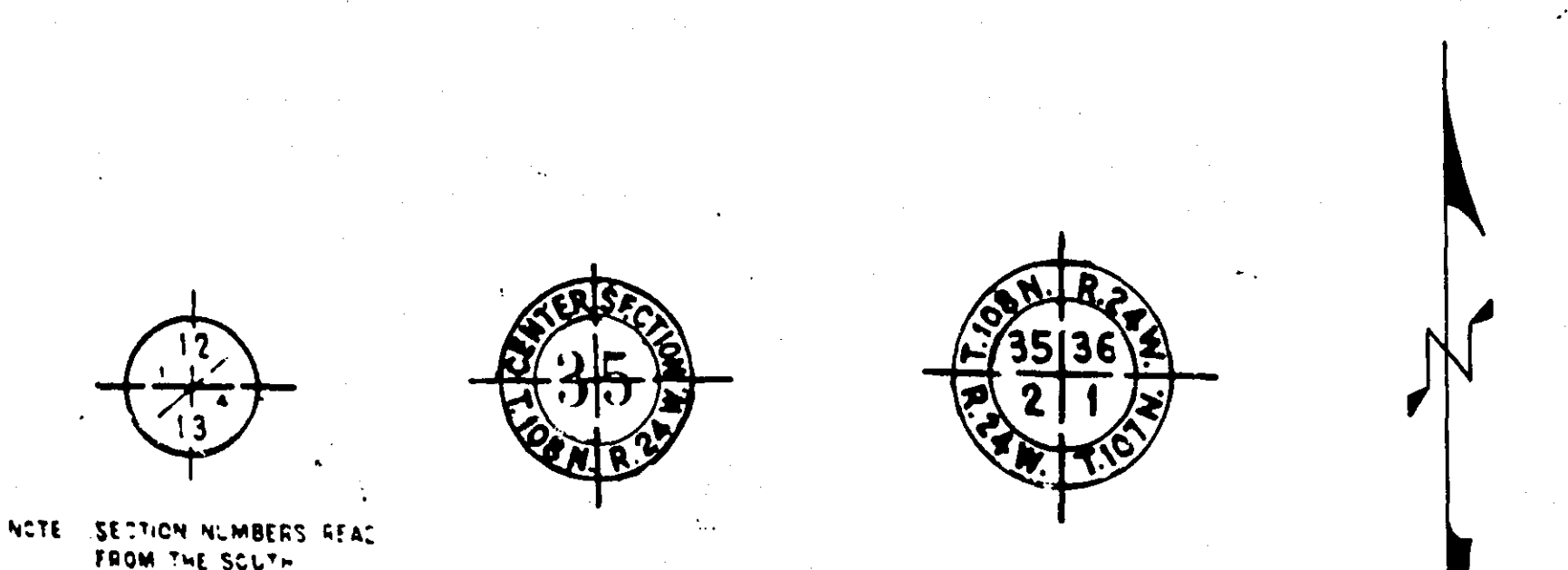


PLANS SYMBOLS

STATE LINE	----
COUNTY LINE	----
TOWNSHIP OR RANGE LINE	----
SECTION LINE	----
QUARTER LINE	----
SIXTEENTH LINE	----
RIGHT-OF-WAY LINE	----
PRESENT RIGHT-OF-WAY LINE	----
CONTROL OF ACCESS LINE	----
PROPERTY LINE (Except Land Lines)	----
VACATED PLATTED PROPERTY	----
CORPORATE OR CITY LIMITS	----
TRUNK HIGHWAY CENTER LINE	----
RETAINING WALL	----
RAILROAD	----
RAILROAD RIGHT-OF-WAY LINE	----
RIVER OR CREEK	----
DRY RUN	----
DRAINAGE DITCH	----
DRAIN TILE	----
CULVERT	----
DROP INLET	----
GUARD RAIL	----
BARBED WIRE FENCE	----
WOVEN WIRE FENCE	----
CHAIN LINK FENCE	----
RAILROAD SNOW FENCE	----
STONE WALL OR FENCE	----
HEDGE	----
RAILROAD CROSSING SIGN	----
RAILROAD CROSSING BELL	----
ELECTRIC WARNING SIGN	----
CROSSING GATE	----
MEANDER CORNER	----

UTILITIES SYMBOLS

POWER POLE LINE	----
TELEPHONE OR TELEGRAPH POLE LINE	----
JOINT TELEPHONE AND POWER ON POWER POLES	----
ON TELEPHONE POLES	----
ANCHOR	----
STEEL TOWER	----
STREET LIGHT	----
POSTAL TELEPHONE CABLE TERMINAL	----
GAS MAIN	----
WATER MAIN	----



