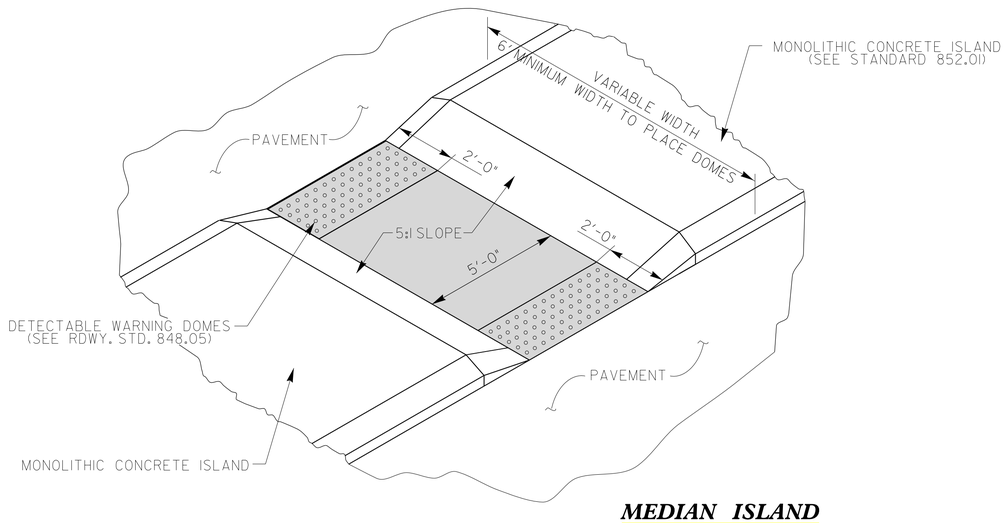
PROJECT REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	13



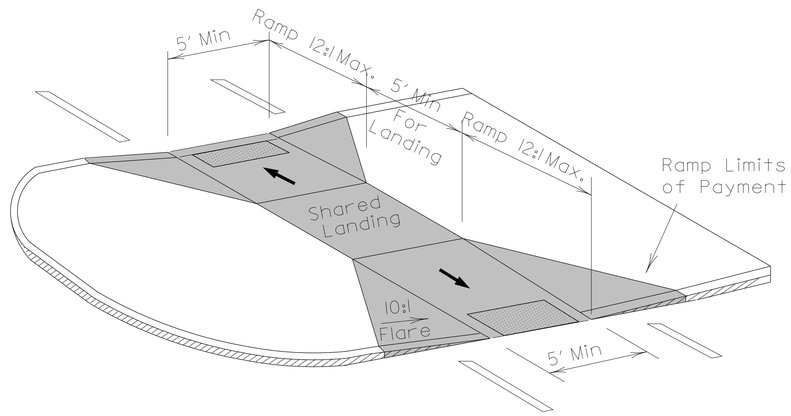
PAY LIMITS FOR 2 OR 3 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)

TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

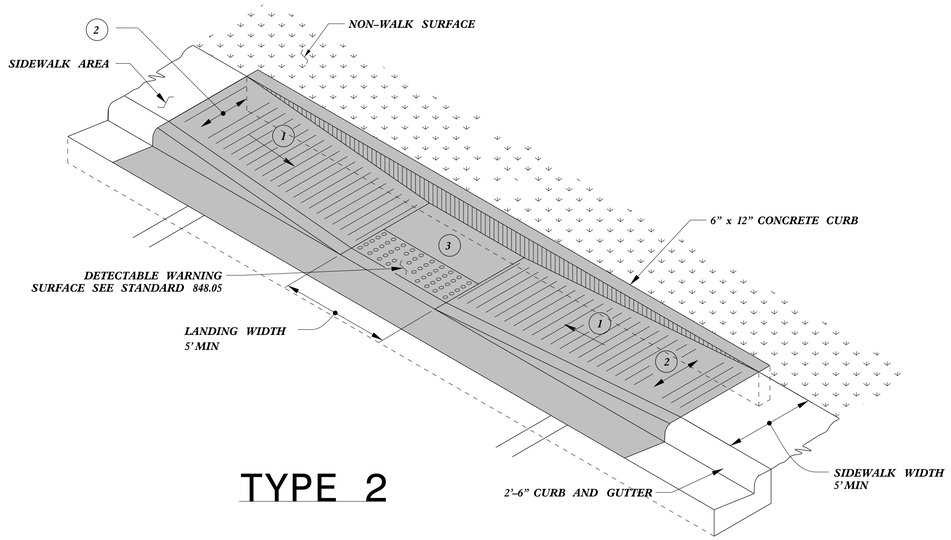
Median or Turn Lane Islands

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC. stds/2012CurbRamp/CurbRampDetails.dgn

$$$$USERNAME$$$$ $$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$SYSTIME$$$$

