

MODOT FLAT TOWER

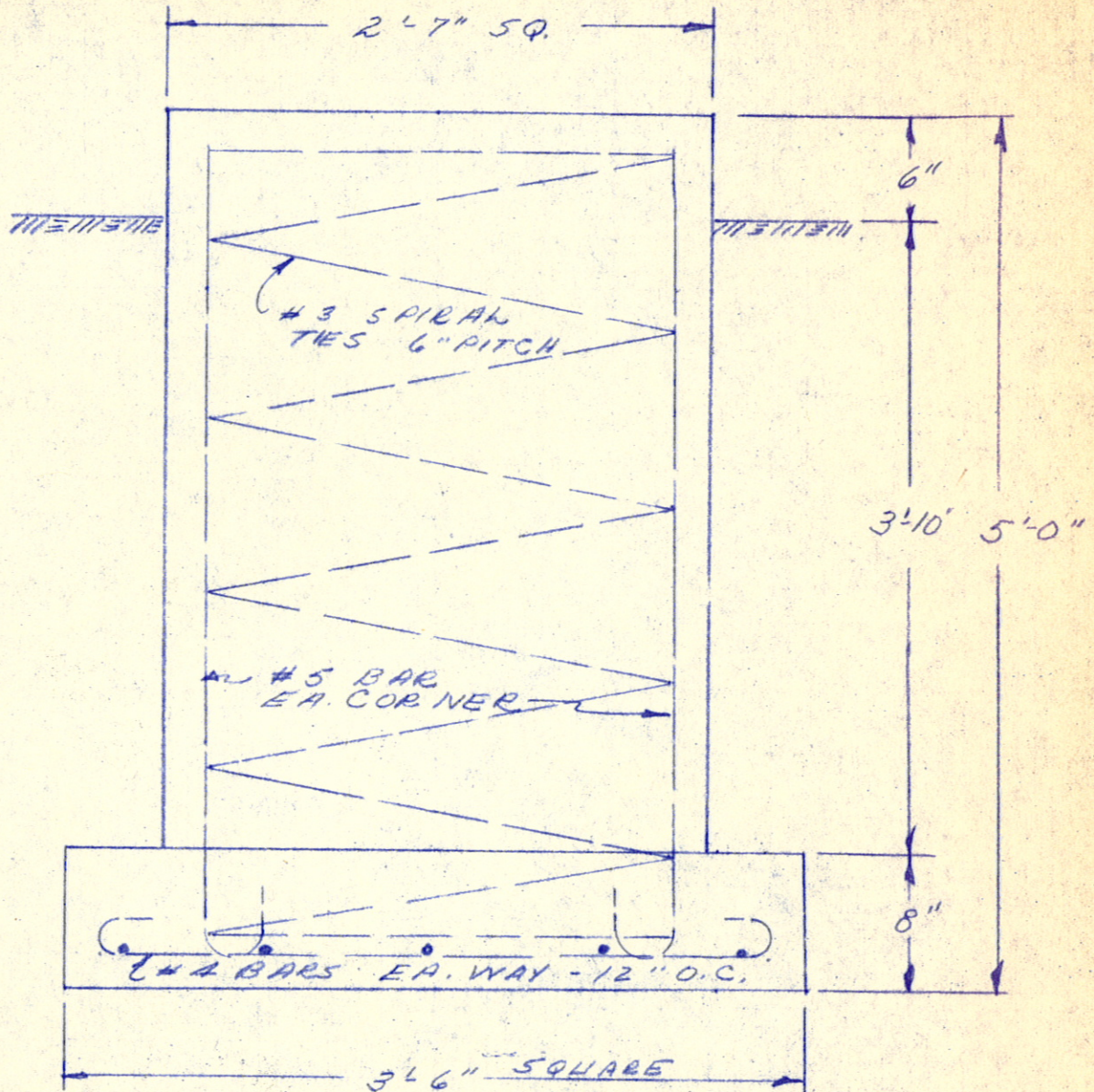
EXISTING TOWER

AS BUILT DRAWINGS, C. 1967

The following drawings are provided for information purposes only and to the best of our knowledge represent the existing radio tower structure, foundations and shelter. Exact locations of existing antennas, feed lines, lighting and other attachments have changed.

CUST. MO. STATE HWY.  
BOHN FILE 7894

NOTE: CONC. BASE  $\frac{1}{2}$  FOR #4S  
& #5S TOWER HAS BEEN  
OMITTED FROM THIS VIEW  
FOR CLARITY.



