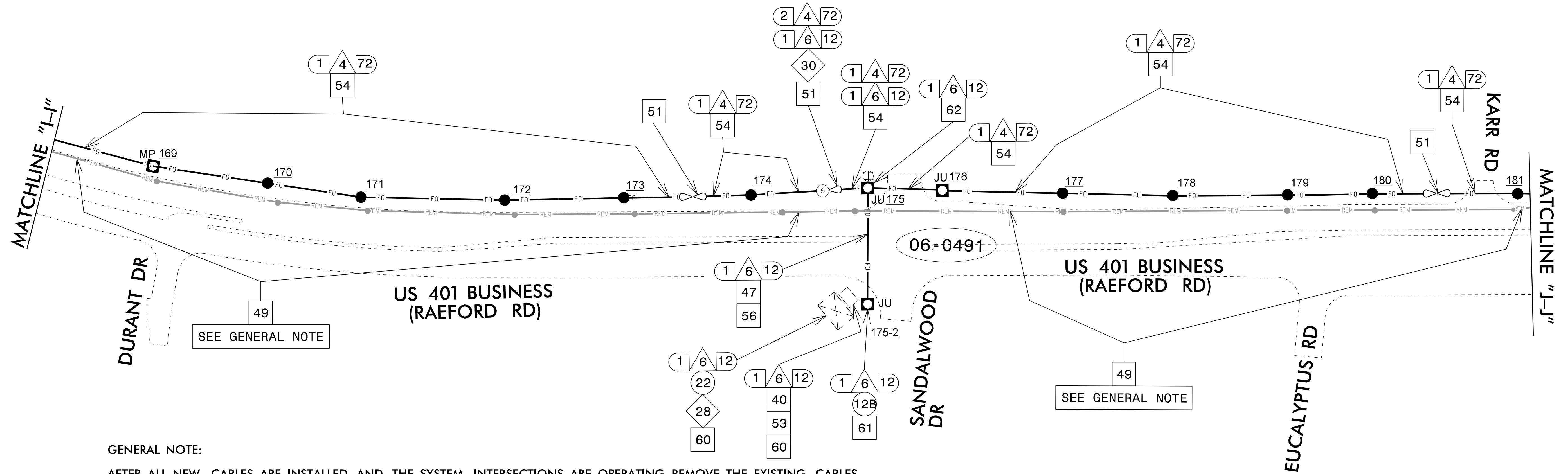


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- | | | | |
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| 1. INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE | 15. DIRECTIONAL DRILL CONDUIT | 30. INSTALL AERIAL SPlice ENCLOSURE | 46. INSTALL SIDEWALK GUY ASSEMBLY |
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| 7. INSTALL TRACER WIRE | 21. INSTALL CABLE(S) IN EXISTING CONDUIT STUBOUTS | 36. INSTALL CCTV CAMERA ASSEMBLY | 52. INSTALL DELINEATOR MARKER |
| 8. TRENCH | 22. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | 37. INSTALL CCTV CAMERA WOOD POLE | 53. STORE 50 FEET OF COMMUNICATIONS CABLE |
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| 10. INSTALL RIGID, GALVANIZED STEEL CONDUIT | 24. INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET | 39. INSTALL JUNCTION BOX | 55. LASH CABLE(S) TO EXISTING MESSENGER CABLE |
| 11. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD | 25. INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET | 40. INSTALL OVERSIZED JUNCTION BOX | 56. LASH CABLE(S) TO NEW MESSENGER CABLE |
| 12A. INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 26. TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET | 41. REMOVE EXISTING JUNCTION BOX | 57. MODIFY EXISTING ELECTRICAL SERVICE |
| 12B. INSTALL CABLES/DROP CABLE THROUGH NIPPLE ON METAL POLE (SIGNAL OR JOINT USE). INSTALL HEAT SHRINK TUBING OVER NIPPLE. | 27. INSTALL NEW TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET | 42. INSTALL WOOD POLE | 58. INSTALL NEW ELECTRICAL SERVICE FOR DMS/CCTV |
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| 14. INSTALL POLYETHYLENE CONDUIT | 29. INSTALL UNDERGROUND SPlice ENCLOSURE | 44. INSTALL AERIAL GUY ASSEMBLY | 60. SEAL ALL CONDUIT ENTERING JUNCTION BOXES AND SIGNAL/CCTV/DMS CONTROL CABINETS WITH MOLDABLE DUCT SEAL |
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| | | | 62. INSTALL TEMPORARY DROP CABLE MAINTENANCE LOOP WITH CABLE BRACKET |
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| | | | TV. EXISTING CCTV CABINET |
| | | | FO. NEW FIBER OPTIC COMMUNICATIONS CABLE |
| | | | REM. EXISTING COMMUNICATIONS CABLE TO BE REMOVED OR RELOCATED |
| | | | PP. EXISTING POWER PEDESTAL |
| | | | 174. UTILITY POLE TAG NUMBER |
| | | | JU. JOINT USE POLE |
| | | | MP. METAL POLE |

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PHASE II FIBER TRUNK CABLE INSTALLATION

Prepared for the Offices of:

750 N. Greenfield Plaza, Garner, NC 27529

**US 401 BUSINESS (RAEFORD ROAD)
SIGNAL SYSTEM AND
COMMUNICATIONS CABLE /
CONDUIT ROUTING PLANS**

DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS

PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

REVISIONS	INIT.	DATE

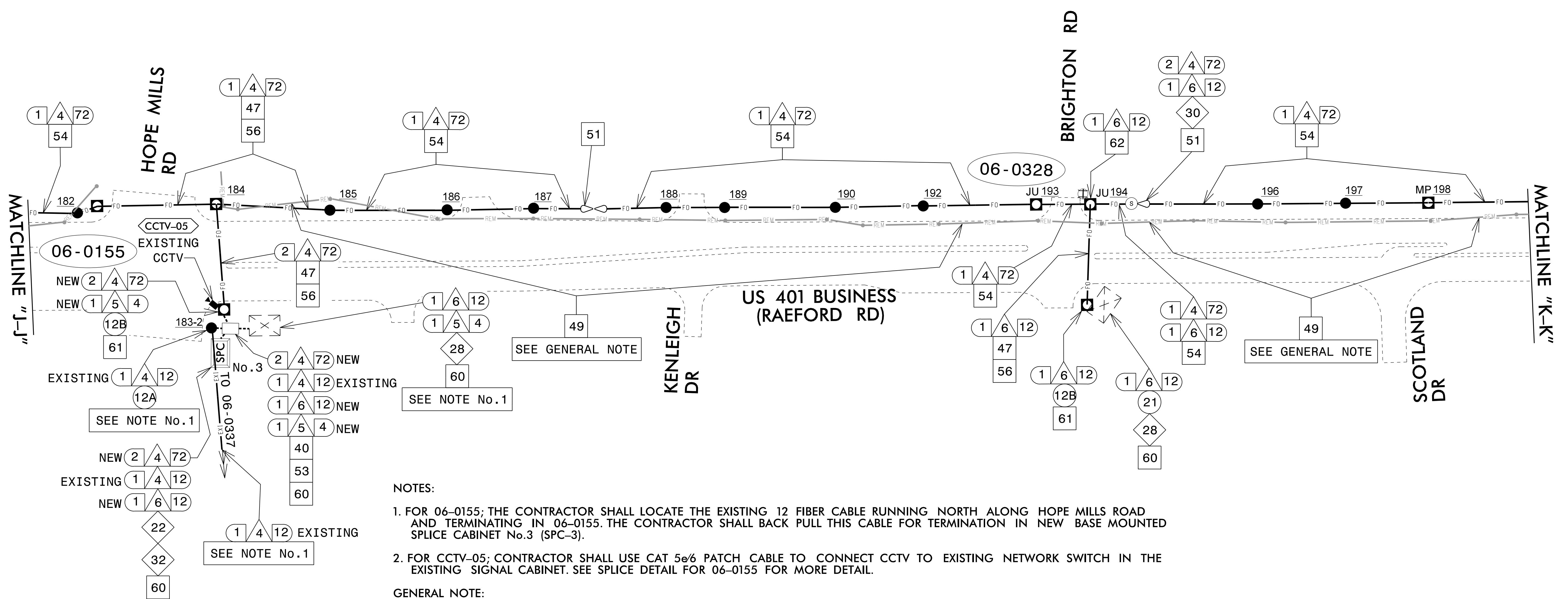
SEAL

Lawrence E. Overton
Professional Engineer
No. 045933
State of North Carolina

DocuSigned by:
Lawrence E. Overton 3/29/2018

CADD FILE NAME

3/27/2018
 U:*171001766*tr\transportation\des\ign*Tr\off\c\5\gnal\des\ign*ITS U-4405*SCP Cable Routing.dgn
 j.ingram



NOTES:

- FOR 06-0155; THE CONTRACTOR SHALL LOCATE THE EXISTING 12 FIBER CABLE RUNNING NORTH ALONG HOPE MILLS ROAD AND TERMINATING IN 06-0155. THE CONTRACTOR SHALL BACK PULL THIS CABLE FOR TERMINATION IN NEW BASE MOUNTED SPLICE CABINET No.3 (SPC-3).
- FOR CCTV-05; CONTRACTOR SHALL USE CAT 5e/6 PATCH CABLE TO CONNECT CCTV TO EXISTING NETWORK SWITCH IN THE EXISTING SIGNAL CABINET. SEE SPLICE DETAIL FOR 06-0155 FOR MORE DETAIL.

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PHASE II FIBER TRUNK CABLE INSTALLATION

Prepared for the Offices of:

750 N. Greenfield Plaza, Garner, NC 27529

US 401 BUSINESS (RAEFORD ROAD) SIGNAL SYSTEM AND COMMUNICATIONS CABLE / CONDUIT ROUTING PLANS

DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

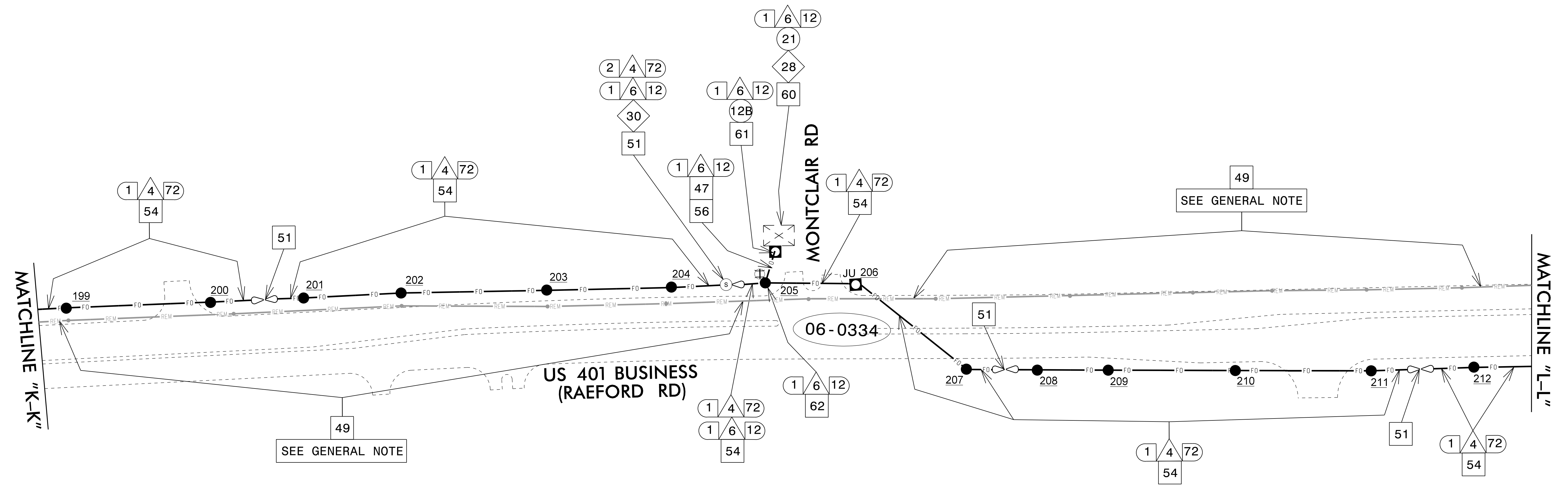
PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS

PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

SEAL

Lawrence E. Overton
 ENGINEER
 SEAL 045933
 DATE 3/29/2018

3/27/2018
 U:*171001766*tr\transportation\des\ign*ITS U-4405*SCP Cable Routing.dgn
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 j.ingram



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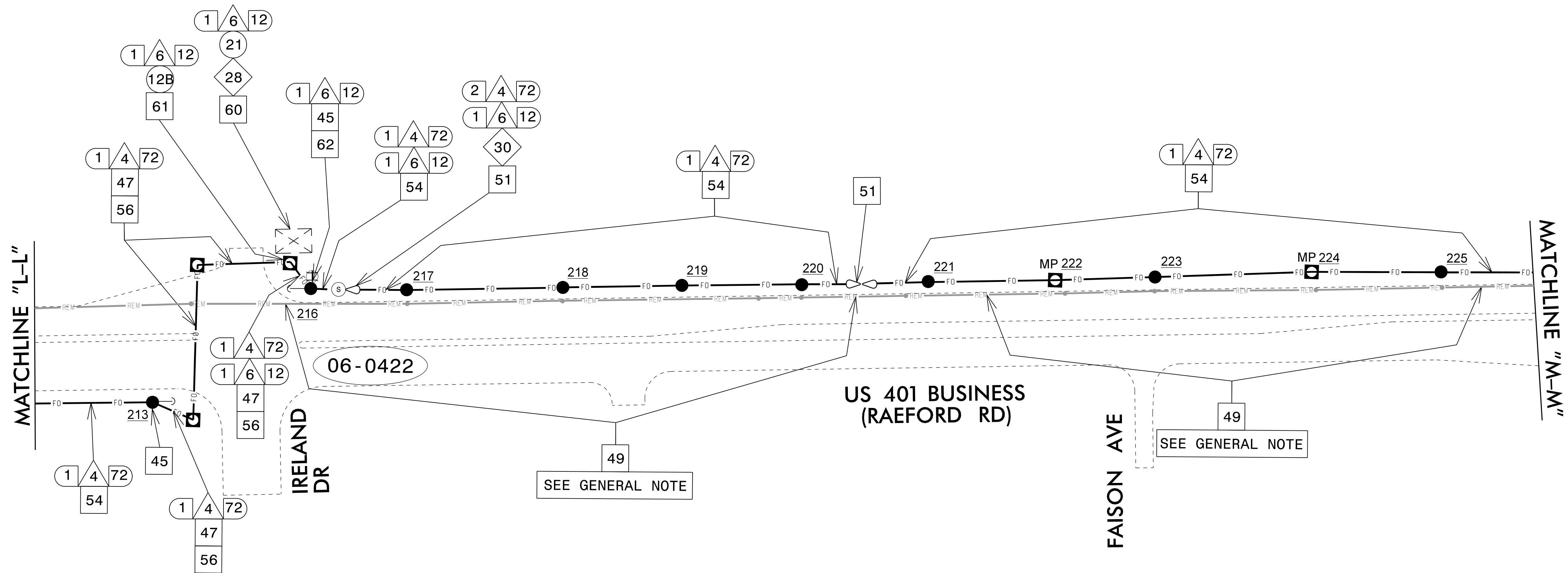
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PHASE II FIBER TRUNK CABLE INSTALLATION

<p>Prepared for the Offices of: DEPARTMENT OF TRANSPORTATION TRANSPORTATION DIVISION</p>		<p>SEAL LAWRENCE E. OVERTON ENGINEER SEAL 045933</p>
<p>US 401 BUSINESS (RAEFORD ROAD) SIGNAL SYSTEM AND COMMUNICATIONS CABLE / CONDUIT ROUTING PLANS</p>		<p>SEAL LAWRENCE E. OVERTON ENGINEER SEAL 045933</p>
<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p>		<p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p>
<p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>		<p>REVISIONS INIT. DATE</p>
<p>750 N. Greenfield Plaza, Garner, NC 27529</p>		<p>DocuSigned by: Lawrence E Overton 3/29/2018 SEAL 045933 CADD FILE NAME</p>

3/27/2018 U:*171001766*transportation\des\ign*Tr\off\c\signal\des\ign*ITS U-4405*SCP Cable Route\ing\dgn U-4405*SCP-14-180329.dgn j.ingram



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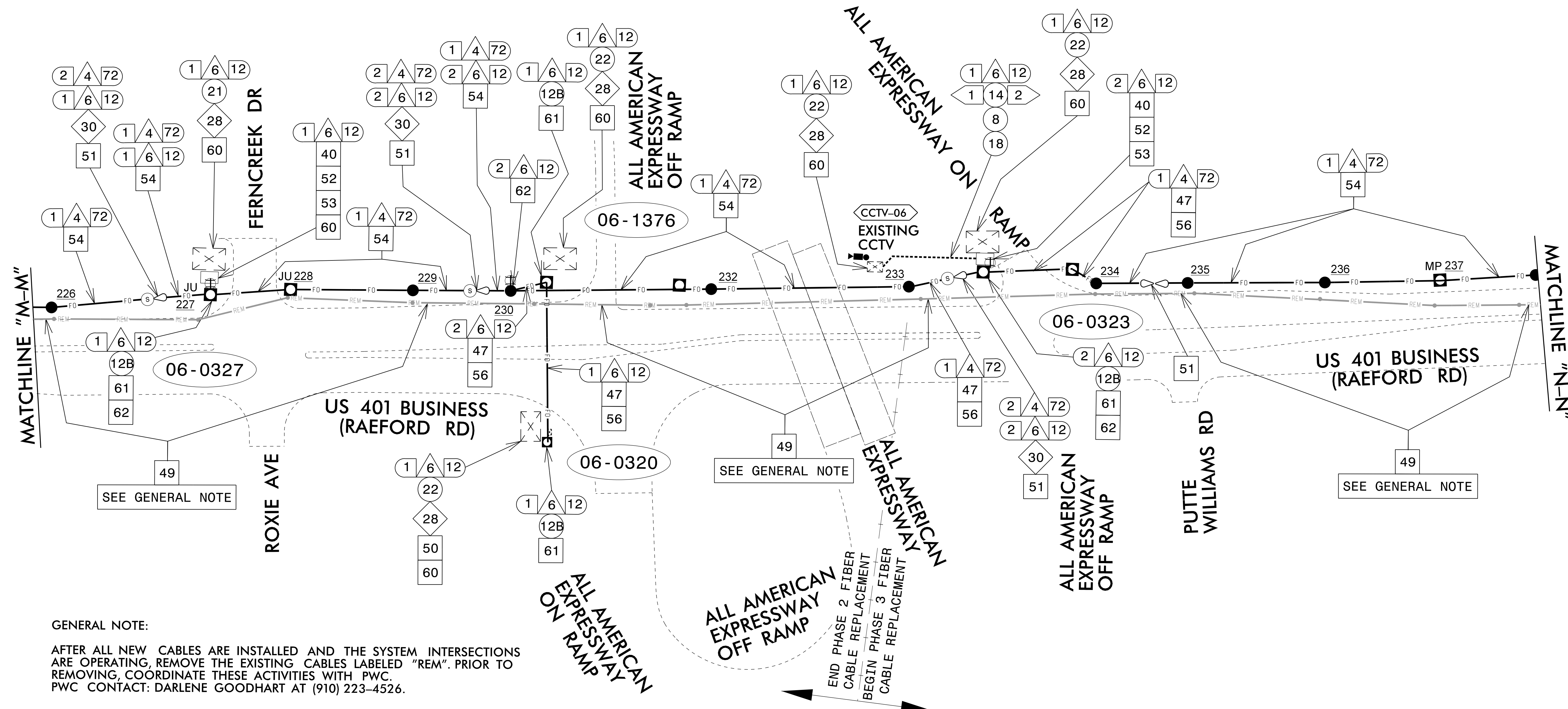
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| <ul style="list-style-type: none"> 1 INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE 2 INSTALL REA, PE - 38, (FIGURE - 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE 3 INSTALL 3-CONDUCTOR, CLASS B, STRANDED UNDERGROUND POWER CABLE 4 INSTALL SMFO CABLE 5 INSTALL WEATHERPROOF CATEGORY 5e UTP - 4 PAIR 23 AWG CABLE (PcE) 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 12A INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL 12B INSTALL CABLES/DROP CABLE THROUGH NIPPLE ON METAL POLE (SIGNAL OR JOINT USE). INSTALL HEAT SHRINK TUBING OVER NIPPLE. 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 STUBOUTS 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 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 CABINET 32 INSTALL BASE MOUNTED SPlice CABINET (336) WITH EXTEND BASE 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 CABLE AND MESSENGER CABLE 49 REMOVE EXISTING COMMUNICATIONS CABLE 50 INSTALL ETHERNET SWITCH 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE 52 INSTALL DELINEATOR MARKER 53 STORE 50 FEET OF COMMUNICATIONS CABLE 54 LASH CABLE(S) TO EXISTING PWC FIBER OPTIC LINE 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 FOR DMS/CCTV 59 INSTALL NEW BASE MOUNTED CABINET (336) 60 SEAL ALL CONDUIT ENTERING JUNCTION BOXES AND SIGNAL/CCTV/DMS CONTROL CABINETS WITH MOLDABLE DUCT SEAL 61 ROUTE CABLE(S) INSIDE METAL POLE AND OUT TO SIGNAL CABINET. USE EXISTING JUNCTION BOXES AND CONDUIT SYSTEMS WHEN AVAILABLE. ENSURE FIBER CABLES DO NOT SHARE JUNCTION BOXES AND CONDUIT SYSTEMS WITH SIGNAL CABLES OR OTHER 120 VOLT CURRENT CARRYING CONDUCTORS. 62 INSTALL TEMPORARY DROP CABLE MAINTENANCE LOOP WITH CABLE BRACKET | <ul style="list-style-type: none"> SPC NEW SPlice CABINET, BASE MOUNTED TV EXISTING CCTV CABINET FO NEW FIBER OPTIC COMMUNICATIONS CABLE REM EXISTING COMMUNICATIONS CABLE TO BE REMOVED OR RELOCATED PP EXISTING POWER PEDESTAL 174 UTILITY POLE TAG NUMBER JU JOINT USE POLE MP METAL POLE |
|--|--|

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 Fax. (919) 851-7024
 www.stantec.com
 License No. F-0672

**END OF PHASE II AND BEGINNING OF PHASE III
 FIBER TRUNK CABLE INSTALLATION**

Prepared for the Offices of:

750 N. Greenfield Plaza, Garner, NC 27529

**US 401 BUSINESS (RAEFORD ROAD)
 SIGNAL SYSTEM AND
 COMMUNICATIONS CABLE /
 CONDUIT ROUTING PLANS**

DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS

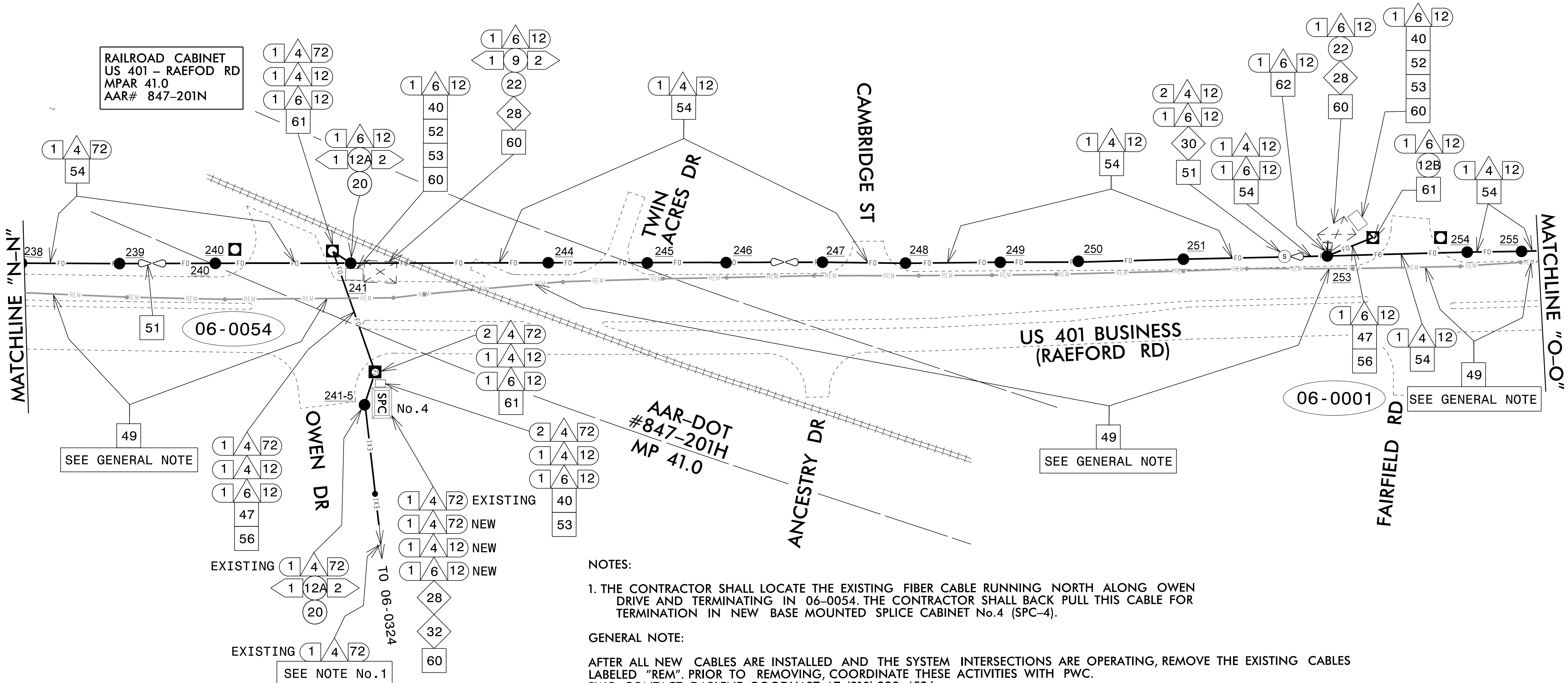
PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

REVISIONS	INIT.	DATE

SEAL

Lawrence E. Overton
 3/29/2018

3/27/2018
 U:*171001766*transportation\design\Tr\off\c\signal\des\ign\ITS U-4405*SCP Cable Routing.dgn
 j.ingram



NOTES:

- THE CONTRACTOR SHALL LOCATE THE EXISTING FIBER CABLE RUNNING NORTH ALONG OWEN DRIVE AND TERMINATING IN 06-0054. THE CONTRACTOR SHALL BACK PULL THIS CABLE FOR TERMINATION IN NEW BASE MOUNTED SPlice CABINET No.4 (SPC-4).

GENERAL NOTE:

AFTER ALL NEW CABLES ARE INSTALLED AND THE SYSTEM INTERSECTIONS ARE OPERATING, REMOVE THE EXISTING CABLES LABELED "REM". PRIOR TO REMOVING, COORDINATE THESE ACTIVITIES WITH PWC. PWC CONTACT: DARLENE GOODHART AT (910) 223-4526.

- | | |
|---|---|
| <ul style="list-style-type: none"> 1 INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE 2 INSTALL REA, PE - 38, (FIGURE - 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE 3 INSTALL 3-CONDUCTOR, CLASS B, STRANDED UNDERGROUND POWER CABLE 4 INSTALL SMFO CABLE 5 INSTALL WEATHERPROOF CATEGORY 5e UTP - 4 PAIR 23 AWG CABLE (PcE) 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 12A INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL 12B INSTALL CABLES/DROP CABLE THROUGH NIPPLE ON METAL POLE (SIGNAL OR JOINT USE). INSTALL HEAT SHRINK TUBING OVER NIPPLE. 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 STUBOUTS 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 27 INSTALL NEW TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPICE CABLE IN CABINET 29 INSTALL UNDERGROUND SPICE ENCLOSURE 30 INSTALL AERIAL SPICE ENCLOSURE 31 INSTALL POLE MOUNTED CABINET 32 INSTALL BASE MOUNTED SPICE CABINET (336) WITH EXTEND BASE 33 REMOVE EXISTING SPICE 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 CABLE AND MESSENGER CABLE 49 REMOVE EXISTING COMMUNICATIONS CABLE 50 INSTALL ETHERNET SWITCH 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE 52 INSTALL DELINEATOR MARKER 53 STORE 50 FEET OF COMMUNICATIONS CABLE 54 LASH CABLE(S) TO EXISTING PWC FIBER OPTIC LINE 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 FOR DMS/CCTV 59 INSTALL NEW BASE MOUNTED CABINET (336) 60 SEAL ALL CONDUIT ENTERING JUNCTION BOXES AND SIGNAL/CCTV/DMS CONTROL CABINETS WITH MOLDBLE DUCT SEAL | <ul style="list-style-type: none"> 61 ROUTE CABLE(S) INSIDE METAL POLE AND OUT TO SIGNAL CABINET. USE EXISTING JUNCTION BOXES AND CONDUIT SYSTEMS WHEN AVAILABLE. ENSURE FIBER CABLES DO NOT SHARE JUNCTION BOXES AND CONDUIT SYSTEMS WITH SIGNAL CABLES OR OTHER 120 VOLT CURRENT CARRYING CONDUCTORS. 62 INSTALL TEMPORARY DROP CABLE MAINTENANCE LOOP WITH CABLE BRACKET |
|---|---|

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www.stantec.com
License No. F-0672

PHASE III FIBER TRUNK CABLE INSTALLATION

Prepared for the Offices of:

750 N. Greenfield Plaza, Garner, NC 27529

US 401 BUSINESS (RAEFORD ROAD) SIGNAL SYSTEM AND COMMUNICATIONS CABLE / CONDUIT ROUTING PLANS

DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS

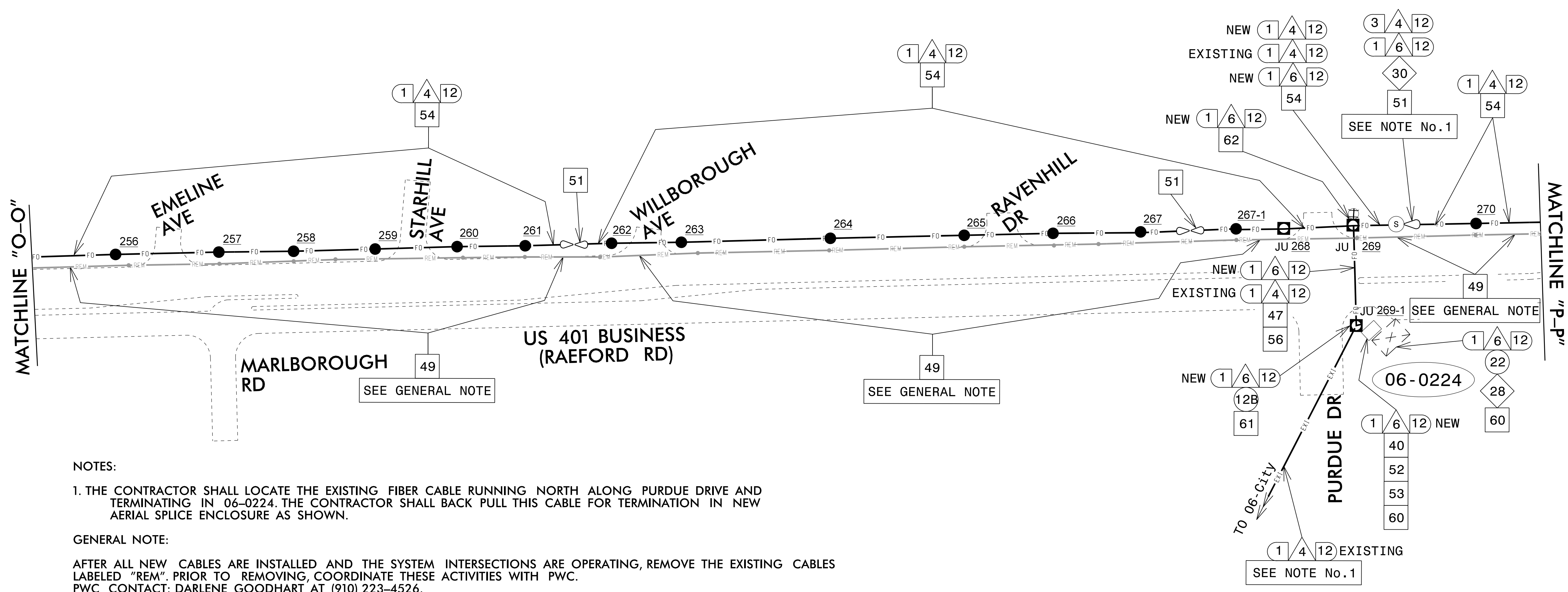
PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

SEAL

Lawrence E. Overton 3/29/2018

NO.	REVISIONS	INIT.	DATE

3/27/2018 U:*171001766*transportation\desig\tr\off\c\5\signal\desig\ITS U-4405*SCP Cable Route Routing.dgn U-4405*SCP Cable Route Routing.dgn U-4405*SCP Cable Route Routing.dgn



NOTES:

1. THE CONTRACTOR SHALL LOCATE THE EXISTING FIBER CABLE RUNNING NORTH ALONG PURDUE DRIVE AND TERMINATING IN 06-0224. THE CONTRACTOR SHALL BACK PULL THIS CABLE FOR TERMINATION IN NEW AERIAL SPICE ENCLOSURE AS SHOWN.

