

SIGNAL HEAD CHART

FACE	R	Y	G
5-1, 5-2, 5-3, 5-4	○	◀	◀
6-1, 6-2, 6-3, 6-4	○	○	○

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

VIDEO DETECTION

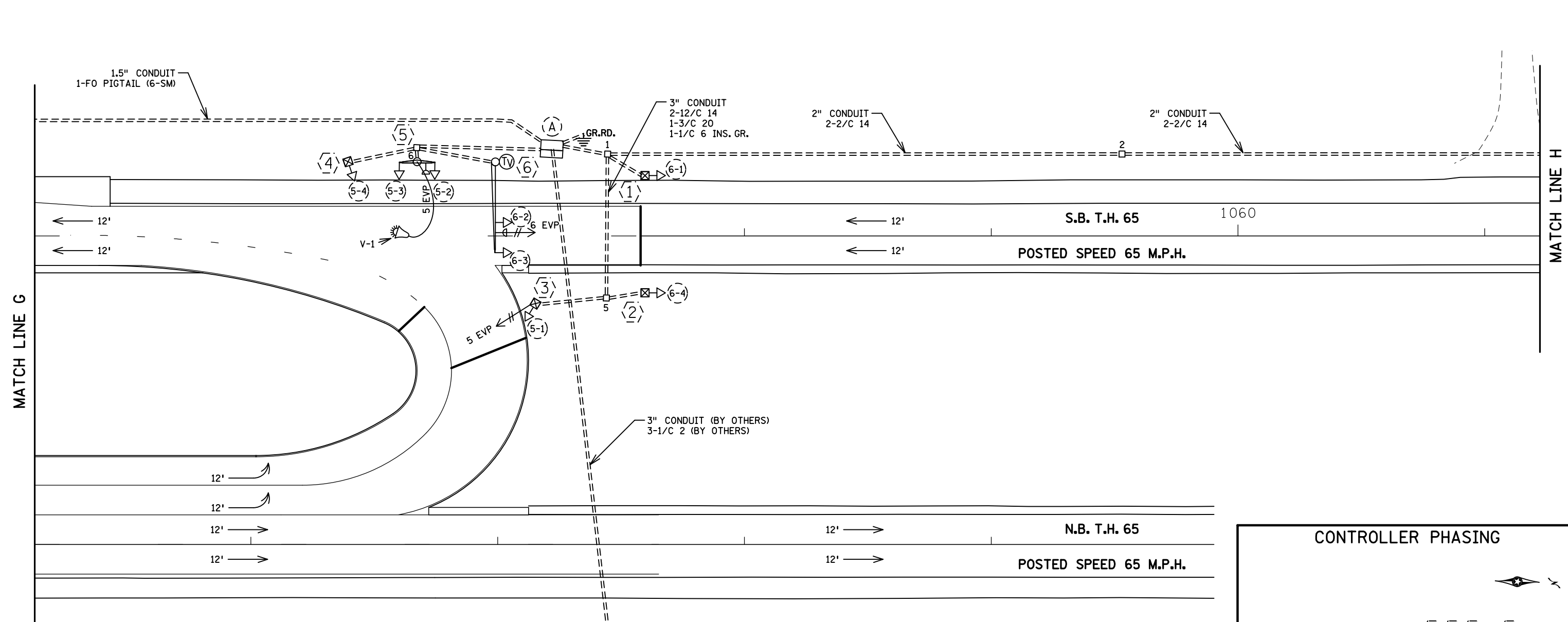
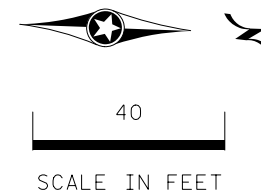
CAMERA NO.	TYPE	LOCATION		PHASE
		POLE	MOUNT LOC.	
V-1	360 DEG.	5	LUM EXTENSION	ALL

- VIDEO DETECTION CAMERAS AND MOUNTING HARDWARE ARE STATE FURNISHED.

