

PLANS SYMBOLS

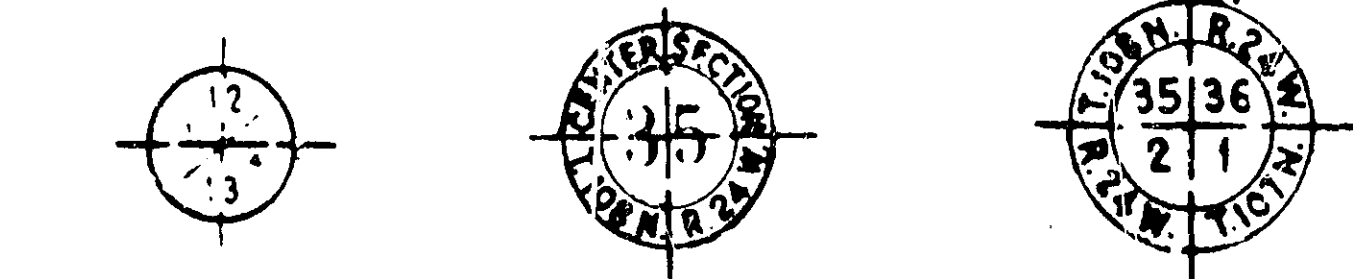
STATE LINE	----
COUNTY LINE	----
TOWNSHIP OR RANGE LINE	----
SECTION LINE	----
QUARTER LINE	----
SIXTEENTH LINE	----
RIGHT OF WAY LINE	----
PRESENT RIGHT OF WAY LINE	----
CONTROL OF ACCESS LINE	----
PROPERTY LINE (Except Land Lines)	----
VACATED PLATTED PROPERTY	----
CORPORATE OR CITY LIMITS	----
TRUNK HIGHWAY CENTER LINE	----
RETAINING WALL	----
RAILROAD	----
RAILROAD RIGHT OF WAY LINE	----
RIVER OR CREEK	----
DRY RUN	----
DRAINAGE DITCH	----
DRAIN TILE	----
CULVERT	----
DRAIN 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	----

SPRINGS	----
MARSH	----
TIMBER	----
ORCHARD	----
BRUSH	----
NURSERY	----
CATCH BASIN	----
FIRE HYDRANT	----
CATTLE GUARD	----
OVERPASS (Highway Over)	----
UNDERPASS (Highway Under)	----
BRIDGE	----
BUILDING (One Story Frame)	----
F FRAME	----
S STONE	----
T TILE	----
ST BRICK	----
ST STUCCO	----
IRON PIPE OR ROD	----
MONUMENT (STONE, CONCRETE, OR METAL)	----
WOODEN HUB	----
GRAVEL PIT	----
SAND PIT	----
BORROW PIT	----
ROCK QUARRY	----

UTILITIES SYMBOLS

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

CONDUIT	----
TELEPHONE CABLE IN CONDUIT	----
ELECTRIC CABLE IN CONDUIT	----
TELEPHONE MANHOLE	----
ELECTRIC MANHOLE	----
BURIED TELEPHONE CABLE	----
BURIED ELECTRIC CABLE	----
AERIAL TELEPHONE CABLE	----
SEWER, (SANITARY OR STORM)	----
SEWER MANHOLE	----

