TO: Mayor and City Council

SUBJECT: Design Concept, Supplemental Design Agreement No. 1 and Revised Budget for Force Main Improvements at Plants 1 and 2 (District III)

INITIATED BY: Department of Public Works & Utilities

AGENDA: New Business

**Recommendation:** Approve the design concept, Supplemental Design Agreement No. 1, revised budget and adopt the amending resolution.

**Background:** On May 14, 2013, the City Council approved a consent order agreement with the Kansas Department of Health and Environment, which resulted in the City performing a Capacity, Maintenance, Operations, and Management assessment to evaluate the infrastructure assets at Sewage Treatment Plants 1 and 2. The results of the assessment found that the 66-inch force main used to transfer the untreated wastewater from Plant 1 pump station to the Plant 2 sewage treatment facility received the highest risk score due to the magnitude of the flow being conveyed, lack of redundancy, age and assumed condition, location of routing, and consequence of a failure.

On May 3, 2016, the City Council approved a contract with Professional Engineering Consultants (PEC) to develop a design concept.

**Analysis:** The force main conveys approximately 60% of the City’s daily wastewater disposal and is a critical asset of the City’s wastewater system. A detailed condition assessment of the force main determined that the pipe is in poor condition and is in need of structural repair and rehabilitation. In addition, the continuous corrosion of the interior of the pipeline results in a reduction of the structural integrity of the pipe.

PEC recommends installing a new 54-inch force main between Plants 1 and 2 adjacent to, and in the vicinity of, the existing pipe. This proposal will eliminate the need to bypass existing sewer flow during construction. Upon completion of the new line, staff and PEC will re-evaluate the condition of the existing pipe under no flow to determine if repairs could be made and the pipe left in service as a redundant bypass.

Design is expected to be complete in the spring with construction underway in the summer of 2017.

**Financial Considerations:** The approved concept design contract cost is $747,000. The proposed supplemental design contract fee is $1,593,010, bringing the total design cost to $2,340,010. The approved budget to date is $1,000,000. The Adopted 2016-2025 Capital Improvement Program includes an additional $37,500,000 for final design and construction, which staff is requesting at this time. This brings the total revised budget to $38,500,000.

The costs for this project are included in the Public Works & Utilities Cost of Service Analysis, which considers future rate increases. The project will be funded by future revenue bonds or Sewer Utility cash reserves. If bonds are issued, an additional 8% will be added for bond reserves and financing costs.

**Legal Considerations:** Supplemental Design agreement No. 1, amending resolution, have been reviewed and approved as to form by the Law Department.

**Recommendation/Actions:** It is recommended that the City Council approve the design concept, Supplemental Design Agreement No. 1, revised budget, and adopt the amending resolution.

**Attachments:** Supplemental Design Agreement No. 1, amending resolution, and amending notice of intent.