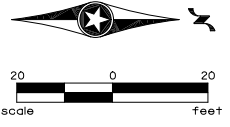


PLOTTED/REVISED: 22-MAR-2023

DISTRICT #: Metro  
PLOT NAME: T1735514.sgl  
PATH & FILENAME: Projects\DM\_POS\062\0000\Traffic\Signals\4194\_21083\_Portland\_N\_Ramp\_1735514\T1735514\_sgl.dgn

LED SIGNAL INDICATIONS				
FACE	R	Y	FYA	G
2-1,2-2	●	●		●
5-1,5-2	←	←	←	←
6-1,6-2,6-3	●	●		●
8-1,8-2,8-3	●	●		●

-ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12"  
-EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD



VIDEO DETECTION				
CAMERA		LOCATION		PHASE
NO.	TYPE	POLE	MOUNT LOC.	
V-1	360 DEG.	1	LUM EXTENSION	ALL

4 PA85 POLE FOUNDATION  
TYPE PA85-A-25-D40-9 (DAVIT AT 350 DEG)  
2-SWING AWAY HINGES  
2-ONE-WAY SIGNALS OVERHEAD  
(0' AND 11' FROM END OF MAST ARM)  
1-TYPE 10A POLE MOUNTED AT 90 DEG  
1-TYPE 10B POLE MOUNTED AT 180 DEG  
1-C.D. PED IND AT 180 DEG  
ONE-WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASE 6)  
1-PTZ CAMERA MOUNTED ON LUMINARIE  
LUMINAIRE- 250 WATT HPS  
TYPE D SIGN  
1-R9-3a SIGN FACING POLE 3  
EXTEND INTO HH-9:  
3" RSC  
2-12/C#12  
1-3/C#12 (LUM)  
1-3/C#14  
1-3/C#20  
1-CAT5E (CAMERA)  
1-1/C#6 INS GR

1-PED PUSH BUTTON STA  
1-APS PB & SIGN (PB6-2) (RT ARROW)  
1 1/4" PVC TO HH 9:  
1-2/C #14  
1-1/C #6 INS GR

4" NMC  
2-12/C#12  
1-3/C#12 (LUM)  
1-3/C#14  
1-2/C#14  
1-3/C#20  
1-6PR#19  
1-CAT5E  
1-1/C#6 INS GR

1-PED PUSH BUTTON STA  
1-APS PB & SIGN (PB8-2) (RT ARROW)  
1 1/4" PVC TO HH 1:  
1-2/C #14  
1-1/C #6 INS GR

1 PA85 POLE FOUNDATION  
TYPE PA85-A-15-D40-9(DAVIT AT 350 DEG)  
1-ONE-WAY SIGNAL OVERHEAD  
(0'FROM END OF MAST ARM)  
2-TYPE 10B POLE MOUNTED AT 90 AND 180 DEG  
2-C.D. PED INDS AT 90 AND 180 DEG  
ONE-WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASE 8)  
1-GRID SMART CAMERA  
1-APS PB & SIGN (PB6-1) (LT ARROW)  
TYPE D SIGN  
EXTEND INTO HH-3:  
3" RSC  
2-12/C #12  
3-3/C #12  
1-3/C #12 (LUM)  
1-3/C #20  
1-ETHERNET CABLE

A EQUIPMENT PAD -  
CONTROLLER & CABINET  
SIGNAL SERVICE CABINET (SEE DETAIL)  
EXTEND 4" CONDUIT TO HH-1:  
1-12/C#14  
1-6/C#14  
3-4/C#14  
1-3/C#14  
4-2/C#14  
1-3/C#20  
1-1/C#6 INS GR  
  
EXTEND 4" CONDUIT TO HH-10:  
4-12/C#12  
2-3/C#12  
1-3/C#14  
1-2/C#14  
2-3/C#20  
1-ETHERNET CABLE  
1-CAT5E (CAMERA)  
1-1/C#6 INS GR

2" & 3" RSC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)  
3/4" PVC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)

2" RSC TO SERVICE CABINET  
2-1/C#6  
1-1/C#6 INS.GR.

SERVICE CABINET TO HH-10 WITH:  
2" RSC  
2-3/C#12 (LUM.)  
1-3/C#14 (LUM)

HH-1 TO HH-10:  
2" CONDUIT  
1-3/C#14 (LUM)

