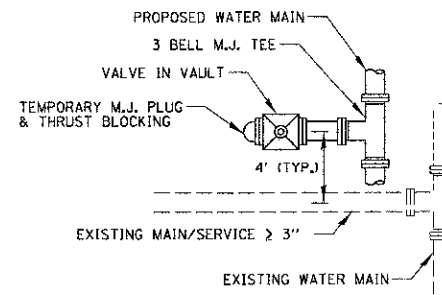


- NOTE:
1. OMIT GRANULAR CRADLE FOR PROPOSED WATER MAIN
  2. PLACE 1.0' OF CLASS IV MATERIAL OVER THE LENGTH OF THE WATER MAIN AND COMPACT TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY.
  3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.

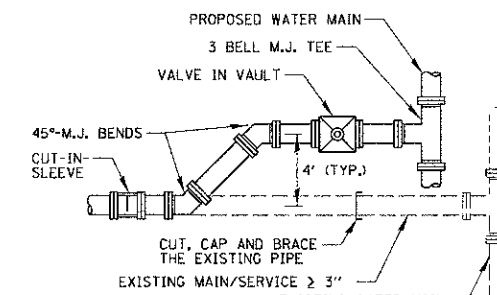
**PROPOSED WATER MAIN BELOW EXISTING SEWER**

N.T.S.



**INSTALLATION**

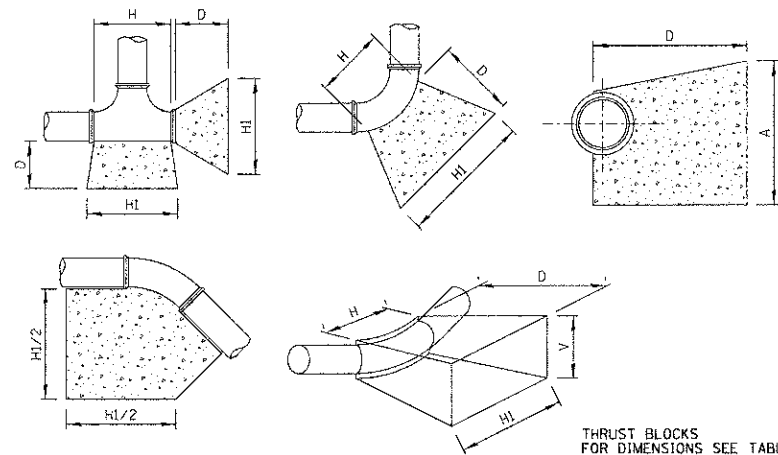
- NOTES:
1. AFTER THE EXISTING WATER MAIN OR SERVICE IS CUT AT THE NOTED LOCATION, CONTRACTOR SHALL DETERMINE THE DISTANCE TO THE NEXT JOINT WITH A FEELER ROD. IF THE DISTANCE IS SIX (6) FEET OR MORE, THAN COMPLETE THE CONNECTION IF THAT DISTANCE IS LESS THAN SIX (6) FEET, EXTEND THE NEW PIPE AND CONNECT.
  2. AFTER THE NEW WATER MAIN IS APPROVED, CUT, CAP AND BRACE THE EXISTING MAIN SERVICE. REMOVE TEMPORARY PLUG AND CONNECT MAIN SERVICE TO THE VALVE. SWAB THE NEW PIPE WITH 1% HTH CHLORINE SOLUTION DURING THE INSTALLATION.
  3. MEGALUGS OR APPROVED EQUAL TO BE USED WITH ALL M.J. FITTINGS.



**RECONNECTION**

**WATER MAIN/SERVICE INSTALLATION AND RECONNECTION**

N.T.S.



THRUST BLOCKS FOR DIMENSIONS SEE TABLE A

SIZE OF PIPE	TAPPING TEES, SLEEVES AND PLUGS				90° BENDS				45° BENDS OR LESS						
	HI	H	V	D	C. FT.	HI	H	V	D	C. FT.	HI	H	V	D	C. FT.
12"	54"	30"	24"	24"	13.40	54"	32"	36"	36"	18.15	42"	18"	24"	24"	9.60
8"	36"	18"	18"	18"	5.05	39"	18"	24"	18"	7.50	30"	11"	18"	18"	3.95
6"	24"	16"	18"	18"	3.50	30"	16"	18"	18"	4.05	24"	10"	16"	18"	3.20
4"	20"	13"	15"	15"	2.15	24"	12"	13"	13"	1.75	20"	8"	12"	12"	1.20

**WATER MAIN THRUST BLOCKING - TABLE A**

N.T.S.

- NOTE:
1. THRUST BLOCKING TO BE INSTALLED AT ALL HORIZONTAL AND VERTICAL BENDS, CAPS, VALVES, HYDRANTS AND AT LOCATIONS DIRECTED BY ENGINEER. THRUST BLOCK TO BE PRE-CAST PORTLAND CEMENT CONCRETE, PLACED BETWEEN SOLID GROUND AND FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTING WILL BE ACCESSABLE FOR REPAIR. ALL ENDS OD 1 1/4" OR MORE, ALL TEES AND ALL PLUGS SHALL BE PROTECTED AS SHOWN, WHERE CONDITIONS PREVENT THE USE OF CONCRETE THRUST BLOCKS, RESTRAINED JOINTS OF A TYPE APPROVED BY THE ENGINEER MAY BE USED.
  2. ALL CONCRETE THRUST BLOCKS SHALL HAVE BENT REBAR WHICH IS INCIDENTAL TO THE WATER MAIN.