

**NOTES:**

- 1) LOCATION OF POLES, CONTROLLER CABINET, SERVICE CABINET, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION HAND/WALKING PERSON INDICATION. SEE SPECIAL PROVISIONS.
- 7) ALL VEHICLE SIGNAL INDICATIONS, AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED. SEE SPECIAL PROVISIONS.
- 8) SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS AND CONCRETE WALK TO BE FURNISHED & INSTALLED BY CONTRACTOR.
- 9) CONTRACTOR SHALL PROVIDE EXTENDED BRACKETS FOR EACH POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL FACE.
- 10) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED APPROX. 6 FEET FROM THE END OF EACH MAST ARM (FOR EVP).
- 11) SEE SPECIAL PROVISIONS & ESTIMATED QUANTITIES REGARDING INPLACE SIGNAL SYSTEM TO BE REMOVED AND SALVAGED BY CONTRACTOR (SEPARATE FROM ITEM NO. 2565.511).
- 12) CONTRACTOR SHALL MAINTAIN OPERATION OF INPLACE SIGNAL SYSTEM AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 13) (INTERCONNECT) DENOTES ITEMS TO BE MEASURED AND PAID FOR SEPARATELY UNDER ITEM NO. 2565.601 (TRAFFIC CONTROL INTERCONNECTION). SEE SPECIAL PROVISIONS.