B SOURCE OF POWER  
BY XCEL ENERGY  
(WOOD POLE MOUNTED TRANSFORMER)  
2" NMC TO SERVICE CABINET WITH:  
3-1/C#2

2" PVC  
1-6PR#19  
INTERCONNECT TO  
TH 62 @ CSAH 35  
(PORTLAND AVE S)  
S RAMP

2" PVC  
1-6PR#19

4" NMC  
1-12/C#14  
1-6/C#14  
3-4/C#14  
1-3/C#14 (LUM)  
1-3/C#14  
3-2/C#14  
1-3/C#20

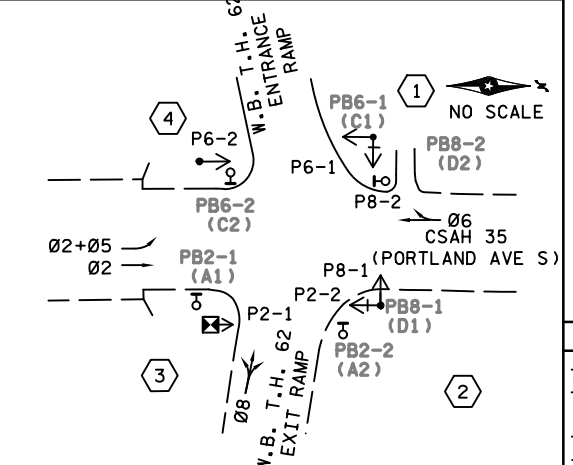
3" PVC  
1-4/C#14  
1-2/C#14  
1-1/C#6 INS GR

1-PED PUSH BUTTON STA  
1-APS PB & SIGN (PB2-2) (RT ARROW)  
1 1/4" PVC TO HH 2:  
1-2/C #14  
1-1/C #6 INS GR

3 10' SIGNAL PEDESTAL POLE AND BASE  
TYPE 4D  
1-C.D. PED IND  
1-R9-3a FACING POLE 4  
EXTEND INTO HH-3:  
3" RSC  
1-4/C#14  
1-1/C#6 INS GR

2 PA85 POLE FOUNDATION  
TYPE PA85-A-25  
2-SWING AWAY HINGES  
2-ONE-WAY SIGNALS OVERHEAD  
(0' AND 11' FROM END OF MAST ARM)  
TYPE 30A POLE MOUNTED AT 90 DEG  
TYPE 10B POLE MOUNTED AT 180 DEG  
2-C.D. PED INDS AT 90 AND 180 DEG  
ONE-WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 2 AND 5)  
1-APS PB & SIGN (PB8-1) (LT ARROW)  
TYPE D SIGN  
1-R10-12 SIGN ADJACENT TO HEAD 2-3  
EXTEND INTO HH-2:  
3" CONDUIT  
1-12/C#14  
1-6/C#14  
2-4/C#14  
1-3/C#14  
1-3/C#14 (LUM)  
1-2/C#14  
1-3/C#20

CONTROLLER PHASING, PEDESTRIAN INDICATIONS & PUSHBUTTON LAYOUT



SIGNAL OPERATION NOTES  
- NORMAL OPERATION IS 4 PHASE  
- 05 SHALL BE FLASHING YELLOW ARROWS BY TIME OF DAY  
- 02 & 06 SHALL BE ON VEHICLE RECALL  
- FLASH MODE SHALL BE ALL RED

BY	DATE	REVISIONS
SJK	2/27/23	AS-BUILT PLAN SP 2775-30

SYSTEM ID: 1735514 T.E. 5633  
METER ADDRESS: 6145 PORTLAND AVE S  
MASTER ID: 22455 T.E.

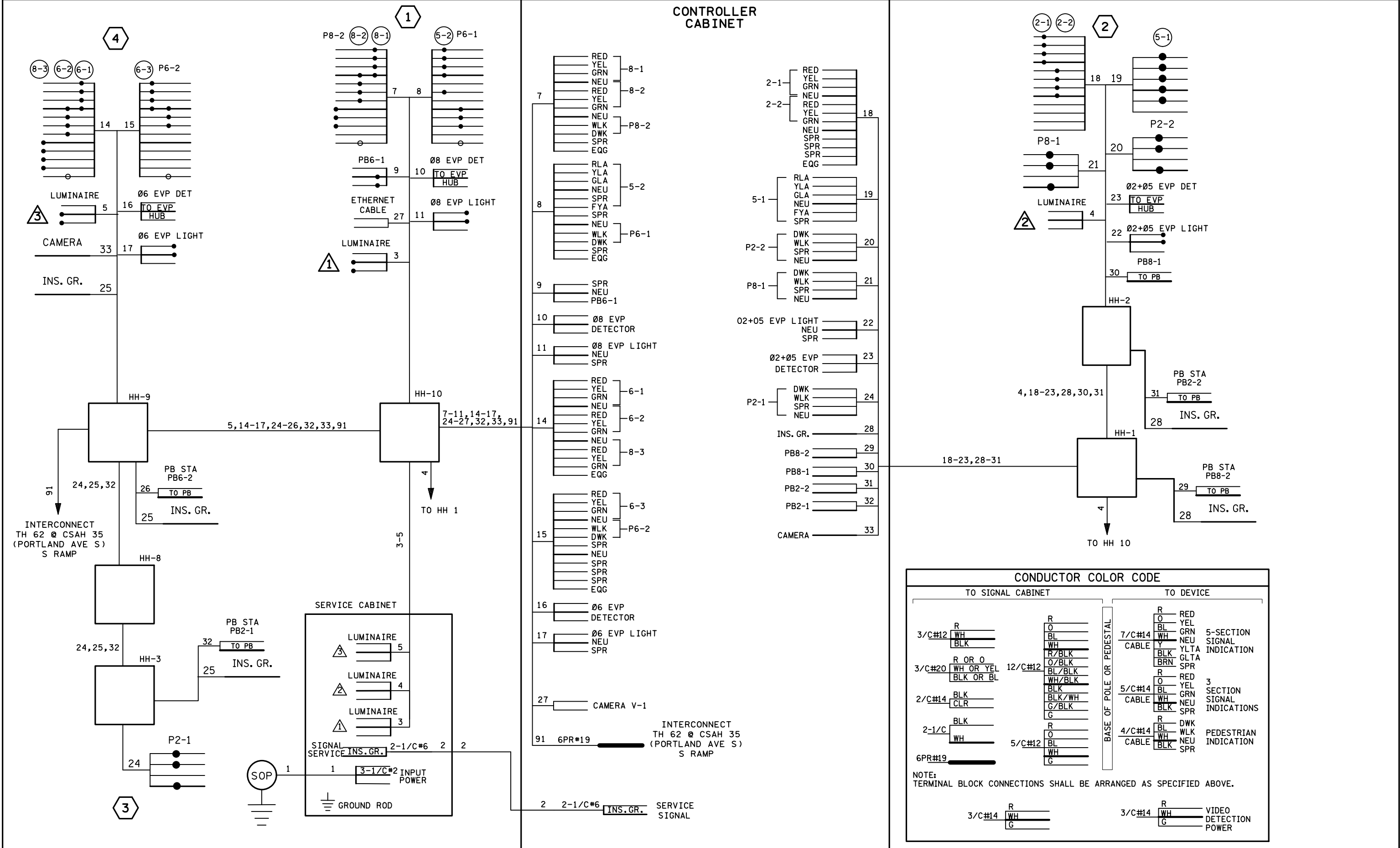
INTERSECTION LAYOUT  
TRAFFIC CONTROL SIGNAL SYSTEM  
TH 62 @ CSAH 35 (PORTLAND AVE) N RAMP  
IN MINNEAPOLIS, HENNEPIN COUNTY

