union gas
A Spectra Energy Company

February 27, 2009

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")
Creekford Road Reinforcement Project
Board File # EB-2009-0061

Enclosed please find two copies of Union's Application and pre-filed evidence for the above-noted project. I confirm that we have submitted the same via RESS as well.

Please note that also included in the evidence are CD copies of the Environmental Report for your ease of use.

In the event 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
Manager, Regulatory Projects and Lands Administration
:mjp
Encl.

cc: Neil McKay, Manager Facilities Applications *(neil.mckay@oeb.gov.on.ca)*
Zora Crnojacki, Project Advisor *(zora.crnojacki@oeb.gov.on.ca)*
Giovanna Dragic, Senior Case Administrator *(giovanna.dragic@oeb.gov.on.ca)*

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APPLICATION

PREFILED EVIDENCE

Application

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 in the City of Kingston, County of Frontenac.

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 of the Ontario Energy Board Act (the "Act"), for an Order granting leave to construct 4.5 kilometres of NPS 6 natural gas pipeline ("proposed pipeline"). The proposed pipeline will start from the tap location at Union's existing pipeline on Creekford Road, approximately 900 metres east of Westbrook Road. From the tap location, it would run east along Creekford Road to Gardiners Road. The route would then turn south along Gardiners Road to the tie-in location at Fortune Crescent.

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 pipeline will pass.

3. The construction of the pipeline will allow the Applicant to transmit additional volumes of gas for the purpose of increasing the capacity of the existing Kingston System to accommodate forecasted growth on the system.

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 26th day of February, 2009.

Per: Dan Jones,
Assistant General Counsel for Union Gas

Comments respecting this Application should be directed to:

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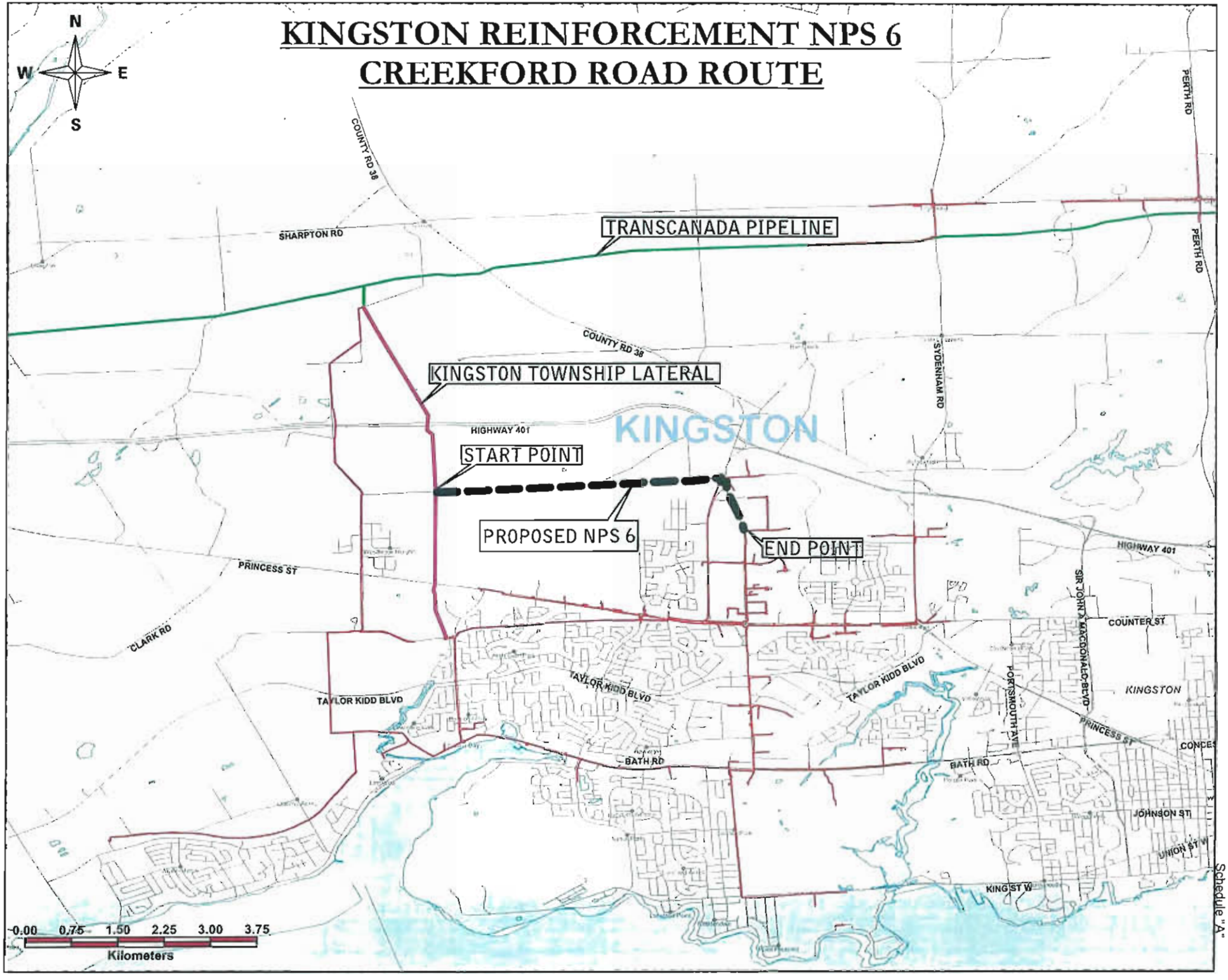
Chatham, Ontario
N7M 5M1
Telephone: 519-436-4601
Fax: 519-436-4641

