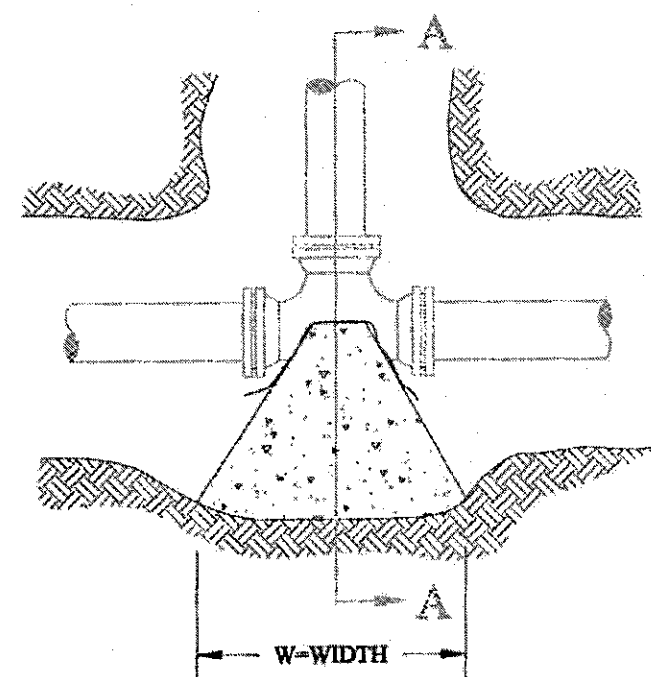
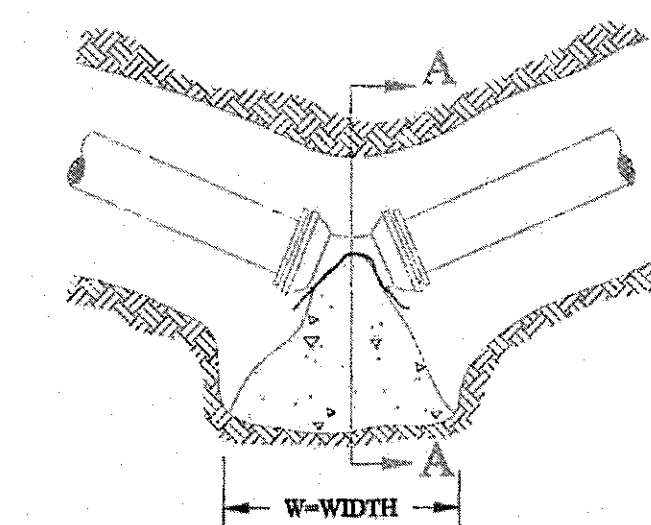
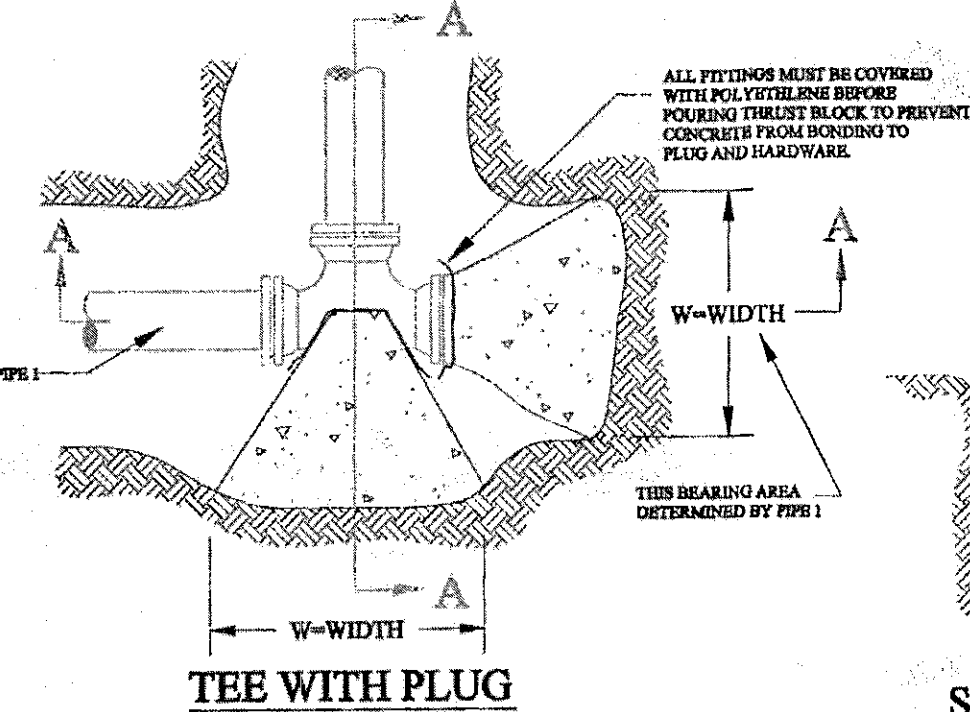




