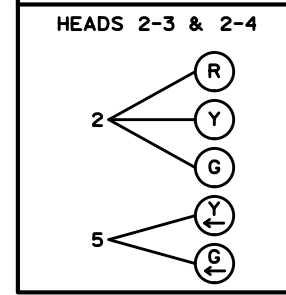


**LOOP DETECTOR CHART**

NUMBER	SIZE (FT)	LOCATION	TYPE
D1-1	2-6x6	150	PVC
D1-2	2-6x6	5 & 20	PVC
D1-3	2-6x6	5 & 20	PVC
D2-1, D2-2	6x6	250	PVC
D5-1	2-6x6	20 & 50	PVC
D5-2	2-6x6	5 & 35	PVC
D6-1, D6-2	6x6	230	PVC
D8-1	6x6	150	PVC
D8-2	6x6	150	SAWN
D8-3	2-6x6	5 & 20	PVC
D8-4	2-6x6	5 & 20	PVC
D1, D2	6x6	-150	SAWN

-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

**SIGNAL HEAD PHASING**



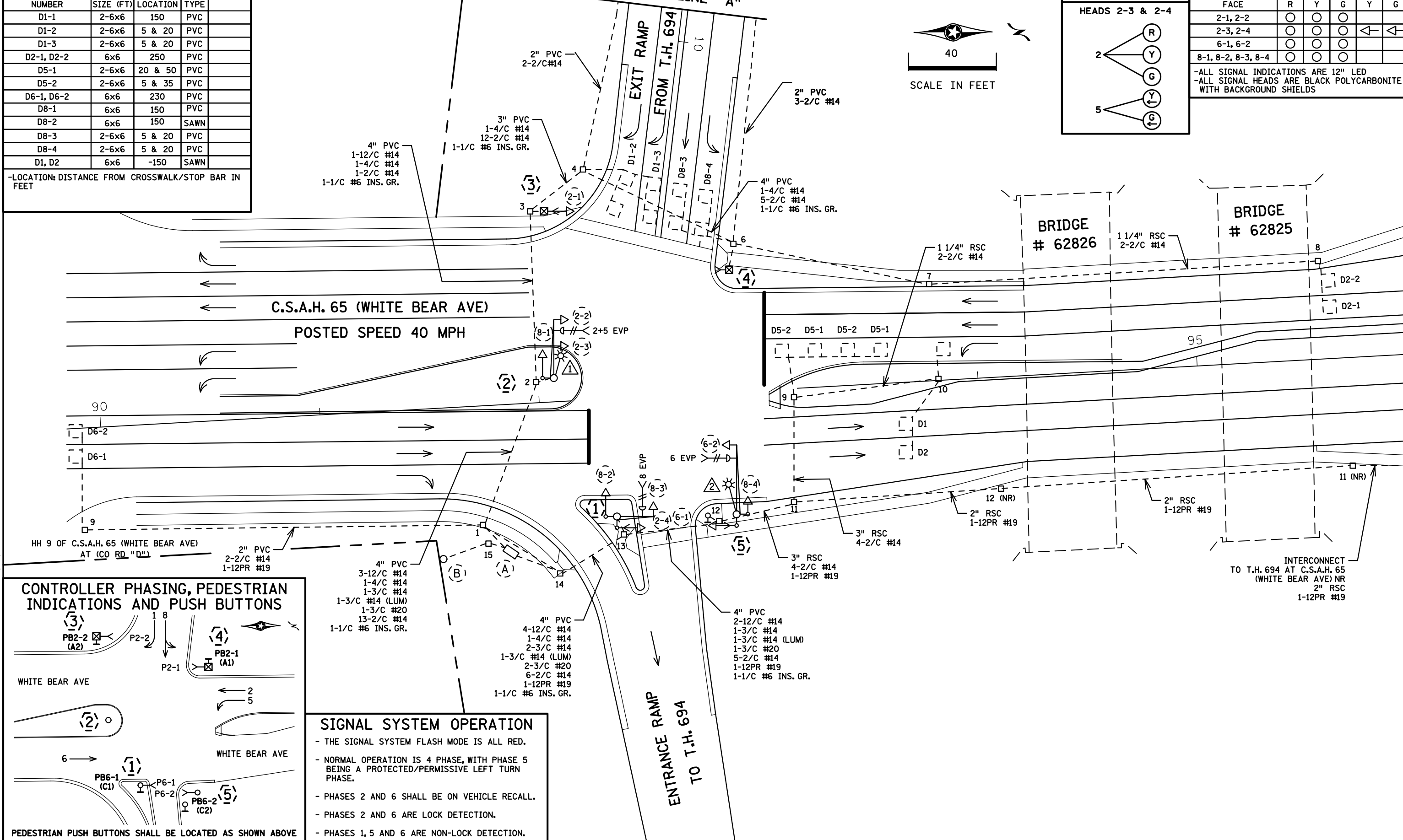
**SIGNAL FACE CHART**

FACE	R	Y	G	Y	G
2-1, 2-2	○	○	○		
2-3, 2-4	○	○	○	←	←
6-1, 6-2	○	○	○		
8-1, 8-2, 8-3, 8-4	○	○	○		

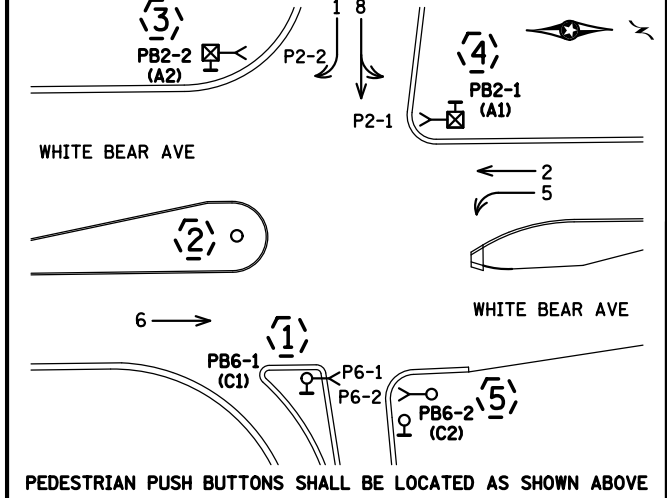
-ALL SIGNAL INDICATIONS ARE 12" LED  
-ALL SIGNAL HEADS ARE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS

PLOTTED/REVISED: 2/14/2013

DISTRICT #: METRO  
IPLOT NAME: layout  
PATH & FILENAME: IP\_PWP-d0783134T2746\_sgl.dgn



**CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS**



**SIGNAL SYSTEM OPERATION**

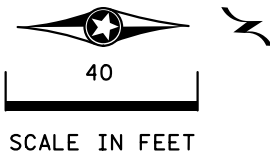
