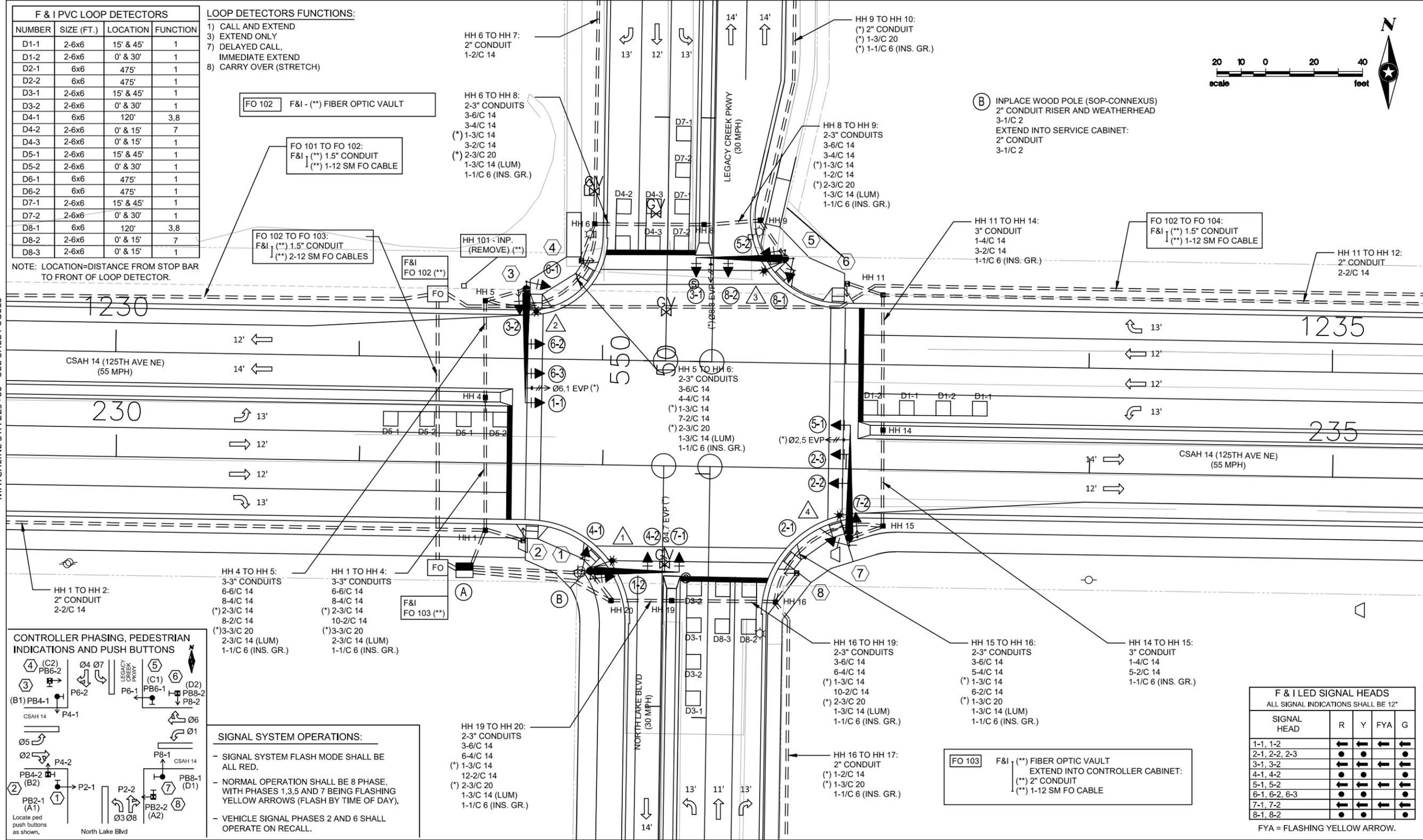


MATCH LINE "A" - SEE SHEET SGL18



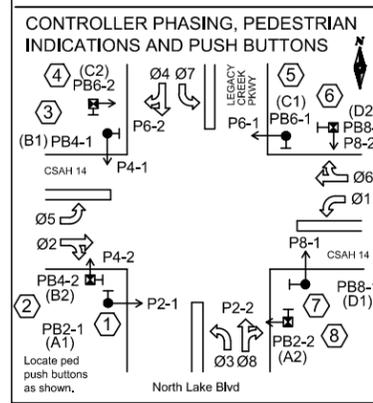
F & I PVC LOOP DETECTORS			
NUMBER	SIZE (FT.)	LOCATION	FUNCTION
D1-1	2-6x6	15' & 45'	1
D1-2	2-6x6	0' & 30'	1
D2-1	6x6	475'	1
D2-2	6x6	475'	1
D3-1	2-6x6	15' & 45'	1
D3-2	2-6x6	0' & 30'	1
D4-1	6x6	120'	3,8
D4-2	2-6x6	0' & 15'	7
D4-3	2-6x6	0' & 15'	1
D5-1	2-6x6	15' & 45'	1
D5-2	2-6x6	0' & 30'	1
D6-1	6x6	475'	1
D6-2	6x6	475'	1
D7-1	2-6x6	15' & 45'	1
D7-2	2-6x6	0' & 30'	1
D8-1	6x6	120'	3,8
D8-2	2-6x6	0' & 15'	7
D8-3	2-6x6	0' & 15'	1

- LOOP DETECTORS FUNCTIONS:**
- 1) CALL AND EXTEND
 - 3) EXTEND ONLY
 - 7) DELAYED CALL, IMMEDIATE EXTEND
 - 8) CARRY OVER (STRETCH)

NOTE: LOCATION=DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

MATCHLINE STA 229+60 - SEE SHEET SGL15

MATCHLINE STA 235+40 - SEE SHEET SGL21



- SIGNAL SYSTEM OPERATIONS:**
- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
 - NORMAL OPERATION SHALL BE 8 PHASE, WITH PHASES 1,3,5 AND 7 BEING FLASHING YELLOW ARROWS (FLASH BY TIME OF DAY).
 - VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.

F & I LED SIGNAL HEADS				
ALL SIGNAL INDICATIONS SHALL BE 12"				
SIGNAL HEAD	R	Y	FYA	G
1-1, 1-2	←	←	←	←
2-1, 2-2, 2-3	•	•	•	•
3-1, 3-2	←	←	←	←
4-1, 4-2	•	•	•	•
5-1, 5-2	←	←	←	←
6-1, 6-2, 6-3	•	•	•	•
7-1, 7-2	←	←	←	←
8-1, 8-2	•	•	•	•

FYA = FLASHING YELLOW ARROW.



MATCHLINE "B" - SEE SHEET SGL18

DRAWN BY: MRB	DESIGNER: MRB	CHECKED BY: JMG	DESIGN TEAM	NO.	BY	DATE	REVISIONS
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

John M. Gray
Name: John M. Gray, P.E.
Date: February 7, 2022
Lic. No. 22457

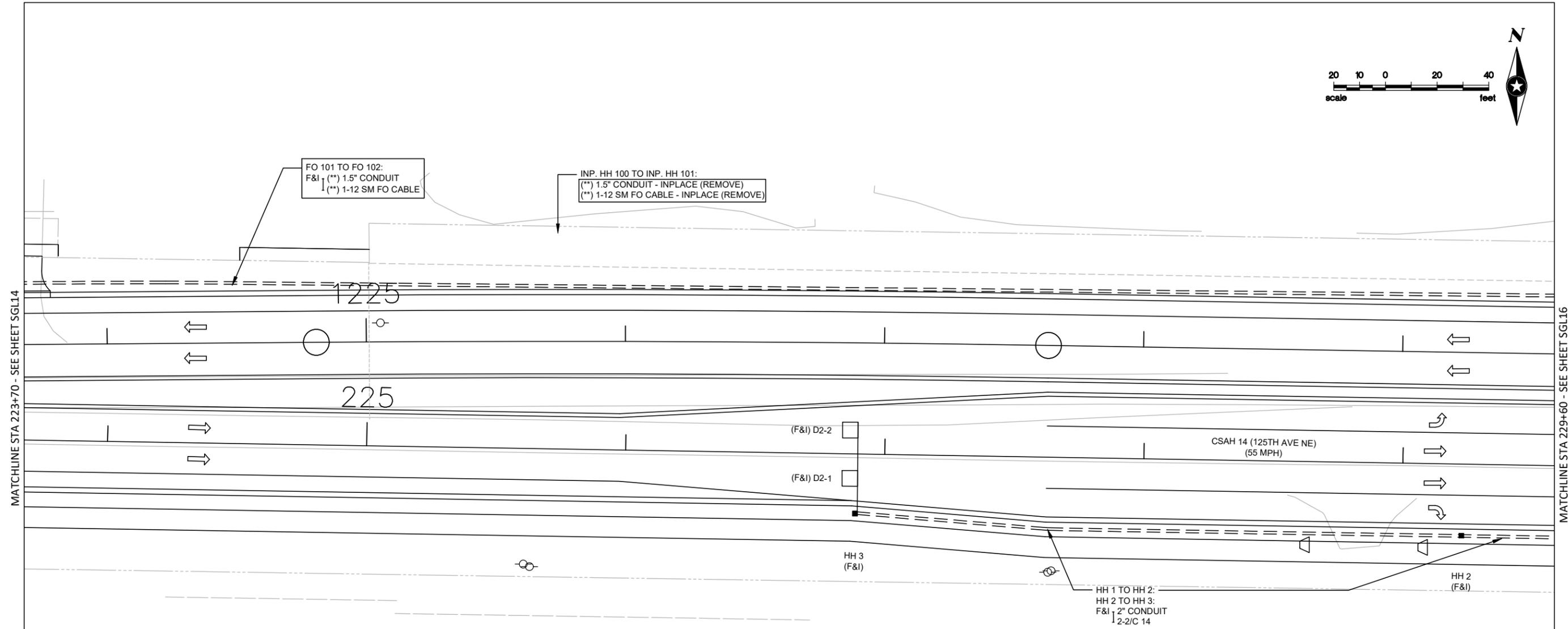


ANOKA COUNTY, MINNESOTA
CITY OF BLAINE

TRAFFIC SIGNAL SYSTEM "B"
INTERSECTION LAYOUT
CSAH14 (125TH AVE NE) AT NORTH LAKE BLVD/LEGACY CREEK PKWY

FILE NO. ANOKC157553	168
SIGNAL SHEET SGL16 OF SGL34	303

S.A.P. 002-614-048
S.A.P. 106-020-037



MATCHLINE STA 223+70 - SEE SHEET SGL14

MATCHLINE STA 229+60 - SEE SHEET SGL16

- INTERCONNECT NOTES:**
- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
 - 2) (***) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - 3) HANDHOLES 2 AND 3, CONDUIT BETWEEN HANDHOLE 2 AND HANDHOLE 3, LOOP DETECTORS D2-1 AND D2-2, AND LOOP DETECTOR LEAD-IN CABLE ARE INCLUDED AS PART OF "TRAFFIC CONTROL SIGNAL SYSTEM B".
 - 4) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

