

1 X=500153.4056 Y=148504.7210
 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D30-9
 1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (5-1)
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' AND 24' (2-3, 2-2)
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG (7-2, 2-1)
 1-ANGLE MOUNT C. D. PED HEAD AT 90 DEG (P8-1)
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
 1-APS PB AND SIGN (LT ARROW) (PB8-1) AND POLE MOUNTING ADAPTOR
 1-R10-X12 SIGN
 1-GUIDE SIGN (D-2) (SEE SIGN DETAILS)
 1-R6-1L (36"X12") MOUNTED AT 0°
 1-R6-1R (36"X12") MOUNTED AT 180°
 3" CONDUIT INTO HH 20:
 3-6/C 16
 4-4/C 16
 * 1-3/C 16
 * 1-3/C 20
 1-2/C 14
 1-3/C 16 (LUM)
 1-1/C 6 INS. GR.

2 X=500163.4016 Y=148484.5380
 PEDESTAL FOUNDATION
 14' PEDESTAL POLE PLUS BASE
 1-ANGLE MOUNT SIGNAL AT 180 DEG (8-1)
 1-ANGLE MOUNT C.D. PED HEAD AT 180 DEG (P2-2)
 1-APS PB AND SIGN (RT ARROW) (PB2-2) AND
 APS PB MOUNDING SPACERS
 3" CONDUIT INTO HH 1:
 3-4/C 16
 1-2/C 14
 1-1/C 6 INS. GR.

3 X=500156.4521 Y=148400.7737
 PA85 POLE FOUNDATION MODIFIED (12' DEPTH)
 TYPE PA85-B-25-X6-300/CAM 350 (MOUNTED AT 350 DEG)
 (INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID AND GROUND ROD)
 1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
 1-PTZ VIDEO CAMERA (COUNTY PROVIDED)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (7-1)
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 14' (4-3)
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG (1-2, 4-2)
 2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG (P2-1, P4-2)
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4+7)
 * 1-ONE WAY EVP DETECTOR (PHASES 8+3)
 1-APS PB AND SIGN (LT ARROW) (PB2-1) AND POLE MOUNTING ADAPTOR
 1-R10-X12 SIGN
 1-GUIDE SIGN (D-1) (SEE SIGN DETAILS)
 1-R6-1L (36"X12") MOUNTED AT 0°
 1-R6-1R (36"X12") MOUNTED AT 180°
 3" CONDUIT INTO HH 5:
 3-6/C 16
 4-4/C 16
 * 1-3/C 16
 * 2-3/C 20
 1-2/C 14
 1-3/C 16 (LUM)
 1-COM CABLE (CAT5E) (PTZ)
 1-7/16" GROUNDING BRAID (LIGHTNING ROD TO GROUND ROD)
 1-1/C 6 INS. GR.

4 X=500052.5050 Y=148407.3769
 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D30-9
 1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (1-1)
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 12' AND 24' (6-3, 6-2)
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG (3-2, 6-1)
 2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG (P4-1, P6-2)
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 6+1)
 1-APS PB AND SIGN (LT ARROW) (PB4-1) AND POLE MOUNTING ADAPTOR
 1-R10-X12 SIGN
 1-GUIDE SIGN (D-3) (SEE SIGN DETAILS)
 1-R6-1L (36"X12") MOUNTED AT 0°
 1-R6-1R (36"X12") MOUNTED AT 180°
 3" CONDUIT INTO HH 10:
 3-6/C 16
 4-4/C 16
 * 1-3/C 16
 * 1-3/C 20
 1-2/C 14
 1-3/C 16 (LUM)
 1-1/C 6 INS. GR.

5 X=500045.2228 Y=148442.4119
 PEDESTAL FOUNDATION
 14' PEDESTAL POLE PLUS BASE
 1-ANGLE MOUNT SIGNAL AT 180 DEG (4-1)
 1-ANGLE MOUNT C.D. PED HEAD AT 180 DEG (P6-2)
 1-APS PB AND SIGN (RT ARROW) (PB6-2) AND
 APS PB MOUNDING SPACERS
 3" CONDUIT INTO HH 11:
 3-4/C 16
 1-2/C 14
 1-1/C 6 INS. GR.

6 X=500049.6577 Y=148532.3900
 PA90 POLE FOUNDATION MODIFIED
 TYPE PA90-B-35-D30-9
 1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0' (3-1)
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 18' (8-3)
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG (5-2, 8-2)
 2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG (P6-1, P8-2)
 * 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 8+3)
 1-APS PB AND SIGN (LT ARROW) (PB6-1) AND POLE MOUNTING ADAPTOR
 1-R10-X12 SIGN
 1-GUIDE SIGN (D-1) (SEE SIGN DETAILS)
 1-R6-1L (36"X12") MOUNTED AT 0°
 1-R6-1R (36"X12") MOUNTED AT 180°
 3" CONDUIT INTO HH 15:
 3-6/C 16
 4-4/C 16
 * 1-3/C 16
 * 1-3/C 20
 1-2/C 14
 1-3/C 16 (LUM)
 1-1/C 6 INS. GR.

A EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET WITH BATTERY BACKUP (SEE DETAIL SHEET)
 CONTROLLER AND CABINET (COUNTY PROVIDED)
 3" CONDUIT TO HH 1: 3" CONDUIT TO HH 1:
 3-6/C 16 3-6/C 16
 5-4/C 16 5-4/C 16
 * 1-3/C 16 * 1-3/C 16
 * 1-3/C 20 * 1-3/C 20
 9-2/C 14 9-2/C 14
 1-COM CABLE (CAT5E) (PTZ) 1-1/C 6 INS. GR.
 1-1/C 6 INS. GR.

3" CONDUIT TO HH 20: 3" CONDUIT TO HH 20:
 3-6/C 16 3-6/C 16
 5-4/C 16 6-4/C 16
 * 1-3/C 16 * 1-3/C 16
 * 1-3/C 20 * 1-3/C 20
 9-2/C 14 9-2/C 14
 1-1/C 6 INS. GR. 1-1/C 6 INS. GR.

B SOP TRANSFORMER (CONNEXUS)
 INPLACE CONDUIT AND CABLE TO SERVICE CABINET
 (COORDINATE NEW HOOK-UP)

GROUND WIRE AND GROUND ROD - MIN 8' STUBBED OUT FROM PAD
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)
 1.5" CONDUIT TO TMS VAULT:
 1-FO CABLE (125M)
 CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 3-1/C 6
 CONTROLLER CABINET TO SERVICE CABINET (COMMS):
 2" CONDUIT
 1-6PR 19
 SERVICE CABINET TO GROUND MOUNTED TRANSFORMER:
 2" CONDUIT
 3-1/C 2

SERVICE CABINET TO HH 1:
 2" CONDUIT
 2-3/C 16 (LUM)
 SERVICE CABINET TO HH 20:
 2" CONDUIT
 2-3/C 16 (LUM)
 SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.
 (SEE EQUIPMENT PAD LAYOUT)

NOTES:

1. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
2. ITEMS DENOTED WITH ** ARE INCLUDED IN THE PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECT PAY ITEM.