5/14/99

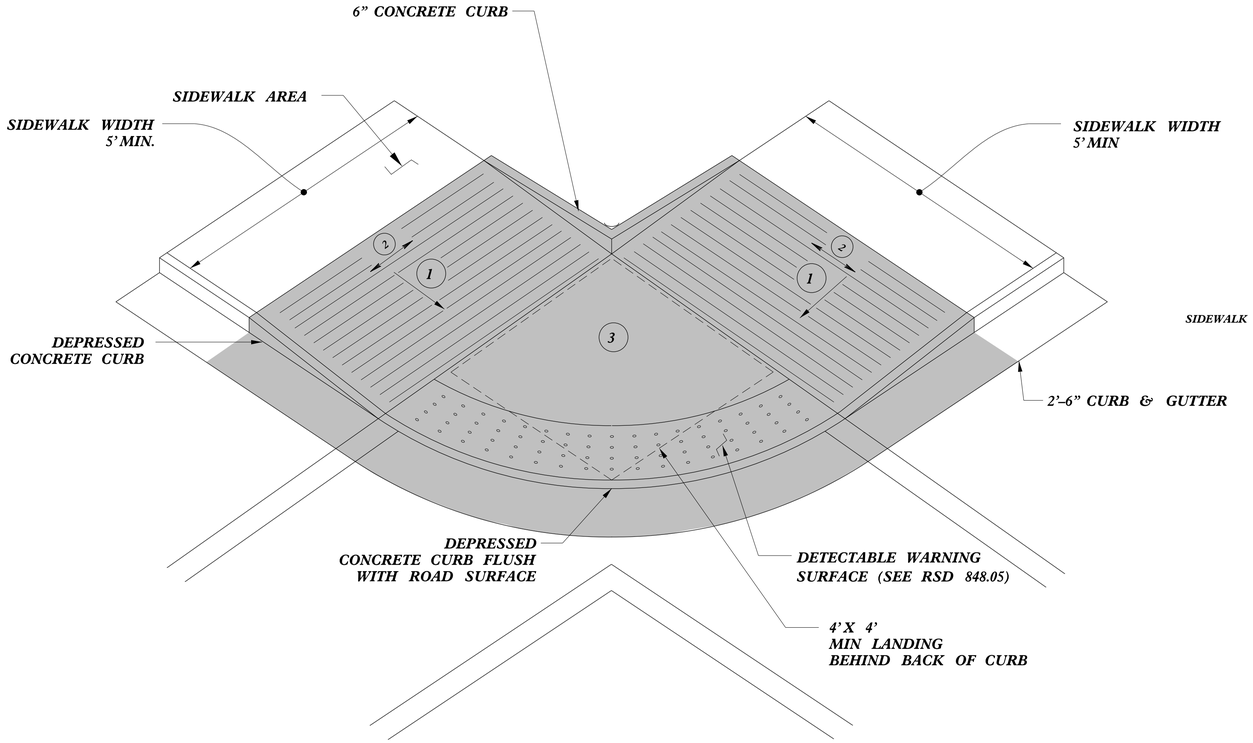
PROJECT REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	14



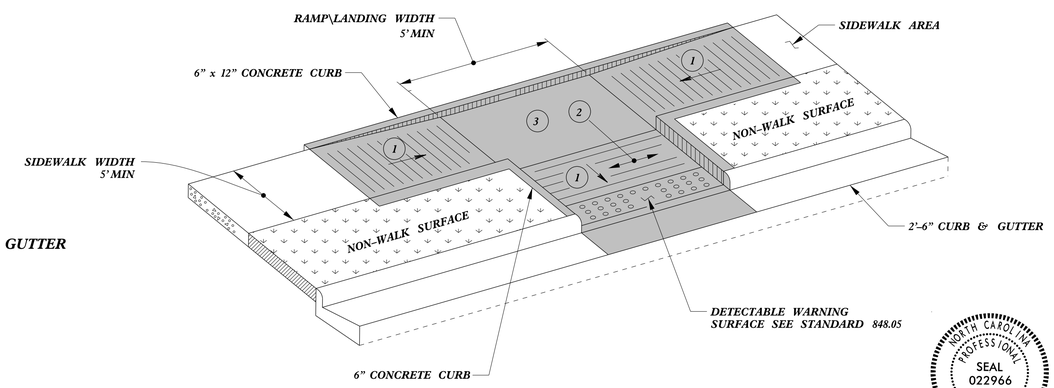
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

1. *8.33% (12:1) MAX RAMP SLOPE*
2. *CROSS SLOPE: 2.00%*
3. *CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.*



TYPE 2A



TYPE 3

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT

Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

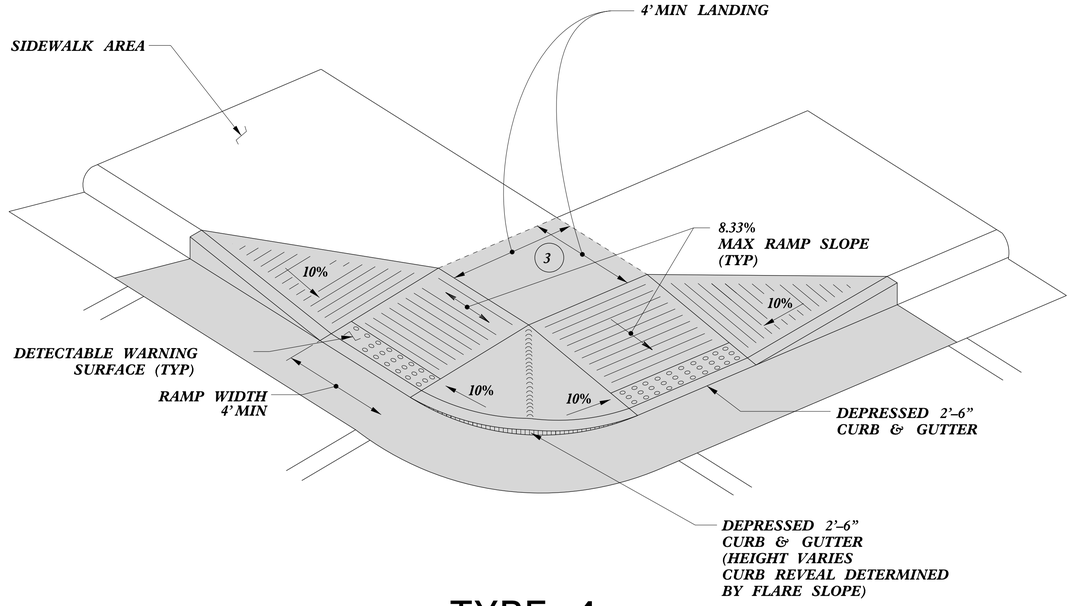
Parallel Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

