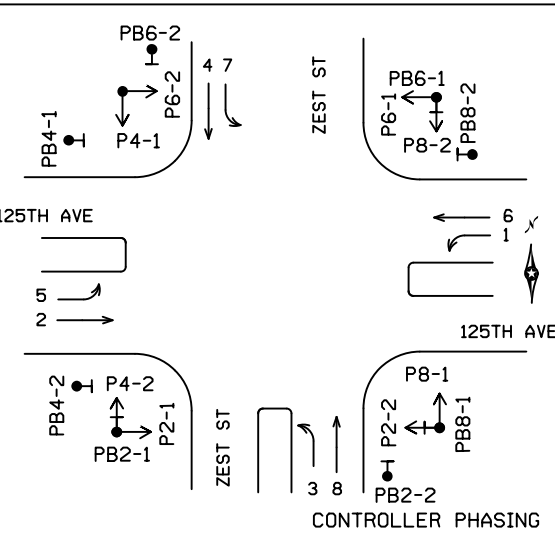


- NOTES:
1. SEE SPECIAL PROVISIONS FOR DEPARTMENT FURNISHED MATERIALS.
 2. ENSURE THE EXACT LOCATION OF THE HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD ARE VERIFIED IN THE FIELD BY ANOKA COUNTY OFFICE PERSONNEL.
 3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER WITH THE CITY OF BLAINE FOR THE TRAFFIC SIGNAL SYSTEM.
 4. FOR SIGN PANELS ON SIGNAL, SEE DETAIL SHEET. ALL SIGN PANELS REQUIRED ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM F PAY ITEM.
 5. FOR PAVEMENT MARKINGS SEE PAVEMENT MARKING PLAN.
 6. FOR CONSTRUCTION OF PEDESTRIAN CURB RAMPS, CONCRETE WALK AND MEDIAN WORK SEE PEDESTRIAN RAMP DETAILS.
 7. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
 8. USE PVC OR HDPE FOR ALL NEW CONDUIT.
 9. CONDUIT SIZES ARE NOMINAL DIAMETER.
 10. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).
 11. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
 12. COIL ENOUGH WIRE IN HH 4 & HH 11 FOR FUTURE FRONT LOOP DETECTORS.

- (A) EQUIPMENT PAD
SERVICE CABINET (SSB) BATTERY BACKUP
CONTROLLER AND CABINET (COUNTY FURNISHED)
4' CONDUIT TO HH 16:
3-6/C 16
4-4/C 16
6-2/C 14
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.
- 4' CONDUIT TO HH 16:
3-6/C 16
4-4/C 16
6-2/C 14
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.
- 4' CONDUIT TO HH 16:
3-6/C 16
4-4/C 16
6-2/C 14
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.
- 4' CONDUIT TO HH 16:
3-6/C 16
4-4/C 16
6-2/C 14
1-3/C 16 (EVP)
1-3/C 20 (EVP)
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)
CABINET TO SERVICE CABINET:
2' CONDUIT
3-1/C 6
SERVICE CABINET TO SOP:
2' CONDUIT
3-1/C 2
SERVICE CABINET TO HH 1:
1.25' CONDUIT
2-3/C 16 (LUM)
SERVICE CABINET TO HH 16:
1.25' CONDUIT
2-3/C 16 (LUM)
SERVICE CABINET TO EXTERNAL GR. RD.:
1' CONDUIT
1-1/C 6 INS. GR.
PULL VAULT TO CABINET:
1.5' CONDUIT
1-6SM FO CABLE
- INP: CONDUIT
F&I:
3-6/C 16
4-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
4-2/C 14
1-1/C 6 INS. GR.

