

October 24, 2018

Mount Airy Water Storage Facility

Update



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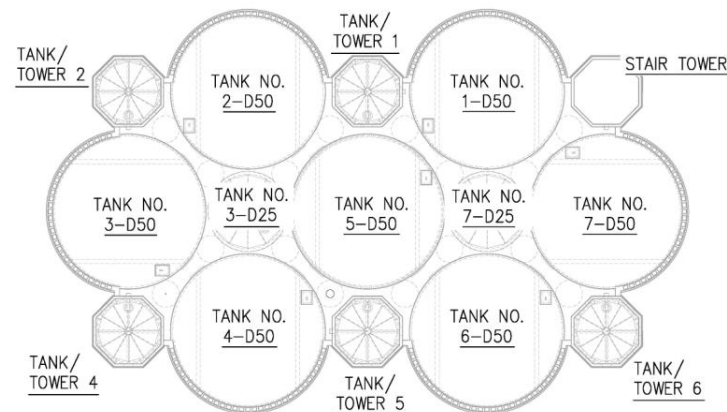
1. Repair Brick Tanks, Foundation & Roof
2. Replace Fluted Concrete Towers



The Mt. Airy Water Storage Facility
is an **historic icon.**

History - Mt. Airy Water Storage Facility

- Built in 1926-27
- Architectural appeal and evolving engineering practices
- Includes 14 water tanks in one facility





MT. AIRY TANK FACILITY: Repair and Upgrade History

INSPECTION
Core Drilling



INSPECTION
Core Drilling



INSPECTION
Core Drilling



INSPECTION

Results

Brick Tank Repair:

- **100% of the Facility perimeter foundation needs repair**
- **Masonry Deterioration:** 15% of wall surfaces & 50% of tank tops
- **Roof & Interior:** Brick repair below tank covers; Masonry waterproofing; Roof repair and replacement; Steel repairs on tank interior

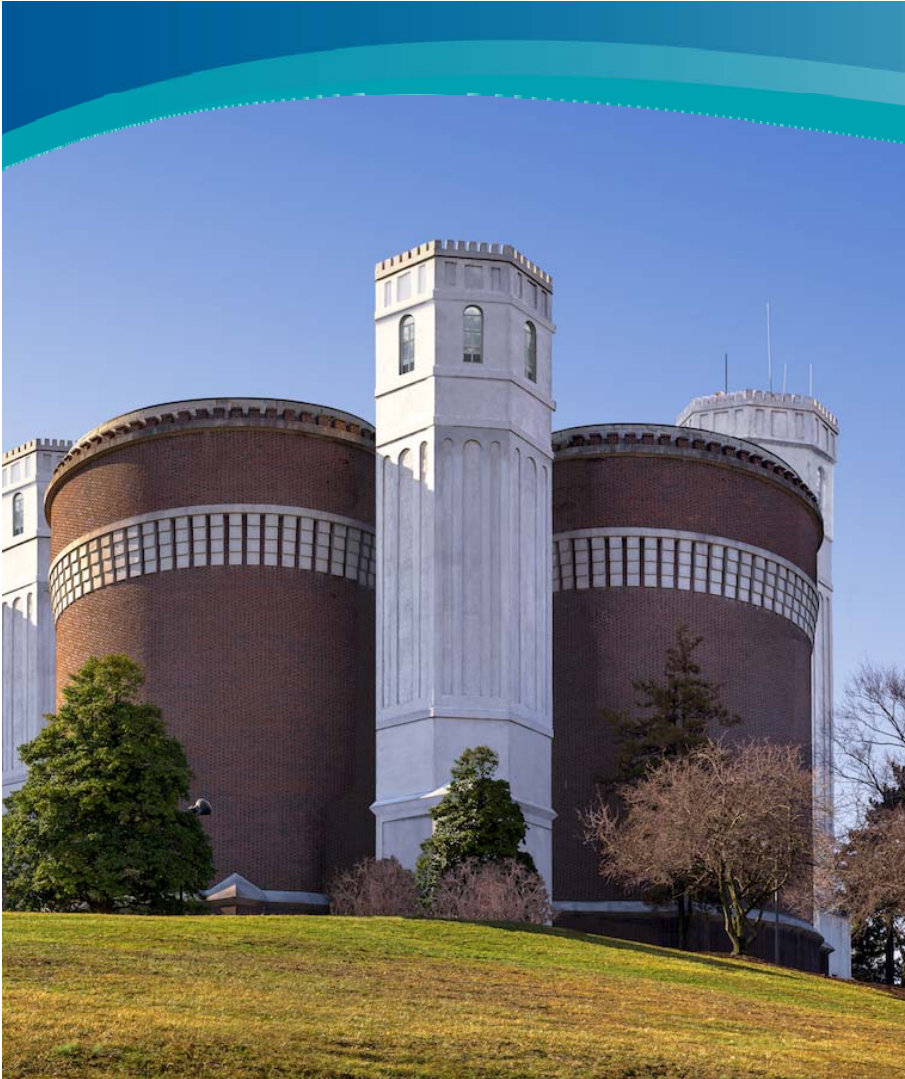
Fluted Concrete Tower Repair:

- **Significant Deterioration of Towers:** 75% above the roof; 60% below the roof; Freeze/ thaw cycles still occur behind repairs
- **Conventional repairs of Towers are not feasible:** Long-term repair solution requires full replacement of towers.

MAY 23, 2018 MATC MEETING

Results

- **Maintenance History & Latest Inspection was presented.**
- **3 Options for Rehab and Replacement were available.**
- **Community and historical concerns were discussed.**
- **GCWW re-evaluated the proposed Project plan.**
- **End Result: Project plan calls for a new approach which now includes a full rehab of facility.**



Recommendation

Rehabilitation of Brickwork, Foundation, and Roof

Replace Concrete Fluted Towers



Aerial Facing Westward

Tank Repair Plan

Repair work will consist of brick, foundation and roof repairs.



7 brick tanks will be rehabilitated

Aerial Facing Westward

Tower Repair Plan

Repair work will consist of replacing fluted concrete towers and Mt. Airy Community sponsored lighting to maintain the overall aesthetic of the water storage facility.



6 failing concrete towers will be replaced with new, concrete facade

Aerial Facing Westward

Questions?

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