GENERAL NOTE:

AFTER ALL NEW CABLES ARE INSTALLED AND THE SYSTEM INTERSECTIONS ARE OPERATING, REMOVE THE EXISTING CABLES LABELED "REM". PRIOR TO REMOVING, COORDINATE THESE ACTIVITIES WITH PWC. PWC CONTACT: DARLENE GOODHART AT (910) 223-4526.

1. INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE	15. DIRECTIONAL DRILL CONDUIT	30. INSTALL AERIAL SPICE ENCLOSURE	46. INSTALL SIDEWALK GUY ASSEMBLY
2. INSTALL REA, PE - 38, (FIGURE - 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE	16. BORE AND JACK CONDUIT	31. INSTALL POLE MOUNTED CABINET	47. INSTALL MESSENGER CABLE
3. INSTALL 3-CONDUCTOR, CLASS B, STRANDED UNDERGROUND POWER CABLE	17. INSTALL CABLE(S) IN EXISTING CONDUIT	32. INSTALL BASE MOUNTED SPICE CABINET (336) WITH EXTEND BASE	48. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
4. INSTALL SMFO CABLE	18. INSTALL CABLE(S) IN NEW CONDUIT	33. REMOVE EXISTING SPICE CABINET	49. REMOVE EXISTING COMMUNICATIONS CABLE
5. INSTALL WEATHERPROOF CATEGORY 5e UTP - 4 PAIR 23 AWG CABLE (PoE)	19. INSTALL CABLE(S) IN EXISTING RISER	34. INSTALL CABINET FOUNDATION	50. INSTALL ETHERNET SWITCH
6. INSTALL FIBER OPTIC DROP CABLE	20. INSTALL CABLE(S) IN NEW RISER	35. REMOVE EXISTING CABINET FOUNDATION	51. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
7. INSTALL TRACER WIRE	21. INSTALL CABLE(S) IN EXISTING CONDUIT STUBOUTS	36. INSTALL CCTV CAMERA ASSEMBLY	52. INSTALL DELINEATOR MARKER
8. TRENCH	22. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)	37. INSTALL CCTV CAMERA WOOD POLE	53. STORE 50 FEET OF COMMUNICATIONS CABLE
9. INSTALL PVC CONDUIT	23. INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)	38. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION	54. LASH CABLE(S) TO EXISTING PWC FIBER OPTIC LINE
10. INSTALL RIGID, GALVANIZED STEEL CONDUIT	24. INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET	39. INSTALL JUNCTION BOX	55. LASH CABLE(S) TO EXISTING MESSENGER CABLE
11. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	25. INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET	40. INSTALL OVERSIZED JUNCTION BOX	56. LASH CABLE(S) TO NEW MESSENGER CABLE
12A. INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL	26. TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET	41. REMOVE EXISTING JUNCTION BOX	57. MODIFY EXISTING ELECTRICAL SERVICE
12B. INSTALL CABLES/DROP CABLE THROUGH NIPPLE ON METAL POLE (SIGNAL OR JOINT USE). INSTALL HEAT SHRINK TUBING OVER NIPPLE.	27. INSTALL NEW TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET	42. INSTALL WOOD POLE	58. INSTALL NEW ELECTRICAL SERVICE FOR DMS/CCTV
13. INSTALL OUTER-DUCT POLYETHYLENE CONDUIT	28. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPICE CABLE IN CABINET	43. REMOVE EXISTING WOOD POLE	59. INSTALL NEW BASE MOUNTED CABINET (336)
14. INSTALL POLYETHYLENE CONDUIT	29. INSTALL UNDERGROUND SPICE ENCLOSURE	44. INSTALL AERIAL GUY ASSEMBLY	60. SEAL ALL CONDUIT ENTERING JUNCTION BOXES AND SIGNAL/CCTV/DMS CONTROL CABINETS WITH MOLDABLE DUCT SEAL
		45. INSTALL STANDARD GUY ASSEMBLY	

Stantec Consulting Services Inc.
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Fax. (919) 851-7024
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PHASE III FIBER TRUNK CABLE INSTALLATION

Prepared for the Offices of:

 750 N. Greenfield Plaza, Garner, NC 27529

US 401 BUSINESS (RAEFORD ROAD)
SIGNAL SYSTEM AND
COMMUNICATIONS CABLE /
CONDUIT ROUTING PLANS

DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS

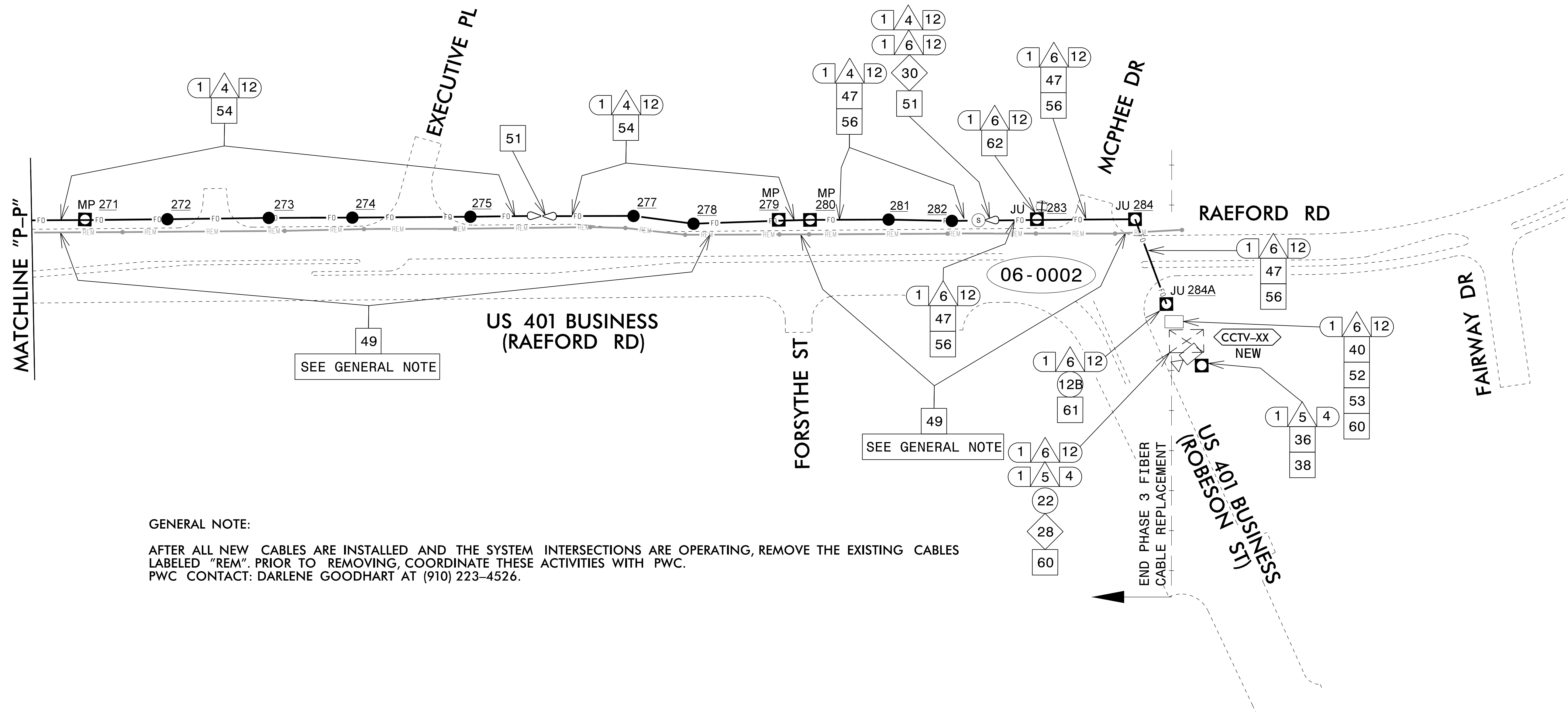
PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

REVISIONS	INIT.	DATE

SEAL

Lawrence E. Overton
Professional Engineer
SEAL 045933
DATE 3/29/2018

3/27/2018 U:*171001766*tr\transportation\des\ign*Tr\off\c\45\ign\des\ign*ITS U-4405*SCP Cable Routing.dgn F:\les*260_90_U-4405_SCP_18_180329.dgn j.ingram



GENERAL NOTE:

AFTER ALL NEW CABLES ARE INSTALLED AND THE SYSTEM INTERSECTIONS ARE OPERATING, REMOVE THE EXISTING CABLES LABELED "REM". PRIOR TO REMOVING, COORDINATE THESE ACTIVITIES WITH PWC. PWC CONTACT: DARLENE GOODHART AT (910) 223-4526.

- | | | | |
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| 2. INSTALL REA, PE - 38, (FIGURE - 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE | 16. BORE AND JACK CONDUIT | 31. INSTALL POLE MOUNTED CABINET | 47. INSTALL MESSENGER CABLE |
| 3. INSTALL 3-CONDUCTOR, CLASS B, STRANDED UNDERGROUND POWER CABLE | 17. INSTALL CABLE(S) IN EXISTING CONDUIT | 32. INSTALL BASE MOUNTED SPlice CABINET (336) WITH EXTEND BASE | 48. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE |
| 4. INSTALL SMFO CABLE | 18. INSTALL CABLE(S) IN NEW CONDUIT | 33. REMOVE EXISTING SPlice CABINET | 49. REMOVE EXISTING COMMUNICATIONS CABLE |
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PHASE III FIBER TRUNK CABLE INSTALLATION

Prepared for the Offices of:

750 N. Greenfield Plaza, Garner, NC 27529

US 401 BUSINESS (RAEFORD ROAD) SIGNAL SYSTEM AND COMMUNICATIONS CABLE / CONDUIT ROUTING PLANS

DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS

PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

REVISIONS	INIT.	DATE

SEAL

DocuSigned by:
Lawrence E. Overton 3/29/2018

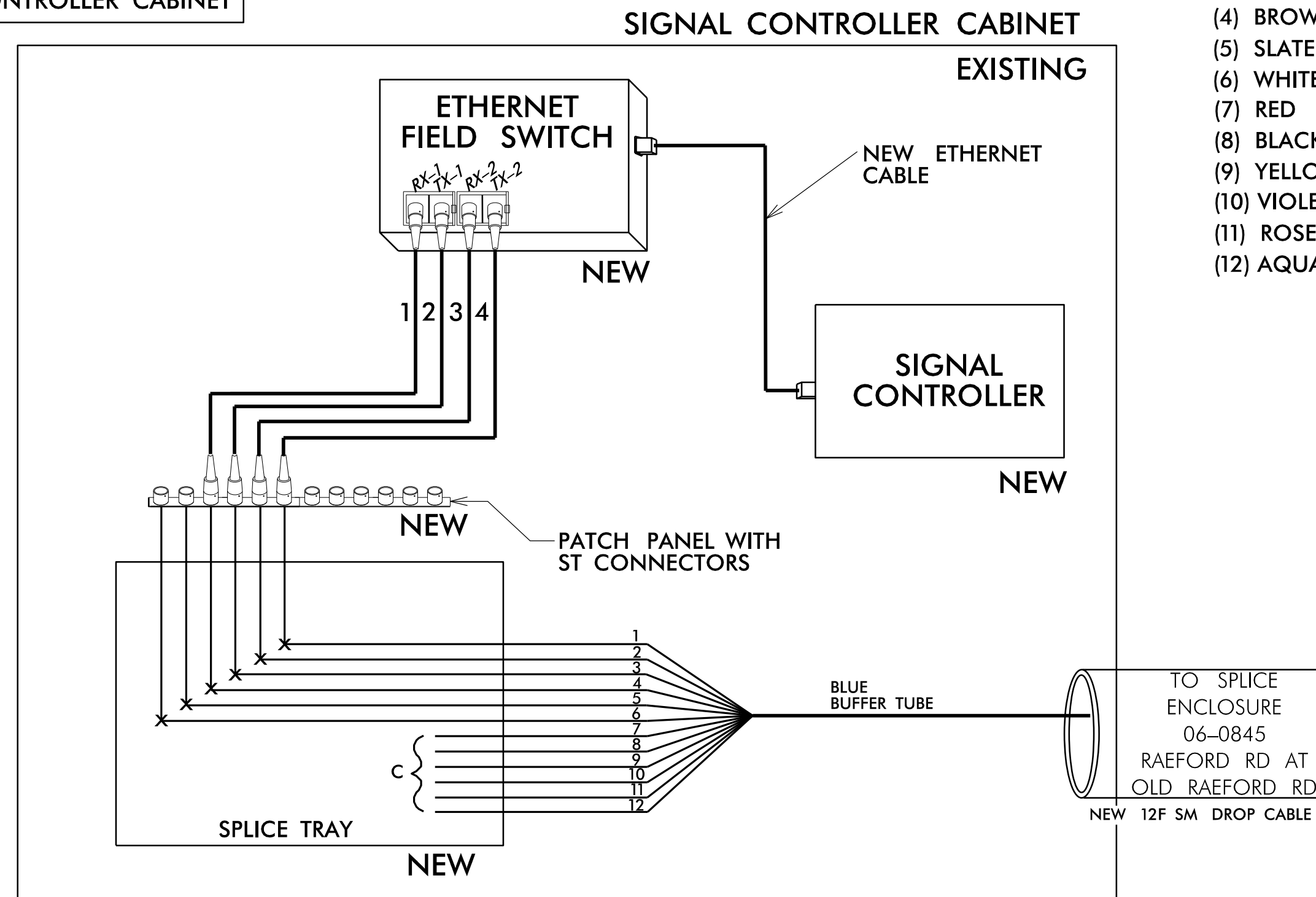
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3/27/2018 U:*171001766*tr\transportation\des\ign*Tr\off\c\5\ign\des\ign*ITS U-4405*SCP Cable Routing.dgn U-4405*SCP Cable Routing.dgn F:\es*260_95_U-4405_SCP_SCP-19_180329.dgn j.ingram

INTERSECTION 06-0845
US 401 (South Raeford Rd.)
at
SR 3569 (Raeford Rd-Old US 401)
Bentrige Ln.
EXISTING SIGNAL CONTROLLER CABINET

LEGEND
X = FUSION SPICE
C = CAP IN TRAY
SM FIBER PATCH CORD WITH CONNECTORS

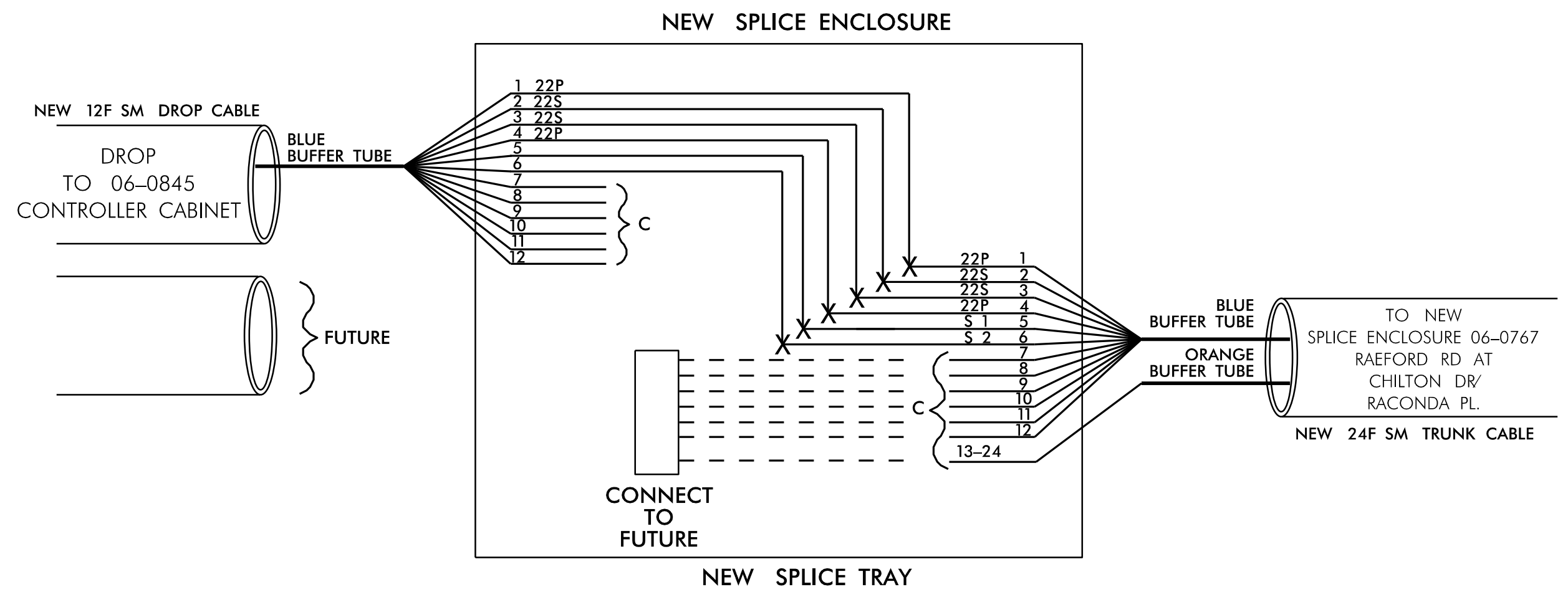
COLOR CODE TIA/EIA 598-A
(1) BLUE
(2) ORANGE
(3) GREEN
(4) BROWN
(5) SLATE
(6) WHITE
(7) RED
(8) BLACK
(9) YELLOW
(10) VIOLET
(11) ROSE
(12) AQUA



CHANNEL 22
INTERSECTION 06-0845
US 401 (South Raeford Rd.)
at
SR 3569 (Raeford Rd-Old US 401)
Bentrige Ln.
NEW SPLICE ENCLOSURE

LEGEND
X = FUSION SPICE
C = CAP IN TRAY

COLOR CODE TIA/EIA 598-A
(1) BLUE (7) RED
(2) ORANGE (8) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET
(5) SLATE (11) ROSE
(6) WHITE (12) AQUA



- 1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - 1.) THE PROJECT IP ADDRESS, DEFAULT GATEWAY, SUBNET MASK AND VLAN ID INFORMATION.
 - 2.) NOTIFY THE DEPUTY TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY.
 - 3.) WORK IS NOT COMPLETE UNTIL THE SYSTEM IS OPERATIONAL.
- 2) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:

REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

 - 1.) SPLICE LOCATION
 - 2.) DATE
 - 3.) COMPANY NAME
 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPLICING

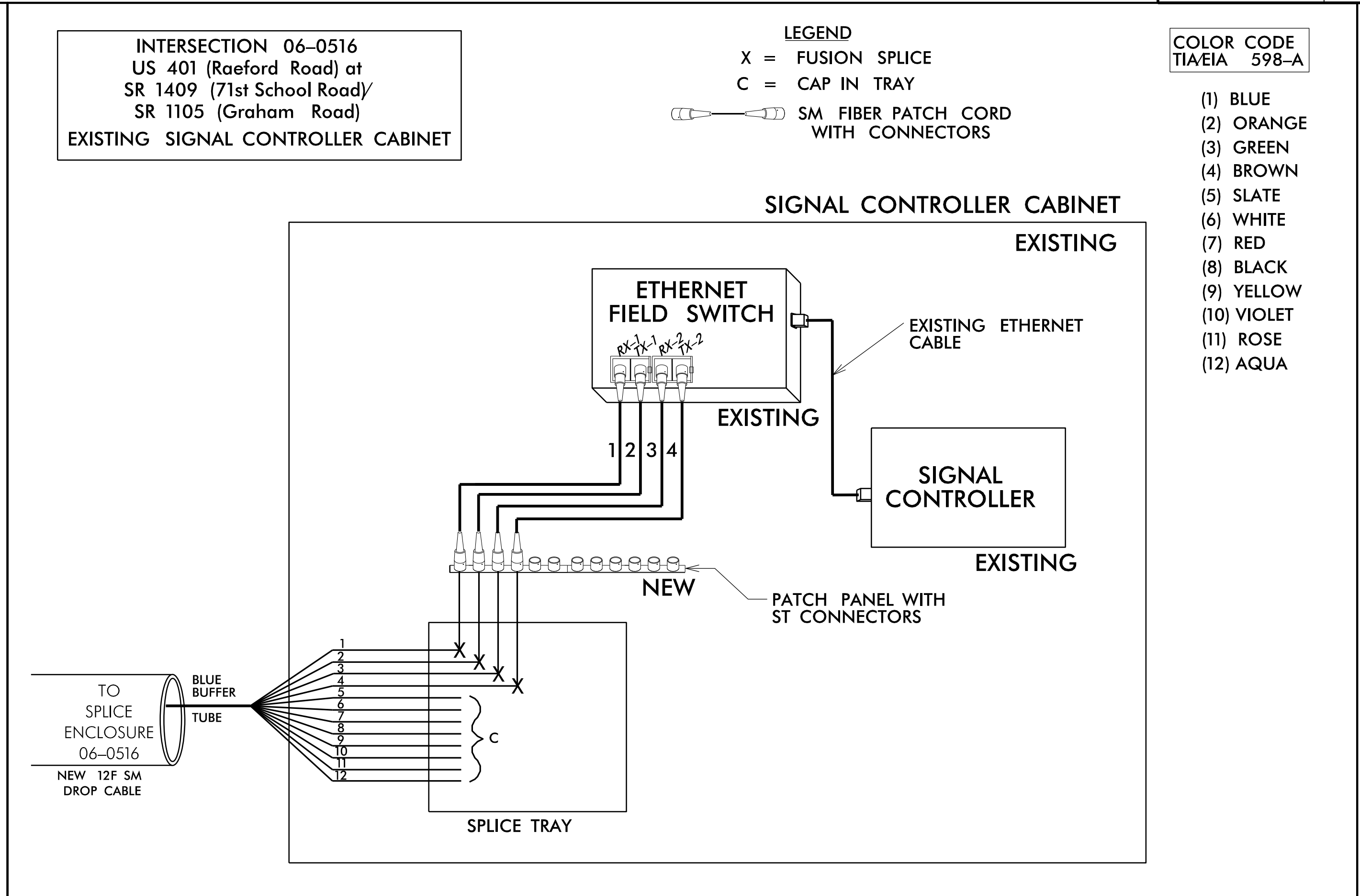
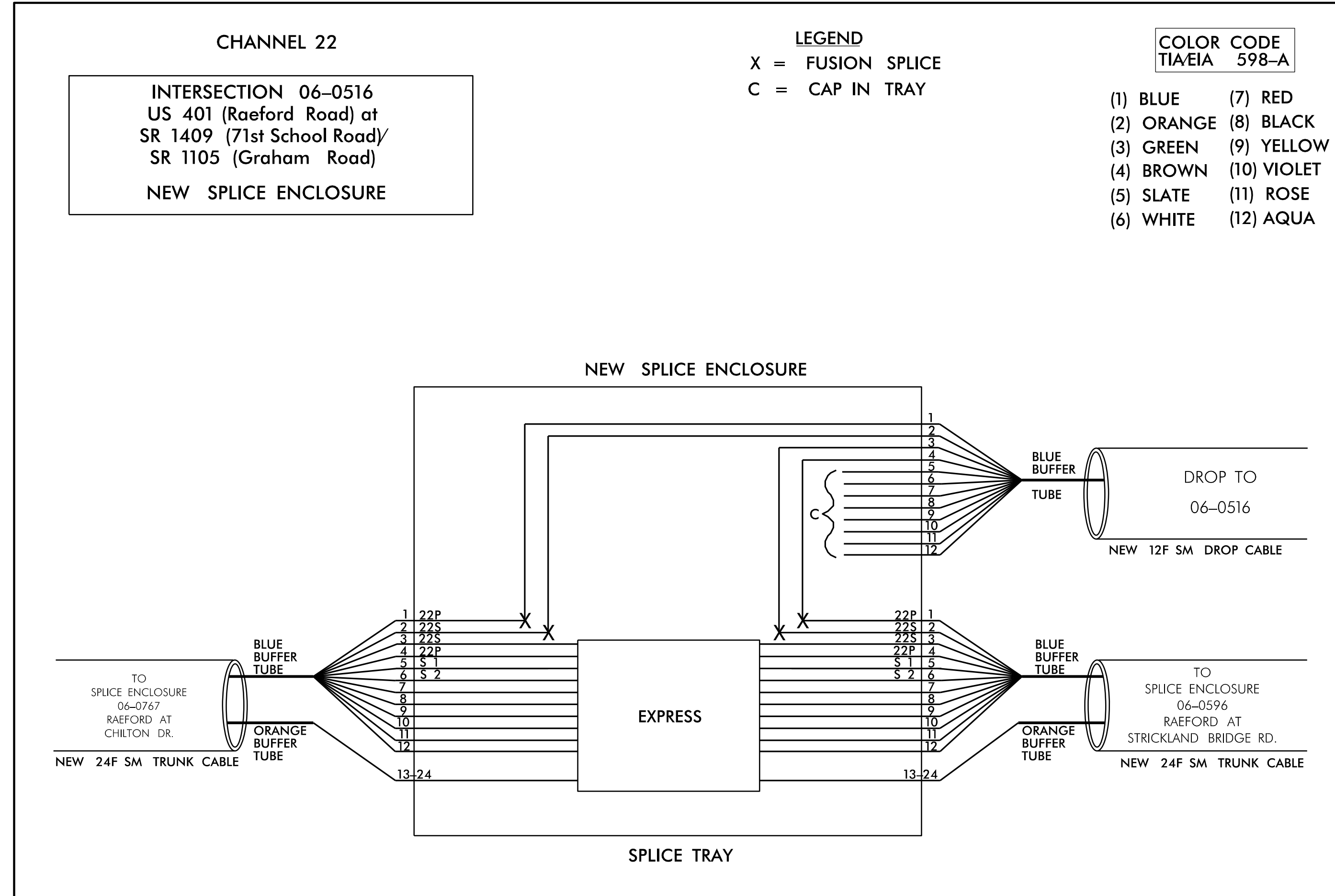
PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.
- 3) UNUSED FIBER SHALL BE LEFT COILED AND STORED IN THE SPLICE TRAY.
- 4) UNUSED BUFFER TUBES SHALL BE LEFT COILED AND STORED IN THE SPLICE TRAY.
- 5) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENSURING PROPER TERMINATIONS.

US 401 (South Raeford Rd.) at
SR 3569 (Raeford Rd-Old US 401)
Bentrige Ln.

FINAL

<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	<p>Lawrence E. Owen Professional Engineer No. 045933 Date: 3/29/2018</p>	<p>FIBER CABLE SPLICING DETAILS INTERSECTION 06-0845</p>	
		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>

3/27/2018 U:\71001766*Transportation*Traffic*Signal*Des*gn*ITS U-4405*U-4405 Splicing SCP-20 - SCP-42.dgn j.ingram



1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- 1.) THE PROJECT IP ADDRESS, DEFAULT GATEWAY, SUBNET MASK AND VLAN ID INFORMATION.
- 2.) NOTIFY THE DEPUTY TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY.
- 3.) WORK IS NOT COMPLETE UNTIL THE SYSTEM IS OPERATIONAL.