- (B) SOP-CONNEXUS (TBD)
GROUND MOUNTED
TRANSFORMER



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASE 1, 3, 5 AND 7 BEING FYA BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

- (4) X=525362.37, Y=158926.01
PA100 POLE FOUNDATION
TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11', 23'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED INDS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASES 1 & 6) (COUNTY FURNISHED)
LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
D SIGN (SEE DETAIL SHEET)
1-SIGN R10-X12 ADJACENT TO HEAD 1-1
EXTEND INTO HH 13:
3' CONDUIT
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.
- 3' CONDUIT
3-6/C 16
4-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
6-2/C 14
1-1/C 6 INS. GR.
- 3' CONDUIT:
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-2/C 14

- PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB6-2)
EXTEND INTO HH 14:
1' CONDUIT
1-2/C 14
1-1/C 6 INS. GR.
- PED PB STATION
1-APS PB AND SIGN
(LT ARROW) (PB4-1)
EXTEND INTO HH 13:
1' CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

- INP: CONDUIT
F&I:
1.5' CONDUIT
12SM FO CABLE

- (3) X=525370.24, Y=158805.76
PA100 POLE FOUNDATION
TYPE PA100-A-45-D30-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 18'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED INDS AT 90 AND 180 DEG
1-APS PB AND SIGN (LT ARROW) (PB2-1)
APS MOUNTING ADAPTOR
1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASES 4 & 7) (COUNTY FURNISHED)
LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
D SIGN (SEE DETAIL SHEET)
1-SIGN R10-X12 ADJACENT TO HEAD 7-1
EXTEND INTO HH 9:
3' CONDUIT
3-6/C 16
4-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
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 9:
1' CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

MATCH LINE B

MATCH LINE D

- INP: CONDUIT
F&I:
3-6/C 16
4-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
6-2/C 14
1-1/C 6 INS. GR.

- INP: CONDUIT
F&I:
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
7-2/C 14
1-1/C 6 INS. GR.

- 2' CONDUIT
3-1/C 2

- INP: CONDUIT
F&I:
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
11-2/C 14
1-1/C 6 INS. GR.

- 3' CONDUIT
8-2/C 14
1-3/C 20 (EVP)
1-1/C 6 INS. GR.

- 2' CONDUIT
1-2/C 14
1-3/C 20 (EVP)
1-1/C 6 INS. GR.

- (1) X=525451.37, Y=158938.85
PA100 POLE FOUNDATION
TYPE PA100-A-35-D30-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED INDS AT 90 AND 180 DEG
1-APS PB AND SIGN (LT ARROW) (PB6-1)
APS MOUNTING ADAPTOR
1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASES 3 & 8) (COUNTY FURNISHED)
LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
D SIGN (SEE DETAIL SHEET)
1-SIGN R10-X12 ADJACENT TO HEAD 3-1
EXTEND INTO HH 1:
3' CONDUIT
3-6/C 16
4-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-2/C 14
1-1/C 6 INS. GR.

- INP: CONDUIT
F&I:
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
2-3/C 20 (EVP)
9-2/C 14
1-1/C 6 INS. GR.

- PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB2-2)
EXTEND INTO HH 6:
1' CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

- (2) X=525474.61, Y=158812.70
PA100 POLE FOUNDATION
TYPE PA100-A-55-D30-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11', 23'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED INDS AT 90 AND 180 DEG
1-APS PB AND SIGN (LT ARROW) (PB8-1)
APS MOUNTING ADAPTOR
1-ONE WAY EVP DETECTOR AND
CONFIRMATORY LIGHT (PHASES 2 & 5) (COUNTY FURNISHED)
LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT)
D SIGN (SEE DETAIL SHEET)
1-SIGN R10-X12 ADJACENT TO HEAD 5-1
EXTEND INTO HH 5:
3' CONDUIT
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
1-3/C 20 (EVP)
1-2/C 14
1-1/C 6 INS. GR.

- PED PB STATION
1-APS PB AND SIGN
(RT ARROW) (PB8-2)
EXTEND INTO HH 1:
1' CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

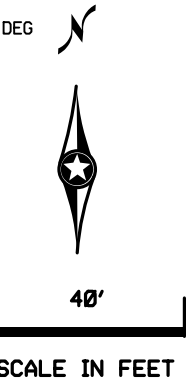
- INP: CONDUIT
F&I:
3-6/C 16
5-4/C 16
1-3/C 14 (LUM)
1-3/C 16 (EVP)
2-3/C 20 (EVP)
11-2/C 14
1-1/C 6 INS. GR.

