

**VIDEO DETECTION**

CAMERA NUMBER	DETECTION PHASE(S)
V-1	2, 4, 5, 6

NOTE: ALL DETECTOR FUNCTIONS VIA CONTROLLER

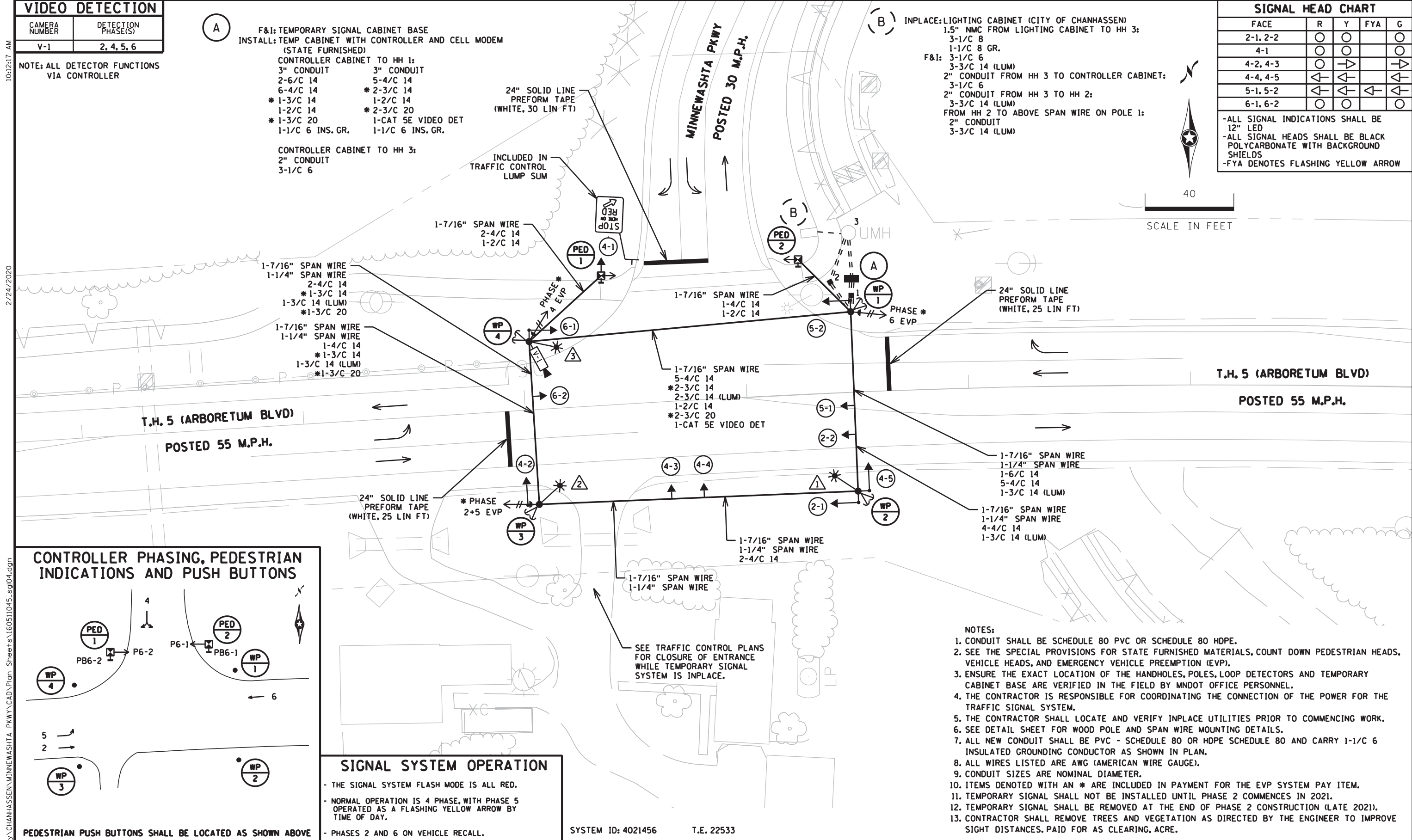
- (A)**
- F&I: TEMPORARY SIGNAL CABINET BASE  
 INSTALL: TEMP CABINET WITH CONTROLLER AND CELL MODEM (STATE FURNISHED)
- CONTROLLER CABINET TO HH 1:  
 3" CONDUIT 3" CONDUIT  
 2-6/C 14 5-4/C 14  
 6-4/C 14 \* 2-3/C 14  
 \* 1-3/C 14 1-2/C 14  
 1-2/C 14 \* 2-3/C 20  
 \* 1-3/C 20 1-CAT 5E VIDEO DET  
 1-1/C 6 INS. GR. 1-1/C 6 INS. GR.
- CONTROLLER CABINET TO HH 3:  
 2" CONDUIT  
 3-1/C 6