11:00:29 AM 2/14/2025 ...:\\p01s04000450-000ESGNVPBn_Sheets\c4400450_435.sgn.dgn

NO	DATE	DWN	CKD	REVISIONS



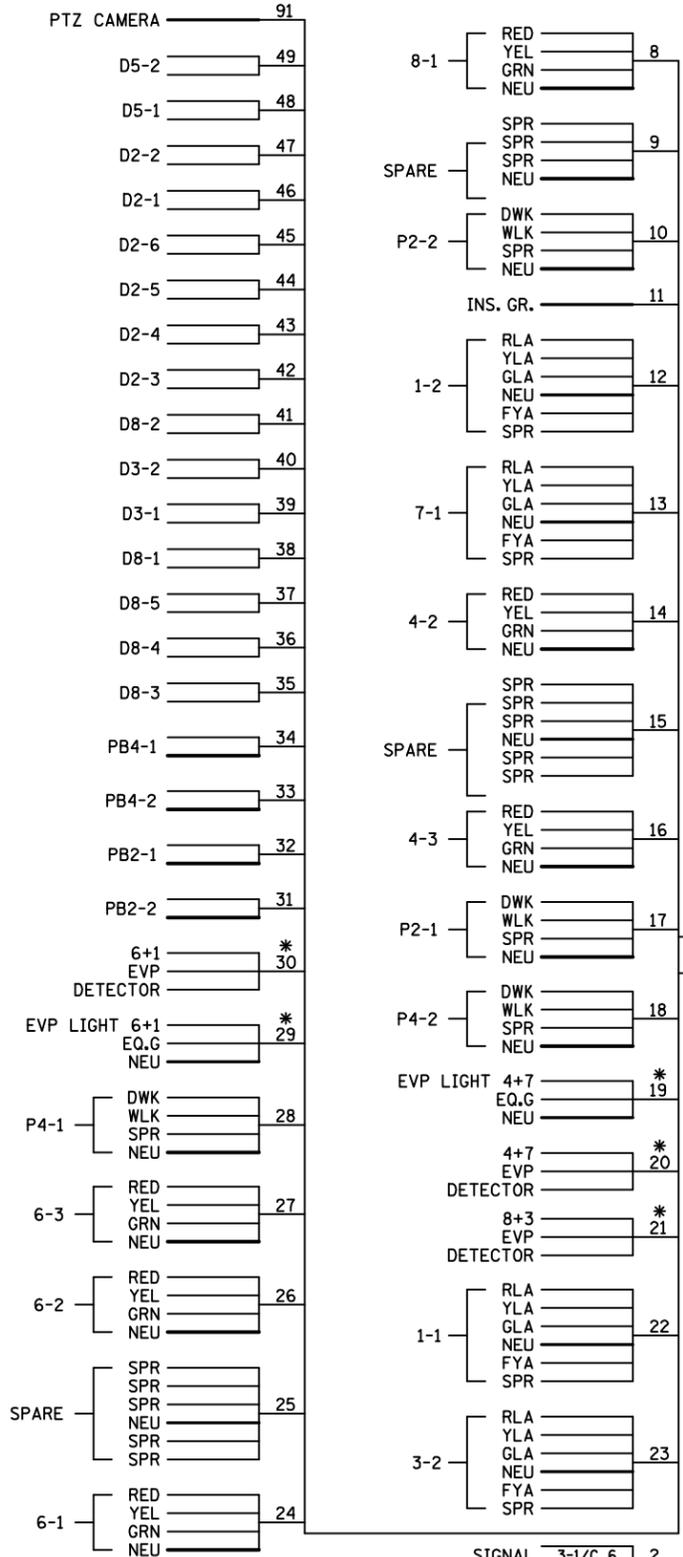
I HEREBY CERTIFY THAT THIS SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: MICHAEL P. MCCURDY
 SIGNATURE: *Michael P. McCurdy*
 DATE: 02/14/2025 LICENSE #: 45902

TRAFFIC CONTROL SIGNAL SYSTEM PLANS
 SIGNAL SYSTEM "A"

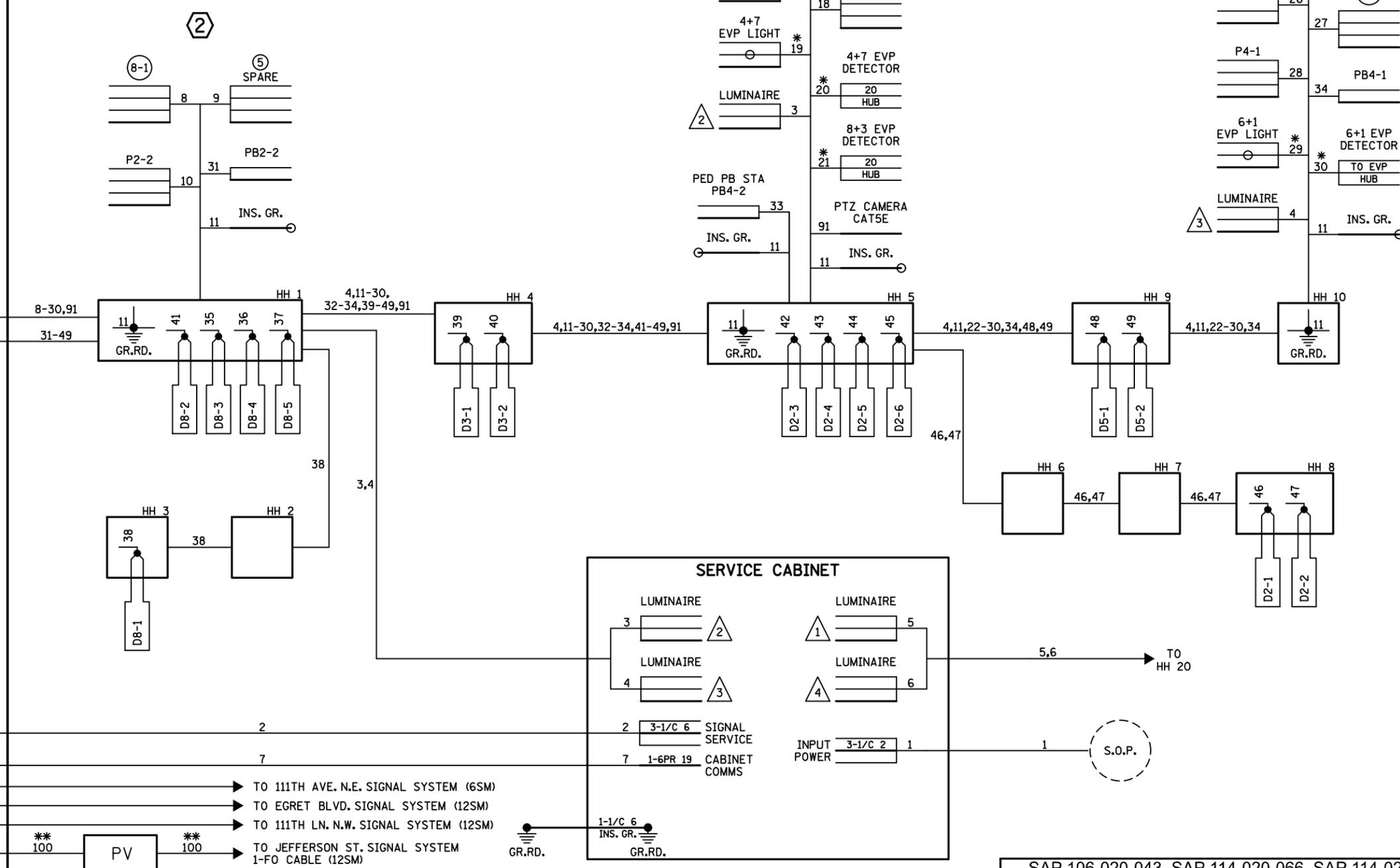
SAP 106-020-043, SAP 114-020-066, SAP 114-020-067			
SAP 002-612-037, SAP 002-612-036 (CSAH 12)			
SHEET NO.	78	OF	98 SHEETS