LOOP DETECTOR CHART		
NUMBER	SIZE (FT)	LOCATION
D1-1, D5-1, D7-1	3-6 X 6	INP
D1-2, D5-2, D7-2	6 X 6	INP
D2-1, D2-2	6 X 6	INP
D3-1	3-6 X 6	20, 35, 50
D3-2	1-6 X 6	5
D4-1	6 X 6	185
D4-2	6 X 6	INP
D4-3	6 X 6	INP
D6-1, D6-2	6 X 6	INP
D8-1	6 X 6	180
D8-2, D8-3	1-6 X 6	20
D8-4, D8-5	1-6 X 6	5

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

SIGNAL FACE CHART					
FACE	R	Y	G	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	●	●	●		

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



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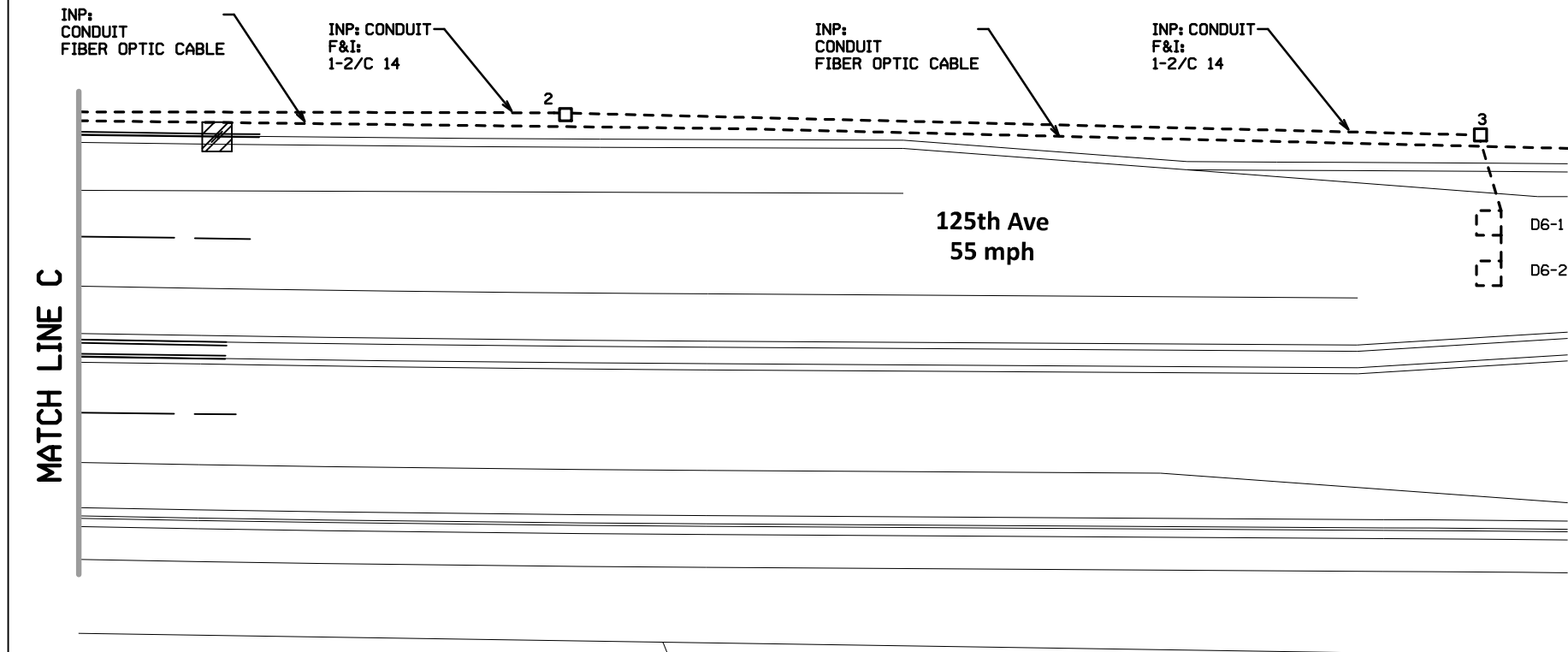
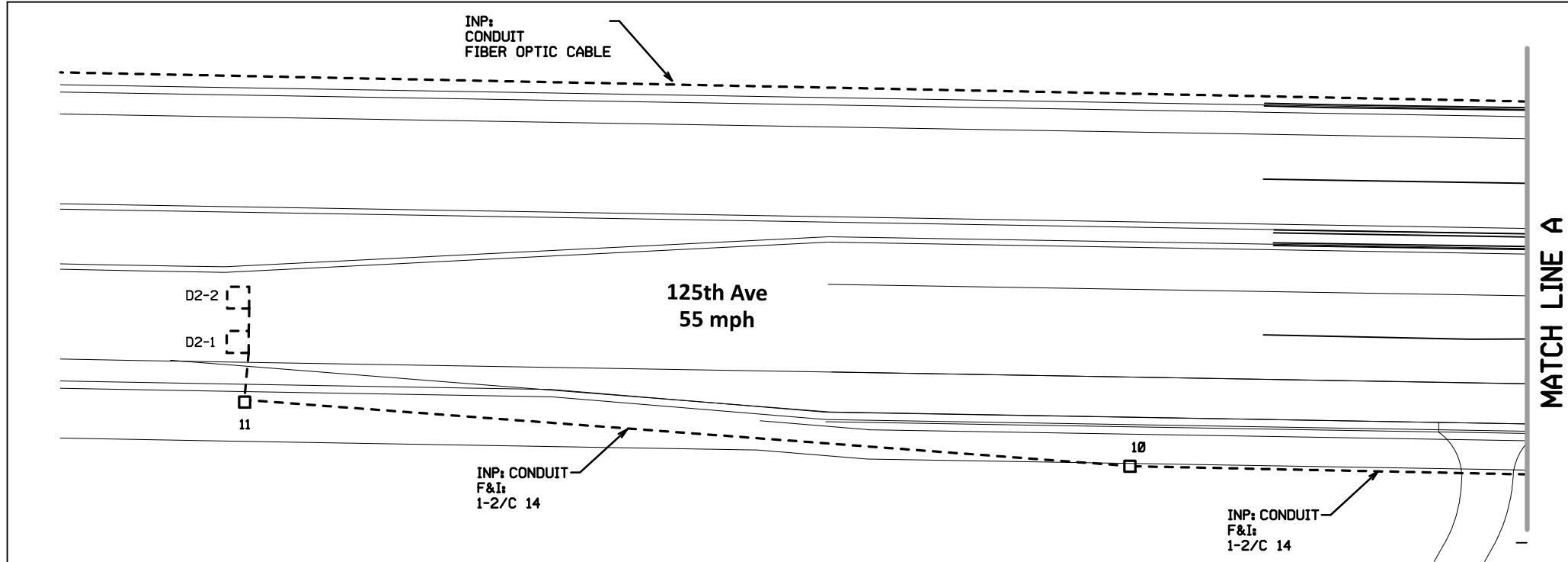
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DESIGNED BY: MAS		PRINTED NAME: SEAN DELMORE, PE, PTOE
CHECKED BY: SD		DATE: 7/21/2026 LIC. NO. 40945