S.A.P. 002-614-048
S.A.P. 106-020-037

DRAWN BY: MRB				
DESIGNER: MRB				
CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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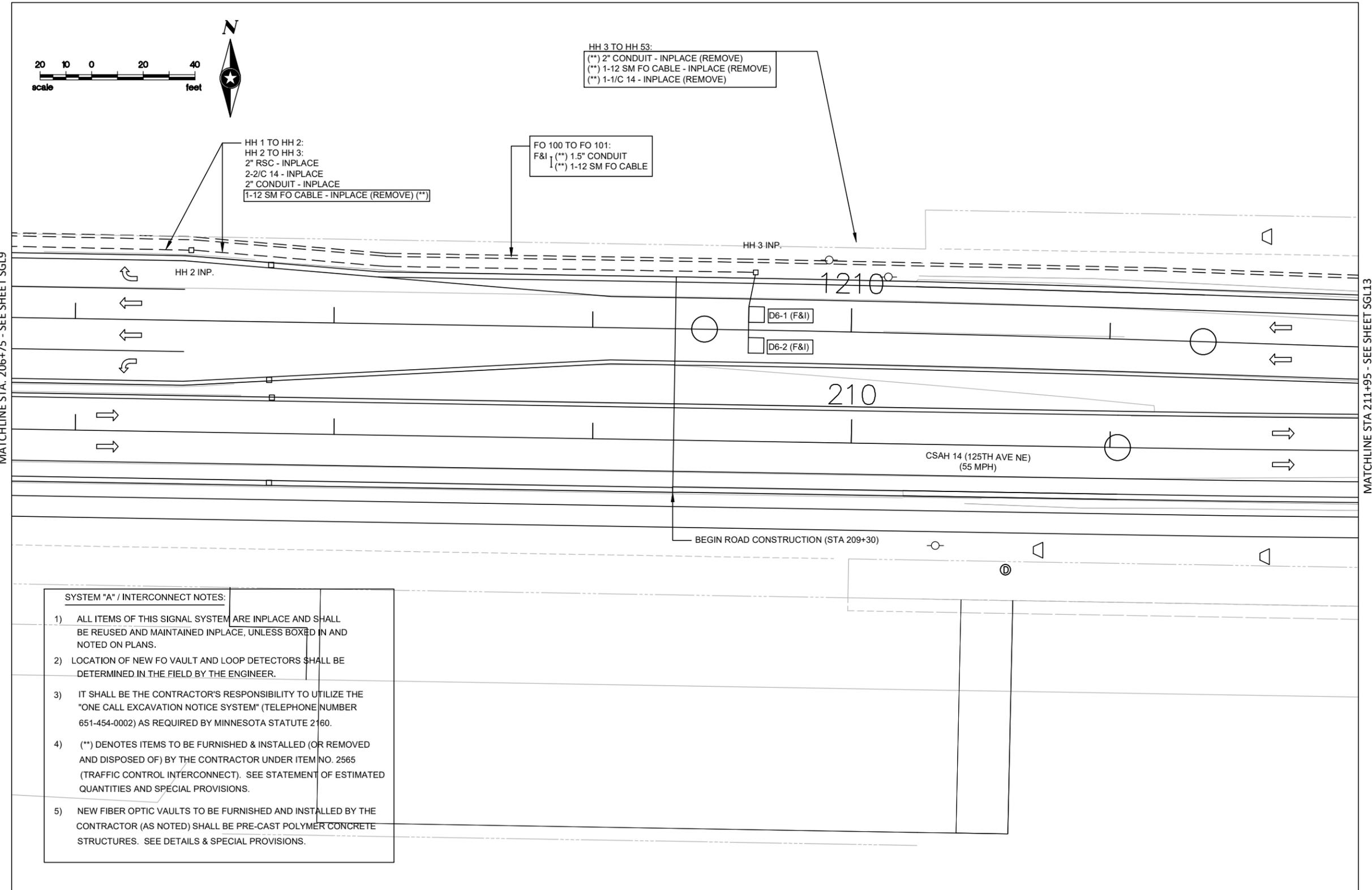
John M. Gray
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Date: February 7, 2022 Lic. No. 22457



**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

TRAFFIC SIGNAL SYSTEM "B" / INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (125TH AVE NE) AT NORTH
LAKE BLVD/LEGACY CREEK PKWY

FILE NO. ANOKC157553	167
SIGNAL SHEET SGL 15 OF SGL34	



- SYSTEM "A" / INTERCONNECT NOTES:**
- 1) ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED AND MAINTAINED INPLACE, UNLESS BOXED IN AND NOTED ON PLANS.
 - 2) LOCATION OF NEW FO VAULT AND LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 3) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
 - 4) (**) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - 5) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

S.A.P. 002-614-048
S.A.P. 106-020-037

DRAWN BY: MRB			
DESIGNER: MRB			
CHECKED BY: JMG			
DESIGN TEAM	NO.	BY	DATE
			REVISIONS

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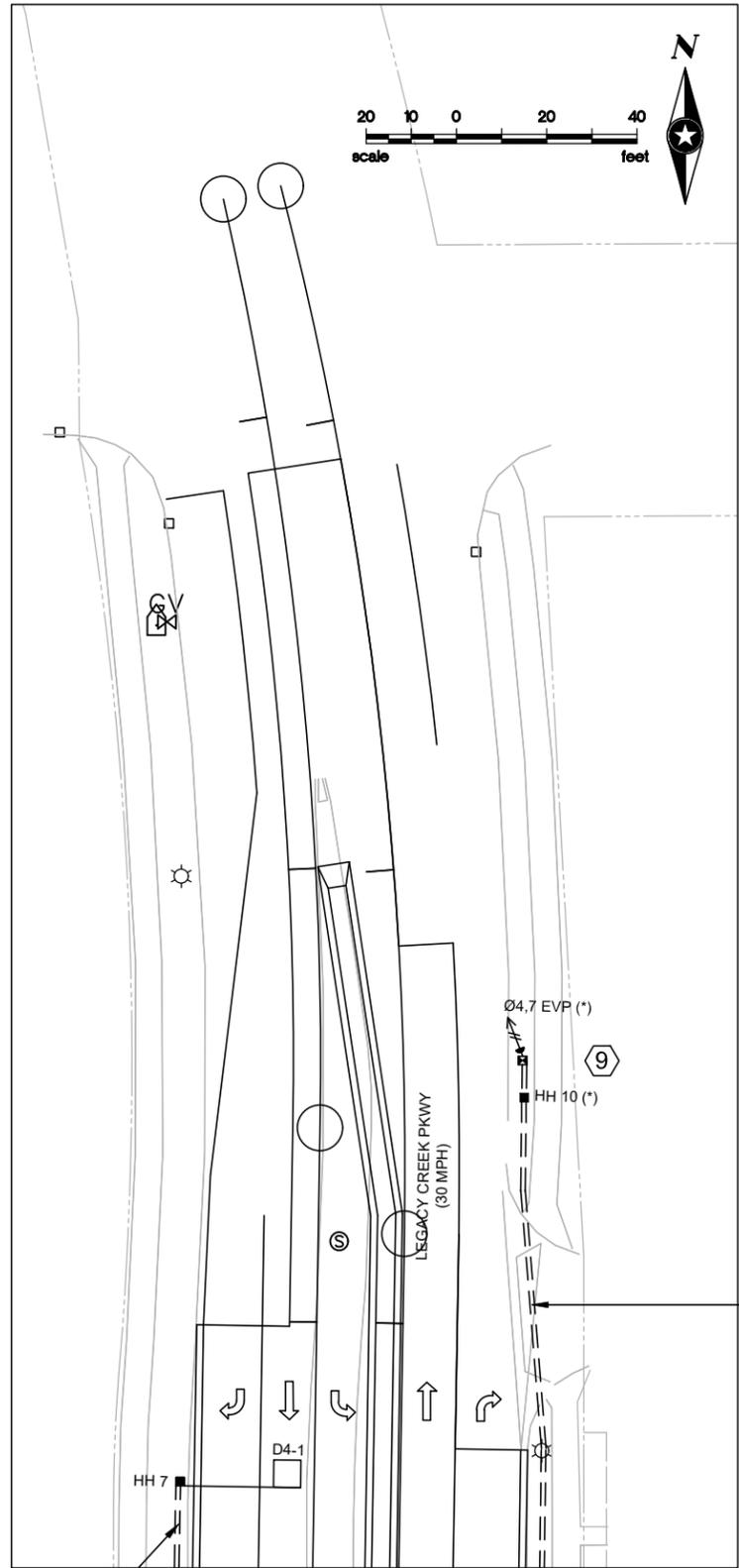
John M. Gray
Name: John M. Gray, P.E.
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PHONE: (651) 490-2000
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ST. PAUL, MN 55110