TEE

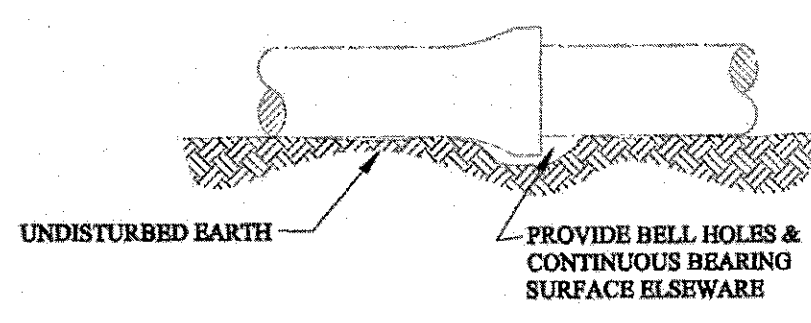


BEND

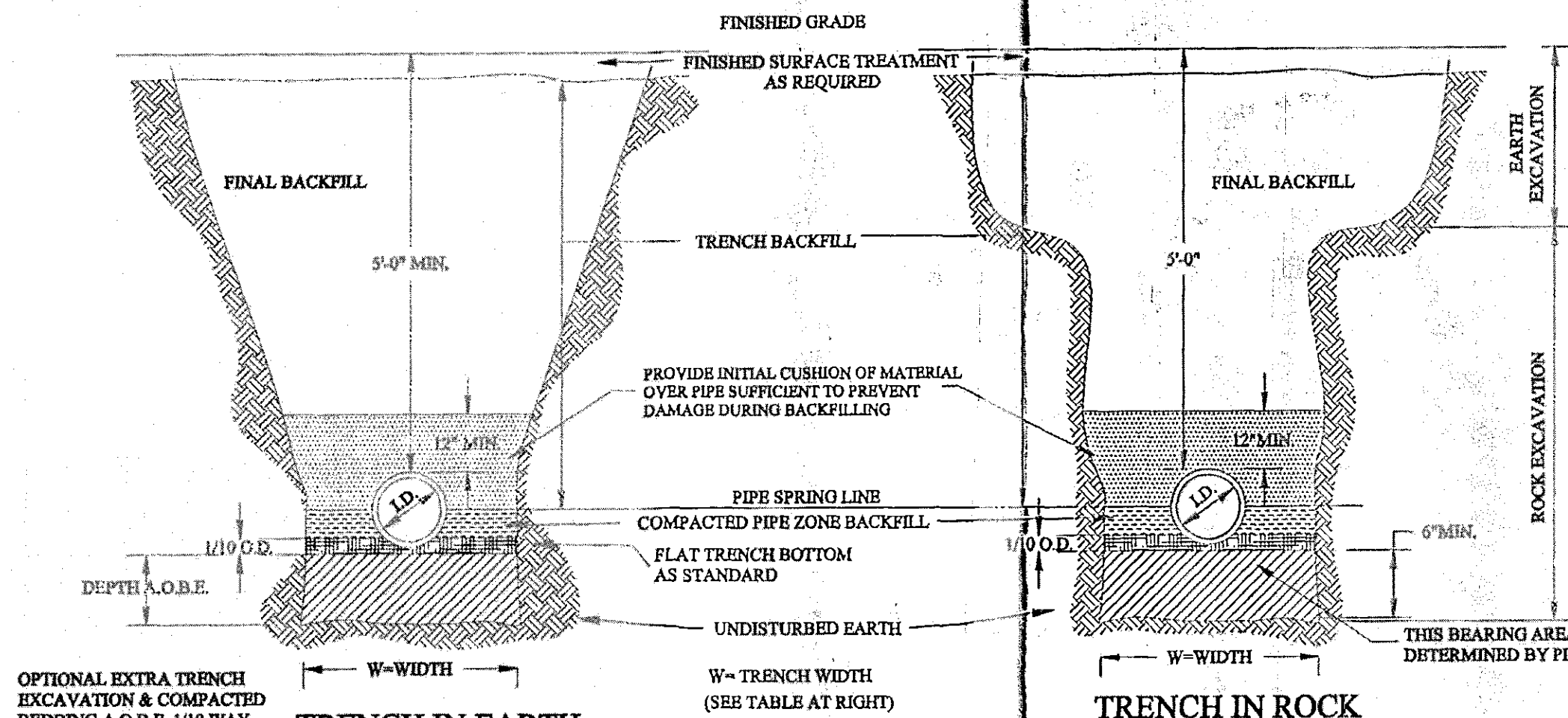


TEE WITH PLUG

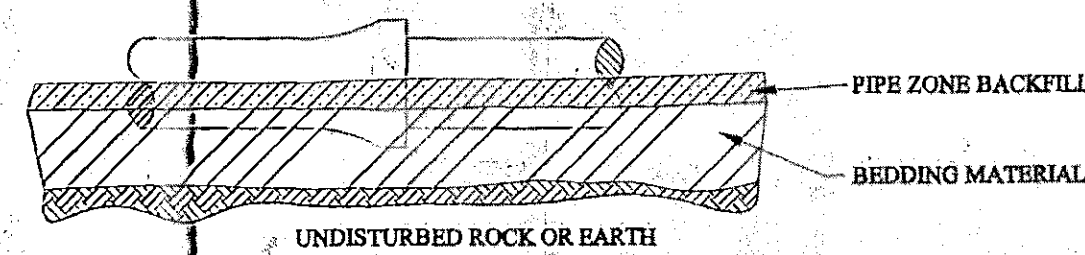
TYPICAL POURED IN PLACE CONCRETE THRUST BLOCK DETAILS



ELEVATIONS



TRENCH IN EARTH



TRENCH IN ROCK

TYPICAL TRENCH DETAILS

TABLE 1
SAFE BEARING LOADS OF SOILS & MULTIPLICATION FACTORS
FOR MODIFICATION OF THRUST BLOCK AREAS

SOIL	SAFE BEARING LOAD (LBS. SQ. FT.)	FACTOR
MUCK	0	0.0
SOFT CLAY	1000	0.0
SAND	2000	1.0
SAND AND GRAVEL	3000	0.87
SAND AND GRAVEL CEMENTED WITH CLAY	4000	0.50
SHALE	10000	0.50

