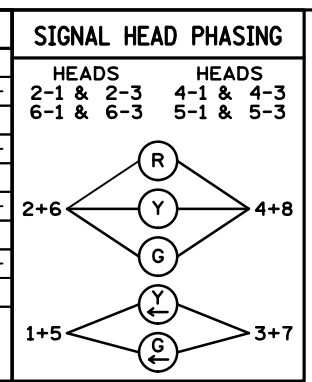


DISTRICT #: Metro
 IPLOT NAME: layout
 PATH & FILENAME: Projects\DM_POS\20\00000\Traffic\Signal\3.32\101010TH ST&slash;MINNEHAHA AV-1735671\1735671_sgl.dgnPLOTTED/REVISED: 13-JAN-2023

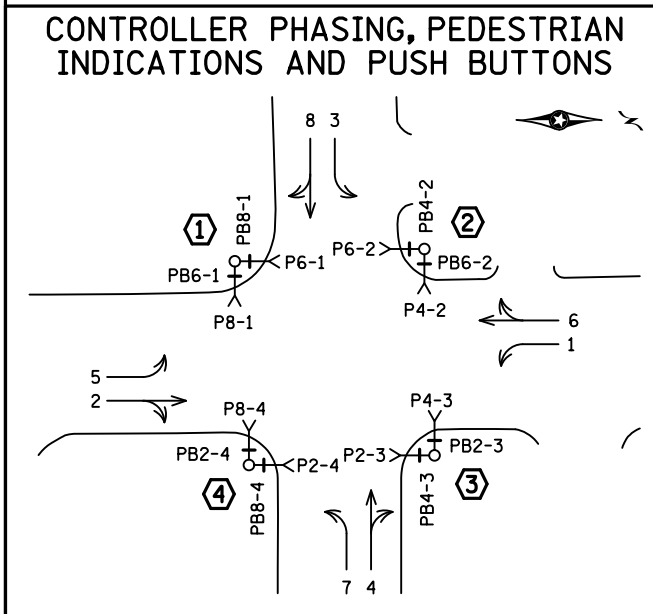
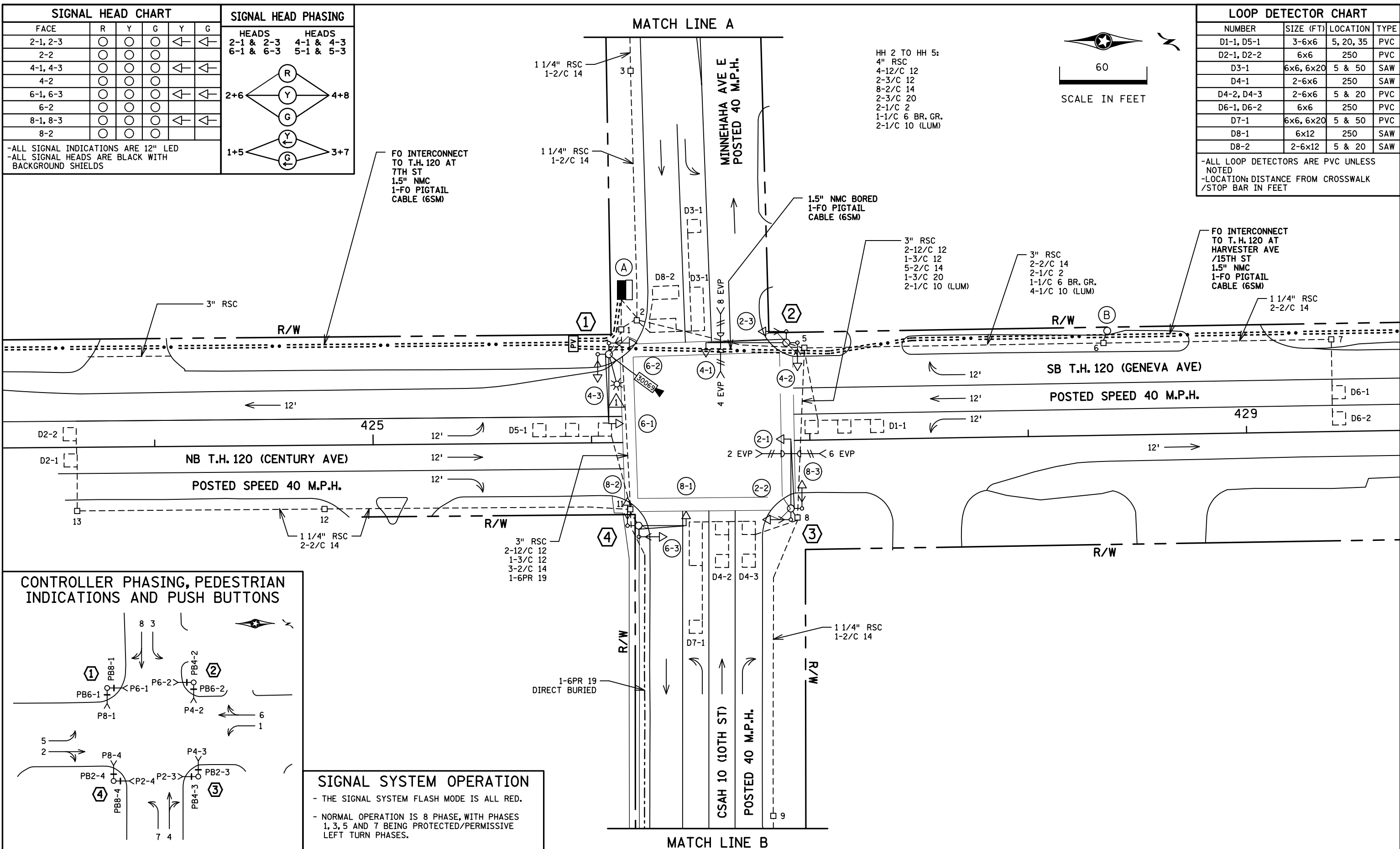
SIGNAL HEAD CHART					
FACE	R	Y	G	Y	G
2-1, 2-3	○	○	○	◄	◄
2-2	○	○	○		
4-1, 4-3	○	○	○	◄	◄
4-2	○	○	○		
6-1, 6-3	○	○	○	◄	◄
6-2	○	○	○		
8-1, 8-3	○	○	○	◄	◄
8-2	○	○	○		