**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

REVISE SIGNAL SYSTEM "A" / INTERCONNECT
INTERSECTION LAYOUT
CSAH 14 (125TH AVE NE)
AT HARPERS ST NE

FILE NO. ANOKC157553	164
SIGNAL SHEET SGL 12 OF SGL34	303



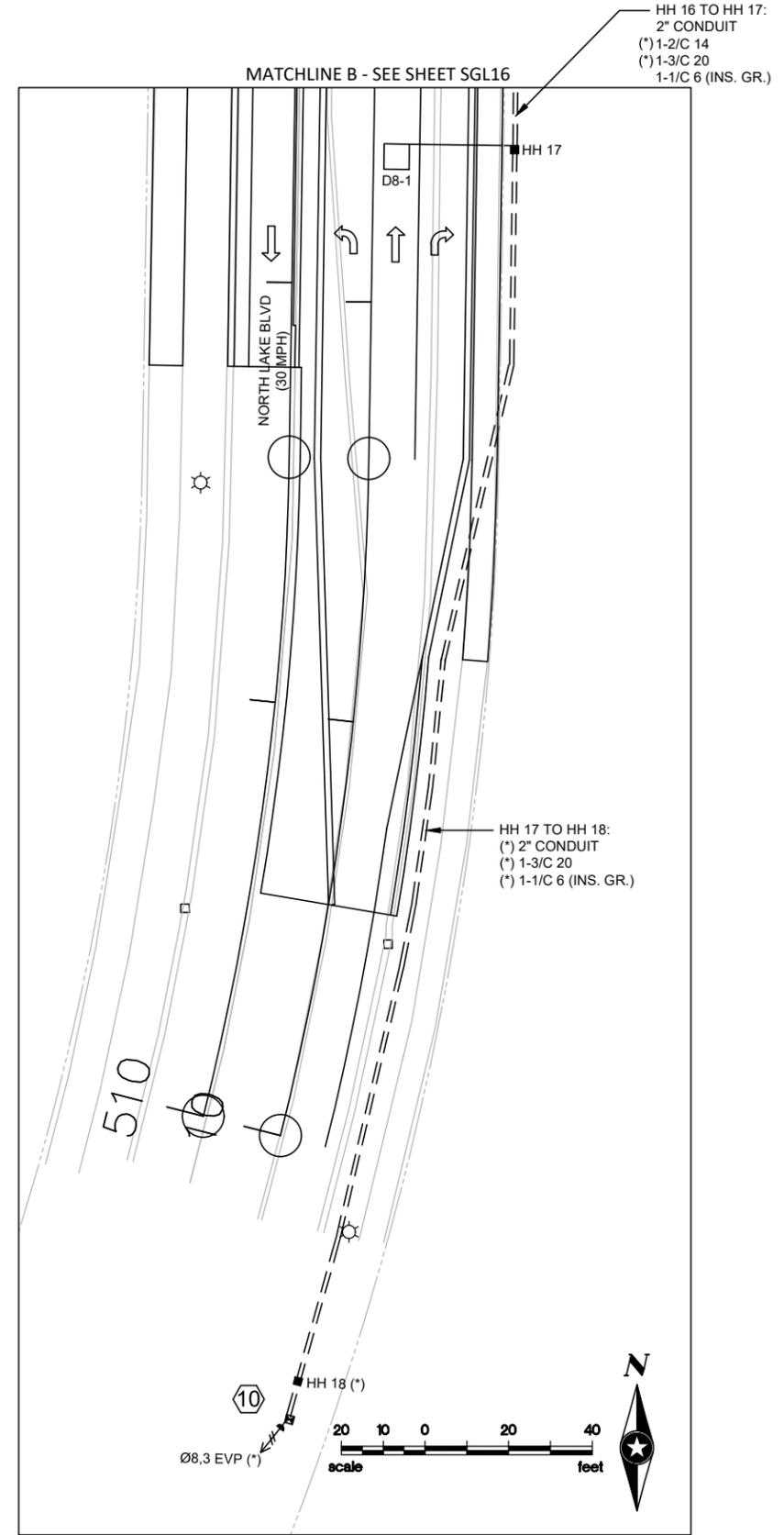
HH 6 TO HH 7:
2" CONDUIT
1-2/C 14

MATCHLINE "A" - SEE SHEET SGL16

- 9 (*) PEDESTAL FOUNDATION
- (*) 10' PEDESTAL POLE, BASE, WIND COLLAR
- (*) ONE WAY EVP DETECTOR-MOUNT
ATOP SLIPFITTER COLLAR (Ø4,7)
- EXTEND INTO HH 10:
- (*) 2" CONDUIT
- (*) 1-3/C 20
- (*) 1-1/C 6 (INS. GR.)

- 10 (*) PEDESTAL FOUNDATION
- (*) 10' PEDESTAL POLE, BASE, WIND COLLAR
- (*) ONE WAY EVP DETECTOR-MOUNT
ATOP SLIPFITTER COLLAR (Ø8,3)
- EXTEND INTO HH 18:
- (*) 2" CONDUIT
- (*) 1-3/C 20
- (*) 1-1/C 6 (INS. GR.)

HH 9 TO HH 10:
(*) 2" CONDUIT
(*) 1-3/C 20
(*) 1-1/C 6 (INS. GR.)



HH 16 TO HH 17:
2" CONDUIT
(*) 1-2/C 14
(*) 1-3/C 20
1-1/C 6 (INS. GR.)

MATCHLINE B - SEE SHEET SGL16

HH 17 TO HH 18:
(*) 2" CONDUIT
(*) 1-3/C 20
(*) 1-1/C 6 (INS. GR.)

S.A.P. 002-614-048
S.A.P. 106-020-037

DRAWN BY: MRB				
DESIGNER: MRB				
CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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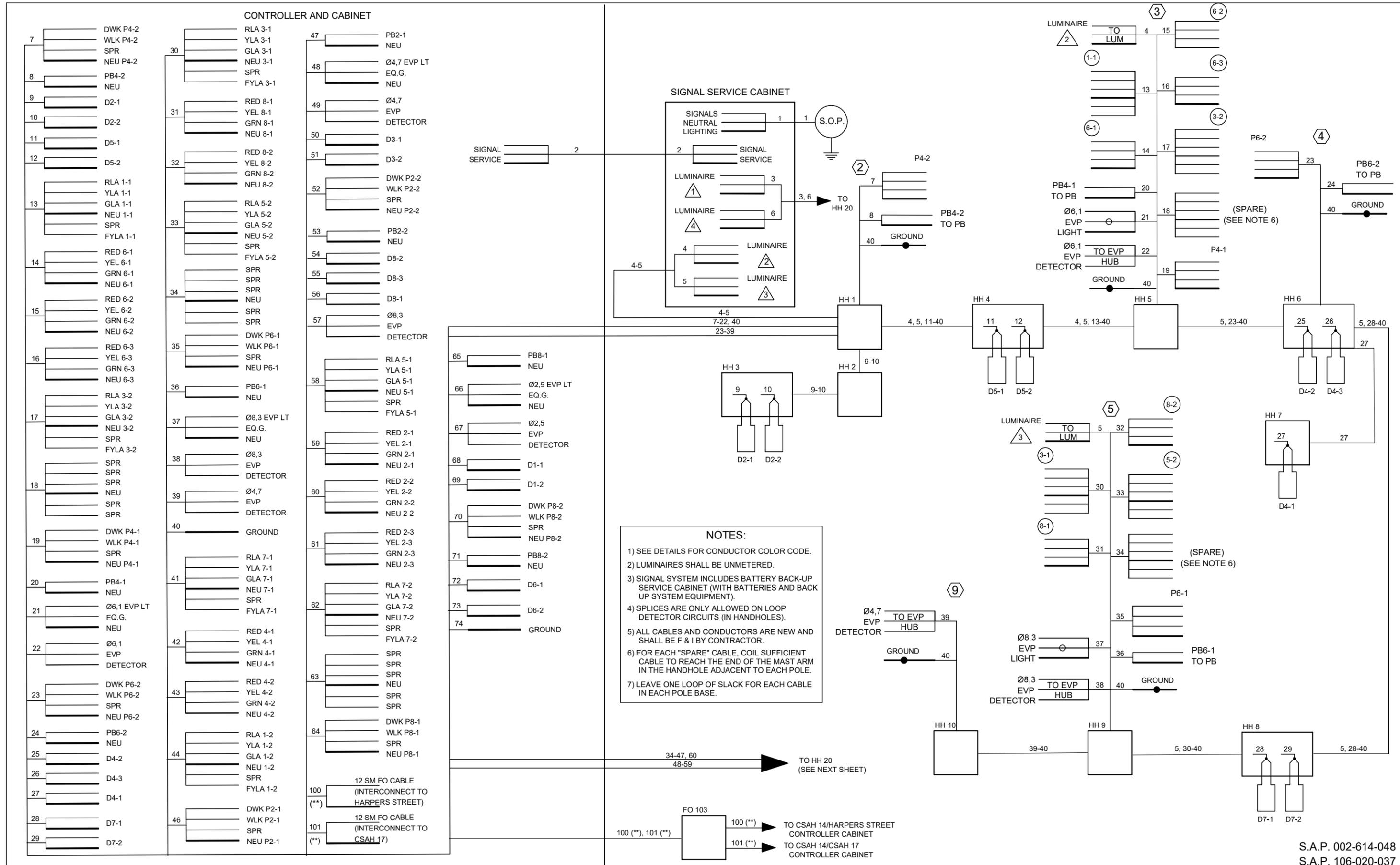
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PHONE: (651) 490-2000
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ST. PAUL, MN 55110

