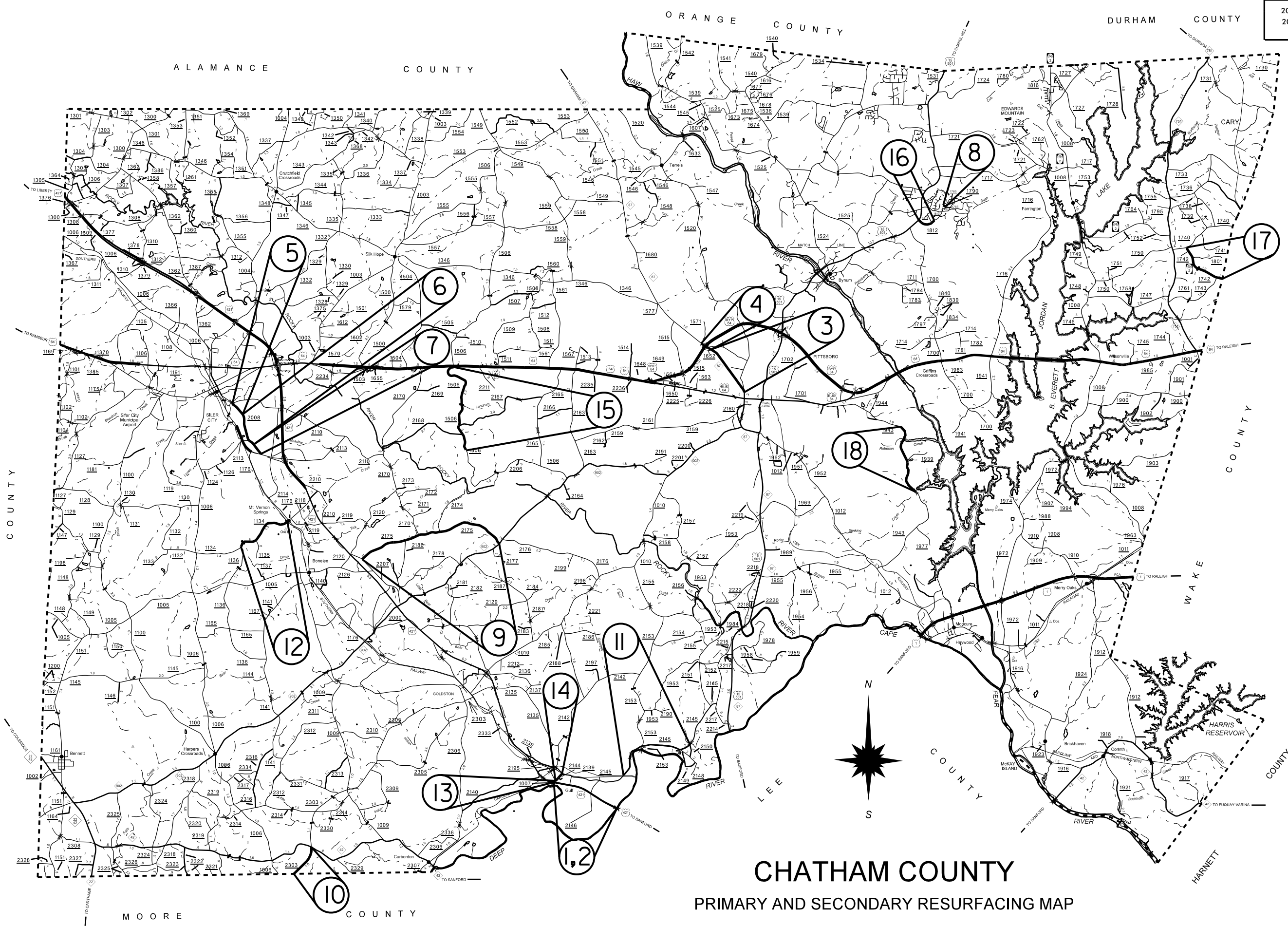


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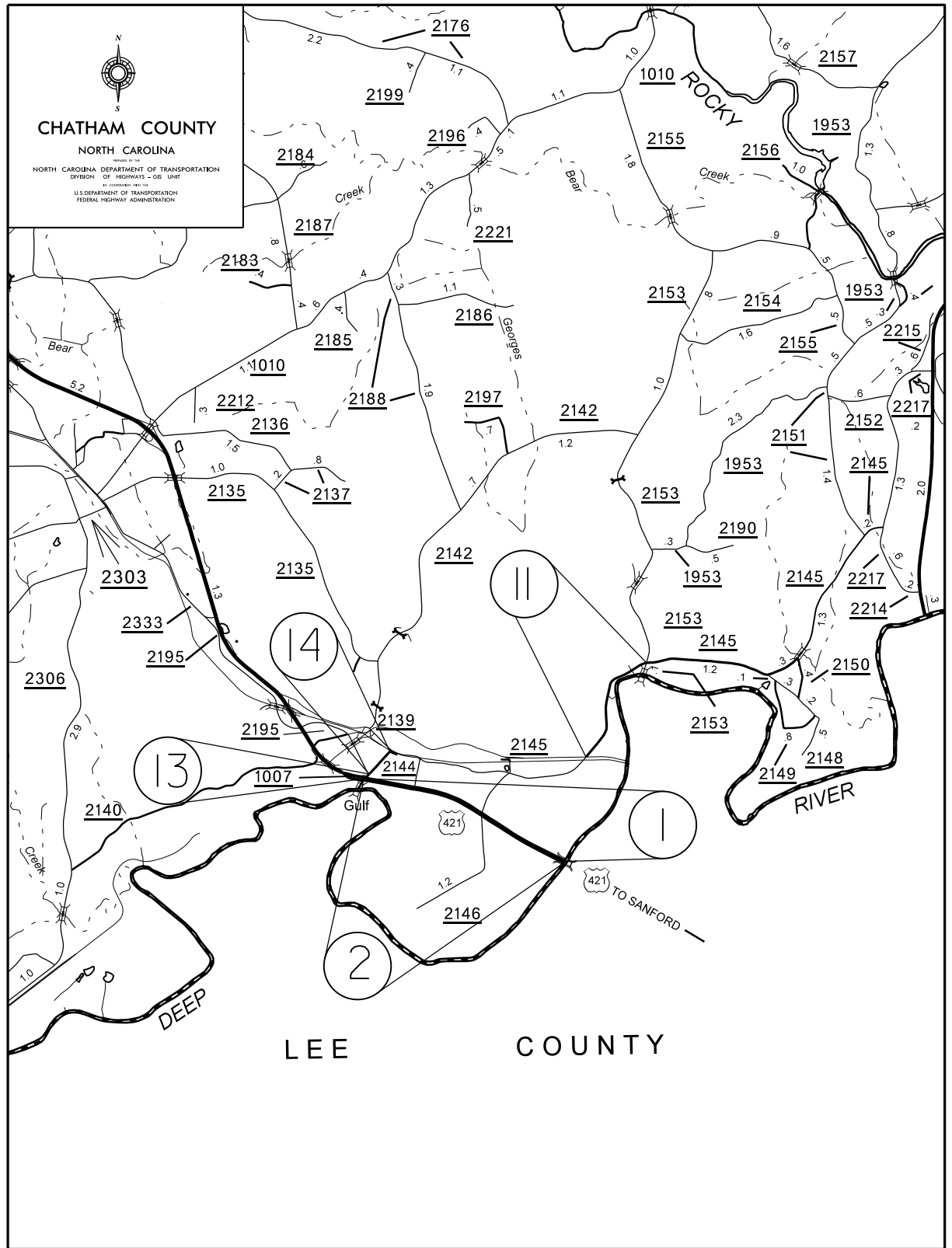
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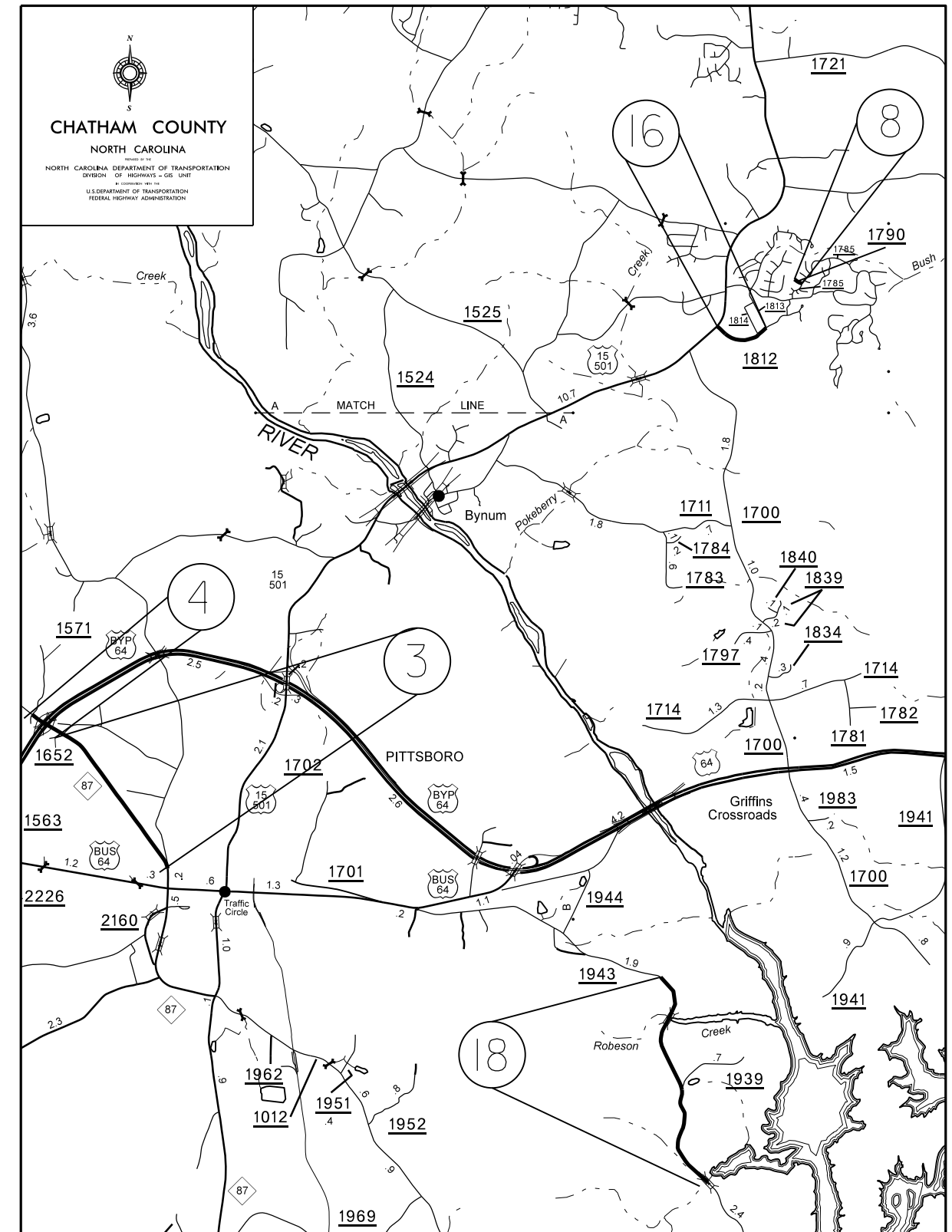
**CHATHAM COUNTY**  
PRIMARY AND SECONDARY RESURFACING MAP

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 23-MAY-2015 11:08:15 Submittal\2015\_chatham resurfacing\_SPRING-overview map\_3yr.dgn  
 User: chatham\j...