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 5 BEING A PROTECTED/PERMISSIVE LEFT TURN PHASE.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.
- PHASES 2 AND 6 ARE LOCK DETECTION.
- PHASES 1, 5 AND 6 ARE NON-LOCK DETECTION.

BY	DATE	REVISIONS
EJA	2-4-13	CORRECTION TO AS-BUILT OF SP 6286-56

SYSTEM ID: 21746 T.E.  
METER ADDRESS:  
MASTER ID: T.E.

**INTERSECTION LAYOUT**  
**T.H. 694 AT C.S.A.H. 65 (WHITE BEAR AVE.)**  
**SOUTH RAMP**  
**IN MAPLEWOOD, RAMSEY COUNTY**

S.A.P. NO. \_\_\_\_\_  
DRAWN BY: GDS CKD BY: BTJ DATE: 05-16-11  
CERTIFIED BY: *Michael P. Gelinsky* LIC. NO. 19863 DATE: 02-10-12  
STATE PROJ. NO. (T.H. 694) SHEET NO. 1 OF 4 SHEETS



③ PEDESTAL FOUNDATION  
 13' PEDESTAL POLE PLUS BASE  
 1-STRAIGHT MOUNT SIGNAL  
 1-STRAIGHT MOUNT C. D. PED IND  
 1-APS PB AND SIGN (RT ARROW) (PB2-2)  
 1-R9-3a SIGN (18" x 18") (NO PED)  
 FACING POLE 2  
 EXTEND INTO HH 3:  
 3" PVC  
 1-12/C #14  
 1-2/C #14  
 1-1/C #6 INS. GR.

