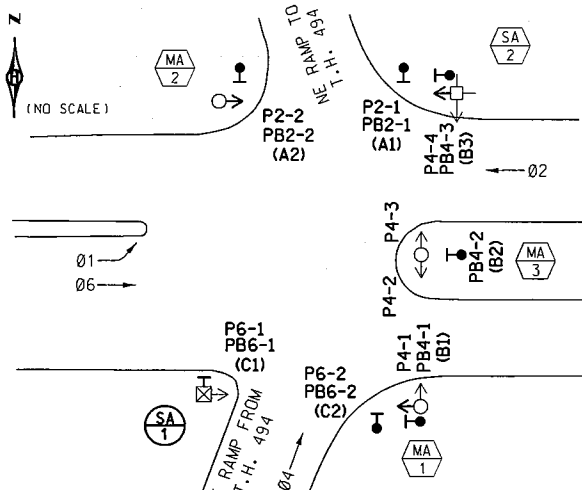


**CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS**



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

**SIGNAL SYSTEM OPERATION**

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

**REVISE SIGNAL SYSTEM:**

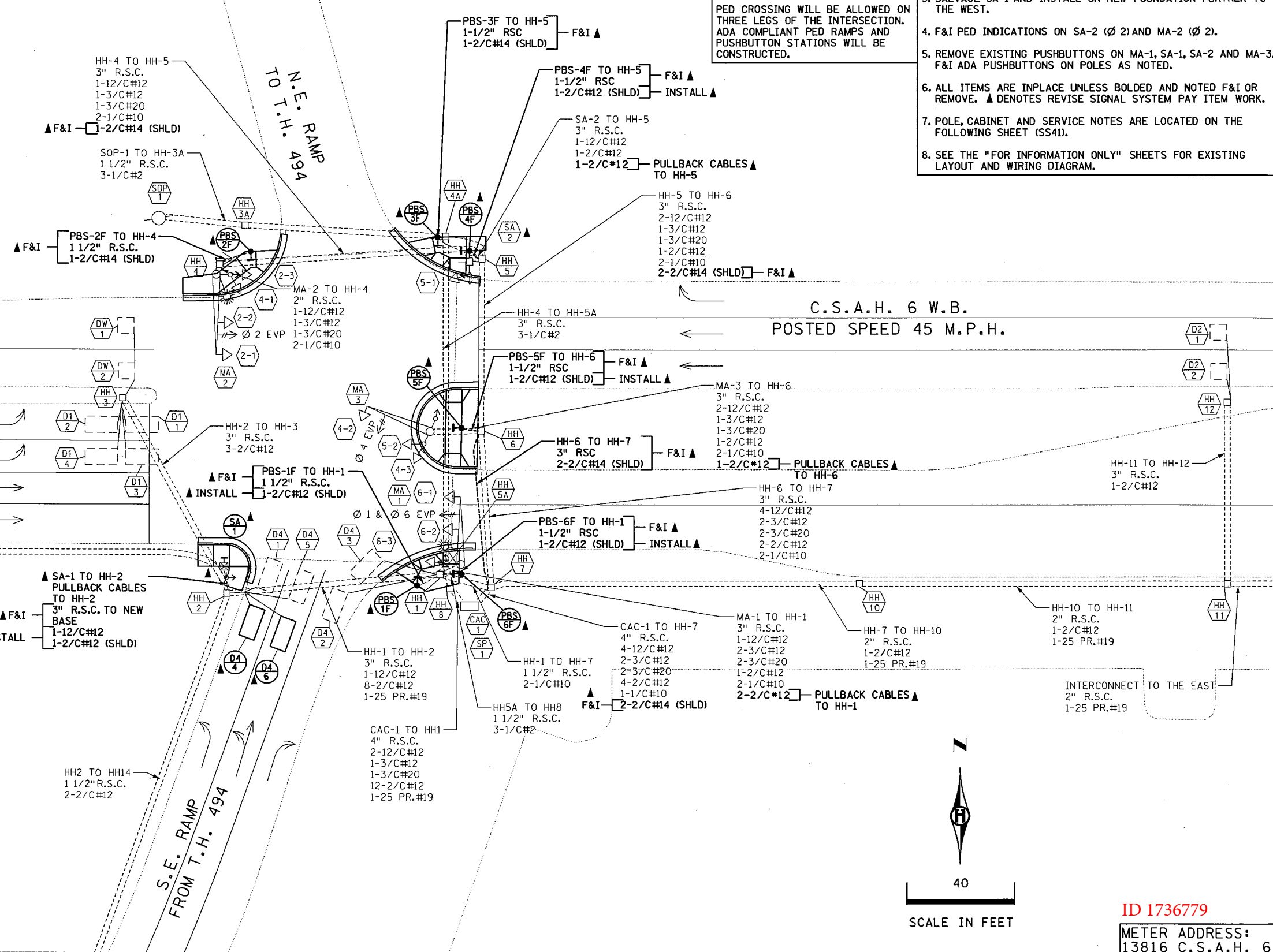
THE T.H. 494 RAMPS ARE BEING RECONSTRUCTED. THE EXISTING LOOP DETECTION ON THE S.E. RAMP FROM T.H. 494 WILL BE REPLACED.

