

# CONSTRUCTION NOTES

## GENERAL NOTES

- 1) THE CONTRACTOR SHALL PAY FOR ALL NECESSARY PERMITS AND FEES.
- 2) THE CONTRACTOR SHALL INVESTIGATE ON SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS OF THE PROJECT AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY IN THE CONTRACT DOCUMENTS REQUIRING MODIFICATION PRIOR TO PROCEEDING.
- 3) THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTATIVE MEASURES TO PROTECT THE EXISTING IMPROVEMENTS. ANY DAMAGE SHALL BE REPLACED AT NO COST TO THE OWNER.
- 4) THE CONTRACTOR SHALL COORDINATE THE WORK SCHEDULE SO AS TO HAVE A MINIMUM IMPACT ON THE EXISTING TRAFFIC. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PER IDAHO TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS.
- 5) OWNER'S PROPERTY CORNERS SHALL BE PROTECTED AT ALL TIMES, AND THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF IDAHO TO REFERENCE ALL CORNERS. UPON COMPLETION OF THE PROJECT, ALL EXISTING CORNERS DAMAGED BY CONSTRUCTION OR OTHER ACTIVITY SHALL BE REPLACED BY A PROFESSIONAL LAND SURVEYOR.
- 6) ALL WORK SHALL CONFORM TO STATE AND LOCAL CODES AND CONFORM TO THE CITY OF LEWISTON STANDARD DRAWINGS AND STANDARD TECHNICAL SPECIFICATIONS.
- 7) SITE DISTANCES FOR ABUTTING PROPERTIES, DRIVEWAYS, AND INTERSECTIONS MUST BE MAINTAINED.
- 8) IMPROVEMENTS CONSTRUCTED ON RIGHT-OF-WAY REQUIRE A STREET CUT PERMIT OBTAINED AT THE CONSTRUCTION MANAGEMENT SECTION OF THE PUBLIC WORKS DEPARTMENT.
- 9) ALL CONSTRUCTION NOT SPECIFICALLY MENTIONED OR SHOWN SHALL CONFORM TO CITY ORDINANCES AND STANDARDS.
- 10) SANITARY DISPOSAL TO BE PER CITY OF LEWISTON STANDARDS.
- 11) SPECIAL INSPECTION IS REQUIRED FOR SOIL COMPACTION, SEWER LINE, STORM DRAIN LINE, WATER LINE, BASE MATERIAL, CONCRETE, AND ASPHALT.
- 12) UPON COMPLETION, CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS, COMPLETE WITH ELEVATIONS, TO THE ENGINEER OF RECORD TO BE APPROVED.

## SEWER NOTES

- 1) SEWER MAINS SHALL BE INSTALLED BY CONTRACTORS W/ EXPERIENCE INSTALLING PUBLIC SEWER MAINS AND APPROVED BY THE CITY OF LEWISTON.
- 2) ALL EXISTING LIVE SEWERS SHALL BE KEPT IN SERVICE AT ALL TIMES. PROVISIONS SHALL BE MADE FOR DISPOSAL OF SEWAGE FLOW IF ANY EXISTING SEWERS ARE DAMAGED. DAMAGE TO EXISTING SEWERS SHALL BE REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY, TO A CONDITION EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO THE DAMAGE.
- 3) SEWER MAIN SHALL BE LAID ONLY IN DEDICATED STREETS OR IN EASEMENTS WHICH HAVE BEEN GRANTED AND ACCEPTED BY THE CITY OF LEWISTON.
- 4) SEWER PIPES SHALL BE P.V.C. POLYVINYL CHLORIDE PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 3034 SDR 35 OR ASTM F 799. JOINTS FOR P.V.C. PIPE SHALL CONFORM TO ASTM D 3212 USING RESTRAINED GASKETS CONFORMING TO ASTM F477. FITTINGS FOR P.V.C. PIPE SHALL BE INJECTION MOLDED TEES OR FACTORY SOLVENT CEMENTED SADDLE TEES.
- 5) SEWER LINE CONNECTIONS TO TRUNKS, MAINS, LATERALS, OR SIDE SEWERS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
- 6) ALL WORK INVOLVED IN CLEANING AND TESTING SEWER LINES BETWEEN MANHOLES OR RODDING INLETS AS REQUIRED HEREIN SHALL BE COMPLETED WITHIN FIFTEEN DAYS AFTER BACKFILLING OF SEWER LINES AND STRUCTURES. ANY FURTHER DELAY WILL REQUIRE THE WRITTEN CONSENT OF THE ENGINEER.
- 7) ALL SANITARY SEWER LINES SHALL BE INSPECTED BY THE USE OF A TELEVISION CAMERA BEFORE FINAL ACCEPTANCE BY THE CITY OF LEWISTON.
- 8) SEWER LINES SHALL BE AIR TESTED WITH A PRESSURE 4 PSI GREATER THAN AVERAGE GROUND WATER PRESSURE THAT MAY SUBMERGE THE PIPE. ALLOW A TWO MINUTE STABILIZATION TIME. AIR LOSS SHALL NOT EXCEED A TOTAL RATE OF 2 CFM OR 0.0030 CFM PER SQUARE FOOT OF INTERNAL PIPE SURFACE, WHICHEVER IS GREATER. ENGINEER OF RECORD SHALL WITNESS THE TEST.
- 9) SANITARY SEWER STUBS SHALL HAVE THEIR TERMINATION'S PERMANENTLY MARKED WITH A 5" STEEL FENCE POST, FOR EASE OF FUTURE LOCATION (PER CITY OF LEWISTON STANDARD DRAWING 5-T-1A).
- 10) SEWER MANHOLES SHALL BE CONSTRUCTED IN CONFORMANCE WITH CITY OF LEWISTON STANDARD DRAWING S-3. USE NON-SHRINK GROUT OR GASKETED MANHOLE COUPLERS FOR MANHOLE PIPE CONNECTIONS.
- 11) 'TIE-INS' TO EXISTING MANHOLES SHALL INCLUDE THE CONSTRUCTION OF NEAT, NEW, WATERTIGHT INVERTS, AS APPROVED BY THE CITY ENGINEER.
- 12) FINAL ADJUSTMENT AND GROUTING OF THE SANITARY SEWER AND STORM DRAIN MANHOLE RINGS SHALL BE DONE BY THE PAVING CONTRACTOR.

