

DISTRICT #: Metro
 I/PLOT NAME: T2120568_2120569_64
 PATH & FILENAME: Projects\DM_R05\065\00007\Traffic\Signals\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\Pending\T2120568\T2120569\SS68.DWG

SIGNAL HEAD CHART			
FACE	R	Y	G
1-1, 1-2, 1-3	○	○	△
2-1, 2-2, 2-3	○	○	○
4-1, 4-2, 4-3	○	→	→
5-1, 5-2, 5-3	○	○	△
6-1, 6-2, 6-3	○	○	○
8-1, 8-2, 8-3	○	→	→

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

SIGNAL REVISION NOTES:

- THE REVISE SIGNAL SYSTEM WORK CONSISTS OF ADJUSTING (S&I) PUSH BUTTON STATION LOCATIONS.
- ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
- → INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

NOTE: THE "REVISE SIGNAL SYSTEM P" PAY ITEM INCLUDES THE WORK ON SYSTEM Q AS SHOWN.

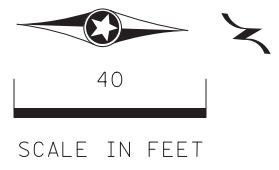
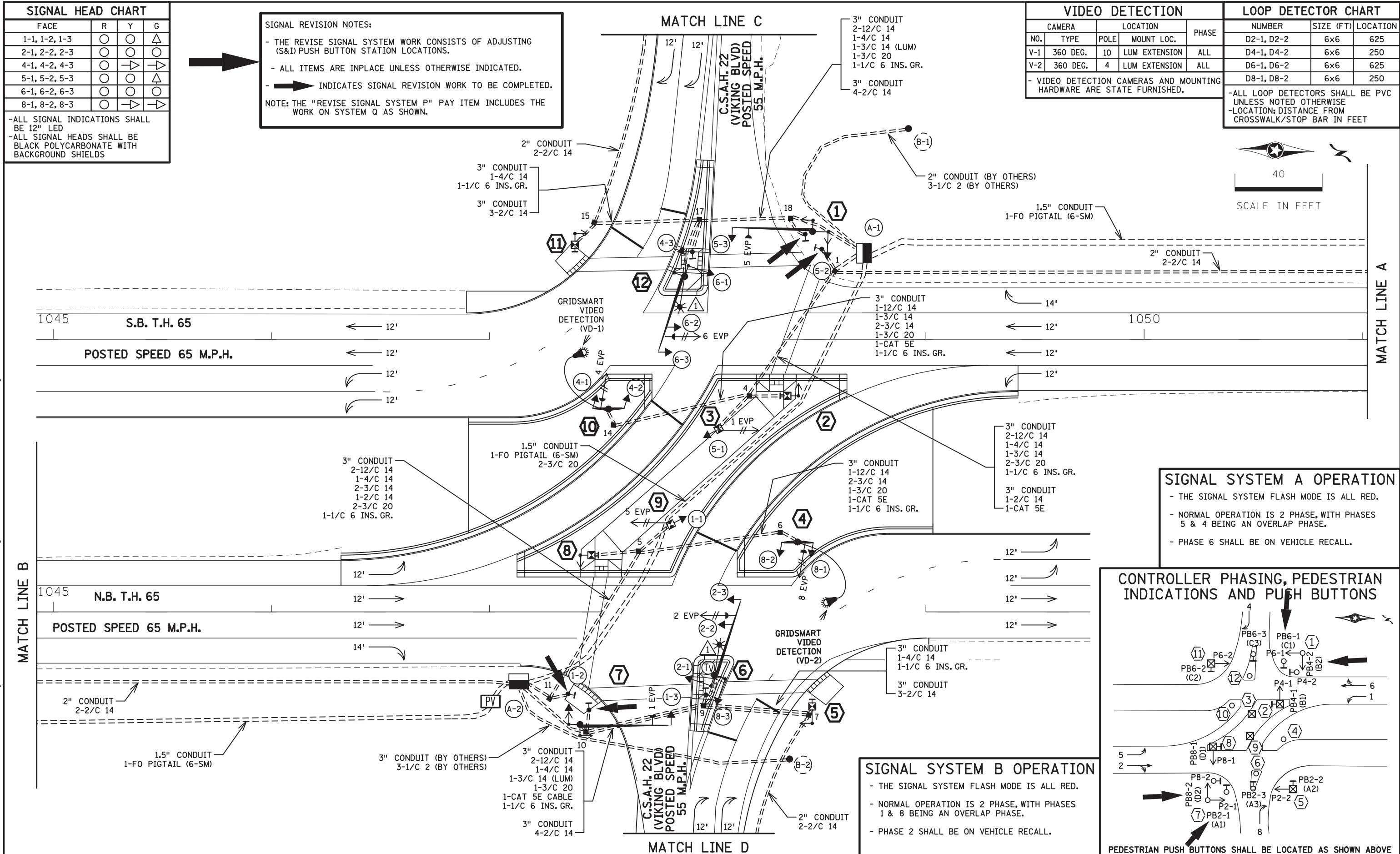
VIDEO DETECTION			
CAMERA NO.	TYPE	POLE	LOCATION
V-1	360 DEG.	10	LUM EXTENSION
V-2	360 DEG.	4	LUM EXTENSION

PHASE: ALL

- VIDEO DETECTION CAMERAS AND MOUNTING HARDWARE ARE STATE FURNISHED.

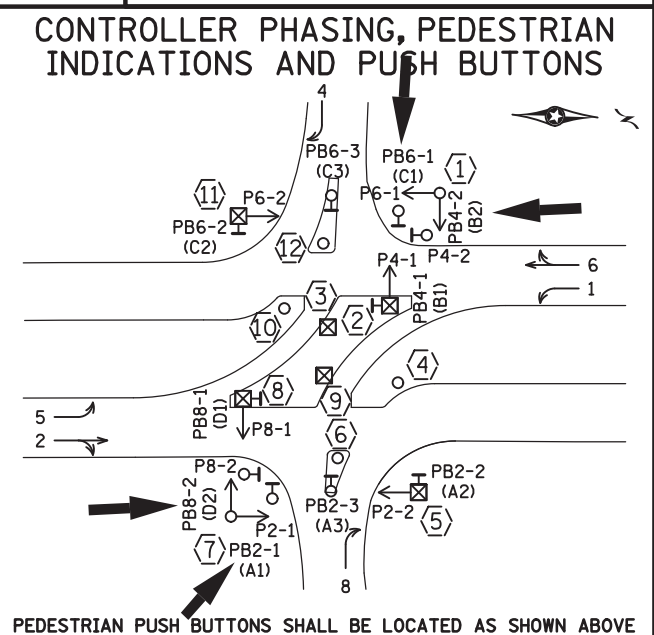
LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D2-1, D2-2	6x6	625
D4-1, D4-2	6x6	250
D6-1, D6-2	6x6	625
D8-1, D8-2	6x6	250

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



SIGNAL SYSTEM A OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 2 PHASE, WITH PHASES 5 & 4 BEING AN OVERLAP PHASE.
- PHASE 6 SHALL BE ON VEHICLE RECALL.



