



Legislation Text

File #: 12-0008, **Version:** 2

Resolution to Award a Contract to Malcolm Pirnie, Inc. for Construction Support Services for the Facilities Renovations Project at the Wastewater Treatment Plant (\$10,802,423.00)

We request your approval to award a Professional Services Agreement to Malcolm Pirnie, Inc. (MPI) for \$10,802,423.00 for engineering services to support construction of the Facilities Renovations Project (FRP) at the City's Wastewater Treatment Plant (WWTP).

The purpose of the FRP is to construct the renovations identified in the Ann Arbor WWTP Facilities Master Plan. The WWTP Facilities Master Plan is a comprehensive, 25-year planning document that provides the basis and schedule for rehabilitation and replacement of major equipment at the WWTP. The WWTP consists of two treatment plants at a single site, the older West Plant first constructed in the 1930's and the newer East Plant constructed in the late 1970's.

The West Plant has exceeded its useful life and was taken out of service in 2006 due to its dilapidated condition. Replacement of the West Plant is necessary for the WWTP to reliably meet current and future wastewater treatment capacity requirements. Renovations to the West Plant include rehabilitating existing flow control structures, complete demolition and replacement of primary and secondary wastewater treatment equipment and systems, and construction of new buildings. In addition to the complete demolition and replacement of the West Plant, the FRP includes miscellaneous renovations and improvements throughout the facility to maintain treatment viability and reliability. Site-wide improvements include installation of a new electrical distribution system and two new emergency power generators, utilities relocation, replacement of stormwater collection system equipment and systems including installation of best management practice features (i.e., rain gardens, porous pavement, grass swales, zero-net runoff areas, and hydrodynamic separators), installation of new roadways, and replacement of secondary treatment aeration systems with energy efficient blowers.

Improvements to the embankment protecting the WWTP from the Huron River and Fleming Creek floodwaters are included in the FRP and are necessary to meet current Federal Emergency Management Agency (FEMA) standards. Although the embankment has effectively provided flood protection to the WWTP since its construction in 1978, it does not meet current FEMA freeboard standards; consequently, the WWTP is considered to be in the 100-year floodplain. Without certification of the floodwall, the WWTP would be required to meet building standards that include flood proofing all new buildings to provide protection against damage from a 500-year flood. The 500-year flood standards are applicable because the WWTP is considered to be a critical facility. These building standards would impose significant additional costs to the design and construction of the FRP. In addition, the WWTP would continue to be subject to any future requirements associated with being located in the floodplain. Upon completion of these improvements, the City will apply for a Letter of Map Revision to FEMA to certify the embankment and update the Flood Insurance Rate Map to recognize that the WWTP site is not in the floodplain.

Through Request for Proposal No. 584, MPI was selected as the most qualified engineering firm to design and provide the construction engineering services for the FRP. The design of the FRP, which was completed by MPI, has been complex and spanned a period of six years. MPI produced final bid drawings (approximately 630 sheets) and specifications to be used for securing necessary permits and soliciting bids from qualified contractors. Most recently, MPI has submitted design drawings and specifications to MDEQ for securing necessary permits. The FRP is currently being advertised for bids by the City's Purchasing Department with bids due on January 9, 2012. Construction of the FRP will extend over five fiscal years and is estimated to cost \$85 million. In addition, construction of the FRP must be done without impeding the flow of wastewater into the WWTP or the plant's ability to effectively treat the flow in compliance with regulatory requirements.

In June 2011, MPI assisted WWTP staff in submitting an application to the State Revolving Fund (SRF) program administered by the Michigan Department of Environmental Quality (MDEQ) for a low interest loan in the amount of \$109 million to finance the FRP. The FRP is included in the fundable range of the MDEQ's Fiscal Year 2012 Final Project Priority List. The savings to the City by financing the FRP through the SRF program over the 20-year life of the loan will be approximately \$35 million, according to the City's consulting financial advisor. In addition to the savings from the 2.5% interest rate on the 20-year loan, WWTP staff secured two grants for this project. The first grant is in the amount of \$256,136.00 for reimbursement of engineering design fees associated with the City's application to the SRF program. The second grant is for \$2.2 million in principal loan forgiveness for "green project" features that will reduce the WWTP's energy consumption. In addition, an application for a sales tax exemption on purchases made by the contractor for this project was approved by the State Tax Commission, which is estimated to result in a savings of \$1.5 million for the City.

MPI worked with WWTP staff to develop the scope of engineering services included in this agreement. Engineering services include: project management, construction field services, geotechnical services, construction engineering support, surveying services, preparing as-built drawings, startup planning, process and system training, preparing standard operating procedures and operations and maintenance manuals, securing a Letter of Map Revision from FEMA, providing administration services required for the SRF loan during construction, coordinating project inspection with Ann Arbor Charter Township, and miscellaneous pre-construction design services.

The total cost for engineering construction services is approximately 12.7% of the estimated project construction costs. Engineering fees in the range of 10 to 15 percent of construction costs are reasonable for projects of this magnitude.

The budget for this project is included in the approved capital budget and in the approved FY12-17 CIP.

MPI received Human Rights approval on May 2, 2011, and complies with the City's living wage requirements. The standard agreement for professional services without modification will be used for this contract between the City and MPI.

Prepared by: Michael D. Amicangelo, P.E., WWTP Senior Utilities Engineer
Approved by: Craig Hupy, P.E., Interim Public Services Administrator
Approved by: Steven D. Powers, City Administrator

Whereas, The City's Wastewater Treatment Plant (WWTP) West Plant, originally built in the 1930's, has exceeded its useful life and was taken out of service in 2006 due to its dilapidated and inoperable condition;

Whereas, The City of Ann Arbor WWTP Facilities Master Plan identified various renovations that include demolition and replacement of the West Plant, and other improvements to the WWTP required to improve process reliability and enable the plant to meet current and future wastewater treatment capacity requirements;

Whereas, The Facilities Renovations Project (FRP) was undertaken to construct the improvements identified in the WWTP Facilities Master Plan and is included in the City's approved FY12-17 Capital Improvements Plan;

Whereas, Through RFP No. 584, Malcolm Pirnie, Inc. (MPI) was selected as the most qualified engineering firm to design and provide the construction engineering services for the FRP;

Whereas, MPI completed the complex design of the FRP over a six year period, produced final bid final drawings and specifications, and assisted in securing necessary regulatory permits;

Whereas, MPI worked with WWTP staff to develop the scope of engineering services included in this agreement, and the total cost for engineering construction services is approximately 12.7% of the estimated project construction costs, which is within the range considered to be reasonable for projects of this magnitude;

Whereas, MPI received Human Rights approval on May 2, 2011; and

Whereas, Funding is available in the approved capital budget to fund the agreement.

RESOLVED, That Council approve a Professional Services Agreement with MPI for \$10,802,423.00 to provide the professional engineering services to support construction of the FRP;

RESOLVED, That the City make the following declaration for the purpose of complying with the reimbursement rules of Treasury Regulations 1.150-2 pursuant to reimburse itself for the expenditures for the cost of the Project with proceeds of Bonds;

RESOLVED, That Council approve the agreement for the life of the project with funds to be available until expended without regard to fiscal year and authorize the City Administrator to approve amendments to the Agreement; and

RESOLVED, That the Mayor and City Clerk be authorized to execute the agreement after approval as to substance by the City Administrator and approval as to form by the City Attorney.