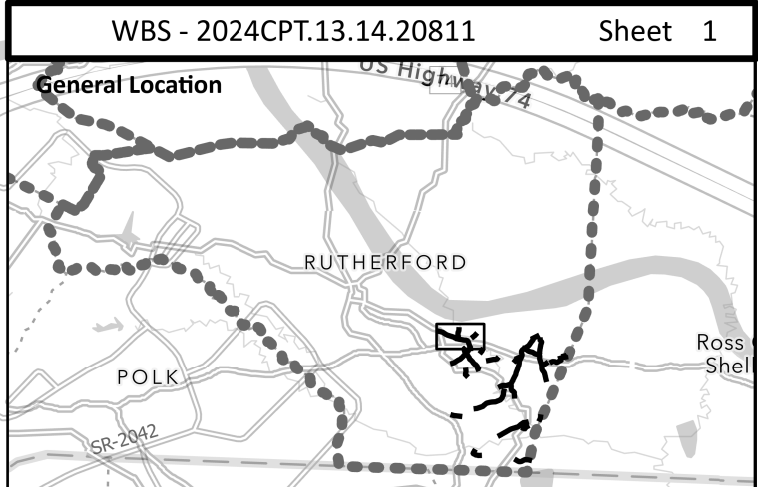
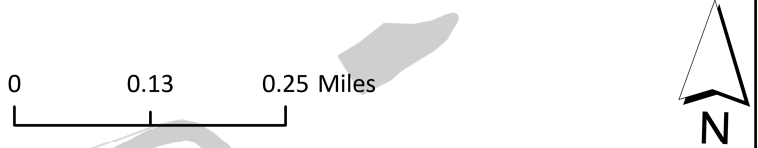
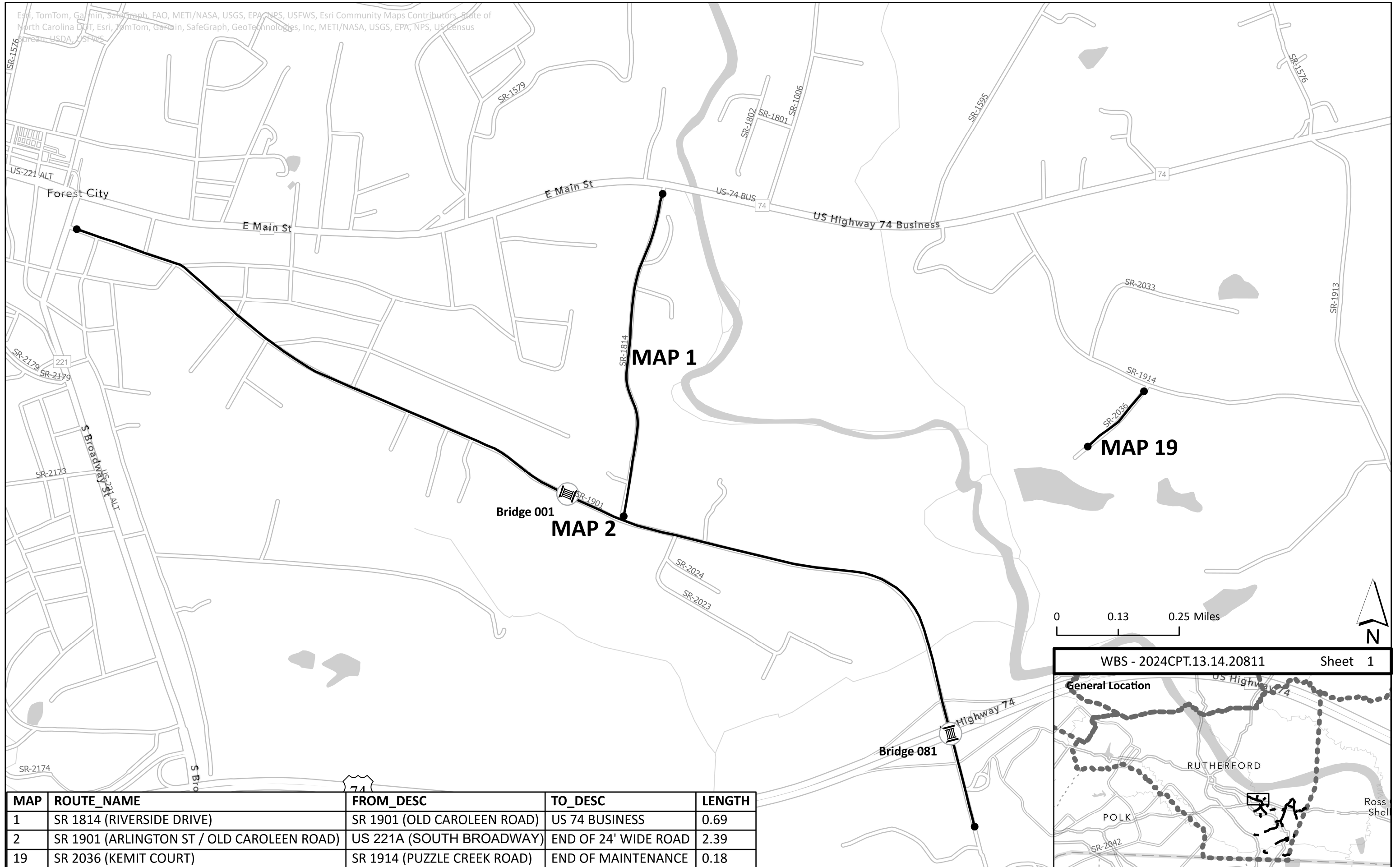


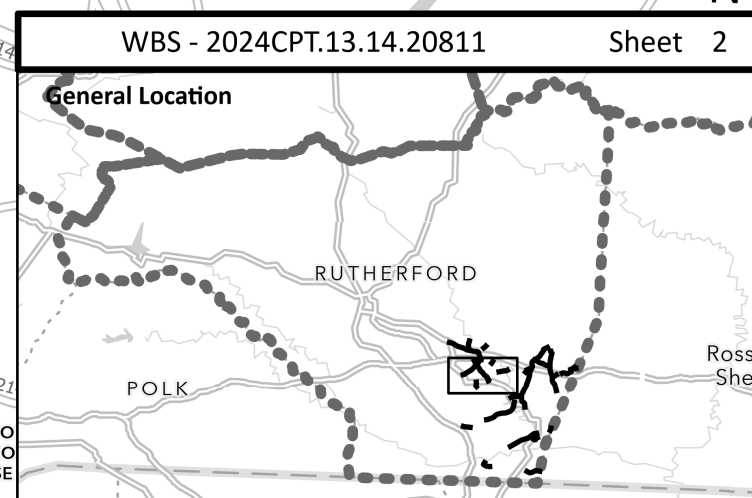
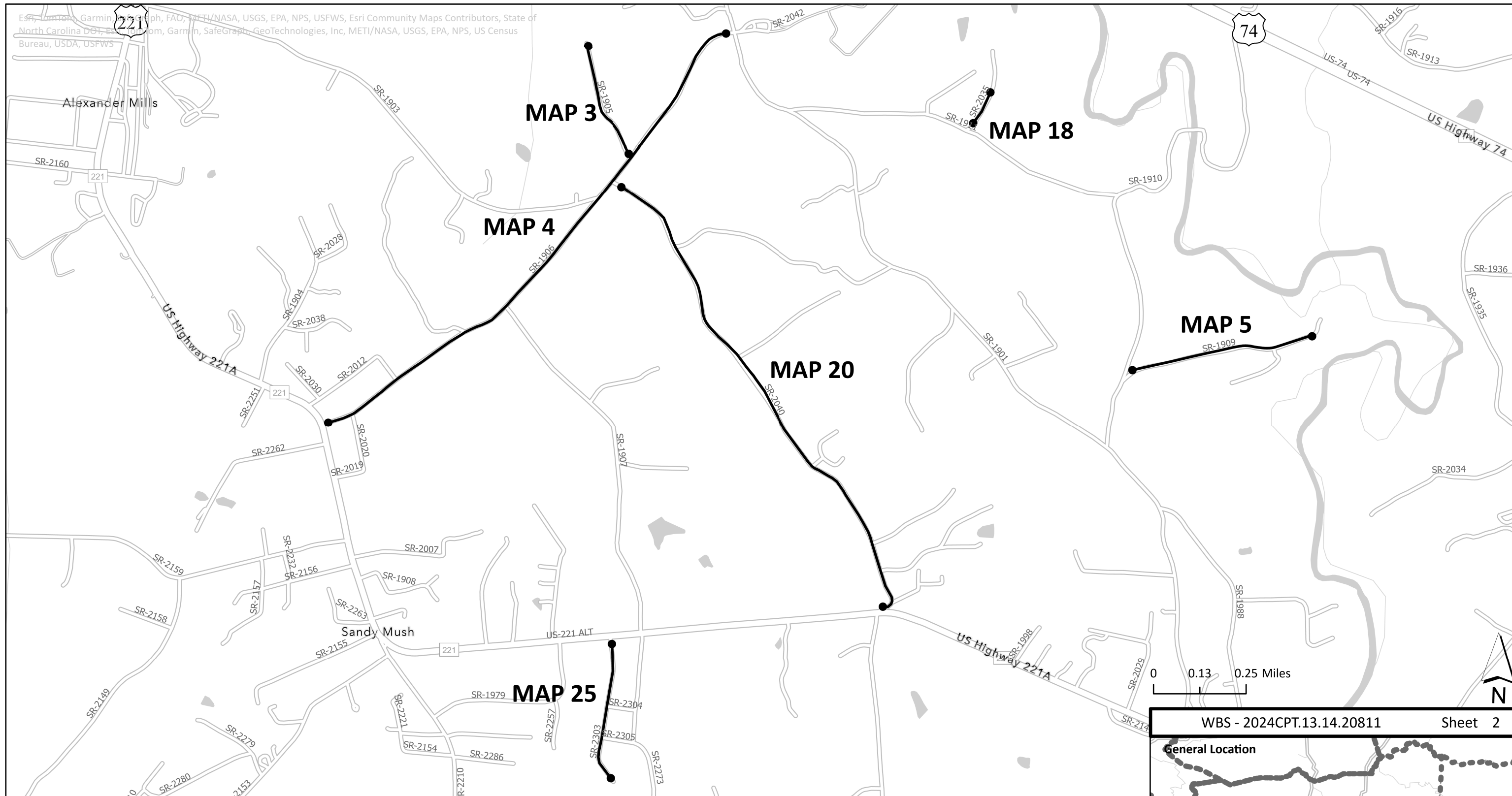
Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



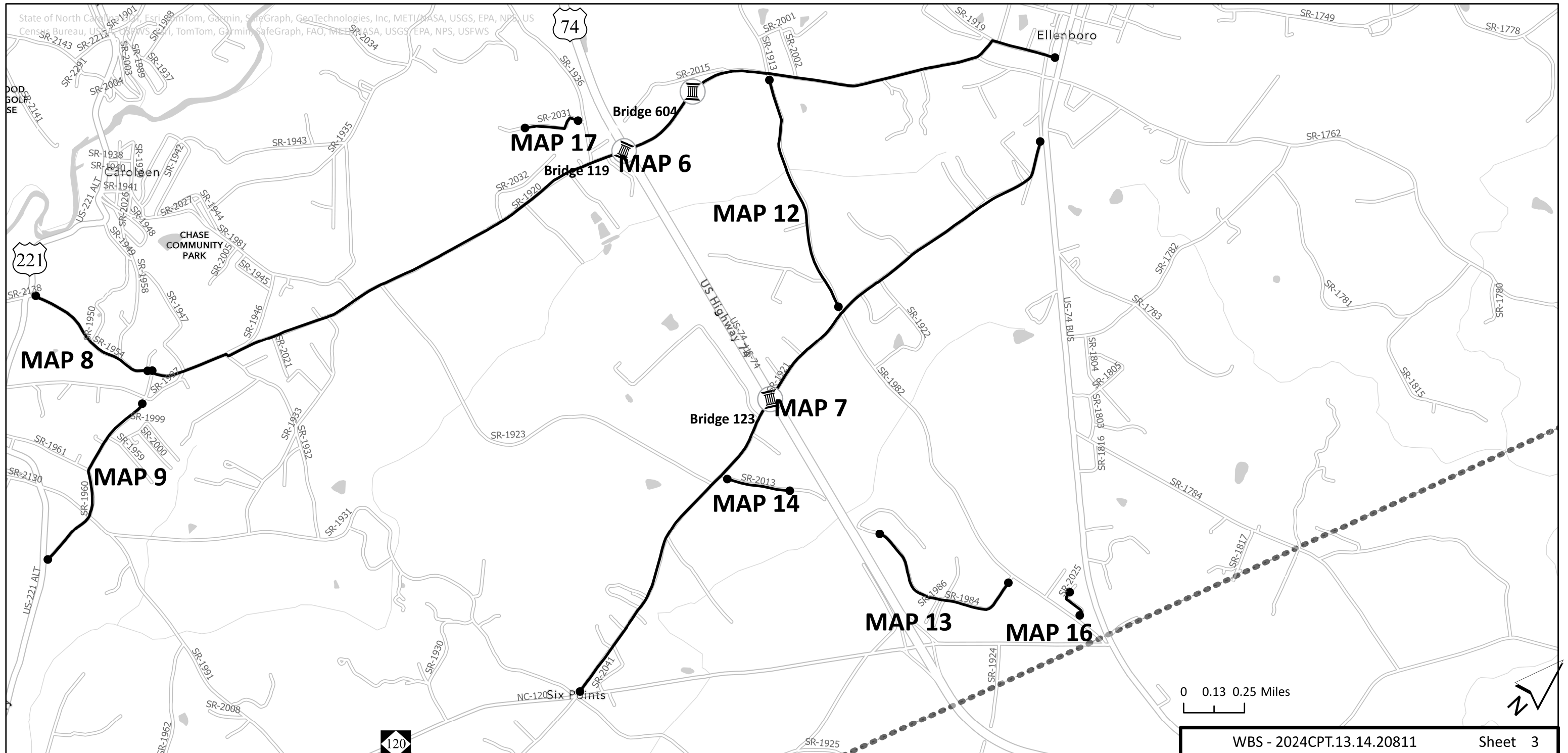
| MAP | ROUTE_NAME                                 | FROM_DESC                   | TO_DESC              | LENGTH |
|-----|--|-----------------------------|----------------------|--------|
| 1   | SR 1814 (RIVERSIDE DRIVE)                  | SR 1901 (OLD CAROLEEN ROAD) | US 74 BUSINESS       | 0.69   |
| 2   | SR 1901 (ARLINGTON ST / OLD CAROLEEN ROAD) | US 221A (SOUTH BROADWAY)    | END OF 24' WIDE ROAD | 2.39   |
| 19  | SR 2036 (KEMIT COURT)                      | SR 1914 (PUZZLE CREEK ROAD) | END OF MAINTENANCE   | 0.18   |

WBS - 2024CPT.13.14.20811 Sheet 1

Esri, TomTom, Garmin, SafeGraph, FAU, METI/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



| MAP | ROUTE_NAME                           | FROM_DESC                            | TO_DESC                              | LENGTH |
|-----|--------------------------------------|--------------------------------------|--------------------------------------|--------|
| 3   | SR 1905 (COFFEY ROAD)                | SR 1906 (MOUNT PLEASANT CHURCH ROAD) | END OF MAINTENANCE                   | 0.34   |
| 4   | SR 1906 (MOUNT PLEASANT CHURCH ROAD) | SR 1901 (OLD CAROLEEN ROAD)          | US 221 ALTERNATE                     | 1.56   |
| 5   | SR 1909 (C H HAMRICK ROAD)           | SR 1910 (BAXTER CEMETERY ROAD)       | END OF MAINTENANCE                   | 0.52   |
| 18  | SR 2035 (WOODSET DRIVE)              | SR 1911 (LOW BRIDGE ROAD)            | END OF MAINTENANCE                   | 0.12   |
| 20  | SR 2040 (HARRILL DAIRY ROAD)         | US 221 ALTERNATE                     | SR 1906 (MOUNT PLEASANT CHURCH ROAD) | 1.43   |
| 25  | SR 2303 (BIRDSONG LANE)              | NC 221 ALTERNATE                     | DEAD END                             | 0.4    |