PIT DATA

PIT NO.	Located in
PIT NO.	Dead Haul

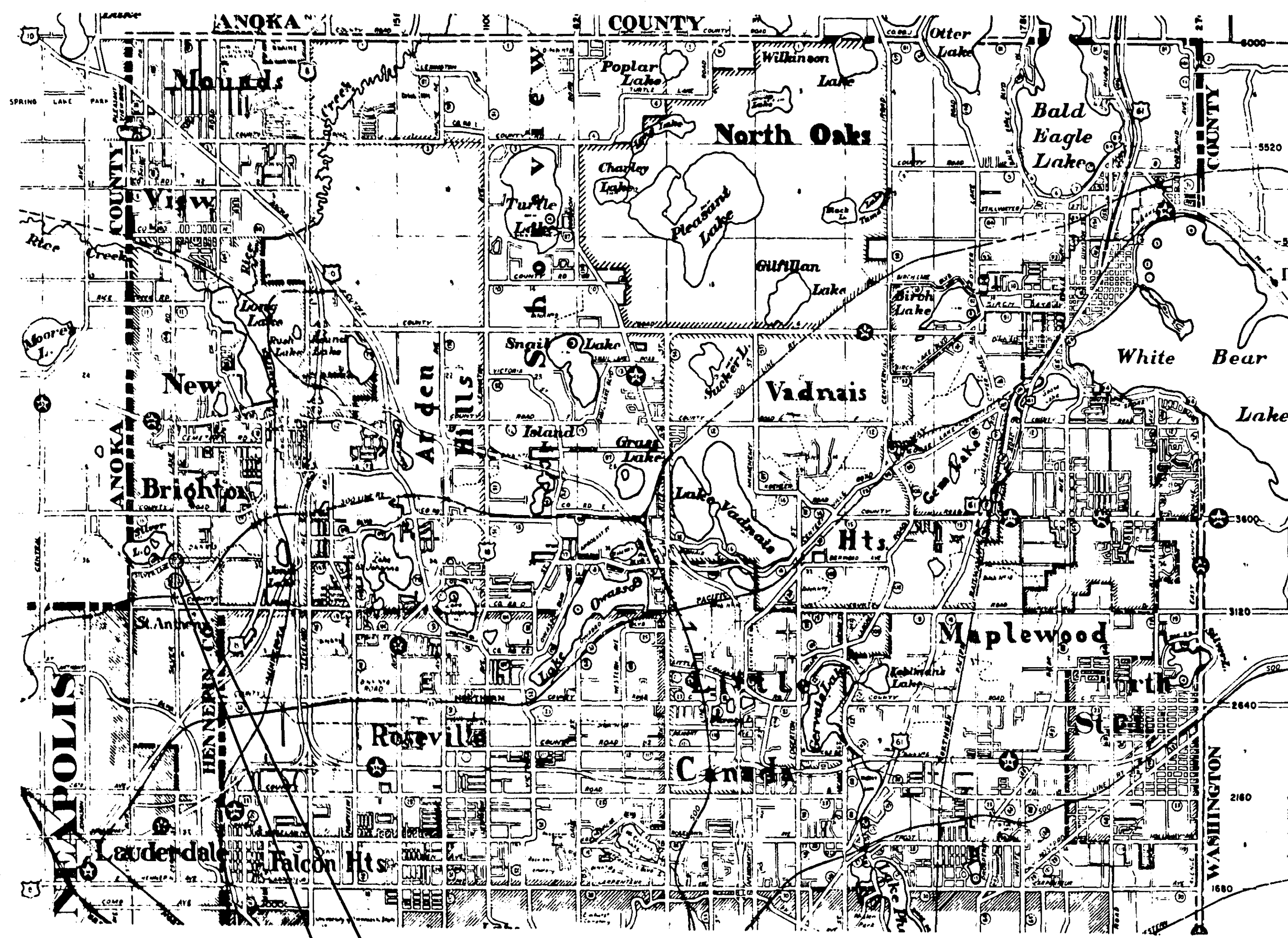
THE "MINNESOTA HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972 AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS" DATED JANUARY 1, 1974 SHALL GOVERN.

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTIONS OF

SILVER LAKE RD. & 39th AVE. N.E. - SYSTEM A
S.A.P. NO. 62-644-07

SILVER LAKE RD. & SILVER LANE - SYSTEM B
S.A.P. NO. 62-644-07



CITY OF ST. PAUL

SILVER LAKE RD. & SILVER LANE - SYSTEM B

SILVER LAKE RD & 39th AVE. N.E. - SYSTEM A

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	INTERSECTION LAYOUT
4	FIELD WIRING DIAGRAM - SYSTEM A
5	INTERSECTION LAYOUT
6	FIELD WIRING DIAGRAM - SYSTEM B

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.

Deane K. Gorkhan
Date 8/9/74 Reg. No. 5031

RECOMMENDED FOR APPROVAL *P. L. Kihlstedt* DATE 7-2-74
TRAFFIC ENGINEER

RECOMMENDED FOR APPROVAL *Deane K. Gorkhan* DATE 8/9/74
COUNTY ENGINEER

APPROVED *John T. Finley* DATE 2-10-75
CHAIRMAN OF THE RAMSEY COUNTY BOARD

RECOMMENDED FOR APPROVAL *Deane K. Gorkhan* DATE 9/4/74
MAYOR, VILLAGE OF ST. ANTHONY

RECOMMENDED FOR APPROVAL *Deane K. Gorkhan* DATE 9/11/74
MAYOR, VILLAGE OF NEW BRIGHTON

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL *Deane K. Gorkhan* DATE 11-25-74
DISTRICT STATE ENGINEER

