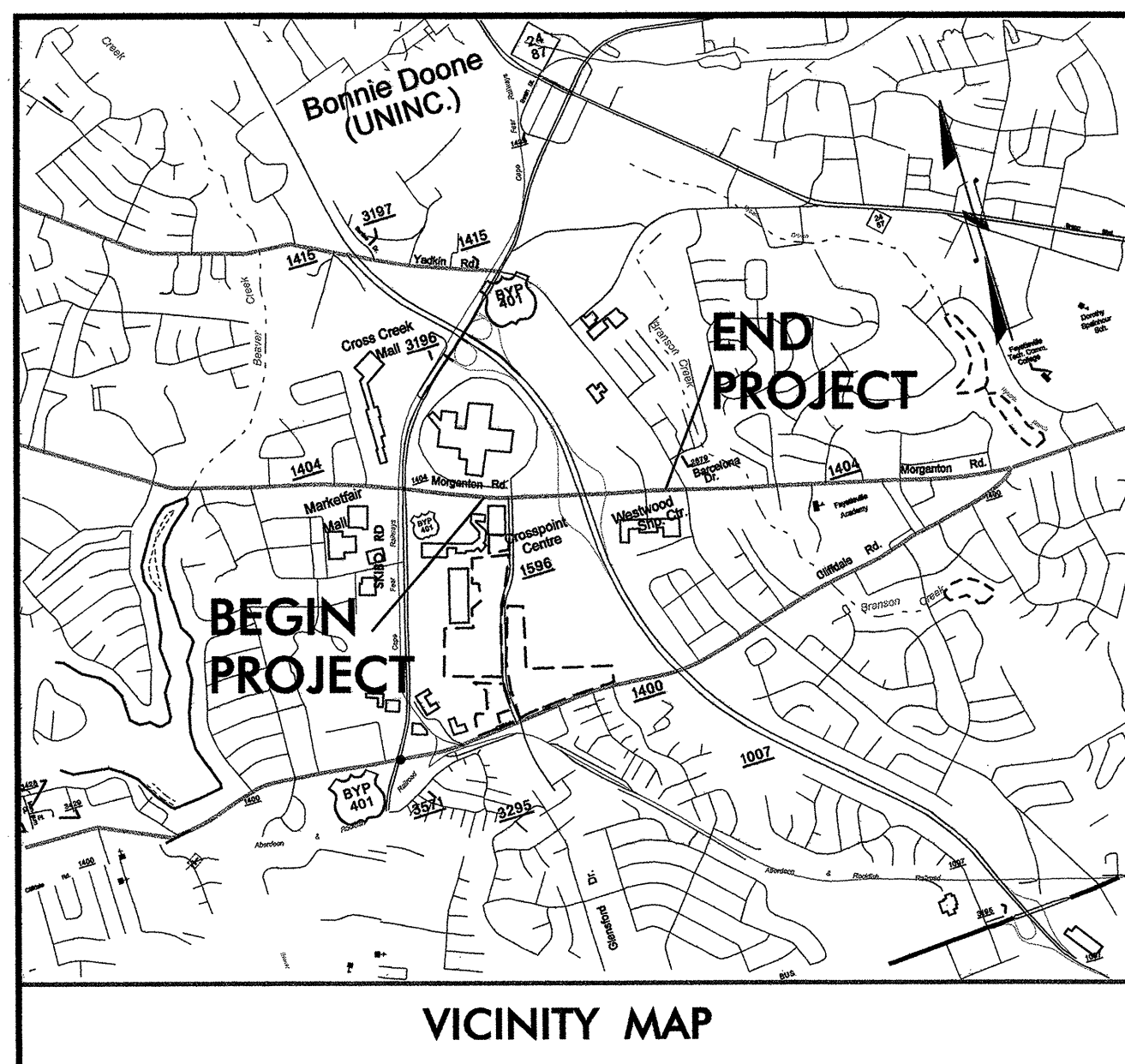


U-4756

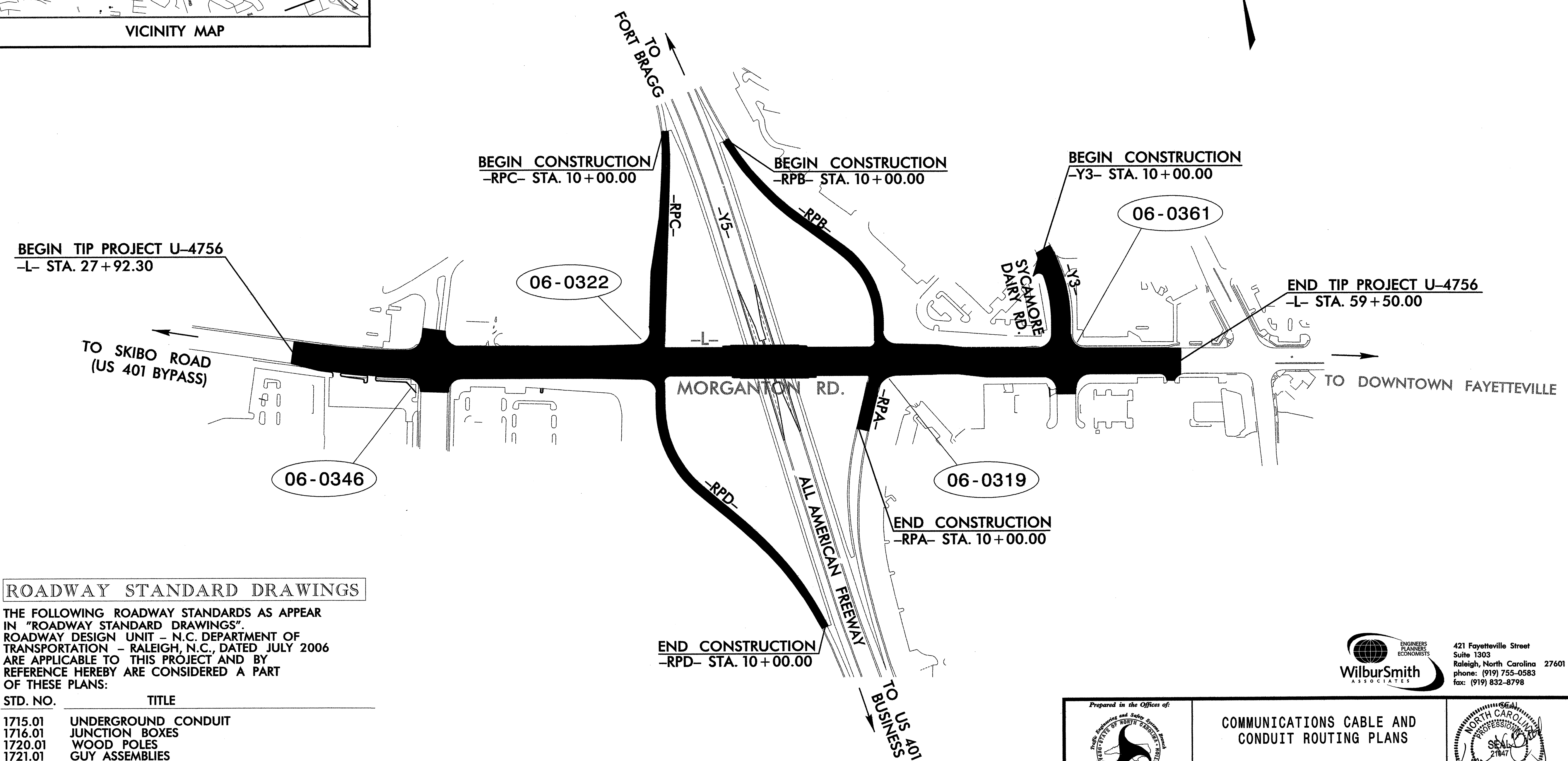


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**CUMBERLAND COUNTY**

LOCATION: Morganton Road from west of Glensford Drive to east of Sycamore Dairy Road

TYPE OF WORK: Communications Cable and Conduit Routing



PROJECT:

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" ROADWAY DESIGN UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE                                    |
|----------|--|
| 1715.01  | UNDERGROUND CONDUIT                      |
| 1716.01  | JUNCTION BOXES                           |
| 1720.01  | WOOD POLES                               |
| 1721.01  | GUY ASSEMBLIES                           |
| 1730.01  | FIBER OPTIC CABLE - SPARE CABLE STORAGE  |
| 1730.02  | FIBER OPTIC CABLE - CONDUIT INSTALLATION |
| 1733.01  | DELINEATOR MARKERS                       |
| 1740.01  | METAL POLES                              |

**NCDOT CONTACT:**  
TRAFFIC ENGINEERING AND SAFETY SYSTEMS BRANCH  
G.G. MURR, JR., PE - INTELLIGENT TRANSPORTATION SYSTEMS ENGINEER

**WilburSmith ASSOCIATES**  
421 Fayetteville Street  
Suite 1303  
Raleigh, North Carolina 27601  
phone: (919) 755-0583  
fax: (919) 832-8798

Prepared in the Offices of:

**COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS**

DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE

PLAN DATE: June 2007 REVIEWED BY: D. Privette

PREPARED BY: K. Bisby REVIEWED BY:

| REVISIONS | DATE | INIT. | DATE |
|-----------|------|-------|------|
|           |      |       |      |

SIGNATURE: DATE: CADD Filename:

- 1 INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 2 INSTALL REA, PE - 38, (FIGURE 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 3 INSTALL REA, PE - 39, (UNDERGROUND) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 4 INSTALL SMFO CABLE
- 5 INSTALL MMFO CABLE
- 6 INSTALL FIBER OPTIC DROP CABLE
- 7 INSTALL TRACER WIRE
- 8 TRENCH
- 9 INSTALL PVC CONDUIT
- 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
- 13 INSTALL OUTER-DUCT POLYETHYLENE CONDUIT
- 14 INSTALL POLYETHYLENE CONDUIT
- 15 DIRECTIONAL DRILL CONDUIT
- 16 BORE AND JACK CONDUIT
- 17 INSTALL CABLE(S) IN EXISTING CONDUIT
- 18 INSTALL CABLE(S) IN NEW CONDUIT
- 19 INSTALL CABLE(S) IN EXISTING RISER
- 20 INSTALL CABLE(S) IN NEW RISER
- 21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS
- 22 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
- 23 INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
- 24 INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET
- 25 INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET
- 26 TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
- 26A TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN CCTV CONTROLLER CABINET
- 27 INSTALL NEW TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPlice CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPlice ENCLOSURE
- 30 INSTALL AERIAL SPlice ENCLOSURE
- 31 INSTALL POLE MOUNTED SPlice CABINET
- 32 INSTALL BASE MOUNTED SPlice CABINET

