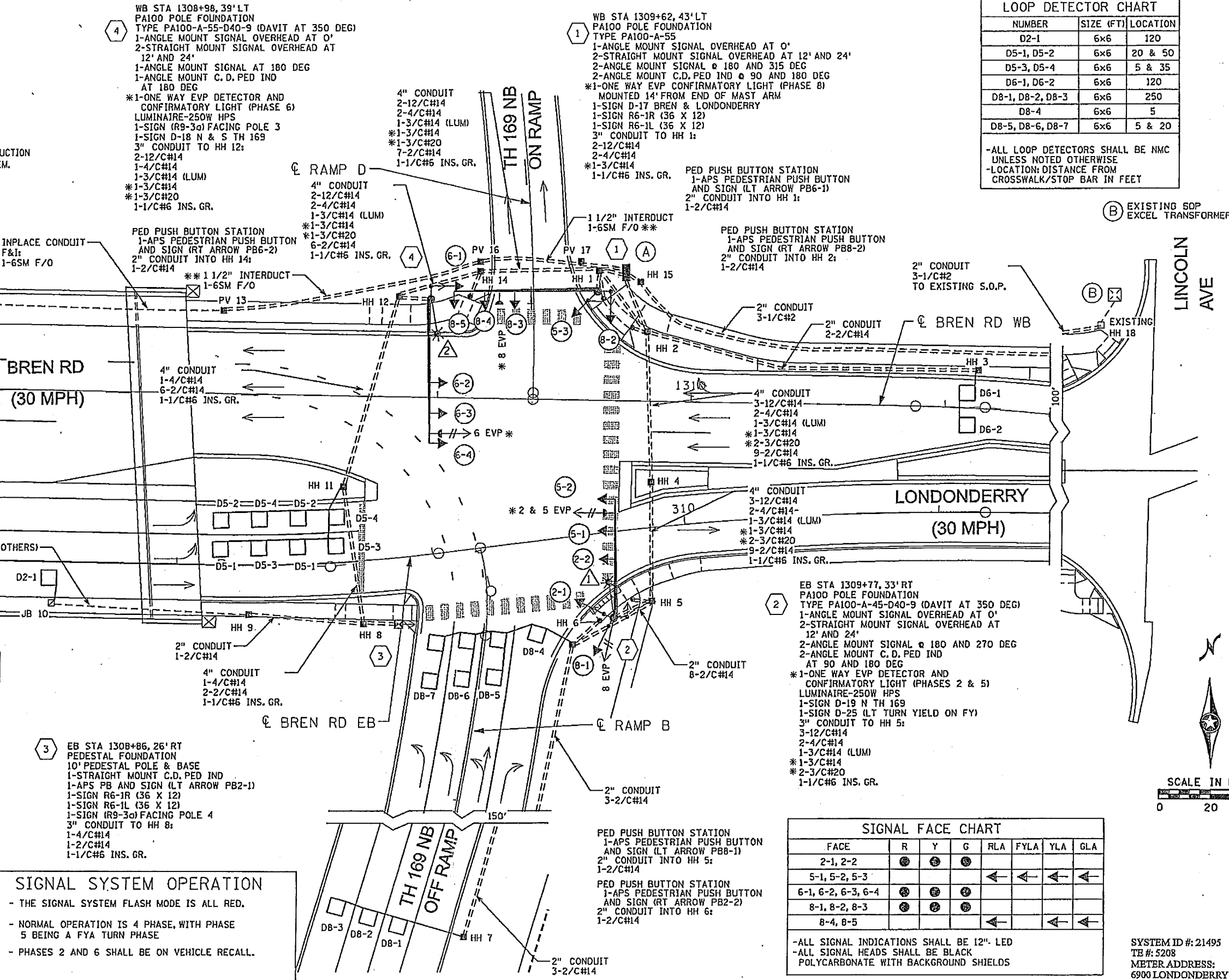
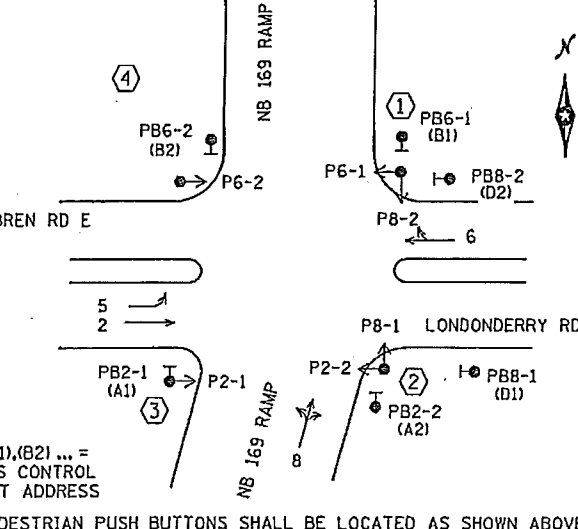


