

## Report TR-TAPS-10-16

**To:** Chair Bell and Members of the Transportation and Public Safety Committee

**From:** M.J. Kelly, Director of Transportation Services

**Meeting Date:** January 21, 2016

**Subject:** Structures on Grey Road 10 Alternative (Culvert 010-900 and Bridge 10-590)

**Status:** Recommendation adopted by Committee as presented per Resolution TAPS23-16; Endorsed by County Council February 2, 2016 per Resolution CC19-16;

## Recommendation(s)

**WHEREAS the Transportation Services 2016 approved budget includes the replacement of two structures on Grey Road 10 (Culvert 010-900 and Bridge 10-590) ;**

**AND WHEREAS Grey Road 10 is a boundary road shared with Bruce County and therefore the structure replacement cost will be split equally between the two Counties;**

**AND WHEREAS the Transportation Services Departments of Bruce and Grey Counties have been jointly working on this project and have identified a less costly alternative that would require the purchase of property;**

**NOW THEREFORE BE IT RESOLVED THAT Report TR-TAPS-10-16 regarding the alternative plan to replace the two structures on Grey Road 10 (Culvert 010-900 and Bridge 10-590) be received;**

**AND THAT the structure replacement project for Culvert 010-900 and Bridge 10-590 be deferred until 2017;**

**AND THAT the Transportation Services Staff be authorized to assess the cost with the property owner related to the following: property purchase, property easement, access modification and house demolition to obtain the necessary land to place a high flow water course for consideration at a future meeting date.**

## Background

Grey County's Transportation Services 2016 budget includes \$741,500 as Grey County's share of the cost to replace two structures (a culvert and a bridge) under Grey Road 10 which are in poor condition and need to be replaced. However replacement could be deferred until 2017. Grey Road 10 is a boundary road shared with Bruce County and as a result, the cost for this project would be split equally.

### *Structures*

#### Bridge No. 10-590

Year of construction: 1960

Location: Grey Road 10, 2.16 kilometres south of Grey Road 9, Lot 1, Concession VII, Township of West Grey, County of Grey.

Bridge Information: 5.5 metres +/- single span concrete bridge with a solid deck slab, covered with approximately 300 millimeters of fill and a paved roadway surface. This structure has been widened approximately 6 metres to the east and west. The load limit is not posted. The deck length is 6.2 metres. The deck width is 21.9 metres. The deck area is 135.8 square metres.

#### Culvert No. 010-900

Constructed: 1930

Location: Grey Road 10, 1.50 kilometres North of Concession 6, Lot 1, Concession VI, Normanby, Township of West Grey, County of Grey.

Culvert Information: 5.5 metres +/- single span concrete structure with a solid deck slab, covered with approximately 1.1 metres of fill and a paved roadway. Load limit is not posted. Total width is 5.5 metres. Height is 1.8 metres. Length is 24.5 metres. The culvert has been widened 7.6 metres to the east and the west.

### *Stream Alignment*

The watercourse, which is also part of a municipal drain, flows from the west to the east crossing under Grey Road 10 and then more or less parallels Grey Road 10 on the east side of the right-of-way flowing northerly approximately 330 metres and then crosses under Grey Road 10 again and continues to flow on the west side of Grey Road 10 (see attached map).

## *Alternatives*

Recognizing that bridges and culverts are expensive infrastructure to replace and that construction projects that involve these are always disruptive to the movement of traffic, staff have tried to develop a replacement solution that would only require a single structure. In 2014, Bruce and Grey Counties considered the option of relocating the drain to the west side of the road eliminating the need for the two structures. Due to property and environmental issues this alternative was abandoned.

Recently, staff from both Counties have been working on a revised alternative that would maintain a low flow water channel in the existing location to accommodate the municipal drain and meet environmental requirements. The new proposed culverts that will replace the large existing structures under Grey Road 10 could be significantly reduced in size resulting in less construction and future costs. In addition, a high flow route would be constructed on the west side of the road to accommodate the flow of water once it exceeded the capacity of the new culvert under Grey Road 10. The two channels would converge on the west side of Grey Road 10, just north of the downstream culvert under Grey Road 10.

Grey County Staff has had preliminary conversations with the Drainage Superintendent and the Saugeen Valley Conservation Authority Staff who have indicated that the proposal has merits. However, they cannot provide approval until the plan is developed.

If this alternative is pursued this project will be delayed until 2017.

## Financial / Staffing / Legal / Information Technology Considerations

There are no new costs associated with negotiating the agreement with the adjacent landowner. Should an agreement be reached, a report will be brought forward for Council consideration.