- (B)**
- INPLACE: LIGHTING CABINET (CITY OF CHANHASSEN)  
 1.5" NMC FROM LIGHTING CABINET TO HH 3:  
 3-1/C 8  
 1-1/C 8 GR.
- F&I:  
 3-1/C 6  
 3-3/C 14 (LUM)  
 2" CONDUIT FROM HH 3 TO CONTROLLER CABINET:  
 3-1/C 6  
 2" CONDUIT FROM HH 3 TO HH 2:  
 3-3/C 14 (LUM)  
 FROM HH 2 TO ABOVE SPAN WIRE ON POLE 1:  
 2" CONDUIT  
 3-3/C 14 (LUM)

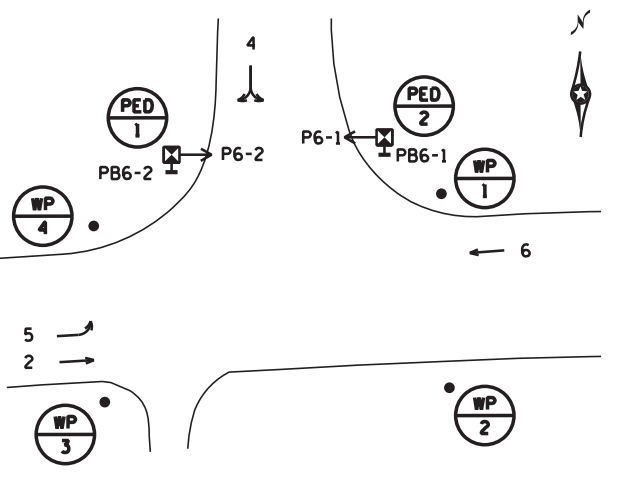
**SIGNAL HEAD CHART**

FACE	R	Y	FYA	G
2-1, 2-2	○	○		○
4-1	○	○		○
4-2, 4-3	○	→		→
4-4, 4-5	←	←		←
5-1, 5-2	←	←	←	←
6-1, 6-2	○	○		○

- ALL SIGNAL INDICATIONS SHALL BE 12" LED  
 - ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS  
 - FYA DENOTES FLASHING YELLOW ARROW



**CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS**



**SIGNAL SYSTEM OPERATION**

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 5 OPERATED AS A FLASHING YELLOW ARROW BY TIME OF DAY.
- PHASES 2 AND 6 ON VEHICLE RECALL.

