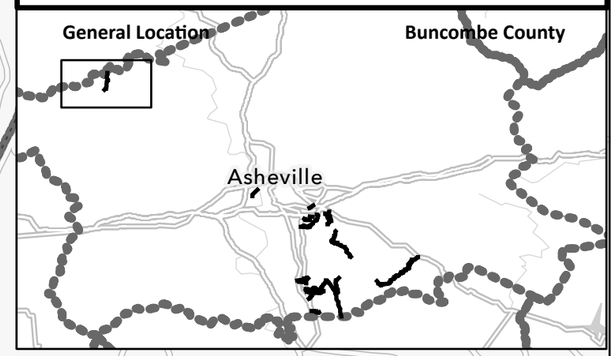
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

WBS - 2026CPT.13.09.20111 Sheet 1



MADISON COUNTY LINE

MADISON COUNTY LINE

MADISON COUNTY LINE

Canto

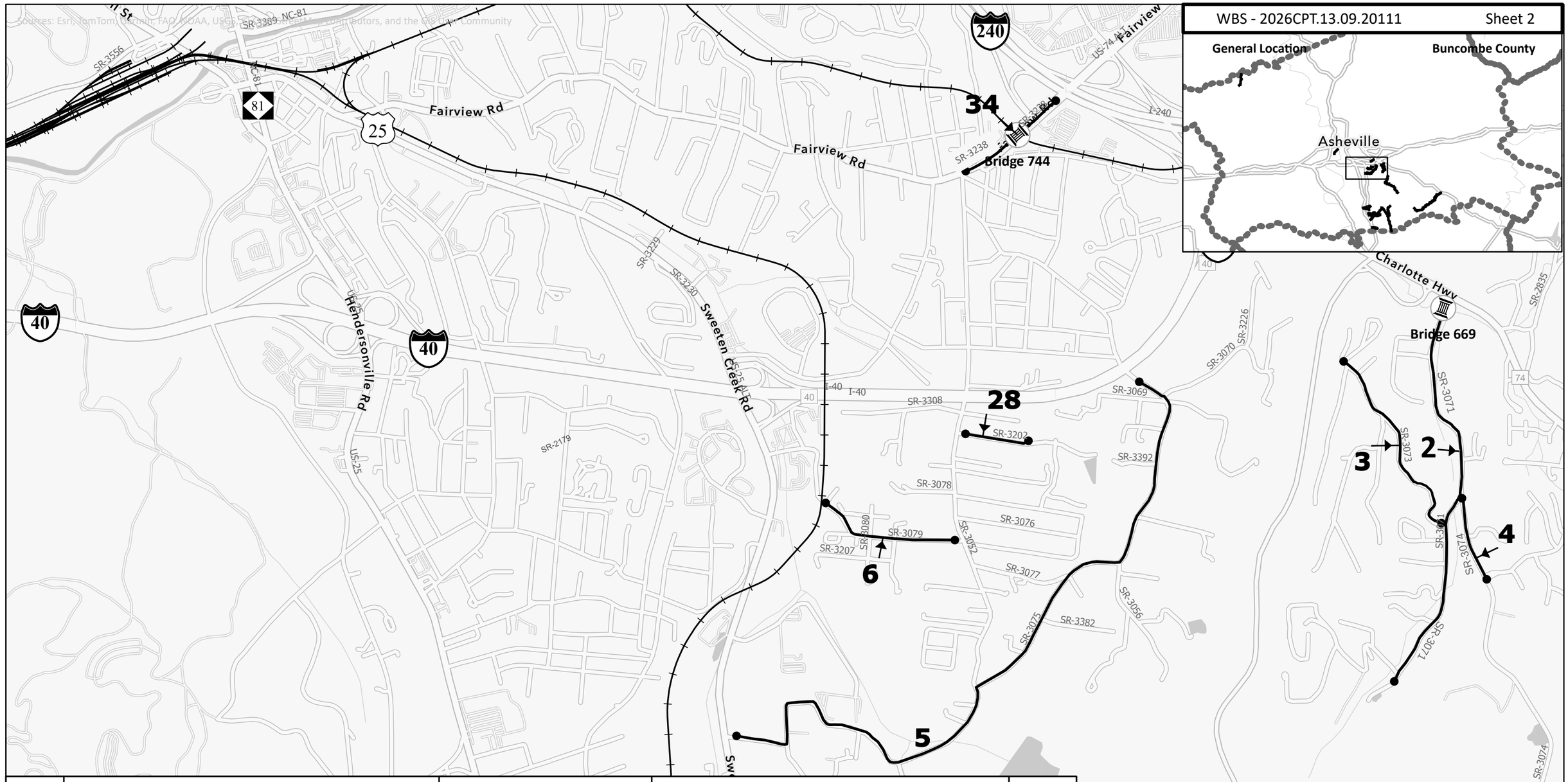
1

NC 63

MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
1	SR 1001 (MEADOWS TOWN ROAD)	MADISON COUNTY LINE BRIDGE ABUTMENT	NC 63	1.37

0 0.25 0.5 Miles

N



MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
2	SR 3071 (AVONDALE ROAD)	US 74 ALTERNATE	END OF MAINTENANCE	1.05
3	SR 3073 (LOVERS LOOP ROAD)	SR 3071 (AVONDALE ROAD)	END OF MAINTENANCE	0.56
4	SR 3074 (BEE RIDGE ROAD)	SR 3071 (AVONDALE ROAD)	LAUREL CREEK DRIVE (PRIVATE) PAVEMENT CHANGE	0.24
5	SR 3075 (ONTEORA BOULEVARD/ WEST CHAPEL ROAD)	I 40 BRIDGE ABUTMENT	US 25	1.95
6	SR 3079 (OAKVIEW PARK ROAD)	SR 3052 (SCHOOL ROAD)	RAIL ROAD	0.38
28	SR 3202 (OAKLEY DOGWOOD DRIVE)	SR 3052 (SCHOOL ROAD EAST)	END OF STATE MAINTENANCE	0.19
34	SR 3238 (FAIRVIEW ROAD)	I-240 EAST BRIDGE ABUTMENT	END OF MAINTENANCE	0.31

WBS - 2026CPT.13.09.20111 Sheet 3

General Location

Buncombe County

Asheville

27

33

8

Bridge 471

COUNTY LINE

COUNTY LINE

Oak Park

Fletcher

Hoopers Creek

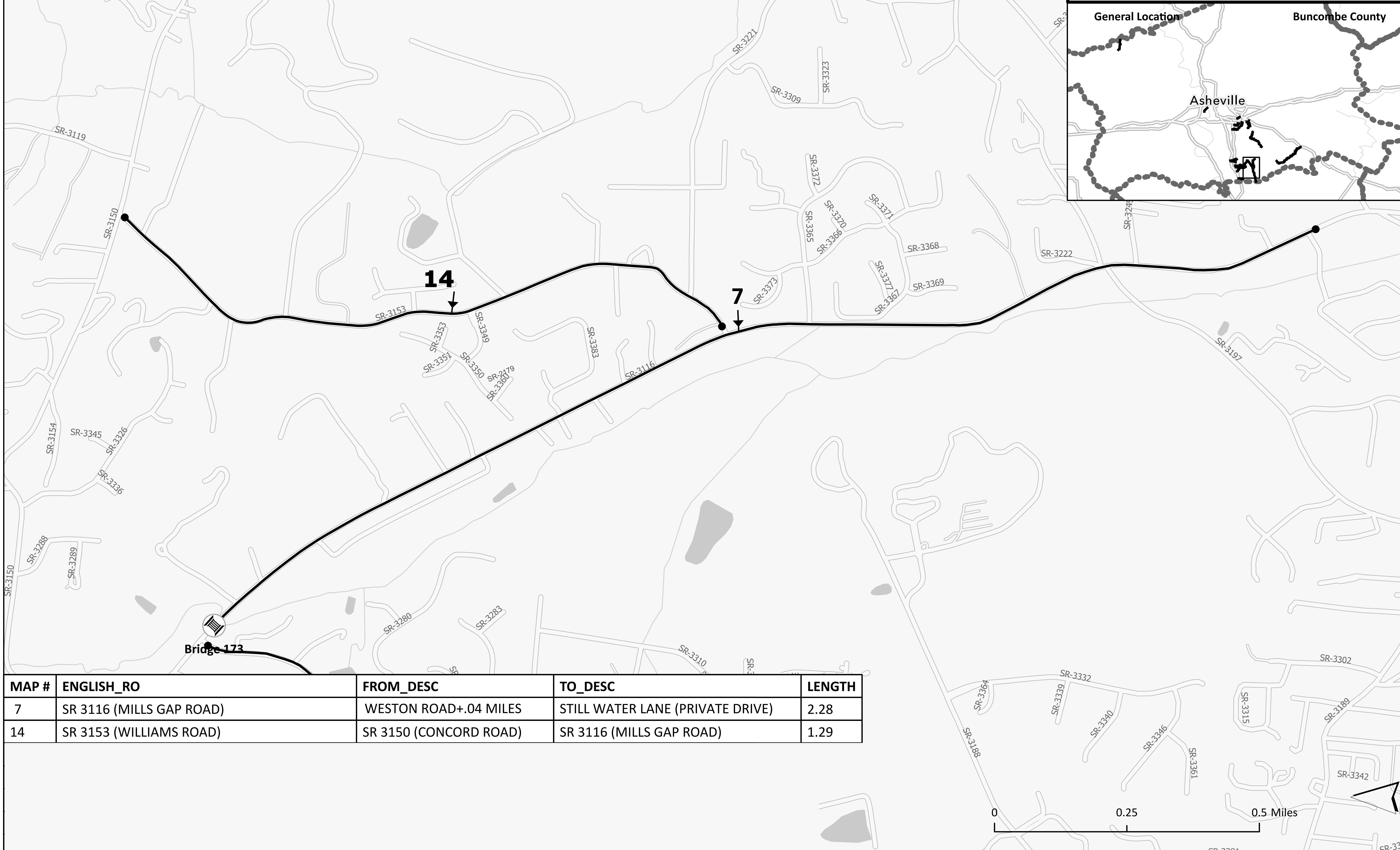
FLETCHER

MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
8	SR 3116 (MILLS GAP ROAD)	SR 3136 CANE CREEK ROAD + 0.1 MILE	COUNTY LINE	0.46
27	SR 3190 (ROYAL OAKS ROAD)	US 25	SR 3192 (FAIR OAKS ROAD)	0.29
33	SR 3233 (SOMERSET ROAD)	SR 3192 (FAIR OAKS ROAD)	END OF STATE MAINTENANCE	0.17

0 0.25 0.5 Miles

N

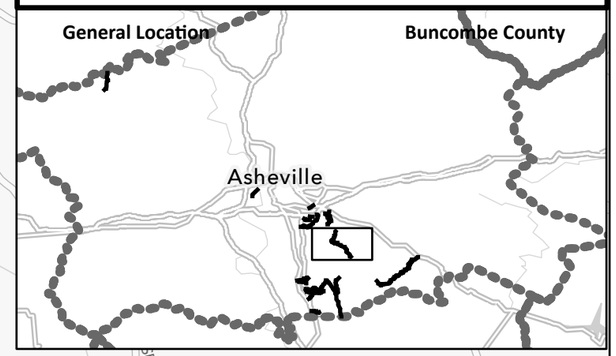
WBS - 2026CPT.13.09.20111 Sheet 4



MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
7	SR 3116 (MILLS GAP ROAD)	WESTON ROAD+.04 MILES	STILL WATER LANE (PRIVATE DRIVE)	2.28
14	SR 3153 (WILLIAMS ROAD)	SR 3150 (CONCORD ROAD)	SR 3116 (MILLS GAP ROAD)	1.29

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

WBS - 2026CPT.13.09.20111 Sheet 5



10

9

SR-3074
SR-3231
SR-3122
SR-3119
SR-3121
SR-3123
SR-3129
SR-3110
SR-3128
SR-3348
SR-3290
SR-3132

0 0.25 0.5 Miles

N

MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
9	SR 3119 (MERRILLS COVE ROAD)	SR 3132 (BOB BARNWELL ROAD) -.02 MILE	SR 3121 (ROSE HILL ROAD)	1.81
10	SR 3121 (ROSE HILL ROAD)	SR 3074 (BEE RIDGE ROAD)	SR 3119 (MERRILLS COVE ROAD)	1.05