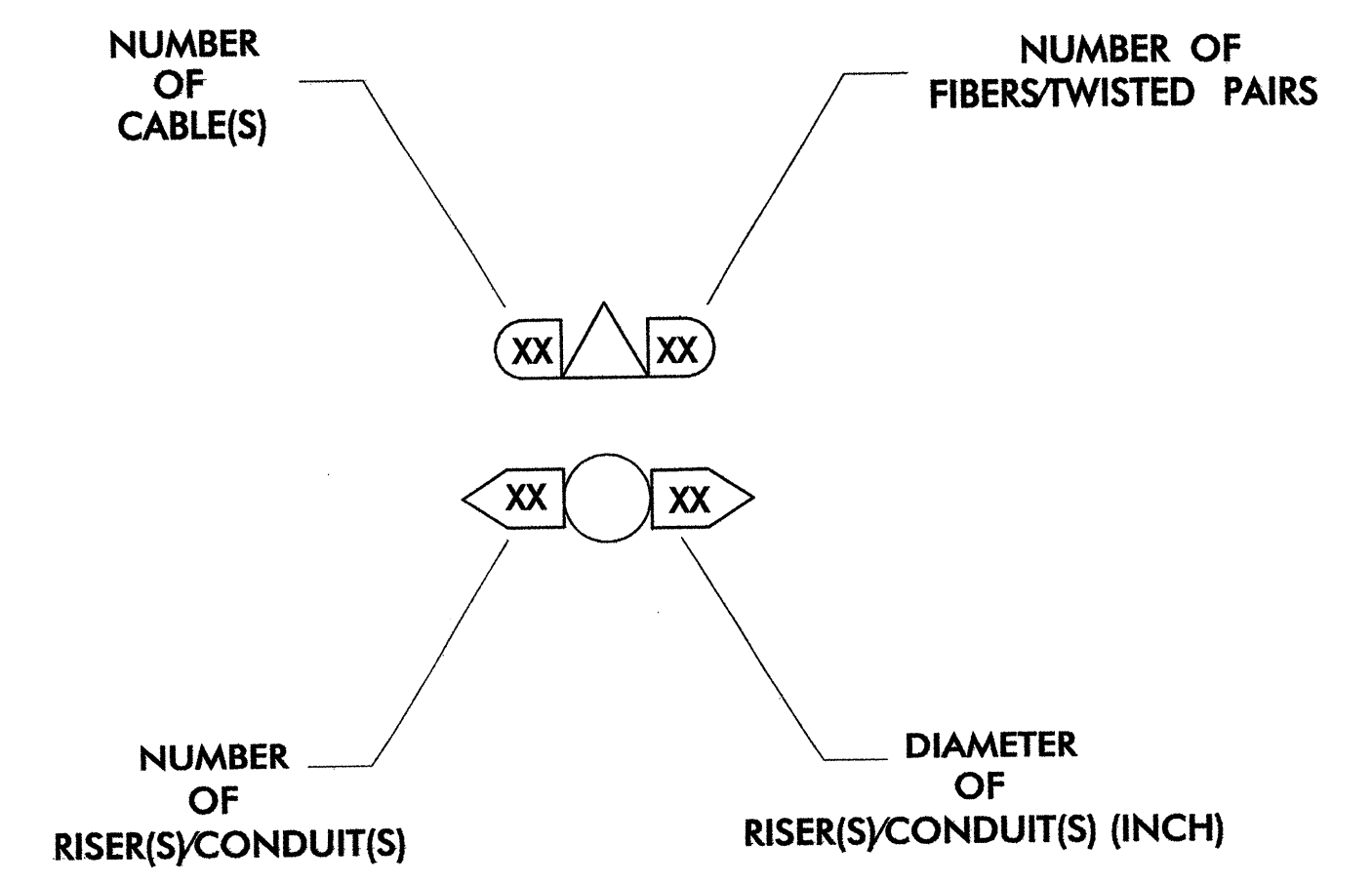
- 33 REMOVE EXISTING SPlice CABINET
- 34 INSTALL CABINET FOUNDATION
- 35 REMOVE EXISTING CABINET FOUNDATION
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV CAMERA WOOD POLE
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL JUNCTION BOX
- 40 INSTALL OVERSIZED JUNCTION BOX
- 41 REMOVE EXISTING JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 REMOVE EXISTING WOOD POLE
- 44 INSTALL AERIAL GUY ASSEMBLY
- 45 INSTALL STANDARD GUY ASSEMBLY
- 46 INSTALL SIDEWALK GUY ASSEMBLY
- 47 INSTALL MESSENGER CABLE
- 48 REMOVE EXISTING COMMUNICATIONS AND MESSENGER CABLE
- 49 REMOVE EXISTING MESSENGER CABLE
- 50 INSTALL TELEPHONE SERVICE
- 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
- 52 INSTALL DELINEATOR MARKER
- 53 STORE 20 FEET OF COMMUNICATIONS CABLE
- 54 LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE
- 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56 LASH CABLE(S) TO NEW MESSENGER CABLE
- 57 MODIFY EXISTING ELECTRICAL SERVICE
- 58 INSTALL NEW ELECTRICAL SERVICE
- 59 RELOCATE EXISTING CCTV CAMERA ASSEMBLY

**LEGEND**

- FO NEW FIBER OPTIC COMMUNICATIONS CABLE
- TWIST PR NEW TWISTED PAIR COMMUNICATIONS CABLE
- EXI EXISTING COMMUNICATIONS CABLE
- REM EXISTING COMMUNICATIONS CABLE TO BE REMOVED
- NEW AERIAL GUY ASSEMBLY
- NEW CONDUIT
- EXISTING CONDUIT
- DD NEW DIRECTIONAL DRILLED CONDUIT
- B&J NEW BORED AND JACKED CONDUIT
- NEW JUNCTION BOX
- EXISTING JUNCTION BOX
- NEW WOOD POLE
- EXISTING WOOD POLE
- AERIAL SPlice ENCLOSURE
- NEW METAL POLE
- EXISTING METAL POLE
- EXISTING CCTV ASSEMBLY
- NEW STANDARD GUY ASSEMBLY
- NEW SIDEWALK GUY ASSEMBLY
- NEW CABLE STORAGE RACKS (SNOW SHOES)
- EXISTING CONTROLLER AND CABINET
- EXISTING SPlice CABINET
- NEW SPlice CABINET
- SP SIGNAL POLE
- XX-XXXX SIGNAL INVENTORY NUMBER

**CONSTRUCTION NOTE SYMBOLOGY KEY**

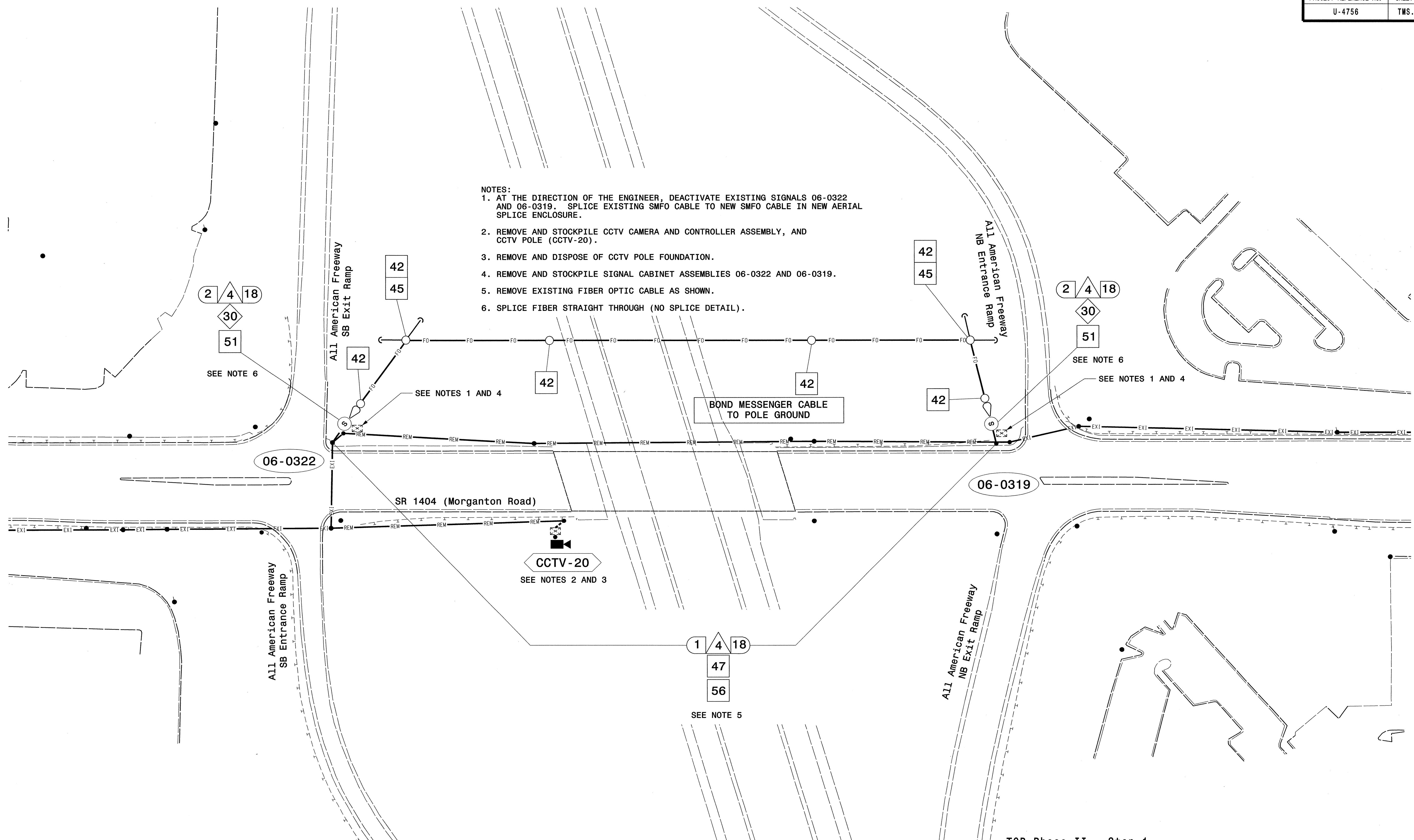
- XX INDICATES NUMBER OF CABLES, LOOPS, ETC.
- XX INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
- XX INDICATES NUMBER OF RISER(S)/CONDUIT(S)
- XX INDICATES DIAMETER OF RISER(S)/CONDUIT(S) (INCH)



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|  |  |                         |
|--|--|-------------------------|
|  | <b>CONSTRUCTION NOTES</b>  |                         |
|  | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: MAY 2007 REVIEWED BY: D. Swinton<br>PREPARED BY: K. Bisby REVIEWED BY: | REVISIONS<br>INIT. DATE |

- NOTES:
1. AT THE DIRECTION OF THE ENGINEER, DEACTIVATE EXISTING SIGNALS 06-0322 AND 06-0319. SPLICE EXISTING SMFO CABLE TO NEW SMFO CABLE IN NEW AERIAL SPLICE ENCLOSURE.
  2. REMOVE AND STOCKPILE CCTV CAMERA AND CONTROLLER ASSEMBLY, AND CCTV POLE (CCTV-20).
  3. REMOVE AND DISPOSE OF CCTV POLE FOUNDATION.
  4. REMOVE AND STOCKPILE SIGNAL CABINET ASSEMBLIES 06-0322 AND 06-0319.
  5. REMOVE EXISTING FIBER OPTIC CABLE AS SHOWN.
  6. SPLICE FIBER STRAIGHT THROUGH (NO SPLICE DETAIL).