- NOTES:**
1. CONDUIT SHALL BE SCHEDULE 80 PVC OR SCHEDULE 80 HDPE.
  2. SEE THE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS, COUNT DOWN PEDESTRIAN HEADS, VEHICLE HEADS, AND EMERGENCY VEHICLE PREEMPTION (EVP).
  3. ENSURE THE EXACT LOCATION OF THE HANDHOLES, POLES, LOOP DETECTORS AND TEMPORARY CABINET BASE ARE VERIFIED IN THE FIELD BY MNDOT OFFICE PERSONNEL.
  4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
  5. THE CONTRACTOR SHALL LOCATE AND VERIFY INPLACE UTILITIES PRIOR TO COMMENCING WORK.
  6. SEE DETAIL SHEET FOR WOOD POLE AND SPAN WIRE MOUNTING DETAILS.
  7. ALL NEW CONDUIT SHALL BE PVC - SCHEDULE 80 OR HDPE SCHEDULE 80 AND CARRY 1-1/C 6 INSULATED GROUNDING CONDUCTOR AS SHOWN IN PLAN.
  8. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).
  9. CONDUIT SIZES ARE NOMINAL DIAMETER.
  10. ITEMS DENOTED WITH AN \* ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
  11. TEMPORARY SIGNAL SHALL NOT BE INSTALLED UNTIL PHASE 2 COMMENCES IN 2021.
  12. TEMPORARY SIGNAL SHALL BE REMOVED AT THE END OF PHASE 2 CONSTRUCTION (LATE 2021).
  13. CONTRACTOR SHALL REMOVE TREES AND VEGETATION AS DIRECTED BY THE ENGINEER TO IMPROVE SIGHT DISTANCES, PAID FOR AS CLEARING, ACRE.

No. Date Revisions App.	DRAWING NAME 160511045_sgl04	<p>767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114                  PHONE: 651-645-4197                  WWW.KIMLEY-HORN.COM</p>	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.  JOEL A. HINNENKAMP, P.E. DATE: 02/10/2020 MN LIC. NO. 53081	<p>CITY OF CHANHASSEN                  MINNEWASHA PARKWAY REHABILITATION                  WEST 77TH STREET TO MN HIGHWAY 7</p>	CITY PROJECT 2020-02 COUNTY PROJECT S.A.P. 194-111-002 S.A.P.	SHEET NO. SS04 SS06
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DISTRICT #: K:\TWC\_CIVIL\CITY\CHANHASSEN\MINNEWASHA\_PKWY\CAD\Plan\_Sheets\160511045\_sgl04.dgn

10/12/17 AM

2/24/2020

**WP 1** 45' WOOD POLE  
 2-DOWN GUYS, GUARDS AND ANCHORS  
 1-TYPE 10A-WOOD POLE MOUNTED AT 90°  
 \*1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 6) POLE MOUNTED  
 1-R9-3 SIGN FACING SOUTH  
 METAL JUNCTION BOX WITH TERMINAL BLOCK

3" CONDUIT RISER AND WEATHERHEAD FROM HH 1 TO SPAN WIRES WITH:  
 2-6/C 14 5-4/C 14  
 6-4/C 14 \*2-3/C 14  
 \*1-3/C 14 1-2/C 14  
 1-2/C 14 \*1-3/C 20  
 \*1-3/C 20 1-CAT 5E VIDEO DET  
 1-1/C 6 INS. GR. 1-1/C 6 INS. GR.

3" CONDUIT ABOVE JUNCTION BOX TO SPAN WIRES WITH:  
 1-6/C 14  
 \*1-3/C 14  
 \*1-3/C 20

**WP 2** 45' WOOD POLE  
 2-DOWN GUYS, GUARDS AND ANCHORS  
 2-TYPE 10A-WOOD POLE MOUNTED AT 90° & 180°  
 15' MAST ARM AND LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)  
 1-R9-3 SIGN FACING NORTH  
 METAL JUNCTION BOX WITH TERMINAL BLOCK

3" CONDUIT ABOVE JUNCTION BOX TO SPAN WIRES WITH:  
 2-4/C 14

1" CONDUIT RISER AND WEATHERHEAD ABOVE SPAN WIRE WITH:  
 1-3/C 14 (LUM)