SIGNAL SYSTEM B OPERATION

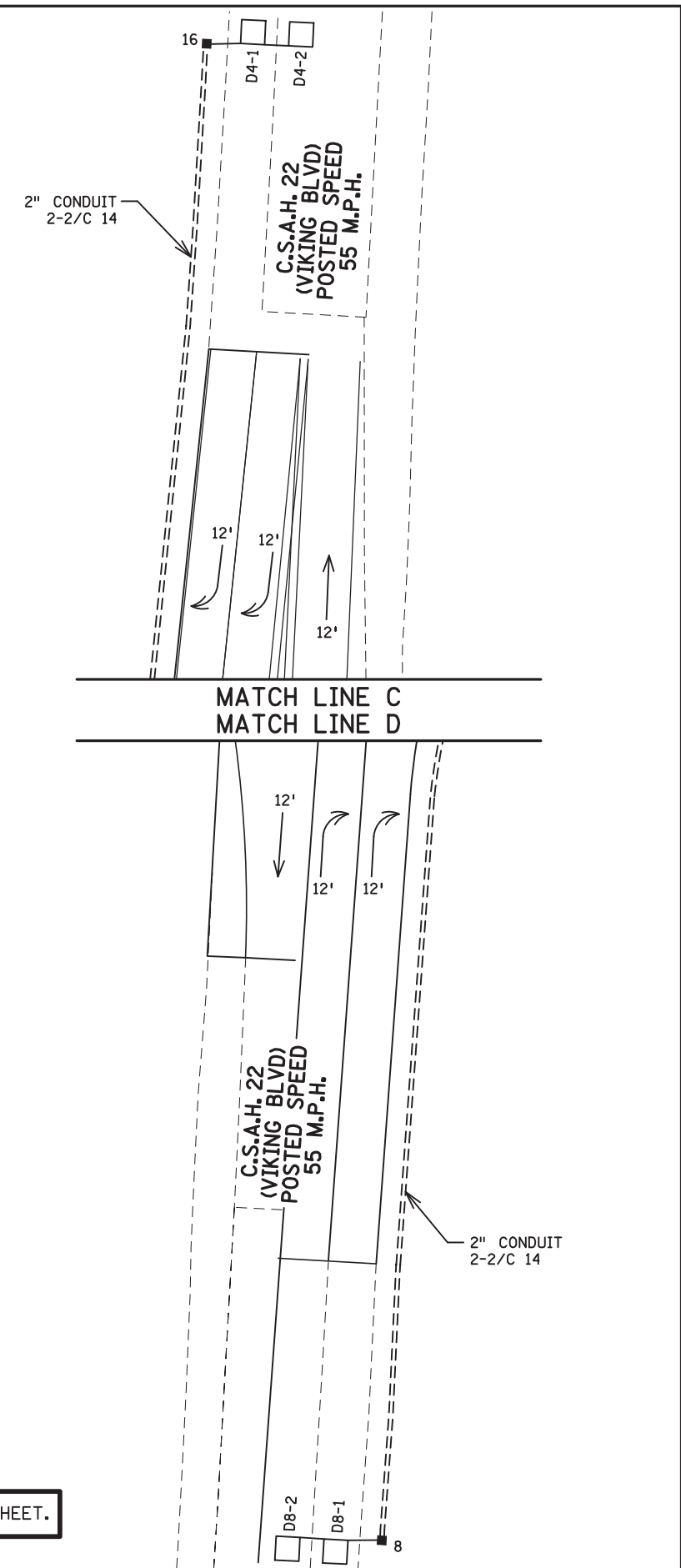
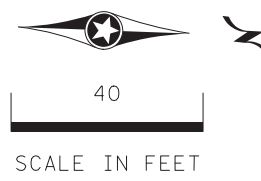
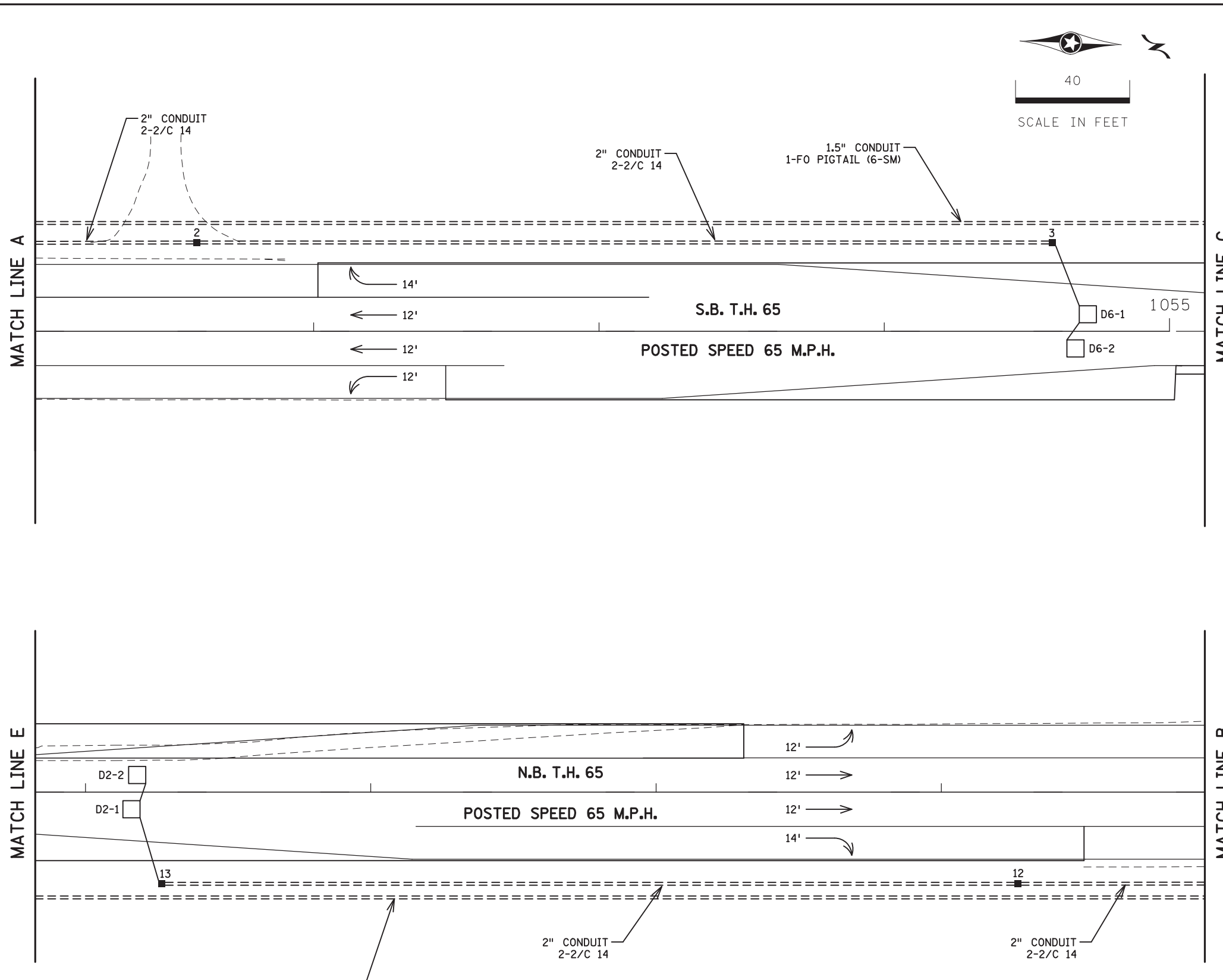
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 2 PHASE, WITH PHASES 1 & 8 BEING AN OVERLAP PHASE.
- PHASE 2 SHALL BE ON VEHICLE RECALL.

BY	DATE	REVISIONS	T.H. 65 AT VIKING WEST JCT. - SYSTEM "P" SYSTEM ID: 2120568 T.E. 103236 METER ADDRESS: 19300 HWY 65	T.H. 65 AT VIKING EAST JCT. - SYSTEM "Q" SYSTEM ID: 2120569 T.E. 103236 METER ADDRESS: 19275 HWY 65	REVISE SIGNAL SYSTEM "P" SYSTEMS "P"(WEST) & "Q"(EAST) T.H. 65 AT C.S.A.H. 22 (VIKING BLVD) W. & E. JCT. IN EAST BETHEL, ANOKA COUNTY	S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009	DRAWN BY: 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. SS68 OF SS87 SHEETS

DISTRICT *: Metro
 IPLOT NAME: T2120568_2120569_65
 PATH & FILENAME: Projects\DM罗斯065\0000Traffic\Signals\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\PENDING\T2120568\T2120569_65.DWG



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

BY	DATE	REVISIONS	T.H. 65 AT VIKING WEST JCT. - SYSTEM P SYSTEM ID: 2120568 T.E. 103236 METER ADDRESS: 19300 HWY 65	REVISE SIGNAL SYSTEM "P" MATCHLINE LAYOUT- SYSTEMS "P" & "Q" T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) W. & E. JCT. IN EAST BETHEL, ANOKA COUNTY	S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009	DRAWN BY:	CKD BY: CDB	DATE: 10/10/23
			T.H. 65 AT VIKING EAST JCT. - SYSTEM Q SYSTEM ID: 2120569 T.E. 103236 METER ADDRESS: 19275 HWY 65		CERTIFIED BY: <i>Gregory Kern</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 26829	DATE: 10/12/23	
					STATE PROJ. NO. 0208-165 (T.H. 65) SHEET NO. SS69 OF SS87 SHEETS			

INTERSECTION NOTES

11 PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT C. D. PED HEAD
 1-APS PB AND SIGN (RT ARROW) (PB6-2)
 AND APS PB MOUNTING SPACERS
 3" CONDUIT TO HH 15:
 1-4/C 14
 1-2/C 14
 1-1/C 6 INS. GR.

12 PA90 POLE FOUNDATION
 TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASE 6)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
 1-"NO TURN ON RED" SIGN
 3" CONDUIT TO HH 17:
 2-12/C 14
 1-3/C 14
 1-3/C 14 (LUM)
 1-3/C 20
 1-1/C 6 INS. GR.

1 PA90 POLE FOUNDATION
 TYPE PA90-A-35
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-ANGLE MOUNT SIGNAL AT 180 DEG
 2-ANGLE MOUNT C. D. PED HEADS
 AT 90 AND 180 DEG
 1-EVP CONFIRMATORY LIGHT (PHASE 5)
 1-R3-5a SIGN ADJACENT TO HEAD (5-3)
 3" CONDUIT TO HH 18:
 1-12/C 14
 2-4/C 14
 1-3/C 14
 1-1/C 6 INS. GR.

A-1 EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB) NO BATTERY BACKUP SYSTEM OR BATTERIES
 CONTROLLER AND CABINET (STATE FURNISHED)
 3" CONDUIT TO HH 18:
 1-12/C 14
 2-4/C 14
 1-3/C 14
 3" CONDUIT TO HH 18:
 2-12/C 14
 1-4/C 14
 1-3/C 14
 1-3/C 20
 1-1/C 6 INS. GR.
 3" CONDUIT TO HH 18:
 5-2/C 14

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)

1.5" CONDUIT TO SYSTEM B CONTROLLER CABINET:
 1-FO PIGTAIL (6-SM)

1.5" CONDUIT TO SYSTEM D CONTROLLER CABINET:
 1-FO PIGTAIL (6-SM)

CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 3-1/C 6

CONTROLLER CABINET TO SERVICE CABINET (COMMS):
 2" CONDUIT
 1-6PR 19

SERVICE CABINET TO SOP:
 2" CONDUIT (BY OTHERS)
 3-1/C 2 (BY OTHERS)

SERVICE CABINET TO HH 18:
 2" CONDUIT
 1-3/C 14 (LUM)

SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.
 (SEE EQUIPMENT PAD LAYOUT)

(B-1) INPLACE:
 SOP-WOOD POLE (CONNEXUS)
 120/240 TRANSFORMER
 2" RSC RISER WITH WEATHERHEAD
 REMOVE:
 3-1/C 2 (BY OTHERS)
 F&I:
 2" CONDUIT INTO SERVICE CABINET (BY OTHERS);
 3-1/C 2 (BY OTHERS)

PED PB STATION
 1-APS PB AND SIGN
 (DBL ARROW) (PB6-3)
 EXTEND INTO HH 18:
 1" NOM. DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

RELOCATE PED STA. **1**
 S&I: PED PB STATION
 S&I: 1-APS PB AND SIGN
 (LT ARROW) (PB6-1)
 EXTEND INTO HH 18:
 F&I: 1" NOM. DIA. CONDUIT
 S&I: 1-2/C 14
 S&I: 1-1/C 6 INS. GR.

RELOCATE PED STA. **1**
 S&I: PED PB STATION
 S&I: 1-APS PB AND SIGN
 (RT ARROW) (PB4-2)
 EXTEND INTO HH 1:
 F&I: 1" NOM. DIA. CONDUIT
 S&I: 1-2/C 14
 S&I: 1-1/C 6 INS. GR.


