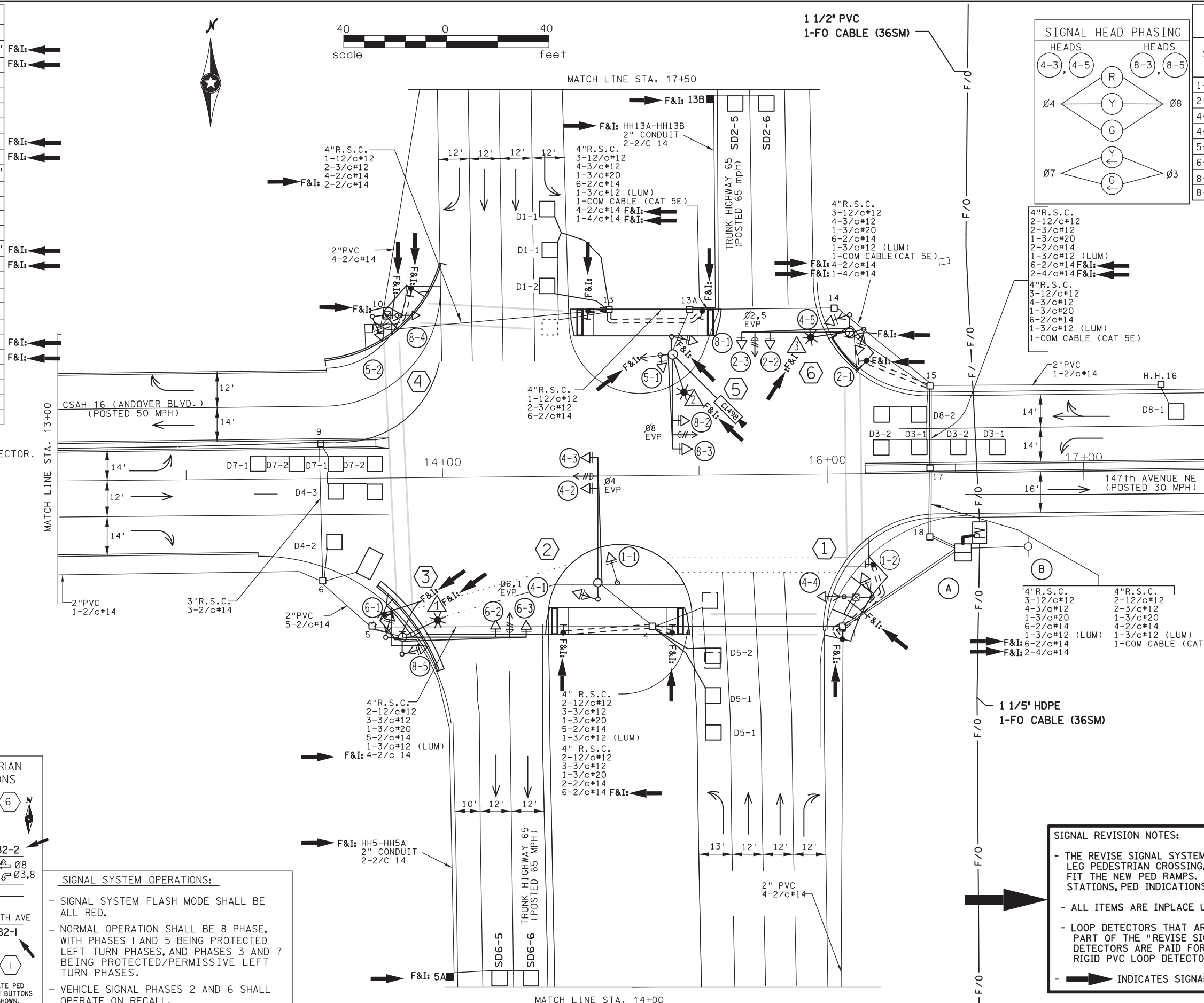


PLOTTED/REVISED: 14-DEC-2023

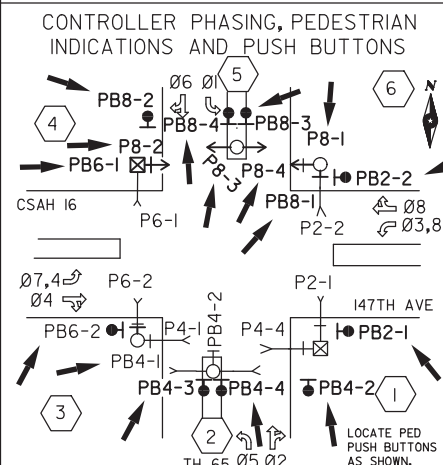
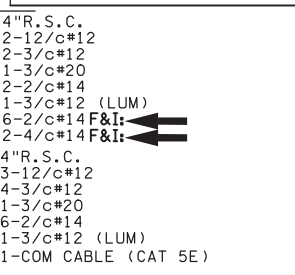
DISTRICT #: Metro
PLOT NAME: T38245_sgl_46
FILE NAME: Projects\DM_FOS\06500000\Traffic\Signals\975_38245_CSAH(16) ANDOVER-14TH AVE NE 1736454PENDING\T38245_sgl.dgn

PVC LOOP DETECTORS		
NUMBER	SIZE (FT.)	LOCATION
D1-1	2-6x6	20' & 35'
D1-2	6x6	5'
D2-1	6x6	625'
D2-2	6x6	625'
D2-3	6x6	315'
D2-4	6x6	315'
SD2-5	6x6	-150'
SD2-6	6x6	-150'
D3-1	2-6x6	20' & 50'
D3-2	2-6x6	5' & 35'
D4-1	6x6	400'
D4-2	6x12 & 6x6	5' & 20'
D4-3	2-6x6	5' & 20'
D5-1	2-6x6	20' & 35'
D5-2	6x6	5'
D6-1	6x6	625'
D6-2	6x6	625'
D6-3	6x6	315'
D6-4	6x6	315'
SD6-5	6x6	-150'
SD6-6	6x6	-150'
D7-1	2-6x6	20' & 50'
D7-2	2-6x6	5' & 35'
D8-1	6x6	120'
D8-2	2-6x6	5' & 20'

LOCATION = DISTANCE FROM CROSSWALK OR STOP BAR TO FRONT OF LOOP DETECTOR.



LED SIGNAL FACES						
SIGNAL FACE	ALL SIGNAL INDICATIONS SHALL BE 12"					
	R	Y	G	R	Y	G
1-1, 1-2				←	←	←
2-1, 2-2, 2-3	o	o	o			
4-1, 4-2, 4-4	o	o	o			
4-3, 4-5	o	o	o	←	←	←
5-1, 5-2				←	←	←
6-1, 6-2, 6-3	o	o	o			
8-1, 8-2, 8-4	o	o	o			
8-3, 8-5	o	o	o	←	←	←



SIGNAL SYSTEM OPERATIONS:

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

SIGNAL REVISION NOTES:

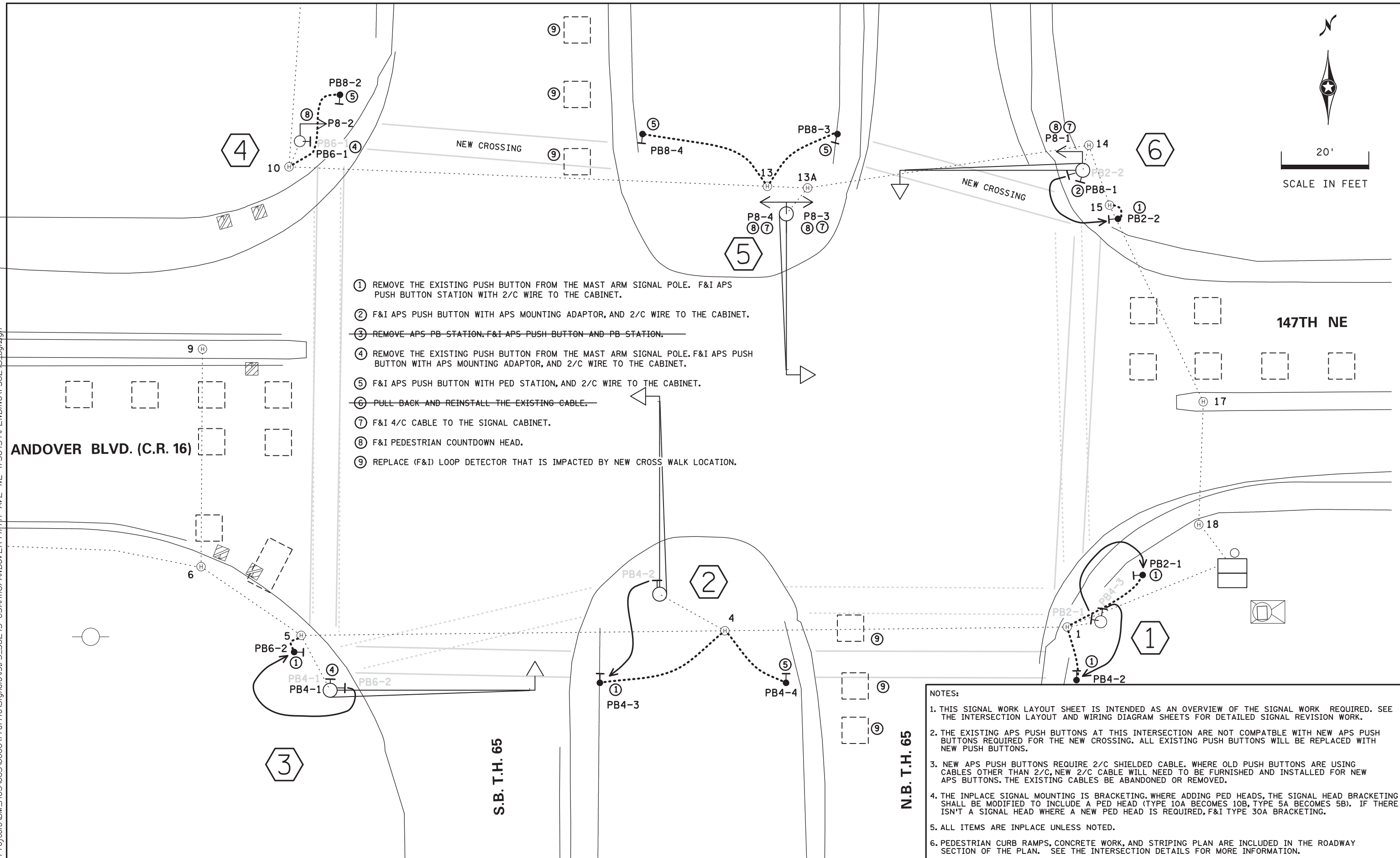
- THE REVISE SIGNAL SYSTEM WORK CONSISTS OF ADDING THE NORTH LEG PEDESTRIAN CROSSING, AND REVISING OTHER PUSH BUTTONS TO FIT THE NEW PED RAMPS. WORK INCLUDES APS PUSH BUTTONS, PB STATIONS, PED INDICATIONS, LED LUMINAIRES, AND WIRING.
- ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
- LOOP DETECTORS THAT ARE IMPACTED ARE NOT INCLUDED AS PART OF THE "REVISE SIGNAL SYSTEM" PAY ITEM. LOOP DETECTORS ARE PAID FOR SEPARATELY UNDER ITEM "2565 RIGID PVC LOOP DETECTOR " BY THE EACH.
- INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

BY	DATE	REVISIONS	SYSTEM ID: 1736454	T.E. 103233	S.P.002-632-021, S.P.106-020-040, S.P.106-125-009	DRAWN BY:HRL	CKD BY:CDB	DATE:10/10/23
			METER ADDRESS: 14657 HIGHWAY 65		CERTIFIED BY	LIC. NO. 26829		DATE: 12/8/23
			OLD SYSTEM ID: 38245		STATE PROJ.NO. 0208-165 (T.H.65) SHEET NO. SS50 OF SS87 SHEETS			

REVISE SIGNAL SYSTEM "L" INTERSECTION LAYOUT
 TH 65 AT ANDOVER BLVD. C.R. 16/147th AVE
 HAM LAKE, ANOKA COUNTY

PLOTTED/REVISED: 3-NOV-2023

DISTRICT *: Metro
PLOT NAME: T38245_sgl_45
FILENAME: Projects\DM_FOS\065\0000\Traffic\Signal\975_38245_CSAH(16) ANDOVER-147TH AVE NE 1736454\PENDING\T38245_sgl.dgn



- ① REMOVE THE EXISTING PUSH BUTTON FROM THE MAST ARM SIGNAL POLE. F&I APS PUSH BUTTON STATION WITH 2/C WIRE TO THE CABINET.
- ② F&I APS PUSH BUTTON WITH APS MOUNTING ADAPTOR, AND 2/C WIRE TO THE CABINET.
- ~~③ REMOVE APS PB STATION, F&I APS PUSH BUTTON AND PB STATION.~~
- ④ REMOVE THE EXISTING PUSH BUTTON FROM THE MAST ARM SIGNAL POLE. F&I APS PUSH BUTTON WITH APS MOUNTING ADAPTOR, AND 2/C WIRE TO THE CABINET.
- ⑤ F&I APS PUSH BUTTON WITH PED STATION, AND 2/C WIRE TO THE CABINET.
- ~~⑥ PULL BACK AND REINSTALL THE EXISTING CABLE.~~
- ⑦ F&I 4/C CABLE TO THE SIGNAL CABINET.
- ⑧ F&I PEDESTRIAN COUNTDOWN HEAD.
- ⑨ REPLACE (F&I) LOOP DETECTOR THAT IS IMPACTED BY NEW CROSS WALK LOCATION.

NOTES:

- THIS SIGNAL WORK LAYOUT SHEET IS INTENDED AS AN OVERVIEW OF THE SIGNAL WORK REQUIRED. SEE THE INTERSECTION LAYOUT AND WIRING DIAGRAM SHEETS FOR DETAILED SIGNAL REVISION WORK.
- THE EXISTING APS PUSH BUTTONS AT THIS INTERSECTION ARE NOT COMPATIBLE WITH NEW APS PUSH BUTTONS REQUIRED FOR THE NEW CROSSING. ALL EXISTING PUSH BUTTONS WILL BE REPLACED WITH NEW PUSH BUTTONS.
- NEW APS PUSH BUTTONS REQUIRE 2/C SHIELDED CABLE. WHERE OLD PUSH BUTTONS ARE USING CABLES OTHER THAN 2/C, NEW 2/C CABLE WILL NEED TO BE FURNISHED AND INSTALLED FOR NEW APS BUTTONS. THE EXISTING CABLES BE ABANDONED OR REMOVED.
- THE INPLACE SIGNAL MOUNTING IS BRACKETING. WHERE ADDING PED HEADS, THE SIGNAL HEAD BRACKETING SHALL BE MODIFIED TO INCLUDE A PED HEAD (TYPE 10A BECOMES 10B, TYPE 5A BECOMES 5B). IF THERE ISN'T A SIGNAL HEAD WHERE A NEW PED HEAD IS REQUIRED, F&I TYPE 30A BRACKETING.
- ALL ITEMS ARE INPLACE UNLESS NOTED.
- PEDESTRIAN CURB RAMPS, CONCRETE WORK, AND STRIPING PLAN ARE INCLUDED IN THE ROADWAY SECTION OF THE PLAN. SEE THE INTERSECTION DETAILS FOR MORE INFORMATION.

