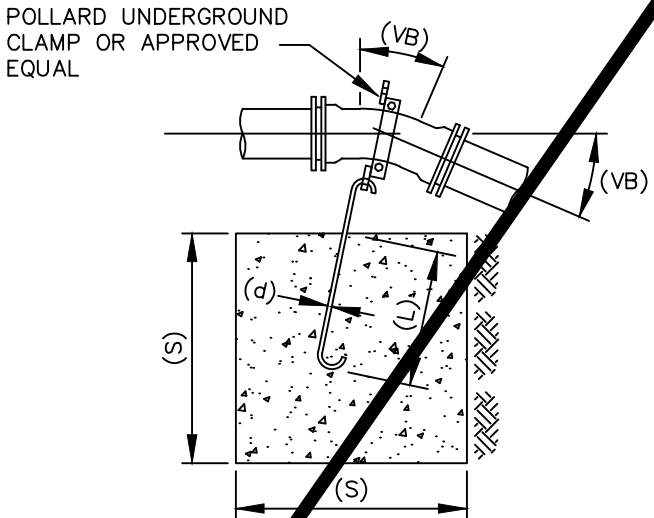


TYPE "A" BLOCKING  
FOR 1 1/4", 22 1/2", 30" VERTICAL BENDS

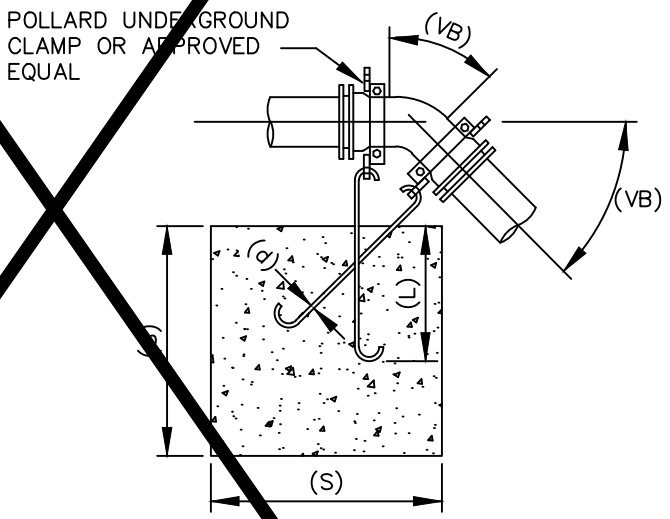
| DIA. | (VB)    | (S)  | (d)  | (L)  |        |      |
|------|---------|------|------|------|--------|------|
| 4"   | 11 1/4" | 0.2' | 5/8" | 1.5' |        |      |
|      | 22 1/2" | 2.2' |      | 2.0' |        |      |
|      | 30"     | 2.6' |      |      |        |      |
| 6"   | 11 1/4" | 2.9' | 5/8" | 2.0' |        |      |
|      | 22 1/2" | 2.9' |      |      |        |      |
|      | 30"     | 3.5' |      |      |        |      |
| 8"   | 11 1/4" | 2.5' | 5/8" | 2.0' |        |      |
|      | 22 1/2" | 3.6' |      |      |        |      |
|      | 30"     | 4.1' |      |      | 3/4"   | 2.5' |
| 12"  | 11 1/4" | 3.2' | 5/8" | 2.0' |        |      |
|      | 22 1/2" | 4.5' |      |      | 7/8"   | 3.0' |
|      | 30"     | 5.1' |      |      |        |      |
| 16"  | 11 1/4" | 4.1' | 7/8" | 3.0' |        |      |
|      | 22 1/2" | 5.7' |      |      | 1 1/8" | 4.0' |
|      | 30"     | 6.5' |      |      |        |      |
| 20"  | 11 1/4" | 4.5' | 7/8" | 3.0' |        |      |
|      | 22 1/2" | 6.1' |      |      | 1 1/4" | 4.0' |
|      | 30"     | 6.9' |      |      |        |      |
| 24"  | 11 1/4" | 5.0' | 1"   | 3.5' |        |      |
|      | 22 1/2" | 6.8' |      |      | 1 3/8" | 4.5' |
|      | 30"     | 7.9' |      |      |        |      |

TYPE "B" BLOCKING  
FOR 45° VERTICAL BENDS

| DIA. | (VB) | (S)  | (d)    | (L)  |
|------|------|------|--------|------|
| 4"   | 45   | 3.1' | 5/8"   | 2.0' |
| 6"   |      | 4.1' |        |      |
| 8"   |      | 5.0' |        |      |
| 12"  |      | 6.1' | 3/4"   | 2.5' |
| 16"  |      | 7.8' | 1 1/8" | 4.0' |
| 20"  |      | 8.2' | 1 1/4" |      |
| 24"  |      | 9.4' | 1 3/8" |      |

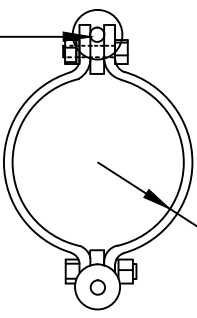


TYPE "A" BLOCKING  
(FOR VERTICAL BENDS OF 30° OR LESS)



TYPE "B" BLOCKING  
(FOR 45° BENDS)

DIAMETER OF HOLE EQUAL TO THE DIAMETER OF RESTRAINT ROD PLUS 1/8".



NOMINAL PIPE DIAMETER AS PER TABLES ABOVE

POLLARD UNDERGROUND CLAMP

W7 CONCRETE VERTICAL BEND BLOCKING  
NTS City of Yakima - Engineering Division

\*\*\* VERTICAL BENDS TO BE RESTRAINED WITH MECHANICAL JOINT FITTING AND PIPE RESTRAINT (ROMAC "GRIP RINGS" AND FIELD-LOK GASKETS) AS DESIGNED/APPROVED BY ENGINEER.

APPROVED: 7.9.99