2) INCLUDE ON THE COVER OF EACH SPlice TRAY THE FOLLOWING:

- REFERENCE SECTION 1731 "FIBER OPTIC SPlice ENCLOSURE"
- 1.) SPlice LOCATION
 - 2.) DATE
 - 3.) COMPANY NAME
 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPlicing
- PRIOR TO INSTALLING THE COVER ON THE SPlice TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPlice TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

3) UNUSED FIBER SHALL BE LEFT COILED AND STORED IN THE SPlice TRAY.

4) UNUSED BUFFER TUBES SHALL BE LEFT COILED AND STORED IN THE SPlice TRAY.

5) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENSURING PROPER TERMINATIONS.

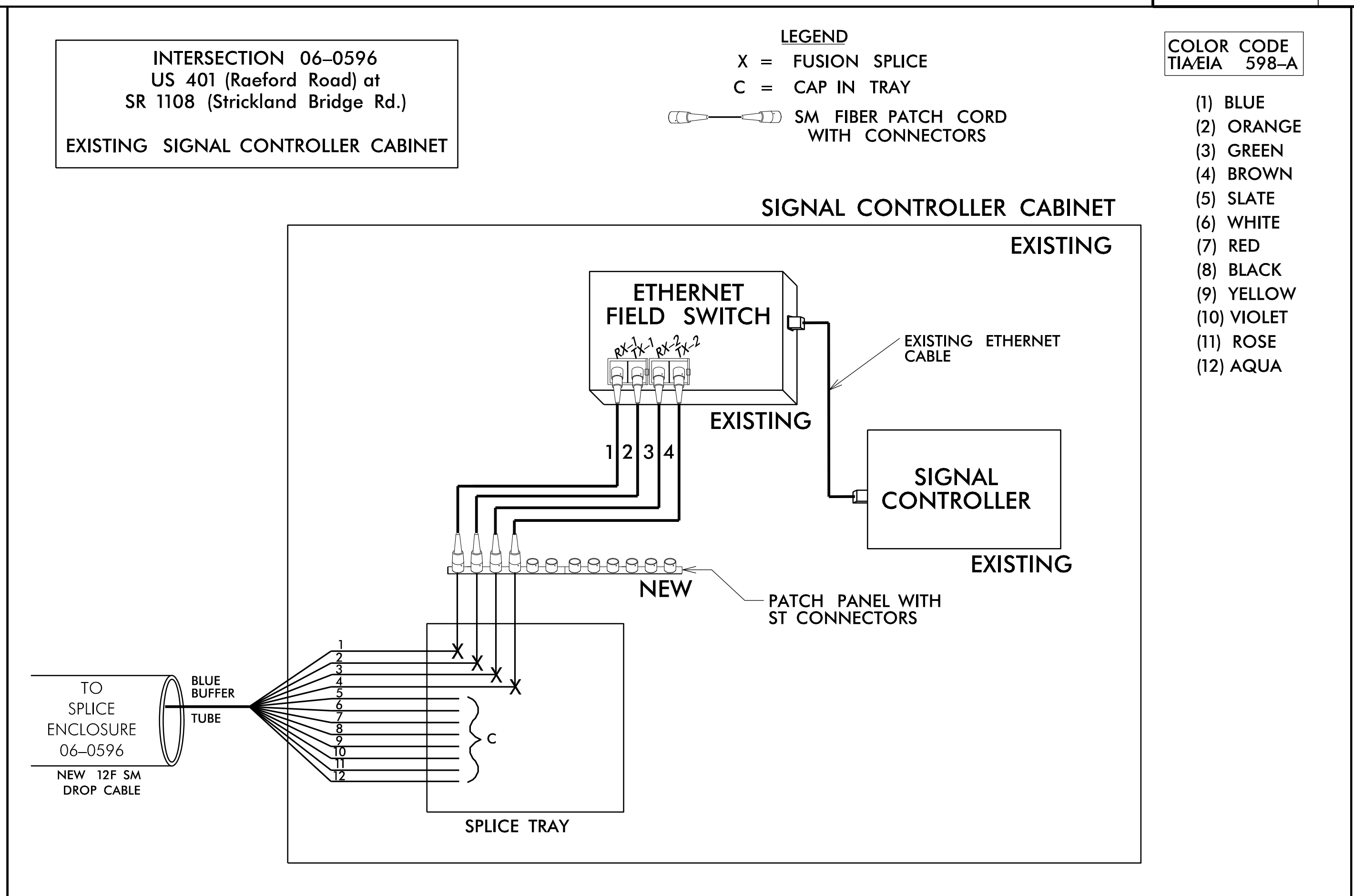
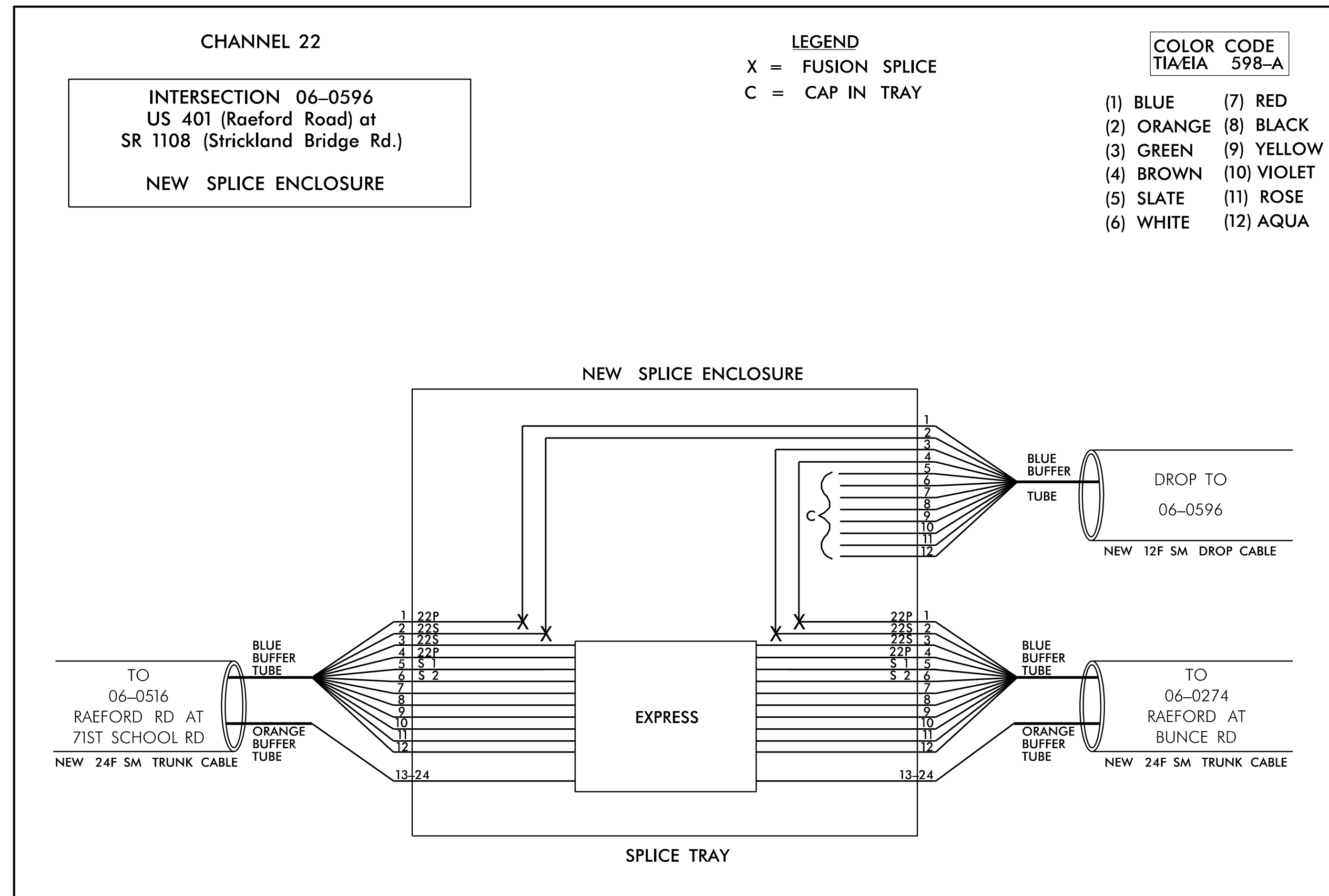
FINAL

US 401 (Raeford Road) at SR 1409 (71st School Road) / SR 1105 (Graham Road)

3/27/2018 U:\71001766*Transportation*Traffic*Signal*Des*gn*ITS U-4405*U-4405 Splicing SCP-20 - SCP-42.dgn j.ingram

<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>		<p>FIBER CABLE SPlicing DETAILS INTERSECTION 06-0516</p>	
		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	
SCALE	750 N. Greenfield Place, Garner, NC 27529	REVISIONS	INIT. DATE
N/A			

DocuSigned by: Lawrence E. Overman 3/29/2018
CADD Filename:



1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

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- 1.) SPLICE LOCATION
 - 2.) DATE
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 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPLICING
- PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

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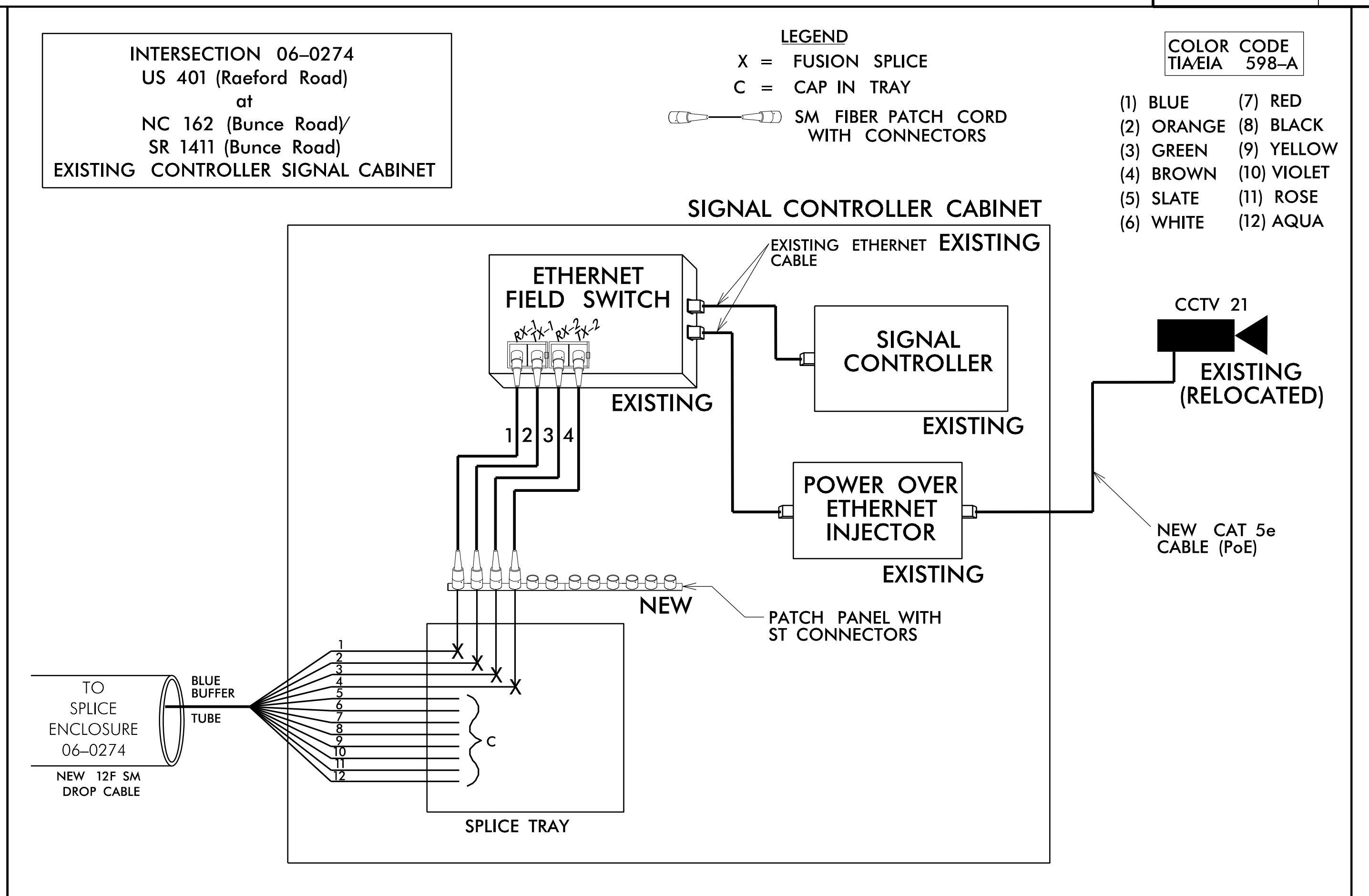
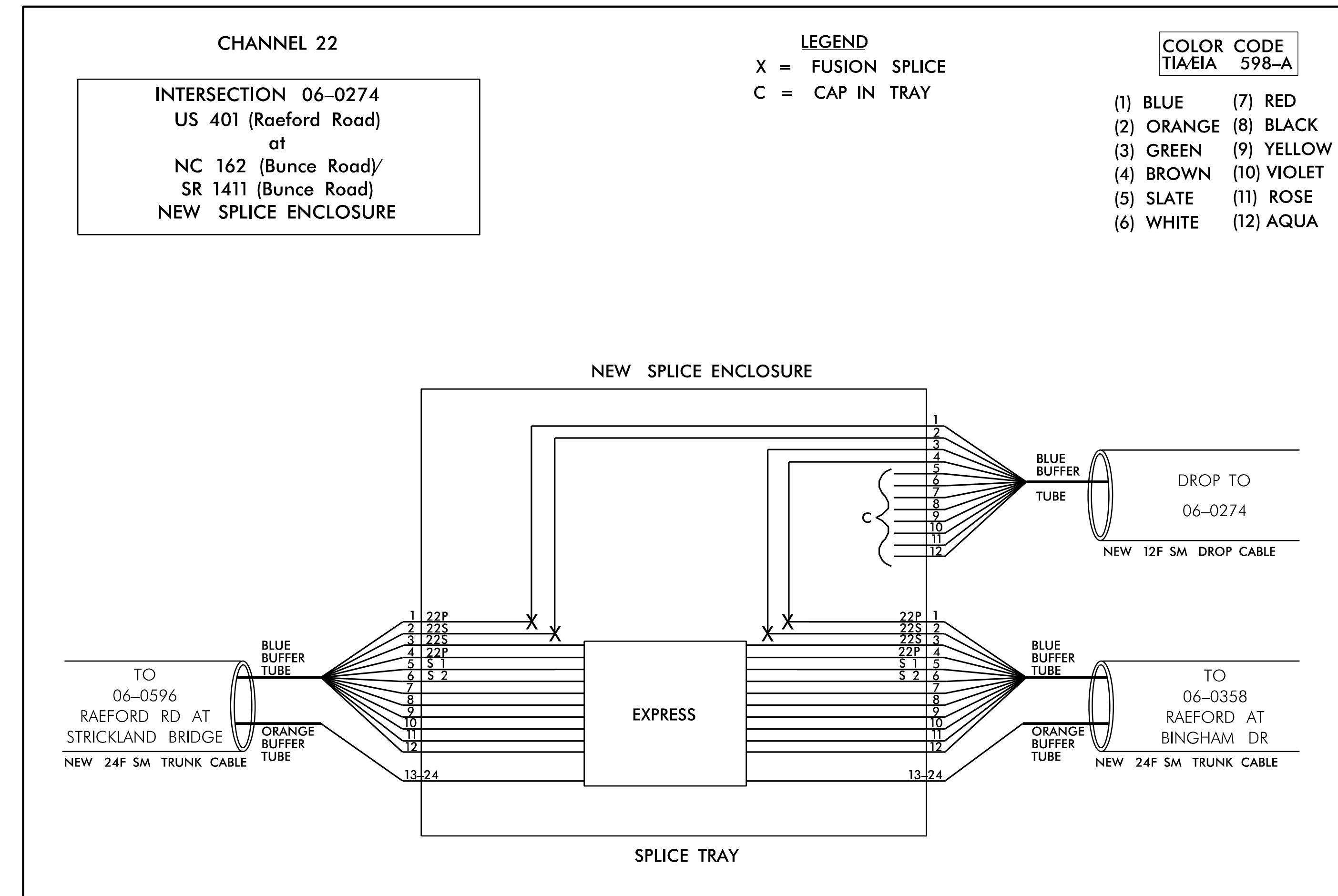
5) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENSURING PROPER TERMINATIONS.

FINAL

US 401 (Raeford Road) at
SR 1108 (Strickland Bridge Rd.)

3/27/2018 U:\171001766*Transportation\on*des\gn*Traffic*Signal*des\gn*ITS U-4405*U-4405 Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>								
<p>750 N. Greenfield Pkwy., Garner, NC 27529</p>		<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	INIT.	DATE					<p>DocuSigned by: Lawrence E. Overman 3/29/2018 DATE</p>
NO.	DESCRIPTION	INIT.	DATE								



- 1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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 - 3.) WORK IS NOT COMPLETE UNTIL THE SYSTEM IS OPERATIONAL.
- 2) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:

REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

 - 1.) SPLICE LOCATION
 - 2.) DATE
 - 3.) COMPANY NAME
 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPLICING

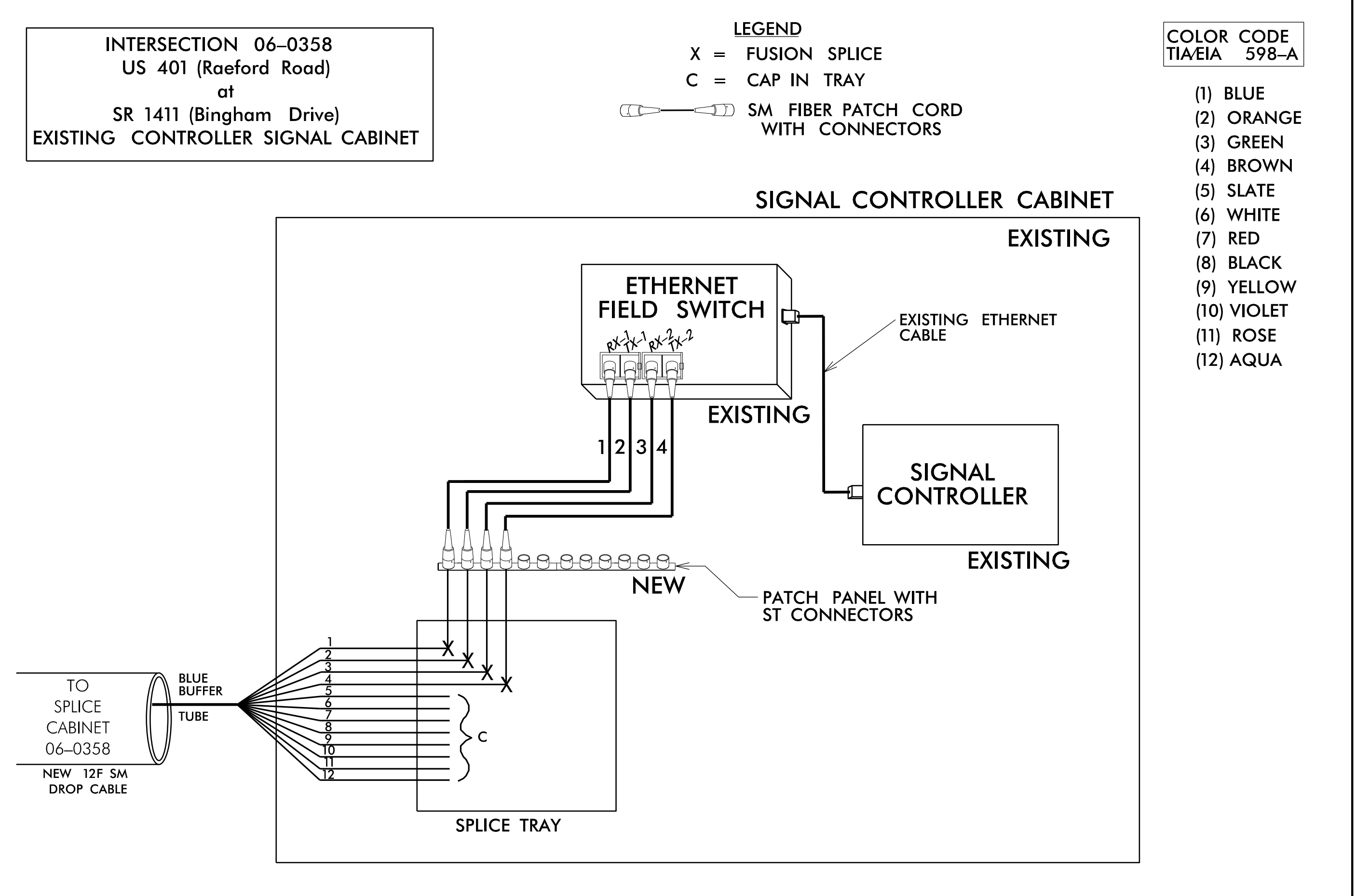
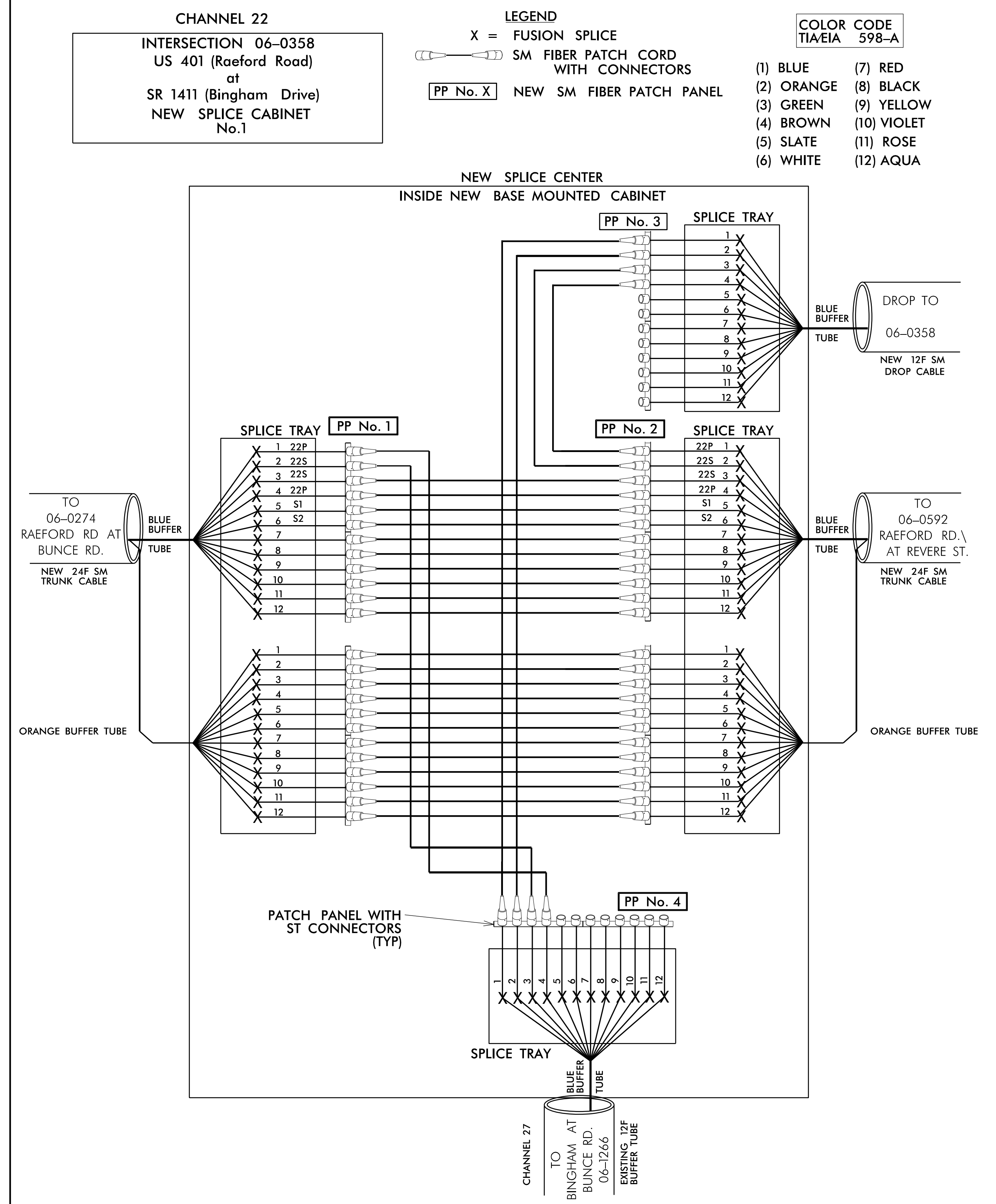
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FINAL

US 401 (Raeford Road)
at
NC 162 (Bunce Road)/
SR 1411 (Bunce Road)

3/27/2018 U:\171001766*Transportation\on*des\gn*Traff\ic*s\gn*des\gn*ITS U-4405*U-4405 Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>

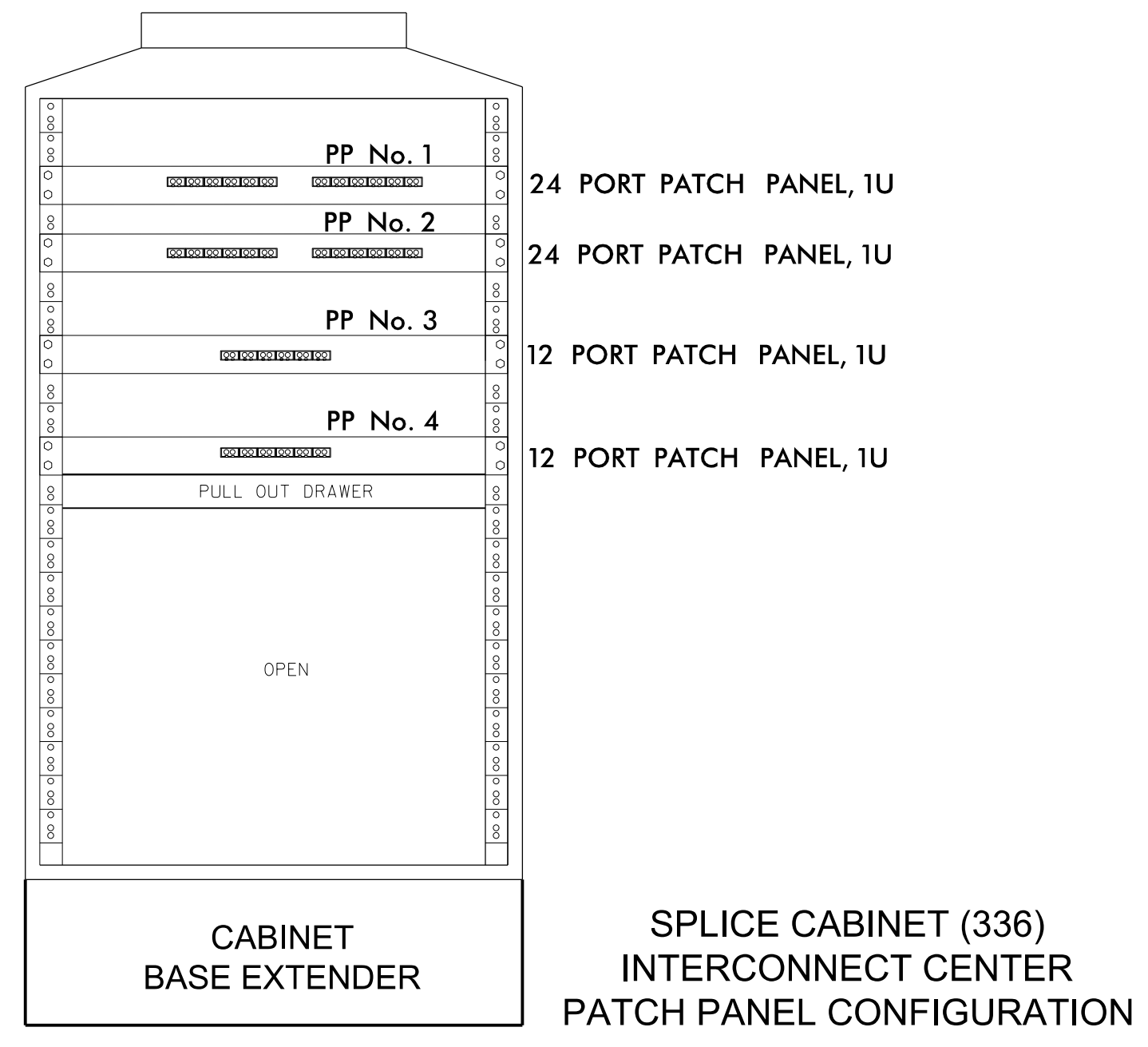


- 1.) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL MCCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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- 2.) INCLUDE ON THE COVER OF EACH SPlice TRAY THE FOLLOWING:

REFERENCE SECTION 1731 "FIBER OPTIC SPlice ENCLOSURE"

