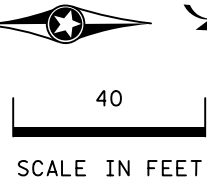


PLOTTED/REVISED: 12-DEC-2022

DISTRICT \*: Metro  
PLOT NAME: layout  
FILENAME: Projects\DM\_FOS\212\00007\Traffic\Signals\5292\_101\GREAT PLAINS B AT LAKE SUSAN DR NORTH RAMP-1736522\T1736522-ssl.dgn

SIGNAL HEAD CHART							
FACE	R	Y	G	RLTA	YLTA	GLTA	FYA
1-1, 1-2	←	←	←				←
2-1, 2-2, 2-3	○	○	○				
3-1, 3-2, 3-3	←	←	←				←
4-1, 4-2	○	○	○				
5-1, 5-2	←	←	←				←
6-1, 6-2, 6-3	○	○	○				
7-1, 7-2	←	←	←				←
8-1, 8-2	○	○	○				

-ALL SIGNAL INDICATIONS SHALL BE 12" LED  
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS  
-FYA DENOTES FLASHING YELLOW ARROW



(1) PA100 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA100-A-45-X30-1 (ARM AT 350 DEG)  
3-ONE WAY SIGNALS OVERHEAD (0', 11' AND 23')  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP CONFIRMATORY LIGHT (PHASES 1+6)  
LUMINAIRE-250W HPS  
1-R10-X12 SIGN  
1-APS PB AND SIGN (LT ARROW)(PB4-1)  
2-D SIGNS  
3" PVC INTO HH 18:  
2-12/C#12  
4-3/C#12  
1-3/C#12(LUM)  
1-6/C#14  
2-1/C#6 INS. GR.

(2) PA90 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA90-A-30-X30-1 (ARM AT 350 DEG)  
1-5' MAST ARM EXTENSION  
3-ONE WAY SIGNALS OVERHEAD AT 0', 11' & 17'  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 3+8)  
1-R10-X12 SIGN  
LUMINAIRE-250W HPS  
1-APS PB AND SIGN (LT ARROW) (PB6-1)  
1-D SIGN  
3" PVC INTO HH 4:  
2-12/C#12  
4-3/C#12  
1-3/C#12(LUM)  
1-6/C#14  
1-3/C#20  
2-1/C#6 INS. GR.

LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1	6x6	55
D1-2	3-6x6	10, 25 & 40
D2-1, D2-2	6x6	400
D3-1, D3-3	6x6	55
D3-2, D3-4	3-6x6	10, 25 & 40
D4-1	6x6	120
D4-2	2-6x6	-5 & 10
D5-1	2-6x6	55
D5-2	3-6x6	10, 25 & 40
D6-1, D6-2	6x6	400
D7-1	6x6	55
D7-2	3-6x6	10, 25 & 40
D8-1	6x6	180
D8-2	2-6x6	-5 & 10
D8-3	2-6x6	5 & 20

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

(A) COMBINATION EQUIPMENT PAD - TYPE 3  
(SIGNAL AND LIGHTING)  
CONTROLLER AND CABINET  
SERVICE CABINET  
3/4" PVC FOR FUTURE PHONE DROP  
4" PVC TO HH 1:  
4-12/C#12  
8-3/C#12  
14-2/C#14  
2-6/C#14  
2-3/C#20  
1-1/C#6 INS. GR.

(4) PA100 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA100-A-50-X30-1 (ARM AT 350 DEG)  
2-ONE WAY SIGNALS OVERHEAD (0' & 14')  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4+7)  
LUMINAIRE-250W HPS  
1-R10-X12 SIGN  
2-D SIGNS  
3" PVC INTO HH 14:  
2-12/C#12  
5-3/C#12  
1-3/C#12(LUM)  
1-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

4" PVC  
4-12/C#12  
10-3/C#12  
2-6/C#14  
9-2/C#14  
3-3/C#20  
1-1/C#6 INS. GR.

2" PVC  
2-3/C#12

4" PVC  
2-12/C#12  
5-3/C#12  
9-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.  
1-6PR#19

4" PVC  
4-12/C#12  
10-3/C#12  
9-2/C#14  
2-6/C#14  
3-3/C#20  
1-1/C#6 INS. GR.

PED PB STATION  
1-APS PB AND SIGN  
(RT ARROW) (PB8-2)  
EXTEND INTO HH 5:  
1" PVC  
1-2/C #14

4" PVC  
2-12/C#12  
5-3/C#12  
1-6/C#14  
9-2/C#14  
2-3/C#20  
1-1/C#6 INS. GR.

2" PVC  
2-2/C#14  
1-3/C#20

4" PVC  
2-12/C#12  
5-3/C#12  
1-6/C#14  
6-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

4" PVC  
2-12/C#12  
5-3/C#12  
1-6/C#14  
6-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

4" PVC  
2-12/C#12  
5-3/C#12  
1-6/C#14  
4-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

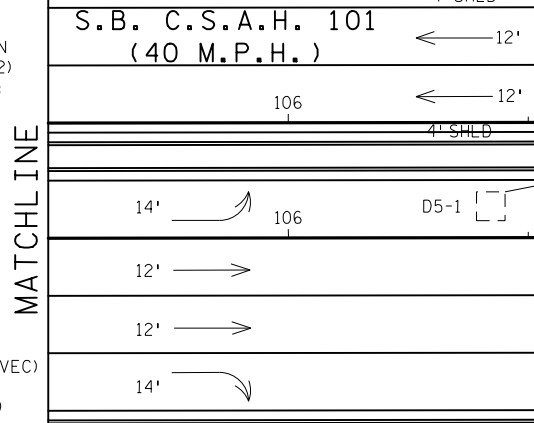
(3) PA90 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA90-A-40-X30-1 (ARM AT 350 DEG)  
3-ONE WAY SIGNALS OVERHEAD (0', 11' AND 23')  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2+5)  
LUMINAIRE-250W HPS  
1-R10-X12 SIGN  
2-D SIGNS  
3" PVC INTO HH 9:  
2-12/C#12  
4-3/C#12  
1-3/C#12(LUM)  
1-2/C#14  
1-6/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

