

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

FROM: Paula Vandehey, Director of Public Works
Sue Olson, Staff Engineer

DATE: March 5, 2018

RE: Review stormwater management Alternatives 1 and 4 for the urbanization of Evergreen Drive and Alvin Street.

On November 7, 2017, Department of Public Works staff discussed stormwater management for the Evergreen Drive and Alvin Street urbanization with the Utilities Committee. McMahon Associates had prepared six alternatives and, at that time, staff was considering alternative five (2 stormwater management ponds on Pathways Church property), as the likely best solution.

Since that time, DPW staff have had further discussions with Pathways Church and a developer interested in this area. Those discussions have lead DPW staff to reconsider all the alternatives and, after further discussions with McMahon, are now considering Alternatives 1 and 4 as the best alternatives. Staff is bringing this forward as an information item for the March 13 Utilities Committee and will request an action item to select an alternative at the March 27 Utilities Committee meeting.

Alternative 1 serves the Evergreen Drive right-of-way, the Alvin Street right-of-way, and the existing development west of Alvin Street. It includes:

- Large storm sewer pipes (around 72” diameter) to store water under Evergreen Drive and Alvin Street for quantity control
- Inlets and manholes with sumps for water quality control in both Evergreen Drive and Alvin Street
- A small discharge pipe from Alvin Street into the Pathways Church property (natural drainage direction)

Alternative 4 serves the Evergreen Drive right-of-way, the Alvin Street right-of-way, and future development east and west of Alvin Street. It includes:

- Large storm sewer pipes (around 72” diameter) to store water under Evergreen Drive for quantity control (same as Alternative 1)
- Inlets and manholes with sumps for water quality control in Evergreen Drive
- A stormwater pond in the southeast corner of the Pathways Church property to serve Alvin Street

Since the Evergreen Drive portion of each alternative is the same, the differences that need to be discussed are for Alvin Street.

Alvin Street Alternative 1:

- Catch basin sumps achieve 18.7% TSS removal and 13.0% TP removal
- Meets WisDOT peak flow control into the US 41 right-of-way
- Requires an easement for a 12" storm pipe on Pathways Church property
- Current construction estimate \$907,000 (based on concepts plans, not design)
- On-going maintenance includes Operations Sewer Crew cleaning structure sumps approximately once per year
- Future development will need to meet water quality and quantity regulations in place at the time of development
- In addition to the catch basin sumps, the City-owned Ballard Pond achieves 79% TSS removal and 55% TP removal

Alvin Street Alternative 4:

- Wet pond achieves 81.8% TSS removal and 62.7% TP removal
- Meets WisDOT peak flow control into the US 41 right-of-way
- Requires purchasing property from Pathways Church for the stormwater pond
- Is preferred by the WDNR because it achieves more wetland protection between the site and the Ballard Road pond
- Includes overbuild of the pond for future development. No development plan has been presented to the City and the current assessment policy does not provide a mechanism to re-coop the overbuild costs
- Current construction estimate \$925,000 (based on concept plans, not design)
- Cost estimate does not include historic fill in pond area found during Phase 2 Environmental Investigation (this material requires a DNR permit and DNR approved disposal site)
- On-going maintenance includes Operations Sewer Crew cleaning structure sumps on Evergreen Drive approximately once per year and a pond added to the inventory for contractor and Operations staff maintenance
- Future development will not have to use land for stormwater management
- In addition to the wet pond, the City-owned Ballard Pond also achieves 79% TSS removal and 55% TP removal

Staff requests the Utilities Committee review the information presented and forward any questions to Director Paula Vandehey prior to the next meeting. In order to keep the project moving forward and meet this year's construction schedule, an alternative needs to be selected by mid-April.