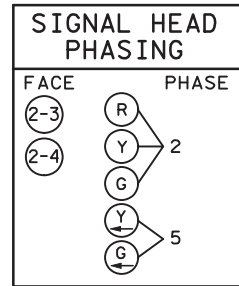


PLOTTED/REVISED: 6-APR-2023

DISTRICT #: Metro
PLOT NAME: sheet_102
FILENAME: Projects\DM_FOS\062\0000\Traffic\Signal\39951_21082_MN62-(32)PENN AV S RAMP-1735513\PENDING\T21082L_SGL.dgn

DETECTOR CHART			DISTANCE TO STOP BAR OR CROSSWALK
DESIGNATION	VIDEO CAMERA	FUNCTION	
D2-1, D2-2	V-3	(1)	120'
D5-1	V-5	(7)	5'
D6-1, D6-2	V-1	(1)	120'
D8-1	V-2	(3)	120'
D8-2	V-2	(7)	5'
D8-3	V-2	(1)	5'



HH-1 TO HH-2
3" RSC
2-3/C#12
2-2/C#12 (SHLD.)
1-6/C FO CABLE
1-2/C#14

HH-1 TO CAC-1
4" RSC
2-12/C#12
1-3/C#12
1-3/C#12 (LUM.)
1-3/C#20
1-2/C#12 (SHLD.)
1-8PR#18 (SHLD.)
1-6/C FO CABLE
1-25PR#19
2-2/C#14

SIG. POLE NO.	SIGNAL FACE MOUNT	SIG. Ø	VEHICULAR INDICATION SIZE AND TYPE			PEDESTRIAN DON'T WALK	BRACKET MOUNTING ANGLE, TYPE AND STANDARD PLATE NO.
			CIRCULAR	TURN ARROWS			
MA-1	MAST ARM (END)(6-3)	6	12" 12" 12"	RED	YEL	GRN	ONE-WAY MNT./PLT. 8124E
MA-1	MAST ARM (MID)(6-2)	6	12" 12" 12"				ONE-WAY MNT./PLT. 8124E
MA-1	POLE MOUNT (6-1)	6	12" 12" 12"				180° TYPE 10A PLATE 8110D
MA-1	POLE MOUNT (8-3)	8	12" 12" 12"				90° TYPE 10B PLATE 8110D
MA-1	POLE MOUNT (P4-1)	4					12" 12" TYPE 10A PLATE 8110D
MA-2	MAST ARM (END)(8-2)	8	12" 12" 12"				ONE-WAY MNT./PLT. 8124E
MA-2	POLE MOUNT (8-1)	8	12" 12" 12"				270° TYPE 10A PLATE 8110D
MA-2	POLE MOUNT (2-4)	2+5	12" 12" 12"	12" LTA	12" LTA		0° TYPE 10A PLATE 8110D
MA-3	MAST ARM (END)(2-3)	2+5	12" 12" 12"	12" LTA	12" LTA		ONE-WAY MNT./PLT. 8124E
MA-3	MAST ARM (MID)(2-2)	2	12" 12" 12"				ONE-WAY MNT./PLT. 8124E
MA-3	POLE MOUNT (2-1)	2	12" 12" 12"				180° TYPE 10B PLATE 8110D
MA-3	POLE MOUNT (P2-2)	2					12" 12" TYPE 10B PLATE 8110D
SA-1	PEDESTAL (P2-1)	2					12" 12" TYPE 4D
SA-1	PEDESTAL (P4-2)	4					12" 12" PLATE 8111D

FUNCTION NOTES:
(1) CALL & EXTEND
(7) DELAY CALL/IMMEDIATE EXTEND
(3) EXTEND ONLY

REMOVE EXISTING CAMERAS: ←

VIDEO DETECTION				
CAMERA NO.	TYPE	LOCATION		PHASE
		POLE	MOUNT LOC.	
V-1	360 DEG.	MA-3	LUM EXTENSION	ALL

INSTALL: ←

- VIDEO DETECTION CAMERAS AND MOUNTING HARDWARE ARE STATE FURNISHED.

2" RSC
1-25PR#19
INTERCONNECT TO PENN AVE. S. AT W. 64TH ST.

APS PED PB STA (PB2-2)
1-APS PB AND SIGN (RT ARROW)
EXTEND INTO HH 1:
1-1.5" RSC CONDUIT
1-2/C#14

HH-11 TO CAC-1
4" RSC
4-12/C#12
4-3/C#12
2-3/C#20
3-2/C#12 (SHLD.)
2-8PR#18 (SHLD.)
2-2/C#14

HH-11 TO HH-1
2" RSC
1-3/C#12 (LUM.)

MA-3 TO HH-1
3" RSC
2-12/C#12
1-3/C#12
1-3/C#12 (LUM.)
1-3/C#20
1-2/C#12 (SHLD.)
1-8PR#18 (SHLD.)

HH-3 TO HH-2
3" RSC
1-3/C#12
1-2/C#12 (SHLD.)

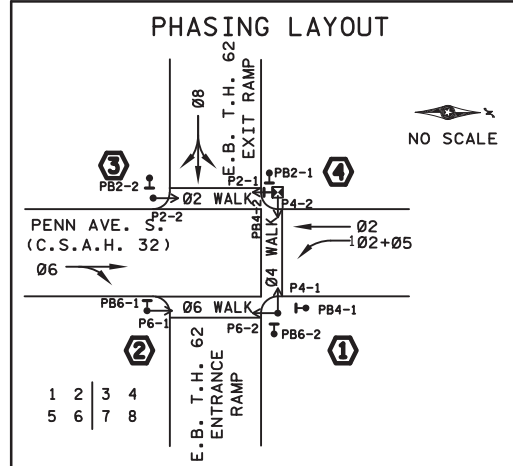
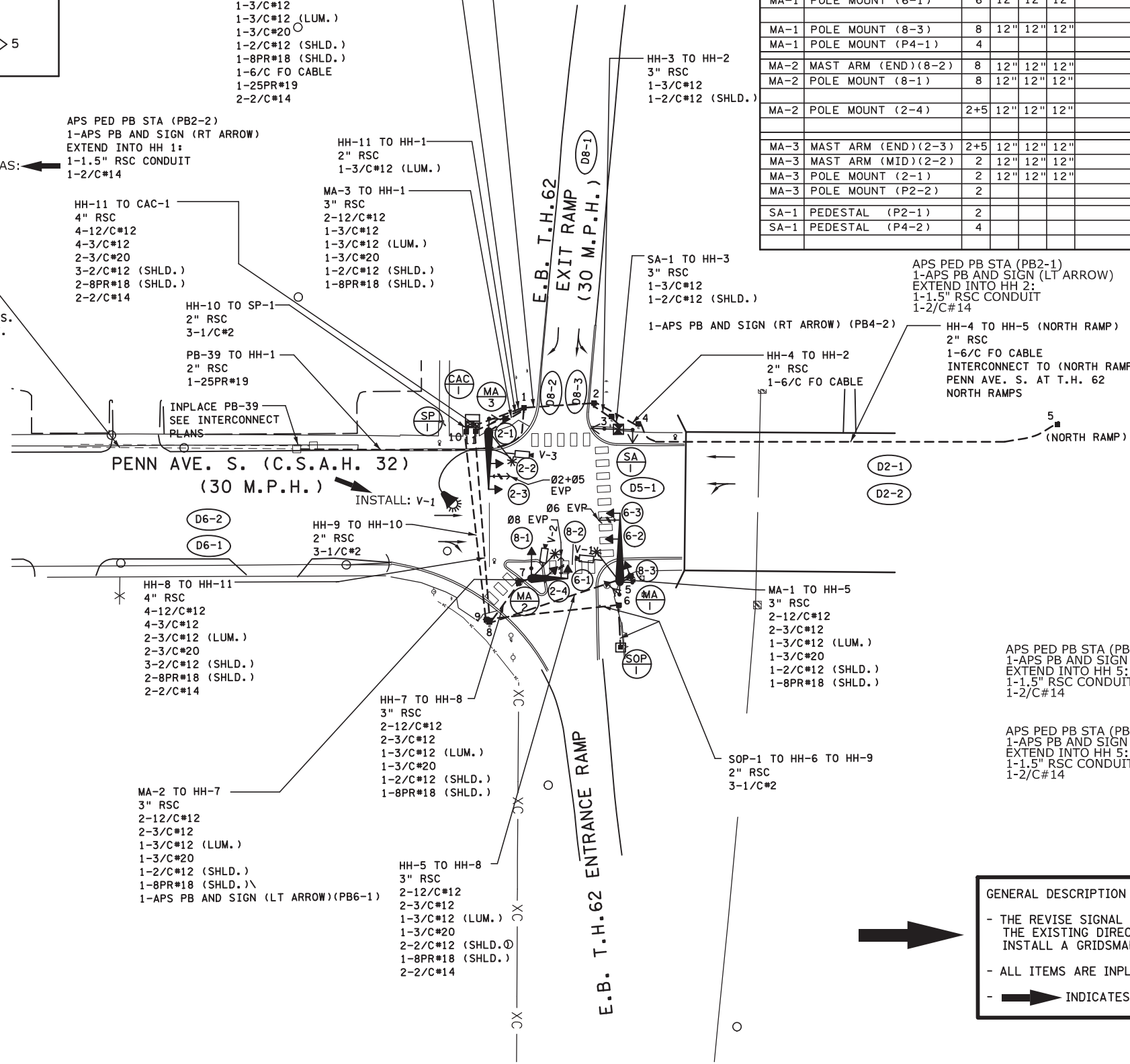
SA-1 TO HH-3
3" RSC
1-3/C#12
1-2/C#12 (SHLD.)