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

WBS - 2026CPT.13.09.20111 Sheet 6

General Location Buncombe County

Asheville

11

12

13

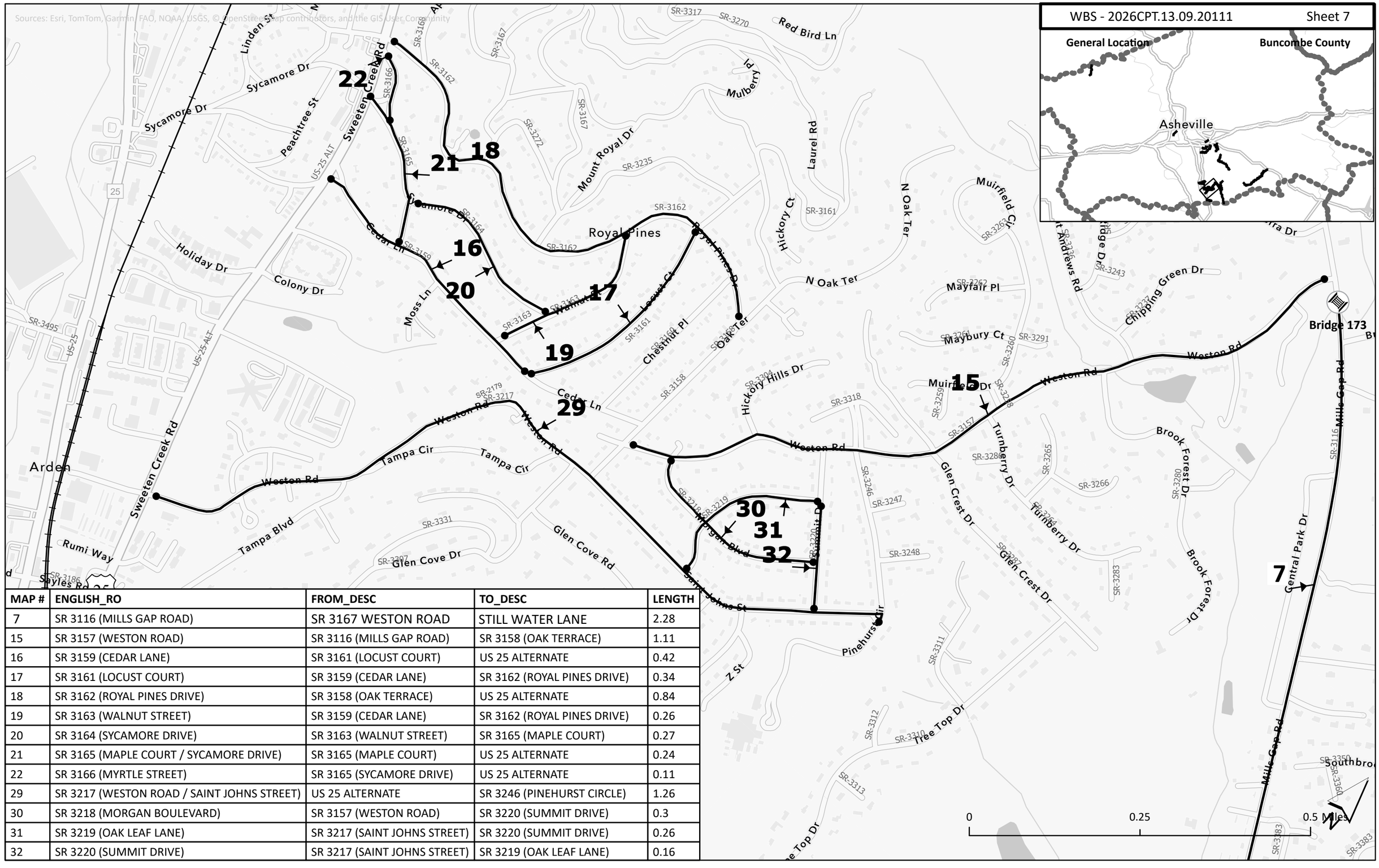
Bridge 090

Bridge 08

MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
11	SR 3138 (UPPER BRUSH CREEK ROAD)	US 74 ALTERNATE	SR 3142 (BRUSH CREEK ROAD)	1.82
12	SR 3138 (UPPER BRUSH CREEK ROAD/LOWER BRUSH CREEK ROAD)	SR 3142 (BRUSH CREEK ROAD)	END OF PAVEMENT	1.61
13	SR 3147 (LOWER BRUSH CREEK ROAD)	SR 3136 (CANE CREEK ROAD)	SR 3138 (UPPER BRUSH CREEK ROAD)	0.37

0 0.25 0.5 Miles

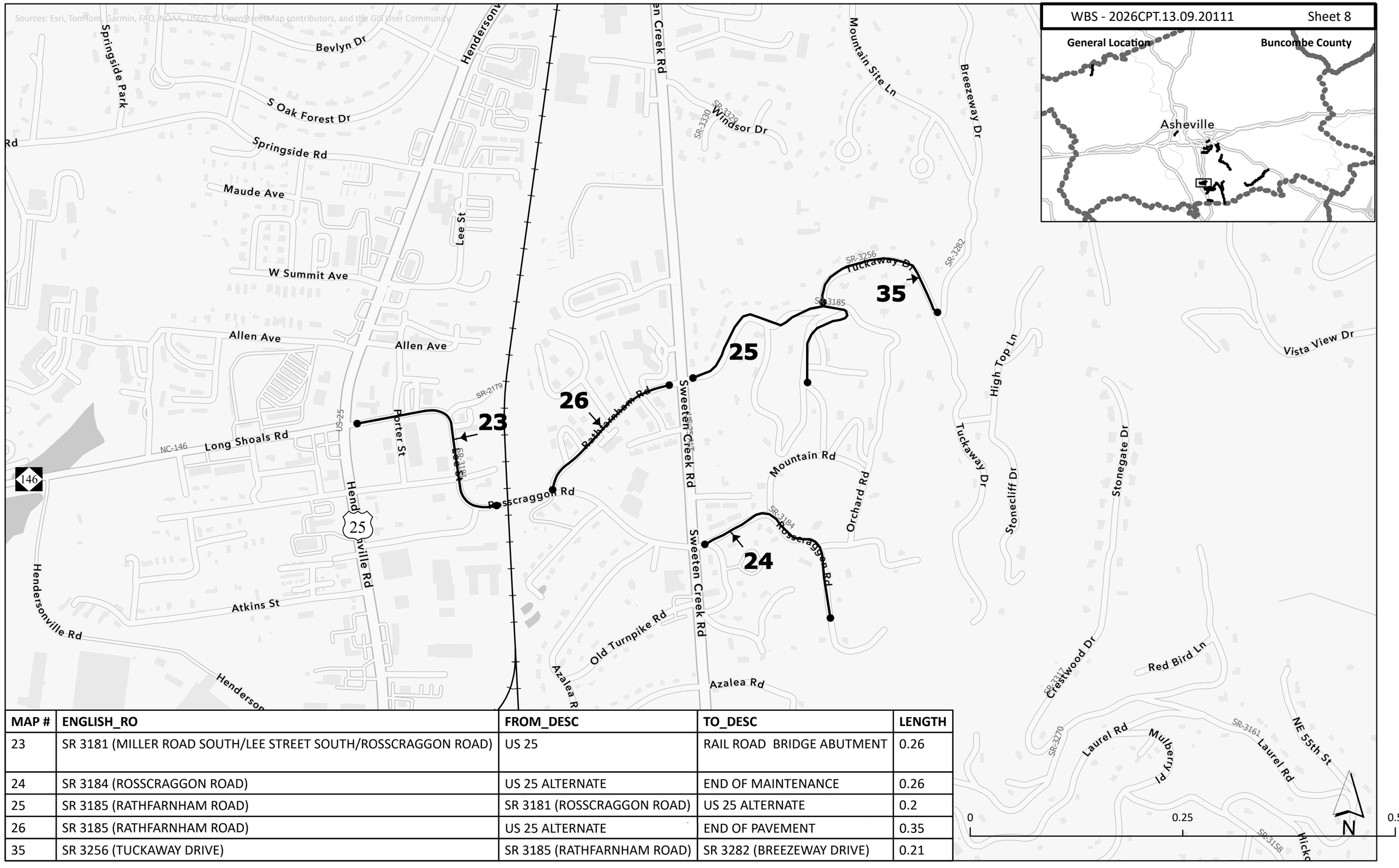
N



MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
7	SR 3116 (MILLS GAP ROAD)	SR 3167 WESTON ROAD	STILL WATER LANE	2.28
15	SR 3157 (WESTON ROAD)	SR 3116 (MILLS GAP ROAD)	SR 3158 (OAK TERRACE)	1.11
16	SR 3159 (CEDAR LANE)	SR 3161 (LOCUST COURT)	US 25 ALTERNATE	0.42
17	SR 3161 (LOCUST COURT)	SR 3159 (CEDAR LANE)	SR 3162 (ROYAL PINES DRIVE)	0.34
18	SR 3162 (ROYAL PINES DRIVE)	SR 3158 (OAK TERRACE)	US 25 ALTERNATE	0.84
19	SR 3163 (WALNUT STREET)	SR 3159 (CEDAR LANE)	SR 3162 (ROYAL PINES DRIVE)	0.26
20	SR 3164 (SYCAMORE DRIVE)	SR 3163 (WALNUT STREET)	SR 3165 (MAPLE COURT)	0.27
21	SR 3165 (MAPLE COURT / SYCAMORE DRIVE)	SR 3165 (MAPLE COURT)	US 25 ALTERNATE	0.24
22	SR 3166 (MYRTLE STREET)	SR 3165 (SYCAMORE DRIVE)	US 25 ALTERNATE	0.11
29	SR 3217 (WESTON ROAD / SAINT JOHNS STREET)	US 25 ALTERNATE	SR 3246 (PINEHURST CIRCLE)	1.26
30	SR 3218 (MORGAN BOULEVARD)	SR 3157 (WESTON ROAD)	SR 3220 (SUMMIT DRIVE)	0.3
31	SR 3219 (OAK LEAF LANE)	SR 3217 (SAINT JOHNS STREET)	SR 3220 (SUMMIT DRIVE)	0.26
32	SR 3220 (SUMMIT DRIVE)	SR 3217 (SAINT JOHNS STREET)	SR 3219 (OAK LEAF LANE)	0.16

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

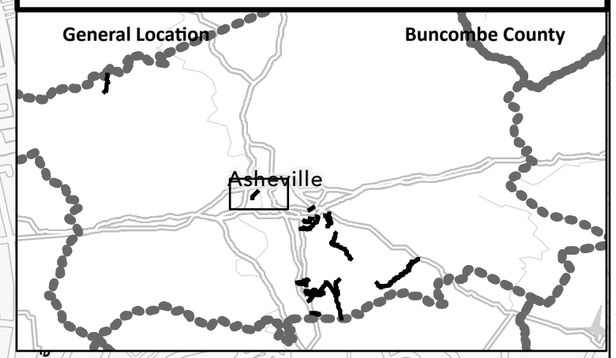
WBS - 2026CPT.13.09.20111 Sheet 8



MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
23	SR 3181 (MILLER ROAD SOUTH/LEE STREET SOUTH/ROSSCRAGGON ROAD)	US 25	RAIL ROAD BRIDGE ABUTMENT	0.26
24	SR 3184 (ROSSCRAGGON ROAD)	US 25 ALTERNATE	END OF MAINTENANCE	0.26
25	SR 3185 (RATHFARNHAM ROAD)	SR 3181 (ROSSCRAGGON ROAD)	US 25 ALTERNATE	0.2
26	SR 3185 (RATHFARNHAM ROAD)	US 25 ALTERNATE	END OF PAVEMENT	0.35
35	SR 3256 (TUCKAWAY DRIVE)	SR 3185 (RATHFARNHAM ROAD)	SR 3282 (BREEZEWAY DRIVE)	0.21

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

WBS - 2026CPT.13.09.20111 Sheet 9

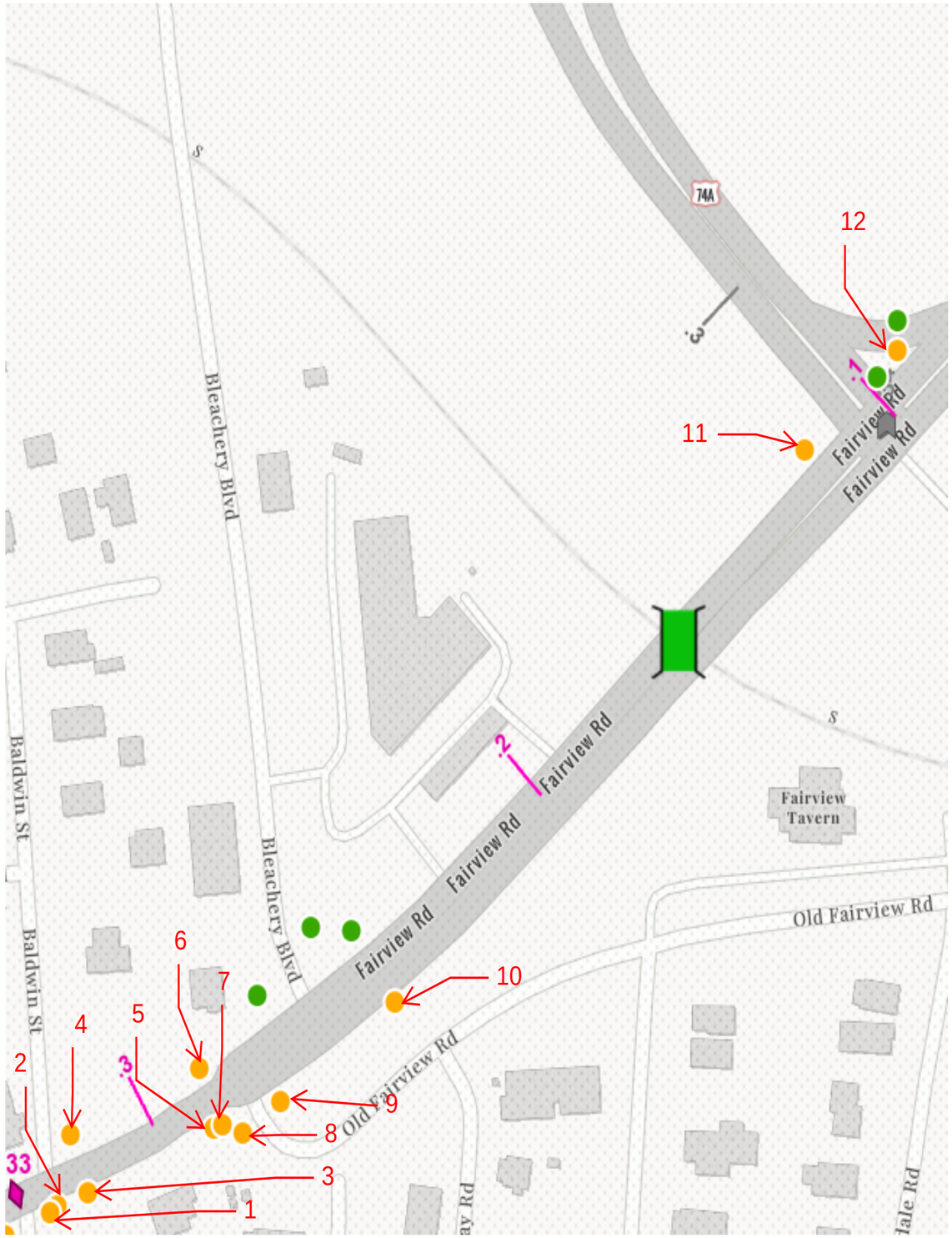


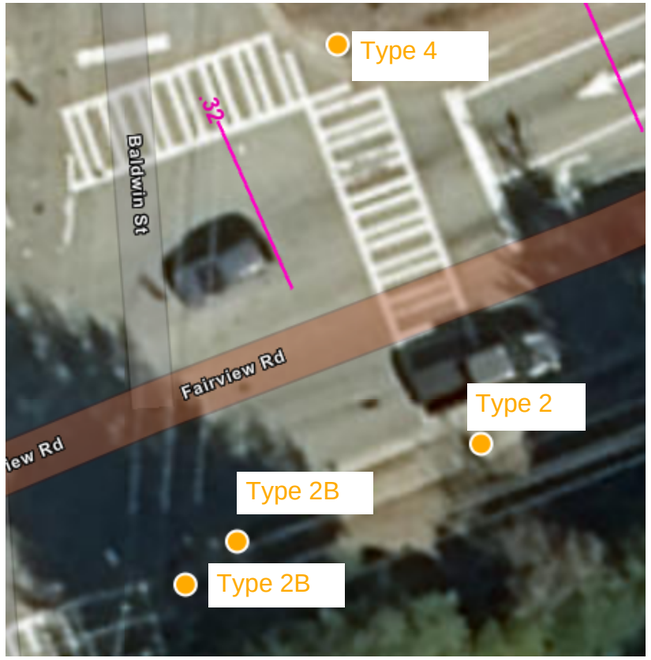
36

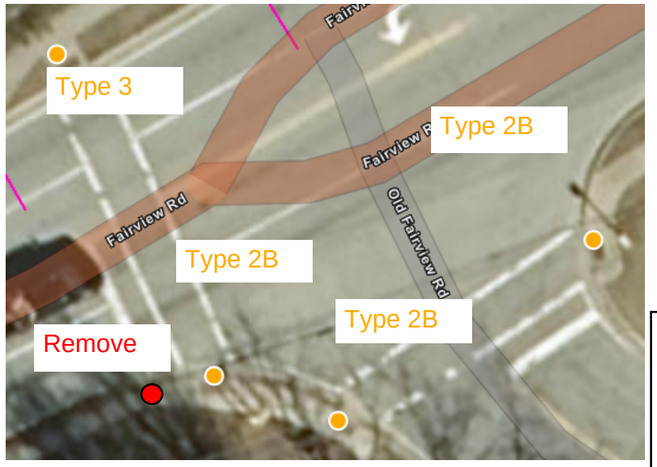
MAP #	ENGLISH_RO	FROM_DESC	TO_DESC	LENGTH
36	SR 3548 (HAYWOOD ROAD)	BRIDGE ABUTMENT AT CRAVEN STREET	BEVERLY ROAD (CITY) -.01 MILE AT CROSSWALK	0.6

