

November 3, 2020



Kristen Lundeen, PE  
Director of Public Works / City Engineer  
City of Mequon, Wisconsin  
11333 N. Cedarburg Road  
Mequon, WI 53092

**RE: Drainage Capital Improvement Stormwater Study: Prairie View Lane and Lakeshore Drive**

Dear Ms. Lundeen,

FreshWater Engineering (FW) is pleased to submit this final report following completion of the Drainage Capital Improvement Stormwater Study for the Prairie View Lane and Lakeshore Drive area in Mequon, Wisconsin.

FW reviewed the City of Mequon's long-term stormwater management master plan as developed by CDM in 1999. The plan provided recommendations for long-term management practices including construction of a 90-acre-ft detention basin and stream rehabilitation efforts. It also detailed results of stormwater modeling efforts completed as part of the overall study.

FW used existing information and a site visit to develop a stormwater model of the project area. Topography, surveyed elevations, aerial photography, and GIS software was used to develop the model. The team then calibrated it against the reported 1999 CDM model results.

After calibration, FW evaluated several management opportunities, including those suggested by CDM in the master plan. Model results indicate that culvert widening will provide some level of relief by increasing conveyance capacity. The 90-acre-ft detention basin will decrease flood discharges but have limited effect on water surface elevations.

We look forward to further discussing the project findings with you and your staff. Feel free to contact me should you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink that reads "Laura Rozumalski".

Laura Rozumalski, P.E.  
President and Principal Engineer  
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608-616-0128