

ITEM 638 - SPECIAL - 12" WATER MAIN, DUCTILE IRON PIPE, ANSI CLASS 53, MECHANICAL JOINTS AND FITTINGS, AS PER PLAN

M. HYDRANTS DESIGNATED FOR REMOVAL SHALL BE REMOVED UNDER LAKE COUNTY WATER DEPARTMENT SUPERVISION. SPECIAL CARE IN REMOVAL AND HANDLING OF EXISTING HYDRANTS SHALL BE MAINTAINED AT ALL TIMES AND REMOVAL OF EXISTING HYDRANTS SHALL BE DONE BY EXCAVATION OF HYDRANT ASSEMBLY ONLY. ALL REMOVED HYDRANTS SHALL BECOME THE PROPERTY OF THE LAKE COUNTY WATER DEPARTMENT. REMOVED HYDRANTS ARE TO BE STORED ON JOB SITE FOR PICK UP BY THE LAKE COUNTY WATER DEPARTMENT. THE EXISTING HYDRANTS AND WATER MAIN SHALL NOT BE TAKEN OUT OF SERVICE UNTIL ALL THE PROPOSED HYDRANTS AND WATER MAIN FOR A GIVEN STREET ARE OPERATIONAL.

CONTRACTOR SHALL SUBMIT FOR APPROVAL TO LAKE COUNTY DEPARTMENT OF UTILITIES AND THE ENGINEER MEANS AND METHODS TO RESTRAIN EXISTING HYDRANTS DURING INSTALLATION OF PROPOSED WATER MAIN PRIOR TO EXCAVATION.

EXCAVATION, BACKFILL AND COMPACTION

ALL EXCAVATION WILL BE CONSIDERED UNCLASSIFIED, NO COMPENSATION WILL BE ALLOWED THE CONTRACTOR FOR ROCK OR SHALE EXCAVATION.

THE OWNER AND THE ENGINEER DO NOT GUARANTEE NOR SUGGEST THE IN-SITU MATERIAL TO BE EXCAVATED WILL BE SUITABLE OR IN ITS PRESENT STATE WILL CONSIST OF THE PROPER MOISTURE CONTENT TO ACHIEVE THE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE BACKFILL MATERIAL HE WILL USE. UPON REQUEST, THE OWNER WILL PROVIDE ACCESS TO THE SITE FOR THE CONTRACTOR TO CONDUCT SUCH INVESTIGATION AND TESTS DEEMED NECESSARY TO MAKE HIS DETERMINATION. NO EXTRA PAYMENT WILL BE MADE TO DISPOSE OF UNSUITABLE MATERIAL OR FURNISH AND PLACE SUITABLE MATERIAL.

BACKFILLING OF ANY TRENCHES OR EXCAVATIONS WILL NOT BE PERMITTED WITHOUT MACHINE MOUNTED COMPACTION EQUIPMENT BEING USED.

SLAG PRODUCTS WILL NOT BE PERMITTED FOR BEDDING, BACKFILL, OR TRAFFIC COMPACTED SURFACE.

ALL UTILITY LINES CROSSING THE NEW WATERLINE TRENCH, (i.e. STORM SEWERS, STORM LATERALS, SANITARY SEWERS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OCT CONDUITS, CABLE T.V. LINES) SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK UNLESS ANY OF THE ABOVE UTILITIES ARE ENCOUNTERED AND NOT SHOWN ON THE DRAWINGS.

ITEM 202 - PIPE REMOVED, 24" AND UNDER, AS PER PLAN

THE EXISTING 12" PIPE, ITS PIPE SUPPORTS AND FITTINGS SHALL BE REMOVED AFTER THE REPLACEMENT WATER MAIN IS ACCEPTED AND PLACED IN CONTINUOUS SERVICE. ALL REMOVED ITEMS SHALL REMAIN THE PROPERTY OF THE LAKE COUNTY UTILITIES DEPARTMENT. THE CONTRACTOR SHALL ARRANGE FOR TRANSPORTATION DELIVERY OF REMOVED MATERIALS TO THE AQUARIUS WATER PLANT. ALL EXCAVATION WORK NEEDED SHALL BE INCLUDED FOR PAYMENT IN THE LINEAL FOOT PRICE BID FOR THIS ITEM.

