Stratford Water Tower Replacement Project

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Agenda

• Introductions
• Project Overview
• Public Questions/Comments
• Next Steps

Project Website:
https://lawrenceks.org/mso/stratford-tower/
Existing Tank

- Multi-column style tank constructed in 1954
- Serves West Hills area
- 500,000 gallons storage
- Approximately 132 ft tall
- All painted steel (previously encapsulated original lead-based coatings)
- Equipment from three cellular providers and Douglas County Emergency Services (EMS) also located at tank
Operational Considerations

Stoneridge Tank
6th Street Tank
Stratford Tank
Oread Pump Station
Clinton WTP
Replacement Drivers

- Field investigation and evaluation determined that major structural and coating repairs are needed
- Other necessary upgrades needed such as OSHA-compliant ladder and climbing system
- Removal of lead-based coatings in close proximity to adjoining neighborhoods was not desirable
- Net present value of performing repairs and re-coating tank was similar in life-cycle cost to constructing new tank
- Finite service life
Replacement Evaluation

- Compared four (4) different tank styles
- Capital Cost
- Net Present Value (NPV) Analysis
- Maintenance
- Interior Space/Secondary Use
- Operational Benefits
- Security/Green Space
- Competitive Bidding
Recommended Tank

- Composite style tank to be constructed for low maintenance
- Concrete pedestal and steel reservoir
- 750,000 gallons
  - Benefit to operational flexibility, emergency capacity, and increased fire flow
- Similar height as existing (approx. 132 ft)
- Pedestal diameter: 32 ft
- Reservoir diameter: 70 ft
- Douglas County EMS antenna to be located on top of tank with adjacent building and ornamental aluminum fence
- Cellular providers may be located at top of pedestal (not top). Buildings would be similar to EMS.
Location Selection

- Existing Site Considerations
  - Emergency Services equipment
  - Level of Service

- New Site Considerations
  - Parks and Recreations input
  - Access
  - Geotechnical information
  - Existing utilities
Other Improvements

- New sidewalks
- Future park improvements (SW corner)
- New water lines in park and adjacent areas to replace aging cast iron and transite pipe
- Increased green space
- New public sewer for residents to the north
Shadow Simulation

- 1146 Hilltop and 1141 Sunset will continue to have shadows
- 1905 Oxford and 1145 Hilltop will no longer have shadows
- 1642 Oxford and 1647 Oxford will now experience minor shadows
Advertisement: October 2020
Bids Due: November 2020
Notice to Proceed: Jan 2021
New Tank in Service: May 2022
Existing Tank Demolition: June 2022