

November 11, 2010

BY RESS and COURIER

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


Dear Ms. Walli:

**Re: Union Gas Limited ("Union")  
Trenton Area Reinforcement Project  
Board File # EB-2010-0329**

Enclosed please find two copies of Union's Application and pre-filed evidence for the above-noted project.

In the event that you have any questions on the above or would like to discuss in more detail, please do not hesitate to contact me at 519-436-4601.

Sincerely,



Mark A. Murray, LL.B  
Manager, Regulatory Projects and Lands Acquisition  
:mjp  
Encl.

cc: Neil McKay, Manager Facilities Applications  
Zora Crnojacki, Project Advisor



**TRENTON AREA REINFORCEMENT PROJECT****Application**

Schedule A - General Location Map

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## **ONTARIO ENERGY BOARD**

IN THE MATTER OF The Ontario Energy Board Act,  
1998, S.O. 1998, c.15, Schedule B, and in particular, s.90  
thereof;

AND IN THE MATTER OF an Application by Union Gas  
Limited for an Order granting leave to construct a natural  
gas pipeline and ancillary facilities in the City of Quinte  
West (formerly the City of Trenton), County of Hastings

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### **UNION GAS LIMITED**

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1. Union Gas Limited (the “Applicant”) hereby applies to the Ontario Energy Board (the “Board”), pursuant to Section 90.(1) of the Ontario Energy Board Act (the “Act”), for an Order granting leave to construct approximately 11.7 kilometres of NPS 6 and 1.2 kilometres of NPS 8 natural gas pipeline (the “proposed pipeline”), in the City of Quinte West, County of Hastings.
2. Attached hereto as Schedule “A” is a map showing the general location of the proposed pipeline and the municipalities, highways, railways, utility lines and navigable waters through, under, over, upon or across which the proposed pipeline will pass.
3. The construction of the proposed pipeline will allow the Applicant to meet the future natural gas requirements of the Canadian Forces Base Trenton.
4. The Applicant requests that this Application be dealt with in accordance with Section 34 of the Board’s Rules of Practice and Procedure for written hearings.

5. The Applicant now therefore applies to the Board for an Order granting leave to construct the proposed pipeline as described above.

Dated at Municipality of Chatham-Kent this 10th day of November, 2010.



Per: Dan Jones,  
Assistant General Counsel for  
Union Gas Limited

Comments respecting this Application should be directed to:

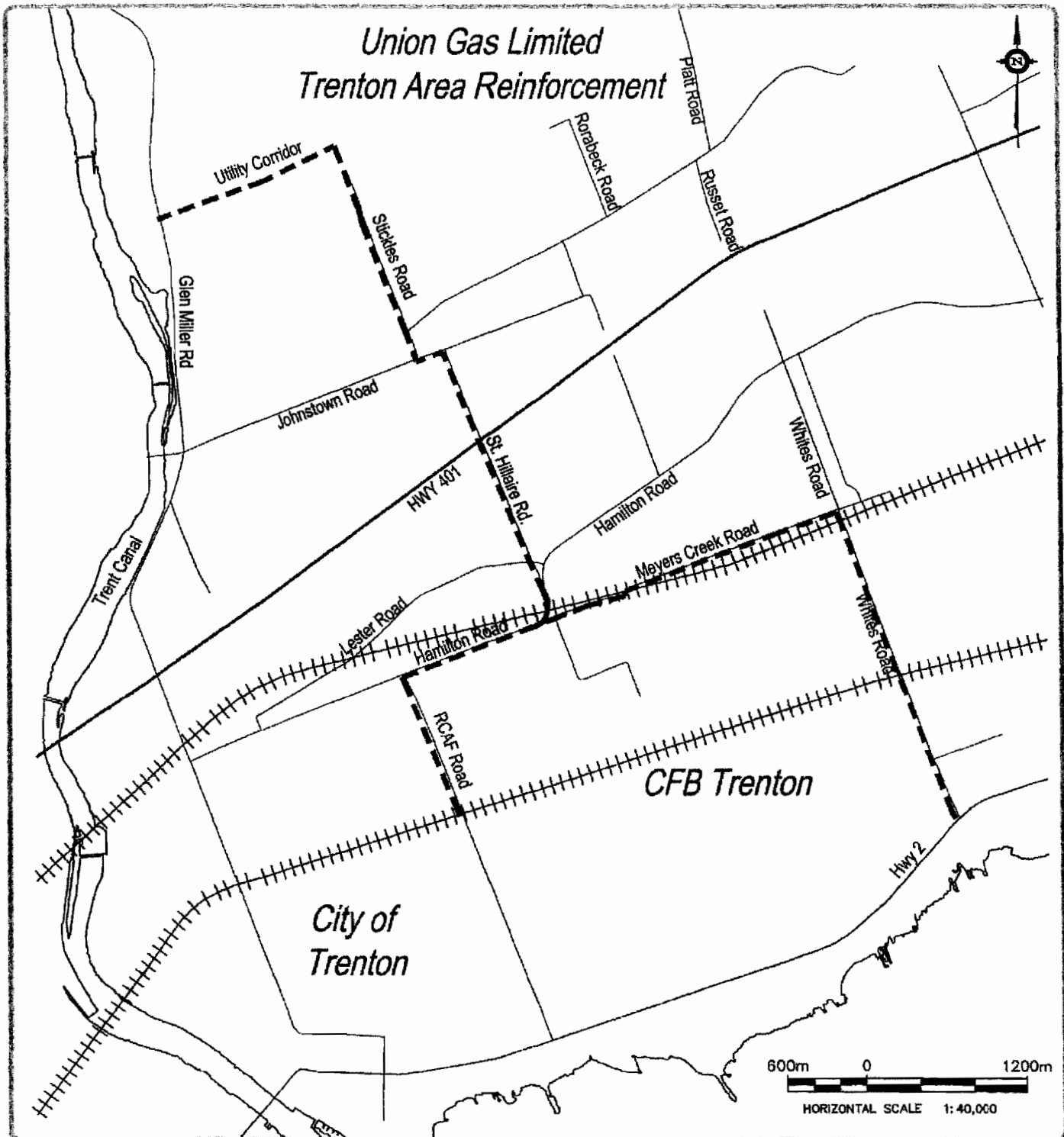
Mark Murray  
Manager, Regulatory Projects & Lands Acquisition  
Union Gas Limited  
50 Keil Drive North  
Chatham, Ontario  
N7M 5M1  
Telephone: 519-436-4601  
Fax: 519-436-4641

Email:  
[mmurray@spectraenergy.com](mailto:mmurray@spectraenergy.com)  
[UNIONregulatoryproceedings@uniongas.com](mailto:UNIONregulatoryproceedings@uniongas.com)

Dan Jones  
Assistant General Counsel  
Union Gas Limited  
50 Keil Drive North  
Chatham, Ontario  
N7M 5M1  
Telephone: 519-436-5396  
Fax: 519-436-5218

Email:  
[dxjones1@uniongas.com](mailto:dxjones1@uniongas.com)



**LEGEND:**

--- Preferred Pipeline Route



AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Preferred Route

Union Gas Limited Proposed  
Trenton Area Reinforcement

DATE ISSUED: November 2009

CREATED BY: JLM

PROJECT NO: 09-112

REFERENCE: Lower Trent Conservation

Figure No





## PROJECT SUMMARY

1. In response to a request for additional natural gas service from the Department of National Defense (“DND”), and to enhance the security of supply to Canadian Forces Base Trenton (“CFB Trenton”), Union Gas Limited (“Union”), applies to the Ontario Energy Board (“Board”) pursuant to Section 90.(1) of the Ontario Energy Board Act, 1998, for leave to construct approximately 11.7 km of NPS 6 and 1.2 km of NPS 8 pipeline in the City of Quinte West (formerly the City of Trenton), in the County of Hastings (the “Proposed Facilities”), to meet the future natural gas requirements of CFB Trenton (the “Base”). A map showing the proposed route is attached as Schedule 1.
2. In 2007, the Federal Government announced that it would be expanding CFB Trenton. Construction of the Airlift Capability Project has started and all expansion will be completed by 2015.
3. Union has existing natural gas distribution facilities in the City of Quinte West. Union holds the necessary franchise and certificate rights to distribute natural gas in this municipality and has a long standing history of natural gas service to the area.
4. The total project costs including pipeline, station, and Interest During Construction (“IDC”) is estimated to be \$8,292,829.00.
5. Based on initial discussions with DND, it is expected that the Base will require an additional daily volume of 22,500 GJ’s (600,000 M<sup>3</sup>) when expansion of the base is completed. Union expects to sign a contract with DND in 2011 for the incremental first year volumes of natural gas.

6. An economic analysis has been completed in accordance with the requirements of the Board's guidelines in the E.B.O. 188 report on Natural Gas System Expansion. It has been concluded from this analysis that the Proposed Facilities are in the public interest.
7. An Environmental Report ("ER") has been prepared for the Proposed Facilities. The ER concludes that there will be minimal environmental impacts associated with constructing these facilities given Union's standard construction procedures and the mitigation measures recommended in the ER.
8. The ER has included extensive consultation with interested parties. This consultation has included newspaper notices, letters to directly and indirectly affected landowners and a public information centre.
9. Union plans to construct the Proposed Facilities during 2011 in order to meet the proposed expansion requirements of the Base.

## **MARKET REQUIREMENTS**

### **Overview**

10. Currently DND has a Rate 20 Distribution Sales Service Contract in place to satisfy current requirements at the Base. The 2010 Firm and Interruptible contract provides for 2,063 GJ's (55,000 M<sup>3</sup>) of daily service and expect annual consumption to be 260,000 GJ's (6,930,000 M<sup>3</sup>). This Rate 20 contract has been in place for over seven years, and it has been renewed annually.

11. In 2007, DND began discussions with Union concerning additional loads for the Base. A new Rate 20 Distribution Sales Service Contract for the entire needs of the Base will be negotiated with DND. It is expected that this contract will be signed for implementation November 1, 2011.
12. Expansion of the Base has started and will be completed by 2015.
13. DND has provided Union with a letter, a copy of which is attached at Schedule 2 which outlines DND's expansion plans for CFB Trenton and how natural gas is imperative to this expansion.

#### **Natural Gas Requirements**

14. DND has indicated that the incremental demand at the Base will increase by 22,500 GJ's/day (600,000 M<sup>3</sup>) once all of the new facilities at the Base are constructed. It is anticipated that it will take up to 5 years for all of these facilities to be completed. The annual consumption is expected to be in the range of 2,100,000 to 3,100,000 GJ's.
15. Union has discussed the natural gas contract requirements with DND. Rate 20 contracts are typically renewed every year. Union did offer DND a longer term contract. DND did not accept Union's offer of a longer term contract.
16. Union has been advised that to meet the Base's additional requirements, DND requires firm natural gas transportation and storage services. Union's Rate 20 service provides firm

transportation service to the Base. The Rate 20 service offers the security and flexibility required by DND to meet its needs.

## **PROPOSED FACILITIES**

### **Existing Facilities**

17. The main feed into the Trenton system is from a TransCanada Pipeline Limited ("TCPL") tap. This tap is located just east of TCPL' valve site Main Line Valve ("MLV") - #145, and delivers gas to the Trenton Town Border Station (Trenton TBS).
18. At the Trenton TBS, the pressure is regulated to supply a 3450 kPa and a 1210 kPa Maximum Operating Pressure ("MOP") network that are regulated independently.
19. The existing DND natural gas facilities in Trenton are supplied from the 1210 kPa MOP network. This 1210 kPa MOP network is comprised of various pipelines and pressure regulating stations that also feed the Trenton distribution network. The Trenton distribution network operates at a 420 kPa MOP.
20. The existing Trenton system has a peak hour design of approximately 36,500 m<sup>3</sup>/hr. The design Degree Day ("DD") is 45.7 which is equivalent to an average daily temperature of -27.7°C.
21. Schedule 3 illustrates an overview of Union's existing facilities.

### **Proposed Facilities**

22. Union proposes to construct 4.5 km of NPS 6 pipeline with a MOP of 3450 kPa 1.2 km of NPS 8 pipeline with a MOP of 1210 kPa and 7.2 km of NPS 6 pipeline with a MOP of 1210 kPa, for a total of 12.9 km of total piping. The proposed pipeline, associated valving, and distribution station facilities will tie into the existing Trenton pipeline network to serve the Base.
23. The 4.5 km of 3450 kPa MOP pipeline will run from the existing Trenton TBS to a new District Regulating Station (“DRS”) adjacent to an existing hydro corridor and along existing road allowances. The Trenton TBS will need to be upgraded to serve CFB Trenton’s future natural gas requirements.
24. The new DRS will be located 300 m due south of Highway 401 on the west side of St. Hilaire and will regulate the system pressure to a MOP of 1210 kPa and deliver gas to an NPS 8 pipeline which then splits into two NPS 6 pipelines . These proposed pipelines will tie into the existing 1210 kPa MOP network.
25. The Proposed Facilities are shown in Schedule 4.

#### **Alternatives Considered**

26. The forecasted load of 28,900 m<sup>3</sup>/hr at CFB Trenton over the next ten years represents approximately 42% of the estimated Trenton design day peak load of 69,500 m<sup>3</sup>/hr.
27. To meet the requirements of CFB Trenton, 12.9 km of NPS 6 pipeline and NPS 8 pipeline and a new DRS are proposed. Union investigated three other alternatives before selecting the proposed alternative.
28. The three alternatives reviewed were;

- a) Serve CFB Trenton's future natural gas requirements from the existing system: An analysis of the existing system determined that the existing facilities did not have the ability to sustain the customer's future natural gas requirements. The restriction of the existing facilities would result in looping Union's existing pipeline. This alternative was not selected due to the route of the pipeline running through densely developed areas of Trenton.
- b) Install a different diameter pipeline: Union reviewed whether a smaller diameter pipeline was adequate to serve CFB Trenton's future natural gas requirements. This option was not hydraulically feasible, due to the pressure drop that would result between the start and end points and was therefore rejected. There is not sufficient growth proposed in the Trenton area for Union to justify a larger diameter pipeline.
- c) Construct a new tap: Union reviewed whether constructing a new tap was adequate to serve CFB Trenton's future natural gas requirements. A 6895 kPa NPS 6 pipeline would be adequate to serve the customer however additional costs would be required and was therefore rejected.

## **DESIGN AND PIPE SPECIFICATIONS**

- 29. The design and pipeline specification are outlined in Schedule 5. Design, installation and testing of the distribution pipeline will conform to the requirements of *Ontario Regulation 210/01* under the Technical Standards and Safety Act 2000, Oil and Gas Pipeline Systems. This regulation governs the installation of pipelines in the Province of Ontario.

30. The CSA Z662-07 Oil and Gas Pipeline Systems code includes a classification system on land use and population density to determine appropriate design factors. A class location unit is defined as the area that extends 200 metres on either side of the centreline of any continuous 1.6 kilometre length of pipeline.
31. A Class 1 location contains 10 or fewer dwellings intended for human occupancy within the class location unit. A Class 2 location contains between 10 and 46 dwellings intended for human occupancy within a class location unit or small well defined outside area that is occupied by 20 or more persons during normal use. A Class 3 location contains 46 or more dwellings intended for human occupancy within a class location unit.
32. The proposed pipeline will be divided into 5 Sections for design:
  - a) The section of pipe from the Trenton TBS to just south of Highway 401 will be NPS 6 designed to 4,960 kPa but will operate at MOP of 3,450 kPa.:
    - The pipe has a wall thickness of 7.1 mm.
    - The pipe will be designed to meet the requirements of a Class 1 location.
    - The pipe is to be manufactured by the electric resistance weld process and will have specified minimum yield strength of 359 MPa.
  - b) The section of pipe from just south of Highway 401 to the new DRS will be NPS 6 designed to 4,960 kPa but will operate at MOP of 3,450 kPa:
    - The pipe has a wall thickness of 7.1 mm.
    - The pipe will be designed to meet the requirements of a Class 2 location;



- The pipe is to be manufactured by the electric resistance weld process and will have specified minimum yield strength of 359 MPa.
- c) The section of pipe from the new DRS to the intersection of Myers Creek Road and County Road 22 will be NPS 8 MOP 1,210 kPa:
- the pipe has a wall thickness of 4.8 mm
  - The pipe will be designed to meet the requirements of a Class 2 location;
  - The pipe is to be manufactured by the electric resistance weld process and will have specified minimum yield strength of 290 MPa;
- d) The section of pipe from the intersection of Myers Creek Road and County Road 22 to the tie-in at RCAF Road and from the intersection of Myers Creek Road and County Road 22 to the intersection of Whites Road and CP Rail will be NPS 6 MOP 1,210 kPa:
- The pipe has a wall thickness of 4.8 mm
  - The pipe will be designed to meet the requirements of a Class 2 location.
  - The pipe is to be manufactured by the electric resistance weld process and will have specified minimum yield strength of 290 MPa.
- e) The section of pipe from the intersection of Whites Road and CP Rail to the tie-in location at the intersection of Whites Road and Old Highway #2 will be NPS 6 MOP 1,210 kPa:
- The pipe has a wall thickness of 4.8 mm
  - The pipe will be designed to meet the requirements of a Class 3 location.

- The pipe is to be manufactured by the electric resistance weld process and will have specified minimum yield strength of 290 MPa.
33. The pipe will be manufactured to the CSA Z245.1-07 *Steel Line Pipe Standard for Pipeline Systems and Materials*.
34. The pipeline will be tested in accordance with the CSA Z662-07 Oil and Gas Pipeline Systems code requirements.
35. The minimum depth of cover will be specified to be 1.0 metres to the top of the pipe. Additional depth will be provided to accommodate existing or planned underground facilities, or in areas as specified in Section 12.4.7 of CSA Z662-07.

## PROJECT COSTS AND ECONOMICS

### **Project Costs**

36. The total estimated cost for the Proposed Facilities, including pipeline, station, service lateral and IDC is \$ 8.29 Million. Estimated costs for the proposed pipeline and station facilities can be found in Schedules 6 and 7 respectively.

### **Project Economics**

37. Union has employed an economic feasibility test consistent with the Board's recommendations in the E.B.O. 188 report on Natural Gas System Expansion to assess the economics of this project. The Board has found that new distribution facilities are in the public interest if no undue burden is placed on existing customers. When the Proposed Facilities are included in Union's 2011 new business investment portfolio the resulting Profitability Index ("P.I.") would

be 1.17. Similarly, including the Proposed Facilities in Union's rolling portfolio as at October 31, 2010 would result in a P.I. of 1.80.

38. To provide the Board with additional information, a stand alone Discounted Cash Flow ("DCF") analysis has been completed, a copy of which is attached as Schedule 8. This schedule indicates that with DND paying an Aid to Construct, the Proposed Facilities have a NPV of zero and a P.I. of 1.

39. In reviewing Schedule 8, the following factors should be considered:

- a) Incremental revenues are only shown for the first year to reflect the fact that the base is signing a one year contract,
- b) While revenues are only guaranteed for one year, the base has renewed its Rate 20 contract for over seven years,
- c) The revenues shown in year one reflect the expected incremental use in 2011 when not all of the new facilities at the base will be completed, and
- d) By 2015 it is expected at annual revenues will be \$690,000.00 which is incremental to current revenue.

40. Union, therefore, submits that the distribution of natural gas by Union to CFB Trenton is economically feasible and in the public interest.

## OTHER PUBLIC INTEREST CONSIDERATIONS

41. There are a number of other public interest factors for consideration as a result of the addition of the Proposed Facilities. These additional public interest considerations include the following:

- a) **Expansion of CFB Trenton** – the base has been chosen as the initiation site for Canada to assist foreign states in the fight against terrorism with major investments for the Airlift Capability Project.
- b) **Utility Taxes** - A decision to proceed with this project will result in Union paying taxes directly to various levels of government. Income, capital and municipal taxes paid by Union as a direct result of the project are included as costs in the economic analysis. These taxes are not true economic costs of the project, but rather represent transfer payments within the economy, as they are available for redistribution by the federal, provincial and municipal governments. Since these taxes have been included as a cost in the analysis, they must also be considered as a benefit in order to reflect the appropriate economic benefit on an overall basis.
- c) **Employment** - The construction of this project will result in additional direct and indirect employment. There will be additional employment of persons directly involved in the construction of the project and manufacture of pipe. There are also substantial indirect benefits or multiplier effects related to these activities. Therefore, as a result of the construction of the Proposed Facilities, the Ontario economy would receive a positive employment benefit.

## **CONSTRUCTION OF PROPOSED FACILITIES**

42. Approximately 12.9 km of steel pipeline will be constructed from the Trenton TBS Station to two tie-in points – one south of the CN Tracks on RCAF Road and one at the intersection of Old Hwy #2 & Whites Road.
43. The Proposed Facilities will be constructed using Union's standard practices and procedures and will be in compliance with the mitigation measures identified in the EA. Schedule 9, describes the general techniques and methods of construction that Union will employ for the construction of the Proposed Facilities. It details such activities as clearing, grading, stringing of pipe, trenching, welding, backfilling, and clean up.
44. Material is readily available for the project and Union foresees no problem in obtaining a contractor to complete the proposed construction. Construction contract documents will be prepared at a later date. The EA will be included as part of the contract documents.
45. Schedule 10 provides the Proposed Project Schedule. Construction is expected to begin in the spring of 2011.
46. Union foresees no problems in obtaining the necessary approvals from environmental agencies, utilities and other governing bodies for the installation of this pipeline.