④ PEDESTAL FOUNDATION  
 PEDESTAL POLE AND BASE  
 TYPE 4A  
 1-C. D. PED IND  
 1-APS PB AND SIGN (RT ARROW) (PB2-1)  
 1-R9-3a SIGN (18" x 18") (NO PED)  
 FACING POLE 5  
 EXTEND INTO HH 6:  
 3" RSC  
 1-4/C #14  
 1-2/C #14  
 1-1/C #6 INS. GR.

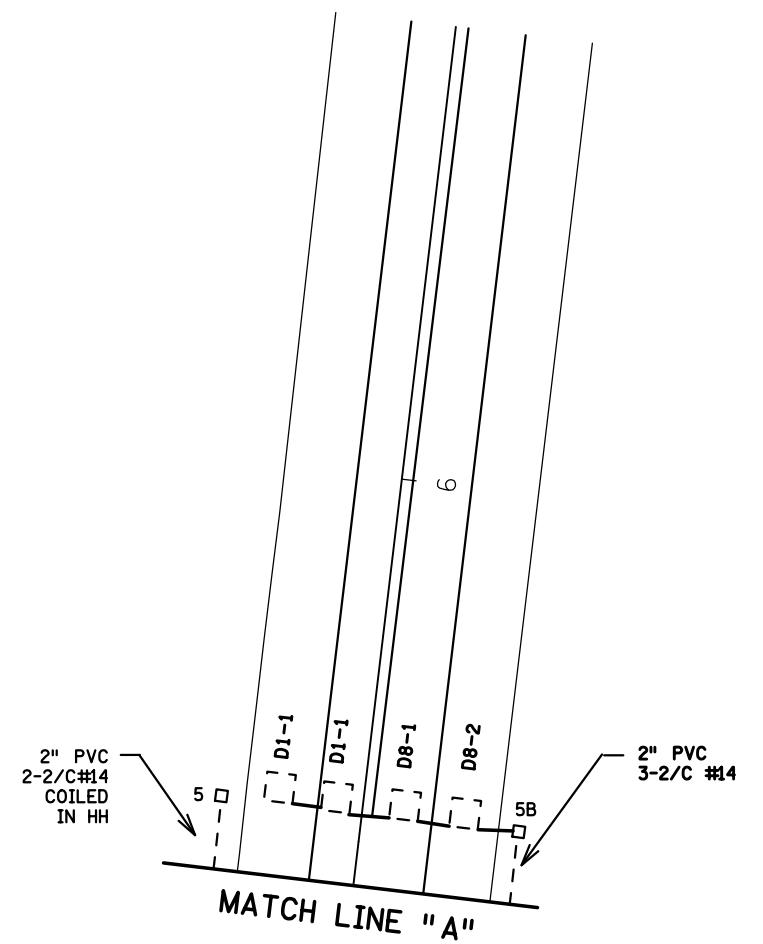
② PA85 POLE FOUNDATION  
 TYPE PA85-A-25-D40-9  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'  
 1-ANGLE MOUNT SIGNALS AT 270 DEG  
 1-ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASES 2+5)  
 LUMINAIRE-250W HPS  
 1-TYPE D SIGN (D-2)  
 1-R10-12 SIGN (24" x 30")  
 ADJACENT TO HEAD (2-2)  
 2-R9-3a SIGNS (18" x 18") (NO PED)  
 FACING POLES 1 AND 3  
 EXTEND INTO HH 2:  
 3" PVC  
 2-12/C #14  
 1-3/C #14  
 1-3/C #14 (LUM)  
 1-3/C #20  
 1-1/C #6 INS. GR.

⑤ PA90 POLE FOUNDATION  
 TYPE PA90-A-30-D40-9  
 1-ONE WAY SIGNAL OVERHEAD  
 TYPE 10B POLE MOUNTED AT 270 DEG  
 TYPE 10A POLE MOUNTED AT 90 DEG  
 TYPE 10B POLE MOUNTED C. D. PED IND AT 270 DEG  
 1-APS PB AND SIGN (LT ARROW) (PB6-2)  
 1-ONE WAY EVP DETECTOR AND  
 CONFIRMATORY LIGHT (PHASE 6)  
 LUMINAIRE-200W HPS  
 1-R9-3a SIGN (18" x 18") (NO PED)  
 FACING POLE 4  
 EXTEND INTO HH 12:  
 3" RSC  
 2-12/C #14  
 1-3/C #14  
 1-3/C #14 (LUM)  
 1-3/C #20  
 2-1/C #6 INS. GR.

