

City of Lawrence  
Utilities Department  
MEMORANDUM

January 5, 2011

**Subject** – Sanitary Sewer Service Delivery Information for Miller & Wells Acres

Sanitary Sewer

In 2002 Bartlett & West provided an evaluation, preliminary sanitary sewer collection system layout and construction costs to extend sanitary sewer service to the Riverside Business Park, Miller Acres and Wells Acres residential area and to redirect the Northfield Addition residential area sanitary sewer flow to the proposed Riverside Pump Station. As a result of this study the Riverside Pump Station (PS46) and associated Riverside Business Park and Northfield Addition gravity and pressure sewers were constructed.

The extension of gravity sewers from the existing Pump Station PS46 into the Miller and Wells Acres would require the installation of approximately 5410 linear feet of 8" gravity main, 20 manholes, and the installation of service connections to the existing homes. Some of the existing homes have been constructed with walkout basements and it is estimated that the gravity sewer lines would need to be constructed approximately 16 feet deep to accommodate these and similar future structures. The length of sanitary sewer necessary may be reduced based on the evaluation of depth and capacity of the existing Northfield Addition sanitary sewer along the eastern edge of the Wells Acres properties.

Other items to be defined include the financial participation by those in Miller and Wells Acres in the currently proposed sanitary sewers and the sanitary sewer facilities that have already been constructed including PS46. The timing of service connections also needs to be considered. If actual connection to the sanitary sewer system is allowed to proceed as existing septic systems fail low flows due to a lack of service connections could result in increased maintenance operations on the collection system until all those to be serviced are connected.

Ten (10) foot wide utility easements exist along the proposed sanitary sewer alignments. Overhead utilities currently occupy portions of these easements. Additional permanent and temporary construction easements may be required for the sanitary sewers. As all of the proposed easements would be within the Miller and Wells area no estimate for additional easements has been included. This is based on the property owners donating easement as opposed to being compensated and the compensation ultimately increasing the total costs associated with a benefit district to construct the sanitary sewer.

The extension of sanitary sewer service lines to each existing home has been included in the estimate below. However, no estimate has been included for the decommissioning of the existing septic systems.

Based on the system layout and recently bid City projects the current estimated cost of engineering and construction is \$900,000.00.