## ENVIRONMENTAL

47. Azimuth Environmental Consulting prepared an ER for the proposed pipeline. The results of the ER indicate that the location of the proposed pipeline is environmentally acceptable. Union believes that by following its standard construction practices and adhering to the mitigation measures identified in the ER, construction of this project will have negligible impacts on the environment. No significant cumulative effects are anticipated from development of the proposed pipeline. A copy of the ER can be found at Schedule 11.
48. The ER has been prepared to meet the intent of the Ontario Energy Board's document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"* [2003]. Union will comply with all mitigation measures recommended in the EA.
49. The objectives of the ER were to:
- a) Document existing environmental features;
  - b) Identify agency and public concerns;
  - c) Identify potential environmental impacts as a result of construction;
  - d) Present mitigation techniques to minimize environmental impacts; and
  - e) Provide pipeline contractors and environmental inspectors involved in the construction of the pipeline with general and site-specific guidelines for environmental protection that supplement Union's construction specifications.

50. A letter was sent out on October 9, 2009 to agencies, First Nations, and to landowners on or adjacent to the preliminary route to inform them of the project and of the Public Information Centre. Project newsletters were also forwarded on October 26, 2009 to local First Nations. No comments or concerns were identified by the First Nations.
51. To solicit input from the general public with respect to the project, a project notice was published in one local paper with subscription across the study area, and a Public Information Centre was held. The Public Information Centre identified several environmentally acceptable alternative pipeline routes along with potential mitigation measures and it was held on October 27, 2009, at the Knights of Columbus Hall in Trenton, Ontario. There were no concerns raised regarding Union's routing proposals or mitigation from the attendees of this session.
52. A letter was forwarded on December 16, 2009 to all directly and indirectly affected landowners along the preferred route. The purpose of the letter was to inform the landowners that a preferred route has been identified and that the ER has been completed. Landowners have been given an opportunity to review and obtain a copy of the report upon request.
53. Letters will be sent in early 2011 to update all directly affected landowners, First Nations and government agencies with regard to the 2011 project construction schedule.
54. Copies of the completed ER were submitted to the Ontario Pipeline Coordinating Committee ("OPCC") on December 14, 2009. Copies of the ER were also submitted to local municipalities and all interested parties who requested a copy. A summary of the comments and Union's response to concerns from agencies and interested parties are attached as Schedule 12.

55. The total estimated environmental mitigation costs associated with the construction of the Proposed Facilities are identified in Schedule 13. These costs are identified as pre-construction related, construction-related and post-construction related. The estimated total environmental costs are \$ 286,000.00
56. There will be 11 watercourse crossings associated with this project.
57. Blasting is not anticipated along the route. If it becomes necessary to conduct blasting operations they will be conducted following approved specifications and government regulations.
58. Union will ensure that the recommendations in the ER, commitments and the conditions of OEB approval are followed. The most up-to-date construction specifications will be followed and an environmental inspector will monitor construction activities and ensure that all activities comply with all conditions of approval.
59. The results of the ER indicate that the environmental and socio-economic effects associated with construction of the project are generally short-term in nature and minimal.

## **LAND MATTERS**

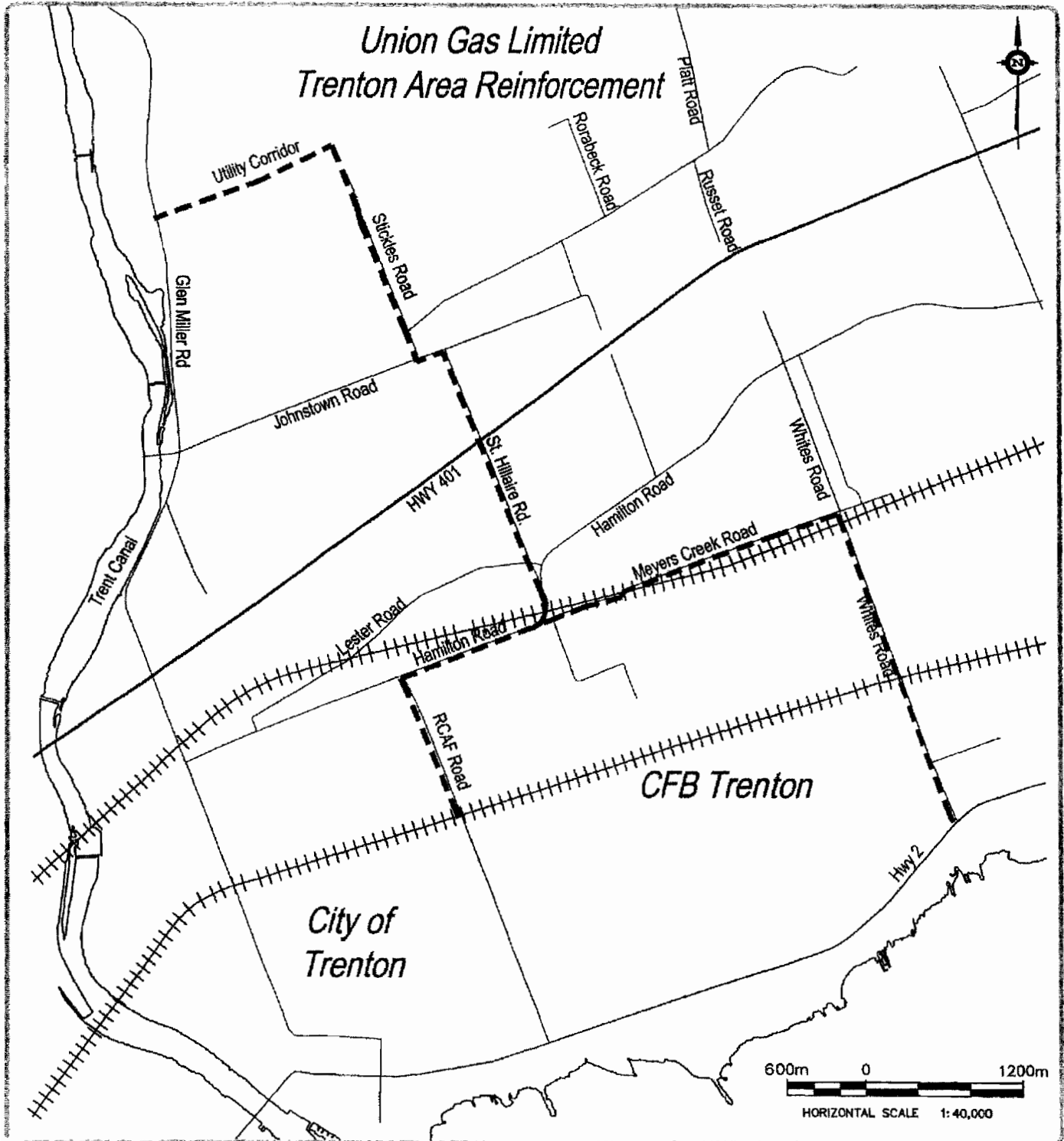
60. The proposed pipeline will be installed in road allowance and on easements on privately owned lands.
61. Union's grant of easement form is attached as Schedule 14.
62. Discussions have taken place between project engineering personnel and the City of Quinte West concerning the pipeline proposed for road allowance locations. While final approvals are



not yet in place the City of Quinte West has not identified any concerns with the proposed location of the pipeline.

63. Negotiations have taken place with the affected landowners where easements are required paralleling the existing utility corridor. No objections or concerns to the proposed route have been brought forth by these landowners. Option for Easement agreements have been signed by these landowners.
64. A list of directly affected landowners can be found in Schedule 15.
65. Along Stickles Road between the utility corridor and Johnston Road the pipeline will be located on road allowance.
66. Schedule 16 is a route alignment drawing showing the proposed pipeline route.
67. The new DRS will be located approximately 300 m south of Highway 401 on the east side of St. Hilaire. Union has an agreement in principle to purchase the land rights to this property.
68. Union will be applying to the Canadian National Railway, and the Canadian Pacific Railway for permits for the railway crossings required for this project. Union has a long history working with these companies and does not anticipate any issues with obtaining the necessary approvals.





**LEGEND**

--- Preferred Pipeline Route

CAUTION: ENVIRONMENTAL CONSULTING INC.

Proposed Route

Union Gas Limited Proposed  
Trenton Area Reinforcement

DATE ISSUED November 2008

CREATED BY JLM

PROJECT NO 89 112

REFERENCE Lower Trent Collection

Figure No.





National Défense  
Defence nationale

7800 - 1 (A4 CE Infra 2)

21 October 2010

Union Gas Limited  
50 Keil Drive North  
Chatham ON N7M 5M1

Dear Sirs,

Re: Natural Gas Pipeline at 8 Wing Trenton

As you are aware, we are building numerous large facilities at 8 Wing Trenton and it is imperative that we have an additional gas pipeline to support this new infrastructure in 2011.

You have recently advised us that the estimated cost of performing this work for this pipeline is valued at approximately \$8.5 million dollars. Due to the capital cost of this project, the Air Force is obligated to seek expenditure authority from the Minister of National Defence (MND) prior to proceeding with the actual construction. With your revised estimate, we are intending to present this project to our Department's Infrastructure Senior Review Board (ISRB) no later than 16 December 2010. The outcome of the ISRB is Departmental Programme approval of the project and the furtherance of the submission to the Deputy Minister/Minister of National Defence for expenditure authority.

At this time, I can advise you that the Air Force has budgeted this capital investment into our 2011 construction program and the funds are available to implement this work. Once MND expenditure authority is granted, we will be in a position to commit to a binding agreement with Union Gas. While following this Government of Canada approval process, I hope that Union Gas can concurrently and confidently present all related submission documents to the Ontario Energy Board.

Union Gas and its predecessors has been 8 Wing Trenton's supplier for a long time and 8 Wing Trenton has enjoyed a very good and mutually beneficial relationship with you. I look forward to continuing that relationship in the context of the new project and the support it will provide to the revitalization of 8 Wing Trenton's infrastructure.

I encourage you to continue to liaise with my 8 Wing Construction Engineering Officer, Major Phil Baker, and his staff. He is in routine communication with my staff and all are committed to ensuring the timely and successful completion of this project.

Yours truly,

A handwritten signature in black ink, appearing to be 'R.C. Baker', written in a cursive style.

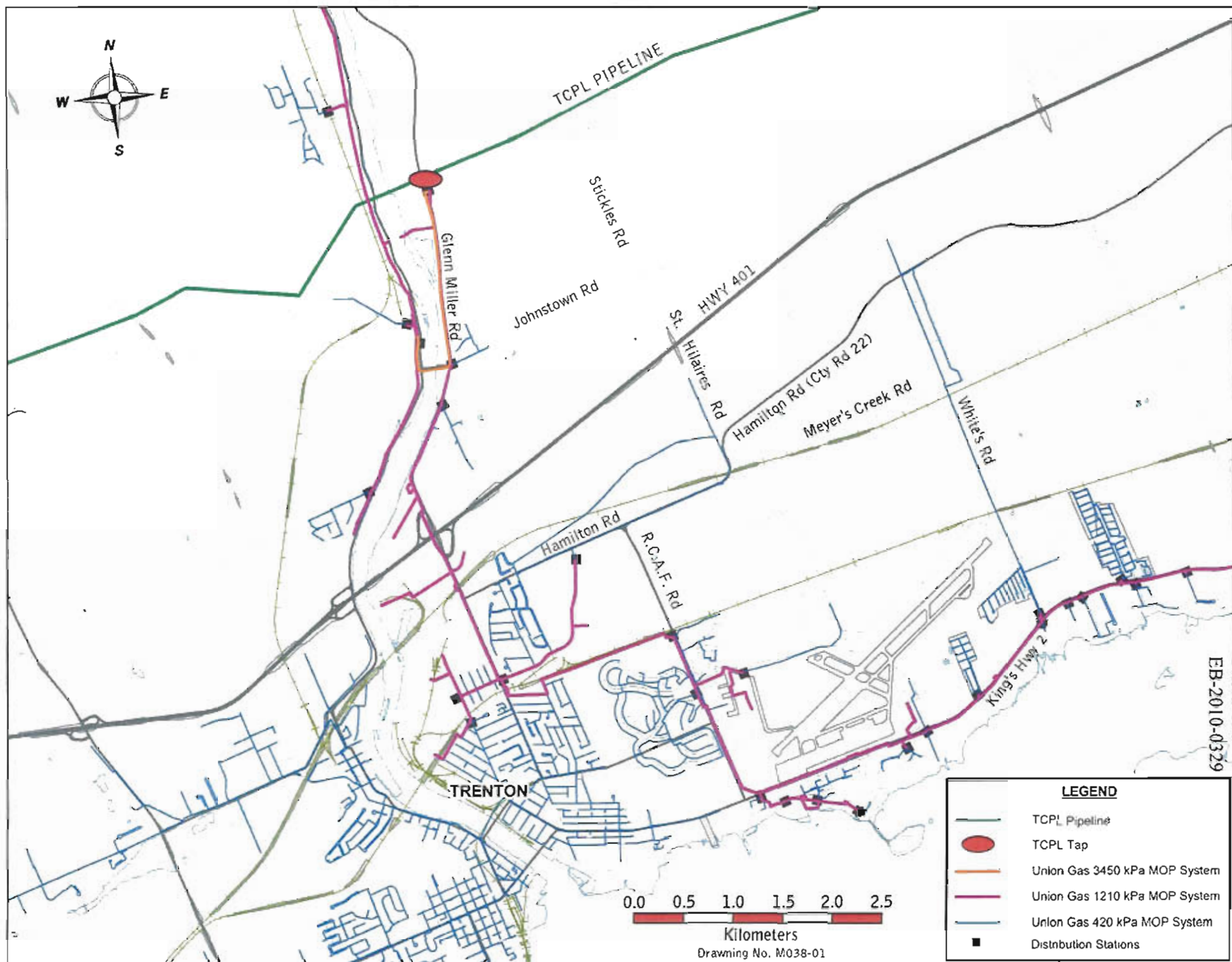
R.C. Baker  
Colonel  
Director Construction Engineering  
For Commander

cc:

B.P. Baker  
Major  
8 Wing Construction Engineering Officer  
P.O. Box 1000, Station Forces  
Astra ON K0K 3W0

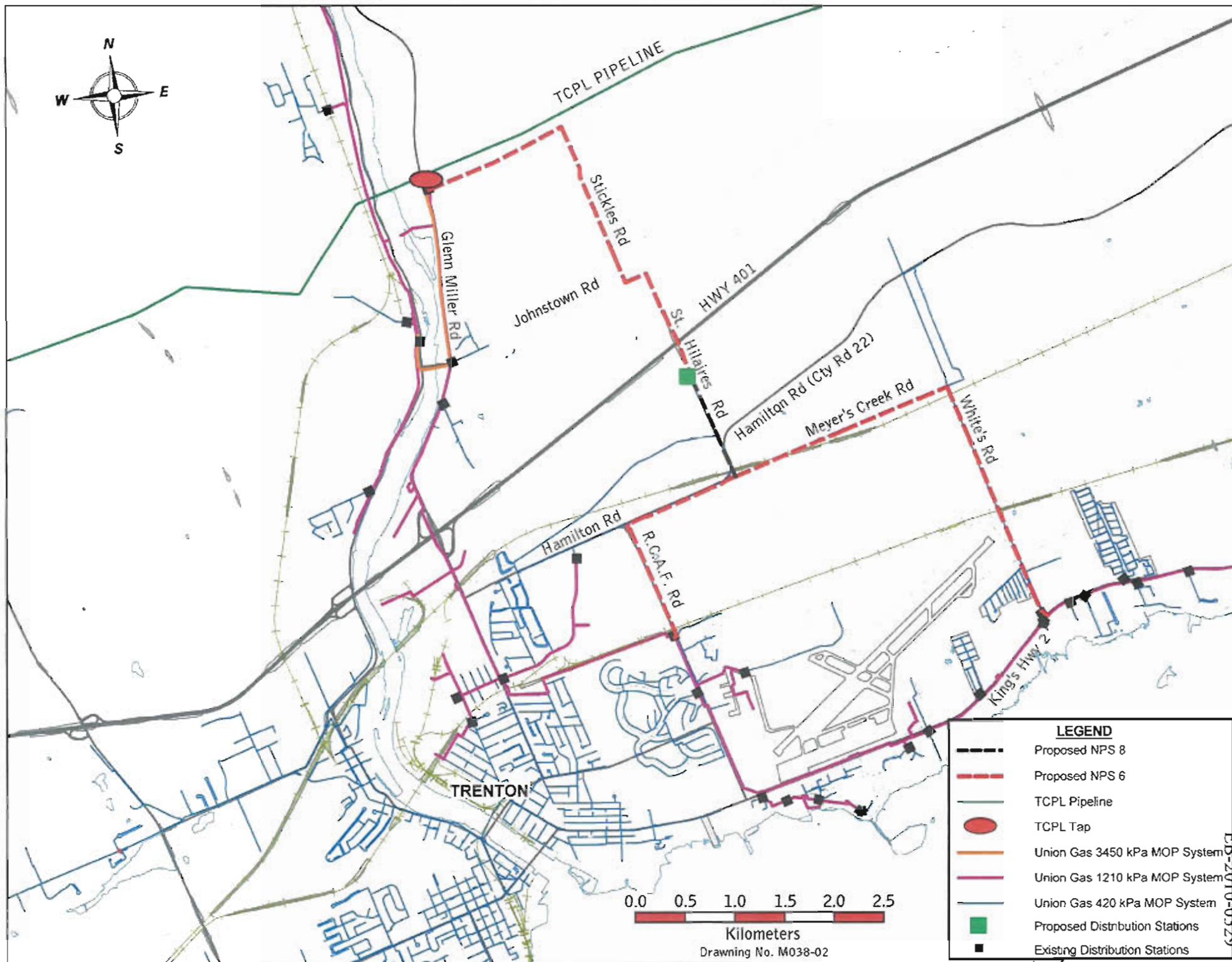
S.K Beal  
Lieutenant Colonel  
Air Staff Ottawa  
Director Air Programmes 3  
101 Colonel By Drive  
Ottawa ON K1A 0K2













## CFB Alternate Route Project Design & Pipe Specifications

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### Design Specifications

	Section 1	Section 2	Section 3	Section 4	Section 5
Class Location	Class 1	Class 2	Class 2	Class 2	Class 3
Design Factor	0.8	0.8	0.8	0.8	0.8
Location Factor (General)	1.000	0.900	0.900	0.900	0.700
Location Factor (Roads)	0.750	0.625	0.625	0.625	0.625
Maximum Design Pressure	4960	4960	1210	1210	1210
Maximum Operating Pressure	3450	3450	1210	1210	1210
Test Medium	Water	Water	Nitrogen	Nitrogen	Nitrogen
Test Pressure	4830	4830	1694	1694	1694
Valves/Fittings	PN 50	PN 50	PN 20	PN 20	PN 20
Minimum Depth of Cover	1.0	1.0	1.0	1.0	1.0



CFB Alternate Route Project  
Total Estimated Project Costs - Pipe

Pipeline and Equipment

11,740 m of NPS 6 ST	\$	615,499
1,160 m of NPS 8 SI	\$	74,588
Valves, fittings, miscellaneous	\$	173,374
Stores Overhead	\$	74,312

Total Pipeline and Equipment \$ 937,773

Construction and Labour

Prime Contract	\$	3,345,322
Ancillary Contracts	\$	676,500
Company Labour	\$	22,080
Land Rights	\$	117,375

Total Construction and Labour \$ 4,161,277

Total Pipeline and Equipment and Construction and Labour \$ 5,099,050

Contingencies	\$	254,952
Sub-Total	\$	5,354,002
Interest During Construction	\$	-

Total Estimated Project Costs \$ 5,354,002

Includes the Estimated Environmental Costs Identified in Schedule 13



CFB Alternate Route Project  
Total Estimated Project Costs - Stations

<u>Material</u>			
	Valves, fittings, miscellaneous	\$	503,055
	Plant Items	\$	94,054
Total Pipe and Equipment		\$	597,109
<u>Construction and Labour</u>			
	Prime Contract	\$	1,490,402
	Ancillary Contracts	\$	428,500
	Company Labour	\$	89,000
	Land Rights	\$	75,200
Total Construction and Labour		\$	2,083,102
Total Material and Construction and Labour		\$	2,680,211
Contingencies		\$	258,616
Sub-Total		\$	2,938,827
Interest During Construction		\$	-
Total Estimated Project Costs		\$	2,938,827

Includes the Estimated Environmental Costs Identified in Schedule 13





*Union North*  
**Discounted Cash Flow Analysis**  
**CEB Trenton**  
**October 25, 2006**



## GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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1. Union Gas Limited ("Union") will provide its own inspection staff to enforce Union's construction specifications and *Ontario Regulation 210/01 under the Technical Standards and Safety Act 2000, Oil and Gas Pipeline Systems*.
2. Several crews are expected to perform the construction of this pipeline, each crew performing similar activities in different areas of the pipeline.
3. Union's contract specifications require the contractor to adhere to the requirements of the Occupational Health and Safety Act including the use of safety barricades, fences, signs or flashers, or to use flag persons as may be appropriate, around any excavation across or along a road.
4. It is Union's policy to restore the areas affected by the construction of the pipeline to "as close to original condition" as possible. As a guide to show the "original condition" of the area, photos and/or a video will be taken before any work commences. When the clean up is completed, the approval of the landowner or appropriate government authority is obtained.
5. Construction of the pipeline includes the following activities.