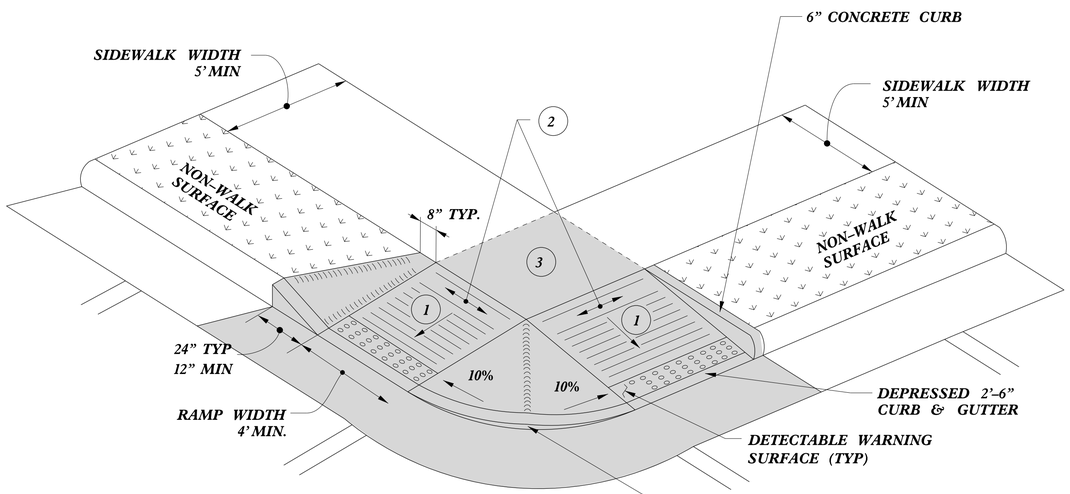
$$$$USERNAME$$$$ $$$$SCONTRACT$$$$ $$$$SYSTIME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	15

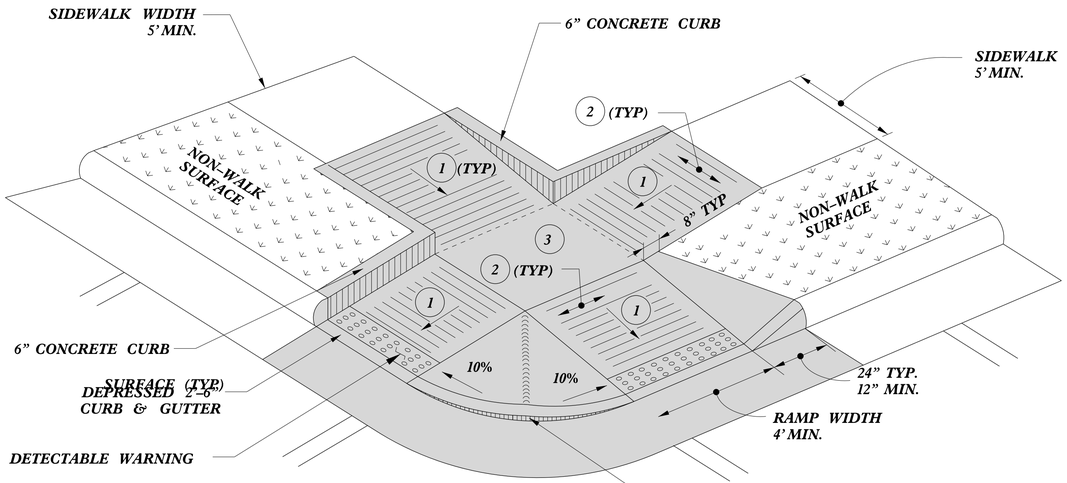


TYPE 4



TYPE 4A

PAY LIMITS FOR 2 CURB RAMPS



TYPE 5

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'–0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

