

**RESOLUTION OF THE MAYOR AND BOROUGH COUNCIL
OF THE BOROUGH OF MOUNT ARLINGTON, IN THE
COUNTY OF MORRIS, NEW JERSEY, AUTHORIZING
EXECUTION OF AN ASSET MANAGEMENT PLAN AGREEMENT
FOR THE BOROUGH'S WASTEWATER COLLECTION SYSTEM**

WHEREAS, Borough Engineers CP Professional Services has submitted a Proposal for Asset Management Planning for the Borough's Wastewater Collection System, dated January 29, 2018, a copy of which is incorporated herein.

NOW, THEREFORE BE IT RESOLVED, by the Mayor and Borough Council of the Borough of Mount Arlington, County of Morris, State of New Jersey, that the Mayor and Borough Clerk are authorized to execute an Asset Management Plan Agreement for the Borough's Wastewater Collection System.

This Resolution shall take effect immediately.

I hereby certify this to be an accurate and true resolution as approved by the Mayor and Borough Council at a Meeting held on April 3, 2018.



Linda DeSantis, RMC
Borough Clerk



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January 29, 2018

Carolyn Rinaldi
Municipal Administrator
Borough of Mount Arlington
419 Howard Boulevard
Mt. Arlington, New Jersey 07856

Re: Mt. Arlington Wastewater Collection System
Asset Management Planning
Mt. Arlington, Morris County, New Jersey

CP Proposal No: 17-219

Dear Ms. Rinaldi:

Pursuant to your request, CP Engineers, LLC, (CP) is pleased to submit this Proposal for Asset Management Planning (AMP) for the Borough's Wastewater Collection System. We greatly appreciate the opportunity to propose on this work and have endeavored to present a proposal that is responsive to the Borough's needs.

Project Description and Understanding

The Borough recognizes the importance of sound utility planning and management, and had already intended to begin the development of an AMP in 2018, assisted by funding through the New Jersey Environmental Infrastructure Funding Program (NJEIFP). A potential benefit of NJEIFP funding is that the Borough may receive 100% loan forgiveness for cost of AMP development up to \$100,000, provided that, within three 3 years of acceptance of the loan, a wastewater infrastructure improvement project is bid for construction.

Base Scope of Services

CP is herein proposing to provide the following scope of services in relation to AMP.

Task 1: NJEIFP Application and Coordination

CP will assist the Borough with the preparation of the necessary application documents and supporting materials, in coordination with the Borough's Bond Counsel, in order to receive the necessary funding for the AMP. Throughout the project, CP will provide all necessary project coordination and updates to NJDEP and NJEIT staff, and process all payment applications for reimbursement.

Task 2: Asset Management Planning Development

Upon initiation of the AMP, CP will review available software to complete the AMP. There are sophisticated commercially available software packages and free no-frills USEPA software. We will assist the Borough in evaluating its options. A separate cost for the commercially available software has been provided under supplemental services.

Sub-tasks a through f below will be performed in development of the AMP and include the following:

a. Asset Inventory and Condition Assessment –

- i. **Asset Inventory -** In order to account for the complete system, an inventory must be taken of the individual components. CP will review available historical mapping provided by Borough as well as meet with the Borough's DPW Supervisor to review the wastewater collection system assets so they can be accounted for in the AMP. Above and below grade wastewater collection system infrastructure (e.g., pipes, pumps, transmission facilities, electrical components) and other related "hard" infrastructure will be identified. While developing the inventory, the location, age, composition, size, design life, and remaining life will be documented.
- ii. **Asset Registry -** In order to support the Asset Inventory above, an asset registry with asset ID numbering will be developed. Upon completion, assets will be easily identifiable based upon an ID tag. The Asset Registry will be developed in a spreadsheet format. CP will utilize the input provided by the Borough to implement an ID system in conformance with the Borough's specifications.
- iii. **GIS Mapping -** A key component of the AMP during the inventory phase is physically locating each asset and uploading that information into a GIS mapping system. Connecting an asset inventory to detailed mapping system allows the Borough to quickly and easily locate assets for inspection, maintenance, and protection. It is understood that the Borough currently has GIS mapping files of the wastewater collection system containing main locations, valve locations, meters, and pump stations. At this time these files have not been validated regarding their accuracy. As part of the AMP, CP will review the existing GIS mapping files provided by the Borough and verify to their accuracy and suitability for future usage. It is anticipated that certain asset locations will need to be field verified with handheld GPS. All GIS mapping will be prepared in accordance with the NJDEP GIS "Mapping and Digital Data Standards". For the purpose of this proposal, it is assumed that re-creation of the wastewater collection system will not be required.