### Locating Running Line

6. Union establishes the location where the pipeline is to be installed ("the running line"). For pipelines within road allowances, the adjacent property lines are identified and the running line is set at a specified distance from the property line. For pipelines located on private easement, the easement is surveyed and the running line is set at the specified distance from the edge of the easement. The distance from the start of the pipeline (or other suitable point) is marked on the pipeline stakes and the drawings.

### Clearing and Grading

7. The right-of-way is prepared for the construction of the pipeline. When required, bushes, trees and crops are removed and the ground leveled. When required, the topsoil is stripped and stored, and/or sod is lifted.

### **Stringing**

8. The pipe is strung adjacent to the running line. The joints of pipe are laid end-to-end on supports that keep the pipe off the ground to prevent damage to the pipe coating.

### **Welding**

9. The pipe is welded/fused into manageable lengths. The welds in steel pipe are radiographically inspected, if required, and the welds are coated.

### **Burying**

10. Pipe may be buried using either the trench method or the trenchless method. All utilities that will be crossed or paralleled by the pipeline are located by the appropriate utility prior to installing the pipeline. Prior to trenching, all such utilities will be hand-located.

**Trench Method:** Trenching is done by using a trenching machine or hoe excavator depending upon the ground conditions. Provisions are made to allow residents access to their property, as required. All drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. All tiles are measured and recorded as to size, depth, type and quality. This information is kept on file with Union. If a repair is necessary in the future, Union will have an accurate method of locating the tile. Next, the pipe is lowered into the trench. For steel pipe, the pipe coating is tested using a high voltage electrical tester as the pipe is lowered into the trench. All defects in the coating are repaired before the pipe is lowered in. Next, if the soil that was excavated from the trench is suitable for backfill, it is backfilled. If the soil is not suitable for backfill (such as rock), it is hauled away and the trench is backfilled with suitable material such as sand. After the trench is backfilled, drainage tile is repaired. Tile repairs are made by excavating back into the bank along the tile run and placing clear stone as a foundation for a perforated steel drainage pipe. A new drainage tile is cut to the appropriate length and installed between the two exposed tile ends. Prior to the actual setting of the perforated drainage tile, the existing tile run is checked to ensure that it is clear and undamaged within the limits of the work area. If it is not, further tile is excavated and the damaged tile is replaced to the edge of the work area. A company inspector inspects each tile repair and acts as a liaison between the contractor and the landowner or municipality. If required, the landowner or municipal representative is requested to inspect tile repairs prior to backfill completion. Union undertakes that it is

responsible for the tile repair and will be accountable for the tile repairs at any future date after construction of the pipeline.

**Trenchless Method:** Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and lawns. There are a variety of trenchless methods that are used, depending on the soil conditions, and the length and size of the installation. These methods are boring and horizontal directional drilling.

### **Tie-Ins**

11. The sections of pipelines that have been buried using either the trench or trenchless method are joined together (tied-in).

### **Cleaning and Testing**

12. To complete the construction, the pipeline is cleaned, tested in accordance with Union's specifications using water and then dried..

### **Restoration**

13. The final activity is the restoration. The work area is leveled, the sod is replaced in lawn areas and other grassed areas are re-seeded. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.



# CFB Trenton Alternate Route Pipeline Construction Schedule

Task Name	2009				2010												2011											
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Environmental Assessment and Routing																												
Engineering																												
Obtain Land Rights																												
Pre-construction Survey																												
Material Acquisition																												
File Application																												
OEB Approval																												
Construction Survey																												
Construction and Testing																												
Clean-Up																												
In-Service																												
Latest Possible In-Service																												







OPCC Review Summary 2010

Trenton Area Reinforcement Project

AGENCY	COMMENT	RESPONSE
Email dated April 7, 2009		
Letter received dated January 15, 2010 Mr. Oscar Alonso, P. Eng. Fuel Safety Engineer Technical Standards & Safety Authority	Request for additional information concerning pipe coating to be used during horizontal directional drilling. (HDD)	Letter sent January 25, 2010 from Michelle Rogers, P. Eng. Union Gas District Engineer – Eastern, indicating that the pipe to be used during HDD will have an abrasion coating applied and will undergo a Current Requirement Test following all installations to ensure the coating has not been damaged during the crossing.
Email received dated January 4, 2010 Lower Trent Conservation Authority (LTCA) Mike Lovejoy Hazard Lands Program Co-ordinator	Indicated that the watercourses to be crossed are warm water and will require approval.	Permit application submitted to the LTCA on January 27, 2010. Received April 9, 2010 and is valid to a period of two years.
Letter received December 16, 2009 Ministry of Transportation Mr. Doug Peeling Senior Planner and Policy Advisor	Indicated that proposed work has been forwarded and will be reviewed by Stacy Sweezey of the Kingston office.	Not Required
Letter received January 22, 2010 Ministry of Transportation Stacy Sweezey Corridor Management Planner Eastern Region	Letter indicates that the MTO is prepared to permit a Highway 401 gas pipeline crossing at the St. Hillaire underpass with MTO Encroachment Permit required.	Letter sent April 14, 2010 from Paul Neals of Azimuth Environmental Consulting (Azimuth) indicating that construction of the facility will meet the MTO Class EA process. Union will acquire the necessary permits
Email received dated February 5, 2010, by Paul Neals of Azimuth. Ministry of Natural Resources Kathleen Pitt Planning Assistant Peterborough District Office	Following review of ER there are no objections to the pipeline expansion through the ANSI along the utility corridor.	Not Required
Letter received February 11, 2010 Ministry of Agriculture, Food and Rural Affairs. Mr. Ray Valaitis Rural Planner	Pipeline within road allowance and Hydro One right of way. No concerns.	Not Required

AGENCY	COMMENT	RESPONSE
<p>Email to Paul Neals of Azimuth received November 16 and December 2, 2009. Ministry of Tourism and Culture Mr. Alejandro Cifuentes Heritage Planner</p> <p>Letter received March 4, 2010 Ministry of Tourism and Culture Mr. Alejandro Cifuentes Heritage Planner</p>	<p>Indicating a possible archaeological site within the study area.</p> <p>Suggested wording changes to the ER that will be compatible with the Ontario Heritage Act definitions.</p> <p>Indicated that the MTC has developed a new standard Built Heritage and Cultural Heritage Landscape Assessment checklist to indicate whether a heritage impact assessment would be required as part of the ER decision making process.</p>	<p>Email sent to Alejandro Cifuentes from Paul Neals of Azimuth on December 2, 2009, indicates that the site will not be affected by the project.</p> <p>The response was received after the ER had been produced and distributed. The suggested changes will be implemented in future ER's.</p> <p>A Built Heritage and Cultural Heritage Landscape assessment checklist will be completed.</p>
<p>Letter received March 8, 2010 Ministry of the Environment Alida Mitton Environmental Planner</p>	<p>Indicating that the MOE concurs with the mitigation and monitoring measures proposed in the ER for the project.</p>	<p>Not Required</p>



Schedule 12

EB-2010-0329  
14th Floor, Centre Tower  
3300 Bloor Street West  
Toronto, Ontario  
Canada M8X 2X4  
Tel.: 416.734.3300  
Fax: 416.231.1626  
Toll Free: 1.877.682.8772  
[www.tssa.org](http://www.tssa.org)

January 15, 2010

SR# 297906

Mr. Norm Dumouchelle  
Environmental Planner  
Union Gas Ltd.  
P.O. Box 2001, 50 Keil Drive North,  
Chatham, ON N7M 5M1

Dear Mr. Dumouchelle:

**Re: Union Gas Limited NPS 6 Natural Gas Pipeline Project. Trenton Area  
Reinforcement.**

This is in response to your letter of December 14, 2009, about the referenced pipeline reinforcement. We reviewed the Azimuth Environmental Consulting Inc. report AEC 09-142 (December 2009) and the design & pipe specifications attached to your letter.

According to the design and pipe specifications attached, this reinforcement will be part of your distribution system (pipeline operated at stress levels below 30% SMYS). The design specifications meet the requirements of O. Reg. 210/01 and the adopted national standard on Oil and Gas Pipeline Systems, CSA Z662-07.

However, I would appreciate to receive additional information regarding Horizontal Directional Drilling (HDD) referenced in page 21 and 27 of the report. The pipe coating, as per your specifications, would be extruded polyethylene (yellow jacket). This type of coating may be damaged during insertion of the pipe when the carrier pipe is pulled through the bore path. Please provide the method to be used to minimize the possibility that a damaged coating could remain undetected once the pipe is installed.

Should you have any questions, please call me.

Yours truly,

Oscar Alonso, P. Eng.  
Fuels/Safety Engineer

cc: Ms. Zora Crnojacki, Chairperson, OPCC, Ontario Energy Board, 2300 Yonge St., 26<sup>th</sup>  
Floor, Suite 2601, Toronto, ON M4P 1E4

**Putting Public Safety First**



January 25, 2010

SR #297906

Mr. Oscar Alonso, P.Eng.  
Fuels/Safety Engineer  
Technical Standards & Safety Authority  
14<sup>th</sup> Floor, Centre Tower, 3330 Bloor Street West  
Toronto, Ontario

Dear Mr. Alonso:

RE: Union Gas Ltd NPS 6 Natural Gas Pipeline Project, Trenton Area Reinforcement

This letter is in response to your letter of January 15, 2010 in which you requested additional information regarding the protection of the pipe coating during the Horizontal Directional Drilling (HDD) operations.

HDD will be used in all crossings (creek, highway & rail) in this project. In these sections, the pipe will have an abrasion resistant coating. The coating will be Specialty Polymer Coating SP2888RG.

After the pipe has been pulled through, a Current Requirement Test will be completed on all crossings to ensure that the coating has not been damaged prior to connecting the crossing to the pipeline.

If you have any questions/concerns, please do not hesitate to contact me at 613-389-7006 Ext. 76262.

Sincerely,

Michelle Rogers, P.Eng.  
District Engineer – Eastern

cc. Ms. Zora Crnojacki, Chairperson, OPCC, Ontario Energy Board, 2300 Yonge St., 26<sup>th</sup> Floor, Suite 2601, Toronto, ON M4P 1E4

**Dumouchelle, Norm**

---

**From:** Mike Lovejoy [mike.lovejoy@ltc.on.ca]  
**Sent:** January 4, 2010 3:17 PM  
**To:** Dumouchelle, Norm  
**Subject:** Trenton Area Reenforcement Project

Please be advised we have received the report in support of the project. I wish to advise that we concur with the findings in the report .

The watercourses to be crossed are warm water and as per the report an approval will be required from the LTRCA prior to undertaking any physical alterations to the watercourses or wetlands along the route. Using directional drilling may negate the requirements for approvals.

As per the report once you have identified the preferred crossing technique at each location we would be better able to review and provide comment on permit requirements and on other environmental issues.

We look forward to working with you on this project.

Mike Lovejoy  
Hazard Lands Program Co-ordinator  
613 394 3915 ext 211

Please consider the environment. Do not print this unless necessary.



# LOWER TRENT CONSERVATION

714 Murray Street, R.R. 1, Trenton, Ontario, K8V 5P4  
Tel: (613) 594-4829 ■ Fax: (613) 594-5226 ■ Website: [www.ltc.on.ca](http://www.ltc.on.ca) ■ E-mail: [information@ltc.on.ca](mailto:information@ltc.on.ca)  
REGISTERED CHARITABLE ORGANIZATION NO. 1076-6998RR0001  
*Lower Trent Conservation is Officially known as the Lower Trent Region Conservation Authority  
as per the Conservation Authorities Act*

9 April 2010

FILE #: F0018/10

Union Gas Ltd  
50 Keil Dr. N  
Chatham, On.  
N7M 5M1

**ATTENTION:**      **It Is Important That You Read and Understand the Contents of this Letter, It Is Also Important That Your Contractor Is Aware of Any Special Mitigation Requirements.**

RE:    Application for Permission to Alter Watercourses along the route of an extension of natural gas pipeline, Sidney Ward Quinte West, Pursuant to the Ontario Regulation 163/06 Development Interference with Wetlands & Alterations to Shorelines & Watercourses Regulation of the LTRCA., & Section 35 of the Fisheries Act

The Lower Trent Region Conservation Authority has received your proposal to undertake the alterations of several watercourses within our watershed as referenced in Table 1, Watercourse Timing Summary (attached).

This letter is to advise that I have reviewed the documentation submitted for review which is summarized in the attached pages. As a result of this information I have concluded that there will be no effect on the control of flooding, erosion, pollution dynamic beaches or the conservation of land nor will there be any harmful, alteration, disruption or destruction of fish habitat provided the following mitigation measures are implemented

*Appropriate erosion and sediment control measures are implemented prior to, and maintained during the construction phase, to prevent entry of sediment into the water and movement of sediment downstream.*

*Crossing will be completed using Directional Drilling.*

*If watercourses are dry and there is no threat of thunderstorm activity with 48 hours an open cut crossing is permitted subject to the cut being stabilized with native material immediately upon completion of the trenching.*

*All disturbed areas on the banks within 25 feet of the water will be seeded with a mixture of white clover and fescues to prevent entry of sediment into the stream.*

*No stream channelization or re-alignment work is permitted and there will be no movement of construction machinery through the stream. Only the arm and the bucket of the excavator is permitted to enter the water.*

*To protect local fish populations during their spawning and nursery periods, no work is*





# LOWER TRENT CONSERVATION

714 Murray Street, E.R. 1, Trenton, Ontario K8V 5P4  
Tel: (613) 394-4829 • Fax: (613) 394-5226 • Website: www/ltc.on.ca • Email: information@ltc.on.ca

## APPLICATION

DEVELOPMENT, INTERFERENCE WITH WETLANDS & ALTERATIONS TO SHORELINES & WATERCOURSES  
(Conservation Authorities Act- Ontario Regulation 163/06) LOWER TRENT REGION C.A. ONTARIO REGULATION 163/0

PLEASE SEE ATTACHED SHEETS FOR INSTRUCTION ON PLANS/SPECIFICATIONS  
(Please Print)

**PERMIT GRANTED**

Owners Name: \_\_\_\_\_

Telephone: DATE: Apr 9/10

Mailing Address: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Applicants Name: Union Gas Limited

Telephone: 519-552-3100

Mailing Address: 50 Keil Dr North

Postal Code: N7M 5M1

Chatham, Ontario

Location Details: Lot: 4-12 Concession: 1-3  
Civic (911) Address: \_\_\_\_\_

Municipality: Quinte West

Application is hereby made to: (check all that apply)

☐ Construct/Reconstruct a Building  
☐ Alter/Add to a Building

☐ Place/Remove Fill or Site Grading  
☒ Alter a Watercourse

☐ Alter a Wetland  
☐ Alter a Shoreline

Description of Proposed Undertaking: Proposed installation of NPS (ø 168.3mm) gas  
pipeline to cross various watercourse, lots 4, 6, 7, 5, 8, 9, 12,  
Concessions 1, 2, 3, City of Quinte West, County of Hastings.

Type & Volume of Fill Material: \_\_\_\_\_

Date of Undertaking

Start Date: Summer 2010

Completion Date: Dec 31, 2010

I, Paul O'Connell declare that the above information is correct to the best of my knowledge, and I agree to abide by the conditions of this permission as indicated on the attached pages made by the Lower Trent Region Conservation Authority, under the Conservation Authorities Act R.S.O. 1990. I understand that I may appeal any or all of the stated conditions to the Board of the Conservation Authority.

This approval applies only to the lands shown on the attached plans which are owned by the applicant, or to those for which he/she is an authorized agent.

Date: Feb 1, 2010

Signature: Paul O'Connell

NOTE: Signature or Written Authorization of Owner is Mandatory

OFFICE USE ONLY: FEB 1 2010 RECEIVED

DATE RECEIVED: Mar 2/10

FILE # F018/10 PERMIT #: P10-013

APPLICATION APPROVED: [Signature]

AUTHORIZED C.A. REPRESENTATIVE: [Signature]

DATE: Apr 9/10

LOWER TRENT REGION C.A.  
ONTARIO REGULATION 163/06

**PERMIT GRANTED**

DATE Apr 9/10

**Table 1- WATERCOURSE TIMING SUMMARY**  
**Trenton Area Reinforcement Project**

Watercourse Name	Crossing Number	Crossing Type	Earliest Date for Culvert Installation	Earliest Date for Pipeline Crossing	Latest Date for Pipeline Crossing	Latest Date for Culvert Removal	Minimum Culvert Size (mm)	MDZ (metres)	Meeting
Trib. to Trent Canal	SC1	HDD	July 1	July 1	Sept. 30	Oct. 30	600mm if required	To Be Determined	Yes
Trib. to Trent Canal	SC2	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. to Trent Canal	SC3	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. To Meyers Creek	SC4	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. To Meyers Creek	SC5	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. To Meyers Creek	SC6	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	Yes
Trib. To Meyers Creek	SC7	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	Yes
Trib. To Meyers Creek	SC8	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. To Meyers Creek	SC9	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. To Meyers Creek	SC10	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	If Required
Trib. To Meyers Creek	SC11	HDD	N/A	June 1	Sept. 30	N/A	N/A	To Be Determined	Yes

## STREAM CROSSING REVIEW

**PROJECT NAME:** Trenton Area Reinforcement Project

LOWER TRENT REGION C.A.  
ONTARIO REGULATION 163/06

**PERMIT GRANTED**

### PROJECT DESCRIPTION

DATE: Apr 9/10

Union Gas Limited (Union) is seeking to reinforce its Trenton area natural gas supply with the proposed construction of approximately 12.8 kilometers of Nominal Pipe Size (NPS) 6 inch diameter (168.3 mm outside diameter) natural gas pipeline from an existing Union station located on Glen Miller Road at Lot 3, Concession 3 to two (2) proposed tie-in locations on RCAF Road at Lot 3 Concession 1 and Whites Road and Highway 2, on Lot 12, Broken Front Concession, within the City of Quinte West (formally Sidney Twp.), County of Hastings.

The proposed facilities will originate at the Union Gas Trenton Town Border Station (TBS) on Glen Miller Road at the TCPL take-off. From the Trenton (TBS), the proposed facilities will proceed on the south side of the utility corridor, south on the west side of Stickles Road, east on the north side of Johnstown Road, south on the east side of St. Hillaire Road, south on the east side of Boates Road, west on the south side of Hamilton Road, and east on the south side of Meyers Creek Roads, south on the east side of RCAF Road and south on the west of Whites Road. (see attached map). Construction of the pipeline is scheduled for the summer of 2010 with an in service date of October 15, 2010. With the exception of the portion of the pipeline within the utility corridor, the remainder will be located within road allowance.

Union proposes to cross eleven (11) watercourses preferably using the horizontal directional drill (HDD) method (Table 1). If an HDD crossing technique is deemed not practical, a dam and pump procedure would then be utilized using the Union / DFO endorsed Generic Sediment Control Plan (attached). Union will contact the Lower Trent Conservation Authority (LTCA) 48 hours prior to a watercourse crossing regardless of what crossing method is used.

Union retained the services of Azimuth Environmental Consulting to undertake a fisheries study to identify potential environmental impacts the project may have on the affected watercourses. The report is attached.

The watercourse labelled, SC 1, is located within the utility corridor and will require a culvert(s) for access across the right of way as well as maintaining drainage throughout the area. The remainder of the watercourses will be accessible from existing lanes or along the road allowance. As indicated in the photographic section of the Fisheries Report (Photo 1) this watercourse has a very shallow channel and a low potential for fish habitat. As the potential for fish is low, Union proposes to install the culvert(s) in this area as early as June 1, 2010 with the permission of the LTCA. Installation of culverts would follow the Union Gas / DFO Endorsed Generic Sediment Control Plan - Vehicle Crossing (attached).

If any of the watercourses are completely dry the day of the crossing (no flowing or ponded water is observed) an open cut procedure may be utilized as an alternative to HDD. Union will contact the LTCA, if this method is to be employed. All open cut and dam and pump crossings are to be completed in one day including the installation of all mitigation measures. If crossings cannot be completed in this time frame the LTCA is to be notified.

### Alternative C

The crossings are to be completed using an open cut procedure, between July 1 and September 30, if the watercourse is completely dry (free of moving or ponded water). Union must notify the LTCA 48 hours prior to the crossing.

All open cut and dam and pump crossings are to be completed in one day including the installation of all mitigation measures. If crossings can not be completed in this time frame the LTCA is to be notified.