### MAPS #1, #2, #11, #13 & #14

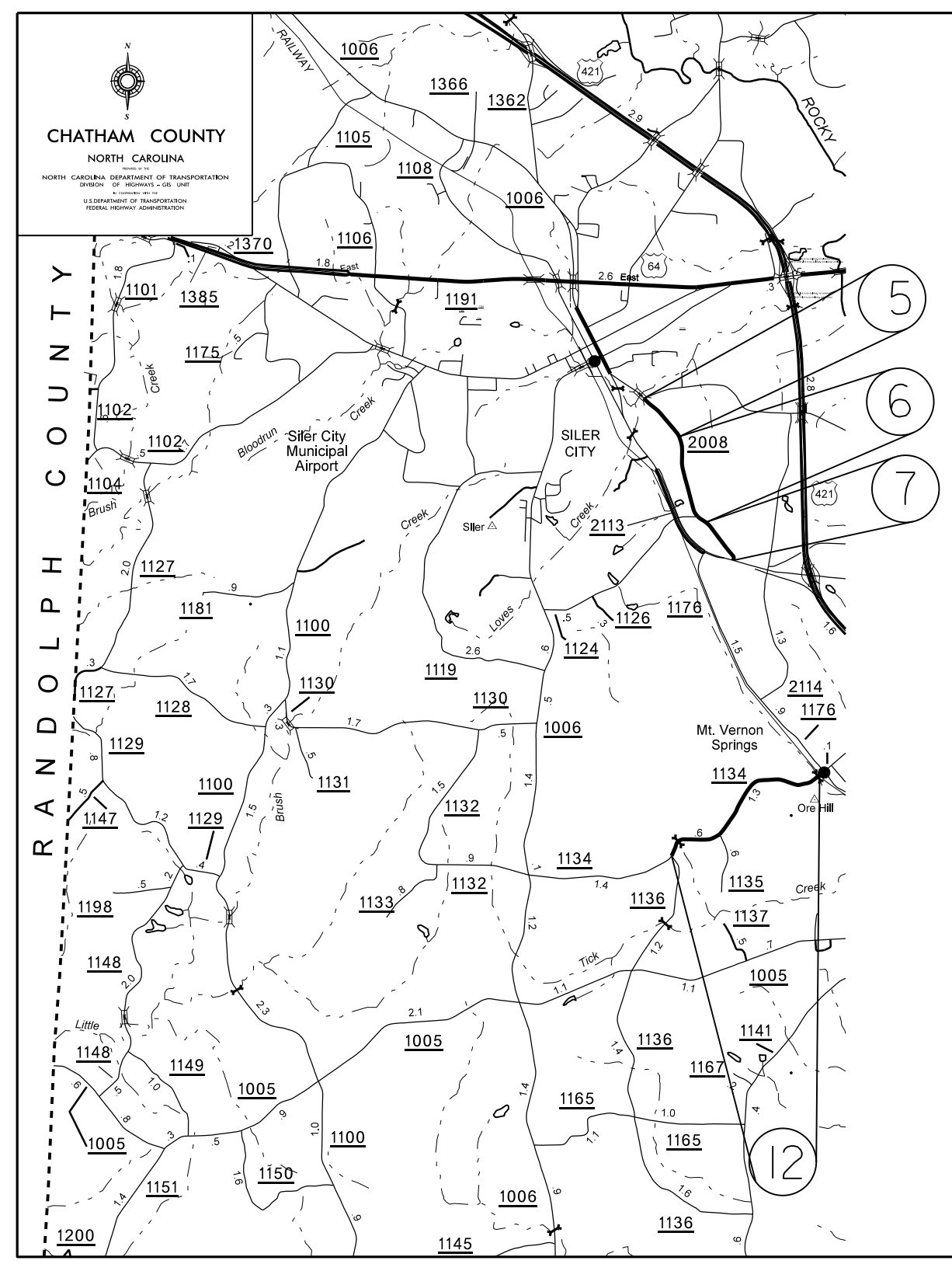


### MAPS #3, #4, #8, #16 & #18

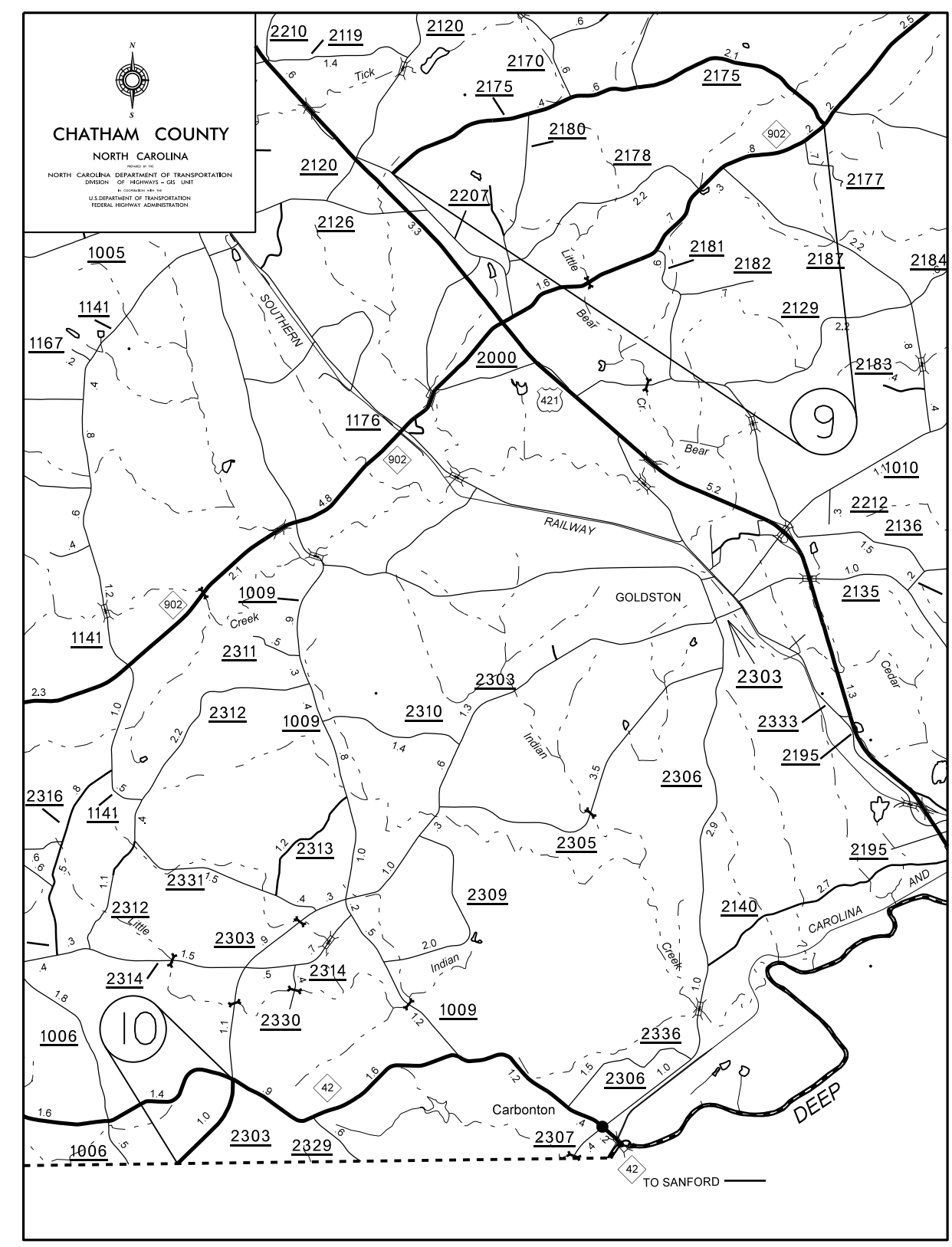


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### MAPS #5 - #7 & #12



### MAPS #9 & #10



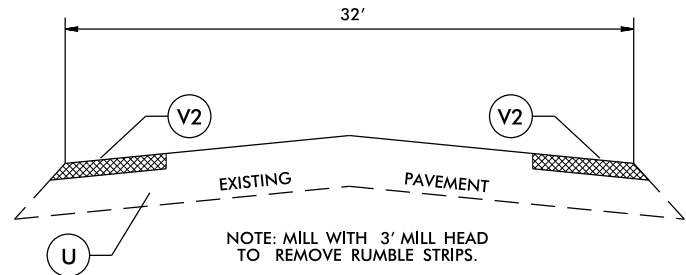
CHATHAM COUNTY  
NORTH CAROLINA  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - GIS UNIT  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

CHATHAM COUNTY  
NORTH CAROLINA  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS - GIS UNIT  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

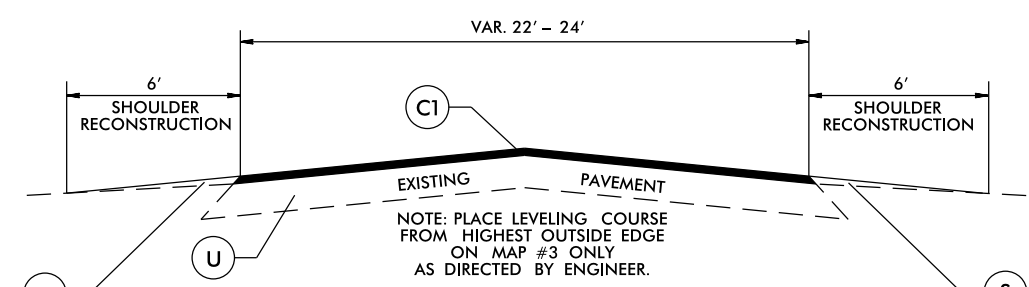
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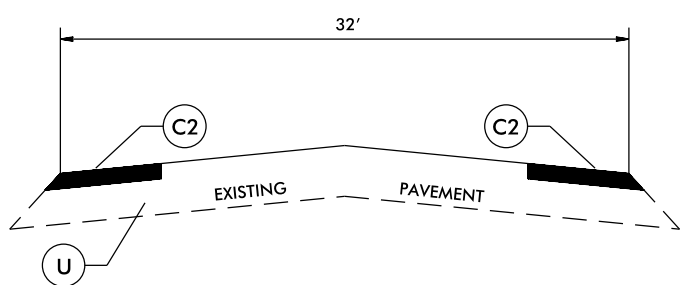




