

CONTRACT: C204633 TIP PROJECT: U-2579AB

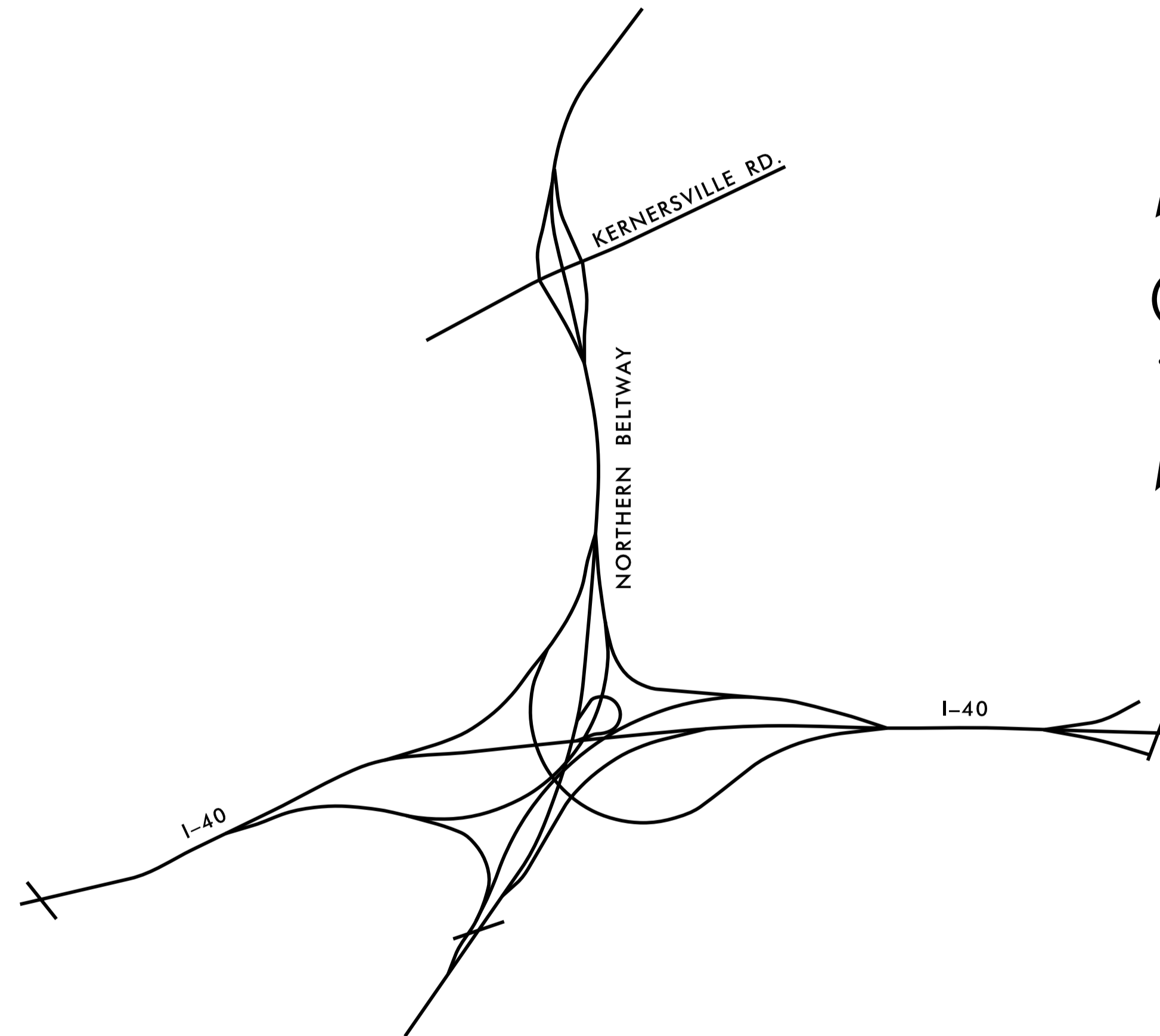
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

FORSYTH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	U-2579AB	ITS-1
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34839.3.15		CONST.
34839.1.8		PE

**LOCATION: WINSTON-SALEM NORTHERN BELTWAY, EASTERN SECTION
FROM U-2579B SOUTHERN LIMIT TO U-2579AA NORTHERN LIMIT
I-40 FROM HIGH POINT ROAD TO UNION CROSS ROAD**

**TYPE OF WORK: COMMUNICATIONS CABLE AND CONDUIT ROUTING, CCTV
CAMERA, DYNAMIC MESSAGE SIGN AND HUB CABINET INSTALLATION**



2018 STANDARD SPECIFICATIONS

PROJECT LENGTH
2.727

LETTING DATE:
DECEMBER 21, 2021

INDEX OF SHEETS

SHEET ITS 1	TITLE SHEET
SHEET ITS 2	CONSTRUCTION NOTES AND LEGEND
SHEET ITS 3	SHEET LAYOUT
SHEET ITS 4	SYSTEM BLOCK DIAGRAM
SHEET ITS 5-28	CABLE ROUTING PLANS
SHEET ITS 29-36	SPLICE DETAILS
SHEET ITS 37-40	TYPICAL DETAILS
SHEET ITS 40-45	DMS S-DIMENSIONS

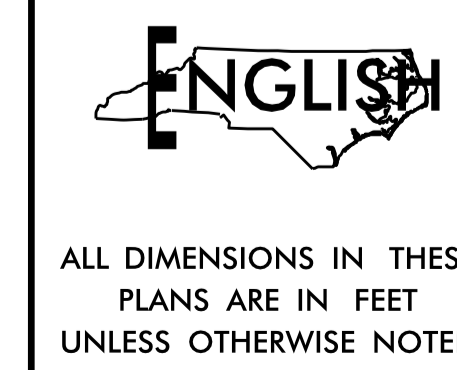
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" ROADWAY DESIGN UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1700.01	ELECTRICAL SERVICE OPTIONS
1700.02	ELECTRICAL SERVICE GROUNDING
1715.01	UNDERGROUND CONDUIT-TRENCHING
1716.01	JUNCTION BOXES
1720.01	WOOD POLES
1730.01	FIBER OPTIC CABLE
1751.01	CONTROLLER AND CABINETS
1751.02	CONTROLLER AND CABINETS

2018 STANDARD SPECIFICATION

NCDOT CONTACT:
TRANSPORTATION MOBILITY AND SAFETY
M. M. MCDIARMID, P.E., CPM
STATE TRANSPORTATION SYSTEMS
MANAGEMENT & OPERATIONS ENGINEER



SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL
050152
ANDREW J. SKUCE

DocuSigned by:
Andrew J. Skuce
0282888C885C464

8/19/2021
DATE

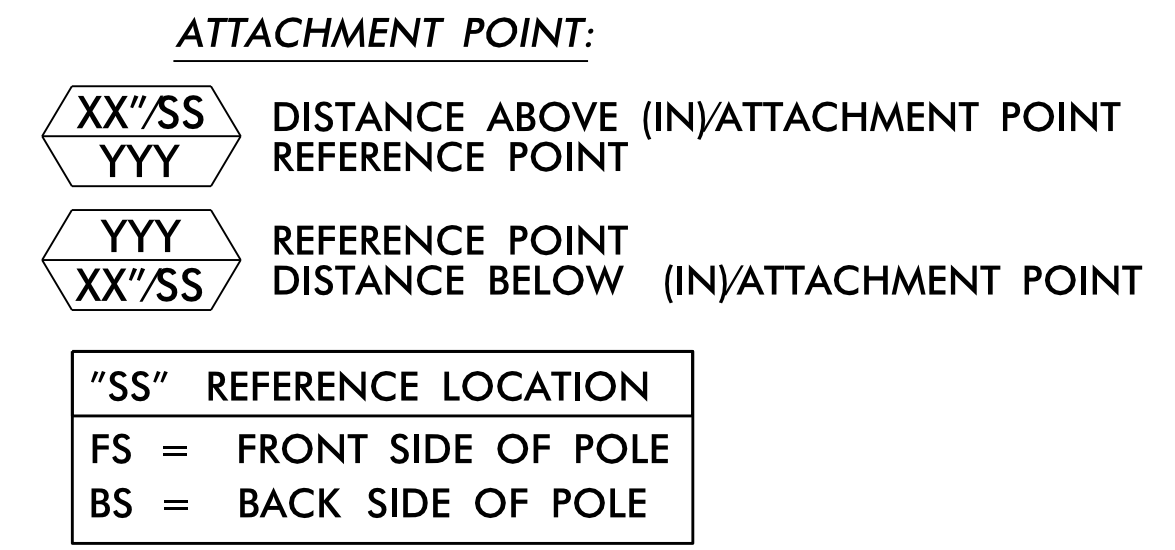
- 1 INSTALL COAX CABLE
- 2 INSTALL 4-WIRE COPPER FEEDER CONDUCTORS
- 3 INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
- 4 INSTALL SMFO CABLE
- 5 EXISTING SMFO CABLE
- 6 INSTALL FIBER OPTIC DROP CABLE
- 7 INSTALL TRACER WIRE
- 8 TRENCH
- 9 INSTALL PVC CONDUIT
- 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 11 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 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 POLE MOUNTED CABINET
- 25 INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET
- 26 INSTALL NEW ETHERNET EDGE SWITCH
- 27 INSTALL NEW FIBER OPTIC TRANSCEIVER
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPlice CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPlice ENCLOSURE
- 30 INSTALL AERIAL SPlice ENCLOSURE
- 31 MODIFY EXISTING INTERCONNECT CENTER /SPlice ENCLOSURE
- 32 INSTALL POLE MOUNTED SPlice CABINET
- 33 INSTALL BASE MOUNTED HUB CABINET

- 34 INSTALL CABINET FOUNDATION
- 35 INSTALL CCTV CAMERA POLE MOUNTED CABINET
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV CAMERA WOOD POLE
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL JUNCTION BOX
- 40A INSTALL OVERSIZED JUNCTION BOX
- 40B INSTALL SPECIAL OVERSIZED JUNCTION BOX (36" x 24" x 24")
- 41 REMOVE EXISTING JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 REMOVE EXISTING WOOD POLE
- 44 INSTALL DMS ASSEMBLY
- 45 INSTALL DMS PEDESTAL STRUCTURE
- 46 INSTALL SIDEWALK GUY ASSEMBLY
- 47 INSTALL MESSENGER CABLE
- 48A REMOVE EXISTING COMMUNICATIONS AND MESSENGER CABLE
- 48B REMOVE EXISTING COMMUNICATIONS CABLE
- 49 BACK PULL EXISTING COMMUNICATIONS CABLE
- 50 INSTALL CELL MODEM AND ANTENNA
- 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
- 52A INSTALL DELINEATOR MARKER
- 52B INSTALL JUNCTION BOX MARKER
- 53A STORE 20 FEET OF COMMUNICATIONS CABLE
- 53B STORE 50 FEET OF EACH COMMUNICATIONS CABLE
- 54 LASH CABLE(S) TO EXISTING COMMUNICATIONS CABLE
- 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56 INSTALL NEW SOLAR ASSEMBLY
- 57 MODIFY EXISTING ELECTRICAL SERVICE
- 58 INSTALL NEW ELECTRICAL SERVICE
- 59 INSTALL NEW EQUIPMENT CABINET DISCONNECT
- 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS
DO NOT BOND TRACER WIRE TO EQUIPMENT GROUND BUS
BOND RISER AND MESSENGER CABLE TO POLE GROUND
- 61 BOND RISER TO POLE GROUND
- 62 BOND MESSENGER CABLE TO POLE GROUND
- 63 BOND MESSENGER CABLE TO POLE GROUND
- 64 BOND MESSENGER CABLE TO POLE GROUND
- 65 INSTALL HEAT SHRINK TUBING RETROFIT KIT
- 66 INSTALL MOLDABLE DUCT SEAL
- 67 SLACK SPAN

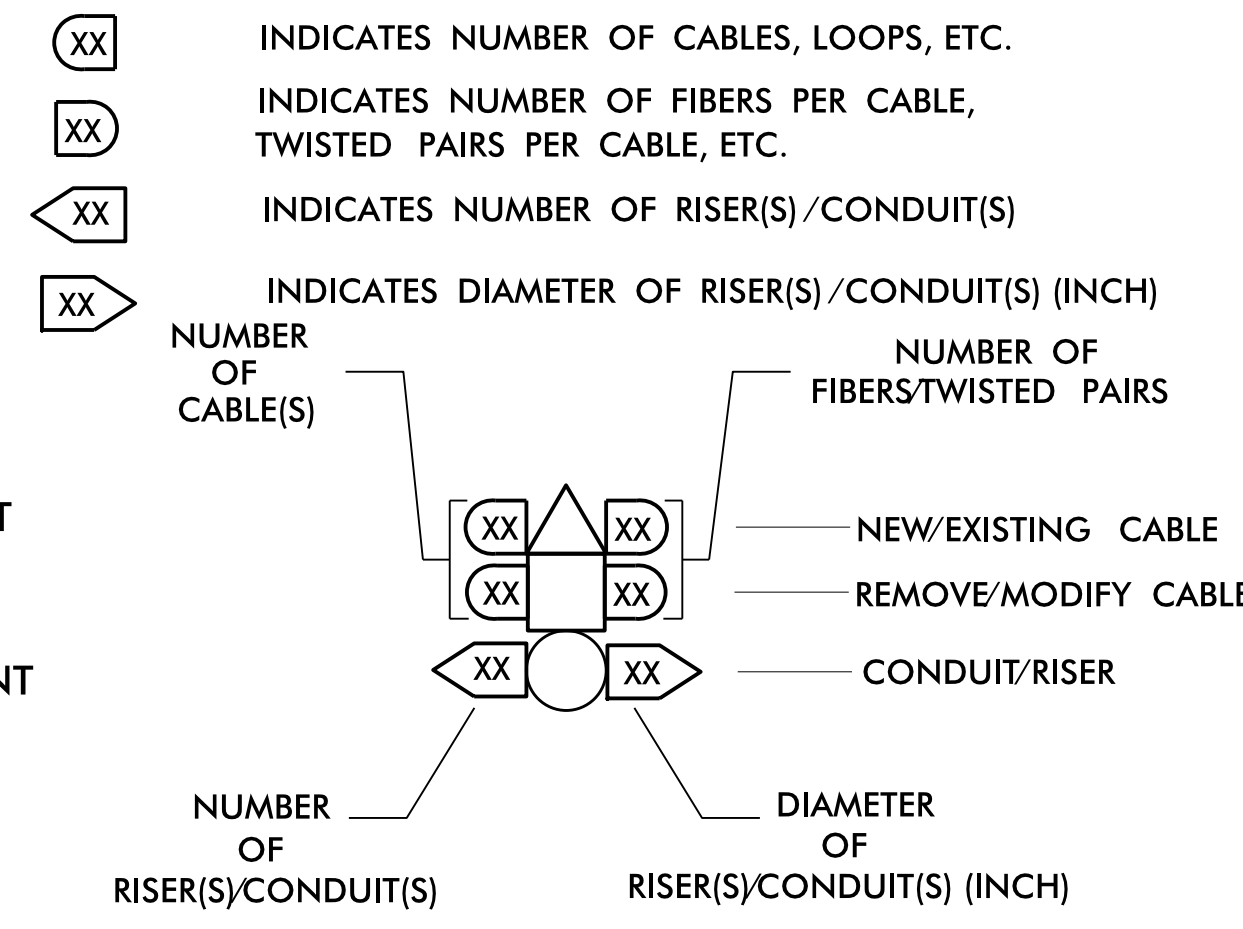
LEGEND

	NEW FIBER OPTIC COMMUNICATIONS CABLE
	EXISTING COMMUNICATIONS CABLE
	EXISTING COMMUNICATIONS CABLE TO BE REMOVED
	NEW AERIAL GUY ASSEMBLY
	NEW CONDUIT
	EXISTING CONDUIT
	NEW DIRECTIONAL DRILLED CONDUIT

NEW		EXISTING
	OVERSIZED JUNCTION BOX	
	WOOD POLE	
	AERIAL SPlice ENCLOSURE	
	UNDERGROUND SPlice ENCLOSURE	
	METAL POLE	
	CCTV ASSEMBLY	
	STANDARD GUY ASSEMBLY	
	SIDEWALK GUY ASSEMBLY	
	CABLE STORAGE RACKS (SNOW SHOES)	
	SIGNAL/EQUIPMENT CABINET	
	SPlice CABINET	
	FLAT PANEL ANTENNA (SINGLE)	
	YAGI ANTENNA (DOUBLE) FOR REPEATER OPERATION	
	YAGI ANTENNA (SINGLE)	
	OMNI ANTENNA	
	SIGNAL POLE	
	SIGNAL INVENTORY NUMBER	
	ELECTRICAL SERVICE	

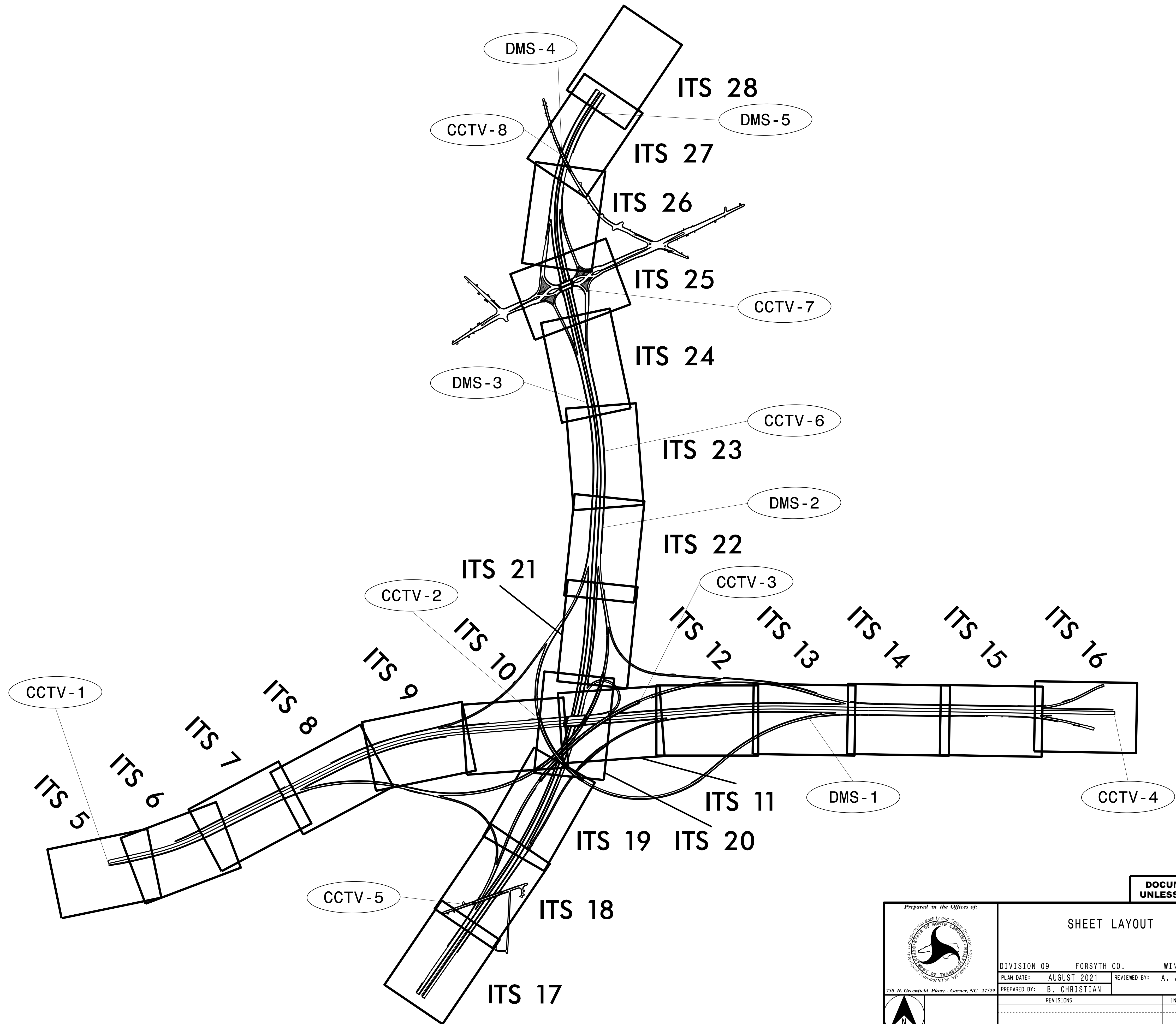


CONSTRUCTION NOTE SYMBOLOGY KEY


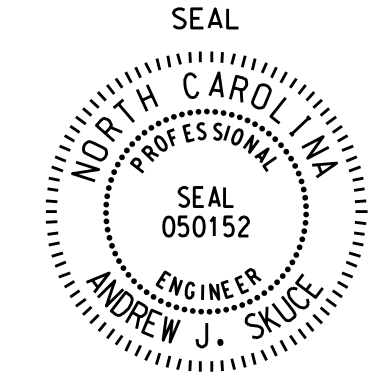



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	CONSTRUCTION NOTES		
	DIVISION 09 FORSYTH CO. WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. J. SKUCE PREPARED BY: B. CHRISTIAN		
REVISIONS _____ INIT. DATE		DocuSigned by: Andrew J. Skuce 8/19/2021 <small>D26288C8B5C464</small> DATE	

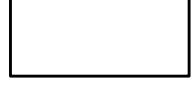



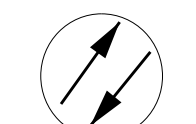
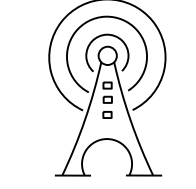


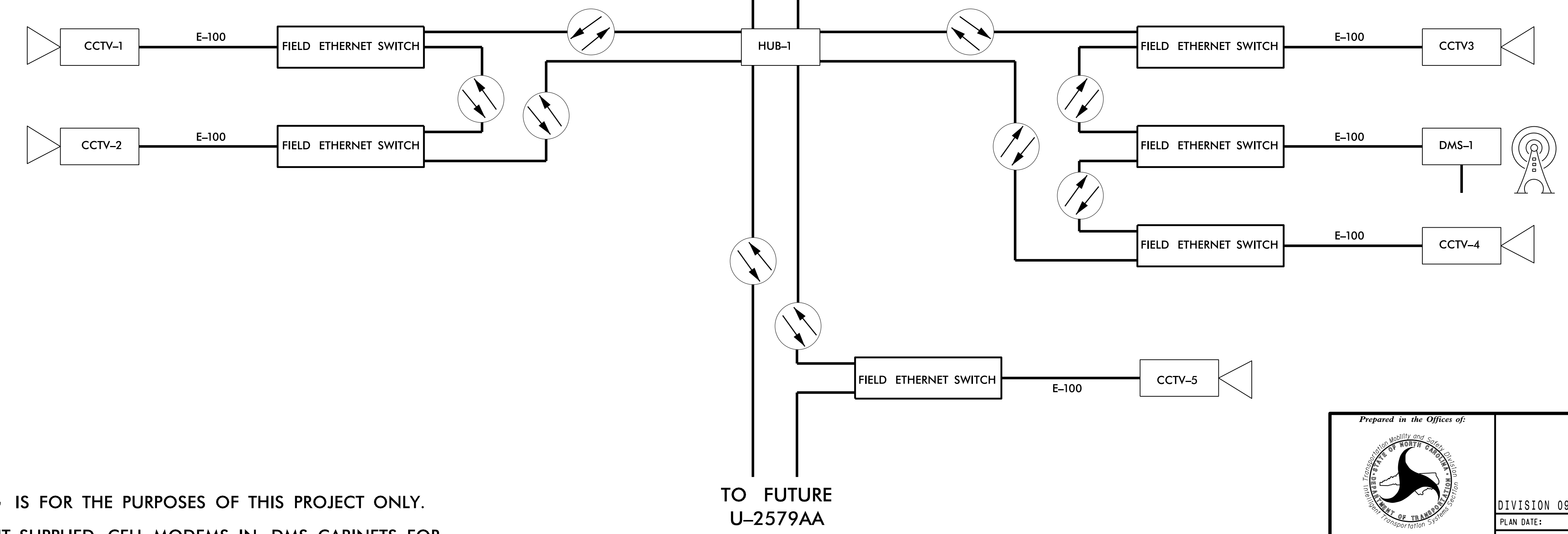
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

 Prepared in the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529	SHEET LAYOUT		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER ANDREW J. SKUCE 050152
	DIVISION 09 FORSYTH CO. WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. J. SKUCE PREPARED BY: B. CHRISTIAN		
	REVISIONS _____ _____ _____	INIT. _____ _____ _____	DATE _____ _____ _____

TO
U-2579B

LEGEND

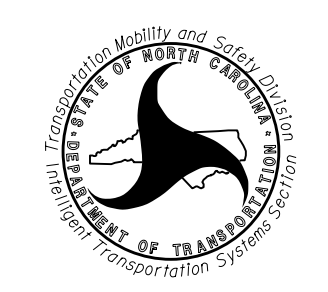
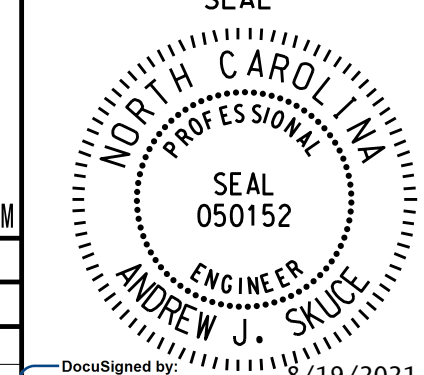
-  = NEW DEVICE
-  = EXISTING DEVICE
-  = NEW COMMUNICATIONS
-  = EXISTING COMMUNICATIONS
- E-100** = ETHERNET
-  = FIBER OPTIC CABLE
-  = CELLULAR NETWORK



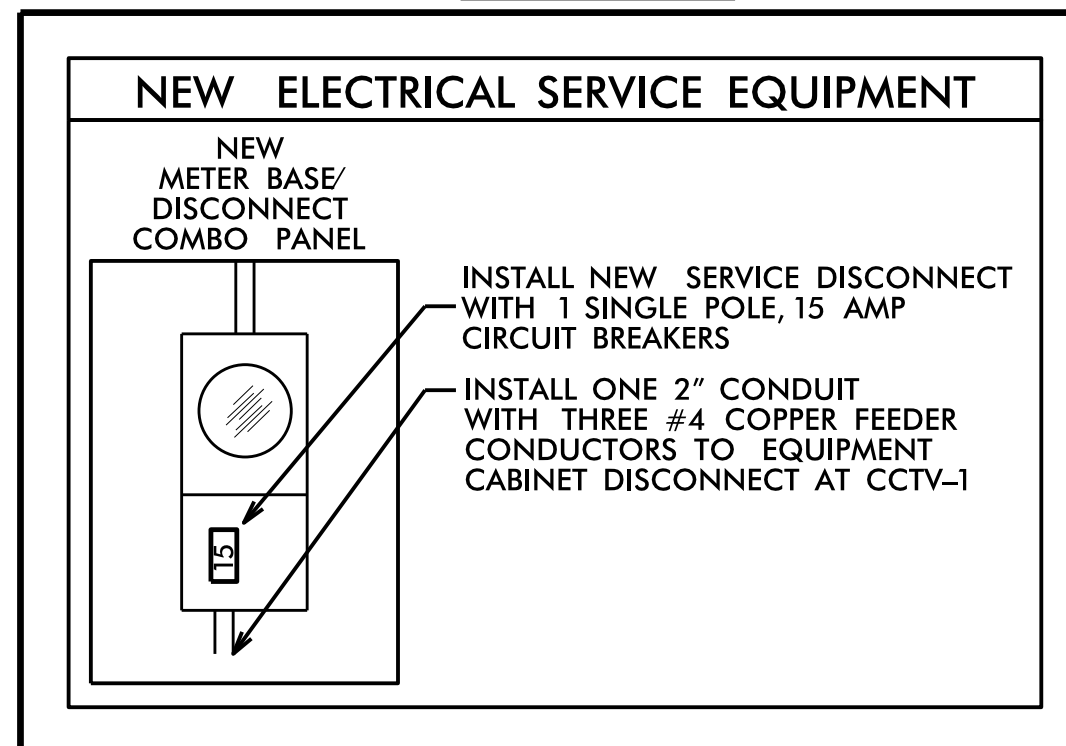
NOTES

1. DEVICE NUMBERING IS FOR THE PURPOSES OF THIS PROJECT ONLY.
2. INSTALL DEPARTMENT SUPPLIED CELL MODEMS IN DMS CABINETS FOR BACKUP COMMUNICATIONS. ALLOW 8 WEEK LEAD TIME AFTER REQUESTING THE MODEMS FROM THE DEPARTMENT.

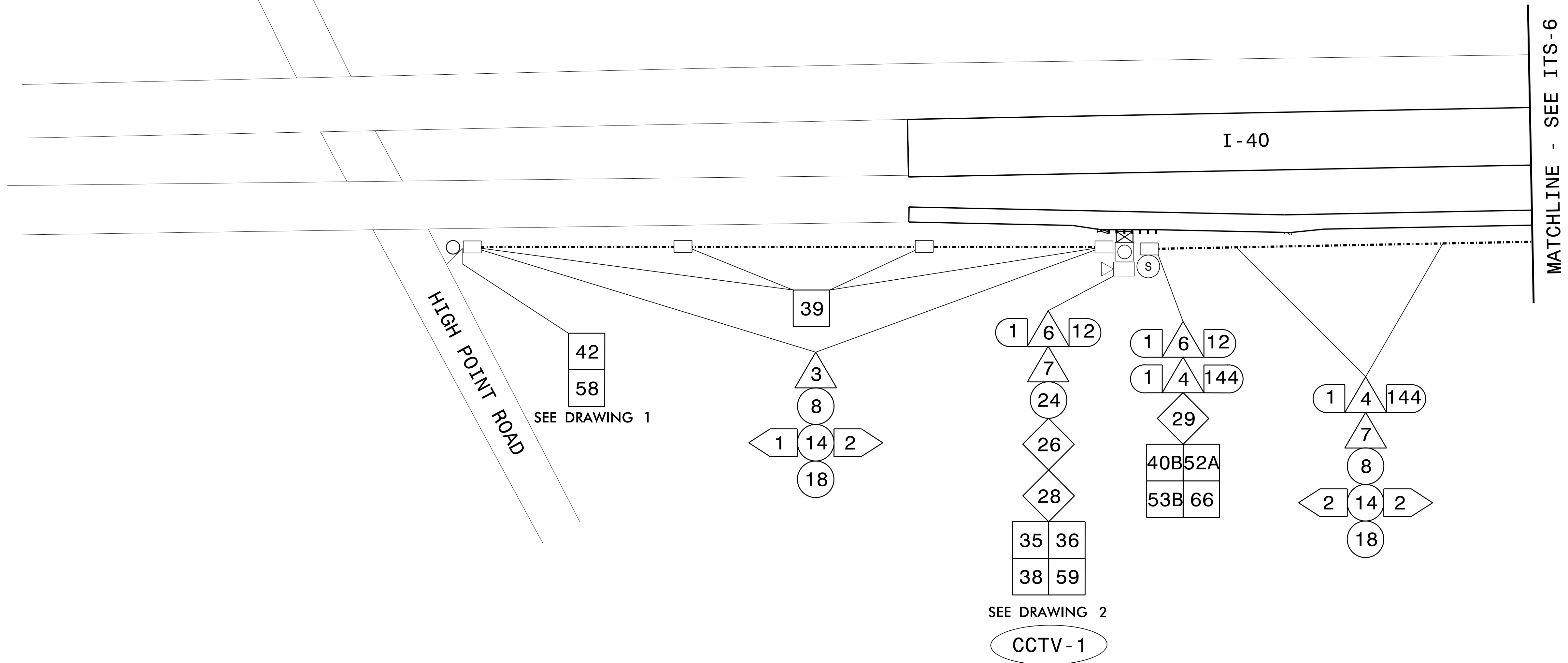
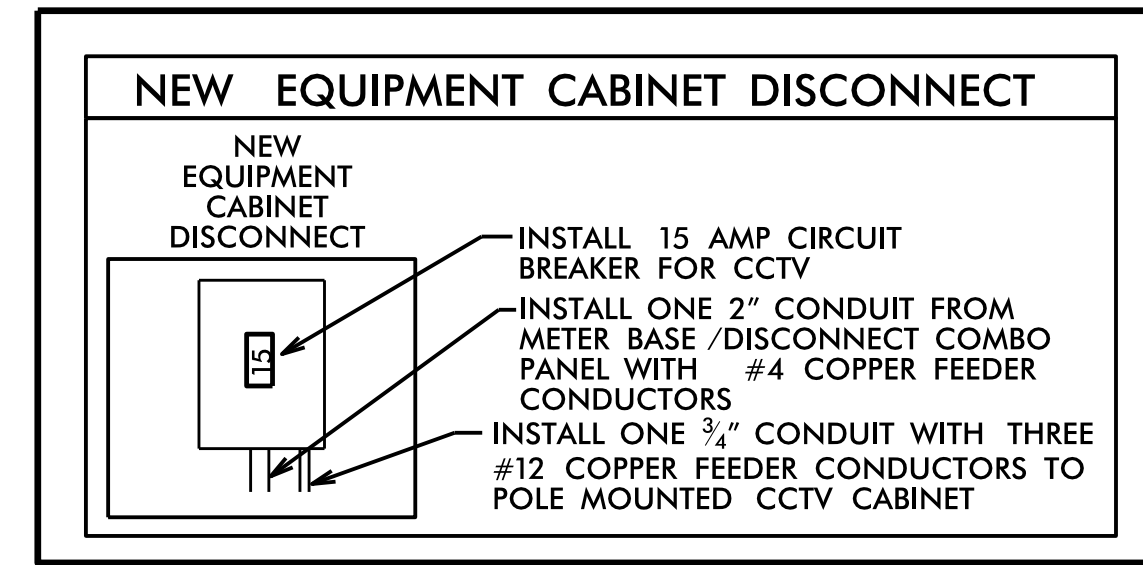
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 Prepared in the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529	DEVICE CONNECTION DIAGRAM		 SEAL 050152 ENGINEER ANDREW J. SKUCE
	DIVISION 09 FORSYTH CO., WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN REVIEWED BY:		
DocuSigned by: Andrew J. Skuce 0202880C85C464			8/19/2021 DATE

DRAWING 1



DRAWING 2



NOTES

- OBTAIN FINAL CCTV LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER (336-315-7080) BEFORE INITIATING ANY WORK AT THIS LOCATION.

