

**Memorandum
Public Works Department**



To: City Manager
Subject: Lead Service Line Replacement Project, Project 6563
Date: October 3, 2022
Number: 2022-170

Augustana College and the City of Rock Island have entered into a multi-year partnership during which time Augustana faculty and students collaborate with City of Rock Island staff and officials to complete the Lead Service Line Replacement Project.

Phase 1 of the project commenced in July of 2022 and consists of building a digital database, a spatial framework, and a digital platform to serve the data to provide a real-time, accurate inventory of the number and location of lead service lines in need of replacement.

As specified in the Memorandum of Agreement, Augustana College is due payment for work in Phase 1 from July 2022 and December 31, 2022.

Recommendation

The Public Works Department recommends that the City Council approve the payment to Augustana College in the amount of \$32,200.

Vendor: Augustana College
Payment Amount: \$32,200

Fund:	501	Water Operation & Maintenance
Division:	618	Utilities Services
Cost Center:	352	Water Treatment Plant
Object Code:	53112	Consultant Services
Project Code:	6563	Lead Service Line Replacement

Submitted by: Michael T. Bartels, Public Works Director
Jason P. Upton, Utilities Superintendent

Approved by: Todd Thompson, City Manager

September 21, 2022

Invoice: \$32,200 for services rendered between July 2022 and December 31, 2022 as part of the Sustainable Working Landscapes Initiative (SWLI) between Augustana College and the City of Rock Island, Illinois

Description: Augustana College and the City of Rock Island have entered into a multi-year partnership during which time Augustana faculty and students will collaborate with City of Rock Island staff and officials to complete the Lead Service Line Replacement Project

The project is divided into two phases. Phase 1 will commence in July of 2022 and encompass the 2022-2023 academic year, summer of 2023, and fall semester of the 2023-2024 academic year. Phase 2 will likely commence in the spring semester of 2024 and continue into the 2024-2025 academic year. A combination of research-based internships, faculty-mentored research projects, course-based projects, and community-based service learning experiences will be used to accomplish the specified goals and produce the needed deliverables.

PHASE 1

City Objectives & Related Deliverables:

1. Build a digital database, a spatial framework, and a digital platform to serve these data, in order to provide a real-time, accurate inventory of the number and location of lead service lines in need of replacement.

Deliverables:

1. Provide an updated material inventory by the April 15, 2023 deadline and final material inventory by April 15, 2024 deadline
2. Gather, compile, and integrate additional available information including service orders (~200), pipe material type (unknowns, etc.), building age, and other relevant available data (June 2022-August 2022)
3. Build Framework of Server Platform for data Acquisition, Archive, and Distribution. City data are partitioned within several departments and a central digital service is desired to collect, process and serve data back out to appropriate departments and community stakeholders (Aug-Dec 2022)
4. Build Spatial Framework for Parcels (Aug-Dec 2022)
5. Build Framework for Community Outreach; including an online portal for property owners to submit evidence to verify service line material (November 2022-March 2023)
6. Develop a predictive model of lead service line risk for the approximately 12,000 unknown material service lines (high, moderate, & low risk)(Jan-March 2023)
7. Identify tentative low-income, vulnerable neighborhoods (March-May 2023).
8. Use collected service line material data to validate and refine the predictive model (Sept-December 2023)

2. Build, maintain, and lead a community-based, participatory research team to serve as an Advisory Committee concerning decisions for the duration of the project. The team will be composed of Augustana College scientific experts, elected community representatives, relevant city staff, and representatives from key community stakeholder groups (neighborhood churches, community non-profits, neighborhood associations, labor unions, etc.). The advisory committee would identify necessary research needs, education and outreach needs, and capacity-building needs to ensure the inventory, replacement, and financing is done in an equitable manner. For example, two research needs for Component #1 are to decide on the criteria used to determine levels of risk and criteria used to determine low-income, vulnerable neighborhoods.

Deliverables:

1. Conduct a series of one-on-one meetings with potential community partners (July-October 2022)
2. Hold the first organizational Advisory Committee meeting (October-November 2022)
3. Organize periodic meetings of the Advisory Committee through April 15, 2024
4. In collaboration with the Advisory Committee, develop a community outreach and engagement plan and related materials (digital, social media, factsheets, etc.) that meet the notification requirements of the law and build awareness of the issue and related programs (September 2022-March 2023)
5. In collaboration with the Advisory Committee, develop a comprehensive plan to investigate and verify the construction material for unknown service lines using a combination of at least the following strategies (November 2022-March 2023).
 1. On-line digital verification platform. The goal will be to maximize the use of the online platform whereby property owners would upload the data necessary to verify service line construction material (least invasive verification means). In partnership with the city, design and launch a pilot program of the online platform (January-March 2023)
 2. Door-hanger verification platform. Develop a door-hanger program to verify construction material for high-risk, but low response (via digital platform) neighborhood. This program may include a combination of several verification methods including the following (January-March 2023)
 - a. In-person property owner assistance using the digital platform
 - b. In-person property owner collection of information including photographs and/or “do-it-yourself” test results, etc.
 - c. In-person observation by obtaining permission of property owners to physically access and assess such lines in the interior of the building (most invasive, and least desirable method)
6. Field-test a pilot of (b) in selected neighborhoods and refine final plan (April-May 2023)
7. Team of research interns (minimum of 4) use the final plan to assess and verify the materials in high priority areas (May-August 2023).
8. Combination of intense, large-scale (1/2 -1 day >200 students in partnership with community leaders) and smaller scale-effort (2-3 hours < 25 students) organized as community-based service learning experiences to assess and verify service line materials (September 2023-December 2023)
9. Update the materials inventory and related digital databases based on the findings from the above-described verification strategies and prepare a revised inventory for the April 15, 2024 statutory deadline.

As specified in the Memorandum of Agreement, this invoice is for services rendered to begin the work specified in Phase 1 from July 2022 through December 31, 2022.

Student academic year salary	\$8000
Faculty mentor stipend for academic year (serve on advisory committee)	\$9500
Faculty stipend incorporating course-based project	\$1500
GIS program manager summer salary (July-August)	\$12,000
ESRI Software	\$1000
Research equipment and supplies	\$1500
Research travel	\$200
Total	\$32,200

Sincerely,



Dr. Kimberly Murphy,
Director, Center for the
Advancement of Community
Health and Wellness

Dr. Michael Reisner
Director, UMC