

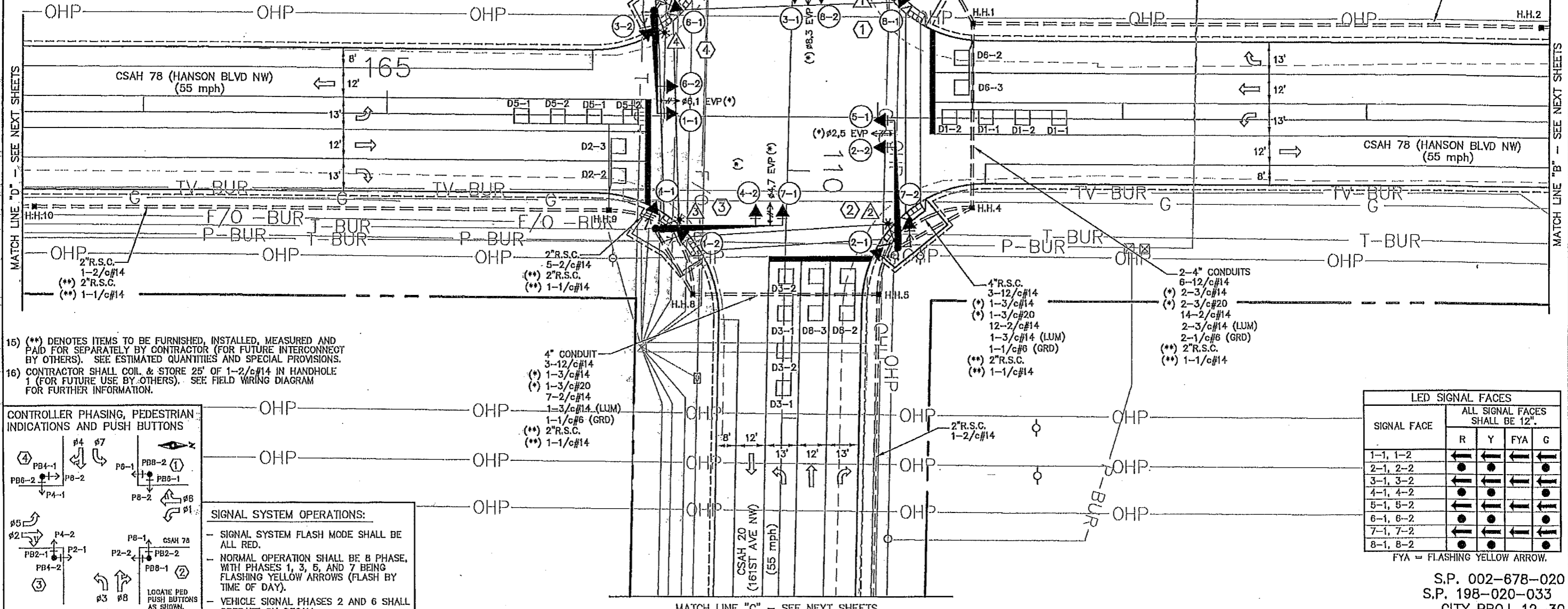
- NOTES:**
- THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD SHALL BE DETERMINED IN FIELD BY ENGINEER.
  - SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
  - NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
  - A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM THE END OF EACH MAIST ARM (FOR EVP).
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION.
  - THE CONTRACTOR SHALL LOCATE AND VERIFY INPLACE UTILITIES PRIOR TO COMMENCING WORK.
  - SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED & INSTALLED BY CONTRACTOR (INCIDENTAL).
  - EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION "FILLED" COUNTDOWN TIMER HAND/WALKING PERSON INDICATION.
  - ALL VEHICLE SIGNAL INDICATIONS, AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
  - EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
  - SEE DETAILS, SPECIAL PROVISIONS, AND 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).
  - LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
  - ALL VEHICLE AND PEDESTRIAN SIGNAL HOUSINGS, BACKGROUND SHIELDS, AND VISORS SHALL BE FABRICATED USING BLACK POLYCARBONATE MATERIALS. SEE SPECIAL PROVISIONS.
  - (\*) DENOTES ITEMS TO BE INCLUDED AS PART OF THE PAY ITEM FOR ITEM NO. 2565 (EMERGENCY VEHICLE PREEMPTION SYSTEM), SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.

PVC LOOP DETECTORS			
NUMBER	SIZE (FT.)	LOCATION	FUNCTION
D1-1	2-6x6	20' & 50'	1
D1-2	2-6x6	5' & 35'	7
D2-1	6x6	475'	1
D2-2	6x6	10'	1
D2-3	6x6	10'	1
D3-1	2-6x6	20' & 50'	1
D3-2	2-6x6	5' & 35'	7
D4-1	6x6	475'	1
D4-2	2-6x6	5' & 20'	7
D4-3	2-6x6	5' & 20'	1
D5-1	2-6x6	20' & 50'	7
D5-2	2-6x6	5' & 35'	1
D6-1	6x6	475'	1
D6-2	6x6	10'	1
D6-3	6x6	10'	1
D7-1	2-6x6	20' & 50'	1
D7-2	2-6x6	5' & 35'	7
D8-1	6x6	475'	1
D8-2	2-6x6	5' & 20'	7
D8-3	2-6x6	5' & 20'	1

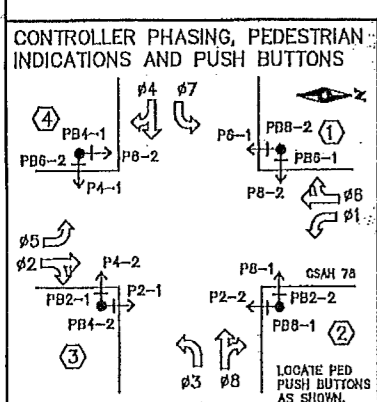
**LOOP DETECTORS FUNCTIONS:**

- CALL AND EXTEND
- DELAYED CALL, IMMEDIATE EXTEND

**MATCH LINE "A" - SEE NEXT SHEETS**

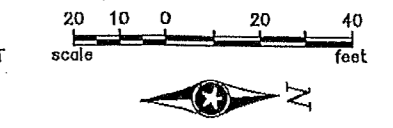


- (\*\*) DENOTES ITEMS TO BE FURNISHED, INSTALLED, MEASURED AND PAID FOR SEPARATELY BY CONTRACTOR (FOR FUTURE INTERCONNECT BY OTHERS). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- CONTRACTOR SHALL COIL & STORE 25' OF 1-2/c#14 IN HANDHOLE 1 (FOR FUTURE USE BY OTHERS). SEE FIELD WIRING DIAGRAM FOR FURTHER INFORMATION.



