

-
- SMOOTH HOLE WITH LINK SEAL (TYP.) SEE CHART ON RIGHT FOR HOLE DIAMETERS**
- 60" DIA. Min.**
- SEE NOTE 1**
- DIP INLET**
- DIP OUTLET**
- 4-INCH DIAMETER DRAIN HOLE (TYP. OF 2)**
- 24" Ø WATER-TIGHT APPROVED CASTING**
- PLAN VIEW**
- 3/4" THREADED ROD STAINLESS STEEL (TYP. OF 4) SEE NOTES**
- 6" MIN.**
- 36" Min.**
- 12" Min. (TYP.)**
- DIP INLET**
- DIP OUTLET**
- 12" Min.**
- FILTER FABRIC**
- EPOXY COATED STEEL PIPE SUPPORT WITH SS ANCHORS (TYP.)**
- 6" MIN.**
- 6" COMPACTED VDOT 57**
- 4-INCH DIAMETER DRAIN HOLE (TYP. OF 2)**
- SECTION VIEW**
- | SERVICE LINE DIAMETER | HOLE I.D. |
|-----------------------|-----------|
| 4" | 8" |
| 6" | 10" |
| 8" | 12" |

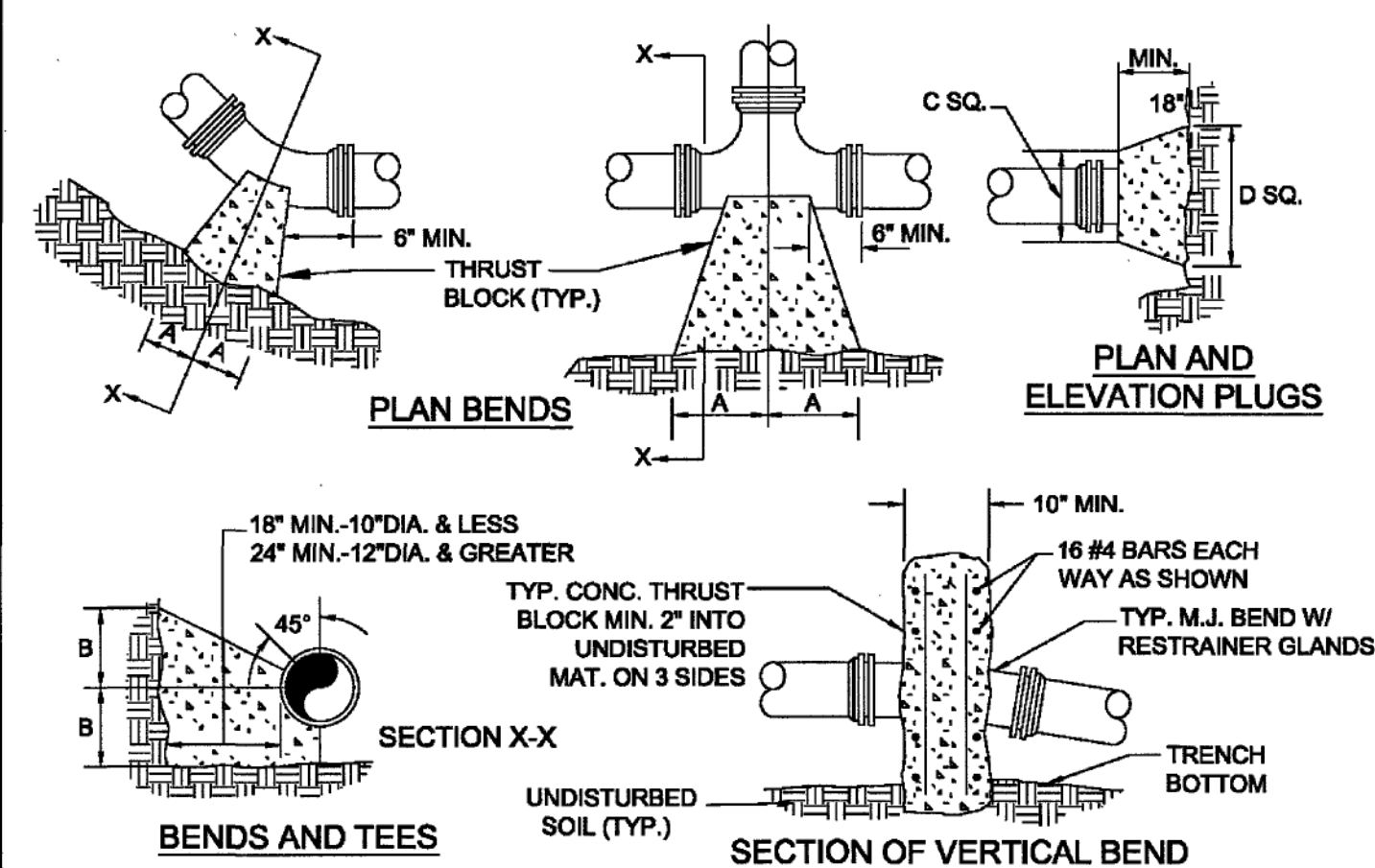
**FIRE SERVICE VAULT FOR
PRIVATE HYDRANT**