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

LOOP DETECTOR CHART			
NUMBER	SIZE (FT)	LOCATION	TYPE
D1-1, D5-1	3-6x6	5, 20, 35	PVC
D2-1, D2-2	6x6	250	PVC
D3-1	6x6, 6x20	5 & 50	SAW
D4-1	2-6x6	250	SAW
D4-2, D4-3	2-6x6	5 & 20	PVC
D6-1, D6-2	6x6	250	PVC
D7-1	6x6, 6x20	5 & 50	PVC
D8-1	6x12	250	SAW
D8-2	2-6x12	5 & 20	SAW

-ALL LOOP DETECTORS ARE PVC UNLESS NOTED
 -LOCATION: DISTANCE FROM CROSSWALK /STOP BAR IN FEET



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 AND 7 BEING PROTECTED/PERMISSIVE LEFT TURN PHASES.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

BY	DATE	REVISIONS
SJK	1/13/23	AS-BUILT PLAN

SYSTEM ID: 1735671 T.E. 6049
 METER ADDRESS: 739 CENTURY AVE N
 OLD SYSTEM ID: 21435

INTERSECTION LAYOUT
REVISE SIGNAL SYSTEM D
T.H. 120 AT C.S.A.H. 10 (10TH ST.)/MINNEHAHA AVE.
IN MAPLEWOOD, RAMSEY COUNTY & OAKDALE, WASHINGTON COUNTY

S.A.P. NO. _____ DRAWN BY:GDS CKD BY:GBB DATE:05-03-18
 CERTIFIED BY _____ LIC. NO. _____ DATE: _____
STATE PROJ.NO. 6227-83 (T.H.120) SHEET NO. 45 OF 89 SHEETS

DISTRICT #: Metro
 IPLOT NAME: match lines
 PATH & FILENAME: Projects\DM罗斯\20\00000\Traffic\Signal\3.32_(10)10TH ST&slasha MINNEHAHA AV-1735671\1735671_sgl.dgnPLOTTED/REVISED: 13-JAN-2023

- ① P90 POLE FOUNDATION
 TYPE P90-A-30-D40-9 (DAVIT AT 350 DEG)
 1-X-400 CAM EXTENSION
 (INCLUDES LIGHTNING ROD)
 7/16" GROUND BRAID
 1-VIDEO CAMERA WITH MOUNT

 ONE WAY SIGNAL OVERHEAD AT 0'
 TYPE 10B POLE MOUNTED 90 DEG
 TYPE 10B POLE MOUNTED 180 DEG
 LUMINAIRE 200 WATT H.P.S.
 2-PEDESTRIAN PB'S AND SIGNS
 1-R10-12 SIGN ADJACENT TO HEAD 6-1
 1-TYPE D SIGN
 3" RSC TO HH 1:
 2-12/C 12
 1-3/C 12
 2-1/C 10 (LUM)
 1-7/16" GROUND BRAID
 TO GROUND ROD
 1-COM CABLE (CAT 5E)

- ④ P90 POLE FOUNDATION
 TYPE P90-A-20
 ONE WAY SIGNAL OVERHEAD AT 0'
 TYPE 10B POLE MOUNTED 90 DEG
 TYPE 10B POLE MOUNTED 180 DEG
 2-PEDESTRIAN PB'S AND SIGNS
 1-R10-12 SIGN ADJACENT TO HEAD 8-1
 1-TYPE D SIGN
 3" RSC TO HH 11:
 2-12/C 12
 1-3/C 12

- (A) EQUIPMENT PAD
 LOAD CENTER
 CONTROLLER AND CABINET
 4" RSC TO HH 1: 4" RSC TO HH 2:
 4-12/C 12 4-12/C 12
 2-3/C 12 2-3/C 12
 3-2/C 14 2-3/C 20
 1-COM CABLE (CAT 5E) 10-2/C 14

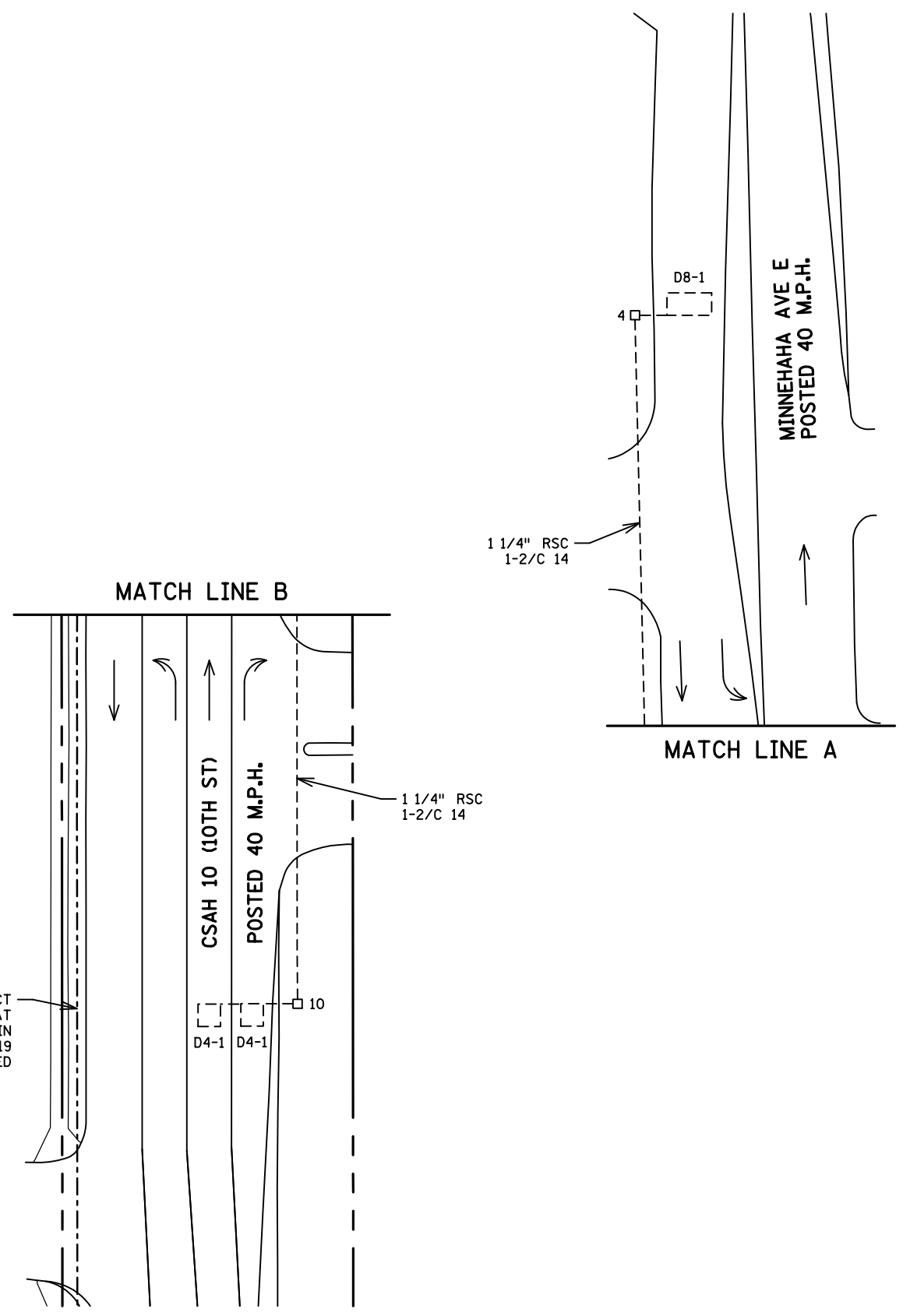
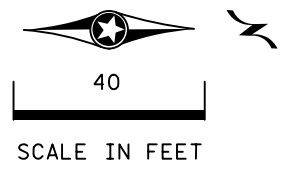
 3/4" RSC STUBBED OUT
 (CAPPED BOTH ENDS)
 CONTROLLER CABINET TO
 PULL VAULT:
 1-1.5" NMC
 1-PRE TERMINATED ARMORED
 FO PIGTAIL CABLE (6SM)

