2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20321 2027CPT.05.05.20322	1

Map 1: SR-1121 (Cornwallis Rd)
From: SR-2028 (T.W. Alexander Rd)
To: Width Change
MP: 2.59-3.23

Map 2: SR-1121 (Cornwallis Rd)
From Width Change
To: Width Change
MP: 3.23-3.79

Map 3: SR-1121 (Cornwallis Rd)
From: Width Change
To: SR-1999 (Davis Dr)
MP: 3.79-4.175
NOTE: Tie resurfacing to western project limits of P-5717

Map 4: SR-1959 (Miami Blvd)
From: US-70
To: SR-2028 (T.W. Alexander Rd)
MP: 0.00-1.82

Map 5: SR-1959 (Miami Blvd)
From: Begin Divided
To: US-70
MP: 4.71-4.81

Map 7: SR-1956 (Stone Rd)
From: SR-1955 (Wrenn Rd)
To: Pavement Joint @ C&G
MP: 0.00-0.47

Legend

- Durham Bridges

N

0 0.1 0.2 0.4 0.6 0.8 Miles

Esri, NASA, NGA, USGS, FEMA, Duke University, Wake County, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	2

Map 8: SR-2102 (Horseman Tr)
From: SR-1902 (Kemp Rd)
To: END MAINT
MP: 0.00-0.06

Map 9: SR-2071 (Paddock Dr)
From: SR-1901 (Carpenter Pond Rd)
To: SR-1902 (Kemp Rd)
MP: 0.00-0.25

Map 10: SR-2147 (King William Ct)
From: SR-2146 (Strathmore Dr)
To: Cul-de-sac
MP: 0.00-0.07

Map 11: SR-2146 (Stratmore Dr)
From: SR-1901 (Carpenter Pond Rd)
To: END MAINT
MP: 0.00-0.18

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Duke University, City of Raleigh, Wake County, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

N

0 0.03 0.06 0.12 0.18 0.24 Miles

2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	3

Map 12: SR-2043 (Bandock Dr)
From: SR-2042 (Hillview Dr)
To: SR-2044 (Rondelay Dr)
MP: 0.00-0.56

Map 13: SR-2031 (Asbury Ct)
From: SR-1905 (Olive Branch Rd)
To: Dead End
MP: 0.00-0.20

Map 14: SR-2032 (Atwood Ct)
From: SR-2031 (Asbury Ct)
To: Cul-de-sac
MP: 0.00-0.06

Legend

- Durham Bridges

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Duke University, Wake County, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

N

0 0.03 0.06 0.12 0.18 0.24 Miles

2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	4

Map 15: SR-2052 (Van Dr)
From: SR-1911 (Holder Rd)
To: Dead End
MP: 0.00-0.47

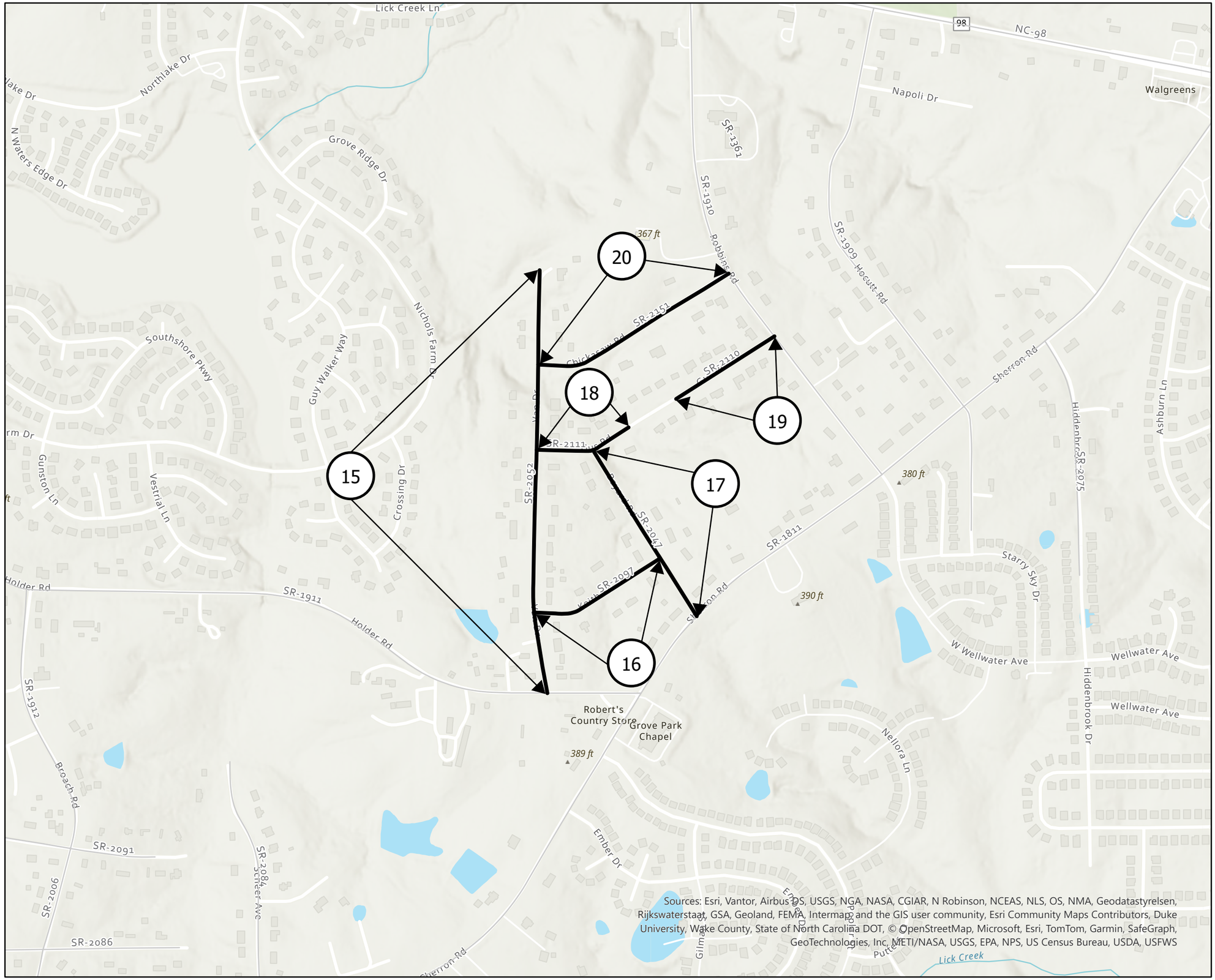
Map 16: SR-2097 (Keith St)
From: SR-2052 (Van Dr)
To: SR-2047 (Bayard Rd)
MP: 0.00-0.16

Map 17: SR-2047 (Bayard Rd)
From: SR-1811 (Sherron Rd)
To: SR-2111 (Gus Rd)
MP: 0.00-0.22

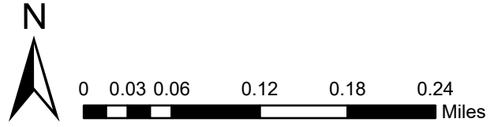
Map 18: SR-2111 (Gus Rd)
From: SR-2052 (Van Dr)
To: END MAINT
MP: 0.00-0.11

Map 19: SR-2110 (Gus Rd)
From: SR-1910 (Robbins Rd)
To: END MAINT
MP: 0.00-0.13

Map 20: SR-2151 (Chicksaw Rd)
From: SR-1910 (Robbins Rd)
To: SR-2052 (Van Dr)
MP: 0.00-0.24



Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, Duke University, Wake County, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	5

Map 21: SR-2022 (Danbury Dr)
From: SR-1911 (Holder Rd)
To: SR-2038 (Bristlewood Dr)
MP: 0.00-0.31

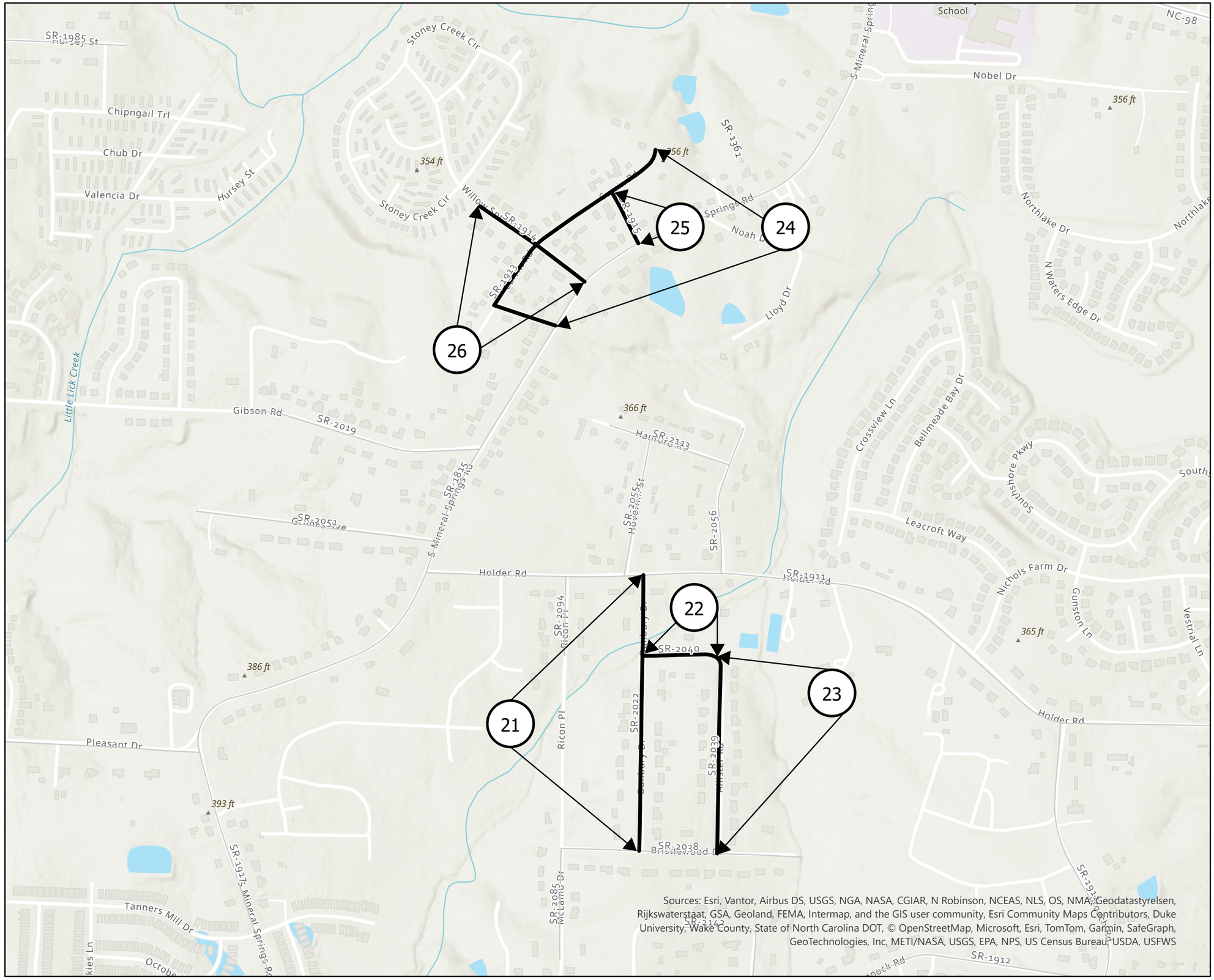
Map 22: SR-2040 (Bernard Dr)
From: SR-2022 (Danbury Dr)
To: SR-2039 (Allister Rd)
MP: 0.00-0.09

Map 23: SR-2039 (Allister Rd)
From: SR-2038 (Bristlewood Dr)
To: SR-2040 (Bernard Dr)
MP: 0.00-0.21

Map 24: SR-1913 (Currin St)
From: SR-1815 (S Mineral Spring Rd)
To: Dead End
MP: 0.00-0.33

Map 25: SR-1915 (Morganton Rd)
From: SR-1815 (S Mineral Spring Rd)
To: SR-1913 (Currin St)
MP: 0.00-0.07

Map 26: SR-1914 (Willow Springs DR)
From: SR-1815 (S Mineral Spring Rd)
To: END MAINT
MP: 0.00-0.15



2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20321 2027CPT.05.05.20322	6

Map 27: SR-1368 (Colony Rd)
From: SR-1303 (Pickett Rd)
To: Begin C&G
MP: 0.00-0.26

Map 6: SR-1146 (Martin Luther King Pkwy)
From: NC-751
To: SR-2220 (Old Chapel Hill Rd)
MP: 0.00-0.77

Legend

- Durham Bridges

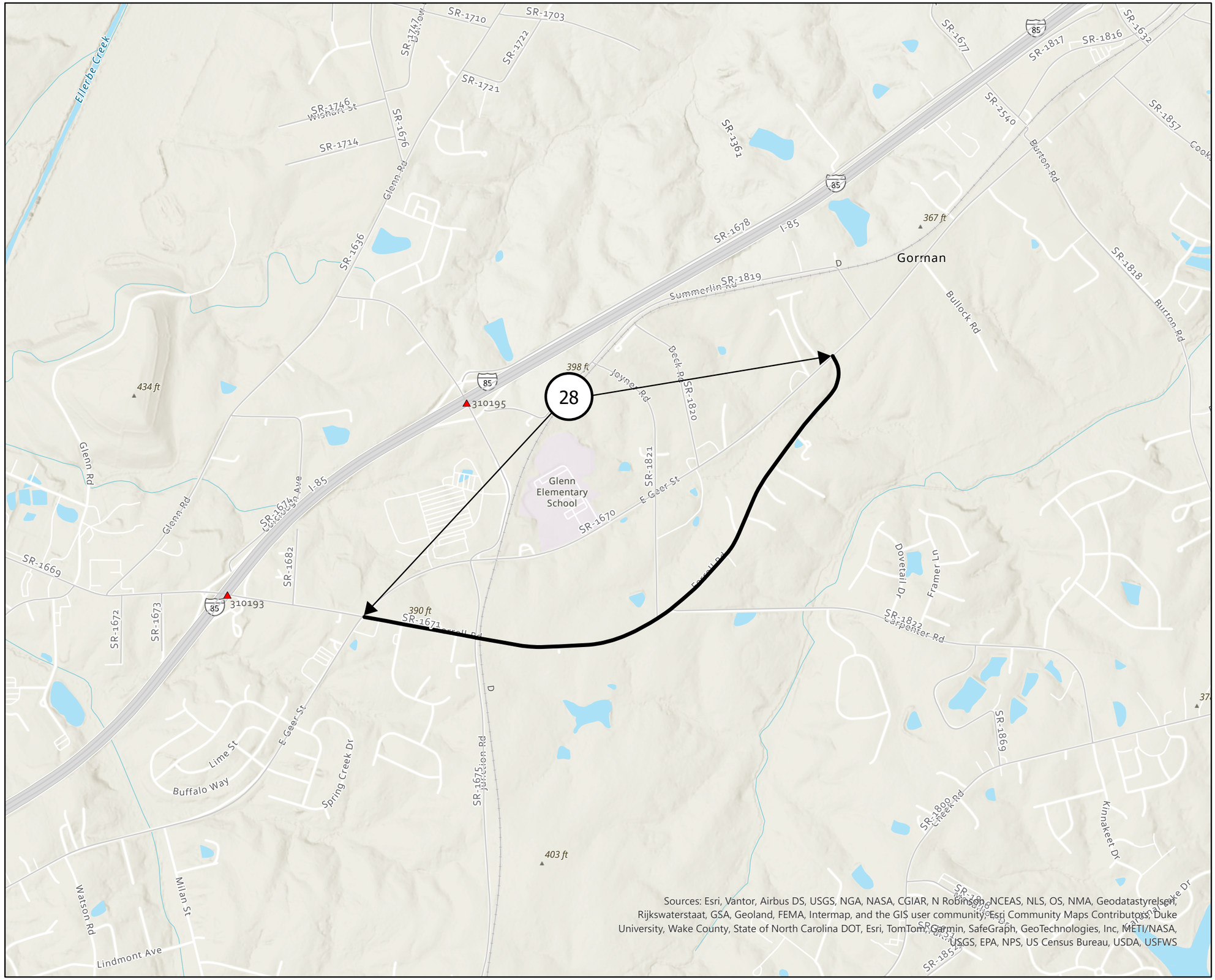
N

0 0.05 0.1 0.2 0.3 0.4 Miles

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Duke University, Wake County, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	7

Map 28: SR-1671 (Ferrell Rd)
From: SR-1670 (E Geer ST)
To: SR-1670 (E Geer ST)
MP: 2.65-4.07



Legend

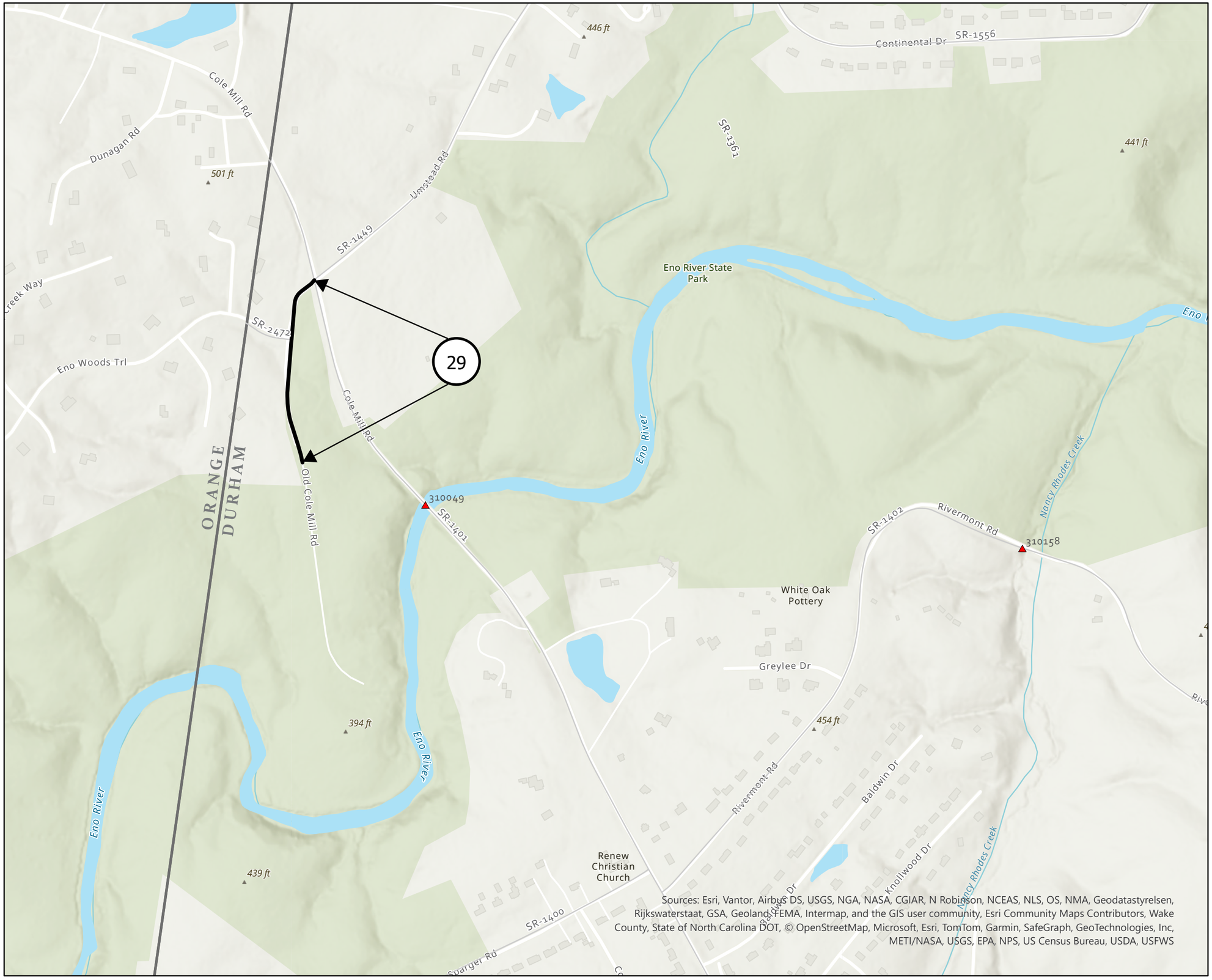
- Durham Bridges

N

0 0.05 0.1 0.2 0.3 0.4 Miles

2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	8

Map 29: SR-1449 (Old Cole Mill Rd)
From: SR-1401 (Cole Mill Rd)
To: END MAINT
MP: 3.41-3.63