S.A.P. NO.	DRAWN BY: MAS	CKD BY: MPG	DATE: 5-24-12
CERTIFIED BY _____	LIC. NO. 19863	DATE: 5-31-12	
STATE PROJ. NO. 2775-30		SHEET NO. 1 OF 2 SHEETS	

PLOTTED/REVISED: 22-MAR-2023

DISTRICT #: Metro  
 IPLOT NAME: T1735514.sgl  
 PATH & FILENAME: Projects\DM\_POS\062\0000\Traffic\Signals\4194\_21083\_Portland\_N\_Ramp\_1735514\T1735514\_sgl.dgn

**CONTROLLER CABINET**



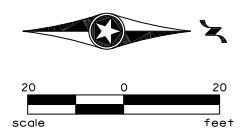
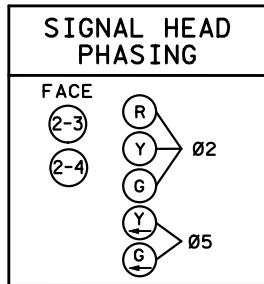
BY	DATE	REVISIONS	SYSTEM ID: 1735514 T.E. 5633	<b>WIRING DIAGRAM TRAFFIC CONTROL SIGNAL SYSTEM TH 62 @ CSAH 35 (PORTLAND AVE) N RAMP IN MINNEAPOLIS, HENNEPIN COUNTY</b>	S.A.P. NO.	DRAWN BY: MAS	CKD BY: MPG	DATE: 5-24-12
SJK	2/27/23	AS-BUILT PLAN SP 2775-30	METER ADDRESS: 6145 PORTLAND AVE S MASTER ID: 22455 T.E.		CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER	LIC. NO. 19863	DATE: 5-31-12	
				<b>STATE PROJ. NO. 2775-30</b>	<b>SHEET NO. 2 OF 2 SHEETS</b>			

PLOTTED/REVISED: 8/2/2013

DISTRICT #: METRO  
IPLOT NAME: INTERSECTION  
PATH & FILENAME: IP\_PWP-d078104\T21083\_sgl.dgn

LED SIGNAL INDICATIONS						
FACE	R	Y	G	Y	G	
2-1,2-2	●	●	●			
2-3,2-4	●	●	●	←	←	
6-1,6-2,6-3	●	●	●			
8-1,8-2,8-3	●	●	●			

-ALL VEHICLE SIGNAL INDICATIONS ARE 12"  
-EACH SIGNAL FACE HAS A BACKGROUND SHIELD



PA85 POLE FOUNDATION  
TYPE PA85-A-25-D40-9 (DAVIT AT 350 DEG)  
2-SWING AWAY HINGES  
2-ONE-WAY SIGNALS OVERHEAD  
(0' AND 11' FROM END OF MAST ARM)  
1-TYPE 10A POLE MOUNTED AT 90 DEG  
1-TYPE 10B POLE MOUNTED AT 180 DEG  
1-C.D. PED IND AT 180 DEG  
ONE-WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASE 6)  
1-VIDEO DETECTION MOUNTED ON 6'  
EXTENSION ON MAST ARM  
LUMINAIRE- 250 WATT HPS  
TYPE D SIGN  
1-R9-3a SIGN FACING POLE 3  
EXTEND INTO HH-9:  
3" RSC  
2-12/C#12  
1-3/C#12  
1-3/C#12 (LUM.)  
1-3/C#14  
1-3/C#20  
1-COAXIAL CABLE

