

PUBLIC WATER SUPPLY DISTRICT NO. 2
OF
ST. CHARLES COUNTY, MISSOURI

GUIDELINES FOR WATER AND SEWER
SYSTEM EXTENSIONS

June 2004

Revised November 2005

GUIDELINES

1. The initial contact with the District shall be made by means of a letter, a meeting or preferably a preliminary set of plans showing the layout of the proposed development and how it is proposed for the development to be served. Once it is established that proper service is available to the development, or what improvements are necessary to provide proper service to the development, work can begin on preparing final plans for water main and/or sewer extensions for approval.
2. All water main extensions shall be done in accordance with the Standard Water Distribution Specifications of the District as approved by the Missouri Department of Natural Resources (MDNR) and the plans shall be approved by MDNR. All sanitary sewer extensions shall be in accordance with the Standard Sewer System Specifications of the District and the plans and specifications shall be approved by MDNR. Approval by MDNR for water and/or sewer extensions shall consist of a written construction permit.
3. Final plans submitted for approval of water system extensions, sewer system extensions, or both, shall consist of one set of “complete” plans, which shall include a location map, the layout sheet(s) of the subdivision or development showing water mains, sanitary sewers, utility easements, streets, lots, storm sewers, sidewalks, etc. that will influence the proper location of the utilities, as well as all details. This set of plans shall also include the grading plan and storm and sanitary sewer profiles. On the cover sheet of the plans, the jurisdictions for both water and sewer, as well as for all other utilities shall be listed. On the profile sheets, the crossings by a water main of any storm or sanitary sewer shall be shown with a clear indication of elevations to establish the proper separation of water mains and sewers. In addition, the final plan submittal shall include six (6) additional sets of the layout sheet (s) of the development. Four (4) of these layout plans will be returned marked “Approved”, “Approved as noted” or “Revise as noted and resubmit”. Two sets are to be sent to MDNR for approval, one set is for the contractor and one set is to be retained by the design Engineer. All plans SHALL be on 24” x 36” sheets.
4. Each sheet of all plans submitted must be signed and sealed by a Missouri Registered Professional Engineer.
5. The plans shall show all other known proposed underground facilities, such as storm and sanitary sewers, including any respective easements, along with all above ground features that can affect the locations of the proposed water mains or sewers and appurtenances.
6. The plans shall clearly show the locations of all proposed water mains and appurtenances and/or all proposed sewers, lift stations, air release valves, manholes and all other appurtenances relative to the sewer system. All new water mains and sewers shall not be under street pavement or sidewalks except at crossings.

Fire hydrants shall normally be located 1'-6" to 2'-6" from the edge of the pavement. Valves in water systems shall be spaced at not more than 500' intervals and a minimum of two valves shall be provided at tee intersections and a minimum of three valves shall be furnished at cross intersections.

All fittings required to provide proper clearances between utilities and to negotiate curves shall be shown and accurately located and dimensioned on the plans.

7. Water mains and sanitary sewers shall be located in 10' - 15' wide easements adjacent to the street rights of way unless special permission is granted by the District to install water mains or sewers in other utility easements. For short cul-de-sacs, water mains may be installed in street rights of way if necessary to provide clearance from other utilities. Separation between water mains and sewers shall be as called for by MDNR requirements, and the separation between water mains and sanitary sewers and all other utilities, such as storm sewers, gas mains, buried electrical, telephone and TV cables or conduits shall be a minimum of two (2') feet.
8. After the plans for any water or sewer extensions are approved by the District, the Developer or his Engineer shall only then, after District approval, submit the plans to MDNR for approval and issuance of a construction permit. The District's Water Main Specifications shall be referred to on the plans by means of a note reading as follows: "All Water System Extensions shall be in accordance with the Water Distribution System Specifications of Public Water System No. 2 of St. Charles County, dated June, 2004, revised November, 2005, and as approved by MDNR under Review No. 61996-04R".
9. Prior to the beginning of construction, the following must be submitted to the District:
 - a. A construction permit issued by MDNR.
 - b. Other permits required for construction in State or County Highways.
 - c. An executed Extension Agreement with the District.
 - d. The name of the Contractor who will actually perform the construction along with his address, telephone number and the name of his office and field Superintendents.
 - e. A certificate of insurance, including XCU coverage. The minimum limits of insurance required are as shown on the attached Exhibit A. Public Water Supply District No. 2 of St. Charles County, Missouri and Alliance Water Resources, Inc. shall be named as certificate holders and shall be additionally insured.
 - f. The District must be given a minimum of one week's notice before the start of any construction. A pre-construction conference may be required by the District and if this is required, attendance by the Contractor's office and field superintendent is mandatory.
10. Field staking of the project shall be provided by the Developer's Engineer/Surveyor and this work must be supervised by a Missouri Registered Land Surveyor. The stakes for sewers shall consist of a 2" x 2" hub plus a 1" x 2" witness lath. For water mains, only 1" x 2" laths will be required. Stakes shall also be placed for all water mains or sewers to indicate the road right of way or the limits of the easements at a maximum spacing of 100 feet.