10 PA85 POLE FOUNDATION
 TYPE PA85-AHST-5/5-203 (TEE POLE)
 1-D40-9 LUMINAIRE EXTENSION (STATE FURNISHED)
 1-GRIDSMArt VIDEO DETECTION CAMERA (VD-1)
 (MOUNTED TO LUM. EXT.) (STATE FURNISHED)
 2-ANGLE MOUNT SIGNALS OVERHEAD AT 0' (0 DEG & 180 DEG)
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY
 LIGHT (PHASE 4) (4' FROM END OF MAST ARM)
 1-R3-5R SIGN ADJACENT TO HEAD (4-2)
 1-R3-5R SIGN ADJACENT TO HEAD (4-1)
 1-R6-1R SIGN FACING WEST
 1-"NO TURN ON RED" SIGN
 3" CONDUIT TO HH 14:
 1-12/C 14
 2-3/C 14
 1-3/C 20
 1-CAT 5E CABLE (360 VIDEO DETECTION)
 1-1/C 6 INS. GR.

3 PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 1-ONE WAY EVP DETECTOR (PHASE 1)
 3" CONDUIT TO HH 4:
 1-12/C 14
 1-3/C 20
 2-1/C 6 INS. GR.


2 PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT C. D. PED HEAD
 1-APS PB AND SIGN (LT ARROW) (PB4-1)
 AND APS PB MOUNTING SPACERS
 3" CONDUIT TO HH 4:
 1-4/C 14
 1-2/C 14
 2-1/C 6 INS. GR.

RELOCATE THE EXISTING PED STATION TO FIT THE NEW PED RAMP. S&I THE
 APS PUSH BUTTON, PED STATION (SHAFT & BASE), AND CABLES. INTERCEPT
 THE EXISTING 1" CONDUIT AND EXTEND (F&I) TO THE NEW PED STATION
 LOCATION. PULL THE CABLES BACK TO THE HANDHOLE AND THEN EXTEND
 TO THE NEW PED STATION LOCATION.

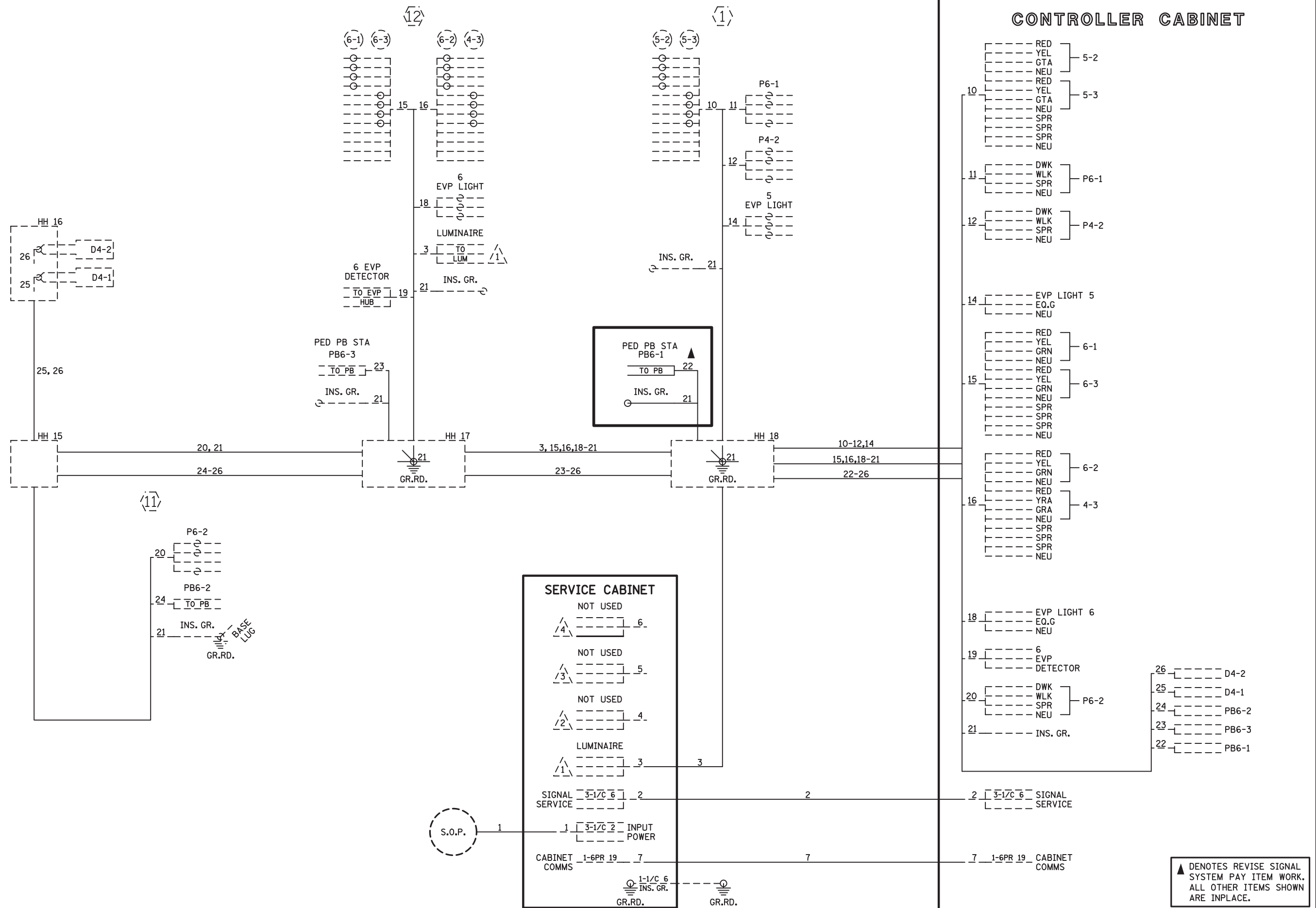
SIGNAL STRUCTURE LOCATIONS			
NO.	LOCATION	NO.	LOCATION
PB6-1	X: 507770.0791, Y: 203740.7258	PB4-2	X: 507777.5501, Y: 203750.4737
PB6-3	X: 507775.0159, Y: 203686.4485		
POLE NO.	LOCATION		MAST ARM
	FOUNDATION	AIM ARM TO	
1	X: 507763.3022, Y: 203741.0784	X: 507763.3022, Y: 203704.3013	35'
2	X: 507839.0850, Y: 203732.8025	-	-
3	X: 507855.5943, Y: 203702.0351	-	-
10	X: 507848.6712, Y: 203651.1862	X: 507848.3737, Y: 203657.7795 X: 507848.9533, Y: 203644.5923	5' 5'
11	X: 507778.0638, Y: 203634.2493	-	-
12	X: 507786.4421, Y: 203683.4378	X: 507821.6983, Y: 203672.9711	35'

SIGNAL REVISION NOTES:
 - THE REVISE SIGNAL SYSTEM WORK CONSISTS OF ADJUSTING (S&I) PUSH BUTTON STATION LOCATIONS.
 - ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
 -  INDICATES SIGNAL REVISION WORK TO BE COMPLETED.
 NOTE: THE "REVISE SIGNAL SYSTEM P" PAY ITEM INCLUDES THE WORK ON SYSTEM Q AS SHOWN.

DISTRICT #: Metro
 I/PLOT NAME: T2120568_2120569_66
 PATH & FILENAME: Projects\DM_R05\065\0000\Traffic\Signals\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\PEINDING\T2120568\T2120569_66.DWG

BY	DATE	REVISIONS	T.H. 65 AT VIKING WEST JCT. - SYSTEM "P" SYSTEM ID: 2120568 T.E. 103236 METER ADDRESS: 19300 HWY 65	REVISE SIGNAL SYSTEM "P" INTERSECTION NOTES - SYSTEM "P" T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) WEST JCT. IN EAST BETHEL, ANOKA COUNTY	S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009	DRAWN BY: CKD BY: CDB	DATE: 10/10/23
					CERTIFIED BY  LIC. NO. 26829	DATE: 10/12/23	
				STATE PROJ. NO. 0208-165 (T.H. 65)	SHEET NO. SS70 OF SS87 SHEETS		

DISTRICT *: Metro
 IPLOT NAME: T2120568_2120569_68
 PATH & FILENAME: Projects\DM罗斯065\00007Traffic\Signal\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\PENDING\T2120568\T2120569_68.DWG 3-NOV-2023