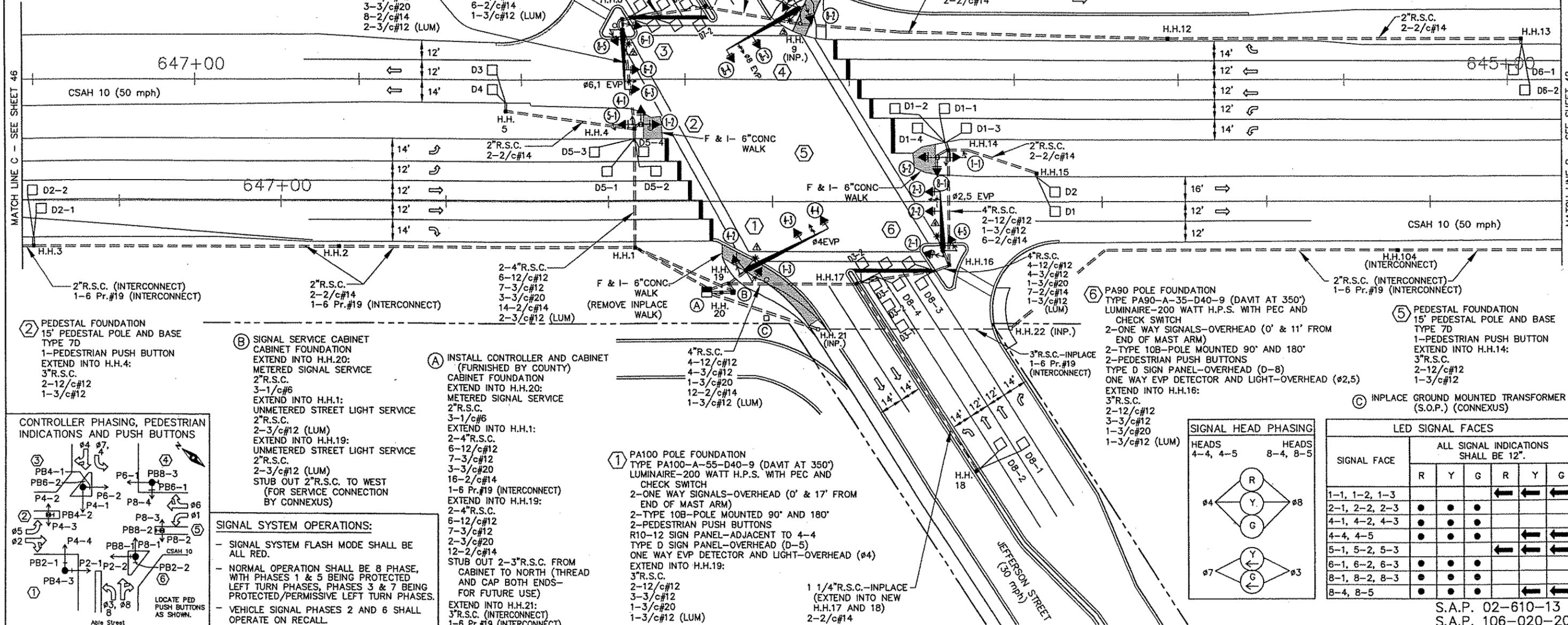
**LOOP DETECTORS FUNCTIONS:**

- 1) CALL AND EXTEND
- 2) CALL ONLY
- 3) EXTEND ONLY
- 4) CALL ONLY DENSITY
- 5) DELAYED CALL ONLY
- 6) DELAYED CALL ONLY DENSITY
- 7) DELAYED CALL- IMMEDIATE EXTEND
- 8) CARRY OVER (STRETCH)
- 9) ADVISORY DETECTOR
- 10) SAMPLING DETECTOR
- 11) SPECIAL DETECTOR (COUNTING)

**N.M.C. LOOP DETECTORS**

NUMBER	SIZE (FT.)	LOCATION	FUNCTION
D1-1	6x6	40'	1
D1-2	6x6	10'	1
D1-3	6x6	40'	1
D1-4	6x6	10'	1
D2-1	6x6	400'	1
D2-2	6x6	400'	1
D3-1	2-6x6	5' & 35'	1
D3-2	2-6x6	5' & 20'	1
D4-1	6x6	120'	3,8
D4-2	6x6	120'	3,8
D4-3	2-6x6	AS SHOWN	1
D4-4	2-6x6	AS SHOWN	1
D5-1	6x6	40'	1
D5-2	6x6	10'	1
D5-3	6x6	40'	1
D5-4	6x6	10'	1
D6-1	6x6	400'	1
D6-2	6x6	400'	1
D7-1	2-6x6	5' & 35'	1
D7-2	2-6x6	5' & 20'	1
D8-1	6x6	120'	3,8
D8-2	6x6	120'	3,8
D8-3	2-6x6	AS SHOWN	1
D8-4	2-6x6	AS SHOWN	1
D1	6x6	100'	11
D2	6x6	100'	11
D3	6x6	100'	11
D4	6x6	100'	11

NOTE: LOCATION=DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.



- ② PEDESTAL FOUNDATION 15' PEDESTAL POLE AND BASE TYPE 7D  
1-PEDESTRIAN PUSH BUTTON  
EXTEND INTO H.H.4:  
3"R.S.C.  
2-12/c#12  
1-3/c#12

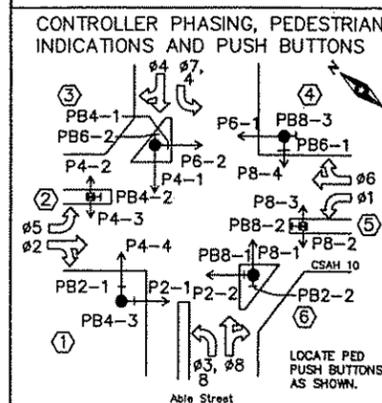
- ③ SIGNAL SERVICE CABINET CABINET FOUNDATION  
EXTEND INTO H.H.20:  
METERED SIGNAL SERVICE  
2"R.S.C.  
3-1/c#6  
EXTEND INTO H.H.1:  
UNMETERED STREET LIGHT SERVICE  
2"R.S.C.  
2-3/c#12 (LUM)  
EXTEND INTO H.H.19:  
UNMETERED STREET LIGHT SERVICE  
2"R.S.C.  
2-3/c#12 (LUM)  
STUB OUT 2"R.S.C. TO WEST (FOR SERVICE CONNECTION BY CONNEXUS)

