DIVISION 23 05 10 SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT VERSION 2.2008.0708

PRE-INSULATED UNDERGROUND PIPING SYSTEMS:

FACTORY PRE-INSULATED PIPING SYSTEM, CONSISTING OF AN INNER MEDIA CARRIER PIPE, INSULATION AROUND THE CARRIER PIPE, AND A WATER/VAPOR SEAL JACKET OVER THE INSULATION CARRIER PIPE MATERIAL: SCHEDULE 40 BLACK STEEL PIPE WITH 150 PSI MALLEABLE SCREWED FITTINGS

INSULATION: RIGID CLOSED CELL POLYURETHANE, AVERAGE DENSITY OF AT LEAST 2 LB./FT.3, CONFORMING TO ASTM C552, TYPE II, CLASS 1, K FACTOR OF NOT MORE THAN 0.14 (BTU/IN)/(HR/SQ.FT./DEG. F) AT 50F

OUTER CASING: PVC PIPE OF MINIMUM 60 MILS THICKNESS. EACH FACTORY PREFABRICATED SECTION PROVIDES COMPLETE SEALING OF THE INSULATION AT EACH END OF THE CONDUIT SECTION. PROVIDE PERMANENT WATER AND VAPOR SEAL. CARRY OVER THE OUTER CASING AND EXTEND IT TO THE CARRIER PIPE. USE PREFABRICATED CAPS SPECIFICALLY DESIGNED FOR END SEAL OF PREFABRICATED INSULATION SYSTEMS. FABRICATE CAPS OF THE SAME MATERIAL AS THE OUTER CASING

INCLUDES: EXPANSION LOOPS, ELLS, WELDED FITTING AND ELBOWS, MOISTURE BARRIER AND END SEALS, ANCHORS, THRUST BLOCKS.

AFTER ANCHOR BLOCKS ARE POURED AND CURED, A HYDROSTATIC TEST OF 150 PSIG OR 1-1/2 TIMES OPERATING PRESSURE, WHICHEVER IS GREATER, REQUIRED FOR A PERIOD OF 4 HOURS FITTINGS FOR STEEL PIPE:

FLANGES, FITTINGS, UNIONS AND OTHER PRODUCTS, MARK IN ACCORDANCE WITH MSS SP-25 WELDING FITTINGS: WROUGHT CARBON STEEL FITTINGS, ASTM A234, ANSI B16.9, B16.28. BUTT-WELDING TYPE UNLESS OTHERWISE INDICATED TO BE SOCKET WELDING TYPE BRANCH CONNECTIONS: FROM MAINS OR HEADERS 2-1/2 INCHES OR LARGER, WELDED TEES OR

FORGED WELDING OUTLETS" OR "THREADOLETS" FOUNDALENT TO DOMEST FORCE HOR FORCE

WELDING OUTLETS: "WELDOLETS" OR "THREADOLETS" EQUIVALENT TO BONNEY FORGE. USE FORGED WELDING OUTLETS WHEREVER BRANCH LINE IS AT LEAST 1 NOMINAL PIPE SIZE SMALLER THAN LOCAL MAIN OR HEADER

THREADED FITTINGS: ANSI B2.1, ASTM A47, 150 PSI RATING, EXCEPT WHERE OTHERWISE SPECIFIED, PREVAILING CODES OR REQUIREMENTS OR SPECIFICATIONS DICTATE USE OF 300 PSI RATING. FABRICATE FROM STANDARD MALLEABLE IRON WITH DIMENSIONS CONFORMING TO ANSI B16.3 FLANGES: CARBON STEEL CONFORMING TO ASTM A105, ANSI B16.5, AND FACTORY FORGED IN THE USA. FLANGES WHICH HAVE BEEN MACHINED, REMADE, PAINTED, OR ARE OF NON-DOMESTIC ORIGIN ARE NOT ACCEPTABLE. PROVIDE RAISED OR FULL FACE ENDS WHEREVER INDICATED OR REQUIRED UNIONS: ANSI B16.39, ASTM A47, AND BE FABRICATED FROM MALLEABLE IRON WITH BRONZE—TO—IRON GROUND JOINTS RATED AT 150 PERCENT DESIGN OPERATING PRESSURE. THREADS: ANSI B2.1

FASTENERS: SEMI-FINISHED CARBON STEEL BOLTS AND HEX NUTS CONFORMING TO ASTM A307. THREADS AND DIMENSIONS: ANSI B1.1 AND B18.2

THREADED PIPE PLUGS: ANSI B16.14

PROVIDE THREAD LUBRICANT