4" RSC  
2-12/C#12  
1-3/C#12  
1-3/C#12 (LUM.)  
1-3/C#14  
1-3/C#20  
1-COAXIAL CABLE

1 STA. 54+82, 37' LT  
PA85 POLE FOUNDATION  
TYPE PA85-A-15-D40-9 (DAVIT AT 350 DEG)  
1-ONE-WAY SIGNAL OVERHEAD  
(0' FROM END OF MAST ARM)  
2-TYPE 10B POLE MOUNTED AT 90 AND 180 DEG  
2-C.D. PED INDS AT 90 AND 180 DEG  
ONE-WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASE 8)  
I-VIDEO DETECTION MOUNTED ON 6' EXTENSION  
ON MAST ARM  
1-APS PB & SIGN (PB8-2) (RT ARROW)  
TYPE D SIGN  
EXTEND INTO HH-3:  
3" RSC  
2-12/C #12  
3-3/C #12  
1-3/C #12 (LUM.)  
1-3/C #20  
1-COAXIAL CABLE

A STA. 54+88, 42' LT  
EQUIPMENT PAD -  
MASTER CONTROLLER & CABINET  
SIGNAL SERVICE CABINET (SEE DETAIL)  
EXTEND #12 RSC INTO HH-1 WITH:  
4-3/C#12  
1-3/C#14  
1-3/C#20  
1-COAXIAL CABLE  
1-2/C#14  
EXTEND #12 RSC INTO HH-10 WITH:  
4-3/C#12  
2-3/C#14  
2-3/C#20  
2-COAXIAL CABLE  
1-6PR#19  
1-2/C#14  
2" & 3" RSC STUBBED OUT (THREADED  
AND CAPPED BOTH ENDS)  
3/4" PVC STUBBED OUT (THREADED  
AND CAPPED BOTH ENDS)  
2" RSC TO SERVICE CABINET  
2-1/C#6  
1-1/C#6 INS.GR.  
SERVICE CABINET TO HH-10 WITH:  
2" RSC  
2-3/C#12 (LUM.)  
SERVICE CABINET TO HH-11 WITH:  
2" RSC  
3-1/C#2

VIDEO DETECTOR CHART		
DESIGNATION	CAMERA NO.	LOCATION
V2-1, V2-2	V-2	200'
V5-1	V-2	20'
V5-2	V-2	5'
V6-1, V6-2	V-3	180'
V8-1, V8-2	V-1	120'
V8-3	V-1	0'
V8-4	V-1	5'

-LOCATION:  
DISTANCE FROM CROSSWALK IN FEET

B SOURCE OF POWER  
BY XCEL ENERGY  
(WOOD POLE MOUNTED TRANSFORMER)  
2" RSC RISER WITH WEATHERHEAD  
AND 2" RSC TO HH-11 WITH:  
3-1/C#2

1-PED PUSH BUTTON STA  
1-APS PB & SIGN (PB6-2) (RT ARROW)  
1 1/4" PVC TO HH 9:  
1-3/C #12

1-PED PUSH BUTTON STA  
1-APS PB & SIGN (PB6-1) (LT ARROW)  
1 1/4" PVC TO HH 10:  
1-2/C #14

4" RSC  
2-12/C#12  
4-3/C#12  
1-3/C#14  
1-2/C#14  
1-3/C#20  
1-COAXIAL CABLE

2" PVC  
1-6PR#19  
INTERCONNECT TO  
TH 62 @ CSAH 35  
(PORTLAND AVE S)  
S RAMP

2" PVC  
1-6PR#19

(SOUTH RAMP)  
HH 8

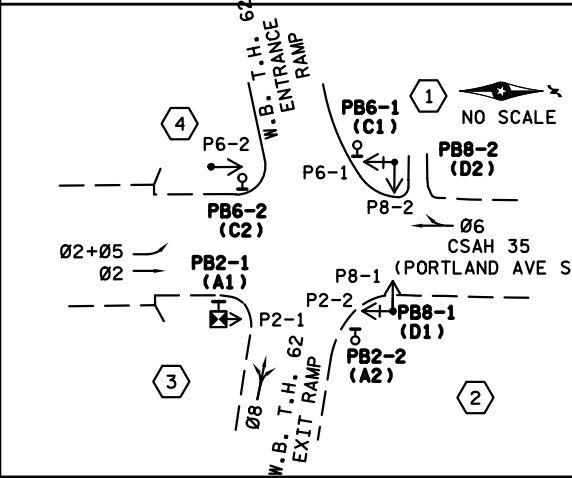
CSAH 35 (PORTLAND AVE S)  
(35 M.P.H.)