 LOAD CENTER TO
 CONTROLLER CABINET:
 2" IMC
 2-1/C 2
 1-1/C 6 BR. GR.
 1-2/C 14
 HH 1 TO HH 2:
 2" IMC
 2-1/C 10 (LUM)

- (B) WOOD POLE (SOP)
 1 1/4" RSC RISER
 AND WEATHERHEAD
 3-1/C 2
 SERVICE EQUIPMENT
 1 1/4" RSC RISER
 EXTEND INTO HH 6:
 2-1/C 2
 1-1/C 6 BR. GR.
 4-1/C 10 (LUM)

- ② P90 POLE FOUNDATION
 TYPE P90-A-35
 ONE WAY SIGNAL OVERHEAD AT 0'
 TYPE 10B POLE MOUNTED 90 DEG
 TYPE 10B POLE MOUNTED 180 DEG
 TWO WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 4+8)
 2-PEDESTRIAN PB'S AND SIGNS
 1-R10-12 SIGN ADJACENT TO HEAD 4-1
 1-TYPE D SIGN
 3" RSC TO HH 5:
 2-12/C 12
 1-3/C 12
 1-3/C 20

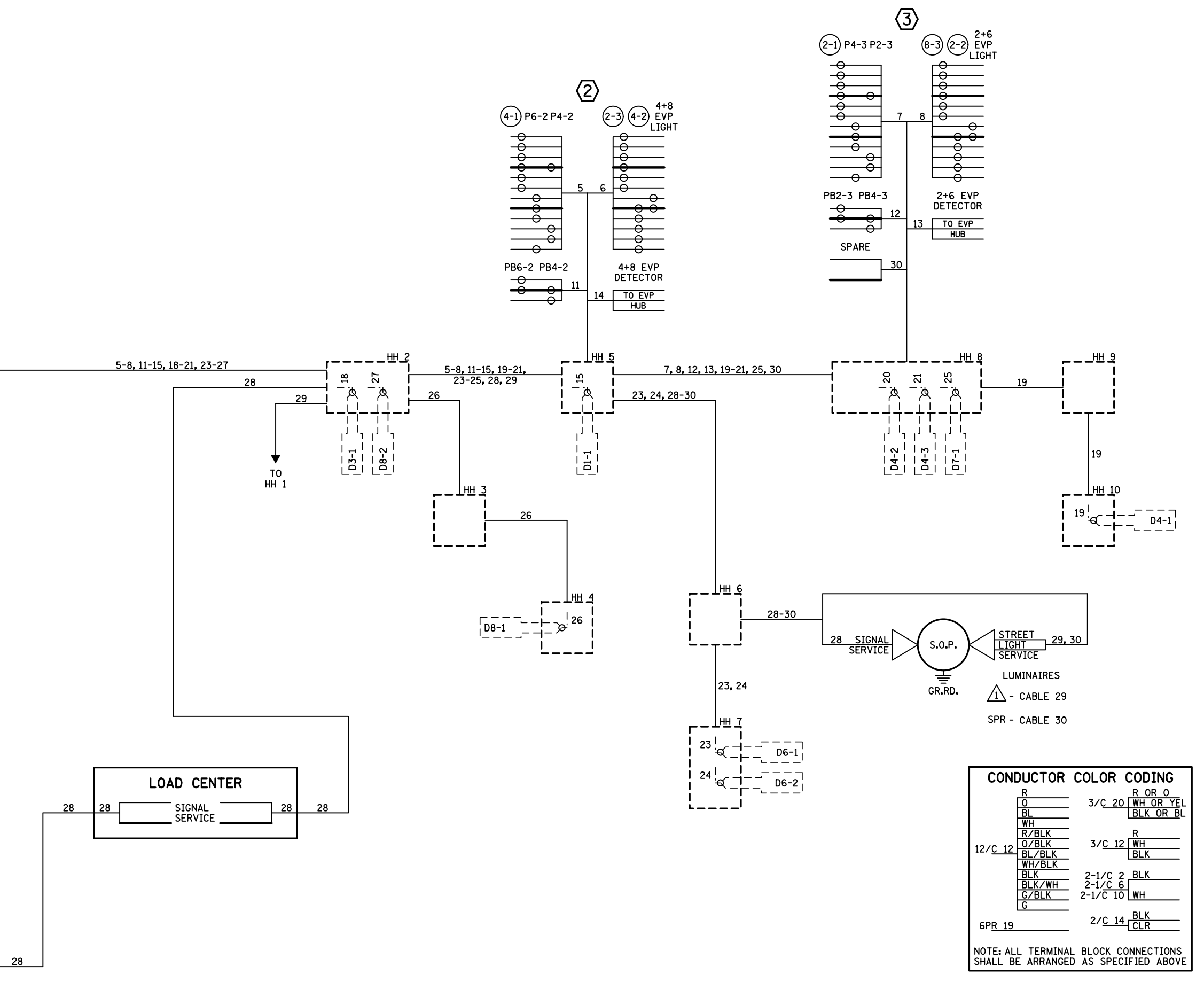
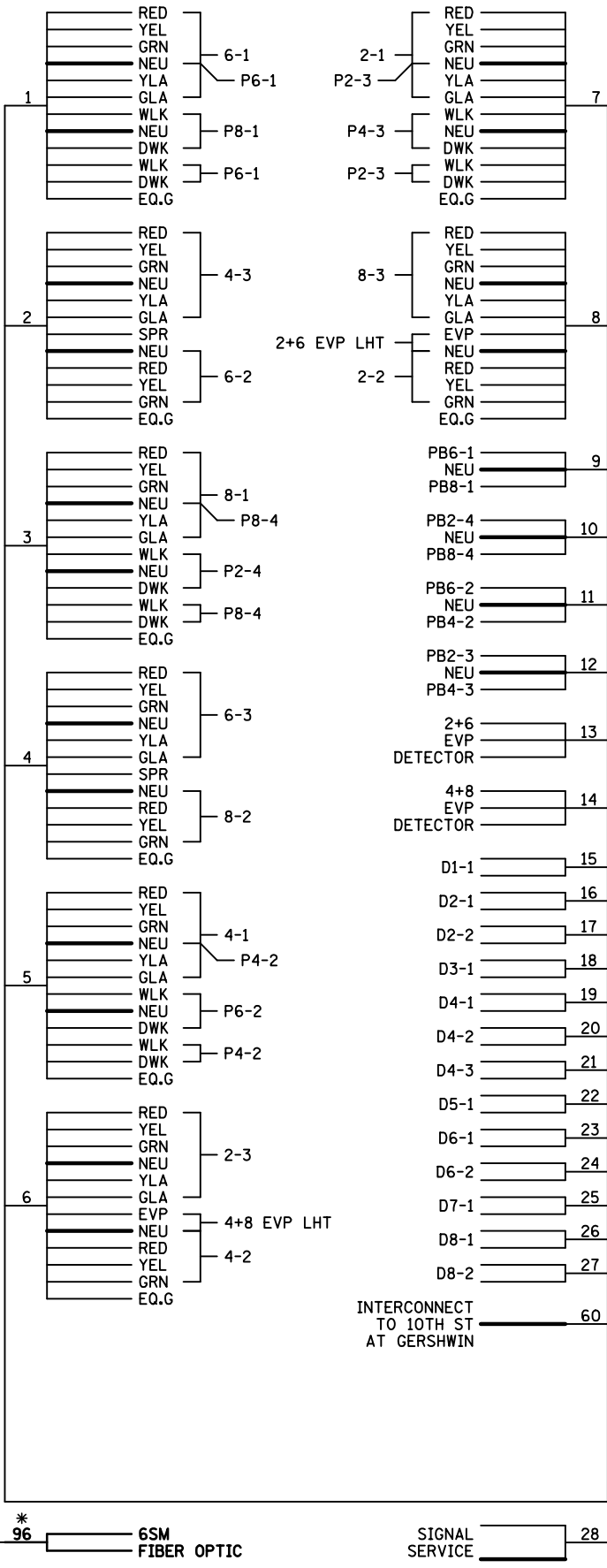
- ③ P90 POLE FOUNDATION
 TYPE P90-A-30
 ONE WAY SIGNAL OVERHEAD AT 0'
 TYPE 10B POLE MOUNTED 90 DEG
 TYPE 10B POLE MOUNTED 180 DEG
 TWO WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 2+6)
 2-PEDESTRIAN PB'S AND SIGNS
 1-R10-12 SIGN ADJACENT TO HEAD 2-1
 1-TYPE D SIGN
 3" RSC TO HH 8:
 2-12/C 12
 1-3/C 12
 1-3/C 20
 2-1/C 10 (SPR)