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

Schedule "A"


KINGSTON REINFORCEMENT NPS 6
CREEKFORD ROAD ROUTE
N
W
E
S
TRANSCANADA PIPELINE
KINGSTON TOWNSHIP LATERAL
START POINT
PROPOSED NPS 6
END POINT
KINGSTON
SHARPTON RD
COUNTY RD 38
HIGHWAY 401
PRINCESS ST
CLARK RD
TAYLOR KIDD BLVD
BATH RD
SYDENHAM RD
PERTH RD
SIR JOHN A MACDONALD BLVD
COUNTER ST
PORTSMOUTH AVE
JOHNSON ST
UNION ST W
KING ST W
0.00 0.75 1.50 2.25 3.00 3.75
Kilometers
Schedule "A"

Prefiled Evidence

PROJECT SUMMARY

1. Union Gas Limited ("Union"), pursuant to Section 90 of the Ontario Energy Board Act, requests approval from the Ontario Energy Board ("OEB") for leave to construct 4.5 km of NPS 6 hydrocarbon (natural gas) pipeline ("proposed pipeline") in order to increase capacity of the existing pipeline system located in the former Township of Kingston. The proposed pipeline will start from the tap location at Union's existing pipeline on Creekford Road approximately 300 metres east of Westbrook Road. From the tap location it would run east along Creekford Road to Gardiners Road. The route would then turn south along Gardiners Road to the tie-in location at Fortune Crescent.

2. The total project cost of the proposed pipeline is estimated to be $2,138,821.00, including Interest During Construction ("IDC").

3. An economic analysis has been completed in accordance with the recommendations of the Ontario Energy Board E.B.O. 188 report on *Natural Gas Expansion* and the project is economically justified.

4. An Environmental Report ("ER") has been prepared for the proposed pipeline. There will be minimal environmental impacts related to the construction of the pipeline given Union's standard construction procedures, the mitigation measures recommended in the ER, and the fact that the majority of the pipeline will be located within road allowance.

5. Construction of the proposed NPS 6 pipeline is scheduled to commence at the beginning of July 2009 to utilize the favourable summer construction weather and environmental windows. The proposed latest in-service date for the project is November 2009. In order to adhere to such a schedule, OEB approval is requested by June 30th, 2009.

DESCRIPTION OF EXISTING SYSTEM

6. The existing NPS 6 Kingston Township lateral originates at TransCanada Pipelines (TCPL) in the former Township of Kingston on Westbrook Rd. (Lot 2 Con. 5). The Kingston Township lateral was installed in 1966. The Kingston Township lateral is approximately 5.5 km in length and delivers gas to the Woodbine Town Border Station (TBS).

7. At Woodbine TBS, the pressure is regulated to supply the high pressure network that feeds Kingston Township. The high pressure network in the Kingston Township is comprised of pipelines and pressure regulation stations that feed the Kingston Township's distribution network.

