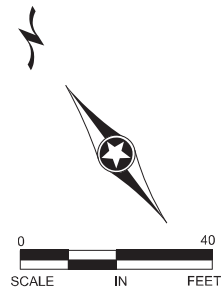


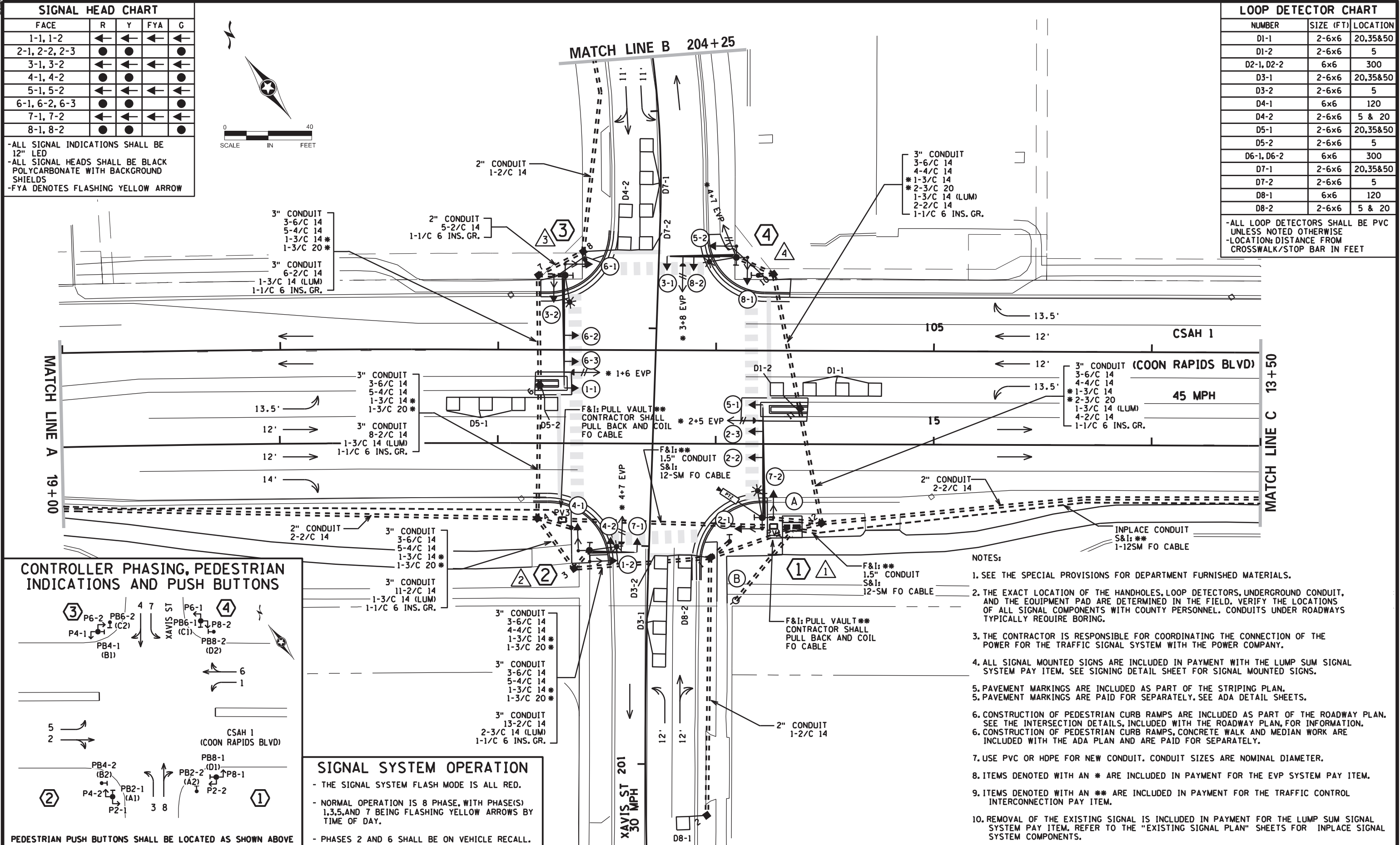
SIGNAL HEAD CHART				
FACE	R	Y	FYA	G
1-1, 1-2	←	←	←	←
2-1, 2-2, 2-3	●	●	●	●
3-1, 3-2	←	←	←	←
4-1, 4-2	●	●	●	●
5-1, 5-2	←	←	←	←
6-1, 6-2, 6-3	●	●	●	●
7-1, 7-2	←	←	←	←
8-1, 8-2	●	●	●	●

