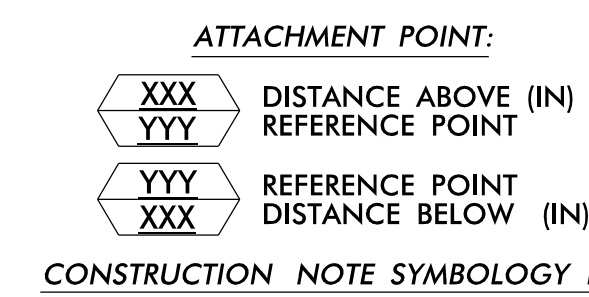


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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

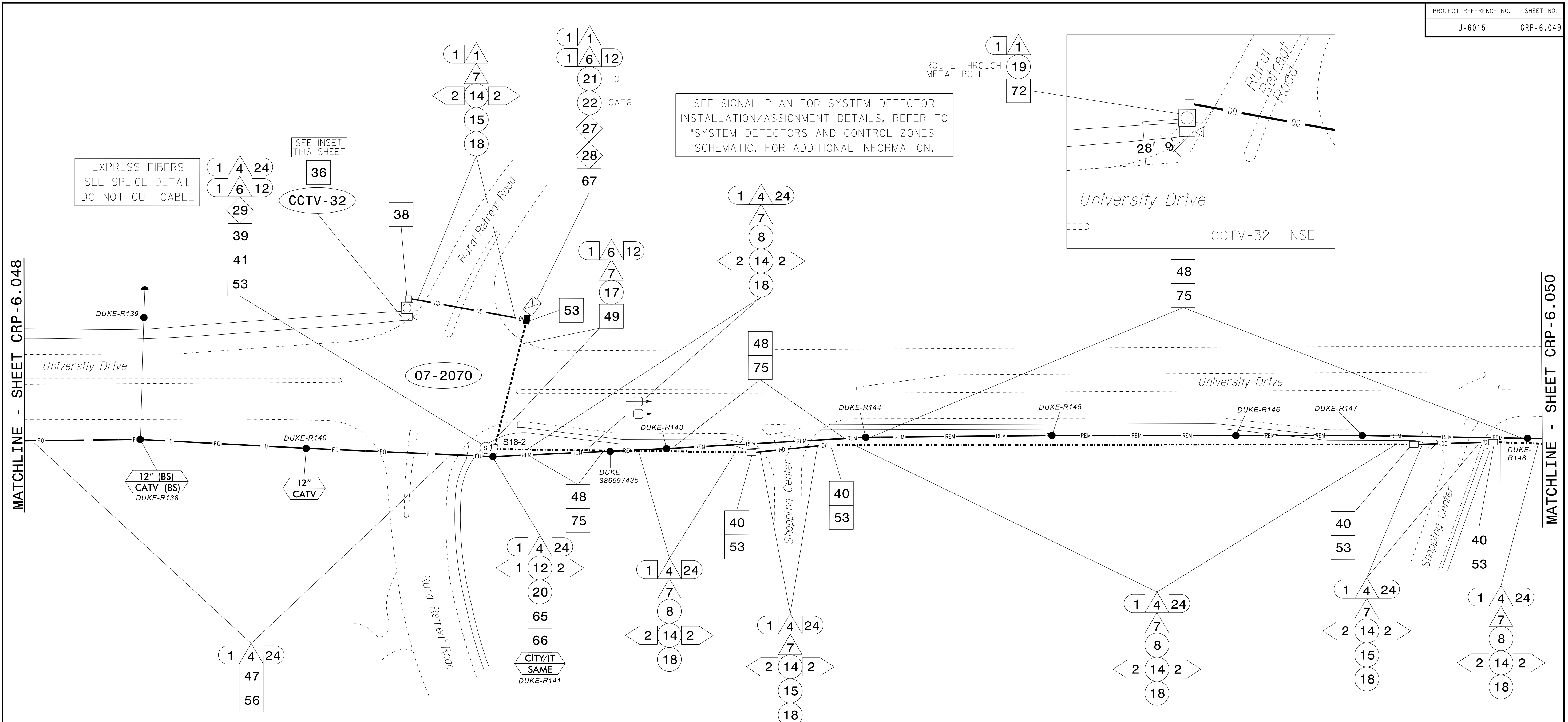
PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

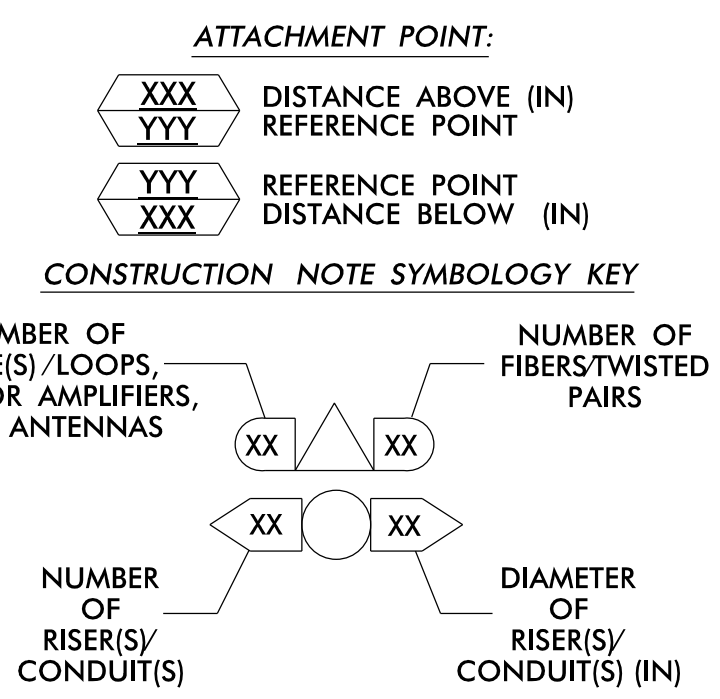
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Melissa B. Toth 6/13/2018

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Prepared for the Offices of:

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

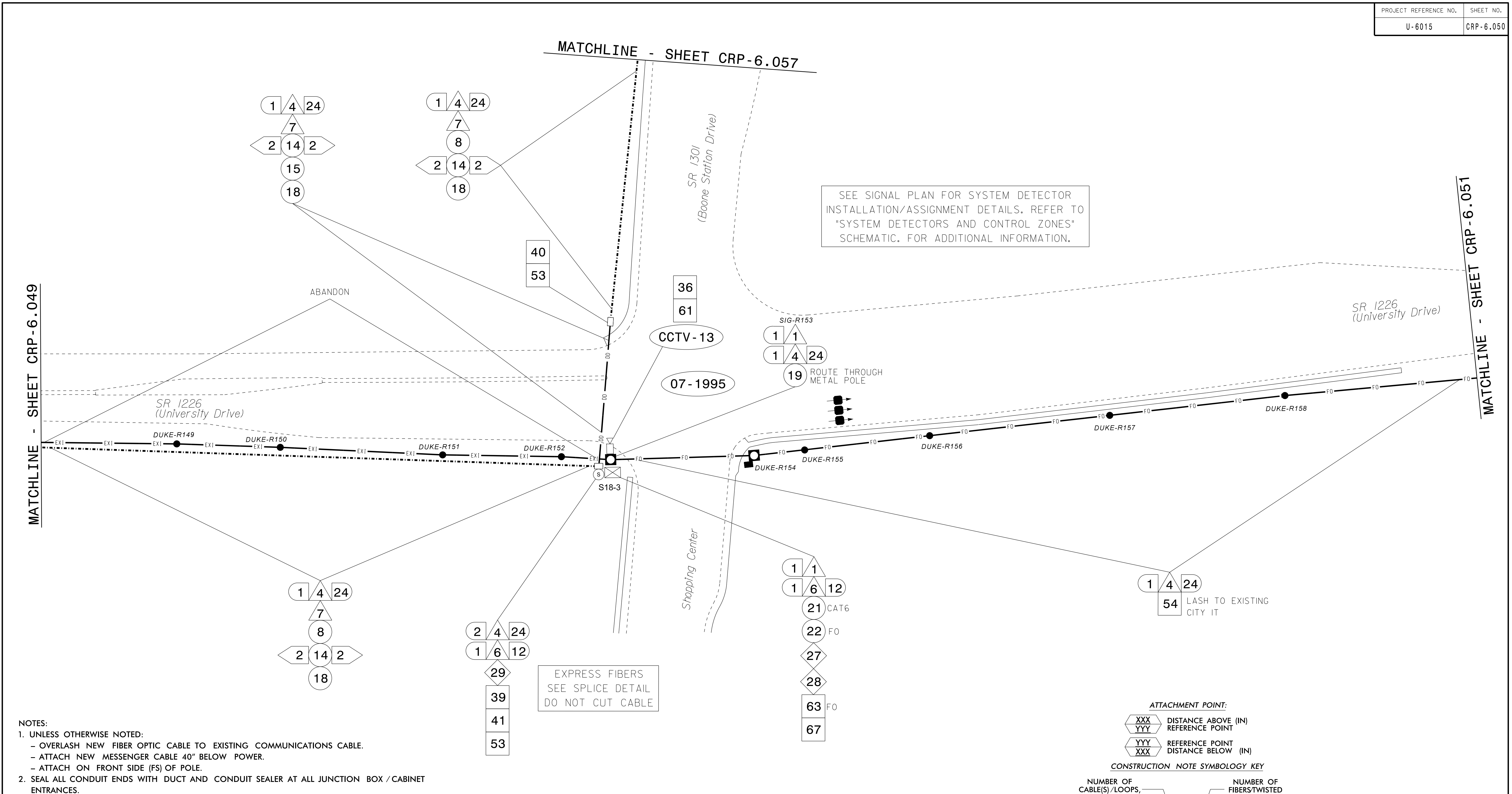
PLAN DATE: June 2018 RALEIGH, NORTH CAROLINA 27609
 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth
 REVISIONS INIT. DATE

750 Greenfield Parkway, Garner, NC 27529
 SCALE 0 50 1"=50'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 025892
 MELISSA B. TOTH
 Melissa B. Toth/13/2018
 DATE

CADD File name: CL-049.dgn

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 AT LUS3330048



SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

EXPRESS FIBERS SEE SPLICE DETAIL DO NOT CUT CABLE

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REFERENCE POINT

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DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY

NUMBER OF CABLE(S) / LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS

NUMBER OF FIBERS/TWISTED PAIRS

NUMBER OF RISER(S) / CONDUIT(S)

DIAMETER OF RISER(S) / CONDUIT(S) (IN)

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Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

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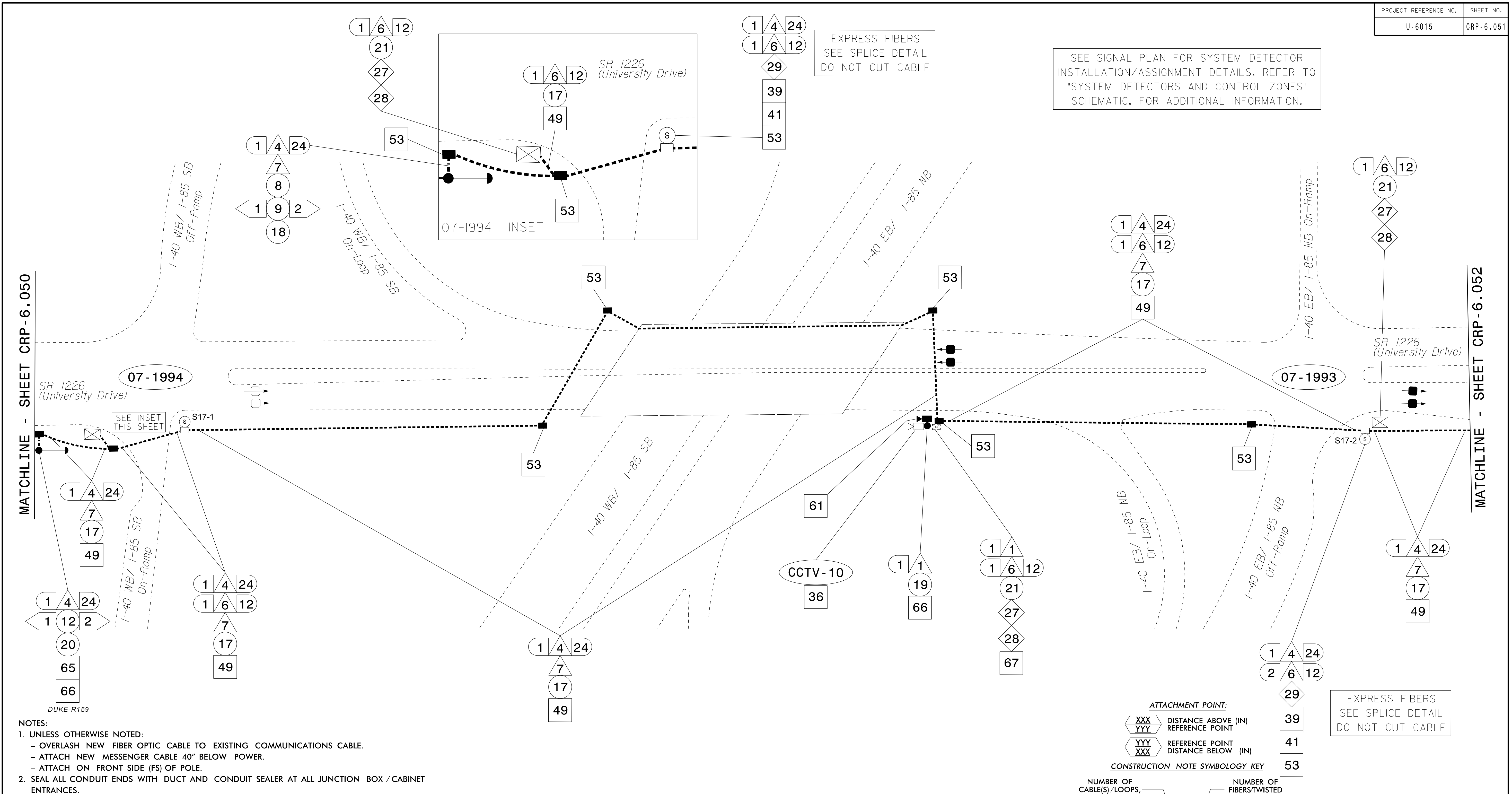
SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

Melissa B. Toth 6/13/2018

DATE

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 ENCA5396 AT LUS330048



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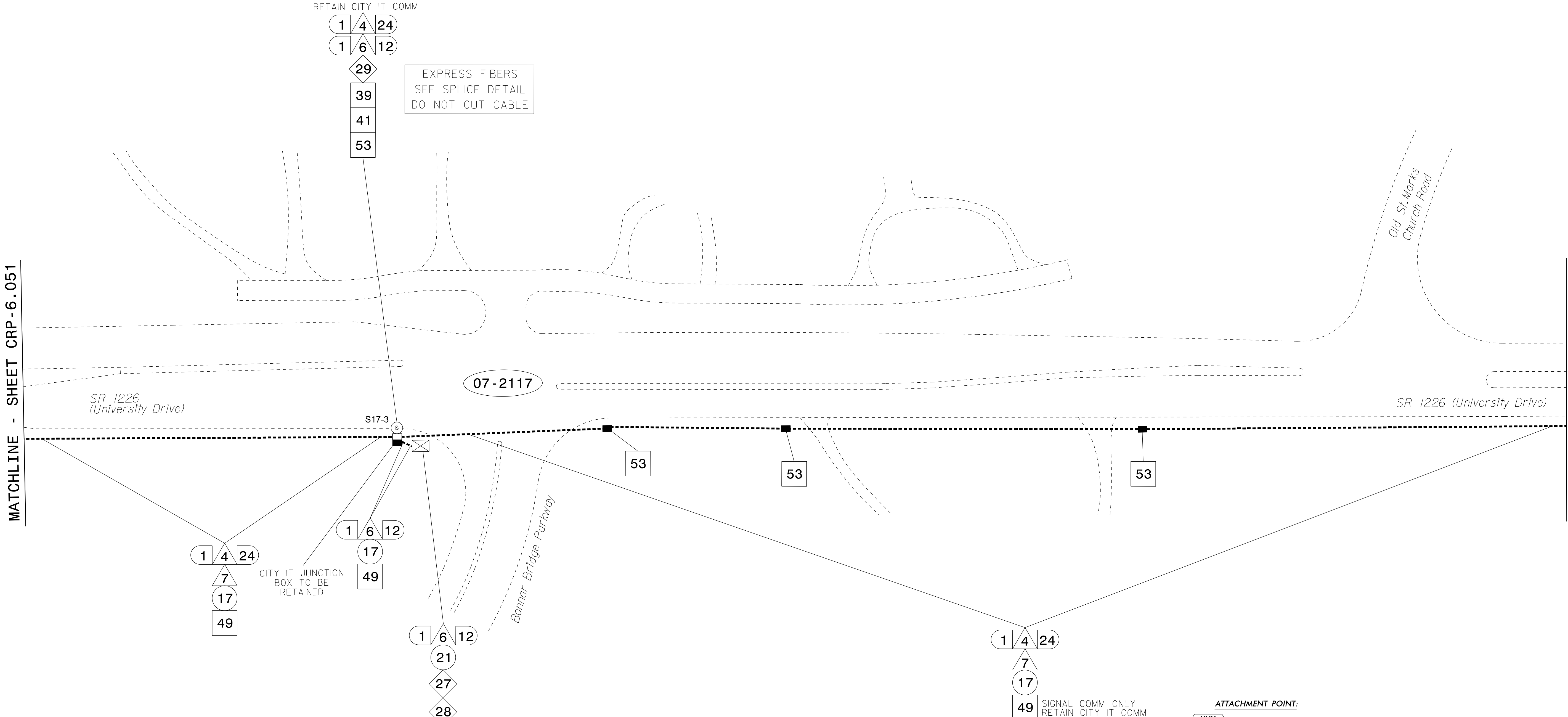
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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER
MELISSA B. TOTH
025892
DocuSign
Melissa B. Toth 6/13/2018
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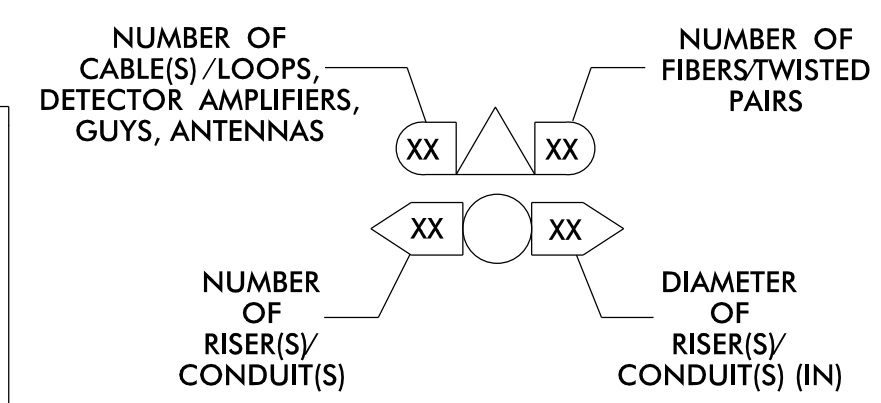
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Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

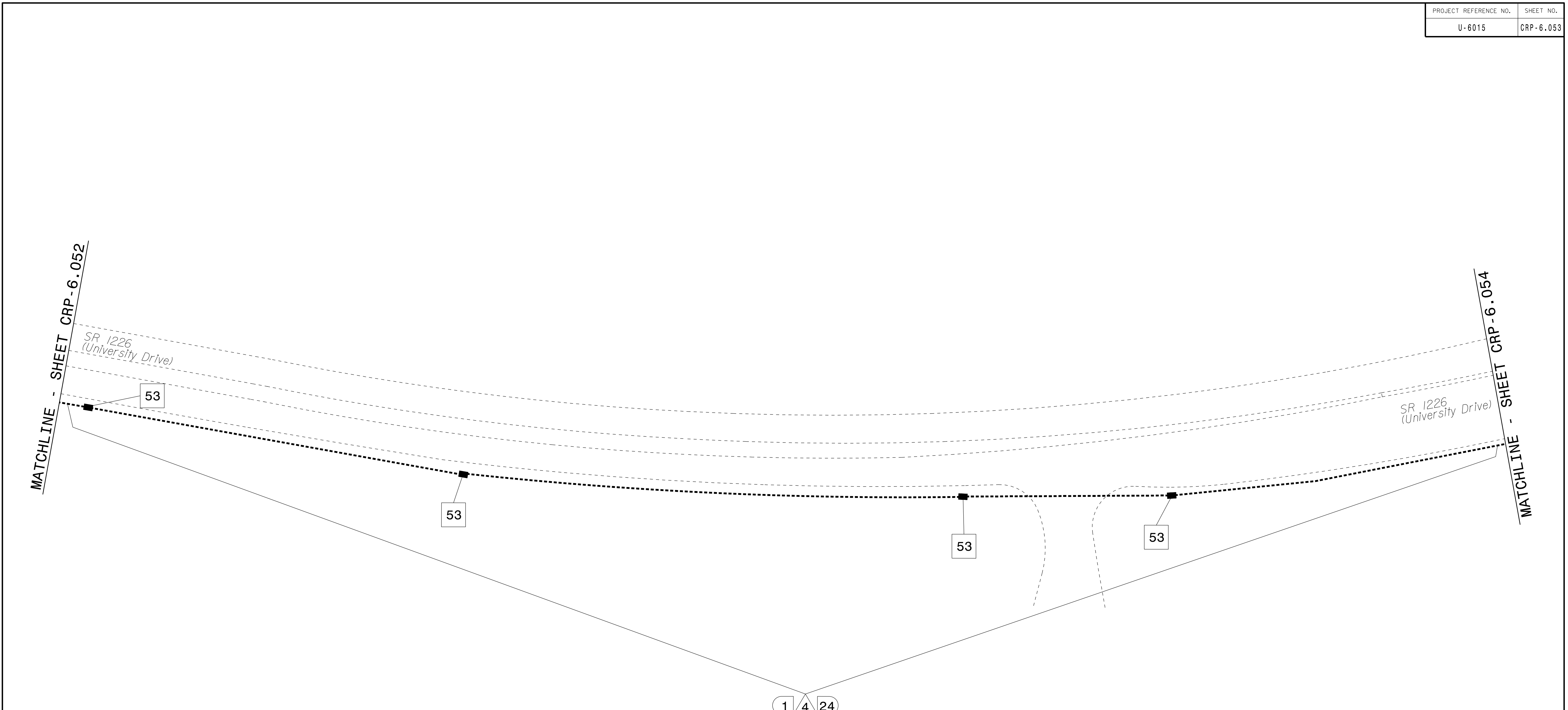
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Melissa B. Toth 11/13/2018

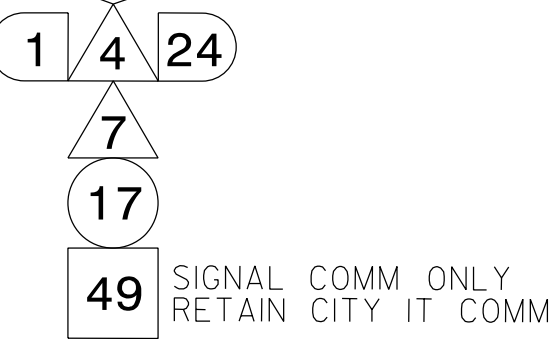
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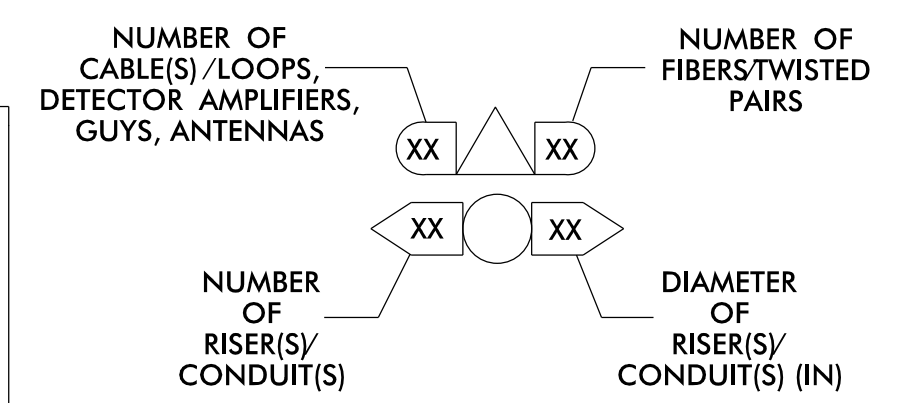
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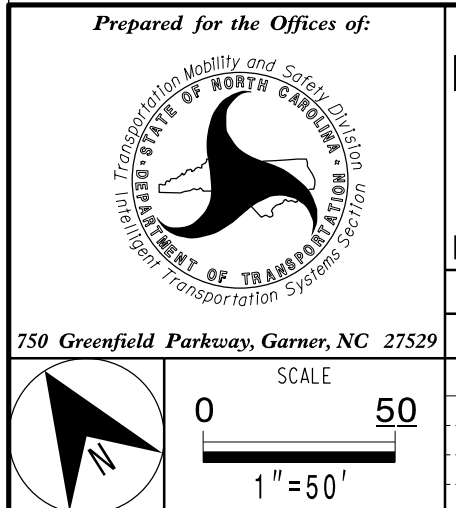
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YYY DISTANCE ABOVE (IN) REFERENCE POINT
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XXX REFERENCE POINT DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY



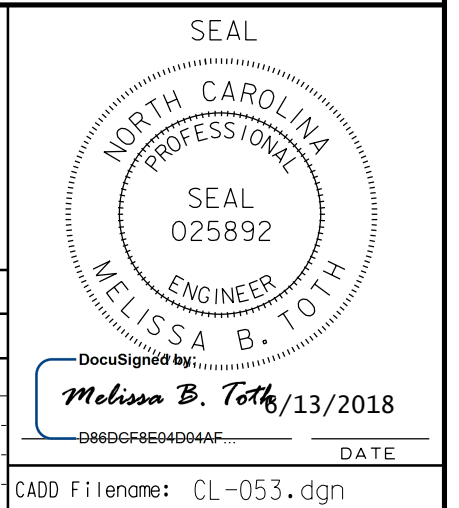
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