CONTROLLER CABINET



NOTES:

- SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
- FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL COLOR CODE DETAIL.
- ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
- ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
- FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.
- LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.
- SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITH BATTERIES.



11:00:31 AM 2/14/2025 14:00:45:00:ESG:VP:Plan_Sheets:cd4000450_435:sgp.dgn

NO	DATE	DWN	CKD	REVISIONS



I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P. MCCURDY
 SIGNATURE: *Michael P. McCurdy*
 DATE: 02/14/2025 LICENSE #: 45902

TRAFFIC CONTROL SIGNAL SYSTEM PLANS

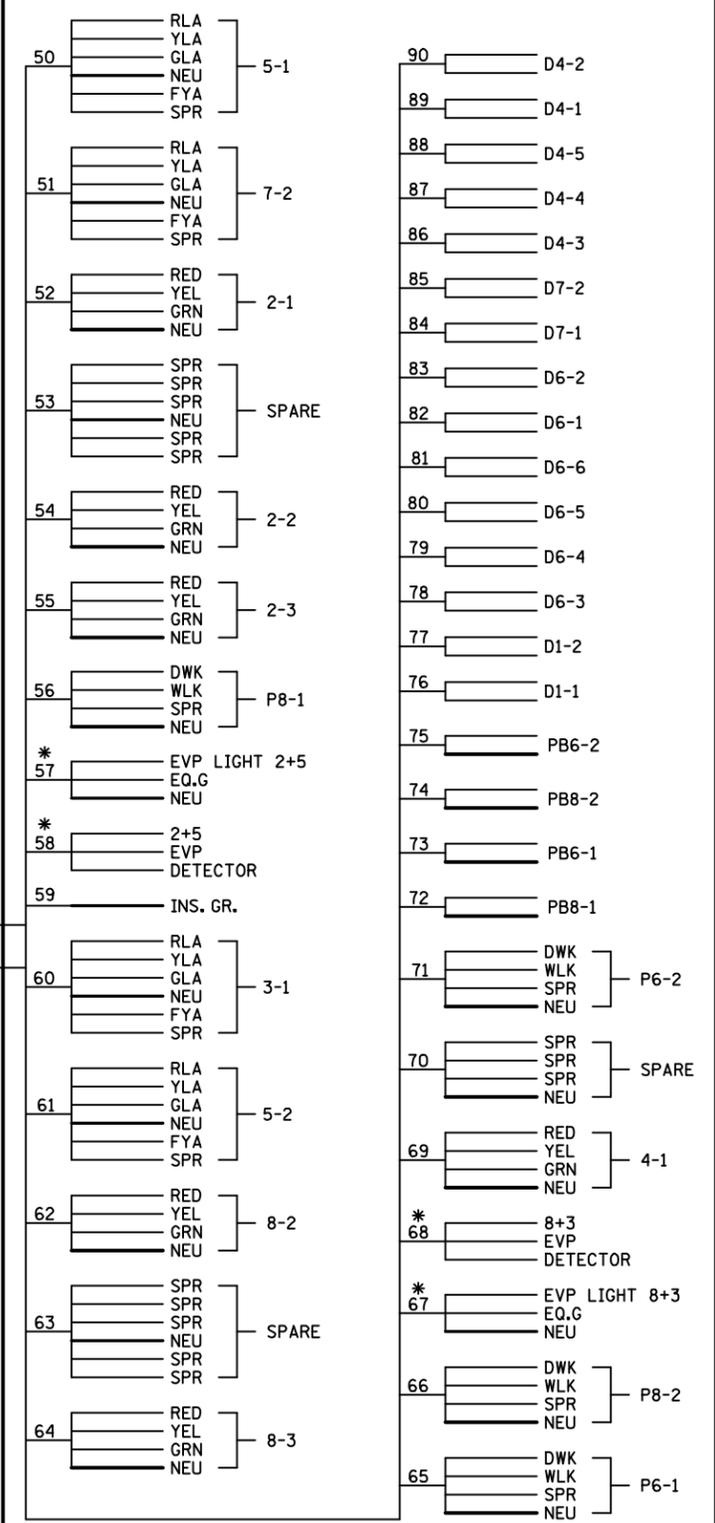
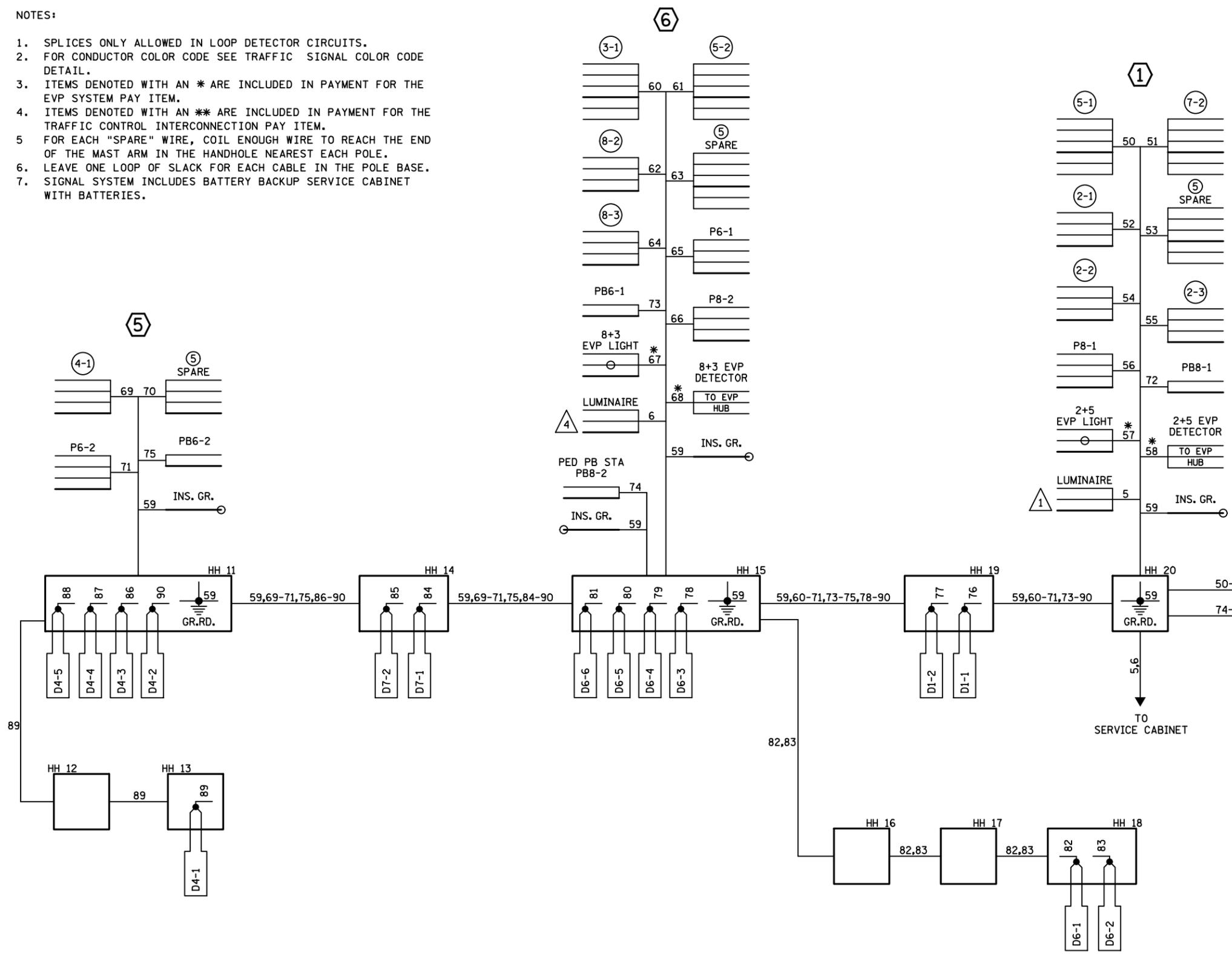
SIGNAL SYSTEM "A"