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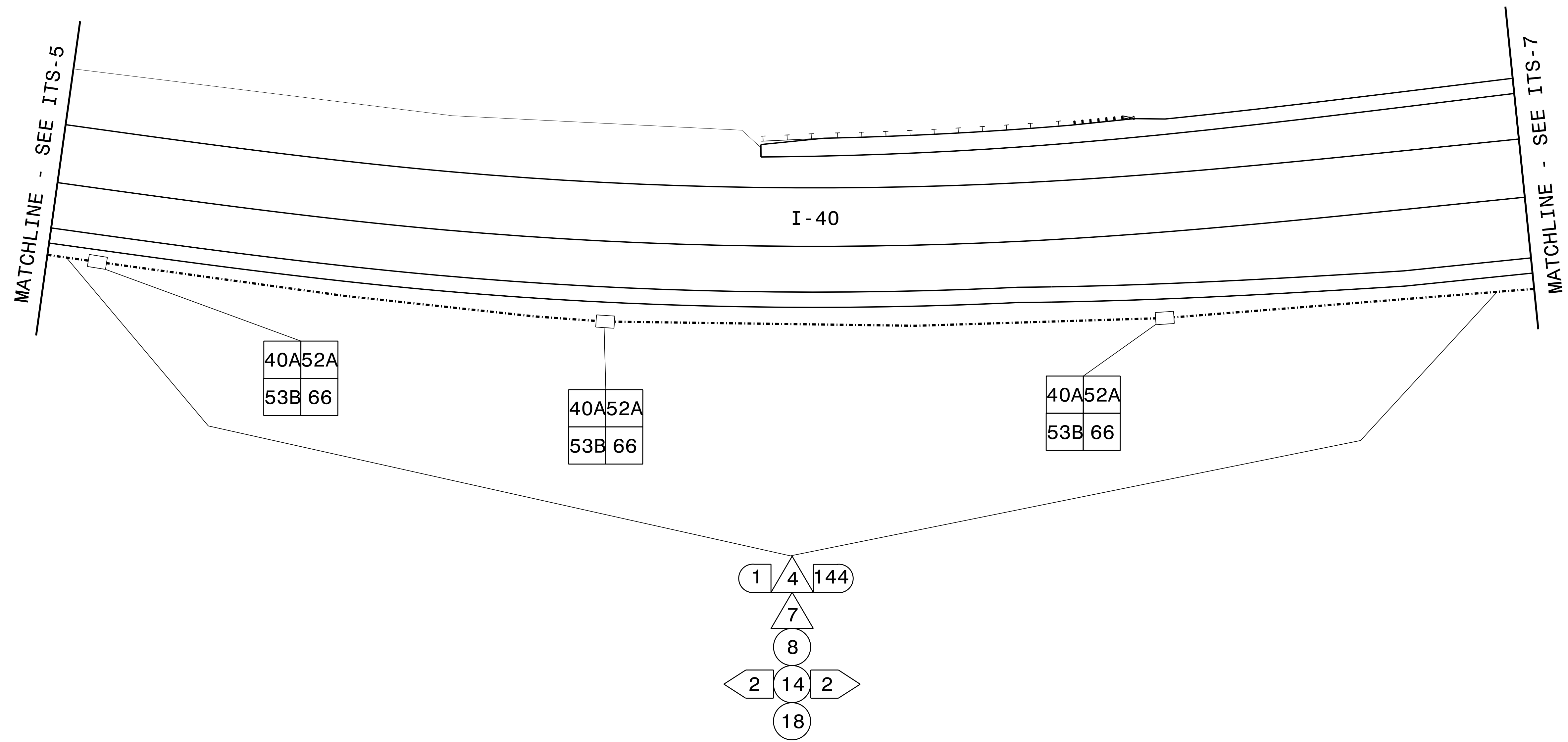
	<p>COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS</p>		
	<p>DIVISION 09 FORSYTH CO. WINSTON SALEM</p> <p>PLAN DATE: AUGUST 2021 REVIEWED BY: A. J. SKUCE</p> <p>PREPARED BY: B. CHRISTIAN REVIEWED BY:</p>	<p>REVISIONS</p> <p>INIT. DATE</p>	

750 N. Greenfield Pkwy., Garner, NC 27529

SCALE 0 50'

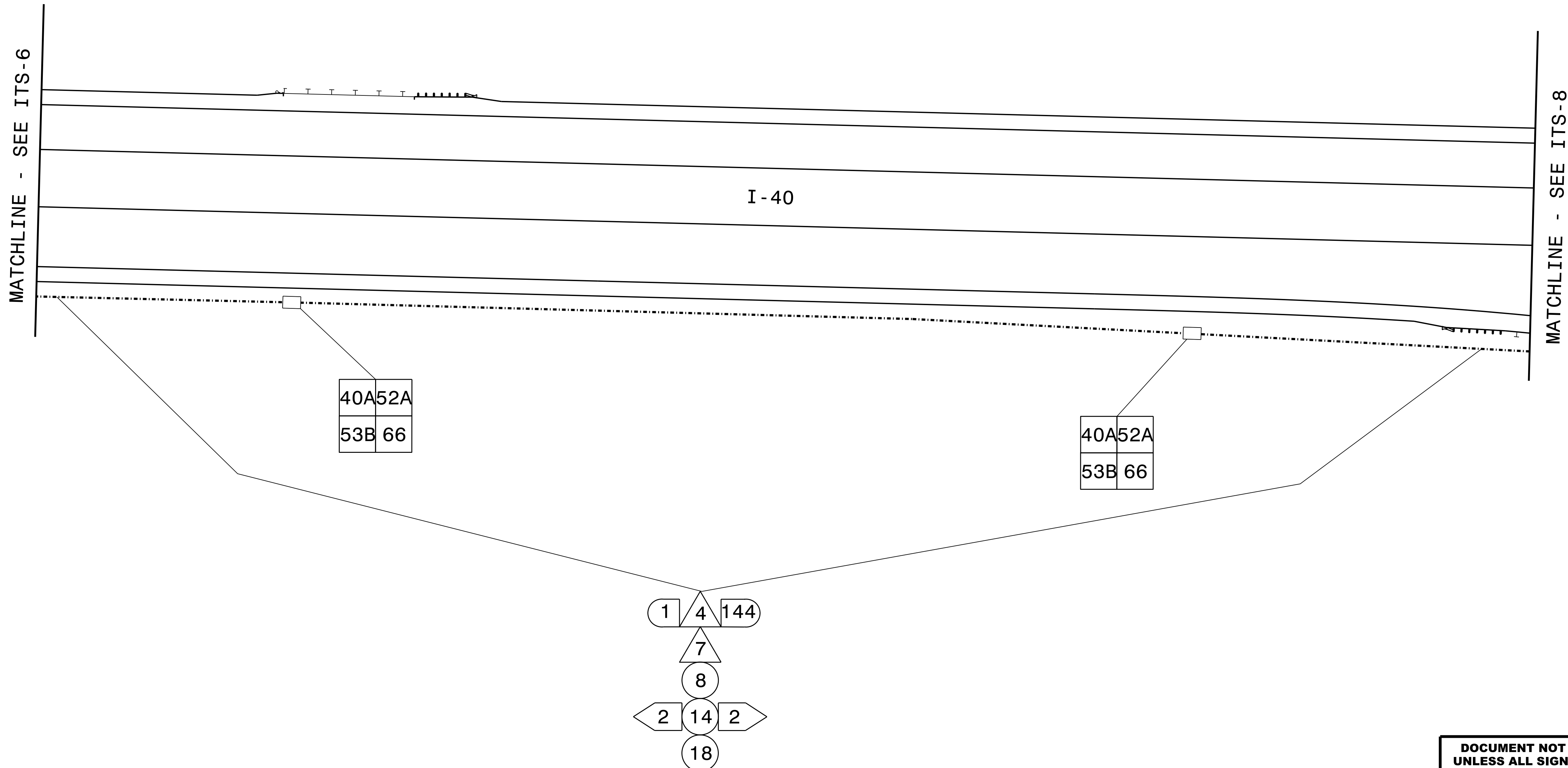
1" = 50'

DocuSigned by: Andrew J. Skuce

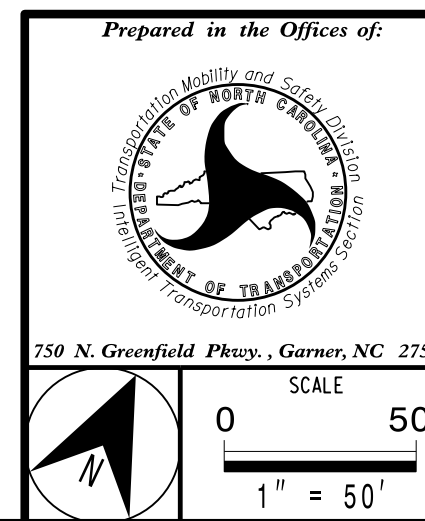


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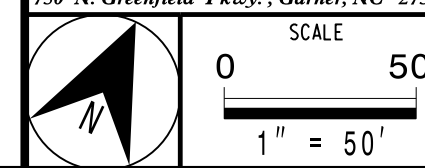
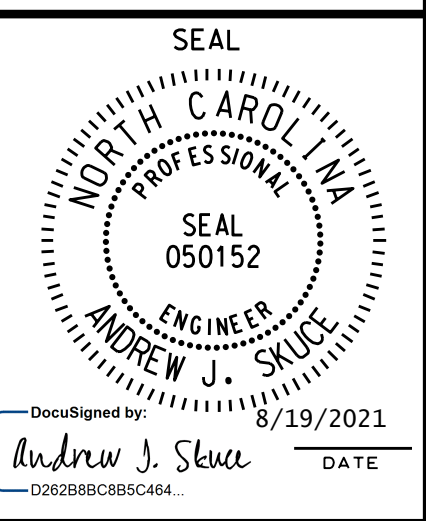
	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
	DIVISION 09 FORSYTH CO., WINSTON-SALEM	
750 N. Greenfield Pkwy., Garner, NC 27529 SCALE 1" = 50' 	PLAN DATE: AUGUST 2021 PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE REVIEWED BY:
REVISIONS _____ _____	INIT. _____ _____	DATE _____ _____
Signed by: <i>Andrew J. Skuce</i>		DATE: 8/19/2021

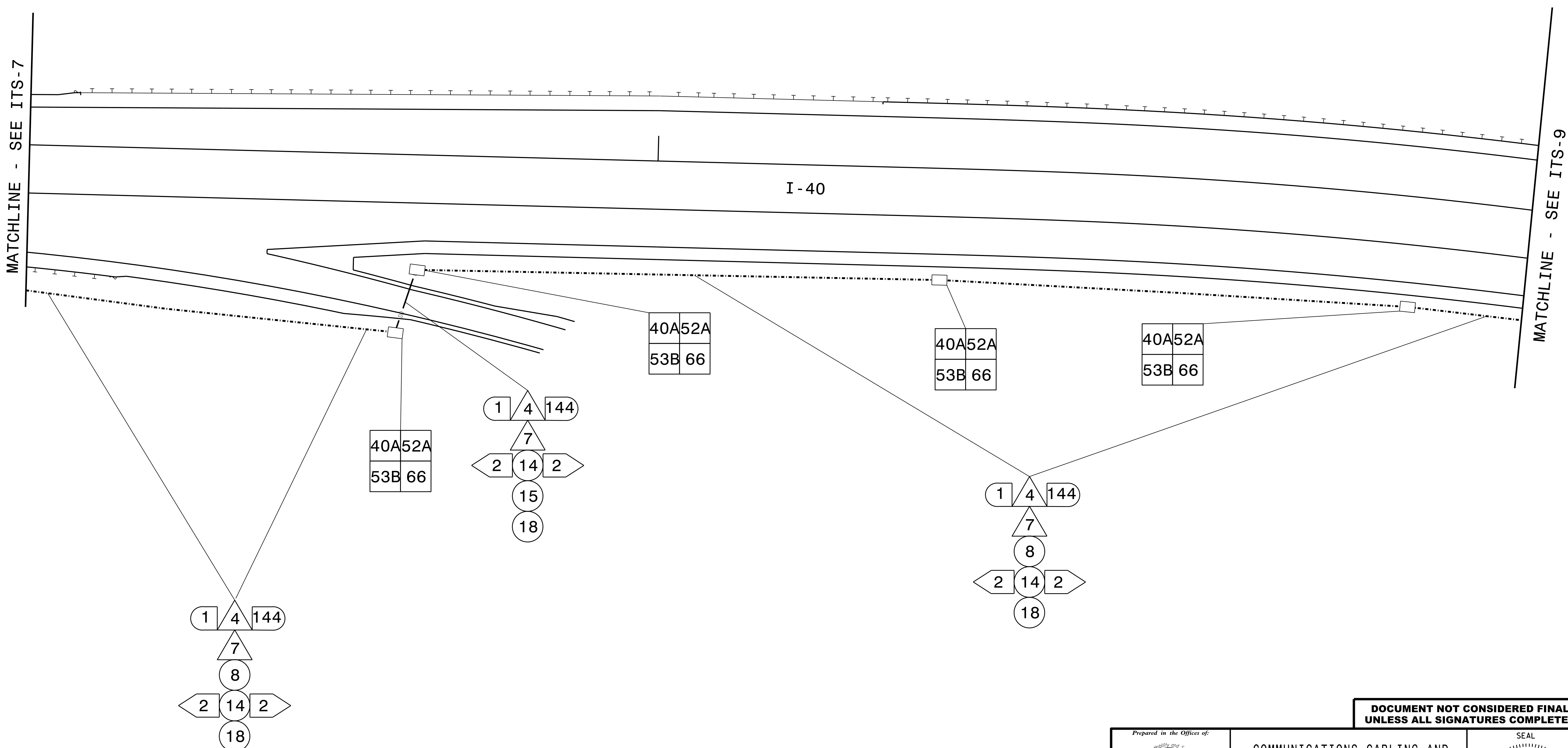


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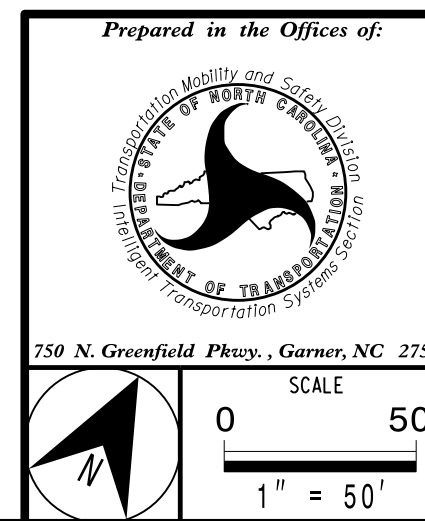


COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
DIVISION 09 FORSYTH CO., WINSTON-SALEM	
PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE
PREPARED BY: B. CHRISTIAN	REVIEWED BY:
REVISIONS	INIT. DATE



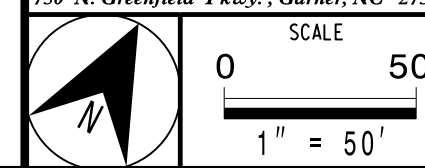


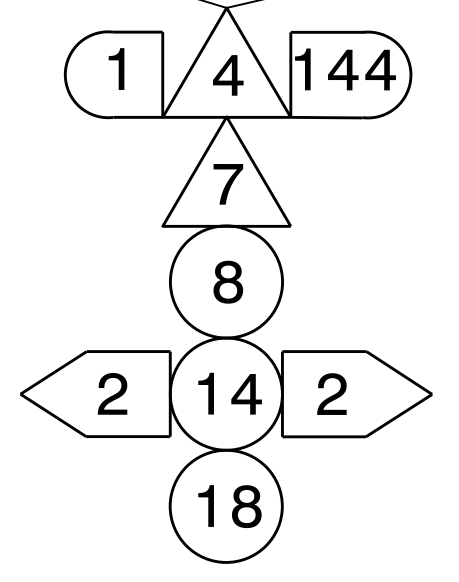
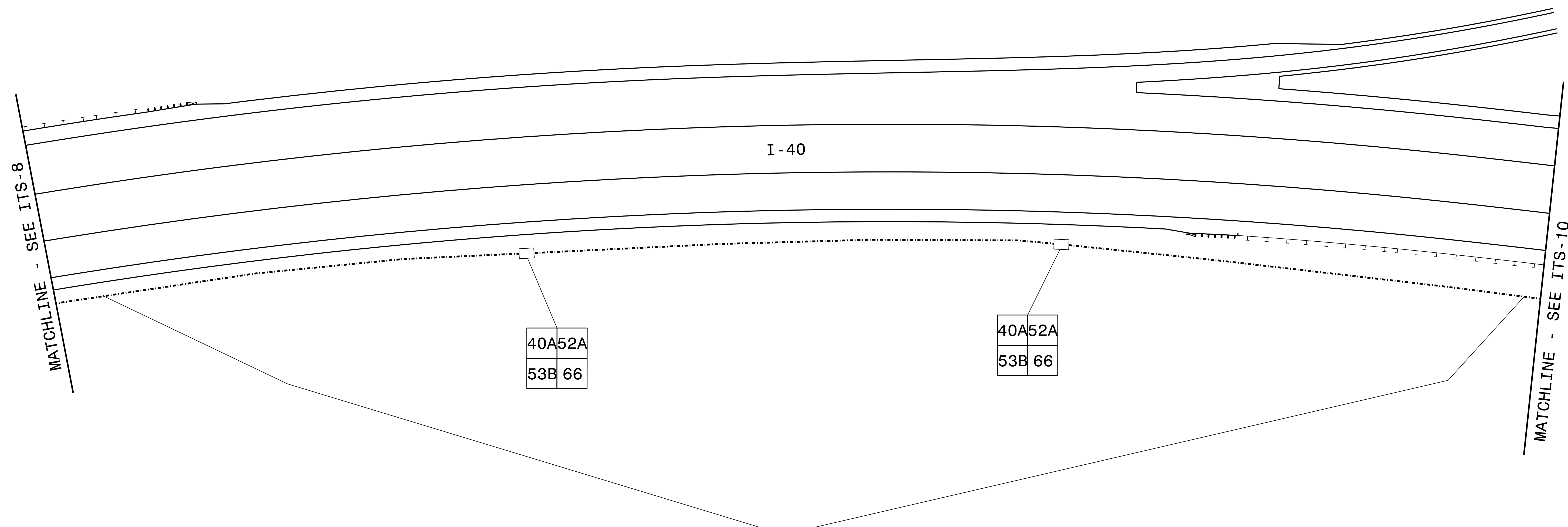
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COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS			
DIVISION 09		FORSYTH CO., WINSTON-SALEM	
PLAN DATE:	AUGUST 2021	REVIEWED BY:	A. SKUCE
PREPARED BY:	B. CHRISTIAN	REVIEWED BY:	
REVISIONS	INIT.	DATE	

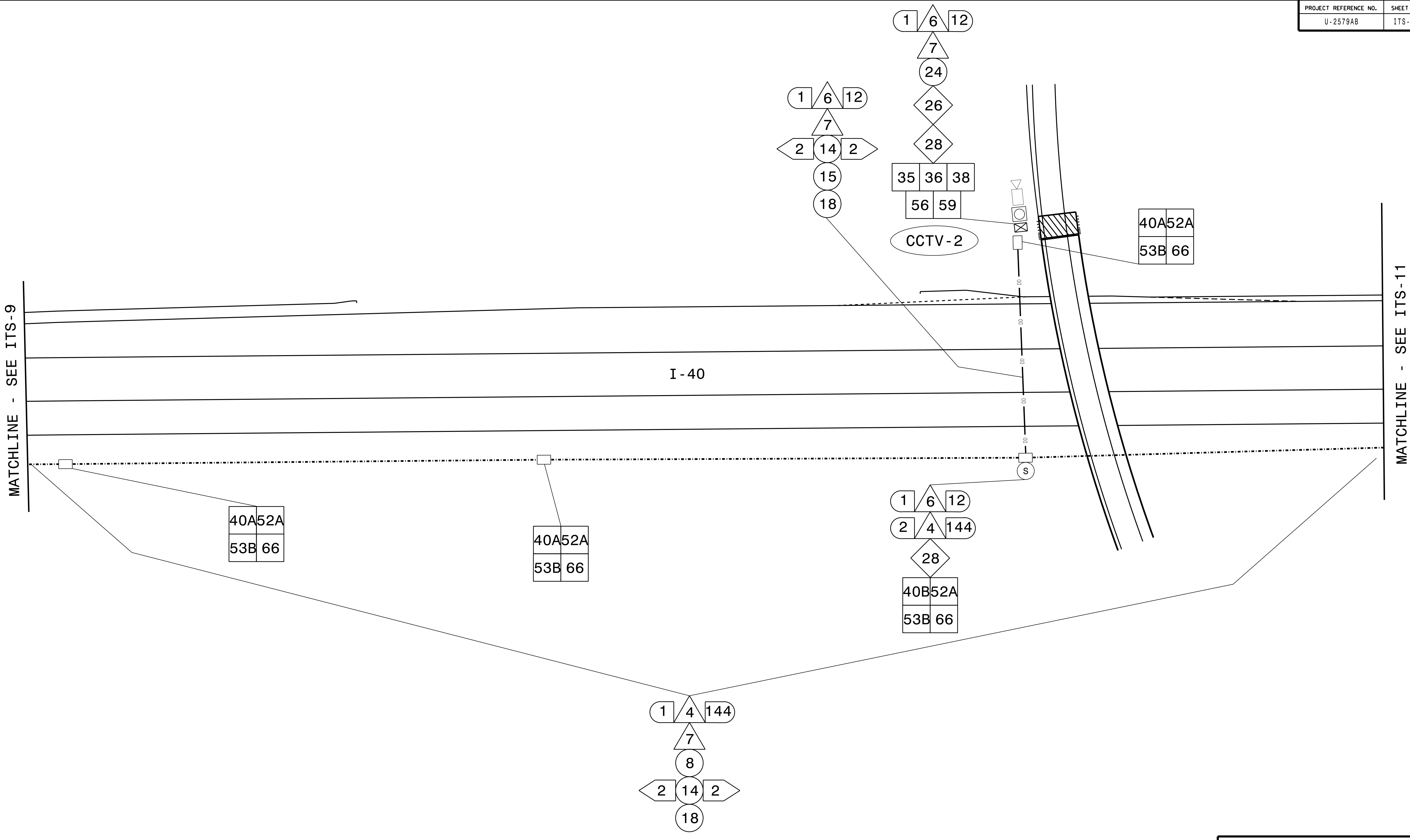
SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
ANDREW J. SKUCE
050152
8/19/2021
DATE





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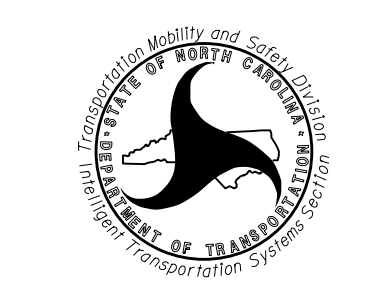

	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
	DIVISION 09 FORSYTH CO., WINSTON-SALEM	
PLAN DATE: AUGUST 2021 PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE	
SCALE 0 50' 1" = 50'	REVISIONS	INIT. DATE
DocuSigned by: Andrew J. Skuce 8/19/2021		



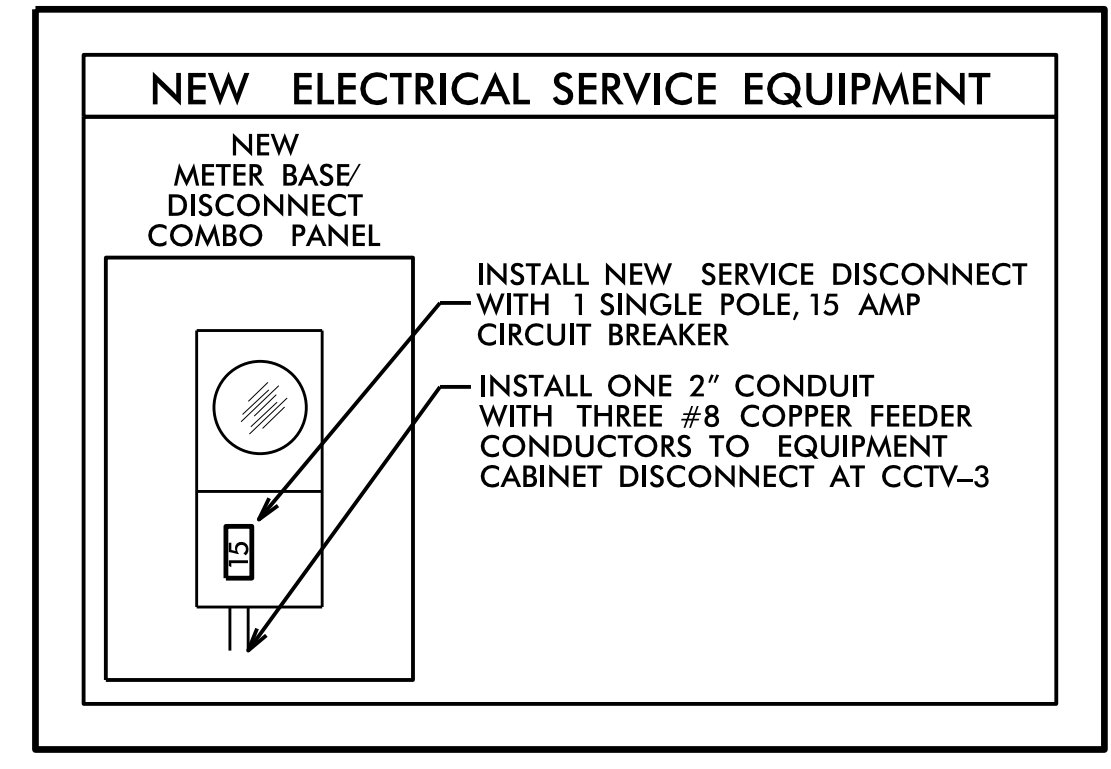
NOTES

1. OBTAIN FINAL CCTV LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER (336-315-7080) BEFORE INITIATING ANY WORK AT THIS LOCATION.

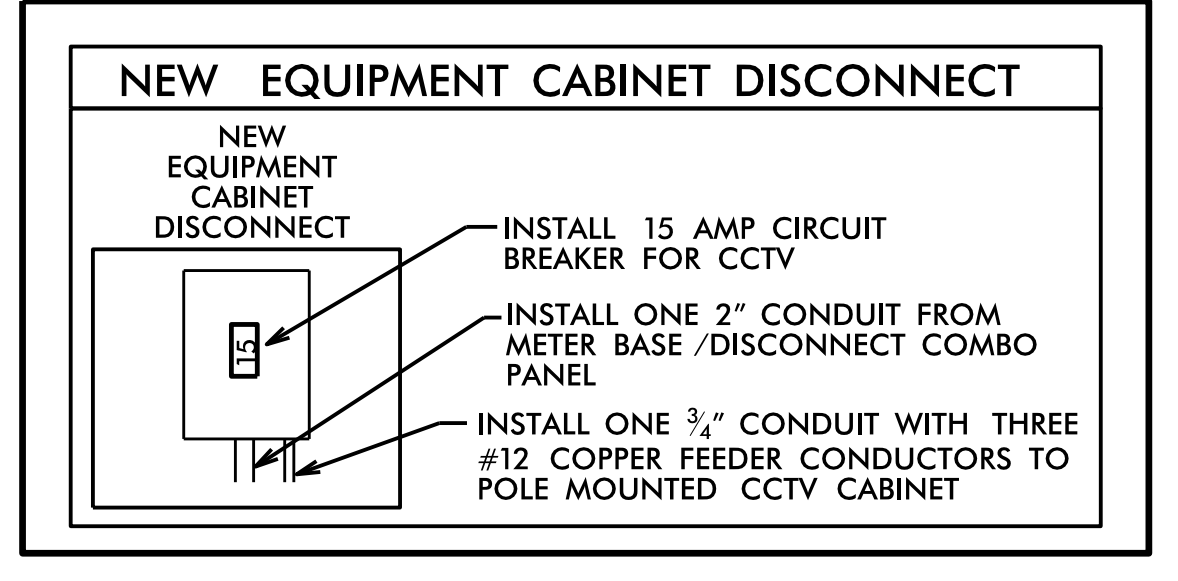
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 Prepared in the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS		 SEAL 050152 ENGINEER ANDREW J. SKUCE
	DIVISION 09 FORSYTH CO., WINSTON-SALEM		
PLAN DATE: AUGUST 2021	PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE	DATE: 8/19/2021
SCALE: 1" = 50'	REVISIONS	INIT.	DATE
Andrew J. Skuce			DATE

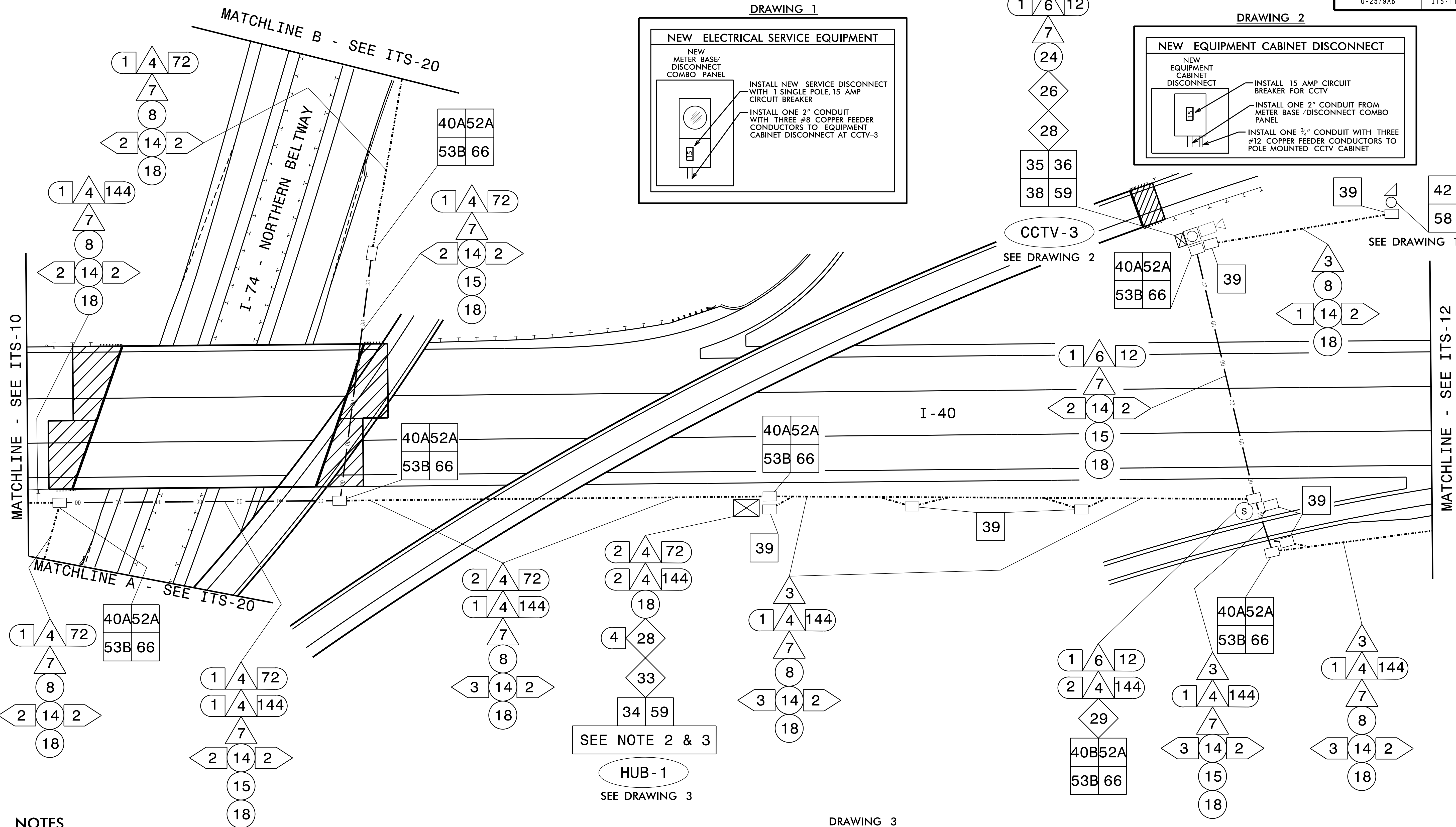
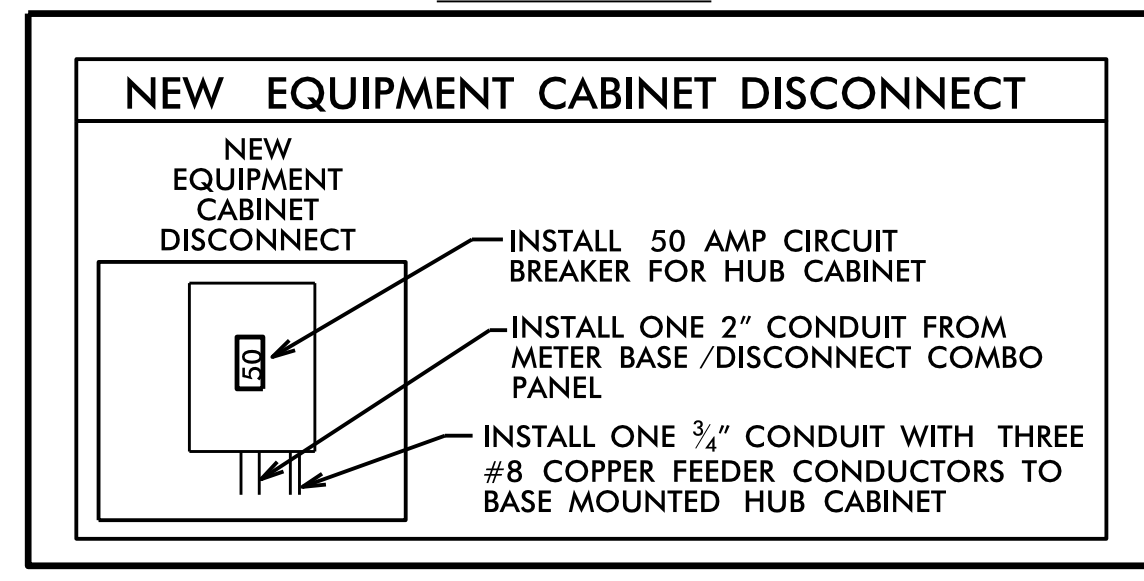
DRAWING 1



DRAWING 2



DRAWING 3



NOTES

- OBTAIN FINAL CCTV AND HUB CABINET LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER (336-315-7080) BEFORE INITIATING ANY WORK AT THIS LOCATION.
- INSTALL HUB CABINET A MINIMUM OF 30 FEET OFF THE EDGE OF TRAVEL.
- DIT TO SUPPLY HUB ETHERNET SWITCH. ALLOW MINIMUM 12 WEEK LEAD TIME AFTER REQUESTING THE HUB ETHERNET SWITCH FROM DIT.