Legend

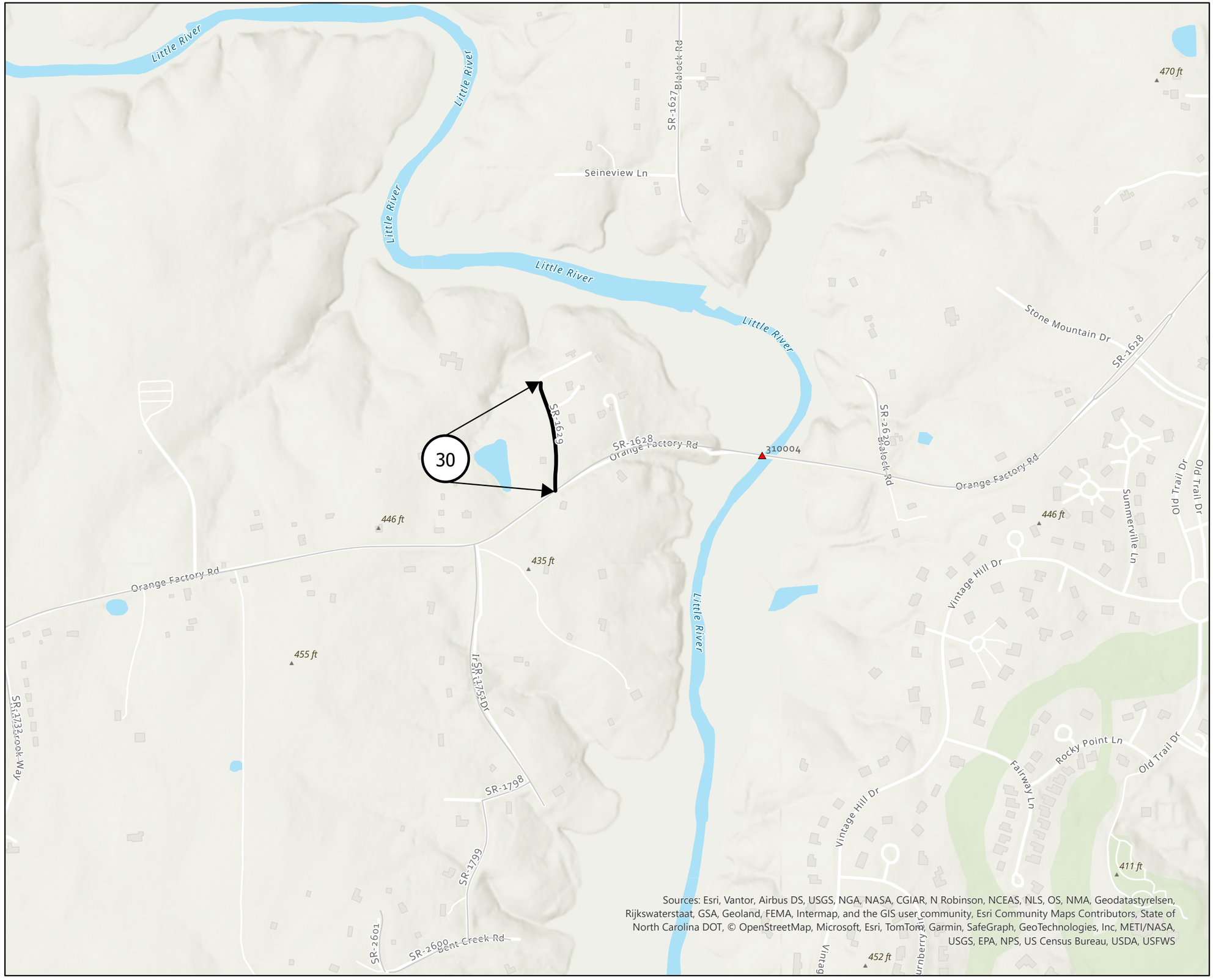
- Durham Bridges

N

0 0.03 0.06 0.12 0.18 0.24 Miles

2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	9

Map 30: SR-1629 (Old Orange Factory Rd)
From: SR-1628 (Orange Factory Rd)
To: Dead End
MP: 0.00-0.14



Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Legend

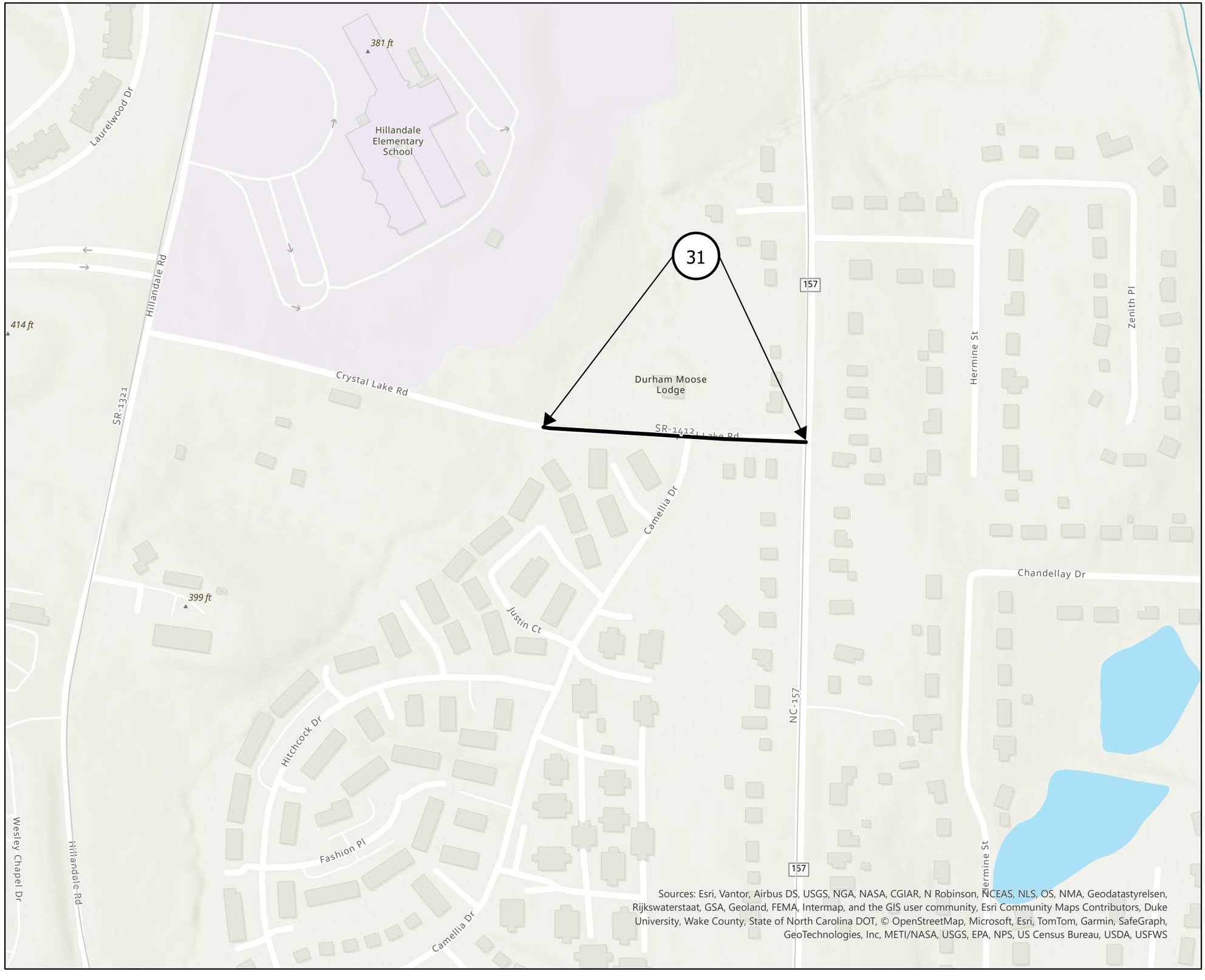
- Durham Bridges

N

0 0.04 0.07 0.14 0.21 0.28 Miles

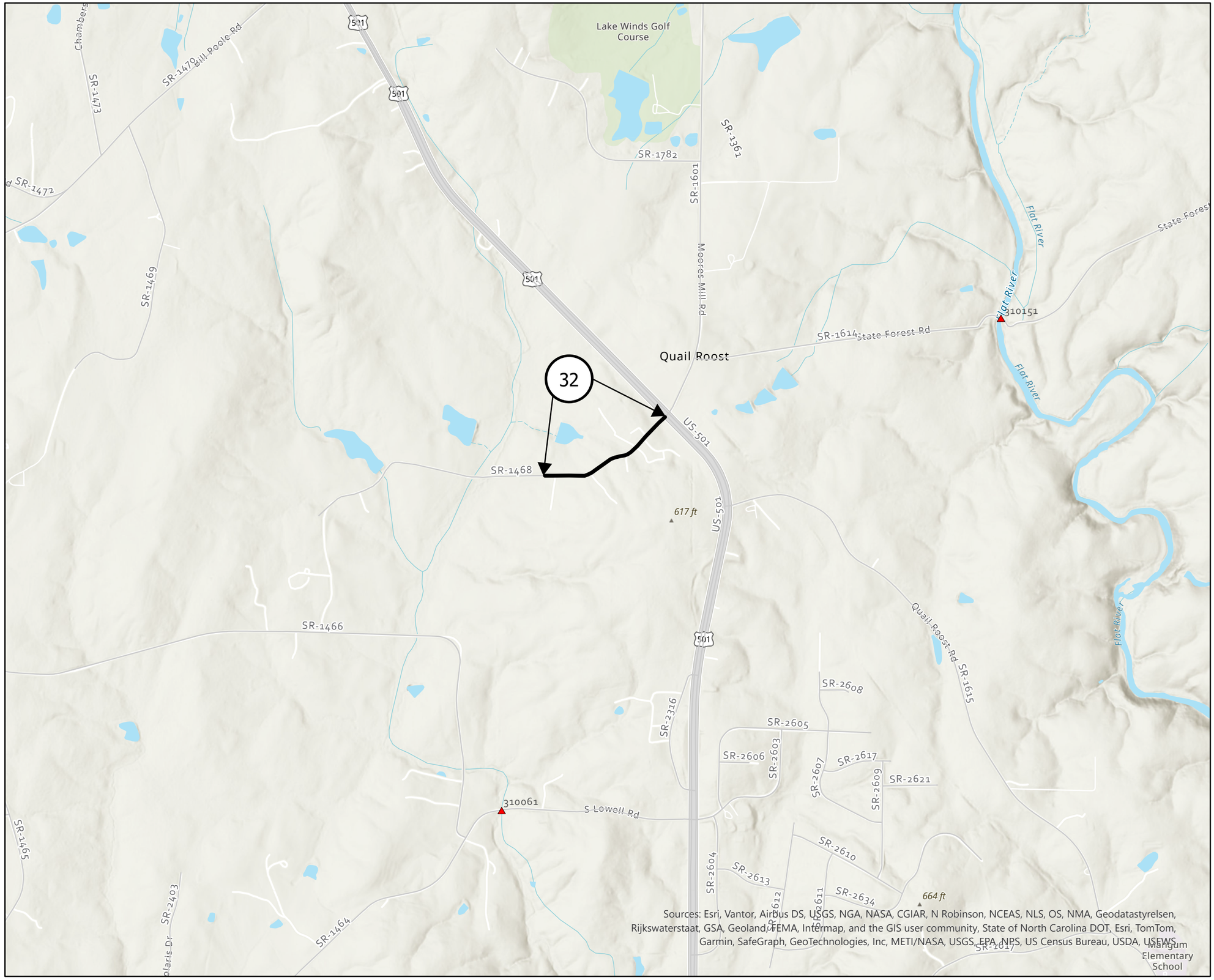
2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	10

Map 31: SR-1412 (Crystal Lake Rd)
From: End Pavement
To: NC-157
MP: 0.06-0.14



2028 Durham – Durham County	
PROJECT REFERFENCE NO.	SHEET NO.
2027CPT.05.05.20322	11

Map 32: SR-1468 (Quail Roost Farm Rd)
From: US 501
To: End Pavement
MP: 0.00-0.47



Legend

- Durham Bridges

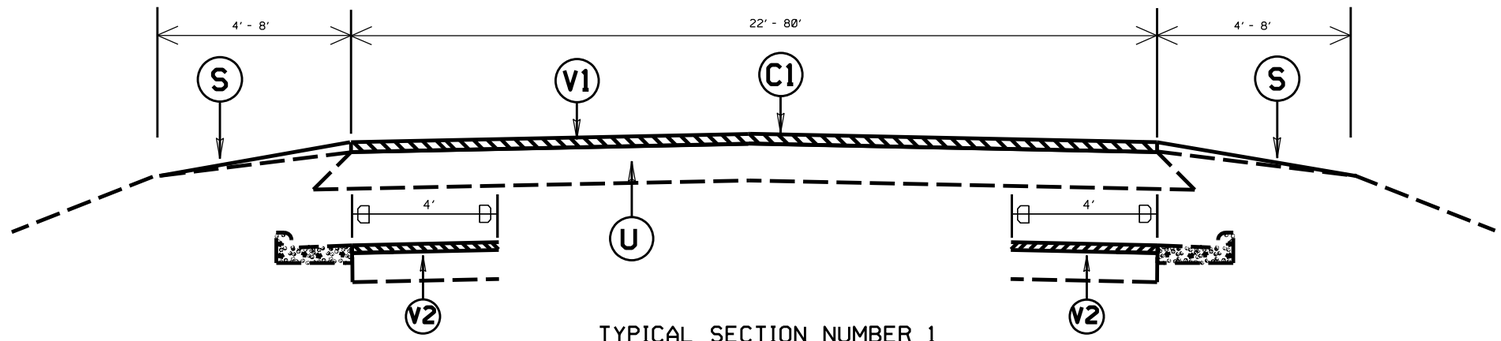
N

0 0.070.15 0.3 0.45 0.6 Miles

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321, ETC.	12

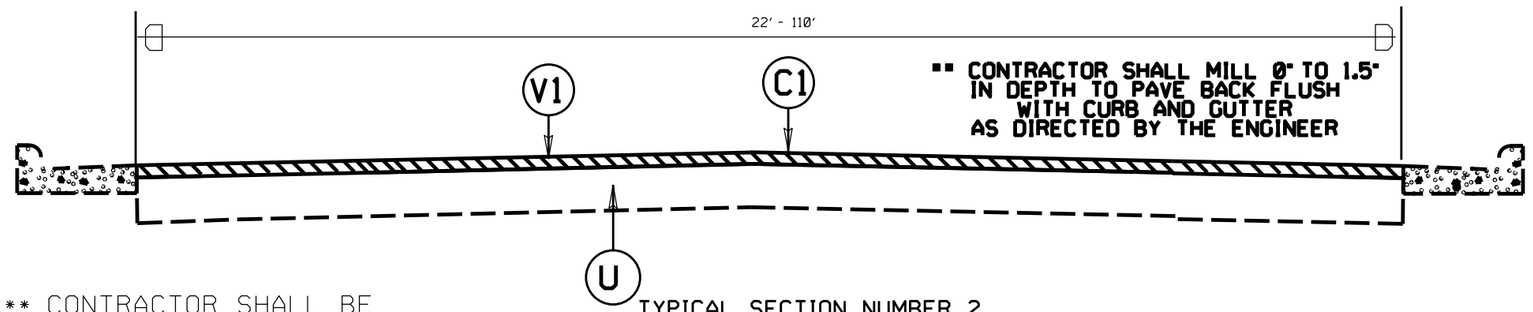
PAVEMENT SCHEDULE

C1	1 ½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C4	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT, 1½" DEPTH
V2	VARIABLE MILLING, 0"-1½" DEPTH
V3	VARIABLE MILLING, 0"-1" DEPTH
S	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT



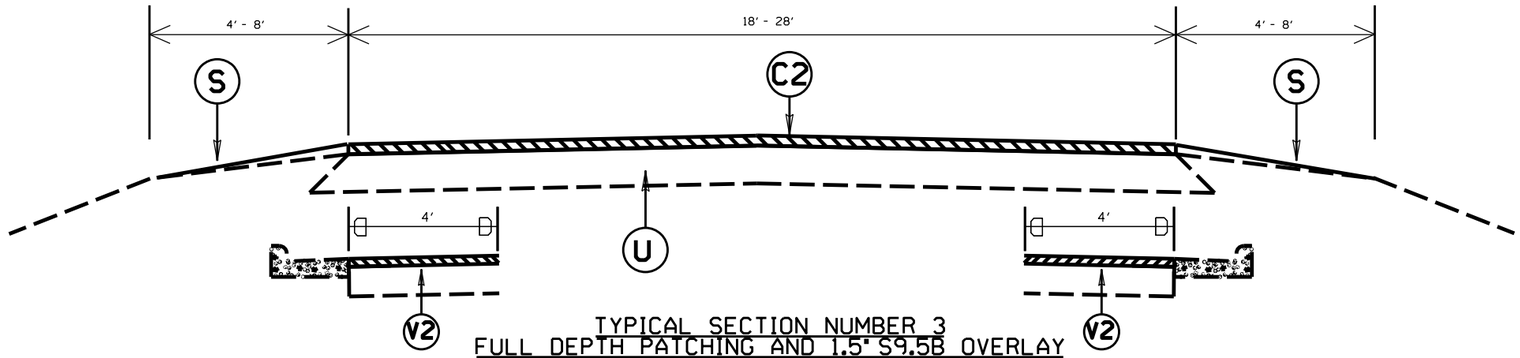
TYPICAL SECTION NUMBER 1
MILL/FILL 1.5" S9.5C & FULL DEPTH PATCHING
MAP NUMBERS 1-3

VARIABLE MILLING (V2) REQUIRED AT CURB SECTIONS THROUGHOUT EACH MAP



TYPICAL SECTION NUMBER 2
MILL/FILL 1.5" S9.5C & FULL DEPTH PATCHING
MAP NUMBERS 4-6

** CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY EXISTING ASPHALT IN GUTTER



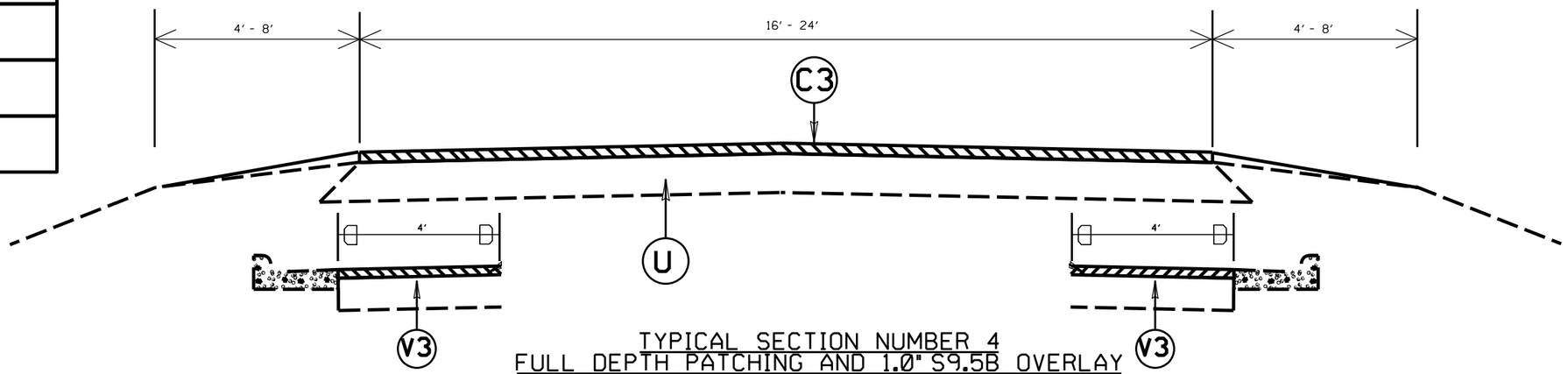
TYPICAL SECTION NUMBER 3
FULL DEPTH PATCHING AND 1.5" S9.5B OVERLAY
MAP NUMBERS 7, 28

VARIABLE MILLING (V2) REQUIRED AT CURB SECTIONS THROUGHOUT EACH MAP

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321, ETC.	13

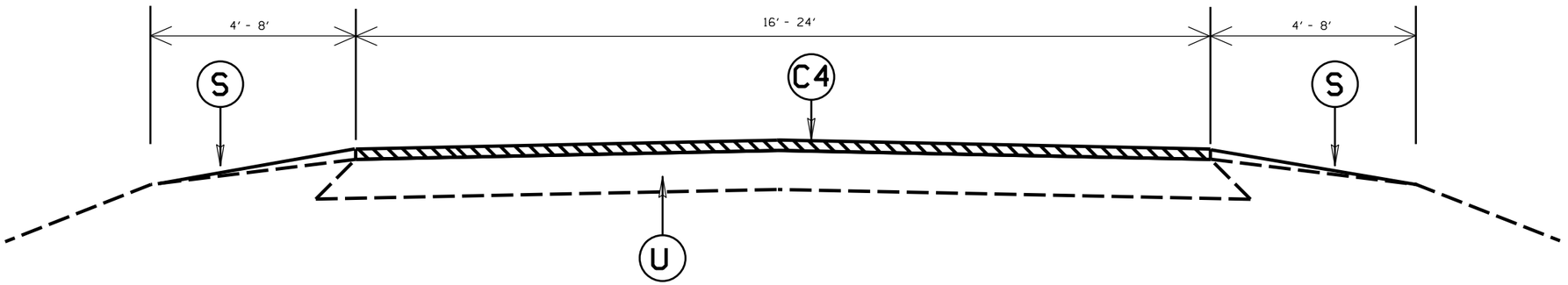
PAVEMENT SCHEDULE

C1	1 ½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C4	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT, 1½" DEPTH
V2	VARIABLE MILLING, 0"-1½" DEPTH
V3	VARIABLE MILLING, 0"-1" DEPTH
S	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT



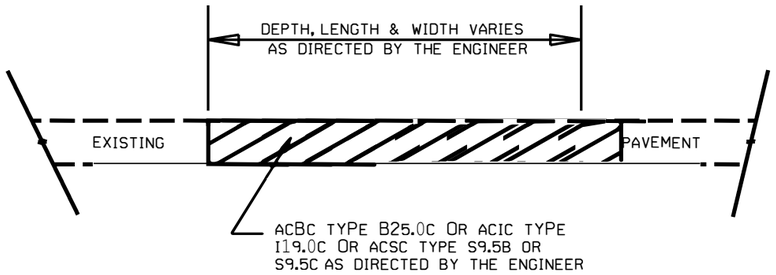
TYPICAL SECTION NUMBER 4
FULL DEPTH PATCHING AND 1.0" S9.5B OVERLAY
MAP NUMBERS 8-27, 29-31

VARIABLE MILLING (V3) REQUIRED AT CURB SECTIONS ON MAPS 27 & 31



TYPICAL SECTION NUMBER 5
FULL DEPTH PATCHING AND 1.25" S9.5B OVERLAY
MAP NUMBERS 32

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321, ETC.	14

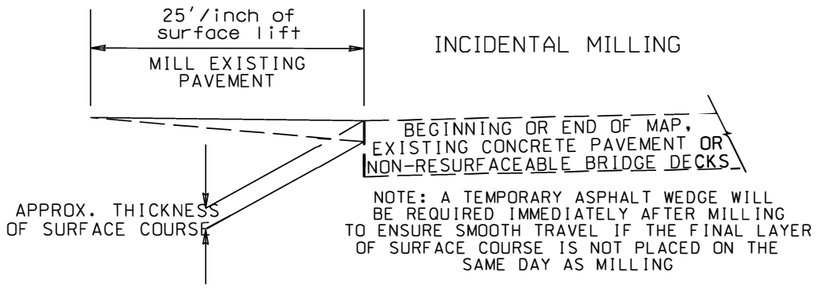


PATCHING EXISTING PAVEMENT

MILLING TO BE PERFORMED PRIOR TO PATCHING

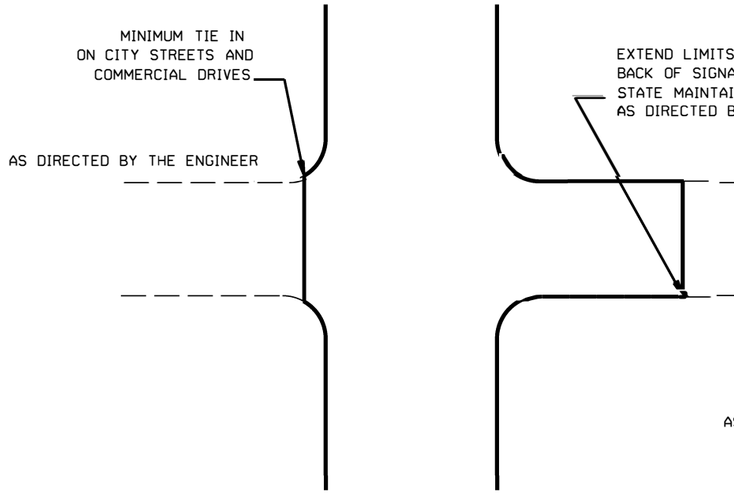
NOTES

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.