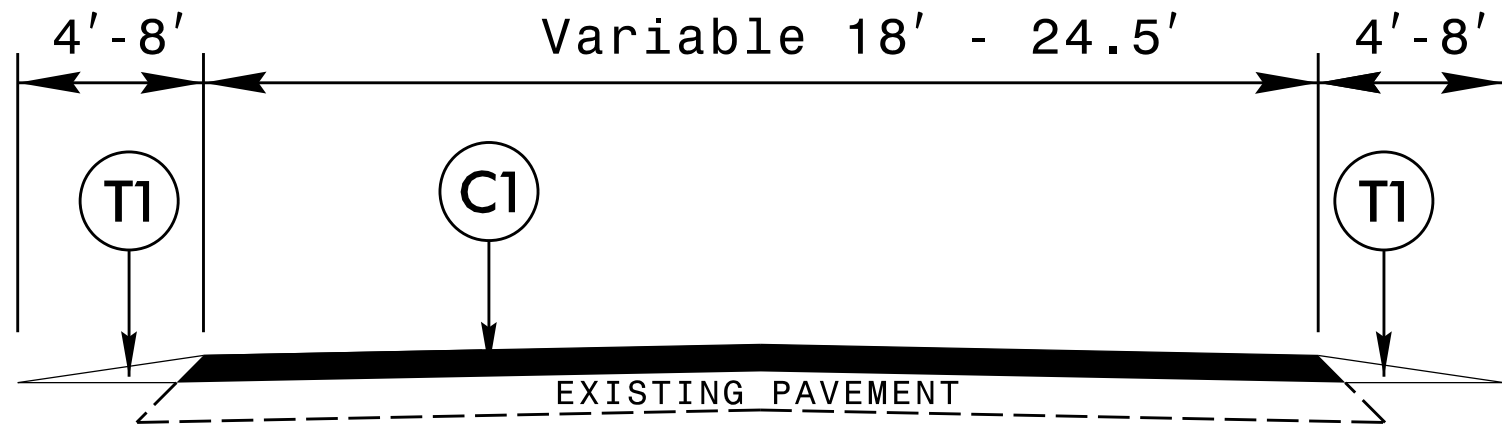
| MAP | ROUTE_NAME                         | FROM_DESC                       | TO_DESC                               | LENGTH |
|-----|------------------------------------|---------------------------------|---------------------------------------|--------|
| 6   | SR 1920 (HENRIETTA STREET)         | US 74 BUSINESS                  | SR 1920 (SOUTH PEA RIDGE ROAD)        | 4.16   |
| 7   | SR 1921 (RACE PATH CHURCH ROAD)    | NC 120 HIGHWAY                  | PAVEMENT CHANGE AT RAIL ROAD CROSSING | 3.08   |
| 8   | SR 1954 (ELLENBORO HENRIETTA ROAD) | US 221 ALTERNATE                | SR 1960 (SOUTH PEA RIDGE ROAD)        | 0.61   |
| 9   | SR 1960 (SOUTH PEA RIDGE ROAD)     | SR 1920 (NORTH MAIN STREET)     | US 221 ALTERNATE                      | 0.84   |
| 12  | SR 1982 (BUGGAR HOLLOW)            | SR 1921 (RACEPATH CHURCH ROAD)  | SR 1920 (ELLENBORO/HENRIETTA ROAD)    | 1.03   |
| 13  | SR 1984 (J M LOVELACE ROAD)        | SR 1982 (WEBB ROAD)             | END OF MAINTENANCE                    | 0.77   |
| 14  | SR 2013 (DOBBINSVILLE EXTENSION)   | SR 1921 (RACE PATH CHURCH ROAD) | END OF MAINTENANCE                    | 0.3    |
| 16  | SR 2025 (SHORT STREET)             | SR 1982 (WEBB ROAD)             | END OF MAINTENANCE                    | 0.17   |
| 17  | SR 2031 (BRADBURY ROAD)            | SR 1936 (SOCO GAP ROAD)         | END OF MAINTENANCE                    | 0.29   |

WBS - 2024CPT.13.14.20811 Sheet 3

General Location

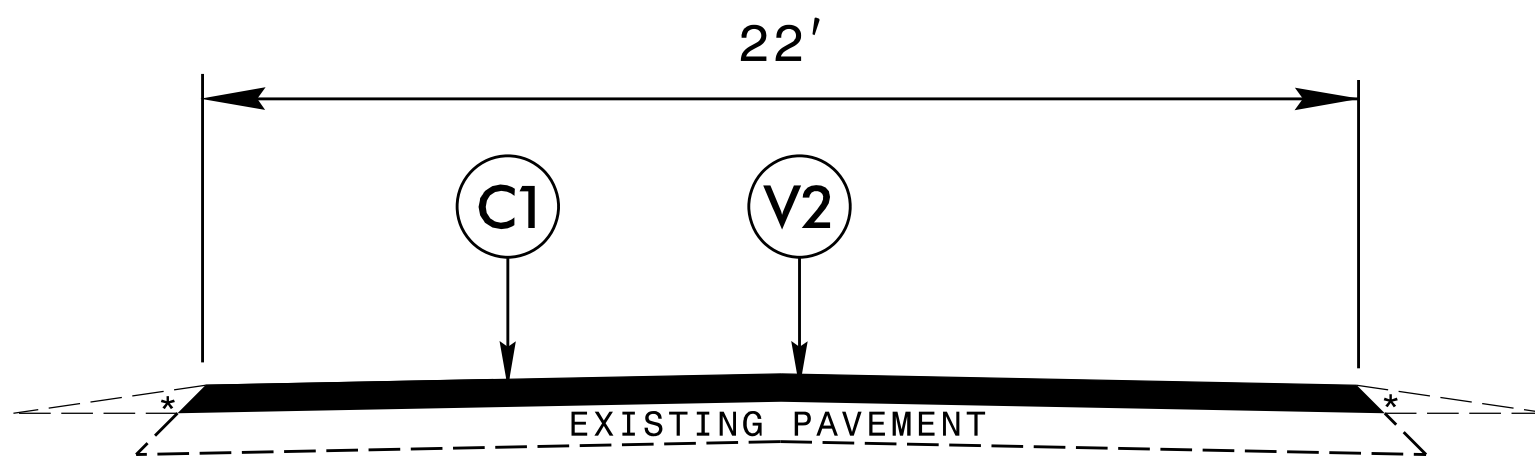






**TYPICAL SECTION #1**

\*CENTERLINE TO BE DOUBLE YELLOW  
AT THE FOLLOWING LOCATIONS: MAP 6  
MILE POST 1.04 TO 1.23,  
1.31 TO 1.40 AND 2.96 TO 3.12.



**TYPICAL SECTION #2**

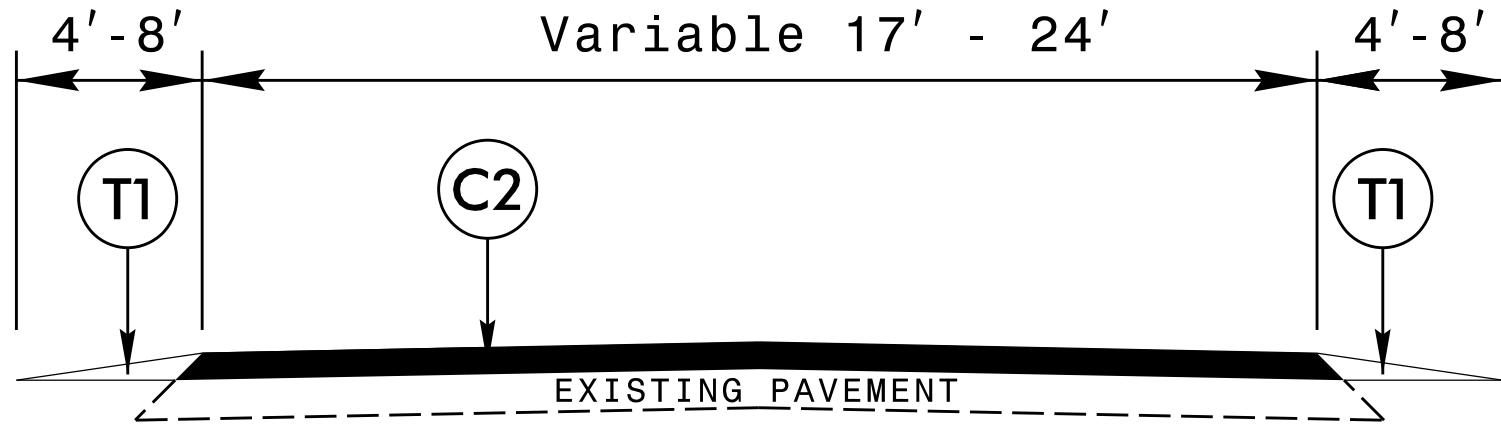
| PAVEMENT SCHEDULE |  |
|-------------------|--|
| C1                | PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD    |
| C2                | PROP. APPROX. 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YARD |
| T1                | SHOULDER RECONSTRUCTION  |
| V1                | MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH  |
| V2                | MILLING ASPHALT PAVEMENT 1-1/2" DEPTH  |
| V3                | INCIDENTAL MILLING   |





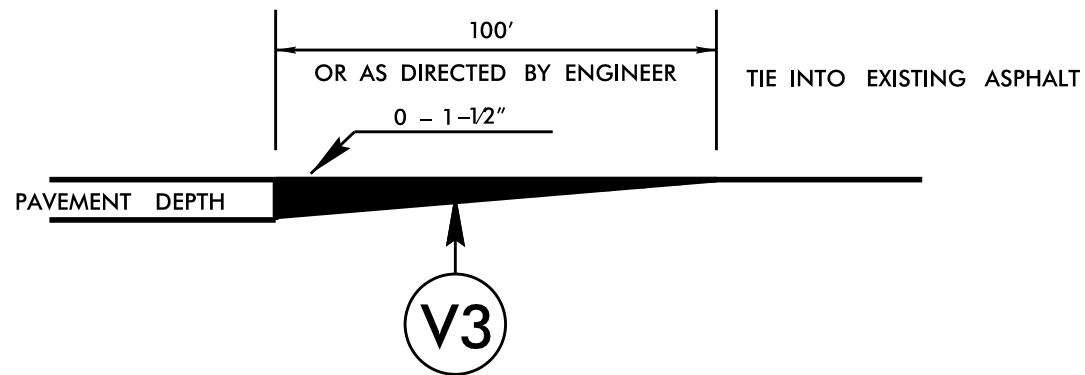


6/22/24



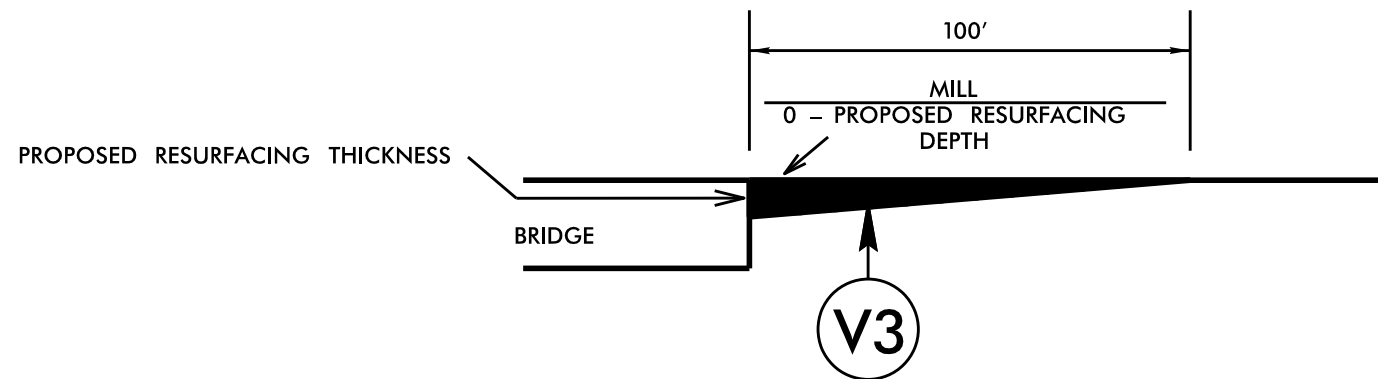
**TYPICAL SECTION #6**

| PAVEMENT SCHEDULE |  |
|-------------------|--|
| C1                | PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD    |
| C2                | PROP. APPROX. 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YARD |
| T1                | SHOULDER RECONSTRUCTION  |
| V1                | MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH  |
| V2                | MILLING ASPHALT PAVEMENT 1-1/2" DEPTH  |
| V3                | INCIDENTAL MILLING   |



**DETAIL TO TIE INTO EXIST PAVEMENT**

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



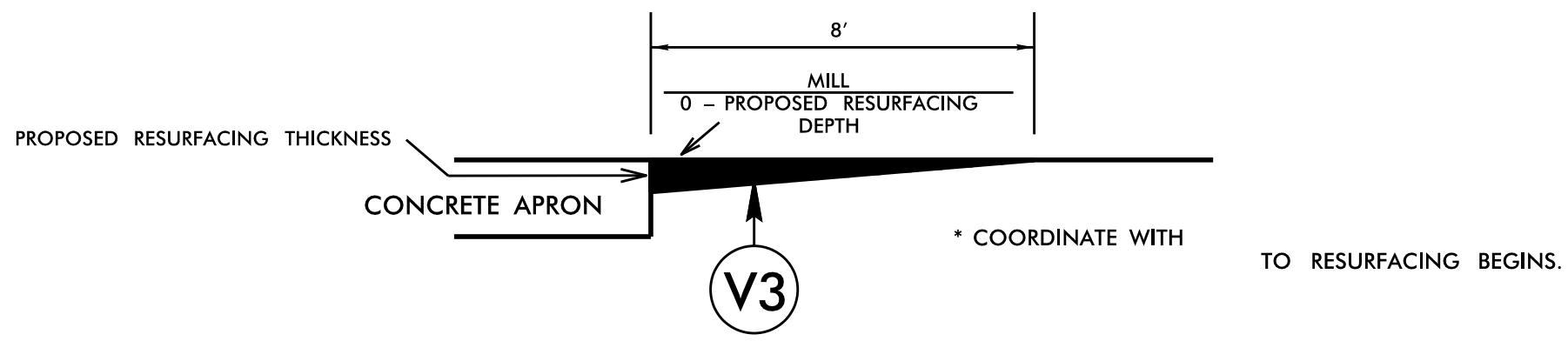
**MILLING DETAIL AT BRIDGE APPROACHES**

WHERE BRIDGES WILL NOT BE RESURFACED. THIS WILL BE PAID FOR AS INCIDENTAL MILLING. USE AT BRIDGE NUMBER: 001 MAP 2, 064 MAP 6, 119 MAP 6, 123 MAP 7 AND 024 MAP 23.

| PAVEMENT SCHEDULE |  |
|-------------------|--|
| C1                | PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD    |
| C2                | PROP. APPROX. 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YARD |
| T1                | SHOULDER RECONSTRUCTION  |
| V1                | MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH  |
| V2                | MILLING ASPHALT PAVEMENT 1-1/2" DEPTH  |
| V3                | INCIDENTAL MILLING   |

6/22/24

6/22/24



**MILLING DETAIL AT CONCRETE APRON**  
 TIE-IN AT CLIFFSIDE FIRE DEPARTMENT.  
 THIS WILL BE PAID AS INCIDENTAL MILLING.  
 USE ON MAP 26  
 LOCATED AT 4600 US 221A HIGHWAY, MOORESBORO, NC 28114

| PAVEMENT SCHEDULE |  |
|-------------------|--|
| C1                | PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD    |
| C2                | PROP. APPROX. 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YARD |
| T1                | SHOULDER RECONSTRUCTION  |
| V1                | MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH  |
| V2                | MILLING ASPHALT PAVEMENT 1-1/2" DEPTH  |
| V3                | INCIDENTAL MILLING   |

**BRIDGE**



**BRIDGE DETAIL**

BRIDGE NUMBER 652 MAP 20,  
SEE MAP FOR BRIDGE LOCATION.

**BRIDGE**

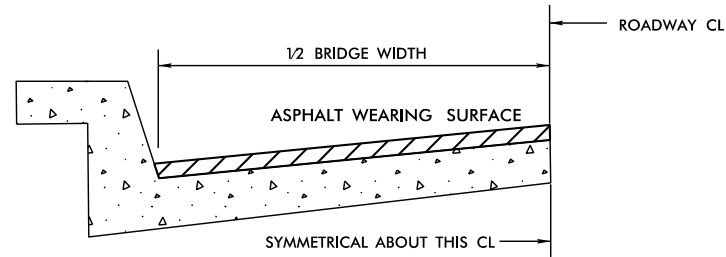


\* COORDINATE WITH BRIDGE MAINTENANCE TO REMOVE  
EXISTING ASPHALT 15 DAYE BEFORE RESURFACING BEGINS.

**BRIDGE DETAIL**

WHERE BRIDGES WILL BE RESURFACED.  
SEE MAP FOR BRIDGE LOCATION.  
USE AT BRIDGE NUMBER: 121 MAP 11.