2 STA. 54+87, 35' RT  
PA85 POLE FOUNDATION  
TYPE PA85-A-25  
2-SWING AWAY HINGES  
2-ONE-WAY SIGNALS OVERHEAD  
(0' AND 11' FROM END OF MAST ARM)  
TYPE 10A POLE MOUNTED AT 90 DEG  
TYPE 10B POLE MOUNTED AT 180 DEG  
2-C.D. PED INDS AT 90 AND 180 DEG  
ONE-WAY EVP DETECTOR AND  
CONFIRMATORY LIGHT (PHASES 2 AND 5)  
I-VIDEO DETECTION MOUNTED ON 6' EXTENSION  
ON MAST ARM  
1-APS PB & SIGN (PB8-1) (LT ARROW)  
TYPE D SIGN  
1-R10-12 SIGN ADJACENT TO HEAD 2-3  
EXTEND INTO HH-3:  
3" RSC  
2-12/C#12  
2-3/C#12  
1-3/C#14  
1-3/C#20  
1-COAXIAL CABLE

1-PED PUSH BUTTON STA  
1-APS PB & SIGN (PB2-2) (RT ARROW)  
1 1/4" PVC TO HH 4:  
1-2/C #14

3 STA. 54+34, 38' RT PEDESTAL FOUNDATION  
10' SIGNAL PEDESTAL POLE AND BASE  
TYPE 4D  
1-C.D. PED IND  
1-APS PB & SIGN (PB2-1) (LT ARROW)  
1-R9-3a SIGN FACING POLE 4  
EXTEND INTO HH-5:  
3" RSC  
2-3/C#12