- ④ INSTALL CONTROLLER AND CABINET (FURNISHED BY COUNTY)  
CABINET FOUNDATION  
EXTEND INTO H.H.20:  
METERED SIGNAL SERVICE  
2"R.S.C.  
3-1/c#6  
EXTEND INTO H.H.1:  
2-4"R.S.C.  
2-4"R.S.C.  
6-12/c#12  
7-3/c#12  
3-3/c#20  
16-2/c#14  
1-6 Pr.#19 (INTERCONNECT)  
EXTEND INTO H.H.19:  
2-4"R.S.C.  
6-12/c#12  
7-3/c#12  
3-3/c#20  
12-2/c#14  
STUB OUT 2-3"R.S.C. FROM CABINET TO NORTH (THREAD AND CAP BOTH ENDS- FOR FUTURE USE)  
EXTEND INTO H.H.21:  
3"R.S.C. (INTERCONNECT)  
1-6 Pr.#19 (INTERCONNECT)

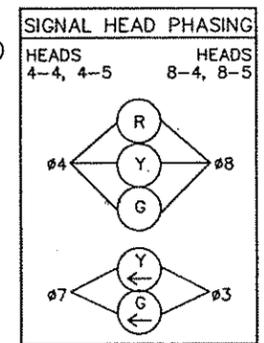
- ⑤ PA100 POLE FOUNDATION  
TYPE PA100-A-55-D40-9 (DAVIT AT 350')  
LUMINAIRE-200 WATT H.P.S. WITH PEC AND CHECK SWITCH  
2-ONE WAY SIGNALS-OVERHEAD (0' & 17' FROM END OF MAST ARM)  
2-TYPE 10B-POLE MOUNTED 90° AND 180°  
2-PEDESTRIAN PUSH BUTTONS  
R10-12 SIGN PANEL-ADJACENT TO 4-4  
TYPE D SIGN PANEL-OVERHEAD (D-5)  
ONE WAY EVP DETECTOR AND LIGHT-OVERHEAD (04)  
EXTEND INTO H.H.19:  
3"R.S.C.  
2-12/c#12  
3-3/c#12  
1-3/c#20  
1-3/c#12 (LUM)

- ⑥ PA90 POLE FOUNDATION  
TYPE PA90-A-35-D40-9 (DAVIT AT 350')  
LUMINAIRE-200 WATT H.P.S. WITH PEC AND CHECK SWITCH  
2-ONE WAY SIGNALS-OVERHEAD (0' & 11' FROM END OF MAST ARM)  
2-TYPE 10B-POLE MOUNTED 90° AND 180°  
2-PEDESTRIAN PUSH BUTTONS  
TYPE D SIGN PANEL-OVERHEAD (D-8)  
ONE WAY EVP DETECTOR AND LIGHT-OVERHEAD (02,5)  
EXTEND INTO H.H.16:  
3"R.S.C.  
2-12/c#12  
3-3/c#12  
1-3/c#20  
1-3/c#12 (LUM)

- ⑦ PEDESTAL FOUNDATION 15' PEDESTAL POLE AND BASE TYPE 7D  
1-PEDESTRIAN PUSH BUTTON  
EXTEND INTO H.H.14:  
3"R.S.C.  
2-12/c#12  
1-3/c#12



- SIGNAL SYSTEM OPERATIONS:**
- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
  - NORMAL OPERATION SHALL BE 8 PHASE, WITH PHASES 1 & 5 BEING PROTECTED LEFT TURN PHASES, PHASES 3 & 7 BEING PROTECTED/PERMISSIVE LEFT TURN PHASES.
  - VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.



SIGNAL FACE	ALL SIGNAL INDICATIONS SHALL BE 12".					
	R	Y	G	R	Y	G
1-1, 1-2, 1-3				←	←	←
2-1, 2-2, 2-3	•	•	•			
4-1, 4-2, 4-3	•	•	•			
4-4, 4-5	•	•	•	←	←	←
5-1, 5-2, 5-3				←	←	←
6-1, 6-2, 6-3	•	•	•			
8-1, 8-2, 8-3	•	•	•			
8-4, 8-5	•	•	•	←	←	←

