

PLANS SYMBOLS

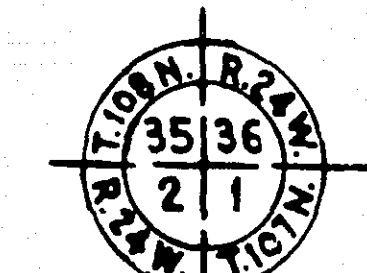
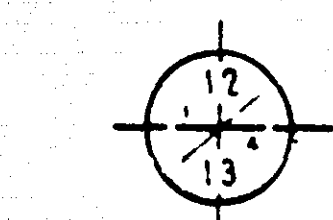
STATE LINE	----
COUNTY LINE	----
TOWNSHIP OR RANGE LINE	----
SECTION LINE	----
QUARTER LINE	----
SIXTEENTH LINE	----
RIGHT OF WAY LINE	----
PRESENT RIGHT OF WAY LINE	----
CONTROL OF ACCESS LINE	----
PROPERTY LINE (Except Land Lines)	----
VACATED PLATTED PROPERTY	----
CORPORATE OR CITY LIMITS	----
TRUNK 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	----

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 C. CONCRETE	----
S. STONE T. TILE	----
B. 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 ON POWER POLES	----
OR TELEPHONE POLES	----
ANCHOR	----
STEEL TOWER	----
STREET LIGHT	----
PEDESTAL (TELEPHONE CABLE TERMINAL)	----
GAS MAIN	----
WATER MAIN	----

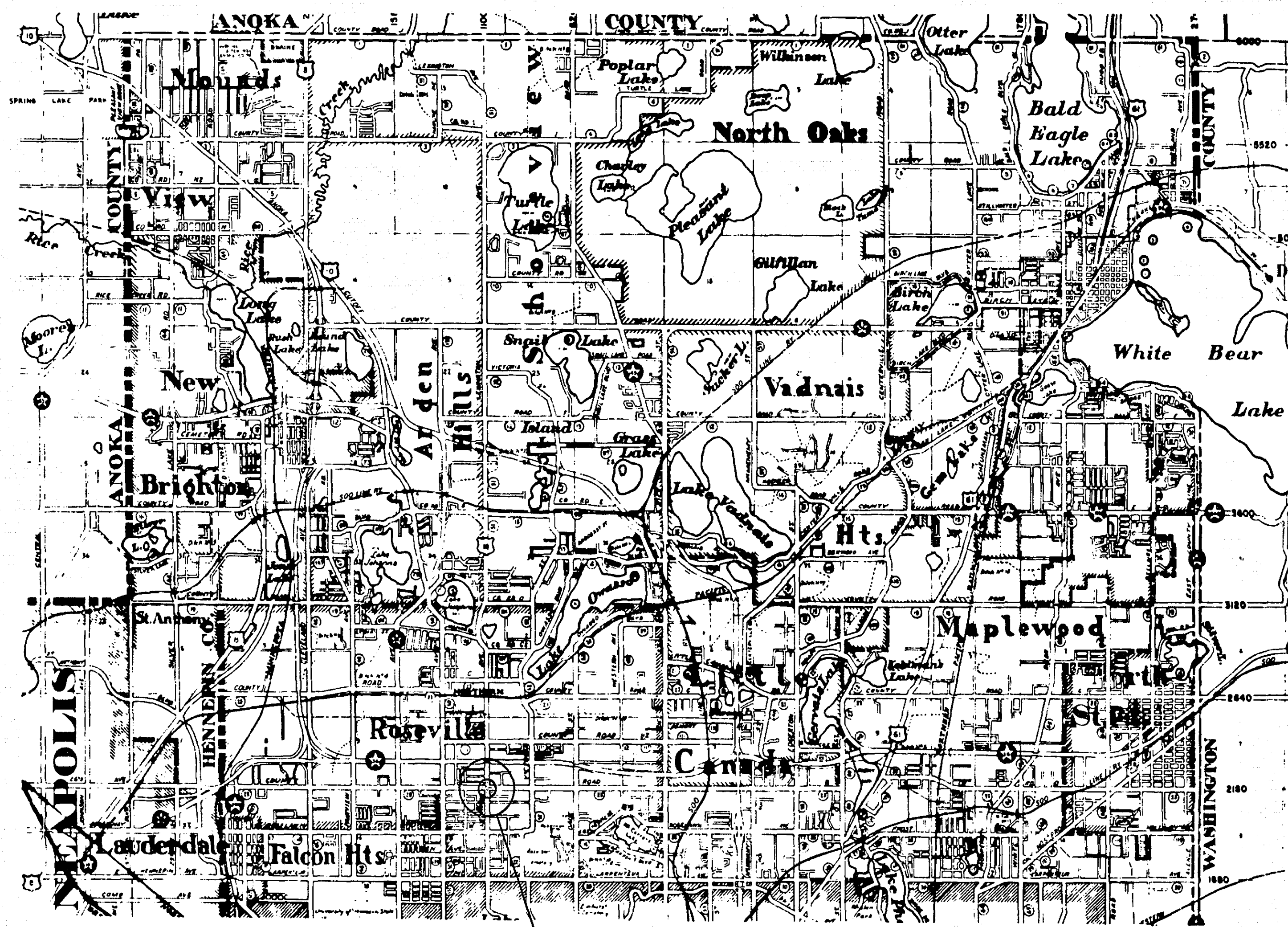
CONDUIT	----
TELEPHONE CABLE IN CONDUIT	----
ELECTRIC CABLE IN CONDUIT	----
TELEPHONE MANHOLE	----
ELECTRIC MANHOLE	----
BURIED TELEPHONE CABLE	----
BURIED ELECTRIC CABLE	----
AERIAL TELEPHONE CABLE	----
SEWER, (SANITARY OR STORM)	----
SEWER MANHOLE	----



NOTE: SECTION NUMBERS REF. FROM "THE S.C.T."

PIT DATA

PIT NO.	Located in
PIT NO.	Located in



CITY OF ST. PAUL

S.A.P. NO. 62-651-02 C.T.B.

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY PLAN OF TRAFFIC CONTROL SYSTEM FOR THE INTERSECTION OF LEXINGTON AVE. & COUNTY RD. "B"

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

RECOMMENDED FOR APPROVAL	DATE
RECOMMENDED FOR APPROVAL	DATE
RECOMMENDED FOR APPROVAL	DATE
RECOMMENDED FOR APPROVAL	DATE
APPROVED	DATE

DESIGNED BY	DATE
RECOMMENDED FOR APPROVAL	DATE
APPROVED	DATE
APPROVED	DATE
APPROVED	DATE

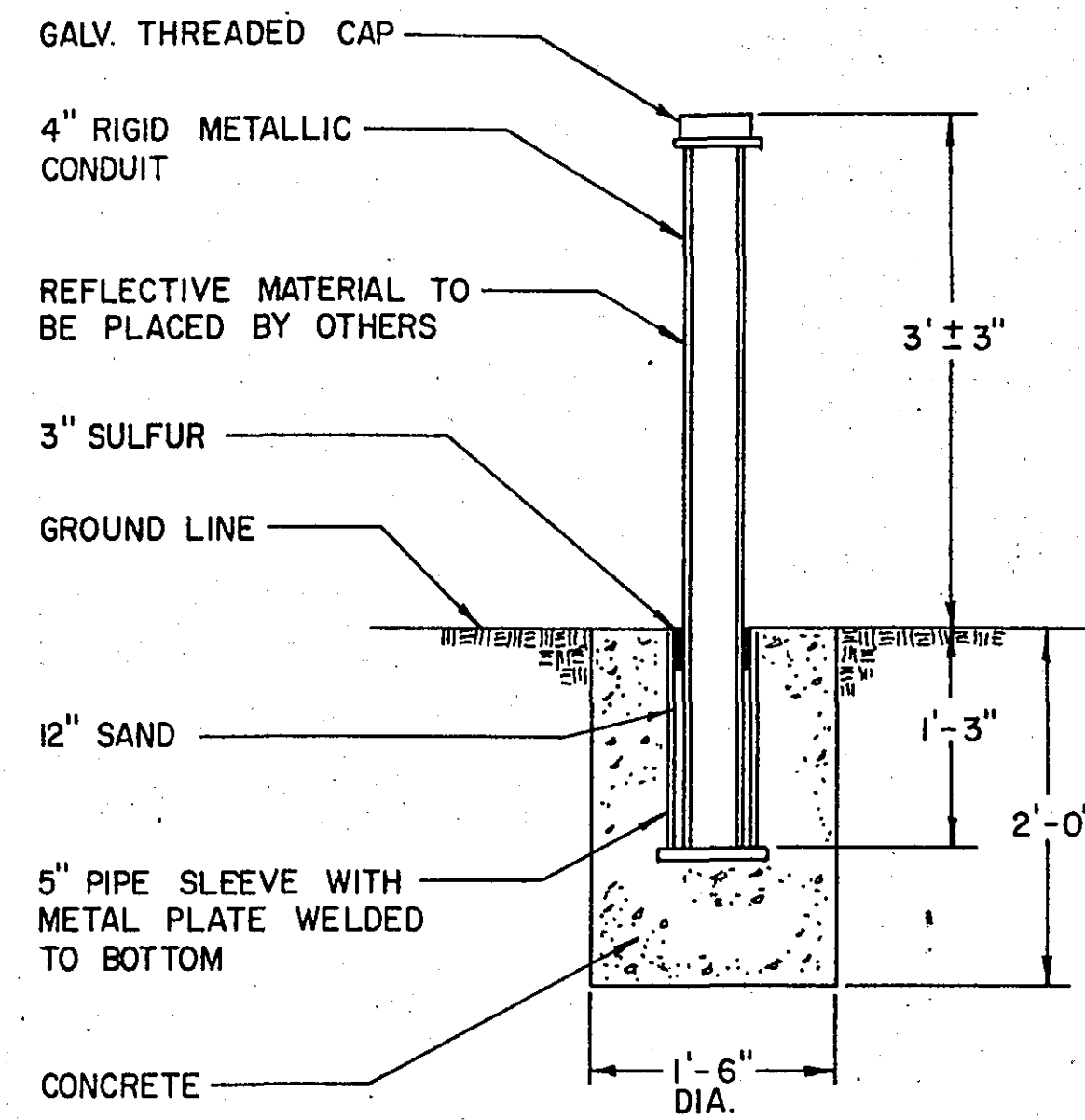
MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL	DATE
RECOMMENDED FOR APPROVAL	DATE
APPROVAL	DATE

Not Built

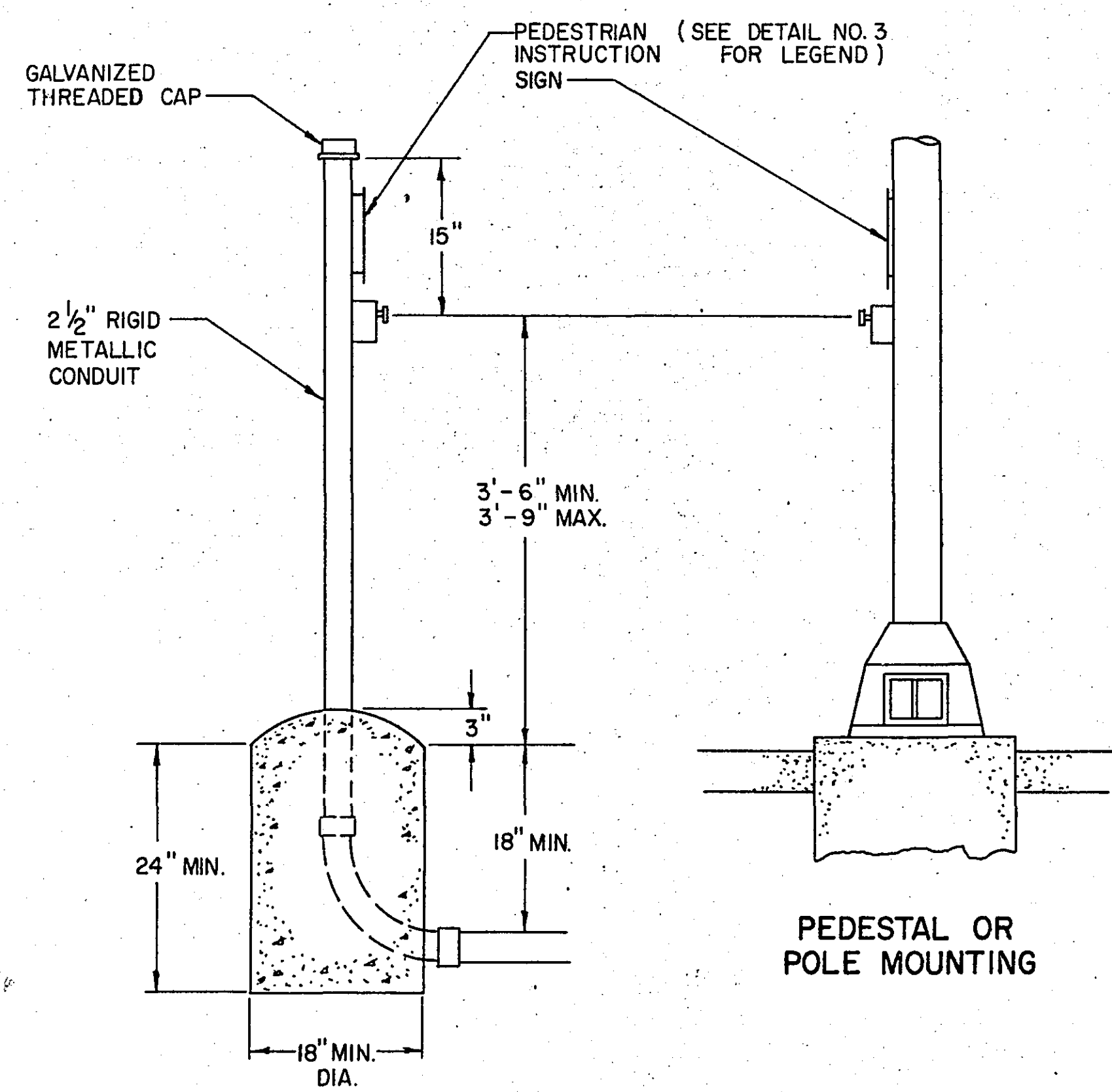
THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION
DATED JANUARY 1, 1968 AS AMENDED BY SUPPLEMENTAL
SPECIFICATIONS DATED JULY 1, 1969 SHALL GOVERN.

GUARD POST



NOTE: THE TOP OF GUARD POSTS SHALL BE SET TO A UNIFORM GRADE AT EACH LOCATION.