CONTROLLER PHASING, PEDESTRIAN INDICATIONS & PUSHBUTTON LAYOUT

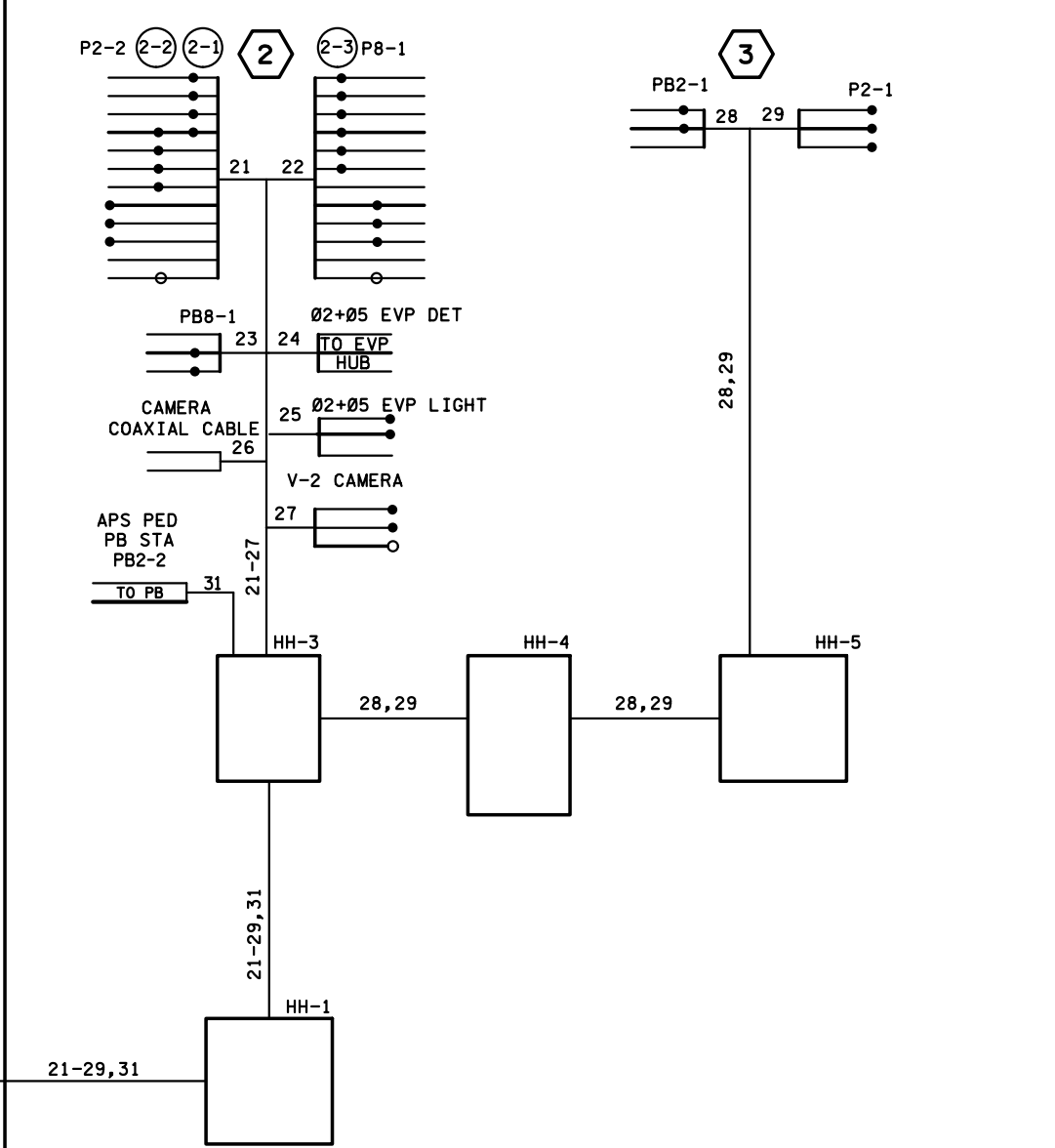
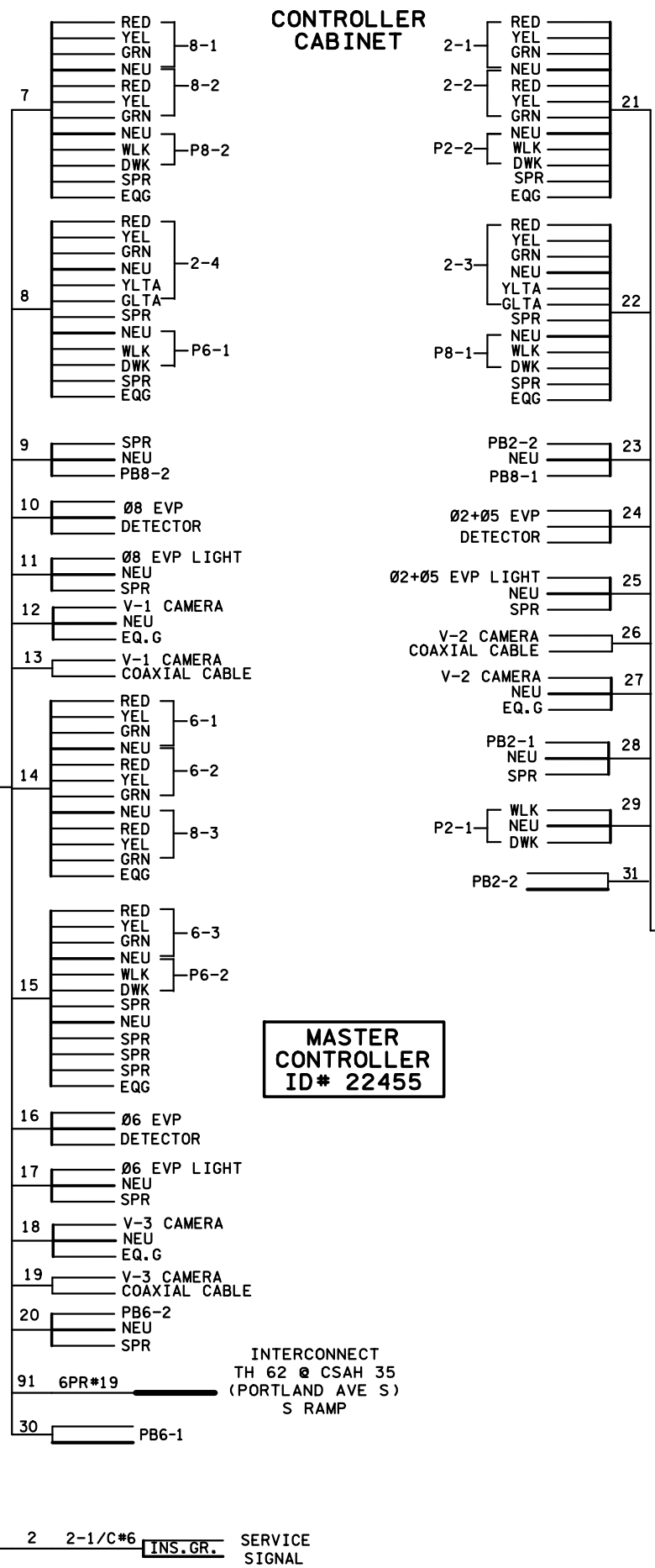
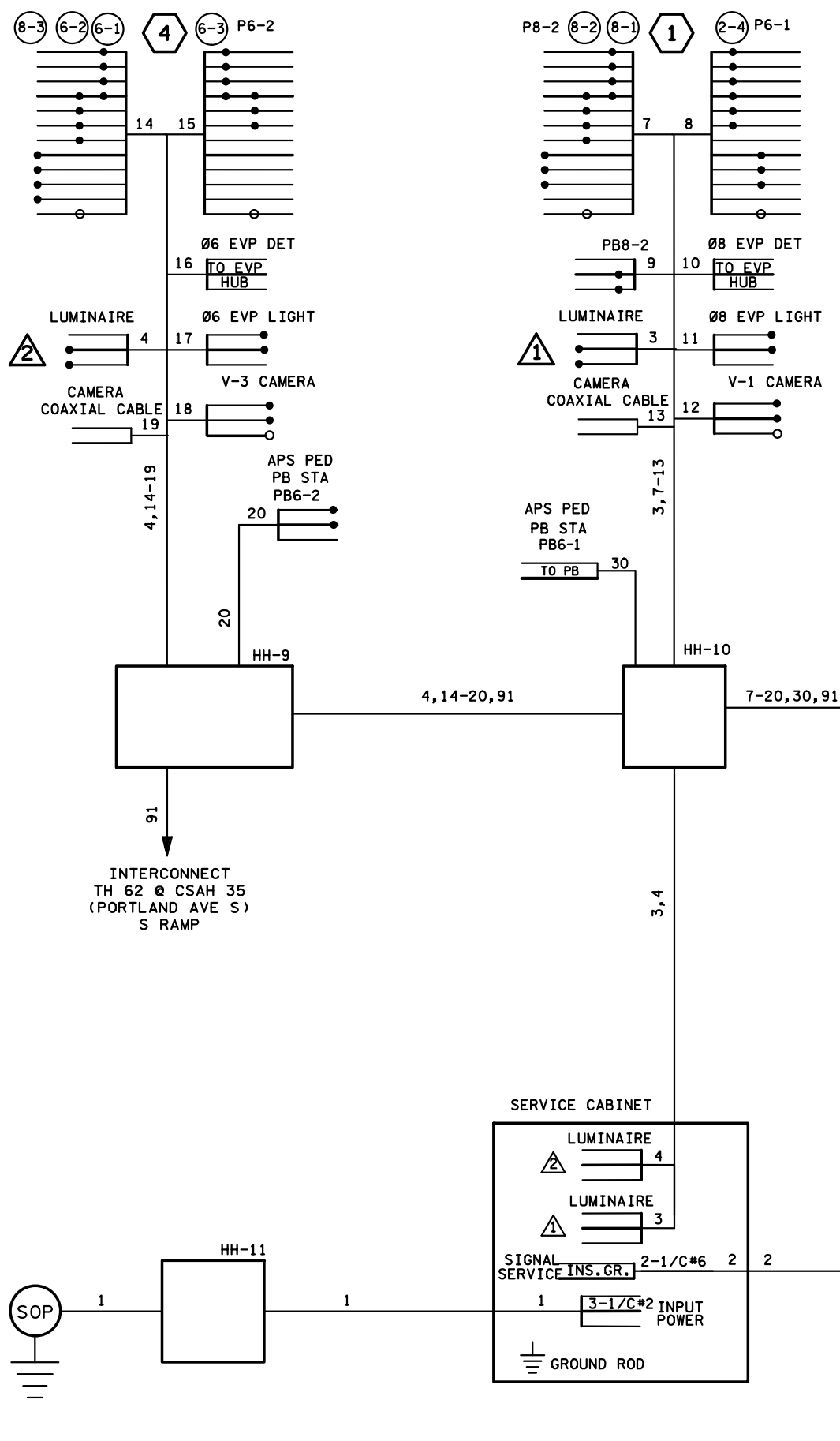


