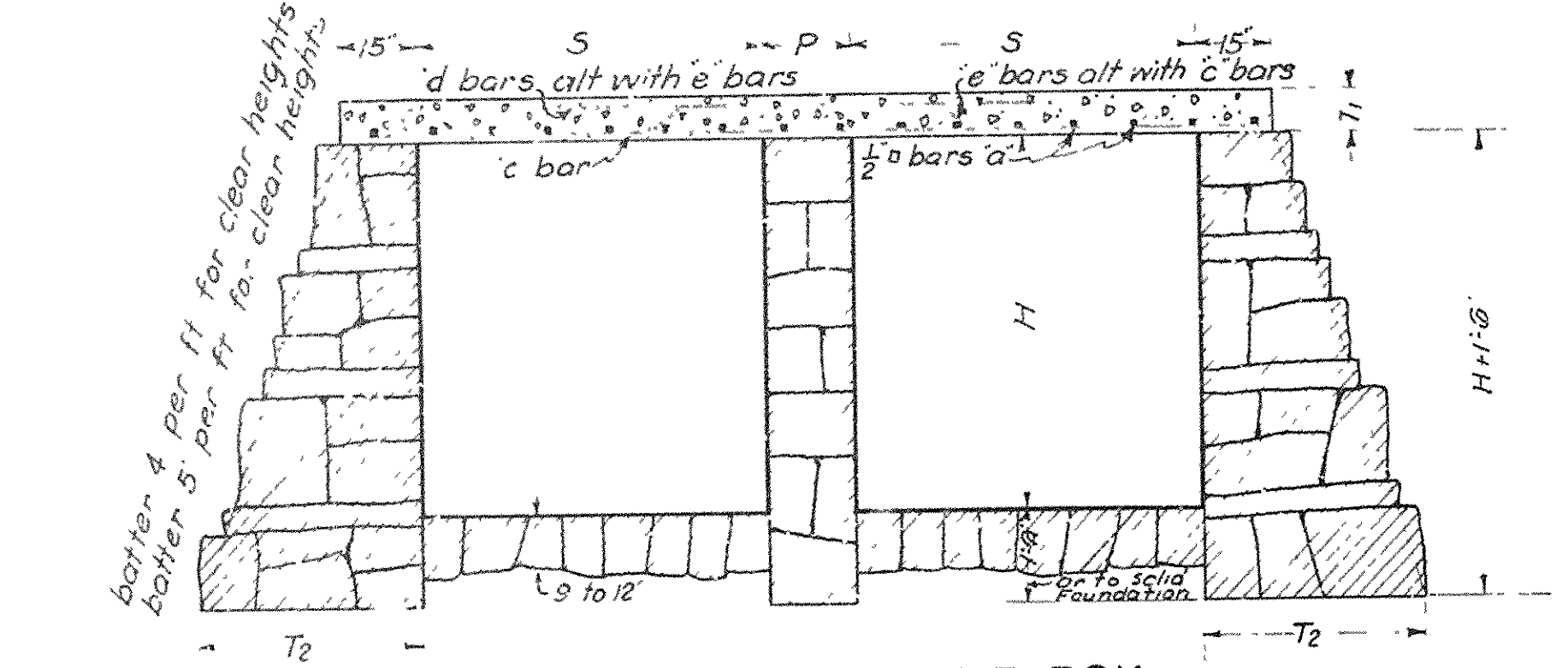
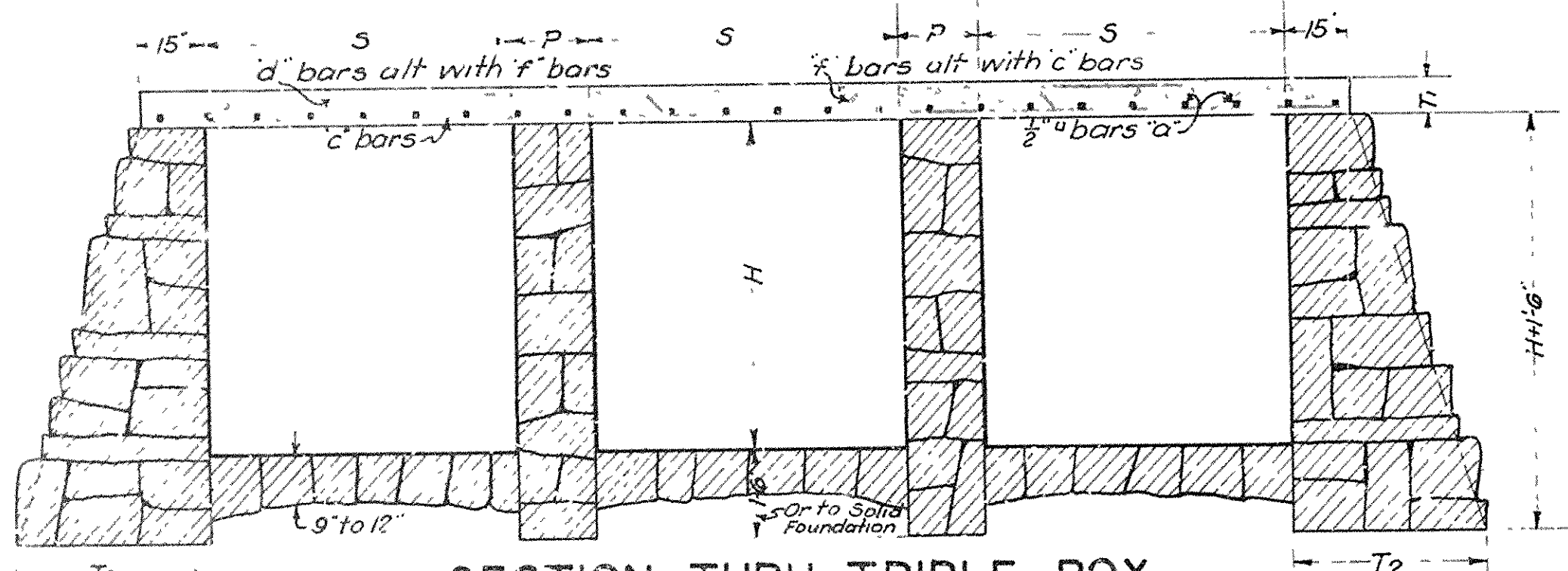


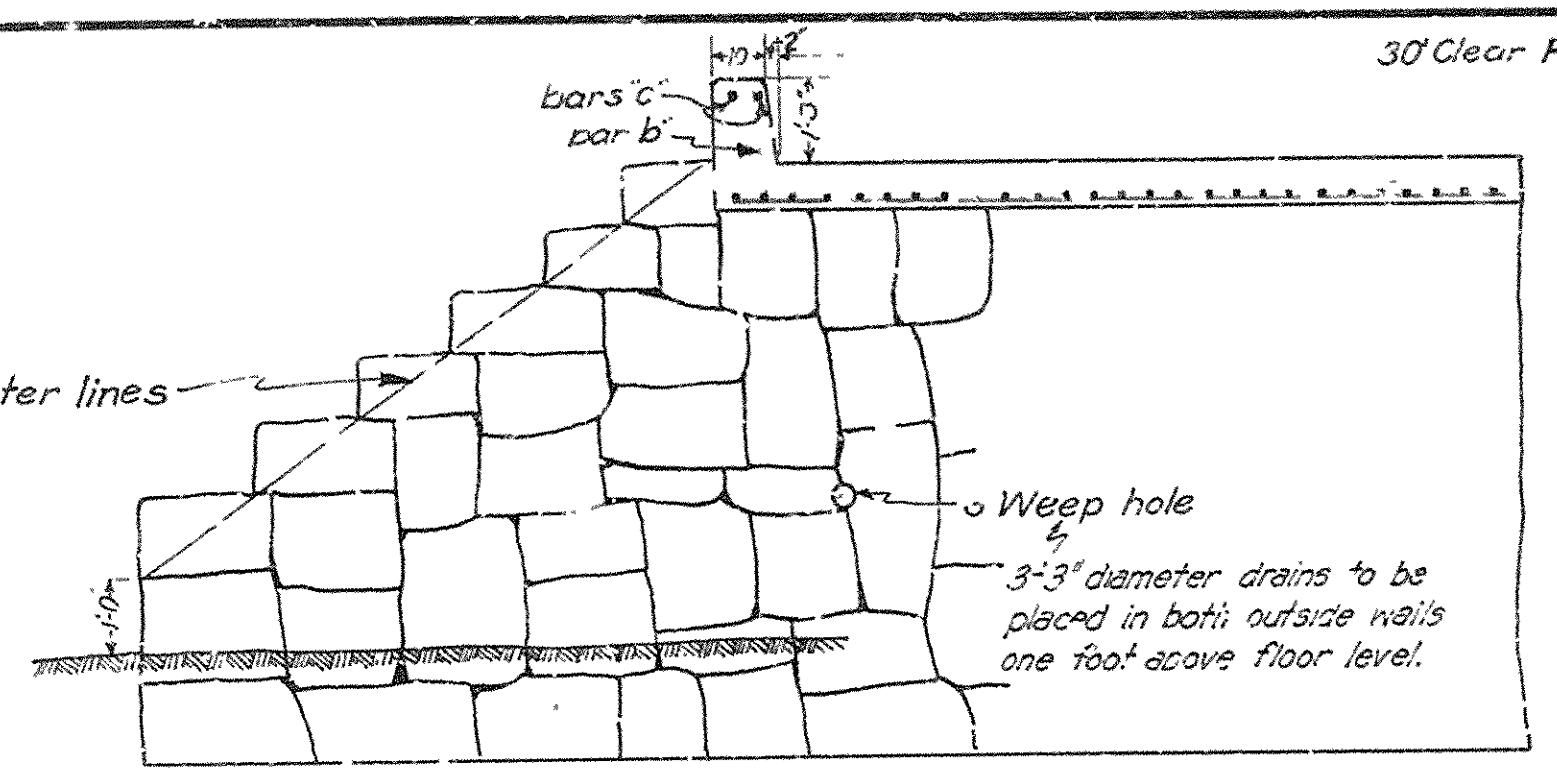
SECTION THRU SINGLE BOX



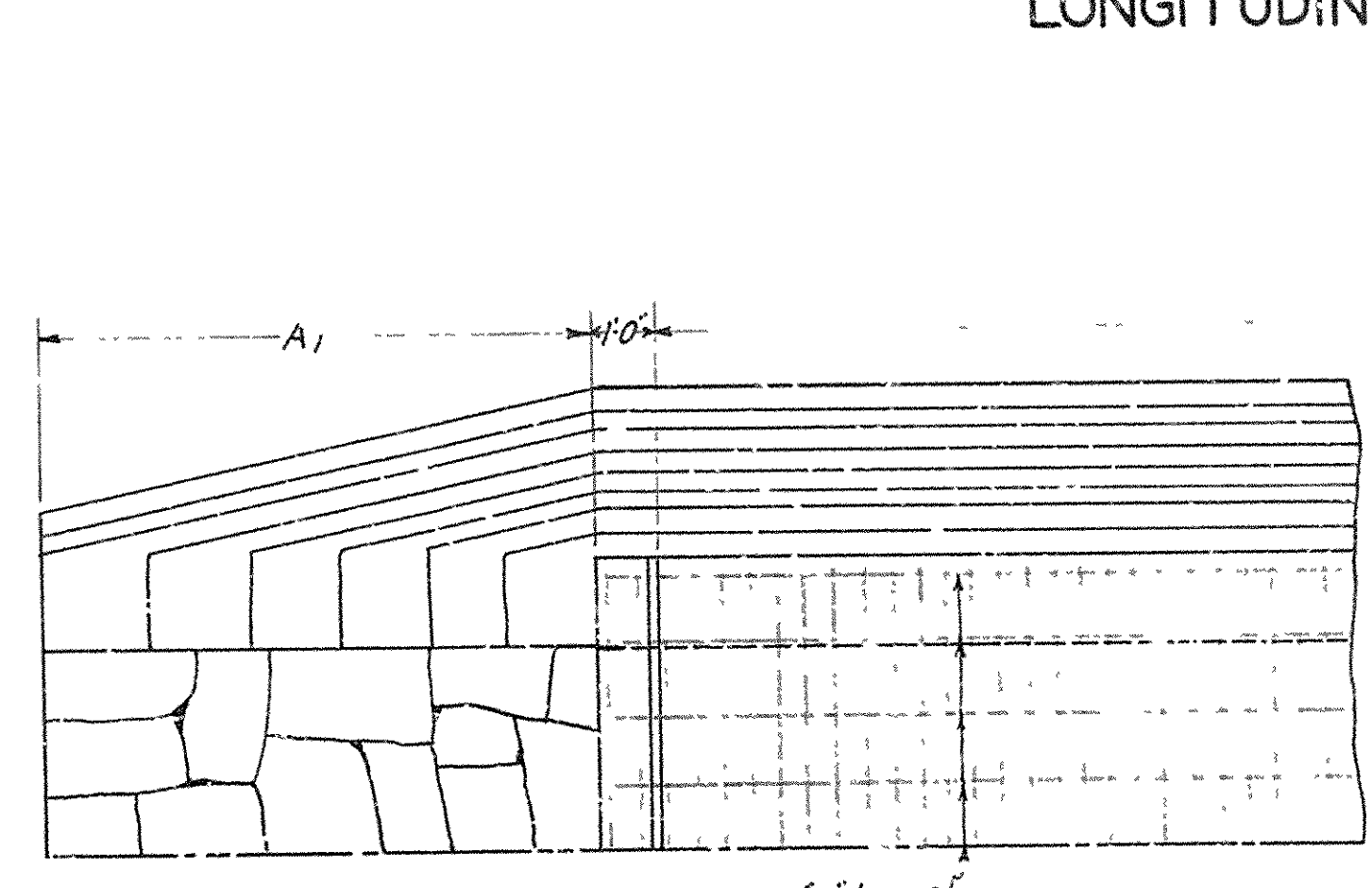
SECTION THRU DOUBLE BOX



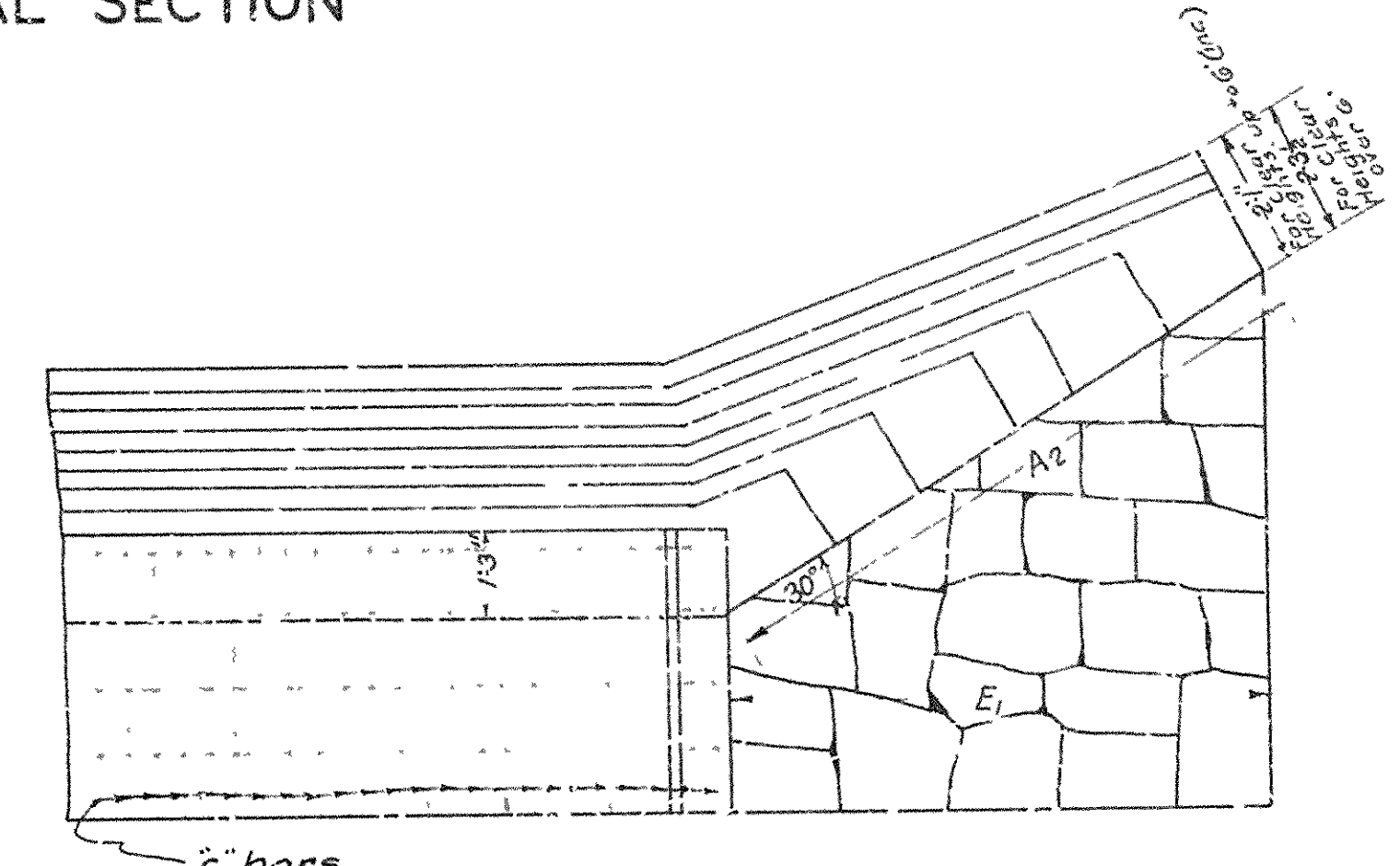
SECTION THRU TRIPLE BOX



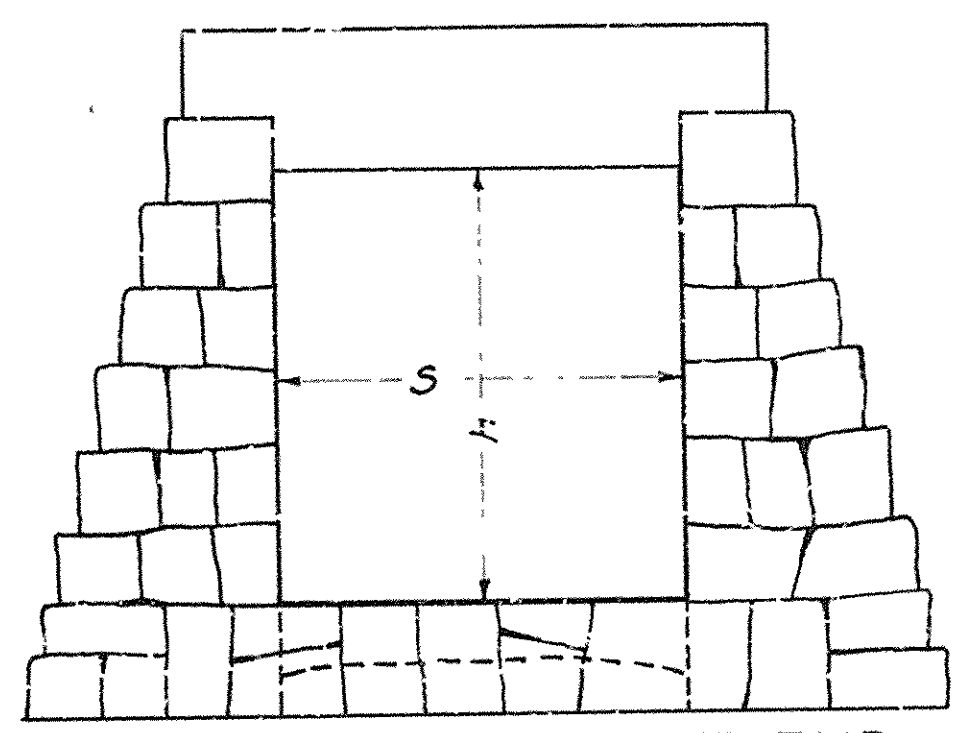
LONGITUDINAL SECTION



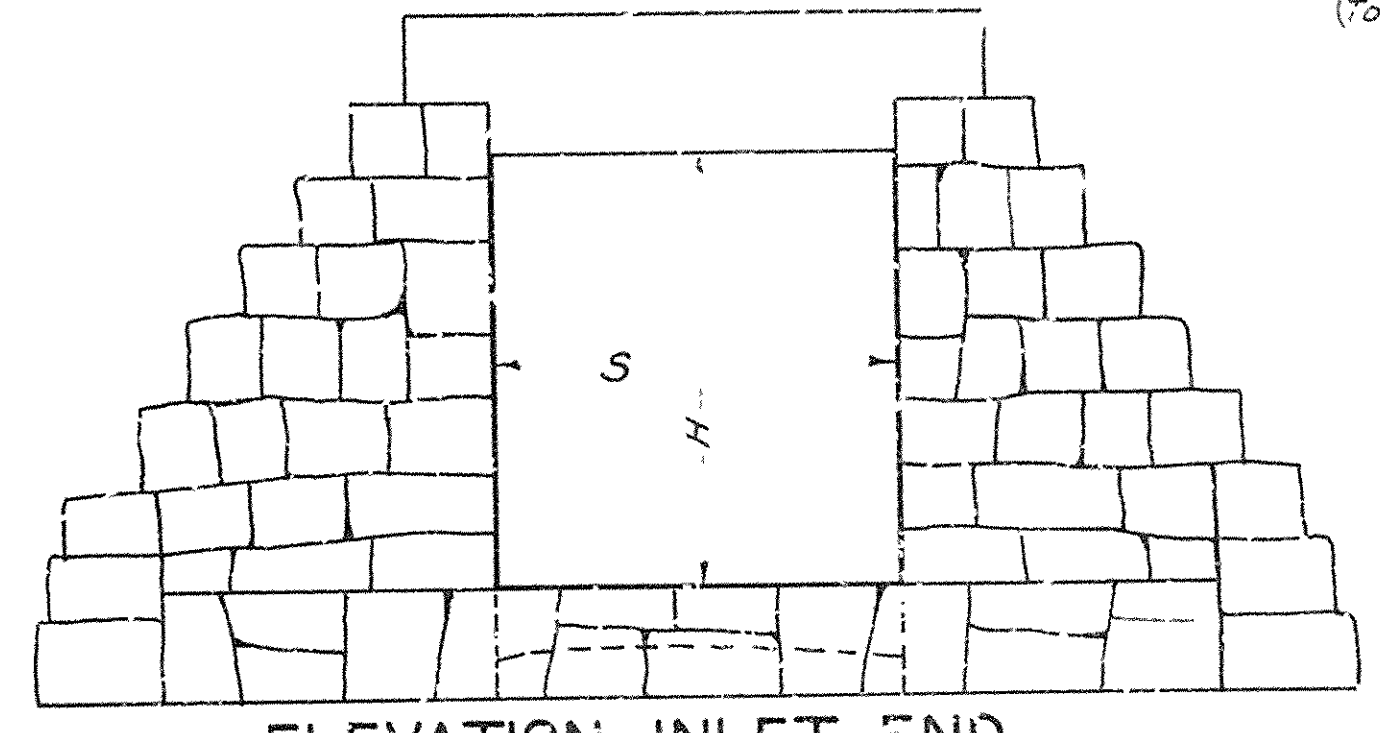
HALF-PLAN SINGLE-BARREL BOX CULVERT



SECTION SHOWING CUT OFF WALL For Outlet & Inlet Ends (to be placed when channel is paved)

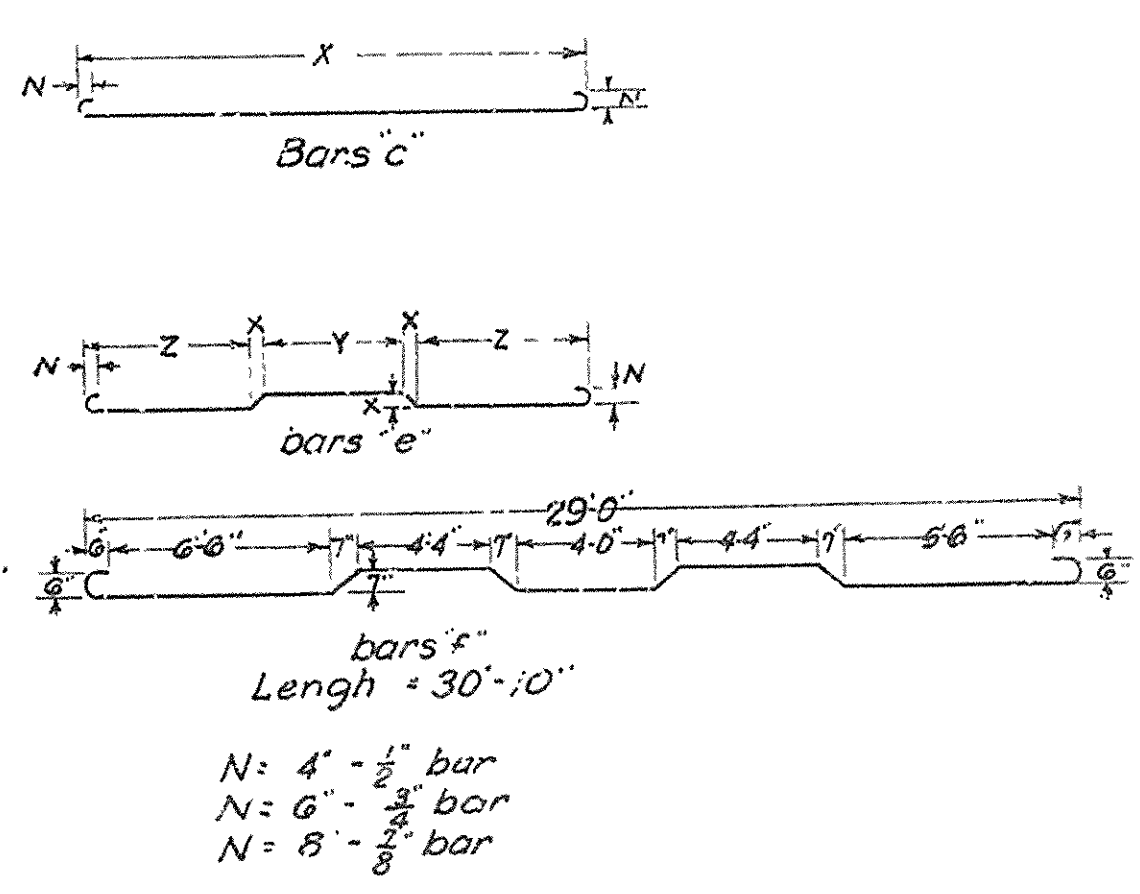


ELEVATION-OUTLET END



ELEVATION-INLET END

| Clear Span S' | Clear Height H' | Rip Wall D' | 1/2 to 1 |           | T1       | T2     | Maximum Height | Single Barrel |                 |                 |                |        |        |        |                 |                 |                | Double Barrel |        |        |        |        |     |     |    |     |     |     |    |    |    |    |   |    |    |   |    |    |    |    |   |   |    |    |   |   |    |    |    |    |    |   |
|---------------|-----------------|-------------|----------|-----------|----------|--------|----------------|---------------|-----------------|-----------------|----------------|--------|--------|--------|-----------------|-----------------|----------------|---------------|--------|--------|--------|--------|-----|-----|----|-----|-----|-----|----|----|----|----|---|----|----|---|----|----|----|----|---|---|----|----|---|---|----|----|----|----|----|---|
|               |                 |             | A1       | A2        |          |        |                | E1            | Concrete Cu Yds | Reinf Steel Lbs | Masonry Cu Yds | Bars a | Bars b | Bars c | Concrete Cu Yds | Reinf Steel Lbs | Masonry Cu Yds | Bars a        | Bars b | Bars c | Bars e | Bars f |     |     |    |     |     |     |    |    |    |    |   |    |    |   |    |    |    |    |   |   |    |    |   |   |    |    |    |    |    |   |
| 3             | 2               | 15          | 2-4 1/2  | 2-9       | 2-4 1/2  | 7      | 2-5            | 12            | 47              | 153             | 54             | 225    | 183    | 22     | 3               | 2               | 6              | 68            | 62     | 52     | 26     | 80     | 407 | 12  | 3  | 2   | 31  | 4   | 3  | 10 | 6  | 4  | 2 | 7  | 3  | 0 | 12 | 2  | 3  | 10 | 3 | 9 | 3  |    |   |   |    |    |    |    |    |   |
| 4             | 3               | 15          | 3-10 1/2 | 4-5 1/2   | 3-10 1/2 | 7 1/2  | 2-9            | 15            | 55              | 193             | 62             | 275    | 216    | 27     | 4               | 3               | 7              | 81            | 72     | 62     | 27     | 10     | 573 | 106 | 26 | 88  | 576 | 12  | 3  | 2  | 34 | 5  | 3 | 11 | 3  | 4 | 3  | 12 | 7  | 4  | 3 | 2 | 8  | 11 | 3 | 8 | 12 | 3  | 11 | 3  |    |   |
| 5             | 4               | 15          | 4-11 1/2 | 5-6 1/2   | 4-11 1/2 | 8      | 2-9            | 19            | 64              | 235             | 75             | 345    | 270    | 34     | 5               | 4               | 8              | 96            | 81     | 72     | 34     | 117    | 474 | 132 | 32 | 80  | 158 | 14  | 3  | 2  | 37 | 6  | 3 | 10 | 3  | 3 | 14 | 7  | 5  | 3  | 9 | 4 | 10 | 3  | 4 | 3 | 13 | 3  | 3  | 13 | 3  |   |
| 6             | 5               | 18          | 5-12 1/2 | 6-7 1/2   | 5-12 1/2 | 8 1/2  | 2-9            | 22            | 72              | 263             | 85             | 425    | 330    | 42     | 6               | 5               | 9              | 108           | 96     | 81     | 42     | 136    | 550 | 151 | 39 | 92  | 662 | 16  | 3  | 2  | 37 | 7  | 4 | 10 | 3  | 3 | 16 | 11 | 5  | 4  | 7 | 5 | 10 | 3  | 4 | 3 | 13 | 3  | 3  | 13 | 3  |   |
| 8             | 7               | 17          | 7-13 1/2 | 8-9 1/2   | 7-13 1/2 | 10     | 2-9            | 27            | 84              | 325             | 103            | 525    | 405    | 65     | 7               | 6               | 11             | 126           | 117    | 102    | 65     | 170    | 685 | 245 | 47 | 136 | 850 | 151 | 16 | 3  | 2  | 37 | 7 | 4  | 10 | 3 | 3  | 16 | 11 | 5  | 4 | 7 | 5  | 10 | 3 | 4 | 3  | 13 | 3  | 3  | 13 | 3 |
| 10            | 9               | 24          | 9-15 1/2 | 10-11 1/2 | 9-15 1/2 | 11 1/2 | 2-9            | 32            | 96              | 395             | 126            | 605    | 480    | 87     | 8               | 7               | 12             | 144           | 132    | 117    | 87     | 190    | 934 | 320 | 65 | 235 | 247 | 25  | 3  | 2  | 37 | 7  | 4 | 10 | 3  | 3 | 16 | 11 | 5  | 4  | 7 | 5 | 10 | 3  | 4 | 3 | 13 | 3  | 3  | 13 | 3  |   |
| 8             | 4               | 18          | 5-9 1/2  | 6-7 1/2   | 5-9 1/2  | 10 1/2 | 2-9            | 27            | 84              | 325             | 103            | 525    | 405    | 65     | 7               | 6               | 11             | 126           | 117    | 102    | 65     | 170    | 685 | 245 | 47 | 136 | 850 | 151 | 16 | 3  | 2  | 37 | 7 | 4  | 10 | 3 | 3  | 16 | 11 | 5  | 4 | 7 | 5  | 10 | 3 | 4 | 3  | 13 | 3  | 3  | 13 | 3 |



Specifications: Ark Sta Road & Bridge Specifications  
 Reinforcing Steel: To be Deformed bars of Structural or Intermediate Grade  
 Concrete: All Concrete to be Class 'A' Chamfer Exposed Edges  
 Masonry: All Stone work to be 'Cement Rubble Masonry'  
 Foundations: To be carried to a Good Firm Material with Minimum Depth Below Stream Bed of 1'-6" Unless on Solid Rock  
 Rip Rap and Channel Paving to be Provided when Necessary to Prevent Scour  
 Estimated Quantities to be Adjusted for Length of Culvert, footings below Datum Plane, and for Channel Paving and Rip Rap when Used

CONCRETE & MASONRY CULVERTS  
 SPAN 2' TO 10' 30' ROADWAY  
 ROUTE SEC.  
 ARKANSAS STATE HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.

Drawn By: JEM Date: 1-1-29  
 Traced By: JEM Date: 1-1-29  
 Checked By: Date: \_\_\_\_\_  
 BRIDGE NO. \_\_\_\_\_  
 DRAWING NO. 193

REVISIONS  
 Jan. 1, 1932 - Weep holes