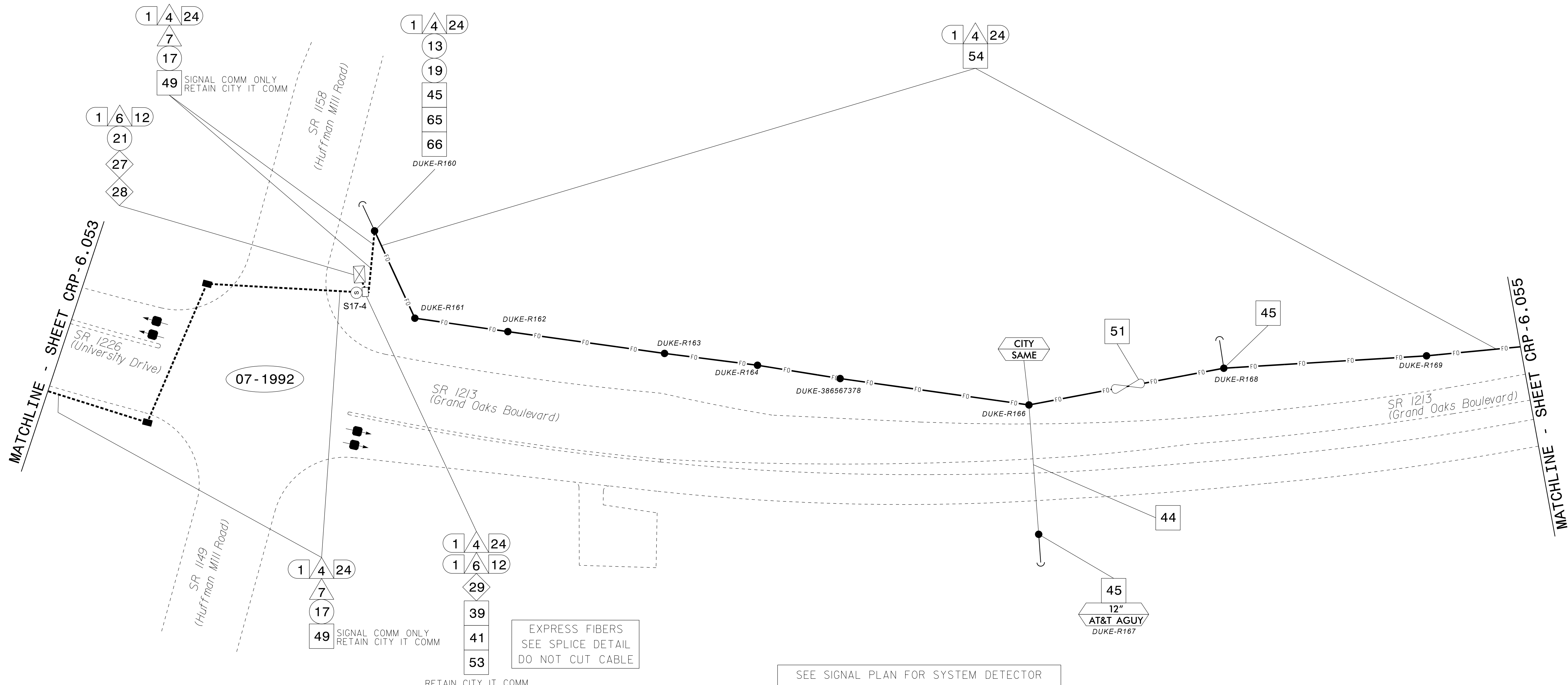


Burlington-Graham Signal System Cable Routing Plans

| | | |
|----------------------------------|------------------------|---------------------|
| Division 7 | Alamance County | Burlington & Graham |
| PLAN DATE: June 2018 | REVIEWED BY: M B Toth | |
| PREPARED BY: ANE/AJH/VJP/NAP/JAW | REVIEWED BY: BJ Slocum | |
| REVISIONS | INIT. | DATE |



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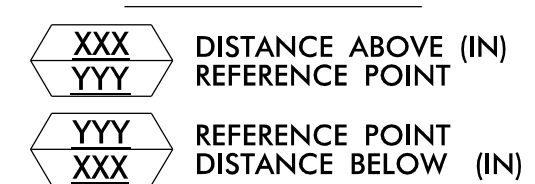


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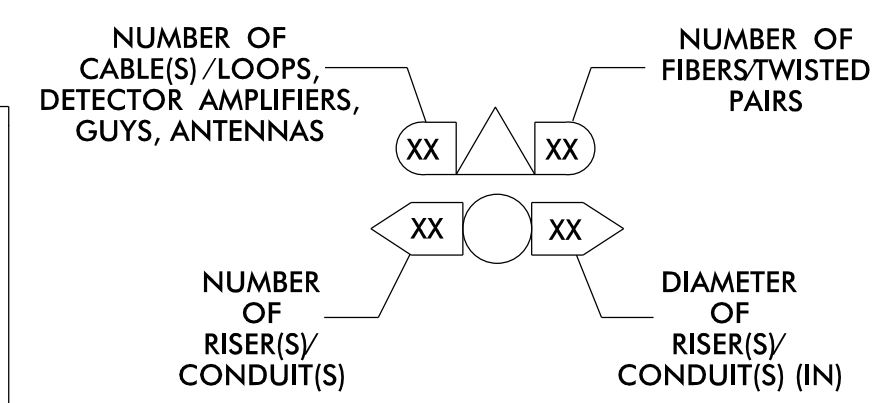
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

ATTACHMENT POINT:



CONSTRUCTION NOTE SYMBOLOGY KEY



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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Prepared for the Offices of:
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION SYSTEMS DIVISION

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

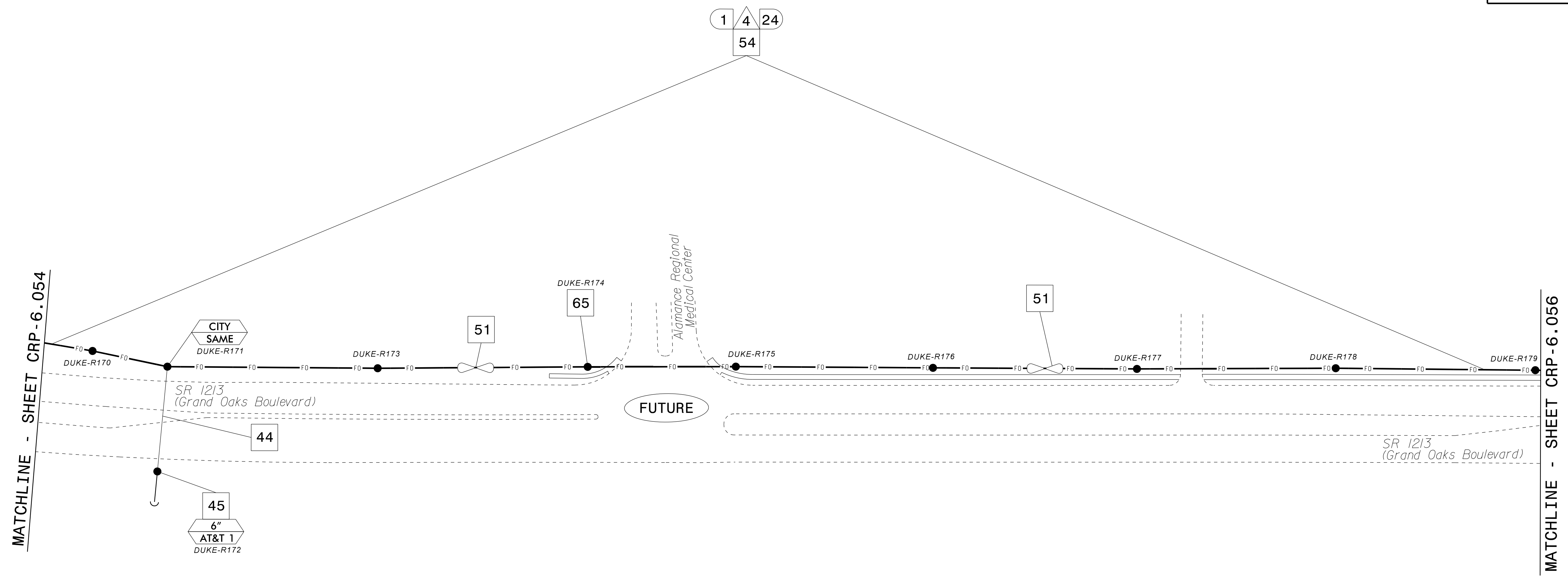
PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth BJ Slocum

750 Greenfield Parkway, Garner, NC 27529 SCALE 1"=50'

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
MELISSA B. TOTH
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MELISSA B. TOTH
13/2018
DATE

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REFERENCE POINT

YYY
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CONSTRUCTION NOTE SYMBOLOGY KEY

NUMBER OF CABLE(S) / LOOPS, DETECTOR / AMPLIFIERS, GUYS, ANTENNAS: XX

NUMBER OF FIBER TWISTED PAIRS: XX

NUMBER OF RISER(S) / CONDUIT(S): XX

DIAMETER OF RISER(S) / CONDUIT(S) (IN): XX

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

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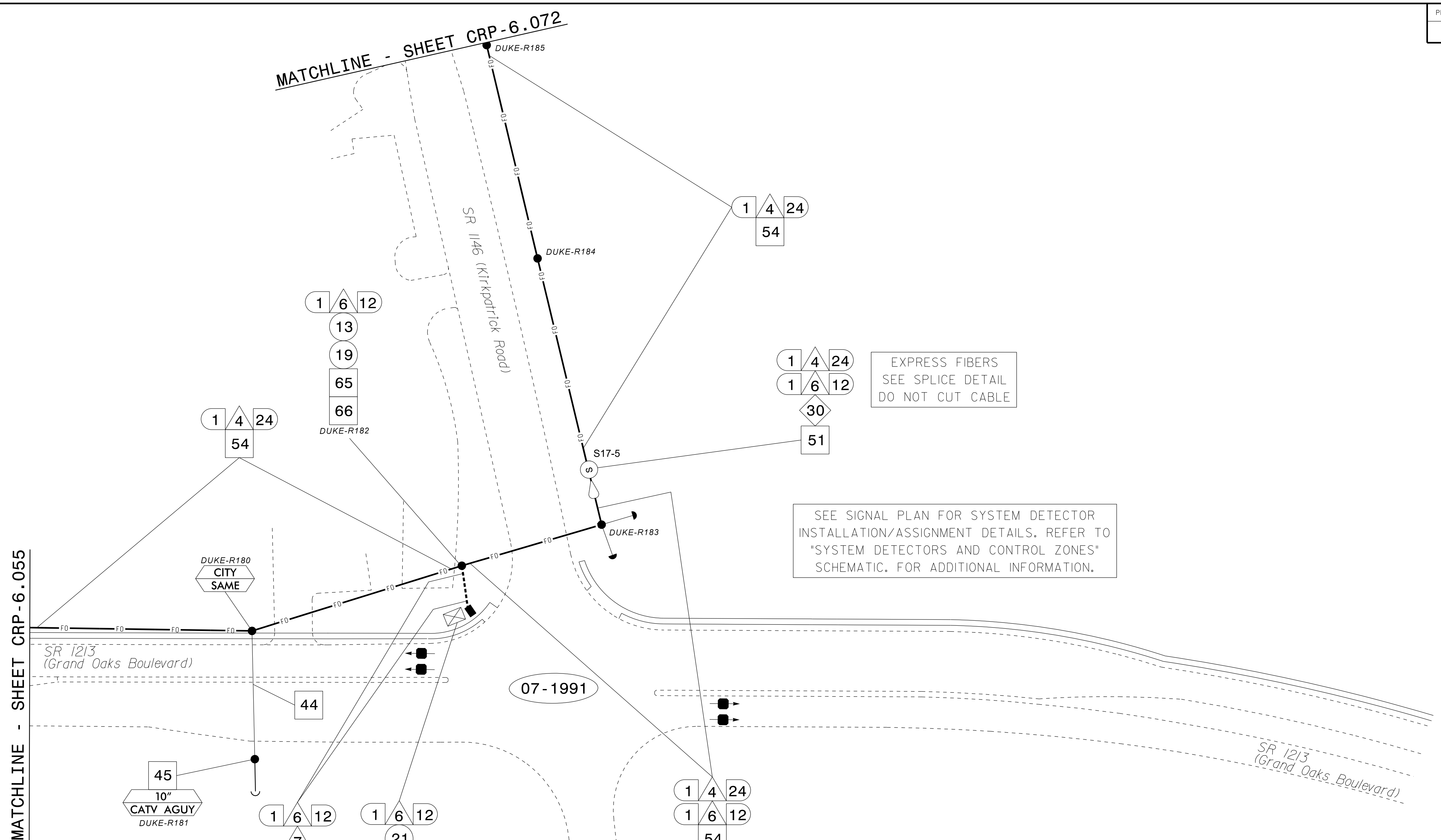
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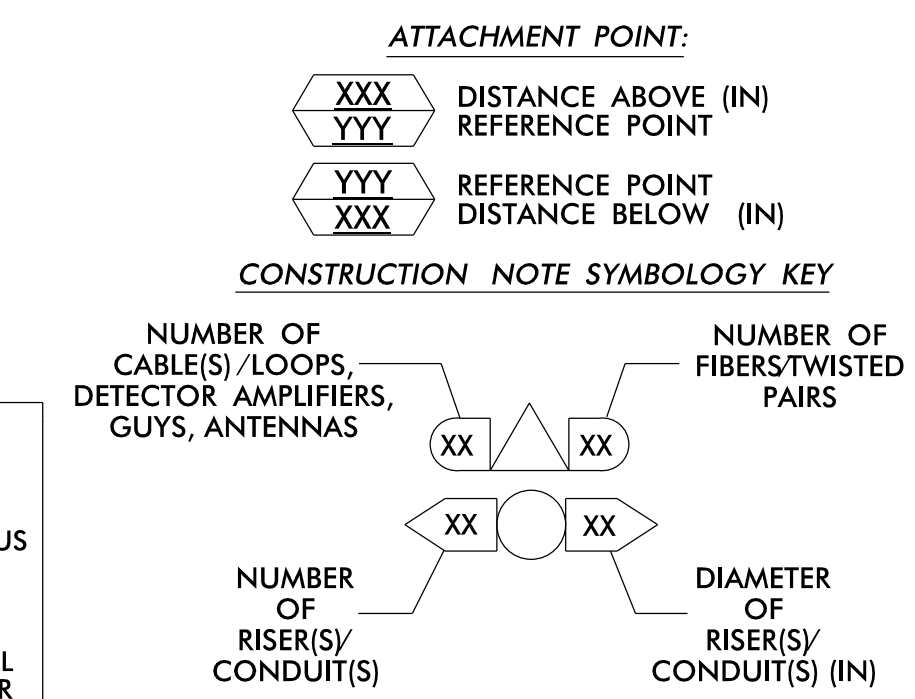
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 ENCA5396 AT LUS330048

MATCHLINE - SHEET CRP-6.072

MATCHLINE - SHEET CRP-6.055



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 - ATTACH ON FRONT SIDE (FS) OF POLE.
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(919) 876-8888 NCBEES #F-0326

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Prepared for the Offices of:

 Department of Transportation and Safety, State of North Carolina

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

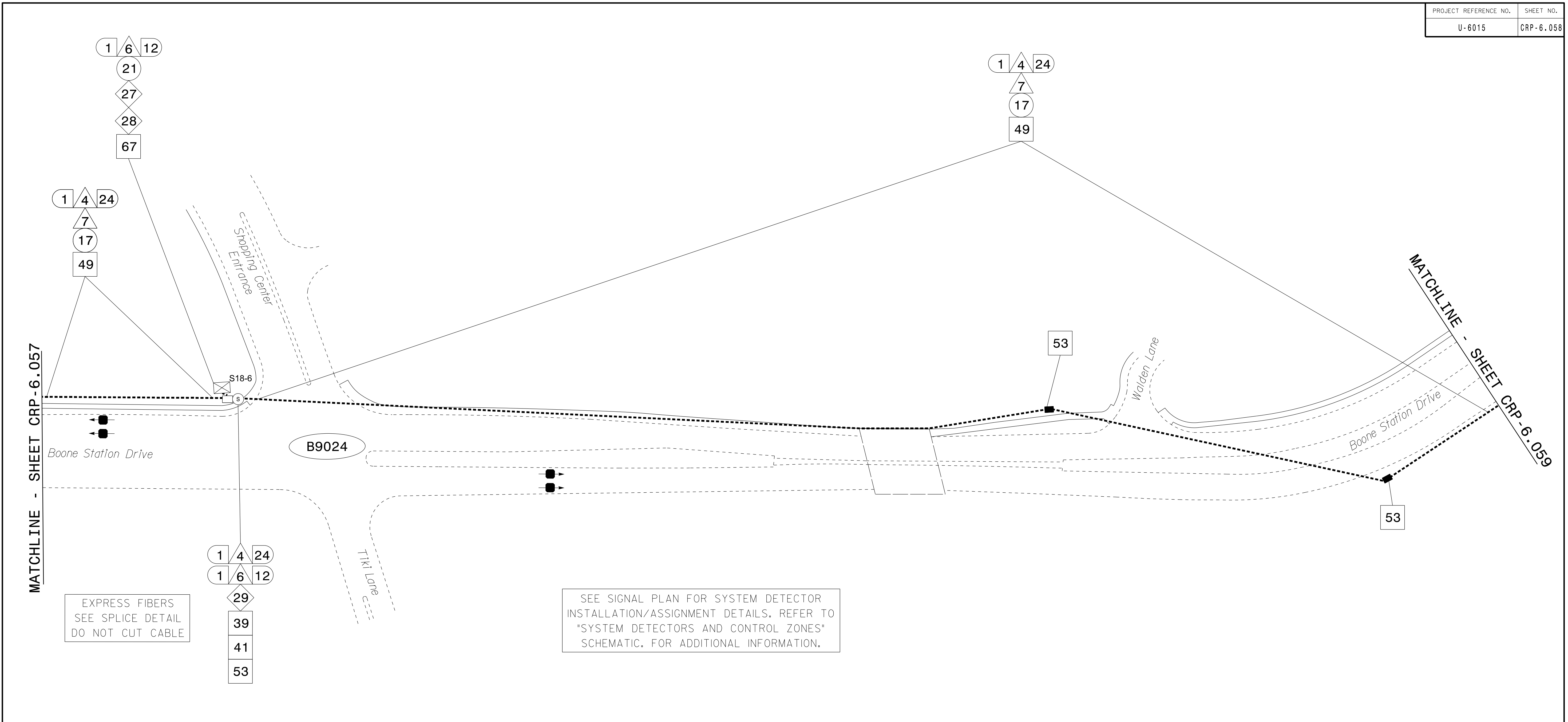
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1"=50'

750 Greenfield Parkway, Garner, NC 27529

Melissa B. Toth 6/13/2018

CADD File name: CL-056.dgn

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 ENCAD33048 AT LUS33048



EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE

SEE SIGNAL PLAN FOR SYSTEM DETECTOR
INSTALLATION/ASSIGNMENT DETAILS. REFER TO
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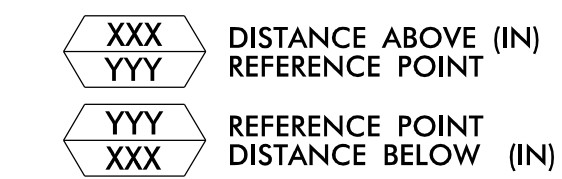
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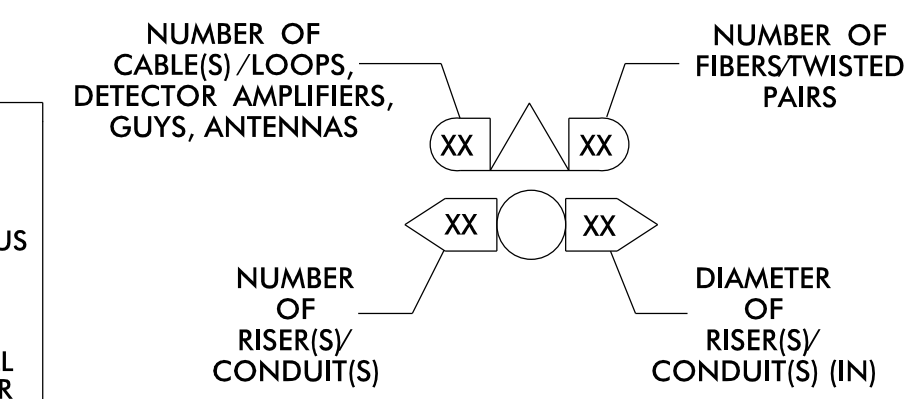
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ATTACHMENT POINT:



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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

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Prepared for the Offices of:

 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 Transportation Systems Division

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

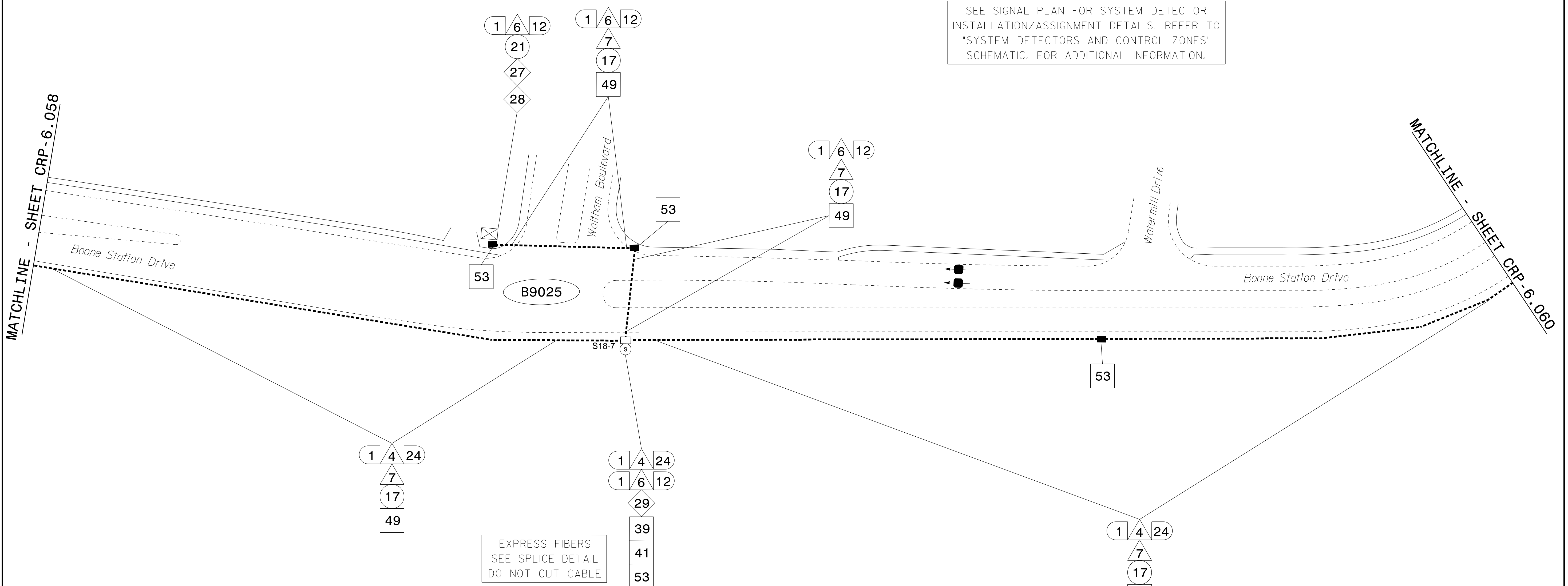
REVISIONS INIT. DATE

SCALE 0 50 1"=50'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOTTH
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR
INSTALLATION/ASSIGNMENT DETAILS. REFER TO
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EXPRESS FIBERS
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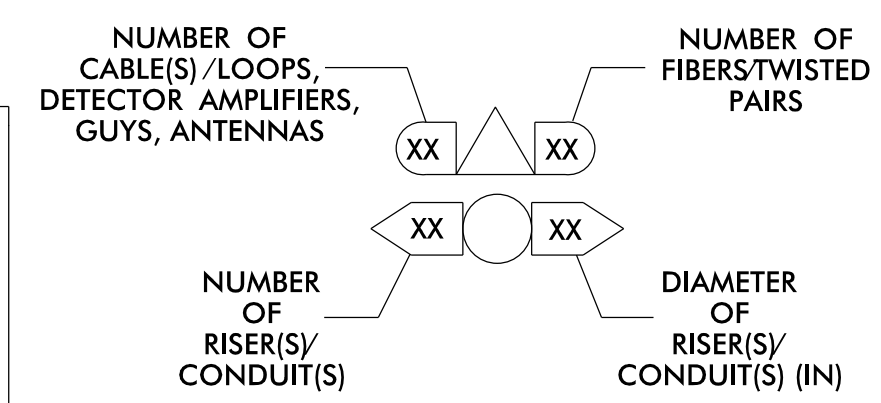
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REFERENCE POINT

