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May 31, 2016

**VIA RESS, COURIER AND EMAIL**

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
Suite 2700  
Toronto, ON  
M4P 1E4

**Re: Enbridge Gas Distribution Inc. ("Enbridge")  
EB-2015-0037 – Innes Road Pipeline Project (formerly EB-2012-0438 and  
EB-2014-0017) Conditions of Approval – Final Monitoring Report**

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In accordance with the Conditions of Approval and the Ontario Energy Board's Vary Order as issued on February 13, 2015 for the above noted project, attached please find four copies of Enbridge's final monitoring report.

If you have any questions, please contact the undersigned.

Yours truly,

(Original Signed)

Shari Lynn Spratt  
Supervisor, Regulatory Proceedings

Attachment

cc: Zora Crnojacki, OPCC Chair (via email)  
Pascale Duguay, Manager, Natural Gas Applications, Ontario Energy Board (via courier and email)

**ENBRIDGE GAS DISTRIBUTION INC.  
FINAL POST-CONSTRUCTION ENVIRONMENTAL MONITORING REPORT  
Innes Road Pipeline Replacement Project  
EB-2012-0438  
EB-2014-0017  
EB-2015-0037**

Prepared by  
Enbridge Gas Distribution Inc.  
May 2016

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## 1.0 Introduction

On April 11, 2013 The Ontario Energy Board (“OEB” or the “Board”) granted Enbridge Gas Distribution Inc. (“Enbridge”) Leave to Construct under file number EB-2012-0438 for approximately 2.8 kilometers of Nominal Pipe Size 12 (“NPS 12”) extra high pressure (“XHP”) steel pipeline and ancillary facilities along Innes Road in the City of Ottawa. This project is referred to further as the Innes Road Pipeline Replacement Project.

On January 10, 2014, Enbridge requested that the OEB review and vary the Conditions of Approval on its own motion, pursuant to section 43 of the Board’s Rules of Practice and Procedure to grant an extension to the *Leave to Construct* as construction would not commence before February 1, 2014. The Board provided an extension of the deadline until May 31, 2014, and assigned the file number EB-2014-0017 to the revised Conditions of Approval. A further order, assigned file number EB-2015-0037 approved the filing of the Final Monitoring Report and Post Construction Financial Report by May 31, 2016.

As part of the Innes Road Pipeline Replacement Project, the following studies were completed to select a pipeline route, identify potential impacts resulting from construction, and prepare mitigative measures to minimize environmental and socio-economic impacts.

<b><u>Report Title</u></b>	<b><u>Conducted by:</u></b>	<b><u>Date</u></b>
Innes Road Pipeline Replacement Project – Environmental Report	Dillon Consulting Limited	November 2012
Geotechnical Investigation Highway 417 and Innes Road Crossing, Enbridge Pipeline Replacement, Ottawa, On	Stantec Consulting Limited	July 2013
Instrumentation & Monitoring Plan for Horizontal Direction Drilling – Highway 417 and Innes Road Crossing, Enbridge Pipeline Replacement, Ottawa, ON	Stantec Consulting Limited	July 2013
Interim Environmental Monitoring Report, Innes Road Pipeline Replacement Project, EB-2012-0438, EB-2014-0017	Dillon Consulting Limited	June 2015

The pipeline was tested on June 13 and September 17, 2014. Energization was conducted on September 29, 2014.

This report has been prepared in accordance with OEB EB-2014-0017 and EB-2015-0037 Board Staff Proposed Conditions of Approval described below:

- 3.1 Both during and after construction, Enbridge shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed no later than June 30, 2015, and the final monitoring report shall be filed no later than May 31, 2016. Enbridge shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying each action.
- 3.2 The interim monitoring report shall confirm Enbridge adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 3.3 The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and any recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

This report is limited to items that were identified during a site visit completed by Dillon Consulting Limited (“Dillon”) on April 15, 2016 as well as a follow up visit completed by Enbridge on May 16, 2016.

An interim report was filed with the Board on June 30, 2015. The purpose of this report is to provide an update on the final post-construction environmental condition of the project site, including outstanding items, such as disturbed or impacted areas related to project construction activities. Enbridge has revisited these areas to ensure they are restored, and where necessary identified corrective actions to achieve final restoration, and does not foresee any future issues resulting from past construction work on this project.

