



uniongas

A Spectra Energy Company

CELEBRATING

100 YEARS

Est. 1911

By RESS & Courier

May 15th, 2014

Ms. Pascale Duguay
Manager, Natural Gas Applications
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, Ontario
M4P 1E4

Dear Ms. Duguay:

Re: Union Gas Limited
Dawn Parkway NPS 48 Replacement (Flamborough)
Board File # EB-2013-0284

Pursuant to Condition 3.1 of the Board's Conditions of Approval for the above noted project, please find enclosed four copies of Union's Interim Monitoring Report.

Sincerely,

[original signed by]

W. T. Wachsmuth
Senior Administrator, Regulatory Projects
Encl.

cc: Z. Crnojacki (Chair, OPCC)
Gary Collins

P. O. Box 2001, 50 Keil Drive North, Chatham, ON, N7M 5M1 www.uniongas.com

Union Gas Limited

**Union Gas Highway 6 Pipeline
Replacement: Interim Monitoring
Report**



Prepared for:

Union Gas Limited
50 Kiel Drive
Chatham, Ont., N7M 5M1

Prepared by:

Stantec Consulting Ltd.
70 Southgate Drive, Suite 1
Guelph ON N1G 4P5
T: 519-836-6050
F: 519-836-2493

File No. 160960855
May 9, 2014

Table of Contents

EXECUTIVE SUMMARY	II
ABBREVIATIONS	III
1.0 BACKGROUND	1.1
1.1 SCOPE OF THE INTERIM MONITORING REPORT	1.1
2.0 PREDICTED IMPACTS AND MITIGATION	2.1
2.1 CONDITION 1.1	2.1
2.2 CONDITION 1.3	2.1
2.3 CONDITION 1.4	2.2
2.5 CONDITION 3.1	2.3
2.6 CONDITION 3.2	2.3
2.7 CONDITION 5.1	2.4
3.0 CONCLUSION	3.1
LIST OF TABLES	
Table 2.1: Environmental Review Recommendations	2.1
Table 2.2: All other Approvals, Permits, Licences and Certificates	2.4
LIST OF APPENDICES	
Appendix A: Site Map	
Appendix B: Site Photo's	
Appendix C: EB-2013-0284 Conditions of Approval	

Executive Summary

Union Gas Limited ("Union Gas") completed a scheduled assessment of its 48 inch diameter Dawn Parkway Pipeline in September 2012. The assessment determined that a section located underneath Highway 6, between Lot 11, Concession 7 and Lot 13, Concession 9, Hamilton, Ontario needed to be replaced. Stantec Consulting Ltd. ("Stantec") was retained by Union Gas to complete an Environmental Review of the proposed work. Based on the review, and implementing the recommended mitigation measures, pipeline relocation activities were not anticipated to have significant or adverse environmental or socio-economic impacts.

Union Gas filed an application with the Ontario Energy Board on August 9, 2013 to relocate a 70m section of NPS 48 inch pipeline and received Decision and Order EB-2013-0284 on August 23, 2013. Construction activities began during the first week of September 2013 and gas service resumed on November 13, 2013.

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Abbreviations

Act	Ontario Energy Board Act, 1998
MTO	Ontario Ministry of Transportation
NPS	Nominal Pipe Size
Board	Ontario Energy Board
Stantec	Stantec Consulting Ltd.
Union Gas	Union Gas Limited

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Background
May 9, 2014

1.0 Background

In September 2012 a scheduled integrity inspection of the Dawn Parkway 48 inch diameter pipeline identified the need to replace a section located underneath Highway 6, between Lot 11, Concession 7 and Lot 13, Concession 9 in Hamilton, Ontario. The inspection revealed pipeline integrity issues.

Stantec was retained by Union Gas to conduct an Environmental Review in support of an application with the Ontario Energy Board (the "Board"). The Environmental Review determined that if the recommended mitigation measures were employed that no significant or adverse environmental socio-economic impacts would result from the proposed work.