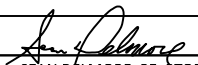


MINNESOTA DEPARTMENT OF TRANSPORTATION
125TH AVE & ZEST ST SIGNAL DESIGN
ANOKA COUNTY, MINNESOTA

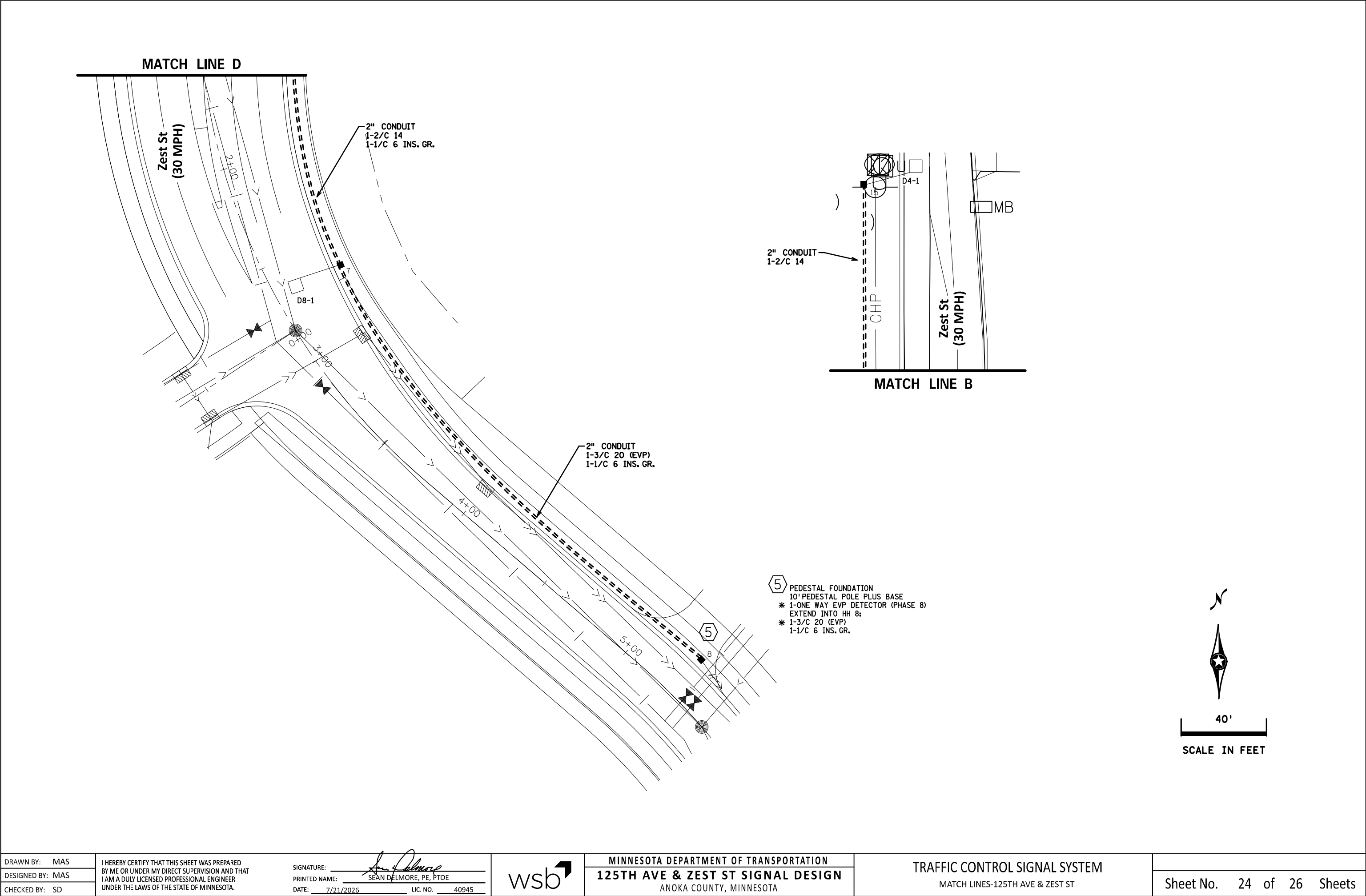
TRAFFIC CONTROL SIGNAL SYSTEM
INTERSECTION LAYOUT-125TH AVE & ZEST ST

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DESIGNED BY: MAS		PRINTED NAME: SEAN DELMORE, PE, PTOE				
CHECKED BY: SD		DATE: 7/21/2026 LIC. NO. 40945				

DATE: 21-JUL-2026
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DRAWN BY: MAS
DESIGNED BY: MAS
CHECKED BY: SD

I HEREBY CERTIFY THAT THIS SHEET 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.

