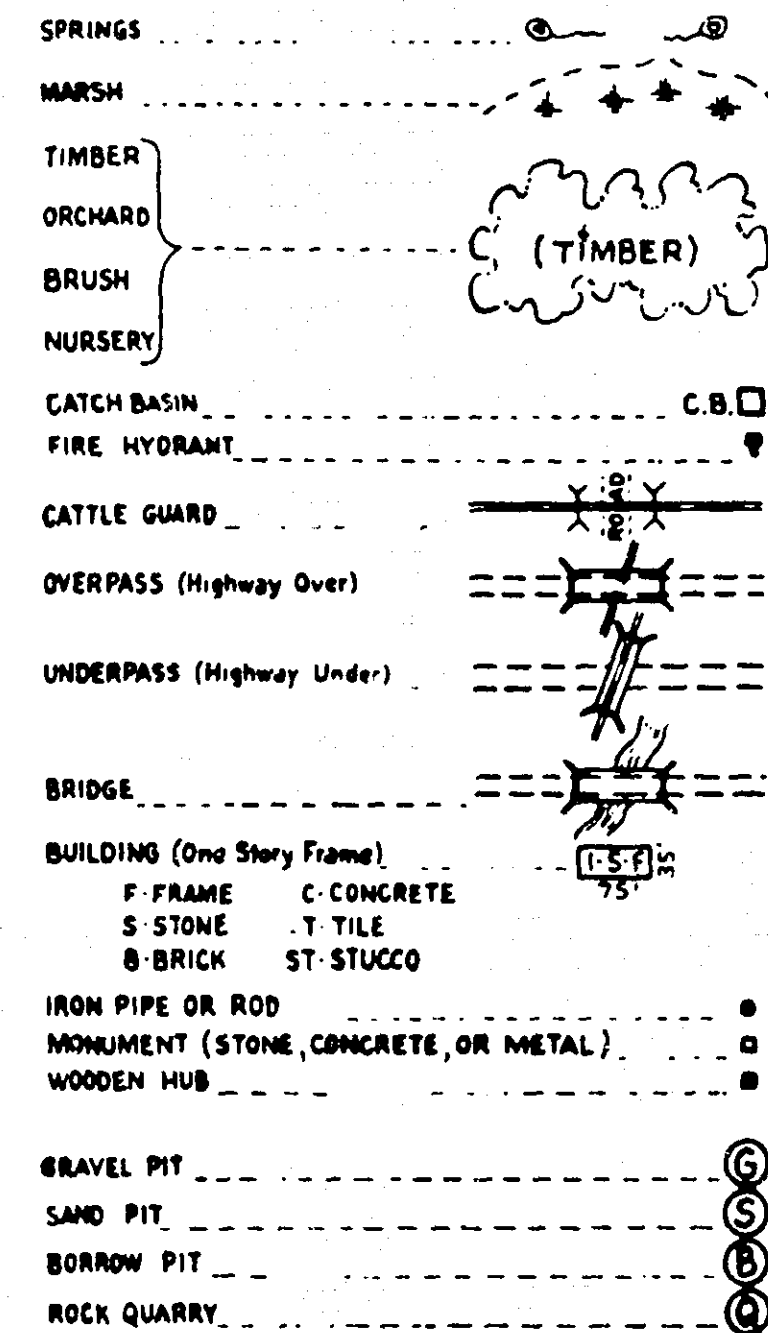
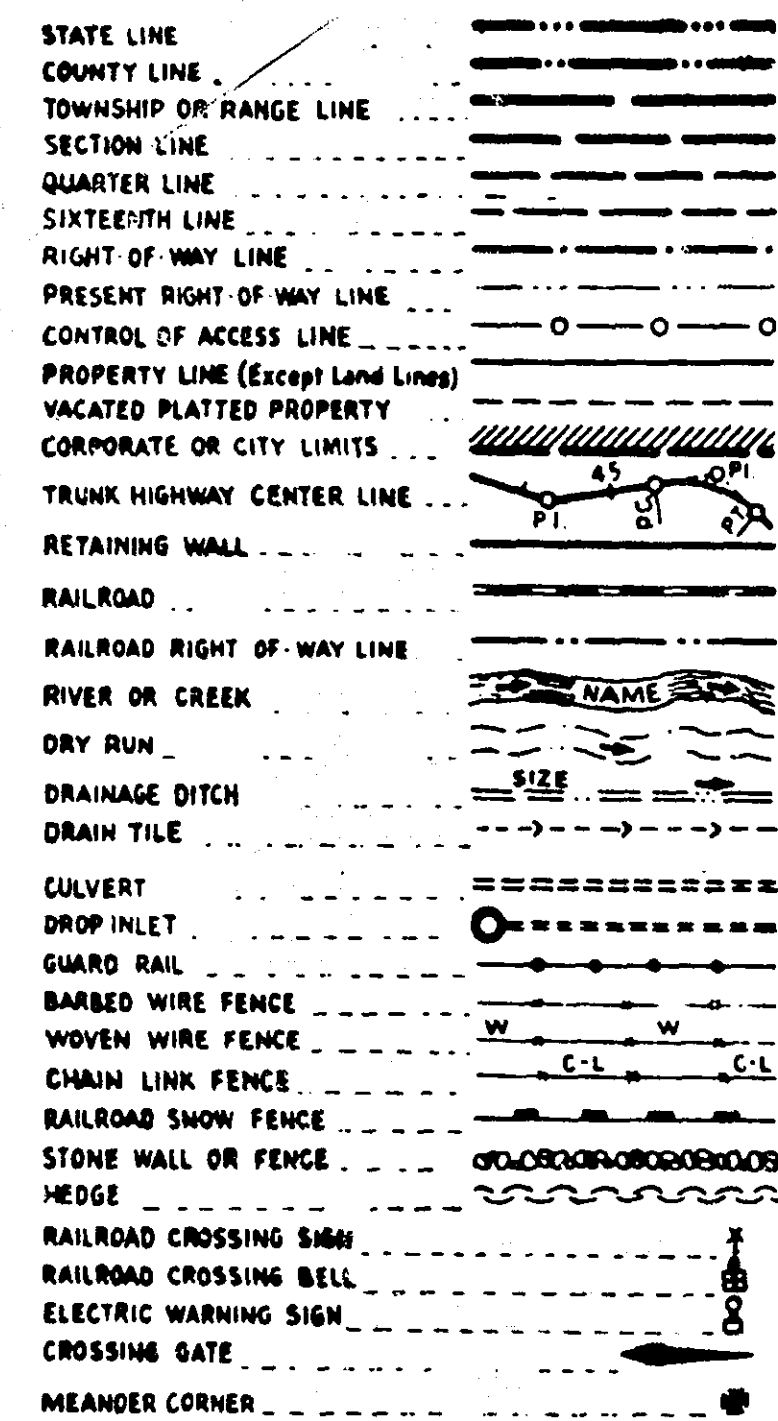
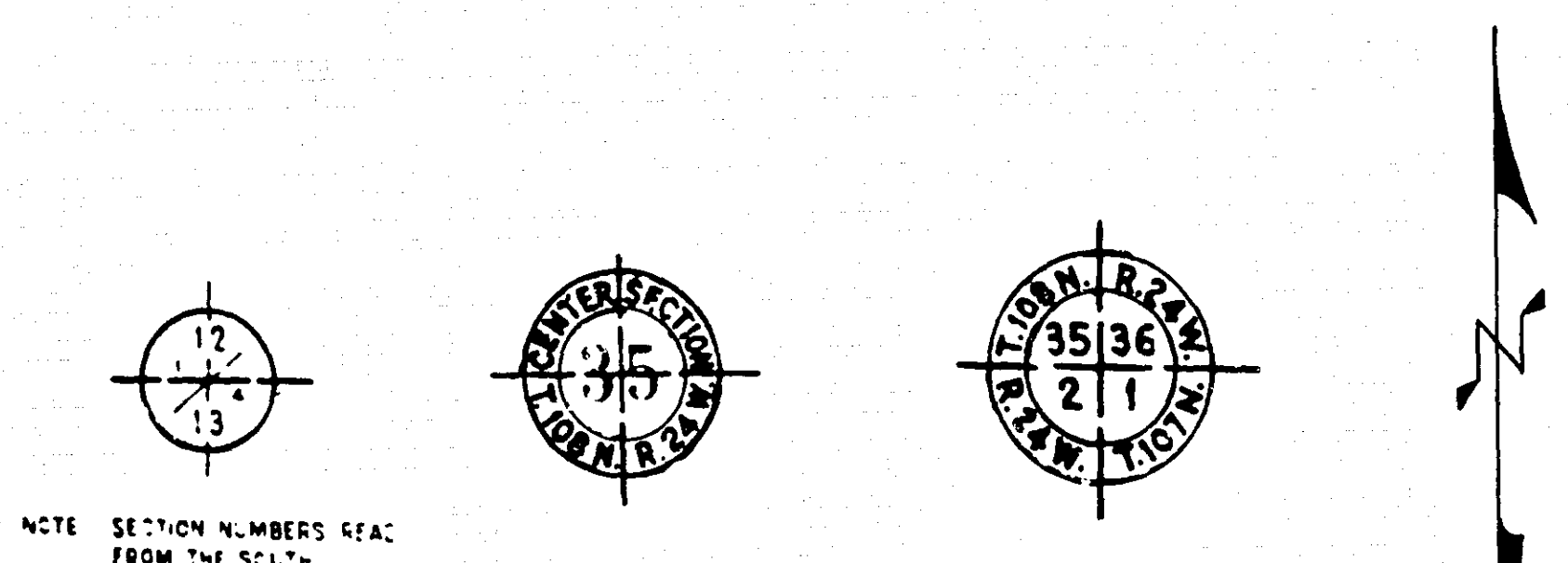