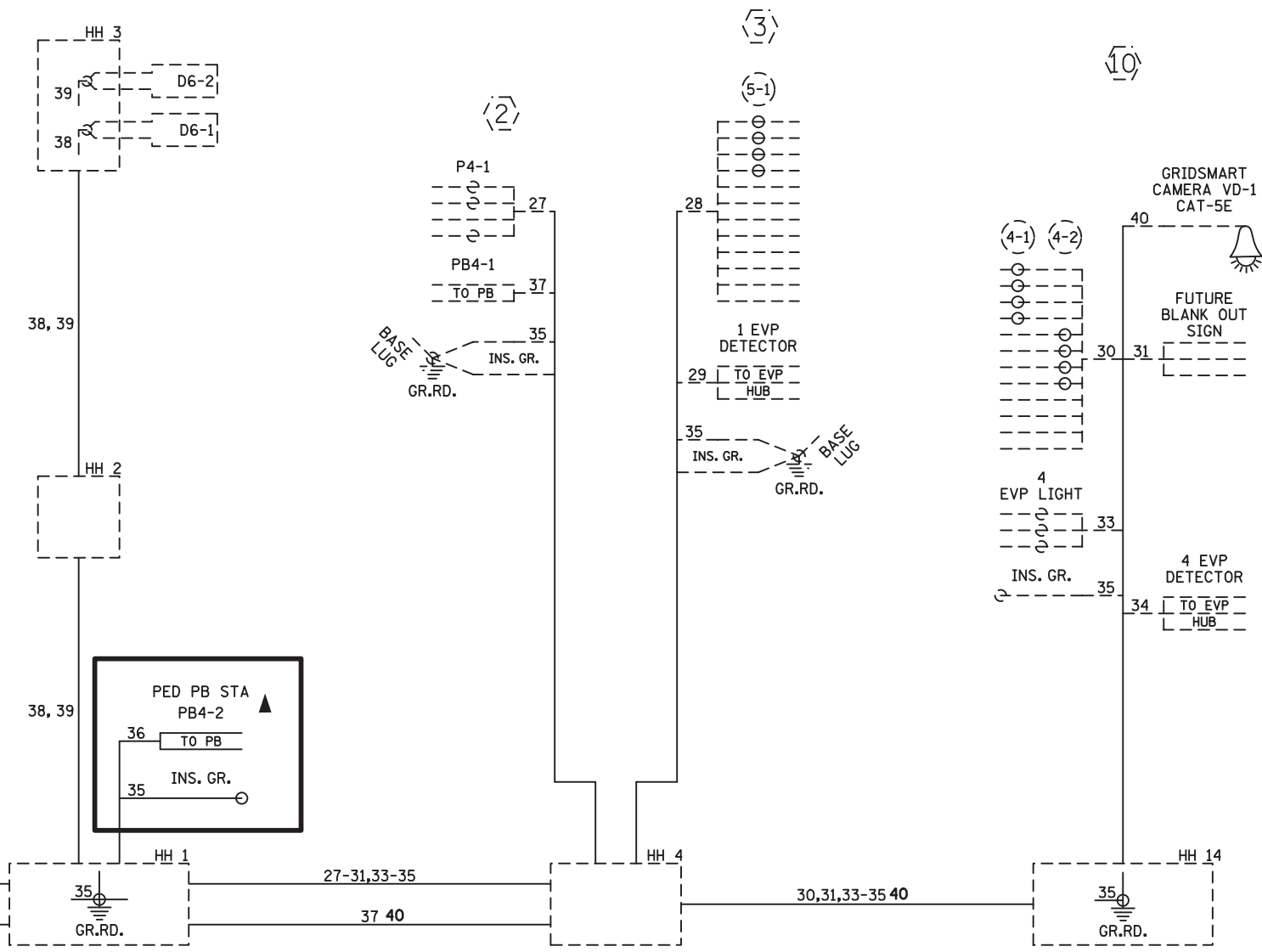
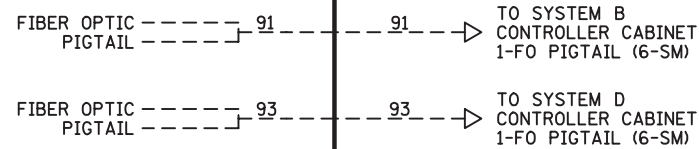
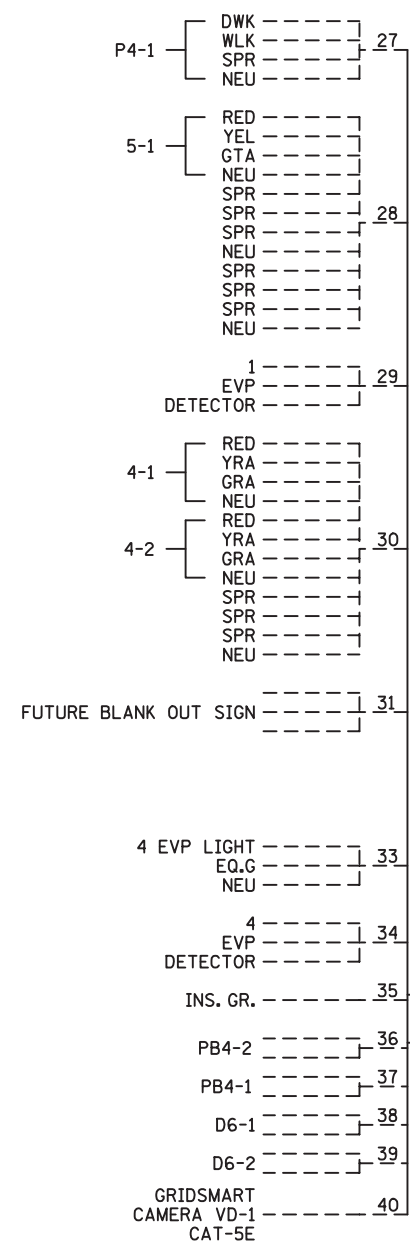


▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

BY	DATE	REVISIONS	T.H. 65 AT VIKING WEST JCT. - SYSTEM "P" SYSTEM ID: 2120568 T.E. 103236 METER ADDRESS: 19300 HWY 65		REVISE SIGNAL SYSTEM "P" FIELD WIRING DIAGRAM - SYSTEM "P" (1 OF 2) T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) WEST JCT. IN EAST BETHEL, ANOKA COUNTY		S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009		DRAWN BY:	CKD BY: CDB	DATE: 10/10/23
							CERTIFIED BY <i>Gregory Kern</i> LIC. NO. 26829 DATE: 10/12/23				
							STATE PROJ. NO. 0208-165 (T.H. 65)		SHEET NO. SS72 OF SS87 SHEETS		

DISTRICT *: Metro
 IPLOT NAME: T2120568_2120569_69
 PATH & FILENAME: Projects\DM罗斯065\0000\Traffic\Signal\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\Pending\T2120568\T2120569_69.DWG

CONTROLLER CABINET



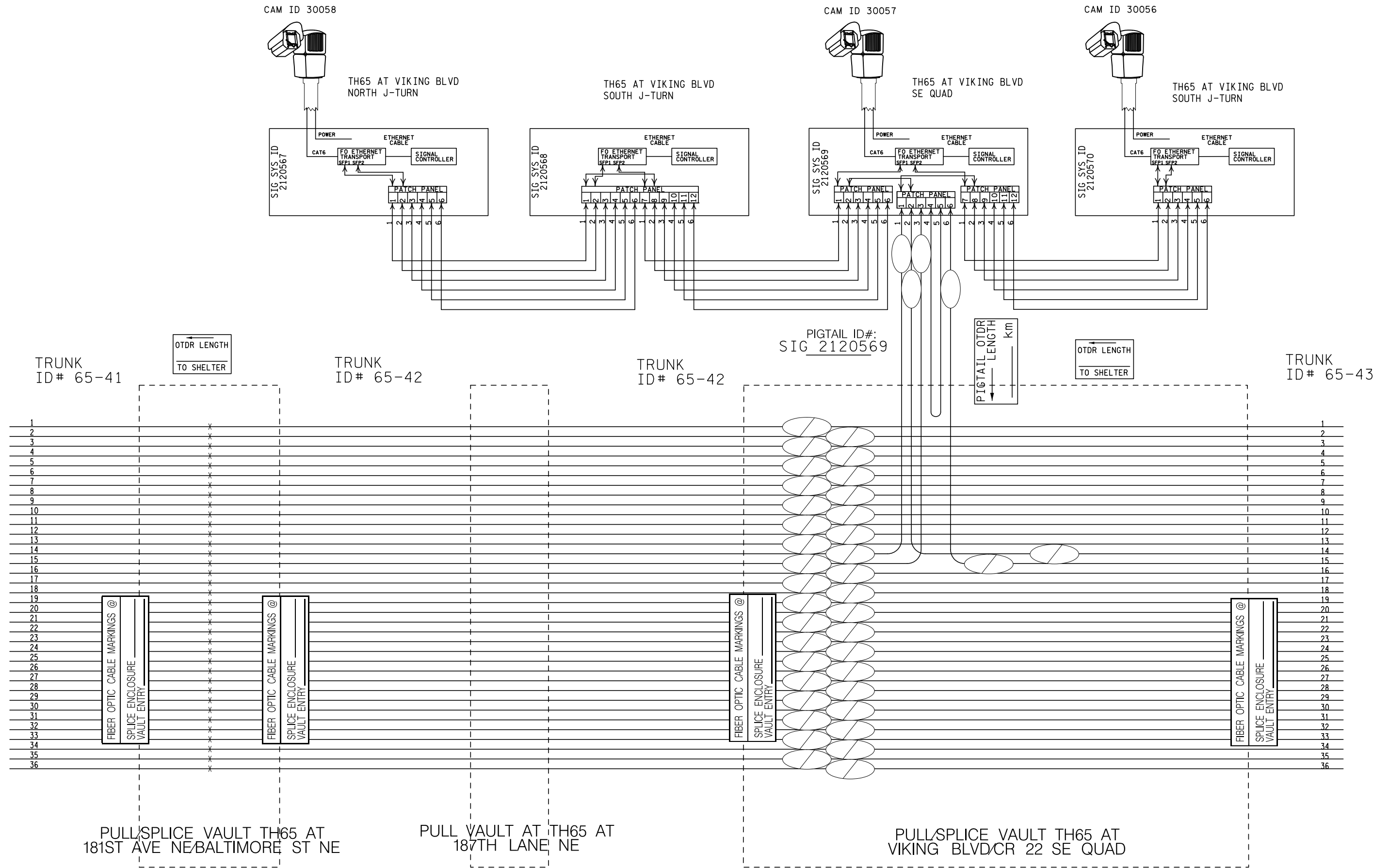
▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

BY	DATE	REVISIONS

T.H. 65 AT VIKING WEST JCT. - SYSTEM "P"
 SYSTEM ID: 2120568 T.E. 103236
 METER ADDRESS: 19300 HWY 65

REVISE SIGNAL SYSTEM "P"
 FIELD WIRING DIAGRAM - SYSTEM "P" (2 OF 2)
 T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) WEST JCT.
 IN EAST BETHEL, ANOKA COUNTY

S.P. 002-632-021, S.P. 106-020-040, S.P. 106-125-009
 DRAWN BY: 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. SS73 OF SS87 SHEETS



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

REV. NO.	DATE: / /
REV. NO.	DATE: / /

CERTIFIED BY *Michael P. Manning* LIC. NO. 43957 OCT 16 2023
 LICENSED PROFESSIONAL ENGINEER

DISTRICT #: Metro
 I/PLOT NAME: Signal system layout
 PATH & FILENAME: Projects\DM_R05\065\00007\Traffic\Signals\25.49_2120568_CSAH_22 (Viking Blvd) West Jct\2120568_2120568\DD\REVISED: 20-SEP-2022

SIGNAL HEAD CHART				
FACE	R	Y	G	
1-1, 1-2, 1-3	○	○	△	
2-1, 2-2, 2-3	○	○	○	
4-1, 4-2, 4-3	○	→	→	
5-1, 5-2, 5-3	○	○	△	
6-1, 6-2, 6-3	○	○	○	
8-1, 8-2, 8-3	○	→	→	

