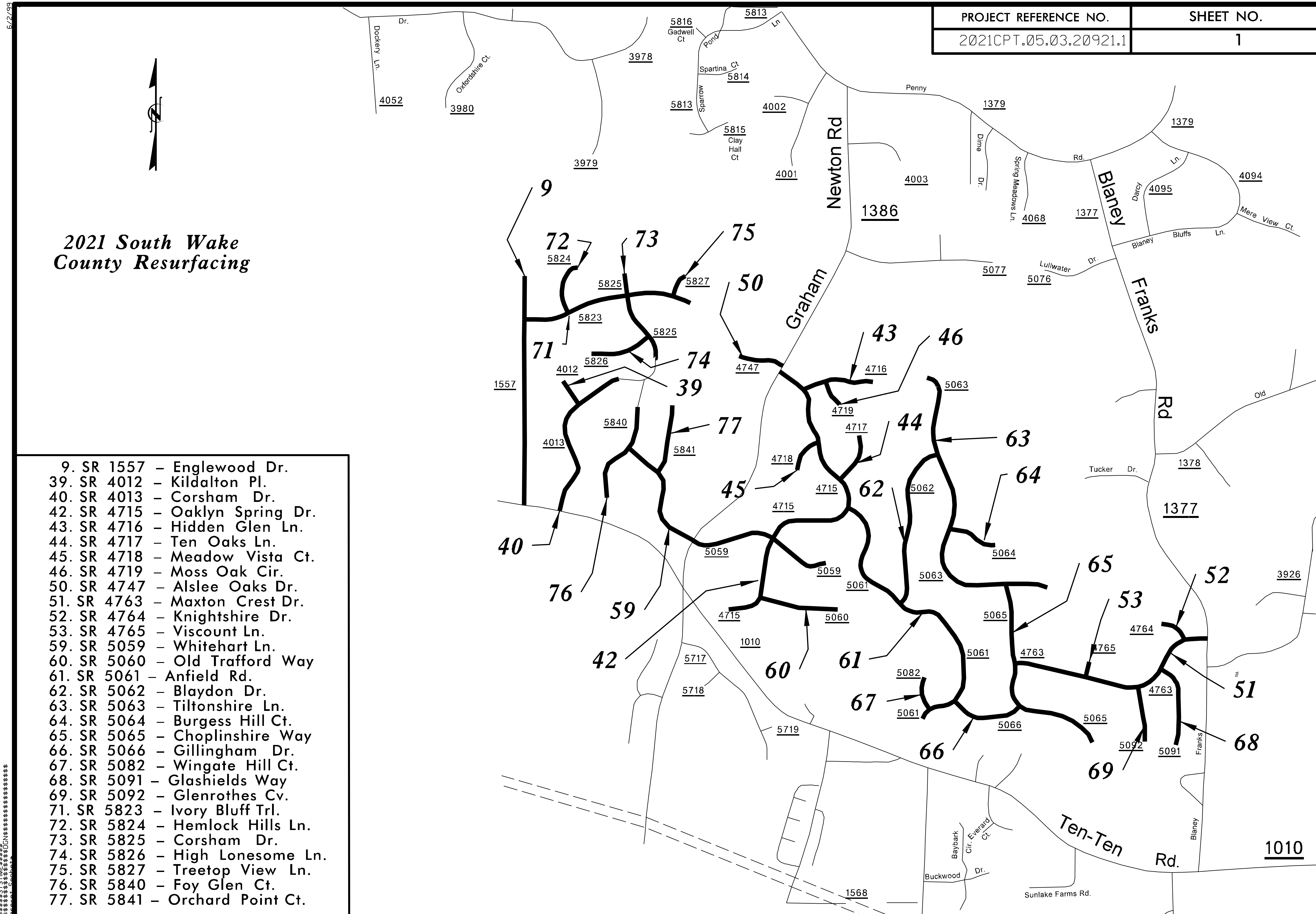
PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	1

2021 South Wake County Resurfacing



9. SR 1557 – Englewood Dr.
39. SR 4012 – Kildalton Pl.
40. SR 4013 – Corsham Dr.
42. SR 4715 – Oaklyn Spring Dr.
43. SR 4716 – Hidden Glen Ln.
44. SR 4717 – Ten Oaks Ln.
45. SR 4718 – Meadow Vista Ct.
46. SR 4719 – Moss Oak Cir.
50. SR 4747 – Alslee Oaks Dr.
51. SR 4763 – Maxton Crest Dr.
52. SR 4764 – Knightshire Dr.
53. SR 4765 – Viscount Ln.
59. SR 5059 – Whitehart Ln.
60. SR 5060 – Old Trafford Way
61. SR 5061 – Anfield Rd.
62. SR 5062 – Blaydon Dr.
63. SR 5063 – Tiltonshire Ln.
64. SR 5064 – Burgess Hill Ct.
65. SR 5065 – Choplinshire Way
66. SR 5066 – Gillingham Dr.
67. SR 5082 – Wingate Hill Ct.
68. SR 5091 – Glashields Way
69. SR 5092 – Glenrothes Cv.
71. SR 5823 – Ivory Bluff Trl.
72. SR 5824 – Hemlock Hills Ln.
73. SR 5825 – Corsham Dr.
74. SR 5826 – High Lonesome Ln.
75. SR 5827 – Treetop View Ln.
76. SR 5840 – Foy Glen Ct.
77. SR 5841 – Orchard Point Ct.

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	2

2021 South Wake County Resurfacing

8. SR 1379 – Penny Rd.
37. SR 3917 – Southbriar Dr.
38. SR 3918 – Iron Bark Ct.

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	3

1. SR 1235 – Oliver Creek Pkwy.
2. SR 1236 – Cross Ridge Dr.
3. SR 1237 – Thurlow Ct.
4. SR 1238 – N Deer Ridge Dr.
5. SR 1239 – Lake Terrace Dr.
6. SR 1240 – Riva Ridge Dr.
7. SR 1241 – Hilbert Ridge Dr.
10. SR 2766 – N Holland Rd.
11. SR 2767 – Holland Rd.
13. SR 3709 – Cricket Knoll Rd.
14. SR 3710 – Country Meadow Rd.
15. SR 3711 – Cherry Brook Ct.
78. SR 1192 – Little Beaverdam Ct

2021 South Wake County Resurfacing

FUQUAY--VARINA

WAKE COUNTY
HARNETT COUNTY

Rouse Rd.

Wagstaff Rd.

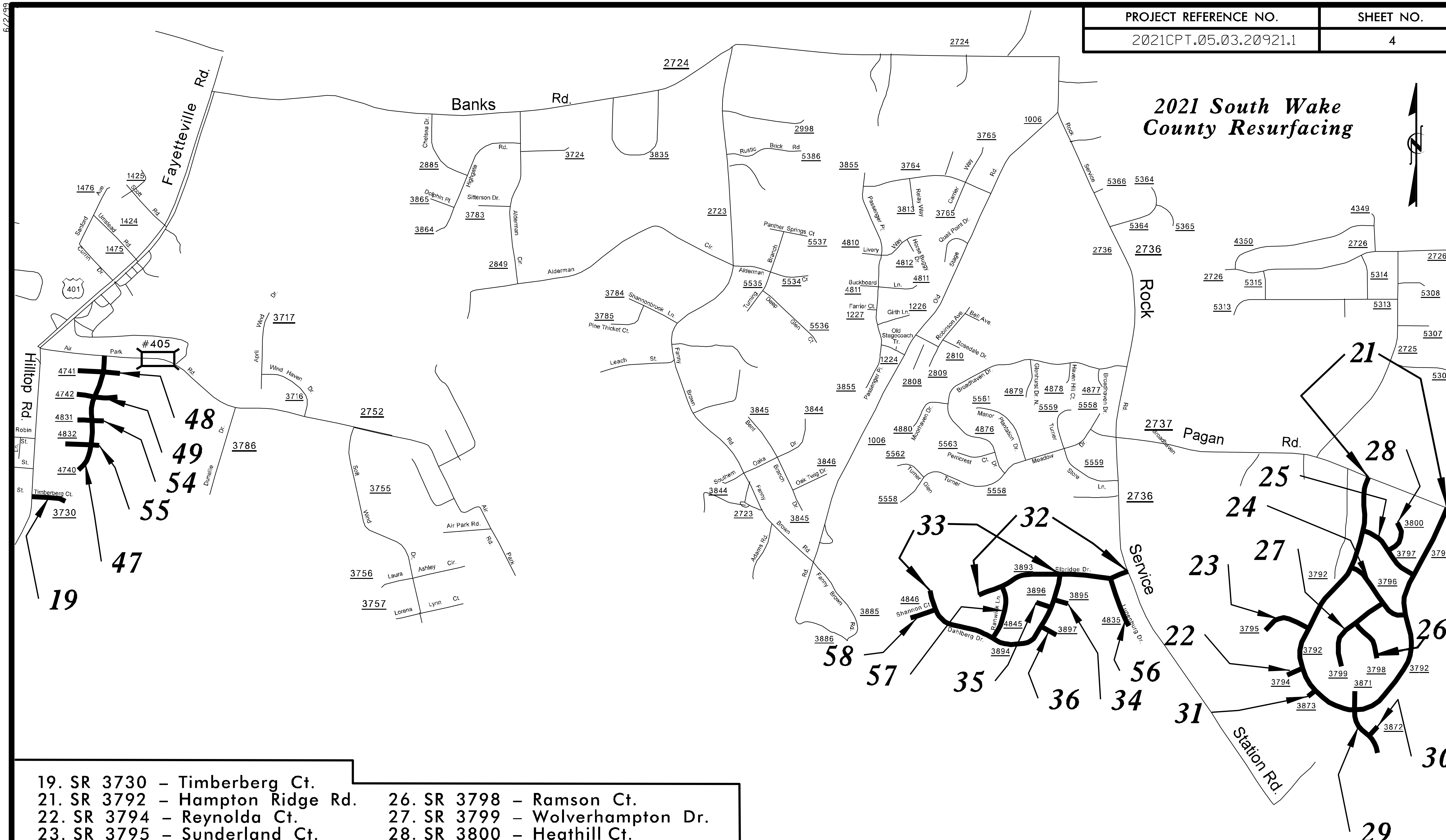
Angier Rd.

Holland Rd.

Purfoy Rd.

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	4

2021 South Wake County Resurfacing



19. SR 3730 – Timberberg Ct.
21. SR 3792 – Hampton Ridge Rd.
22. SR 3794 – Reynolda Ct.
23. SR 3795 – Sunderland Ct.
24. SR 3796 – Habbot Dr.
25. SR 3797 – Spennymore Rd.
48. SR 4741 – Brasswynd Ct.
49. SR 4742 – Buckstone Ct.
54. SR 4831 – Stoneborough Ct.
55. SR 4832 – Colorwood Ct.
56. SR 4835 – Lunenburg Dr.
57. SR 4845 – Ranwick Ln.
58. SR 4846 – Shannon Ct.

26. SR 3798 – Ramson Ct.
27. SR 3799 – Wolverhampton Dr.
28. SR 3800 – Heathill Ct.
29. SR 3871 – King Croydon Ct.
30. SR 3872 – Bracknell Ct.
31. SR 3873 – Cordiss Ct.
32. SR 3893 – Elbridge Dr.
33. SR 3894 – Dahlberg Dr.
34. SR 3895 – Stoddard Ct.
35. SR 3896 – Lendermans Cir.
36. SR 3897 – Kinsman Ct.
47. SR 4740 – Sterlingwoods Dr.

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	5

2021 South Wake County Resurfacing

12. SR 2891 – Stagecrest Dr.
16. SR 3725 – Fern Forest Dr.
17. SR 3726 – Ashwood Dr.
18. SR 3727 – Cedarbrook Ct.
20. SR 3791 – Shadywood Ln.
70. SR 5328 – Candlelight Oaks Ln.

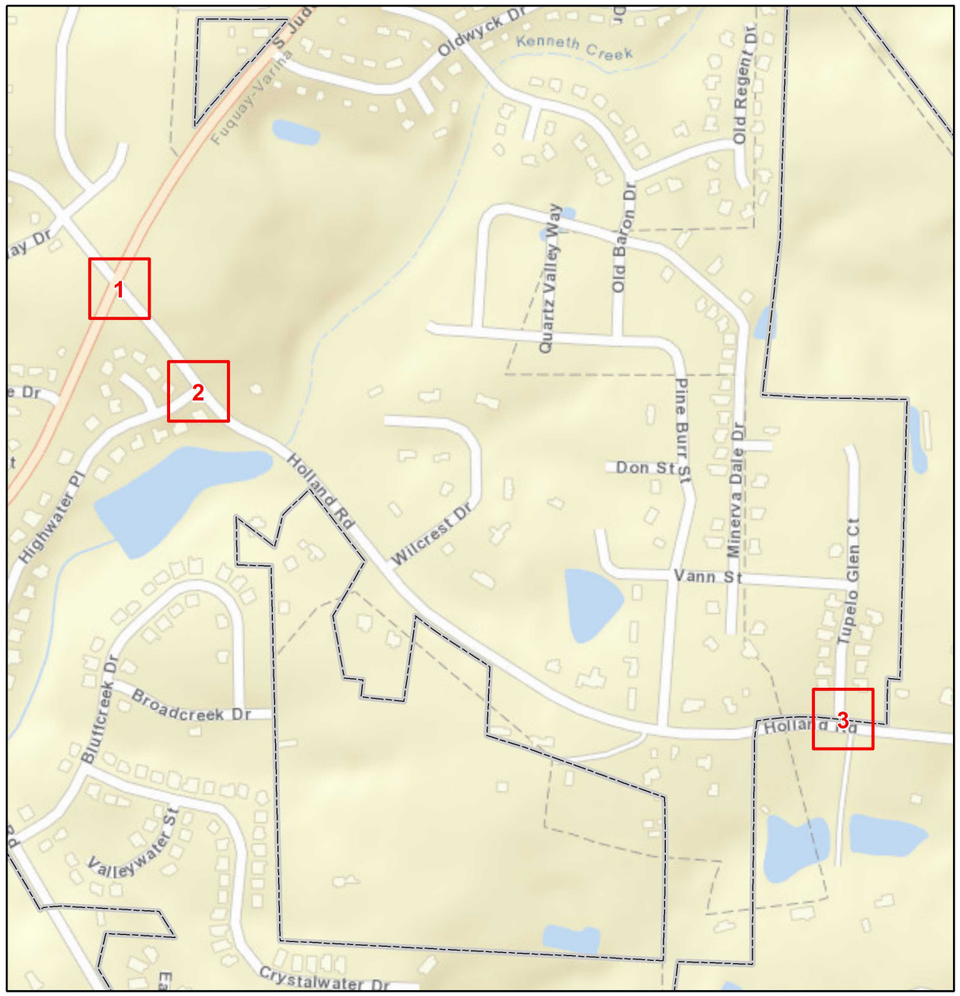
PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	6

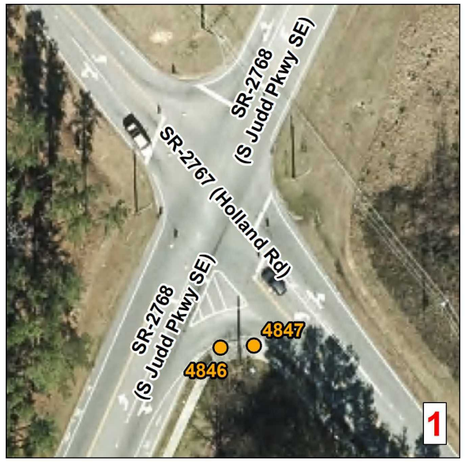
2021 South Wake County Resurfacing

41

41. SR 4142 – Greenfield Pkwy.

Auburn
Garner Rd.
Antelope Ln.
Greenfield
2560
US 70 HWY E
Deer Harbor Dr.
Pkwy.
4142
St.
Gin
#651
2633
Auburn Rd.
2559
Waterfield Ridge Pl.
Pkwy.
Greenfield
4142
Rayfield
4115
Rd.
Taft Ct.
5227
Daniels Landing Dr.
5226
Pile Rd.
2595
East
Dusty Rd.
1004
Garner
US 70 HWY E
40
2555
2828
2802
2893
King Arthur Tr.
2803
Sir Lancelot Ln.
Sir Gallahad Ln.
Sir Gawaine Ln.
Tristram Ln.
2895
Queen Guenever Tr.
2894
2804
2803
Merlin Tr.
Sir Kay Ln.





Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp

Municipal Boundary

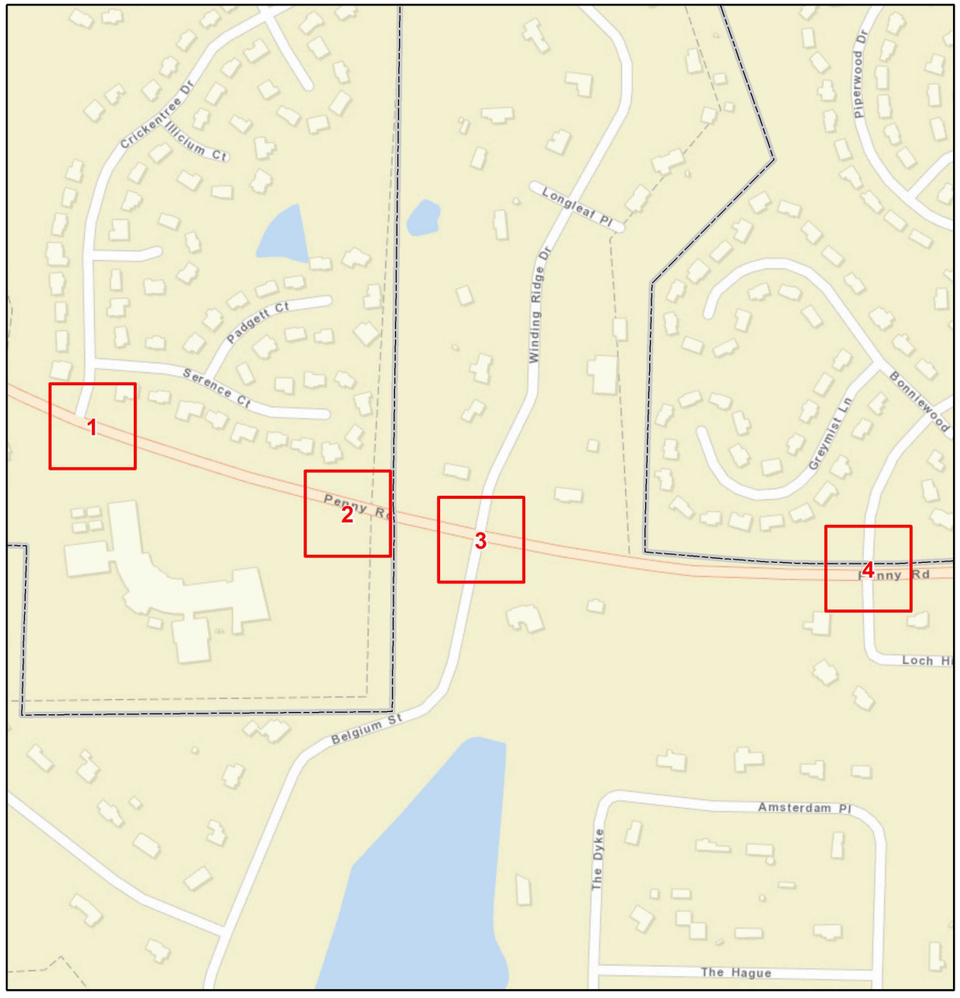
NCHPO Historic Boundary (NR and LHD)

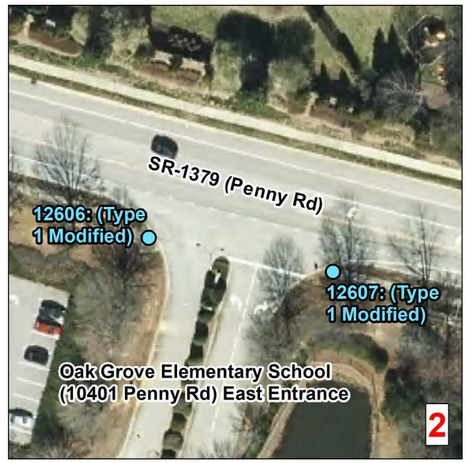
2021 South
WBS: 2021CPT.05.03.20921.1

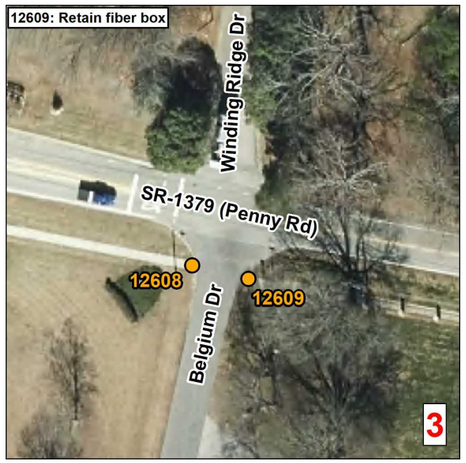
Holland Rd from SR 2770 to NC 55

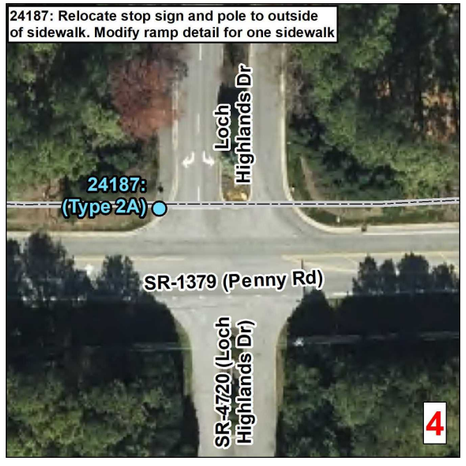
NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: CALYX Engineers and Consultants, ESRI, NC OneMap, NCDOT, NCHPO









Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp

- Municipal Boundary
- NCHPO Historic Boundary (NR and LHD)

2021 South
WBS: 2021CPT.05.03.20921.1

Penny Rd from SR 1300 to SR 1371

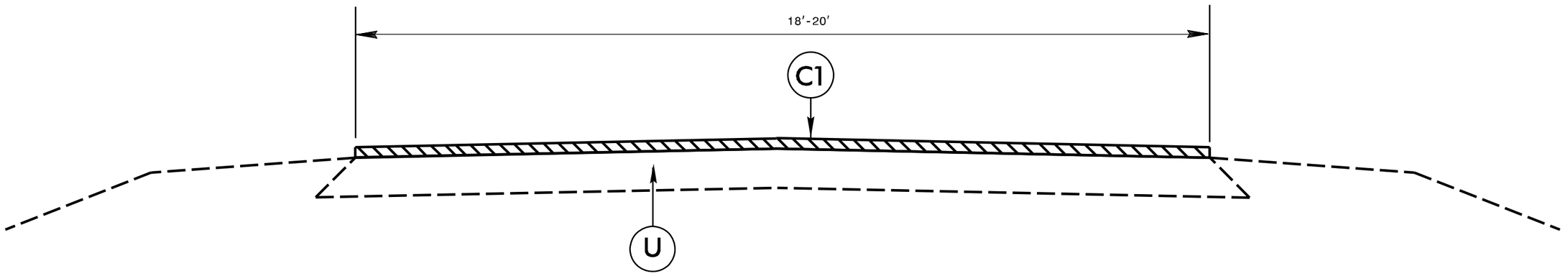
NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: CALYX Engineers and Consultants, ESRI, NC OneMap, NCDOT, NCHPO

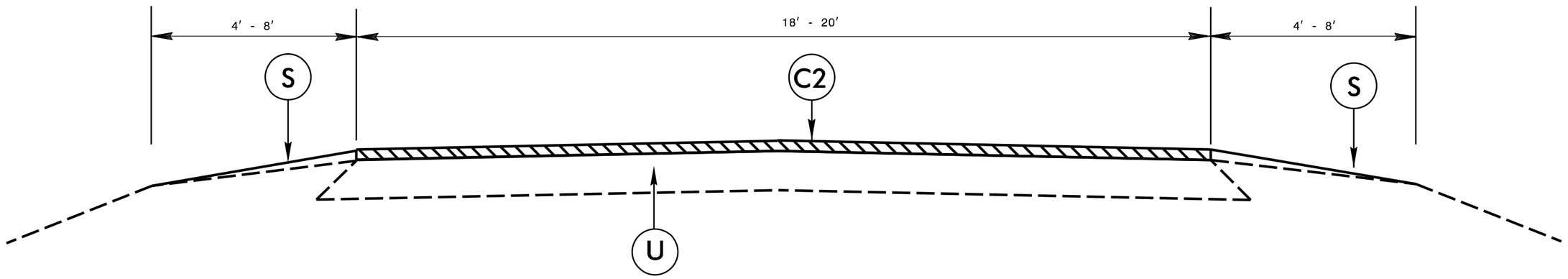
PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	9

PAVEMENT SCHEDULE

C1	1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
U	EXISTING PAVEMENT
V1	1½" MILLING
V2	0"-1½" MILLING
V3	0"-1¼" MILLING



TYPICAL SECTION NO. 1

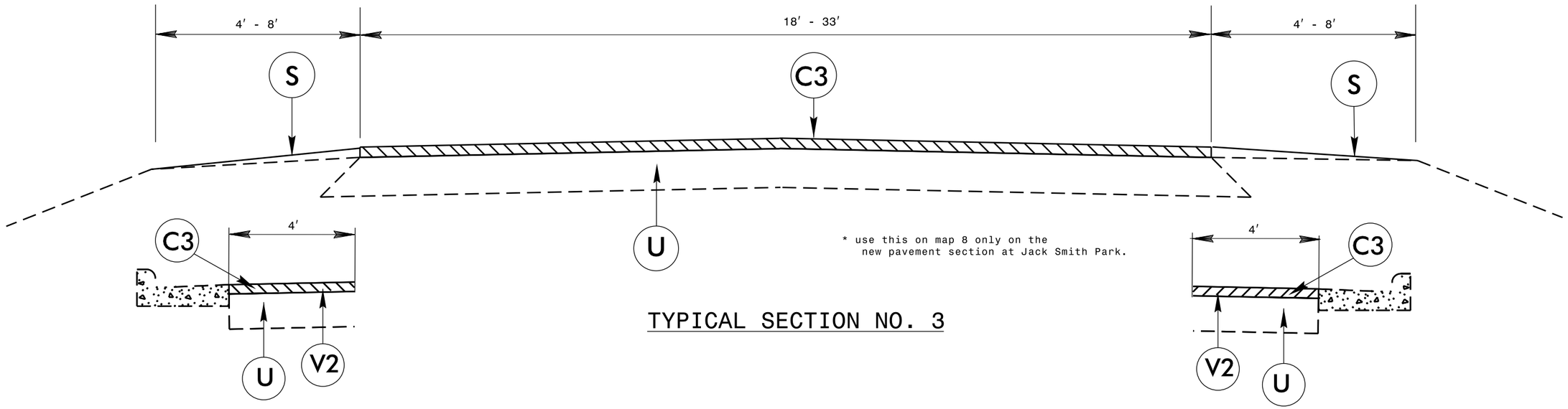


TYPICAL SECTION NO. 2

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	10

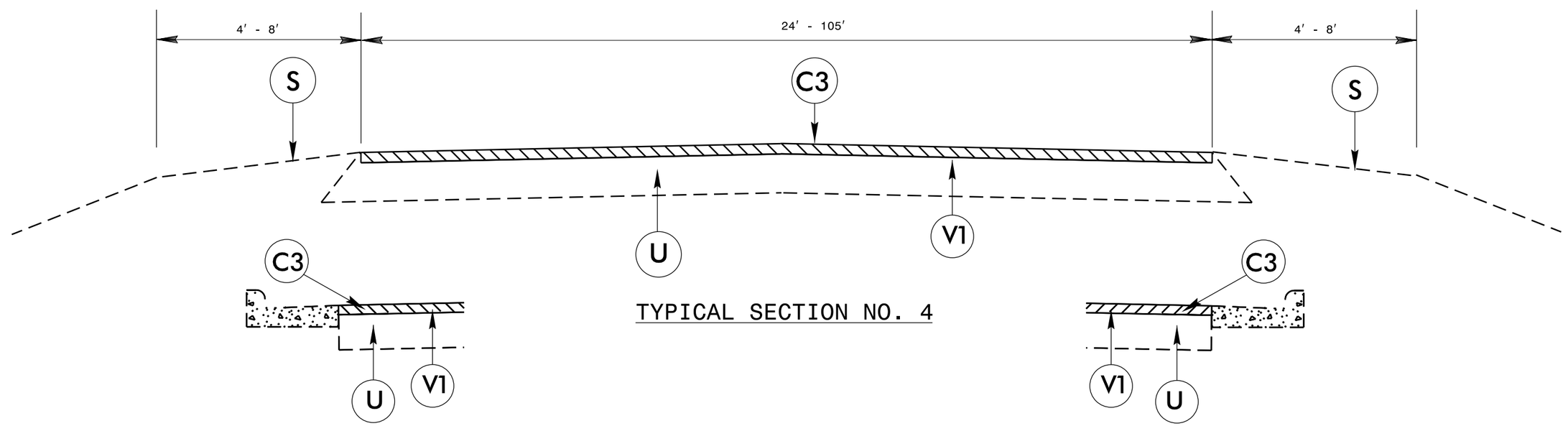
PAVEMENT SCHEDULE

C1	1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C3	1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
U	EXISTING PAVEMENT
V1	1½″ MILLING
V2	0″-1½″ MILLING
V3	0″-1¼″ MILLING



* use this on map 8 only on the new pavement section at Jack Smith Park.

TYPICAL SECTION NO. 3



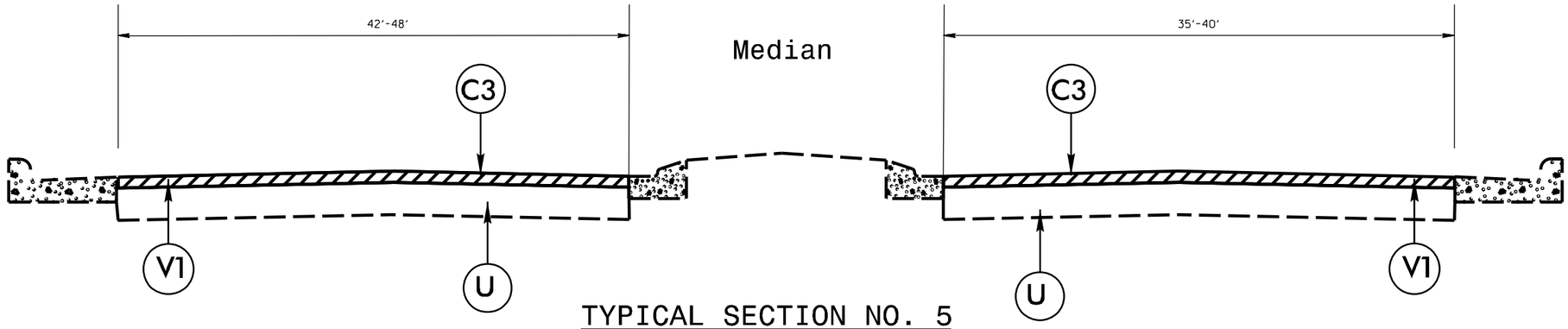
TYPICAL SECTION NO. 4

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	11

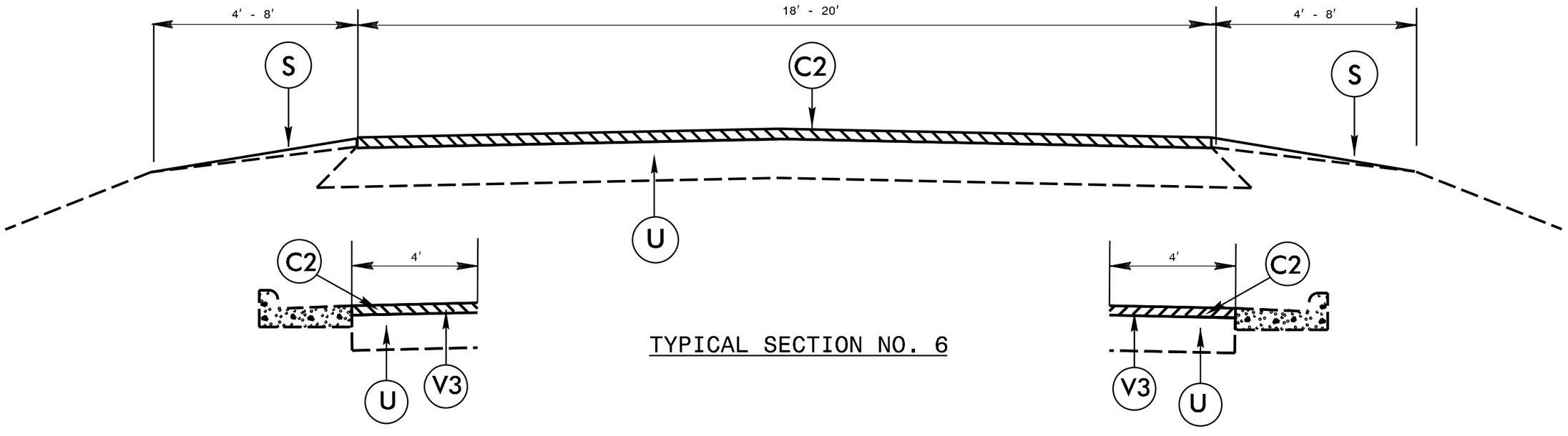
PAVEMENT SCHEDULE

C1	1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C2	1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C3	1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)

U	EXISTING PAVEMENT
V1	1½″ MILLING
V2	0″-1½″ MILLING
V3	0″-1¼″ MILLING



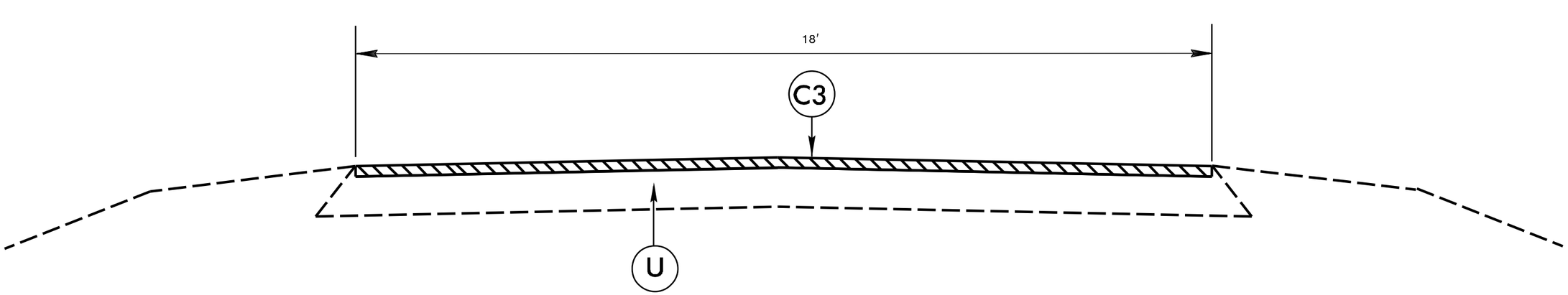
TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 6

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	12

		U	EXISTING PAVEMENT
C1	1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	V1	1½" MILLING
C2	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	V2	0"-1½" MILLING
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V3	0"-1¼" MILLING
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)		

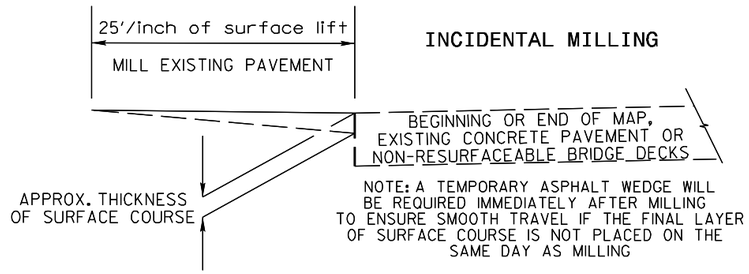


TYPICAL SECTION NO. 7

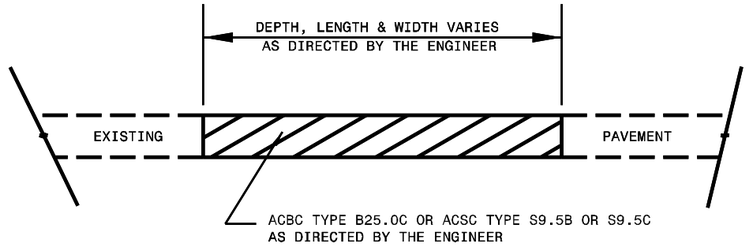
PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	13

NOTES

ALL UNPAVED S.R. ROADS TO BE RESURFACED 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.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

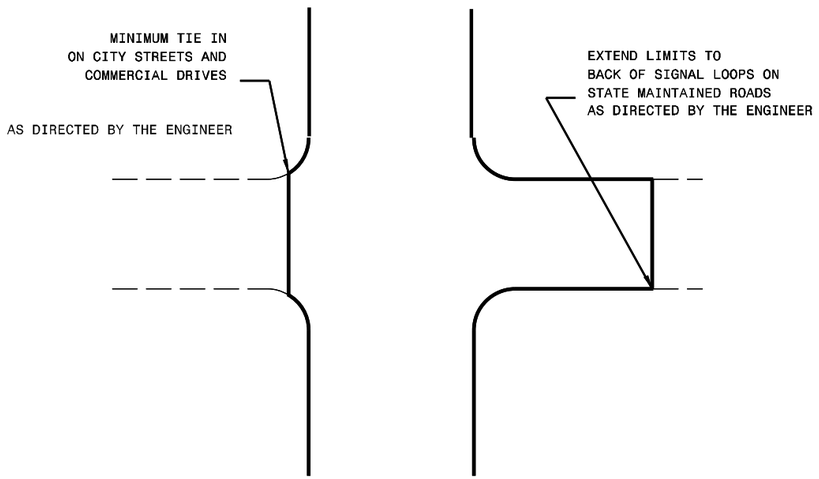


INCIDENTAL MILLING

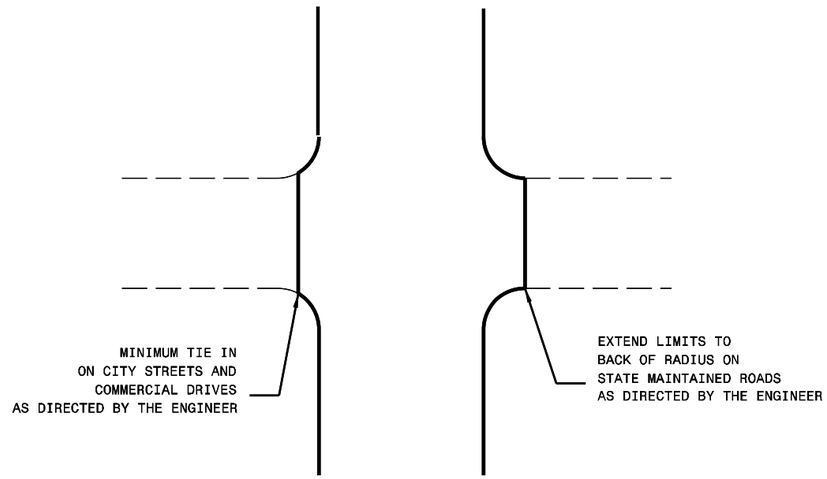


PATCHING EXISTING PAVEMENT

MILLING TO BE PERFORMED PRIOR TO PATCHING

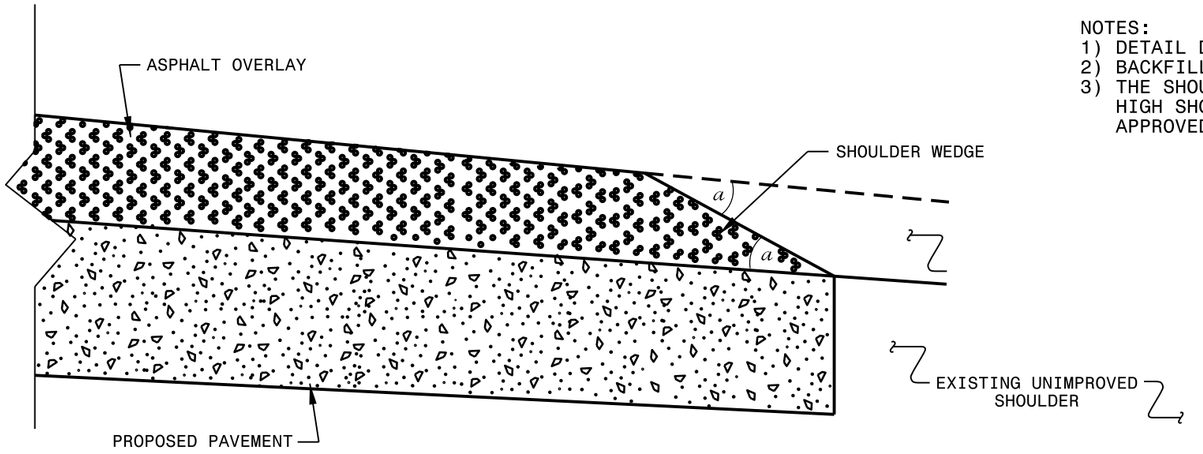


DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

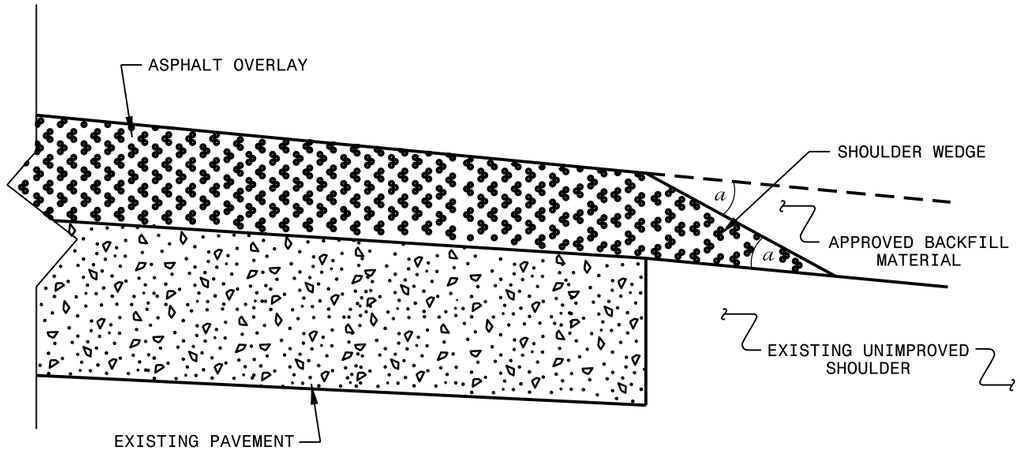
PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	14



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, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.