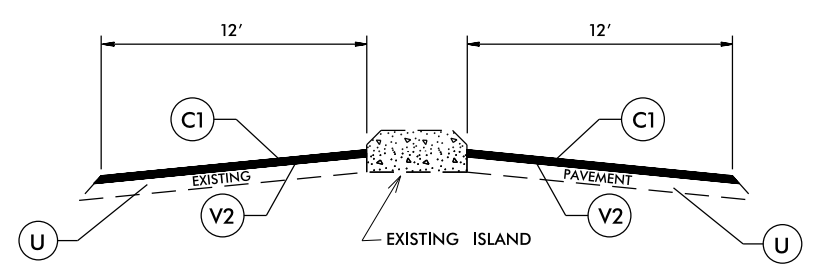
**TYPICAL SECTION NO.1**



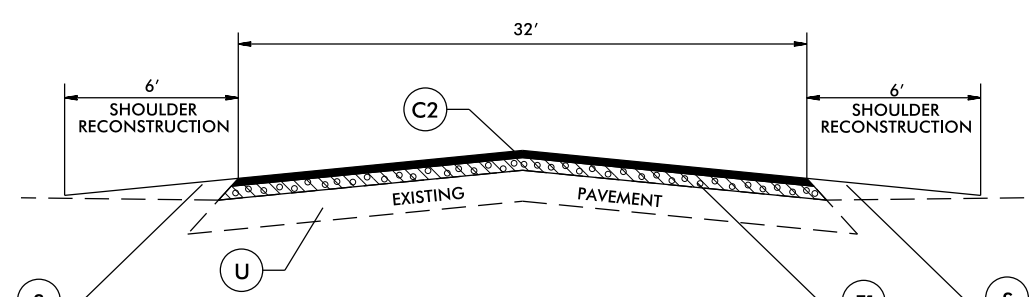
**TYPICAL SECTION NO.4**



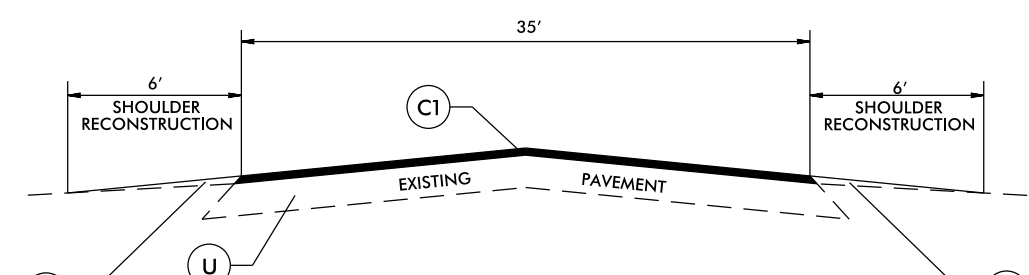
**TYPICAL SECTION NO.2**



**TYPICAL SECTION NO.5**



**TYPICAL SECTION NO.3**

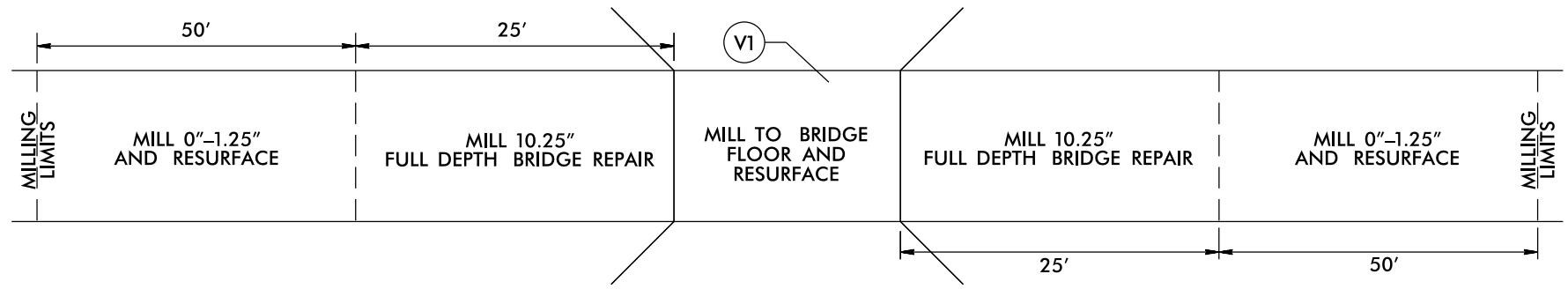


**TYPICAL SECTION NO.6**

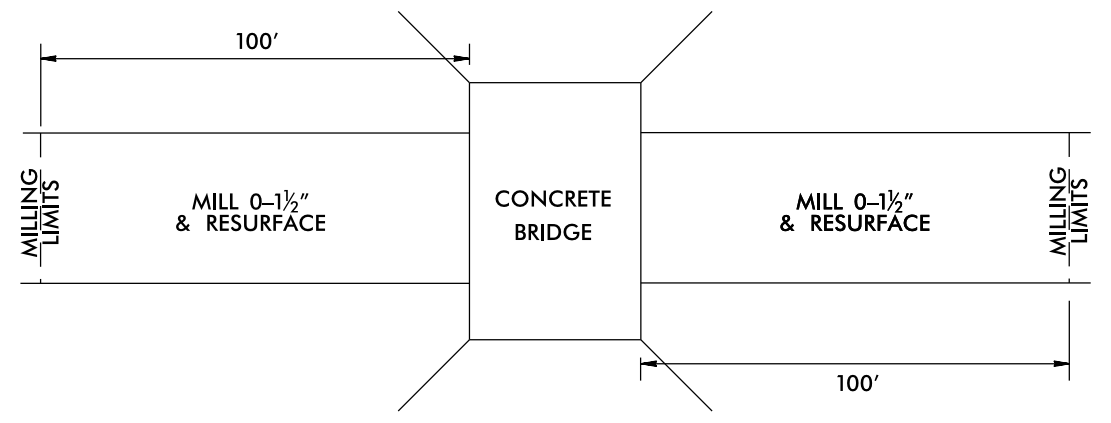
| PAVEMENT SCHEDULE |  |
|-------------------|--|
| C1                | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. |
| C2                | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. |
| F1                | PROPOSED ASPHALT SURFACE TREATMENT, MATCOAT WITH #6M STONE   |
| S                 | AGGREGATE SHOULDER BORROW  |
| U                 | EXISTING PAVEMENT.   |
| V2                | MILLING 1.5" IN DEPTH  |

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**BRIDGE DRAWING FOR SR 2145**  
**USE FOR MAP #11**  
**USE FOR BRIDGE #157**  
 \* SEE INSET NO. 1  
 \*\* USE CAUTION WHEN MILLING  
 BRIDGE HAS STEEL PLANK FLOOR

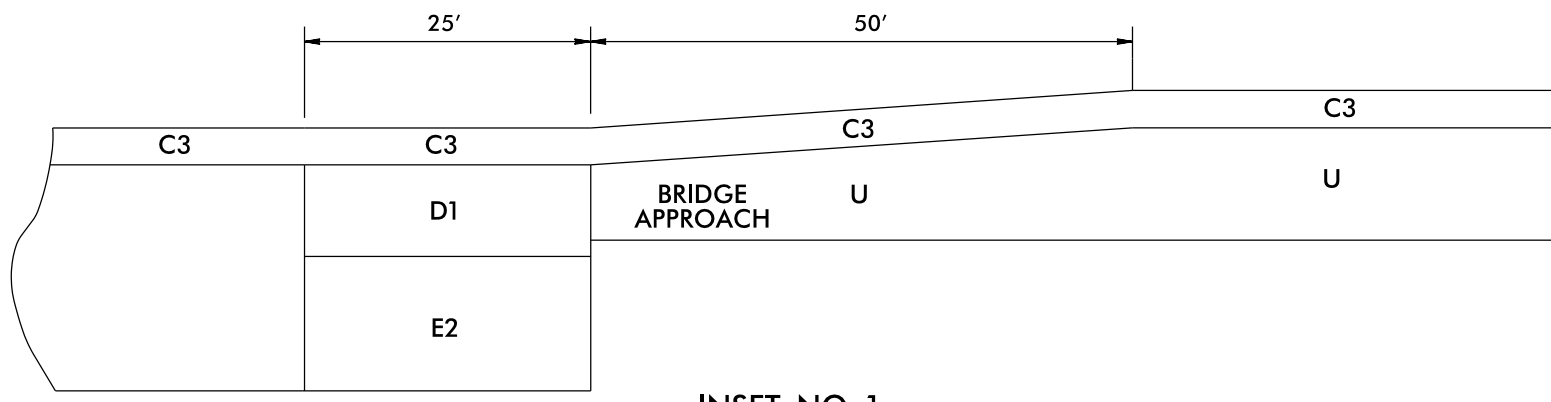
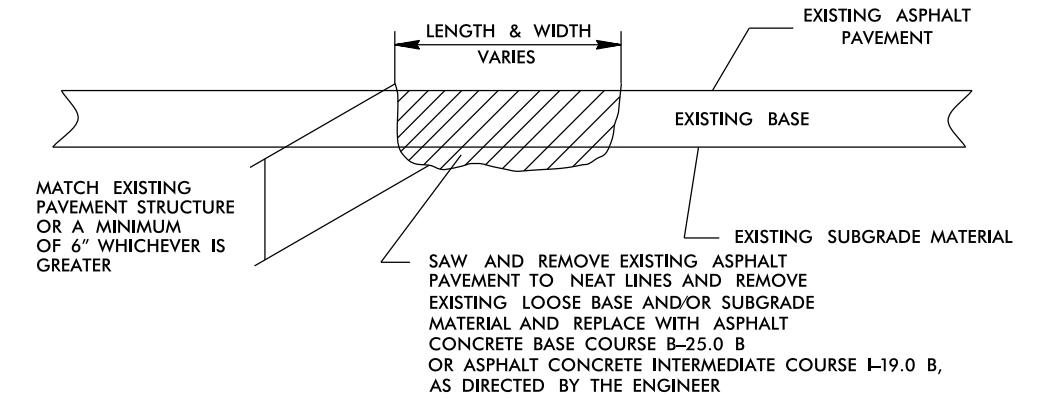


\*MILL 0"-1.5" FOR 100' EACH SIDE OF BRIDGE &  
 MILL 1.5" UNDER BRIDGE TO MAINTAIN CLEARANCE  
 \* MILLING SHALL BE PAID FOR UNDER INCIDENTAL MILLING

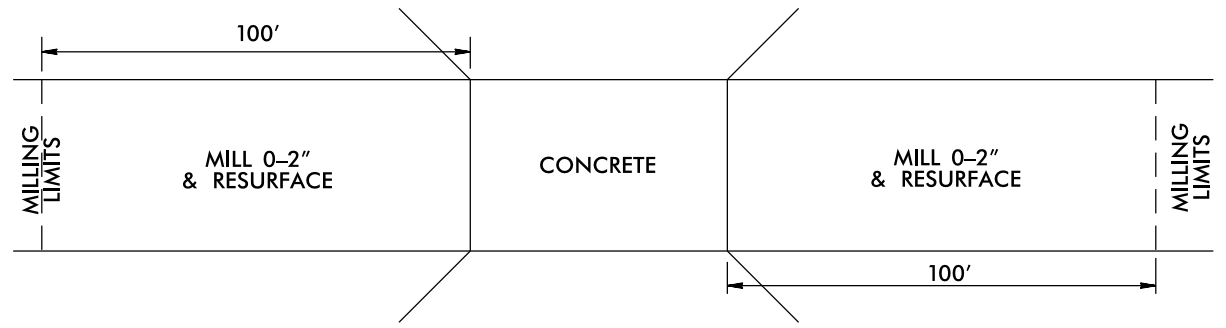
**BRIDGE DRAWING FOR NC 87**  
**USE FOR MAP #4 (BRIDGE #501), (BRIDGE #502)**

**DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING**

**DETAIL**



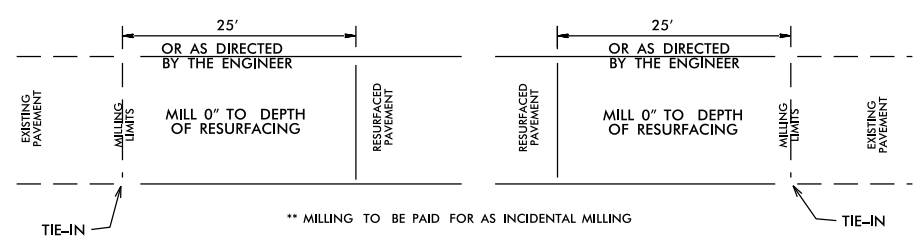
**INSET NO. 1**  
**FULL DEPTH BRIDGE REPAIR**  
**USE FOR MAP #11**  
**BRIDGE #157**



**BRIDGE DRAWING FOR US 421**

**USE FOR MAP #1 (BRIDGE #51), #2 (BRIDGE #50)**

\* MILLING SHALL BE PAID FOR UNDER INCIDENTAL MILLING



**PAVEMENT TIE-IN DETAIL**

**PAVEMENT SCHEDULE**

|    |  |
|----|--|
| C3 | PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. |
| C4 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.    |
| D1 | PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| E1 | PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.       |
| E2 | PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.         |
| F1 | PROPOSED ASPHALT SURFACE TREATMENT, MAT COAT WITH #6M STONE  |
| S  | AGGREGATE SHOULDER BORROW  |
| T  | EARTH MATERIAL.  |
| U  | EXISTING PAVEMENT  |
| V1 | MILLING 1.25" IN DEPTH   |
| V2 | MILLING 1.5" IN DEPTH  |
| Z1 | TRENCHING EXISTING ABC FOR BASE COURSE.  |

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|                             |           |           |
|-----------------------------|-----------|-----------|
| PROJECT NO.                 | SHEET NO. | TOTAL NO. |
| 2016CPT.08.01.10191.1, ETC. | 9         |           |