**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

TRAFFIC SIGNAL SYSTEM "B"
INTERSECTION LAYOUT
CSAH14 (125TH AVE NE) AT NORTH
LAKE BLVD/LEGACY CREEK PKWY

FILE NO.
ANOKC157553
SIGNAL SHEET
SGL18 OF SGL34

170
303



DRAWN BY: MRB
 DESIGNER: MRB
 CHECKED BY: JMG

NO.	BY	DATE	REVISIONS

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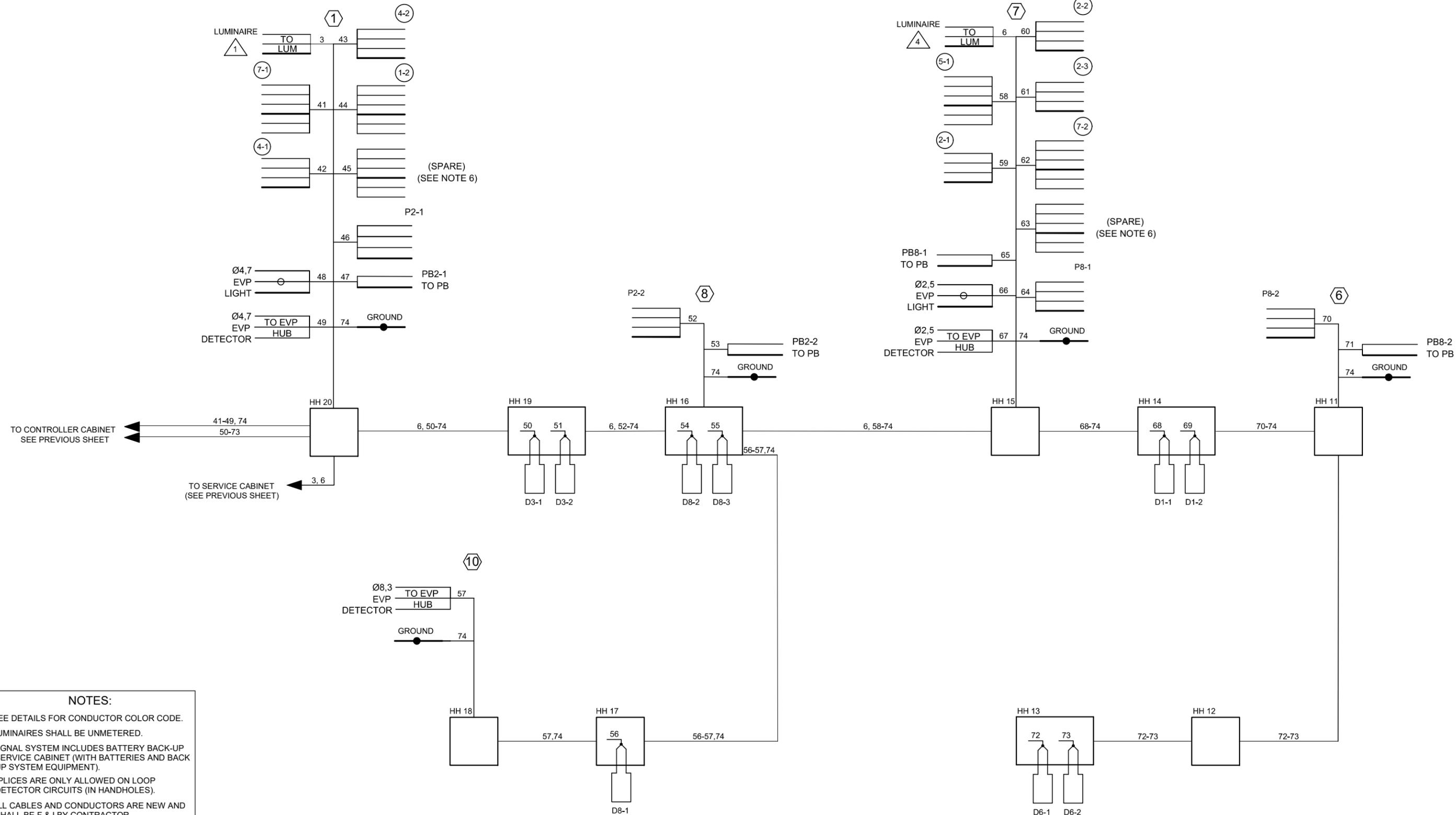
**ANOKA COUNTY,
 MINNESOTA
 CITY OF BLAINE**

TRAFFIC SIGNAL SYSTEM "B"
 FIELD WIRING DIAGRAM
 CSAH14 (125TH AVE NE) AT NORTH
 LAKE BLVD/LEGACY CREEK PKWY

FILE NO.
 ANOKC157553
 SIGNAL SHEET
 SGL19 OF SGL34

171
 303

S.A.P. 002-614-048
 S.A.P. 106-020-037



NOTES:

- 1) SEE DETAILS FOR CONDUCTOR COLOR CODE.
- 2) LUMINAIRES SHALL BE UNMETERED.
- 3) SIGNAL SYSTEM INCLUDES BATTERY BACK-UP SERVICE CABINET (WITH BATTERIES AND BACK UP SYSTEM EQUIPMENT).
- 4) SPLICES ARE ONLY ALLOWED ON LOOP DETECTOR CIRCUITS (IN HANDHOLES).
- 5) ALL CABLES AND CONDUCTORS ARE NEW AND SHALL BE F & I BY CONTRACTOR.
- 6) FOR EACH "SPARE" CABLE, COIL SUFFICIENT CABLE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE ADJACENT TO EACH POLE.
- 7) LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN EACH POLE BASE.

S.A.P. 002-614-048
S.A.P. 106-020-037

DRAWN BY: MRB
DESIGNER: MRB
CHECKED BY: JMG
DESIGN TEAM

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**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

TRAFFIC SIGNAL SYSTEM "B"
FIELD WIRING DIAGRAM
CSAH14 (125TH AVE NE) AT NORTH
LAKE BLVD/LEGACY CREEK PKWY

FILE NO.
ANOKC157553
SIGNAL SHEET
SGL 20 OF SGL 34

172
303



INP. HH 102 TO INP. HH 103:
 (**) 1.5" CONDUIT - INPLACE (REMOVE)
 (**) 1-12 SM FO CABLE - INPLACE (REMOVE)

FO 102 TO FO 104:
 FO 104 TO FO 105:
 F&I (**) 1.5" CONDUIT
 I (**) 1-12 SM FO CABLE

F&I - FO HH 104 (**)

1245

245

CSAH 14 (125TH AVE NE)
 (55 MPH)

FO 104 F&I - (**) FIBER OPTIC VAULT

INTERCONNECT NOTES:

- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
- 2) (**) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 3) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

MATCHLINE STA 241+20 - SEE SHEET SGL21

MATCHLINE STA 247+40 - SEE SHEET SGL23

S.A.P. 002-614-048
 S.A.P. 106-020-037

DRAWN BY: MRB
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 CHECKED BY: JMG
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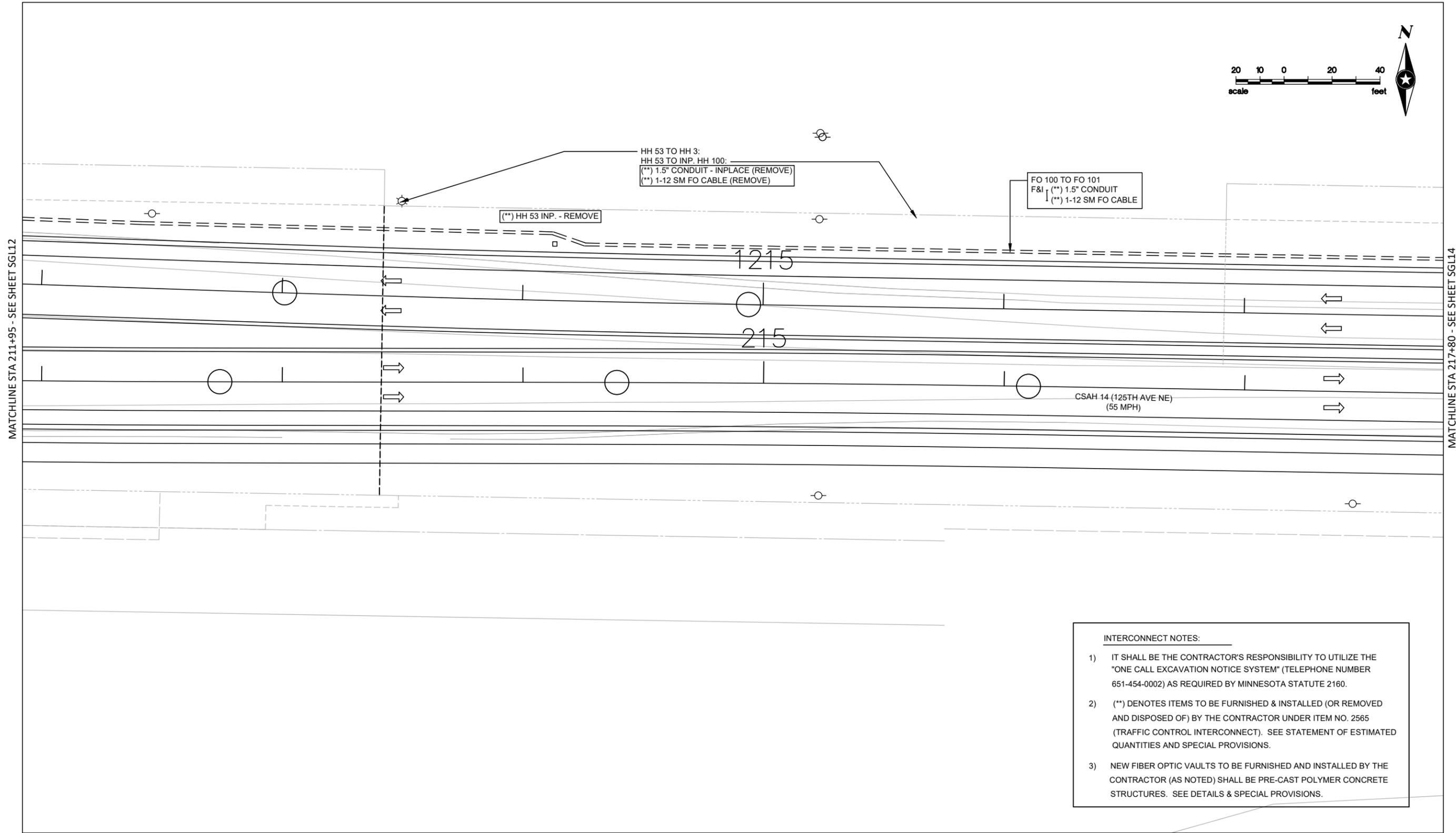
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**ANOKA COUNTY,
 MINNESOTA
 CITY OF BLAINE**