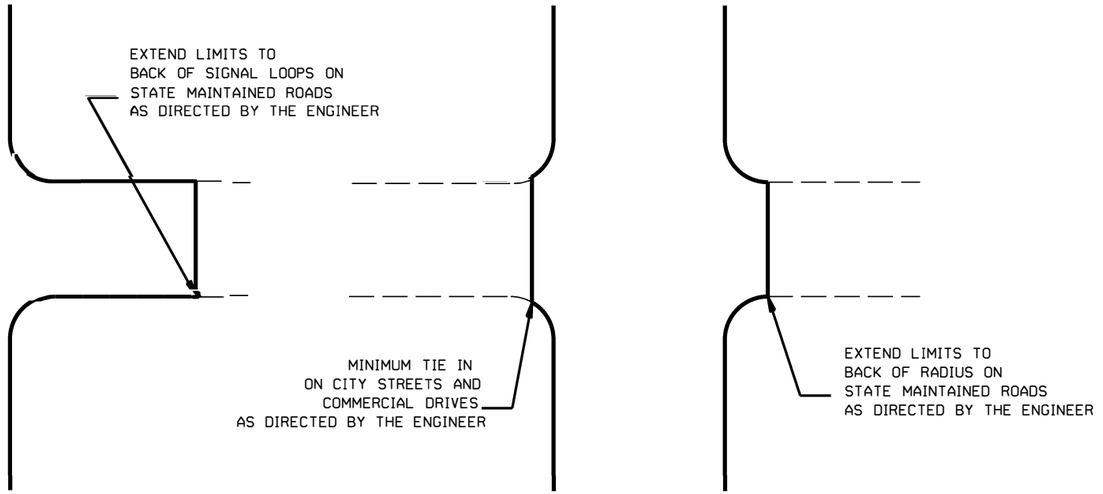


PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321, ETC.	15

ADDITIONAL INTERSECTIONS (NON-TYPICAL)		
Extend paving limits to back of radius or loop on the following intersections:		
MAP#	STREET NAME	COMMENTS
N/A		

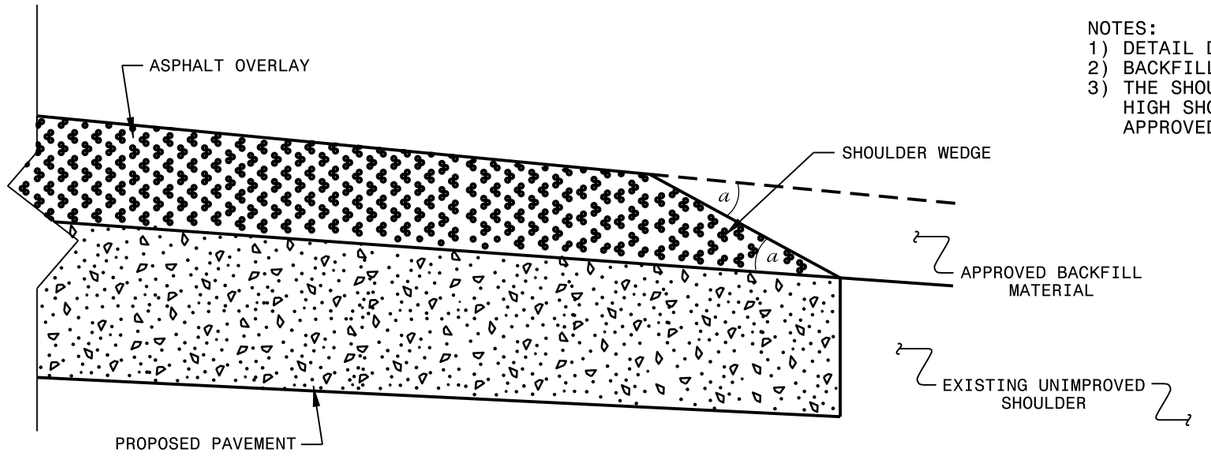


DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

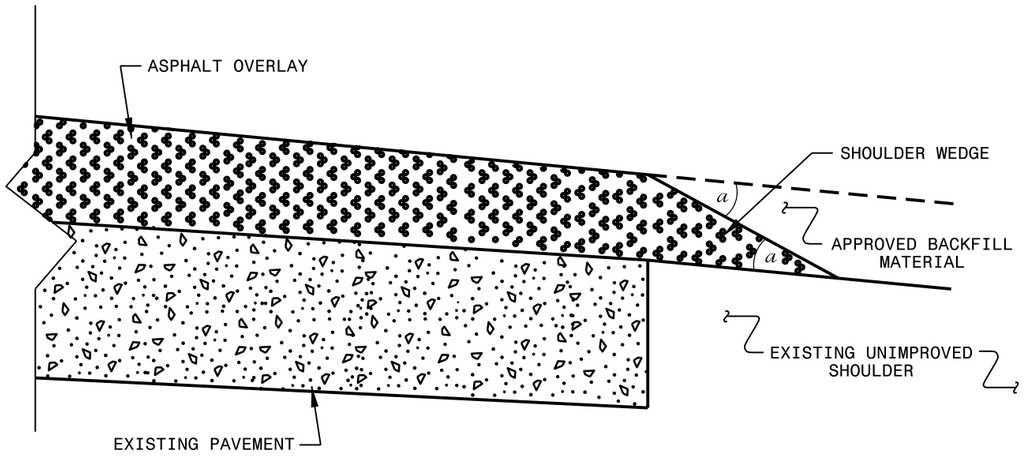
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321, ETC.	16



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.

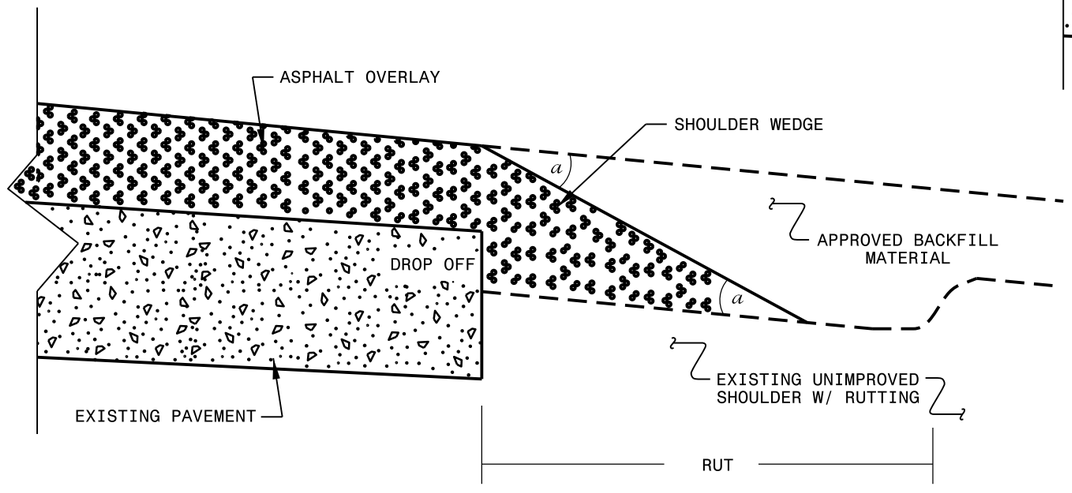
SHOULDER WEDGE DETAIL

(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

22-JAN-2018 09:41
S:\Contracts\Contracts\Resurfacing Projects\Division 4\I-5937 Wilson March 2018\Revised Shoulder Wedge Detail.dgn
pporter AI CSD-29252

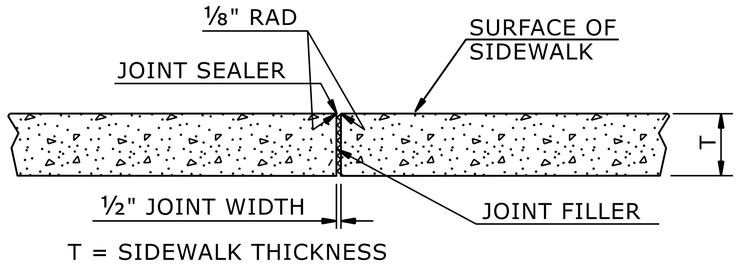
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321 etc.	17

NOTES:

CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

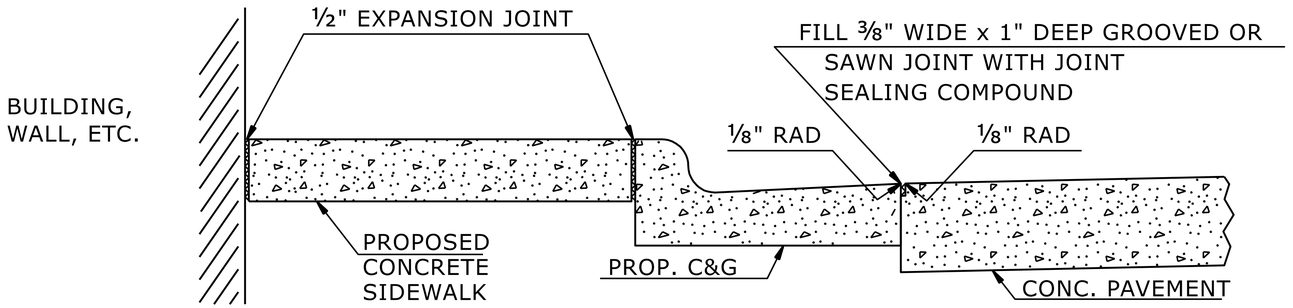
PLACE A GROOVE JOINT 1" DEEP WITH ⅛" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE ½" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



T = SIDEWALK THICKNESS

TRANSVERSE EXPANSION JOINT IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

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

ROADWAY DETAIL DRAWING FOR
CONCRETE SIDEWALK

SHEET 1 OF 1

848D01

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033144 NICOLE M. HACKLER

DocuSigned by:
Nicole M. Hackler, P.E.
5884323D34164C5...

10/27/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

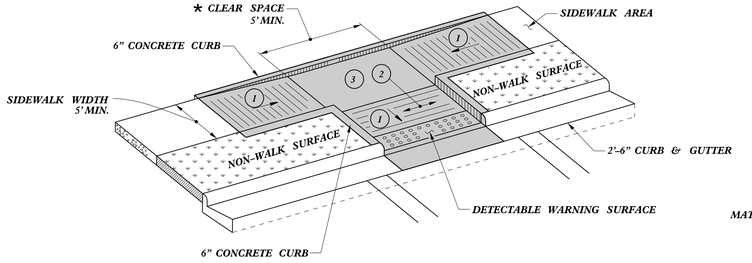
CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

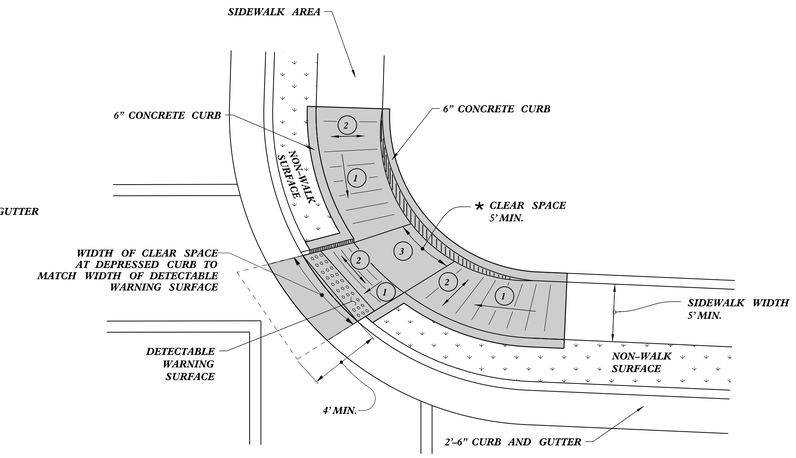
ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321 etc.	18

* – *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.*



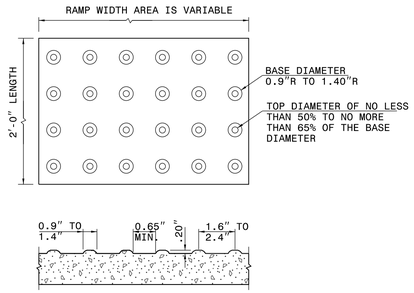
TYPE 3



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 STANDARD DRAWING FOR

CURB RAMP

PARALLEL RAMP

SHEET 9 OF 13

848D06

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033144 NICOLE M. HACKLER

DocuSigned by:
Nicole M. Hackler, P.E.
588432D34164C5...

10/27/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

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

ADA SUMMARY OF QUANTITIES - TOTALS

WBS	2027CPT.05.05.20321
Number:	2027CPT.05.05.20322
County:	Durham

Sheet No.
19

WBS Number	County	Municipality	Resurfacing Route	4447000000-E (LF) Pedestrian Channelizing Devices	4600000000-N (EA) Generic Traffic Control Item - Pedestrian Transport Service (Per Trip)	4600000000-N (EA) Generic Traffic Control Item - Audible Warning Devices	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps
2027CPT.05.05.20321	Durham	Durham	MLK Pkwy From NC 751 To SR 2220	40	10	2	8	0	0	128	10	27	72	59	0	4	0	0	0	32	1	0
2027CPT.05.05.20321	Durham	Outside Municipality	Cornwallis Rd. From SR 2028 To Width Change	24	10	1	6	5	30	72	0	15	9	0	0	1	16	0	0	18	0	3
2027CPT.05.05.20321	Durham	Durham Outside Municipality	Cornwallis Rd. From Width Change To SR 1959	8	0	0	34	1	15	0	0	0	0	0	0	0	30	0	0	0	0	3
2027CPT.05.05.20321	Durham	Durham Outside Municipality	Miami Blvd From US 70 To SR 2028	88	20	3	112	20	32	310	20	102	147	0	1	1	80	10	146	75	3	4
2027CPT.05.05.20322	Durham	Durham	Crystal Lake Rd From END MAINT To NC 157	8	1	0	0	0	0	8	0	0	3	0	0	0	0	0	0	2	0	0
2027CPT.05.05.20322	Durham	Durham	Colony Rd. From SR 1303 To Begin C&G	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2027CPT.05.05.20322	Durham	Durham Outside Municipality	Stone Rd. From SR 1955 To Pavement Joint @ C&G	12	1	1	0	1	0	12	0	0	6	9	0	0	0	0	0	3	0	0
2027CPT.05.05.20322	Durham	Durham	Bandock Rd From SR 2042 To SR 2044	4	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0
GRAND TOTAL				**188**	**44**	**7**	**160**	**27**	**77**	**534**	**30**	**144**	**237**	**68**	**1**	**6**	**126**	**10**	**146**	**132**	**4**	**10**

Notes: (1) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (2) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - CORNWALLIS RD. FROM SR 2028 TO WIDTH CHANGE

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20321**
County:	**Durham**

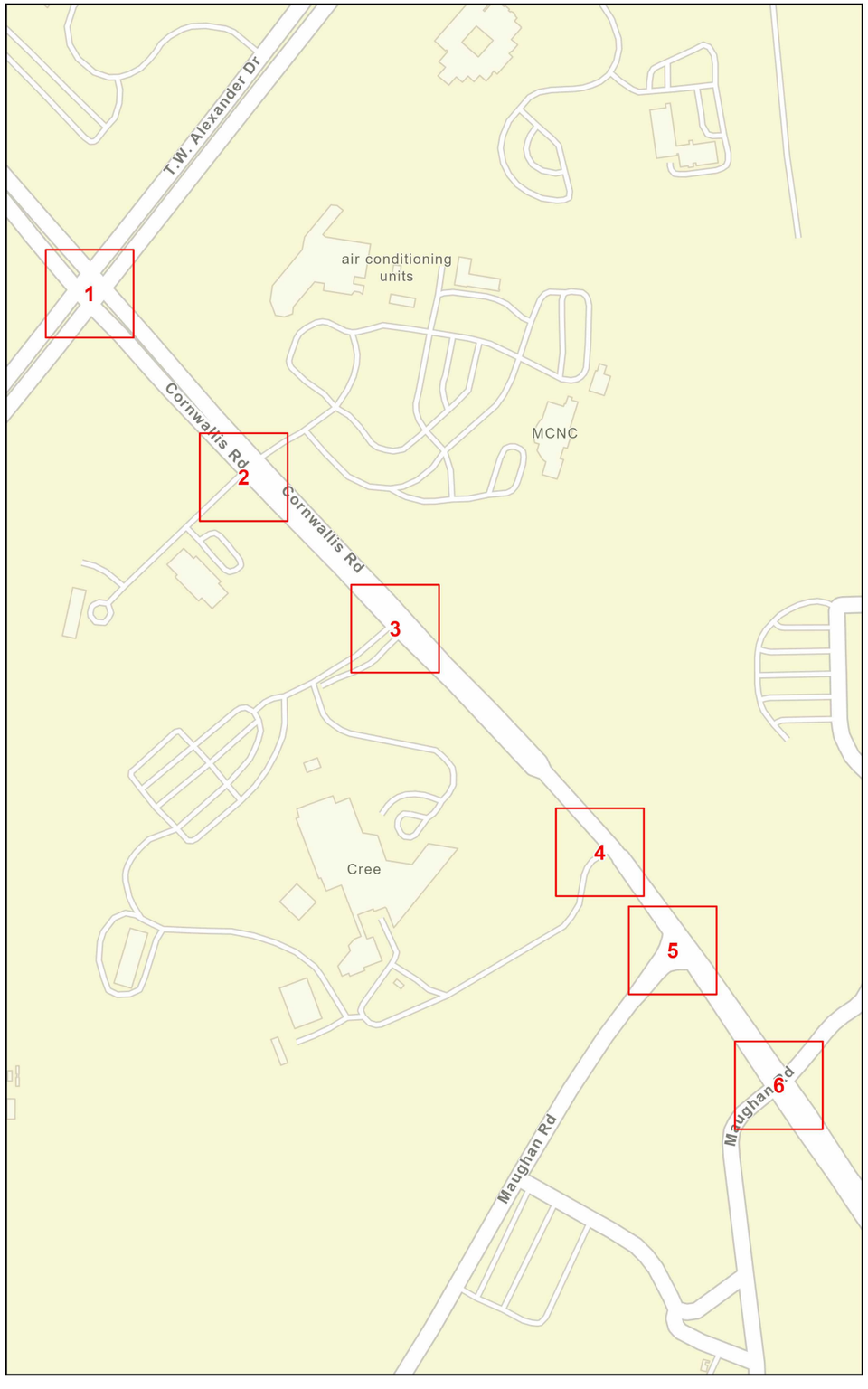
Sheet No.
20

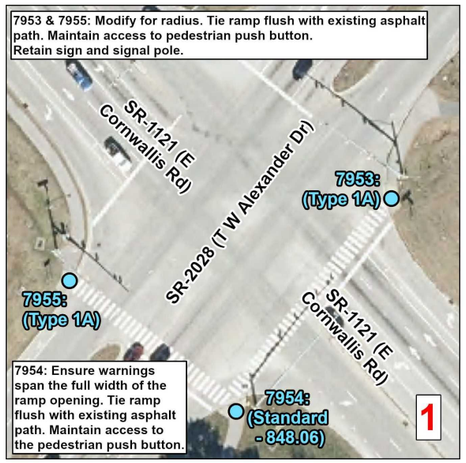
Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
7953**	1	SR-2028 (T W Alexander Dr)	SR-1121 (E Cornwallis Rd)														1			Type 1A - 848.06
7954	1	SR-2028 (T W Alexander Dr)	SR-1121 (E Cornwallis Rd)														1			Standard - 848.06
7955	1	SR-2028 (T W Alexander Dr)	SR-1121 (E Cornwallis Rd)														1			Type 1A - 848.06
22702	2	SR-1121 (E Cornwallis Rd)	United Therapeutics (3026 Cornwallis Rd)														1			Type 1B - 848.06
22703	2	SR-1121 (E Cornwallis Rd)	United Therapeutics (3026 Cornwallis Rd)														1			Type 1B - 848.06
22704	3	SR-1121 (E Cornwallis Rd)	Macom (3028 E Cornwallis Rd) Main Entrance														1			Type 1C - 848.06
22705	3	SR-1121 (E Cornwallis Rd)	Macom (3028 E Cornwallis Rd) Main Entrance														1			Type 7 - 848.06
22706	3	SR-1121 (E Cornwallis Rd)	Macom (3028 E Cornwallis Rd) Main Entrance														1			Type 7 - 848.06
22707	3	SR-1121 (E Cornwallis Rd)	Macom (3028 E Cornwallis Rd) Main Entrance														1			Type 1C - 848.06
22708	4	SR-1121 (E Cornwallis Rd)	Macom (3028 E Cornwallis Rd) Rear Entrance														1			Type 1C - 848.06
22709	4	SR-1121 (E Cornwallis Rd)	Macom (3028 E Cornwallis Rd) Rear Entrance														1			Type 1C - 848.06
22710	5	SR-1121 (E Cornwallis Rd)	Maughan Dr / Private Property														1			Type 1C - 848.06
22711	5	SR-1121 (E Cornwallis Rd)	Maughan Dr / Private Property														1			Type 8 - 848.06
22712	5	SR-1121 (E Cornwallis Rd)	Maughan Dr / Private Property														1			Type 8 - 848.06
22713	5	SR-1121 (E Cornwallis Rd)	Maughan Dr / Private Property														1			Type 1C - 848.06
22696	6	SR-1121 (E Cornwallis Rd)	Genesis Way			10							1				1			Type 2A - 848.06
22697	6	SR-1121 (E Cornwallis Rd)	Genesis Way											8					1	Remove Ramp
22698	6	SR-1121 (E Cornwallis Rd)	Genesis Way											8					1	Remove Ramp
22699	6	SR-1121 (E Cornwallis Rd)	Genesis Way														1			Type 1C - 848.06
22700	6	SR-1121 (E Cornwallis Rd)	Genesis Way														1			Type 2A - 848.06
22701	6	SR-1121 (E Cornwallis Rd)	Genesis Way	6		20			15										1	Remove Ramp
-	-	-	-	-	5*	-	72*	-	-	9*	-	-	-	-	-	-	-	-	-	
Sub-Total for Cornwallis Rd. From SR 2028 To Width Change				**6**	**5**	**30**	**72**	**0**	**15**	**9**	**0**	**0**	**1**	**16**	**0**	**0**	**18**	**0**	**3**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