APS PED PB STA (PB2-1)
1-APS PB AND SIGN (LT ARROW)
EXTEND INTO HH 2:
1-1.5" RSC CONDUIT
1-2/C#14

HH-4 TO HH-5 (NORTH RAMP)
2" RSC
1-6/C FO CABLE
INTERCONNECT TO (NORTH RAMP)
PENN AVE. S. AT T.H. 62
NORTH RAMPS

APS PED PB STA (PB6-2)
1-APS PB AND SIGN (RT ARROW)
EXTEND INTO HH 5:
1-1.5" RSC CONDUIT
1-2/C#14

APS PED PB STA (PB4-1)
1-APS PB AND SIGN (LT ARROW)
EXTEND INTO HH 5:
1-1.5" RSC CONDUIT
1-2/C#14



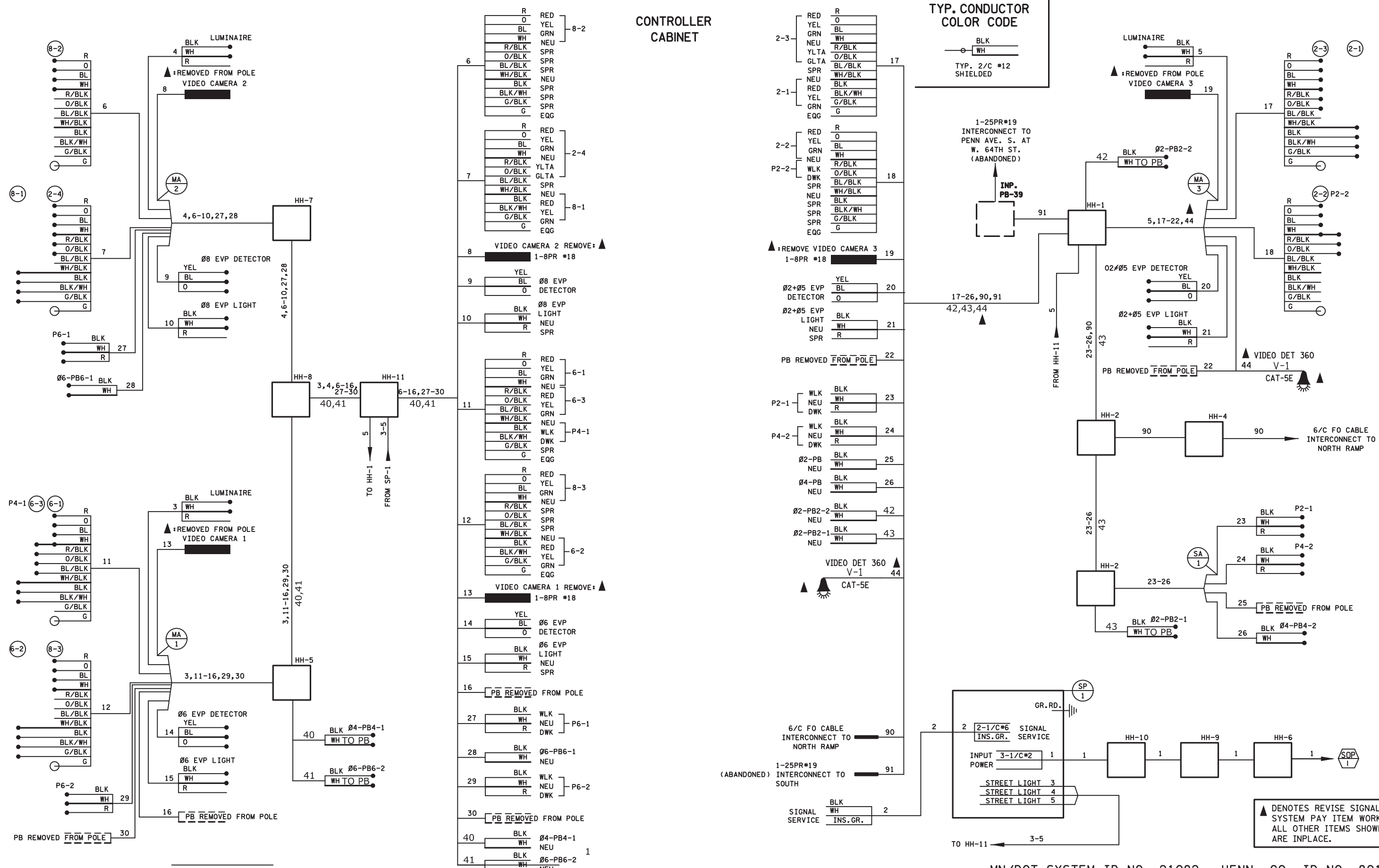
FLASH OPERATION:
THE SIGNAL SHALL FLASH ALL RED
PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL
PHASE 5 SHALL BE A PROTECTED/PERMISSIVE LEFT TURN PHASE

GENERAL DESCRIPTION OF THE SIGNAL REVISION WORK:
- THE REVISION SIGNAL SYSTEM WORK CONSISTS OF REMOVING THE EXISTING DIRECTIONAL VIDEO DETECTION CAMERAS AND INSTALL A GRDSMART/360 DEG. CAMERA.
- ALL ITEMS ARE INPLACE UNLESS OTHERWISE INDICATED.
- → INDICATES SIGNAL REVISION WORK TO BE COMPLETED.

BY	DATE	REVISIONS	SYSTEM ID: 1735513	T.E. 92847	REVISE SIGNAL SYSTEM "CC" INTERSECTION LAYOUT	S.A.P. NO.	DRAWN BY: HRL	CKD BY: CDB	DATE: 03/31/23
			METER ADDRESS:		TH 62 SOUTH RAMPS AT PENN AVE (CSAH 32) IN MINNEAPOLIS, HENNEPIN COUNTY	CERTIFIED BY: <i>Gregory Kern</i>	LIC. NO. 26829	DATE: 04/04/23	
			OLD SYSTEM ID: 21082			STATE PROJ. NO. 8825-1025 (T.H. 999)	SHEET NO. 102 OF 121 SHEETS		

PLOTTED/REVISED: 6-APR-2023

DISTRICT *: Metro
PLOT NAME: street_103
FILENAME: Projects\DM_FOS\062\0000\Traffic\Signal\39951_21082_MN62-(32)PENN AV S RAMP-1735513\PENDING\T21082L_SGL.dgn



CONTROLLER CABINET

TYP. CONDUCTOR COLOR CODE

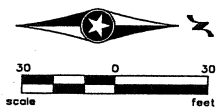
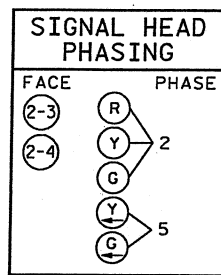
BLK
WH
TYP. 2/C #12 SHIELDED

▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

MN/DOT SYSTEM ID NO. 21082 HENN. CO. ID NO. 8012300

BY	DATE	REVISIONS	SYSTEM ID: 1735513	T.E. 92847	REVISE SIGNAL SYSTEM "CC" WIRE DIAGRAM	S.A.P. NO.	DRAWN BY:HRL	CKD BY:CDB	DATE:03/31/23
HRL			METER ADDRESS:		TH 62 SOUTH RAMPS AT PENN AVE (CSAH 32) IN MINNEAPOLIS, HENNEPIN COUNTY	CERTIFIED BY <i>Gregory Kern</i>	LIC. NO. 26829		DATE: 04/04/23
			OLD SYSTEM ID: 21082			STATE PROJ.NO. 8825-1025(T.H.999)	SHEET NO. 103	OF 121 SHEETS	

DETECTOR CHART			DISTANCE TO STOP BAR OR CROSSWALK
DESIGNATION	VIDEO CAMERA	FUNCTION	
D2-1, D2-2	V-3	(1)	120'
D5-1	V-3	(7)	5'
D6-1, D6-2	V-1	(1)	120'
D8-1	V-2	(3)	120'
D8-2	V-2	(7)	5'
D8-3	V-2	(1)	5'

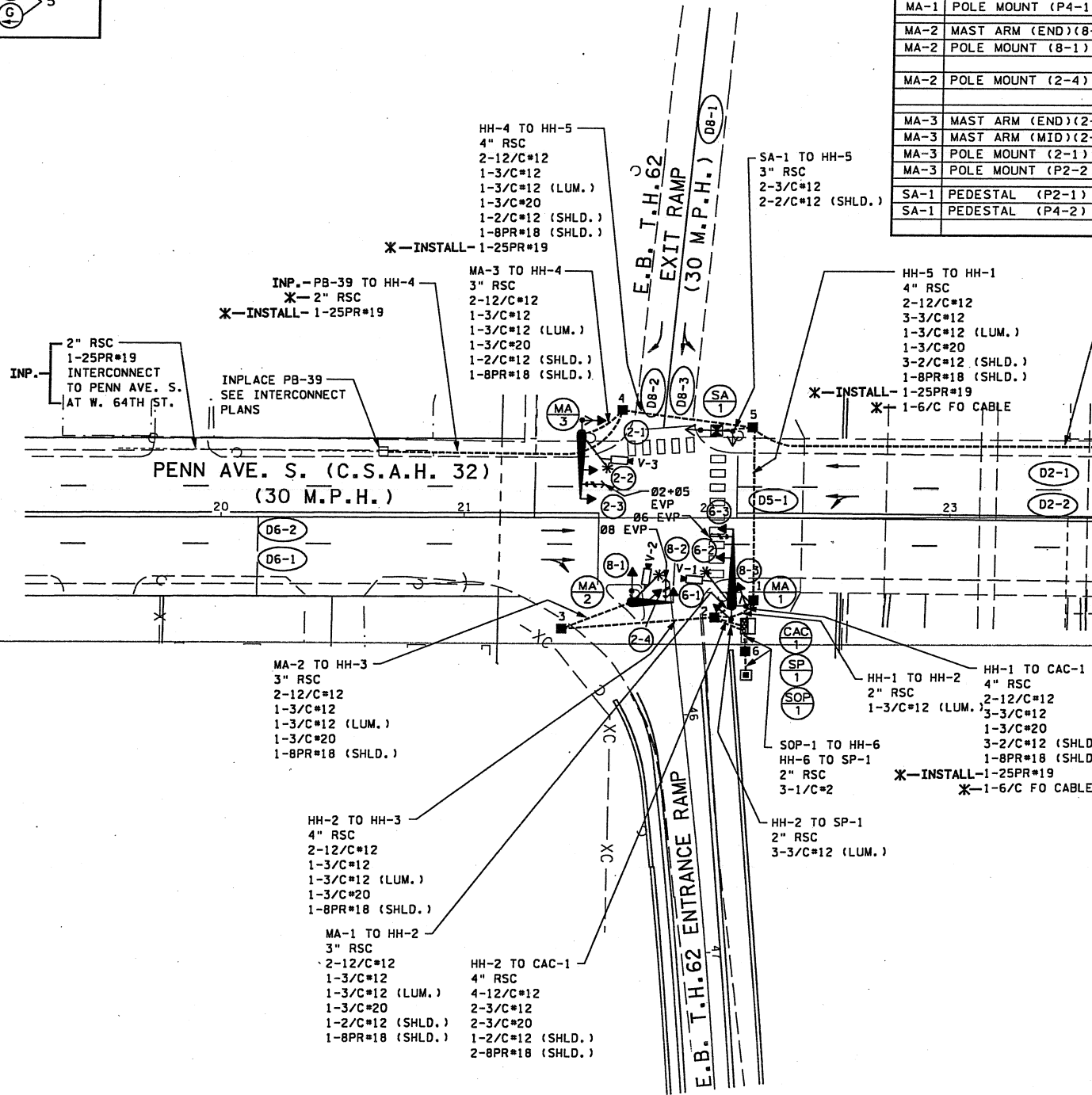


SIG. POLE NO.	SIGNAL FACE MOUNT	SIG. Ø	VEHICULAR INDICATION SIZE AND TYPE						PEDESTRIAN		BRACKET MOUNTING ANGLE, TYPE AND STANDARD PLATE NO.
			RED	YEL	GRN	RED	YEL	GRN	DON'T WALK	WALK	
MA-1	MAST ARM (END) (6-3)	6	12"	12"	12"						ONE-WAY MNT./PLT. 8124E
MA-1	MAST ARM (MID) (6-2)	6	12"	12"	12"						ONE-WAY MNT./PLT. 8124E
MA-1	POLE MOUNT (6-1)	6	12"	12"	12"						180° TYPE 10A PLATE 8110D
MA-1	POLE MOUNT (8-3)	8	12"	12"	12"						90° TYPE 10B PLATE 8110D
MA-1	POLE MOUNT (P4-1)	4						12"	12"		PLATE 8110D
MA-2	MAST ARM (END) (8-2)	8	12"	12"	12"						ONE-WAY MNT./PLT. 8124E
MA-2	POLE MOUNT (8-1)	8	12"	12"	12"						270° TYPE 10A PLATE 8110D
MA-2	POLE MOUNT (2-4)	2+5	12"	12"	12"		12" LTA	12" LTA			0° TYPE 10A PLATE 8110D
MA-3	MAST ARM (END) (2-3)	2+5	12"	12"	12"		12" LTA	12" LTA			ONE-WAY MNT./PLT. 8124E
MA-3	MAST ARM (MID) (2-2)	2	12"	12"	12"						ONE-WAY MNT./PLT. 8124E
MA-3	POLE MOUNT (2-1)	2	12"	12"	12"						180° TYPE 10B PLATE 8110D
MA-3	POLE MOUNT (P2-2)	2						12"	12"		TYPE 4D
SA-1	PEDESTAL (P2-1)	2						12"	12"		PLATE 8111D
SA-1	PEDESTAL (P4-2)	4						12"	12"		PLATE 8111D

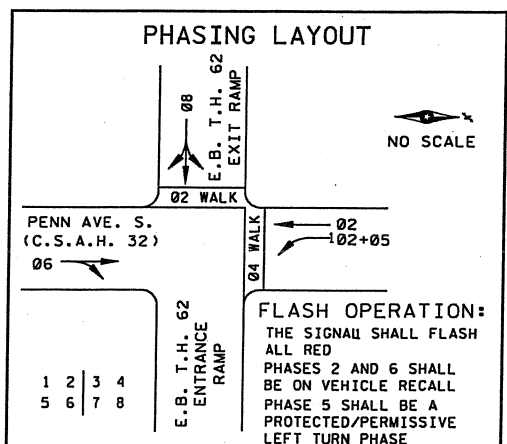
FUNCTION NOTES:
 (1) CALL & EXTEND
 (7) DELAY CALL/IMMEDIATE EXTEND
 (3) EXTEND ONLY

