

PLAN	SURVEYED	DATE
NO.	BY	
NOTE BOOK	ALIGNED CHECKED	
	RT. OF WAY CHECKED	

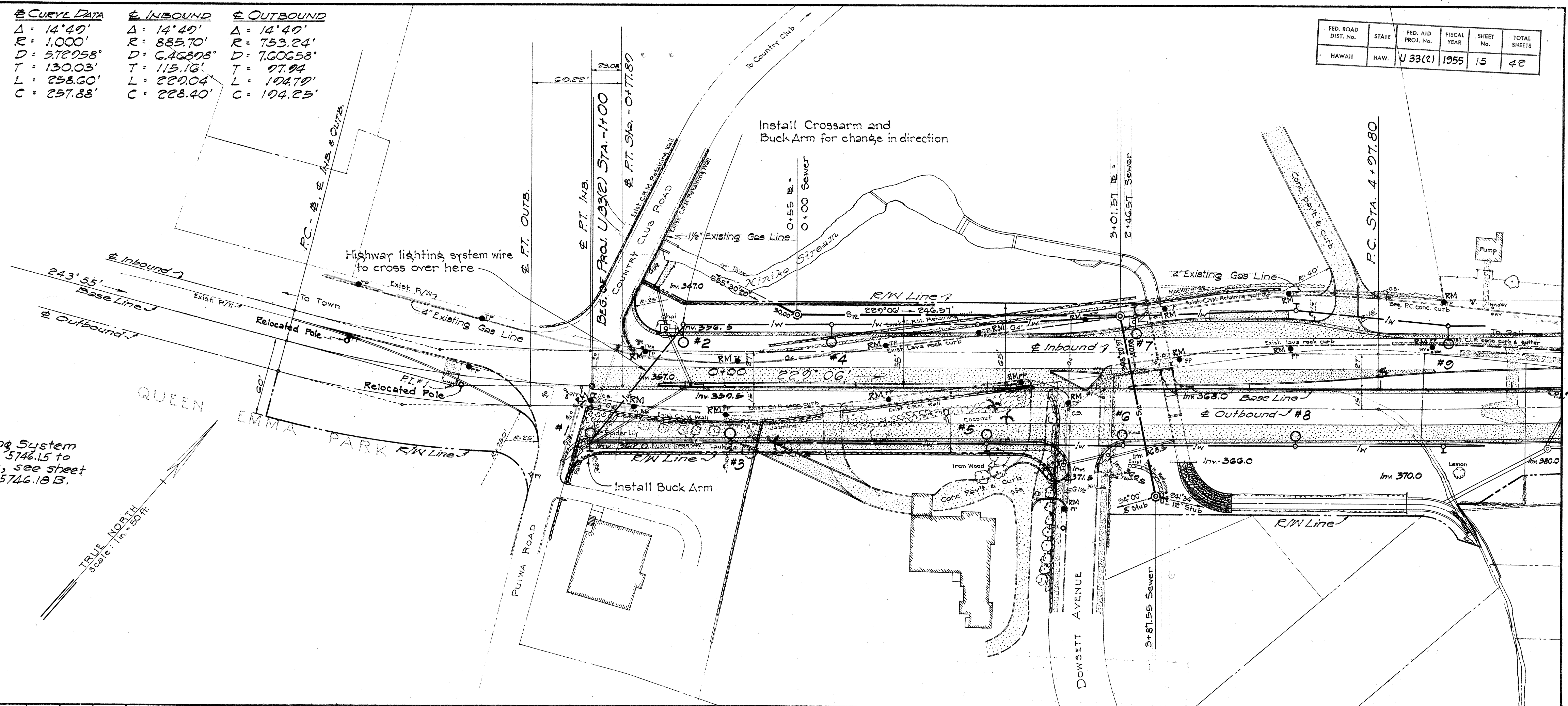
- LEGEND**
- Existing Poles
 - RM Existing Poles to be removed by others
 - New Poles to be installed by others unless otherwise noted
 - Existing Pole with Luminaire
 - New Pole with Luminaire
 - lw— One overhead wire, *G AWG

#1, 3, 5, 6, 8, 10, 12, 14, 16, & 20
Above numbered luminaires mounted on 6-ft. brackets. All others on 12-ft. bracket.

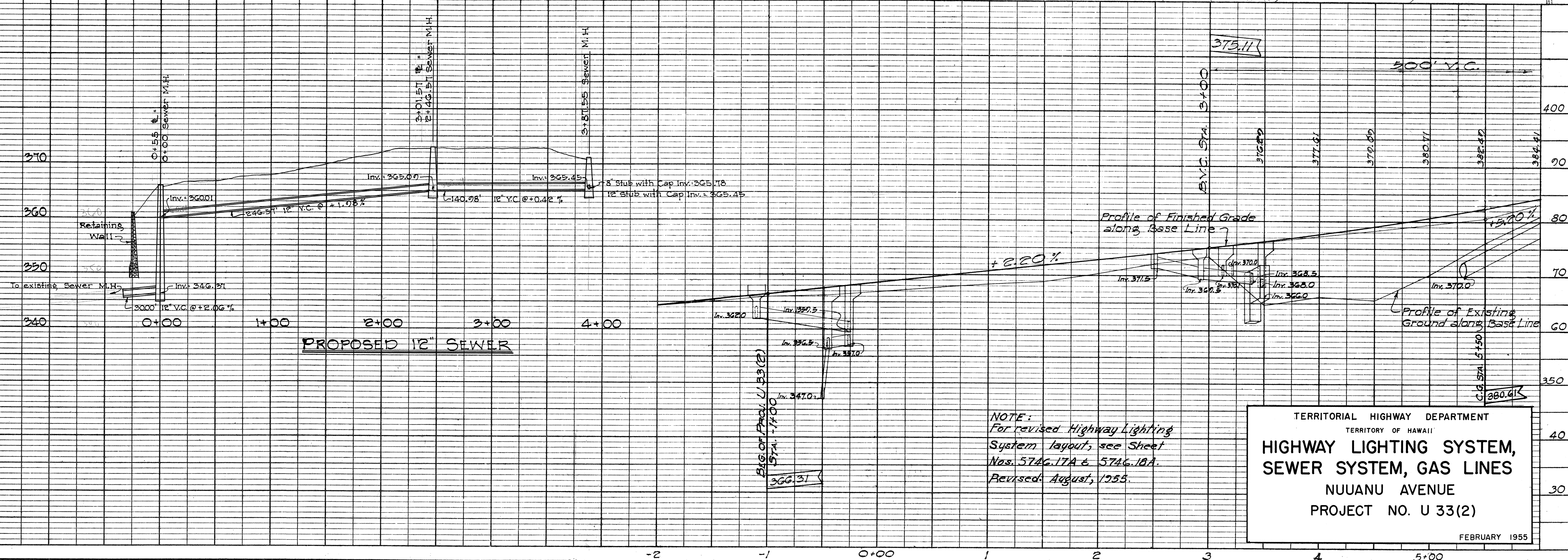
NOTE:
Existing Gas Lines in the way of construction shall be moved by the owner.

Note:
Delete the Highway Lighting System Layout only on sheet Nos. 5746.15 to 5746.17. For revised layout, see sheet Nos. 5746.17A, 5746.18A & 5746.19B. Revised August 1955.

CURVE DATA	INBOUND	OUTBOUND
Δ: 14'40"	Δ: 14'40"	Δ: 14'40"
R: 1,000'	R: 885.70'	R: 753.24'
D: 572.058'	D: 646.898'	D: 760.658'
T: 130.03'	T: 115.16'	T: 97.94'
L: 258.60'	L: 220.04'	L: 104.79'
C: 237.33'	C: 228.40'	C: 104.25'



PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
	B. M.'S NOTED		
NO.	STRUCTURE NOTATIONS CHK'D.		



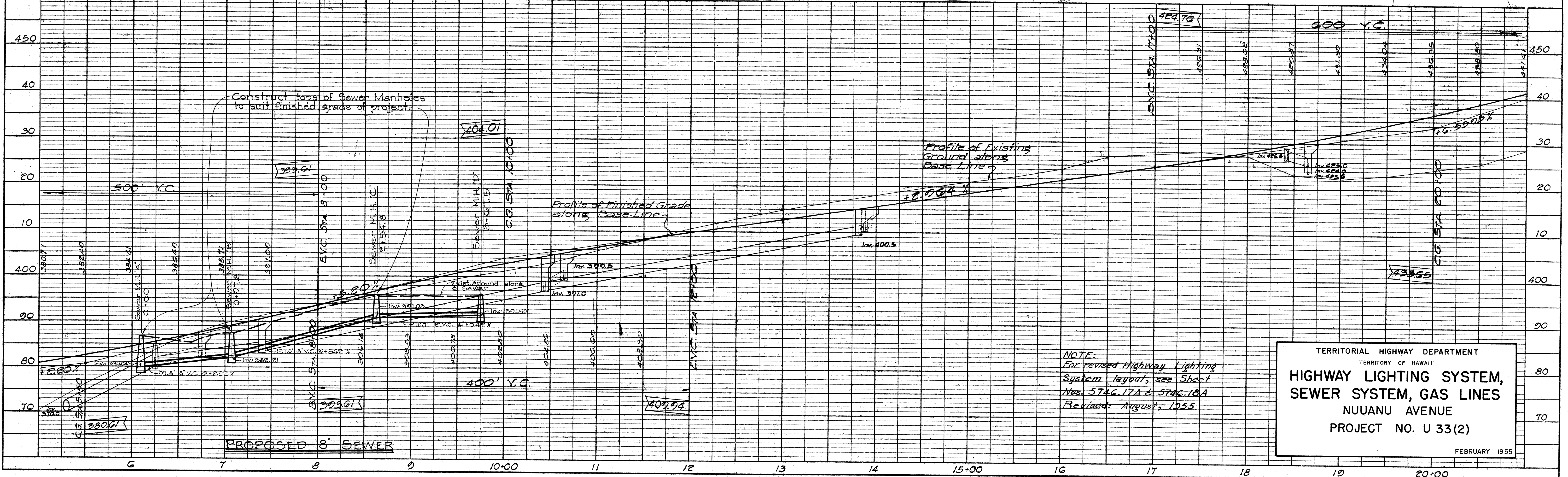
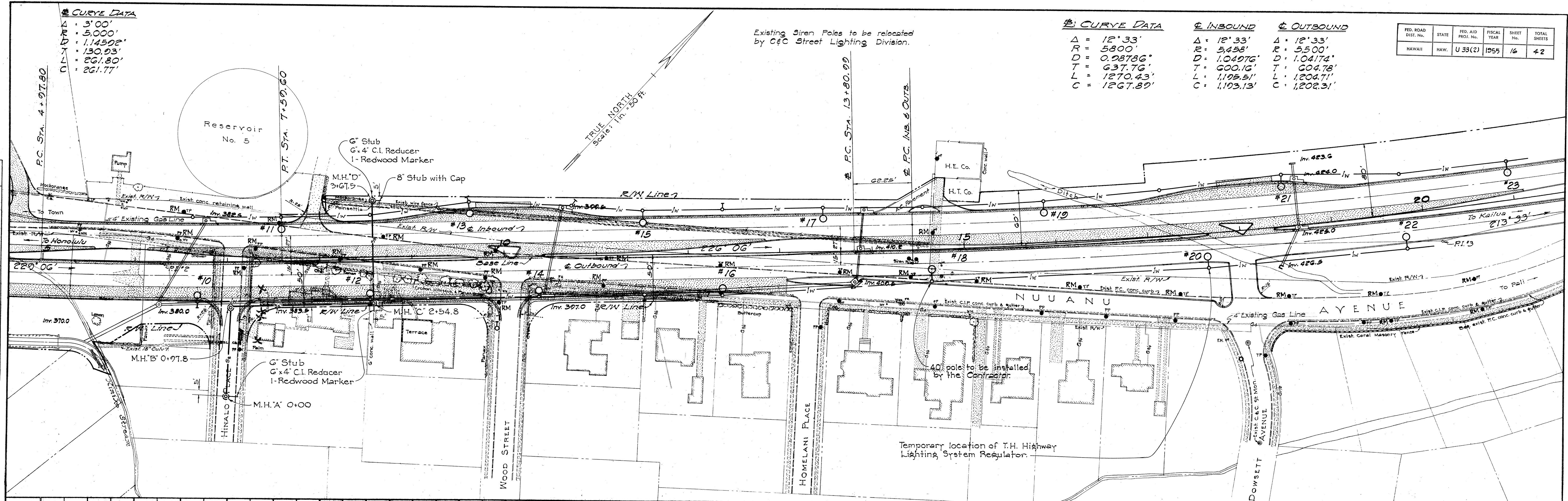
NOTE:
For revised Highway Lighting System layout, see Sheet Nos. 5746.17A & 5746.18A. Revised: August, 1955.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
**HIGHWAY LIGHTING SYSTEM,
SEWER SYSTEM, GAS LINES**
NUUANU AVENUE
PROJECT NO. U 33(2)

FEBRUARY 1955

PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	NO.
	ALIGNMENT CHECKED	BY

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	NO.
	GRADES CHECKED	BY



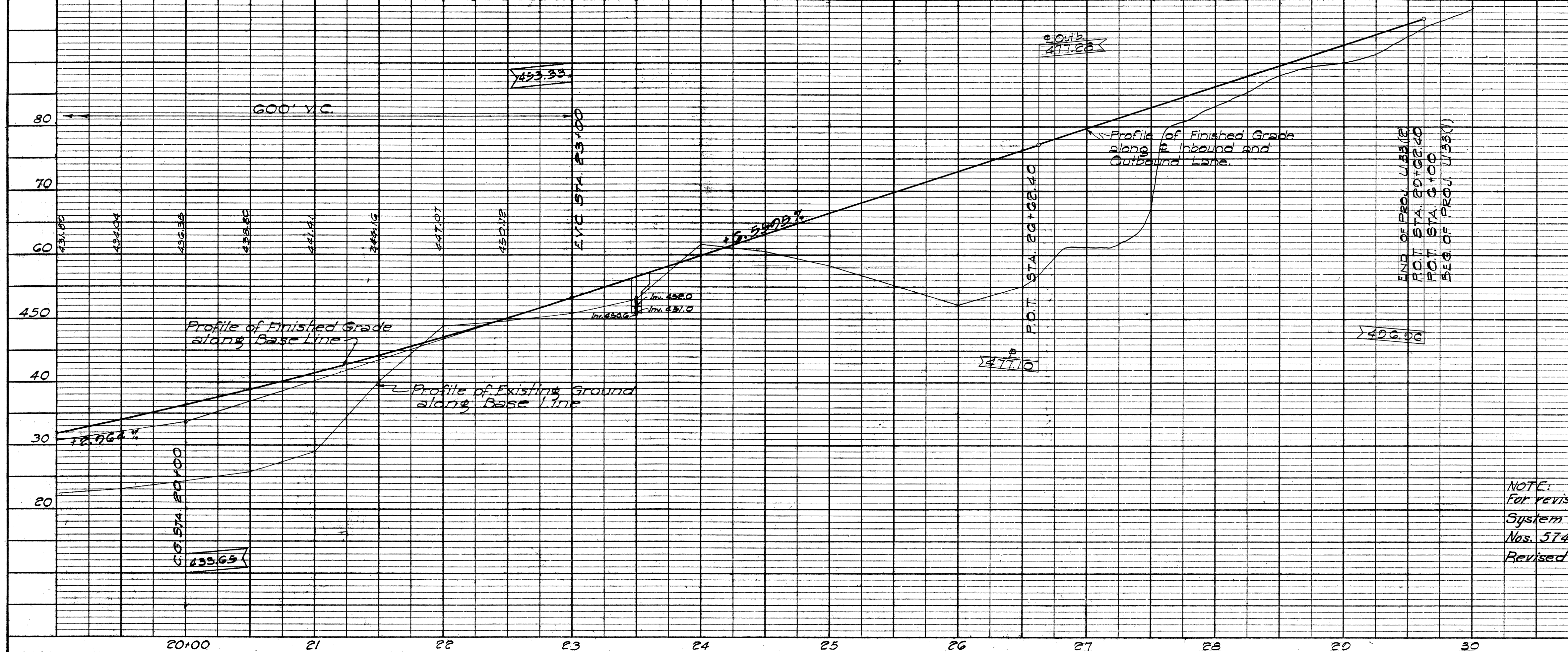
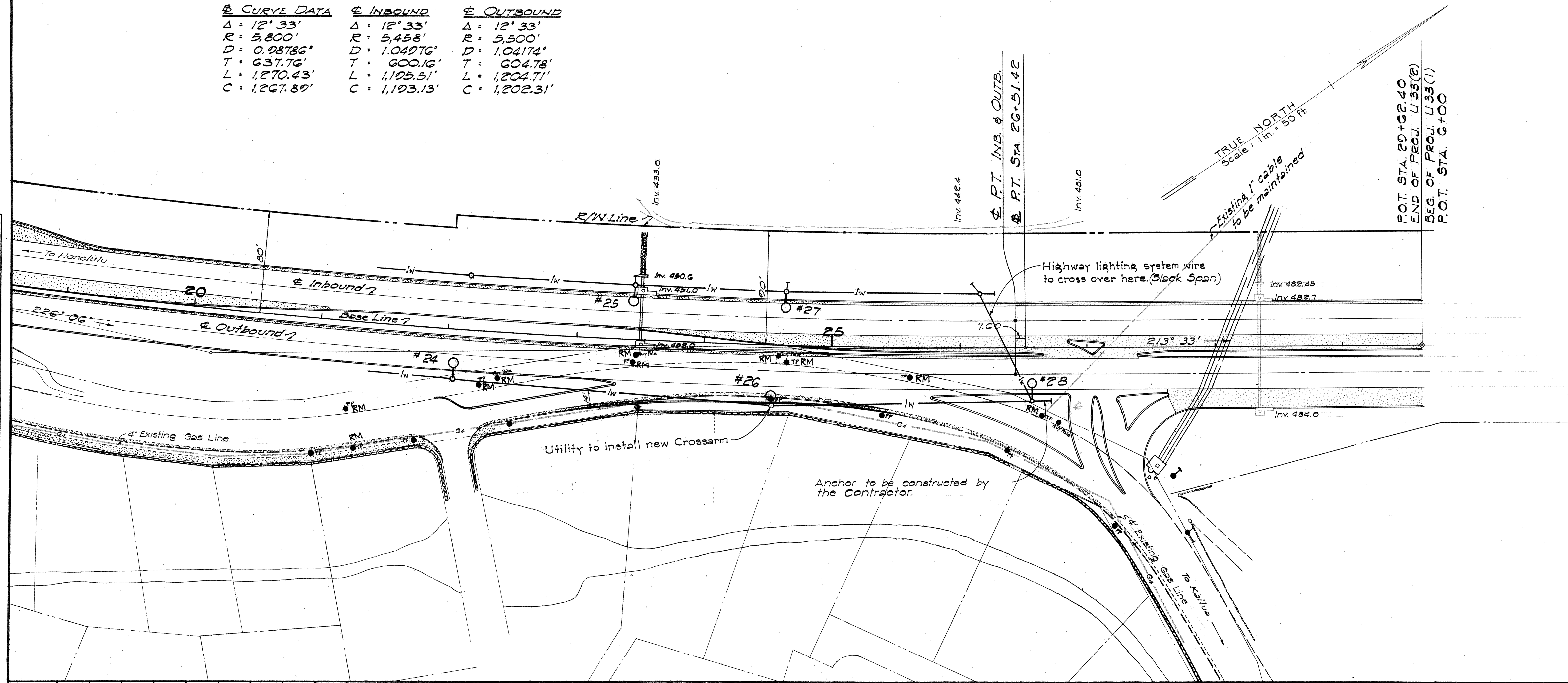
PLAN	SURVEYED	DATE
NOTE BOOK	BY	
NO.		

PROFILE	SURVEYED	DATE
NOTE BOOK	BY	
NO.		

Curve Data	Inbound	Outbound
$\Delta = 12^\circ 33'$	$\Delta = 12^\circ 33'$	$\Delta = 12^\circ 33'$
$R = 5,800'$	$R = 5,458'$	$R = 5,800'$
$D = 0.08786'$	$D = 1.04976'$	$D = 1.04174'$
$T = 637.76'$	$T = 600.16'$	$T = 604.78'$
$L = 1,270.43'$	$L = 1,105.51'$	$L = 1,204.71'$
$C = 1,267.80'$	$C = 1,193.13'$	$C = 1,202.31'$

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	U 33(2)	1955	17	42

3-7-55



NOTE:
For revised Highway Lighting
System layout, see Sheet
Nos. 574G.17A & 574G.18A.
Revised August, 1955

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
**HIGHWAY LIGHTING SYSTEM,
SEWER SYSTEM, GAS LINES**
NUUANU AVENUE
PROJECT NO. U 33(2)
FEBRUARY 1955

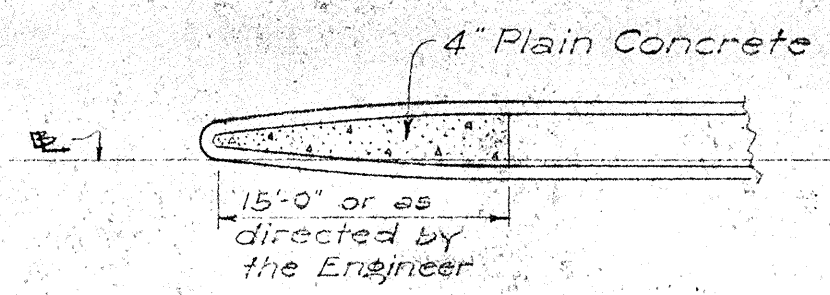
LEGEND

- Pole Bracketed Street Lights
- Round Monotube Standards
- One Overhead Wire, No. 6 AWG on Wood Poles
- No. 8 AWG, Underground Cable Buried in Trench
- No. 8 Cable in 1½" Conduit

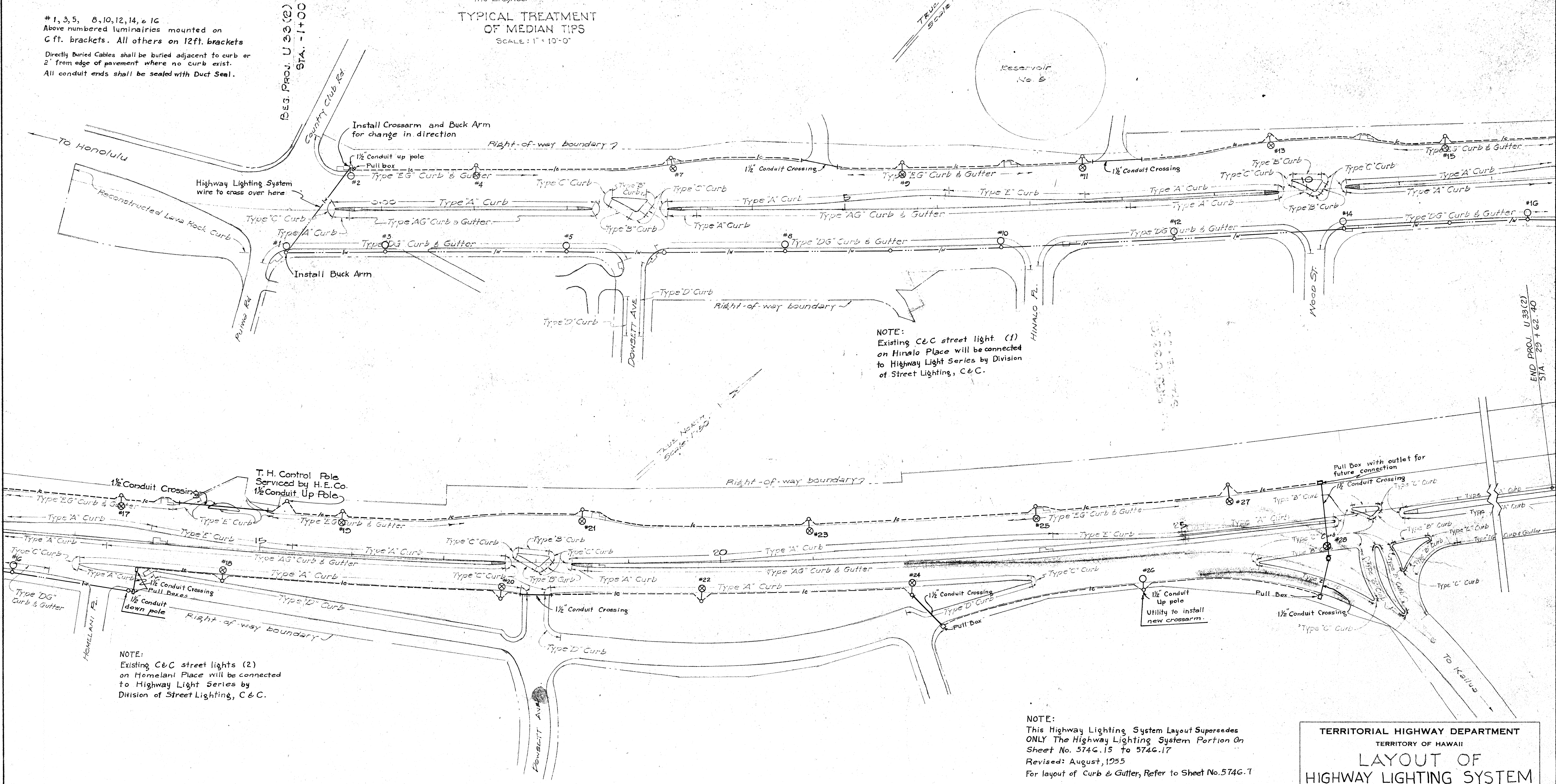
#1, 3, 5, 8, 10, 12, 14, & 16
Above numbered luminaires mounted on 6 ft. brackets. All others on 12 ft. brackets

Directly Buried Cables shall be buried adjacent to curb or 2' from edge of pavement where no curb exist.

All conduit ends shall be sealed with Duct Seal.



TYPICAL TREATMENT OF MEDIAN TIPS
SCALE: 1" = 10'-0"



NOTE:
Existing C&C street light (1) on Hinalo Place will be connected to Highway Light Series by Division of Street Lighting, C&C.

NOTE:
Existing C&C street lights (2) on Homelani Place will be connected to Highway Light Series by Division of Street Lighting, C&C.

NOTE:
This Highway Lighting System Layout Supersedes ONLY The Highway Lighting System Portion On Sheet No. 574G.15 to 574G.17
Revised: August, 1955
For layout of Curb & Gutter, Refer to Sheet No. 574G.7

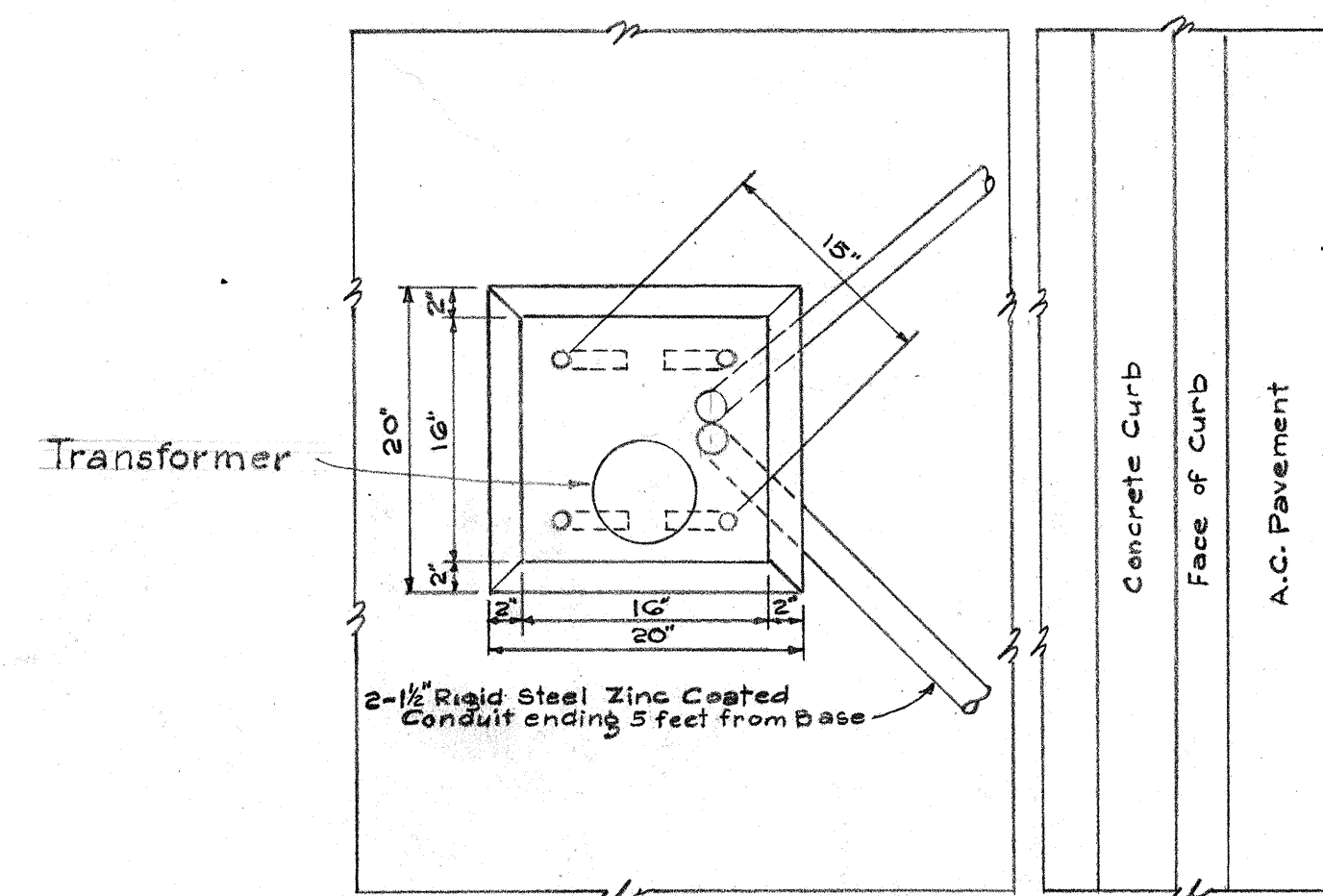
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

LAYOUT OF HIGHWAY LIGHTING SYSTEM

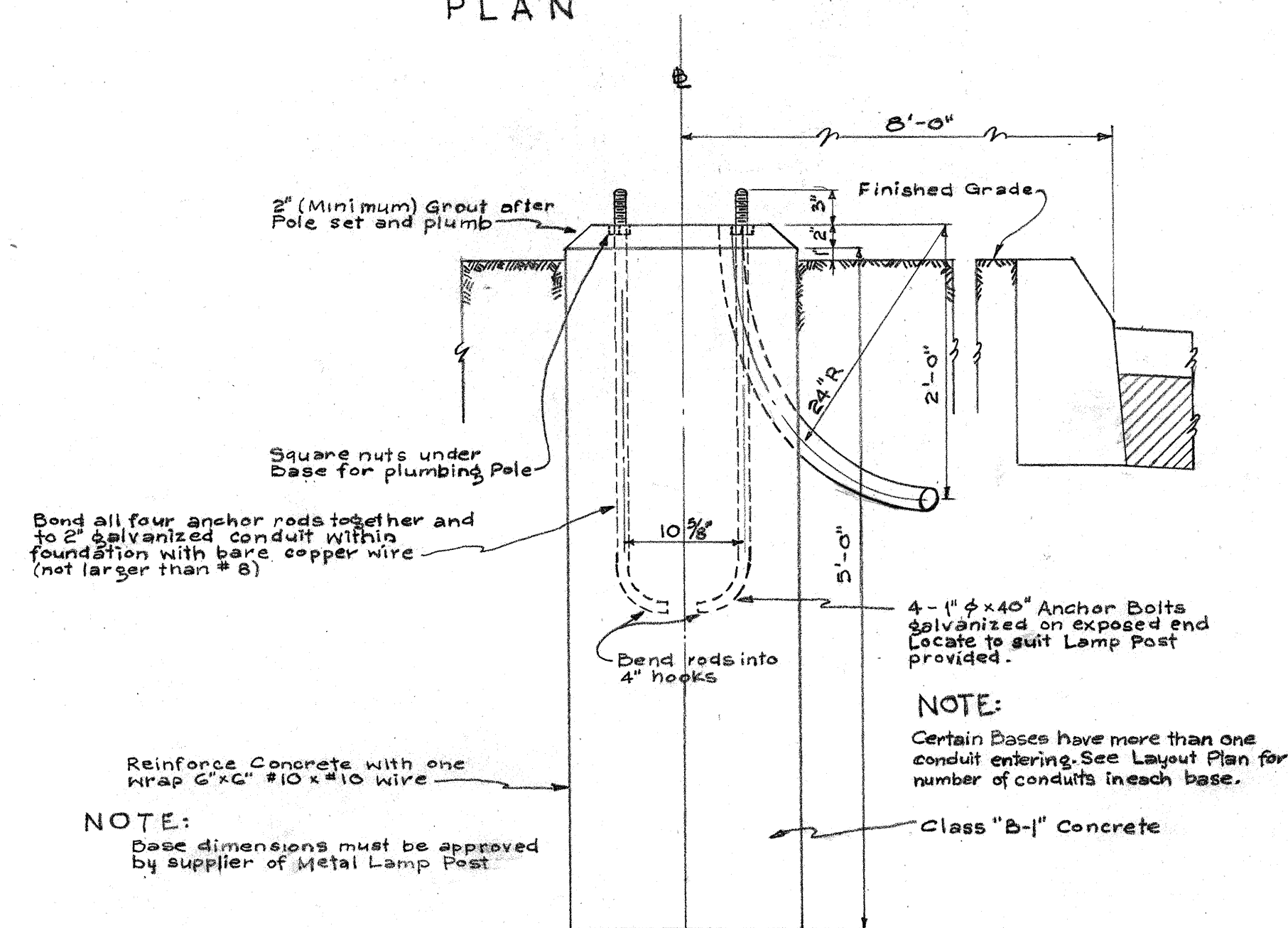
NUUANU AVENUE
PROJECT NO. U 33(2)

SCALE AS NOTED AUGUST, 1955

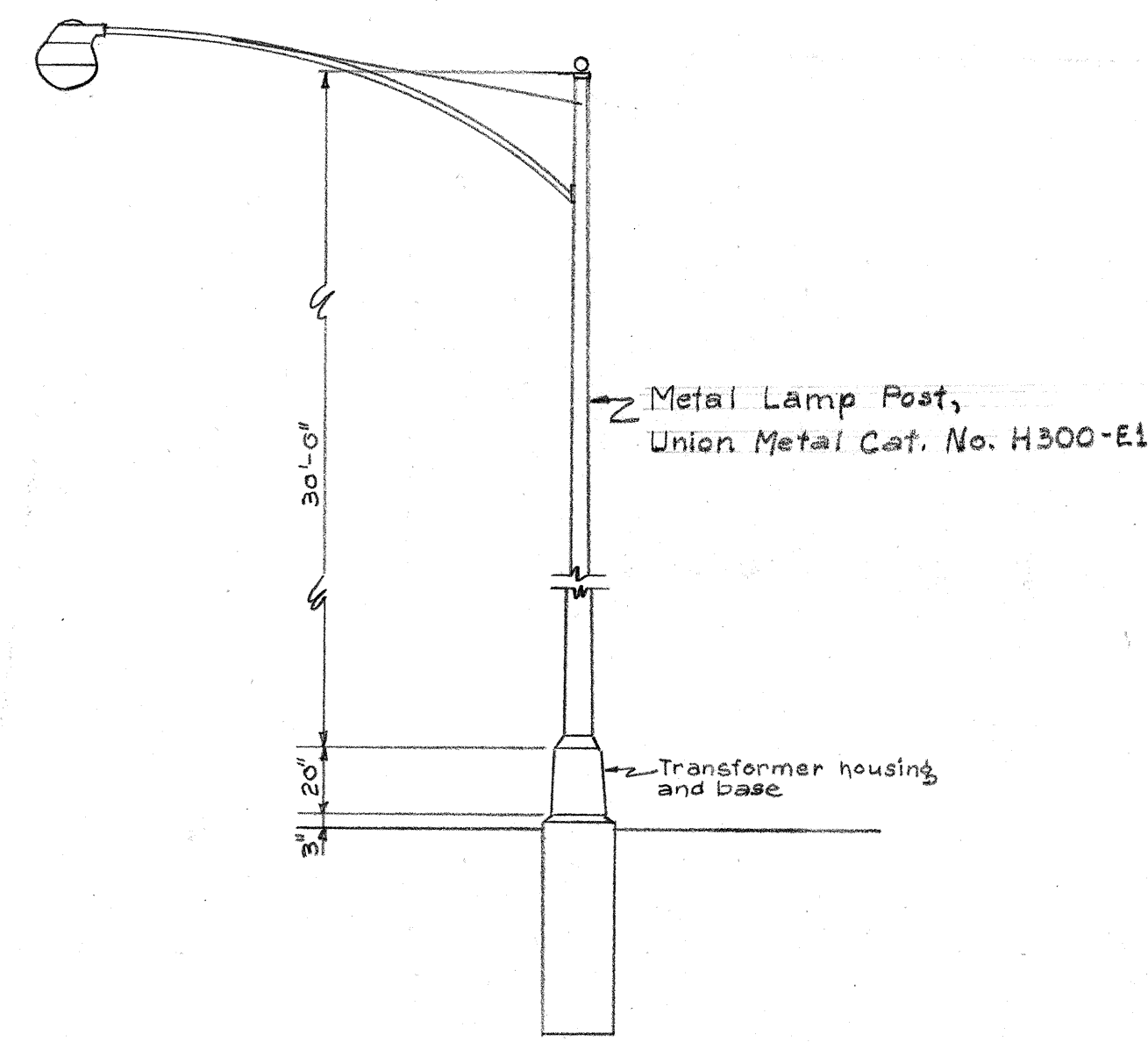
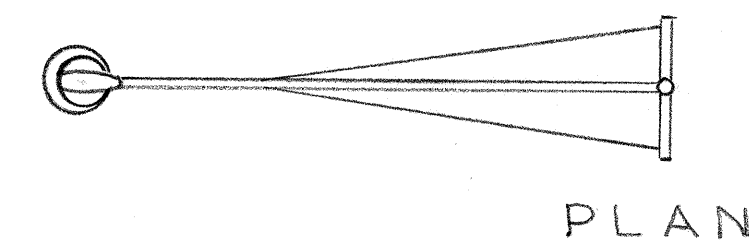
SURVEY PLOTTED BY	DATE
DRAWN BY	8-55
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	



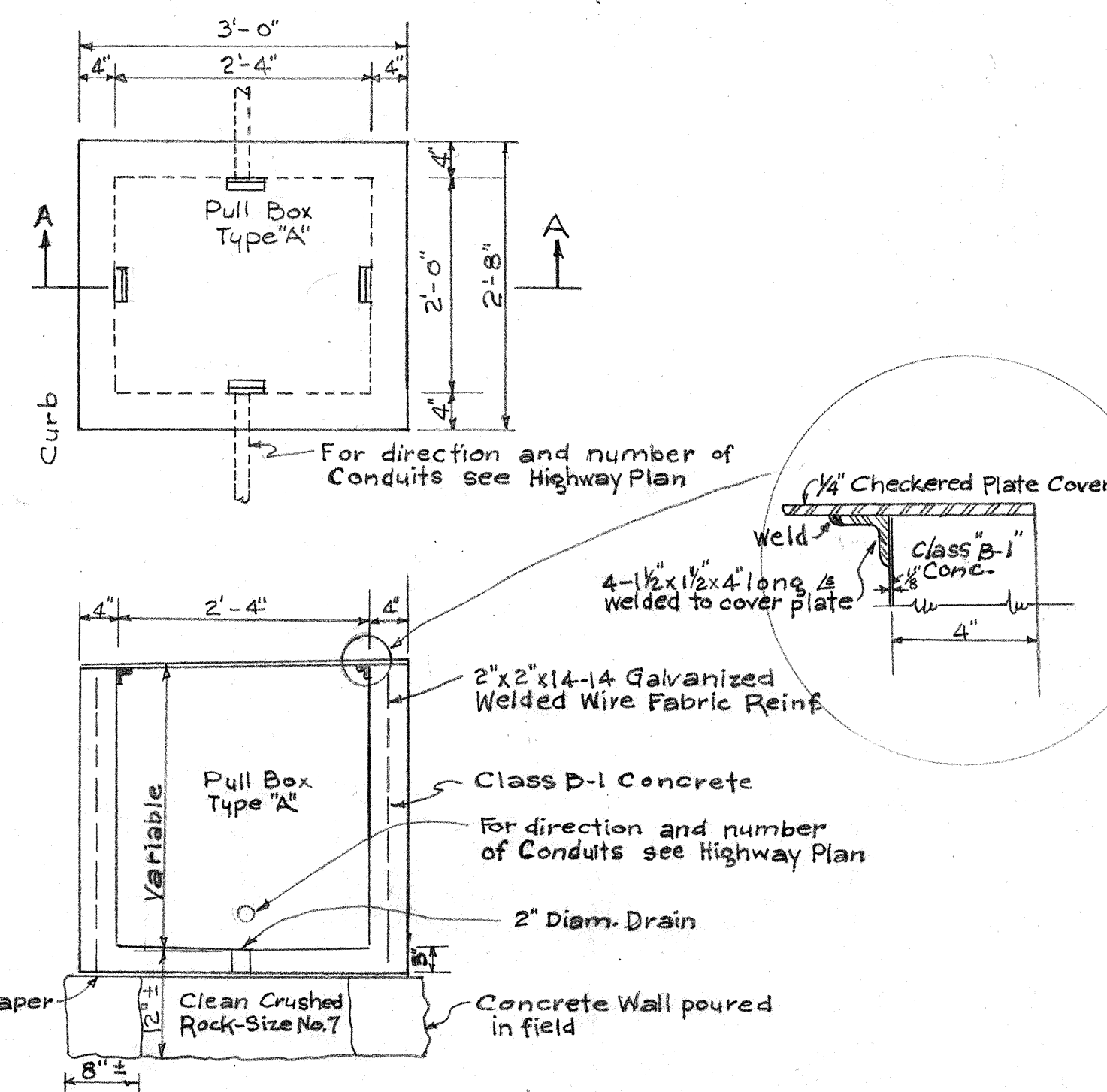
PLAN



CONCRETE BASE FOR METAL LAMP POST
Scale: 1"=1'-0"



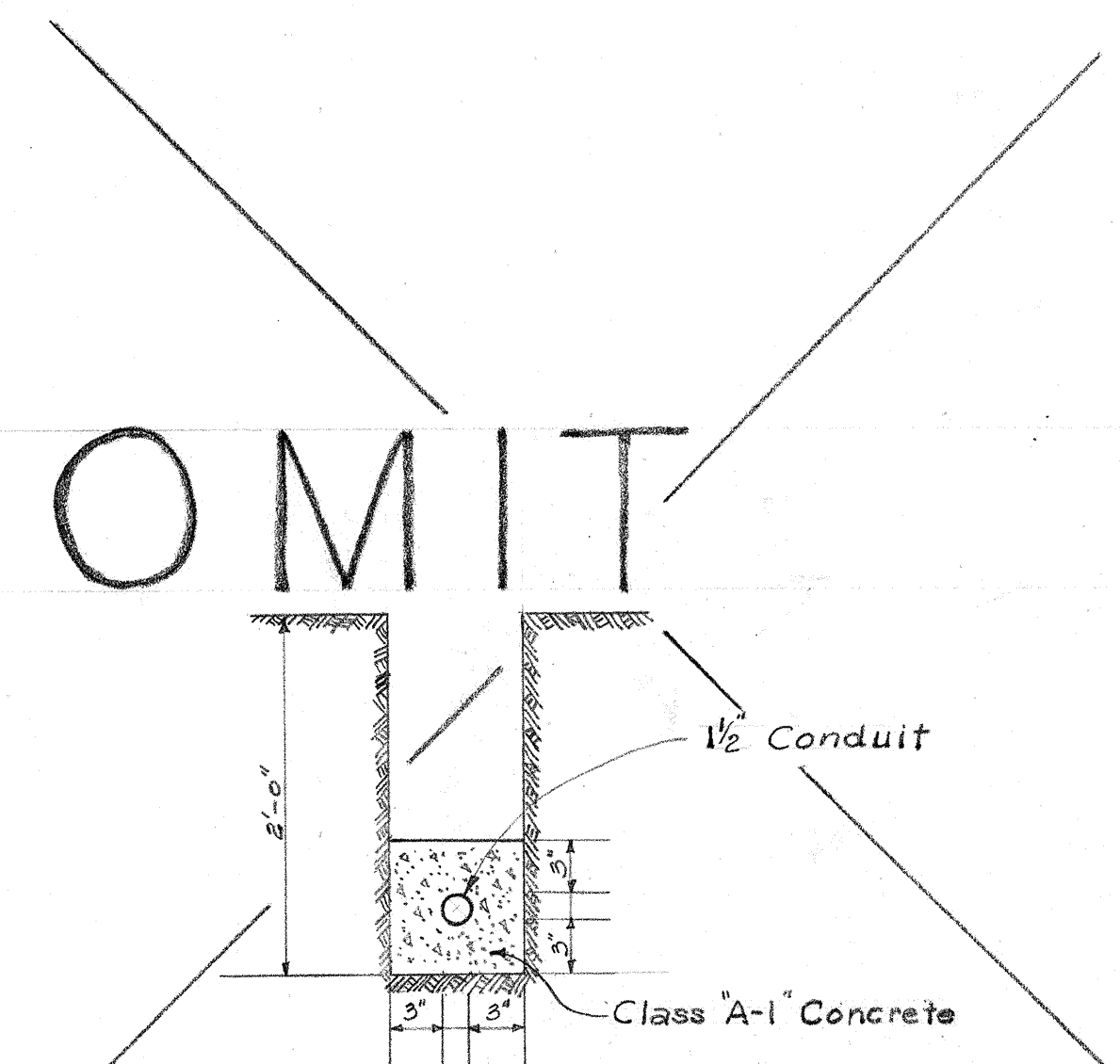
TYPICAL SINGLE ARM METAL LAMP POST
Scale: 1/4"=1'-0"



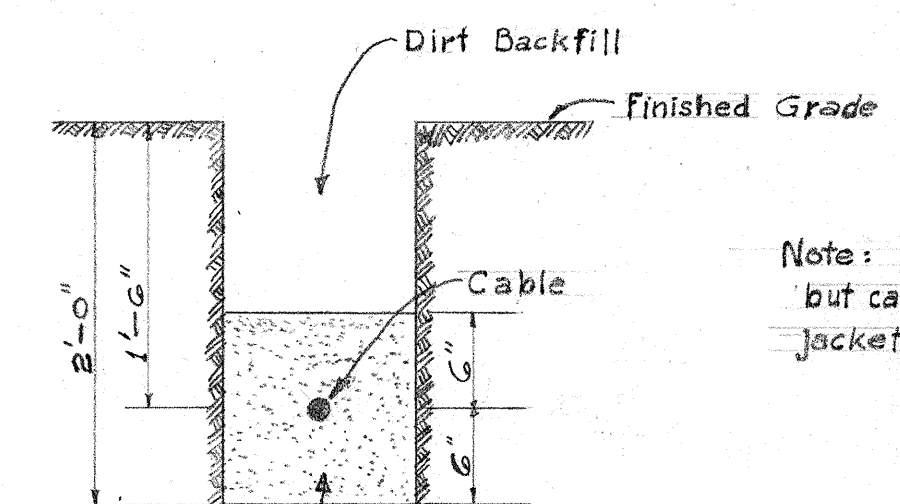
SECTION "A-A"

DETAIL OF TYPE "A" PULLBOX

Scale: 3/4"=1'-0"



DETAIL OF CONDUIT BURIAL AT CROSSING
Scale 1"=1'-0"



Note: All circuits to be buried in same trench, but cable for each circuit shall have their jackets identified differently.

DETAIL OF BACKFILL FOR DIRECTLY BURIED CABLES

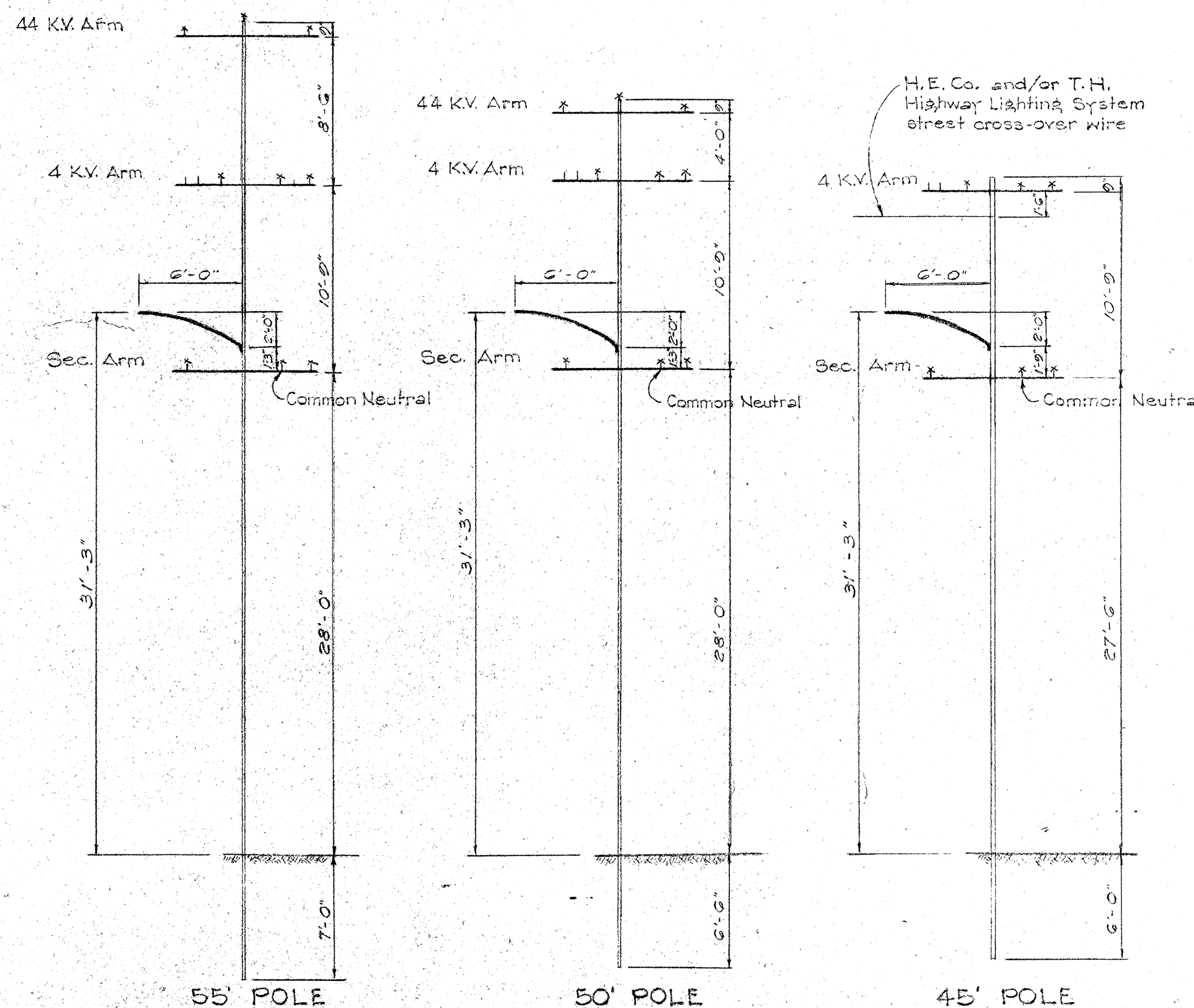
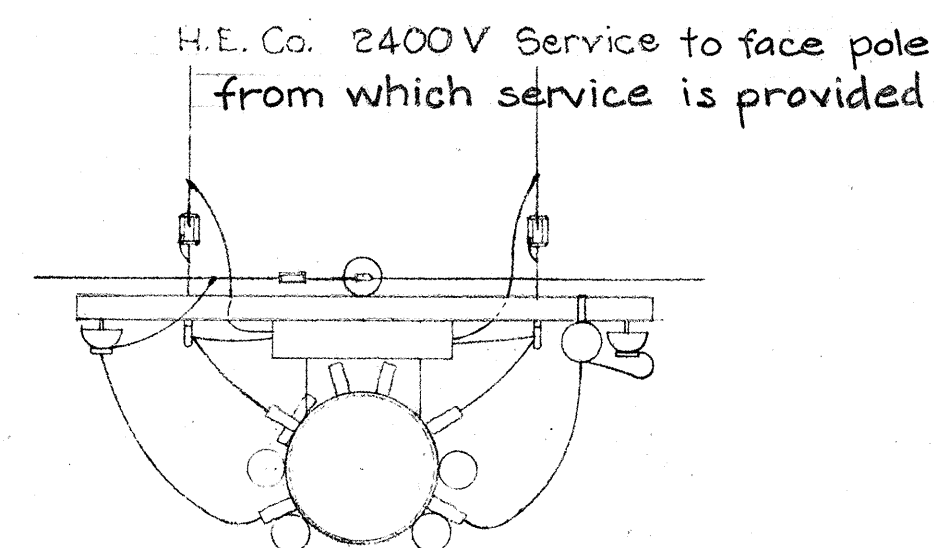
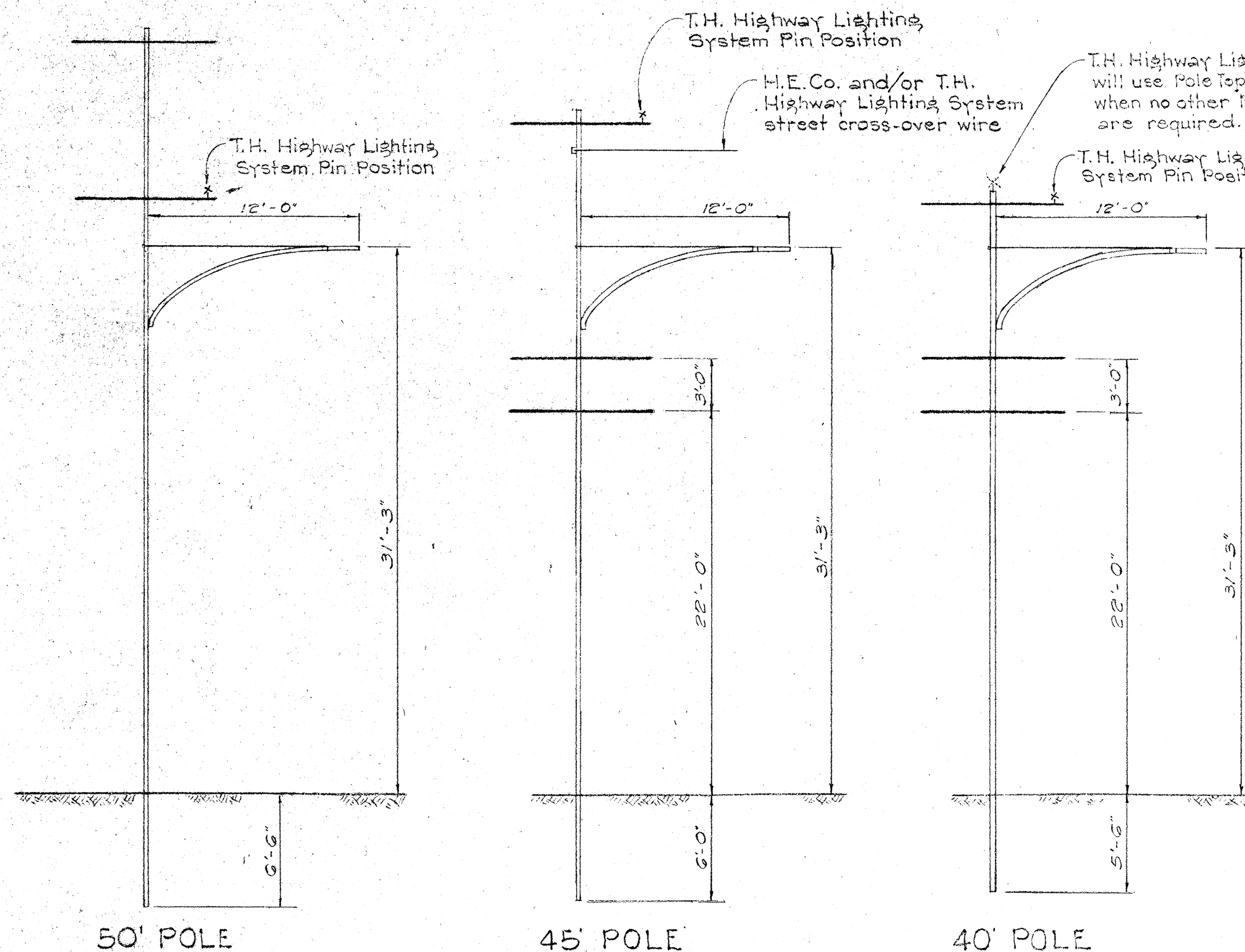
Scale: 1"=1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
LAYOUT OF
HIGHWAY LIGHTING SYSTEM
NUUANU AVENUE
PROJECT NO. U 33 (2)
SCALE AS NOTED AUGUST, 1955

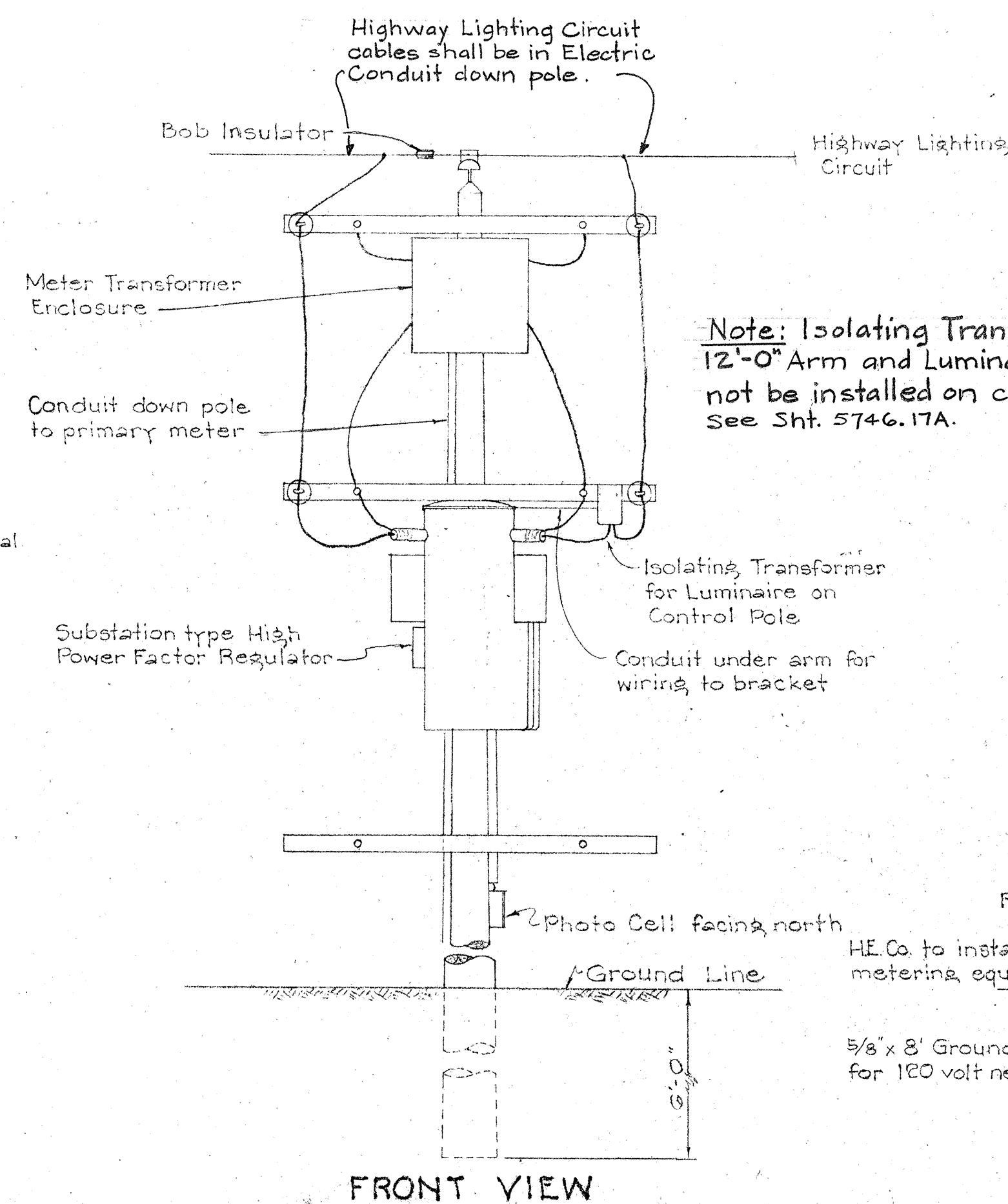
SHEET No. OF SHEETS

55416.18A

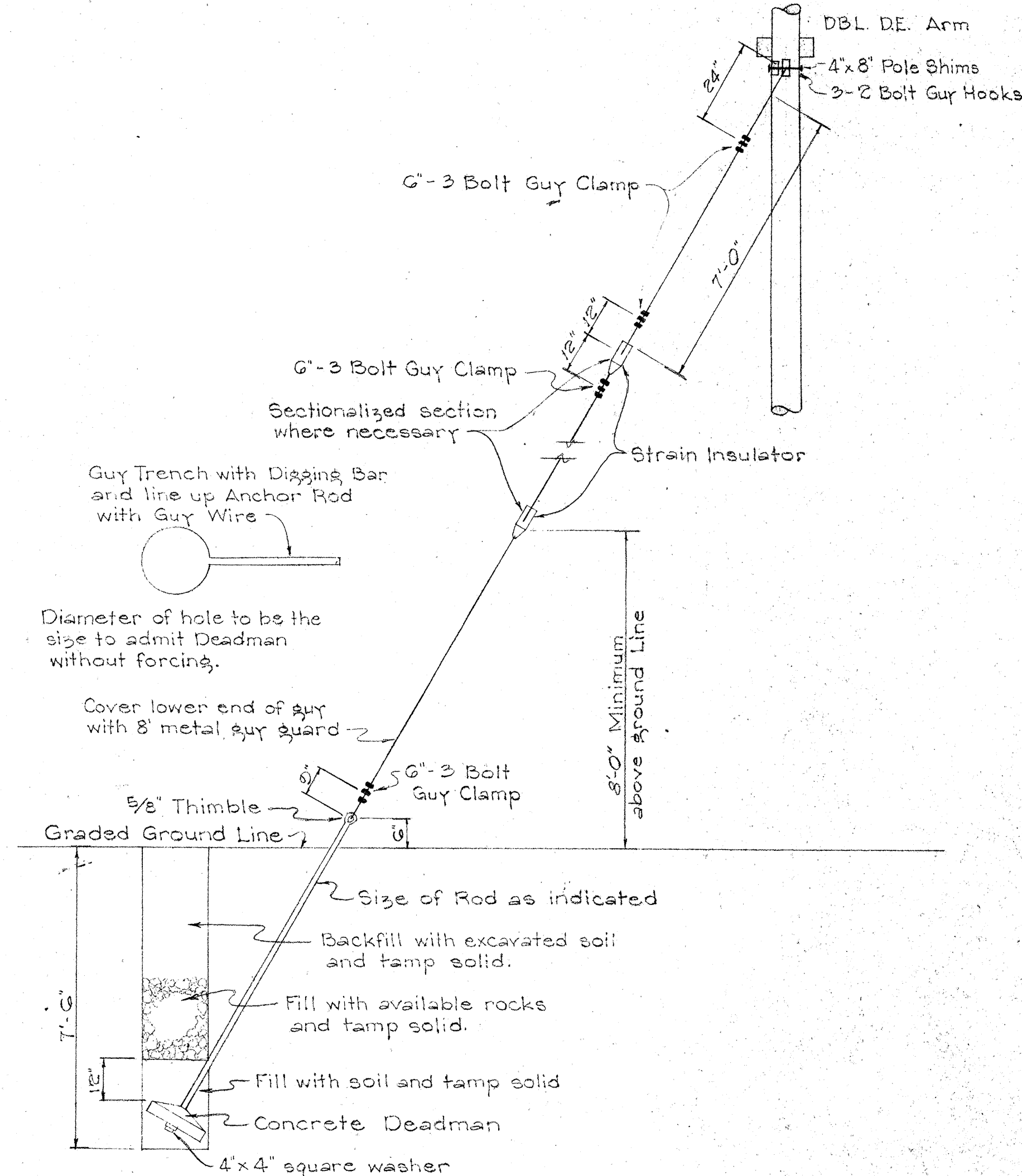
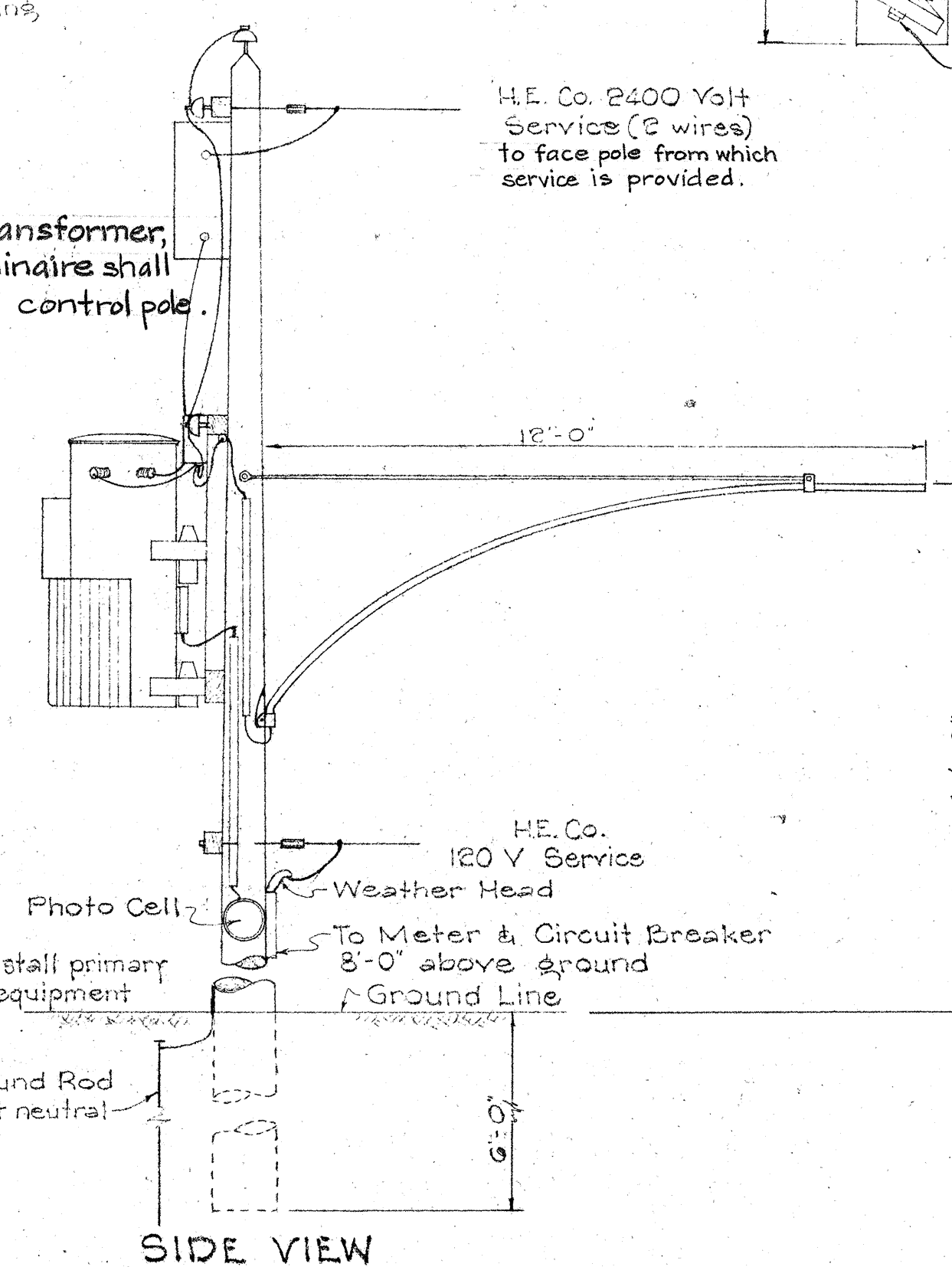
SURVEY PLOTTED BY	DATE
DESIGNED BY	0-35
TRACED BY	GT
QUANTITIES BY	0-35
CHECKED BY	0-35
ORIGINAL PLAN	NO.



POLE FRAMING DETAILS
Scale: 1" = 6'-0"



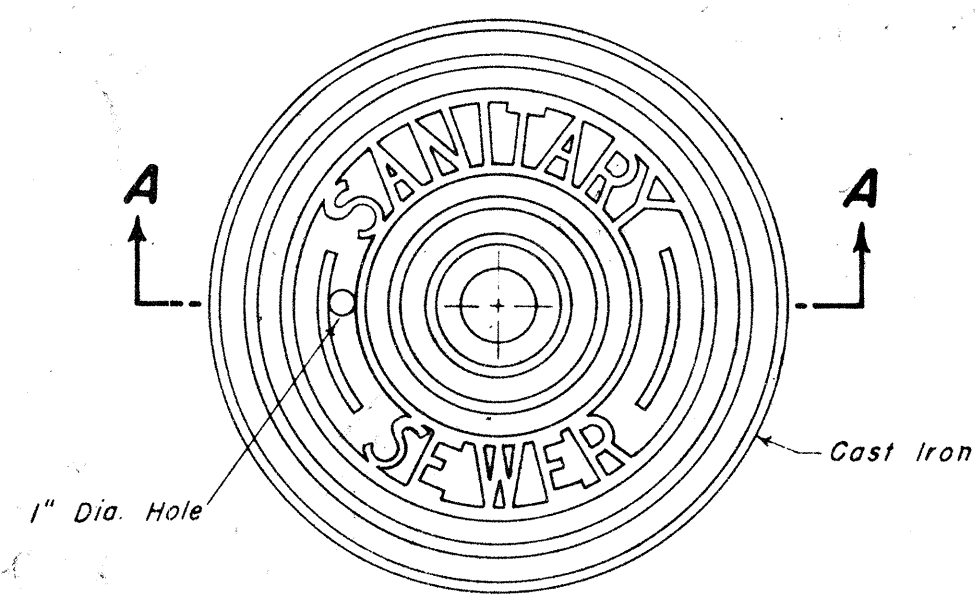
DETAIL OF 45' CONTROL POLE
Scale: 3/8" = 1'-0"
REVISED: AUG. 1955



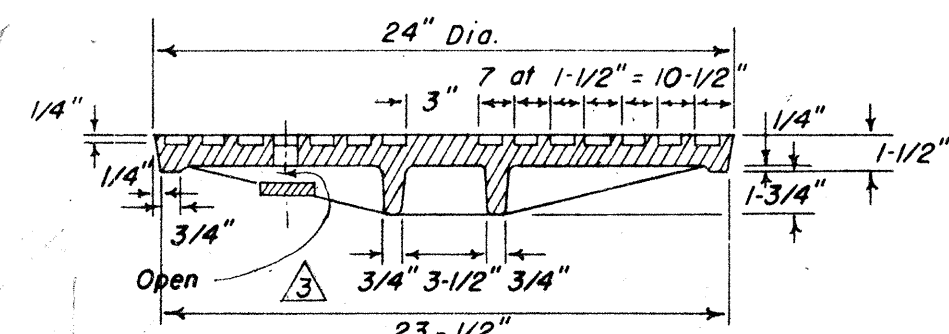
DETAIL OF GUY ATTACHMENT ON POLE & ANCHOR
Scale: 3/8" = 1'-0"
NOT IN CONTRACT
Revised: Aug. 1955

NOTE
This Sheet Supersedes Sheet No. 5746.18. Revised: Aug. 1955.

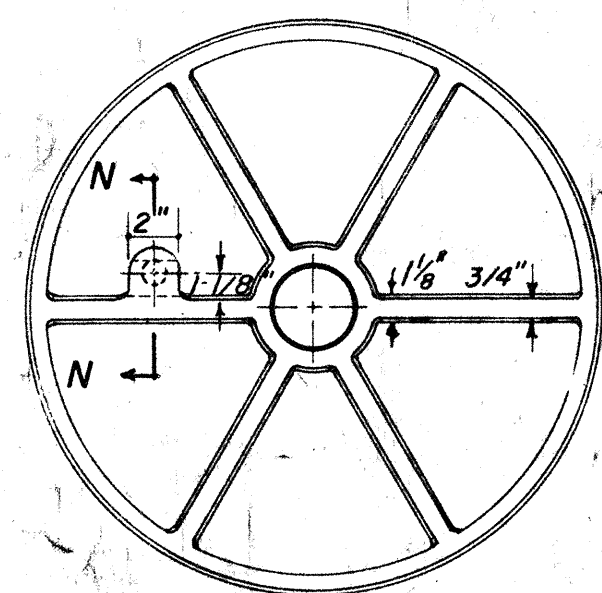
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAILS FOR
HIGHWAY LIGHTING SYSTEM
NUUANU AVENUE
FEDERAL AID URBAN PROJECT NO. U 33(2)
SCALE: AS SHOWN JANUARY 1955



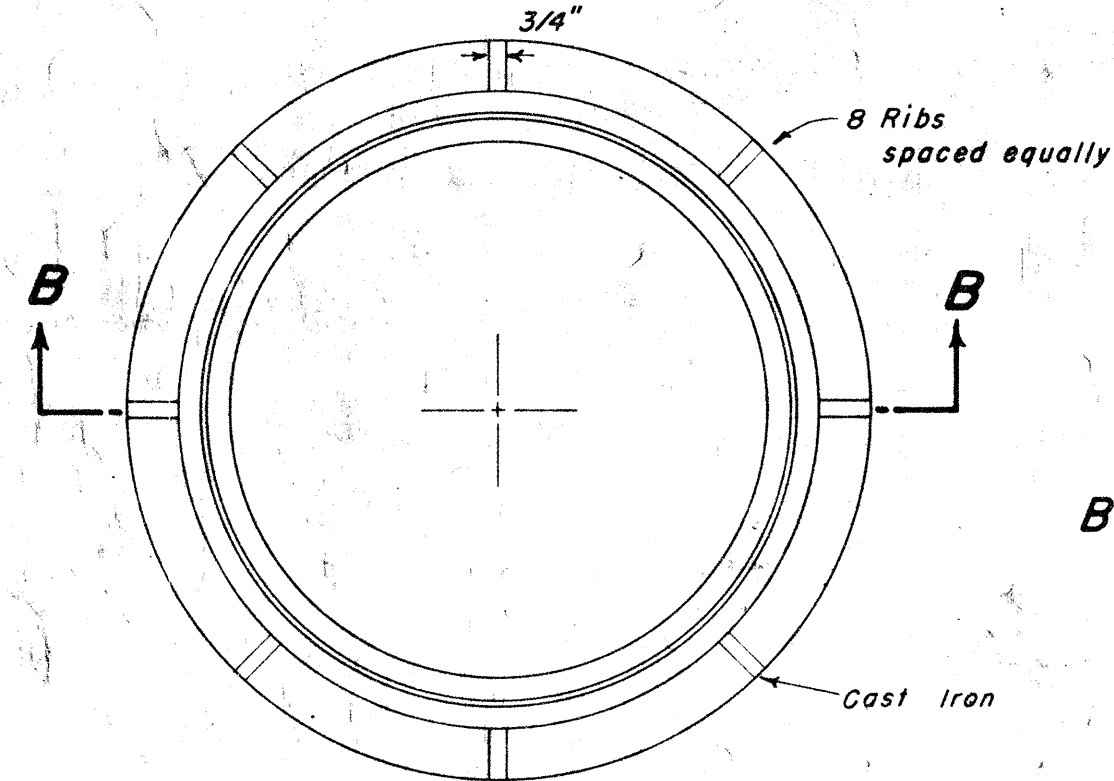
PLAN OF MANHOLE COVER
Scale 1-1/2" = 1'-0"



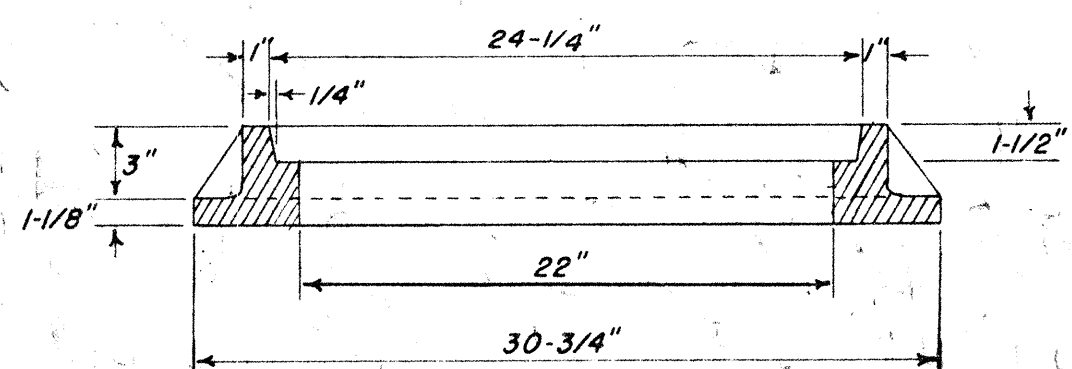
SECTION A - A



BOTTOM VIEW OF COVER
Scale 1-1/2" = 1'-0"



PLAN OF MANHOLE FRAME
Scale 1-1/2" = 1'-0"

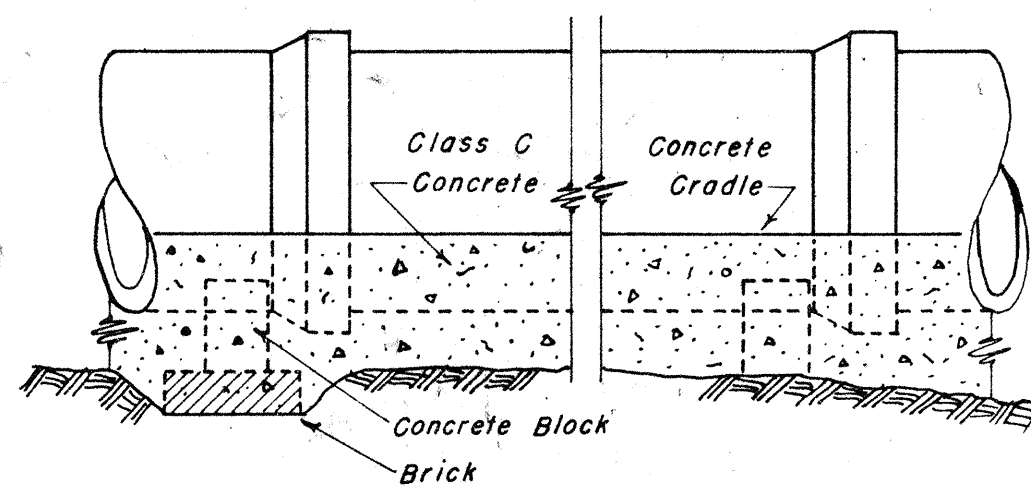


SECTION B - B

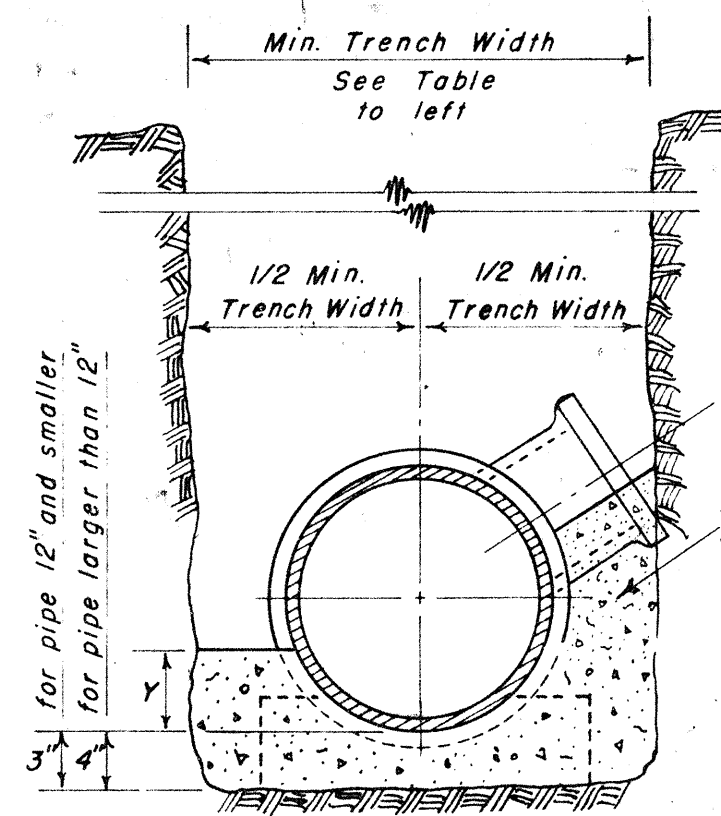
Pipe Size	Min. Width
6"	24"
8"	24"
10"	24"
12"	30"
15"	30"
18"	36"
21"	36"
24"	45"
27"	45"
30"	50"

Contractor shall set Concrete Blocks on undisturbed ground. Where ground is too low, the Contractor shall not heap up dirt under the Concrete Block but shall use Concrete Bricks to take up the deficiency, scraping away beneath Concrete Block to give sufficient room for Brick.

Note: Minimum width of cradle shall be minimum trench width.

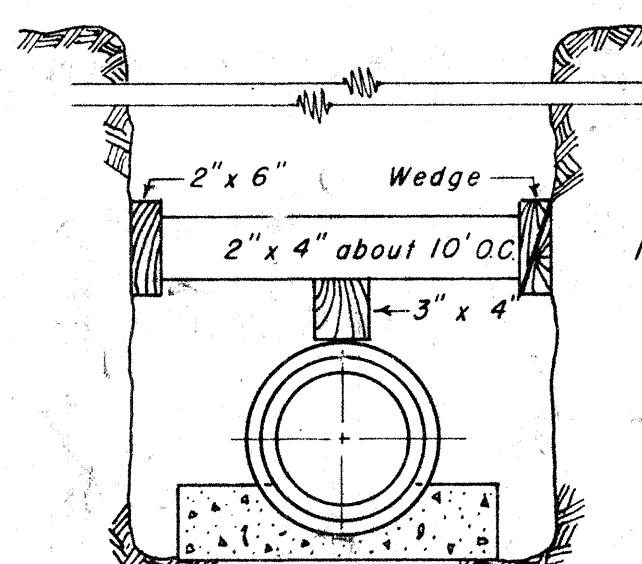


ELEVATION SHOWING METHOD OF LAYING PIPE

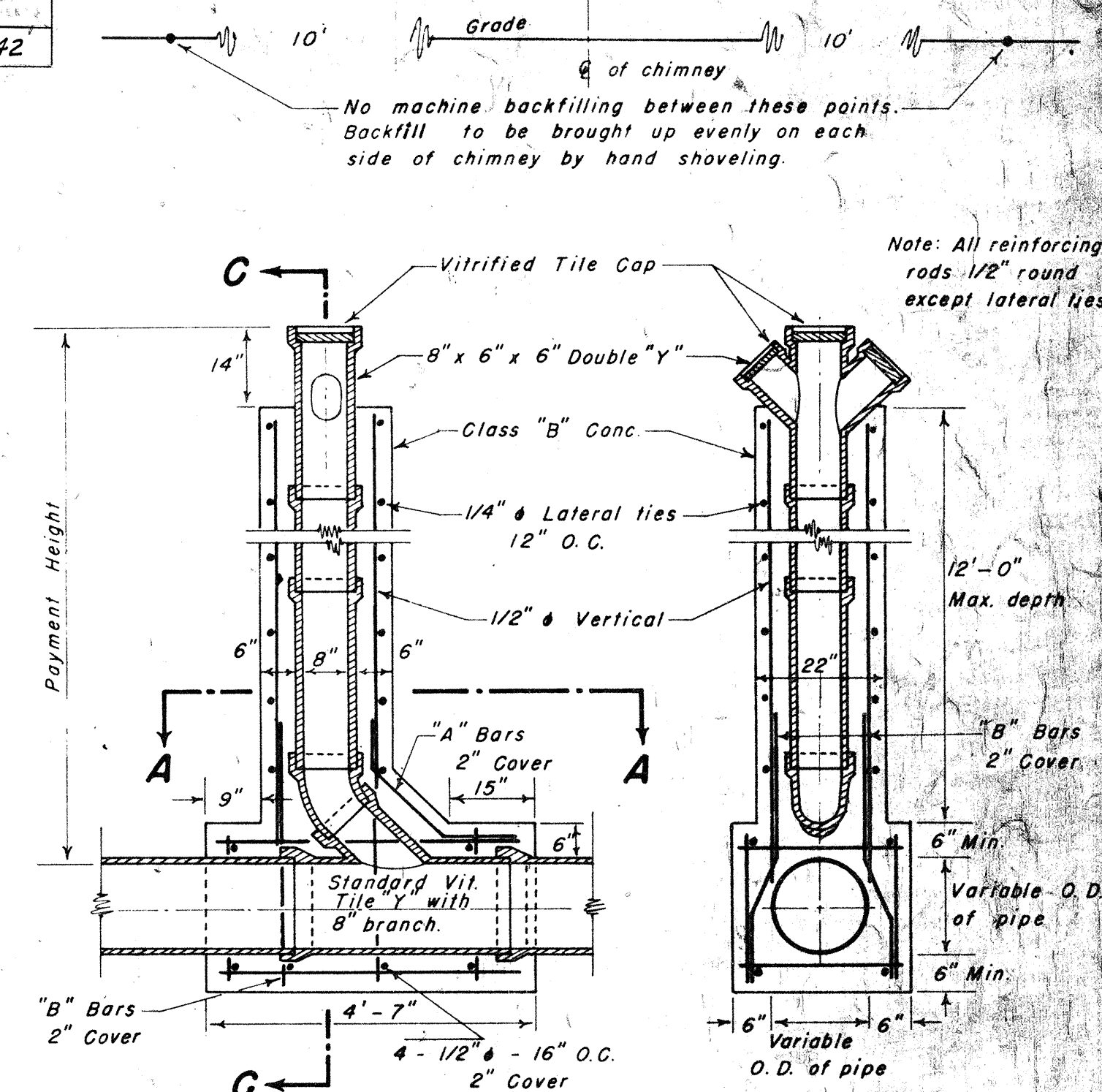


Pipe Size	"Y"
6"	3"
8"	3"
10"	3"
12"	3"
15"	4"
18"	5"
21"	5"
24"	6"
27"	7"
30"	7"

CHIMNEY DETAIL FOR CAST IRON SEWER LINE
Scale 1/2" = 1'-0"

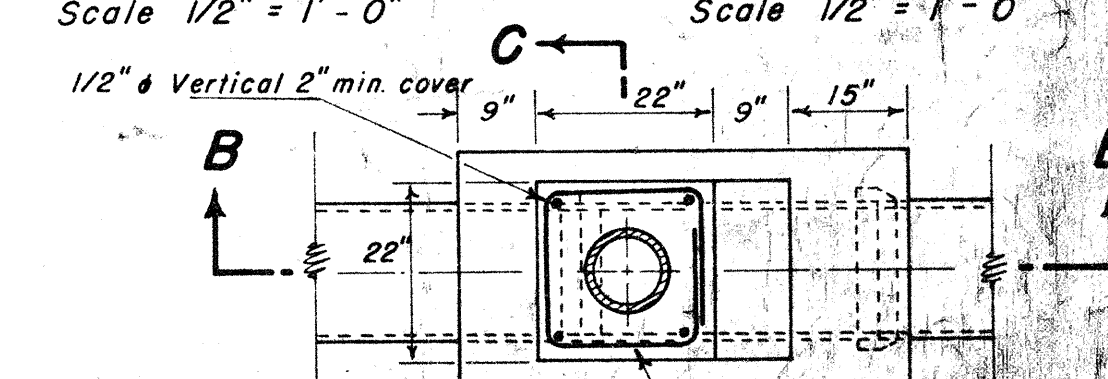


PIPE FLOATATION PREVENTION Scale 1" = 1'-0"

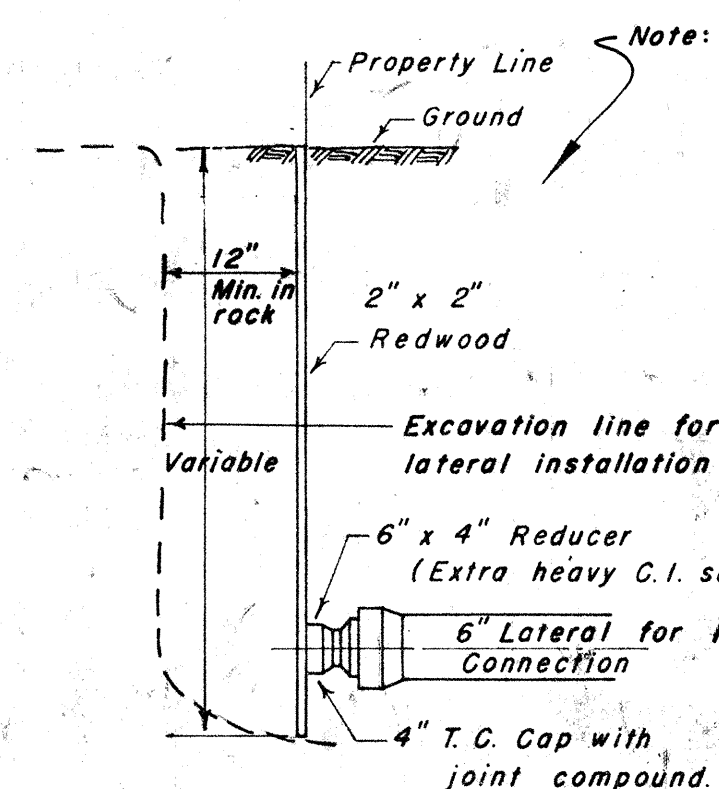


SECTION B - B
Scale 1/2" = 1'-0"

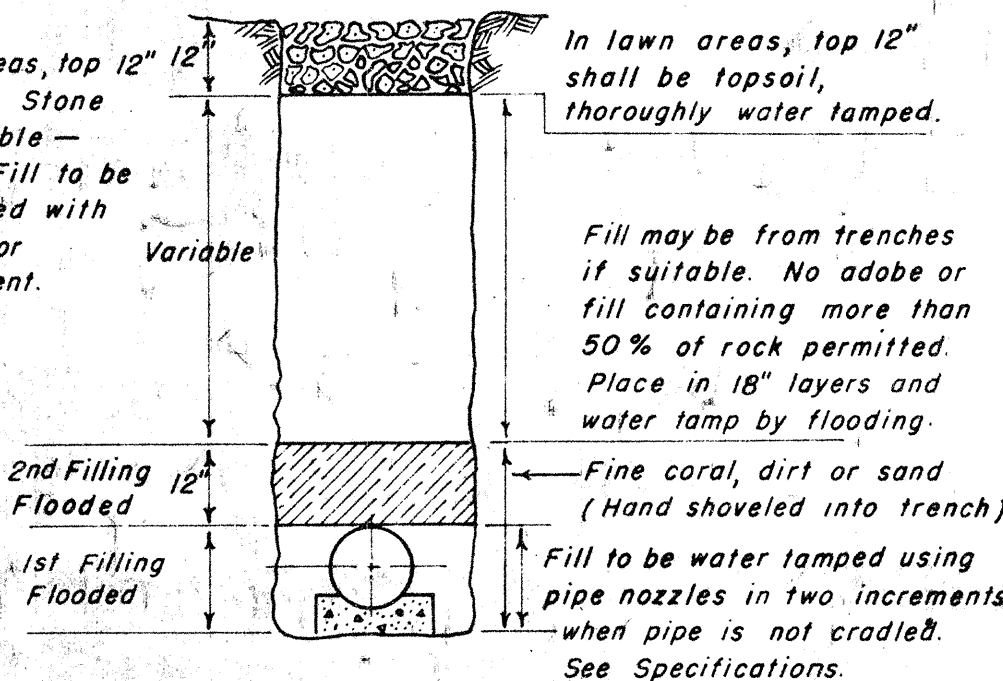
SECTION C - C
Scale 1/2" = 1'-0"



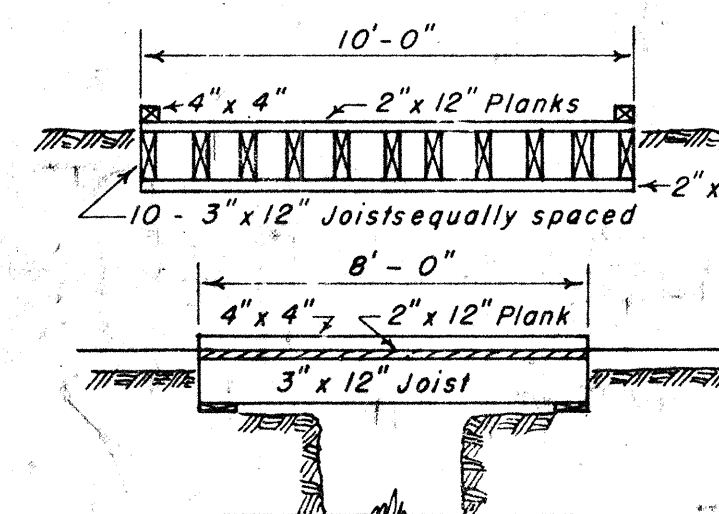
SECTION A - A
Scale 1/2" = 1'-0"



CONSTRUCTION AT PROPERTY LINE
Scale 1/2" = 1'-0"



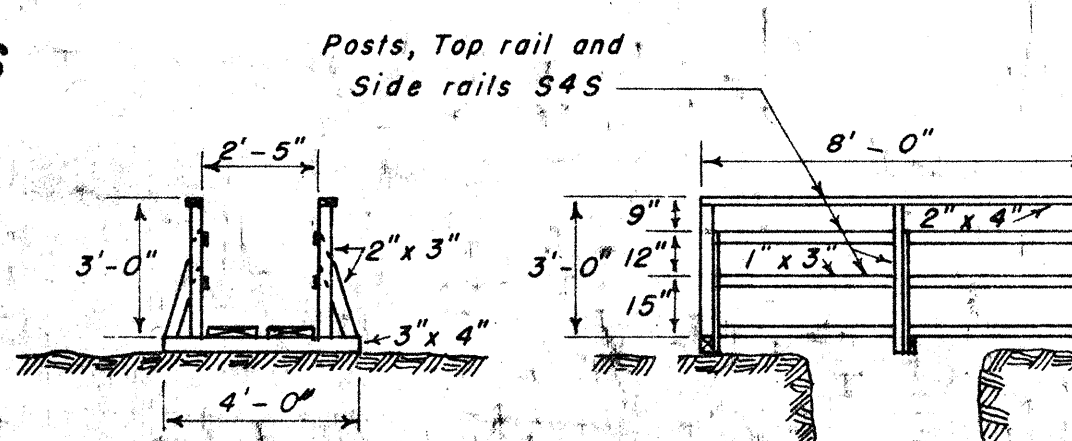
METHOD OF BACKFILL



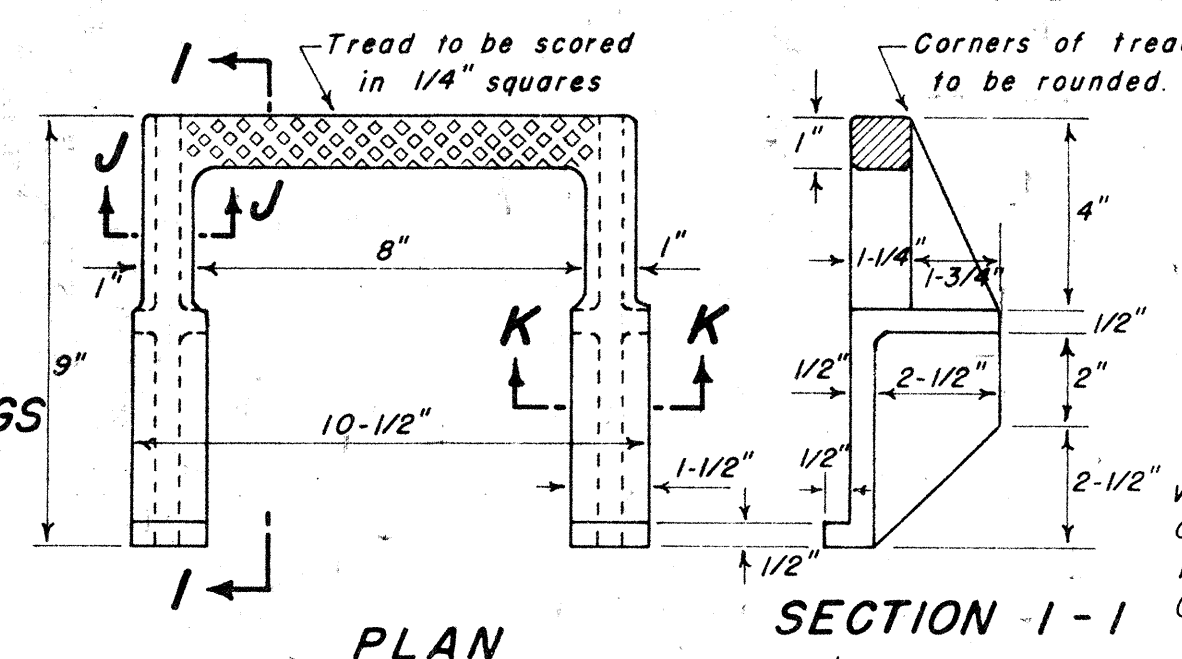
WOODEN BRIDGE OVER TRENCHES AT ROAD CROSSINGS
Scale 1/4" = 1'-0"

DETAIL OF PRECAST CONCRETE BLOCKS

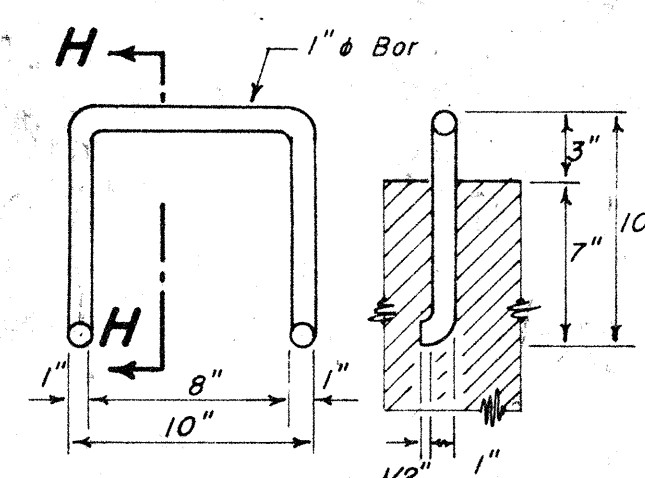
Pipe Size	"A"	"B"	"C"
6"	1'-2"	6"	3"
8"	1'-5"	6"	3"
10"	1'-7"	6"	3"
12"	1'-7"	6"	3"
15"	1'-8"	6"	4"
18"	1'-9"	6"	4"
21"	1'-10"	6"	4"
24"	1'-11"	6"	4"
27"	2'-0"	6"	4"
30"	2'-3"	6"	4"



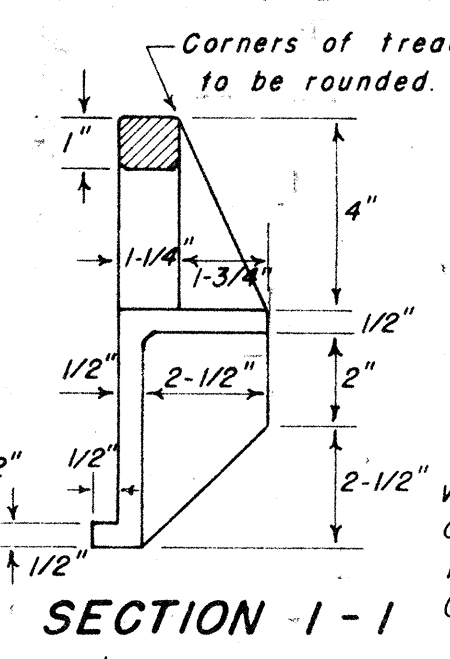
DETAILS CROSS WALKS OVER TRENCHES
Scale 1/4" = 1'-0"



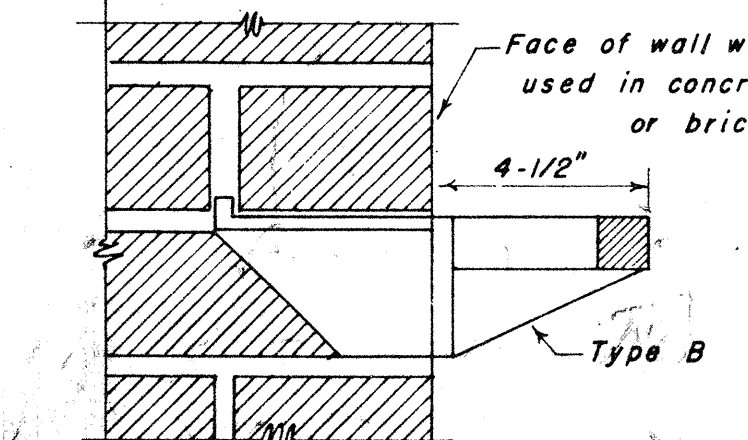
TYPE B RUNGS
Scale 3" = 1'-0"



PLAN SECTION H-H
TYPE A RUNGS
WROUGHT IRON M.H. STEPS
Scale 1-1/2" = 1'-0"



SECTION I - I



METHOD OF INSTALLATION

Mark	Steel	Shape	Req.
"A"	1/2"	45°	2 Pcs.
"B"	1/2"	22-1/2°	4 Pcs.

CHIMNEY DETAILS

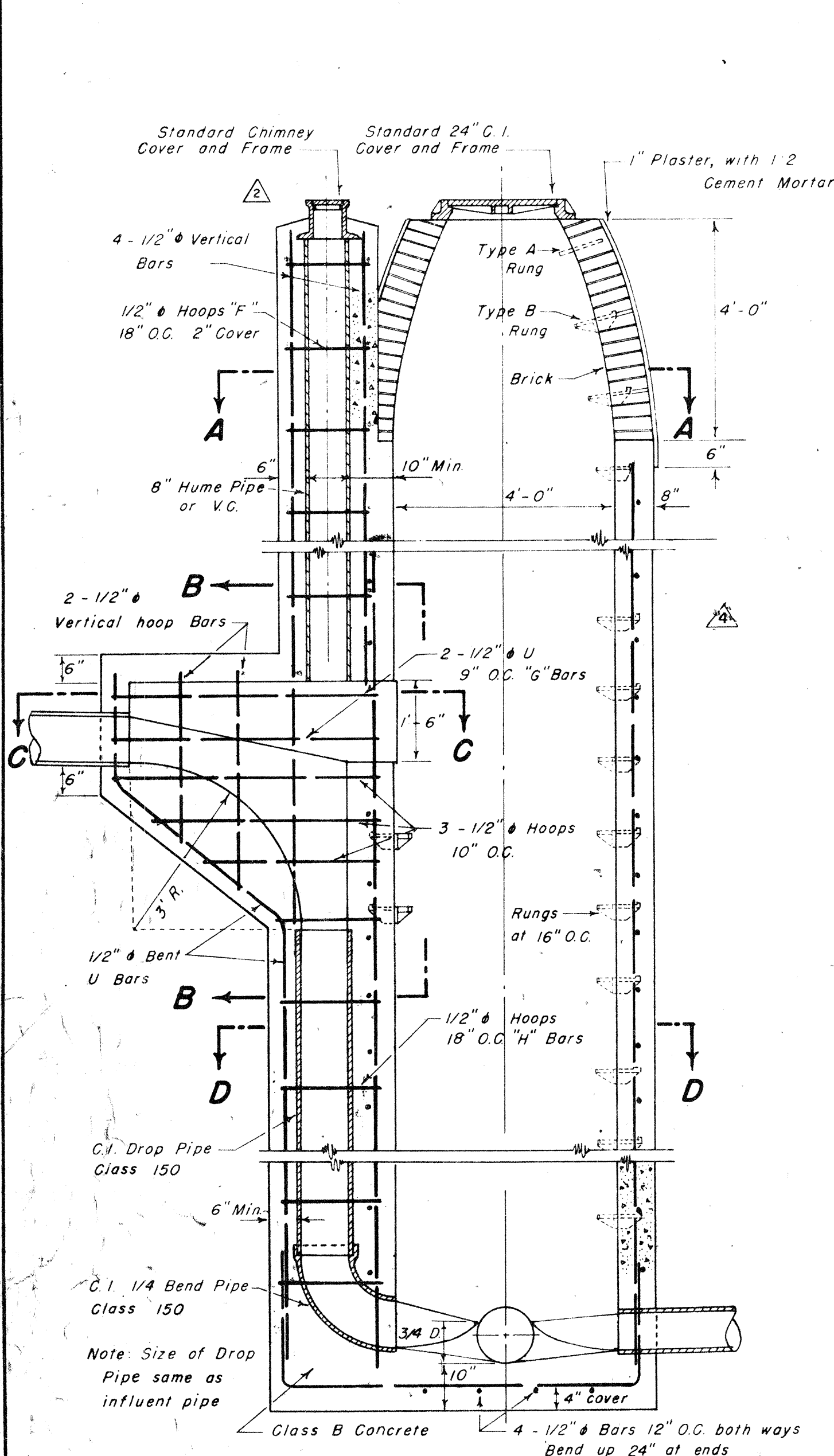
Note: Dimensions shown may be varied to accommodate specific brand of pipe furnished by Contractor.

Note: Contractor shall use such Standard Details shown above as are applicable to, and called for, on this project.

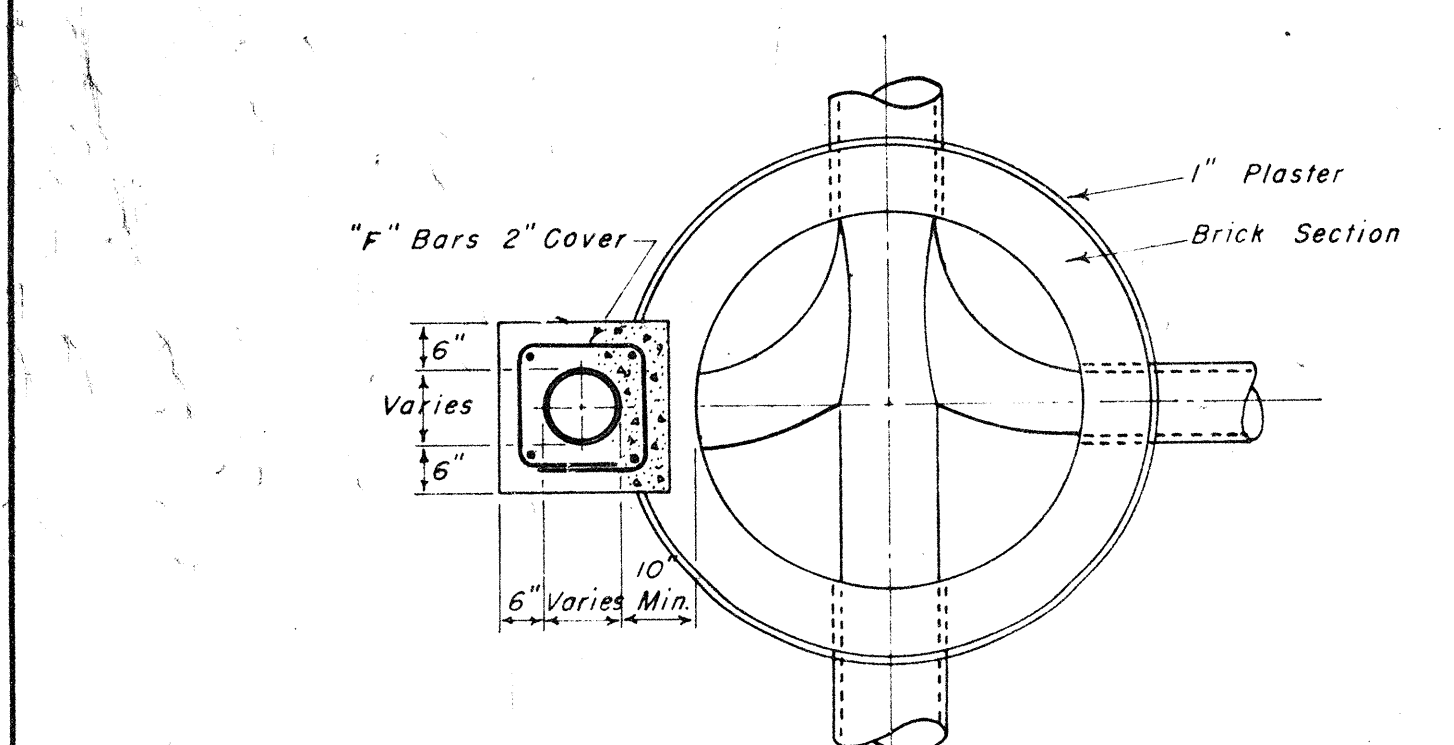
When lateral sewers are constructed from the trunk sewer to the property line, the grade of such lateral sewer shall be 1/4" per lineal foot unless otherwise ordered by the Engineer.

NOTE: These plans were prepared in the office of the Department of Public Works, City and County of Honolulu.

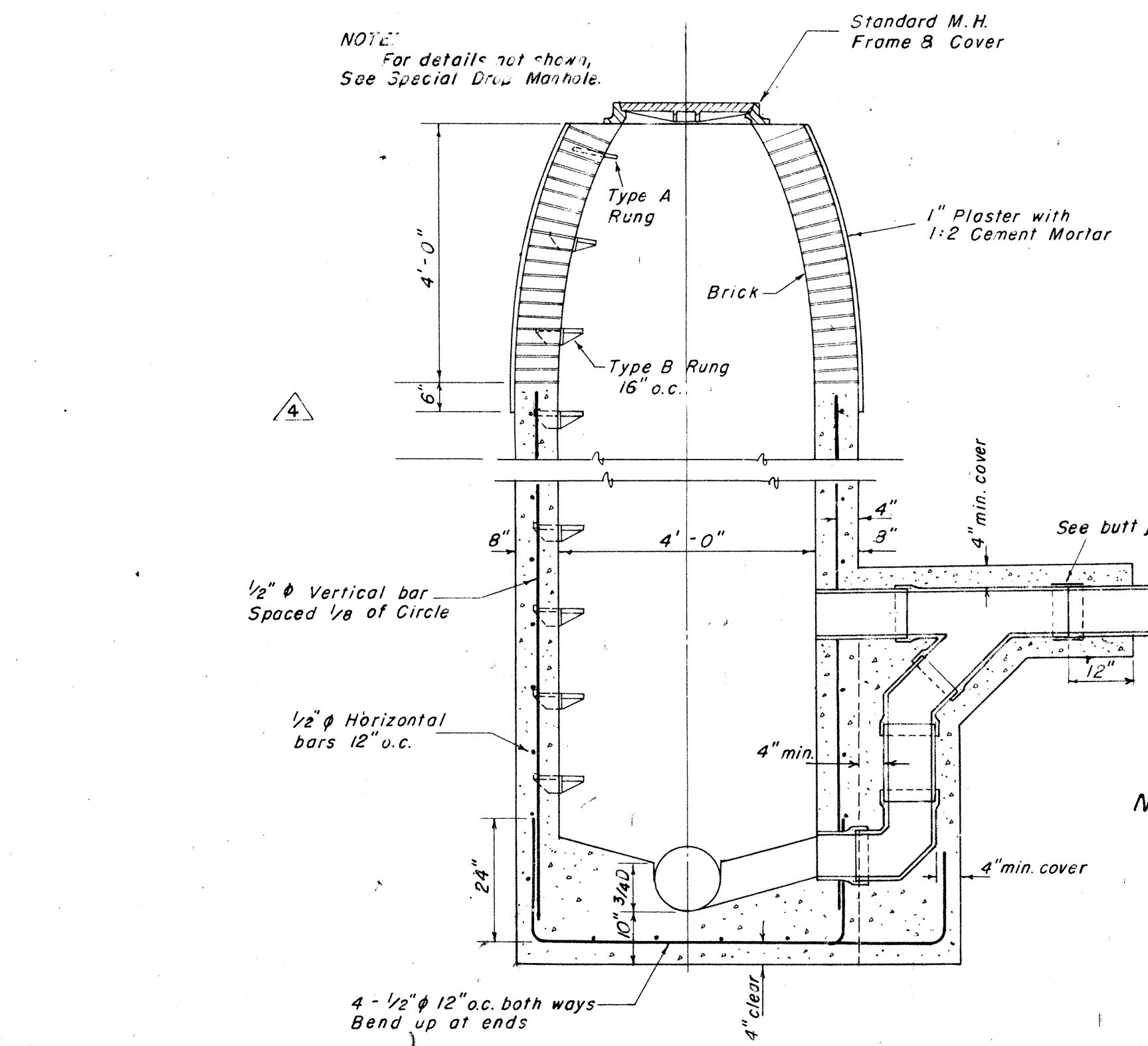
0/12/53	Added Tab Support on M.H. cover	T.S.	24
8/23/50	Const. at prop. line altered	X.N.	100
10/20/49	M.H. Castings modified	H.B.	25
REVISION	DATE	BRIEF	MADE BY
TERRITORIAL HIGHWAY DEPARTMENT			
TERRITORY OF HAWAII			
NUUANU AVENUE			
PROJ. NO. U33(2)			
FEBRUARY 1955			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF SEWERS			
STANDARD DETAILS			
ENGINEER F. Dunn	DATE 4-1-49	CHECKED BY A. Kanyama	TRACER A. Kanyama
DRAFTSMAN F. Dunn	APPROVED	ENGINEER, DIV. OF SEWERS	ENGINEER, BUREAU OF PLANS
SCALE 1/4" = 1'-0"			



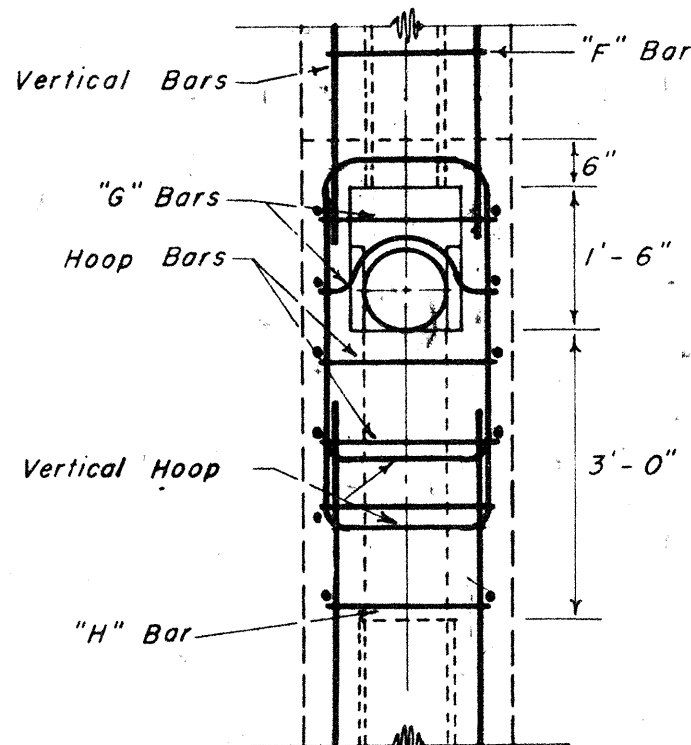
SPECIAL DROP MANHOLE



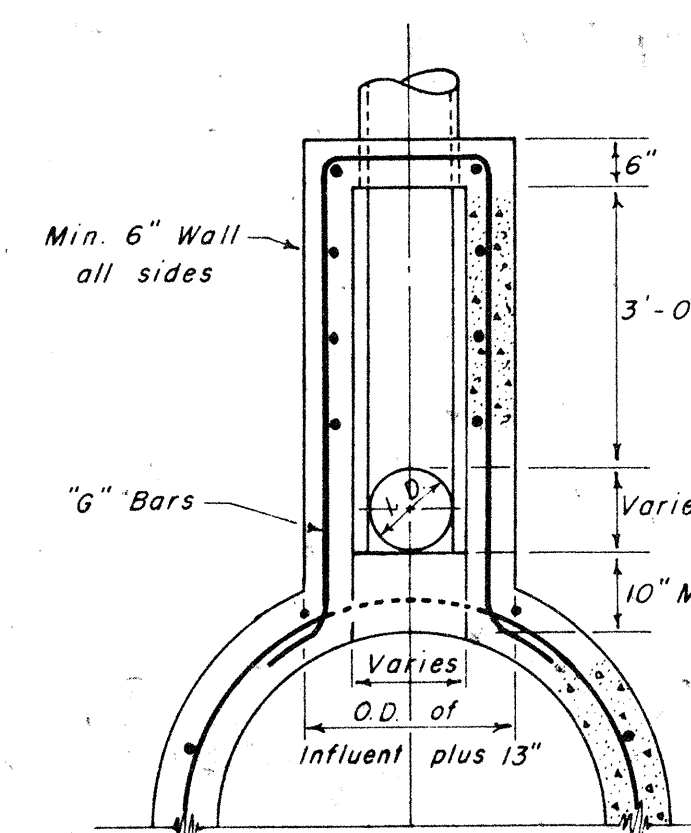
SECTION A-A



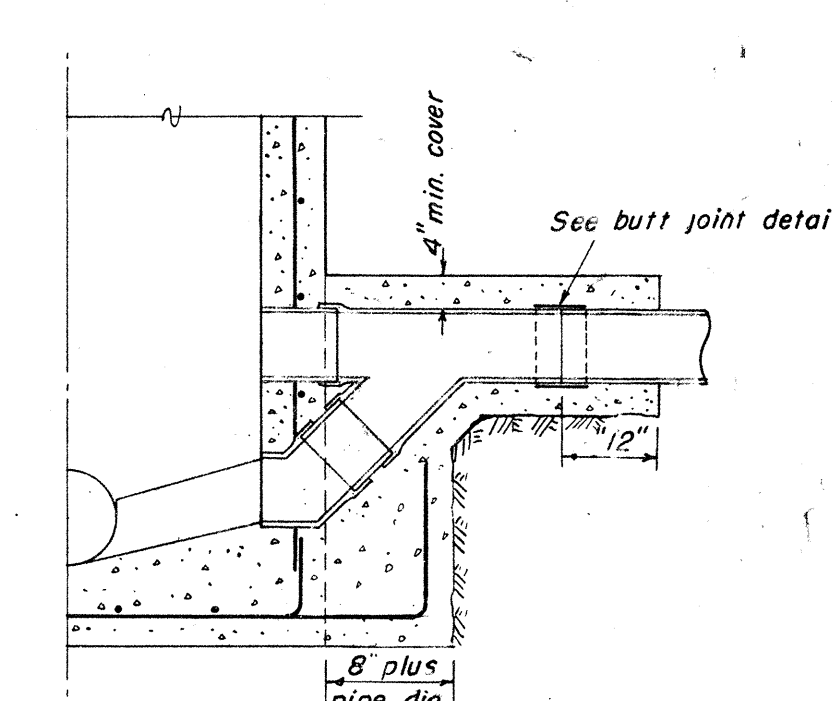
DROP MANHOLE



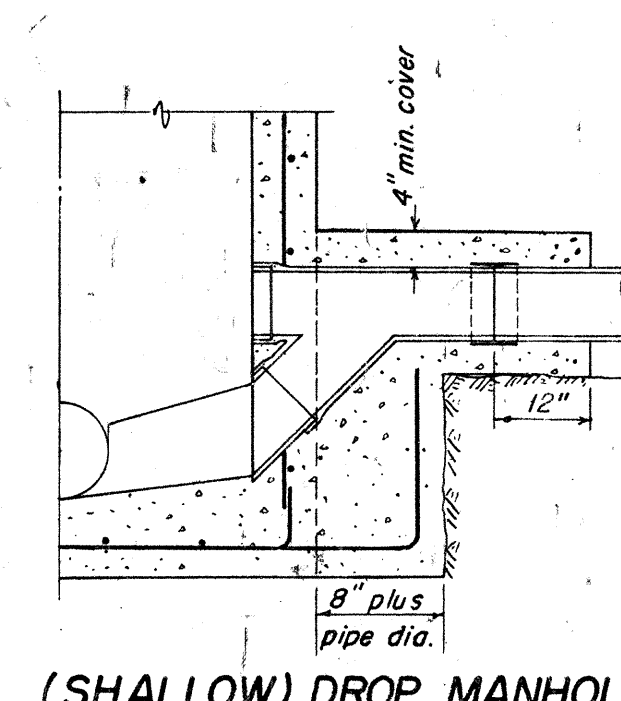
SECTION B-B



SECTION C-C

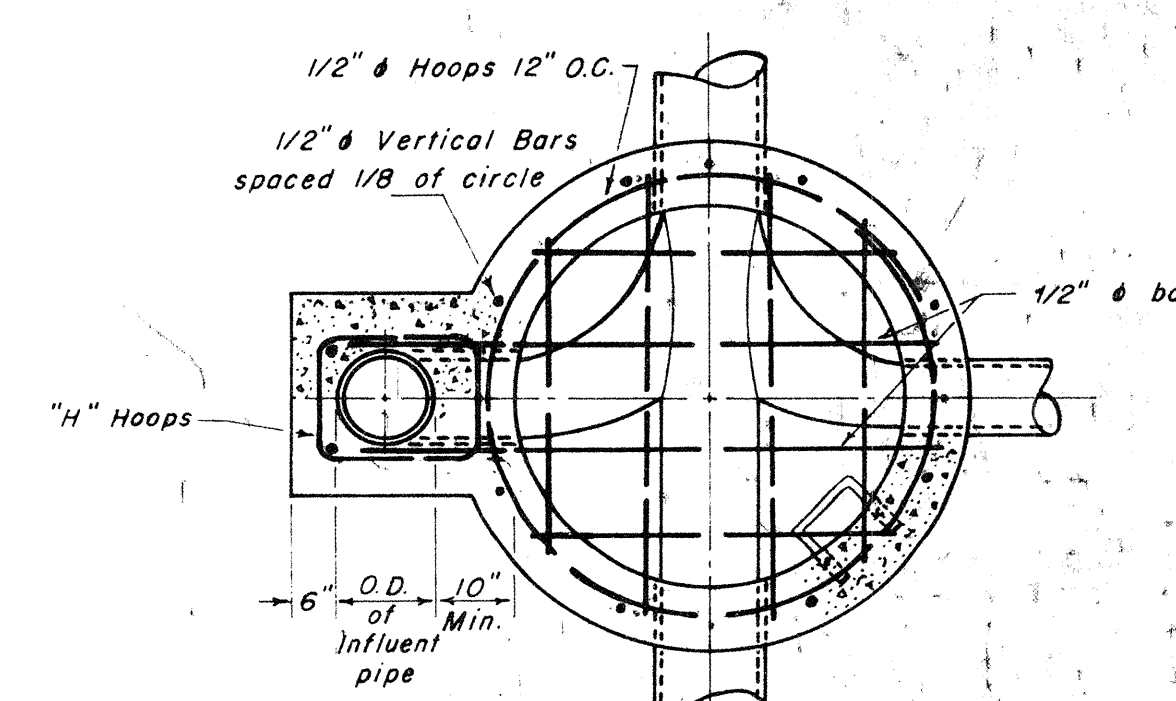


(SHALLOW) DROP MANHOLE

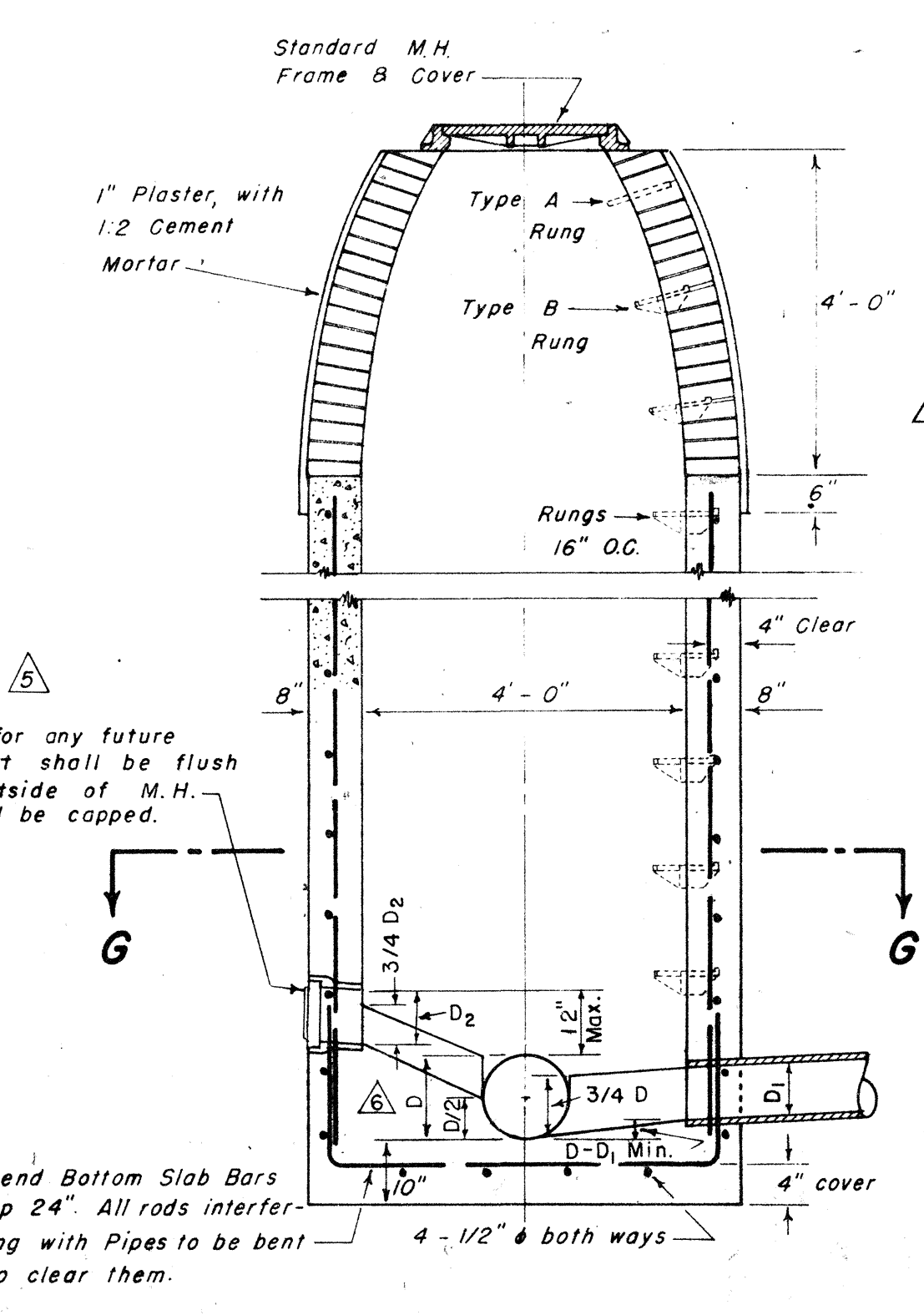


(SHALLOW) DROP MANHOLE ALTERNATE

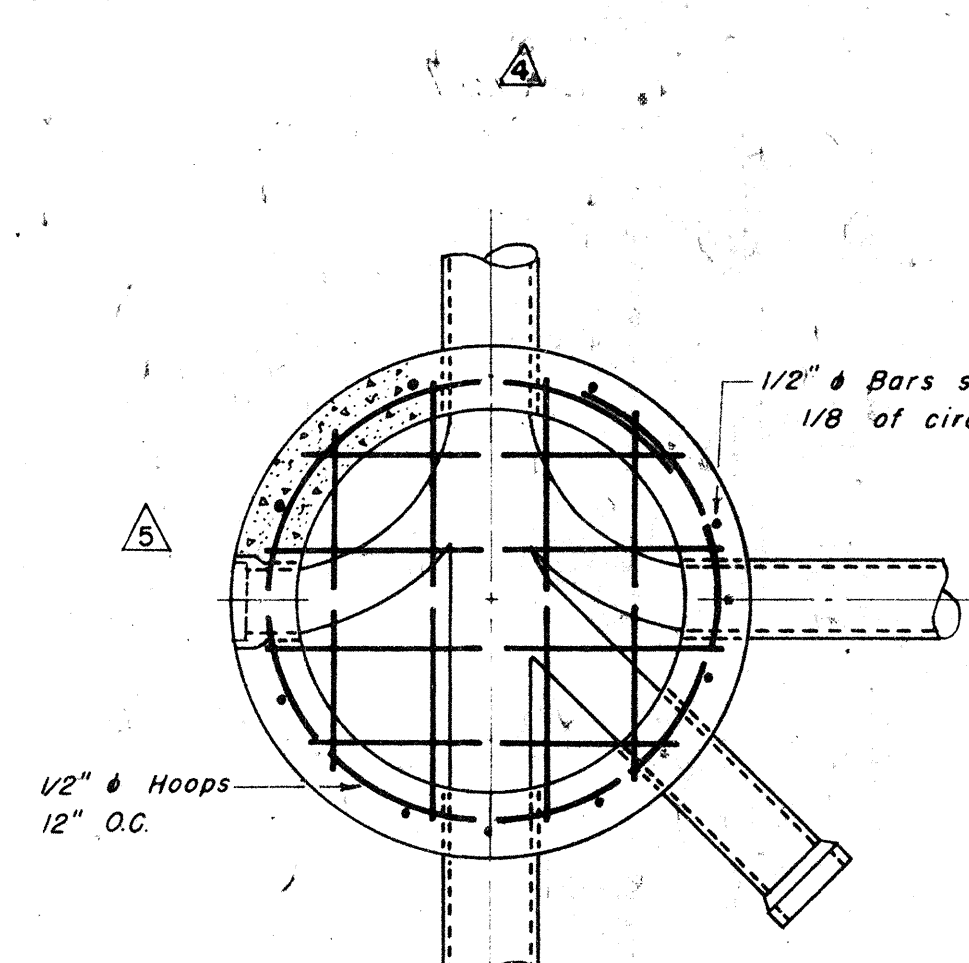
NOTE: Cut pipe vertically through "Y" or extension for drops where detail to left cannot be used



SECTION D-D



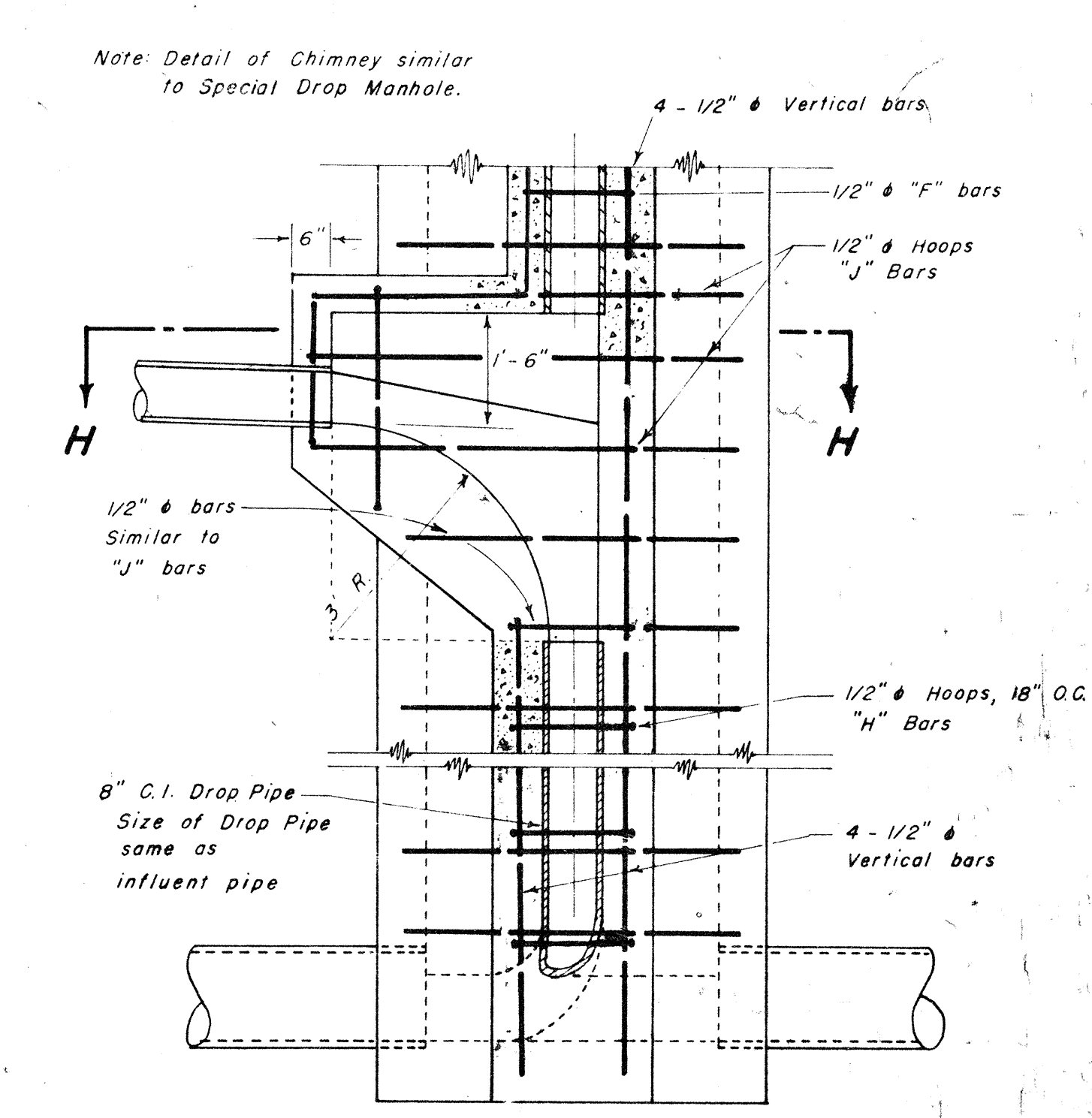
PLAIN MANHOLE



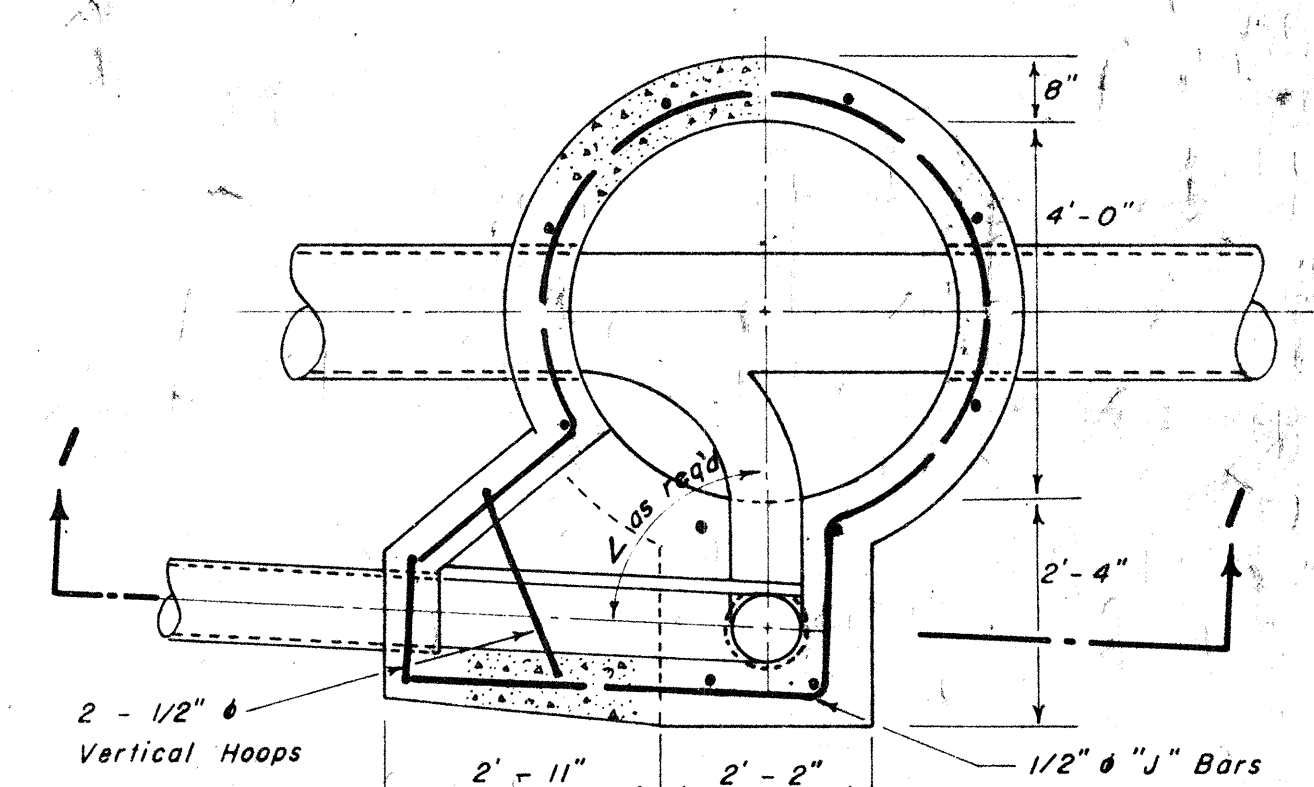
SECTION G-G

- NOTES
1. Manhole rungs shall not be aligned above any flow line.
 2. When not otherwise noted, manhole stubs shall be sloped as follows:

Pipe Size	Rise Per Foot
6"	1/8"
8"	3/32"
10"	1/16"
12"	1/16"
 3. All reinforcing rods interfering with pipes shall be bent to clear them.
 4. Data for special manholes not shown shall be similar to that for Plain Manholes.
 5. Bar laps to be 40 diameters in length.
 6. No rungs shall be installed in manholes less than 3' high.



SPECIAL SIDE DROP MANHOLE SECTION 1-1



9/23/54	Deleted Notes for invert differences of M.H.	H.A.	Mc 78
10/9/53	Stubs for future made flush with outside of M.H.	M.M.	78
10/28/52	Deleted note covering steel for manholes less than 50 ft. in height.	T.S.	98
6/9/50	Open Drop Manhole details deleted & Drop Manhole details modified.	H.L.	78
10/20/49	Concrete placed around Chimney Frame	H.B.	78 78 78
8/30/48	Notes 1 & 6 added	N.Y.	78 78
REVISION DATE	BRIEF	MADE BY	APPROVED
TERRITORIAL HIGHWAY DEPARTMENT			
TERRITORY OF HAWAII			
NUUANU AVENUE			
PROJ. NO. U33(2)			
FEBRUARY 1955			
DEPARTMENT OF PUBLIC WORKS			
CITY AND COUNTY OF HONOLULU			
DIVISION OF SEWERS			
STANDARD DETAILS			
ENGINEER - F. Suno	DATE - 4-1-49		
DRAFTSMAN E. Suno, A. Kanayama	CHECKED BY J. Kanayama		
SCALE - 1" = 1'-0"	TRACER - A. Kanayama		
APPROVED: [Signature]	APPROVED: [Signature]		
CHIEF ENGINEER	ENGINEER, DIV. OF SEWERS		
	ENGINEER, BUR. OF PLANS		

