2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	1

Map 1 US-64 BUS
Westbound Lanes From Picayune Lane
to Morning Flyer Way

Map 2 US-64 BUS
Eastbound Lanes From Morning Flyer Way
to 70 ft East of Old Home Place Circle

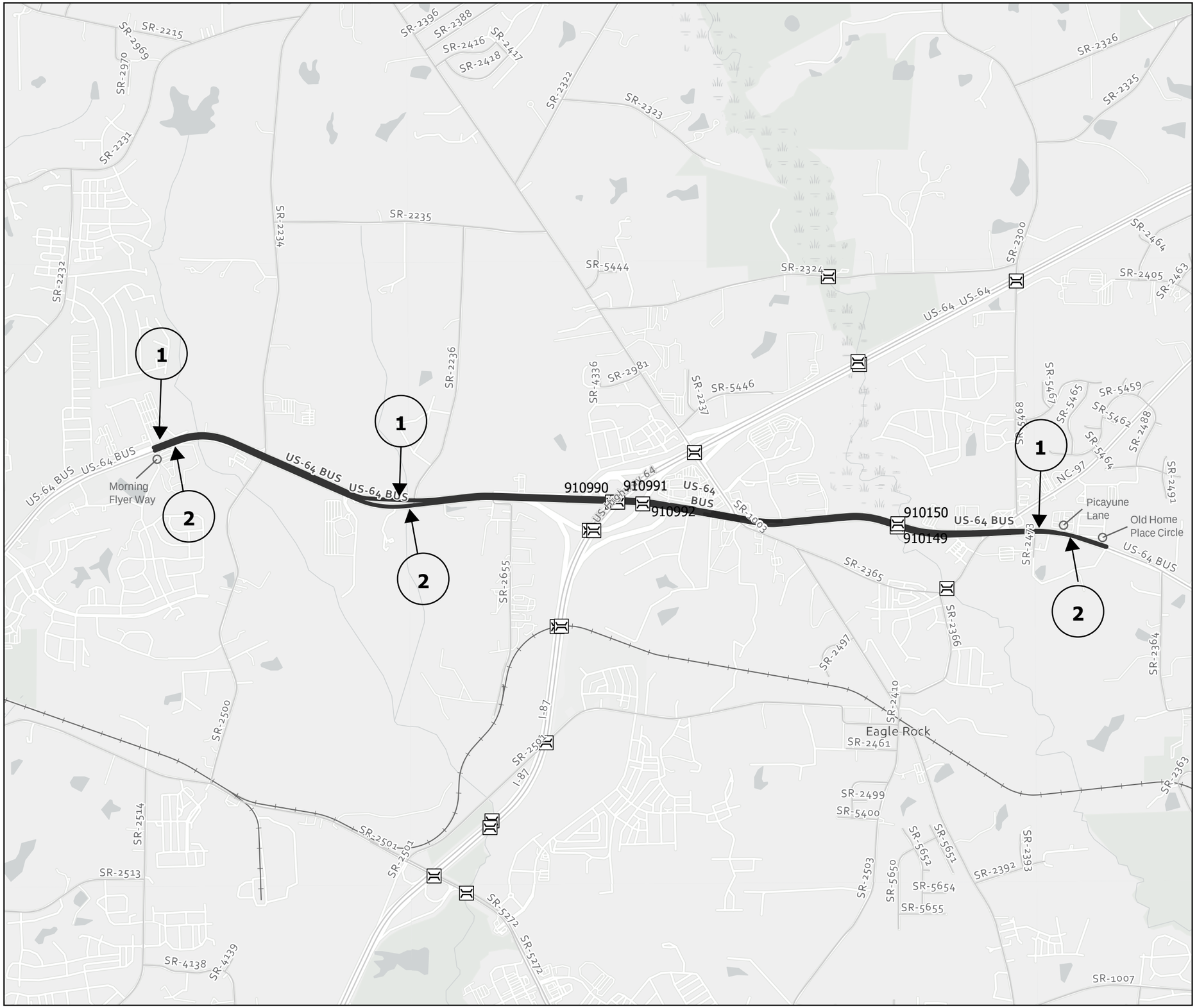
Bridge 910990

Bridge 910991

Bridge 910992

Bridge 910149

Bridge 910150



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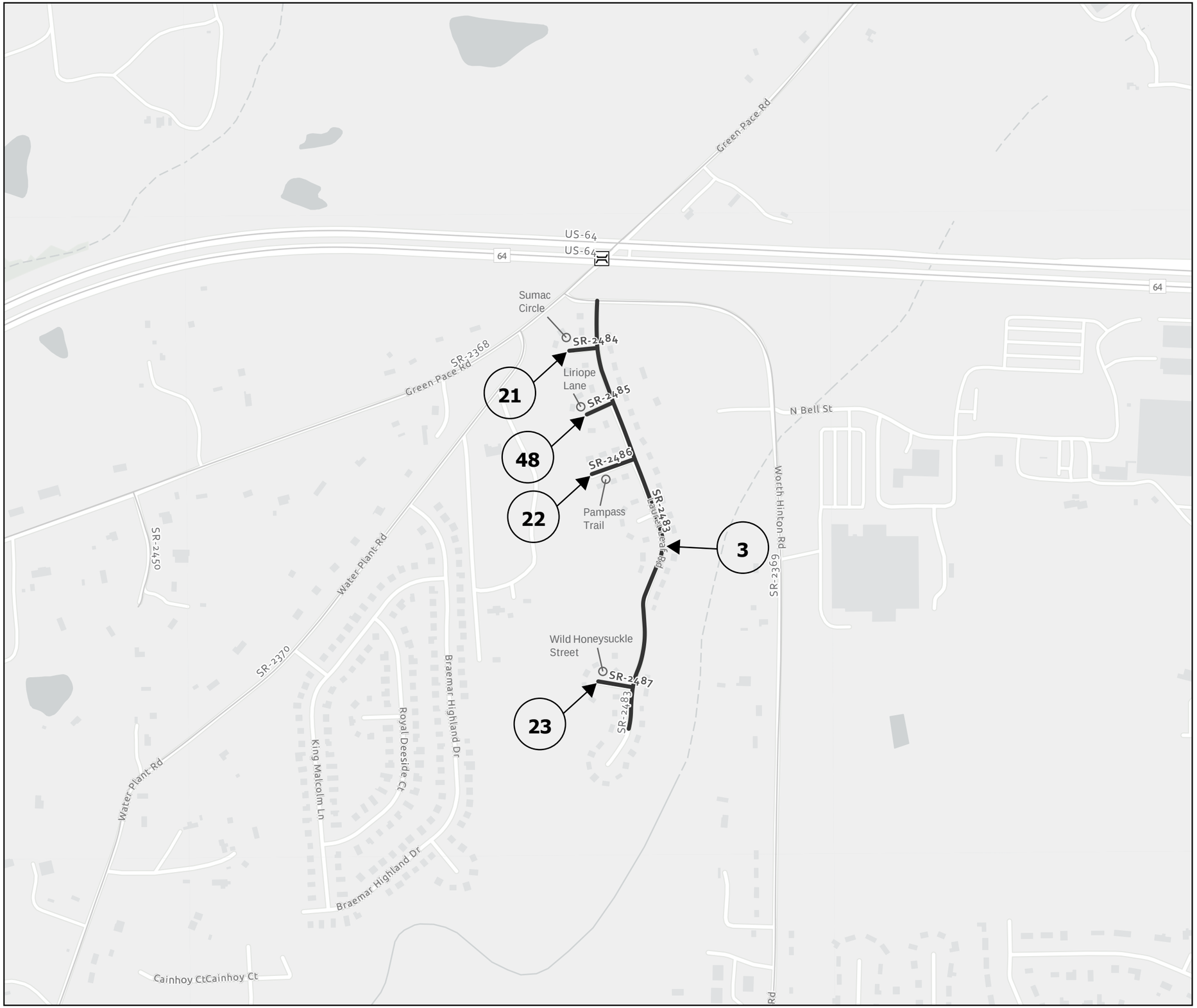


2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921,ETC.	2

Map 3 SR-2483 (Laurel Leaf Rd)
From SR 2369 (Worth Hinton Rd) to Cul-de-sac

Map 21 SR-2484 (Sumac Cir)
From SR-2483 (Laurel Leaf Rd) to Cul-de-sac

Map 22 SR-2486 (Pampass Trl)
From SR-2483 (Laurel Lead Rd) to Dead End

Map 23 SR-2487 (Wild Honeysuckle St)
From SR-2483 (Laurel Lead Rd) to Cul-de-sac

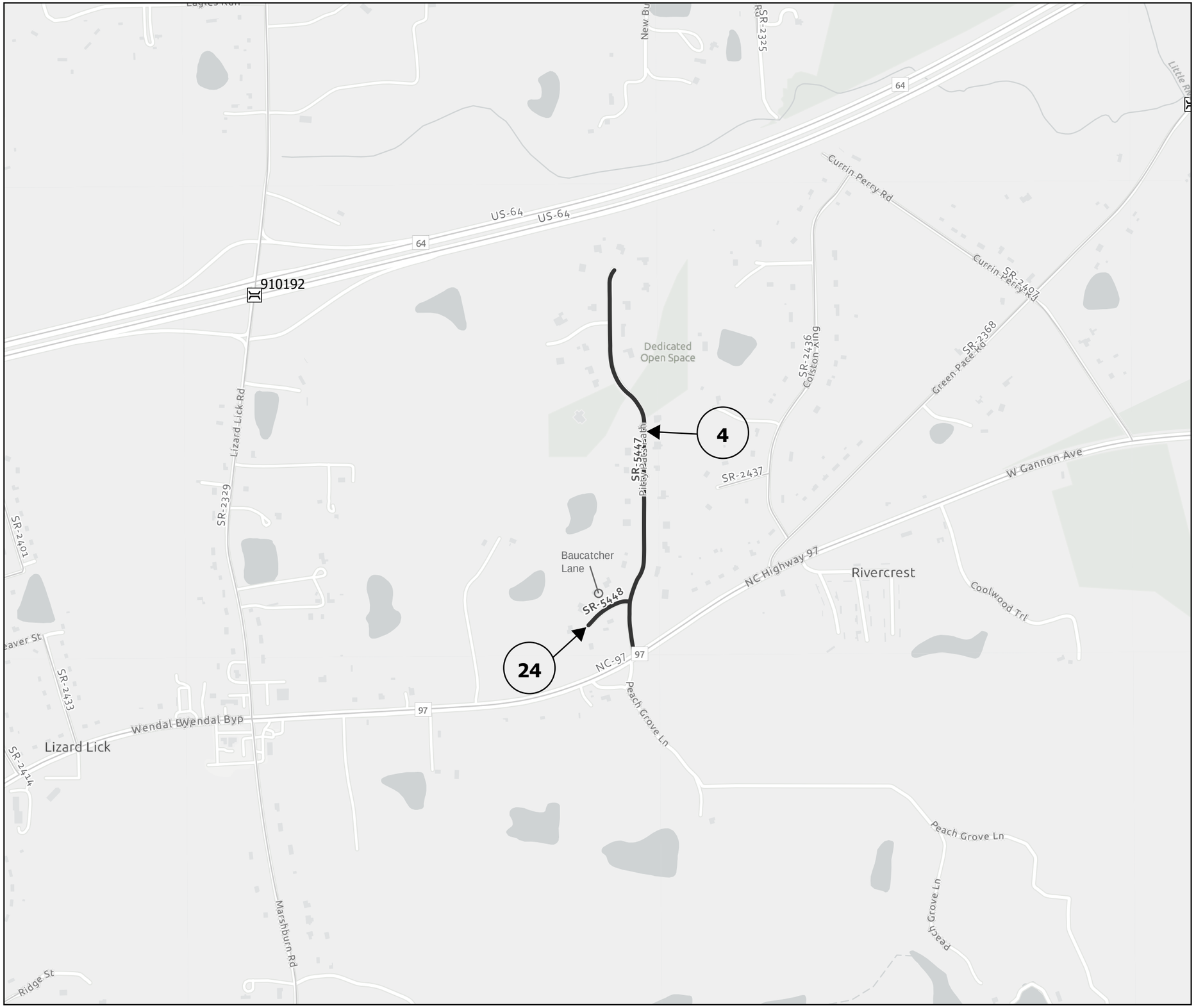
Map 48 SR-2485 (Liriope Ln)
From SR-2483 (Laurel Lead Rd) to Cul-de-sac

N

2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921,ETC.	3

Map 4 SR-5447 (Pitty Pats Path)
From NC-97 to Cul-de-sac

Map 24 SR-5448 (Baucatcher Ln)
From SR-5447 (Pitty Pats Path) to Cul-de-sac



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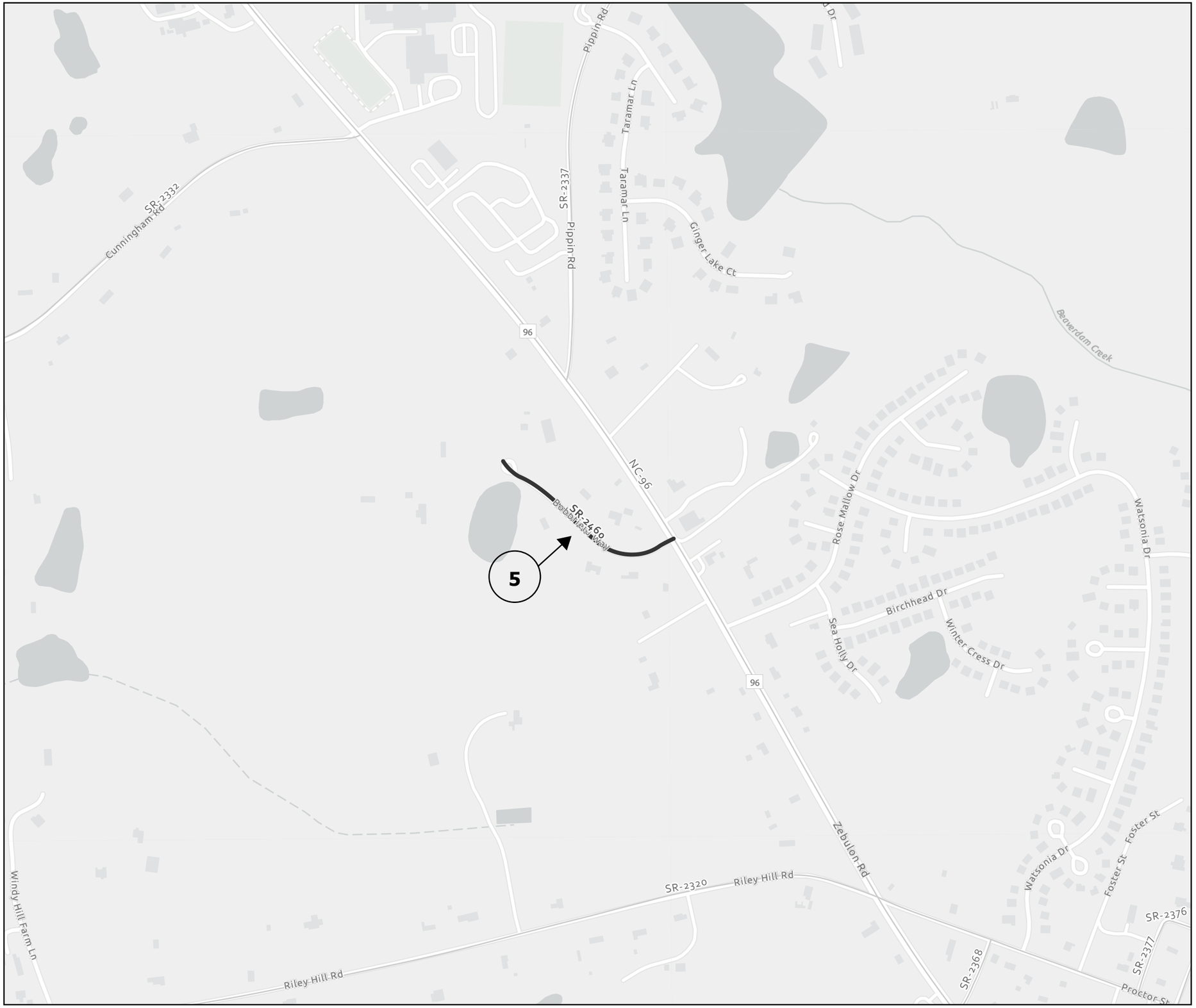
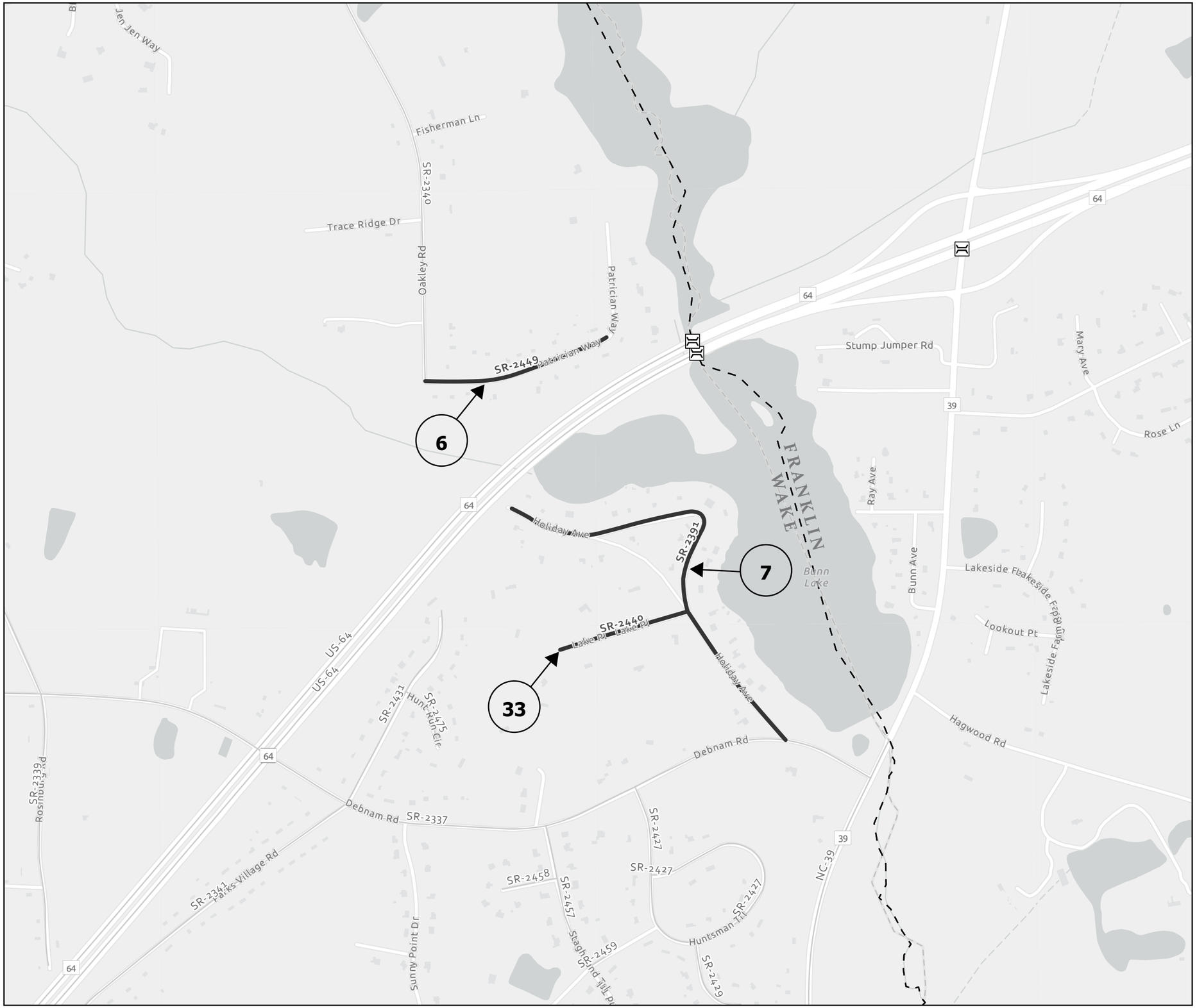