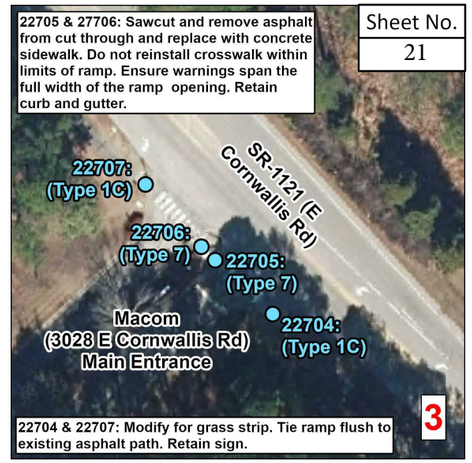
**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

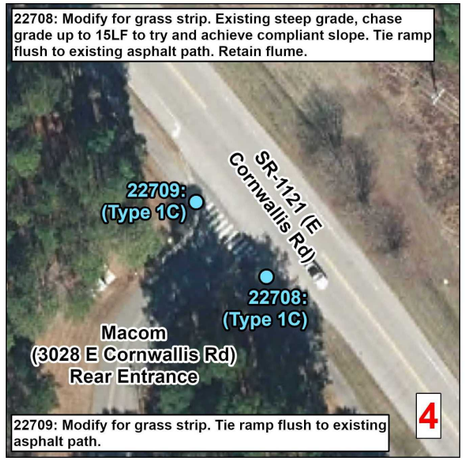
Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

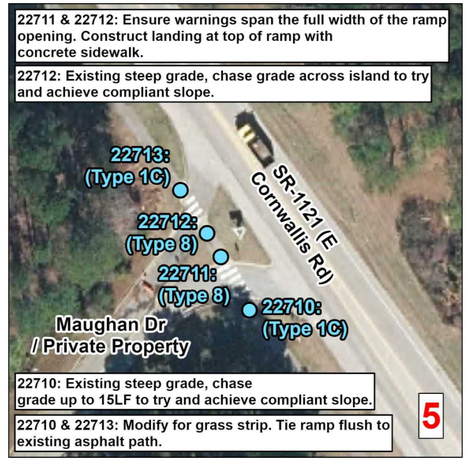


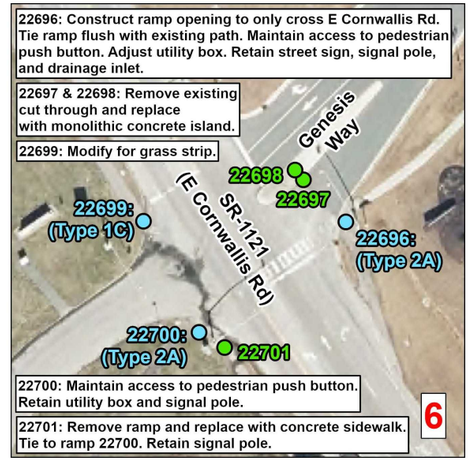












Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham
WBS Number: 2027CPT.05.05.20321

Cornwallis Rd
From SR 2028 To Width Change

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - CORNWALLIS RD. FROM WIDTH CHANGE TO SR 1959

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20321**
County:	**Durham**

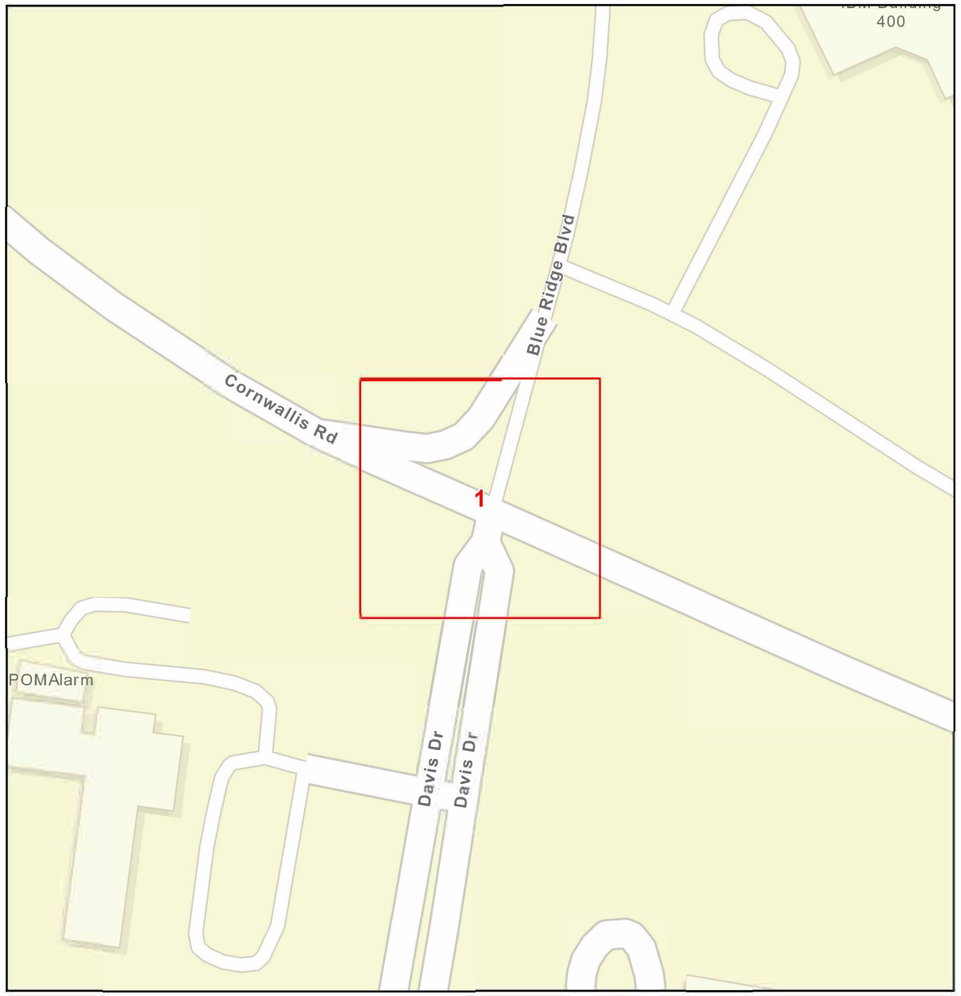
Sheet No.
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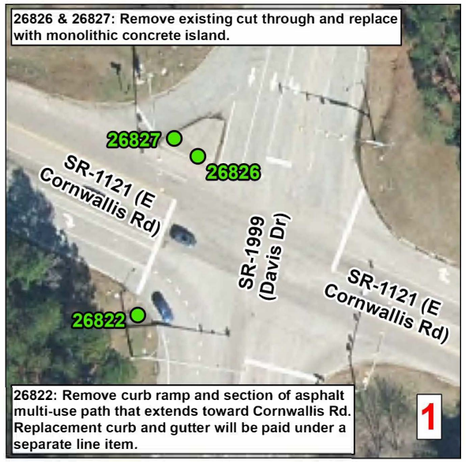
Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
26822	1	SR-1999 (Davis Dr)	SR-1121 (E Cornwallis Rd)	34		15													1	Remove Ramp
26826	1	SR-1121 (E Cornwallis Rd)	SR-1999 (Davis Dr)											15					1	Remove Ramp
26827	1	SR-1121 (E Cornwallis Rd)	SR-1999 (Davis Dr)											15					1	Remove Ramp
-	-	-	-	-	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sub-Total for Cornwallis Rd. From Width Change To SR 1959				**34**	**1**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**0**	**0**	**3**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.





Sheet No.
23

Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other
- Municipal Boundary
- NCHPO Historic Boundary (NR and LHD)

Durham
WBS Number: 2027CPT.05.05.20321

Cornwallis Rd
From Width Change To SR 1959

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - MIAMI BLVD FROM US 70 TO SR 2028

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20321**
County:	**Durham**

Sheet No.
24

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
7113	1	US-70	SR-1959 (S Miami Blvd)														1			Type 3 Modified - 848D0609
7116	1	US-70	SR-1959 (S Miami Blvd)	15					15					15		28	1			Type 6 - 848.06
7117	1	US-70	SR-1959 (S Miami Blvd)	15					15					15		28	1			Type 6 - 848.06
7129	1	US-70	SR-1811 (Sherron Rd)														1			Type 3 Modified - 848D0609
7130	1	US-70	SR-1811 (Sherron Rd)														1			Type 3 Modified - 848D0609
7133	1	US-70	SR-1811 (Sherron Rd)														1			Type 3 Modified - 848D0609
7136	1	US-70	SR-1959 (S Miami Blvd)	18					18					16		30	1			Type 6 - 848.06
7137	1	US-70	SR-1959 (S Miami Blvd)											1					1	Remove Ramp
7139	1	US-70	SR-1959 (S Miami Blvd)											1					1	Remove Ramp
7140	1	US-70	SR-1959 (S Miami Blvd)														1			Type 2B - 848.06
26829	1	US-70	SR-1959 (S Miami Blvd)	18					18					16		30		1		Type 6 - 848.06
26830	1	US-70	SR-1959 (S Miami Blvd)	18					18					16		30		1		Type 6 - 848.06
22037	2	SR-1959 (S Miami Blvd)	McDonalds's (1708 US 70) Miami Blvd Entrance														1			Type 3 Modified - 848D0609
22038	2	SR-1959 (S Miami Blvd)	McDonalds's (1708 US 70) Miami Blvd Entrance														1			Type 1C - 848.06
22039	2	SR-1959 (S Miami Blvd)	McDonalds's (1708 US 70) Miami Blvd Entrance														1			Type 1C - 848.06
22040	2	SR-1959 (S Miami Blvd)	McDonalds's (1708 US 70) Miami Blvd Entrance														1			Type 3 Modified - 848D0609
22041	3	SR-1959 (S Miami Blvd)	Bojangles (1712 S Miami Blvd)														1			Type 1C - 848.06
22042	3	SR-1959 (S Miami Blvd)	Bojangles (1712 S Miami Blvd)														1			Type 1C - 848.06
22043	3	SR-1959 (S Miami Blvd)	Bethesda Ruritan Club (1714 S Miami Blvd)														1			Type 1C - 848.06
22044	3	SR-1959 (S Miami Blvd)	Bethesda Ruritan Club (1714 S Miami Blvd)														1			Type 2B - 848.06
22035	4	SR-1959 (S Miami Blvd)	Bailey St														1			Type 1 Modified - 848.06
22036	4	SR-1959 (S Miami Blvd)	Bailey St														1			Type 1 Modified - 848.06
22045	5	SR-1959 (S Miami Blvd)	Durham County Fire and Rescue Station 82 (1724 S Miami Blvd)														1			Type 3 Modified - 848D0609
22020	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 2B - 848.06
22021	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)			14			9										1	Remove Ramp
22024	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 3 Modified - 848D0609
22025	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 2B - 848.06
22030	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 3 Modified - 848D0609
22031	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 3 Modified - 848D0609
22033	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 2B - 848.06
22034	6	SR-1926 (Angier Ave)	SR-1959 (S Miami Blvd)														1			Type 3 Modified - 848D0609
22022	7	SR-1959 (S Miami Blvd)	76 Gas Station (1801 S Miami Blvd)														1			Type 1C - 848.06
22023	7	SR-1959 (S Miami Blvd)	76 Gas Station (1801 S Miami Blvd)														1			Type 1C - 848.06
22026	8	SR-1959 (S Miami Blvd)	Strauss Dr							3			1				1			Type 3 Modified - 848D0609
Sub-Total				**84**	**0**	**14**	**0**	**0**	**93**	**3**	**0**	**0**	**1**	**80**	**0**	**146**	**29**	**2**	**3**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - MIAMI BLVD FROM US 70 TO SR 2028

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20321**
County:	**Durham**

Sheet No.
25

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
22027	8	SR-1959 (S Miami Blvd)	Strauss Dr	5								1					1			Type 7 - 848.06
22028	8	SR-1959 (S Miami Blvd)	Strauss Dr	5													1			Type 7 - 848.06
22029	8	SR-1959 (S Miami Blvd)	Strauss Dr							3							1			Type 3 Modified - 848D0609
22016**	9	SR-1959 (S Miami Blvd)	Bethesda Ave														1			Type 3 Modified - 848D0609
22017**	9	SR-1959 (S Miami Blvd)	Bethesda Ave														1			Type 2B - 848.06
22012	10	SR-1959 (S Miami Blvd)	Bethesda Christian Academy (1914 S Miami Blvd)														1			Type 3 Modified - 848D0609
22013**	10	SR-1959 (S Miami Blvd)	Bethesda Christian Academy (1914 S Miami Blvd)	5											3		1			Type 7 - 848.06
22014**	10	SR-1959 (S Miami Blvd)	Bethesda Christian Academy (1914 S Miami Blvd)	5											3		1			Type 7 - 848.06
22015	10	SR-1959 (S Miami Blvd)	Bethesda Christian Academy (1914 S Miami Blvd)														1			Type 2B - 848.06
21938**	11	SR-1959 (S Miami Blvd)	SR-1954 (Ellis Rd)														1			Type 3 - 848D0609
21939**	11	SR-1959 (S Miami Blvd)	SR-1954 (Ellis Rd)														1			Type 3 Modified - 848D0609
21940**	11	SR-1959 (S Miami Blvd)	SR-1954 (Ellis Rd)														1			Type 3 Modified - 848D0609
21941	11	SR-1959 (S Miami Blvd)	SR-1954 (Ellis Rd)														1			Type 3 Modified - 848D0609
21936	12	SR-1959 (S Miami Blvd)	Bethesda Elementary School (2009 S Miami Blvd) North Entrance														1			Standard - 848.06
21937	12	SR-1959 (S Miami Blvd)	Bethesda Elementary School (2009 S Miami Blvd) North Entrance														1			Type 1 Modified - 848.06
21932**	13	SR-1959 (S Miami Blvd)	Bethesda Elementary School (2009 S Miami Blvd) South Entrance														1			Type 3 Modified - 848D0609
21933**	13	SR-1959 (S Miami Blvd)	Bethesda Elementary School (2009 S Miami Blvd) South Entrance	4											2		1			Type 7 - 848.06
21934**	13	SR-1959 (S Miami Blvd)	Bethesda Elementary School (2009 S Miami Blvd) South Entrance	4											2		1			Type 7 - 848.06
21935	13	SR-1959 (S Miami Blvd)	Bethesda Elementary School (2009 S Miami Blvd) South Entrance														1			Type 3 Modified - 848D0609
21930	14	SR-1959 (S Miami Blvd)	BP Gas Station (2219 S Miami Blvd)														1			Type 3 Modified - 848D0609
21931	14	SR-1959 (S Miami Blvd)	BP Gas Station (2219 S Miami Blvd)														1			Type 1C - 848.06
21602	15	SR-1959 (S Miami Blvd)	Ambassador Dr														1			Type 3 Modified - 848D0609
21603**	15	SR-1959 (S Miami Blvd)	Ambassador Dr														1			Type 3 Modified - 848D0609
21604**	15	SR-1959 (S Miami Blvd)	Longmont Dr														1			Standard - 848.06
21605	15	SR-1959 (S Miami Blvd)	Longmont Dr														1			Standard - 848.06
21600	16	SR-1959 (S Miami Blvd)	Methodist St														1			Type 3 Modified - 848D0609
21601**	16	SR-1959 (S Miami Blvd)	Methodist St														1			Type 3 Modified - 848D0609
21606	16	SR-1959 (S Miami Blvd)	New Haven Dr														1			Type 2B - 848.06
21607**	16	SR-1959 (S Miami Blvd)	New Haven Dr							6							1			Standard - 848.06
Sub-Total				**28**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**1**	**0**	**0**	**10**	**0**	**29**	**0**	**0**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