① PA85 POLE FOUNDATION  
 TYPE PA85-A-15  
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'  
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG  
 1-ANGLE MOUNT C. D. PED IND AT 90 DEG  
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY  
 LIGHT (PHASE 8) (MOUNTED AT 3')  
 1-APS PB AND SIGN (RT ARROW) (PB6-1)  
 1-R6-1R SIGN (ONE WAY)  
 1-R6-1L SIGN (ONE WAY)  
 1-TYPE D SIGN (D-1) (WHITE BEAR AVE.)  
 1-R9-3a SIGN (18" x 18") (NO PED)  
 FACING POLE 2  
 EXTEND INTO HH 13:  
 3" PVC  
 2-12/C #14  
 1-4/C #14  
 1-3/C #14  
 1-3/C #20  
 1-2/C #14  
 1-1/C #6 INS. GR.

(A) EQUIPMENT PAD  
 SERVICE CABINET  
 CONTROLLER & CABINET  
 4" RSC INTO HH 14: 4" RSC INTO HH 1:  
 4-12/C #14 3-12/C #14  
 1-4/C #14 1-4/C #14  
 2-3/C #14 1-3/C #14  
 1-3/C #14 (LUM) 1-3/C #20  
 2-3/C #20 15-2/C #14  
 6-2/C #14 1-12PR #19  
 1-12PR #19 1-1/C #6 INS. GR.  
 1-1/C #6 INS. GR.  
 SERVICE CABINET TO CONTROLLER CABINET:  
 2" RSC  
 2-1/C #6  
 1-1/C # 6 INS. GR.  
 SERVICE CABINET TO HH 1:  
 1 1/4" RSC  
 2-3/C #14 (LUM)  
 SERVICE CABINET TO SOP VIA HH 15:  
 1 1/4" RSC  
 3-1/C #4  
 HH 1 TO HH 14:  
 3" RSC  
 1-3/C #14 (LUM)

