

PLOTTED/REVISED: 13-APR-2023

DISTRICT #: Metro
 PLOT NAME: T_2413863_sgl_sheet 1
 FILENAME: Project\DM\ROS\020000\Traffic\Signal\56.57_2022\CSAH 15 CARLSON PKWY-OAKLAND S.RAMP-2413863.dgn

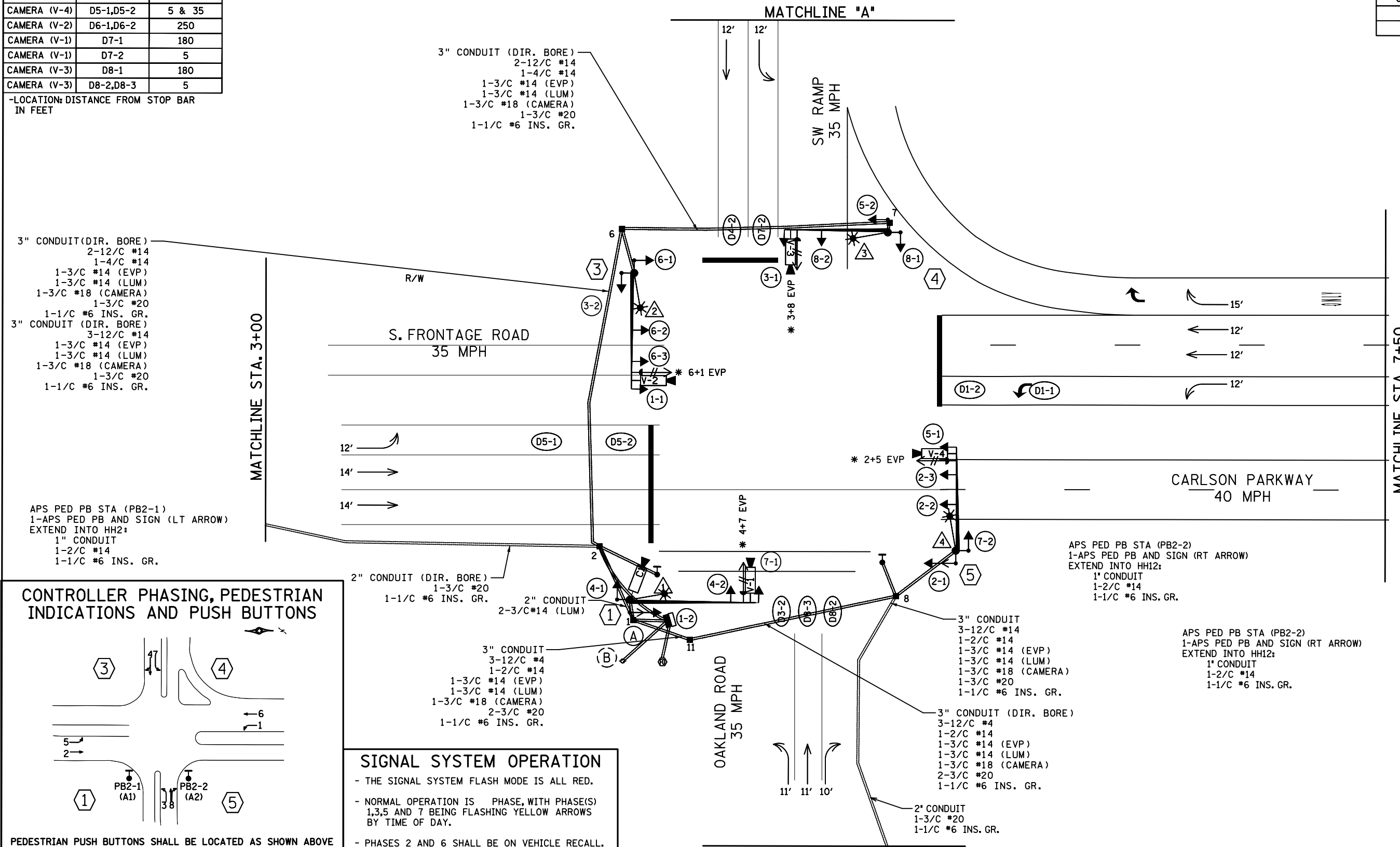
DETECTOR CHART

TYPE	NUMBER	LOCATION
CAMERA (V-2)	D1-1,D1-2	5 & 35
CAMERA (V-4)	D2-1,D2-2	180
CAMERA (V-3)	D3-1	180
CAMERA (V-3)	D3-2	5
CAMERA (V-1)	D4-1	180
CAMERA (V-1)	D4-2	5
CAMERA (V-4)	D5-1,D5-2	5 & 35
CAMERA (V-2)	D6-1,D6-2	250
CAMERA (V-1)	D7-1	180
CAMERA (V-1)	D7-2	5
CAMERA (V-3)	D8-1	180
CAMERA (V-3)	D8-2,D8-3	5