PED PB STATION  
1-APS PB AND SIGN  
(LT ARROW) (PB8-1)  
EXTEND INTO HH 9:  
1" PVC  
1-2/C #14

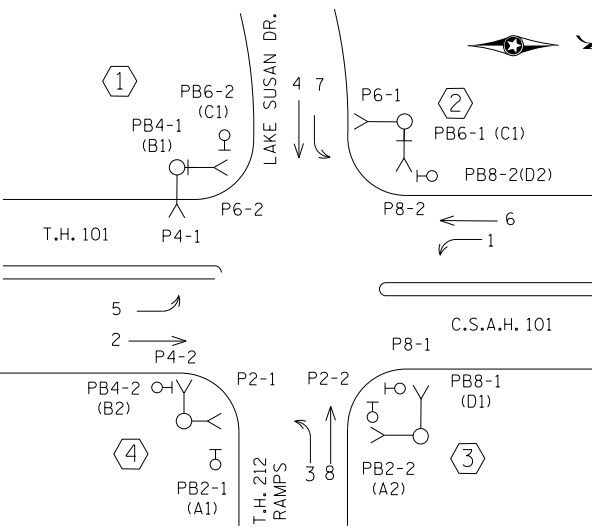
PED PB STATION  
1-APS PB AND SIGN  
(RT ARROW) (PB2-2)  
EXTEND INTO HH 10:  
1" PVC  
1-2/C #14

PED PB STATION  
1-APS PB AND SIGN  
(RT ARROW) (PB4-2)  
EXTEND INTO HH 14:  
1" PVC  
1-2/C #14

PED PB STATION  
1-APS PB AND SIGN  
(LT ARROW) (PB2-1)  
EXTEND INTO HH 14:  
1" PVC  
1-2/C #14



**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 & 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

BY	DATE	REVISIONS
SJK	12/09/22	AS-BUILT PLAN SP 1017-106

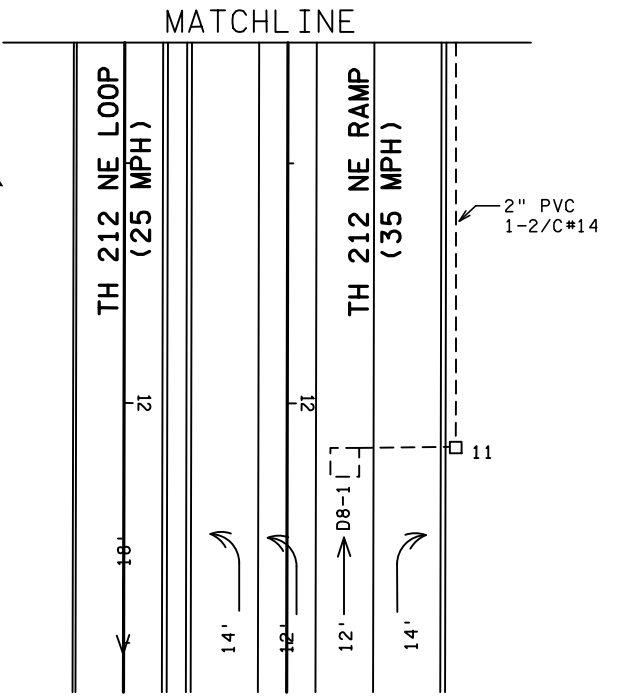
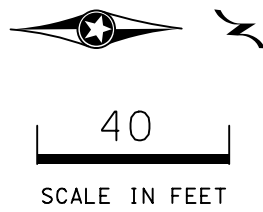
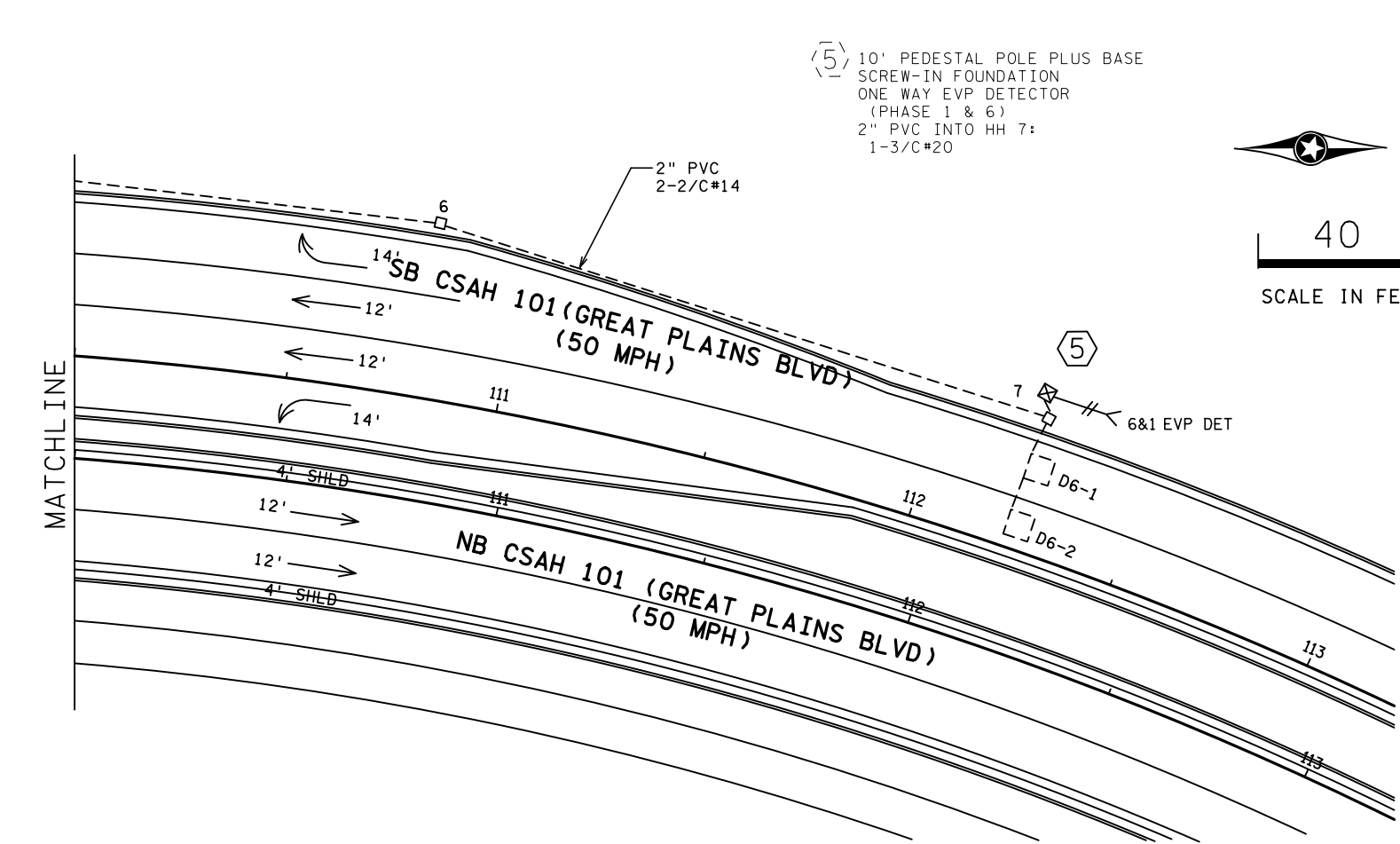
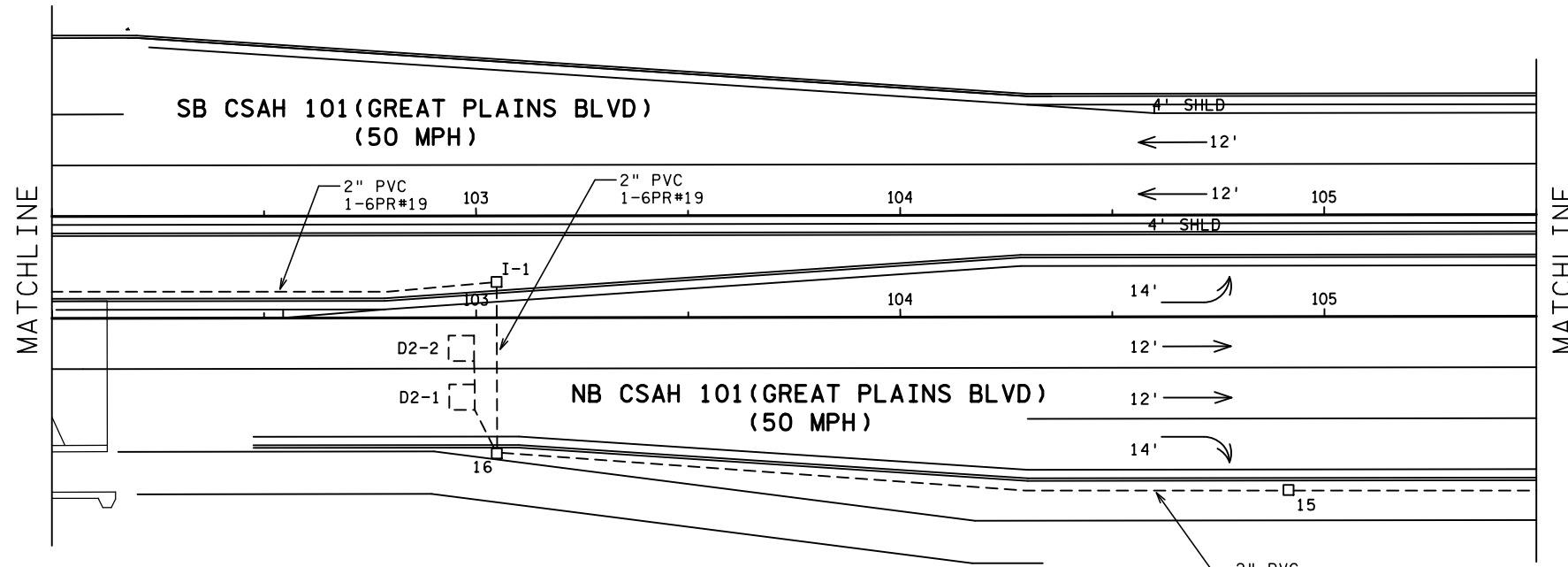
SYSTEM ID: 1736522	T.E.
METER ADDRESS: 8750 TH 101	
OLD SYSTEM ID: 38432	