PED CROSSING WILL BE ALLOWED ON THREE LEGS OF THE INTERSECTION. ADA COMPLIANT PED RAMPS AND PUSHBUTTON STATIONS WILL BE CONSTRUCTED.

**REVISE SIGNAL SYSTEM NOTES:**

1. F&I LOOP DETECTION AS NOTED FOR THE OFF RAMP (PHASE 4).
2. F&I PUSHBUTTON STATIONS AS NOTED.
3. SALVAGE SA-1 AND INSTALL ON NEW FOUNDATION FURTHER TO THE WEST.
4. F&I PED INDICATIONS ON SA-2 (Ø 2) AND MA-2 (Ø 2).
5. REMOVE EXISTING PUSHBUTTONS ON MA-1, SA-1, SA-2 AND MA-3. F&I ADA PUSHBUTTONS ON POLES AS NOTED.
6. ALL ITEMS ARE INPLACE UNLESS BOLDDED AND NOTED F&I OR REMOVE. ▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK.
7. POLE, CABINET AND SERVICE NOTES ARE LOCATED ON THE FOLLOWING SHEET (SS41).
8. SEE THE "FOR INFORMATION ONLY" SHEETS FOR EXISTING LAYOUT AND WIRING DIAGRAM.

MATCHLINE A - SEE SHEET SS41



**GENERAL NOTES**

1. SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
2. THE EXACT LOCATION OF HANDHOLES, POLES, PEDESTALS, PEDESTRIAN PUSH BUTTON STATIONS, LOOP DETECTORS, AND EQUIPMENT PAD SHALL BE VERIFIED IN THE FIELD BY COUNTY PERSONNEL.
3. ALL LOOP DETECTORS SHALL BE PREFORMED RIGID PVC LOOP DETECTORS.
4. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.

MATCHLINE B - SEE SHEET SS41

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NO	DATE	BY	CHKD	APPR	REVISION
0	12/16/14	KAS	RJG	RJG	FINAL PLAN SUBMITTAL

I hereby certify that this plan, specification, or report 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: **KATIE SCHMIDT**  
*Katie Schmidt*  
 Date: 12/16/14 License #: 47147

STATE AID PROJECT NO. 027-030-039  
 STATE PROJECT NO. 2785-330  
 COUNTY PROJECT NO.  
 CITY PROJECT NO.