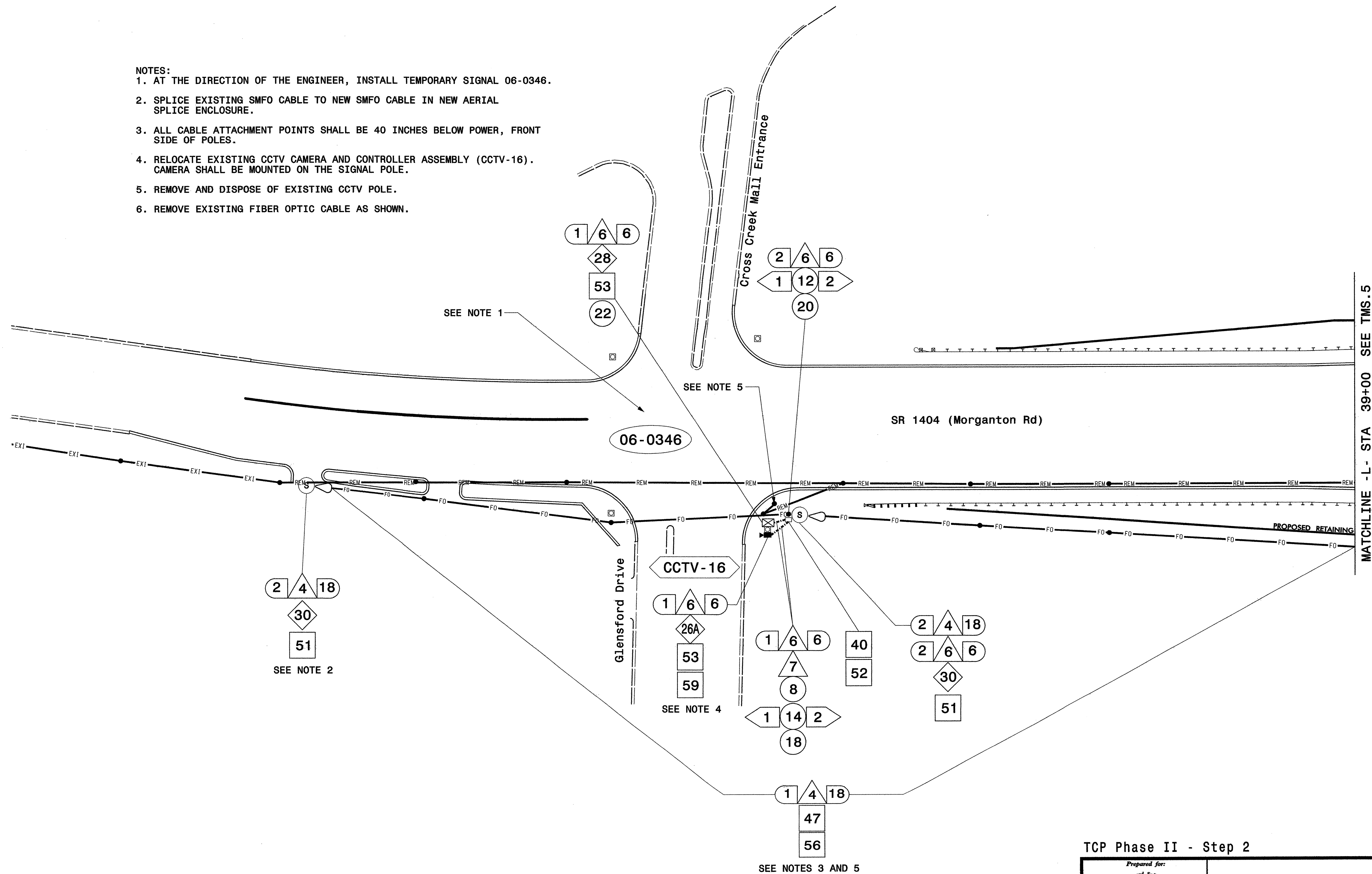


TCP Phase II - Step 1

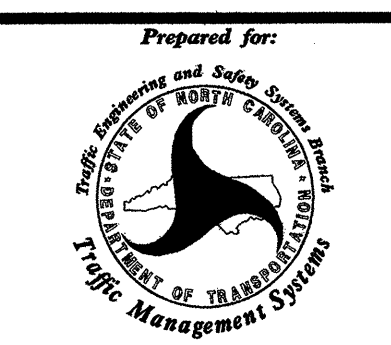
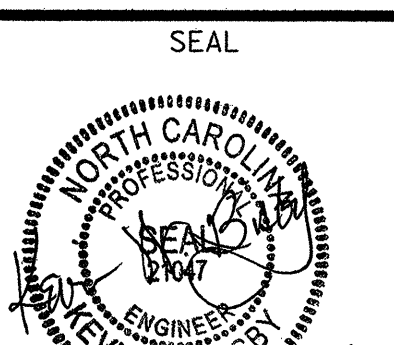
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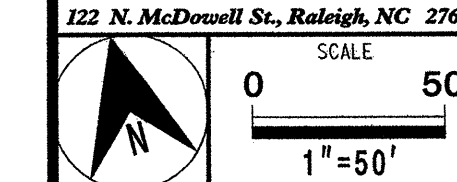
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|   | <b>COMMUNICATIONS CABLE ROUTING<br/>ALONG MORGANTON ROAD</b>   |   |
|   | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette<br>PREPARED BY: K. Bisby REVIEWED BY: |   |
| 122 N. McDowell St., Raleigh, NC 27603<br>SCALE<br>0 50<br>1" = 50' | REVISIONS<br>_____<br>_____<br>_____   | INIT. DATE<br>_____<br>_____<br>_____   |
| SIGNATURE _____ DATE _____<br>CADD File Name:                       |  | SEAL<br>NORTH CAROLINA<br>PROFESSIONAL ENGINEER<br>KEVIN W. BISBY<br>21047<br>5-13-2008 |

- NOTES:
1. AT THE DIRECTION OF THE ENGINEER, INSTALL TEMPORARY SIGNAL 06-0346.
  2. SPLICE EXISTING SMFO CABLE TO NEW SMFO CABLE IN NEW AERIAL SPLICE ENCLOSURE.
  3. ALL CABLE ATTACHMENT POINTS SHALL BE 40 INCHES BELOW POWER, FRONT SIDE OF POLES.
  4. RELOCATE EXISTING CCTV CAMERA AND CONTROLLER ASSEMBLY (CCTV-16). CAMERA SHALL BE MOUNTED ON THE SIGNAL POLE.
  5. REMOVE AND DISPOSE OF EXISTING CCTV POLE.
  6. REMOVE EXISTING FIBER OPTIC CABLE AS SHOWN.

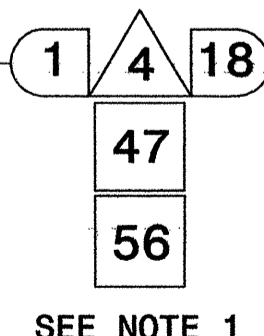
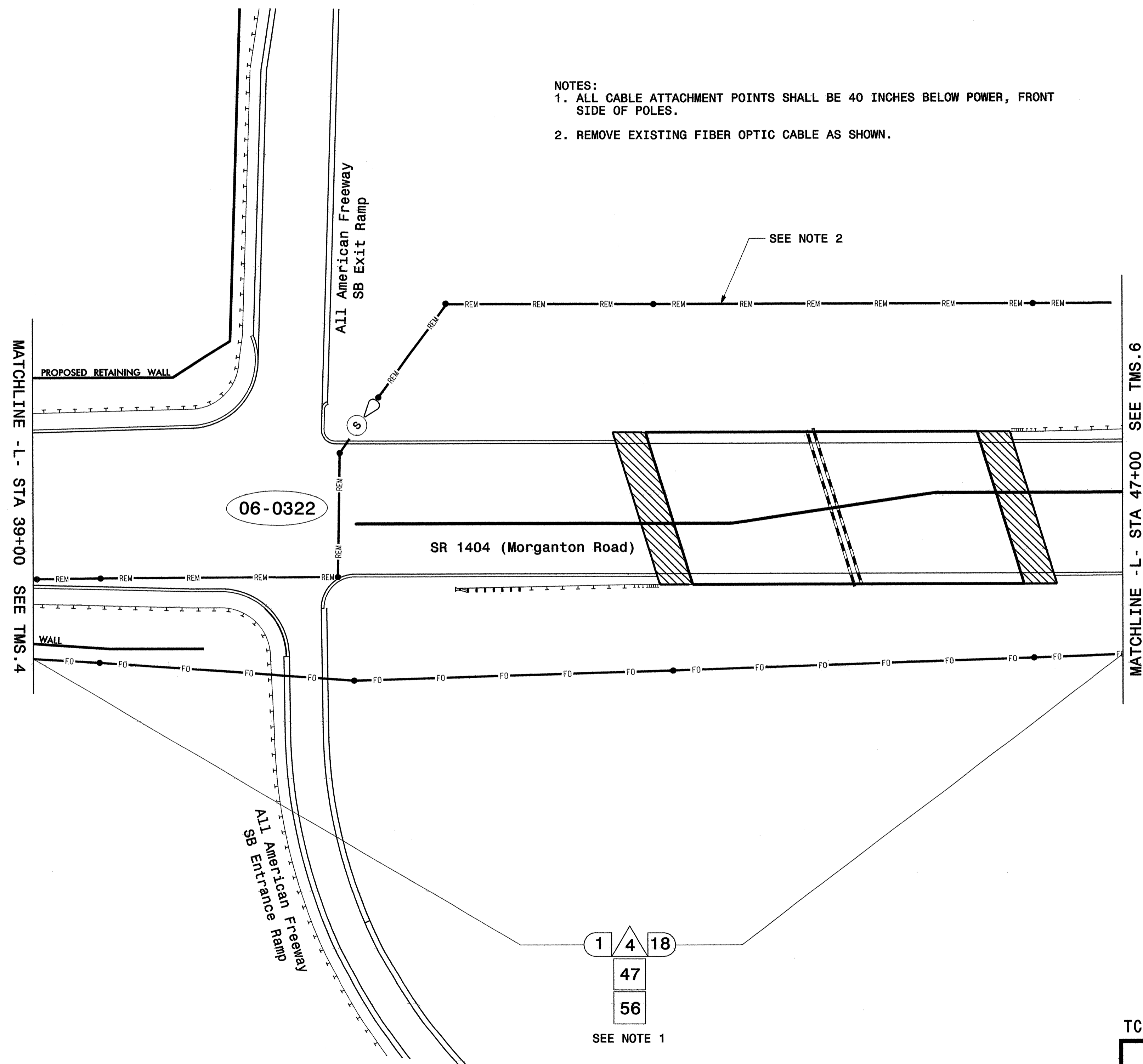


