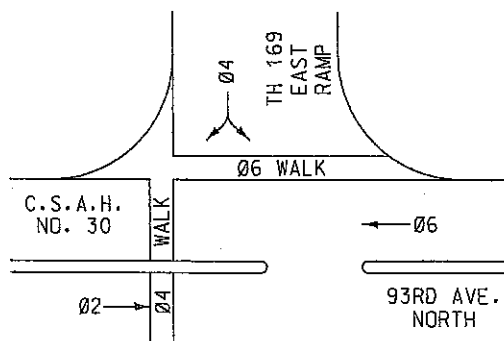


NOTES:

- 1.) ONE APS PEDESTRIAN PUSH BUTTON SHALL BE INSTALLED ON MA-1B, MA-3B, MA-4B AND PBS-1B FOR OPERATION AS SHOWN IN THE PHASING LAYOUT.
- 2.) ONE 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE SHALL BE INSTALLED ON EACH MAST ARM LUMINAIRE SHAFT EXTENSION.
- 3.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF A TELEPHONE DROP INTO CAC-1B FOR THE TRAFFIC SIGNAL SYSTEM WITH THE PHONE COMPANY, AS DIRECTED BY THE ENGINEER, SEE SPECIAL PROVISIONS.
- 4.) SEE DIVISION "SS" OF SPECIAL PROVISIONS FOR MATERIALS PROVIDED BY HENNEPIN COUNTY.
- 5.) SEE SPECIAL PROVISIONS FOR EMERGENCY VEHICLE PRE-EMPTION (EVP) SYSTEM, VIDEO DETECTION SYSTEM, BATTERY BACK-UP SYSTEM AND ACCESSIBLE PEDESTRIAN SIGNAL (APS).
- 6.) SEE SHEET S14 FOR SIGNAL SYSTEM TABULATIONS.
- 7.) THE SIGNAL SYSTEM SHALL NOT INCLUDE THE SIGNAL INTERCONNECT QUANTITIES.
- 8.) THE CONTRACTOR SHALL PROVIDE AND INSTALL ONE R6-1L SIGN AND ONE R6-1R SIGN. THESE SIGNS SHALL BE 48" X 18" AND MOUNTED BACK TO BACK ON THE UPRIGHT POLE OF MA-1B. AS DIRECTED BY THE ENGINEER AND INCIDENTAL.
- 9.) ANY REQUIRED RELOCATION OF THE VIDEO OR EVP DETECTORS BECAUSE OF INSUFFICIENT SIGHT DISTANCE AS DIRECTED BY THE ENGINEER SHALL BE INCIDENTAL.
- 10.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM WITH THE POWER COMPANY, SEE SPECIAL PROVISIONS.
- 11.) THE CONTRACTOR SHALL PLACE COMMON BACK FILL AND RESTORE ALL DISTURBED TURF, CONCRETE OR BITUMINOUS WALK, ETC. TO IT'S ORIGINAL CONDITION OR BETTER, THIS WORK SHALL BE INCIDENTAL AND AS DIRECTED BY THE ENGINEER.
- 12.) THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