W-8

-
- 1" DIA. PICK HOLE
- WATER
- TRAFFIC BEARING NON-WATERTIGHT
FRAME & COVER OR APPROVED EQUAL
- 25 1/4"
- 3/4"
- 23 3/4"
- 23 1/2"
- 1 1/2"
- 2 1/2"
- 1/2"
- 3 3/4"
- 3/8"
- 3"
- 4 3/4"
- 1/2"
- 4 3/8"
- 22 1/4"
- 24 1/2"
- 33 1/4"
- SEE NOTE 1
- 3/4" THREADED ROD
STAINLESS STEEL
- 12" MAX.
- 4" MINIMUM (TYP)
- CONE
SECTION

VAULT FRAME AND COVER

01/01/14 **W-16**



NOTES

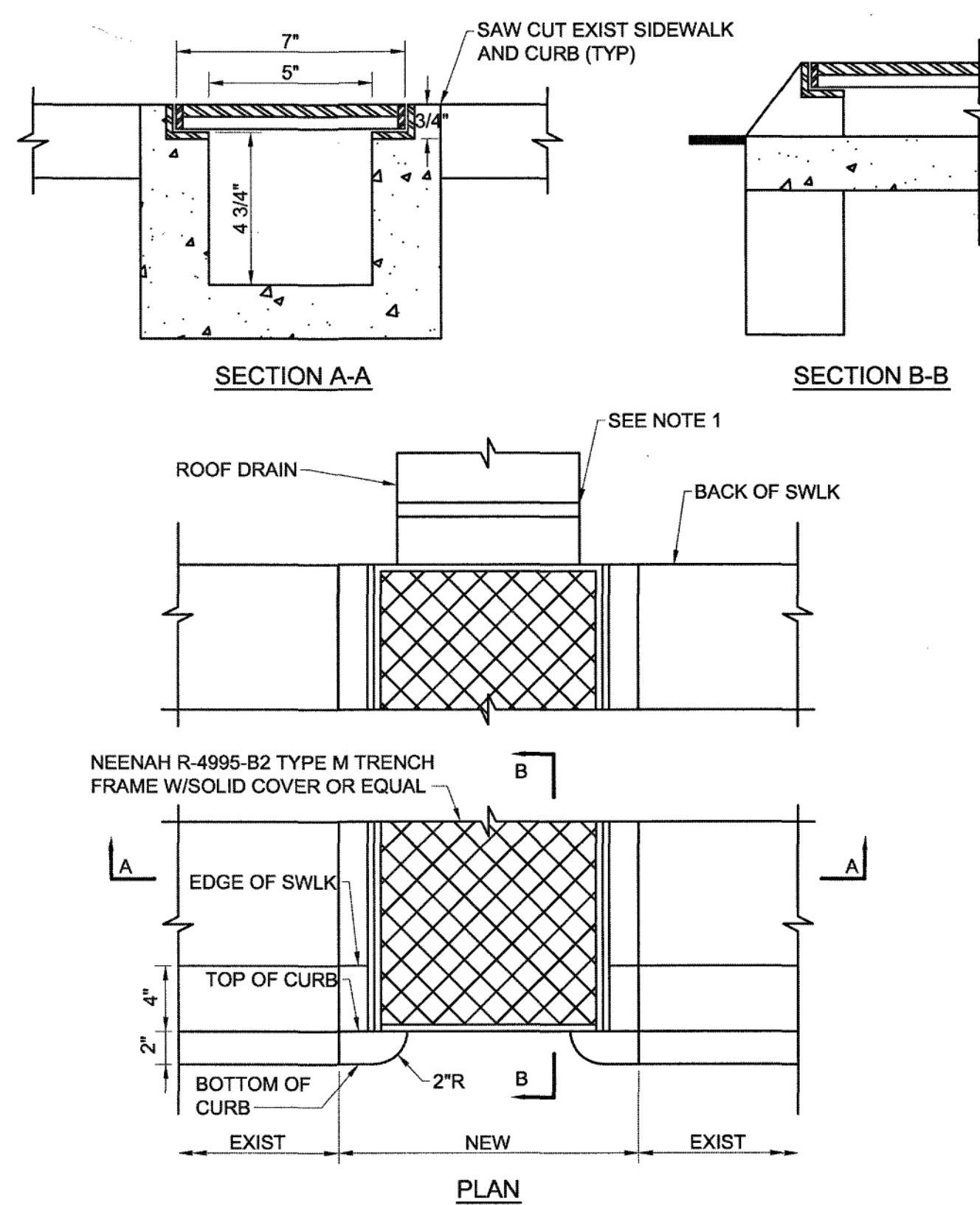
- | | |
|---|---|
| <p>FOR VERT. BEND DOWN IN EXCESS OF 11 1/4" BEND, ANCHORAGE SHALL BE DESIGNED BY ENGINEER.</p> <p>FOR VERT. BEND UPWARD, BLOCKING TO BE SIMILAR TO THAT FOR HORIZ. BEND.</p> <p>GLANDS & BOLTS SHALL BE PROTECTED FROM CONC. WITH PLASTIC SHEETING WHEN POURING THURST BLOCKS.</p> <p>ALL THURST BLOCK & SUPPORT CONCRETE SHALL BE 3000 PSI READY MIX CONCRETE.</p> | <p>THURST BLOCKS WITH "B" DIMENSION GREATER THAN 30" SHALL HAVE THE RESTRAINED PIPE INSTALLED WITH A MINIMUM OF 4" OF COVER.</p> <p>FOR UNDER 100 PSF, ALL THURST BLOCKS RESTRAINED JOINTS MUST BE USED. IF EQUAL OR GREATER THAN 100 PSF, BOTH THURST BLOCKS WITH RESTRAINED JOINTS ARE REQUIRED.</p> <p>WHEN THURST BLOCK IS REQUIRED BUT NOT FEASIBLE TO CONSTRUCT, THURST COLLAR SHALL BE USED. SEE ATTACHED DRAWING.</p> |
|---|---|