DRAWN BY  
 DESIGNED BY  
 CHECKED BY

**ALLIANT ENGINEERING**

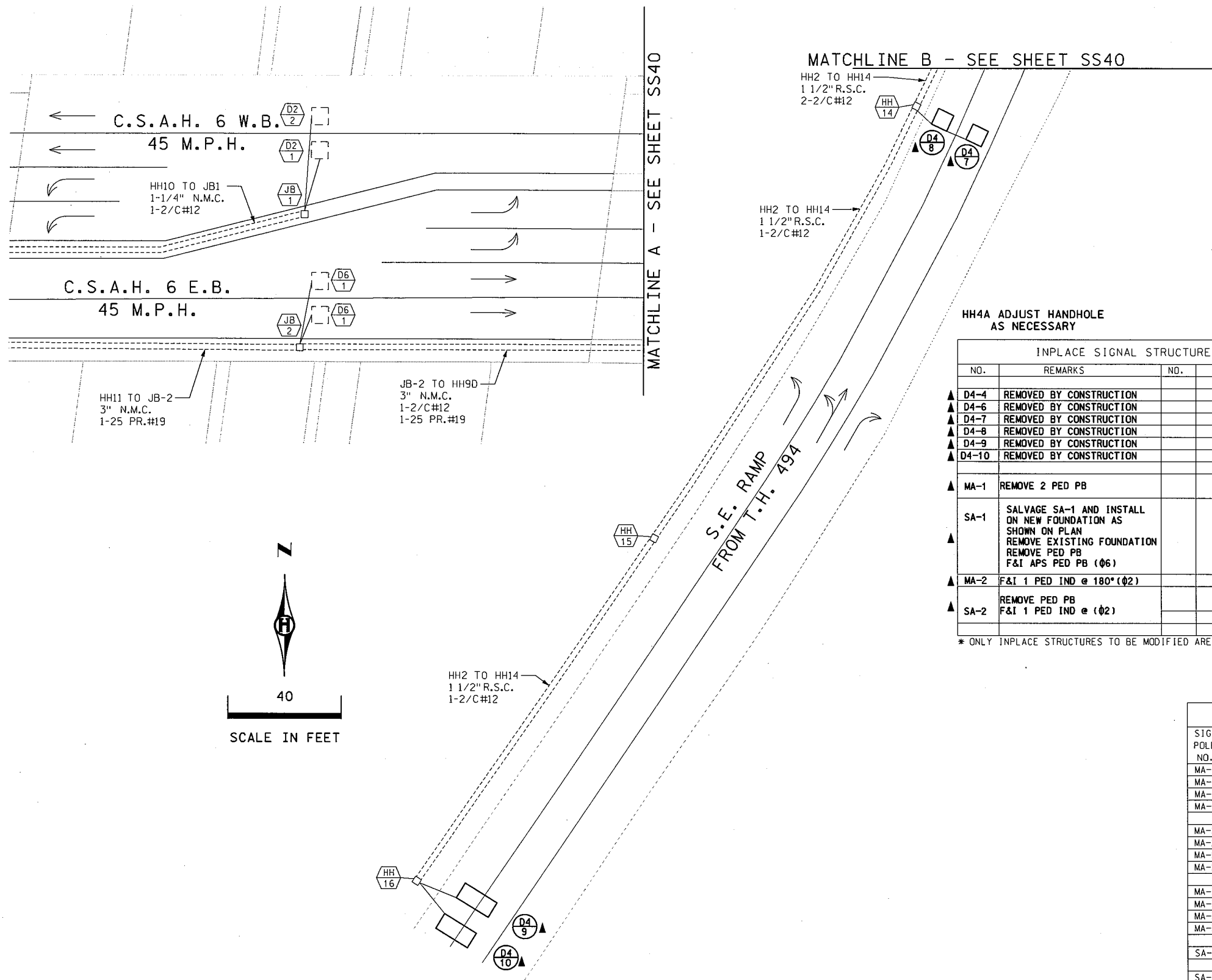
233 Park Ave S, Ste 300  
 Minneapolis, MN 55415  
 612.758.3080 MAIN  
 612.758.3099 FAX  
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ID 1736779

METER ADDRESS:  
 13816 C.S.A.H. 6  
 SYSTEM ID: 9019000

**SP 2785-330 (TH 494)**  
 REVISE SIGNAL SYSTEM "F"  
 INTERSECTION LAYOUT  
 C.S.A.H. 6 AT T.H. 494 EAST RAMPS

SHEET  
 SS40  
 OF  
 SS61



LOOP DETECTOR LOCATIONS				
NO.	LOCATION (1)	LOOP SIZE	NO. OF TURNS	DETECTOR FUNCTION
D1-1	5	6' X 15'	3	(2)
D1-2	20	6' X 15'	3	(2)
D1-3	5	6' X 15'	3	(2)
D1-4	20	6' X 15'	3	(2)
D2-1	300	6' X 6'	3	(2)
D2-2	300	6' X 6'	3	(2)
D4-1	5	6' X 15'	3	(2)
D4-2	10	6' X 15'	3	(2)
D4-3	-5	6' X 15'	3	(2)
D4-5	5	6' X 15'	3	(2)
D6-1	300	6' X 6'	3	(2)
D6-2	300	6' X 6'	3	(2)
▲ D4-4	25	6' X 15'	3	(3)
▲ D4-6	25	6' X 15'	3	(3)
▲ D4-7	170	6' X 6'	3	(3)
▲ D4-8	170	6' X 6'	3	(3)
▲ D4-9	500	6' X 20'	3	(4)
▲ D4-10	515	6' X 20'	3	(4)

