

PLOTTED/REVISED: 12/3/2014

LOOP DETECTOR CHART				
NUMBER	SIZE (FT)	LOCATION	TYPE	STATUS
D1-1	2-6X6	5'	PVC	
D1-2	2-6X6	40'	PVC	
D2-1, D2-2	6X6	600'	PVC	
D4-1	6X6	250'	PVC	
D4-2	6X6	120'	PVC	
D4-3	2-6X6	5', 15'	PVC	
D5-1	4-6X6	5, 15, 35, 50	SAW	ABANDONED
D6-1, D6-2	6X6	600'	SAW	

SIGNAL HEAD CHART									
FACE		R	Y	G	R	Y	G		
1-1, 1-2					◁	◁	◁		
2-1, 2-2, 2-3		○	○	○					
4-1, 4-2, 4-3		○	○	○					
4-4, 4-5		○	○	○					
6-1, 6-2, 6-3		○	○	○					

4) TYPE P80-A-20
P80 POLE FOUNDATION
ONE WAY SIGNAL OVERHEAD
ONE WAY EVP DETECTOR AND LIGHT (PHASE 4)
EXTEND INTO H.H. 17s
3" R.S.C.
1-12/C # 12
1-3/C # 12
1-3/C # 20

H.H. 9
H.H. 17
H.H. 16
H.H. 18
H.H. 19
H.H. 20
H.H. 20A

H.H. 3 TO H.H. 8s
4" R.S.C.
2-1/C # 10 (LUM)
4-12/C # 12
4-3/C # 12
1-2/C # 14
1-3/C # 14
1-3/C # 20

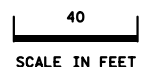
H.H. 10 TO H.H. 15s
4" R.S.C.
1-12/C # 12
1-3/C # 12
4-2/C # 14
1-3/C # 12
1-3/C # 20

H.H. 16 TO H.H. 17s
4" R.S.C.
1-12/C # 12
1-3/C # 12
2-2/C # 14
1-3/C # 20

H.H. 18 TO H.H. 19s
4" R.S.C.
1-12/C # 12
1-3/C # 12
2-2/C # 14
1-3/C # 20

H.H. 19 TO H.H. 20s
4" R.S.C.
1-12/C # 12
1-3/C # 12
2-2/C # 14
1-3/C # 20

-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

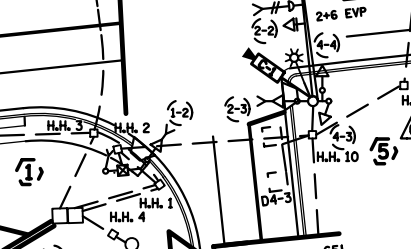
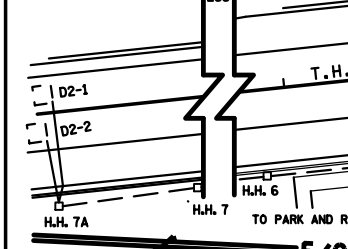


1) TYPE 1D
PEDESTAL POLE AND BASE
PEDESTAL FOUNDATION
2-PED PB'S AND SIGNS
EXTEND INTO H.H. 2s
3" R.S.C.
1-12/C # 12
3-3/C # 12

2) TYPE 2A
PEDESTAL FOUNDATION
1-13" POLE PLUS BASE
2-STRAIGHT MOUNT
2-RIO-XSL SIGN (30" X 36")-BACK TO BACK
1-PED PB AND SIGN
EXTEND INTO H.H. 8s
3" R.S.C.
1-12/C # 12
1-3/C # 12

3) TYPE P100-A-35-D40-9(DAVIT AT 350 DEG)
P100 POLE FOUNDATION
LUMINAIRE - 200 WATT H.P.S.
TYPE 20B - AT 270 DEG
2-ONE WAY SIGNALS - OVERHEAD (AT 9' & 12')
1-PED PB AND SIGN
ONE WAY EVP DETECTOR AND LIGHT (PHASES 1+6)
EXTEND INTO H.H. 9s
3" R.S.C.
2-1/C # 10 (LUM)
2-12/C # 12
3-3/C # 12
1-3/C # 20