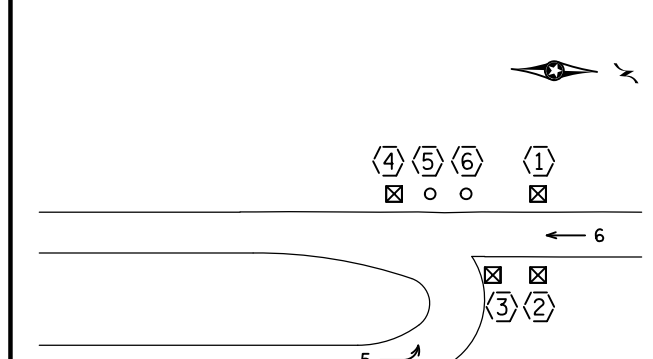
LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D6-1, D6-2	6x6	625

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



CONTROLLER PHASING



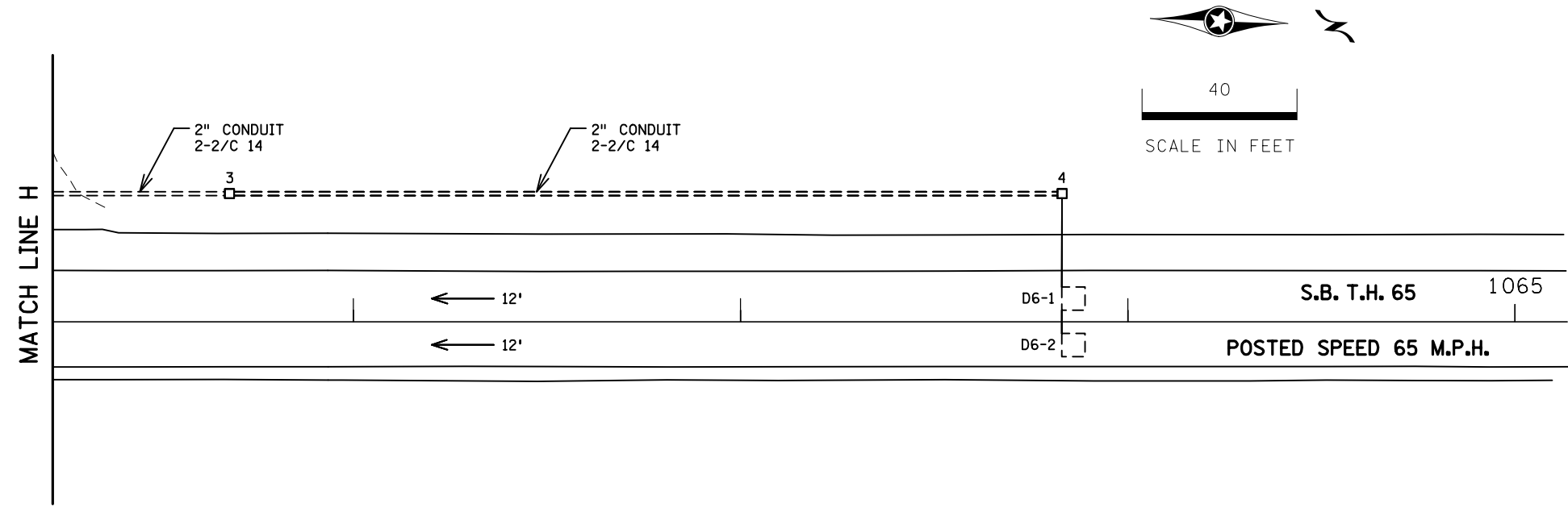
SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 2 PHASE.
- PHASE 6 SHALL BE ON VEHICLE RECALL.

