



## WATER PLAN REVIEW CHECKLIST

*(Required for any development which extends or installs public water mains.)*

**Site Plan Number** (if applicable):

**Date:** \_\_\_\_\_ **Project Name:** \_\_\_\_\_

**Project Address:** \_\_\_\_\_

**Owner Name:** \_\_\_\_\_

**Owner Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_ **Owner Email:** \_\_\_\_\_

**Project Description:** \_\_\_\_\_

### WATER PLANS REVIEW CHECKLIST

*This checklist is intended as a guide to the critical items required by the State of Tennessee, and the City of Maryville Water & Sewer Department. The Engineer is responsible for being familiar with and meeting the design standards of the state and city. It is strongly suggested that a pre-design conference be scheduled with a preliminary development layout including topography and water features available for the conference. Each element presented in this list shall be checked "Yes", as applicable to the site. Checks placed under the "No" column shall be justified in a written statement attached to this checklist. Elements of the plan that are not applicable for the site shall be marked as "N/A".*

#### 1. General Plan Requirements for Each Sheet.

- Yes  No  N/A a. Plan sheets sized 24" x 36"
- Yes  No  N/A b. Engineer name, address, email address and phone number
- Yes  No  N/A c. Plans stamped and sealed by a licensed engineer
- Yes  No  N/A d. Date of plan and date of any revision(s) included
- Yes  No  N/A e. Revisions tabulated on re-submittals. Revision-clouds used to clearly depict revisions

#### 2. Cover Sheet.

- Yes  No  N/A a. Developer and property owner name, address, email address and phone number
- Yes  No  N/A b. Servicing utility name, address and phone number on first sheet of plans. (City of Maryville Water & Sewer Department, 332 Home Avenue, Maryville, TN 37801, (865) 273-3300)
- Yes  No  N/A c. Vicinity map at not less than 1" = 2000' scale including: North arrow, adjacent roadways, site boundary lines, and latitude/longitude
- Yes  No  N/A d. Symbols Legend
- Yes  No  N/A e. Name of water system and county in which it is located

#### 3. Plan Profile Sheet(s).

- Yes  No  N/A a. Maximum allowable plan/profile sheet scale of 1" = 100' horizontal (plan and profile must match) and 1" = 10' vertical
- Yes  No  N/A b. Plan and profile shall be on the same sheet and oriented in the same direction as plan view



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- Yes    No    N/A   c. Profile stationing corresponds with respective plan view stationing  
 Yes    No    N/A   d. North Arrow

**All plan-profile sheets clearly show:**

- Yes    No    N/A   e. Property boundaries  
     Lot lines and lot numbers  
     Locations of streets and right-of-way lines
- Yes    No    N/A   f. Existing topographic contours in GRAYSCALE line style including trees within 25' of centerline of proposed water main
- Yes    No    N/A   g. All existing utility poles and underground utilities with sizes shown in GRAYSCALE. All locations were determined by a field survey
- Yes    No    N/A   h. Utility access or other easements (existing and proposed water easements)
- Yes    No    N/A   i. Proposed topographic contours presented at a 2' interval in a BOLD line style within 25' of centerline of proposed water main
- Yes    No    N/A   j. All proposed utility poles and underground utilities with sizes shown with bold or shaded lines
- Yes    No    N/A   k. Locations of all special features
- Yes    No    N/A   l. At least one benchmark is provided, elevation is included. Benchmark is to be maintained through the completion of the project.
- Yes    No    N/A   m. Locations of all existing or planned structures below and above ground which might interfere with proposed construction (water/sewer/gas mains, stormwater pipes, etc.)
- Yes    No    N/A   n. Following note is provided – "All existing utility structures shall be brought into conformance with finish grade in accordance with the Rules, Rates, and Policies of the City of Maryville Water and Sewer Department prior to acceptable of the project. Contact Stacy Frye (865) 273-3380 for inspection of new installation or for any adjustment."
- Yes    No    N/A   o. Following note is provided - "THESE PLANS ARE BASED ON AN ACTUAL FIELD SURVEY. THE MEASUREMENTS GIVEN AND LAYOUT SHOWN ARE SUFFICIENT FOR ORDERING OF MATERIALS AND ACTUAL FIELD LAYOUT OF THIS PROJECT. THE CONTRACTOR SHALL NOTIFY TENNESSEE ONE CALL AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION FOR UTILITY LINE LOCATES. ANY DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND THE ACTUAL FIELD LOCATIONS SHALL BE IMMEDIATELY COMMUNICATED TO THE DESIGN ENGINEER AND THE CITY OF MARYVILLE, WATER AND SEWER DEPARTMENT."
- Yes    No    N/A   p. 100' stationing is shown along centerline of water main, including major and minor ticks
- Yes    No    N/A   q. Proposed Water Mains
  - Yes    No    N/A   i. Location, size and material of all water lines relative to the project- both existing and for construction (City of Maryville uses Class 51 Cement Mortar Lined Ductile Iron Pipe for all new construction- older pipes may be of different materials, please check with WQC engineering for existing pipe materials)
  - Yes    No    N/A   ii. Location of proposed water lines in relation to roads, bridges, and other identifiable objects



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- |   |   |
|---|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | iii. Minimum pipe size is 6" if gridded with maximum leg length of 800', otherwise all pipe shall have a minimum diameter of 8"   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | iv. The cover shall not be less than 36" for 6" and 8" pipe, 42" for 10" and 12" pipe and 48" for pipe larger than 12".   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | v. Include the radius of any turns where a joint deflection is to be used to curve the water line. For 8" pipe, the maximum deflection is 5 degrees/per joint. For curves tighter than this please include appropriate bends as part of the plans.                                    |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | vi. Plan & profile view shall be drawn for water lines 6" in diameter or larger. Existing lines shall be field located whenever reasonable, and the source of the utility locations noted on the plans.   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | vii. Dead ends shall be minimized and where dead end distributor pipes occur, a fire hydrant shall be provided  |
| r. Proposed Appurtenances   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | i. Location and stationing of valves, fire hydrants, tees, reducers/enlargers, bends, and other appurtenances   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | ii. Location of proposed service connection(s) - City of Maryville sets individual taps on the same side of the road as the water line and double settings on the opposite side of the road from the water line. Taps should be spaced to avoid conflict with sanitary sewer laterals |

### 4. Engineering Calculations (Separate Attachment).

- |   |   |
|---|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Hydraulic profile or data and computations showing hydraulics or proposed additions to the distribution system. (NOTE- City of Maryville Minimum standards are 750 GPM fire flow with 30 PSI residual pressure- this exceeds the State of Tennessee minimums. The City of Maryville also requires the lowest and highest static residual pressure to be calculated and shown on the plans.) |
|---|---|

### 5. Details.

- |   |   |
|---|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | a. Inclusion of City of Maryville Detail sheets or similar relevant detail sheets. Details must match City of Maryville standards.    |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | b. Detailed drawings of all stream crossings- reference Chapter 2 of State of Tennessee regulations for stream crossing requirements. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | c. Detail drawings of special joints, appurtenances, etc.   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | d. Details are clear and legible  |



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### SUBMITTED BY:

**Print Name:** \_\_\_\_\_

**Company Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Signature:** \_\_\_\_\_