(1) DISTANCE FROM THE STOP BAR  
 (2) CALL AND EXTEND  
 (3) DELAY CALL AND EXTEND  
 (4) QUEUE DETECTOR

INPLACE SIGNAL STRUCTURES*			
NO.	REMARKS	NO.	REMARKS
▲ D4-4	REMOVED BY CONSTRUCTION		
▲ D4-6	REMOVED BY CONSTRUCTION		
▲ D4-7	REMOVED BY CONSTRUCTION		
▲ D4-8	REMOVED BY CONSTRUCTION		
▲ D4-9	REMOVED BY CONSTRUCTION		
▲ D4-10	REMOVED BY CONSTRUCTION		
▲ MA-1	REMOVE 2 PED PB		
▲ SA-1	SALVAGE SA-1 AND INSTALL ON NEW FOUNDATION AS SHOWN ON PLAN REMOVE EXISTING FOUNDATION REMOVE PED PB F&I APS PED PB (Ø6)		
▲ MA-2	F&I 1 PED IND @ 180° (Ø2)		
▲ SA-2	REMOVE PED PB F&I 1 PED IND @ (Ø2)		

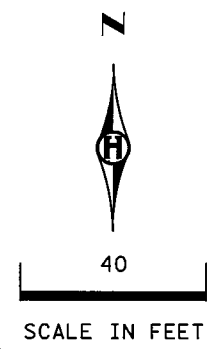
\* ONLY INPLACE STRUCTURES TO BE MODIFIED ARE DETAILED.

SIGNAL STRUCTURE LOCATIONS			
NO.	LOCATION (1)	NO.	LOCATION (1)
▲ PBS 1F	(2)		
▲ PBS 2F	(2)		
▲ PBS 3F	(2)		
▲ PBS 4F	(2)		
▲ PBS 5F	(2)		
▲ PBS 6F	(2)		
▲ SA-1	(2)		

(1) TO THE CENTER OF THE HANDHOLE OR CONCRETE FOUNDATION.  
 (2) SEE CONSTRUCTION INTERSECTION DETAIL FOR EXACT LOCATION

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-1	6-1	MAST ARM (END)	6	12"	12"				ONE-WAY MNT./PLT. 8124D
MA-1	6-2	MAST ARM (INSIDE)	6	12"	12"				ONE-WAY MNT./PLT. 8124D
MA-1	6-3	POLE MOUNT	6	12"	12"		12"		270° TYPE 10B PLT. 8110C
MA-1	PED	POLE MOUNT	4				12"		
MA-2	2-1	MAST ARM (END)	2	12"	12"		12"		ONE-WAY MNT./PLT. 8124D
MA-2	2-2	MAST ARM (INSIDE)	2	12"	12"		12"		ONE-WAY MNT./PLT. 8124D
MA-2	2-3	POLE MOUNT	2	12"	12"		12"		
MA-2	4-1	POLE MOUNT	4	12"	12"		12"		270° TYPE 20A PLT. 8110C
MA-3	4-2	MAST ARM (END)	4	12"	12"		12"		ONE-WAY MNT./PLT. 8124D
MA-3	4-3	POLE MOUNT	4	12"	12"		12"		
MA-3	5-2	POLE MOUNT	5	12" LTA	12" LTA		12" LTA		270° TYPE 20B PLT. 8110C
MA-3	PED	POLE MOUNT	4				12"		90° TYPE 30A/PLT. 8110C
SA-1	PED	PEDESTAL MOUNT	6				12"		TYPE 4A PLT. 8111B
SA-2	5-1	PEDESTAL MOUNT	5	12" LTA	12" LTA		12" LTA		
SA-2	PED	PEDESTAL MOUNT	4				12"		TYPE 1B PLT. 8111B

\* PEDESTRIAN INDICATIONS SHALL BE INTERNATIONAL SYMBOLS.