RECOMMENDED FOR APPROVAL *Deane K. Gorkhan* DATE 11-18-74
DISTRICT STATE ENGINEER

APPROVAL *Deane K. Gorkhan* DATE 1/23/74
STATE AID ENGINEER

RECOMMENDED FOR APPROVAL *W. J. L. L.* DATE 6-25-74
MAINTENANCE ENGINEER

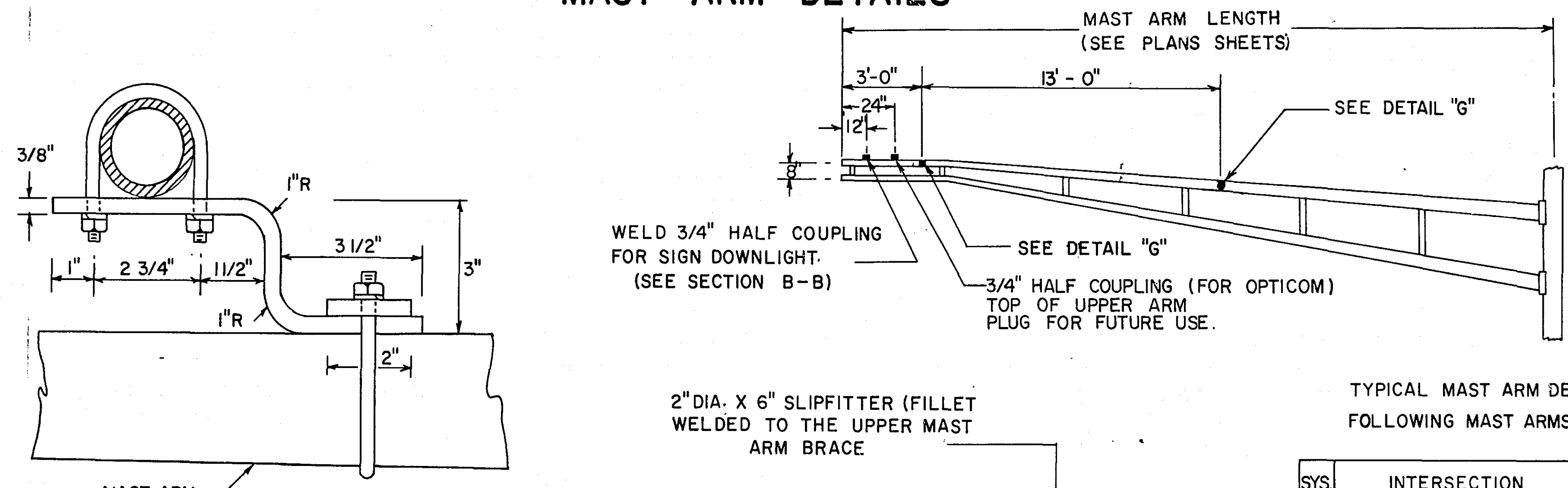
RECOMMENDED FOR APPROVAL *W. J. L. L.* DATE 4/19/74
CONSTRUCTION ENGINEER

RECOMMENDED FOR APPROVAL *W. J. L. L.* DATE 6-18-74