SIGNAL AND COMPONENT LOCATIONS

NO.	LOCATION TO CENTER
HH-1	€ STA. 22+16-RT 34.4'
HH-2	€ STA. 22+03-RT 41.7'
HH-3	€ STA. 21+41-RT 46.5'
HH-4	€ STA. 21+65-LT 45.1'
HH-5	€ STA. 22+19-LT 37.9'
HH-6	€ STA. 22+03-RT 47.6'
HH-7	€ STA. 21+47-RT 52.2'
HH-8	€ STA. 19+86-RT 26.5'
SA-1	€ STA. 22+03-LT 36.3'
MA-1	€ STA. 22+10-RT 36.6'
MA-2	€ STA. 21+69-RT 35.2'
MA-3	€ STA. 21+48-LT 35.0'
SP-1	€ STA. 22+17-RT 45.1'
CAC-1	€ STA. 22+17-RT 45.1'
SOP-1	INPLACE



- NOTES:**
- 1) A 250-WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE SHALL BE INSTALLED ON ALL MAST ARM LUMINAIRE SHAFT EXTENSIONS (SEE MAST ARM & POLE DETAILS).
 - 2) ALL HANDHOLES SHALL BE PVC TYPE WITH METAL FRAMES AND COVERS AND CONCRETE RINGS (SEE SPECIAL PROVISIONS).
 - 3) ONE PEDESTRIAN PUSHBUTTON AND DECAL SHALL BE INSTALLED ON MA-1 AND MA-3. TWO PEDESTRIAN PUSHBUTTONS AND DECALS SHALL BE INSTALLED ON SA-1.
 - 4) ALL PEDESTRIAN INDICATIONS SHALL BE INTERNATIONAL SYMBOLS IN IN A DUAL FACE SINGLE HOUSING WITH PEDESTRIAN COUNTDOWN TIMER (SEE SPECIAL PROVISIONS).
 - 5) ALL VEHICULAR AND PEDESTRIAN INDICATIONS SHALL USE LED TECHNOLOGY (SEE SPECIAL PROVISIONS).
 - 6) THE HENNEPIN COUNTY TRAFFIC FIELD REPRESENTATIVE SHALL LOCATE ALL POLES, PEDESTAL POLES, CABINETS AND HANDHOLES PRIOR TO ANY CONSTRUCTION.
 - 7) THE EVP DETECTOR AND CONFIRMATION LIGHT AT MA-1 AND MA-2 SHALL BE LOCATED 3 FEET FROM THE END OF MAST ARM, THE EVP DETECTOR AND CONFIRMATION LIGHT AT MA-3 SHALL BE LOCATED 6 FEET FROM THE END OF THE MAST ARM.
 - 8) ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS.
 - 9) THE CONTRACTOR SHALL FURNISH AND INSTALLED VIDEO CAMERAS ON LUMINAIRE EXTENSIONS ON MA-1, MA-2 AND MA-3.
 - 10) THE CONTRACTOR SHALL RESTORE ALL DISTURBED TURF, CONCRETE OR BITUMINOUS WALK, ETC. TO ITS ORIGINAL CONDITION OR BETTER (SEE SPECIAL PROVISIONS).
 - 11) * INDICATES ITEMS TO BE INCLUDED IN THE TRAFFIC CONTROL INTERCONNECT "A" PAY ITEM.
 - 12) ALL SIGNAL COMPONENTS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
 - 13) SEE DIVISION "SS" OF SPECIAL PROVISIONS FOR MATERIALS PROVIDED BY HENNEPIN COUNTY.
 - 14) SEE SPECIAL PROVISIONS FOR EMERGENCY VEHICLE PRE-EMPTION (EVP) SYSTEM.
 - 15) COMMON BACK FILL AT SIGNAL STRUCTURES AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED WITH PAYMENT FOR THE SIGNAL SYSTEM.
 - 16) SA-1 AND SA-2 SHALL BE A 10' PEDESTAL POLE AND BASE WITH A PEDESTAL FOUNDATION (SEE SPECIAL PROVISIONS).
 - 19) CONTRACTOR SHALL MOUNT 2-R9-3a ON POLE MA-2 FACING POLES MA-1 AND MA-3, 1-R9-3a ON POLE MA-1 FACING POLE MA-2, AND 1-R9-3a ON POLE MA-3 FACING POLE MA-2.
 - 20) EXISTING TRAFFIC SIGNAL SHALL REMAIN OPERATIONAL UNTIL NEW SIGNAL IS FULLY CONSTRUCTED AND READY TO BE ACTIVATED. (SEE SPECIAL PROVISIONS).
 - 21) THE CONTRACTOR SHALL FURNISH AND INSTALL 1-R10-12 SIGN (24"x30") ON MA-3 ADJACENT TO SIGNAL INDICATION 2-3.
 - 22) THE CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO PROVIDE A SOURCE OF POWER.
 - 23) REMOVAL / SALVAGE OF THE INPLACE SIGNAL IS TO BE PAID FOR AS PART OF THE SIGNAL SYSTEM "A" PAY ITEM.



MN/DOT SYSTEM ID NO. 21082 HENN. CO. ID NO. 8012300

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NO	DATE	BY	CHKD	APPR	REVISION
1	2-21-06	RWS	ASP	ASP	REV. TO SHT OF 1-9-06. REVISED NOTES

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: BRIAN D. HOLT
 Date: 2-21-06 License # 21428