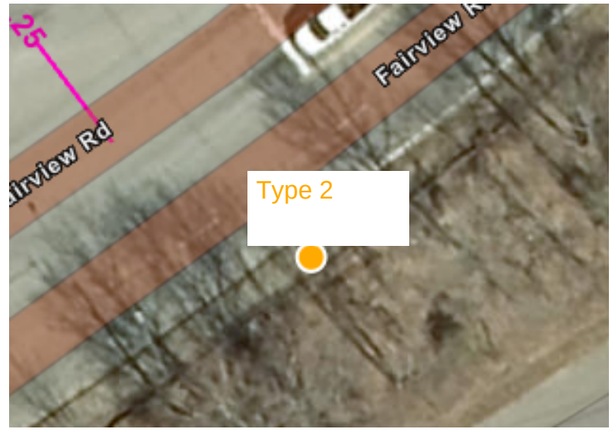
0 0.25 0.5 Miles

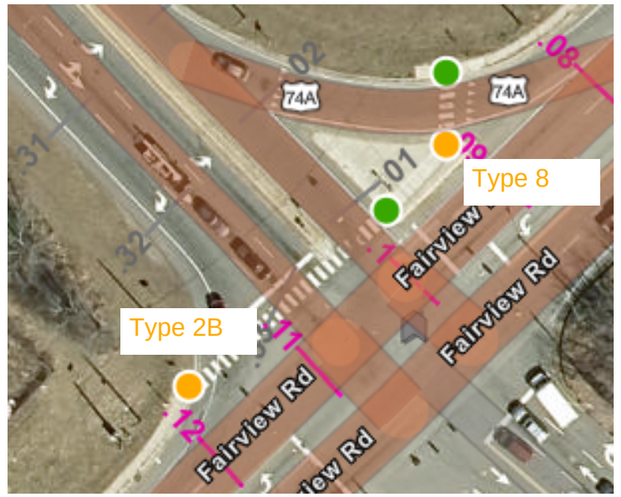
N











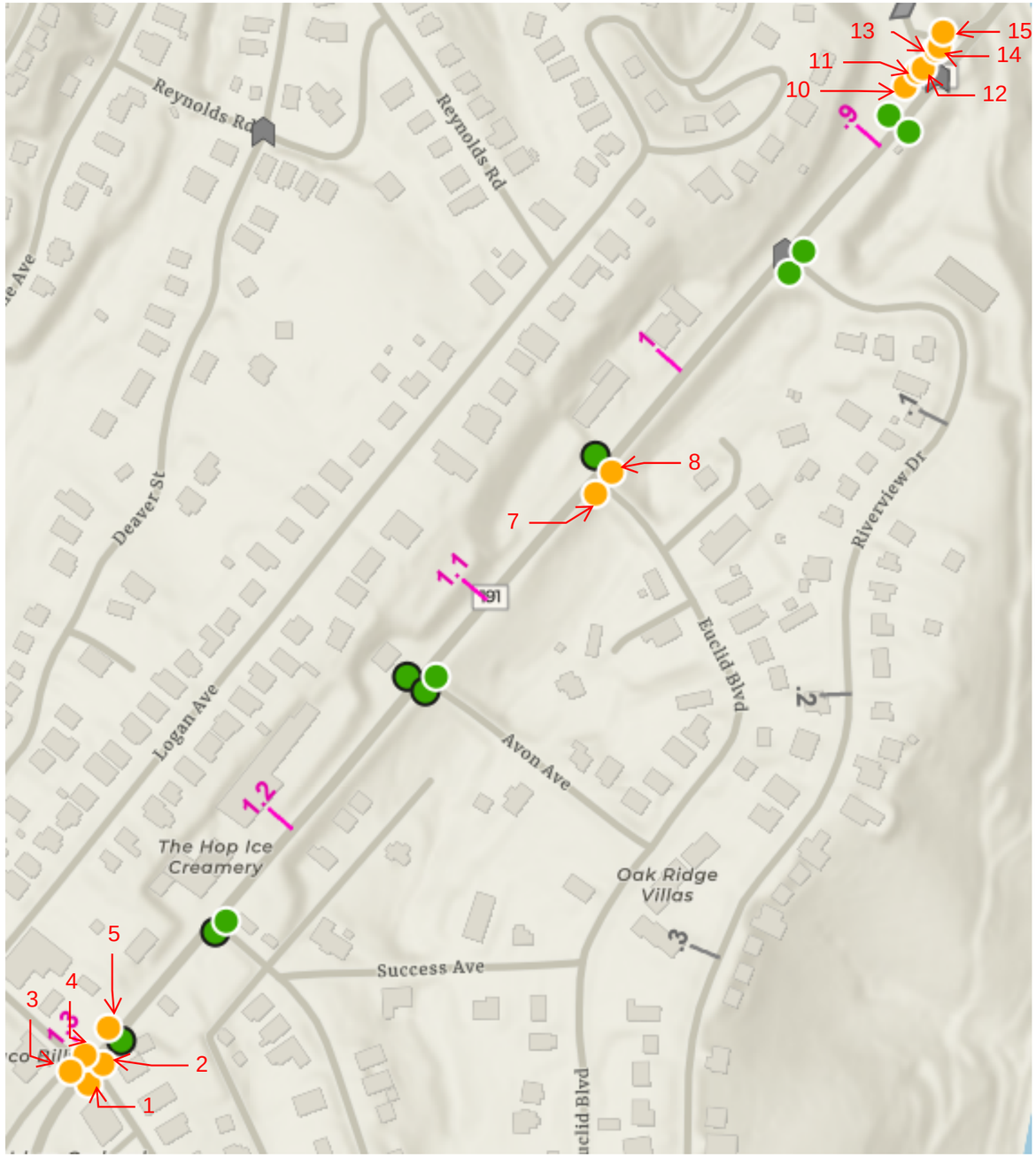
REMOVE AND REPLACE

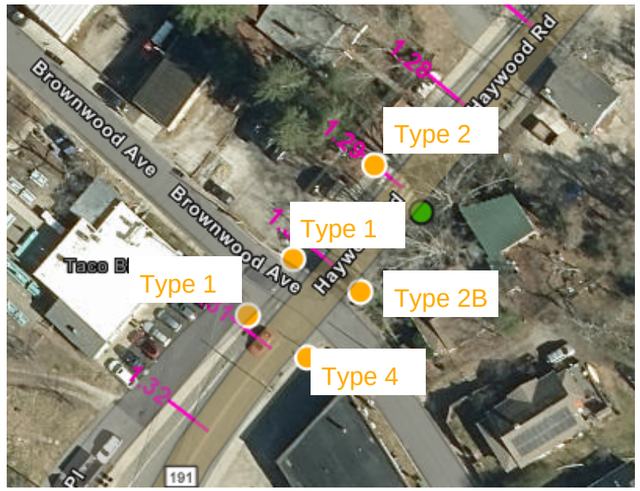
REMOVE RAMP

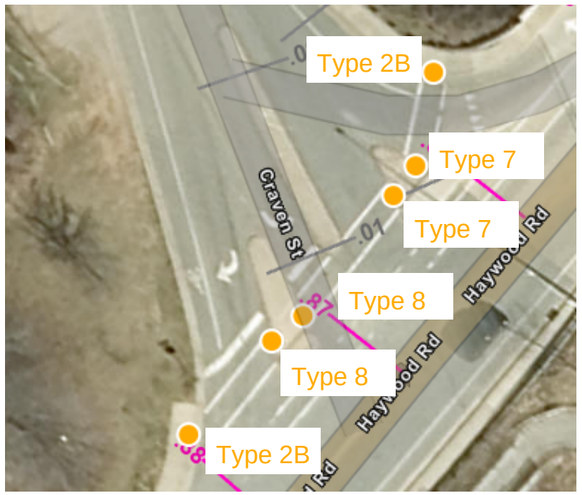
N

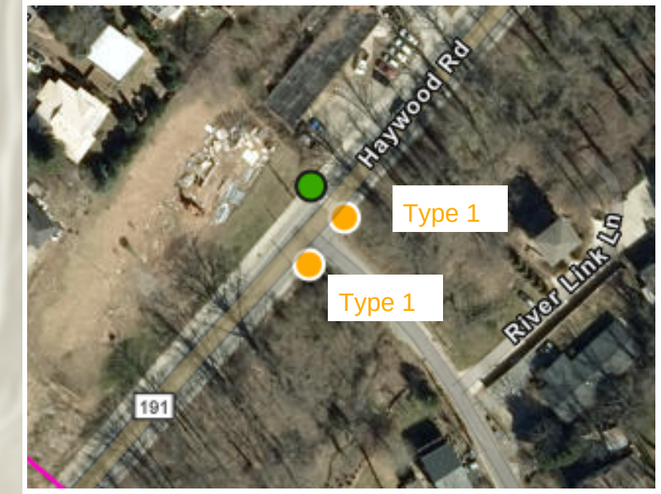
SR 3238 FAIRVIEW LANE
WBS NUMBER
2026CPT.13.09.20111
SHEET 10
FROM I-240 EAST BRIDGE ABUTMENT
TO END OF MAINTENANCE

NORTH CARLOINA DEPARTMENT
OF TRANSPERTATION DIVISION 13









REMOVE AND REPLACE

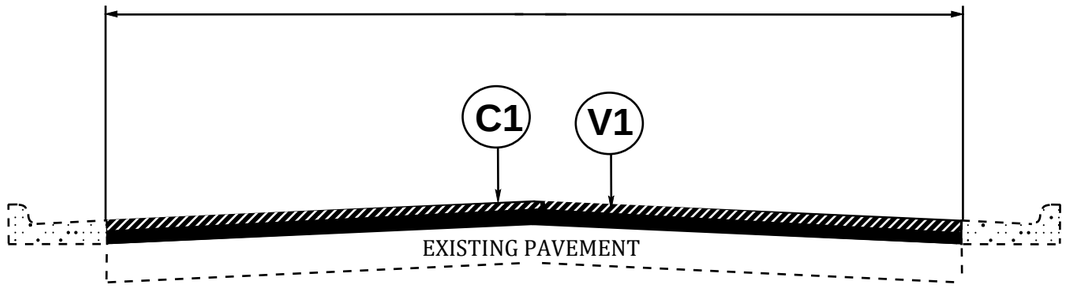
N

SR 3548 HAYWOOD ROAD
WBS NUMBER
2026CPT.13.09.20111
SHEET 11
FROM BRIDGE ABUTMENT AT CRAVEN STREET
TO BEVERLY ROAD (CITY) -.01 MILE AT CROSSWALK

NORTH CARLOINA DEPARTMENT
OF TRANSPERTATION DIVISION 13

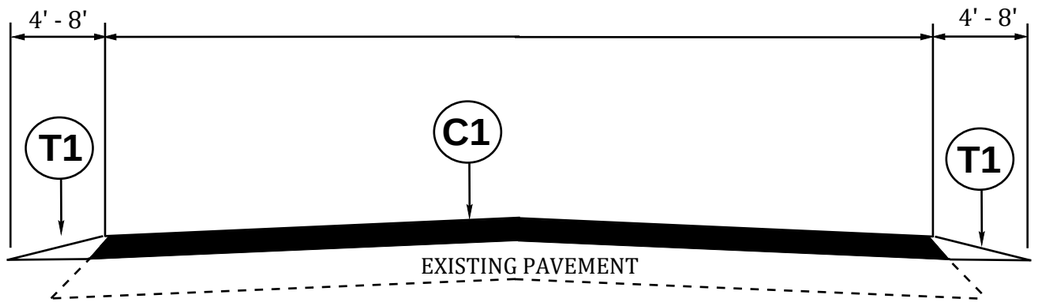
PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	12

Variable 19.5' - 33'



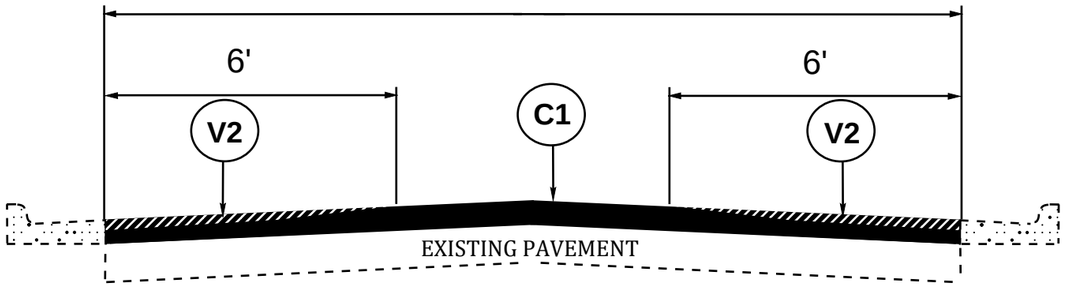
TYPICAL SECTION #1

Variable 18' - 24'