CONSTRUCTION ENGINEER

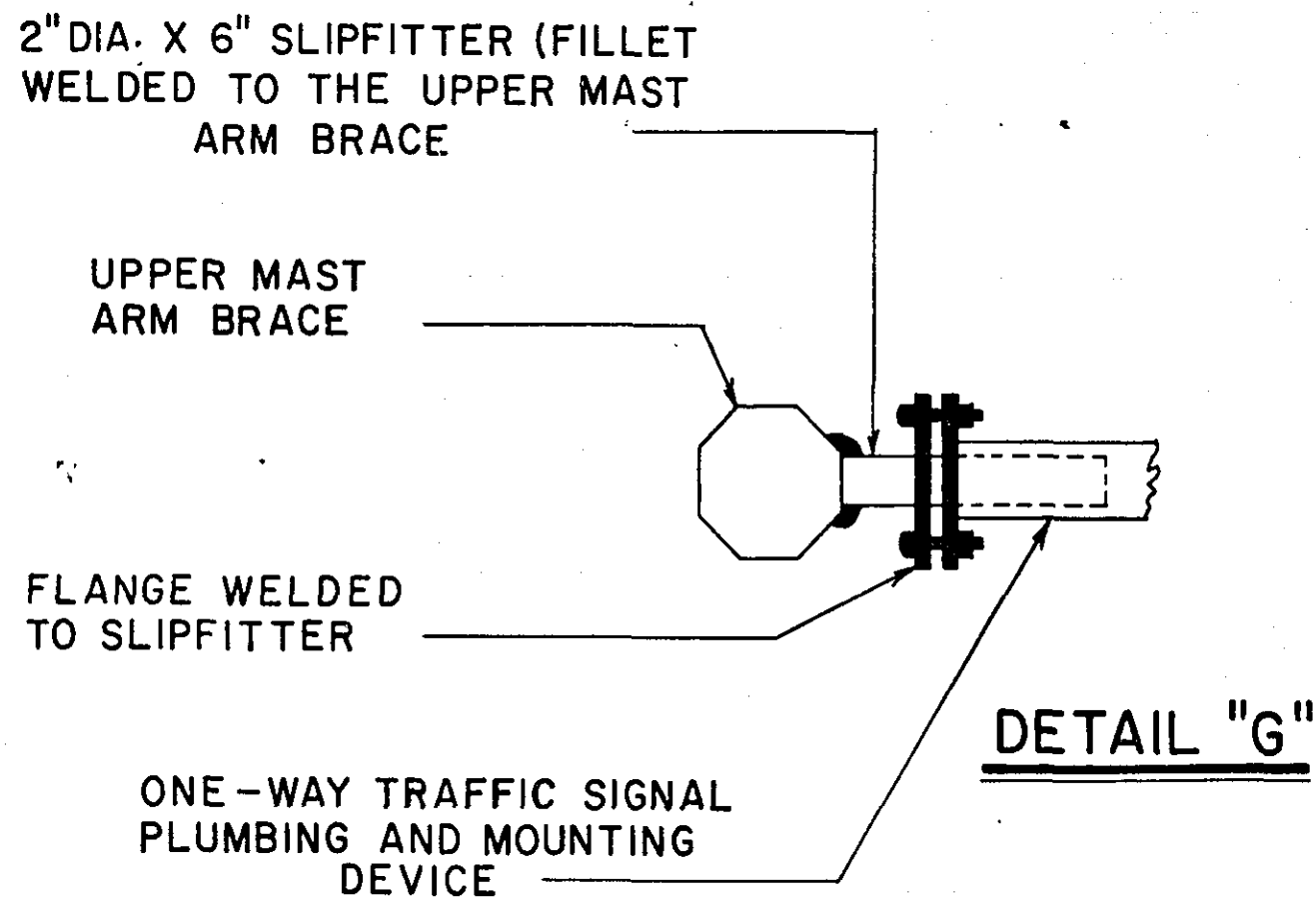
RECOMMENDED FOR APPROVAL *W. J. L. L.* DATE
CONSTRUCTION ENGINEER

APPROVED *W. J. L. L.* DATE 8-9-74
COUNTY ENGINEER

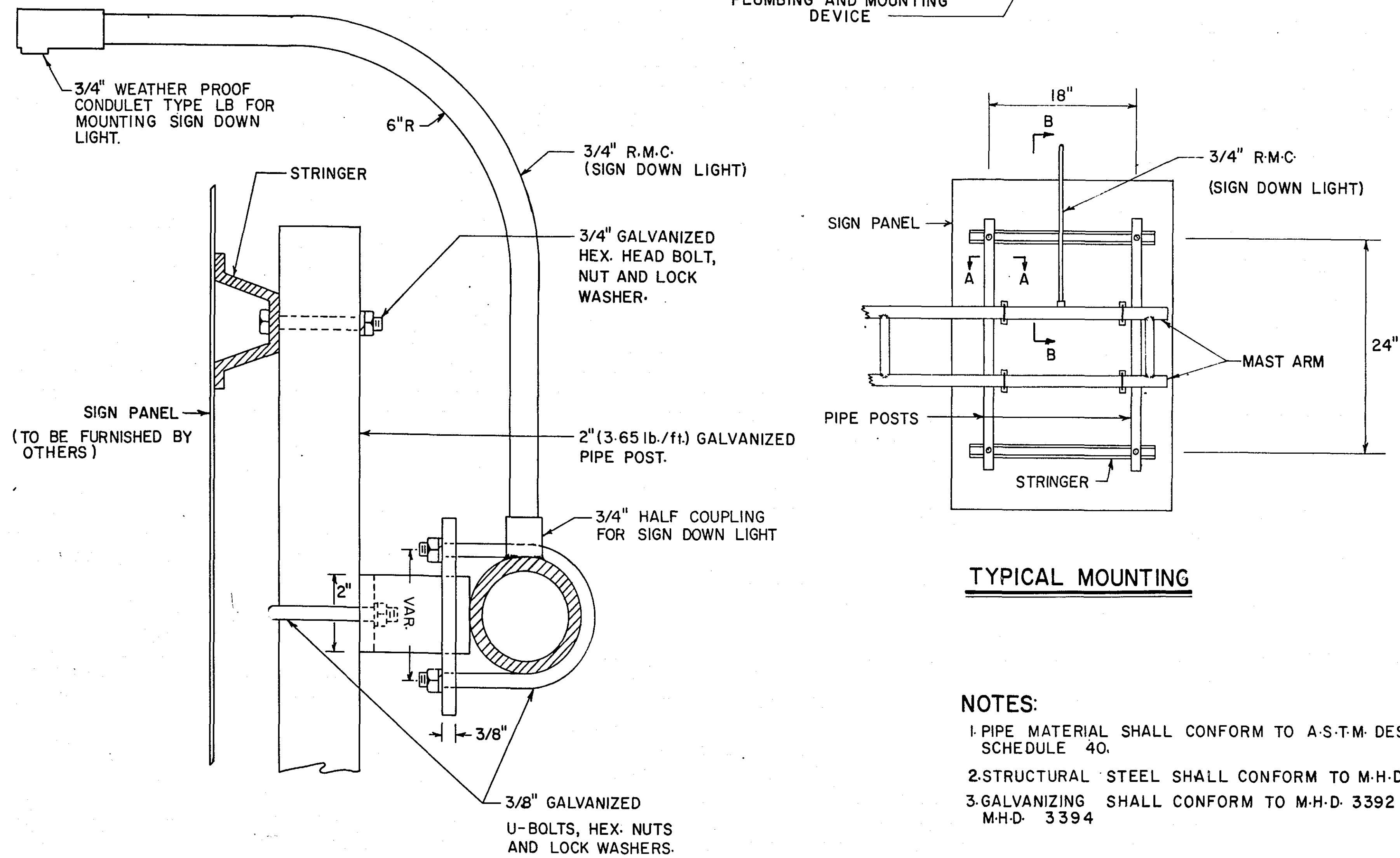
MAST ARM DETAILS



SYS.	INTERSECTION	MAST ARM N°
A	SILVER LK. RD. & 39th AVE. NE	(1) (3)
B	SILVER LK. RD & SILVER LN.	(1) (3)