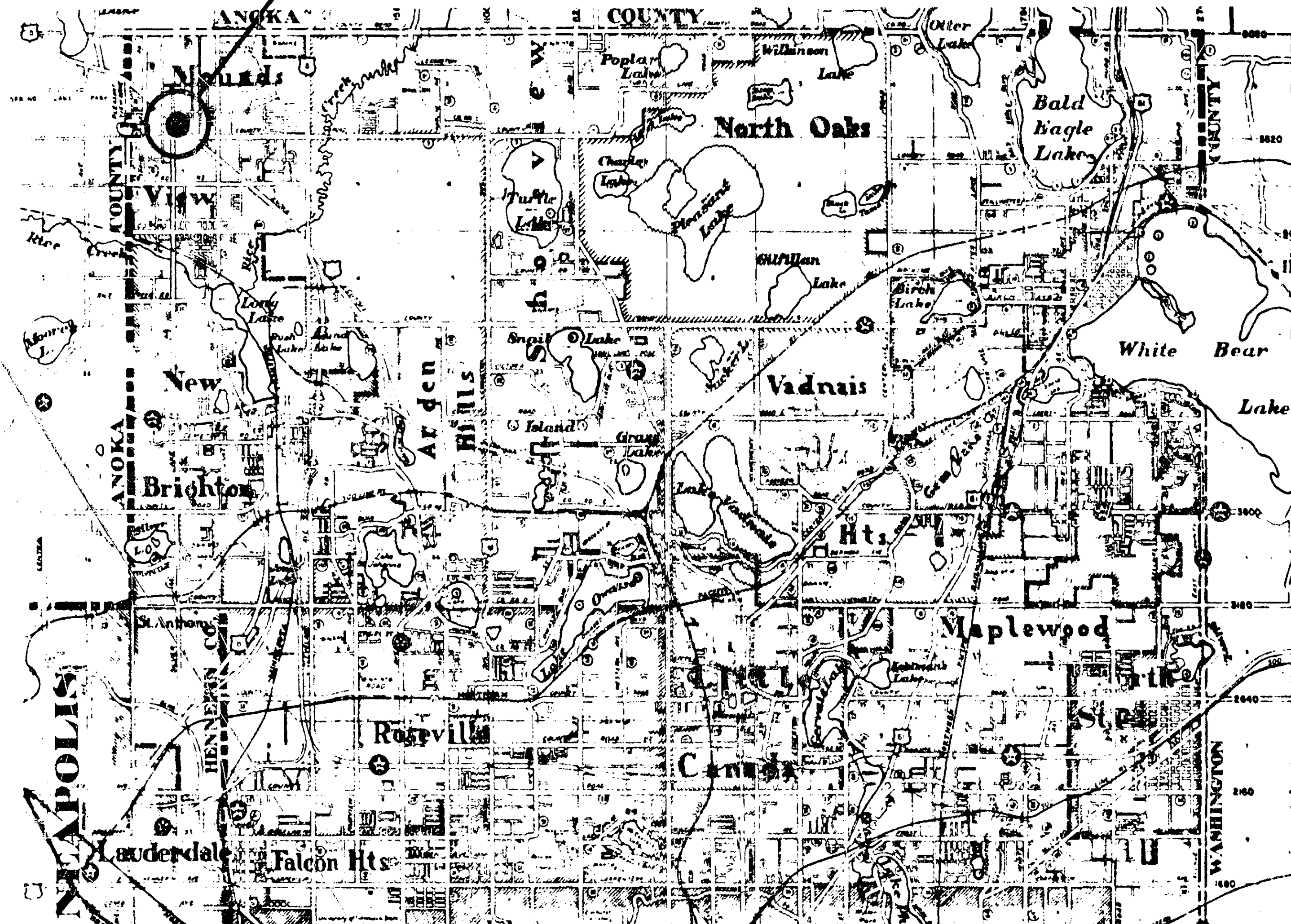


PIT DATA

PIT NO. _____ Located in _____
 PIT NO. _____ Located in _____

SPECIFICATIONS

THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1964 AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS" DATED FEBRUARY 1, 1966 SHALL GOVERN.



CITY OF ST. PAUL

OFFICE OF COUNTY ENGINEER

RAMSEY COUNTY

PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTION OF

SILVER LAKE ROAD (C.S.A.H.) AND T.H. 10-62

COUNTY PROJECT NO. 67-44

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	FIELD WIRING DIAGRAM
4	INTERSECTION LAYOUT

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.

Berry C. Plank
 Date 11/6/67 Reg. No. 6958

DIRECTOR OF SAFETY DATE

RECOMMENDED FOR APPROVAL COUNTY ENGINEER DATE

APPROVED *Thomas R. Byrne* DATE 11-6-67
 CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED DATE

APPROVED DATE

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL DATE 11-12-67
 TRAFFIC ENGINEER