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

PED PB STATION
 1-APS PB AND SIGN (DBL ARROW) (PB6-3)
 EXTEND INTO HH 18:
 1" NOM. DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

PED PB STATION
 1-APS PB AND SIGN (LT ARROW) (PB6-1)
 EXTEND INTO HH 19:
 1" NOM. DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

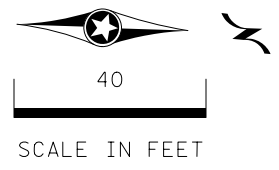
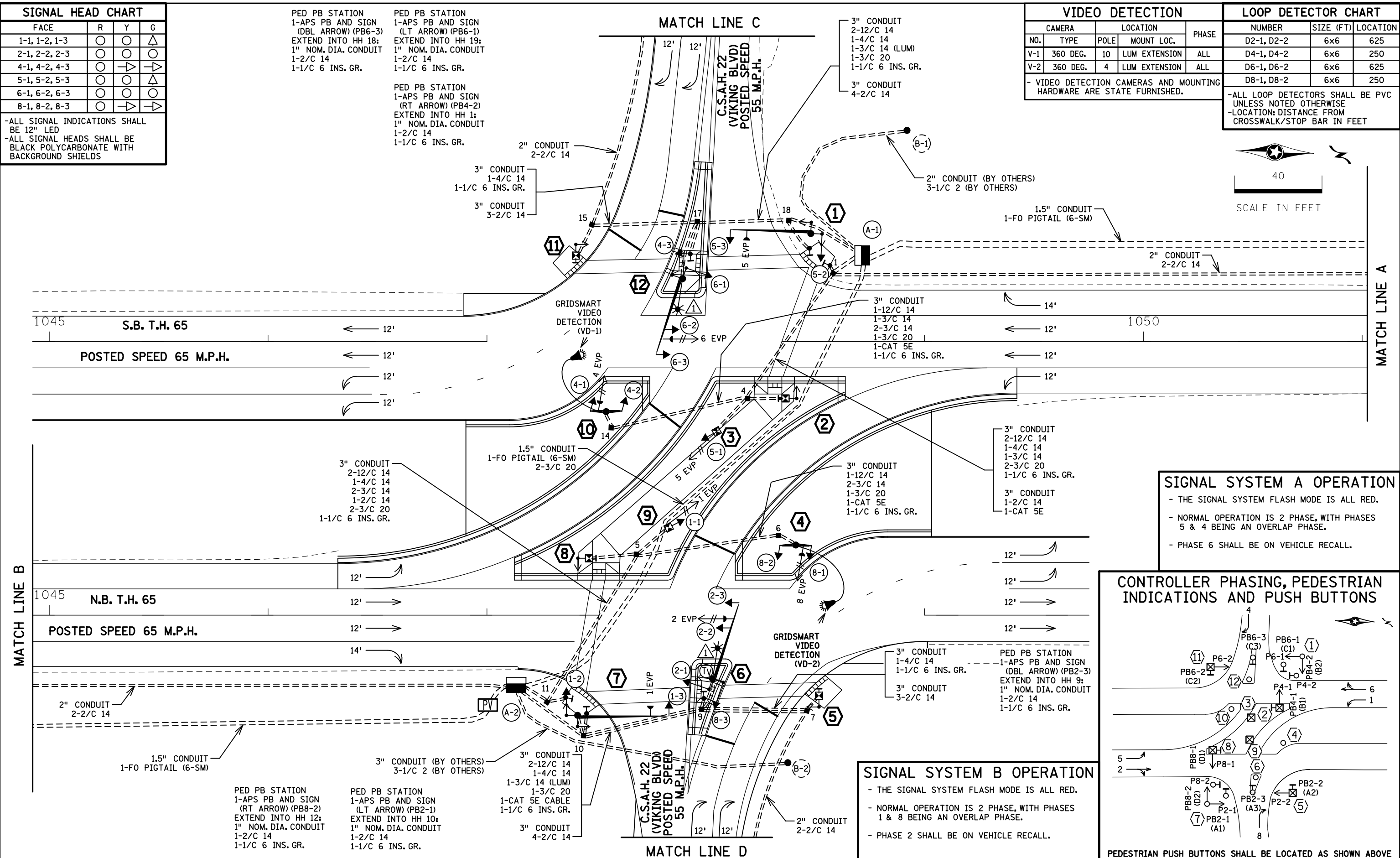
PED PB STATION
 1-APS PB AND SIGN (RT ARROW) (PB4-2)
 EXTEND INTO HH 1:
 1" NOM. DIA. CONDUIT
 1-2/C 14
 1-1/C 6 INS. GR.

VIDEO DETECTION				
CAMERA	LOCATION	PHASE		
NO.	TYPE	POLE	MOUNT LOC.	
V-1	360 DEG.	10	LUM EXTENSION	ALL
V-2	360 DEG.	4	LUM EXTENSION	ALL

- VIDEO DETECTION CAMERAS AND MOUNTING HARDWARE ARE STATE FURNISHED.

LOOP DETECTOR CHART			
NUMBER	SIZE (FT)	LOCATION	
D2-1, D2-2	6x6	625	
D4-1, D4-2	6x6	250	
D6-1, D6-2	6x6	625	
D8-1, D8-2	6x6	250	

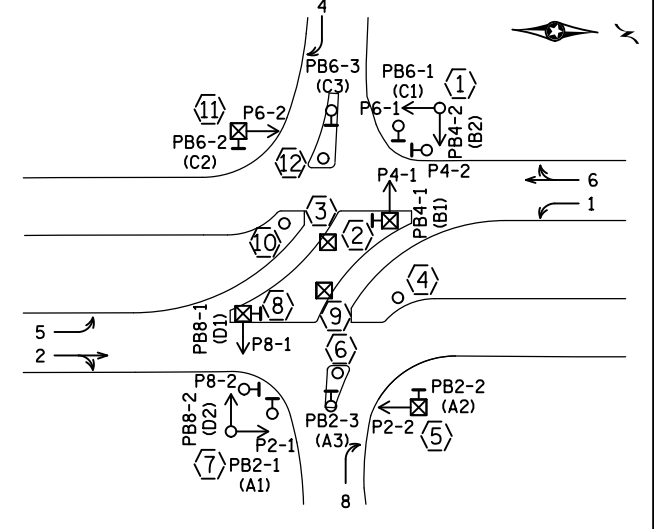
-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE
 -LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET



SIGNAL SYSTEM A OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 2 PHASE, WITH PHASES 5 & 4 BEING AN OVERLAP PHASE.
- PHASE 6 SHALL BE ON VEHICLE RECALL.