2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	4

Map 5 SR-2460 (Bobbfield Way)
From NC-96 to Cul-de-sac

N



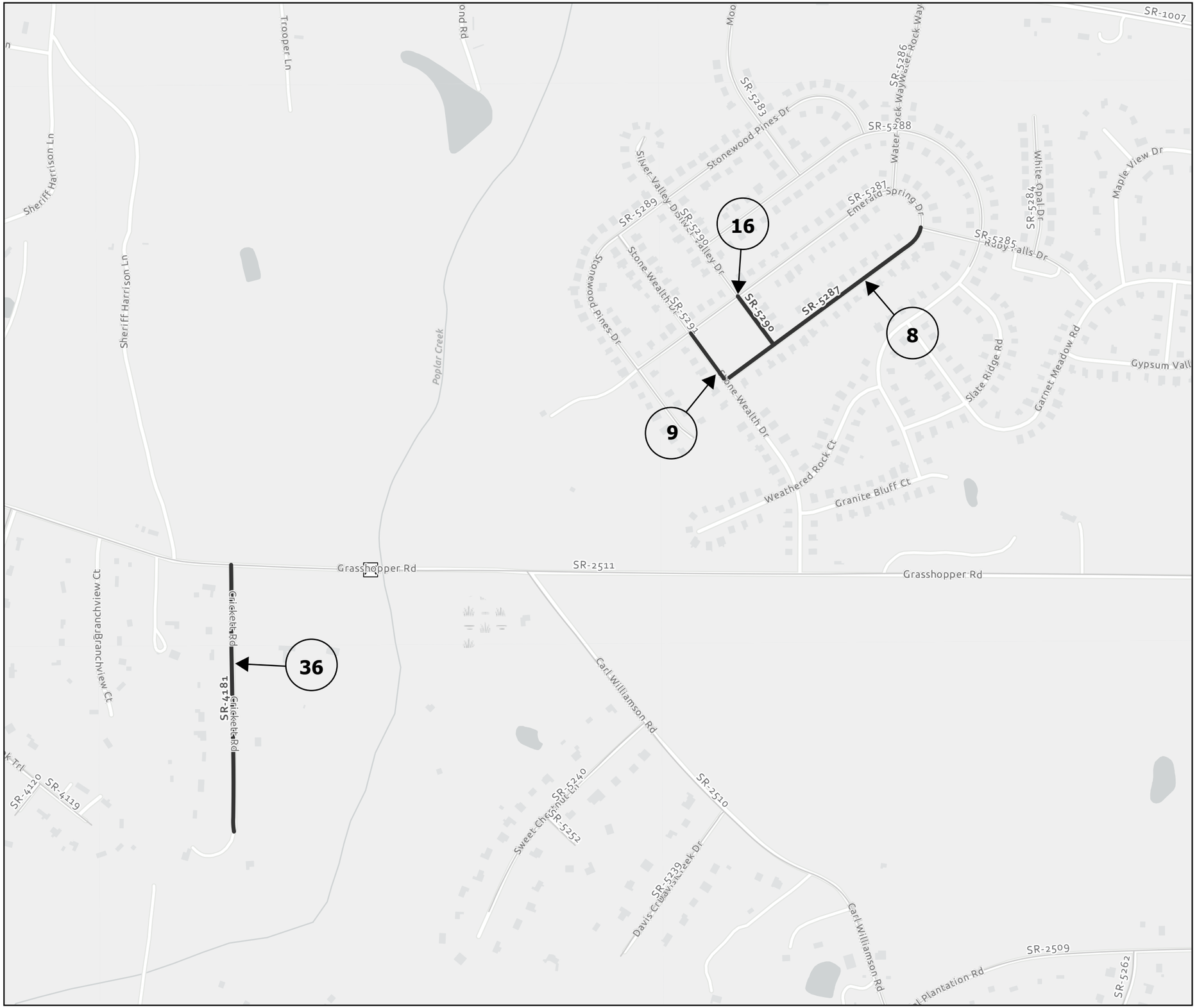
2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921,ETC.	5

Map 6 SR 2449 (Patrician Way)
From SR 2340 (Oakley Rd) to End Maintenance

Map 7 SR-2391 (Holiday Ave)
From SR-2337 (Debnam Rd) to Dead End

Map 33 SR-2440 (Lake Pl)
From SR 2391 (Holiday Ave) to Cul-de-sac

N



2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921,ETC.	6

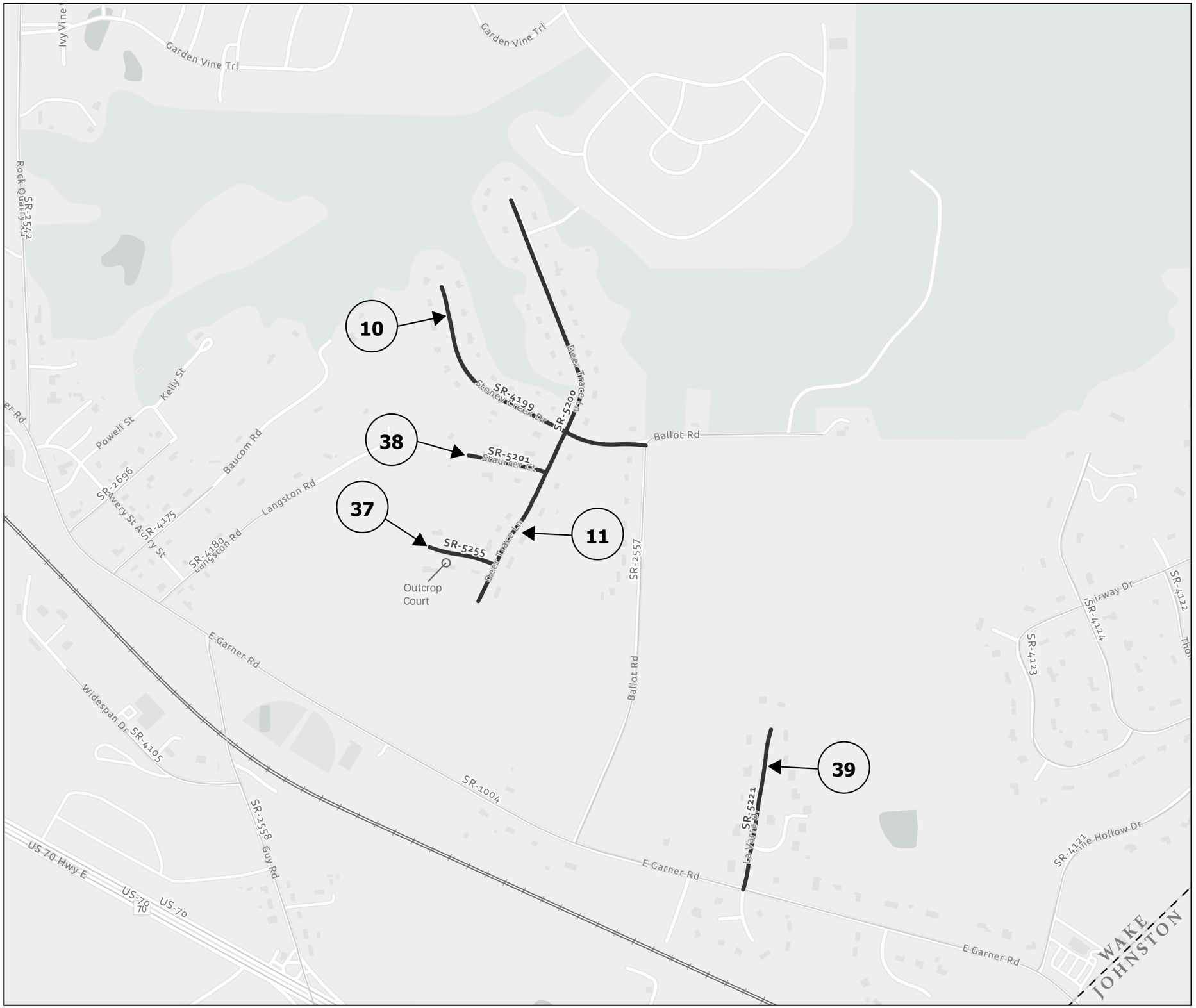
Map 8 SR-5287 (Emerald Spring Dr)
From Pavement Joint to SR-5291 (Stone Wealth Dr)

Map 9 SR-5291 (Stone Wealth Dr)
From SR-5287 (Emerald Spring Dr) to Pavement Joint

Map 16 SR-5290 (Silver Valley Dr)
From SR-5287 (Emerald Spring Dr) to SR-5287 (Emerald Spring Dr)

Map 36 SR-4181 (Crickett Rd)
From SR-2511 (Grasshopper Rd) to Dead End

N



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2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921,ETC.	7

Map 10 SR-4199 (Stoney Creek Dr)
From SR-2557 (Ballot Rd) to Cul-de-sac

Map 11 SR-5200 (Deer Trace Ln)
From Cul-de-sac to Dead End

Map 37 SR-5255 (Outcrop Ct)
From SR-5200 (Deer Trace Ln) to Cul-de-sac

Map 38 SR-5201 (Stauffer Ct)
From SR-5200 (Deer Trace Ln) to Cul-de-sac

Map 39 SR-5221 (La Varra Dr)
From SR-1004 (E Garner Rd) to Cul-de-sac

2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	8

Map 12 SR-2697 (S New Hope Rd)
From End Divided, Approximately 350' South of US-64 BUS, to SR-1007 (Poole Rd)

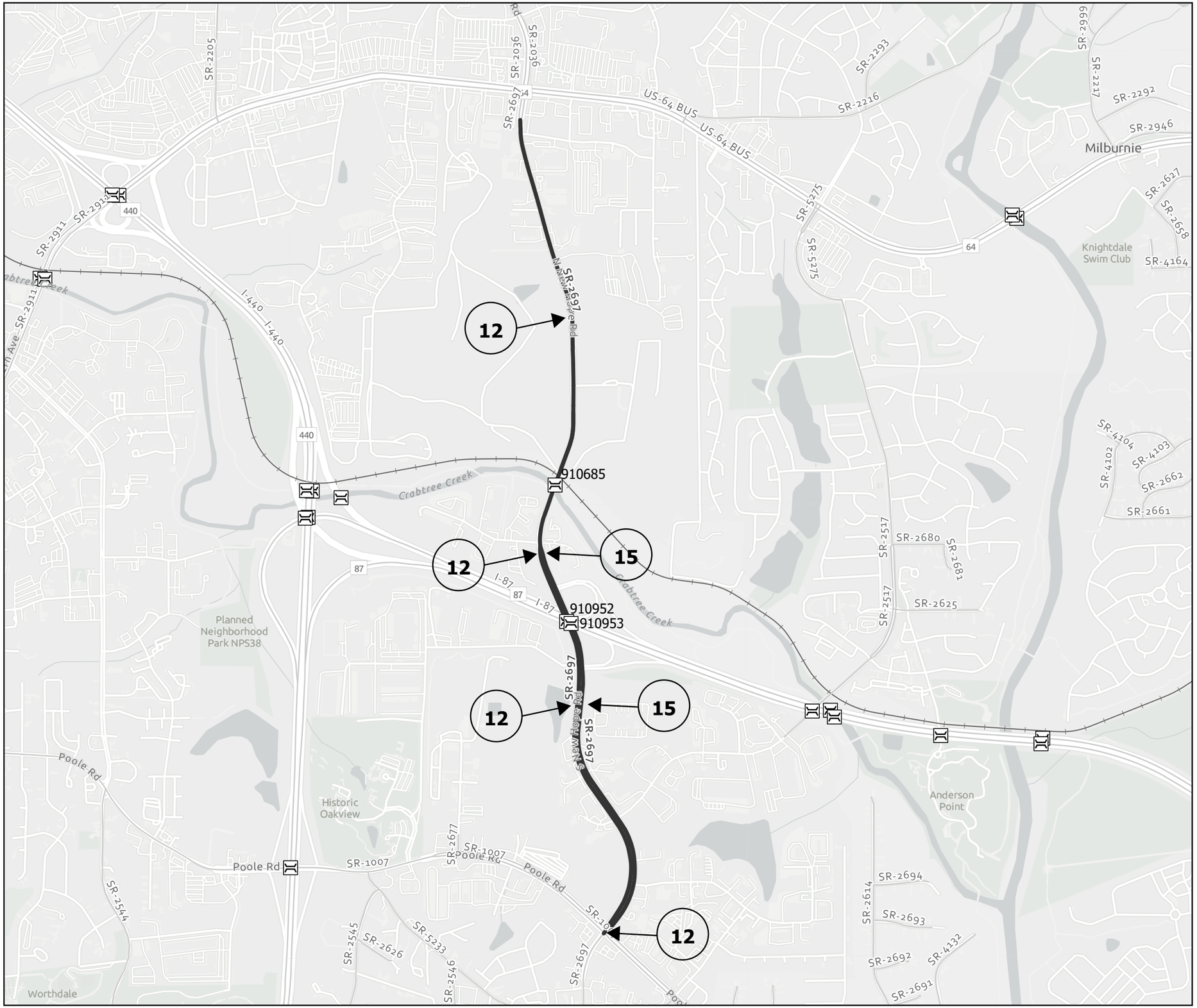
Map 15 SR-2697 (S New Hope Rd)
From Begin Divided Hwy to SR-1007 (Poole Rd)

Bridge 910685

Bridge 910952

Bridge 910953

Active Grade-Separated Norfolk Southern RR Runs Below Map 12



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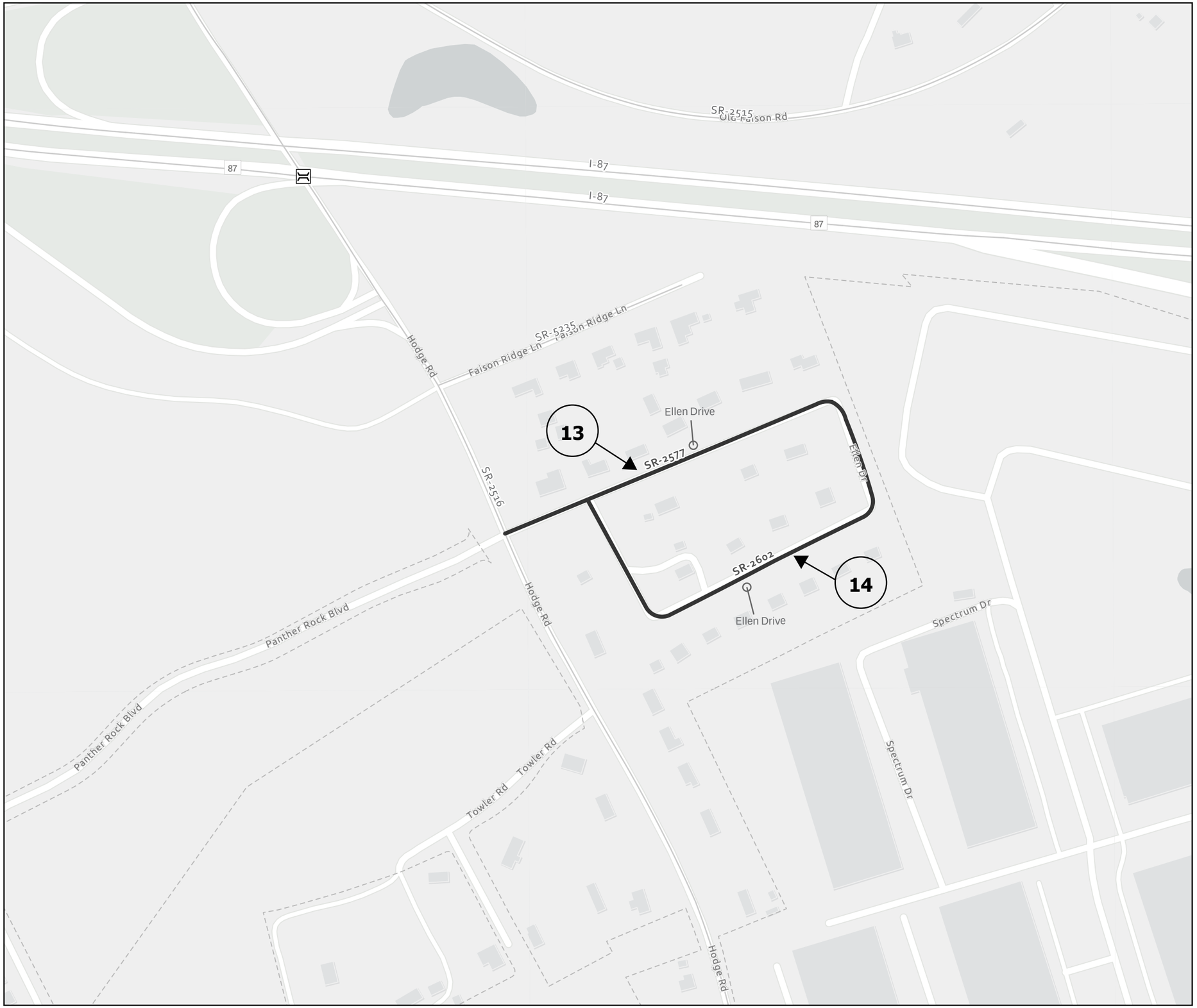
2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	9