 - 1.) SPlice LOCATION
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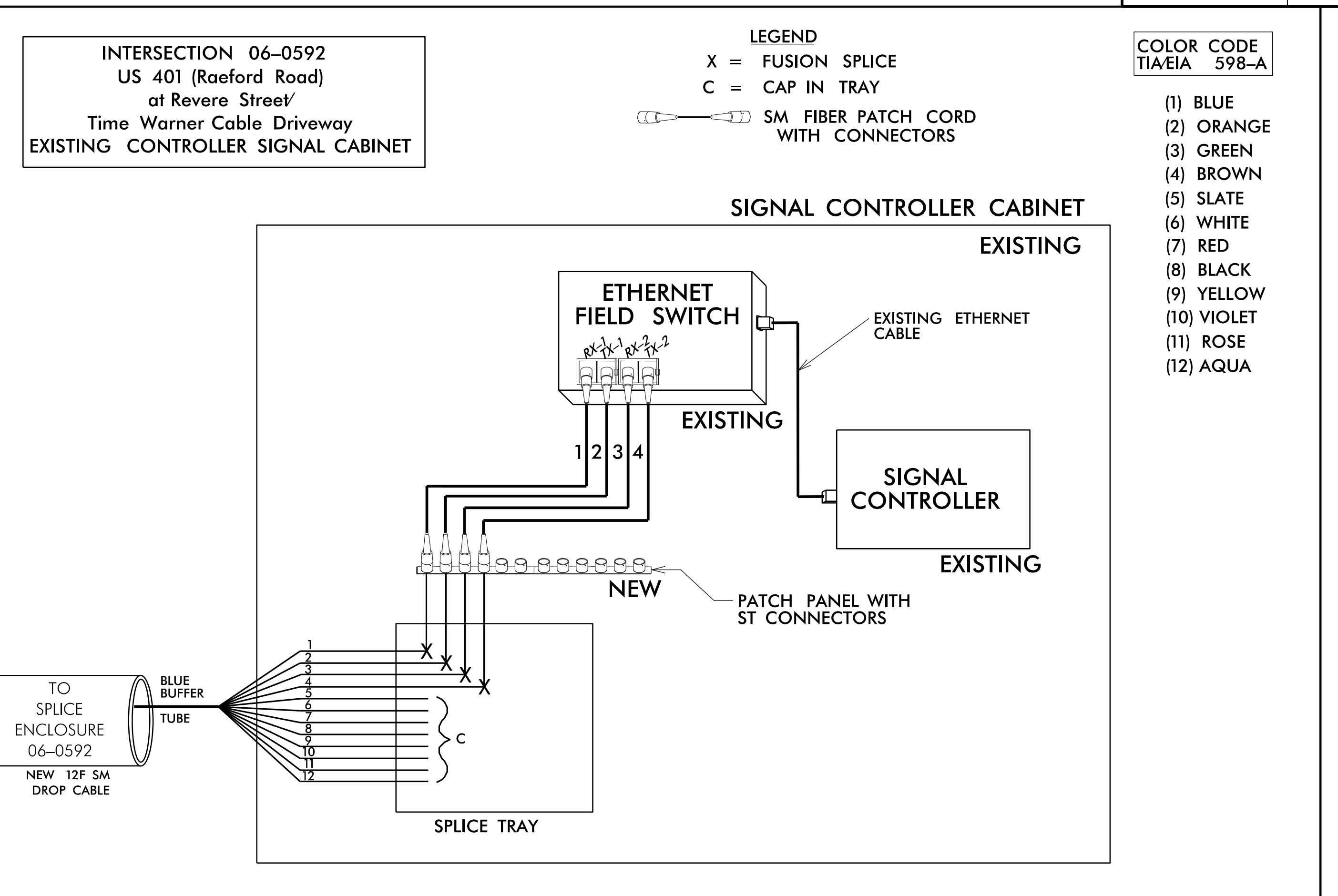
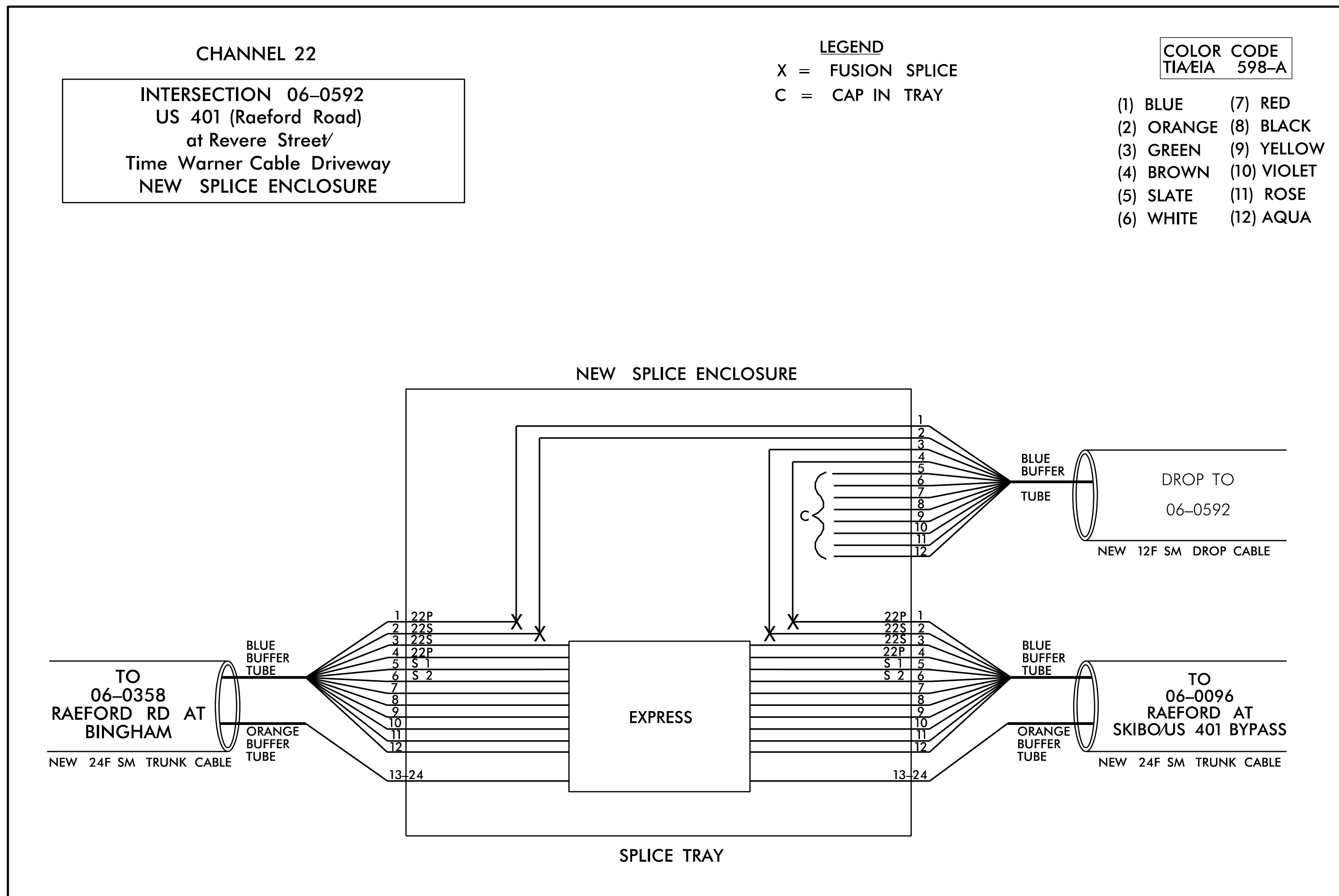
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3/27/2018 U:\171001766*Transportation\on\des\gn\Traffic\Signal\des\gn\ITS U-4405*U-4405_Fiber Splicing SCP-20 - SCP-42.dgn j.ingram

FINAL US 401 (Raeford Road) at SR 1141 (Bingham Drive)

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>



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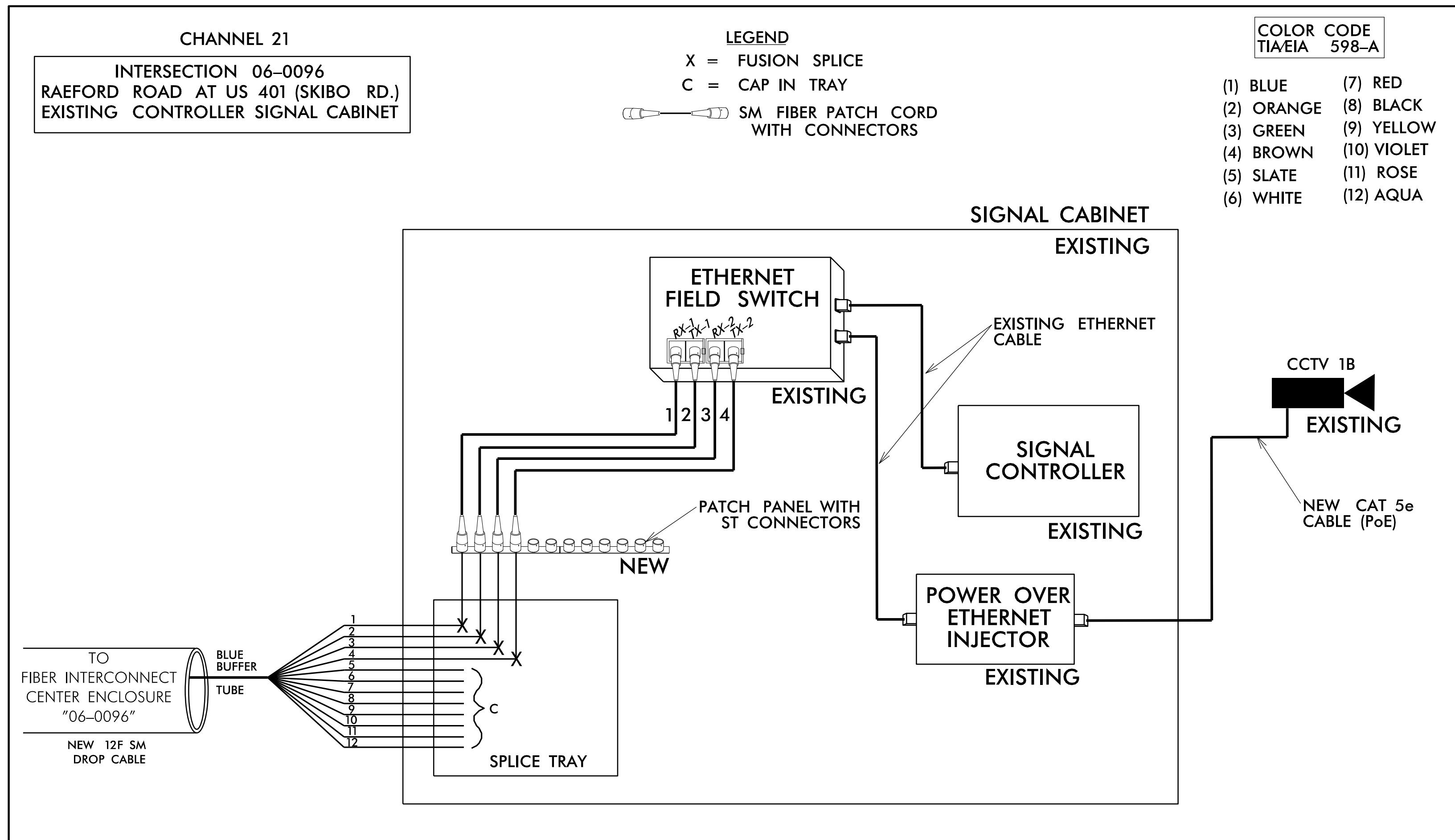
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FINAL

US 401 (Raeford Road)
at Revere Street/
Time Warner Cable Driveway

3/27/2018 U:\171001766*Transportation\Traffic\Signal\des\gn\ITS U-4405*U-4405_Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<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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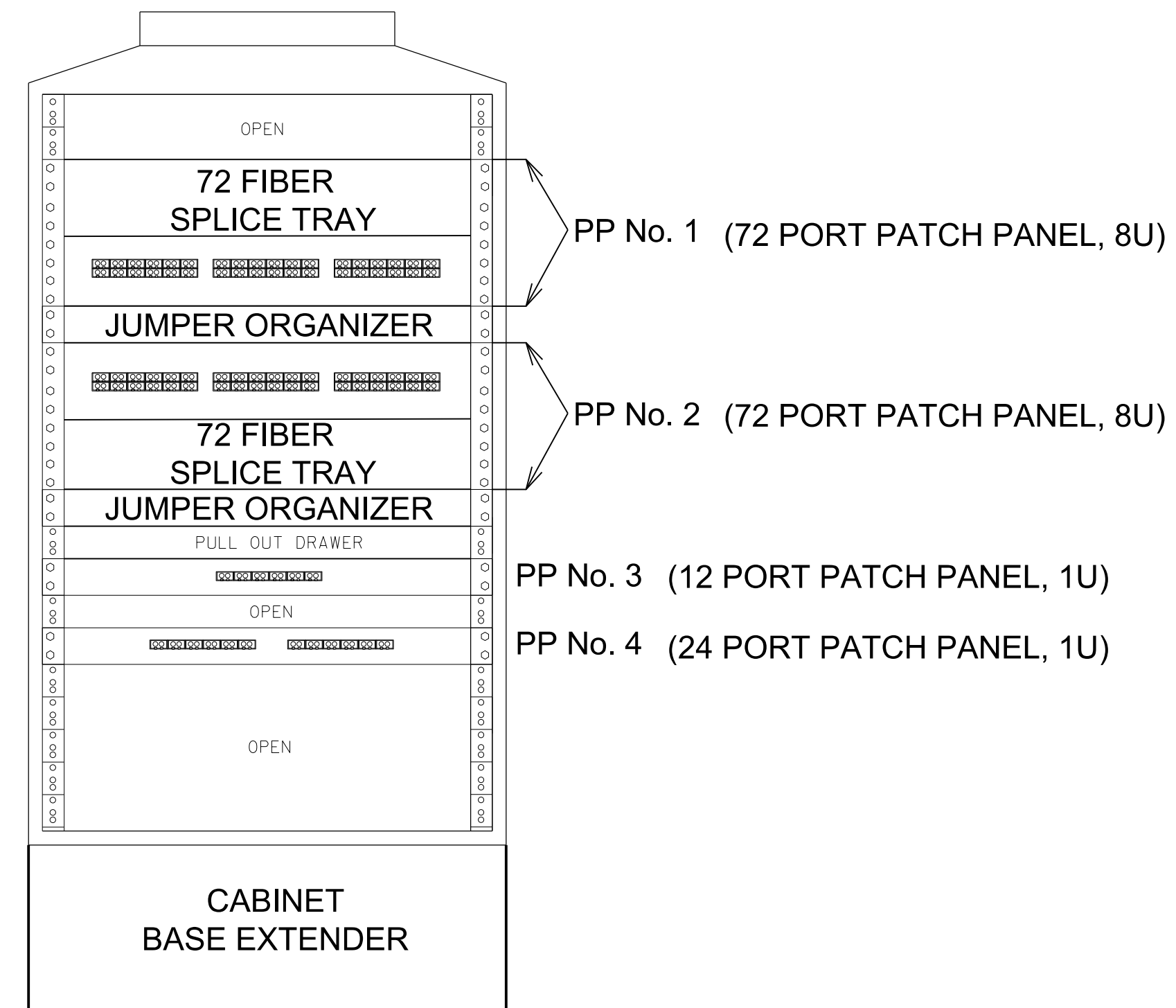
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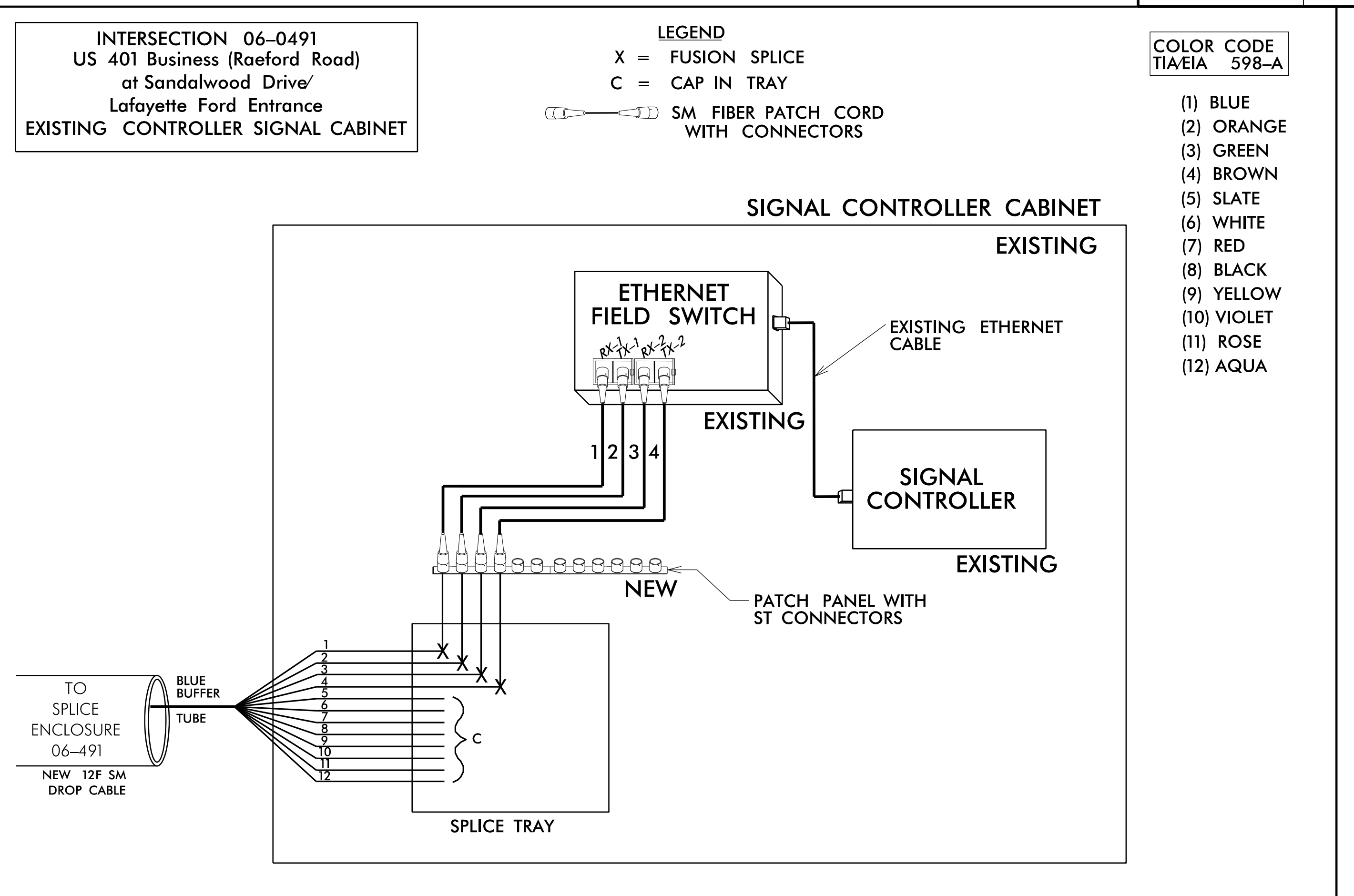
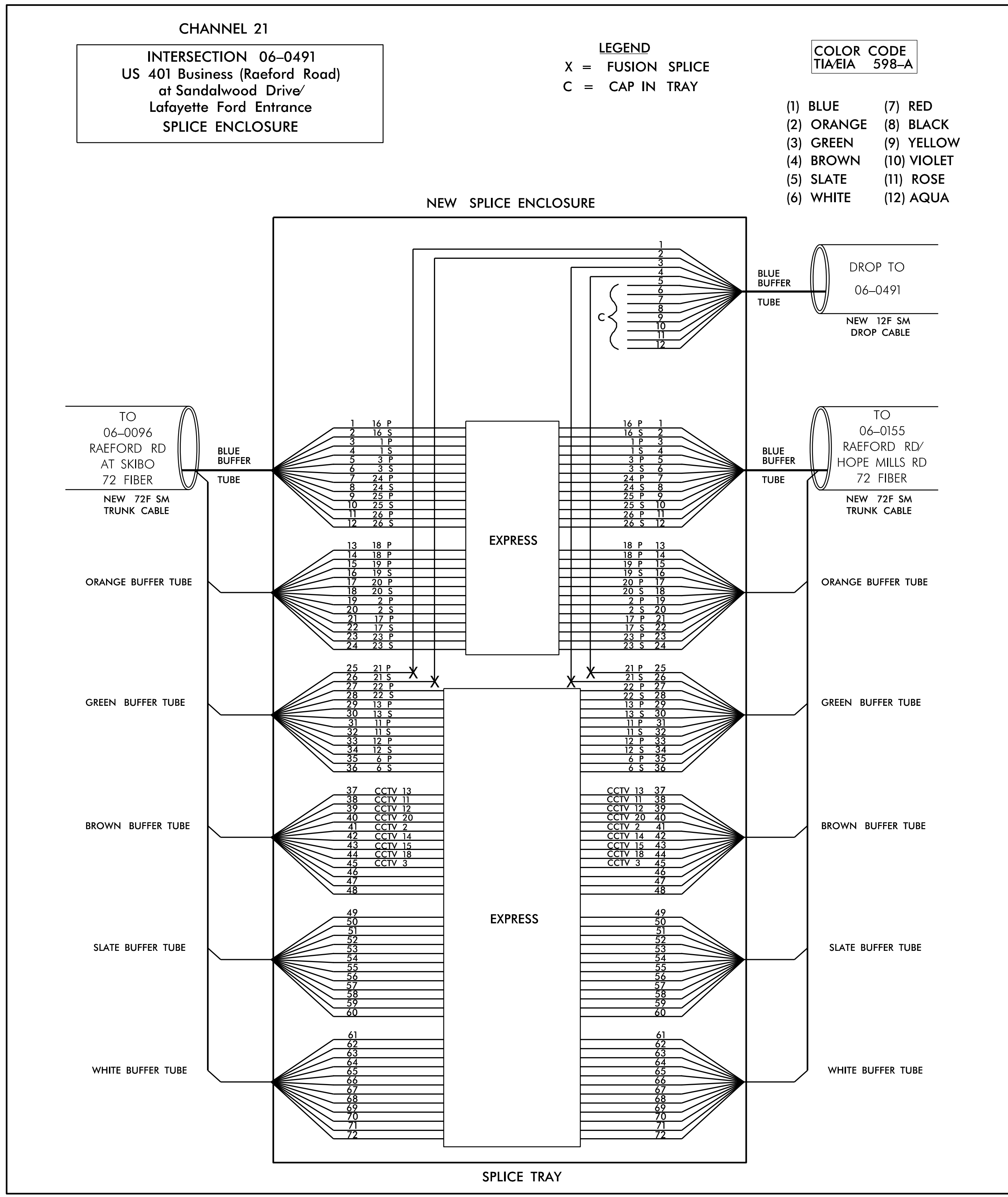
SPLICE CABINET (336)
INTERCONNECT CENTER
PATCH PANEL CONFIGURATION

FINAL

RAEFORD RD AT US 401 (SKIBO RD.)

3/27/2018 U:\171001766*Transportation*on*des*ign*traff*ic*sig*als*des*ign*ITS U-4405*U-4405 Fiber Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>								
<p>750 N. Greenfield Place, Garner, NC 27529</p>		<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	INIT.	DATE					<p>DocuSigned by: Lawrence E Owen 3/29/2018 DATE</p>
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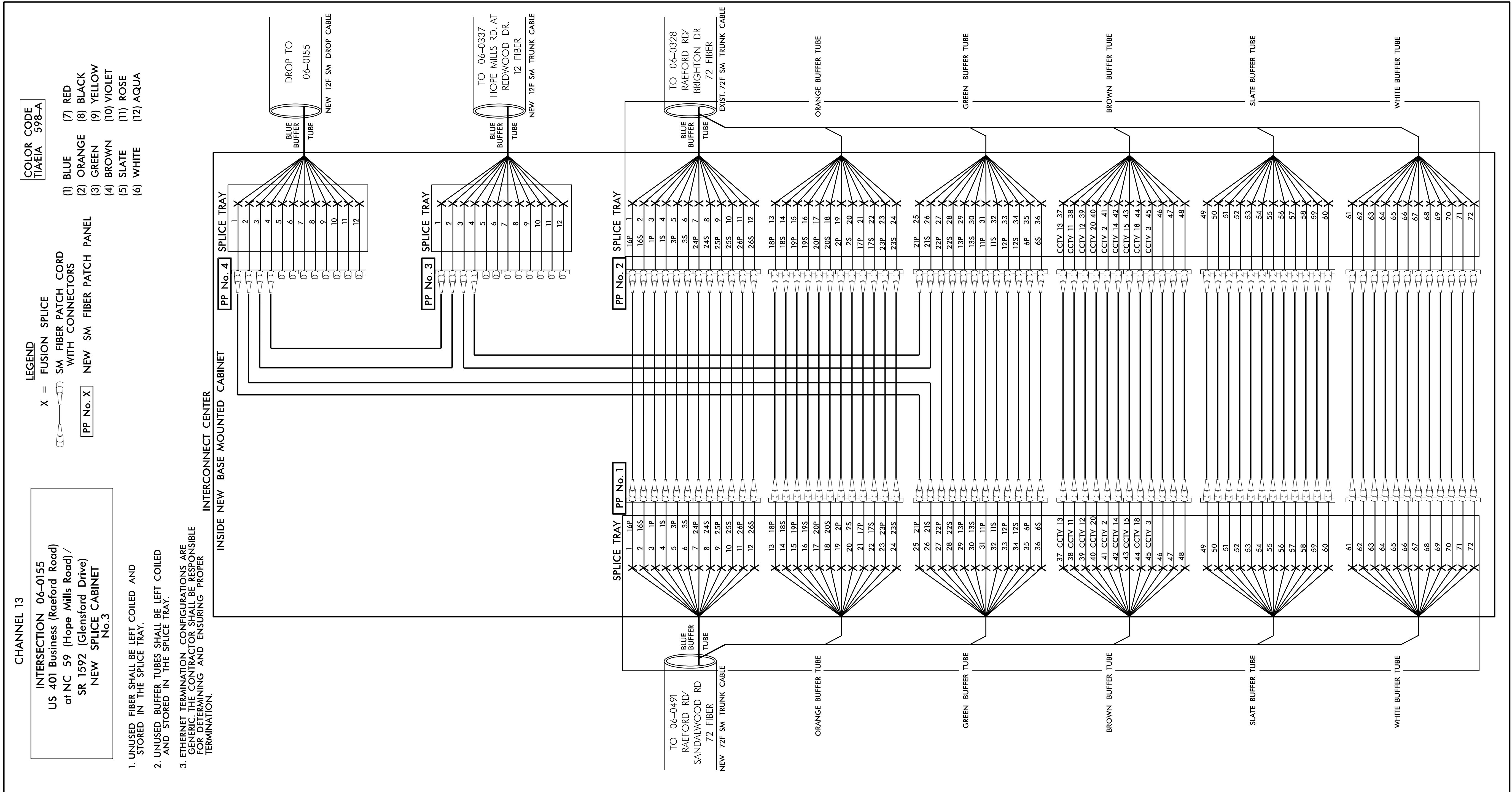
US 401 Business (Raeford Road)
at Sandalwood Drive/
Lafayette Ford Entrance

FINAL

3/27/2018 U:\1710011766*Transportation\on\des\gn*Traffic*Signal\des\gn*ITS U-4405*U-4405*Fiber Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>Prepared for the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529</p>	<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>					
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REVISIONS	INIT.	DATE						

3/27/2018 U:\171001766*transportation*design*Traffic*Signals*Design*ITS U-4405*U-4405 Splice Details*U-4405_Fiber Splicing SCP-20 - SCP-42.dgn j.ingram



SEE SCP 31 SPLICE CABINET FOR INTERCONNECT CENTER LAY OUT

- FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL MCCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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FINAL US 401 Business (Raeford Road)
 at NC 59 (Hope Mills Road) / SR 1592 (Glensford Drive)

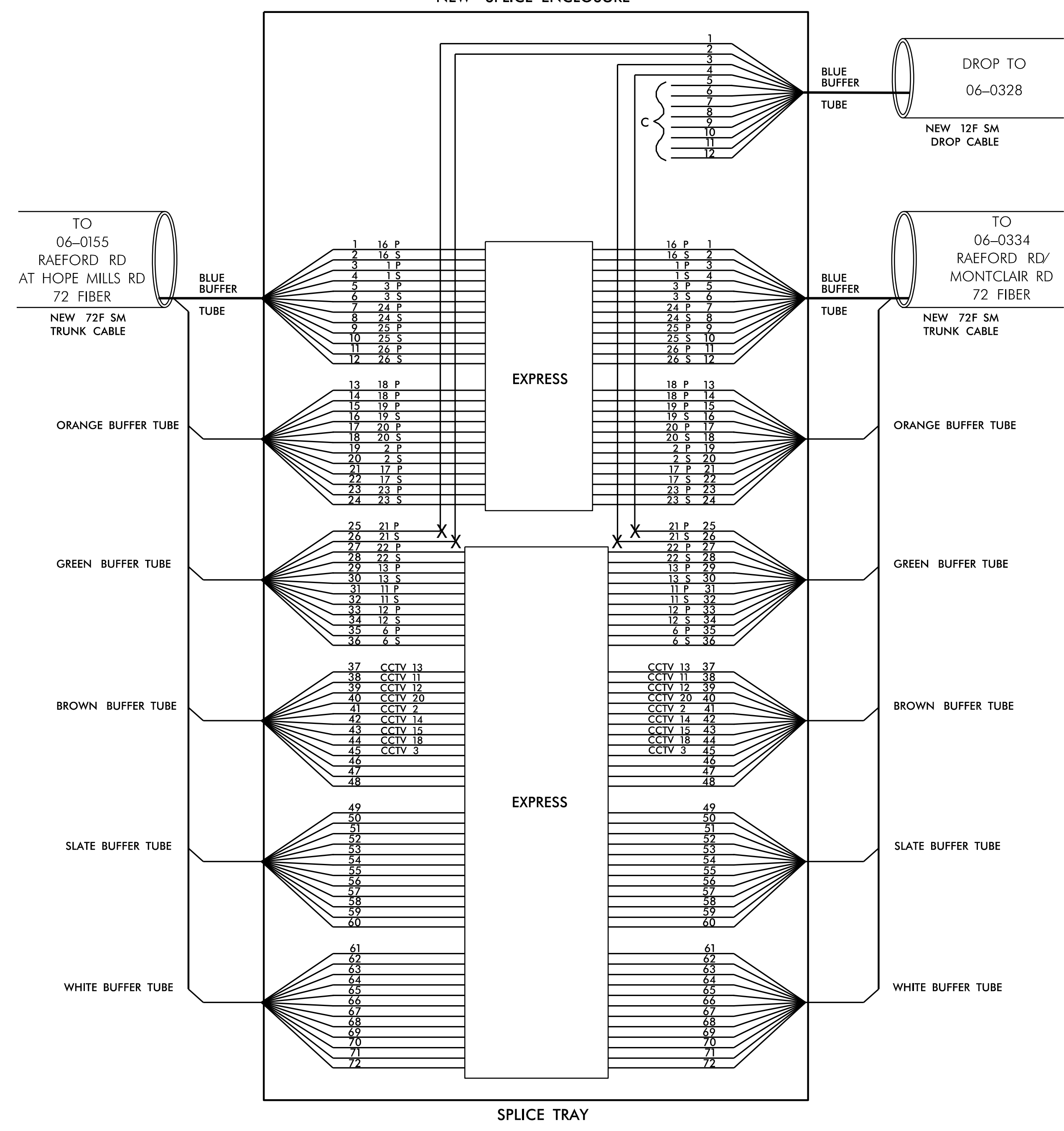
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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>	