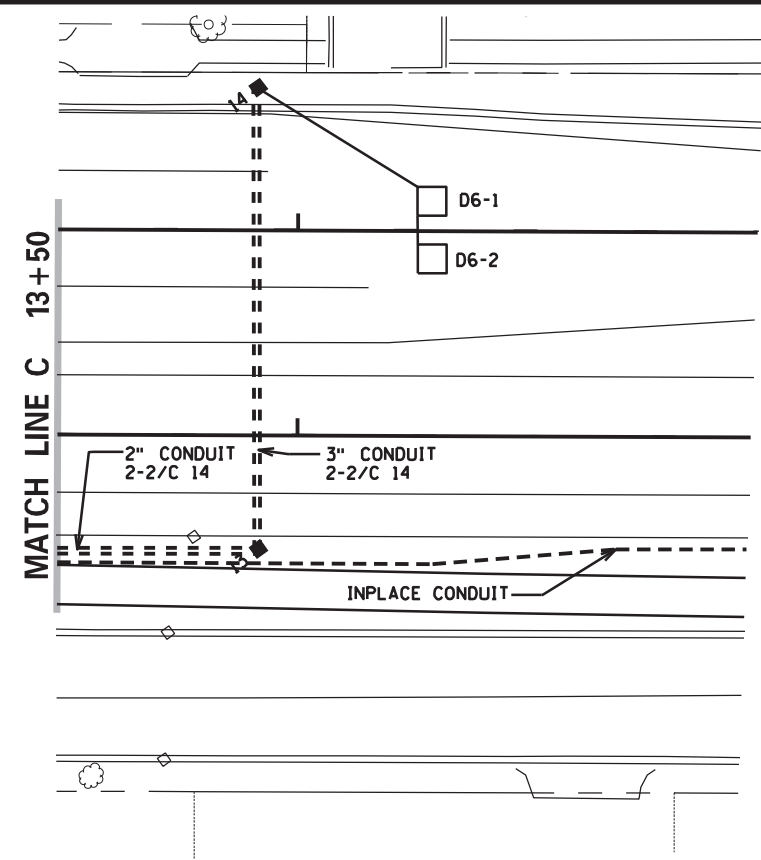
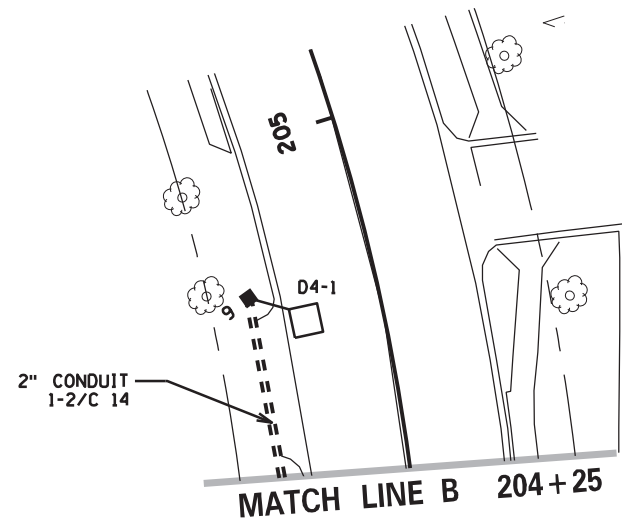
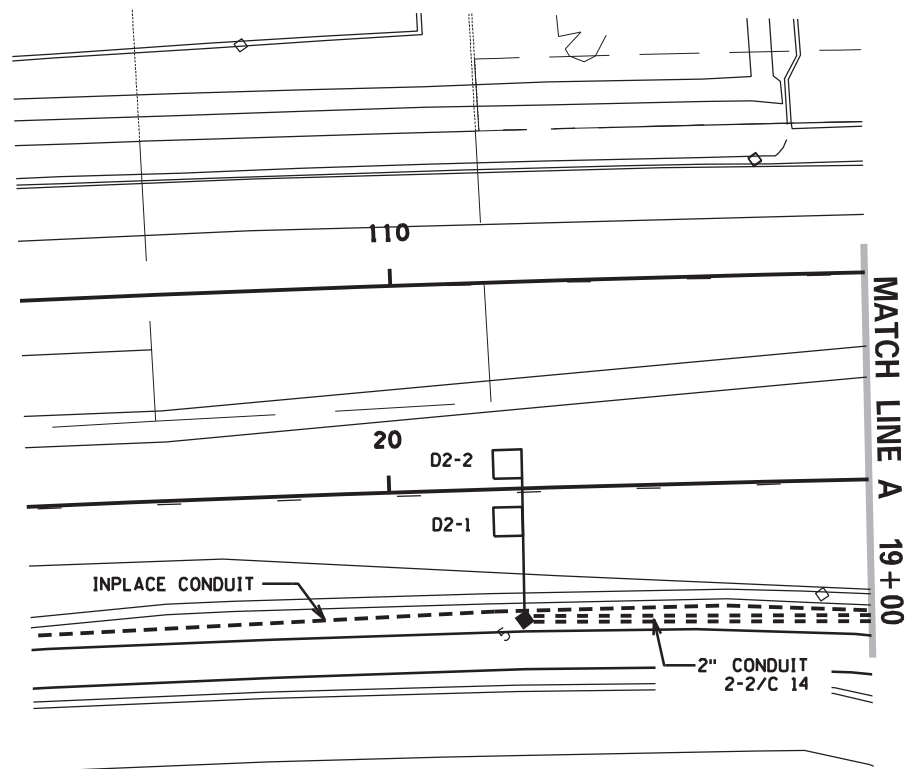
-ALL SIGNAL INDICATIONS SHALL BE 12" LED
 -ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
 -FYA DENOTES FLASHING YELLOW ARROW



LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1	2-6x6	20,35&50
D1-2	2-6x6	5
D2-1, D2-2	6x6	300
D3-1	2-6x6	20,35&50
D3-2	2-6x6	5
D4-1	6x6	120
D4-2	2-6x6	5 & 20
D5-1	2-6x6	20,35&50
D5-2	2-6x6	5
D6-1, D6-2	6x6	300
D7-1	2-6x6	20,35&50
D7-2	2-6x6	5
D8-1	6x6	120
D8-2	2-6x6	5 & 20

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





INTERSECTION NOTES

①

- PA100 POLE FOUNDATION
TYPE PA100-A-50-X6-350/CAM 400 EXTENSION
1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
1-PTZ CAMERA
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE ADAPTOR (PB8-1)
1-R10-X12 SIGN ADJACENT TO HEAD (5-1)
1-R6-1L SIGN POLE MOUNTED (36 X 12)
1-R6-1R SIGN POLE MOUNTED (36 X 12)
1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
3" CONDUIT INTO HH 12:
3-6/C 14
5-4/C 14
* 1-3/C 14
* 1-3/C 20
1-3/C 14 (LUM)
1-2/C 14
1-CAT 5E
1-1/C 6 INS. GR.

②

- PA85 POLE FOUNDATION
TYPE PA85-A-20-D30-9 (DAVIT AT 350 DEG)
1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 4+7)
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE ADAPTOR (PB2-1)
1-R10-X12 SIGN ADJACENT TO HEAD (7-1)
1-TYPE D SIGN (D-3) (SEE SIGN DETAILS)
3" CONDUIT INTO HH 3:
3-6/C 14
4-4/C 14
* 1-3/C 14
* 1-3/C 20
1-3/C 14 (LUM)
1-2/C 14
1-1/C 6 INS. GR.