SECTION A-A



TYPICAL MOUNTING

- NOTES:
- 1. PIPE MATERIAL SHALL CONFORM TO A-S-T-M DESIGNATION A53, SCHEDULE 40.
 - 2. STRUCTURAL STEEL SHALL CONFORM TO M.H.D. 3306.
 - 3. GALVANIZING SHALL CONFORM TO M.H.D. 3392 AND M.H.D. 3394

SECTION B-B

STATEMENT OF ESTIMATED QUANTITIES				
PROJECT NO.	ITEM NO.	ITEM	UNIT	QUANT
62-644-07	2565.501	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SYSTEM A	SIGNAL SYSTEM	1
62-644-07	2565.501	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SYSTEM B	SIGNAL SYSTEM	1

STANDARD PLATES	
PLATE NO.	TITLE
8110B	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8111A	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8115B	PEDESTRIAN PUSH BUTTON INSTALLATION
8116C	STEEL GUARD POST
8117E	PRECAST CONCRETE HANDHOLE
8118B	SERVICE EQUIPMENT AND POLE
8119B	GROUND MOUNT CABINET FOUNDATION
8123A	POLE AND MAST ARM
8124B	SIGNAL HEAD MOUNTS
8130B	SAW CUT LOOP DETECTORS

ABBREVIATIONS

EQUIPMENT & INDICATIONS

- RED - RED
- YEL - YELLOW
- GRN - GREEN
- LTA - LEFT TURN ARROW
- THA - THRU ARROW
- RTA - RIGHT TURN ARROW
- TRA - THRU AND RIGHT ARROW
- WLK - WALK
- NEU - NEUTRAL
- DWK - DON'T WALK
- SW - SWITCH
- SWD - SWITCHED
- LUM - LUMINAIRE
- PA1(eg) - PEDESTRIAN INDICATION - "A" PHASE
- PBB2(eg) - PUSH BUTTON - "B" PHASE
- C3(eg) - SIGNAL HEAD - "C" PHASE
- DA4(eg) - DETECTOR - "A" PHASE
- H.H. - HANDHOLE
- GR.R. - GROUND ROD
- SERV. - SERVICE

- DNL - DOWNLIGHT
- P.E.C. - PHOTOELECTRIC CELL
- ST.LHT. - STREET LIGHT
- CH. - CHECK
- S.O.P. - SOURCE OF POWER
- E.Q.G. - EQUIPMENT GROUND
- SPR - SPARE CONDUCTOR