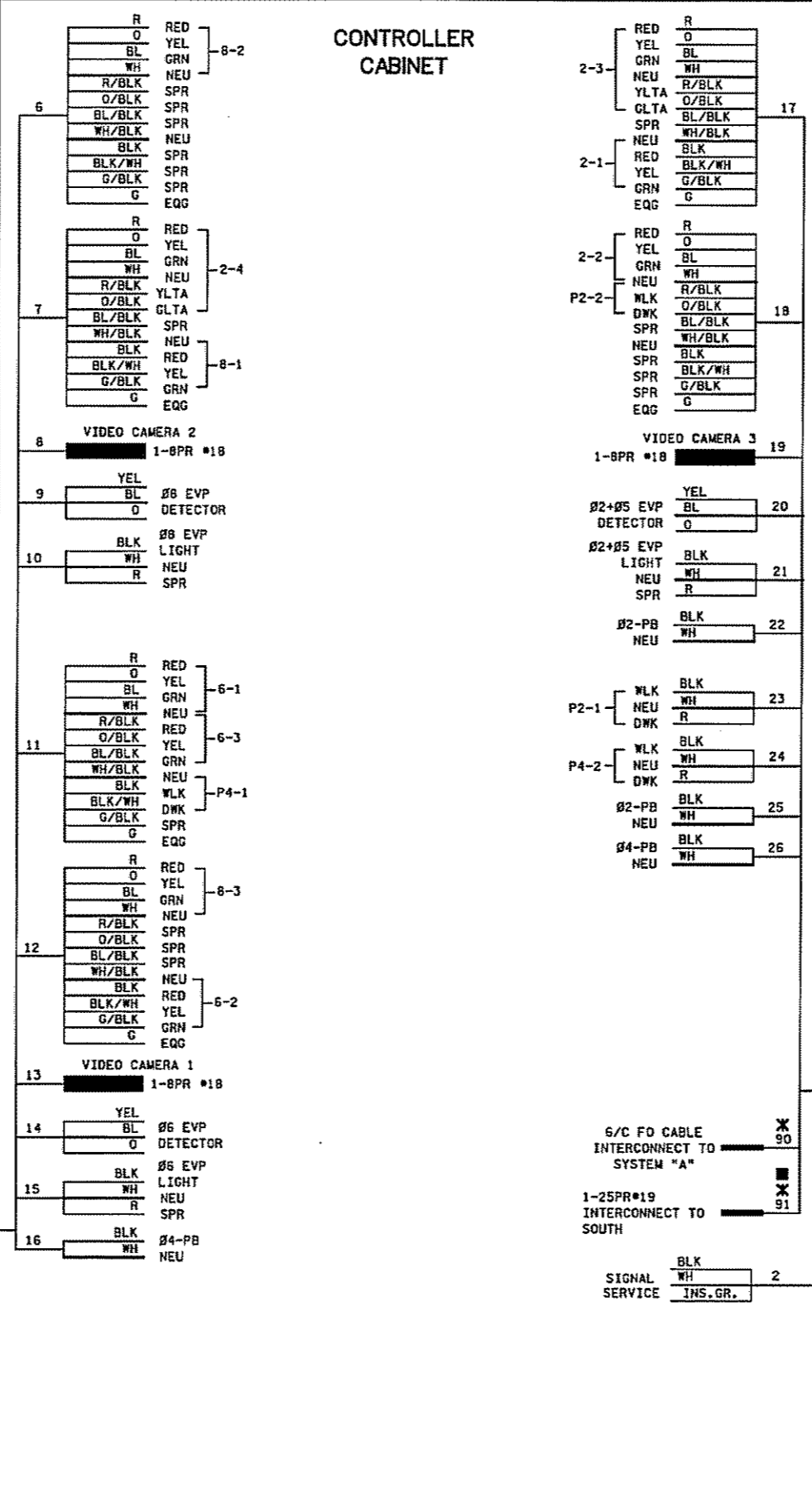
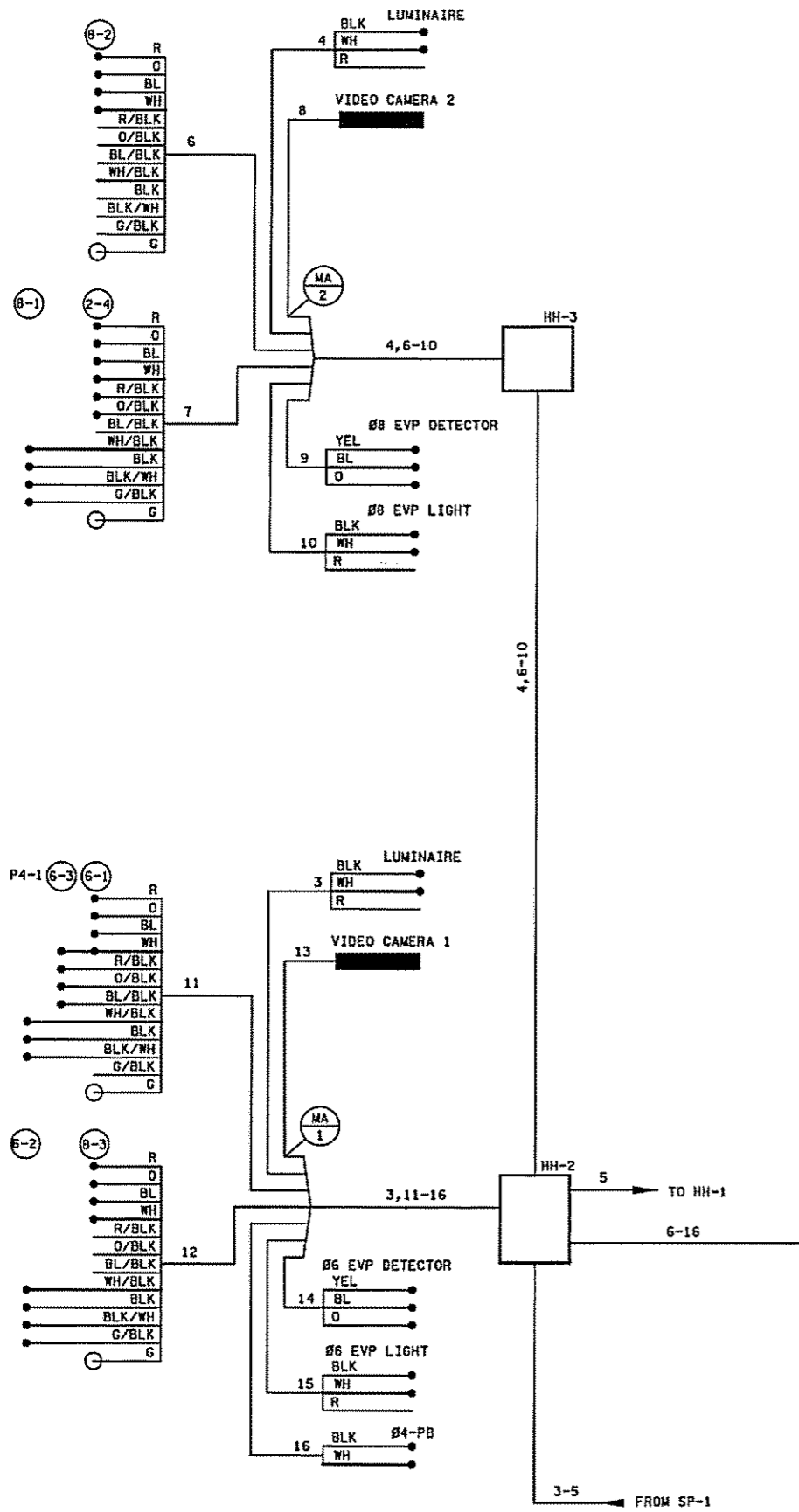
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 PrInt Name: ADRIAN S. POTTER
 Date: 2-21-06 License # 42785

STATE AID PROJECT NO.
 SAP NO. 27-030-013

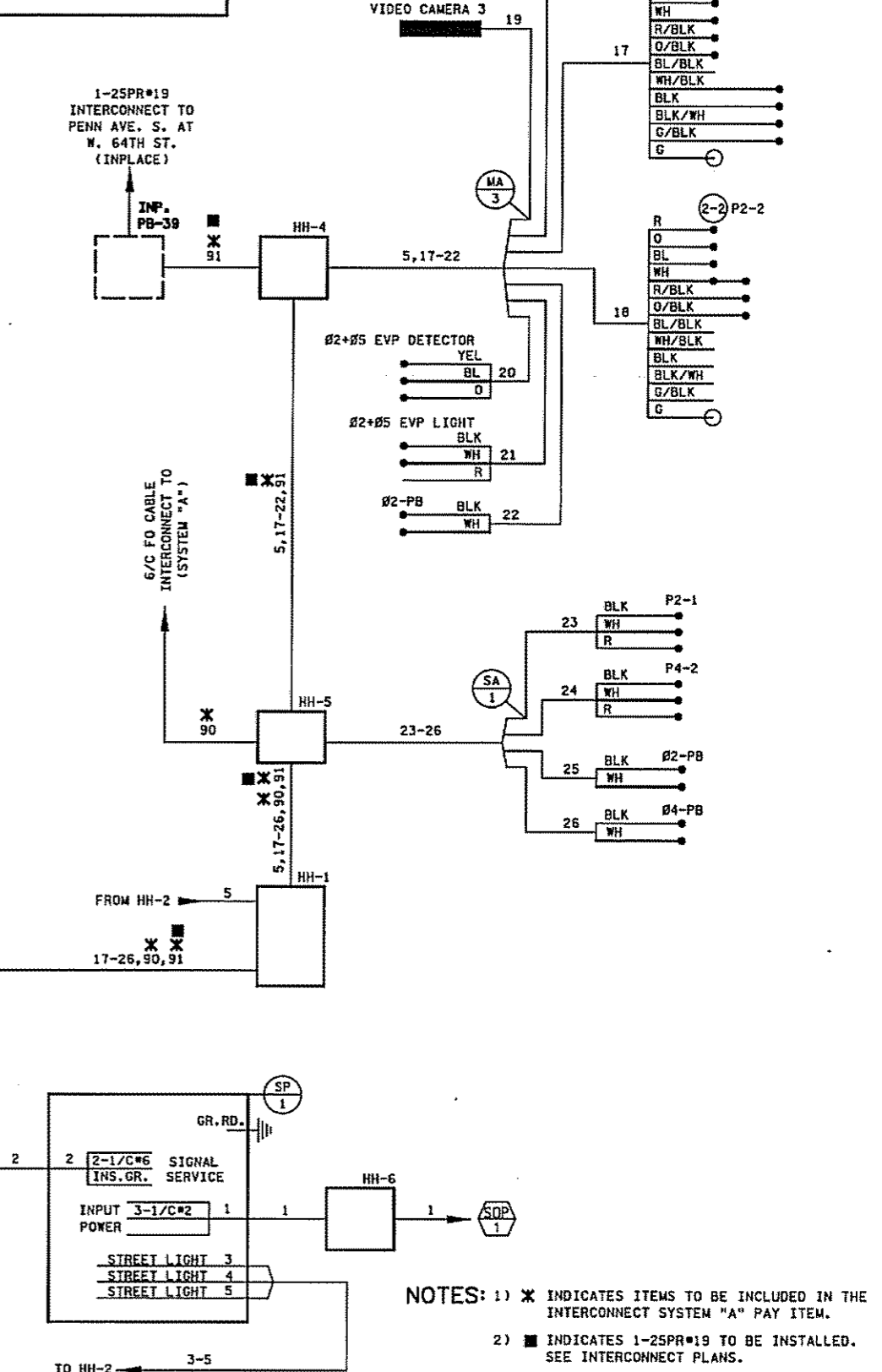
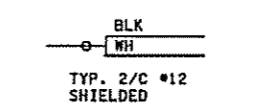
DRAWN BY
R.W. SMITH
 DESIGNED BY
A. POTTER
 CHECKED BY
G. STUEMPF
 COMM. NO. 0034702