Prior to the start of construction silt fence and straw bales will be installed adjacent to all watercourses within the construction area and will remain intact until the day of the crossing. Immediately following the crossing, the silt fence will be re-established and the area seeded. Erosion control matting will be placed along the banks of the watercourse to ensure stability until the area has been revegetated.

### DRILLING PROCEDURES

- The pilot drill should be closely monitored throughout the crossing attempt.
- If the drill causes turbidity to be generated from air migration through the bed of the watercourse, the procedures outlined in the Environmental Compliance section of this Stream Crossing Review should be followed immediately.
- If the drill can be pulled out and a deeper attempt made, this should be done. Otherwise the crossing should continue after all procedures found in the Environmental Compliance section have been completed and the Ministry of Environment (MOE) Spills Action Centre has been informed by the contractor of the intention to continue.
- If the pilot drill results in a "fracture" (drill fluids enter the stream bed or stream banks), drilling should be stopped immediately and the procedures outline in the Environmental Compliance section of this Stream Crossing Review should be followed. The drill shall be pulled back and can be restarted with a new deeper attempt and/or a change to the existing running line, to attempt to avoid the fracturing problem.
- If subsequent drill attempts result in additional fracturing, then the crossing shall be halted and the Environmental Planning Department must be contacted at 1-866-949-1595, Extension 76955. Additional permits or authorizations to continue the drill using in-stream mitigation or to change the crossing technique may be required.
- If the pilot drill is successful, mud sump pits are to be excavated at the entry and exit points of the drill to contain drilling fluids prior to back reaming and/or pulling pipe.
- All drilling fluids are to be contained during the entire drilling process and promptly removed, as sump pits are filled and/or when the drill is completed.
- Drilling fluids are to be disposed of in Company approved locations only.
- Drilling procedures will follow the Fisheries and Oceans of Canada Operation Statement for High Pressure Directional Drilling.

### ENVIRONMENTAL COMPLIANCE

- In the event that drilling fluids enter the watercourse or turbidity is generated by air migration, the MOE shall be contacted by the contractor in compliance with their spills policy.

**ATTACHMENTS**

- General Location Map
- Trenton Area Reinforcement Project Fisheries Report
- Union Gas / DFO Endorsed Generic Sediment Control Plan – Dam and Pump Crossing
- Union Gas / DFO Endorsed Generic Sediment Control Plan - Vehicle Crossing
- Fisheries and Oceans of Canada Operation Statement for High Pressure Directional Drilling.
- Typical Horizontal Directional Drill Setup
- Silt Fence Installation

**PREPARED BY**



Norm Dumouchelle  
Environmental Planner

**ACCEPTED BY**



Michelle Rogers  
Project Engineer



**uniongas**

A Spectra Energy Company

February 1, 2010

Lower Trent Conservation Authority  
714 Murray Street, R.R.1  
Trenton, Ontario  
K8V 5P4

LOWER TRENT REGION C.A.  
ONTARIO REGULATION 163/06  
**PERMIT GRANTED**  
DATE: *[Signature]* 9/10

ATTENTION: MR. MIKE LOVEJOY, HAZARD LANDS PROGRAM COORDINATOR

RE: **PROPOSED INSTALLATION OF NPS 6 (168.3mm) GAS PIPELINE TO CROSS UNDER  
VARIOUS WATERCOURSES, OPPOSITE LOTS 4, 5, 6, 7, 8, 9, 12, CONCESSIONS 1, 2, 3,  
CITY OF QUINTE WEST, COUNTY OF HASTINGS.  
REFERENCE: TRENTON AREA REINFORCEMENT PROJECT**

Union Gas Limited hereby makes application to Lower Trent Conservation Authority for approval to construct, maintain and operate the subject pipeline.

In support of our application, attached please find the following:

1. Completed application form
2. location maps for the proposed work
3. One (1) copy of an approved "Stream Crossing Review"

**PROPOSED CONSTRUCTION DATE: SUMMER 2010  
CROSSING METHOD: REFER TO STREAM CROSSING REVIEW**

*Construction is to be carried out as described in the attached Stream Crossing Review and in accordance with the plans and procedures outlined in the General Agreement between Union Gas Limited and Fisheries and Oceans – Ontario Great Lakes Area Related to Watercourse Crossings for Pipeline Construction and Maintenance (DFO-UGLA / UGL AGREEMENT 2008). In addition, once approval has been received, notification by Union Gas Limited to the DFO will be made following the Operational Statement.*

Once the review process has been completed, please contact the undersigned regarding applicable application fees.

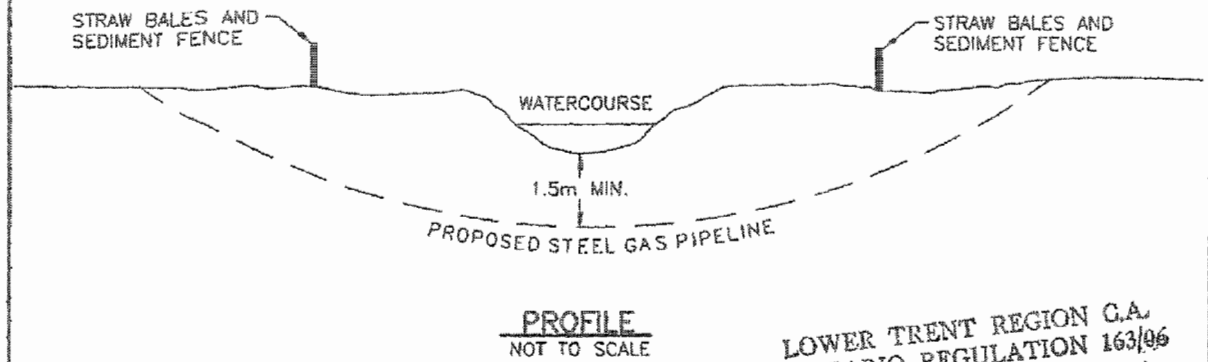
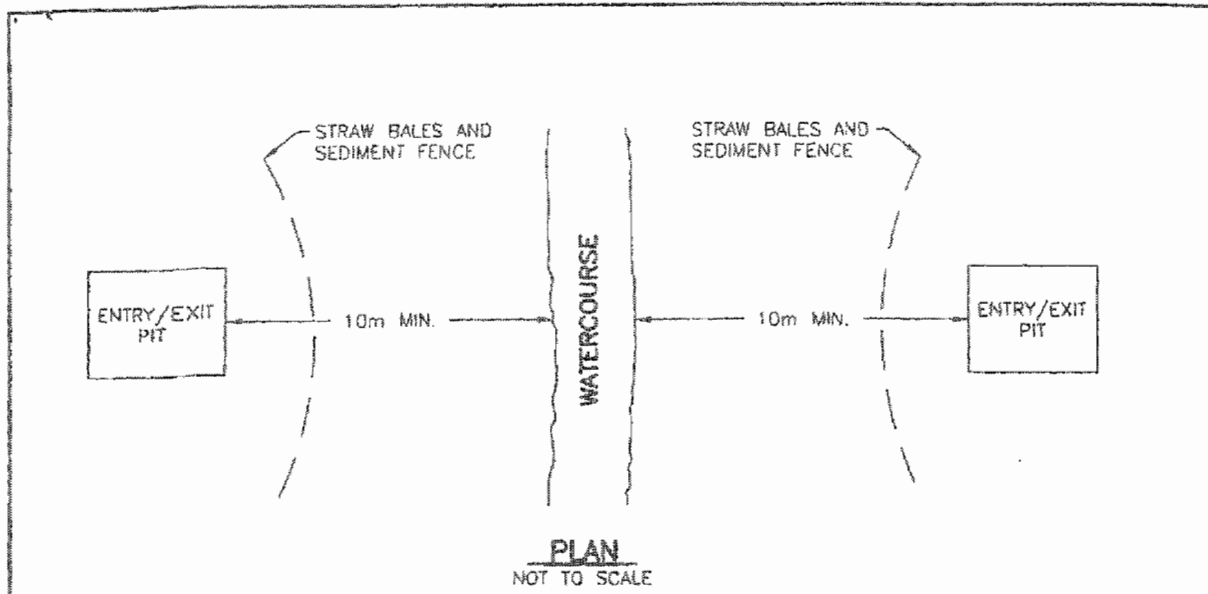
Thanking you in advance,  
Union Gas Limited

*[Signature]*

Joel O'Connor  
Associate Land Agent  
Lands Department  
Union Gas Limited

☎ Phone: 1-800-571-8446 Ext. 2951  
☎ Fax: 519-436-5353  
✉ E-Mail: [joconnor@Uniongas.com](mailto:joconnor@Uniongas.com)


CC: Norm Dumouchelle – UG Chatham.



LOWER TRENT REGION C.A.  
ONTARIO REGULATION 163/06  
**PERMIT GRANTED**  
DATE *3 Apr 9/10*

**NOTES:**

- HORIZONTAL DIRECTIONAL DRILL TO BE SET UP A MINIMUM OF 10m FROM THE WATERCOURSE.
- MINIMUM OF 1.5m COVER FROM TOP OF PIPE TO BED OF WATERCOURSE.
- STRAW BALES AND SEDIMENT FENCE TO BE INSTALLED BETWEEN THE ENTRY/EXIT PITS AND THE WATERCOURSE.
- ALL DISTURBED AREAS TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS OR AS CLOSE AS POSSIBLE.

REVISIONS					 <b>uniongas</b>			
NO.	DATE	BY	APP'D	REMARKS				
					<b>TYPICAL HORIZONTAL DIRECTIONAL DRILL SETUP</b>			
					DRAWN BY	G.T. HANUSZAK	DATE	2003-09-11
					CHECKED BY		DATE	
					APPROVED BY		DATE	
					SIZE	A	DRAWER	N/A
					SHEET	1 of 1	DRAWING NO.	J570

Ministry of  
Transportation

Ministère des  
Transports



Operations Office  
Corridor Management and Property Section  
301 St. Paul St, 2nd Floor  
St. Catharines, Ontario L2R 7R4  
Phone - (905) 704-2916; Fax - (905) 704-2777

December 16, 2009

Union Gas  
P.O. Box 2001,  
50 Keil Drive North  
Chatham, Ontario  
N7M 5M1

**Att: Norm Dumouchelle  
Environmental Planner**

**RE: Union Gas Limited Pipeline Project – Trenton Area Reinforcement**

---

Thank you for your letter of December 14, 2009 regarding the above noted subject.

Please be advised that I have forwarded your letter to our Kingston Office (Stacy Sweezey, Corridor Management Planner). Stacy will review the proposed work and provide any comments directly to Ms. Zora Crnojacki (Chairman, OPCC) and to yourself.

If you required further information, please do not to hesitate to contact me.

Thank you.

Yours truly

Doug Peeling  
Senior Planner and Policy Advisor

c:- S. Sweezey



Ministry of Transportation

Corridor Control Unit  
Planning and Design Section  
1355 John Counter Boulevard  
Postal Bag 4000  
Kingston, Ontario K7L 5A3  
Tel.: 613 545-4865  
Fax: 613-540-5106  
Stacy.Sweezy@Ontario.ca

Ministère des Transports

Unité de contrôle des couloirs routiers  
Section de la planification et de la conception  
1355, boulevard John Counter  
CP/Service de sacs 4000  
Kingston (Ontario) K7L 5A3  
Tél.: 613 544-2220  
Télééc. 613 540-5106



Union Gas Limited  
50 Keil Drive  
Chatham, Ontario  
N7M 5M1

January 22<sup>nd</sup>, 2010

Attention: Norm Dumouchelle, Environmental Planner

Fax # 519 436-4566

Dear Mr. Dumouchelle:

**Re: Union Gas Limited - Highway 401 Gas Pipeline Crossing Encroachment  
Highway 401 / St. Hilaire Underpass  
Trenton Area Reinforcement Project - Environmental Study Report  
Azimuth Environmental Consulting Inc.  
Lot 7 Con 2 Geographic Township of Sidney  
City of Quinte West, County of Hastings  
Highway 401, MTO Eastern Region, Port Hope Area**

This will acknowledge receipt of a document entitled, Trenton Area Reinforcement Project, Environmental Study Report (ESR), prepared by Azimuth Environmental Consulting Inc. (Azimuth) dated December, 2009. The ESR was accompanied by a cover letter from Union Gas Limited to the Ministry of Transportation (MTO), dated Dec 14, 2009. MTO has reviewed the ESR and provides the following comments.

It is notable that the ESR states, MTO was circulated with a document showing the Trenton Area Reinforcement Study Area, and states that MTO did not provide comments. In fact MTO did respond to correspondence prepared by Azimuth, dated July 13, 2009. A copy of an August 6, 2009 letter from MTO to Paul Neils, VP, Azimuth Environmental Inc., is attached for Union Gas records.

MTO is prepared to permit a Highway 401 gas pipeline crossing at the preferred location, being at the Highway 401 / St. Hilaire Road structure.

Please note that, although Highway 401 at this location presently is a 4-lane cross-section, future 6-laning of Highway 401 in the subject area necessitates that Union Gas constructs a proper granular foundation subgrade to support the future six-lane Highway 401 cross-section. Figure 7-5, from the *Trent River Bridge Rehabilitation Project, GWP 196-99-00, Preliminary Design Report*, is attached, showing a typical 6-laning cross-section. In further reference to the engineering design, the gas pipeline is to be as close as possible to the east property limit of St. Hilaire Road, as to not endanger or interfere with the bridge abutment structure. No open cut of Highway 401 will be permitted. The pipeline, or casing pipe if required, is to be constructed to OPSD and Specifications, and placed below frost line. To accommodate the future 6-lane widening and altered/lowered ditchline, MTO requires that the pipe is placed at a depth of 2.0m below the existing ditch, maintaining that elevation throughout the ministry right-of-way, from the northerly property limit to southerly property limit. A compacted granular base, under the pipe, is required to accommodate the extra lane widening on the eastbound and westbound lanes. Additionally, the crossing is to intersect Highway 401 as close to right angle as practical, noting existing utilities within the MTO r-o-w inclusive of Bell fiber-optics. Any traffic impacts to Highway 401 will require work / traffic protection per OTM Book 7.

A copy of MTO Engineering Plates 13-401/13-0 (plan), and 13-401/13-0 (profile), and the Structural General Plan for the St. Hilaire Road Underpass, are provided to assist Union Gas design drawing preparation, required

in support of the MTO Encroachment Permit. Please note that the above information is being provided subject to the following conditions:

- The survey related data/information being provided is to be used only by the requestor, and only for the above stated purpose(s). It is not to be copied or re-distributed for any other means.
- The provided data/information is 37 - 42 years old. No reliance should be placed upon its current accuracy or content.
- The Ministry has provided this information free of charge. No monies shall be received by the requestor for this data from any third party user of this data.
- The Ministry shall not be held responsible or liable for the data/information contained herein.

As the MTO letter, dated August 6, 2009 appears to have been lost, MTO remains unclear of the scope of the ER. The July 13, 2009 letter notes that, "This study will be in compliance with the Ontario Energy Board (OEB) Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (May 2003)." MTO wishes to remind Azimuth and Union Gas that the onus is on Union Gas to ensure the OEB Guideline meets the minimum standard of an MTO Class Environmental Assessment. Please provide this clarification to MTO, at the address noted below. A copy of the MTO *'Guide to Environmental Assessment Requirements for Development-Driven Changes within the Highway Right-of-Way'*, dated October 2003, is attached for Union Gas information.

Union Gas should be aware that under the authority of The Public Transportation and Highway Improvement Act, RSO 1990, the Ministry of Transportation controls land use within specified limits of a provincial highway. Any future development within 45 meters (150 feet) of the MTO property limit or within 395 meters (1300 feet) of the centerpoint of Highway 401 and St. Hillaire Road requires a Ministry of Transportation Building and Land Use Permit. Work within the MTO right-of-way requires the issuance of an MTO Encroachment Permit. In specific reference to this proposal, MTO requires for review and comment, the submission of four full-size hardcopy sets of engineering drawings in support of the proposed encroachment.

Please provide all future submissions pertaining to the pipeline crossing to Brenda Johnston at the address below. Permits must be acquired prior to commencement of construction and may be obtained by contacting Brenda Johnston at the Ministry of Transportation's Port Hope Area Office, 138 Hope Street North, Port Hope, Ontario L1A 2P1 Phone: (905) 885-6381 ext. 205 Fax: (905) 885-9273 Toll Free: 1 866 224-0622

I thank you for the opportunity to comment.

Sincerely,

  
Stacy Sweezey  
Corridor Management Planner  
Eastern Region, MTO

cc: Azimuth Environmental Consulting Inc.  
229 Mapleview East Drive, Unit 1  
Barrie, Ontario  
L4N 0W5 Attention: Paul Neils, Vice President

City of Quinte West  
P O Box 490  
Trenton, Ontario  
K8V 5R6

Attention: C. Murphy, Director, Planning and Development

B. Johnston, Port Hope Office

Fax 705 721-8926 (No Response)

Ministry of Transportation

Corridor Control Unit  
Planning and Design Section  
1355 John Counter Boulevard  
Postal Bag 4000  
Kingston, Ontario K7L 5A3  
Tel.: 613 545-4865  
Fax: 613-540-5106  
Stacy.Sweezey@Ontario.ca

Ministère des Transports

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Kingston (Ontario) K7L 5A3  
Tél.: 613 544-2220  
Télééc. 613 540-5106



Azimuth Environmental Consulting Inc.  
229 Mapleview East Drive, Unit 1  
Barrie, Ontario  
L4N 0W5

August 6<sup>th</sup>, 2009

Attention: Paul Neils, Vice President

*From File*

Dear Ms. Neils:

**Re: Union Gas Limited Pipeline Project – Trenton Area Reinforcement  
Azimuth Environmental Consulting Report to Ontario Energy Board  
Study Area: Lot A Con 2 to Lot 12 Con 2, (Hwy 401 Chainage 10+000 to 15+500)  
Geographic Township of Sidney, City of Quinte West, County of Hastings  
Highway 401, MTO Eastern Region, Port Hope Area**

This will acknowledge receipt of correspondence prepared by Azimuth Environmental Consulting Incorporated, (Azimuth) dated July 13, 2009, requesting comment from the Ministry of Transportation (MTO), pertaining to a proposed Trenton area Union Gas pipeline reinforcement project, requiring a Highway 401 crossing.

MTO has reviewed the letter and study area map, entitled, *Figure 1, Study Area, Trenton Area Reinforcement*, prepared by Azimuth Environmental Consulting Inc., dated May 2009, and provides the following comments.

It is notable that the Trent River Bridge Rehabilitation Project, GWP 196-99-00, is currently under construction within the Union Gas study area limits. A copy of a 'Notice of Study Completion DCR Submission' is attached providing information about the project. Construction began late 2008, with final paving anticipated in 2012. As such, any Union Gas pipeline crossing proposal from the Glen Miller Road interchange, easterly 2 km +/- would create a constructor issue. In the event that the chosen crossing location is within project limits, the onus will be on the proponent to make arrangements pertaining to work timing and locations.

In further reference to the location of the proposed gas pipeline crossing, MTO requires the crossing to be outside of the Glen Miller Road interchange (auxiliary lanes) limits, and avoiding the St. Hilaire Road structure. Based on Union Gas' stated intention for placement within existing rights-of-way, MTO would then prefer placement at the Vandervoort cul-de-sacs, or at the stub road at the east limit of the Union Gas study area. Noting that cross country routing is to be considered, crossing locations in the easterly 3.5 km of the study area would be preferable from an MTO perspective.

Please note that, although Highway 401 at this location presently is a 4-lane cross-section, future 6-laning of Highway 401 in the subject area necessitates that Union Gas constructs a proper foundation subgrade to support the future six-lane Highway 401 cross-section. *Figure 7-5, from the Trent River Bridge Rehabilitation Project, GWP 196-99-00, Preliminary Design Report*, is attached, showing a typical cross-section. It is notable that, as the pipeline crossing is to be outside the Glen Miller interchange, the 6-lane cross-section will not include the noted S C L. (Speed Change Lane). In further reference to the engineering design, no open cut of Highway 401 will be permitted. The pipeline, or casing pipe if required, is to be constructed to OPSD and Specifications, and placed below frost line. MTO policy states the pipe is to have a minimum depth of 1.2m below the traveled portion of the road, and 0.75m below the bottom of ditch. However, as frost depth in the Trenton area is 1.2m, MTO requires that the pipe is placed at a depth of 1.2m below the future ditch.

line. Maintaining that depth from MTO r-o-w to r-o-w would be beneficial to future 6-laning construction, and Union Gas' maintenance at the crossing. Additionally, the crossing is to intersect Highway 401 as close to right angle as practical, noting existing utilities within the MTO r-o-w inclusive of Bell fiber-optics

In reference to Azimuth's Environmental Report (ER) for the project, MTO is unclear of the scope of the ER. The July 13, 2009 letter notes that, "This study will be in compliance with the Ontario Energy Board (OEB) Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (May 2003)." MTO wishes to remind Azimuth and Union Gas that the onus is on Union Gas to ensure the OEB Guideline meets the minimum standard of an MTO Class Environmental Assessment. A copy of the MTO *'Guide to Environmental Assessment Requirements for Development-Driven Changes within the Highway Right-of-Way'*, dated October 2003, is attached for Azimuth's information. MTO also extends an offer for a teleconference between Azimuth's EA staff and MTO Environmental Unit staff, if that would be helpful, or if clarification is required. Feel free to contact me at the number in the letterhead.

