Information to be included in all Legislation authorizing
Entering into Contracts:

Ordinance Number: 2216-2006

The names, location by City/State and status of all companies submitting a competitive bid or submitting an RFP or RFSQ

Name	City/State	Majority/MBE/FBE
Metcalf and Eddy of Ohio, Inc.	Columbus, Ohio	Majority
Camp Dresser McKee. Inc.	Columbus, Ohio	Majority

A full description of all work to be performed including a full description of work to be performed during any known phasing of the contract.

This project will continue development and enhancement of the City's Sewer System Capacity Model (SSCM). The SSCM is the culmination of the City's long-term commitment (beginning with the "Olentangy Scioto Interceptor Sewer Tributary Study - Phase I Report" and ending with the "Columbus Sewer Capacity Study – Phase III" report and model; which was updated in the method and extent by the Model Update 2000 project (MU 2000)) to accurately evaluate collection system capacity deficiencies and devising economical solutions to those deficiencies.

The basic services to be provided under this Agreement are professional specialized technical services necessary to update the SSCM from year 2000 to 2006 conditions. The model update is necessary to ensure continued conformance with the existing Consent orders between the City of Columbus and the State of Ohio, ongoing efforts to eliminate sanitary sewer overflows, minimize Water-in-Basement (WIB) occurrences, evaluate future development/expansion of served areas and evaluate collection system capital improvement projects included in the City's Wet Weather Management Plan (WWMP), submitted to the Ohio EPA on July 1, 2005.

Goals of the Capacity Model Update:

1. Make the SSCM more accessible to users and provide appropriate controls, tools, etc to ensure consistency between different users of the model. This may require the development of new tools that generate or access model parameters (e.g. sewershed areas, RTKs, and system information) and derived data (e.g. base flows, I&I values, and hydraulic grade lines).

2. Evaluate the modeling industry's various modeling software to provide a clear estimate of the effort required to update the SSCM to the City's desired level of accuracy, complexity, and usability.

3. Update the SSCM to reflect system updates since the last update (2000).

4. Improve accuracy and resolution by adding a more thorough flow meter/rain gage data program.

5. Calibrate and validate the capacity model to multiple storm events.

6. Devise a model extension plan that would appropriately extend the model to areas with known problems which are not included in any other investigations (e.g. areas with

higher concentrations of water-in-basements or known capacity problems not included in I&I).

7. Provide hydraulic grade line information for all modeled sewers.

8. Tightly integrate all data to the City's selected GIS platform.

   a. The City is using ArcGIS to manage their collection system assets.

   b. The model will likely include the development of new GIS databases, such as sewershed data, to the same level of refinement as used in the model. Sewershed data would include all relevant data in the GIS such as slopes, dimensions, imperviousness, population, etc.

   c. Ideally, selected model results would be accessible via GIS system.

9. Provide the means for a completely independent evaluation of the WWMP Modeling.

10. Evaluate benefits of Real Time Control in the future including features of the WWMP system configuration.

A narrative timeline for the contract including a beginning date, beginning and ending dates for known phases of the contract and a projected ending date.

Task	Description	Proposed Completion
Project Start	Execute Project (NTP)	Dec 2006
Mobilization	Acquire all background data, information, and initial investigations	Mar 2007
Evaluate WWMP Models	Provide a thorough review and critique of the accuracy and reproducibility of WWMP and the philosophies and methodologies of the models and their resulting data/conclusions.	April 2007
Evaluate SSCM	Produce a thorough review of the SSCM' s methodologies and operations, and recommend enhancements.	May 2007
Update SSCM	Provide all accompanying work required to acquire rainfall and flow monitoring data; implement recommended enhancements; update model input datasets; and calibrate to multiple storms.	June 2009
Apply Model	Perform model runs for various scenarios I&I Impacts, WWMP Program Progress, Build Out Evaluations, Satellite Inflows, Shadeville Trunk Evaluation, ORT Discharge Evaluations, Misc. System Performance Evaluations	Dec 2009

<u>An estimate of the full estimated cost of the Contract including a separate estimate of any and all phases or proposed future contract modifications.</u>

Phase	Task/Description	Proposed Date
Original Contract ($2.0 M)	Start, Mobilization, Evaluate WWMP Models and SSCM, Begin SSCM Updates	Dec 2006
Mod 1 ($1.9M)	Update SSCM	Dec 2007
Mod 2 ($1.6 M)	Update SSCM and perform all Model applications	Dec 2008

Total Costs: $5.5 M