BY	DATE	REVISIONS	SYSTEM ID: 1735671	T.E. 6049	MATCH LINES LAYOUT/INTERSECTION NOTES	S.A.P. NO.	DRAWN BY:GDS	CKD BY:GBB	DATE:05-03-18
SJK	1/13/23	AS-BUILT PLAN	METER ADDRESS: 739 CENTURY AVE N		REVISE SIGNAL SYSTEM D	CERTIFIED BY _____			
			OLD SYSTEM ID: 21435		T.H. 120 AT C.S.A.H. 10 (10TH ST.)/MINNEHAHA AVE.	LICENSED PROFESSIONAL ENGINEER	LIC. NO. _____		DATE: _____
					IN MAPLEWOOD, RAMSEY COUNTY & OAKDALE, WASHINGTON COUNTY	STATE PROJ.NO. 6227-83 (T.H.120)	SHEET NO. 46 OF 89 SHEETS		

DISTRICT #: Metro
 PLOT NAME: wiring diagram2 of 2
 PATH & FILENAME: Projects\DM_ROS\20\0000\Traffic\Signal\3.32_1010TH ST&slasha\MINNEHAHA AV-1735671\735671_sgl.dgnPLOTTED/REVISED: 13-JAN-2023

CONTROLLER CABINET



CONDUCTOR COLOR CODING			
R		R OR O	
O	3/C 20	WH OR YEL	
BL		BLK OR BL	
WH		R	
R/BLK		WH	
O/BLK	3/C 12	BLK	
BL/BLK		BLK	
WH/BLK		BLK	
BLK	2-1/C 2	BLK	
BLK/WH	2-1/C 6	WH	
G/BLK	2-1/C 10	WH	
G		BLK	
6PR 19		2/C 14	CLR