DESCRIPTION OF WORK: THIS WORK CONSISTS OF INSTALLING A 12" WATER MAIN ON THE LAK-20-1807 STRUCTURE AND INSULATING IT AS SPECIFIED HEREIN.

MATERIAL: THE PIPE INSULATION SHALL BE 2" THICK GLASS FIBER PREFORMED PIPE INSULATION, INSTALLED ON ALL ABOVE GRADE 12" PIPE. IT SHALL BE ENCASED IN A GALVANIZED STEEL SHIELD THAT IS BOLTED AROUND THE PIPE AND INSULATION. THE INSULATION SHIELD SHALL BE, 17" I.D., 14 GAUGE MIN. AS MANUFACTURED BY B-LINE SYSTEMS, INC., MODEL B3152-19Z OR APPROVED EQUAL. FURNISH AND INSTALL SIX PIPE COVERING PROTECTION SADDLES WHERE THE 12" WATER MAIN IS SUPPORTED ON ROLLERS. THE SADDLES SHALL BE AS MANUFACTURED BY B-LINE SYSTEMS, INC., MODEL B3162-12 OR APPROVED EQUAL. CONTACT B-LINE SYSTEMS AT 1-800-280-7994 OR BY E-MAIL AT www.blinc.com.

SHOP DRAWINGS: THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE PROPOSED INSULATING DETAILS TO THE ENGINEER FOR APPROVAL.

METHOD OF MEASUREMENT: WATER MAIN WILL BE MEASURED AS THE ACTUAL NUMBER OF LINEAR FEET INSTALLED AND INSULATED.

BASIS OF PAYMENT: PAYMENT SHALL BE MADE AT THE PRICE BID PER LINEAR FOOT OF PIPE INSTALLED, INSULATED AND ACCEPTED. PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, INCIDENTALS, TESTING AND DISINFECTING NECESSARY TO COMPLETE THIS ITEM.

ITEM 638 - WATER WORK MISC: 12" PVC TEMPORARY WATER MAIN

A. THE TEMPORARY WATER MAIN PIPE, ITS PIPE SUPPORTS AND FITTINGS SHALL BE REMOVED AFTER THE REPLACEMENT WATER MAIN IS ACCEPTED AND PLACED IN CONTINUOUS SERVICE. ALL REMOVED ITEMS SHALL REMAIN THE PROPERTY OF THE LAKE COUNTY UTILITIES DEPARTMENT. THE CONTRACTOR SHALL ARRANGE FOR TRANSPORTATION DELIVERY OF REMOVED MATERIALS TO THE AQUARIUS WATER PLANT. ALL EXCAVATION WORK NEEDED SHALL BE INCLUDED FOR PAYMENT IN THE LINEAL FOOT PRICE BID FOR THIS ITEM.

B. SEQUENCE OF CONSTRUCTION
THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION PLAN TO THE LAKE COUNTY DEPARTMENT OF UTILITIES AND THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK ON THE WATER MAINS. THE CONTRACTOR SHALL MAKE PROVISIONS TO MAINTAIN EXISTING WATER MAINS, HYDRANTS, SERVICE LINES, METERS AND VALVES IN SERVICE DURING THE CONSTRUCTION, TESTING AND DISINFECTION OF THE TEMPORARY WATER MAINS AND APPURTENANCES. THE TWO CONNECTIONS FOR THE TEMPORARY WATER MAIN TO THE EXISTING SHALL BE SCHEDULED WITH THE LAKE COUNTY DEPARTMENT OF UTILITIES AND THE ENGINEER DURING OFF-PEAK WATER DEMAND PERIODS AND SHALL NOT EXCEED A PERIOD OF TWO (2) HOURS (SEE NOTE "L")
THE CONTRACTOR SHALL NOTIFY ALL CUSTOMERS AFFECTED BY THE WATER MAIN SHUT DOWN TWO (2) WORKING DAYS PRIOR TO THE PROPOSED SHUT DOWN.