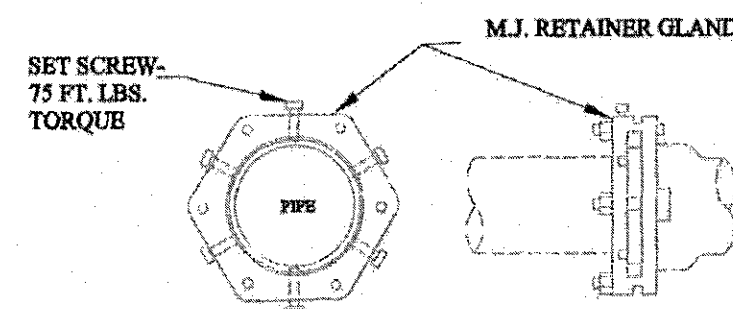
TABLE 2
REQUIRED BEARING AREAS & DIMENSIONS FOR
CONCRETE THRUST BLOCKS

PIPE SIZE INCHES	THE AREA SQ. IN.	90° (1/4) BEND		45° (1/8) BEND		22 1/2° (1/16) BEND		11 1/4° (1/32) BEND	
		AREA (DIMENSIONS)	AREA (DIMENSIONS)	AREA (DIMENSIONS)	AREA (DIMENSIONS)	AREA (DIMENSIONS)	AREA (DIMENSIONS)		
2	0.4	0.5110	0.5	0.5110	0.5	0.5110	0.5	0.5110	
3	0.8	1.0210	1.1	1.0210	1.1	1.0210	1.1	1.0210	
4	1.4	1.6315	2.0	1.6315	2.0	1.6315	2.0	1.6315	
5	2.2	2.5515	3.5	2.5515	3.5	2.5515	3.5	2.5515	
6	3.2	3.6820	5.0	3.6820	5.0	3.6820	5.0	3.6820	
8	5.3	5.6125	8.0	5.6125	8.0	5.6125	8.0	5.6125	
10	8.8	8.5230	12.5	8.5230	12.5	8.5230	12.5	8.5230	
12	12.7	12.4335	18.0	12.4335	18.0	12.4335	18.0	12.4335	
14	17.5	17.3440	24.5	17.3440	24.5	17.3440	24.5	17.3440	
16	22.6	22.2545	32.0	22.2545	32.0	22.2545	32.0	22.2545	
18	28.6	28.1650	40.5	28.1650	40.5	28.1650	40.5	28.1650	
20	35.3	35.0755	50.0	35.0755	50.0	35.0755	50.0	35.0755	

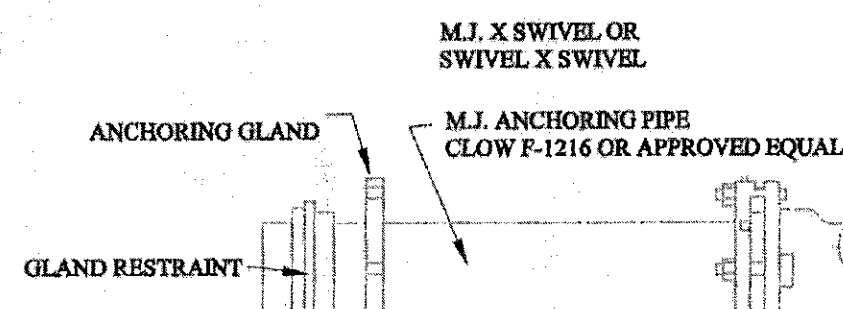
NOTES

- FOR REQUIRED BEARING AREA AND DIMENSIONS DAW SEE TABLE 2. VALUES OF DAW OTHER THAN THOSE SHOWN IN THE TABLE, MAY BE USED PROVIDED THEY YIELD A BEARING AREA EQUAL TO OR LARGER THAN THAT REQUIRED.
- ALL THRUST BLOCKS SHALL BE 3000 P.S.I. POURED CONCRETE.
- CONCRETE NOT TO OVERLAP ANY JOINT.
- CONCRETE TO BE PLACED SO AS NOT TO INTERFERE WITH REMOVING OR INSTALLING ANY OF THE HARDWARE.
- VALUES FOR TEE, ALSO APPLY TO END PLUGS, CAPS AND TAPPING SLEEVES.
- FOR REQUIRED BEARING AREA DUE TO THRUSTS CAUSED BY 150 P.S.I. WORKING PRESSURE PLUS 50% (75 P.S.I.) SURGE ALLOWANCE RESULTING IN 225 P.S.I. TOTAL INTERNAL PRESSURE, NOMINAL PIPE DIAMETER USED.
- FOR REQUIRED BEARING AREAS BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 2000 LBS. PER SQ. FT. FOR SAND, DUE TO OTHER SOIL CONDITIONS UNOBTAINED, BEARING AREAS MAY BE MODIFIED BY THE ENGINEER, BY MULTIPLYING THE AREA GIVEN IN TABLE 1 FOR THE APPROPRIATE PIPE SIZE AND FITTING BY THE LISTED CORRECTION FACTORS.
- IN MUCK, PEAT OR RECENTLY PLACED FILL, ALL THRUSTS SHALL BE RESISTED BY PILES OR THE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS, ALL A.O.B.E.

