



TO: MGCA Members

FROM: Barbara Myers
Vice-President, MGCA Board of Managers

DATE: November 14, 2020

SUBJECT: MGCA Culver Replacement: Update #1

On behalf of the MGCA Board of Managers, the following message pertains to all Members:

This is one of a series of communications intended to educate Mount Gretna Campmeeting Association (MGCA) Members on issues related to maintaining the Campmeeting infrastructure.

What is a Culvert?

A culvert is a pipe or tunnel which allows water to flow underneath a roadway. It serves the dual purposes of acting as a conduit for water and a load-bearing structure to support the roadway. Culverts may be of different design and can be made from a variety of materials.

Campmeeting Culverts

The Campmeeting storm water drainage system incorporates several culverts of various sizes. One large corrugated metal culvert passes under Kauffman Avenue at the entrance to the Campmeeting and continues northward (toward Hwy. 117) for approximately 115 feet. Another passes under 1st Street near the entrance to the Carter Avenue parking lot and continues westward for approximately 45 feet. Both culverts carry a large volume of water during heavy rains.

Site Study

It had been evident for some time that the Kauffman Avenue and 1st Street culverts were deteriorating, so in late 2019 the Board of Managers engaged an engineering firm (Harbor Engineering) to evaluate their condition. This initial site study concluded that:

- Both culverts are substantially deteriorated and at high risk of failure/collapse.
- Failure/collapse could result in damage to the overlying roadways.
- Both culverts should be replaced with larger capacity concrete culverts.
- A headwall and endwall (i.e., inlet and exit) should be installed on each culvert.
- The stream associated with the culverts should be stabilized near the headwalls and endwalls to protect against erosion and optimize water flow.

Given that Kauffman Avenue and 1st Street are important community thoroughfares and culvert failure could require closure of the overlying roadways, the Board decided to make this a high-priority project.

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Steps to Culvert Replacement

Multiple steps will be required to complete this project:

- Surveys and preliminary construction plan and specifications
- Department of Environmental Protection (DEP) review and approval
- Permitting
- Obtain bids and sign contract
- Project execution

The Board of Managers has again contracted with Harbor Engineering to work with us on all aspects of this project, from start to finish. Their fee for this is \$15,500 and will be paid in installments as work progresses.

Harbor Engineering will facilitate any necessary surveys and develop a preliminary construction plan, drawings, and specifications.

Projects of this type must be approved by the DEP. Harbor Engineering will present the preliminary construction plan to the DEP for review and make any changes necessary for approval. This step can be expected to take several months.

Once the DEP approves the plan, Harbor Engineering will obtain any necessary permits for the project. This step may also take several months.

The MGCA will then use the approved construction plan/specifications to request bids from qualified contractors. It may take several months to obtain those bids. The original study estimated that the total cost to replace both culverts could range from \$65,000 to \$90,000, but we won't know the actual cost until we receive the bids. The Board is exploring availability of grants and low-interest government loans to defray or amortize some of the costs.

Once work begins, Harbor Engineering will conduct on-site inspections to ensure that all work is performed in accordance with project specifications. There are many variables, but once started, we believe this project would take two to three months to complete.

Summary

The Kauffman Avenue and 1st Street culverts have deteriorated, are at high risk of failure, and are in need of replacement. The project will be costly, but the Board believes it is important to act before primary roadways into and out of our community are affected.

Thank you for taking the time to review this information. Our goal is to keep you informed and make the functioning of your Board of Managers as transparent and accessible as possible. Look for an update on this issue in future communications.

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