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**TO:** Chairperson Vered Meltzer and Members of the Utilities Committee

**FROM:** Utilities Director Chris Shaw

**DATE:** Thursday, December 03, 2020

**RE:** *Change Order 1, 2, and 3 to Great Lakes Mechanical in the amount of \$816 for the OCCT Apparatus Test Project resulting in the construction contract being increased to \$122,156 and a decrease in contingency from \$12,134 to \$11,318*

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## **BACKGROUND**

The OCCT Test Apparatus consists of lead service lines running in parallel with city water and with sample ports to collect water for lead content. The testing apparatus has been constructed and is currently in a conditioning phase to acclimate harvested lead service lines to the testing apparatus.

It is the intent of this project to test water produced through these lead service lines while mimicking household water use. The apparatus was constructed with four test runs. These test runs are composed of different plumbing compositions and are being fed with different treatment chemistries. The resulting sampling and analyses effort over the course of the upcoming year will yield testing data that will provide the utility with the water chemistry that is best suited for the city's distribution system.

To date, three change orders have been received and approved by the Utility. Change Order #1 was for initial materials substitutions that included fittings, valves, pumps, and instruments. These substitutions resulted in a reduction of \$1,702. Change Order #2 was for installing thrust clamps to hold the lead service lines from moving and for more robust pipe supports. These improvements stabilized the lead service lines at a cost of \$975. Change Order #3 was to prevent air and entrained air from off gassing and creating water turbulence. The resulting work included pump and chemical tank relocation and removing piping that could entrap air. The cost of this change order was \$1,543.