CHANNEL 21
INTERSECTION 06-0328
US 401 Business (Raeford Road)
at Brighton Road/
Fred Anderson Nissan
NEW SPLICE ENCLOSURE

LEGEND
 X = FUSION SPlice
 C = CAP IN TRAY

COLOR CODE
 TIA/EIA 598-A

(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA

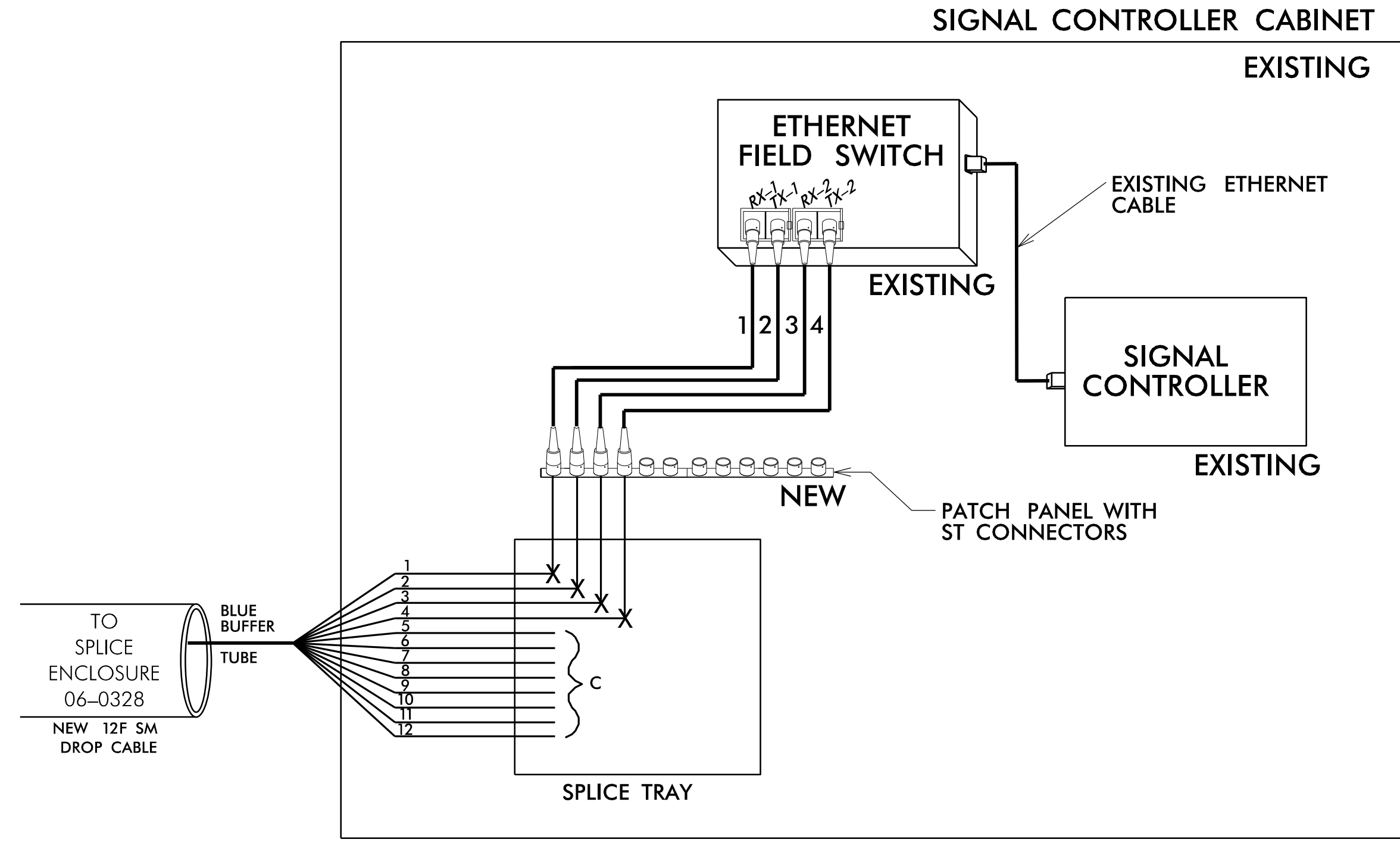


INTERSECTION 06-0328
US 401 Business (Raeford Road)
at Brighton Road/
Fred Anderson Nissan
EXISTING CONTROLLER SIGNAL CABINET

LEGEND
 X = FUSION SPlice
 C = CAP IN TRAY

COLOR CODE
 TIA/EIA 598-A

(1) BLUE	(2) ORANGE
(3) GREEN	(4) BROWN
(5) SLATE	(6) WHITE
(7) RED	(8) BLACK
(9) YELLOW	(10) VIOLET
(11) ROSE	(12) AQUA



- FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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 - NOTIFY THE DEPUTY TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY.
 - WORK IS NOT COMPLETE UNTIL THE SYSTEM IS OPERATIONAL.
- INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:

REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

 - SPLICE LOCATION
 - DATE
 - COMPANY NAME
 - NAME OF INDIVIDUAL PERFORMING THE SPLICING

PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.
- UNUSED FIBER SHALL BE LEFT COILED AND STORED IN THE SPLICE TRAY.
- UNUSED BUFFER TUBES SHALL BE LEFT COILED AND STORED IN THE SPLICE TRAY.
- ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENSURING PROPER TERMINATIONS.

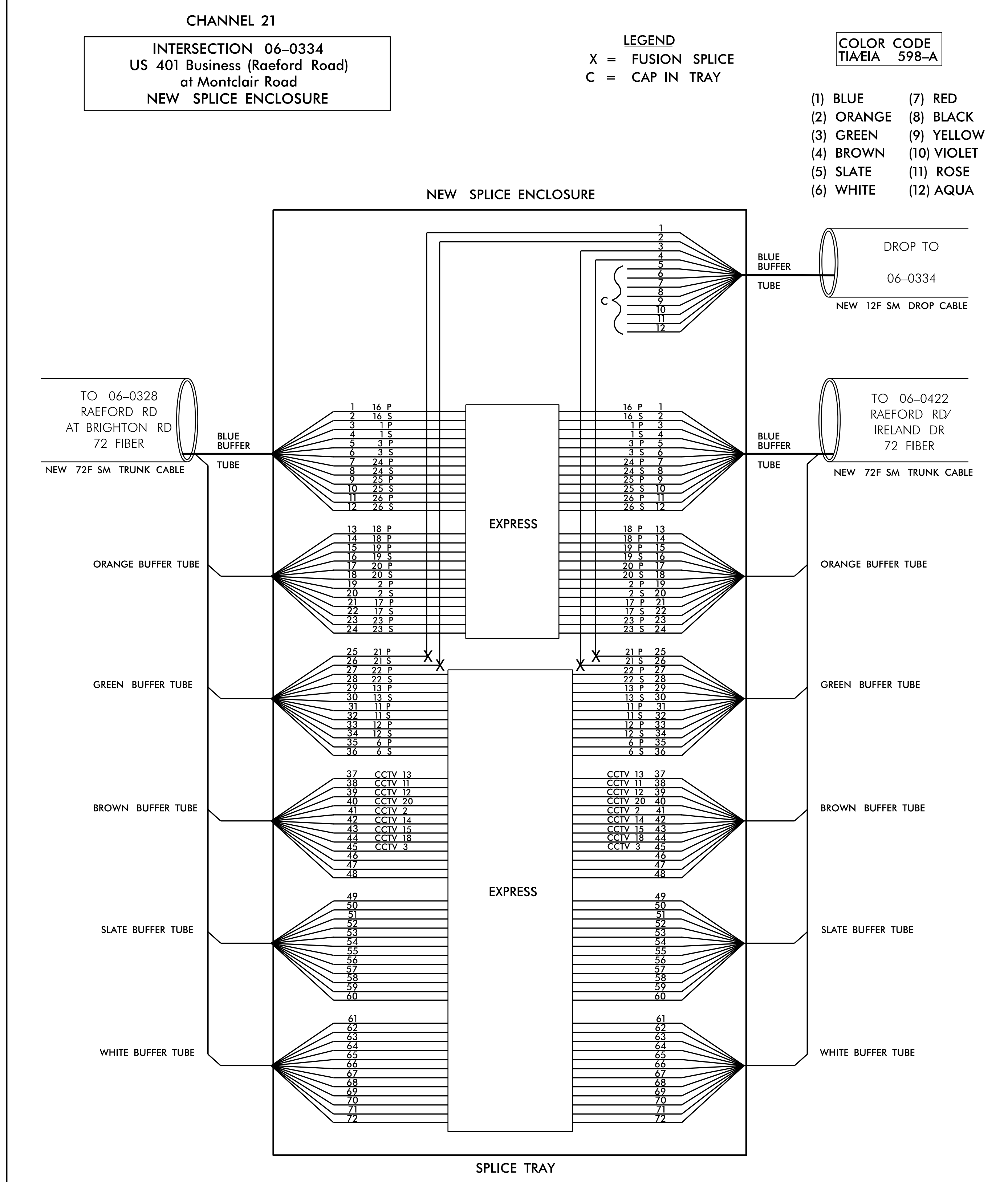
US 401 Business (Raeford Road)
at Brighton Road/
Fred Anderson Nissan

FINAL

3/27/2018 U:\71001766*Transportation\des\gn*Traffic*Signal*U-4405*U-4405_Splicing_SCP-20 - SCP-42.dgn j.ingram

<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>		FIBER CABLE SPLICING DETAILS INTERSECTION 06-0328								
		DIVISION 06 CUMBERLAND CO. FAYETTEVILLE PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON	<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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DocuSigned by: Lawrence E. Overman 3/29/2018
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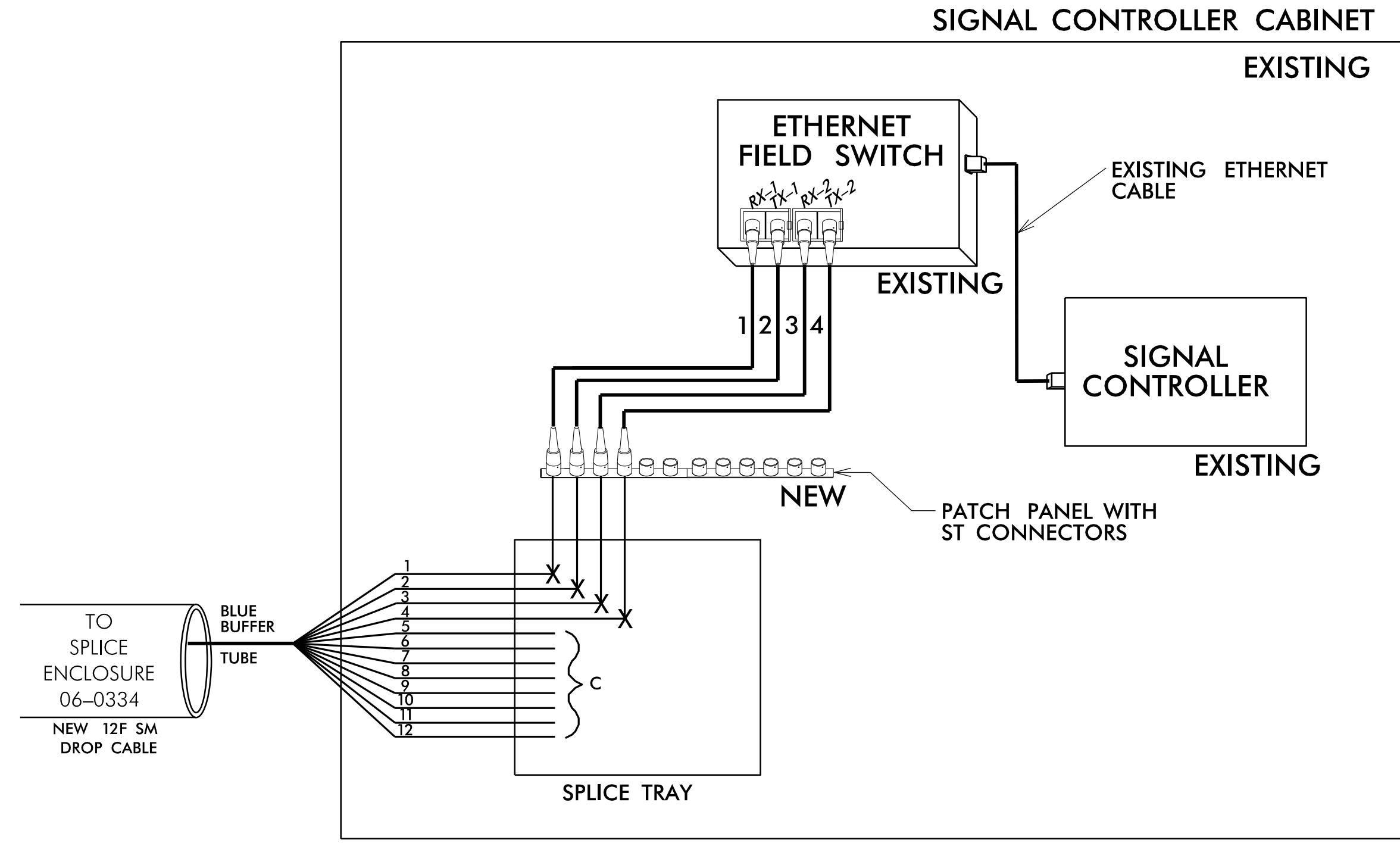


INTERSECTION 06-0334
US 401 Business (Raeford Road)
at Montclair Road
EXISTING CONTROLLER SIGNAL CABINET

LEGEND
X = FUSION SPlice
C = CAP IN TRAY
SM FIBER PATCH CORD WITH CONNECTORS

COLOR CODE
TIA/EIA 598-A

- (1) BLUE
- (2) ORANGE
- (3) GREEN
- (4) BROWN
- (5) SLATE
- (6) WHITE
- (7) RED
- (8) BLACK
- (9) YELLOW
- (10) VIOLET
- (11) ROSE
- (12) AQUA



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- 3.) WORK IS NOT COMPLETE UNTIL THE SYSTEM IS OPERATIONAL.

2) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:

- REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
- 1.) SPLICE LOCATION
 - 2.) DATE
 - 3.) COMPANY NAME
 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPLICING
- PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

3) UNUSED FIBER SHALL BE LEFT COILED AND STORED IN THE SPLICE TRAY.

4) UNUSED BUFFER TUBES SHALL BE LEFT COILED AND STORED IN THE SPLICE TRAY.

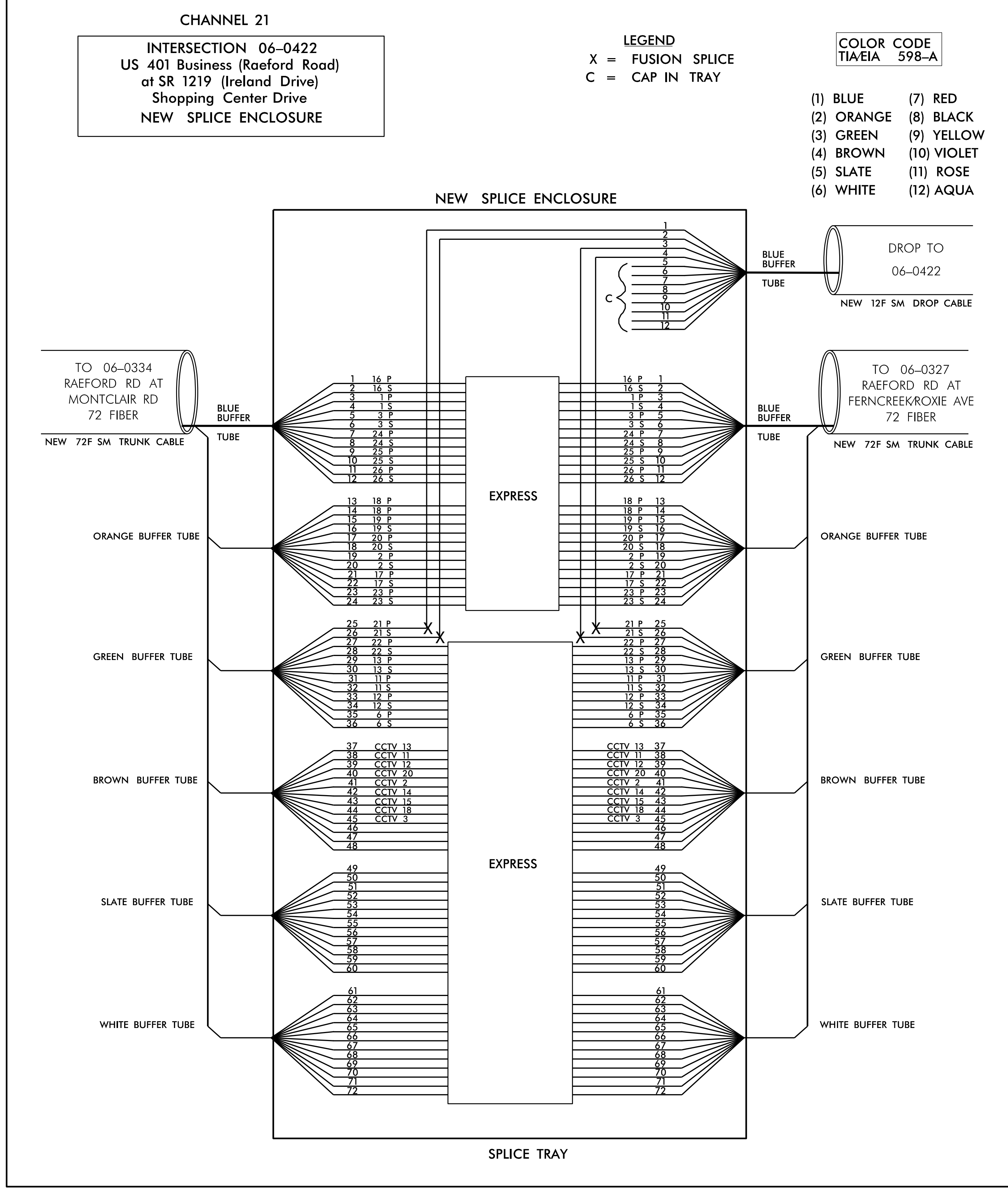
5) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENSURING PROPER TERMINATIONS.

US 401 Business (Raeford Road)
at Montclair Road

FINAL

3/27/2018 U:\171001766*Transportation\Traffic*Signal\des\gn\ITS U-4405*U-4405*Fiber Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<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> </tbody> </table>		REVISIONS	INIT.	DATE
REVISIONS	INIT.	DATE					



CHANNEL 21
INTERSECTION 06-0422
 US 401 Business (Raeford Road)
 at SR 1219 (Ireland Drive)
 Shopping Center Drive
 NEW SPlice ENCLOSURE

LEGEND
 X = FUSION SPlice
 C = CAP IN TRAY

COLOR CODE
 TIA/EIA 598-A

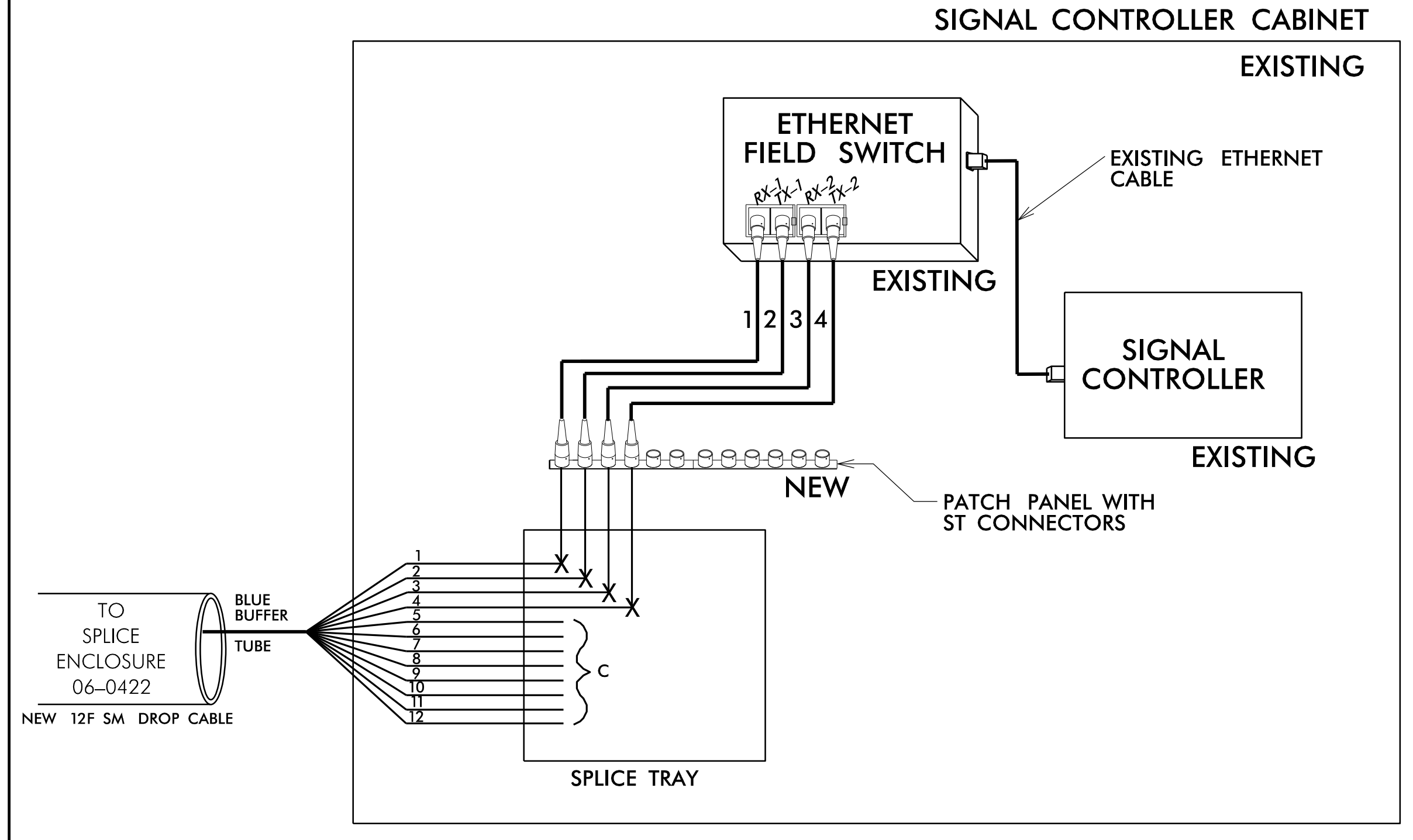
- (1) BLUE (7) RED
- (2) ORANGE (8) BLACK
- (3) GREEN (9) YELLOW
- (4) BROWN (10) VIOLET
- (5) SLATE (11) ROSE
- (6) WHITE (12) AQUA

INTERSECTION 06-0422
 US 401 Business (Raeford Road)
 at SR 1219 (Ireland Drive)
 Shopping Center Drive
 EXISTING CONTROLLER SIGNAL CABINET

LEGEND
 X = FUSION SPlice
 C = CAP IN TRAY
 SM FIBER PATCH CORD WITH CONNECTORS

COLOR CODE
 TIA/EIA 598-A

- (1) BLUE
- (2) ORANGE
- (3) GREEN
- (4) BROWN
- (5) SLATE
- (6) WHITE
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- (11) ROSE
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1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

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- 2.) NOTIFY THE DEPUTY TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY.
- 3.) WORK IS NOT COMPLETE UNTIL THE SYSTEM IS OPERATIONAL.

2) INCLUDE ON THE COVER OF EACH SPlice TRAY THE FOLLOWING:

- REFERENCE SECTION 1731 "FIBER OPTIC SPlice ENCLOSURE"
- 1.) SPlice LOCATION
 - 2.) DATE
 - 3.) COMPANY NAME
 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPlicing
- PRIOR TO INSTALLING THE COVER ON THE SPlice TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPlice TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

3) UNUSED FIBER SHALL BE LEFT COILED AND STORED IN THE SPlice TRAY.

4) UNUSED BUFFER TUBES SHALL BE LEFT COILED AND STORED IN THE SPlice TRAY.

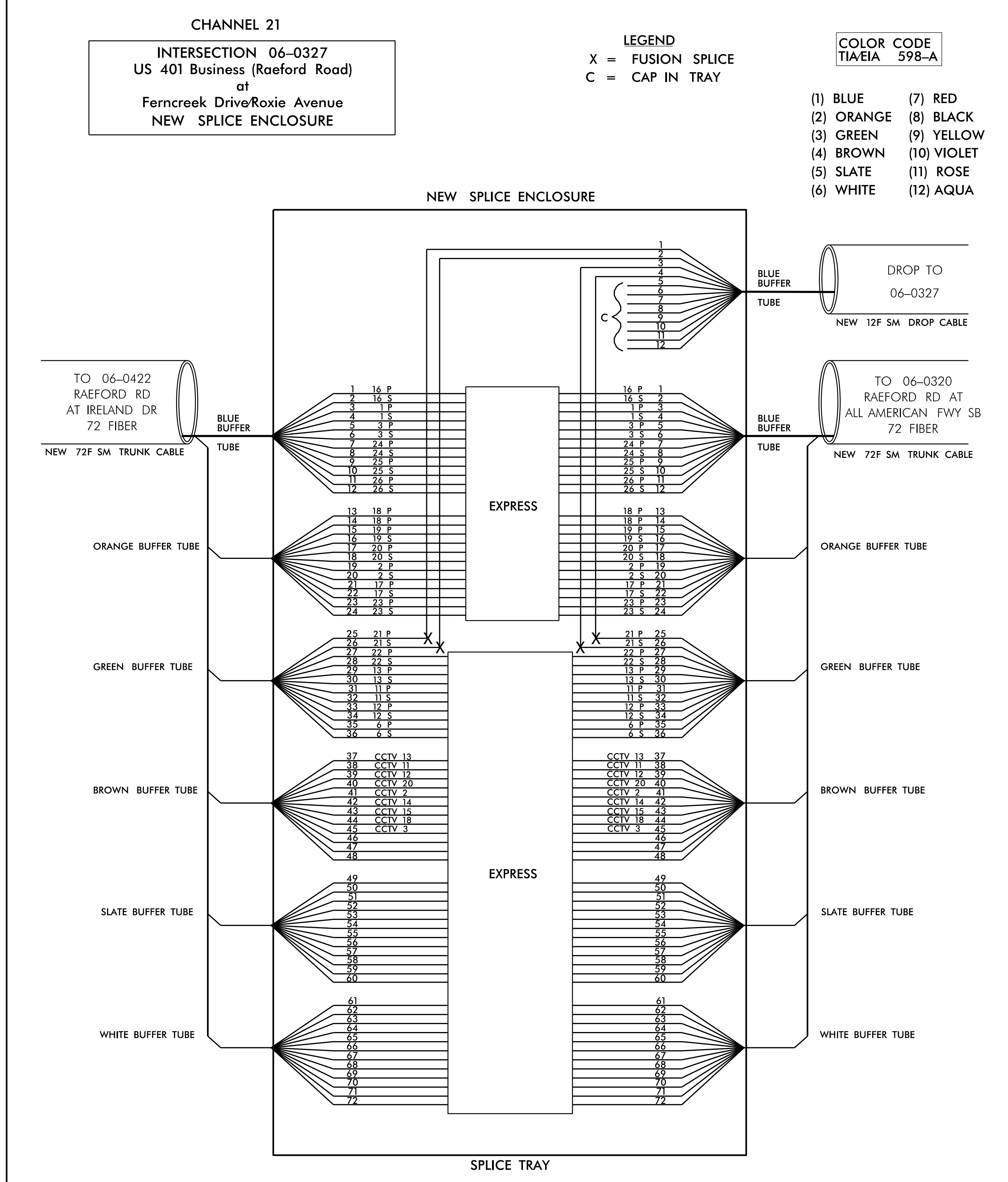
5) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENSURING PROPER TERMINATIONS.