C. CONNECTION SEQUENCE OF CONSTRUCTION SHALL BE SUBMITTED BY THE CONTRACTOR TO LAKE COUNTY DEPARTMENT OF UTILITIES AND THE ENGINEER FOR APPROVAL. THE WATER MAIN SHALL BE COMPLETELY LAID, TESTED AND ACCEPTED BEFORE ANY BRANCH CONNECTIONS AND/OR INTERRUPTIONS IN SERVICE OCCUR.

SERVICE INTERRUPTIONS SHALL BE KEPT TO A MINIMUM FOR WATER MAIN CONNECTIONS.

THE EXISTING WATER SERVICE MAY BE TAKEN OFF SERVICE FOR 2 HOURS MAXIMUM, COORDINATED WITH LAKE COUNTY. IF THE EXISTING WATER SERVICE MUST BE TAKEN OFF LINE FOR GREATER THAN 2 HOURS WITHOUT THE TEMPORARY WATER MAIN BEING OPERATIONAL, THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER SERVICE USING CERTAIN TEED YELOMINE OR APPROVED EQUAL. SUBMIT PLAN TO LAKE COUNTY DEPARTMENT OF UTILITIES AND THE ENGINEER. THE TEMPORARY WATER MAIN SHALL BE MADE OPERATIONAL WITHIN 12 HOURS AFTER EXISTING WATER MAIN IS SHUT DOWN. THE COST SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 638 - WATER WORK MISC.: 12" PVC TEMPORARY WATER MAIN.

ALL WATER SERVICE CONNECTIONS WHICH ARE BROKEN BY THE CONTRACTOR SHALL BE REPAIRED BY THE LAKE COUNTY WATER DEPARTMENT OR THE CONTRACTOR, ALL AT THE CONTRACTOR'S EXPENSE. ALL RECONNECTED WATER SERVICE CONNECTIONS SHALL BE TAPPED INTO THE NEW WATER MAIN AND DOCUMENTED AS SUCH. ALL NEW SERVICE CONNECTIONS SHALL BE MINIMUM 3/4" TYPE K COPPER, REGARDLESS OF THE BROKEN SERVICE CONNECTION MATERIAL. ALL EXISTING WATER SERVICE CONNECTIONS SHALL BE REPLACED WITH NEW TYPE K COPPER FROM PROPOSED MAIN TO CURB BOX OR OUTSIDE WATER METER.

WATER GENERAL NOTES

A. ALL WATERLINES WITHIN THE PROJECT AREA BELONG TO LAKE COUNTY AND FALL UNDER THE CONTROL OF THE WATER DEPARTMENT.

B. ANY AND ALL CONSTRUCTION OF WATERLINE FACILITIES REQUIRED BY THIS PROJECT IS TO BE GOVERNED BY THE DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT, WHICH IN EVENT OF A DISCREPANCY, SUPERSEDE THE LAKE COUNTY STANDARD WATERLINE SPECIFICATIONS.

C. THIS APPROVAL BY THE LAKE COUNTY SANITARY ENGINEER SHALL EXPIRE IF THE WATERLINE CONSTRUCTION HAS NOT BEEN INITIATED BY A DEVELOPER WITHIN TWELVE (12) MONTHS OF THE EFFECTIVE APPROVAL DATE AS SHOWN ON THE ORIGINALLY SUBMITTED FOR APPROVAL BLUEPRINT COPY. (THIS IS NOT TO BE CONSTRUED AS THE DATE THAT IS SHOWN ON THE ORIGINAL MYLAR TITLE SHEET.)

D. THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY WATER DEPARTMENT (LCWD) AT LEAST 48 HOURS IN ADVANCE OF ANY WORK IN THEIR SYSTEMS.