SAP 106-020-043, SAP 114-020-066, SAP 114-020-067
 SAP 002-612-037, SAP 002-612-036 (CSAH 12)
 SHEET NO. 79 OF 98 SHEETS

NOTES:

1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL COLOR CODE DETAIL.
3. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
4. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
5. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.
6. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.
7. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITH BATTERIES.

CONTROLLER CABINET



11:00:32 AM 2/14/2025 2:17:44 PM \\p01s14000450-00\ESG\Plan_Sheets\c44000450_435.sgp.dgn

NO	DATE	DWN	CKD	REVISIONS



I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P. MCCURDY
 SIGNATURE: *Michael P. McCurdy*
 DATE: 02/14/2025 LICENSE #: 45902

TRAFFIC CONTROL SIGNAL SYSTEM PLANS
 SIGNAL SYSTEM "A"

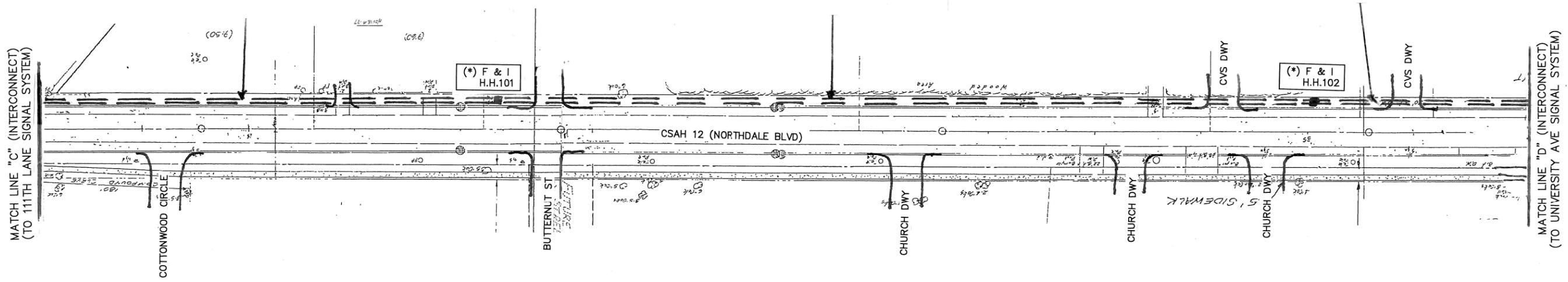
SAP 106-020-043, SAP 114-020-066, SAP 114-020-067
 SAP 002-612-037, SAP 002-612-036 (CSAH 12)
 SHEET NO. 80 OF 98 SHEETS



H.H.101 TO H.H.5:
 (*) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS)
 (*) 1-12 SM FIBER-OPTIC CABLE-F & I (TO 111TH LANE SIGNAL SYSTEM)

H.H.101 TO H.H.102:
 (*) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS)
 (*) 1-12 SM FIBER-OPTIC CABLE-F & I

H.H.102 TO H.H.5:
 (*) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS)
 (*) 1-12 SM FIBER-OPTIC CABLE-F & I (TO UNIVERSITY AVE SIGNAL SYSTEM)



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 AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT "D"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 3) NEW HANDHOLES 101-102 REQUIRED TO BE FURNISHED & INSTALLED BY CONTRACTOR AS PART OF PROJECT SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (QUAZITE). SEE DETAILS/SPECIAL PROVISIONS.