**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.

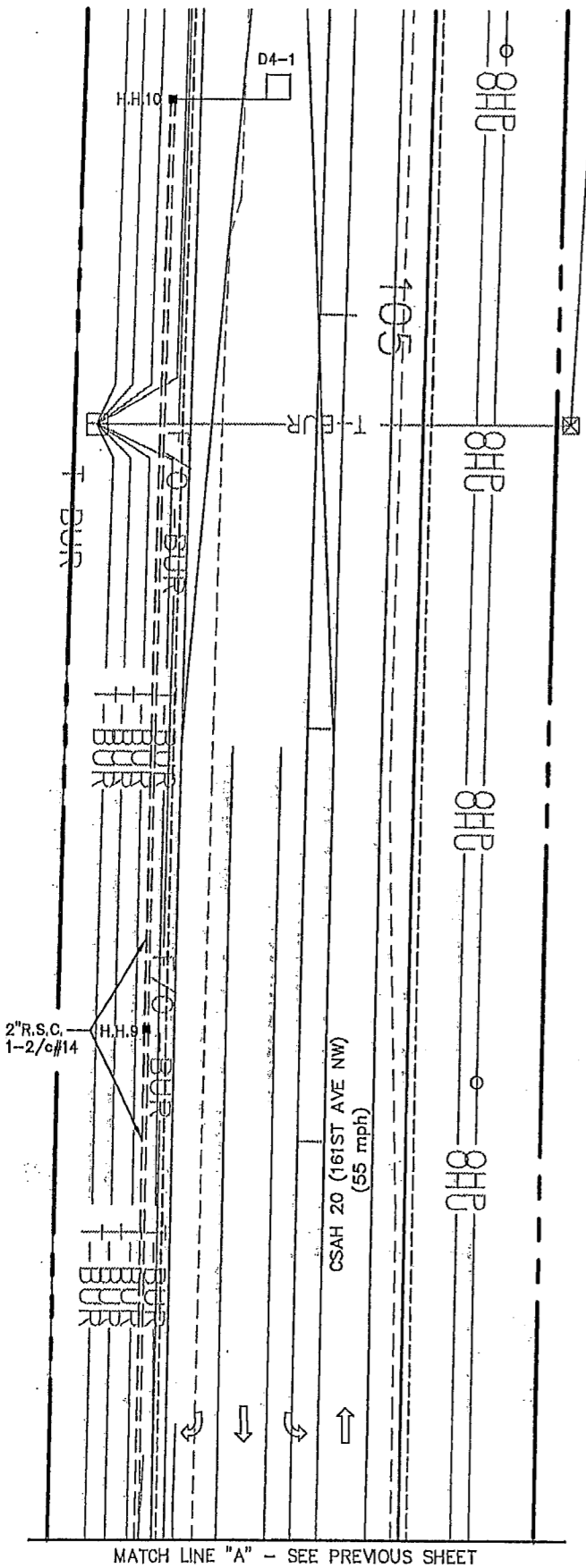
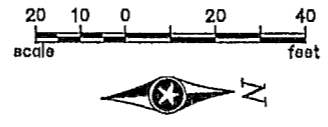


SEE NEXT SHEET FOR DETAILED POLE NOTES.

- (A) INSTALL CONTROLLER AND CABINET (FURNISHED BY COUNTY) EQUIPMENT PAD FOUNDATION BATTERY BACK-UP SIGNAL SERVICE CABINET BETWEEN CONTROLLER CABINET AND SERVICE CABINET; METERED SIGNAL SERVICE**
- 2" R.S.C.  
3-1/c#6
- CONTROLLER CABINET TO H.H.1:  
4" R.S.C. 4" R.S.C.  
3-12/c#14 3-12/c#14  
(\*) 1-3/c#14 (\*) 1-3/c#14  
(\*) 1-3/c#20 (\*) 1-3/c#20  
8-2/c#14 12-2/c#14  
1-1/c#6 (GRD) 1-1/c#6 (GRD)
- CONTROLLER CABINET TO H.H.15:  
4" R.S.C. 4" R.S.C.  
3-12/c#14 3-12/c#14  
(\*) 1-3/c#14 (\*) 1-3/c#14  
(\*) 1-3/c#20 (\*) 1-3/c#20  
2-2/c#14 7-2/c#14  
1-1/c#6 (GRD) 1-1/c#6 (GRD)
- CONTROLLER CABINET TO H.H.1:  
(\*\*) 2" R.S.C.  
(\*\*) 1-1/c#14
- SERVICE CABINET TO H.H.1:  
2" R.S.C.  
UNMETERED STREET LIGHT SERVICE  
2-3/c#14 (LUM)  
SERVICE CABINET TO H.H.15:  
2" R.S.C.  
UNMETERED STREET LIGHT SERVICE  
2-3/c#14 (LUM)
- STUB OUT 2" R.S.C. FROM SERVICE CABINET TO EAST (FOR POWER CABLES BY CONNEXUS)
- STUB OUT 1" R.S.C. FROM CONTROLLER CABINET TO SOUTH (FOR FUTURE PHONE LINE BY OTHERS)
- STUB OUT 3" R.S.C. FROM CONTROLLER CABINET TO SOUTH (THREAD AND CAP-FOR FUTURE USE)

LED SIGNAL FACES				
SIGNAL FACE	ALL SIGNAL FACES SHALL BE 12"			
	R	Y	FYA	G
1-1, 1-2	←	←	←	←
2-1, 2-2	•	•	•	•
3-1, 3-2	←	←	←	←
4-1, 4-2	•	•	•	•
5-1, 5-2	←	←	←	←
6-1, 6-2	•	•	•	•
7-1, 7-2	←	←	←	←
8-1, 8-2	•	•	•	•

FYA = FLASHING YELLOW ARROW.

