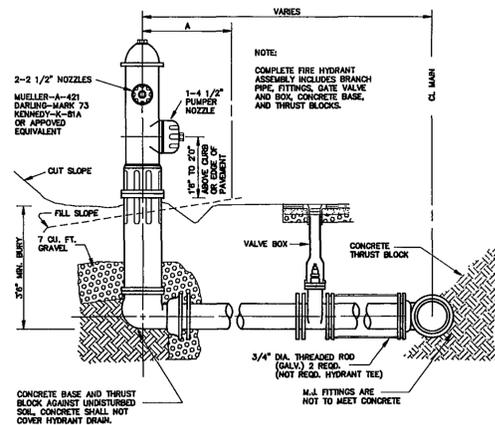


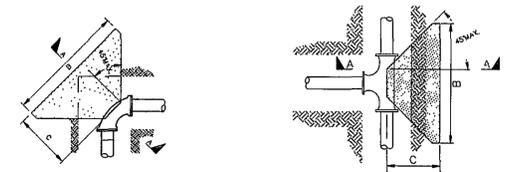
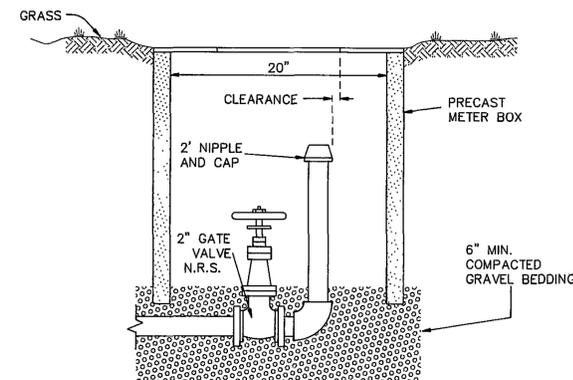
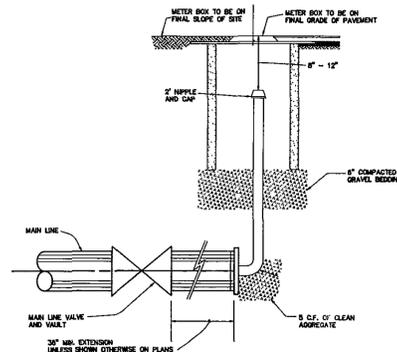
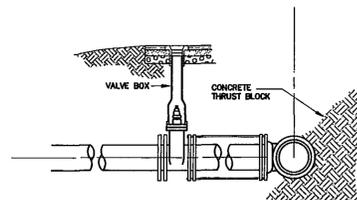
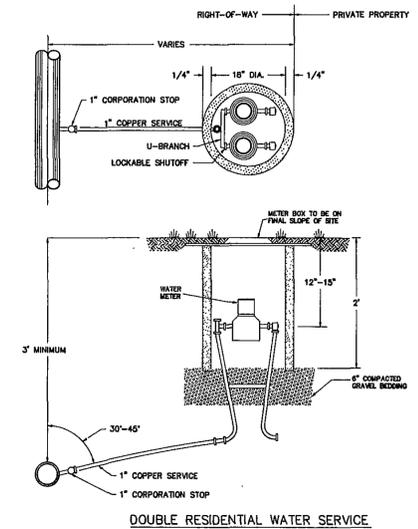
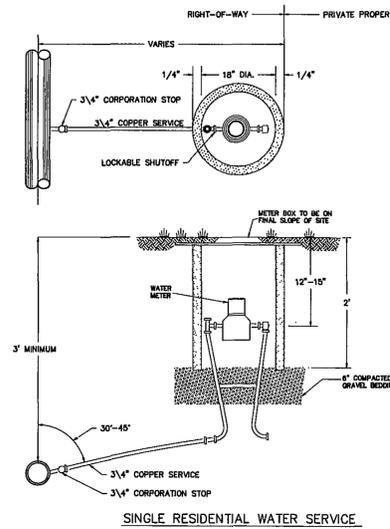
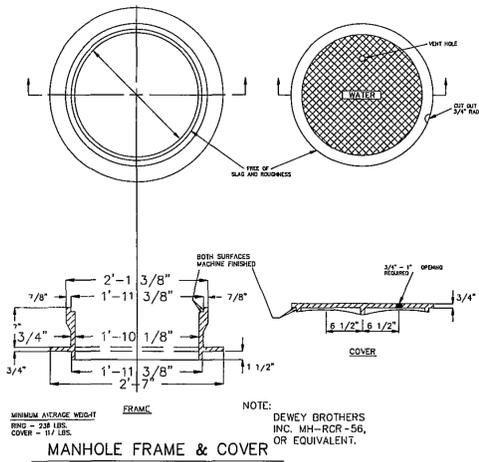
# WATER DETAILS

- NOTES:
- (1) MAIN BODY OF HYDRANT MUST BE SILVER AND HAVE RED CAPS AND BONNET.
  - (2) DISTANCE "A" WITH CURB AND GUTTER, 2" MIN., 4" MAX. FROM BACK OF CURB.
  - (3) DISTANCE "A" WITHOUT CURB AND GUTTER, 6" MIN., 12" MAX. FROM EDGE OF PAVEMENT.
  - (4) AREA AROUND HYDRANT AT A RADIUS OF 4" TO BE APPROXIMATELY LEVEL AND UNDISTURBED FOR ROAD CONSTRUCTION.