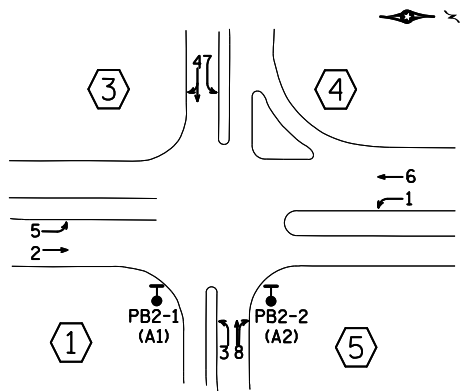
-LOCATION: DISTANCE FROM STOP BAR IN FEET

SIGNAL HEAD CHART

FACE	R	Y	FYA
1-1, 1-2	←	←	←
2-1, 2-2, 2-3	●	●	
3-1, 3-2	←	←	←
4-1, 4-2	●	●	
5-1, 5-2	←	←	←
6-1, 6-2, 6-3	●	●	
7-1, 7-2	←	←	←
8-1, 8-2	●	●	



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



SIGNAL SYSTEM OPERATION

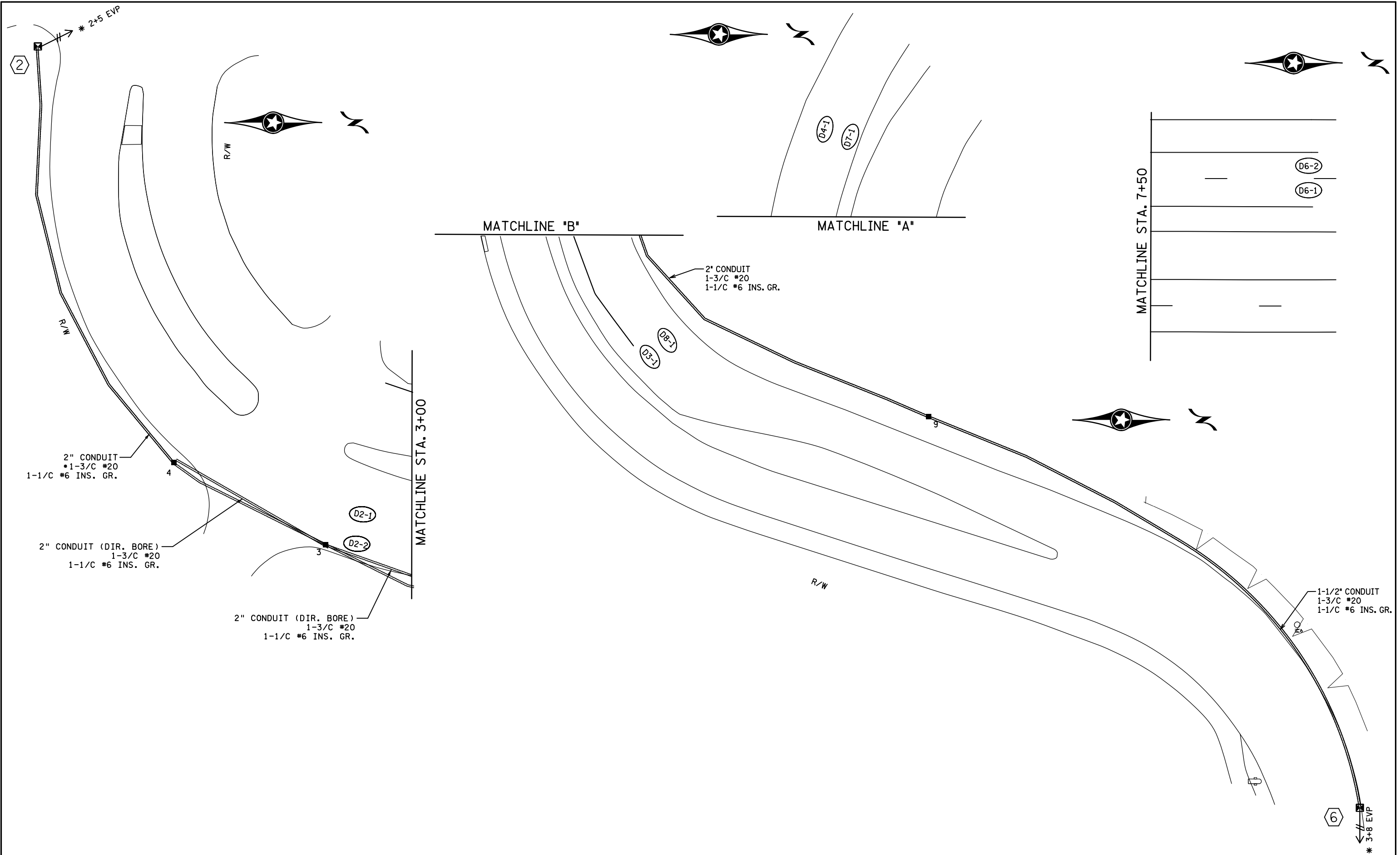
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS PHASE, WITH PHASE(S) 1,3,5 AND 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

BY	DATE	REVISIONS	SYSTEM ID: 2413863	T.E. 8385	TRAFFIC CONTROL SIGNAL SYSTEM INTERSECTION LAYOUT	S.A.P. NO.	DRAWN BY:HRL	CKD BY:CDB	DATE:
HRL	2/9/22	RECORD PLAN	METER ADDRESS:	OLD SYSTEM ID: 20277	T.H. 12 AT CSAH 15 CARLSON PKWY S. RAMP IN THE CITY OF WAYZATA HENN COUNTY	CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
						STATE PROJ.NO. 2714-144 (T.H.12) SHEET NO. 1 OF 5 SHEETS			