③

- PA100 POLE FOUNDATION
TYPE PA100-A-50-D30-9 (DAVIT AT 350 DEG)
1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11' AND 23'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6)
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE ADAPTOR (PB4-1)
1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
1-R6-1L SIGN POLE MOUNTED (36 X 12)
1-R6-1R SIGN POLE MOUNTED (36 X 12)
1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
3" CONDUIT INTO HH 7:
3-6/C 14
5-4/C 14
* 1-3/C 14
* 1-3/C 20
1-3/C 14 (LUM)
1-2/C 14
1-1/C 6 INS. GR.

④

- PA90 POLE FOUNDATION
TYPE PA90-A-30-D30-9 (DAVIT AT 350 DEG)
1-LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNALS OVERHEAD AT 11'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
* 1-ONE WAY EVP DETECTOR (PHASES 4+7)
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 3+8)
1-APS PB, SIGN (LT ARROW) AND APS MAST ARM POLE ADAPTOR (PB6-1)
1-R10-X12 SIGN ADJACENT TO HEAD (3-1)
1-TYPE D SIGN (D-1) (SEE SIGN DETAILS)
3" CONDUIT INTO HH 10:
3-6/C 14
4-4/C 14
* 1-3/C 14
* 2-3/C 20
1-3/C 14 (LUM)
1-2/C 14
1-1/C 6 INS. GR.

⑤

- SOP-INPLACE WOOD POLE
TRANSFORMER (XCEL ENERGY)
2" CONDUIT RISER AND WEATHERHEAD
3-1/C 2
2" CONDUIT INTO SERVICE CABINET:
3-1/C 2

⑥

- EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB) NO BATTERY BACKUP SYSTEM OR BATTERIES
CONTROLLER AND CABINET (COUNTY FURNISHED)
3" CONDUIT TO HH 1:
3-6/C 14
4-4/C 14
* 1-3/C 14
* 1-3/C 20
3" CONDUIT TO HH 1:
3-6/C 14
5-4/C 14
* 1-3/C 14
* 1-3/C 20
3" CONDUIT TO HH 1:
17-2/C 14
1-1/C 6 INS. GR.

- 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 PULL VAULT:
** 1-FO PIGTAIL (6SM)
CONTROLLER CABINET TO SERVICE CABINET:
2" CONDUIT
3-1/C 6
CONTROLLER CABINET TO SERVICE CABINET (COMMS):
2" CONDUIT
1-4/C 14
SERVICE CABINET TO SOP:
2" CONDUIT
3-1/C 2

- SERVICE CABINET TO HH 1:
1.25" CONDUIT
2-3/C 14 (LUM)
SERVICE CABINET TO HH 12:
1.25" CONDUIT
2-3/C 14 (LUM)
SERVICE CABINET TO EXTERNAL GR. RD.:
1" CONDUIT
1-1/C 6 INS. GR.
(SEE EQUIPMENT PAD LAYOUT)

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\002-601-063 Xavis Signal\Plan\002601063_SIGL3a.dgn	06/27/2023	9:03:02 AM			

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.
PRINT NAME: Aaron Anderson
SIGNATURE: 
DATE: 06/27/23 LICENSE NO. 58657