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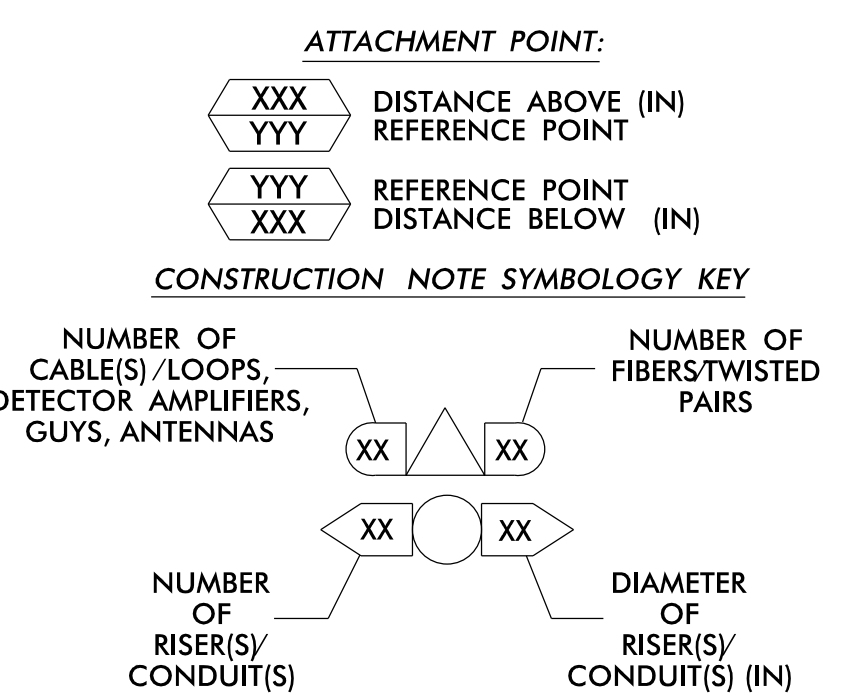
750 Greenfield Parkway, Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
MELISSA B. TOOTH
025892
Melissa B. Toth 1/13/2018
DATE
CADD File name: CL-059.dgn

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 ENCA5396 AT LUS330048

MATCHLINE - SHEET CRP-6.059

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750 Greenfield Parkway, Garner, NC 27529

DocuSigned by:
 Melissa B. Toth 02/5892

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EXPRESS FIBERS SEE SPLICE DETAIL DO NOT CUT CABLE

Shopping Center

Boone Station Drive

Boone Station Drive

S.R. 1308 (Garden Road)

MATCHLINE - SHEET CRP-6.061

S18-8

DUKE-M300

07-2094

53

53

53

1 6 12

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21

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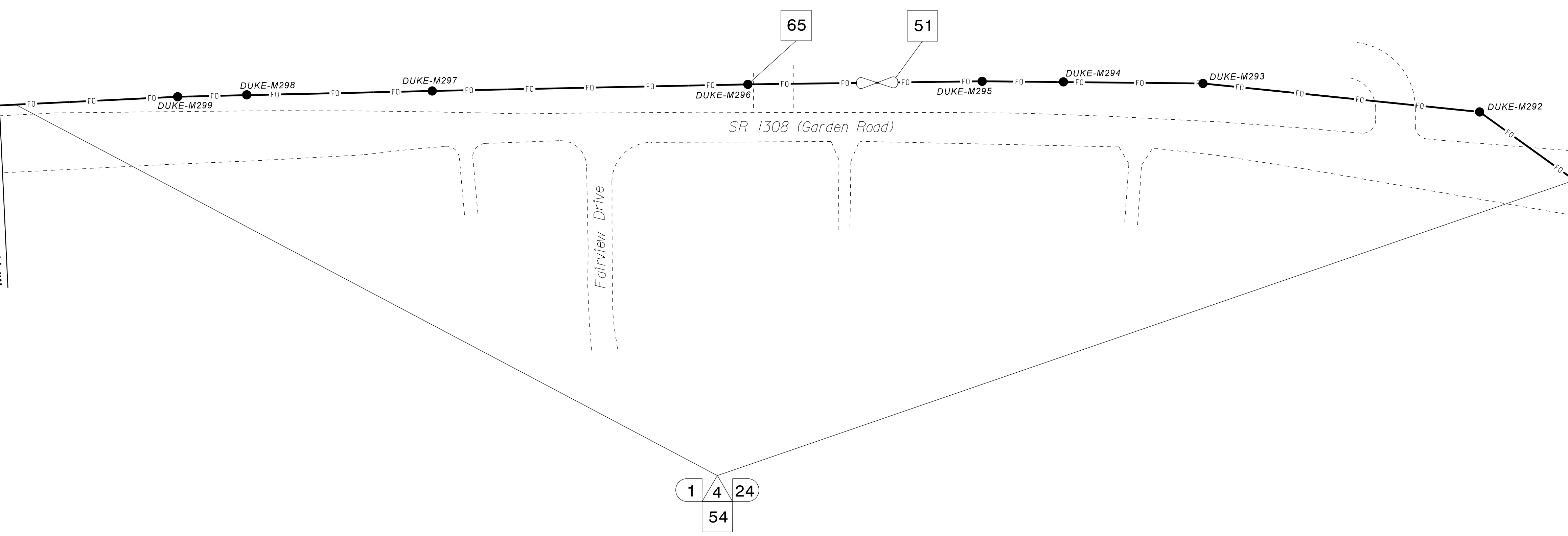
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MATCHLINE - SHEET CRP-6.060

MATCHLINE - SHEET CRP-6.062

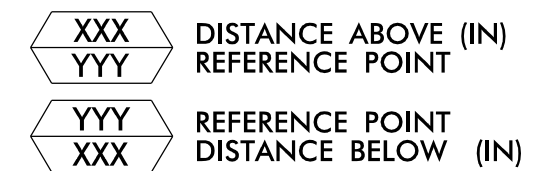


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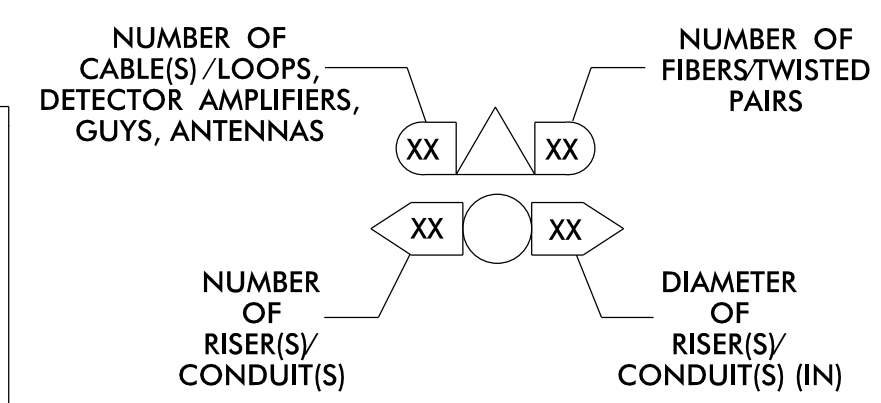
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ATTACHMENT POINT:



CONSTRUCTION NOTE SYMBOLOLOGY KEY



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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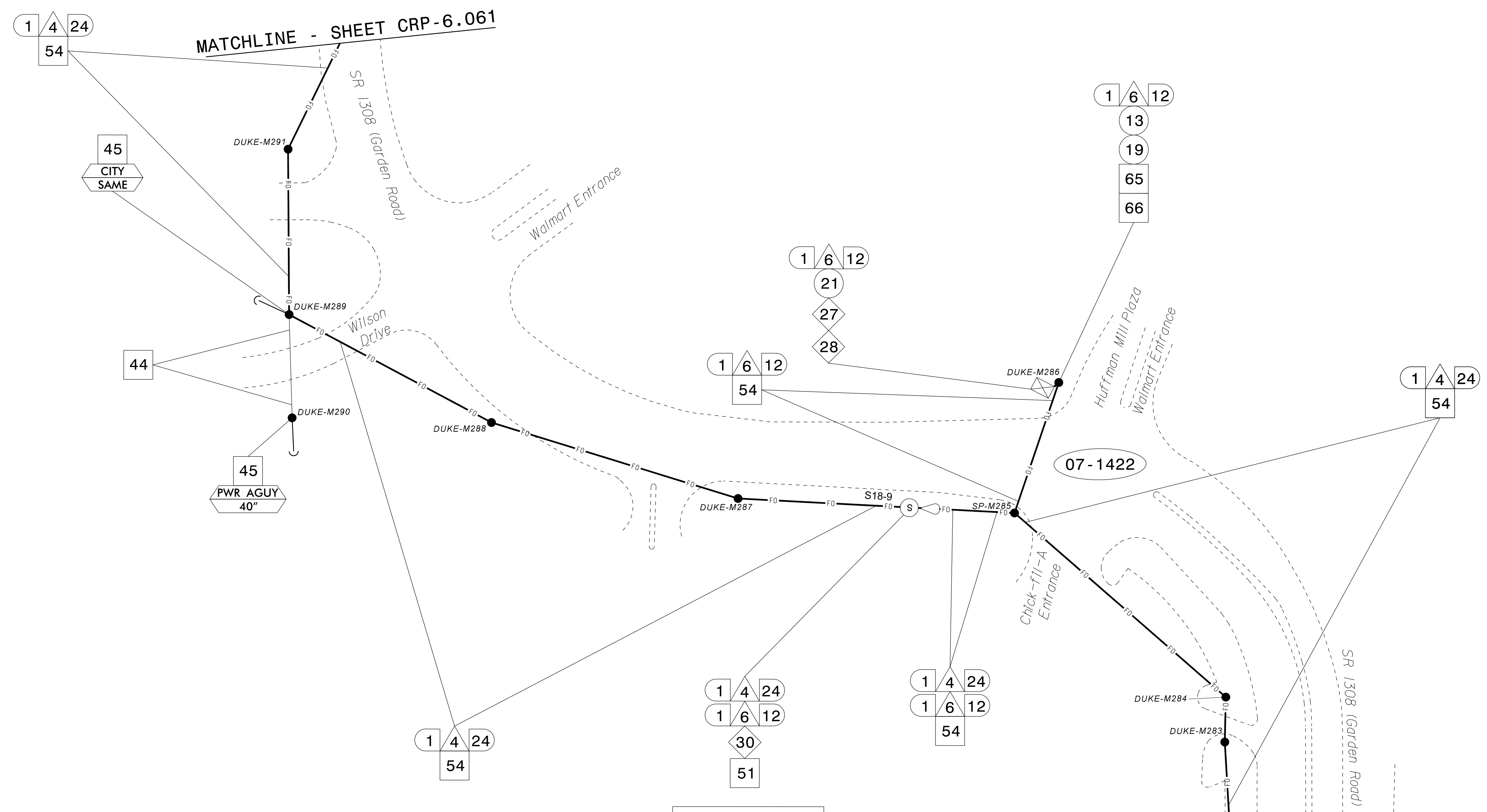
Prepared for the Offices of:

 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans
 Division 7 Alamance County Burlington & Graham
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 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum
 REVISIONS INIT. DATE

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOOTH
 025892
 MELISSA B. TOOTH
 13/2018
 DATE
 CADD File name: CL-061.dgn

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EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE

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REFERENCE POINT

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NUMBER OF FIBER/TWISTED PAIRS

NUMBER OF RISER(S)/CONDUIT(S)

DIAMETER OF RISER(S)/CONDUIT(S) (IN)

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Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

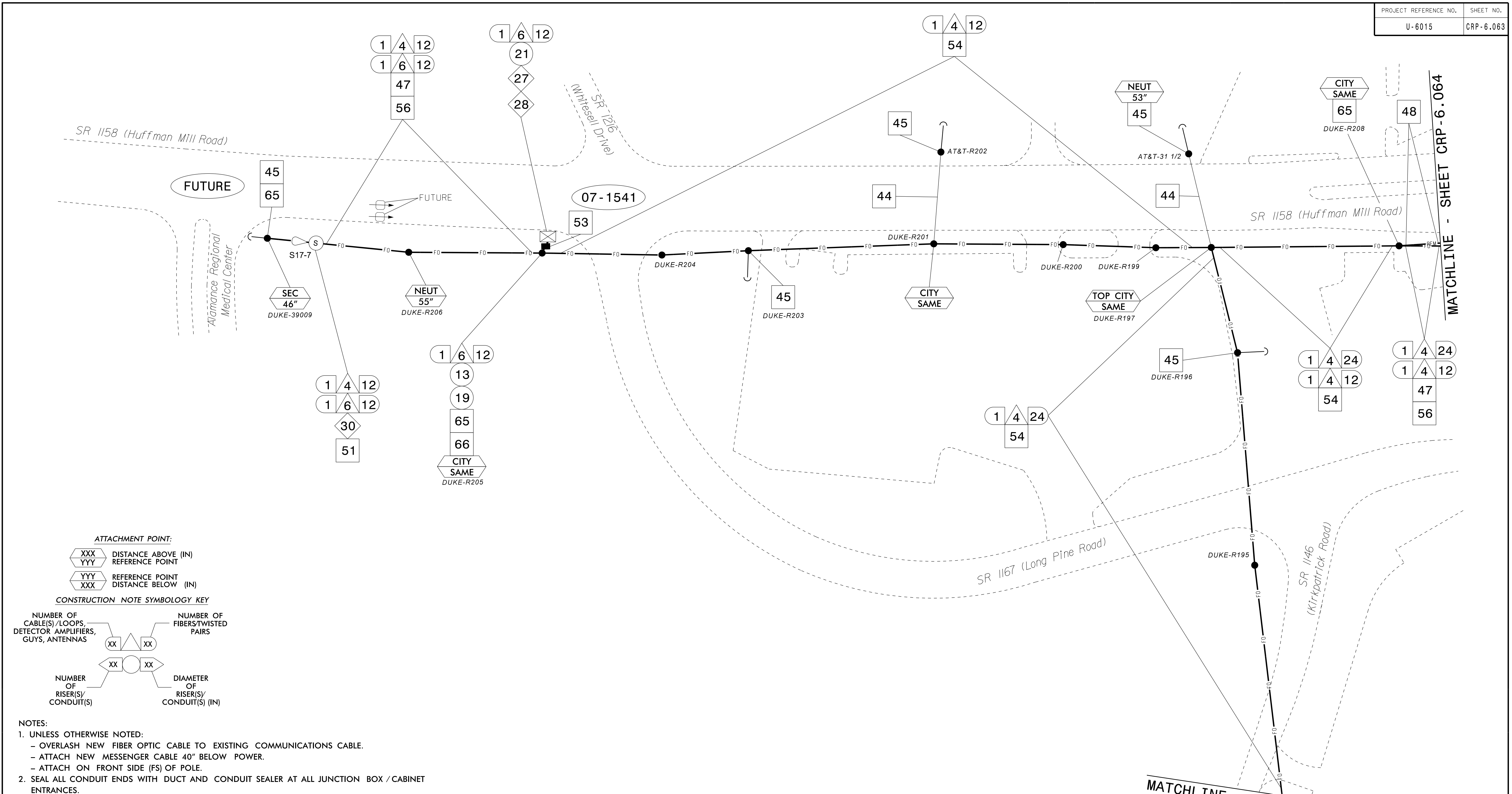
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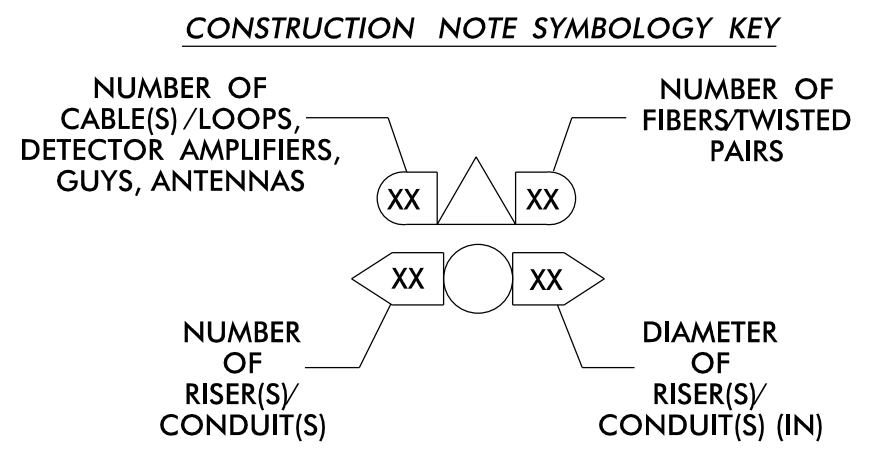
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SEAL 025892
MELISSA B. TOTH
13/2018
DATE

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ATTACHMENT POINT:
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 YYY REFERENCE POINT
 YYY REFERENCE POINT
 XXX DISTANCE BELOW (IN)



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MATCHLINE - SHEET CRP-6.072

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 RALEIGH, NORTH CAROLINA 27609

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

REVISIONS: INIT. DATE

SCALE: 1"=50'

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH

DATE: 11/13/2018

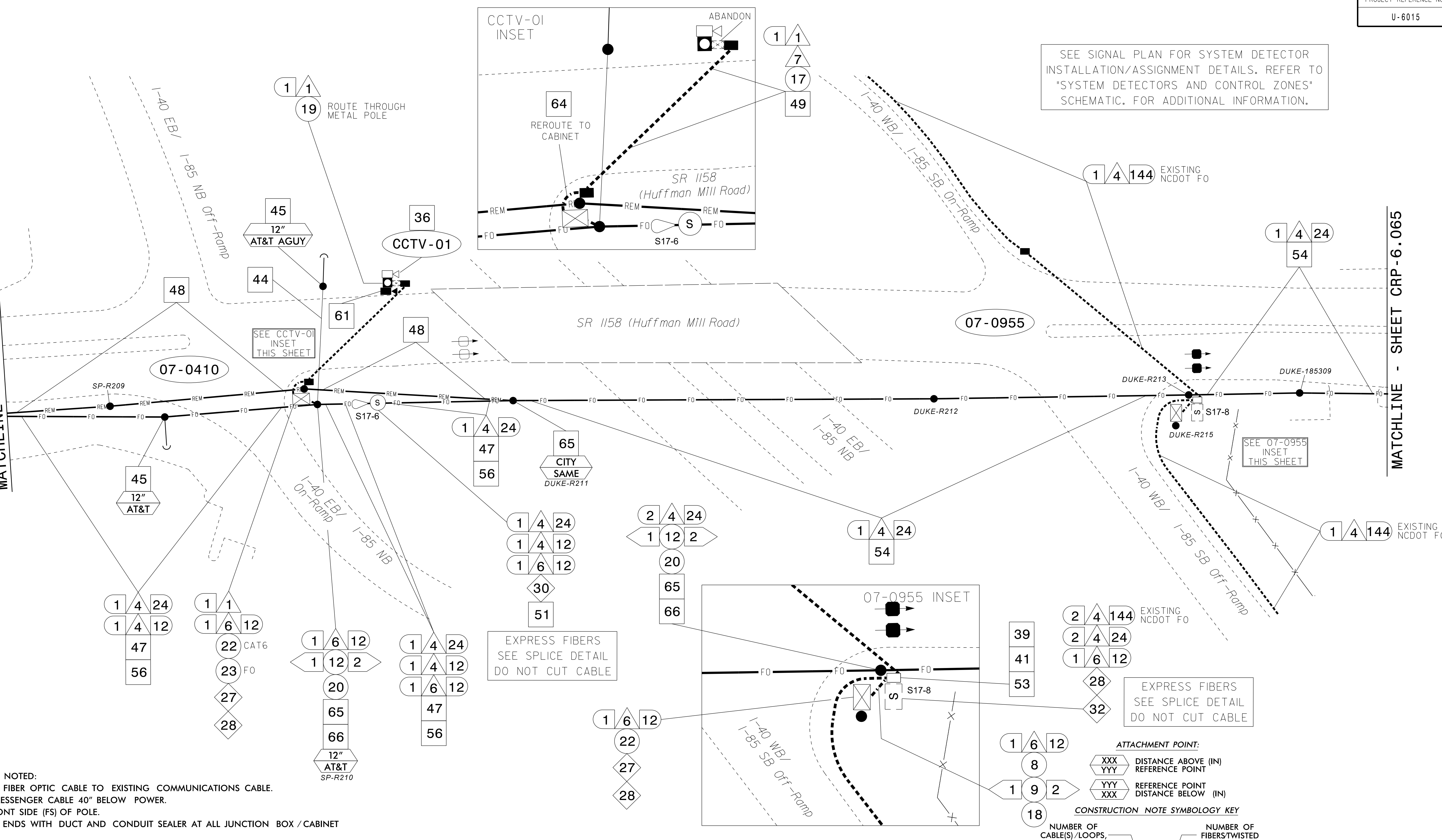
DATE: 11/13/2018

DATE: 11/13/2018

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 AT LUS333048

MATCHLINE - SHEET CRP-6.063

MATCHLINE - SHEET CRP-6.065



SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

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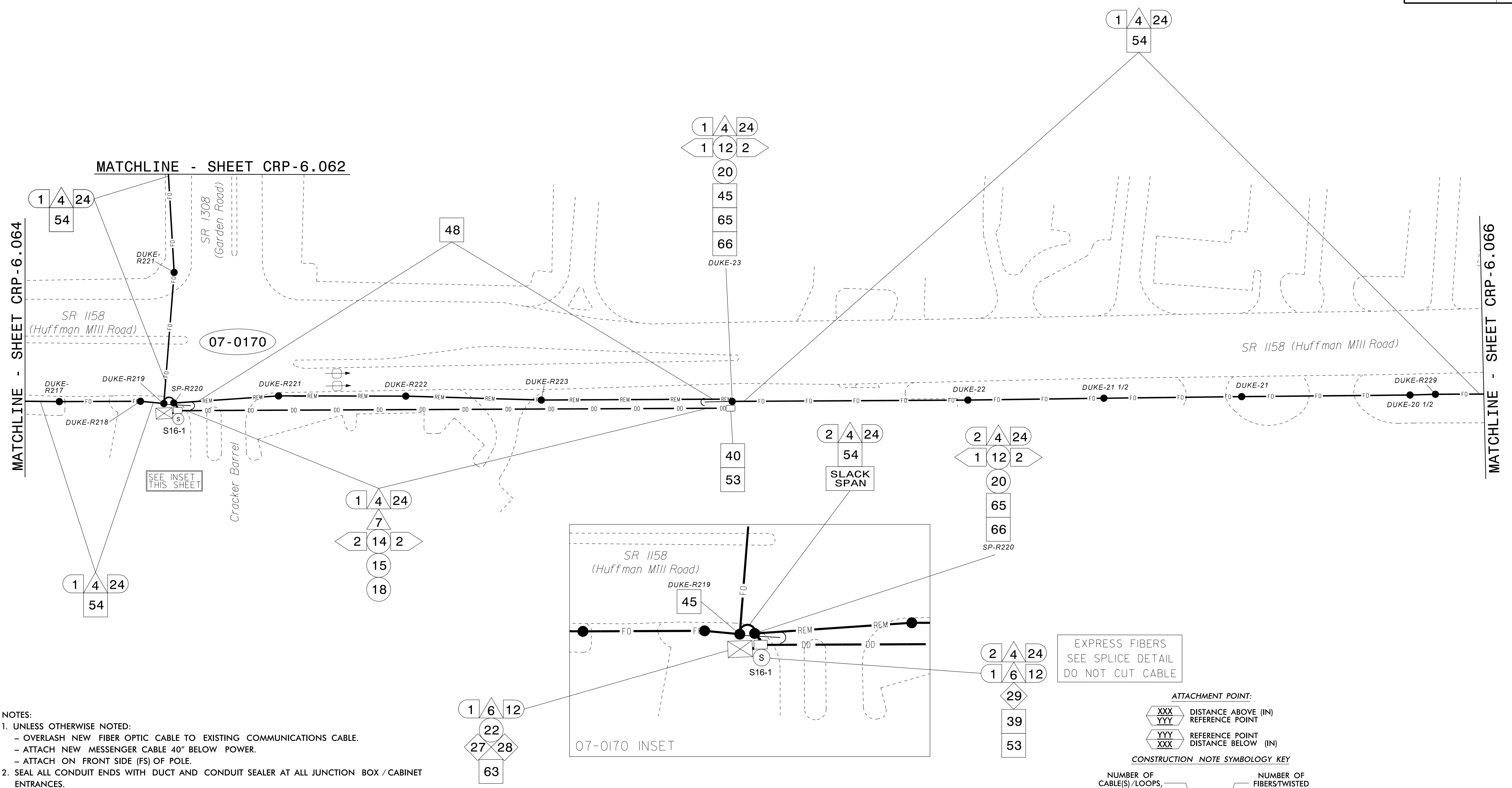
REVISIONS

| NO. | DATE | INIT. | DATE |
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SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 025892
MELISSA B. TOTH
Melissa B. Toth 1/13/2018
DATE
CADD File name: CL-064.dgn

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EXPRESS FIBERS
 SEE SPLICE DETAIL
 DO NOT CUT CABLE

ATTACHMENT POINT:
 XXX
 YYY DISTANCE ABOVE (IN) REFERENCE POINT
 YYY
 XXX REFERENCE POINT DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLGY KEY

NUMBER OF CABLE(S)/LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS

NUMBER OF RISER(S)/CONDUIT(S)

NUMBER OF FIBER/TWISTED PAIRS

DIAMETER OF RISER(S)/CONDUIT(S) (IN)

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Transportation Systems

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth
 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

