

LOOP DETECTORS		
NUMBER	SIZE	LOCATION
2-1	6' X 6'	120'
2-2	6' X 6'	120'
4-1	6' X 6'	120'
4-2	6' X 6'	5'
6-1	6' X 6'	250'
6-2	6' X 6'	250'
8-1	6' X 6'	120'
8-2	2-6' X 6'	5' & 20'

LOCATION OF LOOP DETECTORS - DISTANCE FROM STOPLINE TO FRONT OF DETECTOR

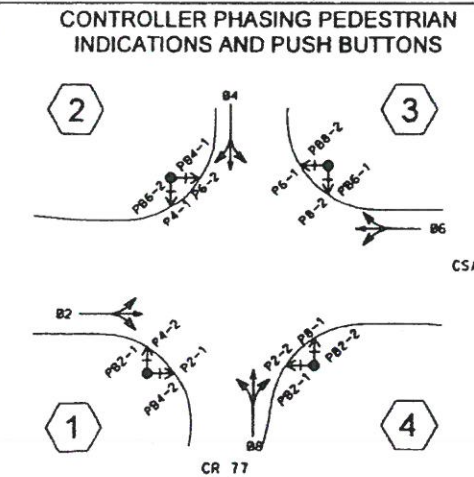
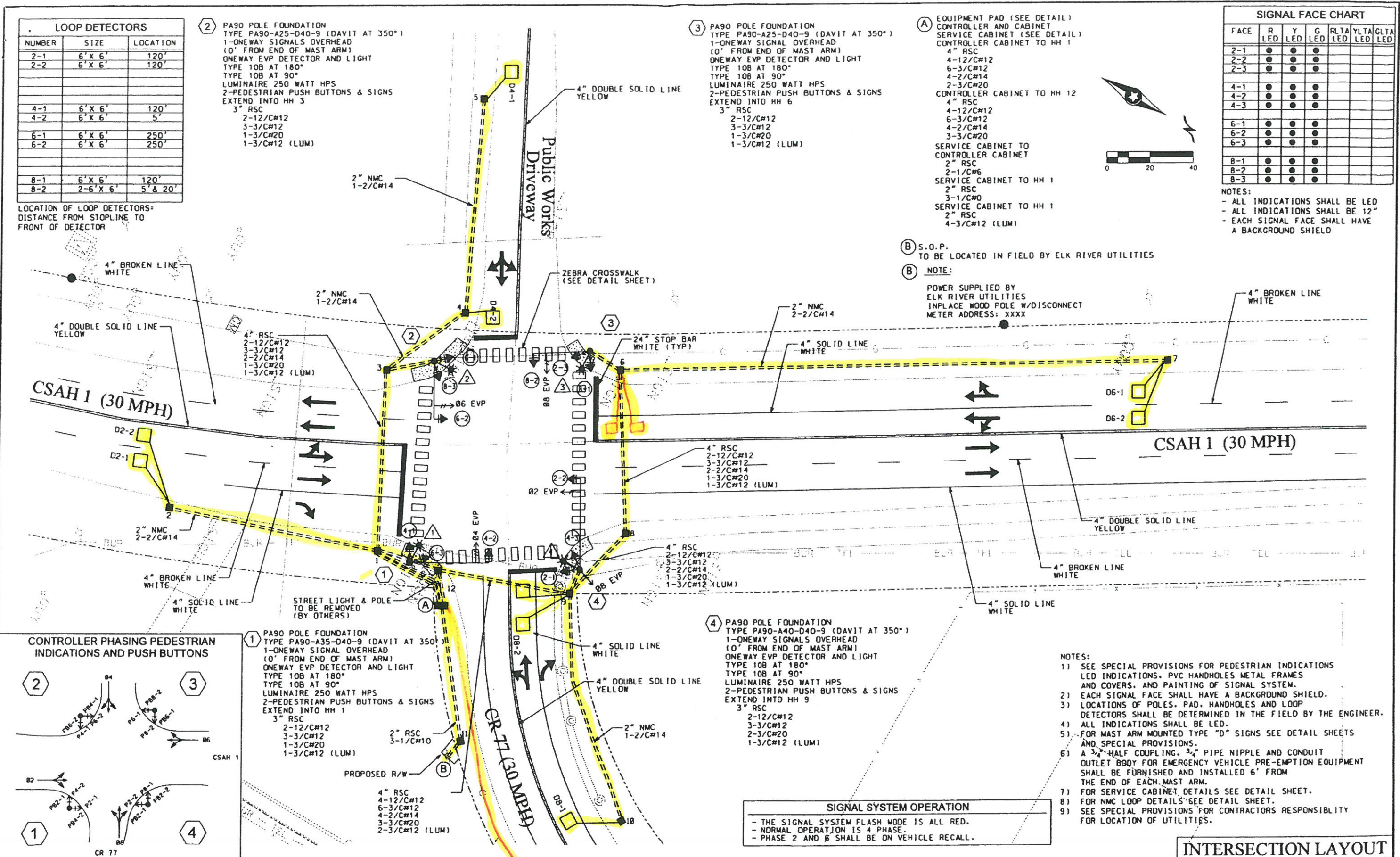
② PA90 POLE FOUNDATION
 TYPE PA90-A25-D40-9 (DAVIT AT 350°)
 1-ONEWAY SIGNALS OVERHEAD (0' FROM END OF MAST ARM)
 ONEWAY EVP DETECTOR AND LIGHT
 TYPE 10B AT 180°
 TYPE 10B AT 90°
 LUMINAIRE 250 WATT HPS
 2-PEDESTRIAN PUSH BUTTONS & SIGNS
 EXTEND INTO HH 3
 3" RSC
 2-12/C#12
 3-3/C#12
 1-3/C#20
 1-3/C#12 (LUM)