US 401 Business (Raeford Road)
 at SR 1219 (Ireland Drive)
 Shopping Center Drive

FINAL

3/27/2018 U:\71001766*Transportation\des\gn\Traffic\gn\U-4405*U-4405_Fiber_Splicing_SCP-20 - SCP-42.dgn j.ingram

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		<p>Prepared for the Offices of: TRANSPORTATION SYSTEMS DIVISION</p>	<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p>	
<p>REVISIONS</p>		<p>INIT.</p>	<p>DATE</p>	<p>CADD Filename:</p>

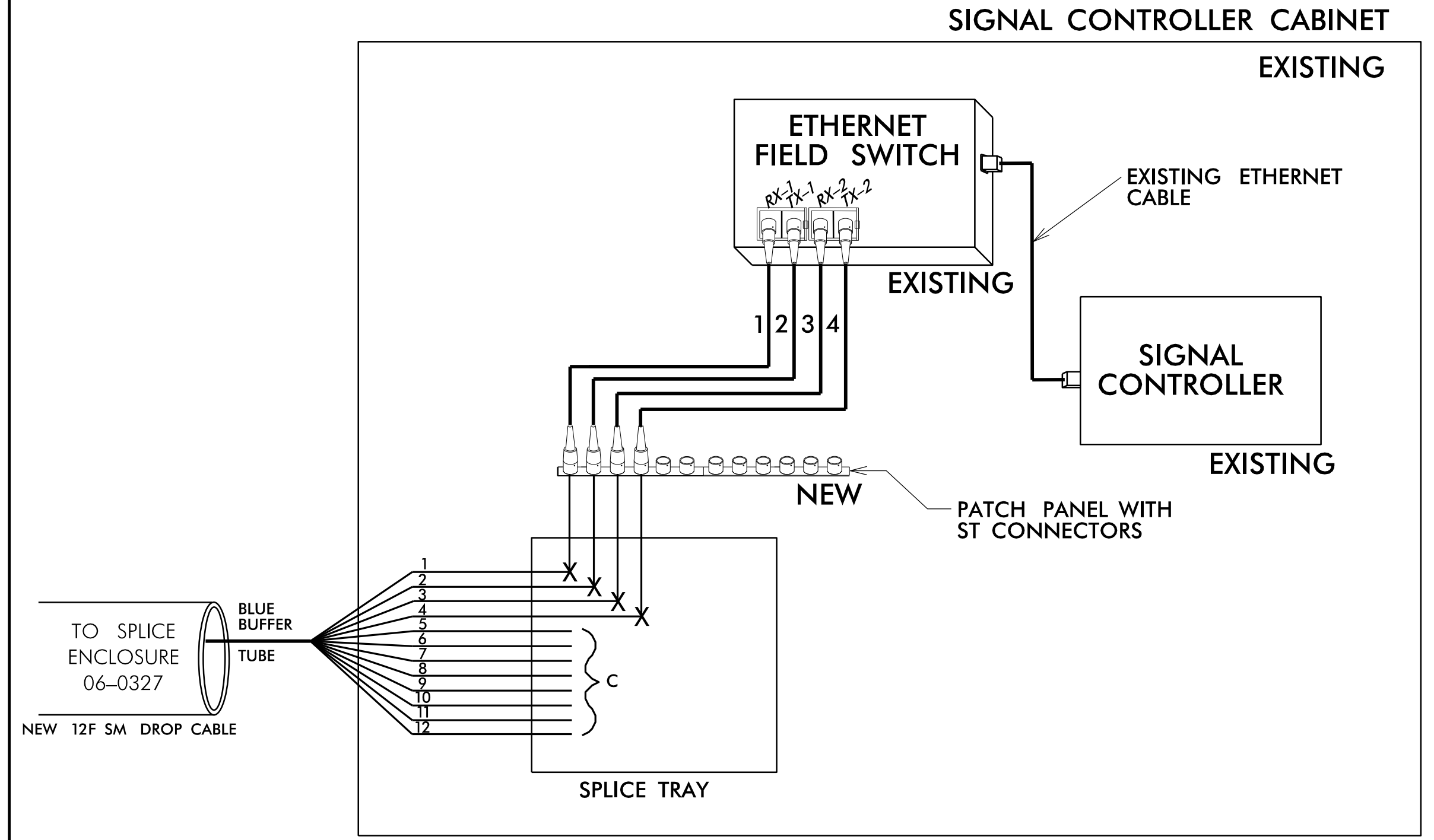


INTERSECTION 06-0327
US 401 Business (Raeford Road)
at
Ferncreek Drive/Roxie Avenue
EXISTING CONTROLLER SIGNAL CABINET

LEGEND
X = FUSION SPlice
C = CAP IN TRAY
SM FIBER PATCH CORD WITH CONNECTORS

COLOR CODE
TIA/EIA 598-A

- (1) BLUE
- (2) ORANGE
- (3) GREEN
- (4) BROWN
- (5) SLATE
- (6) WHITE
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- 2) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:

REFERENCE SECTION 1731 "FIBER OPTIC SPlice ENCLOSURE"

 - 1.) SPLICE LOCATION
 - 2.) DATE
 - 3.) COMPANY NAME
 - 4.) NAME OF INDIVIDUAL PERFORMING THE SPLICE

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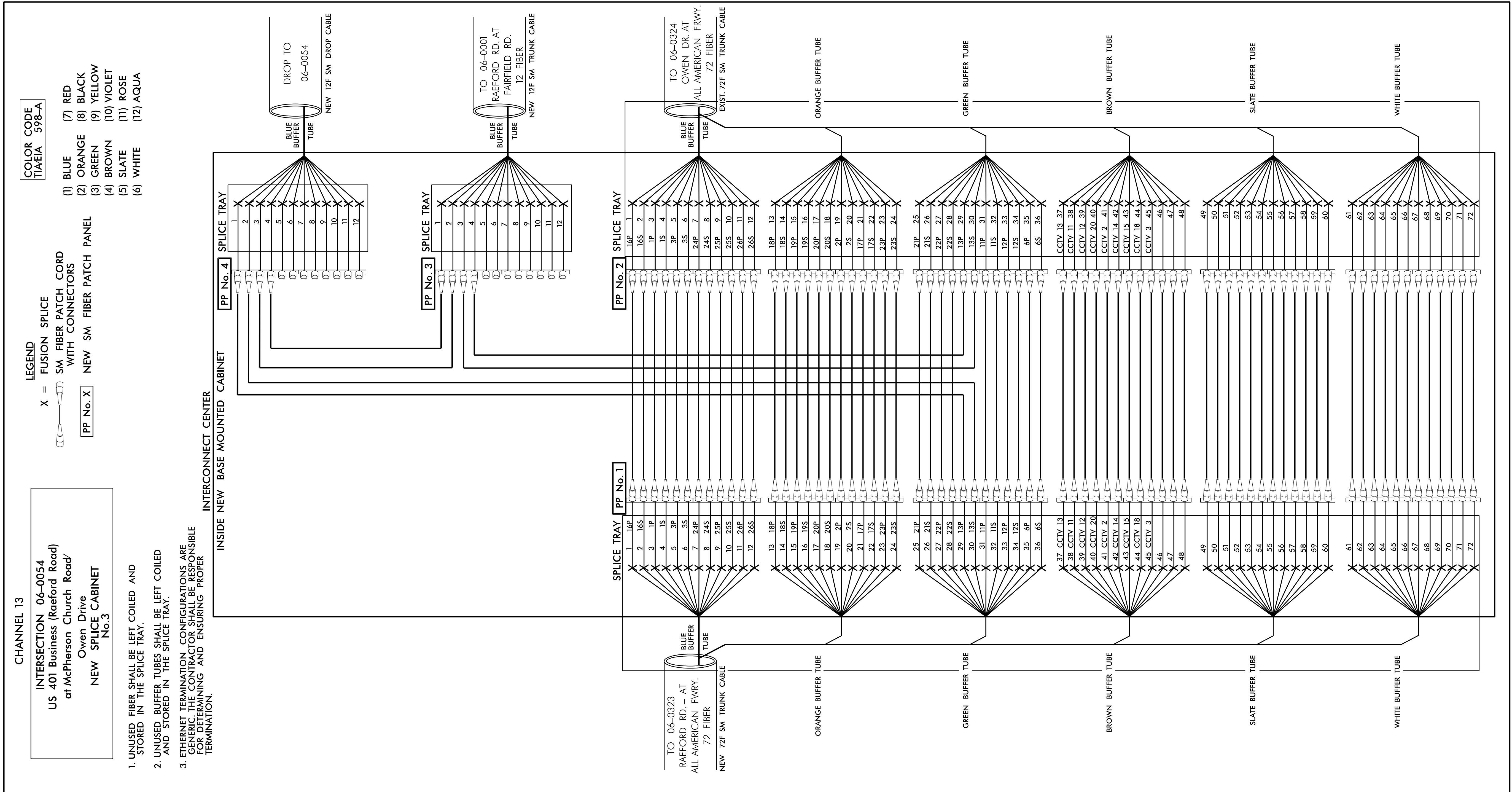
FINAL

US 401 Business (Raeford Road)
at Ferncreek Drive/Roxie Avenue

3/27/2018 U:\1710011766*Transportation\Traffic*Signal\des\gn\ITS U-4405*U-4405_Fiber Splicing SCP-20 - SCP-42.dgn j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>	

OFF PROJECT
BACK TO
CENTRAL



SEE SCP 38 SPLICE CABINET FOR INTERCONNECT CENTER LAY OUT

- FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL MCCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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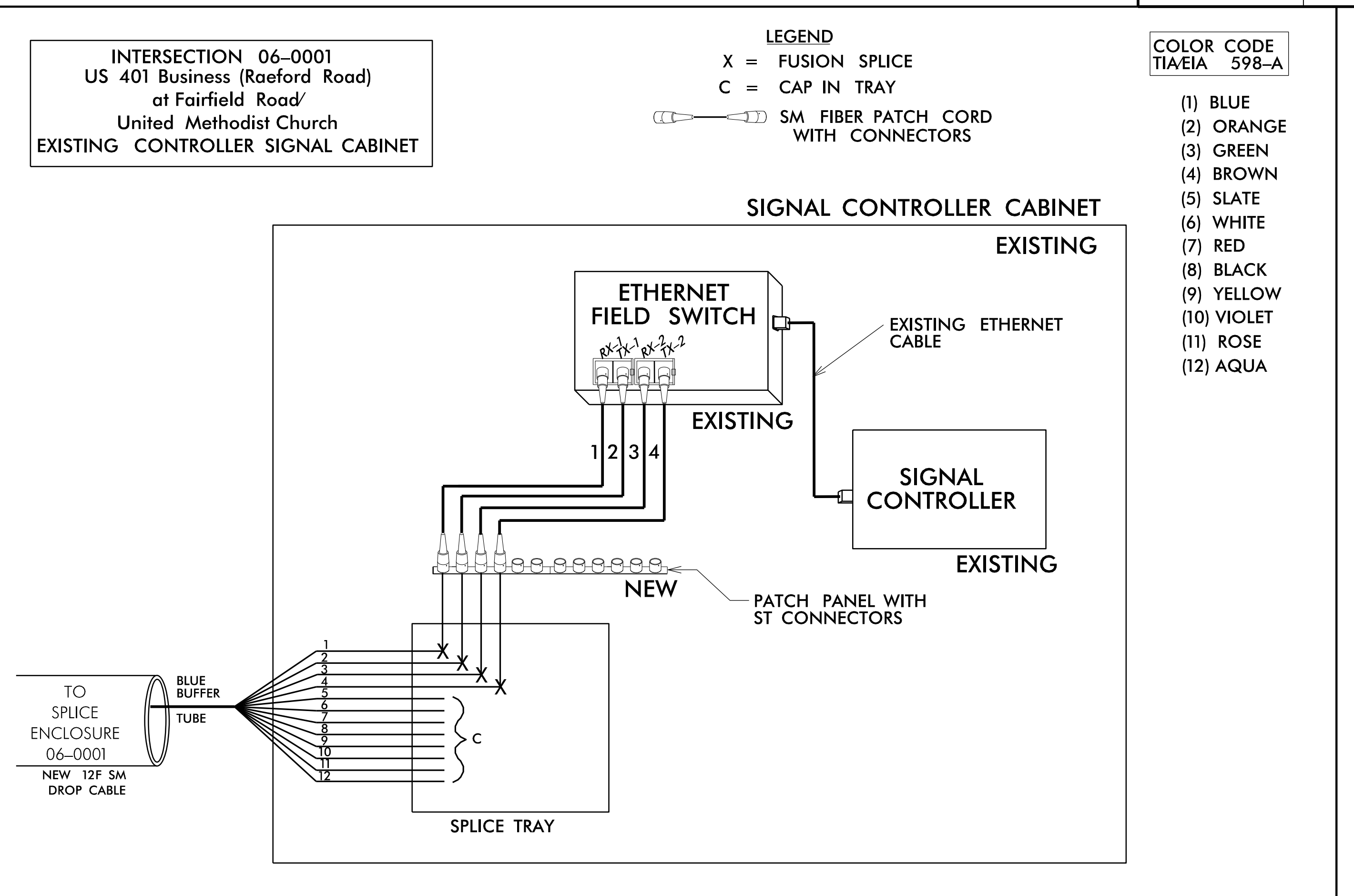
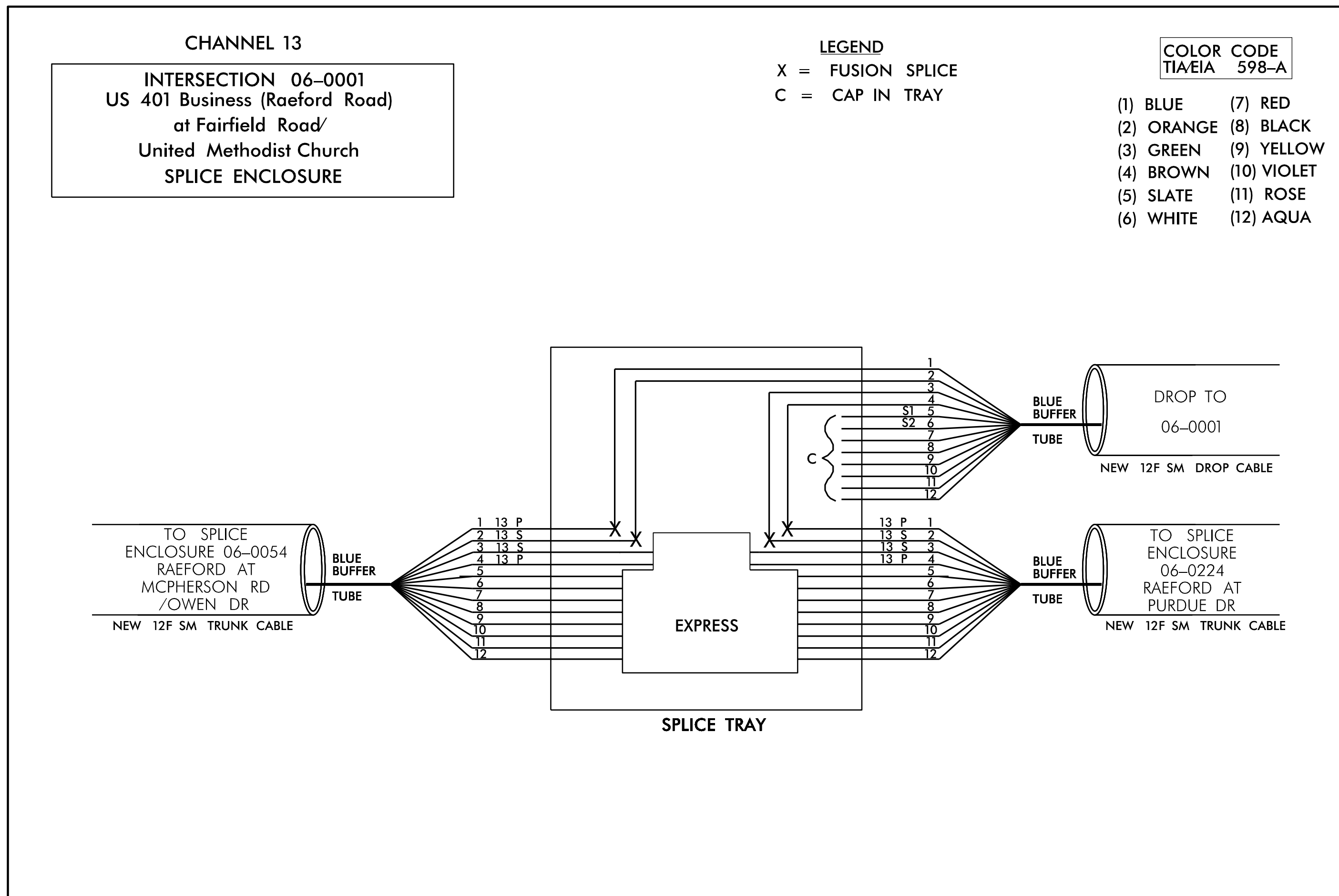
- INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:
REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
 - SPLICE LOCATION
 - DATE
 - COMPANY NAME
 - NAME OF INDIVIDUAL PERFORMING THE SPLICING
 PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

US 401 Business (Raeford Road)
at McPherson Church Road/Owen Drive

FINAL

3/27/2018
U:\171001766\transportation\des\gn\175-U-4405\U-4405_Fiber_Splicing_SCP-20 - SCP-42.dgn
j.ingram

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>SCALE: N/A</p>	



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 - 1.) SPLICE LOCATION
 - 2.) DATE
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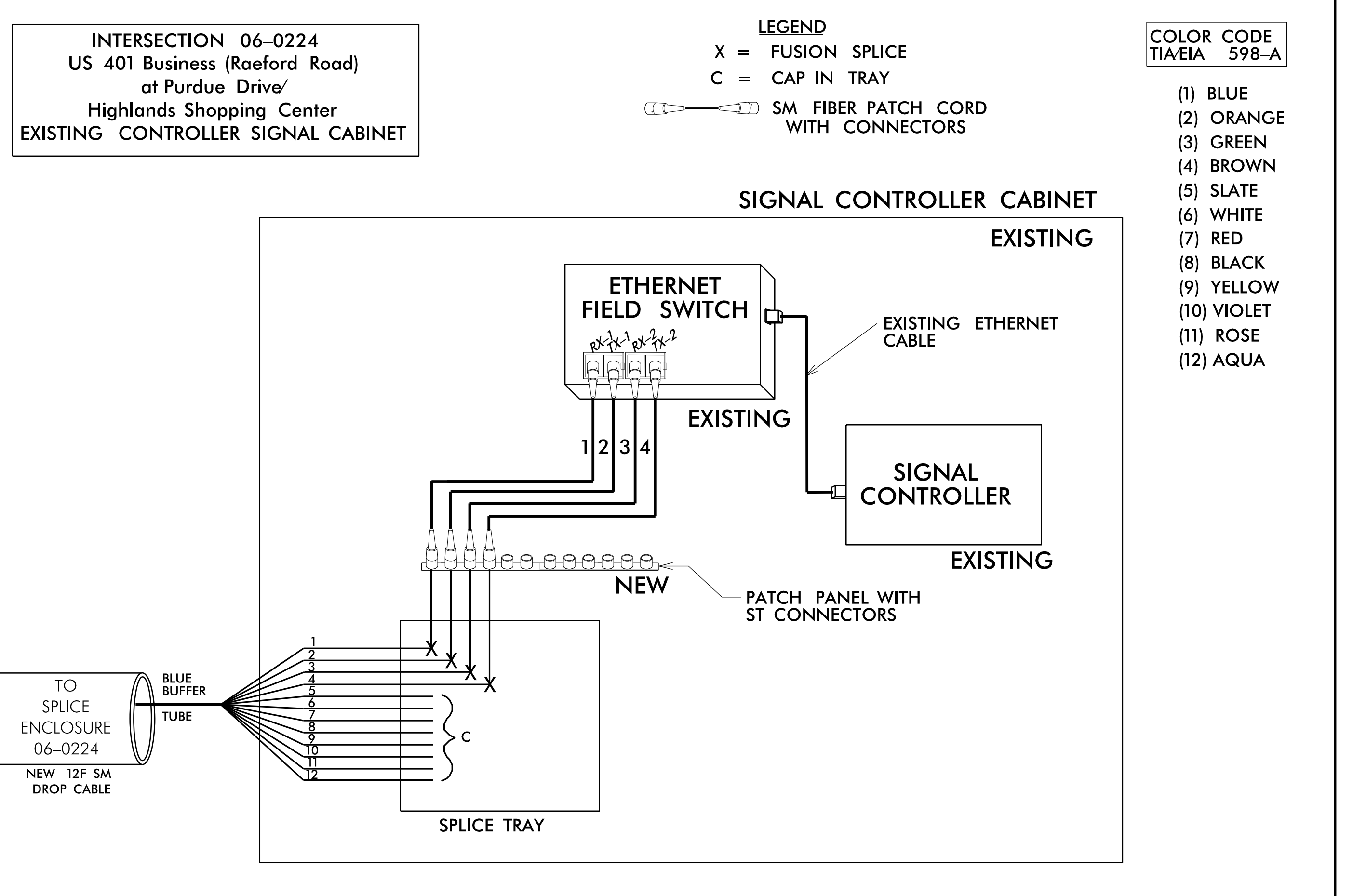
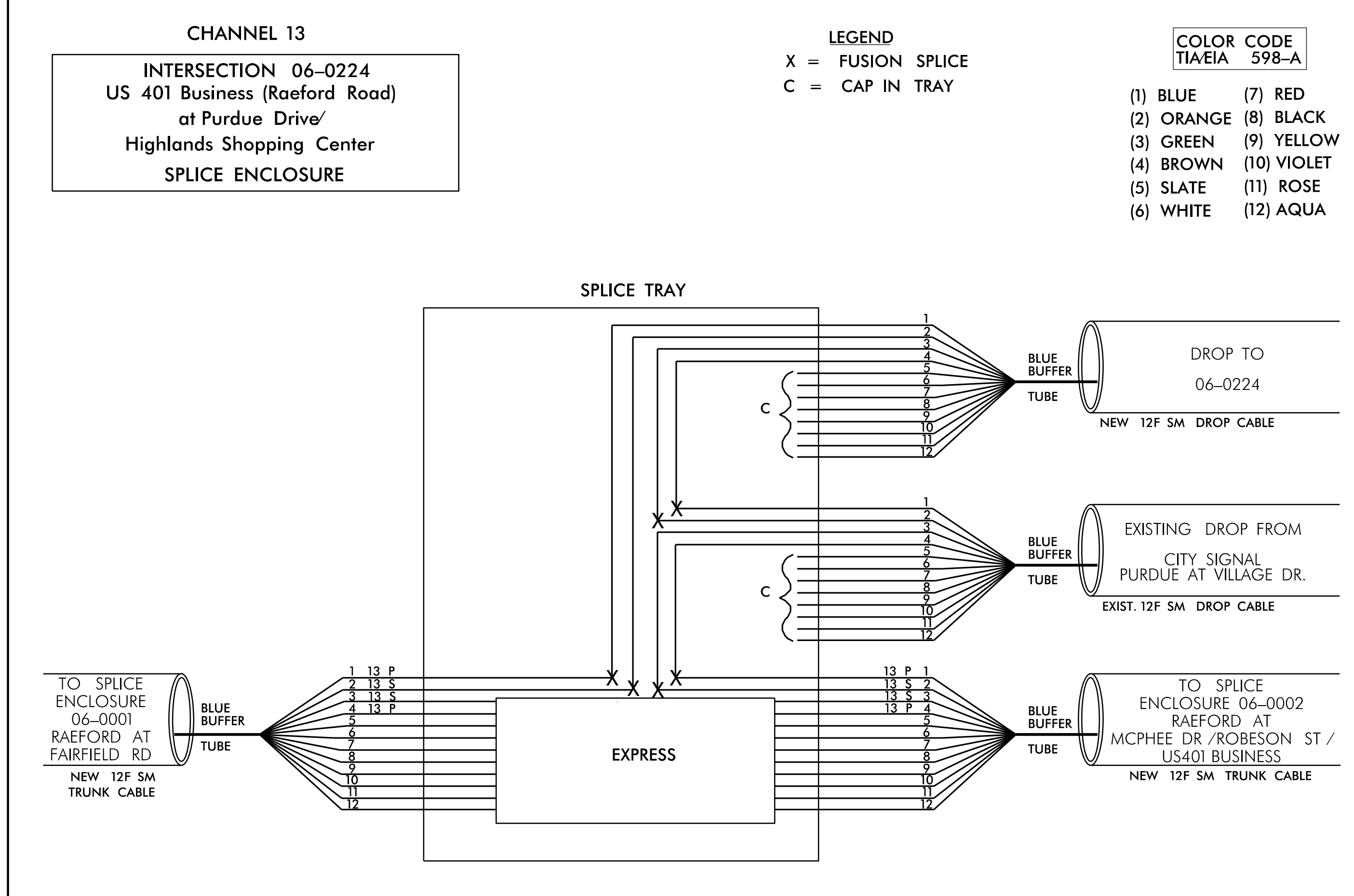
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FINAL

US 401 Business (Raeford Road)
at Fairfield Road/
United Methodist Church

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p>	<p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p>	
<p>SCALE: N/A</p>		<p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>INIT. DATE</p>	<p>DocuSigned by: Lawrence E. Owen 3/29/2018 DATE: 3/29/2018 CADD Filename:</p>

3/27/2018 U:\71001766*Transportation*Traffic*Signal*Design*ITS U-4405*U-4405 Splicing SCP-20 - SCP-42.dgn j.ingram



- 1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE'S, SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660 TO ARRANGE FOR THE DIVISION TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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 - 1.) SPLICE LOCATION
 - 2.) DATE
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US 401 Business (Raeford Road)
 at Purdue Drive/
 Highlands Shopping Center

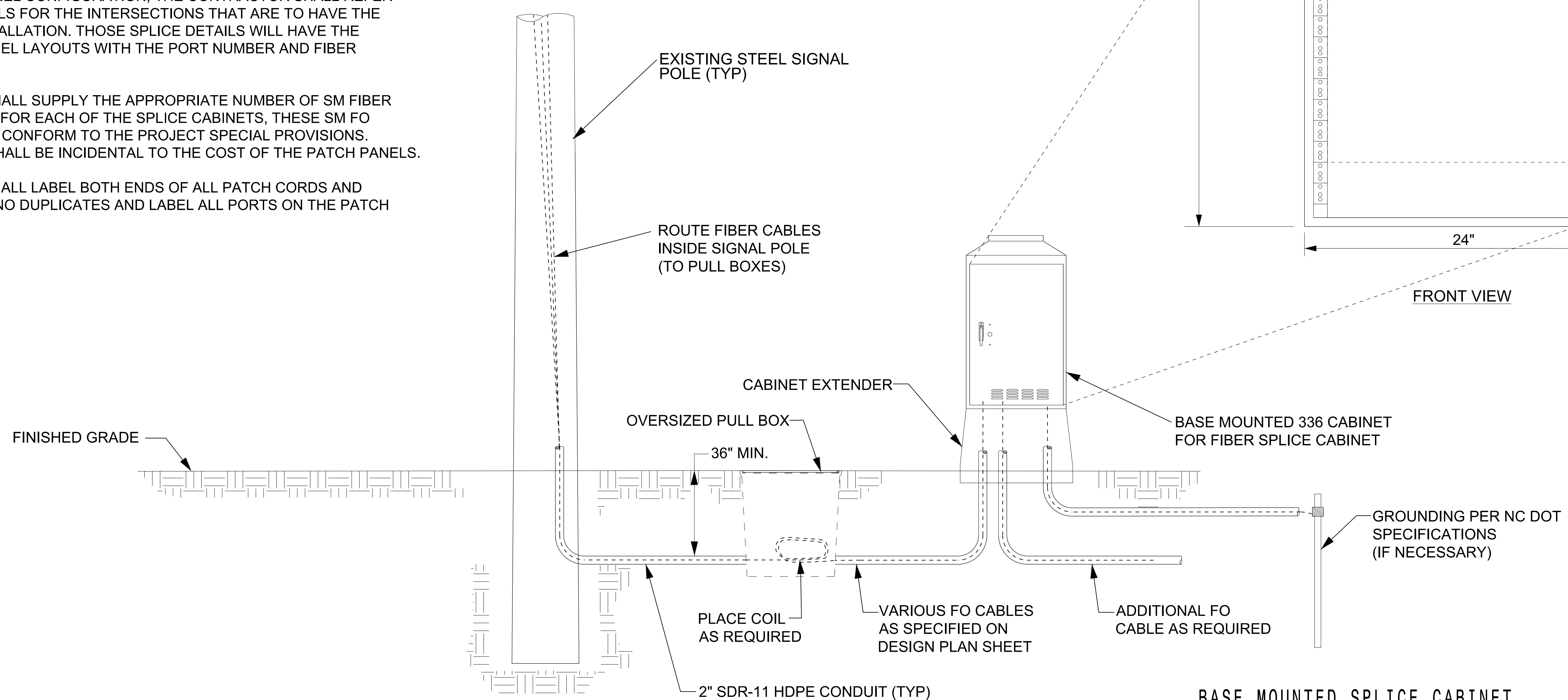
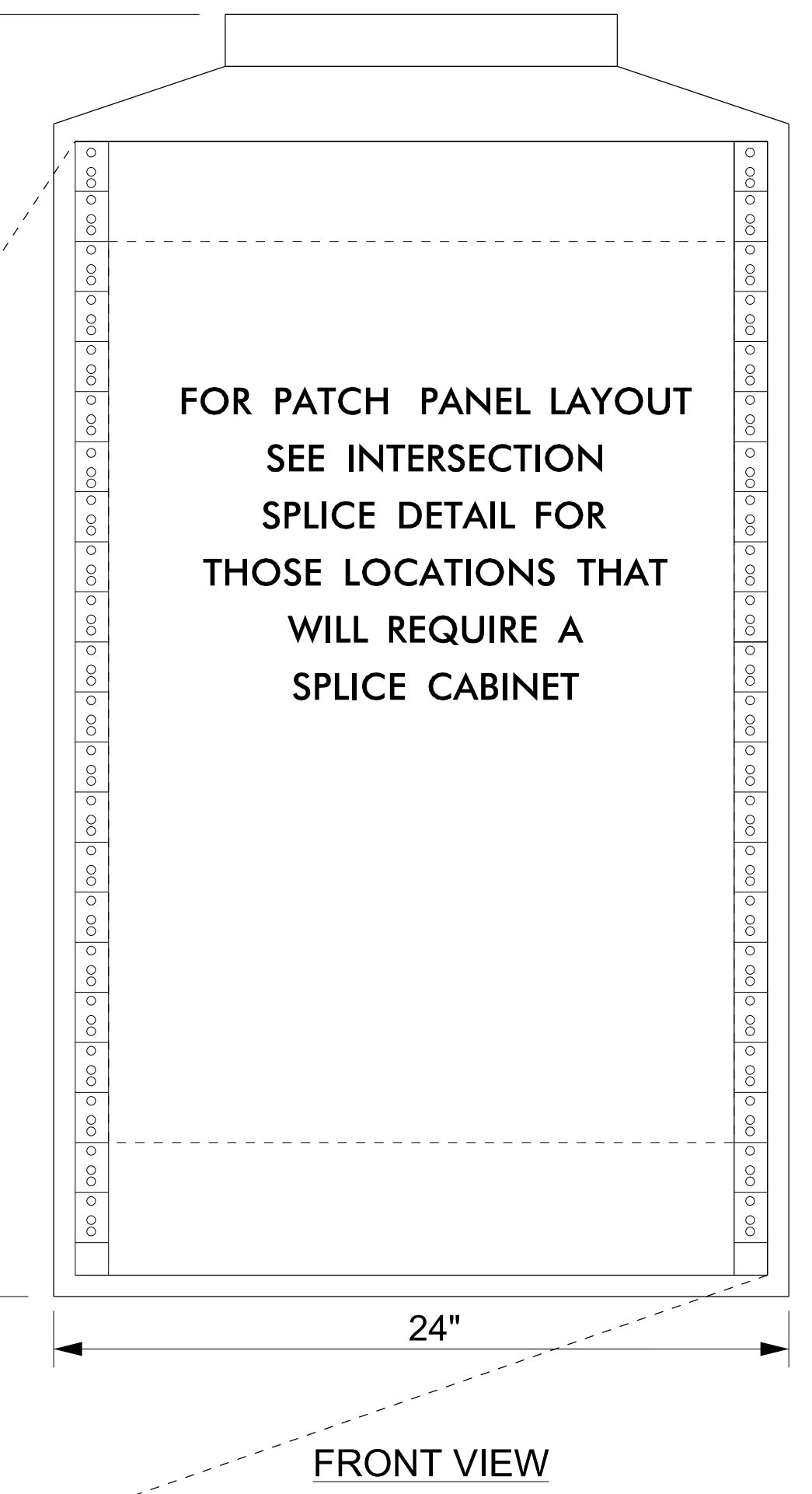
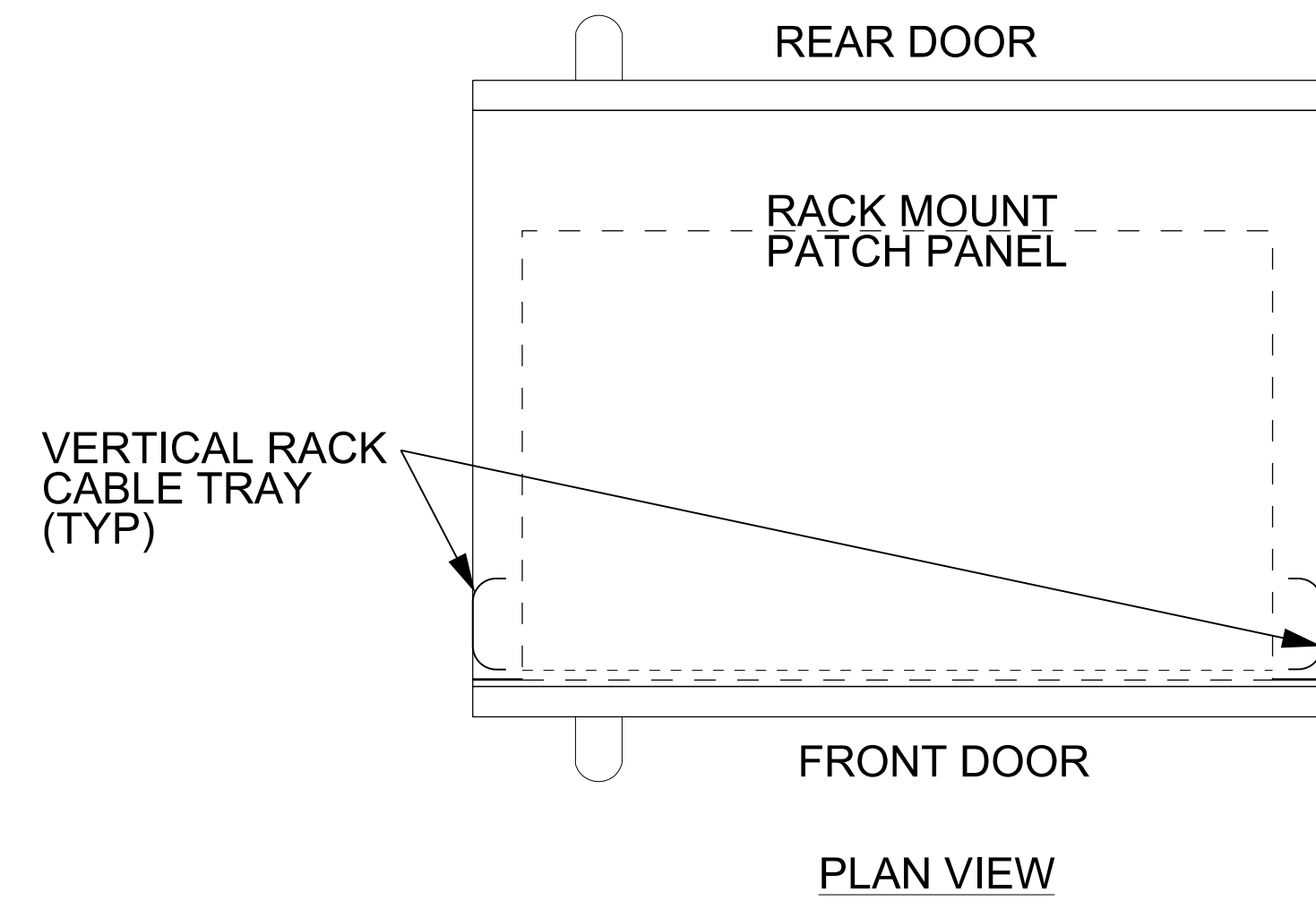
FINAL