## Link to Strategic Goals / Priorities

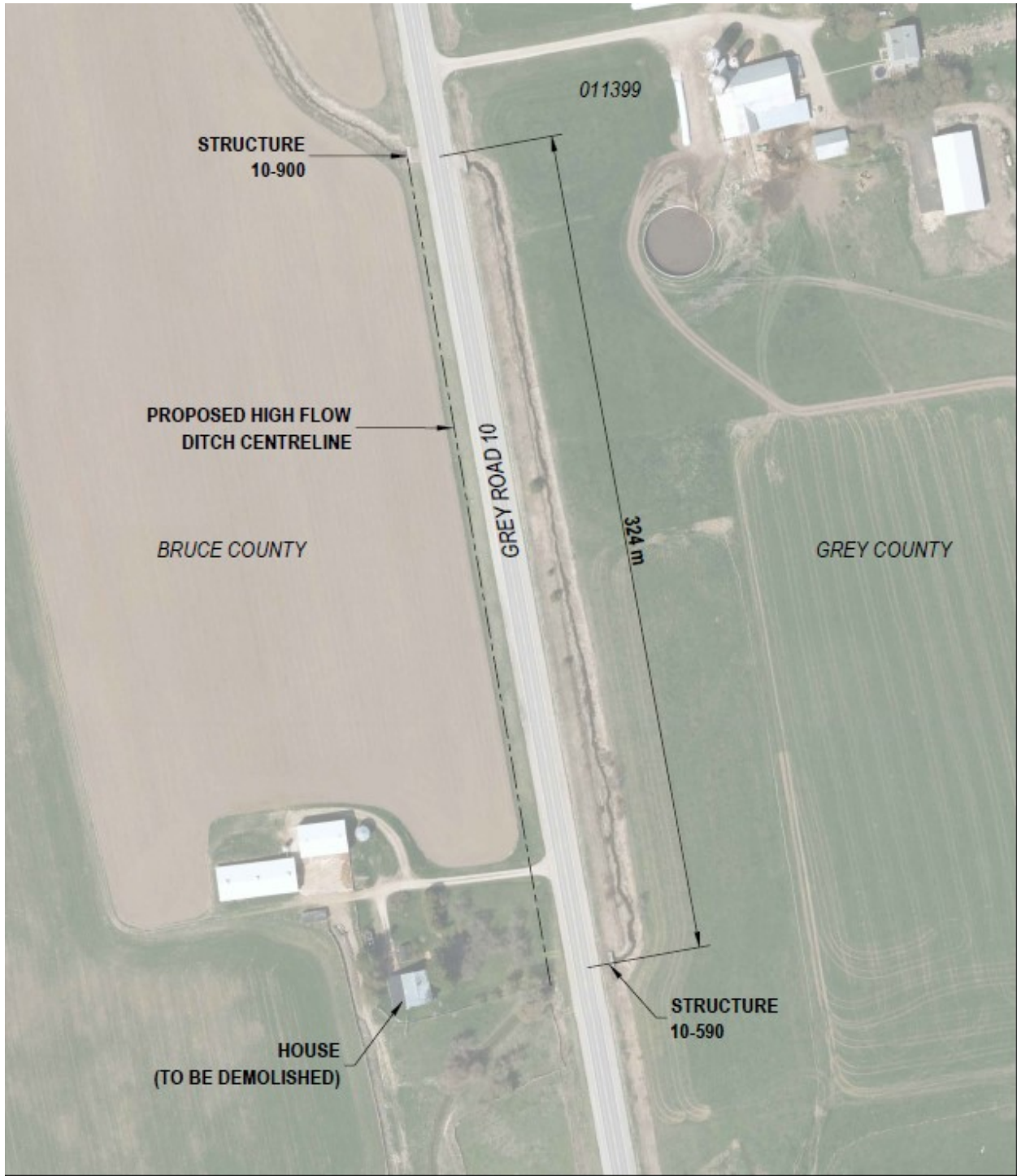
Not applicable.

## Attachments

Culvert 010-900 and Bridge 10-590 Location Plan

Respectfully submitted by,

M.J. Kelly  
Director of Transportation Services



LOCATION PLAN  
CULVERT 010-900  
BRIDGE 10-590



SHEET  
1

DESIGN: —	CHECKED: —	SCALE: 1:2000	DATE: JAN 2015
DRAWN: D P D	CHECKED: M J K	DRAWING No.:	SK-1