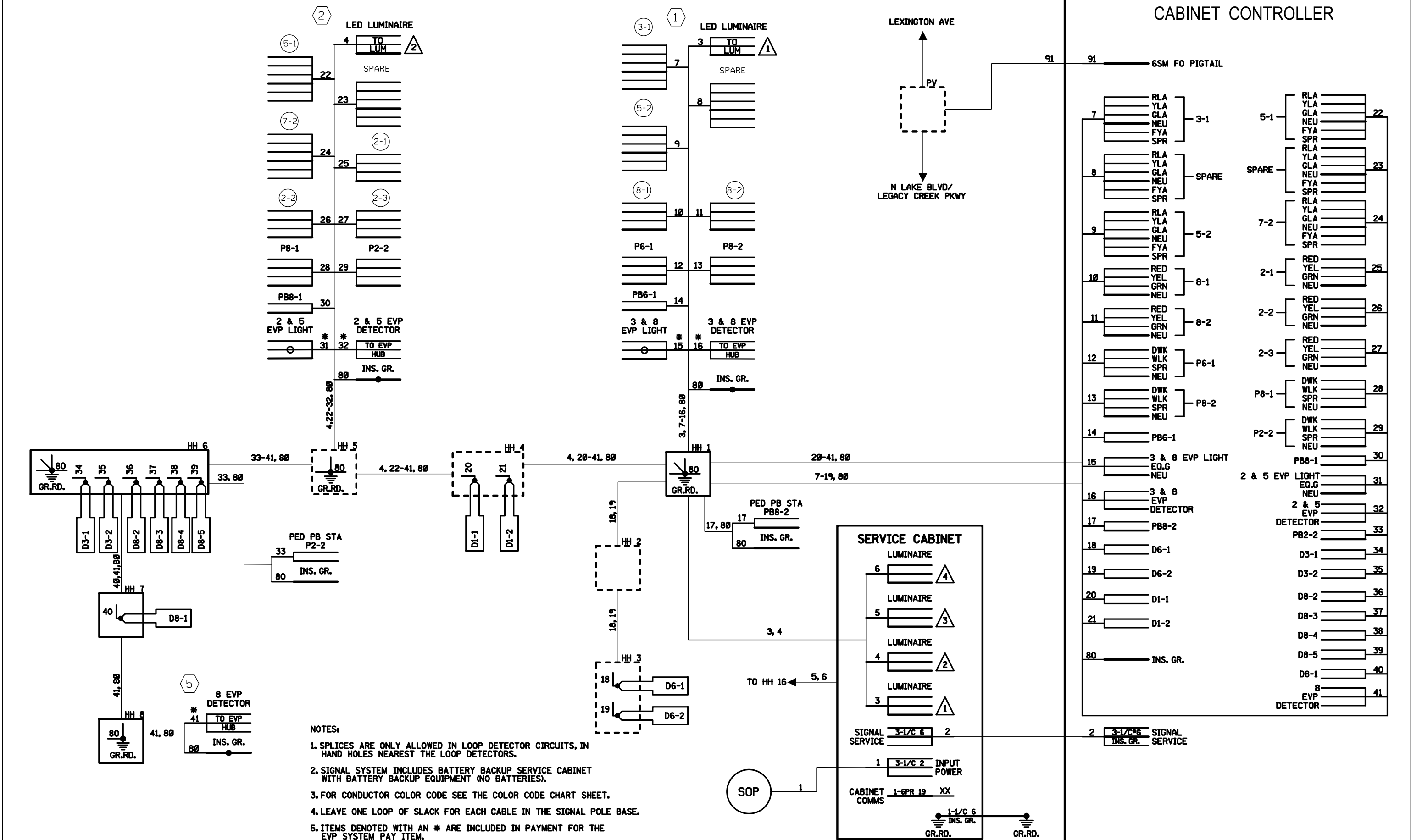
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PRINTED NAME: SEAN DELMORE, PE, PTOE
DATE: 7/21/2026 LIC. NO. 40945