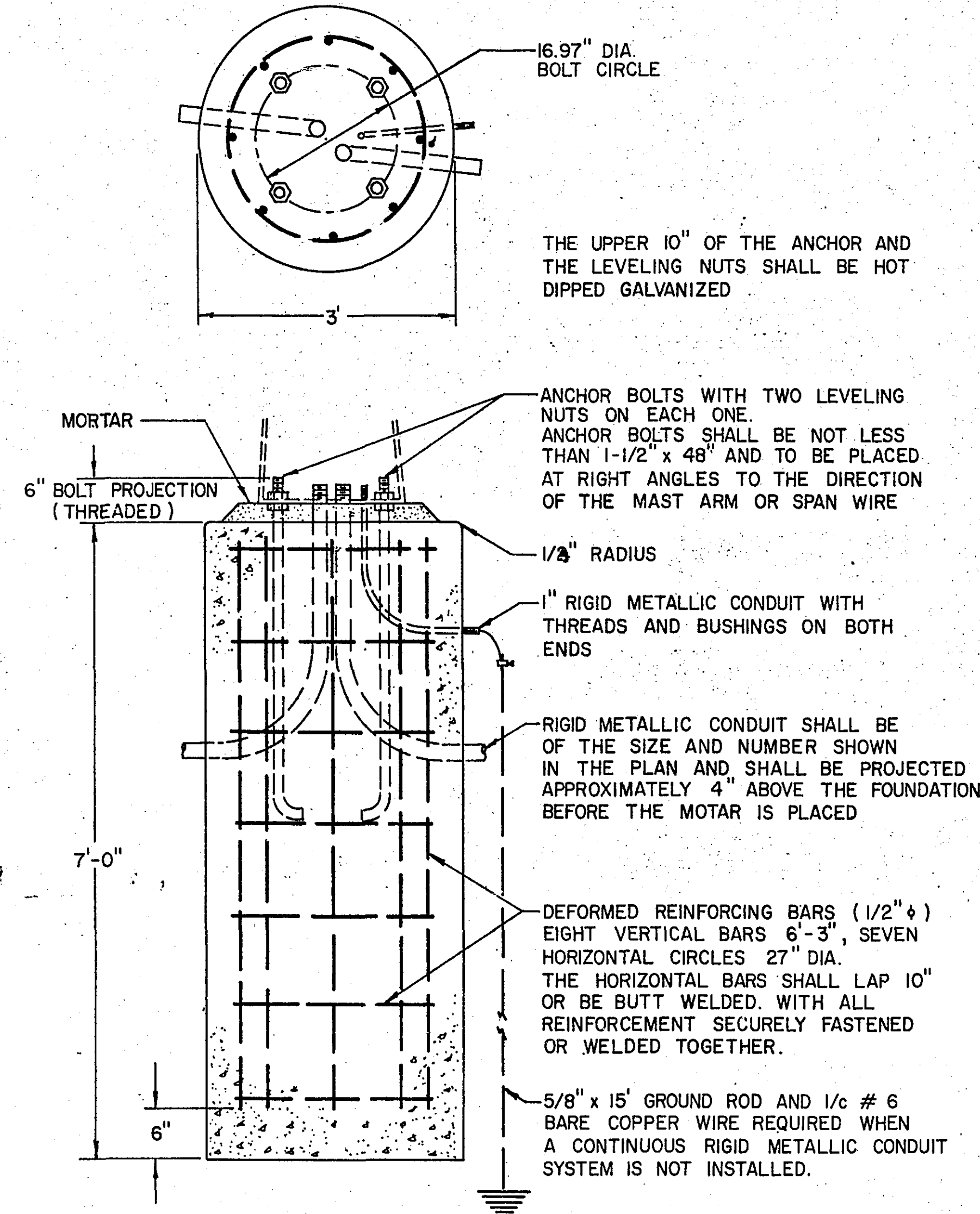
PEDESTRIAN PUSH BUTTON DETAIL NO. 1



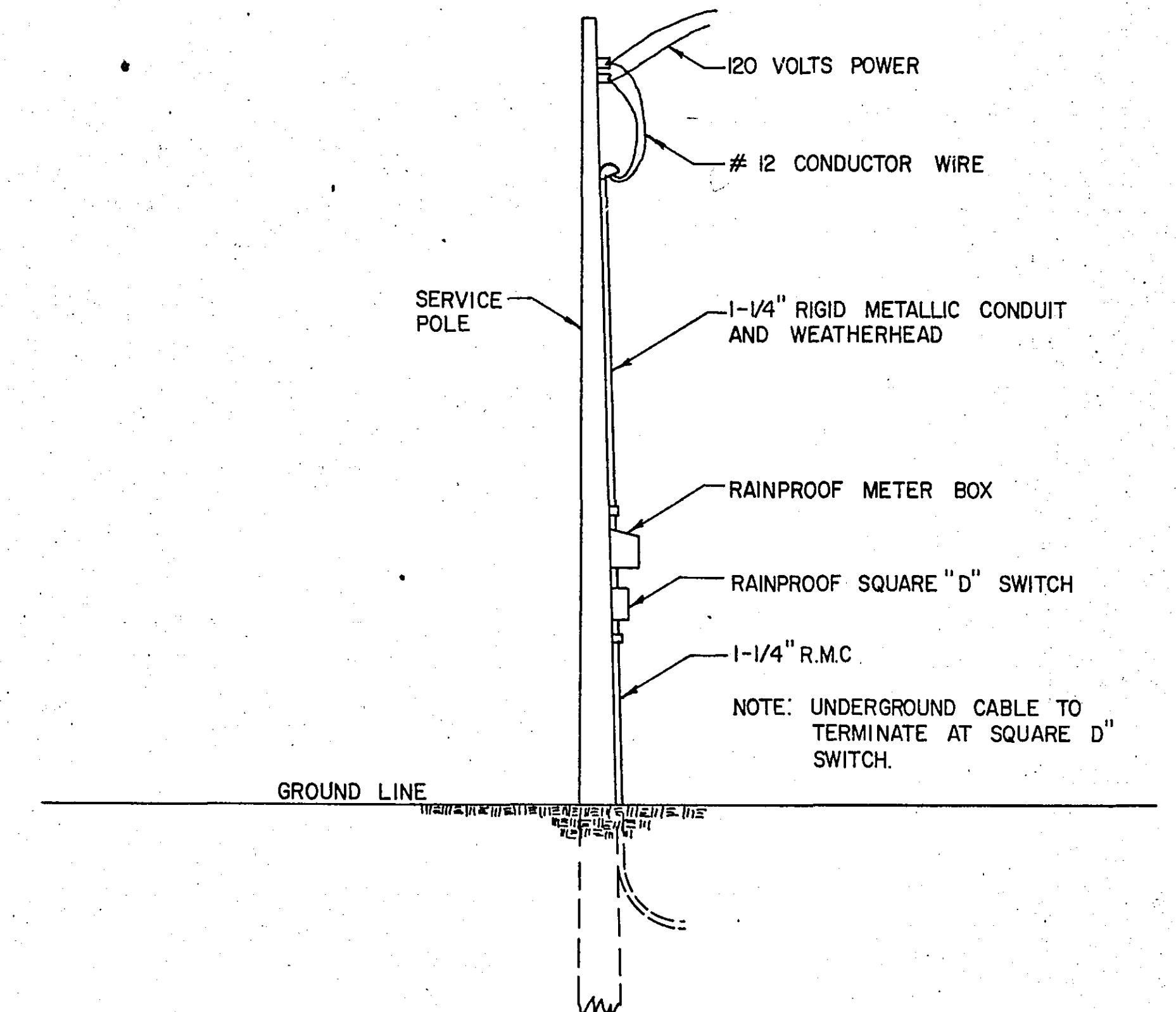
SEPARATE MOUNTING

PEDESTAL OR POLE MOUNTING

CONCRETE FOUNDATION FOR MAST ARM TRAFFIC SIGNAL POLE

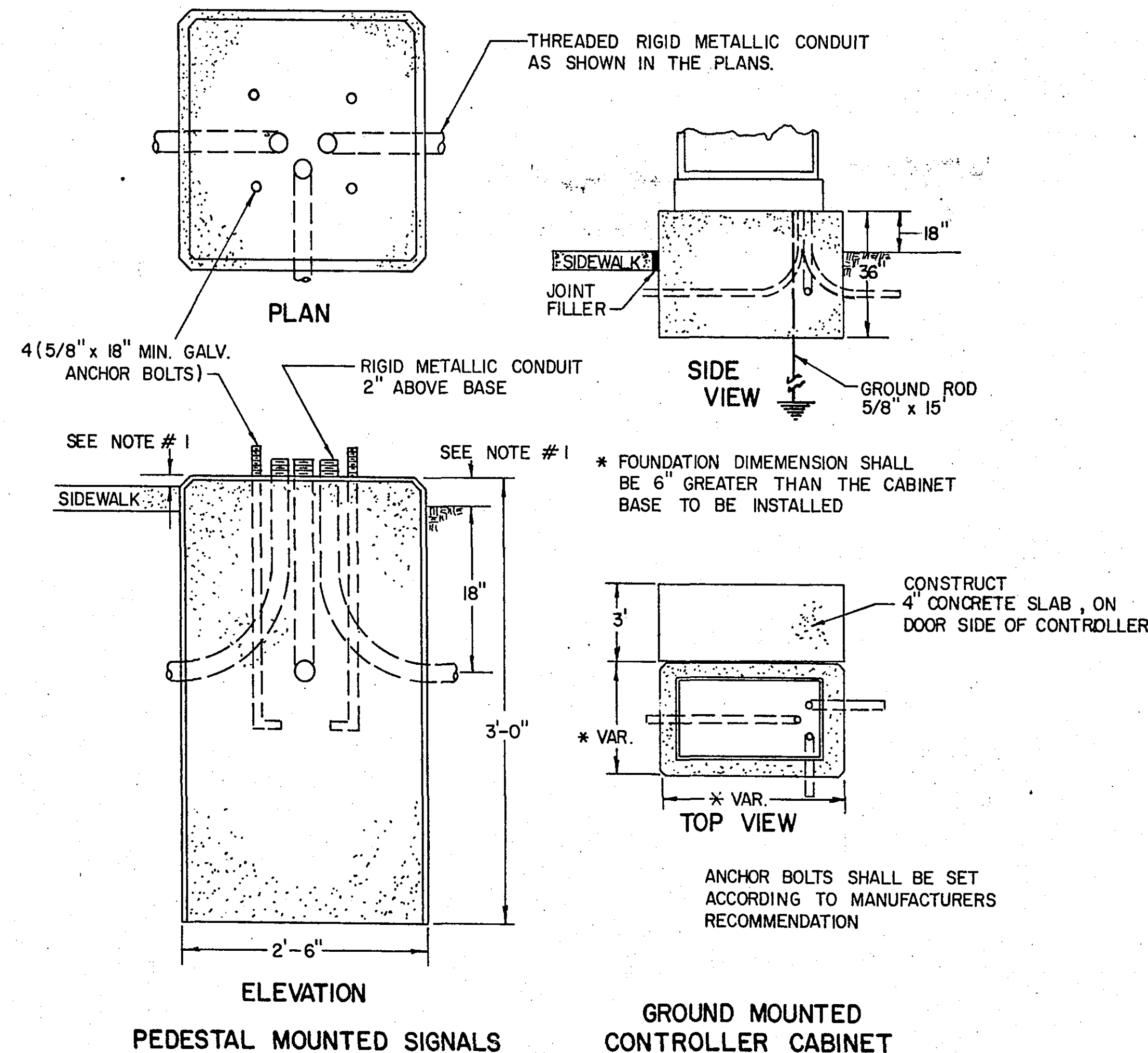


POLE FOR POWER CONNECTION



NOTE # 1

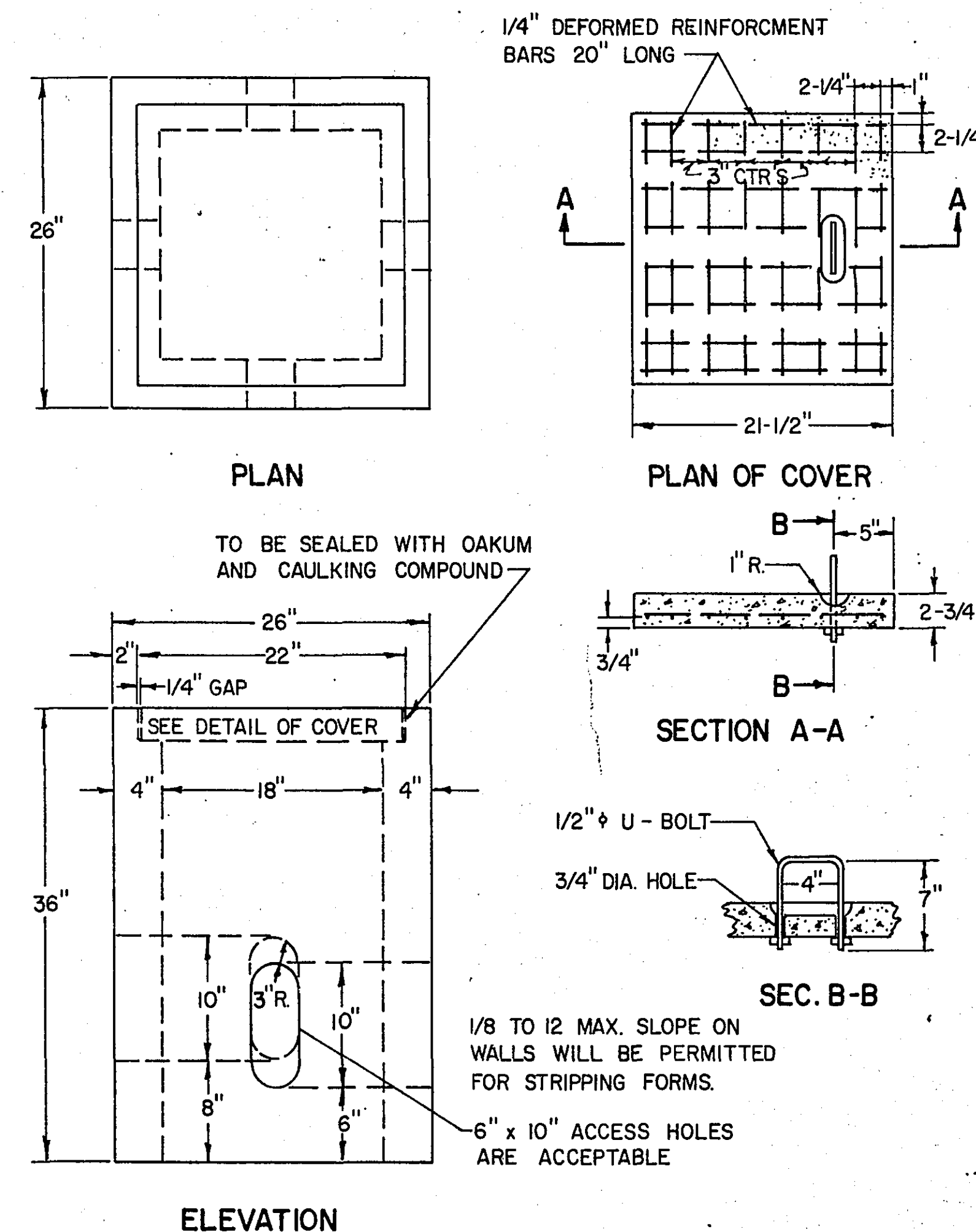
DISTANCE FROM GROUND LINE VARIABLE FROM 1/4" IN THE SIDEWALK AREA TO 2" IN THE SHOULDER OR BLVD. AREA.