TCP Phase II - Step 2

| <br>122 N. McDowell St., Raleigh, NC 27603 | <b>COMMUNICATIONS CABLE ROUTING<br/>ALONG MORGANTON ROAD</b>   |  | SEAL<br><br>6-26-07 |           |       |      |  |  |  |  |  |  |  |  |  |
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|   | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette<br>PREPARED BY: K. Bisby REVIEWED BY: | <table border="1"> <thead> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> |  | REVISIONS | INIT. | DATE |  |  |  |  |  |  |  |  |  |
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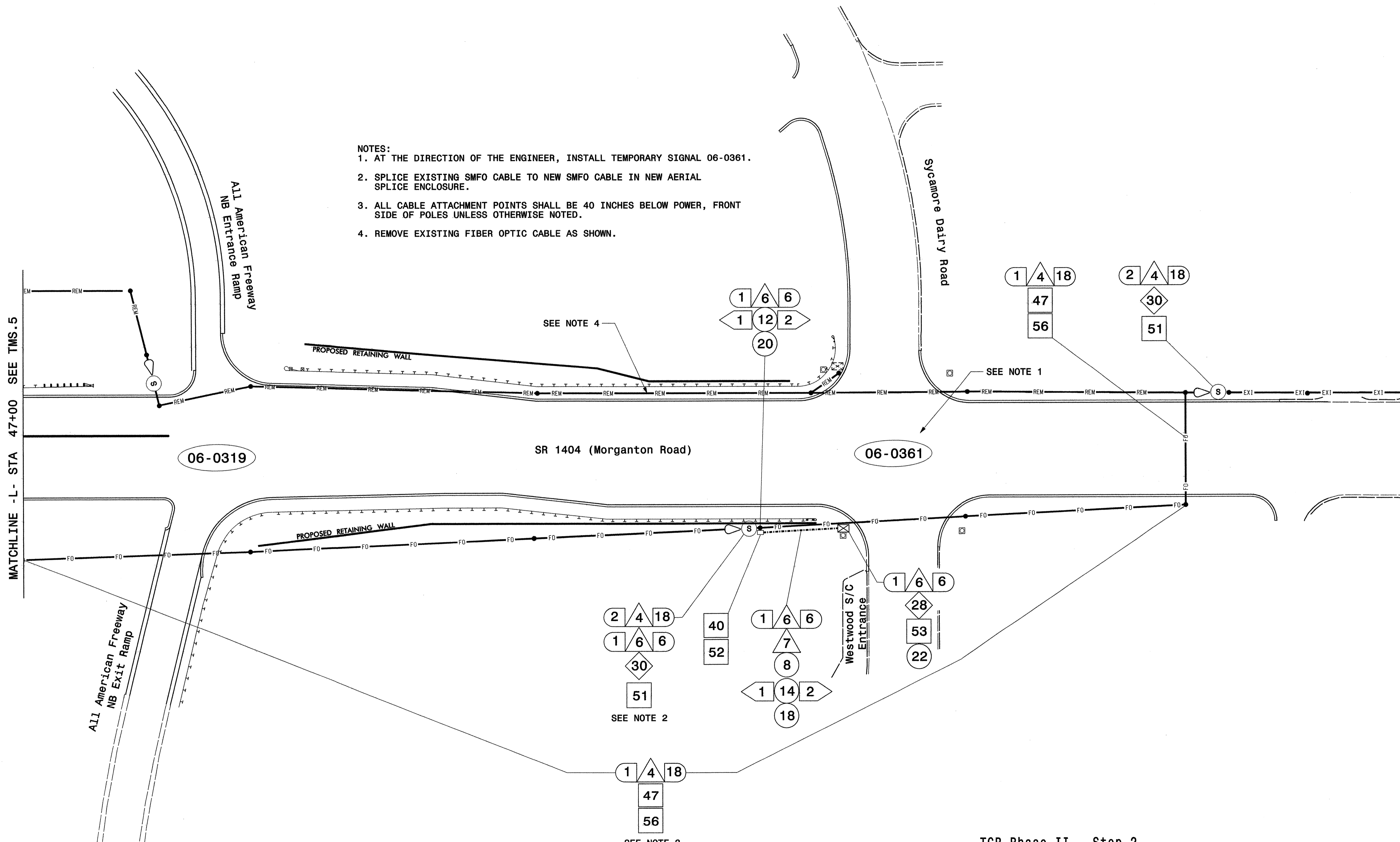


- NOTES:
1. ALL CABLE ATTACHMENT POINTS SHALL BE 40 INCHES BELOW POWER, FRONT SIDE OF POLES.
  2. REMOVE EXISTING FIBER OPTIC CABLE AS SHOWN.



TCP Phase II - Step 2

|  |  |                   |                |
|--|--|-------------------|----------------|
| <br>Prepared for:<br>Traffic Engineering and Safety Systems Branch<br>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION<br>Traffic Management System | <b>COMMUNICATIONS CABLE ROUTING<br/>         ALONG MORGANTON ROAD</b>  |                   |                |
|  | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette<br>PREPARED BY: K. Bisby REVIEWED BY: |                   |                |
| 122 N. McDowell St., Raleigh, NC 27603<br><br>SCALE<br>0 50<br>1" = 50'  | REVISIONS<br>INIT. DATE  | SIGNATURE<br>DATE | CADD Filename: |



- NOTES:
1. AT THE DIRECTION OF THE ENGINEER, INSTALL TEMPORARY SIGNAL 06-0361.
  2. SPLICE EXISTING SMFO CABLE TO NEW SMFO CABLE IN NEW AERIAL SPLICE ENCLOSURE.
  3. ALL CABLE ATTACHMENT POINTS SHALL BE 40 INCHES BELOW POWER, FRONT SIDE OF POLES UNLESS OTHERWISE NOTED.
  4. REMOVE EXISTING FIBER OPTIC CABLE AS SHOWN.

MATCHLINE - L- STA 47+00 SEE TMS.5

06-0319

SR 1404 (Morganton Road)

06-0361

All American Freeway  
NB Exit Ramp

Sycamore Dairy Road

Westwood S/C  
Entrance

SEE NOTE 2

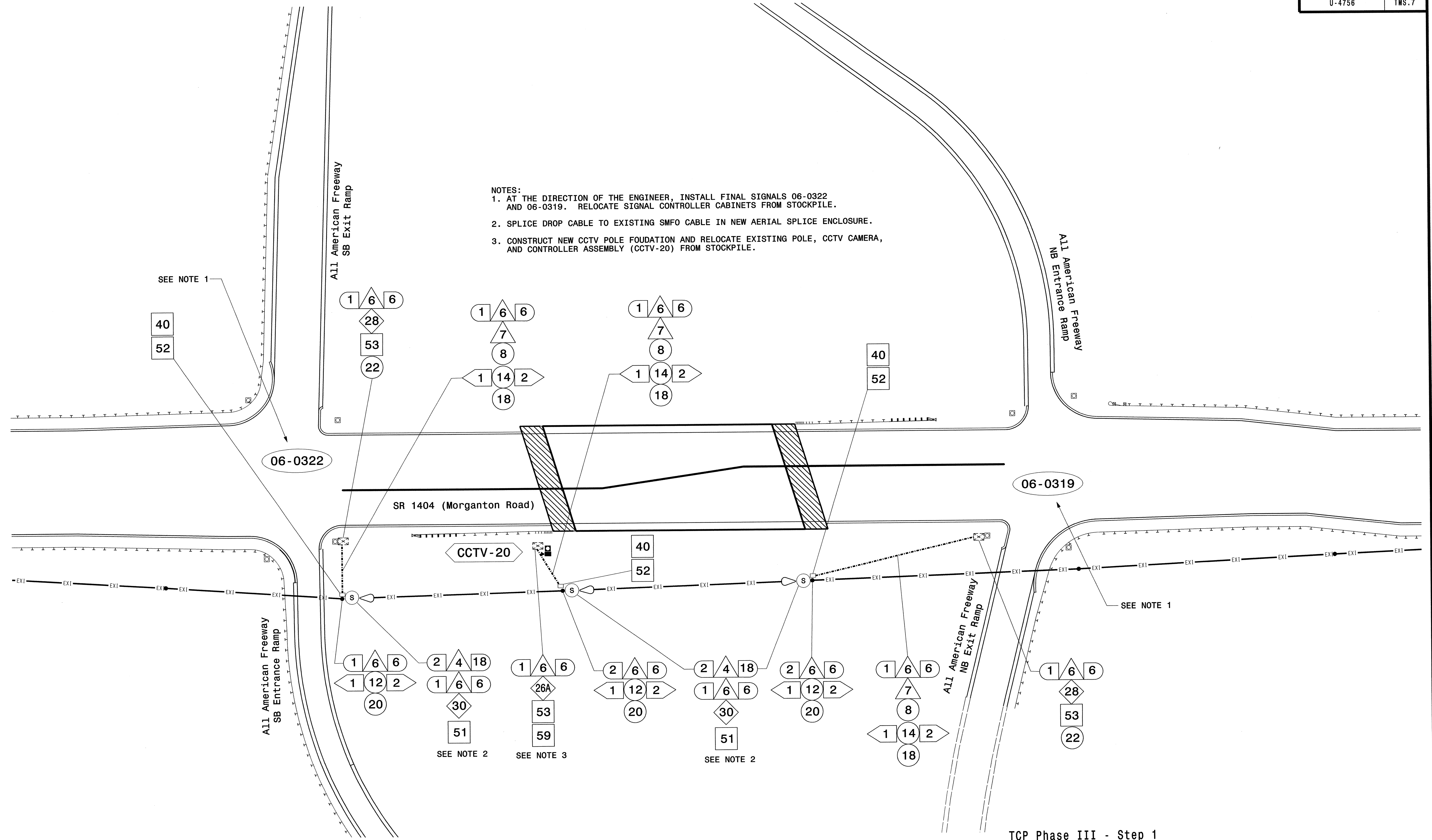
SEE NOTE 3

TCP Phase II - Step 2

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|   |  |  |
|---|--|--|
|   | <b>COMMUNICATIONS CABLE ROUTING<br/>ALONG MORGANTON ROAD</b> |  |
|   | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE                    |  |
| 122 N. McDowell St., Raleigh, NC 27603<br>SCALE<br>0 50<br>1"=50' | PLAN DATE: June 2007<br>PREPARED BY: K. Bisby                | REVIEWED BY: D. Privette<br>REVIEWED BY: |
|   | REVISIONS<br>_____<br>_____                                  | INIT. DATE<br>_____<br>_____             |
|   | SIGNATURE DATE<br>_____ 6.26.07                              |  |

- NOTES:
1. AT THE DIRECTION OF THE ENGINEER, INSTALL FINAL SIGNALS 06-0322 AND 06-0319. RELOCATE SIGNAL CONTROLLER CABINETS FROM STOCKPILE.
  2. SPLICE DROP CABLE TO EXISTING SMFO CABLE IN NEW AERIAL SPLICE ENCLOSURE.
  3. CONSTRUCT NEW CCTV POLE FOUNDATION AND RELOCATE EXISTING POLE, CCTV CAMERA, AND CONTROLLER ASSEMBLY (CCTV-20) FROM STOCKPILE.