PLOTTED/REVISED: 13-APR-2023

DISTRICT *: Metro
PLOT NAME: T_2413863_sgl_SHEET 2
FILENAME: Projects\DM_FROSV02\0000\Traffic\Signals\56.57_2027T_CSAH 15 CARLSON PKWY-OAKLAND S.RAMP-2413863\T_2413863_sgl.dgn



BY	DATE	REVISIONS
HRL	2/9/22	RECORD PLAN

SYSTEM ID: 2413863 T.E. 8385
 METER ADDRESS:
 OLD SYSTEM ID: 20277

**TRAFFIC CONTROL SIGNAL SYSTEM
 MATCHLINE LAYOUT
 T.H. 12 AT CSAH 15 CARLSON PKWY S. RAMP
 IN THE CITY OF WAYZATA HENNA COUNTY**

S.A.P. NO.	DRAWN BY:HRL	CKD BY:CDB	DATE:
CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
STATE PROJ.NO. 2714-144 (T.H.12)		SHEET NO. 2 OF	5 SHEETS

PLOTTED/REVISED: 13-APR-2023

DISTRICT *: Metro
PLOT NAME: T_2413863_sgl_SHEET 3
FILENAME: Projects\DM_FOS\02\0000\Traffic\Signals\5657_2027_CSAH 15 CARLSON PKWY-OAKLAND S.RAMP-2413863.sgl.dgn

① PA100 POLE FOUNDATION
 TYPE PA100-A-50-X6-350/CAM 400 EXTENSION
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11'
 2-ANGLE MOUNT SIGNALS AT 90° AND 180°
 1-ANGLE MOUNT C.D. PED HEAD AT 90°
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4+7) AT 6'
 WITH ADJUSTABLE EVP EXTENSION (UP TO 6')
 1-VIDEO DETECTOR (V-1) ON MAST ARM (CAMERA FACING EB TRAFFIC) AT 3'
 WITH 6' CAMERA MOUNTING EXTENSION ASSEMBLY
 1-PTZ CAMERA (C1) ON X6-350/CAM EXTENSION (SEE CAMERA DETAIL SHEET)
 (CAMERA PROVIDED BY MNDOT)
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (7-1)
 1-R6-1L SIGN AT 0°
 1-R6-1R SIGN AT 180°
 1-R9-3 SIGN AT 270°
 1-TYPE D SIGN (D-1) (SEE SIGN DETAILS) (FROM OLD POLE 4)
 3" CONDUIT TO HH1:
 2-12/C #14
 2-4/C #14
 1-3/C #14 (EVP)
 1-3/C #14 (LUM)
 1-3/C #18 (CAMERA)
 1-3/C #20
 1-CAT5E CABLE (PTZ CAMERA)(C1)
 1-1/C #6 INS. GR.

② PEDESTAL FOUNDATION
 10' PEDESTAL
 1-TWO WAY EVP DETECTOR (PHASES 2+5)
 2" CONDUIT:
 1-3/C #20
 1-1/C #6 INS. GR.

③ PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9(DAVIT AT 350°)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11' AND 23'
 2-ANGLE MOUNT SIGNALS AT 90° AND 180°
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 6+1) AT 6'
 WITH ADJUSTABLE EVP EXTENSION (UP TO 6')
 1-VIDEO DETECTOR (V-2) ON MAST ARM (CAMERA FACING SB TRAFFIC) AT 3'
 WITH 6' CAMERA MOUNTING EXTENSION ASSEMBLY
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
 1-R6-1L SIGN AT 0°
 2-R9-3 SIGNS AT 0° AND 270°
 1-R6-1R SIGN AT 180°
 1-TYPE D SIGN (D-2) (SEE SIGN DETAILS) (FROM OLD POLE 2)
 3" CONDUIT TO HH6:
 3-12/C #14
 1-3/C #14 (EVP)
 1-3/C #14 (LUM)
 1-3/C #18 (CAMERA)
 1-3/C #20
 1-1/C #6 INS. GR.

④ PA100 POLE FOUNDATION
 TYPE PA100-A-40-D40-9(DAVIT AT 350°)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 15'
 2-ANGLE MOUNT SIGNALS AT 90° AND 180°
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 3+8) AT 6'
 WITH ADJUSTABLE EVP EXTENSION (UP TO 6')
 1-VIDEO DETECTOR (V-3) ON MAST ARM (CAMERA FACING WB TRAFFIC) AT 3'
 WITH 6' CAMERA MOUNTING EXTENSION ASSEMBLY
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R10-X12 SIGN ADJACENT TO HEAD (3-1)
 1-R6-1L SIGN AT 0°
 2-R9-3 SIGN AT 0° AND 270°
 1-R6-1R SIGN AT 180°
 1-TYPE D SIGN (D-3) (SEE SIGN DETAILS) (FROM OLD POLE 3)
 1-TYPE D SIGN (D-4) (SEE SIGN DETAILS)
 3" CONDUIT TO HH7:
 2-12/C #14
 1-4/C #14
 1-3/C #14 (EVP)
 1-3/C #14 (LUM)
 1-3/C #18 (CAMERA)
 1-3/C #20
 1-1/C #6 INS. GR.

