Memorandum

To: Bassett Creek Watershed Management Commission (BCWMC)

From: Barr Engineering Co. (Barr)

Subject: Item 4F: 10406 South Shore Drive Single-Family Home - Plymouth, MN

BCWMC December 17, 2020 Meeting Agenda

Date: December 9, 2020 **Project:** 23270051.48 2020 2235

4F 10406 South Shore Drive Single-Family Home – Plymouth, MN BCWMC 2020-30

Summary:

Proposed Work: Single-family home construction

Basis for Review at Commission Meeting: Work in the floodplain

Impervious Surface Area: Increase 1,082 sq. ft.

Recommendation: Approval

General Project Information

The proposed project is located along Medicine Lake at 10406 South Shore Drive in Plymouth, MN. The proposed project includes construction of a new single-family home resulting in 0.28 acres of disturbance. The project creates 1,082 sq. ft.of new impervious surfaces.

Floodplain

The proposed project includes work in the BCWMC (Medicine Lake) 1% (base flood elevation, 100-year) floodplain. The October 2019 BCWMC Requirements for Improvements and Development Proposals (Requirements) document states that projects within the floodplain must maintain no net loss in floodplain storage and no increase in flood level at any point along the trunk system (managed to at least a precision of 0.00 feet). The 1% (base flood elevation, 100-year) floodplain elevation of Medicine Lake is 890.4 feet NAVD88.

The proposed project includes fill in the floodplain to raise the elevation of the proposed home. Compensatory cut in the floodplain is provided on the west side of the property, which results in a net increase in floodplain storage of approximately 6 cubic yards.

The Requirements document also states that minimum building elevations (lowest) floor of new and redeveloped structures, including parking ramps/garages, must be at least 2.0 feet above the 100-year flood level.

The new home is proposed as a slab on grade design. The garage floor is proposed to be 2.2 feet above the 100-year flood level and the low floor of the home is proposed to be 2.5 feet above the 100-year

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flood level. Portions of an existing detached garage and shed on the property appear to be in the 100-year floodplain. The city should review the elevations of the structures and consider requiring or requesting that these features be removed from the floodplain, as feasible.

Lakes, Streams, and Wetlands

The applicant does not appear to be proposing any work along the shoreline of Medicine Lake.

The City of Plymouth is the local government unit (LGU) responsible for administering the Wetland Conservation Act; therefore, BCWMC wetland review is not required.

Rate Control

The proposed project does not create one or more acres of new or fully reconstructed impervious surfaces; therefore, BCWMC rate control review is not required.

Water Quality

The proposed project does not create one or more acres of new or fully reconstructed impervious surfaces; therefore, BCWMC water quality review is not required.

Erosion and Sediment Control

Single family homes are exempt from BCWMC erosion and sediment control requirements.

Recommendation

Approval. We also recommend that the city review the elevations of the existing structures and consider requiring or requesting that these features be removed from the floodplain, if feasible.