**SUMMARY OF QUANTITIES**

| PROJECT NO.                            | COUNTY                        | MAP NO.  | ROUTE                             | DESCRIPTION  | TYP     | LANES | LANE TYPE | FINAL SURFACE TESTING REQUIRED | WARM MIX ASPHALT REQUIRED | LENGTH MI | WIDTH FT | BORROW EXCAVATION CY | AGGREGATE SHOULDER BORROW TON | SHOULDER RECONSTRUCTION SMI | 1.5" MILLING SY | 10.25" MILLING SY | 1.25" MILLING SY | 0" TO 1.25" MILLING SY | INCIDENTAL MILLING SY | BASE COURSE, B25.0B TONS | INTER-MEDIATE COURSE, I19.0B TONS | SURFACE COURSE, S9.5B TONS | LEVELING COURSE, S9.5B TONS | SURFACE COURSE, S9.5C TONS | SURFACE COURSE, SF9.5A TONS | ASPHALT CONC SURFACE COURSE, TYPE SF9.5A (LEVELING COURSE) TONS | ASPHALT BINDER FOR PLANT MIX TONS | PATCHING EXISTING PAVEMENT TONS | ASPHALT SURFACE TREATMENT, MATCOAT, #6M STONE SY | EMULSION FOR ASPHALT SURFACE TREATMENT GAL | ADJUST MANHOLES EA | ADJUST METER OR VALVE BOX EA | TEMP SILT FENCE LF | WATTLE LF | SEED & MULCHING AC |    |    |      |
|--|-------------------------------|--|-----------------------------------|--|---------|-------|-----------|--------------------------------|---------------------------|-----------|----------|----------------------|-------------------------------|-----------------------------|-----------------|-------------------|------------------|------------------------|-----------------------|--------------------------|-----------------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|---|-----------------------------------|---------------------------------|--|--|--------------------|------------------------------|--------------------|-----------|--------------------|----|----|------|
| 2016CPT.08.01.10191.1                  | Chatham                       | 1  | US 421 NORTHBOUND                 | FROM LEE CO LINE BRIDGE #51-TO SR 1007 PLANK RD.   | 1, 2, 3 | 2     | MD        | NO                             | NO                        | 1.96      | 32       |                      | 393                           | 3.93                        | 170             |                   |                  |                        | 1,333                 |                          |                                   |                            |                             | 3,940                      |                             |   | 232                               | 120                             | 38,000   | 15,200                                     |                    |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 1</b>   |                                   |  |         |       |           |                                |                           |           | 1.96     |                      |                               | 393                         | 3.93            | 170               |                  |                        |                       | 1,333                    |                                   |                            |                             |                            | 3,940                       |   |                                   | 232                             | 120  | 38,000                                     | 15,200             |                              |                    |           |                    |    |    |      |
|  |                               | 2  | US 421 SOUTHBOUND                 | FROM SR 1007 PLANK RD-TO LEE COUNTY LINE BRIDGE #50  | 1, 2, 3 | 2     | MD        | NO                             | NO                        | 1.96      | 32       |                      |                               | 392                         | 3.92            | 170               |                  |                        |                       | 1,292                    |                                   |                            |                             |                            | 3,940                       |   |                                   | 232                             | 80   | 38,000                                     | 15,200             |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 2</b>   |                                   |  |         |       |           |                                |                           |           | 1.96     |                      |                               |                             | 392             | 3.92              | 170              |                        |                       |                          | 1,292                             |                            |                             |                            |                             | 3,940   |                                   |                                 | 232  | 80   | 38,000             | 15,200                       |                    |           |                    |    |    |      |
| 2016CPT.08.01.10191.1                  | Chatham                       | 3  | NC 87                             | FROM PVT. JT. O.098 MI N. OF ROUDABOUT-TO SR1652 JENNY'S WAY RD.                               | 4       | 2     | MU        | NO                             | NO                        | 1.426     | 24       |                      | 286                           | 2.85                        |                 |                   |                  |                        | 333                   |                          |                                   |                            | 1,855                       | 800                        |                             |   | 280                               | 200                             |  |  |                    |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 3</b>   |                                   |  |         |       |           |                                |                           | 1.426     |          |                      |                               | 286                         | 2.85            |                   |                  |                        |                       | 333                      |                                   |                            |                             | 1,855                      | 800                         |   |                                   | 280                             | 200  |  |                    |                              |                    |           |                    |    |    |      |
|  |                               | 4  | NC 87                             | FROM SR 1652 JENNY'S WAY- TO SR 1571 SOLOMAN DEGRAFERIRIDT RD.                                 | 4, 5, 6 | 2     | MU        | NO                             | NO                        | 0.341     | 24-35    |                      |                               | 68                          | 0.68            | 166               |                  |                        |                       | 583                      |                                   |                            |                             | 800                        |                             |   |                                   | 114                             | 20   |  |                    |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 4</b>   |                                   |  |         |       |           |                                |                           |           | 0.341    |                      |                               |                             | 68              | 0.68              | 166              |                        |                       |                          | 583                               |                            |                             |                            | 800                         |   |                                   |                                 | 114  | 20   |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR PROJ NO. 8CR.10191.27</b> |                               |  |                                   |  |         |       |           |                                |                           | 5.687     |          |                      | 1,139                         | 11.38                       | 506             |                   |                  |                        | 3,541                 |                          |                                   | 2,655                      | 800                         | 7,880                      |                             |   | 858                               | 420                             | 76,000   | 30,400                                     |                    |                              |                    |           |                    |    |    |      |
| 2016CPT.08.01.20191.1                  | Chatham                       | 5  | SR 2008 (S SECOND AVE)            | FROM PVT JT 320 FT S OF SR 2110 (ALSTON BRIDGE RD) TO GREENHILL DR                             | 7       | 2     | 2WU       | NO                             | NO                        | 0.278     | 18       |                      | 78                            | 0.56                        | 2,936           |                   |                  |                        | 100                   |                          |                                   |                            |                             |                            | 268                         |   |                                   | 18                              |  |  |                    |                              | 2                  | 1         |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 5</b>   |                                   |  |         |       |           |                                |                           |           | 0.278    |                      |                               | 78                          | 0.56            | 2,936             |                  |                        |                       | 100                      |                                   |                            |                             |                            |                             | 268   |                                   |                                 | 18   |  |                    |                              |                    | 2         | 1                  |    |    |      |
|  |                               | 6  | SR 2008 (S SECOND AVE)            | FROM GREENHILL DR TO N. MOST SCHOOL DRIVEWAY   | 7, 8, 9 | 2     | 2WU       | NO                             | NO                        | 0.504     | 20       |                      |                               | 56                          | 0.55            | 5,911             |                  |                        |                       | 111                      | 190                               |                            |                             |                            |                             | 550   |                                   |                                 | 45   |  |                    |                              |                    | 1         | 1                  |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 6</b>   |                                   |  |         |       |           |                                |                           |           | 0.504    |                      |                               | 56                          | 0.55            | 5,911             |                  |                        |                       | 111                      | 190                               |                            |                             |                            |                             | 550   |                                   |                                 | 45   |  |                    |                              |                    | 1         | 1                  |    |    |      |
|  |                               | 7  | SR 2008 (S SECOND AVE)            | FROM N MOST SCHOOL DRIVEWAY TO SR 2113 (S CHATHAM AVE)   | 10      | 2     | 2WU       | NO                             | NO                        | 0.902     | 18       |                      |                               | 181                         | 1.80            |                   |                  |                        |                       | 200                      |                                   |                            |                             |                            |                             | 725   |                                   | 49                              | 100  | 10,050                                     | 4,020              |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 7</b>   |                                   |  |         |       |           |                                |                           |           | 0.902    |                      |                               | 181                         | 1.80            |                   |                  |                        |                       | 200                      |                                   |                            |                             |                            |                             | 725   |                                   | 49                              | 100  | 10,050                                     | 4,020              |                              |                    |           |                    |    |    |      |
|  |                               | 8  | SR 1790 (WINDLESTRAW ST)          | FROM SR 1785 (BEECHMAST ST) TO CUL-DE-SAC  | 11      | 2     | 2WU       | NO                             | NO                        | 0.07      | 18       | 11                   |                               |                             | 0.14            |                   |                  |                        |                       | 55                       |                                   |                            |                             |                            |                             | 56  |                                   | 4                               |  |  |                    |                              | 20                 | 50        | 0.10               |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 8</b>   |                                   |  |         |       |           |                                |                           |           | 0.07     | 11                   |                               |                             | 0.14            |                   |                  |                        |                       | 55                       |                                   |                            |                             |                            |                             | 56  |                                   | 4                               |  |  |                    | 20                           | 50                 | 0.10      |                    |    |    |      |
|  |                               | 9  | SR 2175 (MCLAURIN RD)             | FROM SR 2207 SANDY BRANCH CHURCH RD TO NC 902  | 12      | 2     | 2WU       | NO                             | NO                        | 4.54      | 17       |                      |                               | 1,272                       | 9.08            |                   |                  |                        |                       | 463                      |                                   |                            |                             |                            |                             | 3,445   |                                   | 231                             | 80   | 45,300                                     | 18,120             |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 9</b>   |                                   |  |         |       |           |                                |                           |           | 4.54     |                      |                               | 1,272                       | 9.08            |                   |                  |                        |                       | 463                      |                                   |                            |                             |                            |                             | 3,445   |                                   | 231                             | 80   | 45,300                                     | 18,120             |                              |                    |           |                    |    |    |      |
|  |                               | 10   | SR 2303 (GOLDSTON GLENDON RD)     | FROM NC HWY 42 TO MOORE COUNTY LINE  | 12      | 2     | 2WU       | NO                             | NO                        | 0.99      | 18       |                      |                               | 278                         | 1.98            |                   |                  |                        |                       | 110                      |                                   |                            |                             |                            |                             | 955   |                                   | 64                              | 100  | 10,500                                     | 4,200              |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 10</b>  |                                   |  |         |       |           |                                |                           |           | 0.99     |                      |                               | 278                         | 1.98            |                   |                  |                        |                       | 110                      |                                   |                            |                             |                            |                             | 955   |                                   | 64                              | 100  | 10,500                                     | 4,200              |                              |                    |           |                    |    |    |      |
|  |                               | 11   | SR 2145 (R. JORDAN RD)            | FROM SR 2150 (CURT DOWDY RD) TO RAILROAD CROSSING (.77 MI E OF SR 2146 (CLARENCE MCKEITHAN RD) | 13      | 2     | 2WU       | NO                             | NO                        | 2.59      | 18       |                      |                               | 726                         | 5.18            |                   | 100              | 450                    | 200                   | 135                      | 30                                | 24                         |                             |                            |                             | 2,080   |                                   | 142                             | 180  |  |                    |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 11</b>  |                                   |  |         |       |           |                                |                           |           | 2.59     |                      |                               | 726                         | 5.18            |                   | 100              | 450                    | 200                   | 135                      | 30                                | 24                         |                             |                            |                             | 2,080   |                                   | 142                             | 180  |  |                    |                              |                    |           |                    |    |    |      |
|  |                               | 12   | SR 1134 (MOUNT VERNON SPRINGS RD) | FROM SR 1136 (PETTY RD) TO SR 1176 (OLD US 421 SOUTH)  | 12      | 2     | 2WU       | NO                             | NO                        | 1.81      | 17       |                      |                               | 507                         | 3.62            |                   |                  |                        |                       | 419                      |                                   |                            |                             |                            |                             | 1,374   |                                   | 92                              | 200  | 17,000                                     | 6,800              |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 12</b>  |                                   |  |         |       |           |                                |                           |           | 1.81     |                      |                               | 507                         | 3.62            |                   |                  |                        |                       | 419                      |                                   |                            |                             |                            |                             | 1,374   |                                   | 92                              | 200  | 17,000                                     | 6,800              |                              |                    |           |                    |    |    |      |
|  |                               | 13   | SR 1007 (FAYETTEVILLE RD)         | FROM US 421 TO SR 2195 (THRIFT RD)   | 14      | 2     | 2WU       | NO                             | NO                        | 0.048     | 20-40    |                      |                               |                             |                 |                   |                  |                        |                       |                          |                                   |                            |                             |                            |                             | 76  |                                   | 5                               | 10   |  |                    |                              |                    |           |                    |    |    |      |
|  |                               | <b>TOTAL FOR MAP NO. 13</b>  |                                   |  |         |       |           |                                |                           |           | 0.048    |                      |                               |                             |                 |                   |                  |                        |                       |                          |                                   |                            |                             |                            |                             | 76  |                                   | 5                               | 10   |  |                    |                              |                    |           |                    |    |    |      |
| 14                                     | SR 2144 (FAYETTEVILLE RD)     | FROM SR 2195 (THRIFT RD) TO SR 2139 (GULF RD)  | 13                                | 2  | 2WU     | NO    | NO        | 0.28                           | 20                        |           |          | 79                   | 0.56                          |                             |                 |                   |                  | 209                    |                       |                          |                                   |                            |                             | 360                        | 100                         | 24  | 80                                |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR MAP NO. 14</b>            |                               |  |                                   |  |         |       |           |                                | 0.28                      |           |          | 79                   | 0.56                          |                             |                 |                   |                  | 209                    |                       |                          |                                   |                            |                             | 360                        | 100                         | 24  | 80                                |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| 15                                     | SR 1506 (PLEASANT HILL CH RD) | FROM US 64 TO END PVT  | 13                                | 2  | 2WU     | NO    | NO        | 3.15                           | 20                        |           |          | 882                  | 6.30                          |                             |                 |                   |                  | 222                    |                       |                          |                                   |                            |                             | 2,810                      |                             | 188   | 200                               |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR MAP NO. 15</b>            |                               |  |                                   |  |         |       |           |                                | 3.15                      |           |          | 882                  | 6.30                          |                             |                 |                   |                  | 222                    |                       |                          |                                   |                            |                             | 2,810                      |                             | 188   | 200                               |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| 16                                     | SR 1812 (WEATHERSFIELD RD)    | FROM US 15-501 TO SR 1813 (CAMDEN RD)  | 13                                | 2  | 2WU     | NO    | NO        | 0.5                            | 20                        |           |          | 140                  | 1.00                          |                             |                 |                   |                  | 500                    |                       |                          |                                   |                            |                             | 597                        |                             | 40  | 50                                |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR MAP NO. 16</b>            |                               |  |                                   |  |         |       |           |                                | 0.5                       |           |          | 140                  | 1.00                          |                             |                 |                   |                  | 500                    |                       |                          |                                   |                            |                             | 597                        |                             | 40  | 50                                |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| 17                                     | SR 1742 (GREEN LEVEL RD)      | FROM SR 1740 (LEWTER SHOP RD) TO WAKE CO. LINE   | 13                                | 2  | 2WU     | NO    | NO        | 1.511                          | 18                        |           |          | 423                  | 3.02                          |                             |                 |                   |                  | 200                    |                       |                          |                                   |                            |                             | 1,214                      |                             | 81  | 250                               |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR MAP NO. 17</b>            |                               |  |                                   |  |         |       |           |                                | 1.511                     |           |          | 423                  | 3.02                          |                             |                 |                   |                  | 200                    |                       |                          |                                   |                            |                             | 1,214                      |                             | 81  | 250                               |                                 |  |  |                    |                              |                    |           |                    |    |    |      |
| 18                                     | SR 1943 (HANKS CHAPEL RD)     | FROM BEGIN BST (1.142MI SE OF SR 1944 (DEE FERRELL RD) TO N SIDE OF BRIDGE #36 (OVER STINKING CREEK) | 12                                | 2  | 2WU     | NO    | NO        | 2.1                            | 20                        |           |          | 588                  | 4.20                          |                             |                 |                   |                  | 615                    |                       |                          |                                   |                            |                             | 1,873                      |                             | 125   | 520                               | 25,000                          | 10,000   |  |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR MAP NO. 18</b>            |                               |  |                                   |  |         |       |           |                                | 2.1                       |           |          | 588                  | 4.20                          |                             |                 |                   |                  | 615                    |                       |                          |                                   |                            |                             | 1,873                      |                             | 125   | 520                               | 25,000                          | 10,000   |  |                    |                              |                    |           |                    |    |    |      |
| <b>TOTAL FOR PROJ NO. 8CR.20191.27</b> |                               |  |                                   |  |         |       |           |                                |                           | 19.273    |          | 11                   | 5,210                         | 37.99                       | 8,847           | 100               | 1,600            | 200                    | 3,339                 | 220                      | 24                                |                            |                             |                            | 16,383                      | 100   | 1,108                             | 1,770                           | 107,850  | 43,140                                     | 3                  | 2                            | 20                 | 50        | 0.10               |    |    |      |
| <b>GRAND TOTAL</b>                     |                               |  |                                   |  |         |       |           |                                |                           | 24.96     |          | 11                   | 6,349                         | 49.37                       | 9,353           | 100               | 1,600            | 200                    | 6,880                 | 220                      | 24                                |                            |                             |                            | 2,655                       | 800   | 7,880                             | 16,383                          | 100  | 1,966                                      | 2,190              | 183,850                      | 73,540             | 3         | 2                  | 20 | 50 | 0.10 |