A. FOR REQUIRED BEARING AREA AND DIMENSIONS DAW SEE TABLE 2. VALUES OF DAW OTHER THAN THOSE SHOWN IN THE TABLE, MAY BE USED PROVIDED THEY YIELD A BEARING AREA EQUAL TO OR LARGER THAN THAT REQUIRED.

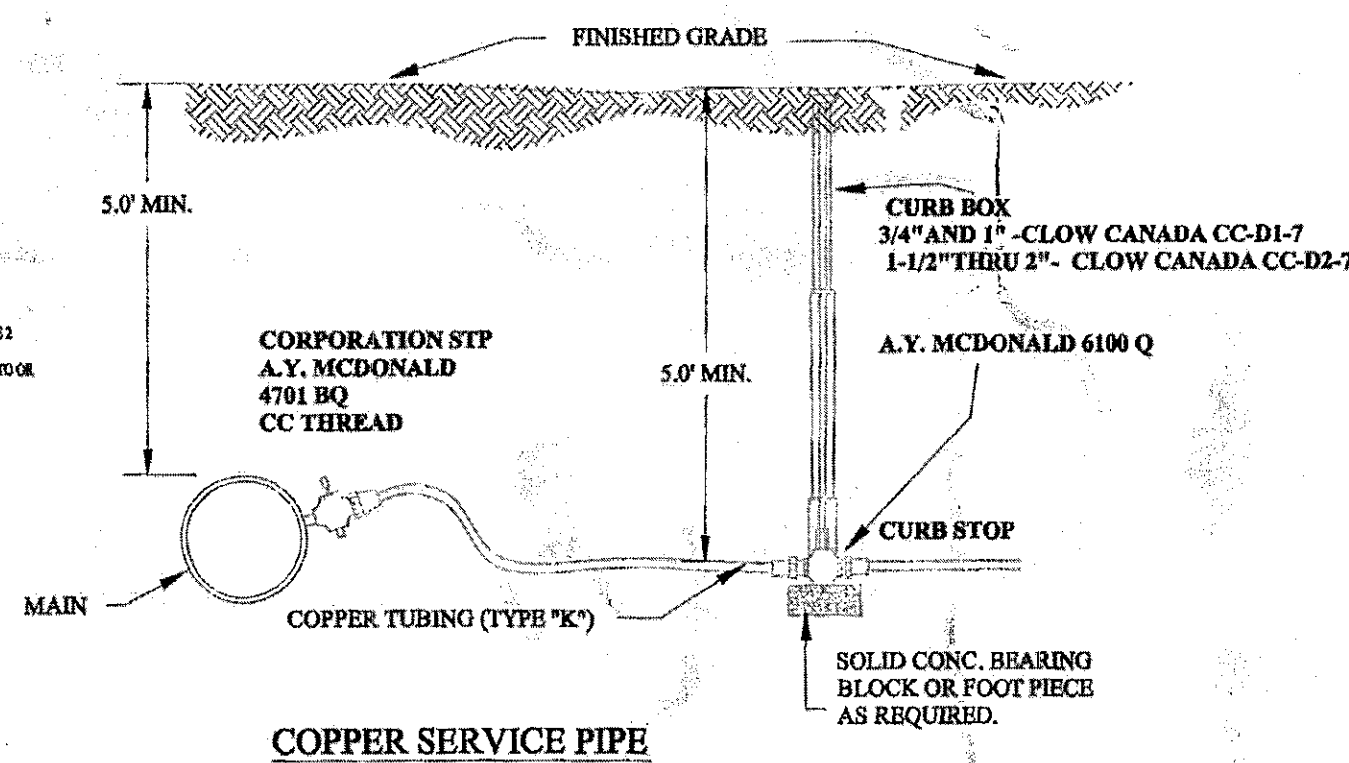


RETAINER GLAND



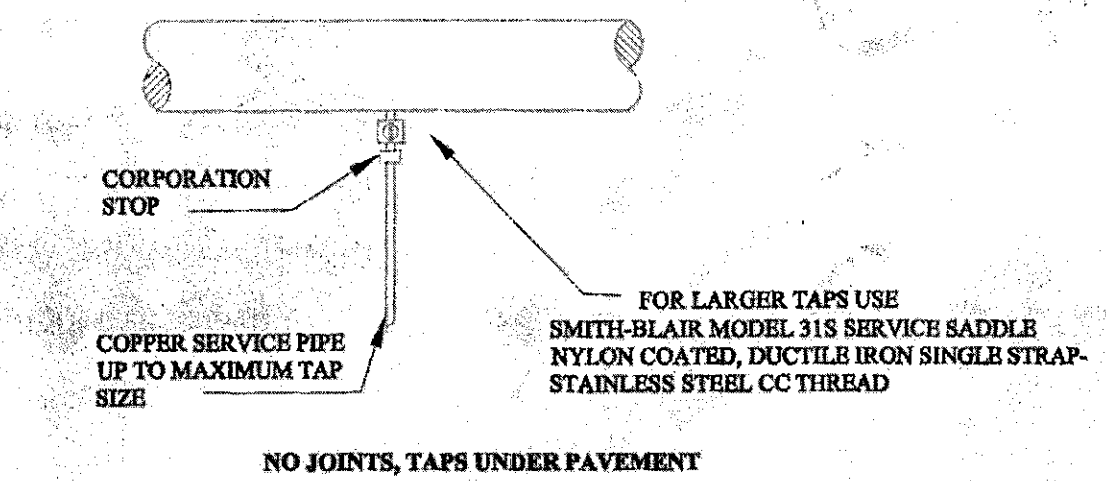
ANCHOR PIPE
THRUST RESTRAINT OPTIONS

CURB BOXES SHALL BE EITHER:
A) FOR 3/4" AND 1" CLOW CANADA CC-D1-7 CLOW CANADA CC-D2-7
5'-6" ADJUSTABLE WITH 3/8" X 5/8" DIAMETER GRADE 304 STAINLESS STEEL ROD AND BRASS COTTER PIN.
B) FOR 1 1/2" THRU 2", OR EQUAL, 5'-6" ADJUSTABLE WITH 3/8" X 5/8" DIAMETER GRADE 304 STAINLESS STEEL ROD AND BRASS COTTER PIN.