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS

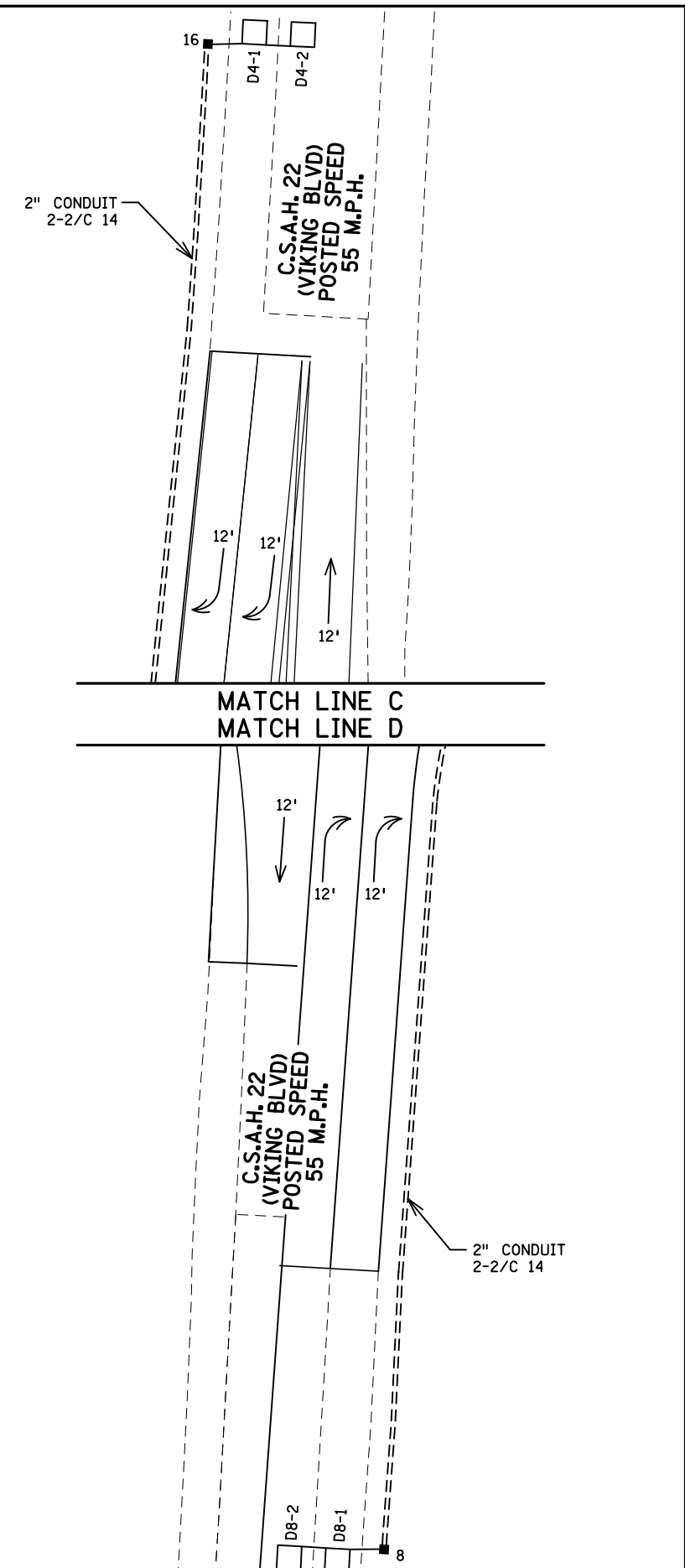
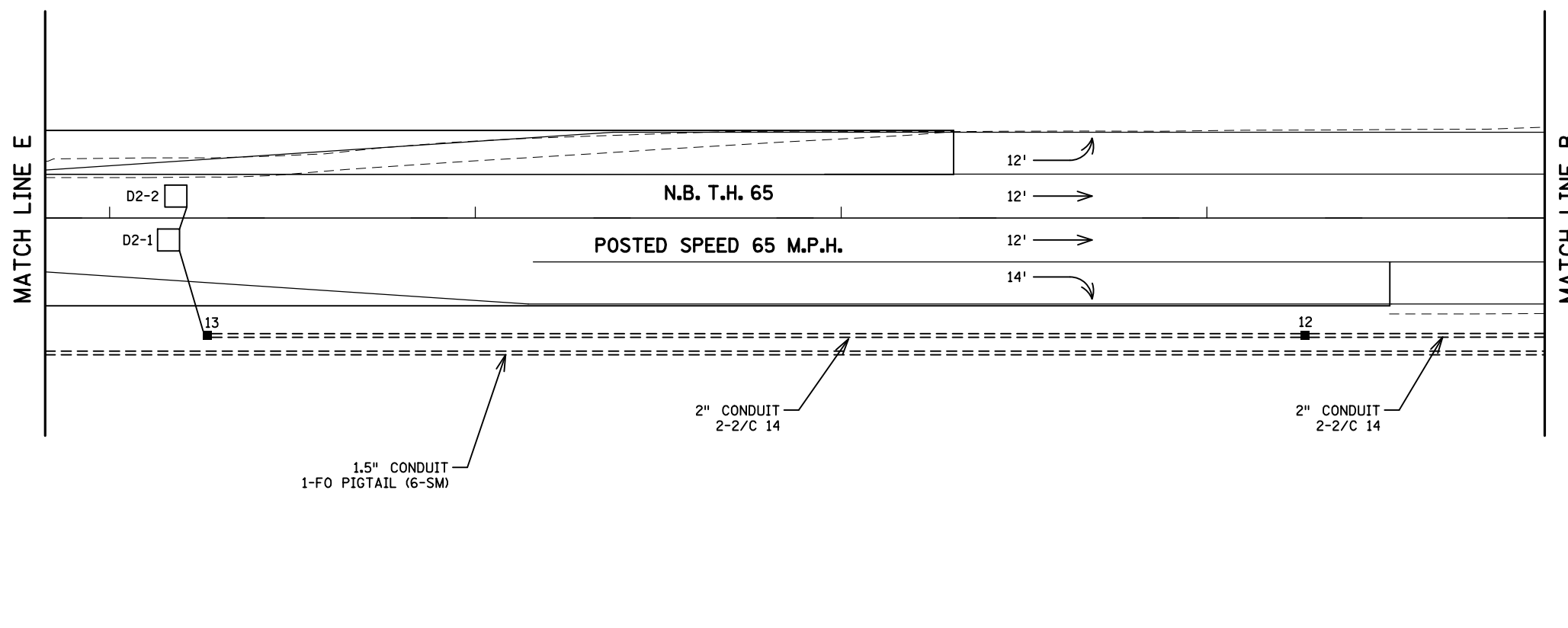
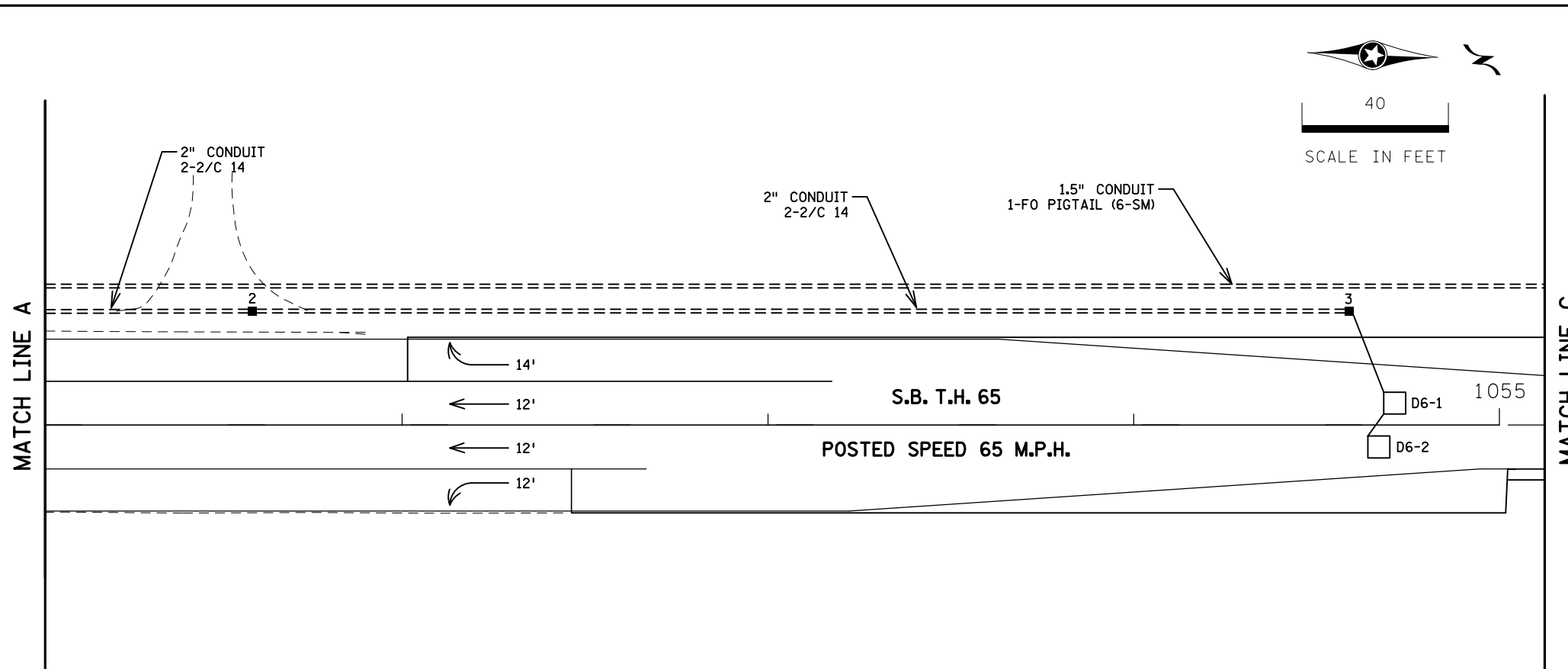


SIGNAL SYSTEM B OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 2 PHASE, WITH PHASES 1 & 8 BEING AN OVERLAP PHASE.
- PHASE 2 SHALL BE ON VEHICLE RECALL.

BY	DATE	REVISIONS	T.H. 65 AT VIKING WEST JCT. - SYSTEM A SYSTEM ID: 2120568 T.E. 4672 METER ADDRESS: 19300 HWY 65	INTERSECTION LAYOUT REVISE SIGNAL SYSTEMS A (WEST) & B (EAST) T.H. 65 AT C.S.A.H. 22 (VIKING BLVD) NE W. & E. JCT. IN EAST BETHEL, ANOKA COUNTY	S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
SJK	9/20/22	REVISED PLAN	T.H. 65 AT VIKING EAST JCT. - SYSTEM B SYSTEM ID: 2120569 T.E. 4673 METER ADDRESS: 19275 HWY 65		CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER	LIC. NO. 19863	DATE: 11/5/20	
					STATE PROJ. NO. 0208-167 (T.H.65)	SHEET NO. 4	OF 17	SHEETS

DISTRICT *: Metro
 IPLOT NAME: match lines
 PATH & FILENAME: Projects\DM_ROS\065\0000\Traffic\Signals\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\2120568_2120568\DD66\REVISED: 20-SEP-2022



BY	DATE	REVISIONS
SJK	9/20/22	REVISED PLAN

T.H. 65 AT VIKING WEST JCT. - SYSTEM A
 SYSTEM ID: 2120568 T.E. 4672
 METER ADDRESS: 19300 HWY 65

T.H. 65 AT VIKING EAST JCT. - SYSTEM B
 SYSTEM ID: 2120569 T.E. 4673
 METER ADDRESS: 19275 HWY 65

INTERSECTION LAYOUT
REVISE SIGNAL SYSTEMS A & B
T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) W. & E. JCT.
IN EAST BETHEL, ANOKA COUNTY

S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
CERTIFIED BY _____	LIC. NO. 19863	DATE: 11/5/20	
STATE PROJ. NO. 0208-167 (T.H.65)		SHEET NO. 5 OF 17 SHEETS	

INTERSECTION NOTES

11 PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT C. D. PED HEAD
 1-APS PB AND SIGN (RT ARROW) (PB6-2)
 AND APS PB MOUNTING SPACERS
 3" CONDUIT TO HH 15:
 1-4/C 14
 1-2/C 14
 1-1/C 6 INS. GR.

12 PA90 POLE FOUNDATION
 TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12'
 2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASE 6)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
 1-R10-11c SIGN FACING WEST
 3" CONDUIT TO HH 17:
 2-12/C 14
 1-3/C 14
 1-3/C 14 (LUM)
 1-3/C 20
 1-1/C 6 INS. GR.

1 PA90 POLE FOUNDATION
 TYPE PA90-A-35
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-ANGLE MOUNT SIGNAL AT 180 DEG
 2-ANGLE MOUNT C. D. PED HEADS
 AT 90 AND 180 DEG
 1-EVP CONFIRMATORY LIGHT (PHASE 5)
 1-R3-5a SIGN ADJACENT TO HEAD (5-3)
 3" CONDUIT TO HH 18:
 1-12/C 14
 2-4/C 14
 1-3/C 14
 1-1/C 6 INS. GR.

