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December 19, 2024

**RE:** Inspection of Culvert at 515 County Road 21 (Dewitt Richter MD)

Client Name: Township of Edwardsburgh Cardinal

**Attention:** David Grant

Director of Operation / Deputy CAO Edwardsburgh Cardinal TWP 18 Centre Street PO Boc 129 Spencerville, On K0E 1X0

Mr. Grant,

In the Fall of 2023, Greer Galloway completed a review of the existing farm crossing culvert at 515 County Road 21. Before the site visit, we contacted the homeowner, Mr. Sean Luimes. We had been informed by the property owner that the culvert began to collapse during normal operations when he attempted to cross it with a spreader. After the damage Mr. Luimes stopped using the access. The damage can be seen in Fig 1.



Fig 1: Damage to Culvert

During the inspection it was found that the culvert was not installed properly and had zero cover as shown in Fig 2 below. At the time of installation this would have met the needs of property owners, but due to the increase in size and weight of modern farm equipment this is no longer sufficient. During the site visit it was confirmed that the damaged culvert is along the Dewitt Richter Municipal Drain just prior to its intersection with the James Reilly Main Municipal Drain.





Fig 2: Cover Over Damaged culvert

It is our recommendation that this culvert be replaced and that it be closed until replacement can occur. This culvert can be replaced like for like with a CSP culvert but OPSD 805.010 for height of fill must be followed to ensure that the culvert will function properly. A culvert of this size will require 400-450 mm of cover depending on the type of CSP.

In addition to the replacement of this culvert we recommend that all Municipal Drain culverts be checked to ensure that minimum cover is provided. This would be considered preventative maintenance to mitigate future damage.

Mr. Luimes was contacted after the inspection to let him know that he should continue to avoid using the culvert. Mr. Luimes indicated that he would need access as soon as possible to avoid delays to crop harvest.

If you have any further questions or require further clarification on the information included in this letter, please contact the undersigned.

Sincerely,

GREER GALLOWAY CONSULTING ENGINEERS

Rob Asselstine, C.Tech, RCCA Drainage Superintendent rasselstine@greergalloway.com