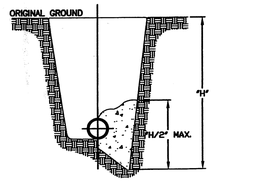
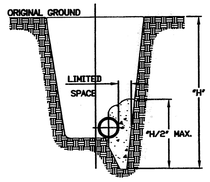
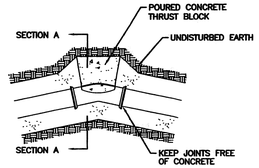


TYPICAL THRUST BLOCK DETAIL
FOR RESTRAINING HORIZONTAL FORCES
(SECTION A-A)
NO SCALE



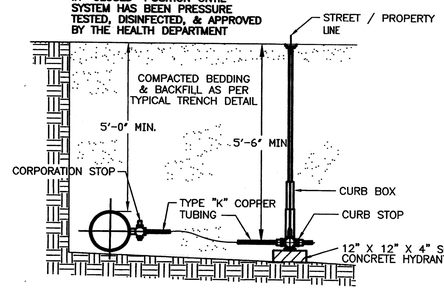
TYPICAL THRUST BLOCK DETAIL
FOR RESTRAINING HORIZONTAL FORCES
(ALTERNATE SECTION A-A)
NO SCALE

NOTES:
1. CONCRETE THRUST BLOCK IS CONSIDERED TO ACT AS A SPREAD FOOTING THEREFORE, HEIGHT OF BLOCK MUST BE EQUAL TO OR LESS THAN 1/2 THE HEIGHT FROM THE GROUND SURFACE TO THE BLOCK BASE.
2. THRUST BLOCK BEARING FACE IS APPROXIMATELY SQUARE, AND SHOULD BE PERPENDICULAR TO LINE OF THRUST FROM FITTING.
3. AREA OF THRUST BLOCK BEARING FACE IS BASED ON THRUST AND SOIL BEARING CAPACITY ACCORDING TO TO THE FOLLOWING FORMULA:
AREA (SQ.FT.)=THRUST (LBS.) / SOIL BEARING CAPACITY (LBS./FT.)
4. ALL THRUST BLOCKS WITH A BEARING AREA GREATER THAN 16 SQ.FT. OR A VOLUME GREATER THAN 3 C.Y. SHALL BE REINFORCED WITH NO.4 BARS AT 12" O.C. EACH WAY, EACH FACE, WITH 6" COVER AT CORNERS.
5. RETAINER GLANDS TO BE USED ON ALL FITTINGS.

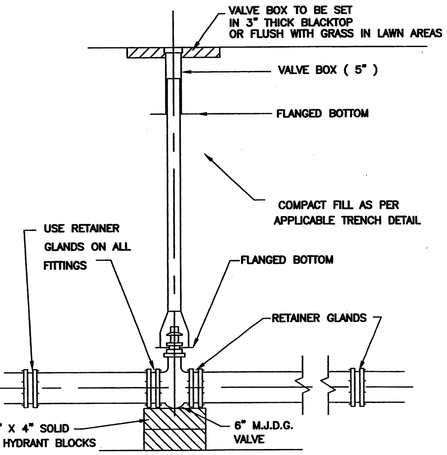


TYPICAL THRUST BLOCK DETAIL
FOR RESTRAINING HORIZONTAL FORCES
(PLAN VIEW)
NO SCALE

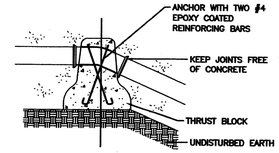
NOTES:
1. ALL CORP. STOPS TO BE LEFT IN " OPEN " POSITION AFTER INSTALLATION
2. ALL CURB STOPS TO BE LEFT IN "CLOSED" POSITION UNTIL SYSTEM HAS BEEN PRESSURE TESTED, DISINFECTED, & APPROVED BY THE HEALTH DEPARTMENT



TYPICAL SERVICE CONNECTION
NO SCALE



TYPICAL VALVE INSTALLATION
NO SCALE



(ALTERNATE SECTION A-A)