⑤ PA100 POLE FOUNDATION
 TYPE PA100-A-40-D40-9(DAVIT AT 350°)
 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
 2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'
 2-ANGLE MOUNT SIGNALS AT 90° AND 180°
 1-ANGLE MOUNT C.D. PED HEAD AT 180°
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5) AT 6'
 WITH ADJUSTABLE EVP EXTENSION (UP TO 6')
 1-VIDEO DETECTOR (V-4) ON MAST ARM (CAMERA FACING NB TRAFFIC) AT 3'
 WITH 6' CAMERA MOUNTING EXTENSION ASSEMBLY
 LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
 1-R6-1L SIGN AT 0°
 1-R9-3 SIGN AT 0°
 1-R6-1R SIGN AT 180°
 1-TYPE D SIGN (D-5) (SEE SIGN DETAILS) (FROM OLD POLE 1)
 3" CONDUIT TO HH8:
 3-12/C #14
 1-3/C #14 (EVP)
 1-3/C #14 (LUM)
 1-3/C #18 (CAMERA)
 1-3/C #20
 1-1/C #6 INS. GR.

⑥ PEDESTAL FOUNDATION
 10' PEDESTAL
 1-ONE WAY EVP DETECTOR (PHASES 3+8)
 DETECTOR TO BE ADJUSTED IN COORDINATION WITH
 MNDOT AND THE CITY OF MINNETONKA FIRE DEPARTMENT
 2" CONDUIT:
 1-3/C #20
 1-1/C #6 INS. GR.

Ⓐ EQUIPMENT PAD (SEE DETAIL SHEET)
 SERVICE CABINET (SSB) WITH BATTERY
 BACKUP SYSTEM
 CONTROLLER AND CABINET.
 CONTROLLER CABINET TO HH1:
 3" CONDUIT (POLE 1) 3" CONDUIT (POLES 5 AND 6)
 2-12/C #14 3-12/C #14
 2-4/C #14 1-2/C #14
 1-3/C #14 (EVP) 1-3/C #14 (EVP)
 1-3/C #18 (CAMERA) 1-3/C #18 (CAMERA)
 1-3/C #20 2-3/C #20
 1-CAT5E CABLE (PTZ CAMERA)(C1) 1-1/C #6 INS. GR.
 1-1/C #6 INS. GR.
 CONTROLLER CABINET TO HH2:
 3" CONDUIT (POLE 4) 3" CONDUIT (POLES 2 AND 3)
 2-12/C #14 3-12/C #14
 1-4/C #14 1-2/C #14
 1-3/C #14 (EVP) 1-3/C #14 (EVP)
 1-3/C #18 (CAMERA) 1-3/C #18 (CAMERA)
 1-3/C #20 2-3/C #20
 1-1/C #6 INS. GR. 1-1/C #6 INS. GR.
 GROUND WIRE AND GROUND ROD-MIN 8' OUT FROM PAD
 (SERVICE CABINET TO EXTERNAL GR. ROD)
 1" CONDUIT
 1-1/C #6 INS. GR.
 1.5" CONDUIT TO TMS VAULT
 2-FO CABLE (6-SM)
 2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)
 1-1/2" CONDUIT STUBBED OUT (FOR TELEPHONE LINE)
 CONTROLLER CABINET TO SERVICE CABINET:
 2" CONDUIT (COMMS)
 1-6PR #19
 2" CONDUIT (SERVICE)
 2-1/C #6
 1-1/C #6 INS. GR.
 SERVICE CABINET TO HH1:
 2" CONDUIT
 4-3/C #14 (LUM)
 SERVICE CABINET TO POLE MOUNTED TRANSFORMER:
 2" CONDUIT (RSC)
 3-1/C #2