TCP Phase III - Step 1

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Prepared for:  
  
 122 N. McDowell St., Raleigh, NC 27603

SCALE  
 0 50  
 1"=50'

**COMMUNICATIONS CABLE ROUTING  
 ALONG MORGANTON ROAD**

DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE

PLAN DATE: June 2007 REVIEWED BY: D. Privette

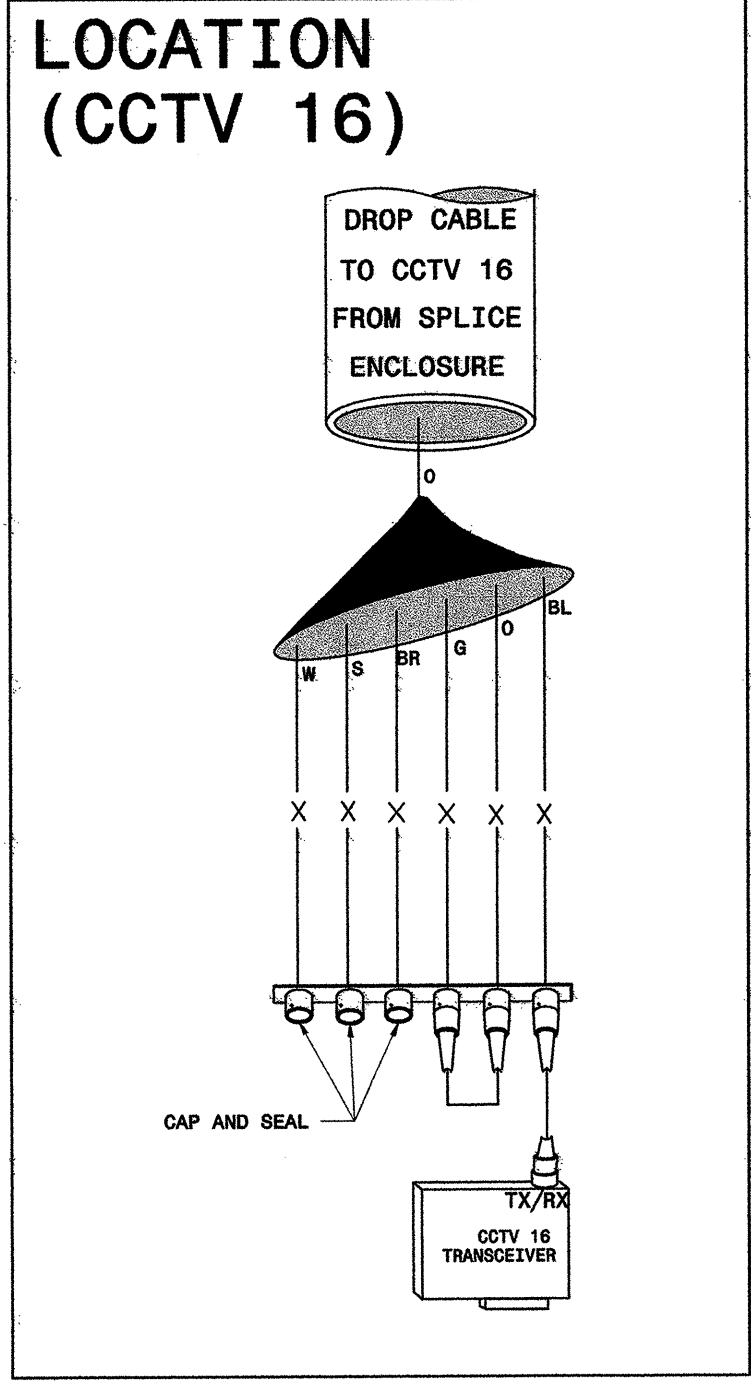
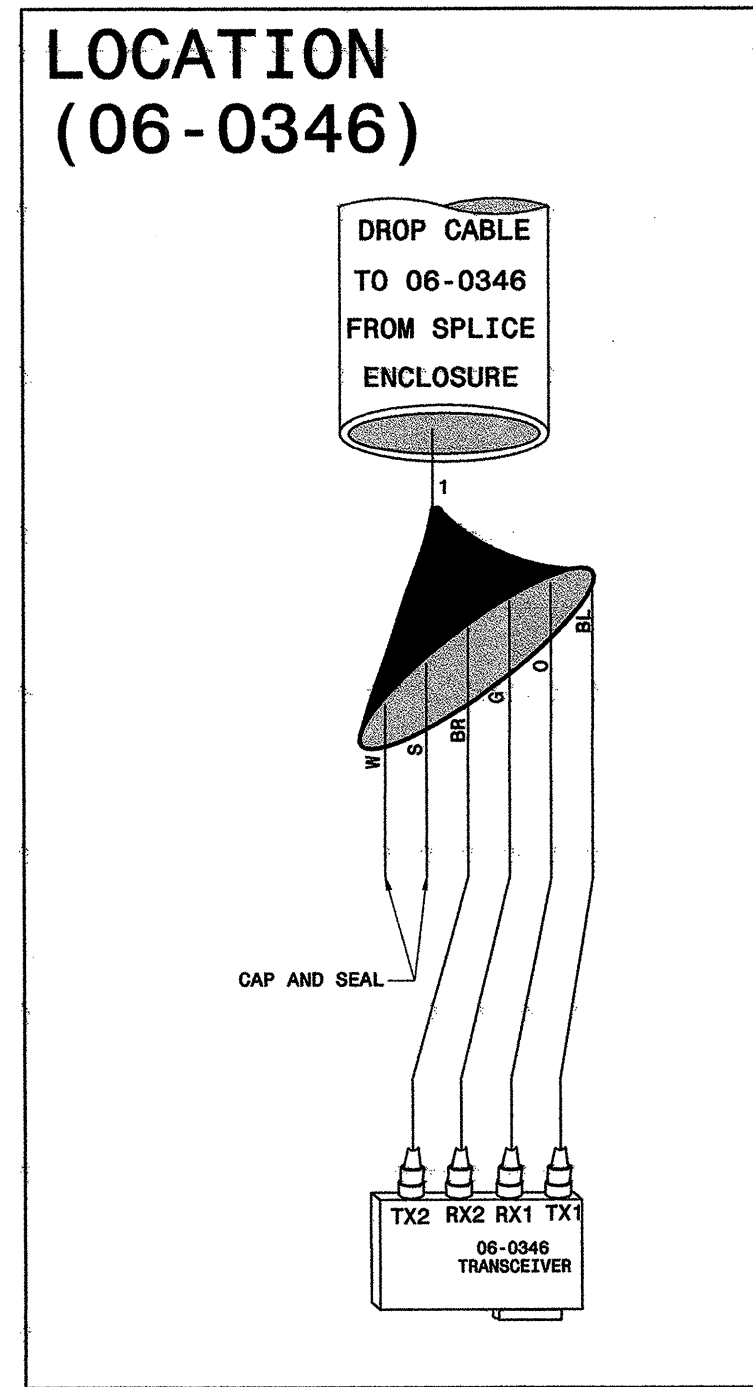
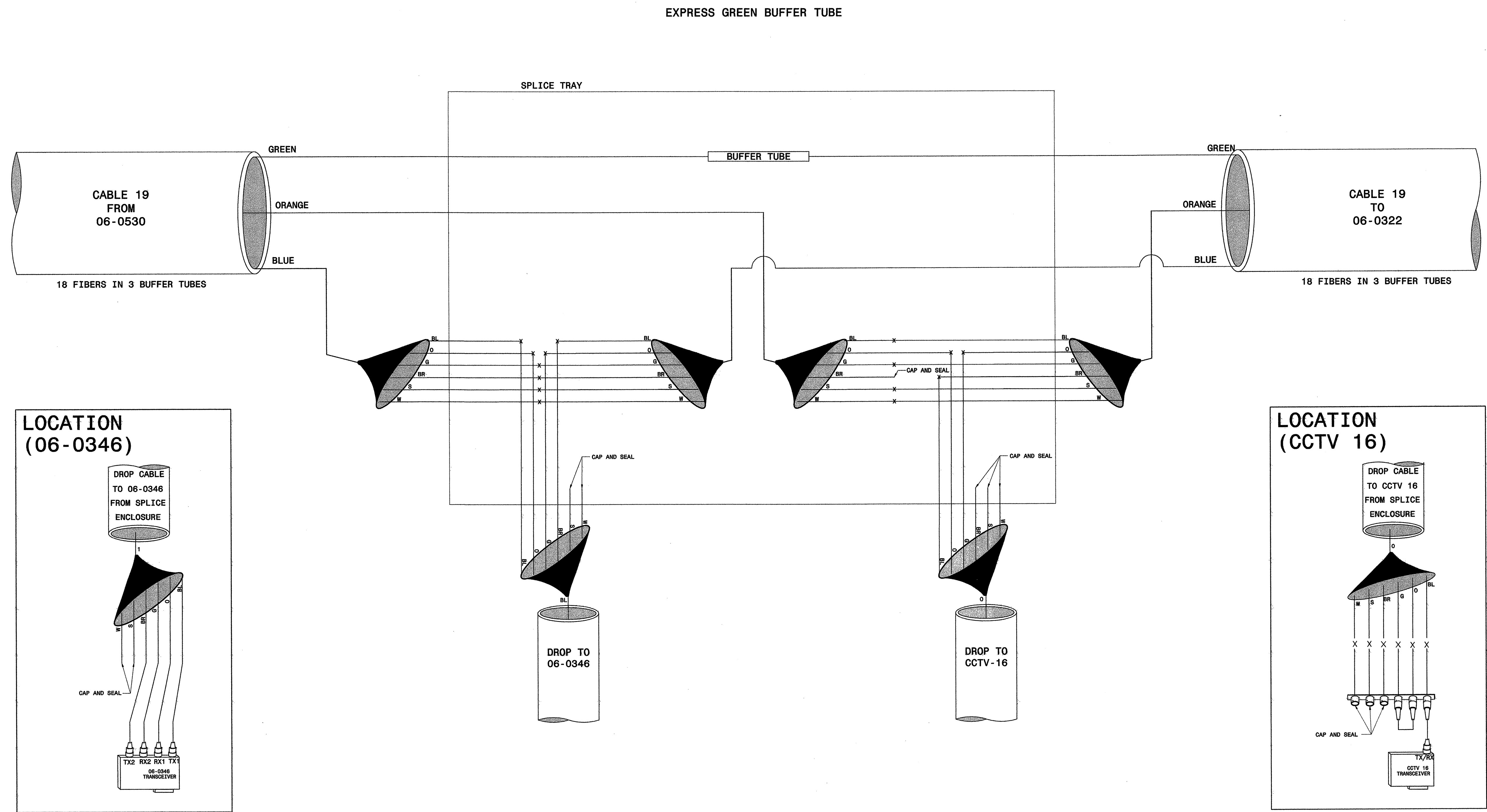
PREPARED BY: K. Bisby REVIEWED BY:

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SIGNATURE DATE  
 CADD Filename:

SEAL  
 NORTH CAROLINA  
 PROFESSIONAL ENGINEER  
 21047  
 KEVIN W. BISBY  
 5.13.2008

06-0346  
SR 1404 MORGANTON ROAD AT GLENSFORD DRIVE



FINAL SPLICE DETAIL - TCP PHASE II STEP 2

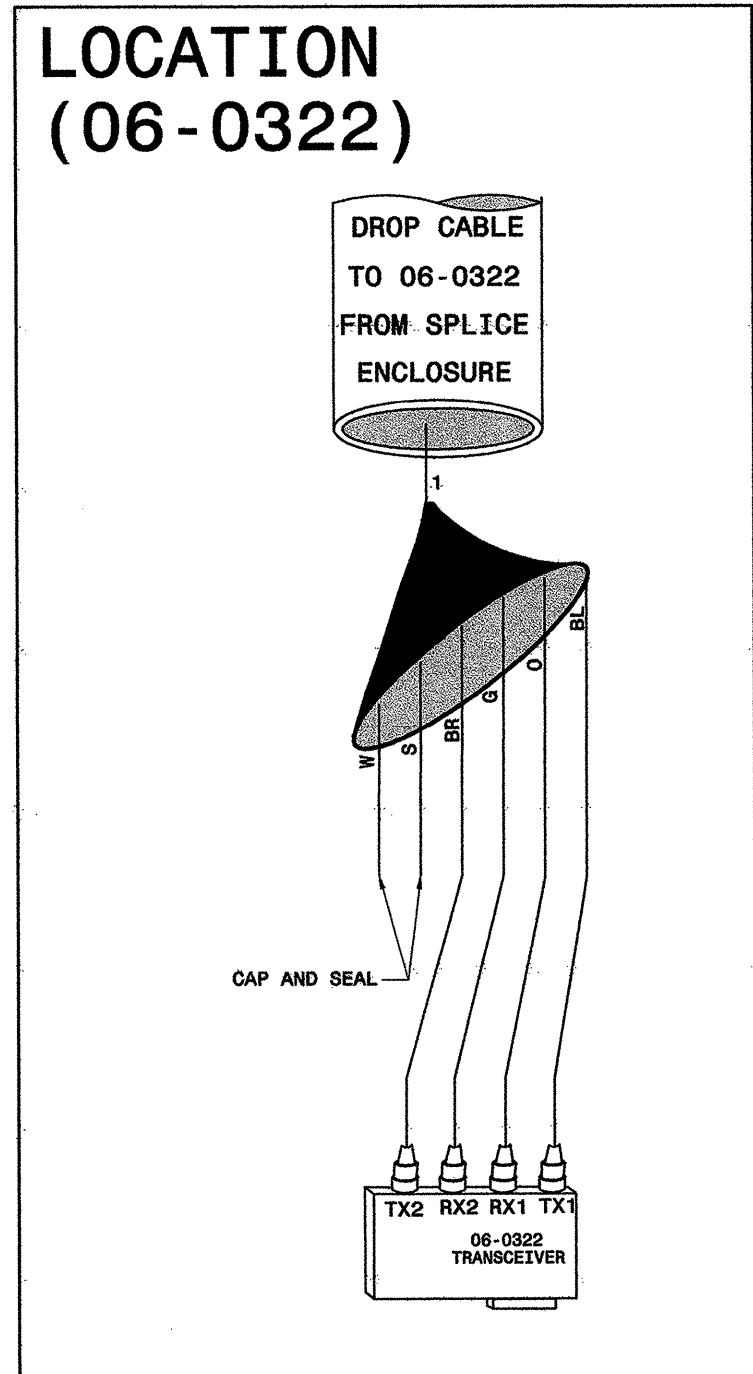
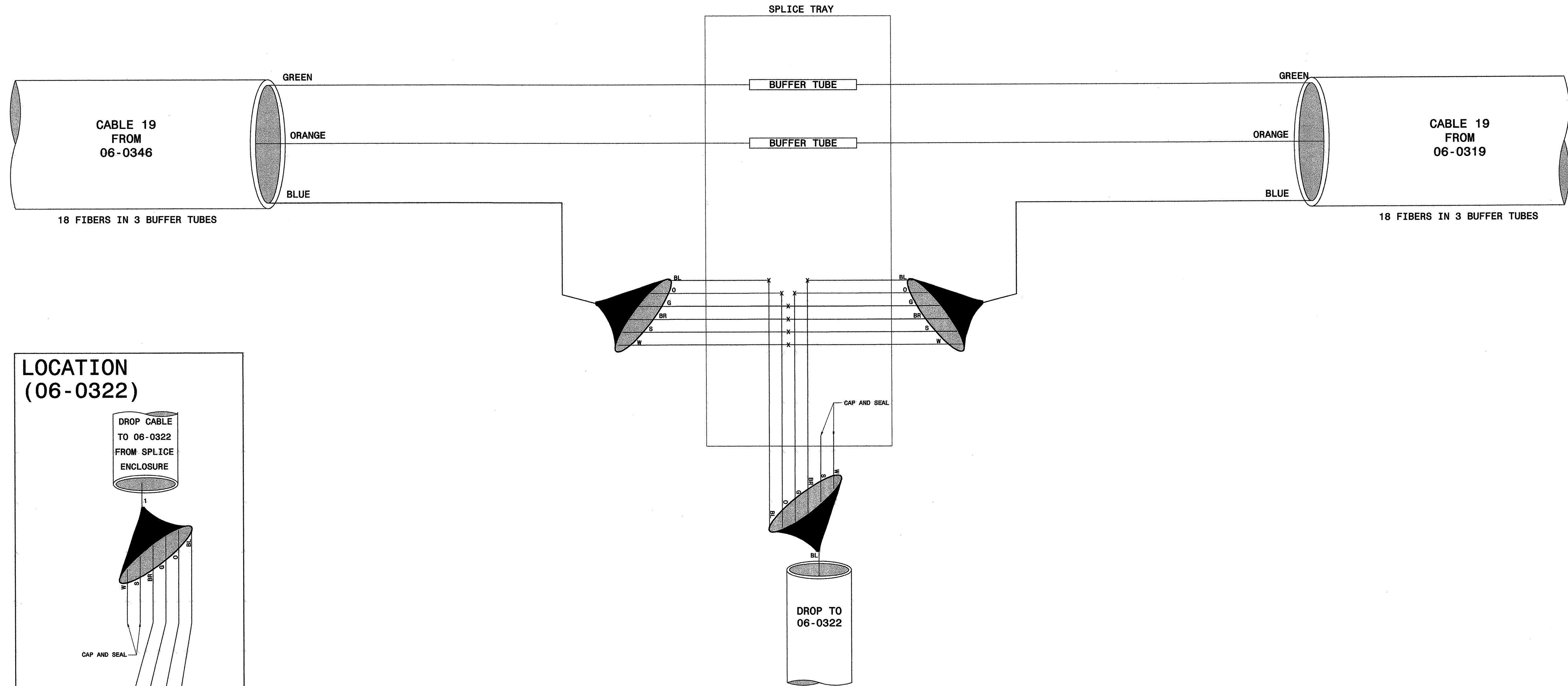
**WilburSmith ASSOCIATES**  
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|                             |  |                     |                         |
|-----------------------------|--|---------------------|-------------------------|
|                             | <b>SPLICING DETAILS ALONG MORGANTON ROAD</b>   |                     |                         |
|                             | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette<br>PREPARED BY: K. Bisby REVIEWED BY: |                     |                         |
| REVISIONS<br>_____<br>_____ |  | INIT. DATE<br>_____ | SIGNATURE DATE<br>_____ |
| CADD Filename:              |  |                     |                         |



06-0322  
 SR 1404 MORGANTON ROAD AT ALL AMERICAN FREEWAY SB RAMPS

EXPRESS GREEN AND ORANGE BUFFER TUBES.

