

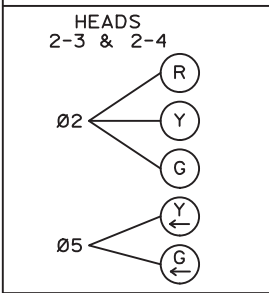
PLOTTED/REVISED: 6-APR-2023

SIGNAL FACE CHART

FACE	R	Y	G	RLTA	YLTA	GLTA
2-1, 2-2	●	●	●			
2-3, 2-4	●	●	●	←	←	
6-1, 6-2	●	●	●			
8-1, 8-2, 8-3	●	●	●			

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
 -ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS

SIGNAL HEAD PHASING



LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D2-1, D2-2	6x6	180
D5-1	2-6x6	40
D5-2	6x6	10
D6-1, D6-2	6x6	180
D8-1, D8-2	6x6	250
D8-3	6x6	5 & 20
D8-4	6x6	5 & 20
D8-5	6x6	5

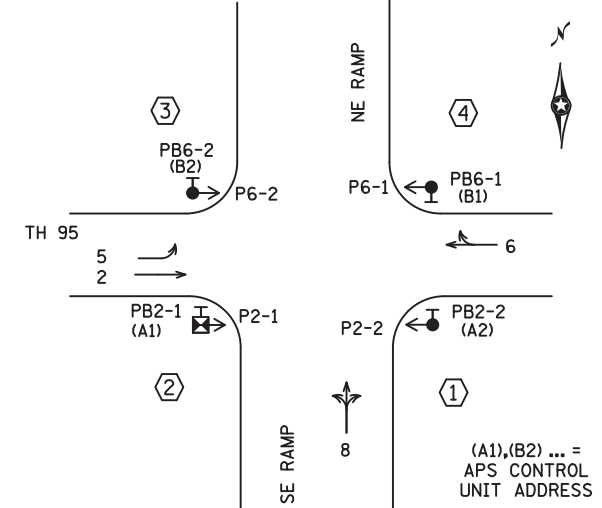
-ALL LOOP DETECTORS SHALL BE ARE
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

EQUIPMENT PAD - SEE DETAIL

SERVICE CABINET CONTROLLER AND CABINET
 4" CONDUIT TO HH 1:
 2-12/C #14
 2-6/C #14
 2-4/C #14
 2-3/C #14
 2-3/C #20
 4-2/C #14
 1-6PR#19
 1-COM CABLE (CAT 5E) (PTZ) F&I:
 1-1/C#6 INS. GR.

SERVICE CABINET TO HH 16:
 2" CONDUIT
 3-1/C #2
 SERVICE CABINET TO HH 1:
 2" CONDUIT
 4-3/C #14 (LUM)
 HH 2 TO HH 1:
 2" CONDUIT
 2-3/C #14 (LUM)

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 2 BEING A PROTECTED/PERMISSIVE LEFT TURN PHASE.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

3 WB STA 709+10, 25' LT
 PA85 POLE FOUNDATION
 TYPE PA85-A-25-D40-9 (DAVIT AT 350 DEG)
 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 (PHASES 1 & 6)
 LUMINAIRE-250W HPS
 1-APS PB AND SIGN (RT ARROW PB6-2)
 1-SIGN (R9-3a) FACING POLE 2
 1-SIGN D-16 35 S & 35 N
 3" CONDUIT TO HH 10:
 1-12/C#14
 1-4/C#14
 1-3/C#14 (LUM)
 1-3/C#14
 1-3/C#20
 1-2/C#14
 1-1/C#6 INS. GR.

2 EB STA 708+79, 22' RT
 PEDESTAL FOUNDATION
 13" PEDESTAL POLE & BASE
 1-ANGLE MOUNT C.D. PED IND AT 90 DEG
 1-APS PB AND SIGN (LT ARROW PB2-1)
 1-SIGN (R6-1L) ONE WAY
 1-SIGN (R6-1R) ONE WAY
 1-SIGN (R9-3a) FACING POLE 3
 3" RSC TO HH 5:
 1-4/C#14
 1-2/C#14
 1-1/C#6 INS. GR.