SIGNAL OPERATION NOTES  
- NORMAL OPERATION IS 4 PHASE  
- FLASH MODE SHALL BE ALL RED  
- Ø5 SHALL BE PROTECTED/PERMISSIVE LEFT TURN  
- Ø2 & Ø6 SHALL BE ON VEHICLE RECALL

BY	DATE	REVISIONS	SYSTEM ID: 21083	T.E. 5633	INTERSECTION LAYOUT TRAFFIC CONTROL SIGNAL SYSTEM TH 62 @ CSAH 35 (PORTLAND AVE) N RAMP IN MINNEAPOLIS, HENNEPIN COUNTY		S.A.P. NO.	DRAWN BY: MAS	CKD BY: MPG	DATE: 5-24-12
SJK	11-21-11	AS-BUILT PLAN	METER ADDRESS: 6145 PORTLAND AVE S				CERTIFIED BY: <i>Michael P. Lubinsky</i>	LIC. NO. 19863	DATE: 5-31-12	
EJA	01-24-12	SPELLING, BRACKETING, AND PB CORRECTIONS	MASTER ID: 22455	T.E.			STATE PROJ. NO.		SHEET NO. 1 OF 2 SHEETS	
EJA	08-02-13	AS-BUILT OF SP 8825-356 (APS)								