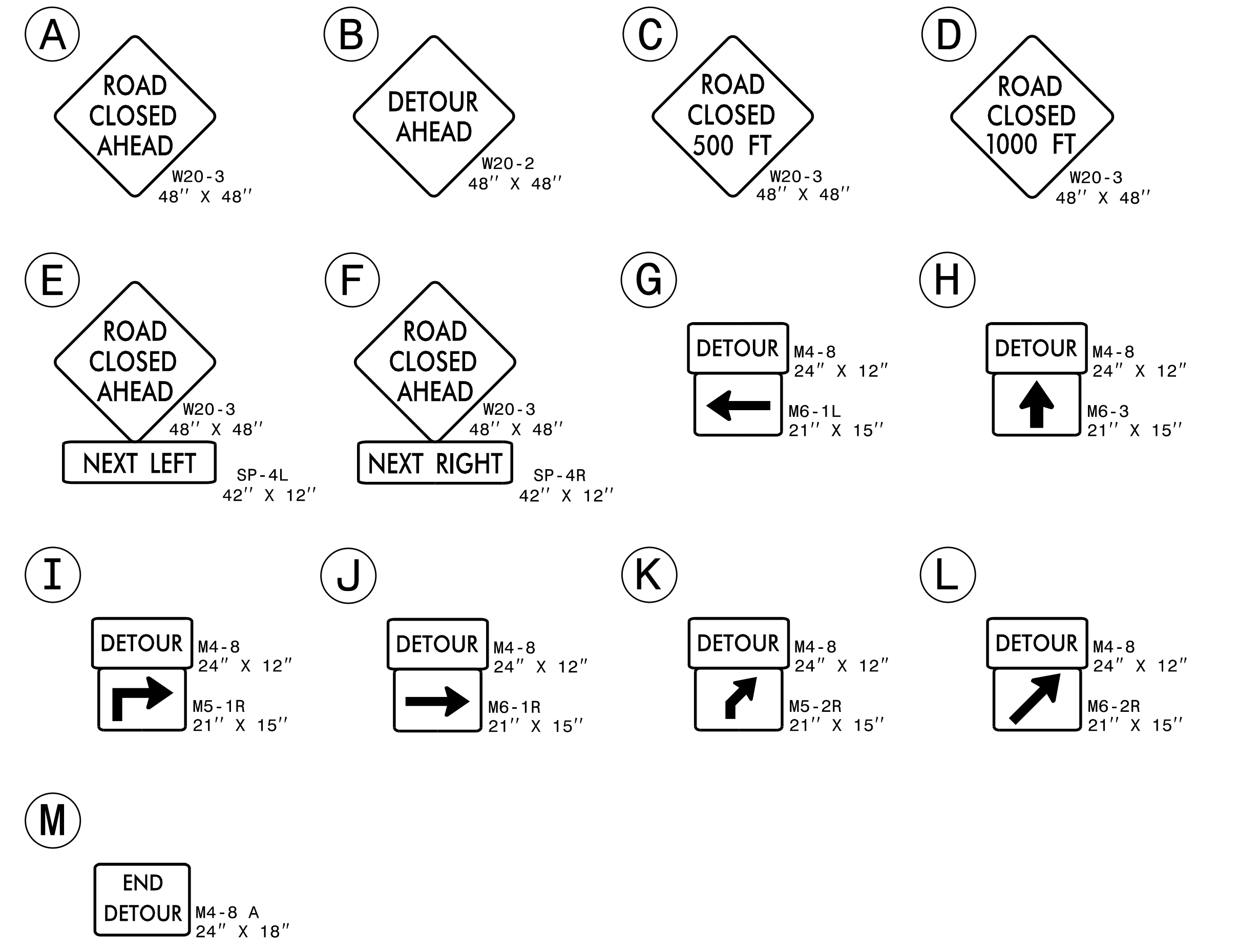
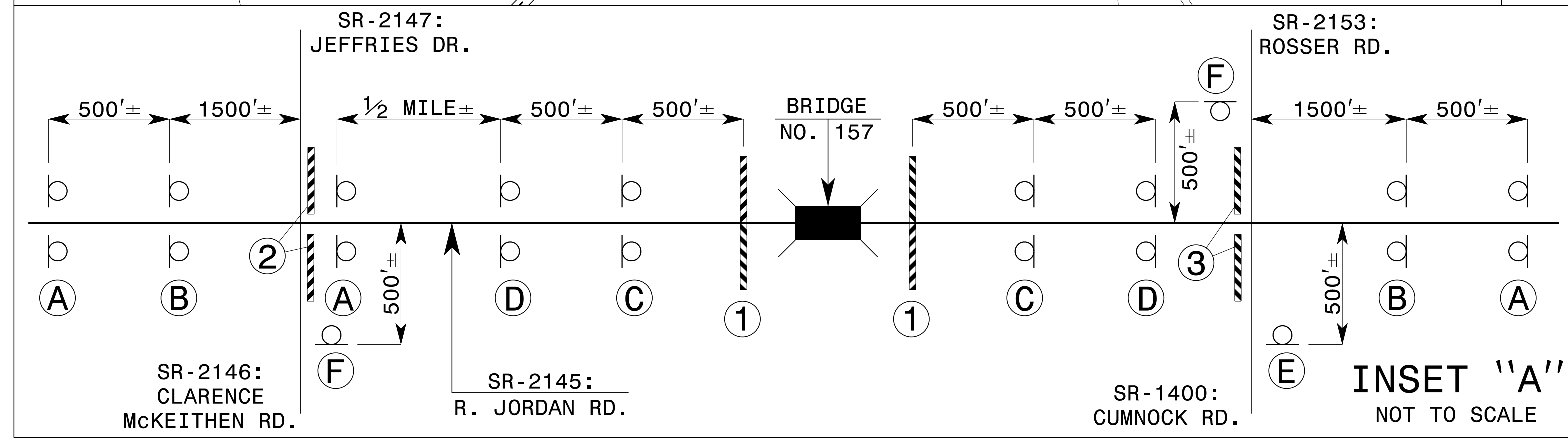
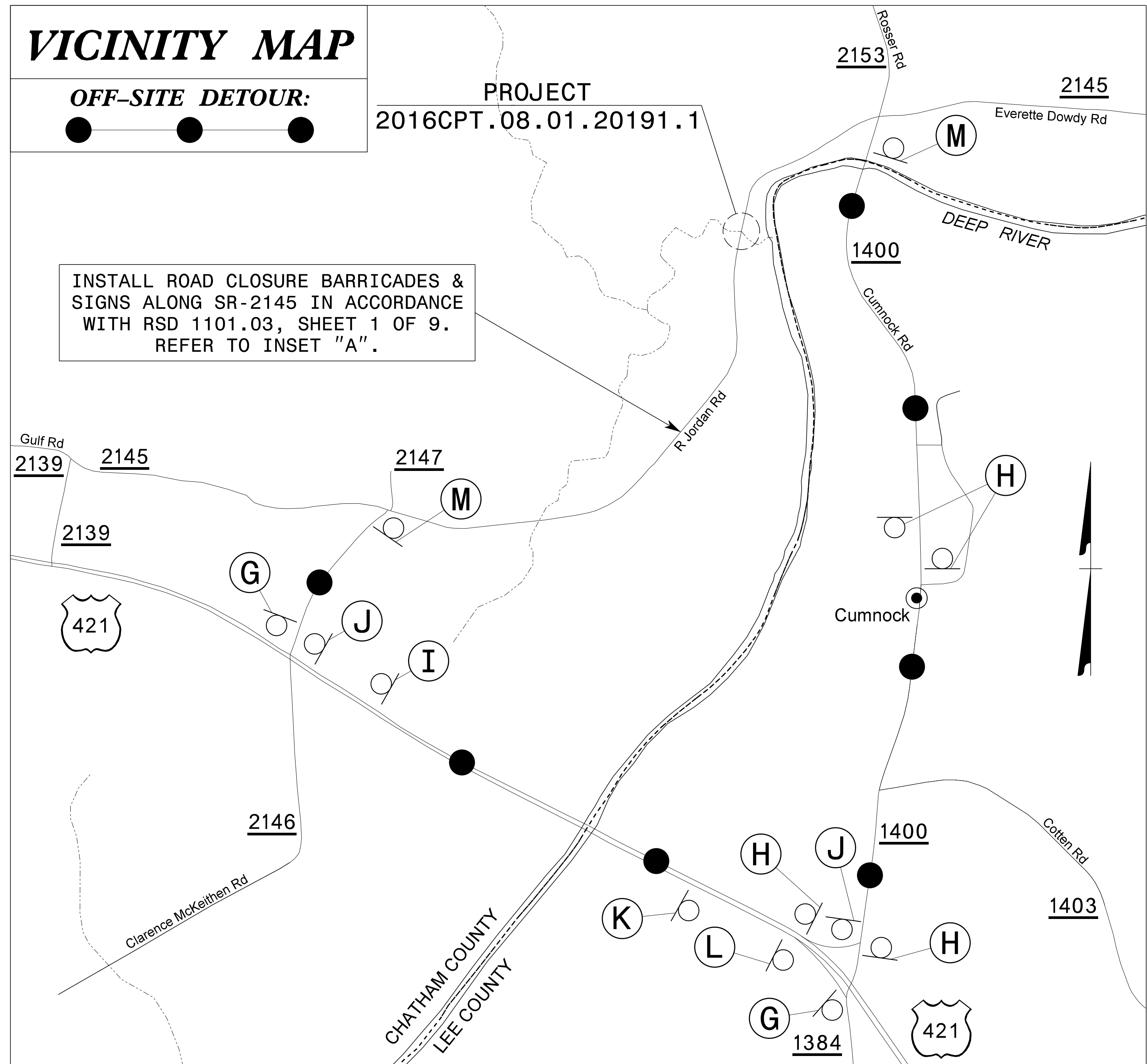


# VICINITY MAP

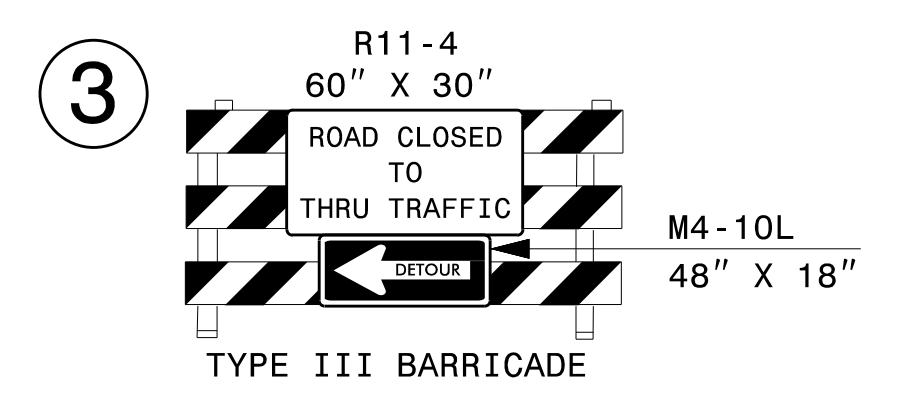
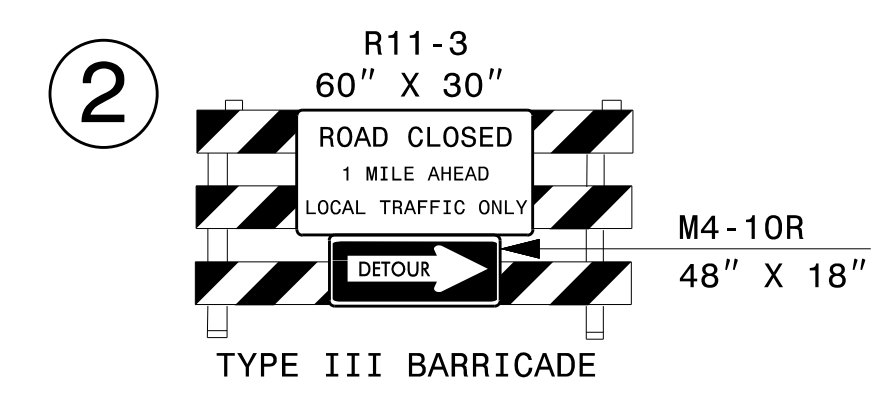
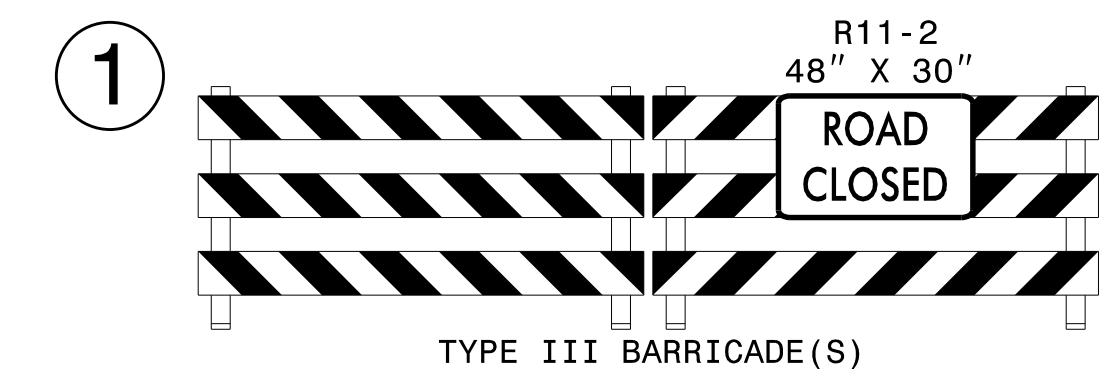
**OFF-SITE DETOUR:**