BY	DATE	REVISIONS

SYSTEM ID: T.E. 103233
 METER ADDRESS:
 OLD SYSTEM ID:

**SIGNAL WORK LAYOUT
 REVISE SIGNAL SYSTEM "L"
 TH 65 AT ANDOVER BLVD. C.R. 16/147th AVE
 HAM LAKE, ANOKA COUNTY**

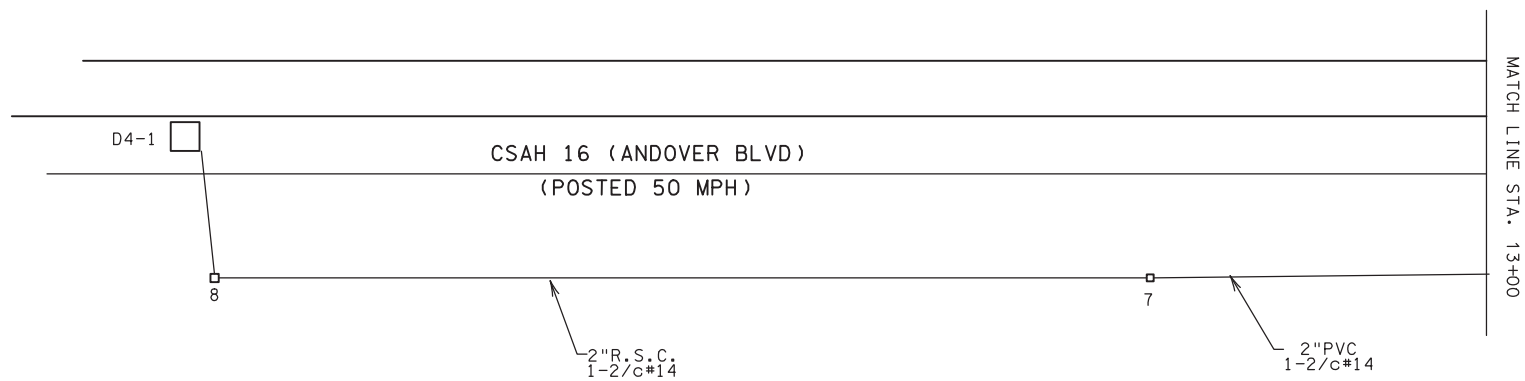
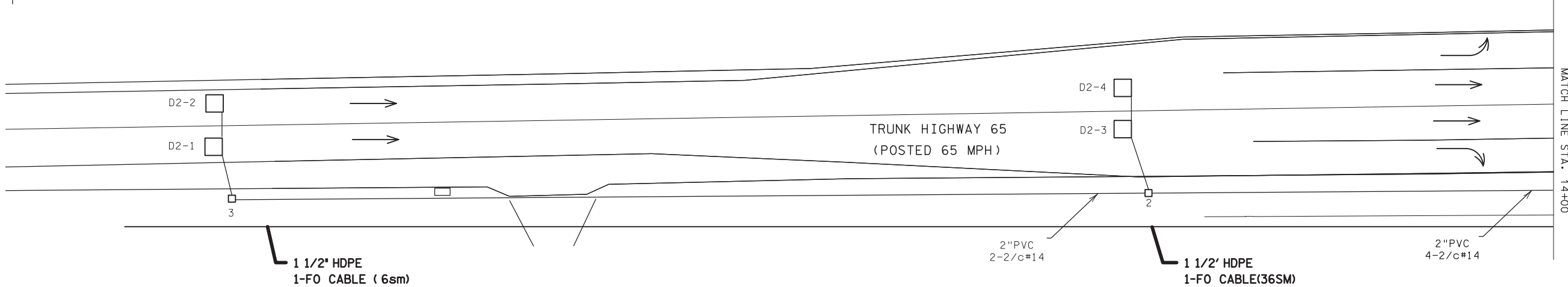
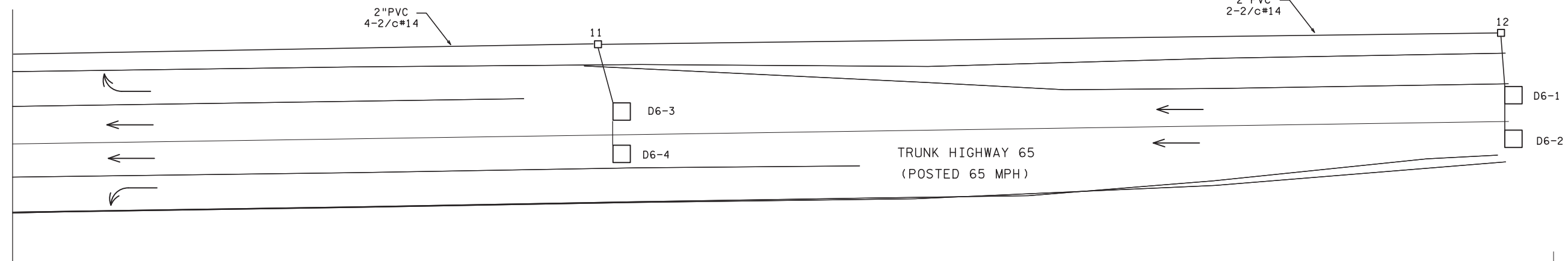
S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009
 DRAWN BY: CDB CKD BY: CDB DATE: 10/10/23
 CERTIFIED BY: *Gregory Kern* LIC. NO. 26829 DATE: 10/12/23
 LICENSED PROFESSIONAL ENGINEER
 STATE PROJ. NO. 0208-165 (T.H. 65) SHEET NO. SS48 OF SS87 SHEETS

PLOTTED/REVISED: 3-NOV-2023

DISTRICT #: Metro
PLOT NAME: T38245_sgl_4T
FILENAME: Projects\DM_FRO\06500000\Traffic\Signals\975_38245_CSAH(16) ANDOVER-147TH AVE NE 1736454PENDING\T38245_sgl.dgn



MATCH LINE - STATION 17+50



NOTE: THERE IS NOT ANY SIGNAL WORK REQUIRED ON THIS SHEET.

BY	DATE	REVISIONS

SYSTEM ID: 1736454 T.E. 103233
METER ADDRESS: 14657 HIGHWAY 65
OLD SYSTEM ID: 38245

REVISE SIGNAL SYSTEM "L"
MATCH LINES
TH 65 AT ANDOVER BLVD. C.R. 16/147th AVE
HAM LAKE, ANOKA COUNTY

S.P.002-632-021, S.P.106-020-040, S.P.106-125-009
DRAWN BY: HRL CKD BY: CDB DATE: 10/10/23
CERTIFIED BY: *Gregory Kern* LIC. NO. 26829 DATE: 10/12/23
STATE PROJ. NO. 0208-165 (T.H.65) SHEET NO. SS51 OF SS87 SHEETS

PLOTTED/REVISED: 3-NOV-2023

DISTRICT *: Metro
PLOT NAME: T38245_sgl_48
FILENAME: Projects\DM_POS\0650000\Traffic\Signal\9175_38245_CSAH(16) ANDOVER-147TH AVE NE 1736454-DEPENDING\T38245_sgl.dgn

4 PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
TYPE 6B

REMOVE: 1-PEDESTRIAN PUSH BUTTON
1-PEDESTRIAN INSTRUCTION SIGN (R10-4b)
1-ANGLE MOUNT C. D. PED HEAD AT 90 (P6-1)

F&I: 1-ANGLE MOUNT C. D. PED HEAD AT 180 DEG (P8-2)

REMOVE: 1-APS PUSH BUTTON & SIGN WITH MOUNTING SPACERS (LT ARROW) (PB6-1)

REMOVE: 1-R9-3a SIGN PANEL-FACING POLE 5
2-R6-1 SIGN PANELS-POLE MOUNTED
NORTH AND SOUTH SIDE OF POLE
EXTEND INTO H.H.10:

F&I: 1-2/C 14 (PB6-1)

PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB8-2)
EXTEND INTO HH 10:
1" CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

5 PA90 POLE FOUNDATION
TYPE PA90-A-35-X6-350/CAM400 AT 350 DEG
2-ONE WAY SIGNALS-OVERHEAD (0' & 11'
FROM END OF MAST ARM)
2-TYPE 10A-POLE MOUNTED 90 & 180
DEG

REMOVE: LUMINAIRE-250 W HPS

F&I: 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
1-VIDEO CAMERA
ONE WAY EVP DETECTOR AND LIGHT (PHASE 8)
2-R9-3a SIGN PANELS-FACING POLES 4 AND 6
TYPE D SIGN PANEL-OVERHEAD (D-4)
R10-12 SIGN PANEL-ADJACENT TO HEAD 8-3

F&I: 2-ANGLE MOUNT C. D. PED HEADS AT 90 AND 180 DEG (P8-3, P8-4)
EXTEND INTO H.H.13A:
3"R.S.C.
2-12/c#12
2-3/c#12
1-3/c#20
1-3/c#12 (LUM)
1-COM CABLE (CAT 5E)
1-7/16" BR GR TO GRD RD

F&I: 1-4/C 14 (P8-3)

PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB8-4)
EXTEND INTO HH 13A:
1" CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

6 PA100 POLE FOUNDATION
TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)
SWING AWAY HINGES
2-ONE WAY SIGNALS-OVERHEAD (0' & 11'
FROM END OF MAST ARM)
TYPE 10A-POLE MOUNTED AT 90 DEG
TYPE 10B-POLE MOUNTED AT 180 DEG

REMOVE: 1-PEDESTRIAN PUSH BUTTON (PB2-2)

F&I: 1-APS PUSH BUTTON & SIGN (LT ARROW) (PB8-1)

REMOVE: 1-APS PUSH BUTTON MOUNTING ADAPTOR

REMOVE: LUMINAIRE-250 W HPS

F&I: 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
ONE WAY EVP DETECTOR AND LIGHT (PHASES 2 & 5)
RADIO INTERCONNECT ANTENNA

F&I: 1-ANGLE MOUNT C. D. PED HEADS AT 90 DEG (P8-1)
1-PEDESTRIAN INSTRUCTION SIGN (R10-4b)
1-R9-3a SIGN PANEL-FACING POLE 5
2-R6-1 SIGN PANELS-POLE MOUNTED
2-TYPE D SIGN PANELS-OVERHEAD (D-5,6)
EXTEND INTO H.H.15:

F&I: 1-2/C 14 (PB8-1)

PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB2-2)
EXTEND INTO HH 15:
1" CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

A EQUIPMENT PAD
CONTROLLER AND CABINET
SERVICE CABINET
CONTROLLER CABINET TO H.H.1:

4"R.S.C. 4"R.S.C.
3-12/c#12 2-12/c#12
5-3/c#12 3-3/c#12
1-3/c#20 1-3/c#20
9-2/c#14 4-2/c#14

F&I: 8-2/c#14

B GROUND MOUNTED TRANSFORMER
(S.O.P.) (CONNEXUS)

CONTROLLER CABINET TO H.H.18:

4"R.S.C. 4"R.S.C.
3-12/c#12 2-12/c#12
4-3/c#12 2-3/c#12
1-3/c#20 1-3/c#20
6-2/c#14 4-2/c#14

1-COM CABLE (CAT 5E)
8-2/c#14 F&I: ←←
2-4/c#14 F&I: ←←

CONTROLLER CABINET TO TMS PULL VAULT
1 1/2" PVC INSIDE 3" RSC STUB OUT:
1-6SM FIBER OPTIC PATCH/PIGTAIL

STUB OUT 1-3"R.S.C. FROM
CONTROLLER CABINET TO
NORTH (THREAD AND CAP
BOTH ENDS-FOR FUTURE USE)

SERVICE CABINET TO H.H.18:

2"R.S.C.
2-3/c#12 (LUM)

SERVICE CABINET TO S.O.P.:

2"R.S.C.
3-1/c#2

SERVICE CABINET TO HH 1:

2" RSC
1-3/C#12 (LUM)

BETWEEN SERVICE CABINET AND
CONTROLLER CABINET:

2"R.S.C.
2-1/c#6
1-1/c#6 INS GR

3 PA100 POLE FOUNDATION
TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
SWING AWAY HINGES
2-ONE WAY SIGNALS-OVERHEAD (0' & 11'
FROM END OF MAST ARM)
2-TYPE 10B-POLE MOUNTED 90 & 180 DEG

REMOVE: 1-PEDESTRIAN PUSH BUTTON (PB6-2)

F&I: 1-APS PUSH BUTTON & SIGN (LT ARROW) (PB4-1)

F&I: 1-APS PUSH BUTTON MOUNTING ADAPTOR

REMOVE: LUMINAIRE-250 W HPS

F&I: 1-LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
ONE WAY EVP DETECTOR AND LIGHT (PHASES 1 & 6)
2-PEDESTRIAN INSTRUCTION SIGNS (R10-4b)
2-R6-1 SIGN PANELS-POLE
2-TYPE D SIGN PANELS-OVERHEAD (D-2,3)
EXTEND INTO H.H.5:

F&I: 1-3/c#12 (LUM)
1-2/C 14 (PB4-1)

PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB6-2)
EXTEND INTO HH 5:
1" CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

2 PA100 POLE FOUNDATION
TYPE PA100-A-45
2-ONE WAY SIGNALS-OVERHEAD (0' & 11'
FROM END OF MAST ARM)
2-TYPE 10B-POLE MOUNTED 90 & 180 DEG

REMOVE: 1-PEDESTRIAN PUSH BUTTON

REMOVE: 1-PEDESTRIAN INSTRUCTION SIGN (R10-4b)

REMOVE: TYPE D SIGN PANEL-OVERHEAD (D-1)
R10-12 SIGN PANEL-ADJACENT TO HEAD 4-3
ONE WAY EVP DETECTOR AND LIGHT (PHASE 4)
EXTEND INTO H.H.4:

F&I: 1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(LT ARROW) (PB4-3)
EXTEND INTO HH 4:
1" CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

1 PEDESTAL FOUNDATION
14' PEDESTAL POLE
(INCLUDES BASE)
TYPE 6C

REMOVE: 2-PEDESTRIAN PUSH BUTTONS

REMOVE: 2-PEDESTRIAN INSTRUCTION
SIGNS (R10-4b)

REMOVE: 2-R6-1 SIGN PANELS-POLE MOUNTED
NORTH AND SOUTH SIDE OF POLE
EXTEND INTO H.H.1:

F&I: 1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB4-2)
EXTEND INTO HH 1:
1" CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

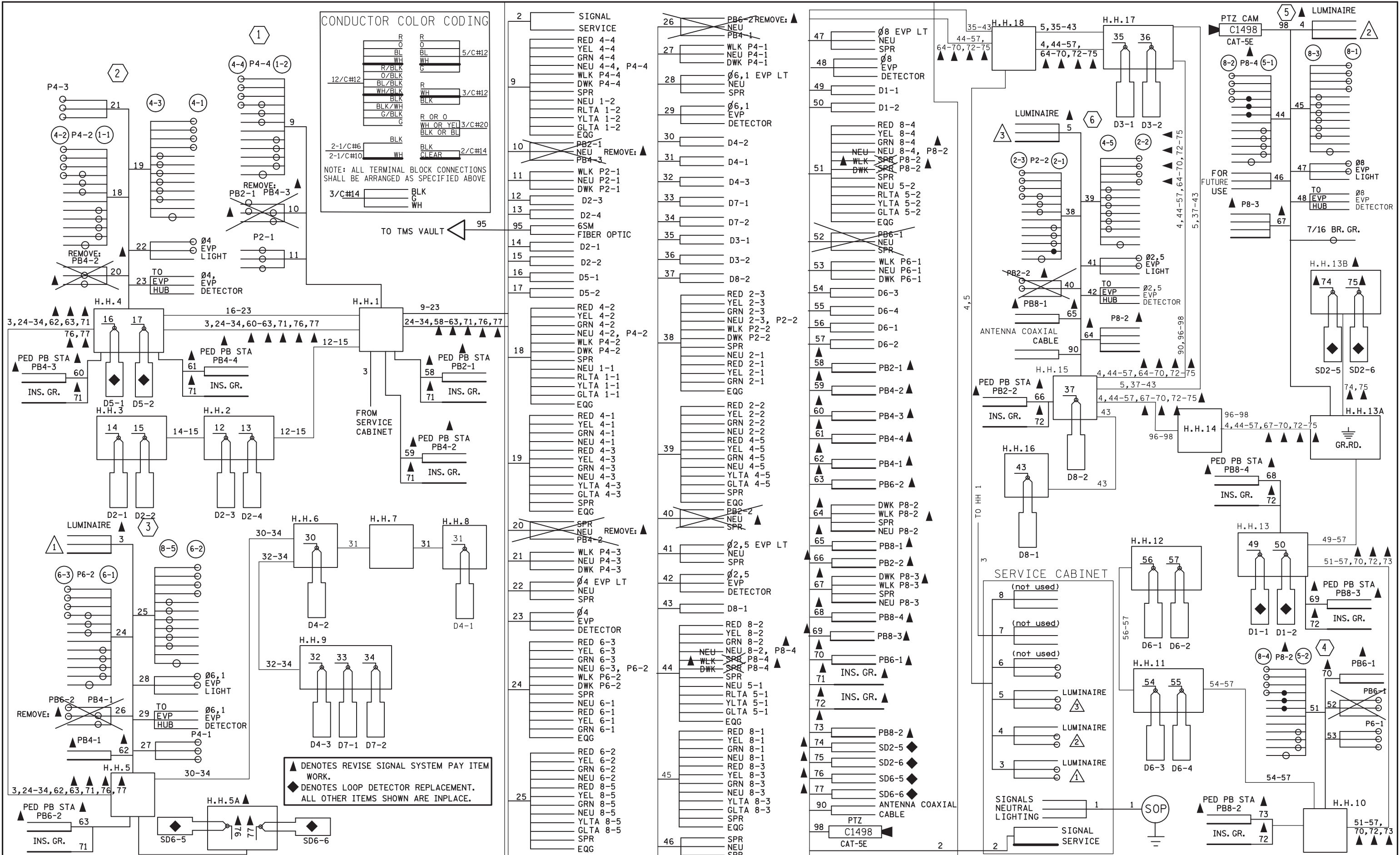
SIGNAL REVISION NOTES:

- THE REVISE SIGNAL SYSTEM WORK CONSISTS OF ADDING THE NORTH LEG PEDESTRIAN CROSSING, AND REVISING OTHER PUSH BUTTONS TO FIT THE NEW PED RAMPS. WORK INCLUDES APS PUSH BUTTONS, PB STATIONS, PED INDICATIONS, LED LUMINAIRES, AND WIRING.
- ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
- LOOP DETECTORS THAT ARE IMPACTED ARE NOT INCLUDED AS PART OF THE "REVISE SIGNAL SYSTEM" PAY ITEM. LOOP DETECTORS ARE PAID FOR SEPARATELY UNDER ITEM "2565 RIGID PVC LOOP DETECTOR " BY THE EACH.
- ← INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

BY	DATE	REVISIONS	SYSTEM ID: 1736454	T.E. 103233	REVISE SIGNAL SYSTEM "L" POLE NOTES TH 65 AT ANDOVER BLVD. C.R. 16/147th AVE HAM LAKE, ANOKA COUNTY	S.P.002-632-021, S.P.106-020-040, S.P.106-125-009	DRAWN BY:HRL	CKD BY:CDB	DATE:10/10/23
			METER ADDRESS: 14657 HIGHWAY 65			CERTIFIED BY <i>Gregory Ken</i>	LIC. NO. 26829		DATE: 10/12/23
			OLD SYSTEM ID: 38245			STATE PROJ.NO. 0208-165 (T.H.65)			SHEET NO. SS52 OF SS87 SHEETS

PLOTTED/REVISED: 14-DEC-2023

DISTRICT #: Metro
PLOT NAME: T38245_sgl_49
FILENAME: Projects\DM_POS\06500000\Traffic\Signals\975_38245_CSAH(16) ANDOVER-147TH AVE NE 1736454\PENDING\T38245_sgl.dgn

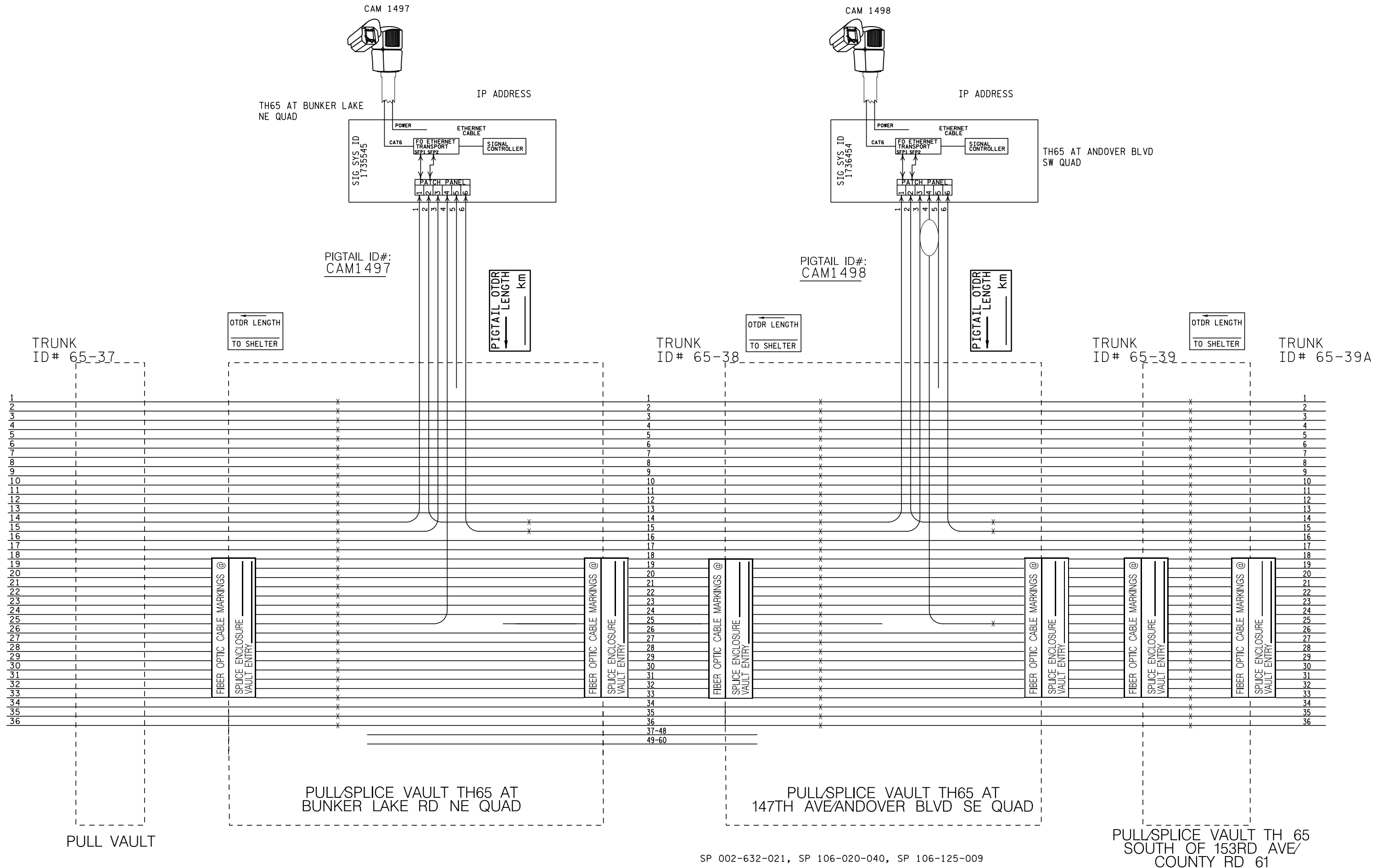


BY	DATE	REVISIONS

SYSTEM ID: 1736454 T.E. 103233
 METER ADDRESS: 14657 HIGHWAY 65
 OLD SYSTEM ID: 38245

REVISE SIGNAL SYSTEM "L"
FIELD WIRING DIAGRAM
 TH 65 AT ANDOVER BLVD. C.R. 16/147th AVE
 HAM LAKE, ANOKA COUNTY

S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009
 DRAWN BY: HRL CKD BY: CDB DATE: 10/10/23
 CERTIFIED BY: *Gregory Kern* LIC. NO. 26829 DATE: 12/8/23
 STATE PROJ. NO. 0208-165 (T.H.65) SHEET NO. SS53 OF SS87 SHEETS



SP 002-632-021, SP 106-020-040, SP 106-125-009

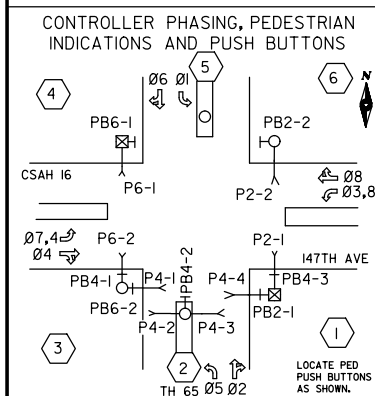
PVC LOOP DETECTORS

NUMBER	SIZE (FT.)	LOCATION
D1-1	6x6	40'
D1-2	6x6	10'
D2-1	6x6	625'
D2-2	6x6	625'
D2-3	6x6	315'
D2-4	6x6	315'
D3-1	2-6x6	20' & 50'
D3-2	2-6x6	5' & 35'
D4-1	6x6	400'
D4-2	6x12 & 6x6	5' & 20'
D4-3	2-6x6	5' & 20'
D5-1	6x6	40'
D5-2	6x6	10'
D6-1	6x6	625'
D6-2	6x6	625'
D6-3	6x6	315'
D6-4	6x6	315'
D7-1	2-6x6	20' & 50'
D7-2	2-6x6	5' & 35'
D8-1	6x6	120'
D8-2	2-6x6	5' & 20'

LOCATION =
DISTANCE FROM CROSSWALK OR
STOP BAR TO FRONT OF LOOP DETECTOR.

