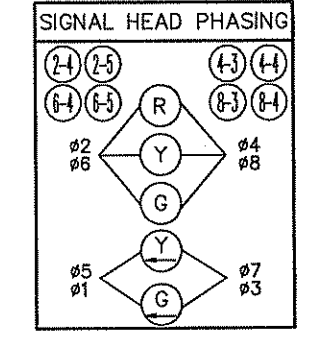
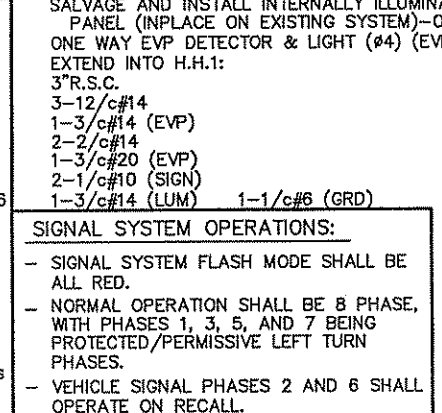
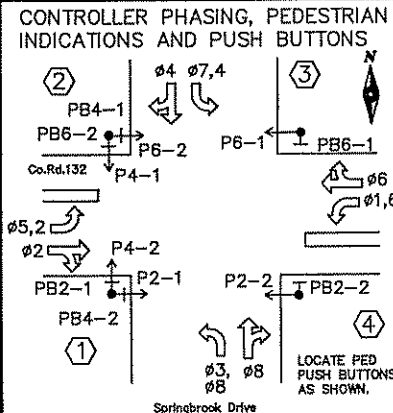
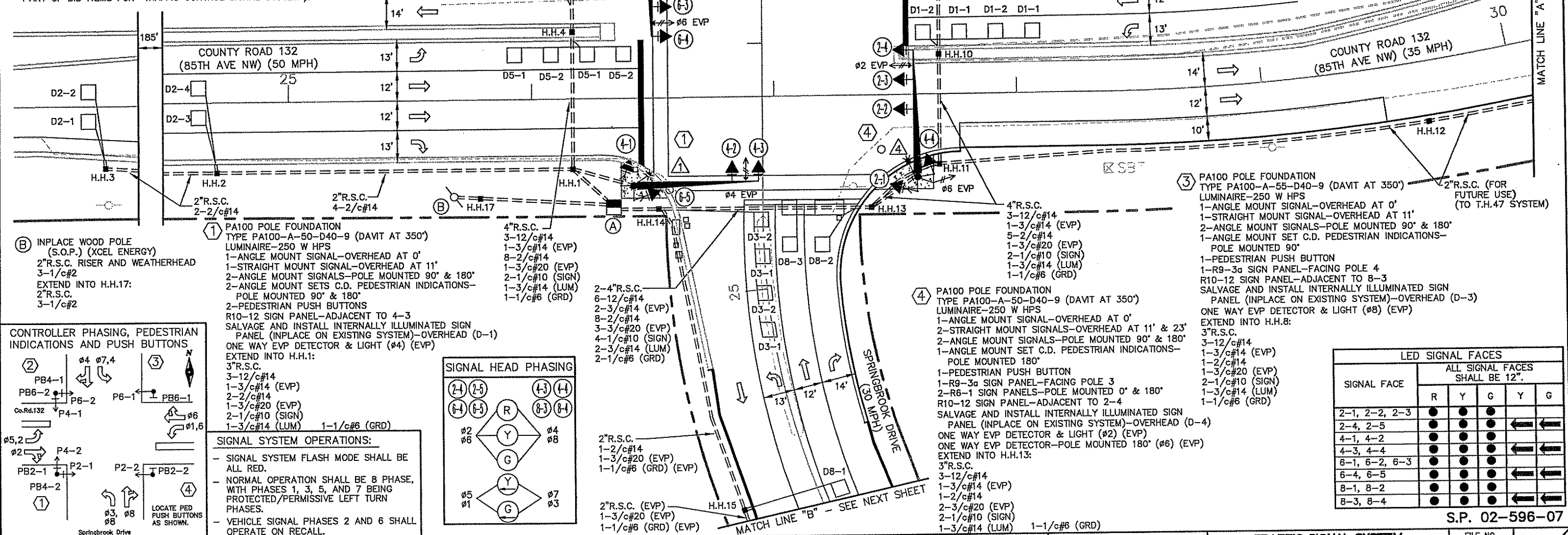