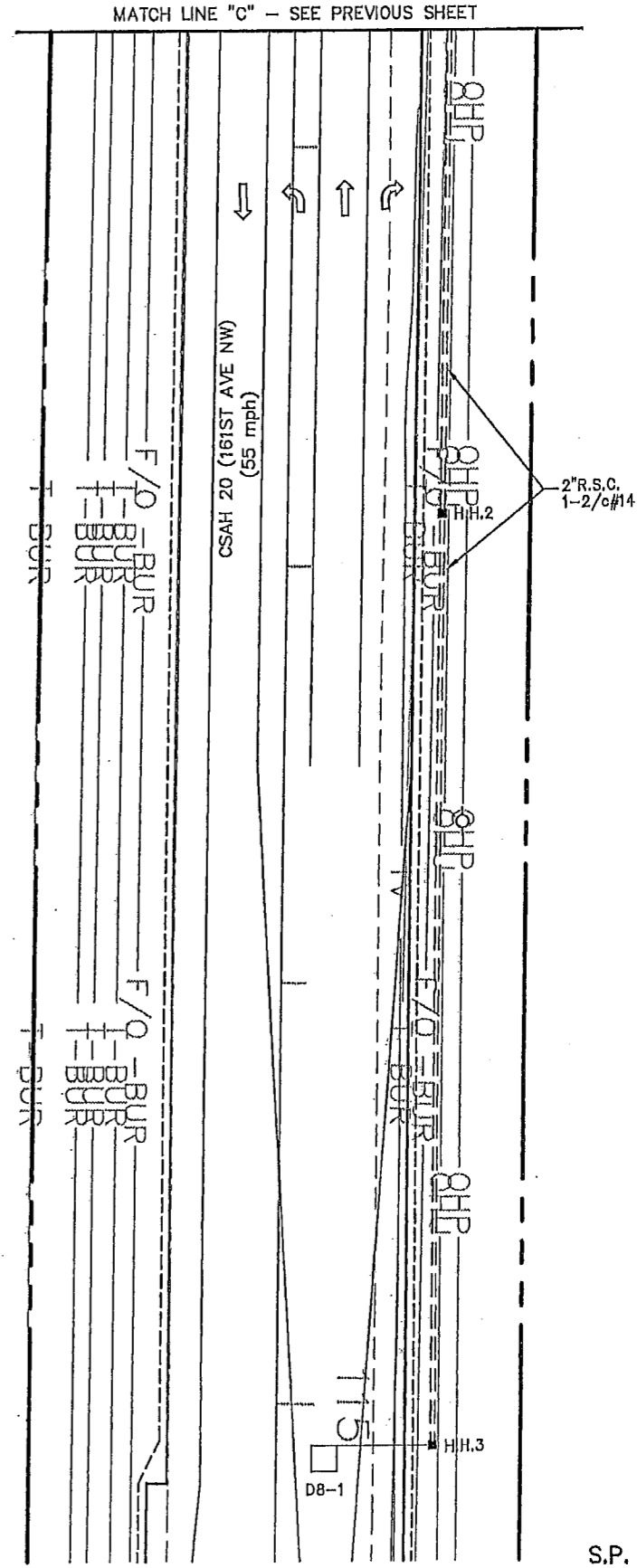


① PA100 POLE FOUNDATION  
 TYPE PA100-A-50-D25-9 (DAVIT AT 350')  
 LUMINAIRE-COBRAHEAD LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90° & 180'  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90° & 180'  
 2-PEDESTRIAN PUSH BUTTONS  
 R10-X12 SIGN PANEL-ADJACENT TO 5-1  
 TYPE D SIGN PANEL-OVERHEAD (D-1)  
 (\*) ONE WAY EVP DETECTOR AND LIGHT (#2,5)  
 EXTEND INTO H.H.1:  
 3"R.S.C.  
 3-12/c#14  
 (\*) 1-3/c#14  
 (\*) 1-3/c#20  
 2-2/c#14  
 1-3/c#14 (LUM)  
 1-1/c#6 (GRD)

② PA100 POLE FOUNDATION  
 TYPE PA100-A-50-D25-9 (DAVIT AT 350')  
 LUMINAIRE-COBRAHEAD LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90° & 180'  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90° & 180'  
 2-PEDESTRIAN PUSH BUTTONS  
 R10-X12 SIGN PANEL-ADJACENT TO 7-1  
 TYPE D SIGN PANEL-OVERHEAD (D-2)  
 (\*) ONE WAY EVP DETECTOR AND LIGHT (#4,7)  
 EXTEND INTO H.H.4:  
 3"R.S.C.  
 3-12/c#14  
 (\*) 1-3/c#14  
 (\*) 1-3/c#20  
 2-2/c#14  
 1-3/c#14 (LUM)  
 1-1/c#6 (GRD)

③ PA100 POLE FOUNDATION  
 TYPE PA100-A-40-D25-9 (DAVIT AT 350')  
 LUMINAIRE-COBRAHEAD LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90° & 180'  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90° & 180'  
 2-PEDESTRIAN PUSH BUTTONS  
 R10-X12 SIGN PANEL-ADJACENT TO 1-1  
 TYPE D SIGN PANEL-OVERHEAD (D-3)  
 (\*) ONE WAY EVP DETECTOR AND LIGHT (#6,1)  
 EXTEND INTO H.H.8:  
 3"R.S.C.  
 3-12/c#14  
 (\*) 1-3/c#14  
 (\*) 1-3/c#20  
 2-2/c#14  
 1-3/c#14 (LUM)  
 1-1/c#6 (GRD)

④ PA100 POLE FOUNDATION  
 TYPE PA100-A-40-D25-9 (DAVIT AT 350')  
 LUMINAIRE-COBRAHEAD LED  
 1-ANGLE MOUNT SIGNAL-OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNAL-OVERHEAD AT 11'  
 2-ANGLE MOUNT SIGNALS-POLE MOUNTED 90° & 180'  
 2-ANGLE MOUNT C.D. PED INDICATIONS-POLE MOUNTED 90° & 180'  
 2-PEDESTRIAN PUSH BUTTONS  
 R10-X12 SIGN PANEL-ADJACENT TO 3-1  
 TYPE D SIGN PANEL-OVERHEAD (D-4)  
 (\*) ONE WAY EVP DETECTOR AND LIGHT (#8,3)  
 EXTEND INTO H.H.12:  
 3"R.S.C.  
 3-12/c#14  
 (\*) 1-3/c#14  
 (\*) 1-3/c#20  
 2-2/c#14  
 1-3/c#14 (LUM)  
 1-1/c#6 (GRD)



