



## Memorandum

**To:** Bassett Creek Watershed Management Commission  
**From:** Barr Engineering Co.  
**Subject:** Item 4H – French Regional Park Street Improvements – Plymouth, MN  
BCWMC February 16, 2017 Meeting Agenda  
**Date:** February 8, 2017  
**Project:** 23270051 2017 2107

### 4H French Regional Park Street Improvements – Plymouth, MN BCWMC 2016-39

#### Summary:

**Proposed Work:** Bituminous park roads, parking lots, and trail improvements.

**Basis for Commission Review:** Work within the floodplain

**Impervious Surface Area:** Decrease 0.8 acres

**Recommendation:** Conditional Approval

#### General Background & Comments

The proposed project consists of reclaiming the existing bituminous roads, parking lots, and trails. The trails and boat trailer parking lot will be reclaimed, reshaped, and paved. The existing bituminous will be removed along the road and other parking lots. Once the existing bituminous is removed, the subgrade will be compacted, geotextile installed, and the material will be replaced. Roads and parking lots will then be paved. Class 5 aggregate base will be imported as needed. Four parking lots and a segment of roadway will have pervious pavers installed.

The project is located in portions of the Medicine Lake Direct subwatershed, the Medicine Lake North subwatershed, and the Medicine Lake Northeast subwatershed between Rockford road and Medicine Lake. The proposed project includes approximately 25.1 acres of grading. The project results in a decrease of 0.8 acres of impervious surfaces.

#### Floodplain

The current floodplain elevation is 890.3 feet (NGVD29) for Medicine Lake. Based on the plans and communications with the applicant, there will be no permanent net fill placed within the Bassett Creek floodplain. Park trail improvements within the floodplain occur between STA 13+50 and STA 14+00. Park road improvements within the floodplain occur near STA 27+00. Boat trailer parking lot improvements within the floodplain occur in a portion of the parking lot. Removal and replacement of various storm sewer pipes and flared-end sections occur within the floodplain. Temporary stockpiles may be placed in the floodplain during excavation.

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## **Wetlands**

The project appears to involve work within or adjacent to wetlands. The City of Plymouth is the LGU for administering the Minnesota Wetland Conservation Act of 1991 and is responsible for wetland issues.

## **Stormwater Management**

The project generally involves improving the existing pavement surfaces without modifying the site plan. The impervious area is slightly reduced and pervious pavers will be installed in parking lots. Due to the reduction in impervious surface, the proposed peak discharge rates will be less than or equal to the existing peak discharge rates for the 2-, 10-, and 100-year storm events.

## **Water Quality Management**

The September 2015 BCWMC Requirements for Improvements and Development Proposals (Requirements) document requires that the project capture and retain 0.55 inches of runoff from the new and fully reconstructed impervious surfaces. However, the requirements document also indicates that “Activities such as structure renovation, mill and overlay projects and other pavement rehabilitation projects that do not alter the underlying soil material beneath the structure, pavement or activity are not considered full reconstruction.” The improvements of the impervious surfaces for the project are not anticipated to disturb the underlying soil, therefore the project does not trigger water quality treatment requirements.

## **Erosion and Sediment Control**

Since the area to be graded is greater than 10,000 square feet, the proposed project must meet the BCWMC erosion and sediment control requirements. Proposed temporary erosion control features include silt fence, floatation silt curtain, inlet protection, biolog ditch checks, rock check dams around flared-end sections, rock construction entrances, and street sweeping. Permanent erosion control features include erosion control blankets and riprap.

## **Recommendation**

Conditional approval based on the following comments:

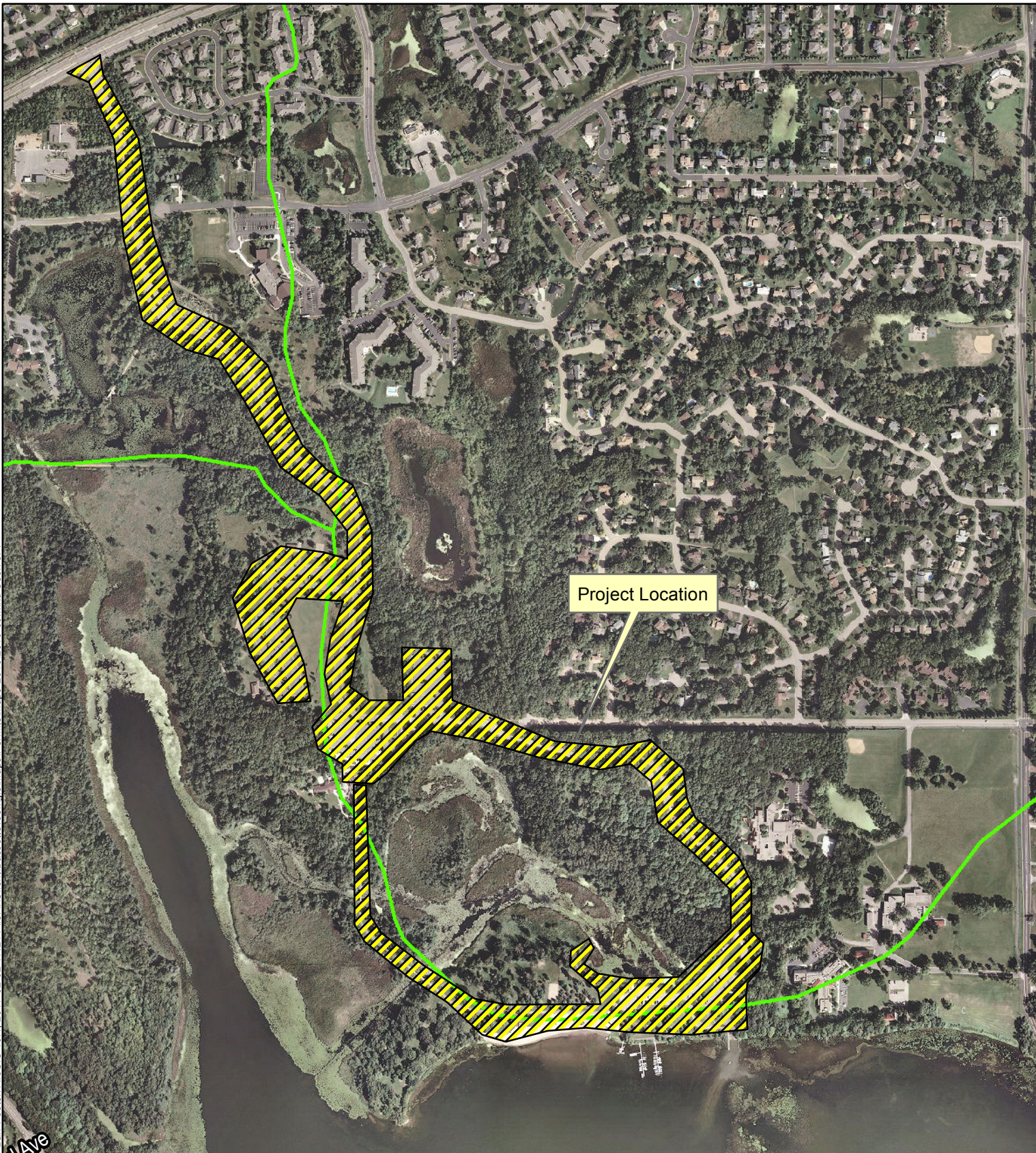
1. Site drainage is unclear in portions of the project. Contours are provided on the plans but not labeled; adequate placement of silt fence downstream of all disturbed areas must be verified by the applicant.
2. Riprap and filter must be provided for the flared-end section north of the road near STA 41+00 on Sheet C2.02 (also shown on Sheet C2.05), the flared-end section north of the road near STA 44+80 on Sheet C2.02 (also shown on Sheet C2.05), the flared-end section north of the cul-de-sac on 36<sup>th</sup> Ave on Sheet C2.02, the flared-end section north of the path near STA 0+30 on Sheet C2.04, and the flared-end section north of the road near STA 41+00.

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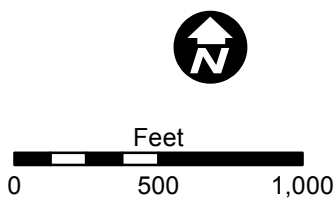
3. Inlet protection must be provided for the inlets on the south side of the road between STA 31+50 and STA 31+95. Inlet protection must be provided for the proposed inlet on the north side of the cul-de-sac near STA 72+20.
4. Rock construction entrances must have a minimum height of 6 inches above the adjacent roadway and a wash-off berm with a minimum height of 2 feet above the adjacent roadway and with maximum side slopes of 4:1. (detail not provided for review)
5. The following erosion and sediment control notes must be added to the plans:
  - a. Temporary or permanent mulch must be uniformly applied by mechanical or hydraulic means and stabilized by disc-anchoring or use of hydraulic soil stabilizers.
  - b. Provide riprap to an adequate depth below the ordinary high water level and to a height above the outfall or channel bottom so as to ensure that the riprap will not be undermined by scour or rendered ineffective by displacement.
6. Revised Drawings (paper copy and final electronic files) must be provided to the BCWMC Engineer for final review and approval.





Imagery Source: Aerial Express (2009)

-  Project Location
-  Bassett Creek
-  WMC Boundary
-  Major Subwatershed
-  Municipality
-  Stream



**LOCATION MAP**  
**APPLICATION 2016-39**  
**French Regional Park**  
**Street Improvements**  
**Plymouth, MN**