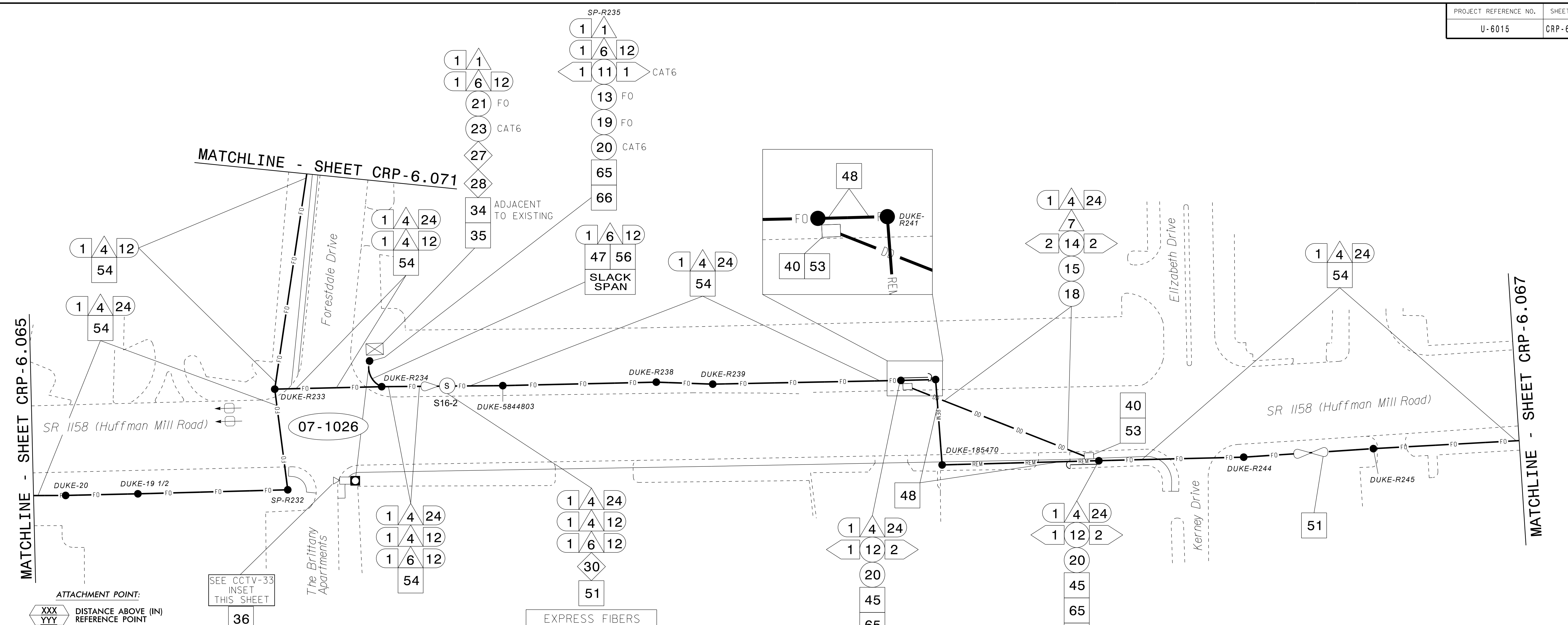
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REVISIONS INIT. DATE

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 025892
 MELISSA B. 10TH
 MELISSA B. Toth 11/13/2018
 CADD File name: CL-065.dgn

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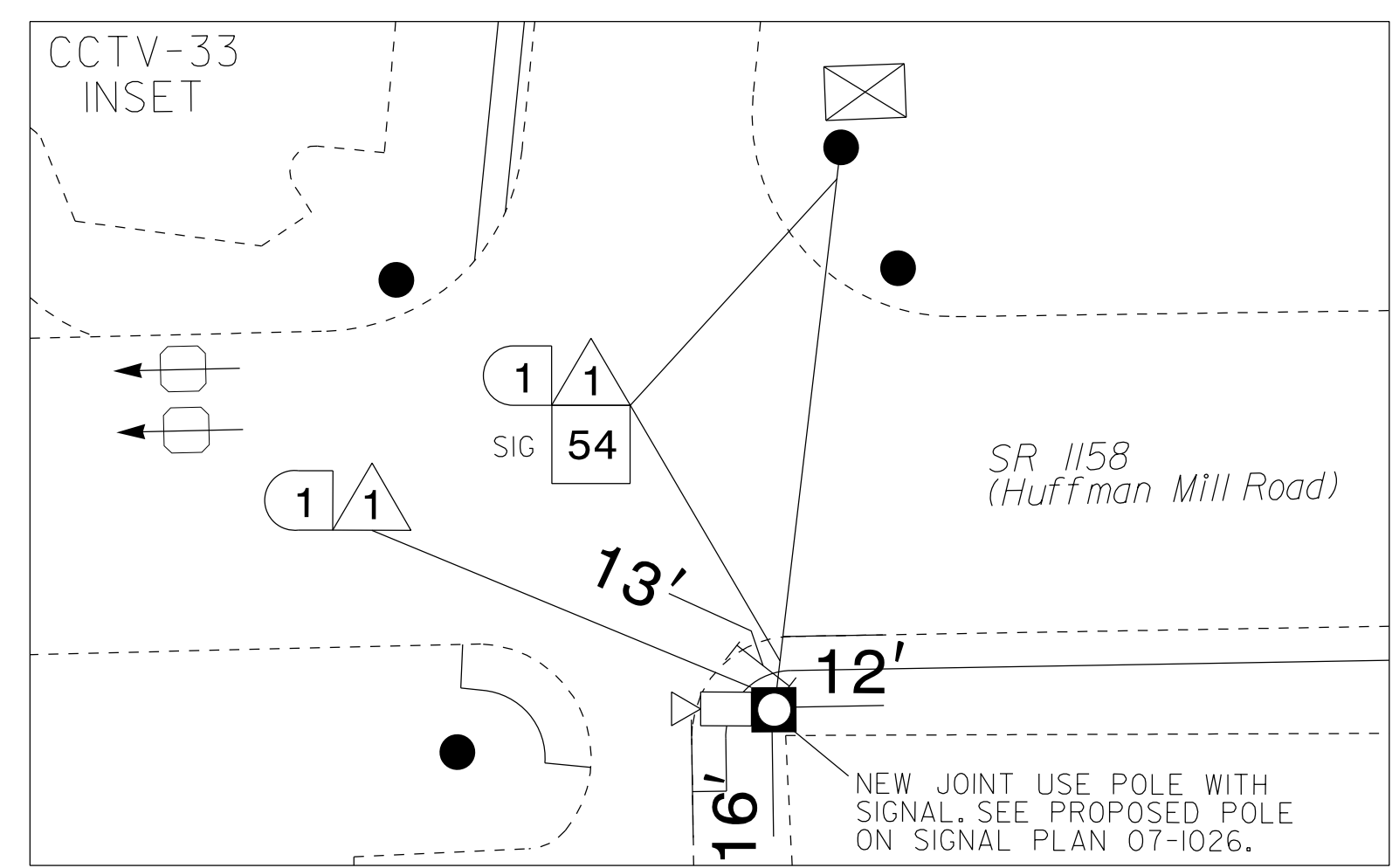


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SEE CCTV-33 INSET THIS SHEET
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Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

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REVISIONS INIT. DATE

DATE

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER

SEAL 025892

MELISSA B. TOOTH

Melissa B. Toth 11/13/2018

DATE

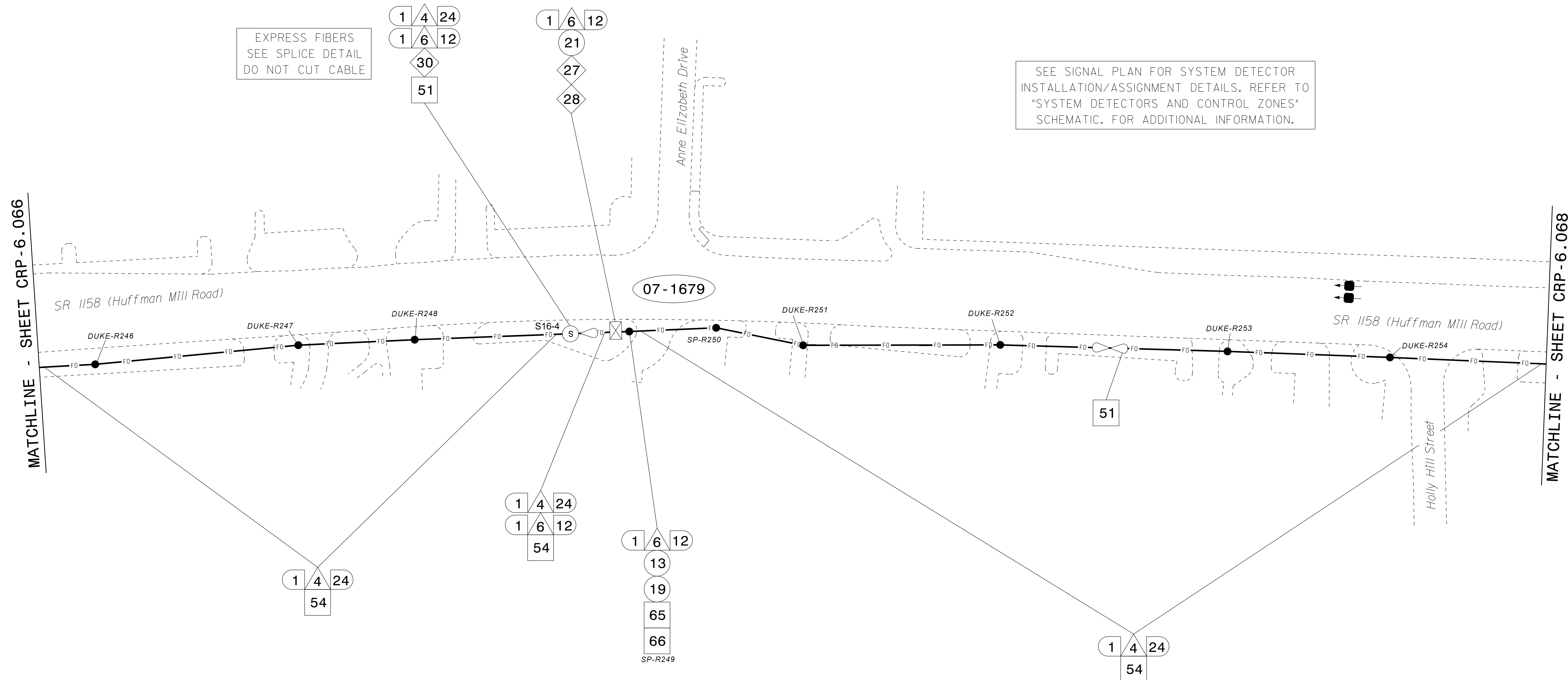
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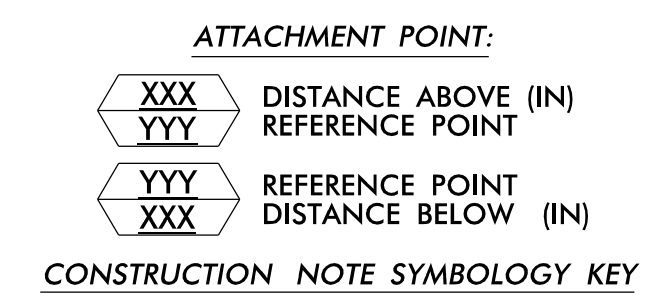
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MATCHLINE - SHEET CRP-6.066

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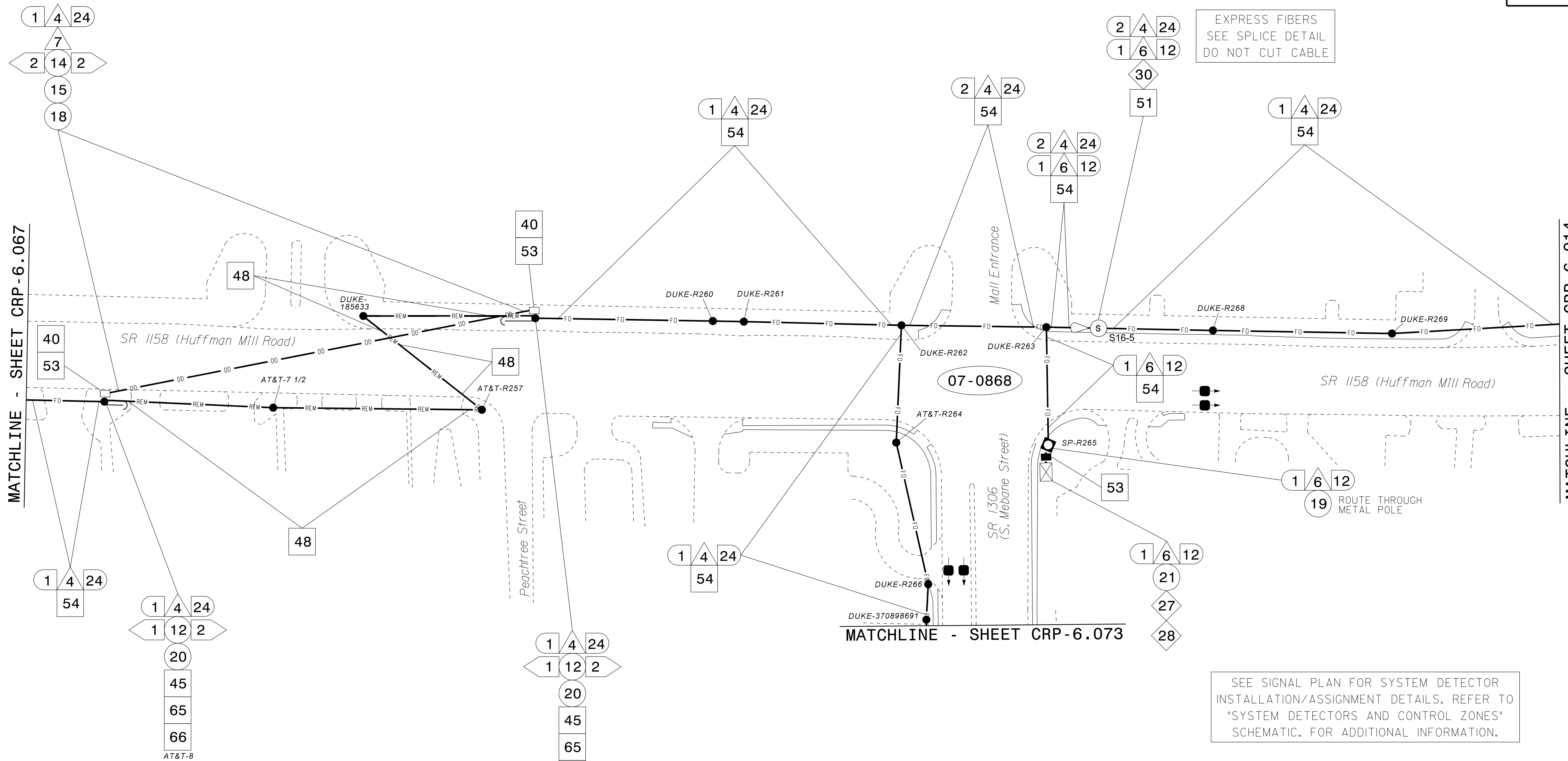
REVISIONS: INIT. DATE

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Melissa B. Toth 1/13/2018

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EXPRESS FIBERS
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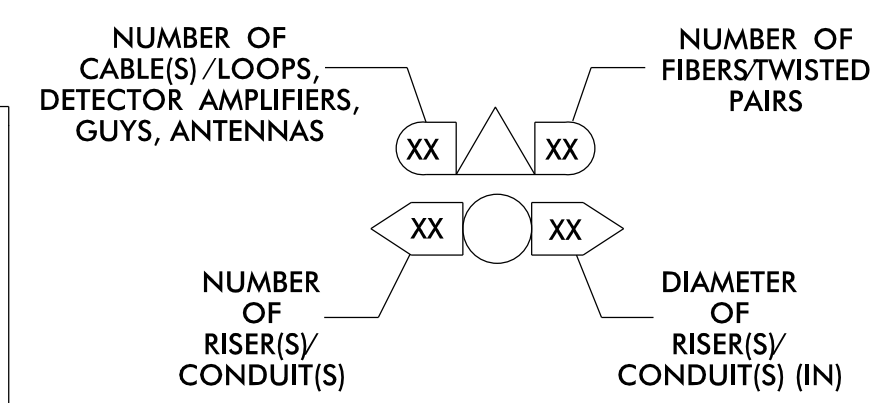
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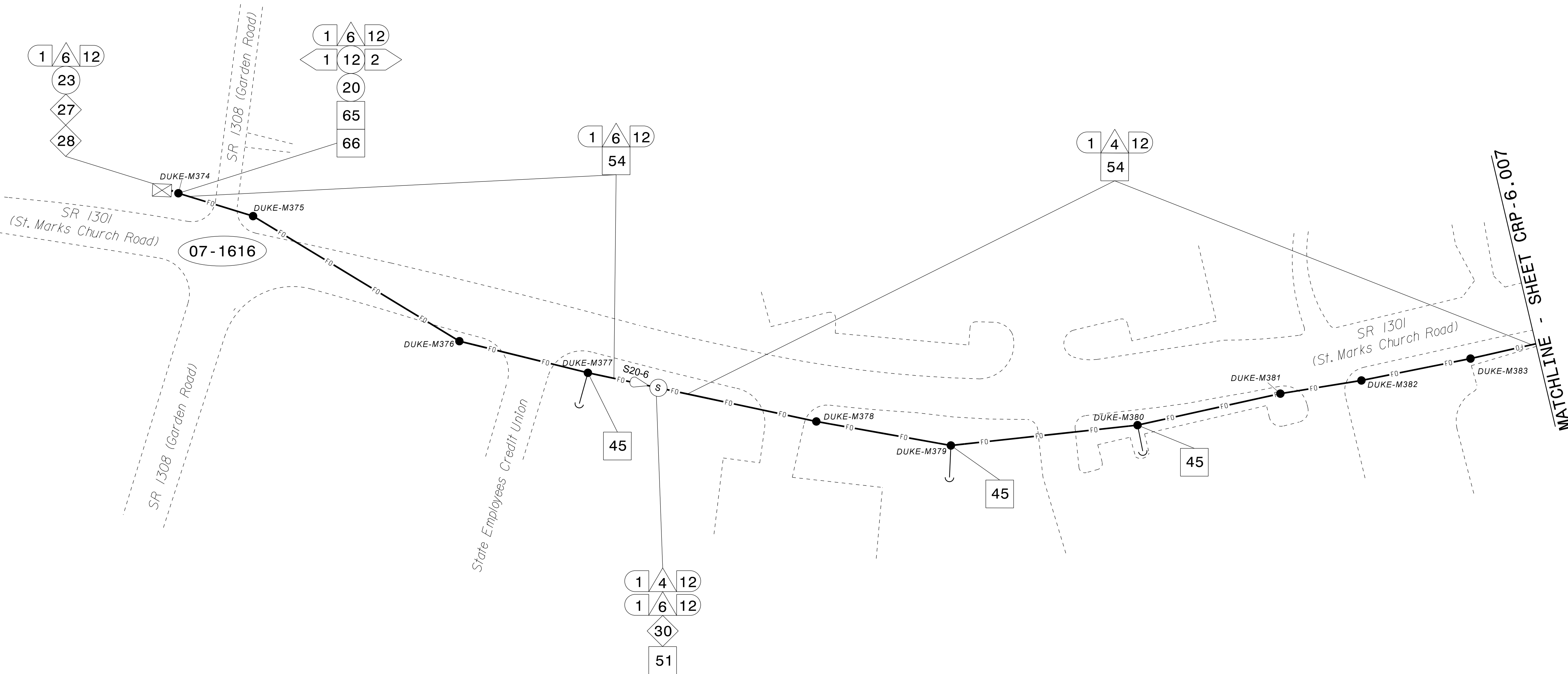
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 - ATTACH ON FRONT SIDE (FS) OF POLE.
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ATTACHMENT POINT:

XXX
YYY DISTANCE ABOVE (IN)
REFERENCE POINT

YYY
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DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY

NUMBER OF CABLE(S) / LOOPS, DETECTOR / AMPLIFIERS, GUY'S, ANTENNAS

NUMBER OF FIBER TWISTED PAIRS

NUMBER OF RISER(S) / CONDUIT(S)

DIAMETER OF RISER(S) / CONDUIT(S) (IN)

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

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

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| 2. INSTALL LOW VOLTAGE POWER CABLE (24VAC) | 12. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING | 23. INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE) | 33. REMOVE EXISTING SPLICE / HUB / CCTV CABINET | 44. INSTALL AERIAL GUY ASSEMBLY | 56. LASH CABLE(S) TO NEW MESSENGER CABLE | 67. BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
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Prepared for the Offices of:

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

750 Greenfield Parkway, Garner, NC 27529

**Burlington-Graham Signal System
Cable Routing Plans**

Division 7 Alamance County Burlington & Graham

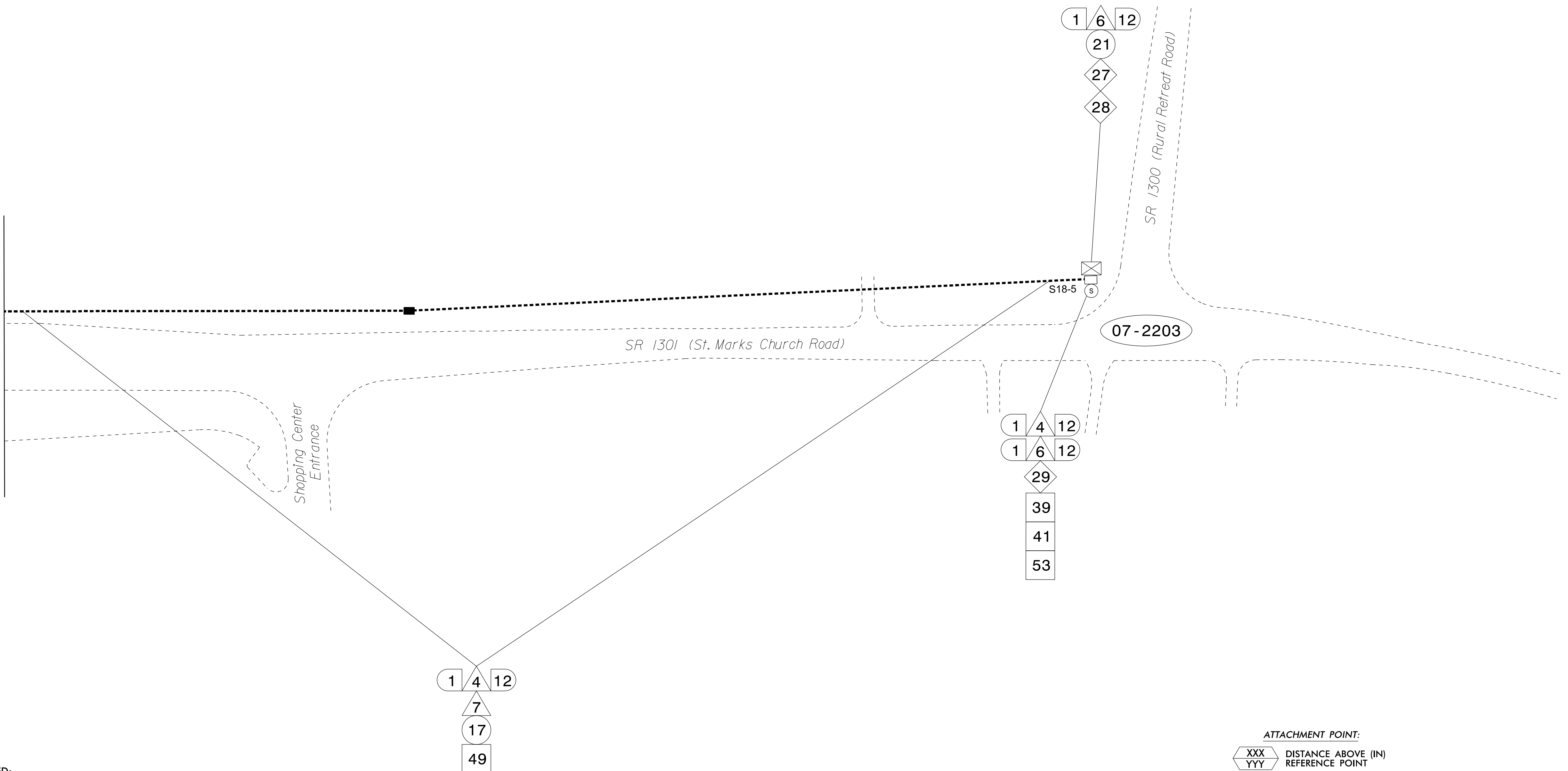
PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth
 REVISIONS INIT. DATE

SCALE: 0 50 1"=50'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOTH
 025892
 DocuSign
 Melissa B. Toth 6/13/2018
 DATE

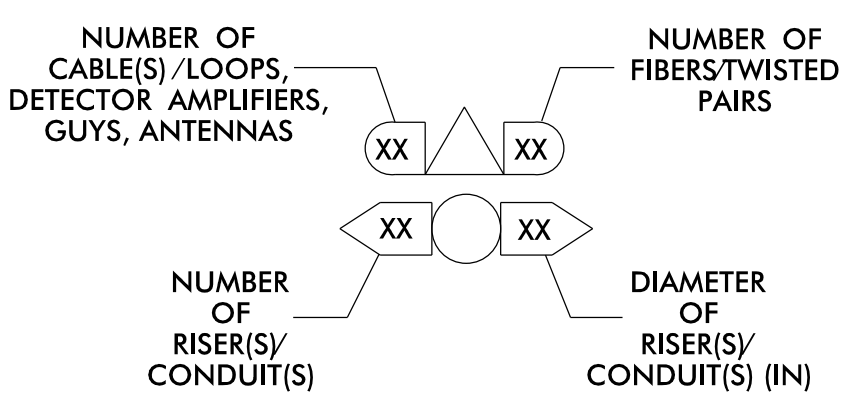
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MATCHLINE - SHEET CRP-6.057



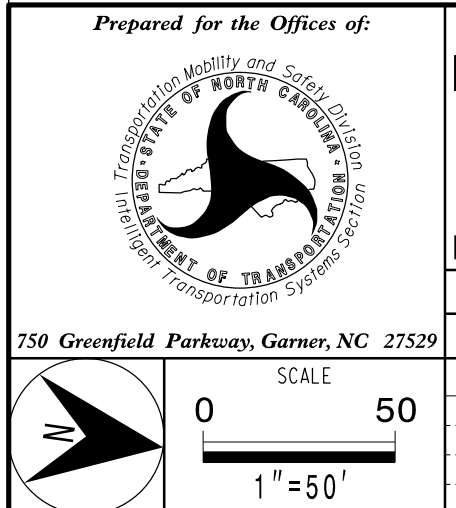
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Burlington-Graham Signal System Cable Routing Plans

