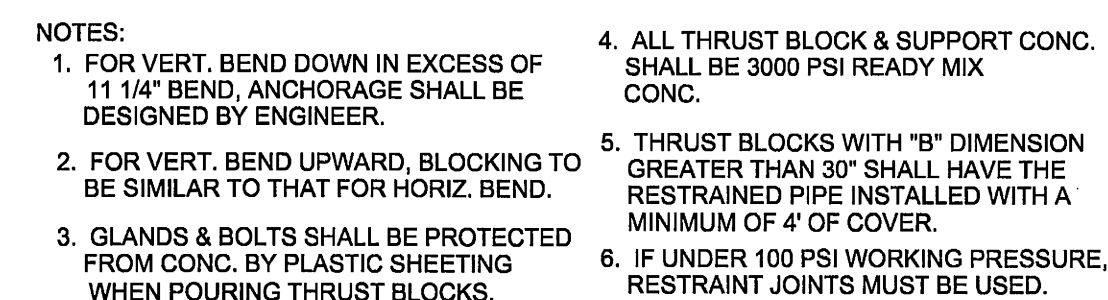


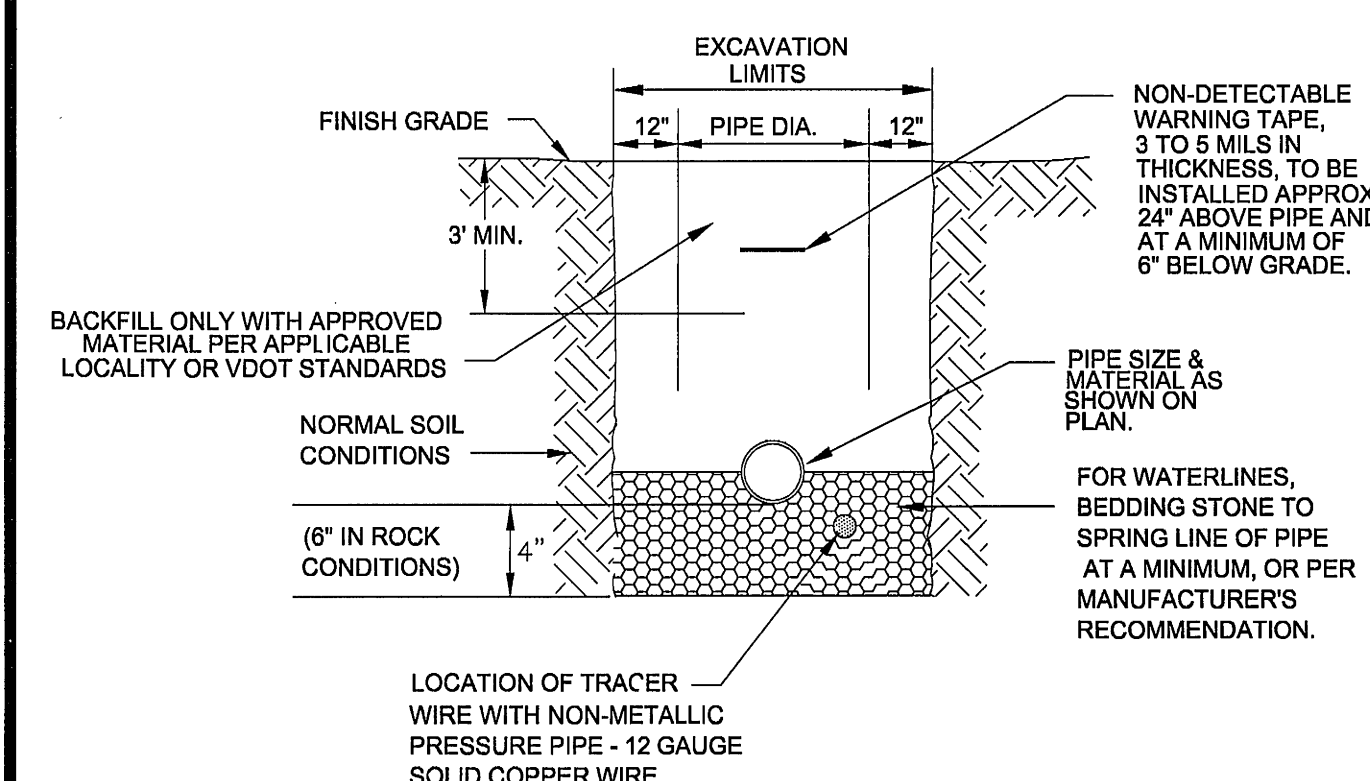
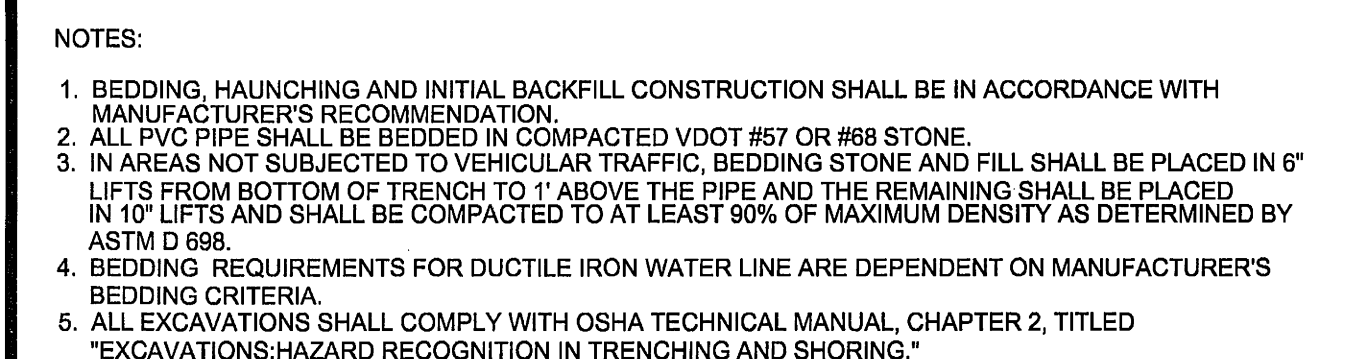
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- NOTE:
COMPLETE FIRE HYDRANT
ASSEMBLY INCLUDES BRANCH
PIPE, FITTINGS, GATE VALVE
AND BOX, CONCRETE THRUST
BLOCKS AND M.J. GLAND
RESTRAINT.
- 2-2 1/2" NOZZLES
- AVK MODEL 2780,
AFC MODEL B-84-B,
MUELLER CENTURION
A420, KENNEDY K410
OR APPROVED
EQUIVALENT.
- 1-4 1/2" PUMPER
NOZZLE
- 3" MIN. COVER
- CUT SLOPE
- FILL SLOPE
- 7 CU. FT. GRAVEL
- 2X2X4" CONCRETE PAD
- VALVE BOX OUTSIDE
PAVEMENT OR VALVE
VAULT UNDER PAVEMENT
- STANDARD INSTALLATION
INCLUDES FOSTER ADAPTER
OR APPROVED EQUAL
- CONTINUOUS
SECTION OF PIPE
- CONTINUOUS
SECTION OF PIPE
- CONCRETE THRUST BLOCK
- 3/4" DIA. "CORTEN"
THREADED ROD AND NUTS.
- TRACER WIRE - SEE G-05 FOR DETAILS
- APPROVED M.J. GLAND RESTRAINT
(i.e. MEGALUGS, GRIP RINGS OR
UNI-FLANGE) MAY BE SUBSTITUTED
FOR CONCRETE THRUST BLOCKS.
- M.J. FITTINGS SHALL NOT
BE ENCASED IN CONCRETE