The July 13, 2009 letter also asks if MTO has "... knowledge regarding other developments within the study area that could potentially impact the route suitability." At this time, MTO is only aware of possible forthcoming development within the SE quadrant of the Highway 401 / Glen Miller Road interchange. Development proposals are preliminary. However, the current status of these and any other development proposals may be obtained by contacting Charlie Murphy, Director of Planning and Development, City of Quinte West (613) 392-2841.

Union Gas and Azimuth should be aware that under the authority of The Public Transportation and Highway Improvement Act, RSO 1990, the Ministry of Transportation controls land use within specified limits of a provincial highway. Any future development within 45 meters (150 feet) of the MTO property limit or within 395 meters (1300 feet) of the centerpoint of Highway 401 and intersecting public roads requires a Ministry of Transportation Building and Land Use Permit. Work within the MTO right-of-way requires the issuance of an MTO Encroachment Permit. In specific reference to this proposal, MTO requires for review and comment, the submission of four full-size hardcopy sets of engineering drawings in support of the proposed encroachment. Please provide all future submissions pertaining to the pipeline crossing to Brenda Johnston at the address below. Permits must be acquired prior to commencement of construction and may be obtained by contacting Brenda Johnston at the Ministry of Transportation's Port Hope Area Office, 138 Hope Street North, Port Hope, Ontario L1A 2P1 Phone: (905) 885-6381 ext. 205 Fax: (905) 885-9273 Toll Free: 1 866 224-0622

I thank you for the opportunity to comment.

Sincerely,

Stacy Sweezey  
Corridor Management Planner  
Eastern Region, MTO

cc: City of Quinte West  
P O Box 490  
Trenton, Ontario  
K8V 5R6 Attention: C. Murphy, Director, Planning and Development

B. Johnston, Port Hope Office

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# **GUIDE TO ENVIRONMENTAL ASSESSMENT REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY RIGHT-OF-WAY**

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**PREPARED FOR:**

**MINISTRY OF TRANSPORTATION  
PROVINCIAL CORRIDOR REVIEW COMMITTEE**

**PREPARED BY:**

**MINISTRY OF TRANSPORTATION  
PROVINCIAL AND ENVIRONMENTAL PLANNING OFFICE  
POLICY AND STANDARDS SECTION**

**IN CONSULTATION WITH:**

**REGIONAL ENVIRONMENTAL OFFICE/UNITS  
LEGAL SERVICES BRANCH**

**OCTOBER 2003**

GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY  
RIGHT-OF-WAY

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THIS GUIDELINE HAS BEEN PREPARED TO ASSIST PROPONENTS WHOSE PROPOSALS CALL FOR ALTERATIONS TO THE PROVINCIAL HIGHWAY SYSTEM. A SECOND GUIDELINE IS AVAILABLE TO PRIVATE CITIZENS WHERE PROPOSALS NECESSITATE THE CONSTRUCTION OR MODIFICATION TO ENTRANCES.

**GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY  
RIGHT-OF-WAY**

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GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY  
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## ABOUT THIS GUIDE

### 1.1 Purpose

The purpose of this Guide is to outline the requirements of MTO's Class Environmental Assessment for Provincial Transportation Facilities (Class EA, 2000) as they apply to a development proposal that necessitates a change to a provincial highway (e.g., lane widening, new intersection or interchange). Undertakings have a wide range of potential environmental impacts, determined by the project type, size and complexity; and by the existing environmental conditions. Additional information on this and other requirements can be found on MTO's website at [www.mto.gov.on.ca](http://www.mto.gov.on.ca).

### 1.2 Key Points

The information provided in this Guideline is intended to be an overview of the requirements of MTO's Class EA document, specifically as it applies to development proposals. It is neither all-inclusive nor meant to be used in isolation from the Class EA document. Rather, it is intended to highlight the following key points.

- All development-driven provincial highway improvement projects are subject to MTO's Class EA process.
- When highway improvements are required solely as a result of the need to accommodate development, the Developer is the proponent and MTO is a stakeholder.
- As the proponent, the Developer is **responsible** for becoming familiar with MTO's most up-to-date Class EA process and to comply with the requirements.
- The proponent is required to use **qualified consultants** (see Attachment 1) to be responsible for ensuring compliance with MTO's Class EA process.
- The proponent is required to undertake appropriate **consultation** with interested and affected parties, including MTO.
- As a stakeholder, MTO will advise the proponent of MTO's **questions, concerns, and deficiencies** with the project.
- The requirements, as outlined in MTO's Class Environmental Assessment for Provincial Transportation Facilities (2000) document, must be completed to the **satisfaction** of MTO and MOE. Only when the requirements are satisfied can MTO **legally** issue development permits.
- The proponent is responsible for obtaining permits, authorizations and approvals required by **other federal and provincial legislation and municipal bylaws**.
- Compliance with MTO's Class EA process will be subject to periodic internal audits.



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1.3 Consultation with MTO

1.3.1 General

Prior to preparing an application for a permit\* proponents should consult with corridor staff\*\* regarding their proposed undertaking and site plan. In turn, corridor staff, on behalf of the Ministry, will advise the proponent regarding the technical information to submit in support of their application. Throughout the application process, corridor staff will be the Ministry's one-window contact, meaning the proponent will not directly contact the technical offices (e.g., Planning & Design, Traffic, Drainage and Hydrology, Safety, and Environment) involved in the review of the application and supporting material; rather, all parties through corridor staff will convey and distribute information. Should direct contact between the proponent and a technical office be required, corridor staff will arrange a meeting.

1.3.2 EA Specific

For the EA component of development permits, staff from the Regional Environmental Units (REU) will serve as technical advisors to corridor staff.

There are 6 general steps that a proponent will need to complete to satisfy the EA component of a development approval. These are listed along with proponent and MTO responsibilities in Table 1.

Supplementary information regarding why and how the Class EA applies to proponents of provincial highway projects is provided in sections 2 – 4 of this Guideline.

\* Building and Land Use Permit, Entrance Permit and/or Encroachment Permit

\*\* Corridor Staff refers to District Corridor Management staff and Regional Corridor Control Staff. The appropriate staff will vary depending on the nature of the proposed development

GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY RIGHT-OF-WAY

TABLE 1: SUMMARY OF GENERAL STEPS AND RESPONSIBILITIES

GENERAL STEPS	PROPONENT'S RESPONSIBILITIES	MTO'S RESPONSIBILITIES
1) Pre-Application Consultation	<ul style="list-style-type: none"> <li>Proponent to consult with corridor staff regarding the Ministry's highway improvement permitting process.</li> <li>Proponent to obtain and review MTO's Class EA document.</li> <li>Proponent to review MTO's Guide to EA Requirements</li> </ul>	<ul style="list-style-type: none"> <li>Corridor staff to provide proponent with a copy of MTO's <i>Guide to EA Requirements for Development Driven Changes within the Highway ROW</i>.</li> </ul>
2) Project Start-up	<ul style="list-style-type: none"> <li>Proponent to prepare and submit to corridor staff an EA workplan. The workplan to include: <ul style="list-style-type: none"> <li>details about the proposed undertaking;</li> <li>a preliminary site plan;</li> <li>a consultation plan including notices, Public Information Centres (PICs), letters, etc.</li> <li>work completed under other processes (e.g., Planning Act, Municipal Class EA); and</li> <li>the EA category.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Corridor staff to forward the workplan to the Regional Environmental Unit (REU) for review.</li> <li>REU to review the workplan for deficiencies, and either agree or disagree with the EA classification. (Note: the EA classification may change if the development proposal is revised.)</li> <li>REU's response to the workplan to be conveyed to the proponent via corridor staff.</li> </ul>
3) Class EA Study & Document Preparation  1 Draft	<ul style="list-style-type: none"> <li>Proponent to prepare draft Class EA document (Chapter 6, Class EA) and provide copy to corridor staff.</li> </ul>	<ul style="list-style-type: none"> <li>Corridor staff to forward the Class EA document to the REU for review</li> <li>REU to review the document and report deficiencies to the proponent via corridor staff.</li> </ul>

GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY RIGHT-OF-WAY

2. Final	<ul style="list-style-type: none"> <li>Proponent to address deficiencies identified by REU, finalize report, and circulate the document for a review period as required by the Class EA (for Group 'B' projects).</li> </ul>	<ul style="list-style-type: none"> <li>REU to review final report to identify if deficiencies adequately addressed.</li> </ul>
4) Contract Document Preparation	<ul style="list-style-type: none"> <li>Proponent to incorporate environmental requirements into a construction document and submit to corridor staff.</li> </ul>	<ul style="list-style-type: none"> <li>Corridor staff to forward the construction document to the REU for review.</li> <li>REU to review construction document and report deficiencies to the proponent via corridor staff.</li> </ul>
5) Issuance of Permit	<ul style="list-style-type: none"> <li>Proponent to address deficiencies identified by REU and finalize construction document.</li> <li>Proponent to issue a letter indicating how they have addressed the requirements and have issued clearance.</li> </ul>	<ul style="list-style-type: none"> <li>REU to provide memo to corridor staff stating if:               <ol style="list-style-type: none"> <li>deficiencies addressed; and</li> <li>EA requirements fulfilled.</li> </ol> </li> <li>Corridor staff to issue permits if 1) and 2) above are satisfied (assuming requirements from other MTO offices, and external agencies, including MOE, are also fulfilled). Permit should indicate compliance with Class EA requirements.</li> </ul>
6) Implementation	<ul style="list-style-type: none"> <li>Proceed to construction if all approvals are secured.</li> </ul>	<ul style="list-style-type: none"> <li>Corridor staff to make periodic site inspections to check on compliance with conditions of permit.</li> </ul>

GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY  
RIGHT-OF-WAY

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## 2.0 MTO'S CLASS EA DOCUMENT/PROCESS REQUIREMENTS

MTO's Class EA is a planning document approved under the Ontario Environmental Assessment Act. (Refer to Attachment 2 for information regarding how a copy can be obtained.) It defines groups of projects and activities, and identifies the EA processes, which proponents must follow. These processes are based on mandatory principles for transportation engineering, consultation, evaluation, environmental protection, documentation, and the possibility of bump-up.

### 2.1 Project Classification

Based on the type of work and the potential for environmental impacts, MTO projects can be divided into four groups. From the most to the least complex, the groups are referred to as 'A', 'B', 'C' and 'D'.

The requirements for consultation, documentation, study stages, and opportunities for public challenges, vary according to project classification.

## 3.0 HOW MTO'S CLASS EA REQUIREMENTS RELATE TO THE MINISTRY'S REVIEW OF DEVELOPMENT APPLICATIONS

Proponents that are proposing, or are required to make changes to a ROW for which there is no current MTO need and/or construction commitments are considered under MTO's Class EA document to be "private sector" proponents. As proponents, they are responsible for following MTO's Class EA process and incurring all related costs (e.g., consultant, permitting fees). They are also responsible for obtaining all permits, authorizations, and approvals required by other federal and provincial legislation and municipal bylaws.

Depending on the scale and complexity of the proposed project, it could take anywhere from a week to a year or more to fulfil the EA requirements.

"Private-sector" proponents must satisfactorily follow MTO's Class EA process (and comply with Ministry engineering standards and specifications). Because MTO is the owner of the facility, and because the environmental (and engineering) function of the Ministry has a direct interest in the project, MTO is considered to be a stakeholder. Therefore, MTO's Regional Environmental Unit (REU) must be given an opportunity to participate in the study and to identify deficiencies.

It is important that MTO's issues and concerns are addressed throughout the study, as a permit\* for highway improvements WILL NOT be issued if the EA requirements HAVE NOT BEEN satisfied.

Corridor staff issues the development permit\* once they have received a memo from the REU indicating that the EA requirements have been met (assuming requirements from other MTO offices, and other ministries/agencies and interested parties are also fulfilled).

\* Building and Land Use Permit, Entrance Permit, and/or Encroachment Permit

**GUIDE TO EA REQUIREMENTS FOR DEVELOPMENT-DRIVEN CHANGES WITHIN THE HIGHWAY  
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**3.1 Highway Improvement Projects Common to Proponents**

Projects proposed by proponents will likely fall within Group 'B' or 'C'. To determine whether a project is a Group 'B' or 'C', refer to MTO's Class EA document. As well, refer to the Class EA document for the EA process requirements for Group 'B' and Group 'C' projects.

Depending on the type, scale and complexity of the proposed development, the project may be subject to two Class EA processes - MTO and the Municipal Engineers Association (MEA). To eliminate the duplication of efforts and costs, MTO may be willing to accept the submission of documentation prepared under MEA's Class EA, providing it also addresses the requirements of MTO's Class EA.

**4.0 PROPONENTS AND MTO RESPONSIBILITY IN CONSTRUCTION**

Once corridor staff has issued a development permit, the project can proceed to construction. At this stage, the proponent is responsible for ensuring that the mitigation measures are in place and are providing the expected level of protection. It is also the responsibility of the proponent to ensure that MTO, as owner of the facility, is advised of any problems should they arise during construction.

As the owner of the facility, MTO is ultimately responsible for ensuring that all aspects of environmental protection have been implemented during construction. To monitor compliance with the conditions attached to the development permit, corridor staff will conduct periodic site inspections.

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**ATTACHMENT 1: USE OF CONSULTANTS**

Depending on the project type, complexity and existing environmental conditions, the services of a qualified consultant should be retained to ensure compliance with MTO's Class EA process.

The proponent of the proposed development is responsible for hiring an appropriate consultant to conduct the environmental assessment study, and to prepare and submit the necessary documentation.

The consultant should have the expertise to successfully represent the environmental assessment program (excluding MTO policy), the environmental work (i.e., inventories and assessments), and findings of the study. This expertise should be demonstrated in project documentation, and in response to comments/queries from, or disagreements with, external contacts and the public, during the course of the study.

The services and activities generally needed to address environmental requirements include the following:

- Inventory of existing and projected environmental conditions within areas potentially affected either directly or indirectly by the project.
- Identification of potential environmental impacts, and development of environmental mitigation for design, pre-construction, and post-construction elements.
- Clear documentation of evaluation of alternatives.
- Attainment of formal environmental approvals, permits and exemptions.
- Delivery of environmental process requirements, including but not restricted to consultation, documentation and environmental clearance.
- Development of the necessary environmental requirements in the Tender Documents to address and ensure delivery of all of the above.
- Ensure that the MTO's responsibilities under environmental statute, and as the "highway owner" are met, and that MTO and other government environmental policies and procedural guidelines are complied with (i.e., act on behalf of the Ministry).
- Implement all aspects of environmental protection during construction.

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**ATTACHMENT 2: REFERENCES**

A copy of MTO's parent Class EA document Class Environmental Assessment for Provincial Transportation Facilities (2000) can be obtained either from MTO's public web site or from Service Ontario Publications.

To view or download a free copy from MTO's public web site, follow the directions as outlined below:

- Go to MTO's public web site @ [www.mto.gov.on.ca](http://www.mto.gov.on.ca)
- Click on "Publications"
- Under Publications click on "Environmental Standards and Practices"
- On the Environmental Standards and Practices page, click on the link to "Environmental Standards and Practices"
- Click on "Environmental Assessment and Protection"
- Click on "MTO Process"
- Click on "MTO Class EA"

To purchase a bound copy from Service Ontario Publications orders can be made on-line or by phone, fax or mail, as detailed below:

Web Site: <http://www.publications.serviceontario.ca/ecom/>  
Phone: 416-326-5300 or 1-800-268-7095  
Fax: 416-325-3407  
Mail: Publications Ontario  
50 Grosvenor Street  
Toronto, ON M7A 1N8  
Canada

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**GLOSSARY**

**Proponents:** The person(s) who owns the proposed land development, or their representative.

Includes public and private bodies involved in development projects on or adjacent to the provincial highway system (e.g., private citizens, private companies, utilities and municipalities).



13-464 .3-0

**METRIC**  
DIMENSIONS ARE IN METRES  
AND/OR MILLIMETRES  
UNLESS OTHERWISE SHOWN

PLATE No 13-401 / 13-0

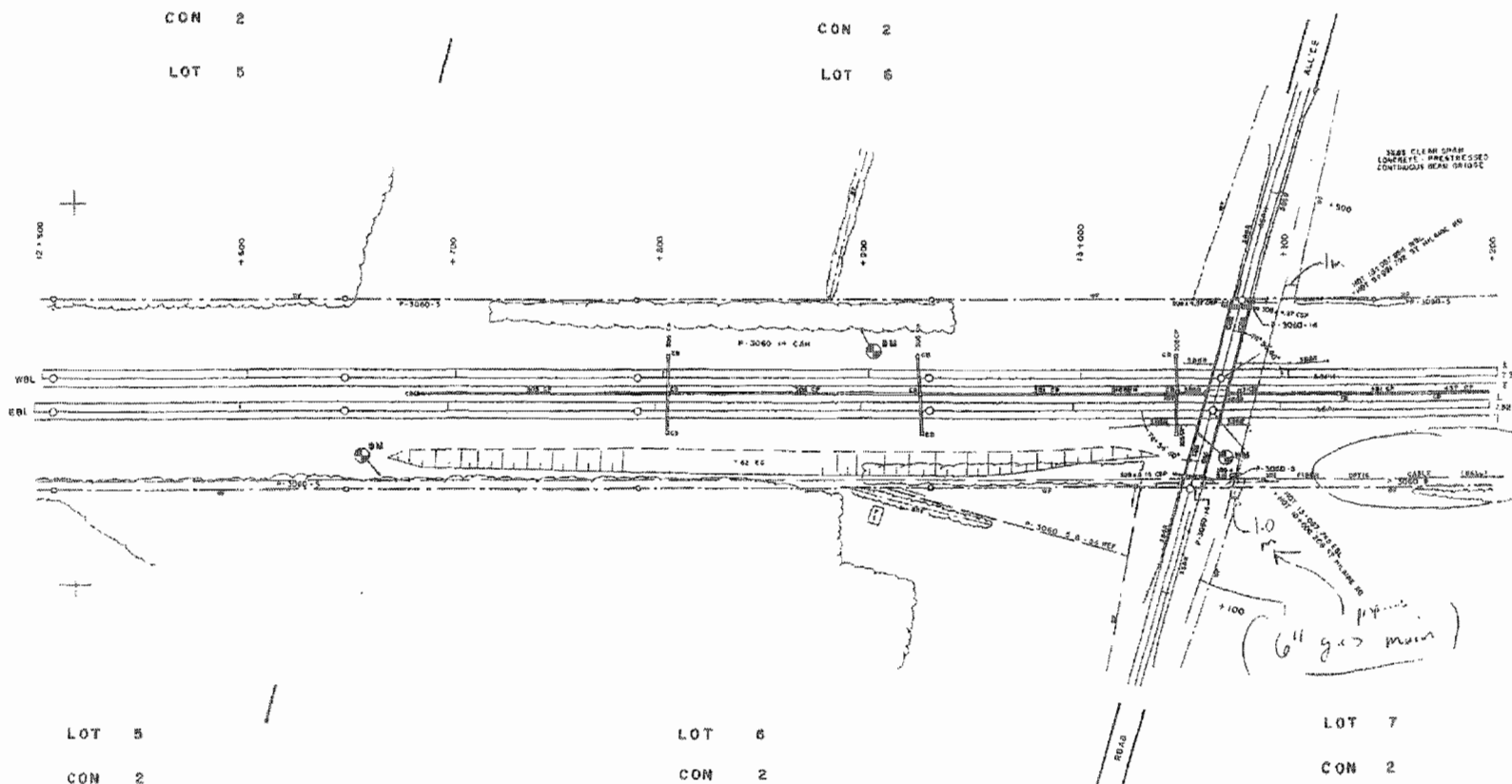
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CONVERTED / UPDATED FROM 12/23 SURVEY

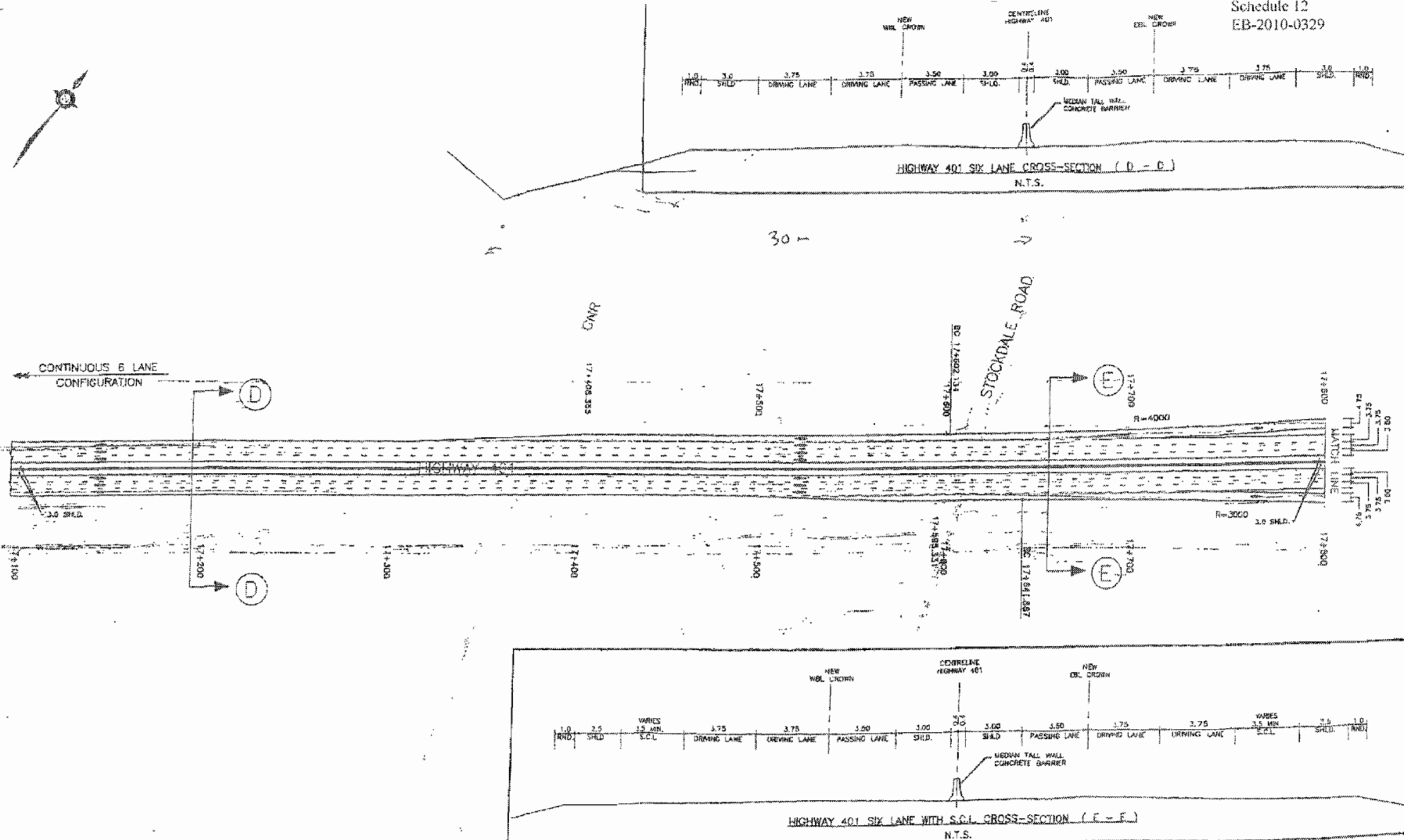


SHEET



SCALE  
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**Ontario**  
Ministry of Transportation Eastern Region

HIGHWAY 401 SIX LANE PLAN  
FROM STA. 17+100 TO STA. 17+800 MURRAY TOWNSHIP

FIGURE No.