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DESIGNER:	JMG
CHECKED BY:	JMG
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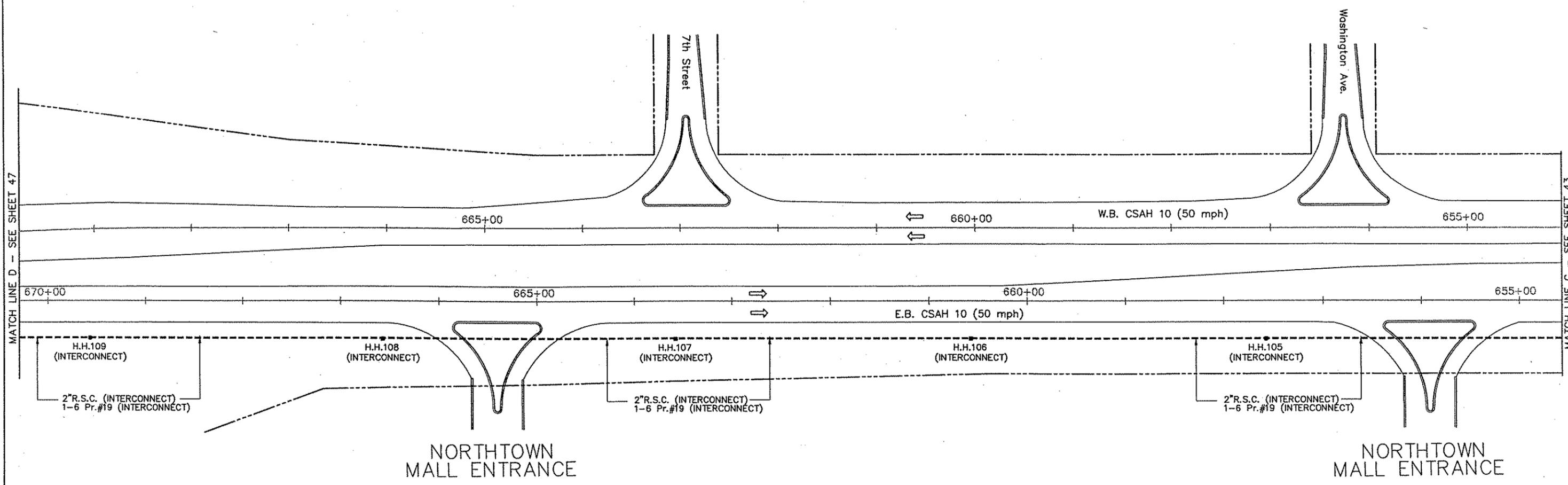


**ANOKA COUNTY, MINNESOTA**  
CITY OF BLANE

**TRAFFIC SIGNAL SYSTEM "B"**  
INTERSECTION LAYOUT  
CSAH 10 AT JEFFERSON STREET

FILE NO. ANOKC0101  
DATE 06/15/01

43  
84



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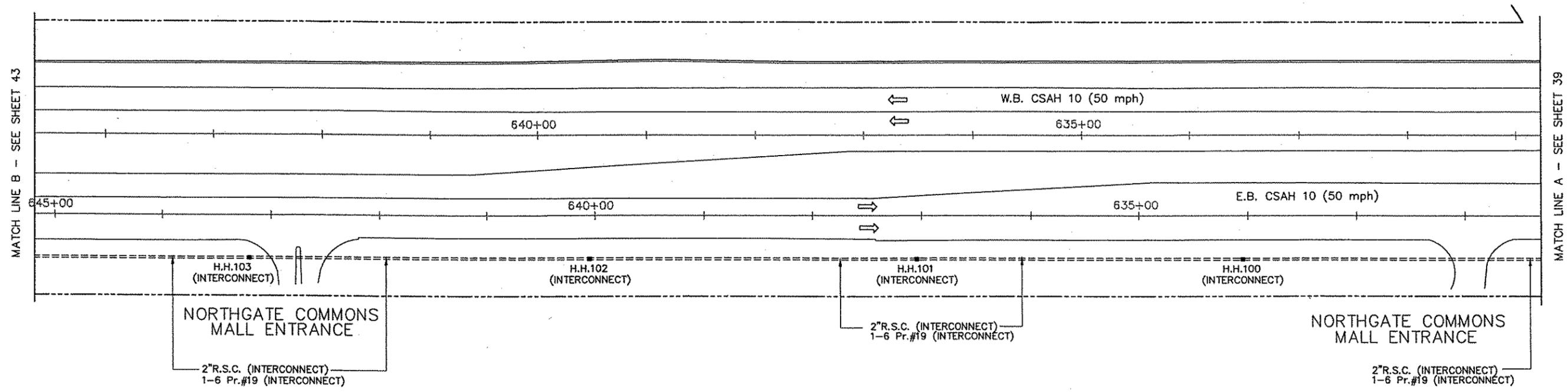