ELEV. VIEW OF TOP  
OF SPECIAL CB-4 BASE

SCALE: 1" = 10"

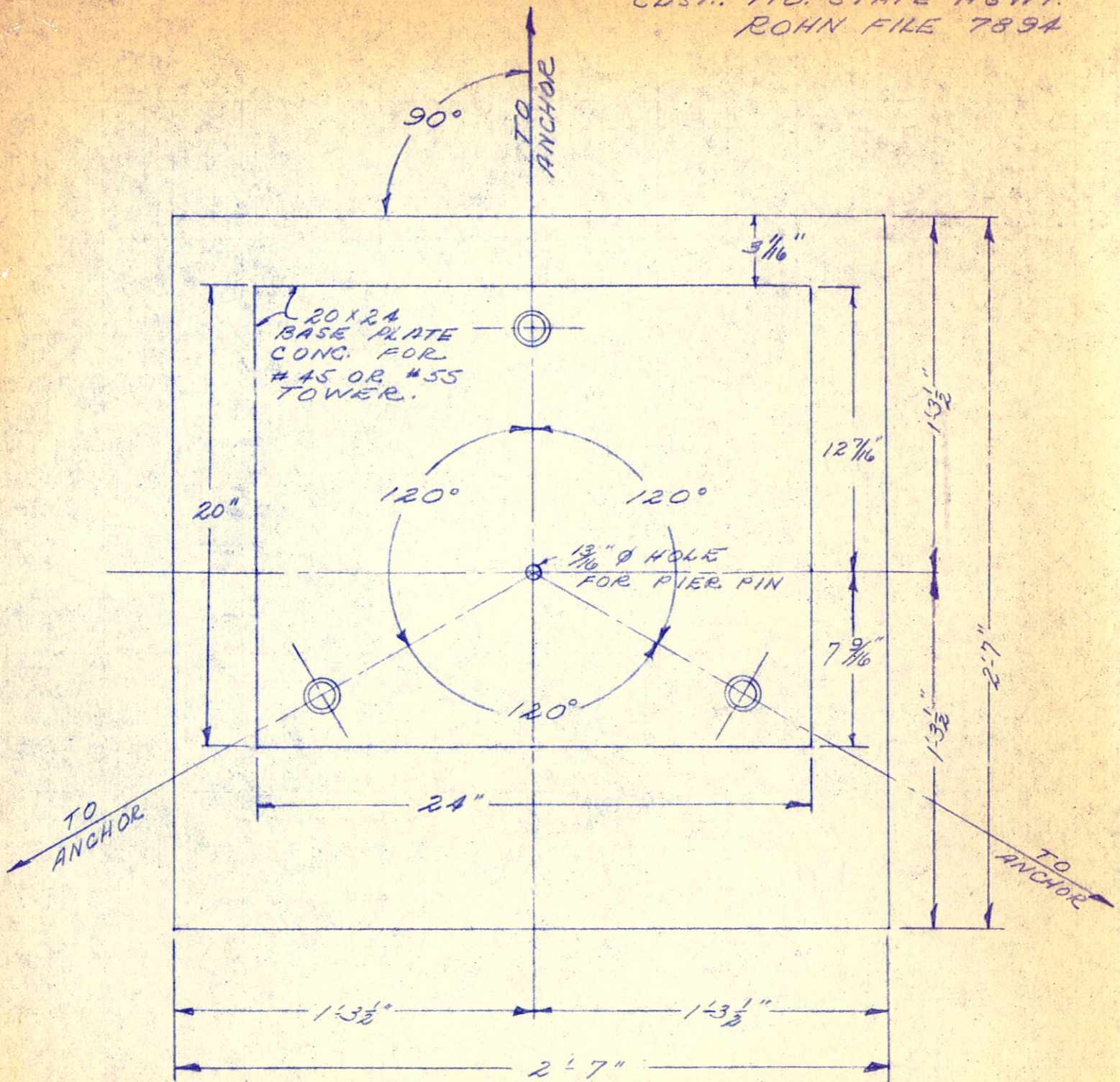
SITES: FLAT; RIDGELY; WARDELL; BRANSON

NOTE: CHAMFER ALL EXPOSED EDGES OF CONC.

DWN: RQM 7-19-67  
CHKD: WDV 7-19-67  
APPRO:

BOHN MFG. CO.  
DWG. A-6707H

CUST.: MO. STATE HGWY.  
ROHN FILE 7894



NOTE: CHAMFER ALL EXPOSED EDGES OF CONC.

PLAN VIEW OF TOP  
OF SPECIAL CB-4 BASE  
SCALE 1" = 6"

SITES: FLAT; RIDGELY; WARDELL; BRANSON.

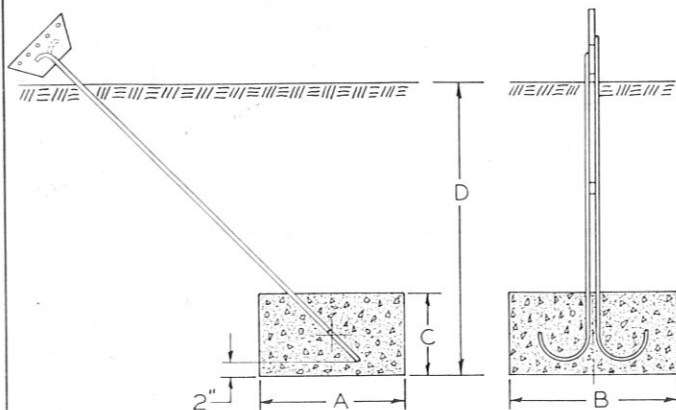
DWN: RAM 7-19-67

CHKD: WBY 7-19-67

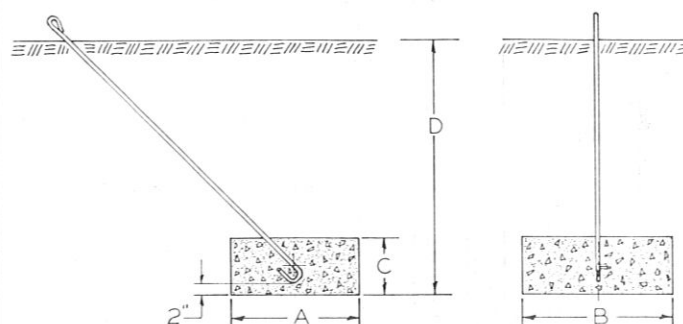
APPV'D:

ROHN MFG CO.  
DWG. A-670710

NOTE: SEE DWG. A-670711  
FOR ELEV. VIEW.



ANCHOR DETAIL FOR GAC-34-57-58-59  
(FOR GAC-56 SEE DWG. NO. C-620642-R)



ANCHOR DETAIL FOR GAC-25

NOTE: REINFORCING RODS ARE RECOMMENDED TO BE USED IN ALL ANCHORS. RODS SHOULD HAVE A MINIMUM DIAMETER OF 1/2" WITH A MAXIMUM SPACING OF 12".

### CONCRETE ANCHOR DATA

| DEPTH<br>D, FT. | ROD<br>NO. | BLOCK<br>NO. | ANCHOR DIMENSIONS, FT. |     |     | WEIGHT<br>LBS. | CONCRETE<br>CU. YDS. | HOLDING<br>POWER, LBS. |
|-----------------|------------|--------------|------------------------|-----|-----|----------------|----------------------|------------------------|
|                 |            |              | A                      | B   | C   |                |                      |                        |
| 3               | GAC-25     | 3 a          | 1.5                    | 1.5 | 1   | 310            | .08                  | 1,810                  |
|                 |            | 3 b          | 2                      | 2   | 1   | 560            | .15                  | 2,640                  |
|                 |            | 3 c          | 2.5                    | 2.5 | 1   | 870            | .23                  | 3,630                  |
|                 |            | 3 d          | 3                      | 3   | 1   | 1,260          | .33                  | 4,800                  |
|                 |            | 3 e          | 3                      | 4   | 1   | 1,680          | .44                  | 6,050                  |
| 4               | GAC-34     | 4 a          | 3                      | 3   | 1.5 | 1,890          | .50                  | 7,000                  |
|                 |            | 4 b          | 3                      | 4   | 1.5 | 2,520          | .67                  | 8,500                  |
|                 |            | 4 c          | 3                      | 5   | 1.5 | 3,150          | .84                  | 10,400                 |
|                 |            | 4 d          | 3                      | 6   | 1.5 | 3,780          | 1.00                 | 12,000                 |
|                 |            | 4 e          | 4                      | 6   | 1.5 | 5,050          | 1.33                 | 15,200                 |
|                 |            | 4 f          | 5                      | 6   | 1.5 | 6,300          | 1.67                 | 18,300                 |
| 6               | GAC-56     | 6 a          | 3                      | 4   | 1.5 | 2,520          | .67                  | 20,100                 |
|                 |            | 6 b          | 3                      | 5   | 1.5 | 3,150          | .84                  | 23,200                 |
|                 |            | 6 c          | 3                      | 6   | 1.5 | 3,780          | 1.00                 | 26,300                 |
|                 |            | 6 d          | 4                      | 6   | 1.5 | 5,050          | 1.33                 | 31,700                 |
|                 |            | 6 e          | 5                      | 6   | 1.5 | 6,300          | 1.67                 | 36,600                 |
| 8               | GAC-57     | 8 a          | 3                      | 5   | 1.5 | 3,150          | .84                  | 44,300                 |
|                 |            | 8 b          | 3                      | 6   | 1.5 | 3,780          | 1.00                 | 49,400                 |
|                 |            | 8 c          | 4                      | 6   | 1.5 | 5,050          | 1.33                 | 57,000                 |
|                 |            | 8 d          | 5                      | 6   | 1.5 | 6,300          | 1.67                 | 64,500                 |
|                 |            | 8 e          | 6                      | 6   | 1.5 | 7,550          | 2.00                 | 72,100                 |
| 10              | GAC-58     | 10 a         | 3                      | 6   | 1.5 | 3,780          | 1.00                 | 83,500                 |
|                 |            | 10 b         | 4                      | 6   | 1.5 | 5,050          | 1.33                 | 94,100                 |
|                 |            | 10 c         | 5                      | 6   | 1.5 | 6,300          | 1.67                 | 104,800                |
|                 |            | 10 d         | 6                      | 6   | 1.5 | 7,550          | 2.00                 | 115,200                |
|                 |            | 10 e         | 6                      | 8   | 1.5 | 10,080         | 2.67                 | 136,400                |
| 12              | GAC-59     | 12 a         | 4                      | 6   | 1.5 | 5,050          | 1.33                 | 144,800                |
|                 |            | 12 b         | 5                      | 6   | 1.5 | 6,300          | 1.67                 | 158,700                |
|                 |            | 12 c         | 6                      | 6   | 1.5 | 7,550          | 2.00                 | 172,500                |
|                 |            | 12 d         | 6                      | 8   | 1.5 | 10,080         | 2.67                 | 200,500                |
|                 |            | 12 e         | 8                      | 8   | 1.5 | 13,440         | 3.56                 | 233,200                |

DRAWN M. BUENDIA

CHECKED CH

APPROVED DAH

DATE 7-22-64

SCALE NONE

ROHN MFG. CO.  
PEORIA, ILLINOIS

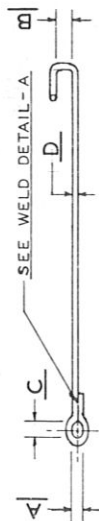
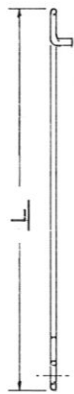
TITLE

DETAILS  
OF  
CONCRETE ANCHORS

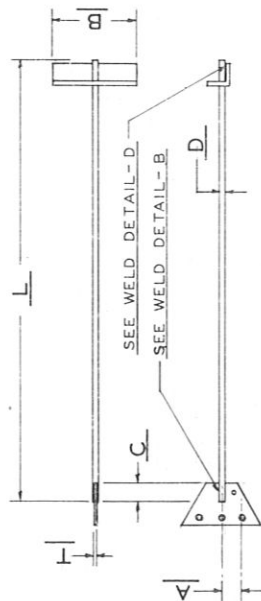
DRAWING NO.

C-620643-R

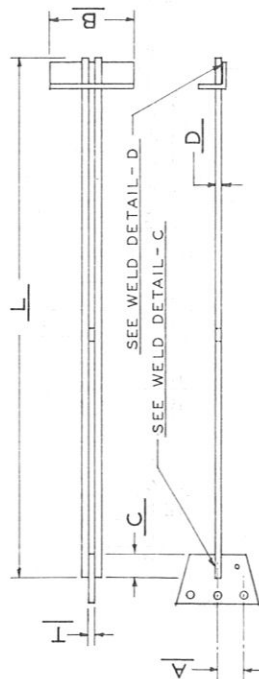
REVISED AND REDRAWN 7-22-64



TYPES- GAR-25 & GAC-25



TYPES- GAC-75, 100, 34, 56 & 57



TYPES- GAC-58 & 59

ANCHOR ROD DETAILS

NOTE: WELD SIZE TO BE ONE-HALF OF MATERIAL THICKNESS.

# ANCHOR ROD DATA

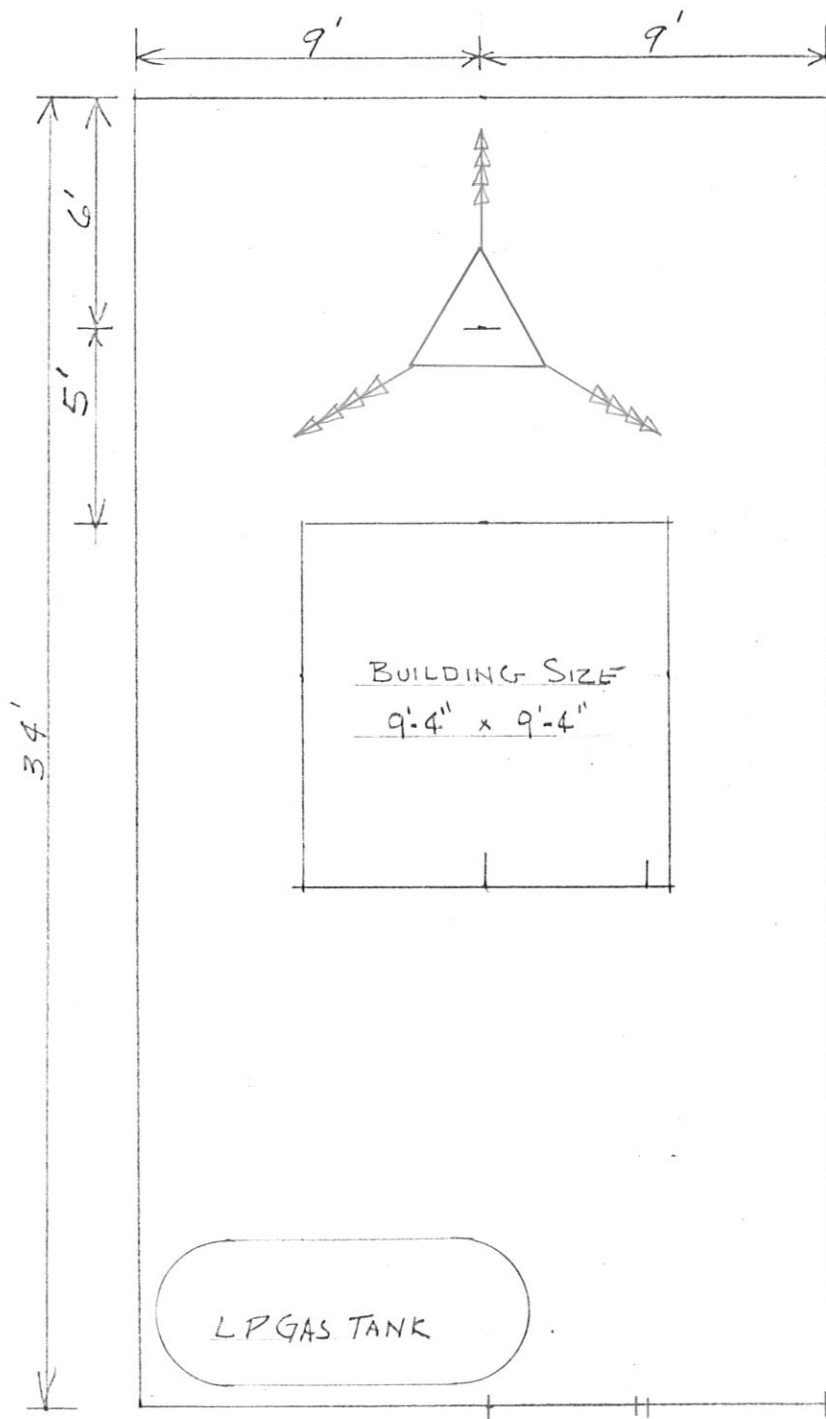
| PART<br>NUMBER | EQUALIZER<br>PLATE<br>TYPE | DIMENSIONS IN INCHES |        |    |       |       |       | WEIGHT-<br>LBS. | LOAD<br>CAPACITY-<br>LBS. |
|----------------|----------------------------|----------------------|--------|----|-------|-------|-------|-----------------|---------------------------|
|                |                            | L                    | A      | B  | C     | D     | T     |                 |                           |
| GAC-25         | EYE                        | 64                   | 3/4    | 4  | 1 1/2 | 5/8   | ---   | 8               | 9200                      |
| GAC-25-3       | EE                         | 64                   | 2      | 4  | 1 1/2 | 5/8   | 3/16  | 12              | 9200                      |
| GAC-25-5       | EE                         | 64                   | 2      | 4  | 1 1/2 | 5/8   | 3/16  | 13              | 9200                      |
| GAC-75-1       | EJ                         | 120                  | 1 1/8  | 12 | 3     | 3/4   | 1/2   | 25              | 13250                     |
| GAC-75-3       | EJ                         | 120                  | 2 1/2  | 12 | 3     | 3/4   | 1/2   | 30              | 13250                     |
| GAC-75-5       | EJ                         | 120                  | 2 1/2  | 12 | 3     | 3/4   | 1/2   | 35              | 13250                     |
| GAC-100-1      | EJ                         | 120                  | 1 5/16 | 12 | 4     | 1     | 3/4   | 45              | 23550                     |
| GAC-100-3      | EJ                         | 120                  | 3      | 12 | 4     | 1     | 3/4   | 55              | 23550                     |
| GAC-100-5      | EJ                         | 120                  | 3      | 12 | 4     | 1     | 3/4   | 65              | 23550                     |
| GAC-34-33      | EJ                         | 84                   | 2      | 12 | 2 1/2 | 3/4   | 3/16  | 22              | 13250                     |
| GAC-56-33      | EJ                         | 120                  | 2 1/2  | 12 | 3     | 1 1/4 | 1/2   | 58              | 36800                     |
| GAC-57-33      | EJ                         | 168                  | 3      | 12 | 4     | 1 1/2 | 3/4   | 115             | 53000                     |
| GAC-58-33      | EJ                         | 192                  | 4      | 12 | 6     | 1 1/4 | 1     | 195             | 73600                     |
| GAC-59-33      | EJ                         | 240                  | 4      | 12 | 6     | 1 3/4 | 1 1/2 | 410             | 144300                    |
| GAC-34-55      | EJ                         | 84                   | 2      | 12 | 2 1/2 | 3/4   | 3/16  | 25              | 13250                     |
| GAC-56-55      | EJ                         | 120                  | 2 1/2  | 12 | 3     | 1 1/4 | 1/2   | 64              | 36800                     |
| GAC-57-55      | EJ                         | 168                  | 3      | 12 | 4     | 1 1/2 | 3/4   | 125             | 53000                     |
| GAC-58-55      | EJ                         | 192                  | 4      | 12 | 6     | 1 1/4 | 1     | 215             | 73600                     |
| GAC-59-55      | EJ                         | 240                  | 4      | 12 | 6     | 1 3/4 | 1 1/2 | 445             | 144300                    |

- TYPE-EJ EQUALIZER PLATES ARE USED WITH EYE & JAW TURNBUCKLES.
- TYPE-EE EQUALIZER PLATES ARE SUPPLIED IN PAIRS FOR EYE & EYE TURNBUCKLES.
- PART NO. SUFFIXES- 1, 3, 5, 33 & 55 DENOTES- 1, 3 OR 5 HOLES IN PLATE.
- TYPE GAC-25 RODS ARE SUPPLIED WITH TYPE 2534-EE EQUALIZER PLATES.
- SEE DRAWING NO. C-660416 FOR EQUALIZER PLATE DETAILS.

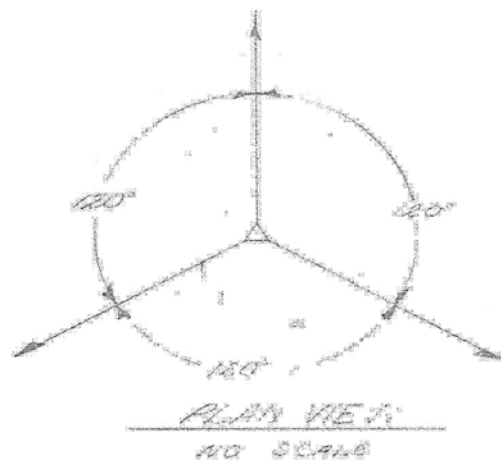
|                                                                                                                                                                               |          |    |         |       |     |                     |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----|---------|-------|-----|---------------------|----------|
| NO.                                                                                                                                                                           | REVISION | BY | DATE    | DRAWN | CHK | ANCHOR ROD SCHEDULE |          |
| 1                                                                                                                                                                             | REDRAWN  |    | 7-26-66 |       |     | CHECKED             | APPROVED |
|                                                                                                                                                                               |          |    |         |       |     |                     |          |
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|                                                                                                                                                                               |          |    |         |       |     | C-660 415           |          |
|                                                                                                                                                                               |          |    |         |       |     | A                   |          |

ROHN MANUFACTURING Co.  
PEORIA, ILLINOIS

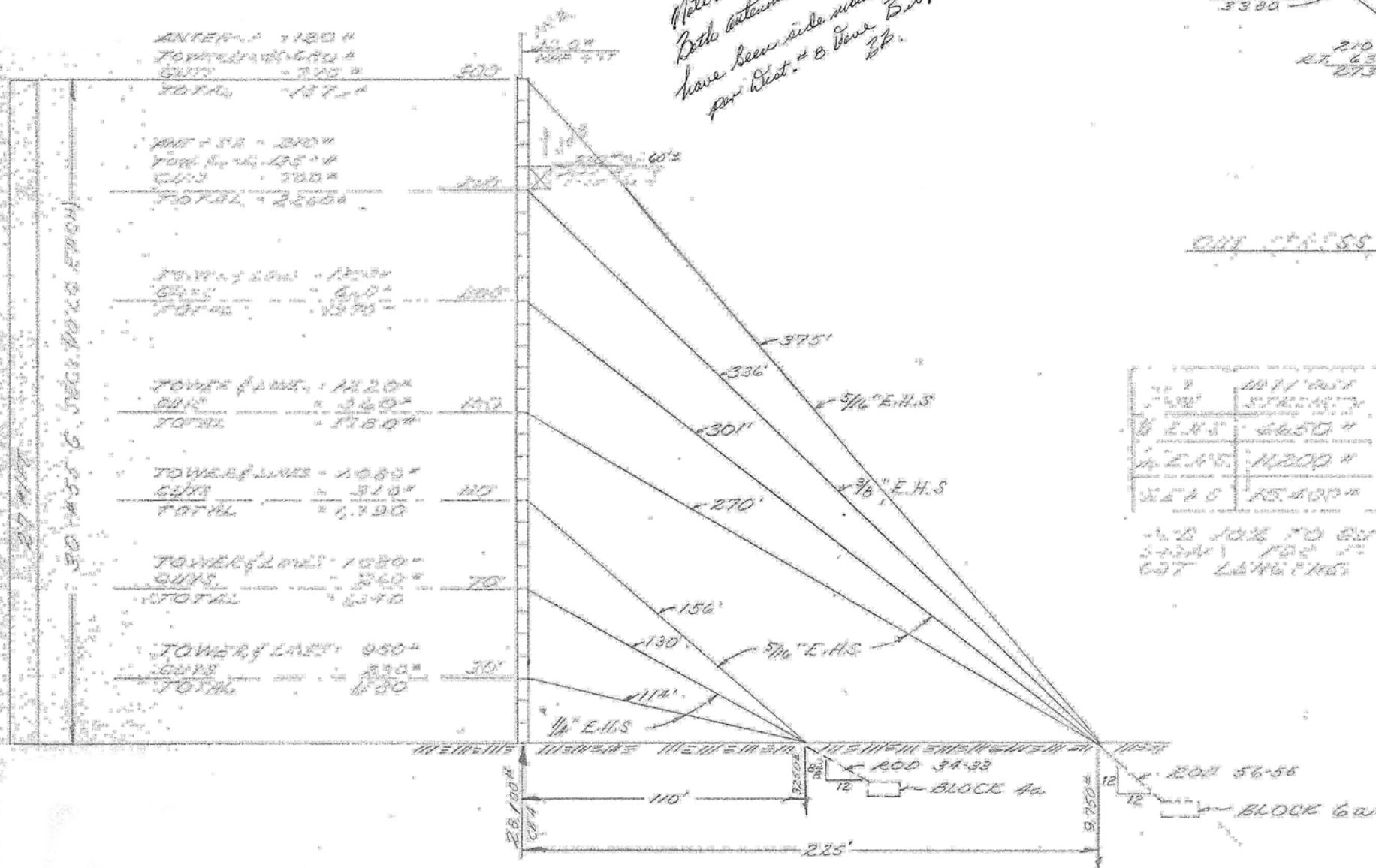
# RADIO STATION SITE LAYOUT



Chainlink fence

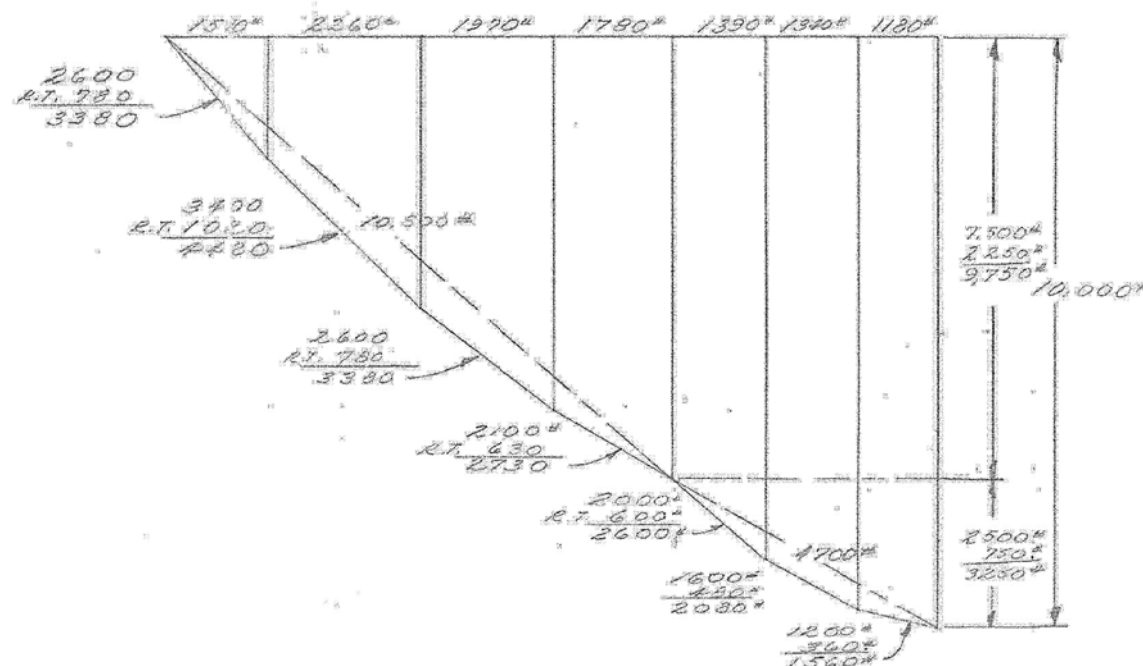


6/18/79  
 Note:  
 Both antennas  
 have been side mounted  
 per Sect. # 8 Gene Bily  
 32.



TOWER ELEV  
 NO SCALE 1\"/>

| BILL OF MATERIAL             |       |          |             |          |
|------------------------------|-------|----------|-------------|----------|
| ITEM                         | QUAN. | MARK NO. | DESCRIPTION | DWG. NO. |
| <u>WIND LOADING</u>          |       |          | #55 TOWER   | 208 W/F  |
| 30 PSF $\frac{1}{8}$ " R ICE |       |          | LINES       | 62 W/F   |
| E.I.D.                       |       |          | TOTAL       | 27 W/F   |
| WIND ON GAKS = 2 W/F         |       |          |             |          |



BASE REACTION  
 $10,000 \times 2 = 20,000$   
 $20 \times 300 = 6,000$  (TOWER WIND)  
 $2,100$  (GUY WIND)  
 $28,100$

MAX LEG STRESS @ LOWER GUY LEVEL  
 $28,100 \div 3 = 9,366$  (DIRECT)  
 $27(35) = 945$  (BENDING)  
 $10,166 \times 1.42 = 14,438$

CAPACITY #55 G LEG = 14,000

|                         |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|-------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1                       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| WIND LOADING            |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| 30 PSF W/ 1" X 4" STUDS |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |

|                  |          |
|------------------|----------|
| 4.556 TOWER SEC. | C-620635 |
| BASE PLB DETAILS | C-61062  |
| ANCHOR DETAILS   | C-62064  |

FOR TOWER BOLTS  
 CHAMFER EXPOSED EDGES OF ALL CONC.



SITES: FLAT

| NO. | DESCRIPTION                         | DATE | BY |
|-----|-------------------------------------|------|----|
| 1   | STRESS & ERECTION DATA 300' 1/2\"/> |      |    |

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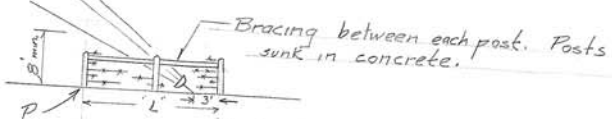
SCALE: NOTED MATERIAL: FINISH: W.T.

DATE: 6/16/79

DWG. NO.: C-670618

TOWER SITE - FLAT, Mo.  
Scale: 1" = 20'

ANCHOR FENCE DETAIL  
No Scale

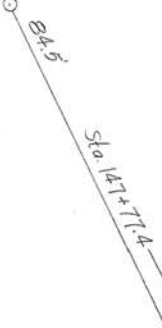
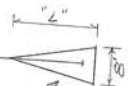
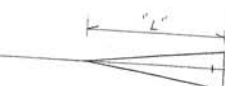
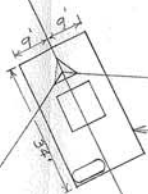
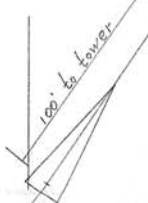


'L' not less than 8'. Under guy post "P" placement to provide at least 8' clearance under lowest guy cable.

Stone on N.W. Corner  
NE<sup>4</sup> SE<sup>4</sup>  
13-35-10

Chain link fence with  
barbed wire extenders  
around tower, building,  
& L.P. gas tank.

Barbed wire fence around  
each guy anchor point.  
See blueprint for guy rod  
anchor detail.



Rt. M

R/W - 8

R/W - 2

T.M.