CONTROLLER PHASING LAYOUT

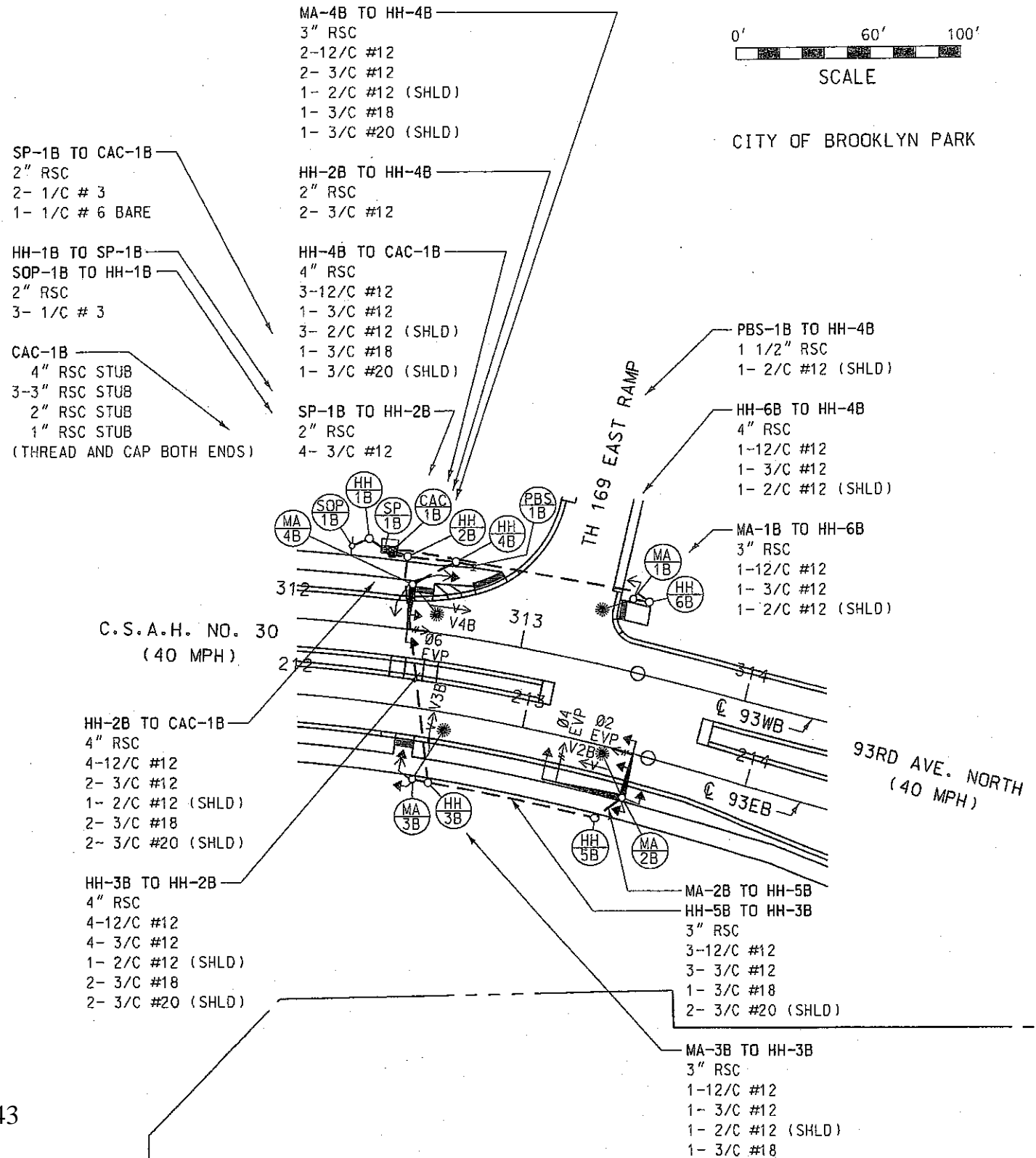
(NO SCALE)



SIGNAL SYSTEM OPERATION

- SIGNAL SYSTEM FLASH MODE IS ALL RED.
- PHASES 2 AND 6 ARE ON VEHICLE SOFT RECALL.

MNDOT System ID 39443



2984600

	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. <i>Dharam C. Bobra</i> DHARAM C. BOBRA, PROFESSIONAL ENGINEER	12616 LICENSE NO.	8/8/12 DATE	DESIGN BY: J. WING CAD BY: J. WING CHECKED BY: L. IRWIN LAST REVISION:	SIGNAL SYSTEM "B" PLAN SHEET C.S.A.H. 30 / HENNEPIN COUNTY PROJECT 9846 S.A.P. 027-630-014	SHEET S 13 S 24
	MNDOT SYSTEM ID 39443		HENNEPIN COUNTY ID 9010830		MNDOT SYSTEM ID: 39443	