S:\VEVA\ANOKC\COMMON\SIGNALS\2017_INTERCONNECT\2017INBASE.DWG

DRAWN BY: JMG				
DESIGNER: JMG				
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, PE
 Lic. No. 22457
 Date: July 6, 2018

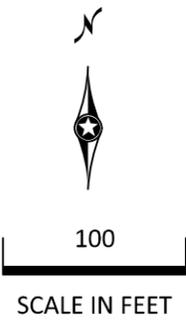
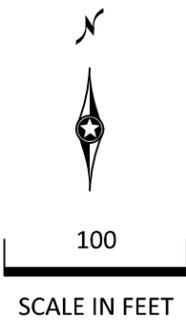
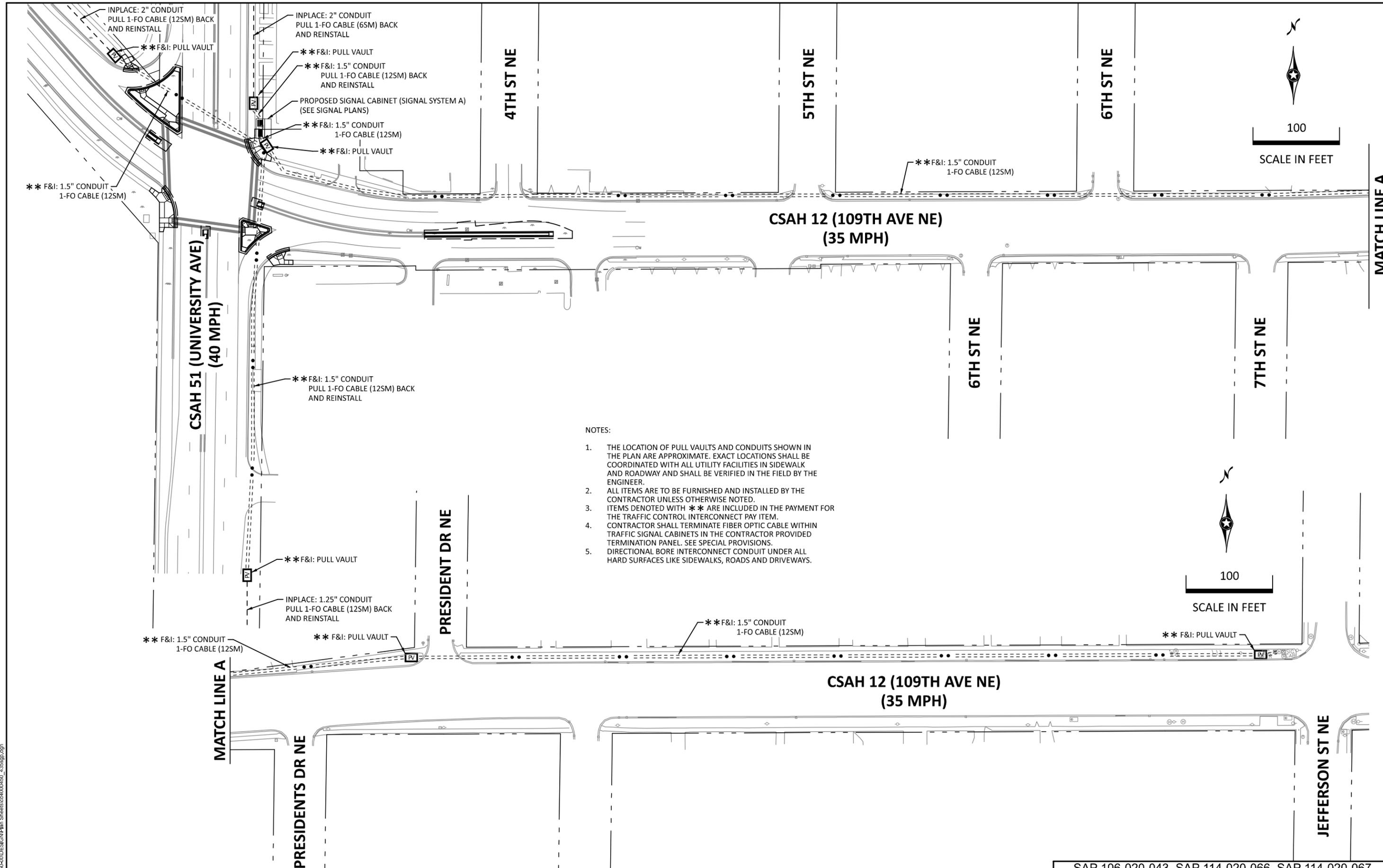
SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

ANOKA COUNTY, MN
CITY OF COON RAPIDS
 SAP 002-030-010

TRAFFIC SIGNAL INTERCONNECT 'D'
INTERSECTION LAYOUT
CSAH 12 (NORTHDALE BLVD)
(111TH LANE NW TO UNIVERSITY AVE)

FILE NO.
 ANOKC 142312

72
115



NOTES:

1. THE LOCATION OF PULL VAULTS AND CONDUITS SHOWN IN THE PLAN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE COORDINATED WITH ALL UTILITY FACILITIES IN SIDEWALK AND ROADWAY AND SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER.
2. ALL ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. ITEMS DENOTED WITH ** ARE INCLUDED IN THE PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECT PAY ITEM.
4. CONTRACTOR SHALL TERMINATE FIBER OPTIC CABLE WITHIN TRAFFIC SIGNAL CABINETS IN THE CONTRACTOR PROVIDED TERMINATION PANEL. SEE SPECIAL PROVISIONS.
5. DIRECTIONAL BORE INTERCONNECT CONDUIT UNDER ALL HARD SURFACES LIKE SIDEWALKS, ROADS AND DRIVEWAYS.

11:00:48 AM 2/14/2025 2:14:25 PM ...\\p01s014000450-000ESG\MP\Plan_Sheets\cd4000450_435.dgn

NO	DATE	DWN	CKD	REVISIONS



I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL R. MCCURDY
 SIGNATURE: *Michael P. McCurdy*
 DATE: 02/14/2025 LICENSE #: 45902