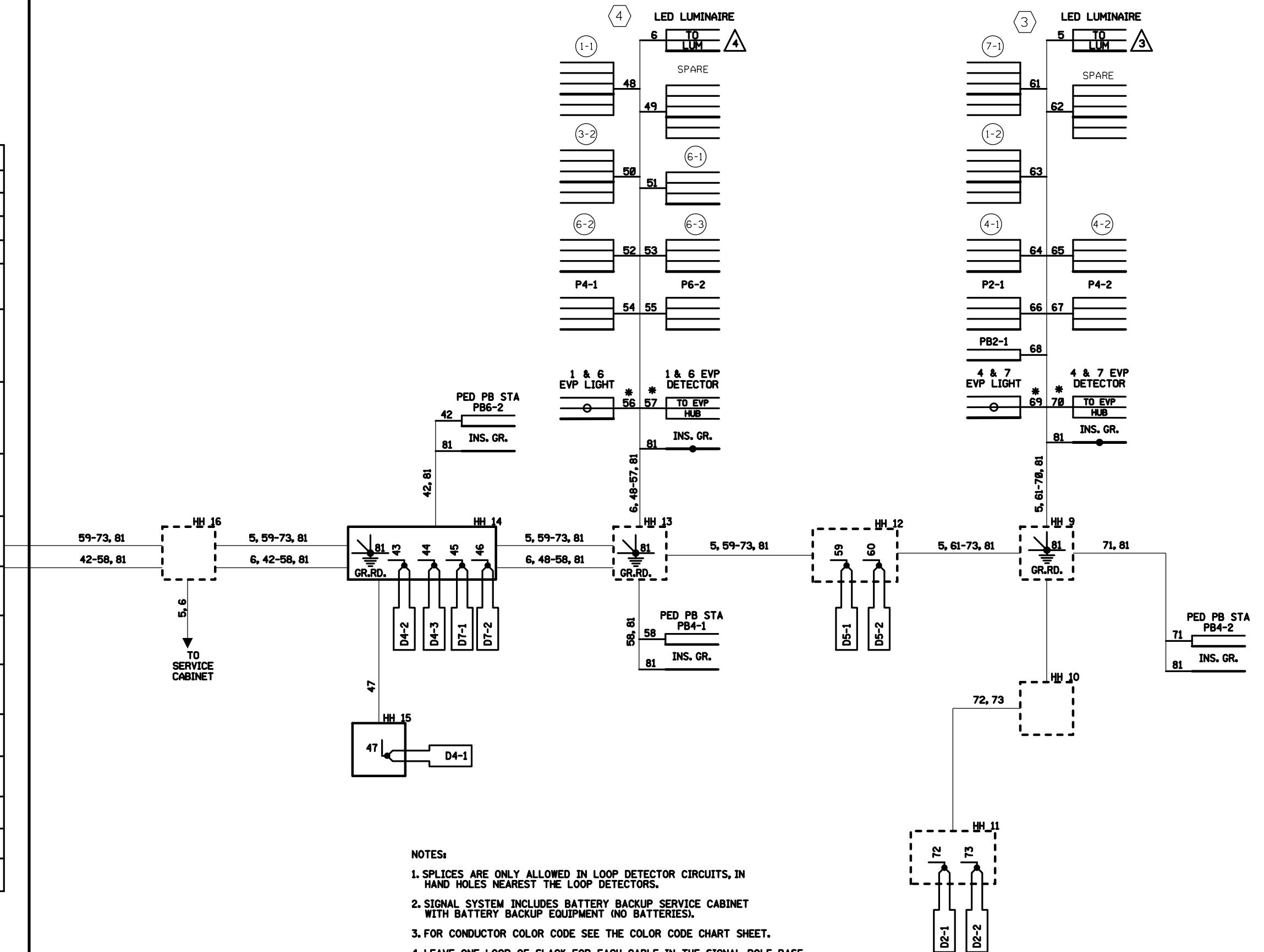
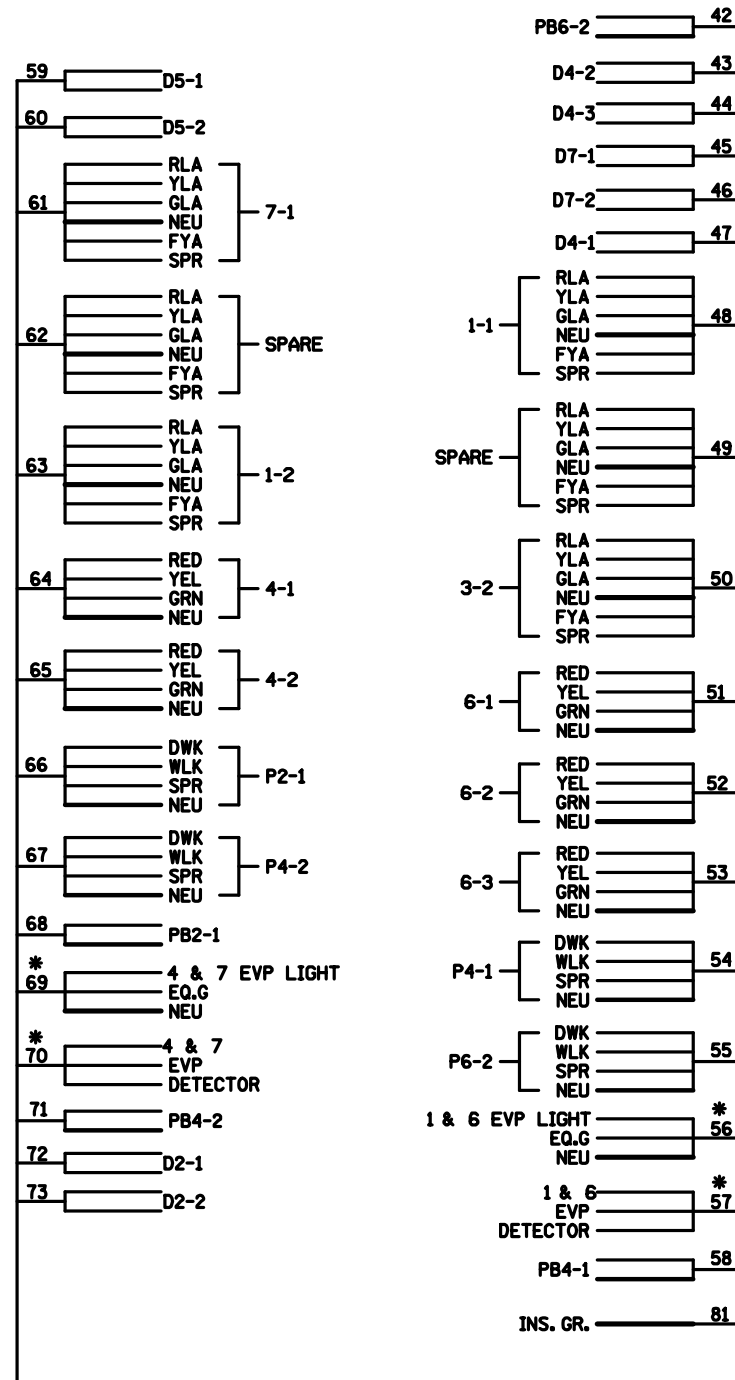
MINNESOTA DEPARTMENT OF TRANSPORTATION
125TH AVE & ZEST ST SIGNAL DESIGN
ANOKA COUNTY, MINNESOTA

TRAFFIC CONTROL SIGNAL SYSTEM
MATCH LINES-125TH AVE & ZEST ST

Sheet No. 24 of 26 Sheets



CABINET CONTROLLER



- NOTES:**
- 1. SPLICES ARE ONLY ALLOWED IN LOOP DETECTOR CIRCUITS, IN HAND HOLES NEAREST THE LOOP DETECTORS.**
 - 2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITH BATTERY BACKUP EQUIPMENT (NO BATTERIES).**
 - 3. FOR CONDUCTOR COLOR CODE SEE THE COLOR CODE CHART SHEET.**
 - 4. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE SIGNAL POLE BASE.**
 - 5. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.**