## **2.0 Project Description**

The Innes Road Pipeline Replacement Project consisted of the replacement of approximately 2.8 km of XHP steel pipeline from NPS 8 to NPS 12 along Innes Road from St. Laurent Boulevard to Blair Road, in Ottawa (see Figure provided in Appendix A). The replacement was necessary to comply with the requirements of the Enbridge Gas Distribution Pipeline Integrity Management Plan, and to eliminate the existing bottleneck resulting from the NPS 8 pipeline connecting the Ottawa East and North distribution systems. The construction of the pipeline was divided into three separate phases:

Phase 1: Highway 417 Crossing

Phase 2: East of Highway 417 to Blair Road

Phase 3: West of Highway 417 (Windmill Lane) to St. Laurent Blvd

## **3.0 Environmental Awareness Training and Monitoring**

In order to ensure that environmental commitments were honoured and that the best industry practices were used, Environmental Awareness Training was provided to all onsite project employees and an Environmental Monitor was onsite routinely to observe construction activities and provide guidance on environmental protection measures. As

described in the June 2015 Interim Environmental Monitoring Report, Dillon provided Environmental Awareness Training which focused on:

- Overview of local environmental and socio-economic features
- Overview of mitigation measures
- Species at Risk (“SAR”) Identification
- Procedures for managing:
  - Failures in mitigation measures
  - Environmental spills
  - Wildlife encounters (including SAR)
  - Emergency response

An Environmental Monitor was also onsite to proactively identify items that have the potential to negatively impact the natural environment. Such efforts were specifically undertaken during construction in the vicinity of more sensitive habitats, such as the horizontal directional drill beneath the Cyrville Collector Drain.

#### **4.0 Construction Effects and Mitigation Measures**

The June 2015 Interim Environmental Monitoring Report documents the potential effects to the environment and the corresponding procedures and mitigation measures which were implemented to minimize the potential effects from the construction of the Innes Road Pipeline Replacement Project. All activities were conducted in accordance with Enbridge’s Construction Policies and Procedures.

#### **5.0 Residual Issues**

Overall, construction activities were carried out with a high level of consideration for the environment. Since the majority of the pipeline Right-Of-Way (“RoW”) is located within the municipal road allowance in a highly urbanized area, there may in the future, be some degradation caused by road maintenance, vehicular and pedestrian traffic, and littering, that is neither related to, nor a result of this construction project. Parts of the

RoW exhibited erosion and sedimentation issues prior to the construction of the Innes Road Pipeline Replacement Project.

The June 2015 Interim Environmental Monitoring Report identified outstanding issues relating to vegetation, restoration, soil settlement and erosion. The report also provided suggested actions to restore these areas. Restoration was carried out in 2015 to address the outstanding issues. A summary of these outstanding issues and proposed actions entitled Table 3: Summary Table of Outstanding Issues is provided on page 14 of the June 2015 Interim Environmental Monitoring Report.

On April 15, 2016, Dillon revisited the project location to observe and comment on any deficiencies or areas originally affected by pipeline construction that required further attention. Of the issues identified in the June 2015 Interim Environmental Monitoring Report, a number of them were considered fully restored during this site visit.

On the April 2016 site visit, Dillon identified eleven outstanding issues that required further assessment and in some instances, further maintenance. A summary of the outstanding items is provided in Appendix B, Table 1.

It is noted that the City of Ottawa performed road widening construction activities along the Phase 2 section of Innes Rd after Enbridge completed project construction in 2014. The city's work created significant disturbance over much of the Phase 2 area that Enbridge had restored post-construction. Evidence of the city's activity remains in the area, and it is expected that the city will complete any outstanding restoration activities as necessary for this region.

In general, the outstanding issues identified in April 2016, included bare patches observed in vegetation, minor subsidence and the need to confirm tree health. Due to the late spring conditions this year, tree buds were not yet visible on the April 2016 site visit. As a result, a tree health assessment could not be fully completed. A return site visit was completed by Enbridge on May 16, 2016. Noticeable leaf growth was visible



during this site visit and based on these observations, sufficient growth is expected to return. The results of the follow up visit are identified in Appendix B, Table 1 and are documented in the Appendix C Photo Log.