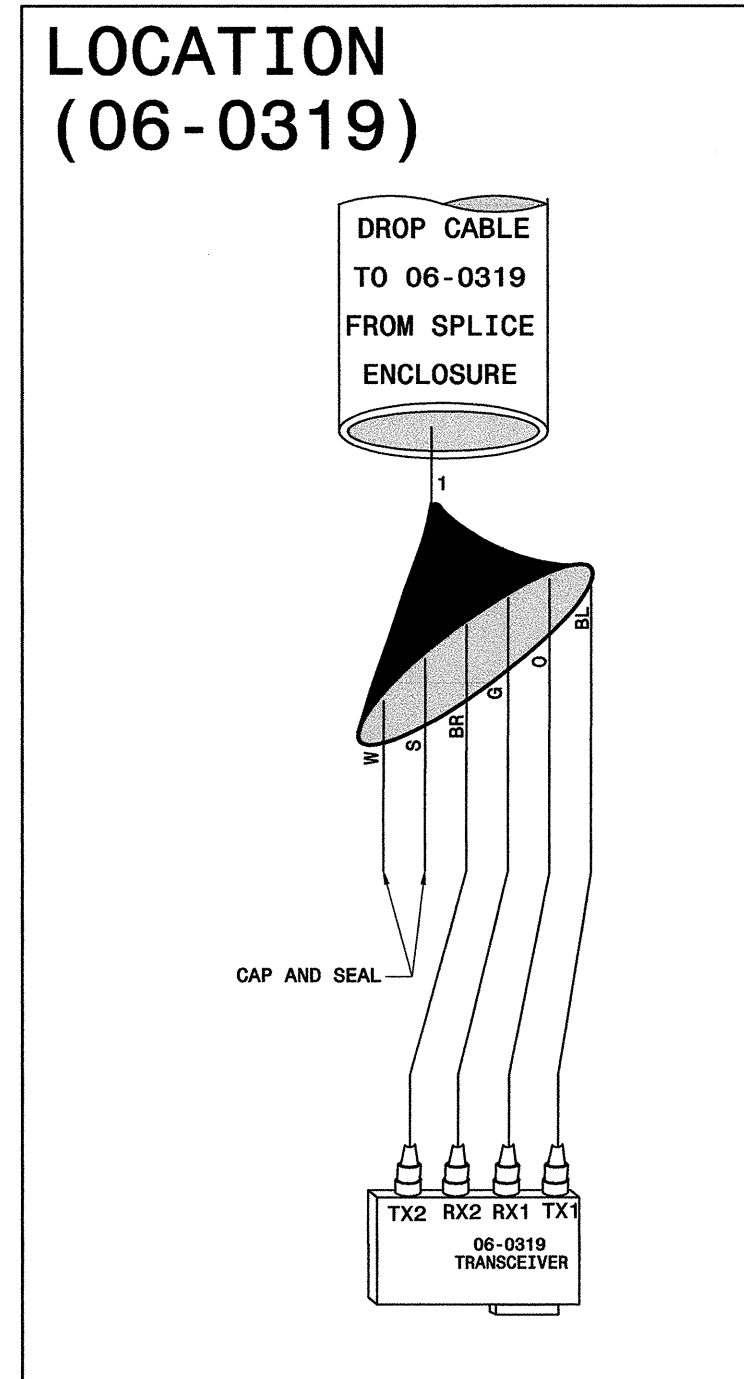
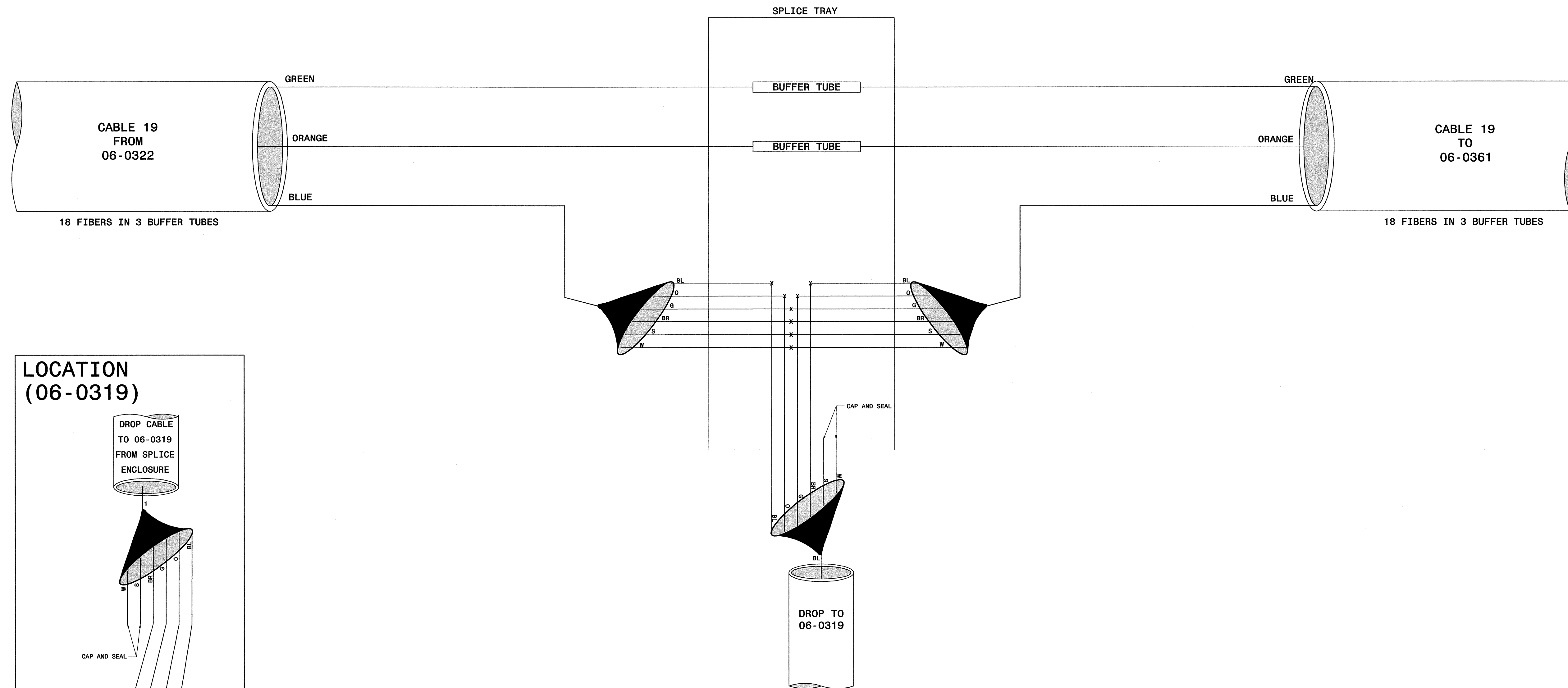


FINAL SPLICE DETAIL - TCP PHASE III STEP 1

|                       |   |      |  |
|-----------------------|---|------|--|
|                       | <b>SPLICING DETAILS<br/>         ALONG MORGANTON ROAD</b> |      |  |
|                       | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE                 |      |  |
| PLAN DATE: June 2007  | REVIEWED BY: D. Privette                                  |      |  |
| PREPARED BY: K. Bisby | REVIEWED BY:  |      |  |
| REVISIONS             | INIT.   | DATE |  |
| SIGNATURE             | DATE  |      |  |
| CADD Filename:        |   |      |  |

06-0319  
SR 1404 MORGANTON ROAD AT ALL AMERICAN FREEWAY NB RAMPS

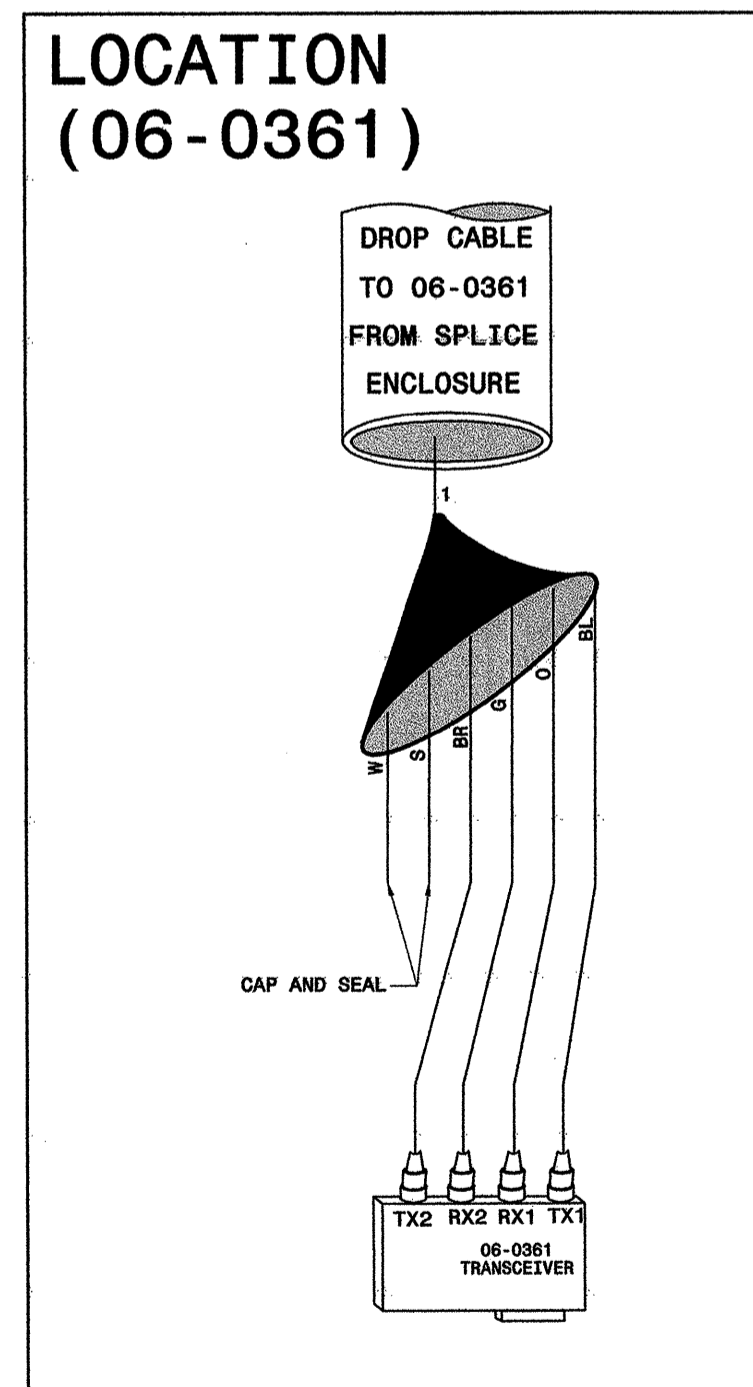
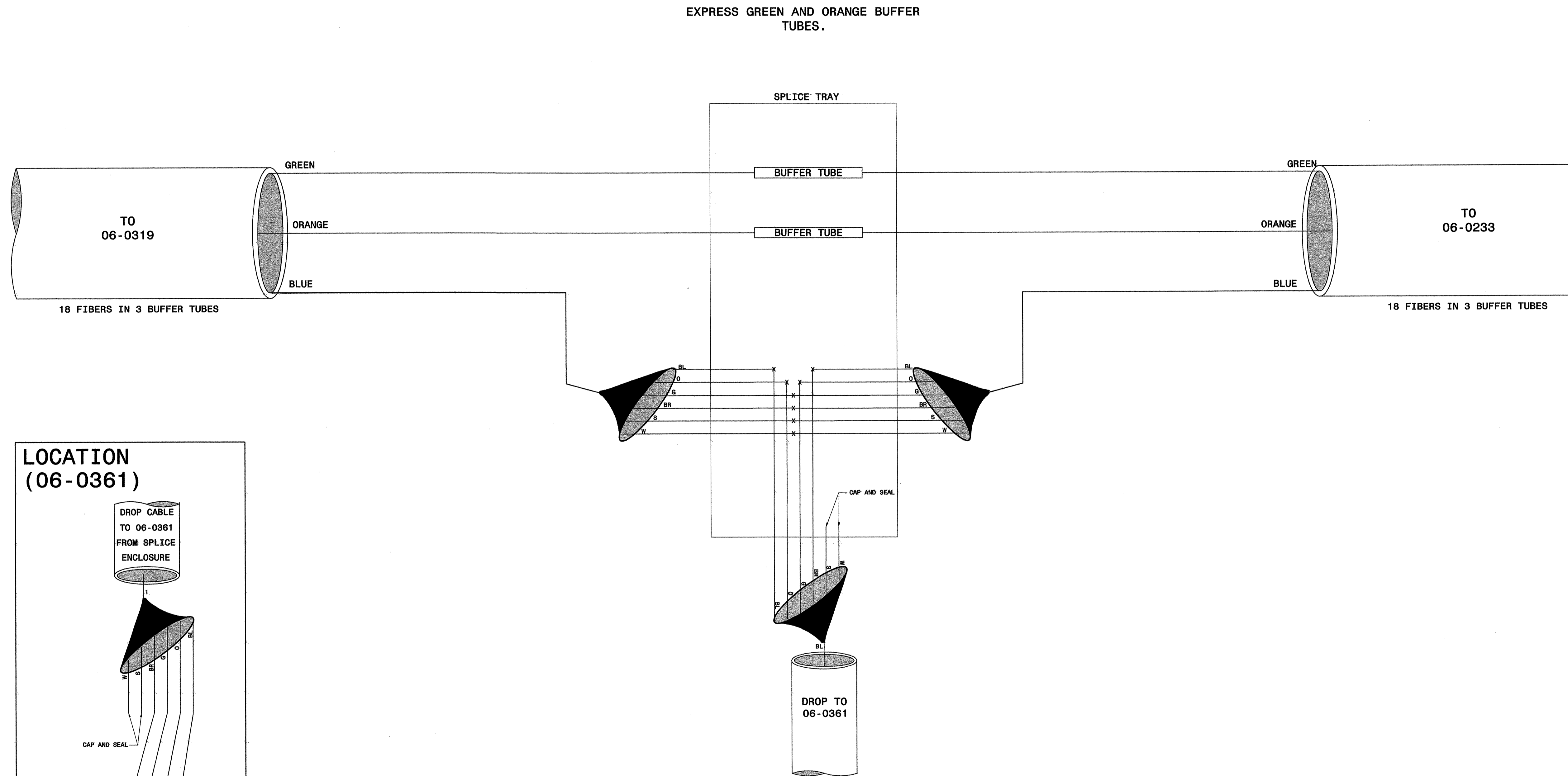
EXPRESS GREEN AND ORANGE BUFFER TUBES.