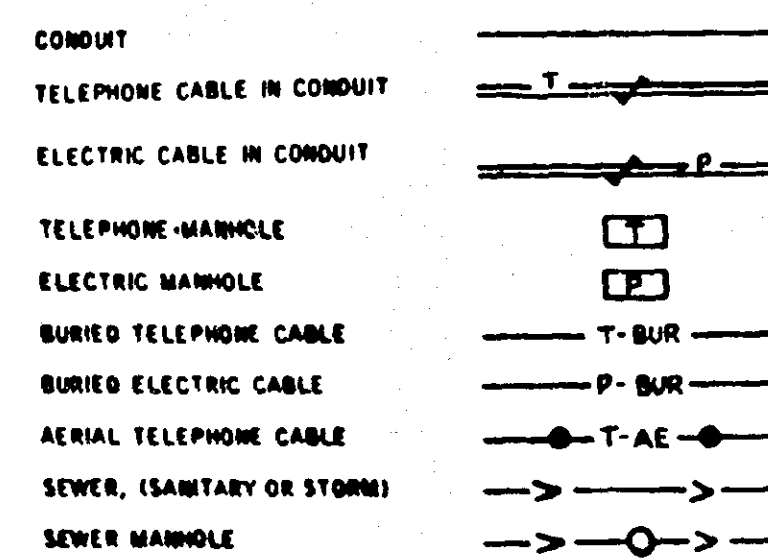
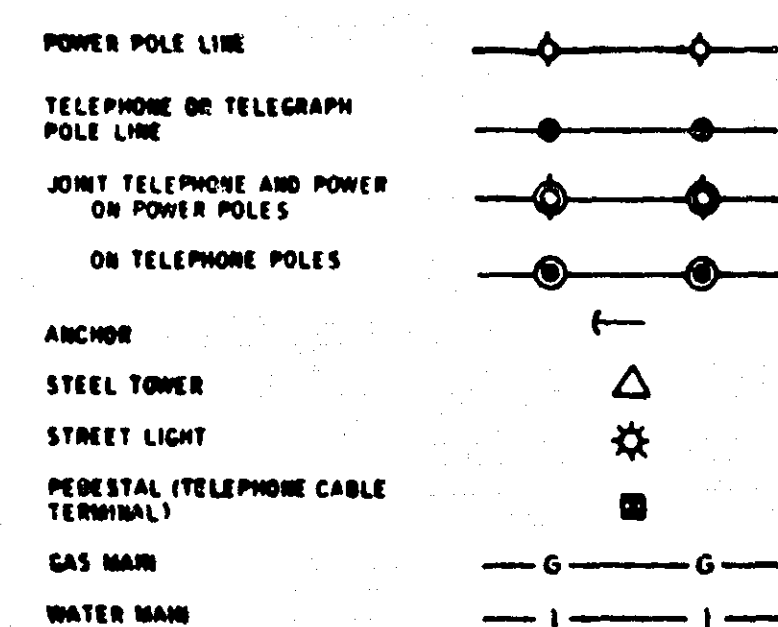