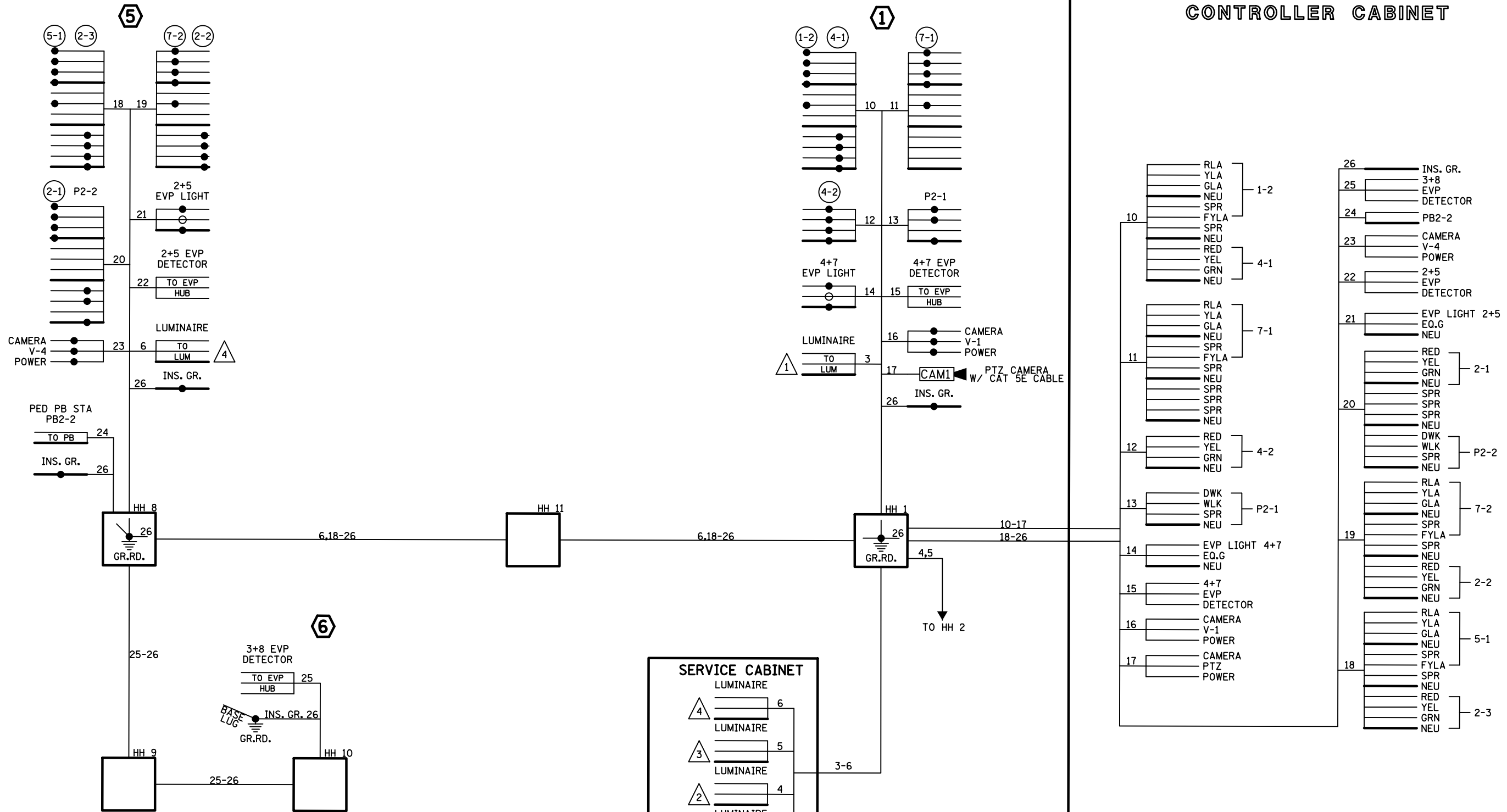
Ⓑ SOP-POLE MOUNTED
 2" RSC WITH RISER AND WEATHERHEAD
 2" RSC INTO SERVICE CABINET
 3-1/C #2

BY	DATE	REVISIONS	SYSTEM ID: 2413863	T.E. 8385	TRAFFIC CONTROL SIGNAL SYSTEM INTERSECTION NOTES T.H. 12 AT CSAH 15 CARLSON PKWY S. RAMP IN THE CITY OF WAYZATA HENNA COUNTY	S.A.P. NO.	DRAWN BY:HRL	CKD BY:CDB	DATE:
HRL	2/9/22	RECORD PLAN	METER ADDRESS:	OLD SYSTEM ID: 20277		CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
						STATE PROJ.NO. 2714-144 (T.H.12)	SHEET NO. 3	OF 5	SHEETS

PLOTTED/REVISED: 13-APR-2023

DISTRICT #: Metro
PLOT NAME: T_2413863_sgl_SHEET 4
FILENAME: Project\DL\ROS\02\0000\Traffic\Signal\56.57_2027\CSAH 15 CARLSON PKWY-OAKLAND S-RAMP-2413863_T_2413863_sgl.dgn