- NOTES:**
- 1) LOCATION OF FOUNDATIONS, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
 - 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
 - 4) NEW HANDHOLES 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 "FILLED" COUNTDOWN TIMER "HAND/WALKING PERSON" INDICATION.
 - 7) ALL VEHICLE SIGNAL INDICATIONS AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
 - 8) SEE DETAILS, SPECIAL PROVISIONS, AND STATEMENT OF ESTIMATED QUANTITIES REGARDING BATTERY BACK-UP SIGNAL SERVICE CABINET TO BE FURNISHED AND INSTALLED BY CONTRACTOR (SEPARATE FROM ITEM NO. 2565 FOR THIS SIGNAL SYSTEM).
 - 9) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM THE END OF EACH MAST ARM (FOR EVP).
 - 10) ALL VEHICLE AND PEDESTRIAN SIGNAL HOUSINGS, BACKGROUND SHIELDS, AND VISORS SHALL BE FABRICATED USING BLACK POLYCARBONATE MATERIALS. SEE SPECIAL PROVISIONS.
 - 11) CONTRACTOR SHALL COORDINATE ALL TRAFFIC SIGNAL INSTALLATION WORK WITH ROAD CONSTRUCTION TO BE COMPLETED BY OTHERS AS PART OF ENTIRE PROJECT.
 - 12) (EVP) DENOTES ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR UNDER ITEM NO. 2565 (EMERGENCY VEHICLE PREEMPTION SYSTEM). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
 - 13) SEE DETAILS AND SPECIAL PROVISIONS REGARDING TYPE C SIGNS TO BE F & I BY CONTRACTOR (INCLUDED AS PART OF BID ITEM FOR "TRAFFIC CONTROL SIGNAL SYSTEM").
 - 14) CONTRACTOR SHALL COIL AND STORE 25 FEET OF SPARE 1-2/c#14 CABLE IN HANDHOLES 1 & 5 (FOR FUTURE APS SYSTEM INSTALLATION BY OTHERS) (INCLUDED AS PART OF BID ITEM FOR "TRAFFIC CONTROL SIGNAL SYSTEM").
 - 15) SEE SPECIAL PROVISIONS AND DETAILS REGARDING INTERNALLY ILLUMINATED SIGNS TO BE SALVAGED FROM EXISTING SYSTEM AND INSTALLED ON NEW SYSTEM BY CONTRACTOR (INCLUDED AS PART OF BID ITEMS FOR "TRAFFIC CONTROL SIGNAL SYSTEM").

N.M.C. LOOP DETECTORS			
NUMBER	SIZE (FT.)	LOCATION	FUNCTION
D1-1	2-6x6	20' & 50'	1
D1-2	2-6x6	5' & 35'	1
D2-1	6x6	400'	1
D2-2	6x6	400'	1
D2-3	6x6	180'	1
D2-4	6x6	180'	1
D3-1	2-6x6	20' & 50'	1
D3-2	2-6x6	5' & 35'	1
D4-1	6x12	120'	3,8
D4-2	2-6x12	0' & 15'	7
D5-1	2-6x6	20' & 50'	1
D5-2	2-6x6	5' & 35'	1
D6-1	6x6	180'	1
D6-2	6x6	180'	1
D7-1	2-6x6	20' & 50'	1
D7-2	2-6x6	5' & 35'	1
D8-1	6x6	120'	3,8
D8-2	6x12&6x6	0' & 15'	7
D8-3	2-6x6	0' & 15'	1

- LOOP DETECTORS FUNCTIONS:**
- 1) CALL AND EXTEND
 - 3) EXTEND ONLY
 - 7) DELAYED CALL, IMMEDIATE EXTEND
 - 8) CARRY OVER (STRETCH)

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



DRAWN BY: JMG
 DESIGNER: JMG
 CHECKED BY: JMG

DESIGN TEAM	NO.	BY	DATE	REVISIONS

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.

