

WATERWORK NOTES

FEDERAL REGION	STATE	PROJECT
5	OHIO	

74
86

LAKE COUNTY
LAK-20-17.14

~~(C) VICTAULIC TYPE COUPLINGS~~

~~WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED, THE CONTRACTOR SHALL FURNISH AND INSTALL VICTAULIC TYPE COUPLINGS STYLE 77 FOR CONNECTION OF STEEL PIPES. STEEL PIPE SHALL BE FABRICATED AND GROOVED AS INDICATED ON THE DRAWINGS.~~

~~COUPLINGS SHALL BE COMPOSED OF MALLEABLE IRON HOUSINGS HELD TOGETHER WITH STEEL BOLTS, HEAT TREATED AND WITH A CONTINUOUS HOLLOW, MOLDED RUBBER SEALING RING, OF SUCH TYPE THAT THE SEAL BECOMES TIGHT AS THE PRESSURE WITHIN THE PIPE INCREASES. THE JOINTS SHALL BE CONSTRUCTED AND INSTALLED AND BE EQUAL IN ALL RESPECTS TO THOSE MANUFACTURED BY THE VICTAULIC COMPANY OF AMERICA. MALLEABLE HOUSING SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR MALLEABLE IRON CASTINGS, ASTM DESIGNATION: A-47." BOLTS SHALL BE MANUFACTURED BY THE COUPLING MANUFACTURER AND SHALL BE CADMIUM PLATED STEEL BOLTS HAVING 100,000 PSI TENSILE STRENGTH.~~

~~ALL METAL PARTS OF THE COUPLINGS SHALL BE COATED AT THE SHOP WITH ONE COAT OF BITUMINOUS PRIMER FURNISHED BY THE SAME MANUFACTURER WHO FURNISHED THE COATINGS AS SPECIFIED UNDER "PAINTING".~~

~~(D) EXPANSION JOINT ASSEMBLY~~

~~THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL OF THE EXPANSION JOINT ASSEMBLY.~~

~~THE JOINT ASSEMBLY SHALL BE "DRESSER STLE 63 TYPE 1" SLIP TYPE WITH AN 8 IN. TRAVERSE OR APPROVED EQUAL. THE JOINT ASSEMBLY SHALL INCLUDE ALL MATERIALS, CADMIUM PLATED BOLTS, NUTS AND WASHERS, WELDED NECK FLANGES A.S.A. 150# AND GASKETS. NO FIELD WELDING OF GALVANIZED STEEL PIPE WILL BE PERMITTED.~~

~~PIPE SUPPORT ASSEMBLIES~~

~~(A) THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL OF THE PIPE SUPPORT ASSEMBLIES.~~

~~(B) PIPE SUPPORT ASSEMBLIES SHALL BE COMPLETE INCLUDING ALL MATERIALS, CADMIUM PLATED SHOULDER AND CLAMP BOLTS, WASHERS AND NUTS. THE SUPPORT ASSEMBLY CLAMP, SEAT PLATE AND SHIMS SHALL ALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A-123 LATEST REVISIONS. NO FIELD WELDING OF GALVANIZED STEEL PIPE WILL BE PERMITTED.~~

~~INSULATION, APPURTENANCES AND FASTENINGS~~

~~(A) THE CONTRACTOR SHALL FURNISH AND INSTALL INSULATION SLEEVE PACKING, APPURTENANCES AND FASTENINGS AS CALLED FOR ON THE WATERWORK DETAIL PLANS.~~

~~(B) THE VOID BETWEEN THE PIPE SLEEVE AND THE WATERMAIN THROUGH THE BRIDGE ABUTMENTS SHALL BE FILLED WITH JUTE PACKING AND SEALED AT BOTH ENDS WITH THREE (3") INCHES OF HOT POURED LEAD.~~

ITEM SPECIAL - EXTEND HYDRANT BRANCH AND ADJUST HYDRANT AND VALVE BOX TO GRADE

(A) WORK INCLUDED

THE CONTRACTOR SHALL FURNISH ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS TO EXTEND HYDRANT BRANCH AND ADJUST 6" HYDRANT AND VALVE BOX TO GRADE AS REQUIRED BY THESE PLANS.

(B) VERTICAL SETTING

CONTRACTOR SHALL ADJUST THE HYDRANT NOZZLE TO BE WITHIN TWELVE (12) INCHES MINIMUM TO TWENTY (20) INCHES MAXIMUM DISTANCE ABOVE ADJACENT PROPOSED CURB ELEVATION. RESET THE FROST JACKET FOUR (4) INCHES ABOVE FINISHED GRADE ELEVATION.

(C) BRANCH EXTENSION WILL BE DUCTILE IRON PIPE OF SAME SIZE AS THE EXISTING HYDRANT.

(D) CLEANING

THE HYDRANT SHALL BE THOROUGHLY CLEANED OF DIRT AND FOREIGN MATTER AND PAINTED AS DIRECTED BY THE ENGINEER.