(B) WOOD POLE
2" R.S.C. RISER AND WEATHERHEAD
TO H.H. 4s
3-1/C # 6



EQUIPMENT PAD
CONTROLLER & CABINET
CABINET TO H.H. 1s
4" R.S.C.
4-12/C # 12
7-3/C # 12
7-2/C # 14
2-3/C # 20
1-3/C #14 (CAMERA POWER)
1-COM CABLE
1-COAXIAL CABLE

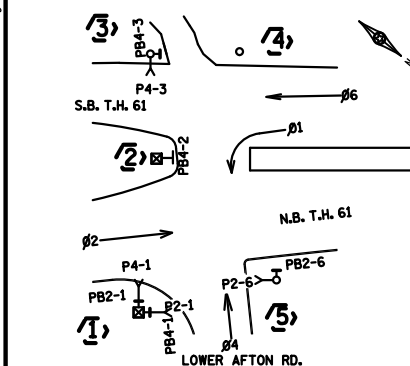
LOAD CENTER TO H.H. 1s
2" R.S.C.
4-1/C # 10 (LUM)
CABINET TO H.H. 3s
4" R.S.C.
3-12/C # 12
4-3/C # 12
3-2/C # 14
1-3/C # 20

1" R.S.C. STUB OUT
(THREAD AND CAP BOTH ENDS OF STUBOUTS)
TRANSFORMER AND SERVICE EQUIPMENT
480 VOLT DISCONNECT

DISCONNECT TO H.H. 4s
2" R.S.C.
3-1/C # 6

CONTROLLER CABINET TO TMS VAULT
1 1/2" PVC INSIDE 3" RSC STUB OUT
1-FIBER OPTIC CABLE (GSM)
WITH PRE-TERMINATED CABLE END

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



H.H. 10 TO H.H. 11s
2" R.S.C.
2-2/C # 14

H.H. 11 TO H.H. 12s
2" R.S.C.
1-2/C # 14

H.H. 12 TO H.H. 13s
3" R.S.C.
1-2/C # 14

H.H. 13 TO H.H. 14s
2" R.S.C.
1-2/C # 14

H.H. 1 TO H.H. 3s
2" R.S.C.
2-1/C # 10 (LUM)

H.H. 3 TO H.H. 5s
2" R.S.C.
2-2/C # 14

H.H. 5 TO H.H. 6s
2" R.S.C.
2-2/C # 14

H.H. 6 TO H.H. 7s
2" R.S.C.
2-2/C # 14

H.H. 7 TO H.H. 7As
2" R.S.C.
2-2/C # 14

H.H. 1 TO H.H. 1s
2" R.S.C.
2-1/C # 10 (LUM)

H.H. 20 TO H.H. 20As
2" R.S.C.
2-2/C # 14

SIGNAL SYSTEM OPERATION
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, PHASE 1 IS A PROTECTED LEFT TURN.

H.H. 1 TO H.H. 2s
4" R.S.C.
2-1/C # 10 (LUM)
4-12/C # 12
7-3/C # 12
7-2/C # 14
2-3/C # 20
1-3/C #14 (CAMERA POWER)
1-COM CABLE
1-COAXIAL CABLE

H.H. 2 TO H.H. 10s
4" R.S.C.
2-1/C # 10 (LUM)
3-12/C # 12
4-3/C # 12
7-2/C # 14
2-3/C # 20
1-3/C #14 (CAMERA POWER)
1-COM CABLE
1-COAXIAL CABLE

5) TYPE P100-A-50-X6-350/CAM 400 (AT 350 DEG)
P100 POLE FOUNDATION
1-VIDEO CAMERA WITH MOUNT
2-ONE WAY SIGNALS OVERHEAD AT 11' & 23'
LUMINAIRE - 200 WATT H.P.S.
2-TYPE 10A AT 0 AND 90 DEG
1-TYPE 10B AT 270 DEG
ONE WAY EVP DETECTOR AND LIGHT (PHASES 2+ 6)
1-PED PB AND SIGN
EXTEND INTO H.H. 10s
3" R.S.C.
2-12/C#12
3-3/C#20
1-3/C#20
2-1/C#10 (LUM)
1-7/16" GROUNDING BRAID
TO GROUND ROD IN HH 10
1-3/C #14 (CAMERA POWER)
1-COM CABLE
1-COAXIAL CABLE

1) SEE THE TMS PLAN FOR FIBER OPTICS.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

BY	DATE	REVISIONS
EJA	12-03-14	AS-BUILT OF SP 1913-75 FIBER & CAMERA

SYSTEM ID: 21021	T.E. 5871
METER ADDRESS: 416 SOUTH HIGHWAY 61	
MASTER ID:	T.E.