A number of vegetation issues were also identified by Dillon during the April 2016 site visit. A portion of these areas are subject to a high volume of vehicular and pedestrian traffic as well as significant road maintenance activities, resulting in erosion and vegetation issues being observed prior to construction on this project. Restoration activities associated with these issues have been completed prior to the finalization of this report; however it is recognized that full vegetation may not be sustained due to above-mentioned factors.

Soil subsidence was identified during the April 2016 site visit at six locations. The affected areas have been restored to the appropriate grade and additional topsoil and seed has been distributed to promote revegetation of these areas. It was also noted that before, during, and after construction a local population of groundhogs inhabits the area, which could affect future ground subsidence.

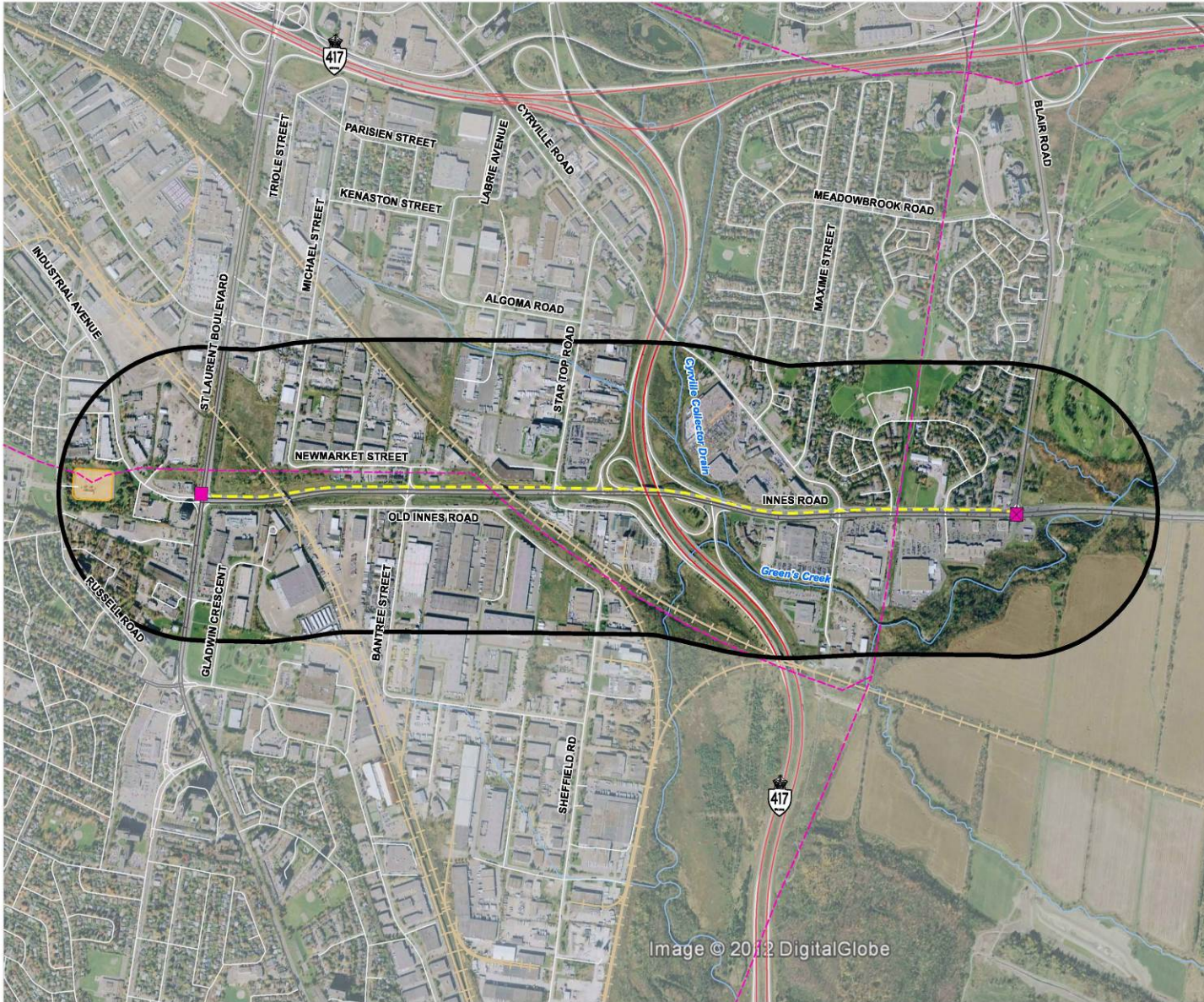
## **6.0 Landowner Comments**

No landowner comments were received after the completion of the June 2015 Interim Environmental Monitoring Report and prior to the finalization of this report.