PLANS SYMBOLS



UTILITIES SYMBOLS



NOTE: SECTION NUMBERS READ FROM THE SOUTH

PIT DATA

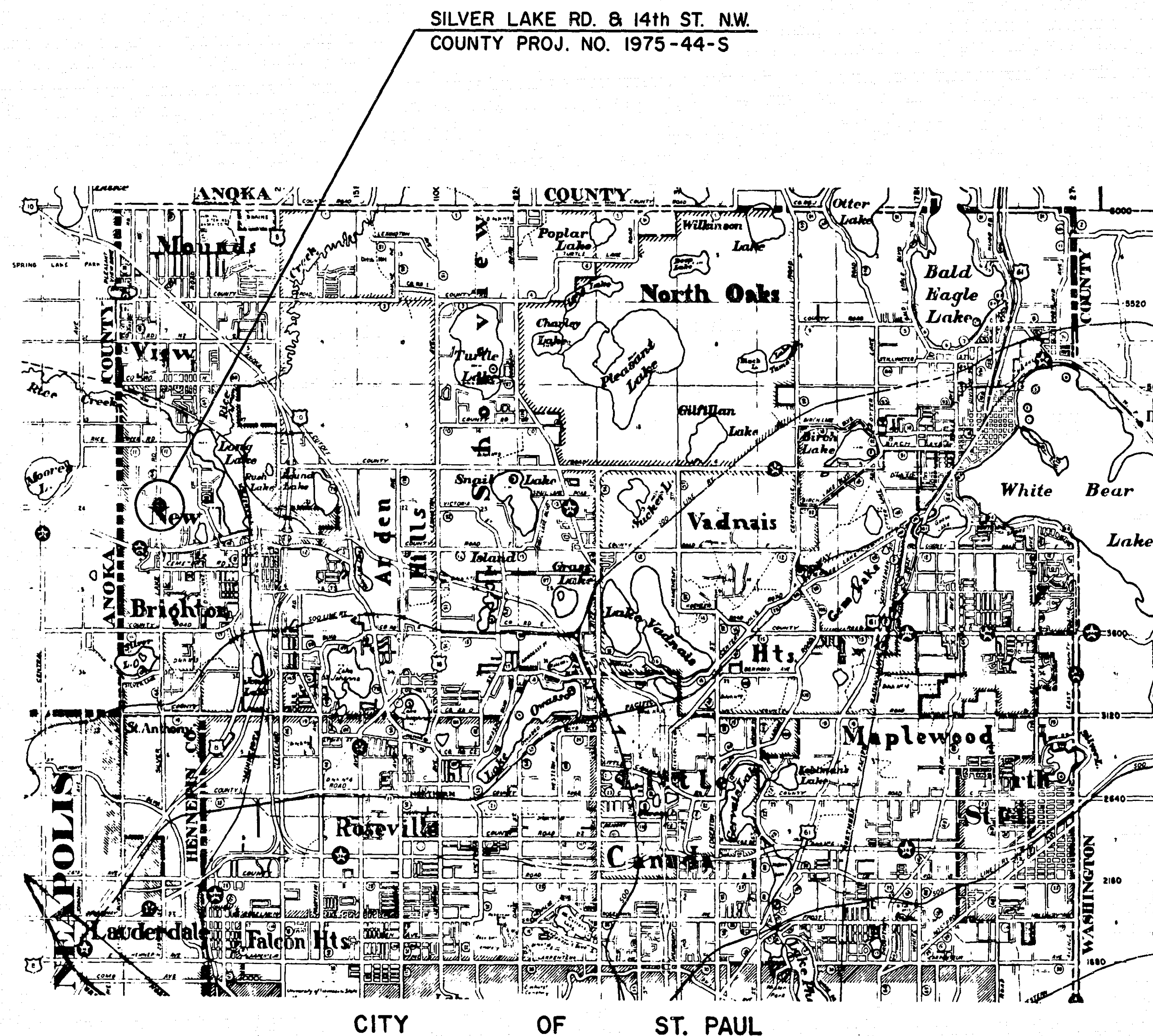
PIT NO. _____ Located in _____
 Dead Haul _____

PIT NO. _____ Located in _____
 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 INTERSECTION OF SILVER LAKE RD. & 14th ST. N.W. COUNTY PROJ. NO. 1975-44-S



SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3-6	INTERSECTION LAYOUT & FIELD WIRING DIAGRAM

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.

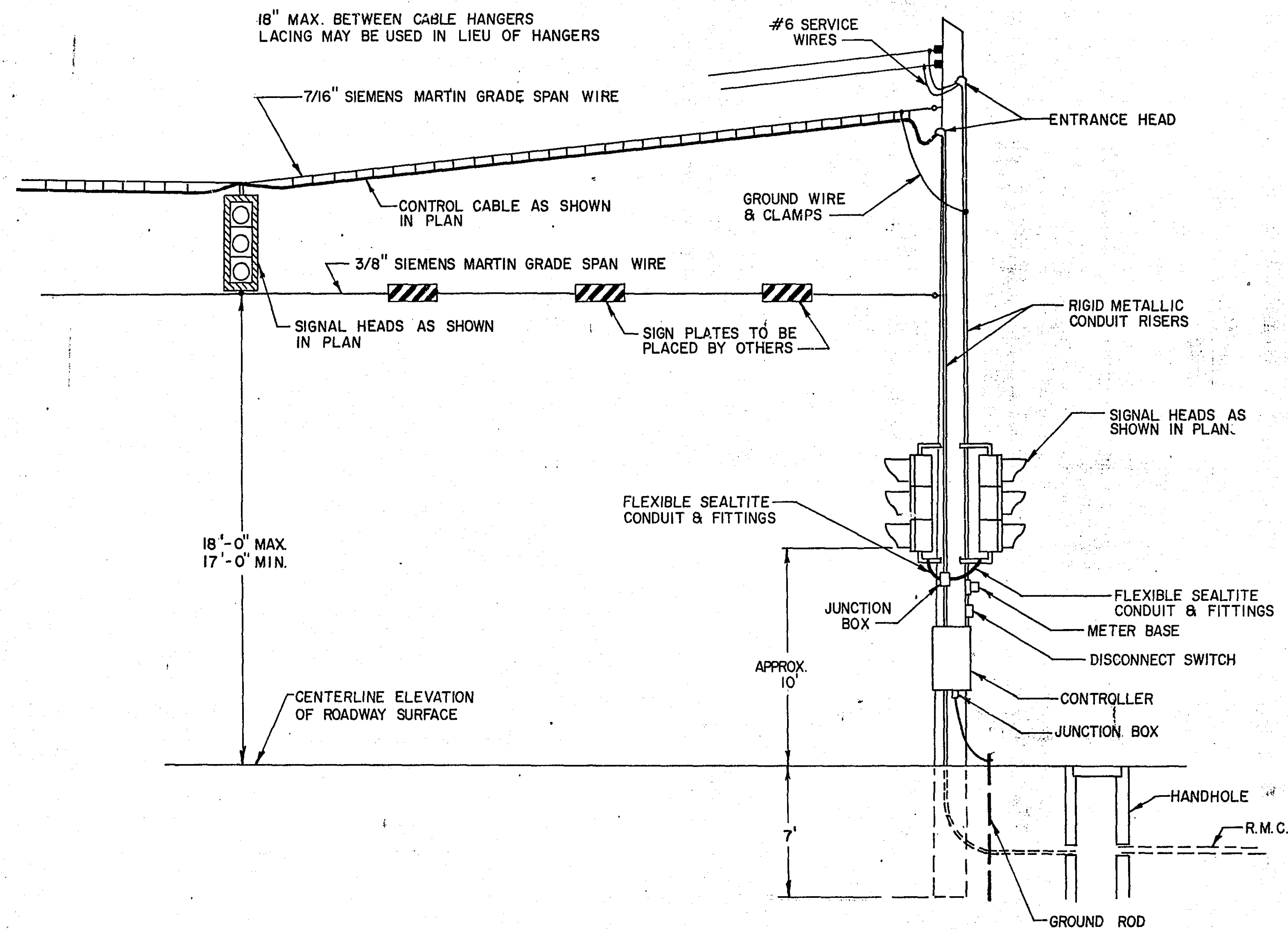
Dean K. Gidley
 Date 7-1-75 Reg. No. 9031