DISTRICT *: Metro
 IPLOT NAME: T2120567.sgl
 PATH & FILENAME: Projects\DM_ROS\065\00007\Traffic\Signal\25.48_2120567_CSAH_22 (Viking Blvd)\North Jct\T2120567.sgl\PLOTTED/REVISED: 19-SEP-2022

BY	DATE	REVISIONS	SYSTEM ID: 2120567	T.E.	S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
SJK	9/19/22	AS-BUILT PLAN	METER ADDRESS: 19436 HWY 65		CERTIFIED BY _____	LIC. NO. 19863	DATE: 11/5/20	
			OLD SYSTEM ID: N/A		STATE PROJ.NO. 0208-167 (T.H.65) SHEET NO. 15 OF 17 SHEETS			

DISTRICT *: Metro
 PLOT NAME: T2120567sgl
 PATH & FILENAME: Projects\DM罗斯065\0000\Traffic\Signal\25.48_2120567 CSAH 22 (Viking Blvd) North Jct\T2120567sgl.dgn PLOTTED/REVISED: 19-SEP-2022



SIGNAL STRUCTURE LOCATIONS			
POLE NO.	LOCATION		MAST ARM
	FOUNDATION	AIM ARM TO	
1	X: 507748.5041, Y: 204652.9890	-	-
2	X: 507795.9410, Y: 204655.0576	-	-
3	X: 507802.2474, Y: 204610.8810	-	-
4	X: 507748.1362, Y: 204532.5059	-	-
5	X: 507746.9163, Y: 204560.4793	X: 507747.2138, Y: 204553.8861	5'
		X: 507746.6342, Y: 204567.0733	5'
6	X: 507745.6046, Y: 204592.1596	X: 507782.1698, Y: 204593.7553	35'

INTERSECTION NOTES

④ PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 1-R6-1L SIGN FACING EAST
 3" CONDUIT TO HH 6:
 1-12/C 14
 1-1/C 6 INS. GR.

⑤ 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-EVP CONFIRMATORY LIGHT (PHASE 5)
 (4' FROM END OF MAST ARM)
 1-R3-5L SIGN ADJACENT TO HEAD (5-3)
 1-R3-5L SIGN ADJACENT TO HEAD (5-2)
 1-R6-1L SIGN FACING EAST
 3" CONDUIT TO HH 6:
 1-12/C 14
 1-3/C 14
 1-3/C 14
 1-CAT 5E CABLE (360 VIDEO DETECTION)
 1-1/C 6 INS. GR.

⑥ PA90 POLE FOUNDATION
 TYPE PA90-A-35-1-X-400 CAMERA EXTENSION
 CCTV CAMERA
 1-PAIR SWING AWAY HINGES
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 12'
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASE 6)
 3" CONDUIT TO HH 6:
 1-12/C 14
 1-3/C 14
 1-3/C 20
 1-CAT 5E CABLE
 1-7/16" GROUNDING BRAID TO GROUND ROD IN HH 6
 1-1/C 6 INS. GR.

③ PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 1-R6-1L SIGN FACING EAST
 1-ONE WAY EVP DETECTOR (PHASE 5)
 3" CONDUIT TO HH 5:
 1-12/C 14
 1-3/C 20
 1-1/C 6 INS. GR.

① PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 3" CONDUIT TO HH 1:
 1-12/C 14
 2-1/C 6 INS. GR.

② PEDESTAL FOUNDATION
 13' PEDESTAL POLE PLUS BASE
 1-STRAIGHT MOUNT SIGNAL
 3" CONDUIT TO HH 5:
 1-12/C 14
 2-1/C 6 INS. GR.