- b. Level of Service
 - i. Per the NJDEP Asset Management Technical Guidance. “Level of Service” (LOS) refers to the intended goals of the utility, with consideration for the role and function of a utility’s infrastructure assets and how they are expected to perform”. Goals developed for the LOS can focus on customer service/accountability, energy/water efficiency and conservation, or social and environmental considerations, system quality control and service quality. CP will assist the Borough in developing their own LOS goals for the AMP. These goals can be updated regularly as necessary.
- c. Critical / Vulnerable Asset Evaluation
 - i. Wastewater Collection System assets will be evaluated for both their critical importance to provide reliable operation as well as their vulnerability to potential threats (weather events, sabotage, terrorism, etc.). This evaluation will determine whether mitigation measures need to be implemented to reduce any determined vulnerabilities in order to maintain reliable operation.
 - ii. A Probability of Failure (PoF) and Consequence of Failure (CoF) evaluation will be performed for each asset. Factors to consider will be age/condition, installation/environmental characteristics, repair/service history. Each asset will be ranked to prioritize level of importance to maintain operations in the system.
- d. Life Cycle Costing
 - i. In order to prioritize system improvements and cash reserve needs, a determination of the original life span as well as the remaining life of the asset (life cycle) will be performed. This determination will then be utilized to decide how much it will cost to rehabilitate each asset or replace them as they deteriorate, as well as help develop a schedule for maintenance, repair, and replacement.
- e. Long Term Funding Strategy
 - i. Based on the previously performed level of service, asset evaluation, and life cycle costing, an overall funding strategy can then be discussed and prepared to determine sufficient sources of funding to ensure the long term sustainability of the system. CP will assist the Borough with development of the long term funding strategy which can be updated as needed and as projects are identified or completed.

Supplemental Services

The following additional services denoted below are supplementary to the scope of services presented above and can be authorized separately by to the Borough at the costs outlined below:



1. GIS Software setup and training to the Borough.

The Borough may elect to expand their internal capabilities by using GIS to manage and maintain the wastewater collection system. CP will assist with setup of the Borough's GIS Software, and train staff on how to utilize the software for the wastewater collection system.

2. Maintenance and Management of GIS System.

The GIS System may require maintenance and management to ensure reliable operation. This may include software updates, coordination with the Boroughs Maintenance Management System, or implementation to a future Borough mobile mapping system.

Cost

We propose to perform these services on an hourly basis in accordance with our current agreement with the Borough. We have established not-to-exceed budgets for the tasks outlined in the scope of services.

Task 1 – NJEIFP Application and Coordination	\$14,975
Task 2 – Asset Management Plan Development Base Scope	\$129,985

Supplemental Services

1. Purchase of commercially available AMP software	\$54,625
2. GIS Software Setup and Training	\$7,320
3. Maintenance and Management of GIS System	\$5,880

Subtotal of All Tasks:	\$212,785
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Schedule

CP is prepared to begin this work immediately upon your authorization to proceed. As we develop elements of the plan over the course of 2018, we anticipate meeting with the Borough DPW manager and the Borough Administrator to summarize progress and resolve open issues.

Please do not hesitate to contact us should you have any questions.

Very Truly Yours,



CP ENGINEERS, LLC

A handwritten signature in black ink, appearing to be 'Stanley G. Puszcz', written in a cursive style.

Stanley G. Puszcz, P.E.
Managing Member

A handwritten signature in black ink, appearing to be 'Sean J. Sauder', written in a cursive style.

Sean Sauder
Water Resources Department Leader

CC: Stephen Donati, P.E., CP
Thomas Lemanowicz, P.E., CP

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