NOTES:

- SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
- THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS, EQUIPMENT PAD, AND PEDESTRIAN CURB RAMPS SHALL BE DETERMINED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL.
- FOR TYPE D SIGNS SEE DETAIL SHEET. ALL SIGNS REQUIRED ARE INCIDENTAL.
- FOR PAVEMENT MARKINGS SEE DETAIL SHEET. PAVEMENT MARKINGS ARE INCLUDED IN PAVEMENT MARKING PLAN.
- CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE PART OF THE CONSTRUCTION PLAN AND ARE NOT INCLUDED IN THE PAYMENT FOR THE SIGNAL SYSTEM.
- THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS MAY REQUIRE BORING.
- ALL NEW CONDUIT SHALL BE NMC - SCHEDULE 80 OR HDPE SCHEDULE 80 AND SHALL CARRY 1/C#6 GREEN INSULATED GROUNDING CONDUCTOR AS SHOWN IN THE PLAN.
- ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.
- ITEMS DENOTED WITH AN ** ARE INCLUDED IN PAYMENT FOR THE INTERCONNECT SYSTEM PAY ITEM.
- PULL VAULT (PV) SEE SPECIAL PROVISIONS.
- REMOVAL OF EXISTING TRAFFIC CONTROL SIGNAL SYSTEM AND ALL ITS COMPONENTS IS INCLUDED IN THE TRAFFIC CONTROL SIGNAL SYSTEM PAY ITEM.

- (A) EQUIPMENT PAD - SEE DETAIL**
- SERVICE CABINET CONTROLLER AND CABINET
 4" CONDUIT TO HH 1:
 4-12/C#14
 3-4/C#14
 4-4/C#14
 *2-3/C#14
 *1-3/C#20
 8-2/C#14
 1-1/C#6 INS. GR.
 3" CONDUIT STUBBED OUT - CAPPED BOTH ENDS
 3/4" CONDUIT STUBBED OUT CAPPED FOR TELEPHONE LINE
 2" CONDUIT TO SERVICE CABINET
 2-1/C#6
 1-1/C#6 INS. GR.
- 1 1/2" INTERDUCT TO PV 17:
 **1-6SM F/O
- SERVICE CABINET TO HH 15:
 2" CONDUIT
 3-1/C#2
 SERVICE CABINET TO HH 1:
 2" CONDUIT
 2-3/C#14 (LUM)
 HH 1 TO HH 2:
 2" CONDUIT
 1-3/C#14 (LUM)

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D2-1	6x6	120
D5-1, D5-2	6x6	20 & 50
D5-3, D5-4	6x6	5 & 35
D6-1, D6-2	6x6	120
D8-1, D8-2, D8-3	6x6	250
D8-4	6x6	5
D8-5, D8-6, D8-7	6x6	5 & 20

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

SIGNAL FACE CHART

FACE	R	Y	G	RLA	FYLA	YLA	GLA
2-1, 2-2	●	●	●				
5-1, 5-2, 5-3	●	●	●	←	←	←	←
6-1, 6-2, 6-3, 6-4	●	●	●	●	●	●	●
8-1, 8-2, 8-3	●	●	●				
8-4, 8-5	●	●	●	←	←	←	←

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

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 5 BEING A FYA TURN PHASE
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

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NO	DATE	BY	CHK	REVISIONS

Drawn By: M SCHWARTZ
 Designed By: M SCHWARTZ
 Checked By: S DELMORE
 Approved By: S DELMORE

I HEREBY CERTIFY THAT THIS PLAN SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Sean Delmore
 SEAN DELMORE
 DATE: 12/10/10 LIC NO: 40845