RECOMMENDED FOR APPROVAL DATE
 DISTRICT ENGINEER

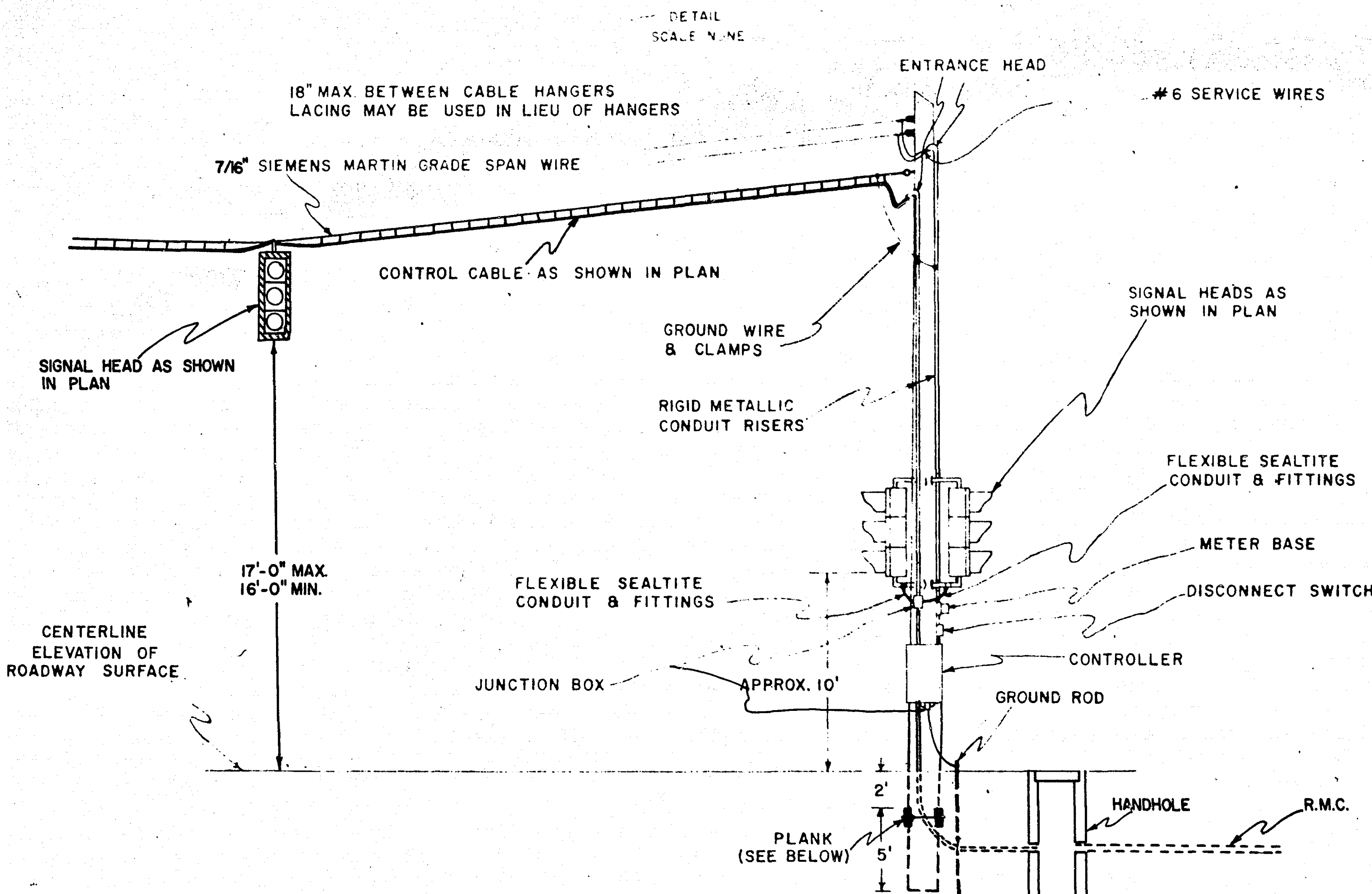
APPROVAL *R. B. Brown* DATE 11/13/67
 ASST. DIRECTOR OF OPERATIONS