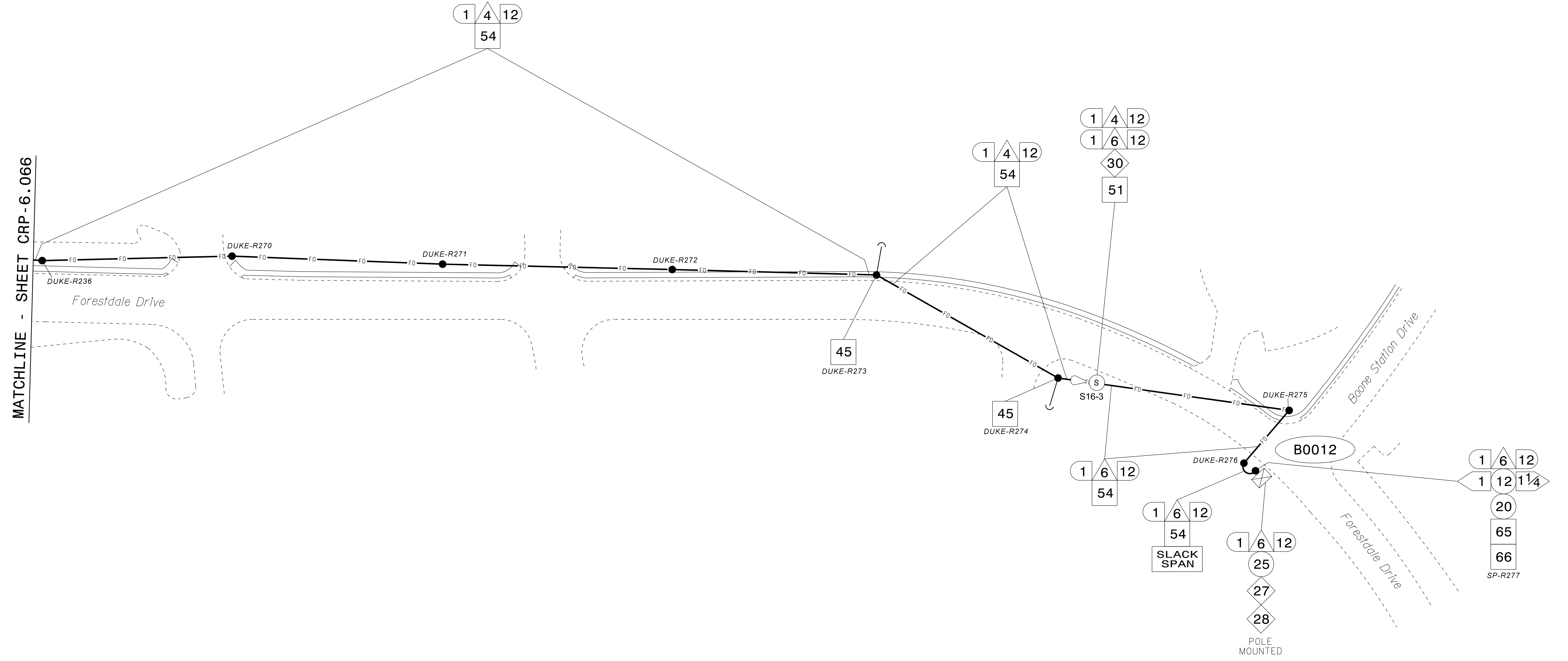
Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

REVISIONS INIT. DATE

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 025892
 MELISSA B. TOOTH
 08/08/2018
 DATE

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 AT LUS330048



MATCHLINE - SHEET CRP-6.066

DUKE-R236 DUKE-R270 DUKE-R271 DUKE-R272

Forestdale Drive

45 DUKE-R273

45 DUKE-R274

1 6 12 54

1 6 12 54 SLACK SPAN

B0012

Boone Station Drive
Forestdale Drive

1 6 12 1 12 1 1/4 20 65 66 SP-R277

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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEEES #F-0326

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Prepared for the Offices of:

 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth
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SEAL
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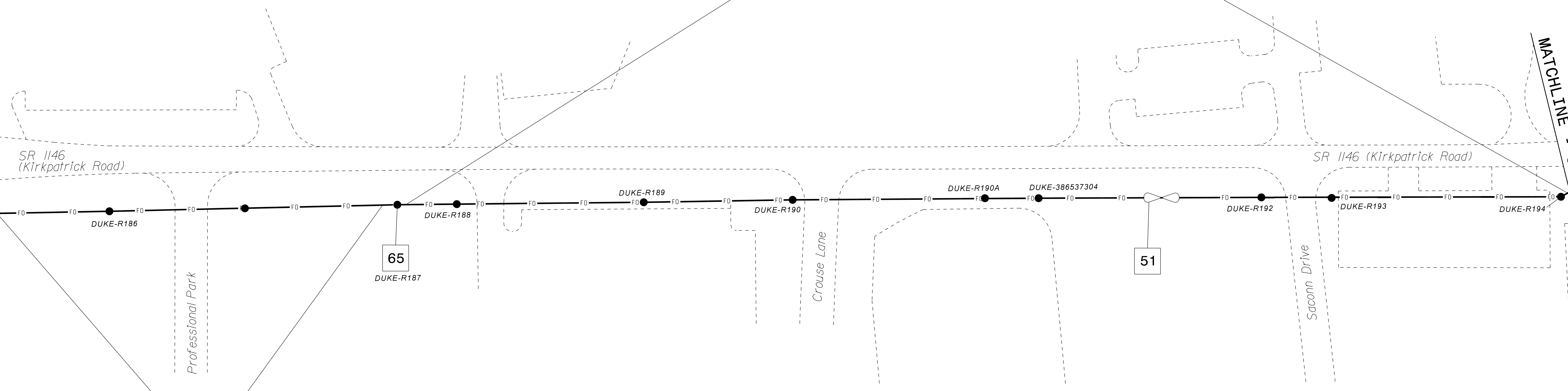
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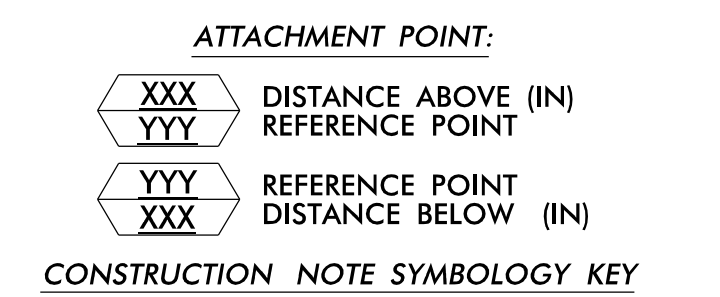
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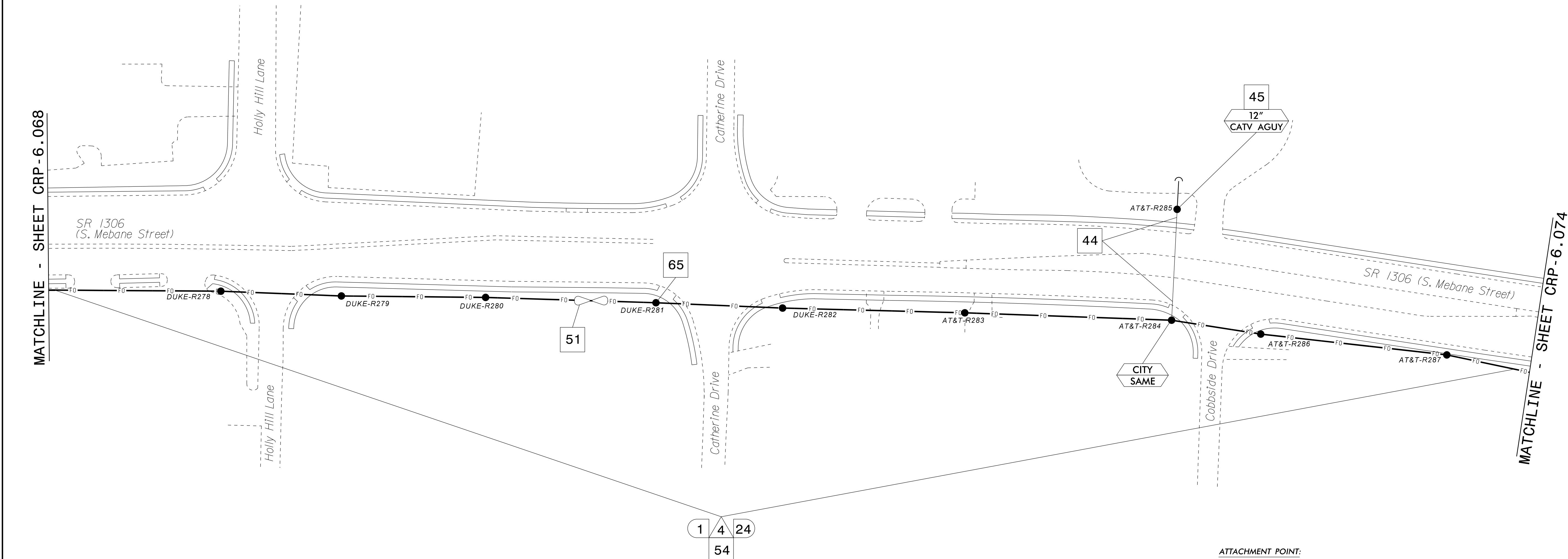
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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

Melissa B. Toth 6/13/2018

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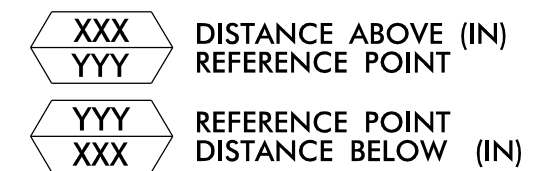


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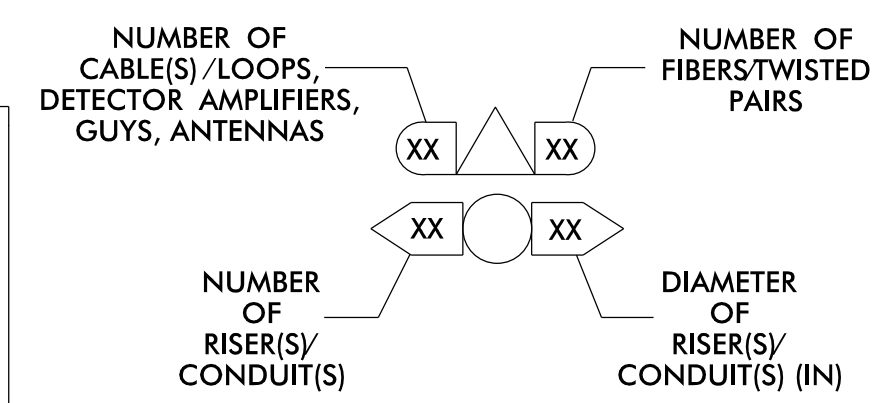
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ATTACHMENT POINT:



CONSTRUCTION NOTE SYMBOLOLOGY KEY



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

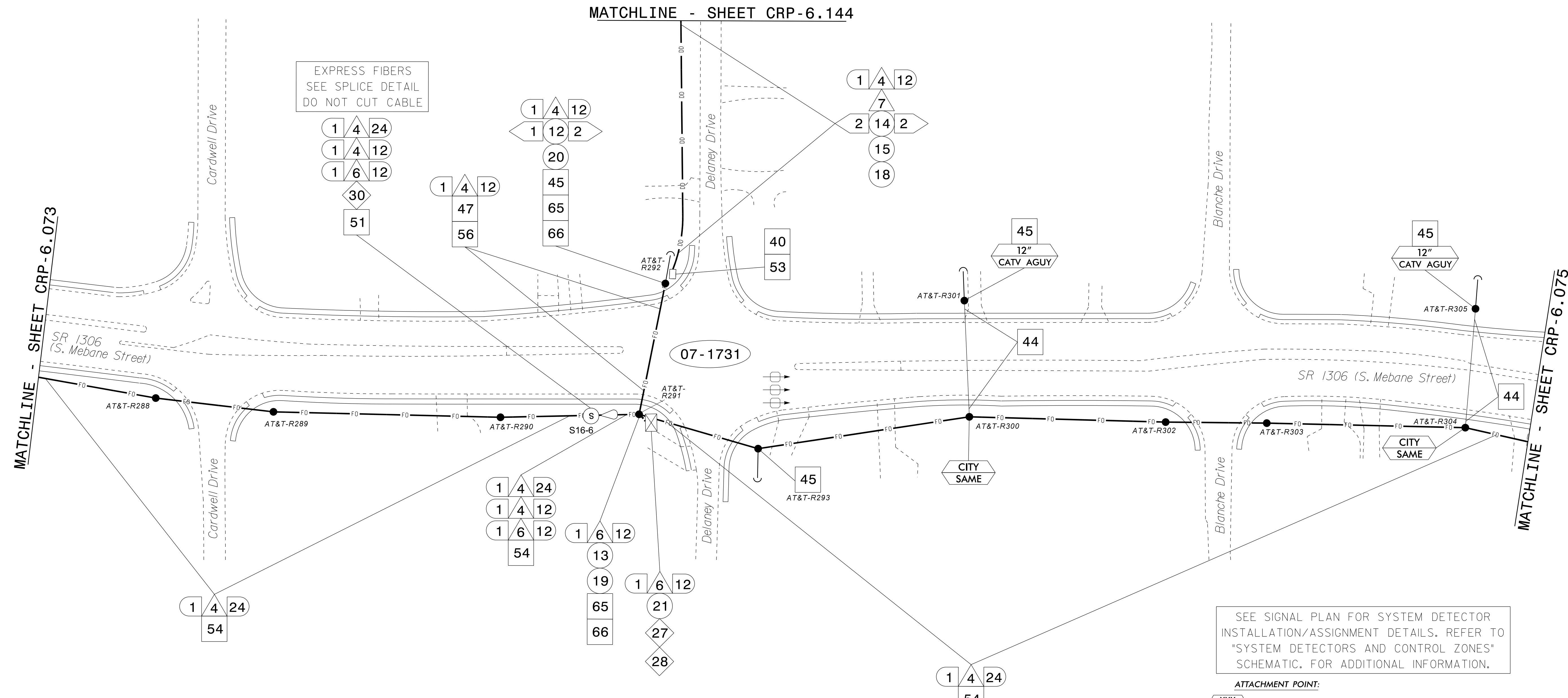
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REVISIONS INIT. DATE

MELISSA B. TOTH 1/13/2018

CADD File name: CL-073.dgn

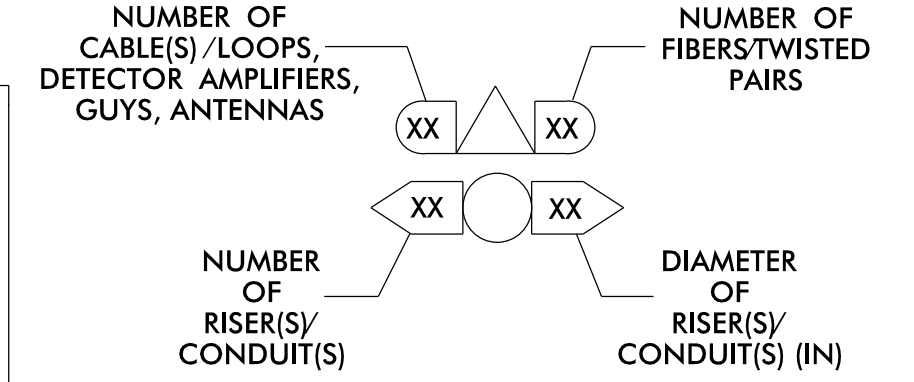
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

ATTACHMENT POINT:
 XXX DISTANCE ABOVE (IN) REFERENCE POINT
 YYY REFERENCE POINT
 YYY DISTANCE BELOW (IN) REFERENCE POINT

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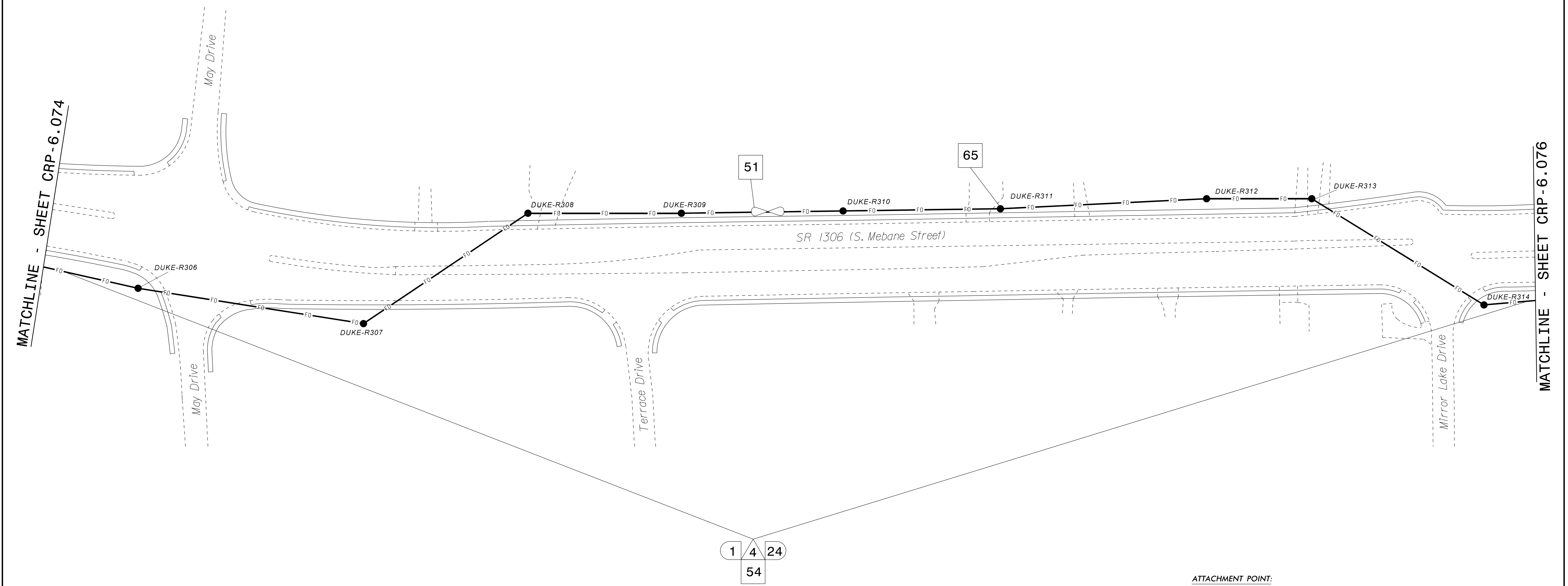
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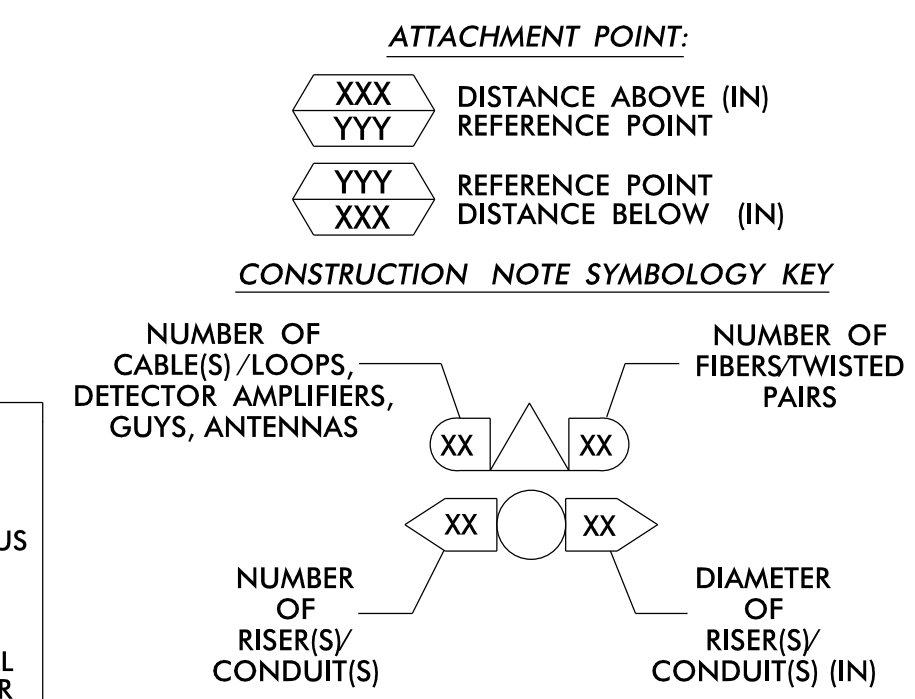
Prepared for the Offices of:
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 Division 7 Alamance County Burlington & Graham
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 REVISIONS INIT. DATE
 SCALE 1"=50'

 750 Greenfield Parkway, Garner, NC 27529
 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOOTH 025892
 Melissa B. Toth 1/13/2018
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

750 Greenfield Parkway, Garner, NC 27529

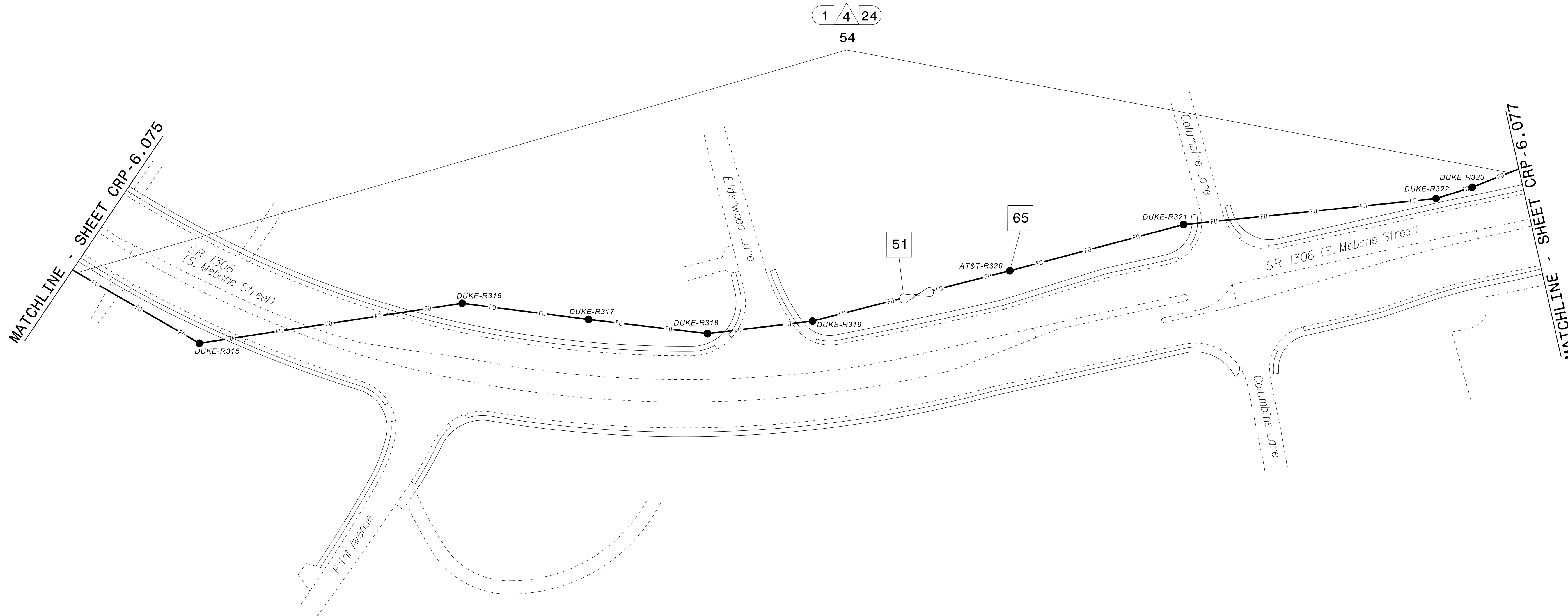
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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOOTH 025892