City of Minnetonka
 Infrastructure • Engineering • Planning • Construction

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 www.wsb.org.com

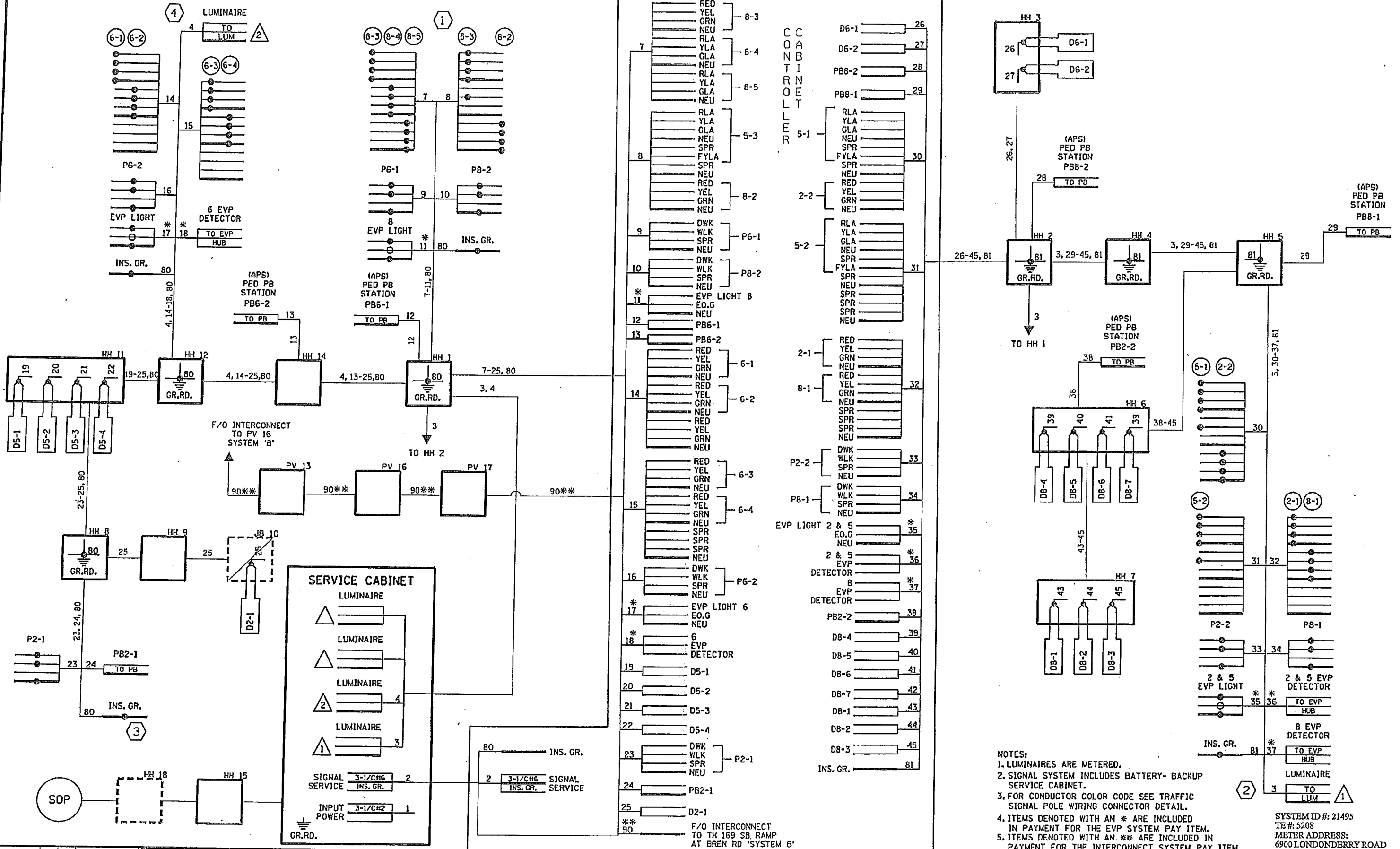
TRAFFIC CONTROL SIGNAL SYSTEM INTERSECTION LAYOUT
 TH 169 @ BREN RD EAST RAMPS SYSTEM "C"
 SIGNAL PLAN
 SHEET 17 OF 22 SHEETS

SYSTEM ID #: 21495
 TE #: 5208
 METER ADDRESS:
 6900 LONDONDERRY ROAD

S.P. 2772-93 (TH 169); S.A.P. 142-148-005; S.A.P. 142-010-016

SHEET 409 OF 507 SHEETS

DATE: 12/29/2010 11:05:40 AM
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NOTES:
 1. LUMINAIRES ARE METERED.
 2. SIGNAL SYSTEM INCLUDES BATTERY- BACKUP SERVICE CABINET.
 3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR 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 INTERCONNECT SYSTEM PAY ITEM.