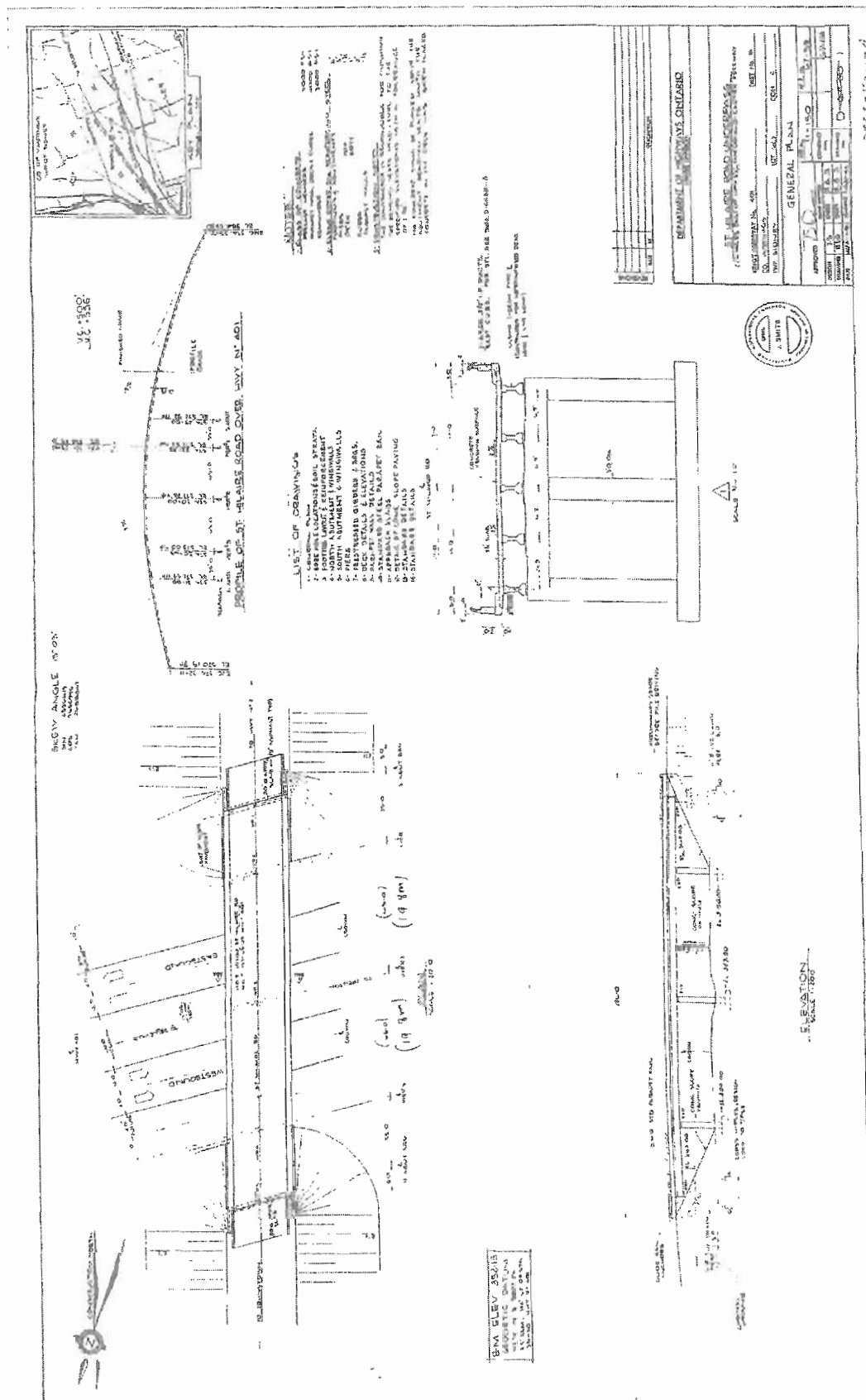
7-5



MCCORMICK RANKIN  
CORPORATION

HIGHWAY 401 PRELIMINARY DESIGN STUDY  
TRENT RIVER BRIDGE  
WP 196-99-00

SCALE  
10 0 20





Ministry of  
Transportation

Ministère des  
Transports

PLANNING AND DESIGN SECTION  
Eastern Region Engineering Office  
355 Convent Street, Postal Bag 4000  
Kingston, Ontario K7L 5A3  
Tel: 613-545-4863  
Fax: 613-540-5106

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FACSIMILE TRANSMITTAL SHEET

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TO: ~~XXXXXXXXXXXXXXXXXXXX~~

FAX: (519) 436-4566

DEPT / ORGANIZATION: UNION GAS

DATE: JANUARY 22, 2010

FROM: STACY SWEZEY

TOTAL NO. OF PAGES INCLUDING COVER 3

RE: TRENTON AREA UNION GAS  
REINFORCEMENT PROJECT

☐ URGENT

☐ FOR REVIEW

☐ PLEASE COMMENT

☐ PLEASE REPLY

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Hi Norm

Please see the following two-page letter, pertaining to MTO encroachment requirements for the proposed Highway 401 crossing at St. Hilare underpass. A hardcopy of the letter, and all noted attachments are in today's mail.

Unfortunately, the MTO August 2009 response to the Azimuth planning area circulation appears to have been lost, although that doesn't create any problem.

Thanks

Stacy Swezey

Corridor Management Planner

Eastern Region, MTO

## Ministry of Transportation

## Ministère des Transports

Corridor Control Unit  
Planning and Design Section  
1355 John Counter Boulevard  
Postal Bag 4000  
Kingston, Ontario K7L 5A3  
Tel.: 613 545-4865  
Fax: 613-640-5106  
Stacy.Sweezy@Ontario.ca

Unité de contrôle des couloirs routiers  
Section de la planification et de la conception  
1355, boulevard John Counter  
CP/Service de sacs 4000  
Kingston (Ontario) K7L 5A3  
Tél.: 613 544-2220  
Télec. 613 540-5106



Union Gas Limited  
50 Keil Drive  
Chatam, Ontario  
N7M 5M1

January 22<sup>nd</sup>, 2010

Attention: Norm Dumouchelle, Environmental Planner

Fax # 519 436-4566

Dear Mr. Dumouchelle:

**Re: Union Gas Limited - Highway 401 Gas Pipeline Crossing Encroachment  
Highway 401 / St. Hilaire Underpass  
Trenton Area Reinforcement Project - Environmental Study Report  
Azimuth Environmental Consulting Inc.  
Lot 7 Con 2 Geographic Township of Sidney  
City of Quinte West, County of Hastings  
Highway 401, MTO Eastern Region, Port Hope Area**

This will acknowledge receipt of a document entitled, Trenton Area Reinforcement Project, Environmental Study Report (ESR), prepared by Azimuth Environmental Consulting Inc, (Azimuth) dated December, 2009. The ESR was accompanied by a cover letter from Union Gas Limited to the Ministry of Transportation (MTO), dated Dec 14, 2009. MTO has reviewed the ESR and provides the following comments.

It is notable that the ESR states, MTO was circulated with a document showing the Trenton Area Reinforcement Study Area, and states that MTO did not provide comments. In fact MTO did respond to correspondence prepared by Azimuth, dated July 13, 2009. A copy of an August 6, 2009 letter from MTO to Paul Neils, VP, Azimuth Environmental Inc., is attached for Union Gas records.

MTO is prepared to permit a Highway 401 gas pipeline crossing at the preferred location, being at the Highway 401 / St. Hilaire Road structure.

Please note that, although Highway 401 at this location presently is a 4-lane cross-section, future 6-laning of Highway 401 in the subject area necessitates that Union Gas constructs a proper granular foundation subgrade to support the future six-lane Highway 401 cross-section. Figure 7-5, from the *Trent River Bridge Rehabilitation Project, GWP 196-99-00, Preliminary Design Report*, is attached, showing a typical 6-laning cross-section. In further reference to the engineering design, the gas pipeline is to be as close as possible to the east property limit of St. Hilaire Road, as to not endanger or interfere with the bridge abutment structure. No open cut of Highway 401 will be permitted. The pipeline, or casing pipe if required, is to be constructed to OPSD and Specifications, and placed below frost line. To accommodate the future 6-lane widening and altered/lowered ditchline, MTO requires that the pipe is placed at a depth of 2.0m below the existing ditch, maintaining that elevation throughout the ministry right-of-way, from the northerly property limit to southerly property limit. A compacted granular base, under the pipe, is required to accommodate the extra lane widening on the eastbound and westbound lanes. Additionally, the crossing is to intersect Highway 401 as close to right angle as practical, noting existing utilities within the MTO r-o-w inclusive of Bell fiber-optics. Any traffic impacts to Highway 401 will require work / traffic protection per OTM Book 7.

A copy of MTO Engineering Plates 13-401/13-0 (plan), and 13-401/13-0 (profile), and the Structural General Plan for the St. Hilaire Road Underpass, are provided to assist Union Gas design drawing preparation, required

in support of the MTO Encroachment Permit. Please note that the above information is being provided subject to the following conditions:

- The survey related data/information being provided is to be used only by the requestor and only for the above stated purpose(s). It is not to be copied or re-distributed for any other means.
- The provided data/information is 37 - 42 years old. No reliance should be placed upon its current accuracy or content.
- The Ministry has provided this information free of charge. No monies shall be received by the requestor for this data from any third party user of this data.
- The Ministry shall not be held responsible or liable for the data/information contained herein.

As the MTO letter, dated August 6, 2009 appears to have been lost, MTO remains unclear of the scope of the ER. The July 13, 2009 letter notes that, "This study will be in compliance with the Ontario Energy Board (OEB) Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (May 2003)." MTO wishes to remind Azimuth and Union Gas that the onus is on Union Gas to ensure the OEB Guideline meets the minimum standard of an MTO Class Environmental Assessment. Please provide this clarification to MTO, at the address noted below. A copy of the MTO *Guide to Environmental Assessment Requirements for Development-Driven Changes within the Highway Right-of-Way*, dated October 2003, is attached for Union Gas information.

Union Gas should be aware that under the authority of The Public Transportation and Highway Improvement Act, RSO 1990, the Ministry of Transportation controls land use within specified limits of a provincial highway. Any future development within 45 meters (150 feet) of the MTO property limit or within 395 meters (1300 feet) of the centerpoint of Highway 401 and St. Hillaire Road requires a Ministry of Transportation Building and Land Use Permit. Work within the MTO right-of-way requires the issuance of an MTO Encroachment Permit. In specific reference to this proposal, MTO requires for review and comment, the submission of four full-size hardcopy sets of engineering drawings in support of the proposed encroachment.

Please provide all future submissions pertaining to the pipeline crossing to Brenda Johnston at the address below. Permits must be acquired prior to commencement of construction and may be obtained by contacting Brenda Johnston at the Ministry of Transportation's Port Hope Area Office, 138 Hope Street North, Port Hope, Ontario L1A 2P1 Phone: (905) 885-6381 ext. 205 Fax: (905) 885-9273 Toll Free: 1 866 224-0622

I thank you for the opportunity to comment.

Sincerely,

  
Stacy Sweezey  
Corridor Management Planner  
Eastern Region, MTO

cc: Azimuth Environmental Consulting Inc.  
229 Mapleview East Drive, Unit 1  
Barrie, Ontario  
L4N 0W5 Attention: Paul Neils, Vice President  
City of Quinte West  
P O Box 490  
Trenton, Ontario  
K8V 5R6 Attention: C. Murphy, Director, Planning and Development

Fax # 705 721-8926

B. Johnston, Port Hope Office

**Dumouchelle, Norm**

---

**From:** Paul Neals [Paul@Azimuthenvironmental.Com]  
**Sent:** April 14, 2010 4:53 PM  
**To:** Sweezey, Stacy (MTO)  
**Cc:** Dumouchelle, Norm  
**Subject:** Union Gas - Trenton Reinforcement  
**Attachments:** April 2010 MTO letter.pdf

Stacy

As per your request attached is the letter confirming the environmental assessment process followed by the Ontario Energy Board is in compliance with the MTO Class EA process. If upon review of the letter you have any outstanding issues regarding this matter please contact me.

I trust this completes your information requirements with regard to the selection of the preferred pipeline route. Union Gas representatives will be contacting you regarding all future permitting and approvals for the crossing of Highway 401 in accordance with your Ministry's requirements.

Regards

Paul Neals  
Vice-President

Azimuth Environmental Consulting, Inc.  
85 Bayfield Street, Suite 400  
Barrie, ON L4M 3A7  
Office: (705) 721-8451, fax (705) 721-8926  
Cell: (705) 794-7107  
Email: [paul@azimuthenvironmental.com](mailto:paul@azimuthenvironmental.com)  
Website: [www.azimuthenvironmental.com](http://www.azimuthenvironmental.com)





Environmental Assessments & Approvals

April 14, 2010

AEC 09-142

Ministry of Transportation  
Corridor Control Unit  
Planning and Design Section  
1355 John Counter Boulevard  
Postal Bag 400  
Kingston, ON K7L 5A3

Attention: Stacey Sweezey  
Corridor Management Planner

**Re: Union Gas Limited – Highway 401 Gas Pipeline Crossing Encroachment  
Highway 401 / St. Hilaire Underpass  
Trenton Area Reinforcement Project – Environmental Study Report**

Dear Mr. Sweezey:

Thank you for your comments on the aforementioned report, the detailed description of the MTO requirements and the Highway 401 design drawings to assist Union Gas in the preparation of the application for an MTO Encroachment Permit.

The purpose of this letter is to confirm that the environmental assessment requirements of the Ontario Energy Board (OEB) and the associated OEB Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (May 2003), hereafter referred to as "the Guidelines", meet the minimum standard of an MTO Class Environmental Assessment.

The OEB environmental assessment process was developed in accordance with the current knowledge and practices as it related to matters to be considered in applications for approval before the Ontario Energy Board (OEB). The OEB is a quasi-judicial tribunal under the Ontario Energy Act that reviews and approves applications for new natural gas facilities in Ontario. The Guidelines were developed through the Ontario Pipeline Coordinating Committee (OPCC) which has representation from the Ministry of Transportation, Technical Standards and Safety Authority, Ministry of Energy, Ministry of Environment, Ministry of Agriculture, Food and Rural Affairs, Ministry of Tourism,



Culture and Recreation, Management Board Secretariat, Ministry of Municipal Affairs and Housing, Ministry of Natural Resources, and the Ontario Realty Corporation. Environmental assessment guidelines prepared in consultation with these Ministries for the approval of projects subject to a provincial statute must be consistent with each participating regulatory authority's environmental assessment guidelines and principles. Without going into a detailed comparison of the MTO Class EA and the Guideline, it is reasonable to state that neither MTO nor MOE would approve an environmental assessment process or Guideline that did not comply with their requirements under the Environmental Assessment Act or related Class EA processes.

Approvals for hydrocarbon facilities under OEB can also be subject to the Environmental Assessment Act, National Energy Board Act, Species At Risk Act, Expropriations Act, Environmental Protection Act, etc. To ensure compliance with these statutes the Guidelines were developed to be consistent with the provincial and federal environmental assessment processes. The MTO Class Environmental Assessment process was also established to comply with the requirements of the Environmental Assessment Act.

Therefore all environmental impact assessment reports submitted for the approval of hydrocarbon facilities in Ontario must be in compliance with the Environmental Assessment Act and associated provincial statutes for the OEB and the OPCC to grant approval. In our opinion this demonstrates the Guidelines meet the minimum standard of the MTO Class EA process.

We trust this addresses your concerns. Please call if you have any further questions.

Yours truly,  
**AZIMUTH ENVIRONMENTAL CONSULTING, INC.**

Paul Neals, B.Sc.Agr.  
Vice-President

PCN:

Cc: Norm Dumouchelle, Union Gas

## Dumouchelle, Norm

---

**From:** Paul Neals [Paul@Azimuthenvironmental.Com]  
**Sent:** February 5, 2010 2:29 PM  
**To:** Dumouchelle, Norm; Schmidt, Doug  
**Subject:** FW: Union Gas - Trenton Area Reinforcement  
**Attachments:** azimuth.ansi.pdf

Norm/Doug

Attached is the MNR response. They are in agreement with the preferred route with regard to the ANSI. Suggest you move quickly to remove the trees.

Paul

**From:** Pitt, Kathleen (MNR) [mailto:Kathleen.Pitt@ontario.ca]  
**Sent:** Friday, February 05, 2010 2:14 PM  
**To:** Paul Neals  
**Cc:** Norris, Todd (MNR)  
**Subject:** RE: Union Gas - Trenton Area Reinforcement

Good afternoon Paul,

I spoke with our ecologist in regards to the Johnston Drumlin ANSI and the pipeline expansion. Your preferred route, indicated in the literature sent to our office, and represented in the attached document, shows the pipeline extending through an existing utility corridor. We have no objections, in terms of the ANSI, to the pipeline expansion through the existing utility corridor, as disturbance to the area is already evident. We would recommend that any vegetation clearing take place between August 15 and March 31, due to breeding seasons of birds and other grassland species. We would also recommend that any construction or disturbance take place out of the ANSI boundaries.

If you have any further questions, or need clarification, please let me know. We will be submitting additional comments within the next two weeks.

Regards,

Kathleen Pitt

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**From:** Paul Neals [mailto:Paul@Azimuthenvironmental.Com]  
**Sent:** January 29, 2010 3:54 PM  
**To:** Pitt, Kathleen (MNR)  
**Subject:** RE: Union Gas - Trenton Area Reinforcement

Kathleen

It is my understanding from the email below you will be reviewing the ESR for the Ministry. Appreciate your review may not be complete but we have a specific issue of interest regarding the placement of the pipeline within the forested edge of the Johnston Drumlins ANSI adjacent to the existing utility corridor. Our assessment of the applicable provincial policy is that infrastructure is permitted if it can be demonstrated there is no significant adverse impact of the feature or its function. In this case we have achieved this requirement by placing the pipeline along the edge of the ANSI minimizing a significant adverse impact.