**TRAFFIC CONTROL INTERCONNECT
 INTERSECTION LAYOUT
 CSAH14 (NORTH LAKE BLVD TO
 CSAH 17)**

FILE NO.
 ANOKC157553
 SIGNAL SHEET
 SGL22 OF SGL34

174
303



INTERCONNECT NOTES:

- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
- 2) (***) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 3) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

MATCHLINE STA 211+95 - SEE SHEET SGL12

MATCHLINE STA 217+80 - SEE SHEET SGL14

S.A.P. 002-614-048
S.A.P. 106-020-037

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CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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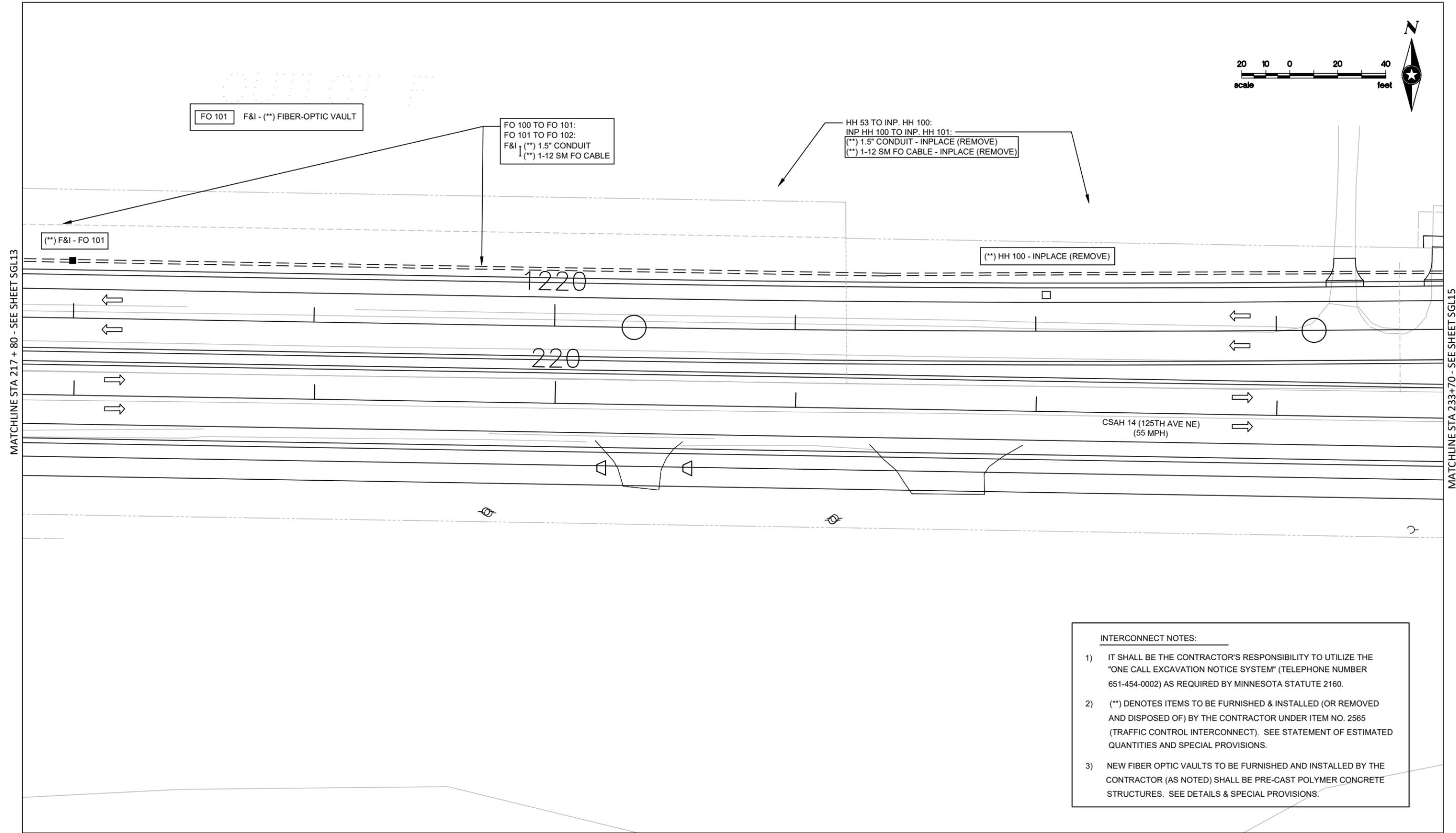
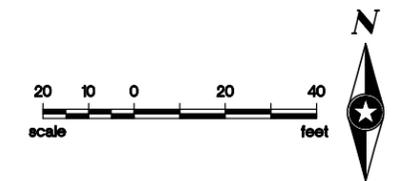
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**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

**TRAFFIC CONTROL INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (HARPERS STREET TO
NORTH LAKE BLVD)**

FILE NO.
ANOKC157553
SIGNAL SHEET
SGL13 OF SGL34
165
303



INTERCONNECT NOTES:

- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
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- 3) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

MATCHLINE STA 217 + 80 - SEE SHEET SGL13

MATCHLINE STA 233+70 - SEE SHEET SGL15

S.A.P. 002-614-048
S.A.P. 106-020-037

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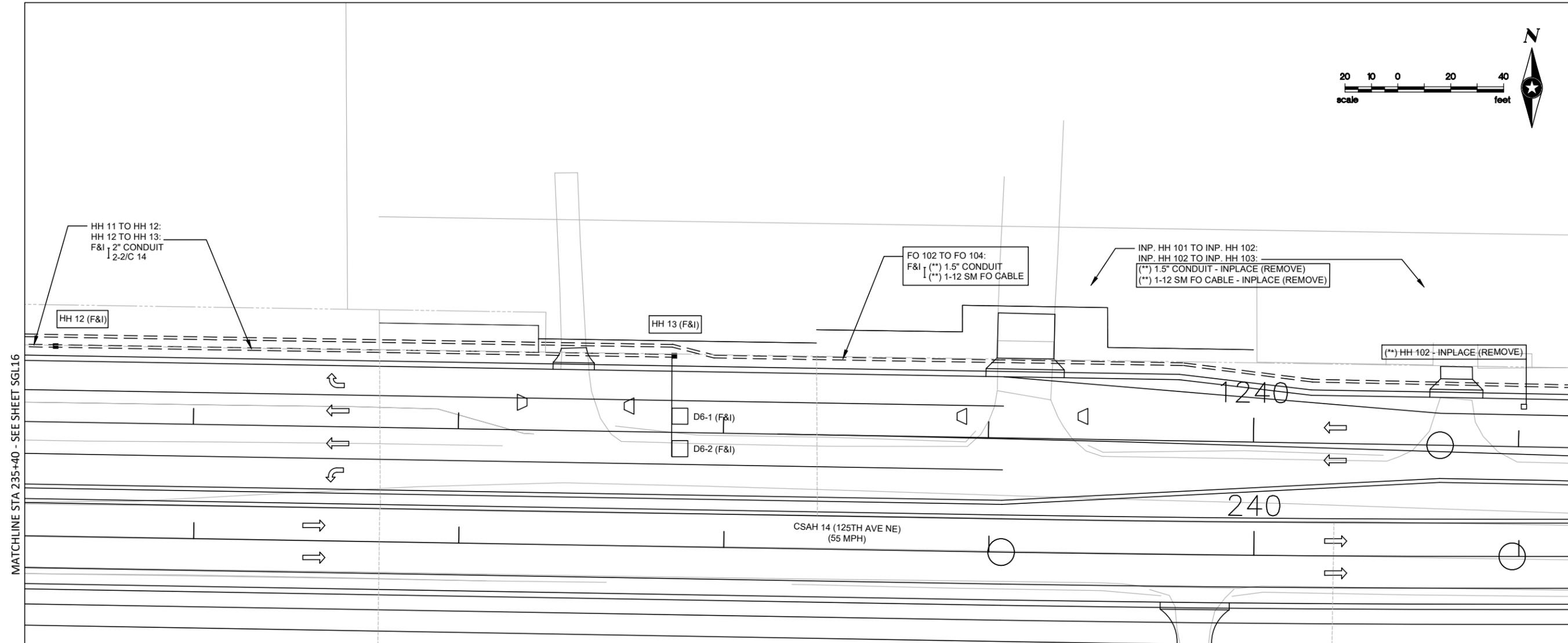
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**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

**TRAFFIC CONTROL INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (HARPERS STREET TO
NORTH LAKE BLVD)**

FILE NO. ANOKC157553
SIGNAL SHEET SGL14 OF SGL34
166
303



MATCHLINE STA 235+40 - SEE SHEET SGL16

MATCHLINE STA 241+20 - SEE SHEET SGL22

- INTERCONNECT NOTES:**
- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
 - 2) (**) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - 3) HANDHOLES 12 AND 13, CONDUIT BETWEEN HANDHOLE 12 AND HANDHOLE 13, LOOP DETECTORS D6-1 AND D6-2, AND LOOP DETECTOR LEAD-IN CABLE ARE INCLUDED AS PART OF "TRAFFIC CONTROL SIGNAL SYSTEM B".
 - 4) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

S.A.P. 002-614-048
S.A.P. 106-020-037

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CHECKED BY: JMG				
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ANOKA COUNTY, MINNESOTA
CITY OF BLAINE