## STORM DRAINAGE NOTES

- 1) STORM DRAIN MAINS SHALL BE INSTALLED BY CONTRACTORS W/ EXPERIENCE INSTALLING PUBLIC STORM DRAIN MAINS AND APPROVED BY THE CITY OF LEWISTON.
- 2) ALL EXISTING LIVE STORM DRAINS SHALL BE KEPT IN SERVICE AT ALL TIMES. PROVISIONS SHALL BE MADE FOR DISPOSAL OF STORM FLOW IF ANY EXISTING STORM DRAINS ARE DAMAGED. DAMAGE TO EXISTING STORM DRAINS SHALL BE REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY, TO A CONDITION EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO THE DAMAGE.
- 3) STORM DRAIN MAIN SHALL BE LAID ONLY IN DEDICATED STREETS OR IN EASEMENTS WHICH HAVE BEEN GRANTED AND ACCEPTED BY THE CITY OF LEWISTON.
- 4) STORM DRAIN PIPES SHALL BE ADS N-12 COLLECTION PIPE NOMINAL SIZES 4-36 INCH DIAMETER AND SHALL MEET OR EXCEED ALL THE REQUIREMENTS OF AASHTO M 252 OR AASHTO M 294, CURRENT EDITION.
- 5) THE NOMINAL SIZE FOR THE PIPE AND FITTINGS IS BASED ON THE NOMINAL INSIDE DIAMETER OF THE PIPE. CORRUGATED FITTINGS MAY BE EITHER MOLDED OR FABRICATED BY THE MANUFACTURER. FITTINGS SUPPLIED BY MANUFACTURERS OTHER THAN THE SUPPLIER OF THE PIPE SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE PROJECT ENGINEER.
- 6) STORM DRAIN LINE CONNECTIONS TO TRUNKS, MAINS, LATERALS, OR SIDE STORM DRAINS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
- 7) FINAL ADJUSTMENT AND GROUTING OF THE STORM DRAIN MANHOLE RINGS SHALL BE DONE BY THE PAVING CONTRACTOR.
- 8) INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM RECOMMENDED PRACTICE D 2321, OR AS SHOWN ON THE PROJECT PLANS.
- 9) A MANUFACTURER'S CERTIFICATION THAT THE PRODUCT COMPLETS WITH THE REQUIREMENT OF THE APPLICABLE SPECIFICATION SHALL BE FURNISHED TO THE PROJECT ENGINEER UPON REQUEST.