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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	INIT.	DATE		
NO.	DESCRIPTION	INIT.	DATE						

3/27/2018 U:\171001766*Transportation\on*des\gn*Traffic*Signal*Des\gn*ITS U-4405*U-4405 Fiber Splicing SCP-20 - SCP-42.dgn j.ingram

NOTES:

1. THIS SPLICE CABINET SHALL CONSIST OF A STANDARD 336 CONTROLLER BASE MOUNTED CABINET WITH NCDOT STANDARD BASE EXTENDER. THE CONTRACTOR SHALL EQUIP THE SPLICE CABINET WITH NETWORK RAILS AS SHOWN. THE CABINET BASE EXTENDER AND NETWORK RAILS SHALL BE INCIDENTAL TO THE COST OF THE SPLICE CABINET. THE SPLICE CABINET WILL NOT HAVE A POWER CONNECTION AT THIS TIME.
2. THE FIBER OPTIC PATCH PANELS SHALL BE RACK MOUNTED AND SHALL INCORPORATE A HINGED DOOR. ALL PATCH PANELS SHALL COME PRE-LOADED WITH THE APPROPRIATE NUMBER OF SINGLE MODE FIBERS WITH SC CONNECTORS AT THE PANEL, AND THE CONTRACTOR SHALL SPLICE THESE FIBERS TO THE DROP CABLE.
3. NOT ALL OF THE REQUIRED BASE MOUNTED SPLICE CABINETS WILL HAVE THE SAME PATCH PANEL CONFIGURATION, THE CONTRACTOR SHALL REFER TO THE SPLICE DETAILS FOR THE INTERSECTIONS THAT ARE TO HAVE THE SPLICE CABINET INSTALLATION. THOSE SPLICE DETAILS WILL HAVE THE CORRECT PATCH PANEL LAYOUTS WITH THE PORT NUMBER AND FIBER CONNECTIONS.
4. THE CONTRACTOR SHALL SUPPLY THE APPROPRIATE NUMBER OF SM FIBER OPTIC PATCH CORDS FOR EACH OF THE SPLICE CABINETS, THESE SM FO PATCH CORDS SHALL CONFORM TO THE PROJECT SPECIAL PROVISIONS. THE PATCH CORDS SHALL BE INCIDENTAL TO THE COST OF THE PATCH PANELS.
5. THE CONTRACTOR SHALL LABEL BOTH ENDS OF ALL PATCH CORDS AND ENSURE THERE ARE NO DUPLICATES AND LABEL ALL PORTS ON THE PATCH PANELS.



TYPICAL BASE MOUNTED SPLICE CABINET
SCALE: NTS

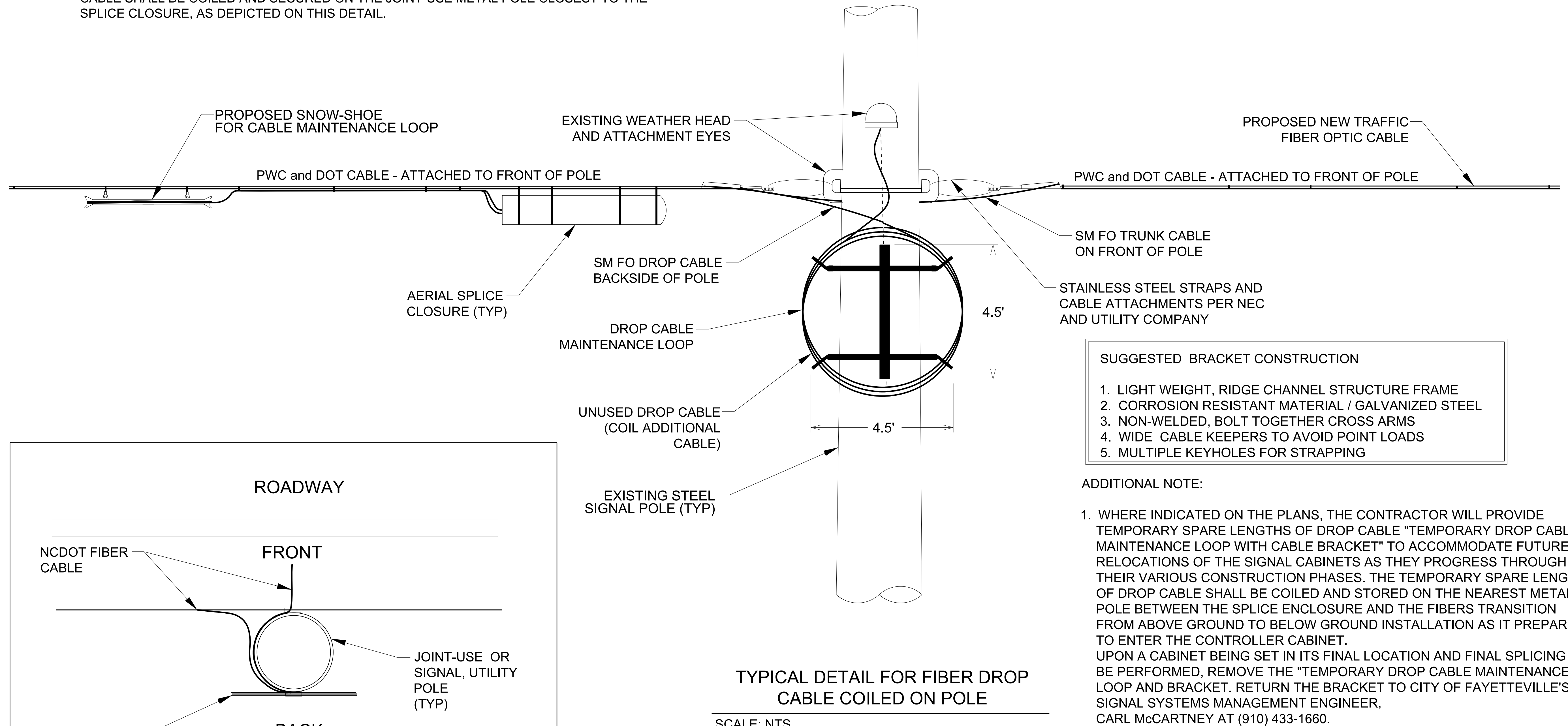
BASE MOUNTED SPLICE CABINET
FOR PATCH PANEL LAYOUT SEE SPLICE DETAILS

<p>Stantec Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	<p>Prepared for the Offices of:</p> <p>750 N. Greenfield Pkwy., Garner, NC 27529</p>	<p>FIBER CABLE SPLICING DETAILS SPLICE CABINET DETAIL</p>		<p>SEAL LAWRENCE E. OVERMAN PROFESSIONAL ENGINEER SEAL 045933</p>									
		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>											
<p>SCALE N/A</p>		<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							<p>DocuSigned by: <i>Lawrence E. Overman</i> 3/29/2018 DATE</p>
REVISIONS	INIT.	DATE											

NOTES:

1. ALL AERIAL SPLICE CLOSURES SHALL BE INSTALLED OPPOSITE FIBER SHOW- SHOES FOR CABLE MAINTENANCE LOOP, PER NCDOT.
2. THE CONTRACTOR SHALL REFER TO SECTION "BACK PULL FIBER OPTIC CABLE" OF THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL INSTALL ENOUGH FIBER DROP CABLE TO ENSURE CONNECTION TO THE "FINAL" LOCATION OF THE SIGNAL CONTROL CABINET. THEREFORE, SINCE THE FINAL LOCATION MAY NOT HAVE BEEN DETERMINED BY THE TIME OF DROP CABLE INSTALLATION, THE CONTRACTOR SHALL INSTALL ENOUGH DROP CABLE FOR THE LONGEST RUN OF DROP CABLE TO THE FINAL "BUILD-OUT" LOCATION OF THE SIGNAL CONTROL CABINET. THE CONTRACTOR SHALL BE REQUIRED TO MAKE THE CONNECTION AT THE EXISTING SIGNAL CABINET, AND THEN ANY UNUSED FIBER DROP CABLE SHALL BE COILED AND SECURED ON THE JOINT-USE METAL POLE CLOSEST TO THE SPLICE CLOSURE, AS DEPICTED ON THIS DETAIL.

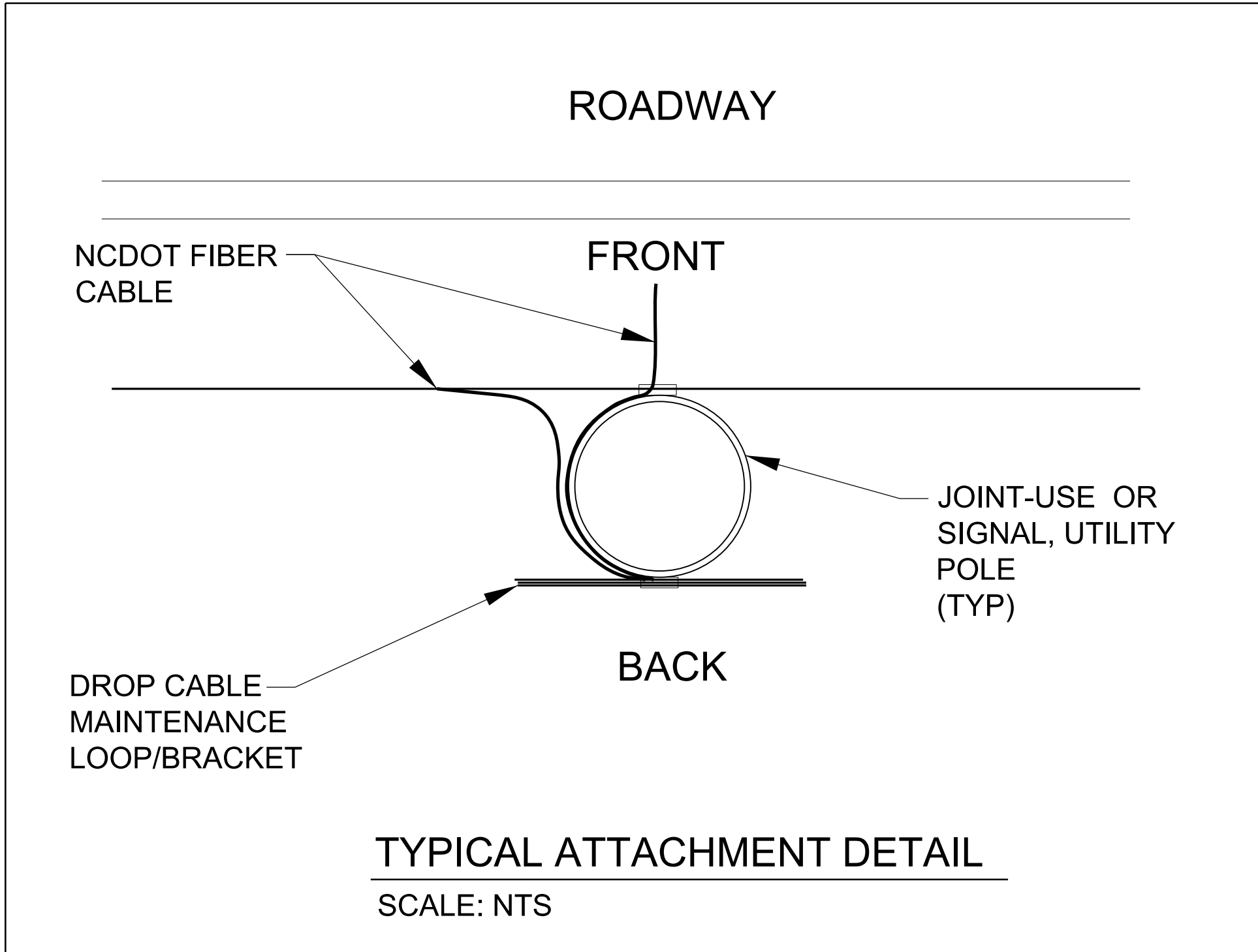
3. DUE TO THE AMOUNT OF TIME THAT THIS MAINTENANCE LOOP MIGHT REMAIN UNTIL THE FINAL INSTALLATION IS MADE, THE CONTRACTOR SHALL USE A BRACKET SIMILAR TO WHAT IS SHOWN ON THE DETAIL BELOW, STRAPPED TO THE STEEL POLE. THE COST OF THE BRACKET, BANDING, LABOR AND ALL ANCILLARY MATERIAL FOR INSTALLATION OF THE BRACKET SHALL BE INCIDENTAL TO THE COST OF THE DROP CABLE. EXPECTED HARDWARE SPECIFICS FOR THE BRACKET ARE BELOW.



SUGGESTED BRACKET CONSTRUCTION

1. LIGHT WEIGHT, RIDGE CHANNEL STRUCTURE FRAME
2. CORROSION RESISTANT MATERIAL / GALVANIZED STEEL
3. NON-WELDED, BOLT TOGETHER CROSS ARMS
4. WIDE CABLE KEEPERS TO AVOID POINT LOADS
5. MULTIPLE KEYHOLES FOR STRAPPING

- ADDITIONAL NOTE:
1. WHERE INDICATED ON THE PLANS, THE CONTRACTOR WILL PROVIDE TEMPORARY SPARE LENGTHS OF DROP CABLE "TEMPORARY DROP CABLE MAINTENANCE LOOP WITH CABLE BRACKET" TO ACCOMMODATE FUTURE RELOCATIONS OF THE SIGNAL CABINETS AS THEY PROGRESS THROUGH THEIR VARIOUS CONSTRUCTION PHASES. THE TEMPORARY SPARE LENGTH OF DROP CABLE SHALL BE COILED AND STORED ON THE NEAREST METAL POLE BETWEEN THE SPLICE ENCLOSURE AND THE FIBERS TRANSITION FROM ABOVE GROUND TO BELOW GROUND INSTALLATION AS IT PREPARES TO ENTER THE CONTROLLER CABINET. UPON A CABINET BEING SET IN ITS FINAL LOCATION AND FINAL SPLICING TO BE PERFORMED, REMOVE THE "TEMPORARY DROP CABLE MAINTENANCE LOOP AND BRACKET. RETURN THE BRACKET TO CITY OF FAYETTEVILLE'S SIGNAL SYSTEMS MANAGEMENT ENGINEER, CARL McCARTNEY AT (910) 433-1660.

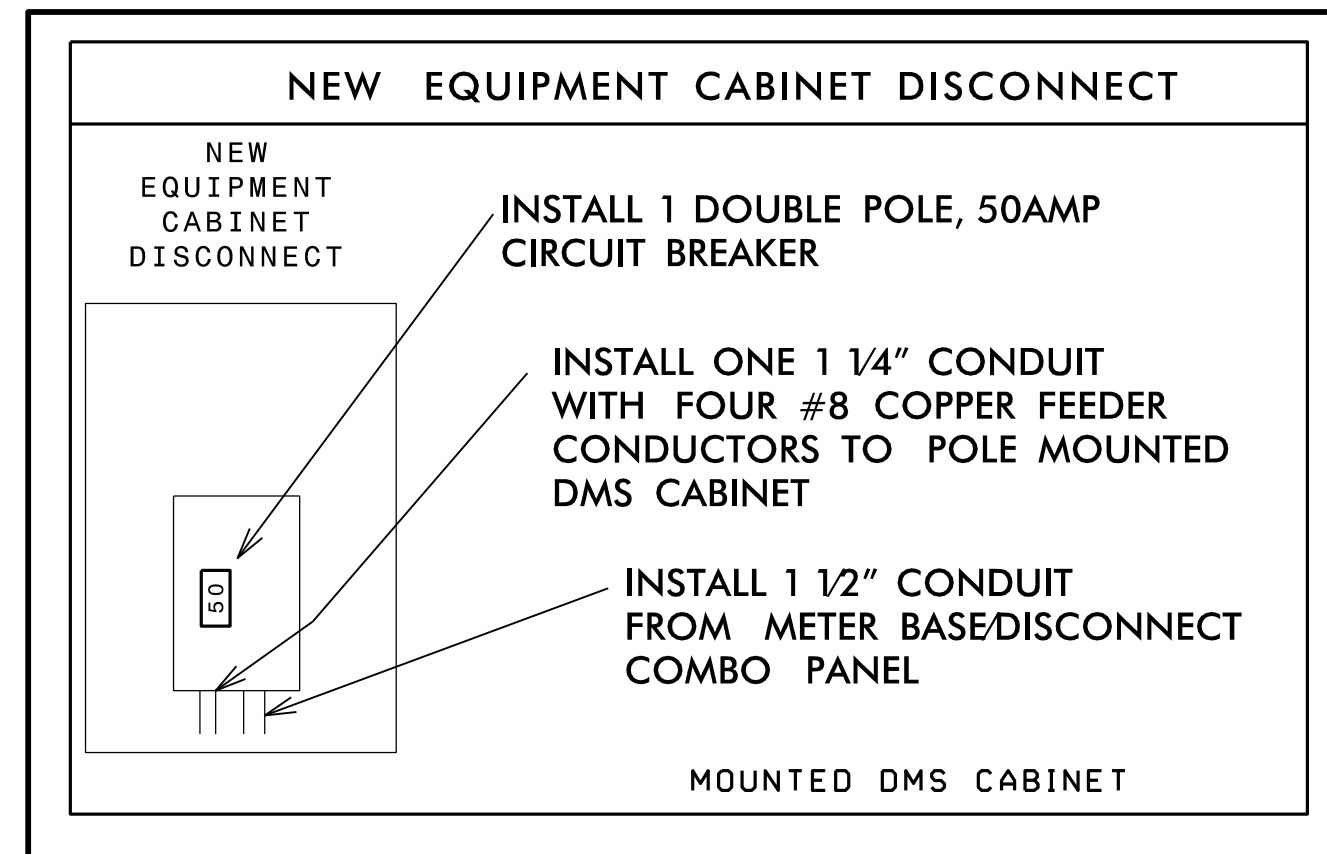


TYPICAL DETAIL FOR FIBER DROP CABLE COILED ON POLE
SCALE: NTS

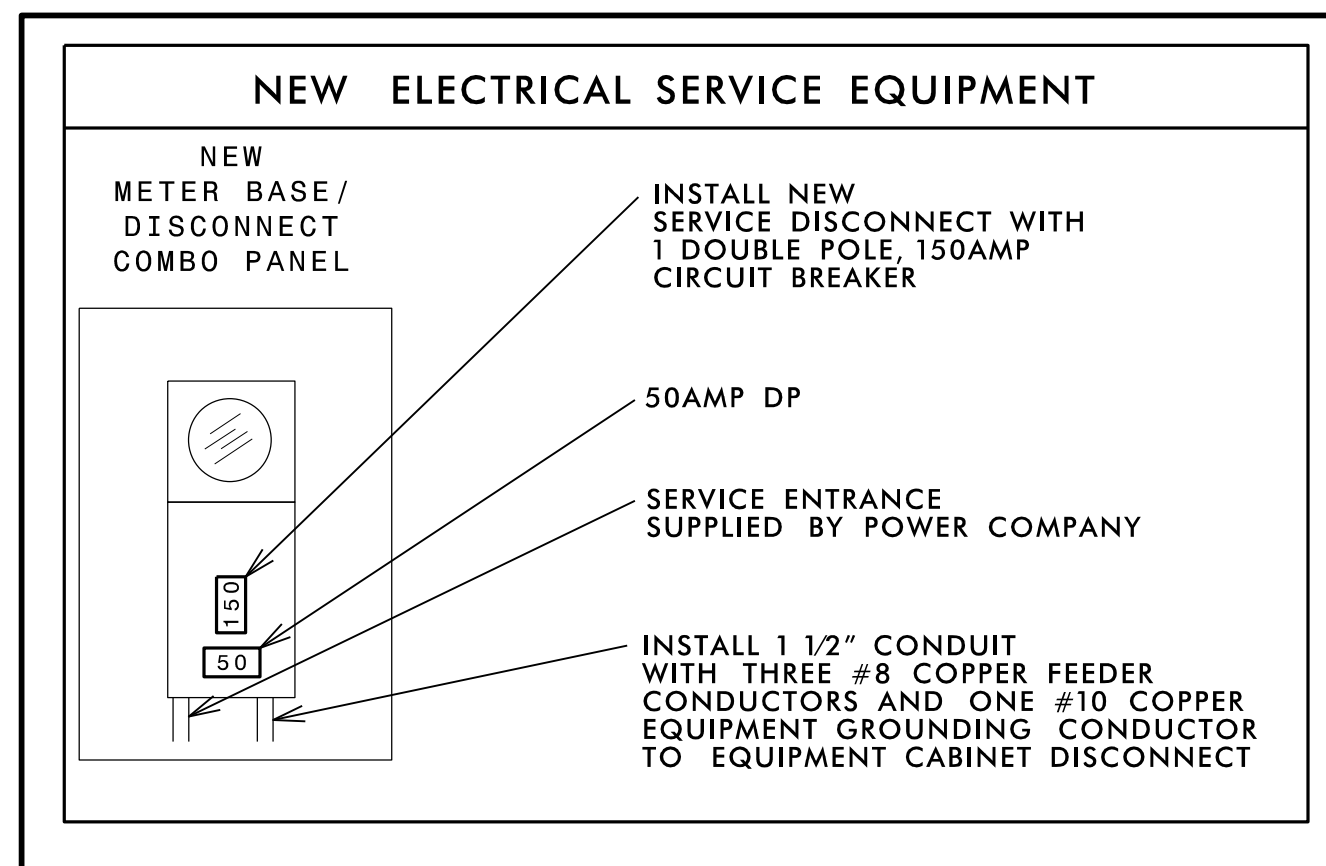
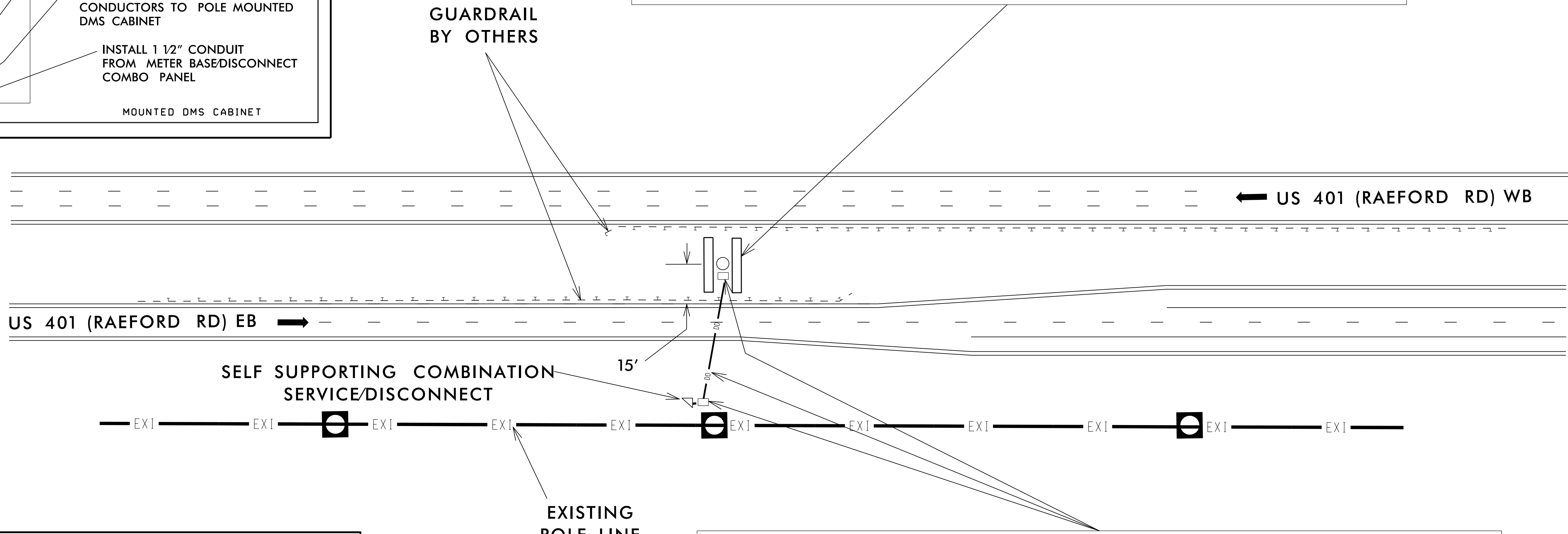
<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>		<p>FIBER CABLE SPLICING DETAILS TEMP FIBER DROP CABLE BRACKET</p>		<p>SEAL LAWRENCE E. OVERMIRE ENGINEER 045933 DATE: 3/29/2018</p>					
		<p>Prepared for the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529</p>	<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p> <p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p> <p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>		<table border="1"> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISIONS	INIT.	DATE	
REVISIONS	INIT.	DATE							

DMS-1 & 2

35° 2'13.89" N
79° 0'13.19" W



INSTALL THE FOLLOWING	
QUANTITY	DESCRIPTION
2	DMS
1	STRUCTURE
1	FOUNDATION
1	EQUIPMENT CABINET DISCONNECT ON DMS STRUCTURE
3	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



INSTALL THE FOLLOWING	
QUANTITY	DESCRIPTION
1	METER BASE/DISCONNECT COMBINATION PANEL
60'	DIRECTIONAL DRILL (2)(1 1/2")
2	STANDARD SIZE JUNCTION BOX
80'	3-WIRE COPPER FEEDER CONDUCTORS
3	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR

NOTES:

1. INSTALL NEW DMS POLE MOUNTED CABINET (1) ON NEW DMS STRUCTURE.
2. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET SCP-47 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.