TYPICAL THRUST BLOCK DETAIL
FOR RESTRAINING VERTICAL FORCES
NO SCALE

TABLE 1
THRUST BLOCK SIZING

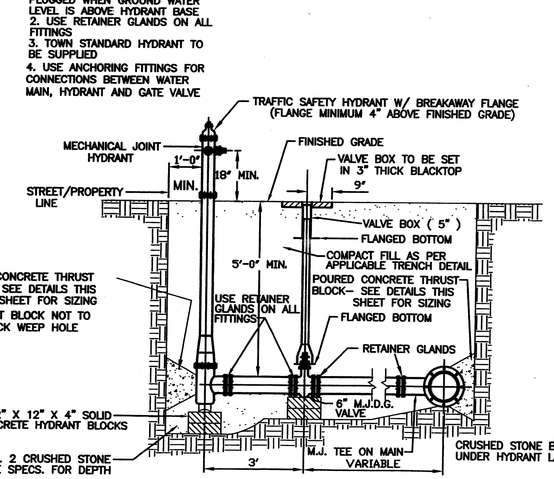
	DEAD END	5-5/8 BEND	11-1/4 BEND	22-1/2 BEND	45 BEND	90 BEND TEE, HYD.
6" THRUST (1)	7,100	700	1,400	2,775	5,425	10,025
TRENCH AREA (2)	2	1	1	1	2	3
GRAVITY (3)	2	0.2	0.5	0.75	1.5	3
8" THRUST (1)	12,600	1,250	2,475	4,925	9,650	17,825
TRENCH AREA (2)	3	0.5	0.75	1.5	2.5	5
GRAVITY (3)	35	0.5	0.75	1.5	2.5	5
12" THRUST (1)	28,350	2,800	5,575	11,075	21,700	40,100
TRENCH AREA (2)	7	1	1.5	3	6	11
GRAVITY (3)	7.5	1	1.5	3	6	11
16" THRUST (1)	50,425	4,950	9,900	19,700	36,600	71,300
TRENCH AREA (2)	13	1.5	2.5	5	10	18
GRAVITY (3)	13	1.5	2.6	5	10	19
24" THRUST (1)	113,425	11,125	22,250	44,250	86,825	160,375
TRENCH AREA (2)	29	3	6	12	22	40
GRAVITY (3)	30	3	6	12	23	42

1. CALCULATED THRUST AT 250 PSI.
2. TRENCH BEARING AREA IN SQ. FT. BASED ON 4000 LBS./SQ.FT. SOIL BEARING CAPACITY. FIELD ADJUST FOR VARIATIONS.
3. CUBIC YARDS OF CONCRETE REQUIRED FOR A GRAVITY THRUST BLOCK FOR VERTICAL FITTINGS OR A THRUST BLOCK FOR HORIZONTAL FITTINGS AT AN UNSTABLE TRENCH WALL.

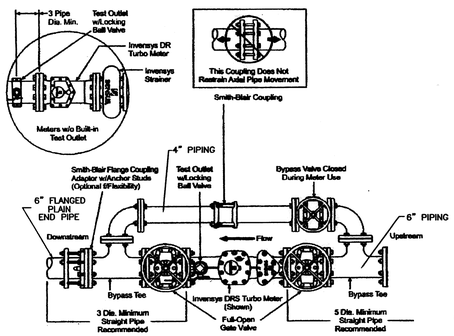
TABLE 2
SOIL BEARING CAPACITIES

SAFE BEARING RANGE (TONS/ SQ. FT.)	SOIL DESCRIPTION
25-100	LEDGE ROCK, GRANITE, TRAP, ETC.
25-30	ROCK, EQUAL GOOD MASONRY
15-20	ROCK, EQUAL BEST BRICK
5-10	ROCK, EQUAL POOR BRICK
4-6	CLAY, ALWAYS DRY
2-4	CLAY, MODERATELY DRY
1-2	CLAY, SOFT
4-5	HARDPAN, CEMENTED SAND AND GRAVEL
4-8	SAND, COMPACTED AND FIRM
2-4	SAND, COMPACT AND MEDIUM
1-2	SAND, LOOSE AND FINE
0.5-1	QUICK SAND, ALLUVIAL SOIL

NOTES:
1. HYDRANT BARREL DRAIN TO BE PLUGGED WHEN GROUND WATER LEVEL IS ABOVE HYDRANT BASE
2. USE RETAINER GLANDS ON ALL FITTINGS
3. TOWN STANDARD HYDRANT TO BE SUPPLIED
4. USE ANCHORING FITTINGS FOR CONNECTIONS BETWEEN WATER MAIN, HYDRANT AND GATE VALVE