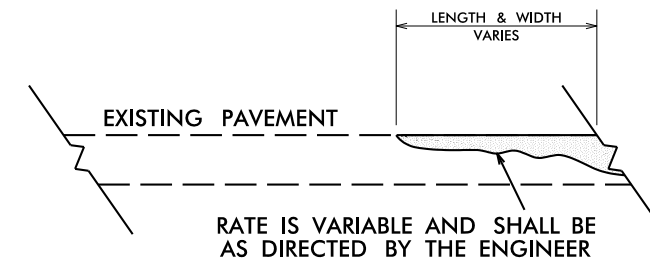
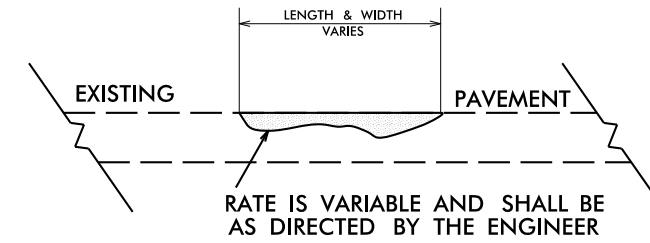
| PAVEMENT SCHEDULE |  |
|-------------------|--|
| C1                | PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD    |
| C2                | PROP. APPROX. 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YARD |
| T1                | SHOULDER RECONSTRUCTION  |
| V1                | MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH  |
| V2                | MILLING ASPHALT PAVEMENT 1-1/2" DEPTH  |
| V3                | INCIDENTAL MILLING   |



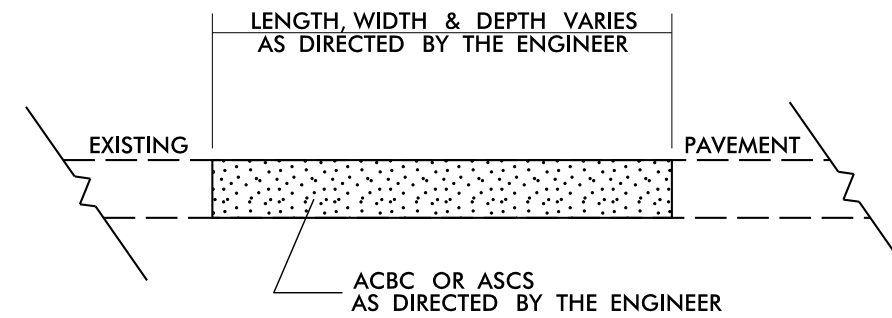
**BRIDGE HALF TYPICAL SECTION**

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

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", S9.5B 1", S9.5C,D 1.5" - 2". ULTRA-THIN HOT MIX ASPHALT - TYPE A 3/4". ULTRA-THIN HOT MIX ASPHALT - TYPE B 5/8". ULTRA-THIN HOT MIX ASPHALT - TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1", S9.5B 1.5", S9.5C,D 2". ULTRA-THIN HOT MIX ASPHALT - TYPE A 3/4", ULTRA-THIN HOT MIX ASPHALT - TYPE B 5/8", ULTRA-THIN HOT MIX ASPHALT - TYPE C 1/2".



**DETAIL SHOWING METHOD OF WEDGING**

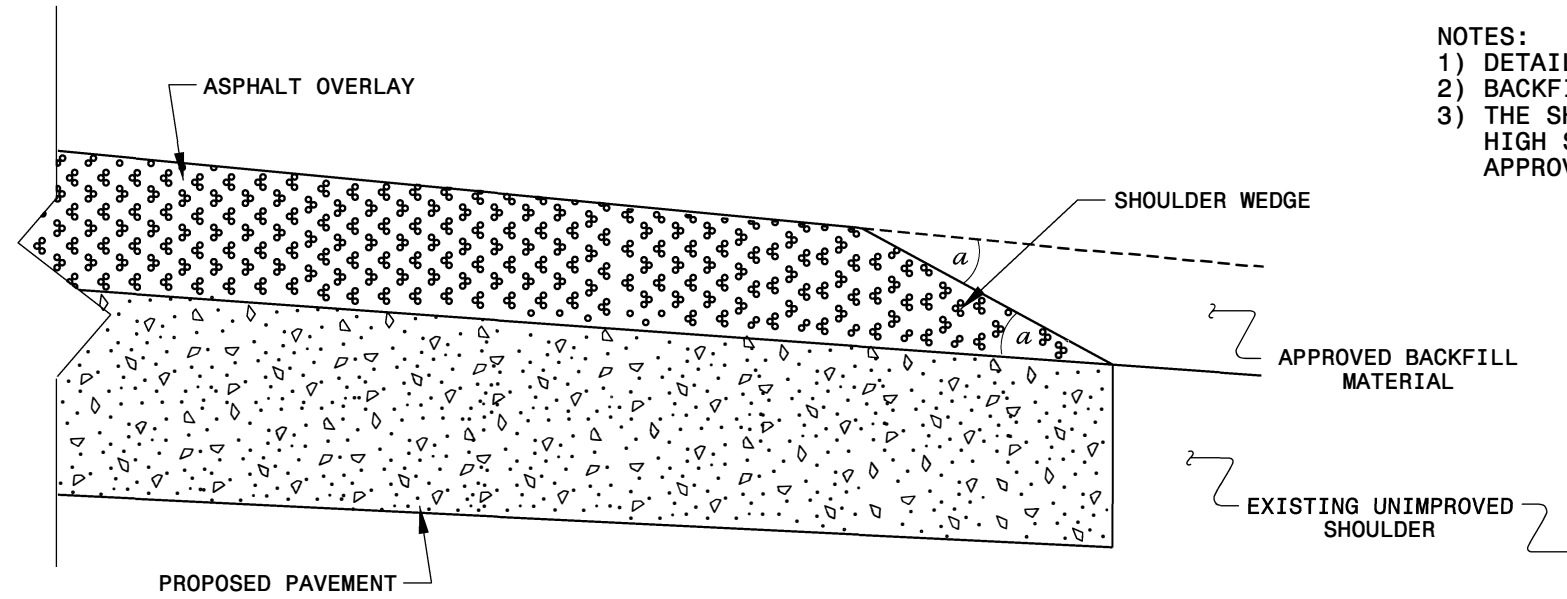


**PATCHING EXISTING PAVEMENT**



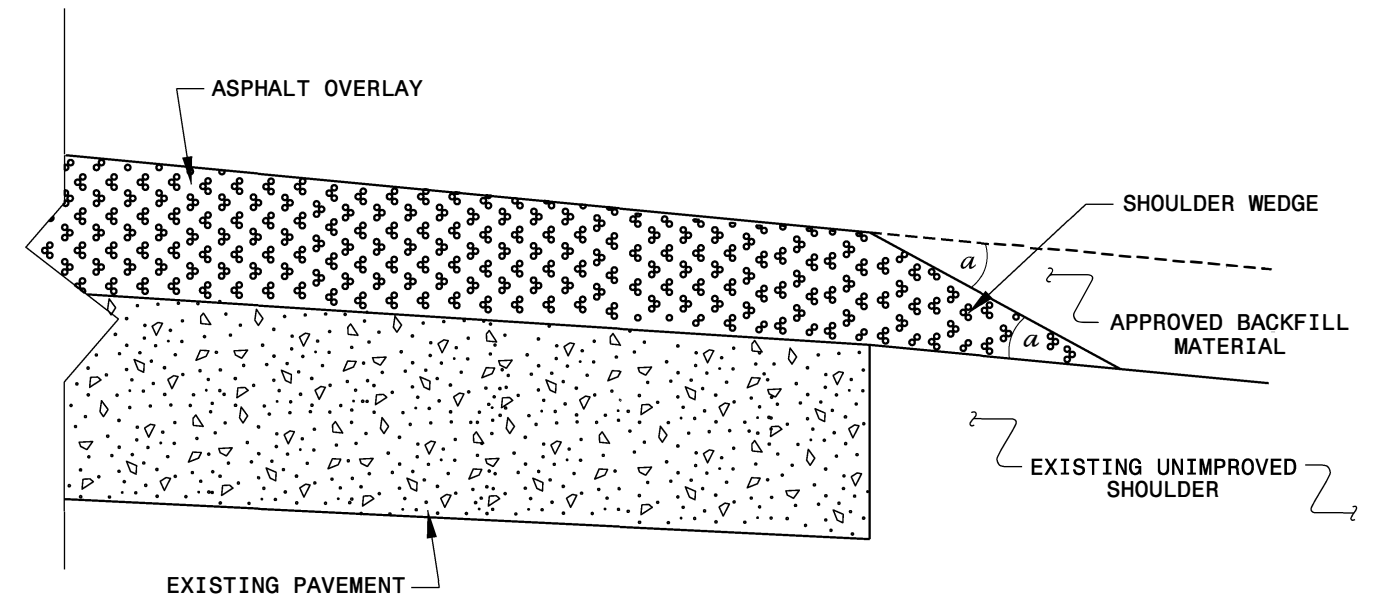
**NOTES:**

- 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.



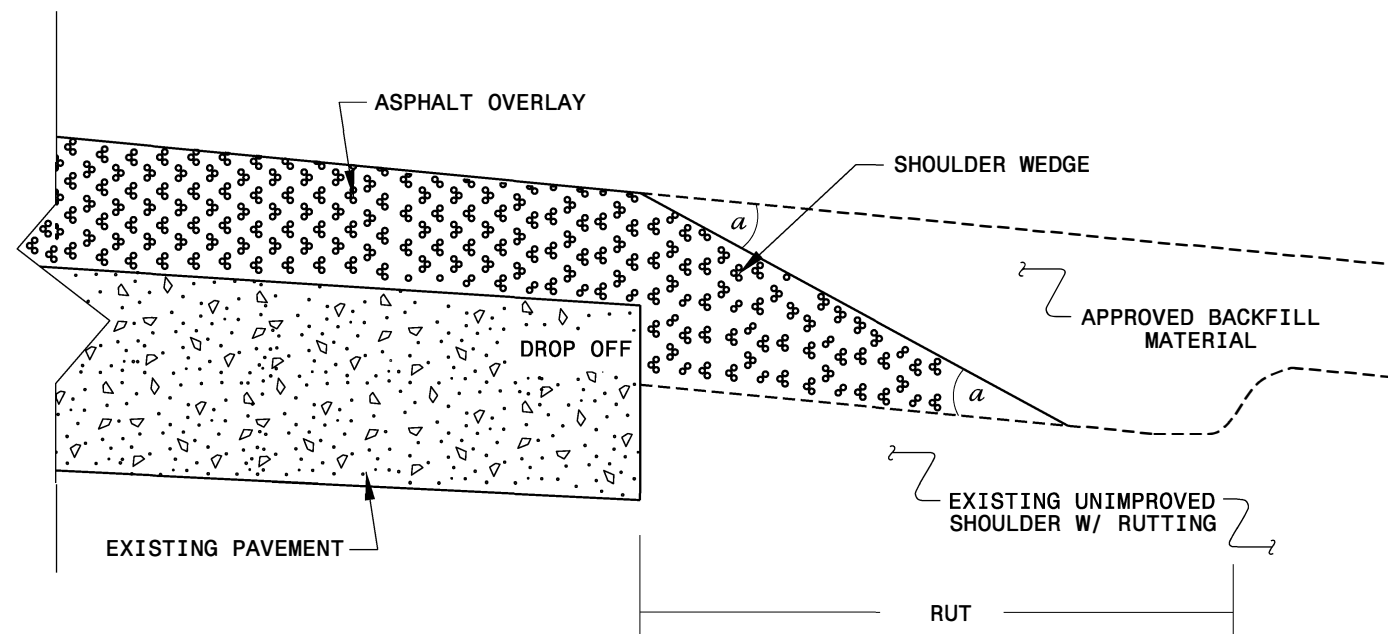
**SHOULDER WEDGE DETAIL**

(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°

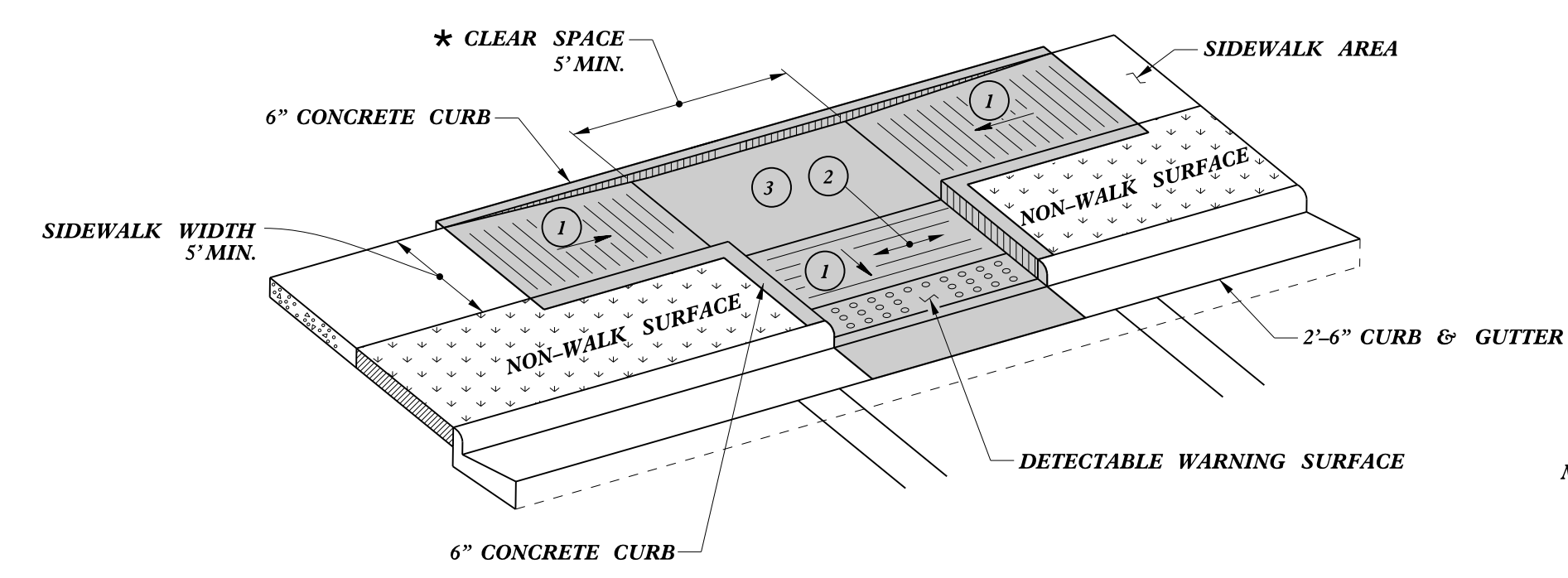


|  |               |
|--|---------------|
| <b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>           |               |
| Office 919-707-6950 FAX 919-250-4119                     |               |
| <b>SHOULDER WEDGE DETAILS</b>                            |               |
| ORIGINAL BY: T. SPELL                                    | DATE: 7-19-11 |
| MODIFIED BY:   | DATE: 2/2/16  |
| CHECKED BY:  | DATE:         |
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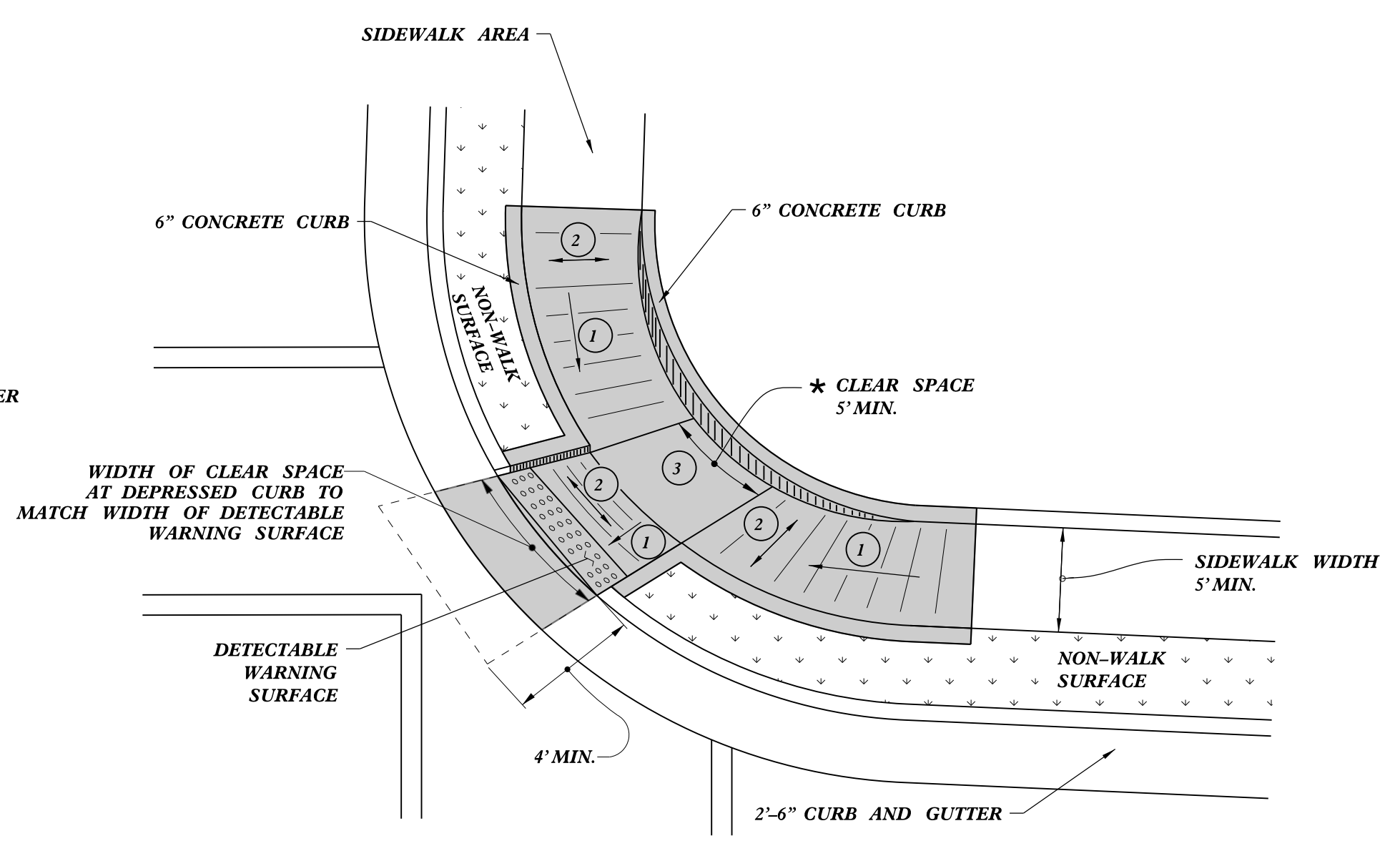
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12-SEP-2018 10:10 S:\Contracts\Projects\Resurfacing Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn J:\overton AI\_CSD-212555

\* - 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.