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Prepared in the Offices of:

COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS

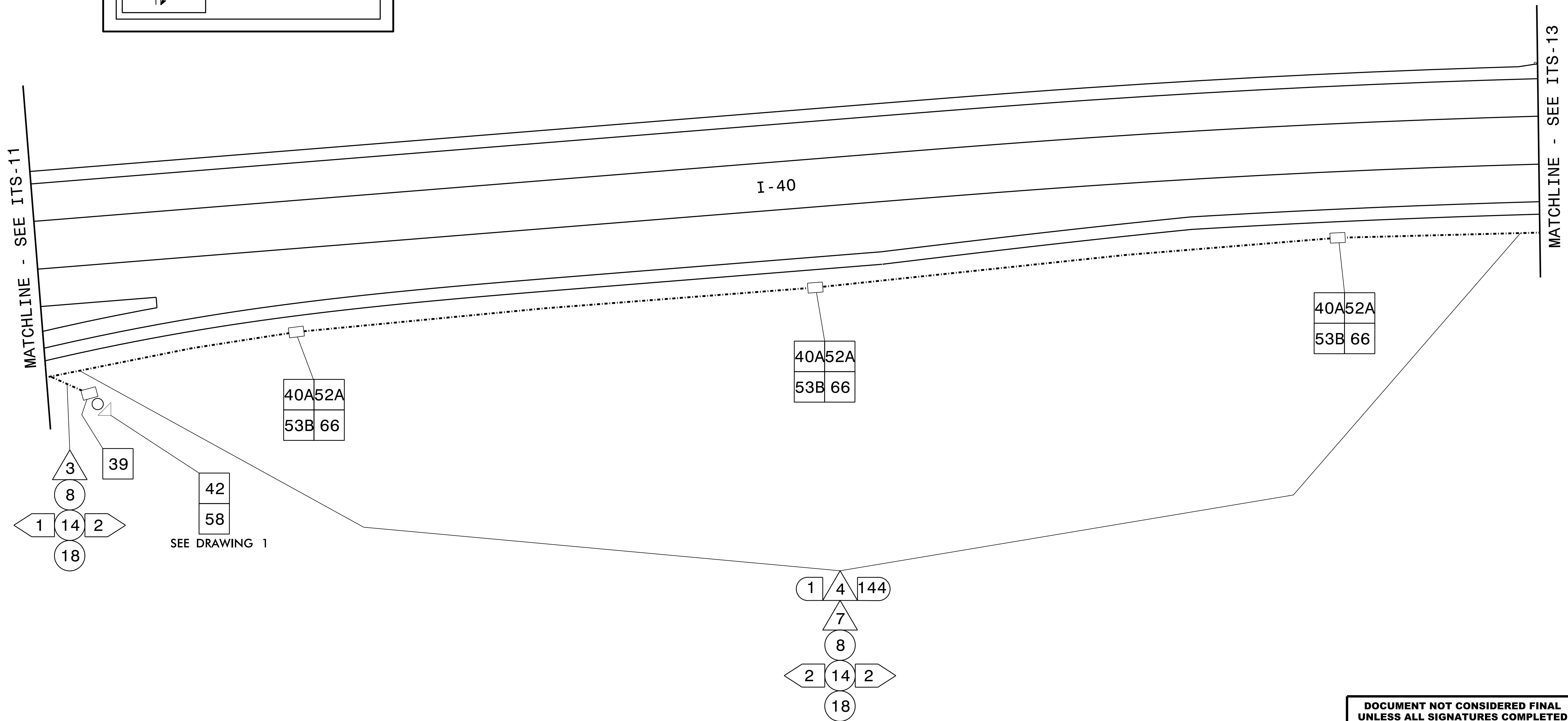
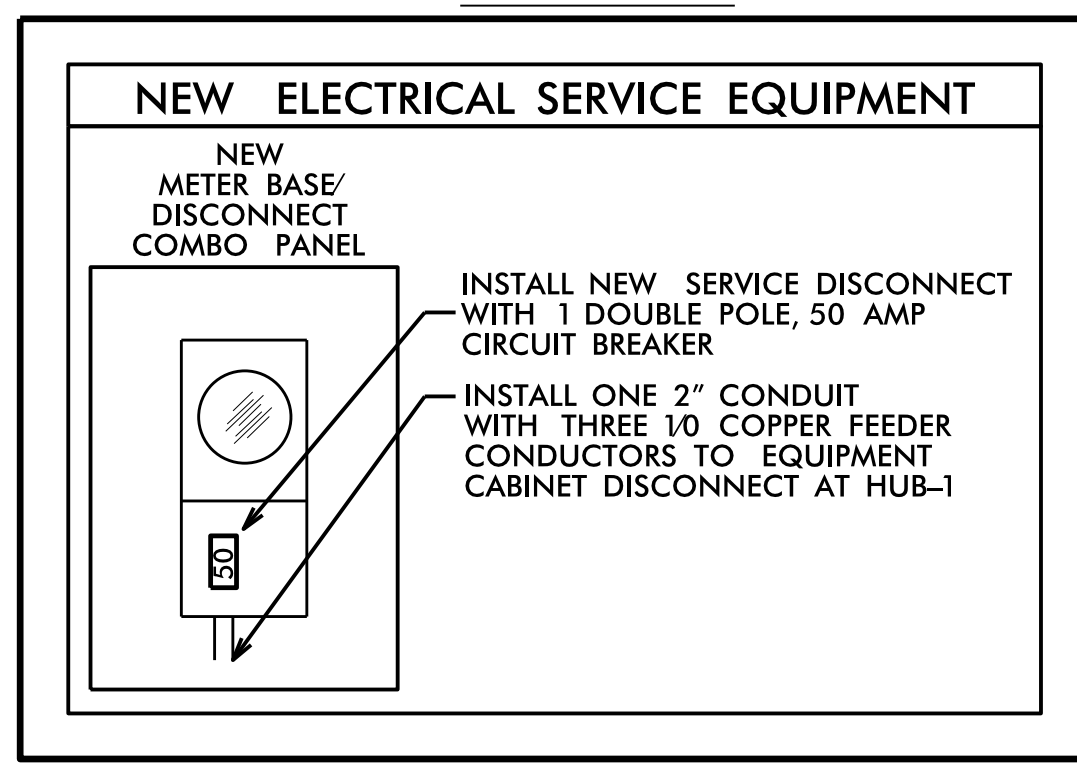
DIVISION 09 FORSYTH CO. WINSTON-SALEM
 PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE
 PREPARED BY: B. CHRISTIAN REVIEWED BY:

REVISIONS: _____ INIT. DATE: _____

Scale: 1" = 50'

8/19/2021
 Andrew J. Skuce

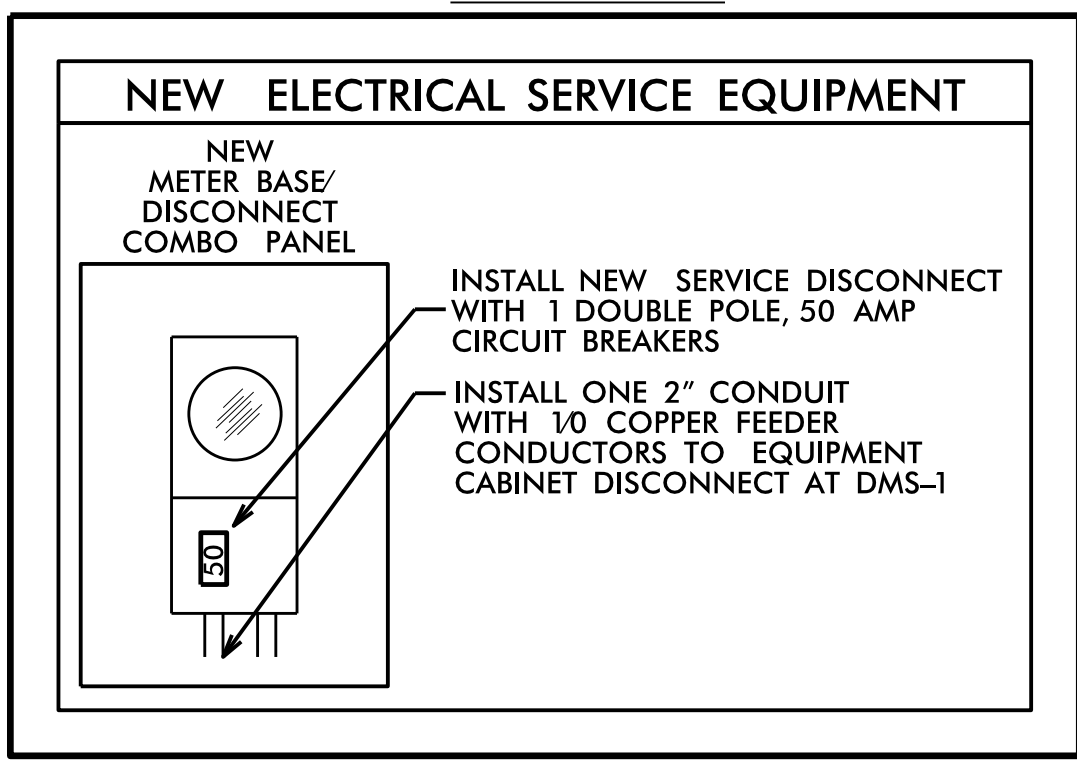
DRAWING 1



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	<p>COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS</p>							
	<p>DIVISION 09 FORSYTH CO. WINSTON-SALEM</p>	<p>SEAL 050152 ENGINEER ANDREW J. SKUCE</p>						
<p>750 N. Greenfield Pkwy., Garner, NC 27529</p>	<p>PLAN DATE: AUGUST 2021 PREPARED BY: B. CHRISTIAN</p>	<p>REVIEWED BY: A. SKUCE</p>						
<p>SCALE 0 50' 1" = 50'</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				<p>DocuSigned by: Andrew J. Skuce 8/19/2021</p>
REVISIONS	INIT.	DATE						

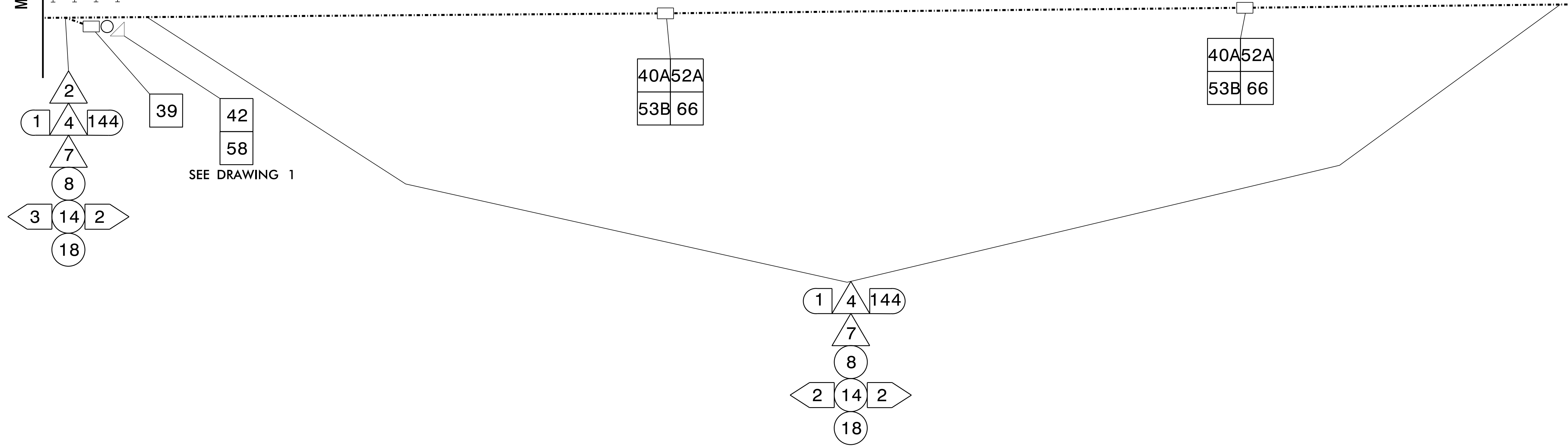
DRAWING 1



MATCHLINE - SEE ITS-13

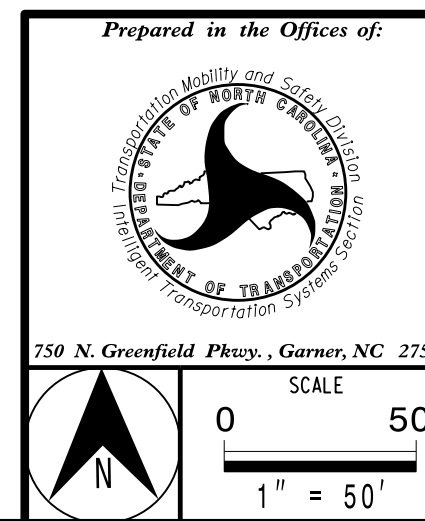
MATCHLINE - SEE ITS-15

I-40



SEE DRAWING 1

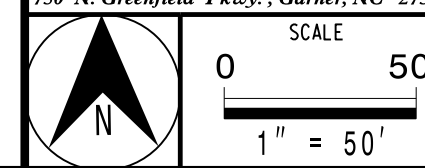
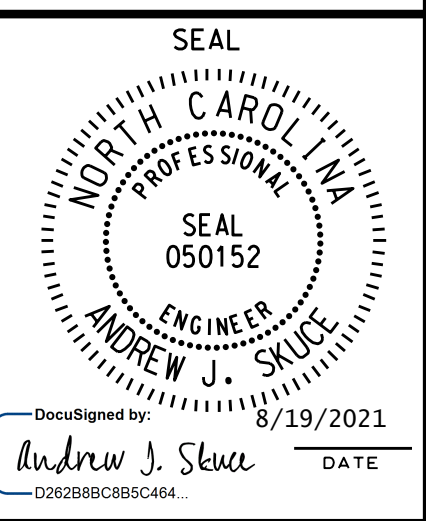
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COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS

DIVISION 09 FORSYTH CO. WINSTON-SALEM

PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE
PREPARED BY: B. CHRISTIAN	REVIEWED BY:
REVISIONS	INIT. DATE



MATCHLINE - SEE ITS-14

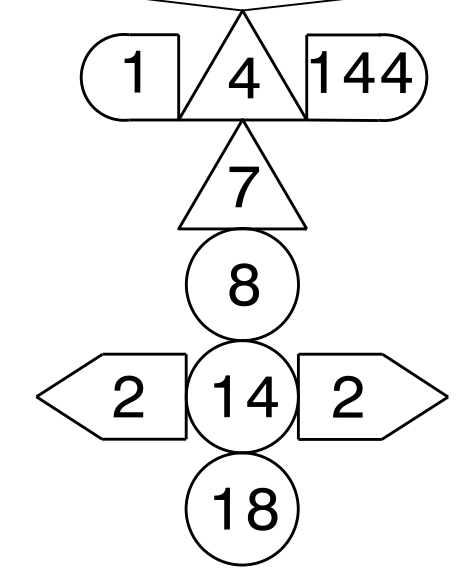
MATCHLINE - SEE ITS-16

I-40

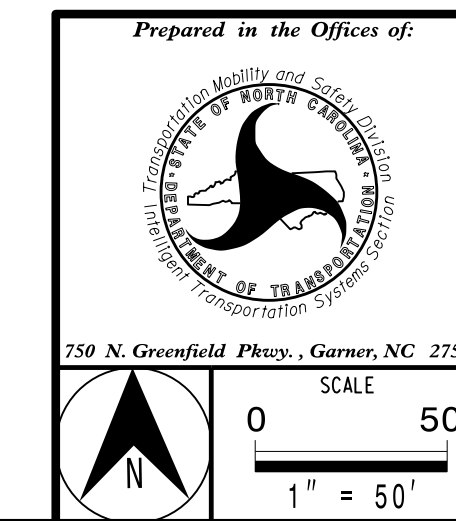
40A52A
53B 66

40A52A
53B 66

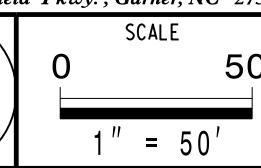
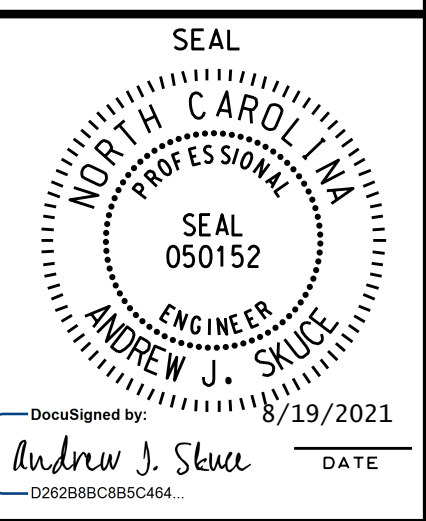
40A52A
53B 66



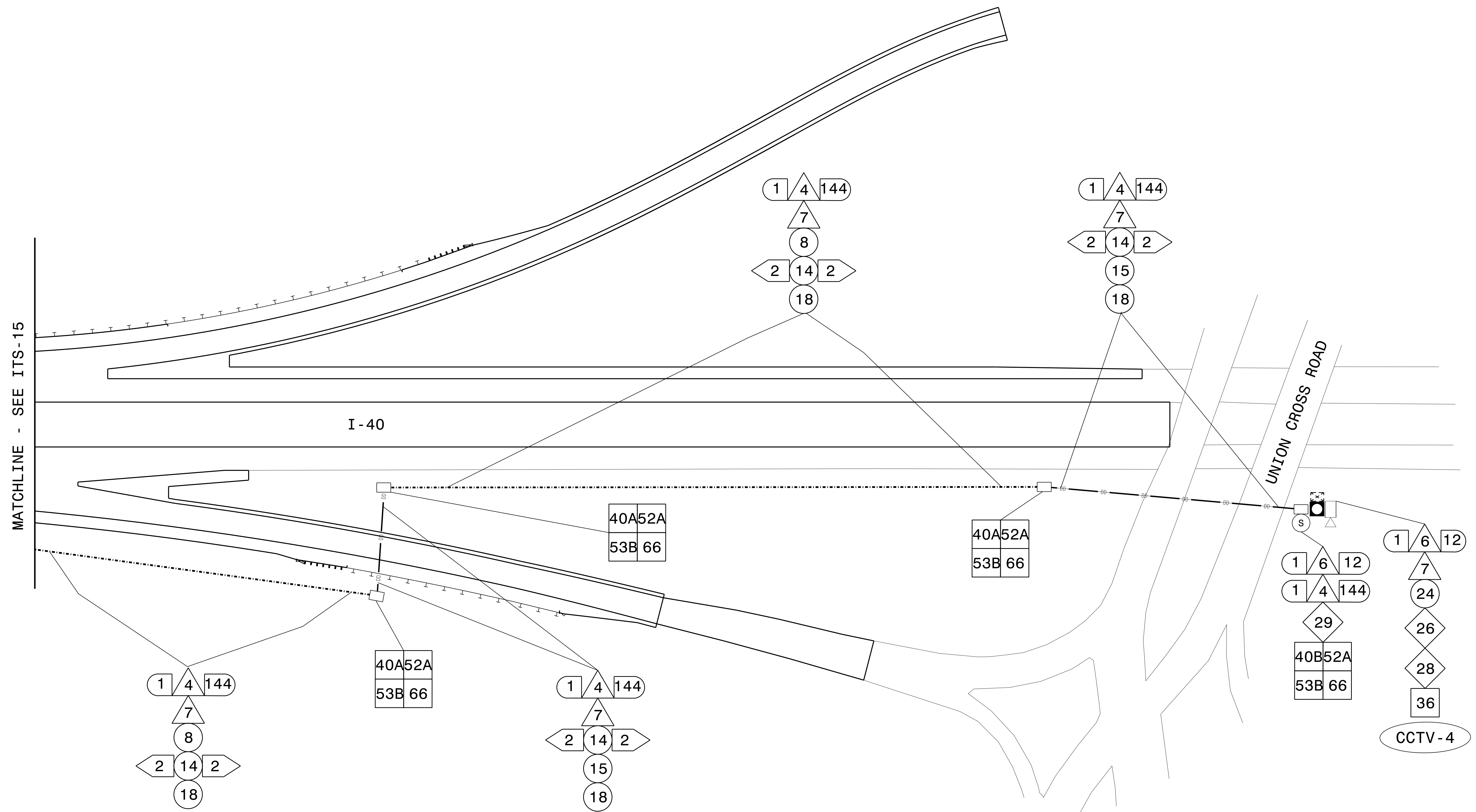
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
DIVISION 09 FORSYTH CO., WINSTON-SALEM	
PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE
PREPARED BY: B. CHRISTIAN	REVIEWED BY:
REVISIONS	INIT. DATE



DocuSigned by:
Andrew J. Skuce
DATE: 8/19/2021

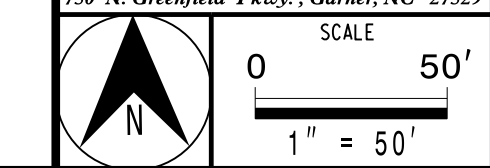


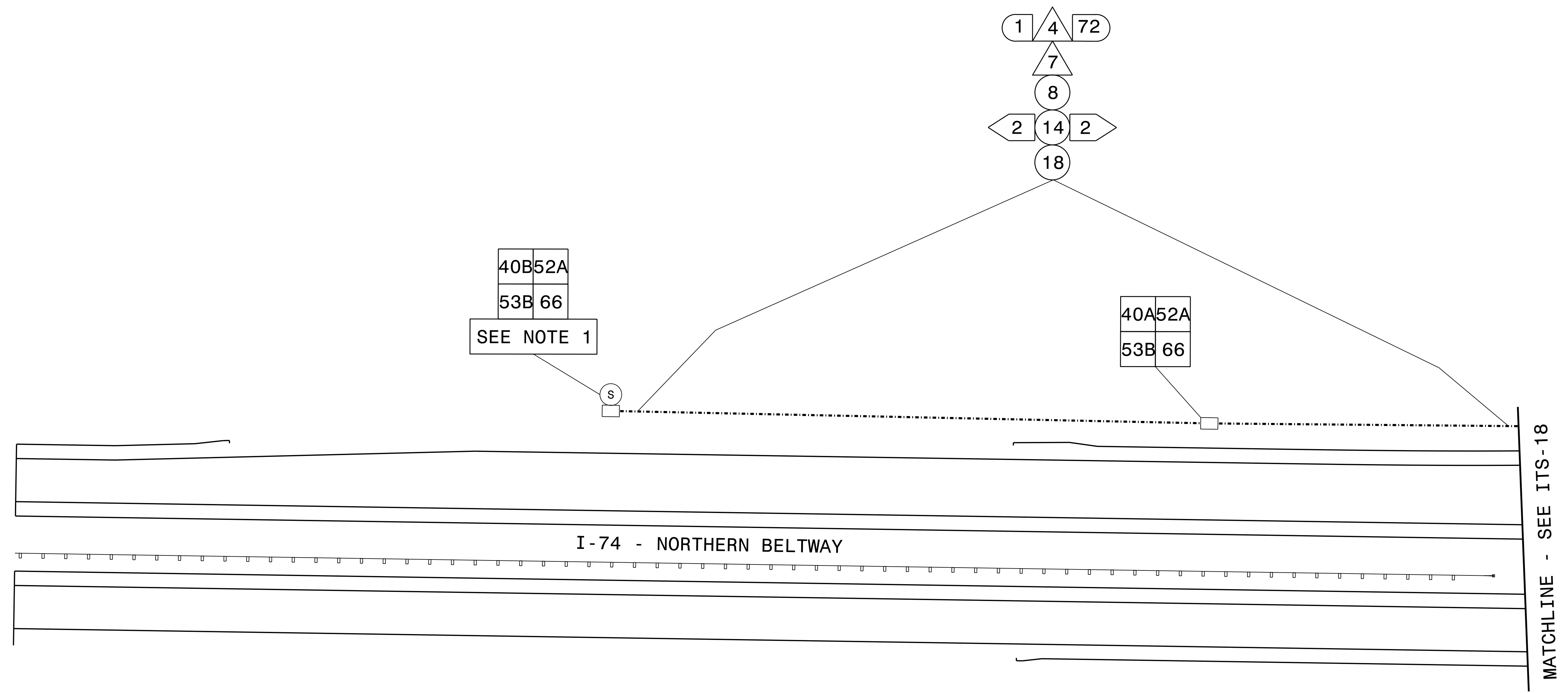
NOTES

1. RETURN EXISTING CCTV AND COMMUNICATIONS EQUIPMENT TO THE ENGINEER.
2. MOUNT NEW CAMERA FIVE FEET FROM THE TOP OF THE POLE.

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	<p>COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS</p>		
	<p>DIVISION 09 FORSYTH CO. WINSTON-SALEM</p> <p>PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE</p> <p>PREPARED BY: B. CHRISTIAN</p>	<p>REVISIONS</p> <p>INIT. DATE</p>	





NOTES

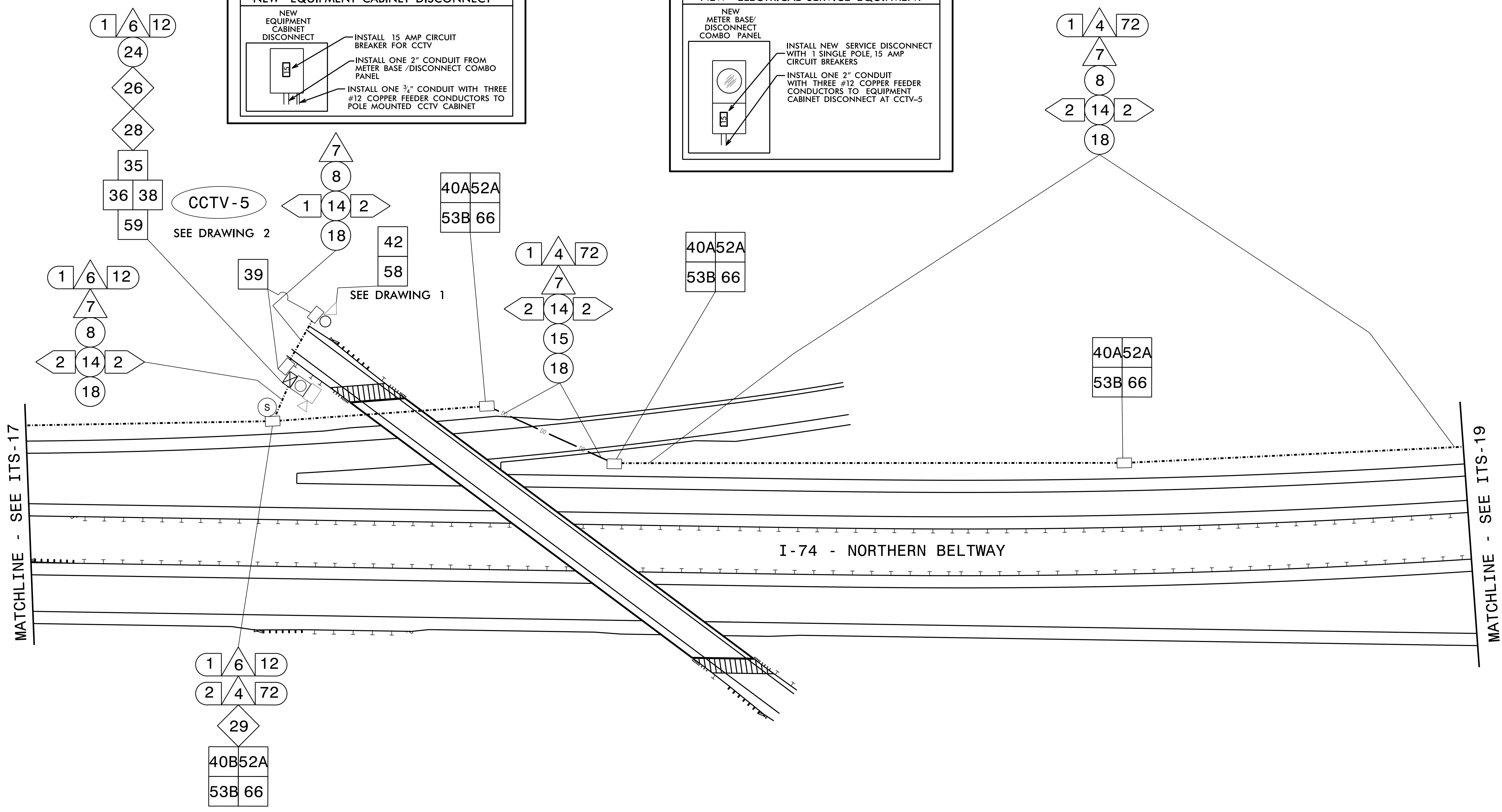
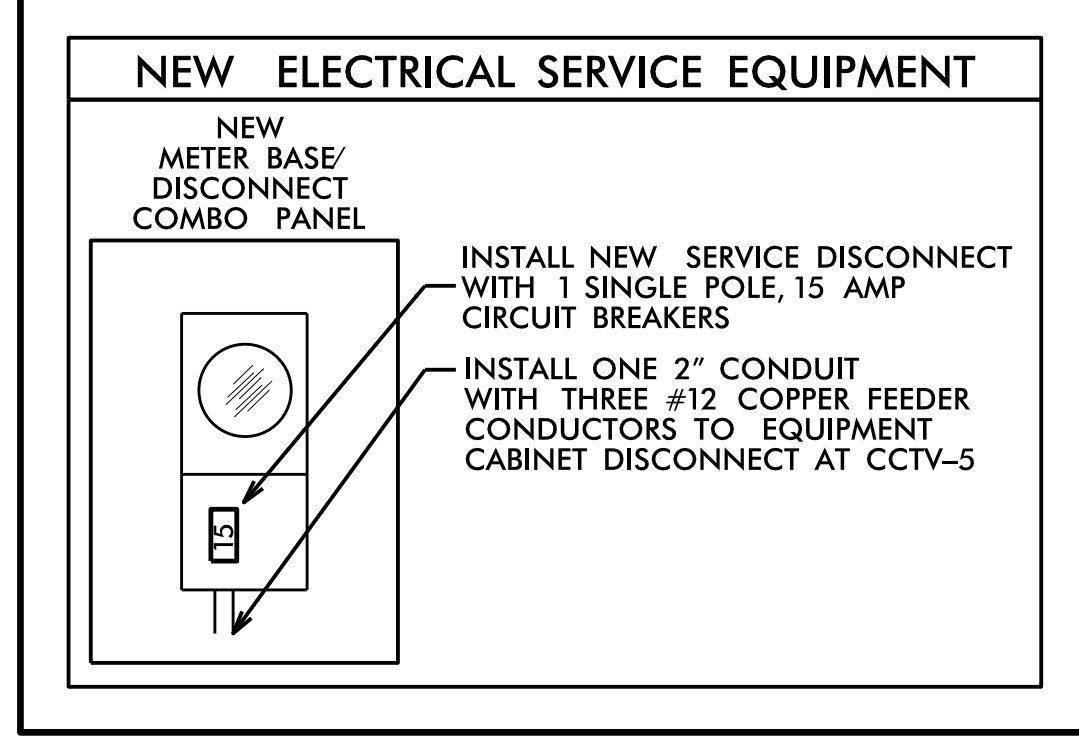
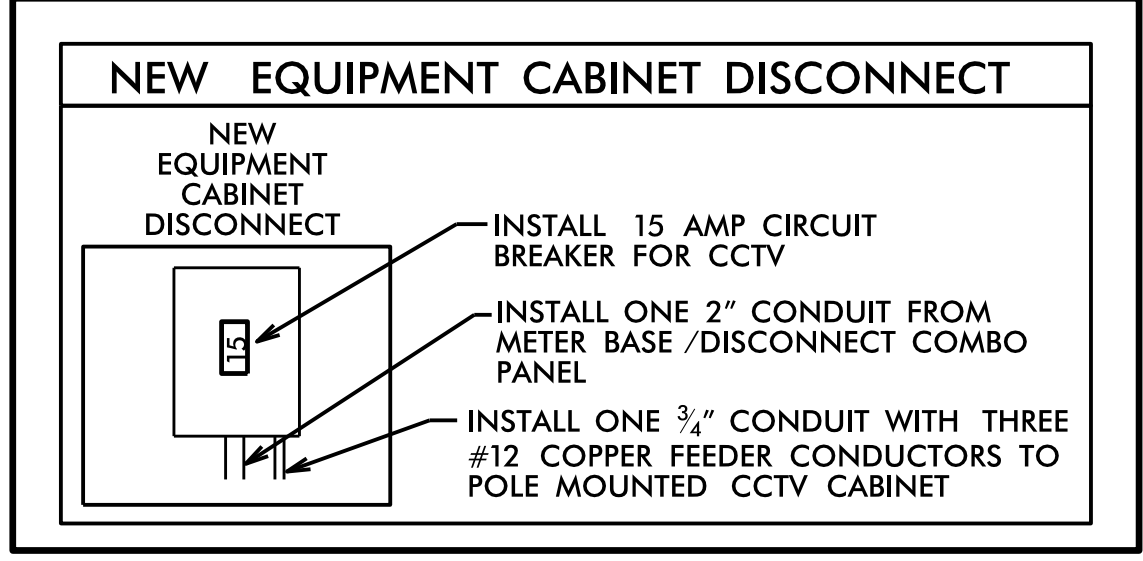
- SEE ITS-29 FOR SPLICE DETAILS. CAP AND SEAL UNUSED FIBERS IN NEW SPLICE ENCLOSURE.

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
	DIVISION 09 FORSYTH CO., WINSTON-SALEM	
PLAN DATE: AUGUST 2021 PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE	
REVISIONS _____ _____	INIT. _____	DATE _____
SCALE 0 50' 1" = 50'	DocuSigned by: <i>Andrew J. Skuce</i> 8/19/2021 DATE	

DRAWING 2

DRAWING 1

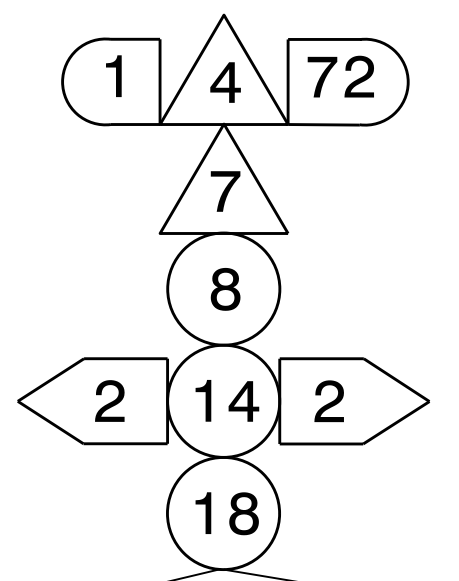


NOTES

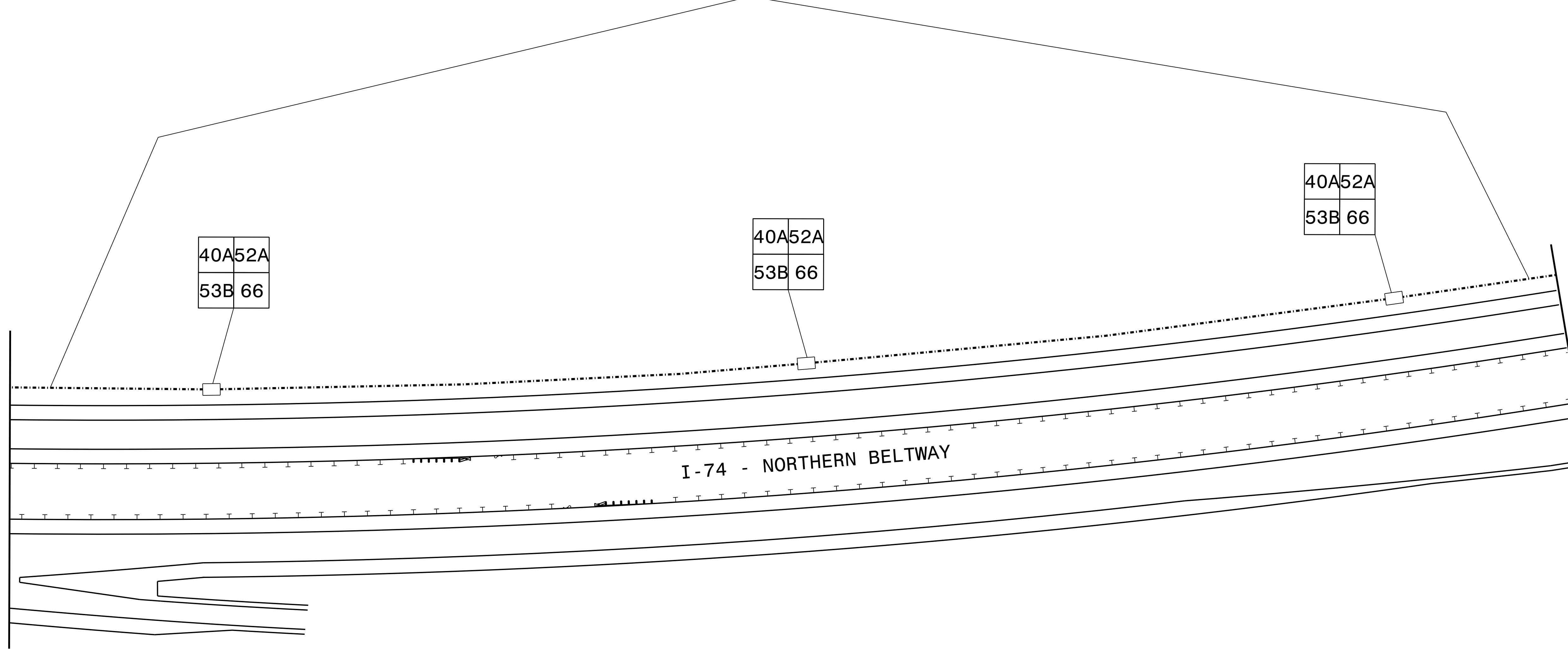
- OBTAIN FINAL CCTV LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER (336-315-7080) BEFORE INITIATING ANY WORK AT THIS LOCATION.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
	DIVISION 09 FORSYTH CO. WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN REVIEWED BY:	REVISIONS: _____ INIT.: _____ DATE: _____
750 N. Greenfield Pkwy., Garner, NC 27529 SCALE: 1" = 50' 	Andrew J. Skuce 8/19/2021 DATE	

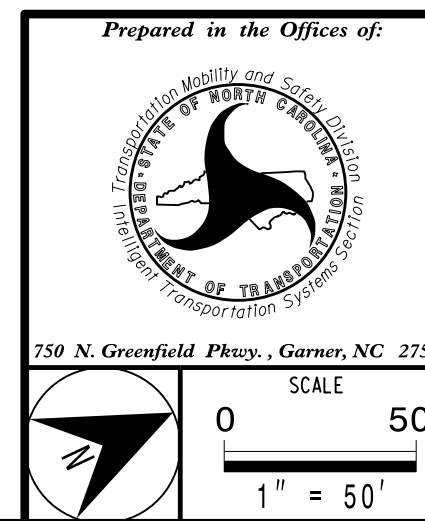


MATCHLINE - SEE ITS-18

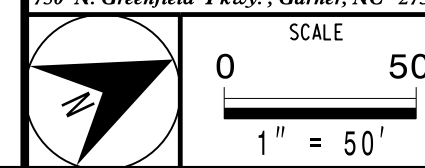
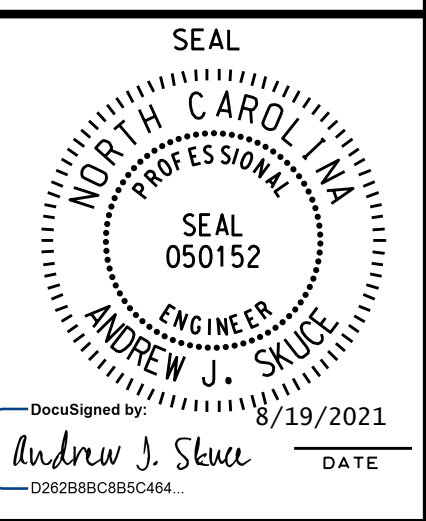