ADA SUMMARY OF QUANTITIES - MIAMI BLVD FROM US 70 TO SR 2028

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20321**
County:	**Durham**

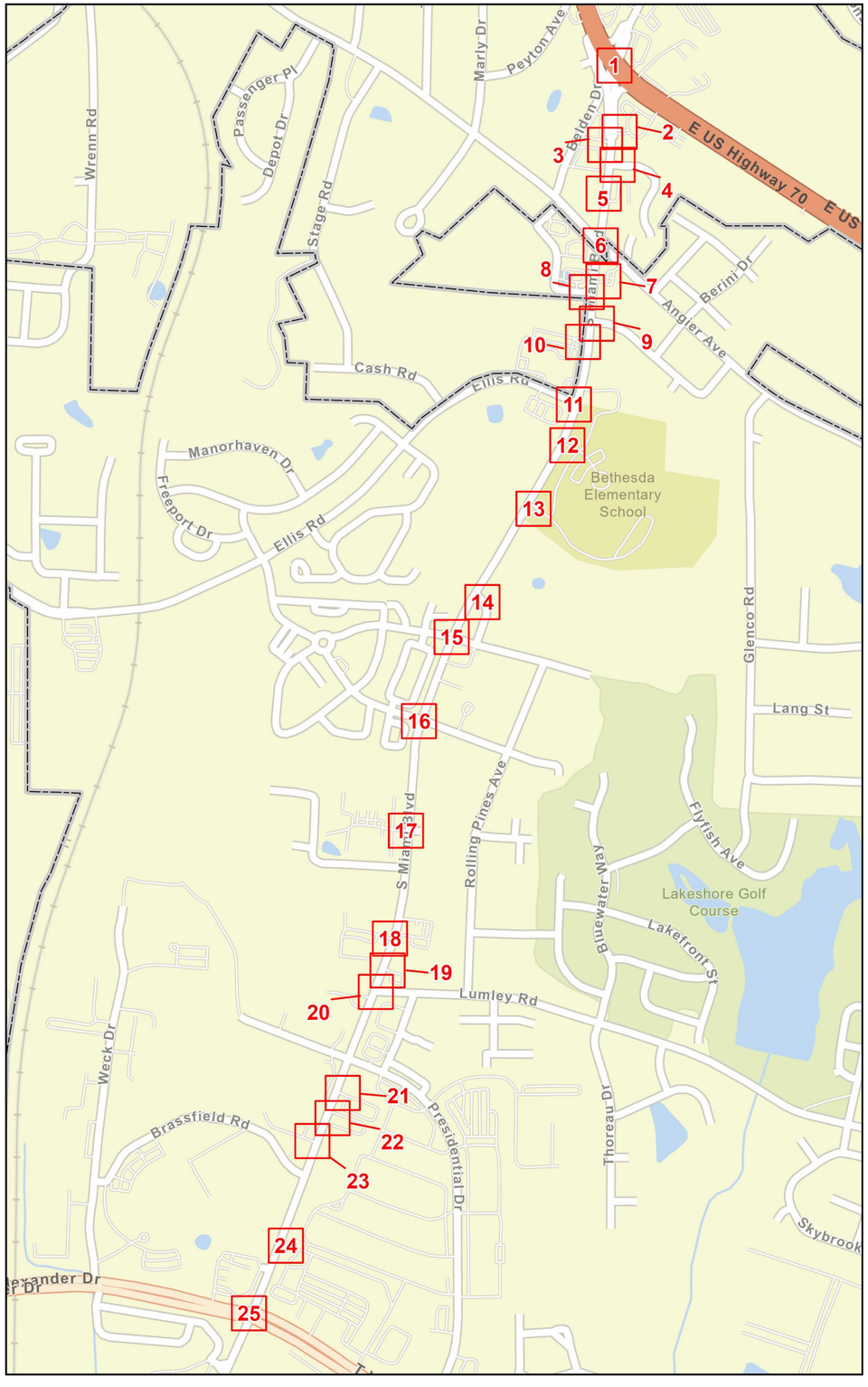
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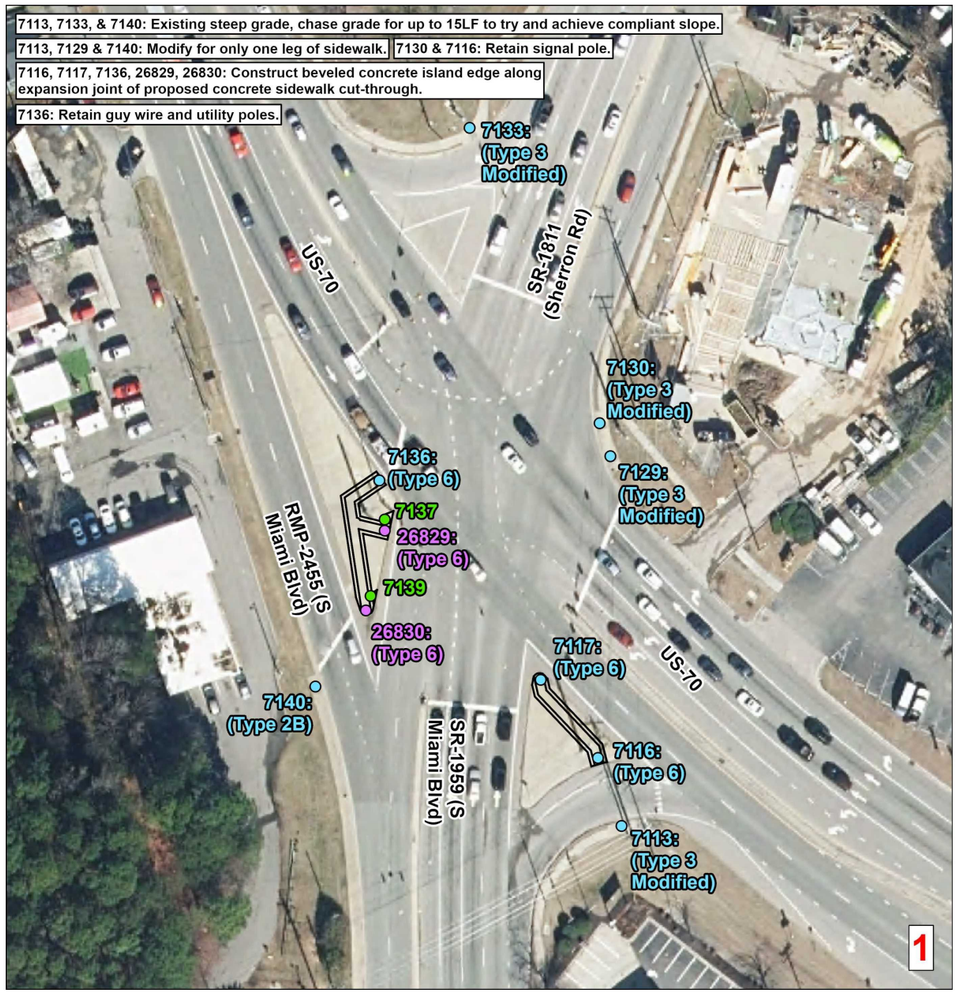
Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
21608	17	SR-1959 (S Miami Blvd)	City Electric Supply Durham (2436 S Miami Blvd)														1			Type 1C - 848.06
21609	17	SR-1959 (S Miami Blvd)	City Electric Supply Durham (2436 S Miami Blvd)														1			Type 1C - 848.06
21598	18	SR-1959 (S Miami Blvd)	GoDog RTP (2612 S Miami Blvd)														1			Type 1 Modified - 848.06
21599	18	SR-1959 (S Miami Blvd)	GoDog RTP (2612 S Miami Blvd)														1			Type 1 Modified - 848.06
21594	19	SR-1959 (S Miami Blvd)	Triangle Research Dental (2615 S Miami Blvd)														1			Type 1 Modified - 848.06
21595	19	SR-1959 (S Miami Blvd)	Triangle Research Dental (2615 S Miami Blvd)														1			Type 1 Modified - 848.06
21592	20	SR-1959 (S Miami Blvd)	SR-1966 (Lumley Rd)														1			Type 2B - 848.06
21593	20	SR-1959 (S Miami Blvd)	SR-1966 (Lumley Rd)			18			9										1	Remove Ramp
22662	21	SR-1959 (S Miami Blvd)	Mr. Tire Auto Service (2811 S Miami Blvd)														1			Type 1C - 848.06
22663	21	SR-1959 (S Miami Blvd)	Mr. Tire Auto Service (2811 S Miami Blvd)														1			Type 1C - 848.06
22658	22	SR-1959 (S Miami Blvd)	Durham Fire Station No. 13 (2901 S Miami Blvd)														1			Type 1C - 848.06
22659	22	SR-1959 (S Miami Blvd)	Durham Fire Station No. 13 (2901 S Miami Blvd)														1			Type 1C - 848.06
22660	22	SR-1959 (S Miami Blvd)	Durham Fire Station No. 13 (2901 S Miami Blvd)														1			Type 1C - 848.06
22661	22	SR-1959 (S Miami Blvd)	Durham Fire Station No. 13 (2901 S Miami Blvd)														1			Type 1C - 848.06
22668	23	SR-1959 (S Miami Blvd)	NC Farm Bureau Insurance (2902 S Miami Blvd)														1			Type 1C - 848.06
22669	23	SR-1959 (S Miami Blvd)	NC Farm Bureau Insurance (2902 S Miami Blvd)														1			Type 1C - 848.06
22656	24	SR-1959 (S Miami Blvd)	Presidential Park West (2933 S Miami Dr)				10										1			Type 3 Modified - 848D0609
22657	24	SR-1959 (S Miami Blvd)	Presidential Park West (2933 S Miami Dr)														1			Type 3 Modified - 848D0609
26828	25	SR-2028 (TW Alexander Dr)	SR-1959 (S Miami Blvd)					20										1		Standard - 848.06
-	-	-	-	-	20*	-	300*	-	-	135*	-	-	-	-	-	-	-	-	-	
Sub-Total				**0**	**20**	**18**	**310**	**20**	**9**	**135**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**1**	**1**	
Sub-Total for Miami Blvd From US 70 To SR 2028				**112**	**20**	**32**	**310**	**20**	**102**	**147**	**0**	**1**	**1**	**80**	**10**	**146**	**75**	**3**	**4**	

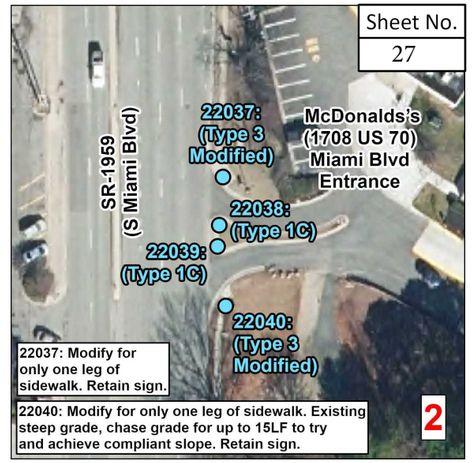
*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

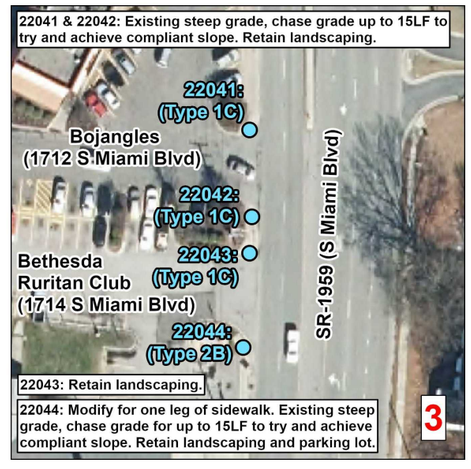
**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

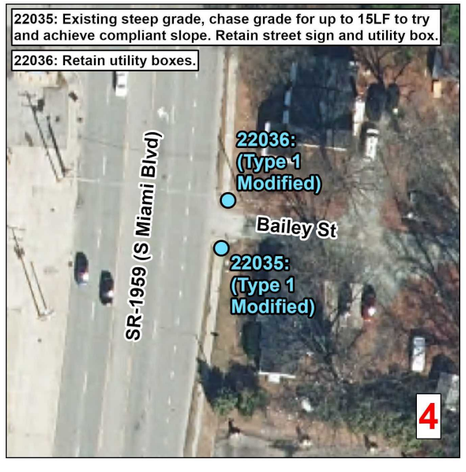
Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.













Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham

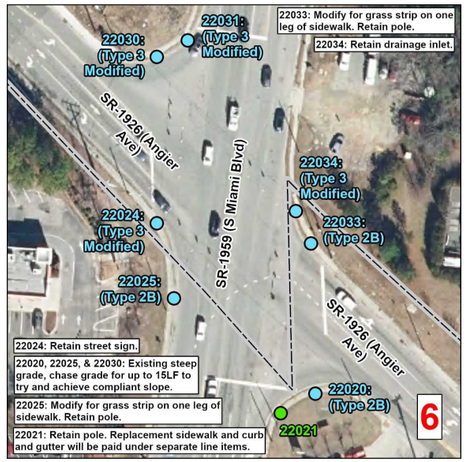
WBS Number: 2027CPT.05.05.20321

Miami Blvd

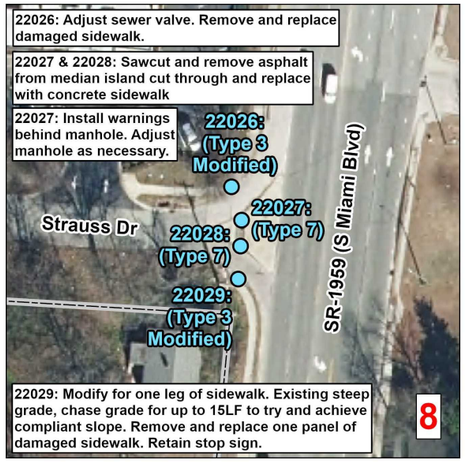
From US 70 To SR 2028

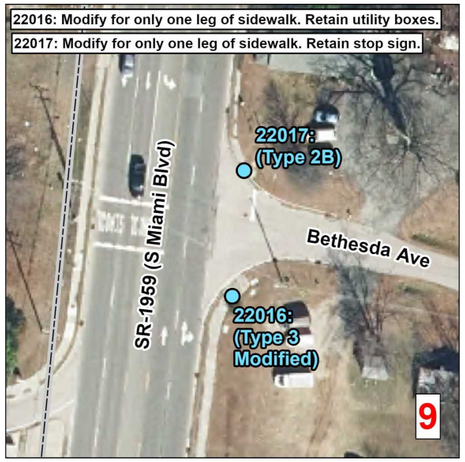
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

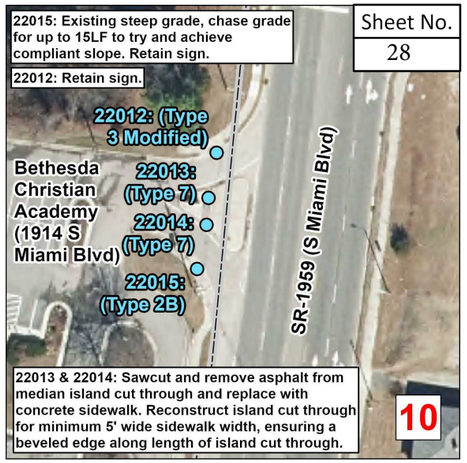
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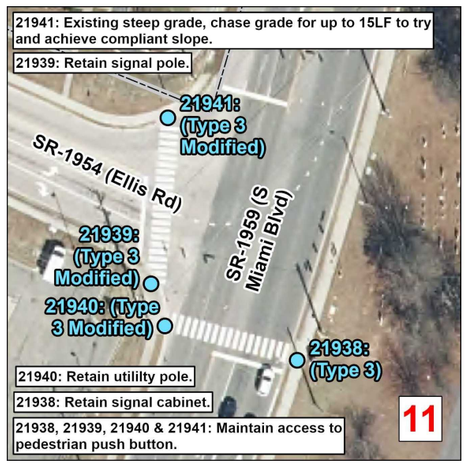




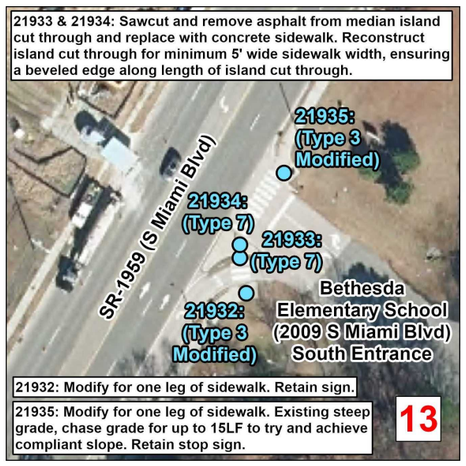


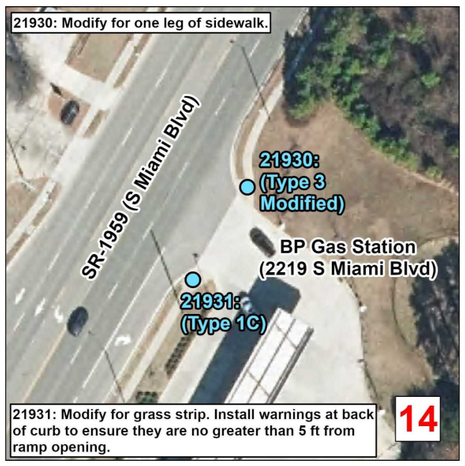


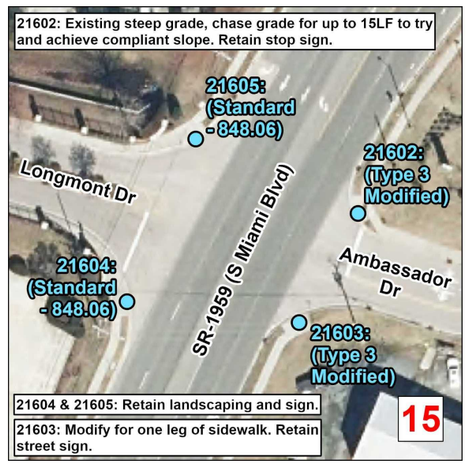


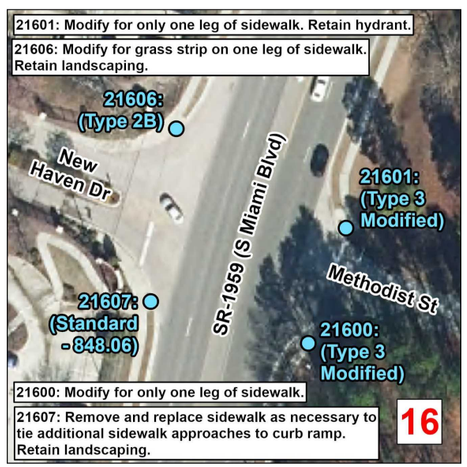


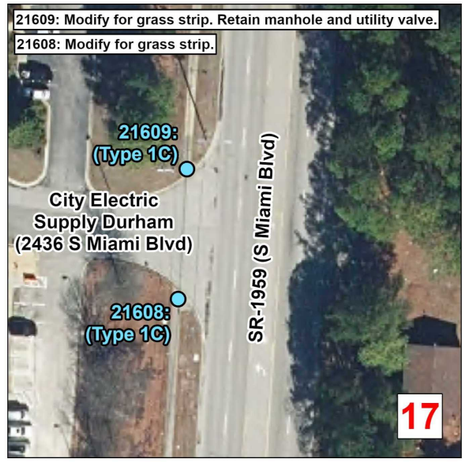
















Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham

WBS Number: 2027CPT.05.05.20321

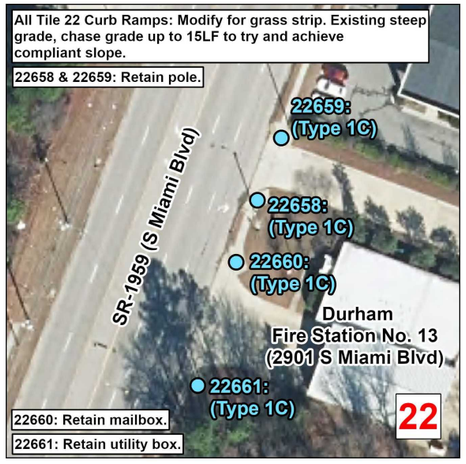
Miami Blvd
From US 70 To SR 2028

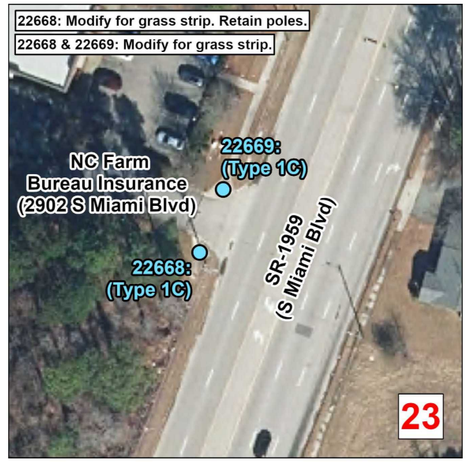
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

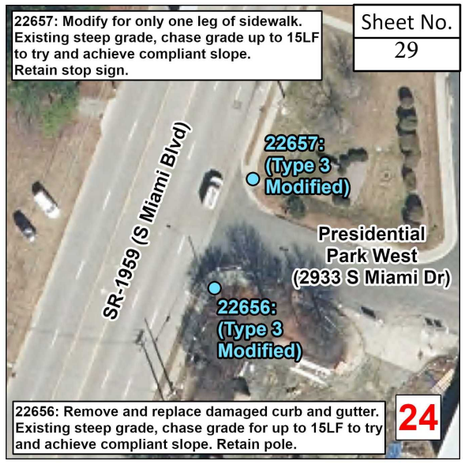
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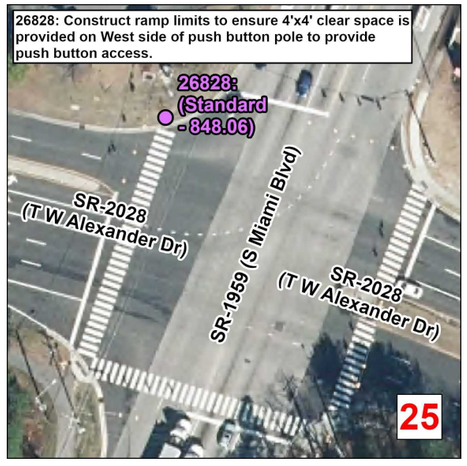












Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham
WBS Number: 2027CPT.05.05.20321

Miami Blvd
From US 70 To SR 2028

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - MLK PKWY FROM NC 751 TO SR 2220