FINAL SPLICE DETAIL - TCP PHASE III STEP 1

|   | <b>SPLICING DETAILS<br/>ALONG MORGANTON ROAD</b>   |  |      |           |       |      |  |  |  |  |  |
|---|--|--|------|-----------|-------|------|--|--|--|--|--|
|   | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette<br>PREPARED BY: K. Bisby REVIEWED BY: | <table border="1"> <thead> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> |      | REVISIONS | INIT. | DATE |  |  |  |  |  |
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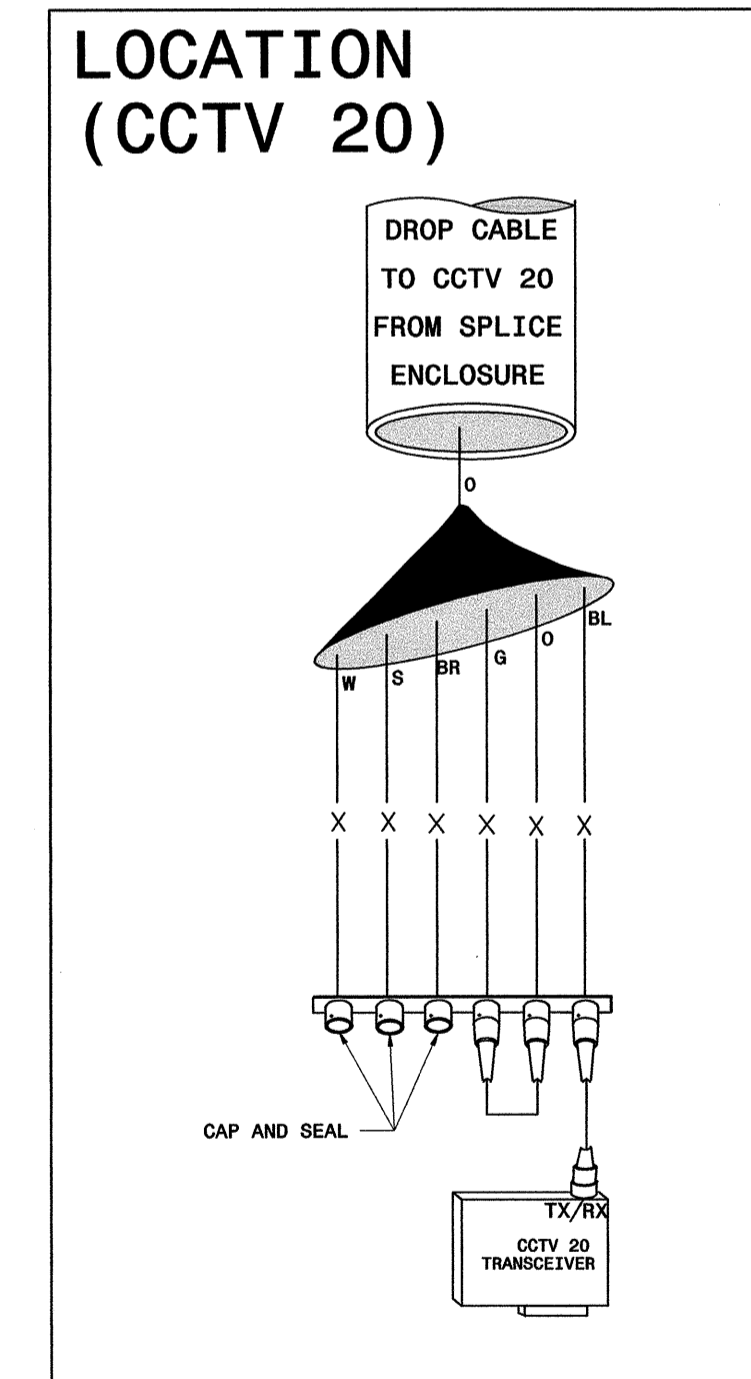
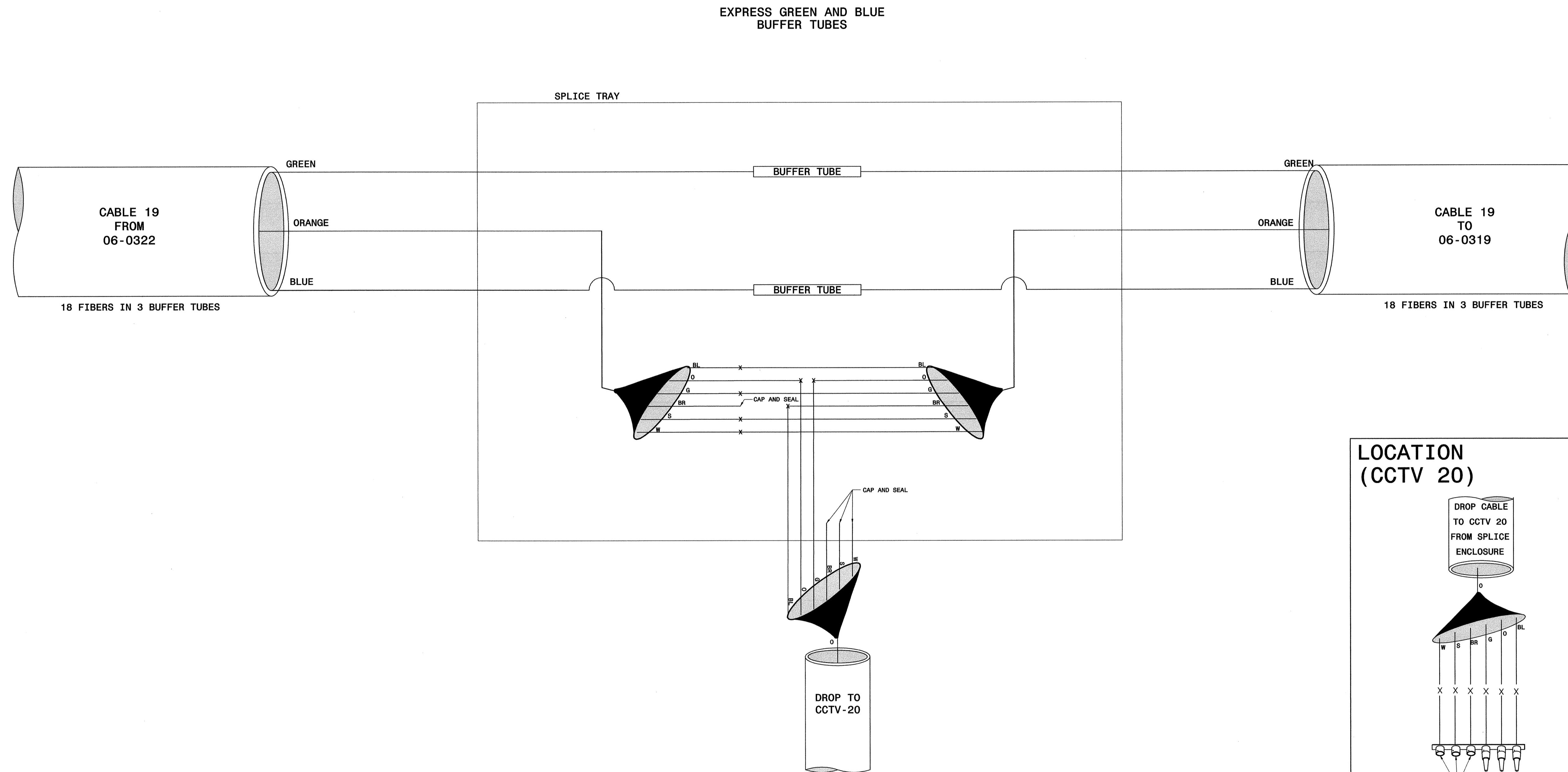
06-0361  
SR 1404 MORGANTON ROAD AT SYCAMORE DAIRY ROAD



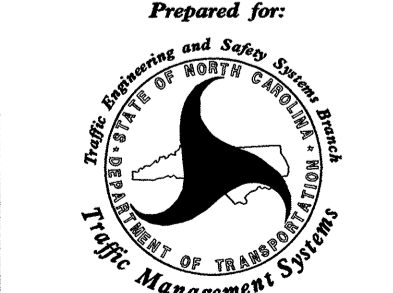
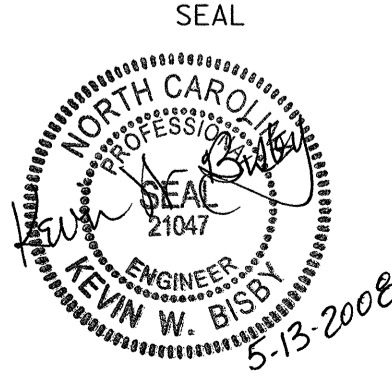
FINAL SPLICE DETAIL - TCP PHASE II STEP 2

|                       |  |              |  |
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|                       | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette |              |  |
| PREPARED BY: K. Bisby |  | REVIEWED BY: |  |
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# CCTV-20 SR 1404 MORGANTON ROAD EAST OF ALL AMERICAN FREEWAY NB RAMPS



FINAL SPLICE DETAIL - TCP PHASE III STEP 1

| <br>Prepared for:<br>122 N. McDowell St., Raleigh, NC 27603 | <b>SPLICING DETAILS<br/>ALONG MORGANTON ROAD</b>   |  | <br>SEAL<br>NORTH CAROLINA<br>PROFESSIONAL ENGINEER<br>KEVIN W. BISBY<br>5-13-2008 |           |       |      |  |  |  |  |  |
|--|--|--|---|-----------|-------|------|--|--|--|--|--|
|  | DIVISION 6 CUMBERLAND COUNTY FAYETTEVILLE<br>PLAN DATE: June 2007 REVIEWED BY: D. Privette<br>PREPARED BY: K. Bisby REVIEWED BY: | <table border="1"> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> |   | REVISIONS | INIT. | DATE |  |  |  |  |  |
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