CONTROLLER CABINET



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

BY	DATE	REVISIONS
HRL	2/9/22	RECORD PLAN

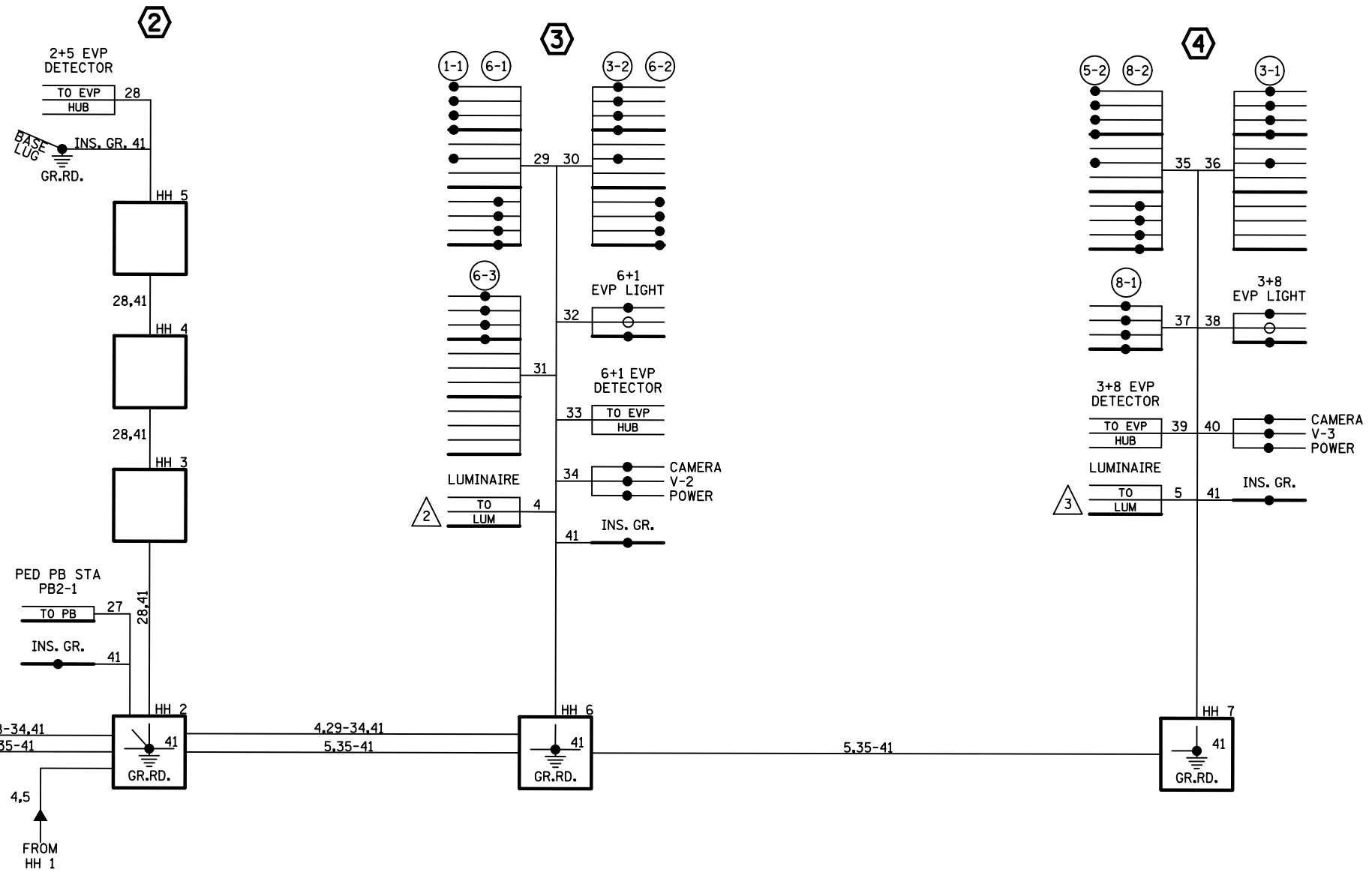
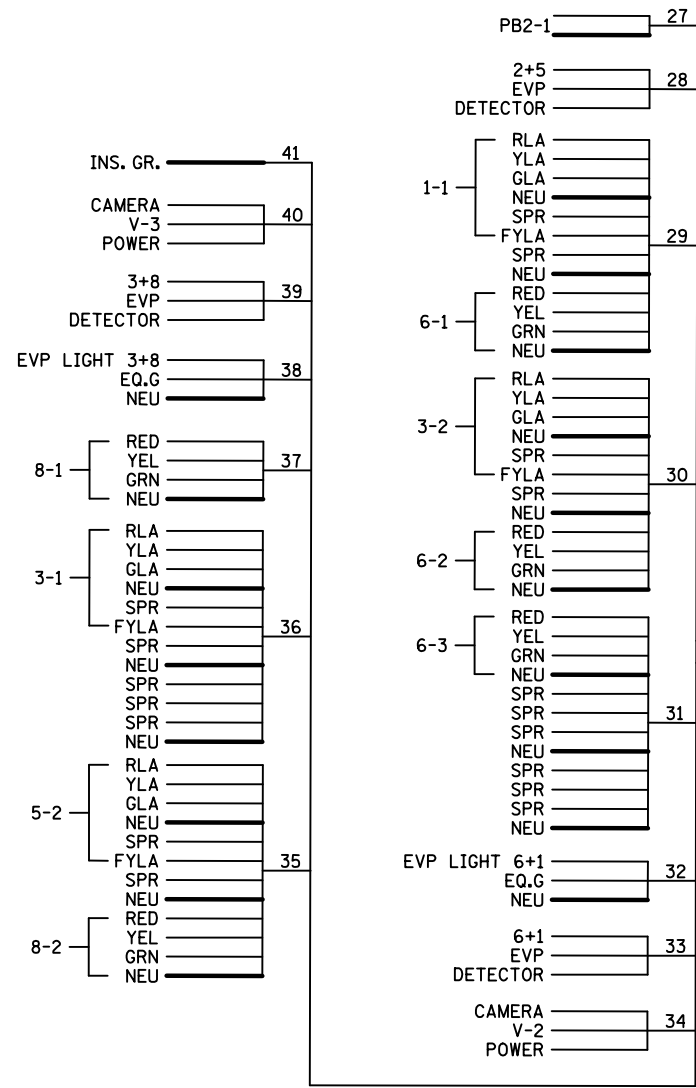
SYSTEM ID: 2413863 T.E. 8385
 METER ADDRESS: 1500 LINNEN ROAD
 OLD SYSTEM ID: 20277