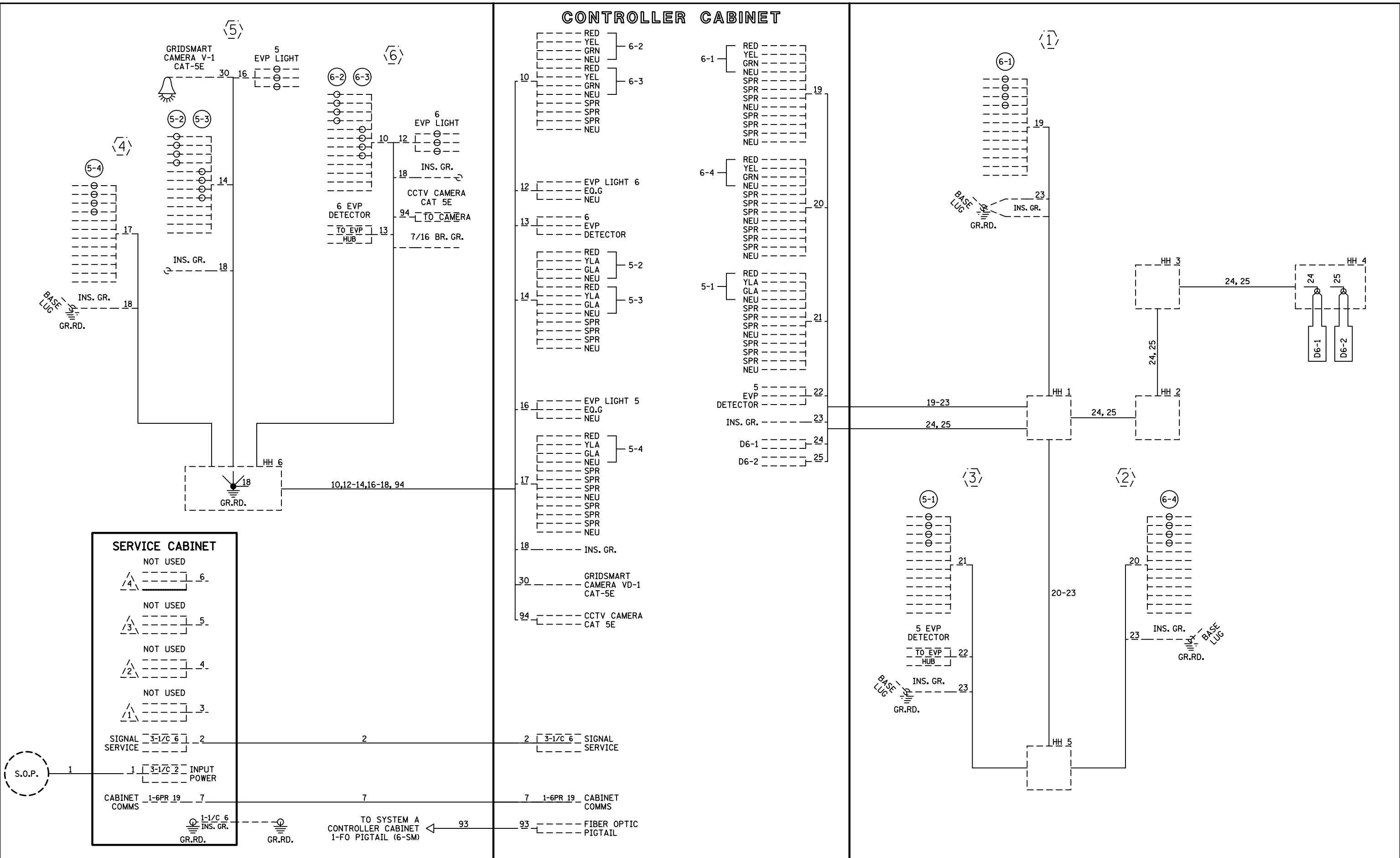
Ⓐ EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB) NO BATTERY BACKUP SYSTEM OR BATTERIES
 CONTROLLER AND CABINET (STATE FURNISHED)
 3" CONDUIT TO HH 6:
 3-12/C 14
 2-3/C 14
 2-3/C 14
 1-3/C 20
 1-3/C 20
 1-CAT 5E CABLE
 1-CAT 5E CABLE
 1-1/C 6 INS. GR.
 3" CONDUIT TO HH 1:
 3-12/C 14
 1-3/C 20
 1-1/C 6 INS. GR.
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)
 1.5" CONDUIT TO SYSTEM A 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 EXTERNAL GR. RD.:
 1" CONDUIT
 1-1/C 6 INS. GR.
 (SEE EQUIPMENT PAD LAYOUT)