John M. Gray
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: March 29, 2010

ANOKA COUNTY, MINNESOTA
 BLAINE, COON RAPIDS, FRIDLEY

TRAFFIC SIGNAL SYSTEM INTERSECTION LAYOUT
 COUNTY ROAD 132 (85TH AVENUE NW) AT SPRINGBROOK DRIVE

FILE NO. 105979
 SIGNAL SHEET 6 OF 13
79
101

SIGNAL FACE	LED SIGNAL FACES				
	R	Y	G	Y	G
2-1, 2-2, 2-3	●	●	●	●	●
2-4, 2-5	●	●	●	●	●
4-1, 4-2	●	●	●	●	●
4-3, 4-4	●	●	●	●	●
6-1, 6-2, 6-3	●	●	●	●	●
6-4, 6-5	●	●	●	●	●
8-1, 8-2	●	●	●	●	●
8-3, 8-4	●	●	●	●	●

NOTES (TH 47 AT COUNTY ROAD 132 SYSTEM):

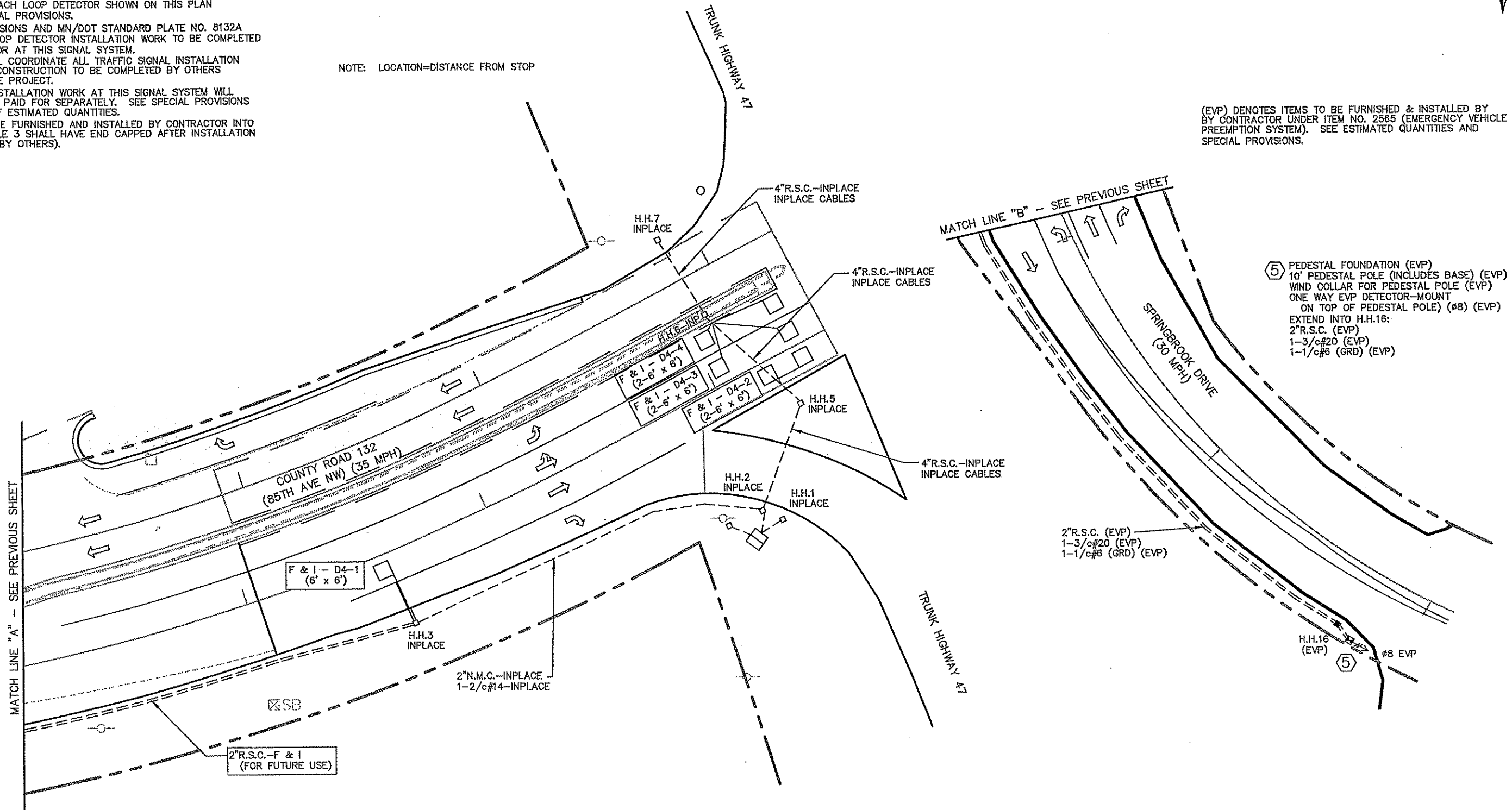
- 1) LOCATION OF NEW LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) ALL HANDHOLES, CONDUIT, CABLES AND CONDUCTORS AT THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED AS SHOWN.
- 3) CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING INPLACE HANDHOLES 3, 6, AND 7 TO FINISHED SURROUNDING GRADE UPON COMPLETION OF ALL ROAD AND MEDIAN WORK (INCIDENTAL).
- 4) CONTRACTOR SHALL MAINTAIN OPERATION OF INPLACE SIGNAL SYSTEM AT ALL TIMES, UNLESS OTHERWISE APPROVED BY ENGINEER AND BY MN/DOT DISTRICT TRAFFIC OFFICE PERSONNEL.
- 5) CONTRACTOR SHALL FURNISH AND INSTALL NEW LOOP DETECTOR SPLICE KITS FOR EACH LOOP DETECTOR SHOWN ON THIS PLAN SHEET. SEE SPECIAL PROVISIONS.
- 6) SEE SPECIAL PROVISIONS AND MN/DOT STANDARD PLATE NO. 8132A REGARDING PVC LOOP DETECTOR INSTALLATION WORK TO BE COMPLETED BY THE CONTRACTOR AT THIS SIGNAL SYSTEM.
- 7) CONTRACTOR SHALL COORDINATE ALL TRAFFIC SIGNAL INSTALLATION WORK WITH ROAD CONSTRUCTION TO BE COMPLETED BY OTHERS AS PART OF ENTIRE PROJECT.
- 8) LOOP DETECTOR INSTALLATION WORK AT THIS SIGNAL SYSTEM WILL BE MEASURED AND PAID FOR SEPARATELY. SEE SPECIAL PROVISIONS AND STATEMENT OF ESTIMATED QUANTITIES.
- 9) NEW CONDUIT TO BE FURNISHED AND INSTALLED BY CONTRACTOR INTO IN-PLACE HANDHOLE 3 SHALL HAVE END CAPPED AFTER INSTALLATION (FOR FUTURE USE BY OTHERS).