TRAFFIC CONTROL SIGNAL SYSTEM WIRING DIAGRAM

T.H. 12 AT CSAH 15 CARLSON PKWY S. RAMP IN THE CITY OF WAYZATA HENNA COUNTY

S.A.P. NO.	DRAWN BY: HRL	CKD BY: CDB	DATE:
CERTIFIED BY	LICENSED PROFESSIONAL ENGINEER	LIC. NO.	DATE:
STATE PROJ. NO. 2714-144 (T.H. 12)		SHEET NO. 4	OF 5 SHEETS

CONTROLLER CABINET

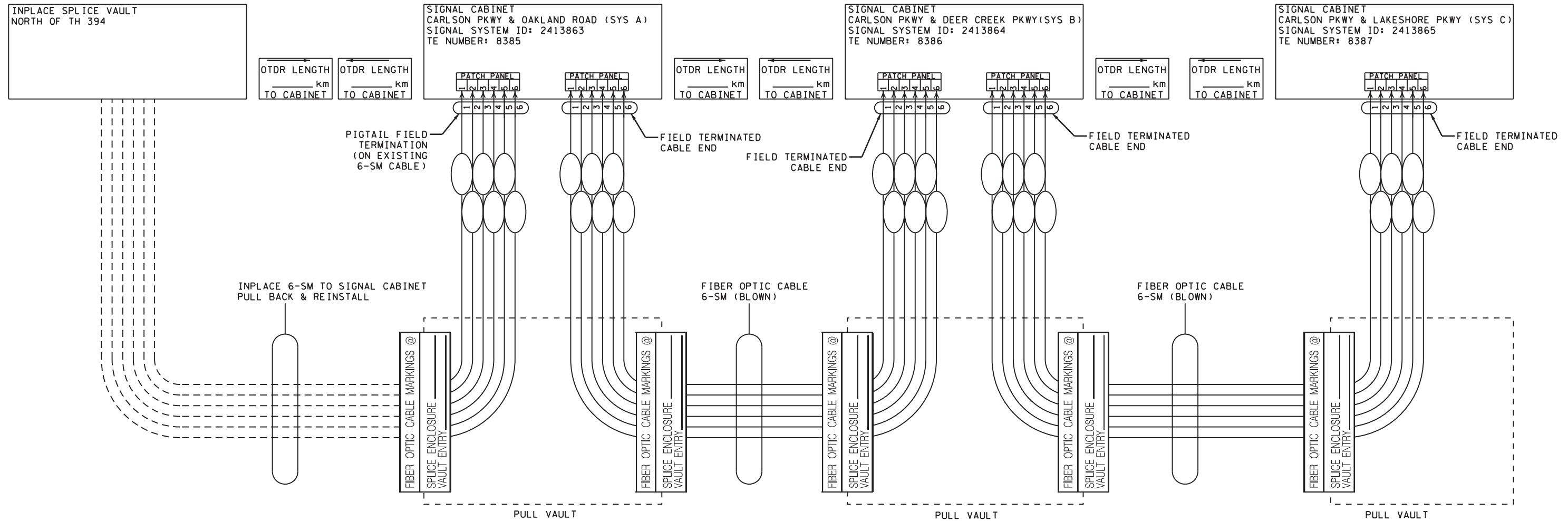


NOTES:
 1. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET (NO BATTERIES).
 2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.

DISTRICT #: Metro
 PLOT NAME: T_2413863_sgl_SHEET 5
 FILENAME: Projects\DM_ROMS\020000Traffic\Signal\56.57_2027_CSAH 15 CARLSON PKWY-OAKLAND S-RAMP-2413863T_2413863_sgl.dgn
 PLOTTED/REVISED: 13-APR-2023

BY	DATE	REVISIONS	SYSTEM ID: 2413863	T.E. 8385	S.A.P. NO.	DRAWN BY:HRL	CKD BY:CDB	DATE:
HRL	2/9/22	RECORD PLAN	METER ADDRESS: 1500 LINNEN ROAD		CERTIFIED BY _____	LIC. NO. _____	DATE: _____	
			OLD SYSTEM ID: 20277		STATE PROJ.NO. 2714-144 (T.H.12) SHEET NO. 5 OF 5 SHEETS			

FIBER OPTIC SCHEMATIC (FOR SIGNAL COMMUNICATIONS)



NOTE:
SEE SPECIAL PROVISIONS FOR DETAILS
ON CONNECTING, TESTING, AND SPLICING.

TRAFFIC CONTROL INTERCONNECT DETAILS

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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.