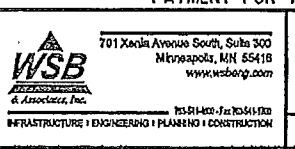
SYSTEM ID #: 21495
 TB #: 5208
 METER ADDRESS:
 6900 LONDONDERRY ROAD

NO	DATE	BY	CHK	REVISIONS

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Sean Delmore
 SEAN DELMORE
 DATE: 12/10/10 LIC NO: 40945



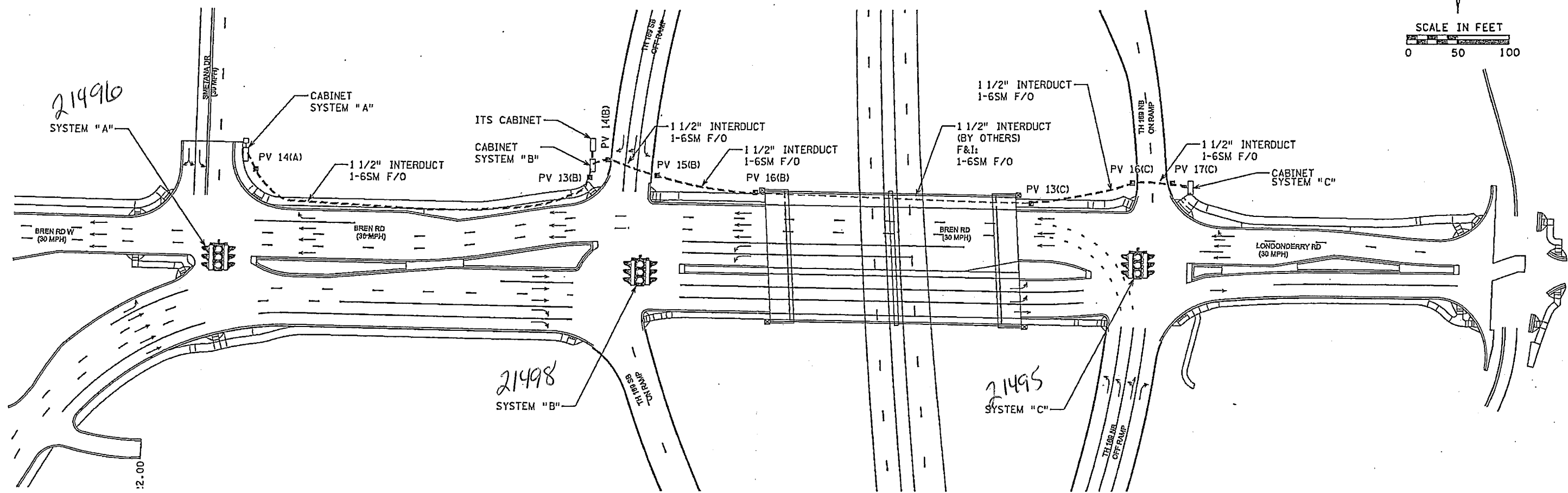
TRAFFIC CONTROL SIGNAL SYSTEM WIRING DIAGRAM
 TH 169 @ BREN RD EAST RAMP'S SYSTEM "C"
 SIGNAL PLAN
 SHEET 18 OF 22 SHEETS

S.P. 2772-93 (TH 169); S.A.P. 142-148-005; S.A.P. 142-010-016

SHEET
 410
 OF
 507
 SHEETS



SCALE IN FEET
0 50 100



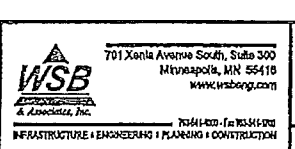
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NO	DATE	BY	CHK	REVISIONS

Drawn By:
M SCHWARTZ
Designed By:
M SCHWARTZ
Checked By:
S DELMORE
Approved By:
S DELMORE

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Sean Delmore
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DATE: 12/10/10 LIC NO: 40945



INTERCONNECT PLAN
SIGNAL PLAN
SHEET 21 OF 22 SHEETS

S.P. 2772-93 (TH 169); S.A.P. 142-148-005; S.A.P. 142-010-016

SHEET
413
OF
507
SHEETS