MINNESOTA DEPARTMENT OF TRANSPORTATION
 SIGNAL PLANS
 INTERSECTION LAYOUT (SYSTEM "B")
 S.P. 2782-281 (T.H. 35W)
 PENN AVE. S. (C.S.A.H. 32) AT T.H. 62 SOUTH RAMPS
 SHEET 1609 OF 1681



TYP. CONDUCTOR COLOR CODE



NOTES: 1) * INDICATES ITEMS TO BE INCLUDED IN THE INTERCONNECT SYSTEM "A" PAY ITEM.
 2) ■ INDICATES 1-25PR#19 TO BE INSTALLED. SEE INTERCONNECT PLANS.

MN/DOT SYSTEM ID NO. 21082 HENN. CO. ID NO. 8012300

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NO	DATE	BY	CHKD	APPR	REVISION
1	2-21-06	RWS	ASP	ASP	REV. TO SHT OF 1-9-06. REVISED WIRING

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 Electrical Engineer under the laws of the State of Minnesota.
 Print Name: **BRIAN D. HOLT**
Brian D. Holt
 Date: 2-21-06 License: 21428

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: **ADRIAN S. POTTER**
Adrian S. Potter
 Date: 2-21-06 License: 42785

STATE AID PROJECT NO. SAP NO. 27-030-013

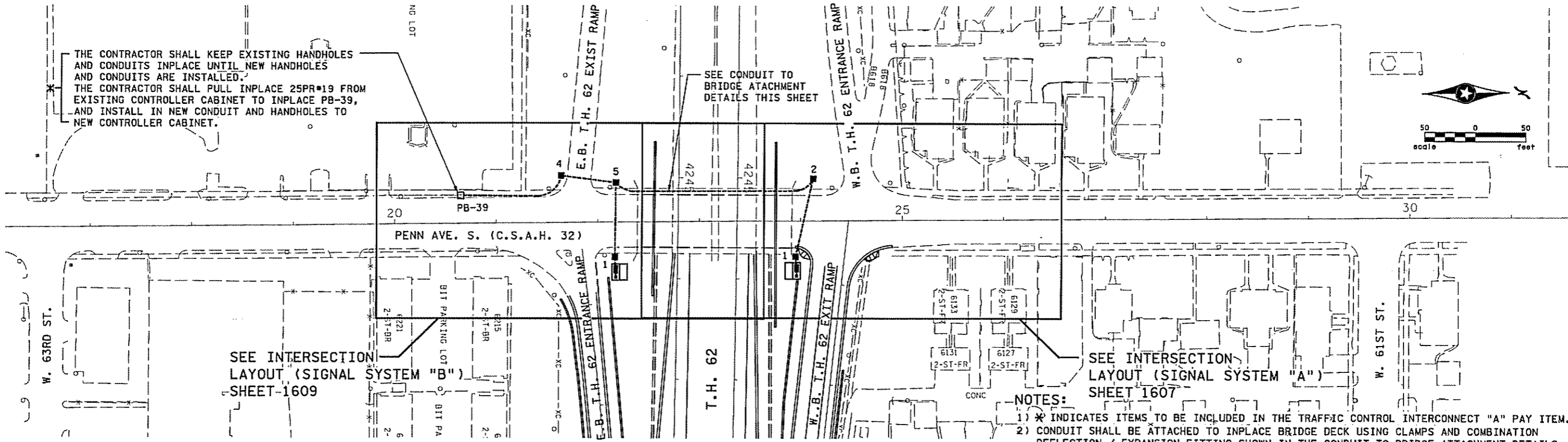
DRAWN BY R.W.SMITH
 DESIGNED BY A.POTTER
 CHECKED BY G.STUEMPFIC
 COMM. NO. 0034702



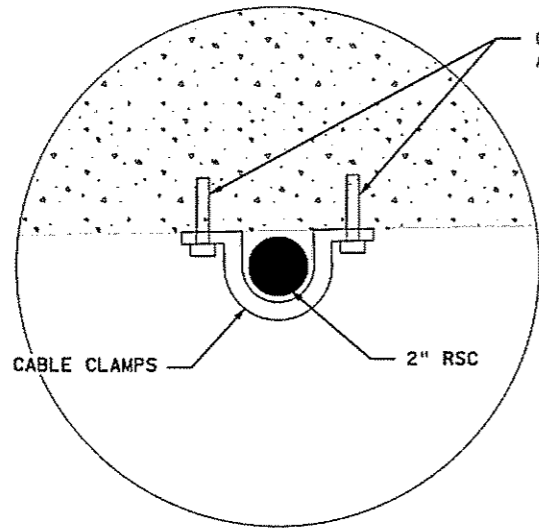
MINNESOTA DEPARTMENT OF TRANSPORTATION
 SIGNAL PLANS
 INTERSECTION LAYOUT (SYSTEM "B")
 S.P. 2782-281 (T.H. 35W)
 PENN. AVE. S. (C.S.A.H. 32) AT T.H. 62 SOUTH RAMPS

SHEET 1610 OF 1681

TRAFFIC CONTROL INTERCONNECT SYSTEM "A"
PENN AVE. S. (C.S.A.H. 32)



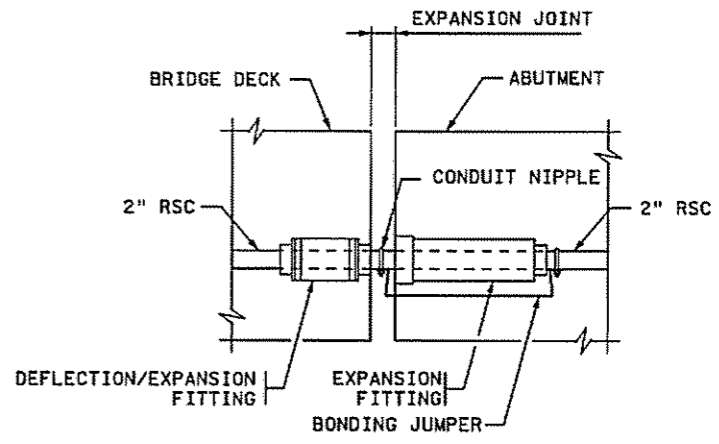
- NOTES:**
- 1) * INDICATES ITEMS TO BE INCLUDED IN THE TRAFFIC CONTROL INTERCONNECT "A" PAY ITEM.
 - 2) CONDUIT SHALL BE ATTACHED TO INPLACE BRIDGE DECK USING CLAMPS AND COMBINATION DEFLECTION / EXPANSION FITTING SHOWN IN THE CONDUIT TO BRIDGE ATTACHMENT DETAILS, ALL TO THE SATISFACTION OF THE ENGINEER.



CABLE CLAMP DETAIL

NOTES:

- 1 FASTEN RIGID STEEL CONDUIT WITH CABLE CLAMPS ABOUT 5'-0" ON CENTER. FASTEN CLAMPS TO CONCRETE WITH MASONRY/CONCRETE ANCHORS OR POWER ACTIVATED STUDS.
- 2 ALL ANCHORS, CLAMPS AND COMBINATION DEFLECTION/ EXPANSION FITTING USED ON THE PENN AVE. S. (C.S.A.H. 32) BRIDGE ARE INCLUDED IN THE TRAFFIC CONTROL INTERCONNECT "A" PAY ITEM.
- 3 CONDUIT EXPANSION FITTINGS SHALL BE IN ACCORDANCE WITH MN/DOT SPEC 3839.