COLOR CODING OF CONDUCTORS

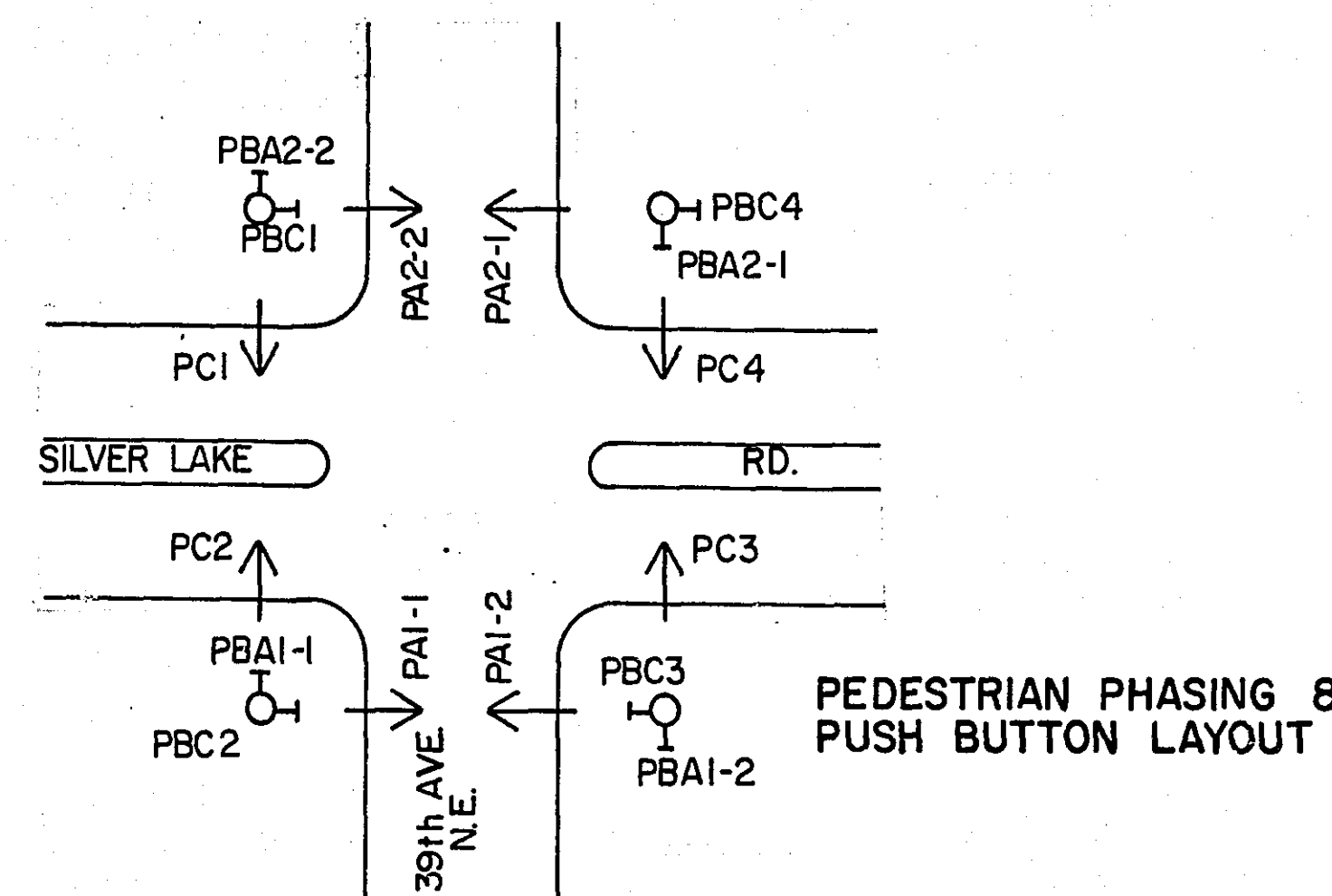
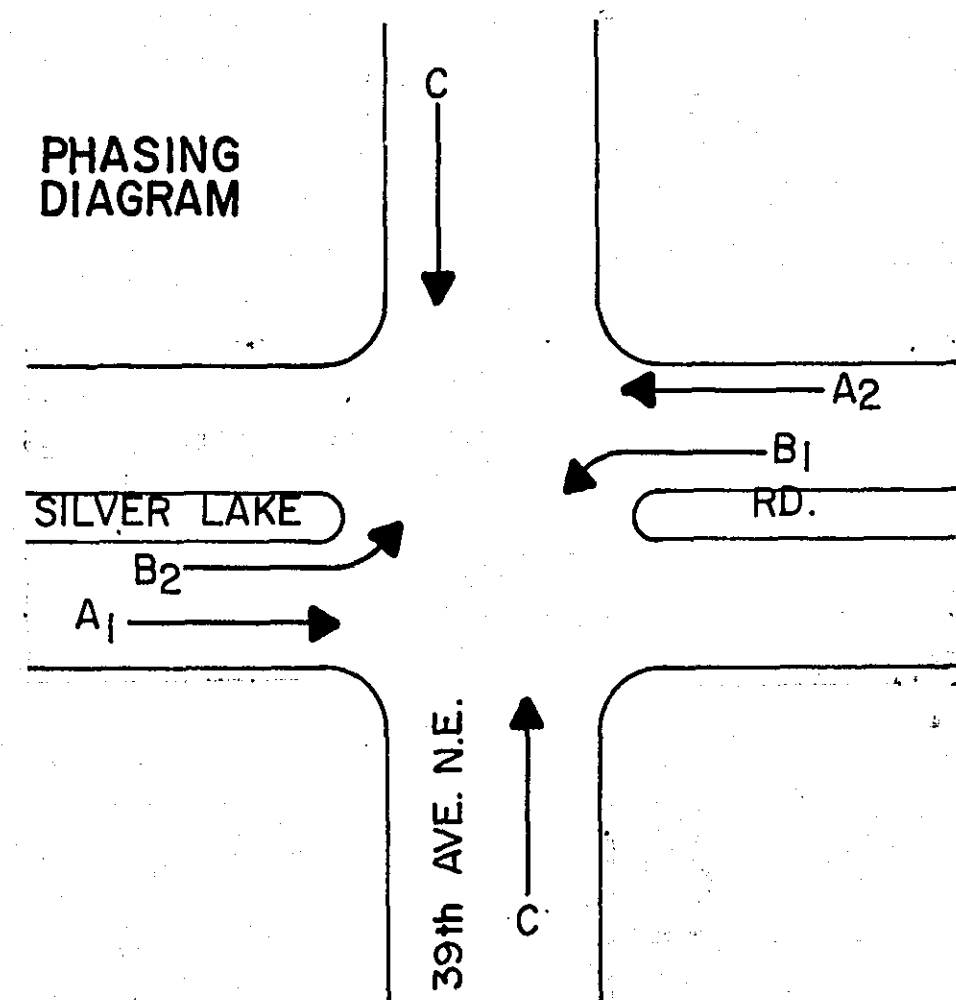
- R-RED
- O-ORANGE
- BL-BLUE
- WH-WHITE
- R/BLK - RED WITH BLACK TRACER
- O/BLK - ORANGE WITH BLACK TRACER
- BL/BLK - BLUE WITH BLACK TRACER
- WH/BLK - WHITE WITH BLACK TRACER
- BLK - BLACK
- BLK/WH - BLACK WITH WHITE TRACER
- G/BLK - GREEN WITH BLACK TRACER
- G - GREEN

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.