SIGNAL STRUCTURE LOCATIONS			
NO.	LOCATION (1)	NO.	LOCATION (1)
HH-1B	⊙ 93WB 312 + 29.8 - 36.8' LT.	SP-1B	WEST SIDE OF CAC-1B FOUNDATION
HH-2B	⊙ 93WB 312 + 46.3 - 31.0' LT.		
HH-3B	⊙ 93EB 212 + 63.2 - 31.0' RT.	SOP-1B	BY OTHERS, LOCATION TO BE DETERMINED IN THE FIELD AT TIME OF CONSTRUCTION
HH-4B	⊙ 93WB 312 + 66.6 - 31.7' LT.		
HH-5B	⊙ 93EB 213 + 39.7 - 31.0' RT.		
HH-6B	⊙ 93WB 313 + 48.7 - 31.0' LT.		
CAC-1B	⊙ 93WB 312 + 38.4 - 33.0' LT.	PBS-1B	⊙ 93WB 312 + 74.4 - 31.1' LT.
LOCATION			
NO.	FOUNDATION (1)	AIM ARM TO	MAST ARM
MA-1B	⊙ 93WB 313 + 42.0 - 30.6' LT.	UPRIGHT POLE ONLY	---
MA-2B	⊙ 93EB 213 + 49.0 - 19.5' RT.	⊙ 93EB 213 + 49.0 - 5.5' LT.	25'
		⊙ 93EB 213 + 13.2 - 19.8' RT.	25'
MA-3B	⊙ 93EB 212 + 56.0 - 30.5' RT.	UPRIGHT POLE ONLY	---
MA-4B	⊙ 93WB 312 + 49.9 - 19.5' LT.	⊙ 93WB 312 + 49.9 - 5.5' RT.	25'

(1) TO THE CENTER OF THE HANDHOLE OR CONCRETE FOUNDATION.

SIGNAL INDICATIONS AND BRACKETING									
SIG. POLE NO.	FACE NO.	SIGNAL FACE MOUNT	SIG. Ø	LED INDICATIONS				PED SYM.	BRACKET MOUNTING ANGLE, TYPE, AND STANDARD PLATE NO.
				12" INDICATIONS					
				RED	YEL	FYEL	GRN		
MA-1B	6-4	POLE MOUNT	6					*	90° PLATE 8110 TYPE 30A
MA-2B	2-3	MAST ARM (END)	2	●	●		●		**
	2-2	MAST ARM (INSIDE)	2	●	●		●		**
	2-1	POLE MOUNT	2	●	●		●		180° PLATE 8110 TYPE 10A
	4-3	POLE MOUNT	4	●	●		●		90° PLATE 8110 TYPE 10A
MA-3B	4-2	MAST ARM (END)	4	●	●		●		**
	4-1	POLE MOUNT	4	●	●		●	*	180° PLATE 8110 TYPE 10B
MA-4B	2-4	POLE MOUNT	2	●	●		●		90° PLATE 8110 TYPE 10A
	6-3	MAST ARM (END)	6	●	●		●		**
	6-2	MAST ARM (INSIDE)	6	●	●		●		**
	6-1	POLE MOUNT	6	●	●		●	*	180° PLATE 8110 TYPE 10B
	4-4	POLE MOUNT	4					*	90° PLATE 8110 TYPE 30A

* PEDESTRIAN INDICATIONS SHALL BE INTERNATIONAL SYMBOLS IN A DUAL FACE SINGLE HOUSING WITH PEDESTRIAN COUNTDOWN TIMER.

** STRAIGHT MOUNT PLUMBIZER, SEE SPECIAL PROVISIONS.



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Dharam C. Bobra

DHARAM C. BOBRA, PROFESSIONAL ENGINEER

12616

LICENSE NO.