Bryan T. Nemeth
BRYAN T. NEMETH
LIC. NO. 43354 DATE 12-20-2018



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



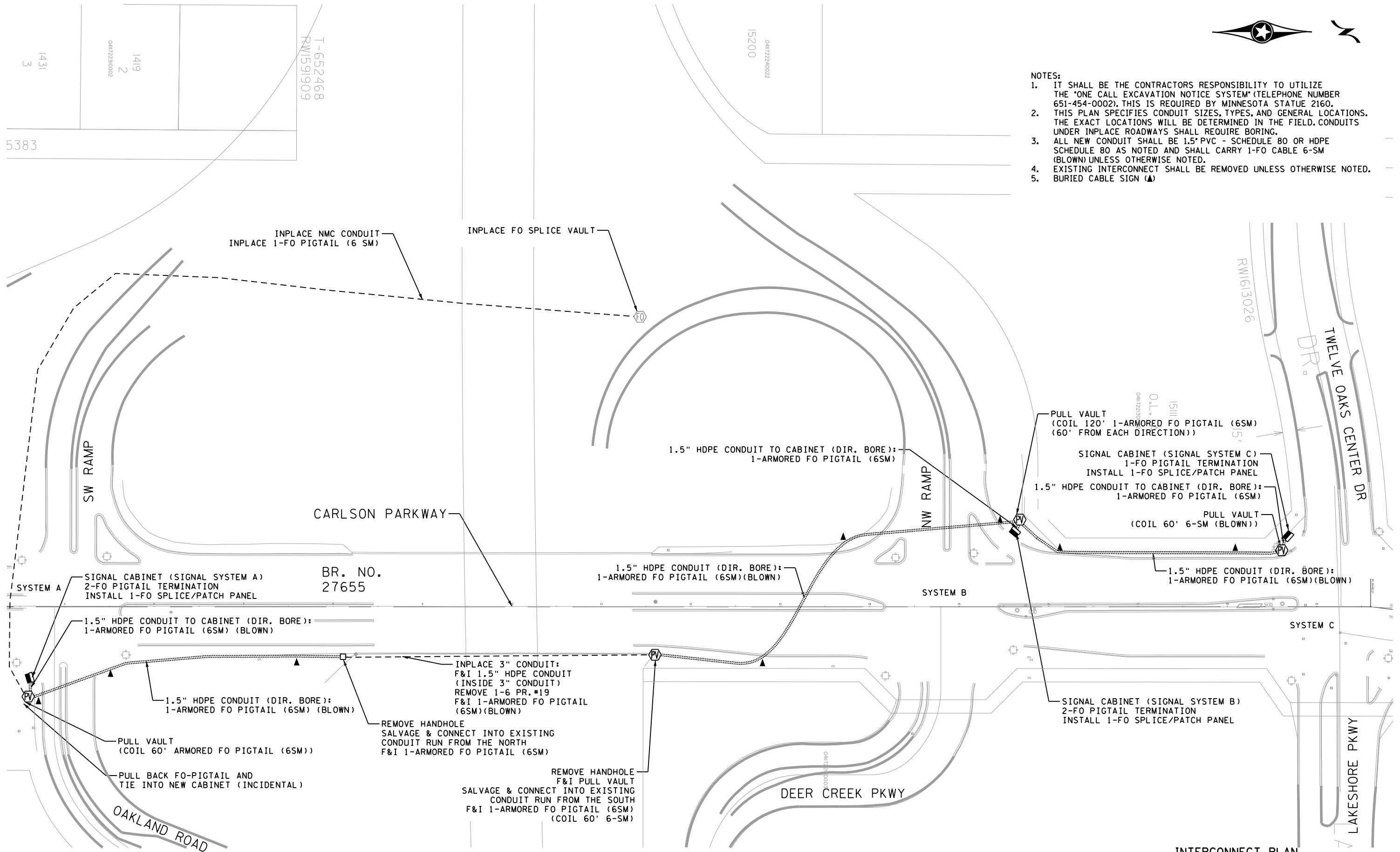
DESIGNED ZAP	REV.	BY	DATE
DRAWN ZAP			
CHECKED BTN			

CARLSON PARKWAY IMPROVEMENTS	
S.P. 2714-144 (TH 12), S.A.P. 142-152-009	
SIGNAL INTERCONNECT PLAN	

SHEET
88
OF
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- NOTES:
1. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651-454-0002). THIS IS REQUIRED BY MINNESOTA STATUTE 2160.
 2. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER INPLACE ROADWAYS SHALL REQUIRE BORING.
 3. ALL NEW CONDUIT SHALL BE 1.5" PVC - SCHEDULE 80 OR HDPE SCHEDULE 80 AS NOTED AND SHALL CARRY 1-FO CABLE 6-SM (BLOWN) UNLESS OTHERWISE NOTED.
 4. EXISTING INTERCONNECT SHALL BE REMOVED UNLESS OTHERWISE NOTED.
 5. BURIED CABLE SIGN (▲)



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12/20/2018

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SCALE FEET

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.

Bryan T. Nemeth
BRYAN T. NEMETH
LIC. NO. 43354 DATE 12-20-2018

BOLTON & MENK

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Email: Burnsville@bolton-menk.com
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DESIGNED ZAP	REV.	BY	DATE
	DRAWN ZAP		
	CHECKED BTN		

INTERCONNECT PLAN

CARLSON PARKWAY IMPROVEMENTS

S.P. 2714-144 (TH 12), S.A.P. 142-152-009

SIGNAL INTERCONNECT PLAN

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