MATCH LINE "A" - SEE PREVIOUS SHEET

S.P. 002-678-020  
S.A.P. 198-020-033  
CITY PROJ. 12-30

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

NO.	BY	DATE	REVISIONS

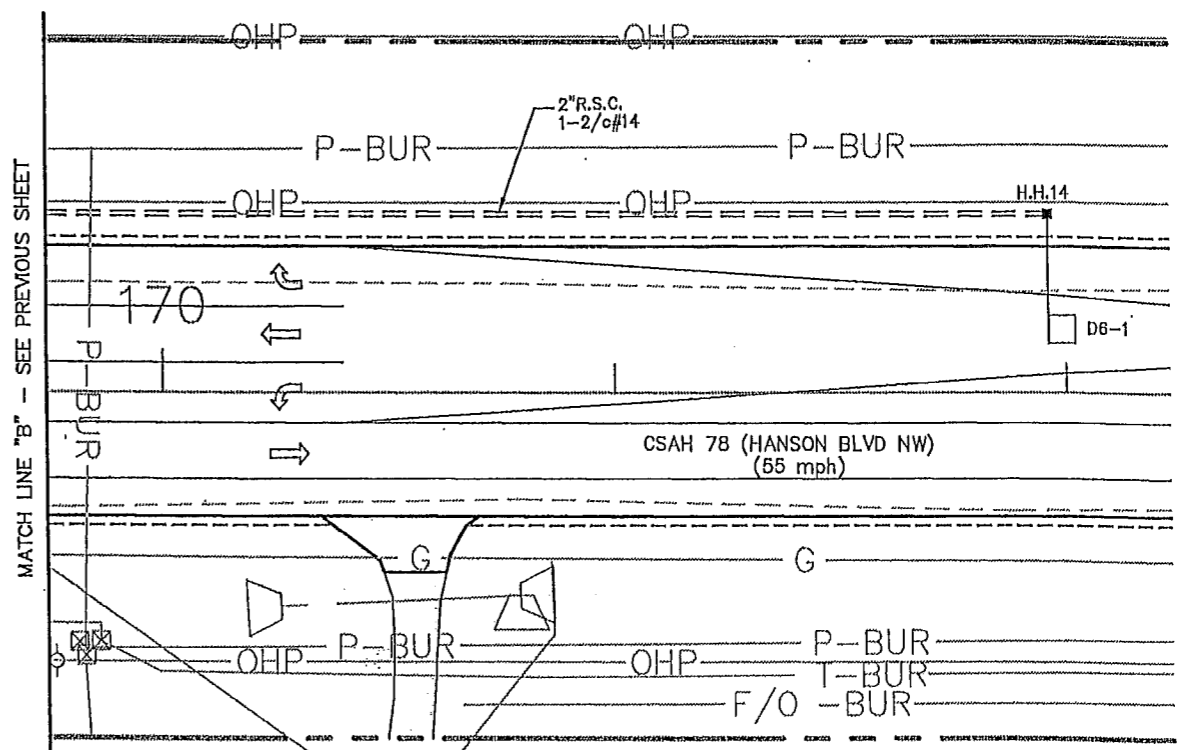
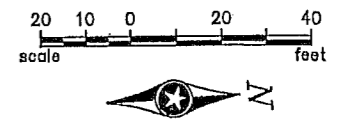
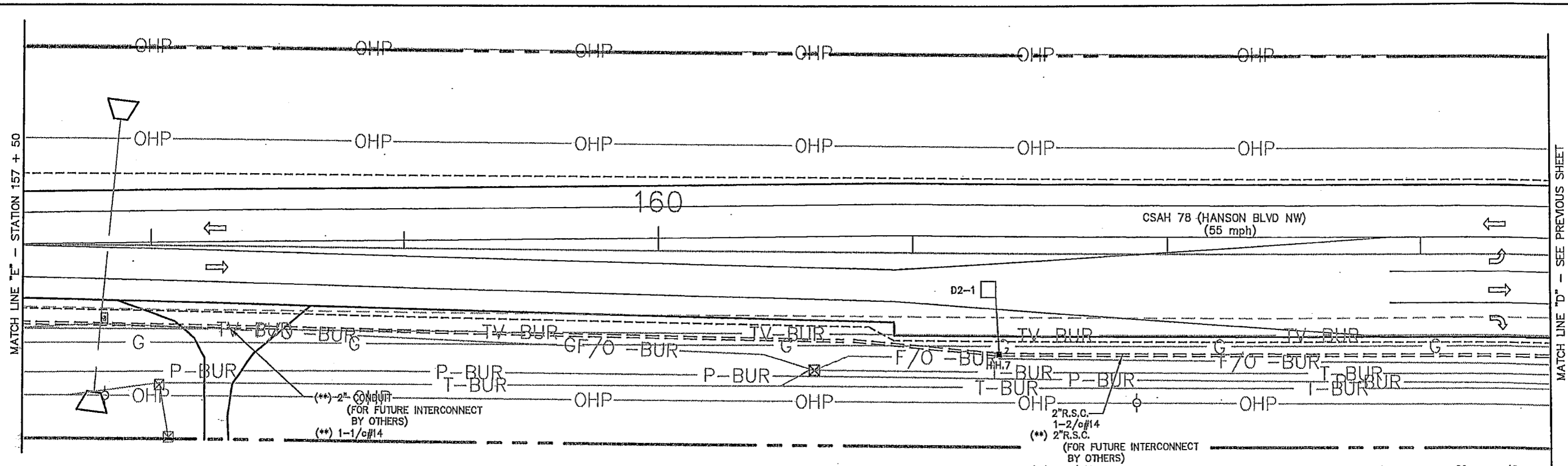
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 Date: April 15, 2014 Name: John M. Gray PE Lic. No. 22457

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

ANOKA COUNTY  
 CITY OF ANDOVER

TRAFFIC SIGNAL SYSTEM  
 INTERSECTION LAYOUT  
 CSAH 78 (HANSON BLVD NW)  
 AT CSAH 20 (161st AVE NW)

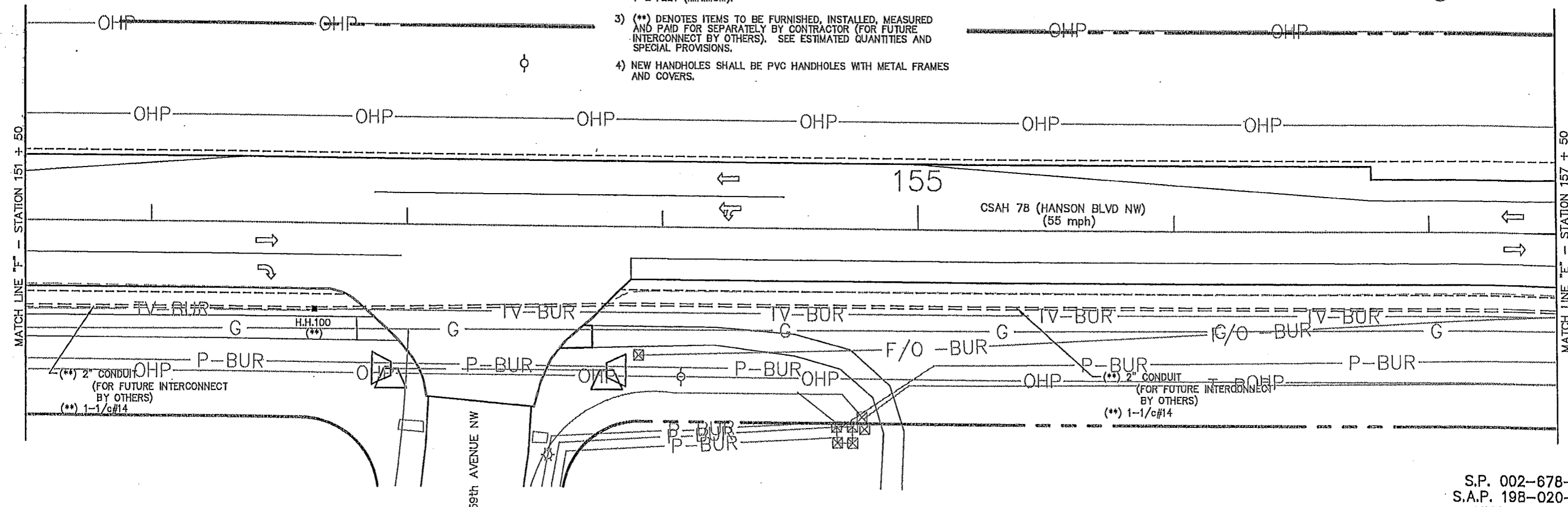
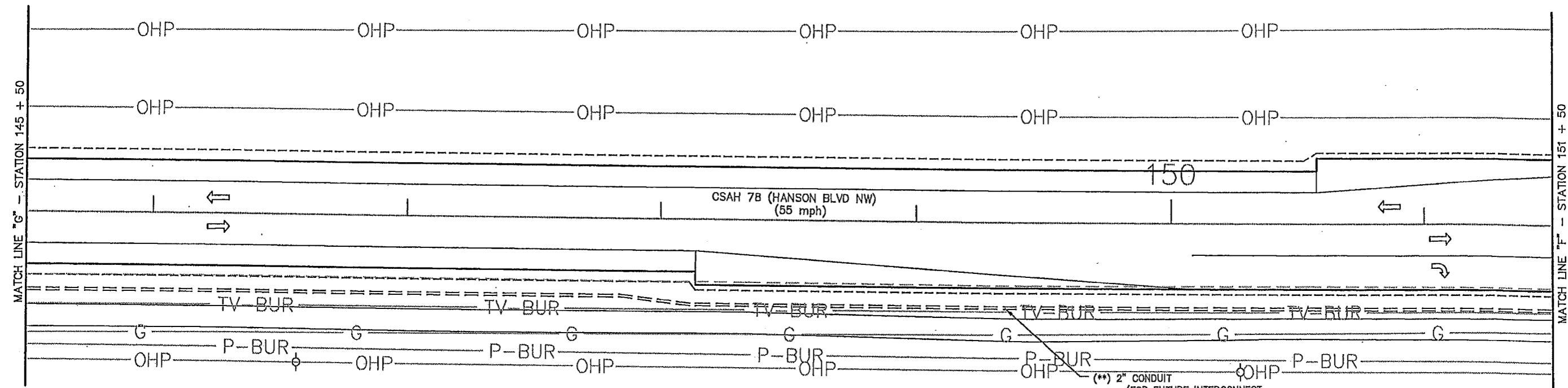
FILE NO. ANOKC 125789  
 SIGNAL SHEET 7 OF 12  
 82  
 111