**WP 3** 45' WOOD POLE  
 2-DOWN GUYS, GUARDS AND ANCHORS  
 1-TYPE 10A-WOOD POLE MOUNTED AT 180°  
 \*1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5) POLE MOUNTED  
 15' MAST ARM AND LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)  
 1-R9-3 SIGN FACING NORTH  
 METAL JUNCTION BOX WITH TERMINAL BLOCK

3" CONDUIT ABOVE JUNCTION BOX TO SPAN WIRES WITH:  
 1-4/C 14  
 \*1-3/C 14  
 \*1-3/C 20

1" CONDUIT RISER AND WEATHERHEAD ABOVE SPAN WIRE WITH:  
 1-3/C 14 (LUM)

**WP 4** 45' WOOD POLE  
 2-DOWN GUYS, GUARDS AND ANCHORS  
 1-VIDEO DETECTION CAMERA (V-1) WITH MOUNT MOUNTED ON WOOD POLE (STATE FURNISHED)  
 1-TYPE 10A-WOOD POLE MOUNTED AT 180°  
 \*1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4) POLE MOUNTED  
 15' MAST ARM AND LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)  
 1-R9-3 SIGN FACING SOUTH  
 METAL JUNCTION BOX WITH TERMINAL BLOCK

3" CONDUIT ABOVE JUNCTION BOX TO SPAN WIRES WITH:  
 1-4/C 14  
 \*1-3/C 14  
 \*1-3/C 20  
 1-CAT 5E VIDEO DET

1" CONDUIT RISER AND WEATHERHEAD ABOVE SPAN WIRE WITH:  
 1-3/C 14 (LUM)

**PED 1** 16' ALUMINUM POST ON TEMPORARY FOUNDATION  
 1-STRAIGHT MOUNT SIGNAL  
 1-STRAIGHT MOUNT C.D. PED HEAD  
 1-APS PB AND SIGN (RT ARROW) (PB6-2)  
 AND APS PB MOUNTING SPACERS  
 2-4/C 14  
 1-2/C 14

**PED 2** 16' ALUMINUM POST ON TEMPORARY FOUNDATION  
 1-STRAIGHT MOUNT C.D. PED HEAD  
 1-APS PB AND SIGN (LT ARROW) (PB6-1)  
 AND APS PB MOUNTING SPACERS  
 1-4/C 14  
 1-2/C 14

No.	Date	Revisions	App.

DRAWING NAME	160511045_sgl05
DESIGNED BY:	BWS
DRAWN BY:	BWS
CHECKED BY:	JAH
DATE:	02/10/2020
PROJECT NO.	160511045

**Kimley»Horn**

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*Joel A. Hinnenkamp*  
 JOEL A. HINNENKAMP, PE  
 DATE: 02/10/2020 MN LIC. NO. 53081



CITY OF CHANHASSEN  
 MINNEWASHITA PARKWAY REHABILITATION  
 WEST 77TH STREET TO MN HIGHWAY 7

INTERSECTION NOTES  
 TEMPORARY SIGNAL SYSTEM  
 T.H. 5 (ARBORETUM BLVD) AT MINNEWASHITA PKWY  
 IN CHANHASSEN, CARVER COUNTY

CITY PROJECT	2020-02
COUNTY PROJECT	
S.A.P.	194-111-002
S.A.P.	