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NO.	DATE	BY	CHKD	APPR	REVISION
0	12/16/14	KAS	RJG	RJG	FINAL PLAN SUBMITTAL

I hereby certify that this plan, specification, or report 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: **KATIE SCHMIDT**  
*Katie Schmidt*  
 Date: 12/16/14 License #: 47147

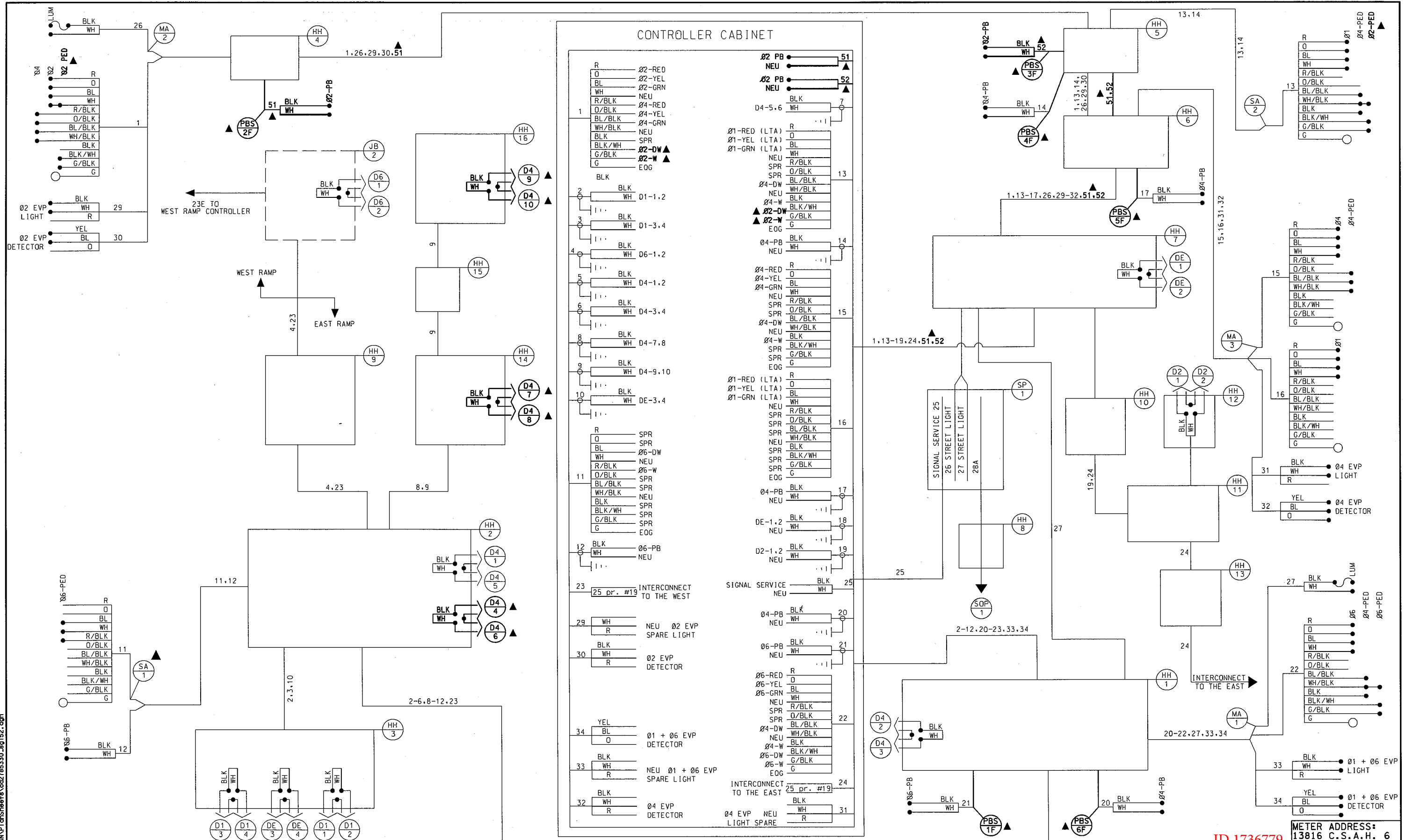
STATE AID PROJECT NO. 027-030-039  
 STATE PROJECT NO. 2785-330  
 COUNTY PROJECT NO.  
 CITY PROJECT NO.

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**ALLIANT ENGINEERING**  
 233 Park Ave S, Ste 300  
 Minneapolis, MN 55415  
 612.758.3080 MAIN  
 612.758.3099 FAX  
 www.alliant-inc.com

**SP 2785-330 (TH 494)**  
 REVISE SIGNAL SYSTEM "F"  
 MATCHLINE LAYOUTS AND TABULATIONS  
 C.S.A.H. 6 AT T.H. 494 EAST RAMPS

SHEET SS41 OF SS61

ID 1736779  
 METER ADDRESS:  
 13816 C.S.A.H. 6  
 SYSTEM ID: 9019000



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NO	DATE	BY	CHKD	APPR	REVISION
0	12/16/14	KAS	RJG	RJG	FINAL PLAN SUBMITTAL

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 Print Name: **KATIE SCHMIDT**  
*Katie Schmidt*  
 Date: **12/16/14** License #: **47147**

STATE AID PROJECT NO. **027-030-039**  
 STATE PROJECT NO. **2785-330**  
 COUNTY PROJECT NO.  
 CITY PROJECT NO.