TH 47 AT COUNTY ROAD 132

F & I PVC LOOP DETECTORS		
NUMBER	SIZE (FT.)	LOCATION
D4-1	6x6	180'
D4-2	2-6x6	5' & 20'
D4-3	2-6x6	5' & 35'
D4-4	2-6x6	5' & 35'

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

NOTE: LOCATION=DISTANCE FROM STOP



(EVP) DENOTES ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR UNDER ITEM NO. 2565 (EMERGENCY VEHICLE PREEMPTION SYSTEM). SEE ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.

- ⑤ PEDESTAL FOUNDATION (EVP)
- 10' PEDESTAL POLE (INCLUDES BASE) (EVP)
- WIND COLLAR FOR PEDESTAL POLE (EVP)
- ONE WAY EVP DETECTOR-MOUNT ON TOP OF PEDESTAL POLE (Ø8) (EVP)
- EXTEND INTO H.H.16:
- 2"R.S.C. (EVP)
- 1-3/c#20 (EVP)
- 1-1/c#6 (GRD) (EVP)

S:\NEW\WORK\COMMO\151-132_SIGNAL_SYSTEMS.DWG 04/15/2010

DRAWN BY: JMG	1	JMG	4/15/10	REVISED RIGHT TURN TAPER NEAR TH 47 TO MATCH OVERALL PLANS
DESIGNER: JMG				
CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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.

JMG
 Name: John M. Grey, PE
 Lc. No. 22457
 Date: March 29, 2010

PHONE: (651) 480-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

ANOKA COUNTY, MINNESOTA
 BLAINE, COON RAPIDS, FRIDLEY

TRAFFIC SIGNAL SYSTEM INTERSECTION LAYOUT
 COUNTY ROAD 132 (85TH AVENUE NW)
 (SPRINGBROOK DRIVE TO TH 47)

FILE NO. 105979	80
SIGNAL SHEET 7 OF 13	

S.P. 02-596-07

