

STATE OF MINNESOTA  
 DEPARTMENT OF HIGHWAYS  
 CONSTRUCTION PLAN FOR ACTUATED TRAFFIC CONTROL SIGNAL  
**TRUNK HIGHWAY NO. 8 = 63**

**SPECIFICATIONS**

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

T.H. 8 & COUNTY ROAD D

**MINNESOTA PROJECT**

GROSS LENGTH	FEET	MILES
BRIDGES-LENGTH	FEET	MILES
EXCEPTIONS-LENGTH	FEET	MILES
NET LENGTH	FEET	MILES

**STATE PROJECT NO. 6202-034**

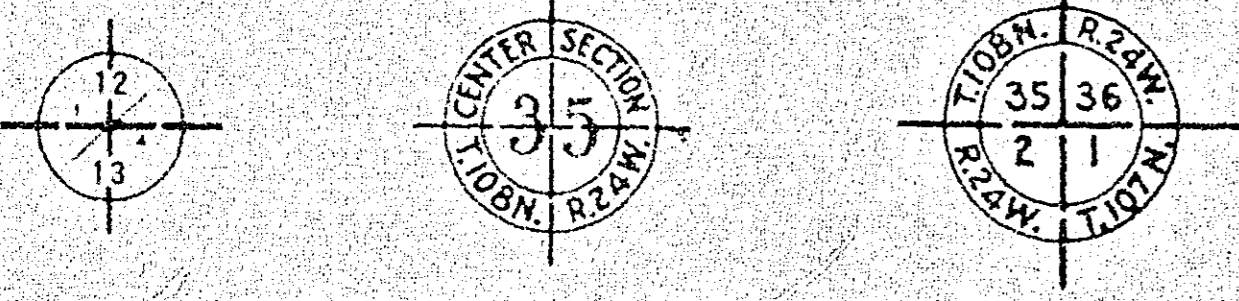
GROSS LENGTH	FEET	MILES
BRIDGES-LENGTH	FEET	MILES
EXCEPTIONS-LENGTH	FEET	MILES
NET LENGTH	FEET	MILES

**INDEX**

- SHEET NO. 1. TITLE  
 2. DETAILS  
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 4. FIELD WIRING DIAGRAM  
 5. INTERSECTION LAYOUT

