



## Legislation Text

File #: 0019-2017, Version: 1

1. **BACKGROUND:** This legislation authorizes the Director of Public Utilities to modify (Mod #2) a professional engineering services agreement with ARCADIS U.S. Inc. for the Sewer System Capacity Model Update 2012 Project for the Division of Sewerage and Drainage. The initial contract covered work for the first year with four subsequent annual contract modifications planned. This modification is needed to perform model applications, monitoring and data management, refinement of the sanitary model, stormwater model, real time control and system operation, deliverables and Blueprint Columbus Integrated Plan support.

The sewer collection system model developed and enhanced by the Model Update Project, is the principle tool used to manage the planning and operations of the City's sewer collection system. Enhancement of this tool is vital to minimizing sewer overflows and backups and thereby minimizing negative impacts to the environment caused by the City's sewer system. The continual updating of this model is also necessary to ensure compliance with the City's consent orders with the Ohio Environmental Protection Agency.

### **MODIFICATION INFORMATION:**

#### **1.1 Amount of additional funds to be expended: \$3,075,175.32**

Original contract:	\$4,326,563.00
Modification #1	\$5,328,048.34
Modification #2	\$3,075,175.32
<b>Current Total:</b>	<b>\$12,729,786.66</b>
Future	
Modification #3	\$2,000,000.00

#### **1.2. Reasons additional goods/services could not be foreseen:**

This is a multi-year agreement with planned modifications.

#### **1.3. Reason other procurement processes are not used:**

Uninterrupted support of the Blueprint Columbus Integrated Plan program is critical and work completed to date would have to be repeated if this project was rebid.

#### **1.4. How cost of modification was determined:**

A Cost Summary was submitted by the Consultant and reviewed and approved by Department personnel.

## 2. **PROJECT TASK DESCRIPTION: Overall project scope elements:**

- Update Stormwater Management Modeling (SWMM 5) developed under the Sewer System Capacity Model - Update 2006 to year 2013 conditions
- Create new SWMM 5 reduced pipe model (RPM) from updated detailed models
- Utilize all existing SWMM 5 models and data from the Sewer System Capacity Model Update 2006 project
- Utilize all available City data (GIS sewer attribute data, atlas maps, other GIS features/layers, flow monitor data, rain gauge data, PARS, MSIUS, etc.)

- Review and utilize current Inflow/Infiltration study reports and SWMM 5 models (where applicable)
- Perform rain gauge: review, data collection/editing and rainfall analysis
- Perform flow monitoring: review, data collection/editing and dry/wet weather flow analysis
- Develop improved methodology for representing groundwater in the models
- Update dry weather flow patterns and time series
- Perform dry weather flow calibrations
- Update wet weather Rainfall Derived Inflow Infiltration (RDII) analysis (e.g. RTK, Initial Abstraction, Recovery parameters)
- Perform wet weather flow calibrations, and verification/validation
- Perform field investigations
- Enhance City GIS sewer attribute data as needed
- Prepare and deliver various technical reports and memorandum
- Deliver all collected flow monitor and rainfall data
- Deliver draft and final SWMM 5 models
- Provide training of City staff
- Redefine Long Term Control Plan (LTCP) typical year rainfall
- Redefine 10 year, 5 year and 2 year level of service
- Perform various model applications (to be defined in each phase)
- Support Blueprint Columbus program
- These tasks will be realized through completion of the Sewer System Capacity Model - Model Update 2012 through a series of five (5) phases hereinafter referred to as: Year 1, Year 2, Year 3, Year 4 and Year 5.

3. **MULTI-YEAR CONTRACT:** The Department anticipates requesting additional future modifications to this contract.
4. **PROJECT TIMELINE:** This modification No.2 will provide funding to complete the scope of services from March 2017 to March 2018. The project will complete by March 2019.
5. **CONTRACT COMPLIANCE NO.:** 57-0373224 | MAJ | Exp. 5/14/2017 | Vendor#: 009409
6. **EMERGENCY DESIGNATION:** Emergency legislation **is not requested** at this time.
6. **ECONOMIC IMPACT:** The collection system model developed and enhanced by the Model Update 2012 Project, is the principle tool used to manage the planning and operations of the City's sewer collection system. Enhancement of this tool is vital to minimizing sewer overflows and backups and thereby minimizing negative impacts to the environment caused by the City's sewer system. This contract is also a major component of City's Blueprint Columbus Integrated Plan program.
7. **FISCAL IMPACT:** The legislation authorizes the transfer of \$1,576,174.90 within and a total expenditure of up to \$3,075,175.32 from the Sanitary Sewer General Obligation Fund, Fund 6109, and an amendment to the 2016 Capital Improvements Budget.

