RESOLUTION 2024-21

A RESOLUTION BY THE CITY OF FLAGLER BEACH, FLORIDA, APPROVING A PROPOSAL FROM MCKIM & CREED, INC. FOR ENGINEERING & FIELD ASSESSMENT SERVICES, WASTEWATER COLLECTION SYSTEM INVESTIGATION RELATED TO CONSENT ORDER 23-0409 "IN-KIND" PROJECT IN AN AMOUNT NOT TO EXCEED $50,000, PROVIDING FOR CONFLICT AND EFFECTIVE DATE.

WHEREAS, the City approved a Consent Order 23-0409 between the City and the Florida Department of Environmental Protection (FDEP) on December 14, 2023; and

WHEREAS, the City pursued the option of an in-kind project in lieu of a fine and submitted to FDEP on February 19, 2024 a proposal to evaluate the re-lined wastewater mains and lateral connections and identify future maintenance areas of the system to reduce the inflow and infiltration to the city's wastewater treatment facility; and

WHEREAS, the investigation into the Wastewater Collection System will meet the requirements of the Consent Order and provide valuable information for the development of the New Wastewater Treatment Facility

NOW THEREFORE BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF FLAGLER BEACH:

SECTION 1. The proposal dated February 16, 2024 is attached to this resolution as Exhibit A.

SECTION 2. All resolutions or parts of resolutions in conflict herewith be and the same are hereby repealed.

SECTION 3. This Resolution shall become effective immediately as provided by law.

PASSED AND ADOPTED THIS _____ DAY OF MARCH, 2024.

CITY OF FLAGLER BEACH, FLORIDA
CITY COMMISSION

ATTEST:

_____
Patti King, Mayor

_____
Penny Overstreet, City Clerk

EXHIBIT A RESOLUTION 2024-21

McKIM&CREED
ENGINEERS SURVEYORS PLANNERS

February 16, 2024 240518

Mr. Dale L. Martin
City Manager
City of Flagler Beach
dmartin@cityofflaglerbeach.com

RE: Proposal for Engineering & Field Assessment Services, Wastewater Collection System Investigation (Consent Order 23-0409 "In-kind" Project)

Dear Dale,

McKim & Creed (M&C) is pleased to present this proposal to provide Engineering and Field Assessment Services for Wastewater Flow Monitoring Services within the City of Flager Beach (City) gravity wastewater collection system.

Purpose

As part of the City's Florida Department of Environmental Protection Consent Order No. 23-0409 (Order), the City has elected to provide an "In-kind" project in-lieu of paying civil penalties as set forth in the Order. The purpose of this project is to provide a capital/facility improvement project that will assist The City in identifying areas within the gravity wastewater collection system where ground water and/or stormwater is entering into the wastewater collection system through sewer mainlines, sewer laterals, or sewer manholes during wet weather events.

This excess water, referred to Inflow and Infiltration (I/I) has a negative impact on the collection system for several reasons including, additional costs to treat groundwater, capacity issues, sewer backup issues, indications that there are structural issues within the collection system, etc. In addition, this project represents a new effort by the City to address the Order and was not previously a part of the City's Capital Improvement Plan (CIP).

Summary of Benefits

The City will be able to take corrective action to address wastewater collection areas identified in this project and have a positive impact on the system overall with the goal being to eliminate sanitary sewer overflows (SSO's). The City will be able to evaluate on-going Renewal and Replacement (R&R) efforts and also identify areas for future R&R efforts within the wastewater collection system.

The project will consist of measuring the wastewater flows at four (4) locations, while measuring rainfall at one location for a period of ninety (90) days. M&C will analyze the flow data at each metered location to determine its dry and we-weather flow components, namely:

- ADF – Average Daily Flow
- ADDF – Average Daily Dry Flow (Typical Dry Day)

- BDDI – Base Daily Dry Infiltration
- WP – Wastewater Production
- RDII – Rain Dependent I&I

Once the flow components are determined, M&C will prioritize the various basins by severity of BDDI and RDII.

We have attached a proposed Scope of Work and Fee for your consideration.

Please call us if you have any questions.

Sincerely,

McKim & Creed, Inc.

Derek Holderman
Wet Weather Program Operations Manager

Sincerely,

McKim & Creed, Inc.

Charles Hill, P.E., BCEE
Client Manager

Attachments

ATTACHMENT A
SCOPE OF SERVICES SUMMARY

Scope of Work

Historical Data Collection

Upon receiving notice-to-proceed (NTP), M&C will obtain available and relevant legacy information that may pertain to the flow metering effort. Information may include previous flow monitoring studies, collection system maps, and pumping station records (if applicable). M&C may review the information to gain a better understanding of historical conditions of the wastewater collection system.

Mapping Preparation

M&C will request the City to provide the most up-to-date GIS and will develop field maps to aid the field crew(s) during the installation and maintenance of the equipment. The maps will identify and quantity the wastewater infrastructure within each metered basin. This information will be used to normalize the I&I flow components by inch-diameter mile (infiltration), and by mile of pipe (inflow).

Equipment Installation, Maintenance, and Removal

M&C will mobilize one time to investigate the selected metering locations. If a selected site is deemed hydraulically suitable for flow metering, the meter will be installed. If the site is not suitable, M&C will notify the City to decide whether to proceed with the installation or install at a different, more suitable location. Rain gauge will be installed at previously selected and agreed upon location, normally on the roof of buildings owned by the City such as a pump station or treatment facility.

Following the installation of the equipment, M&C will mobilize up to two times during the flow monitoring period to perform regular maintenance. During each site visit, flow depth and velocity calibrations will be performed to ensure metering accuracy. Each flow meter/rainfall gauge will be programmed to record instantaneous measurements in fifteen (15) minute intervals. The data will be collected remotely and reviewed daily using M&C's Telog Unity system. The collected data will be available to the City upon request.

At the conclusion of the flow-monitoring period, M&C will mobilize for the last time to remove the equipment and perform one additional set of depth and velocity calibrations.

Technical Memorandum

M&C will submit a Technical Memorandum (TM) within thirty (30) days from the time the equipment is removed. The TM will detail the results of the flow monitoring study for each metered basin. The flow data will be provided in tabular and graphical form (hydrographs). For each metered basin, M&C will determine the dry and wet-weather flow components and will rank each basin by BDDI and RDII.

The TM will provide recommendations of follow-up activities designed to identify sources of I&I. These follow-up activities include smoke testing, dye-water testing, manhole inspections, night-flow isolations, and closed-circuit television (CCTV) inspection.

Proposed Fee

M&C proposes to perform the scope of work above for a fee of **$50,000.00** as detailed below:

Task	Qty	Unit	Unit Cost	Fee
Mob/Demob	4	Ea	$2,750.00	$11,000.00
Site Investigation	5	Ea	$1,950.00	$9,750.00
Rain Gauge Installation	1	Ea	$550.00	$550.00
FM Monthly O&M	12	Ea	$1,150.00	$13,800.00
RG Monthly O&M	3	Ea	$550.00	$1,650.00
FM Data Review	12	Ea	$450.00	$5,400.00
RG Data Review	3	Ea	$75.00	$225.00
Technical Memo	1	LS	$7,625.00	$7,625.00
TOTAL				**$50,000.00**