

## Memorandum

To: Bassett Creek Watershed Management Commission  
From: Barr Engineering Co.  
Subject: Item 7A – Four Season Mall Area Water Quality Project (CIP NL-2)  
ii. Approval of 90% (Final) Plan Set – Plymouth  
BCWMC September 19, 2013 Meeting Agenda  
Date: September 12, 2013  
Project: 23270051 2013 623

### 7A. Four Seasons Mall Area Water Quality Project (CIP NL-2) ii. Approval of 90% (Final) Plan Set

#### Summary

**Proposed Work:** Four Seasons Mall Area Water Quality Project (CIP NL-2)

**Basis for Commission Review:** 90% (final) plan approval

**Change in Impervious Surface:** N.A.

**Recommendation:** Recommended Conditional Approval

#### **Background and Previous Reviews**

The Four Seasons Mall Area Water Quality Improvement Project (CIP NL-2) is located in Plymouth and includes a proposed pond located east of 40th Avenue, and channel stabilization and restoration west of Lancaster Lane. The BCWMC is funding the project through an ad valorem levy (via Hennepin County).

At their August 15, 2013 meeting, the Commission approved the 50% development construction plans for the Four Seasons Mall Area water quality project, with the staff recommendations as listed in the BCWMC Engineer's memo.

Plymouth staff met with BCWMC Engineer staff on August 28, 2013 to discuss the BCWMC Engineer's comments about the proposed project. The BCWMC Engineer staff also walked the project area after the meeting with the City staff to gather additional perspectives about the proposed project. The BCWMC Engineer provided subsequent comments to City staff. The City's modified plans (90% stage) plans successfully address most of the BCWMC Engineer's comments provided during the 50% stage review and after visiting the project site.

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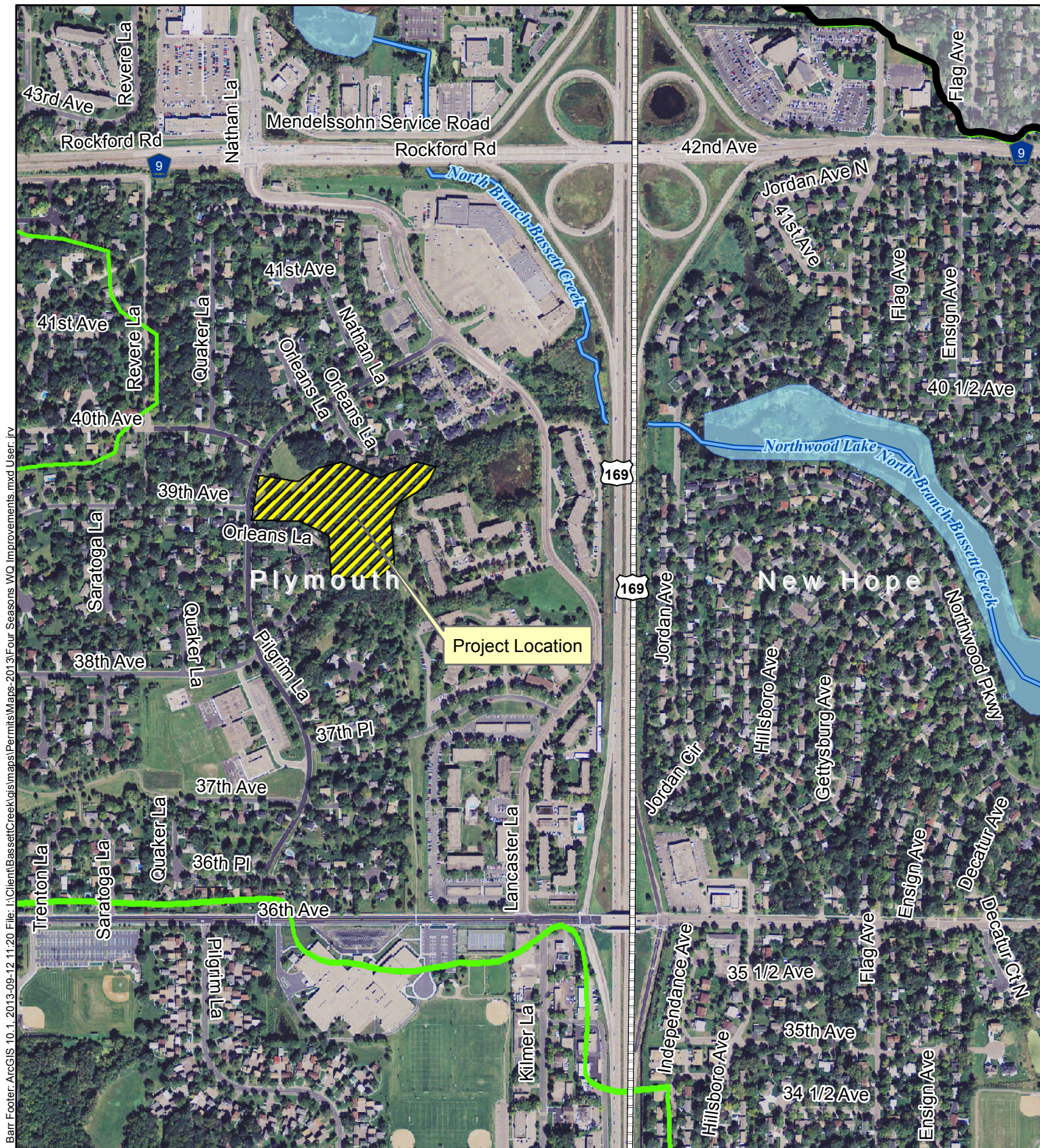
The City of Plymouth submitted the 90% (final) plans to the BCWMC engineer for review, as set forth in the BCWMC CIP project flow chart developed by the TAC. We understand that it is the City's intention to complete construction of this project during the winter of 2013/2014.

## **Recommendations**

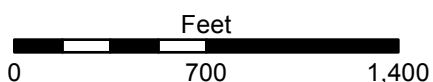
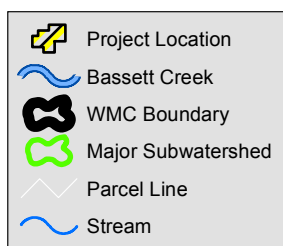
The BCWMC Engineer recommends that the BCWMC: 1) approve (with conditions) the 90% design drawings and 2) authorize the City of Plymouth to proceed with preparation of final plans and contract documents and construction of the project. Please note the BCWMC Engineer's following comments:

1. The proposed dead storage volume (Sheet 9) for the pond should be compared to the dead storage assumed in the feasibility study to ensure that the removal rates calculated with the P8 model still apply to the current design.
2. We understand that the City's estimated channel design flows will be provided to the BCWMC Engineer in the near future. The BCWMC Engineer should review the design flows before the City finalizes the plans.
3. We understand that the City intends to maintain the existing channel width and preserve trees to the extent possible. We concur that this will minimize the impacts to the channel's natural dimensions. We recommend adding notes to the plans stating that grading and tree removal extents are approximate and the City will mark specific grading extents and tree removals in the field.
4. The plans should include a SWPPP and erosion control plan, including where silt curtains or rock dams will be used in the channel to provide sediment control during runoff events.
5. Adequate riprap should be provided to prevent erosion between storm sewer outlets and receiving water bodies.
6. The details for the cross vanes and rock weir should be added to the plans.





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**LOCATION MAP**  
**Four Seasons Mall**  
**Water Quality Improvements**  
**90-percent Plan Review**  
**Plymouth, MN**