Dean R. Amble

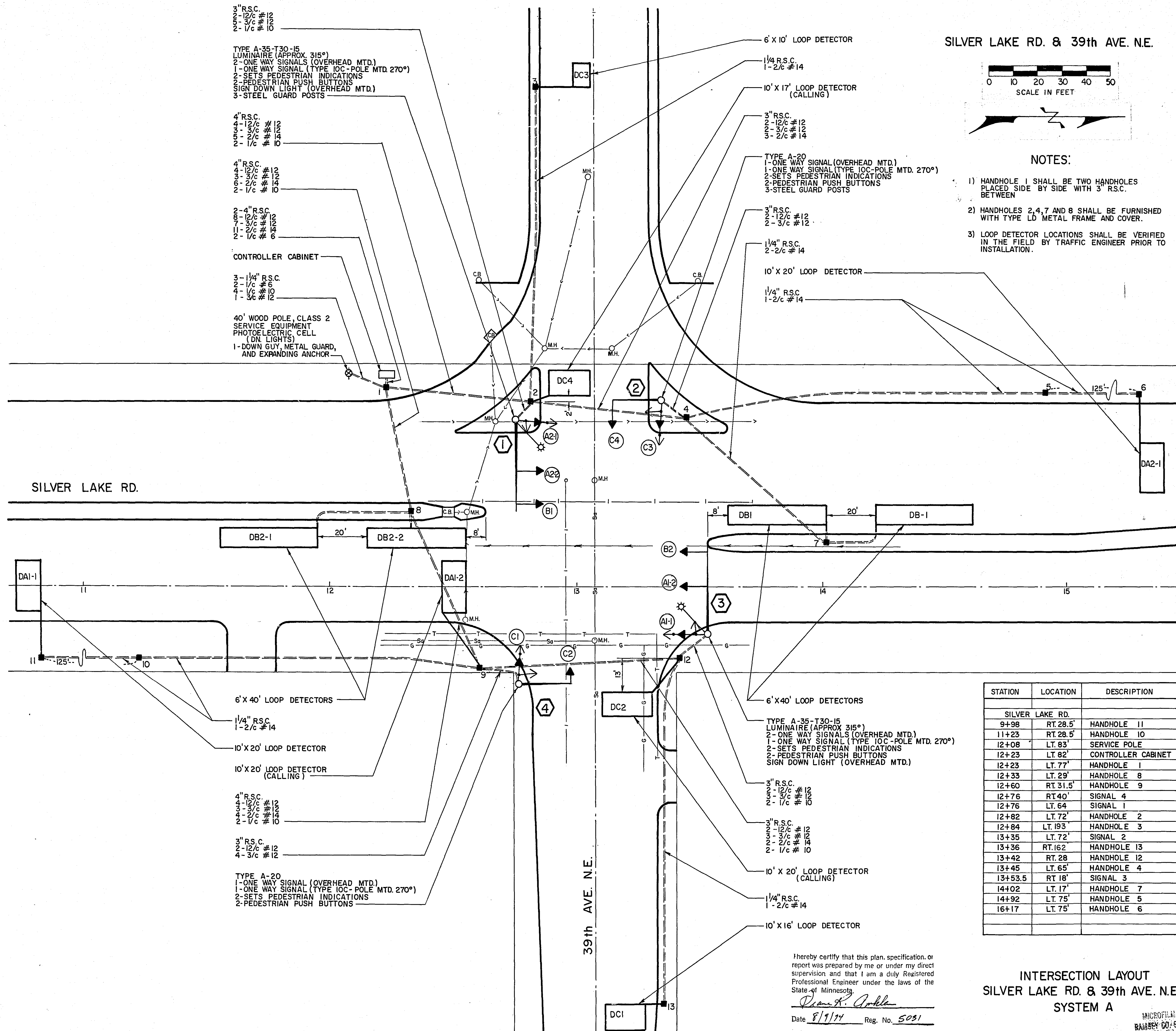
Date 8/9/94 Reg. No. 5031

LEGEND OF SYMBOLS	
	CONTROLLER
	PEDESTAL
	HANDHOLE (PULLBOX)
	RIGID STEEL CONDUIT (R.S.C.)
	MAST ARM & POLE
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD
	MAST ARM & LUMINAIRE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P.)

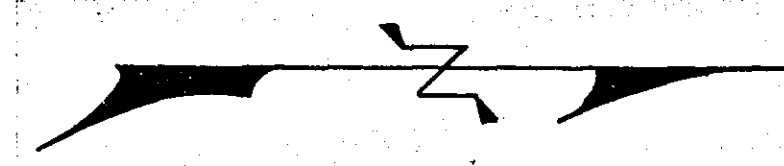
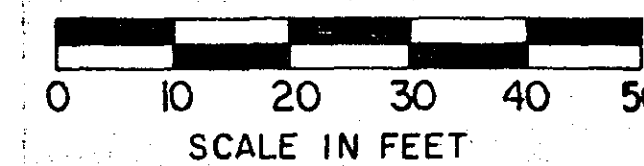


FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1-1	A1	Y	12"	12"	12"	-	-	-
* A1-2	A1	Y	12"	12"	12"	-	-	-
A2-1	A2	Y	12"	12"	12"	-	-	-
* A2-2	A2	Y	12"	12"	12"	-	-	-
* B1	B1	R	12"	12"	-	12"	-	-
* B2	B2	R	12"	12"	-	12"	-	-
C1	C	R	12"	12"	12"	-	-	-
C2	C	R	12"	12"	12"	-	-	-
C3	C	R	12"	12"	12"	-	-	-
C4	C	R	12"	12"	12"	-	-	-

* SPECIAL SIGNAL FACES
(SEE SPECIAL PROVISIONS)



SILVER LAKE RD. & 39th AVE. N.E.



- NOTES:
- HANDHOLE 1 SHALL BE TWO HANDHOLES PLACED SIDE BY SIDE WITH 3" R.S.C. BETWEEN
 - HANDHOLES 2,4,7 AND 8 SHALL BE FURNISHED WITH TYPE LD METAL FRAME AND COVER.
 - LOOP DETECTOR LOCATIONS SHALL BE VERIFIED IN THE FIELD BY TRAFFIC ENGINEER PRIOR TO INSTALLATION.