RECOMMENDED FOR APPROVAL _____ DATE _____	RECOMMENDED FOR APPROVAL <i>Paul L. Kuhn</i> DATE 5-29-75 TRAFFIC ENGINEER
RECOMMENDED FOR APPROVAL <i>M. K. Gidley</i> DATE 6-17-75 MAINTENANCE ENGINEER	RECOMMENDED FOR APPROVAL <i>Dean K. Gidley</i> DATE 7-1-75 COUNTY ENGINEER
RECOMMENDED FOR APPROVAL <i>W. J. Gidley</i> DATE 6-16-75 CONSTRUCTION ENGINEER	APPROVED <i>John T. Finley</i> DATE 8-15-75 CHAIRMAN OF THE RAMSEY COUNTY BOARD
RECOMMENDED FOR APPROVAL <i>W. J. Gidley</i> DATE 6-24-75	APPROVED <i>Mayle C. Bromander</i> DATE 7-25-75 MAYOR, CITY OF NEW BRIGHTON
RECOMMENDED FOR APPROVAL <i>W. J. Gidley</i> DATE 6-30-75	APPROVED <i>Thomas F. Lewcock</i> DATE 7-25-75 COUNTY ENGINEER

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL _____ DATE _____	RECOMMENDED FOR APPROVAL _____ DATE _____
RECOMMENDED FOR APPROVAL _____ DATE _____	DISTRICT STATE AID ENGINEER
APPROVAL _____ DATE _____	STATE AID ENGINEER

TEMPORARY WOOD POLE TRAFFIC SIGNAL



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
 PAI (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
 EVP - EMERGENCY VEHICLE PRE-EMPTION

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

COLOR CODING OF CONDUCTOR

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

STANDARD PLATES

PLATE NO.	TITLE
8110 B	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8111 A	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112 B	PEDESTAL FOUNDATION
* 8113 B	MAGNETIC VEHICLE DETECTOR INSTALLATION
* 8115 B	PEDESTRIAN PUSH BUTTON INSTALLATION
8116 C	STEEL GUARD POST
* 8117 E	PRECAST CONCRETE HANDHOLE
* 8118 B	SERVICE EQUIPMENT & POLE, TRAFFIC CONTROL SIGNALS
8119 B	GROUND MOUNTED CABINET FOUNDATION
8120 D	MAST ARM POLE FOUNDATION
8122 B	PEDESTAL AND PEDESTAL BASE
8123 A	POLE AND MAST ARM (LUMINAIRES AND TRAFFIC LIGHTS)
8124 B	SIGNAL HEAD MOUNTS
8125 A	SWING-AWAY HINGE (FOR TRAFFIC SIGNAL ARM MAST)
* 8130 B	SAW CUT LOOP DETECTORS

* STANDARD PLATES APPLICABLE TO THIS PROJECT

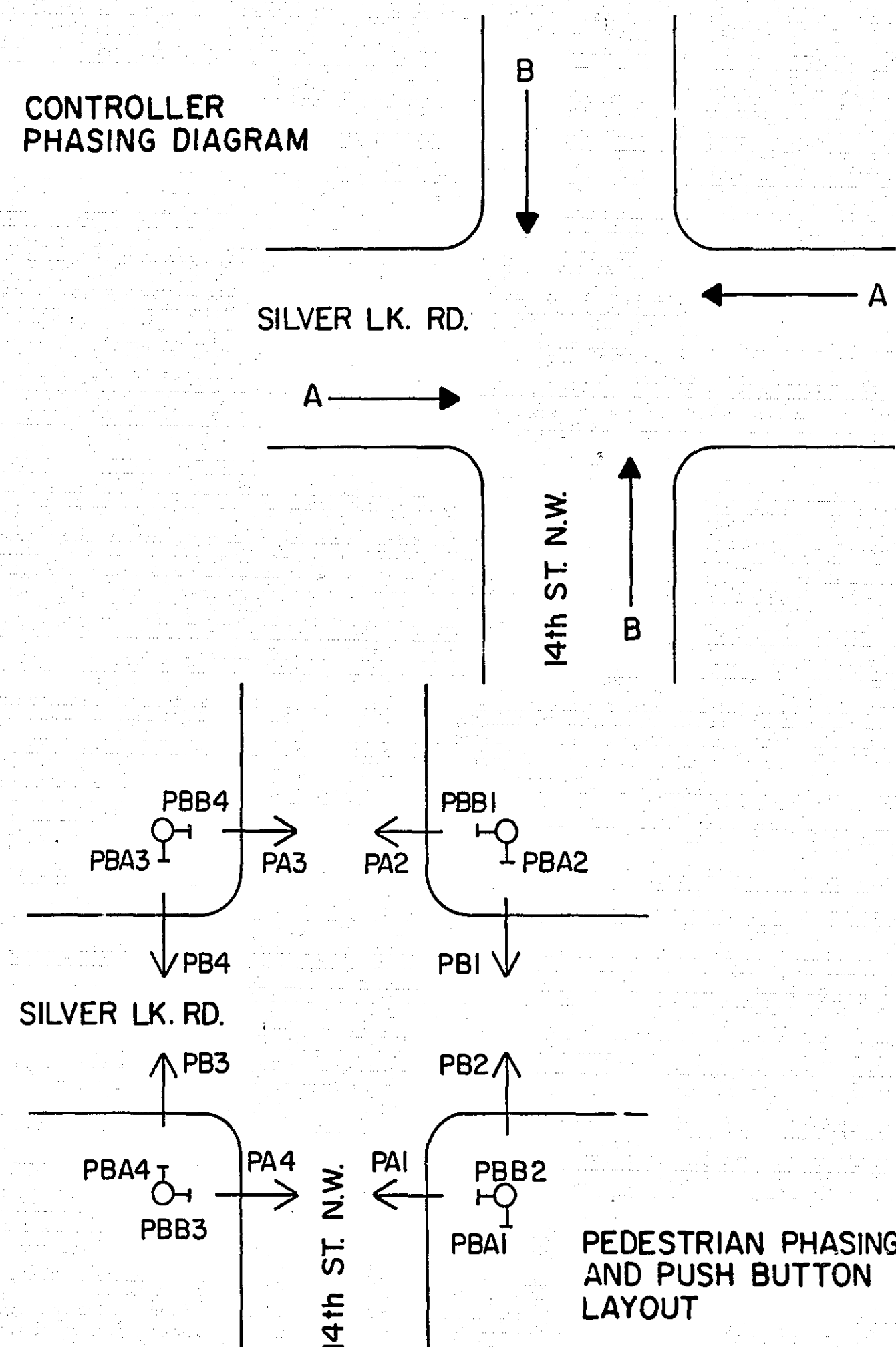
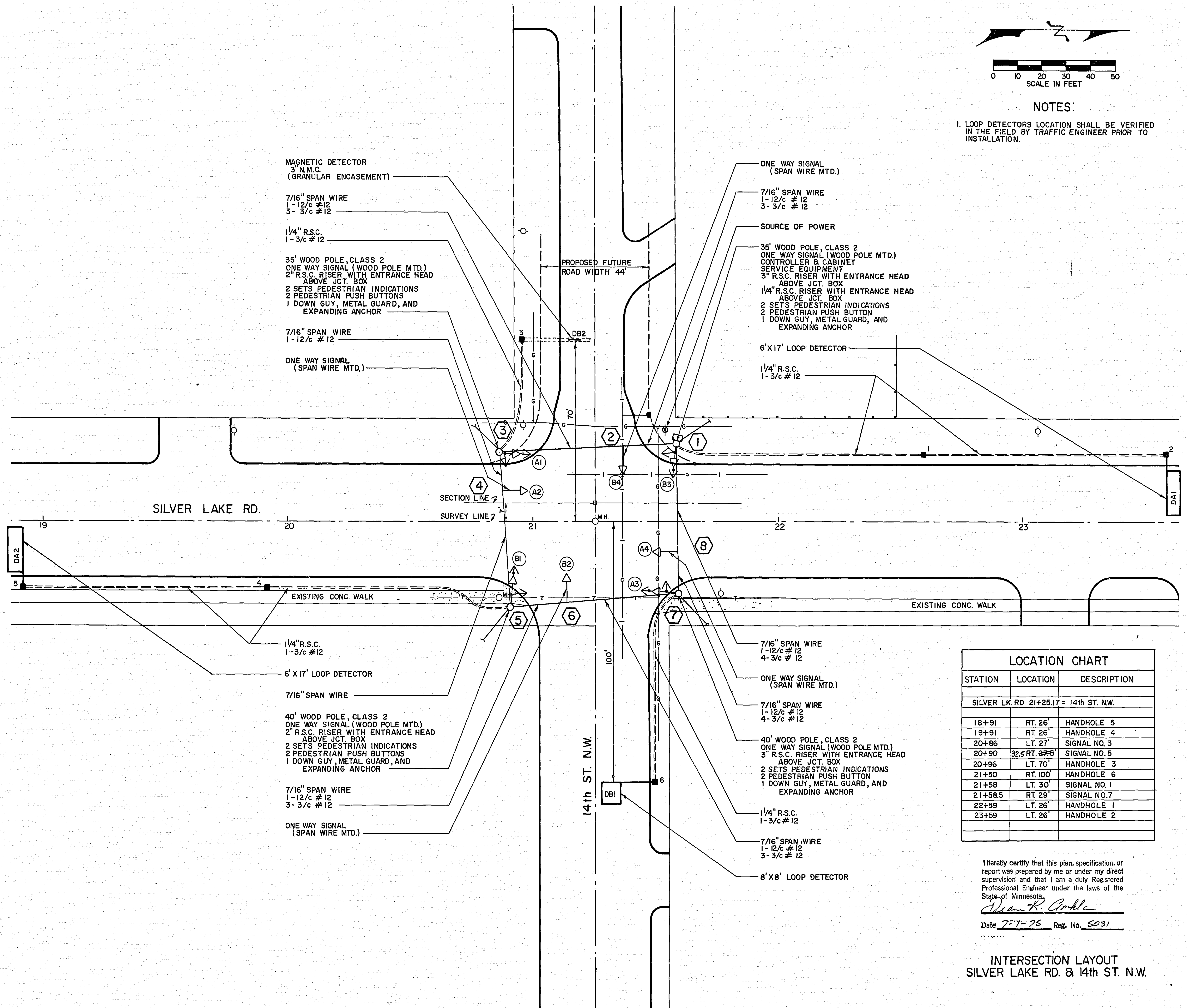
STATEMENT OF ESTIMATED QUANTITIES