ANOKA COUNTY,  
MINNESOTA

TRAFFIC CONTROL INTERCONNECT  
(JEFFERSON TO UNIVERSITY)

FILE NO.	AANOKC0101	46
DATE	06/15/01	84

S.A.P. 02-610-13



S.A.P. 02-610-13

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**ANOKA COUNTY, MINNESOTA**

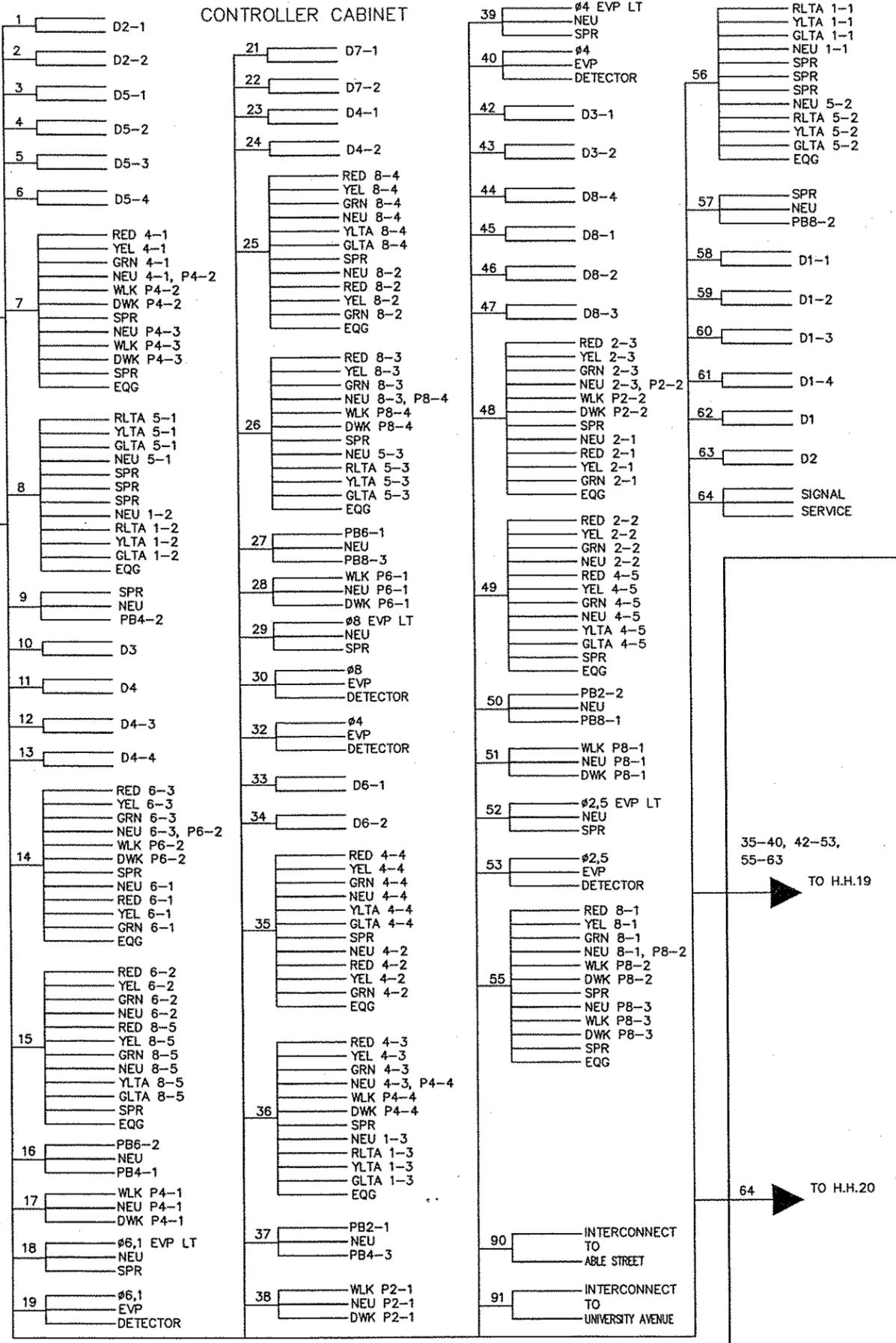
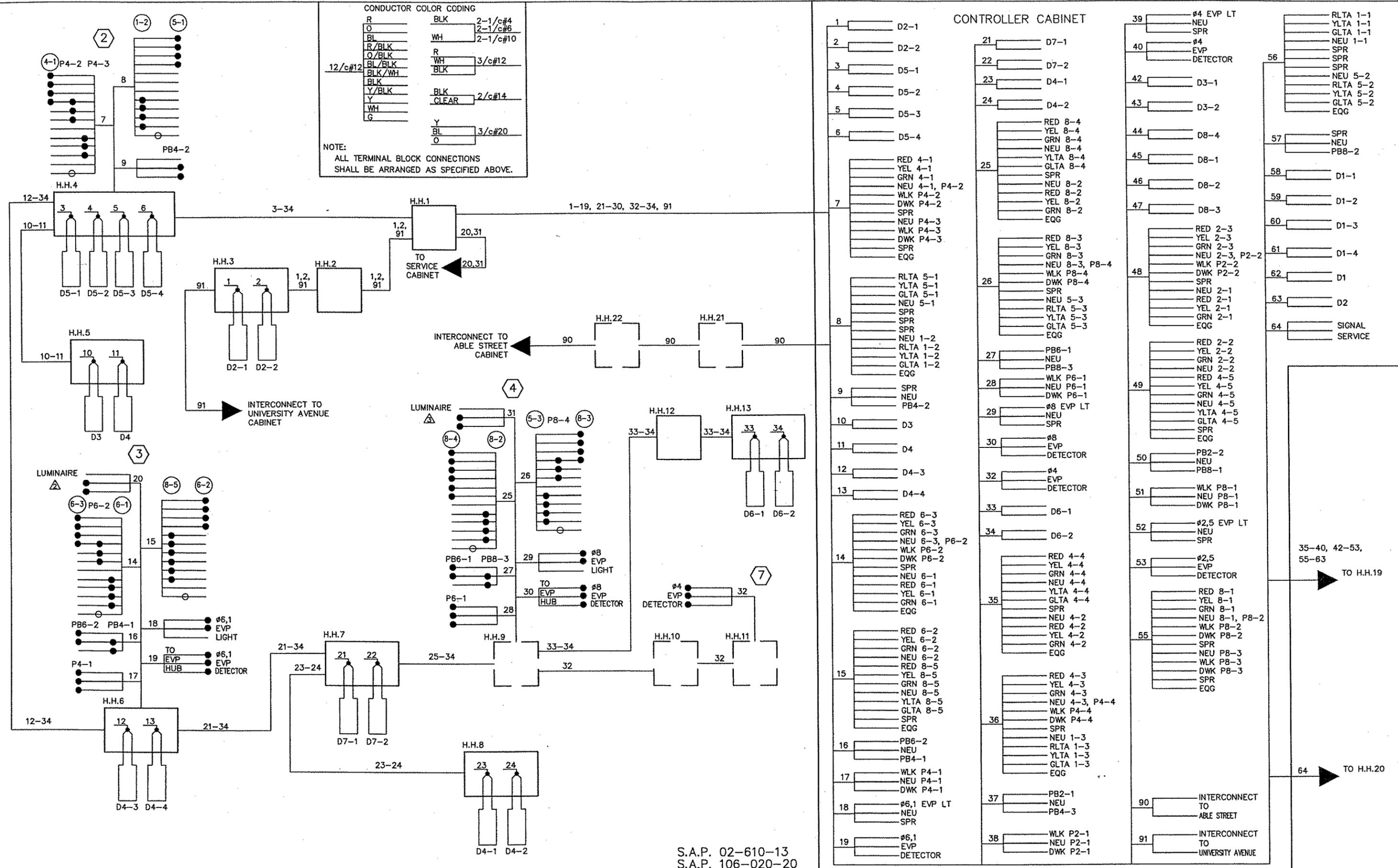
**TRAFFIC CONTROL INTERCONNECT (ABLE TO JEFFERSON)**