COMBINATION DEFLECTION / EXPANSION FITTING

CONDUIT TO BRIDGE ATTACHMENT DETAILS

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NO	DATE	BY	CKD	APPR	REVISION

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: **ADRIAN S. POTTER**
Adrian S. Potter
 Date: 1-9-06 License # 42785

DRAWN BY R.W.SMITH
 DESIGNED BY R.W.SMITH
 CHECKED BY A.POTTER
 COMM. NO. 0034702

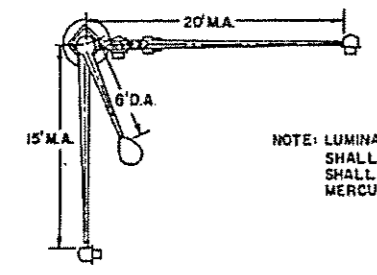


MINNESOTA DEPARTMENT OF TRANSPORTATION
 SIGNAL PLANS
 TRAFFIC CONTROL INTERCONNECT "A" LAYOUT (SIGNAL SYSTEMS "A" & "B")
 AND CONDUIT TO BRIDGE ATTACHMENT DETAILS
 S.P. 2782-281 (T.H. 35W)
 ALONG PENN AVE. S.

SHEET 1611
 OF 1681

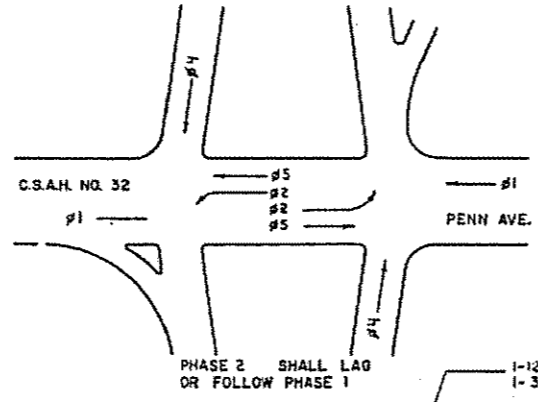
SPECIAL MAST ARM SIGNAL POLE
SCALE: NONE

SPECIAL MAST ARM SIGNAL POLE SHALL BE IN ACCORDANCE WITH STANDARD DETAIL PLATE NO. 8123 A EXCEPT AS MODIFIED HEREIN.



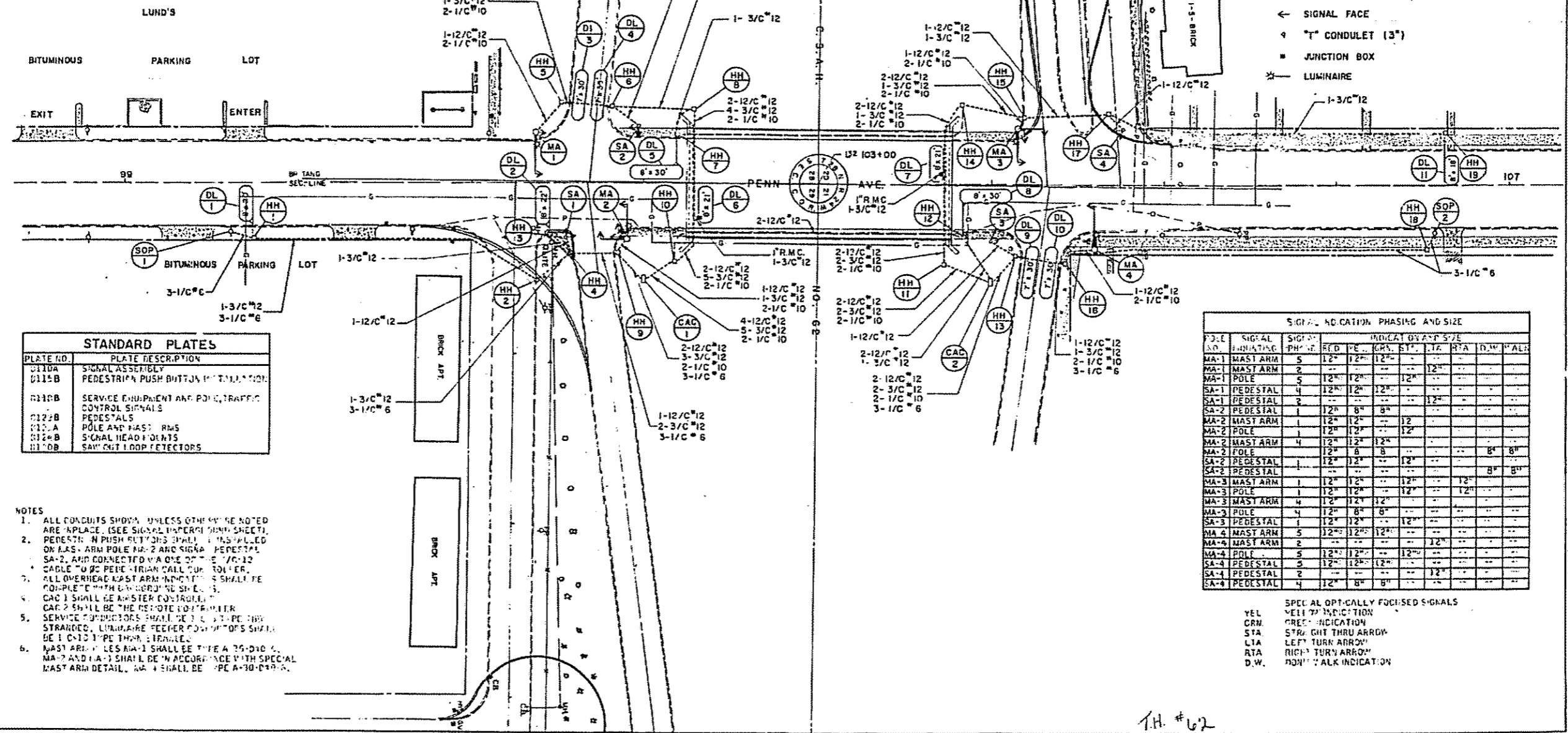
NOTE: LUMINAIRE MOUNTING HEIGHT SHALL BE 40'. LUMINAIRE SHALL BE NOMINAL 400 WATT MERCURY VAPOR UNIT.

PHASING LAYOUT



LEGEND

- PRECAST CONCRETE HANDHOLE
- CONTROLLER AND CABINET (SEE NOTE 4)
- MA MAST ARM SIGNAL POLE WITH LUMINAIRE SHAFT EXTENSION (SEE NOTE 6)
- SA SIGNAL ASSEMBLY - PEDESTAL MOUNTED
- SOP SOURCE OF POWER
- DL DETECTOR LOOP
- RMC RIGID METALLIC CONDUIT (SEE NOTE 1)
- NMC NON-METALLIC CONDUIT (SEE NOTE 1)
- ← PEDESTRIAN INDICATION
- ← SIGNAL FACE
- ⊕ "T" CONDULET (3")
- ⊕ JUNCTION BOX
- ⊕ LUMINAIRE



STANDARD PLATES	
PLATE NO.	PLATE DESCRIPTION
D110A	SIGNAL ASSEMBLY
D115B	PEDESTRIAN PUSH BUTTON INSTALLATION
D110B	SERVICE EQUIPMENT AND POLE TRAFFIC CONTROL SIGNALS
D122B	PEDESTALS
D122A	POLE AND MAST RMS
D122B	SIGNAL HEAD PLANTS
D110B	SENSOR LOOP DETECTORS

- NOTES
- ALL CONDUITS SHOWN UNLESS OTHERWISE NOTED ARE IN PLACE. (SEE SIGNAL WIRE SCHEDULE SHEET).
 - PEDESTRIAN PUSH BUTTONS SHALL BE MOUNTED ON PLAS-ARM POLES MA-2 AND SIGNAL PEDESTALS SA-2 AND CONNECTED VIA ONE OF THE 1/2" CABLE TO THE PEDESTRIAN CALL BOX.
 - ALL OVERHEAD MAST ARM MOUNTINGS SHALL BE COMPLETE WITH GROUNDING SHIELDS.
 - CAC 1 SHALL BE MASTER CONTROLLER.
 - CAC 2 SHALL BE THE REMOTE CONTROLLER.
 - SERVICE CONDUITS SHALL BE 3" OR 4" PIPE STRANDED. LUMINAIRE FEEDER CONDUITS SHALL BE 1" OR 1 1/2" TYPE STRANDED.
 - MAST ARM 1 SHALL BE TYPE A 35-D10. MA-2 AND MA-3 SHALL BE IN ACCORDANCE WITH SPECIAL MAST ARM DETAIL. MA-4 SHALL BE TYPE A-30-D10.