4 WB STA 709+70, 40' LT
 PA100 POLE FOUNDATION
 TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-ANGLE MOUNT SIGNALS AT 45 AND 225 DEG
 1-ANGLE MOUNT C.D. PED IND AT 45 DEG
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 8)
 LUMINAIRE-250W HPS
 1-APS PB AND SIGN (LT ARROW PB6-1)
 1-SIGN (R9-3a) FACING POLE 1
 1-SIGN (R6-1L) ONE WAY
 1-SIGN (RL-6R) ONE WAY
 3" CONDUIT TO HH 11:
 1-12/C#14
 1-6/C#14
 1-4/C#14
 1-3/C#14
 1-3/C#20
 1-2/C#14
 1-1/C#6 INS. GR.

1 EB STA 709+50, 28' RT
 PA100 POLE FOUNDATION
 TYPE PA100-A-45
 SALVAGE: 1-D40-9 (DAVIT AT 350 DEG) (GALVANIZED PAINTED)
 INSTALL: 1-X6-350/CAM 400 EXTENSION (STATE FURNISHED) (MOUNTED AT 350 DEG) (INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID AND GROUND ROD)
 INSTALL: 1-PTZ VIDEO CAMERA C30539 (STATE FURNISHED)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 18'
 1-ANGLE MOUNT SIGNALS AT 180 DEG
 1-ANGLE MOUNT C.D. PED IND AT 180 DEG
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2 & 5)
 REMOVE: LUMINAIRE-250W HPS
 F&I: 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-APS PB AND SIGN (RT ARROW PB2-2)
 1-SIGN (R9-3a) FACING POLE 4
 1-SIGN R10-12 (36x48) ADJACENT TO HEAD 2-3
 1-SIGN D-14 35 N
 3" CONDUIT TO HH 1:
 1-12/C#14
 1-6/C#14
 1-4/C#14
 1-3/C#14 (LUM)
 1-3/C#14
 1-3/C#20
 1-2/C#14
 F&I: 1-COM CABLE (CAT 5E) (PTZ)
 1-1/C#6 INS. GR.
 R10-12



GENERAL DESCRIPTION OF THE SIGNAL REVISION WORK:
 - THE REVISE SIGNAL SYSTEM WORK CONSISTS OF INSTALLING A PTZ CAMERA WITH X6-350/CAM 400 EXTENSION. THE WORK INCLUDES F&I LUMINAIRE, AND F&I CAT5E CABLE (PTZ).
 - ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
 - INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

DISTRICT #: Metro
 I/PLOT NAME: SHEET_27
 FILENAME: Projects\DM_FROSO35\0000\Traffic\Signal\RF5\27\57\PEND\ING\T27\57_.sgl.dgn

BY	DATE	REVISIONS	SYSTEM ID: 1735884	T.E. 92823	S.A.P. NO.	DRAWN BY: HRL	CKD BY: CDB	DATE: 03/31/23
			METER ADDRESS:		CERTIFIED BY: <i>Gregory Kern</i>	LIC. NO. 26829		DATE: 04/04/23
			OLD SYSTEM ID: 21757		STATE PROJ. NO. 8825-1025 (T.H. 999) SHEET NO. 27 OF 121 SHEETS			

REVISE SIGNAL SYSTEM "G"
 INTERSECTION LAYOUT, POLE NOTES
 T.H. I35-MN95 ER
 IN NORTH BRANCH, CHISAGO COUNTY

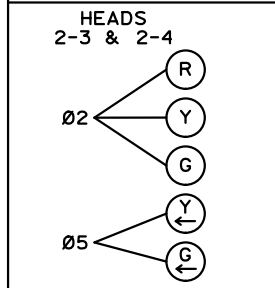
PLOTTED/REVISED: 8/9/2012

DISTRICT #: METRO
IPLOT NAME: layout
PATH & FILENAME: \$\$\$PATH\$\$\$FILENAME: IP_PWP-d0780683\T21757_sgl.dgn

SIGNAL FACE CHART						
FACE	R	Y	G	RLTA	YLTA	GLTA
2-1, 2-2	●	●	●			
2-3, 2-4	●	●	●	←	←	
6-1, 6-2	●	●	●			
8-1, 8-2, 8-3	●	●	●			

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK
POLYCARBONATE WITH BACKGROUND SHIELDS