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**SP 2785-330 (TH 494)**  
 REVISE SIGNAL SYSTEM "F"  
 FIELD WIRING DIAGRAM  
 C.S.A.H. 6 AT T.H. 494 EAST RAMPS

**METER ADDRESS:**  
 13816 C.S.A.H. 6  
 SYSTEM ID: 9019000

**ID 1736779**

**SHEET**  
 SS42  
 OF  
 SS61

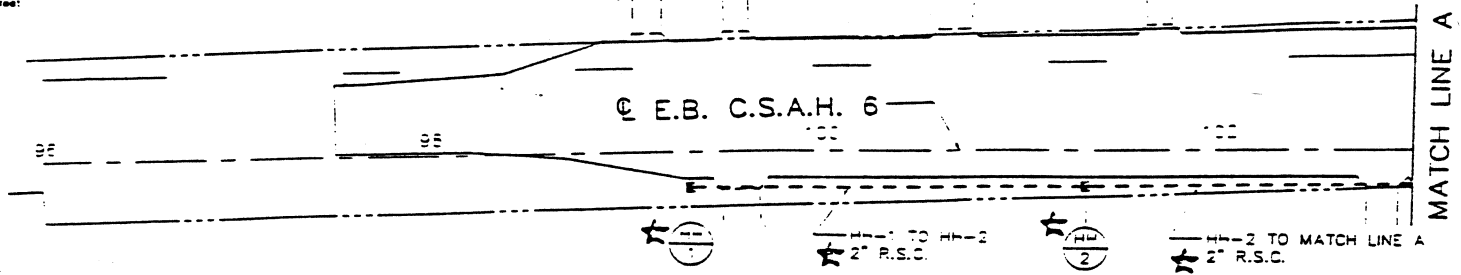






COMPONENT LOCATION*	
-NC-	LOCATION
HH-1	39+40 - 17' RT
HH-2	101+40 - 17' RT

\* ALL LOCATIONS REFERENCED OFF EASTBOUND C.S.A.H. 6 CENTERLINE



NOTE ITEMS INDICATED WITH A \* ARE TO BE CONSTRUCTED AND INCLUDED AS PAY ITEMS UNDER CITY PROJ NC 250

WEST INTERCONNECT



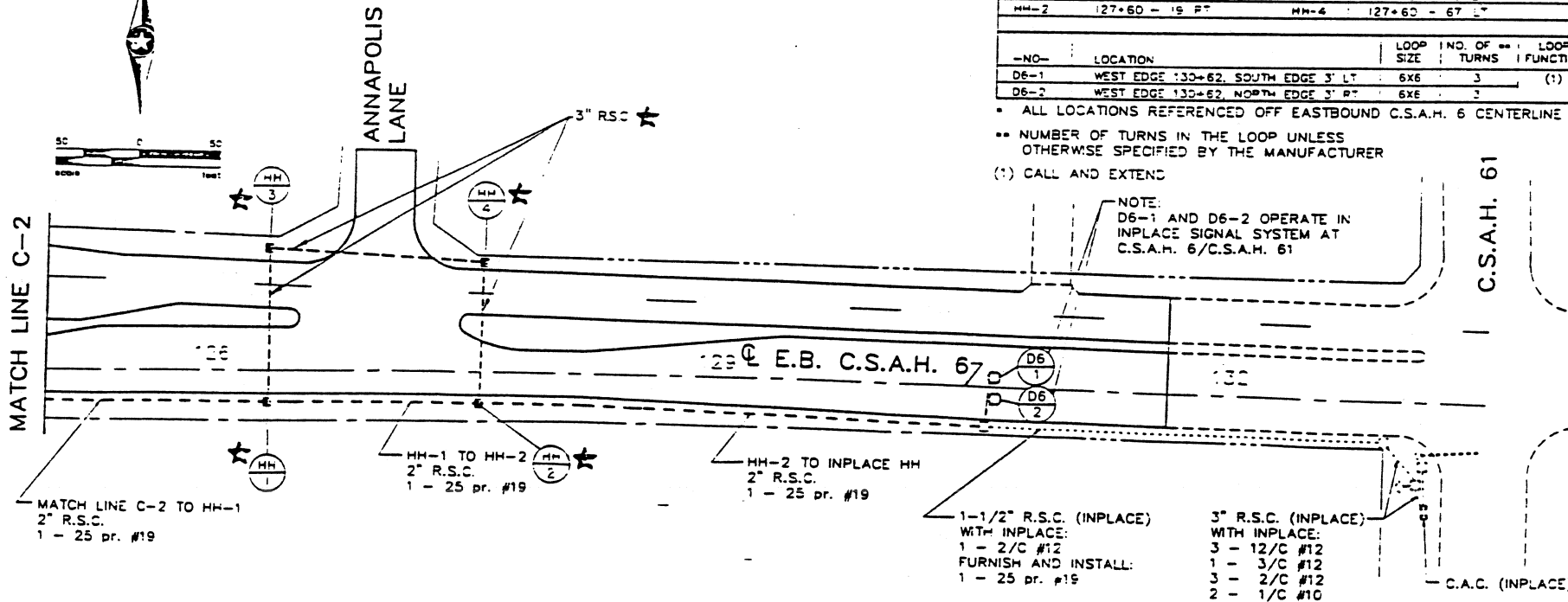