**INTERSECTION LAYOUT**  
**TH 212 AT GREAT PLAINS AT LAKE SUSAN DR NORTH RAMP**  
**IN CHASKA, CARVER COUNTY**

S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ.NO. 1017-106 (T.H.212)		SHEET NO. 1	OF 3 SHEETS

PLOTTED/REVISED: 12-DEC-2022

DISTRICT \*: Metro  
 IPLOT NAME: match lines  
 FILENAME: Projects\DM\_FROSA\212\00007\Traffic\Signals\5292\_101\GREAT PLAINS B AT LAKE SUSAN DR NORTH RAMP-I736522\T1736522-ssl.dgn



BY	DATE	REVISIONS
SJK	12/09/22	AS-BUILT PLAN SP 1017-106

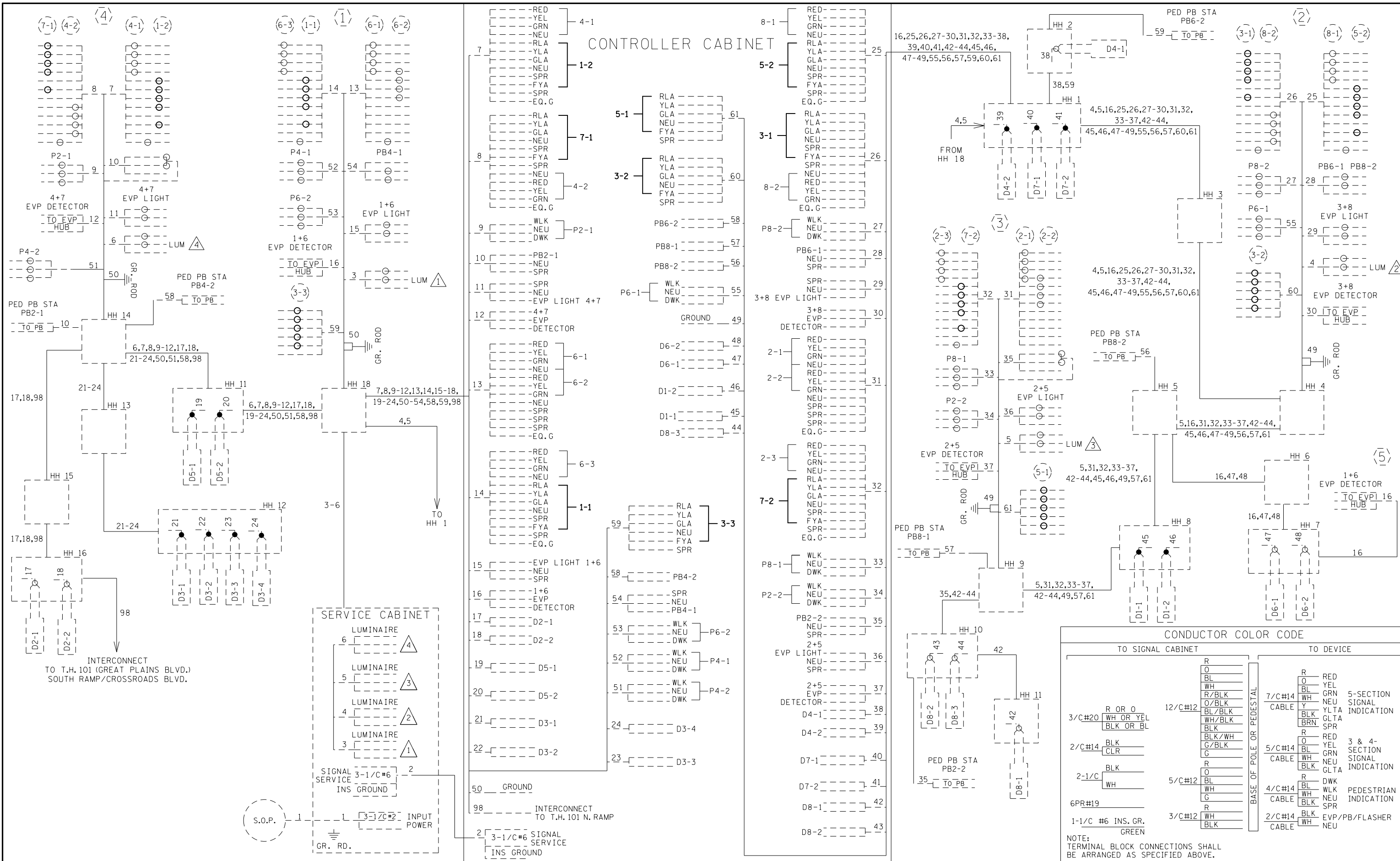
SYSTEM ID: 1736522 T.E.  
 METER ADDRESS: 8750 TH 101  
 OLD SYSTEM ID: 38432