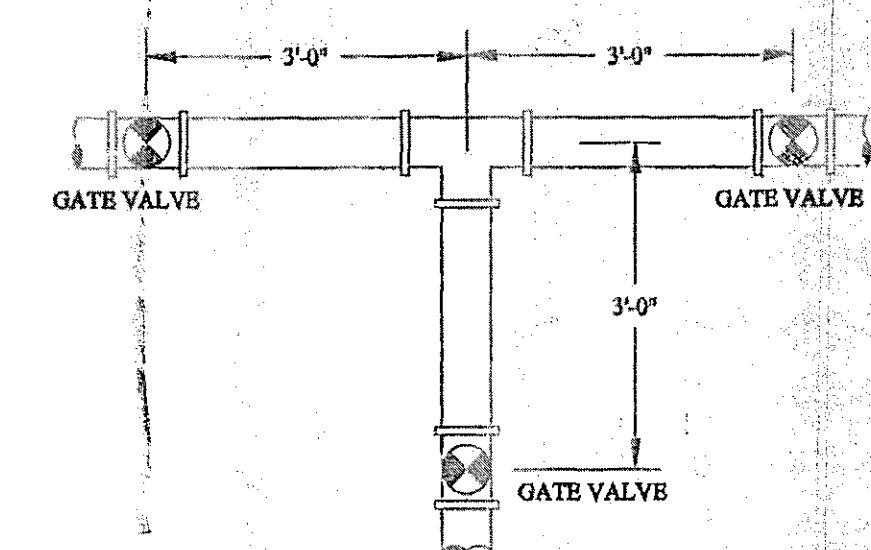


TYPICAL SERVICE CONNECTIONS

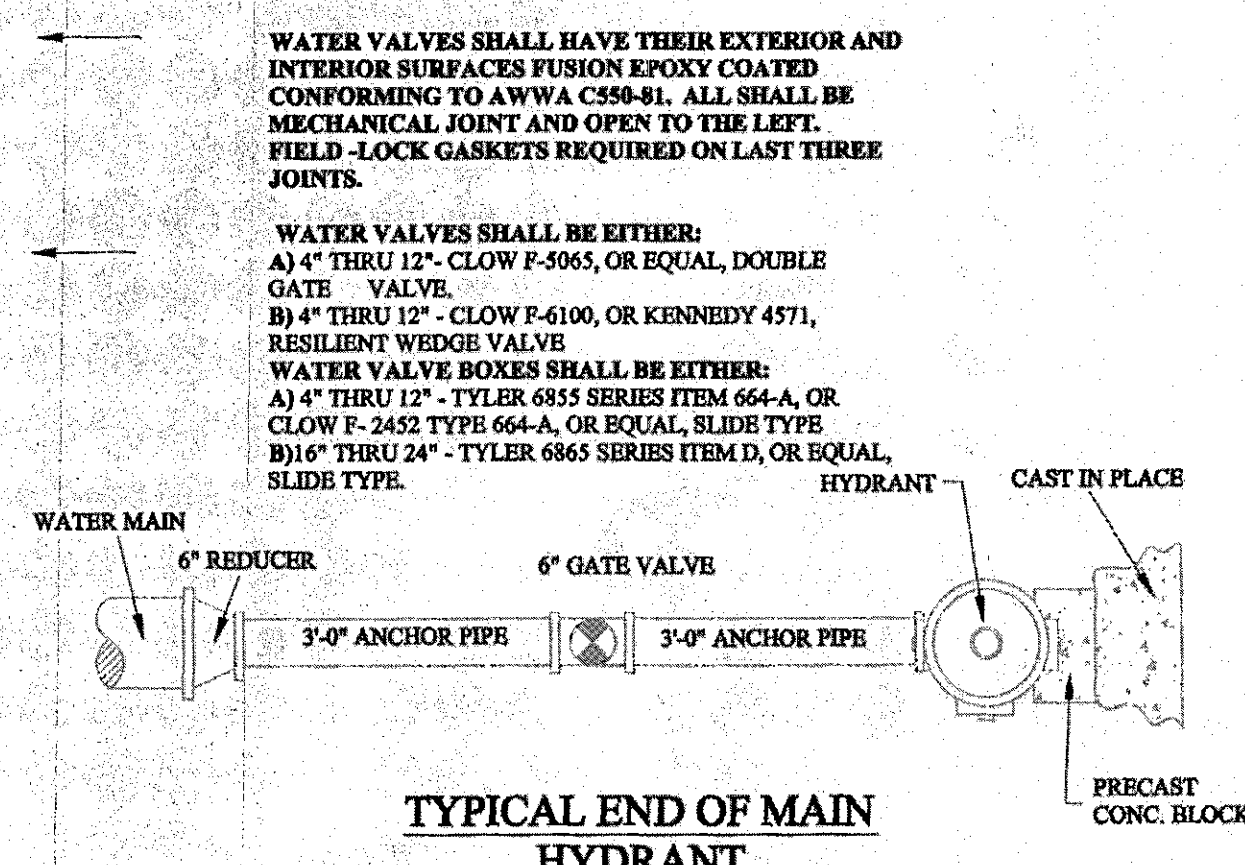
MAIN SIZE - (INCHES)	4	6	8	10	12
MAX. TAP SIZE (INCHES)	3/4	1	1-1/4	1-1/2	2



SINGLE AND MULTIPLE TAPS

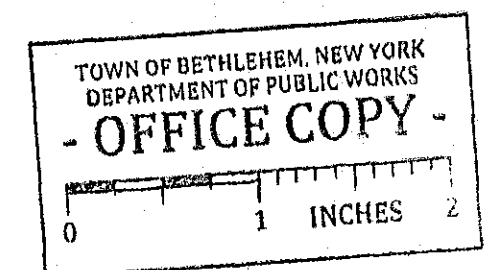


TYPICAL SPACING



TYPICAL END OF MAIN
HYDRANT

PLANNING BOARD APPROVAL



PLANNING BOARD
TOWN OF BETHLEHEM, NEW YORK
DEPARTMENT OF PUBLIC WORKS
By direction of the Chairman.
These drawings are hereby approved.
See sheet(s) 2 of 12
for date and signature