PLOTTED/REVISED: 8/2/2013

DISTRICT #: METRO  
IPLOT NAME: WIRING  
PATH & FILENAME: IP\_PWP-d078104\N21083\_sgl.dgn

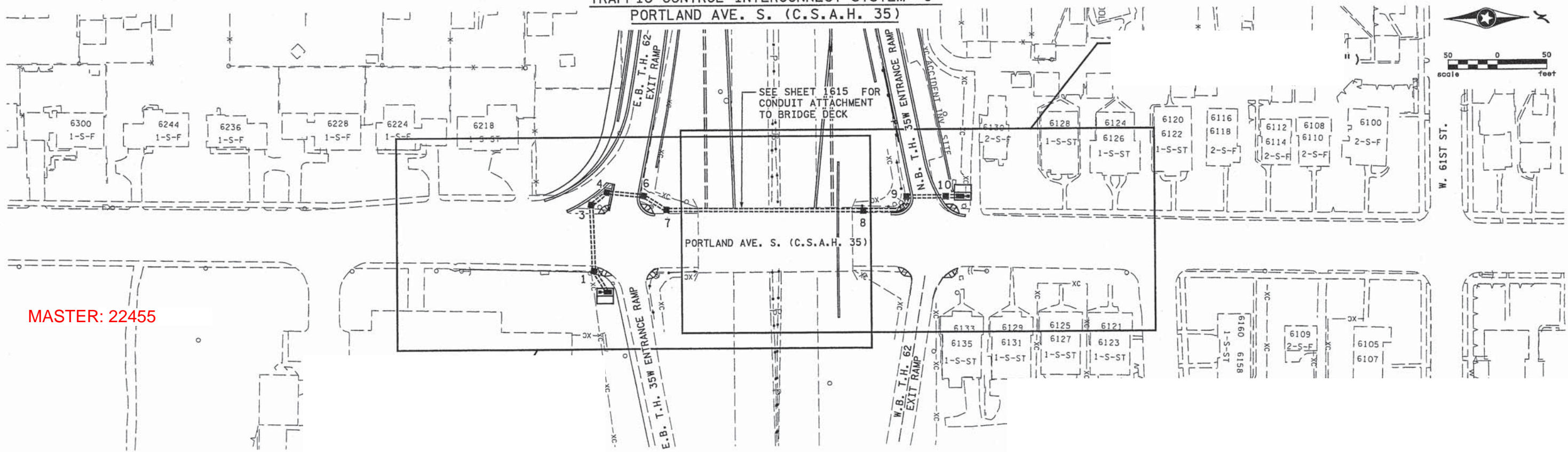


CONDUCTOR COLOR CODE			
TO SIGNAL CABINET	TO DEVICE		
3/C#12 R WH BLK	R O BL WH R/BLK O/BLK BL/BLK WH/BLK BLK BLK/WH G/BLK G	R O BL WH Y BLK BRN R O BL WH BLK BLK R O BL WH G	5-SECTION SIGNAL INDICATION 3 SECTION SIGNAL INDICATIONS PEDESTRIAN INDICATION VIDEO DETECTION POWER
3/C#20 R OR O WH OR YEL BLK OR BL	12/C#12 R/BLK O/BLK BL/BLK WH/BLK BLK BLK/WH G/BLK G	7/C#14 R O BL WH Y BLK BRN R O BL WH BLK BLK R O BL WH G	
2/C#14 BLK CLR	5/C#14 R O BL WH BLK BLK R O BL WH G	5/C#14 R O BL WH BLK BLK R O BL WH G	
2-1/C BLK WH	4/C#14 R O BL WH BLK BLK R O BL WH G	4/C#14 R O BL WH BLK BLK R O BL WH G	
6PR#19	5/C#12 R O BL WH BLK BLK R O BL WH G	5/C#12 R O BL WH BLK BLK R O BL WH G	
	3/C#14 R WH G	3/C#14 R WH G	

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

BY: SJK	DATE: 11-21-11	REVISIONS: AS-BUILT PLAN	SYSTEM ID: 21083	T.E. 5633	<b>WIRING DIAGRAM</b> <b>TRAFFIC CONTROL SIGNAL SYSTEM</b> <b>TH 62 @ CSAH 35 (PORTLAND AVE) N RAMP</b> <b>IN MINNEAPOLIS, HENNEPIN COUNTY</b>	S.A.P. NO.	DRAWN BY: MAS	CKD BY: MPG	DATE: 5-24-12
EJA	01-24-12	SPELLING, BRACKETING, AND PB CORRECTIONS	METER ADDRESS: 6145 PORTLAND AVE S			CERTIFIED BY: <i>Michael P. Lubinsky</i>	LIC. NO. 19863	DATE: 5-31-12	
EJA	08-02-13	AS-BUILT OF SP 8825-356 (APS)	MASTER ID: 22455	T.E.		STATE PROJ. NO.			SHEET NO. 2 OF 2 SHEETS

TRAFFIC CONTROL INTERCONNECT SYSTEM  
 PORTLAND AVE. S. (C.S.A.H. 35)



MASTER: 22455

11:07:22 PM  
 1/5/2006  
 h:\proj\cots\1702-1\h1-mu\plan\c2782281.icc.dgn

NO	DATE	BY	CKD	APPR	REVISION

I hereby certify that this plan, specification, or report 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.  
 Print Name: **ADRIAN S. POTTER**  
*Adrian S. Potter*  
 Date: 1-9-06 License #: 42785

DRAWN BY  
 R.W.SMITH  
 DESIGNED BY  
 R.W.SMITH  
 CHECKED BY  
 A.POTTER  
 COMM. NO. 0034702



**INTERCONNECT PLAN  
 TH 62 @ CSAH 35 (PORTLAND AVE S)  
 NORTH RAMP IN MINNEAPOLIS,  
 HENNEPIN COUNTY**