CO. PROJ. 67-44

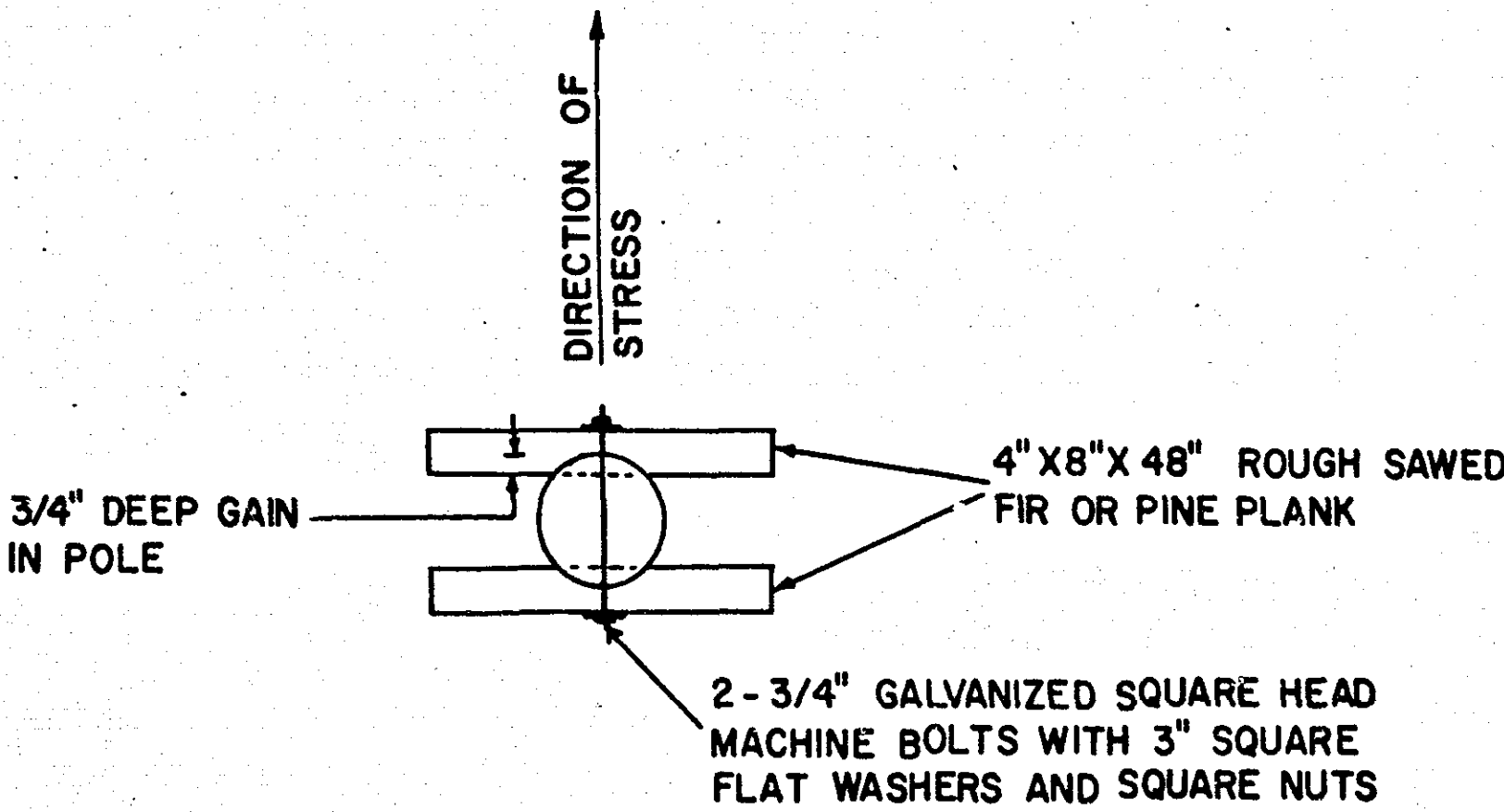
Sheet No. 1 of 4 Sheets

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 RAMSEY CO. ENG.

TYPICAL WOOD POLE TRAFFIC SIGNAL



TEMPORARY WOOD POLE
BEARING PLATE DETAIL



STANDARD PLATES *	
PLATE NO	DESCRIPTION
8117A	PRECAST CONCRETE HANDHOLE
8118A	SERVICE EQUIPMENT & POLE TRAFFIC CONTROL SIGNALS
8113A	MAGNETIC VEHICLE DETECTOR INSTALLATION