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

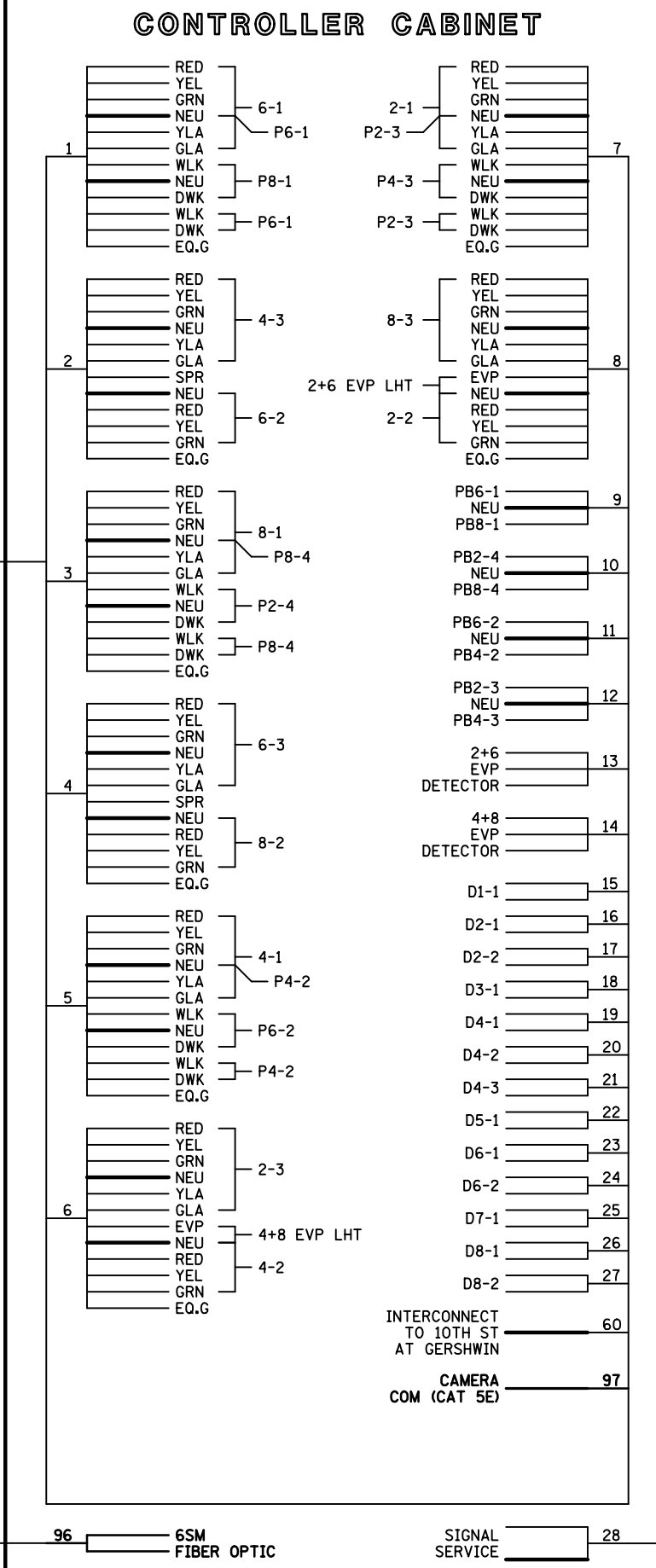
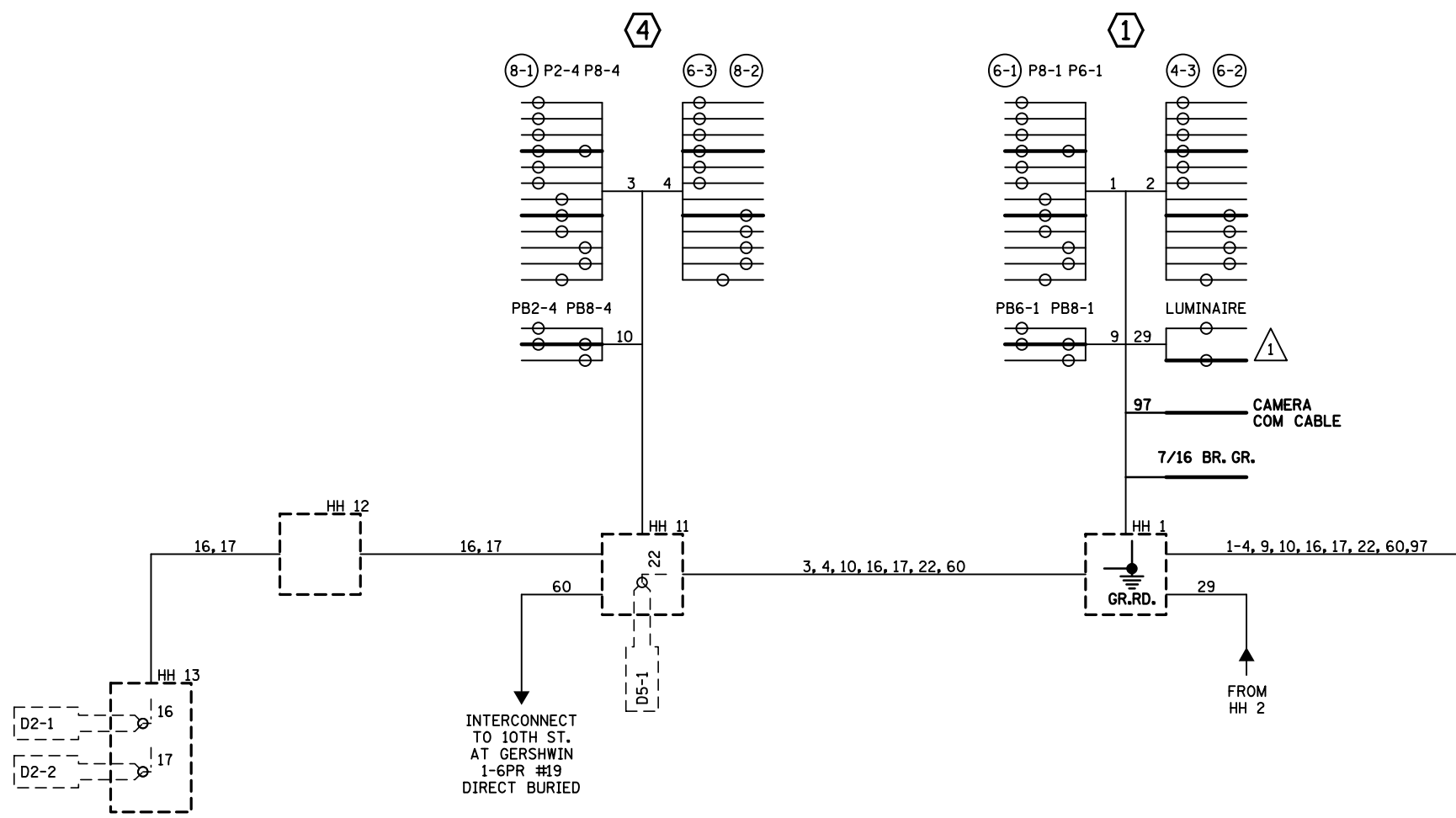
BY	DATE	REVISIONS	SYSTEM ID: 1735671	T.E. 6049	FIELD WIRING DIAGRAM (1 OF 2)	S.A.P. NO.	DRAWN BY:GDS	CKD BY:GBB	DATE:05-03-18
SJK	1/13/23	AS-BUILT PLAN	METER ADDRESS: 739 CENTURY AVE N		REVISE SIGNAL SYSTEM D	CERTIFIED BY _____			
			OLD SYSTEM ID: 21435		T.H. 120 AT C.S.A.H. 10 (10TH ST.)/MINNEHAHA AVE.	LICENSED PROFESSIONAL ENGINEER	LIC. NO. _____		DATE: _____
					IN MAPLEWOOD, RAMSEY COUNTY & OAKDALE, WASHINGTON COUNTY	STATE PROJ.NO. 6227-83 (T.H.120)			SHEET NO. 47 OF 89 SHEETS