COMPONENT LOCATION*			
-NC-	LOCATION	NC	LOCATION
HH-1	126+30 - 19 FT	HH-3	126+30 - 75 LT
HH-2	127+60 - 19 FT	HH-4	127+60 - 67 LT

-NC-	LOCATION	LOOP SIZE	NO. OF TURNS	LOOP FUNCTION
D6-1	WEST EDGE 130+62, SOUTH EDGE 3' LT	6X6	3	(1)
D6-2	WEST EDGE 130+62, NORTH EDGE 3' RT	6X6	3	

\* ALL LOCATIONS REFERENCED OFF EASTBOUND C.S.A.H. 6 CENTERLINE  
 \*\* NUMBER OF TURNS IN THE LOOP UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER  
 (1) CALL AND EXTEND

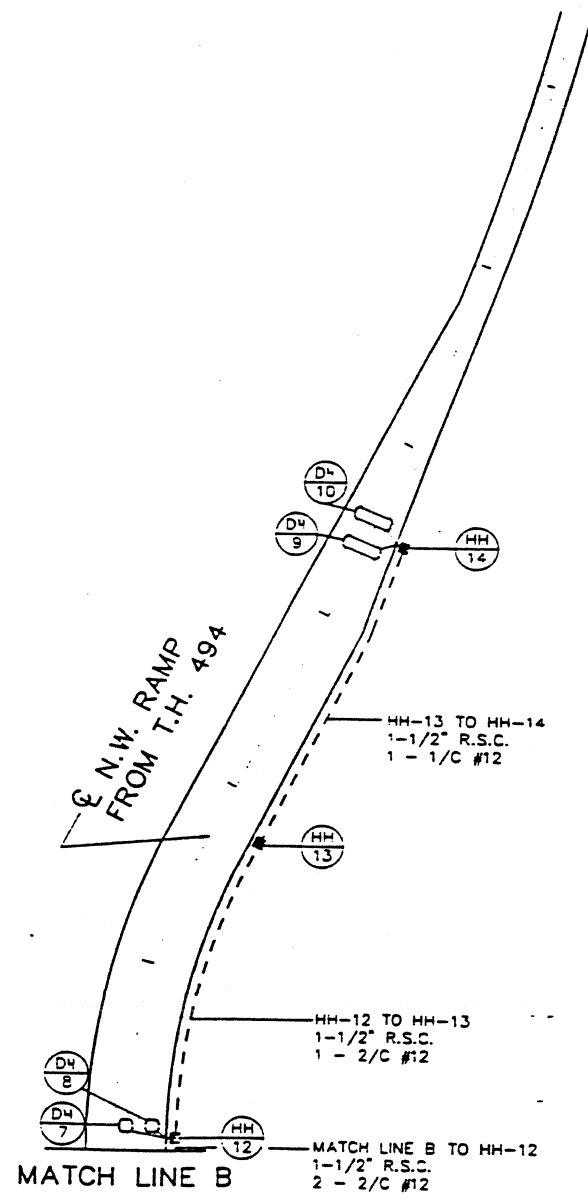
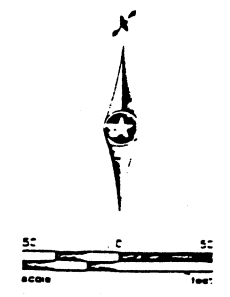
NOTE: D6-1 AND D6-2 OPERATE IN INPLACE SIGNAL SYSTEM AT C.S.A.H. 6/C.S.A.H. 61