**CONVENTIONAL SIGNS**

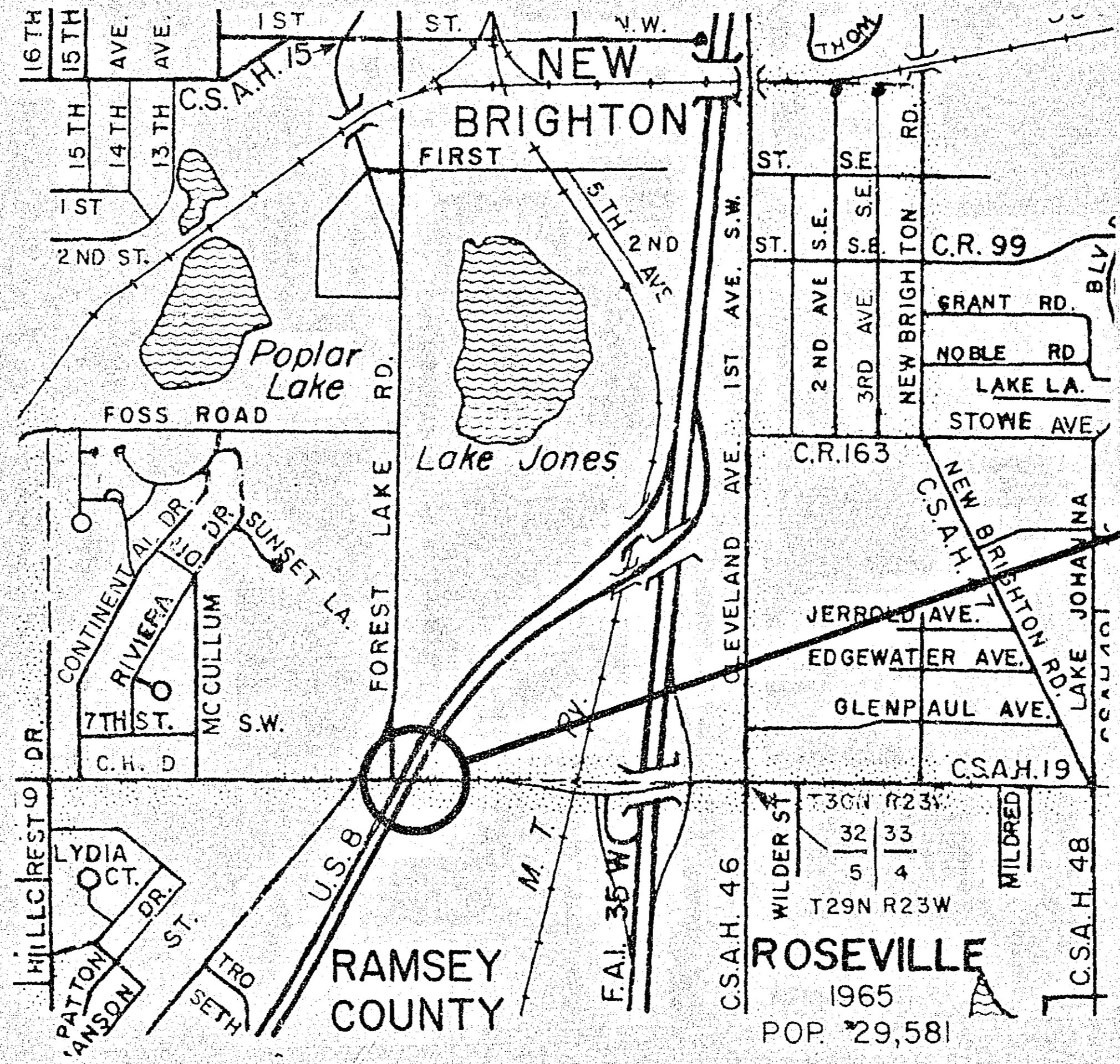
STATE LINE	SPRINGS	CE	MO
COUNTY LINE	MARSH		
TOWNSHIP OR RANGE LINE	WATER		
SECTION LINE	ORCHARD		
QUARTER LINE	BRUSH		
SIXTEENTH LINE	NURSERY		
EIGHTH LINE	CATCH BASIN		
PRESENT RIGHT-OF-WAY LINE	MANHOLE		
CONTROL OF ACCESS LINE	FIRE HYDRANT		
PROPERTY LINE (Except Land Lines)	STREET LIGHT		
VACATED PLATTED PROPERTY	RAILROAD CROSSING SIGN		
CORPORATE OR CITY LIMITS	RAILROAD CROSSING BELL		
TRUNK HIGHWAY CENTER LINE	ELECTRIC WARNING SIGN		
RETAINING WALL	CROSSING GATE		
RAILROAD	CATTLE GUARD		
RAILROAD RIGHT-OF-WAY LINE	OVERPASS (Highway Over)		
RIVER OR CREEK	UNDERPASS (Highway Under)		
DRY RUN	BRIDGE		
DRAINAGE DITCH	BUILDING (One Story Frame)		
ELECTRIC POWER LINE	F. FRAME C. CONCRETE		
TELEPHONE OR TELEGRAPH LINE	S. STONE T. TILE		
JOINT TELEPHONE AND POWER CONDUIT	B. BRICK ST. STUCCO		
TELEPHONE CABLE-AERIAL	IRON PIPE OR ROD		
TELEPHONE CABLE UNDERGROUND	MONUMENT (STONE CONCRETE OR METAL)		
POWER CABLE UNDERGROUND	MURDER HUB		
GAS MAIN	GRAVEL PIT		
CULVERT	SAND PIT		
DROP INLET	BORROW PIT		
GUARD RAIL	ROCK QUARRY		
BARBED WIRE FENCE	MEANDER CORNER		
VIGOR WIRE FENCE			
CHAIN LINK FENCE			
RAILROAD SNOW FENCE			
STONE WALL OR FENCE			
HEDGE			
WATER PIPE			
SEWER PIPE			
DRAIN TILE			



**PIT DATA**

PIT NO.	Located in	
	Dead Haul	
PIT NO.	Located in	
	Dead Haul	
PIT NO.	Located in	
	Dead Haul	
PIT NO.	Located in	
	Dead Haul	

REVISIONS		
DATE	SHEET NO.	REVISED BY



S.P. 6202-034 (T.H. 8=63)