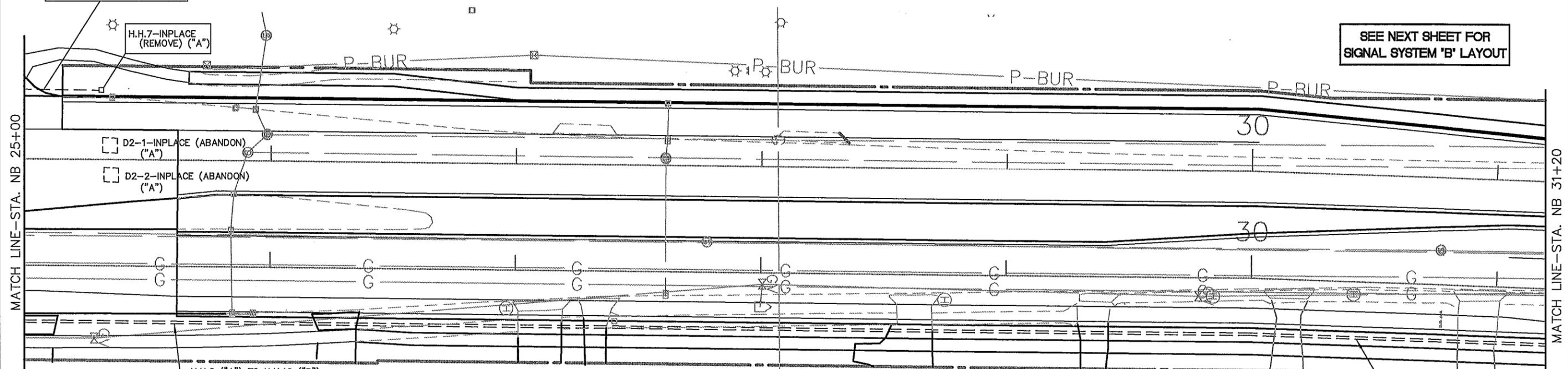
TRAFFIC CONTROL SIGNAL SYSTEM PLANS
 INTERCONNECT PLAN

SAP 106-020-043, SAP 114-020-066, SAP 114-020-067			
SAP 002-612-037, SAP 002-612-036 (CSAH 12)			
SHEET NO.	98	OF	98 SHEETS

H.H.6 TO H.H.7 ("A");
 1 1/4" R.S.C.-INPLACE
 (REMOVE) ("A")
 2-2/c#14-INPLACE
 (SALVAGE BACK TO H.H.6
 AND REINSTALL TO NEW
 H.H.7A) ("A")

H.H.7-INPLACE
 (REMOVE) ("A")

SEE NEXT SHEET FOR
 SIGNAL SYSTEM 'B' LAYOUT



H.H.2 ("A") TO H.H.10 ("B");
 (**) 2" CONDUIT
 (**) 1-6 SM FIBER-OPTIC CABLE
 (TO NORTHDAL BLVD/
 109TH AVE SIGNAL)

H.H.2 ("A") TO H.H.10 ("B");
 (**) 2" CONDUIT
 (**) 1-6 SM FIBER-OPTIC CABLE
 (TO 111TH AVENUE
 SIGNAL SYSTEM)

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) DISTANCE OFF SHOULDER OR CURB FOR INTERCONNECT CONDUIT SHALL BE 1-2 FEET.
- 3) (**) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECTION). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 4) ITEMS DENOTED BY "A" SHALL BE INCLUDED AS PART OF PAY ITEM FOR "REVISE SIGNAL SYSTEM "A".
- 5) ITEMS LISTED UNDER "SIGNAL SYSTEM "B" POLE NOTES" SHALL BE INCLUDED AS PART OF PAY ITEM FOR "TRAFFIC CONTROL SIGNAL SYSTEM "B".



S.P. 002-651-007
 S.P. 106-020-031
 S.P. 114-020-046

DRAWN BY: JMG			
DESIGNER: JMG			
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, PE
 Lic. No. 22457
 Date: April 23, 2014

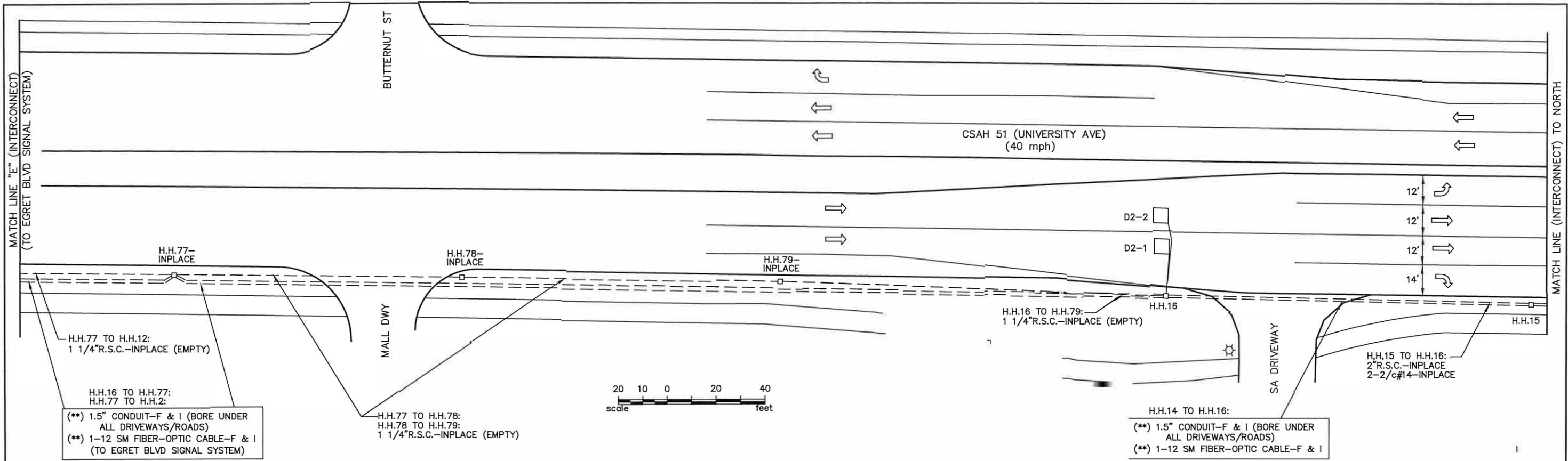
SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

ANOKA COUNTY
CITIES OF BLAINE
AND COON RAPIDS

SYSTEMS 'A-B'/INTERCONNECT
INTERSECTION LAYOUT
CSAH 51 (UNIVERSITY AVE)
(NORTHDAL-109TH AVE TO 111TH AVE)