**MATCH LINES**  
**TH 212 AT GREAT PLAINS AT LAKE**  
**SUSAN DR NORTH RAMP**  
**IN CHASKA, CARVER COUNTY**

S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ.NO. 1017-106 (T.H.212)		SHEET NO. 2 OF	3 SHEETS

PLOTTED/REVISED: 12-DEC-2022

DISTRICT \*: Metro  
PLOT NAME: wiring diagram  
FILENAME: Projects\DM\_FOS\212\0007TrafficSignals\5292\_101\GREAT PLAINS B AT LAKE SUSAN DR NORTH RAMP-1736522\T1736522-sg.dgn



BY	DATE	REVISIONS
SJK	12/09/22	AS-BUILT PLAN SP 1017-106

SYSTEM ID: 1736522 T.E.  
 METER ADDRESS: 8750 TH 101  
 OLD SYSTEM ID: 38432

**FIELD WIRING DIAGRAM  
 TH 212 AT GREAT PLAINS AT LAKE  
 SUSAN DR NORTH RAMP  
 IN CHASKA, CARVER COUNTY**

S.A.P. NO.	DRAWN BY:	CKD BY:	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ.NO. 1017-106 (T.H.212)		SHEET NO. 3 OF 3 SHEETS	

PLOTTED/REVISED: 2/2/2015

DISTRICT #: METRO  
IPLOT NAME: T38432S.LAY  
PATH & FILENAME: IP\_PWP-d078498N\T38432SGL.dgn

### SIGNAL HEAD CHART

FACE	R	Y	G	RLTA	YLTA	GLTA
1-1, 1-2				◀	◀	◀
2-1, 2-2, 2-3	○	○	○			
3-1, 3-2				◀	◀	◀
4-1, 4-2	○	○	○			
5-1, 5-2				◀	◀	◀
6-1, 6-2, 6-3	○	○	○			
7-1, 7-2				◀	◀	◀
8-1, 8-2	○	○	○			

### LOOP DETECTORS

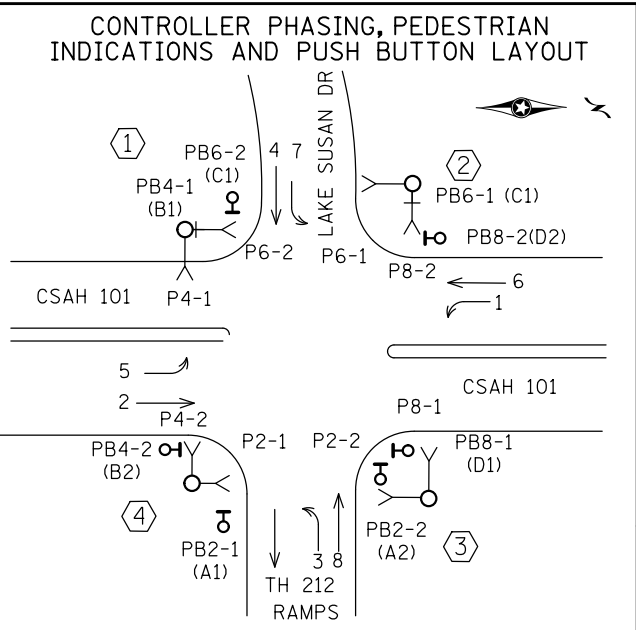
DESIGNATION	NO. OF LOOPS	LOCATION
D1-1	1	40
D1-2	1	10
D2-1, D2-2	1	400
D3-1, D3-2	1	40
D3-3, D3-4	1	10
D4-1	1	120
D4-2	2	-5 & 10
D5-1	1	40
D5-2	1	10
D6-1, D6-2	1	400
D7-1	1	40
D7-2	1	10
D8-1	1	180
D8-2	2	-5 & 10
D8-3	2	5 & 20

-ALL SIGNAL INDICATIONS 12" LEDS  
-ALL SIGNAL FACES HAVE A BACKGROUND SHIELD  
-ALL SIGNAL HEADS ARE BLACK POLYCARBONATE

-ALL LOOP DETECTORS ARE 6' X 6' PVC  
-LOCATION: DISTANCE FROM CROSSWALK/ STOP LINE IN FEET

**(B)** SOP-PAD MOUNTED TRANSFORMER (BY MVEC)  
(120V/240V, SINGLE PHASE, 25 KVA)  
2" RSC TO PAD MOUNTED PANEL BOARD  
3-1/C#2