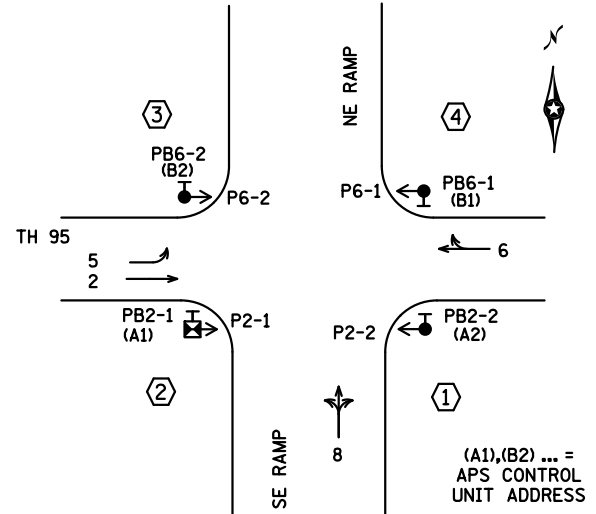
SIGNAL HEAD PHASING



(A) EQUIPMENT PAD - SEE DETAIL

- SERVICE CABINET CONTROLLER AND CABINET
- 4" CONDUIT TO HH 1:
- 2-12/C #14
- 2-6/C #14
- 2-4/C #14
- 2-3/C #14
- 2-3/C #20
- 4-2/C #14
- 1-6PR#19
- 1-1/C #6 INS. GR.
- 4" CONDUIT TO HH 2:
- 1-12/C #14
- 1-4/C #14
- 2-3/C #14
- 2-3/C #20
- 11-2/C #14
- 1-1/C #6 INS. GR.
- 1-6PR#19
- SERVICE CABINET TO HH 16:
- 2" CONDUIT
- 3-1/C #2
- SERVICE CABINET TO HH 1:
- 2" CONDUIT
- 4-3/C #14 (LUM)
- HH 2 TO HH 1:
- 2" CONDUIT
- 2-3/C #14 (LUM)

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 2 BEING A PROTECTED/PERMISSIVE LEFT TURN PHASE.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

NO	DATE	BY	CHK	REVISIONS
1	08-02-12	SJKEJA		AS-BUILT PLAN

Drawn By: M SCHWARTZ
Designed By: M SCHWARTZ
Checked By: S DELMORE
Approved By: S DELMORE

I HEREBY CERTIFY THAT THIS PLAN SHEET 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.