Shared Landing

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

$$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$DGN$$$$

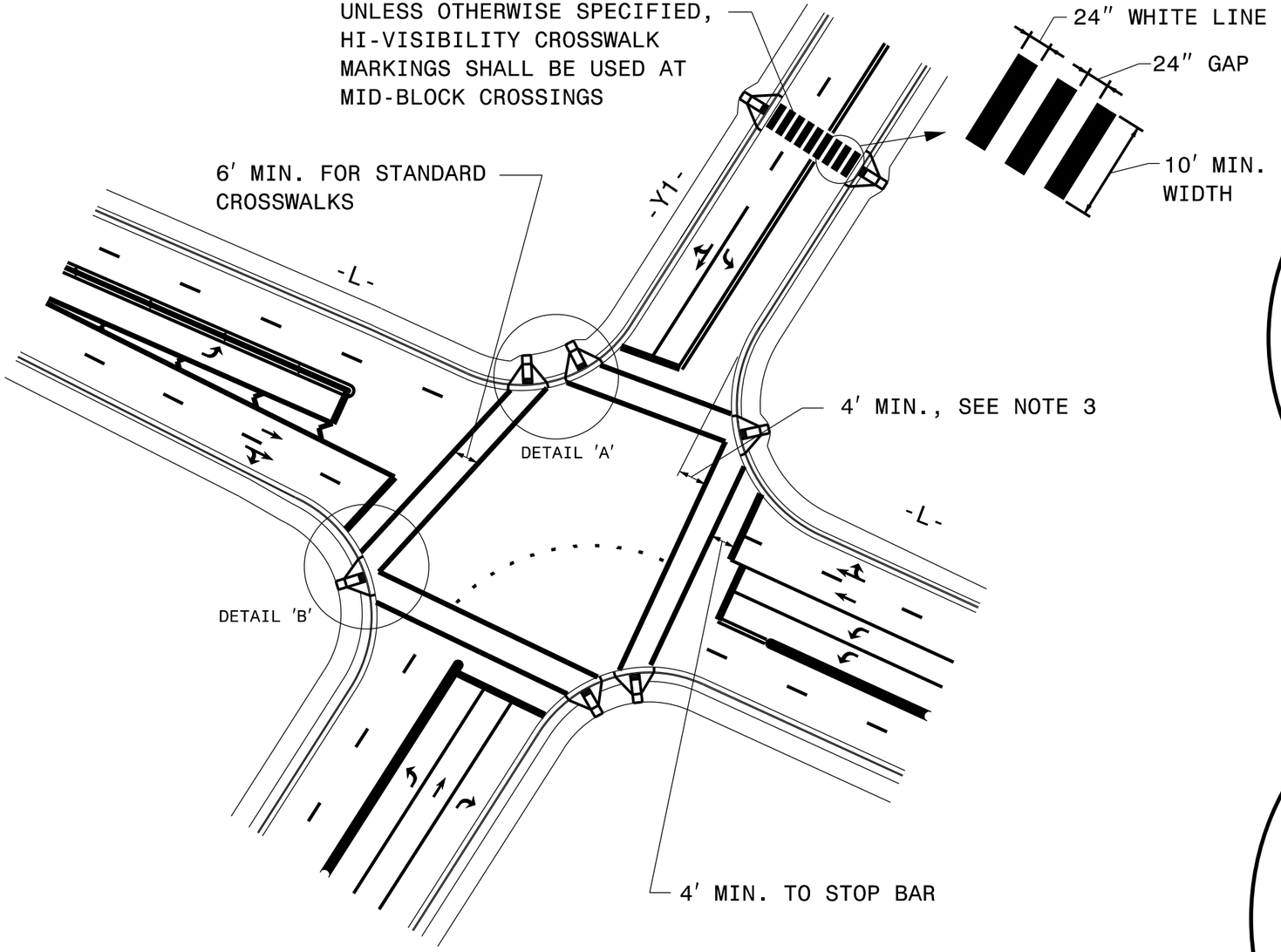
TIP NO.	SHEET NO.
2022CPT.12.08.10361	16

APPROVED:

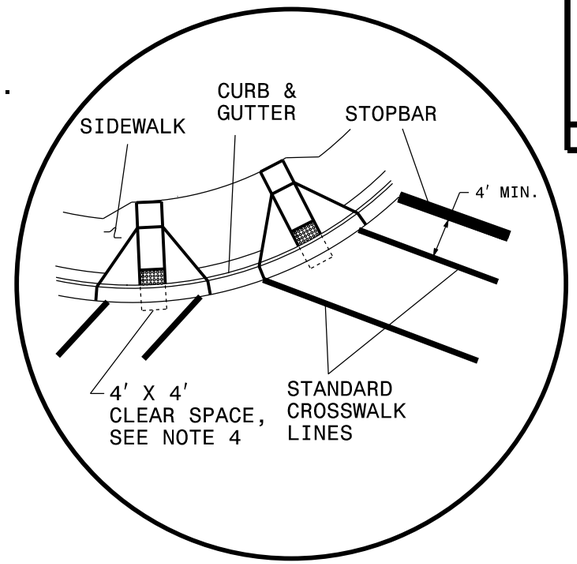
DATE:

SEAL

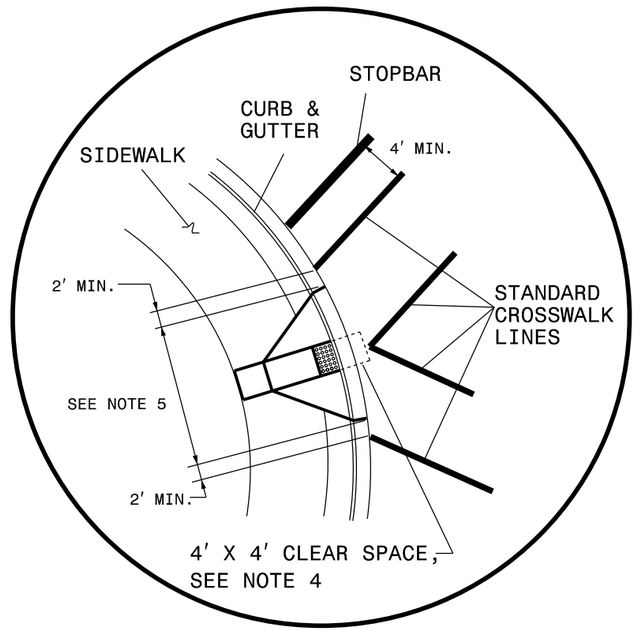
REVISIONS



GUIDANCE DETAIL FOR CROSSWALK MARKINGS



DETAIL 'A'- DUAL CURB RAMPS



DETAIL 'B'- SINGLE DIAGONAL CURB RAMP

NOTES:

1. USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS NOT STATIONED ON THE DETAIL SHEETS OR WHEN FIELD ADJUSTMENTS REQUIRED MOVING STATIONED MARKINGS AS DIRECTED BY THE ENGINEER. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.

