

Kansas Sanitary Sewer Extension Applications

Most Common Deficiencies

The applications and associated documents submitted to KDHE for sanitary sewer extension permits occasionally include deficiencies which result in delaying the permit issuance process. KDHE has developed a list of common deficiencies, which are presented in this document, to help applicants and design engineers detect and avoid deficiencies which delay permit issuance. A copy of the application for sewer extension permit may be downloaded from the KDHE Municipal Programs web-site at the following url:

<http://www.kdheks.gov/muni/index.htm>

Additionally, a current copy of this document can also be downloaded from this website for review prior to submission of the application and associated documents, e.g., plans and specifications. In the event of questions regarding the sewer extension permit application process or any of the deficiencies listed in this document, you may contact KDHE at either 785.296.1996 or 785.296.5537.

Deficiencies List

The following deficiencies were most commonly noted in the submitted project documents during the period of the last 3-6 months as outlined in the KDHE Minimum Standards of Design for Water Pollution Control Facilities.

Application:

- NPDES number has not been provided or is incorrect.
- A signature of an authorized official has not been provided.
- Engineer's estimate of construction cost has not been provided.
- Present flow at the treatment facility has not been provided.
- Questions concerning the downstream system have not been answered.
- Average Daily and Peak flows for the proposed extension have not been indicated.
- Copies of the design flow calculations have not been provided.
- System Curve, and Pump Curve data has not been provided.
- Seal and signature of a Kansas Licensed Engineer is not affixed.
- Wastewater treatment facility does not have adequate capacity to accept the additional flows generated by this proposed project.

Construction Plans:

- All Plan Set sheets have not been sealed, signed and dated by a Kansas licensed engineer.
- Project Site Plan is not included within the project construction plans.
- Easements and Right of Ways have not been identified on site plan and/or plan and profile sheets.
- Proposed and/or existing water and storm sewer lines have not been indicated within the plan and profile sheets.
- Slope and length of pipe between manholes are not accurate.
- Slope of pipe is less than the KDHE minimum standard.
 - A letter from the city has not been provided requesting variance from the KDHE standard.
- Length of pipe between manholes is greater than the maximum distance indicated within the KDHE standards.
 - A letter from the city has not been provided that would indicate it has the equipment to maintain the length of pipe to be installed.
- Proposed sanitary sewer project does not appear to be connected to a downstream system.
 - A letter from the city has not been submitted indicating that the downstream sanitary sewers will be constructed prior to the occupation of the properties within the project area.
- Cover depth above the sanitary sewer lines are less than the KDHE standard.
 - Protective measures or acceptable pipe materials have not been indicated.
- Separation of sanitary sewer and water lines is less than the KDHE standard.
 - Protective measures have not been indicated.
 - Request for exception has not been provided.
- Plan and profile views do not contain the identical information.
 - Manhole designation differs.
 - Flow Line In/Out elevations differ.
 - Flow Line In/Out directions differ.
 - Top Rim elevation information differs.

Pump Stations & Force Mains:

- Detailed site plan of Pump Station has not been included within the project documents.
- Adequate protection from a 100-year flood has not been provided.
- Back Up power source and power supply transfer switch information has not been provided.
- System failure/malfunction alarm information has not been provided or is considered to be inadequate.
- High Water Alarm must be 0.50 or more below all influent flow line elevations.
- Seepage drain or pump has not been indicated for the dry well/valve vault.
- Wet well detention volume is inadequate to provide a minimum pump cycle time of 5 minutes or more.
- Wet well floor does not have a minimum slope of 1 to 1.75 to provide drainage to the suction area.
- Adequate ventilation has not been indicated within the submitted materials.
- The Force Main does not terminate at a manhole or other flow control structure when discharging to gravity sanitary sewer lines.

Technical Specifications:

- Approved technical specifications have not been referenced for this project.
- Specifications should contain enough information to address all installation concerns that may be encountered, and all testing measures and methods to insure an adequate and quality installation.
- Technical specifications do not address the installation and acceptance testing of Force Mains and Pump Stations.
- Technical Specifications reference the wrong municipality.
- Technical Specifications have not been sealed, signed and dated by a Kansas licensed engineer.
- Deflection testing has not been addressed.
- Separation of gravity sewers and water lines has not been addressed.
- Separation of sanitary sewer force mains and water lines has not been addressed.
- KDHE modifications to ASTM C478 for Pre-Cast manholes have not been included.