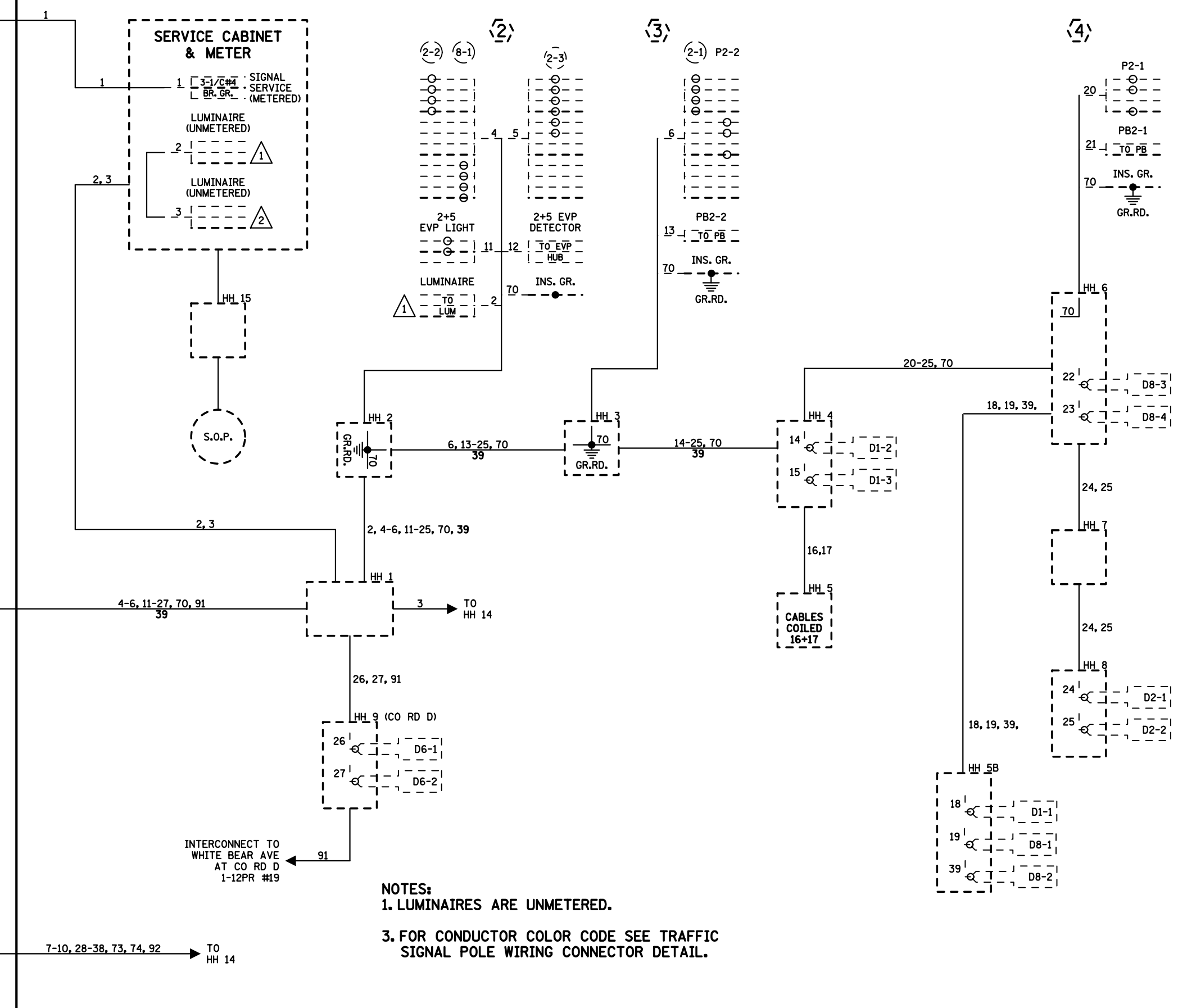
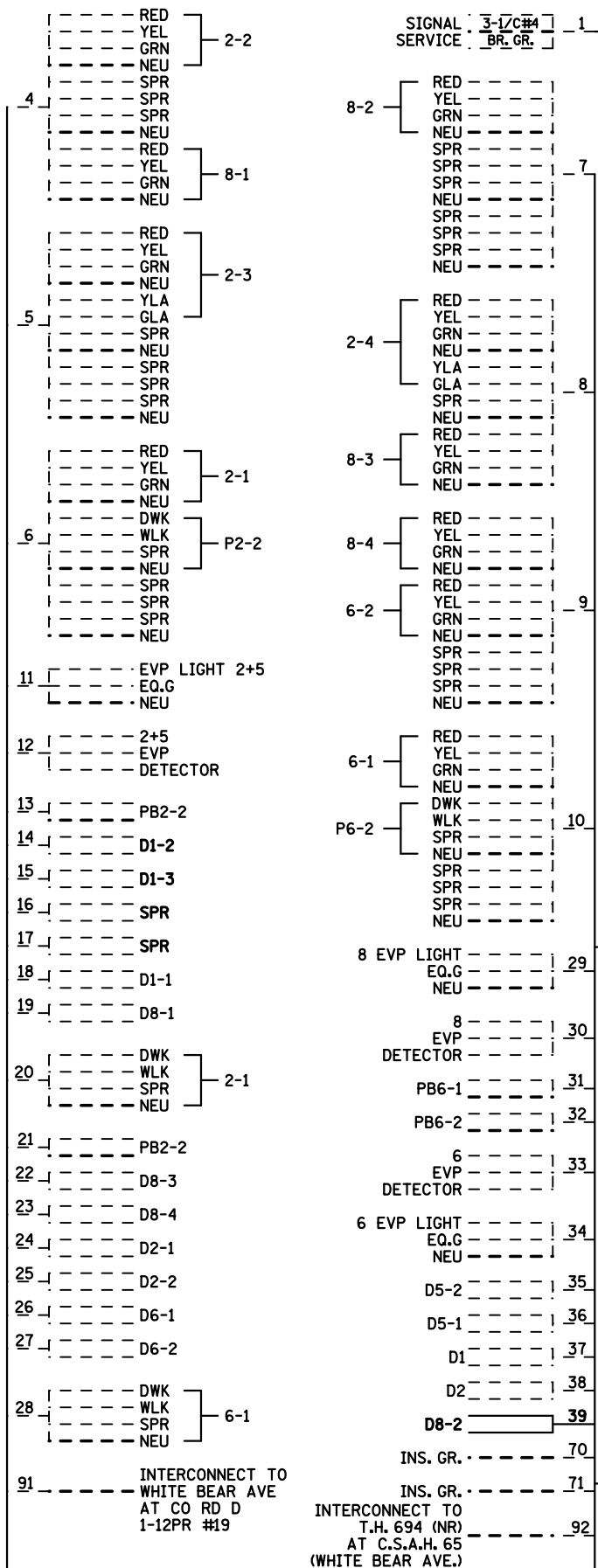
(B) S.O.P. - WOOD POLE (BY XCEL)  
 1 1/4" RSC RISER WITH WEATHERHEAD  
 EXTEND 2" RSC INTO HH 15 WITH:  
 2-1/C #4  
 1-1/C #4 BR. GR.