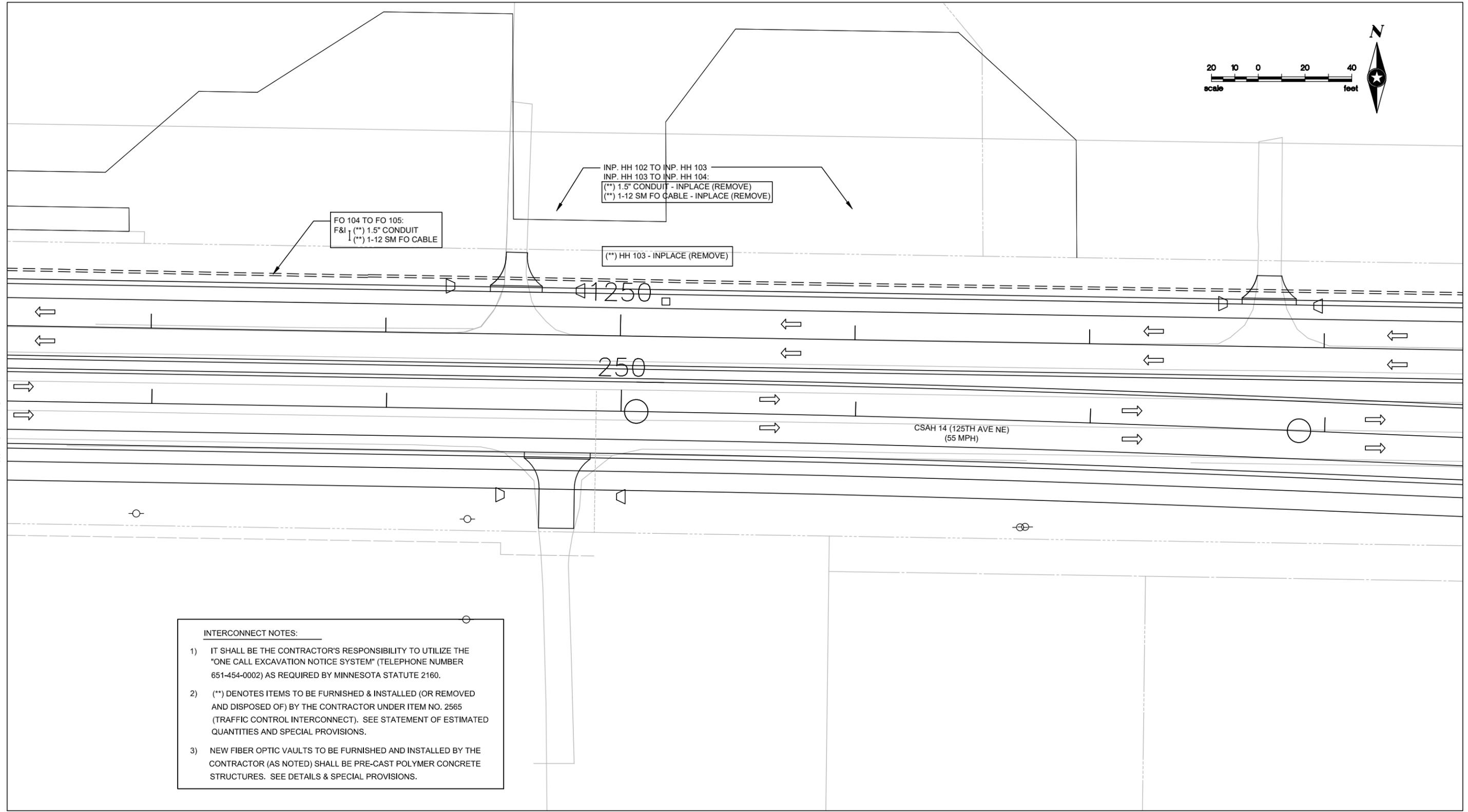
TRAFFIC SIGNAL SYSTEM "B" / INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (125TH AVE NE) AT NORTH
LAKE BLVD/LEGACY CREEK PKWY

FILE NO. ANOKC157553	173
SIGNAL SHEET SGL21 OF SGL34	303



MATCHLINE STA 247+40 - SEE SHEET SGL22

MATCHLINE STA 253+59 - SEE SHEET SGL24



INTERCONNECT NOTES:

- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
- 2) (**) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 3) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

S.A.P. 002-614-048
S.A.P. 106-020-037

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DESIGN TEAM	NO.	BY	DATE	REVISIONS

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**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

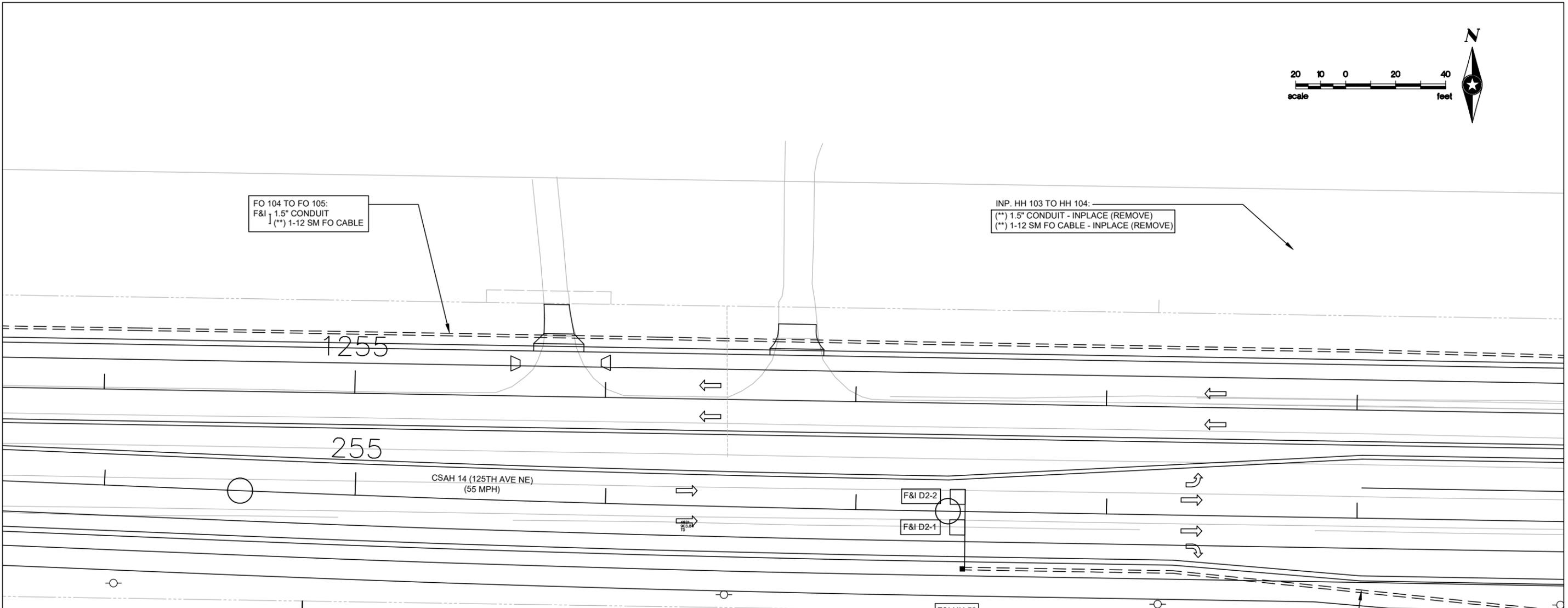
**TRAFFIC CONTROL INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (NORTH LAKE BLVD TO
CSAH 17)**

FILE NO. ANOKC157553	175
SIGNAL SHEET SGL23 OF SGL34	303



MATCHLINE STA 253+59 - SEE SHEET SGL23

MATCHLINE STA 259+80 - SEE SHEET SGL25



- INTERCONNECT NOTES:**
- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
 - 2) (**) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - 3) HANDHOLE 59, CONDUIT BETWEEN HANDHOLES 58-59, AND LOOP DETECTORS D2-1 AND D2-2 WILL BE MEASURED AND PAID FOR SEPARATELY (AS PART OF FUTURE ZEST STREET SIGNAL PROVISIONS).
 - 4) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

S.A.P. 002-614-048
S.A.P. 106-020-037

DRAWN BY: MRB
DESIGNER: MRB
CHECKED BY: JMG
DESIGN TEAM

NO.	BY	DATE	REVISIONS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

John M. Gray
Name: John M. Gray, P.E.
Date: February 7, 2022 Lic. No. 22457

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

FUTURE SIGNAL SYSTEM / INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (125TH AVENUE NE)
AT ZEST STREET NE

FILE NO.
ANOKC157553
SIGNAL SHEET
SGL24 OF SGL34

176
303

FUTURE SIGNAL PROVISIONS (CSAH 14-ZEST STREET NE):