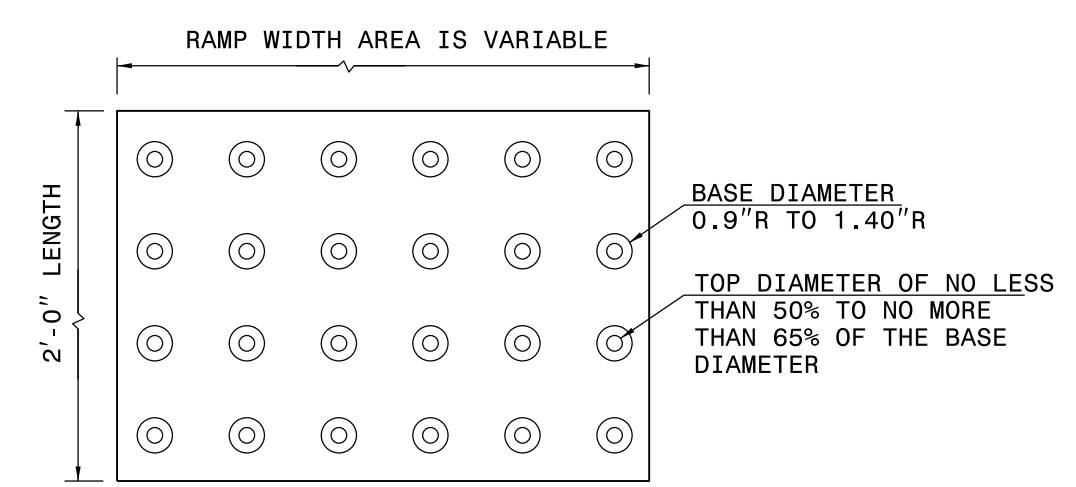


**TYPE 3**

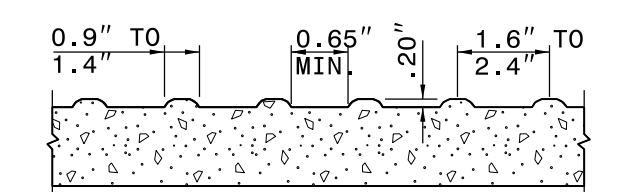


**TYPE 3 MODIFIED  
INSTALLATION IN A RADIUS**

NOTES:  
 1. DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.  
 2. DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



**DETECTABLE WARNING SURFACE**



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

PAY LIMITS FOR 1 CURB RAMP

STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.  
 ROADWAY DETAIL DRAWING FOR  
**CURB RAMP**  
 PARALLEL RAMP  
 SHEET 9 OF 13  
**848D06**



DocuSigned by:  
*Nicole M. Hackler*  
 5884323D34164C5...

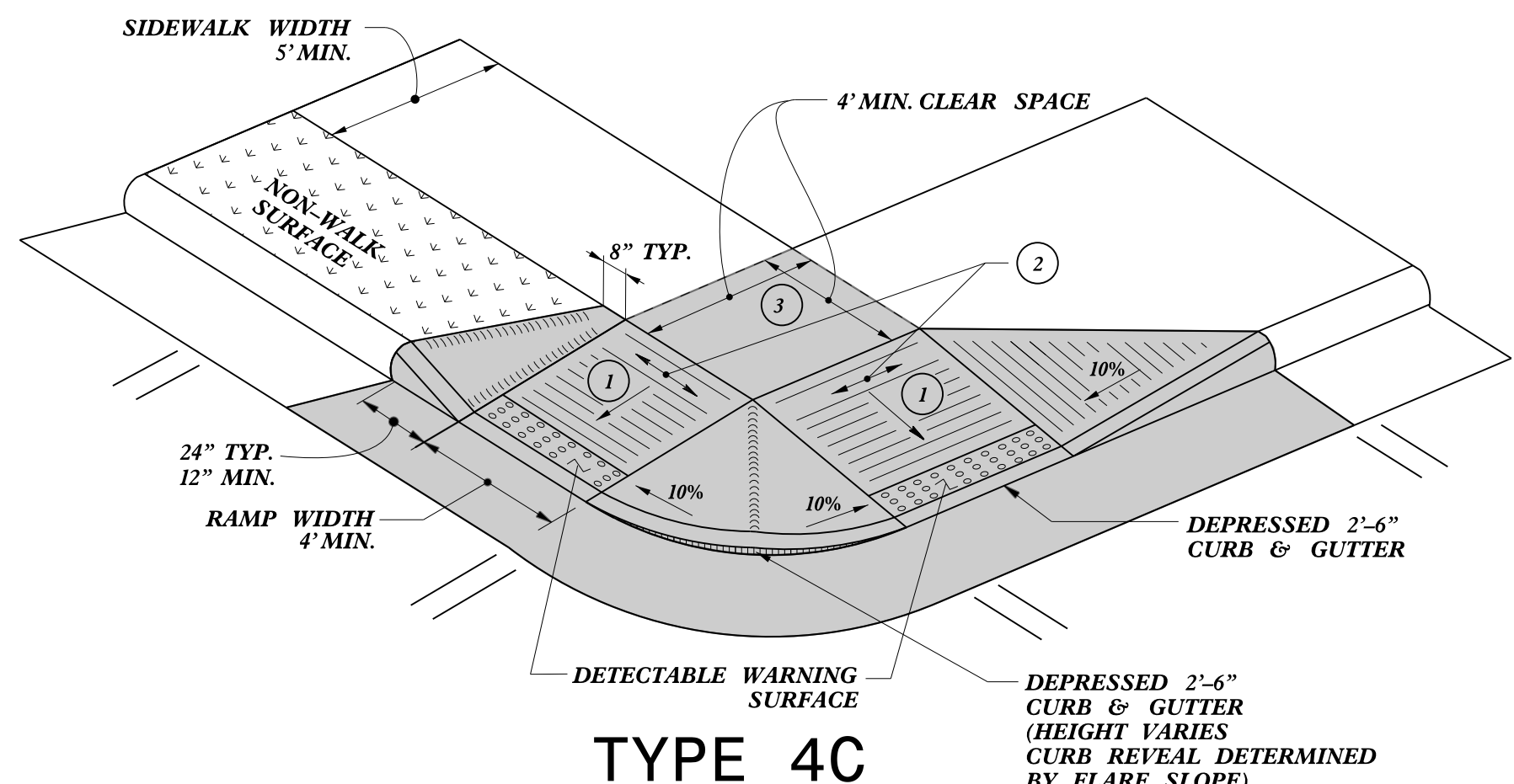
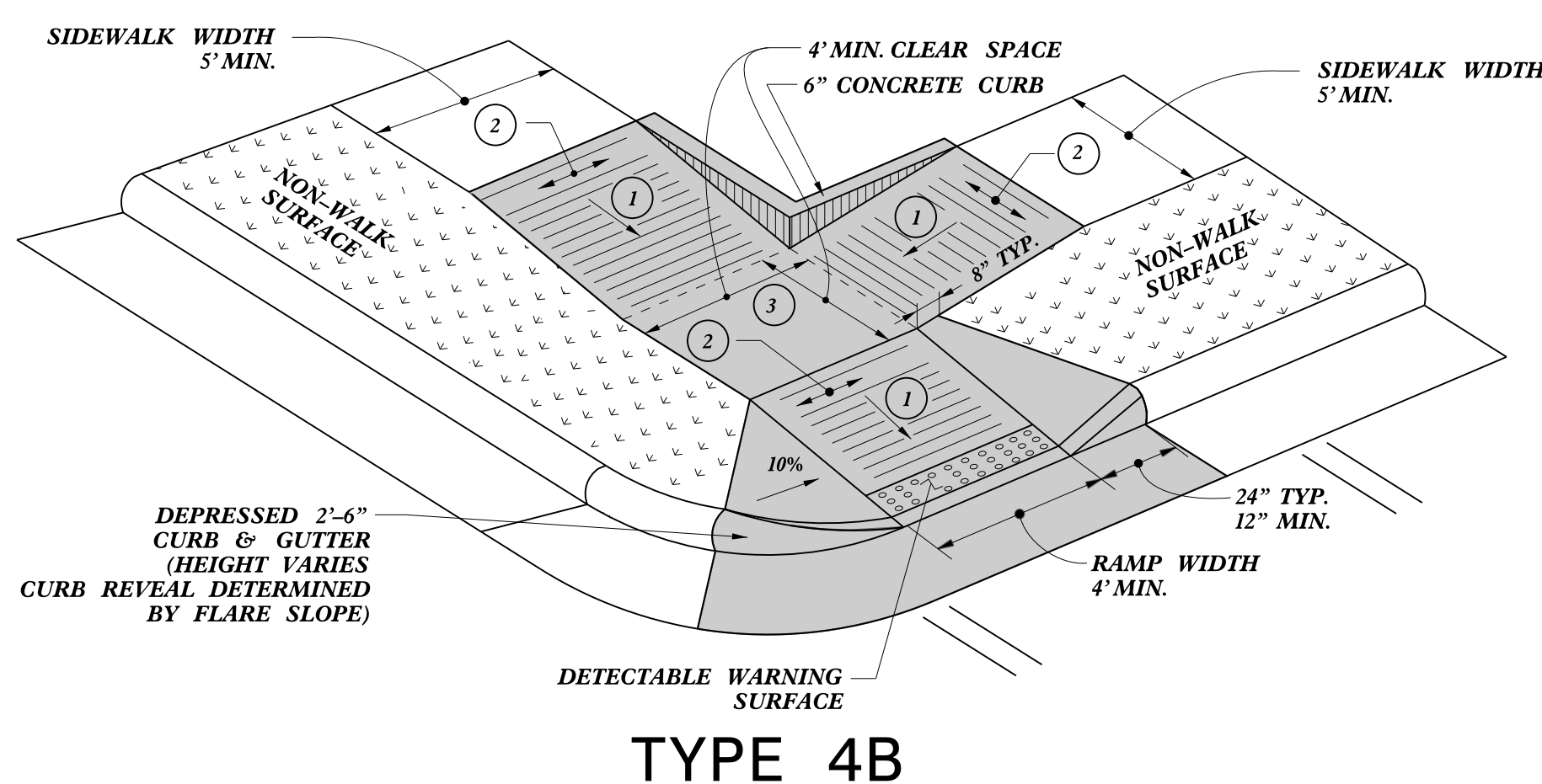
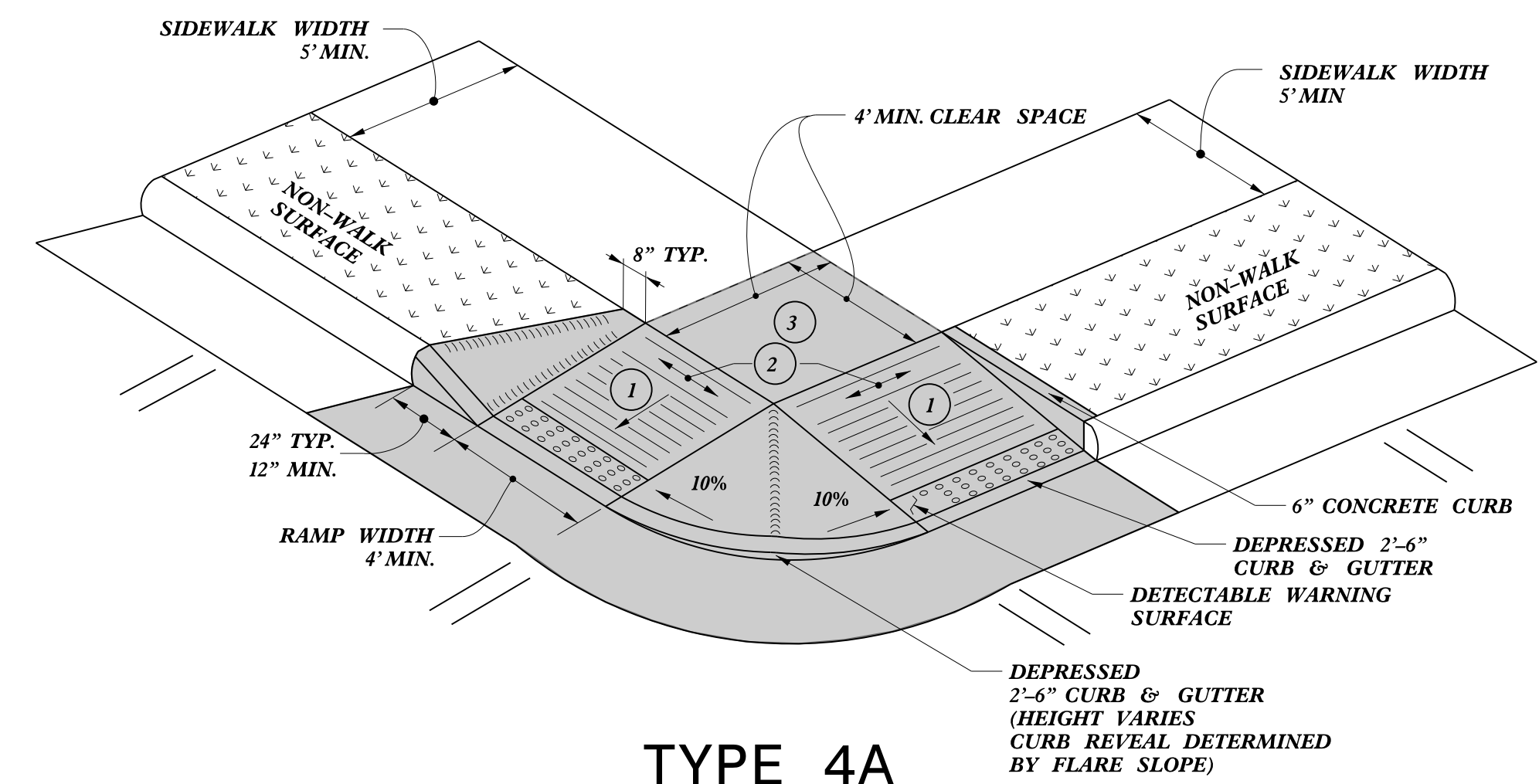
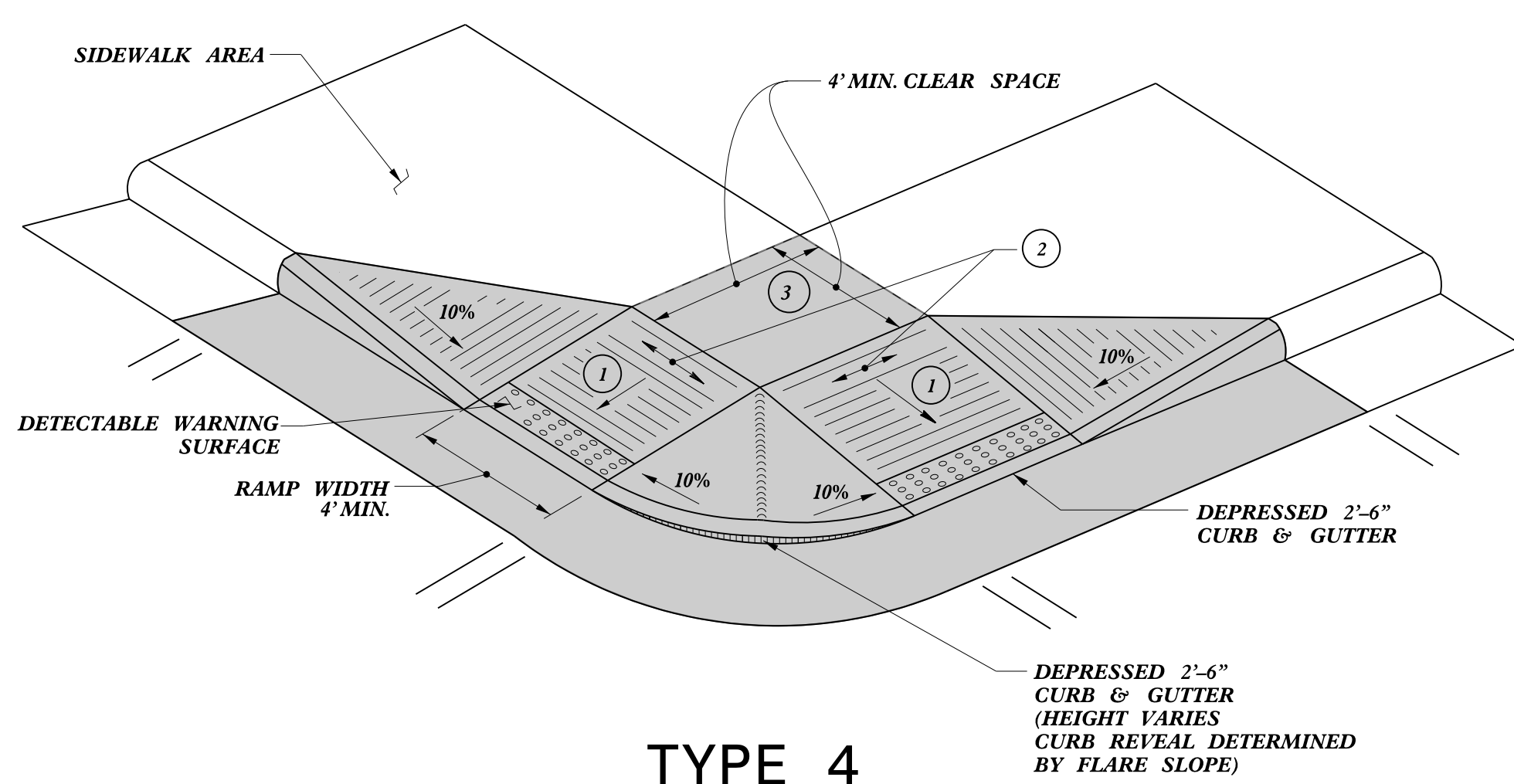
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 UNLESS ALL SIGNATURES COMPLETED