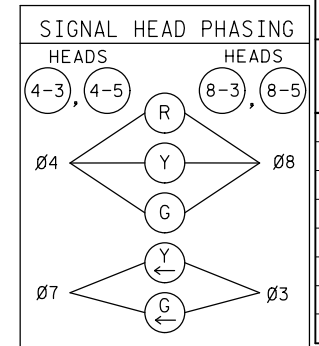
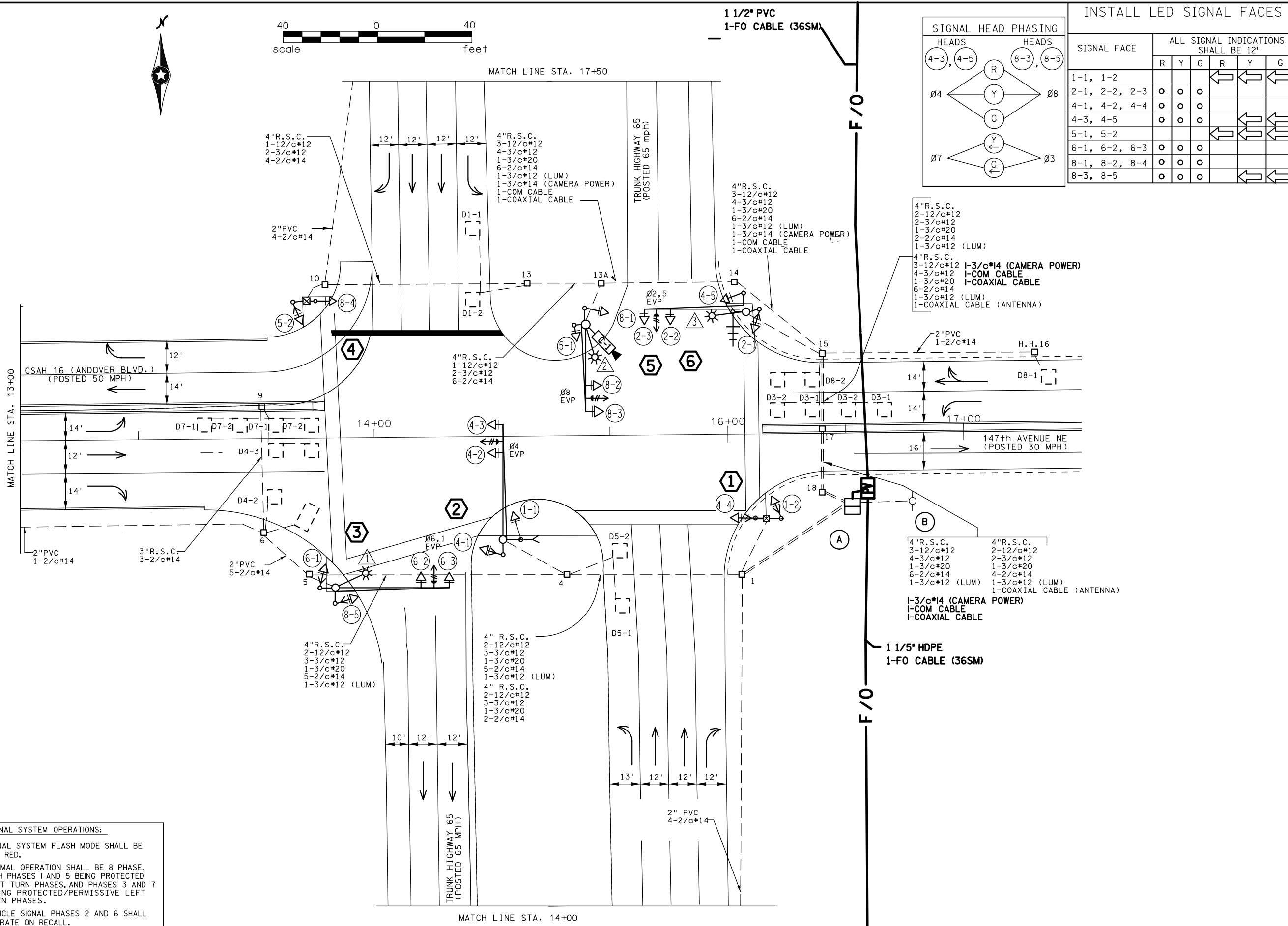
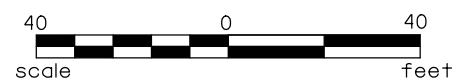
PLOTTED/REVISED: 5/2/2013

DISTRICT #: METRO
PLOT NAME: layout
PATH & FILENAME: IP_PWP-d0781353VT38245_sgl.dgn



SIGNAL SYSTEM OPERATIONS:

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



INSTALL LED SIGNAL FACES

SIGNAL FACE	ALL SIGNAL INDICATIONS SHALL BE 12"					
	R	Y	G	R	Y	G
1-1, 1-2				←	←	←
2-1, 2-2, 2-3	o	o	o			
4-1, 4-2, 4-4	o	o	o			
4-3, 4-5	o	o	o	←	←	←
5-1, 5-2				←	←	←
6-1, 6-2, 6-3	o	o	o			
8-1, 8-2, 8-4	o	o	o			
8-3, 8-5	o	o	o	←	←	←

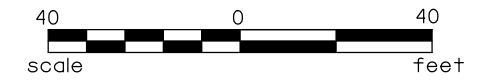
BY	DATE	REVISIONS
EJA	05-02-13	AS-BUILT OF SP 0207-94

SYSTEM ID: 38245 T.E.
METER ADDRESS: 14657 HIGHWAY 65
MASTER ID: T.E.