- NOTES:
- 1) IT SHALL BE 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 CONDUIT SHALL BE 1-2 FEET (MINIMUM).
  - 3) (\*\*) DENOTES ITEMS TO BE FURNISHED, INSTALLED, MEASURED AND PAID FOR SEPARATELY BY CONTRACTOR (FOR FUTURE INTERCONNECT BY OTHERS). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.

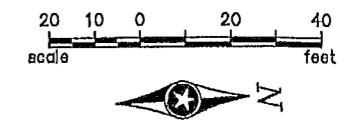
S.P. 002-678-020  
S.A.P. 198-020-033  
CITY PROJ. 12-30

DRAWN BY: JMG DESIGNER: JMG CHECKED BY: JMG DESIGN TEAM	<table border="1"> <thead> <tr> <th>NO.</th> <th>BY</th> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	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. Date: <u>April 16, 2014</u> Name: <u>John M. Gray PE</u> Lto. No. <u>22457</u>	PHONE: (651) 490-2000 3535 VANDERHAIS CENTER DR. ST. PAUL, MN 55110	<b>ANOKA COUNTY</b> CITY OF ANDOVER	<b>TRAFFIC SIGNAL SYSTEM</b> INTERSECTION LAYOUT. CSAH 78 (HANSON BLVD NW) AT CSAH 20 (161st AVE NW)	FILE NO. ANOKC 125789 SIGNAL SHEET B OF 12	<b>83</b> <b>111</b>
NO.	BY	DATE	REVISIONS												



- NOTES:**
- 1) IT SHALL BE 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 CONDUIT SHALL BE 1-2 FEET (MINIMUM).
  - 3) (\*\*) DENOTES ITEMS TO BE FURNISHED, INSTALLED, MEASURED AND PAID FOR SEPARATELY BY CONTRACTOR (FOR FUTURE INTERCONNECT BY OTHERS). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.

(\*\*) 2" CONDUIT  
(FOR FUTURE INTERCONNECT  
BY OTHERS)  
(\*\*) 1-1/c#14



S.P. 002-678-020  
S.A.P. 198-020-033  
CITY PROJ. 12-30

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 PE  
Date: April 16, 2014 Lic. No. 22457

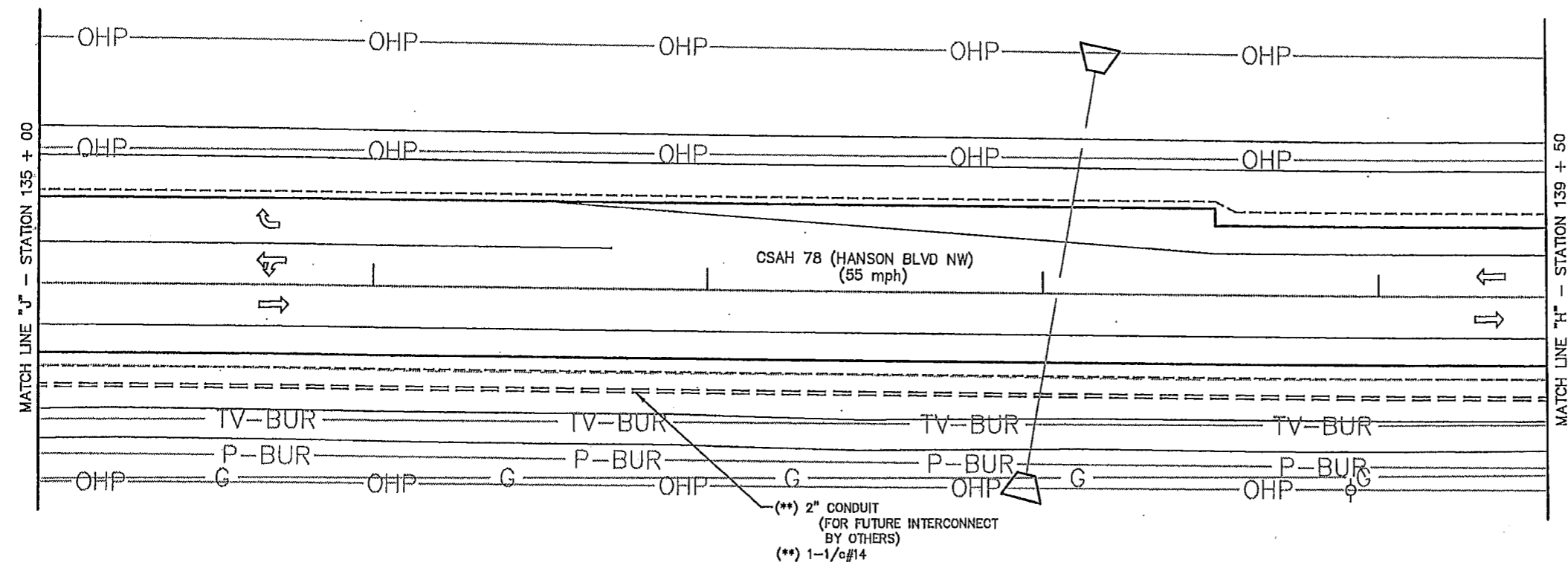
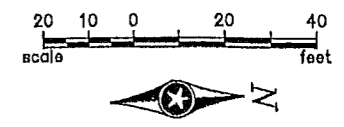
**SEH**  
PHONE: (651) 490-2000  
3535 WADSWORTH CENTER DR.  
ST. PAUL, MN 55110