Map 13 SR-2577 (Ellen Dr)
From SR-2516 (Hodge Rd) to SR 2602 (Ellen Dr)

Map 14 SR-2602 (Ellen Dr)
From SR-2577 (Ellen Dr) to SR 2577 (Ellen Dr)



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2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921,ETC.	10

Map 17 SR-2411 (Mangums Dr)
From SR-2320 (Riley Hill Rd) to SR 2422 (Adam Ln)

Map 18 SR-2423 (Cartwright Cir)
From SR-2422 (Adam Ln) to End Maintenance

Map 19 SR-2422 (Adam Ln)
From SR-2411 (Mangums Dr) to SR-2423 (Cartwright Cir)

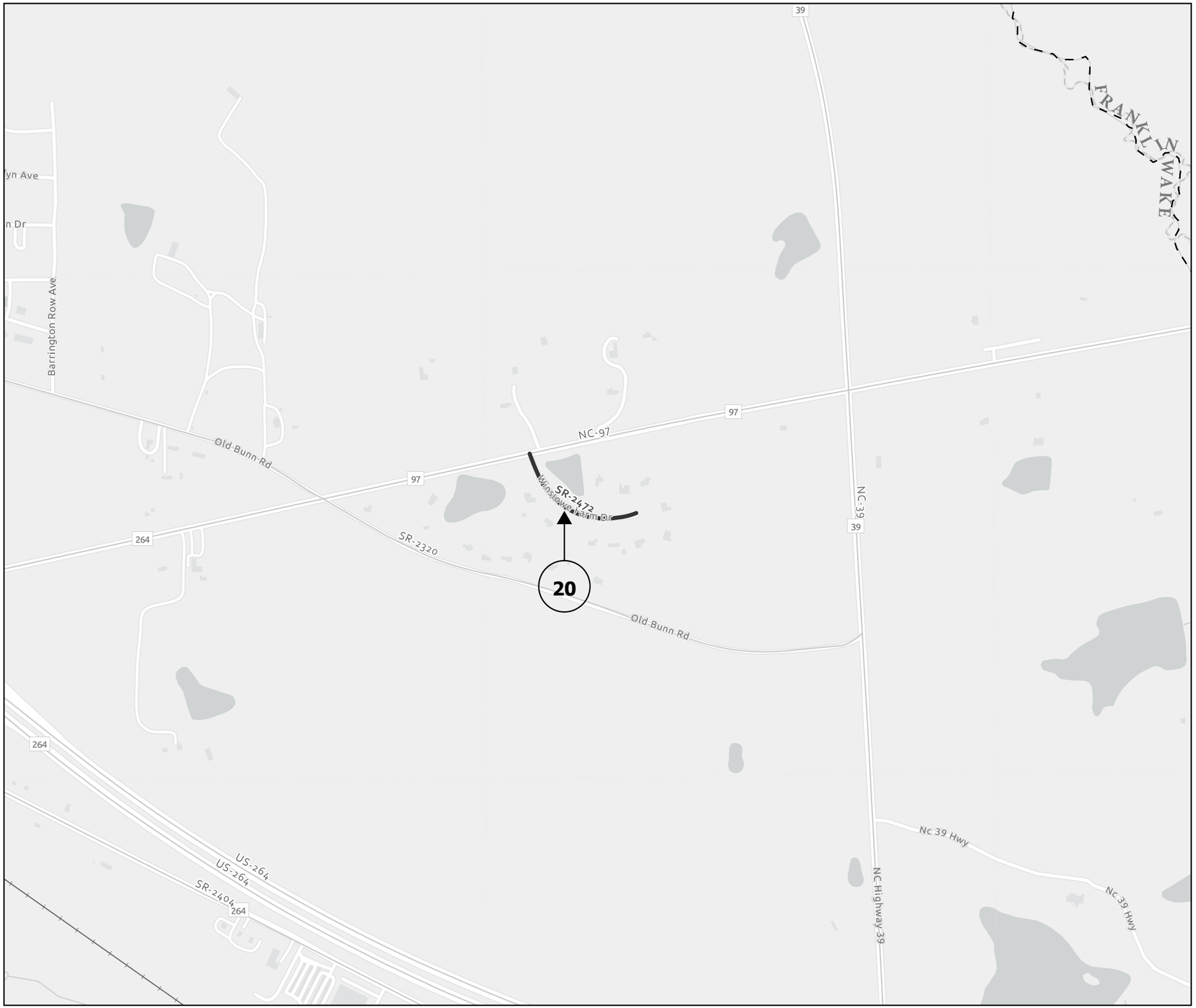
Map 40 SR-2419 (Crestline Rd)
From SR-2320 (Riley Hill Rd) to Cul-de-sac

Map 41 SR-2420 (Poplarwood Dr)
From SR-2419 (Crestline Rd) to Cul-de-sac

N

2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	11

Map 20 SR-2472 (Winslowe Farm Dr)
From NC-97 to Cul-de-sac



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2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	12

Map 25 SR-2441 (New Oak St)
From SR-2303 (Halifax Rd) to SR-2447
(Lake Jenn Dr)

Map 26 SR-2442 (New Ridge St)
From Cul-de-sac to Cul-de-sac

Map 27 SR-2443 (New Dixie Ct)
From SR-2442 (New Ridge St) to Cul-de-sac

Map 28 SR-2444 (New Rebel Ct)
From SR-2442 (New Ridge St) to Cul-de-sac

Map 29 SR-2445 (River Dare Ave)
From Cul-de-sac to Dead End

Map 30 SR-2446 (Dollar Cir)
From SR-2441 (New Oak St) to Cul-de-sac

Map 31 SR-2447 (Lake Jenn Dr)
From Cul-de-sac to Dead End

Map 32 SR-2448 (Rivercrest Dr)
From SR-2445 (River Dare Ave) to
SR-2447 (Lake Jenn Dr)

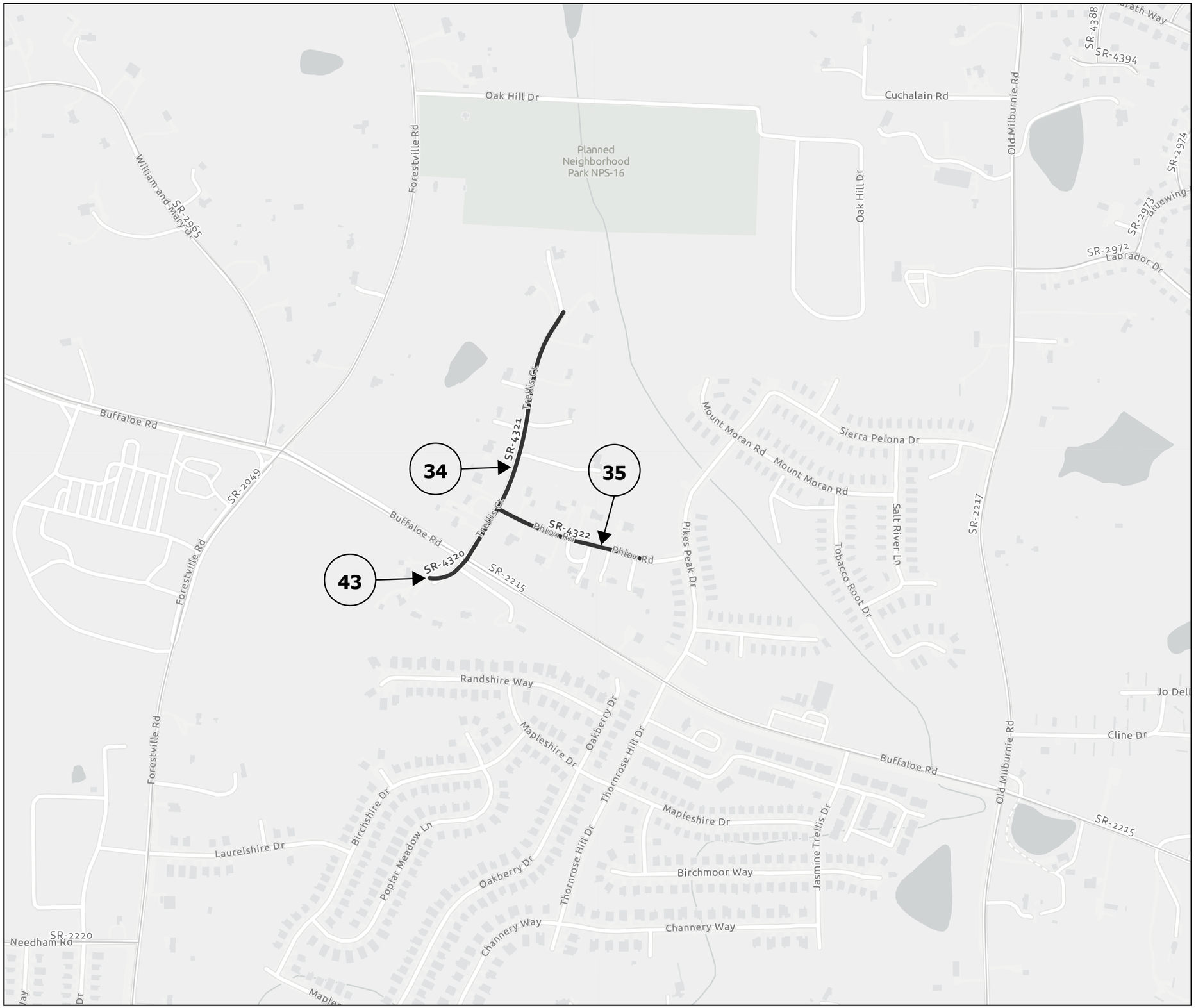
N

2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	13

Map 34 SR-4321 (Trellis Ct)
From SR 2215 (Buffaloe Rd) to Cul-de-sac

Map 35 SR-4322 (Phlox Rd)
From SR-4321 (Trellis Ct) to End Maintenance

Map 43 SR-4320 (Trellis Ct)
From SR 2215 (Buffaloe Rd) to Cul-de-sac



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2028 East Wake - Wake County	
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	14

Map 42 SR-4371 (Catkins Ct)
From SR-4341 (Brilliant Dr) to Cul-de-sac

Map 44 SR-4342 (Annsbury Ct)
From SR-4341 (Brilliant Dr) to Cul-de-sac

Map 45 SR-4343 (Cherrybark Ln)
From Cul-de-sac to Cul-de-sac

Map 46 SR-4341 (Brilliant Dr)
From SR 2215 (Buffaloe Rd) to Dead End

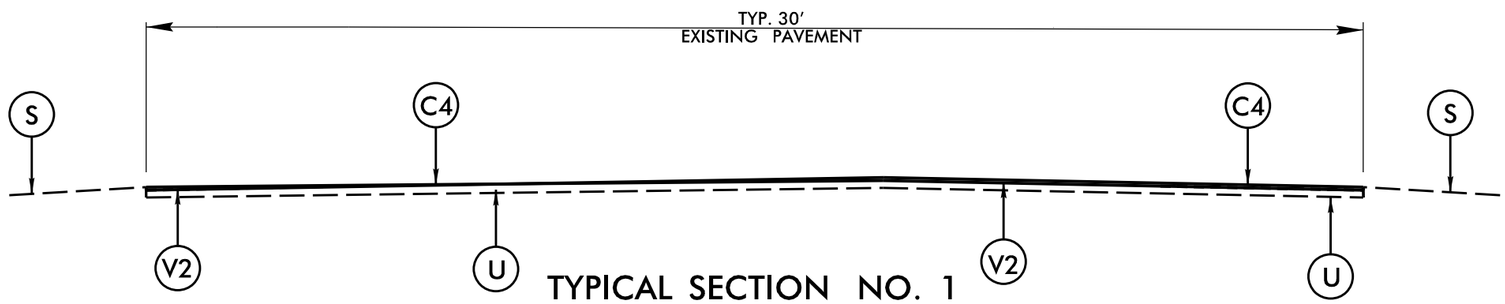
Map 47 SR-6305 (Endwell Dr)
From SR-4341 (Brilliant Dr) to Cul-de-sac

N

Prepared in the Office of: SUMMIT
NC FIRM LICENSE No: F-0339
322 Executive Drive,
Smithfield, NC 27577
(919) 752-3885 • (919) 752-3886 (FAX)

PAVEMENT SCHEDULE

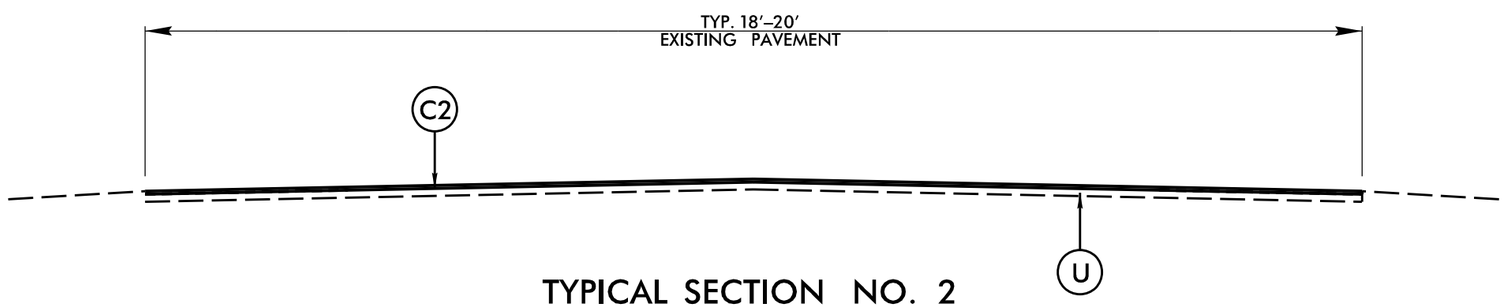
C1	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	S	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1¼″ DEPTH
C4	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	MILLING ASPHALT PAVEMENT, 1½″ DEPTH
R	EXISTING CURB AND GUTTER	V3	MILLING ASPHALT PAVEMENT, 0″-1½″ DEPTH



TYPICAL SECTION NO. 1

FULL DEPTH PATCH, MILL AND RESURFACE S9.5C
MAP NO.'S: 1–2

SHOULDERS ARE RECONSTRUCTED TO THE SHOULDER POINT/HINGE POST
SEEDING AND MULCHING SHALL BE PERFORMED UPON COMPLETION OF SHOULDER GRADING WHEN EARTH BORROW IS USED



TYPICAL SECTION NO. 2

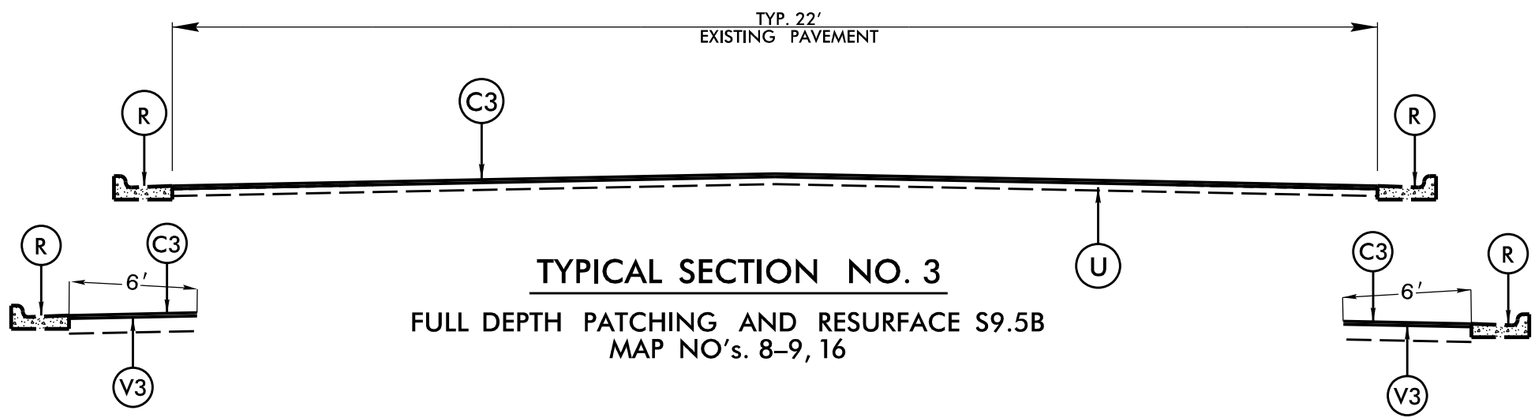
FULL DEPTH PATCH AND RESURFACE S9.5B
MAPS NO.S: 3–7, 18–19, 34–35, 40–41