DRAWN BY: APA DATE: 05/12/23
DESIGN BY: APA DATE: 05/12/23
CHECKED BY: ST DATE: 05/12/23

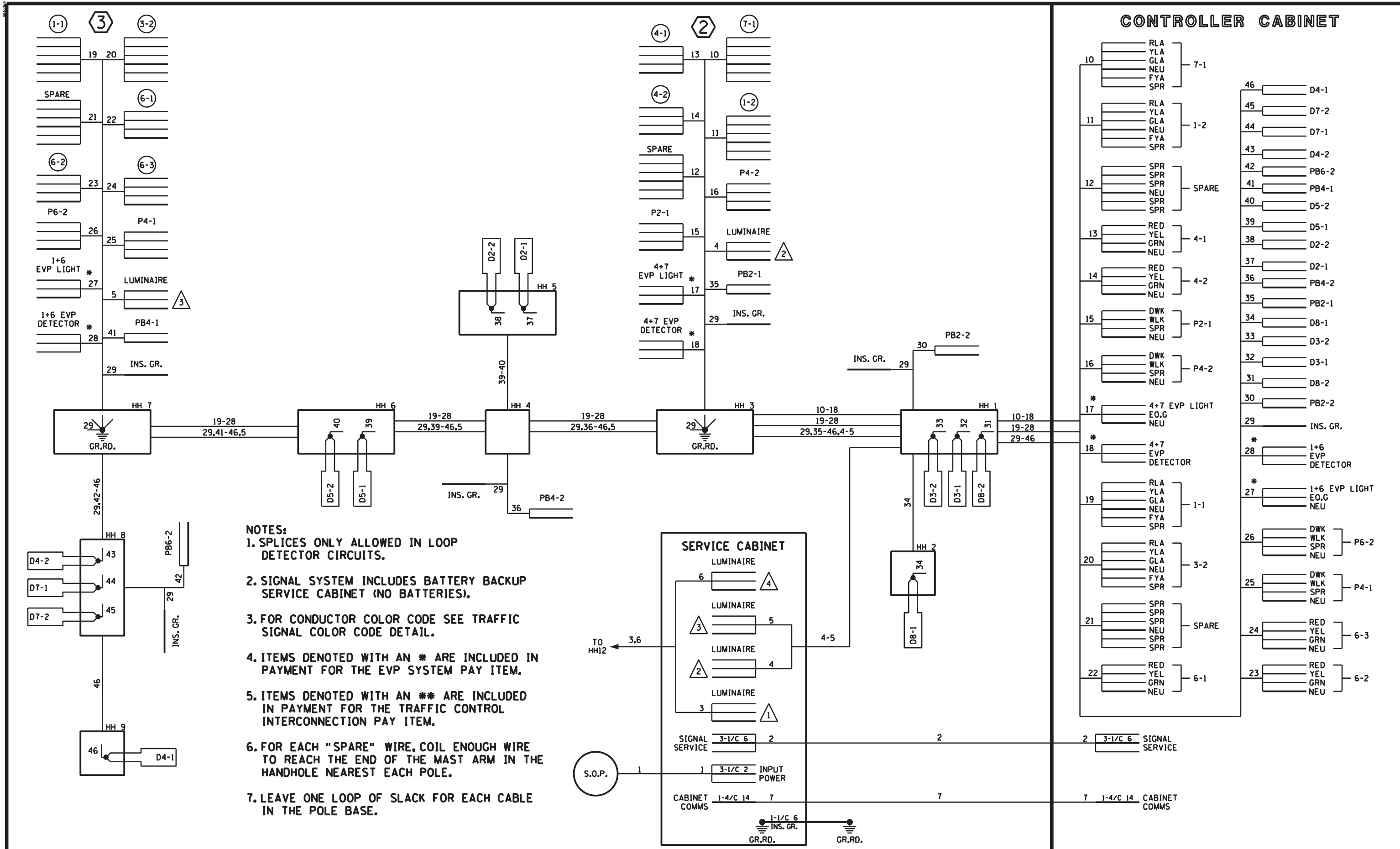


ANOKA COUNTY
HIGHWAY DEPT.

SAP 002-601-063
SAP 114-020-062
CP 23-14

POLE NOTES

Sheet 39 of 43 Sheets



- NOTES:**
- 1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
 - 2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET (NO BATTERIES).
 - 3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL COLOR CODE DETAIL.
 - 4. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 - 5. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
 - 6. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.
 - 7. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\002-601-063 Xavis Signal\Plan\002601063_wd2.dgn 06/27/2023 9:03:03 AM					

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CHECKED BY: ST DATE: 05/12/23



ANOKA COUNTY
HIGHWAY DEPT.