PRESSURE = 200psi
BEARING = 2000psf
FACTOR OF SAFETY = 1.5

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		PLUG	
	A	B	A	B	A	B	A	B	A	B	C	D
4" 8"	6"	12"	5"	8"	6"	6"	6"	6"	11"	8"	10"	6"
6" 18"	12"	8"	10"	8"	8"	8"	8"	8"	11"	10"	12"	18"
8" 18"	13"	10"	10"	8"	8"	8"	8"	8"	12"	11"	12"	18"
10" 20"	16"	12"	14"	8"	12"	8"	12"	12"	16"	16"	16"	30"
12" 20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	16"	30"
16" 26"	20"	18"	18"	11"	13"	11"	13"	18"	20"	20"	20"	36"
20" 32"	24"	20"	20"	12"	22"	12"	22"	22"	24"	24"	24"	42"
30" 185"	42"	100"	42"	52"	42"	40"	30"	185"	42"	42"	185"	42"

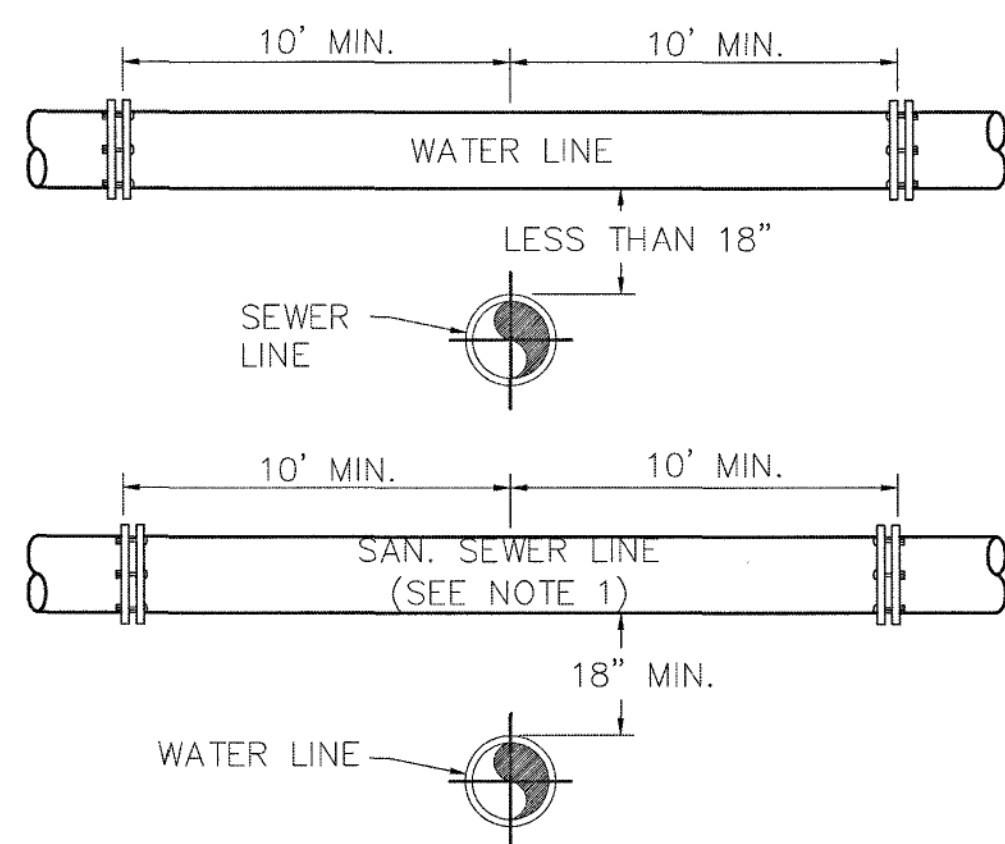
THRUST BLOCK REQUIREMENTS

01/01/14



- ## SIDEWALK TRENCH DRAIN DETAIL

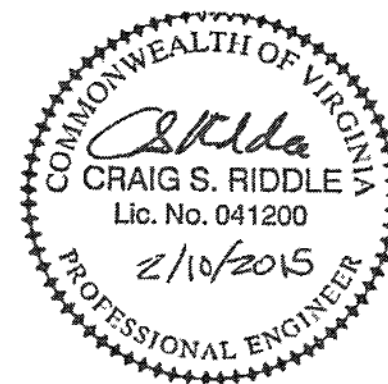
NO SCALE



NOTES:

1. SAN. SEWER LINE ABOVE WATERLINE OR LESS THAN 18" BELOW TO BE CONSTRUCTED OF AWWA WATER LINE MATERIAL & PRESSURE TESTED AT NO ADDITIONAL