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

BY	DATE	REVISIONS	SYSTEM ID: 2120567	T.E.	S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
SJK	9/19/22	AS-BUILT PLAN	METER ADDRESS: 19436 HWY 65		CERTIFIED BY _____	LIC. NO. 19863	DATE: 11/5/20	
			OLD SYSTEM ID: N/A		LICENSED PROFESSIONAL ENGINEER			
TRAFFIC CONTROL SIGNAL SYSTEM MATCH LINE LAYOUT/INTERSECTION NOTES T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) N. JCT. IN EAST BETHEL, ANOKA COUNTY					STATE PROJ. NO. 0208-167 (T.H.65) SHEET NO. 16 OF 17 SHEETS			

DISTRICT #: Metro
 IPLOT NAME: T2120567sgl
 PATH & FILENAME: Projects\DM_ROS\065\0000\Traffic\Signal\25.48_2120567 CSAH 22 (Viking Blvd) North Jct\T2120567sgl.dgn PLOTTED/REVISED: 19-SEP-2022

CONTROLLER CABINET



BY	DATE	REVISIONS	SYSTEM ID: 2120567	T.E.	TRAFFIC CONTROL SIGNAL SYSTEM FIELD WIRING DIAGRAM T.H. 65 AT C.S.A.H. 22 (VIKING BLVD NE) N. JCT. IN EAST BETHEL, ANOKA COUNTY	S.A.P. NO.	DRAWN BY:	CKD BY: CDB	DATE: 11/02/20
SJK	9/19/22	AS-BUILT PLAN	METER ADDRESS: 19436 HWY 65			CERTIFIED BY _____	LIC. NO. 19863		DATE: 11/5/20
			OLD SYSTEM ID: N/A			STATE PROJ. NO. 0208-167 (T.H.65) SHEET NO. 17 OF 17 SHEETS			

CABLE LABEL :

FIBER OPTIC SCHEMATIC

(FOR SIGNAL COMMUNICATIONS)

CABLE LABEL :

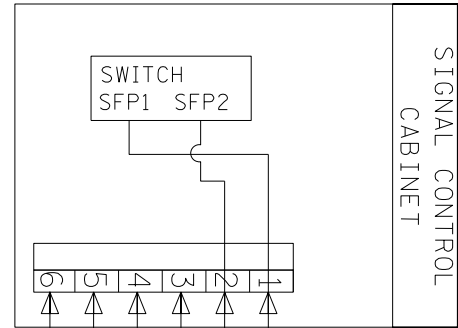
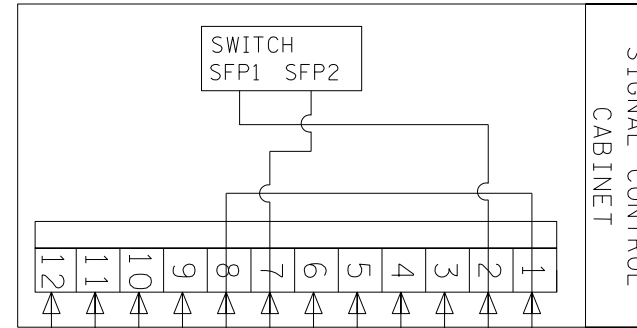
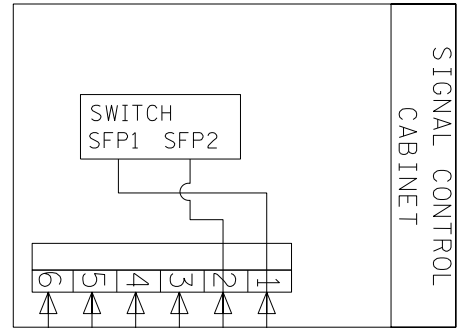
SIG 2120568 6SM -----