**ANOKA COUNTY**  
CITY OF ANDOVER

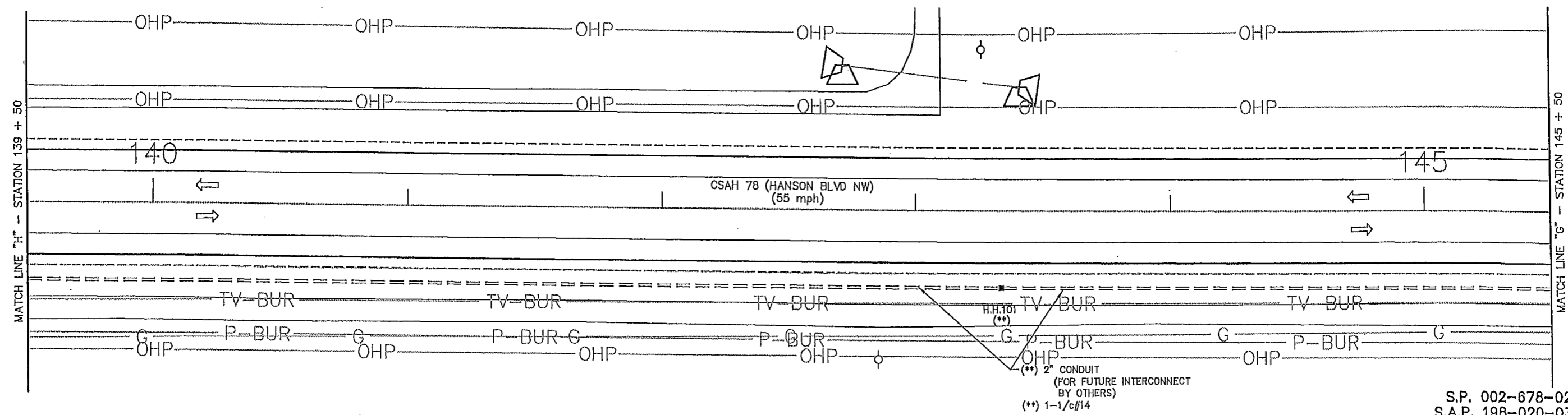
**FUTURE SIGNAL INTERCONNECTION**  
INTERSECTION LAYOUT  
CSAH 78 (HANSON BLVD NW)  
(155TH LANE NW TO CSAH 20)

FILE NO.  
ANOKC 125789  
SIGNAL SHEET  
10 OF 12

**85**  
**111**

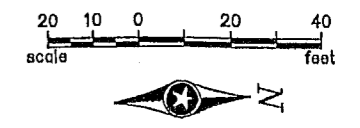


- NOTES:
- 1) IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002), AS REQUIRED BY MINNESOTA STATUTE 2160.
  - 2) DISTANCE OFF SHOULDER OR CURB FOR CONDUIT SHALL BE 1-2 FEET (MINIMUM).
  - 3) (\*\*) DENOTES ITEMS TO BE FURNISHED, INSTALLED, MEASURED AND PAID FOR SEPARATELY BY CONTRACTOR (FOR FUTURE INTERCONNECT BY OTHERS). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
  - 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.



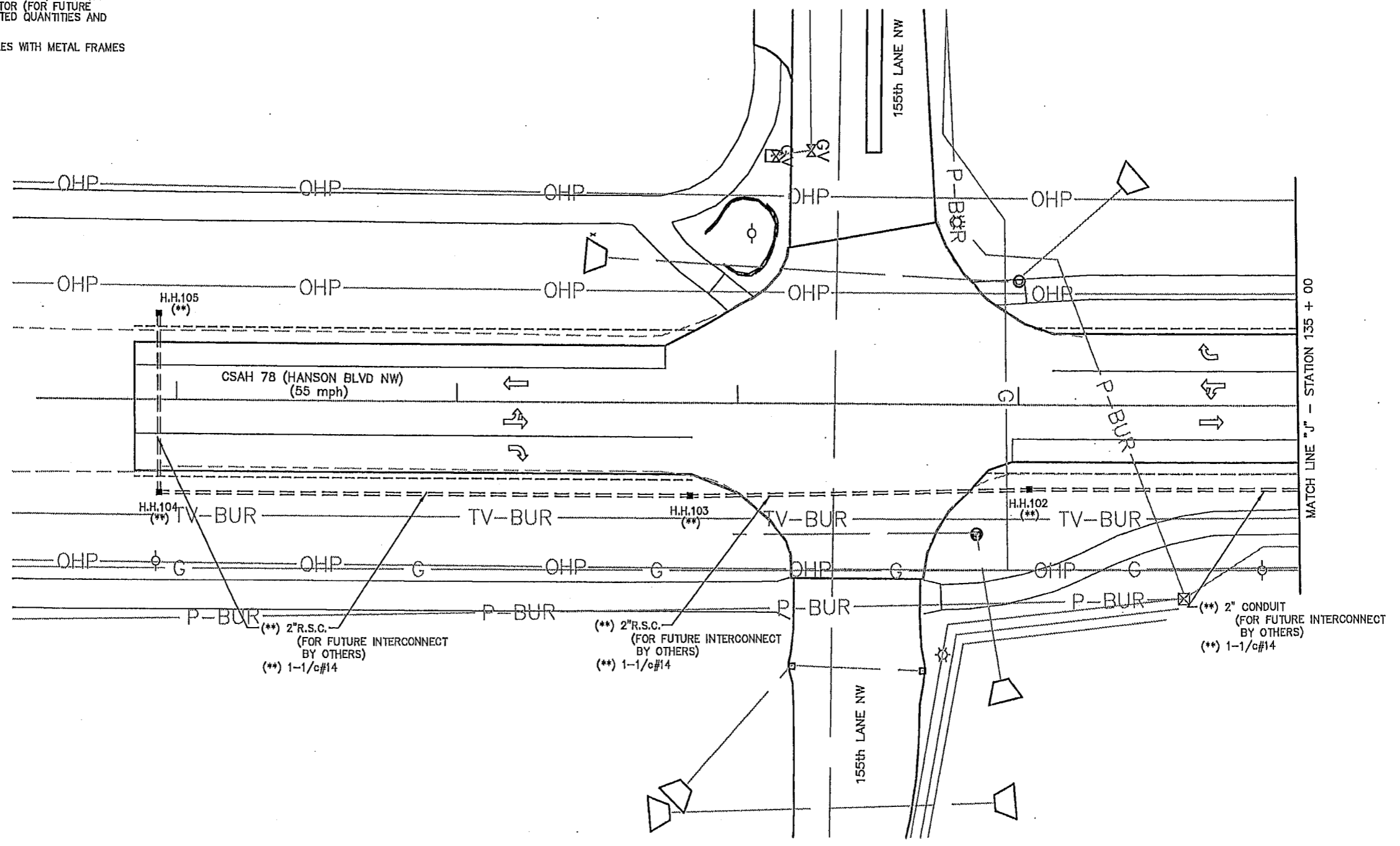
S.P. 002-678-020  
 S.A.P. 198-020-033  
 CITY PROJ. 12-30

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. Date: April 18, 2014 Name: John M. Gray PE Lic. No. 22457	PHONE: (651) 490-2000 3535 VADNAIS CENTER DR. ST. PAUL, MN 55110	ANOKA COUNTY CITY OF ANDOVER	FUTURE SIGNAL INTERCONNECTION INTERSECTION LAYOUT CSAH 78 (HANSON BLVD NW) (155TH LANE NW TO CSAH 20)	FILE NO. ANOKC 126789 SIGNAL SHEET 11 OF 12	86 111
------------------------------------------------------------------	--------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------	---------------------------------	----------------------------------------------------------------------------------------------------------------	------------------------------------------------------	-----------



**NOTES:**

- 1) IT SHALL BE 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 CONDUIT SHALL BE 1-2 FEET (MINIMUM).
- 3) (\*\* DENOTES ITEMS TO BE FURNISHED, INSTALLED, MEASURED AND PAID FOR SEPARATELY BY CONTRACTOR (FOR FUTURE INTERCONNECT BY OTHERS). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.