2. THE CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. ONLY INSTALL CROSSWALK MARKINGS WHERE SHOWN ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALL AS SPECIFIED ON THE DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.

3. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4′ MIN.

4. BEYOND THE BOTTOM GRADE BRAKE, A CLEAR SPACE OF 4′ X 4′ MINIMUM SHALL BE PROVIDED WITHIN THE MARKINGS.

5. SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2 FEET LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.

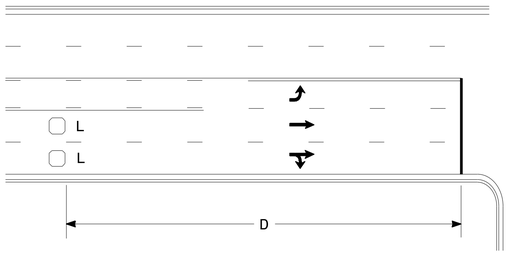
6. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS.

CROSSWALK PAVEMENT MARKING GUIDANCE DETAIL

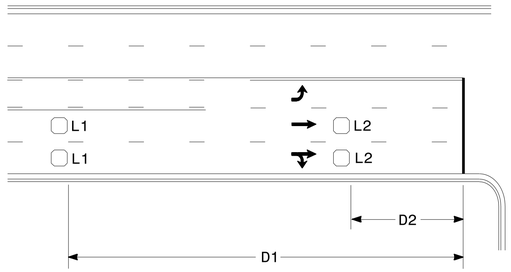
$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	17

High Speed Detection
(≥40 mph)



OR



Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1 Controllers
Wired separately for TS2, 170, and 2070L Controllers

Volume Density Operation

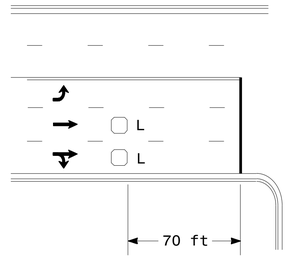
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

"Stretch" Operation

Low Speed Detection
(≤35 mph)



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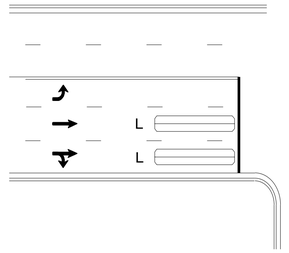
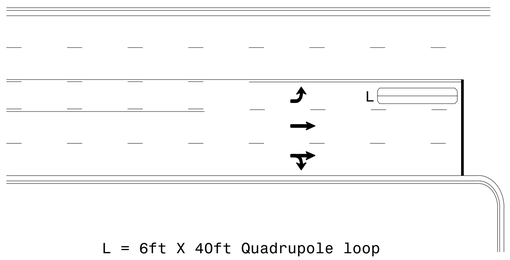


L = 6ft X 6ft
Wired in series

L = 6ft X 40ft
Quadrupole loop, wired separately

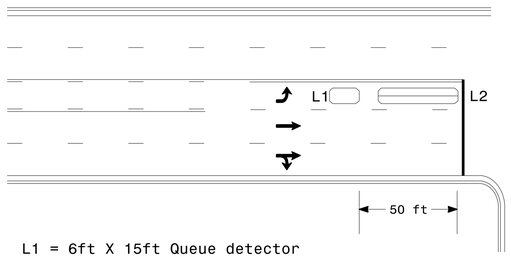
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

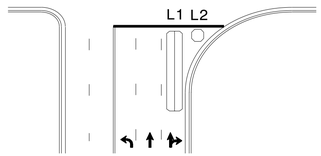
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

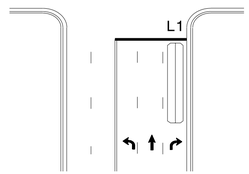
Queue Loop Detection

Right Turn Lane Detection

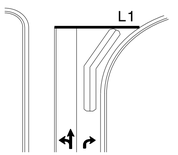


Shared Lane/
Wide Radius Turn

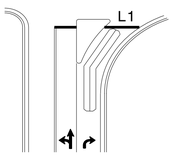
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

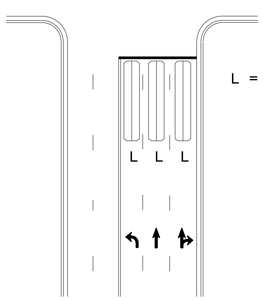


Wide Radius Turn



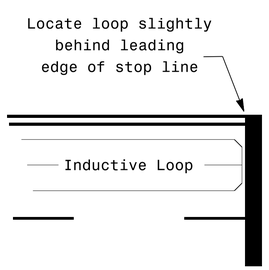
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate detectors/channels

Presence Loop Placement at Stop Lines



Note:
Loop may be located in advance of stop line under any of the following conditions:
1) stop line is greater than 15′ from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

Recommended Number of Turns

Single 6′ X 6′ loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6′ X 15′ Loops:
Lead-in < 150′, use 2 turns
Lead-in > 150′, use 3 turns

Prepared in the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

Typical Signal Loop Locations

PLAN DATE: January 2015	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:

SCALE
N/A

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 23489 ENGINEER PAMELA L. ALEXANDER

DocuSigned by: P L Alexander B4756E00CE4E46D...
1/30/2015
DATE

SIG. INVENTORY NO.