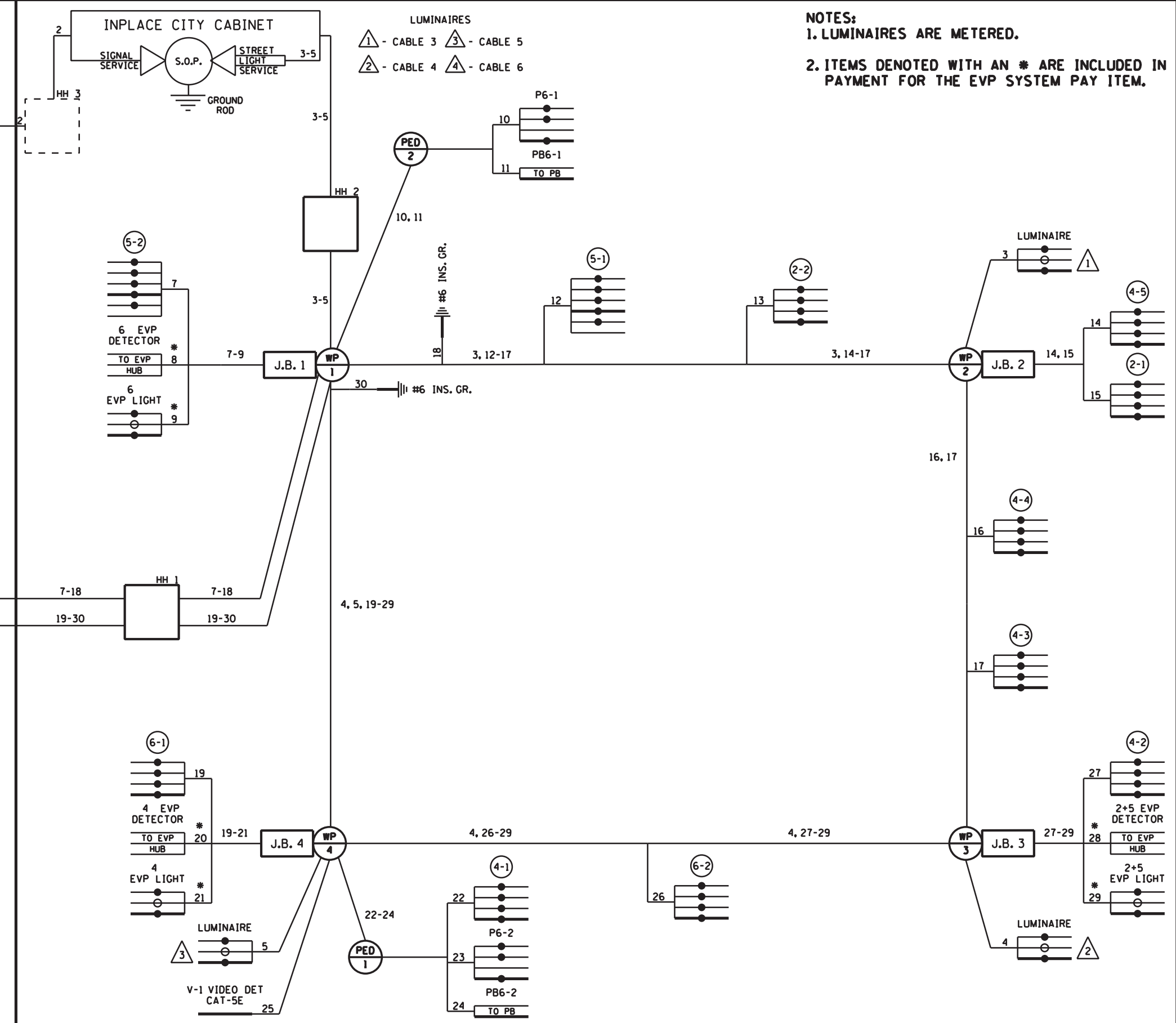
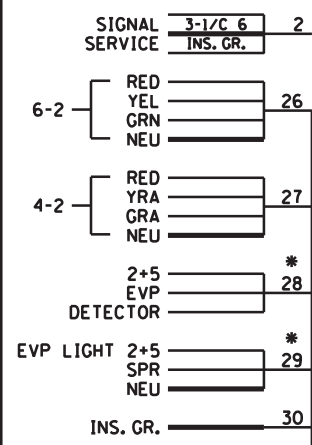
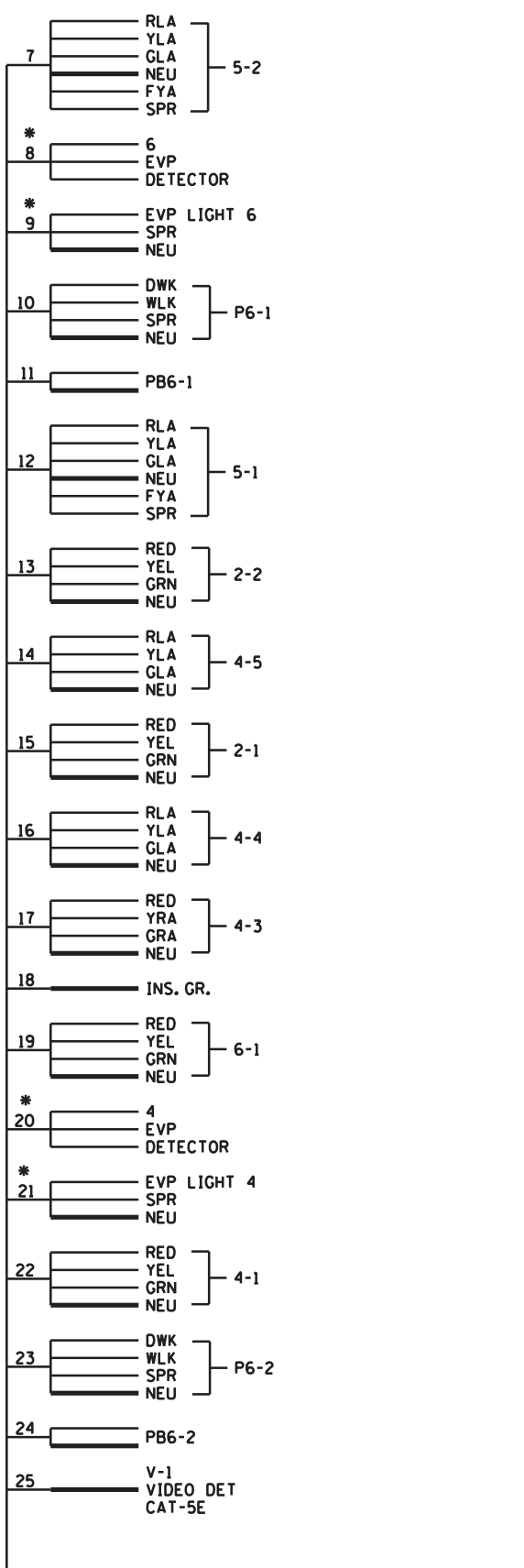
SHEET NO.  
 SS05  
 SS06