**(A)** COMBINATION EQUIPMENT PAD - TYPE 3  
(SIGNAL AND LIGHTING)  
CONTROLLER AND CABINET  
SERVICE CABINET  
3/4" PVC FOR FUTURE PHONE DROP  
4" PVC TO HH 1:  
4-12/C#12  
8-3/C#12  
14-2/C#14  
2-3/C#20  
1-1/C#6 INS. GR.  
3" PVC STUBBED OUT TO TH EAST (CAPPED BOTH ENDS)  
2" PVC TO SERVICE CABINET  
2-1/C#6  
1-1/C#6 INS. GR.  
SERVICE CABINET TO PANEL BOARD  
2" PVC  
3-1/C#2  
SERVICE CABINET TO HH 18  
2" PVC  
4-3/C#12  
4" PVC TO HH 18:  
4-12/C#12  
8-3/C#12  
9-2/C#14  
2-3/C#20  
1-1/C#6 INS. GR.  
1-6PR#19



**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 LEFT TURN PHASES.

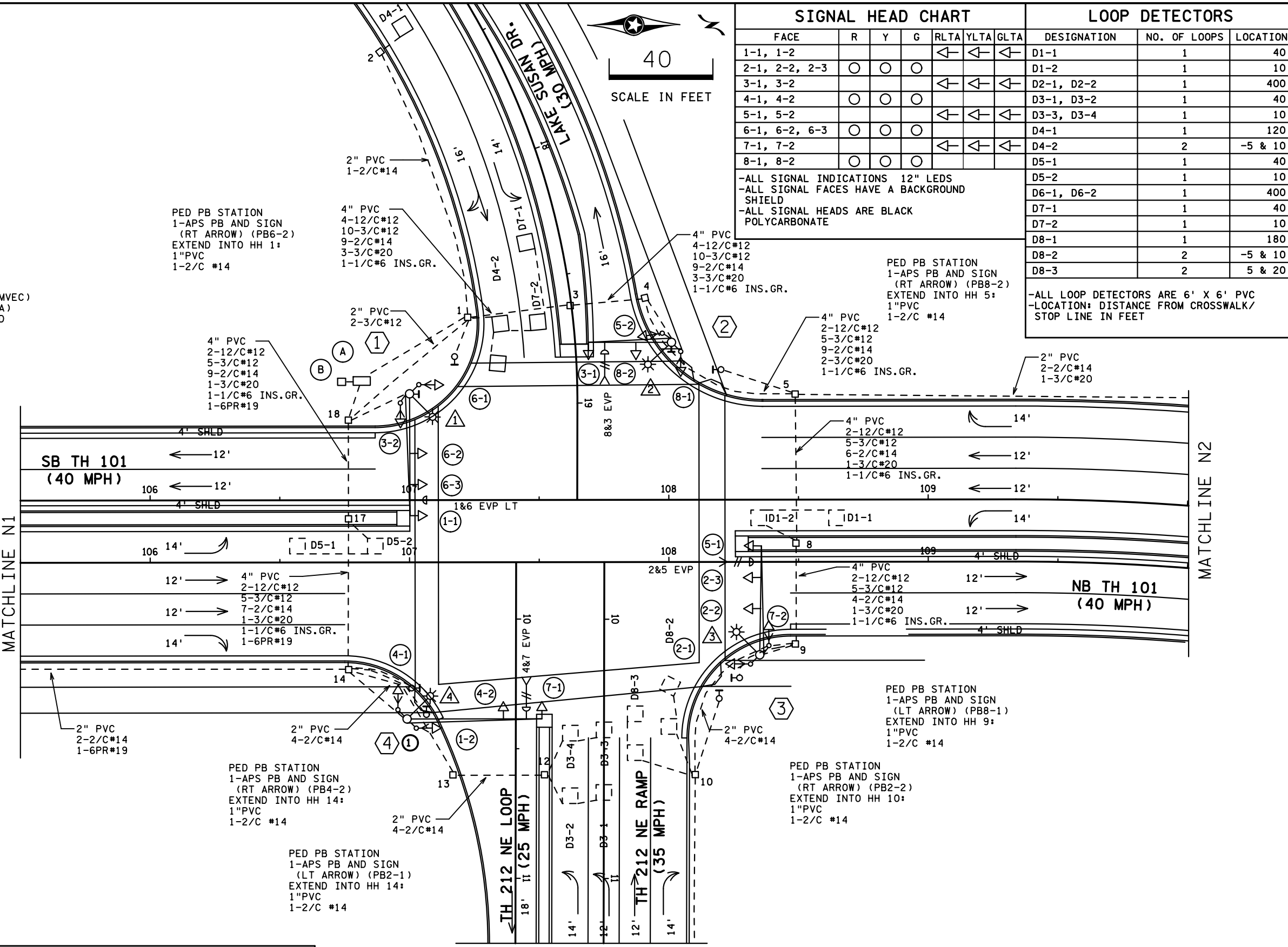
BY	DATE	REVISIONS
EJA	02-02-15	AS-BUILT OF SP 8825-473 APS & CD PEDS

SYSTEM ID: 38432 T.E.  
METER ADDRESS: 8750 TH 101  
MASTER ID: 38513 T.E.

INTERSECTION LAYOUT  
TH 212 AT CSAH 101 (GREAT PLAINS BLVD)  
NORTH RAMP/LAKE SUSAN DR

S.A.P. NO. \_\_\_\_\_  
CERTIFIED BY \_\_\_\_\_  
STATE PROJ. NO. \_\_\_\_\_

DRAWN BY: CDB CKD BY: CDB DATE: 10-28-13  
LIC. NO. 19863 DATE: 2/11/14  
SHEET NO. SS32 OF SS40 SHEETS



PLOTTED/REVISED: 2/2/2015

DISTRICT #: METRO  
IPLOT NAME: T38432\_ML  
PATH & FILENAME: IP\_PWP-d078498\T38432SGL.dgn

MATCHLINE M4

MATCHLINE N1

MATCHLINE N3

MATCHLINE N2

SB CSAH 101 (GREAT PLAINS BLVD)  
(50 MPH)

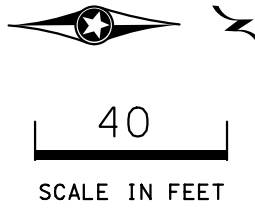
NB CSAH 101 (GREAT PLAINS BLVD)  
(50 MPH)

2" PVC  
1-6PR#19

2" PVC  
1-6PR#19

2" PVC  
2-2/C#14  
1-6PR#19

5 10' PEDESTAL POLE PLUS BASE  
SCREW-IN FOUNDATION  
ONE WAY EVP DETECTOR  
(PHASE 1 & 6)  
2" PVC INTO HH 7:  
1-3/C#20



2" PVC  
2-2/C#14

SB CSAH 101 (GREAT PLAINS BLVD)  
(50 MPH)

NB CSAH 101 (GREAT PLAINS BLVD)  
(50 MPH)

5

6&1 EVP DET

D6-1

D6-2

TH 212 NE LOOP  
(25 MPH)

TH 212 NE RAMP  
(35 MPH)

1 PA100 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA100-A-45-X30-1 (ARM AT 350 DEG)  
3-ONE WAY SIGNALS OVERHEAD (0', 11' AND 23')  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP CONFIRMATORY LIGHT (PHASES 1 & 6)  
LUMINAIRE-250W HPS  
1-APS PB AND SIGN (LT ARROW)(PB4-1)  
2-D SIGNS  
3" PVC INTO HH 18:  
2-12/C#12  
4-3/C#12  
1-3/C#12(LUM)  
2-1/C#6 INS. GR.