30-JAN-2015 12:39
S:\Traffic\Signal\Signal Design Section\Eastern Region\looptypical2015.dgn
palexander

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.12.08.10361, 2022CPT.12.08.20361		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0255000000-E AGGREGATE SHOULDER BORROW	1220000000-E INCIDENTAL STONE BASE	1245000000-E SHOULDER RECONSTRUCTION	1297000000-E 1½" MILLING	1308000000-E 3" TO 5" MILLING	1297000000-E INCIDENTAL MILLING	1519000000-E SURFACE COURSE, S9.5B	1520000000-E LEVELING COURSE, S9.5B	1523000000-E SURFACE COURSE, S9.5C	1524000000-E LEVELING COURSE, S9.5C	1575000000-E ASPHALT BINDER FOR PLANT MIX	1704000000-E PATCHING EXISTING PAVEMENT	1840000000-E MILLED RUMBLE STRIP CENTERLINE	2605000000-N CONCRETE CURB RAMPS	2800000000-N ADJ. OF CATCH BASIN	2815000000-N ADJ. OF DROP INLET	2830000000-N ADJ. OF MANHOLES	2845000000-N ADJ. OF METER OR VALVE BOX	2850000000-N FRAME W/ GRATE & HOOD STD 840.03 TYPE 'E'	2920000000-N CONVERT EXISTING DROP INLET TO CATCH BASIN	7324000000-N JUNCTION BOX (STANDARD SIZE)	7444000000-E INDUCTIVE LOOP SAWCUT	7456000000-E LEAD-IN CABLE (14-2)
										MI	FT	TON	TONS	SMI	SY	SY	SY	TONS	TONS	TONS	TONS	TONS	TONS	LF	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF
2022CPT.12.08.10361	Gaston	1	NC 274 (TRYON COURTHOUSE RD.)	NC 161 TO SR 1408	2 3 4 5	2 2 2 2	2WU	NO	NO	0.28 0.29 0.51 1.98	VAR. 30-43 VAR. 27-29 VAR. 23-26 VAR. 20-23	922	100	5.27	5,278	6,609	738			3,941	483	268	985	10,457	12	7	1	7	7	7	7	1	200	80
TOTAL FOR PROJ NO. 2022CPT.12.08.10361										**3.06**		**922**	**100**	**5.27**	**5,278**	**6,609**	**738**			**3,941**	**483**	**268**	**985**	**10,457**	**12**	**7**	**1**	**7**	**7**	**7**	**7**	**1**	**200**	**80**
																	738																
2022CPT.12.08.20361	Gaston	2	SR 1109 (FERGUSON RIDGE RD.)	SR 1103 TO SR 1108	4	2	2WU	NO	NO	1.06	VAR. 20-21	371	30	2.12			101			1,185	180	83	286											
2022CPT.12.08.20361	Gaston	3	SR 1126 (LEWIS RD.)	SR 1112 TO SR 1113	4	2	2WU	NO	NO	1.3	20	455	35	2.60			220			1,418	114	93	454											
2022CPT.12.08.20361	Gaston	4	SR 1131 (LINWOOD RD.)	SR 1122 TO SR 1133	4	2	2WU	NO	NO	0.47	VAR. 22-23	165	18	0.94			250			576	35	37	81											
2022CPT.12.08.20361	Gaston	5	SR 1131 (LINWOOD RD.)	TRINITY DR. TO SR 1131	4 6	2	2WU	NO	NO	0.87 0.02	VAR. 21-22 21	312	40	1.76	300		712			1,034	165	73	280					12						
2022CPT.12.08.20361	Gaston	6	SR 1302 (CROWDERS MOUNTAIN RD.)	NC 161 TO SR 1303	4 6	2	2WU	NO	NO	2.57 0.10	VAR. 18-21 VAR. 22-23	917	35	5.24	1,436		664			2,913	133	183	580											
2022CPT.12.08.20361	Gaston	7	SR 1394 (GASTONIA TECHNOLOGY PKWY.)	SR 1336 TO CHIEF CT.	7 8	2	2WD	NO	NO	0.74	VAR. 36-53 VAR. 30-39				17,462		120			1,476	195	101	458					2				1	170	80
2022CPT.12.08.20361	Gaston	8	SR 1403 (RAMSEUR RD.)	NC 161 TO SR 1403	4	2	2WU	NO	NO	0.76	VAR. 19-20	266	20	1.52			490			800	50	51	104											
2022CPT.12.08.20361	Gaston	9	SR 1405 (RAMSEUR RD.)	SR 1403 TO NC 274	4	2	2WU	NO	NO	1.57	19	550	25	3.14			581			1,628	107	105	212											
2022CPT.12.08.20361	Gaston	10	SR 1425 (W. OLD POST RD.)	NC-274 TO CLEVELAND CO. LINE	4	2	2WU	NO	NO	1.88	VAR. 18-19	329	105	3.76			110			1,898	286	132	475											
2022CPT.12.08.20361	Gaston	11	SR 1540 (CRICKET CREEK DR.)	SR 1425 TO CULDESAC	1	2	2WU	NO	NO	0.37	VAR. 14-26						56	323	73			27	94											
2022CPT.12.08.20361	Gaston	12	SR 1638 (BLACK ROCK RD.)	SR 1651 TO END PAVEMENT	4	2	2WU	NO	NO	0.77	20	270	20	1.54			85			840	32	52	85											
TOTAL FOR PROJ NO. 2022CPT.12.08.20361										**12.48**		**3,635**	**328**	**22.62**	**19,198**		**3,389**	**323**	**73**	**13,768**	**1,297**	**937**	**3,109**					**14**				**1**	**170**	**80**
																	3,389																
GRAND TOTAL										**15.54**		**4,557**	**428**	**27.89**	**24,476**	**6,609**	**4,127**	**323**	**73**	**17,709**	**1,780**	**1,205**	**4,094**	**10,457**	**12**	**7**	**1**	**21**	**7**	**7**	**7**	**2**	**370**	**160**
																	4,127																