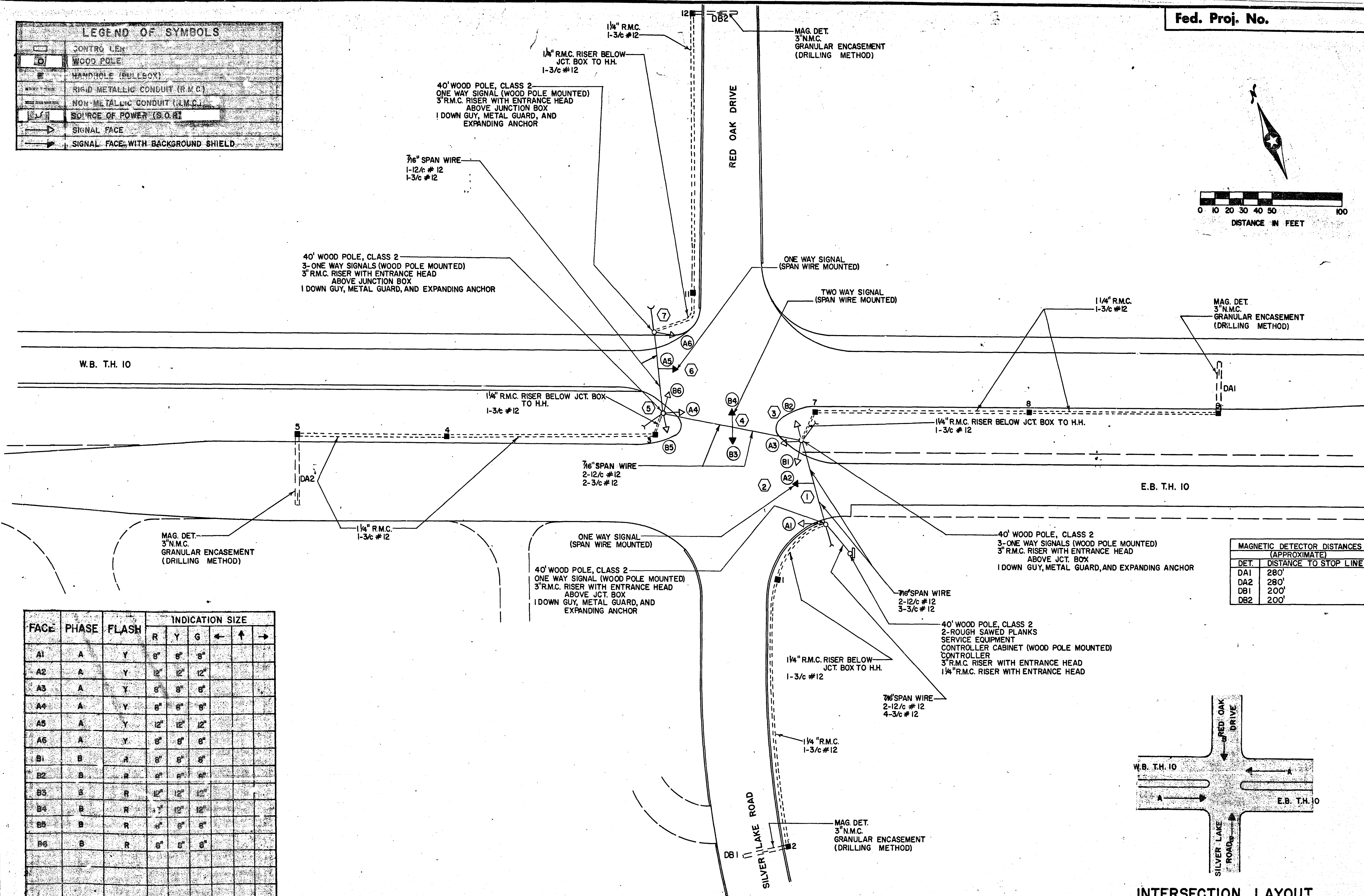
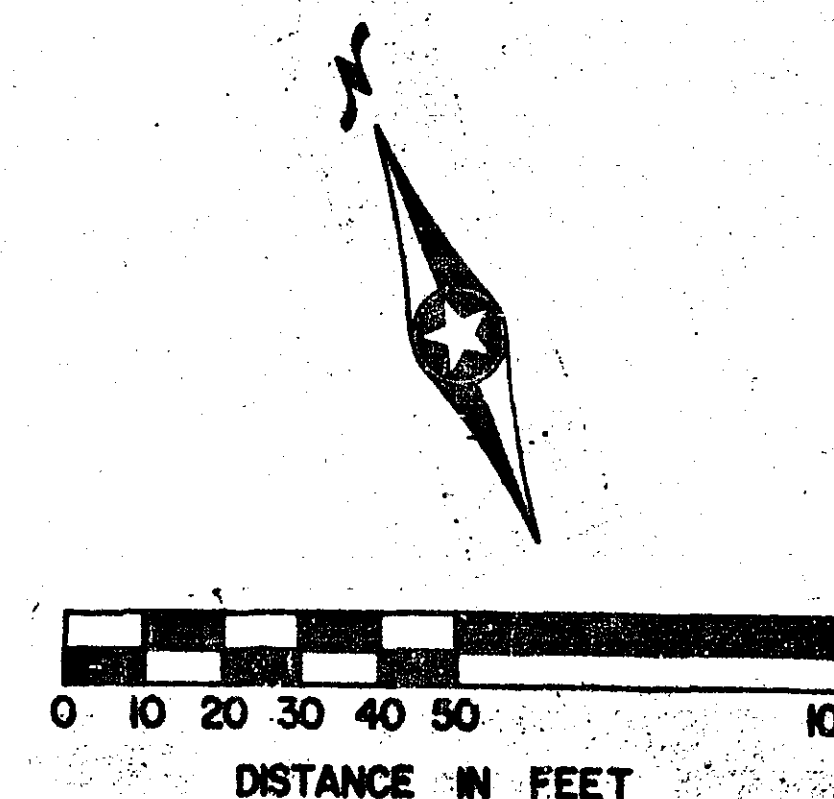
* STATE OF MINNESOTA, DEPT. OF HIGHWAYS
STANDARD PLATES MANUAL 5-296

1. THE STATE WILL FURNISH THE FOLLOWING EQUIPMENT:
- 1-804D CONTROLLER
 - 1-CONTROLLER CABINET (WOOD POLE MOUNTED)
 - 8-8" 3-SECTION SIGNAL HEADS FOR WOOD POLE MOUNTING
 - 4-12" 3-SECTION SIGNAL HEADS FOR SPAN WIRE MOUNTING
 - 4-TYPE MK MAGNETIC DETECTOR UNITS
 - 2-TYPE MR 9 MAGNETIC DETECTOR RELAYS AND CONNECTING CABLES
2. THE CONTRACTOR SHALL INSTALL THE ABOVE ITEMS AND SHALL FURNISH AND INSTALL ALL OTHER ITEMS OF MATERIAL, EQUIPMENT, MISCELLANEOUS HARDWARE AND FITTINGS REQUIRED TO COMPLETE THE WORK.
3. THE CONTRACTOR WILL PICK UP THE EQUIPMENT (EXCEPT MK UNITS) AT THE STATE OF MINNESOTA SIGNAL MAINTENANCE UNIT SHOP, FORT SNELLING.
4. THE COUNTY WILL FURNISH THE ELECTRICAL POWER TO THE CONTROLLER.
5. ALL MULTIPLE CONDUCTOR CONTROL CABLE USED ON THIS PROJECT SHALL BE I.P.C.E.A. CT-B.