EAST INTERCONNECT

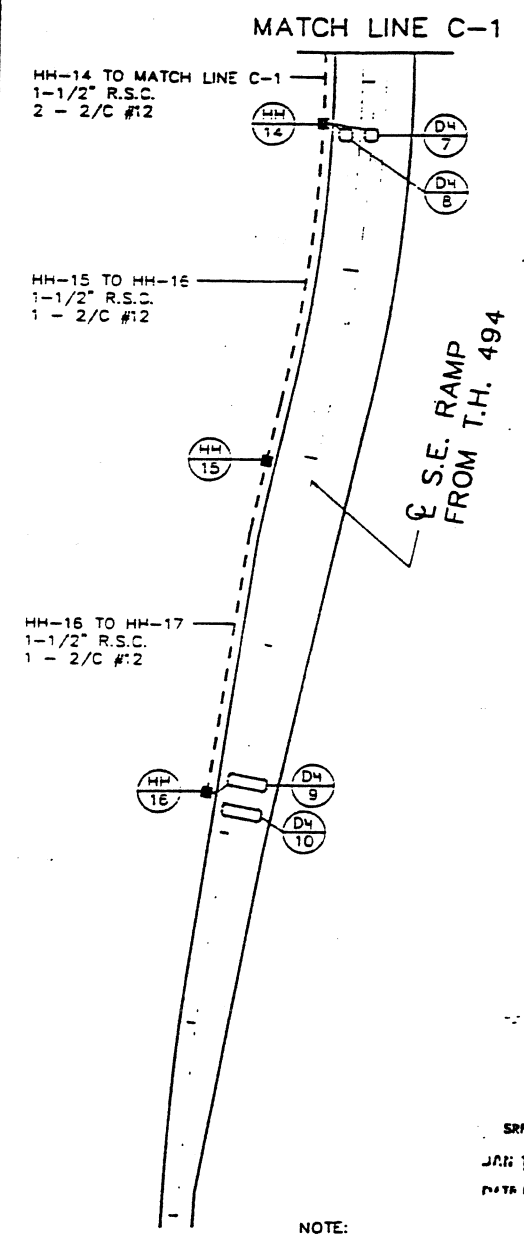
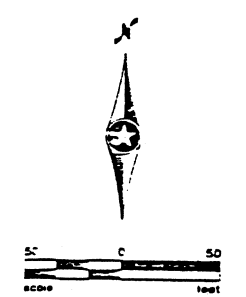
DATE JAN 12 1990  
**PRELIMINARY DESIGN**  
 SUBJECT TO APPROVAL

SYSTEM "B"  
 N.W. RAMP MATCH LINE



NOTE: SEE SYSTEM "B" SIGNAL PLAN LAYOUT SHEET FOR COMPONENT LOCATIONS, SHEET NO. 6.

SYSTEM "C"  
 S.E. RAMP MATCH LINE



NOTE: SEE SYSTEM "C" SIGNAL PLAN LAYOUT SHEET FOR COMPONENT LOCATIONS, SHEET NO. 8.

NO.	DATE	BY	REVISION

**STRGAR-ROSCOE-FAUSCH, INC.**  
 CONSULTING ENGINEERS ■ LAND SURVEYORS  
 MINNEAPOLIS MINNESOTA

I hereby certify that this plan specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.  
 Date \_\_\_\_\_ Reg. No. \_\_\_\_\_

CITY OF PLYMOUTH  
 C.S.A.H. 6  
 INTERCONNECTS AND RAMP MATCH LINES  
 WEST END, EAST END, N.W. AND S.E. RAMPS

STATE AID PROJ. NO.	DRAWN BY C. KENNEDY	DATE 6-88	SHEET 10
	DESIGNED BY A. KLUGMAN	6-88	OF 12
	CHECKED BY D. EYLER	6-88	COMM. NO. 0870900