COST. PROVIDE RESTRAINED JOINT PIPE FOR SAN. SEWER LINE PIPE. AMERICAN PIPE FLEX-RING, US PIPE TR-FLEX, OR APPROVED EQUAL. TEST PRESSURE 30 PSI. INSTALLATION MUST CONFORM TO ALL VIRGINIA DEPARTMENT OF HEALTH AND VA DEQ REQUIREMENTS.
2. JOINTS OF SEWER LINE SHALL BE PLACED EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE JOINTS.
3. BACKFILL BETWEEN PIPES MINIMUM FIVE (5) FEET EITHER SIDE OF CROSSING WITH FULL DEPTH AGGREGATE NO. 57 STONE.
4. MINIMUM HORIZONTAL SEPARATION BETWEEN SEWER LINES AND MANHOLES AND WATER LINES SHALL BE TEN(10) FEET MINIMUM, MEASURED EDGE TO EDGE.
5. DETAIL APPLIES TO ALL WATER LINES, FIRE HYDRANT LINES, AND SERVICE LINES IN PROJECT CORRIDOR.

NO SCALE



CONSULTANT

CARILION.
PROJECT
MANAGEMENT &
CONSTRUCTION



CARILION CLINIC

213 MCCLANAHAN ST. S.W.,
THIRD FLOOR
ROANOKE, VA 24014

PHONE: 540-981-7024

ROANOKE, VIRGINIA

[illegible]

CIVIL / SITE

WATER DETAILS

C-502