2 PA90 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA90-A-30-X30-1 (ARM AT 350 DEG)  
2-ONE WAY SIGNALS OVERHEAD AT 0' & 17'  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 8 & 3)  
LUMINAIRE-250W HPS  
1-APS PB AND SIGN (LT ARROW) (PB6-1)  
1-D SIGN  
3" PVC INTO HH 4:  
2-12/C#12  
4-3/C#12  
1-3/C#12(LUM)  
1-3/C#20  
2-1/C#6 INS. GR.

3 PA90 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA90-A-40-X30-1 (ARM AT 350 DEG)  
3-ONE WAY SIGNALS OVERHEAD (0', 11' AND 23')  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2 & 5)  
LUMINAIRE-250W HPS  
2-D SIGNS  
3" PVC INTO HH 9:  
2-12/C#12  
4-3/C#12  
1-3/C#12(LUM)  
1-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

4 PA100 POLE FOUNDATION  
(W/1" PVC STUB OUT & 5/8" x 15' GROUND ROD)  
TYPE PA100-A-50-X30-1 (ARM AT 350 DEG)  
2-ONE WAY SIGNALS OVERHEAD (0' & 14')  
2-ONE-WAY SIGNALS AT 45 AND 225 DEG  
2-ONE-WAY CD PED HEADS AT 45 AND 225 DEG  
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4 & 7)  
LUMINAIRE-250W HPS  
2 D SIGNS  
3" PVC INTO HH 14:  
2-12/C#12  
5-3/C#12  
1-3/C#12(LUM)  
1-2/C#14  
1-3/C#20  
1-1/C#6 INS. GR.