## **7.0 Summary**

This Final Post-Construction Environmental Monitoring Report has been prepared in accordance with the OEB Decision Docket Nos. EB-2012-0438, EB-2014-0017, and EB-2015-0037. It documents the post-construction project inspection completed on April 15, and May 16, 2016 and restoration activities that were completed prior to the finalization of this report. Mitigation measures implemented during construction and restoration have been successful.

**APPENDIX A**  
**PIPELINE ROUTE MAP**



**ENBRIDGE GAS DISTRIBUTION INC.**  
**INNES ROAD PIPELINE REPLACEMENT PROJECT**

**PREFERRED ROUTE**

FIGURE 8

- Start Point
- End Point
- Preferred Route (Innes Road)
- Utility Corridor
- Railway
- Local Road
- Major Road
- Highway
- Watercourse
- Transformer Station
- Study Area Boundary

0 100 200 300 400 m SCALE 1:13,000



MAP DRAWING INFORMATION:  
 DATA PROVIDED BY MMR, MDR,  
 & GOOGLE EARTH PRO

MAP CREATED BY: JJA  
 MAP CHECKED BY: JC & GM  
 MAP PROJECTION: NAD 1983 UTM Zone 18N

FILE LOCATION: I:\GIS\enbridge - Innes Road\Maping\fig  
 Figure 8 - Preferred Route.mxd



PROJECT: 12-0605  
 STATUS: FINAL  
 DATE: 11/07/12

## **APPENDIX B**

### **TABLE 1: SUMMARY OF OUTSTANDING ISSUES**

<b>Table 1: Summary of Outstanding Issues</b>				
<b>Photo Log #</b>	<b>Location</b>	<b>April 15, 2016 Observations</b>	<b>Action Item and discussion</b>	
<b>Phase 1 – Innes Road at Highway 417 Crossing</b>				
1	Adjacent to Travelodge - South side of Innes Rd.	<ul style="list-style-type: none"> <li>Some bare patches in grass remain</li> <li>Small trench subsidence in grass</li> </ul>	<ul style="list-style-type: none"> <li>Restored to appropriate grade and revegetated by adding fill, topsoil and then seed.</li> </ul>	
2	Adjacent to Travelodge - South side of Innes Rd.	<ul style="list-style-type: none"> <li>Unable to confirm tree health status at this time of year</li> </ul>	<ul style="list-style-type: none"> <li>Historical Images (April 2009) from Google earth show the tree in declining health prior to project commencement. No further action is required.</li> </ul>	
<b>Phase 2 – Innes Road, East of Highway 417 to Blair Road</b>				
<b>Photo Log #</b>	<b>Location</b>	<b>April 15, 2016 Observations</b>	<b>Action Item and discussion</b>	<b>May 16, 2016 Observations and discussions</b>
3	North West corner of Costco - South side of Innes Rd.	<ul style="list-style-type: none"> <li>Bare patch of grass remains adjacent to sidewalk</li> <li>Sediment from winter sanding/salting activities remains on sidewalk and adjacent grass area</li> </ul>	<ul style="list-style-type: none"> <li>Enbridge revisited affected areas and added top soil and seed as needed.</li> <li>Due to the high volume of pedestrian, vehicle and road maintenance activities full revegetation is not anticipated.</li> <li>Due to the erosion and vegetation issues that were noted in this area prior to construction, no follow up visits will be completed</li> </ul>	N/A
(April 2016) 4a, b and c (May 2016) 12a, b, c, d, and e	Adjacent to Costco parking - South side of Innes Rd.	<ul style="list-style-type: none"> <li>Unable to determine health of replacement trees at this time of year.</li> </ul>	<ul style="list-style-type: none"> <li>Unable to determine health. Enbridge will perform a site visit later in the season to assess the health of the trees. Upon assessment further action, if needed, will be taken.</li> </ul>	<ul style="list-style-type: none"> <li>Significant leaf growth was documented</li> <li>Full growth is expected and no additional actions need to be taken.</li> </ul>