(E) PAYMENT

THE UNIT PRICE STIPULATED TO BE PAID FOR EACH ITEM SPECIAL - "EXTEND HYDRANT BRANCH AND ADJUST HYDRANT AND VALVE BOX TO GRADE" SHALL INCLUDE REMOVING, ADJUSTING AND SETTING HYDRANT TO GRADE, RECONNECTING TESTING, PAINTING, EXCAVATING BACKFILLING AND ADJUSTING VALVE BOX TO GRADE, FURNISHING OF ALL LABOR, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR SHOWN.

PAINTING

AFTER INSTALLATION, ALL DAMAGED COATINGS AND ALL BOLTS SHALL BE CLEANED AND PAINTED WITH THREE (3) FIELD COATS OF INERTOL 66 OR BITUMASTIC 50 OR EQUIVALENT.

~~BRASS PIPE AND FITTINGS~~

~~(A) ALL BRASS PIPE AND FITTINGS SHALL BE EXTRA STRONG, 2-INCH PIPE SIZE AND THE PIPE SHALL CONFORM TO A.S.T.M. SPECIFICATIONS B 43-42. FITTINGS SHALL BE EXTRA STRONG WEIGHT AND SHALL HAVE SOUND, WELL FITTING THREADS.~~

~~GALVANIZED BLACK IRON PIPE AND FITTINGS~~

~~(A) ALL GALVANIZED BLACK IRON PIPE, NIPPLES AND COUPLINGS SHALL BE EXTRA STRONG BLACK IRON PIPE A.S.T.M. DESIGNATION A-120. THE FITTINGS SHALL BE BEADED, OF MALLEABLE IRON, EXTRA HEAVY WEIGHT. ALL PIPE AND FITTINGS SHALL BE HOT DIPPED ZINC COATED INSIDE AND OUTSIDE, AND SHALL HAVE SOUND, WELL-FITTING THREADS.~~

~~ERECTION~~

~~(A) ALL PIPE SHALL BE CAREFULLY PLACED TO THE PROPER LINES AND GRADES, AND SHALL BE CONNECTED UP, UNLESS OTHERWISE SHOWN, WITH SCREW FITTINGS. SCREW JOINTS SHALL BE MADE TIGHT WITH A GRAPHITE PASTE AND SCREWED HOME. A LIBERAL NUMBER OF UNIONS SHALL BE USED TO PERMIT THE READY REMOVAL OF ANY SECTION.~~

~~FIRE HYDRANTS~~

~~FIRE HYDRANTS SHALL CONFORM TO A.W.W.A. SPECIFICATIONS C502.~~

~~ALL HYDRANTS SHALL HAVE A 6 INCH HUBBED INLET CONNECTION, A 5/8 INCH, UPWARD CLOSING HORIZONTAL SEAT, COMPRESSION TYPE MAIN VALVE AND SHALL OPEN BY TURNING THE OPERATOR NUT COUNTERCLOCKWISE (RIGHT), WHEN INSTALLED WITHIN CITY CORPORATION LIMITS. HYDRANTS SHALL HAVE A FLANGE AT 6" ABOVE GROUND LINE AND A BURY DEPTH OF FIVE FEET. BARREL EXTENSIONS SHALL BE PROVIDED AS REQUIRED.~~

~~EACH HYDRANT SHALL HAVE A BREAKABLE FLANGE AND STEM COUPLING CONSTRUCTION SO THE VALVE REMAINS CLOSED IF THE BARREL IS BROKEN.~~

~~EACH HYDRANT SHALL BE EQUIPPED WITH TWO "2 1/2" HOSE NOZZLES HAVING "NATIONAL STANDARD" THREADS (7 1/2" THREADS PER INCH) AND A 4" PUMPER NOZZLE WITH PAINESVILLE STANDARD THREADS (5 1/8" O.D. WITH 4 THREADS PER INCH). ALL OUTLETS SHALL BE PROVIDED WITH CAPS AND WASHERS. THE CAP NUTS SHALL BE PENTAGON SHAPED, NATIONAL STANDARD AND 1 1/2 INCH FROM POINT TO POINT.~~

~~EACH HYDRANT SHALL BE INSTALLED WITH A 6" WATCH VALVE A MINIMUM OF 24" FROM HYDRANT. WATCH VALVE BOX SHALL BE SET FOR FINISH GRADE BUT NOT IN DITCH LINE.~~

~~ALL JOINTS ASSOCIATED WITH HYDRANT INSTALLATIONS SHALL BE MECHANICAL JOINT, PROPERLY BLOCKED, TARRED AND WRAPPED WITH MATERIAL CONFORMING TO A.S.A. SPECIFICATIONS A21.5 (A.W.W.A. C105).~~

~~A HYDRANT WRENCH SHALL BE PROVIDED WITH EACH FIVE (5) FIRE HYDRANTS OR LESS INSTALLED.~~