Union Gas filed an application with the Board on August 9, 2013, under section 95 of the *Ontario Energy Board Act, 1998* (the "Act"), requesting an exemption from the requirements of Section 90 of the Act for an Order granting leave to construct a natural gas pipeline in the City of Hamilton. Union proposed to replace approximately 70 metres of the Dawn Parkway NPS 48 pipeline in the vicinity of Lot 11, Concession 7 and Lot 13, Concession 9 in the City of Hamilton (formerly Town of Flamborough). Union proposed to abandon approximately 45 metres of the existing pipeline and construct a new portion of pipeline immediately adjacent to the existing pipeline and within the same easement.

1.1 SCOPE OF THE INTERIM MONITORING REPORT

This report has been prepared in accordance with the Board EB-2013-0284 Board Staff Conditions of Approval as described below:

- Condition 1.1** Union Gas shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0284, and approved in this Order and these Conditions of Approval.
- Condition 1.3** Union Gas shall implement all the recommendations of the Environmental Review filed in the pre-filed evidence.
- Condition 1.4** Union Gas shall advise the Board's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Background
May 9, 2014

- Condition 3.1** Both during and after construction, Union Gas 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 within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union Gas 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 such actions.
- Condition 3.2** The interim monitoring report shall confirm Union Gas's 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.
- Condition 5.1** Union Gas shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Predicted Impacts and Mitigation
May 9, 2014

2.0 Predicted Impacts and Mitigation

2.1 CONDITION 1.1

Condition 1.1 Union Gas shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0284, and approved in this Order and these Conditions of Approval.

Construction of the pipeline replacement was completed as per the application and evidence filed in EB-2013-0284 with exception to how the pipeline was installed beneath Highway 6. Auger boring was indicated as the preferred method for pipeline installation, however, the method was changed to "pipe ram". Information regarding the change in method is described in Section 2.3.

The pipeline resumed service on November 13, 2013 and cleanup began immediately thereafter. Perimeter silt fencing remained in place over the winter to protect the surrounding natural features from sedimentation. The pipeline trench was backfilled with native soil and crowned to allow for settling. Since construction activities were completed in late fall, re-seeding / re-vegetation will occur in the spring of 2014. The site will be re-seeded / re-vegetated as per Permit #4426 issued by Conservation Halton. An assessment of restoration efforts will be highlighted in the Final Monitoring Report.

2.2 CONDITION 1.3

Condition 1.3 Union Gas shall implement all the recommendations of the Environmental Review filed in the pre-filed evidence.

Table 2.1: Environmental Review Recommendations

Recommendation	How the Recommendation was Implemented
Consultation with Conservation Halton to determine whether work zones overlap with any regulated lands.	Received approval and conditions from Conservation Halton (Permit #4426) on September 5, 2013.
Confirm the depth to water prior to commencing the replacement. A permit to take water will be required if groundwater taking exceeds 50,000 L/day.	Received a permit to take water (Number 3688-9BDHKX) on September 9, 2013. Permit Number 3688-9BDHKX replaced with Permit Number 8351-9C4Q3G on October 2, 2013. (The permit issued on October 2 nd allowed Union Gas to mitigate increased volumes of groundwater entering the pipeline trench).
Avoid disturbance to wetland areas; where avoidance is possible, a permit under O. Reg 162/06 will be required.	A map outlining the limits of disturbance was provided to Conservation Halton. Received approval and conditions from Conservation Halton (Permit #4426) on September 5, 2013.