8. A map of the existing system can be found at Schedule 1.

OPERATION OF EXISTING SYSTEM

9. The NPS 6 Kingston Township lateral is an unregulated pipeline operating at 6895 kPa Maximum Operating Pressure (MOP) in common pressure with TransCanada Pipelines (TCPL). At this location gas is delivered to the Kingston Township lateral from TCPL. From here gas is delivered via the 5.5 km long lateral to Woodbine TBS.

10. At Woodbine TBS, the pressure is regulated to an outlet MOP of 1210 kPa which supplies the high pressure network that feeds Kingston Township. The high pressure network in the Kingston Township is comprised of pipelines and pressure regulation stations that feed the Kingston Township's distribution network. The Kingston Township distribution network operates at a MOP of 420 kPa.

FACILITIES BUSINESS PLAN APPROACH

11. The Facilities Business Plan ("FBP") is an internal planning process used by Union for the identification of reinforcement facilities required to support forecasted growth over a specific geographic area.

12. The FBP is developed for a study area which provides an overall business case for the long range system expansion for the study area. A study area represents the geographic area for which an FBP will cover.

13. Union's franchise area has been divided into a number of specific FBP study areas based on operational areas, pipeline system configuration and geographical features. A map illustrating this FBP study area is found in Schedule 2.

14. FBPs provide a complete analysis of the study area based on a 10-year customer forecast ("FBP

forecast"). A summary of this forecast can be found at Schedule 3.

15. Based on the FBP forecast, future facilities, both new and reinforcement, can be identified, economically evaluated, optimized and scheduled to meet the future growth demands on the system.

16. The advantages of this FBP long range planning approach can be summarized as follows:

    a) through the identification of future growth areas, Union can be more responsive to customer needs;
    b) optimum, least cost facilities can be identified to service the growth; and
    c) long-term security of supply to the overall system can be achieved.

17. The timing of facilities are based on current customer attachments and load forecasts which determine the need for additional facilities. Union updates each FBP on an "as required basis" to monitor the development of the system and to determine if the plan should be modified in any way.

MARKET DEMAND

18. It is Union's objective to provide adequate capacity to serve both current customers and new customers being added to the system. A specific objective of the FBP is to maintain adequate system pressure and provide additional capacity for the system to accommodate forecasted growth.

19. In recent years, areas served by this system have experienced growth in the number of customers requesting natural gas service to their home or business. This growth includes new residential and commercial/industrial customers using natural gas as their primary energy source, existing residential homes converting from other fuels to natural gas, and commercial/industrial businesses converting to natural gas for their energy needs.

NEED FOR ADDITIONAL CAPACITY

20. It is necessary to increase the capacity of the Kingston Township system in order meet existing and forecasted loads for the winter of 2009/2010.

21. A computer simulation of the Kingston Township system was performed for the Winter 2009/2010 using the forecasted market demand. Schedules 4 and 5 show the projected Winter 2009/2010 pressures at various locations on the Kingston Township system during a design day without and with the proposed facilities, respectively.

22. Woodbine TBS has a required inlet pressure of 1610 kPa in order to deliver the Winter 2009/2010 design day demand of 45,345 m^3/hr on the Kingston Township system. Schedule 4 shows a minimum inlet pressure of 1410 kPa at Woodbine TBS during design day conditions. The existing Kingston Township system has an available capacity of 43,262 m^3/hr, resulting in a 2,083 m^3/hr design day capacity shortfall during the Winter 2009/2010.

23. With the Creekford Rd TBS and 4.5 km of NPS 6 reinforcement, Schedule 5 shows a minimum inlet pressure of 1950 kPa at Woodbine TBS during Winter 2009/2010 design day conditions. This inlet pressure results in a system capacity surplus of 2,050 m^3/hr.

24. The forecasted regular rate growth will exceed existing capacity on the Kingston Township system. In order to avoid failure of natural gas service, it will be necessary to increase the capacity of the Kingston Township system by installing the Creekford Road TBS and 4.5 km of NPS 6 reinforcement in 2009. The construction of the proposed pipeline and station will provide additional capacity to accommodate forecasted growth through Winter 2011. The ten year Demand and Capacity of the Kingston Township system is shown on Schedule 6.

PROPOSED FACILITIES

25. Union proposes to construct 4.5 km of NPS 6 pipeline with a MOP of 1210 kPa. The proposed pipeline will start from the new Creekford Rd TBS, which is located at the existing Union Gas pipeline on Creekford Road approximately 900 metres east of Westbrook Road. The new Creekford TBS will be located 2.2 km north of Woodbine TBS. From Creekford Rd TBS, the pipeline will run east along Creekford Road to Gardiners Road. The route would then turn south and be located within the Gardiners Road allowance to a tie-in location at Fortune Crescent. The proposed pipeline will be constructed on both road allowance and private easements. The proposed pipeline is shown in Schedule 7.