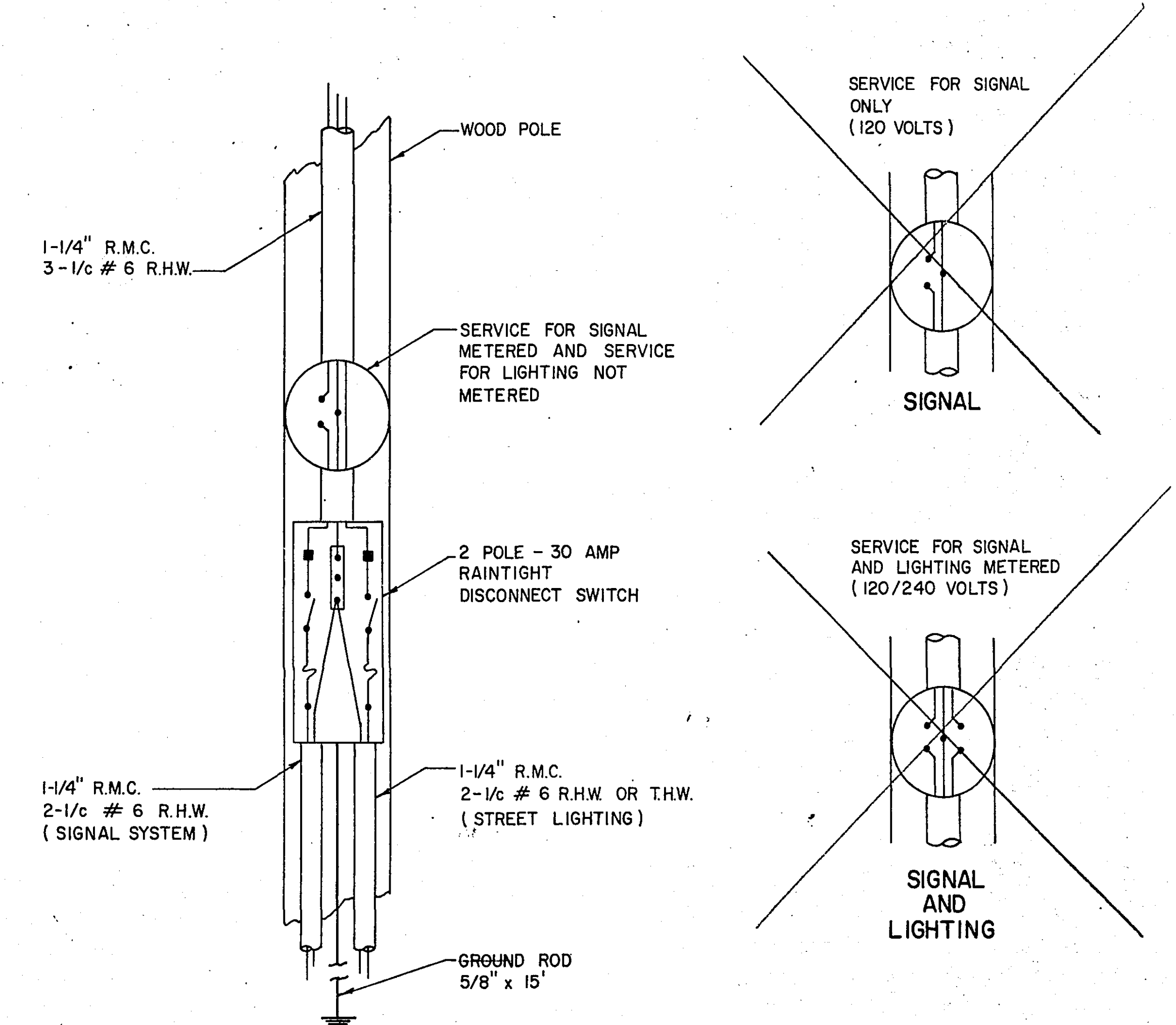
PEDESTAL MOUNTED SIGNALS

GROUND MOUNTED
CONTROLLER CABINET

CONCRETE FOUNDATIONS



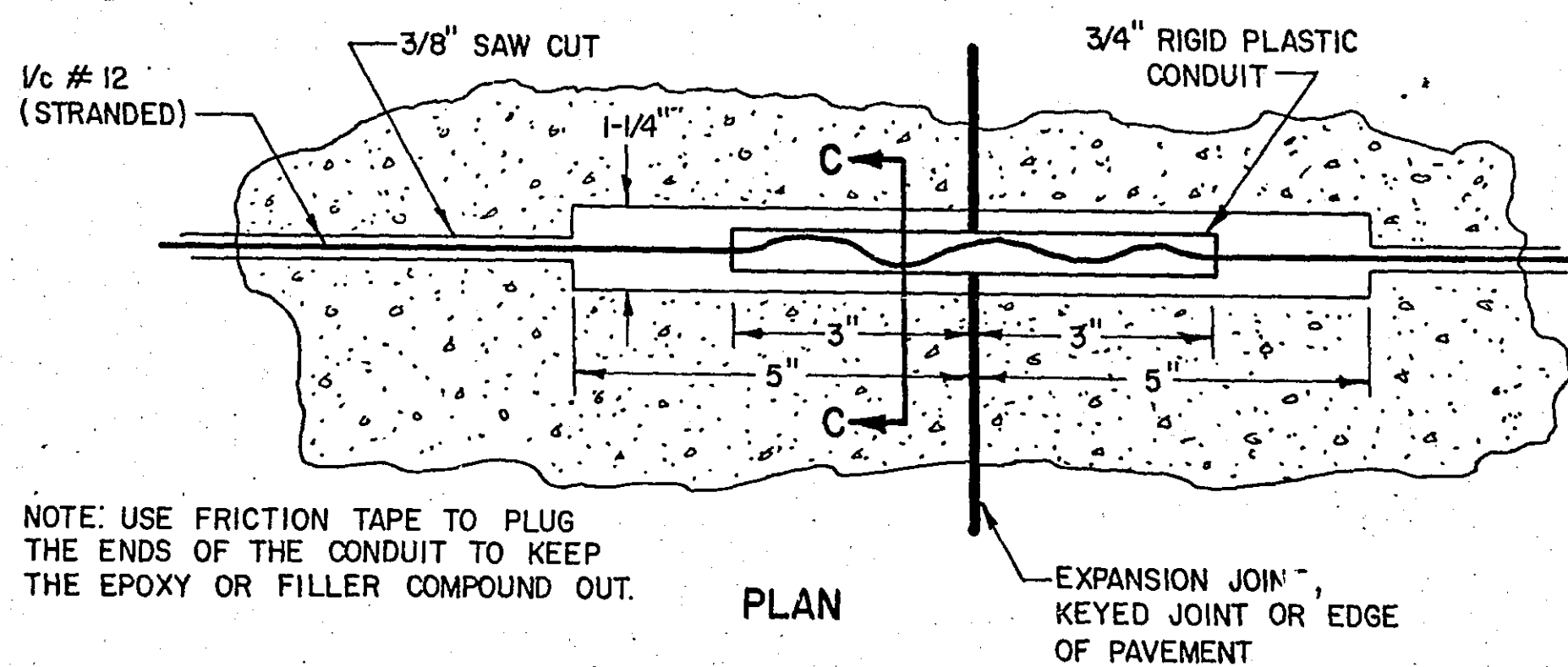
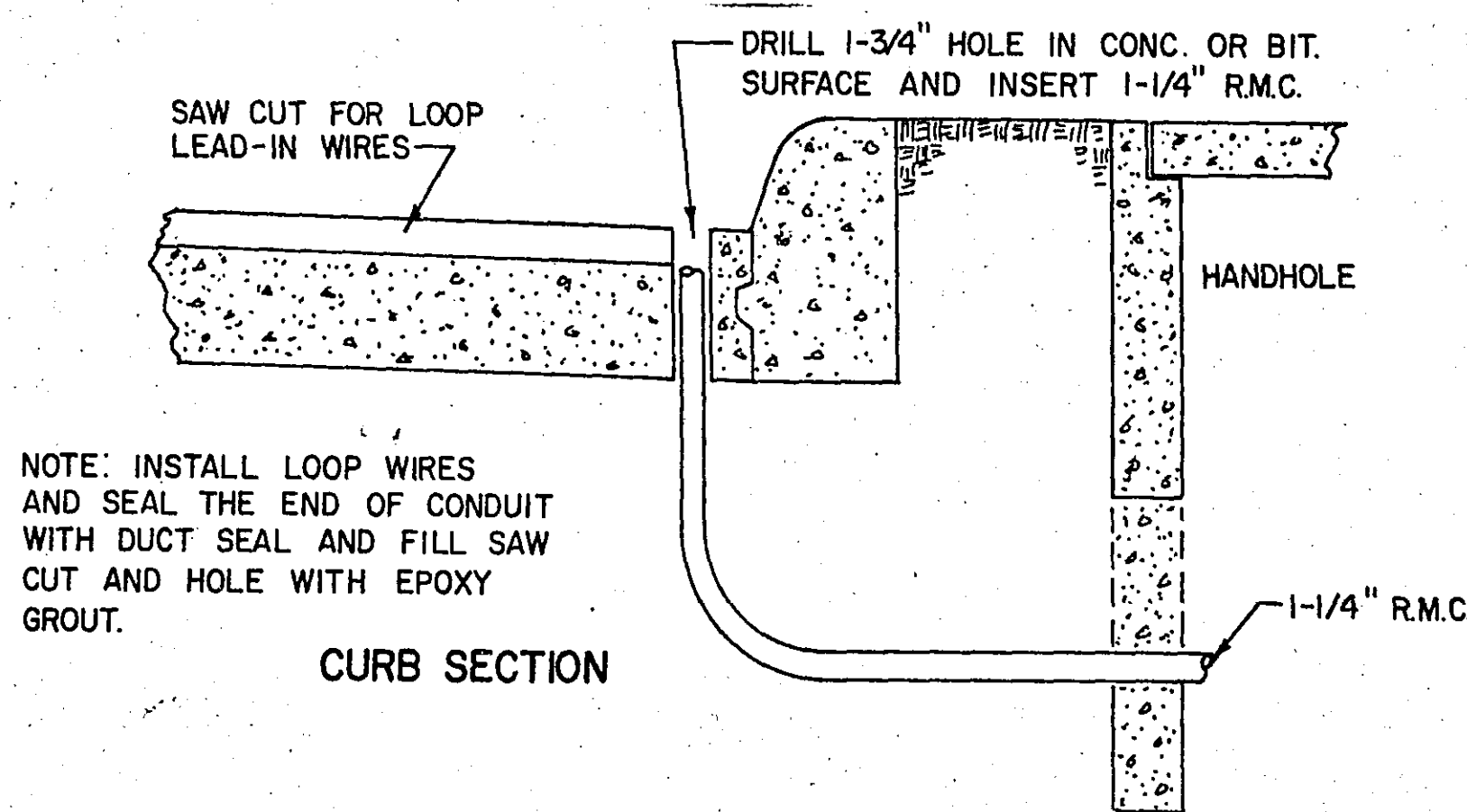
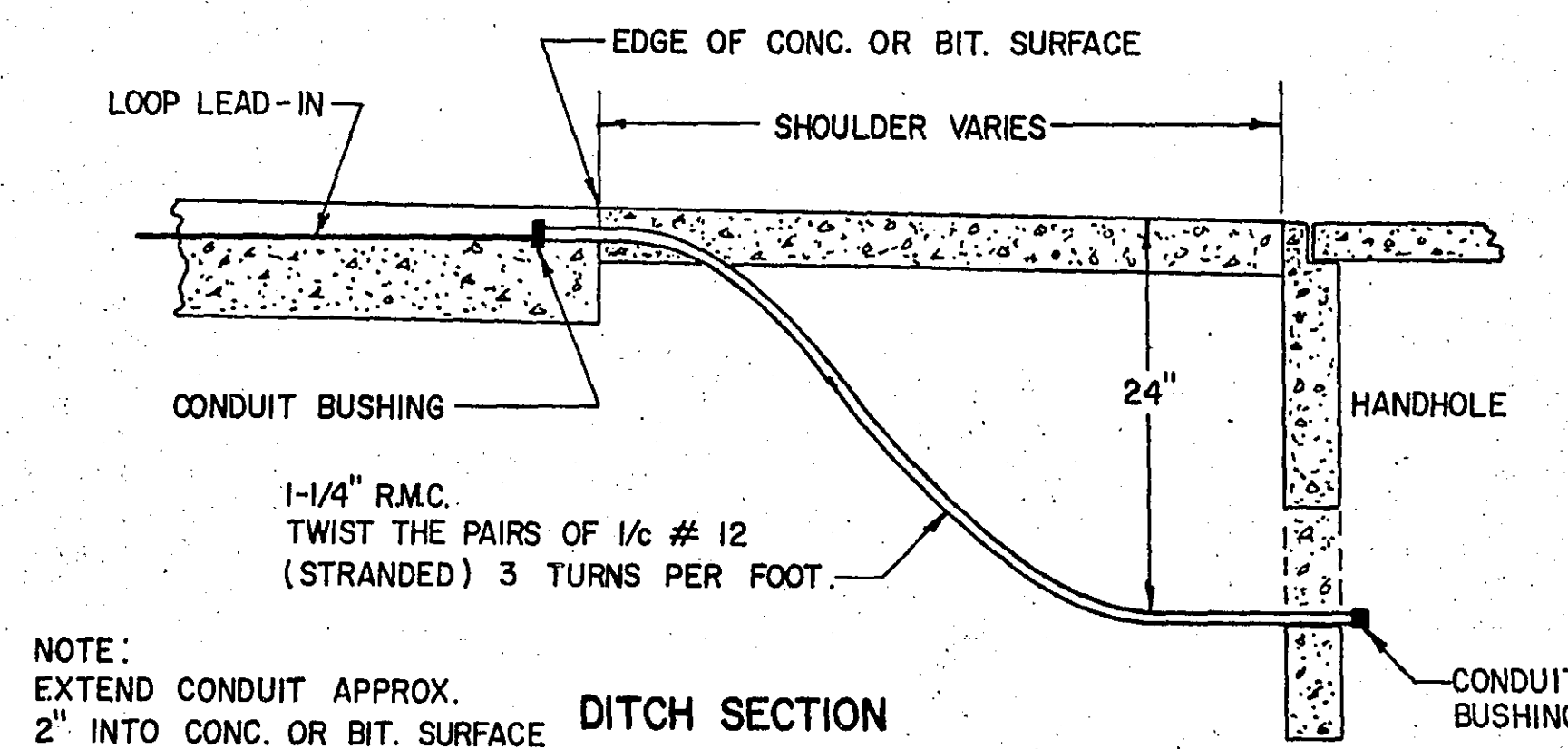
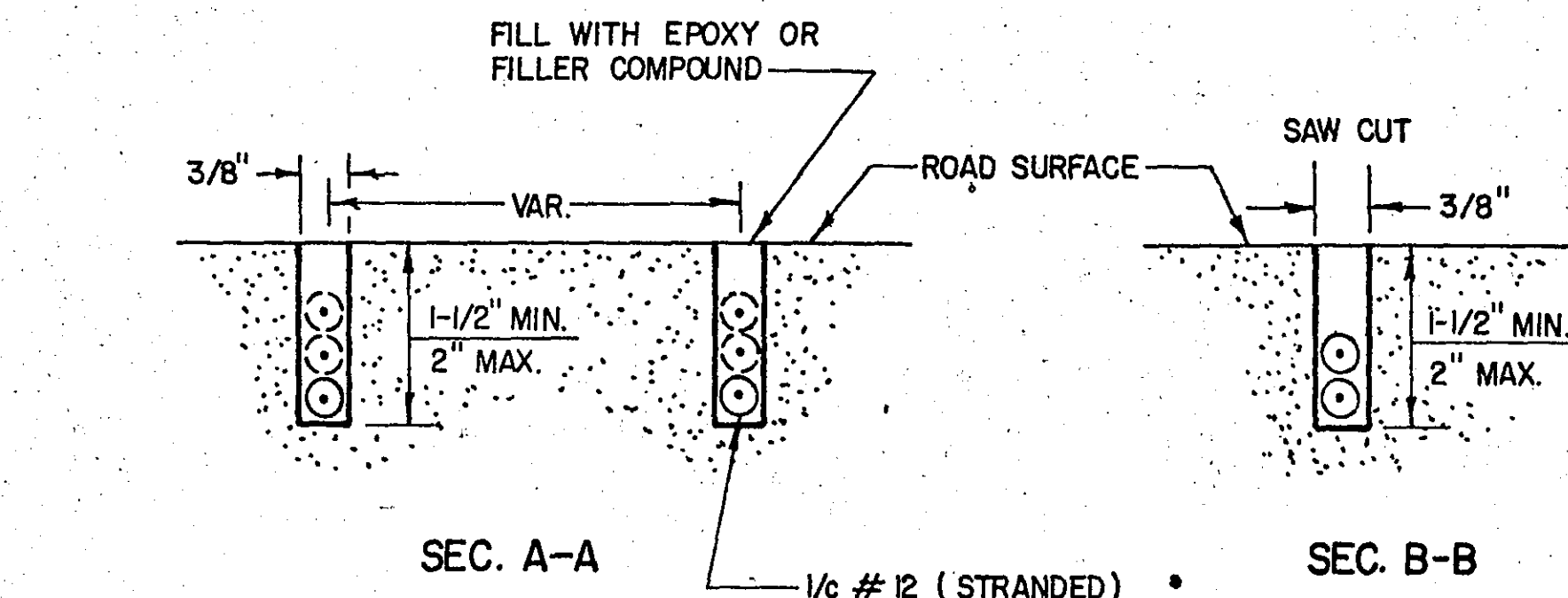
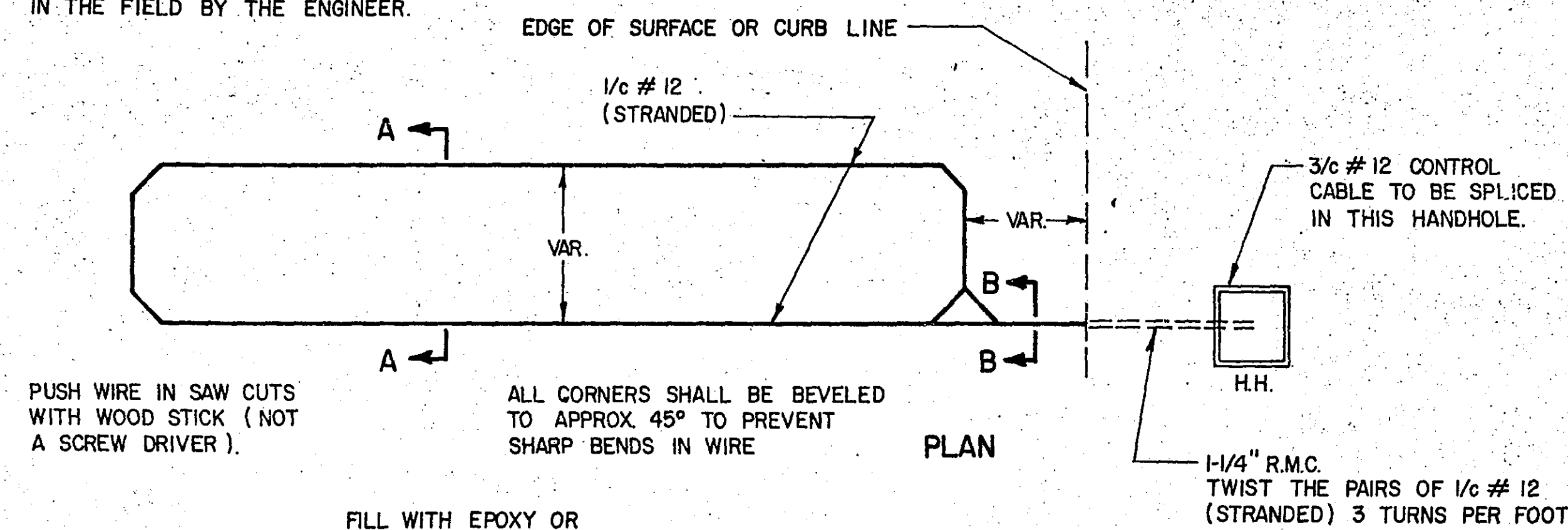
PRECAST CONCRETE HANDHOLE OR PULLBOX