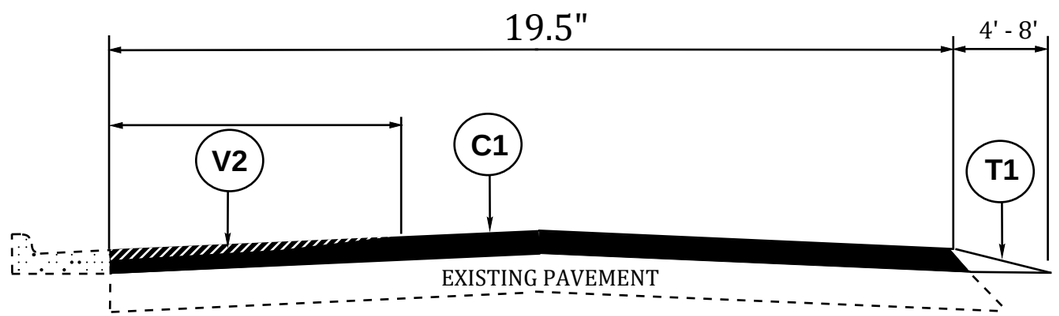
TYPICAL SECTION #2

Variable 18' - 60'



TYPICAL SECTION #3

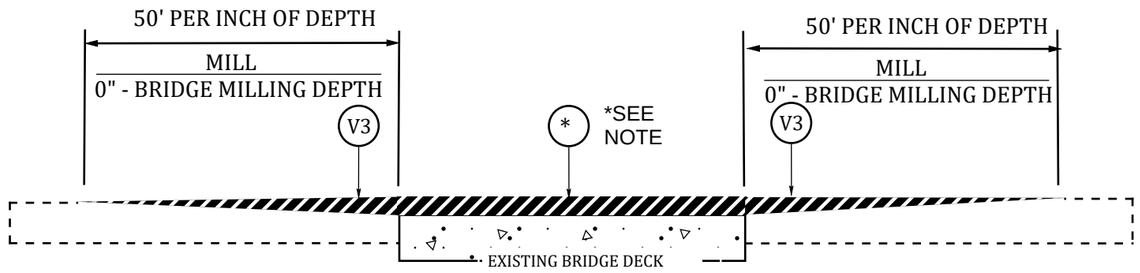
19.5"



TYPICAL SECTION #4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT TO 1-1/2" DEPTH
V2	MILLING ASPHALT PAVEMENT 0" TO 1-1/2"
V3	INCIDENTAL MILLING

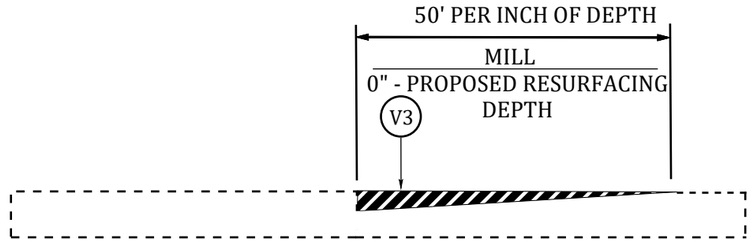
PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	13



*COORDINATE WITH BRIDGE MAINTENANCE TO REMOVE EXISTING ASPHALT AT LEAST 15 DAYS BEFORE RESURFACING BEGINS. NO PAYMENT WILL BE MADE FOR ASPHALT REMOVED BY NCDOT FORCES.

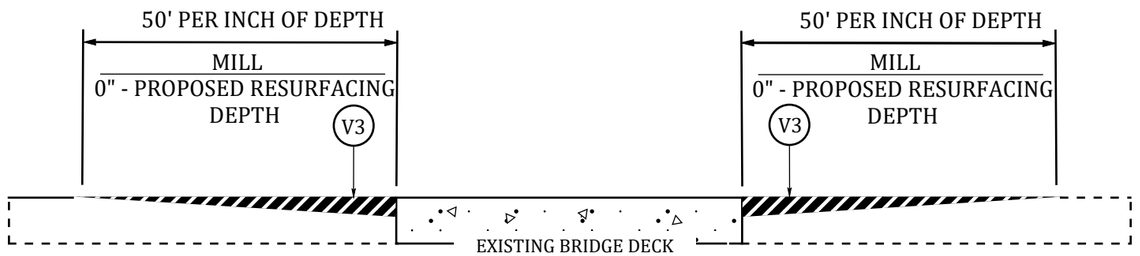
MILLING DETAIL AT BRIDGE APPROACHES

WHERE BRIDGES WILL BE MILLED THEN RESURFACED.
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.
USE AT BRIDGE NUMBER: 090 MAP 12, AND
089 MAP 13.



MILLING DETAIL TO TIE INTO EXIST PAVEMENT

THE CONTRACTOR'S ATTENTION IS DIRECTED TO
THE FACT THAT HE WILL BE REQUIRED TO MILL
THE EXISTING ASPHALT PAVEMENT TO ENSURE A PROPER
TIE-IN WITH THE EXISTING SURFACE AT THE BEGINNING, END
AND Y LINES OF EACH MAP TO BE RESURFACED WITH
ASPHALT CONC SURFACE COURSE, TYPE 9.5B OR S9.5C.
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.

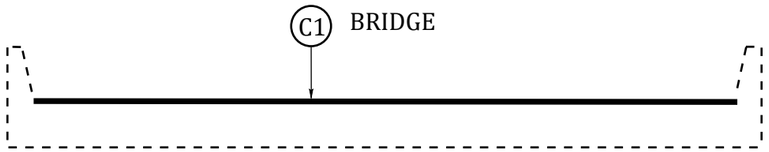


MILLING DETAIL AT BRIDGE APPROACHES

WHERE BRIDGES WILL NOT BE RESURFACED.
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.
USE AT BRIDGE NUMBER:173 MAP 7 794 MAP 10, 172 MAP
23, 744 MAP 34, AND 059 MAP 34.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT TO 1-1/2" DEPTH
V2	MILLING ASPHALT PAVEMENT 0" TO 1-1/2"
V3	INCIDENTAL MILLING

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	14

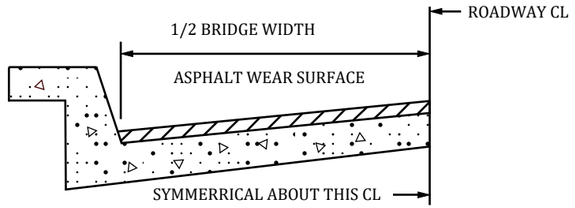


BRIDGE DETAIL

BRIDGE NUMBER 471 MAP 8, 090 MAP 12 AND
089 MAP 13
SEE MAP FOR BRIDGE LOCATION.

COORDINATE WITH BRIDGE MAINTENANCE TO REMOVE EXISTING ASPHALT 15 DAYS BEFORE RESURFACING BEGINS.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
T1	SHOULDER RECONSTRUCTION
V1	MILLING ASPHALT PAVEMENT TO 1-1/2" DEPTH
V2	MILLING ASPHALT PAVEMENT 0" TO 1-1/2"
V3	INCIDENTAL MILLING



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.

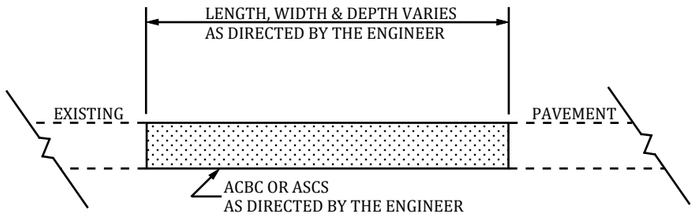
THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", S9.5B 1", S9.5C,D 1.5" - 2". ULTRA-THIN HOT MIX ASPHALT ".

NOTES

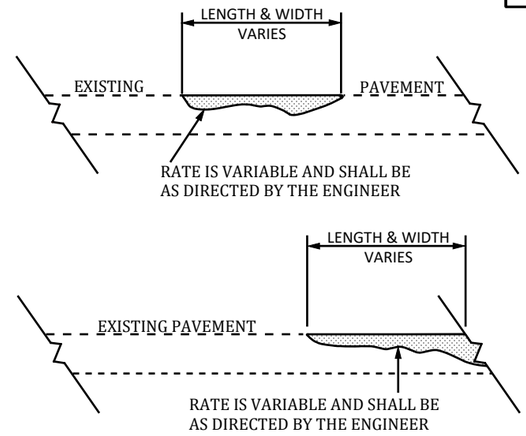
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.

SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.

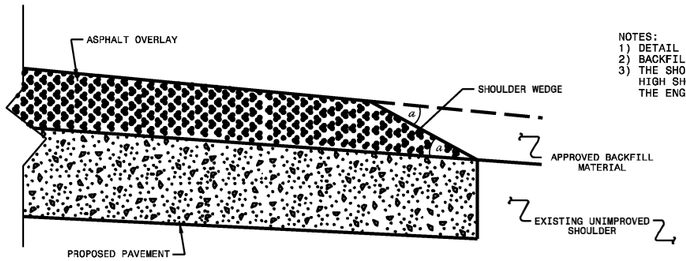
BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



PATCHING EXISTING PAVEMENT

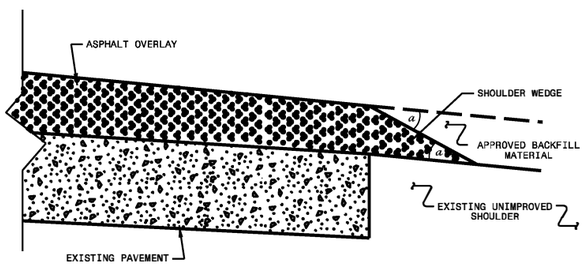


DETAIL SHOWING METHOD OF WEDGING

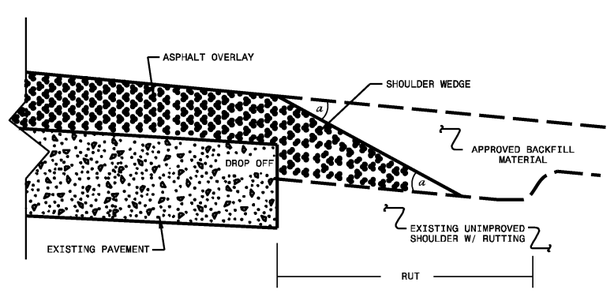


NOTES:
1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS DIRECTED BY THE ENGINEER.

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

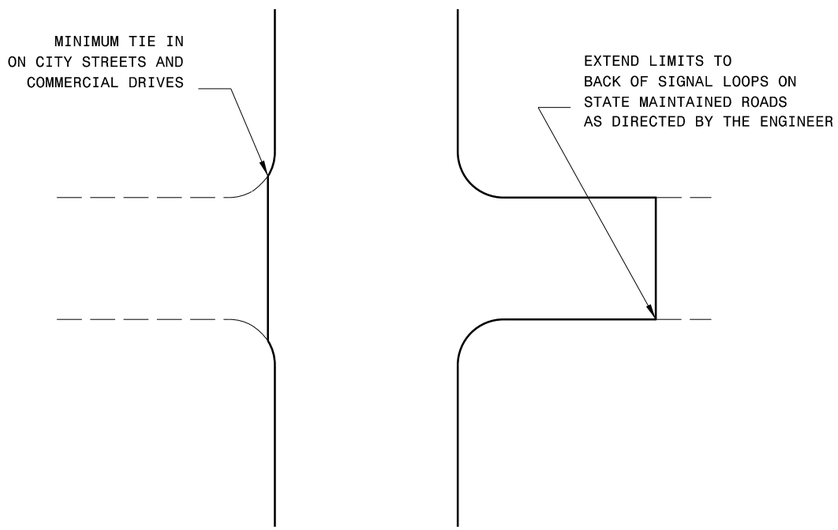


SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)

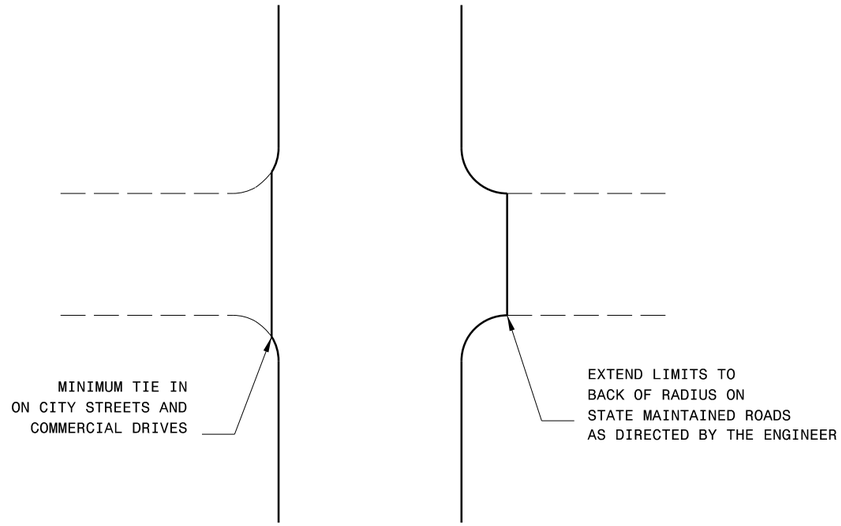


SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to Rutted Shoulder)

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	16



TYPICAL DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)		
Extend paving limits to back of radius or loop on the following intersections:		
MAP#	STREET NAME	COMMENTS
ALL MAPS	ALL STREETS	50' TYPICAL
		EXTEND PAVING LIMITS PAST BACK
		OF INITIAL SET OF SIGNALS LOOPS
		OR CONCRETE ISLAND 5' WHEN
		PRESENT ON SR ROADS AS
		DIRECTED BY ENGINEER.
		FOLLOW DETAIL ABOVE FOR TIE -
		INS ON CITY STREETS AND
		COMMERCIAL DRIVES