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	16

Prepared in the Office of: SUMMIT
NC FIRM LICENSE No: P-0139
322 Executive Circle
Raleigh, NC 27518
(919) 752-3883 • (919) 752-3884 (FAX)

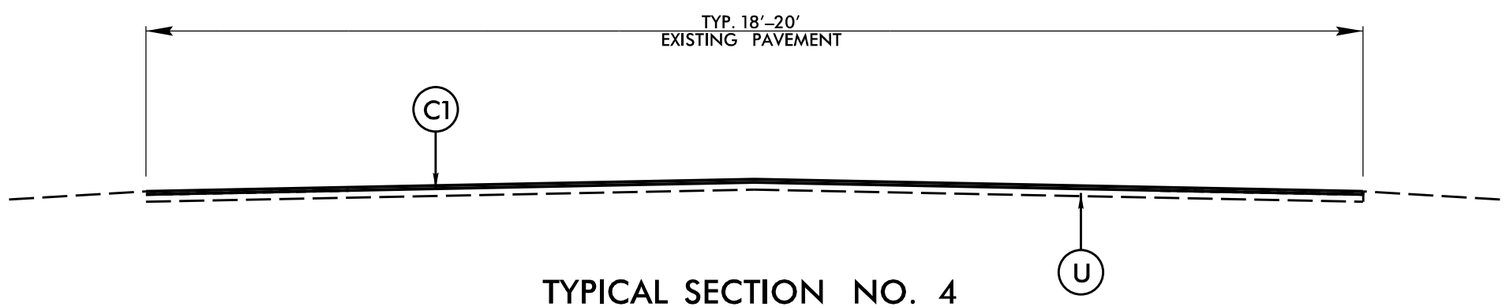
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	S	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1¼″ DEPTH
C4	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	MILLING ASPHALT PAVEMENT, 1½″ DEPTH
R	EXISTING CURB AND GUTTER	V3	MILLING ASPHALT PAVEMENT, 0″-1½″ DEPTH



TYPICAL SECTION NO. 3

FULL DEPTH PATCHING AND RESURFACE S9.5B
MAP NO's. 8–9, 16

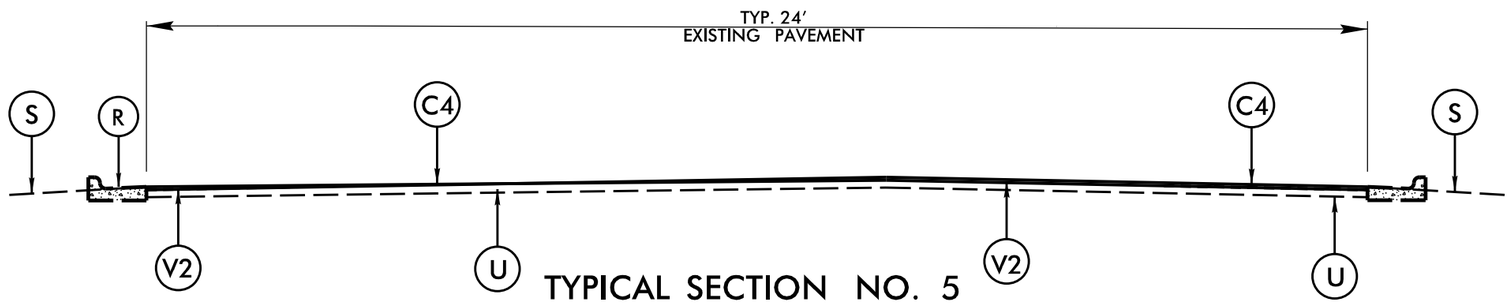


TYPICAL SECTION NO. 4

RESURFACE S9.5B
MAPS NO.S: 10–11, 21–24, 26–33, 37–38, 42–48

PAVEMENT SCHEDULE

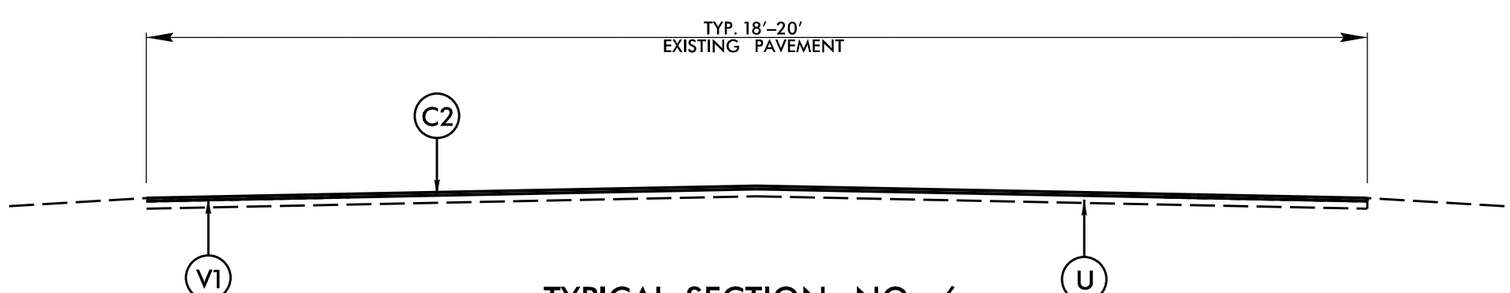
C1	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	S	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1¼" DEPTH
C4	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	MILLING ASPHALT PAVEMENT, 1½" DEPTH
R	EXISTING CURB AND GUTTER	V3	MILLING ASPHALT PAVEMENT, 0"-1½" DEPTH



TYPICAL SECTION NO. 5

FULL DEPTH PATCH, MILL AND RESURFACE S9.5C
MAP NO.'S: 12 ,15

SHOULDERS ARE RECONSTRUCTED TO THE SHOULDER POINT/HINGE POST
SEEDING AND MULCHING SHALL BE PERFORMED UPON COMPLETION OF SHOULDER GRADING WHEN EARTH BORROW IS USED

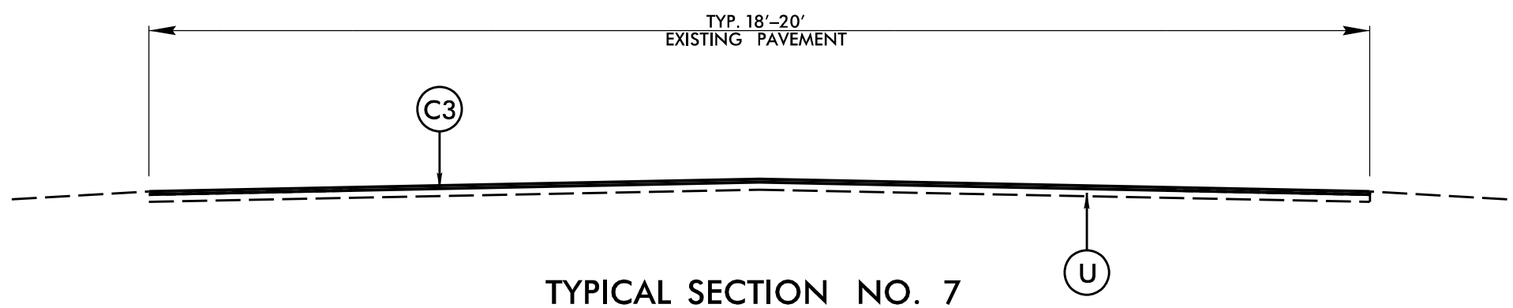


TYPICAL SECTION NO. 6

FULL DEPTH PATCH, MILL AND RESURFACE S9.5B
MAPS NO.S: 13–14, 25, 36, 39

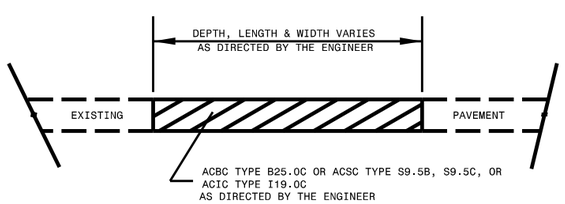
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	S	SHOULDER RECONSTRUCTION, ASB OR BORROW REQUIRED (SEE MAP NOTE)
C2	PROP. APPROX. 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING SURFACE
C3	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT, 1¼″ DEPTH
C4	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	MILLING ASPHALT PAVEMENT, 1½″ DEPTH
R	EXISTING CURB AND GUTTER	V3	MILLING ASPHALT PAVEMENT, 0″-1½″ DEPTH



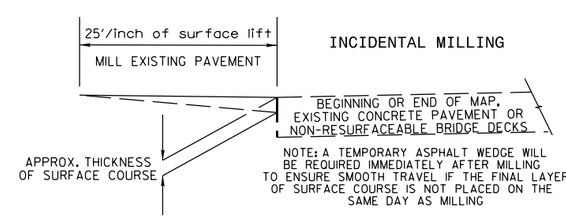
TYPICAL SECTION NO. 7

FULL DEPTH PATCH AND RESURFACE S9.5B
MAPS NO.S: 17, 20



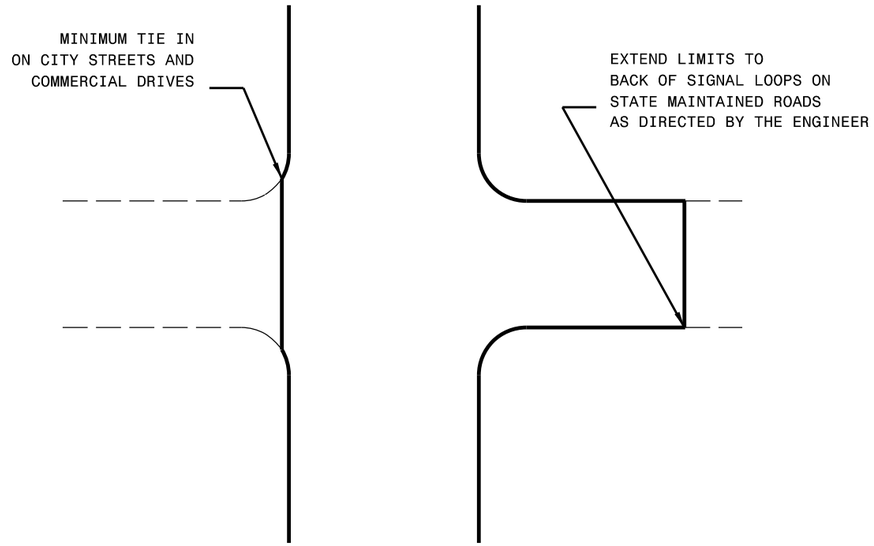
PATCHING EXISTING PAVEMENT

MILLING TO BE PERFORMED PRIOR TO PATCHING

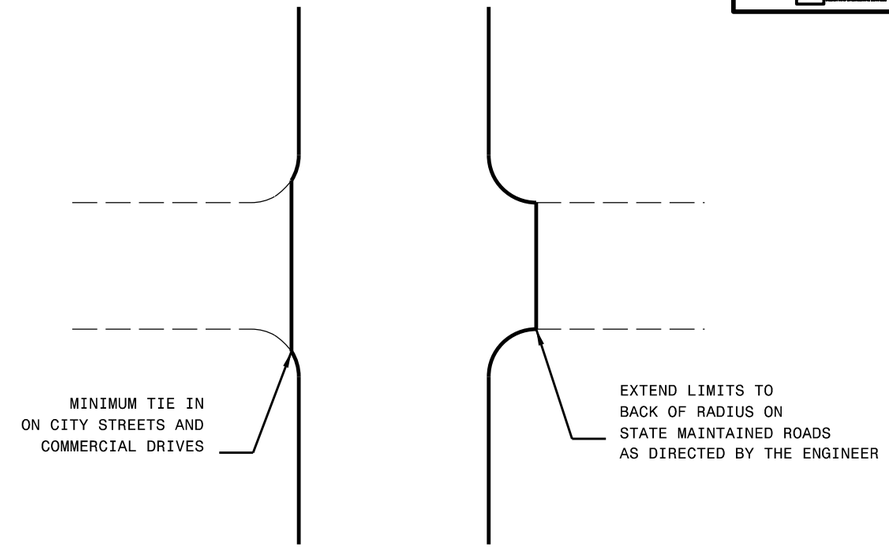


INCIDENTAL MILLING

WAKE COUNTY RESURFACING



TYPICAL DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



TYPICAL DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

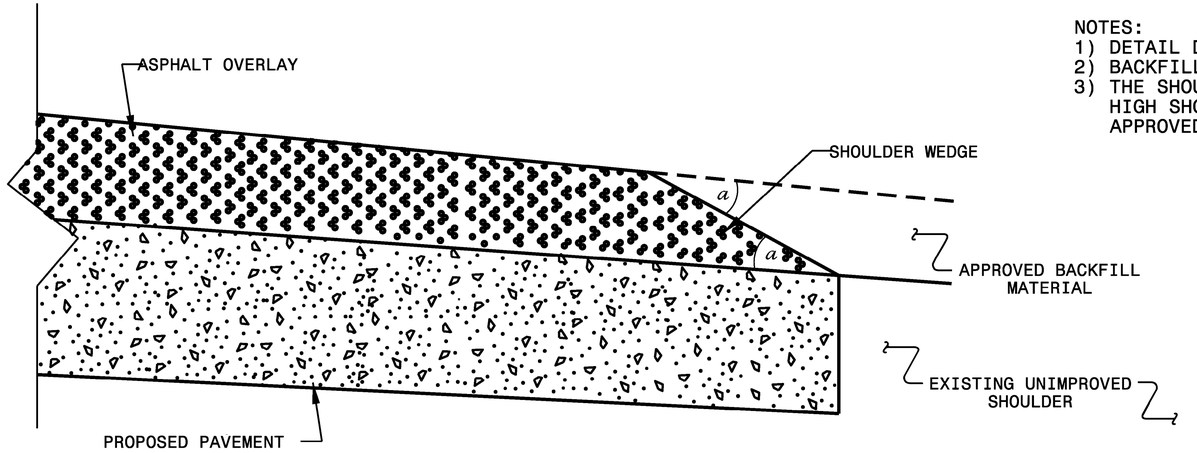
ADDITIONAL INTERSECTIONS (NON-TYPICAL)

Extend paving limits to back of radius
or loop on the following intersections:

MAP#	STREET NAME	COMMENTS
N/A		

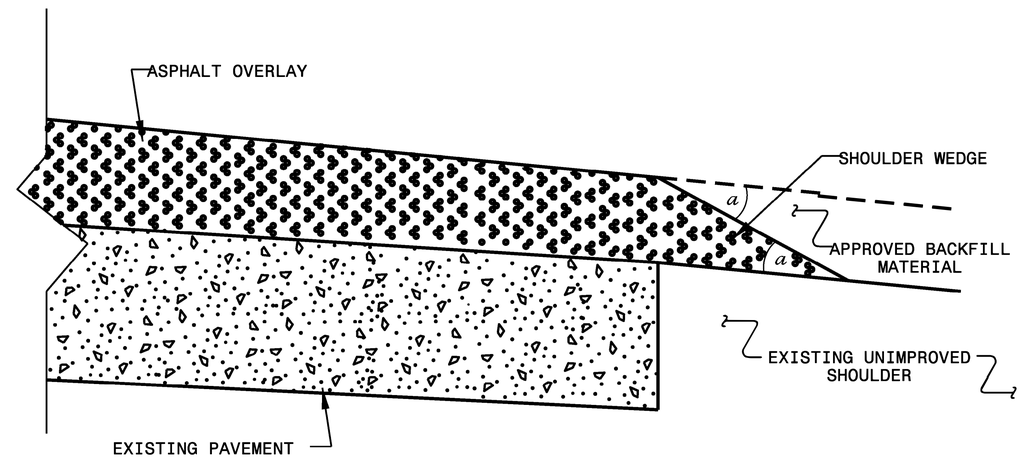
PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, etc.	19A

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.