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20321**
County:	**Durham**

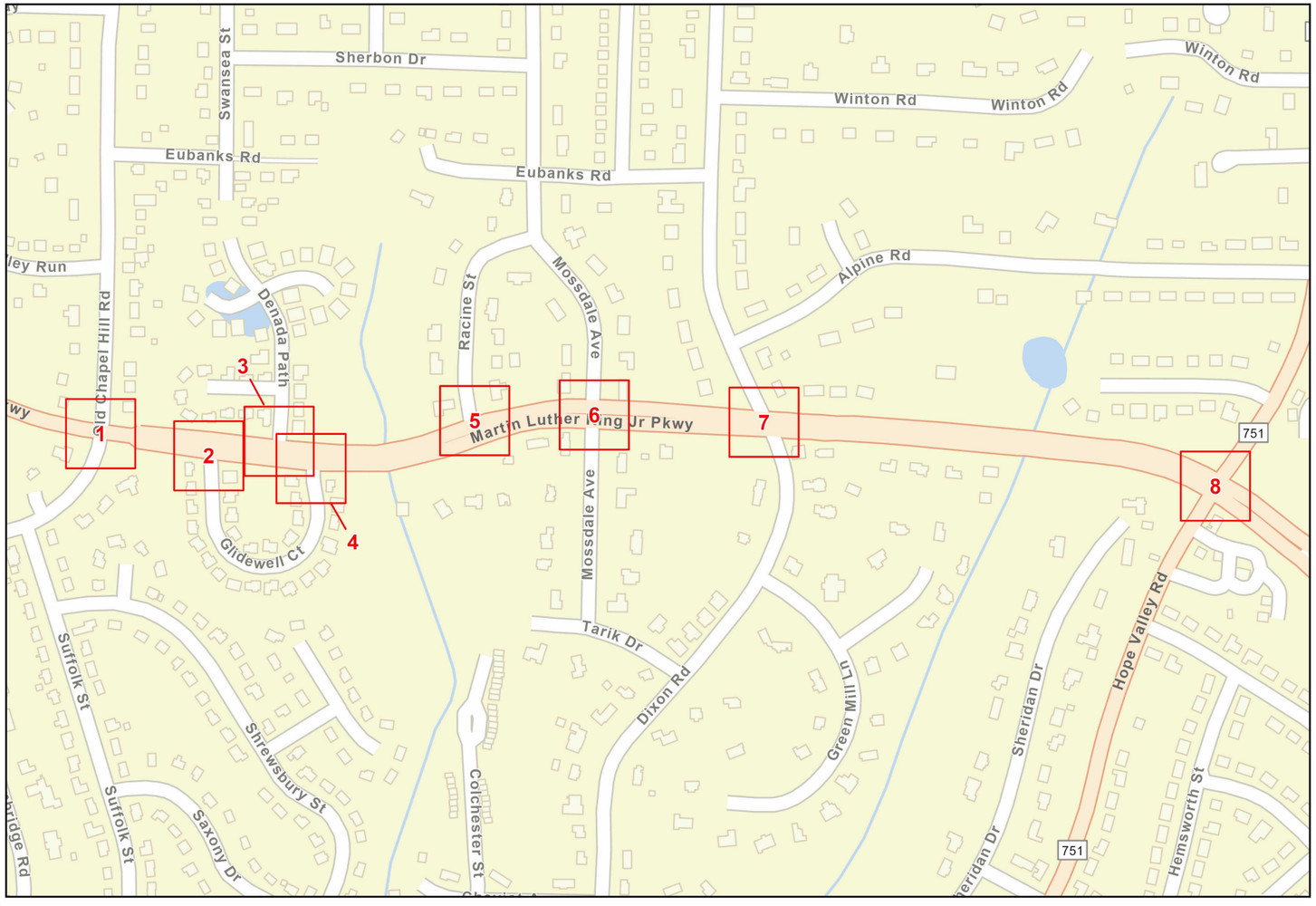
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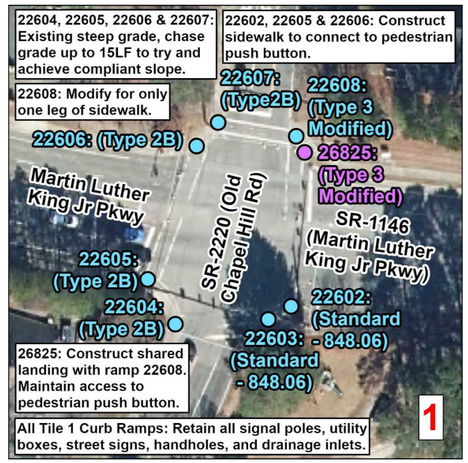
Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
22602**	1	SR-2220 (Old Chapel Hill Rd)	SR-1146 (Martin Luther King Jr Pkwy)						3								1			Standard - 848.06
22603	1	SR-2220 (Old Chapel Hill Rd)	SR-1146 (Martin Luther King Jr Pkwy)														1			Standard - 848.06
22604	1	SR-2220 (Old Chapel Hill Rd)	Martin Luther King Jr Pkwy														1			Type 2B - 848.06
22605	1	SR-2220 (Old Chapel Hill Rd)	Martin Luther King Jr Pkwy						3								1			Type 2B - 848.06
22606	1	SR-2220 (Old Chapel Hill Rd)	Martin Luther King Jr Pkwy						6								1			Type 2B - 848.06
22607	1	SR-2220 (Old Chapel Hill Rd)	Martin Luther King Jr Pkwy														1			Type 2B - 848.06
22608	1	SR-2220 (Old Chapel Hill Rd)	SR-1146 (Martin Luther King Jr Pkwy)														1			Type 3 Modified - 848D0609
26825	1	SR-2220 (Old Chapel Hill Rd)	SR-1146 (Martin Luther King Jr Pkwy)					10			9							1		Type 3 Modified - 848D0609
22610	2	SR-1146 (Martin Luther King Jr Pkwy)	Glidewell Ct (West Entrance)								3						1			Type 3 Modified - 848D0609
22611	2	SR-1146 (Martin Luther King Jr Pkwy)	Glidewell Ct (West Entrance)														1			Type 3 Modified - 848D0609
22614	3	SR-1146 (Martin Luther King Jr Pkwy)	Denada Path														1			Type 3 Modified - 848D0609
22615	3	SR-1146 (Martin Luther King Jr Pkwy)	Denada Path														1			Type 3 Modified - 848D0609
22612	4	SR-1146 (Martin Luther King Jr Pkwy)	Glidewell Ct (East Entrance)														1			Type 3 Modified - 848D0609
22613	4	SR-1146 (Martin Luther King Jr Pkwy)	Glidewell Ct (East Entrance)								6						1			Type 3 Modified - 848D0609
22616	5	SR-1146 (Martin Luther King Jr Pkwy)	Racine St								6						1			Type 3 Modified - 848D0609
22617**	5	SR-1146 (Martin Luther King Jr Pkwy)	Racine St								8						1			Type 3 Modified - 848D0609
22618	6	SR-1146 (Martin Luther King Jr Pkwy)	Mossdale Ave								6		1				1			Type 3 Modified - 848D0609
22619	6	SR-1146 (Martin Luther King Jr Pkwy)	Mossdale Ave								6		1				1			Type 3 Modified - 848D0609
22620	6	SR-1146 (Martin Luther King Jr Pkwy)	Mossdale Ave								9						1			Type 3 Modified - 848D0609
22621	6	SR-1146 (Martin Luther King Jr Pkwy)	Mossdale Ave								6						1			Type 3 Modified - 848D0609
22622	7	SR-1146 (Martin Luther King Jr Pkwy)	Dixon Rd														1			Type 3 Modified - 848D0609
22623	7	SR-1146 (Martin Luther King Jr Pkwy)	Dixon Rd										1				1			Type 3 Modified - 848D0609
22624	7	SR-1146 (Martin Luther King Jr Pkwy)	Dixon Rd														1			Type 3 - 848D0609
22625	7	SR-1146 (Martin Luther King Jr Pkwy)	Dixon Rd						6								1			Standard - 848.06
22626	7	SR-1146 (Martin Luther King Jr Pkwy)	Dixon Rd						3	6							1			Standard - 848.06
22627	8	NC-751 (Hope Valley Rd)	SR-1146 (Martin Luther King Jr Pkwy)														1			Standard - 848.06
22628	8	NC-751 (Hope Valley Rd)	SR-1146 (Martin Luther King Jr Pkwy)														1			Standard - 848.06
22629	8	NC-751 (Hope Valley Rd)	Martin Luther King Jr Pkwy										1				1			Type 2B - 848.06
22630	8	NC-751 (Hope Valley Rd)	Martin Luther King Jr Pkwy														1			Type 3 Modified - 848D0609
22631	8	NC-751 (Hope Valley Rd)	Martin Luther King Jr Pkwy														1			Standard - 848.06
22632	8	NC-751 (Hope Valley Rd)	Martin Luther King Jr Pkwy						3								1			Standard - 848.06
22633	8	NC-751 (Hope Valley Rd)	SR-1146 (Martin Luther King Jr Pkwy)														1			Standard - 848.06
22634	8	NC-751 (Hope Valley Rd)	SR-1146 (Martin Luther King Jr Pkwy)						3								1			Standard - 848.06
-	-	-	-	8*	-	-	128*	-	-	66*	-	-	-	-	-	-	-	-	-	
Sub-Total for MLK Pkwy From NC 751 To SR 2220				**8**	**0**	**0**	**128**	**10**	**27**	**72**	**59**	**0**	**4**	**0**	**0**	**0**	**32**	**1**	**0**	

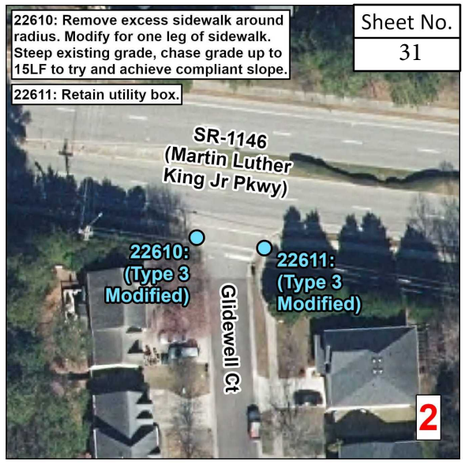
*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

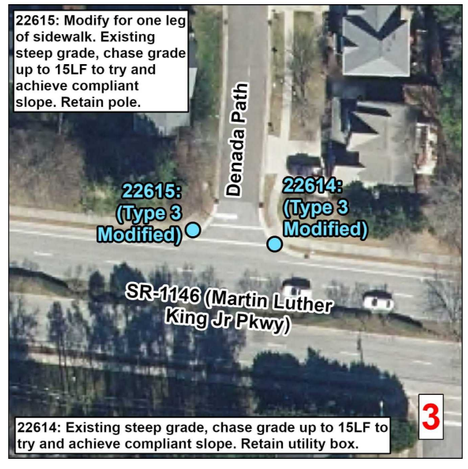
Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.

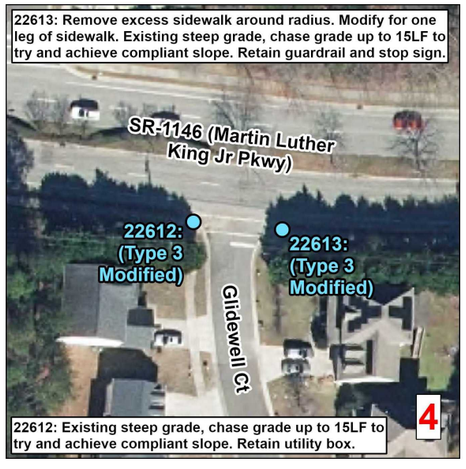


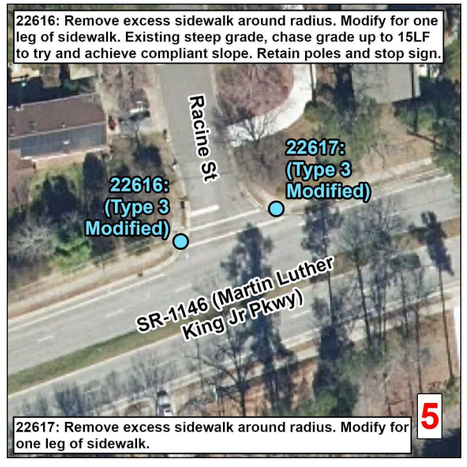


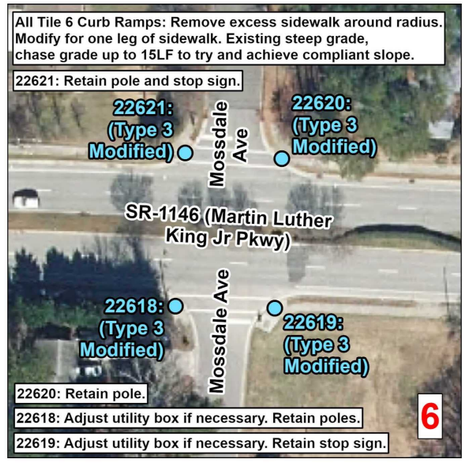


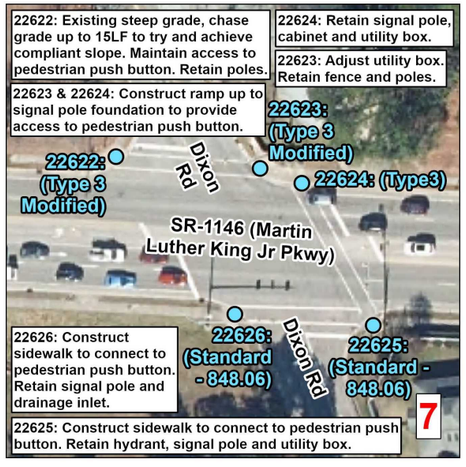
Sheet No.
31

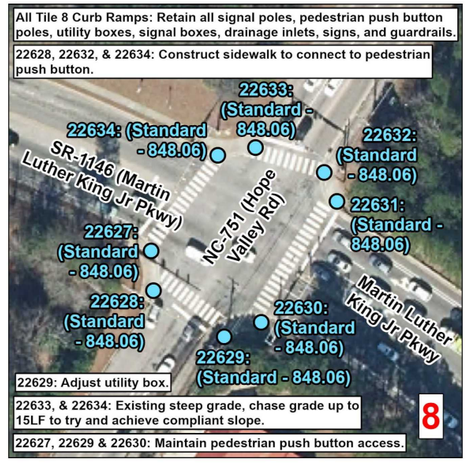












Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham
WBS Number: 2027CPT.05.05.20321

MLK Pkwy
From NC 751 To SR 2220

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - STONE RD. FROM SR 1955 TO PAVEMENT JOINT @ C&G

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20322**
County:	**Durham**

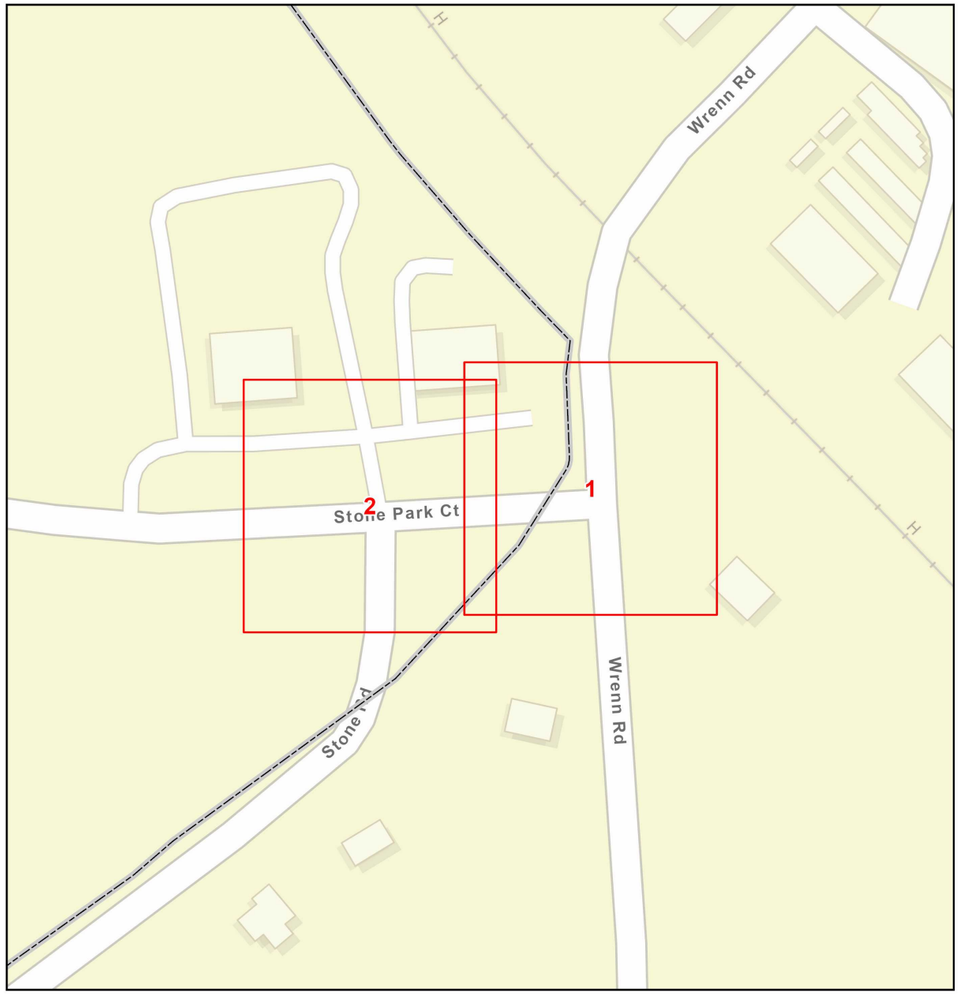
Sheet No.
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Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
22866	1	SR-1955 (Wrenn Rd)	SR-1956 (Stone Park Ct)														1			Type 3 Modified - 848D0609
22864	2	SR-1956 (Stone Park Ct)	Bland Landscaping Co. (126 Stone Park Ct)														1			Type 1C - 848.06
22865	2	SR-1956 (Stone Park Ct)	Bland Landscaping Co. (126 Stone Park Ct)														1			Type 1C - 848.06
-	-	-	-	-	1*	-	12*	-	-	6*	9*	-	-	-	-	-	-	-	-	
Sub-Total for Stone Rd. From SR 1955 To Pavement Joint @ C&G				**0**	**1**	**0**	**12**	**0**	**0**	**6**	**9**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	

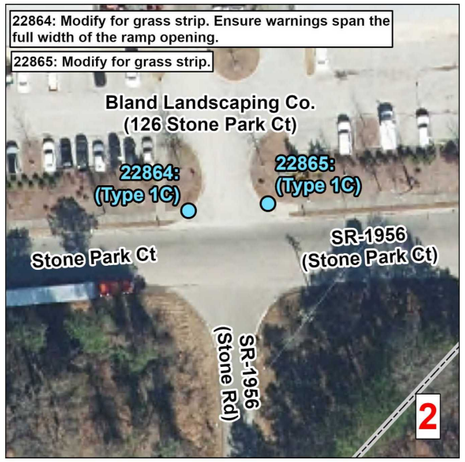
*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.







Sheet No.
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Curb Ramps To Be Repaired

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

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

Durham
WBS Number: 2027CPT.05.05.20322

Stone Rd From SR 1955
To Pavement Joint @ C&G

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - BANDOCK RD FROM SR 2042 TO SR 2044

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20322**
County:	**Durham**

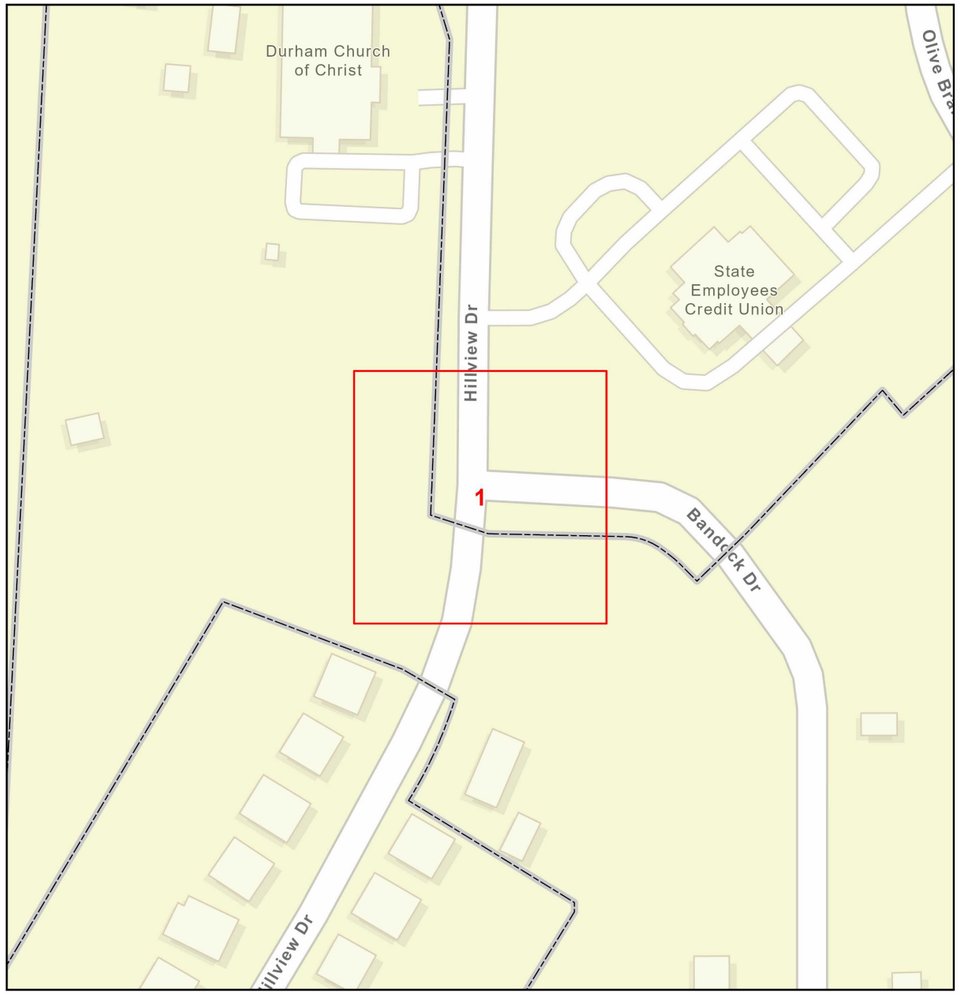
Sheet No.
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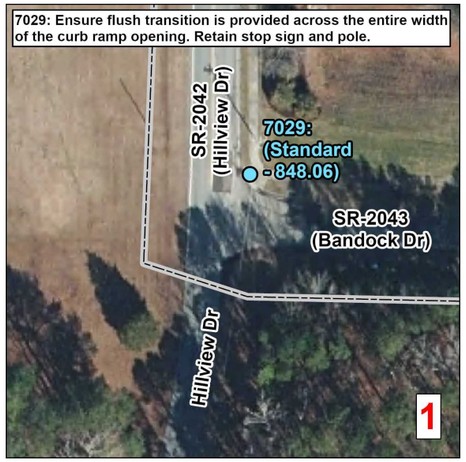
Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
7029	1	SR-2042 (Hillview Dr)	SR-2043 (Bandock Dr)														1			Standard - 848.06
-	-	-	-	-	-	-	4*	-	-	-	-	-	-	-	-	-	-	-	-	
Sub-Total for Bandock Rd From SR 2042 To SR 2044				**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.





Sheet No.
35

Curb Ramps To Be Repaired

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

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

Durham
WBS Number: 2027CPT.05.05.20322

Bandock Rd
From SR 2042 To SR 2044

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - COLONY RD. FROM SR 1303 TO BEGIN C&G

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20322**
County:	**Durham**

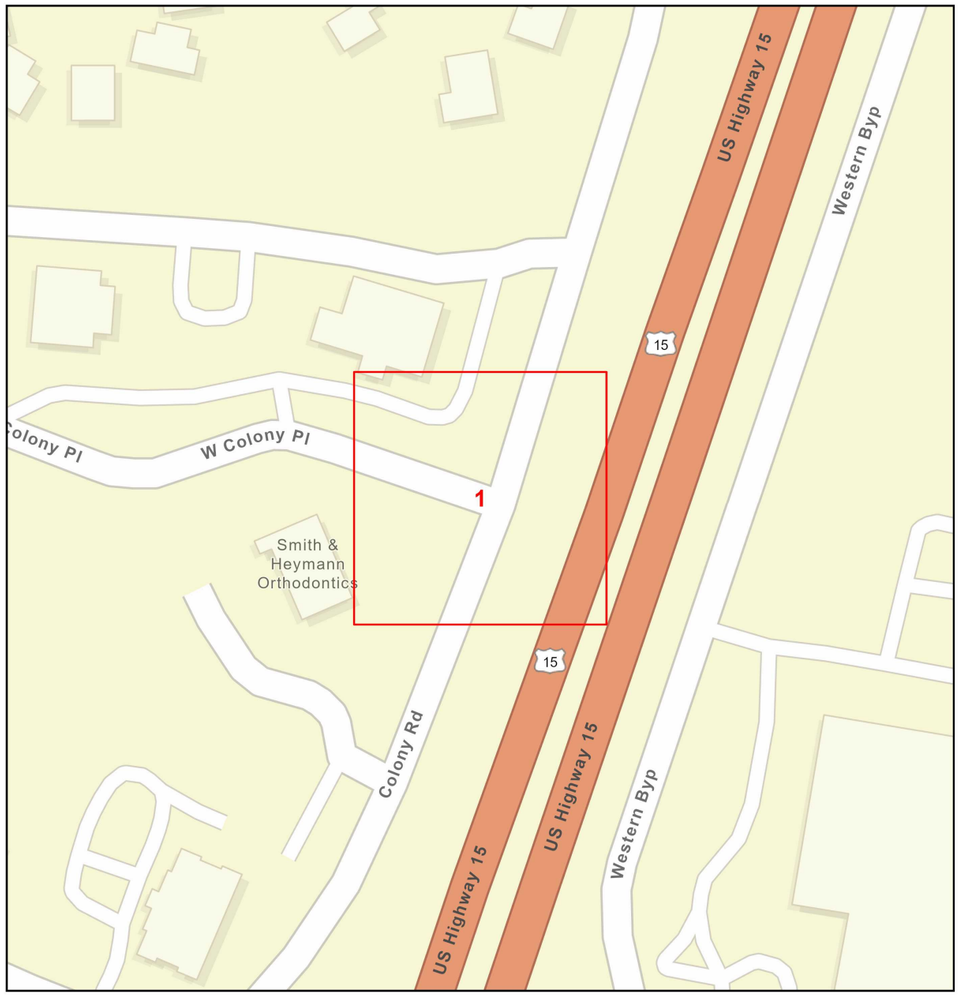
Sheet No.
36

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
19976	1	SR-1368 (Colony Rd)	W Colony Pl														1			Type 1D - 848.06
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sub-Total for Colony Rd. From SR 1303 To Begin C&G				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.