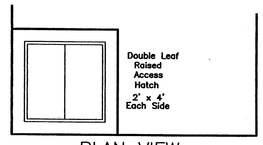


TYPICAL HYDRANT INSTALLATION
NO SCALE

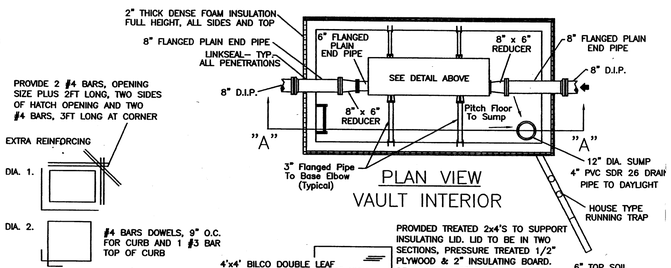


NOTES:
1. PRECAST STATION - 6'-0" x 12'-0" I.D. x 7'-0" HIGH. DESIGNED FOR A.A.S.H.T.O. H-20 LOADING 30% IMPACT. SAME O/E FORT MILLER CO., INC. P.O. BOX 98 SCHUYLERVILLE, NY 12871 (518) 695-5000.
2. VALVE PIT HATCH - ONE (1) CAST IN STATION ROOF. SAME O/E/ BILCO, 4'x4' KD 2 ALUMINUM DOUBLE DOOR.
3. PIPE - NOMINAL DIAMETER AS SHOWN. ANSI/AWWA CLASS 50 BURIED PIPE MECHANICAL JOINT, PIPE IN STATIONS CLASS 53 FLANGED C 115/A 21.15. ALL PIPE CEMENT MORTAR LINED AND BITUMINOUS SEALED INSIDE, AND BITUMINOUS SEALED OUTSIDE. 250 PSI RATED WORKING PRESSURE MEET OR EXCEED ANSI 21.50.
4. FITTINGS - FOR BURIED WORK USE MECHANICAL JOINT, INSIDE STATION USE FLANGED FITTINGS. SHALL BE STANDARDIZED, SHORT BODY, 250 PSI WATER PRESSURE PLUS WATER HAMMER, I.A.W. ANSI A 21.10 CEMENT MORTAR LINED AND SEAL COATED INSIDE AND OUTSIDE. FOR BASE BENDS AND BASE TEES--WITH BASES FACED AND DRILLED CLOW FIG. 827, FIG. 829.
5. FLANGED ADAPTERS - SAME O/E DRESSER STYLE 127.
6. RECORDALL COMPOUND SERIES METER- SIZE 6" (DN 150MM) SEE SPECIFICATIONS FOR DETAILS OF METER. SAME O/E BADGER METER, INC.
7. RESILIENT WEDGE VALVES - MEET AWWA C509 STD, UL & FM APPROVED, WORKING WATER PRESSURE 200 PSI. SEE SPECIFICATIONS.
8. RESTRAINED JOINT ANCHOR FITTINGS. - PIPE SOCKET CLAMPS- GRINNEL FIG. 595 W/ FIG. 594 - CLAMP WASHERS. 3/4" DIA. STAINLESS STEEL TIE RODS W/ DOUBLE NUTS ON EACH END.
9. OUTSIDE STATION INSULATION - RIGID T & G, EXTRUDED POLYSTYRENE 20 PSI COMPRESSIVE STRENGTH, 0.02% MOISTURE ABSORPTION SAME O/E FOAMULAR BY UC INDUSTRIES.

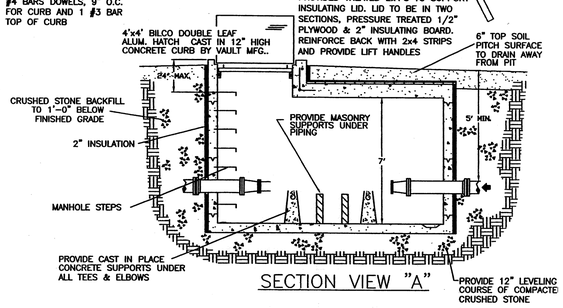
METER VAULT
SCALE- 1/4" = 1'



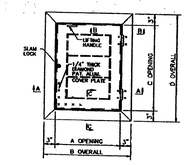
PLAN VIEW
TOP SLAB



PLAN VIEW
VAULT INTERIOR



SECTION VIEW "A"



TYPICAL HATCH DETAIL
(SEE METER VAULT DETAIL FOR SIZE)
SCALE- NONE

TOWN OF BRUNSWICK PLANNING BOARD	RENSSELAER COUNTY DEPT. OF HEALTH

DANSKIN LAND SURVEYING LLC P.O. BOX 72 TROY, N.Y. 12181 TEL. 518-279-8002	BRUNSWICK MEADOWS WATER DETAILS	
REVISIONS:	TOWN OF BRUNSWICK	RENSSELAER CO., N.Y.
	SCALE: AS NOTED	DATE: 3-13-2006
	FIELD: MND	F.B.#:
	OFFICE: RJD	C'KD.: RD SHEET 9 OF 13