**PROJECT**  
2016CPT.08.01.20191.1

INSTALL ROAD CLOSURE BARRICADES & SIGNS ALONG SR-2145 IN ACCORDANCE WITH RSD 1101.03, SHEET 1 OF 9. REFER TO INSET "A".

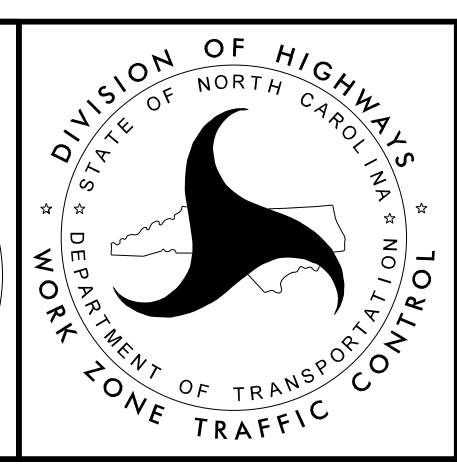


**NOTE:**  
THE CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR FOR PROJECT R-2417AA PRIOR TO PLACEMENT OF DETOUR SIGNING, IN ACCORDANCE WITH SPEC 105-7.



APPROVED: *David Bisette*  
DATE: 5/26/2015

Professional Engineer Seal: 030864, David W. Bisette



**BRIDGE #157**  
**OFF-SITE DETOUR**  
**AND ROAD CLOSURE**

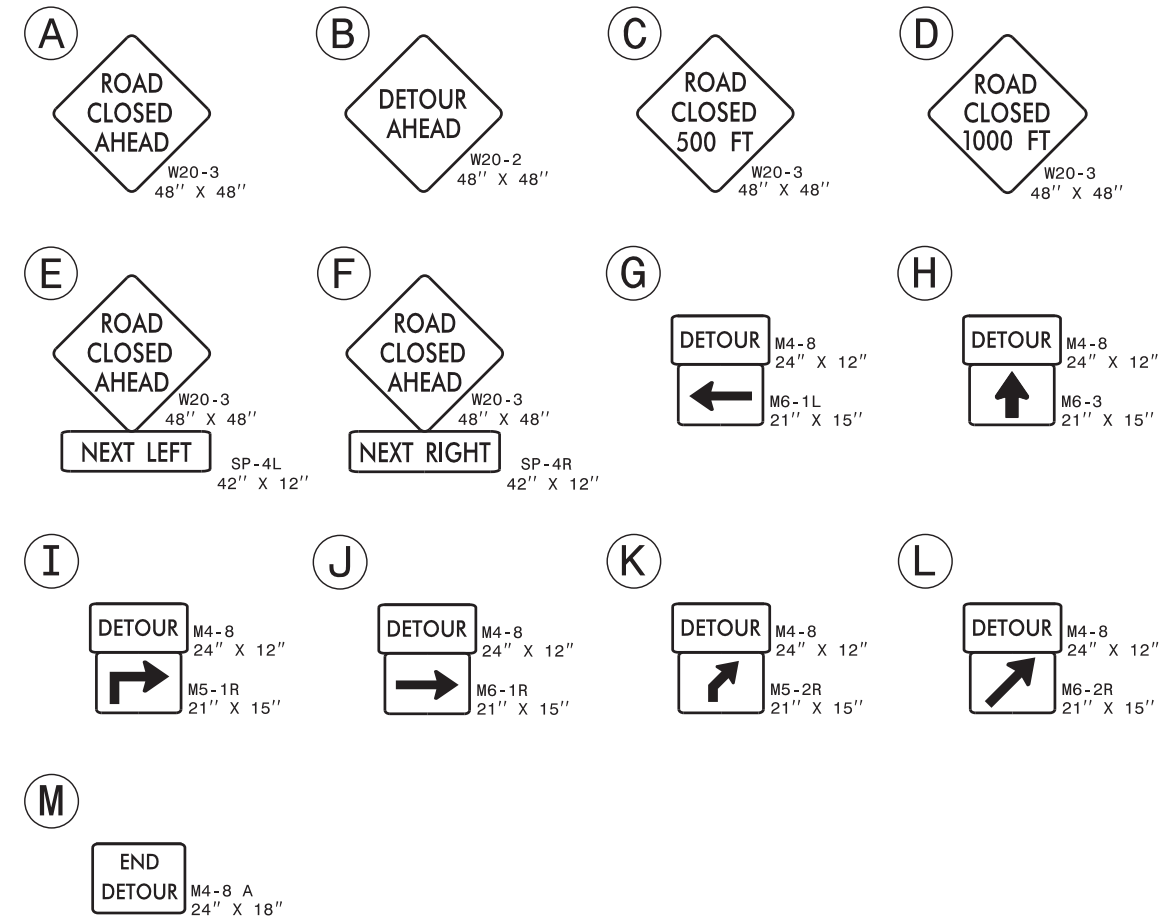
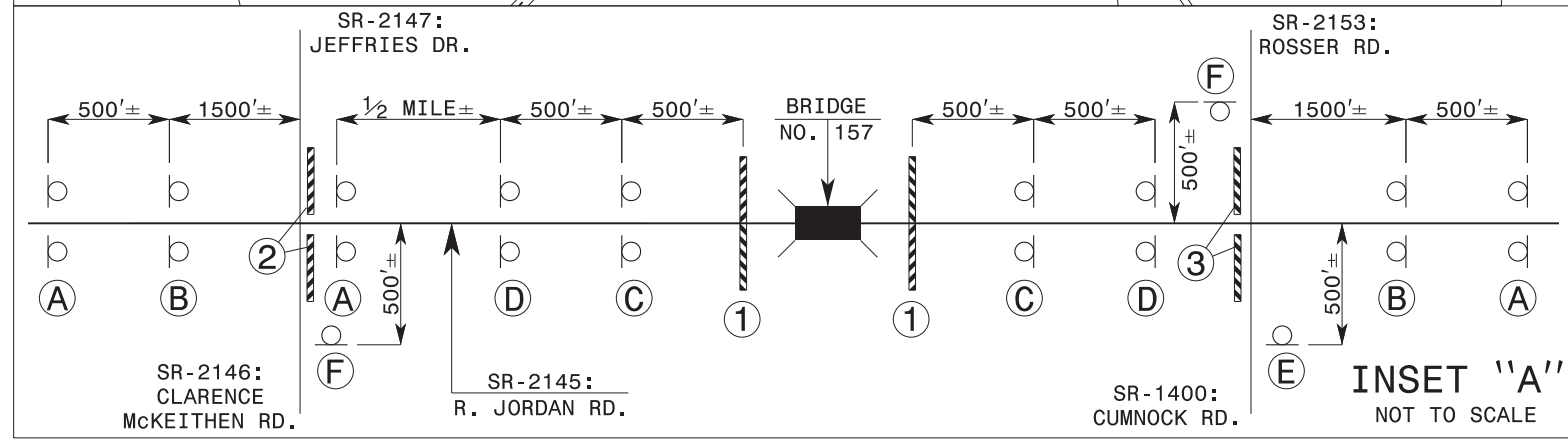
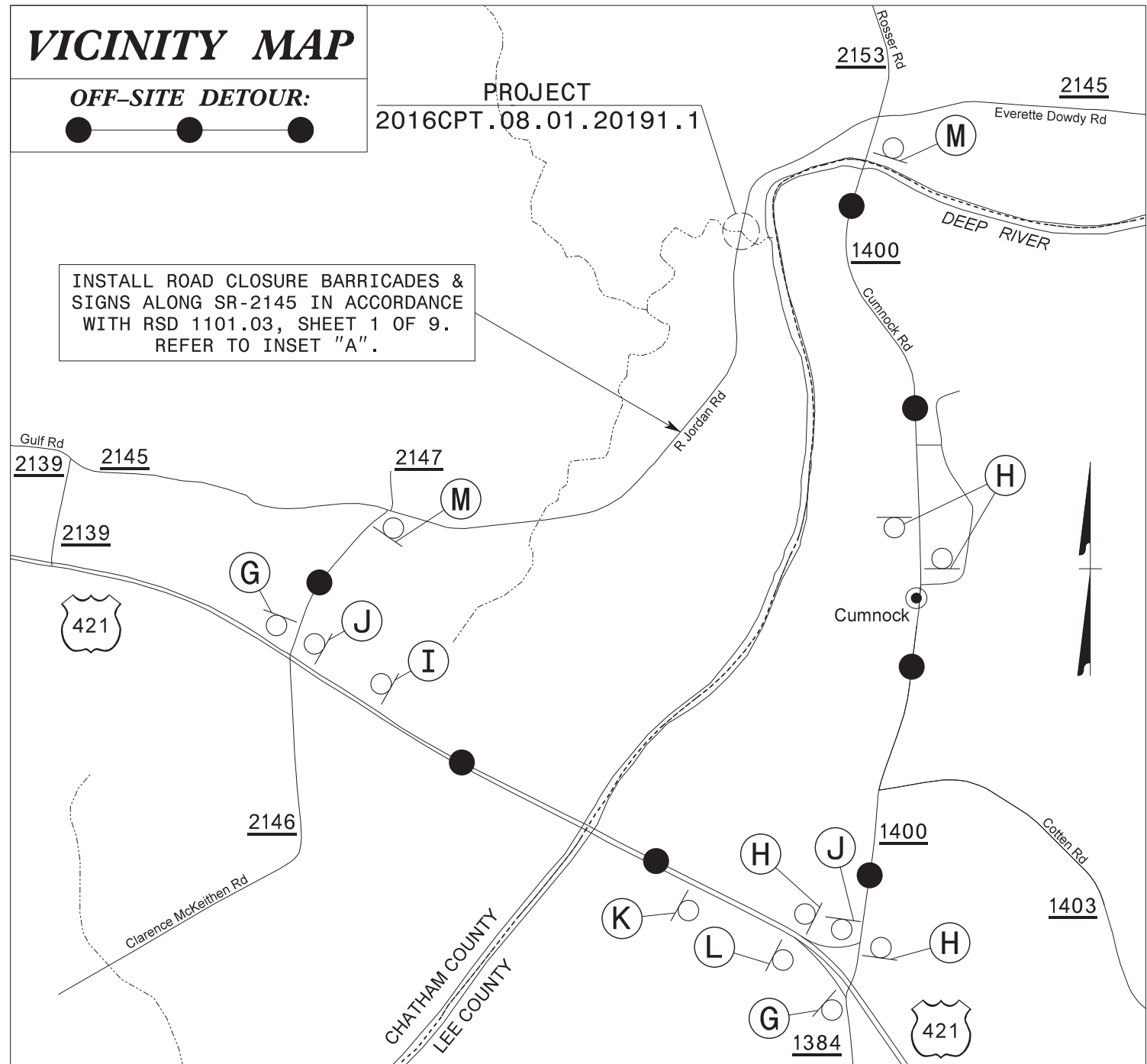
5/26/2015 SR:\TMU\WZTC\Resur-facing\2015 Central\2015 Division 8\8CR\2019\27\_Chattham\_SR-2145\_Off-Site Detour for Bridge Joint Repair.dgn User:ahayes76

# VICINITY MAP

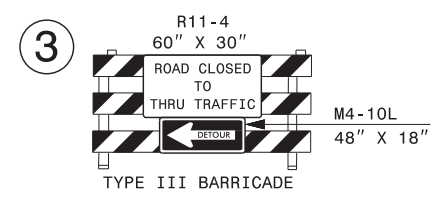
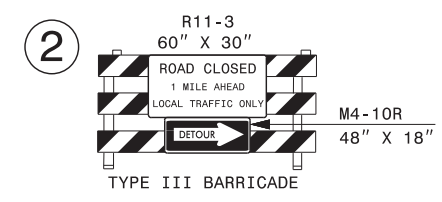
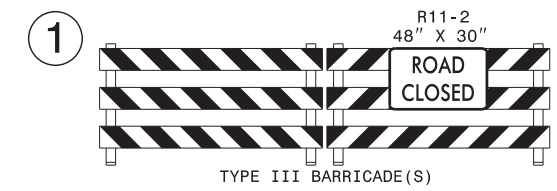
**OFF-SITE DETOUR:**

PROJECT  
2016CPT.08.01.20191.1

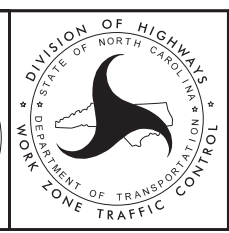
INSTALL ROAD CLOSURE BARRICADES & SIGNS ALONG SR-2145 IN ACCORDANCE WITH RSD 1101.03, SHEET 1 OF 9. REFER TO INSET "A".