Curb Ramps To Be Repaired

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

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

Durham
WBS Number: 2027CPT.05.05.20322

Colony Rd
From SR 1303 To Begin C&G

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

ADA SUMMARY OF QUANTITIES - CRYSTAL LAKE RD FROM END MAINT TO NC 157

Municipality:	**Durham**
WBS Number:	**2027CPT.05.05.20322**
County:	**Durham**

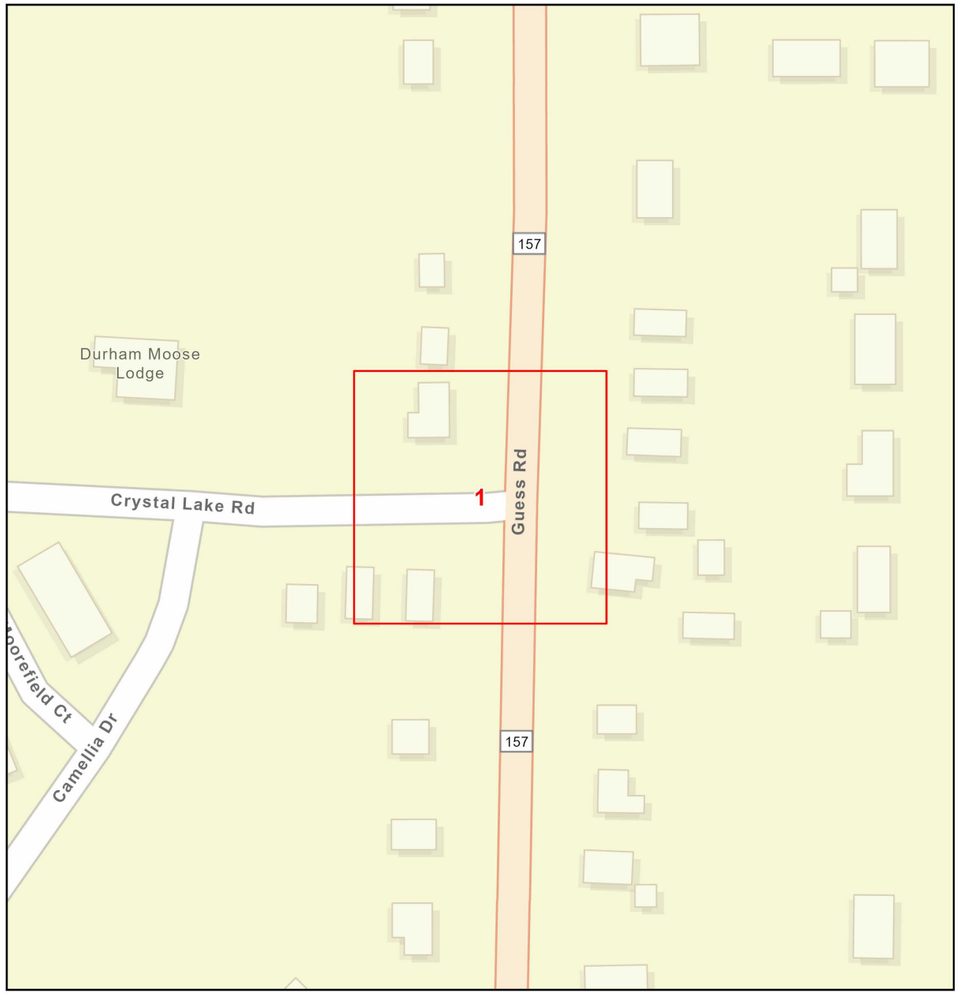
Sheet No.
38

Ramp ID	Inset Map Number	Route 1	Route 2	0156000000-E (SY) Removal of Existing Asphalt Pavement	1704000000-E (TON) Patching Existing Pavement	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove And Replace 2'-6" Concrete Curb & Gutter	0257000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	0241000000-E (SY) Remove 4" Concrete Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove And Replace 5" Monolithic Concrete Islands (Keyed In)	0241000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	0262000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
3134**	1	SR 1322 (Guess Rd)	SR 1412 (Crystal Lake Rd)														1			Type 3 Modified - 848D0609
3136	1	SR 1322 (Guess Rd)	SR 1412 (Crystal Lake Rd)														1			Type 3 Modified - 848D0609
-	-	-	-	-	-	-	8*	-	-	3*	-	-	-	-	-	-	-	-	-	
Sub-Total for Crystal Lake Rd From End Maint To NC 157				**0**	**0**	**0**	**8**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	

*Contingency line item amount provided for additional adjustments outside of curb ramp pay limits, as needed.

**While ramp is compliant upon initial inspection, it is to be improved in order to create a more resilient curb ramp.

Notes: (1) ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page. (2) Construct in accordance with Section 848. Detectable warnings shall be of one of the following materials: engineered plastics, rubber, or composite tile. Additionally, warnings shall be applied directly to the curb ramps by incorporating into the concrete of the curb ramps unless otherwise approved by the Engineer. Surface mounted rubber mats, brick, steel and stamped concrete pavers will not be accepted. (3) In accordance with PROWAG Sections R304.2.1 and R304.3.1, curb ramp running slope is to be constructed to a maximum of 8.33%. Where the curb ramp length must exceed 15 feet to achieve an 8.33% running slope, the curb ramp length shall extend at least 15 feet and may have a running slope greater than 8.33%.





Curb Ramps To Be Repaired

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

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

Durham
WBS Number: 2027CPT.05.05.20322

Crystal Lake Rd
From End Maint. To NC 157

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

PROJECT NO.	SHEET NO.
2027CPT.05.05.20321, 2027CPT.05.05.20322	40

SUMMARY OF QUANTITIES

														0156000000-E	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1308000000-E		1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	2549000000-E	2591000000-E	2605000000-N	2612500000-N	2655000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	REMOVAL OF EXISTING ASPHALT PAVEMENT	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	0" TO 1.5" MILLING	0" TO 1" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CURB & GUTTER	4" CONCRETE SIDEWALK	CONCRETE CURB RAMPS	REMOVE AND REPLACE CURB RAMPS	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)
										MI	FT			SY	TONS	SMI	TON	SY	SY	SY	SY	TONS	TONS	TON	TONS	LF	SY	EA	EA	SY
2027CPT.05.05.20321	Durham	1	SR-1121 / E CORNWALLIS RD	FROM SR 2028 TO WIDTH CHANGE	1	2	2WU	NO	YES	0.636	24	2.594	3.230	6	28	1.11	103	13,526	371		96		1,206	72	22	30	15		18	16
2027CPT.05.05.20321	Durham	2	SR-1121 / E CORNWALLIS RD	FROM WIDTH CHANGE TO WIDTH CHANGE	1	2	2WU	NO	YES	0.561	48	3.230	3.791		16	0.65	60	22,752	652		768		2,078	124	22					
2027CPT.05.05.20321	Durham	3	SR-1121 / E CORNWALLIS RD	FROM WIDTH CHANGE TO SR 1999	1	2	2WU	NO	YES	0.384	46	3.791	4.175	34	17	0.67	62	25,450	224		1,058		1,493	90	30	15			30
2027CPT.05.05.20321	Durham	4	SR-1959 / S MIAMI BLVD	FROM US 70 TO SR 2028	2	2	MU	NO	YES	1.821	60	0.000	1.821	82				83,022	8,547		4,678		7,747	461	73	32	102	3	75	80
2027CPT.05.05.20321	Durham	5	SR-1959 / S MIAMI BLVD	FROM BEGIN DIVIDED TO US 70	2	2	MU	NO	YES	0.099	48	4.706	4.805	30				4,489	465		384		430	26	4					
2027CPT.05.05.20321	Durham	6	SR-1146 / MARTIN LUTHER KING JR PKWY	FROM NC 751 TO SR 2220	2	2	MD	NO	YES	0.774	48	0.000	0.774	8				23,249	3,633		768		2,123	137	246		27	1	32	
TOTAL FOR PROJ NO. 2027CPT.05.05.20321										**4.275**				**160**	**61**	**2.43**	**225**	**172,488**	**13,892**		**7,752**		**15,077**	**910**	**397**	**77**	**144**	**4**	**125**	**126**
2027CPT.05.05.20322	Durham	7	SR-1956 / STONE PARK CT/STONE RD	FROM SR 1955 TO PAVEMENT JOINT @ C&G	3	2	2WU	NO	YES	0.470	20	0.000	0.470		18	0.72	66		433		200	498		39	140				3	
2027CPT.05.05.20322	Durham	8	SR-2102 / HORSEMAN TRL	FROM SR 1902 TO END MAINT	4	2	2WU	NO	YES	0.061	18	0.000	0.061								36	39		3	2					
2027CPT.05.05.20322	Durham	9	SR-2071 / PADDOCK DR	FROM SR 1901 TO SR 1902	4	2	2WU	NO	YES	0.250	20	0.000	0.250								89	175		12	10					
2027CPT.05.05.20322	Durham	10	SR-2147 / KING WILLIAM CT	FROM SR 2146 TO DEAD END	4	2	2WU	NO	YES	0.073	20	0.000	0.073									52		4	3					
2027CPT.05.05.20322	Durham	11	SR-2146 / STRATHMORE DR	FROM SR 1901 TO END MAINT	4	2	2WU	NO	YES	0.179	20	0.000	0.179								89	127		9	7					
2027CPT.05.05.20322	Durham	12	SR-2043 / BANDOCK DR	FROM SR 2042 TO SR 2044	4	2	2WU	NO	YES	0.560	20	0.000	0.560								89	386		30	98				1	
2027CPT.05.05.20322	Durham	13	SR-2031 / ASBURY CT	FROM SR 1905 TO DEAD END	4	2	2WU	NO	YES	0.200	20	0.000	0.200								89	141		13	76					
2027CPT.05.05.20322	Durham	14	SR-2032 / ATWOOD CT	FROM SR 2031 TO DEAD END	4	2	2WU	NO	YES	0.059	20	0.000	0.059									40		3	10					
2027CPT.05.05.20322	Durham	15	SR-2052 / VAN DR	FROM SR 1911 TO DEAD END	4	2	2WU	NO	YES	0.470	20	0.000	0.470								44	322		28	144					
2027CPT.05.05.20322	Durham	16	SR-2097 / KEITH ST	FROM SR 2052 TO SR 2047	4	2	2WU	NO	YES	0.157	18	0.000	0.157									96		10	84					
2027CPT.05.05.20322	Durham	17	SR-2047 / BAYARD RD	FROM SR 1811 TO SR 2111	4	2	2WU	NO	YES	0.220	20	0.000	0.220								44	152		13	71					
2027CPT.05.05.20322	Durham	18	SR-2111 / GUS RD	FROM SR 2052 TO END MAINT	4	2	2WU	NO	YES	0.108	18	0.000	0.108								36	68		7	57					
2027CPT.05.05.20322	Durham	19	SR-2110 / GUS RD	FROM SR 1910 TO END MAINT	4	2	2WU	NO	YES	0.130	20	0.000	0.130								89	94		14	170					
2027CPT.05.05.20322	Durham	20	SR-2151 / CHICKASAW RD	FROM SR 1910 TO SR 2052	4	2	2WU	NO	YES	0.240	18	0.000	0.240								72	151		12	52					
2027CPT.05.05.20322	Durham	21	SR-2022 / DANBURY DR	FROM SR 1911 TO SR 2038	4	2	2WU	NO	YES	0.310	20	0.000	0.310								44	213		18	95					
2027CPT.05.05.20322	Durham	22	SR-2040 / BERNARD DR	FROM SR 2022 TO SR 2039	4	2	2WU	NO	YES	0.087	20	0.000	0.087								89	64		7	52					
2027CPT.05.05.20322	Durham	23	SR-2039 / ALLISTER RD	FROM SR 2038 TO SR 2040	4	2	2WU	NO	YES	0.210	20	0.000	0.210								89	148		16	135					
2027CPT.05.05.20322	Durham	24	SR-1913 / LARKIN ST/CURRIN ST	FROM SR 1815 TO DEAD END	4	2	2WU	NO	YES	0.325	18	0.000	0.325								36	201		14	13					
2027CPT.05.05.20322	Durham	25	SR-1915 / MORGANTON RD	FROM SR 1815 TO SR 1913	4	2	2WU	NO	YES	0.070	16	0.000	0.070								28	40		3	3					
2027CPT.05.05.20322	Durham	26	SR-1914 / WILLOW SPRINGS RD	FROM SR 1815 TO END MAINT	4	2	2WU	NO	YES	0.147	20	0.000	0.147								89	105		7	6					
2027CPT.05.05.20322	Durham	27	SR-1368 / COLONY RD	FROM SR 1303 TO BEGIN C&G	4	2	2WU	NO	YES	0.260	20	0.000	0.260							253	89	182		12	8				1	
2027CPT.05.05.20322	Durham	28	SR-1671 / FERRELL RD	FROM SR 1670 TO SR 1670	3	2	2WU	NO	YES	1.421	20	2.652	4.073		58	2.33	215		650		1,359	1,571		127	510					
2027CPT.05.05.20322	Durham	29	SR-1449 / OLD COLE MILL RD	FROM SR 1401 TO END MAINT	4	2	2WU	NO	YES	0.220	20	3.410	3.630								89	155		19	176					
2027CPT.05.05.20322	Durham	30	SR-1629 / OLD ORANGE FACTORY RD	FROM SR 1628 TO DEAD END	4	2	2WU	NO	YES	0.144	18	0.000	0.144								36	90		6	6					
2027CPT.05.05.20322	Durham	31	SR-1412 / CRYSTAL LAKE RD	FROM END MAINT TO NC 157	4	2	2WU	NO	YES	0.086	20	0.055	0.141							108	44	61		8	79				2	
2027CPT.05.05.20322	Durham	32	SR-1468 / QUAIL ROOST FARM RD	FROM US 501 TO END PAVEMENT	5	2	2WU	NO	YES	0.470	16	0.000	0.470		21	0.83	77				85	327		24	66					
TOTAL FOR PROJ NO. 2027CPT.05.05.20322										**6.927**					**97**	**3.88**	**358**		**1,083**	**361**	**2,954**	**5,498**		**458**	**2,073**				**7**	
GRAND TOTAL										**11.202**				**160**	**158**	**6.31**	**583**	**172,488**	**14,975**	**361**	**10,706**	**5,498**	**15,077**	**1,368**	**2,470**	**77**	**144**	**4**	**132**	**126**

PROJECT NO.	SHEET NO.
2027CPT.05.05.20321, 2027CPT.05.05.20322	41

SUMMARY OF QUANTITIES

														2738000000-E		2752000000-E	0241000000-E		0257000000-E	0262000000-E	2830000000-N	2845000000-N	4600000000-N		7444000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	REMOVE AND REPLACE 4" CONCRETE SIDEWALK	REMOVE AND REPLACE 5" MONOLITHIC CONCRETE ISLAND (KEYED IN)	REMOVE AND REPLACE 2' 6" CONCRETE CURB AND GUTTER	REMOVE 5" MONOLITHIC CONCRETE ISLAND (KEYED IN)	REMOVE 4" CONCRETE SIDEWALK	REMOVE 2'-6" CONCRETE CURB AND GUTTER	REMOVE CONCRETE CURB RAMP	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	PEDESTRIAN TRANSPORT SERVICE	AUDIBLE WARNING DEVICES	INDUCTIVE LOOP SAWCUT
										MI	FT			SY	SY	LF	SY	SY	LF	EA	EA	EA	EA	EA	LF
2027CPT.05.05.20321	Durham	1	SR-1121 / E CORNWALLIS RD	FROM SR 2028 TO WIDTH CHANGE	1	2	2WU	NO	YES	0.636	24	2.594	3.230	9		72				3		1	10	1	236
2027CPT.05.05.20321	Durham	2	SR-1121 / E CORNWALLIS RD	FROM WIDTH CHANGE TO WIDTH CHANGE	1	2	2WU	NO	YES	0.561	48	3.230	3.791								2				1,752
2027CPT.05.05.20321	Durham	3	SR-1121 / E CORNWALLIS RD	FROM WIDTH CHANGE TO SR 1999	1	2	2WU	NO	YES	0.384	46	3.791	4.175							3	5				5,088
2027CPT.05.05.20321	Durham	4	SR-1959 / S MIAMI BLVD	FROM US 70 TO SR 2028	2	2	MU	NO	YES	1.821	60	0.000	1.821	147	10	310	146		20	4	21	8	20	3	4,608
2027CPT.05.05.20321	Durham	5	SR-1959 / S MIAMI BLVD	FROM BEGIN DIVIDED TO US 70	2	2	MU	NO	YES	0.099	48	4.706	4.805												960
2027CPT.05.05.20321	Durham	6	SR-1146 / MARTIN LUTHER KING JR PKWY	FROM NC 751 TO SR 2220	2	2	MD	NO	YES	0.774	48	0.000	0.774	72		128		59	10		28	9	10	2	1,368
TOTAL FOR PROJ NO. 2027CPT.05.05.20321										**4.275**				**228**	**10**	**510**	**146**	**59**	**30**	**10**	**56**	**18**	**40**	**6**	**14,012**
2027CPT.05.05.20322	Durham	7	SR-1956 / STONE PARK CT/STONE RD	FROM SR 1955 TO PAVEMENT JOINT @ C&G	3	2	2WU	NO	YES	0.470	20	0.000	0.470	6		12		9			2		1	1	
2027CPT.05.05.20322	Durham	8	SR-2102 / HORSEMAN TRL	FROM SR 1902 TO END MAINT	4	2	2WU	NO	YES	0.061	18	0.000	0.061												
2027CPT.05.05.20322	Durham	9	SR-2071 / PADDOCK DR	FROM SR 1901 TO SR 1902	4	2	2WU	NO	YES	0.250	20	0.000	0.250												
2027CPT.05.05.20322	Durham	10	SR-2147 / KING WILLIAM CT	FROM SR 2146 TO DEAD END	4	2	2WU	NO	YES	0.073	20	0.000	0.073												
2027CPT.05.05.20322	Durham	11	SR-2146 / STRATHMORE DR	FROM SR 1901 TO END MAINT	4	2	2WU	NO	YES	0.179	20	0.000	0.179												
2027CPT.05.05.20322	Durham	12	SR-2043 / BANDOCK DR	FROM SR 2042 TO SR 2044	4	2	2WU	NO	YES	0.560	20	0.000	0.560			4							1		
2027CPT.05.05.20322	Durham	13	SR-2031 / ASBURY CT	FROM SR 1905 TO DEAD END	4	2	2WU	NO	YES	0.200	20	0.000	0.200												
2027CPT.05.05.20322	Durham	14	SR-2032 / ATWOOD CT	FROM SR 2031 TO DEAD END	4	2	2WU	NO	YES	0.059	20	0.000	0.059												
2027CPT.05.05.20322	Durham	15	SR-2052 / VAN DR	FROM SR 1911 TO DEAD END	4	2	2WU	NO	YES	0.470	20	0.000	0.470												
2027CPT.05.05.20322	Durham	16	SR-2097 / KEITH ST	FROM SR 2052 TO SR 2047	4	2	2WU	NO	YES	0.157	18	0.000	0.157												
2027CPT.05.05.20322	Durham	17	SR-2047 / BAYARD RD	FROM SR 1811 TO SR 2111	4	2	2WU	NO	YES	0.220	20	0.000	0.220												
2027CPT.05.05.20322	Durham	18	SR-2111 / GUS RD	FROM SR 2052 TO END MAINT	4	2	2WU	NO	YES	0.108	18	0.000	0.108												
2027CPT.05.05.20322	Durham	19	SR-2110 / GUS RD	FROM SR 1910 TO END MAINT	4	2	2WU	NO	YES	0.130	20	0.000	0.130									1			
2027CPT.05.05.20322	Durham	20	SR-2151 / CHICKASAW RD	FROM SR 1910 TO SR 2052	4	2	2WU	NO	YES	0.240	18	0.000	0.240									1			
2027CPT.05.05.20322	Durham	21	SR-2022 / DANBURY DR	FROM SR 1911 TO SR 2038	4	2	2WU	NO	YES	0.310	20	0.000	0.310												
2027CPT.05.05.20322	Durham	22	SR-2040 / BERNARD DR	FROM SR 2022 TO SR 2039	4	2	2WU	NO	YES	0.087	20	0.000	0.087												
2027CPT.05.05.20322	Durham	23	SR-2039 / ALLISTER RD	FROM SR 2038 TO SR 2040	4	2	2WU	NO	YES	0.210	20	0.000	0.210												
2027CPT.05.05.20322	Durham	24	SR-1913 / LARKIN ST/CURRIN ST	FROM SR 1815 TO DEAD END	4	2	2WU	NO	YES	0.325	18	0.000	0.325									1			
2027CPT.05.05.20322	Durham	25	SR-1915 / MORGANTON RD	FROM SR 1815 TO SR 1913	4	2	2WU	NO	YES	0.070	16	0.000	0.070												
2027CPT.05.05.20322	Durham	26	SR-1914 / WILLOW SPRINGS RD	FROM SR 1815 TO END MAINT	4	2	2WU	NO	YES	0.147	20	0.000	0.147								1				
2027CPT.05.05.20322	Durham	27	SR-1368 / COLONY RD	FROM SR 1303 TO BEGIN C&G	4	2	2WU	NO	YES	0.260	20	0.000	0.260								1	1	1		
2027CPT.05.05.20322	Durham	28	SR-1671 / FERRELL RD	FROM SR 1670 TO SR 1670	3	2	2WU	NO	YES	1.421	20	2.652	4.073												276
2027CPT.05.05.20322	Durham	29	SR-1449 / OLD COLE MILL RD	FROM SR 1401 TO END MAINT	4	2	2WU	NO	YES	0.220	20	3.410	3.630												
2027CPT.05.05.20322	Durham	30	SR-1629 / OLD ORANGE FACTORY RD	FROM SR 1628 TO DEAD END	4	2	2WU	NO	YES	0.144	18	0.000	0.144												
2027CPT.05.05.20322	Durham	31	SR-1412 / CRYSTAL LAKE RD	FROM END MAINT TO NC 157	4	2	2WU	NO	YES	0.086	20	0.055	0.141	3		8							1		
2027CPT.05.05.20322	Durham	32	SR-1468 / QUAIL ROOST FARM RD	FROM US 501 TO END PAVEMENT	5	2	2WU	NO	YES	0.470	16	0.000	0.470												
TOTAL FOR PROJ NO. 2027CPT.05.05.20322										**6.927**				**9**		**24**		**9**			**4**	**4**	**4**	**1**	**276**
GRAND TOTAL										**11.202**				**237**	**10**	**534**	**146**	**68**	**30**	**10**	**60**	**22**	**44**	**7**	**14,288**