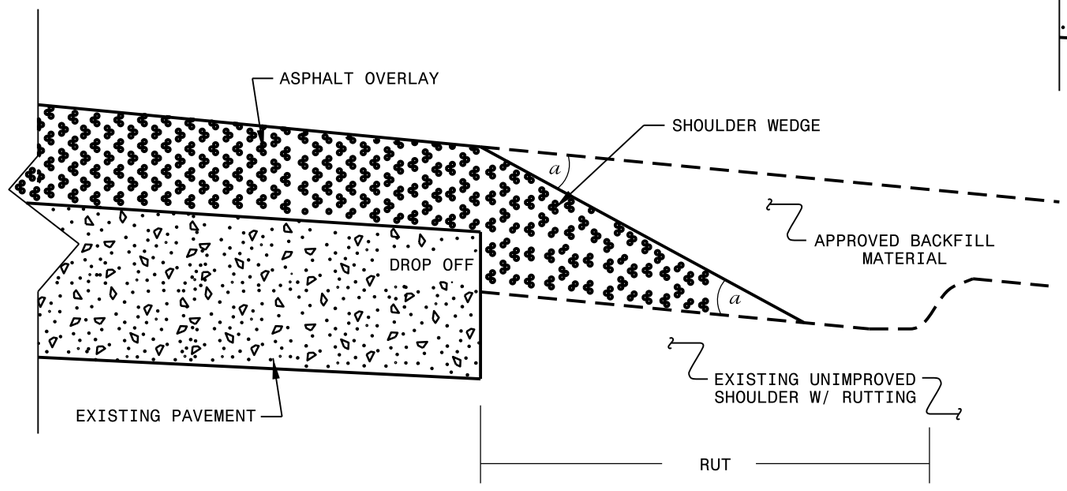
SHOULDER WEDGE DETAIL

(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)

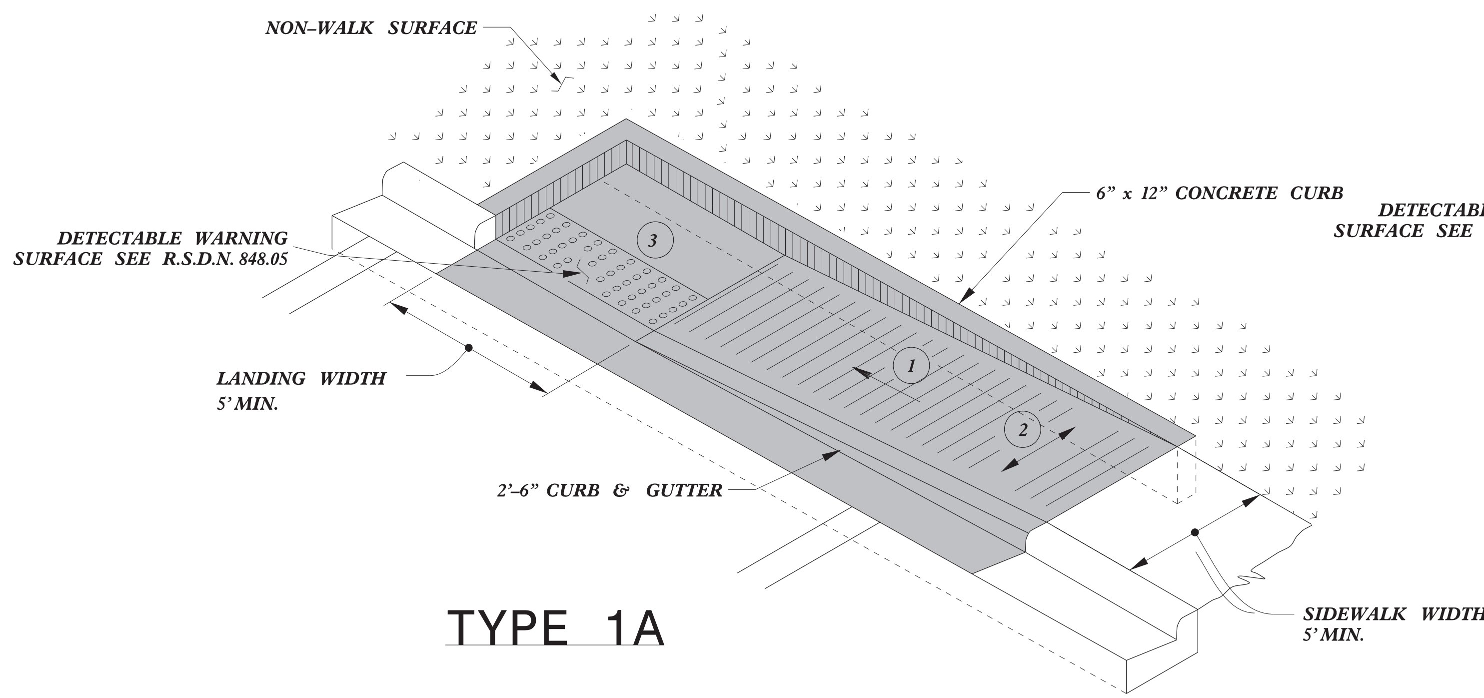
- SHOULDER WEDGE ANGLE = 30°

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

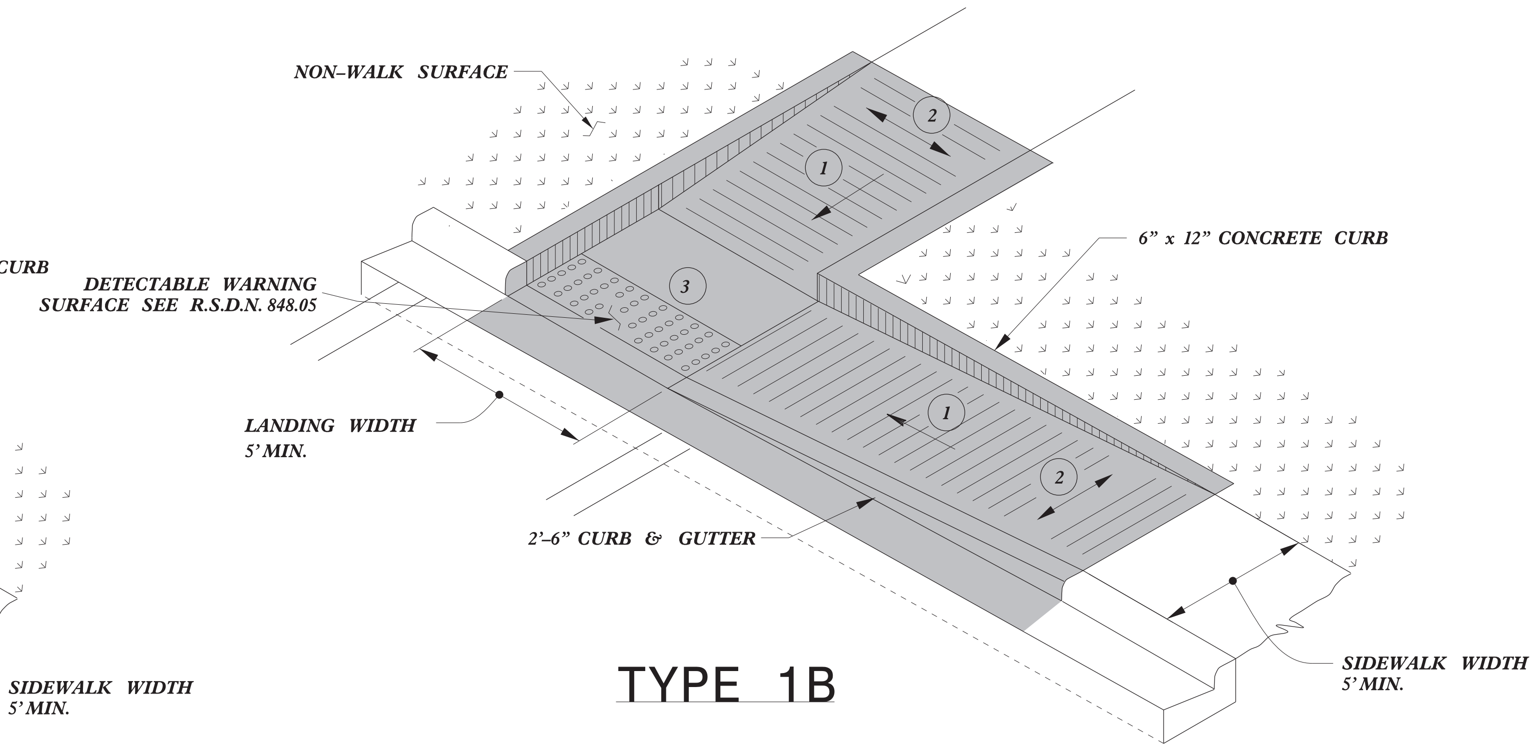
SHOULDER WEDGE DETAILS

ORIGINAL BY:	T.SPELL	DATE:	7-19-11
MODIFIED BY:		DATE:	2/2/16
CHECKED BY:		DATE:	
FILE SPEC.:	s:usr/details/stand/shoulderwedgedetail.dgn		

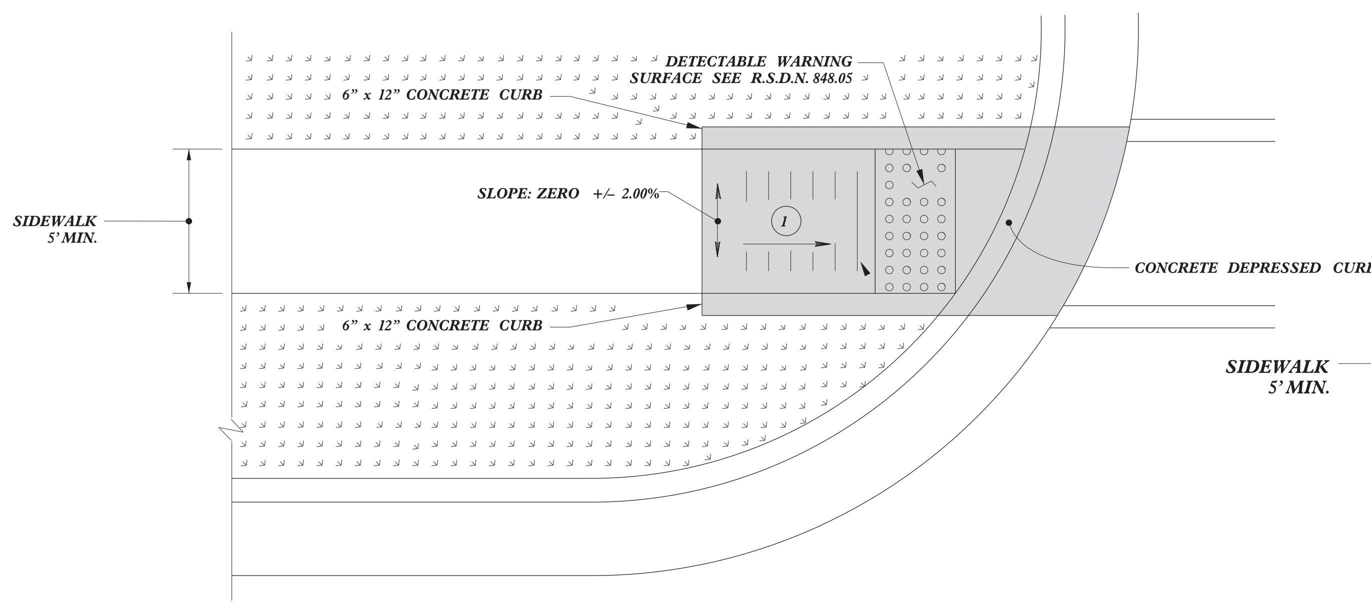
$$$$$$SYSTIME$$$$$
$$$$$$USERNAME$$$$$



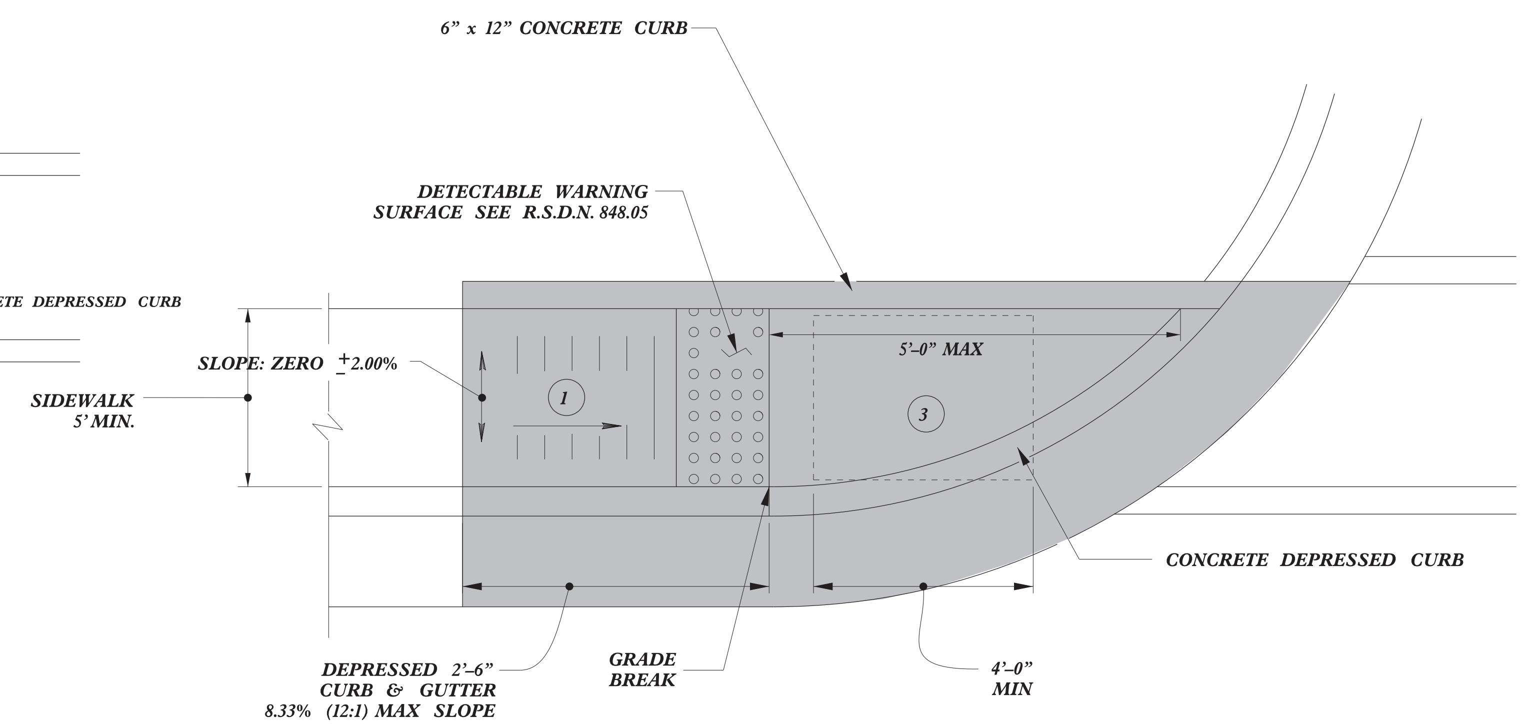
TYPE 1A



TYPE 1B



TYPE 1 Modified



TYPE 1

1/8/2020

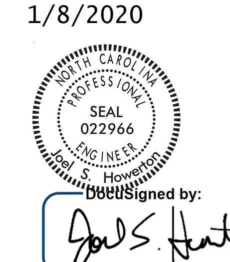
(1) *8.33% (12:1) MAX RAMP SLOPE*

(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.*

PAY LIMITS FOR 1 CURB RAMP

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

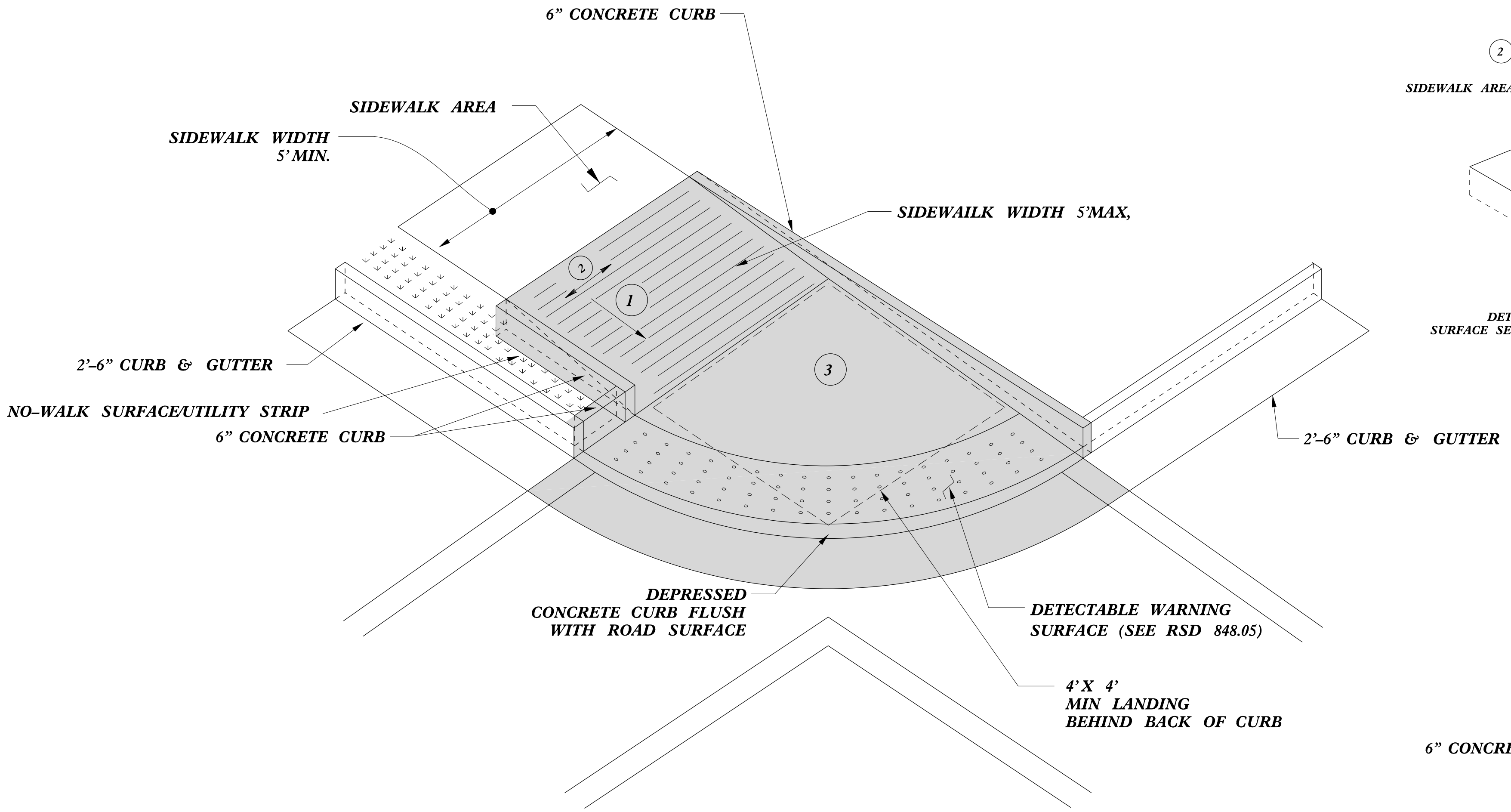
Directional Ramps

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

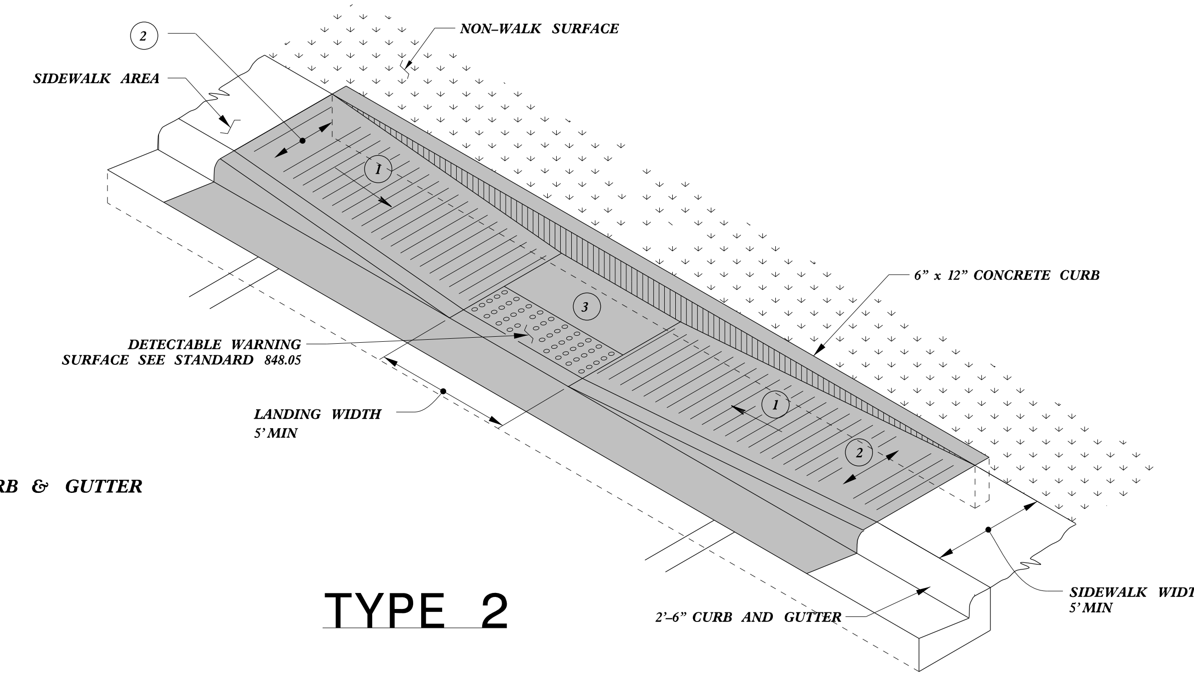
5/14/99

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

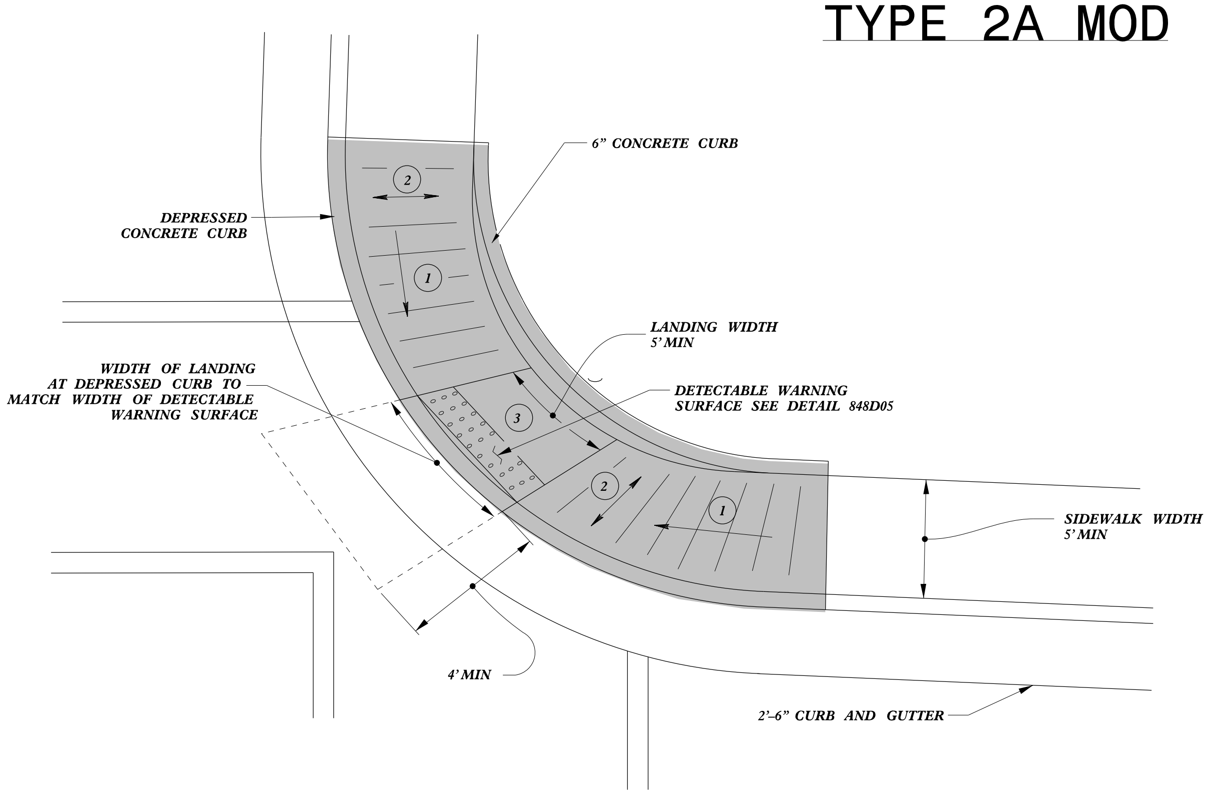
5/14/99



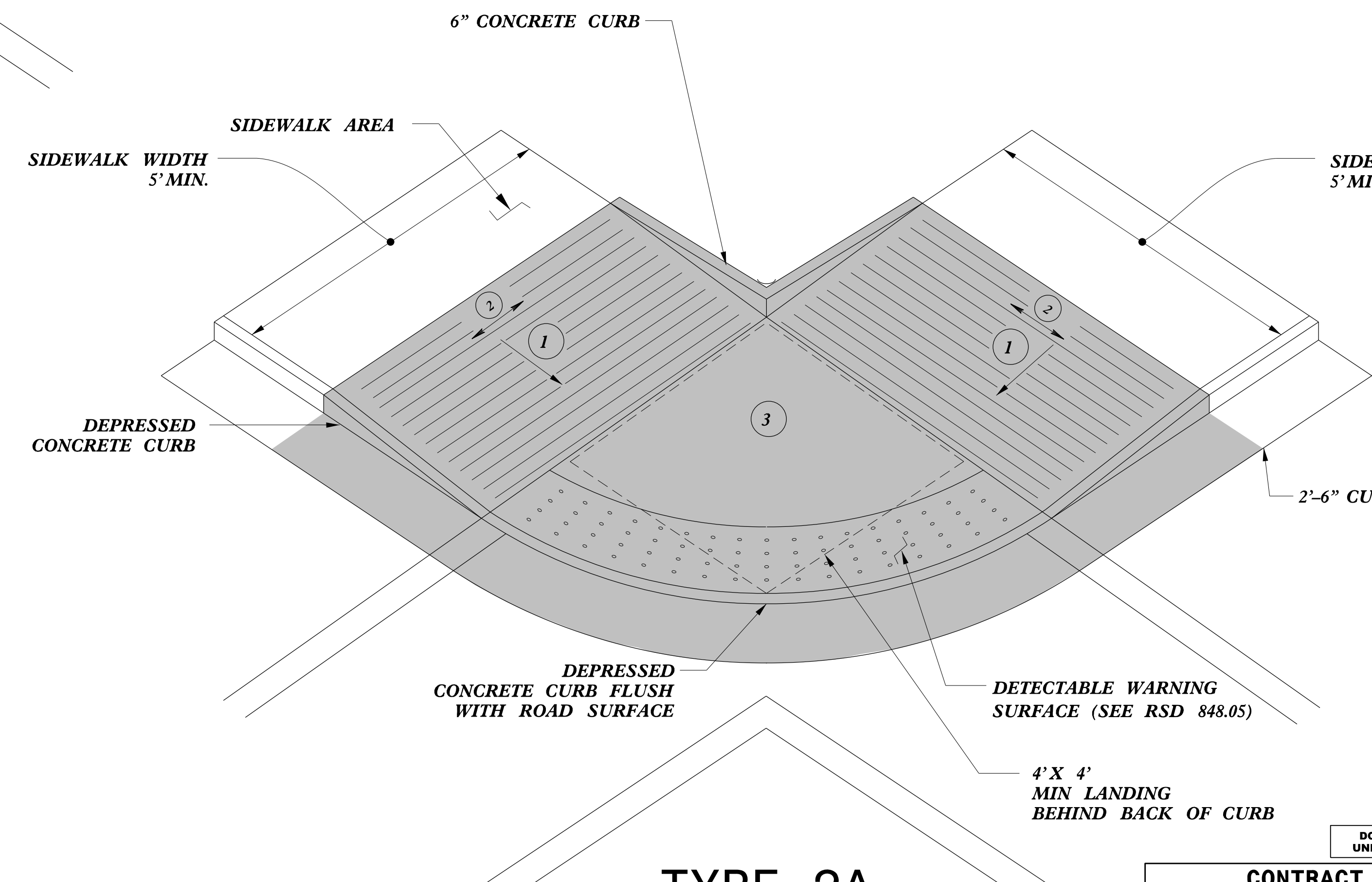
TYPE 2A MOD



TYPE 2



TYPE 2B



TYPE 2A

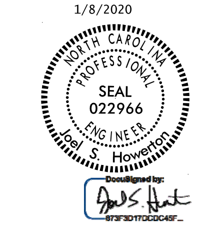
(1) 8.33% (12:1) MAX RAMP SLOPE

(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.

PAY LIMITS FOR 1 CURB RAMP

1/8/2020



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

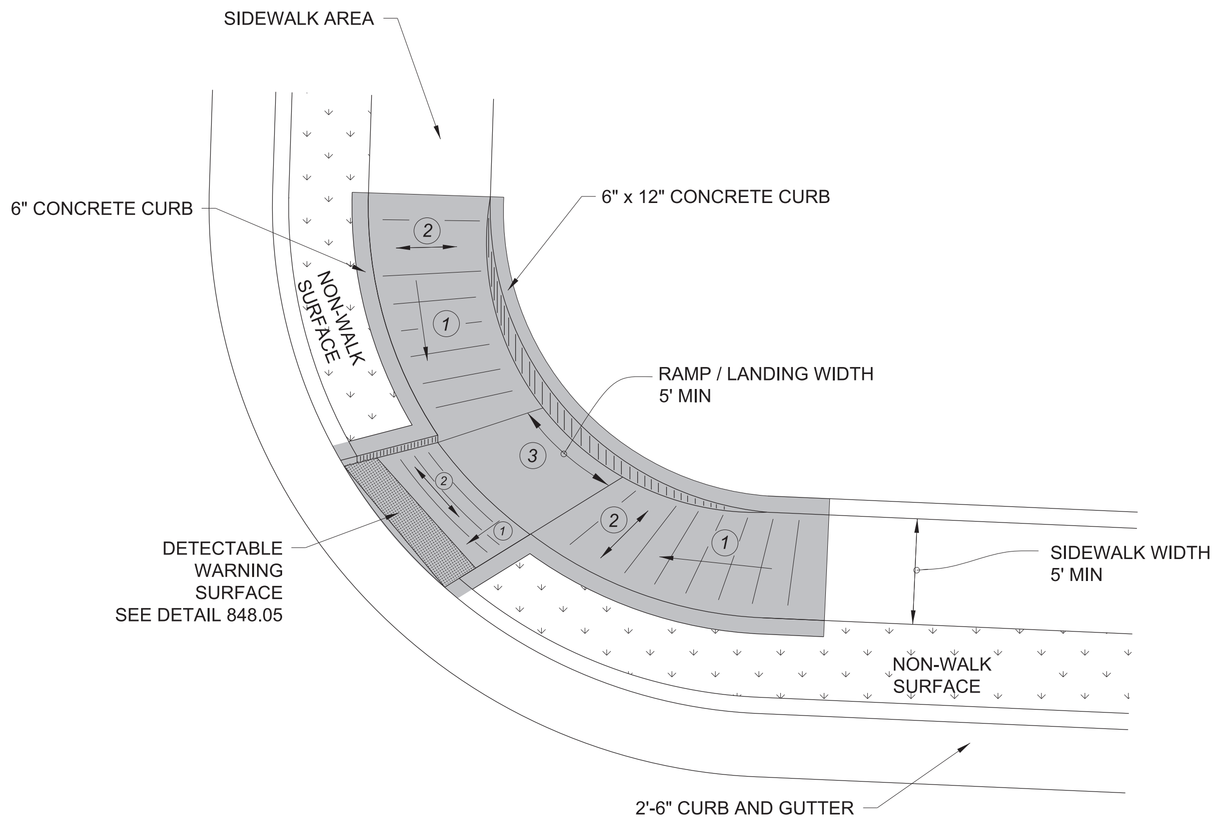
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

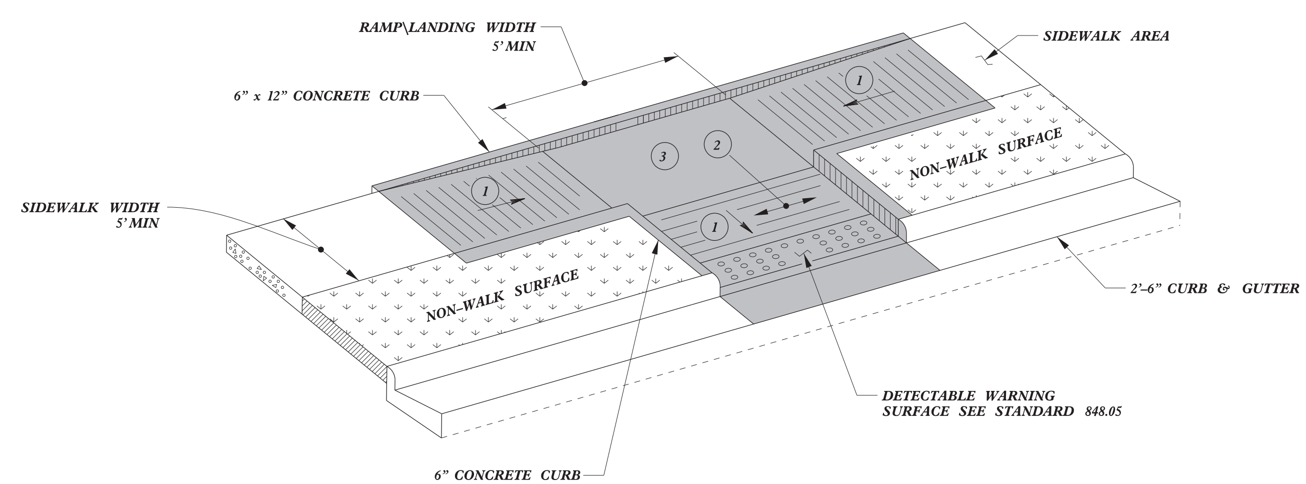
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

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

PAY LIMITS FOR 1 CURB RAMP



TYPE 3 MODIFIED
INSTALLATION IN A RADIUS



TYPE 3

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.*

1/8/2020

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DocuSigned by:
873F3D17DCDC45F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

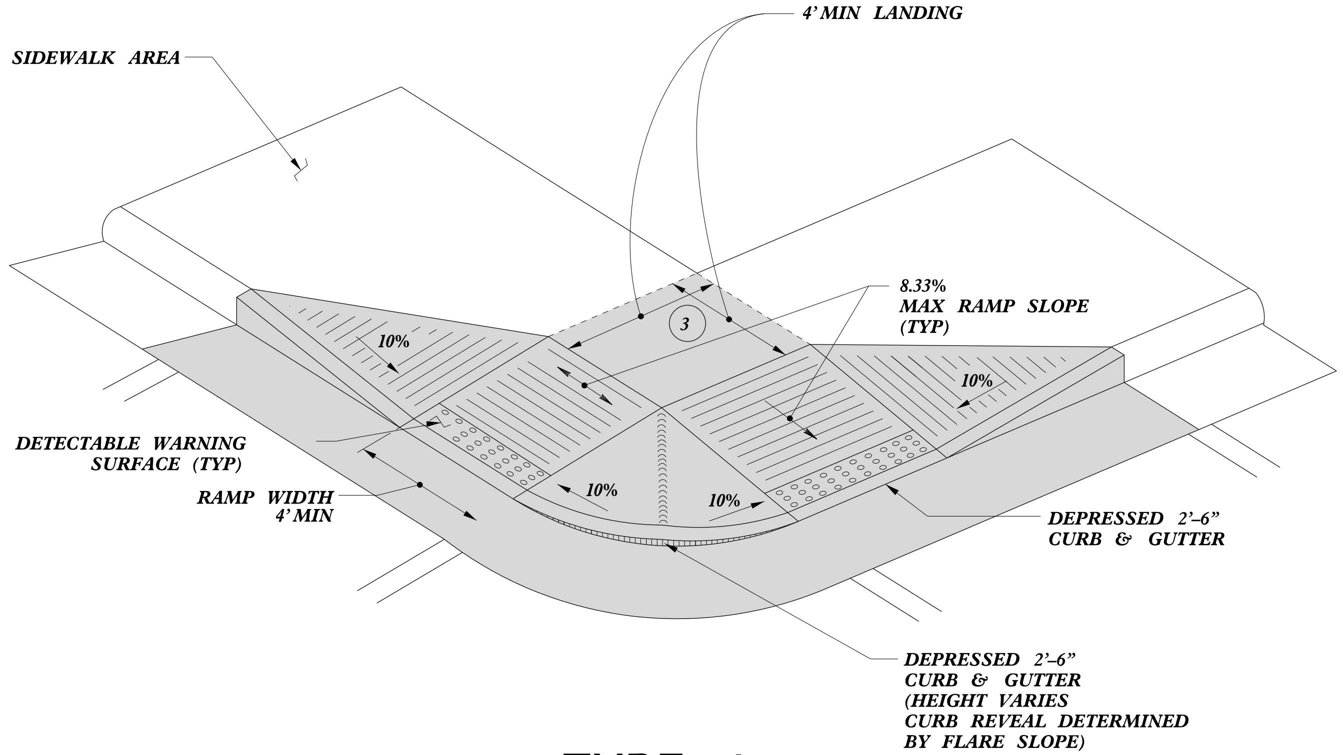
CURB RAMPS

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

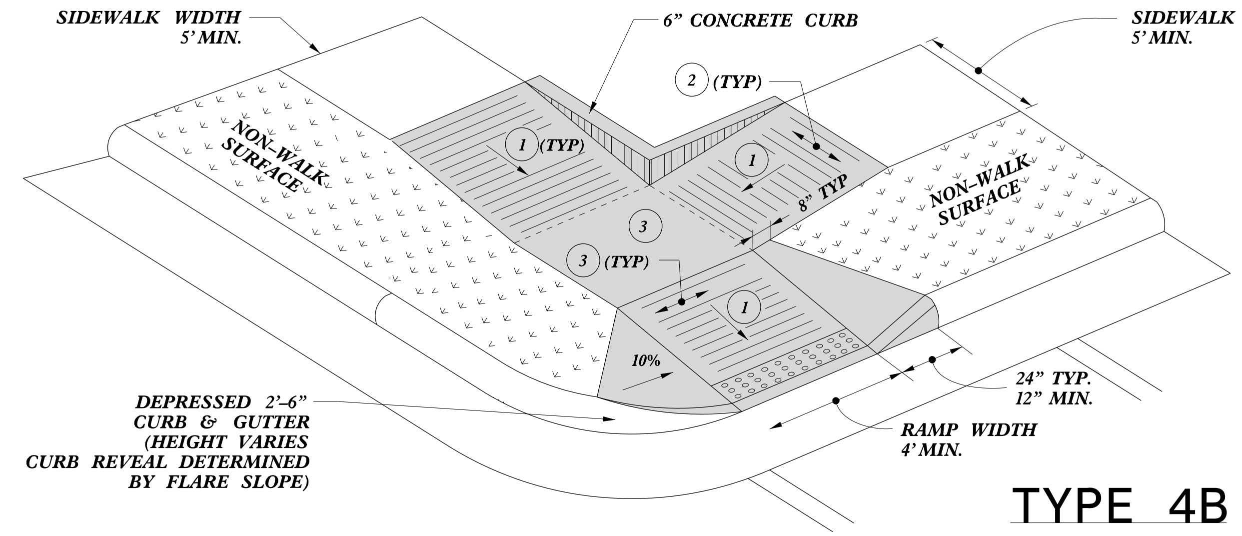
5/14/99
$$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

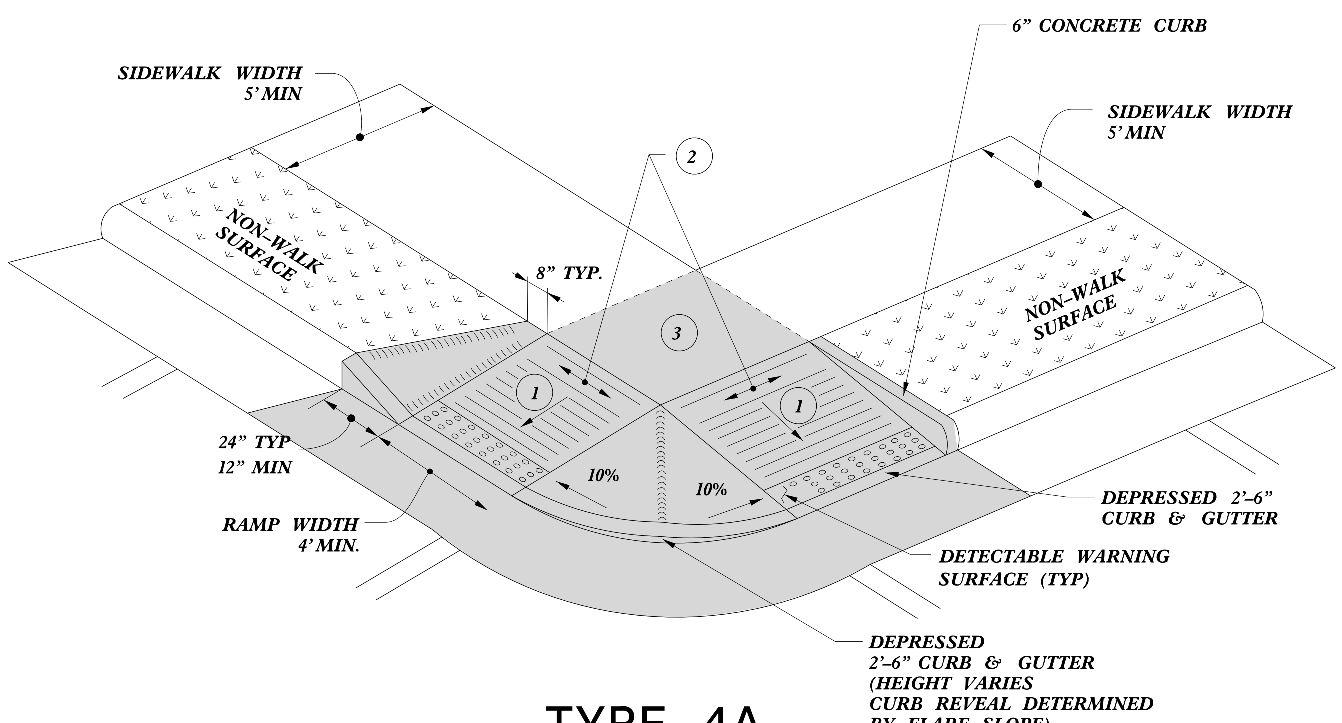
PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF TRUNCATED DOMES)



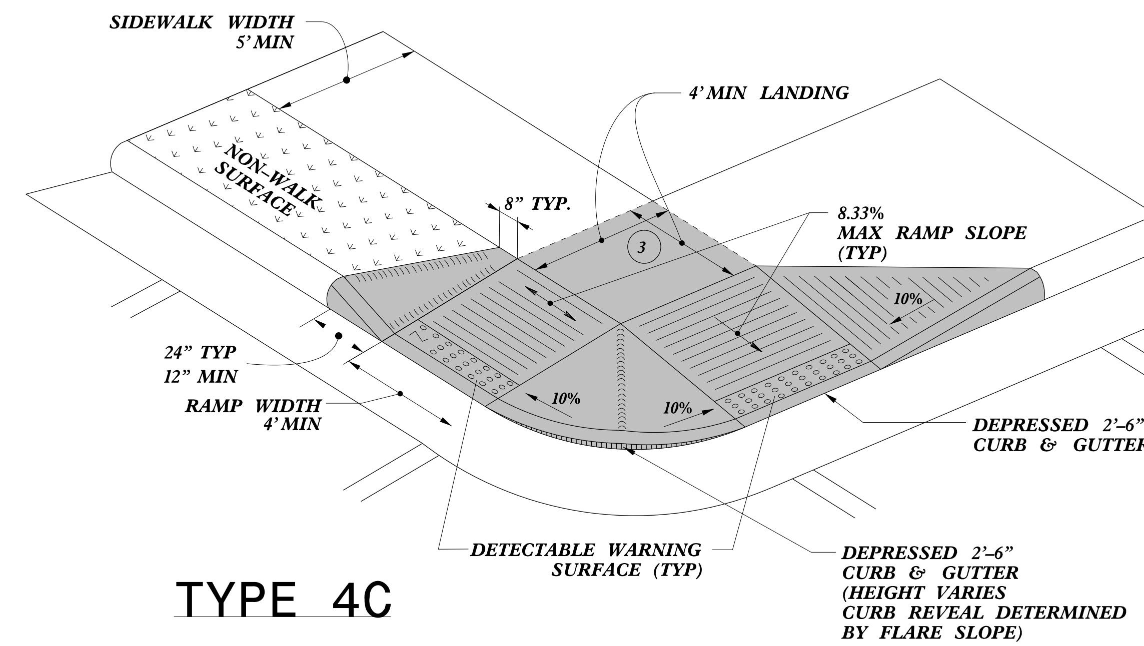
TYPE 4



TYPE 4B

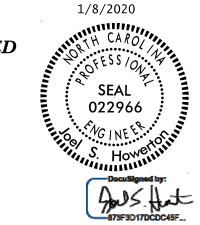


TYPE 4A



TYPE 4C

1/8/2020



(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.

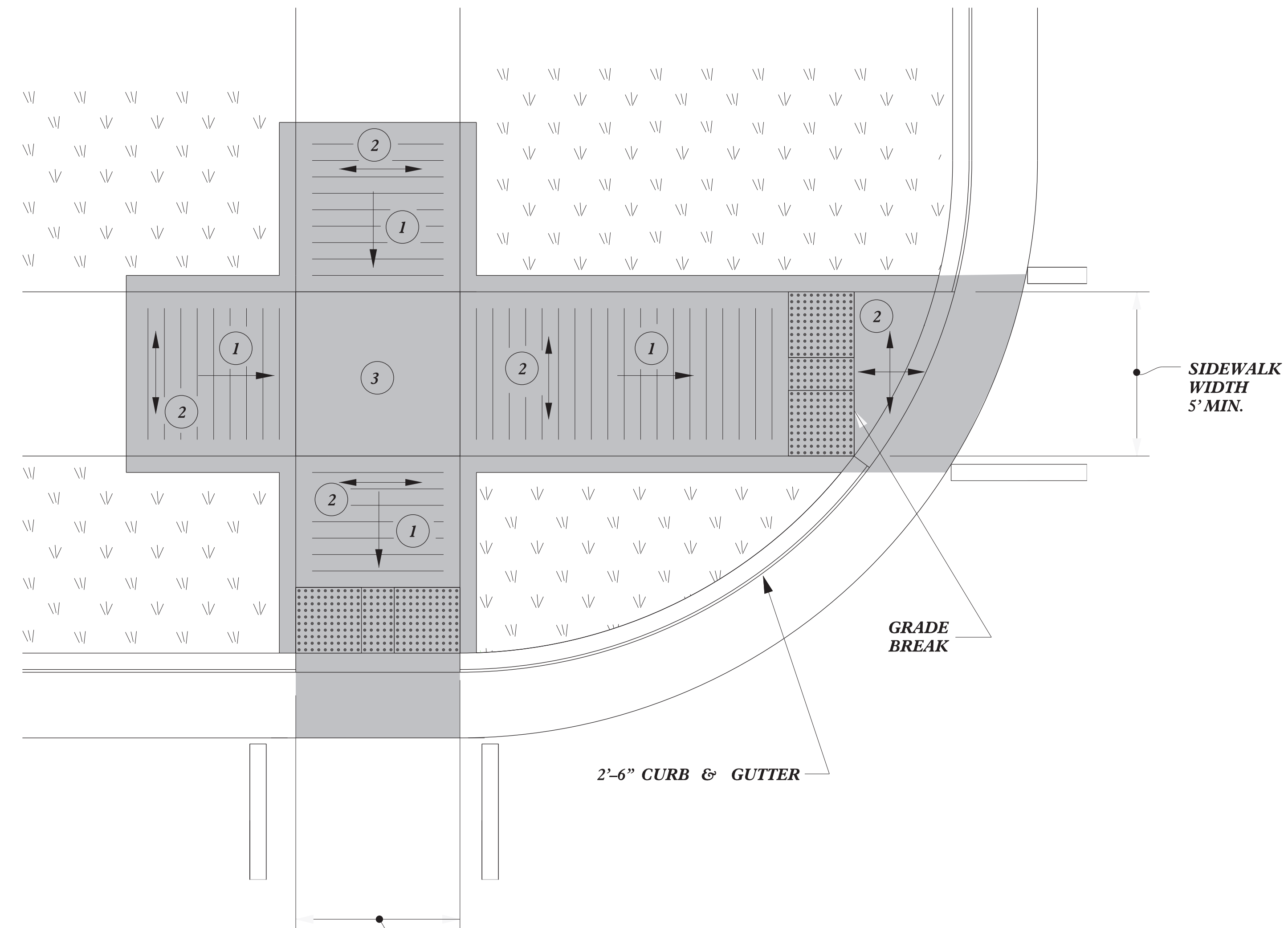
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

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

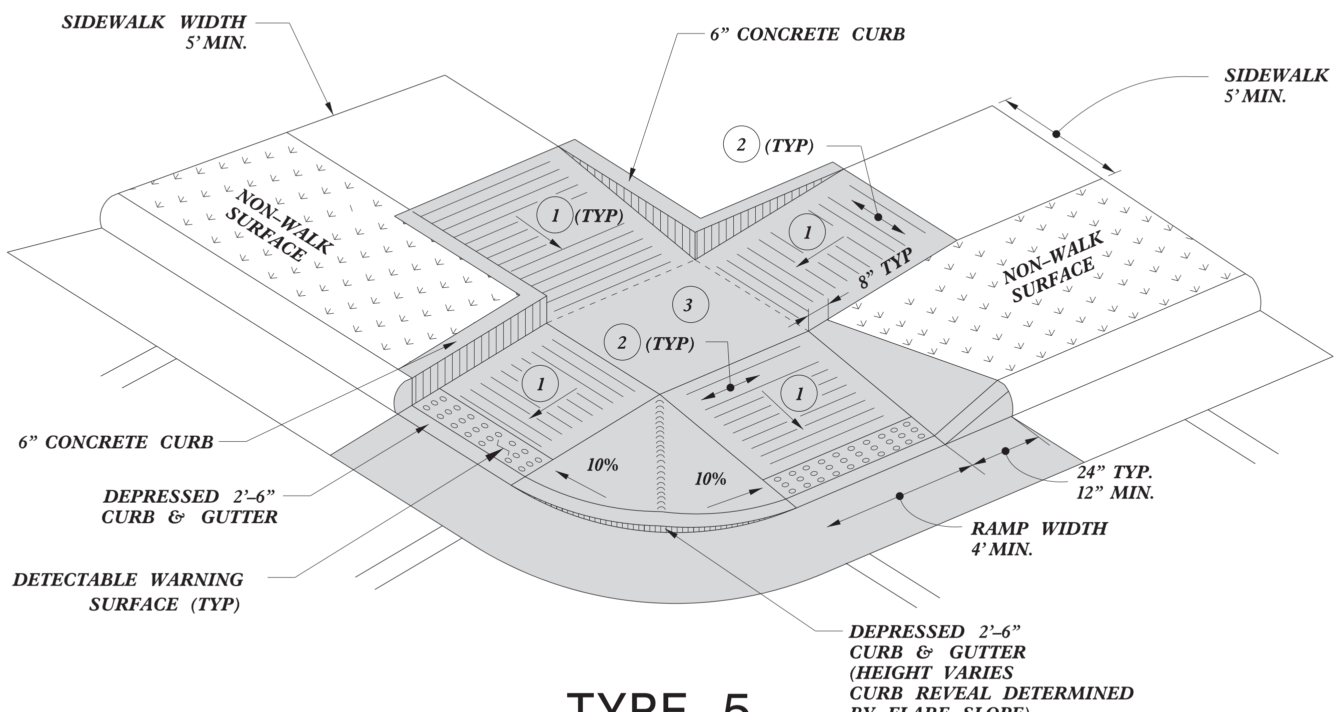
CURB RAMPS

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

PAY LIMITS FOR 1 OR 2 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)



TYPE 5A



TYPE 5

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

1/8/2020

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022966 Joel S. Howerton

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

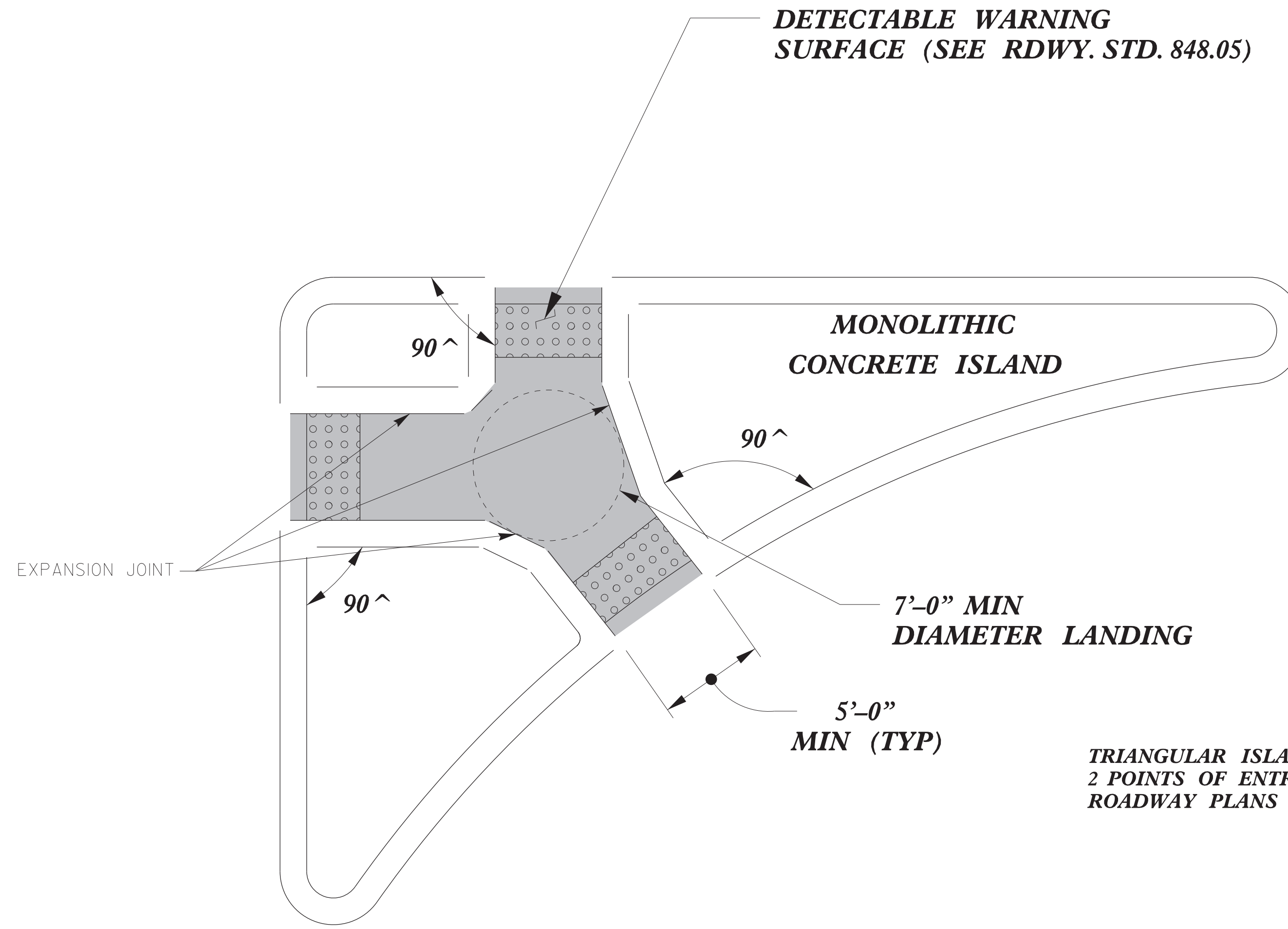
CURB RAMPS

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

5/14/99

5/14/99

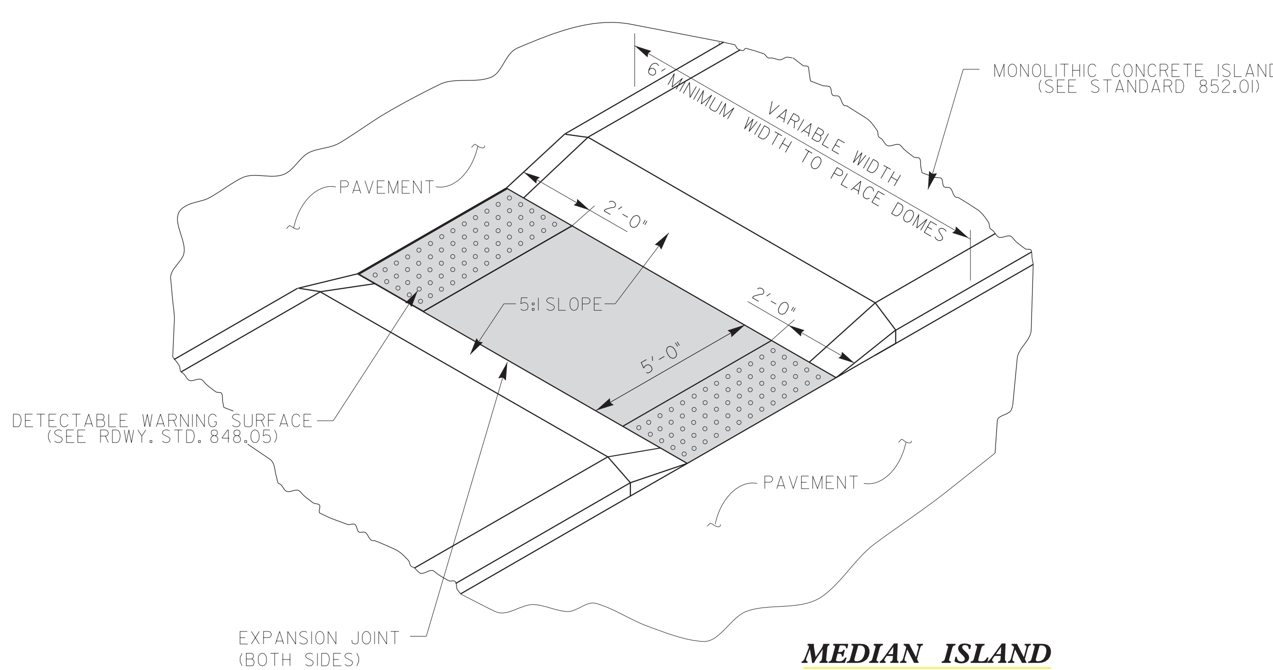
PAY LIMITS FOR 2 OR 3 CURB RAMPS
(CALCULATE BASED ON NUMBER OF
SETS OF TRUNCATED DOMES)



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.

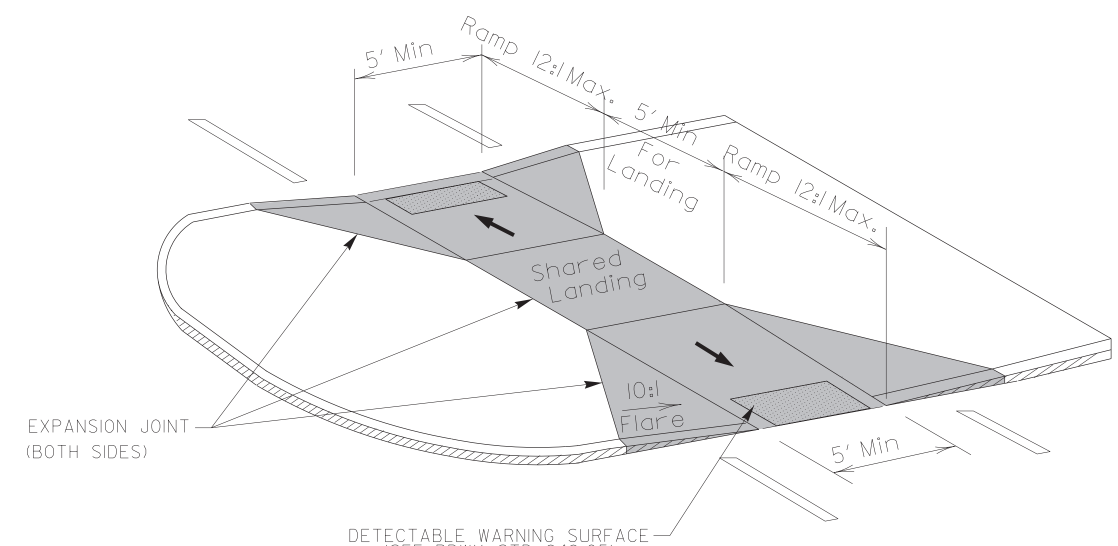
TRIANGULAR ISLAND WITH CUT THROUGH

TYPE 6



MEDIAN ISLAND WITH CUT THROUGH

TYPE 7



MEDIAN ISLAND CURB RAMPS

TYPE 8

1/8/2020

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022966 Joel S. Howerton

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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

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

SUMMARY OF QUANTITIES

Project Number:	2021 South
WBS Number:	2021CPT.05.03.20921.1
County:	Wake

Project Number	County	Municipality	Resurfacing Route	2549000000-E 2'-6" Concrete Curb & Gutter LF	2591000000-E 4" Concrete Sidewalk SY	4116100000-N Relocate Sign Type E EA	2600000000-N Retrofit Existing Curb Ramps EA	2613000000-N Remove and Replace Curb Ramps EA	SP1 Remove Curb Ramps EA
2021 South	Wake	Cary, Outside Municipality	PENNY RD FROM SR 1300 TO SR 1371	15	10	1	6	5	0
2021 South	Wake	Fuquay-Varina	HOLLAND RD FROM SR 2770 TO NC 55	65	24	0	**4**	1	4
GRAND TOTAL				**80**	**34**	**1**	**10**	**6**	**4**

SUMMARY OF QUANTITIES – HOLLAND RD FROM SR 2770 TO NC 55

Municipality:	**Fuquay-Varina**
Project Number:	**2021 South**
WBS Number:	**2021CPT.05.03.20921.1**
County:	**Wake**

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E 2'-6" Concrete Curb & Gutter LF	2591000000-E 4" Concrete Sidewalk SY	4116100000-N Relocate Sign Type E EA	2600000000-N Retrofit Existing Curb Ramps EA	2613000000-N Remove and Replace Curb Ramps EA	SP1 Remove Curb Ramps EA	Improvement Type
4846	1	SR-2768 (S Judd Pkwy SE)	SR-2767 (Holland Rd)				1			RetrofitWarnings
4847	1	SR-2768 (S Judd Pkwy SE)	SR-2767 (Holland Rd)				1			RetrofitWarnings
10845	2	SR-2767 (Holland Rd)	Highwater Pl	15					1	Remove Ramp
10846	2	SR-2767 (Holland Rd)	Highwater Pl				1			RetrofitWarnings
10847	2	SR-2767 (Holland Rd)	Highwater Pl				1			RetrofitWarnings
10848	2	SR-2767 (Holland Rd)	Highwater Pl	15	8				1	Remove Ramp
10850	3	SR-2767 (Holland Rd)	Tupelo Glen Ct	20	8				1	Remove Ramp
10851	3	SR-2767 (Holland Rd)	Tupelo Glen Ct					1		Standard - 848.06
10852	3	SR-2767 (Holland Rd)	Tupelo Glen Ct	15	8				1	Remove Ramp
Sub-Total for Holland Rd from SR 2770 to NC 55				**65**	**24**	**0**	**4**	**1**	**4**	

Municipality:	**Cary, Outside Municipality**
Project Number:	**2021 South**
WBS Number:	**2021CPT.05.03.20921.1**
County:	**Wake**

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E 2'-6" Concrete Curb & Gutter LF	2591000000-E 4" Concrete Sidewalk SY	4116100000-N Relocate Sign Type E EA	2600000000-N Retrofit Existing Curb Ramps EA	2613000000-N Remove and Replace Curb Ramps EA	SP1 Remove Curb Ramps EA	Improvement Type
12600	1	SR-1379 (Penny Rd)	Oak Grove Elementary School (10401 Penny Rd) West Entrance					1		Type1Modified
12601	1	SR-1379 (Penny Rd)	Oak Grove Elementary School (10401 Penny Rd) West Entrance					1		Type2B
12602	1	SR-1379 (Penny Rd)	Crickentree Dr				1			RetrofitWarnings
12603	1	SR-1379 (Penny Rd)	Crickentree Dr				1			RetrofitWarnings
12604	1	SR-1379 (Penny Rd)	Crickentree Dr				1			RetrofitWarnings
12605	1	SR-1379 (Penny Rd)	Crickentree Dr				1			RetrofitWarnings
12606	2	SR-1379 (Penny Rd)	Oak Grove Elementary School (10401 Penny Rd) East Entrance	15	10			1		Type1Modified
12607	2	SR-1379 (Penny Rd)	Oak Grove Elementary School (10401 Penny Rd) East Entrance					1		Type1Modified
12608	3	SR-1379 (Penny Rd)	Belgium Dr				1			RetrofitWarnings
12609	3	SR-1379 (Penny Rd)	Belgium Dr				1			RetrofitWarnings
24187	4	SR-1379 (Penny Rd)	Loch Highlands Dr			1		1		Type2A
Sub-Total for Penny Rd from SR 1300 to SR 1371				**15**	**10**	**1**	**6**	**5**	**0**	

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.03.20921.1	24	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY		MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	SHOULDER GRADING	INC STONE BASE	ASB	1½" MILLING	0" TO 1.5" MILLING	0" TO 1.25" MILLING	INC MILLING	SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CONC CURB & GUTTER	4" CONC SIDE-WALK	RETRO-FIT EXI. CURB RAMP	REMOVE AND REPLACE CURB	REMOVE CURB RAMPS	ADJ. OF METER OR VALVE BOXES	RELOCATE SIGN TYPE E	TEMP. SILT FENCE	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL	INDUC-TIVE LOOP SAWCUT	PED. CHANNELIZING DEVICES	PED. TRANS-PORT. SERV.	AUD. WARN. DE-VICE
										MI	FT	CY	SMI	TONS	TON	SY	SY	SY	SY	TONS	TON	TONS	LF	SY	EA	EA		EA	EA	LF	LF	AC	EA	LF	LF	EA	EA
			1	SR 1235 OLIVER CREEK PKWY	SR 1125 ROUSE RD TO SR 1239 LAKE TERRACE DR	2	2	NO	NO	0.51	18	50	1.02	26						401	27	460									74	190	0.74	1				
			2	SR 1236 CROSS RIDGE DR	SR 1239 LAKE TERRACE DR TO SR 1235 OLIVER CREEK PKWY	2	2	NO	NO	0.17	18	51	0.34	9						138	9	235									25	70	0.25					
			3	SR 1237 THURLOW CT	SR 1236 - CROSS RIDGE DR TO CUL-DE-SAC	2	2	NO	NO	0.05	18	5	0.17	3						65	4	85									7	20	0.07					
			4	SR 1238 N DEER RIDGE DR	SR 1236 CROSS RIDGE DR TO CUL -DE-SAC	2	2	NO	NO	0.05	18	5	0.10	3						71	5	120									20		0.07					
			5	SR 1239 LAKE TERRACE DR	CUL-DE-SAC TO DEAD END	2	2	NO	NO	0.36	18	36	0.72	18						299	20	570									52	140	0.52					
			6	SR 1240 RIVA RIDGE DR	SR 1239 LAKE TERRACE DR TO SR 1241- HILBERT RIDGE DR	2	2	NO	NO	0.14	18	14	0.28	7						114	8	265									20	60	0.20					
			7	SR 1241 HILBERT RIDGE DR	CUL-DE-SAC TO END MAINT	2	2	NO	NO	0.64	18	64	1.28	32					126	515	34	515									93	240	0.93					
			8	SR 1379 - PENNY RD	SR 1300 - KILDAIRE FARM RD TO SR 1371 - LAKE WHEELER RD	4&3	2	NO	NO	6.77	24-37	440	14.00	340		104,386	1,036		4,400	9,677	648	850	15	10	6	5			1	640	1,600	6.00		402			
			9	SR 1557 - ENGLEWOOD DR	SR 1010 - TEN TEN RD TO CUL-DE-SAC	2	2	NO	NO	0.53	20	64	1.06	27					102	479	32	235									77	200	0.77					
			10	SR 2766 - N HOLLAND RD	SR 2767 - HOLLAND RD TO SR 1301 - PURFOY RD	3	2	NO	NO	0.17	20	17	0.34	9					344	185	12	115									25	70	0.25					
			11	SR 2767 - HOLLAND RD	SR 2770 - ANGIER RD TO NC 55	3	2	NO	NO	2.7	20-33	188	5.37	134	149		96		689	3,039	204	15	65	24	4	1	4			273	690	2.73					
			12	SR 2891 - STAGECREST DR	SR 1006 - OLD STAGE RD TO SR 2891 - STAGECREST DR	1	2	NO	NO	1	18	18		50					56	620	42	235																
			13	SR 3709 - CRICKET KNOLL RD	SR 1100 - WAGSTAFF RD TO CUL-DE-SAC	2	2	NO	NO	0.24	20	24	0.49	12					124	241	16	230									35	90	0.35					
			14	SR 3710 - COUNTRY MEADOW RD	SR 3709 - CRICKET KNOLL RD TO SR 1100 - WAGSTAFF RD	2	2	NO	NO	0.27	20	27	0.53	14					124	244	16	105									39	100	0.39					
			15	SR 3711 - CHERRY BROOK CT	SR 3710 - COUNTRY MEADOW RD TO CUL- DE- SAC	2	2	NO	NO	0.05	20	5	0.10	3						74	5	35									7	20	0.07					
			16	SR 3725 - FERN FOREST DR	SR 2727 - CROWDER RD TO CUL-DE-SAC	1	2	NO	NO	0.55	20			28					107	405	27	85																
			17	SR 3726 - ASHWOOD DR	SR 2727 - CROWDER RD TO SR 3725 - FERN FOREST DR	2	2	NO	NO	0.61	20	61	1.22	31					120	526	35	195									89	230	0.89					
			18	SR 3727 - CEDARBROOK CT	SR 3726 - ASHWOOD DR TO CUL-DE-SAC	1	2	NO	NO	0.12	20			6						105	7	40							2									
			19	SR 3730 - TIMBERBERG CT	SR 2751 - HILLTOP RD TO CUL-DE-SAC	2	2	NO	NO	0.1	18	10	0.20	5					122	102	7	230									15	40	0.15					
			20	SR 3791 - SHADYWOOD LN	SR 3726 - ASHWOOD DR TO SR 3791 - SHADYWOOD LN	1	2	NO	NO	1.57	20			79						1,076	72	660							2									
			21	SR 3792 - HAMPTON RIDGE RD	SR 2737 - PAGAN RD TO SR 2737 - PAGAN RD	1	2	NO	NO	1.51	20			75					552	1,049	70	240																
			22	SR 3794 - REYNOLDA CT	SR 3792 - HAMPTON RIDGE RD TO CUL-DE-SAC	2	2	NO	NO	0.05	18	5	0.10	3						62	4	15									7	20	0.07					
			23	SR 3795 - SUNDERLAND CT	SR 3792 - HAMPTON RIDGE RD TO CUL-DE-SAC	2	2	NO	NO	0.15	18	15	0.30	8						129	9	40									22	60	0.22					
			24	SR 3796 - HABBOT DR	SR 3792 - HAMPTON RIDGE RD TO SR 3792 - HAMPTON RIDGE RD	2	2	NO	NO	0.22	18	22	0.44	11						173	12	20									32	80	0.32					
			25	SR 3797 - SPENNYMORE RD	SR 3792 - HAMPTON RIDGE RD TO SR 3792 - HAMPTON RIDGE RD	1	2	NO	NO	0.19	20			10					82	120	8	40																
			26	SR 3798 - RAMSON CT	SR 3799 - WOLVERHAMPTON DR TO CUL-DE-SAC	2	2	NO	NO	0.12	18	12	0.24	6						117	8	100									17	50	0.17					
			27	SR 3799 - WOLVERHAMPTON DR	SR 3796 - HABBOT DR TO CUL-DE-SAC	2	2	NO	NO	0.25	18	25	0.50	13						219	15	55									36	100	0.36					
			28	SR 3800 - HEATHILL CT	SR 3797 - SPENNYMORE RD TO DEAD END	2	2	NO	NO	0.1	18	10	0.20	5						103	7	30									15	40	0.15					
			29	SR 3871 - KING CROYDON CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	NO	NO	0.2	18	20	0.40	10					187	201	13	45									29	80	0.29					
			30	SR 3872 - BRACKNELL CT	SR 3871 - KING CROYDON CT TO CUL-DE-SAC	1	2	NO	NO	0.04	18			2						43	3	10																
			31	SR 3873 - CORDISS CT	SR 3792 - HAMPTON RIDGE RD TO CUL-DE-SAC	1	2	NO	NO	0.03	18			2						38	3	10																
			32	SR 3893 - ELBRIDGE DR	SR 2736 - ROCK SERVICE STATION RD TO CUL-DE-SAC	2	2	NO	NO	0.46	20	46	0.91	23					153	424	28	35									66	170	0.66					
			33	SR 3894 - DAHLBERG DR	SR 3893- ELBRIDGE DR TO CUL-DE-SAC	1	2	NO	NO	0.58	20			29					163	399	27	480																
			34	SR 3895 - STODDARD CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	2	2	NO	NO	0.04	20	4	0.08	2						66	4	25									6	20	0.06					
			35	SR 3896 - LENDERMANS CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	2	2	NO	NO	0.04	20	4	0.08	2						60	4	20									6	20	0.06					
			36	SR 3897 - KINSMAN CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	2	2	NO	NO	0.05	20	5	0.10	3						68	5	30									7	20	0.07					
			37	SR 3917 - SOUTHBRIAR DR	SR 1152 - HOLLY SPRINGS RD TO CUL-DE-SAC	3	2	NO	NO	0.35	20	35	0.70	18					260	406	27	10									51	130	0.51					
			38	SR 3918 - IRON BARK CT	SR 3917 - STRICKLAND FARM RD TO CUL-DE-SAC	3	2	NO	NO	0.07	20	7	0.14	4						106	7	10									10	30	0.10					
			39	SR 4012 - KILDALTON PL	SR 4013 - CORSHAM DR TO CUL-DE-SAC	2	2	NO	NO	0.07	20	7	0.14	4						84	6	30									10	30	0.10					
			40	SR 4013 - CORSHAM DR	SR 1010 TEN TEN RD TO END OF MAINT	2	2	NO	NO	0.39	20	39	0.78	20					120	339	23	126									57	150	0.57					

2021CPT.05.03.20921.1

Wake

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.03.20921.1	25	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	SHOULDER GRADING	INC STONE BASE	ASB	1½" MILLING	0" TO 1.5" MILLING	0" TO 1.25" MILLING	INC MILLING	SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CONC CURB & GUTTER	4" CONC SIDE-WALK	RETRO-FIT EXI. CURB RAMP	REMOVE AND REPLACE CURB	REMOVE CURB RAMPS	ADJ. OF METER OR VALVE BOXES	RELOCATE SIGN TYPE E	TEMP. SILT FENCE	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL	INDUC-TIVE LOOP SAWCUT	PED. CHANNELIZING DEVICES	PED. TRANS-PORT. SERV.	AUD. WARN. DE-VICE
									MI	FT	CY	SMI	TONS	TON	SY	SY	SY	SY	TONS	TON	TONS	LF	SY	EA	EA		EA	EA	LF	LF	AC	EA	LF	LF	EA	EA
		41	SR 4142 - GREENFIELD PKWY	BEGIN OF MAINT TO JT AT DEER HARBOR DR	4 & 5	2	NO	NO	0.327	70	29	0.57	14		24,657			583	2,138	143	160								41	110	0.41					
		42	SR 4715 - OAKLYN SPRING DR	SR 1386 - GRAHAM NEWTON RD TO CUL-DE-SAC	2	2	NO	NO	0.79	20	79	1.58	40					193	709	48	665								115	290	1.15					
		43	SR 4716 - HIDDEN GLEN LN	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	NO	NO	0.16	20	16	0.32	8						162	11	70								23	60	0.23					
		44	SR 4717 - TEN OAKS LN	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	NO	NO	0.12	20	12	0.24	6						130	9	160								17	50	0.17					
		45	SR 4718 - MEADOW VISTA CT	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	NO	NO	0.09	20	9	0.18	5						95	6	230								13	40	0.13					
		46	SR 4719 - MOSS OAK CIR	SR 4716 - HIDDEN GLEN LN TO CUL-DE-SAC	2	2	NO	NO	0.06	20	6	0.12	3						78	5	70								9	30	0.09					
		47	SR 4740 - STERLINGWOOD DR	SR 2752 - AIR PARK RD TO CUL-DE-SAC	6	2	NO	NO	0.35	20	33	0.67	17				73		351	24	365								49	130	0.49					
		48	SR 4741 - BRASSWYND CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	NO	NO	0.12	20	12	0.24	6						151	10	130								17	50	0.17					
		49	SR 4742 - BUCKSTONE CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	NO	NO	0.12	20	12	0.24	6						146	10	120								17	50	0.17					
		50	SR 4747 - ALSLEE OAKS DR	SR 1386 - GRAHAM NEWTON RD TO CUL-DE-SAC	2	2	NO	NO	0.11	20	11	0.22	6					188	127	9	40								16	40	0.16					
		51	SR 4763 - MAXTON CREST DR	SR 1377 - BLNY FRANKS R TO SR 5065 - CHOPLINSHIRE WAY	2	2	NO	NO	0.5	20	50	1.00	25					129	460	31	140								73	190	0.73					
		52	SR 4764 - KNIGHTSHIRE DR	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	1	2	NO	NO	0.07	20			4						68	5	45															
		53	SR 4765 - VISCOUNT LN	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	1	2	NO	NO	0.04	20			2						32	2																
		54	SR 4831 - STONENOROUGH CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	NO	NO	0.07	20	7	0.14	4						109	7	5								10	30	0.10					
		55	SR 4832 - COLORWOOD CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	NO	NO	0.09	20	9	0.18	5						106	7	215								13	40	0.13					
		56	SR 4835 - LUNENBURG DR	SR 3893 - ELBRIDGE DR TO DEAD END	2	2	NO	NO	0.15	18	15	0.30	8						118	8	20								22	60	0.22					
		57	SR 4845 - RANWICK LN	SR 3893 - ELBRIDGE DR TO SR 3894 - DAHLBERG DR	1	2	NO	NO	0.16	20			8						115	8	250															
		58	SR 4846 - SHANNON CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	1	2	NO	NO	0.08	20			4						79	5	25															
		59	SR 5059 - WHITEHART LN	SR 5840 - FOY GLEN CT TO CUL-DE-SAC	2	2	NO	NO	0.63	20	63	1.27	32						588	39	94								92	240	0.92					
		60	SR 5060 - OLD TRAFFORD WAY	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	NO	NO	0.18	20	18	0.36	9						180	12	250								26	70	0.26					
		61	SR 5061 - ANFIELD RD	SR 4715 - OAKLYN SPRING DR TO DEAD END	2	2	NO	NO	0.7	20	70	1.40	35						607	41	590								102	260	1.02					
		62	SR 5062 - BLAYDON DR	SR 5061 - ANFIELD RD TO SR 5063 - TILTONSHIRE LN	2	2	NO	NO	0.39	20	39	0.78	20						338	23	80								57	150	0.57					
		63	SR 5063 - TILTONSHIRE LN	CUL-DE-SAC TO CUL-DE-SAC	2	2	NO	NO	0.69	20	69	1.38	35						647	44	70								100	260	1.00					
		64	SR 5064 - BURGESS HILL CT	SR 5063 - TILTONSHIRE LN TO CUL-DE-SAC	2	2	NO	NO	0.12	20	12	0.24	6						126	8	52								17	50	0.17					
		65	SR 5065 - CHOPLIN SHIRE WAY	SR 5063 - TILTONSHIRE LN TO CUL-DE-SAC	2	2	NO	NO	0.48	20	48	0.96	24					136	438	29	455									250	0.70					
		66	SR 5066 - GILLINGHAM DR	SR 5065 - CHOPLINSHIRE WAY TO SR 5061 - ANFIELD RD	2	2	NO	NO	0.17	20	17	0.34	9						150	10	155								25	70	0.25					
		67	SR 5082 - WINGATE HILL CT	SR 5061 - ANFIELD RD TO CUL-DE-SAC	2	2	NO	NO	0.08	20	8	0.16	4						89	6	52								12	30	0.12					
		68	SR 5091 - GLASHIELDS WAY	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	2	2	NO	NO	0.19	20	19	0.38	10						183	12	215								28	70	0.28					
		69	SR 5092 - GLENROTHES CV	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	2	2	NO	NO	0.13	20	13	0.26	7						138	9	50								19	50	0.19					
		70	SR 5328 - CANDLELIGHT OAKS LN	SR 3791 - SHADYWOOD LN TO DEAD END	1	2	NO	NO	0.12	18			6						80	5	20															
		71	SR 5823 - IVORY BLUFF TRL	SR 1557 - ENGLEWOOD DR TO CUL-DE-SAC	2	2	NO	NO	0.4	20	40	0.80	20						367	25	15							2	58	150	0.58					
		72	SR 5824 - HEMLOCK HILLS LN	SR 5823 - IVORY BLUFF TRL TO CUL-DE-SAC	2	2	NO	NO	0.13	20	13	0.25	6						139	9	5								18	50	0.18					
		73	SR 5825 - CORSHAM DR	CUL-DE -SAC TO END OF MAINT	2	2	NO	NO	0.21	20	21	0.43	11					120	200	13								31	80	0.31					
		74	SR 5826 - HIGH LONESOME LN	SR 5825 - CORSHAM DR TO CUL-DE-SAC	2	2	NO	NO	0.15	20	15	0.29	7						150	10	100							2	21	60	0.21					
		75	SR 5827 - TREETOP VIEW LN	SR 5823 - IVORY BLUFF TRL TO CUL-DE-SAC	2	2	NO	NO	0.06	20	6	0.12	3						75	5	5								8	30	0.08					
		76	SR 5840 - FOY GLEN CT	CUL- DE- SAC TO END OF MAINT	2	2	NO	NO	0.311	20	27	0.54	14					109	287	19	45							2	39	100	0.39					
		77	SR 5841 - ORCHARD POINT CT	SR 5059 - WHITEHART LN TO CUL-DE-SAC	2	2	NO	NO	0.16	20	16	0.33	8						161	11	125							2	24	60	0.24					
		78	SR 1192 - LITTLE BEAVERDAM CT	SR 1111- OLD POWELL RD TO CUL-DE-SAC	7	2	NO	NO	0.16	18			8						209	14	210													128	10	10
2021CPT.05.03.20921.1	Wake		**TOTAL FOR PROJ NO. 2020CPT.05.03.20921.1**						**30.378**		**2,149**	**48.62**	**1,531**	**149**	**129,043**	**1,132**	**73**	**9,289**	**32,908**	**2,205**	**11,949**	**80**	**34**	**10**	**6**	**4**	**12**	**1**	**2,974**	**7,960**	**29.91**	**1**	**402**	**128**	**10**	**10**

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.03.20921.1	26	

THERMOPLASTIC AND PAINT QUANTITIES

										441300000	4457000	4685000000-E		4695000000-E		470000000	4725000000-E				4770000000-E		4810000000-E		4820000000-E		4835000000-E	40000000	4845000000-N				4850000000-E	4891000000-E	4720000000-E	
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH		WZ ADV./GEN. WARN. SIGNING	TEMP. TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	12" X 90 M YELLOW THERMO	THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO RT ARROW 90 M	4" WHITE COLD APPLIED PLASTIC, TYPE II	4" YELLOW COLD APPLIED PLASTIC, TYPE II	4" WHITE PAINT	4" YELLOW PAINT	8" WHITE PAINT	8" YELLOW PAINT	24" WHITE PAINT	PAINT MSG SCHOOL	PAINT STR & RT ARROW	PAINT LT ARROW	PAINT RT ARROW	PAINT STR ARROW	4" LINE REMOVAL	24" X 90 M WHITE THERMO	THERMO MSG SCHOOL 90 M	THERMO MSG ONLY 90 M
							MI	FT		SF	LS	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	LF	LF	EA	EA
2021CPT.05.03.20921.1	Wake	1	SR 1235 OLIVER CREEK PKWY	SR 1125 ROUSE RD TO SR 1239 LAKE TERRACE DR	2	2	0.51	18		57	0.01																									
		2	SR 1236 CROSS RIDGE DR	SR 1239 LAKE TERRACE DR TO SR 1235 OLIVER CREEK PKWY	2	2	0.17	18		126	0.01																									
		3	SR 1237 THURLOW CT	SR 1236 - CROSS RIDGE DR TO CUL-DE-SAC	2	2	0.05	18		6	0.01																									
		4	SR 1238 N DEER RIDGE DR	SR 1236 CROSS RIDGE DR TO CUL -DE SAC	2	2	0.05	18		6	0.01																									
		5	SR 1239 LAKE TERRACE DR	CUL-DE-SAC TO DEAD END	2	2	0.36	18		40	0.01																									
		6	SR 1240 RIVA RIDGE DR	SR 1239 LAKE TERRACE DR TO SR 1241- HILBERT RIDGE DR	2	2	0.14	18		16	0.01																									
		7	SR 1241 HILBERT RIDGE DR	CUL-DE-SAC TO END MAINT	2	2	0.64	18		72	0.01																									
		8	SR 1379 - PENNY RD	SR 1300 - KILDAIRE FARM RD TO SR 1371 - LAKE WHEELER RD	4&3	2	6.77	24-37			0.01	75,582	79,717	725		1,184	20	4	3	3	466	466	75,582	79,717			566	18	3	20	3		932	566	18	
		9	SR 1557 - ENGLEWOOD DR	SR 1010 - TEN TEN RD TO CUL-DE-SAC	2	2	0.53	20		59	0.01																									
		10	SR 2766 - N HOLLAND RD	SR 2767 - HOLLAND RD TO SR 1301 - PURFOY RD	3	2	0.17	20		19	0.01	1,829	1,796																							
		11	SR 2767 - HOLLAND RD	SR 2770 - ANGIER RD TO NC 55	3	2	2.7	20-33		303	0.09	29,717	35,820	1,012	415		8		2															159		
		12	SR 2891 - STAGECREST DR	SR 1006 - OLD STAGE RD TO SR 2891 - STAGECREST DR	1	2	1	18		112	0.02																									
		13	SR 3709 - CRICKET KNOLL RD	SR 1100 - WAGSTAFF RD TO CUL-DE-SAC	2	2	0.24	20		27	0.01																									
		14	SR 3710 - COUNTRY MEADOW RD	SR 3709 - CRICKET KNOLL RD TO SR 1100 - WAGSTAFF RD	2	2	0.27	20		30	0.01																									
		15	SR 3711 - CHERRY BROOK CT	SR 3710 - COUNTRY MEADOW RD TO CUL- DE- SAC	2	2	0.05	20		6	0.01																									
		16	SR 3725 - FERN FOREST DR	SR 2727 - CROWDER RD TO CUL-DE-SAC	1	2	0.55	20		62	0.01																									
		17	SR 3726 - ASHWOOD DR	SR 2727 - CROWDER RD TO SR 3725 - FERN FOREST DR	2	2	0.61	20		68	0.01																									
		18	SR 3727 - CEDARBROOK CT	SR 3726 - ASHWOOD DR TO CUL-DE-SAC	1	2	0.12	20		13	0.01																									
		19	SR 3730 - TIMBERBERG CT	SR 2751 - HILLTOP RD TO CUL-DE-SAC	2	2	0.1	18		11	0.01																									
		20	SR 3791 - SHADYWOOD LN	SR 3726 - ASHWOOD DR TO SR 3791 - SHADYWOOD LN	1	2	1.57	20		176	0.03																									
		21	SR 3792 - HAMPTON RIDGE RD	SR 2737 - PAGAN RD TO SR 2737 - PAGAN RD	1	2	1.51	20		169	0.03																									
		22	SR 3794 - REYNOLDA CT	SR 3792 - HAMPTON RIDGE RD TO CUL-DE-SAC	2	2	0.05	18		6	0.01																									
		23	SR 3795 - SUNDERLAND CT	SR 3792 - HAMPTON RIDGE RD TO CUL-DE-SAC	2	2	0.15	18		17	0.01																									
		24	SR 3796 - HABBOT DR	SR 3792 - HAMPTON RIDGE RD TO SR 3792 - HAMPTON RIDGE RD	2	2	0.22	18		25	0.01																									
		25	SR 3797 - SPENNYMORE RD	SR 3792 - HAMPTON RIDGE RD TO SR 3792 - HAMPTON RIDGE RD	1	2	0.19	20		21	0.01																									
		26	SR 3798 - RAMSON CT	SR 3799 - WOLVERHAMPTON DR TO CUL-DE-SAC	2	2	0.12	18		13	0.01																									
		27	SR 3799 - WOLVERHAMPTON DR	SR 3796 - HABBOT DR TO CUL-DE-SAC	2	2	0.25	18		28	0.01																									
		28	SR 3800 - HEATHILL CT	SR 3797 - SPENNYMORE RD TO DEAD END	2	2	0.1	18		11	0.01																									
		29	SR 3871 - KING CROYDON CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	0.2	18		22	0.01																									
		30	SR 3872 - BRACKNELL CT	SR 3871 - KING CROYDON CT TO CUL-DE-SAC	1	2	0.04	18		4	0.01																									
		31	SR 3873 - CORDISS CT	SR 3792 - HAMPTON RIDGE RD TO CUL-DE-SAC	1	2	0.03	18		3	0.01																									
		32	SR 3893 - ELBRIDGE DR	SR 2736 - ROCK SERVICE STATION RD TO CUL-DE-SAC	2	2	0.46	20		51	0.01																									
		33	SR 3894 - DAHLBERG DR	SR 3893- ELBRIDGE DR TO CUL-DE-SAC	1	2	0.58	20		65	0.01																									
		34	SR 3895 - STODDARD CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	2	2	0.04	20		4	0.01																									
		35	SR 3896 - LENDERMANS CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	2	2	0.04	20		4	0.01																									
		36	SR 3897 - KINSMAN CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	2	2	0.05	20		6	0.01																									
		37	SR 3917 - SOUTHBRIAR DR	SR 1152 - HOLLY SPRINGS RD TO CUL-DE-SAC	3	2	0.35	20		39	0.01																									
		38	SR 3918 - IRON BARK CT	SR 3917 - STRICKLAND FARM RD TO CUL-DE-SAC	3	2	0.07	20		8	0.01																									
		39	SR 4012 - KILDALTON PL	SR 4013 - CORSHAM DR TO CUL-DE-SAC	2	2	0.07	20		8	0.01																									

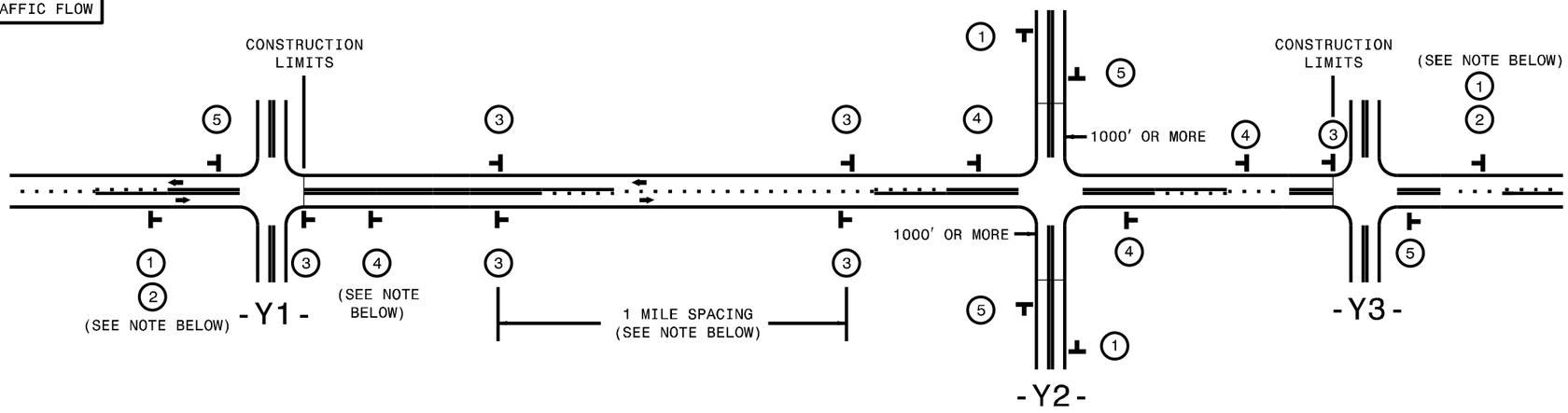
PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.03.20921.1	27	

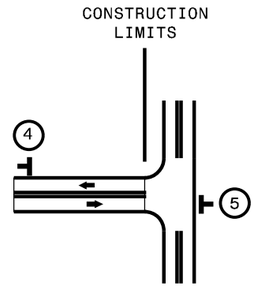
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	441300000 WZ ADV./GEN. WARN. SIGNING	4457000 TEMP. TRAFFIC CONTROL	4685000000-E 4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4695000000-E 8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	470000000 12" X 90 M YELLOW THERMO	4725000000-E THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO RT ARROW 90 M	4770000000-E 4" WHITE COLD APPLIED PLASTIC, TYPE II	4" YELLOW COLD APPLIED PLASTIC, TYPE II	4810000000-E 4" WHITE PAINT	4" YELLOW PAINT	4820000000-E 8" WHITE PAINT	8" YELLOW PAINT	4835000000-E 24" WHITE PAINT	40000000 PAINT MSG SCHOOL	4845000000-N PAINT STR & RT ARROW	PAINT LT ARROW	PAINT RT ARROW	PAINT STR ARROW	4850000000-E 4" LINE REMOVAL	4891000000-E 24" X 90 M WHITE THERMO	4720000000-E THERMO MSG SCHOOL 90 M	THERMO MSG ONLY 90 M
							MI	FT	SF	LS	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	LF	LF	EA	EA
2020CPT.05.19.20921.1	Wake	40	SR 4013 - CORSHAM DR	SR 1010 TEN TEN RD TO END OF MAINT	2	2	0.39	20	44	0.01																									
		41	SR 4142 - GREENFIELD PKWY	BEGIN OF MAINT TO JT AT DEER HARBOR DR	4 & 5	2	0.327	70	32	0.06	4,404	3,356	2,423	260		11	25		8	634	634	4,404	3,356	2,423	260				11	8	25	1,268			8
		42	SR 4715 - OAKLYN SPRING DR	SR 1386 - GRAHAM NEWTON RD TO CUL-DE-SAC	2	2	0.79	20	127	0.02																									
		43	SR 4716 - HIDDEN GLEN LN	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	0.16	20	18	0.01																									
		44	SR 4717 - TEN OAKS LN	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	0.12	20	13	0.01																									
		45	SR 4718 - MEADOW VISTA CT	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	0.09	20	10	0.01																									
		46	SR 4719 - MOSS OAK CIR	SR 4716 - HIDDEN GLEN LN TO CUL-DE-SAC	2	2	0.06	20	8	0.01																									
		47	SR 4740 - STERLINGWOOD DR	SR 2752 - AIR PARK RD TO CUL-DE-SAC	6	2	0.35	20	39	0.01																									
		48	SR 4741 - BRASSWYND CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	0.12	20	13	0.01																									
		49	SR 4742 - BUCKSTONE CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	0.12	20	13	0.01																									
		50	SR 4747 - ALSLEE OAKS DR	SR 1386 - GRAHAM NEWTON RD TO CUL-DE-SAC	2	2	0.11	20	12	0.01																									
		51	SR 4763 - MAXTON CREST DR	SR 1377 - BLNY FRANKS R TO SR 5065 - CHOPLINSHIRE WAY	2	2	0.5	20	56	0.01																									
		52	SR 4764 - KNIGHTSHIRE DR	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	1	2	0.07	20	8	0.01																									
		53	SR 4765 - VISCOUNT LN	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	1	2	0.04	20	4	0.01																									
		54	SR 4831 - STONENOROUGH CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	0.07	20	8	0.01																									
		55	SR 4832 - COLORWOOD CT	CUL-DE-SAC TO CUL-DE-SAC	2	2	0.09	20	10	0.01																									
		56	SR 4835 - LUNENBURG DR	SR 3893 - ELBRIDGE DR TO DEAD END	2	2	0.15	18	17	0.01																									
		57	SR 4845 - RANWICK LN	SR 3893 - ELBRIDGE DR TO SR 3894 - DAHLBERG DR	1	2	0.16	20	18	0.01																									
		58	SR 4846 - SHANNON CT	SR 3894 - DAHLBERG DR TO CUL-DE-SAC	1	2	0.08	20	9	0.01																									
		59	SR 5059 - WHITEHART LN	SR 5840 - FOY GLEN CT TO CUL-DE-SAC	2	2	0.63	20	71	0.02																									
		60	SR 5060 - OLD TRAFFORD WAY	SR 4715 - OAKLYN SPRING DR TO CUL-DE-SAC	2	2	0.18	20	20	0.01																									
		61	SR 5061 - ANFIELD RD	SR 4715 - OAKLYN SPRING DR TO DEAD END	2	2	0.7	20	78	0.02																									
		62	SR 5062 - BLAYDON DR	SR 5061 - ANFIELD RD TO SR 5063 - TILTONSHIRE LN	2	2	0.39	20	44	0.01																									
		63	SR 5063 - TILTONSHIRE LN	CUL-DE-SAC TO CUL-DE-SAC	2	2	0.69	20	77	0.02																									
		64	SR 5064 - BURGESS HILL CT	SR 5063 - TILTONSHIRE LN TO CUL-DE-SAC	2	2	0.12	20	13	0.01																									
		65	SR 5065 - CHOPLIN SHIRE WAY	SR 5063 - TILTONSHIRE LN TO CUL-DE-SAC	2	2	0.48	20	54	0.01																									
		66	SR 5066 - GILLINGHAM DR	SR 5065 - CHOPLINSHIRE WAY TO SR 5061 - ANFIELD RD	2	2	0.17	20	19	0.01																									
		67	SR 5082 - WINGATE HILL CT	SR 5061 - ANFIELD RD TO CUL-DE-SAC	2	2	0.08	20	9	0.01																									
		68	SR 5091 - GLASHIELDS WAY	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	2	2	0.19	20	21	0.01																									
		69	SR 5092 - GLENROTHES CV	SR 4763 - MAXTON CREST DR TO CUL-DE-SAC	2	2	0.13	20	15	0.01																									
		70	SR 5328 - CANDLELIGHT OAKS LN	SR 3791 - SHADYWOOD LN TO DEAD END	1	2	0.12	18	13	0.01																									
		71	SR 5823 - IVORY BLUFF TRL	SR 1557 - ENGLEWOOD DR TO CUL-DE-SAC	2	2	0.4	20	45	0.01																									
		72	SR 5824 - HEMLOCK HILLS LN	SR 5823 - IVORY BLUFF TRL TO CUL-DE-SAC	2	2	0.13	20	14	0.01																									
		73	SR 5825 - CORSHAM DR	CUL-DE -SAC TO END OF MAINT	2	2	0.21	20	24	0.01																									
		74	SR 5826 - HIGH LONESOME LN	SR 5825 - CORSHAM DR TO CUL-DE-SAC	2	2	0.15	20	16	0.01																									
		75	SR 5827 - TREETOP VIEW LN	SR 5823 - IVORY BLUFF TRL TO CUL-DE-SAC	2	2	0.06	20	6	0.01																									
		76	SR 5840 - FOY GLEN CT	CUL- DE- SAC TO END OF MAINT	2	2	0.311	20	30	0.01																									
		77	SR 5841 - ORCHARD POINT CT	SR 5059 - WHITEHART LN TO CUL-DE-SAC	2	2	0.16	20	18	0.01																									
		78	SR 1192 - LITTLE BEAVERDAM CT	SR 1111- OLD POWELL RD TO CUL-DE-SAC	7	2	0.16	18	18	0.01																									
GRAND TOTAL FOR PROJ NO. 2020CPT.05.03.20921.1							**30.378**		**2,777**	**1.00**	**111,532**	**120,689**	**4,160**	**675**	**1,184**	**39**	**29**	**5**	**11**	**1,100**	**1,100**	**79,986**	**83,073**	**2,423**	**260**	**566**	**18**	**3**	**31**	**11**	**25**	**2,200**	**725**	**18**	**8**
											232,221		**4,835**			**84**				**2,200**		**163,059**		**2,683**				**70**						**26**	

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.

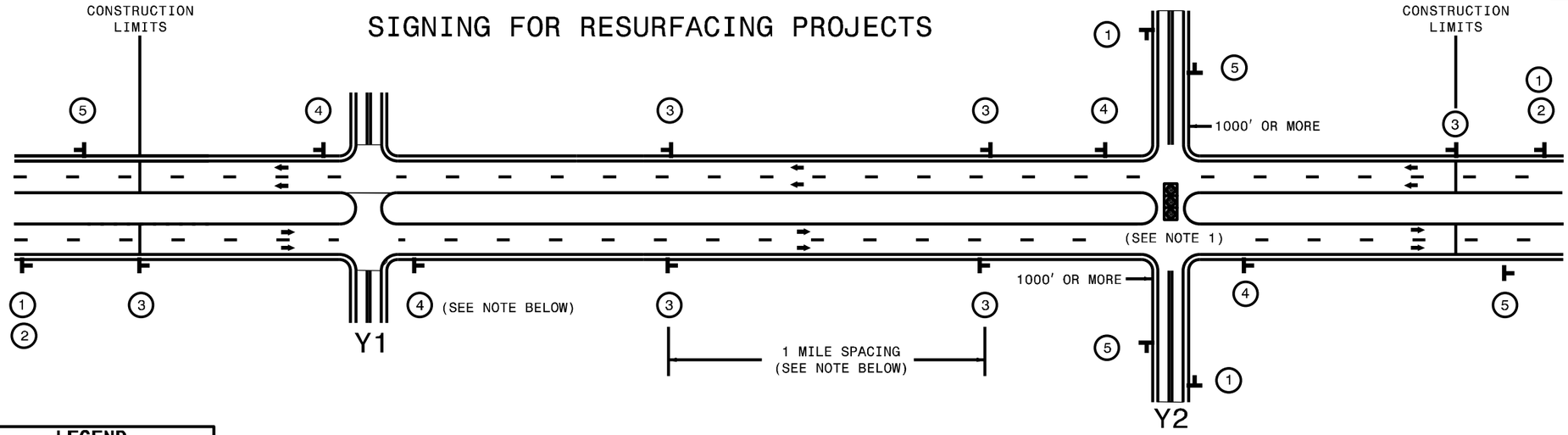
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

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

PROJ. REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	TMP-2

SIGNING FOR RESURFACING PROJECTS



LEGEND
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.

2 — #2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

ROAD WORK AHEAD — W20-1 48″ X 48″
NEXT XX MILES — W7-3aP 24″ X 18″

3 — PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.

LOW/SOFT SHOULDER — SP 13107 48″ X 48″

4 — 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.

ROAD UNDER CONST — SP 13106 48″ X 48″

5 — PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

END ROAD WORK — G20-2 A 48″ X 24″

-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, ADVANCE WARNING PORTABLE 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.

NOTES:

1) 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.

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

RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS W/ SHOULDER SECTIONS

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

TIP NO.	SHEET NO.
2021CPT.05.03.20921.1	PMP-1

APPROVED: RLWT
DATE: 3/6/12

SEAL

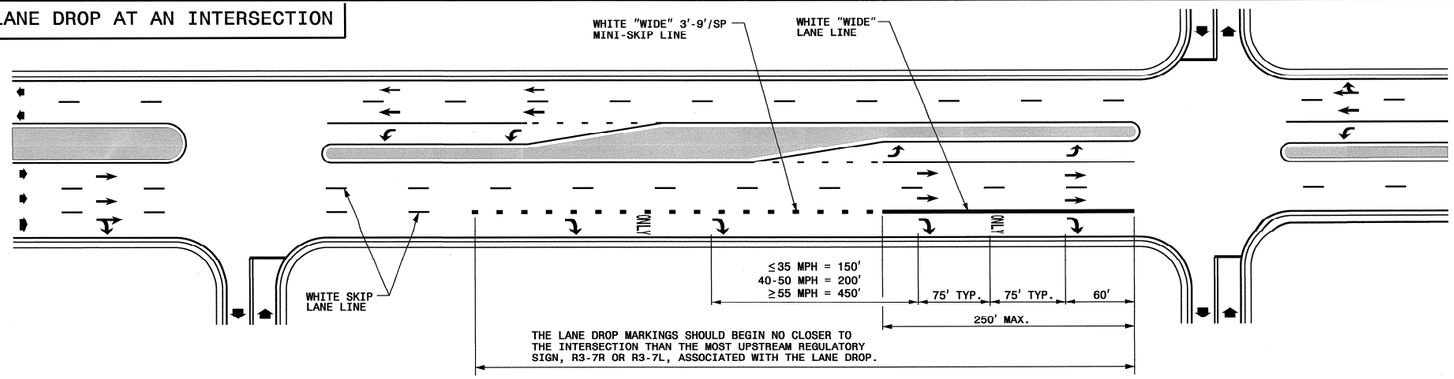
NORTH CAROLINA PROFESSIONAL SEAL 022959 ENGINEER RONALD W. KING

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

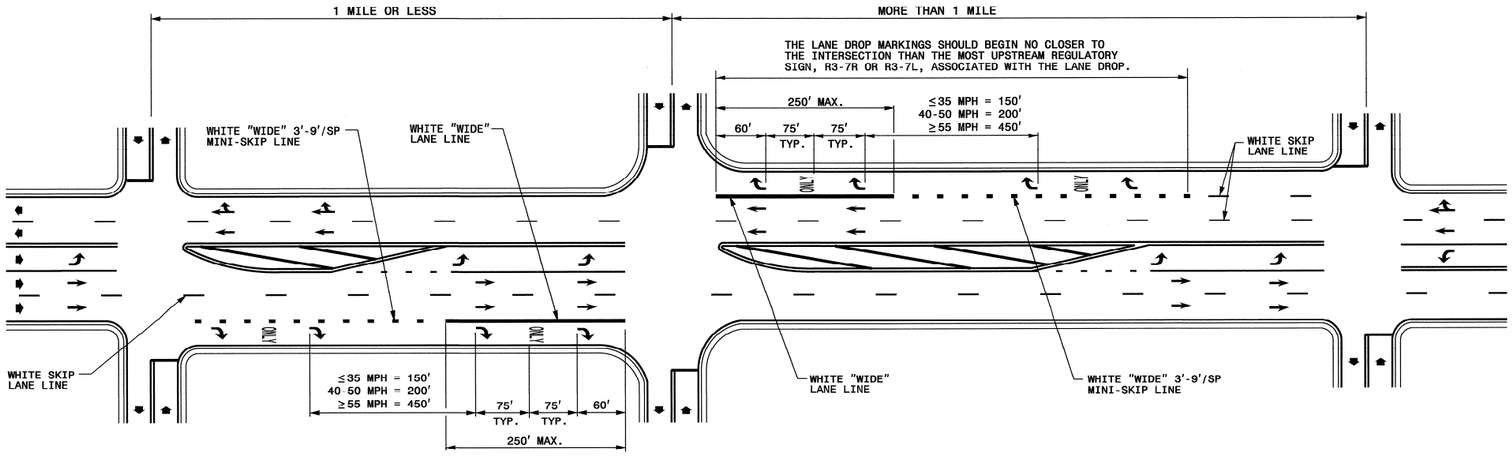
1-12

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
LANE DROPS

LANE DROP AT AN INTERSECTION



LANE DROP AT AN INTERSECTION WITH AN AUXILIARY LANE



GENERAL NOTES:

1- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.