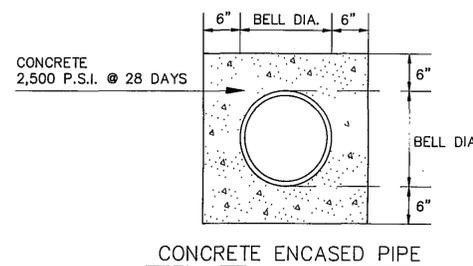
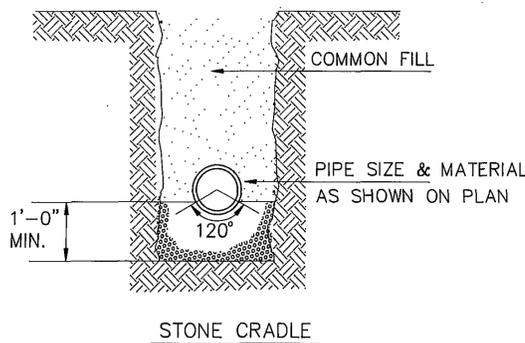
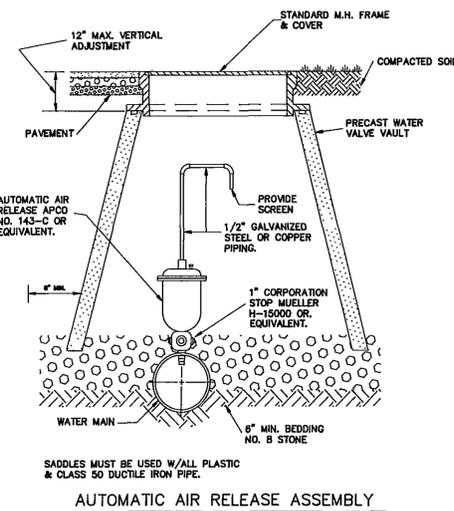
FIRE HYDRANT SETTING

- NOTE:
1. SUBSTITUTE SEWER FOR WATER ON SANITARY SEWER MANHOLE FRAME & COVERS.



PIPE SIZE	TEE OR DEAD END			90° BEND			45° BEND			22.5° LESS BEND		
	A	B	C	A	B	C	A	B	C	A	B	C
6" OR LESS	1.2'	3.0'	1.0'	1.5'	3.3'	2.0'	1.2'	2.3'	1.0'	1.2'	2.0'	1.0'
8"	1.7'	3.8'	1.5'	2.0'	4.5'	2.0'	1.3'	3.6'	1.5'	1.3'	2.0'	1.0'
10"	2.0'	4.9'	2.0'	3.0'	4.7'	2.0'	1.7'	4.5'	2.0'	1.5'	2.6'	1.5'
12"	2.5'	6.7'	2.0'	3.5'	5.8'	2.5'	2.2'	5.0'	2.5'	1.7'	3.3'	1.5'
16"	3.5'	7.0'	3.0'	4.5'	8.0'	3.5'	3.0'	6.5'	3.0'	2.5'	4.0'	2.0'

- NOTES:
1. THE ABOVE NOTED DIMENSIONS ARE MINIMUM BASED ON CONCRETE ANCHOR EXTENDING TO UNDISTURBED SOIL, WATER PRESSURE NOT TO EXCEED 150 PSI AND, MINIMUM SOIL BEARING CAPACITY OF 2500 PSF; UNSATISFACTORY SOIL BEARING OR EXCESS PRESSURE WILL REQUIRE ADDITIONAL DESIGN.
  2. CONCRETE SHALL NOT BE POURED ON JOINTS OR BOLTS.
  3. CONCRETE TO BE MINIMUM 3000 PSI - 28 DAY COMPRESSIVE STRENGTH.



THRUST BLOCK FOR HORIZONTAL & LOWER VERTICAL BENDS

1	ADDED WATER SYSTEM & FORCE MAINS
REVISION	DATE DESCRIPTION
DESIGNED -	WATER DETAILS FOR
DRAWN -	SECTION No. 11
CADD DESIGN -	"THE WATERFRONT"
CHECKED -	PREPARED FOR
	WATERFRONT WATER WORKS, INC.
	GILLS CREEK MAGISTERIAL DISTRICT
	FRANKLIN COUNTY, VIRGINIA
<b>LUMSDEN ASSOCIATES, P.C.</b>	
ENGINEERS-SURVEYORS-PLANNERS	
ROANOKE, VIRGINIA	
SCALE: 1" = 40' SHOWN	COMM: *82-342-0
DATE: 29 OCT. 1992	SHEET 6 of 9