PROJECT NO.	ITEM NO.	ITEM	UNIT	QUANT.
C.P. 1975-44-S	0565.615	TEMPORARY TRAFFIC ACTUATED SIGNAL SYSTEM	SYSTEM	1

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.

John R. Apple
 Date 7-1-75 Reg. No. 5031

SIGNAL BASE No.		(5)	(A2)
SIGNAL FACE No.			
CONTROLLER AND CABINET			[Symbol]
CONTROLLER AND CABINET-INPLACE			[Symbol]
HANDHOLE			[Symbol]
HANDHOLE - INPLACE			[Symbol]
RIGID STEEL CONDUIT (R.S.C.)			[Symbol]
RIGID STEEL CONDUIT (R.S.C.)-INPLACE			[Symbol]
SIGNAL FACE			[Symbol]
SIGNAL FACE WITH BACKGROUND SHIELD			[Symbol]
SIGNAL FACE - INPLACE			[Symbol]
PEDESTRIAN INDICATIONS			[Symbol]
PEDESTRIAN INDICATIONS -INPLACE			[Symbol]
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE			[Symbol]
PEDESTRIAN PUSH BUTTON STATION			[Symbol]
TRAFFIC SIGNAL PEDESTAL			[Symbol]
TRAFFIC SIGNAL PEDESTAL -INPLACE			[Symbol]
TRAFFIC SIGNAL POLE AND MAST ARM			[Symbol]
TRAFFIC SIGNAL POLE AND MAST ARM -INPLACE			[Symbol]
MAST ARM AND LUMINAIRE			[Symbol]
MAST ARM AND LUMINAIRE -INPLACE			[Symbol]
WOOD POLE			[Symbol]
WOOD POLE -INPLACE			[Symbol]
SOURCE OF POWER			[Symbol]

[illegible]

NOTES:

I. LOOP DETECTORS LOCATION SHALL BE VERIFIED IN THE FIELD BY TRAFFIC ENGINEER PRIOR TO INSTALLATION.

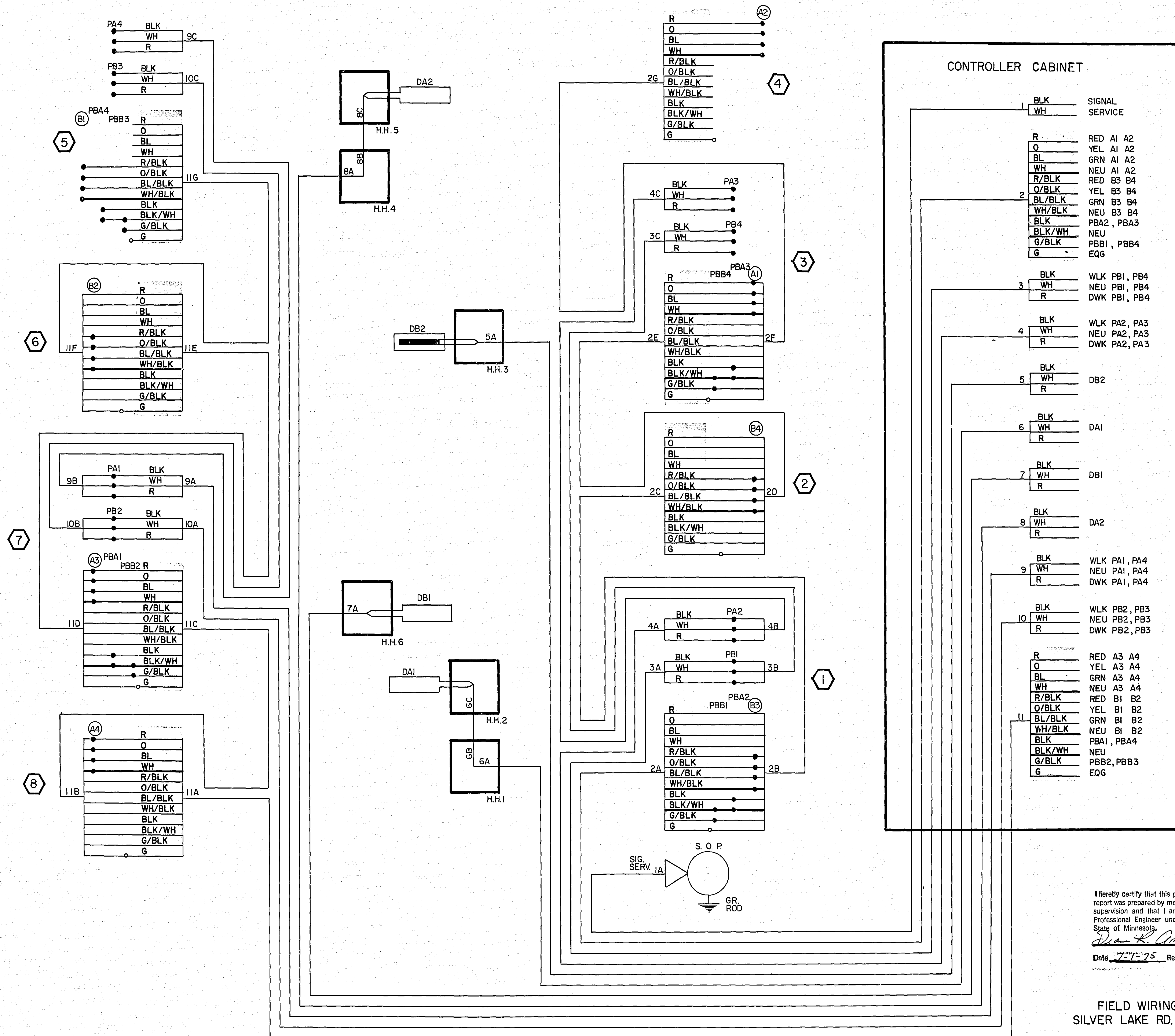
LOCATION CHART		
STATION	LOCATION	DESCRIPTION
SILVER LK RD 21+25.17 = 14th ST. NW.		
18+91	RT. 26'	HANDHOLE 5
19+91	RT. 26'	HANDHOLE 4
20+86	LT. 27'	SIGNAL NO. 3
20+90	32.5 RT. 27.5'	SIGNAL NO. 5
20+96	LT. 70'	HANDHOLE 3
21+50	RT. 100'	HANDHOLE 6
21+58	LT. 30'	SIGNAL NO. 1
21+58.5	RT. 29'	SIGNAL NO. 7
22+59	LT. 26'	HANDHOLE 1
23+59	LT. 26'	HANDHOLE 2

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 7-7-75 Reg. No. 5031

INTERSECTION LAYOUT
SILVER LAKE RD. & 14th ST. N.W.

MICROFILMED
ANSEY CO. ENGR.



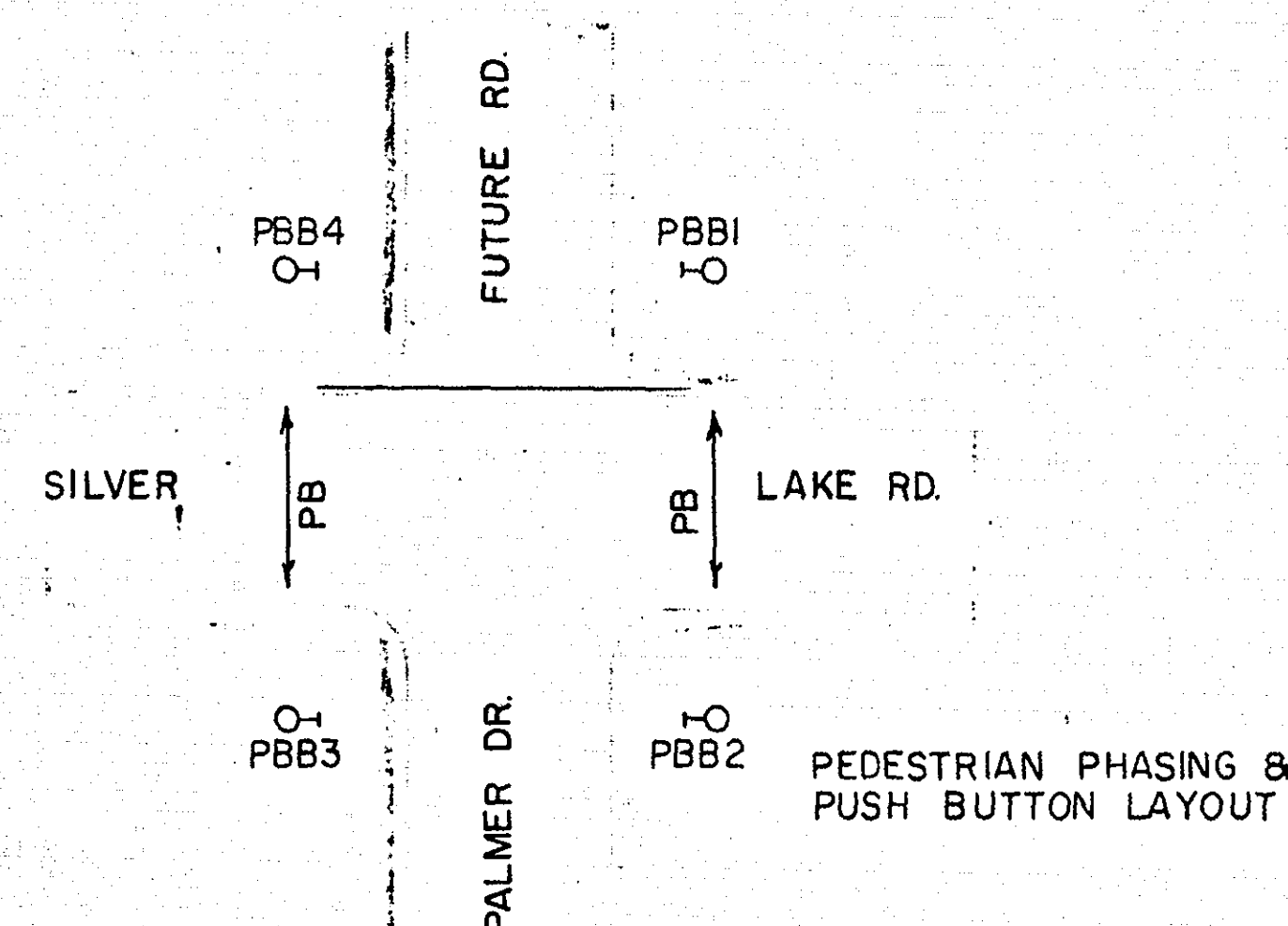
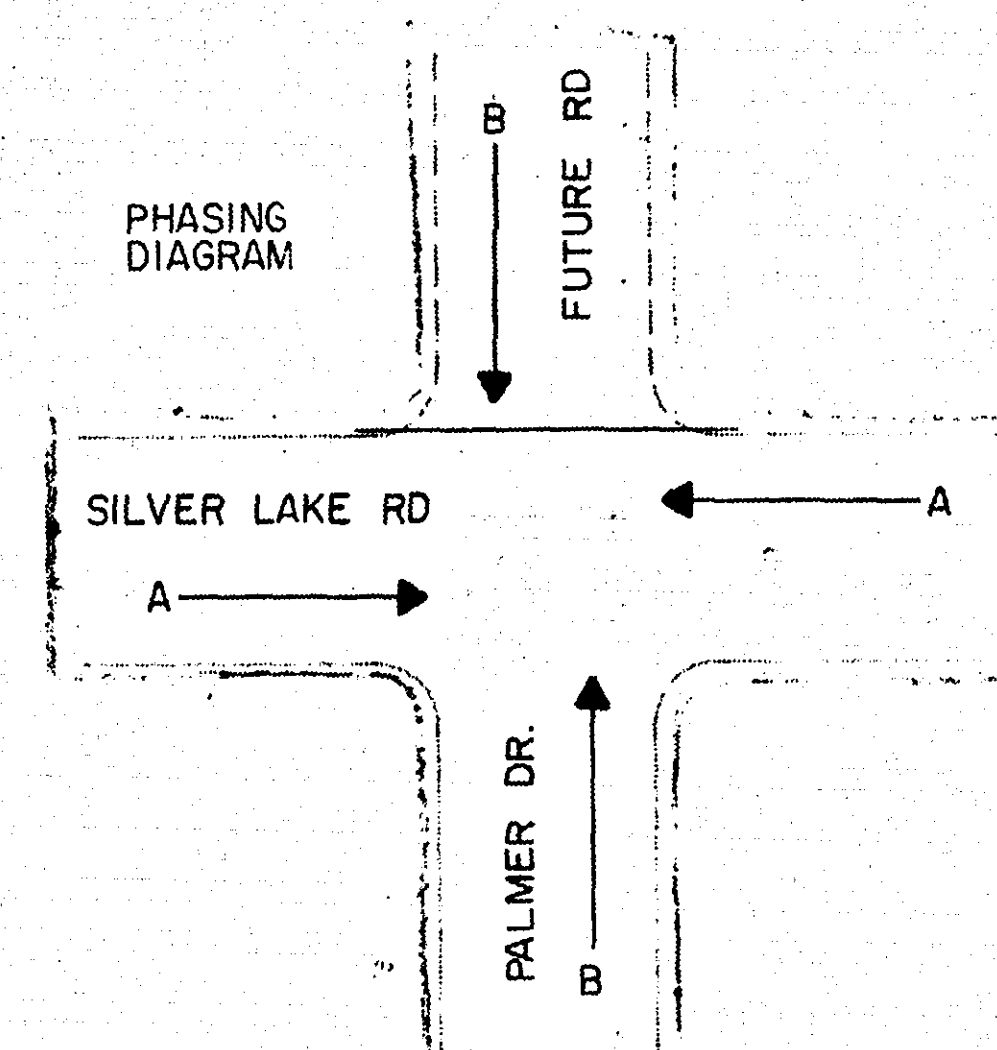
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Dean R. Ambler
Date 7-7-75 Reg. No. 5031