A-1 EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB) NO BATTERY BACKUP SYSTEM OR BATTERIES
 CONTROLLER AND CABINET (STATE FURNISHED)
 3" CONDUIT TO HH 18:
 1-12/C 14
 2-4/C 14
 1-3/C 14
 3" CONDUIT TO HH 18:
 2-12/C 14
 1-4/C 14
 1-3/C 14
 1-3/C 20
 1-1/C 6 INS. GR.
 3" CONDUIT TO HH 18:
 5-2/C 14

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)

1.5" CONDUIT TO SYSTEM B CONTROLLER CABINET:
 1-FO PIGTAIL (6-SM)

1.5" CONDUIT TO SYSTEM D CONTROLLER CABINET:
 1-FO PIGTAIL (6-SM)

CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT
 3-1/C 6

CONTROLLER CABINET TO SERVICE CABINET (COMMS):
 2" CONDUIT
 1-6PR 19

SERVICE CABINET TO SOP:
 2" CONDUIT (BY OTHERS)
 3-1/C 2 (BY OTHERS)

SERVICE CABINET TO HH 18:
 2" CONDUIT
 1-3/C 14 (LUM)

SERVICE CABINET TO EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.
 (SEE EQUIPMENT PAD LAYOUT)

(B-1) INPLACE:
 SOP-WOOD POLE (CONNEXUS)
 120/240 TRANSFORMER
 2" RSC RISER WITH WEATHERHEAD
 REMOVE:
 3-1/C 2 (BY OTHERS)
 F&I:
 2" CONDUIT INTO SERVICE CABINET (BY OTHERS):
 3-1/C 2 (BY OTHERS)

10 PA85 POLE FOUNDATION
 TYPE PA85-AHST-5/5-203 (TEE POLE)
 1-D40-9 LUMINAIRE EXTENSION (STATE FURNISHED)
 1-GRIDSART VIDEO DETECTION CAMERA (VD-1)
 (MOUNTED TO LUM. EXT.) (STATE FURNISHED)
 2-ANGLE MOUNT SIGNALS OVERHEAD AT 0' (0 DEG & 180 DEG)
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY
 LIGHT (PHASE 4) (4' FROM END OF MAST ARM)
 1-R3-5R SIGN ADJACENT TO HEAD (4-2)
 1-R3-5R SIGN ADJACENT TO HEAD (4-1)
 1-R6-1R SIGN FACING WEST
 3" CONDUIT TO HH 14:
 1-12/C 14
 2-3/C 14
 1-3/C 20
 1-CAT 5E CABLE (360 VIDEO DETECTION)
 1-1/C 6 INS. GR.

3 PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 1-ONE WAY EVP DETECTOR (PHASE 5)
 3" CONDUIT TO HH 4:
 1-12/C 14
 1-3/C 20
 2-1/C 6 INS. GR.

2 PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT C. D. PED HEAD
 1-APS PB AND SIGN (LT ARROW) (PB4-1)
 AND APS PB MOUNTING SPACERS
 3" CONDUIT TO HH 4:
 1-4/C 14
 1-2/C 14
 2-1/C 6 INS. GR.

SIGNAL STRUCTURE LOCATIONS

NO.	LOCATION	NO.	LOCATION
PB6-1	X: 507770.0791, Y: 203740.7258	PB4-2	X: 507777.5501, Y: 203750.4737
PB6-3	X: 507775.0159, Y: 203686.4485		

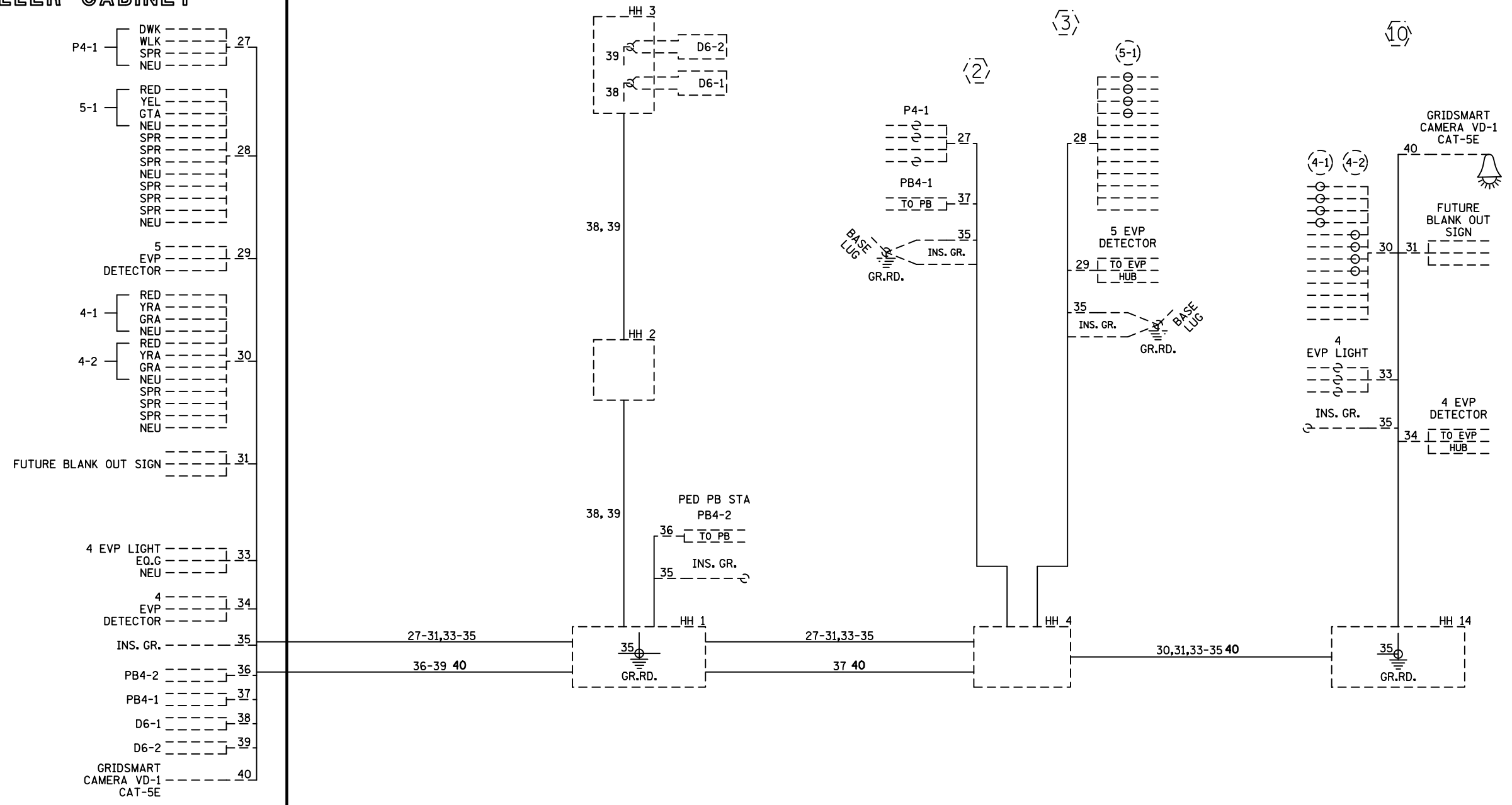
POLE NO.	LOCATION		MAST ARM
	FOUNDATION	AIM ARM TO	
1	X: 507763.3022, Y: 203741.0784	X: 507763.3022, Y: 203704.3013	35'
2	X: 507839.0850, Y: 203732.8025	-	-
3	X: 507855.5943, Y: 203702.0351	-	-
10	X: 507848.6712, Y: 203651.1862	X: 507848.3737, Y: 203657.7795	5'
		X: 507848.9533, Y: 203644.5923	5'
11	X: 507778.0638, Y: 203634.2493	-	-
12	X: 507786.4421, Y: 203683.4378	X: 507821.6983, Y: 203672.9711	35'

DISTRICT *: Metro
 I/PLOT NAME: west_jct pole notes
 PATH & FILENAME: Projects\DM_R05\065\00007Traffic\Signals\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\2120568_2120568\01\REVISED: 20-SEP-2022

BY	DATE	REVISIONS	T.H. 65 AT VIKING WEST JCT. - SYSTEM A SYSTEM ID: 2120568 T.E. 4672 METER ADDRESS: 19300 HWY 65	INTERSECTION NOTES REVISE SIGNAL SYSTEM A T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) WEST JCT. IN EAST BETHEL, ANOKA COUNTY	S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
SJK	9/20/22	REVISED PLAN			CERTIFIED BY _____	LIC. NO. 19863	DATE: 11/5/20	
					STATE PROJ. NO. 0208-167 (T.H.65)	SHEET NO. 6	OF 17 SHEETS	

DISTRICT *: Metro
 IPLOT NAME: west_jct_wiring_diagram 2 of 2
 PATH & FILENAME: Projects\DM罗斯065\00007Traffic\Signal\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\2120568_2120568\00007D.D./REVISED: 20-SEP-2022

CONTROLLER CABINET



FIBER OPTIC PIGTAIL --- 91 --- 91 --- TO SYSTEM B CONTROLLER CABINET 1-FO PIGTAIL (6-SM)
 FIBER OPTIC PIGTAIL --- 93 --- 93 --- TO SYSTEM D CONTROLLER CABINET 1-FO PIGTAIL (6-SM)