Melissa B. Toth 6/13/2018

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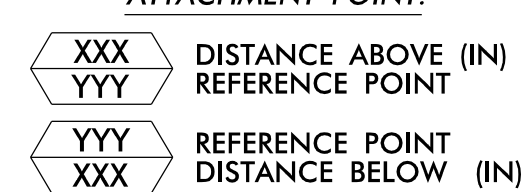
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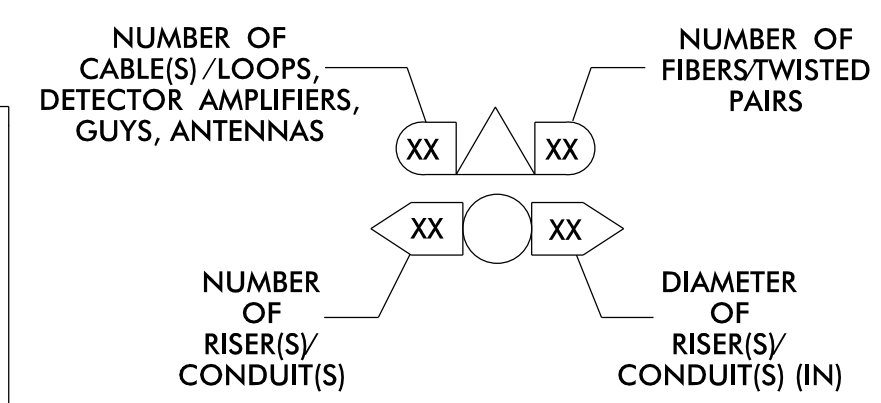
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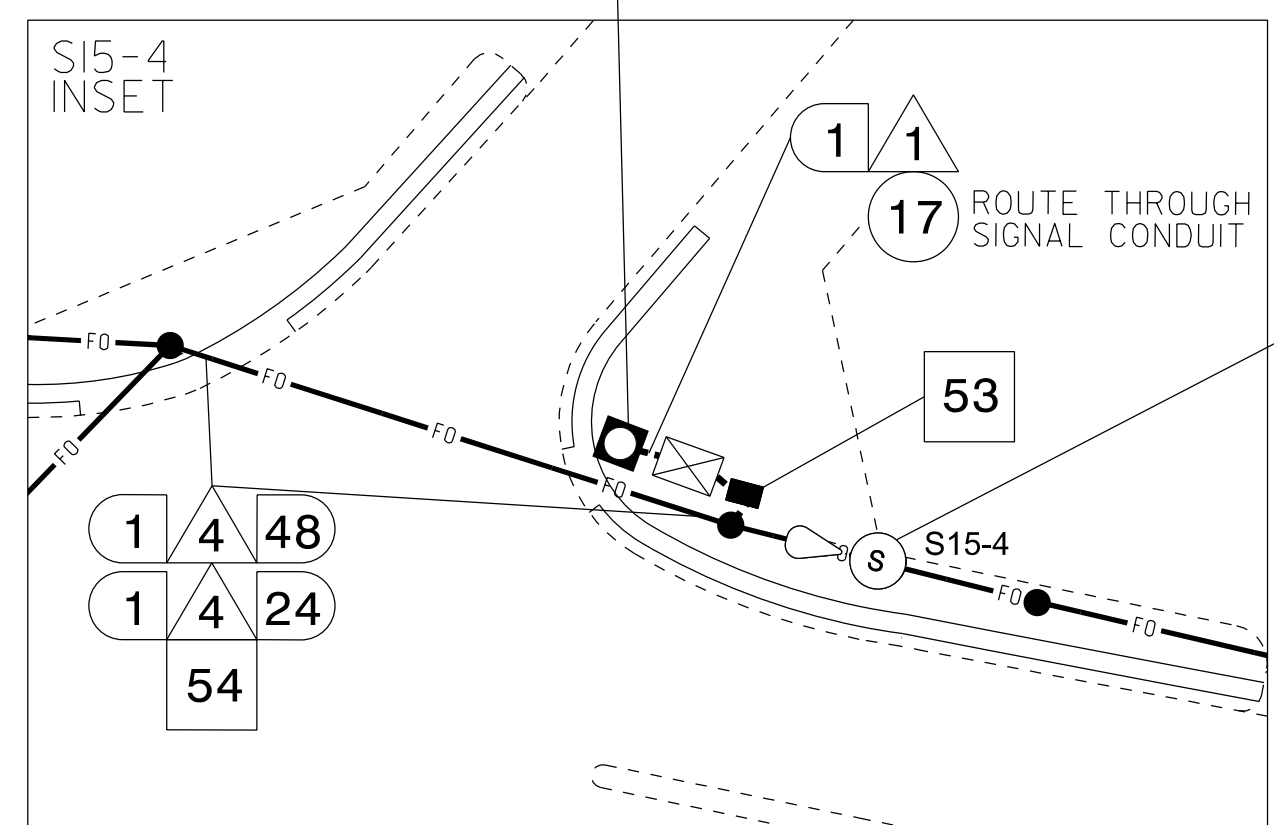
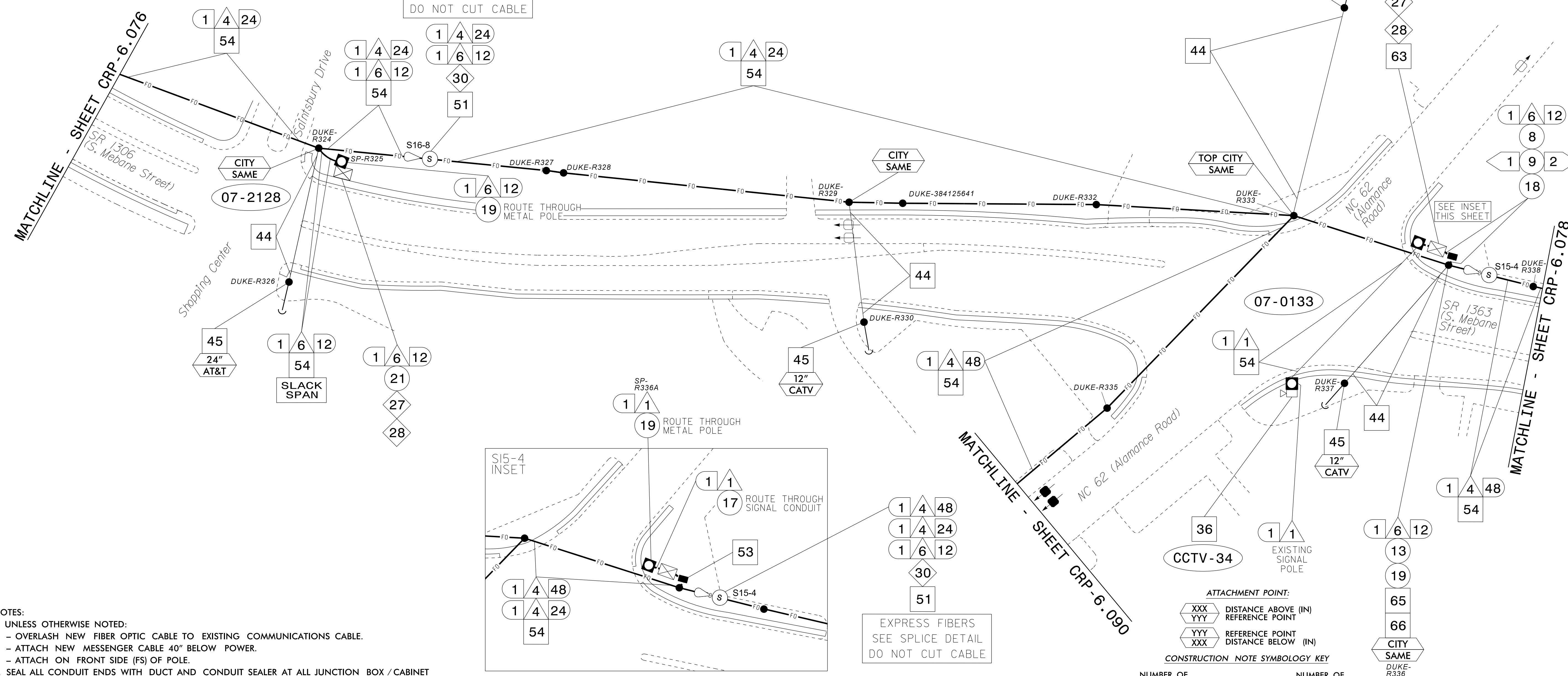
SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE

MATCHLINE - SHEET CRP-6.076

MATCHLINE - SHEET CRP-6.078

MATCHLINE - SHEET CRP-6.090



NOTES:

- UNLESS OTHERWISE NOTED:
 - OVERLASH NEW FIBER OPTIC CABLE TO EXISTING COMMUNICATIONS CABLE.
 - ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
 - ATTACH ON FRONT SIDE (FS) OF POLE.
- SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

ATTACHMENT POINT:

XXX
YYY DISTANCE ABOVE (IN)
REFERENCE POINT

YYY
XXX REFERENCE POINT
DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLGY KEY

NUMBER OF CABLE(S)/LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS

NUMBER OF RISER(S)/CONDUIT(S)

NUMBER OF FIBER/TWISTED PAIRS

DIAMETER OF RISER(S)/CONDUIT(S) (IN)

| | | | | | | |
|--|--|--|--|---|--|--|
| 1 INSTALL CATEGORY 6 CABLE | 11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD | 22 INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE) | 32 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER | 43 REMOVE EXISTING WOOD POLE | 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE | 66 BOND RISER TO POLE GROUND |
| 2 INSTALL LOW VOLTAGE POWER CABLE (24VAC) | 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING | 23 INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE) | 33 REMOVE EXISTING SPLICE /HUB /CCTV CABINET | 44 INSTALL AERIAL GUY ASSEMBLY | 56 LASH CABLE(S) TO NEW MESSENGER CABLE | 67 BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 3 INSTALL COMPOSITE CCTV CABLE | 13 INSTALL HEAT SHRINK TUBING KIT | 24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET | 34 INSTALL CABINET FOUNDATION | 45 INSTALL STANDARD GUY ASSEMBLY | 57 MODIFY EXISTING ELECTRICAL SERVICE FOR CCTV | 68 BOND TRACER WIRE TO POLE GROUND |
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| 5 INSTALL COAXIAL ANTENNA CABLE | 15 DIRECTIONAL DRILL CONDUIT | 26 INSTALL DIGITAL VIDEO ENCODER | 36 INSTALL CCTV CAMERA ASSEMBLY | 47 INSTALL MESSENGER CABLE | 59 INSTALL NEW POLE MOUNTED CCTV CABINET (336) | 70 INSTALL CCTV CABINET DISCONNECT |
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBS# #F-0326

Prepared for the Offices of:

 Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS: _____ INIT. DATE _____

SCALE: 1"=50'

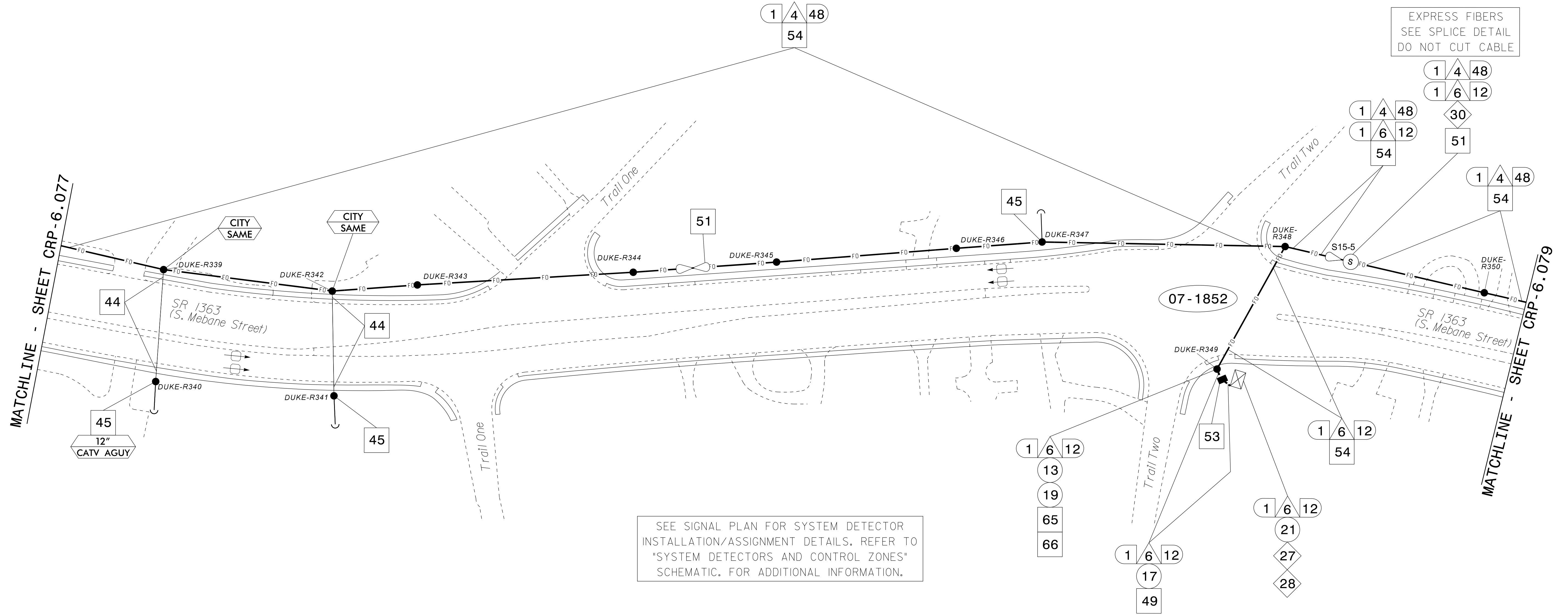
750 Greenfield Parkway, Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
MELISSA B. TOOTH
025892
13/2018
DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CL-077.dgn

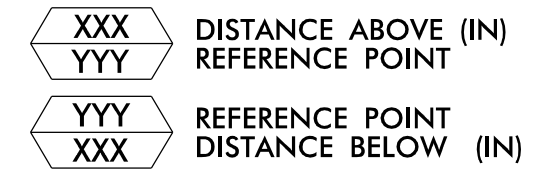
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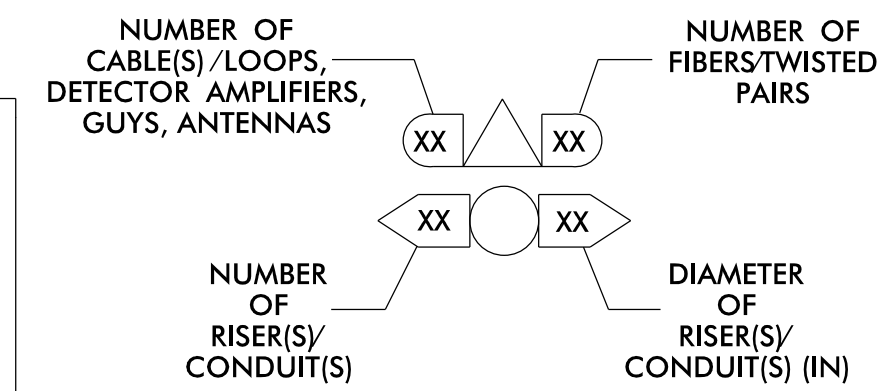
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ATTACHMENT POINT:



CONSTRUCTION NOTE SYMBOLOLOGY KEY



ATKINS

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

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Project title: Burlington-Graham Signal System Cable Routing Plans. Includes logos for North Carolina Department of Transportation and Atkins.

Burlington-Graham Signal System Cable Routing Plans

Table with project details: Division 7, Alamance County, Burlington & Graham. Includes dates (June 2018), reviewer (M B Toth), and preparation/revision information.

Professional Engineer seal for Melissa B. Toth, License No. 025892, dated 1/13/2018.

Table 1: Cable and Conduit Installation Details (Items 1-10). Includes instructions for installing category 6 cable, low voltage power cable, composite CCTV cable, SMFO cable, coaxial antenna cable, fiber-optic drop cable, tracer wire, PVC conduit, and rigid galvanized steel conduit.

Table 2: Riser and Conduit Installation Details (Items 11-21). Includes instructions for installing rigid galvanized steel risers, high density polyethylene conduit, directional drill conduit, bore and jack conduit, and cable(s) in existing/new conduit and riser(s).

Table 3: Splice and Cabinet Installation Details (Items 22-31). Includes instructions for installing new conduit into cabinet bases, heat shrink tubing kits, digital video encoders, Ethernet switches, interconnect centers, patch panels, and splice cabinets.

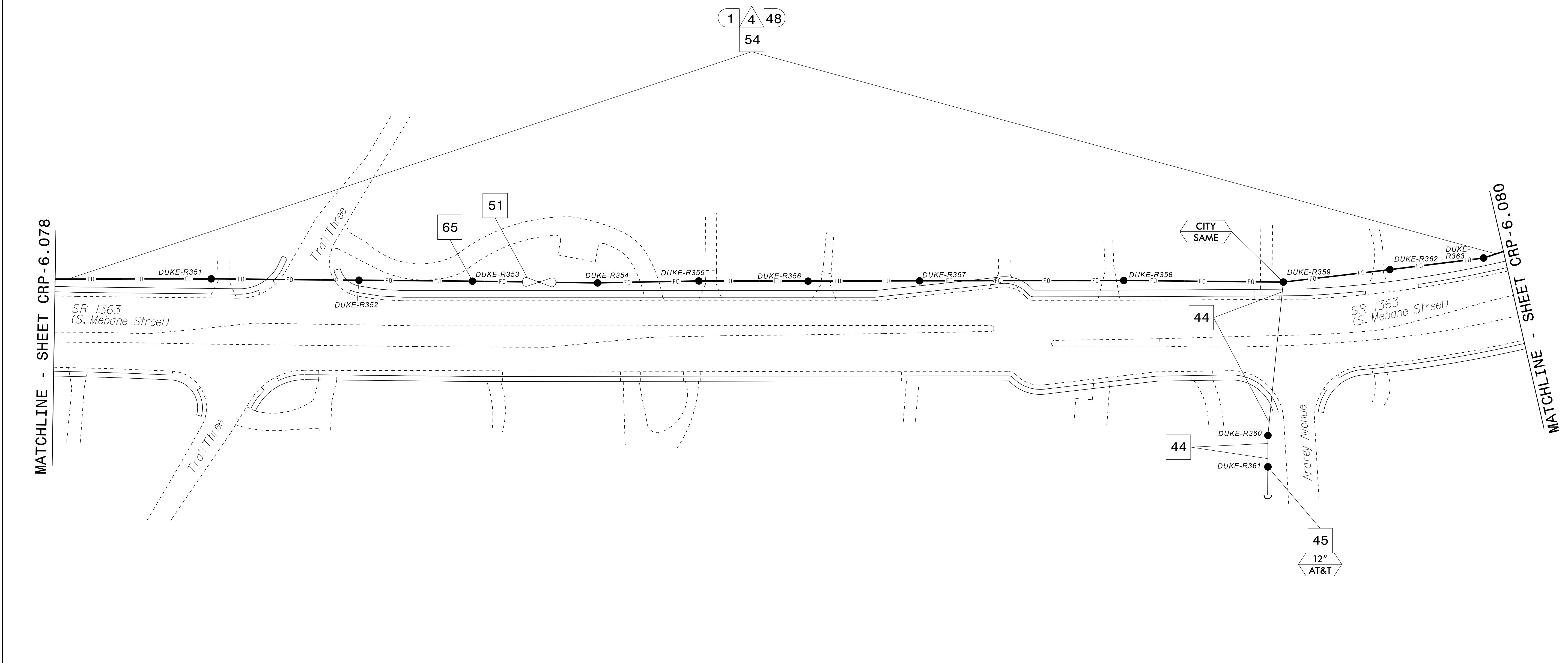
Table 4: Pole and Foundation Installation Details (Items 32-42). Includes instructions for modifying splice enclosures, removing existing splice/hub/CCTV cabinets, installing cabinet foundations, CCTV camera assemblies, and wood poles.

Table 5: Messenger and Guy Assembly Installation Details (Items 43-54). Includes instructions for removing wood poles, installing aerial/sidewalk/guy assemblies, messenger cables, and service conductors.

Table 6: Cabinet and Service Installation Details (Items 55-65). Includes instructions for lashing messenger cables to existing/new poles, modifying electrical service, and installing CCTV cabinets and camera assemblies.

Table 7: Riser and Conduit Installation Details (Items 66-77). Includes instructions for bonding risers to pole ground, installing tracers, handlashing, CCTV cabinets, Ethernet switches, metal poles, and CCTV equipment.

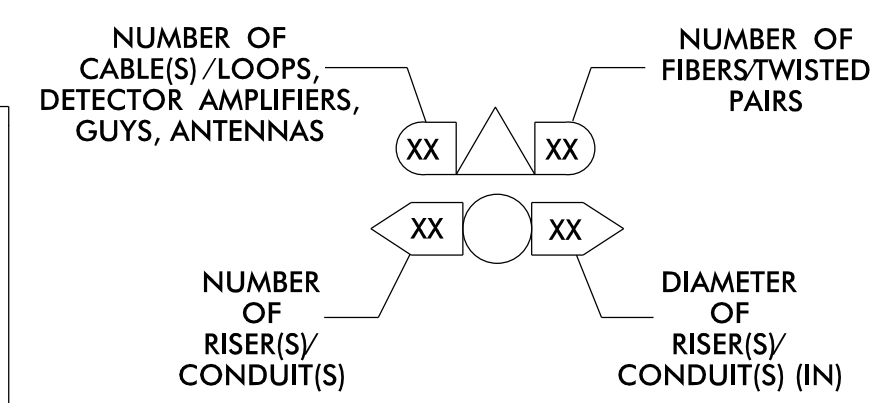
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ATTACHMENT POINT:
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 YYY
 XXX REFERENCE POINT DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

| | | | | | | | | | | | | | |
|----|---|----|---|----|---|----|---|----|--|-----|---|----|---|
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Prepared for the Offices of:

 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

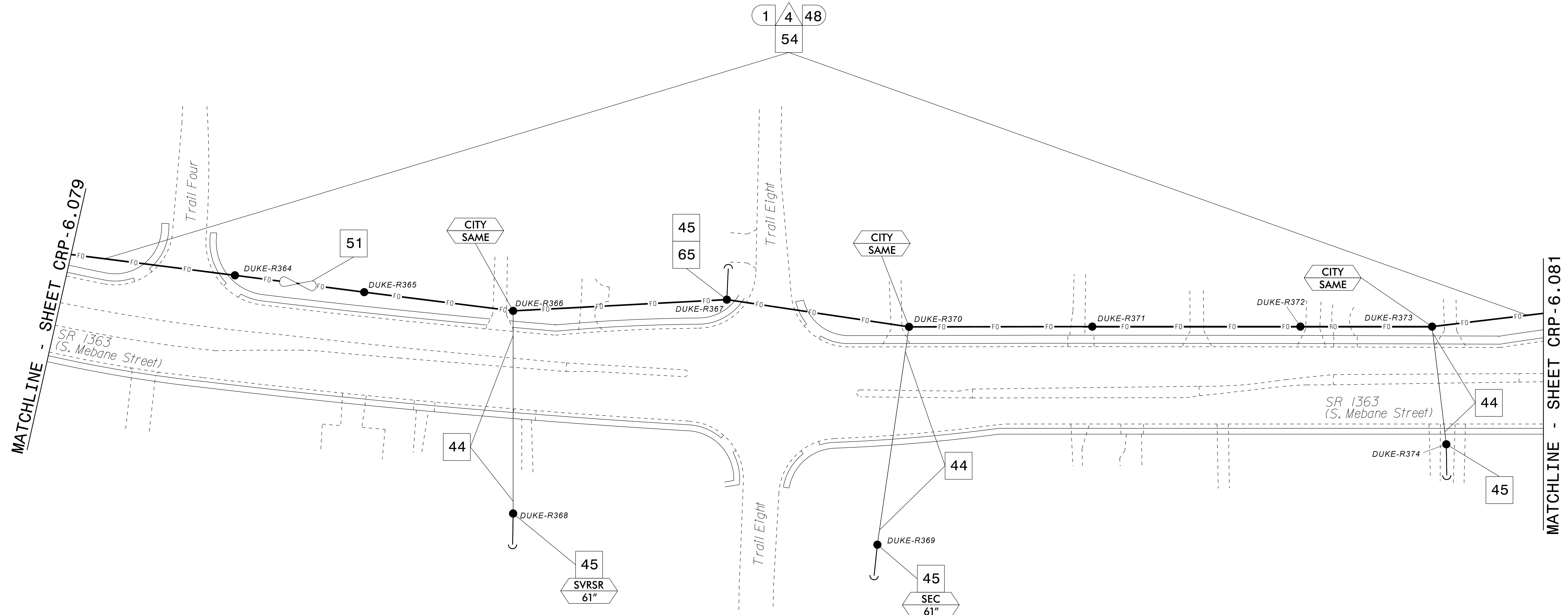
PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

REVISIONS: INIT. DATE

SCALE: 1"=50'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOTH
 025892
 13/2018
 CL-079.dgn