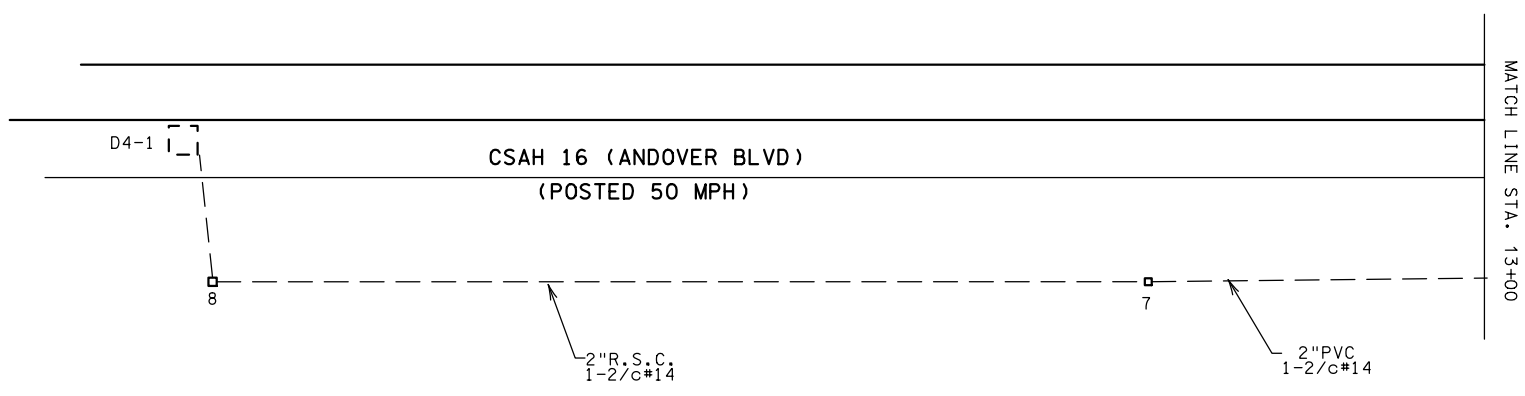
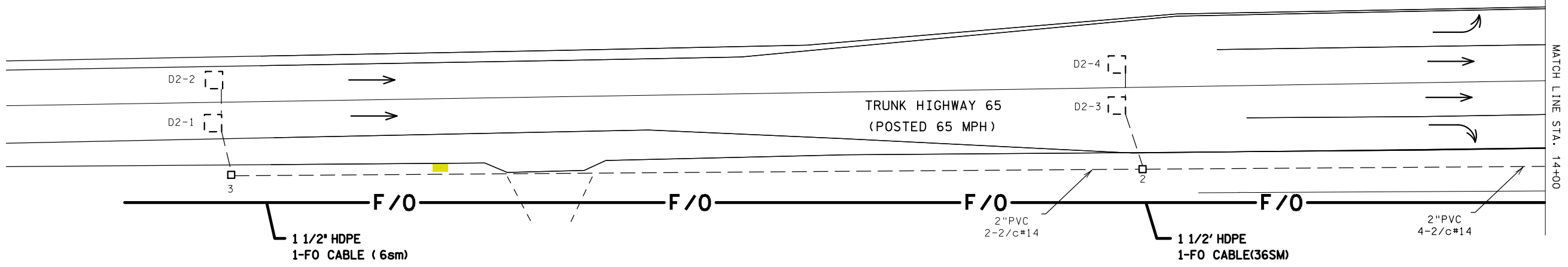
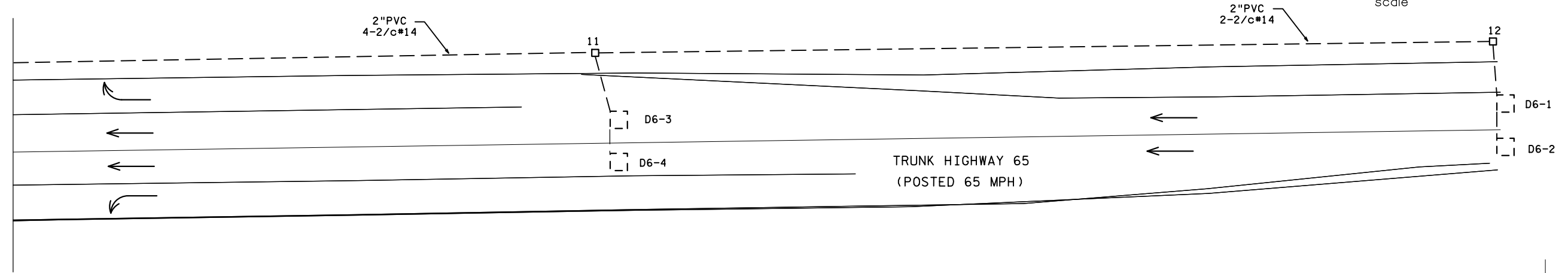
INTERSECTION LAYOUT
TH 65 AT C.S.A.H. 16/147TH NE
HAM LAKE, ANOKA COUNTY

S.A.P. NO. _____
DRAWN BY: SJK CKD BY: CDB DATE: 05-23-11
CERTIFIED BY: *Michael P. Subramany* L.C. NO. 19863 DATE: 05-23-11
STATE PROJ. NO. (T.H.65) SHEET NO. 1 OF 4 SHEETS

PLOTTED/REVISED: 5/2/2013



MATCH LINE - STATION 17+50



DISTRICT #: METRO
IPLOT NAME: match lines
PATH & FILENAME: IP_PWP-d0781353\T38245_sgl.dgn

BY	DATE	REVISIONS
EJA	05-02-13	AS-BUILT OF SP 0207-94

SYSTEM ID: 38245 T.E.
 METER ADDRESS: 14657 HIGHWAY 65
 MASTER ID: T.E.

MATCH LINES
 TH 65 AT C.S.A.H. 16/147TH NE
 HAM LAKE, ANOKA COUNTY

S.A.P. NO. _____
 DRAWN BY: SJK CKD BY: CDB DATE: 05-23-11
 CERTIFIED BY: *Michael P. Lubinsky* LIC. NO. 19863 DATE: 05-23-11
 STATE PROJ. NO. (T.H.65) SHEET NO. 2 OF 4 SHEETS

PLOTTED/REVISED: 5/2/2013

1 PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
TYPE 6C
2-PEDESTRIAN PUSH BUTTONS
2-PEDESTRIAN INSTRUCTION SIGNS (R10-4b)
2-R6-1 SIGN PANELS-POLE MOUNTED NORTH AND SOUTH SIDE OF POLE
EXTEND INTO H.H.1:
3"R.S.C.
1-12/c#12
2-3/c#12

4 PEDESTAL FOUNDATION
14' PEDESTAL POLE (INCLUDES BASE)
TYPE 6B
1-PEDESTRIAN PUSH BUTTON
1-PEDESTRIAN INSTRUCTION SIGN (R10-4b)
1-R9-3a SIGN PANEL-FACING POLE 5
2-R6-1 SIGN PANELS-POLE MOUNTED NORTH AND SOUTH SIDE OF POLE
EXTEND INTO H.H.10:
3"R.S.C.
1-12/c#12
2-3/c#12

6 PA100 POLE FOUNDATION
TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)
SWING AWAY HINGES
2-ONE WAY SIGNALS-OVERHEAD (0' & 11' FROM END OF MAST ARM)
TYPE 10A-POLE MOUNTED AT 90 DEG
TYPE 10B-POLE MOUNTED AT 180 DEG
1-PEDESTRIAN PUSH BUTTON
LUMINAIRE-250 W HPS
ONE WAY EVP DETECTOR AND LIGHT (PHASES 2 & 5)
RADIO INTERCONNECT ANTENNA
1-PEDESTRIAN INSTRUCTION SIGN (R10-4b)
1-R9-3a SIGN PANEL-FACING POLE 5
2-R6-1 SIGN PANELS-POLE MOUNTED
2-TYPE D SIGN PANELS-OVERHEAD (D-5,6)
EXTEND INTO H.H.15:
3"R.S.C.
2-12/c#12
2-3/c#12
1-3/c#20
1-3/c#12 (LUM)
1-COAXIAL CABLE (ANTENNA)

A EQUIPMENT PAD
CONTROLLER AND CABINET
SERVICE CABINET
CONTROLLER CABINET TO H.H.1:
4"R.S.C. 4"R.S.C.
3-12/c#12 2-12/c#12
5-3/c#12 3-3/c#12
1-3/c#20 1-3/c#20
9-2/c#14 4-2/c#14
1-COAXIAL CABLE (ANTENNA)

CONTROLLER CABINET TO H.H.18:
4"R.S.C. 4"R.S.C.
3-12/c#12 2-12/c#12
4-3/c#12 2-3/c#12
1-3/c#20 1-3/c#20
6-2/c#14 4-2/c#14
1-3/c#14 (CAM PWR)
1-COAXIAL CABLE (CAMERA)
1-CAM COM CABLE

2 PA100 POLE FOUNDATION
TYPE PA100-A-45
2-ONE WAY SIGNALS-OVERHEAD (0' & 11' FROM END OF MAST ARM)
2-TYPE 10B-POLE MOUNTED 90 & 180 DEG
1-PEDESTRIAN PUSH BUTTON
1-PEDESTRIAN INSTRUCTION SIGN (R10-4b)
TYPE D SIGN PANEL-OVERHEAD (D-1)
R10-12 SIGN PANEL-ADJACENT TO HEAD 4-3
ONE WAY EVP DETECTOR AND LIGHT (PHASE 4)
EXTEND INTO H.H.4:
3"R.S.C.
2-12/c#12
3-3/c#12
1-3/c#20