The stakes shall be placed on line, or on a fixed offset as requested by the contractor. For water mains and sewer force mains, stakes shall be placed for all fittings, valves, fire hydrants and other appurtenances as well as along the water mains and sewer force mains at intervals not to exceed 100 feet. For gravity sewers, stakes shall be placed for each manhole and for each proposed wye for service lines. There shall be furnished to the District "cut sheets" for all stakes placed except for the sanitary sewer wyes. The cuts shown shall be the distance from the existing ground surface to 6" below the bottom of the water main, sewer or force main. Where there is future grading to be done, the cuts shall be adjusted to allow for the finished cover over water mains to be between 3'-6" to 6'-0" with the exception that all water mains and sewer force mains shall have a minimum cover of 3'-6" in the initial installation. The cuts shall also be adjusted such that all valves and manholes will be at finished grade and fire hydrants will be at proper heights. All stakes placed shall be clearly marked to relate to the cut sheets furnished and to identify items such as valves, fire hydrants, manholes, etc. In lieu of providing "cut sheets", the "cuts" may be marked on the laths as placed in the field.

11. Inspection by the District shall be only part time to help to insure that the construction is proceeding in the proper manner. The Developer and/or his Engineer shall have complete responsibility to insure that the project is properly completed in accordance with the approved plans and applicable specifications. The presence of a District inspector in no way relieves the Developer or his Engineer of this responsibility. Field changes shall be made only with the specific permission of the District. If defective material is found on the job site by the District's inspector, it shall be promptly removed from the site by the Contractor.
12. As the work progresses, the Contractor must have at all times a copy of the project plans stamped "Approved" by the District. If any other plans are being used, work shall be suspended immediately. The Contractor shall keep one clean set of plans upon which he shall note all measurements taken and changes made and shall produce a written copy of "As Built" plans. When the project is completed, these plans shall be promptly submitted to the District and shall become the District's property.
13. All testing of water systems and sewer systems shall be done in accordance with the requirement of the District and MDNR and shall be done in the presence of the District's inspector. Copies of any and all bacteriological tests for water systems performed by certified laboratories shall be submitted without delay to the office of the District Engineer.
14. Only when all work and testing is completed to the satisfaction of the District, the District may then allow the facility to be placed in service. No connections shall be made to the new system until the following items are provided:
 - a. The new water and/or sewer facilities are conveyed to the District by means of a Bill of Sale.
 - b. A copy of the plans in AutoCad format are provided to the District in the form of a CD or by e-mail. For subdivisions, a copy of the subdivision plat as recorded shall be provided.

- c. A hard copy of the recorded subdivision plat and/or hard copies of all related and recorded easement agreements. In the event the developer has not recorded a subdivision, a “recordable plat” may be submitted. A “recordable plat” shall be identical to a recorded plat and must show all streets, lot lines and easements and be signed by the owner with his signature notarized and be signed and sealed by the Missouri Registered Land Surveyor who prepared the plat.
 - d. The security as stated in the Extension Agreement and as stated below in Item 15.
15. The Developer is reminded that he is responsible under the terms of the Extension Agreement for all inferior material or workmanship, and for any activities by him or anyone working for him that create conditions that would hinder maintenance to the newly installed water and/or sewer systems, for a period of three (3) years after final completion and approval of the project. Any defects or deficiencies in materials and/or workmanship so noted within the three (3) years of completion and acceptance (date of bill of sale) are required to be corrected by the Developer and at the Developers sole cost.
 16. For certain developments, “private” water mains and sanitary sewers are allowed. It is to be clearly understood that any “private” water main or sewer shall be owned and maintained by the Owner(s) of the property where such water mains and sewers lie and that “private” water mains and sewers may serve only customers on this property. No other customers on other properties may be served from these facilities.
 17. District Specifications for Water Distribution Systems, Sewer Systems and Sewer Lift Stations along with all forms required, such as Water or Sewer Extension Agreement forms and Bill of Sale forms may be found on the District’s website at www.waterdistrict2.com. Included also are sample forms for Utility Easement, Release of Easement Rights and Letter of Credit.

EXHIBIT A - INSURANCE REQUIREMENTS

GENERAL LIABILITY (INCLUDING XCU)

Each Occurrence	\$2,000,000
Damage to Rental Premises (Each Occurrence)	\$ 50,000
Medical Expense (Any one person)	\$ 5,000
Personal & Adv Injury	\$2,000,000
General Aggregate	\$2,000,000
Products - Comp/Op Agg	\$2,000,000
Bodily Injury & Property Damage	\$ 300,000

AUTOMOBILE LIABILITY

Combined Single Limit (Each Accident)	\$2,000,000
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OR

Bodily Injury per Person	\$ 500,000
Bodily Injury (Per Accident)	\$2,000,000
Property Damage (Per Accident)	\$ 500,000

EXCESS/UMBRELLA LIABILITY

Excess + General Liability (each Occurrence)	\$3,000,000
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WORKERS COMPENSATION AND EMPLOYER'S LIABILITY

Statutory Limits

	For Subdivisions	For District Projects
E.L. Each Accident	\$500,000	\$2,000,000
E.L. Disease - Each Employee	\$500,000	\$2,000,000
E.L. Disease - Policy Limit	\$500,000	\$2,000,000

OWNER'S PROTECTIVE LIABILITY (NOT NEEDED FOR SUBDIVISIONS)

Bodily Injury & Property Damage

CSL for Each Person	\$ 300,000
CSL for Each Occurrence	\$2,000,000