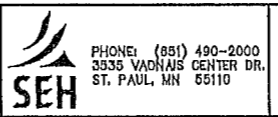


S.P. 002-678-020  
 S.A.P. 198-020-033  
 CITY PROJ. 12-30

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.

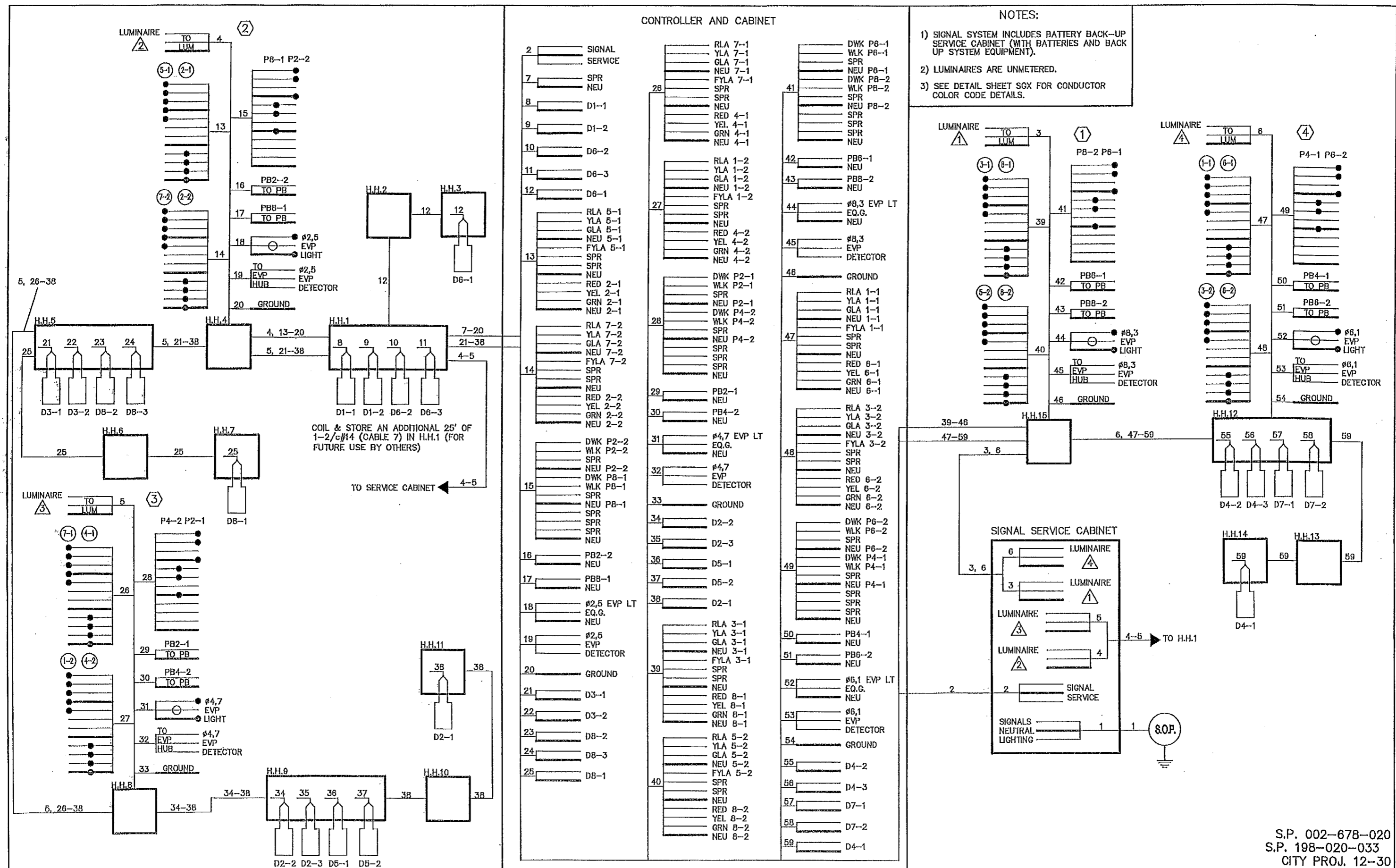
Date: April 19, 2014 Name: John N. Gray PE Lic. No. 22457



ANOKA COUNTY  
 CITY OF ANDOVER

FUTURE SIGNAL INTERCONNECTION  
 INTERSECTION LAYOUT  
 CSAH 78 (HANSON BLVD NW)  
 (155TH LANE NW TO CSAH 20)