**NOTE:**  
THE CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR FOR PROJECT R-2417AA PRIOR TO PLACEMENT OF DETOUR SIGNING, IN ACCORDANCE WITH SPEC 105-7.



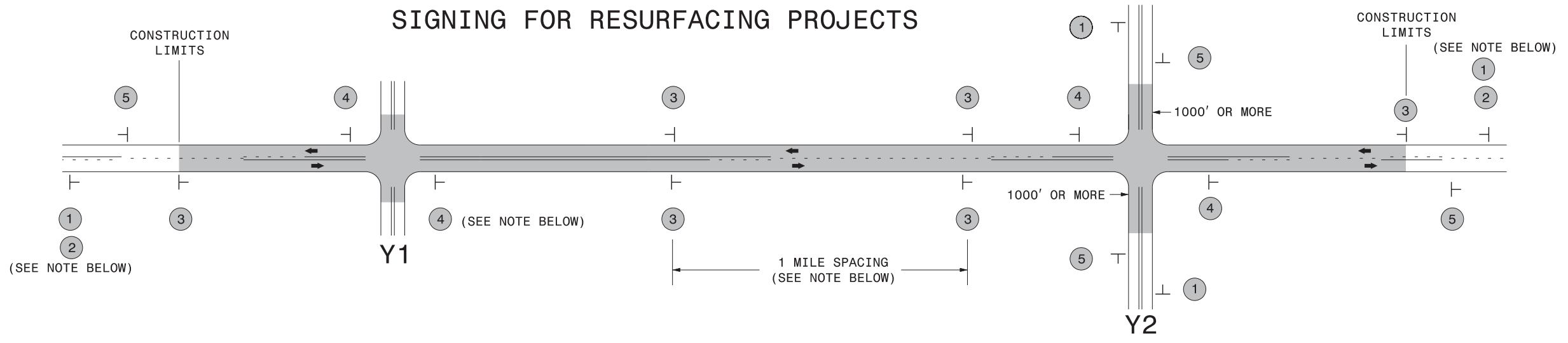
APPROVED *David Bisette*  
DATE: 5/26/2015  
Professional Engineer Seal: 030864, David W. Bisette



**BRIDGE #157  
OFF-SITE DETOUR  
AND ROAD CLOSURE**

5/26/2015 Sr:\TMU\WZTC\Resur-facing\2015 Central\2015 Division 8\8CR\2019\27\_Chattham\_SR-2145\_Off-Site Detour for Bridge Joint Repair.dgn User:ahayes76

# SIGNING FOR RESURFACING PROJECTS



**LEGEND**

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

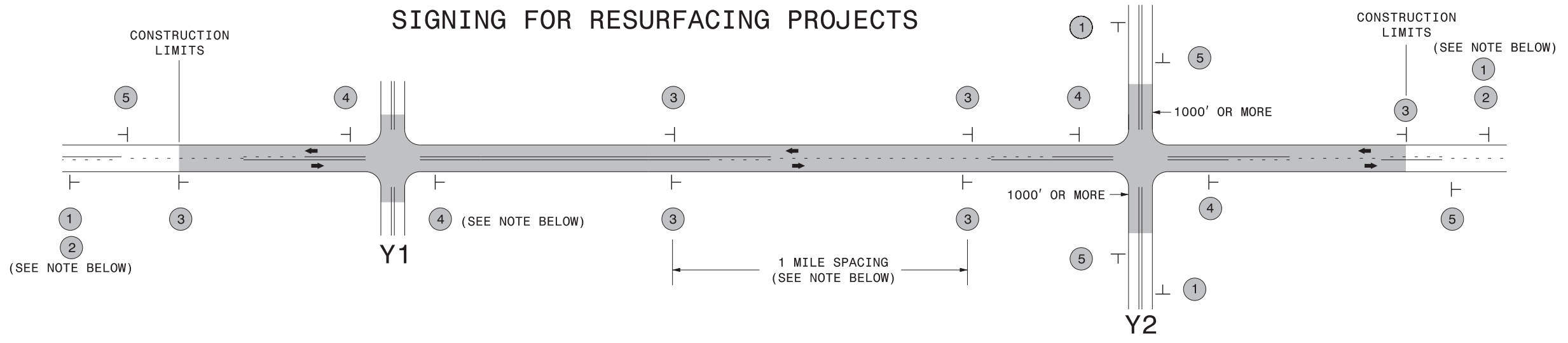
## -Y- LINE SIGNING

|   |      |  |  |
|---|------|--|--|
| SIGNING NOTES AND PLACEMENT PER DIRECTION | <br> | <p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>  | <p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around;"> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> |
|   |      | <p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>   |  |
|   |      | <p>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.</p> |  |
|   |      | <p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>  |  |

3/19/2015 C:\Users\rmgarrett\Downloads\Resurfacing\_AdvWarn\_2Ln (2).dgn User:rmgarrett

**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

# SIGNING FOR RESURFACING PROJECTS



**LEGEND**

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

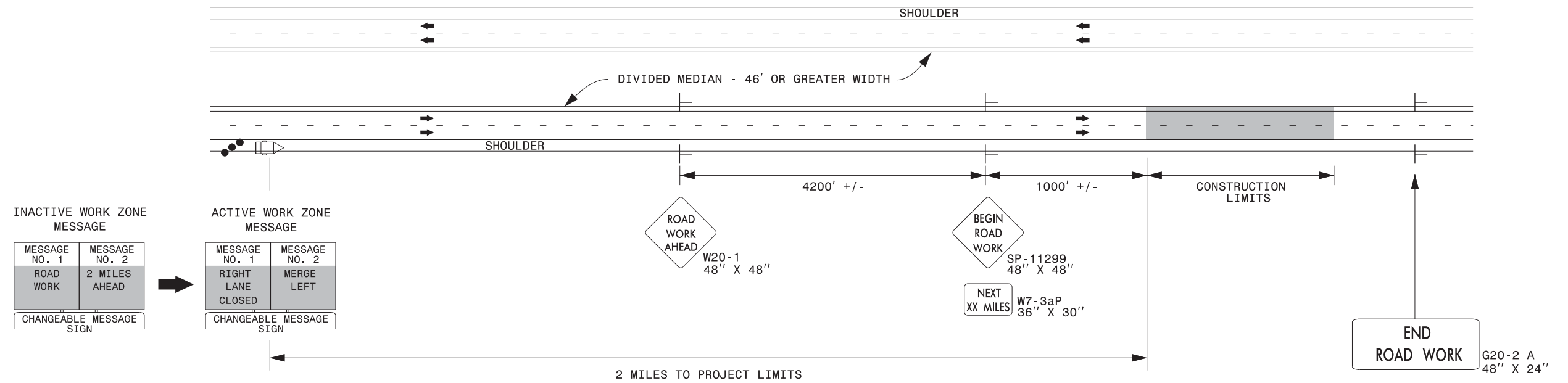
## -Y- LINE SIGNING

|   |      |  |  |
|---|------|--|--|
| SIGNING NOTES AND PLACEMENT PER DIRECTION | <br> | <p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>  | <p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <br/> <small>W20-1<br/>48" X 48"</small> </div> <div style="text-align: center;"> <br/> <small>W20-7 A<br/>48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> |
|   |      | <p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>   |  |
|   |      | <p>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.</p> |  |
|   |      | <p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>  |  |

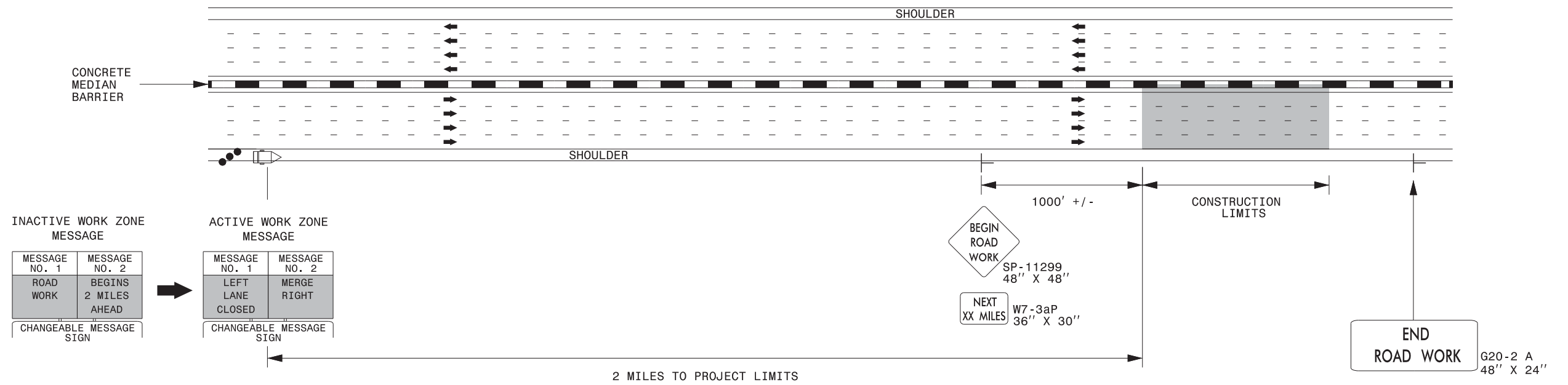
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**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

# DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER







# DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER



### NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

### LEGEND

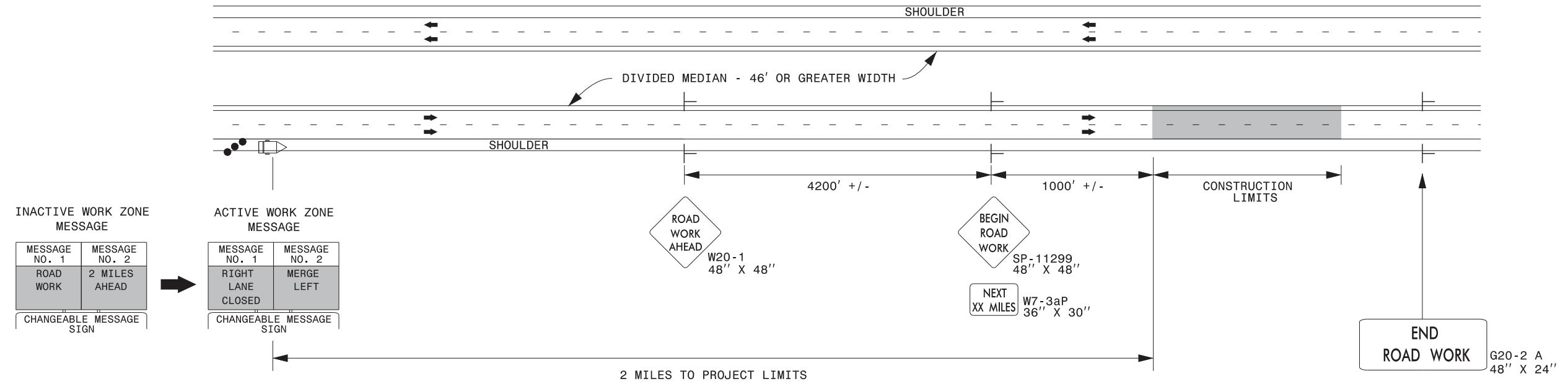
-  CHANGEABLE MESSAGE SIGN (CMS)
-  STATIONARY SIGN
-  DIRECTION OF TRAFFIC FLOW
-  TRAFFIC DRUM



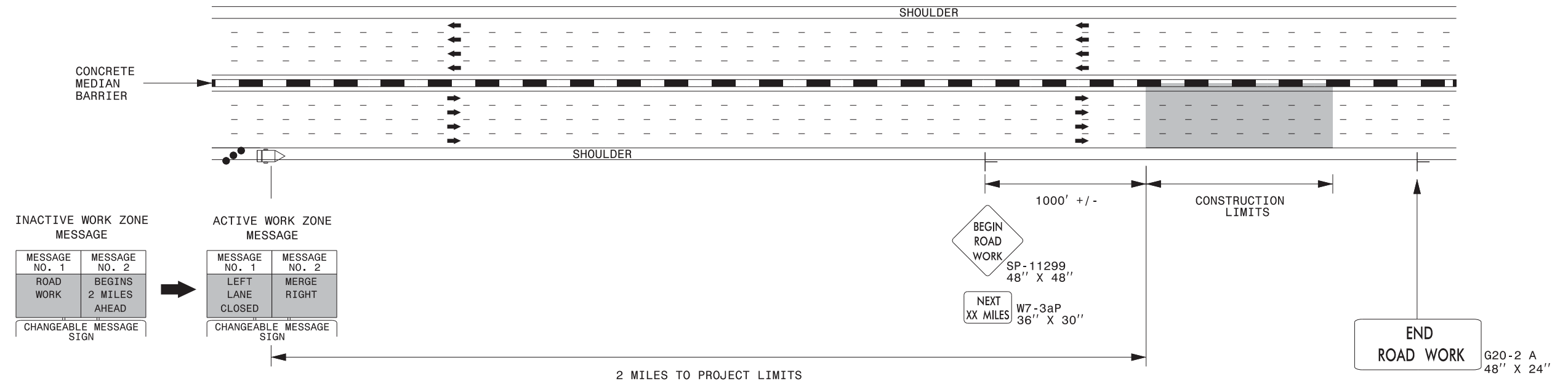
RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH



### DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER







### DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

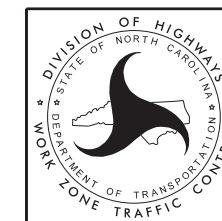


**NOTES:**

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

**LEGEND**

-  CHANGEABLE MESSAGE SIGN (CMS)
-  STATIONARY SIGN
-  DIRECTION OF TRAFFIC FLOW
-  TRAFFIC DRUM

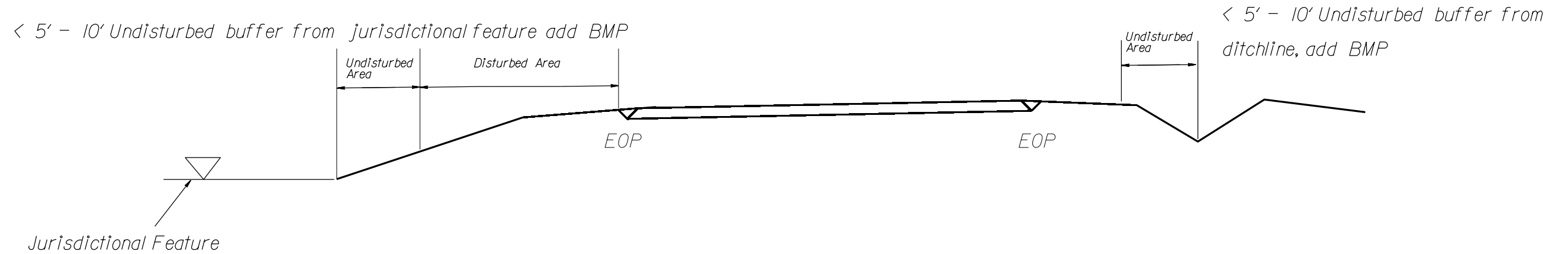
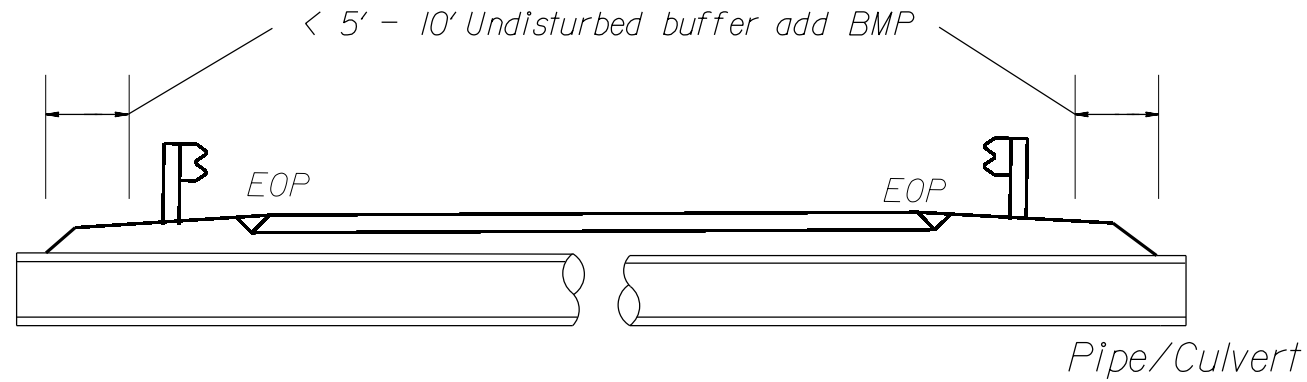


**RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH**

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

BMP Options: Wattle or Silt Fence

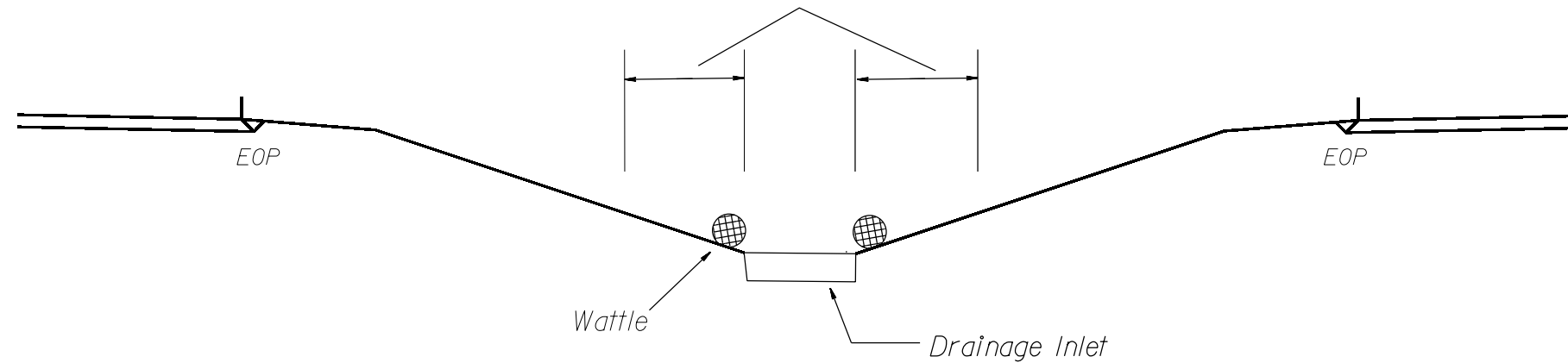
# EROSION CONTROL DETAIL



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

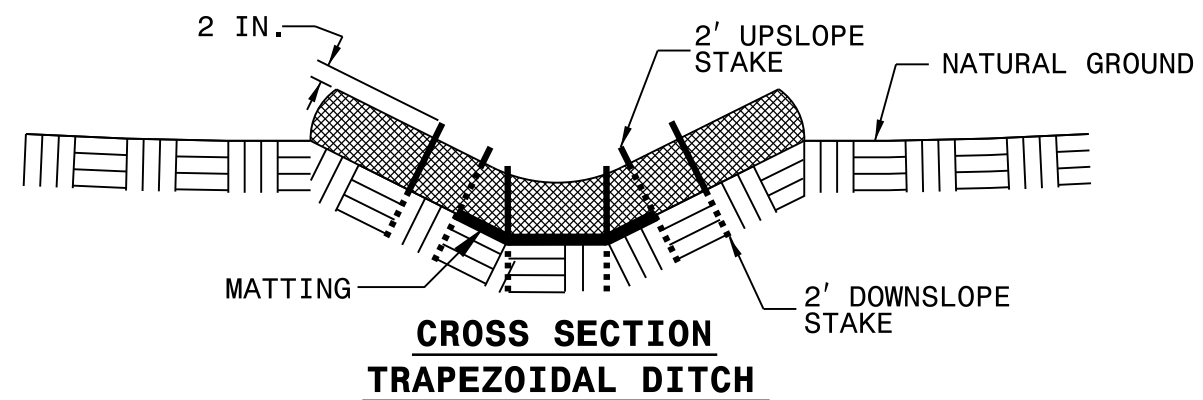
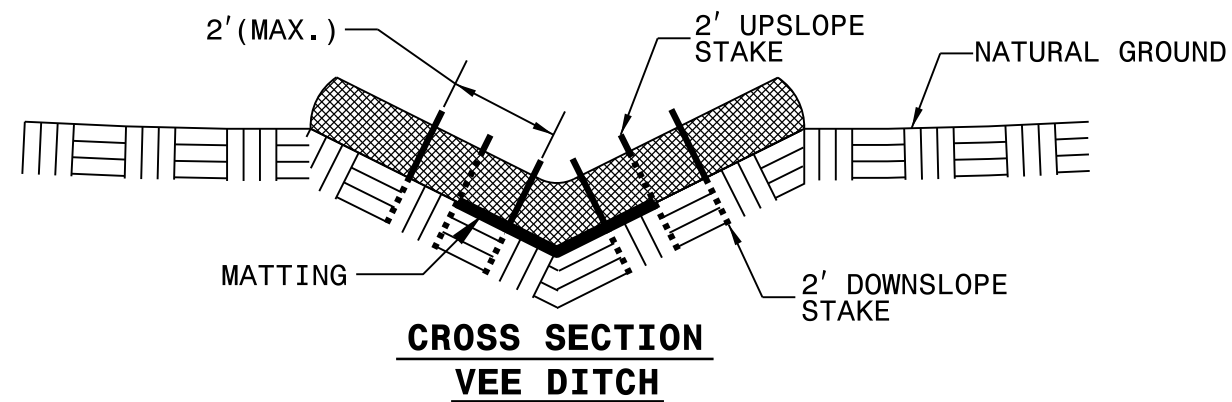
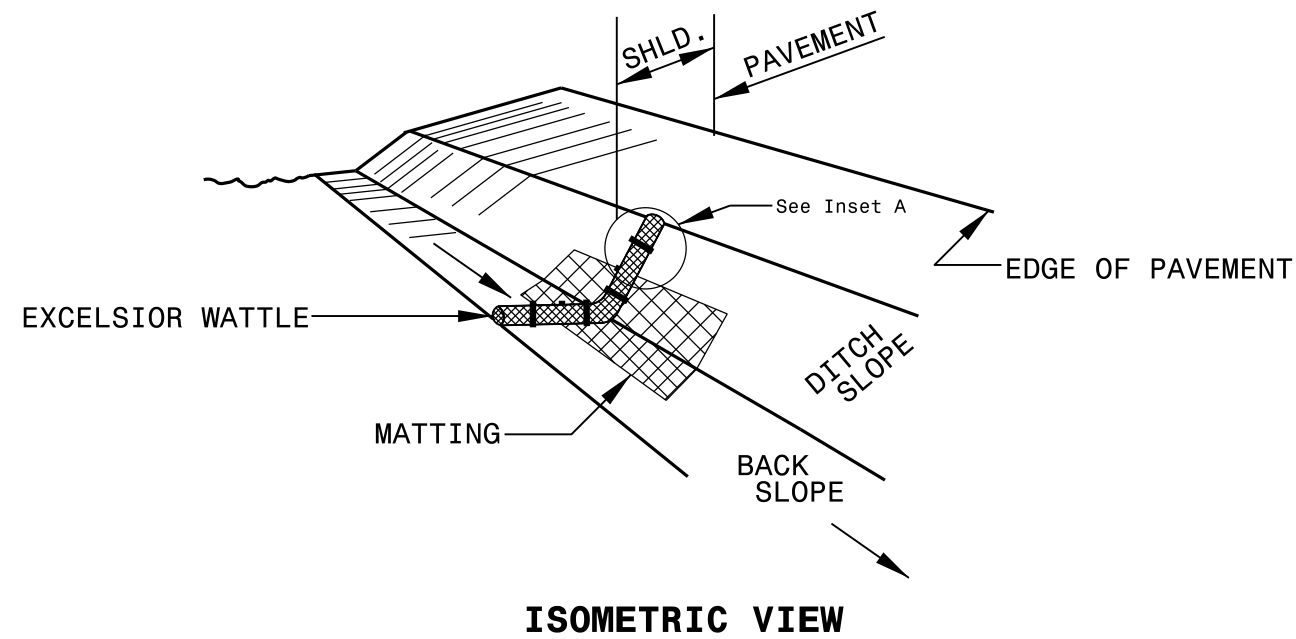


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

# WATTLE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

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

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

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