Could you please indicate if MNR is in agreement with the preferred route as it affects the ANSI. To date neither your Ministry or the Lower Trent Conservation Authority have provided any comment on this issue. We are preparing to

undertake discussions with affected property owners along the preferred route in that area, as well as preliminary engineering. If we need to alter the preferred route because of the ANSI we would appreciate knowing that as soon as possible so alternatives can be considered in a timely fashion.

Regards

Paul Neals  
Azimuth Environmental

**From:** Pitt, Kathleen (MNR) [mailto:Kathleen.Pitt@ontario.ca]  
**Sent:** Tuesday, January 05, 2010 11:34 AM  
**To:** npdumouchelle@uniongas.com  
**Cc:** Paul Neals  
**Subject:** Union Gas - Trenton Area Reinforcement

Good Morning,

I have recently reviewed your letter to Gerry Mulder, Kingston Area MNR, dated October 9, 2009. The letter outlines the construction of a new pipeline from an existing Union Gas station north of Trenton that will tie in two existing pipelines.

In response to the initial letter, we realize we have passed the comment period, closing October 31, 2009. We have received an additional package addressed to Gerry Mulder, dated December 14, 2009 with a completed Environmental Study Report (ER) by Azimuth Environmental Consulting.

This is to inform you that we will be supplying comments on the newly received documents, due by February 19, 2010. I apologize for the late response on this matter.

Regards,

Kathleen Pitt  
Planning Assistant  
Ministry of Natural Resources  
Peterborough District  
613-531-5705  
[kathleen.pitt@ontario.ca](mailto:kathleen.pitt@ontario.ca)

**Dumouchelle, Norm**

---

**From:** Pitt, Kathleen (MNR) [Kathleen.Pitt@ontario.ca]  
**Sent:** February 18, 2010 2:38 PM  
**To:** Paul Neals; Dumouchelle, Norm  
**Cc:** Novacek, Katie (MNR)  
**Subject:** Submission of comments

Good afternoon Paul and Norm,

This is in response to your letter dated December 14, 2009 regarding the Union Gas expansion of a natural gas pipeline in Trenton ON. I have reviewed the environmental report and the proposed project and would like to offer the following recommendations and comments.

A review of our known and available data records indicate that there are occurrences of Butternut (Endangered), Blanding's Turtle (Threatened) River Redhorse (Special Concern), Northern Map Turtle (Special Concern) and Snapping Turtle (Special Concern) in the immediate area of the subject property. In addition, Stinkpot (Threatened), Least Bittern (Threatened) and Channel Darter (Threatened) are known to occur in the general area. Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) List are protected under the Endangered Species Act, 2007 (ESA, 2007). Section 9(1) of the ESA, 2007 prohibits a person from killing, harming, harassing, capturing or taking a member of a species listed as endangered, threatened or extirpated on the SARO list. Section 10(1) of the ESA, 2007 prohibits the damage or destruction of habitat of a species listed as endangered or threatened on the SARO list.

Although no other threatened or endangered species or their habitat have been documented in the area of the proposed project, these features may be present and this list should not be considered complete.

Should any species at risk or their habitat be potentially impacted by on site activities, MNR should be contacted immediately and operations should be modified to avoid any negative impacts to species at risk or their habitat until further discussions with MNR can occur regarding opportunities for mitigation.

If any species at risk is found please contact Melissa Laplante, Species at Risk Biologist at the Peterborough District MNR office at 705-755-3104.

Any in-water work requires a fisheries assessment to determine timing windows and thermal regimes. We strongly recommend that you check with the municipality to determine the designation and zoning of the subject lands, and to determine if the area has been assessed and/or identified as significant wildlife habitat or significant woodlands.

In regards to the Johnston Drumlin ANSI, I wish to reiterate my comments of February 5, 2010: Your preferred route shows the pipeline extending through an existing utility corridor. We have no objections, in terms of the ANSI, to the pipeline expansion through the existing utility corridor, as disturbance to the area is already evident. We would recommend that any vegetation clearing take place between August 15 and March 31, due to breeding seasons of birds and other grassland species. We would also recommend that any construction or disturbance take place out of the ANSI boundaries.

If you require any clarification or additional comments, please do not hesitate to contact me.

Regards,

Kathleen Pitt  
Resource Manager  
Ministry of Natural Resources  
Peterborough District  
613-531-5705  
[kathleen.pitt@ontario.ca](mailto:kathleen.pitt@ontario.ca)

**Ministry of  
Agriculture, Food  
and Rural Affairs**

R.R. #3, 95 Dundas St.,  
Brighton, Ontario K0K 1H0  
Tel: (613) 475-4764  
Fax: (613) 475-3835

**Ministère de  
l'Agriculture, de l'Alimentation  
et des Affaires rurales**

R.R. #3, 95 rue Dundas  
Brighton, Ontario K0K 1H0  
Tél.: (613) 475-4764  
Téléc.: (613) 475-3835



**Food Safety and Environmental Policy Branch  
Environmental Land Use Policy Unit**

February 11, 2010

Norm Dumouchelle  
Environmental Planner  
Union Gas  
P.O. Box 2001, 50 Keil Drive North  
Chatham, Ontario  
N7M 5M1

Dear Mr. Dumouchelle:

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Subject: Union Gas Limited Pipeline Report – Trenton Area Reinforcement

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Staff of this Ministry have completed a review of the above-noted report. Consideration has been given to the matter in terms of the goals, objectives, programs and policies of this Ministry.

The above noted study is for the establishment of 12 kilometres of natural gas pipeline from Glen Miller to RCAF Road in Quinte West. The proposed pipeline will follow existing road allowances and existing Hydro One transmission rights of way.

Based on the above this Ministry has no concerns.

Should you have any questions or wish to discuss this matter further, please contact this office.

Yours truly,

Ray Valaitis  
Rural Planner



**Paul Neals**

---

**From:** Cifuentes, Alejandro (MCL) [Alejandro.Cifuentes@ontario.ca]  
**Sent:** November 16, 2009 12:28 PM  
**To:** Paul Neals  
**Subject:** Union Gas Limited Pipeline Project - Trenton Area reinforcement  
**Attachments:** Built & Cultural Heritage Checklist.doc; ArchaeologyPotentialOct09.doc

Dear Mr. Neals,

Thank you for your letter with respect to the Union Gas Limited Pipeline Project - Trenton Area reinforcement

The Ministry of Culture has an interest in the conservation of cultural heritage resources including:

- Archaeological resources;
- Built heritage resources; and
- Cultural heritage landscapes.

The Provincial Policy Statement, 2005 issued under the authority of the Planning Act defines "conserved" as "the identification, protection, use and/or management of cultural heritage and archaeological resources in such a way that their heritage values, attributes and integrity are retained. This may be addressed through a conservation plan or heritage impact assessment."

Archaeology:

The site in question has archaeological potential for the following reasons (refer to the attached checklist)... An archaeological assessment that conforms to the Ministry of Culture's *Standards and Guidelines for Consultant Archaeologists* is therefore required.

**There is one archaeological site within the study area (Just east off Stickles Road: BbGj-6)**

Or

The site has low archaeological potential and therefore does not require an archaeological assessment. If, however, deeply buried cultural remains (including human remains) are discovered during construction activities, this office should be notified immediately.

Built Heritage / Cultural Heritage Landscapes:

If the building/structure in question / site in question contains buildings/structures over 40 years old, a Heritage Impact Assessment should be undertaken. The Assessment should include the following:

1. Historical research, site analysis and evaluation
2. Identification of the significance and heritage attributes of the property
3. Description of the proposed development / site alteration
4. Measurement of impacts
5. Consideration of alternatives, mitigation and conservation methods
6. Implementation and monitoring schedules
7. Summary statement and conservation recommendations

For more information, refer to Ministry of Culture *InfoSheet #5: Heritage Impact Assessments and Conservation Plans* in the Ontario Heritage Tool Kit at [http://www.culture.gov.on.ca/english/heritage/Toolkit/Heritage\\_PPS\\_infoSheet.pdf](http://www.culture.gov.on.ca/english/heritage/Toolkit/Heritage_PPS_infoSheet.pdf)

The Heritage Impact Assessment should be sent to the local municipality and its Municipal Heritage Committee for their review and information as part of the Environmental Assessment process.

Please fill in the attached checklists and send them back to our office for review, do not hesitate to contact me if you have any questions.

Best regards,

**Alejandro Cifuentes**  
A/Heritage Planner  
Ministry of Culture  
Programs and Services Branch - Culture Services Unit  
400 University Avenue, 4th Floor  
Toronto, Ontario M7A 2R9  
T 416-314-7159  
F 416-212-1802  
[Alejandro.Cifuentes@ontario.ca](mailto:Alejandro.Cifuentes@ontario.ca)



**Dumouchelle, Norm**

---

**From:** Paul Neals [PaulN@Azimuthenvironmental.Com]  
**Sent:** December 2, 2009 1:26 PM  
**To:** Cifuentes, Alejandro (MCL)  
**Cc:** Nick Adams; Dumouchelle, Norm; Schmidt, Doug  
**Subject:** RE: Union Gas Limited pipeline Project Trenton Area Reinforcement  
**Attachments:** SCAN3539\_000.pdf

Alejandro

Thank you for the information, we will forward it to our archaeological consultant, Nick Adams of Adams Heritage.

Attached is a figure showing the preferred route. Based on the work completed by Adams Heritage the preferred route does not impact any known archaeological sites. Upon obtaining approval for the project and the preferred route from the Ontario Energy Board, Union Gas will be undertaking a Stage II assessment along the preferred route prior to construction to evaluate the identified areas of archaeological potential and the findings will be submitted to your Ministry for review.

If you have any specific archaeological questions with regard to the preferred route or the future Stage II assessment we would appreciate hearing from you as soon as possible so they can be addressed in the OEB submission and the future archaeological field work. Mr. Adams will be undertaking the Stage II assessment and should be copied on any future emails/correspondence that deals with Stage II requirements.

Regards

Paul Neals

**From:** Cifuentes, Alejandro (MCL) [<mailto:Alejandro.Cifuentes@ontario.ca>]  
**Sent:** December 2, 2009 12:29 PM  
**To:** Paul Neals  
**Cc:** [NPDumouchelle@uniongas.com](mailto:NPDumouchelle@uniongas.com)  
**Subject:** Union Gas Limited pipeline Project Trenton Area Reinforcement

Hello Paul,

This email is to follow up on the email I sent you back on November 16, 2009 regarding this project.

After reviewing the map that you sent us, additional maps, and our database we have encountered an archaeological site within your study area. The site is located in the northern part of the area just north of Bonisteel Rd., east of Stickles Rd and west of Platt Rd. An archaeological assessment will be required if there is any work done within 250m of this site.

Another trigger for an archaeological assessment is water. Any undertaking within 300m of a body of water will also trigger an archaeological assessment.

Please take into account these two factors as this project moves along the EA Process. Also, please keep us informed for any updates regarding this project and any decision as to what the preferred location will be for this pipeline undertaking.

Do not hesitate to contact me if you have any comments or questions regarding this email.

Regards,

**Alejandro Cifuentes**  
A/Heritage Planner  
Ministry of Culture

**Ministry of Tourism and  
Culture**  
Cultural Services Unit, 4<sup>th</sup> Fl.  
400 University Ave  
Toronto, ON M7A 2R9

**Ministère de la Tourisme et  
Culture**  
400, Avenue University  
Toronto, ON M7A 2R9



March 4, 2010

Norm Dumouchelle  
Environmental Planner  
Union Gas Ltd.  
50 Keil Drive North  
North Chatham Ontario, N7M 5M1

Dear Mr. Dumouchelle,

**Subject/Project: Union Gas Limited Pipeline Project – Trenton Area  
Reinforcement, Environmental Study Report.**

Thank you for contacting the Ministry of Tourism and Culture (MTC) regarding the above noted Environmental Assessment report.

MTC's interest in this undertaking relates to our mandate of conserving, protecting and preserving Ontario's heritage including archaeological sites, cultural heritage landscapes and built heritage resources.

The EA report outlines the EA process undertaken to arrive at the referred Alternative for the construction of a 6 inch outside diameter pipeline, connecting an existing Union Gas station located north of the City of Trenton to two different existing Union Gas pipelines in proximity to CFB Trenton, and potential impacts to cultural heritage resources, in particular archaeological resources.

Included in Appendices there is an archaeological assessment report that was conducted in association with this project.

Under page V of the Executive Summary, there is a reference made to archaeological "survey". In archaeology, a survey does not refer to an Assessment, therefore we recommend changing archaeological survey for archaeological *assessment* throughout the report.

Section 3.4.1 is named "Archaeology and Heritage". We recommend changing this title and all sections relating to it to *Cultural Heritage Resources* as per the Ontario Heritage Act definition. Please be aware that the Ministry of Culture has been merged with the Ministry of Tourism and it is now known as the Ministry of Tourism and Culture (MTC), therefore all references to MCL or Ministry of Culture should be changed.

In Section 4.3.2 under Archaeological Sites, we recommend changing the phrase archaeological "significance" to archaeological *potential*. Also, when looking at the possibility of encountering unforeseen archaeological resources, the following protocols need to be followed and added to this report. "Should deeply buried archaeological finds be discovered during construction/excavation activities, this office (MTC) should be notified without delay and a licensed archaeologist may be required to monitor the site directly. In addition, in the event that human remains are found, the local police must be notified immediately, followed promptly by notification to this office."

Further, MTC has developed a standard Built Heritage and Cultural Heritage Landscapes Assessment checklist, which identifies characteristics that indicate whether Built Heritage and Cultural Heritage Landscapes might be present and/or impacted and whether a heritage impact assessment is required as part of the EA process. I have attached that checklist to this letter. Please return the completed checklist to this office's attention in the future.

In addition, if a heritage impact assessment report is required, it should be sent to the Ministry of Tourism and Culture to be reviewed by a Heritage Planner.

The heritage impact assessment should also be forwarded to the local municipality and municipal heritage committee, if one exists, for their review and comment. The report and its recommendations should be considered as part of the EA decision making process.

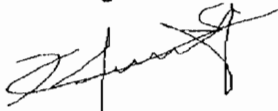
For more information, refer to Ministry of Culture Info Sheet#5: Heritage Impact Assessments and Conservation Plans:

[http://www.culture.gov.on.ca/english/heritage/Toolkit/Heritage\\_PPS\\_infoSheet.pdf](http://www.culture.gov.on.ca/english/heritage/Toolkit/Heritage_PPS_infoSheet.pdf)

Further, it is our understanding that a Stage I and II archaeological assessment has been conducted as part of this EA. Please note that no construction, work or soil disturbance of any kind may be undertaken anywhere on the subject property until these reports have been accepted into the register of reports by the Ministry of Tourism and Culture.

Beyond the above editorial suggestions, we have no further comments regarding this EA.

If you require further assistance regarding these comments please contact the undersigned.



Alejandro Cifuentes, B.U.R.Pl.  
Heritage Planner (A)  
(416) 314-7159  
[Alejandro.cifuentes@ontario.ca](mailto:Alejandro.cifuentes@ontario.ca)

- cc. Chris Schiller, Manager  
Culture Services Unit, Ministry of Tourism and Culture
- Katherine Kirzati, Heritage Planner – East/ Northeast Region  
Culture Services Unit, Ministry of Tourism and Culture
- Jim Sherratt, Archaeology Review Officer - East Region  
Culture programs Unit, Ministry of Tourism and Culture
- Zora Crnojacki, Coordinator  
Ontario Pipeline Coordination Committee, Ontario Energy Board

## Screening for Impacts to Built Heritage and Cultural Heritage Landscapes

This check list will help identify potential cultural heritage resources, determine how important they are and indicate whether a cultural heritage impact assessment is needed.

### Step 1 – Screening Potential Resources

		<b>Built heritage resources</b>
<b>YES</b>	<b>NO</b>	Does the property contain any built structures, such as:
<input type="checkbox"/>	<input type="checkbox"/>	▪ Residential structures (e.g. house, apartment building, trap line shelter)
<input type="checkbox"/>	<input type="checkbox"/>	▪ Agricultural (e.g. barns, outbuildings, silos, windmills)
<input type="checkbox"/>	<input type="checkbox"/>	▪ Industrial (e.g. factories, complexes)
<input type="checkbox"/>	<input type="checkbox"/>	▪ Engineering works (e.g. bridges, roads, water/sewer systems)
		<b>Cultural heritage landscapes</b>
<b>YES</b>	<b>NO</b>	Does the property contain landscapes such as:
<input type="checkbox"/>	<input type="checkbox"/>	▪ Burial sites and/or cemeteries
<input type="checkbox"/>	<input type="checkbox"/>	▪ Parks
<input type="checkbox"/>	<input type="checkbox"/>	▪ Quarries or mining operations
<input type="checkbox"/>	<input type="checkbox"/>	▪ Canals
<input type="checkbox"/>	<input type="checkbox"/>	▪ Other human-made alterations to the natural landscape

### Step 2 – Screening for Potential Significance

<b>YES</b>	<b>NO</b>	<b>A property's heritage significance may be identified through the following:</b>
<input type="checkbox"/>	<input type="checkbox"/>	1. Is it designated or adjacent to a property designated under the Ontario Heritage Act?
<input type="checkbox"/>	<input type="checkbox"/>	2. Is it listed on the municipal heritage register or provincial register (e.g. Ontario Heritage Bridge List)?
<input type="checkbox"/>	<input type="checkbox"/>	3. Is it within or adjacent to a Heritage Conservation District?
<input type="checkbox"/>	<input type="checkbox"/>	4. Does it have an Ontario Heritage Trust easement or is it adjacent to such a property?
<input type="checkbox"/>	<input type="checkbox"/>	5. Is there a provincial or federal plaque?
<input type="checkbox"/>	<input type="checkbox"/>	6. Is it a National Historic Site?
<input type="checkbox"/>	<input type="checkbox"/>	7. Does documentation exist to suggest built heritage or cultural heritage landscape potential? (eg. research studies, heritage impact assessment reports, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	8. Was the municipality contacted regarding potential cultural heritage value? Were any concerns expressed?
<input type="checkbox"/>	<input type="checkbox"/>	9. What are the dates of construction? Are the buildings and/or structures over 40 years old? Is it within a Canadian Heritage River watershed?
<input type="checkbox"/>	<input type="checkbox"/>	10. Is a renowned architect or builder associated with the property?

Note: If you answer "yes" to any of the questions in Step 2, a heritage impact assessment is required.

<b>Step 3 – Screening for Potential Impacts</b>		
<b>YES</b>	<b>NO</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Destruction</b> of any, or part of any, significant heritage attribute or feature.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Alteration</b> that is not sympathetic, or is incompatible, with the historic fabric or appearance.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Shadows</b> created that alter the appearance of a heritage attribute or change the visibility of a natural feature or plantings, such as a garden.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Isolation</b> of a heritage attribute from its surrounding environment, context or a significant relationship.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Direct or indirect obstruction</b> of significant views or vistas from, within, or to a built and natural feature.
<input type="checkbox"/>	<input type="checkbox"/>	<b>A change in land use</b> such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Land disturbances</b> such as a change in grade that alters soils and drainage patterns that adversely affect an archaeological resource.

#### **Contents of a Heritage Impact Assessment**

As a minimum, the following should be included in a heritage impact assessment:

1. Historical research, site analysis and evaluation
2. Identification of the significance and heritage attributes of the property
3. Description of the proposed development/ site alteration
4. Measurement of impacts
5. Consideration of alternatives, mitigation and conservation methods
6. Implementation and monitoring schedules
7. Summary statement and conservation recommendations

For more information, refer to Ministry of Tourism and Culture *Info Sheet#5: Heritage Impact Assessments and Conservation Plans* as part of the Ontario Heritage Tool Kit, which is available on the Ministry's website [www.culture.gov.on.ca](http://www.culture.gov.on.ca).

**Ministry of the Environment**

P.O. Box 22032  
Kingston, Ontario  
K7M 8S5  
613/549-4000 or 1-800/267-0974  
Fax: 613/548-6908

**Ministère de l'Environnement**

C.P. 22032  
Kingston (Ontario)  
K7M 8S5  
613/549-4000 ou 1-800/267-0974  
Fax: 613/548-6908



March 8, 2010

Union Gas  
PO Box 2001  
50 Keil Drive North  
Chatham, Ontario  
N7M 5M1

Attention: Norm Dumouchelle  
Environmental Planner

Dear Mr. Dumouchelle:

Re: Union Gas Limited Pipeline Project  
Trenton Area Reinforcement

Thank you for your December 14, 2009 letters to Penny Stewart and Vicki Mitchell and for the copies of the Environmental Study Report prepared by Azimuth Environmental Consulting Inc. dated December 2009.

The purpose of this project is to service an increased need for natural gas within the Trenton area. Union Gas plans to construct a new 6 inch diameter pipeline from an existing Union Gas station located north of the City of Trenton and will tie into two different existing Union Gas pipelines in proximity to Canadian Forces Base Trenton. The tie in points are located at the intersections of the CP Railway and RCAF Road and Whites Road and Highway 2.

The proposed pipeline is to be located within or adjacent to the existing rights-of-way wherever possible as potential impacts on the natural environment will be minimized.