SIG 2120567 6SM -----

SIGNAL CONTROL
CABINET 2120570

SIGNAL CONTROL
CABINET 2120568

SIGNAL CONTROL
CABINET 2120567



PRE-TERMINATED
CABLE END

PRE-TERMINATED
CABLE END

PRE-TERMINATED
CABLE END

PIGTAIL ID#:
SIG 2120570 6SM

PIGTAIL ID#:
SIG 2120567 6SM

m B _____

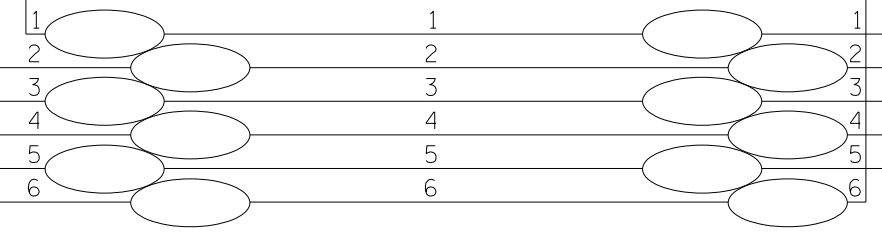
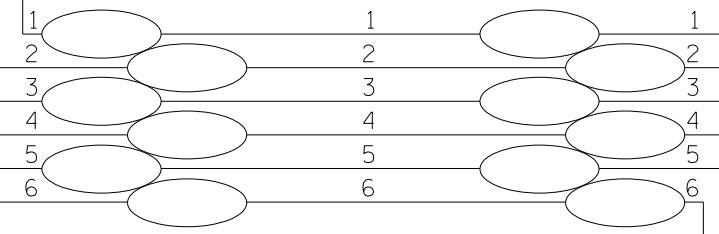
m E _____

m B _____

m E _____

SIG 2120570 6SM

SIG 2120567 6SM



CABLE LABEL :

SIG 2120570 6SM -----

PIGTAIL ID#:

SIG 2120568 6SM

CABLE LABEL :

SIG 2120567 6SM -----

CABLE LABEL :

SIG 2120570 6SM -----

m B _____

m E _____

SIG 2120568 6SM

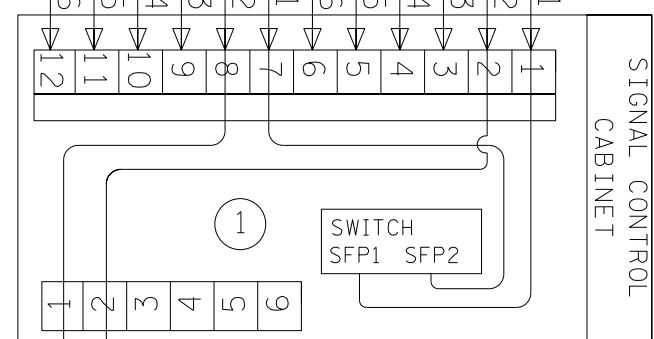
CABLE LABEL :