SEAN DELMORE
DATE: 7 OCTOBER 2009 LIC NO: 40945

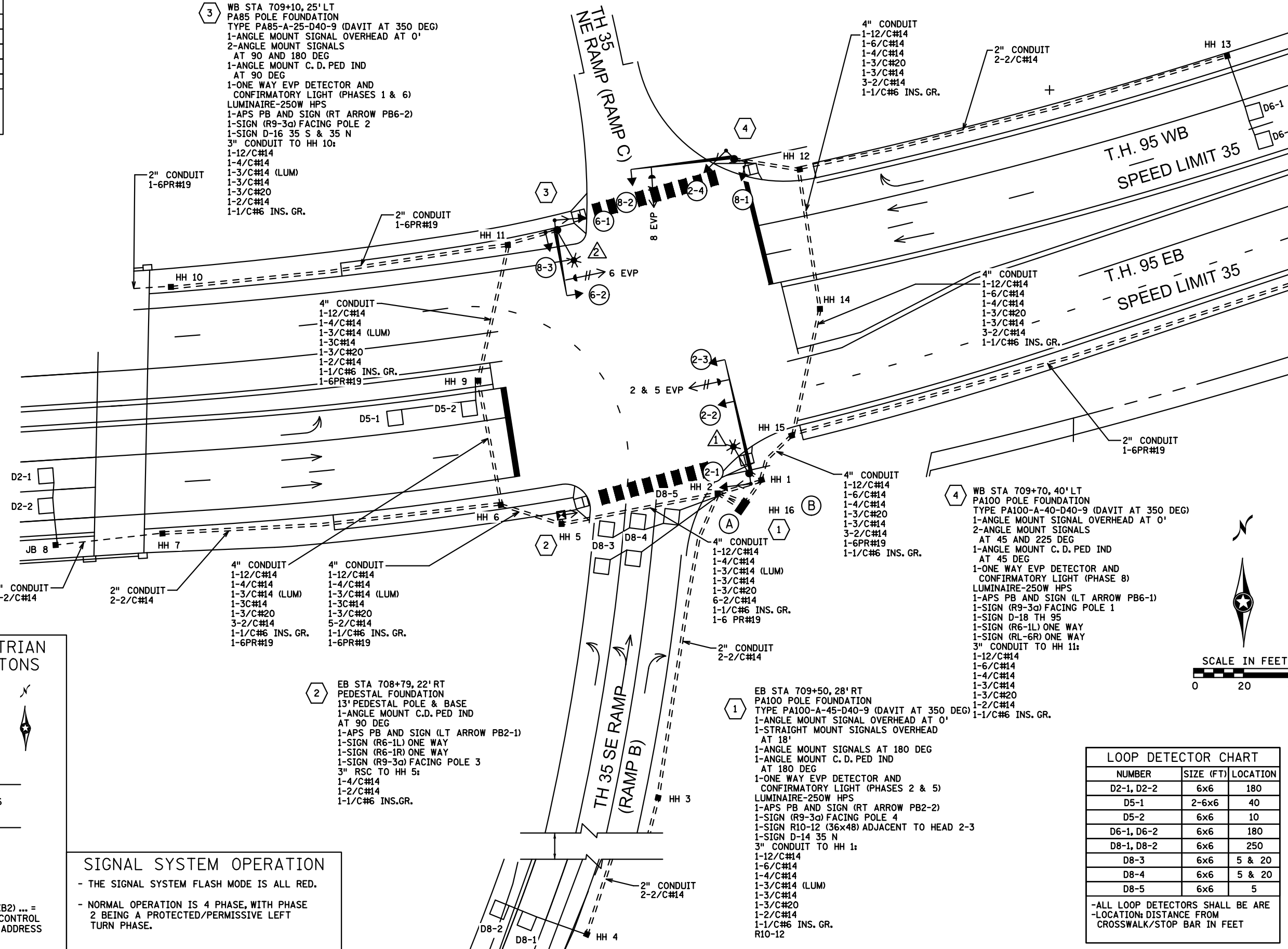
SYSTEM ID NO: 21757
T.E. NO: 4915



WSB
Associates, Inc.
701 Xenia Avenue South, Suite 300
Minneapolis, MN 55416
www.wsbeng.com
763-541-4800 • Fax 763-541-4700
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SIGNAL PLAN
INTERSECTION LAYOUT
TH 35 AT TH95 EAST-RAMPS-SYSTEM "D"
STATE PROJ NO 1307-19 (TH 95) - STATE PROJ NO 225-010-04
CITY OF NORTH BRANCH PROJ NO 2009-01

SHEET
\$s124R
OF
\$TOT
SHEETS



3 WB STA 709+10, 25' LT
PA85 POLE FOUNDATION
TYPE PA85-A-25-D40-9 (DAVIT AT 350 DEG)
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 (PHASES 1 & 6)
LUMINAIRE-250W HPS
1-APS PB AND SIGN (RT ARROW PB6-2)
1-SIGN (R9-3a) FACING POLE 2
1-SIGN D-16 35 S & 35 N
3" CONDUIT TO HH 10:
1-12/C#14
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1-3/C#14 (LUM)
1-3/C#14
1-3/C#20
1-2/C#14
1-1/C#6 INS. GR.

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AT 90 DEG
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1-SIGN (R9-3a) FACING POLE 3
3" RSC TO HH 5:
1-4/C#14
1-2/C#14
1-1/C#6 INS. GR.

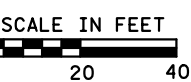
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AT 180 DEG
1-ONE WAY EVP DETECTOR AND
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R10-12

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AT 45 AND 225 DEG
1-ANGLE MOUNT C. D. PED IND
AT 45 DEG
1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASE 8)
LUMINAIRE-250W HPS
1-APS PB AND SIGN (LT ARROW PB6-1)
1-SIGN (R9-3a) FACING POLE 1
1-SIGN D-18 TH 95
1-SIGN (R6-1L) ONE WAY
1-SIGN (RL-6R) ONE WAY
3" CONDUIT TO HH 11:
1-12/C#14
1-6/C#14
1-4/C#14
1-3/C#14
1-3/C#20
1-2/C#14
1-1/C#6 INS. GR.