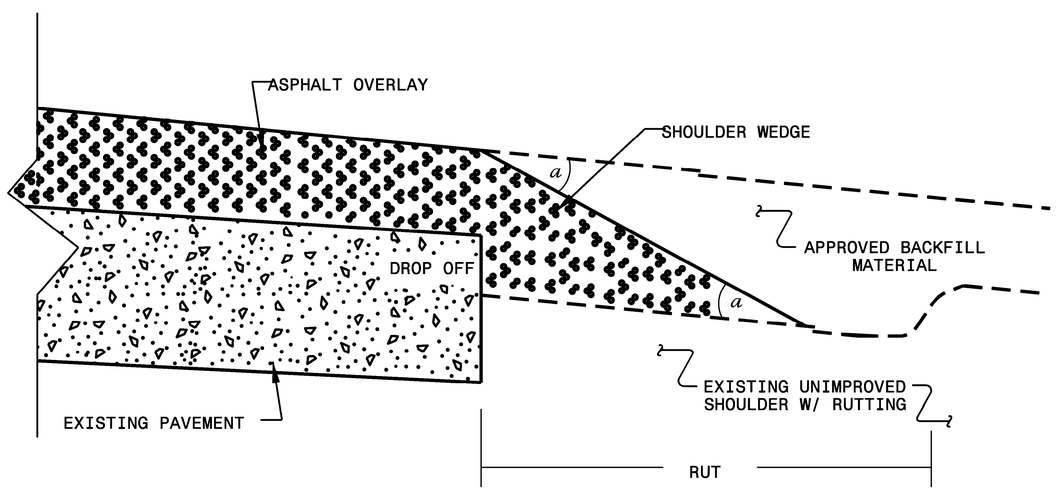
SHOULDER WEDGE DETAIL

(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.: sjusr/details/stand/shoulderwedgedetail.dgn

22-JAN-2018 09:41
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pjporter AT CSD 2425-92

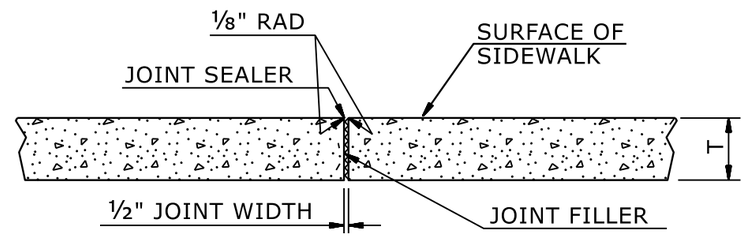
Docusign Envelope ID: 075A291E-5C74-8987-8388-5112A83B280A

NOTES:

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

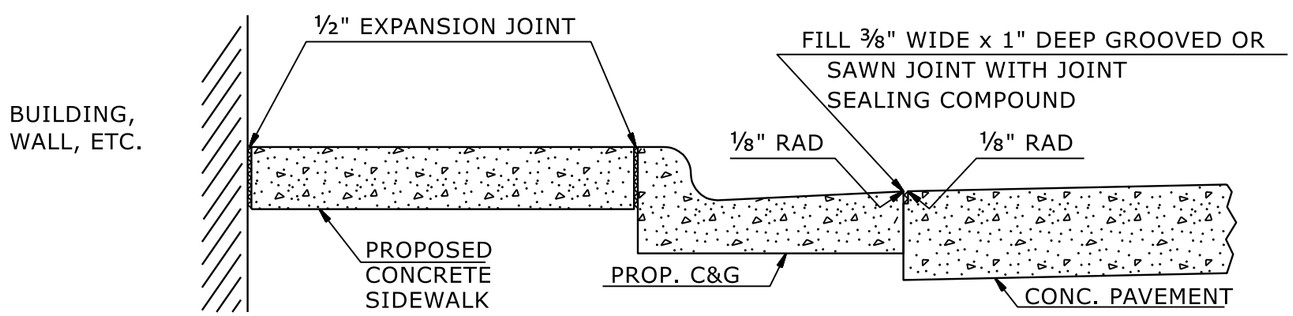
PLACE A GROOVE JOINT 1" DEEP WITH ⅛" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE ½" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

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 SEAL 033144 ENGINEER NICOLE M. HACKLER

Signed by:
Nicole M Hackler
5884323D34164C5...
7/28/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

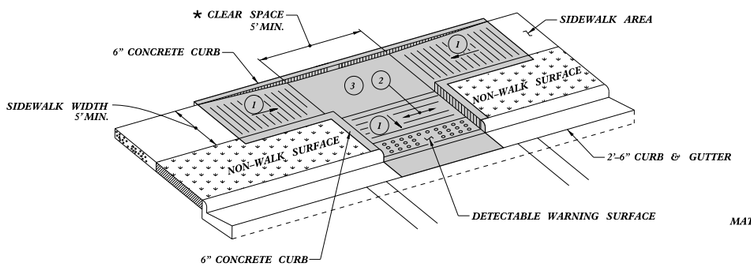
SEE TITLE BLOCK

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

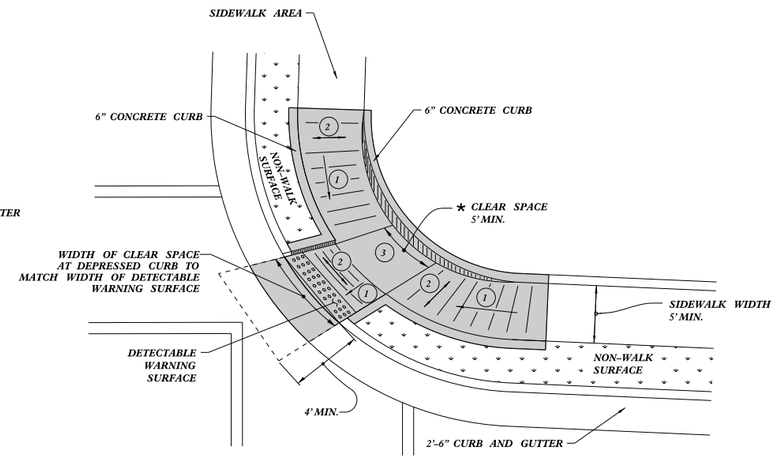
Docusign Envelope ID: 075A291E-5C74-8987-8388-5112A83B280A

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921 etc.	21

★ - 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.



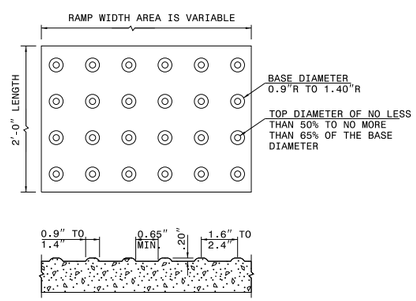
TYPE 3



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 SEAL 033144 ENGINEER NICOLE M. HACKLER

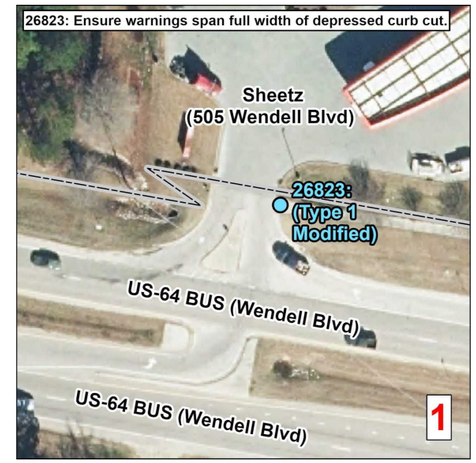
Signed by:
Nicole M Hackler
5884323D34164C5...
7/28/2026

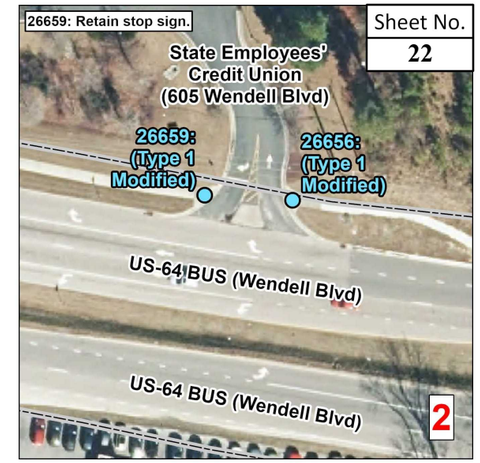
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

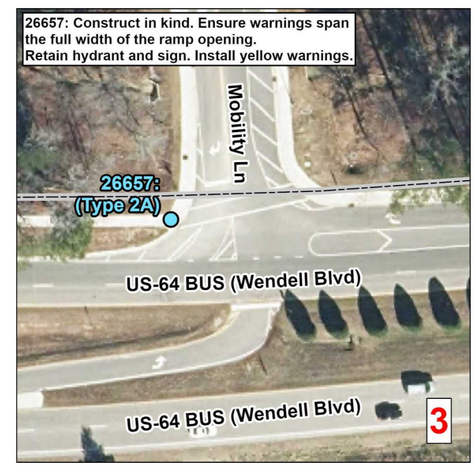
SEE TITLE BLOCK

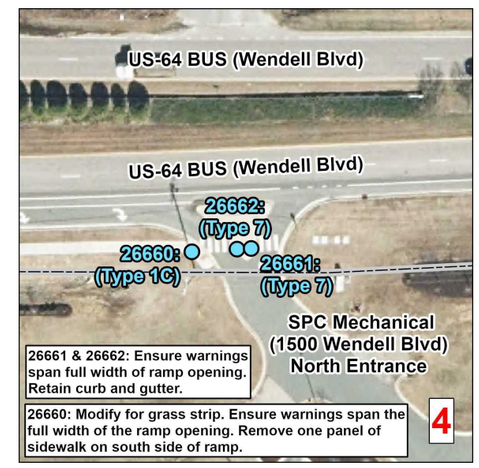
ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: special details\nmhackler\D0609.dgn

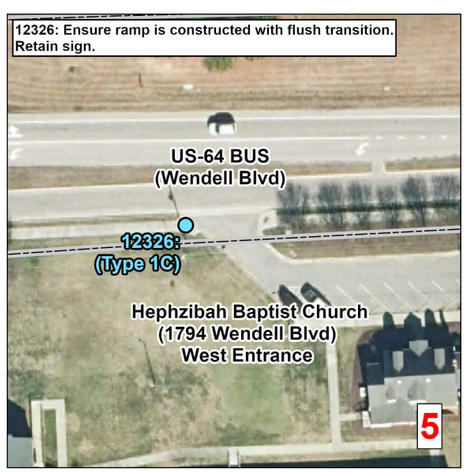


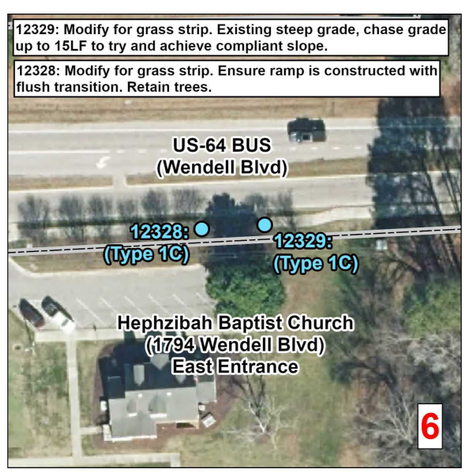


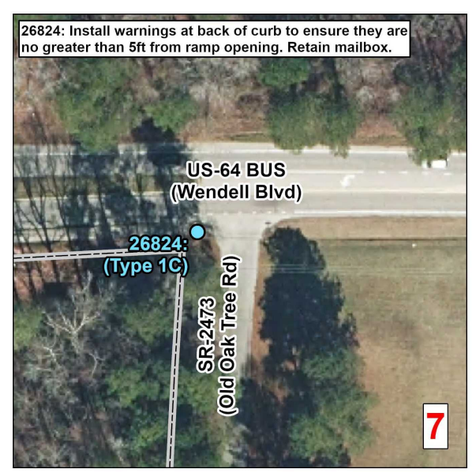
Sheet No.
22











Curb Ramps To Be Repaired

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

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

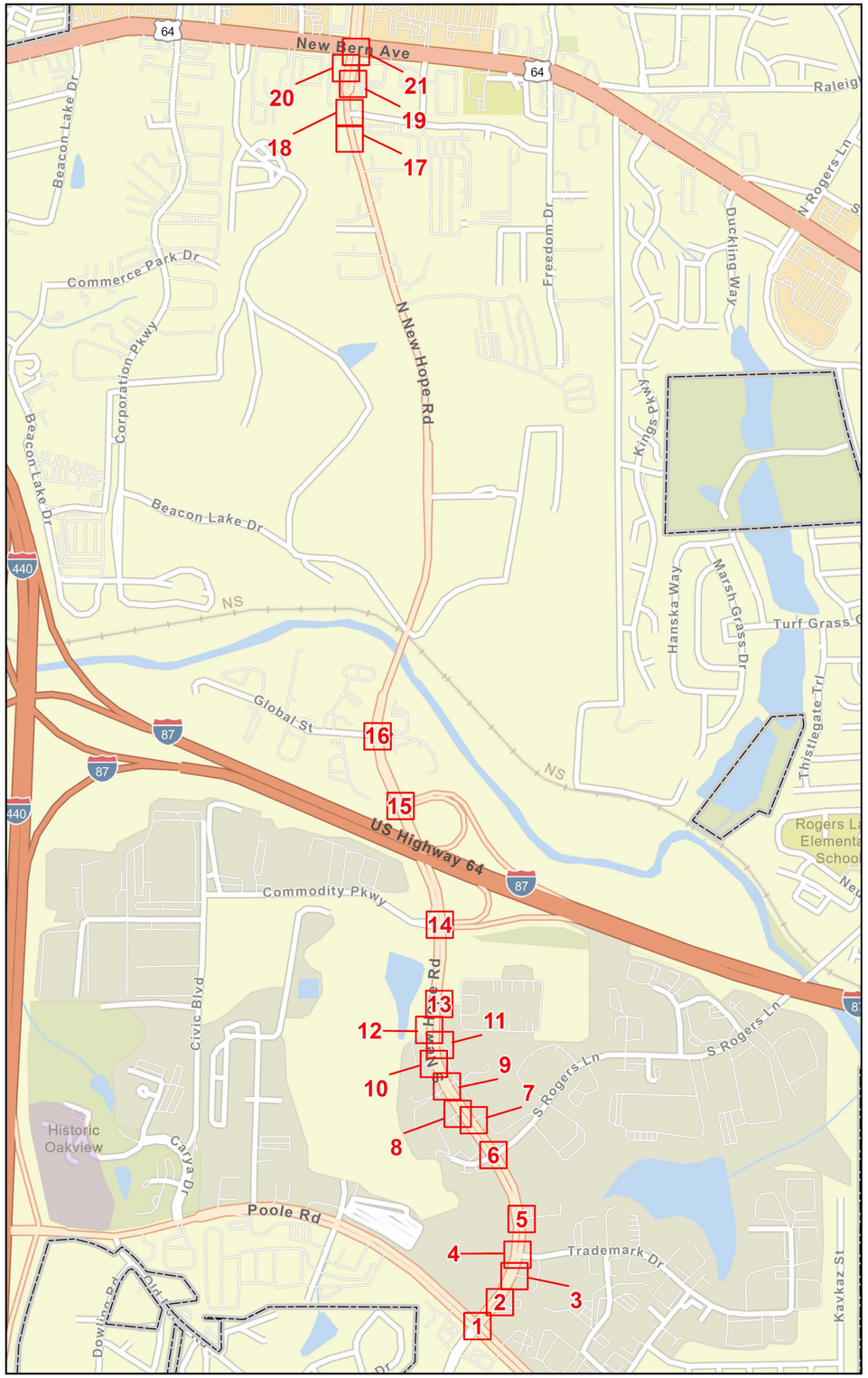
E Wake

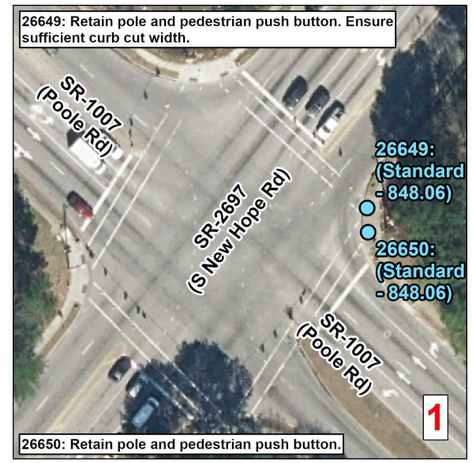
WBS Number: 2027CPT.05.02.10921, ETC.

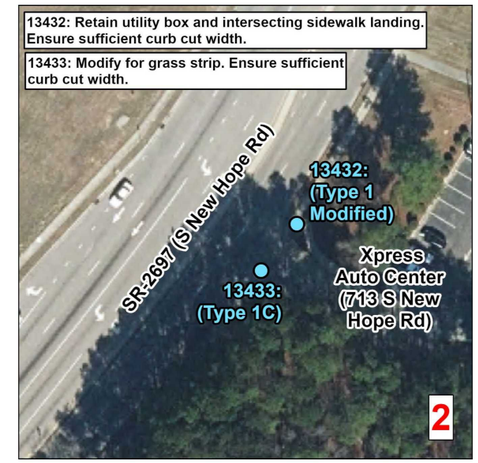
US 64 Bus From Morning Flyer Way To 70 ft East of Old Home Place Cir.