STATION	LOCATION	DESCRIPTION
	SILVER LAKE RD.	
9+98	RT. 28.5'	HANDHOLE 11
11+23	RT. 28.5'	HANDHOLE 10
12+08	LT. 83'	SERVICE POLE
12+23	LT. 82'	CONTROLLER CABINET
12+23	LT. 77'	HANDHOLE 1
12+33	LT. 29'	HANDHOLE 8
12+60	RT. 31.5'	HANDHOLE 9
12+76	RT. 40'	SIGNAL 4
12+76	LT. 64'	SIGNAL 1
12+82	LT. 72'	HANDHOLE 2
12+84	LT. 193'	HANDHOLE 3
13+35	LT. 72'	SIGNAL 2
13+36	RT. 162'	HANDHOLE 13
13+42	RT. 28'	HANDHOLE 12
13+45	LT. 65'	HANDHOLE 4
13+53.5	RT. 18'	SIGNAL 3
14+02	LT. 17'	HANDHOLE 7
14+92	LT. 75'	HANDHOLE 5
16+17	LT. 75'	HANDHOLE 6

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.

Diana H. Apple

Date 8/1/14 Reg. No. 5031

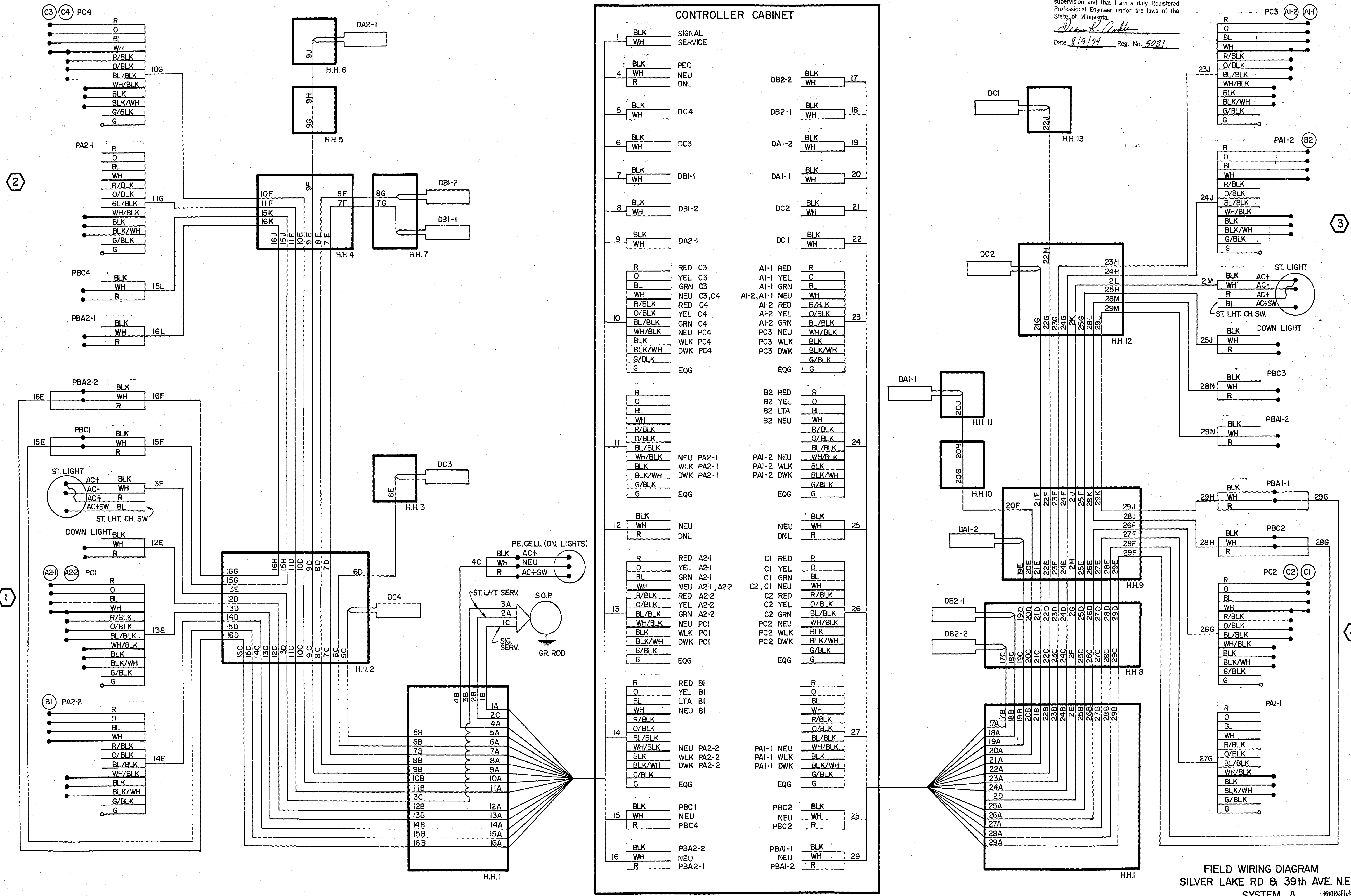
S.A.P. NO. 62-644-07

INTERSECTION LAYOUT
SILVER LAKE RD. & 39th AVE. N.E.
SYSTEM A

SHEET NO. 3 OF 6 SHEETS

17-136

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.
James R. Gable
Date 8/9/74 Reg. No. 5031



FIELD WIRING DIAGRAM
SILVER LAKE RD & 39th AVE. NE.
SYSTEM A