LOOP DETECTOR CHART

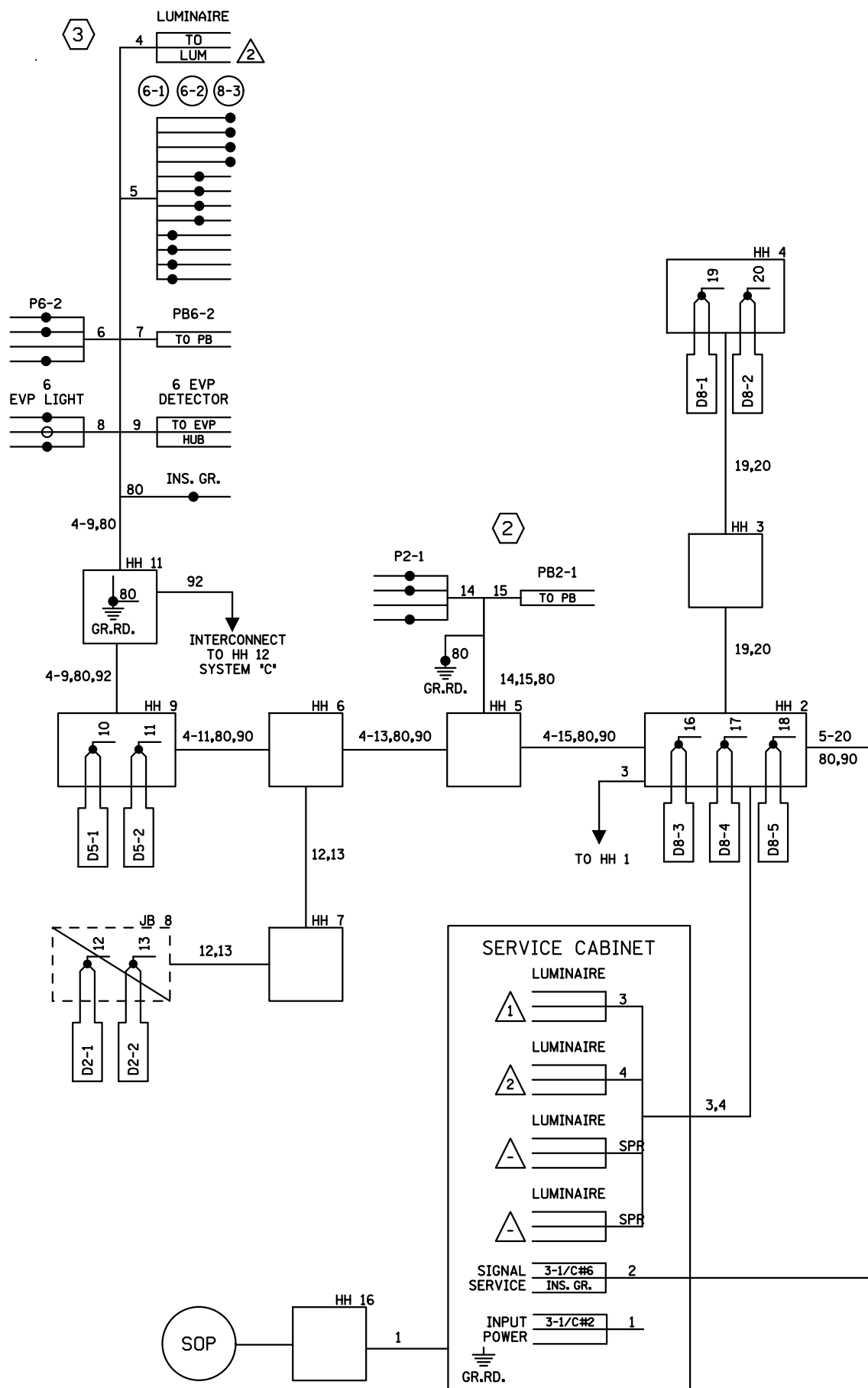
NUMBER	SIZE (FT)	LOCATION
D2-1, D2-2	6x6	180
D5-1	2-6x6	40
D5-2	6x6	10
D6-1, D6-2	6x6	180
D8-1, D8-2	6x6	250
D8-3	6x6	5 & 20
D8-4	6x6	5 & 20
D8-5	6x6	5