ALTERNATIVES CONSIDERED

26. Attached at Schedule 8 is a document titled System Design Criteria for Reinforcement of the Kingston Township System Lateral. This document:

    a) outlines the design methodology and process Union uses for reinforcement of system laterals;

    b) provides a description of current Kingston Township facilities and system configuration; and

    c) outlines the alternatives considered and the rationale for choosing the preferred alternative.

DESIGN AND PIPE SPECIFICATIONS

27. The design and pipe specifications are outlined in Schedule 9. All the design specifications are in accordance with the *Ontario Regulations 210/01* under the *Technical Standards and Safety Act 2000, Oil and Gas Pipeline* Systems. This is the regulation governing the installation of pipelines in the Province of Ontario.

28. The proposed pipeline is located entirely within a Class 1 location. Since the majority of the pipeline is located on road allowance and in consideration for future potential development along the route, the proposed pipeline is designed to meet Class 2 location requirements.

29. The NPS 6 pipe has an outside diameter of 168.3 millimetres and a wall thickness of 4.8 millimetres. The pipe is to be manufactured by the electric resistance weld process and will have specified minimum yield strength of 290 MPa. The pipe will be manufactured to the *CSA Z245.1-07 Steel Line Pipe Standard for Pipeline Systems and Materials*.

30. The pipeline will be hydrostatically tested in accordance with the Ontario Regulation requirements.

31. The minimum depth of cover specified is 1.0 metre to the top of the pipe. Additional depth will be provided to accommodate existing or planned underground facilities, or in specific areas in compliance with the applicable regulated standards.

CONSTRUCTION PROCEDURES AND SCHEDULE

32. Schedule 10 describes the general techniques and methods of construction that will be employed in the construction of the proposed pipeline. Detailed are such activities as clearing, stringing of pipe, trenching, welding, backfill, tile repair, and clean up. Union's construction procedures have been continually updated and refined in order to be responsive to landowner concerns and mitigate potential environmental effects related to pipeline construction.

33. Blasting may be required along the route. When the project is constructed, Union's most up-to-date construction specifications will be followed.

34. Material is readily available for this project and Union foresees no problem in obtaining a contractor to complete the proposed construction.

35. Schedule 11 indicates the proposed schedule for 2009 construction. Construction of the proposed NPS 6 pipeline is scheduled to commence July of 2009, with the pipeline placed in service by November 2009.

36. The ER will be provided to the construction contractor.

PROJECT COSTS

37. The total estimated cost of the proposed 4.5 km pipeline is $2,138,821.00 as shown in Schedule 12. This covers all costs related to material, construction and labour, environmental protection measures, land acquisitions, contingencies, and interest during construction.

38. The total estimated material cost of $198,921.00 covers the cost of all pipe, valves, fittings, coatings, miscellaneous items and stores overhead. These costs are based on historical values and current market conditions. The percentages for stores overheads cover all warehousing and handling costs of the material. The total estimated construction and labour cost amounting to $2,004,221.00 relates to the installation of the pipeline. This total includes the cost of all miscellaneous company and contract labour. Land rights are estimated at $90,500.00.

ECONOMIC FEASIBILITY

39. Union has employed an economic feasibility test in accordance with the OEB's recommendations in the E.B.O 188 report on *Natural Gas System Expansion* to assess the economics of this project.

40. 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 2009 new business investment portfolio, the resulting Profitability Index ("P.I.") would be 1.29. Similarly including the proposed facilities in Union's rolling portfolio as at January 31, 2009 would result in a P.I. of 1.48.

41. To provide the Board with additional information, a stand alone Discounted Cash Flow ("DCF") analysis has been completed. It can be found at Schedule 13. This schedule indicates that the proposed facilities have a Net Present Value ("NPV") of $2,732,102.00 and P.I. of 1.27.