MICRO-FILMED  
 DATE 3-1-74  
 ROLL NUMBER 432  
 ROLL JOB NUMBER 13

Recommended for Approval \_\_\_\_\_  
 ENGINEER OF LANDS & RIGHT OF WAY 19\_\_\_\_  
 Recommended for Approval *F.C. Marshall* 12-14 1966  
 TRAFFIC ENGINEER  
 Recommended for Approval *D.M. Yaden* 12/5 1966  
 DEPUTY DISTRICT ENGINEER  
 Recommended for Approval *Dean R. Ambler* 12/13 1966  
 RAMSEY COUNTY ENGINEER  
 Recommended for Approval \_\_\_\_\_  
 PLANNING RESEARCH ENGINEER 19\_\_\_\_  
 Approved 12/14 1966 *H.P. Brown*  
 ASSISTANT DIRECTOR OF OPERATIONS

**DESIGN DESIGNATION**

ADT (CURRENT YEAR)	=	_____	Design Speed	MPH
ADT (FUTURE YEAR)	=	_____	Based on	Sight Distance
DHV (DESIGN HOUR VOLUME)	=	_____	Height of eye	Height of object
D (DIRECTIONAL DISTRIBUTION)	=	_____%	Design Speed not achieved at:	
T (HEAVY COMMERCIAL)	=	_____%	STA _____ TO STA _____ MPH _____	
			STA _____ TO STA _____ MPH _____	

I HEREBY CERTIFY THAT THIS PLAN 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.  
*Jul O. Ward*  
 DATE Dec 7, 1966 REG. NO. 6957  
 DESIGN SQUARE \_\_\_\_\_

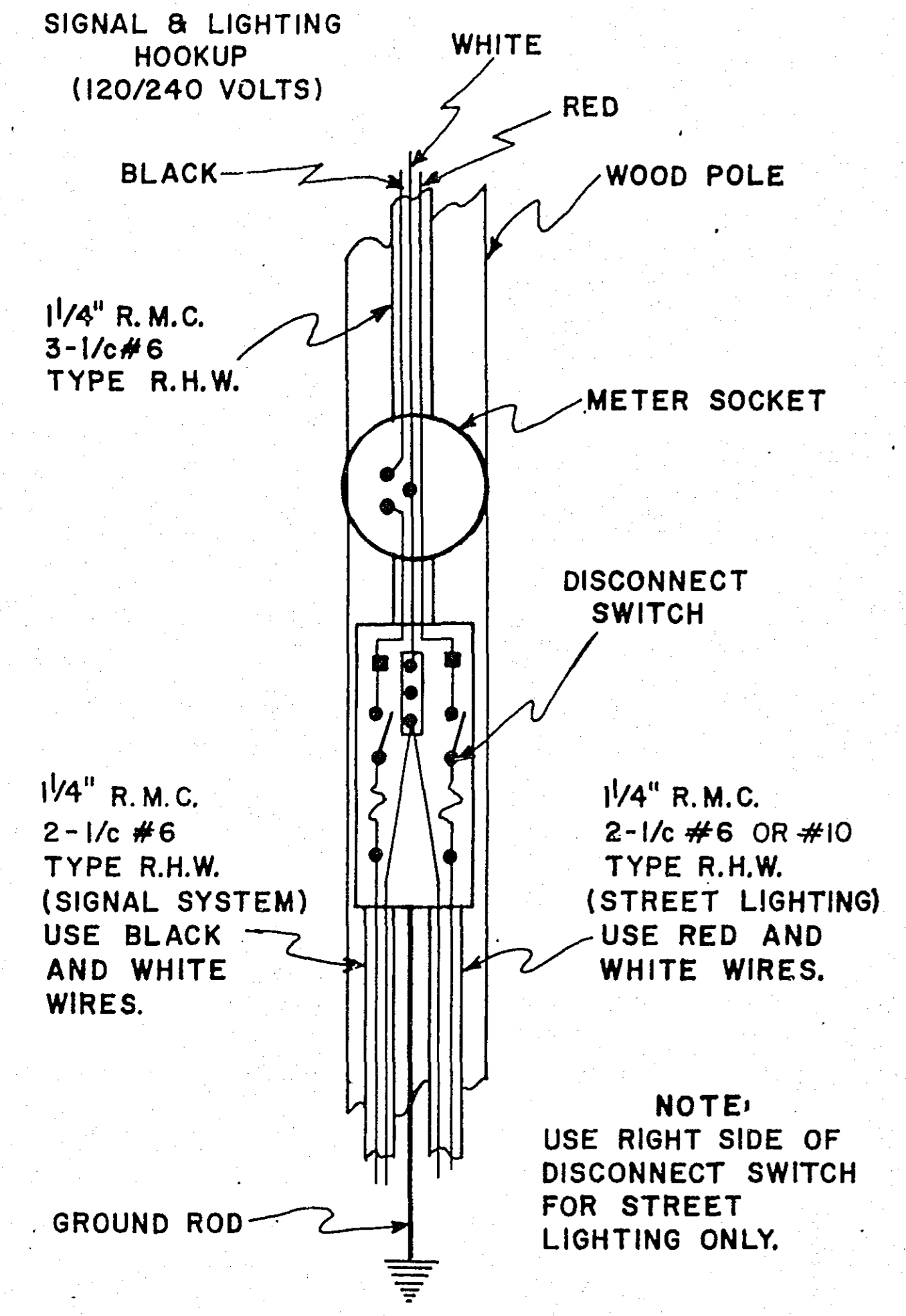
DEPARTMENT OF COMMERCE  
 BUREAU OF PUBLIC ROADS  
 APPROVED: \_\_\_\_\_  
 DIVISION ENGINEER DATE \_\_\_\_\_