Construction, mitigation and restoration will be undertaken in accordance with the Ontario Energy Board *Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario, 2003*, the *Union Gas Environmental Management Manual*, and the *Union Gas Erosion and Sedimentation Control Standards*.

- 3 -

Construction equipment will have the appropriate mufflers to ensure compliance with MOE sound level guidelines and with municipal noise by-laws.

Permits to Take Water (PTTW), issued under section 34 of the *Ontario Water Resources Act*, are required for any taking, dewatering, storage or diversion of water in excess of 50,000 litres per day. Activities which may require Permits to Take Water include hydrostatic testing, dewatering behind a coffer dam, diversion of stream flow to allow work in the dry at a water crossing, construction dewatering, and use of water to make up a drilling slurry.

The report recognizes the need for a PTTW for hydrostatic testing when volumes exceed 50,000 litres per day, but does not discuss the need for a PTTW for other construction activities such as during water crossings. For example, the report states that water crossings are proposed to be constructed using either a directional drill technique or a dam and pump technique. Either of these techniques could result in diversion or taking of water.

In summary, MOE staff concur with the mitigation and monitoring measures proposed for the project. If you have any questions or concerns about the above comments, please contact me at (613) 540-6861.

Yours truly,



Alida Mitton  
Environmental Planner  
Technical Support Section  
Eastern Region





**TOTAL ESTIMATED ENVIRONMENTAL COSTS**

**TRENTON REINFORCEMENT  
PIPELINE PROJECT**

**Pre-Construction**

Environmental Assessment	\$	35,000
Archaeology		20,000
Soil Sampling		15,000
Hearing Costs (Environmental Consultant)		5,000
Surveys (fish, wildlife, plants)		10,000
Permits		<u>10,000</u>

**Total Pre-Construction** \$ **95,000**

**Construction**

Environmental Inspection	\$	10,000
Stream Crossings		10,000
Site Restoration		113,000
Water Well Sampling		<u>15,000</u>

**Total Construction** \$ **148,000**

**Post Construction**

Site Restoration	\$	33,000
Tree Replacement		<u>10,000</u>

**Total Post Construction** \$ **43,000**

**Total Estimated Environmental Costs** \$ **286,000**





For Internal Use Only
Lands File No.:
Cheque No.:
Project:
Acct No.:

## PIPELINE EASEMENT

(the "Easement")

Between **[Insert Name]**  
(herein called the "Transferor")

and

**UNION GAS LIMITED**  
(herein called the "Transferee")

This Easement is an easement in Gross

WHEREAS the Transferor is the owner in fee simple of those lands and premises more particularly described as: "*insert full legal description here*" (hereinafter called the "Transferor's Lands").

The Transferor does hereby GRANT, CONVEY, TRANSFER AND CONFIRM unto the Transferee, its successors and assigns, to be used and enjoyed as appurtenant to all or any part of the lands of the Transferee's lands the right, liberty, privilege and easement on, over, in, under and/or through a strip of the Transferor's Lands more particularly described as being "*insert legal description here*" PIN: (hereinafter referred to as the "Lands") to survey, lay, construct, maintain, inspect, patrol, alter, remove, replace, reconstruct, repair, move, keep, use and/or operate one Pipe line for the transmission of pipeline quality natural gas as defined in The Ontario Energy Board Act S.O. 1998 (hereinafter referred to as the "Pipeline") including therewith all such buried attachments, equipment and appliances for cathodic protection which the Transferee may deem necessary or convenient thereto, together with the right of ingress and egress at any and all times over and upon the Lands for its servants, agents, employees, those engaged in its business, contractors and subcontractors on foot and/or with vehicles, supplies, machinery and equipment for all purposes necessary or incidental to the exercise and enjoyment of the rights, liberty, privileges and easement hereby granted. The Parties hereto mutually covenant and agree each with the other as follows:

1. In consideration of the sum of "*insert amount here*" DOLLARS (\$) of lawful money of Canada (hereinafter called the "Consideration"), which sum is payment in full for the rights and interest hereby granted and for the rights and interest, if any, acquired by the Transferee by expropriation, including in either or both cases payment in full for all such matters as injurious affection to remaining lands and the effect, if any, of registration on title of this document and where applicable, of the expropriation documents, subject to Clause 12 hereof to be paid by the Transferee to the Transferor within 90 days from the date of these presents or prior to the exercise by the Transferee of any of its rights hereunder other than the right to survey (whichever may be the earlier date), the rights, privileges and easement hereby granted shall continue in perpetuity or until the Transferee, with the express written consent of the Transferor, shall execute and deliver a surrender thereof. Prior to such surrender Transferee shall remove all debris as may have resulted from the Transferee's use of the Lands from the Lands

and in all respects restore the Lands to its previous productivity and fertility so far as is reasonably possible, save and except for items in respect of which compensation is due under Clause 2. hereof. Transferor and Transferee hereby agree that nothing herein shall oblige Transferee to remove the Pipeline from the Lands as part of Transferee's obligation to restore the Lands.

2. The Transferee shall make to the Transferor (or the person or persons entitled thereto) due compensation for any damages to the Lands resulting from the exercise of any of the rights herein granted, and if the compensation is not agreed upon by the Transferee and the Transferor, it shall be determined by arbitration in the manner prescribed by the Expropriations Act, R.S.O. 1990, Chapter E-26 or any Act passed in amendment thereof or substitution thereof. Any gates, fences and tile drains curbs, gutters, asphalt paving, lockstone, patio tiles interfered with by the Transferee shall be restored by the Transferee at its expense as closely as reasonably possible to the condition and function in which they existed immediately prior to such interference by the Transferee and in the case of tile drains, such restoration shall be performed in accordance with good drainage practice and applicable government regulations.

3. The Pipeline (including attachments, equipment and appliances for cathodic protection but excluding valves, take-offs and fencing installed under Clause 9 hereof) shall be laid to such a depth that upon completion of installation it will not obstruct the natural surface run-off from the Lands nor ordinary cultivation of the Lands nor any tile drainage system existing in the Lands at the time of installation of the Pipeline nor any planned tile drainage system to be laid in the Lands in accordance with standard drainage practice, if the Transferee is given at least thirty (30) days notice of such planned system prior to the installation of the pipeline; provided that the Transferee may leave the Pipeline exposed in crossing a ditch, stream, gorge or similar object where approval has been obtained from the Ontario Energy Board or other Provincial Board or authority having jurisdiction in the premises. The Transferee agrees to make reasonable efforts to accommodate the planning and installation of future tile drainage systems following installation of the pipeline so as not to obstruct or interfere with such tile installation.

4. As soon as reasonably possible after the construction of the Pipeline, the Transferee shall level the Lands and unless otherwise agreed to by the Transferor, shall remove all debris as may have resulted from the Transferee's use of the Lands therefrom and in all respects restore the Lands to its previous productivity and fertility so far as is reasonably possible, save and except for items in respect of which compensation is due under Clause 2 hereof.

5. The Transferee shall indemnify the Transferor for any and all liabilities, damages, costs, claims, suits and actions which are directly attributable to the exercise of the rights hereby granted, except to the extent of those resulting from the gross negligence or willful misconduct of the Transferor.

6. In the event that the Transferee fails to comply with any of the requirements set out in Clause 2, 3, or 4 hereof within a reasonable time of the receipt of notice in writing from the Transferor setting forth the failure complained of, the Transferee shall compensate the Transferor (or the person or persons entitled thereto) for any damage, if any, necessarily resulting from such failure and the reasonable costs if any, incurred in the recovery of those damages.

7. Except in case of emergency, the Transferee shall not enter upon any of the Transferor's Lands, other than the Lands, without the consent of the Transferor. In case of emergency the right of entry upon the Transferor's Lands for ingress and egress to and from the Lands is hereby granted. The determination of what circumstances constitute an emergency, for purposes of this paragraph is within the absolute discretion of the Transferee, but is a situation in which the Transferee has a need to access the pipeline in the public interest without notice to the Transferor, subject to the provisions of paragraph 2 herein. The Transferee will, within 72 hours of entry upon such lands, advise the Transferor of the said emergency circumstances and thereafter provide a written report to Transferor with respect to the resolution of the emergency situation. The Transferee shall restore the lands of the Transferor at its expense as closely as reasonably practicable to the condition in which they existed immediately prior to such interference by the Transferee and in the case of tile drains, such restoration shall be performed in accordance with good drainage practice.

8. The Transferor shall have the right to fully use and enjoy the Lands except for planting trees over the lessor of the Lands or a six (6) metre strip centered over the Pipeline, and except as may be necessary for any of the purposes hereby granted to the Transferee, provided that without the prior written consent of the Transferee, the Transferor shall not excavate, drill, install, erect or permit to be excavated, drilled, installed or erected in, on, over or through the Lands any pit, well, foundation, pavement, building, mobile homes or other structure or installation. Notwithstanding the foregoing the Transferee upon request shall consent to the Transferor erecting or repairing fences, hedges, pavement, lockstone constructing or repairing tile drains and domestic sewer pipes, water pipes, and utility pipes and constructing or repairing lanes, roads, driveways, pathways, and walks across, on and in the Lands or any portion or portions thereof, provided that before commencing any of the work referred to in this sentence the Transferor shall (a) give the Transferee at least (30) clear days notice in writing describing the work desired so as to enable the Transferee to evaluate and comment on the work proposed and to have a representative inspect the site and/or be present at any time or times during the performance of the work, (b) shall follow the instructions of such representative as to the performance of such work without damage to the Pipeline, (c) shall exercise a high degree of care in carrying out any such work and, (d) shall perform any such work in such a manner as not to endanger or damage the Pipeline as may be required by the Transferee.
9. The rights, privileges and easement herein granted shall include the right to install, keep, use, operate, service, maintain, repair, remove and/or replace in, on and above the Lands any valves and/or take-offs subject to additional agreements and to fence in such valves and/or take-offs and to keep same fenced in, but for this right the Transferee shall pay to the Transferor (or the person or persons entitled thereto) such additional compensation as may be agreed upon and in default of agreement as may be settled by arbitration under the provisions of The Ontario Energy Board Act, S.O. 1998, or any Act passed in amendment thereof or substitution therefore. The Transferee shall keep down weeds on any lands removed from cultivation by reason of locating any valves and/or take-offs in the Lands.
10. Notwithstanding any rule of law or equity and even though the Pipeline and its appurtenances may become annexed or affixed to the realty, title thereto shall nevertheless remain in the Transferee.
11. Neither this Agreement nor anything herein contained nor anything done hereunder shall affect or prejudice the Transferee's rights to acquire the Lands or any other portion or portions of the Transferor's lands under the provisions of The Ontario Energy Board Act, S.O. 1998, or any other laws, which rights the Transferee may exercise at its discretion in the event of the Transferor being unable or unwilling for any reason to perform this Agreement or give to the Transferee a clear and unencumbered title to the easement herein granted.
12. The Transferor covenants that he has the right to convey this easement notwithstanding any act on his part, that he will execute such further assurances of this easement as may be requisite and which the Transferee may at its expense prepare and that the Transferee, performing and observing the covenants and conditions on its part to be performed, shall have quiet possession and enjoyment of the rights, privileges and easement hereby granted. If it shall appear that at the date hereof the Transferor is not the sole owner of the Lands, this Indenture shall nevertheless bind the Transferor to the full extent of his interest therein and shall also extend to any after-acquired interest, but all moneys payable hereunder shall be paid to the Transferor only in the proportion that his interest in the Lands bears to the entire interest therein.
13. In the event that the Transferee fails to pay the consideration as hereinbefore provided, the Transferor shall have the right to declare this easement canceled after the expiration of 15 days from personal service upon the Secretary, Assistant Secretary or Manager, Lands Department of the Transferee at its Executive Head Office in Chatham, Ontario, (or at such other point in Ontario as the Transferee may from time to time specify by notice in writing to the Transferor) of notice in writing of such default, unless during such 15 day period the Transferee shall pay the said consideration; upon failing to pay as aforesaid, the Transferee shall forthwith after the expiration of 15 days from the service of such notice execute and deliver to the Transferor at the expense of the Transferee, a valid and registerable release and discharge of this easement.

14. All payments under these presents may be made either in cash or by cheque of the Transferee and may be made to the Transferor (or person or persons entitled thereto) either personally or by mail. All notices and mail sent pursuant to these presents shall be addressed to the Transferor at *"insert mailing address here"* and to the Transferee at Union Gas Limited, P.O.Box 2001,50 Keil Drive North, Chatham, Ontario N7M 5M1.

Attention: Manager, Lands or to such other address in either case as the Transferor or the Transferee respectively may from time to time appoint in writing.

15 The rights, privileges and easement hereby granted are and shall be of the same force and effect as a covenant running with the land and this Indenture, including all the covenants and conditions herein contained, shall extend to, be binding upon and enure to the benefit of the heirs, executors, administrators, successors and assigns of the Parties hereto respectively; and, wherever the singular or masculine is used it shall, where necessary, be construed as if the plural, or feminine or neuter had been used, as the case may be.

16. The Transferor hereby acknowledges that this transfer will be registered electronically and the Transferor hereby authorizes the Transferee to complete the registration of this transfer.

DATED this        day of                    20XX.

\_\_\_\_\_  
[ Name ]

\_\_\_\_\_  
[ Name ]

Address: \_\_\_\_\_

\_\_\_\_\_  
GST: \_\_\_\_\_

**UNION GAS LIMITED**

\_\_\_\_\_  
[ Name ]

Senior Lands Agent

I have authority to bind the Corporation

Additional Information: (if applicable)

Solicitor: \_\_\_\_\_

Telephone: \_\_\_\_\_

Municipality of Chatham-Kent

Province of Ontario

DECLARATION REQUIRED UNDER  
SECTION 50 OF THE PLANNING  
ACT, R.S.O. 1990, as amended

I, \_\_\_\_\_ of the City of \_\_\_\_\_, in the Province of Ontario.

DO SOLEMNLY DECLARE THAT

1. I am, \_\_\_\_\_ Department of Union Gas Limited, the Transferee in the attached Grant of Easement and as such have knowledge of the matters herein deposited to.

2. The use of or right in the land described in the said Grant of Easement is being acquired by Union Gas Limited for the purpose of a hydrocarbon transmission line within the meaning of part VI of the Ontario Energy Board Act, 1998.

AND I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of The Canada Evidence Act.

DECLARED before me at the  
Municipality of Chatham-Kent,  
in the Province of Ontario

this \_\_\_\_\_ day of \_\_\_\_\_, 20XX

A Commissioner, etc.



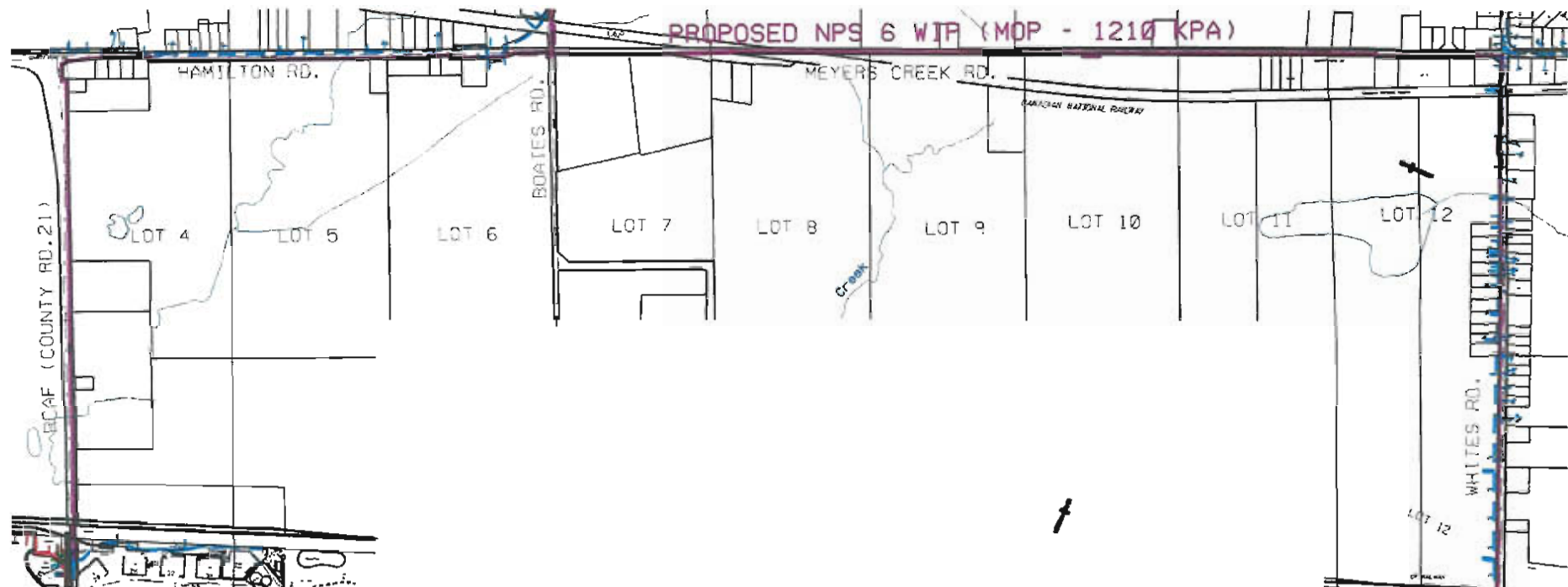


NAME AND ADDRESS	LEGAL DESCRIPTION	PERMANENT EASEMENT		TEMPORARY EASEMENT	
		Estimated Dimensions (Metres) Area Length Width (Hectares)		Estimated Dimensions (Metres) Area Length Width (Hectares)	
Raymond Bush Karen Bush RR#5 Trenton, ON k8V 5P8	Part of PIN 40370 0182 Part of Lots 3 and 4 Concession 3 Former Township of Sidney, Now City of Quinte West County of Hastings  <b>TBS Expansion Site 15 metres x 30 metres</b>				
Raymond Bush Karen Bush RR#5 Trenton, ON k8V 5P8	Part of PIN 40370 0182 Part of Lots 3 and 4 Concession 3 Former Township of Sidney, Now City of Quinte West County of Hastings	<b>725 metres Long 10 metres Wide</b>	<b>0.725 Ha</b>	<b>725 metres Long 5 metres Wide</b>	<b>0.3625 Ha</b>
1719438 Ontario Inc 5658 Yonge Street Gilford ON L0L 1R0	Part of PIN 403690007 PCL51-5, sec 21D1, Lt 44 PL 21D1, Lt 45 PL 21D1, Lt 46 PL 21D1, Lt 56 PL 21D1 Lt 57 PL 21D1, Pt Lt 55 PL 21D1 Sidney, now Quinte West, County of Hastings <b>DRS Site 15 metres x 30 metres</b>				
Jacob Hotze Dewal Carla Dewal 293 Johnstown Road Trenton, ON k8V 5P8	Part of PIN 40370 0110 Part of Lot 5 Concession 3 Former Township of Sidney, Now City of Quinte West County of Hastings	<b>385 metres Long 10 metres Wide</b>	<b>0.385 Ha</b>	<b>385 metres Long 5 metres Wide</b>	<b>0.1925 Ha</b>
Garry David Parks 251 Stickles Road Trenton, ON k8V 5P8	Part of PIN 40370 0123 Part of Lot 6 Concession 3 Former Township of Sidney, Now City of Quinte West County of Hastings	<b>385 metres Long 10 metres Wide</b>	<b>0.385 Ha</b>	<b>385 metres Long 5 metres Wide</b>	<b>0.1925 Ha</b>





PROPOSED NPS 6 WIP (MOP - 1210 KPA)



CFG TRENTON - 2ND FEED  
CITY OF QUINTE WEST  
TOWNSHIP OF SIDNEY

INSTALL ~7300.0m of NPS 6" WIP (MOP - 1210 kPa)

Schedule 16  
EB-2010-0329

OLD HIGHWAY #2

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	2010-03-29
2	ISSUED FOR CONSTRUCTION	2010-03-29
3	ISSUED FOR AS-BUILT	2010-03-29
4	ISSUED FOR RECORD	2010-03-29
5	ISSUED FOR FINAL	2010-03-29
6	ISSUED FOR ARCHIVE	2010-03-29
7	ISSUED FOR DESTRUCTION	2010-03-29
8	ISSUED FOR REMOVAL	2010-03-29
9	ISSUED FOR REPAIR	2010-03-29
10	ISSUED FOR REPLACEMENT	2010-03-29
11	ISSUED FOR RENOVATION	2010-03-29
12	ISSUED FOR RECONSTRUCTION	2010-03-29
13	ISSUED FOR REPAIR/RECONSTRUCTION	2010-03-29
14	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION	2010-03-29
15	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION/RECONSTRUCTION	2010-03-29
16	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION	2010-03-29
17	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION/RECONSTRUCTION	2010-03-29
18	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION	2010-03-29
19	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION/RECONSTRUCTION	2010-03-29
20	ISSUED FOR REPAIR/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION/RECONSTRUCTION/RENOVATION	2010-03-29