PROJECT NO.	SHEET NO.	TOTAL NO.
2022CPT.12.08.10361, 2022CPT.12.08.20361		

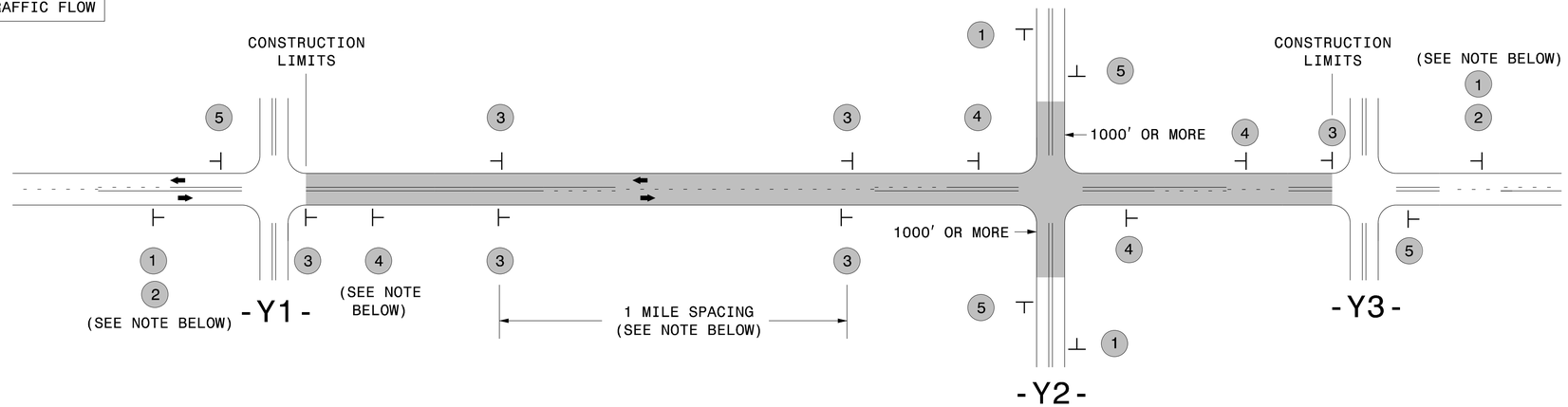
THERMOPLASTIC AND PAINT QUANTITIES

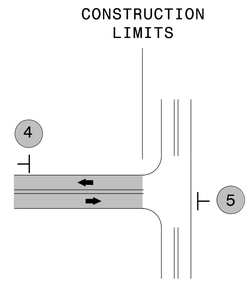
										4413000000-E	4457000000-E	4510000000-N	4695000000-E	4705000000-E	4710000000-E	4721000000-E	4725000000-E			4810000000-E		4820000000-E	4835000000-E	4845000000-N		4905000000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	8" X 90 M WHITE THERMO	16" X 90 M WHITE THERMO	24" X 90M WHITE THERMO	THERMO MSG RXR 90 M	THERMO LT ARROW 90 M	THERMO STR & LT ARROW 90 M	THERMO RT ARROW 90 M	4" YELLOW PAINT	4" WHITE PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT LT ARROW	PAINT H/C ACCESS SYMBOL	SNOW PLOWABLE MARKERS
								MI	FT	SF	LS	HR	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	EA	EA	EA
2022CPT.12.08.10361	Gaston	1	NC 274 (TRYON COURTHOUSE RD.)	NC 161 TO SR 1408	2 3 4 5	2 2 2 2	2WU	0.28 0.29 0.51 1.98	VAR. 30-43 VAR. 27-29 VAR. 23-26 VAR. 20-23	244	*	50	135		30		1			64,649	56,420	135	30	1	1	205
TOTAL FOR PROJ NO. 2022CPT.12.08.10361								**3.06**		**244**	*****	**50**	**135**		**30**		**1**			**64,649**	**56,420**	**135**	**30**	**1**	**1**	**205**
																	1			**121,069**				**2**		
2022CPT.12.08.20361	Gaston	2	SR 1109 (FERGUSON RIDGE RD.)	SR 1103 TO SR 1108	4	2	2WU	1.06	VAR. 20-21	180	*									18,992	22,811					
2022CPT.12.08.20361	Gaston	3	SR 1126 (LEWIS RD.)	SR 1112 TO SR 1113	4	2	2WU	1.3	20	116	*									24,160	27,976					
2022CPT.12.08.20361	Gaston	4	SR 1131 (LINWOOD RD.)	SR 1122 TO SR 1133	4	2	2WU	0.47	VAR. 22-23	84	*									10,114	10,114					
2022CPT.12.08.20361	Gaston	5	SR 1131 (LINWOOD RD.)	TRINITY DR. TO SR 1131	4 8	2	2WU	0.87 0.02	VAR. 21-22 21	190	*									19,153	18,772					60
2022CPT.12.08.20361	Gaston	6	SR 1302 (CROWDERS MOUNTAIN RD.)	NC 161 TO SR 1303	4 8	2	2WU	2.57 0.10	VAR. 18-21 VAR. 22-23	244	*									56,458	57,458					
2022CPT.12.08.20361	Gaston	7	SR 1394 (GASTONIA TECHNOLOGY PKWY.)	SR 1336 TO CHIEF CT.	11 12	2	2WD	0.74	VAR. 36-53 VAR. 30-39	180	*				40			1	1	200	220		40	2		
2022CPT.12.08.20361	Gaston	8	SR 1403 (RAMSEUR RD.)	NC 161 TO SR 1403	4	2	2WU	0.76	VAR. 19-20	84	*			100	70	4				16,052	16,052		20			
2022CPT.12.08.20361	Gaston	9	SR 1405 (RAMSEUR RD.)	SR 1403 TO NC 274	4	2	2WU	1.57	19	116	*									30,686	33,786					
2022CPT.12.08.20361	Gaston	10	SR 1425 (W. OLD POST RD.)	NC-274 TO CLEVELAND CO. LINE	4	2	2WU	1.88	VAR. 18-19	160	*									36,816	40,458					
2022CPT.12.08.20361	Gaston	11	SR 1540 (CRICKET CREEK DR.)	SR 1425 TO CULDESAC	1	2	2WU	0.37	VAR. 14-26	84	*															
2022CPT.12.08.20361	Gaston	12	SR 1638 (BLACK ROCK RD.)	SR 1651 TO END PAVEMENT	4	2	2WU	0.77	20	84	*									16,570	16,570					
TOTAL FOR PROJ NO. 2022CPT.12.08.20361								**12.48**		**1,522**	*****			**100**	**110**	**4**		**1**	**1**	**229,201**	**244,217**		**60**	**2**		**60**
																		2		**473,418**				**2**		
GRAND TOTAL								**15.54**		**1,766**	**1**	**50**	**135**	**100**	**140**	**4**	**1**	**1**	**1**	**293,850**	**300,637**	**135**	**90**	**3**	**1**	**265**
																		3		**594,487**				**4**		