**MAST ARM TRAFFIC SIGNAL POLE**

DETAIL  
SCALE NONE

**METER AND DISCONNECT**  
DETAIL

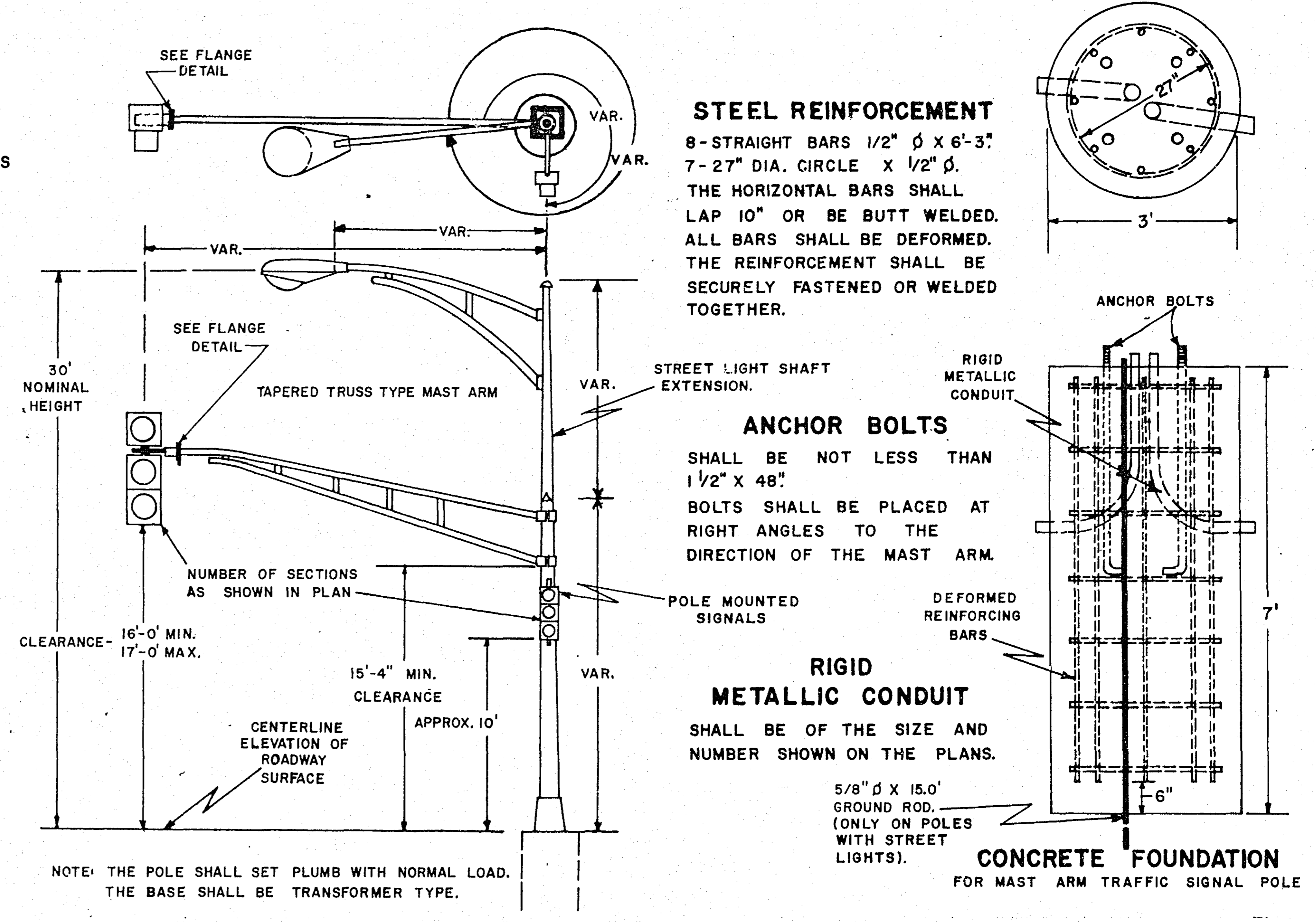
SCALE NONE



NOTE:  
SEE SPECIAL PROVISIONS  
FOR MOUNTING TWO WAY  
MAST ARM SIGNALS.