PROJECT NO.	SHEET NO.
5.05.20321, 2027CPT.0	42

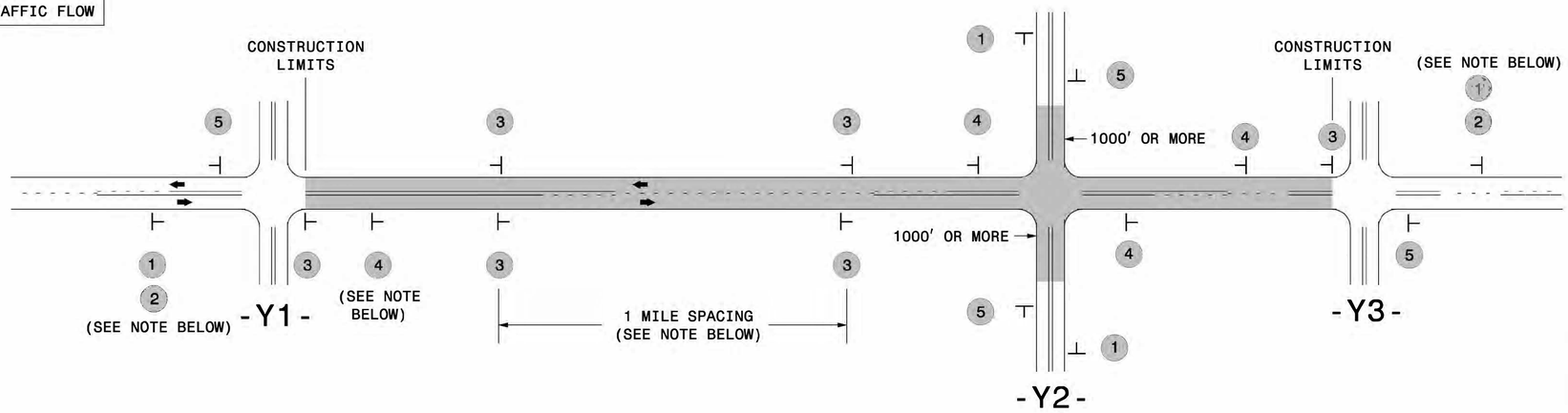
THERMOPLASTIC AND PAINT QUANTITIES

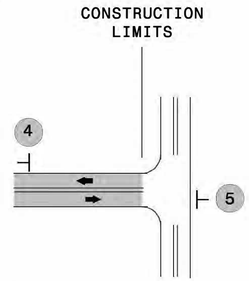
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PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	PEDESTRIAN CHANNELIZING DE- VICES	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	6" X 90 M YELLOW THERMO	6" X 90 M WHITE THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	12" X 90 M YELLOW THERMO	16" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG ONLY 90 M	THERMO MSG RXR 90 M	THERMO MSG SCHOOL 90 M	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO SYMBOL (HELMETED BICYCLIST)	THERMO SYMBOL (BIKE STR ARROW)	THERMO MERGE ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	YIELD LINE THERMOPLASTIC PAVEMENT MARKING, 24" 90 MILS
								MI	FT			SF	LF	LS	HR	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF
2027CPT.05.05.20321	Durham	1	SR-1121 / E CORNWALLIS RD	FROM SR 2028 TO WIDTH CHANGE	1	2	2WU	0.636	24	2.594	3.23	71	24		80			5,235		7,364		260		452				2	10	5	5	3			
2027CPT.05.05.20321	Durham	2	SR-1121 / E CORNWALLIS RD	FROM WIDTH CHANGE TO WIDTH CHANGE	1	2	2WU	0.561	48	3.23	3.791	63			80			9,068	10,067	178		273		299	20			8	15	14	14		22	4	
2027CPT.05.05.20321	Durham	3	SR-1121 / E CORNWALLIS RD	FROM WIDTH CHANGE TO SR 1999	1	2	2WU	0.384	46	3.791	4.175	83	8	*	80			10,464	9,713			258	100	322		4		10	14	13	13		9		
2027CPT.05.05.20321	Durham	4	SR-1959 / S MIAMI BLVD	FROM US 70 TO SR 2028	2	2	MU	1.821	60	0	1.821	204	88		240			20,563	8,906			120		1,284	16		24	22	57				48	10	12
2027CPT.05.05.20321	Durham	5	SR-1959 / S MIAMI BLVD	FROM BEGIN DIVIDED TO US 70	2	2	MU	0.099	48	4.706	4.805	11			40			33	669					48				1	6				4		18
2027CPT.05.05.20321	Durham	6	SR-1146 / MARTIN LUTHER KING JR PKWY	FROM NC 751 TO SR 2220	2	2	MD	0.774	48	0	0.774	87	40		120			1,786	9,860	1,106				466				2	8	6	6		8	6	
TOTAL FOR PROJ NO. 2027CPT.05.05.20321								**4.275**				**519**	**160**	**1**	**640**			**47,149**	**39,215**	**8,648**		**911**	**100**	**2,871**	**36**	**4**	**24**	**45**	**110**	**38**	**38**	**3**	**91**	**20**	**30**
																		86,364		**8,648**						**64**				**345**					
2027CPT.05.05.20322	Durham	7	SR-1956 / STONE PARK CT/STONE RD	FROM SR 1955 TO PAVEMENT JOINT @ C&G	3	2	2WU	0.47	20	0	0.47	53	12																							
2027CPT.05.05.20322	Durham	8	SR-2102 / HORSEMAN TRL	FROM SR 1902 TO END MAINT	4	2	2WU	0.061	18	0	0.061	7																							
2027CPT.05.05.20322	Durham	9	SR-2071 / PADDOCK DR	FROM SR 1901 TO SR 1902	4	2	2WU	0.25	20	0	0.25	28																							
2027CPT.05.05.20322	Durham	10	SR-2147 / KING WILLIAM CT	FROM SR 2146 TO DEAD END	4	2	2WU	0.073	20	0	0.073	8																							
2027CPT.05.05.20322	Durham	11	SR-2146 / STRATHMORE DR	FROM SR 1901 TO END MAINT	4	2	2WU	0.179	20	0	0.179	20																							
2027CPT.05.05.20322	Durham	12	SR-2043 / BANDOCK DR	FROM SR 2042 TO SR 2044	4	2	2WU	0.56	20	0	0.56	63	4			5,914	5,914																	
2027CPT.05.05.20322	Durham	13	SR-2031 / ASBURY CT	FROM SR 1905 TO DEAD END	4	2	2WU	0.2	20	0	0.2	22																							
2027CPT.05.05.20322	Durham	14	SR-2032 / ATWOOD CT	FROM SR 2031 TO DEAD END	4	2	2WU	0.059	20	0	0.059	7																							
2027CPT.05.05.20322	Durham	15	SR-2052 / VAN DR	FROM SR 1911 TO DEAD END	4	2	2WU	0.47	20	0	0.47	53																							
2027CPT.05.05.20322	Durham	16	SR-2097 / KEITH ST	FROM SR 2052 TO SR 2047	4	2	2WU	0.157	18	0	0.157	18																							
2027CPT.05.05.20322	Durham	17	SR-2047 / BAYARD RD	FROM SR 1811 TO SR 2111	4	2	2WU	0.22	20	0	0.22	25																							
2027CPT.05.05.20322	Durham	18	SR-2111 / GUS RD	FROM SR 2052 TO END MAINT	4	2	2WU	0.108	18	0	0.108	12																							
2027CPT.05.05.20322	Durham	19	SR-2110 / GUS RD	FROM SR 1910 TO END MAINT	4	2	2WU	0.13	20	0	0.13	15		*																					
2027CPT.05.05.20322	Durham	20	SR-2151 / CHICKASAW RD	FROM SR 1910 TO SR 2052	4	2	2WU	0.24	18	0	0.24	27																							
2027CPT.05.05.20322	Durham	21	SR-2022 / DANBURY DR	FROM SR 1911 TO SR 2038	4	2	2WU	0.31	20	0	0.31	35																							
2027CPT.05.05.20322	Durham	22	SR-2040 / BERNARD DR	FROM SR 2022 TO SR 2039	4	2	2WU	0.087	20	0	0.087	10																							
2027CPT.05.05.20322	Durham	23	SR-2039 / ALLISTER RD	FROM SR 2038 TO SR 2040	4	2	2WU	0.21	20	0	0.21	24																							
2027CPT.05.05.20322	Durham	24	SR-1913 / LARKIN ST/CURRIN ST	FROM SR 1815 TO DEAD END	4	2	2WU	0.325	18	0	0.325	36																							
2027CPT.05.05.20322	Durham	25	SR-1915 / MORGANTON RD	FROM SR 1815 TO SR 1913	4	2	2WU	0.07	16	0	0.07	8																							
2027CPT.05.05.20322	Durham	26	SR-1914 / WILLOW SPRINGS RD	FROM SR 1815 TO END MAINT	4	2	2WU	0.147	20	0	0.147	16																							
2027CPT.05.05.20322	Durham	27	SR-1368 / COLONY RD	FROM SR 1303 TO BEGIN C&G	4	2	2WU	0.26	20	0	0.26	29	4			2,578	2,524							25										
2027CPT.05.05.20322	Durham	28	SR-1671 / FERRELL RD	FROM SR 1670 TO SR 1670	3	2	2WU	1.421	20	2.652	4.073	159			40			15,096	14,669	262	86		100	245		4	6	2	4					2	
2027CPT.05.05.20322	Durham	29	SR-1449 / OLD COLE MILL RD	FROM SR 1401 TO END MAINT	4	2	2WU	0.22	20	3.41	3.63	25				2,262	2,167							23										
2027CPT.05.05.20322	Durham	30	SR-1629 / OLD ORANGE FACTORY RD	FROM SR 1628 TO DEAD END	4	2	2WU	0.144	18	0	0.144	16																							
2027CPT.05.05.20322	Durham	31	SR-1412 / CRYSTAL LAKE RD	FROM END MAINT TO NC 157	4	2	2WU	0.086	20	0.055	0.141	10	8					210	61					34										
2027CPT.05.05.20322	Durham	32	SR-1468 / QUAIL ROOST FARM RD	FROM US 501 TO END PAVEMENT	5	2	2WU	0.47	16	0	0.47	53						124	125																
TOTAL FOR PROJ NO. 2027CPT.05.05.20322								**6.927**				**779**	**28**	**1**	**40**	**10,754**	**10,605**	**15,430**	**14,855**	**262**	**86**		**100**	**327**		**4**	**6**	**2**	**4**					**2**	
																21,359		**30,285**		**348**						**10**				**8**					
GRAND TOTAL								**11.202**				**1,298**	**188**	**1**	**680**	**10,754**	**10,605**	**62,579**	**54,070**	**8,910**	**86**	**911**	**200**	**3,198**	**36**	**8**	**30**	**47**	**114**	**38**	**38**	**3**	**91**	**22**	**30**
																21,359		**116,649**		**8,996**						**74**				**353**					

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.05.20321, ETC.	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 & 2 — ROAD WORK AHEAD W20-1 48″ X 48″ / 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 — LOWSOFT 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.

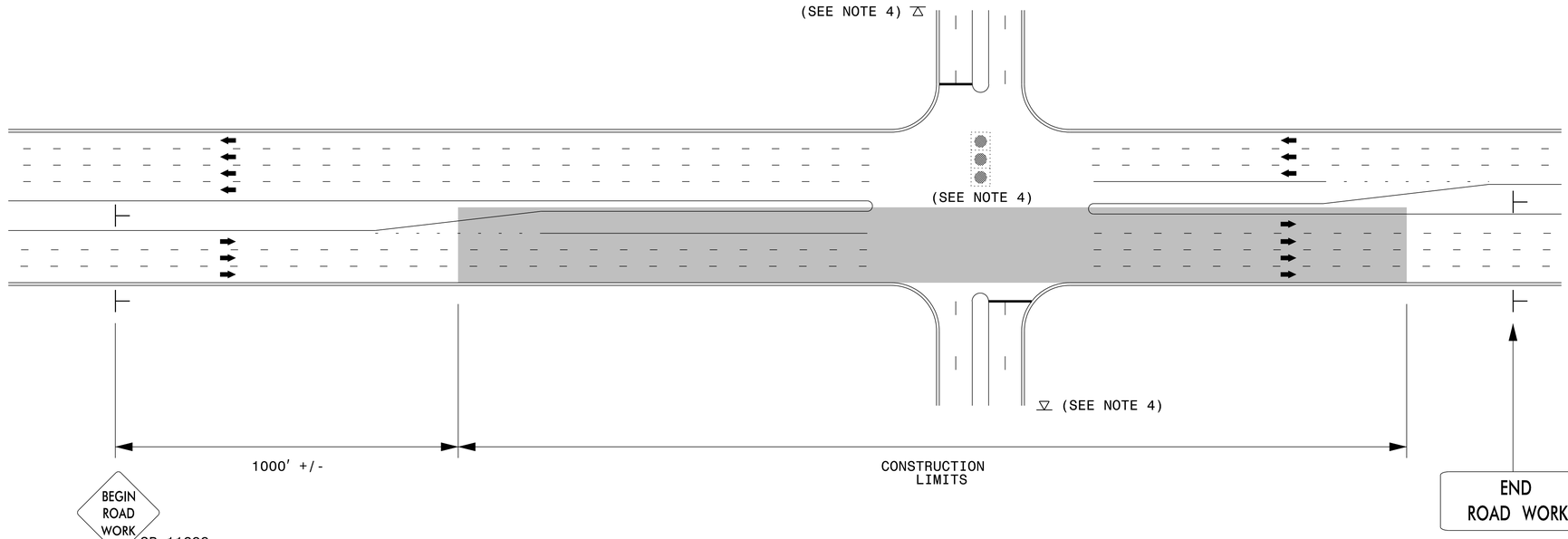
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

5/15/2017
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User:kreddle

PROJ. REFERENCE NO.	SHEET NO.
2027CPT .05.05.20321 , ETC.	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

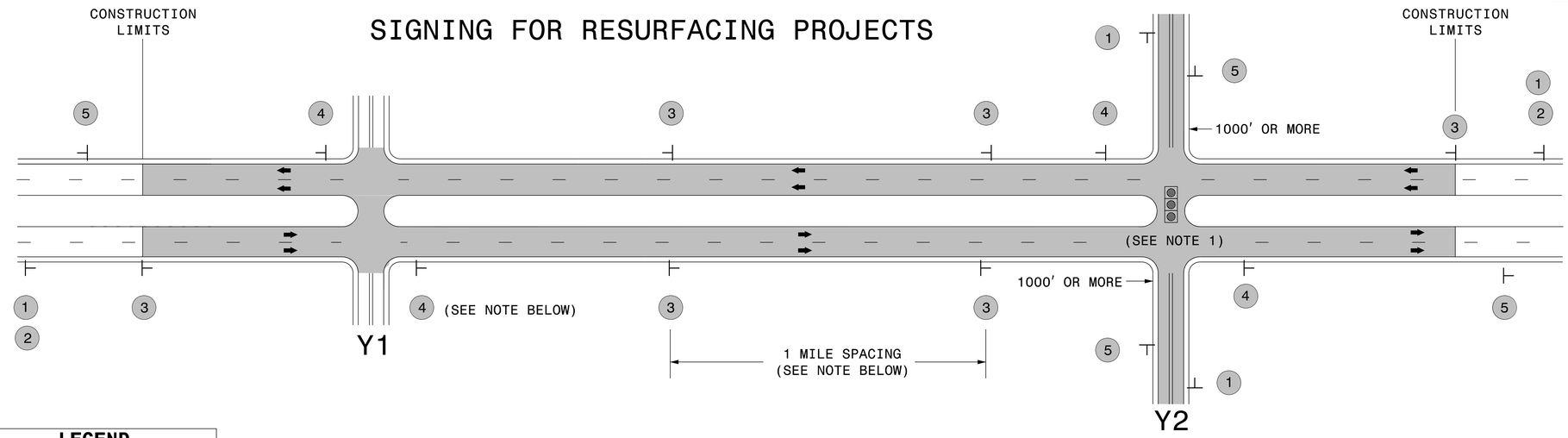
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

4/8/2015
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User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
2027CPT .05.05.20321, ETC.	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.

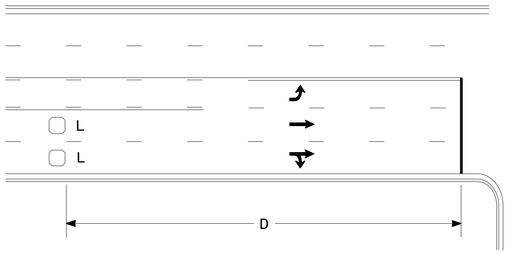
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

3/23/2015
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User:rmgarrett

PROJECT REFERENCE NO.	SHEET NO.
2027CPT 05.05.20321, ETC.	SIG-1

High Speed Detection
(≥35 mph)

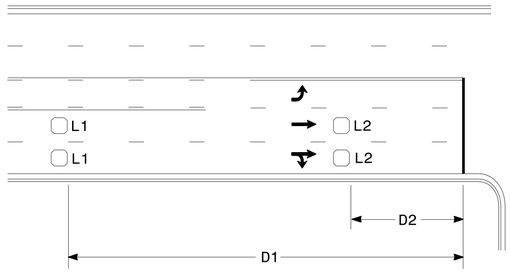


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



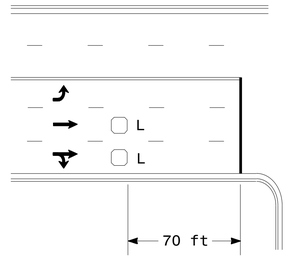
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

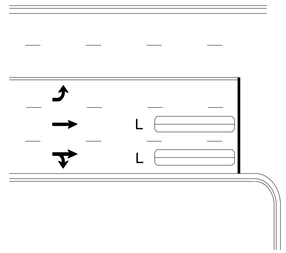
"Stretch" Operation

Low Speed Detection
(≤35 mph)



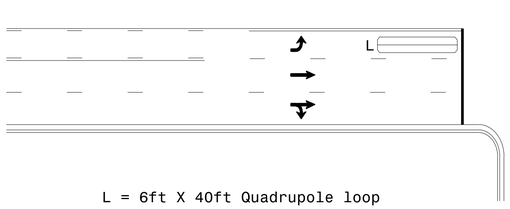
L = 6ft X 6ft
Wired in series

OR



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

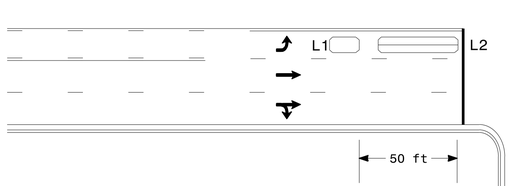
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

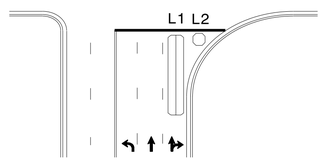
OR



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

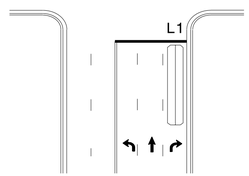
Queue Loop Detection

Right Turn Lane Detection

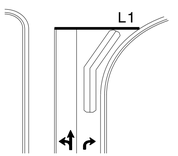


Shared Lane/
Wide Radius Turn

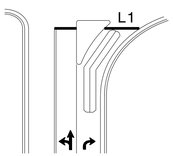
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

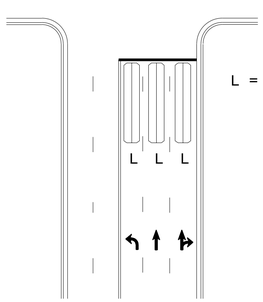


Wide Radius Turn



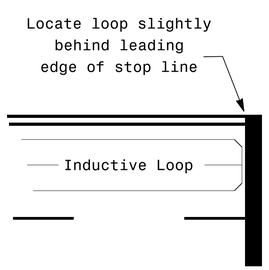
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



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

Recommended Number of Turns

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

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

Quadrupole loops: Use 2-4-2 turns

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

Prepared In the Offices of:
Transportation Mobility and Safety Division
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
SEAL 026486
ENGINEER
ROBERT J. ZIEMBA
DocuSigned by: 11/25/2025
DATE

SIG. INVENTORY NO.

17-NOV-2025 07:35
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jalohr