FILE NO.	AANOKC0101	<b>42</b>
DATE	06/15/01	<b>84</b>

CONDUCTOR COLOR CODING

R	BLK	2-1/c#4
O	WH	2-1/c#6
BL	WH	2-1/c#10
R/BLK	R	
O/BLK	WH	3/c#12
BL/BLK	BLK	
BLK/WH	BLK	
BLK	BLK	
Y/BLK	BLK	2/c#14
Y	CLEAR	
WH	Y	3/c#20
G	O	

NOTE:  
ALL TERMINAL BLOCK CONNECTIONS  
SHALL BE ARRANGED AS SPECIFIED ABOVE.



S.A.P. 02-610-13  
S.A.P. 106-020-20

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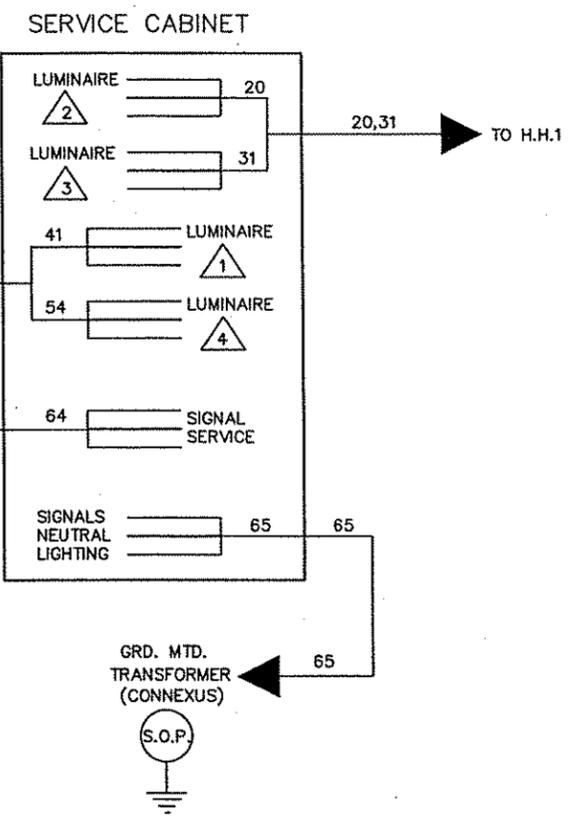
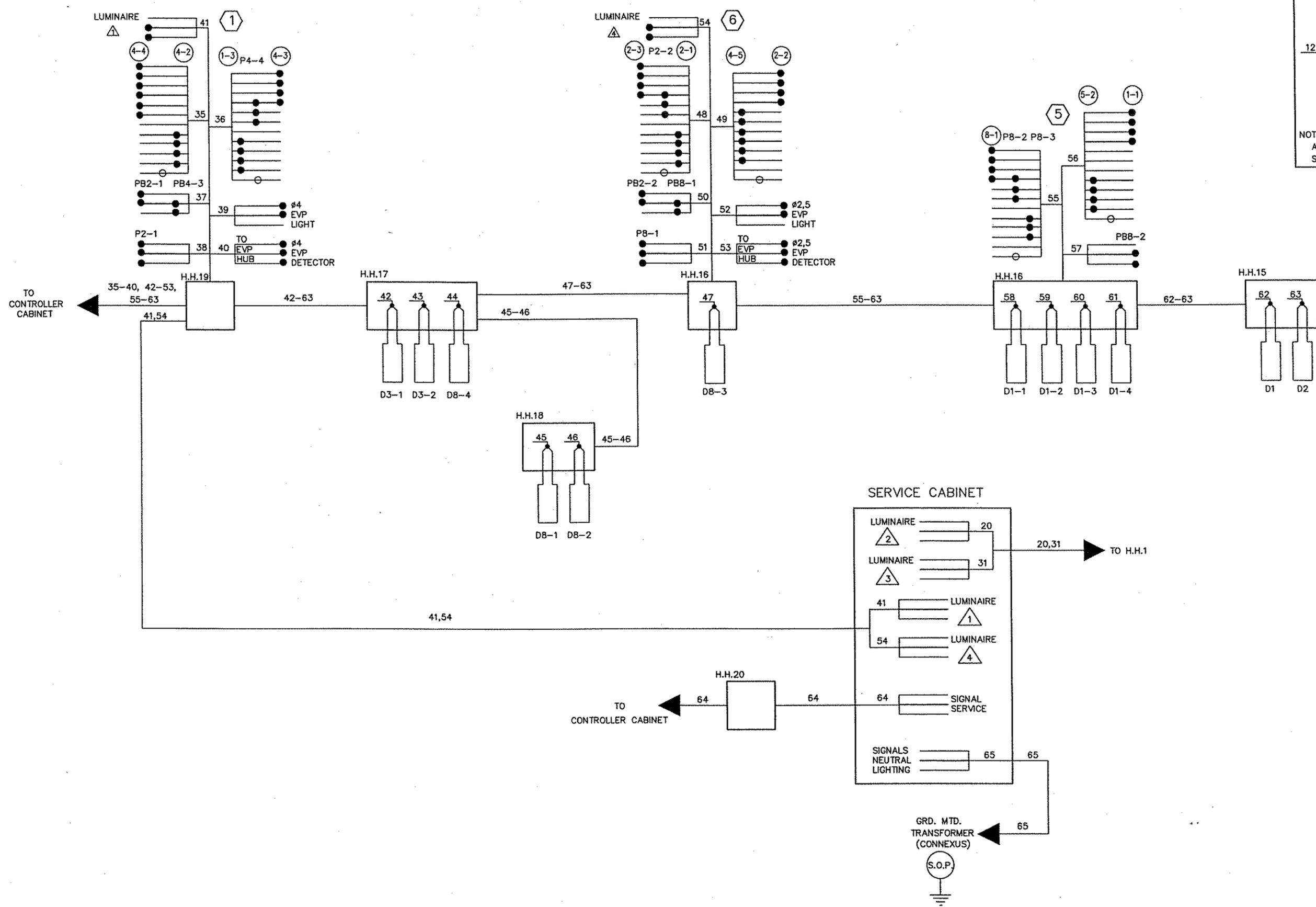
ANOKA COUNTY,  
MINNESOTA  
CITY OF BLANE

TRAFFIC SIGNAL SYSTEM 'B'  
FIELD WIRING DIAGRAM  
CSAH 10 AT JEFFERSON STREET

FILE NO.	44
AANORC0101	
DATE	06/15/01
	84

CONDUCTOR COLOR CODING		
R	BLK	2-1/c#4
O	WH	2-1/c#6
BL	WH	2-1/c#10
R/BLK	R	
O/BLK	WH	3/c#12
BL/BLK	BLK	
BLK/WH	BLK	
BLK	BLK	2/c#14
Y/BLK	CLEAR	
Y	Y	3/c#20
WH	O	
G		

NOTE:  
ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.



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**ANOKA COUNTY, MINNESOTA**  
CITY OF BLAINE

**TRAFFIC SIGNAL SYSTEM 'B'**  
FIELD WIRING DIAGRAM  
CSAH 10 AT JEFFERSON STREET

FILE NO. AANOKC0101	45
DATE 06/15/01	84

S.A.P. 02-610-13  
S.A.P. 106-020-20