METER AND DISCONNECT SWITCH

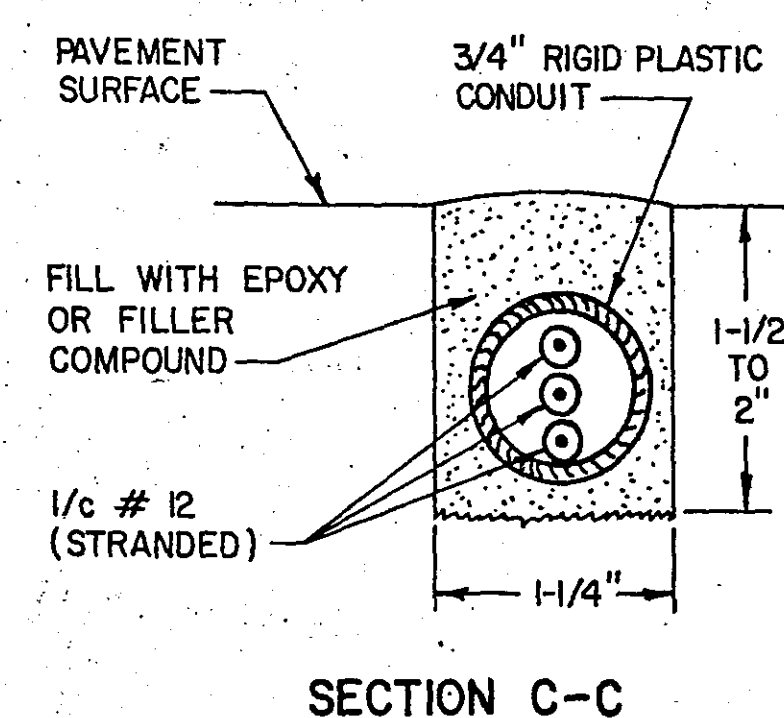
LOOP DETECTION INSTALLATION DETAIL NO. 2

NOTE: NUMBER OF TURNS & SIZE OF LOOP SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

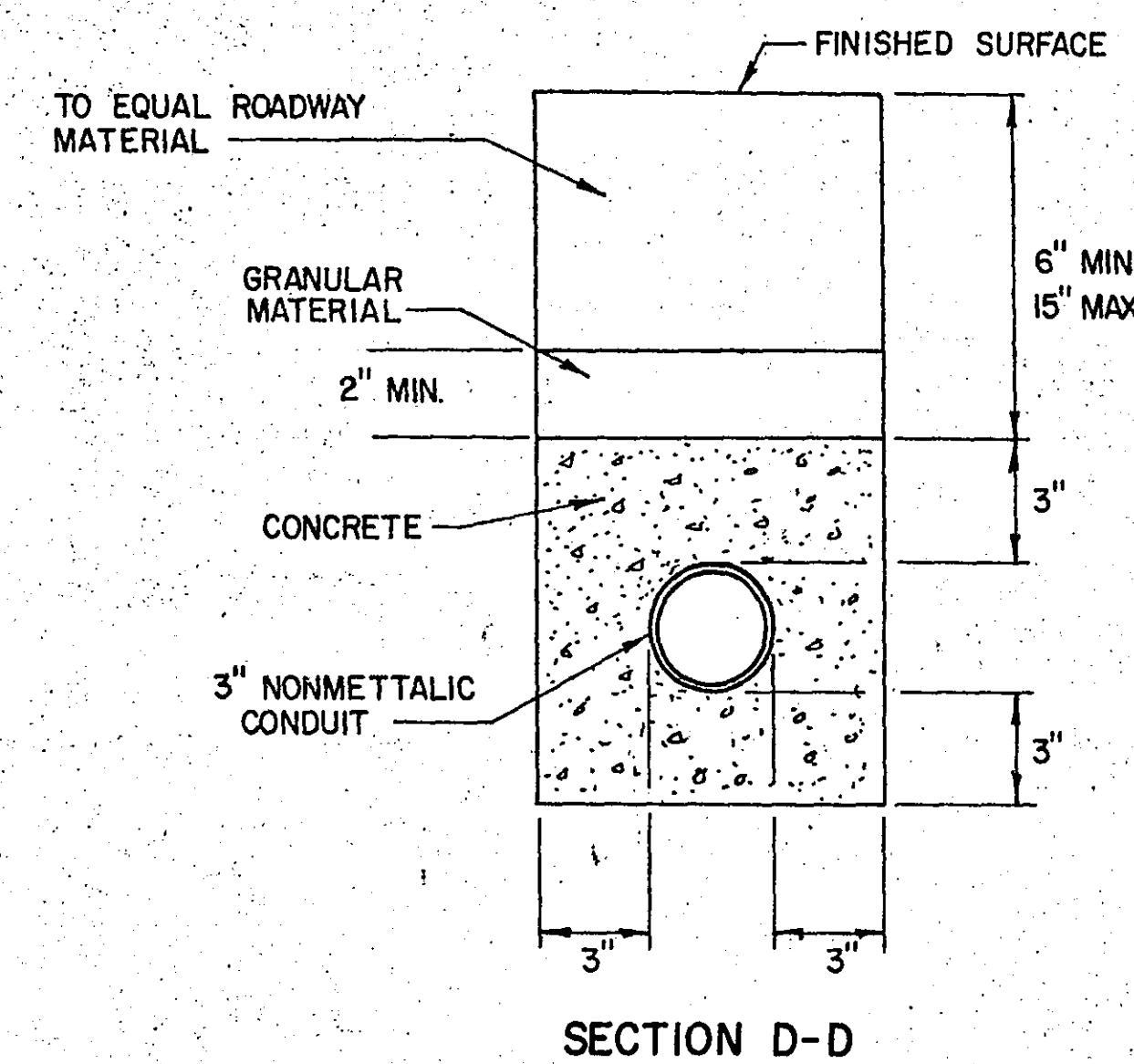
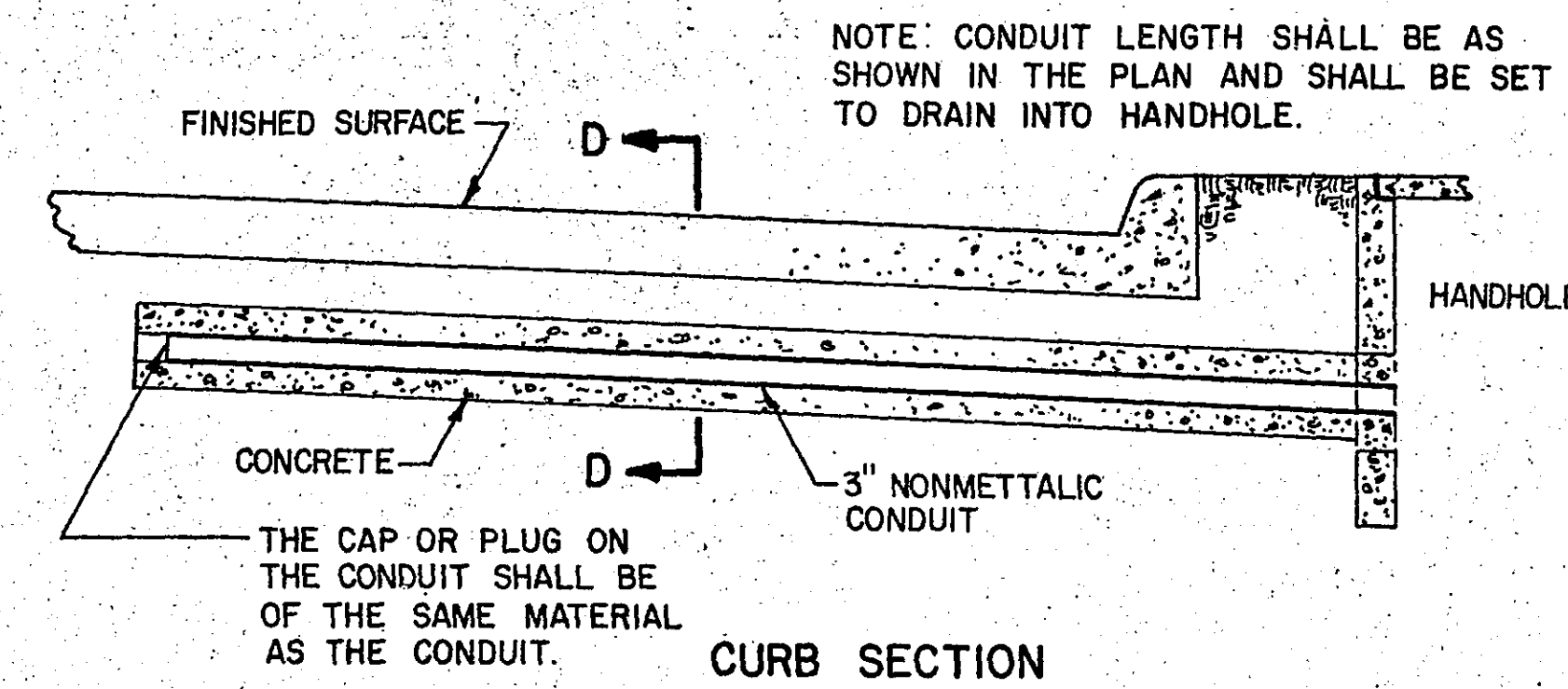


NOTE: USE FRICTION TAPE TO PLUG THE ENDS OF THE CONDUIT TO KEEP THE EPOXY OR FILLER COMPOUND OUT.

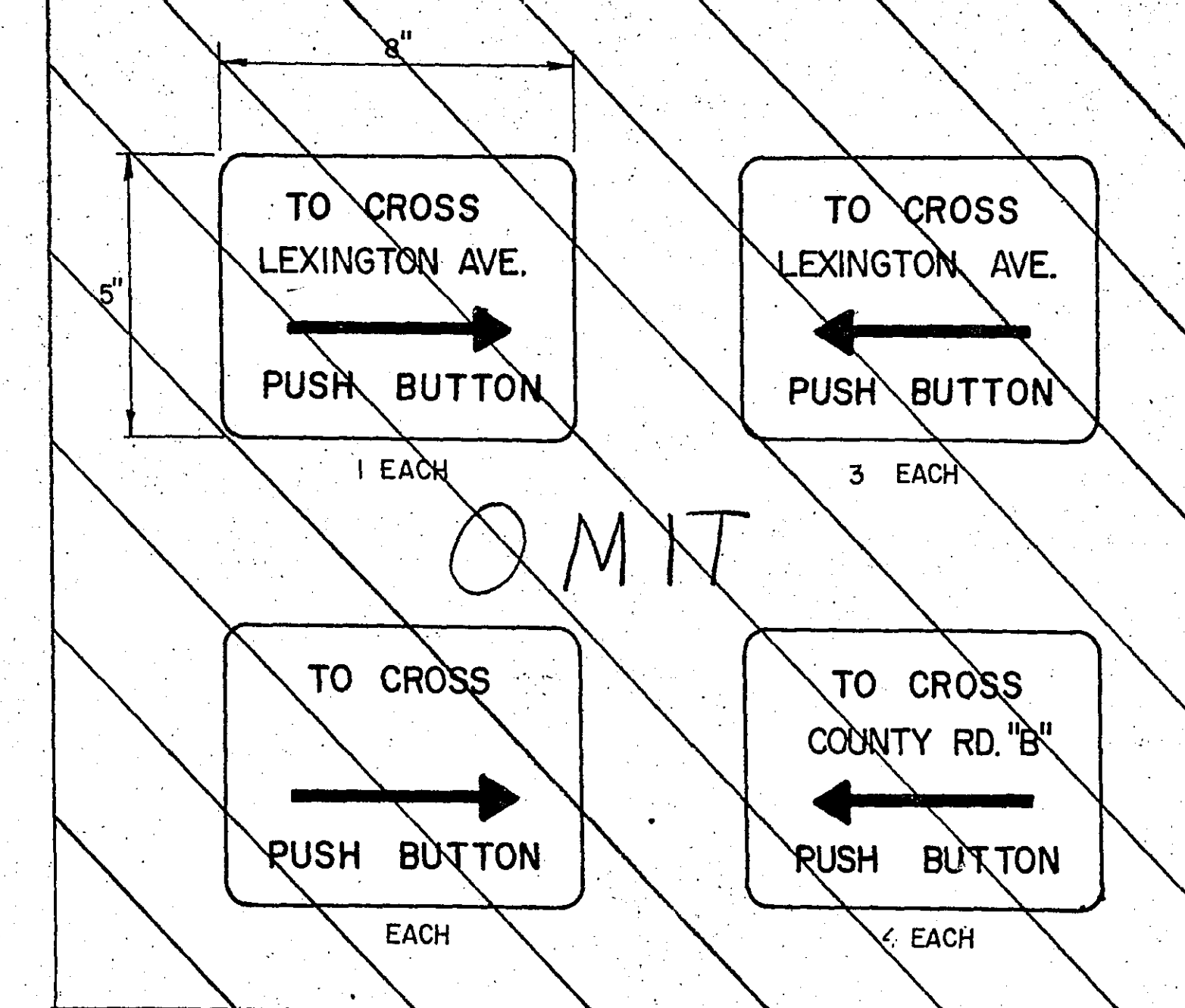
JOINT SLEEVE INSTALLATION FOR LOOP DETECTORS