**NOTES:**

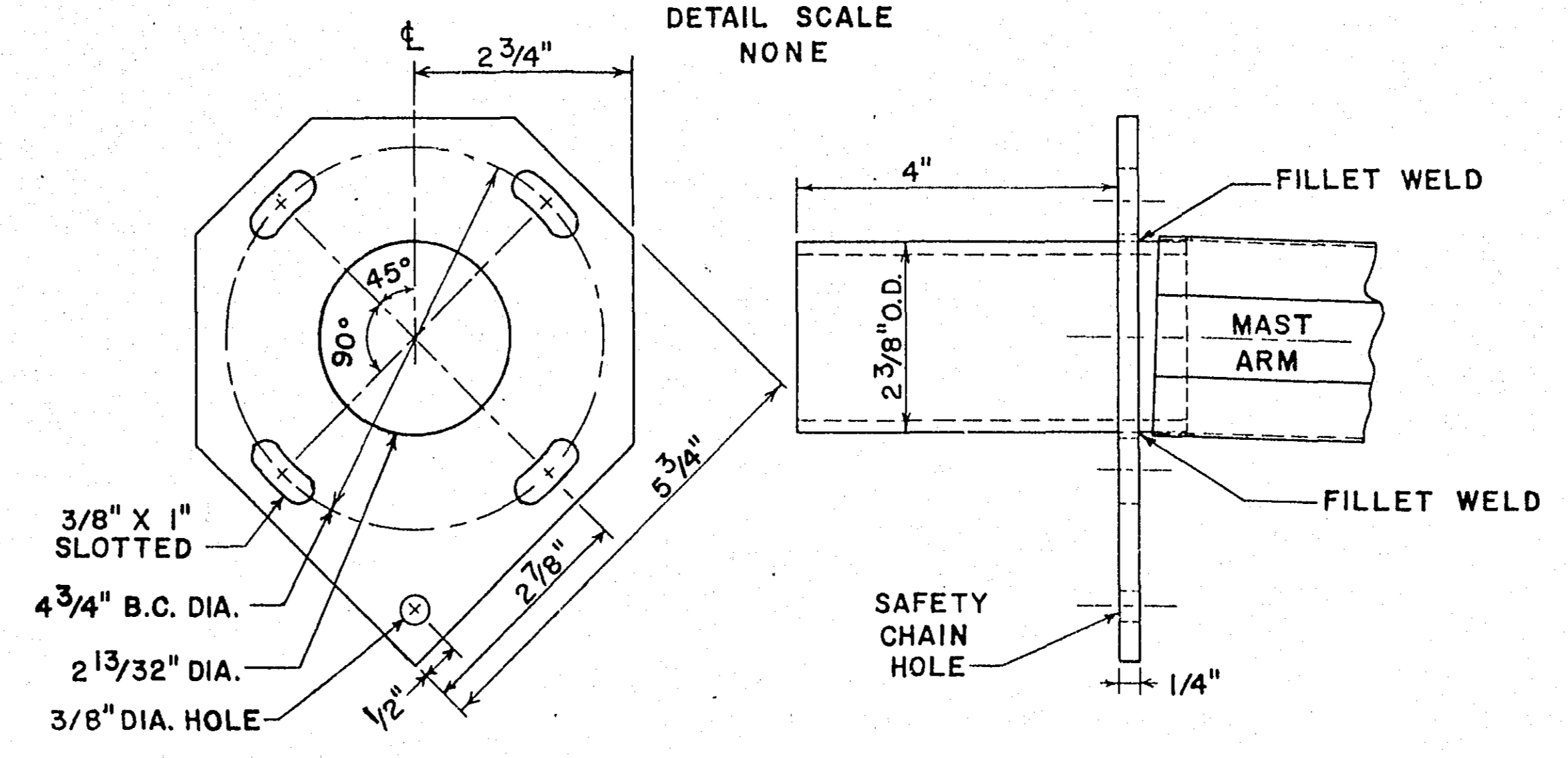
ALL MULTIPLE CONDUCTOR CONTROL CABLE  
USED ON THIS PROJECT SHALL BE I.P.C.E.A. TYPE CT-B.