E. THE LAKE COUNTY WATER DEPARTMENT SHALL PERFORM INSPECTION SERVICES. THE COST OF INSPECTION SHALL BE INCLUDED AS PART OF THIS CONSTRUCTION PROJECT AT A RATE OF \$300.00 PER 8-HOUR DAY. COST FOR LAKE COUNTY INSPECTION FEE AND OTHER FEES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR OTHER WATERLINE ITEMS. OVERTIME, WEEKENDS AND HOLIDAYS SHALL BE AT A RATE OF 1.5 TIMES THE BASE RATE.

F. WATERLINE WORK SHALL NOT BEGIN UNTIL THE AREAS OF CONSTRUCTION ARE ROUGH GRADED.

G. ALL WATERLINES ON THIS PROJECT SHALL BE LAID AT THE ELEVATIONS AND GRADES SHOWN ON THE DRAWINGS.

H. ALL HYDRANTS SHALL BE POSITIONED SO THAT THE STEAMER NOZZLES POINT IN THE DIRECTION SHOWN ON THE PLANS.

I. THE PROPOSED WATERLINE SHALL HAVE 5' MINIMUM COVER OVER THE TOP OF PIPE AT ALL BELOW GRADE PLACES, EXCEPT AT SPECIFIC HYDRANT TEE LOCATIONS AS SHOWN ON THE PLANS.

J. ZINC ANODE THREADED CAPS SHALL BE USED ON EVERY BOLT.

K. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR PRELIMINARY CHECKING AND APPROVAL.

L. THE LCWD SHALL PROVIDE WATER FOR THE NEW WATER MAIN WITHOUT COST FOR THE INITIAL OPERATION. ALL WATER FOR FLUSHING OPERATIONS SHALL BE PAID FOR BY THE CONTRACTOR AT A RATE OF \$3.33 PER 100 CUBIC FEET OF WATER USED.

M. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PIPE, ANSI A21.51, THICKNESS CLASS 53, UNLESS OTHERWISE SHOWN ON THE PLANS, CEMENT LINED ANSI 1 21.4. FITTINGS TO BE FULL BODY-ONLY

N. GATE VALVE SHALL BE A RESILIENT SEATED GATE VALVE PER AWWA C509 STANDARDS AS MANUFACTURED BY AMERICAN-DARLING, CLOW OR AN APPROVED EQUAL.

O. LOCATION OF STERILIZATION AND TESTING CONNECTIONS SHALL BE AS DIRECTED BY THE LCWD AND ALL COSTS ASSOCIATED WITH PLACING AND UTILIZING SAID STERILIZATION AND TESTING CONNECTIONS SHALL BE INCLUDED IN THE PRICE BID PER LINEAL FOOT OF ITEM 638 - SPECIAL- 12" WATER MAIN, DUCTILE IRON PIPE, ANSI CLASS 53, MECHANICAL JOINTS AND FITTINGS. NO BACTERIA SAMPLES ARE TO BE TAKEN FROM FIRE HYDRANTS.

P. THE CONTRACTOR SHALL BE APPROVED BY THE LCWD FOR TAPPING SERVICE CONNECTIONS. IF THE CONTRACTOR IS NOT APPROVED, LCWD WILL MAKE THE NECESSARY SERVICES CONNECTION TAPS AT A COST TO THE CONTRACTOR OF \$320.00 PER 2" AND GREATER TAPS.

Q. NO WATER SERVICE CONNECTIONS TO ANY BUILDING SHALL BE PERMITTED PRIOR TO FINAL ACCEPTANCE BY THE SANITARY ENGINEER INCLUDING RECTIFICATION OF ALL PUNCH LIST ITEMS.

R. THE CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT PRIOR TO ANY PRESSURE TESTING.

SCALE IN FEET

CALCULATED
CHECKED

WATER MAIN GENERAL NOTES

LAK - 20 - 18.07

35
72