MAGNETIC VEHICLE DETECTOR INSTALLATION DETAIL NO. 4



PEDESTRIAN INSTRUCTION SIGNS DETAIL NO. 3



ABBREVIATIONS

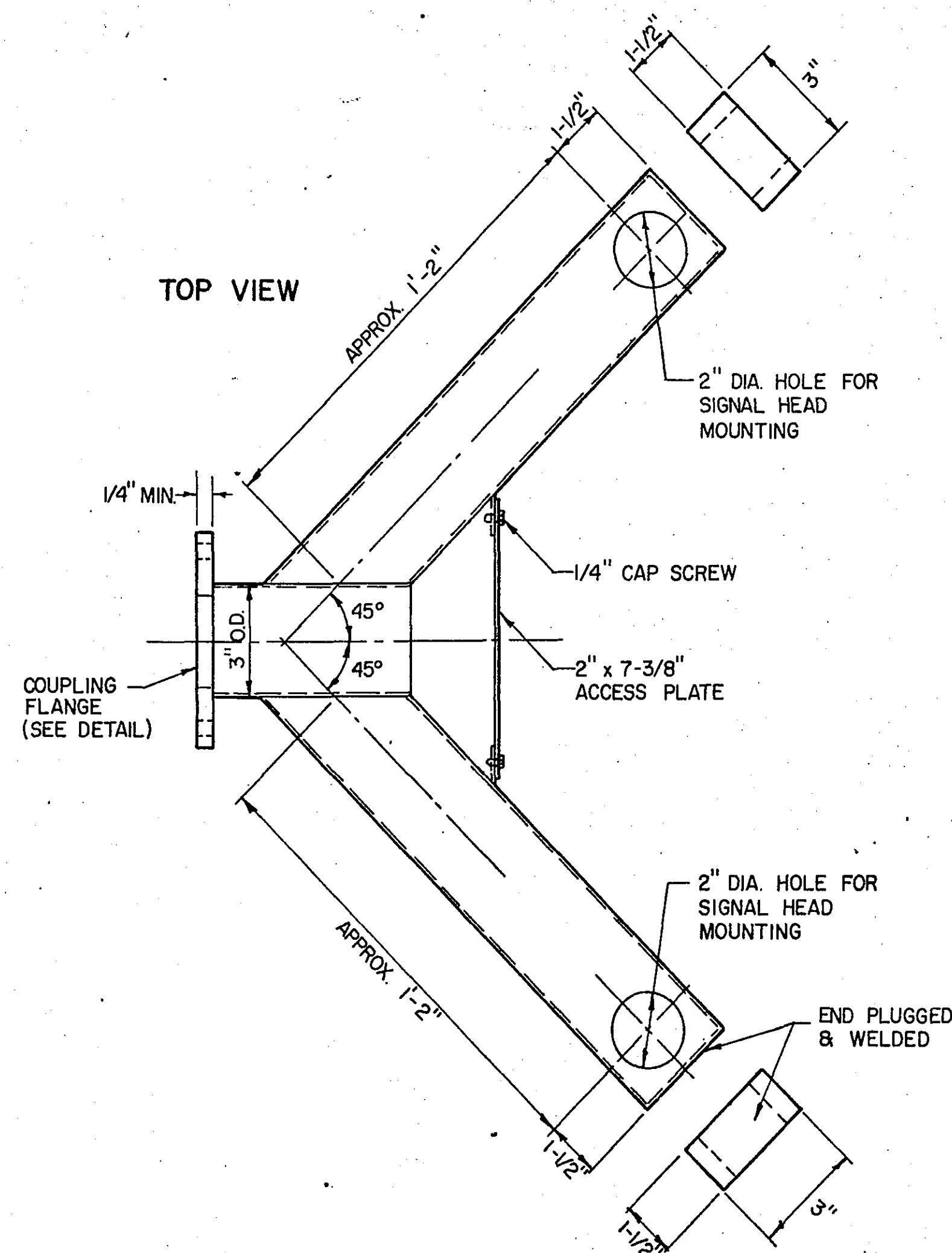
EQUIPMENT & INDICATIONS

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
G.R.R. - GROUND ROD
SERV. - SERVICE

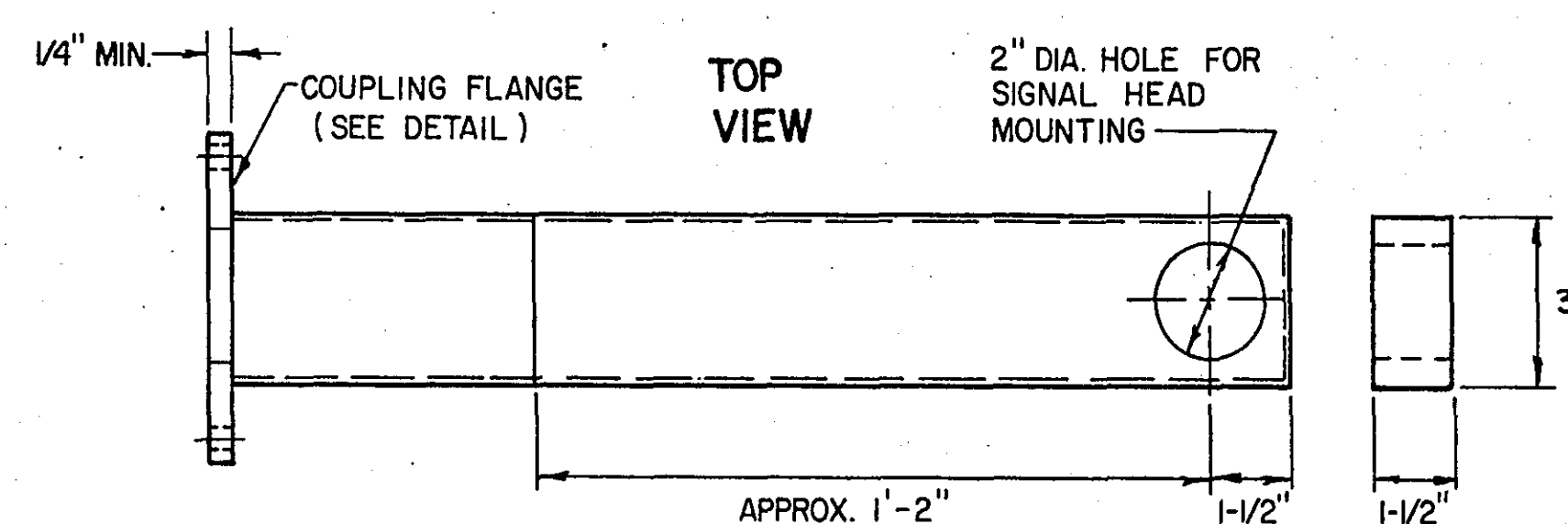
DNL - DOWNLIGHT
PEC - PHOTOELECTRIC CELL
ST. LHT. - STREET LIGHT
CH - CHECK
S.O.P. - SOURCE OF POWER
EQ. G. - EQUIPMENT GROUND
SPR - SPARE CONDUCTOR

COLOR CODING OF CONDUCTORS

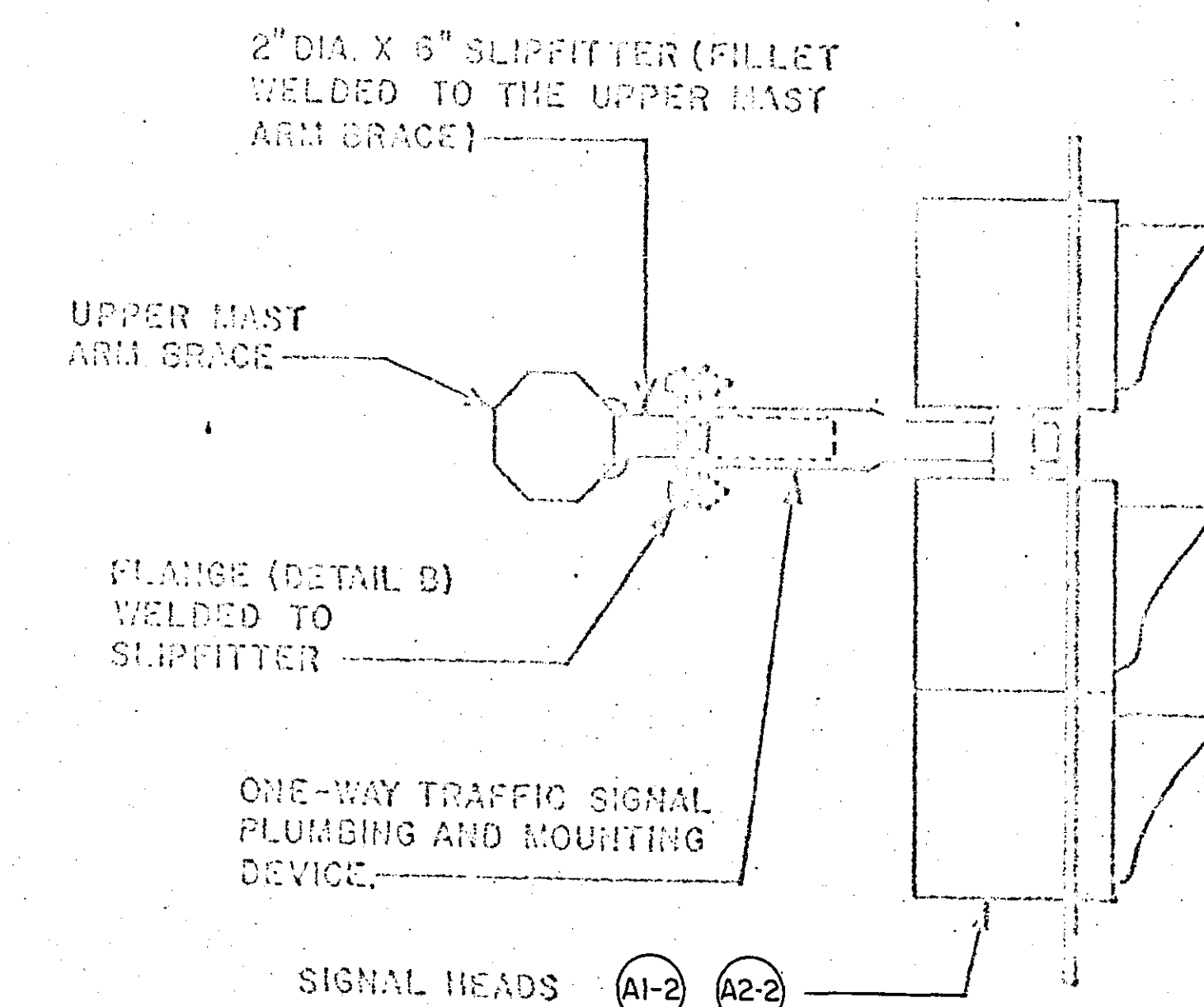
R - RED
O - ORANGE
BL - BLUE
WH - WHITE
R/BLK - RED WITH BLACK TRACER
O/BLK - ORANGE WITH BLACK TRACER
BL/BLK - BLUE WITH BLACK TRACER
WH/BLK - WHITE WITH BLACK TRACER
BLK - BLACK
BLK/WH - BLACK WITH WHITE TRACER
G/BLK - GREEN WITH BLACK TRACER
G - GREEN



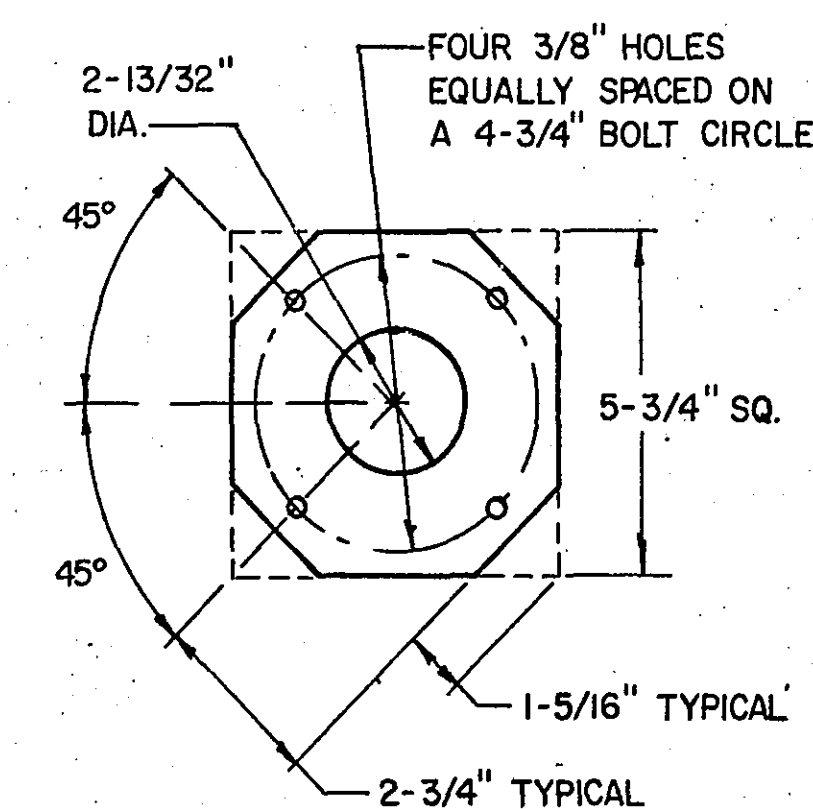
**TWO-WAY TRAFFIC SIGNAL
PLUMBING AND MOUNTING DEVICE**
SPECIFICATION REFERENCE M.H.D. 1703



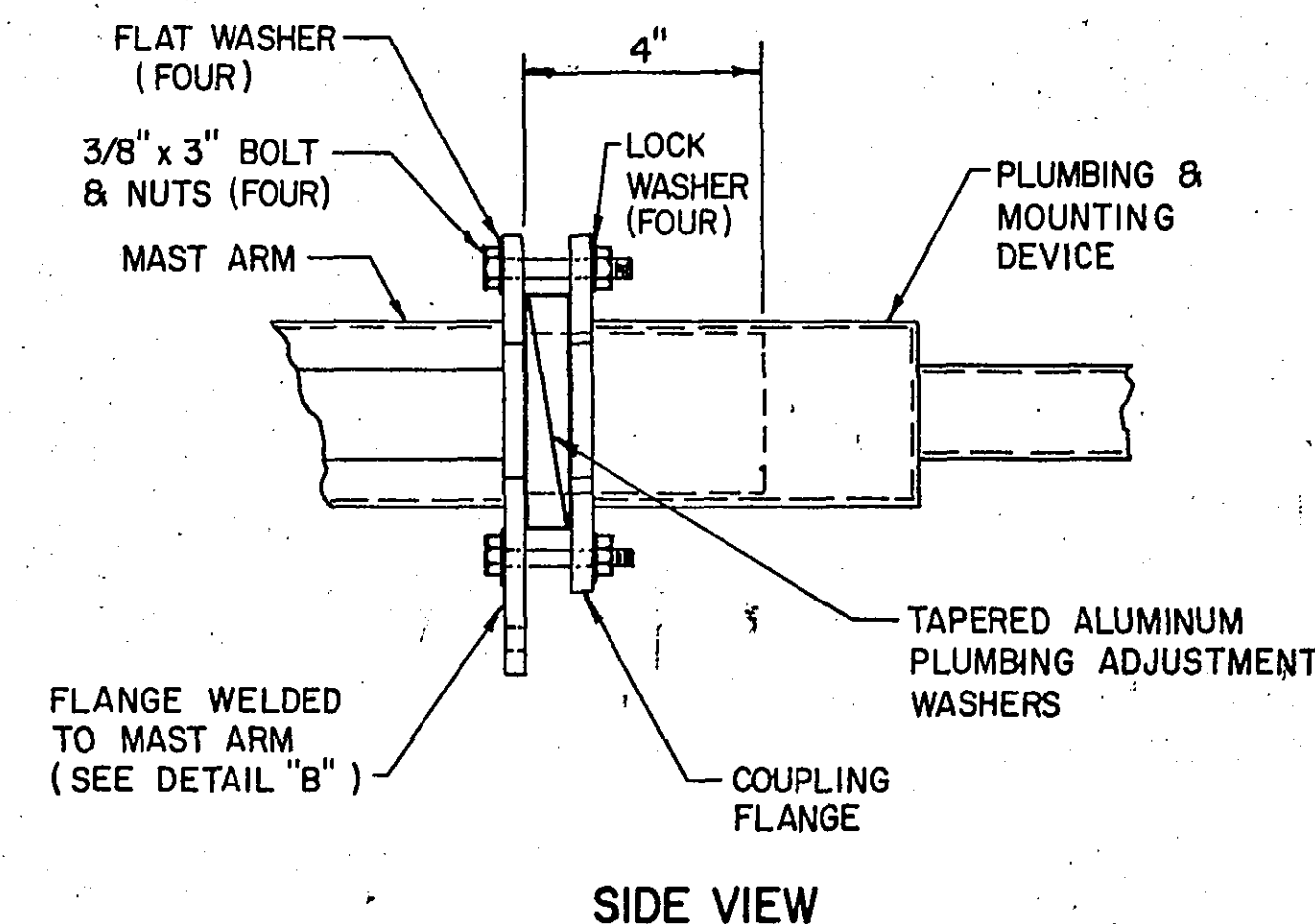
**ONE-WAY TRAFFIC SIGNAL
PLUMBING AND MOUNTING DEVICE**
SPECIFICATION REFERENCE M.H.D. 1703



