At the beginning of 2014 the department consisted of two personnel: an Engineering Technician and an Assistant City Engineer. In the spring the department hired an administrative assistant and an engineering technician, to replace the one that was retiring, bringing the department total to three people. The Engineering Department is responsible for numerous tasks related to the planning, design and upkeep of the city’s infrastructure. In 2014 the Engineering Department oversaw more than $2 million worth of contractual work in the design, inspection and construction of various projects throughout the city. Below is a breakdown of the various areas in which the department performed work during the year as well as the projects completed.

Plan and Permit Review:

A total of 8 plan reviews were performed during the year, ranging from commercial site plans like Family Dollar (6th and Jackson) to multifamily site plans like Spruce Suites Retirement Facility. The plan review process is followed up by onsite inspections throughout the building process to maintain compliance with city code.

A total of 55 right-of-way (ROW) permits were reviewed during the year with 24 of these resulting from a development agreement the city entered into with IdeaTek to install distributed antenna systems (DAS) throughout the city for the purpose of helping cellular providers boost their signal. By requiring everybody to fill out ROW permits it allows department staff to track work being done with in the city’s ROW and thus ensure that repairs are properly done to fully restore the ROW to preexisting conditions.

Utility Infrastructure:

The city’s utility infrastructure is made up of three different systems: the water distribution system, the sanitary sewer collection system, and the storm water collection system. The state requires two annual reports to be submitted related to these systems and their operations. The annual Water Usage Report is submitted to the Kansas Department of Agriculture in compliance with the city’s allotted water rights and reports the total consumption of water by the city as well as various breakdowns of that number. The annual Storm Water Report is submitted to KDHE in compliance with state and federal requirements for documentation and programing. Both reports are due every year by the end of February.

In 2014, the department worked on 4 utility related projects:
2. Development of a Valve Turning Program.
3. 9th Street Water Line Replacement.

The city purchased two new modules, Waterview and Sewerview, from Cartegraph for development into its asset management software program. The department has put a lot of time and effort into the development of quality data to be used within this program. As part of this development a valve turning program was created for the dual purpose of exercising all the valves in the city and collecting data on those valves for use with in the waterview program. The Public Works Department will begin this program in 2015. While the department has managed to do quite a bit of work within the program modules and GIS there still remains to be some work left to do in 2015 in both GIS and Cartegraph before the program is fully up and running.

Due to numerous factors including 5 water main breaks, in three blocks, in the first month-and-a-half of 2014 it was decided that there was a need to replace a four-block long piece of water main along 9th street that had deteriorated beyond the extent of normal maintenance and repair capabilities. This project was bid in late spring and completed in early fall.

The Engineering Department working with a consultant, AMEC Infrastructure and Environmental, in the development of the storm water master plan. During the data collection process AMEC collected a large number of previously unknown data points throughout the city and identified a proliferation of sites in need of some sort of attention. The department and AMEC held numerous meetings with city staff and the city commission throughout the year for the purpose of information gathering and distribution. In November the master plan was presented to the city commission for adoption of the plan, CIP program and financial business plan. However, during this meeting the city commission chose to only adopt the first 5 chapters of the plan leaving out the financial business plan and CIP for adoption at a later date.

Deterioration of Price’s Ravine
Erosion of Outfall Structure on East 1st Street
FEMA Repairs:

In 2013 the president declared a national disaster in parts of Kansas due to the overwhelming amount of water that was precipitated between July 22\textsuperscript{nd} and August 11\textsuperscript{th}. In early 2014 the department finalized 2 “large project” applications and submitted them to FEMA. The applications were approved in the spring and constructed during the summer. The total construction cost for these project total $250,000 with cost split of 15/85 between the city and FEMA & the state respectively.
Freeman Field Airport:

In 2013 the Engineering Department took over operations of Freeman Field Airport from Cheryl Beatty. In 2014 the department undertook two projects with the help of grant funding from FAA and KDOT. The FAA grant funds, which paid 90% of $325,139 of total project costs, allowed the city to replace old taxiway and runway lights with new LED ones as well as installing a PAPI’s systems to help guide landing planes on runway 18-36. The KDOT grant funds were used to install a fuel containment area in which to park the fuel trucks allowing the city to come into compliance with EPA regulations. The
department also developed and established bylaws for the Airport Board as well as election of 5 new officers to the board.

New LED Runway Light

New PAPI's Landing Guidance System

**Street Maintenance Program:**

The 2014 budget consisted of $500,000 of budgeted funds for street repairs as well as $600,000 of funds that the city commission gave to the program which were left over after refinancing some debt obligations bringing the program’s grand total to $1.1 million. These funds were spent on two program, concrete and mill & overlay, aimed at improving various corridors throughout town. The concrete program made significant repairs to Jackson Street between 6th and 18th as well minor repairs to some valley gutters throughout the city. The mill & overlay program made repairs to various collector streets that were in desperate need of rejuvenation.
KDOT Projects:

The Engineering Department submitted 3 grant application to KDOT in 2014. Two of the three projects were awarded a KDOT grant. The city’s application for funding of construction costs for a Safe Routes to School Program was rejected due to a highly competitive grant program and an overwhelming number of applicants. The city was awarded a mill & overlay project on Washington Street from East Chestnut south to the I-70 Round-a-bout. This project has a 50/50 cost sharing split and a maximum $200,000 contribution from KDOT. The city was also awarded a grant to construct a safety path along 8th Street from Rucker Road to Spring Valley Road. The project will have multiple phase allowing parts of it to be built in conjunction with other KDOT project along this corridor. The city’s contribution to this project will be approximately $500,000 will KDOT’s contribution will be around $2 million.