PRESSURE = 2000 psi											
BEARING = 2000 psf											
FACTOR OF SAFETY = 1.5											
RESTRAINT JOINTS ARE REQUIRED.											
PIPE SIZE	90° BEND	45° BEND	22 1/2° BEND	A	B	A	B	TEE	PLUG		
4"	12"	8"	8"	8"	8"	8"	8"	11"	9"	C	D
6"	18"	12"	8"	10"	8"	8"	8"	11"	10"	18"	18"
8"	18"	13"	10"	10"	8"	8"	8"	11"	12"	12"	24"
10"	18"	15"	14"	8"	12"	14"	8"	14"	16"	18"	30"
12"	20"	16"	12"	14"	8"	12"	8"	14"	16"	18"	30"
16"	26"	20"	16"	18"	11"	13"	11"	13"	18"	20"	36"
24"	82"	42"	62"	30"	44"	22"	22"	16"	82"	42"	82"

FACTOR OF SAFETY = 1.5												
PIPE SIZE	PIPE MAT'L	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	VALVE P/LUG	TEE BRANCH	REDUCER (NOTE 2)	45° VERT.	22 1/2° VERT.	11 1/4° VERT.	
6"	D.I.	28'	12'	6'	3'	38'	34'	20'	23'	11'	5'	
8"	D.I.	37'	15'	7'	4'	51'	47'	21'	30'	15'	7'	
10"	D.I.	45'	19'	9'	4'	61'	57'	20'	37'	18'	9'	
12"	D.I.	53'	22'	11'	5'	73'	69'	38'	43'	21'	10'	
6"	PVC	30'	12'	6'	3'	56'	38'	29'	35'	17'	8'	
8"	PVC	40'	16'	8'	4'	74'	56'	31'	46'	22'	11'	
10"	PVC	47'	20'	9'	5'	89'	82'	30'	56'	27'	13'	
12"	PVC	56'	23'	11'	6'	106'	88'	56'	66'	32'	16'	

1. ALL JOINTS SHALL BE RESTRAINED ON BOTH SIDES OF THE FITTING FOR THE LENGTH SHOWN UNLESS OTHERWISE INDICATED.
2. REDUCER IS ONE SIZE SMALLER THAN PIPE LISTED. RESTRAINT LENGTH IS UPSTREAM ON THE LARGE SIDE OF THE REDUCER.
3. IF UNDER 100 PSI WORKING PRESSURE, RESTRAINT JOINT(S) ARE TO BE USED IF EQUAL TO OR OVER 100 PSI WORKING PRESSURE, BOTH THRUST BLOCK AND RESTRAINT JOINTS SHALL BE USED.



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WESTERN VIRGINIA WATER AUTHORITY — CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
03/01/06	THRUST BLOCK CONSTRUCTION	W-19

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			
REVISION DATE	THRUST RESTRAINT		W-20
07/01/04	OF PIPE JOINTS		
03/01/06	DESIGN LENGTHS		

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			
REVISION DATE		BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS	W-24
07/01/04			
03/07/06			

WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL	
TEMPORARY END OF LINE BLOW-OFF ASSEMBLY 01/01/12	W-1