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 AT LUS330048 ENCA5386



NOTES:
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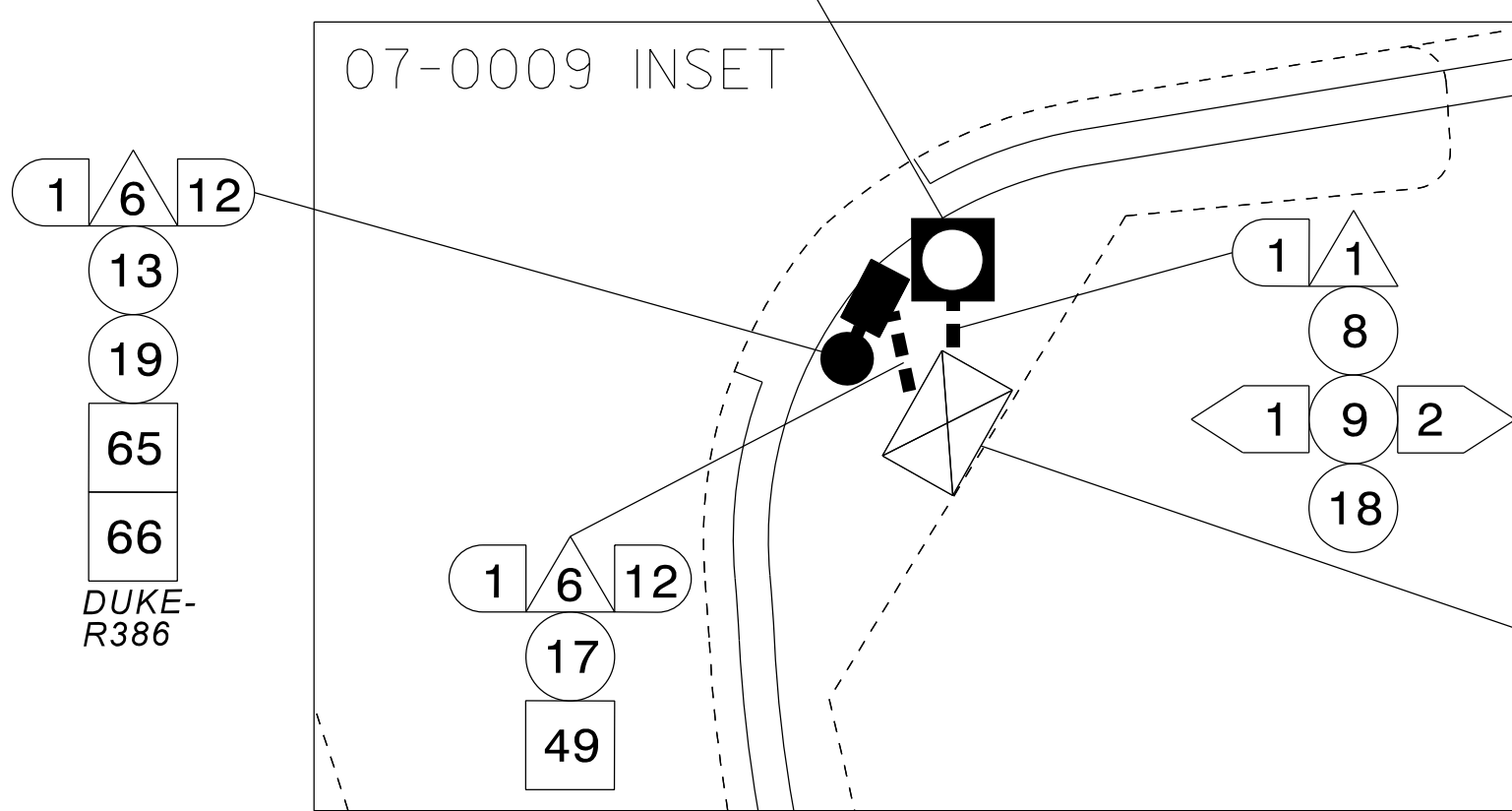
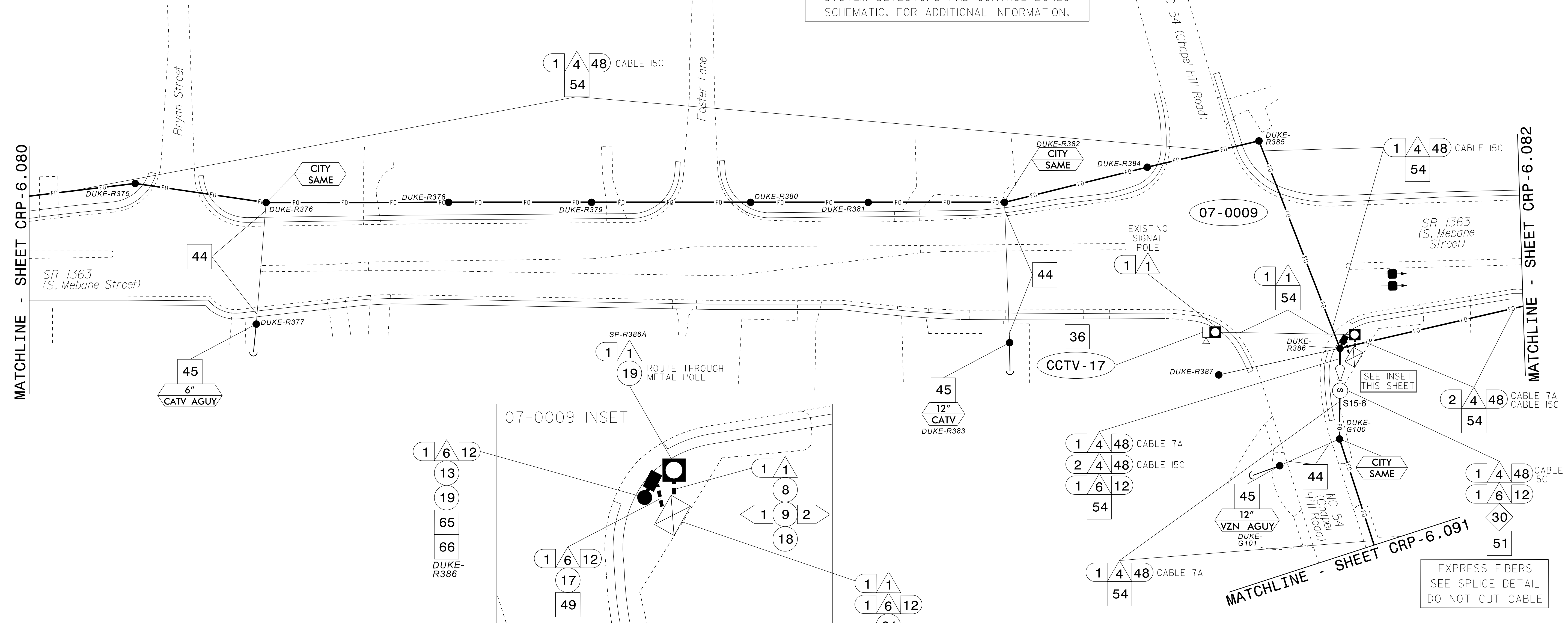
ATTACHMENT POINT:
CONSTRUCTION NOTE SYMBOLOLOGY KEY
ATKINS
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Table with 10 columns and 10 rows of construction notes and symbols. Includes items like 'INSTALL CATEGORY 6 CABLE', 'INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD', 'REMOVE EXISTING WOOD POLE', 'LASH CABLE(S) TO EXISTING MESSENGER CABLE', etc.

Project information block including the Atkins logo, project title 'Burlington-Graham Signal System Cable Routing Plans', division 'Division 7 Alamance County', and a signature block for Melina B. Toth dated 11/13/2018.

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ENC45386 AT LUS330048

SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.



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Prepared for the Offices of:
 North Carolina Department of Transportation
 Division 7 Alamance County Burlington & Graham

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham
 PLAN DATE: June 2018 REVIEWED BY: M B Toth
 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529
 SCALE 0 50 1"=50'

REVISIONS
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SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 025892
 MELISSA B. TOOTH
 Melissa B. Toth 1/13/2018
 DATE

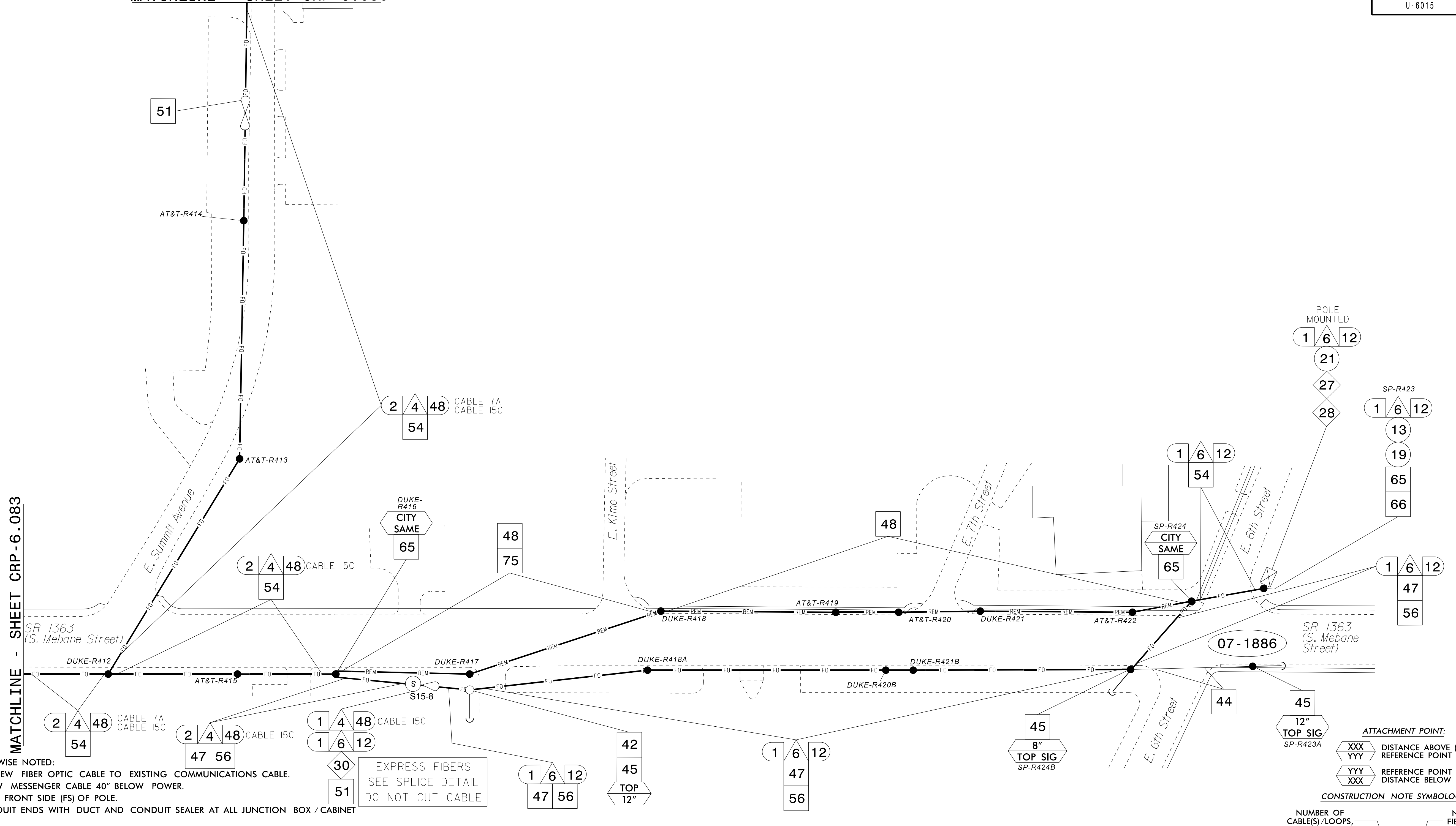
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MATCHLINE - SHEET CRP-6.086

MATCHLINE - SHEET CRP-6.083



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NUMBER OF RISER(S)/CONDUIT(S)

NUMBER OF FIBER/TWISTED PAIRS

DIAMETER OF RISER(S)/CONDUIT(S) (IN)

| | | | | | | |
|--|--|--|--|---|--|--|
| 1 INSTALL CATEGORY 6 CABLE | 11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD | 22 INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE) | 32 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER | 43 REMOVE EXISTING WOOD POLE | 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE | 66 BOND RISER TO POLE GROUND |
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Prepared for the Offices of:

 State of North Carolina
 Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

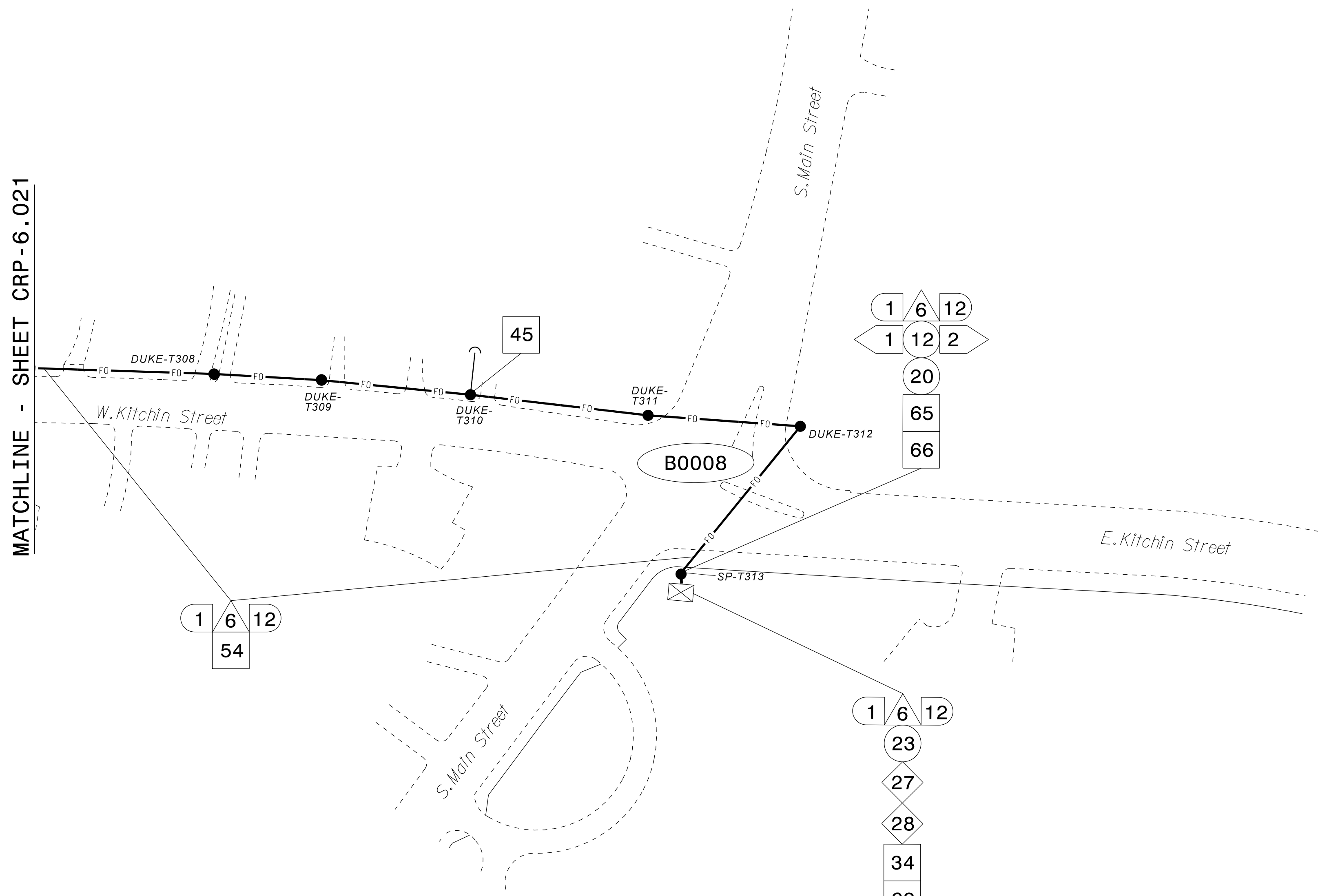
PLAN DATE: June 2018 RALEIGH, NORTH CAROLINA 27609
 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth
 REVISIONS INIT. DATE

750 Greenfield Parkway, Garner, NC 27529
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 1"=50'

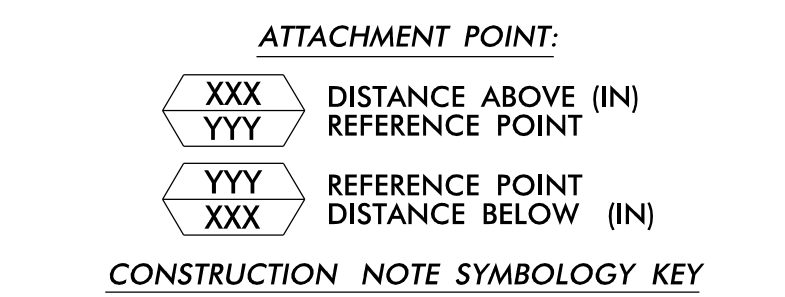
SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 025892
 MELISSA B. 10TH
 Melissa B. Toth 1/13/2018
 DATE

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ATKINS

Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

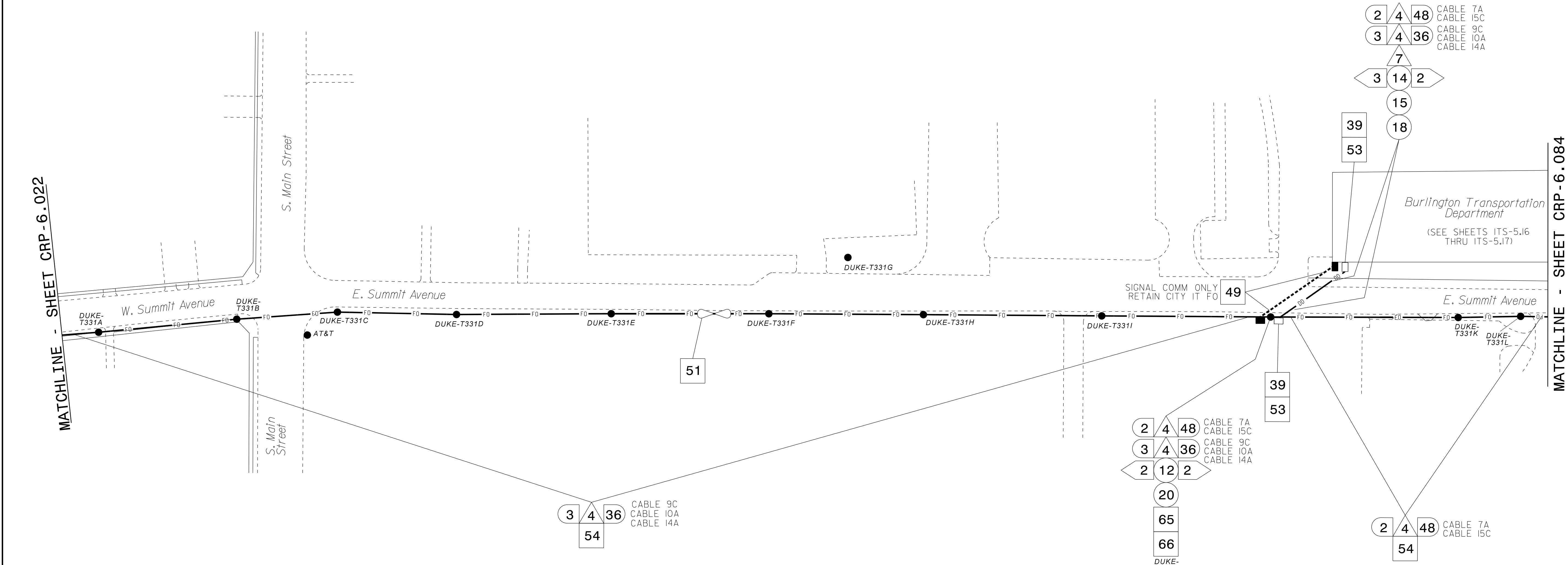
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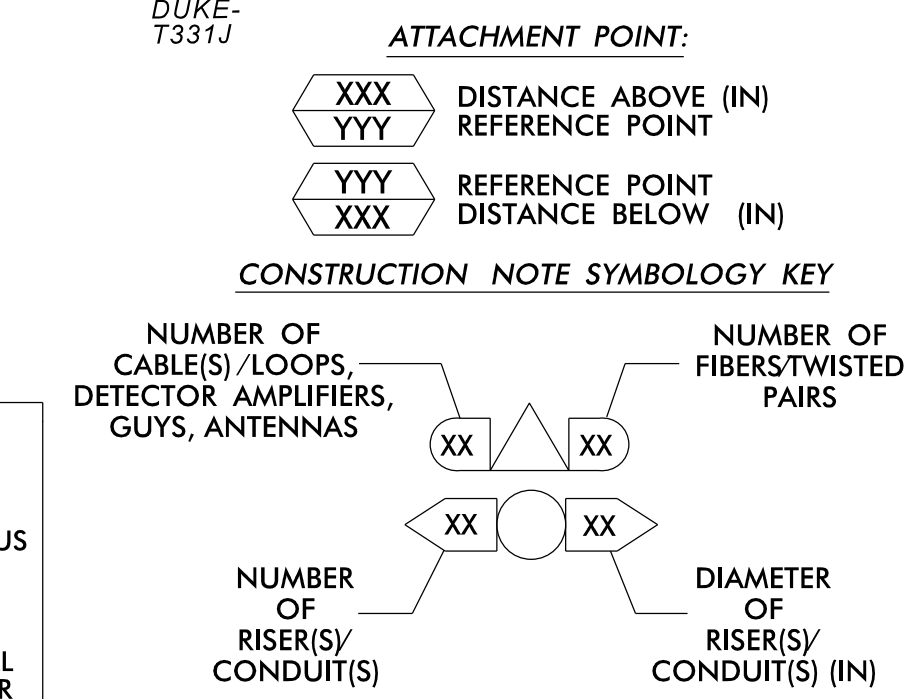
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Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

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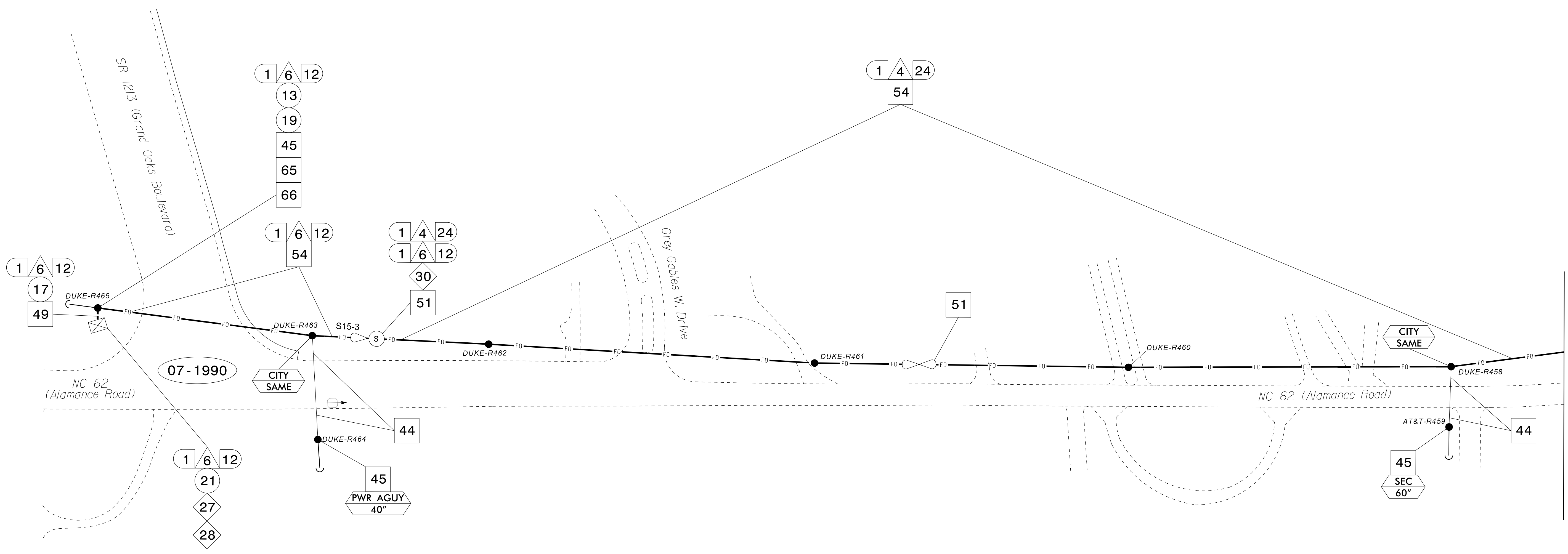
REVISIONS: INIT. DATE

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

Melissa B. Toth 11/13/2018

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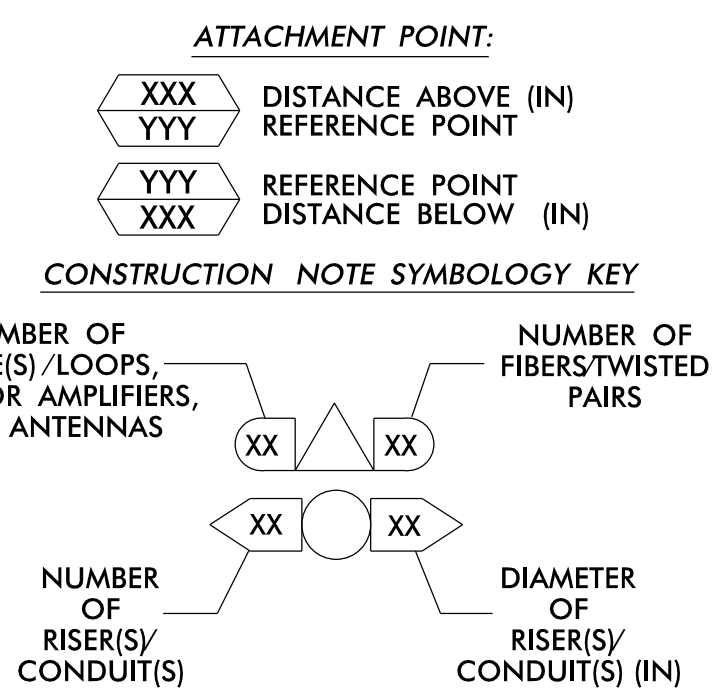
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

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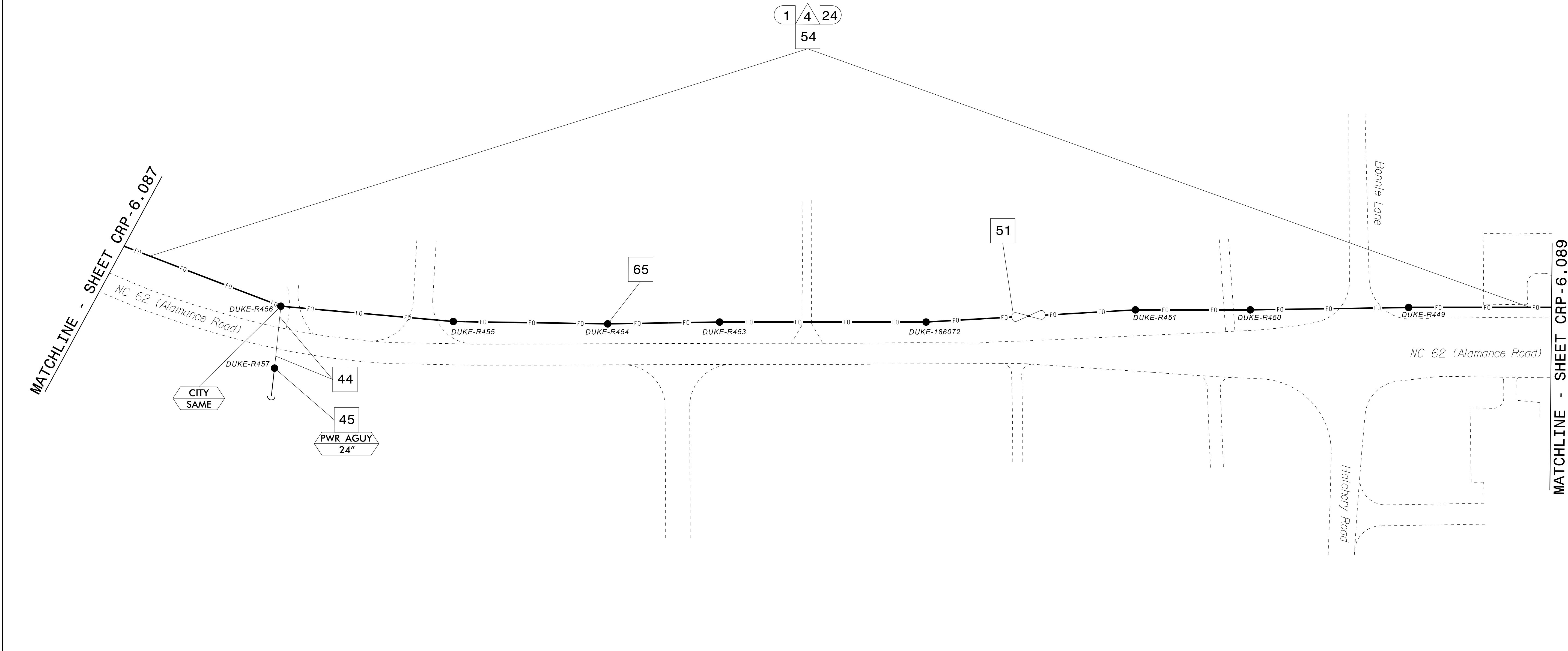
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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOOTH 025892