MATCHLINE - SEE ITS-20

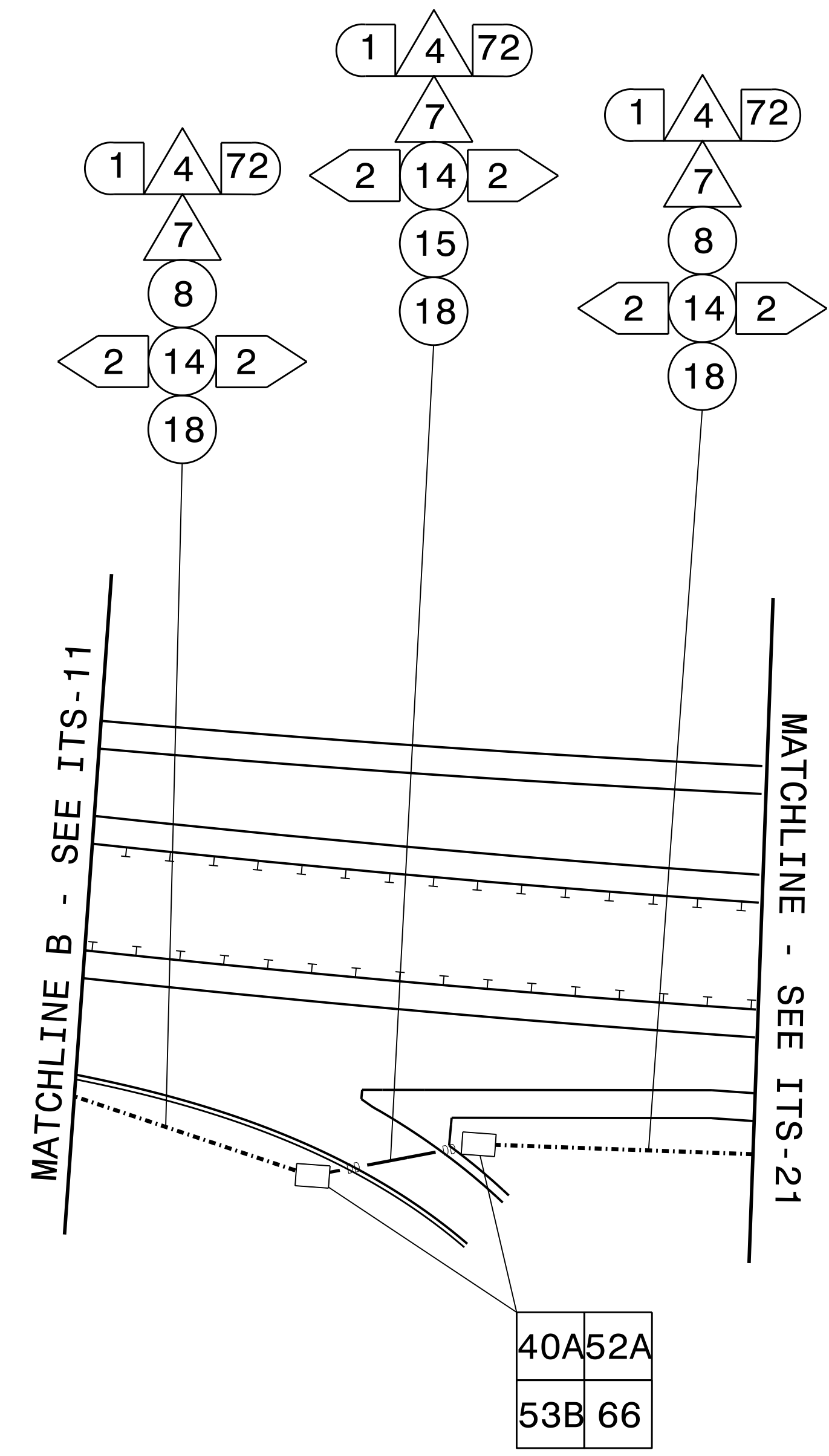
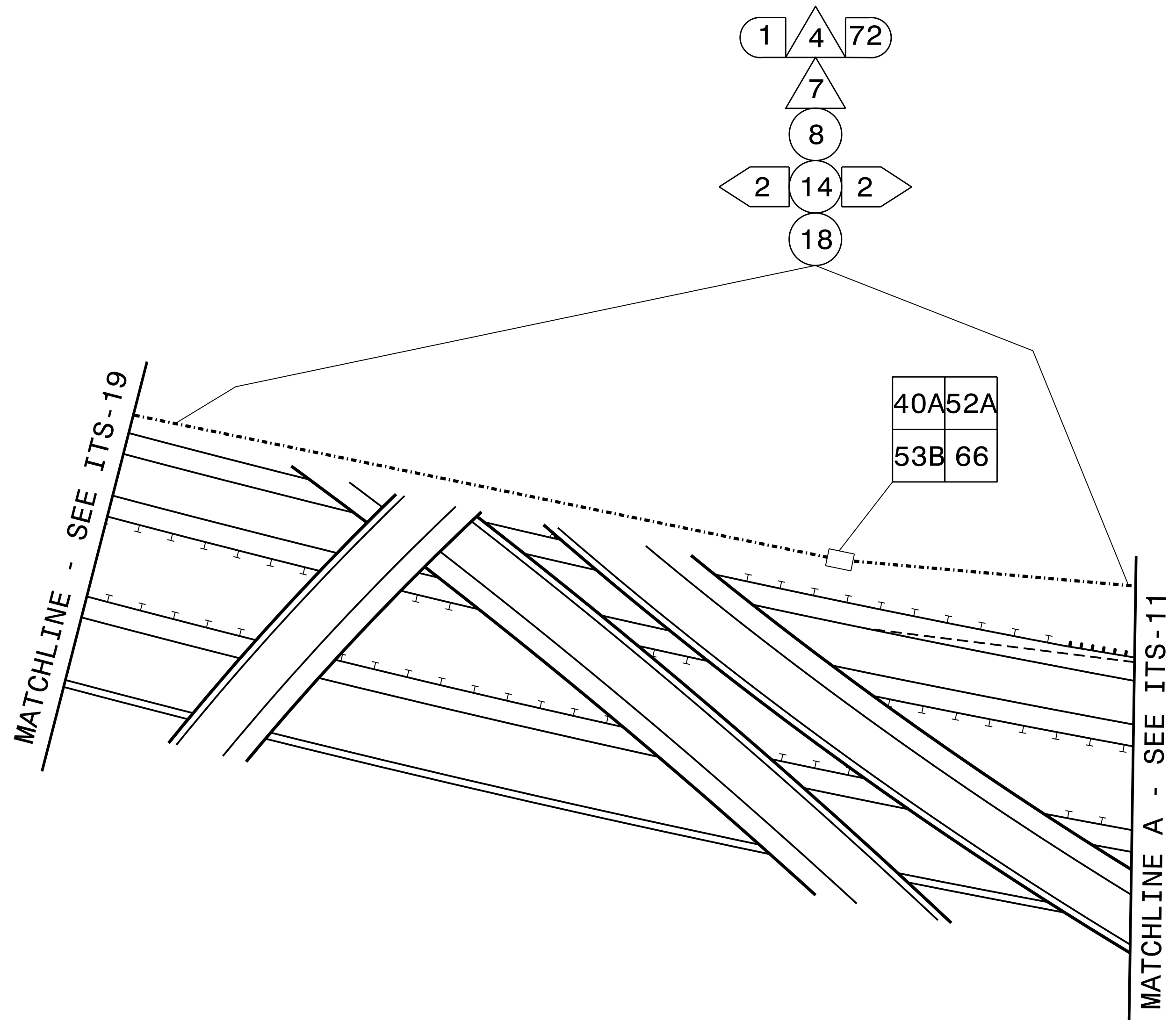
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
DIVISION 09	FORSYTH CO., WINSTON-SALEM
PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE
PREPARED BY: B. CHRISTIAN	REVIEWED BY:
REVISIONS	INIT. DATE

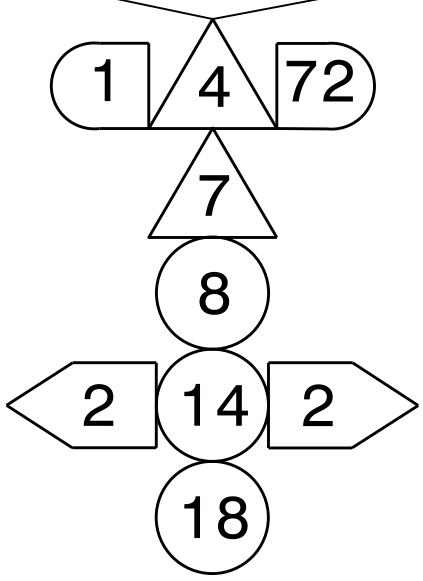
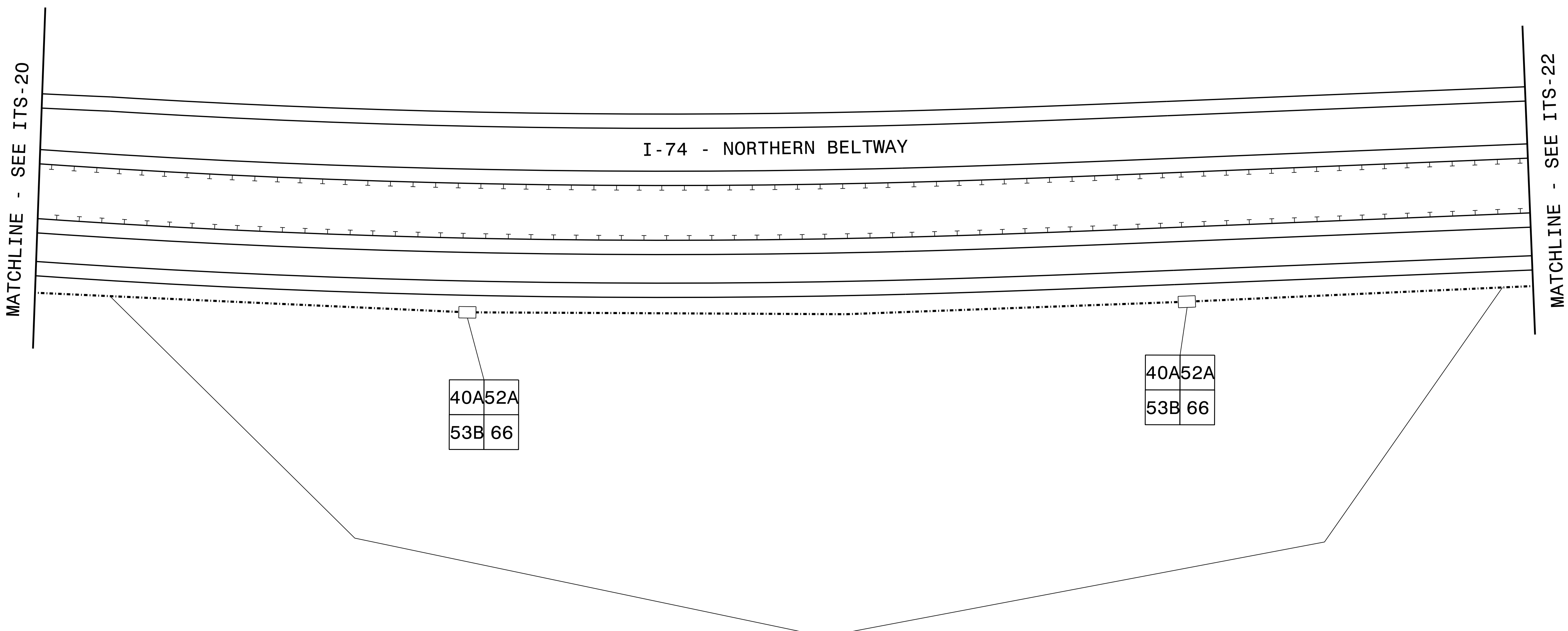


DocuSigned by:
Andrew J. Skuce
DATE: 8/19/2021

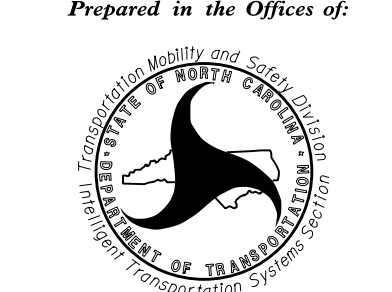
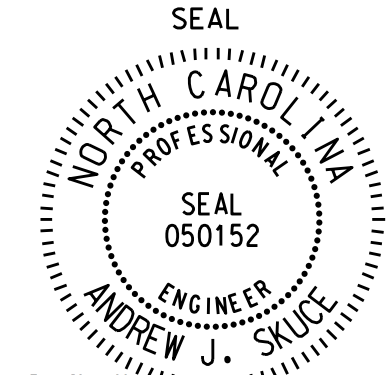


**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS		
	DIVISION 09 FORSYTH CO. WINSTON-SALEM		
PLAN DATE: AUGUST 2021	PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE	ENGINEER ANDREW J. SKUCE DATE: 8/19/2021
SCALE: 1" = 50'	REVISIONS	INIT. DATE	Andrew J. Skuce



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

 Prepared in the Offices of: 750 N. Greenfield Pkwy., Garner, NC 27529	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS		 SEAL 050152 ENGINEER ANDREW J. SKUCE
	DIVISION 09 FORSYTH CO., WINSTON-SALEM		
PLAN DATE: AUGUST 2021	PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE	DATE: 8/19/2021
SCALE 0 50' 1" = 50'	REVISIONS	INIT.	DATE
Andrew J. Skuce			DATE

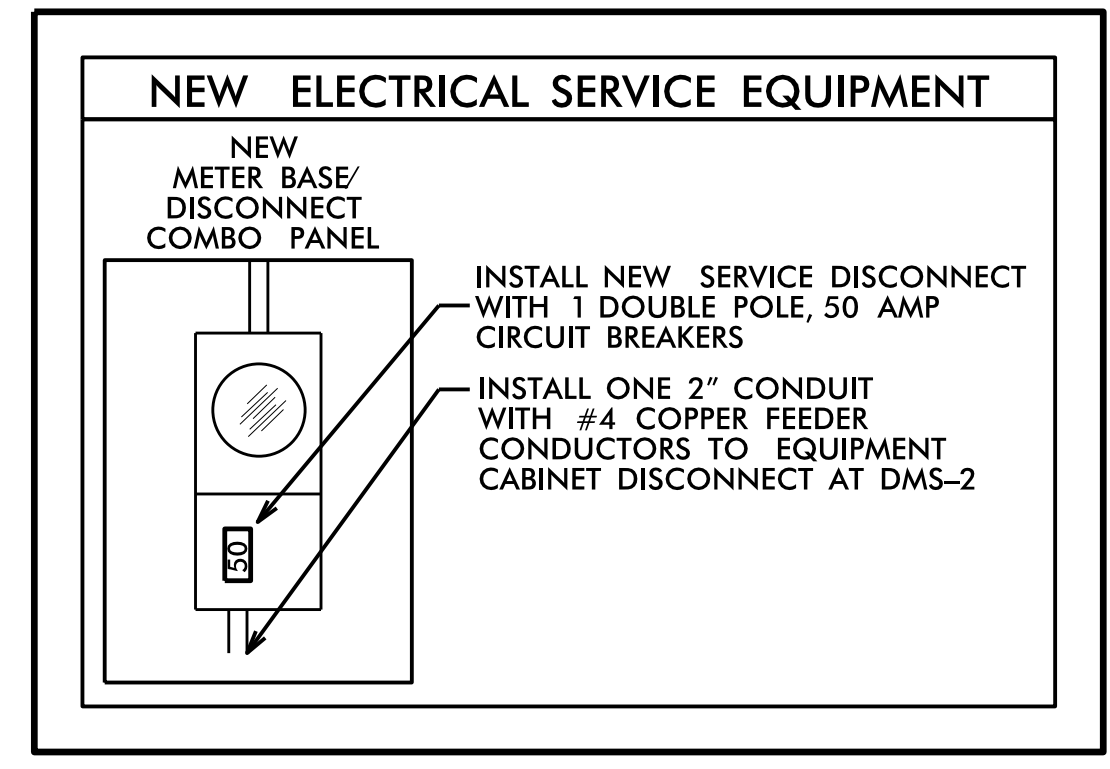
1 4 72

7
8
2 14 2
18

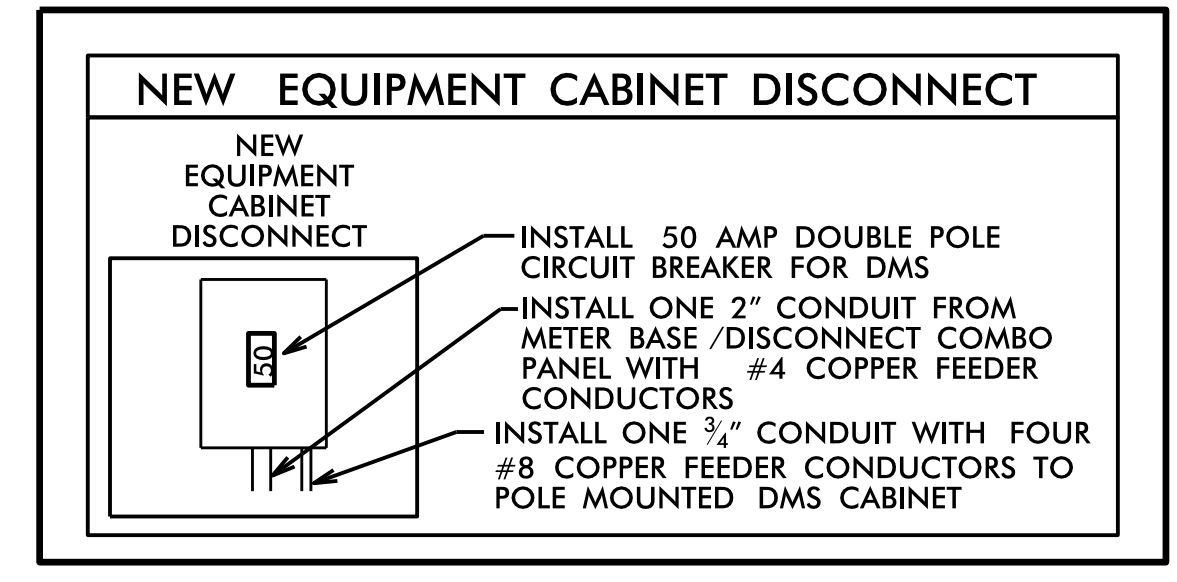
40A52A
53B 66

MATCHLINE - SEE ITS-21

DRAWING 1



DRAWING 2



I-74 - NORTHERN BELTWAY

MATCHLINE - SEE ITS-23

1 4 72
7
2 14 2
15
18

40A52A
53B 66

40A52A
53B 66

1 6 12
24
26
28
44
45 59
DMS-2
SEE DRAWING 2

SEE DRAWING 1

39
2
8
1 14 2
18

1 6 12
2 4 72
29
40B52A
53B 66

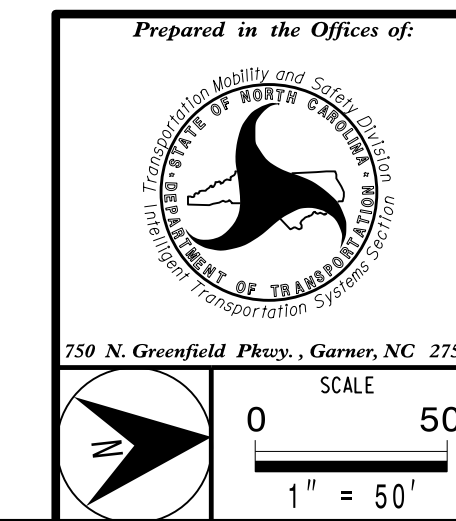
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7
8
2 14 2
18

NOTES

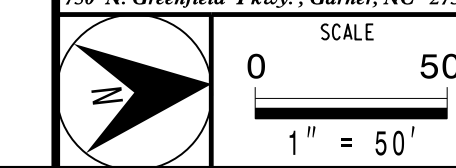
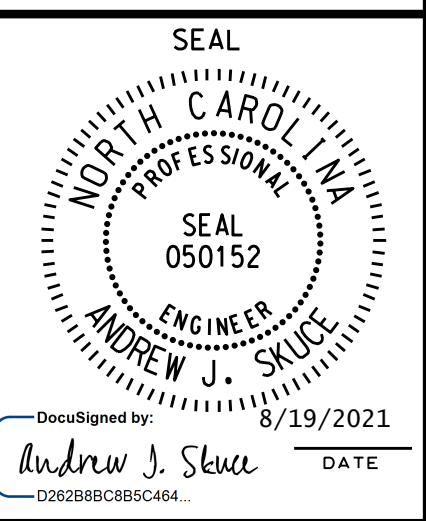
- OBTAIN FINAL DMS LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER BEFORE INITIATING ANY WORK AT THIS LOCATION.
- CONTACT ENGINEER TO REQUEST NCDOT SUPPLIED MODEM AT LEAST SIX WEEKS PRIOR TO INSTALLATION.

1 4 72
7
8
2 14 2
18

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

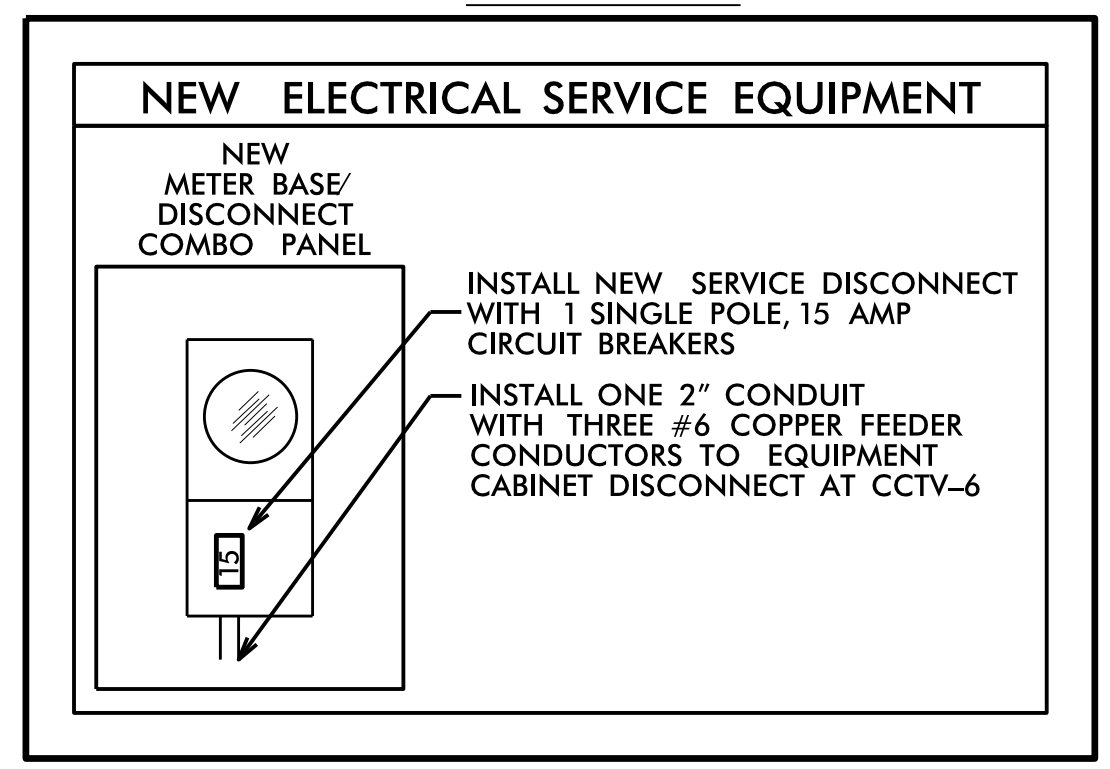


COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
DIVISION 09 FORSYTH CO.	WINSTON-SALEM
PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE
PREPARED BY: B. CHRISTIAN	REVIEWED BY:
REVISIONS	INIT. DATE

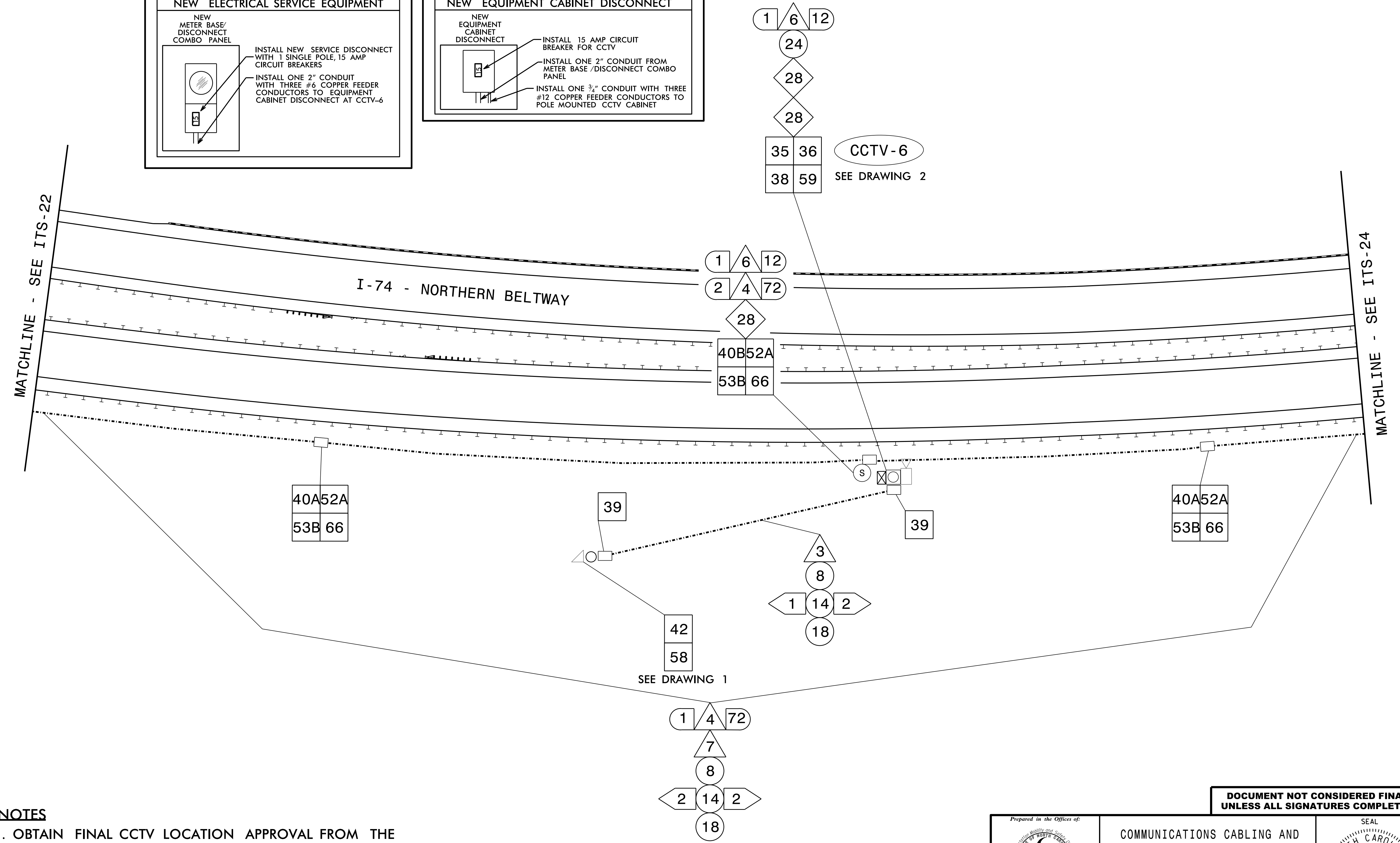
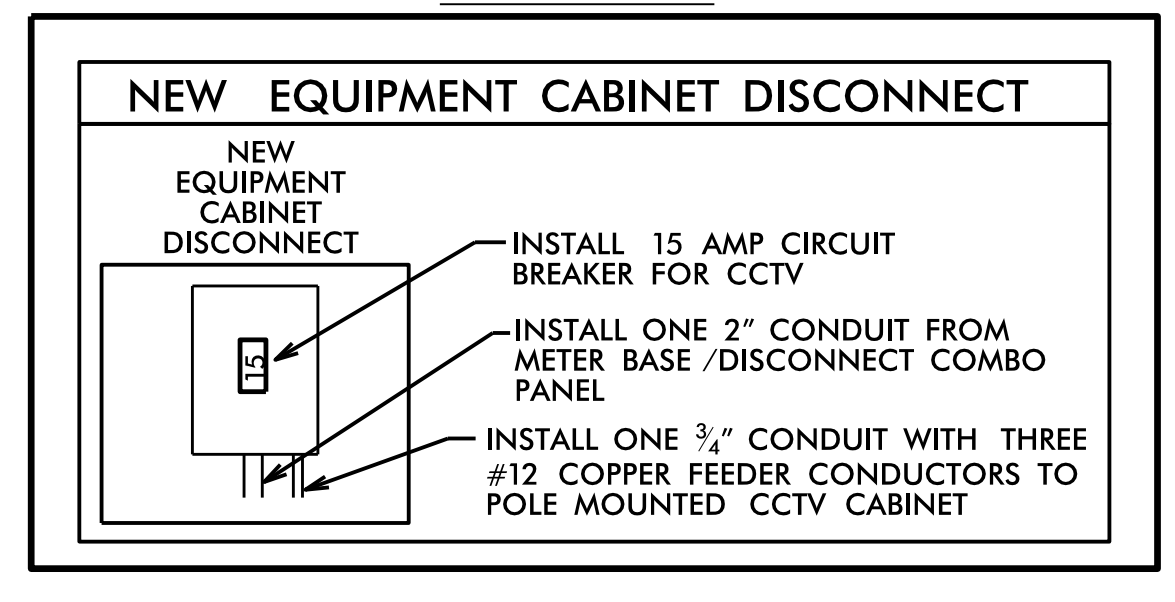


DocuSigned by: Andrew J. Skuce 8/19/2021 DATE

DRAWING 1



DRAWING 2



NOTES

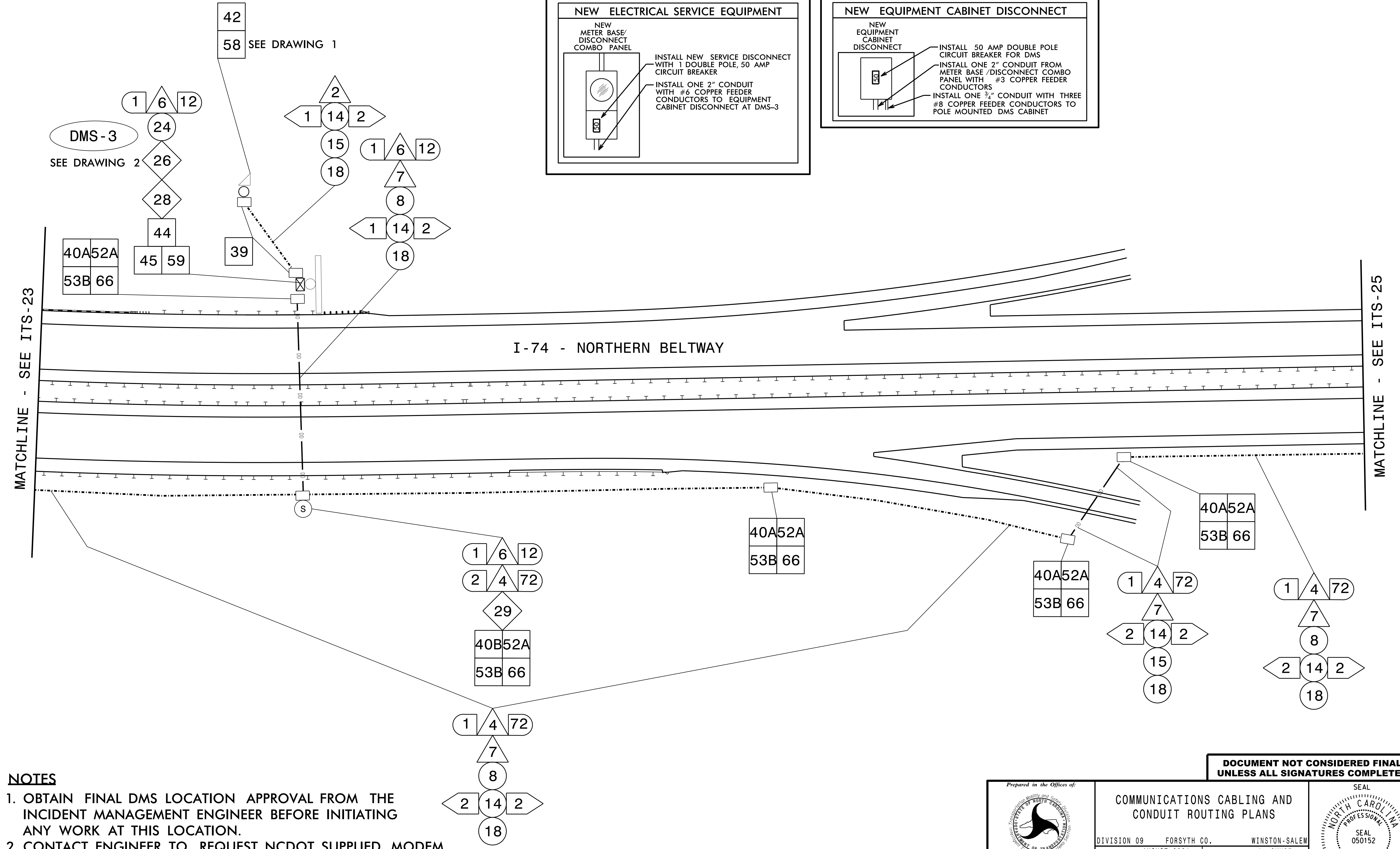
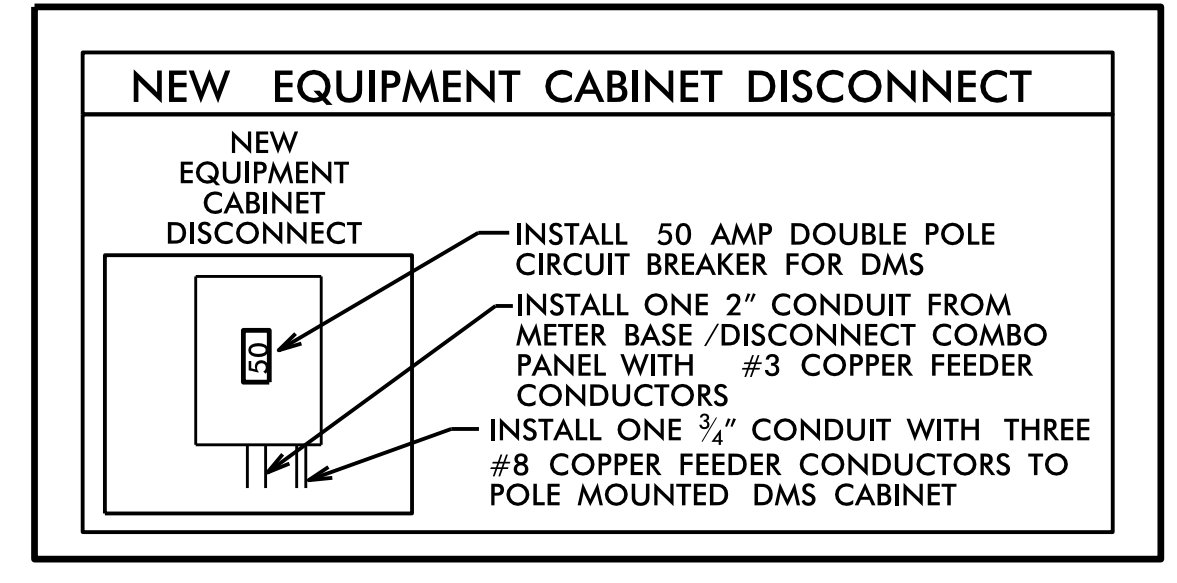
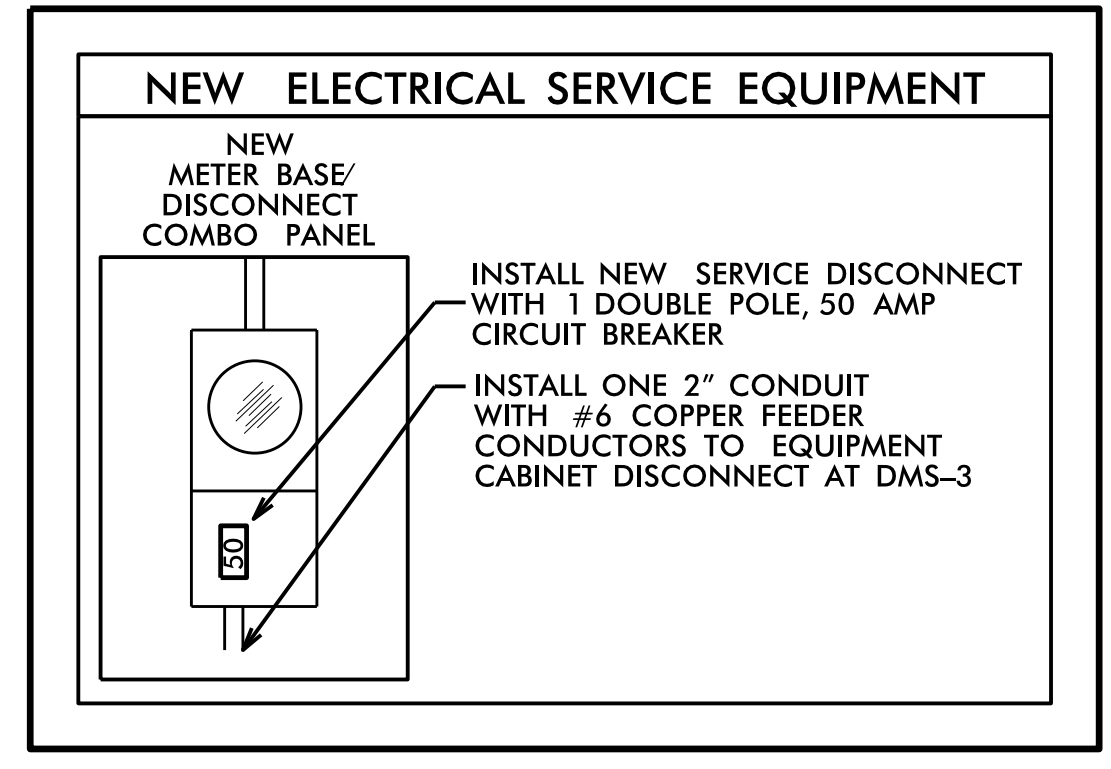
- OBTAIN FINAL CCTV LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER (336-315-7080) BEFORE INITIATING ANY WORK AT THIS LOCATION.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
	DIVISION 09 FORSYTH CO. WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN REVIEWED BY:	REVISIONS _____ INIT. DATE _____ _____ _____
750 N. Greenfield Pkwy., Garner, NC 27529 SCALE 0 50' 1" = 50'	DocuSigned by: Andrew J. Skuce 8/19/2021	