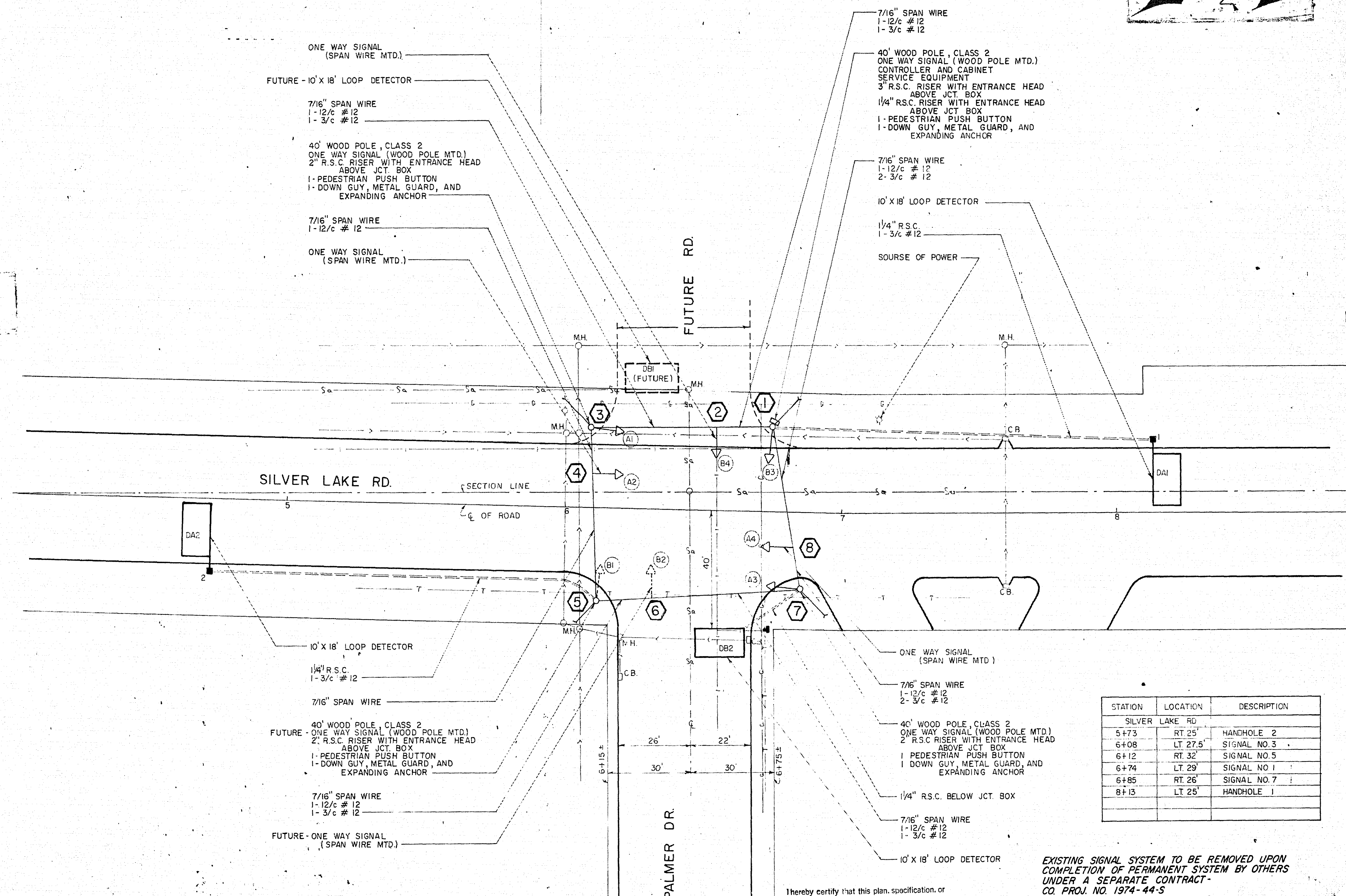
FIELD WIRING DIAGRAM
SILVER LAKE RD. & 14th ST. NW

MICROFILMED
RAMSEY CO. ENGR.