INTERSECTION LAYOUT
TH 61/10 AT CSAH 39 (LOWER AFTON RD)
IN ST. PAUL, RAMSEY COUNTY

S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 09-10-13
CERTIFIED BY: <i>Michael P. Selva</i>	L.I.C. NO. 19863	DATE: 09-10-13	
STATE PROJ. NO.	(T.H. 61)	SHEET NO.	1 OF 2 SHEETS

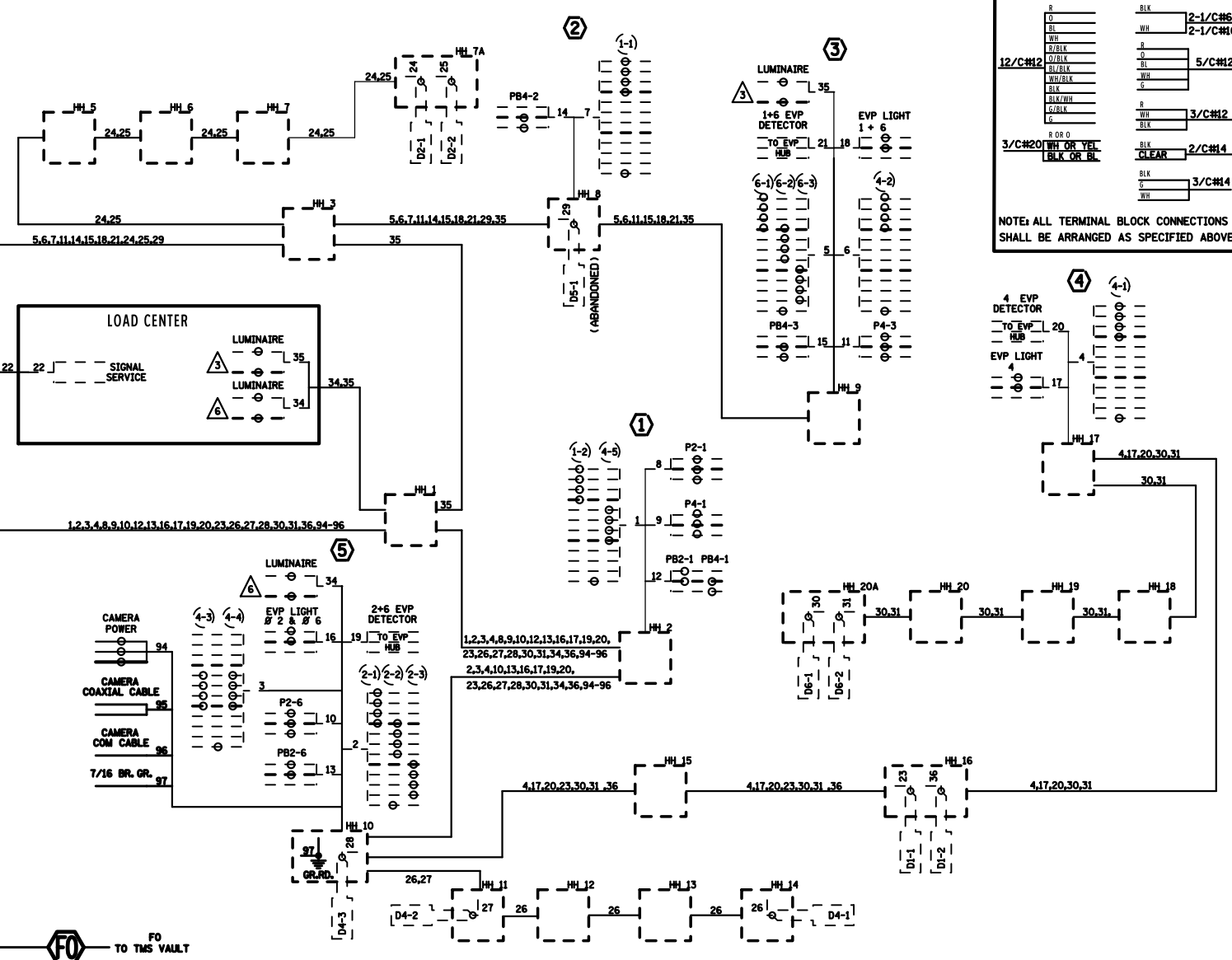
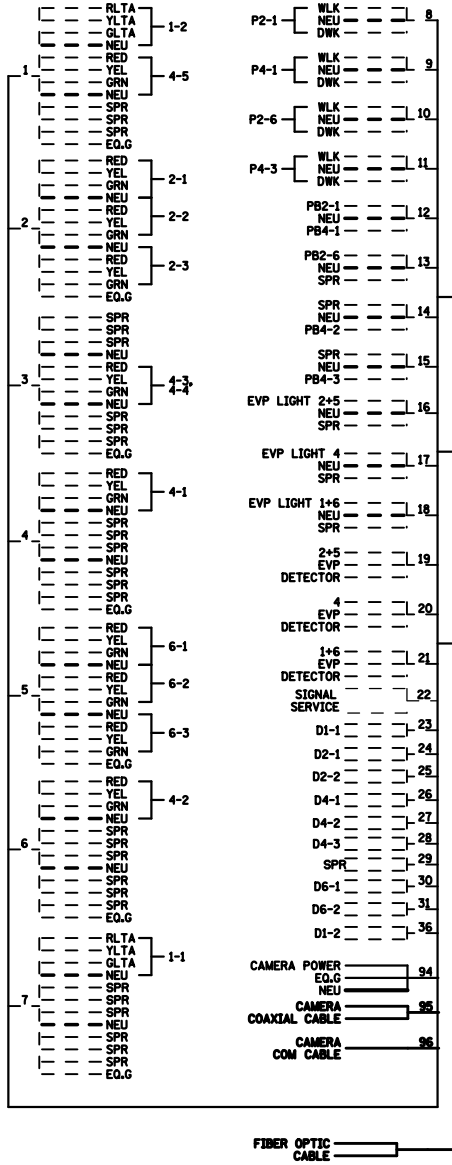
DISTRICT #: METRO
PILOT NAME: layout
PATH & FILENAME: IP_FWP-d07f9825121021_spl.dgn

