

ORDINANCE NO. 63-03

By: Mr. Masser

An Ordinance to appropriate \$9,280.00 from the unencumbered Sewer Fund for the purpose of hiring professional engineering services to evaluate the City's storm and sanitary sewer system and authorizing the Mayor and Auditor to enter into a contract with EMH&T Inc. to provide those services as defined in the attached Scope of Services.

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL
OF THE CITY OF BEXLEY:**

Section 1. That the amount of \$9,280.00 should be and hereby is appropriated from the unencumbered Sewer Fund for the purpose of hiring professional engineering services to evaluate the City's storm and sanitary sewer system.

Section 2. That the Mayor and Auditor should be and hereby are authorized to enter into a contract with EMH&T Inc. to provide those services as defined in the attached Scope of Services which is attached to and made a part of this Ordinance.

Section 3. That this Ordinance shall take effect and be in force form and after the earliest period allowed by law.

Passed: 9.23, 2003

Joe Morris
President of Council

Attest: *Sam Walsh*
Clerk of Council

Approved: 9/23, 2003

D. H. Madison
David H. Madison, Mayor

*9-09-03 First Reading
9-23-03 Second Reading
Three Reading Rule Suspended
Passed*

Scope of Services
Utility Services Review
City of Bexley, Ohio

Background

The City of Bexley owns, operates and maintains both a storm water conveyance system and a sanitary sewer conveyance system. Recent storm events, characterized by intense rainfalls, have brought the issue of street and structural flooding into focus. The residents have recently experienced flooded yards, basements and streets. Evaluation of the storm water system, as well as possible cross connections with the sanitary system, should take place to provide alternatives and solutions to prevent the damage that accompanies such flooding.

Scope of Services

This scope of services is divided into two phases. Phase 1 addresses the storm water system. Phase 2 addresses the sanitary sewer system.

Phase 1- Storm Water System

Task 1.1: Data Collection

This task includes an initial meeting with City staff to determine historical areas of concern. Where possible, areas of concern will be tied to rain events (i.e. floods during short event, floods during long duration event, floods at the first drop of rain, etc.) A field reconnaissance of these areas, with digital photos, is also included as part of this task.

Task 1.2: System Analysis

Each area of concern will be tied to a general storm sewer shed (Cassady North of Main, Cassady South of Main, Broad Street, etc.). As part of this task, schematic models of each sewer shed will be developed using existing data from as-built plans and data received from the City. Using the Rational Method with Manning's equation (or other non-complex modeling software), the capacity of each storm sewer shed containing an area of concern will be developed. No field verification through survey will be included as part of this scope of services.

Task 1.3: Problem Identification

Based on the models developed as part of Task 1.2, areas of concern will be grouped into general categories. These categories may include categories such as flooding due to system back-up, flooding due to inadequate capacity, and flooding due to potential maintenance or rehabilitation requirement. The areas of concern will also be prioritized through a meeting with City staff.

Task 1.4 Alternative Recommendations

Alternative and recommended solutions will be developed for each of the areas of concern. Conceptual level cost estimates will be developed as part of this task. A brief summary report will be prepared and provided to the City.

Phase 2- Sanitary Sewer System

Task 2.1: Data Collection

This task includes an initial meeting with City staff to determine historical areas of concern. In addition, the previously completed smoke testing study will be reviewed. Where possible, areas of concern will be tied to rain events. A field reconnaissance of these areas, with digital photos, is also included as part of this task.

Task 2.2: System Analysis

Each area of concern will be tied to a general sanitary sewer shed. As part of this task, schematic models of each sewer shed will be developed using existing data from as-built plans and data received from the City. Using industry standards for average and peak flow rates, as well as infiltration/inflow, the capacity of each sanitary sewer shed containing an area of concern will be developed. No field verification through survey will be included as part of this scope of services.

Task 2.3: Problem Identification

Based on the models developed as part of Task 1.2, areas of concern will be grouped into general categories. These categories may include categories such as excessive infiltration/inflow, inadequate capacity, and problems related to potential maintenance or rehabilitation requirement. The areas of concern will also be prioritized through a meeting with City staff.

Task 2.4 Further Studies

It is anticipated that the City of Bexley's sanitary sewer system's areas of concern are more complex than those for the storm water system. Some areas of concern will require further investigation by the City through its use of closed circuit television. Other may include additional study to further define the problems, Given that, this task will provide a brief summary report identifying the next phases and studies that should be initiated by the City.

Schedule

This scope of services will be completed eight weeks from Notice to Proceed.

Fee

The work associated with this scope of services for Phase 1 will be completed for a not-to-exceed fee of \$4,940. The work associated with this scope of services for Phase 2 will be completed for a not-to-exceed fee of \$4,340. The total not to exceed fee is \$9,280. This fee includes labor as well as indirect and direct expenses. Additional work beyond this fee will not be completed without prior authorization by the City.