FILE NO.
 ANOKC 125457
 SIGNAL SHEET
 11 OF 39

228
381



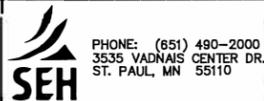
- INTERCONNECT NOTES:**
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
 - (*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT "D"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
(**) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT "E"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY (*) OR (**) AND BY EITHER F & I (ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR) OR BY "REMOVE" (ITEMS TO BE REMOVED & DISPOSED OF BY CONTRACTOR).
 - NEW HANDHOLES REQUIRED TO BE FURNISHED & INSTALLED BY THE CONTRACTOR AS PART OF PROJECT SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (QUAZITE). SEE DETAILS/SPECIAL PROVISIONS.
 - EXISTING CONCRETE HANDHOLES WITH CONCRETE OR TYPE LD COVERS IN BOULEVARD AREAS (USED WITH INTERCONNECT SYSTEM CABLES) SHALL BE ADJUSTED TO FINISHED SURROUNDING GRADE (TO BE MEASURED AND PAID FOR SEPARATELY-SEE SPECIAL PROVISIONS AND STATEMENT OF ESTIMATED QUANTITIES).
 - FOR EXISTING CONDUITS BEING REUSED AS PART OF THE COMPLETE INTERCONNECT SYSTEM, THE CONTRACTOR SHALL PULL A FISH TAPE THROUGH THESE CONDUITS TO CONFIRM THAT CONDUITS ARE ABLE TO BE REUSED WITH NEW CABLE INSTALLATIONS, PRIOR TO NEW INTERCONNECT CABLES BEING INSTALLED IN THESE CONDUITS.
 - SEPARATE PAY ITEMS ARE INCLUDED FOR NEW 1.5 INCH CONDUITS (BOTH FOR INSTALLATION IN BOULEVARD AREAS AND FOR BORING UNDER EXISTING DRIVEWAYS OR ROADWAYS), SHOULD EXISTING CONDUITS BE FOUND INCAPABLE OF HAVING NEW INTERCONNECT CABLES BE INSTALLED IN THESE CONDUITS. SEE SPECIAL PROVISIONS.
 - SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECT "D-E" PAY ITEMS.
 - FIBER OPTIC INTERCONNECT BETWEEN THIS SIGNAL SYSTEM AND SYSTEM TO THE NORTH (111TH AVENUE) IS INPLACE AND SHALL BE MAINTAINED INPLACE AND IN OPERATION.

DRAWN BY: JMG
 DESIGNER: JMG
 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, PE
 Lic. No. 22457
 Date: July 6, 2018



ANOKA COUNTY, MN
 CITIES OF BLAINE, COON RAPIDS
 SAP 002-030-010

TRAFFIC SIGNAL INTERCONNECT "D-E"
 INTERSECTION LAYOUT
 CSAH 12 (NORTHDALE BLVD)
 AT CSAH 51 (UNIVERSITY AVENUE)

FILE NO.
 ANOKC 142312

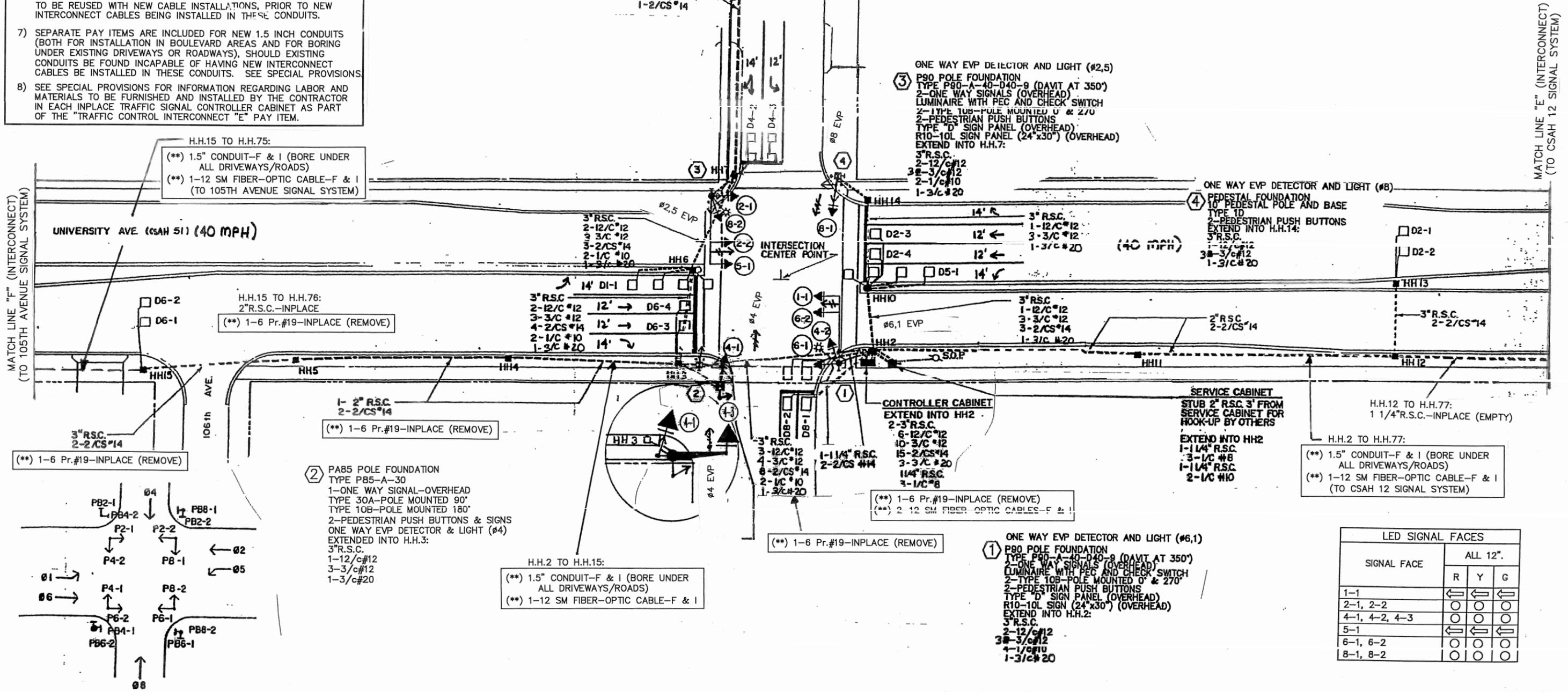
74
 115

INTERCONNECT NOTES:

- 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.
- (**) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT "E"). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY BOTH (**) AND BY EITHER F & I (ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR) OR BY "REMOVE" (ITEMS TO BE REMOVED & DISPOSED OF BY CONTRACTOR).
- NEW HANDHOLES REQUIRED TO BE FURNISHED & INSTALLED BY THE CONTRACTOR AS PART OF PROJECT SHALL BE PRE-CAST POLYMER CONCRETE STRUCTURES (QUAZITE). SEE DETAILS/SPECIAL PROVISIONS.
- EXISTING CONCRETE HANDHOLES WITH CONCRETE OR TYPE LD COVERS IN BOULEVARD AREAS (USED WITH INTERCONNECT SYSTEM CABLES) SHALL BE ADJUSTED TO FINISHED SURROUNDING GRADE (TO BE MEASURED AND PAID FOR SEPARATELY-SEE SPECIAL PROVISIONS AND STATEMENT OF ESTIMATED QUANTITIES).
- FOR EXISTING CONDUITS BEING REUSED AS PART OF THE COMPLETE INTERCONNECT SYSTEM, THE CONTRACTOR SHALL PULL A FISH TAPE THROUGH THESE CONDUITS TO CONFIRM THAT CONDUITS ARE ABLE TO BE REUSED WITH NEW CABLE INSTALLATIONS, PRIOR TO NEW INTERCONNECT CABLES BEING INSTALLED IN THESE CONDUITS.
- SEPARATE PAY ITEMS ARE INCLUDED FOR NEW 1.5 INCH CONDUITS (BOTH FOR INSTALLATION IN BOULEVARD AREAS AND FOR BORING UNDER EXISTING DRIVEWAYS OR ROADWAYS), SHOULD EXISTING CONDUITS BE FOUND INCAPABLE OF HAVING NEW INTERCONNECT CABLES BE INSTALLED IN THESE CONDUITS. SEE SPECIAL PROVISIONS.
- SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECT "E" PAY ITEM.