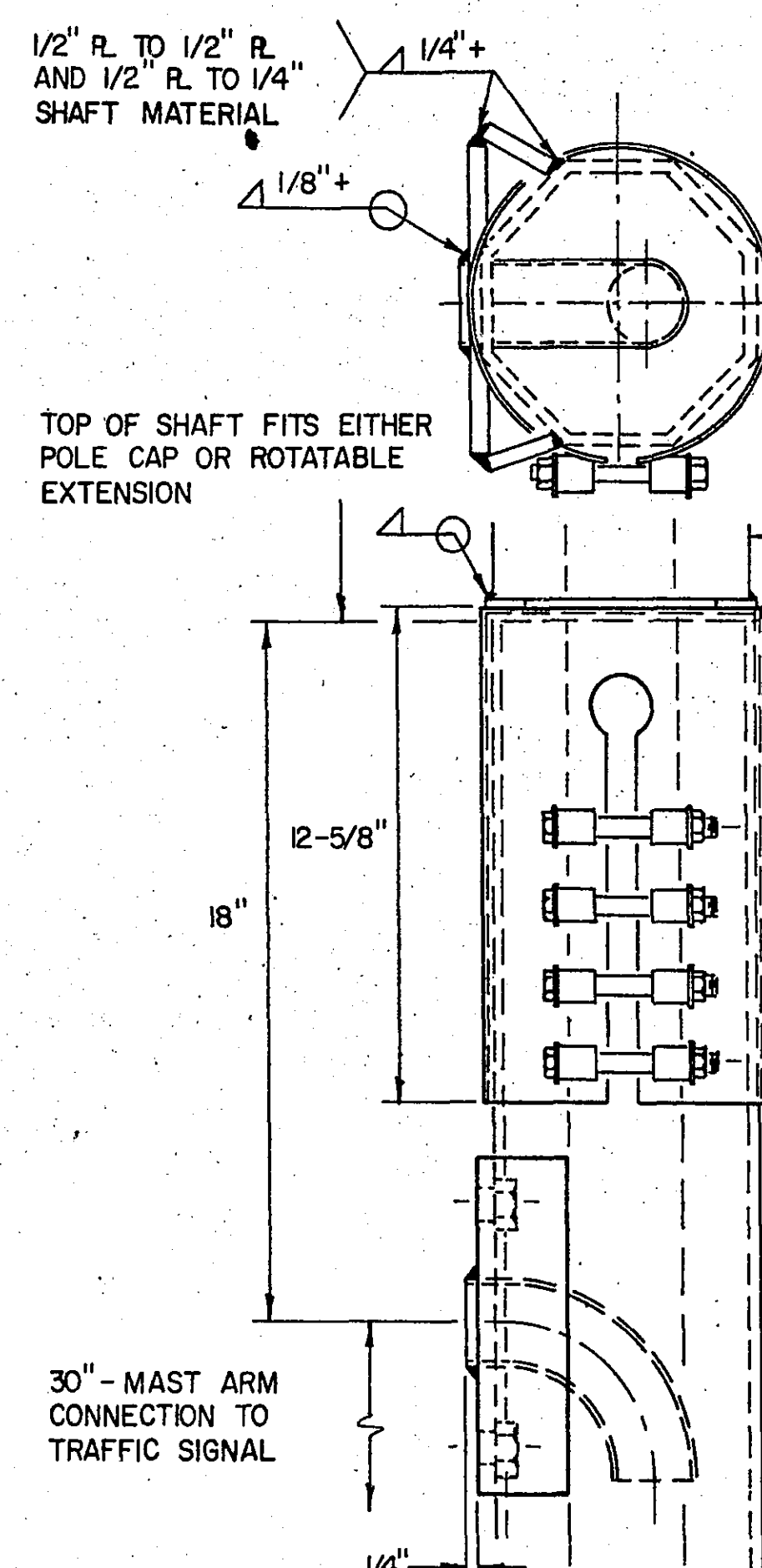
DETAIL G



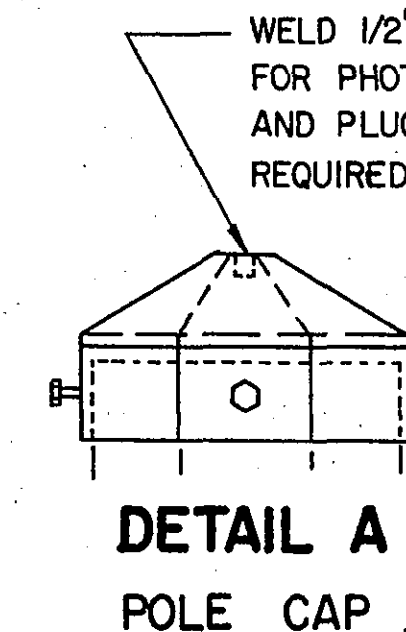
**COUPLING FLANGE
DETAIL**
(ONE-WAY AND TWO-WAY SIGNAL)



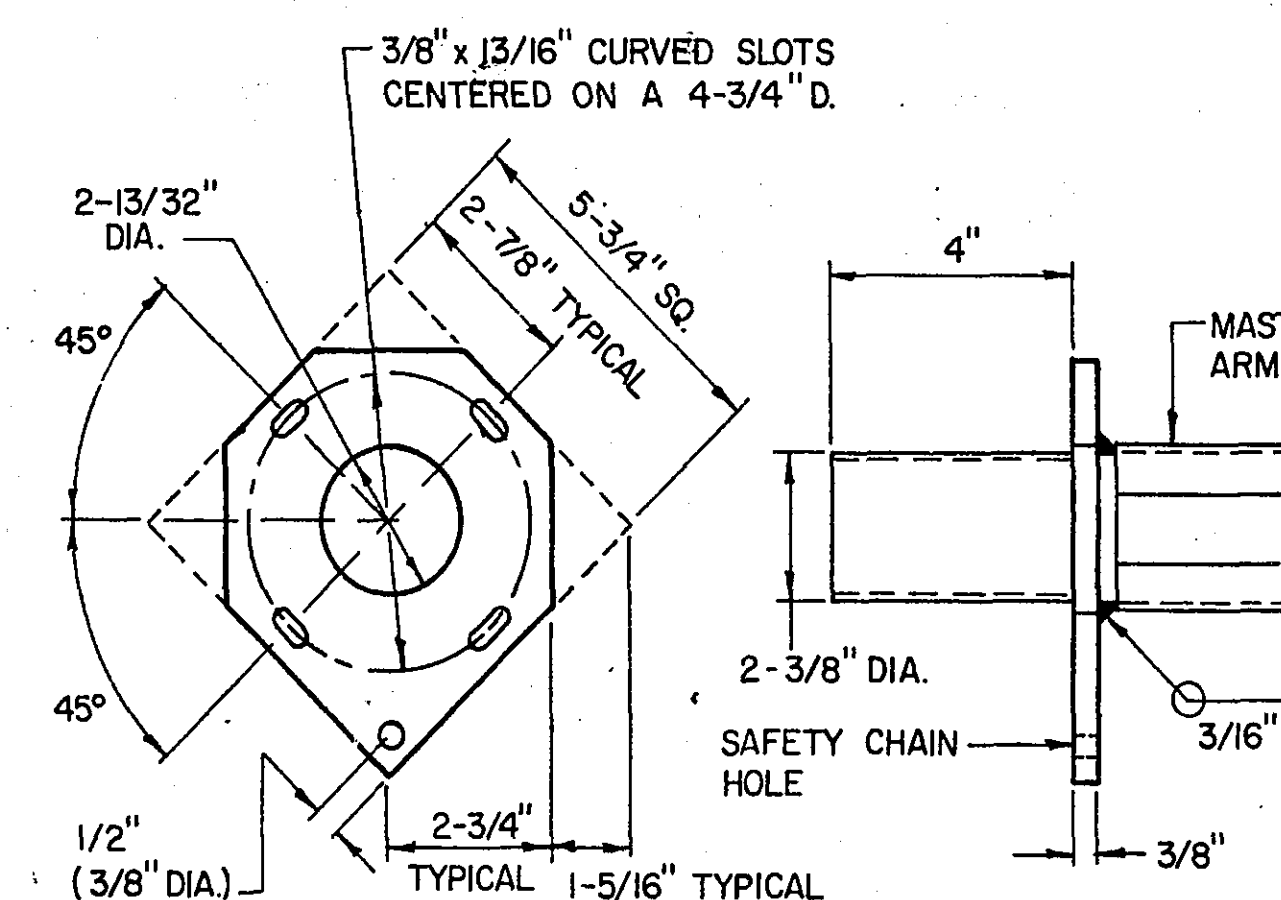
ASSEMBLY DETAIL
(ONE-WAY AND TWO-WAY SIGNAL)
SPECIFICATION REFERENCE M.H.D. 1703



DETAIL C
ROTATABLE LUMINAIRE
EXTENSION AND MAST
ARM CONNECTION

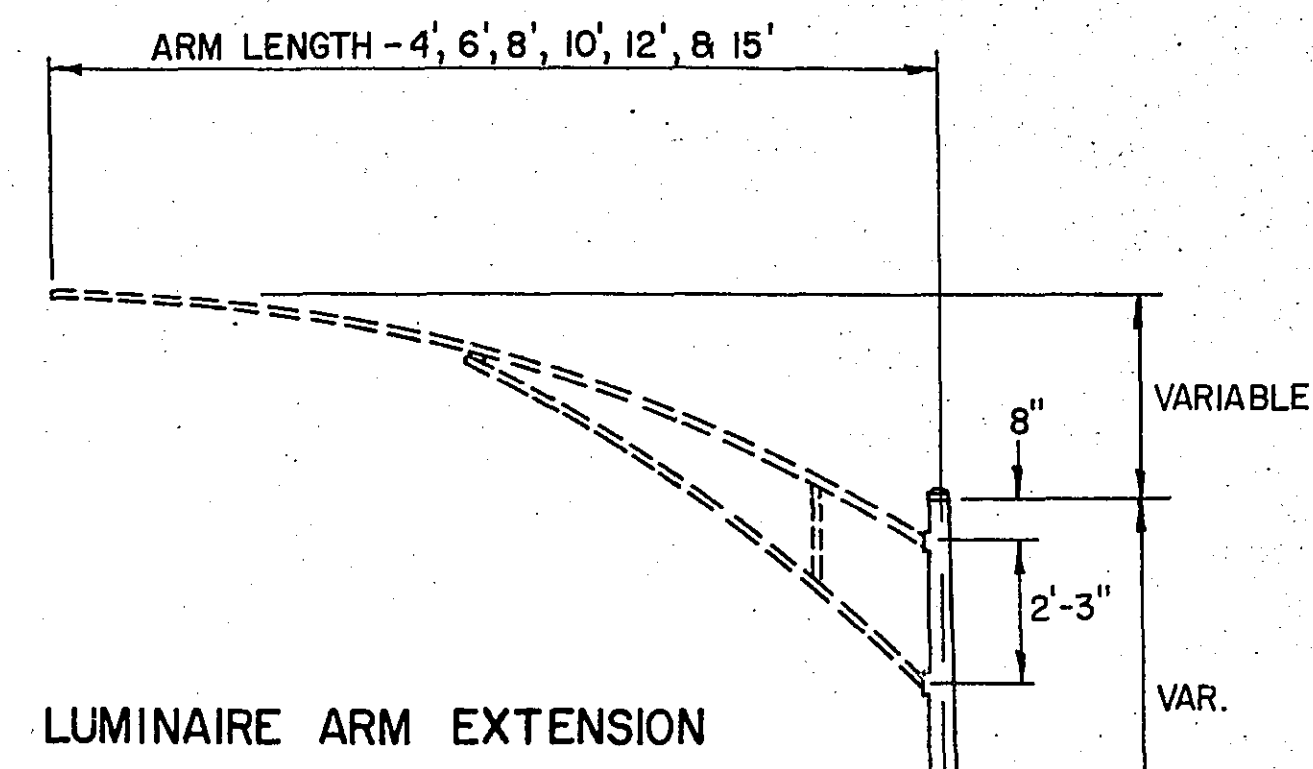


DETAIL A
POLE CAP

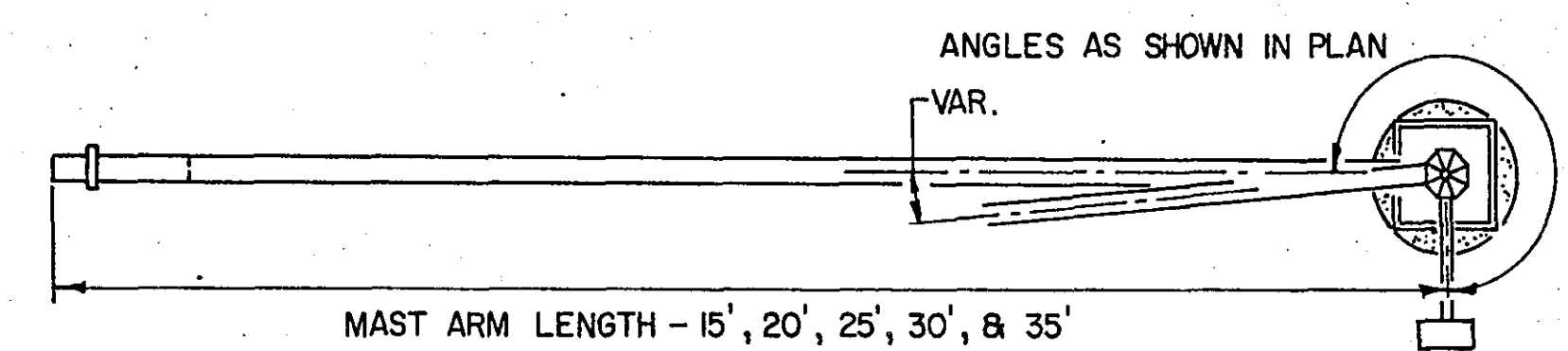


DETAIL B
FLANGE

- NOTES:
1. LETTER TYPE INDICATES POLE MAST ARM POSITION WITH RESPECT TO THE ϕ OF ROADWAY.
 2. NUMBER FOLLOWING TYPE LETTER INDICATES SIGNAL MAST ARM LENGTH.
 3. SECOND LETTER INDICATES LUMINAIRE TRUSS-TYPE ARM EXTENSION OR DAVIT-TYPE ARM EXTENSION. SECOND LETTER FOLLOWED BY NUMBERS INDICATES LUMINAIRE MOUNTING HEIGHT.
 4. NUMBER FOLLOWING INDICATES LENGTH OF LUMINAIRE TRUSS ARM OR DAVIT ARM.