## WATER NOTES

- 1) ALL WATER SYSTEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH IDAPA AND ALL STATE CODES FOR PUBLIC DRINKING WATER SYSTEMS MUST BE FOLLOWED COUPLED WITH THE CITY OF LEWISTON WATER STANDARDS.
- 2) WATER MAINS SHALL BE INSTALLED BY CONTRACTORS WITH EXPERIENCE INSTALLING PUBLIC WATER MAINS AND APPROVED BY THE CITY OF LEWISTON.
- 3) MAIN WATER LINES MUST BE LOOPED AND PLACEMENT SHALL AVOID EASEMENTS EXCEPT WHEN NECESSITATED BY LAND ENVIRONMENT. EASEMENTS SHALL BE A MINIMUM OF 20'. WATER LINES SHALL BE OFFSET IN THE EASEMENT.
- 4) WATER PIPE SHALL BE 8" P.V.C. CLASS 150 (MINIMUM) CONFORMING TO AWWA STANDARD C-900.
- 5) WATER LINE FITTINGS SHALL BE CAST IRON OR DUCTILE IRON CONFORMING TO AWWA STANDARD C153.
- 6) PRESSURE REDUCING VALVES ARE REQUIRED ON ALL SERVICE LINES.
- 7) SERVICE LINES TO THE METERS SHALL BE "K" COPPER. DEVELOPER SHALL INSTALL THE SERVICE LINE AND METER SETTING TO INCLUDE ALL MATERIALS EXCEPT THE METER WHICH SHALL BE PROVIDED BY THE CITY. METERS SHALL BE PLACED TO AVOID CONFLICT WITH OTHER UTILITIES DRIVEWAY LOCATIONS, AND SHALL BE IN THE RIGHT OF WAY.
- 8) BACKFLOW ASSEMBLIES ARE REQUIRED ON ALL IRRIGATION SYSTEMS AND OTHER IDENTIFIED HAZARDS SUCH AS DDVCA. BACKFLOW ASSEMBLIES SHALL BE INSTALLED AS PER STANDARDS AND SHALL BE ACCESSIBLE TO PERMIT TESTING.
- 9) HYDRANTS SHALL BE SPACED AT A MAXIMUM OF 500' IN RESIDENTIAL AREAS AND 300' IN COMMERCIAL AREAS. ALL HYDRANTS SHALL HAVE VALVES ON THE HYDRANT BRANCH LINE. HYDRANTS SHALL HAVE TWO, 2 1/2" PORTS AND ONE, 4 1/2" STEAMER PORT.
- 10) ALL HYDRANTS SHALL BE THRUST BLOCKED OR RETAINED AND ALL FITTINGS SHALL BE THRUST BLOCKED. THRUST BLOCKS SHALL CONFORM TO CITY OF LEWISTON STANDARD DETAIL 4-4.
- 11) FIRE HYDRANTS SHALL CONFORM TO AWWA C502 AND SHALL BE WATEROUS PACER OR MUELLER CENTURIAN. HYDRANTS SHALL BE SO CONSTRUCTED THAT THE DIRECTION OF PUMPER CONNECTION MAY BE ROTATED TO FACE THE ROADWAY. A SIX (6) INCH MECHANICAL JOINT CONNECTION WITH LUGS AND SHACKLE RODS IS TO BE USED. A GATE VALVE SHALL BE INSTALLED AT EACH HYDRANT AS SHOWN ON STANDARD DETAIL 4-12.
- 12) ALL HYDRANTS USED FOR THIS PROJECT SHALL BE PROVIDED WITH A 5 INCH INTERGRAL HYDRANT STORZ ADAPTOR. ALL NOZZLES SHALL BE PROVIDED WITH THE STORZ BLIND CAP WITH SUCTION SEAL AND AIRCRAFT CABLE.
- 13) HYDRANTS SHALL HAVE A MINIMUM 8" SUPPLY LINE.
- 14) PRESSURE REDUCING PITS MAY BE REQUIRED DUE TO ELEVATION, DIFFERENT PRESSURE ZONE TIE-INS, ETC.
- 15) GATE VALVES SHALL CONFORM TO AWWA C 515-99 RESILIENT SEATED GATE VALVES FOR WATER AND SEWAGE SYSTEMS AND SHALL BE IRON BODY BRONZE MOUNTED, DOUBLE DISC WITH BRONZE WEDGING AND O-RING STUFFING BOX.
- 16) VALVES SHALL BE PLACED ON ALL BRANCHES OF TEES OR CROSSES. A VALVE IS REQUIRED AT A MINIMUM OF EVERY 1000' OF MAIN WATER LINE.