PVC LOOP DETECTORS				
NUMBER	SIZE (FT.)	LOCATION	FUNCTION	STATUS
D1-1	4-6x6	AS SHOWN	1	INPLACE
D2-1	6x6	330'	1,8	INPLACE
D2-2	6x6	330'	1,8	INPLACE
D2-3	6x6	5'	1	INPLACE
D2-4	6x6	5'	1	INPLACE
D4-1	2-6x6	250'	3,8	INPLACE
D4-2	2-6x6	0' & 15'	7	INPLACE
D4-3	2-6x6	0' & 15'	7	INPLACE
D5-1	4-6x6	AS SHOWN	1	INPLACE
D6-1	6x6	330'	1,8	INPLACE
D6-2	6x6	330'	1,8	INPLACE
D6-3	6x6	5'	1	INPLACE
D6-4	6x6	5'	1	INPLACE
D8-1	2-6x8	AS SHOWN	7	INPLACE
D8-2	2-6x8	AS SHOWN	7	INPLACE

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



MATCH LINE "F" (INTERCONNECT)
(TO 105TH AVENUE SIGNAL SYSTEM)

MATCH LINE "E" (INTERCONNECT)
(TO CSAH 12 SIGNAL SYSTEM)

H.H.15 TO H.H.75:
(**) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS)
(**) 1-12 SM FIBER-OPTIC CABLE-F & I (TO 105TH AVENUE SIGNAL SYSTEM)

H.H.15 TO H.H.76:
2" R.S.C.-INPLACE
(**) 1-6 Pr.#19-INPLACE (REMOVE)

1-2" R.S.C.
2-2/CS#14
(**) 1-6 Pr.#19-INPLACE (REMOVE)

② PA85 POLE FOUNDATION
TYPE P85-A-30
1-ONE WAY SIGNAL-OVERHEAD
TYPE 30A-POLE MOUNTED 90°
TYPE 10B-POLE MOUNTED 180°
2-PEDESTRIAN PUSH BUTTONS & SIGNS
ONE WAY EVP DETECTOR & LIGHT (#4)
EXTENDED INTO H.H.3:
3" R.S.C.
1-12/c#12
3-3/c#12
1-3/c#20

H.H.2 TO H.H.15:
(**) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS)
(**) 1-12 SM FIBER-OPTIC CABLE-F & I

③ ONE WAY EVP DETECTOR AND LIGHT (#2,5)
P90 POLE FOUNDATION
TYPE P90-A-40-D40-9 (DAVIT AT 350')
2-ONE WAY SIGNALS (OVERHEAD)
LUMINAIRE WITH PEC AND CHECK SWITCH
2-TYPE 10B-POLE MOUNTED 0° & 270°
2-PEDESTRIAN PUSH BUTTONS
TYPE "D" SIGN PANEL (OVERHEAD)
R10-10L SIGN (24"x30") (OVERHEAD)
EXTEND INTO H.H.7:
3" R.S.C.
2-12/c#12
3-3/c#12
2-1/c#10
1-3/c#20

④ ONE WAY EVP DETECTOR AND LIGHT (#8)
PEDESTAL FOUNDATION
10' PEDESTAL POLE AND BASE
TYPE 10
2-PEDESTRIAN PUSH BUTTONS
EXTEND INTO H.H.14:
3" R.S.C.
1-12/c#12
3-3/c#12
1-3/c#20

CONTROLLER CABINET
EXTEND INTO HH2
2-3" R.S.C.
6-12/c#12
10-3/c#12
15-2/CS#14
3-3/c#20
1 1/4" R.S.C.
3-1/c#8
(**) 1-6 Pr.#19-INPLACE (REMOVE)
(**) 2-12 SM FIBER OPTIC CABLES-F & I

SERVICE CABINET
STUB 2" R.S.C. 3' FROM SERVICE CABINET FOR HOOK-UP BY OTHERS
EXTEND INTO HH2
1-1 1/4" R.S.C.
3-1/c#8
1-1 1/4" R.S.C.
2-1/c#10

H.H.12 TO H.H.77:
1 1/4" R.S.C.-INPLACE (EMPTY)
H.H.2 TO H.H.77:
(**) 1.5" CONDUIT-F & I (BORE UNDER ALL DRIVEWAYS/ROADS)
(**) 1-12 SM FIBER-OPTIC CABLE-F & I (TO CSAH 12 SIGNAL SYSTEM)

① ONE WAY EVP DETECTOR AND LIGHT (#6,1)
P90 POLE FOUNDATION
TYPE P90-A-40-D40-9 (DAVIT AT 350')
2-ONE WAY SIGNALS (OVERHEAD)
LUMINAIRE WITH PEC AND CHECK SWITCH
2-TYPE 10B-POLE MOUNTED 0° & 270°
2-PEDESTRIAN PUSH BUTTONS
TYPE "D" SIGN PANEL (OVERHEAD)
R10-10L SIGN (24"x30") (OVERHEAD)
EXTEND INTO H.H.2:
3" R.S.C.
2-12/c#12
3-3/c#12
1-1/c#10
1-3/c#20

LED SIGNAL FACES			
SIGNAL FACE	ALL 12"		
	R	Y	G
1-1	←	←	←
2-1, 2-2	○	○	○
4-1, 4-2, 4-3	○	○	○
5-1	←	←	←
6-1, 6-2	○	○	○
8-1, 8-2	○	○	○

DRAWN BY: JMG
DESIGNER: JMG
CHECKED BY: JMG

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.
Name: John M. Gray, PE
Lic. No. 22457
Date: July 6, 2018

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

ANOKA COUNTY, MN
CITIES OF BLAINE, COON RAPIDS
SAP 002-030-010

TRAFFIC SIGNAL INTERCONNECT "E"
INTERSECTION LAYOUT
CSAH 51 (UNIVERSITY AVENUE)
AT EGRET BOULEVARD

FILE NO.
ANOKC 142312
76
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