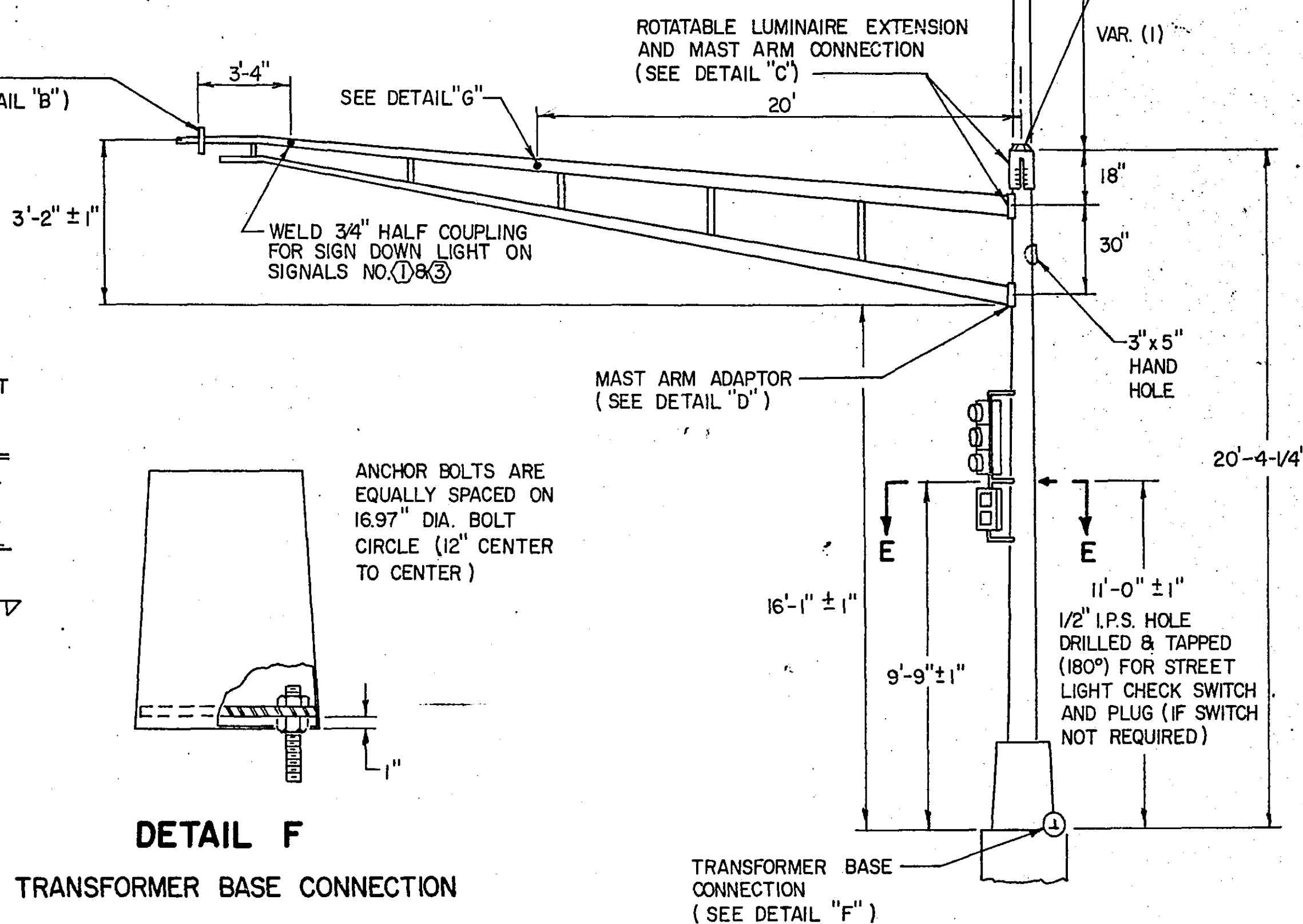
LUMINAIRE ARM EXTENSION



PLAN

- (1) DIMENSIONS SHOWN SHOULD PROVIDE FOR A DISTANCE OF 30' OR 40' FROM TRANSFORMER BASE BOTTOM TO TOP OF LUMINAIRE. DIMENSIONS MAY VARY AS SPECIFIED BY THE RAMSEY COUNTY HIGHWAY DEPT.

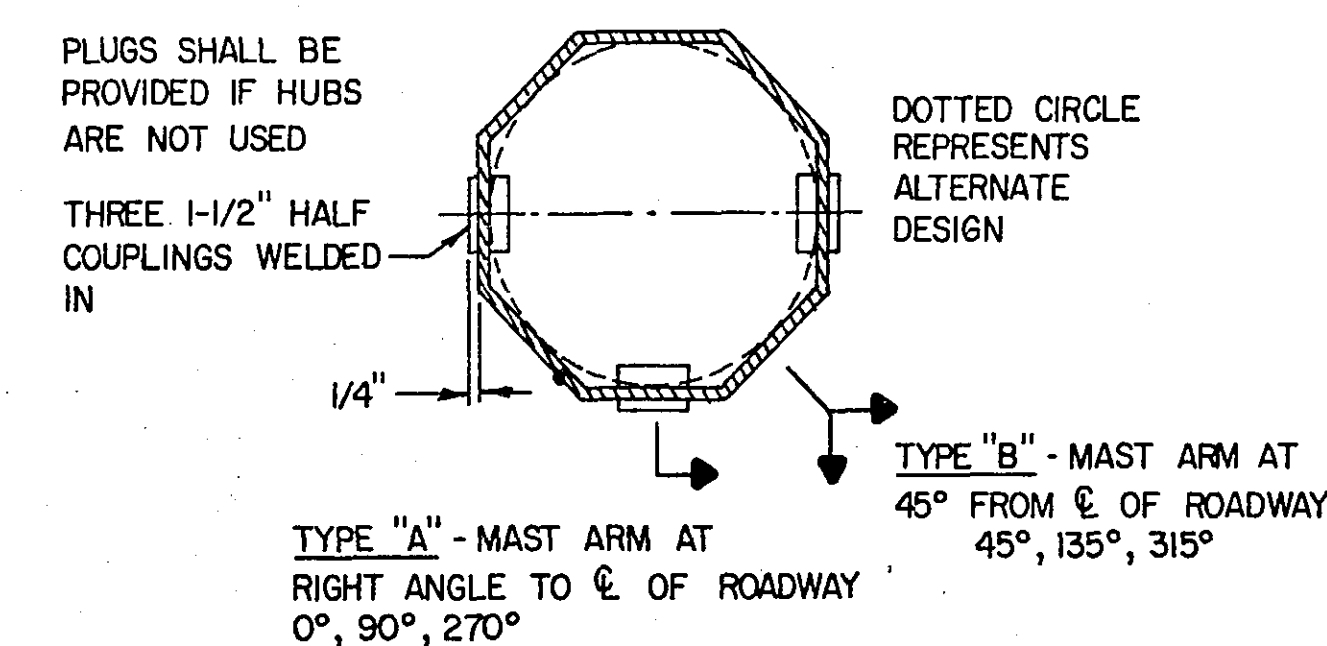
FOR LUMINAIRE, USE TRUSS-TYPE ARM OR DAVIT-TYPE ARM SHAFT EXTENSION AS SPECIFIED



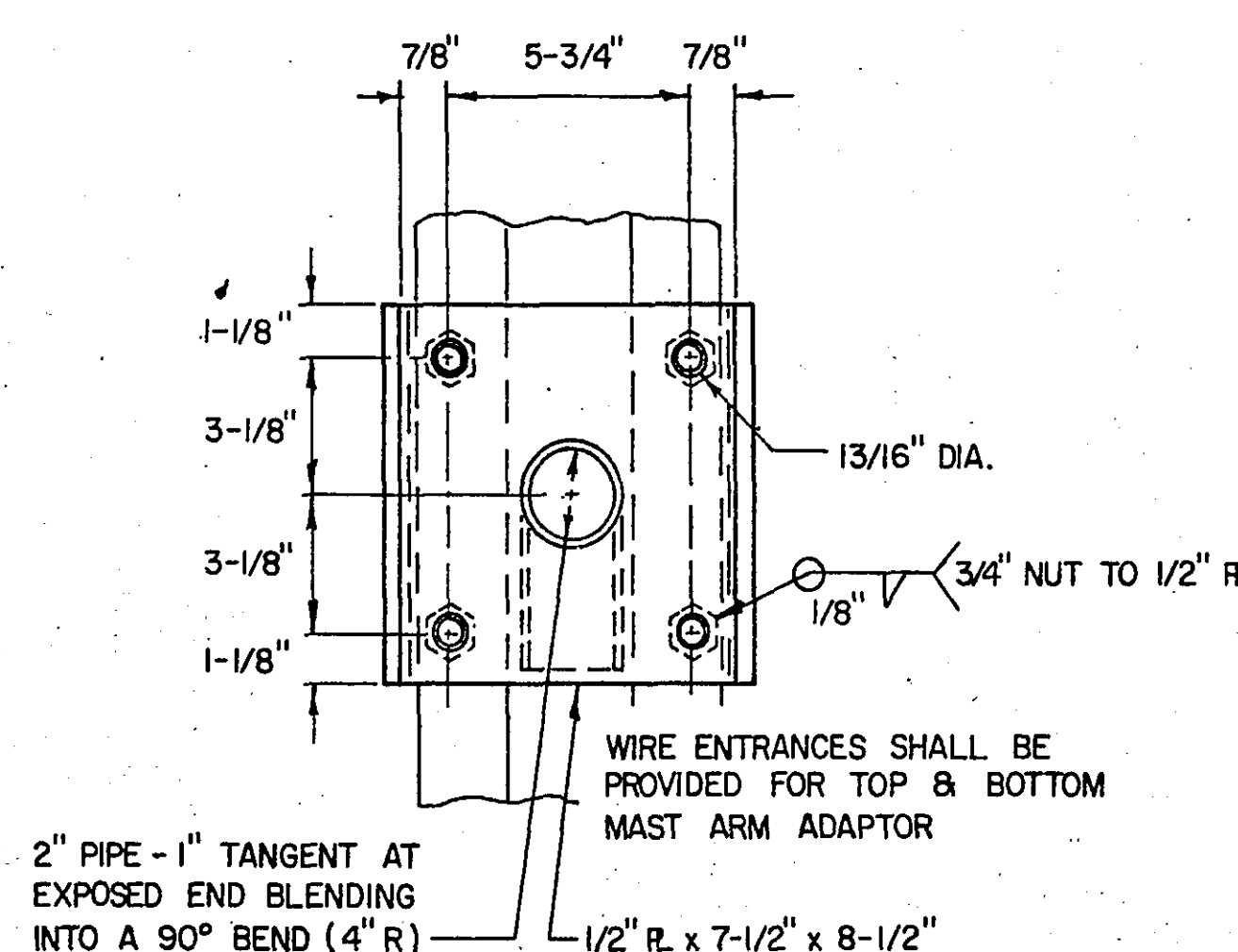
ELEVATION

POLE AND MAST ARM

DETAIL F
TRANSFORMER BASE CONNECTION

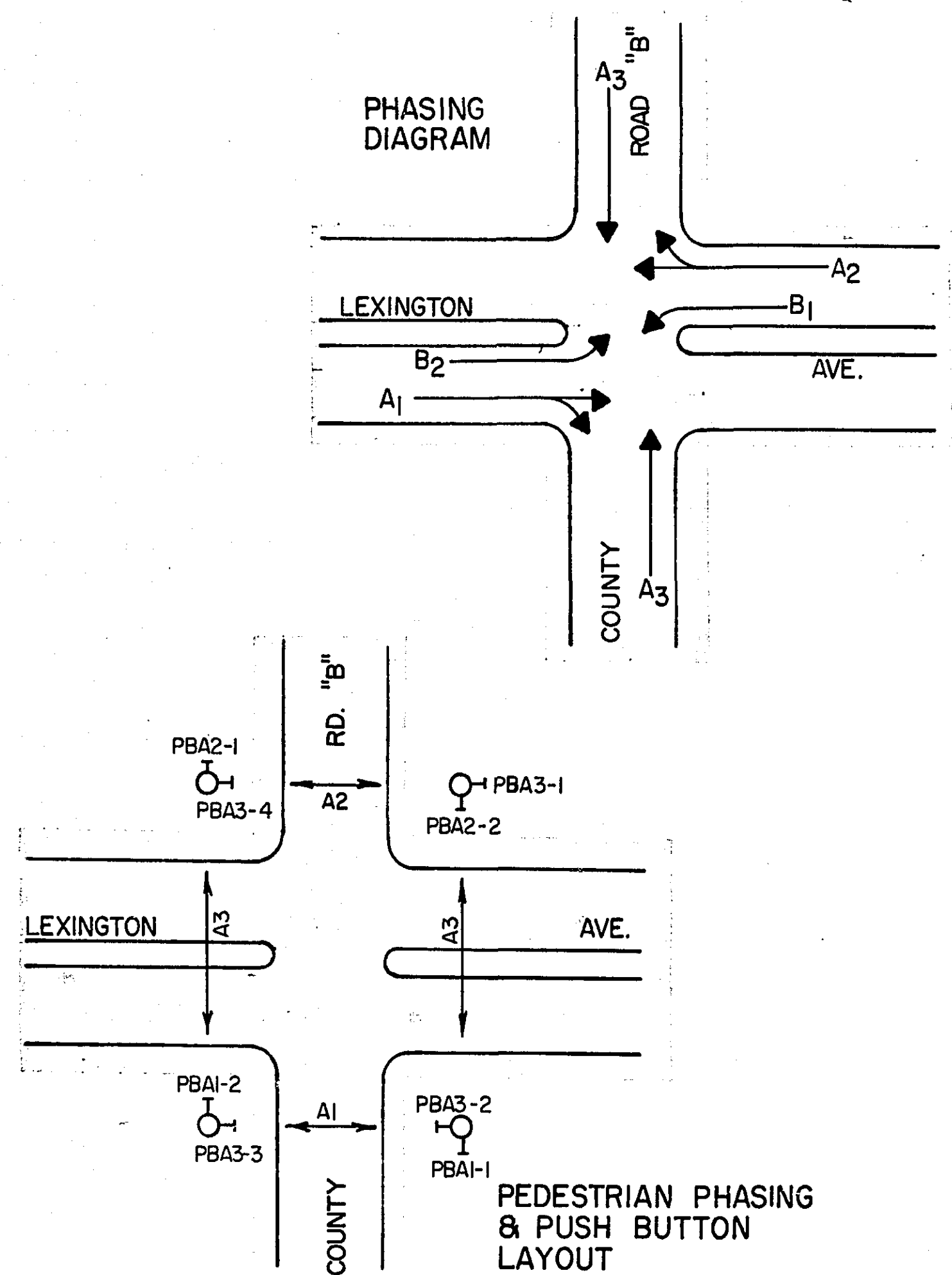


SECTION E-E
POLE-MOUNTED SIGNAL HUB



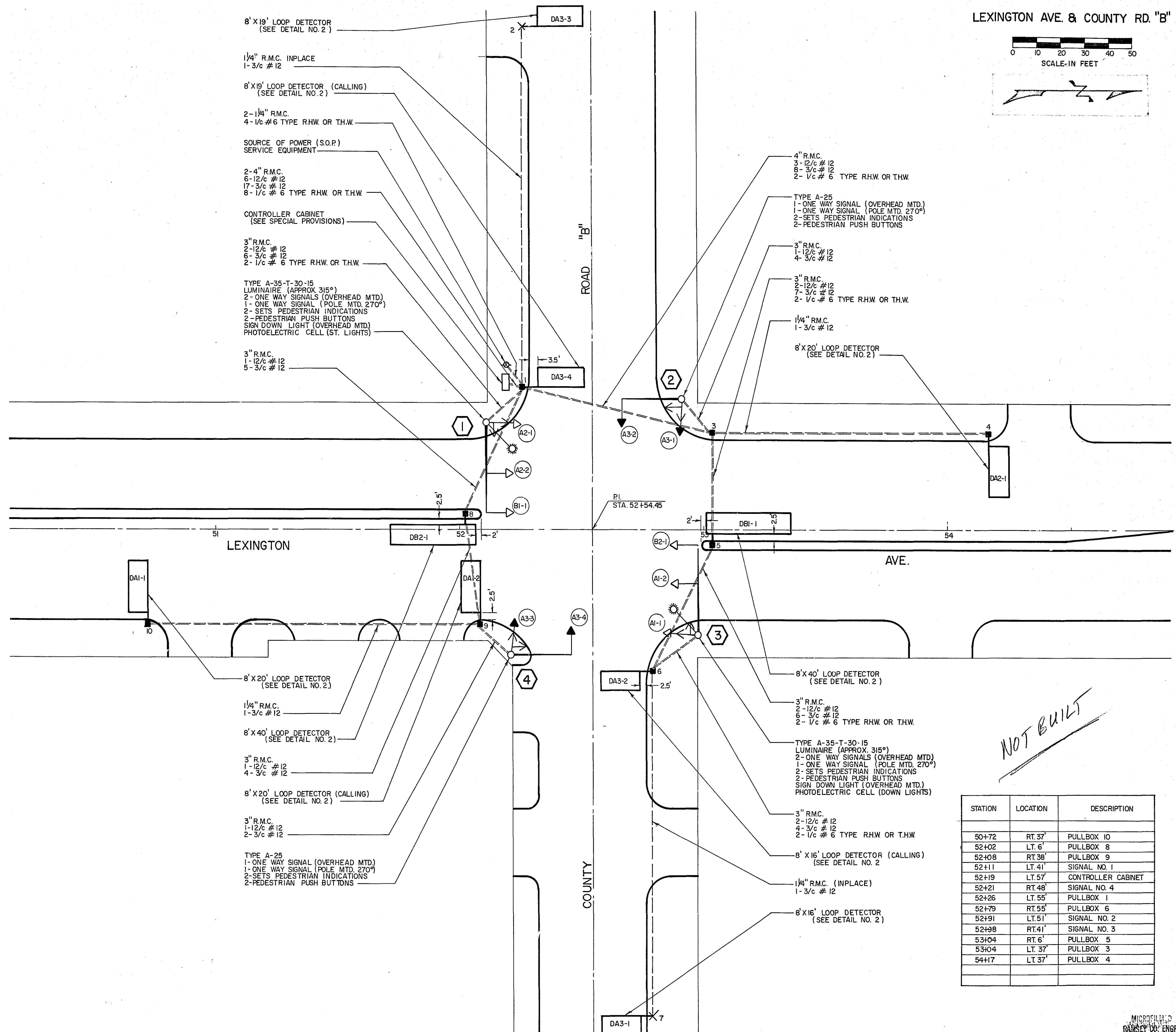
DETAIL D
MAST ARM ADAPTOR

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



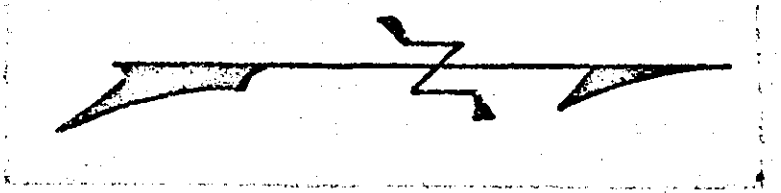
FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1-1	A1	R	12"	12"	12"	-	-	-
A1-2	A1	R	12"	12"	12"	-	-	-
A2-1	A2	R	12"	12"	12"	-	-	-
A2-2	A2	R	12"	12"	12"	-	-	-
A3-1	A3	R	12"	12"	12"	-	-	-
A3-2	A3	R	12"	12"	12"	-	-	-
A3-3	A3	R	12"	12"	12"	-	-	-
A3-4	A3	R	12"	12"	12"	-	-	-
* B1-1	B1	R	12"	12"	-	12"	-	-
* B2-1	B2	R	12"	12"	-	12"	-	-

