

# Memorandum

**To:** Commissioners, Bassett Creek Water Management Commission  
**From:** Barr Engineering Company  
**Subject:** Items on the Commission's November 19, 2002 Meeting Agenda  
**Date:** November 14, 2002  
**Project:** 23/27 051 2002

## 1. Stone Creek Village Apartments: Plymouth

### Summary

**Proposed Work:** Multiple Residential Development

**Basis for Commission Review:** Alternative Water Quality Treatment

**Recommendation:** Approval

A request was received for review of a grading, drainage, and erosion control plan for the above-referenced project. The project is located northeast of Highway 55 and West Medicine Lake Drive in Plymouth. The project is in the Medicine Lake watershed and subject to Level I treatment standards. The floodplain is 890.1 feet MSL. The proposed project includes the construction of a new apartment building. Grading will occur on 8 acres of the 15.5-acre site. No work is proposed below the floodplain. The majority of stormwater runoff from the site will be directed to a water quality pond. Due to site conditions and grades, a portion of the roof runoff cannot be directed to the water quality pond. The applicant has indicated that the western half of the roof drains to the water quality pond. As much roof water from the eastern half of the building will be directed to four "rain garden" stormwater treatment system constructed along the east side of the site. Due to site limitations including the tree preservation plan and the wetland buffer setback, approximately 9,200 square feet (0.2 acres) of roof runoff will remain untreated and discharge directly to the wetland.

The developer has requested approval of the rain garden as an alternative for a water quality pond. Part II, Section 6 of the Water Quality Management Policy allows for alternatives to onsite ponds:

*Alternative water quality management features may be used where onsite ponds are not feasible. Alternative features must be designed to provide water quality benefits that equal or exceed design criteria outlined in existing Commission policies.*

Recommendation: Approval contingent on following modifications:

- a. Native soils should be investigated to ensure the soils are appropriate for an infiltration type system.
- b. The applicant shall review the roof drainage plan to minimize the roof area that does not receive treatment.

## **2. Plymouth Creek Professional Building and Future Development: Plymouth**

### **Summary**

**Proposed Work:** Commercial Development

**Basis for Commission Review:** Alternative Water Quality Treatment

**Recommendation:** Approval

A request was received for review of a grading, drainage, and erosion control plan for the above-referenced project. The project is located southwest of Plymouth Boulevard and 37<sup>th</sup> Avenue North in Plymouth. The project is in the Medicine Lake watershed and subject to Level I treatment standards. The proposed project includes the construction of two new buildings. Grading will occur on the entire 2-acre site. The majority of stormwater runoff from the site (1.65 acres) will be directed to a "rain garden" stormwater treatment system located along the east side of the site. Approximately 0.25 acres of stormwater runoff from the north building and 0.1 acres along Plymouth Boulevard will be directed to the existing storm sewer. Due to site conditions and grades, runoff from the area along Plymouth Boulevard cannot be directed to the rain garden. The applicant will review the feasibility of directing the north roof runoff to the rain garden.

### **Future 6-Acre Development**

The applicant and city have also requested approval of the water quality plan for the future development of the 6-acre site immediately west of the Plymouth Creek Professional Building. In order to provide water quality treatment for the future development (and the untreated areas of the Plymouth Creek Professional Building) the applicant has proposed the construction of a regional detention pond along Plymouth Creek. The regional pond would be located in the Central Park Pond complex near the Plymouth City offices. The Commission previously supported this concept (see following paragraph). The proposed plan includes excavating a 1.47 acre-feet open water area adjacent to Plymouth Creek. The required Level 1 pond to treat the Plymouth Creek Professional Building and 6-acre future development would be 1.25 acre-feet. The identified off-site water quality pond does not provide adequate treatment for the referenced development because of the large overall contributing drainage area to the pond. Therefore additional onsite BMPs are recommended.

### **Central Park Pond Excavation (DNR Permit Extension 92-6241)**

A DNR Permit extension was received for the proposed excavation in Central Park Pond. The original permit was submitted by the Commission in 1992 for modifying the outlet at the wetland to raise the water level and for excavating dead storage at two locations. The purpose of the project was to improve the water quality of Medicine Lake. Although the work was never completed under the initial permit, the City requested an extension of the DNR permit during 1998. Due to warm winters, the City was unable to complete the work until 2000/2001. The completed work included raising the outlet of the pond and excavation of the primary open water area (this excavation site was reviewed during the watershed tour at the July 2002 meeting). The city of Plymouth again requested an extension to the permit to complete additional excavation at the area identified as an "alternate open water" area in the application for DNR permit No. 92-6241

Recommendation: Approval contingent on following modifications:

- a. Runoff from the north building must be reviewed and, if feasible, directed to the rain garden.
- b. Sheet C3: a detail for catch basin erosion control protection, as indicated on note 6, must be included in the plans.
- c. A maintenance agreement must be established between Owner and City for cleaning and maintaining the rain garden and for the street/parking lot sweeping program.
- d. Rain garden must be properly sized and designed for the site and its contributing drainage area.
- e. Native soils should be investigated to ensure the soils are appropriate for an infiltration type system.
- f. All excavated material from the open water area must be disposed above the floodplain.
- g. An application and plans must be prepared and submitted for the future 6-acre development.
- h. An onsite "rain garden" stormwater treatment system must be included to provide treatment for the future 6-acre development.

### 3. For Information Only

a. Bassett Creek Condos: Golden Valley

A revised grading, drainage, and erosion control plan was reviewed. A letter of recommendation was sent to the City of Golden Valley. A revised plan was submitted and a letter of approval was sent to the City.

b. BP Connect: Golden Valley

A revised grading, drainage, and erosion control plan was reviewed. A letter of recommendation was sent to the City of Golden Valley.

c. Logan Avenue Storm Water Retention Pond: Minneapolis

A grading, drainage, and erosion control plan was reviewed for street and utility improvements and construction of a water quality pond at the above-referenced site. The project is located in the city of Minneapolis at vacated Logan Avenue N. and is bounded by 27<sup>th</sup> Avenue N., Knox Avenue N., 29<sup>th</sup> Avenue N. and Morgan Avenue N. The project includes removal of homes, construction of a water quality pond, installation of drainage improvements, and associated grading. Local flooding has occurred at the site for several years. The proposed project will provide water quality treatment, to a previously untreated subwatershed, and will resolve many of the local flooding issues. In addition, the pond will provide water quality treatment for the existing 250-acre residential area located west and north of the project site. The proposed project is a good example of addressing water quantity and water quality issues in an urban area.