DISTRICT #: Metro
 PLOT NAME: wiring diagram 1 of 2
 PATH & FILENAME: Projects\DM_ROS\20\0000\Traffic\Signal\3.32_(10)10TH ST&slasha MINNEHAHA AV-1735671\T35671_sgl.dgnPLOTTED/REVISED: 13-JAN-2023

CONDUCTOR COLOR CODING

R		R OR O
O	3/C 20	WH OR YEL
BL		BLK OR BL
WH		
R/BLK		R
O/BLK	3/C 12	WH
BL/BLK		BLK
WH/BLK		
BLK	2-1/C 2	BLK
BLK/WH	2-1/C 6	WH
G/BLK	2-1/C 10	WH
G		
6PR 19	2/C 14	BLK
		CLR

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



BY	DATE	REVISIONS	SYSTEM ID: 1735671	T.E. 6049	FIELD WIRING DIAGRAM (2 OF 2)	S.A.P. NO.	DRAWN BY:GDS	CKD BY:GBB	DATE:05-03-18
SJK	1/13/23	AS-BUILT PLAN	METER ADDRESS: 739 CENTURY AVE N		REVISE SIGNAL SYSTEM D	CERTIFIED BY _____			
			OLD SYSTEM ID: 21435		T.H. 120 AT C.S.A.H. 10 (10TH ST.)/MINNEHAHA AVE.	LICENSED PROFESSIONAL ENGINEER	LIC. NO. _____		DATE: _____
					IN MAPLEWOOD, RAMSEY COUNTY & OAKDALE, WASHINGTON COUNTY	STATE PROJ.NO. 6227-83 (T.H.120)	SHEET NO. 48 OF 89 SHEETS		

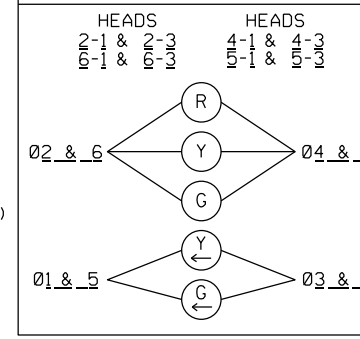
LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION	TYPE
D1-1, D5-1	3-6x6	5', 20', 35'	PVC
D2-1, D2-2	6x6	250'	PVC
D3-1	6x6, 6x20	5', 50'	SAWCUT
D4-1	2-6x6	250'	SAWCUT
D4-2, D4-3	2-6x6	5', 20'	PVC
D6-1, D6-2	6x6	250'	PVC
D7-1	6x6, 6x20	5', 50'	PVC
D8-1	6x12	250'	SAWCUT
D8-2	2-6x12	5', 20'	SAWCUT

LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET.

- (A)** INPLACE WOOD POLE(S.O.P.)
1 1/4" RSC RISER AND WEATHERHEAD
3-1/C #2
SERVICE EQUIPMENT
1 1/4" RSC RISER, EXTEND INTO H.H.6:
2-1/C #2
1-1/C #6 BR.GR.
4-1/C #10
- (B)** EQUIPMENT PAD
1" RSC STUB OUT-CAP BOTH ENDS
EXTEND INTO H.H.1:
4" RSC
4-12/C #12
2-3/C #12
3-2/C #14
2-6 PR #19
EXTEND INTO H.H.2:
4" RSC
4-12/C #12
2-3/C #12
2-3/C #20
10-2/C #14
2" IMC
2-1/C #2
1-1/C #6 BR.GR.
1-2/C #14
BETWEEN H.H.1 AND H.H.2:
2" IMC.
2-1/C #10

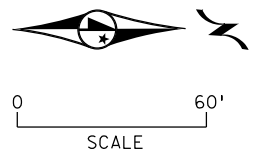
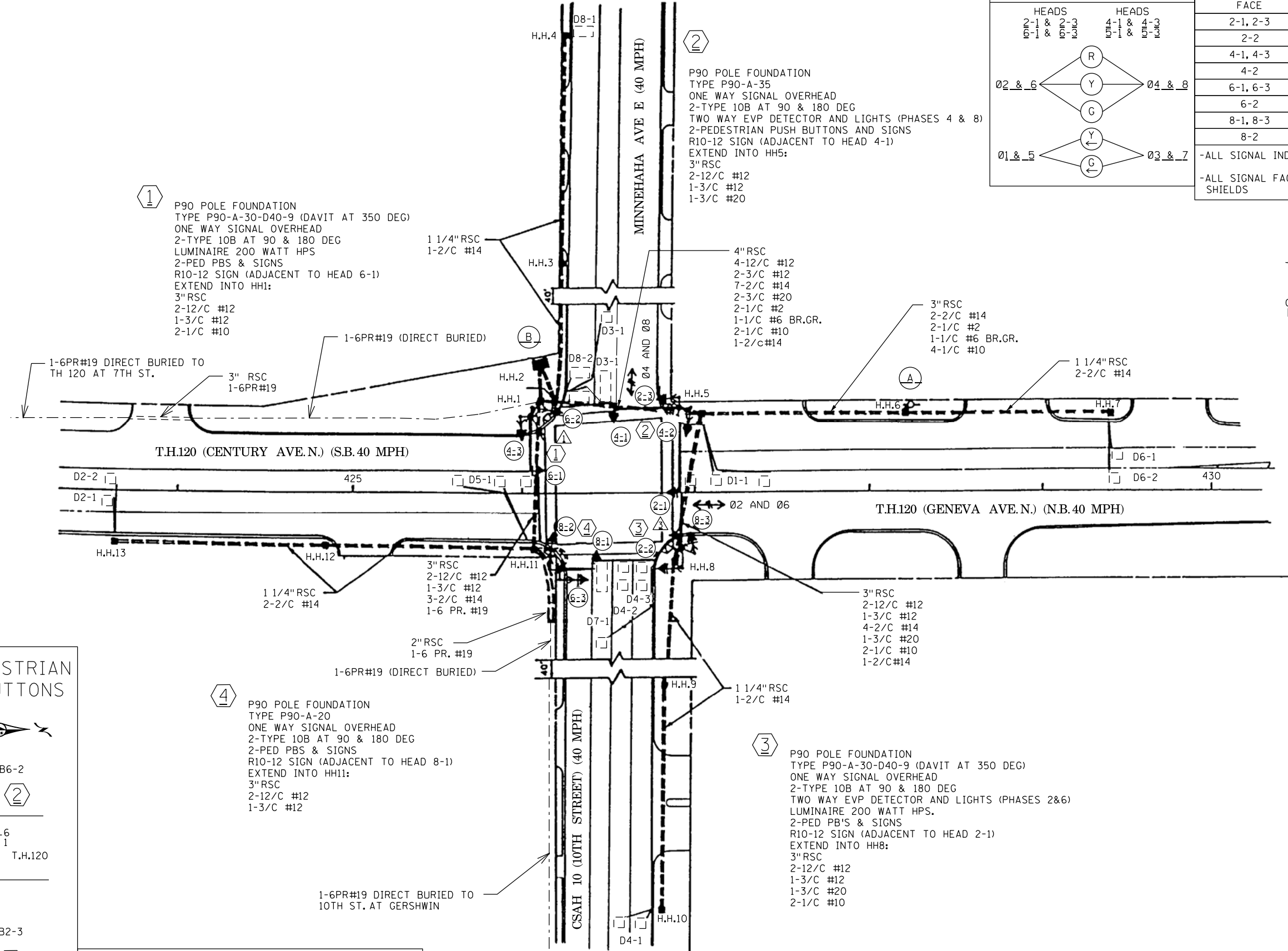
SIGNAL HEAD PHASING