-ALL LOOP DETECTORS SHALL BE ARE
-LOCATION: DISTANCE FROM
CROSSWALK/STOP BAR IN FEET

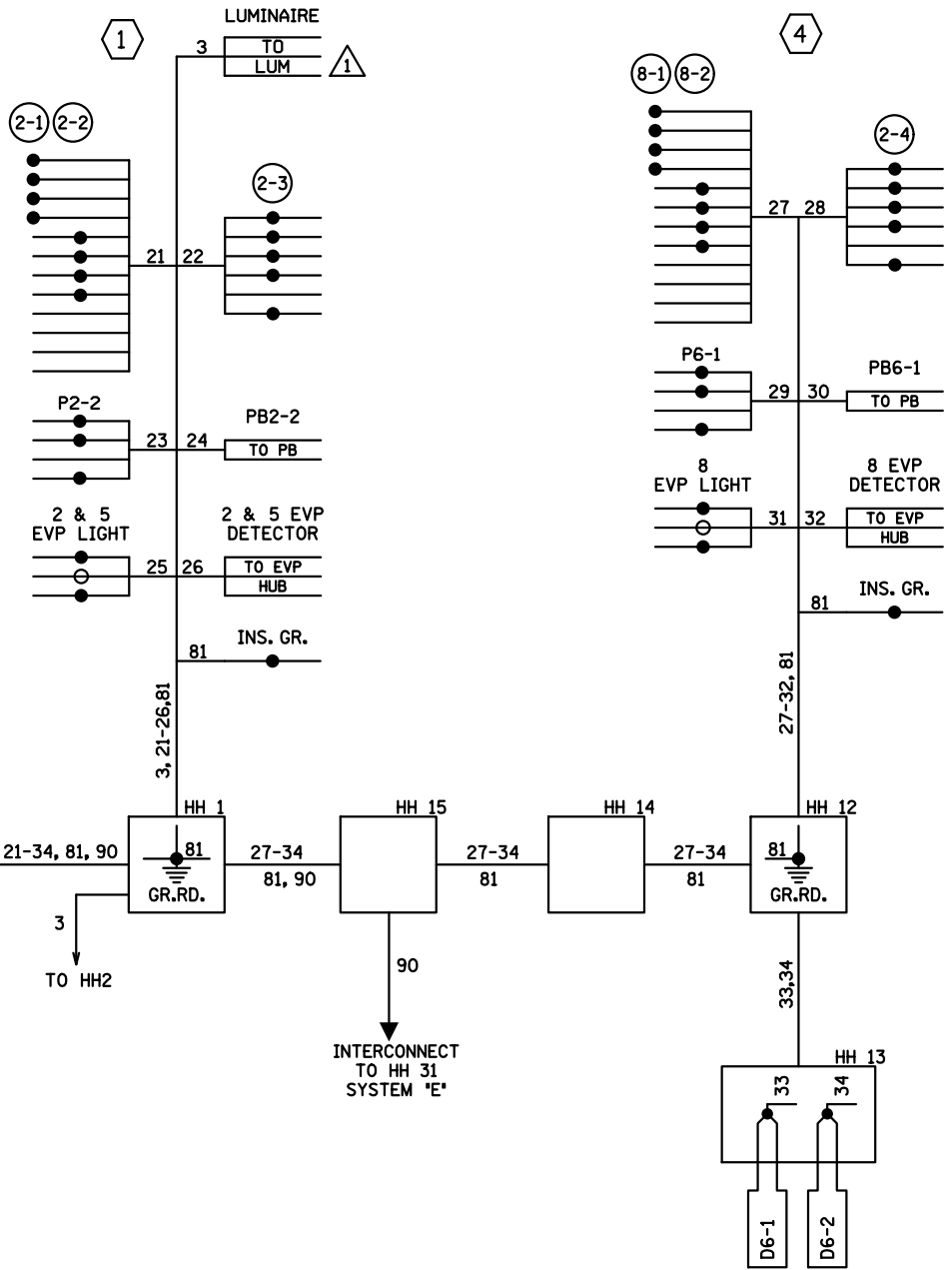
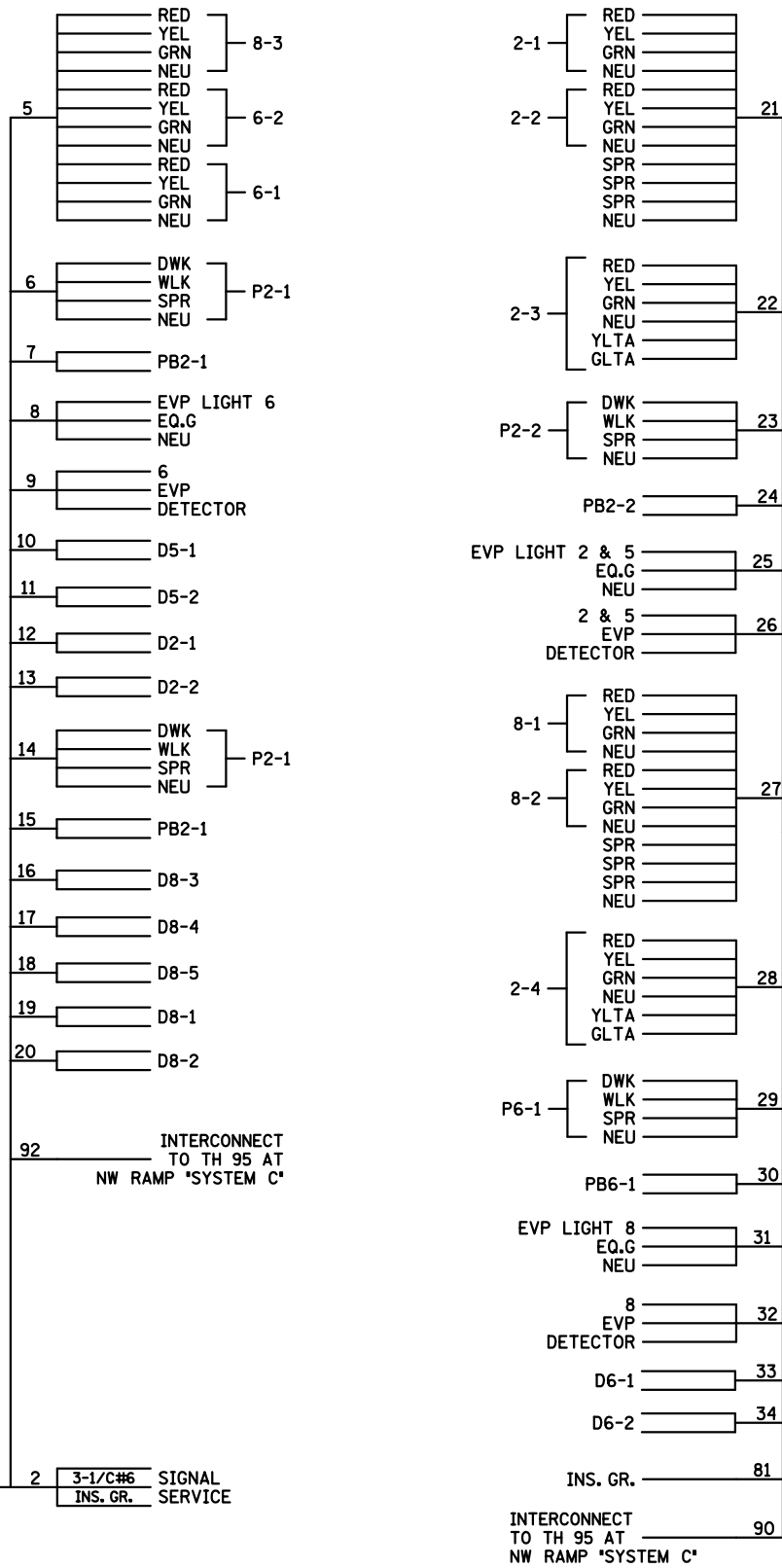


PLOTTED/REVISED: 8/9/2012

DISTRICT #: METRO
 IPLOT NAME: wiring diagram
 PATH & FILENAME: \$\$\$PATH\$\$\$FILENAME: IP_PWP-d0780683\T21757_sgl.dgn



CABINET CONTROLLER



- NOTES:
- LUMINAIRES ARE UNMETERED.
 - SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET (NO BATTERIES).
 - FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

NO	DATE	BY	CHK	REVISIONS
1	08-02-12	SJKEJA		AS-BUILT PLAN

Drawn By:
M SCHWARTZ
 Designed By:
M SCHWARTZ
 Checked By:
S DELMORE
 Approved By:
S DELMORE

I HEREBY CERTIFY THAT THIS PLAN SHEET 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.

SEAN DELMORE
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SIGNAL PLAN
 WIRING DIAGRAM
 TH 35 AT TH95 EAST-RAMPS-SYSTEM "D"
 STATE PROJ NO 1307-19 (TH 95) - STATE PROJ NO 225-010-04
 CITY OF NORTH BRANCH PROJ NO 2009-01

SHEET
 \$s125
 OF
 \$TOT
 SHEETS