5	North west of the ESSO Station - South side of Innes Rd.	<ul style="list-style-type: none"> <li>Subsidence remains</li> </ul>	<ul style="list-style-type: none"> <li>Revegetated and restored to appropriate grade by adding fill, topsoil and then seed.</li> </ul>	N/A
6, 7	Adjacent to Costco parking - South side of Innes Rd.	<ul style="list-style-type: none"> <li>Small trench subsidence beside guard rails</li> <li>Small trench subsidence next to sidewalk curbing.</li> </ul>	<ul style="list-style-type: none"> <li>Revegetated and restored to appropriate grade by adding fill, topsoil and then seed.</li> </ul>	N/A
<b>Phase 3 – Innes Road, West of Highway 417 (Windmill Lane) to St. Laurent Blvd.</b>				
<b>Photo Log #</b>	<b>Location</b>	<b>April 15, 2016 Observations</b>	<b>Action Item and discussion</b>	
8a, b, and c	East of Bantree St. to St Laurent – South side of Innes Rd	<ul style="list-style-type: none"> <li>Bare patch of grass adjacent to the sidewalk remains</li> <li>Sand and salt from winter road maintenance activities covers soil in much of the area</li> </ul>	<ul style="list-style-type: none"> <li>Enbridge revisited affected areas and added top soil and seed as needed.</li> <li>Due to the high volume of pedestrian, vehicle and road maintenance activities full revegetation is not anticipated.</li> <li>Due to the erosion and vegetation issues that were noted in this area prior to construction no follow up visits will be completed</li> </ul>	
9a, b, and c	Bantree St. to St. Laurent – North side of Innes Rd	<ul style="list-style-type: none"> <li>Bare patches of grass remain along Innes road</li> <li>Some natural revegetation has occurred</li> </ul>	<ul style="list-style-type: none"> <li>Enbridge revisited affected areas and added top soil and seed as needed.</li> <li>Due to the high volume of pedestrian, vehicle and road maintenance activities full revegetation is not anticipated.</li> <li>Due to the erosion and vegetation issues that were noted in this area prior to construction no follow up visits will be completed</li> </ul>	
10	NE Corner of St. Laurent and Innes Rd.	<ul style="list-style-type: none"> <li>Bare patch of grass remains along Innes Road</li> </ul>	<ul style="list-style-type: none"> <li>Enbridge revisited affected areas and added top soil and seed as needed.</li> <li>Due to the high volume of pedestrian, vehicle and road maintenance activities full revegetation is not anticipated.</li> <li>Due to the erosion and vegetation issues that were noted in this area prior to construction no follow up visits will be completed</li> </ul>	
11	SE Corner of St. Laurent and Innes Rd.	<ul style="list-style-type: none"> <li>Minor trench subsidence adjacent to asphalt sidewalk</li> </ul>	<ul style="list-style-type: none"> <li>Revegetated and restored to appropriate grade by adding fill, topsoil and then seed.</li> </ul>	

**APPENDIX C**  
**PHOTO LOG**



April 15, 2016

**Phase 1. Innes Rd Highway 417 Crossing**



Photo 1a: Bare patches of grass. In front of the Travelodge looking west.