8/8/12

DATE

DESIGN BY:

J. WING

CAD BY:

J. WING

CHECKED BY:

L. IRWIN

LAST REVISION:

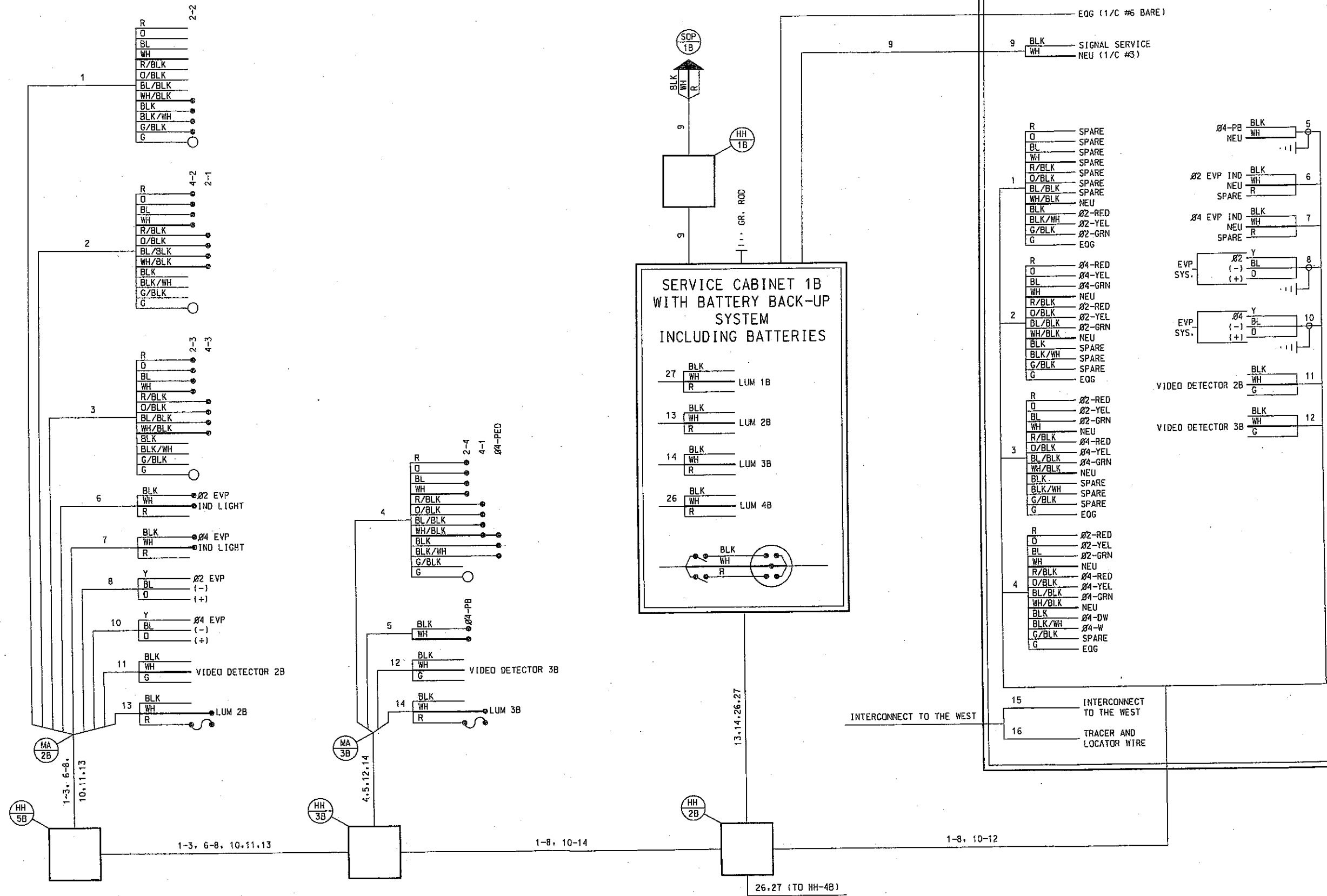
SIGNAL SYSTEM "B" TABULATION SHEET

C.S.A.H. 30 / HENNEPIN COUNTY PROJECT 9846
S.A.P. 027-630-014 S.P. 2750-75 (TH 169)