5 PA90 POLE FOUNDATION
TYPE PA90-A-35-X6-350/CAM400 AT 350 DEG
2-ONE WAY SIGNALS-OVERHEAD (0' & 11' FROM END OF MAST ARM)
2-TYPE 10A-POLE MOUNTED 90 & 180
LUMINAIRE-250 W HPS
1-VIDEO CAMERA
ONE WAY EVP DETECTOR AND LIGHT (PHASE 8)
2-R9-3a SIGN PANELS-FACING POLES 4 AND 6
TYPE D SIGN PANEL-OVERHEAD (D-4)
R10-12 SIGN PANEL-ADJACENT TO HEAD 8-3
EXTEND INTO H.H.13A:
3"R.S.C.
2-12/c#12
2-3/c#12
1-3/c#20
1-3/c#12 (LUM)
1-3/c#14 (CAM PWR)
1-COAXIAL CABLE (CAMERA)
1-CAM COM CABLE
1-7/16" BR GR TO GRD RD

CONTROLLER CABINET TO TMS PULL VAULT
1 1/2" PVC INSIDE 3" RSC STUB OUT:
1-6SM FIBER OPTIC PATCH/PIGTAIL

STUB OUT 1-3"R.S.C. FROM
CONTROLLER CABINET TO
NORTH (THREAD AND CAP
BOTH ENDS-FOR FUTURE USE)

SERVICE CABINET TO H.H.18:
2"R.S.C.
2-3/c#12 (LUM)

SERVICE CABINET TO S.O.P.1:
2"R.S.C.
3-1/c#2

SERVICE CABINET TO HH 1:
2" RSC
1-3/c#12 (LUM)

BETWEEN SERVICE CABINET AND
CONTROLLER CABINET:
2"R.S.C.
2-1/c#6
1-1/c#6 INS GR

B GROUND MOUNTED TRANSFORMER
(S.O.P.) (CONNEXUS)

3 PA100 POLE FOUNDATION
TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
SWING AWAY HINGES
2-ONE WAY SIGNALS-OVERHEAD (0' & 11' FROM END OF MAST ARM)
2-TYPE 10B-POLE MOUNTED 90 & 180 DEG
2-PEDESTRIAN PUSH BUTTONS
LUMINAIRE-250 W HPS
ONE WAY EVP DETECTOR AND LIGHT (PHASES 1 & 6)
2-PEDESTRIAN INSTRUCTION SIGNS (R10-4b)
2-R6-1 SIGN PANELS-POLE
2-TYPE D SIGN PANELS-OVERHEAD (D-2,3)
EXTEND INTO H.H.5:
3"R.S.C.
2-12/c#12
3-3/c#12
1-3/c#20
1-3/c#12 (LUM)

DISTRICT #: METRO
PLOT NAME: pole notes
PATH & FILENAME: IP_PWP-d0781353VT38245_sgl.dgn

BY	DATE	REVISIONS	SYSTEM ID: 38245	T.E.	POLE NOTES TH 65 AT C.S.A.H. 16/147TH NE HAM LAKE, ANOKA COUNTY	S.A.P. NO.	DRAWN BY: SJK	CKD BY: CDB	DATE: 05-23-11
EJA	05-02-13	AS-BUILT OF SP 0207-94	METER ADDRESS: 14657 HIGHWAY 65			CERTIFIED BY: <i>Michael P. Libinsky</i>	LIC. NO. 19863	DATE: 05-23-11	
			MASTER ID:	T.E.		STATE PROJ. NO. (T.H.65)		SHEET NO. 3 OF 4 SHEETS	

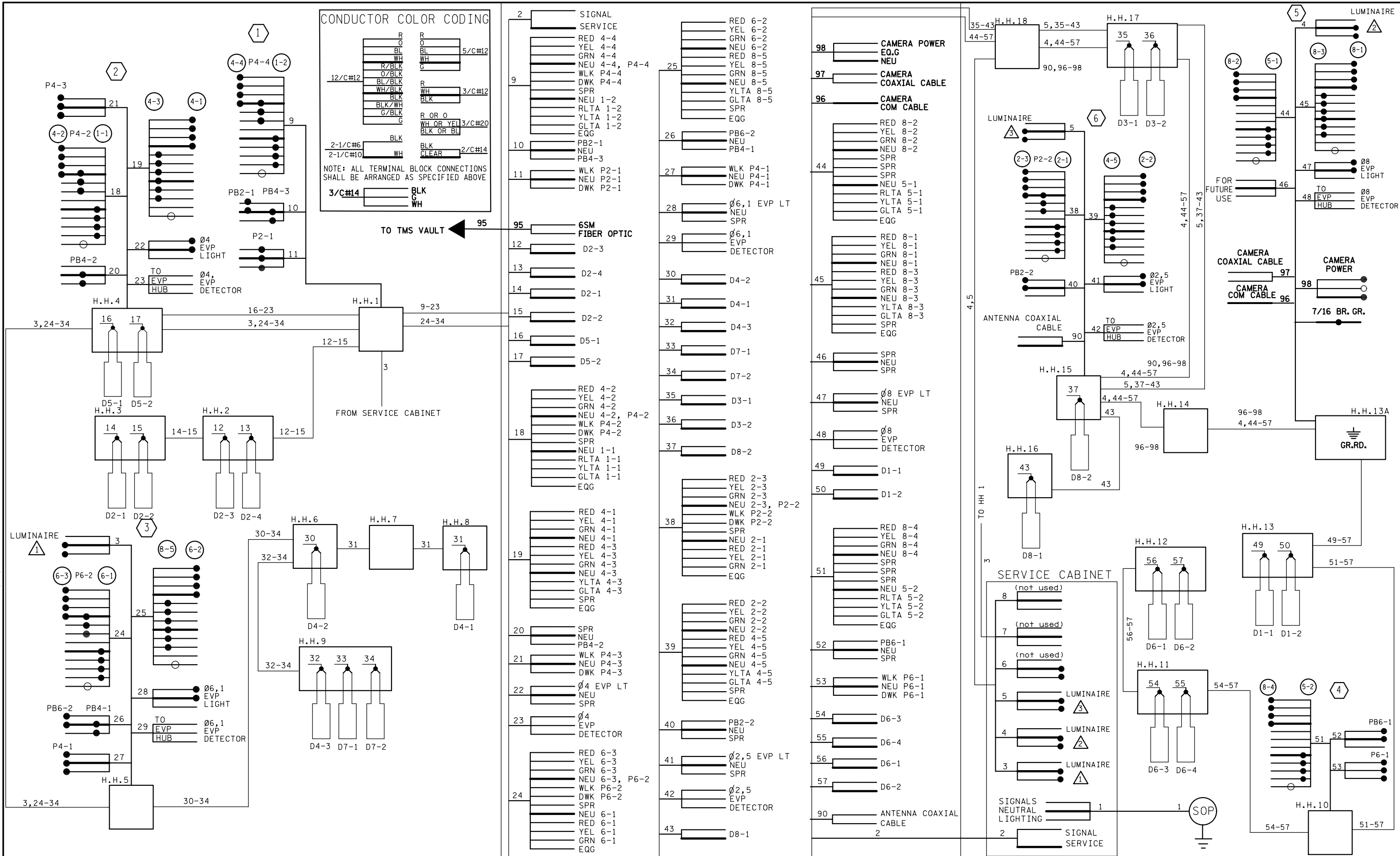
PLOTTED/REVISED: 5/2/2013

DISTRICT #: METRO
IPLOT NAME: wiring diagram
PATH & FILENAME: IP_PWP-d0781353VT38245_sgl.dgn

CONDUCTOR COLOR CODING

R	R
O	O
BL	BL
WH	WH
R/BLK	5/C#12
O/BLK	
BL/BLK	
WH/BLK	
BLK	3/C#12
BLK/WH	
G/BLK	
G	
R OR O	3/C#20
WH OR YEL	
BLK OR BL	
BLK	2/C#14
WH	
CLEAR	
BLK	
WH	

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



BY	DATE	REVISIONS
EJA	05-02-13	AS-BUILT OF SP 0207-94

SYSTEM ID: 38245 T.E.
 METER ADDRESS: 14657 HIGHWAY 65
 MASTER ID: T.E.

FIELD WIRING DIAGRAM
 TH 65 AT C.S.A.H. 16/147TH NE
 HAM LAKE, ANOKA COUNTY

S.A.P. NO. _____
 CERTIFIED BY: *Michael P. Subramany* LIC. NO. 19863 DATE: 05-23-11
 STATE PROJ. NO. (T.H.65) SHEET NO. 4 OF 4 SHEETS