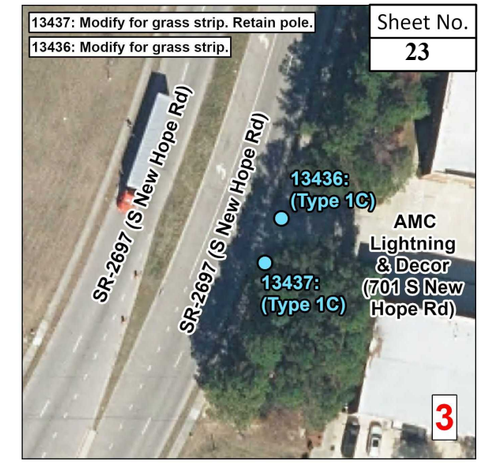
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

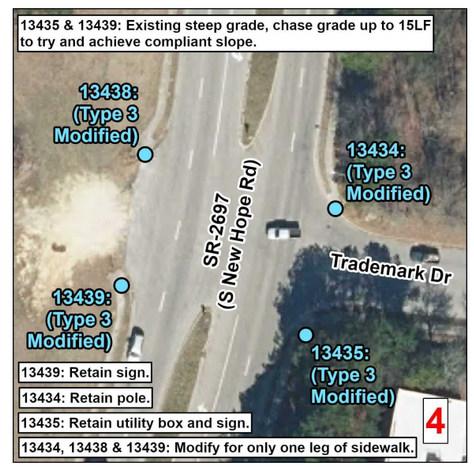
Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

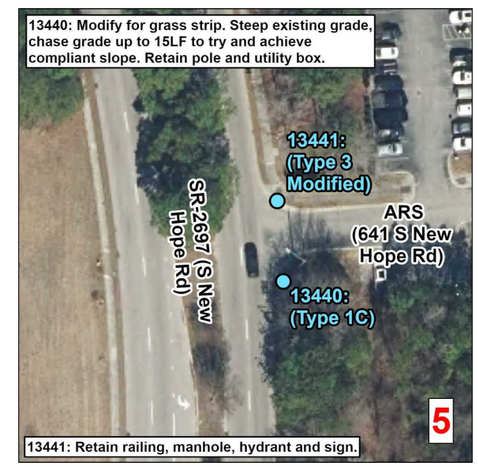


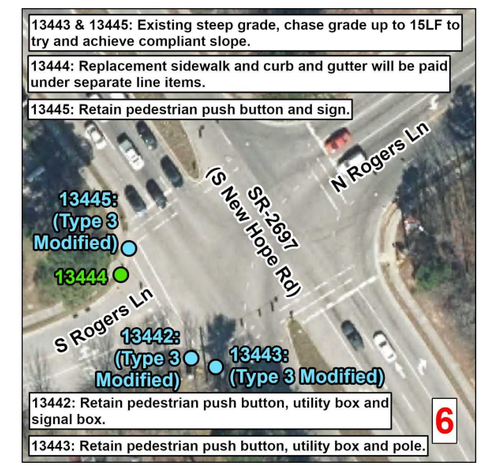


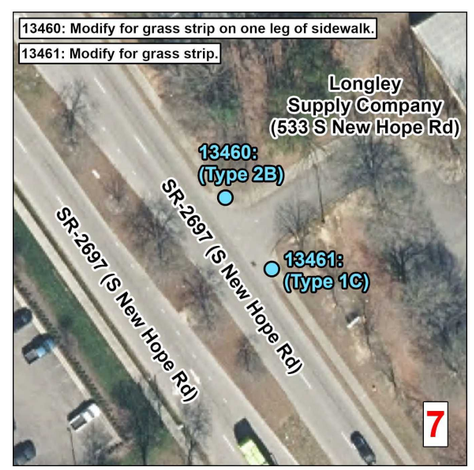


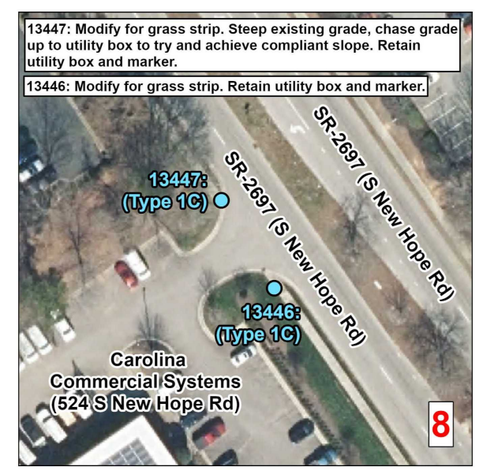












Curb Ramps To Be Repaired

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

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

E Wake

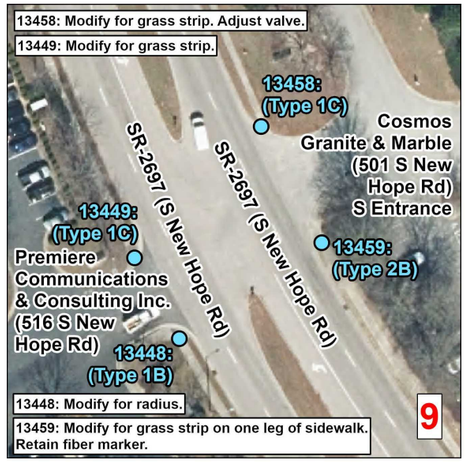
WBS Number: 2027CPT.05.02.10921, ETC.

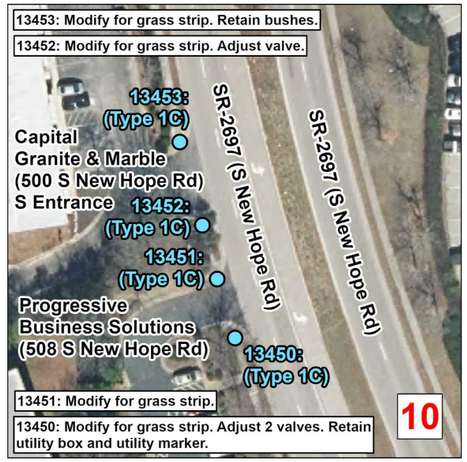
S New Hope Rd
From US 64 Bus To SR 1007

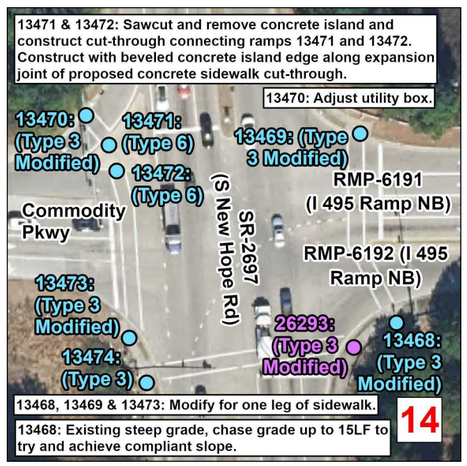
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

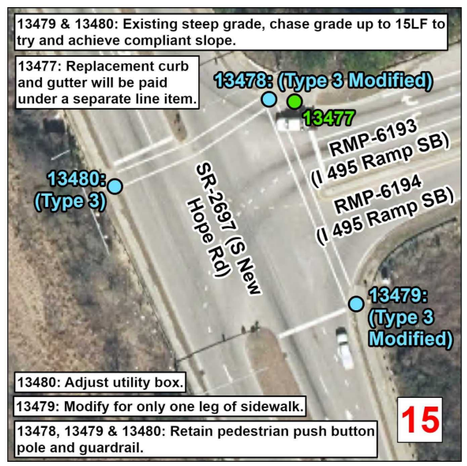
Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

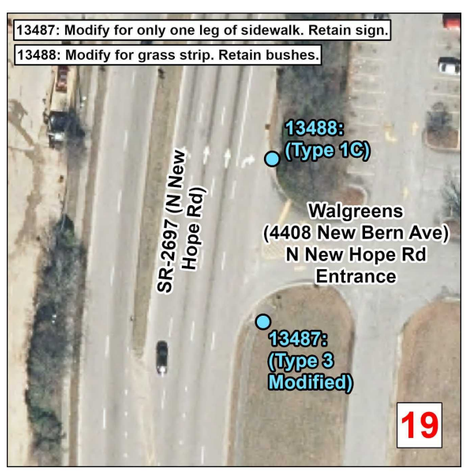
Sheet No. 24

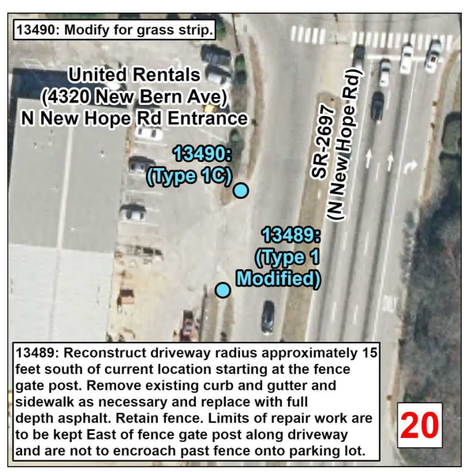


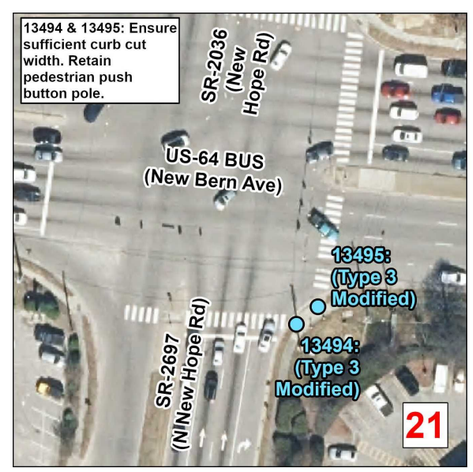












Curb Ramps To Be Repaired

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

Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

E Wake

WBS Number: 2027CPT.05.02.10921, ETC.

S New Hope Rd
From US 64 Bus To SR 1007

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

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

ADA SUMMARY OF QUANTITIES - US 64 BUS FROM MORNING FLYER WAY TO 70 FT EAST OF OLD HOME PLACE CIR.

Municipality:	**Unincorporated Wake Co**
WBS Number:	**2027CPT.05.02.10921 , ETC.**
County:	**Wake**

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	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
26823	1	US-64 BUS (Wendell Blvd)	Sheetz (505 Wendell Blvd)												1			Type 1 Modified - 848.06
26656	2	US-64 BUS (Wendell Blvd)	State Employees' Credit Union (605 Wendell Blvd)												1			Type 1 Modified - 848.06
26659	2	US-64 BUS (Wendell Blvd)	State Employees' Credit Union (605 Wendell Blvd)												1			Type 1 Modified - 848.06
26657	3	US-64 BUS (Wendell Blvd)	Mobility Ln												1			Type 2A - 848.06
26660	4	US-64 BUS (Wendell Blvd)	SPC Mechanical (1500 Wendell Blvd) North Entrance								4				1			Type 1C - 848.06
26661	4	US-64 BUS (Wendell Blvd)	SPC Mechanical (1500 Wendell Blvd) North Entrance												1			Type 7 - 848.06
26662	4	US-64 BUS (Wendell Blvd)	SPC Mechanical (1500 Wendell Blvd) North Entrance												1			Type 7 - 848.06
12326	5	US-64-BUS (Wendell Blvd)	Hephzibah Baptist Church (1794 Wendell Blvd) West Entrance												1			Type 1C - 848.06
12328	6	US-64-BUS (Wendell Blvd)	Hephzibah Baptist Church (1794 Wendell Blvd) East Entrance												1			Type 1C - 848.06
12329	6	US-64-BUS (Wendell Blvd)	Hephzibah Baptist Church (1794 Wendell Blvd) East Entrance												1			Type 1C - 848.06
26824	7	US-64-BUS (Wendell Blvd)	SR-2473 (Old Oak Tree Rd)												1			Type 1C - 848.06
-	-	-	-	-	3*	-	44*	-	-	6*	-	-	-	-	-	-	-	
Sub-Total for US 64 Bus From Morning Flyer Way To 70 ft East of Old Home Place Cir.				**0**	**3**	**0**	**44**	**0**	**0**	**6**	**4**	**0**	**0**	**0**	**11**	**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 - S NEW HOPE RD FROM US 64 BUS TO SR 1007

Municipality:	**Raleigh**
WBS Number:	**2027CPT.05.02.10921, ETC.**
County:	**Wake**

Sheet No.
26

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	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
26649	1	SR-1007 (Poole Rd)	SR-2697 (S New Hope Rd)												1			Standard - 848.06
26650	1	SR-1007 (Poole Rd)	SR-2697 (S New Hope Rd)												1			Standard - 848.06
13432	2	SR-2697 (S New Hope Rd)	Xpress Auto Center (713 S New Hope Rd)												1			Type 1 Modified - 848.06
13433	2	SR-2697 (S New Hope Rd)	Xpress Auto Center (713 S New Hope Rd)												1			Type 1C - 848.06
13436	3	SR-2697 (S New Hope Rd)	AMC Lightning & Decor (701 S New Hope Rd)												1			Type 1C - 848.06
13437	3	SR-2697 (S New Hope Rd)	AMC Lightning & Decor (701 S New Hope Rd)												1			Type 1C - 848.06
13434	4	SR-2697 (S New Hope Rd)	Trademark Dr												1			Type 3 Modified - 848D0609
13435	4	SR-2697 (S New Hope Rd)	Trademark Dr												1			Type 3 Modified - 848D0609
13438	4	SR-2697 (S New Hope Rd)	Trademark Dr												1			Type 3 Modified - 848D0609
13439	4	SR-2697 (S New Hope Rd)	Trademark Dr												1			Type 3 Modified - 848D0609
13440	5	SR-2697 (S New Hope Rd)	ARS (641 S New Hope Rd)												1			Type 1C - 848.06
13441	5	SR-2697 (S New Hope Rd)	ARS (641 S New Hope Rd)												1			Type 3 Modified - 848D0609
13442	6	SR-2697 (S New Hope Rd)	S Rogers Ln												1			Type 3 Modified - 848D0609
13443	6	SR-2697 (S New Hope Rd)	S Rogers Ln												1			Type 3 Modified - 848D0609
13444	6	SR-2697 (S New Hope Rd)	S Rogers Ln			18			9								1	Remove Ramp
13445	6	SR-2697 (S New Hope Rd)	S Rogers Ln												1			Type 3 Modified - 848D0609
13460	7	SR-2697 (S New Hope Rd)	Longley Supply Company (533 S New Hope Rd)												1			Type 2B - 848.06
13461	7	SR-2697 (S New Hope Rd)	Longley Supply Company (533 S New Hope Rd)												1			Type 1C - 848.06
13446	8	SR-2697 (S New Hope Rd)	Carolina Commercial Systems (524 S New Hope Rd)												1			Type 1C - 848.06
13447	8	SR-2697 (S New Hope Rd)	Carolina Commercial Systems (524 S New Hope Rd)												1			Type 1C - 848.06
13448	9	SR-2697 (S New Hope Rd)	Premiere Communications & Consulting Inc. (516 S New Hope Rd)												1			Type 1B - 848.06
13449	9	SR-2697 (S New Hope Rd)	Premiere Communications & Consulting Inc. (516 S New Hope Rd)												1			Type 1C - 848.06
13458	9	SR-2697 (S New Hope Rd)	Cosmos Granite & Marble (501 S New Hope Rd) S Entrance									1			1			Type 1C - 848.06
13459	9	SR-2697 (S New Hope Rd)	Cosmos Granite & Marble (501 S New Hope Rd) S Entrance												1			Type 2B - 848.06
13450	10	SR-2697 (S New Hope Rd)	Progressive Business Solutions (508 S New Hope Rd)									2			1			Type 1C - 848.06
13451	10	SR-2697 (S New Hope Rd)	Progressive Business Solutions (508 S New Hope Rd)												1			Type 1C - 848.06
Sub-Total				**0**	**0**	**18**	**0**	**0**	**9**	**0**	**0**	**3**	**0**	**0**	**25**	**0**	**1**	

*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 - S NEW HOPE RD FROM US 64 BUS TO SR 1007

Municipality:	**Raleigh**
WBS Number:	**2027CPT.05.02.10921, ETC.**
County:	**Wake**

Sheet No.
27

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	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
13452	10	SR-2697 (S New Hope Rd)	Capital Granite & Marble (500 S New Hope Rd) S Entrance									1			1			Type 1C - 848.06
13453	10	SR-2697 (S New Hope Rd)	Capital Granite & Marble (500 S New Hope Rd) S Entrance												1			Type 1C - 848.06
13456	11	SR-2697 (S New Hope Rd)	Cosmos Granite & Marble (501 S New Hope Rd) N Entrance												1			Type 1C - 848.06
13454	12	SR-2697 (S New Hope Rd)	Capital Granite & Marble (500 S New Hope Rd) North Entrance												1			Type 1C - 848.06
13455	12	SR-2697 (S New Hope Rd)	Capital Granite & Marble (500 S New Hope Rd) North Entrance												1			Type 1C - 848.06
13466	13	SR-2697 (S New Hope Rd)	Charles River Laboratories (401 S New Hope Rd)												1			Type 3 Modified - 848D0609
13467	13	SR-2697 (S New Hope Rd)	Charles River Laboratories (401 S New Hope Rd)												1			Type 3 Modified - 848D0609
13468	14	SR-2697 (S New Hope Rd)	RMP-6192 (I 495 Ramp NB)												1			Type 3 Modified - 848D0609
13469	14	SR-2697 (S New Hope Rd)	RMP-6191 (I 495 Ramp NB)												1			Type 3 Modified - 848D0609
13470	14	SR-2697 (S New Hope Rd)	Commodity Pkwy									1			1			Type 3 Modified - 848D0609
13471	14	SR-2697 (S New Hope Rd)	Commodity Pkwy	7									2	7	1			Type 6 - 848.06
13472	14	SR-2697 (S New Hope Rd)	Commodity Pkwy	7									2	7	1			Type 6 - 848.06
13473	14	SR-2697 (S New Hope Rd)	Commodity Pkwy												1			Type 3 Modified - 848D0609
13474	14	SR-2697 (S New Hope Rd)	Commodity Pkwy												1			Type 3 - 848D0609
26293	14	SR-2697 (S New Hope Rd)	RMP-6192 (I-495 Ramp NB)					18			9					1		Type 3 Modified - 848D0609
13477**	15	SR-2697 (S New Hope Rd)	RMP-6194 (I 495 Ramp SB)			18											1	Remove Ramp
13478	15	SR-2697 (S New Hope Rd)	RMP-6193 (I 495 Ramp SB)												1			Type 3 Modified - 848D0609
13479	15	SR-2697 (S New Hope Rd)	RMP-6194 (I 495 Ramp SB)												1			Type 3 Modified - 848D0609
13480	15	SR-2697 (S New Hope Rd)	RMP-6193 (I 495 Ramp SB)									1			1			Type 3 - 848D0609
13475	16	SR-2697 (S New Hope Rd)	Graybar (211 S New Hope Rd)							6					1			Type 1C - 848.06
13476**	16	SR-2697 (S New Hope Rd)	Graybar (211 S New Hope Rd)												1			Standard - 848.06
13481	16	SR-2697 (S New Hope Rd)	Global St												1			Type 3 Modified - 848D0609
13482	16	SR-2697 (S New Hope Rd)	Global St			25			9								1	Remove Ramp
13483	16	SR-2697 (S New Hope Rd)	Global St												1			Type 3 Modified - 848D0609
13484	17	SR-2697 (N New Hope Rd)	Batca Fitness Systems (1207 N New Hope Rd)												1			Type 1C - 848.06
Sub-Total				**14**	**0**	**43**	**0**	**18**	**9**	**6**	**9**	**3**	**4**	**14**	**22**	**1**	**2**	

*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 - S NEW HOPE RD FROM US 64 BUS TO SR 1007

Municipality:	**Raleigh**
WBS Number:	**2027CPT.05.02.10921, ETC.**
County:	**Wake**

Sheet No.
28

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	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps	Improvement Type
13485	18	SR-2697 (N New Hope Rd)	Bullock Farm Rd												1			Type 3 Modified - 848D0609
13486	18	SR-2697 (N New Hope Rd)	Bullock Farm Rd					19	9								1	Remove Ramp
13487	19	SR-2697 (N New Hope Rd)	Walgreens (4408 New Bern Ave) N New Hope Rd Entrance												1			Type 3 Modified - 848D0609
13488	19	SR-2697 (N New Hope Rd)	Walgreens (4408 New Bern Ave) N New Hope Rd Entrance												1			Type 1C - 848.06
13489	20	SR-2697 (N New Hope Rd)	United Rentals (4320 New Bern Ave) N New Hope Rd Entrance		16	15	40				9				1			Type 1 Modified - 848.06
13490	20	SR-2697 (N New Hope Rd)	United Rentals (4320 New Bern Ave) N New Hope Rd Entrance												1			Type 1C - 848.06
13494	21	US-64-BUS (New Bern Ave)	SR-2697 (N New Hope Rd)												1			Type 3 Modified - 848D0609
13495	21	US-64-BUS (New Bern Ave)	SR-2697 (N New Hope Rd)												1			Type 3 Modified - 848D0609
-	-	-	-	-	15*	-	216*	-	-	60*	-	-	-	-	-	-	-	
Sub-Total				**0**	**31**	**15**	**256**	**19**	**9**	**60**	**9**	**0**	**0**	**0**	**7**	**0**	**1**	
Sub-Total for S New Hope Rd From US 64 Bus To SR 1007				**14**	**31**	**76**	**256**	**37**	**27**	**66**	**18**	**6**	**4**	**14**	**54**	**1**	**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%.