- 17) THE CONTRACTOR SHALL PROVIDE 4 FT MIN. COVER ON ALL WATER LINES AND PROVIDE 18" MINIMUM VERTICAL CLEARANCE BETWEEN POTABLE WATER LINE AND NON-POTABLE WATER LINE CROSSINGS. FOR ALL CROSSINGS LESS THAN 18" OF VERTICAL CLEARANCE, NON-POTABLE OR POTABLE LINE MUST BE CASED IN A LARGER DIAMETER CARRIER PIPE FOR A HORIZONTAL DISTANCE OF TEN FEET ON BOTH SIDES OF THE CROSSING, WITH NO JOINTS, AS SHOWN ON CITY OF LEWISTON STANDARD DETAIL 4-1.
- 18) PROPOSED WATER LINES SHALL BE HYDROSTATICALLY TESTED AS PER AWWA C600-93. TESTS SHALL BE 1 1/2 TIMES THE HIGHEST WORKING PRESSURE, WITH A MINIMUM OF 150 PSI. PRESSURE SHALL BE HELD FOR 2 HOURS WITH NO DROP IN PRESSURE. ENGINEER OF RECORD SHALL WITNESS TEST. THIS CERTIFICATION SHALL BE REPORTED TO THE CITY ENGINEER. THE CITY ENGINEER WILL INFORM THE WATER DIVISION. THE WATER DIVISION WILL CONTACT THE CONTRACTOR TO SCHEDULE WATER MAIN DISINFECTION AND BACTERIAL TESTING.
- 19) TWO CONSECUTIVE NEGATIVE BACTERIAL TESTS 24 HOURS APART MUST BE COMPLETED BEFORE THE WATER LINE CAN BE CONNECTED TO THE CITY SYSTEM. THIS CREATES A MINIMUM OF 48 HOURS AFTER CHLORINATION BEFORE THE LINE CAN BE CONNECTED. THE WATER DIVISION, TO MAINTAIN THE INTEGRITY OF THE SYSTEM, SHALL WITNESS THE FINAL TIE-IN. THE CITY WILL CHARGE A FEE FOR CHLORINATION AND BACTERIAL TESTING.
- 20) DISINFECTING OF WATER PIPES SHALL BE IN ACCORDANCE WITH AWWA C-651-92. ISOLATE NEW PIPE FROM EXISTING SYSTEM TO PREVENT POTENTIAL CROSS-CONNECTION. ENGINEER OF RECORD SHALL WITNESS TEST.
- 21) A FIRE INSPECTOR SHALL MUST WITNESS A FIRE LINE PRESSURE TEST. FIRE LINE TESTS SHALL BE AT 200 PSI.
- 22) THE WATER DIVISION WILL ONLY TAP FIRE LINE CONNECTIONS AND THE OWNER WILL FURNISH ALL MATERIALS AND LABOR INCLUDING THRUST BLOCKING. FIRE LINES WILL REQUIRE BACKFLOW DETECTOR CHECK ASSEMBLIES.
- 23) THE CONTRACTOR SHALL PROVIDE LOCATE WIRE AND BURY TAPE IN PVC WATER MAIN TRENCH PER CITY OF LEWISTON STANDARD 1-8.
- 24) IF COMBUSTIBLE BUILDING MATERIALS ARE USED (INCLUDING FRAMING) THE WATER SUPPLY (INCLUDING MAINS AND HYDRANTS) SHALL BE DESIGNED, INSTALLED, TESTED AND APPROVED BY THE FIRE DEPARTMENT PRIOR TO STOCKPILING COMBUSTIBLE BUILDING MATERIALS.
- 25) WATER SUPPLY SYSTEMS FOR PHASED CONSTRUCTION SHALL PROVIDE REQUIRED FIRE FLOWS AT ALL PHASES.
- 26) FENCES, PLANTS, TREES AND/OR SHRUBS SHALL NOT BE PLACED OR KEPT NEAR FIRE HYDRANTS. FIRE DEPARTMENT INLET CONNECTIONS OR FIRE PROTECTION SYSTEM CONTROL VALVES IN A MANNER THAT WOULD PREVENT SUCH EQUIPMENT FROM BEING IMMEDIATELY DISCERNIBLE BY THE FIRE DEPARTMENT. IFC 508.5.4
- 27) WATER LINE CONNECTIONS TO MAINS AND LATERALS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.