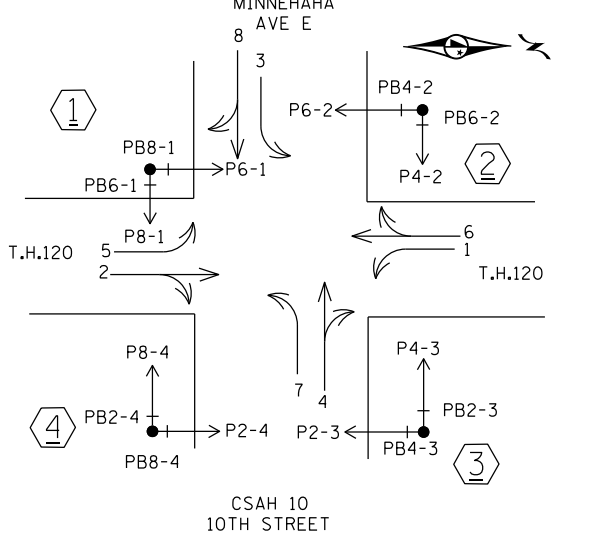
SIGNAL HEAD CHART

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

-ALL SIGNAL INDICATIONS ARE 12" LEDS
-ALL SIGNAL FACES HAVE BACKGROUND SHIELDS



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1,3,5, AND 7 BEING PROTECTED PERMISSIVE LEFT TURN PHASES.

PLOTTED/REVISED: \$\$\$@DATE@\$\$\$

DISTRICT #: @DISTRICT@
PLOT NAME: \$\$\$@PLOT\$NAME@
PATH & FILENAME: \$\$\$@PATH\$FILENAME@\$\$\$

BY	DATE	REVISIONS
	09-09-99	D1-1; 2-1, 2; 4-2, 3; 5-1; 6-1, 2 REPLACED BY MESU WR#S56330
SJK	08-20-07	ADDED INTERCONNECT TO PLAN
EJA	05-26-15	PLAN UPDATES & CORRECTIONS