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

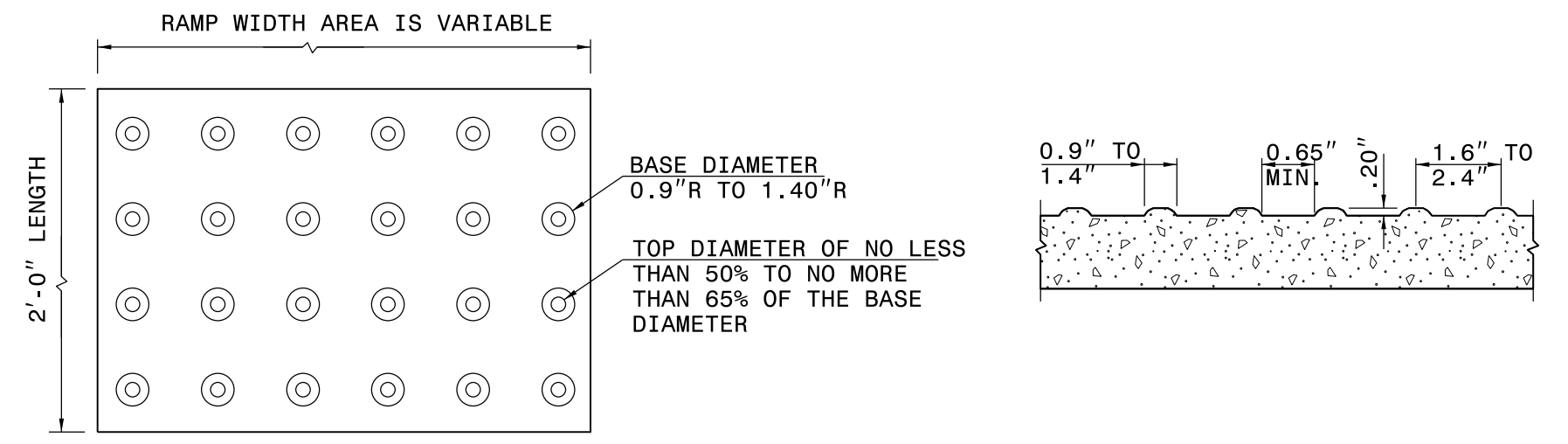
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ORIGINAL BY: S.CALHOUN DATE: 12-22-2023  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: special\_details\nmhackler\0609.dgn





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.



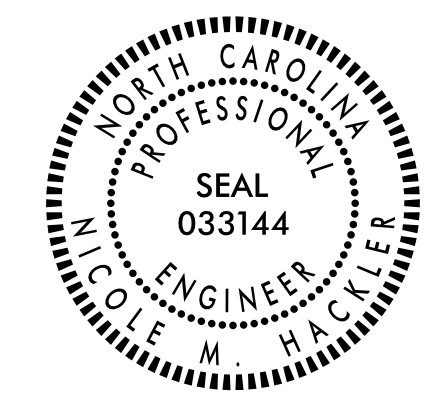
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%

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

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

ROADWAY DETAIL DRAWING FOR  
**CURB RAMP**  
 SHARED LANDING

SHEET 10 OF 13  
**848D06**



DocuSigned by:  
*Nicole M. Hackler*  
 5884323D34164C5...

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

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

**SEE TITLE BLOCK**

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

## SUMMARY OF QUANTITIES

| MAP NO  | ROUTE   | DESCRIPTION   | TYP NO  | LENGTH       | WIDTH | BEGIN MP | END MP | 1220000000-E             | 1245000000-E               | 1260000000-E                    | 1297000000-E                                       | 1308000000-E                                    | 1330000000-E          | 1519000000-E                                     | 1523000000-E                                     | 1524000000-E   | 1575000000-E                       | 1704000000-E                     |
|---|---|---|---------|--------------|-------|----------|--------|--------------------------|----------------------------|---------------------------------|--|---|-----------------------|--|--|--|------------------------------------|----------------------------------|
|   |   |   |         |              |       |          |        | INCIDENTAL<br>STONE BASE | SHOULDER<br>RECONSTRUCTION | AGGREGATE<br>SHOULDER<br>BORROW | MILLING<br>ASPHALT<br>PAVEMENT,<br>1-1/2"<br>DEPTH | MILLING<br>ASPHALT<br>PAVEMENT,<br>0" TO 1-1/2" | INCIDENTAL<br>MILLING | ASPHALT CONC<br>SURFACE<br>COURSE, TYPE<br>S9.5B | ASPHALT CONC<br>SURFACE<br>COURSE, TYPE<br>S9.5C | ASPHALT<br>CONC<br>SURFACE<br>COURSE, TYPE<br>S9.5C<br>(LEVELING COURSE) | ASPHALT<br>BINDER FOR<br>PLANT MIX | PATCHING<br>EXISTING<br>PAVEMENT |
|   |   |   |         |              |       |          |        | TON                      | SMI                        | TON                             | SY   | SY  | SY                    | TON  | TON  | TONS   | TON                                | TON                              |
| 1   | SR 1814<br>(RIVERSIDE DRIVE)                  | FROM SR 1901 (OLD CAROLEEN ROAD)<br>TO US 74 BUSINESS                         | 2       | 0.69         | 22.00 | 0.00     | 0.69   | 5                        |                            |                                 | 9,510  |   |                       |  | 854  |  | 53                                 | 50                               |
| 2   | SR 1901<br>(ARLINGTON ST / OLD CAROLEEN ROAD) | FROM US 74 BUSINESS<br>TO END OF 24' WIDE ROAD                                | 1, 3, 4 | 2.39         | 24.00 | 0.01     | 2.40   | 22                       | 3.33                       | 433                             |  | 5,504   | 1,281                 |  | 3,255  |  | 209                                | 358                              |
| 3   | SR 1905<br>(COFFEY ROAD)                      | FROM SR 1906 (MOUNT PLEASANT CHURCH ROAD)<br>TO END OF MAINTENANCE            | 6       | 0.34         | 18.00 | 0.00     | 0.34   | 10                       | 0.68                       | 89                              |  |   |                       | 275  |  |  | 19                                 | 15                               |
| 4   | SR 1906<br>(MOUNT PLEASANT CHURCH ROAD)       | FROM SR 1901 (OLD CAROLEEN ROAD)<br>TO US 221 ALTERNATE                       | 1       | 1.56         | 18.00 | 0.01     | 1.57   | 20                       | 3.12                       | 406                             |  |   | 1,432                 |  | 1,692  |  | 106                                | 122                              |
| 5   | SR 1909<br>(C H HAMRICK ROAD)                 | FROM SR 1910 (BAXTER CEMETERY ROAD)<br>TO END OF MAINTENANCE                  | 6       | 0.52         | 19.00 | 0.01     | 0.53   | 10                       | 1.04                       | 136                             |  |   |                       | 445  |  |  | 29                                 | 8                                |
| 6   | SR 1920<br>(ELLENBORO HENRIETTA ROAD)         | FROM US 74 BUSINESS<br>TO SR 1920 (SOUTH PEA RIDGE ROAD)                      | 1, 3    | 4.16         | 24.50 | 0.01     | 4.17   | 73                       | 7.06                       | 918                             |  | 5,040   | 5,678                 |  | 5,255  | 75   | 318                                | 78                               |
| 7   | SR 1921<br>(RACE PATH CHURCH ROAD)            | FROM NC 120 HIGHWAY<br>TO PAVEMENT CHANGE AT RAIL ROAD CROSSING               | 1       | 3.08         | 20.00 | 0.01     | 3.09   | 116                      | 6.16                       | 801                             |  |   | 2,569                 |  | 3,401  |  | 202                                | 30                               |
| 8   | SR 1954<br>(ELLENBORO HENRIETTA ROAD)         | FROM US 221 ALTERNATE<br>TO SR 1960 (SOUTH PEA RIDGE ROAD)                    | 1       | 0.61         | 20.00 | 0.02     | 0.63   | 12                       | 1.22                       | 159                             |  |   | 735                   |  | 721  | 10   | 44                                 | 28                               |
| 9   | SR 1960<br>(SOUTH PEA RIDGE ROAD)             | FROM SR 1920 (NORTH MAIN STREET)<br>TO US 221 ALTERNATE                       | 1       | 0.84         | 20.00 | 0.01     | 0.85   | 50                       | 1.68                       | 218                             |  |   | 1,201                 |  | 800  | 30   | 51                                 | 50                               |
| 10  | SR 1974<br>(FAIRVIEW ROAD)                    | FROM SR 1003 (BOILING SPRINGS ROAD)<br>TO END OF MAINTENANCE                  | 6       | 0.16         | 17.50 | 0.01     | 0.17   | 12                       | 0.32                       | 42                              |  |   |                       | 147  |  |  | 10                                 | 5                                |
| 11  | SR 1978<br>(KIRBY ROAD)                       | FROM CLEVELAND COUNTY LINE<br>TO SR 1993 (OLD US 221 ALTERNATE HIGHWAY)       | 1       | 0.84         | 18.50 | 0.01     | 0.85   | 28                       | 1.70                       | 221                             |  |   |                       |  | 856  |  | 52                                 | 23                               |
| 12  | SR 1982<br>(BUGGER HOLLOW ROAD)               | FROM SR 1921 (RACE PATH CHURCH ROAD)<br>TO SR 1920 (ELLENBORO HENRIETTA ROAD) | 1       | 1.03         | 21.50 | 1.78     | 2.81   | 24                       | 2.06                       | 268                             |  |   | 511                   |  | 1,170  |  | 72                                 | 67                               |
| 13  | SR 1984<br>(J M LOVELACE ROAD)                | FROM SR 1982 (WEBB ROAD)<br>TO END OF MAINTENANCE                             | 6       | 0.77         | 20.00 | 0.01     | 0.78   | 56                       | 1.54                       | 200                             |  |   |                       | 763  |  |  | 51                                 | 35                               |
| 14  | SR 2013<br>(DOBBINSVILLE EXTENSION)           | FROM SR 1921 (RACE PATH CHURCH ROAD)<br>TO END OF MAINTENANCE                 | 6       | 0.30         | 18.00 | 0.01     | 0.31   | 10                       | 0.60                       | 80                              |  |   | 412                   | 341  |  |  | 22                                 | 5                                |
| 15  | SR 2022<br>(GREEN ACRES ROAD)                 | FROM SR 1976 (CHESTERFIELD ROAD)<br>TO US 221 ALTERNATE                       | 6       | 0.28         | 18.00 | 0.01     | 0.29   | 14                       | 0.28                       | 37                              |  |   |                       | 225  |  |  | 15                                 |                                  |
| 16  | SR 2025<br>(SHORT STREET)                     | FROM SR 1982 (WEBB ROAD)<br>TO END OF MAINTENANCE                             | 1       | 0.17         | 18.00 | 0.01     | 0.18   | 16                       | 0.36                       | 47                              |  |   | 435                   |  | 180  |  | 12                                 | 25                               |
| 17  | SR 2031<br>(BRADBURY ROAD)                    | FROM SR 1936 (SOCO GAP ROAD)<br>TO END OF MAINTENANCE                         | 6       | 0.29         | 17.00 | 0.01     | 0.30   | 6                        | 0.58                       | 76                              |  |   |                       | 275  |  |  | 18                                 | 8                                |
| 18  | SR 2035<br>(WOODSET DRIVE)                    | FROM SR 1911 (LOW BRIDGE ROAD)<br>TO END OF MAINTENANCE                       | 6       | 0.12         | 24.00 | 0.01     | 0.13   | 5                        | 0.24                       | 32                              |  |   |                       | 187  |  |  | 12                                 | 2                                |
| 19  | SR 2036<br>(KEMIT COURT)                      | FROM SR 1914 (PUZZLE CREEK ROAD)<br>TO END OF MAINTENANCE                     | 6       | 0.18         | 18.50 | 0.01     | 0.19   | 6                        | 0.36                       | 47                              |  |   | 460                   | 183  |  |  | 12                                 | 10                               |
| 20  | SR 2040<br>(HARRILL DAIRY ROAD)               | FROM US 221 ALTERNATE<br>TO SR 1906 (MOUNT PLEASANT CHURCH ROAD)              | 6       | 1.43         | 20.50 | 0.01     | 1.44   | 20                       | 2.86                       | 372                             |  |   | 514                   | 1,268  |  |  | 88                                 | 126                              |
| 21  | SR 2107<br>(HINES LOOP ROAD)                  | FROM SR 2102 (HINES ROAD)<br>TO SR 2102 (HINES ROAD)                          | 6       | 0.56         | 18.50 | 0.01     | 0.57   | 28                       | 1.12                       | 146                             |  |   |                       | 450  |  |  | 31                                 | 42                               |
| 22  | SR 2109<br>(ISLAND FORD ROAD)                 | FROM US 221 ALTERNATE<br>TO SR 2111 (HENRY JENKINS ROAD)                      | 1       | 1.88         | 19.00 | 0.03     | 1.91   | 36                       | 3.76                       | 489                             |  |   | 1,130                 |  | 1,953  |  | 121                                | 130                              |
| 23  | SR 2125<br>(HARRIS HENRIETTA ROAD)            | FROM US 221 ALTERNATE<br>TO SR 2117 (FERRY ROAD)                              | 1, 4    | 2.31         | 20.00 | 0.02     | 2.33   | 86                       | 10.14                      | 1,319                           |  | 534   | 2,504                 |  | 2,557  |  | 154                                | 74                               |
| 24  | SR 2270<br>(TROJAN LANE)                      | FROM SR 2210 (CHASE HIGH ROAD)<br>TO CUL DE SAC                               | 6       | 0.41         | 20.50 | 0.01     | 0.42   | 5                        | 0.82                       | 107                             |  |   |                       | 385  |  |  | 26                                 | 21                               |
| 25  | SR 2303<br>(BIRDSONG LANE)                    | FROM US 221 ALTERNATE<br>TO DEAD END  | 6       | 0.40         | 19.00 | 0.01     | 0.41   | 24                       | 0.80                       | 104                             |  |   |                       | 365  |  |  | 24                                 | 5                                |
| 26  | CLIFFSIDE FIRE DEPT<br>(PARKING LOT)          | 4600 US 221 ALTERNATE<br>(RUTHERFORD COUNTY)                                  | 5       |              |       |          |        |                          |                            |                                 |  |   | 392                   |  | 200  |  | 12                                 | 10                               |
| <b>TOTAL FOR PROJ NO. 2024CPT.13.14.20811</b> |   |   |         | <b>25.32</b> |       |          |        | <b>694</b>               | <b>51.83</b>               | <b>6,747</b>                    | <b>9,510</b>                                       | <b>11,078</b>                                   | <b>19,254</b>         | <b>5,309</b>                                     | <b>22,894</b>                                    | <b>115</b>   | <b>1,763</b>                       | <b>1,327</b>                     |
| <b>GRAND TOTAL</b>                            |   |   |         | <b>25.32</b> |       |          |        | <b>694</b>               | <b>51.83</b>               | <b>6,747</b>                    | <b>9,510</b>                                       | <b>11,078</b>                                   | <b>19,254</b>         | <b>5,309</b>                                     | <b>22,894</b>                                    | <b>115</b>   | <b>1,763</b>                       | <b>1,327</b>                     |

\*NOTE-ALL MAPS, PROJECT NUMBER = 2024CPT.13.14.10811, COUNTY = RUTHERFORD, LANES = 2, LANE TYPE = 2WU, FINAL TESTING REQUIRED = NO, WARM MIX ASPHALT REQUIRED = NO

|                     |           |
|---------------------|-----------|
| PROJECT NO.         | SHEET NO. |
| 2024CPT.13.14.20811 | 18        |