### CITY OF LEWISTON'S NEW WATER MAIN CONSTRUCTION PROCEDURES:

- 1) NEW WATER MAINS THAT ARE INSTALLED, WHETHER EXPANDING A DISTRIBUTION SYSTEM OR ADDING A FIRE LINE, MUST BE PHYSICALLY SEPARATED FROM THE EXISTING SYSTEM UNTIL SATISFACTORY FLUSHING, PRESSURE TESTING, DISINFECTION, AND BACTERIOLOGICAL SAMPLING HAS BEEN COMPLETED. THE NEW WATER MAIN MUST BE CONSIDERED CONTAMINATED AND THE CHLORINE CONCENTRATION USED FOR DISINFECTION (MINIMUM 25 mg/L) MAKES THE WATER NON-POTABLE.
- 2) THE CITY WILL PERFORM THE TAP ONLY FOR THESE NEW WATER MAIN CONNECTIONS AT A RATE DETERMINED ON EACH INDIVIDUAL TAP. THE CONTRACTOR TO COMPLETE THIS WORK WILL FURNISH ALL MATERIALS, LABOR AND SUPPLIES.
- 3) AN APPROVED BACKFLOW PREVENTION ASSEMBLY IS REQUIRED ON THE SUPPLY WATER LINE WHEN FILLING THE NEW WATER MAIN DURING DISINFECTION AND FLUSHING. THIS PREVENTS THE NEW MAIN'S CONTAMINATED WATER FROM ENTERING THE EXISTING SYSTEM. THE BACKFLOW PREVENTION ASSEMBLY AND SUPPLY PIPING MUST BE REMOVED DURING HYDROSTATIC PRESSURE TESTING.
- 4) AFTER SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE OBTAINED FROM THE NEW WATER MAIN, A SECTION OF CONNECTING PIPE MUST BE INSTALLED BETWEEN THE NEW SECTION AND THE EXISTING SYSTEM. THE CONTRACTOR WILL BE RESPONSIBLE FOR THIS FINAL CONNECTION AND THE CITY WILL INSPECT THIS WORK. BEFORE INSTALLATION, THE INTERIORS OF ALL PIPES AND FITTINGS USED TO MAKE THE CONNECTION MUST BE SWABBED OR SPRAYED WITH A 1% HYPOCHLORITE SOLUTION.
- 5) THE CONTRACTOR IS RESPONSIBLE FOR FLUSHING AND PRESSURE TESTING THE NEW WATER MAIN. CONTACT THE PLUMBING INSPECTOR AT 208-746-1319 FOR A PRESSURE TEST OR THE WATER DIVISION AT 208-743-7461. THESE TESTS MUST BE COMPLETED AND APPROVED BEFORE THE WATER DEPARTMENT WILL BEGIN DISINFECTION PROCEDURES.
- 6) UPON COMPLETION AND APPROVAL OF THE PRESSURE TEST BY THE PROJECT INSPECTOR, WHICH SHALL BE A PROFESSIONAL ENGINEER INSPECTING ALL WATER MAIN PROJECTS AND WHICH SHALL BE A FIRE DEPARTMENT INSPECTOR AND A CITY PLUMBING INSPECTOR FOR ALL FIRE LINE CONNECTIONS, THE INSPECTOR WILL NOTIFY THE CITY ENGINEERING DIVISION. THE ENGINEERING DIVISION WILL THEN NOTIFY THE CITY WATER DIVISION TO PROCEED WITH THE COORDINATION FOR THE DISINFECTION AND SAMPLING OF THE NEW WATER MAIN. NOTE: NO HOSE OR FIRE HYDRANT SHALL BE USED IN COLLECTION OF SAMPLES. A COMBINATION BLOW-OFF AND SAMPLING TAP IS REQUIRED. THE DISINFECTION AND BACTERIOLOGICAL TESTING OF THE NEW MAIN SHALL ADHERE TO AWWA STANDARDS (AWWA C651-99).
- 7) THE NUMBER OF WATER SAMPLES TAKEN WILL DEPEND UPON THE LENGTH AND NUMBER OF BRANCHES OF THE NEW MAIN BUT A MINIMUM OF TWO SAMPLES MUST BE TAKEN. THESE SAMPLES SHALL BE TAKEN FROM EACH END OF THE NEW WATER MAIN. TWO CONSECUTIVE SAMPLES AT LEAST TWENTY-FOUR HOURS APART MUST BE REPORTED AND DISPLAY NEGATIVE BACTERIOLOGICAL RESULTS. RESULTS FROM BACTERIOLOGICAL TESTING WILL BE AVAILABLE APPROXIMATELY 26 HOURS AFTER THE LAST SAMPLE IS TAKEN. THE CITY WILL CHARGE A FEE FOR CHLORINATION AND BACTERIAL TESTING.



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1	4-01-14	JDM	CITY OF LEWISTON PLAN REVIEW #014-00005 - 03-20-14

CONSTRUCTION NOTES  
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DRAWN BY:	JDM	CHECKED BY:	EFH
DESIGNED BY:	EFH		
DATE:	02/10/14		
LAST REV:	04/01/14		
PROJECT NO:	13-0112		
SHEET NO:	2	OF	4