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Predicted Impacts and Mitigation
May 9, 2014

Table 2.1: Environmental Review Recommendations	
Recommendation	How the Recommendation was Implemented
Notification to the City of Hamilton is provided for the planned activities.	The City of Hamilton of the proposed construction activities.
Review of landowner information to determine if Infrastructure Ontario owns/manages the property on which the electrical towers are located (an easement would be required from Infrastructure Ontario if their environmental assessment process is triggered).	Union Gas reviewed landowner information and contacted Infrastructure Ontario. Infrastructure Ontario indicated that their environmental assessment process was not required.
Avoid vegetation clearing during the migratory bird nesting period (May 1 – July 31).	Vegetation was cleared during September, outside of the May 1 to July 31 window. No nests were impacted by vegetation clearing activities.
Union Gas should work with Stantec and the Ministry of Natural Resources to avoid habitat where possible, to develop mitigation and protective measures as appropriate to ensure compliance with the Endangered Species Act.	<p>The potential to observe Species at Risk in the workspace was highlighted during employee site orientation. Posters, including photos and species information, were displayed in common areas at the site (ie: site trailer). Due diligence measures, such as inspecting heavy equipment and site walks, were communicated regularly during “tailgate” meetings.</p> <p>Union Gas retained Stantec (qualified biologist) to assist should any potential species at risk be observed in the workspace.</p>

2.3 CONDITION 1.4

Condition 1.4 Union Gas shall advise the Board's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.

Auger boring, as indicated in the application with the Board, was the preferred method of pipeline installation beneath MTO Highway 6. This was changed to a pipe ram method due to unexpected ground conditions and the undermining of previously disturbed soil creating a potential safety risk. Once safety became a potential risk, the above change was required to the construction method.

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Predicted Impacts and Mitigation
May 9, 2014

2.5 **CONDITION 3.1**

Condition 3.1 Both during and after construction, Union Gas 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 within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union Gas 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 such actions.

Interim Monitoring Report

Four copies of this Interim Monitoring Report are provided to the Board.

Log of Complaints

Although no formal complaints were filed, Hamilton Police indicated that an exemption permit to the Noise Bylaw would be required for construction activities. Union Gas complied with the request and obtained the permit immediately.

2.6 **CONDITION 3.2**

Condition 3.2 The interim monitoring report shall confirm Union Gas's 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.

Construction activities were completed in late fall and cleanup activities consisted of:

- Backfilling and re-grading (with exception to the trench crown)
- Removal of excess material: sediment settling tanks, heavy machines, pipe, trailers

Due to the onset of winter, full site reclamation will occur in the Spring, including:

- Final grading
- Re-seeding
- Removal of temporary gravel roadways
- Removal of perimeter silt fencing (after vegetation has been re-established)

The site will be re-vegetated as per Conservation Halton Permit #4426 with specific reference to the seed mixture indicated in the permit.



UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Predicted Impacts and Mitigation

May 9, 2014

In addition to perimeter silt fencing, a contractor was hired to de-water, monitor and document discharged water. The contractor installed a sand-pointing system to remove water from the pipeline trench and into sediment settling tanks. Sediment was allowed to settle within the tank prior to being discharged into a sediment filter bag (laying on plywood for energy dispersion) within a densely vegetated area. Discharged water drained unimpeded from the site without any detrimental effects (ie: erosion and or sedimentation).

No Species at Risk were observed in the workspace during construction of the proposed project.

2.7 CONDITION 5.1

Condition 5.1 Union Gas shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

Table 2.2: All other Approvals, Permits, Licences and Certificates	
Agency	Permit Number / Name
Conservation Halton	Permit #4426 – Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. (September 5, 2013)
Ministry of Environment	Permit # 3688-9BDHKX – Permit to Take Water (September 9, 2013) Permit # 8351-9C4Q3G – Permit to Take Water (October 2, 2013)
Ministry of Tourism, Culture and Sport	Clearance Letter (August 30, 2013)

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

Conclusion
May 9, 2014

3.0 Conclusion

This Interim Monitoring Report has been prepared as per conditions in the Board Order EB-2013-0284. The report provides an outline of Unions' compliance with the commitments and the measures implemented during construction to minimize disturbance to the environment. It is anticipated that these measures will effectively mitigate long-term impacts to the environment.

A review of the site will be undertaken after the site has been re-graded to final contour and re-seeded to determine if any additional clean-up will be required. Should additional clean-up be required, it will be completed as soon as conditions allow.

A Final Monitoring Report will be prepared to evaluate the success of the measures and if necessary outline areas in need of restoration.

STANTEC CONSULTING LTD.