BY	DATE	REVISIONS
EJA	02-02-15	AS-BUILT OF SP 8825-473 APS & CD PEDS

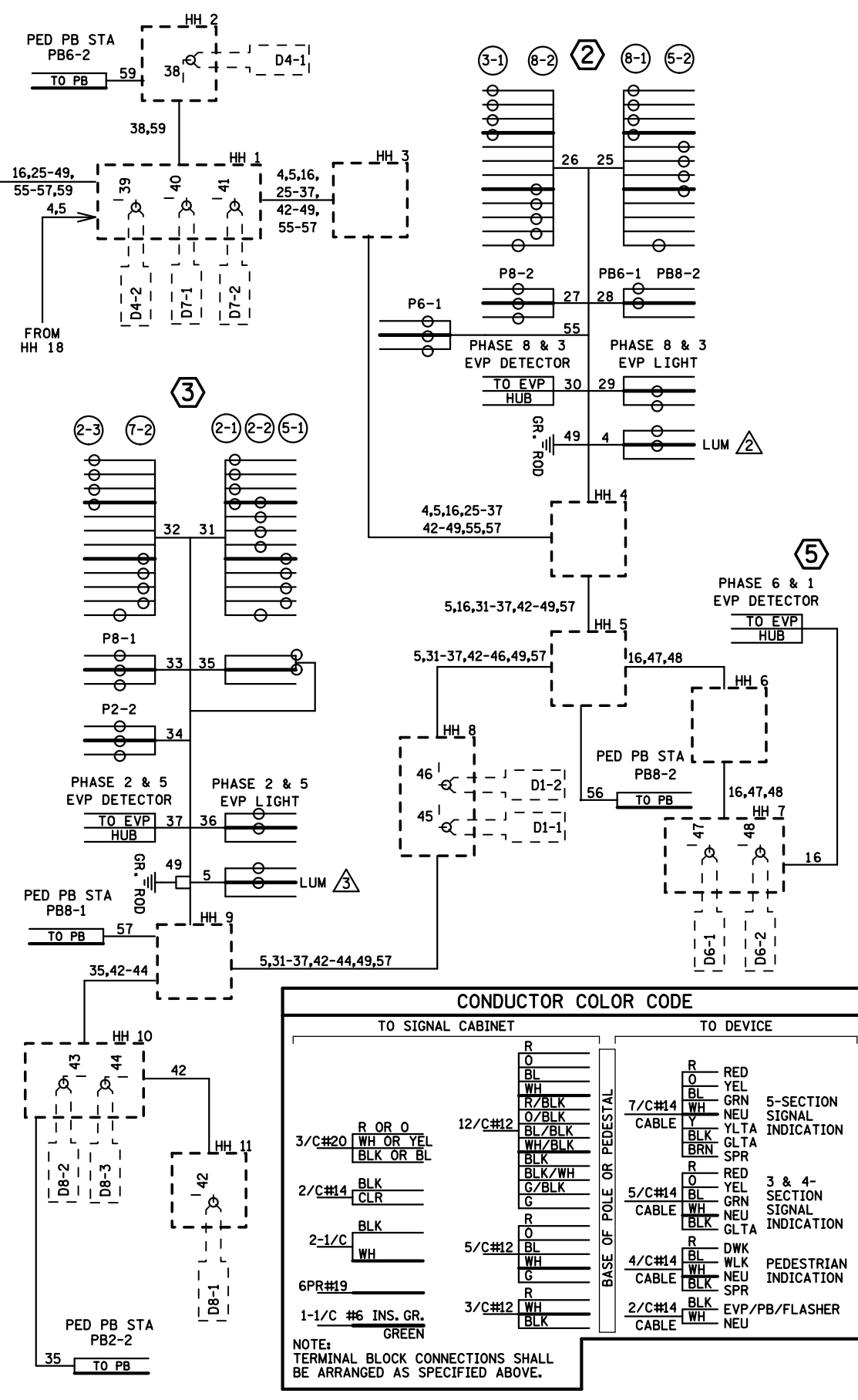
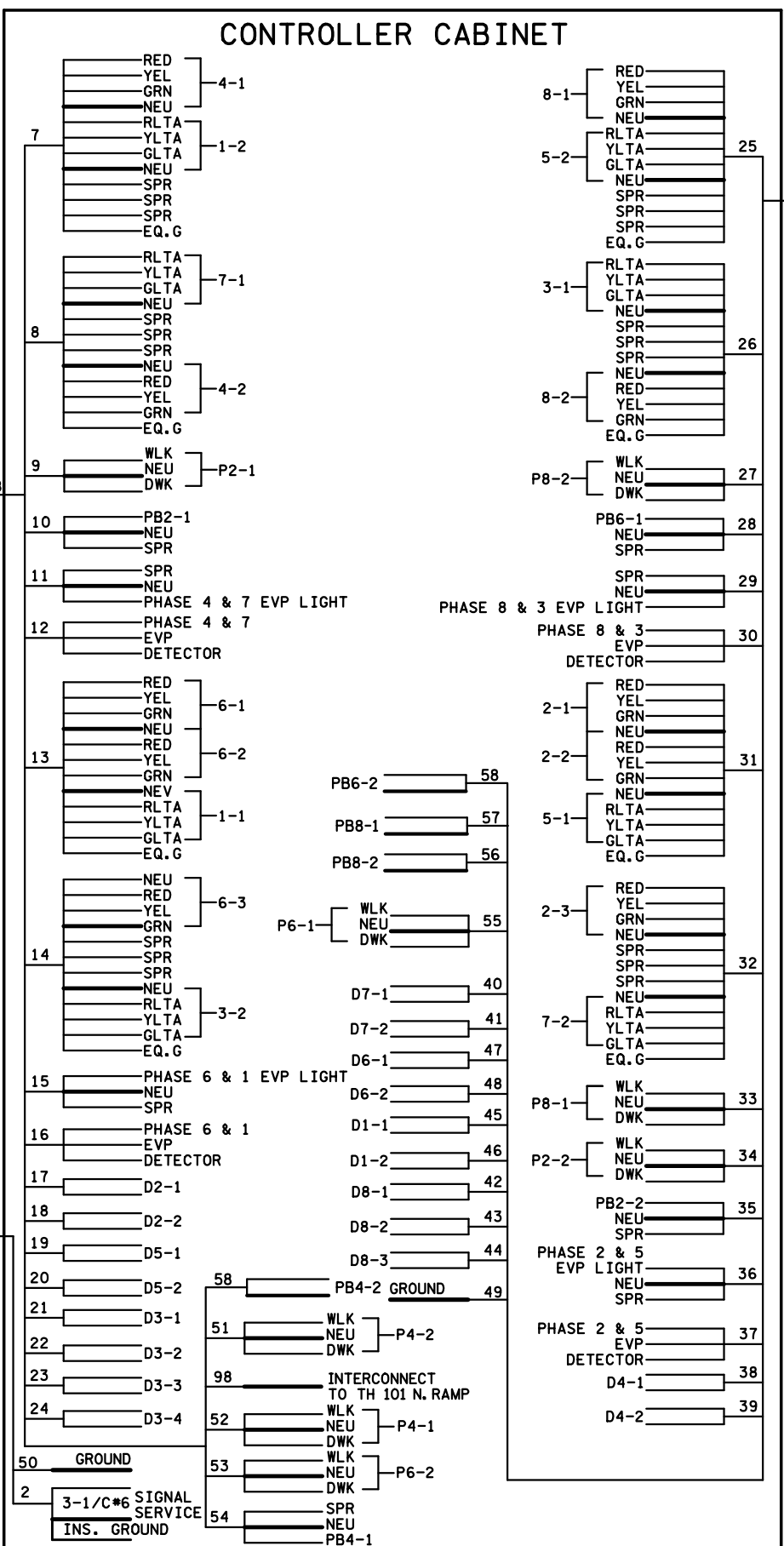
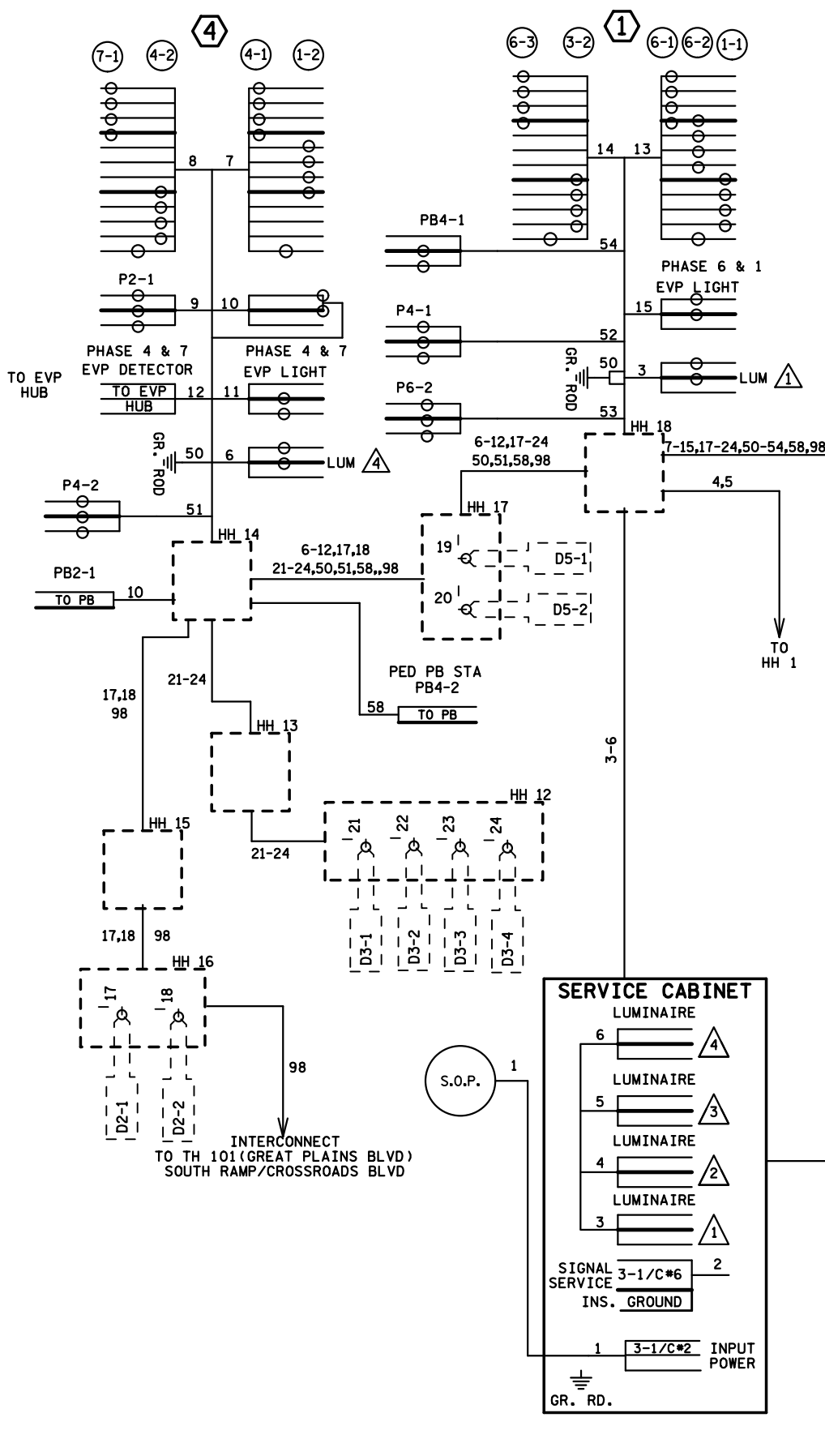
SYSTEM ID: 38432	T.E.
METER ADDRESS: 8750 TH 101	
MASTER ID: 38513	T.E.