DRAWING 1

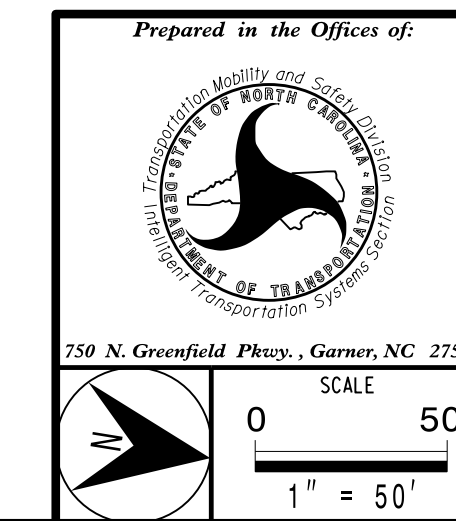
DRAWING 2



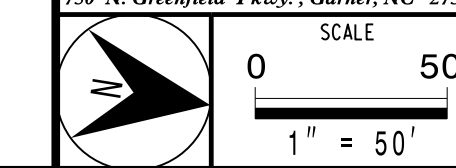
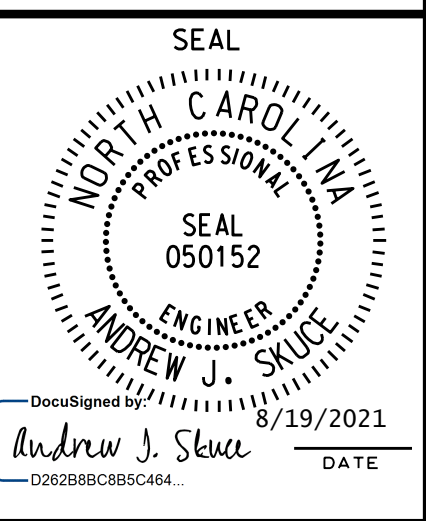
NOTES

1. OBTAIN FINAL DMS LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER BEFORE INITIATING ANY WORK AT THIS LOCATION.
2. CONTACT ENGINEER TO REQUEST NCDOT SUPPLIED MODEM AT LEAST SIX WEEKS PRIOR TO INSTALLATION.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

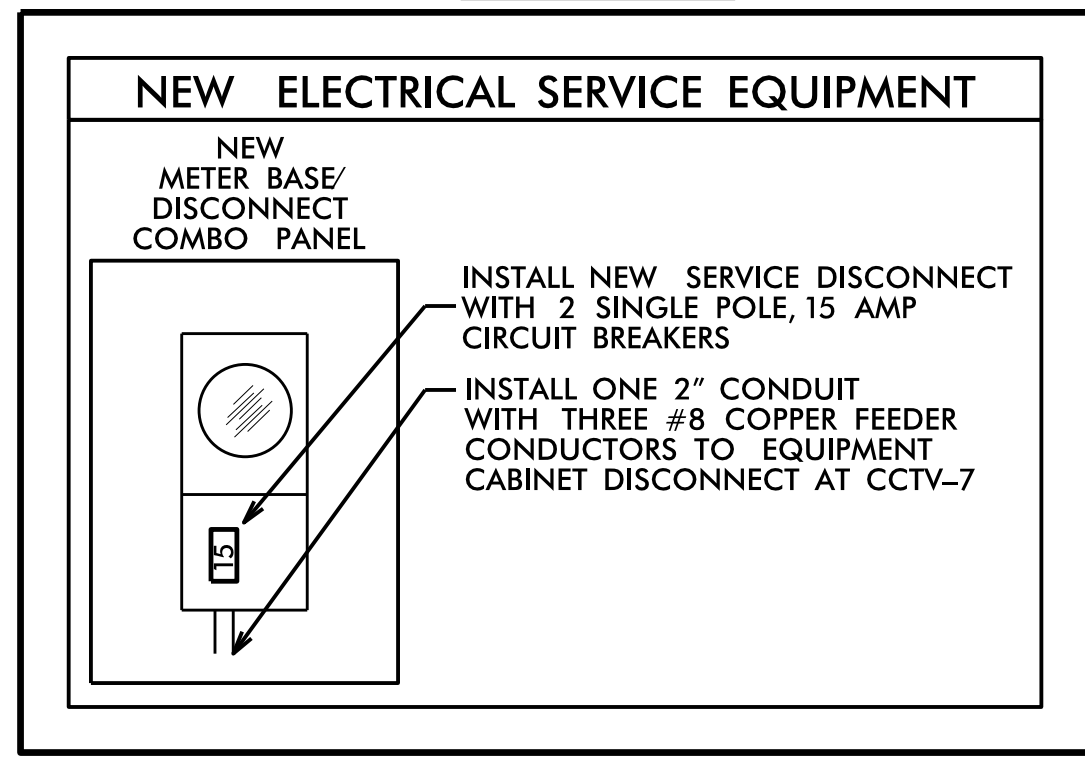


COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
DIVISION 09 FORSYTH CO. WINSTON-SALEM	
PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE
PREPARED BY: B. CHRISTIAN	REVIEWED BY:
REVISIONS	INIT. DATE

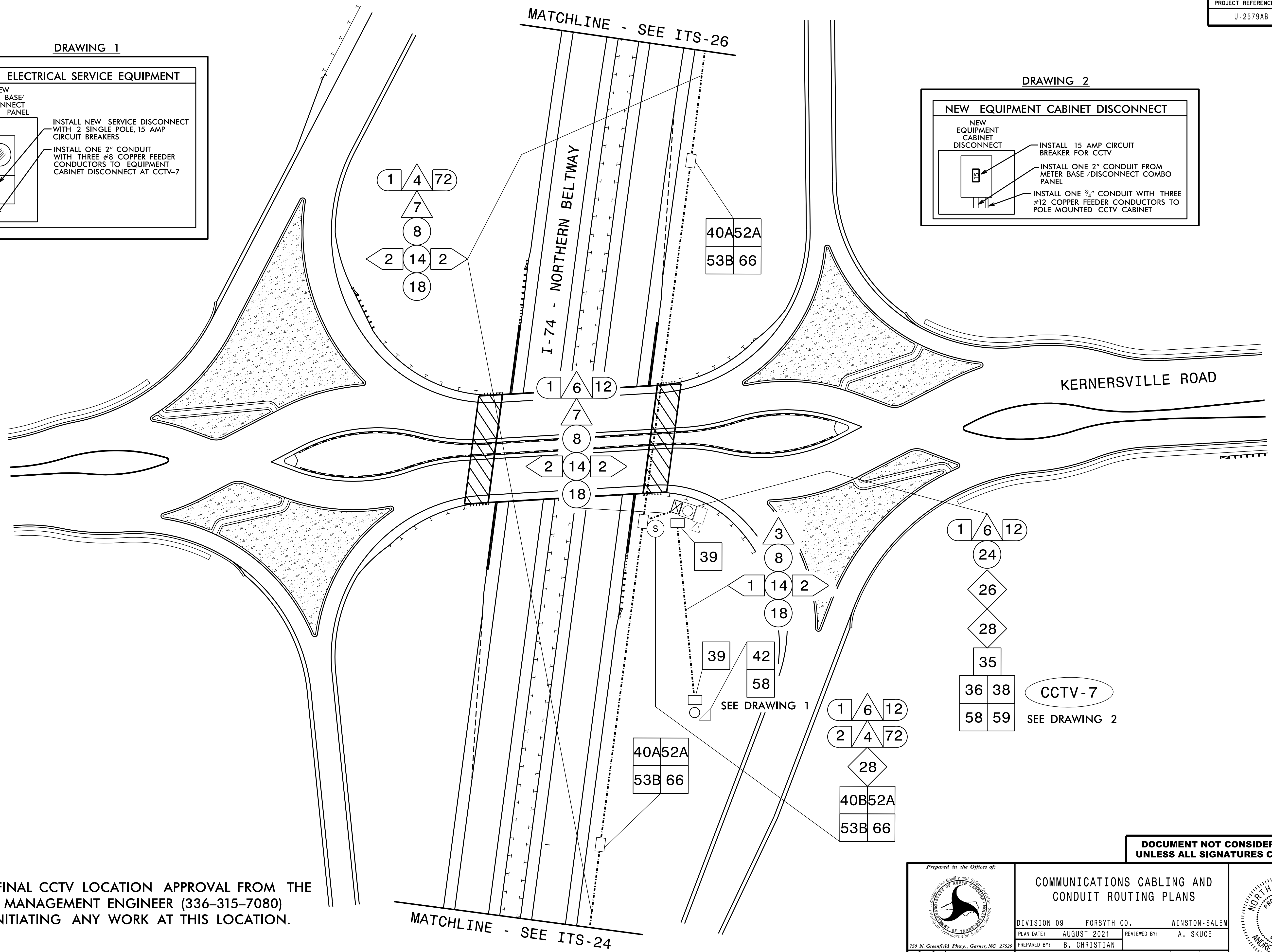
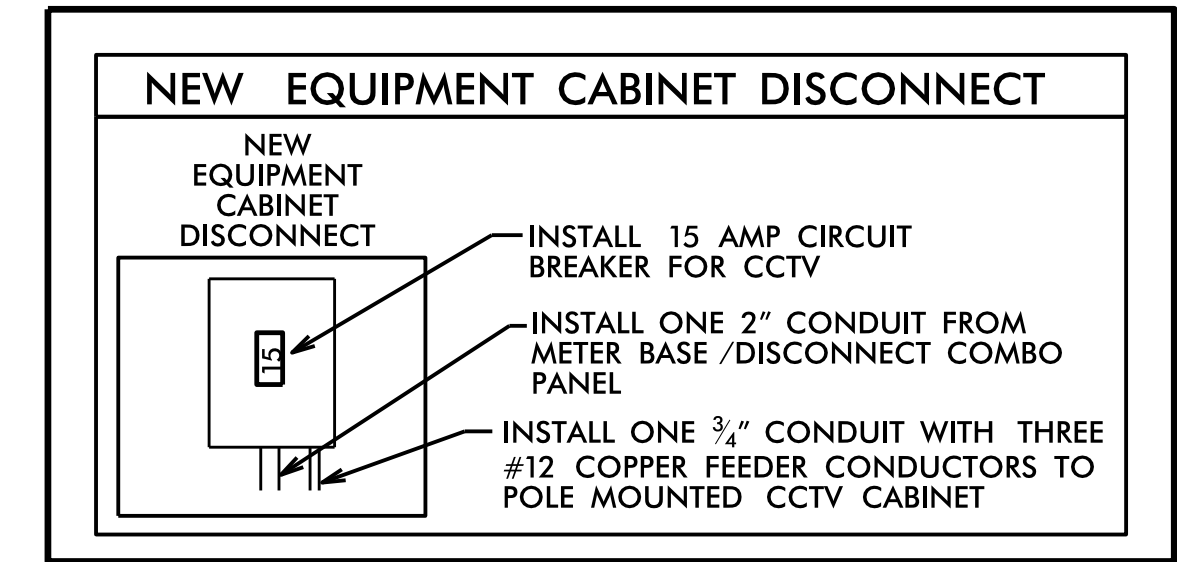


DocuSigned by: Andrew J. Skuce 8/19/2021

DRAWING 1



DRAWING 2



NOTES

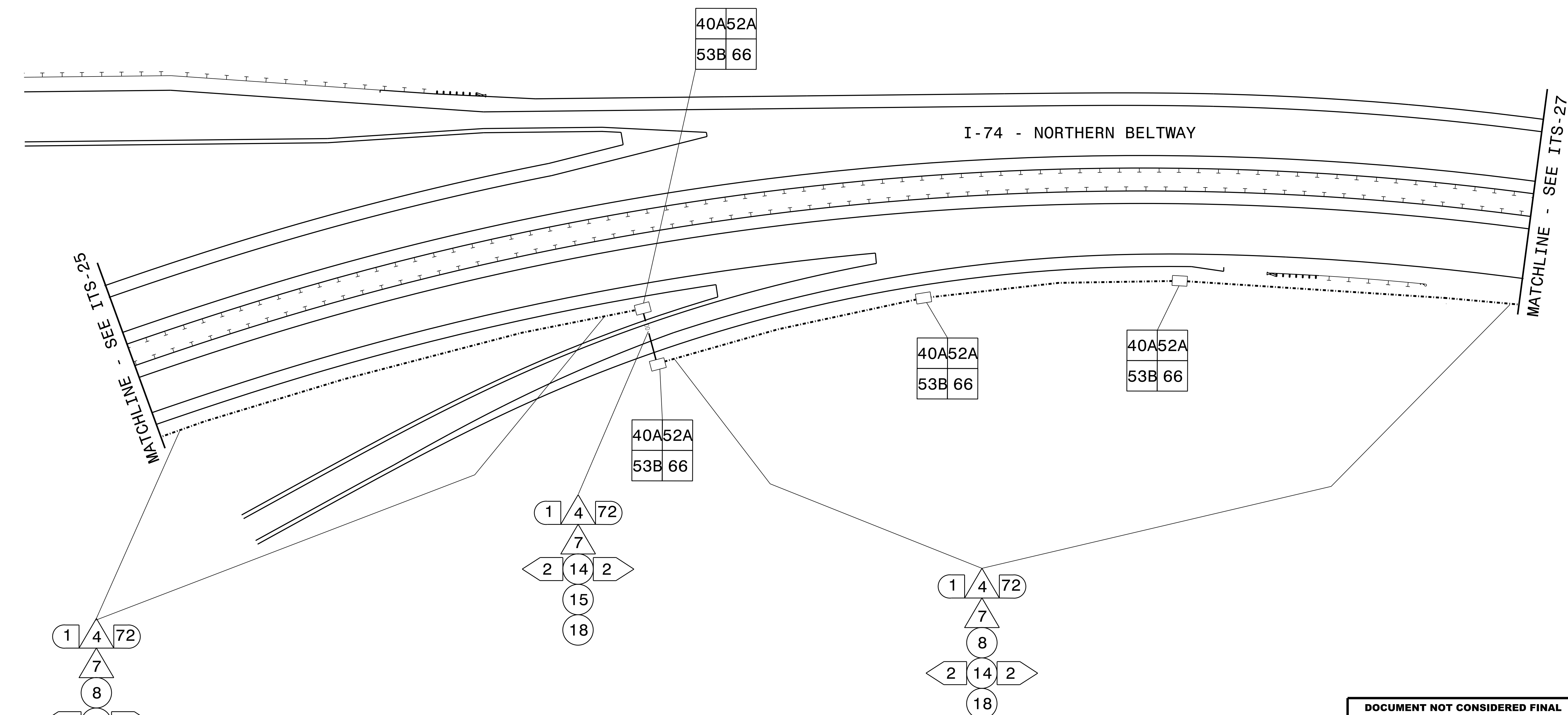
- OBTAIN FINAL CCTV LOCATION APPROVAL FROM THE INCIDENT MANAGEMENT ENGINEER (336-315-7080) BEFORE INITIATING ANY WORK AT THIS LOCATION.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	<p>COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS</p>		
	<p>DIVISION 09 FORSYTH CO. WINSTON-SALEM</p> <p>PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE</p> <p>PREPARED BY: B. CHRISTIAN</p>	<p>REVISIONS</p> <p>INIT. DATE</p>	

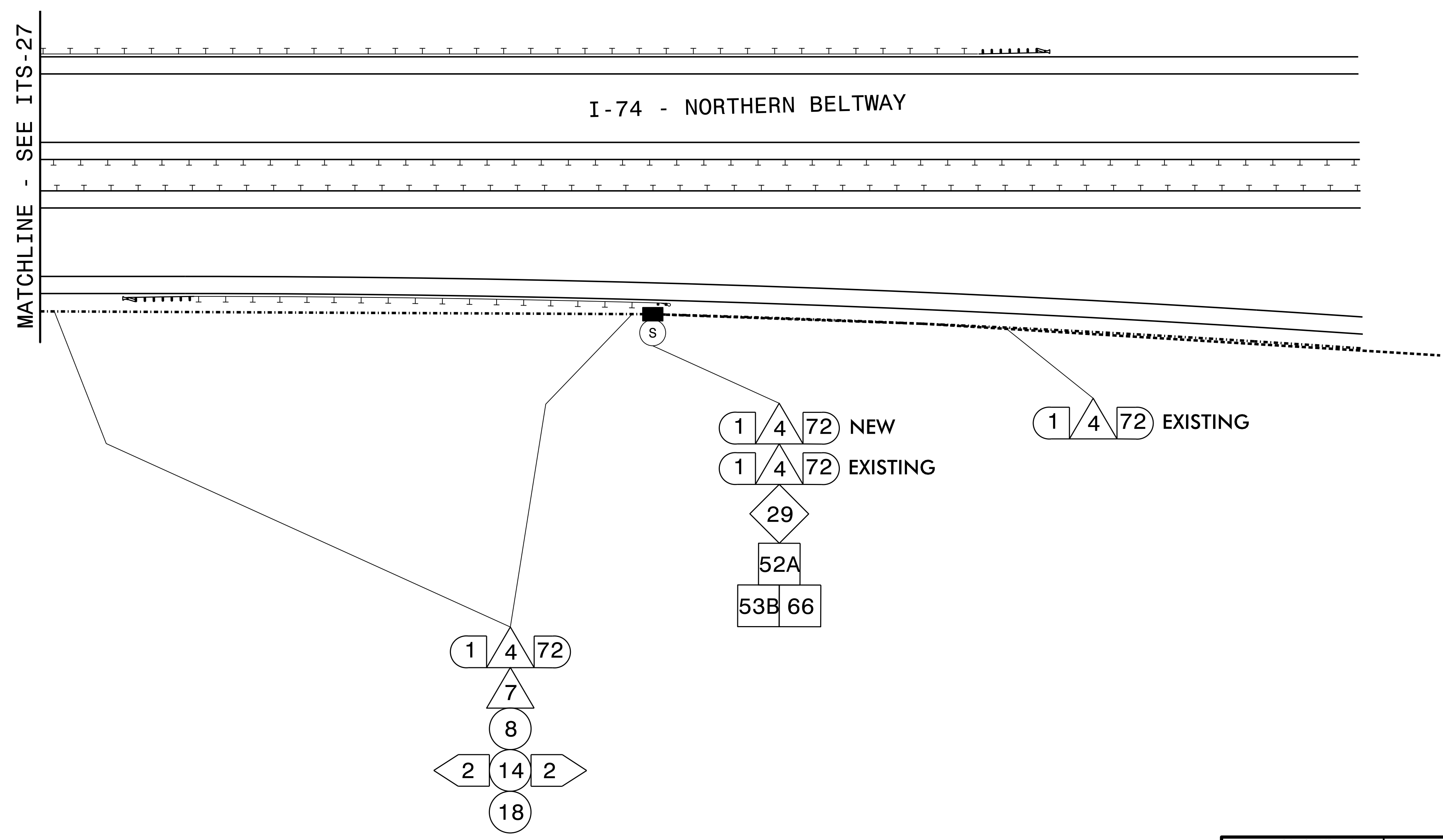
750 N. Greenfield Pkwy., Garner, NC 27529

SCALE 0 50'
1" = 50'



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	COMMUNICATIONS CABLING AND CONDUIT ROUTING PLANS	
	DIVISION 09 FORSYTH CO., WINSTON-SALEM PLAN DATE: AUGUST 2021 PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. SKUCE DATE: 8/19/2021
SCALE: 1" = 50' 	REVISIONS INIT. DATE	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER ANDREW J. SKUCE 050152



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS		
	DIVISION 09 FORSYTH CO. WINSTON-SALEM		
Prepared in the Offices of: 	PLAN DATE: AUGUST 2021 PREPARED BY: B. CHRISTIAN	REVIEWED BY: A. J. SKUCE	DATE: 8/19/2021
750 N. Greenfield Pkwy., Garner, NC 27529	SCALE: 1" = 50' 	REVISIONS:	INIT. DATE:

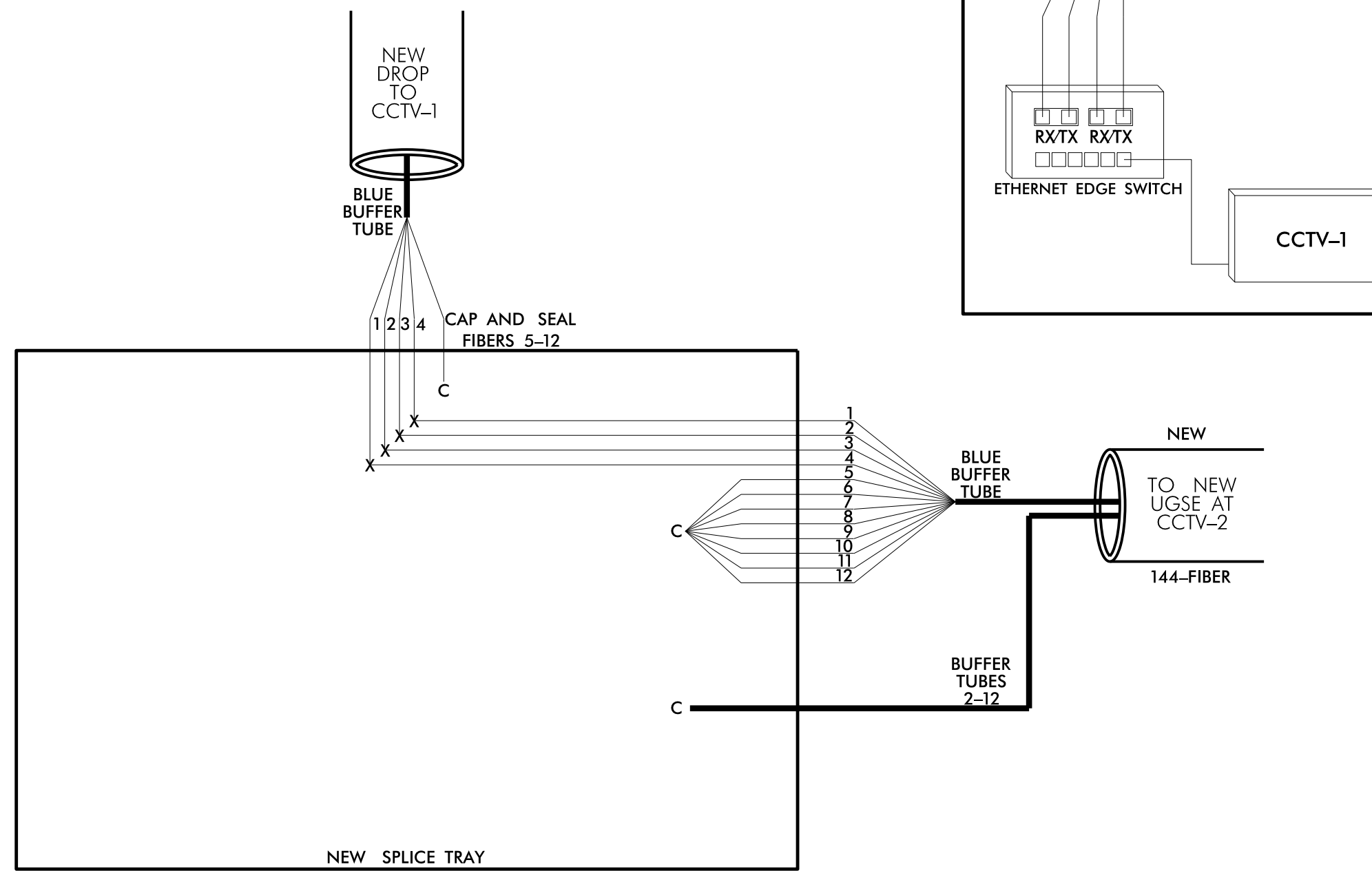
NEW UNDERGROUND SPLICE ENCLOSURE CCTV-1

Notes:
 Unused fibers left coiled and stored in splice tray.
 Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
 X = FUSION SPLICE
 C = CAP IN TRAY



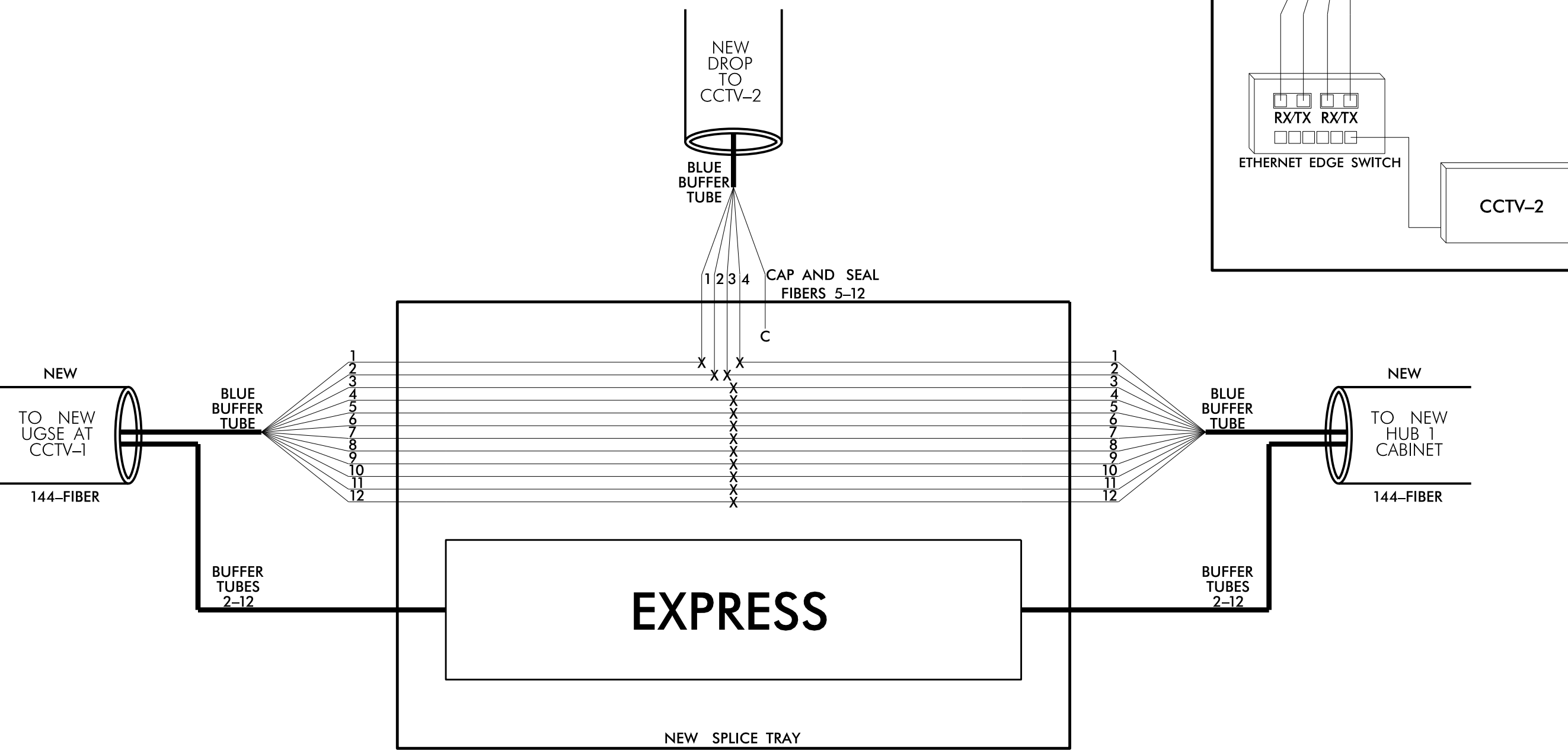
NEW UNDERGROUND SPLICE ENCLOSURE CCTV-2

Notes:
 Unused fibers left coiled and stored in splice tray.
 Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
 X = FUSION SPLICE
 C = CAP IN TRAY



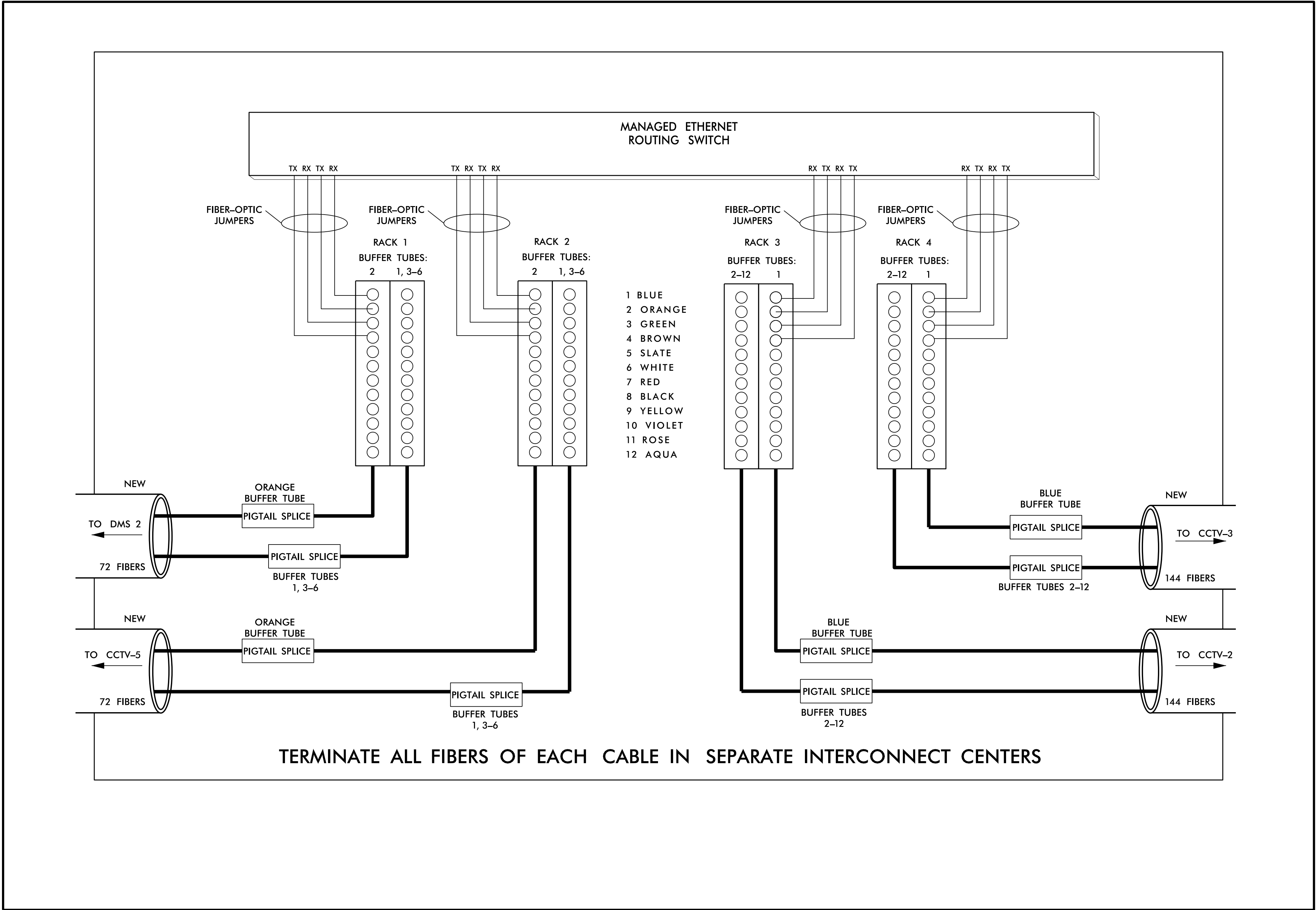
- 1) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 2) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
 - 1) SPLICE LOCATION
 - 2) DATE
 - 3) COMPANY NAME
 - 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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<p>250 N. Greenfield Pkwy., Garner, NC 27529</p>	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN		
REVISIONS _____ _____ _____		INIT. DATE _____ _____ _____	DocuSigned by: Andrew J. Skuce 8/19/2021 DATE

NEW HUB CABINET
HUB-1
I-40 AT NORTHERN BELTWAY



- 1) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 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.