## SUMMARY OF QUANTITIES

| MAP NO  | ROUTE   | DESCRIPTION   | TYP NO  | LENGTH       | WIDTH | BEGIN MP | END MP | 2612500000-N                           | 2738000000-E   | 2752000000-E  | 2815000000-N             | 2830000000-N           | 2845000000-N                             | 7444000000-E          | 7456100000-E         |  |
|---|---|---|---------|--------------|-------|----------|--------|--|--|---|--------------------------|------------------------|--|-----------------------|----------------------|--|
|   |   |   |         |              |       |          |        | REMOVE AND REPLACE CONCRETE CURB RAMPS | GENERIC PAVING ITEM, REMOVE AND REPLACE 4" CONCRETE SIDEWALK | GENERIC PAVING ITEM, REMOVE AND REPLACE 2'-6" CURB & GUTTER | ADJUSTMENT OF DROP INLET | ADJUSTMENT OF MANHOLES | ADJUSTMENT OF METER BOXES OR VALVE BOXES | INDUCTIVE LOOP SAWCUT | LEAD-IN CABLE (14-2) |  |
|   |   |   |         |              |       |          |        | EA                                     | SY   | LF  | EA                       | EA                     | EA                                       | LF                    | LF                   |  |
| 1   | SR 1814<br>(RIVERSIDE DRIVE)                  | FROM SR 1901 (OLD CAROLEEN ROAD)<br>TO US 74 BUSINESS                         | 2       | 0.69         | 22.00 | 0.00     | 0.69   |  |  |   |                          |                        |  |                       |                      |  |
| 2   | SR 1901<br>(ARLINGTON ST / OLD CAROLEEN ROAD) | FROM US 74 BUSINESS<br>TO END OF 24' WIDE ROAD                                | 1, 3, 4 | 2.39         | 24.00 | 0.01     | 2.40   | 16                                     | 16   | 45  |                          | 10                     | 22                                       |                       |                      |  |
| 3   | SR 1905<br>(COFFEY ROAD)                      | FROM SR 1906 (MOUNT PLEASANT CHURCH ROAD)<br>TO END OF MAINTENANCE            | 6       | 0.34         | 18.00 | 0.00     | 0.34   |  |  |   |                          |                        |  |                       |                      |  |
| 4   | SR 1906<br>(MOUNT PLEASANT CHURCH ROAD)       | FROM SR 1901 (OLD CAROLEEN ROAD)<br>TO US 221 ALTERNATE                       | 1       | 1.56         | 18.00 | 0.01     | 1.57   |  |  |   |                          |                        |  |                       |                      |  |
| 5   | SR 1909<br>(C H HAMRICK ROAD)                 | FROM SR 1910 (BAXTER CEMETERY ROAD)<br>TO END OF MAINTENANCE                  | 6       | 0.52         | 19.00 | 0.01     | 0.53   |  |  |   |                          |                        |  |                       |                      |  |
| 6   | SR 1920<br>(ELLENBORO HENRIETTA ROAD)         | FROM US 74 BUSINESS<br>TO SR 1920 (SOUTH PEA RIDGE ROAD)                      | 1, 3    | 4.16         | 24.50 | 0.01     | 4.17   |  |  |   | 2                        |                        | 4  | 336                   | 20                   |  |
| 7   | SR 1921<br>(RACE PATH CHURCH ROAD)            | FROM NC 120 HIGHWAY<br>TO PAVEMENT CHANGE AT RAIL ROAD CROSSING               | 1       | 3.08         | 20.00 | 0.01     | 3.09   |  |  |   |                          |                        | 3  |                       |                      |  |
| 8   | SR 1954<br>(ELLENBORO HENRIETTA ROAD)         | FROM US 221 ALTERNATE<br>TO SR 1960 (SOUTH PEA RIDGE ROAD)                    | 1       | 0.61         | 20.00 | 0.02     | 0.63   |  |  |   |                          |                        |  |                       |                      |  |
| 9   | SR 1960<br>(SOUTH PEA RIDGE ROAD)             | FROM SR 1920 (NORTH MAIN STREET)<br>TO US 221 ALTERNATE                       | 1       | 0.84         | 20.00 | 0.01     | 0.85   |  |  |   |                          |                        |  |                       |                      |  |
| 10  | SR 1974<br>(FAIRVIEW ROAD)                    | FROM SR 1003 (BOILING SPRINGS ROAD)<br>TO END OF MAINTENANCE                  | 6       | 0.16         | 17.50 | 0.01     | 0.17   |  |  |   |                          |                        |  |                       |                      |  |
| 11  | SR 1978<br>(KIRBY ROAD)                       | FROM CLEVELAND COUNTY LINE<br>TO SR 1993 (OLD US 221 ALTERNATE HIGHWAY)       | 1       | 0.84         | 18.50 | 0.01     | 0.85   |  |  |   |                          |                        |  |                       |                      |  |
| 12  | SR 1982<br>(BUGGER HOLLOW ROAD)               | FROM SR 1921 (RACE PATH CHURCH ROAD)<br>TO SR 1920 (ELLENBORO HENRIETTA ROAD) | 1       | 1.03         | 21.50 | 1.78     | 2.81   |  |  |   |                          |                        |  |                       |                      |  |
| 13  | SR 1984<br>(J M LOVELACE ROAD)                | FROM SR 1982 (WEBB ROAD)<br>TO END OF MAINTENANCE                             | 6       | 0.77         | 20.00 | 0.01     | 0.78   |  |  |   |                          |                        |  |                       |                      |  |
| 14  | SR 2013<br>(DOBBINSVILLE EXTENSION)           | FROM SR 1921 (RACE PATH CHURCH ROAD)<br>TO END OF MAINTENANCE                 | 6       | 0.30         | 18.00 | 0.01     | 0.31   |  |  |   |                          |                        |  |                       |                      |  |
| 15  | SR 2022<br>(GREEN ACRES ROAD)                 | FROM SR 1976 (CHESTERFIELD ROAD)<br>TO US 221 ALTERNATE                       | 6       | 0.28         | 18.00 | 0.01     | 0.29   |  |  |   |                          |                        |  |                       |                      |  |
| 16  | SR 2025<br>(SHORT STREET)                     | FROM SR 1982 (WEBB ROAD)<br>TO END OF MAINTENANCE                             | 1       | 0.17         | 18.00 | 0.01     | 0.18   |  |  |   |                          |                        |  |                       |                      |  |
| 17  | SR 2031<br>(BRADBURY ROAD)                    | FROM SR 1936 (SOCO GAP ROAD)<br>TO END OF MAINTENANCE                         | 6       | 0.29         | 17.00 | 0.01     | 0.30   |  |  |   |                          |                        |  |                       |                      |  |
| 18  | SR 2035<br>(WOODSET DRIVE)                    | FROM SR 1911 (LOW BRIDGE ROAD)<br>TO END OF MAINTENANCE                       | 6       | 0.12         | 24.00 | 0.01     | 0.13   |  |  |   |                          |                        |  |                       |                      |  |
| 19  | SR 2036<br>(KEMIT COURT)                      | FROM SR 1914 (PUZZLE CREEK ROAD)<br>TO END OF MAINTENANCE                     | 6       | 0.18         | 18.50 | 0.01     | 0.19   |  |  |   |                          |                        |  |                       |                      |  |
| 20  | SR 2040<br>(HARRILL DAIRY ROAD)               | FROM US 221 ALTERNATE<br>TO SR 1906 (MOUNT PLEASANT CHURCH ROAD)              | 6       | 1.43         | 20.50 | 0.01     | 1.44   |  |  |   |                          |                        |  |                       |                      |  |
| 21  | SR 2107<br>(HINES LOOP ROAD)                  | FROM SR 2102 (HINES ROAD)<br>TO SR 2102 (HINES ROAD)                          | 6       | 0.56         | 18.50 | 0.01     | 0.57   |  |  |   |                          |                        |  |                       |                      |  |
| 22  | SR 2109<br>(ISLAND FORD ROAD)                 | FROM US 221 ALTERNATE<br>TO SR 2111 (HENRY JENKINS ROAD)                      | 1       | 1.88         | 19.00 | 0.03     | 1.91   |  |  |   |                          |                        |  |                       |                      |  |
| 23  | SR 2125<br>(HARRIS HENRIETTA ROAD)            | FROM US 221 ALTERNATE<br>TO SR 2117 (FERRY ROAD)                              | 1, 4    | 2.31         | 20.00 | 0.02     | 2.33   |  |  |   |                          |                        |  |                       |                      |  |
| 24  | SR 2270<br>(TROIJAN LANE)                     | FROM SR 2210 (CHASE HIGH ROAD)<br>TO CUL DE SAC                               | 6       | 0.41         | 20.50 | 0.01     | 0.42   |  |  |   |                          |                        |  |                       |                      |  |
| 25  | SR 2303<br>(BIRDSONG LANE)                    | FROM US 221 ALTERNATE<br>TO DEAD END  | 6       | 0.40         | 19.00 | 0.01     | 0.41   |  |  |   |                          |                        |  |                       |                      |  |
| 26  | CLIFFSIDE FIRE DEPT<br>(PARKING LOT)          | 4600 US 221 ALTERNATE<br>(RUTHERFORD COUNTY)                                  | 5       |              |       |          |        |  |  |   |                          |                        |  |                       |                      |  |
| <b>TOTAL FOR PROJ NO. 2024CPT.13.14.20811</b> |   |   |         | <b>25.32</b> |       |          |        | <b>16</b>                              | <b>16</b>  | <b>45</b>   | <b>2</b>                 | <b>10</b>              | <b>29</b>                                | <b>336</b>            | <b>20</b>            |  |
| <b>GRAND TOTAL</b>                            |   |   |         | <b>25.32</b> |       |          |        | <b>16</b>                              | <b>16</b>  | <b>45</b>   | <b>2</b>                 | <b>10</b>              | <b>29</b>                                | <b>336</b>            | <b>20</b>            |  |

\*NOTE-ALL MAPS, PROJECT NUMBER = 2024CPT.13.14.10811, COUNTY = RUTHERFORD, LANES = 2, LANE TYPE = 2WU, FINAL TESTING REQUIRED = NO, WARM MIX ASPHALT REQUIRED = NO

## THERMOPLASTIC AND PAINT QUANTITIES

| MAP NO  | ROUTE   | DESCRIPTION   | TYP NO  | LENGTH       | WIDTH | BEGIN MP | END MP | 441300000-E  | 444700000-E                           | 445700000-N                     | 469500000-E   | 470400000-E  | 470900000-E   | 472000000-E  |   |
|---|---|---|---------|--------------|-------|----------|--------|--|---------------------------------------|---------------------------------|---|--|---|--|---|
|   |   |   |         |              |       |          |        | WORK ZONE<br>ADVANCE<br>/GENERAL<br>WARNING<br>SIGNING | PEDESTRIAN<br>CHANNELIZING<br>DEVICES | TEMPORARY<br>TRAFFIC<br>CONTROL | THERMOPLASTIC<br>PAVEMENT<br>MARKING<br>LINES<br>(8", 90 MILS)<br>(WHITE) | THERMOPLASTIC<br>PAVEMENT<br>MARKING<br>LINES<br>(16", 90 MILS)<br>(WHITE) | THERMOPLASTIC<br>PAVEMENT<br>MARKING<br>LINES<br>(24", 90 MILS)<br>(WHITE STOP BAR) | THERMOPLASTIC<br>PAVEMENT<br>MARKING<br>CHARACTER<br>(90 MILS)<br>SCHOOL | THERMOPLASTIC<br>PAVEMENT<br>MARKING<br>CHARACTER<br>(90 MILS)<br>RXR |
|   |   |   |         |              |       |          |        | SF   | LF                                    | LS                              | LF  | LF   | LF  | EA   | EA  |
| 1   | SR 1814<br>(RIVERSIDE DRIVE)                  | FROM SR 1901 (OLD CAROLEEN ROAD)<br>TO US 74 BUSINESS                         | 2       | 0.69         | 22.00 | 0.00     | 0.69   | 78   |                                       |                                 |   |  |   |  |   |
| 2   | SR 1901<br>(ARLINGTON ST / OLD CAROLEEN ROAD) | FROM US 74 BUSINESS<br>TO END OF 24' WIDE ROAD                                | 1, 3, 4 | 2.39         | 24.00 | 0.01     | 2.40   | 268  | 64                                    |                                 |   | 130  | 12  |  |   |
| 3   | SR 1905<br>(COFFEY ROAD)                      | FROM SR 1906 (MOUNT PLEASANT CHURCH ROAD)<br>TO END OF MAINTENANCE            | 6       | 0.34         | 18.00 | 0.00     | 0.34   | 40   |                                       |                                 |   |  |   |  |   |
| 4   | SR 1906<br>(MOUNT PLEASANT CHURCH ROAD)       | FROM SR 1901 (OLD CAROLEEN ROAD)<br>TO US 221 ALTERNATE                       | 1       | 1.56         | 18.00 | 0.01     | 1.57   | 175  |                                       |                                 |   |  |   |  |   |
| 5   | SR 1909<br>(C H HAMRICK ROAD)                 | FROM SR 1910 (BAXTER CEMETERY ROAD)<br>TO END OF MAINTENANCE                  | 6       | 0.52         | 19.00 | 0.01     | 0.53   | 59   |                                       |                                 |   |  |   |  |   |
| 6   | SR 1920<br>(ELLENBORO HENRIETTA ROAD)         | FROM US 74 BUSINESS<br>TO SR 1920 (SOUTH PEA RIDGE ROAD)                      | 1, 3    | 4.16         | 24.50 | 0.01     | 4.17   | 466  |                                       |                                 | 84  | 155  |   | 4  |   |
| 7   | SR 1921<br>(RACE PATH CHURCH ROAD)            | FROM NC 120 HIGHWAY<br>TO PAVEMENT CHANGE AT RAIL ROAD CROSSING               | 1       | 3.08         | 20.00 | 0.01     | 3.09   | 345  |                                       |                                 | 48  | 47   |   | 2  |   |
| 8   | SR 1954<br>(ELLENBORO HENRIETTA ROAD)         | FROM US 221 ALTERNATE<br>TO SR 1960 (SOUTH PEA RIDGE ROAD)                    | 1       | 0.61         | 20.00 | 0.02     | 0.63   | 68   |                                       |                                 |   | 78   | 12  |  |   |
| 9   | SR 1960<br>(SOUTH PEA RIDGE ROAD)             | FROM SR 1920 (NORTH MAIN STREET)<br>TO US 221 ALTERNATE                       | 1       | 0.84         | 20.00 | 0.01     | 0.85   | 95   |                                       |                                 |   |  |   |  |   |
| 10  | SR 1974<br>(FAIRVIEW ROAD)                    | FROM SR 1003 (BOILING SPRINGS ROAD)<br>TO END OF MAINTENANCE                  | 6       | 0.16         | 17.50 | 0.01     | 0.17   | 18   |                                       |                                 |   |  |   |  |   |
| 11  | SR 1978<br>(KIRBY ROAD)                       | FROM CLEVELAND COUNTY LINE<br>TO SR 1993 (OLD US 221 ALTERNATE HIGHWAY)       | 1       | 0.84         | 18.50 | 0.01     | 0.85   | 96   |                                       |                                 |   |  |   |  |   |
| 12  | SR 1982<br>(BUGGER HOLLOW ROAD)               | FROM SR 1921 (RACE PATH CHURCH ROAD)<br>TO SR 1920 (ELLENBORO HENRIETTA ROAD) | 1       | 1.03         | 21.50 | 1.78     | 2.81   | 116  |                                       |                                 |   | 18   |   |  |   |
| 13  | SR 1984<br>(J M LOVELACE ROAD)                | FROM SR 1982 (WEBB ROAD)<br>TO END OF MAINTENANCE                             | 6       | 0.77         | 20.00 | 0.01     | 0.78   | 87   |                                       | *                               |   |  |   |  |   |
| 14  | SR 2013<br>(DOBBINSVILLE EXTENSION)           | FROM SR 1921 (RACE PATH CHURCH ROAD)<br>TO END OF MAINTENANCE                 | 6       | 0.30         | 18.00 | 0.01     | 0.31   | 34   |                                       |                                 |   |  |   |  |   |
| 15  | SR 2022<br>(GREEN ACRES ROAD)                 | FROM SR 1976 (CHESTERFIELD ROAD)<br>TO US 221 ALTERNATE                       | 6       | 0.28         | 18.00 | 0.01     | 0.29   | 32   |                                       |                                 |   |  |   |  |   |
| 16  | SR 2025<br>(SHORT STREET)                     | FROM SR 1982 (WEBB ROAD)<br>TO END OF MAINTENANCE                             | 1       | 0.18         | 18.00 | 0.01     | 0.19   | 21   |                                       |                                 |   |  |   |  |   |
| 17  | SR 2031<br>(BRADBURY ROAD)                    | FROM SR 1936 (SOCO GAP ROAD)<br>TO END OF MAINTENANCE                         | 6       | 0.29         | 17.00 | 0.01     | 0.30   | 33   |                                       |                                 |   |  |   |  |   |
| 18  | SR 2035<br>(WOODSET DRIVE)                    | FROM SR 1911 (LOW BRIDGE ROAD)<br>TO END OF MAINTENANCE                       | 6       | 0.12         | 24.00 | 0.01     | 0.13   | 14   |                                       |                                 |   |  |   |  |   |
| 19  | SR 2036<br>(KEMIT COURT)                      | FROM SR 1914 (PUZZLE CREEK ROAD)<br>TO END OF MAINTENANCE                     | 6       | 0.18         | 18.50 | 0.01     | 0.19   | 21   |                                       |                                 |   |  |   |  |   |
| 20  | SR 2040<br>(HARRILL DAIRY ROAD)               | FROM US 221 ALTERNATE<br>TO SR 1906 (MOUNT PLEASANT CHURCH ROAD)              | 6       | 1.43         | 20.50 | 0.01     | 1.44   | 162  |                                       |                                 |   |  |   |  |   |
| 21  | SR 2107<br>(HINES LOOP ROAD)                  | FROM SR 2102 (HINES ROAD)<br>TO SR 2102 (HINES ROAD)                          | 6       | 0.56         | 18.50 | 0.01     | 0.57   | 63   |                                       |                                 |   | 84   | 54  |  | 4   |
| 22  | SR 2109<br>(ISLAND FORD ROAD)                 | FROM US 221 ALTERNATE<br>TO SR 2111 (HENRY JENKINS ROAD)                      | 1       | 1.88         | 19.00 | 0.03     | 1.91   | 211  |                                       |                                 |   |  |   |  |   |
| 23  | SR 2125<br>(HARRIS HENRIETTA ROAD)            | FROM US 221 ALTERNATE<br>TO SR 2117 (FERRY ROAD)                              | 1, 4    | 2.31         | 20.00 | 0.02     | 2.33   | 259  |                                       |                                 | 60  |  |   |  |   |
| 24  | SR 2270<br>(TROIJAN LANE)                     | FROM SR 2210 (CHASE HIGH ROAD)<br>TO CUL DE SAC                               | 6       | 0.41         | 20.50 | 0.01     | 0.42   | 46   |                                       |                                 |   |  |   |  |   |
| 25  | SR 2303<br>(BIRDSONG LANE)                    | FROM US 221 ALTERNATE<br>TO DEAD END  | 6       | 0.40         | 19.00 | 0.01     | 0.41   | 45   |                                       |                                 |   |  |   |  |   |
| 26  | CLIFFSIDE FIRE DEPARTMENT<br>(PARKING LOT)    | 4600 US 221 ALTERNATE<br>(RUTHERFORD COUNTY)                                  | 5       |              |       |          |        |  |                                       |                                 |   |  |   |  |   |
| <b>TOTAL FOR PROJ NO. 2024CPT.13.14.20811</b> |   |   |         | <b>25.33</b> |       |          |        | <b>2,852</b>   | <b>64</b>                             | <b>1</b>                        | <b>60</b>   | <b>216</b>   | <b>482</b>  | <b>24</b>  | <b>10</b>   |
|   |   |   |         |              |       |          |        |  |                                       |                                 |   |  |   | <b>34</b>  |   |
| <b>GRAND TOTAL</b>                            |   |   |         | <b>25.33</b> |       |          |        | <b>2,852</b>   | <b>64</b>                             | <b>1</b>                        | <b>60</b>   | <b>216</b>   | <b>482</b>  | <b>24</b>  | <b>10</b>   |
|   |   |   |         |              |       |          |        |  |                                       |                                 |   |  |   | <b>34</b>  |   |

\*NOTE-ALL MAPS, PROJECT NUMBER = 2024CPT.13.14.10811, COUNTY = RUTHERFORD, LANES = 2, LANE TYPE = 2WU, FINAL TESTING REQUIRED = NO, WARM MIX ASPHALT REQUIRED = NO

|                     |           |
|---------------------|-----------|
| PROJECT NO.         | SHEET NO. |
| 2024CPT.13.14.20811 | 20        |

## THERMOPLASTIC AND PAINT QUANTITIES

| MAP NO  | ROUTE                                    | DESCRIPTION  | TYP NO  | 4725000000-E |       |          |        | 4846000000-E   |  | 4850000000-E   | 4890000000-E  |  |  |   |
|---|--|--|---------|--------------|-------|----------|--------|--|--|--|---|--|--|---|
|   |  |  |         | LENGTH       | WIDTH | BEGIN MP | END MP | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) LT ARROW | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) RT ARROW | POLYUREA PAVEMENT MARKING LINES (4", 20 MILS) (WHITE) (STANDARD GLASS BEADS) | POLYUREA PAVEMENT MARKING LINES (4", 20 MILS) (YELLOW) (STANDARD GLASS BEADS) | REMOVAL OF PAVEMENT MARKING LINES (4") | HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES (4", 55 MILS) (WHITE) | HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINES (4", 55 MILS) (YELLOW) |
|   |  |  |         |              |       |          |        | EA   | EA   | LF   | LF  | LF                                     | LF   | LF  |
| 1   | SR 1814 (RIVERSIDE DRIVE)                | FROM SR 1901 (OLD CAROLEEN ROAD) TO US 74 BUSINESS                         | 2       | 0.69         | 22.00 | 0.00     | 0.69   | 3  | 2  |  |   | 7,436                                  | 7,286  |   |
| 2   | SR 1901 (ARLINGTON ST/OLD CAROLEEN ROAD) | FROM US 74 BUSINESS TO END OF 24' WIDE ROAD                                | 1, 3, 4 | 2.39         | 24.00 | 0.01     | 2.40   | 1  | 1  | 742  | 742   | 1,484                                  | 17,306   | 23,792  |
| 3   | SR 1905 (COFFEY ROAD)                    | FROM SR 1906 (MOUNT PLEASANT CHURCH ROAD) TO END OF MAINTENANCE            | 6       | 0.34         | 18.00 | 0.00     | 0.34   |  |  |  |   |  |  |   |
| 4   | SR 1906 (MOUNT PLEASANT CHURCH ROAD)     | FROM SR 1901 (OLD CAROLEEN ROAD) TO US 221 ALTERNATE                       | 1       | 1.56         | 18.00 | 0.01     | 1.57   |  |  |  |   | 16,474                                 | 12,923   |   |
| 5   | SR 1909 (C H HAMRICK ROAD)               | FROM SR 1910 (BAXTER CEMETERY ROAD) TO END OF MAINTENANCE                  | 6       | 0.52         | 19.00 | 0.01     | 0.53   |  |  |  |   |  |  |   |
| 6   | SR 1920 (ELLENBORO HENRIETTA ROAD)       | FROM US 74 BUSINESS TO SR 1920 (SOUTH PEA RIDGE ROAD)                      | 1, 3    | 4.16         | 24.50 | 0.01     | 4.17   | 1  | 1  | 892  | 892   | 1,784                                  | 39,208   | 12,995  |
| 7   | SR 1921 (RACE PATH CHURCH ROAD)          | FROM NC 120 HIGHWAY TO PAVEMENT CHANGE AT RAIL ROAD CROSSING               | 1       | 3.08         | 20.00 | 0.01     | 3.09   |  |  | 452  | 452   | 904                                    | 32,525   | 27,621  |
| 8   | SR 1954 (ELLENBORO HENRIETTA ROAD)       | FROM US 221 ALTERNATE TO SR 1960 (SOUTH PEA RIDGE ROAD)                    | 1       | 0.61         | 20.00 | 0.02     | 0.63   |  |  |  |   |  | 6,442  | 6,442   |
| 9   | SR 1960 (SOUTH PEA RIDGE ROAD)           | FROM SR 1920 (NORTH MAIN STREET) TO US 221 ALTERNATE                       | 1       | 0.84         | 20.00 | 0.01     | 0.85   |  |  |  |   |  | 8,870  | 8,870   |
| 10  | SR 1974 (FAIRVIEW ROAD)                  | FROM SR 1003 (BOILING SPRINGS ROAD) TO END OF MAINTENANCE                  | 6       | 0.16         | 17.50 | 0.01     | 0.17   |  |  |  |   |  |  |   |
| 11  | SR 1978 (KIRBY ROAD)                     | FROM CLEVELAND COUNTY LINE TO SR 1993 (OLD US 221 ALTERNATE HIGHWAY)       | 1       | 0.84         | 18.50 | 0.01     | 0.85   |  |  |  |   |  | 8,976  | 8,976   |
| 12  | SR 1982 (BUGGER HOLLOW ROAD)             | FROM SR 1921 (RACE PATH CHURCH ROAD) TO SR 1920 (ELLENBORO HENRIETTA ROAD) | 1       | 1.03         | 21.50 | 1.78     | 2.81   |  |  |  |   |  | 10,877   | 10,877  |
| 13  | SR 1984 (J M LOVELACE ROAD)              | FROM SR 1982 (WEBB ROAD) TO END OF MAINTENANCE                             | 6       | 0.77         | 20.00 | 0.01     | 0.78   |  |  |  |   |  |  |   |
| 14  | SR 2013 (DOBBINSVILLE EXTENSION)         | FROM SR 1921 (RACE PATH CHURCH ROAD) TO END OF MAINTENANCE                 | 6       | 0.30         | 18.00 | 0.01     | 0.31   |  |  |  |   |  |  |   |
| 15  | SR 2022 (GREEN ACRES ROAD)               | FROM SR 1976 (CHESTERFIELD ROAD) TO US 221 ALTERNATE                       | 6       | 0.28         | 18.00 | 0.01     | 0.29   |  |  |  |   |  |  |   |
| 16  | SR 2025 (SHORT STREET)                   | FROM SR 1982 (WEBB ROAD) TO END OF MAINTENANCE                             | 1       | 0.17         | 18.00 | 0.01     | 0.18   |  |  |  |   |  |  |   |
| 17  | SR 2031 (BRADBURY ROAD)                  | FROM SR 1936 (SOCO GAP ROAD) TO END OF MAINTENANCE                         | 6       | 0.29         | 17.00 | 0.01     | 0.30   |  |  |  |   |  |  |   |
| 18  | SR 2035 (WOODSET DRIVE)                  | FROM SR 1911 (LOW BRIDGE ROAD) TO END OF MAINTENANCE                       | 6       | 0.12         | 24.00 | 0.01     | 0.13   |  |  |  |   |  |  |   |
| 19  | SR 2036 (KEMIT COURT)                    | FROM SR 1914 (PUZZLE CREEK ROAD) TO END OF MAINTENANCE                     | 6       | 0.18         | 18.50 | 0.01     | 0.19   |  |  |  |   |  |  |   |
| 20  | SR 2040 (HARRILL DAIRY ROAD)             | FROM US 221 ALTERNATE TO SR 1906 (MOUNT PLEASANT CHURCH ROAD)              | 6       | 1.43         | 20.50 | 0.01     | 1.44   |  |  |  |   |  | 15,102   | 15,102  |
| 21  | SR 2107 (HINES LOOP ROAD)                | FROM SR 2102 (HINES ROAD) TO SR 2102 (HINES ROAD)                          | 6       | 0.56         | 18.50 | 0.01     | 0.57   |  |  |  |   |  | 5,914  | 5,914   |
| 22  | SR 2109 (ISLAND FORD ROAD)               | FROM US 221 ALTERNATE TO SR 2111 (HENRY JENKINS ROAD)                      | 1       | 1.88         | 19.00 | 0.03     | 1.91   |  |  |  |   |  | 19,642   | 16,631  |
| 23  | SR 2125 (HARRIS HENRIETTA ROAD)          | FROM US 221 ALTERNATE TO SR 2117 (FERRY ROAD)                              | 1, 4    | 2.31         | 20.00 | 0.02     | 2.33   |  |  | 734  | 734   | 1,468                                  | 24,288   | 24,288  |
| 24  | SR 2270 (TROJAN LANE)                    | FROM SR 2210 (CHASE HIGH ROAD) TO CUL DE SAC                               | 6       | 0.41         | 20.50 | 0.01     | 0.42   |  |  |  |   |  |  |   |
| 25  | SR 2303 (BIRDSONG LANE)                  | FROM US 221 ALTERNATE TO DEAD END  | 6       | 0.40         | 19.00 | 0.01     | 0.41   |  |  |  |   |  |  |   |
| 26  | CLIFFSIDE FIRE DEPARTMENT (PARKING LOT)  | 4600 US 221 ALTERNATE (RUTHERFORD COUNTY)                                  | 5       |              |       |          |        |  |  |  |   |  |  |   |
| <b>TOTAL FOR PROJ NO. 2024CPT.13.14.20811</b> |  |  |         | <b>25.32</b> |       |          |        | <b>5</b>   | <b>4</b>   | <b>2,820</b>   | <b>2,820</b>  | <b>5,640</b>                           | <b>213,060</b>   | <b>181,717</b>  |
|   |  |  |         |              |       |          |        | <b>9</b>   |  | <b>5640</b>  |   |  | <b>394,777</b>   |   |
| <b>GRAND TOTAL</b>                            |  |  |         | <b>25.33</b> |       |          |        | <b>5</b>   | <b>4</b>   | <b>2,820</b>   | <b>2,820</b>  | <b>5,640</b>                           | <b>213,060</b>   | <b>181,717</b>  |
|   |  |  |         |              |       |          |        | <b>9</b>   |  | <b>5640</b>  |   |  | <b>394,777</b>   |   |

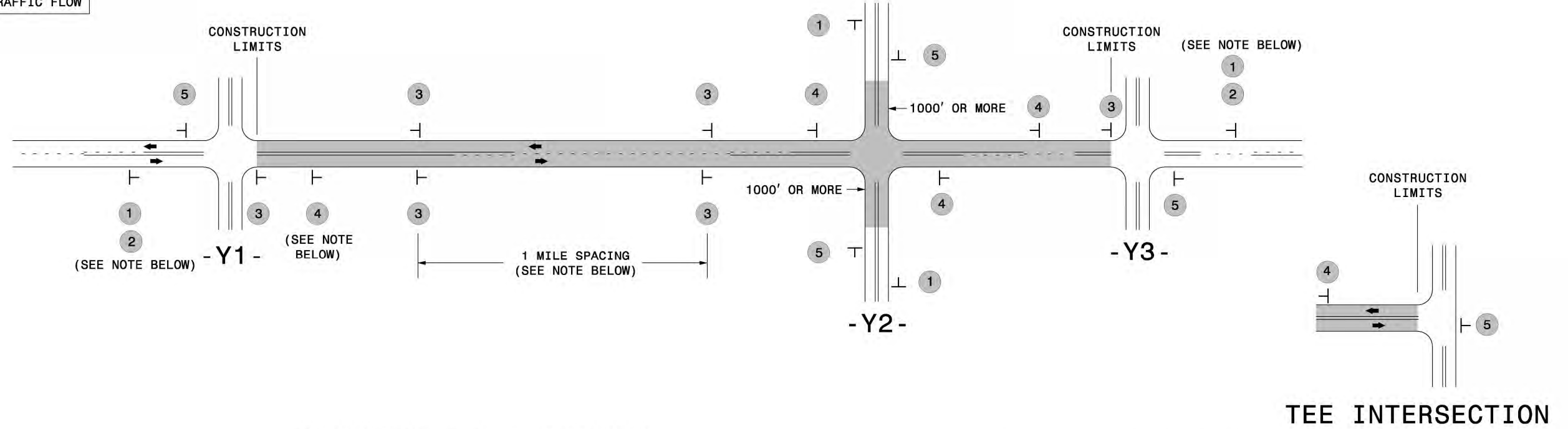
\*NOTE-ALL MAPS, PROJECT NUMBER = 2024CPT.13.14.10811, COUNTY = RUTHERFORD, LANES = 2, LANE TYPE = 2WU, FINAL TESTING REQUIRED = NO, WARM MIX ASPHALT REQUIRED = NO

## SIGNING FOR RESURFACING PROJECTS

**LEGEND**

┃ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



### MAINLINE (-L-) SIGNING

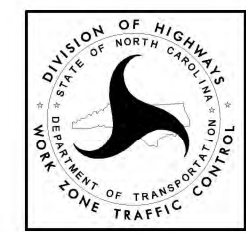
### -Y- LINE SIGNING

|  |   |  |   |   |
|--|---|--|---|---|
| <b>SIGNING NOTES AND PLACEMENT PER DIRECTION</b> | 1 |  | PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.  | <p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>SUBDIVISION ROADS</li> <li>DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <br/>             W20-1<br/>48" X 48"<br/>             PLACED 500' IN ADVANCE OF FLAGGER.         </div> <div style="text-align: center;"> <br/>             W20-7 A<br/>48" X 48"<br/>             PLACED 250' IN ADVANCE OF FLAGGER.         </div> </div> |
|  | 2 |  | #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 |  | <ul style="list-style-type: none"> <li>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</li> <li>AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</li> </ul>   |   |
|  | 4 |  | <ul style="list-style-type: none"> <li>THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</li> <li>DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</li> <li>INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</li> <li>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.</li> <li>A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</li> <li>FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</li> </ul> |   |
|  | 5 |  | 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**

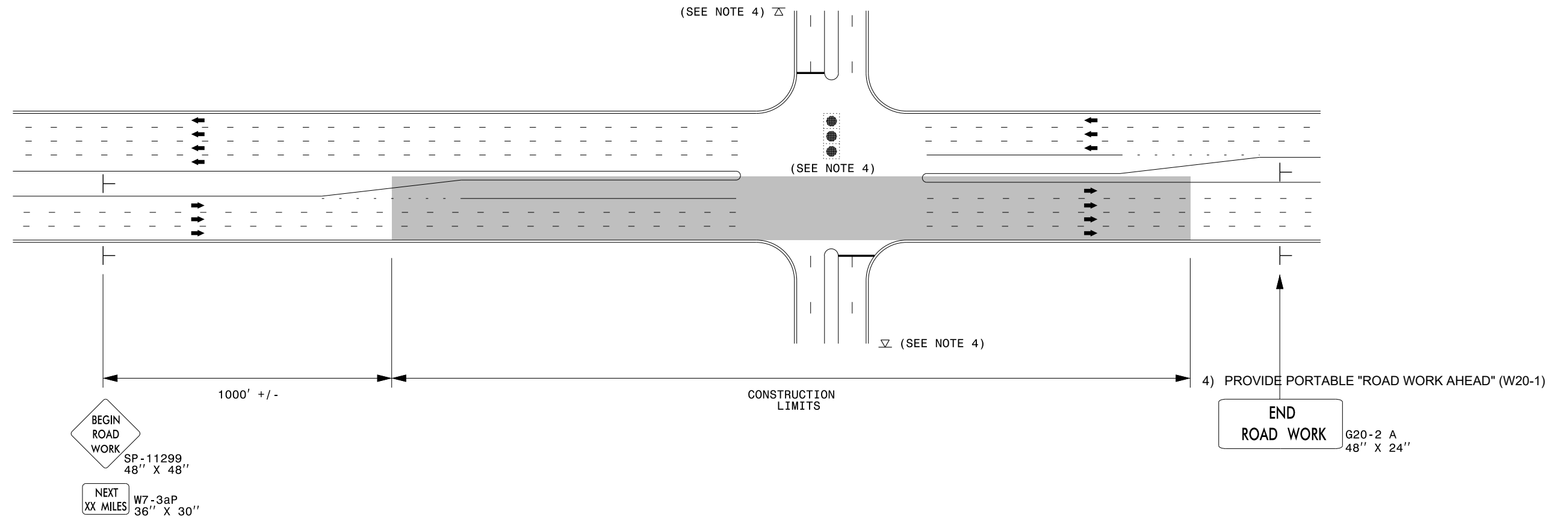
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



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

5/15/2017 S:\T\1314\20811\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing\_AdvWarn\_2Ln.dgn User:keads

## 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) 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

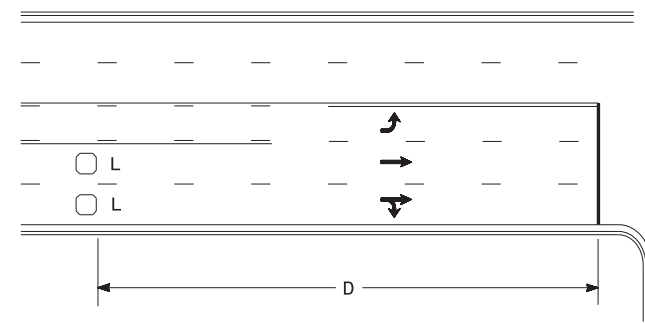
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE  
WARNING SIGNS FOR  
URBAN / SUBURBAN  
FACILITIES**

4/8/2015 C:\Users\rmgarrrett\Downloads\Resurfacing\_AdvWarn\_UrSu (2).dgn User:rmgarrrett

### High Speed Detection (≥40 mph)

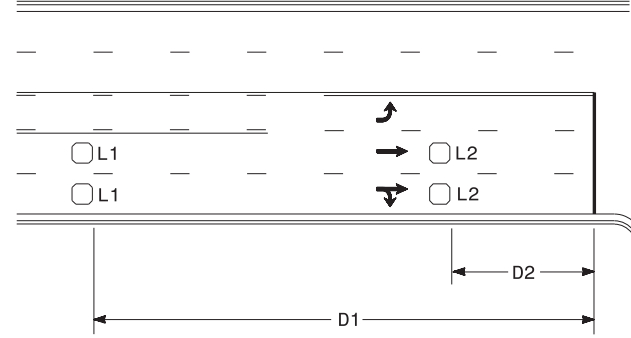


| Speed Limit<br>mph | D<br>ft |
|--------------------|---------|
| 40                 | 250     |
| 45                 | 300     |
| 50                 | 355     |
| 55                 | 420     |

L = 6ft X 6ft  
Wired separately

Volume Density Operation

OR

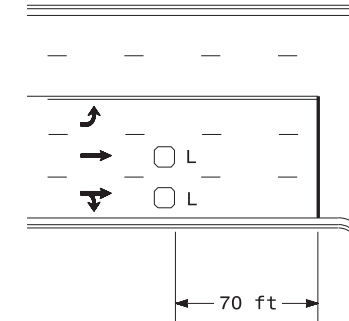


| Speed Limit<br>mph | D1<br>ft | D2<br>ft |
|--------------------|----------|----------|
| 40                 | 250      | 80       |
| 45                 | 300      | 90       |
| 50                 | 355      | 100      |
| 55                 | 420      | 110      |

L1 = 6ft X 6ft  
Wired in series  
L2 = 6ft X 6ft  
Wired in series

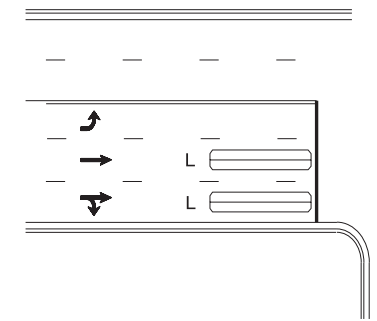
"Stretch" Operation

### Low Speed Detection (≤35 mph)



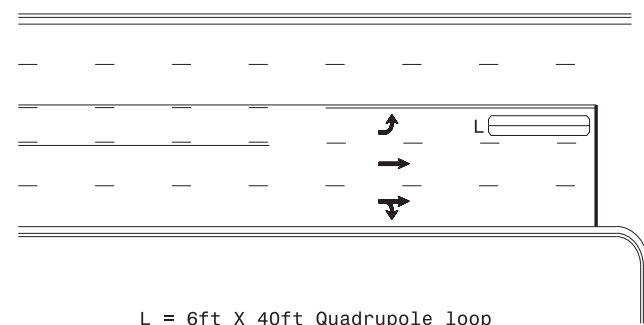
L = 6ft X 6ft  
Wired in series

OR



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

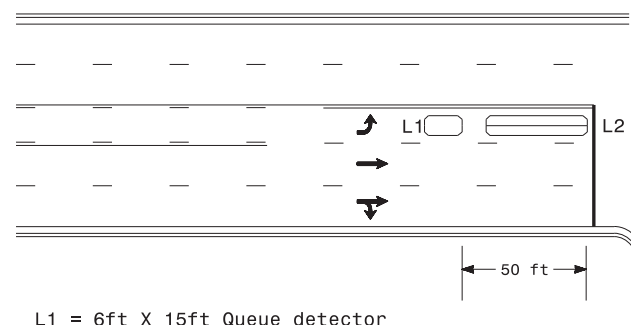
### Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

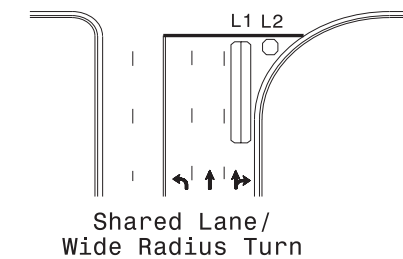
OR



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

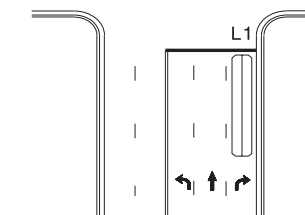
Queue Loop Detection

### Right Turn Lane Detection

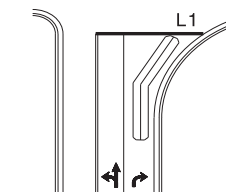


Shared Lane/  
Wide Radius Turn

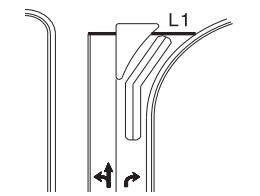
L1 = 6ft X 40ft Quadrupole loop  
L2 = 6ft X 6ft [Minimum] Presence loop  
Wired separately



Standard Turn

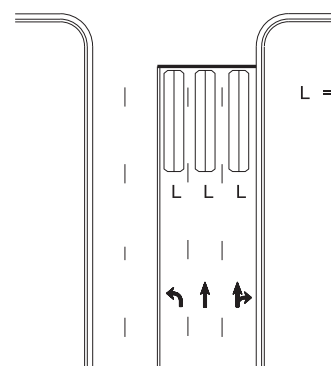


Wide Radius Turn



Channelized Turn

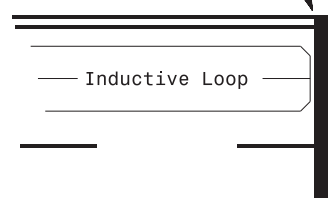
### Side Street Detection



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

### Presence Loop Placement at Stop Lines

Locate loop slightly  
behind leading  
edge of stop line



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

### Recommended Number of Turns

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

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

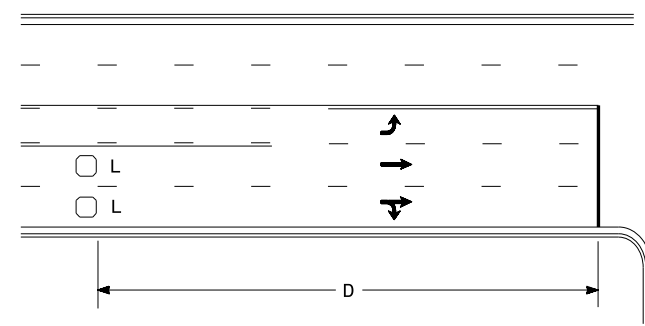
Quadrupole loops: Use 2-4-2 turns

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

|                                  |   |                                      |
|----------------------------------|---|--------------------------------------|
|                                  | <p>Prepared In the Offices of:</p>              |                                      |
|                                  | <p>750 N. Greenfield Pkwy, Garner, NC 27529</p> |                                      |
| <p>SCALE<br/>N/A</p>             |   | <p>Typical Signal Loop Locations</p> |
| <p>PLAN DATE: September 2020</p> | <p>REVIEWED BY: JPG</p>                         |                                      |
| <p>PREPARED BY: PLA</p>          | <p>REVIEWED BY:</p>                             |                                      |
| <p>REVISIONS</p>                 | <p>INIT. DATE</p>                               | <p>DATE<br/>9/8/2020</p>             |
| <p>SIG. INVENTORY NO.</p>        |   |                                      |



### High Speed Detection (≥40 mph)

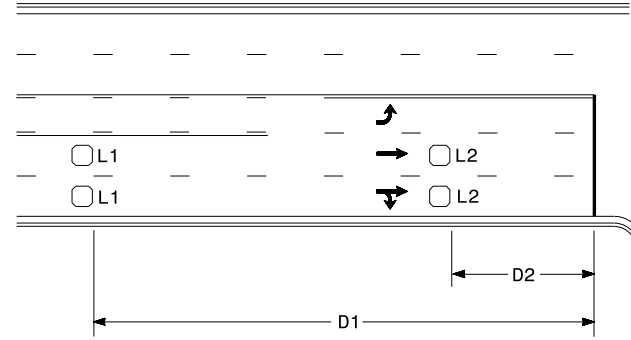


| Speed Limit<br>mph | D<br>ft |
|--------------------|---------|
| 40                 | 250     |
| 45                 | 300     |
| 50                 | 355     |
| 55                 | 420     |

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

Volume Density Operation

OR

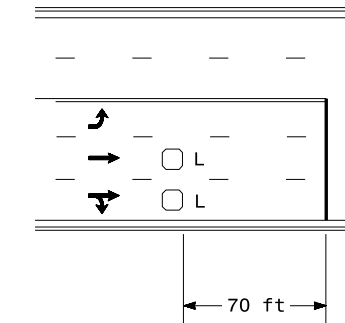


| Speed Limit<br>mph | D1<br>ft | D2<br>ft |
|--------------------|----------|----------|
| 40                 | 250      | 80       |
| 45                 | 300      | 90       |
| 50                 | 355      | 100      |
| 55                 | 420      | 110      |

L1 = 6ft X 6ft  
Wired in series  
L2 = 6ft X 6ft  
Wired in series

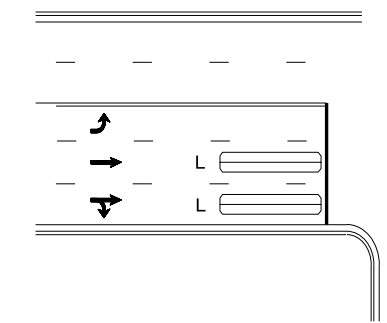
"Stretch" Operation

### Low Speed Detection (≤35 mph)



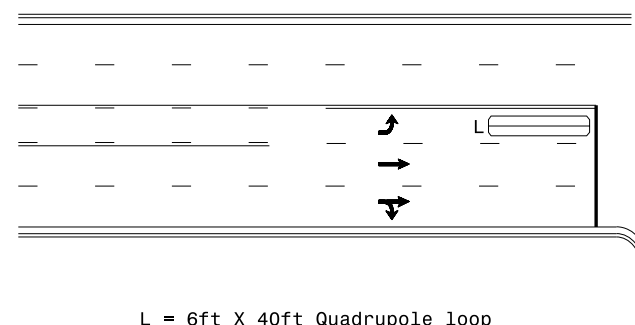
L = 6ft X 6ft  
Wired in series

OR



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

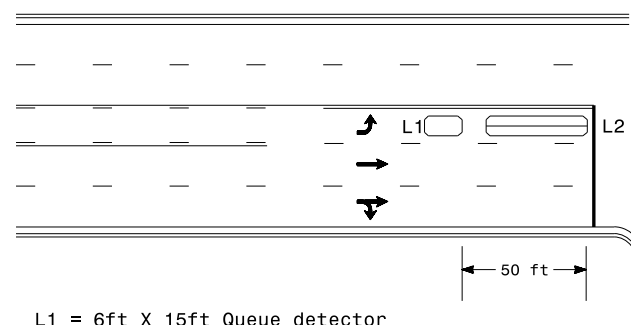
### Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

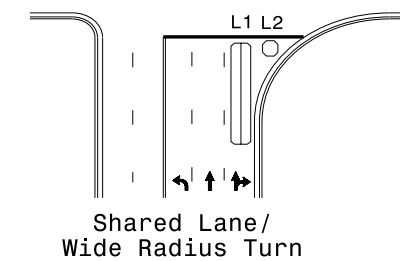
OR



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

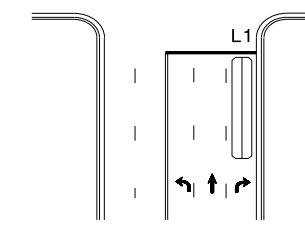
Queue Loop Detection

### Right Turn Lane Detection

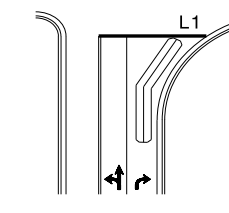


Shared Lane/  
Wide Radius Turn

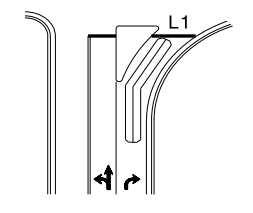
L1 = 6ft X 40ft Quadrupole loop  
L2 = 6ft X 6ft [Minimum] Presence loop  
Wired separately



Standard Turn

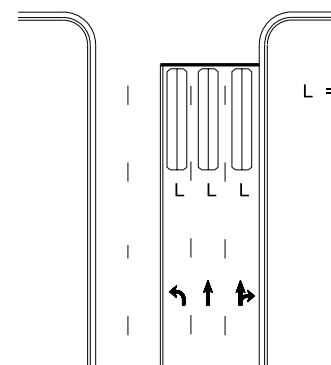


Wide Radius Turn



Channelized Turn

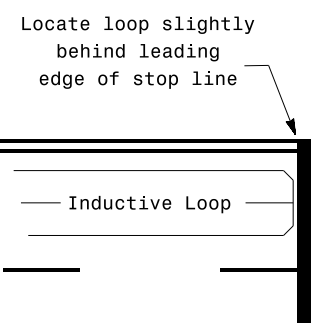
### Side Street Detection



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

Presence Loop Detection

### Presence Loop Placement at Stop Lines



Locate loop slightly  
behind leading  
edge of stop line

Inductive Loop

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<br>Lead-in<br>ft | Number<br>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:<br>Transportation Mobility and Safety Division<br>STATE OF NORTH CAROLINA<br>Signal Design Section |                         | Typical Signal Loop Locations<br>PLAN DATE: January 2015<br>REVIEWED BY: JPG<br>PREPARED BY: PLA<br>REVIEWED BY: | SEAL<br>NORTH CAROLINA<br>PROFESSIONAL ENGINEER<br>PAMELA L. ALEXANDER<br>SEAL 23489<br>1/30/2015 |
|  | SCALE<br>N/A   | REVISIONS<br>INIT. DATE |  |   |