DETAILS

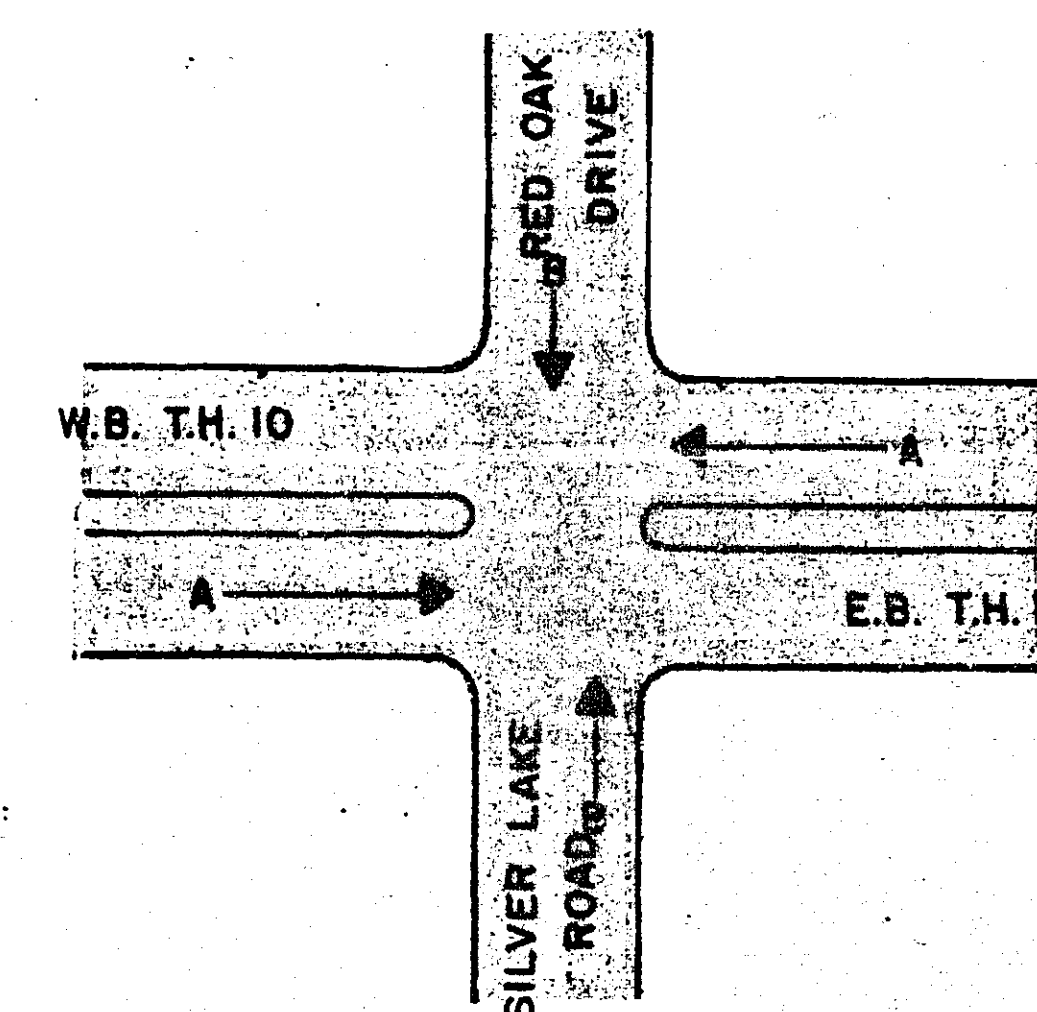
T.H.10 AT SILVER LAKE RD.

LEGEND OF SYMBOLS	
	CONTROL LINE
	WOOD POLE
	HANDHOLE (BULB)
	RIGID METALLIC CONDUIT (R.M.C.)
	NON-METALLIC CONDUIT (N.M.C.)
	SOURCE OF POWER (S.O.P.)
	SIGNAL FACE
	SIGNAL FACE WITH BACKGROUND SHIELD



MAGNETIC DETECTOR DISTANCES (APPROXIMATE)	
DET.	DISTANCE TO STOP LINE
DA1	280'
DA2	280'
DB1	200'
DB2	200'

FACE	PHASE	FLASH	INDICATION SIZE			←	↑	→
			R	Y	G			
A1	A	Y	8"	8"	8"			
A2	A	Y	12"	12"	12"			
A3	A	Y	8"	8"	8"			
A4	A	Y	8"	8"	8"			
A5	A	Y	12"	12"	12"			
A6	A	Y	8"	8"	8"			
B1	B	R	8"	8"	8"			
B2	B	R	8"	8"	8"			
B3	B	R	12"	12"	12"			
B4	B	R	8"	8"	8"			
B5	B	R	8"	8"	8"			
B6	B	R	8"	8"	8"			