Prepared by _____
(signature)

Signed by Mark Knight on behalf of:

Riley Griffin, B.Sc., Environmental Scientist



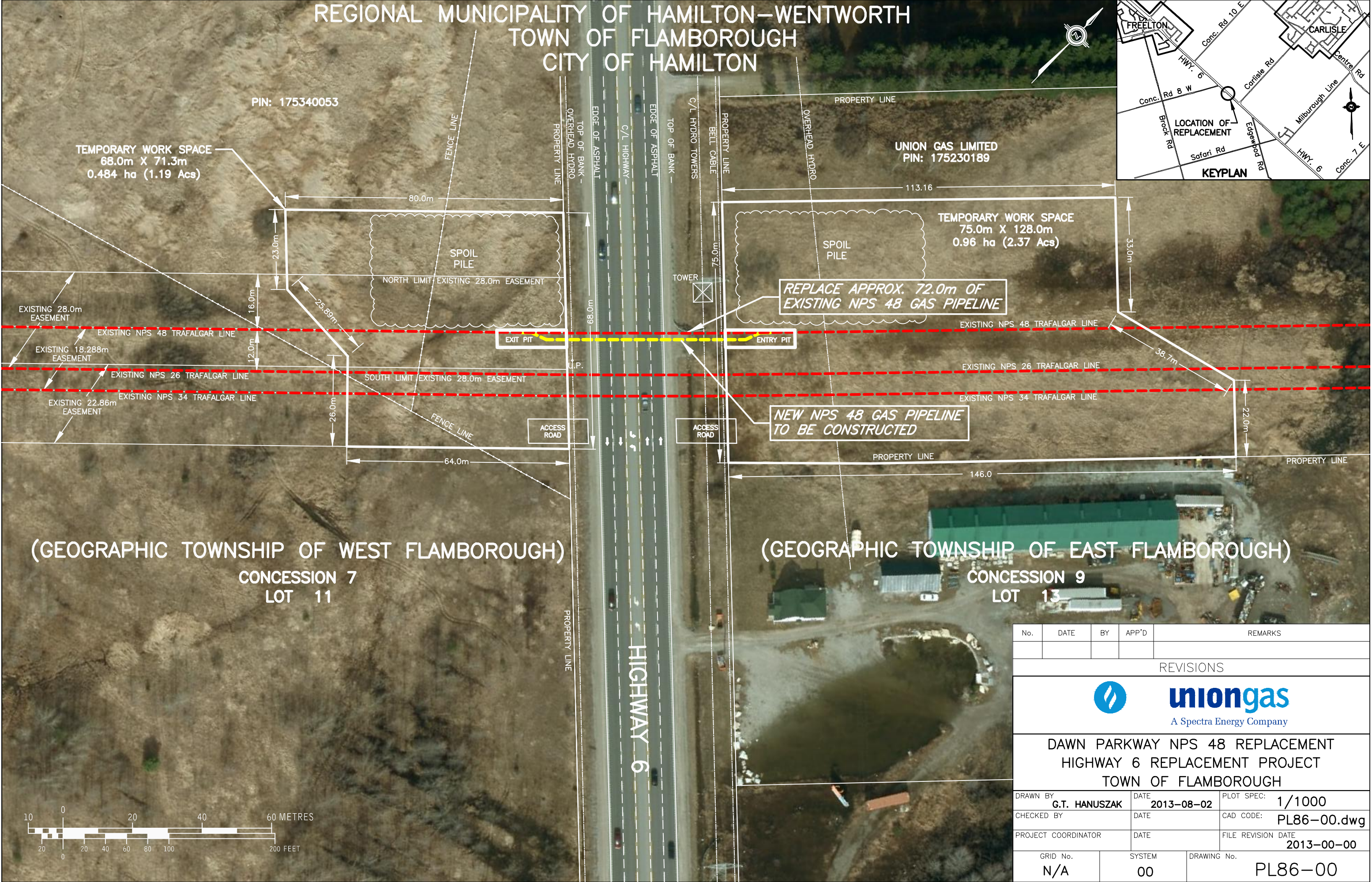
Reviewed by _____
(signature)