SAP 002-601-063
SAP 114-020-062
CP 23-14

CONTROLLER CABINET

<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">PTZCAMERA</td> <td style="width: 5%; text-align: center;">90</td> <td style="width: 35%;"></td> </tr> <tr> <td>COM CABLE</td> <td></td> <td></td> </tr> <tr> <td>PB6-1</td> <td style="text-align: center;">74</td> <td></td> </tr> <tr> <td>PB8-2</td> <td style="text-align: center;">73</td> <td></td> </tr> <tr> <td>D1-2</td> <td style="text-align: center;">72</td> <td></td> </tr> <tr> <td>D1-1</td> <td style="text-align: center;">71</td> <td></td> </tr> <tr> <td>D6-2</td> <td style="text-align: center;">70</td> <td></td> </tr> <tr> <td>D6-1</td> <td style="text-align: center;">69</td> <td></td> </tr> <tr> <td>PB8-1</td> <td style="text-align: center;">68</td> <td></td> </tr> <tr> <td>INS. GR.</td> <td style="text-align: center;">67</td> <td></td> </tr> <tr> <td>3+8 EVP LIGHT</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>EO.G</td> <td style="text-align: center;">66</td> <td></td> </tr> <tr> <td>NEU</td> <td></td> <td></td> </tr> <tr> <td>3+8</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>EVP</td> <td style="text-align: center;">65</td> <td></td> </tr> <tr> <td>DETECTOR</td> <td></td> <td></td> </tr> <tr> <td>4+7</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>EVP</td> <td style="text-align: center;">64</td> <td></td> </tr> <tr> <td>DETECTOR</td> <td></td> <td></td> </tr> <tr> <td>P6-1</td> <td style="text-align: center;">63</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>P8-2</td> <td style="text-align: center;">62</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>8-2</td> <td style="text-align: center;">61</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>8-1</td> <td style="text-align: center;">60</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	PTZCAMERA	90		COM CABLE			PB6-1	74		PB8-2	73		D1-2	72		D1-1	71		D6-2	70		D6-1	69		PB8-1	68		INS. GR.	67		3+8 EVP LIGHT	*		EO.G	66		NEU			3+8	*		EVP	65		DETECTOR			4+7	*		EVP	64		DETECTOR			P6-1	63											P8-2	62											8-2	61											8-1	60											}	<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">5-1</td> <td style="width: 5%; text-align: center;">47</td> <td style="width: 35%;"></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>7-2</td> <td style="text-align: center;">48</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>SPARE</td> <td style="text-align: center;">49</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>2-1</td> <td style="text-align: center;">50</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>2-2</td> <td style="text-align: center;">51</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>2-3</td> <td style="text-align: center;">52</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>P2-2</td> <td style="text-align: center;">53</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>P8-1</td> <td style="text-align: center;">54</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>2+5</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>EVP</td> <td style="text-align: center;">55</td> <td></td> </tr> <tr> <td>DETECTOR</td> <td></td> <td></td> </tr> <tr> <td>2+5 EVP LIGHT</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>EO.G</td> <td style="text-align: center;">56</td> <td></td> </tr> <tr> <td>NEU</td> <td></td> <td></td> </tr> <tr> <td>3-1</td> <td style="text-align: center;">57</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>5-2</td> <td style="text-align: center;">58</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>SPARE</td> <td style="text-align: center;">59</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	5-1	47																	7-2	48														SPARE	49											2-1	50											2-2	51											2-3	52											P2-2	53											P8-1	54											2+5	*		EVP	55		DETECTOR			2+5 EVP LIGHT	*		EO.G	56		NEU			3-1	57														5-2	58														SPARE	59													
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INTERCONNECT TO **
HANSON BLVD CABINET 100