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN		
750 N. Greenfield Pkwy., Garner, NC 27529		DocuSigned by: <i>Andrew J. Skuce</i> 8/19/2021 <small>DocuSign Envelope ID: D2C2B8C2B8C44</small>	

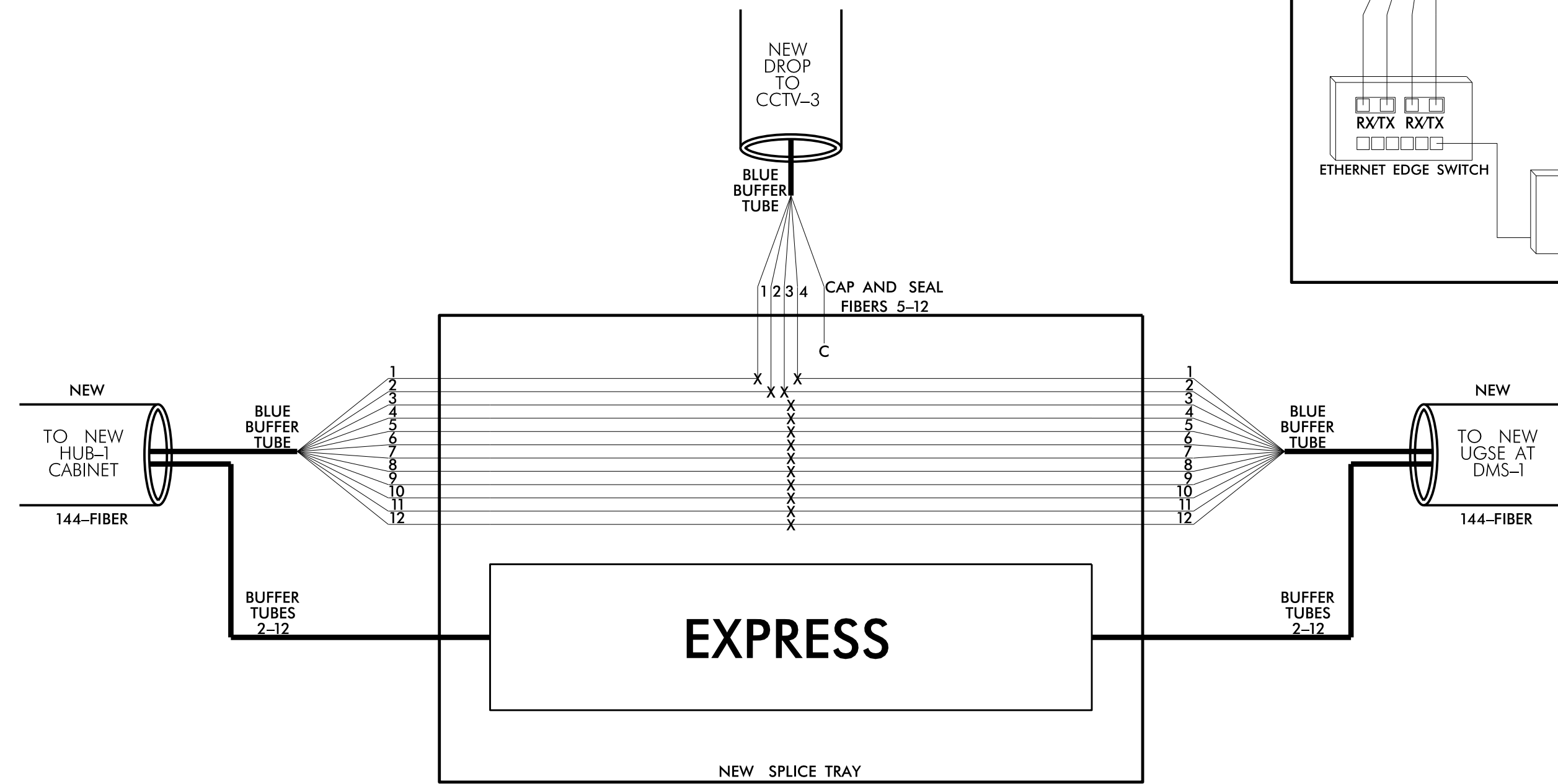
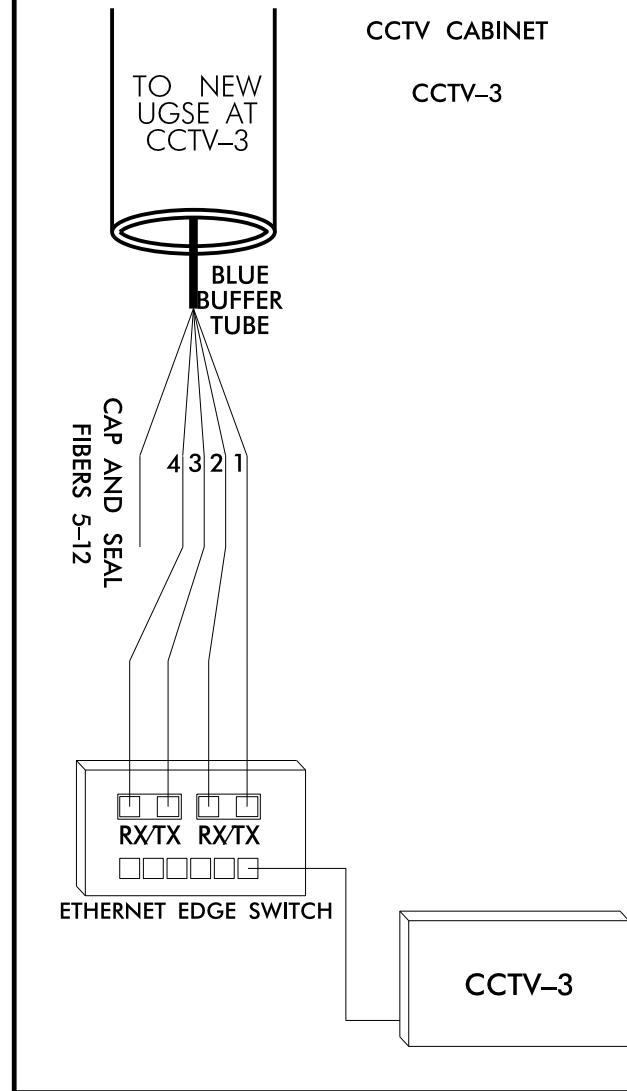
NEW UNDERGROUND SPLICE ENCLOSURE CCTV-3

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
X = FUSION SPLICE
C = CAP IN TRAY



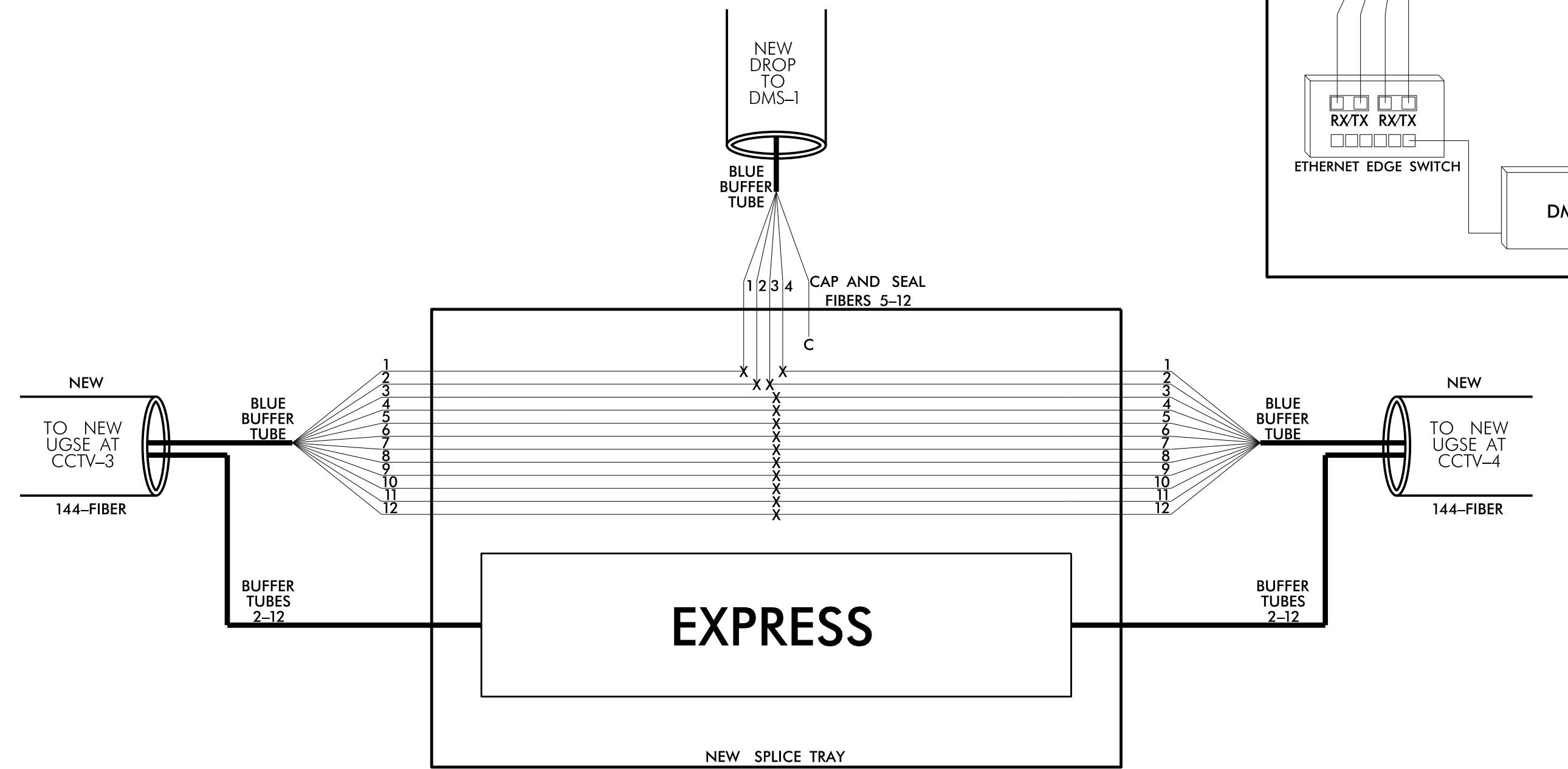
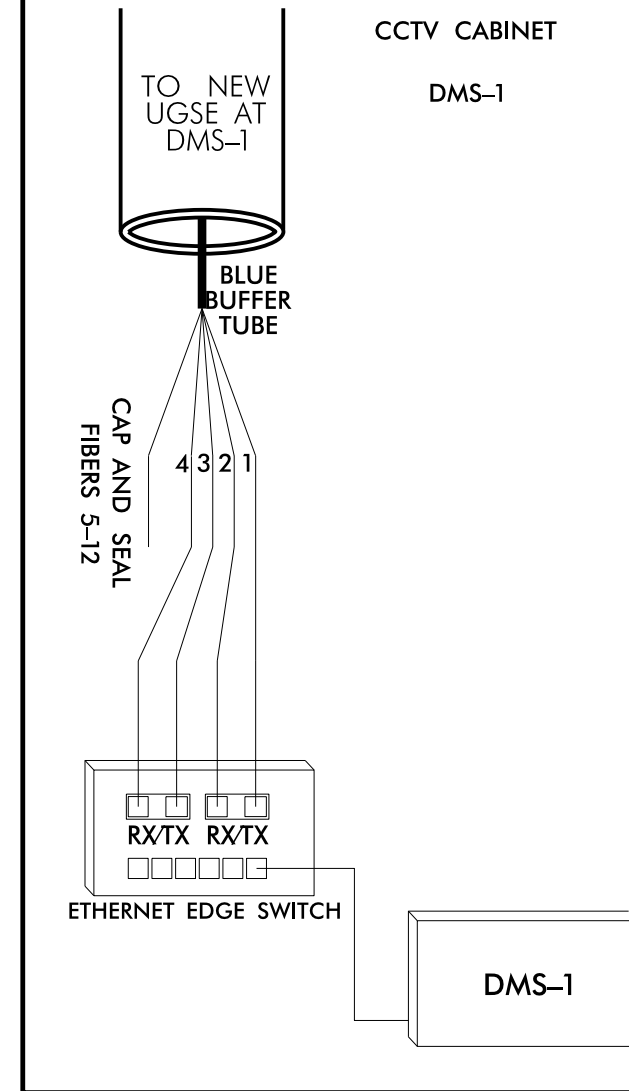
NEW UNDERGROUND SPLICE ENCLOSURE DMS-1

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
X = FUSION SPLICE
C = CAP IN TRAY



- 1) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<p>Prepared in the Offices of: The State of North Carolina Department of Transportation 250 N. Greenfield Pkwy., Garner, NC 27529</p>	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN		
REVISIONS _____ _____ _____			INIT. DATE _____ _____ _____
DocuSigned by: Andrew J. Skuce 12628881C893C404			8/19/2021 DATE

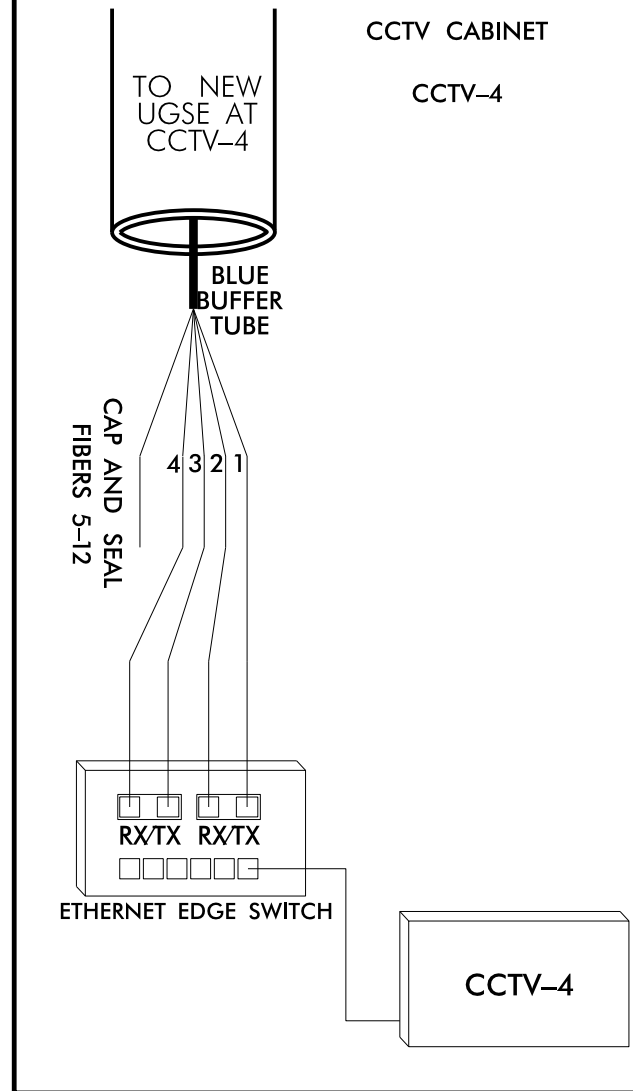
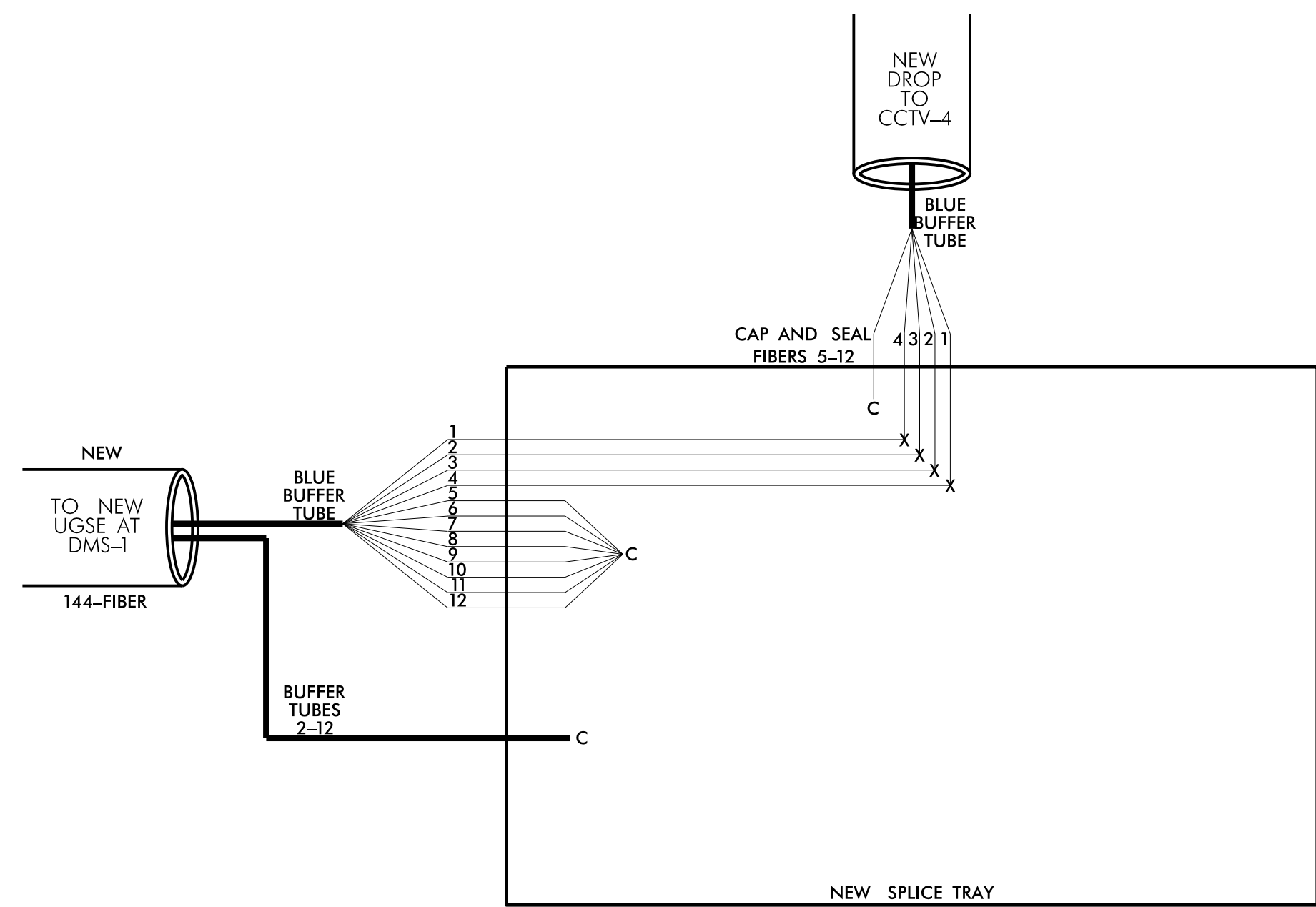
NEW UNDERGROUND SPLICE ENCLOSURE CCTV-4

Notes:
 Unused fibers left coiled and stored in splice tray.
 Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
 X = FUSION SPLICE
 C = CAP IN TRAY



NEW UNDERGROUND SPLICE ENCLOSURE CCTV-5

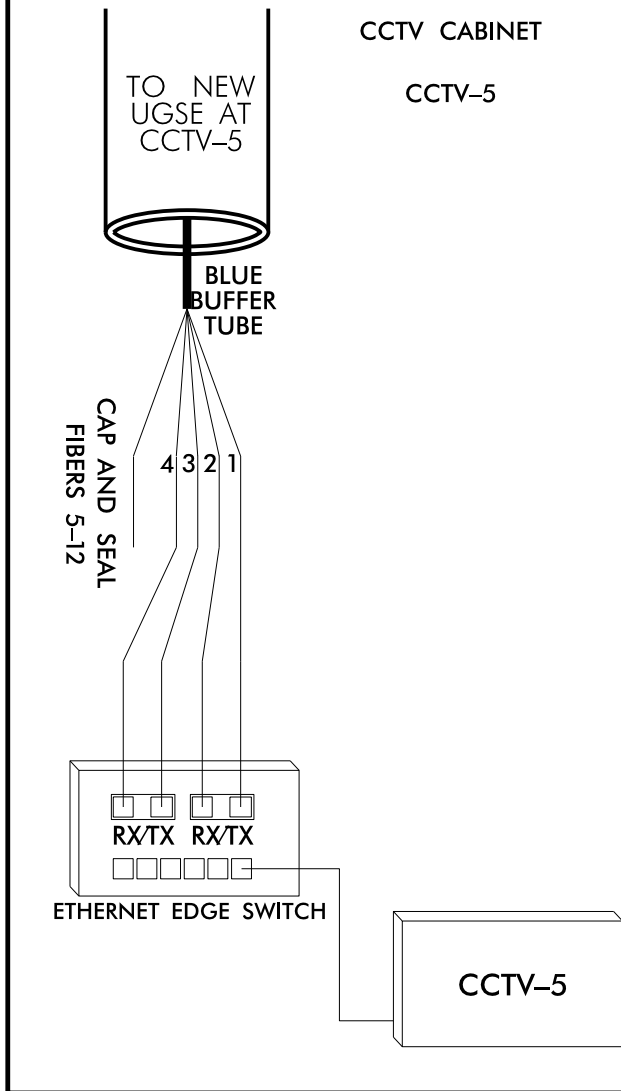
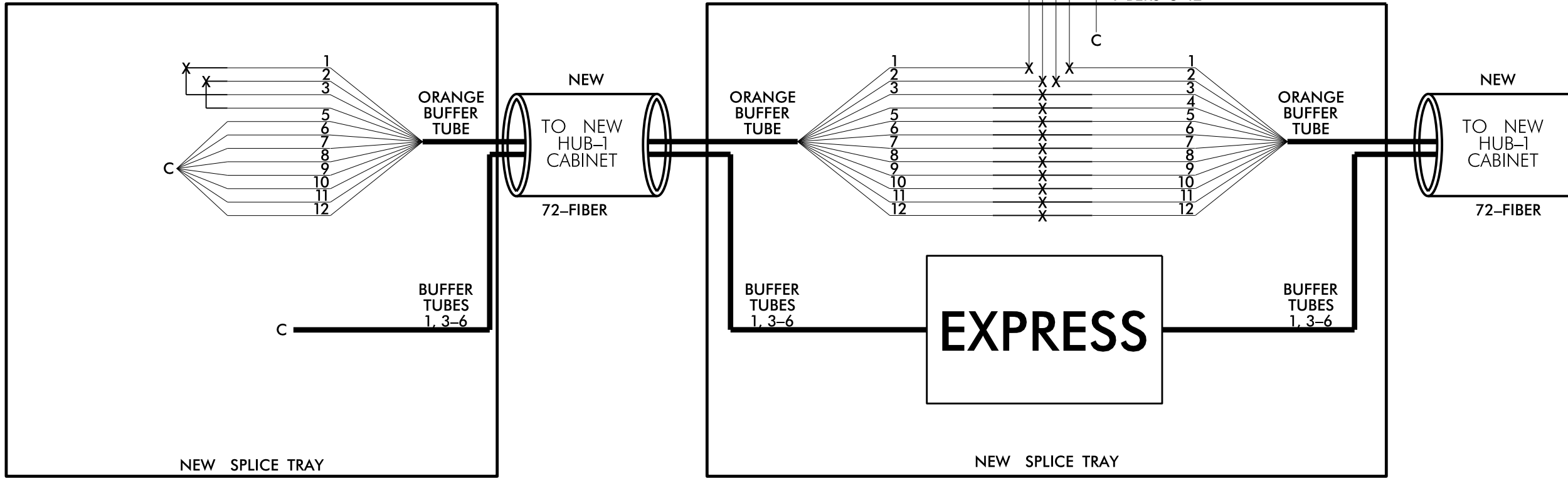
Unused fibers left coiled and stored in splice tray.
 Unused Buffer Tubes left coiled and stored in splice tray.

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

LEGEND
 X = FUSION SPLICE
 C = CAP IN TRAY

NEW UNDERGROUND SPLICE ENCLOSURE SEE ITS-16



- 1) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM		
	PLAN DATE: AUGUST 2021	REVIEWED BY: A. SKUCE	
	PREPARED BY: B. CHRISTIAN		
REVISIONS	INIT.	DATE	

DocuSigned by: Andrew J. Skuce 8/19/2021 DATE

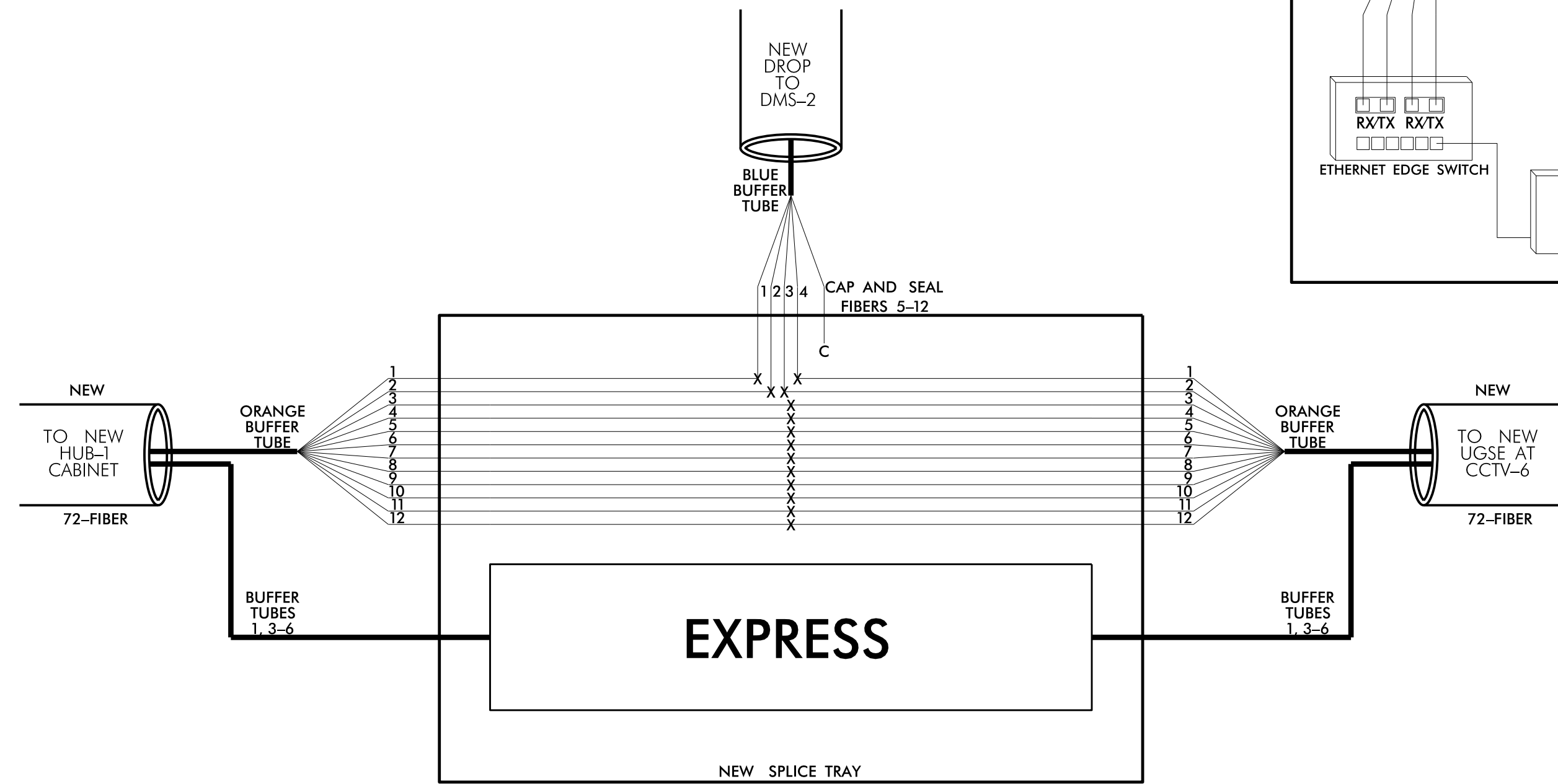
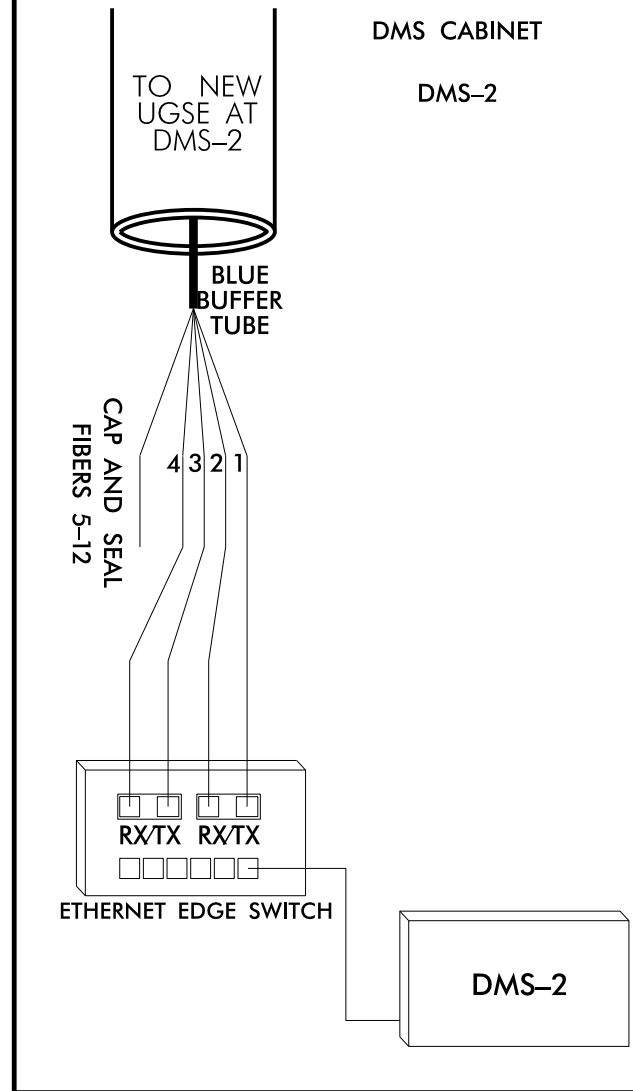
NEW UNDERGROUND SPLICE ENCLOSURE DMS-2

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
X = FUSION SPLICE
C = CAP IN TRAY



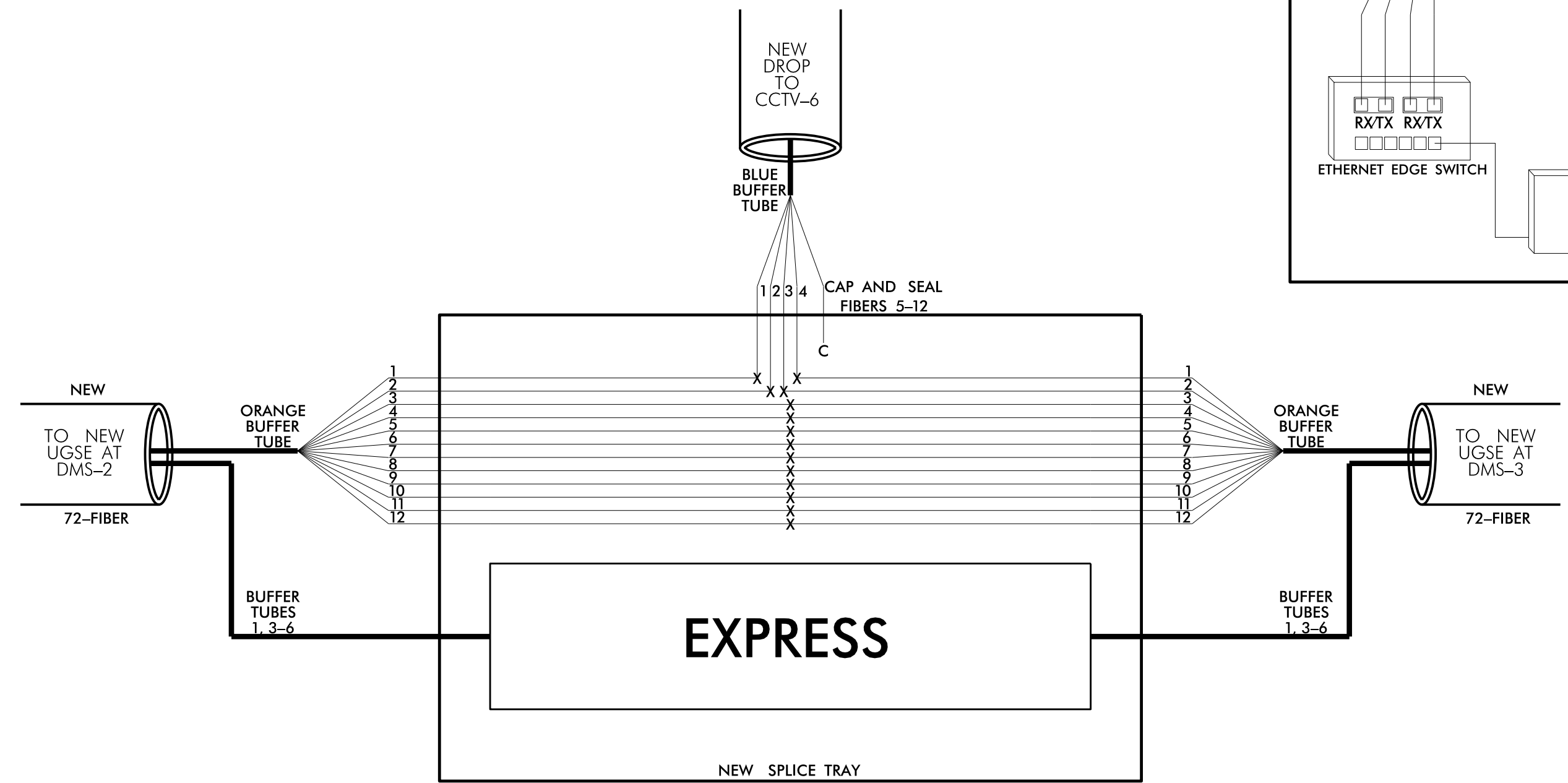
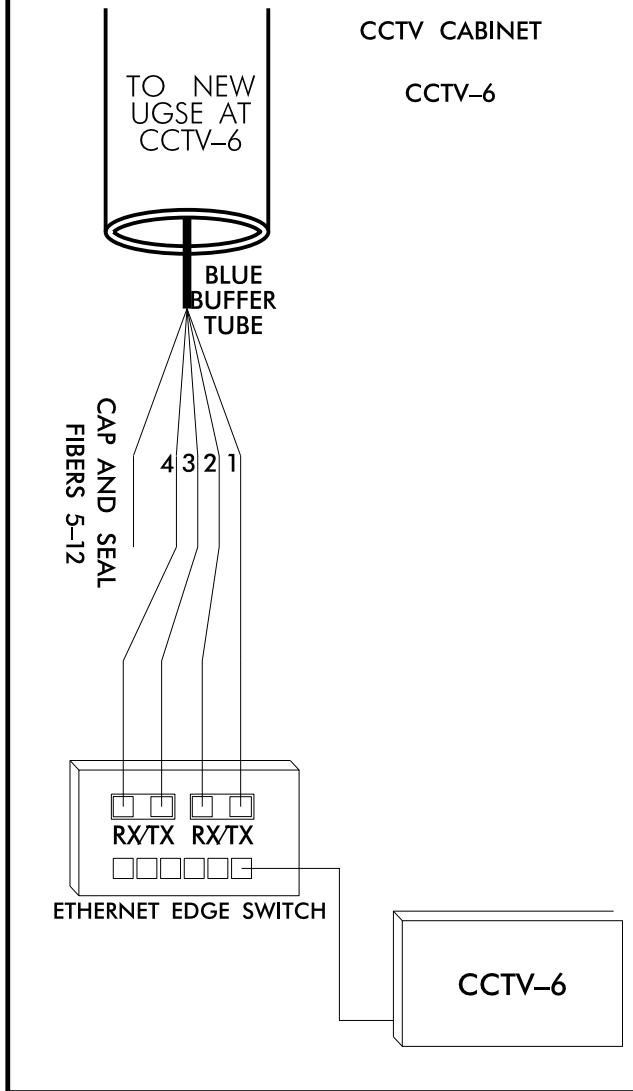
NEW UNDERGROUND SPLICE ENCLOSURE CCTV-6

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
X = FUSION SPLICE
C = CAP IN TRAY



- 1) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<p>Prepared in the Offices of: The State of North Carolina Department of Transportation</p>	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN		
750 N. Greenfield Pkwy., Garner, NC 27529		REVISIONS _____ _____ _____	INIT. DATE _____ _____ _____
DocuSigned by: Andrew J. Skuce 0282880C885C464			8/19/2021 DATE

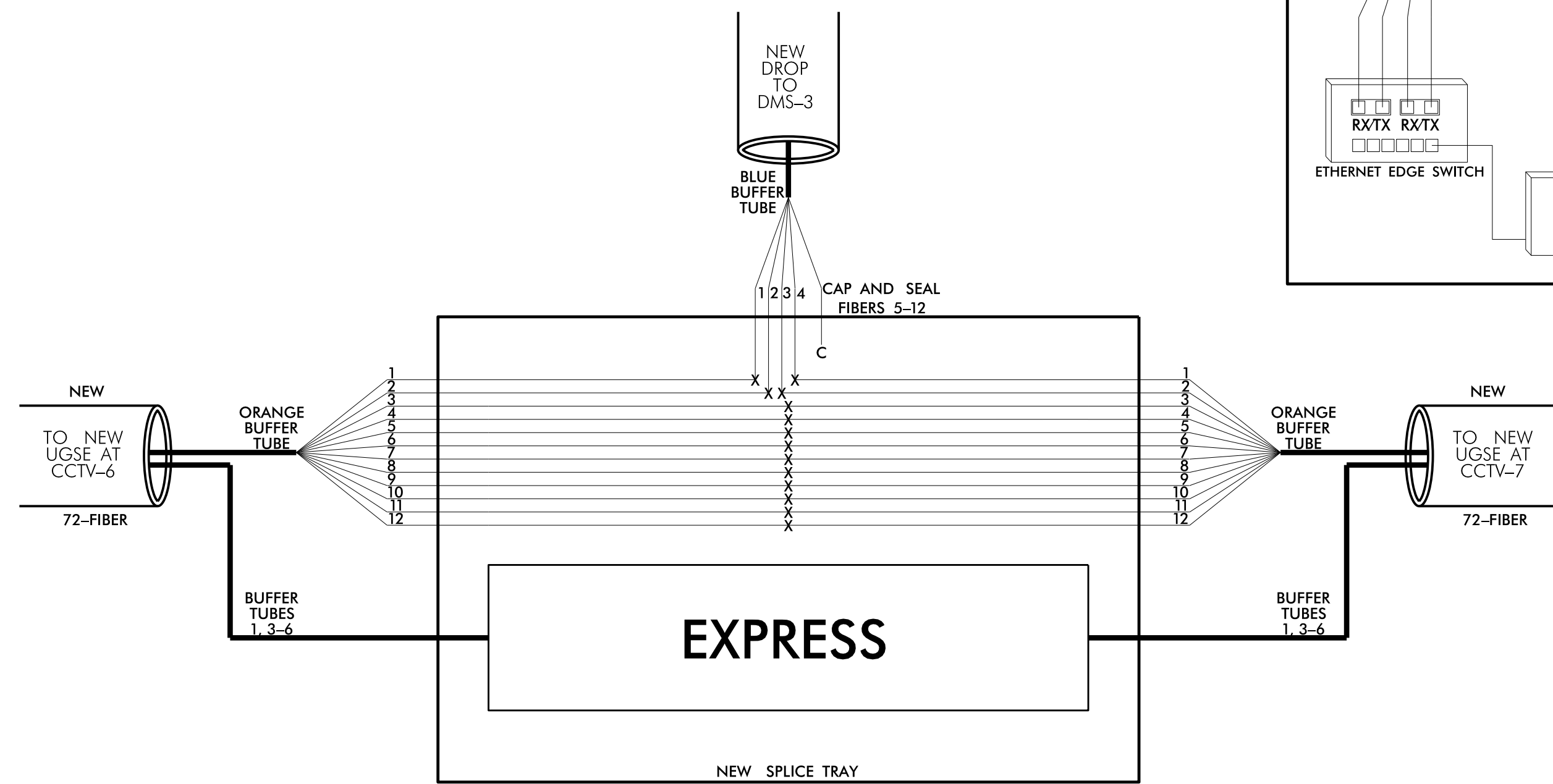
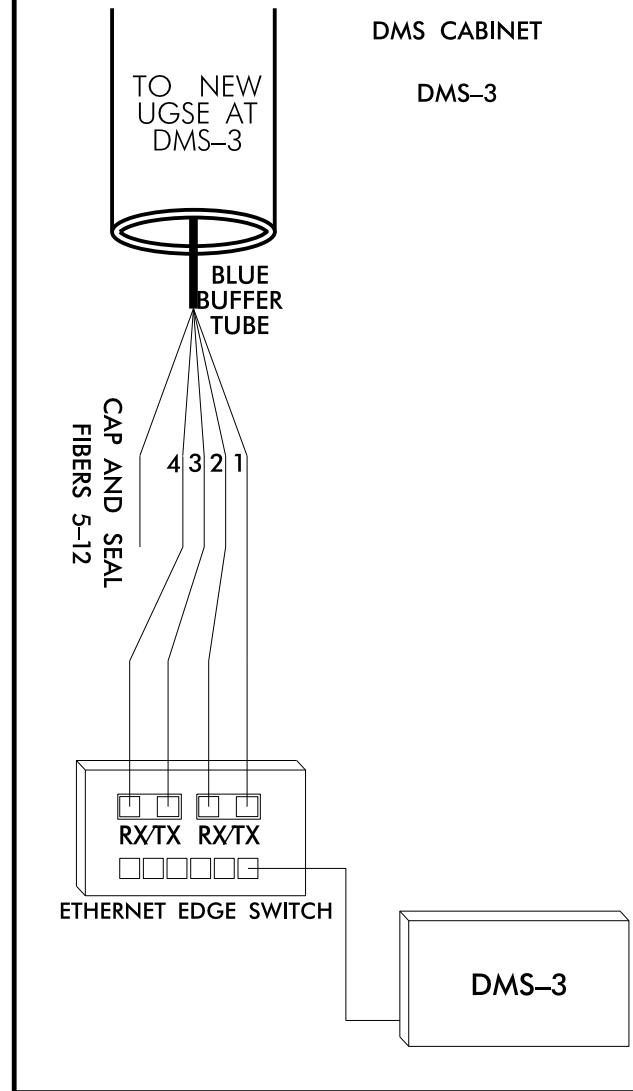
NEW UNDERGROUND SPLICE ENCLOSURE DMS-3