PROJ. REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	20

SIGNING FOR RESURFACING PROJECTS

LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD, W20-1, 48″ X 48″
2 — NEXT XX MILES, W7-3aP, 24″ X 18″
- PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.
- #2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

3 — LOW SOFT SHOULDER, SP 13107, 48″ X 48″
- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.

4 — ROAD UNDER CONST, SP 13106, 48″ X 48″
- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.
- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.
- INSTALL 500′ +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.
- FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500′ OF EACH APPROACH.
- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.
- FOR TEE INTERSECTIONS, INSTALL WITHIN 500′ +/- OF THE INTERSECTION ALONG -L- LINE.

5 — END ROAD WORK, G20-2 A, 48″ X 24″
- PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD, W20-1, 48″ X 48″
PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A, 48″ X 48″
PLACED 250′ IN ADVANCE OF FLAGGER.

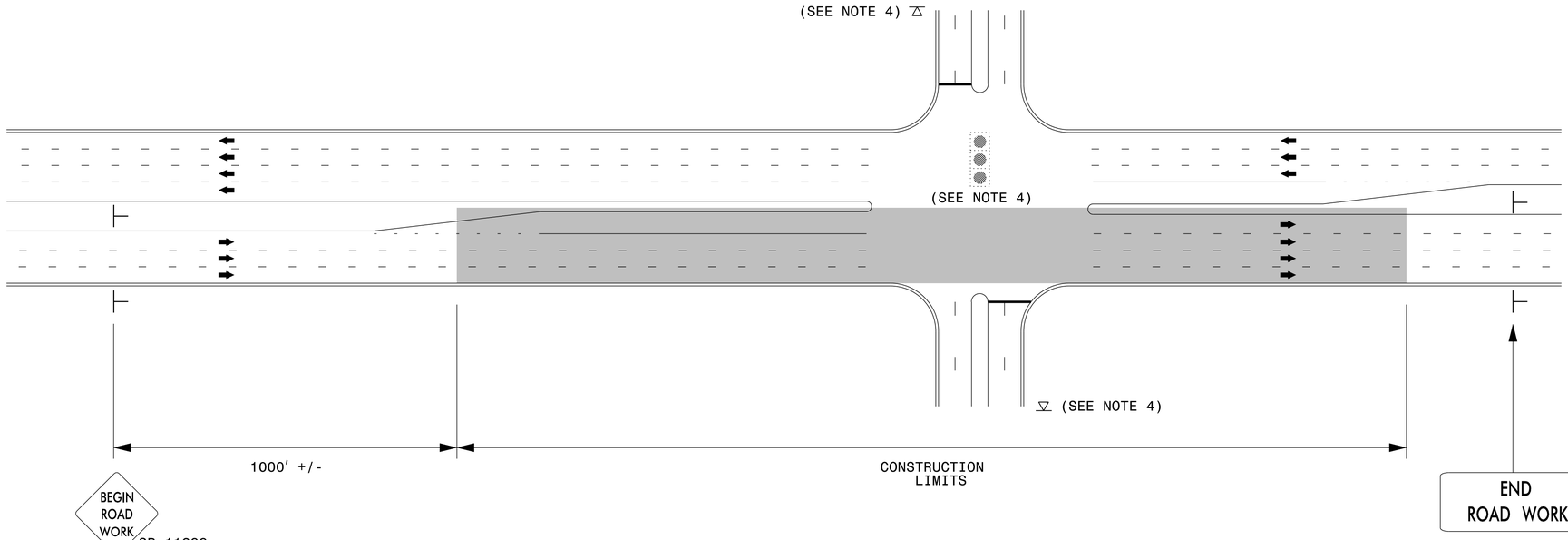
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/15/2017
SATMU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:kedavis

PROJ. REFERENCE NO.	SHEET NO.
2022CPT.12.08.10361	21

URBAN / SUBURBAN WORKZONES



NOTES:

1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- ⊢ STATIONARY SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
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User:rmgarrett