CONTROLLER CABINET

CONDUCTOR COLOR CODING

PLOTTED/REVISED: 12/3/2014

DISTRICT #: METRO
 I/PLOT NAME: wiring diagram
 P-ATH & FILENAME: IP_PWP-d0799825N12021_spl.dgn



R	BLK	2-1/C#6
SL	WH	2-1/C#10
12/C#12	0	5/C#12
0/BLK	BL	
5/BLK	WH	
NEU/BLK	G	
BLK	R	3/C#12
BLK/WH	BLK	
G/BLK		
G		
3/C#20	R OR G	BLK
WH OR YEL	CLEAR	2/C#14
BLK OR BL		
	BLK	3/C#14
	G	
	WH	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

BY	DATE	REVISIONS
EJA	12-03-14	AS-BUILT OF SP 1913-75 FIBER & CAMERA

SYSTEM ID: 21021	T.E. 5871
METER ADDRESS: 416 SOUTH HIGHWAY 61	
MASTER ID:	T.E.

FIELD WIRING DIAGRAM
 TH 61/10 AT CSAH 39 (LOWER AFTON RD)
 IN ST. PAUL, RAMSEY COUNTY

S.A.P. NO.	DRAWN BY: SJK	CKD BY: EJA	DATE: 09-10-13
CERTIFIED BY: <i>Michael P. Schwab</i>	L.I.C. NO. 19863	DATE: 09-10-13	
STATE PROJ. NO.	(T.H. 61)	SHEET NO. 2 OF 2 SHEETS	