NOTE: THE POLE SHALL SET PLUMB WITH NORMAL LOAD.  
THE BASE SHALL BE TRANSFORMER TYPE.

**MAST ARM SAFETY CHAIN FLANGE**

DETAIL SCALE  
NONE



NOTE: FLANGE TO BE WELDED TO MAST  
ARM SLIPFITTER 4\"/>

STANDARD DETAIL PLATES	
PLATE NO.	TITLE
8110	SIGNAL ASSEMBLY
8117	PRECAST CONCRETE HANDHOLE (Pullbox)

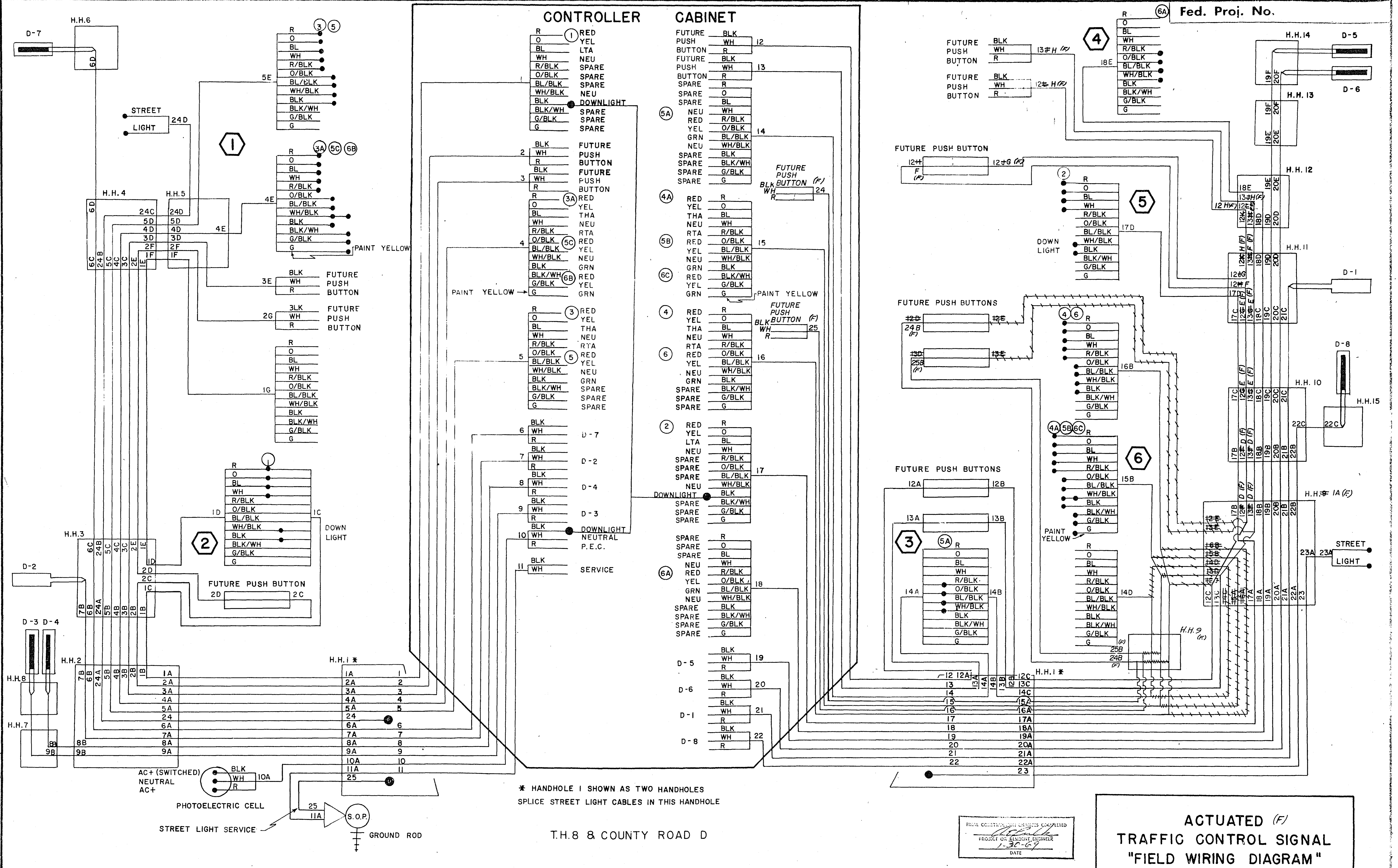
FINAL CONSTRUCTION CHANGES COMPLETED  
PROJECT OR RESIDENT ENGINEER  
DATE

**ACTUATED  
TRAFFIC CONTROL SIGNAL  
"DETAILS"**

**ESTIMATED QUANTITIES**

PROJECT NO.	ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
6202-034	2565.501	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM	SIGNAL SYSTEM	1 ✓