ADA SUMMARY OF QUANTITIES - TOTALS

WBS Number:	2027CPT.05.02.10921,ETC.
County:	Wake

Sheet No. 29

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	2752000000-E (LF) Remove 2'-6" Concrete Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove And Replace 4" Concrete Sidewalk	2738000000-E (SY) Remove 4" Concrete Sidewalk	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	2655000000-E (SY) 5" Monolithic Concrete Island (Keyed In)	2738000000-E (SY) Remove 5" Monolithic Concrete Islands (Keyed In)	2612500000-N (EA) Remove and Replace Concrete Curb Ramps	2605000000-N (EA) Concrete Curb Ramps	2759000000-N (EA) Remove Concrete Curb Ramps
2027CPT.05.02.10921	Wake	Unincorporated Wake Co	US 64 Bus From Morning Flyer Way To 70 ft East of Old Home Place Cir.	30	5	1	0	3	0	44	0	0	6	4	0	0	0	11	0	0
2027CPT.05.02.20921	Wake	Raleigh	S New Hope Rd From US 64 Bus To SR 1007	60	10	2	14	31	76	256	37	27	66	18	6	4	14	54	1	4
GRAND TOTAL				**90**	**15**	**3**	**14**	**34**	**76**	**300**	**37**	**27**	**72**	**22**	**6**	**4**	**14**	**65**	**1**	**4**

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%.

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.05.02.10921, ETC.	30	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	0156000000-E REMOVAL OF EXISTING ASPHALT PAVEMENT	1220000000-E INCIDENTAL STONE BASE	1245000000-E SHOULDER RECONSTRUCTION	1260000000-E AGGREGATE SHOULDER BORROW	1297000000-E 1½" MILLING	1297000000-E 1 1/4" MILLING	1308000000-E 0" TO 1.5" MILLING	1330000000-E INCIDENTAL MILLING	1519000000-E SURFACE COURSE, S9.5B	1523000000-E SURFACE COURSE, S9.5C	1557500000-E ASPHALT BINDER FOR PLANT MIX	1704000000-E PATCHING EXISTING PAVEMENT	2549000000-E 2'-6" CONCRETE CURB & GUTTER	2591000000-E 4" CONCRETE SIDEWALK	2605000000-N CONCRETE CURB RAMPS	2612500000-N REMOVE AND REPLACE CONCRETE CURB RAMPS	2655000000-E 5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	2738000000-E REMOVE AND REPLACE 4" CONCRETE SIDEWALK	2738000000-E REMOVE 4" CONCRETE SIDEWALK	2738000000-E REMOVE 5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	2752000000-E REMOVE 2'-6" CONCRETE CURB & GUTTER	2752000000-E REMOVE AND REPLACE 2'-6" CONCRETE CURB & GUTTER	2759000000-N REMOVE CONCRETE CURB RAMPS	2830000000-N ADJUSTMENT OF MANHOLES	2845000000-N ADJUSTMENT OF METER BOXES OR VALVE BOXES	4600000000-N GENERIC TRAFFIC CONTROL ITEM PEDESTRIAN TRANSPORT SERVICE	4600000000-N GENERIC TRAFFIC CONTROL ITEM AUDIBLE WARNING DEVICES	7444000000-E INDUCTIVE LOOP SAWCUT
						MI	FT	SY	TONS	SMI	TON	SY	SY	SY	SY	TONS	TONS	TON	TONS	LF	SY	EA	EA	SY	SY	SY	SY	LF	LF	EA	EA	EA	EA	EA	LF
2027CPT.05.02.10921	Wake	1	US-64 BUS W / WENDELL BLVD/KNIGHTDALE BLVD	FROM PICAYUNE LANE TO MORNING FLYER WAY	1	3.766	30		150	6.02	227	72,793					6,114	368	148																660
2027CPT.05.02.10921	Wake	2	US-64 BUS E / KNIGHTDALE BLVD/WENDELL BLVD	FROM MORNING FLYER WAY TO 70 FT EAST OF OLD HOME PLACE CIR.	1	3.835	30		153	6.13	283	74,148					6,228	375	155				11.0		6	4			44				5	1	384
TOTAL FOR PROJ NO. 2027CPT.05.02.10921						**7.601**			**303**	**12.15**	**510**	**146,941**					**12,342**	**743**	**303**				**11.0**		**6**	**4**			**44**				**5**	**1**	**1,044**
2027CPT.05.02.20921	Wake	3	SR-2483 / LAUREL LEAF RD	FROM SR 2369 TO CUL-DE-SAC	2	0.426	20								20	438		38	192																
2027CPT.05.02.20921	Wake	4	SR-5447 / PITTY PATS PATH	FROM NC 97 TO CUL-DE-SAC	2	0.524	20								20	483		36	96																
2027CPT.05.02.20921	Wake	5	SR-2460 / BOBBFIELD WAY	FROM NC 96 TO CUL-DE-SAC	2	0.184	18								121	182		12	10																
2027CPT.05.02.20921	Wake	6	SR-2449 / PATRICIAN WAY	FROM SR 2340 TO END MAINT	2	0.267	20								15	246		22	118																
2027CPT.05.02.20921	Wake	7	SR-2391 / HOLIDAY AVE	FROM SR 2337 TO DEAD END	2	0.652	20								25	562		47	216																
2027CPT.05.02.20921	Wake	8	SR-5287 / EMERALD SPRING DR	FROM PAVEMENT JOINT TO SR	3	0.261	22							5	62	308		21	12																
2027CPT.05.02.20921	Wake	9	SR-5291 / STONE WEALTH DR	FROM SR 5287 TO PAVEMENT	3	0.096	22							5	195	128		9	5																
2027CPT.05.02.20921	Wake	10	SR-4199 / STONEY CREEK DR	FROM SR 2557 TO CUL-DE-SAC	4	0.320	20								141	252		19	52																
2027CPT.05.02.20921	Wake	11	SR-5200 / DEER TRACE LN	FROM CUL-DE-SAC TO DEAD END	4	0.495	20								20	364		25	20																
2027CPT.05.02.20921	Wake	12	SR-2697 / N NEW HOPE RD/S NEW HOPE RD	FROM END DIVIDED, APPROX. 350' SOUTH OF US-64 BUS, TO SR 1007	1	2.312	24	14.0	19	0.76	71	35,777			1,670		3,005	183	123	76	27	1	54.0	4	66	18	14	37	256	4	6	7	10	2	1,308
2027CPT.05.02.20921	Wake	13	SR-2577 / ELLEN DR	FROM SR 2516 TO SR 2602	5	0.186	18						1,827			139		14	101																132
2027CPT.05.02.20921	Wake	14	SR-2602 / ELLEN DR	FROM SR 2577 TO SR 2577	5	0.260	18						2,793			211		26	263																
2027CPT.05.02.20921	Wake	15	SR-2697 / S NEW HOPE RD	FROM BEG DIV HWY TO SR-1007	1	1.130	24					17,501					1,470	89	45																420
2027CPT.05.02.20921	Wake	16	SR-5290 / SILVER VALLEY DR	FROM SR 5287 TO SR 5287	3	0.063	22							5	103	82		6	5																
2027CPT.05.02.20921	Wake	17	SR-2411 / MANGUMS DR	FROM SR 2320 TO SR 2422	6	0.558	20								123	605		50	221																
2027CPT.05.02.20921	Wake	18	SR-2423 / CARTWRIGHT CIR	FROM SR 2422 TO END MAINT	2	0.207	20								56	190		15	64													2			
2027CPT.05.02.20921	Wake	19	SR-2422 / ADAM LN	FROM SR 2411 TO SR 2423	2	0.265	20								15	243		17	30													2			
2027CPT.05.02.20921	Wake	20	SR-2472 / WINSLOWE FARM DR	FROM NC 97 TO CUL-DE-SAC	6	0.170	18								10	177		13	40																
TOTAL FOR PROJ NO. 2027CPT.05.02.20921						**8.376**		**14.0**	**19**	**0.76**	**71**	**53,278**	**4,620**	**15**	**2,596**	**4,610**	**4,475**	**642**	**1,613**	**76**	**27**	**1**	**54.0**	**4**	**66**	**18**	**14**	**37**	**256**	**4**	**6**	**11**	**10**	**2**	**1,860**
2027CPT.05.02.20922	Wake	21	SR-2484 / SUMAC CIR	FROM SR 2483 TO CUL-DE-SAC	4	0.027	20								10	34		4	27																
2027CPT.05.02.20922	Wake	22	SR-2486 / PAMPASS TRL	FROM SR 2483 TO DEAD END	4	0.044	20								10	32		2																	
2027CPT.05.02.20922	Wake	23	SR-2487 / WILD HONEYSUCKLE ST	FROM SR 2483 TO CUL-DE-SAC	4	0.034	20								10	41		3	5																
2027CPT.05.02.20922	Wake	24	SR-5448 / BAUCATCHER LN	FROM SR 5447 TO CUL-DE-SAC	4	0.065	18								10	61		4																	
2027CPT.05.02.20922	Wake	25	SR-2441 / NEW OAK ST	FROM SR 2303 TO SR 2447	5	0.574	20						6,931			630		43	40																
2027CPT.05.02.20922	Wake	26	SR-2442 / NEW RIDGE ST	FROM CUL-DE-SAC TO CUL-DE-	4	0.305	20								15	244		18	40																
2027CPT.05.02.20922	Wake	27	SR-2443 / NEW DIXIE CT	FROM SR 2442 TO CUL-DE-SAC	4	0.084	20								10	75		7	40																
2027CPT.05.02.20922	Wake	28	SR-2444 / NEW REBEL CT	FROM SR 2442 TO CUL-DE-SAC	4	0.108	20								10	95		8	40																
2027CPT.05.02.20922	Wake	29	SR-2445 / RIVER DARE AVE	FROM CUL-DE-SAC TO DEAD END	4	0.260	20								15	202		15	40																
2027CPT.05.02.20922	Wake	30	SR-2446 / DOLLAR CIR	FROM SR 2441 TO CUL-DE-SAC	4	0.094	20								10	84		7	40																
2027CPT.05.02.20922	Wake	31	SR-2447 / LAKE JENN DR	FROM CUL-DE-SAC TO DEAD END	4	0.268	20								15	202		15	40																
2027CPT.05.02.20922	Wake	32	SR-2448 / RIVERCREST DR	FROM SR 2445 TO SR 2447	4	0.198	20								15	162		11																	
2027CPT.05.02.20922	Wake	33	SR-2440 / LAKE PL	FROM SR 2391 TO CUL-DE-SAC	4	0.188	20								15	141		11	40																
2027CPT.05.02.20922	Wake	34	SR-4321 / TRELLIS CT	FROM SR-2215 TO CUL-DE-SAC	2	0.264	18								15	247		19	56																
2027CPT.05.02.20922	Wake	35	SR-4322 / PHLOX RD	FROM SR 4321 TO END MAINTENANCE	2	0.148	18								10	136		13	89																
2027CPT.05.02.20922	Wake	36	SR-4181 / CRICKETT RD	FROM SR 2511 TO DEAD END	5	0.293	18						3,317			251		18	39																
2027CPT.05.02.20922	Wake	37	SR-5255 / OUTCROP CT	FROM SR 5200 TO CUL-DE-SAC	4	0.077	20								10	81		6	5																
2027CPT.05.02.20922	Wake	38	SR-5201 / STAUFFER CT	FROM SR 5200 TO CUL-DE-SAC	4	0.090	20								10	83		6	5																
2027CPT.05.02.20922	Wake	39	SR-5221 / LA VARRA DR	FROM SR 1004 TO CUL-DE-SAC	5	0.186	20						2,681			202		15	40																
2027CPT.05.02.20922	Wake	40	SR-2419 / CRESTLINE RD	FROM SR 2320 TO CUL-DE-SAC	2	0.325	20								15	312		30	208																
2027CPT.05.02.20922	Wake	41	SR-2420 / POPLARWOOD DR	FROM SR 2419 TO CUL-DE-SAC	2	0.118	20								10	125		10	40																
2027CPT.05.02.20922	Wake	42	SR-4371 / CATKINS CT	FROM SR 4341 TO CUL-DE-SAC	4	0.050	20								10	48		5	37																
2027CPT.05.02.20922	Wake	43	SR-4320 / TRELLIS CT	FROM SR 2215 TO CUL-DE-SAC	4	0.042	18								10	41		3																	
2027CPT.05.02.20922	Wake	44	SR-4342 / ANNSBURY CT	FROM SR 4341 TO CUL-DE-SAC	4	0.052	18								10	51		4	15																
2027CPT.05.02.20922	Wake	45	SR-4343 / CHERRYBARK LN	FROM CUL-DE-SAC TO CUL-DE-	4	0.206	18								15	175		13	40																
2027CPT.05.02.20922	Wake	46	SR-4341 / BRILLIANT DR	FROM SR 2215 TO DEAD END	4	0.389	20								15	277		23	104																
2027CPT.05.02.20922	Wake	47	SR-6305 / ENDWELL DR	FROM SR 4341 TO CUL-DE-SAC	4	0.060	18								10	44		3																	
2027CPT.05.02.20922	Wake	48	SR-2485 / LIRIOPE LN	FROM SR 2483 TO CUL-DE-SAC	4	0.028	18								10	38		3	15																
TOTAL FOR PROJ NO. 2027CPT.05.02.20922						**4.577**							**12,929**		**295**	**4,114**		**319**	**1,045**																	
GRAND TOTAL						**20.554**		**14.0**	**322**	**12.91**	**581**	**200,219**	**17,549**	**15**	**2,891**	**8,724**	**16,817**	**1,704**	**2,961**	**76**	**27**	**1**	**65.0**	**4**	**72**	**22**	**14**	**37**	**300**	**4**	**6**	**11**	**15**	**3**	**2,904**