SIG 2120568 6SM -----

FIELD
TERMINATED
CABLE END

FIELD
TERMINATED
CABLE END

SIGNAL CONTROL
CABINET 2120569



TO T.H.65 TRUNK

SM14

SM23

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

DISTRICT #1: METRO \$DATE\$ \$TIME\$ \$FILE\$

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

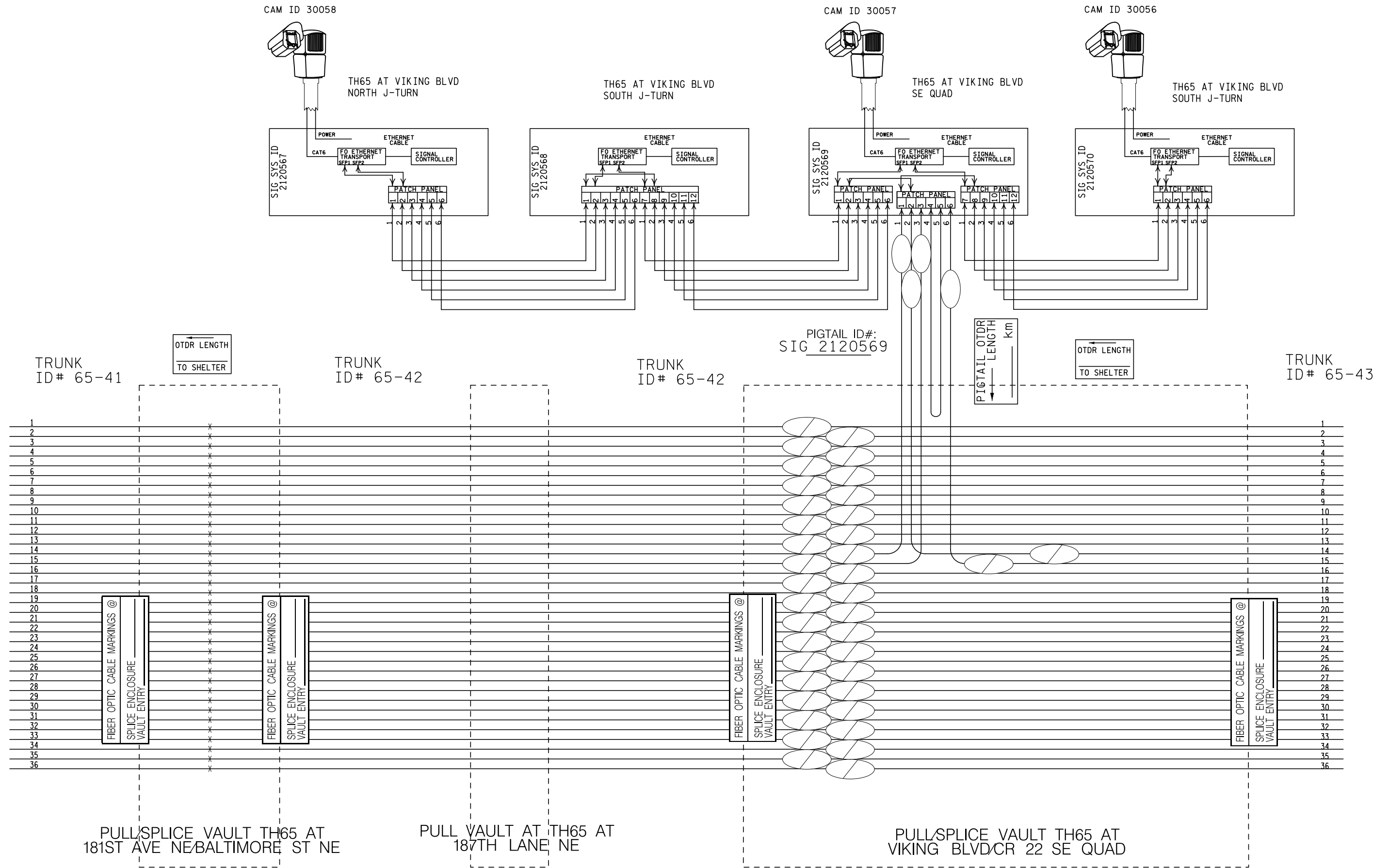
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 CERTIFIED BY: *Brandon J. Bourdon* LIC NO. 43709
 PRINTED NAME: BRANDON J. BOURDON, P.E. DATE: 03/13/2018



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



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