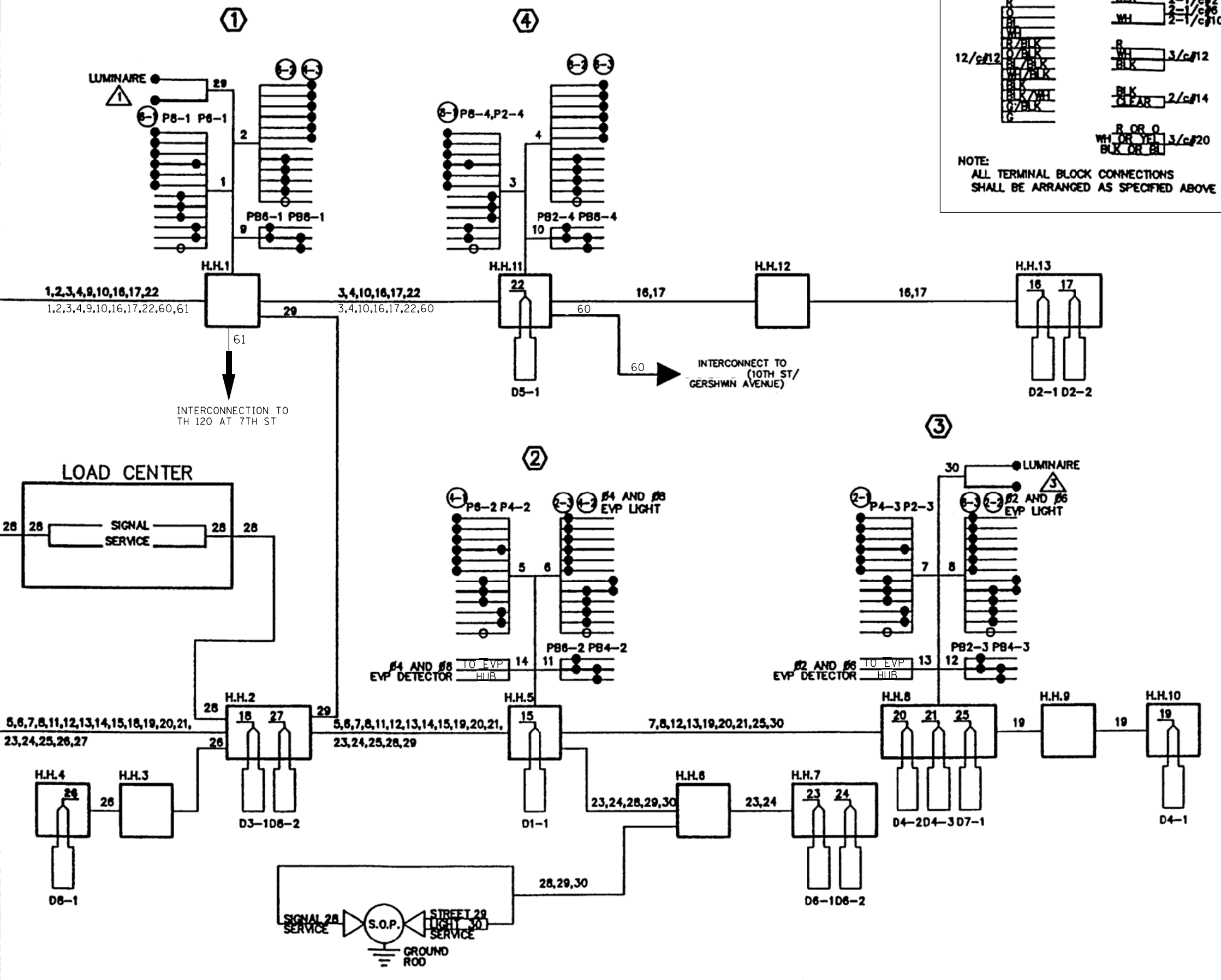
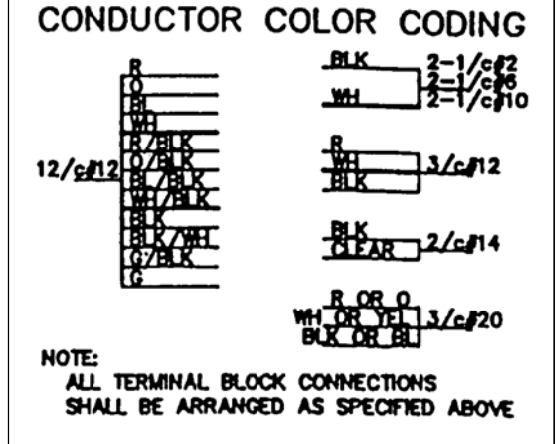
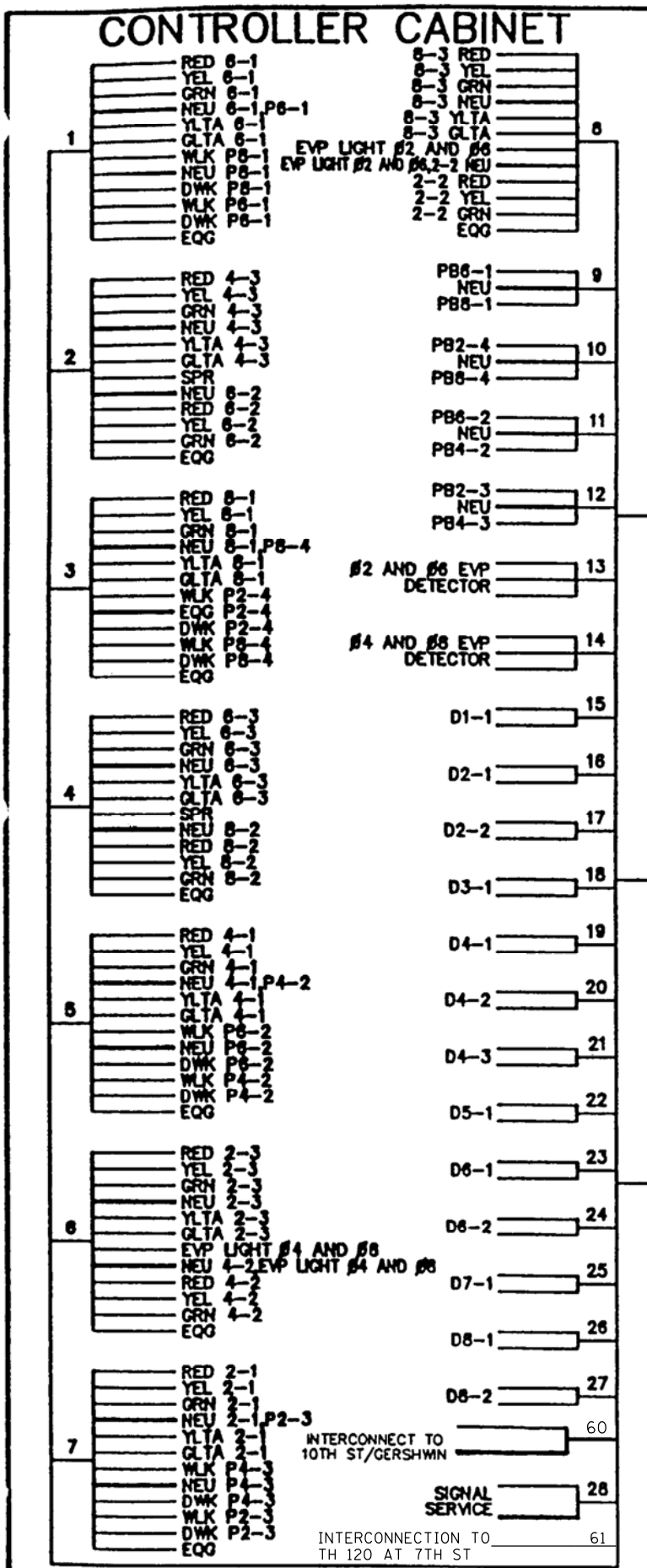
SYSTEM ID: 21435 T.E. _____
METER ADDRESS: 739 CENTURY AVE N
MASTER ID: _____ T.E. _____

INTERSECTION LAYOUT
TH120 AT CSAH 10 (10TH ST)/MINNEHAHA AVE
IN OAKDALE/MAPLEWOOD
WASHINGTON/RAMSEY COUNTIES

S.A.P. NO. _____ DRAWN BY: _____ CKD BY: _____ DATE: _____
CERTIFIED BY: _____ LIC. NO. _____ DATE: _____
STATE PROJ. NO. _____ (T.H. 120) SHEET NO. 1 OF 2 SHEETS

PLOTTED/REVISED: \$\$\$@DATE@\$\$\$

DISTRICT #: \$@DISTRICT@\$
PLOT NAME: \$\$\$@PLOT\$NAME@\$
PATH & FILENAME: \$\$\$@PATH\$FILENAME@\$



BY	DATE	REVISIONS
SJK	08-20-07	INIERCONNECT ADDED TO PLAN
EJA	05-26-15	PLAN UPDATES & CORRECTIONS

SYSTEM ID: 21435 T.E. _____
 METER ADDRESS: 739 CENTURY AVE N
 MASTER ID: _____ T.E. _____

WIRING DIAGRAM
 TH 120 AT CSAH 10 (10TH ST)/MINNEHAHA AV
 IN MAPLEWOOD, RAMSEY COUNTY &
 OAKDALE, WASHINGTON COUNTY

S.A.P. NO. _____ DRAWN BY: _____ CKD BY: _____ DATE: _____
 CERTIFIED BY: _____ LIC. NO. _____ DATE: _____
 STATE PROJ. NO. _____ (T.H. 120) SHEET NO. 2 OF 2 SHEETS