Mark Knight, MA, MCIP, RPP, Environmental Planner

Appendix A:

Site Map

REGIONAL MUNICIPALITY OF HAMILTON—WENTWORTH
TOWN OF FLAMBOROUGH
CITY OF HAMILTON



No.	DATE	BY	APP'D	REMARKS
REVISIONS				
<div>uniongas A Spectra Energy Company</div>				
DAWN PARKWAY NPS 48 REPLACEMENT HIGHWAY 6 REPLACEMENT PROJECT TOWN OF FLAMBOROUGH				
DRAWN BY G.T. HANUSZAK	DATE 2013-08-02	PLOT SPEC: 1/1000		
CHECKED BY	DATE	CAD CODE: PL86-00.dwg		
PROJECT COORDINATOR	DATE	FILE REVISION DATE 2013-00-00		
GRID No. N/A	SYSTEM 00	DRAWING No. PL86-00		

Appendix B:

Site Photo's



Photo 1: September 18 – East side of Highway 6; perimeter silt fencing along northern workspace limit as viewed facing west



Photo 2: September 18 – East side of Highway 6; Site preparation as viewed facing east



Photo 3: September 18 – West side of Highway 6; perimeter silt fencing along western workspace limit as viewed facing north



Photo 4: September 18 – West side of Highway 6; site preparation as viewed facing north



Photo 5: November 13 - West side of Highway 6; perimeter silt fencing along the southern workspace limit as viewed facing east



Photo 6: November 13 – East side of Highway 6; perimeter silt fencing along the southern workspace limit as viewed facing west



Photo 7: November 13 – East side of Highway 6; perimeter silt fencing along the southern workspace limit as viewed facing east



Photo 8: November 13 – Sediment settling tank and equipment used for de-watering and filtering sediment prior to water discharge to the natural environment



Photo 9: November 13 – West side of Highway 6; perimeter silt fencing on the southern workspace limit as viewed facing east



Photo 10: November 13 – West side of Highway 6; perimeter silt fencing along the northern workspace limit as viewed facing east.

Appendix C:
EB-2013-0284 Conditions of Approval

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

1 General Requirements

- 1.1 Union Gas Limited ("Union") shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0284, and approved in this Order and these Conditions of Approval.
- 1.2 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate December 31, 2013, unless construction has commenced prior to that date.
- 1.3 Union shall implement all the recommendations of the Environmental Review filed in the pre-filed evidence.
- 1.4 Union shall advise the Board's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.
- 1.5 Within 15 months of the final in-service date, Union shall file with the Board Secretary a Post Construction Financial Report. The Report shall indicate the actual capital costs of the project and shall explain all significant variances from the estimates filed in the proceeding.

2 Project and Communications Requirements

- 2.1 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.
- 2.2 Union shall designate a person as project engineer and shall provide the name of the individual to the Board's designated representative. The project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. Union shall provide a copy of the Order and Conditions of Approval to the project engineer, within seven days of the Board's Order being issued.
- 2.3 Union shall give the Board's designated representative and the Chair of the Ontario Pipeline Coordinating Committee ("OPCC") ten days written notice in advance of the commencement of the construction.
- 2.4 Union shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order.
- 2.5 Union shall file with the Board's designated representative notice of the date on which the installed pipelines were tested, within one month after the final test date.
- 2.6 Union shall furnish the Board's designated representative with five copies of written confirmation of the completion of construction. A copy of the confirmation shall be provided to the Chair of the OPCC.

UNION GAS HIGHWAY 6 PIPELINE REPLACEMENT: INTERIM MONITORING REPORT

3 Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Union 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 within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union 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 such actions.
- 3.2 The interim monitoring report shall confirm Union's 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 any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

4 Easement Agreements

- 4.1 Union shall file with the Board, prior to construction, all easement agreements related to the project.

5 Other Approvals and Agreements

- 5.1 Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.