



**NOTES:**

1. SEE THRUST COLLAR DETAIL **155** FOR CONCRETE, SIZING, COMPACTION AND EMBEDMENT REQUIREMENTS.
2. MECHANICAL JOINT RESTRAINT MOUNTED ON THE EXISTING PIPE AND EMBEDDED IN THE CONCRETE. THRUST COLLAR MAY BE SPLIT SLEEVE OR SOLID RING COMPATIBLE WITH PIPE MATERIAL.
3. RESTRAIN ALL FITTINGS WITH A MECHANICAL JOINT TYPE RESTRAINT COMPATIBLE WITH THE PIPE MATERIAL AND ACCEPTED BY COA.
4. THE THREE FEET MINIMUM DISTANCE SHOWN ABOVE BETWEEN THE COA SLEEVE, VALVE, AND THRUST COLLAR IS TYPICAL. DEPENDING ON FIELD CONDITIONS, IT MAY BE REDUCED OR INCREASED BY COA AND SHALL BE CONFIRMED IN THE FIELD.
5. TIE-BACKS ON 4" , 6", AND 8" WATER MAIN SHALL CONSIST OF TWO THREADED RODS AND ASSOCIATED NUTS AND WASHERS 180 DEGREES APART. ALL TYPE 316 STAINLESS STEEL.
6. TIE-BACKS ON 10" AND 12" WATER MAIN SHALL CONSIST OF THREE THREADED RODS AND ASSOCIATED NUT AND WASHERS 120 DEGREES APART. ALL TYPE 316 STAINLESS STEEL.