③ PA90 POLE FOUNDATION
 TYPE PA90-A25-D40-9 (DAVIT AT 350°)
 1-ONEWAY SIGNALS OVERHEAD (0' FROM END OF MAST ARM)
 ONEWAY EVP DETECTOR AND LIGHT
 TYPE 10B AT 180°
 TYPE 10B AT 90°
 LUMINAIRE 250 WATT HPS
 2-PEDESTRIAN PUSH BUTTONS & SIGNS
 EXTEND INTO HH 6
 3" RSC
 2-12/C#12
 3-3/C#12
 1-3/C#20
 1-3/C#12 (LUM)

④ EQUIPMENT PAD (SEE DETAIL)
 CONTROLLER AND CABINET
 SERVICE CABINET (SEE DETAIL)
 CONTROLLER CABINET TO HH 1
 4" RSC
 4-12/C#12
 6-3/C#12
 4-2/C#14
 2-3/C#20
 CONTROLLER CABINET TO HH 12
 4" RSC
 4-12/C#12
 6-3/C#12
 4-2/C#14
 3-3/C#20
 SERVICE CABINET TO CONTROLLER CABINET
 2" RSC
 2-1/C#6
 SERVICE CABINET TO HH 1
 2" RSC
 3-1/C#0
 SERVICE CABINET TO HH 1
 2" RSC
 4-3/C#12 (LUM)

SIGNAL FACE CHART						
FACE	R LED	Y LED	G LED	RLTA LED	YLTA LED	GLTA LED
2-1	●	●	●			
2-2	●	●	●			
2-3	●	●	●			
4-1	●	●	●			
4-2	●	●	●			
4-3	●	●	●			
6-1	●	●	●			
6-2	●	●	●			
6-3	●	●	●			
8-1	●	●	●			
8-2	●	●	●			
8-3	●	●	●			

NOTES:
 - ALL INDICATIONS SHALL BE LED
 - ALL INDICATIONS SHALL BE 12"
 - EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD



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 1-ONEWAY SIGNALS OVERHEAD (0' FROM END OF MAST ARM)
 ONEWAY EVP DETECTOR AND LIGHT
 TYPE 10B AT 180°
 TYPE 10B AT 90°
 LUMINAIRE 250 WATT HPS
 2-PEDESTRIAN PUSH BUTTONS & SIGNS
 EXTEND INTO HH 1
 3" RSC
 2-12/C#12
 3-3/C#12
 1-3/C#20
 1-3/C#12 (LUM)

④ PA90 POLE FOUNDATION
 TYPE PA90-A40-D40-9 (DAVIT AT 350°)
 1-ONEWAY SIGNALS OVERHEAD (0' FROM END OF MAST ARM)
 ONEWAY EVP DETECTOR AND LIGHT
 TYPE 10B AT 180°
 TYPE 10B AT 90°
 LUMINAIRE 250 WATT HPS
 2-PEDESTRIAN PUSH BUTTONS & SIGNS
 EXTEND INTO HH 9
 3" RSC
 2-12/C#12
 3-3/C#12
 2-3/C#20
 1-3/C#12 (LUM)

- NOTES:
- 1) SEE SPECIAL PROVISIONS FOR PEDESTRIAN INDICATIONS LED INDICATIONS, PVC HANDHOLES METAL FRAMES AND COVERS, AND PAINTING OF SIGNAL SYSTEM.
 - 2) EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD.
 - 3) LOCATIONS OF POLES, PAD, HANDHOLES AND LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 4) ALL INDICATIONS SHALL BE LED.
 - 5) FOR MAST ARM MOUNTED TYPE "D" SIGNS SEE DETAIL SHEETS AND SPECIAL PROVISIONS.
 - 6) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY FOR EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT SHALL BE FURNISHED AND INSTALLED 6' FROM THE END OF EACH MAST ARM.
 - 7) FOR SERVICE CABINET DETAILS SEE DETAIL SHEET.
 - 8) FOR NMC LOOP DETAILS SEE DETAIL SHEET.
 - 9) SEE SPECIAL PROVISIONS FOR CONTRACTORS RESPONSIBILITY FOR LOCATION OF UTILITIES.

SIGNAL SYSTEM OPERATION
 - THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
 - NORMAL OPERATION IS 4 PHASE.
 - PHASE 2 AND 6 SHALL BE ON VEHICLE RECALL.

INTERSECTION LAYOUT

PLAN FOR SUBMITTAL

NO.	DATE	BY	CHK	REVISIONS

Design By:
 Plan By:
 Checked By:
 Approved By:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER THE DIRECT SUPERVISION AND THAT I AM A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Charles T. Rickart
 CHARLES T. RICKART, P.E.
 DATE: 5/04/00 REG. NO: 26082

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 INFRASTRUCTURE - ENGINEERS - PLANNERS

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 City of Elk River, Sherburne County, Minnesota

MINNESOTA DEPARTMENT OF TRANSPORTATION

SIGNAL PLAN
SIGNAL SYSTEM "B"
 S.A.P. 71-601-20

SHEET 4 OF 9 SHEETS