To authorize the Director of Public Utilities to modify a professional engineering services agreement with ARCADIS U.S. Inc., in connection with the Sewer System Capacity Model Update 2012; to authorize the transfer of \$1,576,174.90 within and a total expenditure of up to \$3,075,175.32 from the Sanitary Sewer General Obligation Fund; and to authorize an amendment to the 2016 Capital Improvements Budget. (\$3,075,175.32)

**WHEREAS**, the original professional engineering services agreement with ARCADIS U.S. Inc., in connection with the Sewer System Capacity Model Update 2012, number EL013911, was authorized by Ord. 2467-2012, passed by Columbus City Council on January 15, 2013; executed on January 17, 2013; approved by the City Attorney on January 17, 2013; and certified by the City Auditor's office on January 17, 2013; and

**WHEREAS**, the first modification to the contract, number EL015777, was authorized by Ord. 0803-2014 was passed by Columbus City Council on May 19, 2014; executed on May 23, 2014; approved by the City Attorney on May 30, 2014; and certified by the City Auditor's office on June 03, 2014; and

**WHEREAS**, the sewer system model is the principal tool used to manage the planning and operations of the City's sewer collection system; and

**WHEREAS**, it is necessary to authorize the transfer of \$1,576,174.90 within and a total expenditure of up to \$3,075,175.32 from the Sanitary Sewer General Obligation Bond Fund, Fund 6109 project; and

**WHEREAS**, it is necessary to amend the 2016 Capital Improvements Budget for purposes of providing sufficient budget authority for the project expenditure; and

**WHEREAS**, it is necessary for City Council to authorize the expenditure of funds from the Sanitary Sewer General Obligation Fund, Fund 6109 for the Sewer System Capacity Model Update 2016; and

**WHEREAS**, it has become necessary in the usual daily operation of the Division of Sewerage and Drainage, Department of Public Utilities, to authorize the Director to modify the professional engineering agreement with ARCADIS U.S. Inc. for the Sewer System Capacity Model Update 2012 Project for the immediate preservation of the public health, peace, property, safety and welfare; **Now, Therefore,**

**BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBUS:**

**SECTION 1.** That the Director of Public Utilities is hereby authorized to modify (MOD#2) an engineering agreement with ARCADIS U.S. Inc., 100 East Campus View Blvd, Suite 200, Columbus, Ohio 43235, for professional engineering services for the Sewer System Capacity Model Update 2012, in accordance with the terms and conditions as shown in the contract modification on file in the office of the Division of Sewerage and Drainage.

**SECTION 2.** That the City Auditor is hereby authorized to transfer \$1,575,175.32 within the Sanitary Sewer General Obligation Bond Fund, Fund 6109, per the account codes in the attachment to this ordinance.

**SECTION 3:** That the 2016 Capital Improvements Budget Ordinance is hereby amended as follows:

**Project No. | Project Name | Current Authority | Revised Authority | Change**

650495-100001 | Upper Scioto West Air Quality | \$0 | \$2,235,600 | | \$2,235,600

(Creation of Carryover Authority to match cash)

650495-100001 | Upper Scioto West Air Quality | \$2,235,600 | \$660,424 | -\$1,575,176

650460-100001 | Sewer System Capacity Model | \$1,500,000 | \$3,075,176 | +\$1,575,176

**SECTION 4.** That the Director is hereby authorized to expend up to \$3,075,175.32 within the Sanitary Sewer General Obligation Bond Fund | Fund 6109 | per the account codes in the attachment to this ordinance.

**SECTION 5.** That said engineering company, ARCADIS U.S. Inc., shall conduct the work to the satisfaction of the Director of Public Utilities and the Administrator of the Division of Sewerage and Drainage.

**SECTION 6.** That the City Auditor is hereby authorized to transfer \$999.58 within the Sanitary Sewer General Obligation Bond Fund, Fund 6109, per the account codes in the attachment to this ordinance.

**SECTION 7:** That the 2016 Capital Improvements Budget Ordinance is hereby amended as follows:

<b><u>Project No.</u></b>	<b><u>Project Name</u></b>	<b><u>Current Authority</u></b>	<b><u>Revised Authority</u></b>	<b><u>Change</u></b>
650343-100002	SWWTP Major Incineration Rehab	\$0	\$10,728	\$10,728
	(Creation of Carryover Authority to match cash)			
650343-100002	SWWTP Major Incineration Rehab	\$10,728	\$9,728	-\$1,000
650261-101000	WWTP Professional Construction Management	\$0	\$1,000	+\$1,000

**SECTION 8.** That the City Auditor is hereby authorized and directed to transfer any unencumbered balance in the project account to the unallocated balance within the same fund upon receipt of certification by the Director of the Department administering said project that the project has been completed and the monies no longer required for said project; except that no transfer shall be made from a project account by monies from more than one source.

**SECTION 9.** That the City Auditor is authorized to establish proper project accounting numbers as appropriate.

**SECTION 10.** That the City Auditor is authorized to make any accounting changes to revise the funding source for all contracts or contract modifications associated with this Ordinance.

**SECTION 11.** That this ordinance shall take effect and be in force from and after the earliest period allowed by law.