INTERCONNECT TO **
CROOKED LAKE BLVD CABINET 101

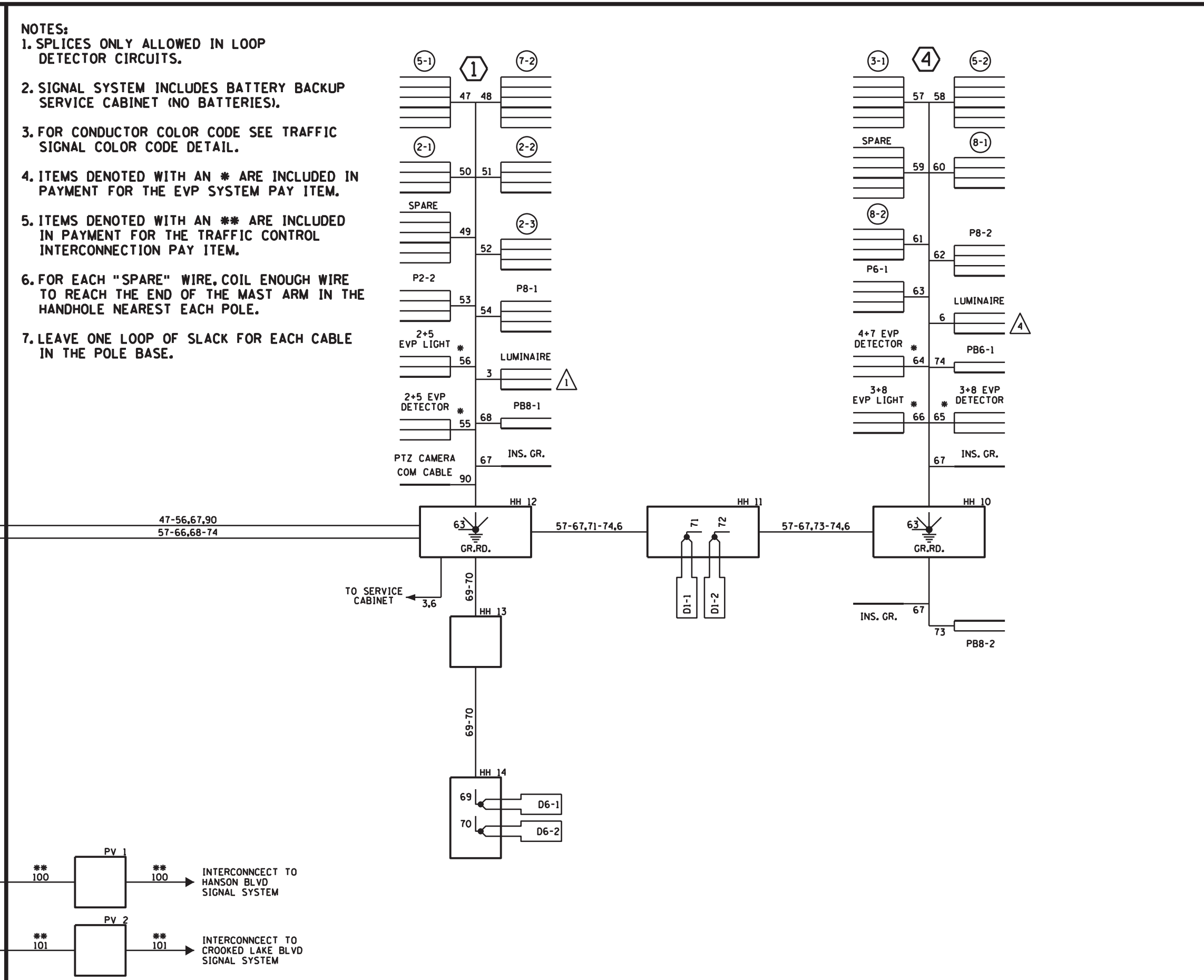
- NOTES:

 1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
 2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET (NO BATTERIES).
 3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL COLOR CODE DETAIL.
 4. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 5. ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL INTERCONNECTION PAY ITEM.
 6. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.
 7. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

47-56,67,90
57-66,68-74

TO SERVICE CABINET

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graph LR; PV1[PV 1] -- 100 --> H1[INTERCONNECT TO HANSON BLVD SIGNAL SYSTEM]; PV1 -- 101 --> C1[INTERCONNECT TO CROOKED LAKE BLVD SIGNAL SYSTEM]; PV2[PV 2] -- 100 --> H2[INTERCONNECT TO HANSON BLVD SIGNAL SYSTEM]; PV2 -- 101 --> C2[INTERCONNECT TO CROOKED LAKE BLVD SIGNAL SYSTEM];
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[illegible]