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
X = FUSION SPLICE
C = CAP IN TRAY



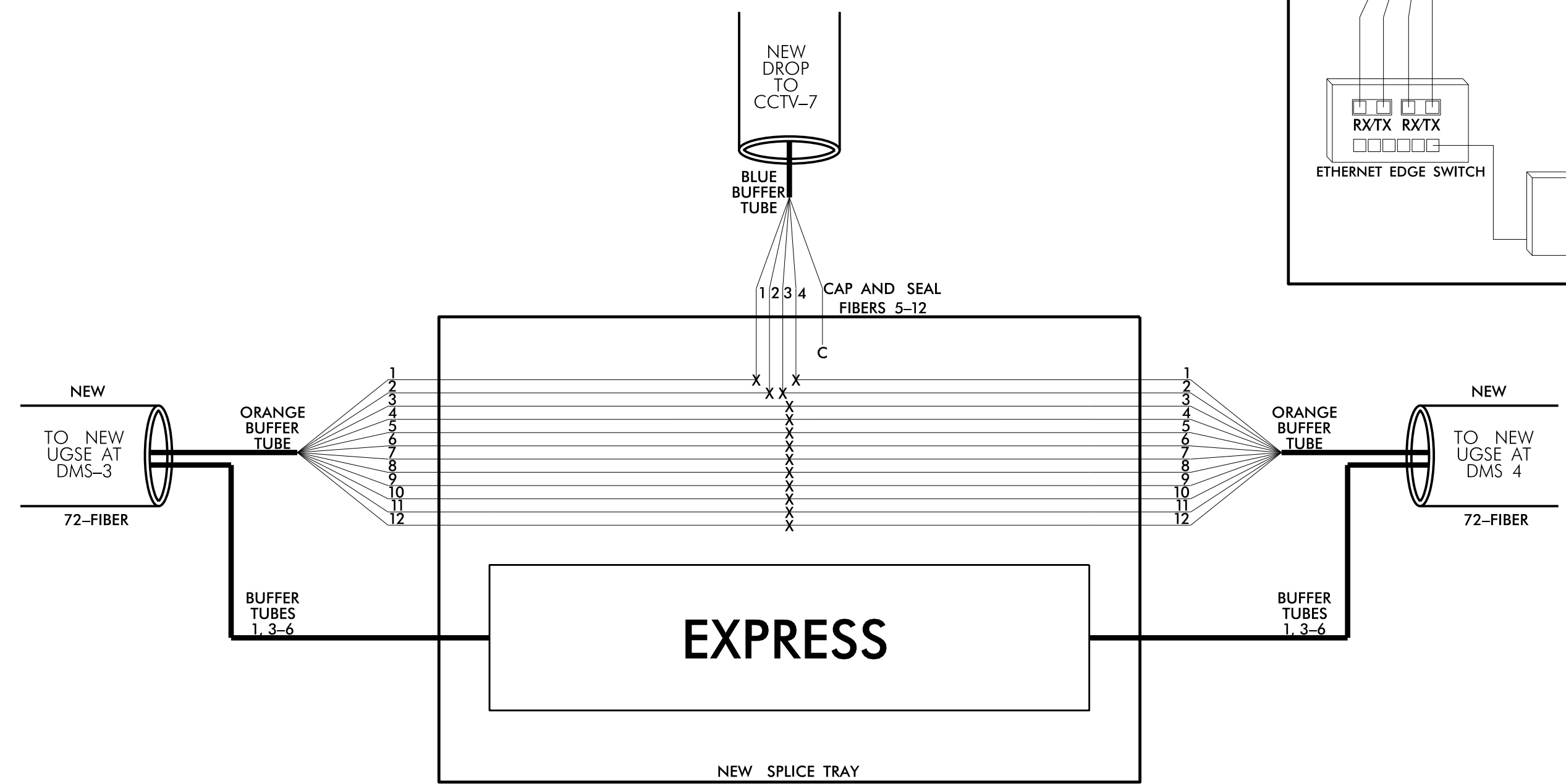
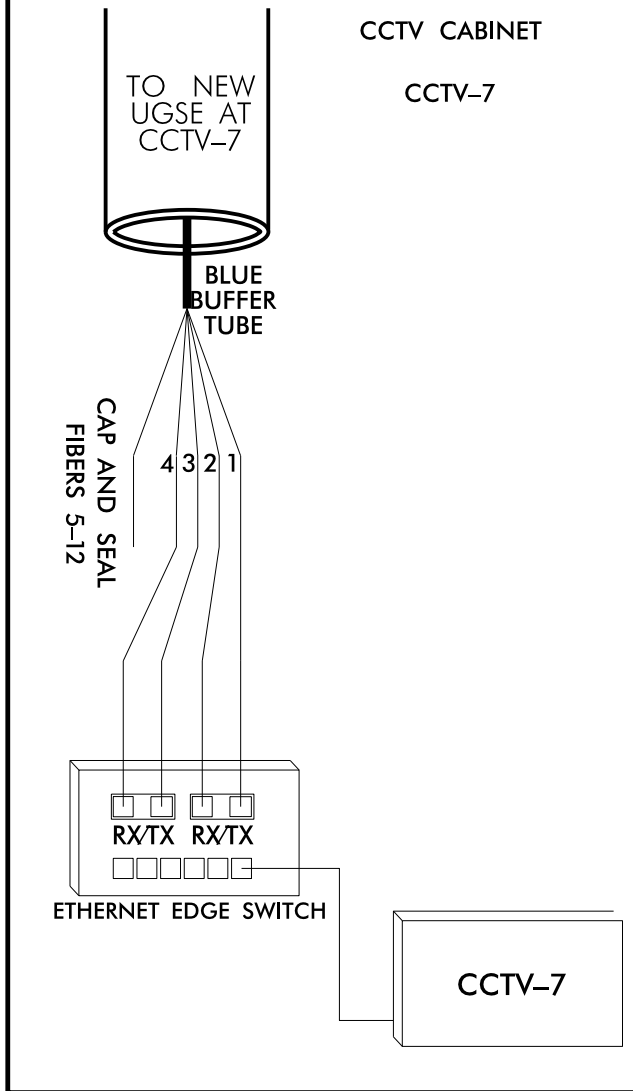
NEW UNDERGROUND SPLICE ENCLOSURE CCTV-7

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice 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

LEGEND
X = FUSION SPLICE
C = CAP IN TRAY

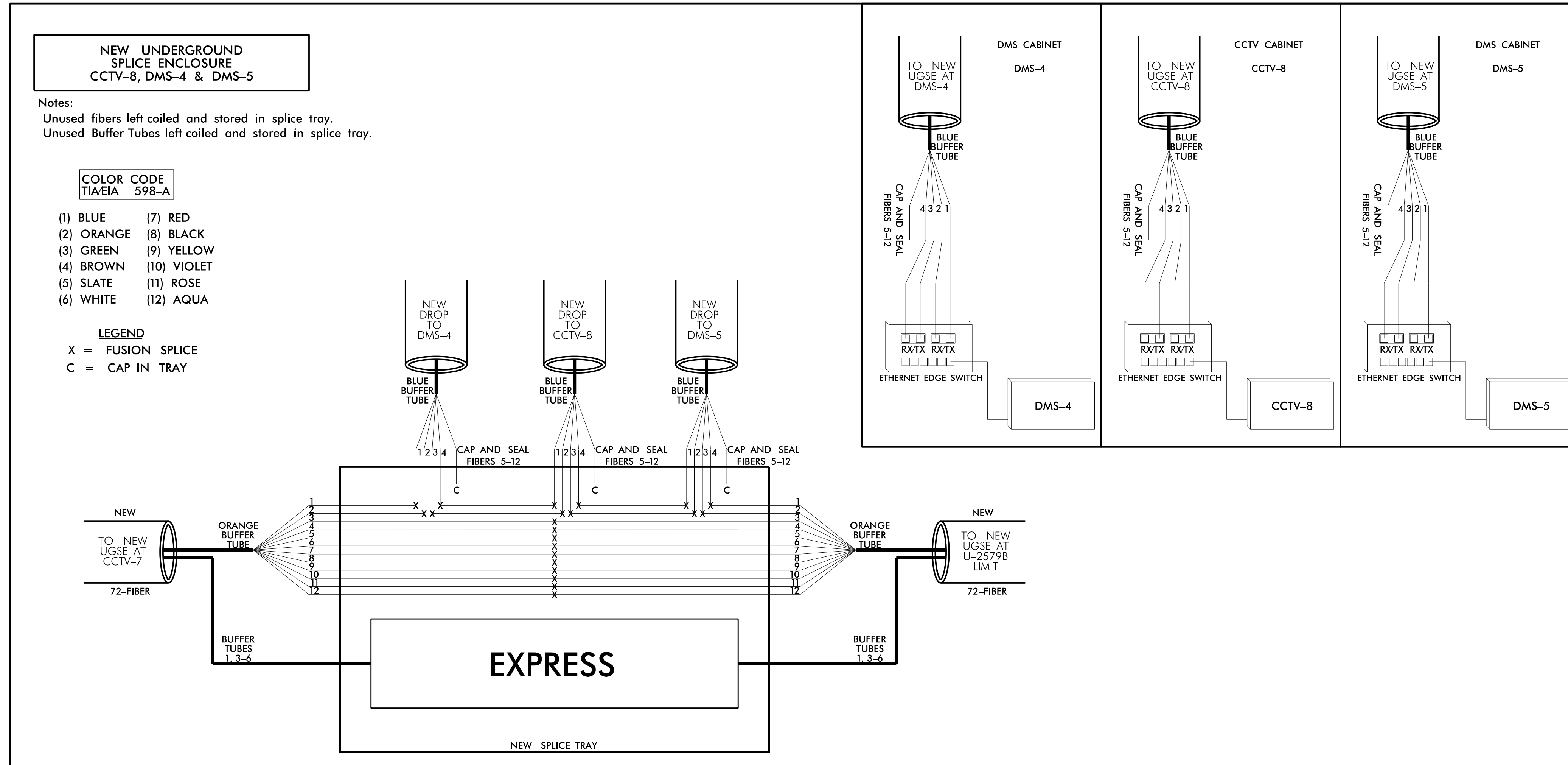


- 1) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 2) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
 - 1) SPLICE LOCATION
 - 2) DATE
 - 3) COMPANY NAME
 - 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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<p>Prepared in the Offices of: The State of North Carolina Department of Transportation 250 N. Greenfield Place, Garner, NC 27525</p>	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN		
REVISIONS _____ _____ _____			INIT. DATE _____ _____ _____
			DocuSigned by: Andrew J. Skuce 8/19/2021 DATE



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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.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<p>Prepared in the Offices of: STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION</p>	SPLICE DETAIL		
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN		
750 N. Greenfield Place, Garner, NC 27529		REVISIONS _____ _____ _____	INIT. DATE _____ _____ _____
Documented by: Andrew J. Skuce DATE: 8/19/2021			SEAL ANDREW J. SKUCE ENGINEER 050152 NORTH CAROLINA PROFESSIONAL

NEW UNDERGROUND
SPLICE ENCLOSURE
DMS-5

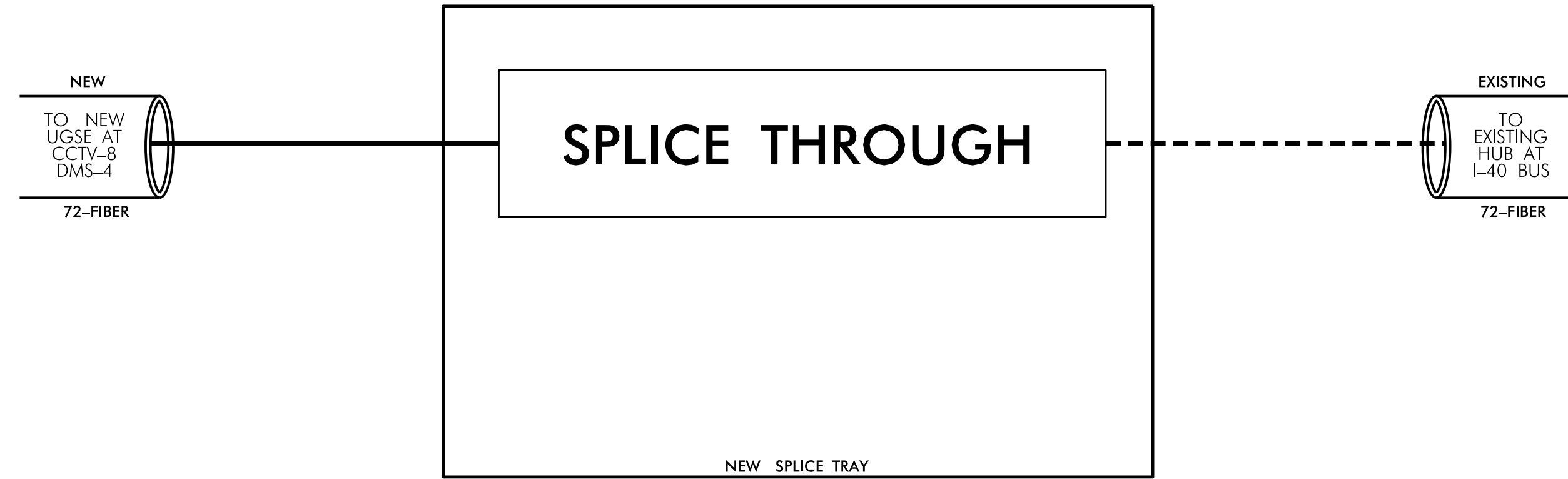
Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice tray.

COLOR CODE
TIA/EIA 598-A

- | | |
|------------|-------------|
| (1) BLUE | (7) RED |
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| (5) SLATE | (11) ROSE |
| (6) WHITE | (12) AQUA |

LEGEND

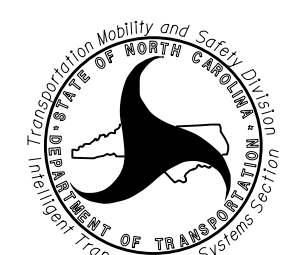
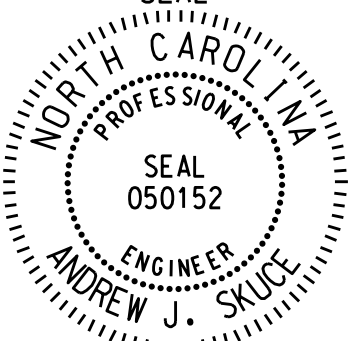
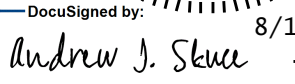
- X = FUSION SPLICE
C = CAP IN TRAY

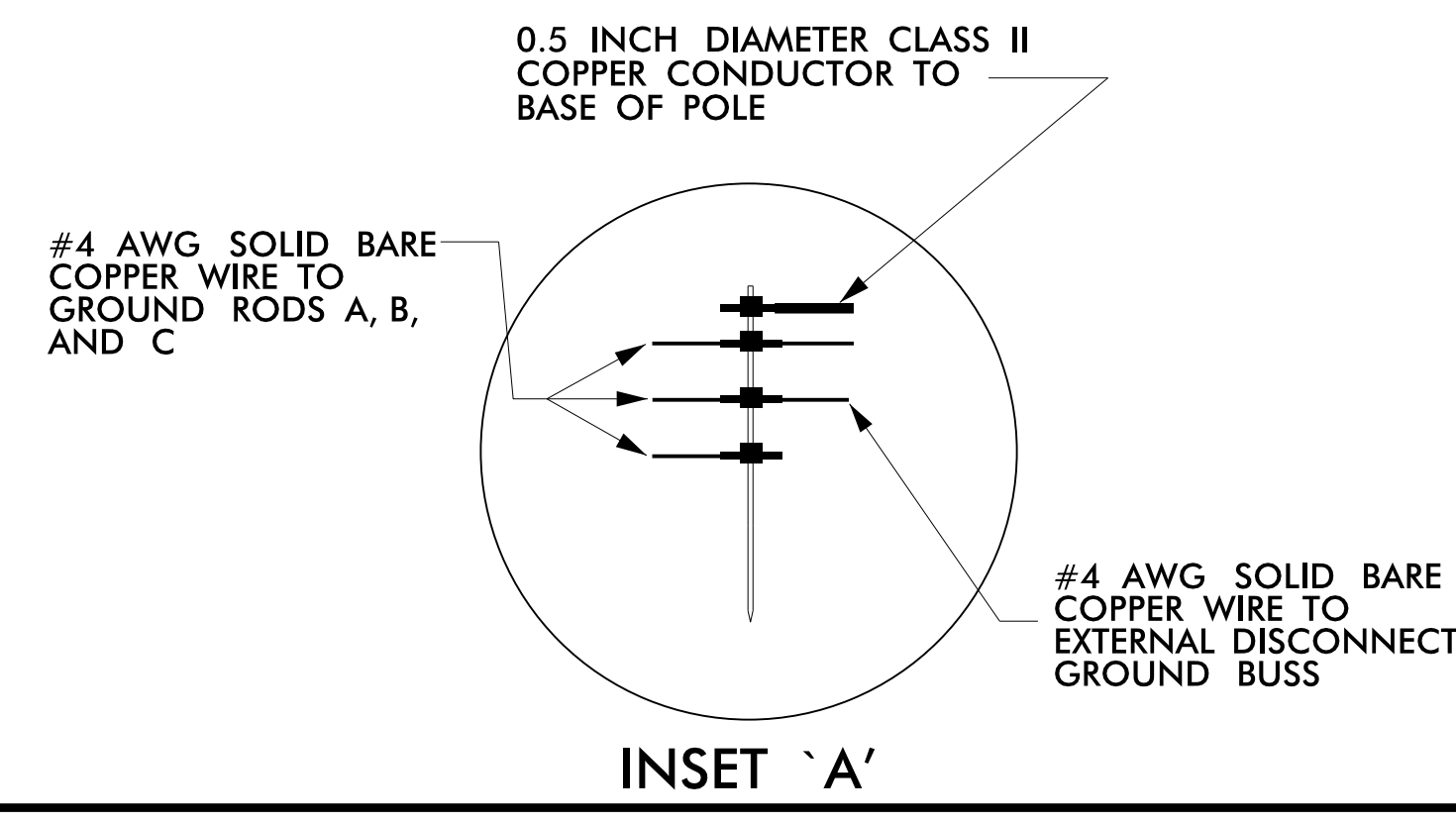
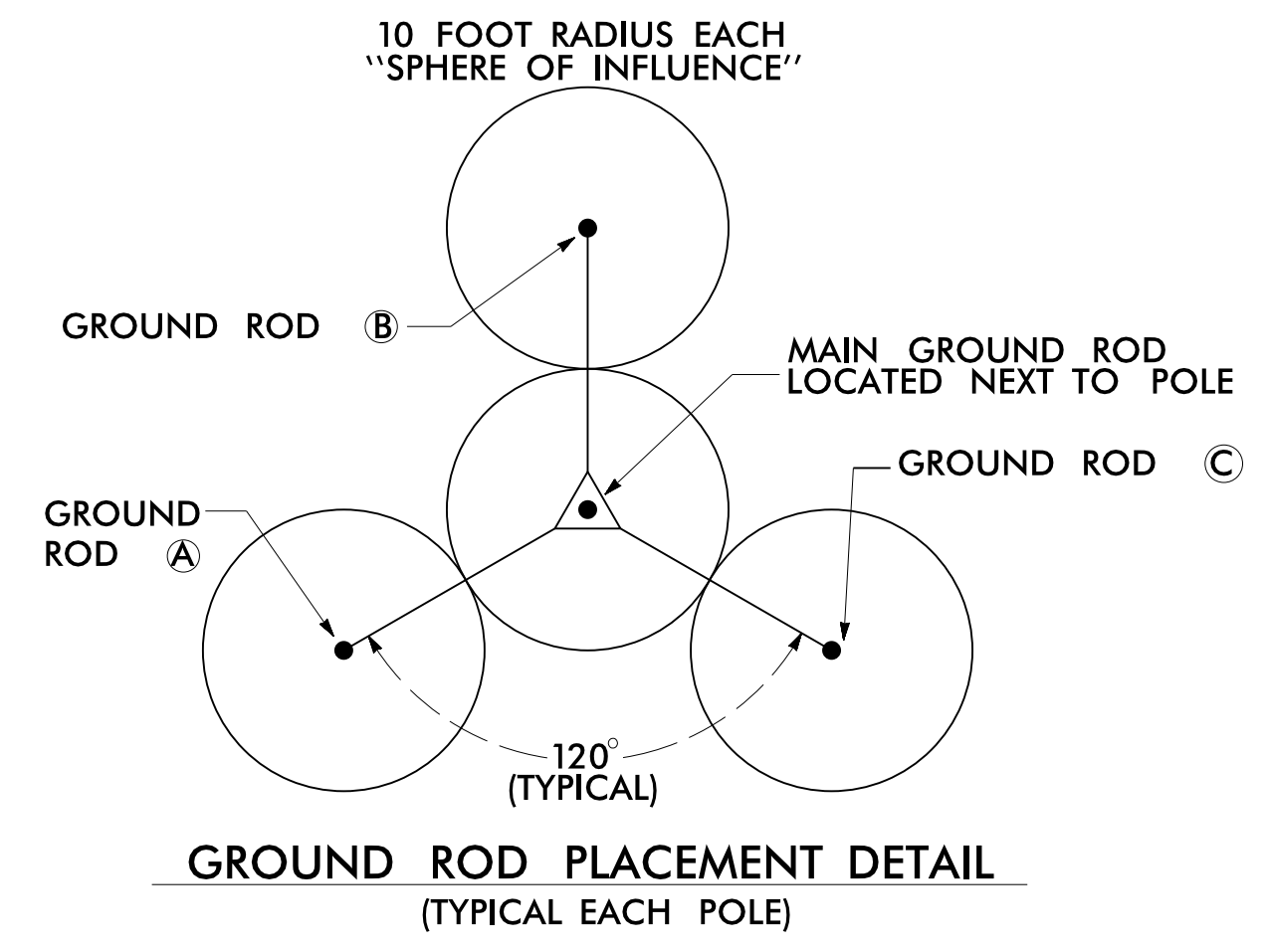


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REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
 - SPLICE LOCATION
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 - COMPANY NAME
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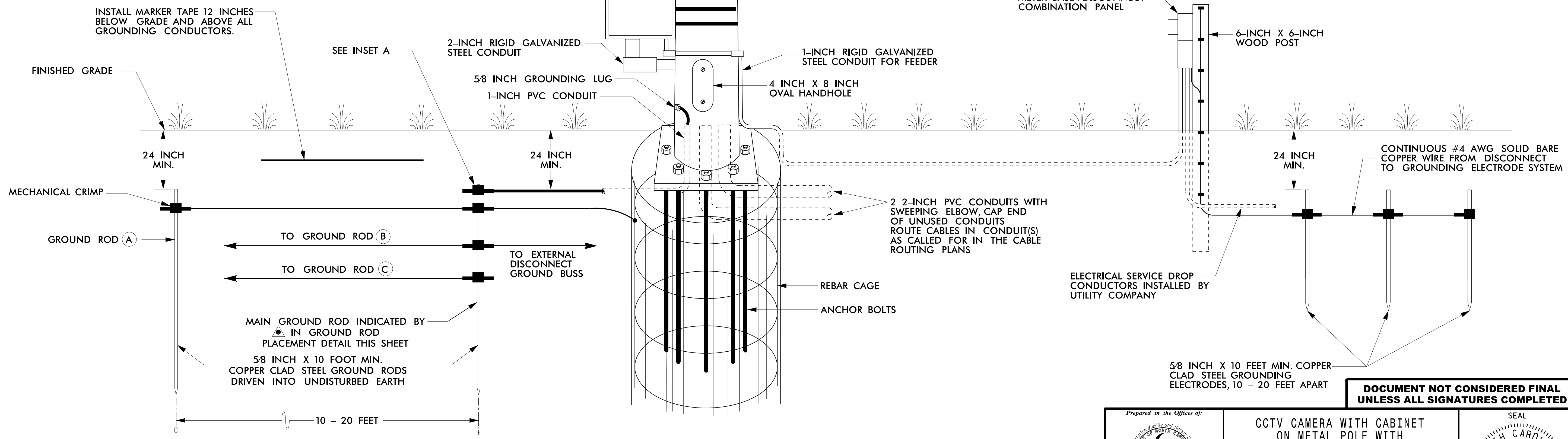
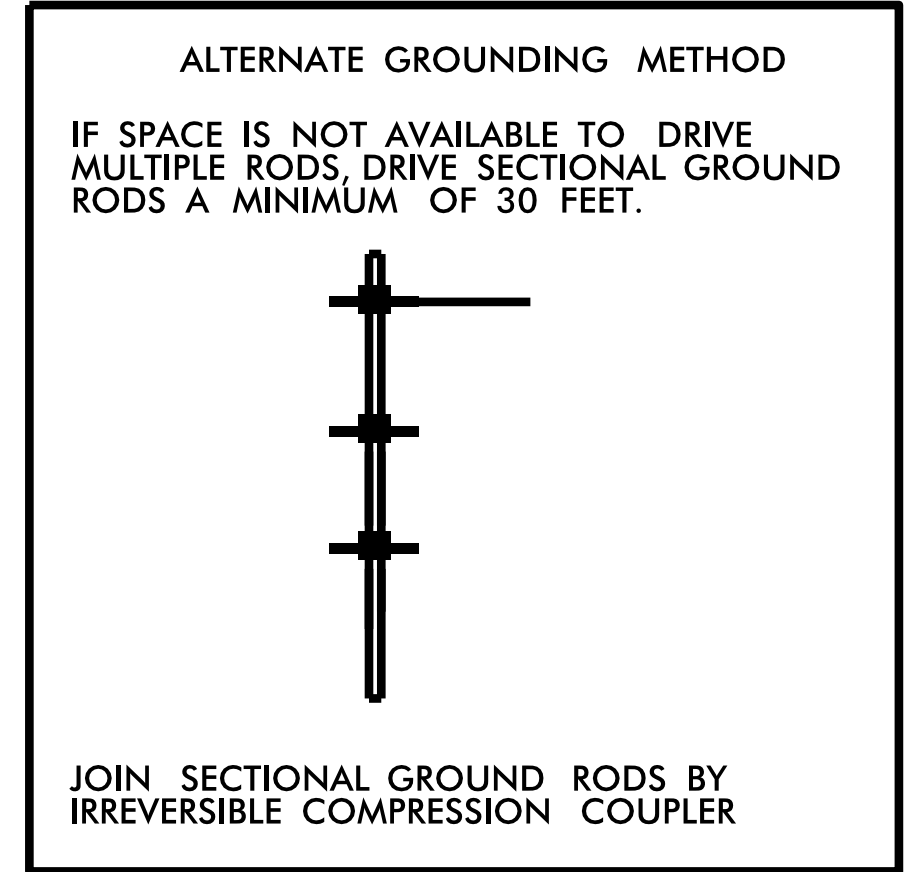
PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

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 <small>250 N. Greenfield Place, Garner, NC 27529</small>	SPLICE DETAIL														
	DIVISION 9 FORSYTH COUNTY WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN														
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REVISIONS	INIT.	DATE													

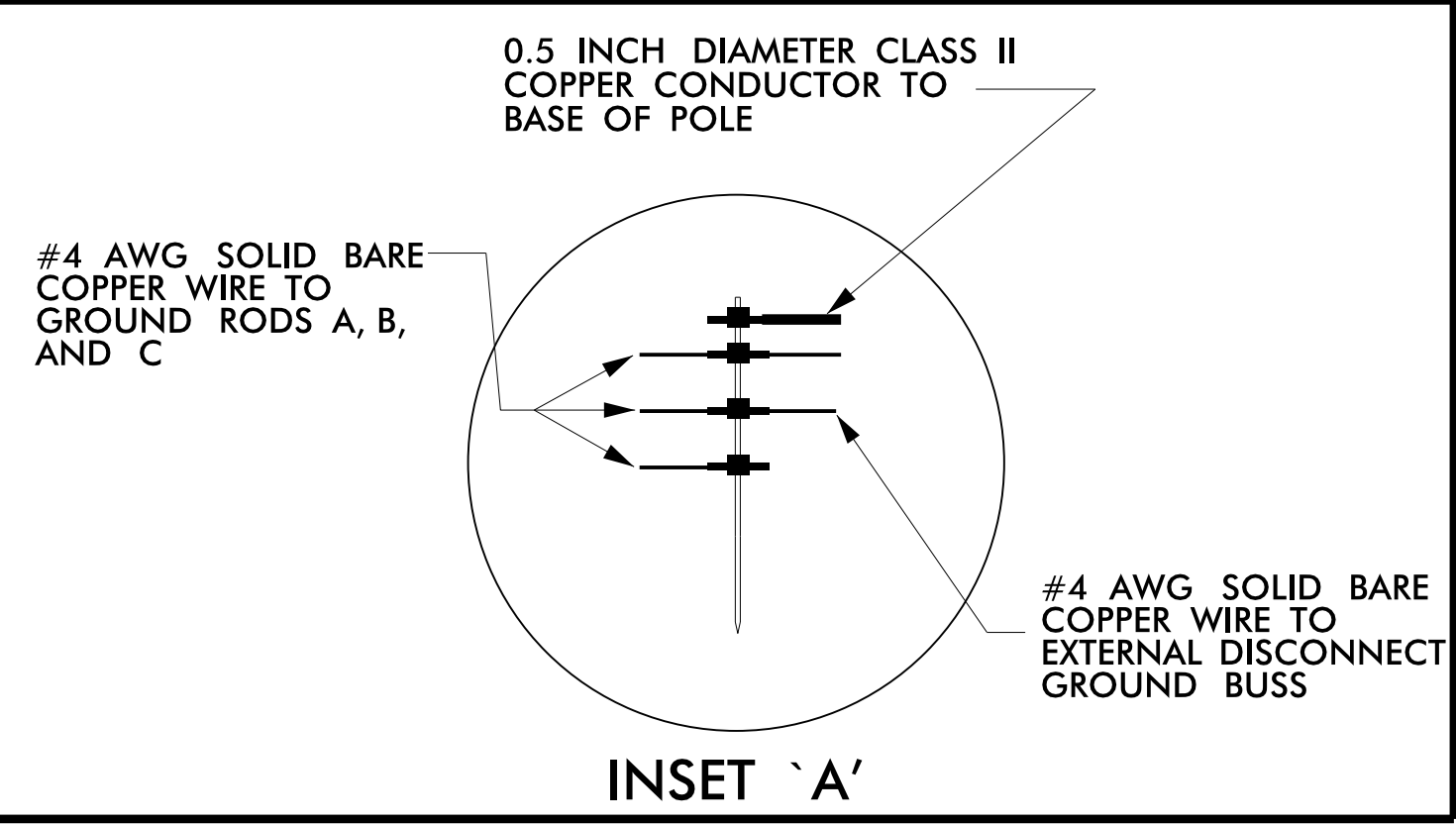
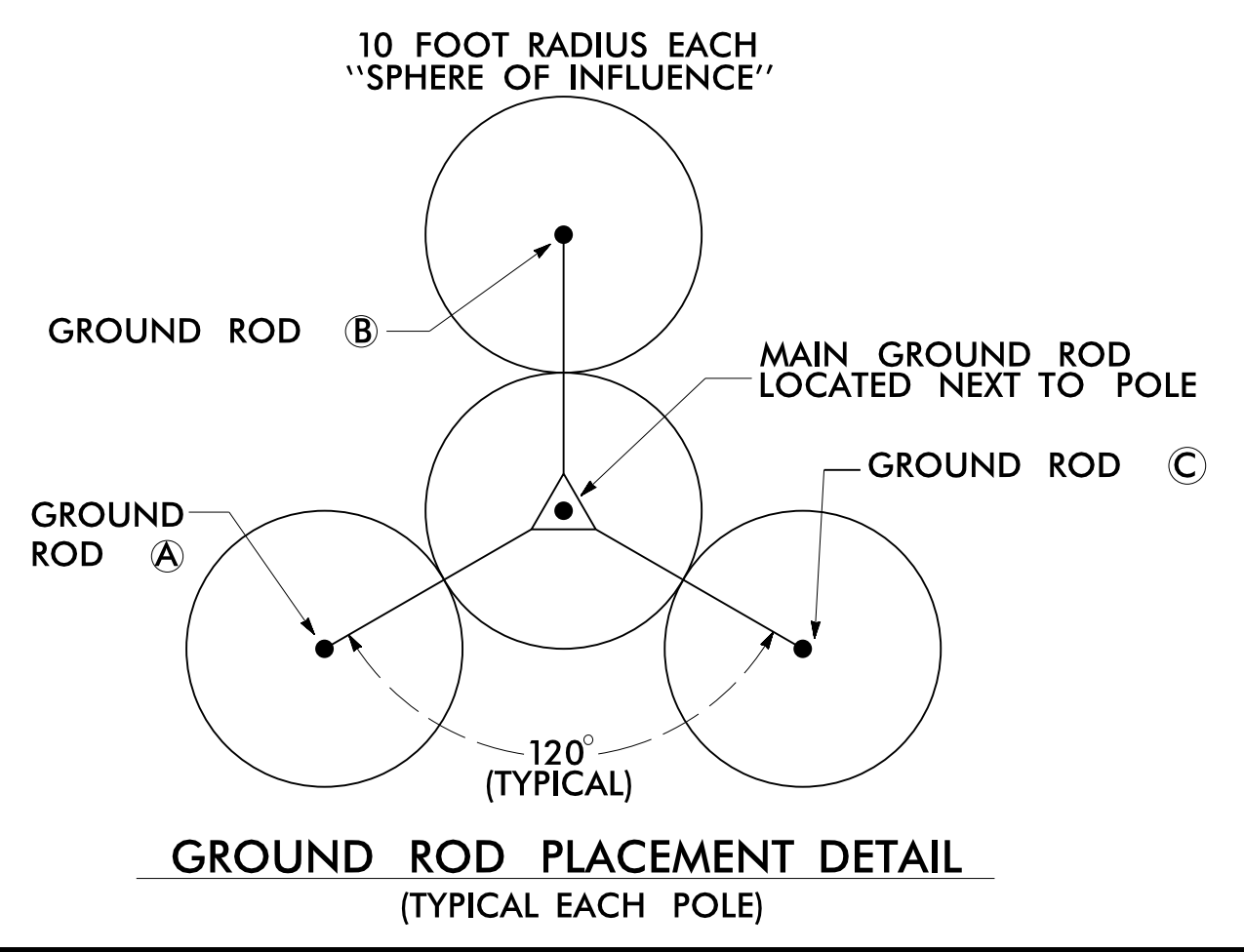


- NOTES**
1. BOND 0.5 INCH DIAMETER, 28 STRAND (MINIMUM) CLASS II COPPER CONDUCTOR TO THE MAIN GROUND ROD BY A MECHANICAL CRIMP USING AN IRREVERSIBLE COMPRESSION TOOL.
 2. MECHANICALLY CRIMP ALL CONNECTIONS TO GROUND RODS USING AN IRREVERSIBLE COMPRESSION TOOL.
 3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY A MECHANICAL CRIMP USING AN IRREVERSIBLE COMPRESSION TOOL.
 4. ENSURE CAMERA HOUSING, CAMERA, AND PAN-TILT UNIT ARE BONDED TO POLE.
 5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.
 6. 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 - RADIALGROUND RODS.
 7. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.