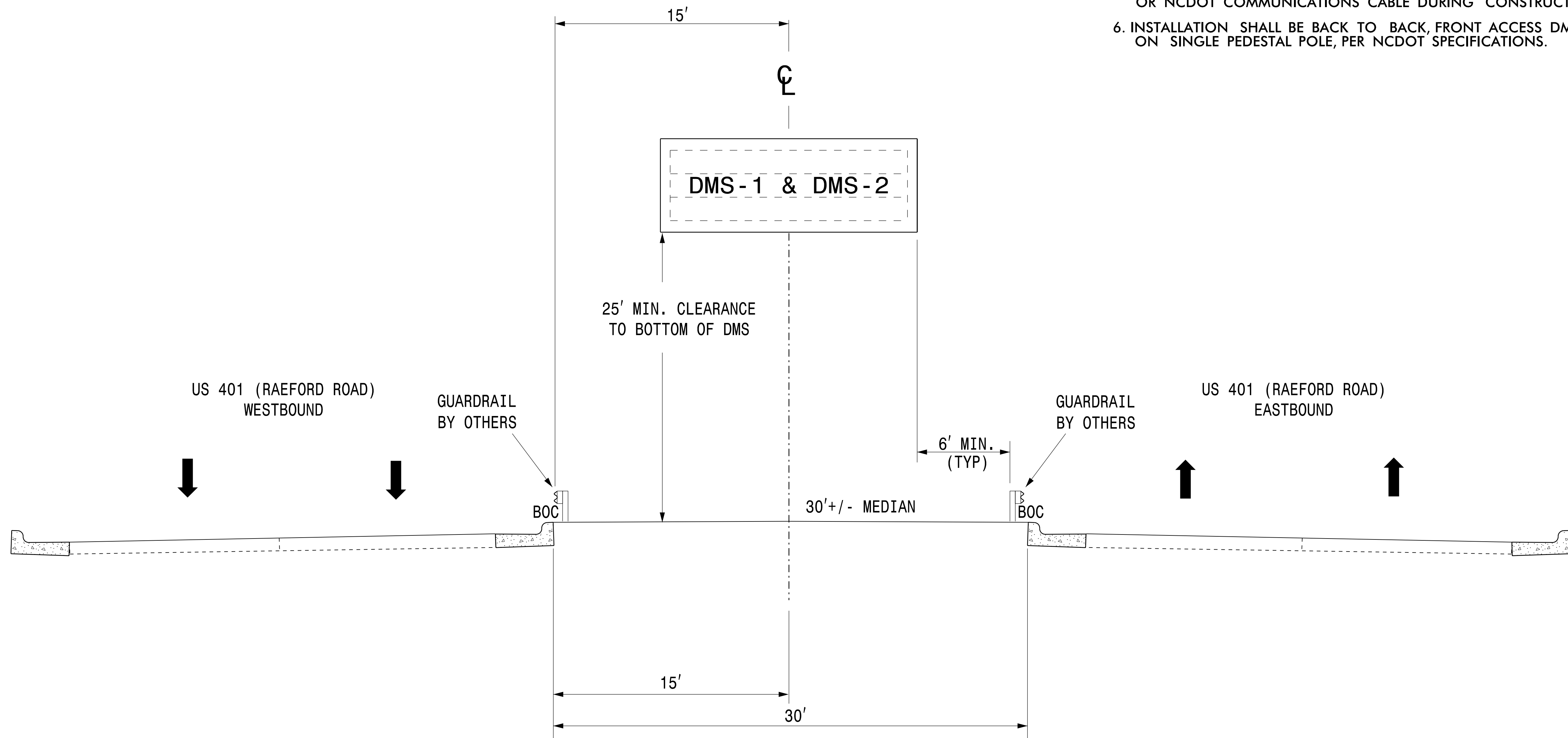
WEST OF 71ST SCHOOL ROAD/GRAHAM ROAD

<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>		<p>DMS 1 & DMS 2 INSTALLATION (DAUL-MOUNTED on SINGLE POLE PEDESTAL)</p>		<p>SEAL 045933 ENGINEER JAMES E. OVERTON</p>
		<p>750 N. Greenfield Pkwy., Garner, NC 27529</p>	<p>Prepared for the Offices of: </p>	
<p>SCALE: N/A</p>		<p>PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON</p>	<p>REVISIONS: INIT. DATE</p>	<p>DocuSigned by: DATE: 3/29/2018 CADD Filename: </p>

ESTIMATED DIMENSION : 15' X 8' (EACH)
 MAXIMUM DEADLOAD OF 1500 LBS (EACH)

NOTES:

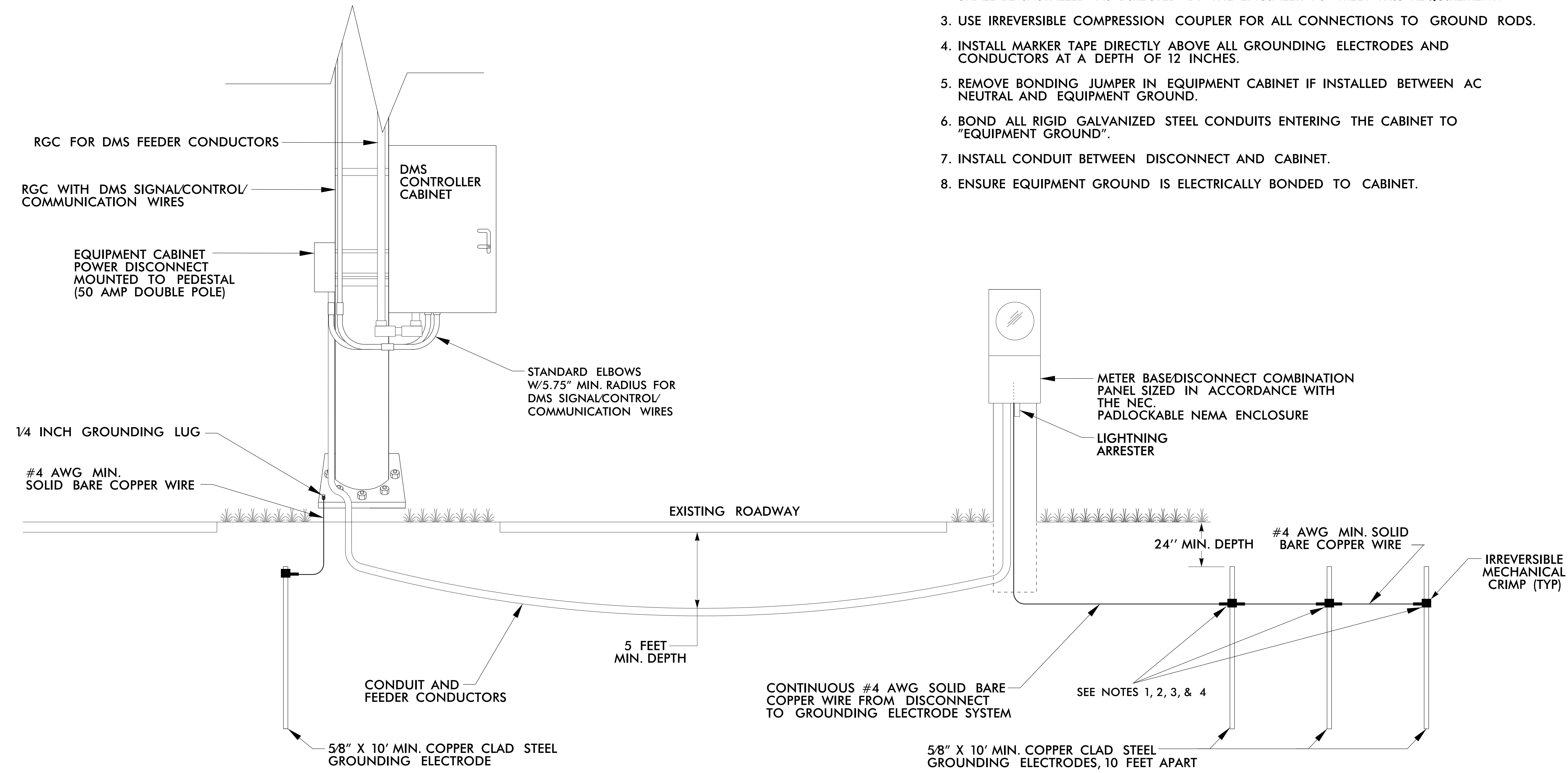
1. USE THE ACTUAL DIMENSIONS AND WEIGHT OF THE DMS PROVIDED BY THE DMS FABRICATOR TO COMPLETE THE DESIGN OF THE DMS STRUCTURE.
2. FIELD VERIFY ALL FOOTING ELEVATIONS AND GROUND SLOPES AT THE FOOTINGS USING THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
3. ENSURE THAT THE TOP OF THE FOOTING EXTENDS AT LEAST 6 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
4. DESIGN AND CONSTRUCT THE PEDESTAL STRUCTURE AND DMS ENCLOSURE TO WITHSTAND WIND VELOCITIES OF 140 MPH.
5. VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE BEGINNING ANY UNDERGROUND WORK. DO NOT DAMAGE ANY EXISTING UTILITIES OR NCDOT COMMUNICATIONS CABLE DURING CONSTRUCTION.
6. INSTALLATION SHALL BE BACK TO BACK, FRONT ACCESS DMS ON SINGLE PEDESTAL POLE, PER NCDOT SPECIFICATIONS.



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		<p>DIVISION 06 CUMBERLAND CO. FAYETTEVILLE</p>	<p>PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS</p>						
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REVISIONS	INIT.	DATE							

NOTES

1. INSTALL A MINIMUM OF THREE (3) GROUNDING ELECTRODES SPACED A MINIMUM OF 10 FEET APART. ENSURE THAT EXISTING UNDERGROUND FACILITIES ARE NOT DAMAGED DURING INSTALLATION.
2. TEST GROUNDING SYSTEM USING AN APPROVED METHOD. SYSTEM SHOULD MEASURE TWENTY (20) OHMS OR LESS. ADDITIONAL GROUNDING ELECTRODES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.
3. USE IRREVERSIBLE COMPRESSION COUPLER FOR ALL CONNECTIONS TO GROUND RODS.
4. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.
5. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
6. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO "EQUIPMENT GROUND".
7. INSTALL CONDUIT BETWEEN DISCONNECT AND CABINET.
8. ENSURE EQUIPMENT GROUND IS ELECTRICALLY BONDED TO CABINET.



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Prepared for the Offices of:

 750 N. Greenfield Pkwy., Garner, NC 27529

DMS 1 & DMS 2
 NEW ELECTRICAL SERVICE
 AND GROUNDING DETAIL

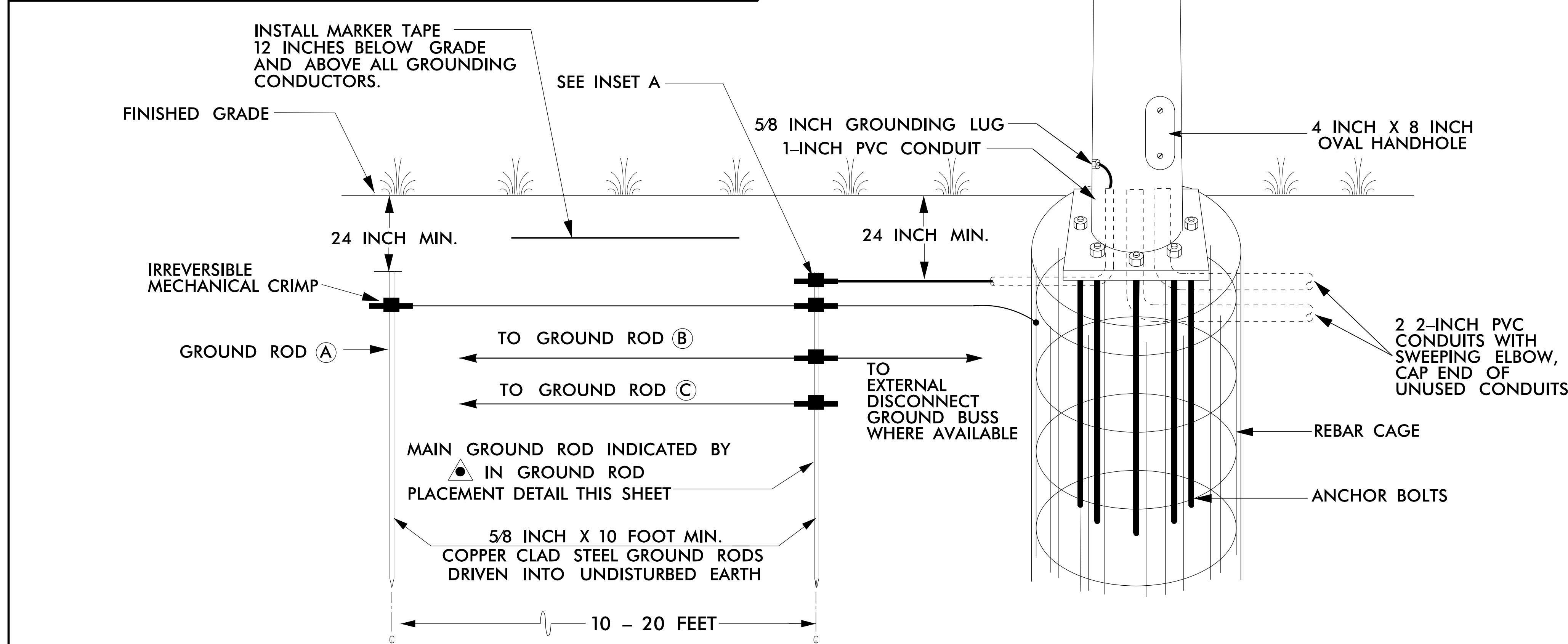
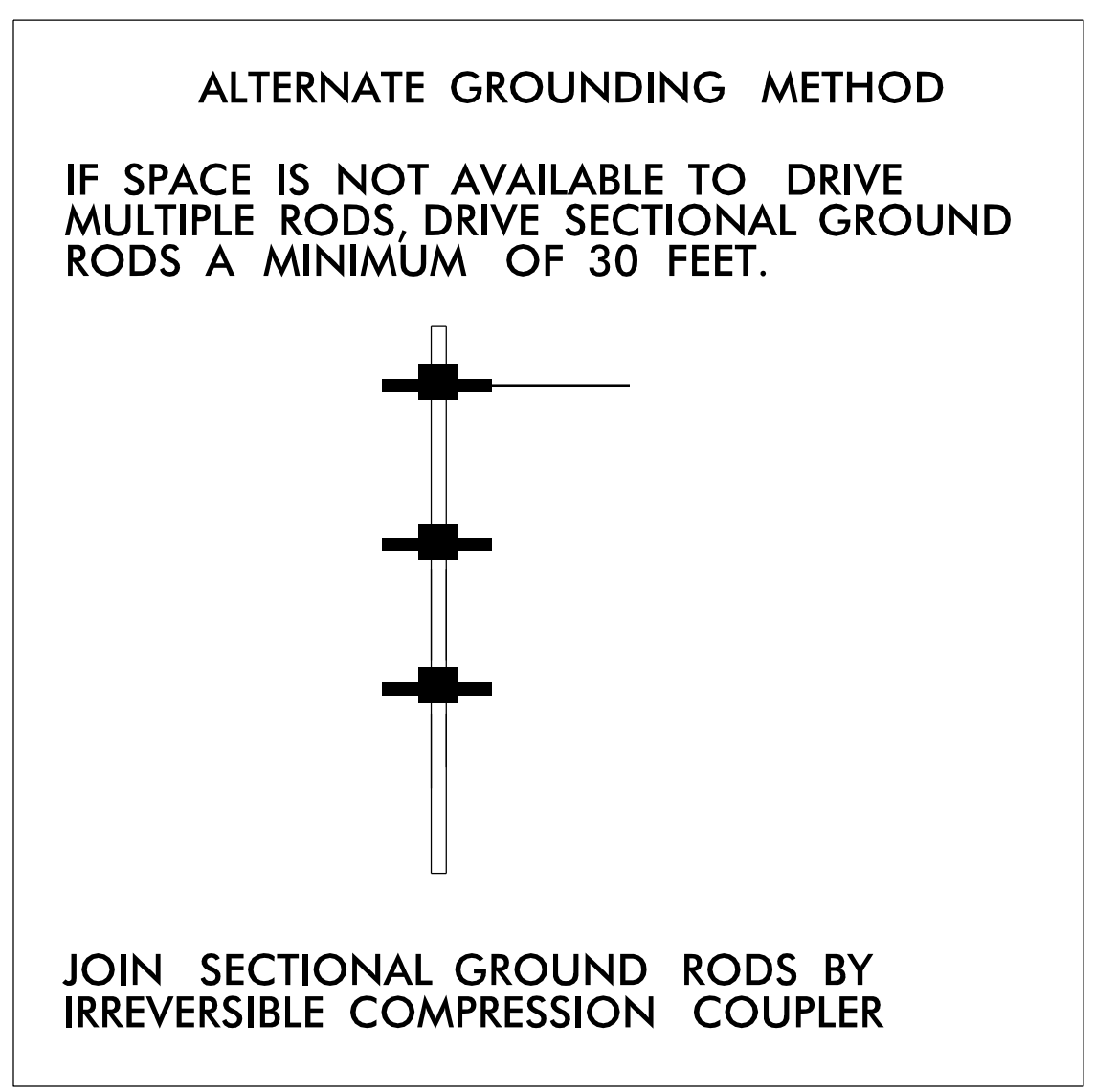
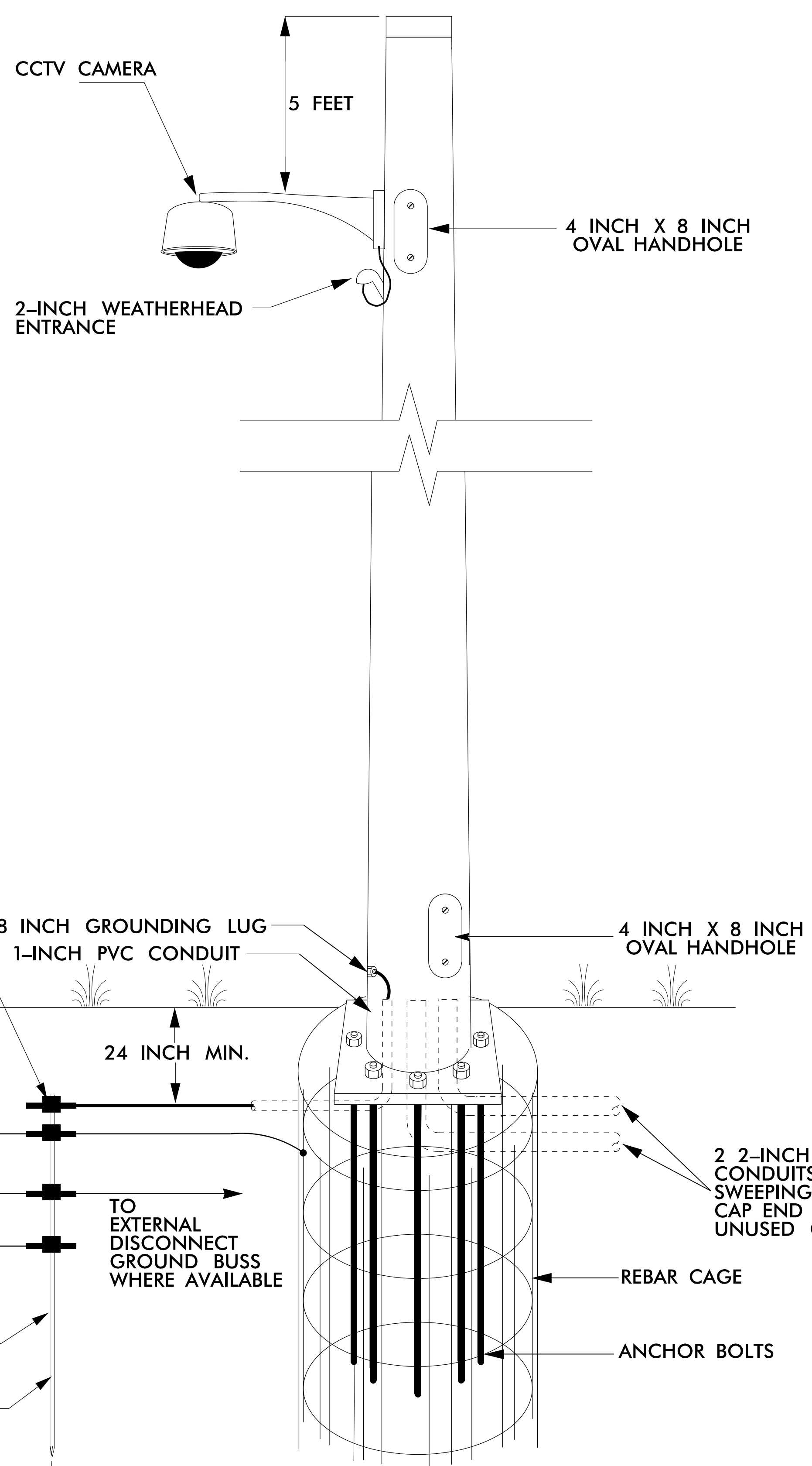
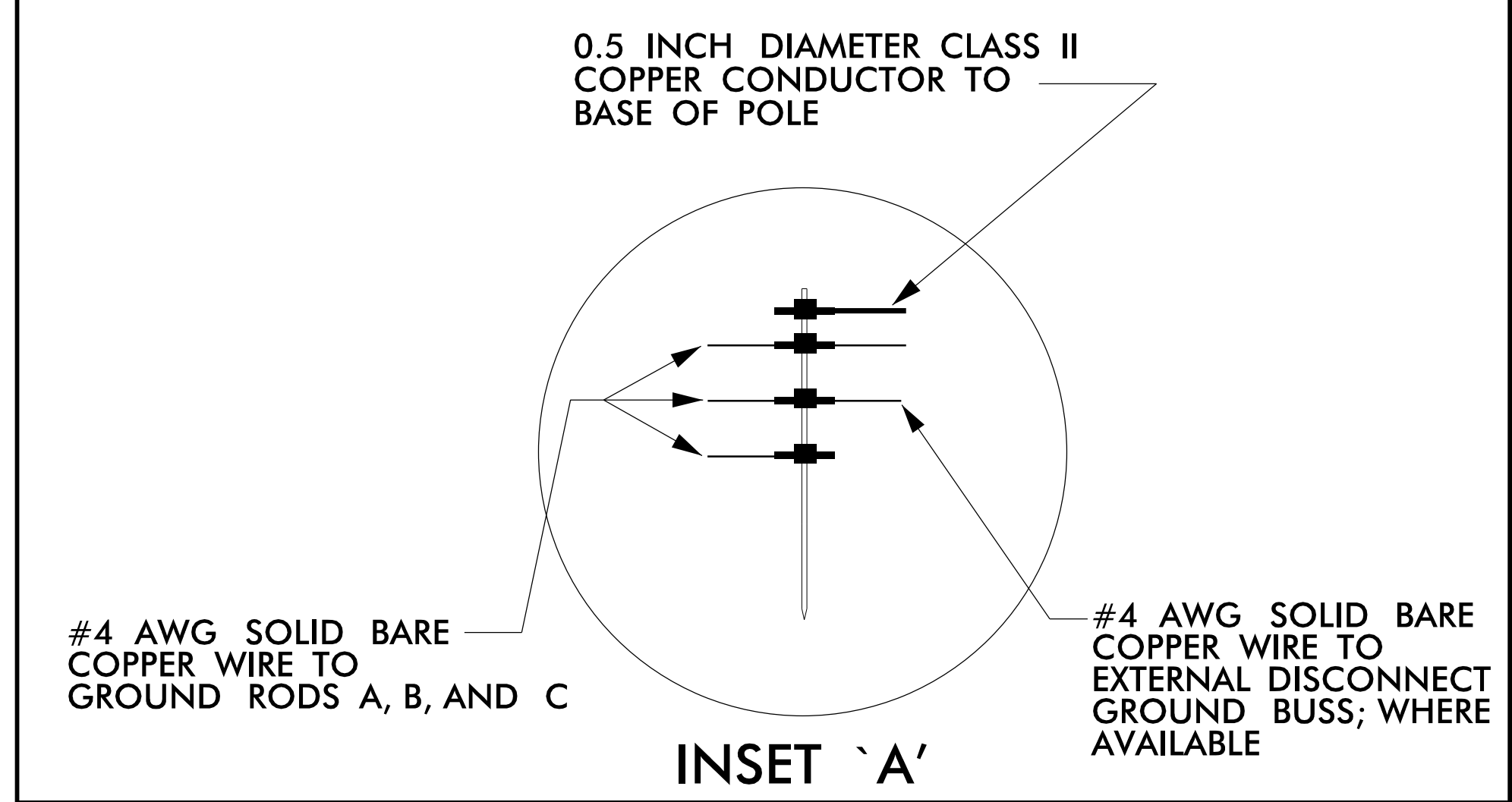
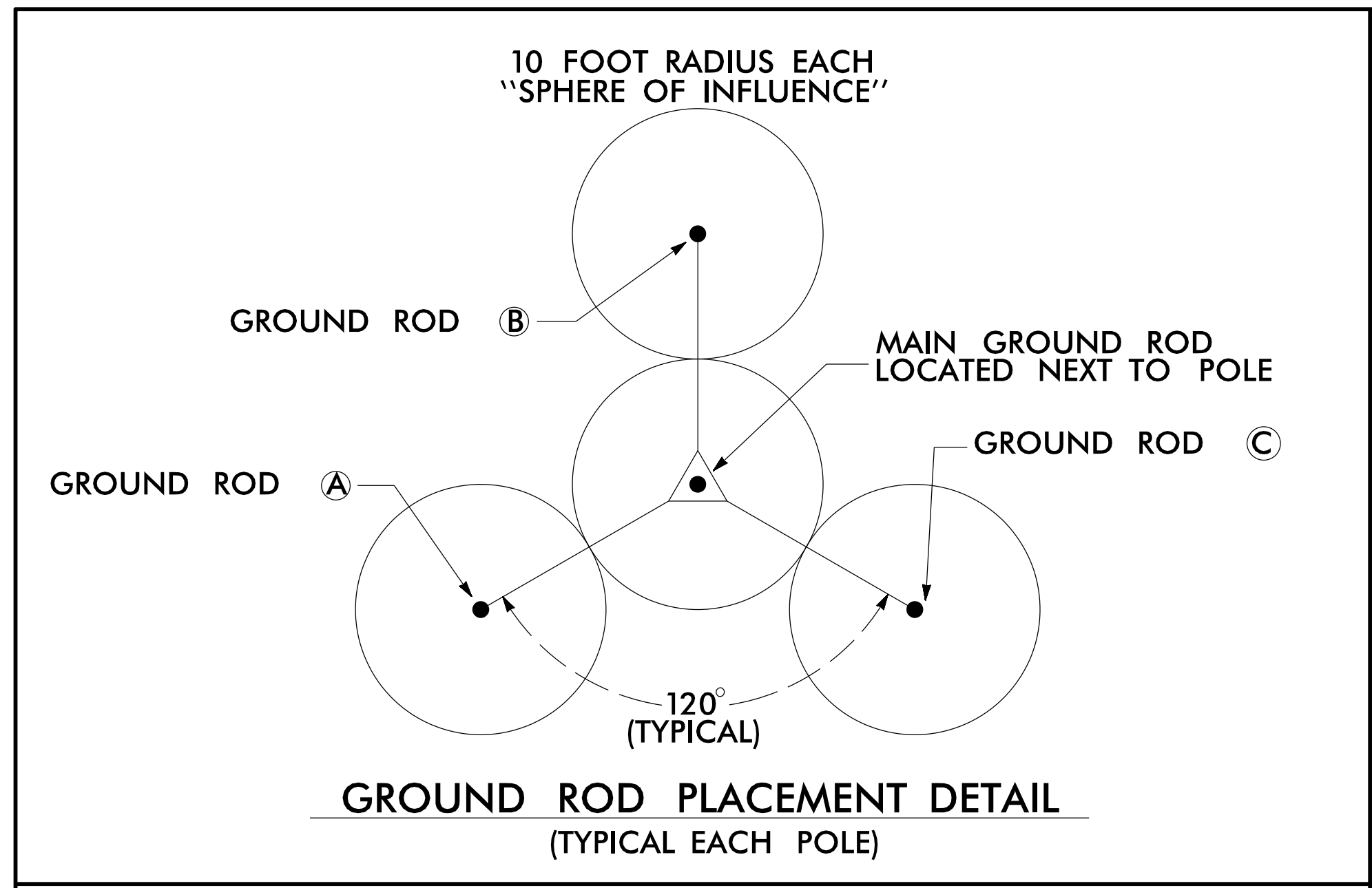
DIVISION 06 CUMBERLAND CO. FAYETTEVILLE

PLAN DATE: MARCH 2018 REVIEWED BY: D. HARRIS
 PREPARED BY: J. INGRAM REVIEWED BY: B. WATSON

REVISIONS	INIT.	DATE

SCALE: N/A

SEAL
 NORTH CAROLINA
 PROFESSIONAL ENGINEERS
 SEAL 045933
 LAWRENCE E. OVERTON
 ENGINEER
 DocuSigned by:
 Lawrence E Overton 3/29/2018
 DATE
 CADD Filename:



NOTES

1. BOND 0.5 INCH DIAMETER, 28 STRAND (MINIMUM) CLASS II COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN IRREVERSIBLE MECHANICAL CRIMP METHOD.
2. ALL CONNECTIONS TO GROUND RODS SHOULD BE MADE WITH AN IRREVERSIBLE MECHANICAL CRIMP METHOD.
3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN IRREVERSIBLE MECHANICAL CRIMP.
4. ENSURE CAMERA HOUSING, CAMERA, AND PAN -TILT UNIT ARE BONDED TO POLE.
5. THE CONTRACTOR MAY, UPON APPROVAL OF THE ENGINEER, INSTALL A 30-FOOT SECTIONAL GROUND ROD WHEN CONDITIONS WILL NOT ALLOW FOR THE INSTALLATION OF THE 3 - RADIAL GROUND RODS.
6. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.

	CCTV CAMERA INSTALLATION FOR METAL POLE TYPICAL DETAIL		SEAL
	PLAN DATE: MARCH 2018 PREPARED BY: J. INGRAM	REVIEWED BY: D. HARRIS REVIEWED BY: B. WATSON	
Prepared in the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529			DocuSigned by: Lawrence E. Overton 11/29/2018 SIGNATURE DATE CADD Filename: