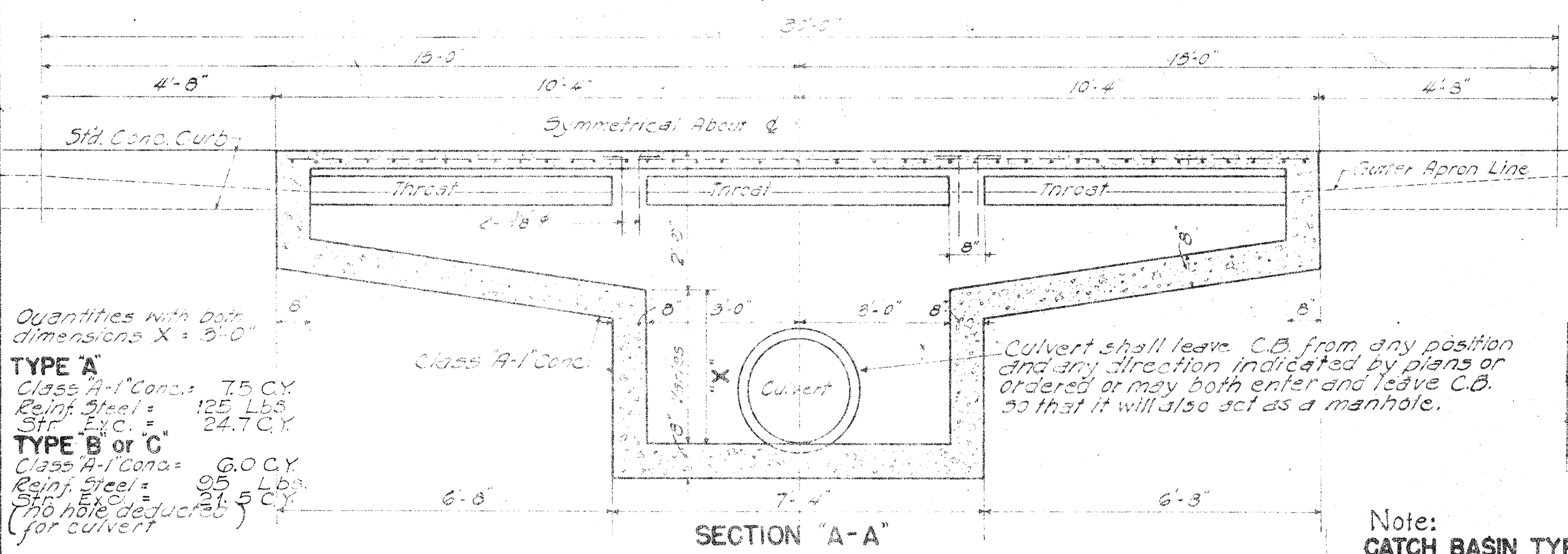




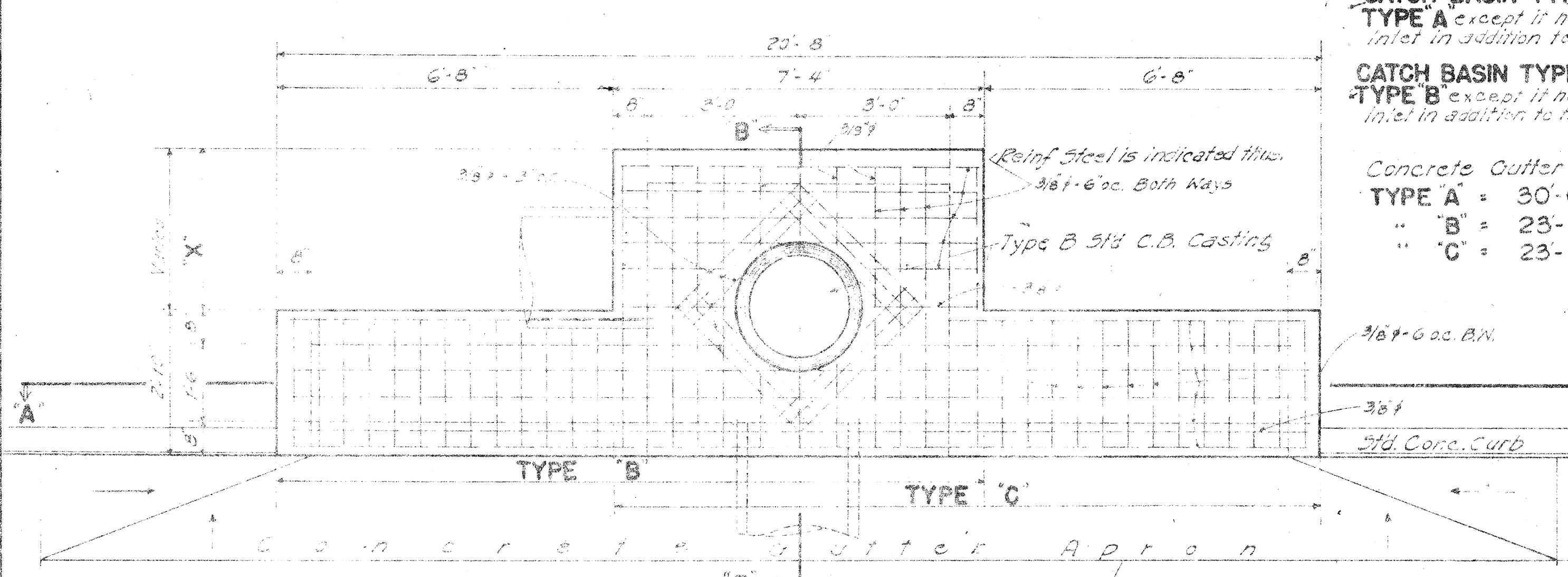




Quantities with date dimensions X = 3'-0"

**TYPE A**  
Class A-1 Conc. = 7.5 CY  
Reinf. Steel = 125 Lbs.  
Str. Exc. = 24.7 CY

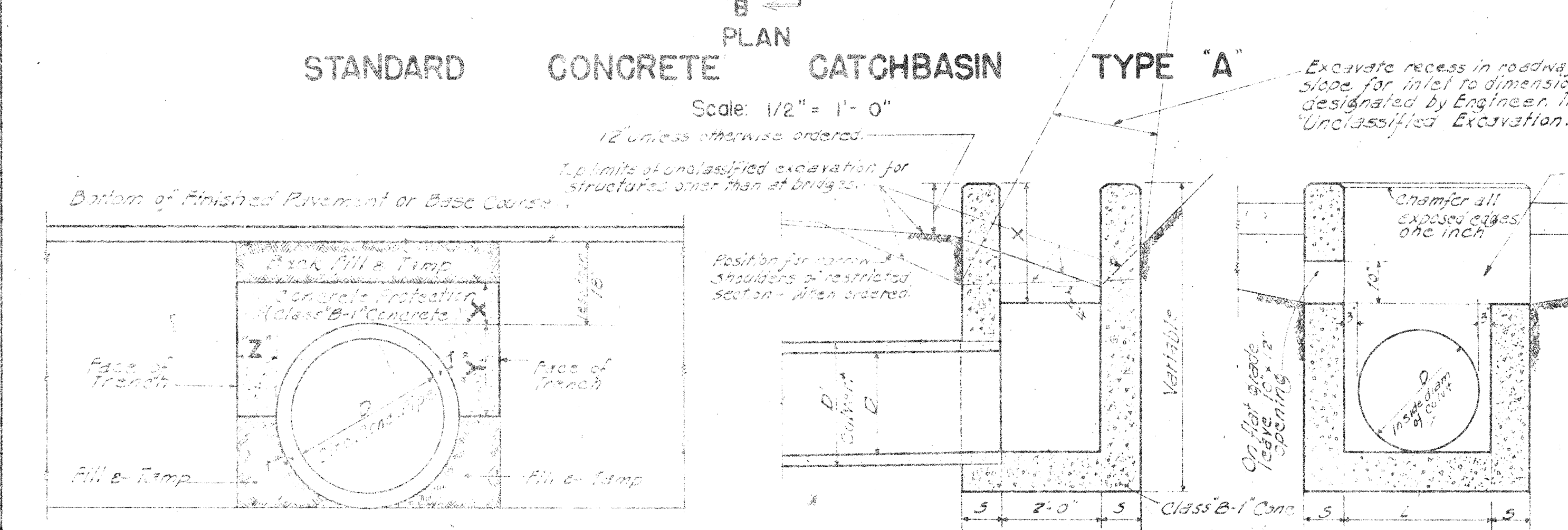
**TYPE B or C**  
Class A-1 Conc. = 6.0 CY  
Reinf. Steel = 95 Lbs.  
Str. Exc. = 21.5 CY  
(No hole deduction for culvert)



Note: **CATCH BASIN TYPE "B"** similar to **TYPE A** except it has only Left Side Inlet in addition to the Main Box.

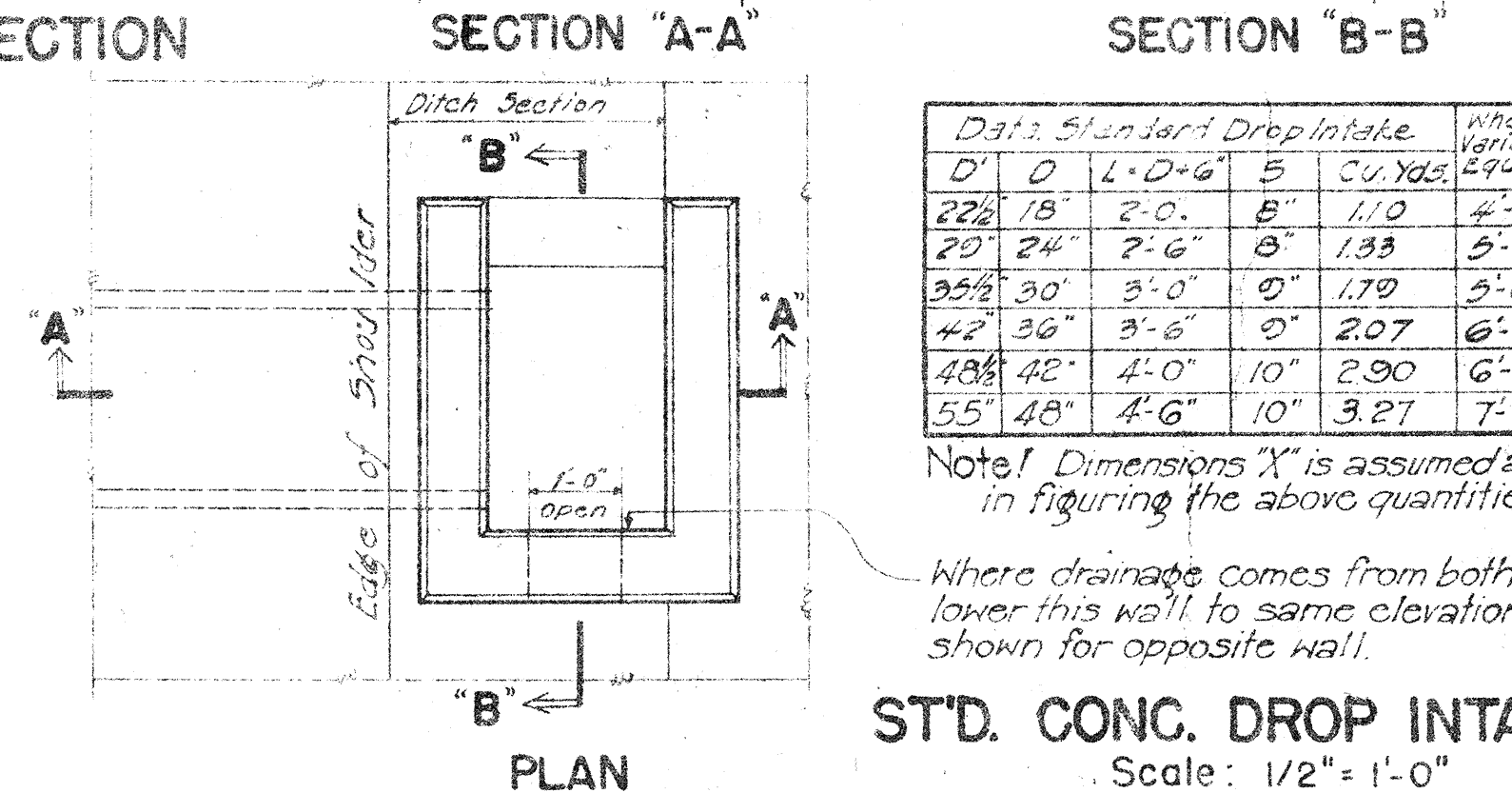
**CATCH BASIN TYPE "C"** similar to **TYPE B** except it has only Right Side Inlet in addition to the Main Box.

Concrete Gutter Apron Length:  
TYPE A = 30'-0"  
" B = 23'-4"  
" C = 23'-4"

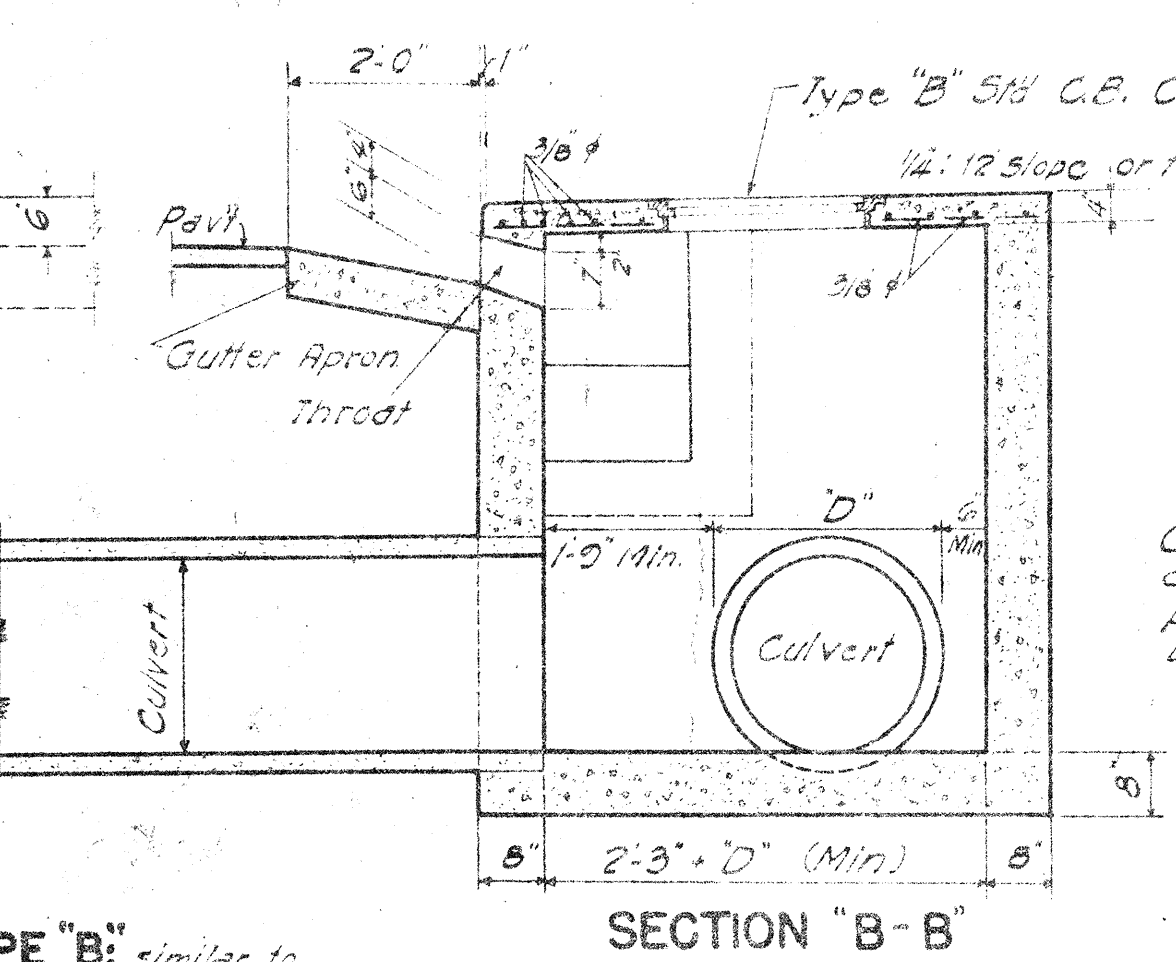


**TYP. SECT. OF CULVERT WITH CONC. PROTECTION**  
(To be used when cover is less than 18")

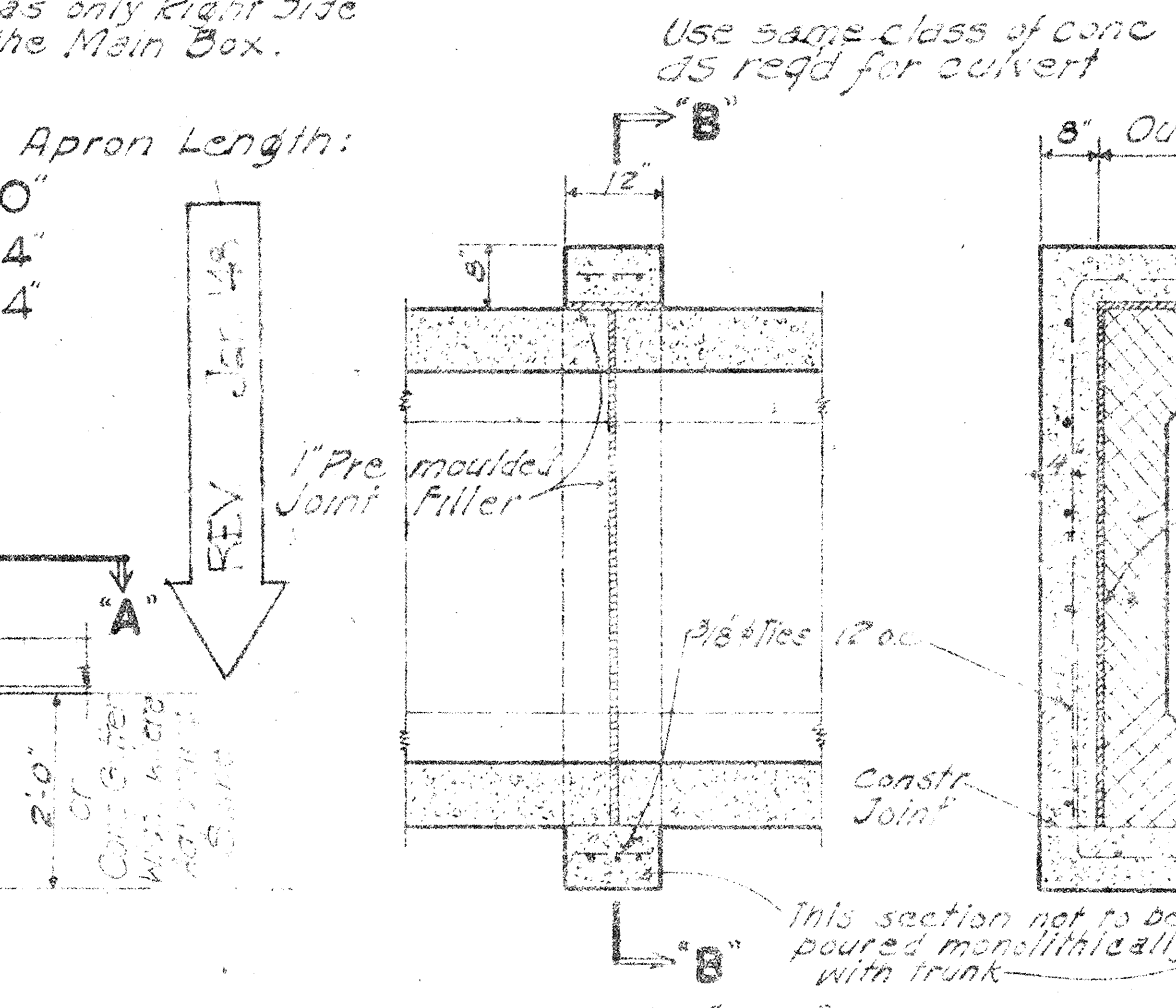
| DATA: CONCRETE PROTECTION OVER CULVERTS |   |                                                                                                       |
|-----------------------------------------|---|-------------------------------------------------------------------------------------------------------|
| X                                       | Y | Z                                                                                                     |
| 6" For 18" D                            |   | Z must be from pipe to face of trench.<br><br>Minimum = X<br><br>Maximum pay quantity will be Z = 12" |
| 7" = 24" D                              |   |                                                                                                       |
| 8" = 30" D                              |   |                                                                                                       |
| 9" = 36" D                              |   |                                                                                                       |
| 10" = 42" D                             |   |                                                                                                       |
| 11" = 48" D                             |   |                                                                                                       |
| 12" = 54" D                             |   |                                                                                                       |



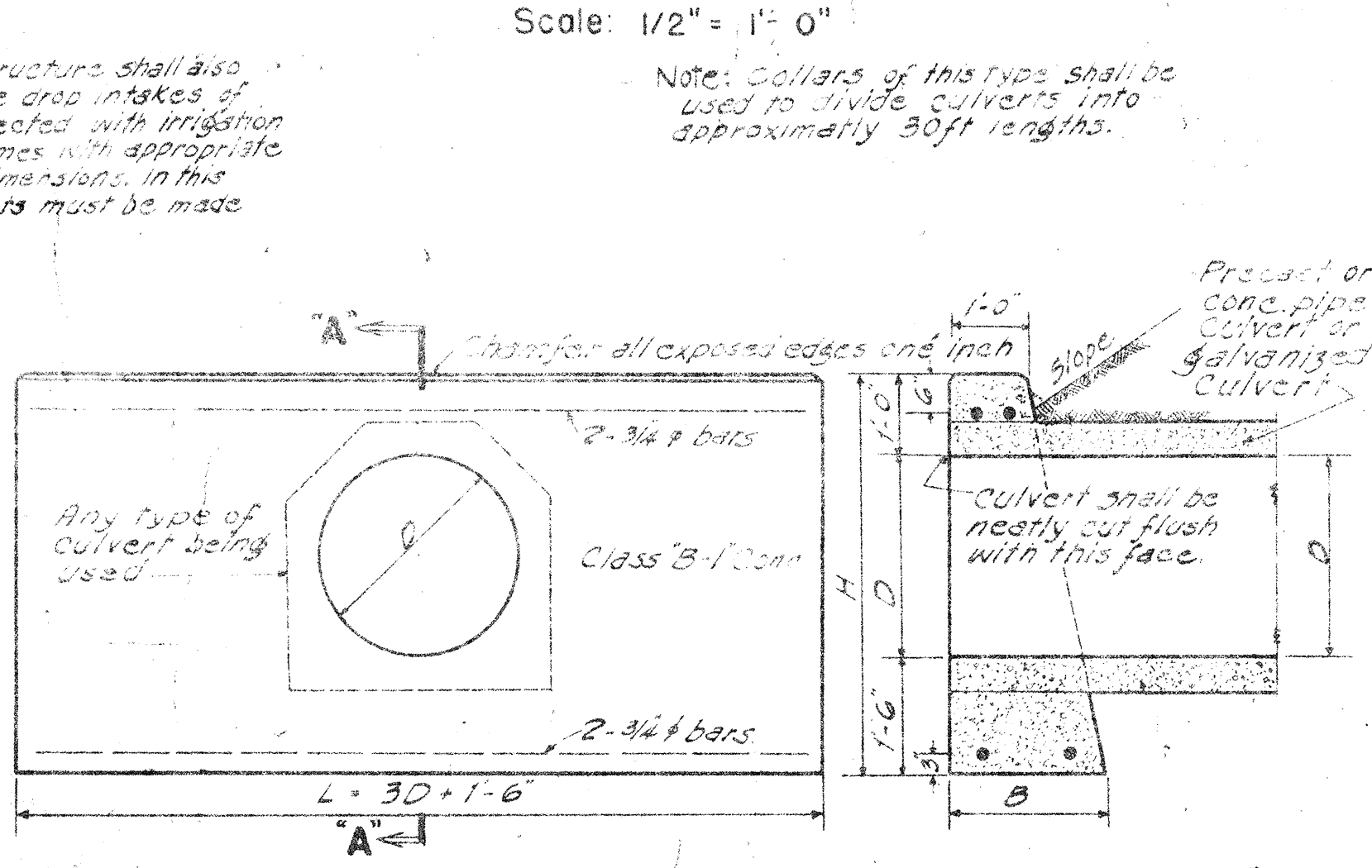
**ST'D. CONC. DROP INTAKE**  
Scale: 1/2" = 1'-0"



**SECTION "B-B"**

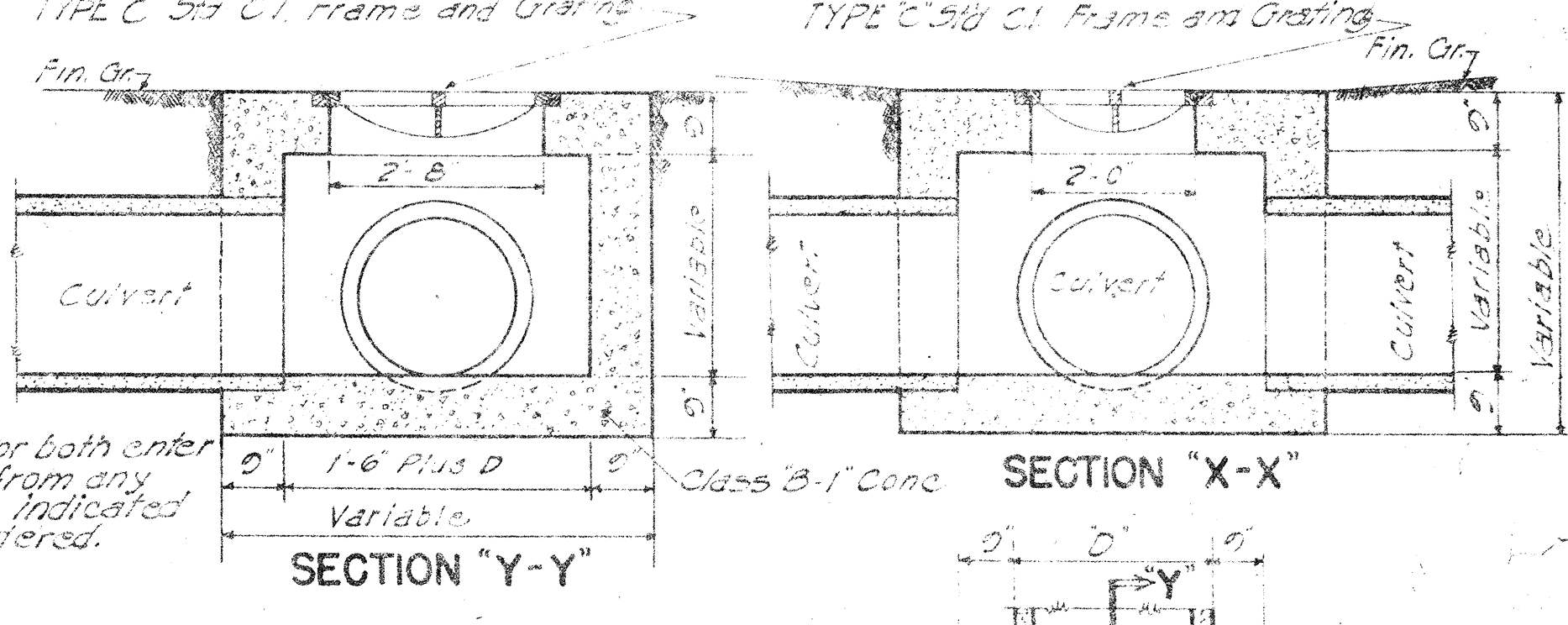


**CONC. COLLAR FOR CONC. BOX CULVERT**  
Scale: 1/2" = 1'-0"

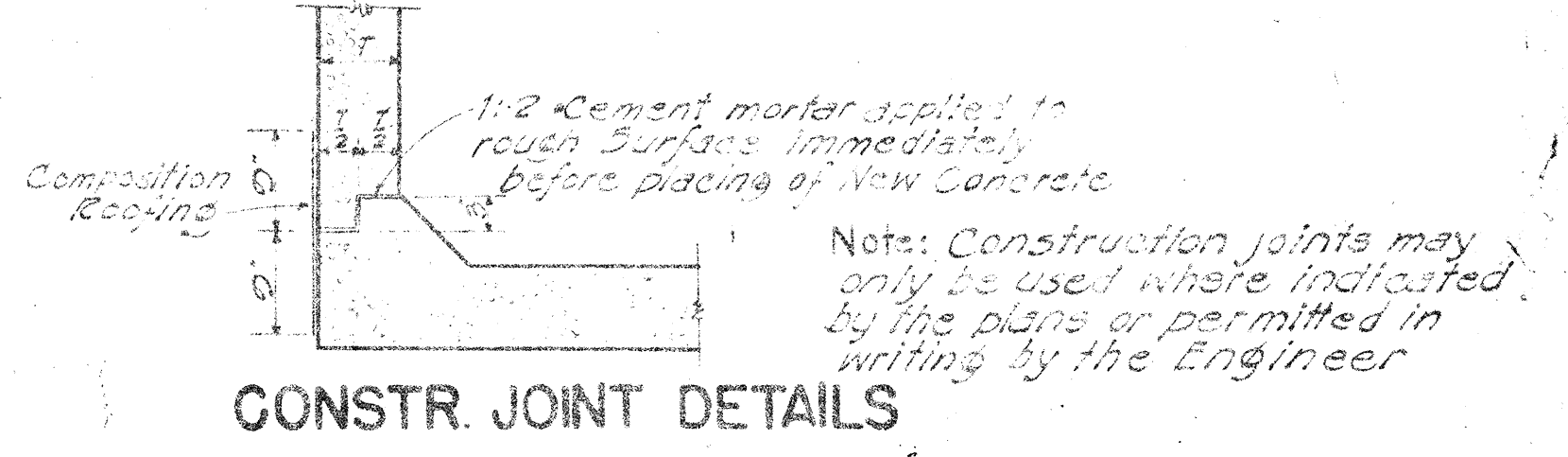
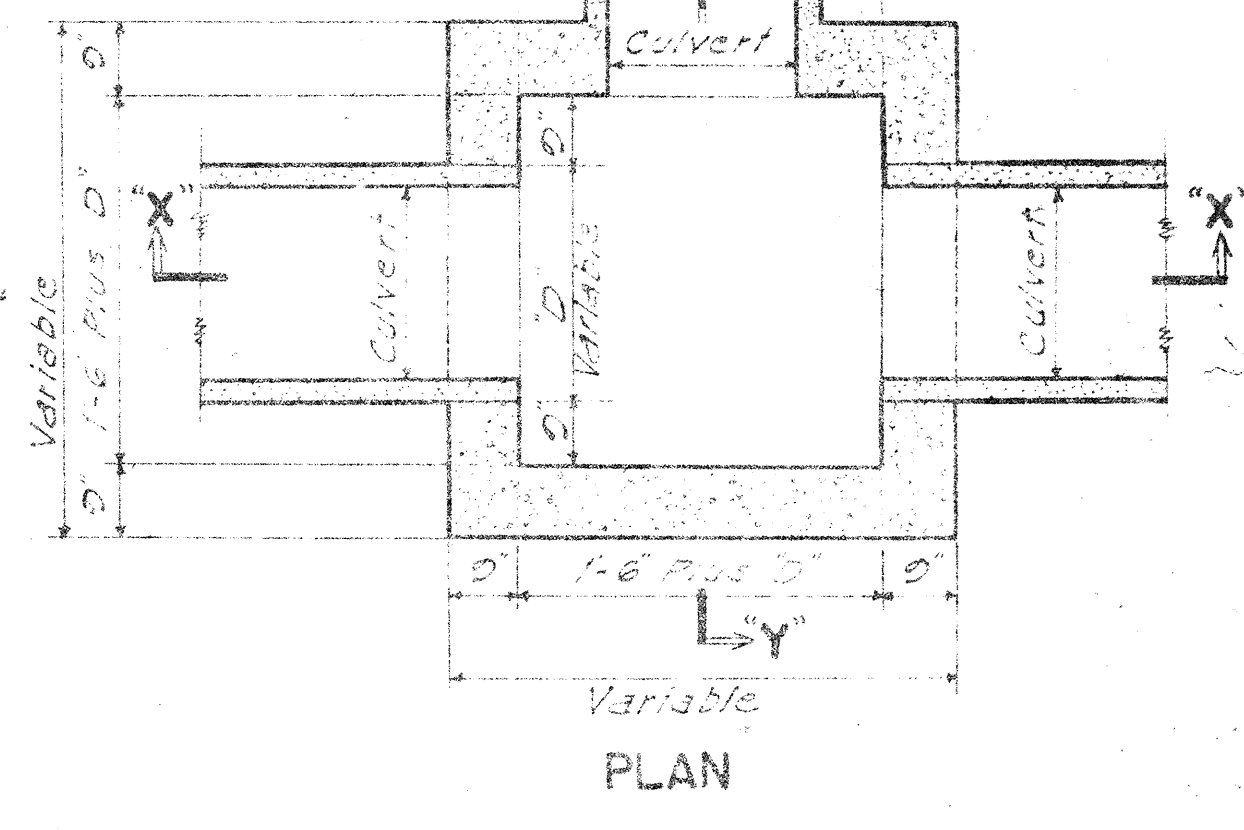


**STANDARD CONCRETE HEADWALL**  
Scale: 1/2" = 1'-0"

| Cast-in-Place | Data Standard Concrete Headwall |       |        |       |                | Steel One Headwall |      |        |        |
|---------------|---------------------------------|-------|--------|-------|----------------|--------------------|------|--------|--------|
| Cu. Yds.      | D                               | B     | L      | H     | Conc. one H.W. | No. of Bars        | Size | Length | Wt Lbs |
| 0.92 Cu.Yds.  | 18"                             | 1'-6" | 6'-0"  | 4'-0" | 100 Cu.Yds.    | 4                  | 3/4" | 5'-6"  | 33     |
| 1.25 " "      | 24"                             | 1'-6" | 7'-6"  | 4'-6" | 138 " "        | 4                  | "    | 7'-0"  | 42     |
| 1.92 " "      | 30"                             | 2'-0" | 9'-0"  | 5'-0" | 217 " "        | 4                  | "    | 8'-6"  | 51     |
| 2.43 " "      | 36"                             | 2'-0" | 10'-6" | 5'-6" | 274 " "        | 4                  | "    | 10'-0" | 60     |



**CONC. DROP INTAKE IN MEDIAL STRIPS**  
Scale: 1/2" = 1'-0"



**CONC. PIPE CULVERT**  
Scale: 1/2" = 1'-0"

| DATA: Cast-in-Place Conc. Culvert |       |          |
|-----------------------------------|-------|----------|
| D                                 | W     | Cu. Yds. |
| 18"                               | 2'-2" | 0.11     |
| 24"                               | 2'-6" | 0.14     |
| 30"                               | 3'-0" | 0.19     |
| 36"                               | 3'-6" | 0.26     |

**CAST-IN-PLACE CONC. CULVERT**