Melissa B. Toth 6/13/2018

CADD File name: CL-087.dgn

13-JUN-2018 15:43 01:TC:\projects\Burlington-Graham\Signal System\Task 11_CL-087.dgn ENCA5396 AT LUS330048



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ATTACHMENT POINT:

XXX
YYY DISTANCE ABOVE (IN)
REFERENCE POINT

YYY
XXX REFERENCE POINT
DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY

NUMBER OF CABLE(S) / LOOPS, DETECTOR / AMPLIFIERS, GUY, ANTENNAS: XX △ XX

NUMBER OF FIBER TWISTED PAIRS: XX △ XX

NUMBER OF RISER(S) / CONDUIT(S): XX ○ XX

DIAMETER OF RISER(S) / CONDUIT(S) (IN): XX ○ XX

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Prepared for the Offices of:

 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

REVISIONS: _____ INIT. DATE

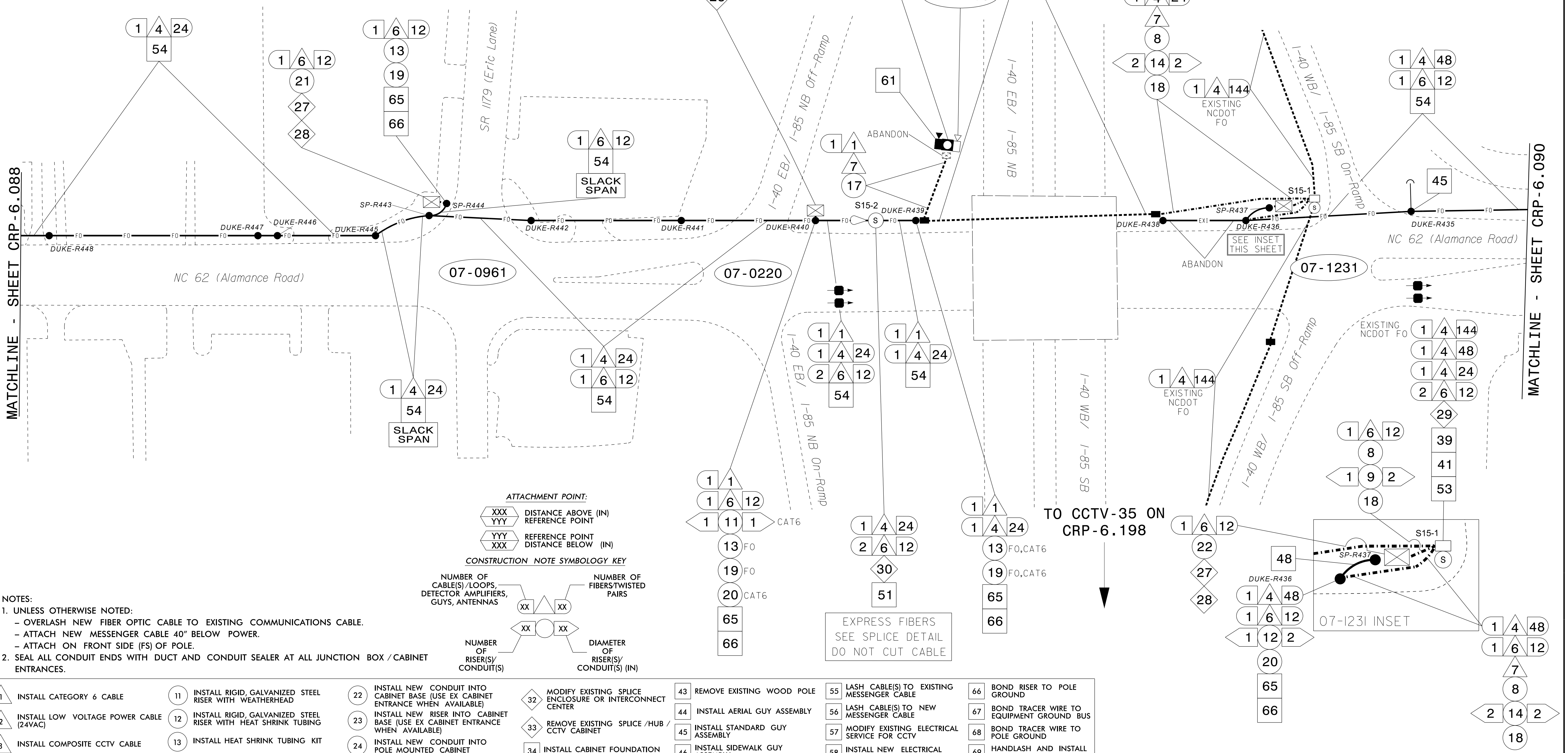
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Melissa B. Toth 1/13/2018
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 MELISSA B. TOTH
 ENGINEER
 SEAL

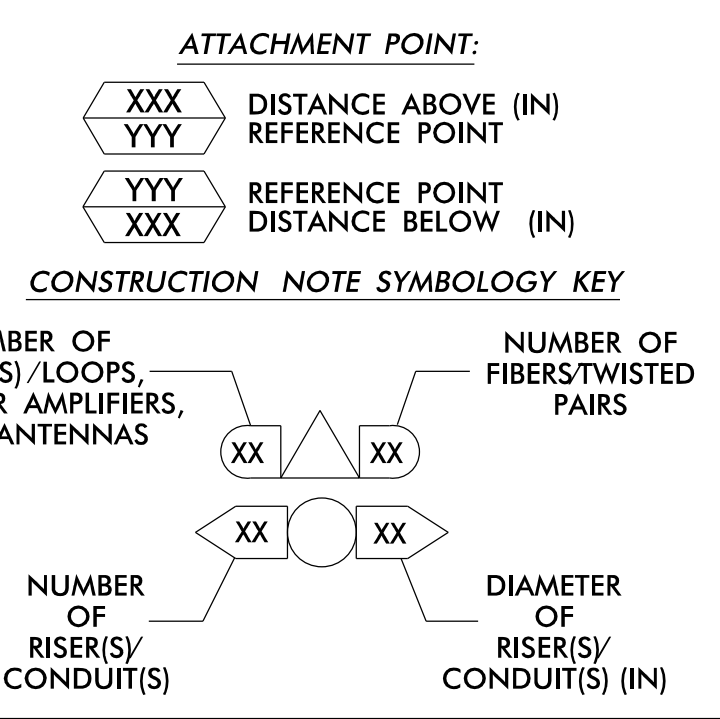
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.



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ATKINS

1616 EAST MILLBROOK ROAD, SUITE 160
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 (919) 876-6888 NCBEES #F-0326

**Burlington-Graham Signal System
Cable Routing Plans**

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AWE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
025892
ENGINEER
MELISSA B. TOTH

Melissa B. Toth 1/13/2018

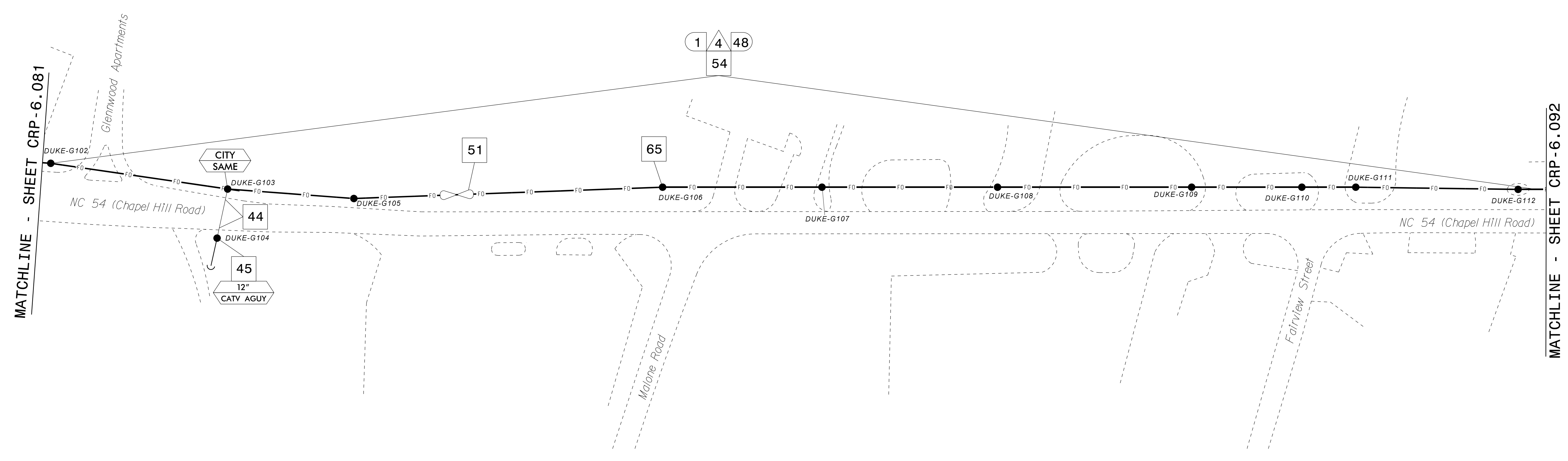
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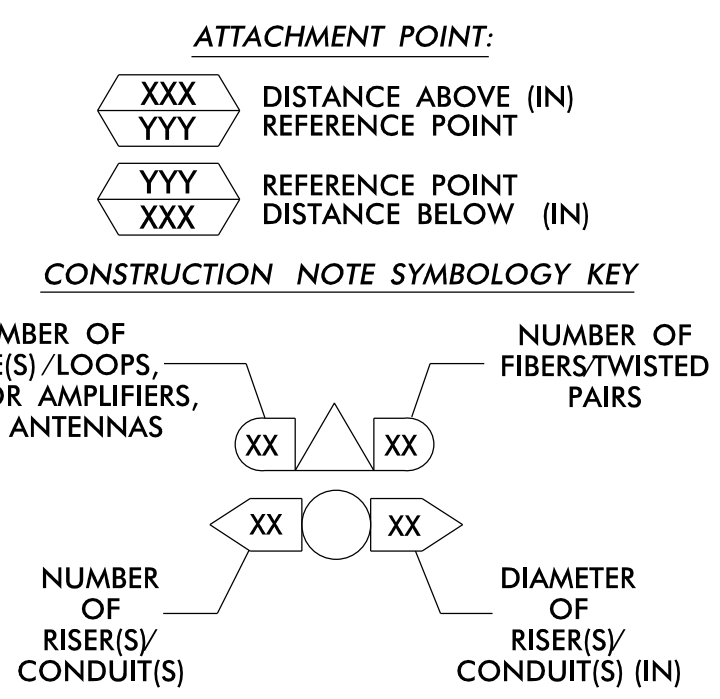
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Prepared for the Offices of:

 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 Transportation Systems Section

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

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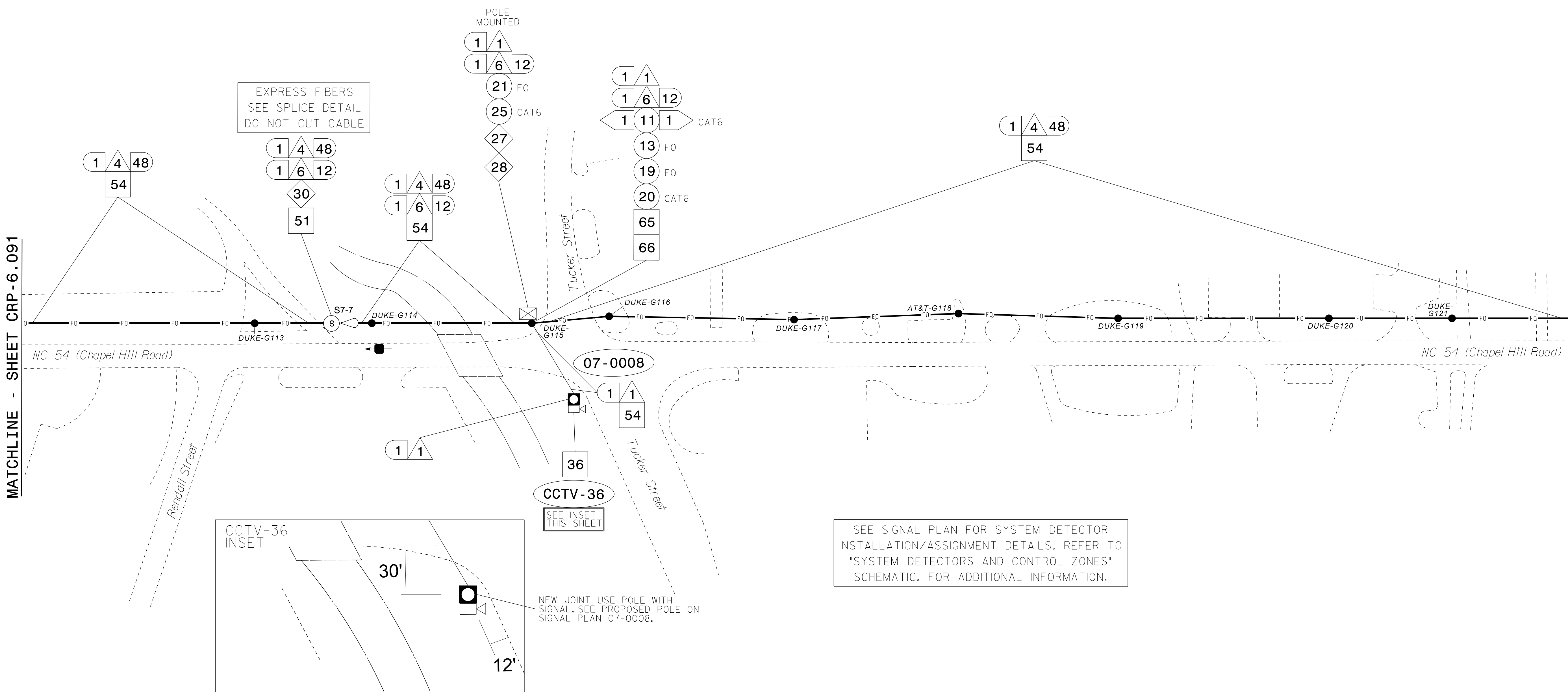
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Melissa B. Toth 1/13/2018

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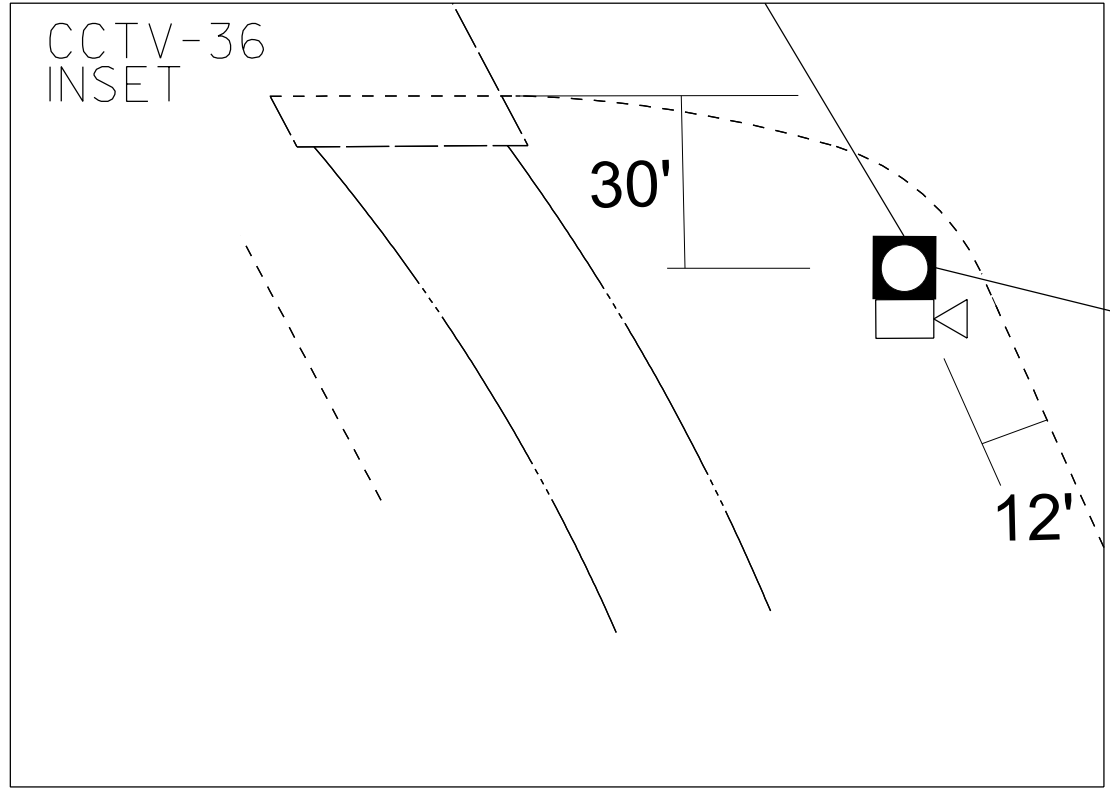


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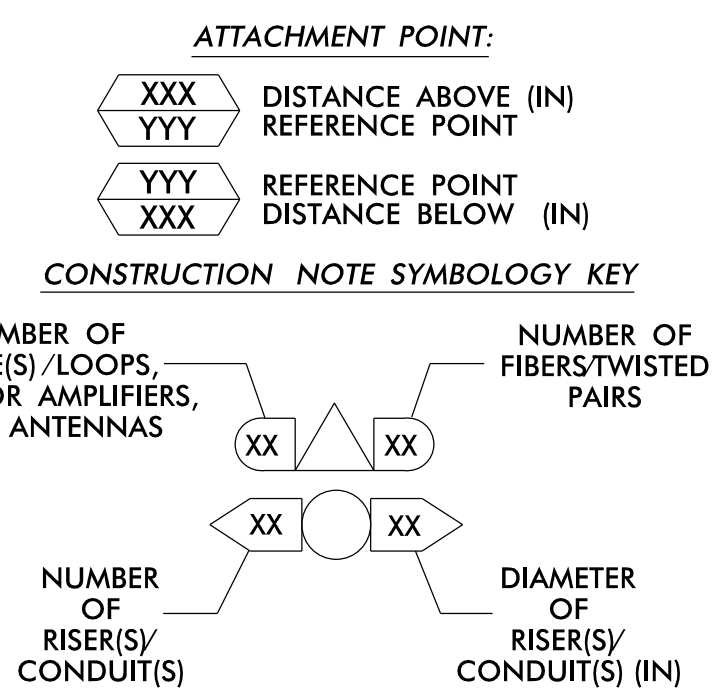
EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE

SEE SIGNAL PLAN FOR SYSTEM DETECTOR
INSTALLATION/ASSIGNMENT DETAILS. REFER TO
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NEW JOINT USE POLE WITH
SIGNAL. SEE PROPOSED POLE ON
SIGNAL PLAN 07-0008.

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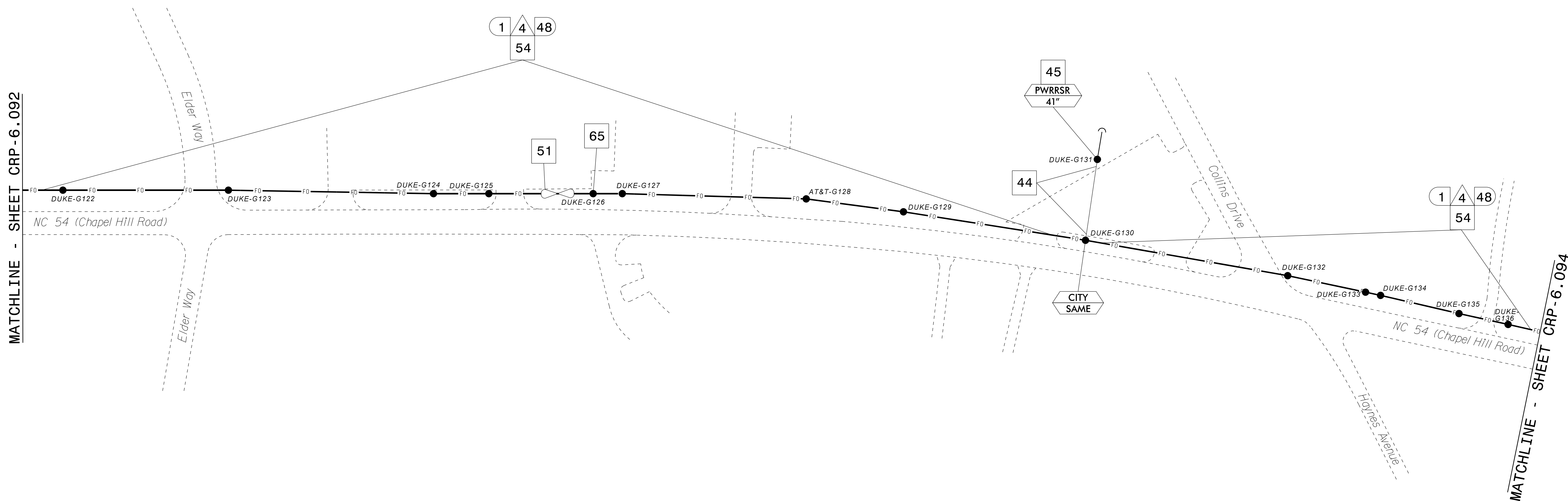
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Melissa B. Toth 11/13/2018

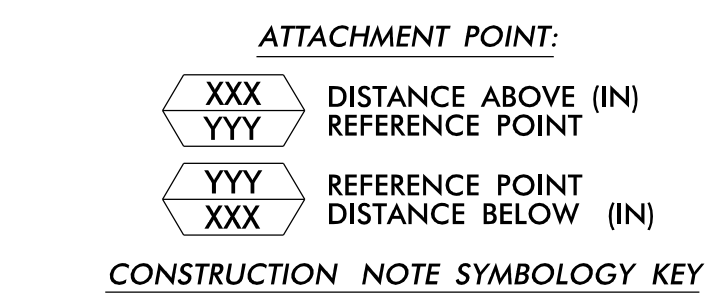
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| 4 | INSTALL SMFO CABLE | 14 | INSTALL HIGH DENSITY POLYETHYLENE CONDUIT | 25 | INSTALL NEW RISER INTO POLE MOUNTED CABINET | 35 | REMOVE EXISTING CABINET FOUNDATION | 46 | INSTALL SIDEWALK GUY ASSEMBLY | 58 | INSTALL NEW ELECTRICAL SERVICE FOR CCTV OR RADIO | 69 | HANDLASH AND INSTALL AERIAL CABLE PROTECTOR |
| 5 | INSTALL COAXIAL ANTENNA CABLE | 15 | DIRECTIONAL DRILL CONDUIT | 26 | INSTALL DIGITAL VIDEO ENCODER | 36 | INSTALL CCTV CAMERA ASSEMBLY | 47 | INSTALL MESSENGER CABLE | 59 | INSTALL NEW POLE MOUNTED CCTV CABINET (336) | 70 | INSTALL CCTV CABINET DISCONNECT |
| 6 | INSTALL FIBER-OPTIC DROP CABLE | 16 | BORE AND JACK CONDUIT | 27 | INSTALL NEW ETHERNET EDGE SWITCH IN CABINET | 37 | INSTALL CCTV WOOD POLE | 48 | REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE | 60 | INSTALL NEW CCTV CABINET (NEMA TYPE 4) | 71 | INSTALL MANAGED ETHERNET SWITCH |
| 7 | INSTALL TRACER WIRE | 17 | INSTALL CABLE(S) IN EXISTING CONDUIT | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL JUMPERS, AND FUSION SPLICE CABLE IN CABINET | 38 | INSTALL STANDARD SIZE JUNCTION BOX | 49 | REMOVE EXISTING COMMUNICATIONS CABLE | 60A | INSTALL NEW POLE MOUNTED CABINET FOR ANTENNA (RADIO) | 72 | INSTALL CCTV METAL POLE |
| 8 | INSTALL CONDUIT UNDERGROUND | 18 | INSTALL CABLE(S) IN NEW CONDUIT | 29 | INSTALL UNDERGROUND SPLICE ENCLOSURE | 39 | INSTALL SPECIAL-SIZED JUNCTION BOX | 50 | INSTALL SERVICE CONDUCTORS | 61 | REMOVE EXISTING CCTV CAMERA ASSEMBLY | 73 | REMOVE EXISTING CCTV METAL POLE |
| 9 | INSTALL PVC CONDUIT | 19 | INSTALL CABLE(S) IN EXISTING RISER(S) | 30 | INSTALL AERIAL SPLICE ENCLOSURE | 40 | INSTALL OVER-SIZED JUNCTION BOX | 51 | INSTALL CABLE STORAGE GUIDE(S) [SNOW SHOE(S)] AND STORE 100 FEET OF EACH CABLE | 62 | NEW CABINET ENTRANCE INTO NEW FOUNDATION | 74 | REMOVE WIRELESS COMMUNICATIONS EQUIPMENT |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 20 | INSTALL CABLE(S) IN NEW RISER(S) | 31 | INSTALL SPLICE CABINET | 41 | REMOVE EXISTING JUNCTION BOX | 52 | INSTALL DELINEATOR MARKER | 63 | DRILL/CORE DRILL EXISTING FOUNDATION | 75 | BACKPULL AND COIL CITY IT CABLE |
| | | | | | | 42 | INSTALL WOOD POLE | 53 | STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE) | 76 | INSTALL 2.4 GHZ RADIO AND PANEL ANTENNA | | |
| | | | | | | | | 54 | LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE | 77 | INSTALL BASE MOUNTED CCTV CABINET WITH EXTENDER (336) | | |

Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018
 PREPARED BY: AME/AJH/VJP/NAP/JAW
 REVIEWED BY: M B Toth
 REVISIONS: INIT. DATE

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER
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 025892
 1/13/2018

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