* SEE SPECIAL PROVISIONS



LEXINGTON AVE. & COUNTY RD. "B"

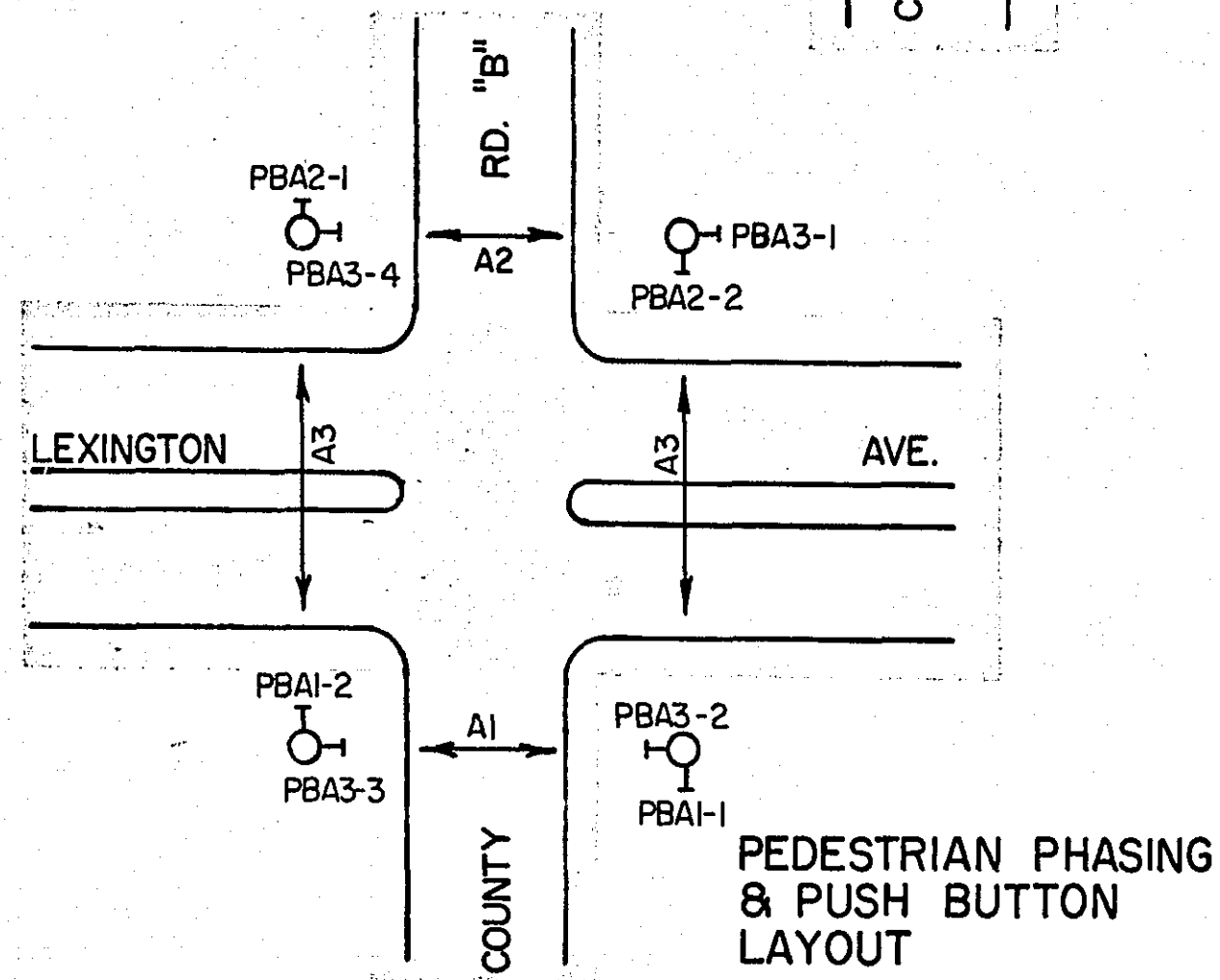
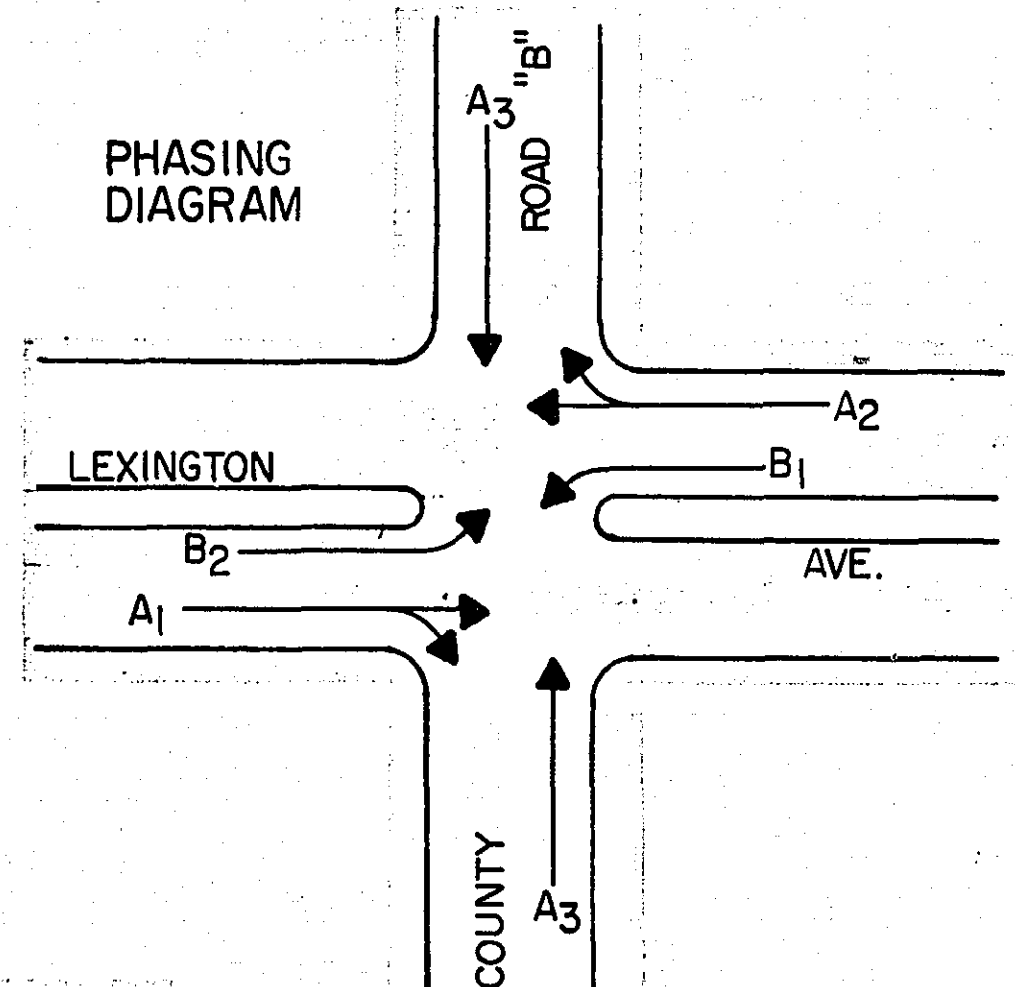
0 10 20 30 40 50
SCALE-IN FEET



NOT BUILT

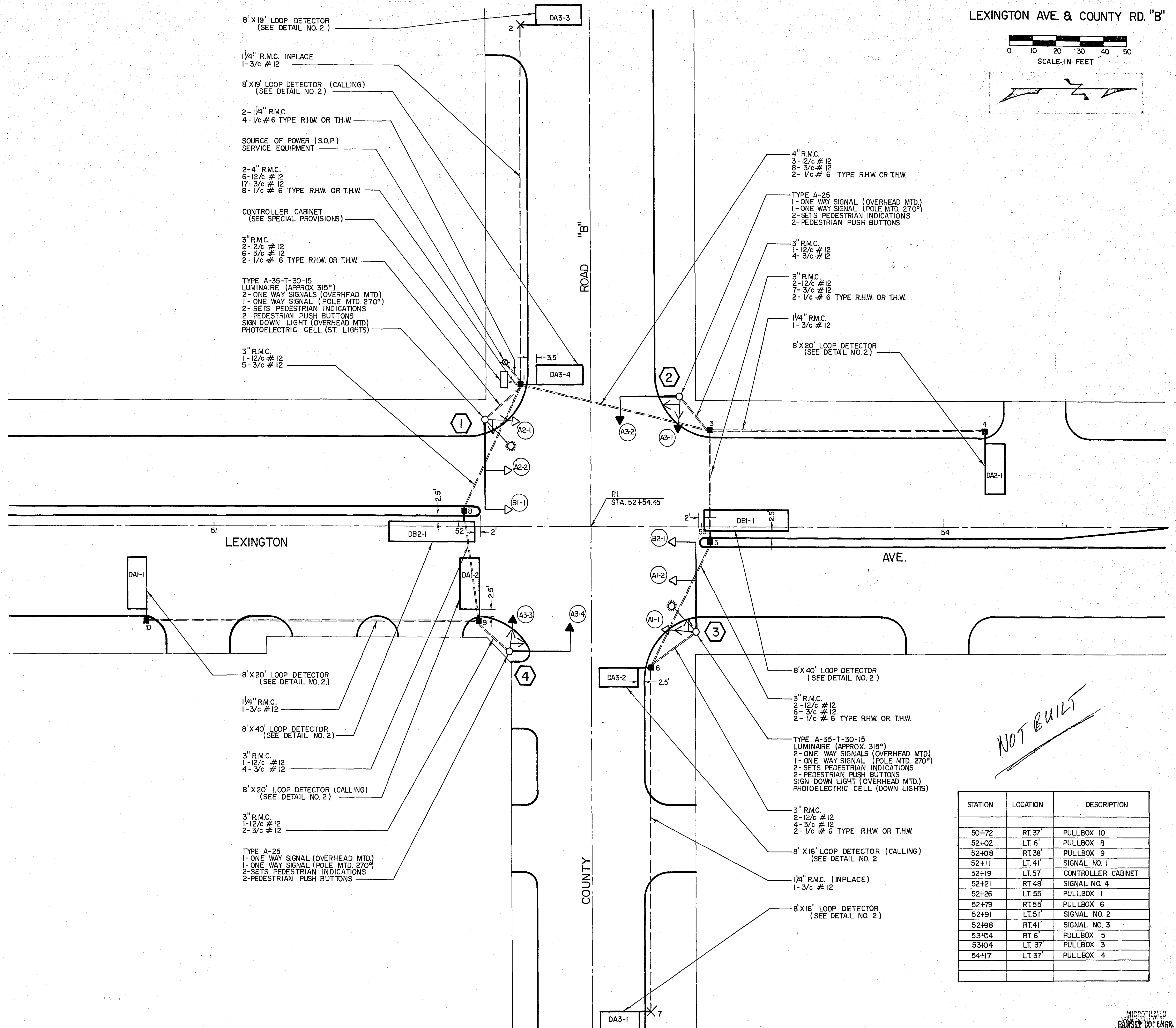
STATION	LOCATION	DESCRIPTION
50+72	RT. 37'	PULLBOX 10
52+02	LT. 6'	PULLBOX 8
52+08	RT. 38'	PULLBOX 9
52+11	LT. 41'	SIGNAL NO. 1
52+19	LT. 57'	CONTROLLER CABINET
52+21	RT. 48'	SIGNAL NO. 4
52+26	LT. 55'	PULLBOX 1
52+79	RT. 55'	PULLBOX 6
52+91	LT. 51'	SIGNAL NO. 2
52+98	RT. 41'	SIGNAL NO. 3
53+04	RT. 6'	PULLBOX 5
53+04	LT. 37'	PULLBOX 3
54+17	LT. 37'	PULLBOX 4

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

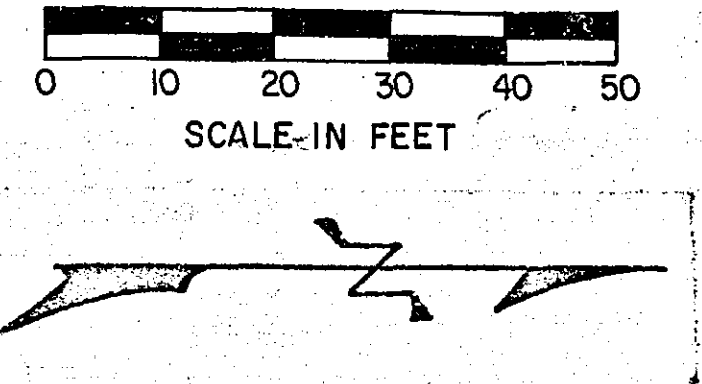


FACE	PHASE	FLASH	INDICATION SIZE					
			R	Y	G	←	↑	→
A1-1	A1	R	12"	12"	12"	-	-	-
A1-2	A1	R	12"	12"	12"	-	-	-
A2-1	A2	R	12"	12"	12"	-	-	-
A2-2	A2	R	12"	12"	12"	-	-	-
A3-1	A3	R	12"	12"	12"	-	-	-
A3-2	A3	R	12"	12"	12"	-	-	-
A3-3	A3	R	12"	12"	12"	-	-	-
A3-4	A3	R	12"	12"	12"	-	-	-
* B1-1	B1	R	12"	12"	-	12"	-	-
* B2-1	B2	R	12"	12"	-	12"	-	-

* SEE SPECIAL PROVISIONS



LEXINGTON AVE. & COUNTY RD. "B"



NOT BUILT

STATION	LOCATION	DESCRIPTION
50+72	RT. 37'	PULLBOX 10
52+02	LT. 6'	PULLBOX 8
52+08	RT. 38'	PULLBOX 9
52+11	LT. 41'	SIGNAL NO. 1
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52+98	RT. 41'	SIGNAL NO. 3
53+04	RT. 6'	PULLBOX 5
53+04	LT. 37'	PULLBOX 3
54+17	LT. 37'	PULLBOX 4