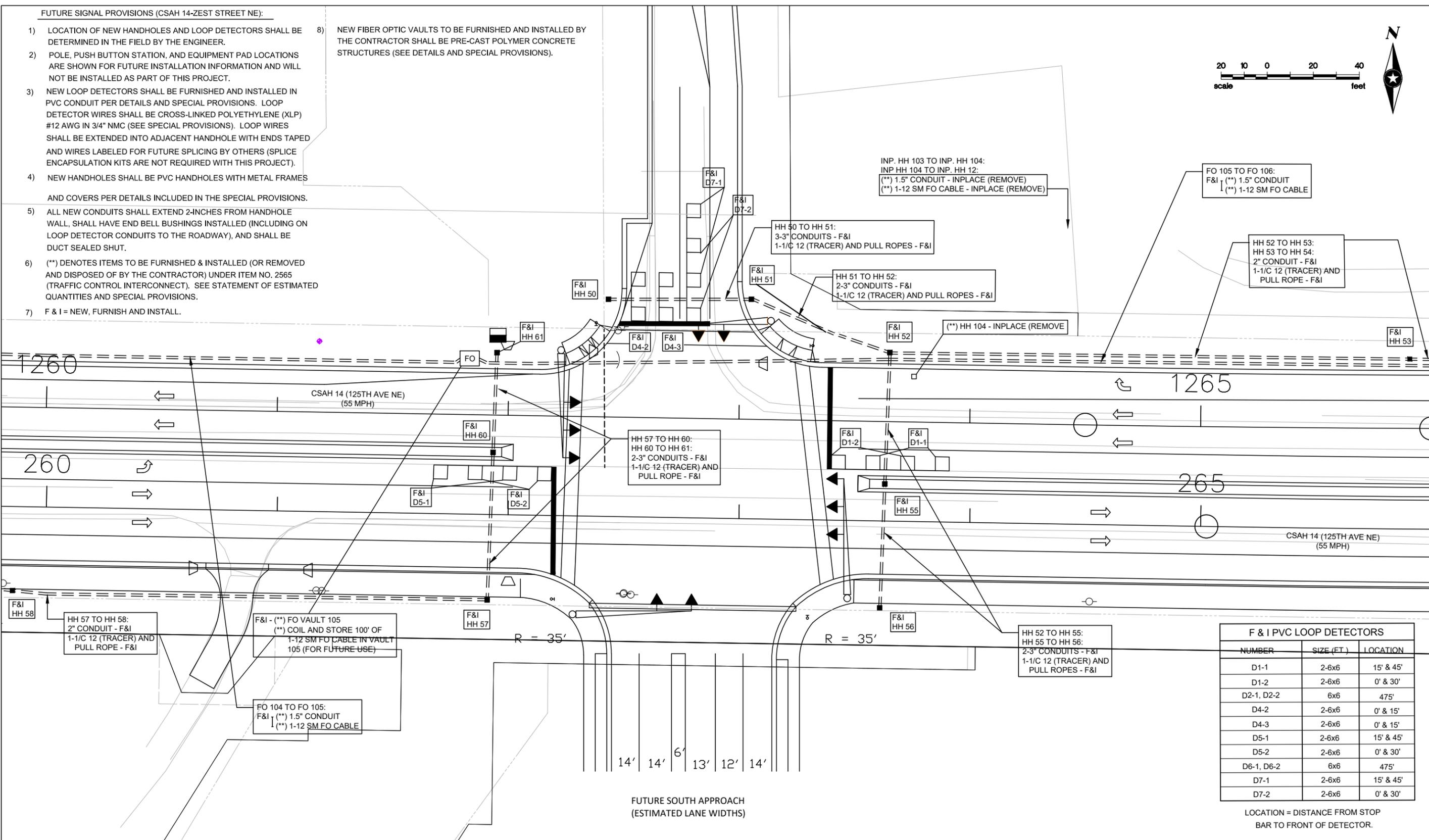
- 1) LOCATION OF NEW HANDHOLES AND LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) POLE, PUSH BUTTON STATION, AND EQUIPMENT PAD LOCATIONS ARE SHOWN FOR FUTURE INSTALLATION INFORMATION AND WILL NOT BE INSTALLED AS PART OF THIS PROJECT.
- 3) NEW LOOP DETECTORS SHALL BE FURNISHED AND INSTALLED IN PVC CONDUIT PER DETAILS AND SPECIAL PROVISIONS. LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) #12 AWG IN 3/4" NMC (SEE SPECIAL PROVISIONS). LOOP WIRES SHALL BE EXTENDED INTO ADJACENT HANDHOLE WITH ENDS TAPED AND WIRES LABELED FOR FUTURE SPLICING BY OTHERS (SPlice ENCAPSULATION KITS ARE NOT REQUIRED WITH THIS PROJECT).
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS PER DETAILS INCLUDED IN THE SPECIAL PROVISIONS.
- 5) ALL NEW CONDUITS SHALL EXTEND 2-INCHES FROM HANDHOLE WALL, SHALL HAVE END BELL BUSHINGS INSTALLED (INCLUDING ON LOOP DETECTOR CONDUITS TO THE ROADWAY), AND SHALL BE DUCT SEALED SHUT.
- 6) (**) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF BY THE CONTRACTOR) UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 7) F & I = NEW, FURNISH AND INSTALL.

8) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (SEE DETAILS AND SPECIAL PROVISIONS).



MATCHLINE STA 259+80 - SEE SHEET SGL24

MATCHLINE STA 266 + 00 - SEE SHEET SGL26



F & I PVC LOOP DETECTORS		
NUMBER	SIZE (FT.)	LOCATION
D1-1	2-6x6	15' & 45'
D1-2	2-6x6	0' & 30'
D2-1, D2-2	6x6	475'
D4-2	2-6x6	0' & 15'
D4-3	2-6x6	0' & 15'
D5-1	2-6x6	15' & 45'
D5-2	2-6x6	0' & 30'
D6-1, D6-2	6x6	475'
D7-1	2-6x6	15' & 45'
D7-2	2-6x6	0' & 30'

LOCATION = DISTANCE FROM STOP BAR TO FRONT OF DETECTOR.

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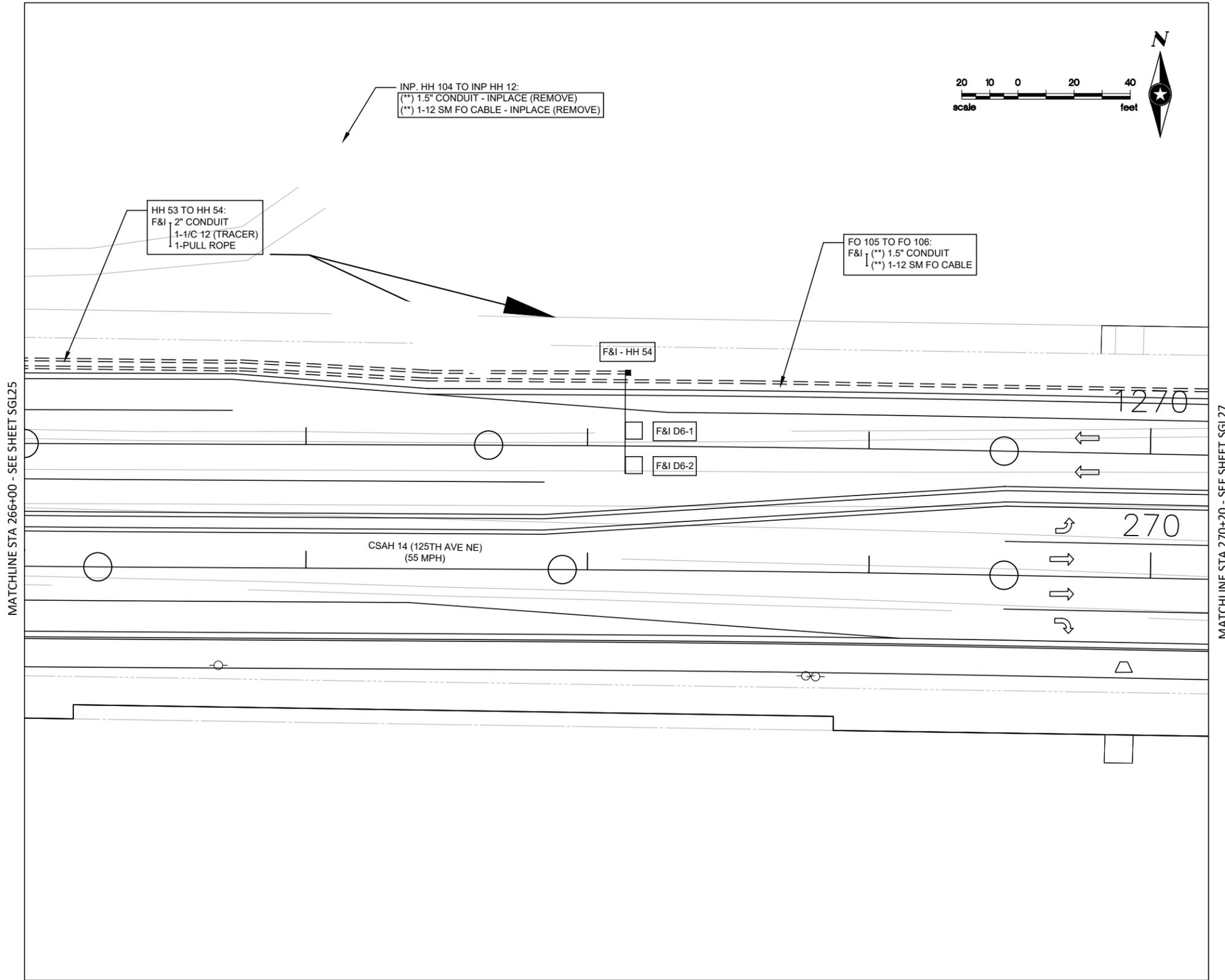
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ANOKA COUNTY, MINNESOTA
CITY OF BLAINE

FUTURE SIGNAL SYSTEM INTERSECTION LAYOUT
CSAH14 (125TH AVENUE NE)
AT ZEST STREET NE

FILE NO. ANOKC157553
SIGNAL SHEET SGL 25 OF SGL34
177
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S.A.P. 002-614-048
S.A.P. 106-020-037



MATCHLINE STA 266+00 - SEE SHEET SGL25

MATCHLINE STA 270+20 - SEE SHEET SGL27

- INTERCONNECT NOTES:**
- 1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
 - 2) (***) DENOTES ITEMS TO BE FURNISHED & INSTALLED (OR REMOVED AND DISPOSED OF) BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - 3) HANDHOLES 53 AND 54, CONDUIT BETWEEN HANDHOLES 52-54, AND LOOP DETECTORS D6-1 AND D6-2 WILL BE MEASURED AND PAID FOR SEPARATELY (AS PART OF FUTURE ZEST STREET SIGNAL PROVISIONS).
 - 4) NEW FIBER OPTIC VAULTS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (AS NOTED) SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES. SEE DETAILS & SPECIAL PROVISIONS.