FILE NO. ANOKC 125789	87
SIGNAL SHEET 12 OF 12	111

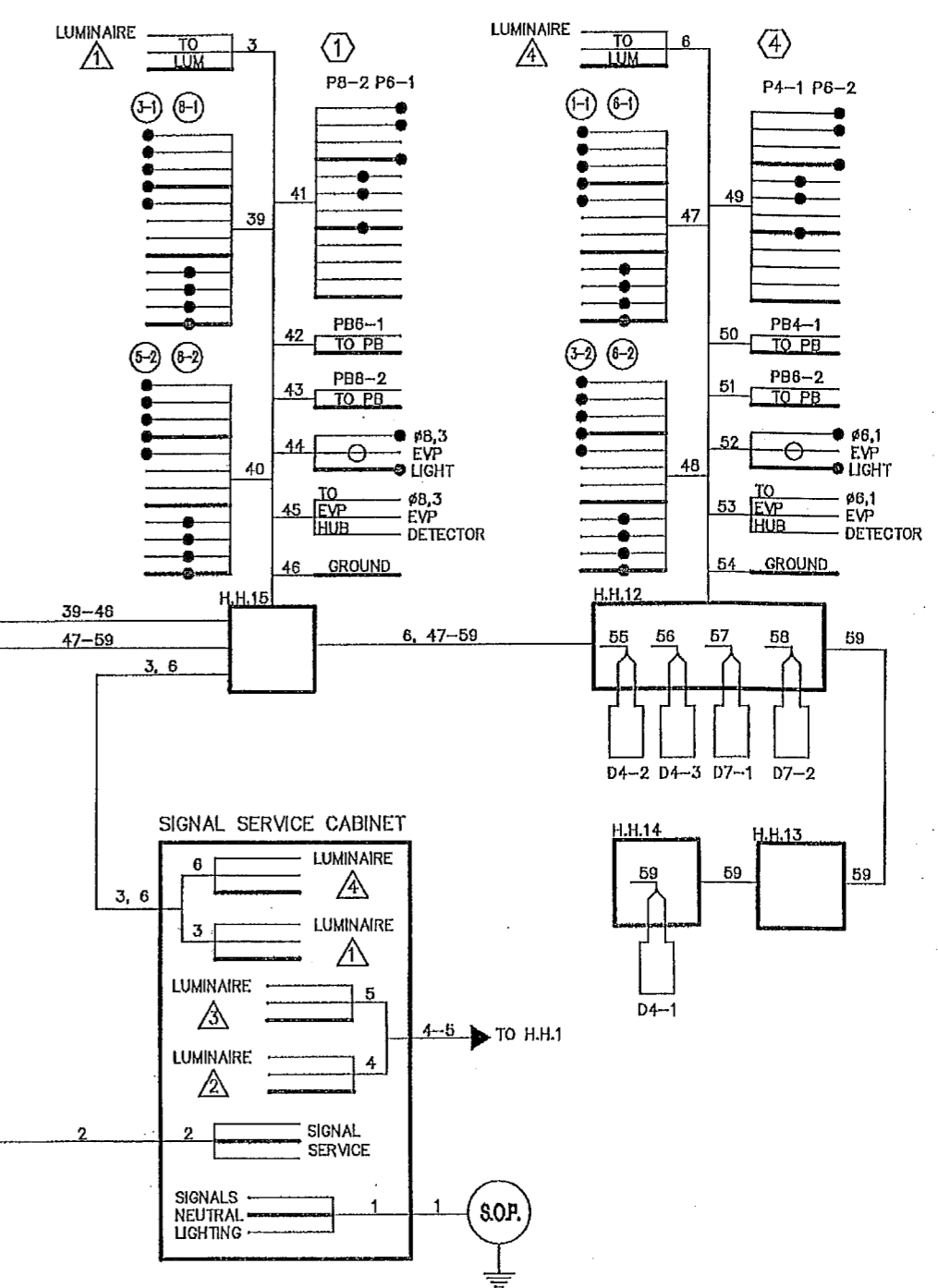


CONTROLLER AND CABINET

- |    |                                                          |    |                                                                      |    |                                                                                              |
|----|----------------------------------------------------------|----|----------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------|
| 2  | SIGNAL SERVICE                                           | 26 | RLA 7-1<br>YLA 7-1<br>GLA 7-1<br>NEU 7-1<br>FYLA 7-1                 | 41 | DWK P6-1<br>WLK P6-1<br>SPR P6-1<br>NEU P6-1<br>DWK P6-2<br>WLK P6-2<br>SPR P6-2<br>NEU P6-2 |
| 7  | SPR<br>NEU                                               | 27 | RLA 1-2<br>YLA 1-2<br>GLA 1-2<br>NEU 1-2<br>FYLA 1-2                 | 42 | PB8-1<br>NEU                                                                                 |
| 8  | D1-1                                                     | 28 | RLA 5-1<br>YLA 5-1<br>GLA 5-1<br>NEU 5-1<br>FYLA 5-1                 | 43 | PB8-2<br>NEU                                                                                 |
| 9  | D1-2                                                     | 29 | SPR P2-1<br>WLK P2-1<br>NEU P2-1<br>DWK P4-2<br>WLK P4-2             | 44 | Ø8,3 EVP LT<br>EQ.G.<br>NEU                                                                  |
| 10 | D6-2                                                     | 30 | SPR P4-2<br>SPR P4-2<br>SPR P4-2<br>NEU P4-2                         | 45 | Ø8,3<br>EVP<br>DETECTOR                                                                      |
| 11 | D6-3                                                     | 31 | DWK P2-2<br>WLK P2-2<br>SPR P2-2<br>NEU P2-2<br>DWK P8-1<br>WLK P8-1 | 46 | GROUND                                                                                       |
| 12 | D6-1                                                     | 32 | SPR P8-1<br>SPR P8-1<br>SPR P8-1<br>NEU P8-1                         | 47 | RLA 1-1<br>YLA 1-1<br>GLA 1-1<br>NEU 1-1<br>FYLA 1-1                                         |
| 13 | RLA 6-1<br>YLA 6-1<br>GLA 6-1<br>NEU 6-1<br>FYLA 6-1     | 33 | GROUND                                                               | 48 | SPR P3-2<br>SPR P3-2<br>SPR P3-2<br>NEU P3-2<br>FYLA 3-2                                     |
| 14 | RLA 7-2<br>YLA 7-2<br>GLA 7-2<br>NEU 7-2<br>FYLA 7-2     | 34 | D2-2                                                                 | 49 | NEU P6-2<br>WLK P4-1<br>DWK P4-1<br>SPR P4-1<br>SPR P4-1<br>NEU P4-1                         |
| 15 | RLA 2-1<br>YEL 2-1<br>GRN 2-1<br>NEU 2-1                 | 35 | D2-3                                                                 | 50 | PB4-1<br>NEU                                                                                 |
| 16 | RLA 2-2<br>YEL 2-2<br>GRN 2-2<br>NEU 2-2                 | 36 | D5-1                                                                 | 51 | PB6-2<br>NEU                                                                                 |
| 17 | RLA 7-2<br>YLA 7-2<br>GLA 7-2<br>NEU 7-2<br>FYLA 7-2     | 37 | D5-2                                                                 | 52 | Ø6,1 EVP LT<br>EQ.G.<br>NEU                                                                  |
| 18 | SPR P2-2<br>WLK P2-2<br>NEU P2-2<br>DWK P8-1<br>WLK P8-1 | 38 | D2-1                                                                 | 53 | Ø6,1<br>EVP<br>DETECTOR                                                                      |
| 19 | SPR P8-1<br>SPR P8-1<br>SPR P8-1<br>NEU P8-1             | 39 | GROUND                                                               | 54 | GROUND                                                                                       |
| 20 | GROUND                                                   | 40 | RLA 3-1<br>YLA 3-1<br>GLA 3-1<br>NEU 3-1<br>FYLA 3-1                 | 55 | D4-2                                                                                         |
| 21 | D3-1                                                     | 41 | SPR P5-2<br>SPR P5-2<br>SPR P5-2<br>NEU P5-2<br>FYLA 5-2             | 56 | D4-3                                                                                         |
| 22 | D3-2                                                     | 42 | RLA 5-2<br>YLA 5-2<br>GLA 5-2<br>NEU 5-2<br>FYLA 5-2                 | 57 | D7-1                                                                                         |
| 23 | D8-2                                                     | 43 | SPR P8-2<br>SPR P8-2<br>SPR P8-2<br>NEU P8-2                         | 58 | D7-2                                                                                         |
| 24 | D8-3                                                     | 44 | RLA 8-1<br>YEL 8-1<br>GRN 8-1<br>NEU 8-1                             | 59 | D4-1                                                                                         |
| 25 | D8-1                                                     | 45 | RLA 8-2<br>YEL 8-2<br>GRN 8-2<br>NEU 8-2                             |    |                                                                                              |

NOTES:

- 1) SIGNAL SYSTEM INCLUDES BATTERY BACK-UP SERVICE CABINET (WITH BATTERIES AND BACK UP SYSTEM EQUIPMENT).
- 2) LUMINAIRES ARE UNMETERED.
- 3) SEE DETAIL SHEET SGX FOR CONDUCTOR COLOR CODE DETAILS.



S.P. 002-678-020  
S.P. 198-020-033  
CITY PROJ. 12-30

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

1	JMG	09/09/14	RELOCATED EQUIPMENT PAD AND CABINETS TO NW QUADRANT
REVISIONS			
NO.	BY	DATE	

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  
Date: April 16, 2014  
Lic. No. 22457



ANOKA COUNTY  
CITY OF ANDOVER

TRAFFIC SIGNAL SYSTEM  
FIELD WIRING DIAGRAM  
CSAH 78 (HANSON BLVD NW)  
AT CSAH 20 (161st AVE NW)

FILE NO. ANOKC 125788  
SIGNAL SHEET 9 OF 12  
84  
111