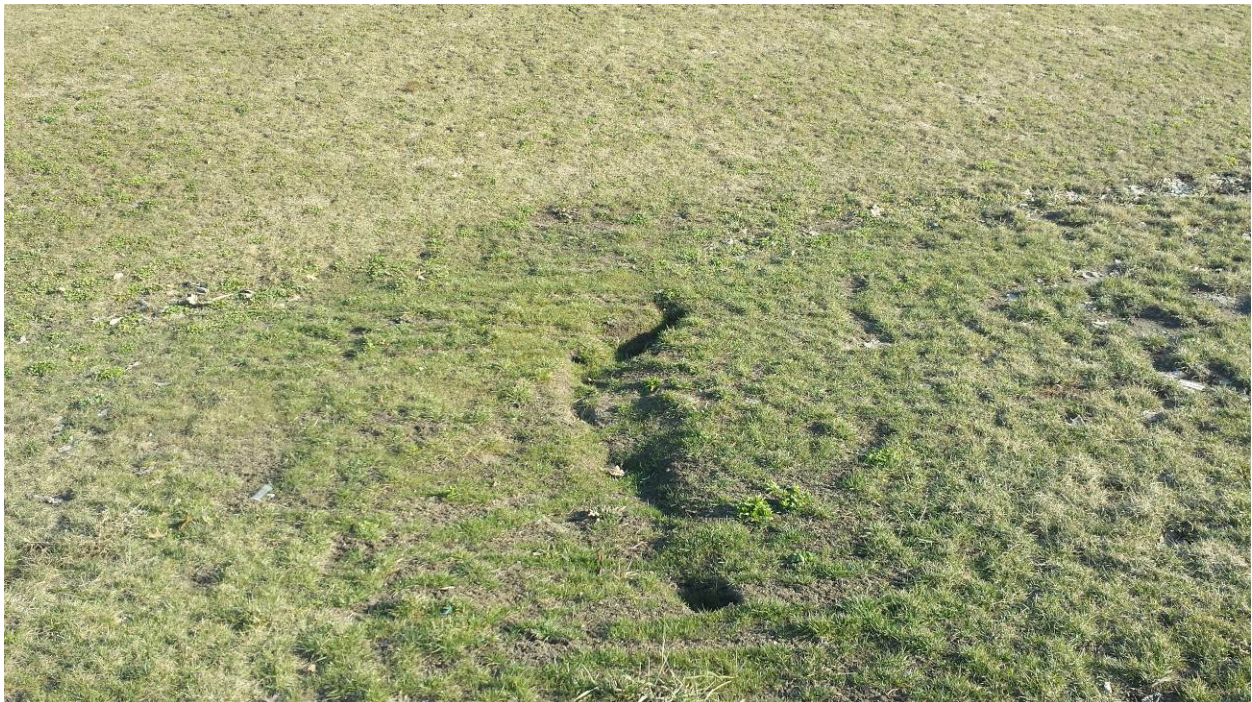


Photo 1b: Soil subsidence in front of the Travelodge.





Photo 2: Tree health unconfirmed. North of the Travelodge looking east.

## **Phase 2 – Innes Rd East of Highway 417 to Blair Road**



Photo 3: Bare patch of grass on the North West Corner of Costco.





Photos 4a: Trees with unconfirmed health on the North side of Costco.



Photos 4b: Trees with unconfirmed health on the North side of Costco.





Photos 4c: Trees with unconfirmed health on the North side of Costco.



Photo 5: Trench subsidence North West of the Esso Gas Station.





Photos 6: Trench subsidence on the North side of Costco.



Photos 7: Trench subsidence on the North side of Costco.



**Phase 3 – Innes Road West of Highway 417 (Windmill Lane) to St. Laurent Blvd**



Photo 8a: Bare patches of grass from East of Bantree St to St Laurent on the South side of Innes Rd.



Photo 8b: Bare patches of grass from East of Bantree St to St Laurent on the South side of Innes Rd.





Photo 8c: Bare patches of grass from East of Bantree St to St Laurent on the South side of Innes Rd.



Photos 9a: Bare patches of grass from Bantree St to St Laurent on the North side of Innes Rd.





Photos 9b: Bare patches of grass from Bantree St to St Laurent on the North side of Innes Rd.



Photos 9c: Bare patches of grass from Bantree St to St Laurent on the North side of Innes Rd.





Photo 10: Bare patch of grass at the North East corner of St Laurent and Innes Rd.



Photo 11: Soil subsidence at the South East corner of St Laurent and Innes Rd.



May 16, 2016

**Phase 2 – Innes Rd East of Highway 417 to Blair Road**



Photo 12a: Trees on the North side of Costco.



Photo 12b: Trees on the North side of Costco.



Photo 12c: Trees on the North side of Costco.



Photo 12d: Trees on the North side of Costco.



Photo 12e: Trees on the North side of Costco.