\* HANDHOLE I SHOWN AS TWO HANDHOLES  
 SPLICE STREET LIGHT CABLES IN THIS HANDHOLE

T.H.8 & COUNTY ROAD D

FINAL CONNECTIONS CHECKS COMPLETED  
 PROJECT OR ASSISTANT ENGINEER  
 1-30-67  
 DATE

ACTUATED (F)  
 TRAFFIC CONTROL SIGNAL  
 "FIELD WIRING DIAGRAM"

FACE	PHASE	FLASH	INDICATION SIZE		
			R	Y	G
1	C(P+Cx)	Y	8"	8"	12"
2	Cx	Y	8"	8"	12"
3	C(P-Cx)+A	Y	12"	12"	12"
3A	C(P-Cx)+A	Y	12"	12"	12"
4	A	Y	12"	12"	12"
4A	A	Y	12"	12"	12"
5	B	R	12"	12"	12"
5A	B	R	12"	12"	12"
5B	B	R	12"	12"	12"
5C	B	R	12"	12"	12"
6	B	R	12"	12"	12"
6A	B	R	12"	12"	12"
6B	B	R	12"	12"	12"
6C	B	R	12"	12"	12"

\*-PROVIDE DIRECTIONAL LOUVERS

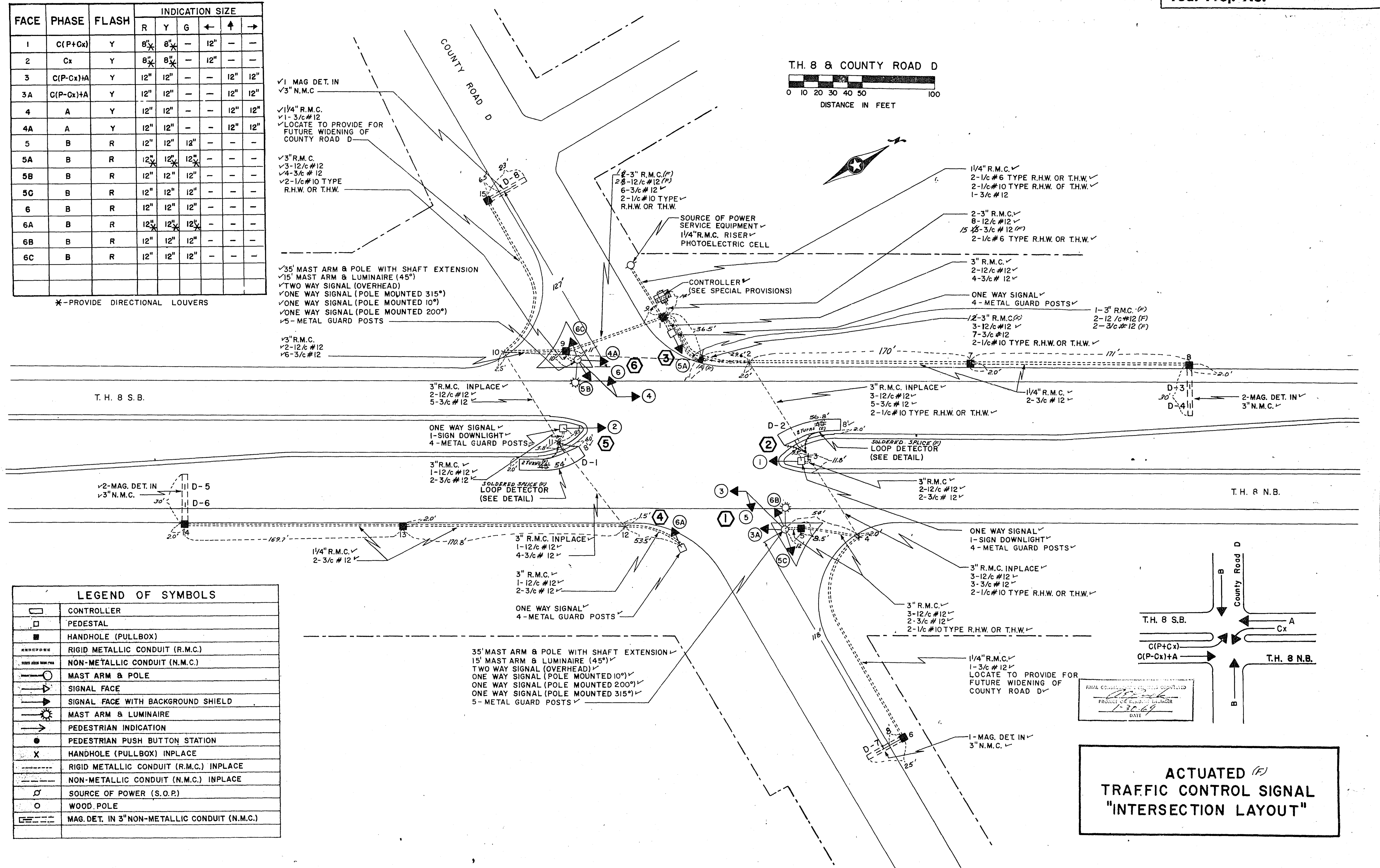
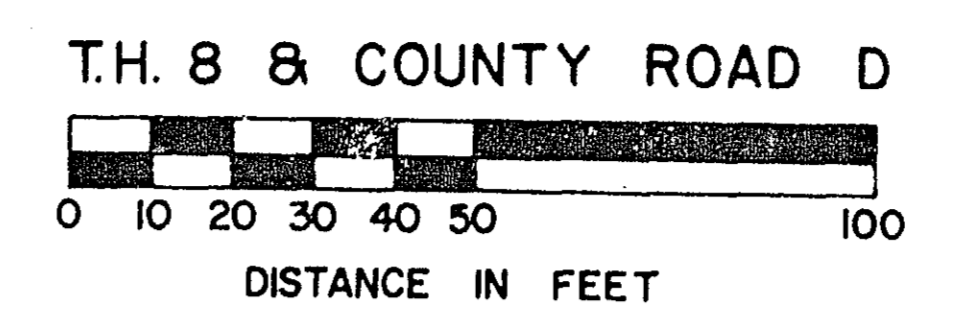
✓1 MAG DET. IN  
✓3" N.M.C.