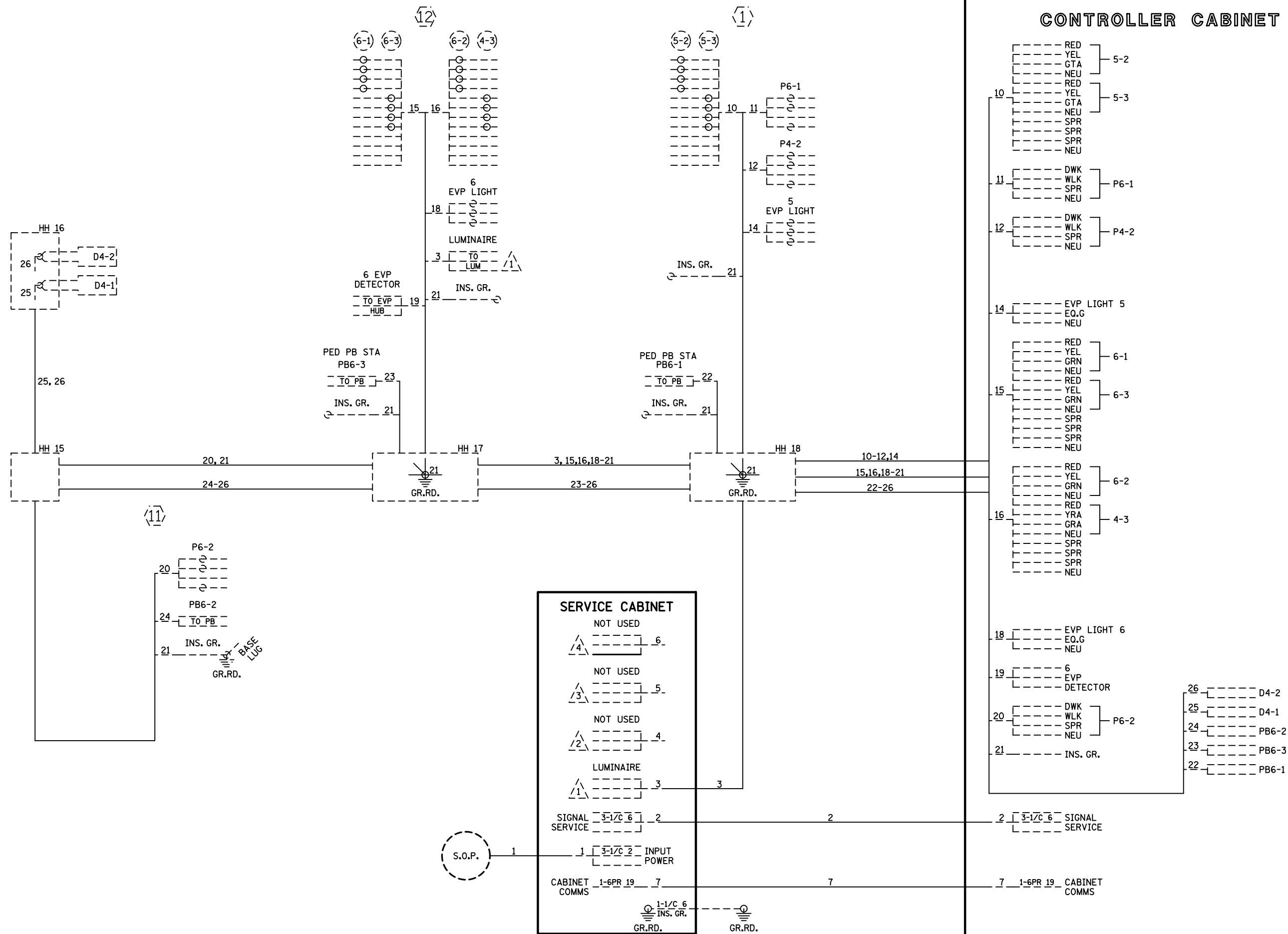
BY	DATE	REVISIONS
SJK	9/20/22	REVISED PLAN

T.H. 65 AT VIKING WEST JCT. - SYSTEM A
 SYSTEM ID: 2120568 T.E. 4672
 METER ADDRESS: 19300 HWY 65

FIELD WIRING DIAGRAM (2 OF 2)
REVISE SIGNAL SYSTEM A
T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) WEST JCT.
IN EAST BETHEL, ANOKA COUNTY

S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
CERTIFIED BY _____	LIC. NO. 19863	DATE: 11/5/20	
STATE PROJ. NO. 0208-167 (T.H.65)		SHEET NO. 7 OF 17 SHEETS	

DISTRICT *: Metro
 IPLOT NAME: west_jct_wiring_diagram_1_of_2
 PATH & FILENAME: Projects\DM_R05\065\00007\Traffic\Signal\25.49_2120568 CSAH 22 (Viking Blvd) West Jct\2120568_2120568\61D66D.D /REVISED: 20-SEP-2022



BY	DATE	REVISIONS
SJK	9/20/22	REVISED PLAN

T.H. 65 AT VIKING WEST JCT. - SYSTEM A
 SYSTEM ID: 2120568 T.E. 4672
 METER ADDRESS: 19300 HWY 65

FIELD WIRING DIAGRAM (1 OF 2)
REVISE SIGNAL SYSTEM A
T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) WEST JCT.
IN EAST BETHEL, ANOKA COUNTY

S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
CERTIFIED BY _____	LIC. NO. 19863		DATE: 11/5/20
STATE PROJ. NO. 0208-167 (T.H.65)		SHEET NO. 8 OF	17 SHEETS

CABLE LABEL :

FIBER OPTIC SCHEMATIC

(FOR SIGNAL COMMUNICATIONS)

CABLE LABEL :

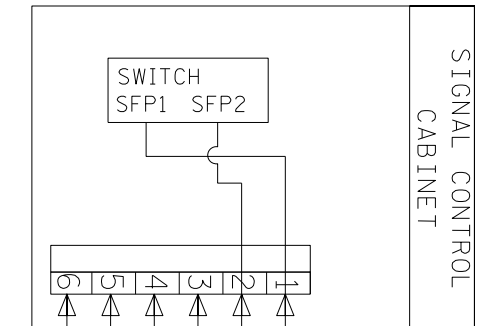
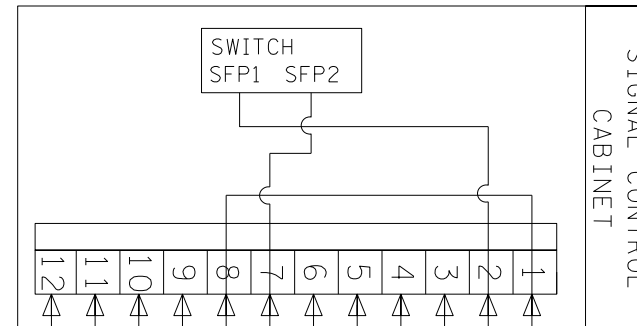
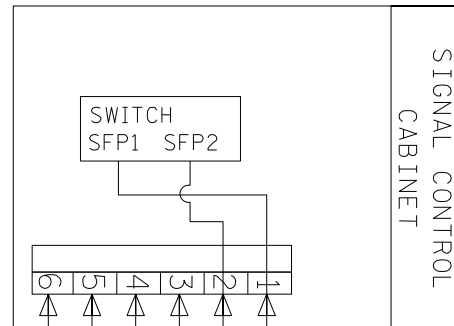
SIGNAL CONTROL
CABINET 2120570

SIG 2120568 6SM -----

SIGNAL CONTROL
CABINET 2120568

SIG 2120567 6SM -----

SIGNAL CONTROL
CABINET 2120567



PRE-TERMINATED
CABLE END

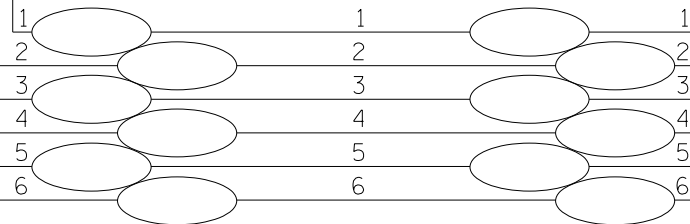
PRE-TERMINATED
CABLE END

PRE-TERMINATED
CABLE END

PIGTAIL ID#:
SIG 2120570 6SM

m B _____
m E _____

SIG 2120570 6SM

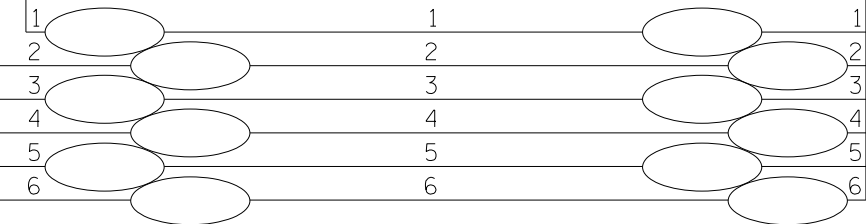


PIGTAIL ID#:
SIG 2120567 6SM

m B _____
m E _____

SIG 2120567 6SM

FIELD
TERMINATED
CABLE END



CABLE LABEL :

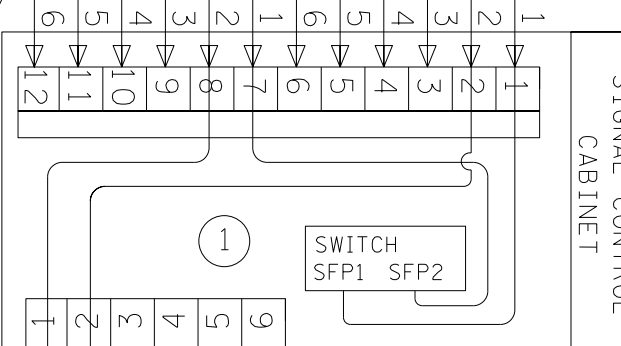
SIG 2120570 6SM -----

CABLE LABEL :

SIG 2120570 6SM -----

FIELD
TERMINATED
CABLE END

SIGNAL CONTROL
CABINET 2120569



PIGTAIL ID#:
SIG 2120568 6SM

m B _____
m E _____

SIG 2120568 6SM

FIELD
TERMINATED
CABLE END

CABLE LABEL :

SIG 2120568 6SM -----

CABLE LABEL :

SIG 2120567 6SM -----

TO T.H.65 TRUNK

SM14

SM23

① SEE SHEET SS09 FOR FIBER OPTIC SCHEMATIC TO TMS SPLICE VAULT.

DISTRICT #1-METRO

DESIGNED BY: JAH
DRAWN BY: JAH
CHECKED BY: BJB

I HEREBY CERTIFY THAT THIS PLAN 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.
CERTIFIED BY: *Brandon J. Bourdon* LIC NO. 43709
PRINTED NAME: BRANDON J. BOURDON, P.E. DATE: 03/13/2018



MINNESOTA DEPARTMENT
OF TRANSPORTATION
TH 65

FIBER OPTIC SCHEMATIC
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) IN EAST BETHEL, ANOKA COUNTY
STATE PROJ. NO. 0208-157 (TH 65)

SS10
OF SS45