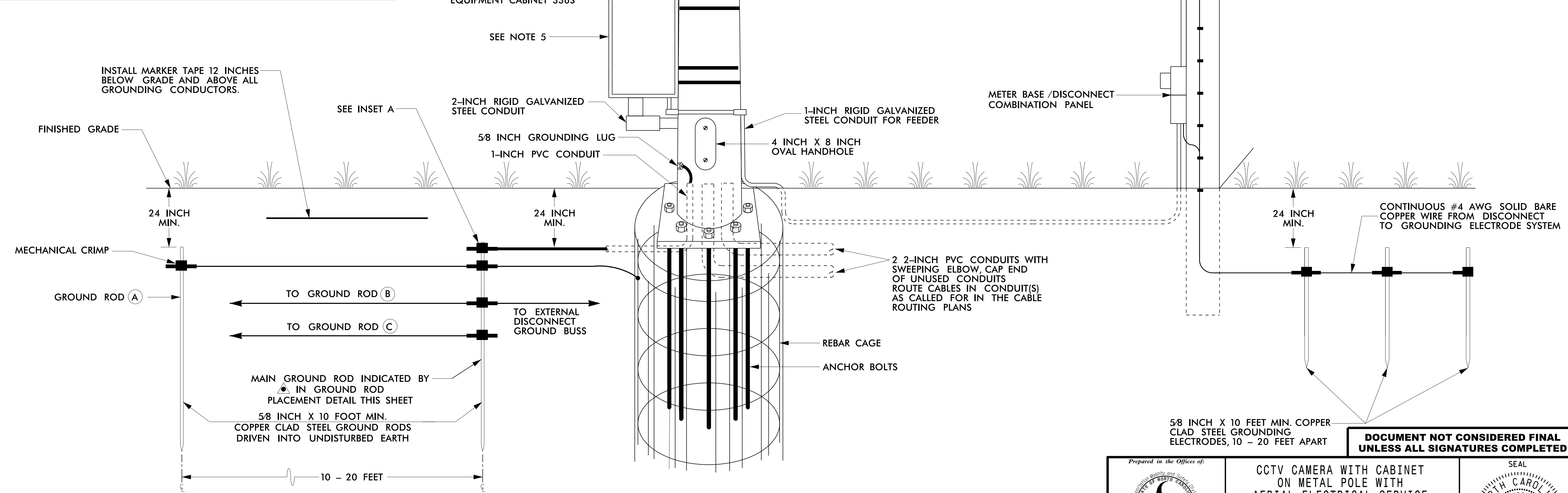
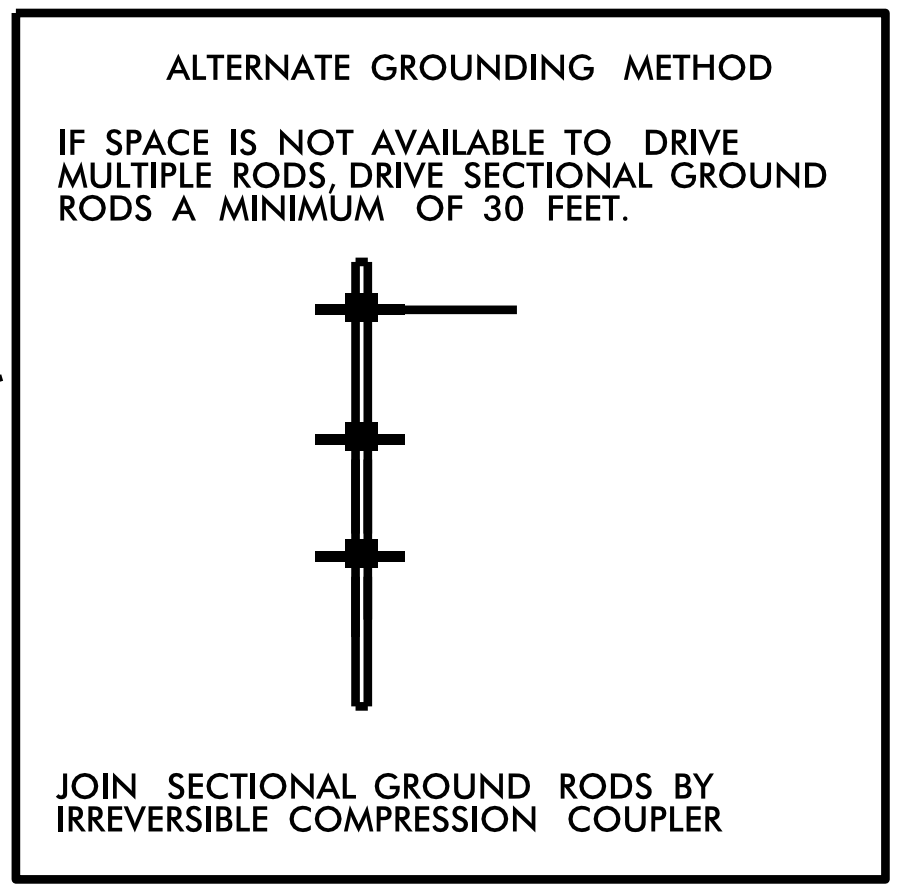


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	<p>Prepared in the Offices of:</p> <p>CCTV CAMERA WITH CABINET ON METAL POLE WITH UNDERGROUND ELECTRICAL SERVICE TYPICAL DETAIL</p>		<p>SEAL</p> <p>STATE OF NORTH CAROLINA</p> <p>PROFESSIONAL ENGINEER</p> <p>ANDREW J. SKUCE</p> <p>050152</p>
	<p>DIVISION 09 FORSYTH CO., WINSTON-SALEM</p> <p>PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE</p> <p>PREPARED BY: B. CHRISTIAN REVIEWED BY:</p>	<p>REVISIONS</p> <p>INIT. DATE</p>	
<p>750 N. Greenfield Pkwy., Garner, NC 27529</p> <p>SCALE: N/A</p>	<p>DATE</p>		<p>D25268BC885C484</p>



- NOTES**
1. BOND 0.5 INCH DIAMETER, 28 STRAND (MINIMUM) CLASS II COPPER CONDUCTOR TO THE MAIN GROUND ROD BY A MECHANICAL CRIMP USING AN IRREVERSIBLE COMPRESSION TOOL.
 2. MECHANICALLY CRIMP ALL CONNECTIONS TO GROUND RODS USING AN IRREVERSIBLE COMPRESSION TOOL.
 3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY A MECHANICAL CRIMP USING AN IRREVERSIBLE COMPRESSION TOOL.
 4. ENSURE CAMERA HOUSING, CAMERA, AND PAN-TILT UNIT ARE BONDED TO POLE.
 5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

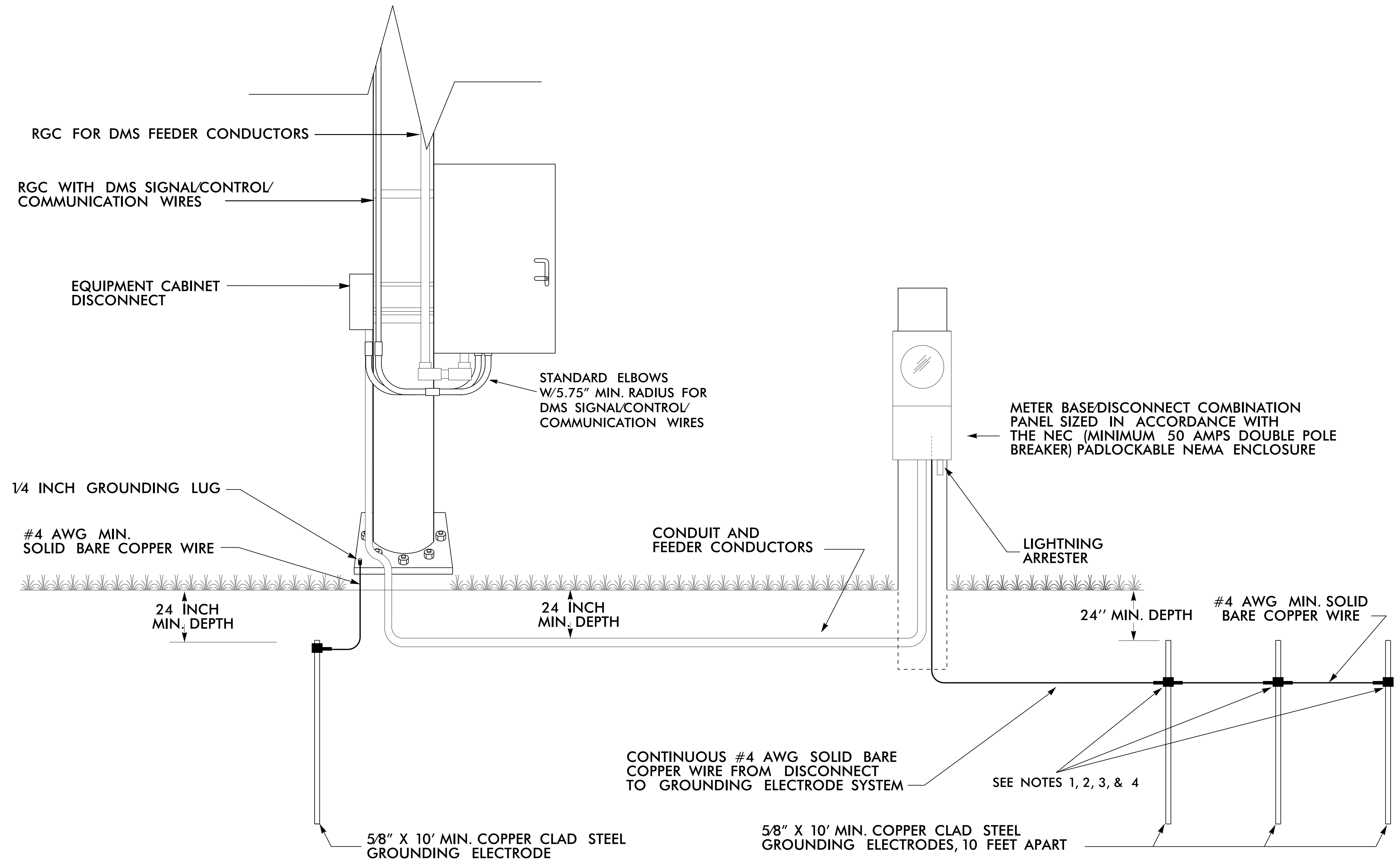
	<p>CCTV CAMERA WITH CABINET ON METAL POLE WITH AERIAL ELECTRICAL SERVICE TYPICAL DETAIL</p>		<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 050152 ANDREW J. SKUCE</p>
	<p>DIVISION 09 FORSYTH CO. WINSTON-SALEM</p> <p>PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE</p> <p>PREPARED BY: B. CHRISTIAN REVIEWED BY:</p>	<p>REVISIONS</p> <p>INIT. DATE</p>	

750 N. Greenfield Pkwy., Garner, NC 27529

SCALE: 0 N/A

Prepared in the Offices of:

Andrew J. Skuce

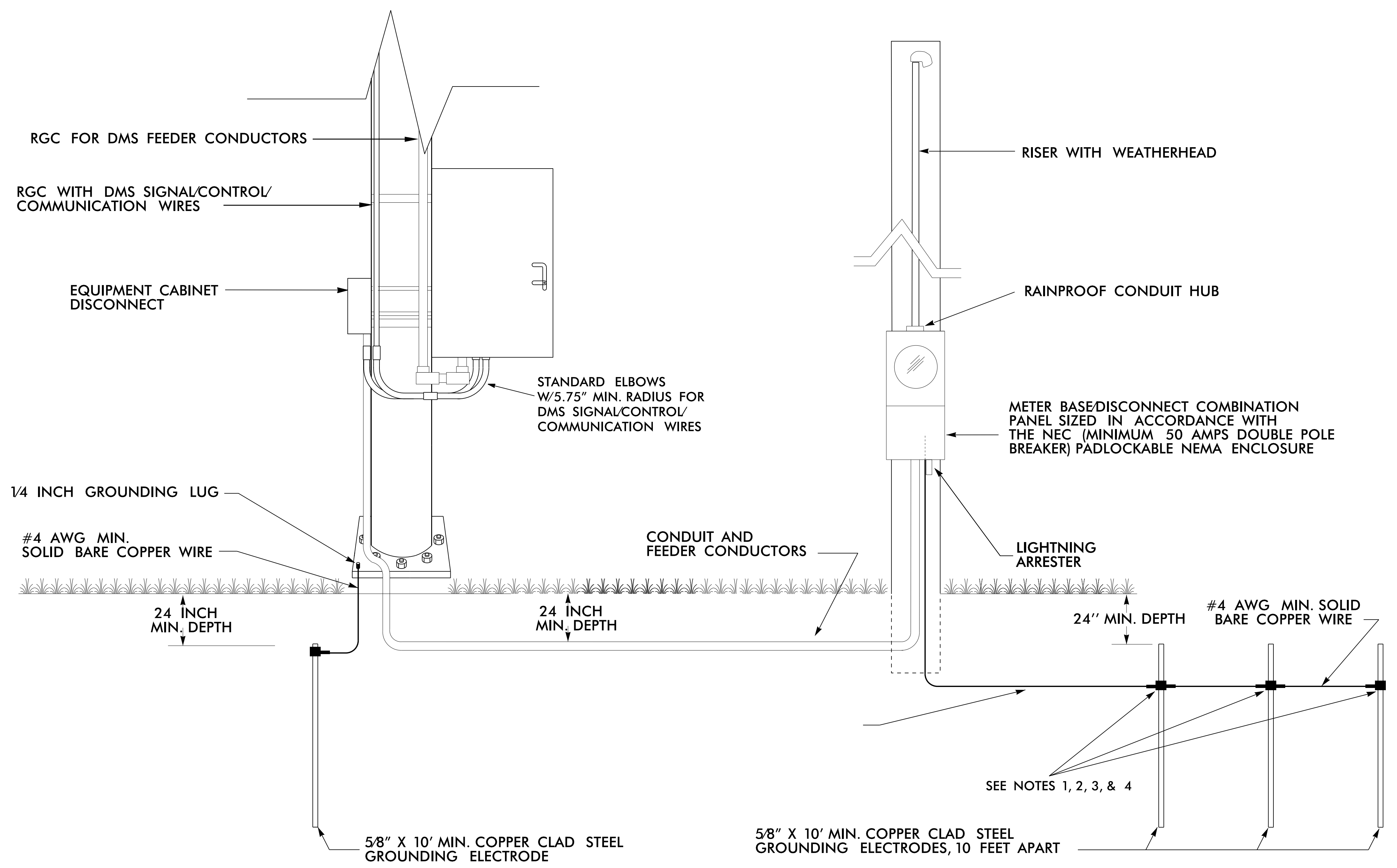


NOTES

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. MECHANICALLY CRIMP ALL CONNECTIONS TO GROUND RODS USING AN IRREVERSIBLE COMPRESSION TOOL.
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.

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

	Prepared in the Offices of: DYNAMIC MESSAGE SIGN WITH UNDERGROUND ELECTRICAL SERVICE TYPICAL DETAIL		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 050152 ANDREW J. SKUCE
	DIVISION 09 FORSYTH CO. WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN REVIEWED BY:	REVISIONS INIT. DATE	
SCALE 0 N/A			

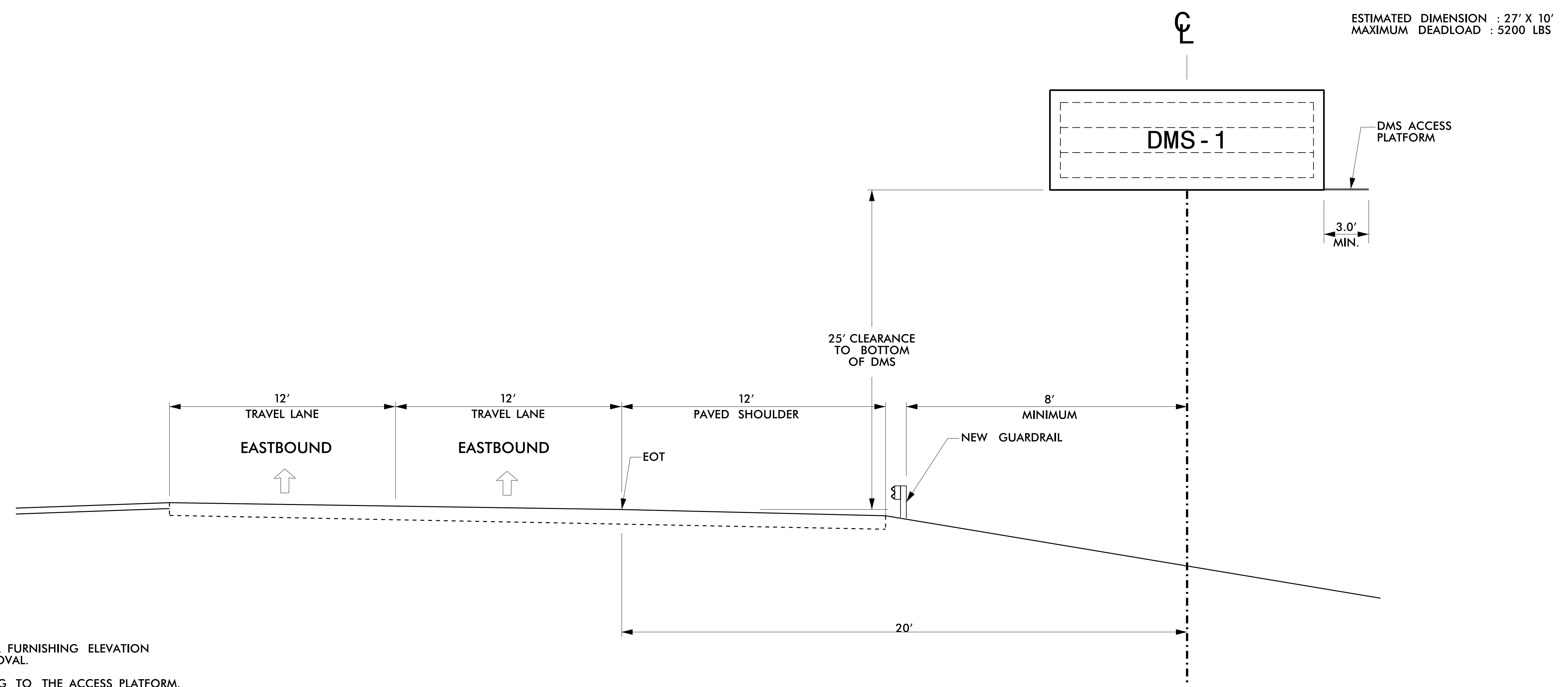


NOTES

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**DOCUMENT NOT CONSIDERED FINAL
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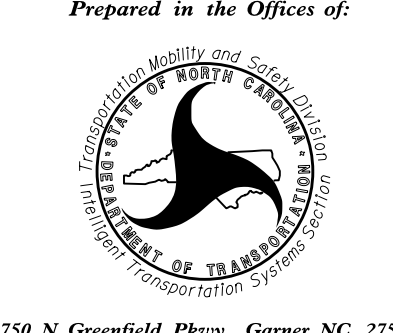
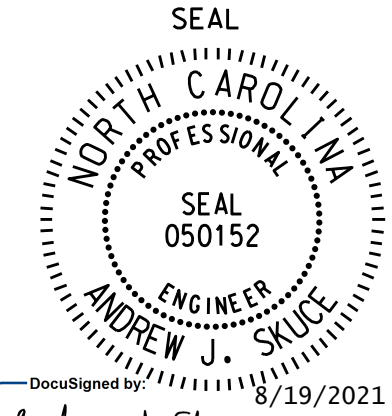
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	DIVISION 09 FORSYTH CO. WINSTON-SALEM PLAN DATE: AUGUST 2021 REVIEWED BY: A. SKUCE PREPARED BY: B. CHRISTIAN REVIEWED BY:		
SCALE 0 N/A	REVISIONS	INIT.	DATE 8/19/2021

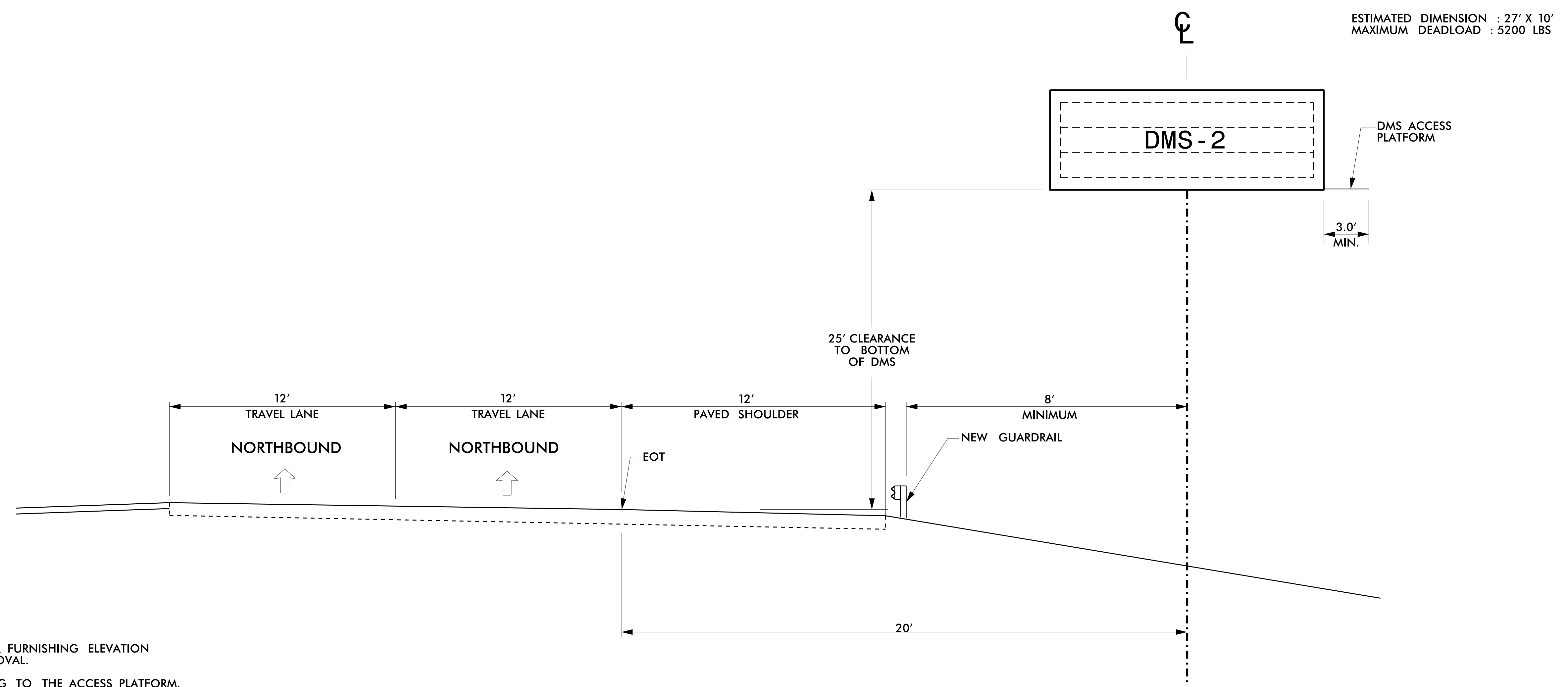


NOTES

1. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ELEVATION DRAWINGS FOR ENGINEER'S APPROVAL.
2. PROVIDE A FIXED LADDER LEADING TO THE ACCESS PLATFORM.
3. EQUIP THE LADDER WITH A SECURITY COVER (LADDER GUARD). START THE FIRST LADDER RUNG NO. MORE THAN 18 INCHES ABOVE A CONCRETE LANDING PAD. DESIGN RUNGS ON 12 INCH CENTER-TO-CENTER TYPICAL SPACING.
4. INSTALL A CONCRETE LANDING PAD MEASURING A MINIMUM 4 INCHES DEEP, 24 INCHES WIDE, AND 36 INCHES LONG DIRECTLY BENEATH THE LADDER.
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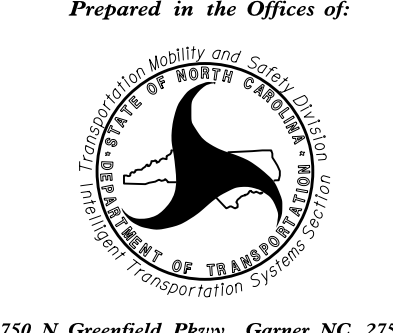
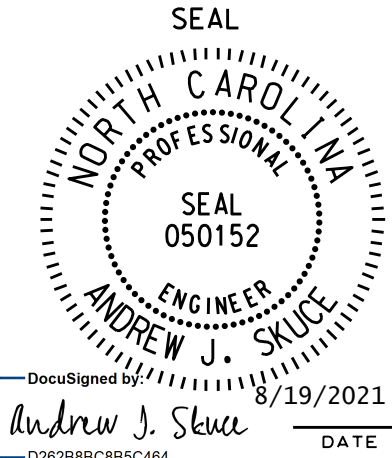
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SCALE 0 N/A	Andrew J. Skuce 8/19/2021 DATE		02021808085C404

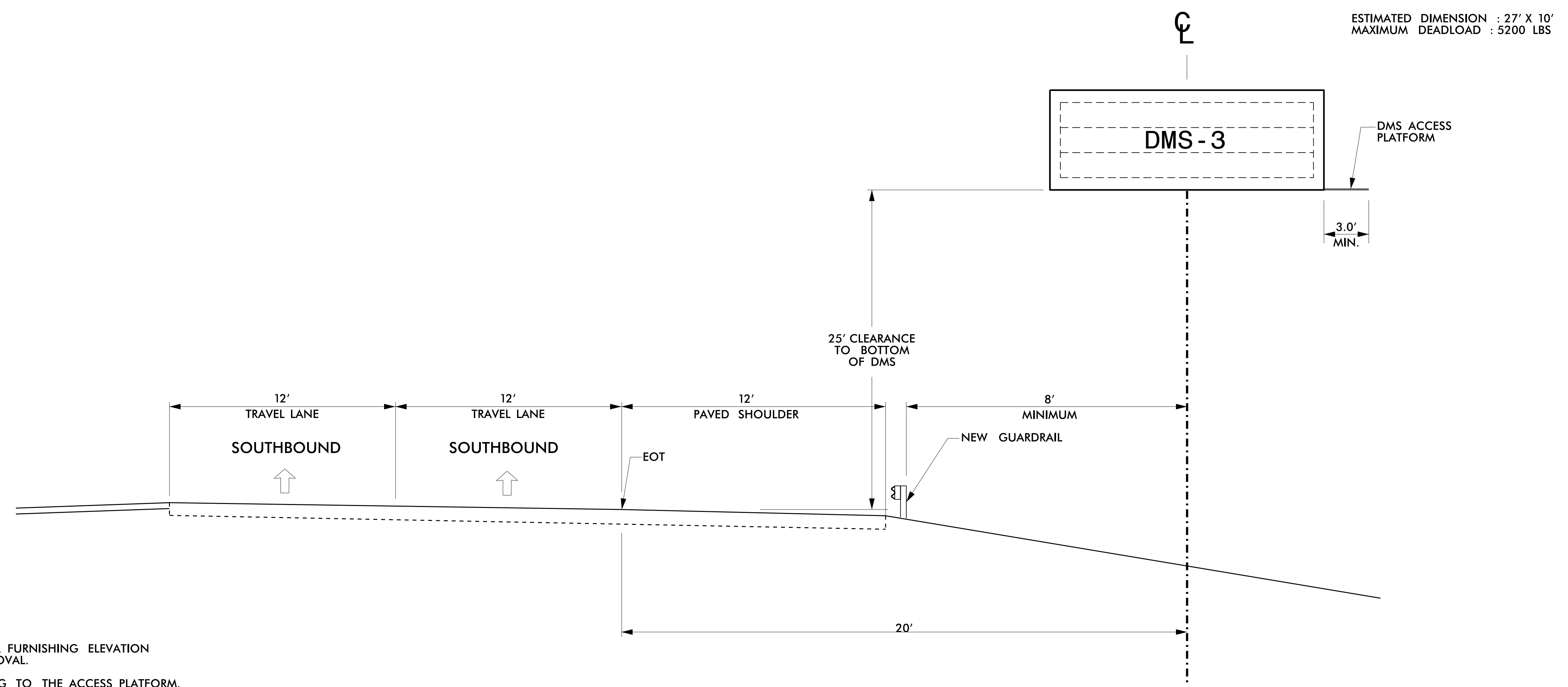


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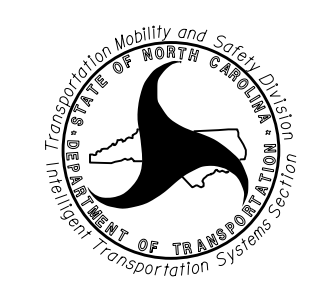
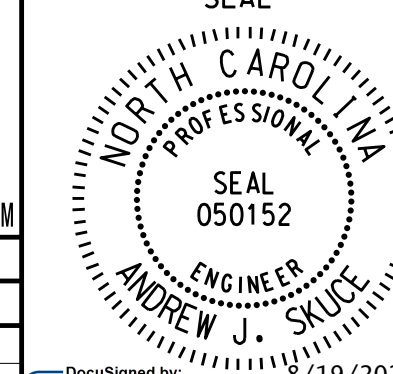

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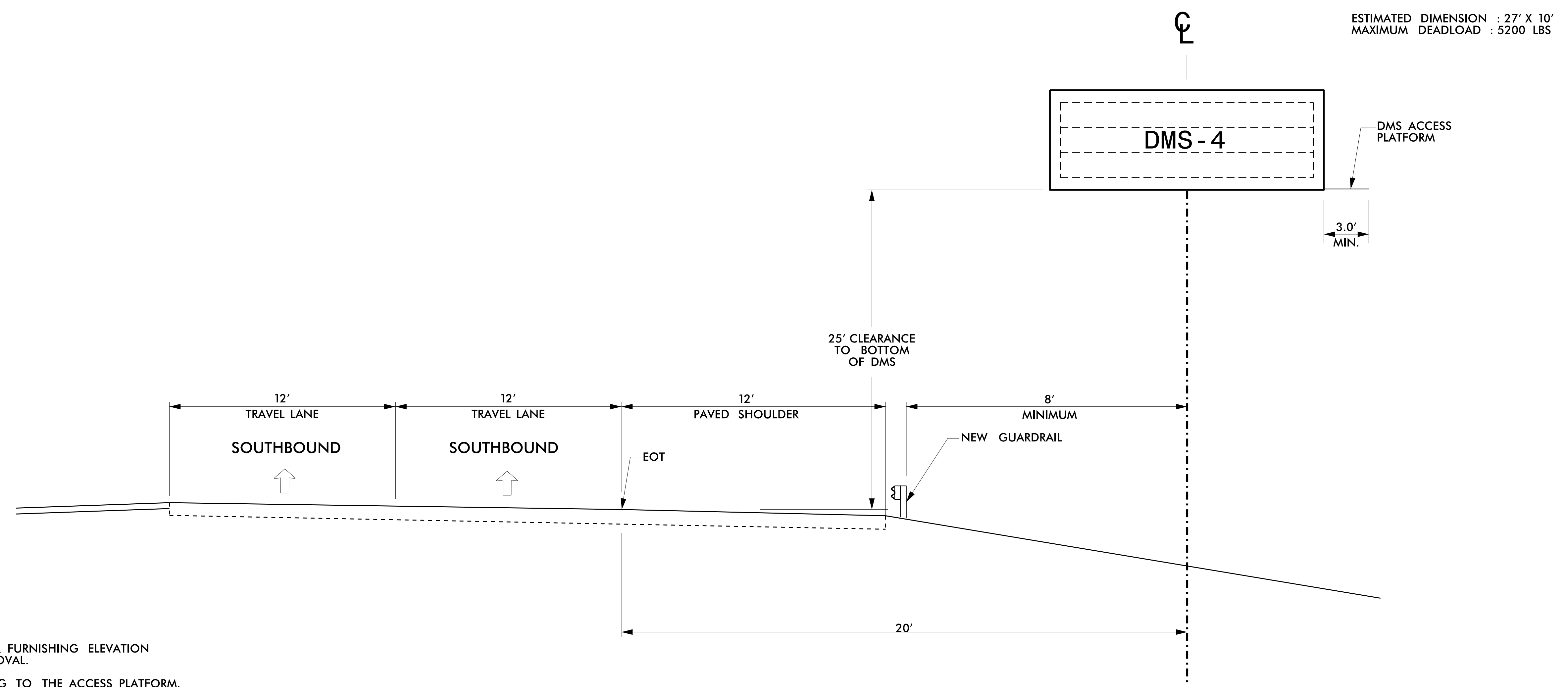


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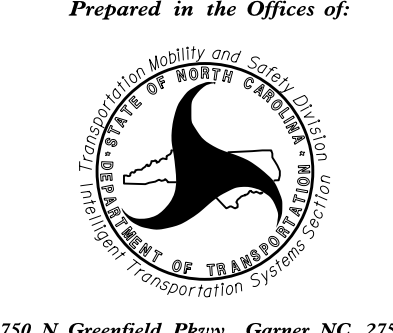
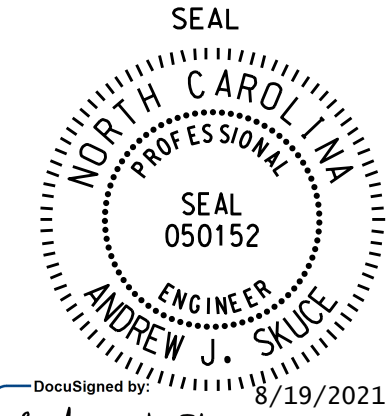
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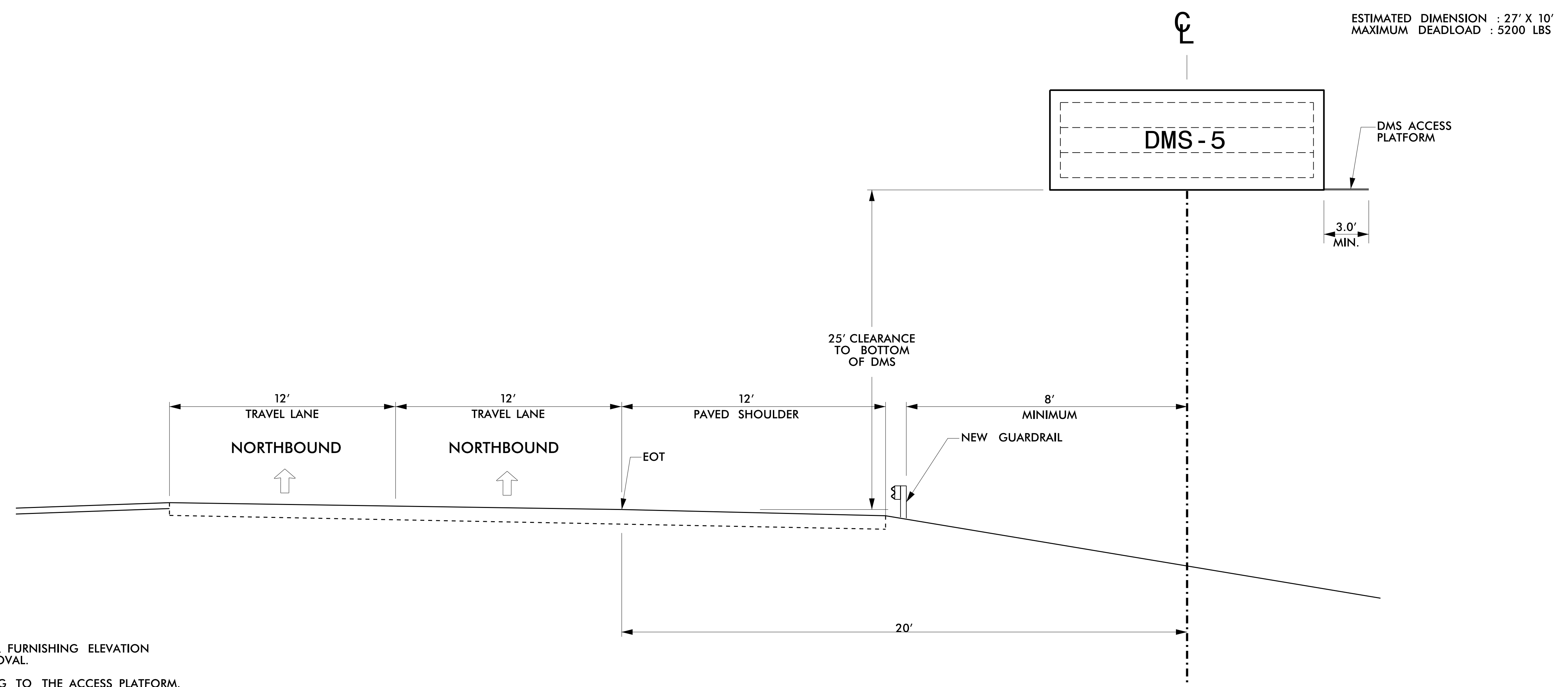
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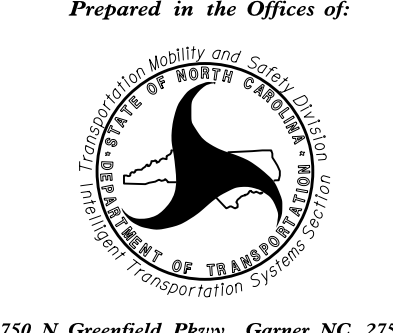
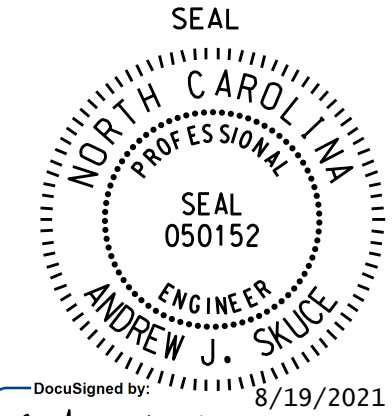
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