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	17

BRIDGE DATA

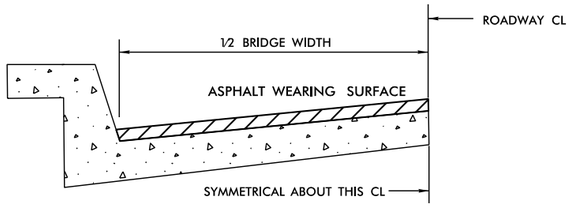
Map No.	Route No.	Route Name	Bridge No.	Posted SV	Posted TSS	Recommended Treatment, From Bridge Maintenance
7	3116	MILLS GAP ROAD	100173			DO NOT PAVE
8	3116	MILLS GAP ROAD	100471			COORDINATE WITH BRIDGE MAINTENANCE TO REMOVE EXISTING ASPHALT 15 DAYS BEFORE RESURFACING BEGINS.
10	3121	ROSE HILL ROAD	100794			DO NOT PAVE
12	3138	UPPER BRUSH CREEK ROAD	100090			COORDINATE WITH BRIDGE MAINTENANCE TO REMOVE EXISTING ASPHALT 15 DAYS BEFORE RESURFACING BEGINS.
13	3147	UPPER BRUSH CREEK ROAD	100089			COORDINATE WITH BRIDGE MAINTENANCE TO REMOVE EXISTING ASPHALT 15 DAYS BEFORE RESURFACING BEGINS.
23	3181	MILLER ROAD / LEE STREET	100172			DO NOT PAVE
34	3238	FAIRVIEW ROAD	100744			DO NOT PAVE
34	3238	FAIRVIEW ROAD	100059			DO NOT PAVE

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	18

CURB RAMP DATA

MAP NO	ROUTE	ROUTE NAME	LATITUDE	LONGITUDE	RECOMMENED TYPE
34	3256	FAIRVIEW ROAD	35.564838	-82.511759	TYPE 2B
34	3256	FAIRVIEW ROAD	35.564855	-82.511734	TYPE 2B
34	3256	FAIRVIEW ROAD	35.564892	-82.511621	TYPE 2
34	3256	FAIRVIEW ROAD	35.565043	-82.511687	TYPE 4
34	3256	FAIRVIEW ROAD	35.565060	-82.511156	REMOVE
34	3256	FAIRVIEW ROAD	35.565069	-82.511120	TYPE 2B
34	3256	FAIRVIEW ROAD	35.565048	-82.511050	TYPE 2B
34	3256	FAIRVIEW ROAD	35.565131	-82.510905	TYPE 2B
34	3256	FAIRVIEW ROAD	35.565217	-82.511209	TYPE 3
34	3256	FAIRVIEW ROAD	35.565395	-82.510483	TYPE 2
34	3256	FAIRVIEW ROAD	35.566845	-82.508967	TYPE 2B
34	3256	FAIRVIEW ROAD	35.567110	-82.508620	TYPE 8
36	3548	HAYWOOD ROAD	35.579957	-82.574199	TYPE 4
36	3548	HAYWOOD ROAD	35.580049	-82.574108	TYPE 2B
36	3548	HAYWOOD ROAD	35.580017	-82.574301	TYPE 1
36	3548	HAYWOOD ROAD	35.580094	-82.574223	TYPE 1
36	3548	HAYWOOD ROAD	35.580226	-82.574084	TYPE 2
36	3548	HAYWOOD ROAD	35.582801	-82.571191	TYPE 1
36	3548	HAYWOOD ROAD	35.582906	-82.571094	TYPE 1
36	3548	HAYWOOD ROAD	35.584760	-82.569357	TYPE 2B
36	3548	HAYWOOD ROAD	35.584829	-82.569281	TYPE 8
36	3548	HAYWOOD ROAD	35.584847	-82.569254	TYPE 8
36	3548	HAYWOOD ROAD	35.584936	-82.569171	TYPE 7
36	3548	HAYWOOD ROAD	35.584957	-82.569151	TYPE 7
36	3548	HAYWOOD ROAD	35.585026	-82.569135	TYPE 2B

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	19



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. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", S9.5B 1", S9.5C,D 1.5" – 2". ULTRA–THIN HOT MIX ASPHALT – TYPE A 3/4". ULTRA–THIN HOT MIX ASPHALT – TYPE B 5/8". ULTRA–THIN HOT MIX ASPHALT – TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1", S9.5B 1.5", S9.5C,D 2". ULTRA–THIN HOT MIX ASPHALT – TYPE A 3/4", ULTRA–THIN HOT MIX ASPHALT – TYPE B 5/8", ULTRA–THIN HOT MIX ASPHALT HOT MIX ASPHALT – TYPE C 1/2".

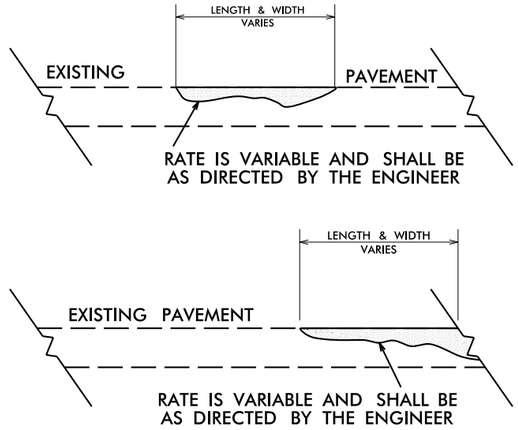
NOTES

ALL UNPAVED 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.

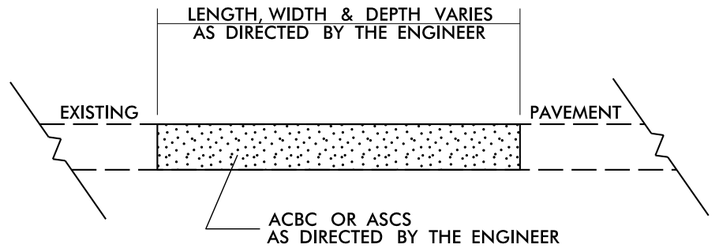
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.

SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.

BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



DETAIL SHOWING METHOD OF WEDGING



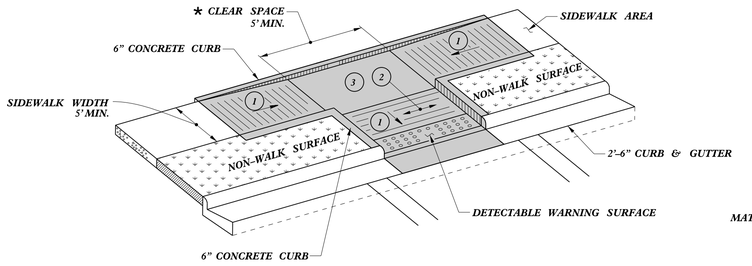
PATCHING EXISTING PAVEMENT

6/2/99
02-FEB-2023 11:00
C:\Users\ext_dlcansdale\State of North Carolina\NCDOT - Division 13 - Resurfacing\2023 - Burke\03 - Let Preparation- CR\2023 Burke CR _DDC.pmi.dgn
$$$$ICENAME$$$$

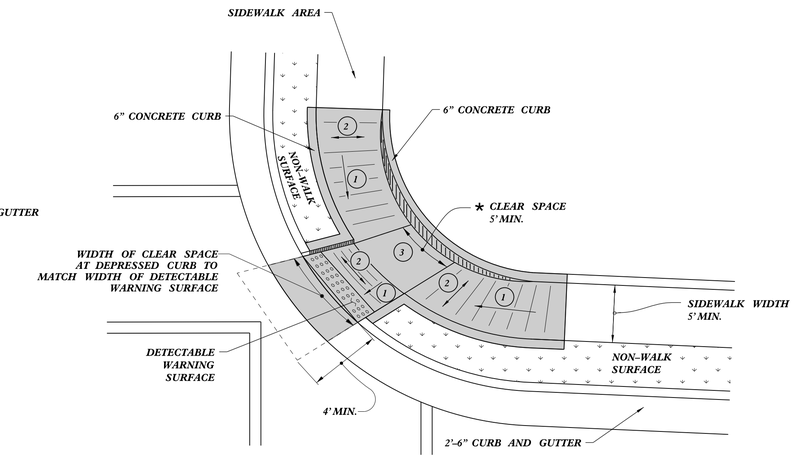
Docusign Envelope ID: 8E1203A9-2682-8980-8191-EA8C23C5F3A7

PROJECT REFERENCE NO.	SHEET NO.
2026CPT.13.09.20111	20

* – *WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4'MINIMUM X 5'MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.*



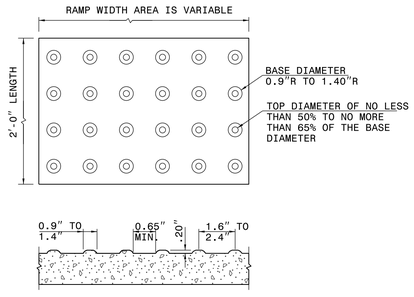
TYPE 3



TYPE 3 MODIFIED
INSTALLATION IN A RADIUS

NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE

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

(2) *CROSS SLOPE: 2.00%*

(3) *MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.*

PAY LIMITS FOR 1 CURB RAMP

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

ROADWAY DETAIL DRAWING FOR
CURB RAMP
PARALLEL RAMP

SHEET 9 OF13

848D06

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M HACKLER
Nicole M. Hackler
5884323D34164C5... 4/6/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

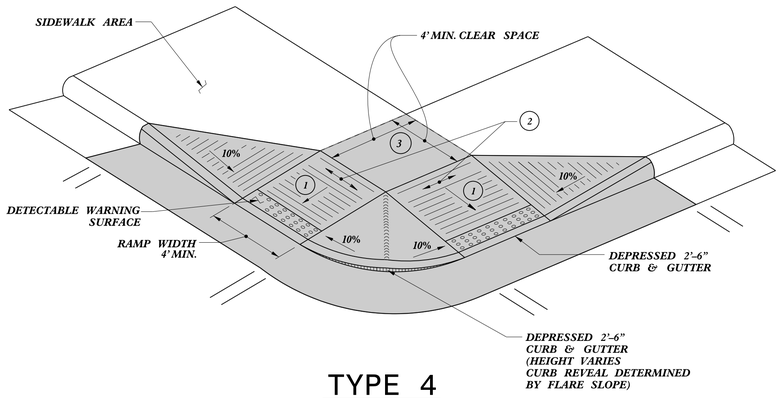
CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

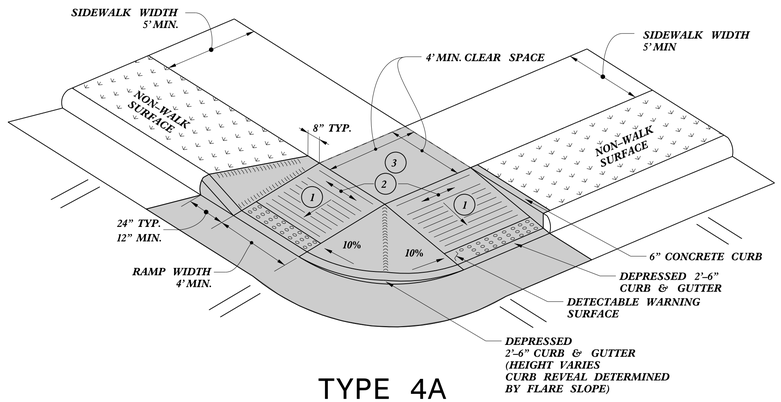
ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: special details\nmhackler\D0609.dgn

Docusign Envelope ID: 8E1203A9-2682-8980-8191-EA8C23C5F3A7

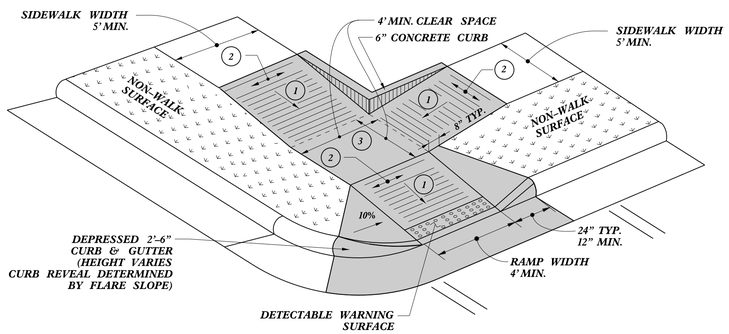
PROJECT REFERENCE NO.	SHEET NO.
2026CPT.13.09.20111	21



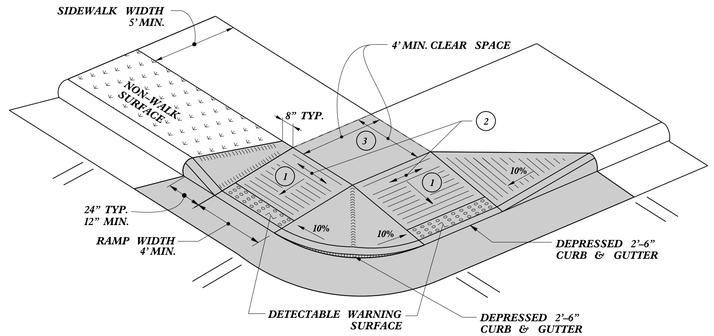
TYPE 4



TYPE 4A



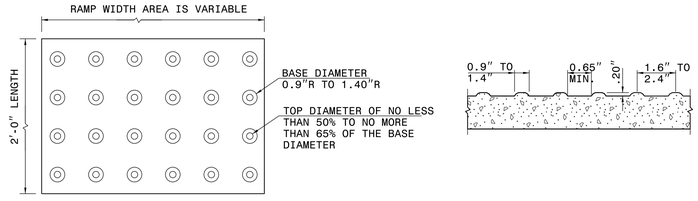
TYPE 4B



TYPE 4C

NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

PAY LIMITS FOR 1 OR 2 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES

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

ROADWAY DETAIL DRAWING FOR

CURB RAMP

SHARED LANDING

SHEET 10 OF 13

848D06

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M. HACKLER

Signed by: Nicole M. Hackler 4/6/2026
58843230346C5...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: special details\nmhackler\848D0610.dgn

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	22

SUMMARY OF QUANTITIES

											1220000000-E	1245000000-E	1260000000-E	1297000000-E	1308000000-E	1330000000-E	1519000000-E	1575000000-E	1704000000-E	2549000000-E	2591000000-E	2612500000-N	2759000000-N	2815000000-N	2830000000-N	2845000000-N	2846000000-N	7444000000-E	7456100000-E
MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP		INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH	MILLING ASPHALT PAVEMENT, 0" TO 1-1/2"	INCIDENTAL MILLING	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CONCRETE CURB & GUTTER	4" CONCRETE SIDEWALK	REMOVE AND REPLACE CONCRETE CURB RAMPS	"GENERIC" REMOVE CONCRETE CURB RAMP	ADJUSTMENT OF DROP INLET	ADJUSTMENT OF MANHOLES	ADJUSTMENT OF METER BOXES OR VALVE BOXES	ADJUSTMENT OF OVERSIZED MANHOLES	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2)
						MI	FT				TON	SMI	TON	SY	SY	SY	TON	TON	TON	LF	SY	EA	EA	EA	EA	EA	EA	LF	LF
1	SR 1001 (MEADOWS TOWN ROAD)	FROM MADISON COUNTY LINE BRIDGE ABUTMENT TO NC 63	1	2	2WU	1.37	19.50	0.03	1.40		44			16,016			1,387	100	200										
2	SR 3071 (AVONDALE ROAD)	FROM US 74 ALTERNATE TO END OF MAINTENANCE	1	2	2WU	1.05	18.00	0.02	1.07		5			11,588		762	1,025	68	25						3		258	445
3	SR 3073 (LOVERS LOOP ROAD)	FROM SR 3071 (AVONDALE ROAD) TO END OF MAINTENANCE	2	2	2WU	0.56	18.00	0.00	0.56		14	1.12	146				524	42	157							1		
4	SR 3074 (BEE RIDGE ROAD)	FROM SR 3071 (AVONDALE ROAD) TO LAUREL CREEK DRIVE (PRIVATE) PAVEMENT CHANGE	2	2	2WU	0.24	18.00	0.00	0.24		8	0.48	63			115	225	15	11									
5	SR 3075 (ONTEORA BOULEVARD/WEST CHAPEL ROAD)	FROM I 40 BRIDGE ABUTMENT TO US 25	1	2	2WU	1.95	19.50	0.05	2.00		124			22,308			1,975	130	25						14	22		
6	SR 3079 (OAKVIEW PARK ROAD)	FROM SR 3052 (SCHOOL ROAD EAST) TO RAIL ROAD	2	2	2WU	0.38	19.00	0.01	0.39		28	0.76	99			256	375	31	128						1	2		
7	SR 3116 (MILLS GAP ROAD)	FROM SR 3157 WESTON ROAD +0.04 MILES TO STILL WATER LANE (PRIVATE DRIVE) +0.02 MILES	1	2	2WU	2.28	24.00	1.96	4.24		50			32,102		400	2,842	186	35									
8	SR 3116 (MILLS GAP ROAD)	FROM SR 3136 CANE CREEK RD + 0.1 MILE TO COUNTY LINE	1	2	2WU	0.46	24.00	4.46	4.92		10			6,477		400	574	38	12									
9	SR 3119 (MERRILLS COVE ROAD)	FROM SR 3132 (BOB BARNWELL ROAD) -.02 MILE TO SR 3121 (ROSE HILL ROAD)	2	2	2WU	1.81	19.50	1.92	3.73		24	3.62	471				1,833	123	78									
10	SR 3121 (ROSE HILL ROAD)	FROM SR 3074 BEE RIDGE ROAD TO SR 3119 MERRILLS COVE ROAD	2	2	2WU	1.05	19.50	1.19	2.24		98	2.34	304			325	1,064	73	77									
11	SR 3138 (UPPER BRUSH CREEK ROAD)	FROM US 74 ALTERNATE TO SR 3142 (BRUSH CREEK ROAD)	1	2	2WU	1.82	19.50	0.01	1.83		10			21,521		325	1,905	126	40									
12	SR 3138 (UPPER BRUSH CREEK ROAD/LOWER BRUSH CREEK ROAD)	FROM SR 3142 (BRUSH CREEK ROAD) TO END OF PAVEMENT	1	2	2WU	1.61	19.50	1.84	3.45		5			18,964		325	1,679	111	40									
13	SR 3147 (LOWER BRUSH CREEK ROAD)	FROM SR 3136 (CANE CREEK ROAD) TO SR 3138 (UPPER BRUSH CREEK ROAD)	2	2	2WU	0.37	19.50	0.01	0.38		14	0.74	96			182	375	25	22								144	225
14	SR 3153 (WILLIAMS ROAD)	FROM SR 3150 (CONCORD ROAD) TO SR 3116 (MILLS GAP ROAD)	1	2	2WU	1.29	21.50	0.01	1.30		5			16,271			1,375	90	15									
15	SR 3157 (WESTON ROAD)	FROM SR 3116 (MILLS GAP ROAD) TO SR 3158 (OAK TERRACE)	2,4	2	2WU	1.11	19.50	0.01	1.12		12	2.14	278		299	2,556	1,124	81	160						8	13		204	250
16	SR 3159 (CEDAR LANE)	FROM SR 3161 (LOCUST COURT) TO US 25 ALTERNATE	2	2	2WU	0.42	18.00	0.00	0.42		34	0.88	115			457	418	32	100									
17	SR 3161 (LOCUST COURT)	FROM SR 3159 (CEDAR LANE) TO SR 3162 (ROYAL PINES DRIVE)	2	2	2WU	0.34	18.00	0.00	0.34		46	0.68	89				318	22	25					1	1	6			
18	SR 3162 (ROYAL PINES DRIVE)	FROM SR 3158 (OAK TERRACE) TO US 25 ALTERNATE	2	2	2WU	0.84	20.00	0.01	0.85		24	1.68	219			575	872	61	88						11	4		144	225
19	SR 3163 (WALNUT STREET)	FROM SR 3159 (CEDAR LANE) TO SR 3162 (ROYAL PINES DRIVE)	2	2	2WU	0.26	18.00	0.01	0.27		20	0.52	68				243	17	25						2	3		
20	SR 3164 (SYCAMORE DRIVE)	FROM SR 3163 (WALNUT STREET) TO SR 3165 (MAPLE COURT)	2	2	2WU	0.27	18.00	0.00	0.27		20	0.56	73				253	18	31									
21	SR 3165 (MAPLE COURT/SYCAMORE DRIVE)	FROM SR 3165 (MAPLE COURT) TO US 25 ALTERNATE	2	2	2WU	0.24	18.00	0.00	0.24		6	0.54	71				253	18	35									
22	SR 3166 (MYRTLE STREET)	FROM SR 3165 (SYCAMORE DRIVE) TO US 25 ALTERNATE	2	2	2WU	0.11	18.00	0.00	0.11		5	0.26	34			115	130	9	12						2			
23	SR 3181 (MILLER ROAD S/LEE STREET S/ROSSCRAGGON ROAD)	FROM US 25 TO RAIL ROAD BRIDGE ABUTMENT	3	2	2WU	0.26	20.00	0.01	0.27		10				225	897	270	18							8		288	250
24	SR 3184 (ROSSCRAGGON ROAD)	FROM US 25 ALTERNATE TO END OF MAINTENANCE	2	2	2WU	0.26	18.00	0.01	0.27		18	0.54	71			160	385	28	62							2		
25	SR 3185 (RATHFARNHAM ROAD)	FROM SR 3181 (ROSSCRAGGON ROAD) TO US 25 ALTERNATE	2	2	2WU	0.20	20.00	0.00	0.20		12	0.40	52			292	208	15	30							3		208	235
26	SR 3185 (RATHFARNHAM ROAD)	FROM US 25 ALTERNATE TO END OF PAVEMENT	2	2	2WU	0.35	18.00	0.22	0.57		14	0.70	91			220	328	25	80						1	1		208	230
27	SR 3190 (ROYAL OAKS ROAD)	FROM US 25 TO SR 3192 (FAIR OAKS ROAD)	2	2	2WU	0.29	18.00	0.01	0.30		10	0.58	75		125	625	272	24	127						4	3		
28	SR 3202 (OAKLEY DOGWOOD DRIVE)	FROM SR 3052 (SCHOOL ROAD EAST) TO END OF STATE MAINTENANCE	2	2	2WU	0.19	19.00	0.01	0.20		12	0.38	50			126	190	16	76									
29	SR 3217 (WESTON ROAD/SAINT JOHNS STREET)	FROM US 25 ALTERNATE TO SR 3246 (PINEHURST CIRCLE)	1	2	2WU	1.26	20.00	0.16	1.42		5			15,723			1,392	92	24					6	20	12	4		
30	SR 3218 (MORGAN BOULEVARD)	FROM SR 3157 (WESTON ROAD) TO SR 3220 (SUMMIT DRIVE)	2	2	2WU	0.30	25.00	0.00	0.30		6	0.60	78		2,112		390	26	15						5	6		
31	SR 3219 (OAK LEAF LANE)	FROM SR 3217 (SAINT JOHNS STREET) TO SR 3220 (SUMMIT DRIVE)	3	2	2WU	0.26	25.00	0.00	0.26		5				1,832		338	23	15					1	5	2		
32	SR 3220 (SUMMIT DRIVE)	FROM SR 3217 (SAINT JOHNS STREET) TO SR 3219 (OAK LEAF LANE)	3	2	2WU	0.16	25.00	0.00	0.16		7				1,126		208	14	12					2	5	2		
33	SR 3233 (SOMERSET ROAD)	FROM SR 3192 (FAIR OAKS ROAD) TO END OF STATE MAINTENANCE	2	2	2WU	0.17	20.00	0.00	0.17		16	0.34	45			220	176	15	67						2			
34	SR 3238 (FAIRVIEW ROAD)	FROM I-240 EAST BRIDGE ABUTMENT TO END OF MAINTENANCE	3	5	MU	0.31	60.00	0.02	0.33		5				1,975	1,654	1,035	69	30	30	16	12	1				676	1,500
35	SR 3256 (TUCKAWAY DRIVE)	FROM SR 3185 (RATHFARNHAM ROAD) TO SR 3282 (BREEZEWAY DRIVE)	2	2	2WU	0.21	20.00	0.00	0.21		5	0.42	55				218	20	122									
36	SR 3548 (HAYWOOD ROAD)	FROM BRIDGE ABUTMENT AT CRAVEN STREET TO BEVERLY ROAD (CITY) -.01 MILE AT CROSSWALK	1	2	2WU	0.60	33.00	0.86	1.46					11,859			1,048	68				15		6	4	2			568
TOTAL FOR PROJ NO. 2026CPT.13.09.20111						**24.65**					**731**	**20.28**	**2,643**	**172,829**	**7,694**	**10,987**	**27,227**	**1,869**	**2,001**	**30**	**16**	**27**	**1**	**16**	**88**	**92**	**4**	**2,130**	**3,928**
GRAND TOTAL						**24.65**					**731**	**20.28**	**2,643**	**172,829**	**7,694**	**10,987**	**27,227**	**1,869**	**2,001**	**30**	**16**	**27**	**1**	**16**	**88**	**92**	**4**	**2,130**	**3,928**

NOTE: ALL MAPS, PROJECT NUMBER = 2026CPT.13.09.20111, COUNTY = BUNCOMBE, FINAL SURFACING TESTING REQUIRED = NC

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	23

THERMOPLASTIC AND PAINT QUANTITIES

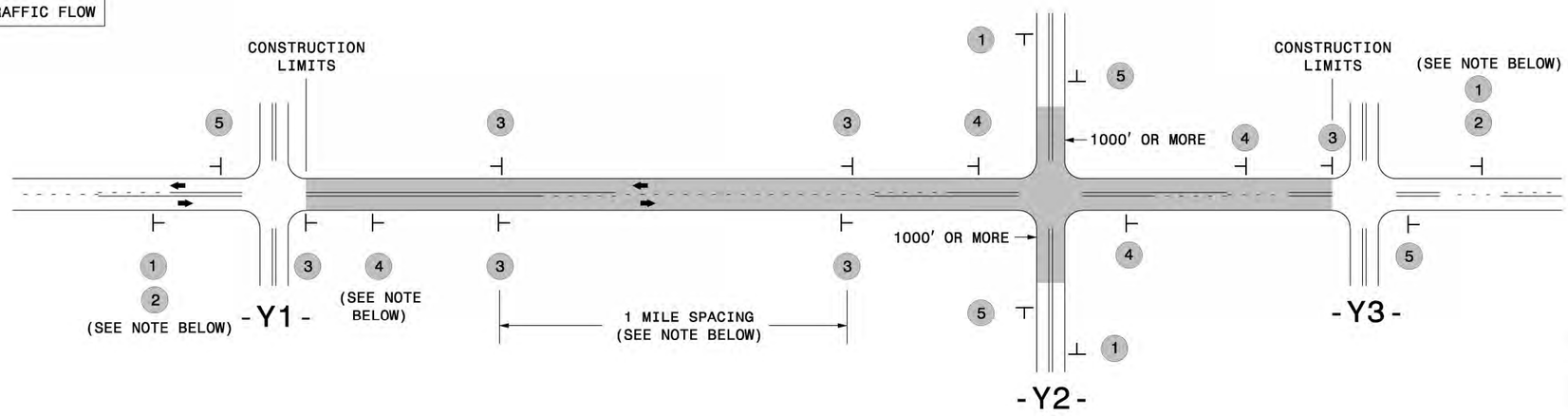
										4413000000-E	4447000000-E	4457000000-N	4695000000-E	4704000000-E	4709000000-E	4720000000-E			4725000000-E						4890000000-E		4895000000-N	
MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	WORK ZONE ADVANCE /GENERAL WARNING SIGNING	PEDESTRIAN CHANNELIZING DEVICES	TEMPORARY TRAFFIC CONTROL	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS) WHITE	THERMOPLASTIC PAVEMENT MARKING LINES (16", 90 MILS)	THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS) WHITE STOP BAR	THERMOPLASTIC PAVEMENT MARKING CHARACTER (90 MIL) RXR	THERMOPLASTIC PAVEMENT MARKING CHARACTER (90 MILS) SCHOOL	THERMOPLASTIC PAVEMENT MARKING CHARACTER (90 MILS) ONLY	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) LT ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) RT ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) STR & RT ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) STR ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) STR & LT ARROW	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) BIKE LANE SYMBOL	"GENERIC" HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES (4", 60 MILS) (WHITE)	"GENERIC" HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES (4", 60 MILS) (YELLOW)	GENERIC PAVEMENT MARKING ITEM INLAID CRADLE MARKER (YELLOW / YELLOW)	GENERIC PAVEMENT MARKING ITEM INLAID CRADLE MARKER (CRYSTAL / RED)
						MI	FT			SF	LF	LS	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	EA	EA
1	SR 1001 (MEADOWS TOWN ROAD)	FROM MADISON COUNTY LINE BRIDGE ABUTMENT TO NC 63	1	2	2WU	1.37	19.50	0.03	1.40	153															14,784	14,275		
2	SR 3071 (AVONDALE ROAD)	FROM US 74 ALTERNATE TO END OF MAINTENANCE	1	2	2WU	1.05	18.00	0.02	1.07	118					38				1	1					11,294	11,294		
3	SR 3073 (LOVERS LOOP ROAD)	FROM SR 3071 (AVONDALE ROAD) TO END OF MAINTENANCE	2	2	2WU	0.56	18.00	0.00	0.56	63																5,914		
4	SR 3074 (BEE RIDGE ROAD)	FROM SR 3071 (AVONDALE ROAD) TO LAUREL CREEK DRIVE (PRIVATE) PAVEMENT CHANGE	2	2	2WU	0.24	18.00	0.00	0.24	27															2,535	2,535		
5	SR 3075 (ONTEORA BOULEVARD/WEST CHAPEL ROAD)	FROM I 40 BRIDGE ABUTMENT TO US 25	1	2	2WU	1.95	19.50	0.05	2.00	218					44										20,592	20,592	5	
6	SR 3079 (OAKVIEW PARK ROAD)	FROM SR 3052 (SCHOOL ROAD EAST) TO RAIL ROAD	2	2	2WU	0.38	19.00	0.01	0.39	43				40	48	4										4,013		
7	SR 3116 (MILLS GAP ROAD)	FROM SR 3157 WESTON ROAD +0.04 MILES TO STILL WATER LANE (PRIVATE DRIVE) +0.02 MILES	1	2	2WU	2.28	24.00	1.96	4.24	256									2	1					23,872	25,590	330	
8	SR 3116 (MILLS GAP ROAD)	FROM SR 3136 CANE CREEK RD + 0.1 MILE TO COUNTY LINE	1	2	2WU	0.46	24.00	4.46	4.92	52															4,896	2,866	60	
9	SR 3119 (MERRILLS COVE ROAD)	FROM SR 3132 (BOB BARNWELL ROAD) -.02 MILE TO SR 3121 (ROSE HILL ROAD)	2	2	2WU	1.81	19.50	1.92	3.73	203															19,114	19,114		
10	SR 3121 (ROSE HILL ROAD)	FROM SR 3074 BEE RIDGE ROAD TO SR 3119 MERRILLS COVE ROAD	2	2	2WU	1.05	19.50	1.19	2.24	250															12,355	12,355		
11	SR 3138 (UPPER BRUSH CREEK ROAD)	FROM US 74 ALTERNATE TO SR 3142 (BRUSH CREEK ROAD)	1	2	2WU	1.82	19.50	0.01	1.83	204															19,325	19,325		
12	SR 3138 (UPPER BRUSH CREEK ROAD/LOWER BRUSH CREEK ROAD)	FROM SR 3142 (BRUSH CREEK ROAD) TO END OF PAVEMENT	1	2	2WU	1.61	19.50	1.84	3.45	180															17,002	17,002		
13	SR 3147 (LOWER BRUSH CREEK ROAD)	FROM SR 3136 (CANE CREEK ROAD) TO SR 3138 (UPPER BRUSH CREEK ROAD)	2	2	2WU	0.37	19.50	0.01	0.38	42					80		12								4,013	4,013		
14	SR 3153 (WILLIAMS ROAD)	FROM SR 3150 (CONCORD ROAD) TO SR 3116 (MILLS GAP ROAD)	1	2	2WU	1.29	21.50	0.01	1.30	145															12,672	12,672		
15	SR 3157 (WESTON ROAD)	FROM SR 3116 (MILLS GAP ROAD) TO SR 3158 (OAK TERRACE)	2,4	2	2WU	1.11	19.50	0.01	1.12	124					16										11,827	11,827		
16	SR 3159 (CEDAR LANE)	FROM SR 3161 (LOCUST COURT) TO US 25 ALTERNATE	2	2	2WU	0.42	18.00	0.00	0.42	47															4,676	4,676		
17	SR 3161 (LOCUST COURT)	FROM SR 3159 (CEDAR LANE) TO SR 3162 (ROYAL PINES DRIVE)	2	2	2WU	0.34	18.00	0.00	0.34	38																		
18	SR 3162 (ROYAL PINES DRIVE)	FROM SR 3158 (OAK TERRACE) TO US 25 ALTERNATE	2	2	2WU	0.84	20.00	0.01	0.85	94		*			16										8,976	9,976		
19	SR 3163 (WALNUT STREET)	FROM SR 3159 (CEDAR LANE) TO SR 3162 (ROYAL PINES DRIVE)	2	2	2WU	0.26	18.00	0.01	0.27	29																		
20	SR 3164 (SYCAMORE DRIVE)	FROM SR 3163 (WALNUT STREET) TO SR 3165 (MAPLE COURT)	2	2	2WU	0.27	18.00	0.00	0.27	30																		
21	SR 3165 (MAPLE COURT/SYCAMORE DRIVE)	FROM SR 3165 (MAPLE COURT) TO US 25 ALTERNATE	2	2	2WU	0.24	18.00	0.00	0.24	27															200	200		
22	SR 3166 (MYRTLE STREET)	FROM SR 3165 (SYCAMORE DRIVE) TO US 25 ALTERNATE	2	2	2WU	0.11	18.00	0.00	0.11	12																		
23	SR 3181 (MILLER ROAD S/LEE STREET S/ROSSCRAGGON ROAD)	FROM US 25 TO RAIL ROAD BRIDGE ABUTMENT	3	2	2WU	0.26	20.00	0.01	0.27	29					38				1		1						5	5
24	SR 3184 (ROSSCRAGGON ROAD)	FROM US 25 ALTERNATE TO END OF MAINTENANCE	2	2	2WU	0.26	18.00	0.01	0.27	29																		
25	SR 3185 (RATHFARNHAM ROAD)	FROM SR 3181 (ROSSCRAGGON ROAD) TO US 25 ALTERNATE	2	2	2WU	0.20	20.00	0.00	0.20	22					18										2,112	2,112		
26	SR 3185 (RATHFARNHAM ROAD)	FROM US 25 ALTERNATE TO END OF PAVEMENT	2	2	2WU	0.35	18.00	0.22	0.57	39					14										100	100		
27	SR 3190 (ROYAL OAKS ROAD)	FROM US 25 TO SR 3192 (FAIR OAKS ROAD)	2	2	2WU	0.29	18.00	0.01	0.30	32																150		
28	SR 3202 (OAKLEY DOGWOOD DRIVE)	FROM SR 3052 (SCHOOL ROAD EAST) TO END OF STATE MAINTENANCE	2	2	2WU	0.19	19.00	0.01	0.20	21																		
29	SR 3217 (WESTON ROAD/SAINT JOHNS STREET)	FROM US 25 ALTERNATE TO SR 3246 (PINEHURST CIRCLE)	1	2	2WU	1.26	20.00	0.16	1.42	141					50		6								7,770	13,130		
30	SR 3218 (MORGAN BOULEVARD)	FROM SR 3157 (WESTON ROAD) TO SR 3220 (SUMMIT DRIVE)	2	2	2WU	0.30	25.00	0.00	0.30	34																		
31	SR 3219 (OAK LEAF LANE)	FROM SR 3217 (SAINT JOHNS STREET) TO SR 3220 (SUMMIT DRIVE)	3	2	2WU	0.26	25.00	0.00	0.26	34																		
32	SR 3220 (SUMMIT DRIVE)	FROM SR 3217 (SAINT JOHNS STREET) TO SR 3219 (OAK LEAF LANE)	3	2	2WU	0.16	25.00	0.00	0.16	18																		
33	SR 3233 (SOMERSET ROAD)	FROM SR 3192 (FAIR OAKS ROAD) TO END OF STATE MAINTENANCE	2	2	2WU	0.17	20.00	0.00	0.17	19																		
34	SR 3238 (FAIRVIEW ROAD)	FROM I-240 EAST BRIDGE ABUTMENT TO END OF MAINTENANCE	3	5	MU	0.31	60.00	0.02	0.33	35	32		110		745		12	8	8	4		4	1		4,120	3,506		
35	SR 3256 (TUCKAWAY DRIVE)	FROM SR 3185 (RATHFARNHAM ROAD) TO SR 3282 (BREEZEWAY DRIVE)	2	2	2WU	0.21	20.00	0.00	0.21	24																		
36	SR 3548 (HAYWOOD ROAD)	FROM BRIDGE ABUTMENT AT CRAVEN STREET TO BEVERLY ROAD (CITY) -.01 MILE AT CROSSWALK	1	2	2WU	0.60	33.00	0.86	1.46	67	32				486					2		15	2	15	3,185	4,624		
	TOTAL FOR PROJ NO. 2026CPT.13.09.20111					**24.65**				**2,899**	**64**	**1**	**110**	**40**	**1,593**	**4**	**30**	**8**	**12**	**8**	**1**	**19**	**3**	**15**	**205,420**	**221,861**	**400**	**5**
																	42					**58**			**427,281**		**405**	
						24.65				**2,899**	**64**	**1**	**110**	**40**	**1,593**	**4**	**30**	**8**	**12**	**8**	**1**	**19**	**3**	**15**	**205,420**	**221,861**	**400**	**5**
	GRAND TOTAL																**42**					**58**			**427,281**		**405**	

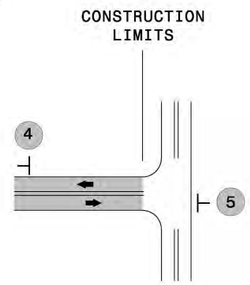
NOTE: ALL MAPS, PROJECT NUMBER = 2026CPT.13.09.20111, COUNTY = BUNCOMBE, FINAL SURFACING TESTING REQUIRED = NC

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	TMP-1

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.

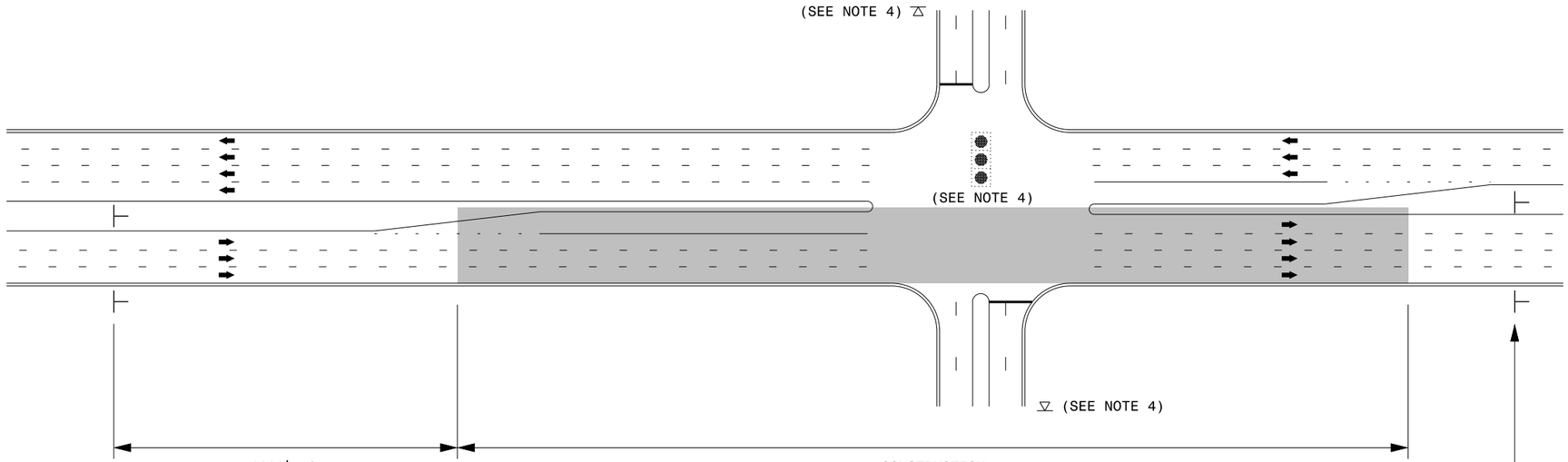
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

5/15/2017
SA:\MU\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:kaddis

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	TMP-2

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

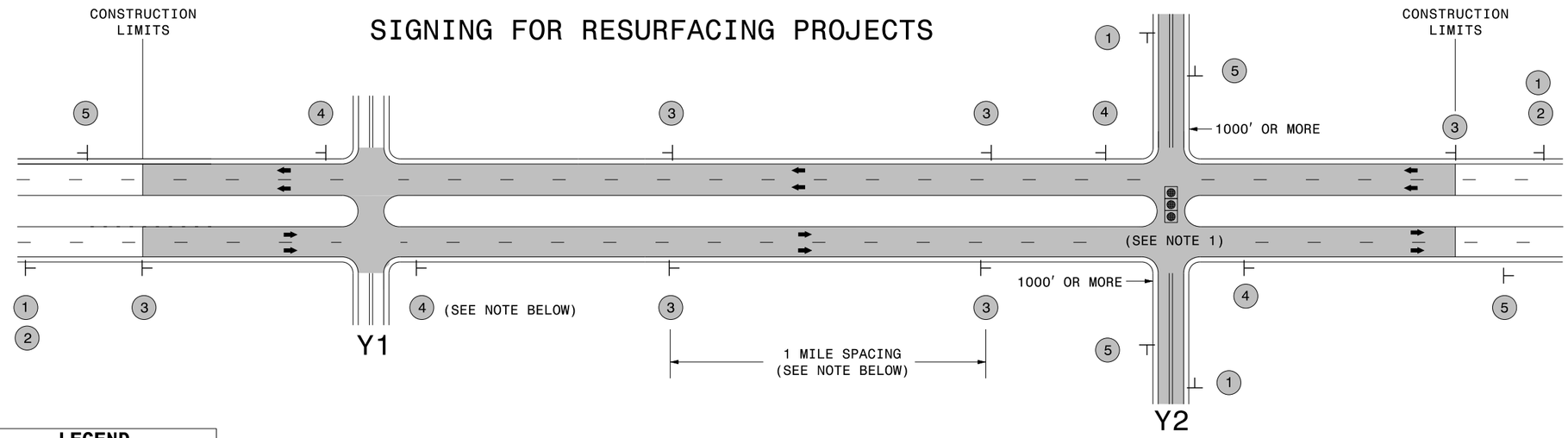
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu (2).dgn
User:rmgarrett

PROJECT NO.	SHEET NO.
2026CPT.13.09.20111	TMP-3

SIGNING FOR RESURFACING PROJECTS



LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD W20-1 48″ X 48″	PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.
2	NEXT XX MILES W7-3aP 24″ X 18″	#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)
3	LOW/SOFT SHOULDER SP 13107 48″ X 48″	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.
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.
5	END ROAD WORK G20-2 A 48″ X 24″	PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS.

-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.

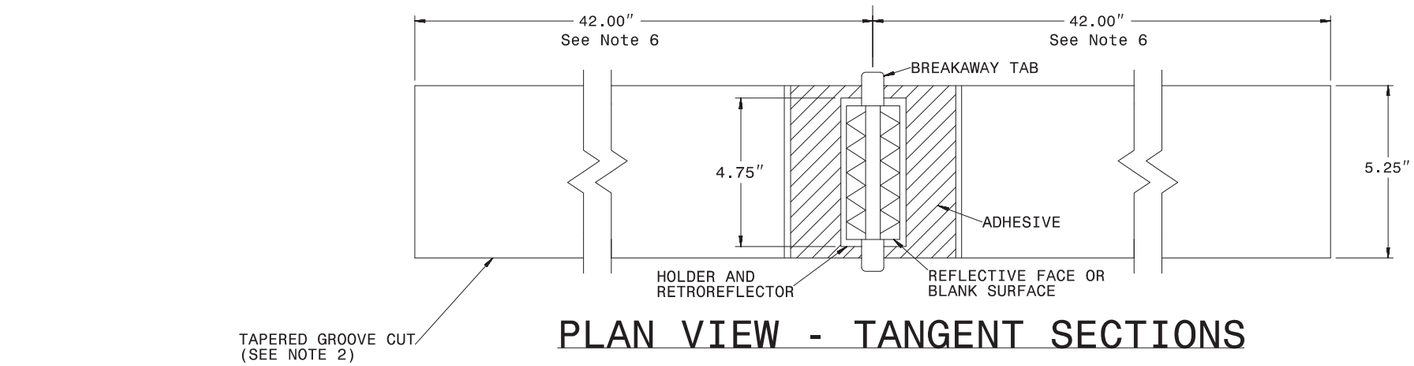
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

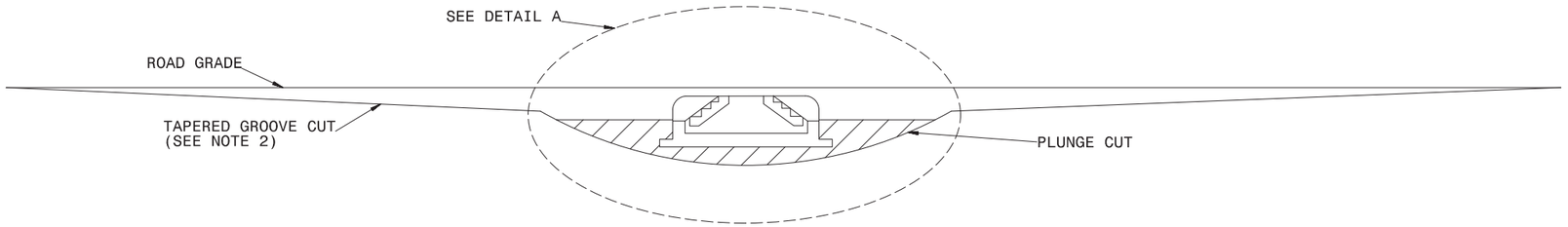
3/23/2015
C:\Users\rmgarrett\Downloads\Resurfacing_AdvWarn_UrSu_Shldr.dgn
User:rmgarrett

Docusign Envelope ID: CD7C74DC-EC8F-8AEC-83A3-BAD55A005FB5

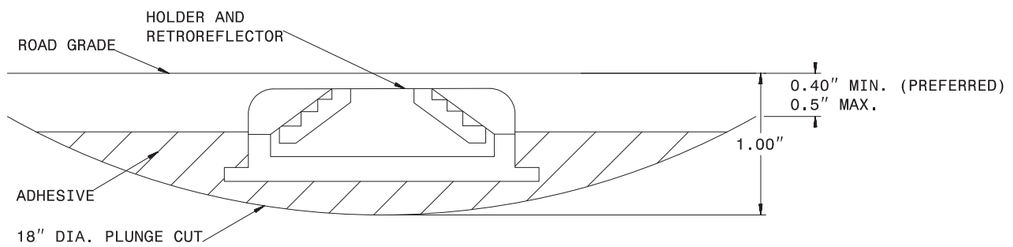
PROJECT REFERENCE NO.	SHEET NO.
2026CPT.13.09.20111	TMP-4



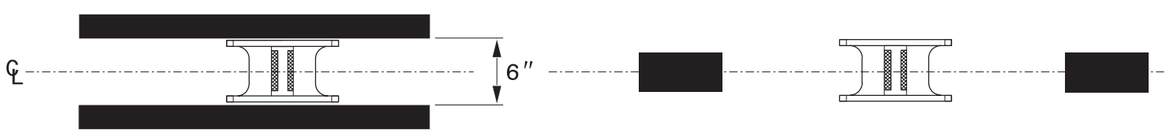
PLAN VIEW - TANGENT SECTIONS



PROFILE VIEW



DETAIL A



MARKER SPACING

NOTES:

1. ALL GROOVE EDGES SHALL BE AT LEAST 2 INCHES FROM ANY SEAM OR PAVEMENT JOINT
2. GROOVE CUTS MAY BE TAPERED OR BEVELED. TAPERED CUTS SHALL START AT ROAD LEVEL ON EACH END AND TAPER AT A FIXED RATE AS SHOWN ON THE PROFILE VIEW. BEVELED GROOVE CUTS SHALL BE 0.5″ MAXIMUM DEPTH (0.4″ PREFERRED), AND SHALL BE 0.4″ MINIMUM DEPTH AT BOTH ENDS OF THE PLUNGE CUT.
3. GROOVE AND PLUNGE CUT SHALL BE CLEAN AND DRY PRIOR TO PLACEMENT OF ADHESIVE.
4. THE EPOXY ADHESIVE SHALL BE THOROUGHLY MIXED UNTIL IT IS UNIFORM IN COLOR, AND APPLIED IN COLOR, AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. MARKER SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE BREAKWAY TABS RESTING ON THE PAVEMENT SURFACE. THE EPOXY SHALL BE FILLED TO THE LEVEL OF THE TOP OF THE MARKER HOLDER. EPOXY SHALL NOT TOUCH THE RETROREFELCTOR.
6. TOTAL GROOVE LENGTH MAY BE SHORTENED TO 54″ ON SHARP CURVES IF APPROVED BY THE ENGINEER. GROOVES SHALL NOT OVERLAP WITH LOOP DETECTOR WIRES.

NORTH CAROLINA PROFESSIONAL SEAL 042546 ENGINEER MATTHEW V. SPRINGER

Signed by:
Matthew V. Springer
BC60F6E8B584403...
4/6/2026

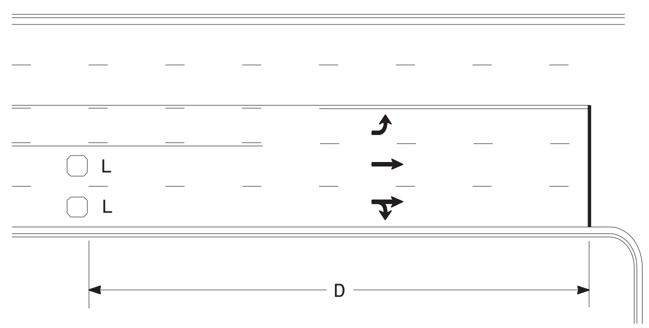
CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

DETAIL OF INLAID CRADLE MARKER

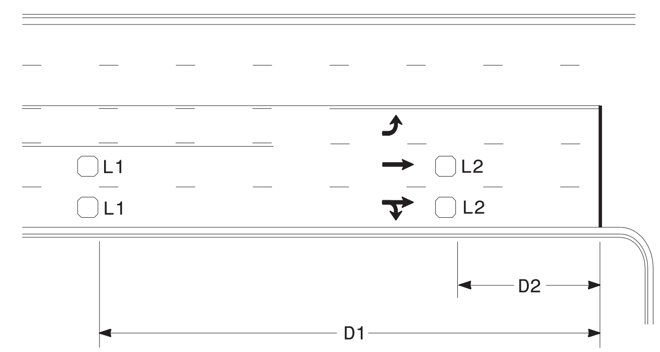
ORIGINAL BY: rgwatson DATE: 02-06-2024
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

PROJECT REFERENCE NO.	SHEET NO.
2026CPT.13.09.20111	SIG-1

High Speed Detection
(≥35 mph)



OR



Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

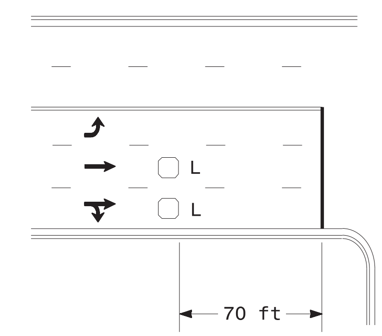
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

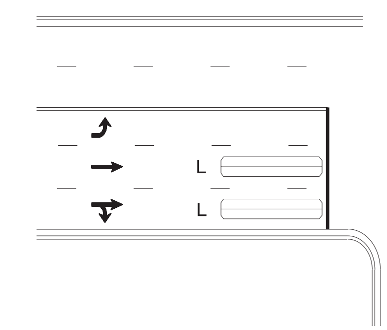
L2 = 6ft X 6ft
Wired in series

"Stretch" Operation

Low Speed Detection
(≤35 mph)



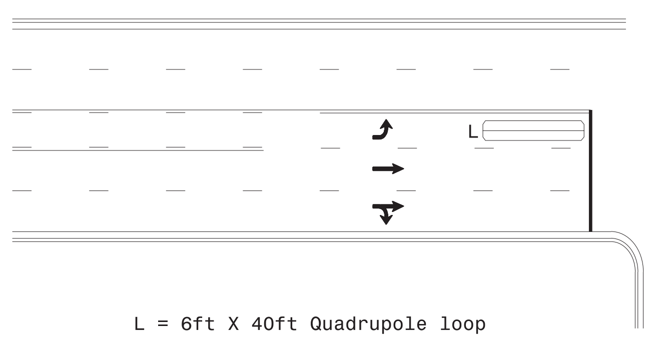
OR



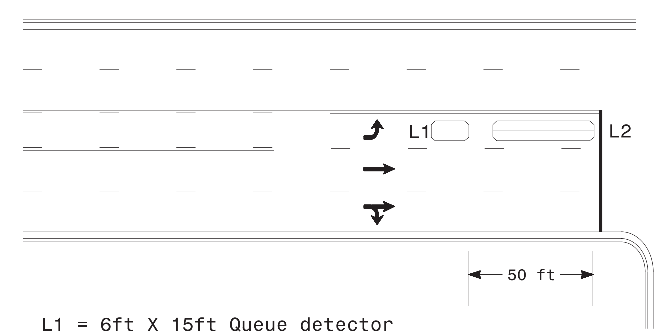
L = 6ft X 6ft
Wired in series

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

Left Turn Lane Detection



OR



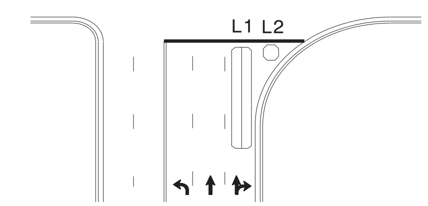
L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

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

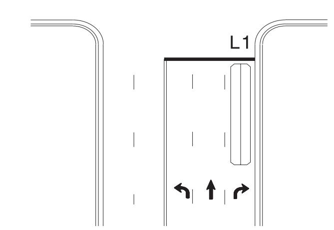
Queue Loop Detection

Right Turn Lane Detection

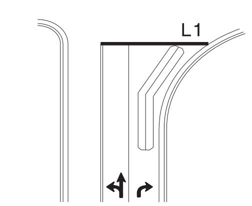


Shared Lane/
Wide Radius Turn

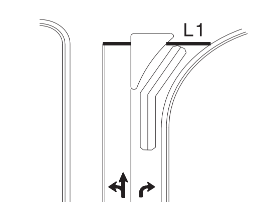
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

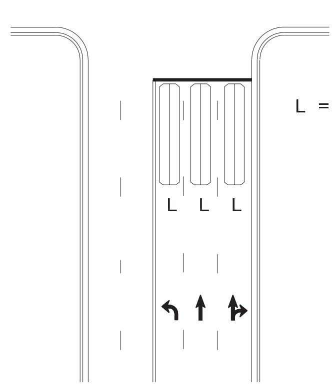


Wide Radius Turn



Channelized Turn

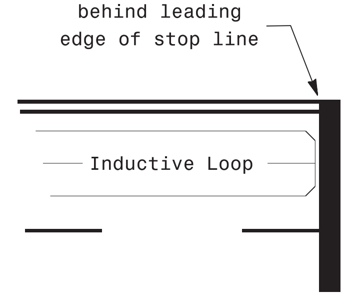
Side Street Detection



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
State of North Carolina Department of Transportation
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

Typical Signal Loop Locations

PLAN DATE:	September 2025	REVIEWED BY:
PREPARED BY:	J.A. Lohr	REVIEWED BY:

SCALE
N/A

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 026486
ROBERT J. ZIEMBA

DocuSigned by:
1B9B4B66274A494...
11/25/2025
DATE

SIG. INVENTORY NO.

17-NOV-2025 07:35
S:\ITS&SU\ITS Signals\Signal Design Section\Eastern Region\Loop Typical\Loop_Typical_2025.dgn
jalohr