SIGNAL INDICATION PHASING AND SIZE											
POLE NO.	SIGNAL INDICATION	PHASE	RED	VEH	GRN	STA	LT	RT	WALK	INDICATION	SIZE
MA-1	MAST ARM	5	12"	12"	12"	12"	12"	12"	12"		
MA-1	MAST ARM	2	12"	12"	12"	12"	12"	12"	12"		
MA-1	POLE	5	12"	12"	12"	12"	12"	12"	12"		
SA-1	PEDESTAL	4	12"	8"	8"	12"	12"	12"	12"		
SA-1	PEDESTAL	2	12"	12"	12"	12"	12"	12"	12"		
SA-2	PEDESTAL	1	12"	8"	8"	12"	12"	12"	12"		
MA-2	MAST ARM	1	12"	12"	12"	12"	12"	12"	12"		
MA-2	POLE	1	12"	12"	12"	12"	12"	12"	12"		
MA-2	MAST ARM	4	12"	12"	12"	12"	12"	12"	12"		
MA-2	POLE	4	12"	8"	8"	12"	12"	12"	12"		
SA-2	PEDESTAL	1	12"	12"	12"	12"	12"	12"	12"		
SA-2	PEDESTAL	1	12"	12"	12"	12"	12"	12"	12"		
MA-3	MAST ARM	1	12"	12"	12"	12"	12"	12"	12"		
MA-3	POLE	1	12"	12"	12"	12"	12"	12"	12"		
MA-3	MAST ARM	4	12"	12"	12"	12"	12"	12"	12"		
MA-3	POLE	4	12"	8"	8"	12"	12"	12"	12"		
SA-3	PEDESTAL	1	12"	12"	12"	12"	12"	12"	12"		
MA-4	MAST ARM	5	12"	12"	12"	12"	12"	12"	12"		
MA-4	POLE	5	12"	12"	12"	12"	12"	12"	12"		
SA-4	PEDESTAL	5	12"	12"	12"	12"	12"	12"	12"		
SA-4	PEDESTAL	2	12"	12"	12"	12"	12"	12"	12"		
SA-4	PEDESTAL	4	12"	8"	8"	12"	12"	12"	12"		

- YEL SPECIAL OPTICALLY FOCUSED SIGNALS
- VEH VEHICLE INDICATION
- GRN GREEN INDICATION
- STA STRAIGHT THRU ARROW
- LT LEFT TURN ARROW
- RT RIGHT TURN ARROW
- WALK WALK INDICATION

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NO	DATE	BY	CHKD	APPR	REVISION

STATE AID PROJECT NO. X
 STATE PROJECT NO. X
 COUNTY PROJECT NO. X
 CITY PROJECT NO. X

DRAWN BY
 DESIGNED BY
 CHECKED BY
 COMM. NO. 0034702

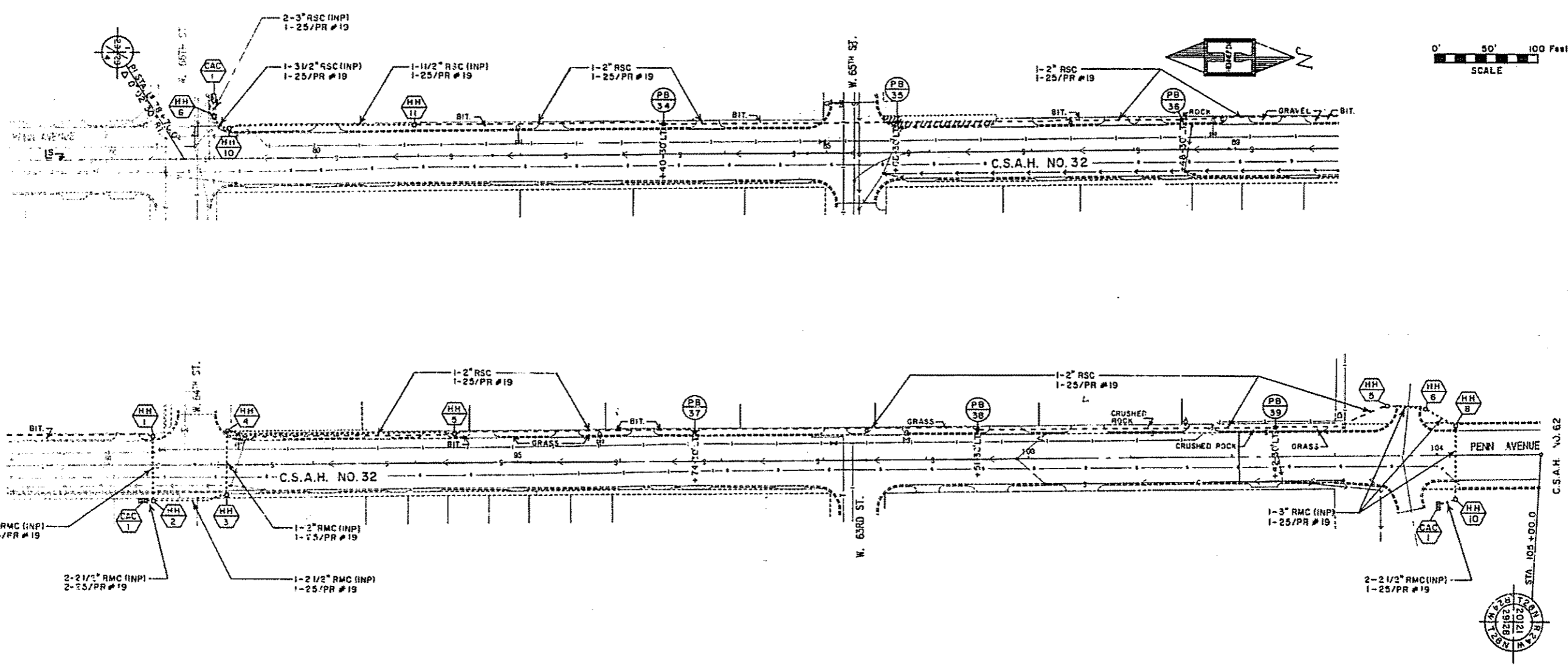


MINNESOTA DEPARTMENT OF TRANSPORTATION
 SIGNAL PLANS
 FOR INFORMATION ONLY (SYSTEMS "A" & "B")
 S.P. 2782-281 (T.H. 35W)
 PENN AVE. S. (C.S.A.H. 32)
 AT T.H. 62 NORTH AND SOUTH RAMPS

FOR INFORMATION ONLY

SIGNAL SHEET

FOR INFORMATION ONLY



PENN AVE. INTERCONNECT PLAN
66th St to TH 62 (C.R.)

8/13/79
8/13/79

HENN. CO., MINN. C.S.A.H. NO. 32 ~~S.P. NO. 27 032 10~~ ~~PROJ. NO. 7726~~ SHEET 6 OF 6 SHEETS

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NO	DATE	BY	CKD	APPR	REVISION

STATE AID PROJECT NO. X	DRAWN BY
STATE PROJECT NO. X	DESIGNED BY
COUNTY PROJECT NO. X	CHECKED BY
CITY PROJECT NO. X	COMM. NO. 0034702

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION
SIGNAL PLANS
FOR INFORMATION ONLY (SYSTEM "B")
S.P. 2782-281 (T.H. 35W)
INTERCONNECT ALONG PENN AVE. S. (C.S.A.H. 32)
FROM W. 66TH ST. TO T.H. 62 SOUTH RAMPS

SHEET 1613 OF 1681