S.A.P. 002-614-048
S.A.P. 106-020-037

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**ANOKA COUNTY,
MINNESOTA
CITY OF BLAINE**

FUTURE SIGNAL PROVISIONS / INTERCONNECT
INTERSECTION LAYOUT
CSAH14 (125TH AVENUE NE)
AT ZEST STREET NE

FILE NO.
ANOKC157553
SIGNAL SHEET
SGL 26 OF SGL34

178
303

NOTES:

- 1) LOCATION OF FOUNDATIONS, LOOP DETECTORS, VAULTS, AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES & COVERS (SEE SPECIAL PROVISIONS).
- 4) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE & CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM END OF EACH MAST ARM (FOR EVP).
- 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION (CONNEXUS). SEE SPECIAL PROVISIONS.
- 6) SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED AND INSTALLED BY CONTRACTOR (INCLUDED AS PART OF TRAFFIC SIGNAL SYSTEM "B" PAY ITEM).
- 7) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION LED FILLED COUNTDOWN TIMER "HAND/WALKING PERSON" INDICATION.
- 8) EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD.
- 9) SEE DETAILS, SPECIAL PROVISIONS & STATEMENT OF ESTIMATED QUANTITIES REGARDING BATTERY BACK-UP SIGNAL SERVICE CABINET TO BE FURNISHED AND INSTALLED BY CONTRACTOR (SEPARATE FROM ITEM NO. 2565 FOR THIS SIGNAL SYSTEM).
- 10) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) #12 AWG IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 11) (*) DENOTES ITEMS TO BE INCLUDED AS PART OF THE PAY ITEM FOR ITEM NO. 2565 (EMERGENCY VEHICLE PREEMPTION SYSTEM B). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 12) (**) DENOTES ITEMS TO BE INCLUDED AS PART OF THE PAY ITEM FOR ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 13) ALL CABLES AND CONDUCTORS SHALL BE NEW (FURNISHED AND INSTALLED BY THE CONTRACTOR). NO SPLICING IS ALLOWED ON ANY CABLE OR CONDUCTOR BETWEEN THE CONTROLLER/SERVICE CABINETS AND EACH POLE OR MAST ARM MOUNTED COMPONENT (EXCEPT THAT LOOP DETECTOR SPLICES ARE ALLOWED IN ADJACENT HANDHOLES ONLY).

① PA100 POLE FOUNDATION
 TYPE PA100-A-35-D30-9 (DAVIT AT 350 DEG)
 LUMINAIRE-LED
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG
 1-ANGLE MOUNT C.D. PED INDICATION-POLE MOUNTED 90 DEG
 1-APS PB, SIGN (LT ARROW), AND APS MAST ARM POLE ADAPTOR (PB2-1)
 R10-X12 SIGN PANEL-ADJACENT TO 7-1
 TYPE D SIGN PANEL-OVERHEAD (D-1)
 (*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø4,7) AT 6'
 EXTEND INTO HH 20:
 3" CONDUIT
 3-6/c 14 (1 SPARE)
 3-4/c 14
 (*) 1-3/c 14
 1-2/c 14
 (*) 1-3/c 20
 1-3/c 14 (LUM)
 2-1/c 6 (GRD)

② PEDESTAL FOUNDATION
 12' PEDESTAL POLE, BASE, WIND COLLAR
 1-STRAIGHT MOUNT C.D. PED INDICATION
 1-APS PB, SIGN (RT ARROW), AND APS PEDESTAL SPACERS (PB4-2)
 EXTEND INTO HH 1:
 3" CONDUIT
 1-4/c 14
 1-2/c 14
 2-1/c 6 (GRD)

③ PA100 POLE FOUNDATION
 TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)
 LUMINAIRE-LED
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNALS-OVERHEAD AT 11' AND 23'
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG
 1-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG
 1-APS PB, SIGN (LT ARROW), AND APS MAST ARM POLE ADAPTOR (PB4-1)
 R10-X12 SIGN PANEL-ADJACENT TO 1-1
 TYPE D SIGN PANEL-OVERHEAD (D-2)
 (*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø6,1)
 EXTEND INTO HH 5:
 3" CONDUIT
 3-6/c 14 (1 SPARE)
 4-4/c 14
 (*) 1-3/c 14
 1-2/c 14
 (*) 1-3/c 20
 1-3/c 14 (LUM)
 2-1/c 6 (GRD)

④ PEDESTAL FOUNDATION
 12' PEDESTAL POLE, BASE, WIND COLLAR
 1-STRAIGHT MOUNT C.D. PED INDICATION
 1-APS PB, SIGN (RT ARROW), AND APS PEDESTAL SPACERS (PB6-2)
 EXTEND INTO HH 6:
 3" CONDUIT
 1-4/c 14
 1-2/c 14
 2-1/c 6 (GRD)

⑤ PA100 POLE FOUNDATION
 TYPE PA100-A-35-D30-9 (DAVIT AT 350 DEG)
 LUMINAIRE-LED
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG
 1-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG
 1-APS PB, SIGN (LT ARROW), AND APS MAST ARM POLE ADAPTOR (PB6-1)
 R10-X12 SIGN PANEL-ADJACENT TO 3-1
 TYPE D SIGN PANEL-OVERHEAD (D-3)
 (*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø8,3)
 EXTEND INTO HH 9:
 3" CONDUIT
 3-6/c 14 (1 SPARE)
 3-4/c 14
 (*) 1-3/c 14
 1-2/c 14
 (*) 1-3/c 20
 1-3/c 14 (LUM)
 2-1/c 6 (GRD)

⑥ PEDESTAL FOUNDATION
 12' PEDESTAL POLE, BASE, WIND COLLAR
 1-STRAIGHT MOUNT C.D. PED INDICATION
 1-APS PB, SIGN (RT ARROW), AND APS PEDESTAL SPACERS (PB8-2)
 EXTEND INTO HH 11:
 3" CONDUIT
 1-4/c 14
 1-2/c 14
 1-1/c 6 (GRD)

⑦ PA100 POLE FOUNDATION
 TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)
 LUMINAIRE-LED
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNALS-OVERHEAD AT 11' AND 23'
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90 DEG AND 180 DEG
 1-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90 DEG
 1-APS PB, SIGN (LT ARROW), AND APS MAST ARM POLE ADAPTOR (PB8-1)
 R10-X12 SIGN PANEL-ADJACENT TO 5-1
 TYPE D SIGN PANEL-OVERHEAD (D-4)
 (*) ONE WAY EVP DETECTOR & LED CONFIRMATION LIGHT (Ø2,5)
 EXTEND INTO HH 15:
 3" CONDUIT
 3-6/c 14 (1 SPARE)
 4-4/c 14
 (*) 1-3/c 14
 1-2/c 14
 (*) 1-3/c 20
 1-3/c 14 (LUM)
 2-1/c 6 (GRD)

⑧ PEDESTAL FOUNDATION
 12' PEDESTAL POLE, BASE, WIND COLLAR
 1-STRAIGHT MOUNT C.D. PED INDICATION
 1-APS PB, SIGN (RT ARROW), AND APS PEDESTAL SPACERS (PB2-2)
 EXTEND INTO HH 16:
 3" CONDUIT
 1-4/c 14
 1-2/c 14
 2-1/c 6 (GRD)

Ⓐ EQUIPMENT PAD FOUNDATION
 INSTALL CONTROLLER AND CABINET (FURNISHED BY COUNTY)
 BBU SIGNAL SERVICE CABINET
 BETWEEN CONTROLLER CABINET AND SERVICE CABINET:
 METERED SIGNAL SERVICE
 2" CONDUIT
 3-1/c 6
 CONTROLLER CABINET TO HH 1:
 2-3" CONDUITS 3" CONDUIT
 3-6/c 14 3-6/c 14
 5-4/c 14 4-4/c 14
 (*) 1-3/c 14 (*) 1-3/c 14
 6-2/c 14 7-2/c 14
 (*) 1-3/c 20 (*) 2-3/c 14
 1-1/c 6 (INS. GR.) (*) 2-3/c 20
 CONTROLLER CABINET TO HH 20:
 3" CONDUIT 2-3" CONDUITS
 3-6/c 14 3-6/c 14
 3-4/c 14 6-4/c 14
 (*) 1-3/c 14 (*) 1-3/c 14
 1-2/c 14 12-2/c 14
 (*) 1-3/c 20 (*) 2-3/c 20
 1-1/c 6 (GRD)

SERVICE CABINET TO HH 1:
 1.25" CONDUIT
 UNMETERED STREET LIGHT SERVICE
 2-3/c 14 (LUM)
 SERVICE CABINET TO HH 20:
 1.25" CONDUIT
 UNMETERED STREET LIGHT SERVICE
 2-3/c 14 (LUM)
 SERVICE CABINET TO SOP:
 2" CONDUIT
 3-1/c 2
 STUB OUT 3" CONDUIT FROM CONTROLLER CABINET TO EAST (THREAD AND CAP-FOR FUTURE USE)
 SERVICE CABINET TO CONTROLLER CABINET:
 2" CONDUIT (COMMUNICATION)
 CONTROLLER CABINET TO FO VAULT 103:
 (**) 2" CONDUIT
 (**) 2-12 SM FIBER-OPTIC CABLES

S.A.P. 002-614-048
 S.A.P. 106-020-037

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 Date: February 7, 2022 Name: John M. Gray, P.E. Lic. No. 22457



ANOKA COUNTY, MINNESOTA
 CITY OF BLAINE

TRAFFIC SIGNAL SYSTEM "B"
 INTERSECTION LAYOUT
 CSAH14 (125TH AVE NE) AT NORTH LAKE BLVD/LEGACY CREEK PKWY

FILE NO. ANOKC157553	169
SIGNAL SHEET SGL17 OF SGL34	303