2- LANE LINES INDICATED AS "WIDE" SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

LEGEND

W = WIDTH OF TRAVEL LANE	ONLY PAVEMENT MARKING SYMBOLS & CHARACTERS
DIRECTION OF TRAFFIC FLOW	

SHEET 1 OF 3
1205D06

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

1-12

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
LANE DROPS

SHEET 1 OF 3
1205D06

REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING

08-MAR-2012 11:09
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dstokes AT TE24745

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	EC-1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

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

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	EC-2

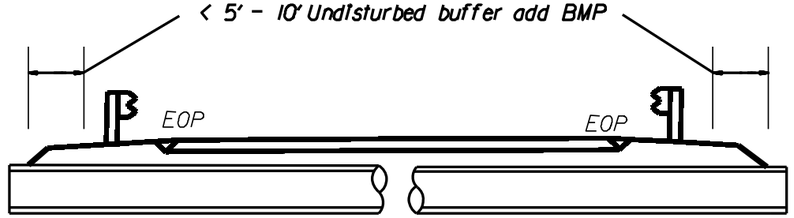
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

BMP Options: Wattle, Silt Fence, or Hardened Aggregate.

EROSION CONTROL DETAIL

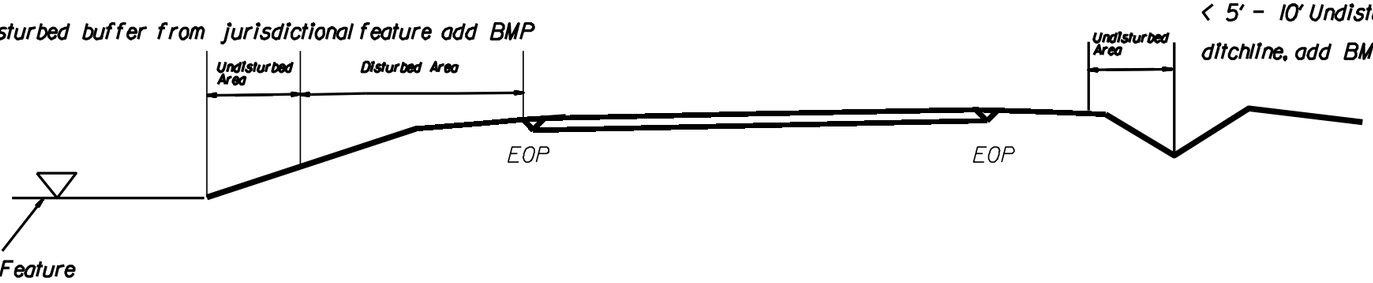
< 5' - 10' Undisturbed buffer add BMP



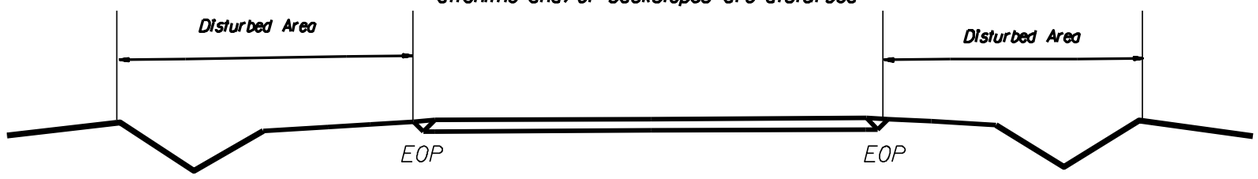
Pipe/Culvert

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

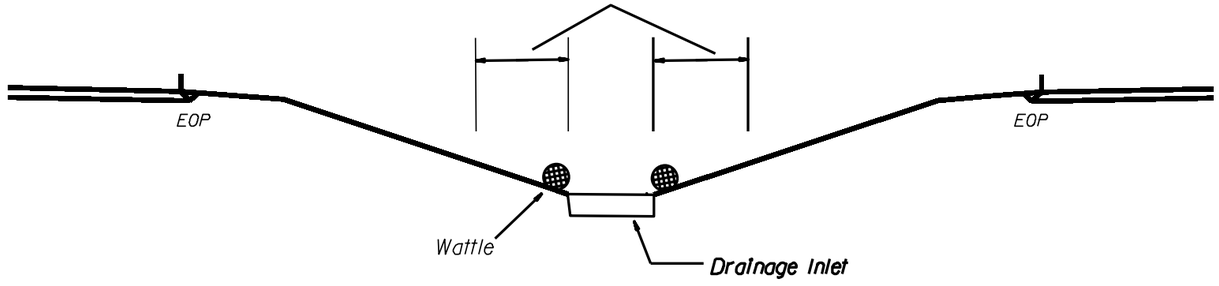
< 5' - 10' Undisturbed buffer from ditchline, add BMP



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



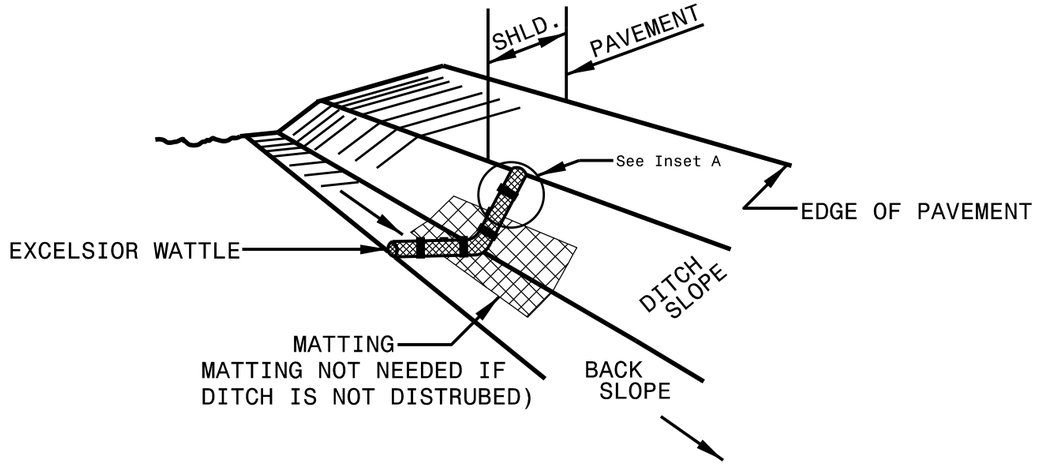
< 5' - 10' Undisturbed buffer from inlet, add wattle



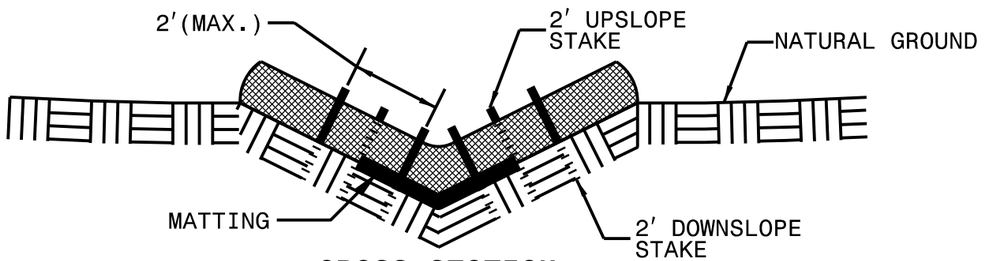
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	EC-3

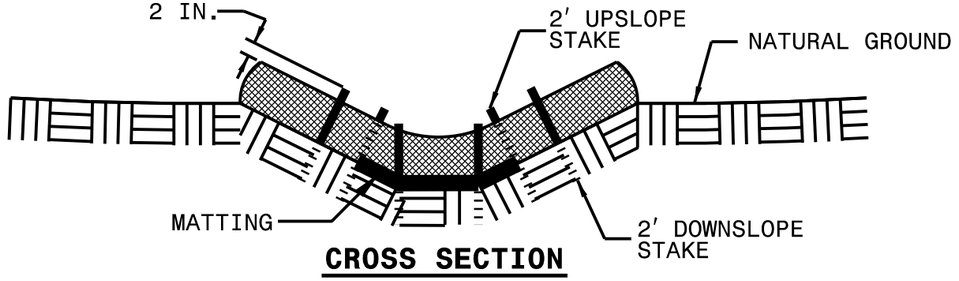
WATTLE DETAIL



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.

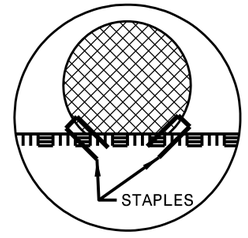
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

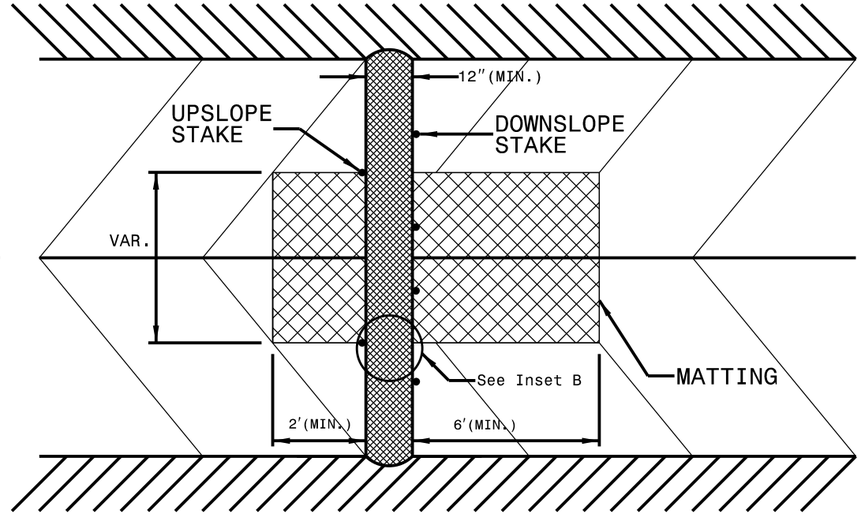
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

IF DITCH WILL BE DISTURBED, INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

INSET A



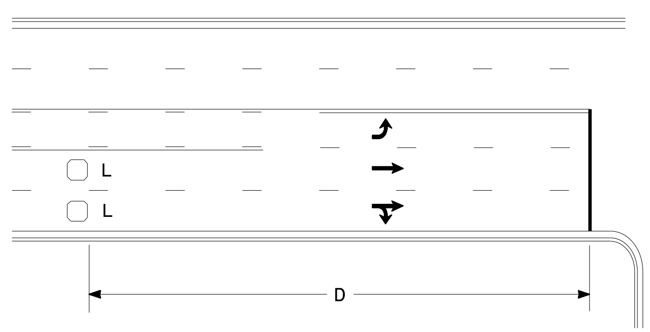
INSET B



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
2021CPT.05.03.20921.1	SIG-1

High Speed Detection
(≥40 mph)



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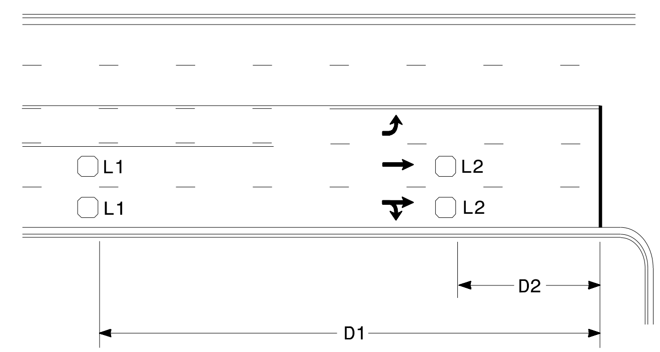


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

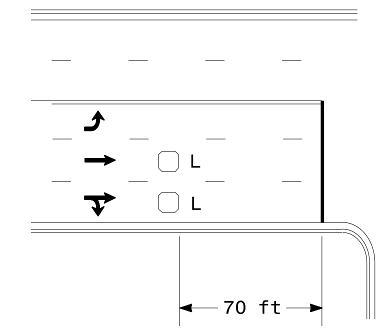
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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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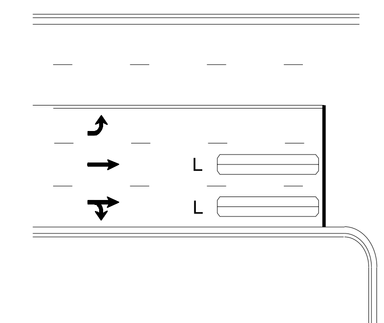
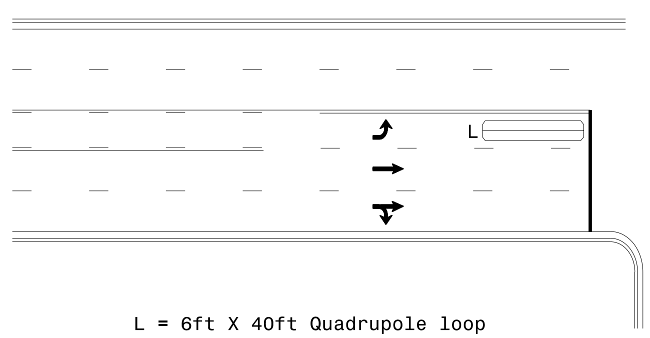


L = 6ft X 6ft
Wired in series

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

Left Turn Lane Detection



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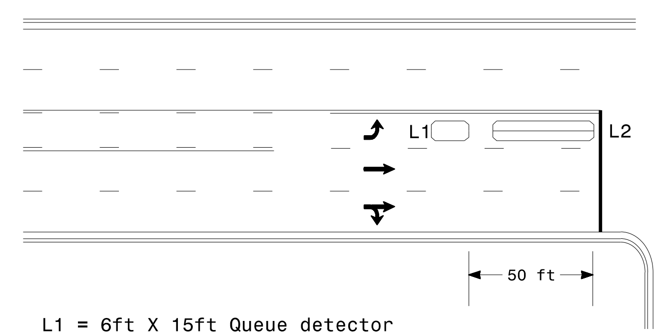


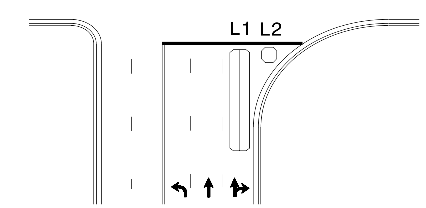
L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

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

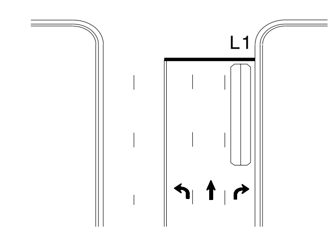
Queue Loop Detection

Right Turn Lane Detection

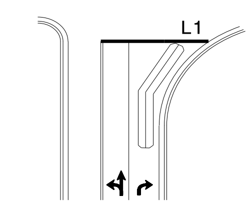


Shared Lane/
Wide Radius Turn

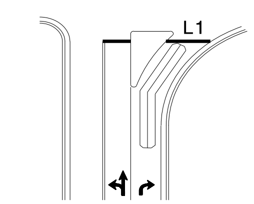
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

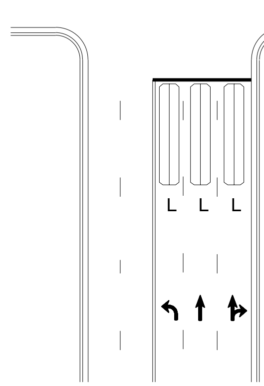


Wide Radius Turn



Channelized Turn

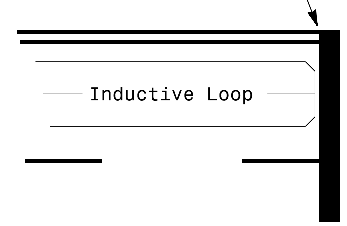
Side Street Detection



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

Presence Loop Placement at Stop Lines

Locate loop slightly behind leading edge of stop line



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
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

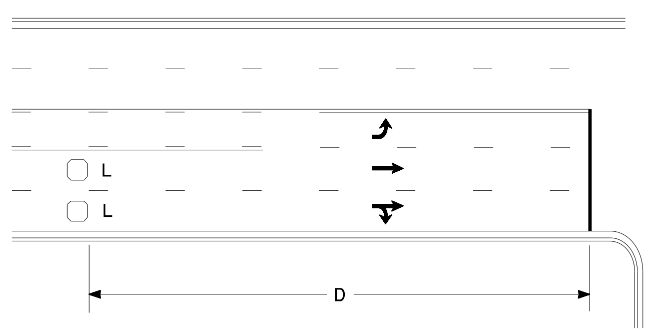
REVISIONS | INIT. | DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 23489 ENGINEER PAMELA L. ALEXANDER
P L Alexander 1/30/2015
DATE

SIG. INVENTORY NO.

30-JAN-2015 12:39
S:\ITS&SU\ITS Signals\Signal Design Section\Eastern Region\looptypical2015.dgn
palexander

High Speed Detection
(≥40 mph)



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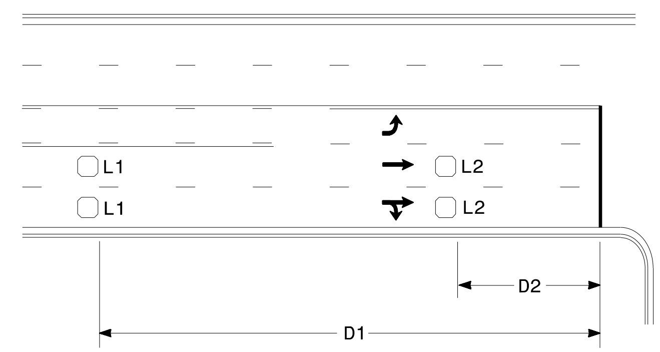


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

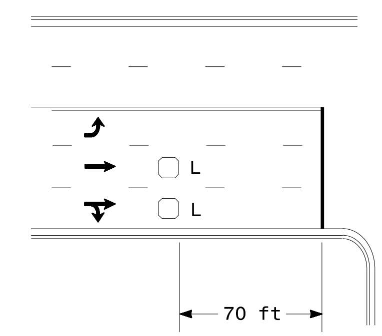
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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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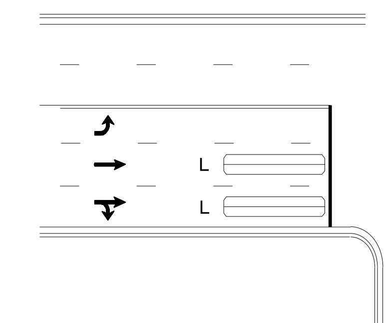
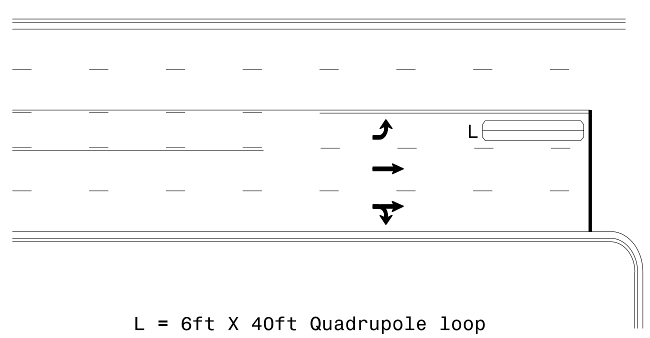


L = 6ft X 6ft
Wired in series

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

Left Turn Lane Detection



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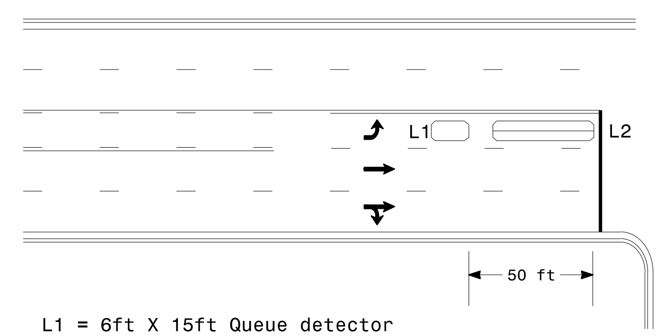


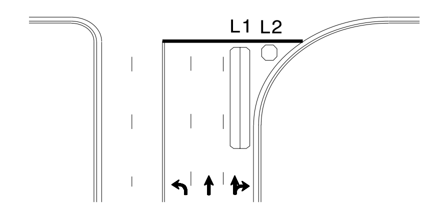
L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

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

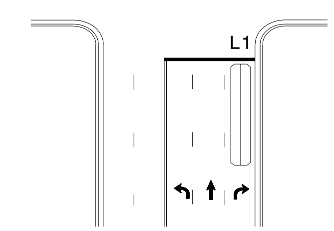
Queue Loop Detection

Right Turn Lane Detection

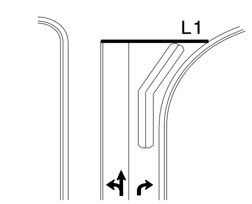


Shared Lane/
Wide Radius Turn

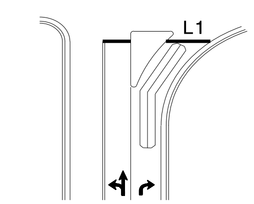
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

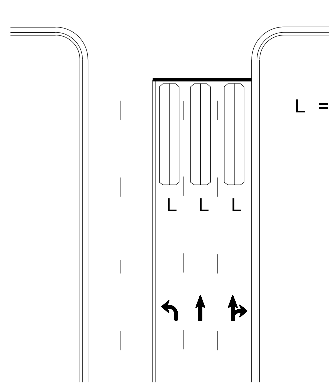


Wide Radius Turn



Channelized Turn

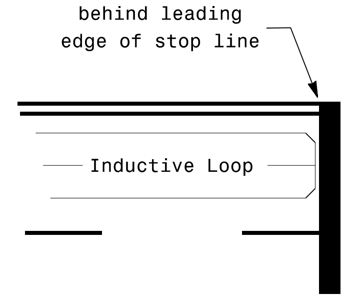
Side Street Detection



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

Presence Loop Placement at Stop Lines

Locate loop slightly behind leading edge of stop line



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
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
1/30/2015
DATE

SIG. INVENTORY NO.

30-JAN-2015 12:39
S:*ITS&SU*ITS Signals*Signal Design Section*Eastern Region*looptypical2015.dgn
palexander