DISTRICT #: METRO  
 IPLOT NAME: match line & notes  
 PATH & FILENAME: IP\_PWP-d0783134-T21746.sgl.dgn  
 PLOTTED/REVISED: 2/14/2013

BY	DATE	REVISIONS	SYSTEM ID: 21746	T. E.	MATCH LINE LAYOUTS AND NOTES T.H. 694 AT C.S.A.H. 65 (WHITE BEAR AVE.) SOUTH RAMP IN MAPLEWOOD, RAMSEY COUNTY	S.A.P. NO.	DRAWN BY: GDS	CKD BY: BTJ	DATE: 05-16-11
EJA	2-4-13	CORRECTION TO AS-BUILT OF SP 6286-56	METER ADDRESS:	T. E.		CERTIFIED BY: <i>Michael P. Gelinsky</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 19863	DATE: 02-10-12	STATE PROJ. NO. (T.H. 694) SHEET NO. 2 OF 4 SHEETS
			MASTER ID:						

# CONTROLLER CABINET



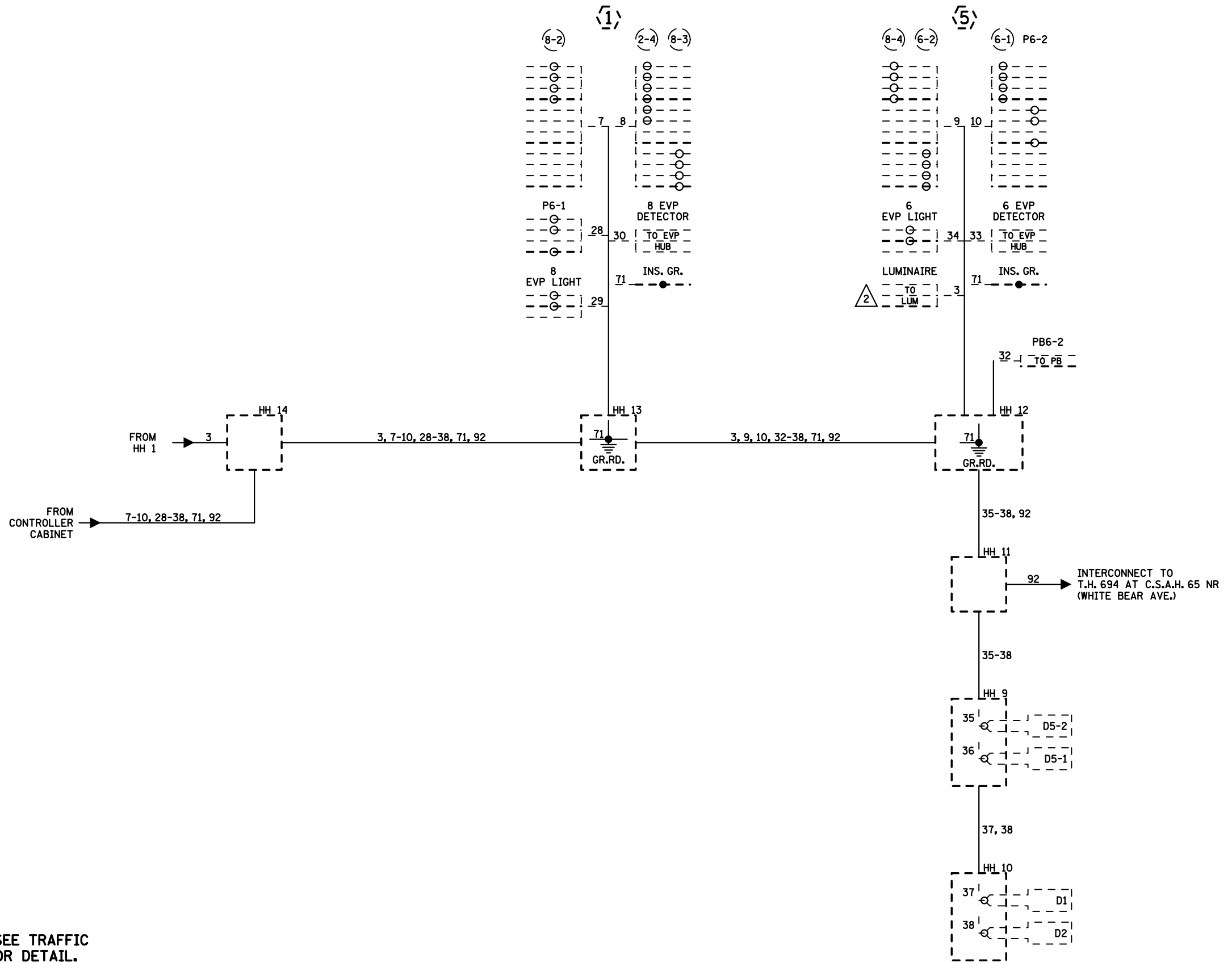
PLOTTED/REVISED: 2/14/2013

DISTRICT #: METRO  
 IPLOT NAME: wiring 1  
 PATH & FILENAME: IP\_PWP-d0783134T21746\_sgl.dgn

BY: EJA	DATE: 2-4-13	REVISIONS: CORRECTION TO AS-BUILT OF SP 6286-56	SYSTEM ID: 21746	T.E.	FIELD WIRING DIAGRAM (1 OF 2) T.H. 694 AT C.S.A.H. 65 (WHITE BEAR AVE.) SOUTH RAMP IN MAPLEWOOD, RAMSEY COUNTY	S.A.P. NO.	DRAWN BY: GDS	CKD BY: BTJ	DATE: 05-16-11
			METER ADDRESS:	T.E.		CERTIFIED BY: <i>Michael P. Gubinsky</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 19863	DATE: 02-10-12	
			MASTER ID:			STATE PROJ. NO. (T.H. 694)	SHEET NO. 3 OF 4 SHEETS		

PLOTTED/REVISED: 2/4/2013

DISTRICT #: METRO  
 IPLOT NAME: wiring 2  
 PATH & FILENAME: IP\_PWP-d0783134T21746\_sgl.dgn



**NOTES:**  
 1. LUMINAIRES ARE UNMETERED.  
 3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

BY	DATE	REVISIONS	SYSTEM ID: 21746	T.E.	<b>FIELD WIRING DIAGRAM (2 OF 2)</b> <b>T.H. 694 AT C.S.A.H. 65 (WHITE BEAR AVE.)</b> <b>SOUTH RAMP</b> <b>IN MAPLEWOOD, RAMSEY COUNTY</b>	S.A.P. NO.	DRAWN BY:GDS	CKD BY:BTJ	DATE:05-16-11	
EJA	2-4-13	CORRECTION TO AS-BUILT OF SP 6286-56	METER ADDRESS:			CERTIFIED BY <i>Michael P. Gubinsky</i>	LIC. NO. 19863	DATE: 02-10-12		
			MASTER ID:	T.E.		STATE PROJ.NO. (T.H.694)		SHEET NO. 4 OF 4 SHEETS		