# CONTROLLER CABINET

10/12/19 AM

2/24/2020

DISTRICT #1:  
K:\TWC\_Civil\City\CHANHASSEN\MINNEWASHTA PKWY\CAD\Plan Sheets\160511045\_sgl06.dgn



**NOTES:**  
1. LUMINAIRES ARE METERED.  
2. ITEMS DENOTED WITH AN \* ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.

No.	Date	Revisions	App.	DRAWING NAME
				160511045_sgl06
				DESIGNED BY: BWS
				DRAWN BY: BWS
				CHECKED BY: JAH
				DATE: 02/10/2020
				PROJECT NO. 160511045

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*Joel A. Hinnenkamp*  
JOEL A. HINNENKAMP, P.E.  
DATE: 02/10/2020 MN LIC. NO. 53081



CITY OF CHANHASSEN  
MINNEWASHTA PARKWAY REHABILITATION  
WEST 77TH STREET TO MN HIGHWAY 7

FIELD WIRING DIAGRAM  
TEMPORARY SIGNAL SYSTEM  
T.H. 5 (ARBORETUM BLVD) AT MINNEWASHTA PKWY  
IN CHANHASSEN, CARVER COUNTY

CITY PROJECT	2020-02	SHEET NO.
COUNTY PROJECT		SS06
S.A.P.	194-111-002	
S.A.P.		SS06