SHEET

S 14

S 24



HENNEPIN COUNTY ID 9010830 MNDOT SYSTEM ID: 39443



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8/8/12

DATE

DESIGN BY: J. WING

CAD BY: J. WING

CHECKED BY: L. IRWIN

LAST REVISION:

SIGNAL SYSTEM "B" FIELD WIRING DIAGRAM

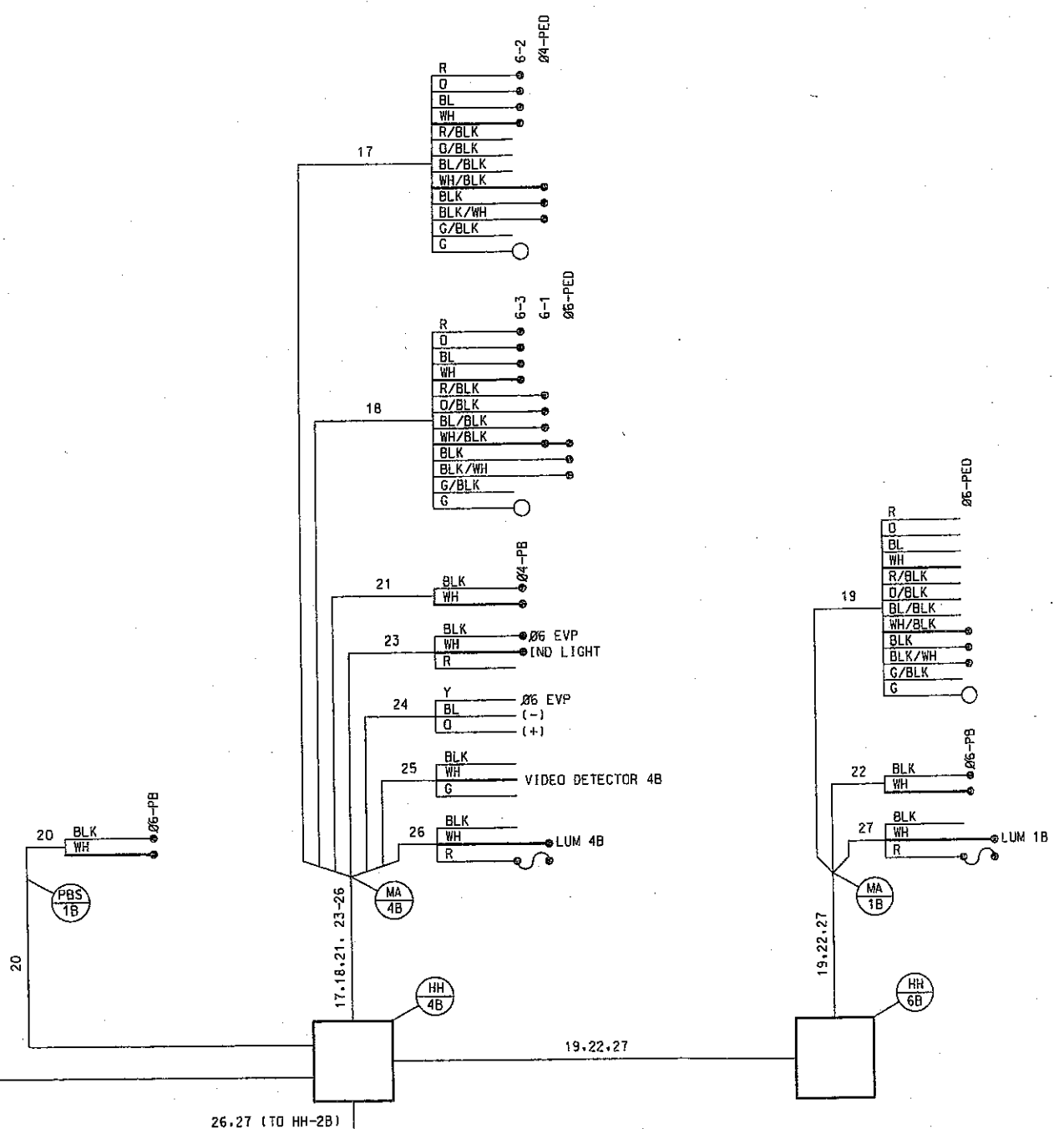
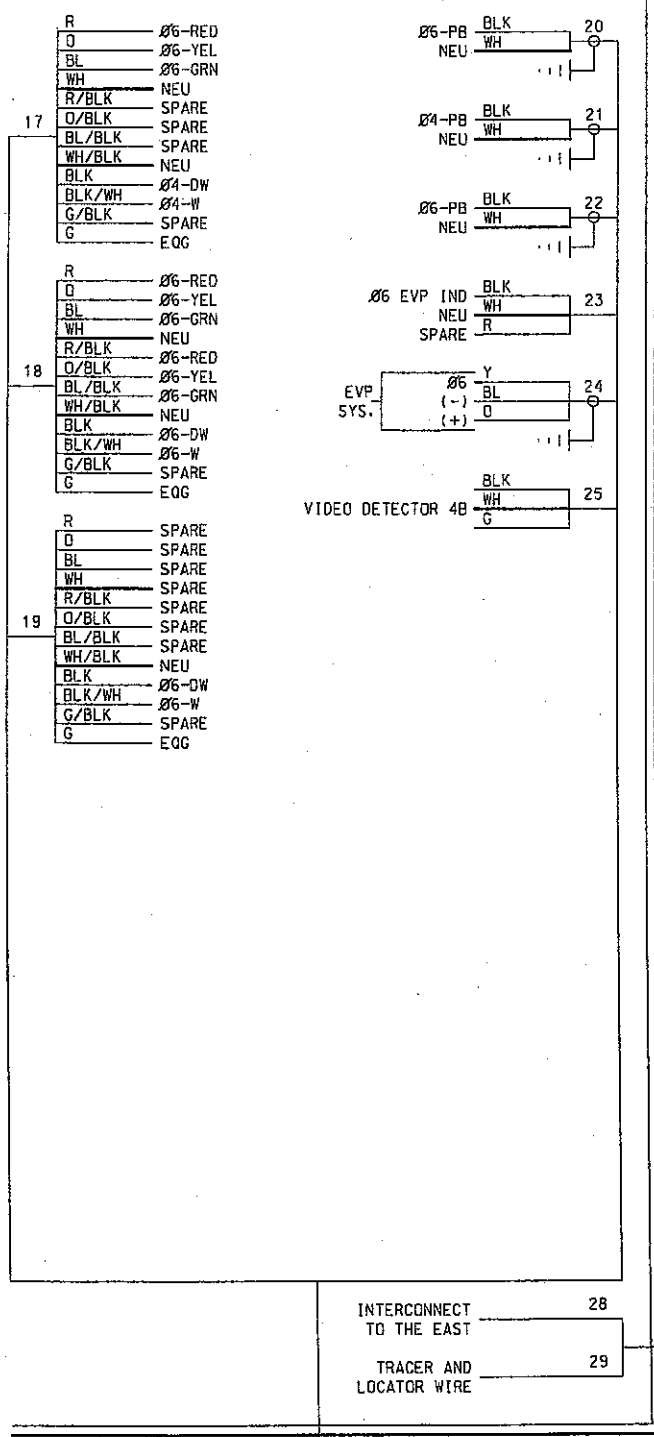
C.S.A.H. 30 / HENNEPIN COUNTY PROJECT 9846
S.A.P. 027-630-014 S.P. 2750-75 (TH 169)

SHEET

S15

S24

CONTROLLER CABINET 1B



17-25

26,27 (TO HH-2B)

19,22,27



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.

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12616
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8/8/12
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DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: L. IRWIN
 LAST REVISION:

SIGNAL SYSTEM "B" FIELD WIRING DIAGRAM

C.S.A.H. 30 / HENNEPIN COUNTY PROJECT 9846
 S.A.P. 027-630-014 S.P. 2750-75 (TH 169)

SHEET
 S16
 S24