INTERSECTION LAYOUT

T.H. 10 AT SILVER LAKE ROAD

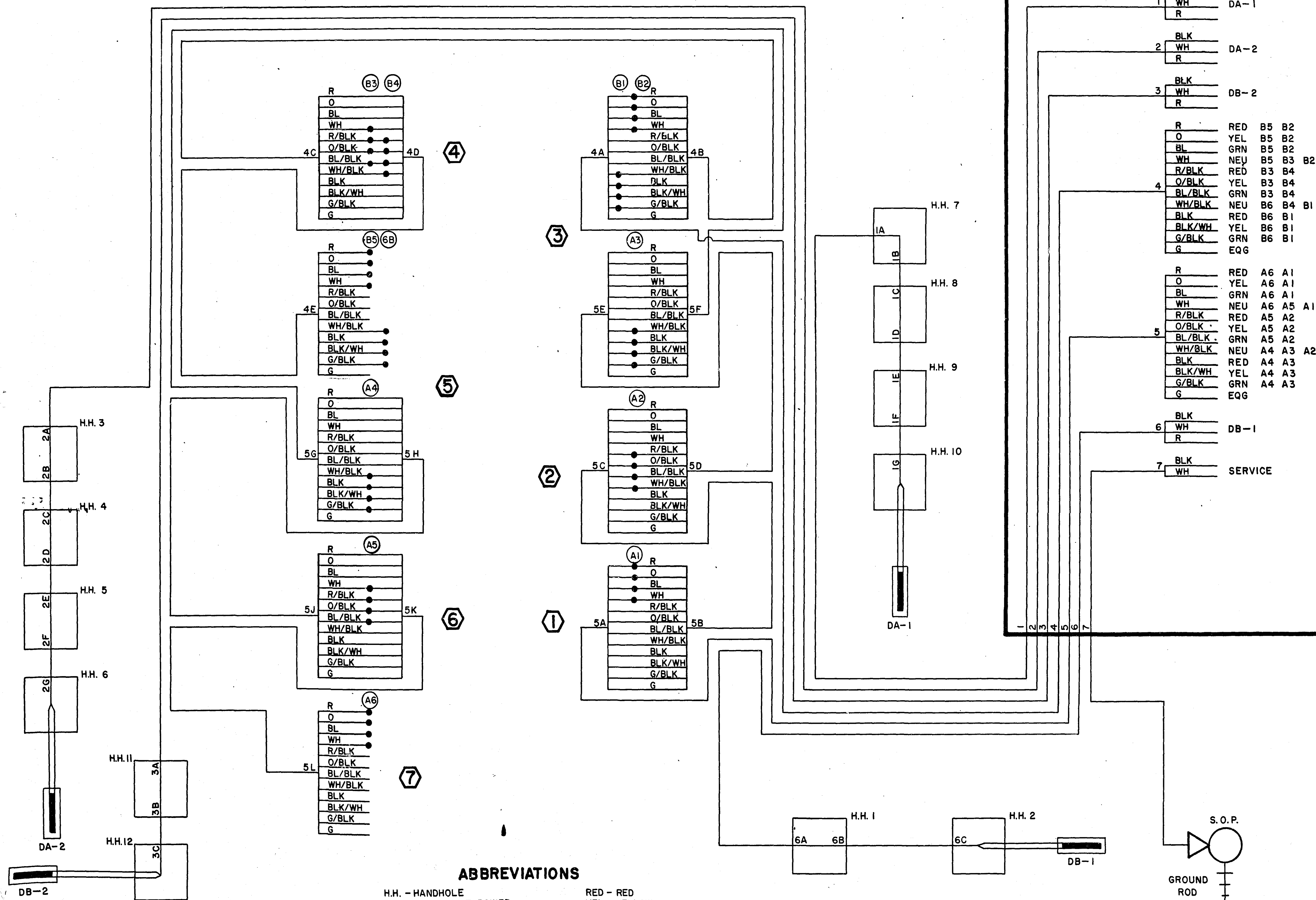
Area Job

CO. PROJ. 67-44

Sheet No. 3 of 4 Sheets

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6204.006



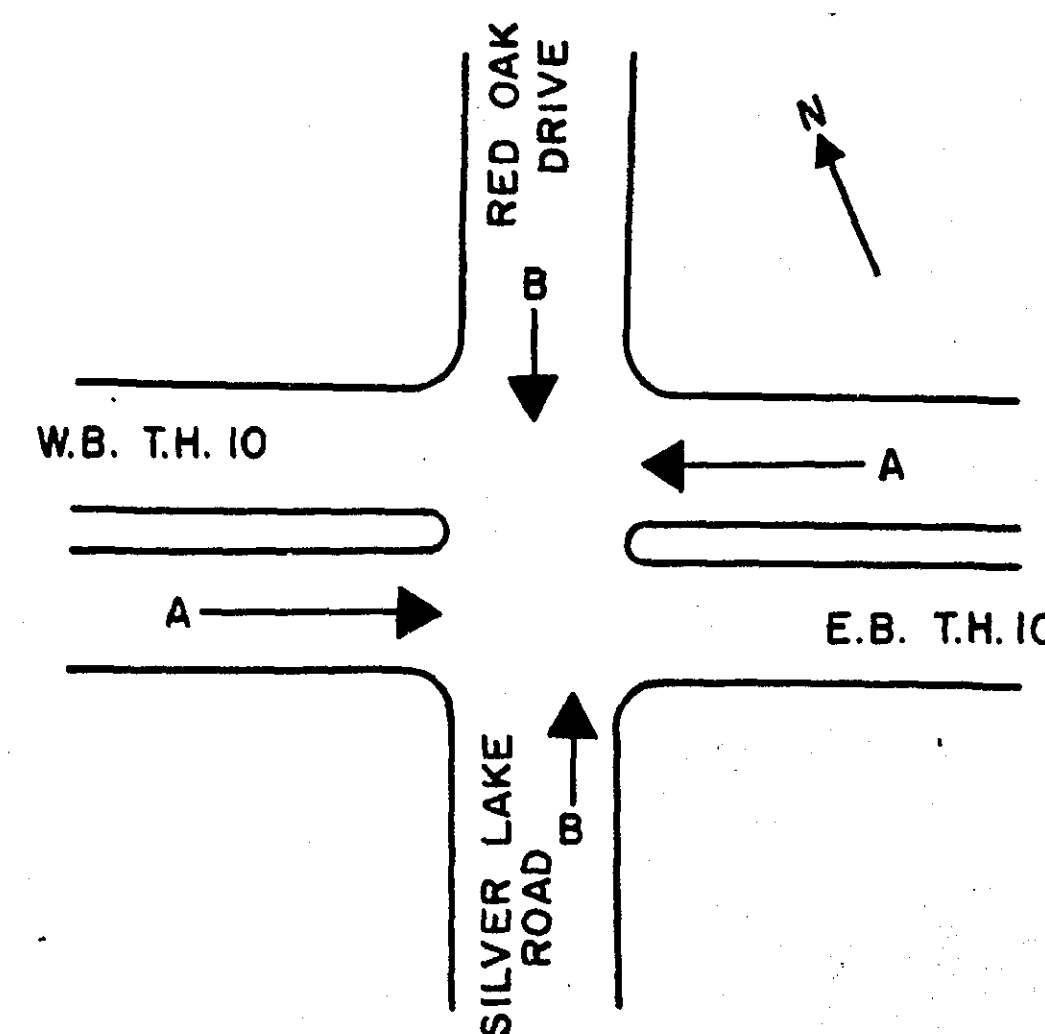
ABBREVIATIONS

H.H. - HANDHOLE
 S.O.P. - SOURCE OF POWER
 E.Q.G. - EQUIPMENT GROUND
 A3 (eg) - SIGNAL HEAD-"A" PHASE
 DA-4 (eg) - DETECTOR-"A" PHASE

RED - RED
 YEL - YELLOW
 GRN - GREEN
 NEU - NEUTRAL

CONTROLLER CABINET

1	BLK	DA-1
2	WH	DA-2
3	R	DB-2
4	BLK	RED B5 B2
5	WH	YEL B5 B2
6	R	GRN B5 B2
7	BLK	NEU B5 B3 B2
8	R/BLK	RED B3 B4
9	O/BLK	YEL B3 B4
10	BL/BLK	GRN B3 B4
11	WH/BLK	NEU B6 B4 B1
12	BLK	RED B6 B1
13	BLK/WH	YEL B6 B1
14	G/BLK	GRN B6 B1
15	G	EQG
16	R	RED A6 A1
17	O	YEL A6 A1
18	BL	GRN A6 A1
19	WH	NEU A6 A5 A1
20	R/BLK	RED A5 A2
21	O/BLK	YEL A5 A2
22	BL/BLK	GRN A5 A2
23	WH/BLK	NEU A4 A3 A2
24	BLK	RED A4 A3
25	BLK/WH	YEL A4 A3
26	G/BLK	GRN A4 A3
27	G	EQG
28	BLK	DB-1
29	WH	DB-1
30	R	SERVICE



FIELD WIRING DIAGRAM

T.H. 10 AT SILVER LAKE ROAD

MICROFILMED
 RAMSEY CO. ENGR.
 17-100
 6876