✓1/4" R.M.C.  
✓1-3/c #12  
✓LOCATE TO PROVIDE FOR FUTURE WIDENING OF COUNTY ROAD D

✓3" R.M.C.  
✓3-12/c #12  
✓4-3/c #12  
✓2-1/c #10 TYPE R.H.W. OR T.H.W.

✓35' MAST ARM & POLE WITH SHAFT EXTENSION  
✓15' MAST ARM & LUMINAIRE (45°)  
✓TWO WAY SIGNAL (OVERHEAD)  
✓ONE WAY SIGNAL (POLE MOUNTED 315°)  
✓ONE WAY SIGNAL (POLE MOUNTED 10°)  
✓ONE WAY SIGNAL (POLE MOUNTED 200°)  
✓5- METAL GUARD POSTS

✓3" R.M.C.  
✓2-12/c #12  
✓6-3/c #12



LEGEND OF SYMBOLS	
[Symbol]	CONTROLLER
[Symbol]	PEDESTAL
[Symbol]	HANDHOLE (PULLBOX)
[Symbol]	RIGID METALLIC CONDUIT (R.M.C.)
[Symbol]	NON-METALLIC CONDUIT (N.M.C.)
[Symbol]	MAST ARM & POLE
[Symbol]	SIGNAL FACE
[Symbol]	SIGNAL FACE WITH BACKGROUND SHIELD
[Symbol]	MAST ARM & LUMINAIRE
[Symbol]	PEDESTRIAN INDICATION
[Symbol]	PEDESTRIAN PUSH BUTTON STATION
[Symbol]	HANDHOLE (PULLBOX) INPLACE
[Symbol]	RIGID METALLIC CONDUIT (R.M.C.) INPLACE
[Symbol]	NON-METALLIC CONDUIT (N.M.C.) INPLACE
[Symbol]	SOURCE OF POWER (S.O.P.)
[Symbol]	WOOD POLE
[Symbol]	MAG. DET. IN 3" NON-METALLIC CONDUIT (N.M.C.)

FINAL CONSTRUCTION SET THIS COMPLETED  
PROJECT OR RESIDENT ENGINEER  
1-30-69  
DATE

ACTUATED (F)  
TRAFFIC CONTROL SIGNAL  
"INTERSECTION LAYOUT"