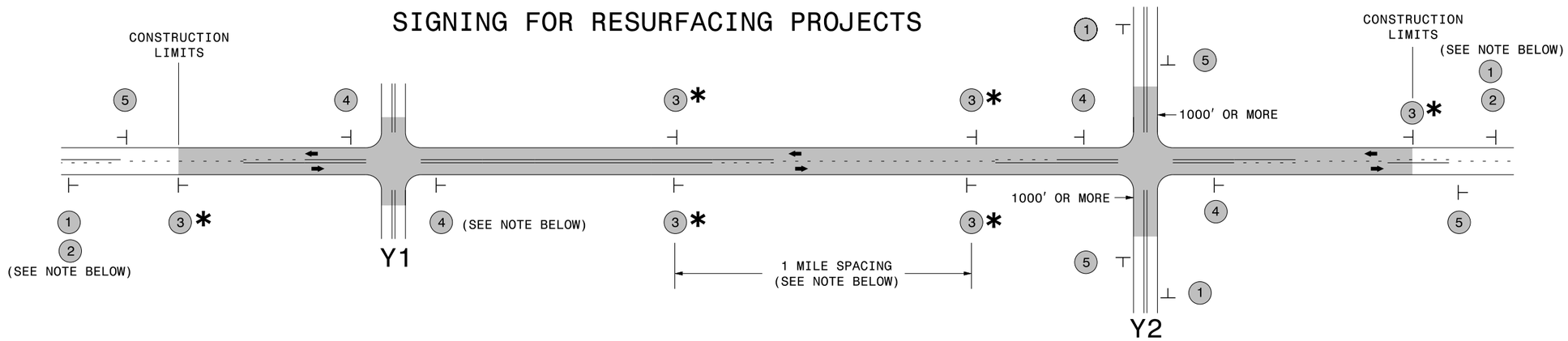
PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.05.02.10921, ETC.	31	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	4413000000-E WORK ZONE ADVANCE/GENERAL WARNING SIGNING	4447000000-E PEDESTRIAN CHANNELIZING DE- VICES	4457000000-N TEMPORARY TRAFFIC CONTROL	4510000000-N LAW ENFORCEMENT	4685000000-E 4" X 90 M WHITE THERMO	4685000000-E 4" X 90 M YELLOW THERMO	4688000000-E 6" X 90 M WHITE THERMO	4688000000-E 6" X 90 M YELLOW THERMO	4700000000-E 12" X 90 M YELLOW THERMO	4700000000-E 12" X 90 M WHITE THERMO	4709000000-E 24" X 90 M WHITE THERMO	4720000000-E THERMO MSG ONLY 90 M	4725000000-E THERMO STR ARROW 90 M	4725000000-E THERMO STR & RT ARROW 90 M	4725000000-E THERMO LT ARROW 90 M	4725000000-E THERMO RT ARROW 90 M	4725000000-E THERMO MERGE ARROW 90 M	4725000000-E THERMO LT STR RT ARROW 90 M	4770000000-E 4" WHITE COLD APPLIED PLASTIC, TYPE III	4770000000-E 4" YELLOW COLD APPLIED PLASTIC, TYPE II	4850000000-E 4" LINE REMOVAL	4895000000-N POLYCARBONATE H MARKERS
						MI	FT	SF	LF	LS	HR	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	EA
2027CPT.05.02.10921	Wake	1	US-64 BUS W / WENDELL BLVD/KNIGHTDALE BLVD	FROM PICAYUNE LANE TO MORNING FLYER WAY	1	3.766	30	422		*	160			43,792	22,892	40		230		15	3	20	13						145
		2	US-64 BUS E / KNIGHTDALE BLVD/WENDELL BLVD	FROM MORNING FLYER WAY TO 70 FT EAST OF OLD HOME PLACE CIR.	1	3.835	30	430	30		120			44,605	23,316			170	8	12	2	25	12						130
TOTAL FOR PROJ NO. 2027CPT.05.02.10921						**7.601**		**852**	**30**	**1.000**	**280**			**88,397**	**46,208**	**40**		**400**	**8**	**27**	**5**	**45**	**25**						**275**
														134,605		**40**				**102**									
2027CPT.05.02.20921	Wake	3	SR-2483 / LAUREL LEAF RD	FROM SR 2369 TO CUL-DE-SAC	2	0.426	20	48		*																			
		4	SR-5447 / PITTY PATS PATH	FROM NC 97 TO CUL-DE-SAC	2	0.524	20	59																					
		5	SR-2460 / BOBBFIELD WAY	FROM NC 96 TO CUL-DE-SAC	2	0.184	18	21																					
		6	SR-2449 / PATRICIAN WAY	FROM SR 2340 TO END MAINT	2	0.267	20	30																					
		7	SR-2391 / HOLIDAY AVE	FROM SR 2337 TO DEAD END	2	0.652	20	74																					
		8	SR-5287 / EMERALD SPRING DR	FROM PAVEMENT JOINT TO SR 5291	3	0.261	22	30																					
		9	SR-5291 / STONE WEALTH DR	FROM SR 5287 TO PAVEMENT JOINT	3	0.096	22	12																					
		10	SR-4199 / STONEY CREEK DR	FROM SR 2557 TO CUL-DE-SAC	4	0.32	20	36																					
		11	SR-5200 / DEER TRACE LN	FROM CUL-DE-SAC TO DEAD END	4	0.495	20	56																					
		12	SR-2697 / N NEW HOPE RD/S NEW HOPE RD	FROM END DIVIDED, APPROX. 350' SOUTH OF US-64 BUS, TO SR 1007	1	2.312	24	259	60		160	15,024	15,455			210	550	192		15	3	36	4	3		1,725	1,575	3,300	
		13	SR-2577 / ELLEN DR	FROM SR 2516 TO SR 2602	5	0.186	18	21			40	66	132					12							1				
		14	SR-2602 / ELLEN DR	FROM SR 2577 TO SR 2577	5	0.26	18	30																					
		15	SR-2697 / S NEW HOPE RD	FROM BEG DIV HWY TO SR-1007	1	1.13	24	127			160	6,450	1,134			20	550	154		10		9	4	1		575	385	960	
		16	SR-5290 / SILVER VALLEY DR	FROM SR 5287 TO SR 5287	3	0.063	22	7																					
		17	SR-2411 / MANGUMS DR	FROM SR 2320 TO SR 2422	6	0.558	20	63																					
		18	SR-2423 / CARTWRIGHT CIR	FROM SR 2422 TO END MAINT	2	0.207	20	24																					
		19	SR-2422 / ADAM LN	FROM SR 2411 TO SR 2423	2	0.265	20	30																					
		20	SR-2472 / WINSLOWE FARM DR	FROM NC 97 TO CUL-DE-SAC	6	0.17	18	20																					
TOTAL FOR PROJ NO. 2027CPT.05.02.20921						**8.376**		**947**	**60**	**1.000**	**360**	**21,540**	**16,721**			**230**	**1,100**	**358**		**25**	**3**	**45**	**8**	**4**	**1**	**2,300**	**1,960**	**4,260**	
												38,261				**1,330**						**86**				**4,260**			
2027CPT.05.02.20922	Wake	21	SR-2484 / SUMAC CIR	FROM SR 2483 TO CUL-DE-SAC	4	0.027	20	4		*																			
		22	SR-2486 / PAMPASS TRL	FROM SR 2483 TO DEAD END	4	0.044	20	5																					
		23	SR-2487 / WILD HONEYSUCKLE ST	FROM SR 2483 TO CUL-DE-SAC	4	0.034	20	4																					
		24	SR-5448 / BAUCATCHER LN	FROM SR 5447 TO CUL-DE-SAC	4	0.065	18	8																					
		25	SR-2441 / NEW OAK ST	FROM SR 2303 TO SR 2447	5	0.574	20	65																					
		26	SR-2442 / NEW RIDGE ST	FROM CUL-DE-SAC TO CUL-DE-SAC	4	0.305	20	35																					
		27	SR-2443 / NEW DIXIE CT	FROM SR 2442 TO CUL-DE-SAC	4	0.084	20	10																					
		28	SR-2444 / NEW REBEL CT	FROM SR 2442 TO CUL-DE-SAC	4	0.108	20	13																					
		29	SR-2445 / RIVER DARE AVE	FROM CUL-DE-SAC TO DEAD END	4	0.26	20	30																					
		30	SR-2446 / DOLLAR CIR	FROM SR 2441 TO CUL-DE-SAC	4	0.094	20	11																					
		31	SR-2447 / LAKE JENN DR	FROM CUL-DE-SAC TO DEAD END	4	0.268	20	31																					
		32	SR-2448 / RIVERCREST DR	FROM SR 2445 TO SR 2447	4	0.198	20	23																					
		33	SR-2440 / LAKE PL	FROM SR 2391 TO CUL-DE-SAC	4	0.188	20	22																					
		34	SR-4321 / TRELLIS CT	FROM SR-2215 TO CUL-DE-SAC	2	0.264	18	30																					
		35	SR-4322 / PHLOX RD	FROM SR 4321 TO END MAINTENANCE	2	0.148	18	17																					
		36	SR-4181 / CRICKETT RD	FROM SR 2511 TO DEAD END	5	0.293	18	33																					
		37	SR-5255 / OUTCROP CT	FROM SR 5200 TO CUL-DE-SAC	4	0.077	20	9																					
		38	SR-5201 / STAUFFER CT	FROM SR 5200 TO CUL-DE-SAC	4	0.09	20	11																					
		39	SR-5221 / LA VARRA DR	FROM SR 1004 TO CUL-DE-SAC	5	0.186	20	21																					
		40	SR-2419 / CRESTLINE RD	FROM SR 2320 TO CUL-DE-SAC	2	0.325	20	37																					
		41	SR-2420 / POPLARWOOD DR	FROM SR 2419 TO CUL-DE-SAC	2	0.118	20	14																					
		42	SR-4371 / CATKINS CT	FROM SR 4341 TO CUL-DE-SAC	4	0.05	20	6																					
		43	SR-4320 / TRELLIS CT	FROM SR 2215 TO CUL-DE-SAC	4	0.042	18	5																					
		44	SR-4342 / ANNSBURY CT	FROM SR 4341 TO CUL-DE-SAC	4	0.052	18	6																					
		45	SR-4343 / CHERRYBARK LN	FROM CUL-DE-SAC TO CUL-DE-SAC	4	0.206	18	24																					
		46	SR-4341 / BRILLIANT DR	FROM SR 2215 TO DEAD END	4	0.389	20	44																					
		47	SR-6305 / ENDWELL DR	FROM SR 4341 TO CUL-DE-SAC	4	0.06	18	7																					
		48	SR-2485 / LIRIOPE LN	FROM SR 2483 TO CUL-DE-SAC	4	0.028	18	4																					
TOTAL FOR PROJ NO. 2027CPT.05.02.20922						**4.577**		**529**		**1.000**																			
GRAND TOTAL						**20.554**		**2,328**	**90**	**1.000**	**640**	**21,540**	**16,721**	**88,397**	**46,208**	**270**	**1,100**	**758**	**8**	**52**	**8**	**90**	**33**	**4**	**1**	**2,300**	**1,960**	**4,260**	**275**
												38,261		**134,605**		**1,370**				**188**						**4,260**			

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	TMP-1

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.

* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).

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

RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

6/3/2014
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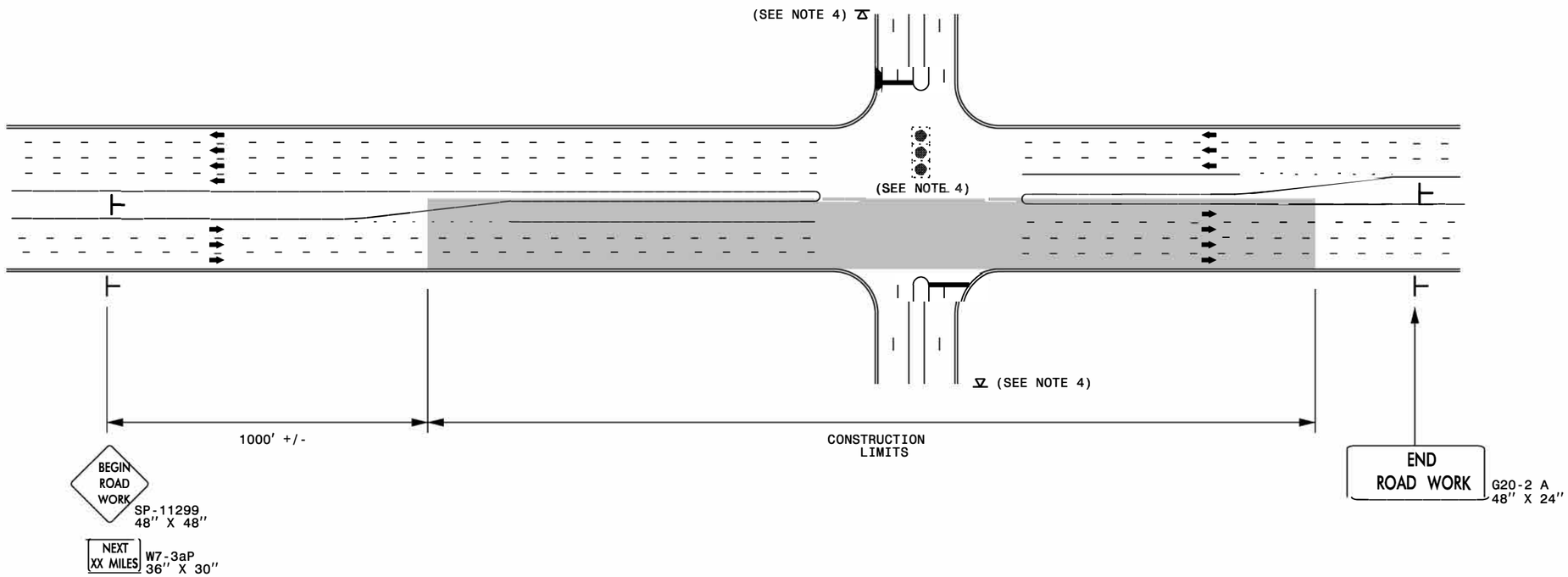
User:rmgarrett

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, 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

2/24/2014
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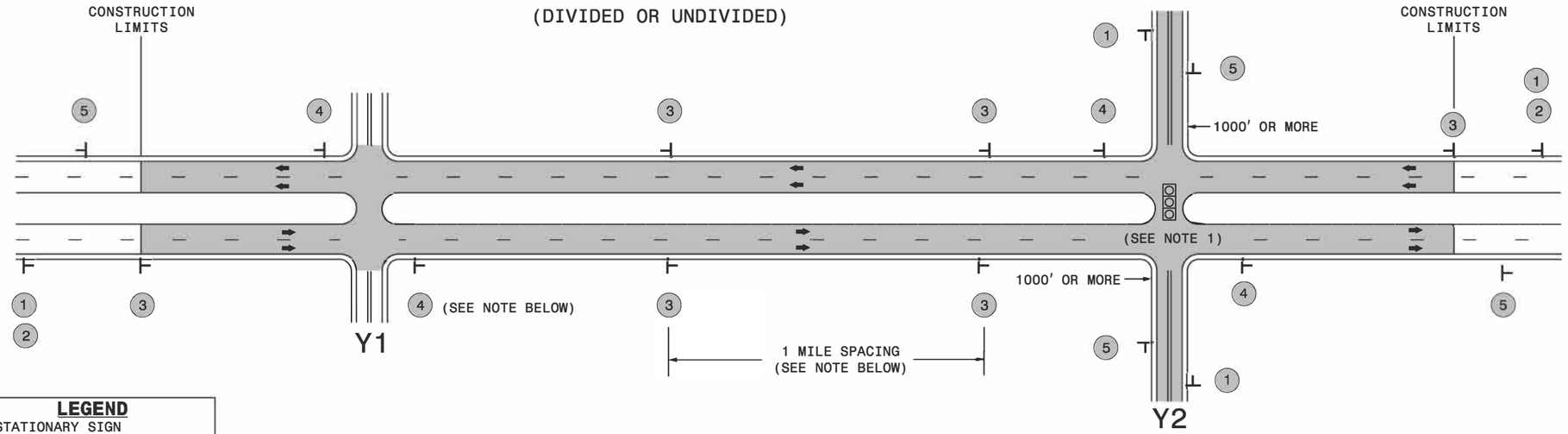
PROJ. REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	TMP-3

SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS

(DIVIDED OR UNDIVIDED)



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	LOWSOFT 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.

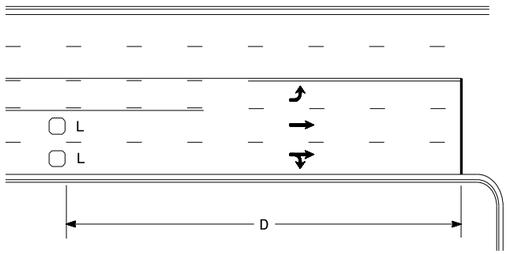
DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

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

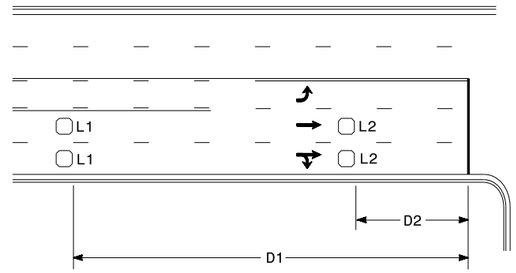
2/24/2014
S:\TMU\WZTC\Resurfacing\2013Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_LrSu_Shldr.dgn
User:mgorrell

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.05.02.10921, ETC.	SIG-1

High Speed Detection
(≥35 mph)



OR



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

L = 6ft X 6ft
Wired separately

Volume Density Operation

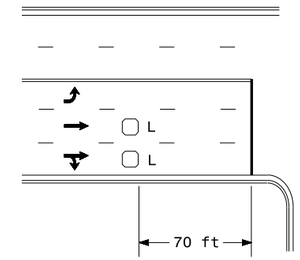
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

"Stretch" Operation

Low Speed Detection
(≤35 mph)



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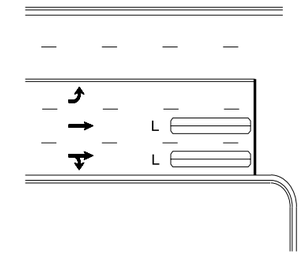
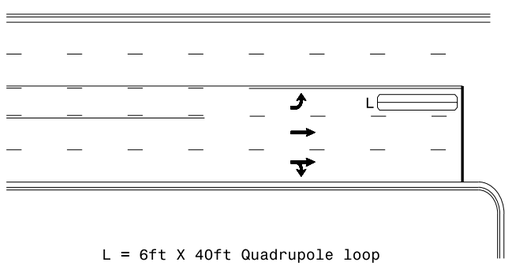


L = 6ft X 6ft
Wired in series

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

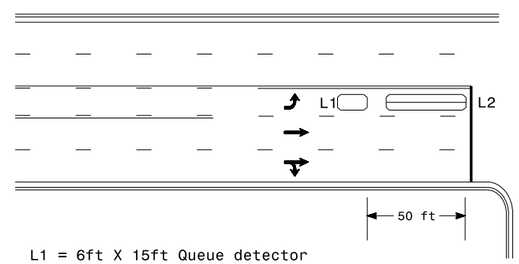
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

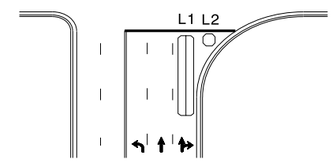
OR



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

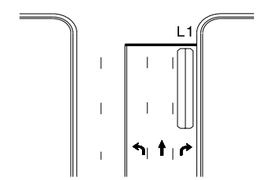
Queue Loop Detection

Right Turn Lane Detection

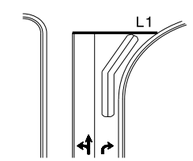


Shared Lane/
Wide Radius Turn

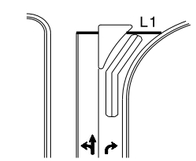
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

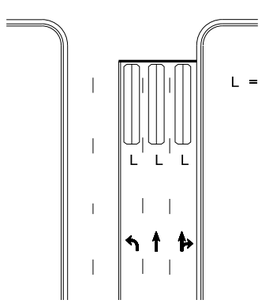


Wide Radius Turn



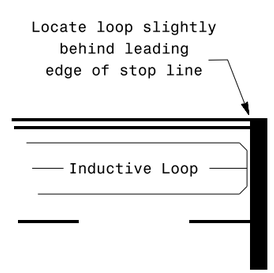
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



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

Recommended Number of Turns

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

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

Quadrupole loops: Use 2-4-2 turns

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

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

Typical Signal Loop Locations

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

REVISIONS	INIT.	DATE

SCALE
N/A

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA
DocuSigned by: Robert J. Ziemba
11/25/2025
DATE
SIG. INVENTORY NO.

17-NOV-2025 07:35
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jolohr