

Request for Legislation

An Ordinance authorizing Public Improvement, Public Improvement by Requirement, and Professional Service contracts for the Division of Water to evaluate, inspect, install, maintain and repair cathodic protection systems on CWD transmission mains.

Background/Purpose:

CWD operates and maintains a 480 mile transmission main (20" and larger diameter) network. Materials used have been cast iron, ductile iron, steel, and pre-stressed concrete cylinder pipe, all of which contain significant amounts of processed iron. Finished iron naturally degrades via corrosion back to its natural iron ore state, losing its strength when it does so. CWD utilizes cathodic protection (CP), a technology common in many pipeline and other buried metal applications, to protect its critical ferrous based transmission mains. The concept of cathodic protection is to install other metal underground that is more susceptible to corrosion than iron, sacrificing itself to save the iron. This legislation would allow CWD to enhance the cathodic protection of its distribution mains, transmission mains, treatment facilities, and secondary sites. The Public Improvement contract will address the proposed work on 28 miles of previously assessed transmission mains. The Professional Services contract(s) will address the assessment of the remaining 452 miles of transmission mains which have not been assessed. The Public Improvement by Requirement contracts will ultimately lead to work on the remaining 452 miles of transmission mains that cannot be determined at this time.

Scope of Work/Commodities/Services:

Public Improvement, Public Improvement by Requirement and Professional Services Contracts for the Division of Water would include:

- The Division of Water intends to hire outside design professionals under a professional service contract to provide services related to the design of prospective CP systems, including, but not limited to; feasibility assessments, geotechnical evaluations, CP system design, and CP construction and installation oversight.
- The Division of Water intends to hire contractors under public improvement/public improvement by requirement contracts to provide services related, but not limited to; the inspection of CP systems, evaluation of CP, and subsequent maintenance and/or repair of CP systems.
- The mains to be addressed including, but not limited to;
 - Four (4) miles of 36" steel main along Brookpark Road
 - Four (4) miles of 36" steel main along Lake Avenue
 - Three (3) miles of 48" steel main along North Park Road
 - Six (6) miles of 48" steel main along South Belvoir Boulevard
 - 11 miles of 60"/48" steel/cast-iron main from Kirtland Pump Station to Baldwin Treatment Plant

Justification/Urgency:

A baseline assessment of the existing cathodic protection systems was completed at the end of 2018. This ordinance is critical in supporting the rehabilitation of these systems, and implementation of new systems, as appropriate.

Anticipated Costs and funding source:

The cost of projects is estimated at \$2,000,000.00. The cost of the improvement and other expenditures authorized shall be paid from Fund 52, SF 001, and/or from the fund or sub fund to which are credited the proceeds of future bonds, if issued for this purpose.

Schedule or Term of Contract:

Legislation is to lead to one or more professional service, public improvement, public improvement by requirement contracts over the next two years.

Current Contract(s):

N/A

CSB Participation:

Public Improvement and Public Improvement by Requirement Contracts:

Horizontal Construction:	30% CSB
Vertical Construction:	15% MBE, 7% FBE, 8% CSB
Professional Service:	10% CSB

Previous Contracts:

The Division of Water has not entered into any recent contracts specifically for the design, installation, maintenance, or repair of cathodic protection equipment.