MATCH LINES AND POLE NOTES  
TH 212 AT CSAH 101 (GREAT PLAINS BLVD)  
NORTH RAMP/LAKE SUSAN DR

S.A.P. NO.	DRAWN BY: CDB	CKD BY: CDB	DATE: 10-28-13
CERTIFIED BY _____	LIC. NO. _____	DATE: 2/11/14	
STATE PROJ. NO.	SHEET NO. 2 OF 4 SHEETS		

PLOTTED/REVISED: 2/2/2015

DISTRICT #: METRO  
IPLLOT NAME: T38432S\_WIR  
PATH & FILENAME: IP\_PWP-d078498\T38432SGL.dgn

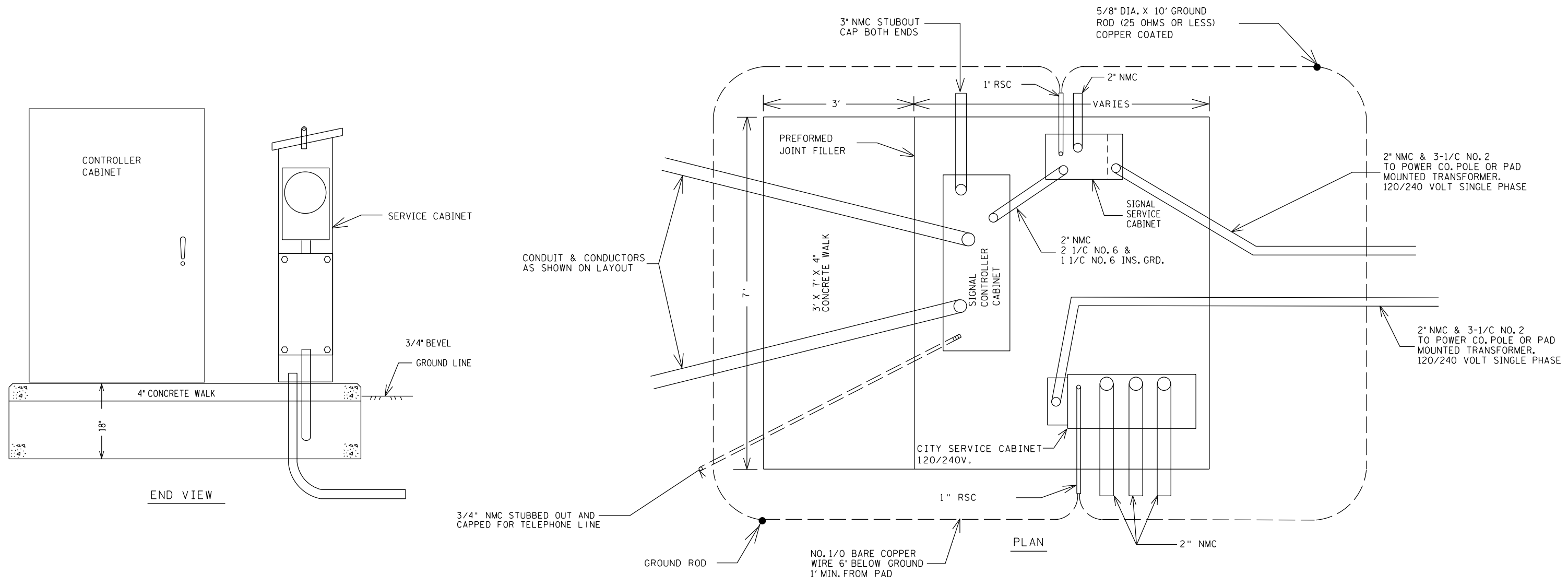


BY: EJA	DATE: 02-02-15	REVISIONS: AS-BUILT OF SP 8825-473 APS & CD PEDS	SYSTEM ID: 38432	T.E.	WIRING DIAGRAM	S.A.P. NO.	DRAWN BY: CDB	CKD BY: CDB	DATE: 10-28-13
			METER ADDRESS: 8750 TH 101		TH 212 AT CSAH 101 (GREAT PLAINS BLVD) NORTH RAMP/LAKE SUSAN DR	CERTIFIED BY: _____			DATE: 2/11/14
			MASTER ID: 38513	T.E.		STATE PROJ. NO.			
						LICENSED PROFESSIONAL ENGINEER		SHEET NO. 3 OF 4 SHEETS	

# Equipment Pad

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

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



BY	DATE	REVISIONS	SYSTEM ID: 38432	T.E.	S.A.P. NO.	DRAWN BY: CDB	CKD BY: CDB	DATE: 10-28-13
EJA	02-02-15	AS-BUILT OF SP 8825-473 APS & CD PEDS	METER ADDRESS: 8750 TH 101		CERTIFIED BY _____	LIC. NO. _____	DATE: 2/11/14	
			MASTER ID: 38513	T.E.	STATE PROJ. NO. 8825-473	SHEET NO. 4 OF 4 SHEETS		

EQUIPMENT PAD  
 TH 212 AT CSAH 101 (GREAT PLAINS BLVD)  
 NORTH RAMP/LAKE SUSAN DR