LEGEND OF SYMBOLS	
	CONTROLLER
	HANDHOLE (PULLBOX)
	RIGID STEEL CONDUIT (R.S.C.)
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD
	WOOD POLE
	PEDESTRIAN INDICATION
	SOURCE OF POWER (S.O.P)
	FUTURE SIGNAL FACE

[illegible]

* FUTURE SIGNAL FACE - PROVIDE WIRE FOR SIGNAL FACES AS SHOWN IN FIELD WIRING DIAGRAM



I hereby certify that this plan, specification, 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 7-1-75 Reg. No. 5031

EXISTING SIGNAL SYSTEM TO BE REMOVED UPON
COMPLETION OF PERMANENT SYSTEM BY OTHERS
UNDER A SEPARATE CONTRACT-
CO. PROJ. NO. 1974-44-S
EXCEPTION - HANDHOLES 1 AND 2

USE ALL SALVAGED EQUIPMENT FROM EXISTING
TEMPORARY SIGNAL AT SILVER LK. RD. & PALMER DR.
FOR THE CONSTRUCTION OF SIGNAL SYSTEM AT
SILVER LK. RD. & 14th ST. NW.
CO. PROJ. NO. 1975-44-S.

THIS SHEET FOR INFORMATION ONLY

MICROFILMED
RAMSEY CO. ENGR

18" MAX BETWEEN CABLE HANGERS
LACING MAY BE USED IN LIEU OF HANGERS

7/16" SIEMENS MARTIN GRADE SPAN WIRE

CONTROL CABLE AS SHOWN
IN PLAN

3/8" SIEMENS MARTIN GRADE SPAN WIRE

SIGNAL HEADS AS SHOWN
IN PLAN

7/16" MAX
6 TO MAX

#6 SERVICE
WIRES

ENTRANCE HEAD

GROUND WIRE
& CLAMPS

RIGID METALLIC
CONDUIT RISERS

SIGNAL HEADS AS
SHOWN IN PLAN

1/2" RIGID SEALTITE
CONDUIT & FITTINGS

JUNCTION
BOX

DISCONNECT SWITCH

METER BASE

CONTROLLER

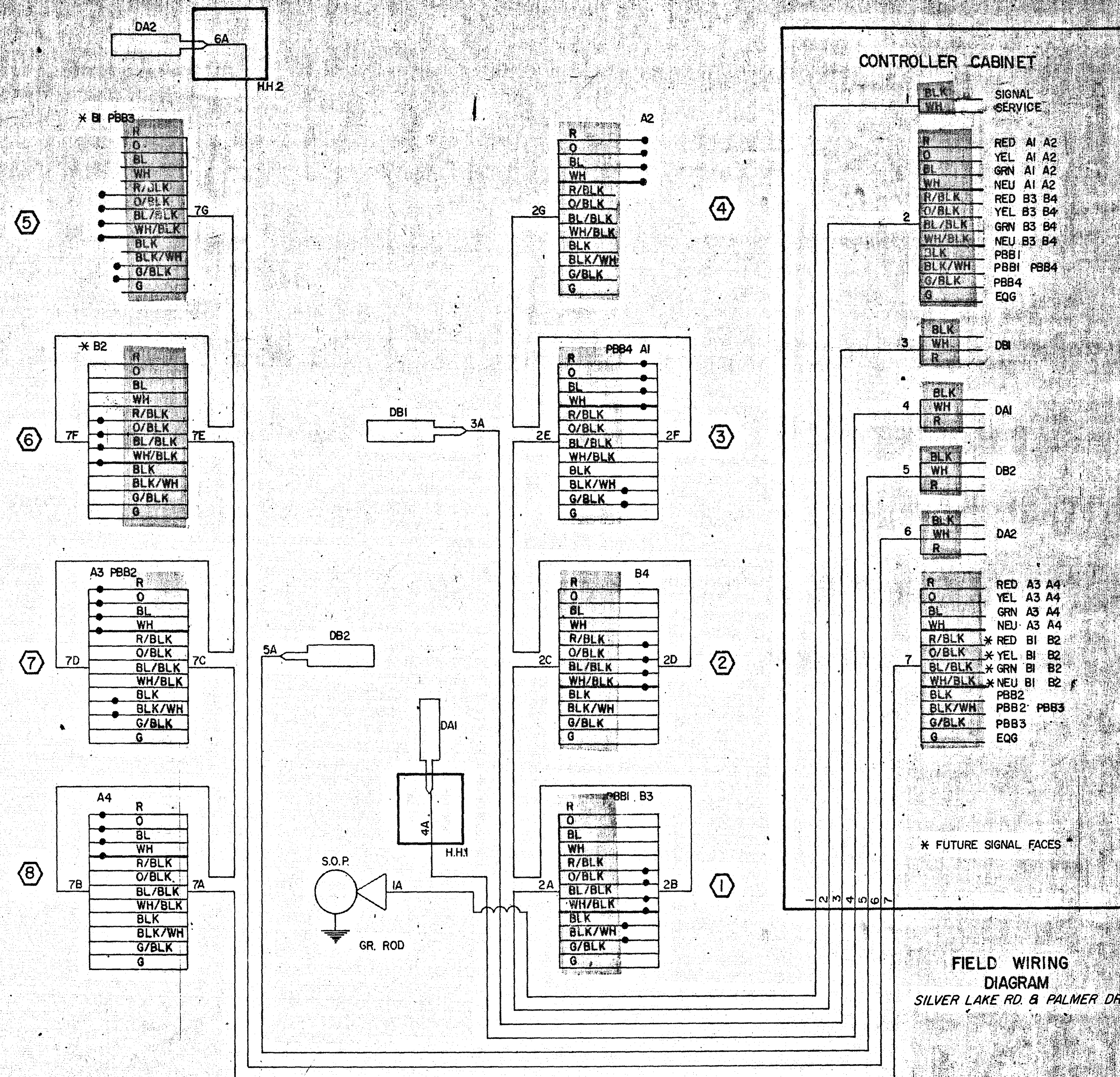
JUNCTION BOX

HANDHOLE

RSC

GROUND ROD

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



FIELD WIRING
DIAGRAM
SILVER LAKE RD. & PALMER DR

* STATE OF MINNESOTA, DEPT. OF HIGHWAYS
STANDARD PLATES MANUAL 5-296

THIS SHEET FOR INFORMATION ONLY

MICROFILMED
RAMSEY CO. ENGR

SHEET NO. 6 OF 6 SHEETS

23-100