42. Union therefore submits that this project is economically feasible and in the public interest.

Public Interest Considerations

43. There are a number of public interest factors for consideration as a result of the proposed facilities. These public interest considerations include the following:

i) Energy Cost Savings

Energy cost savings result as the Project Area residents and businesses are able to use lower cost natural gas that otherwise could not be delivered.

ii) Reduced Air Emissions

Natural gas, because of its clean-burning properties, has an increasingly important role to play in reducing the environmental impacts of energy use. Emissions from the combustion of natural gas are less than other fossil fuels on a per unit of energy basis.

iii) Utility Taxes

Income, property capital and provincial sales taxes paid by Union as a direct result of the project are included as costs in the economic analyses.

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 analyses, they must also be considered as a benefit in order to reflect the appropriate economic benefit on an overall basis.

LAND REQUIREMENTS

44. The majority of the proposed NPS 6 pipeline will be located within road allowance in the City of Kingston, County of Frontenac.

45. Union has met with and discussed the road allowance portions of the project with the City of Kingston. The City of Kingston has given Union preliminary approval to construct the pipeline in these locations.

46. For the portions of the proposed pipeline to be placed on private easements, Union will meet with the directly effected landowners to obtain the necessary lands rights to construct the pipeline.

47. Schedule 14 shows the locations along the pipeline route were private easements will be obtained.

48. Union will use it's standard forms and practices during discussions with directly effected landowners to obtain the necessary rights to construct the pipeline. This will include obtaining all necessary land appraisals, legal reviews, and landowner contacts pre, during, and post construction.

49. A list of the directly effected landowners can be found at Schedule 15.

50. Union's form of permanent easement can be found at Schedule 16.

ENVIRONMENTAL MATTERS

51. Azimuth Environmental has completed an ER to evaluate possible environmental and socio-economic effects of the proposed pipeline.

52. The results of this ER indicate that the location of the proposed pipeline is environmentally acceptable. Mitigation measures to reduce the effects of construction are included in the ER.

53. Union believes that by following its standard construction practices and adhering to the mitigation measures proposed in the ER, construction of this project will have negligible impacts on the environment. No significant environmental or cumulative effects are anticipated from development of the proposed pipeline. A copy of the ER can be found at Schedule 17.

54. 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 ER.

55. 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 the pipeline contractor and environmental inspector involved in the construction of the pipeline with general and site-specific guidelines for environmental protection that supplement Union's construction specifications.

56. Copies of the ER were submitted to the Ontario Pipeline Coordination Committee ("OPCC") on Thursday, February 26, 2009. Copies of the ER were also provided to the Cataraqui Region Conservation Authority, local municipalities and First Nations. Copies were also made available upon request to landowners. A summary of the comments regarding the ER and Union's responses will be provided in Schedule 18 as they are received.

57. Letters were sent out on September 17, 2008 to agencies and First Nations to inform them of the proposed project. Letters were also sent on October 15, 2008 to inform these groups of the public information session. All directly and indirectly affected landowners along the pipeline route were sent letters on October 15, 2008 inform these groups of the project and of the public

information session.

58. To solicit input from the general public with respect to the project, a notice was printed in the local newspaper on Friday, October 17, 2008, informing the area residents of a public information session. The session was used as a forum to identify the preliminary preferred pipeline route and provided the public an opportunity to review the details of the proposal and comment on the environmental information collected to date, as part of the ER process. The session was held on October 27, 2008, at the Inista Centre at 1350 Garniners Road in Kingston, Ontario. Attendees asked general questions concerning the location of the facility and pipeline construction methods as well as questions concerning natural gas service from the pipeline. There were no significant environmental concerns raised by the attendees of this session.

59. Union also met with representatives of the engineering department from the City of Kingston, to solicit input on the alignment of the proposed pipeline. Following these discussions, the City of Kingston engineers were in agreement with Union's proposal. Union will continue to work with the city until the project is completed.

60. During construction of the proposed pipeline, Union will implement an environmental inspection program. This program will ensure that the recommendations in the ER are followed. An environmental inspector will monitor pipeline construction activities and ensure that all activities comply with the mitigation measures found in the ER.

61. The total estimated environmental mitigation costs associated with the construction of the proposed pipeline are $225,250.00. These costs as shown in Schedule 19 are identified as preconstruction, construction and post-construction related.

62. Union will obtain approval from the Cataraqui Region Conservation Authority for all watercourses crossed as part of this project. The Cataraqui Region Conservation Authority is the "governing authority" and grants approval on behalf of the Ministry of Natural Resources and Department of Fisheries and Oceans as required.

SUMMARY

63. Union has experienced growth in the former Township of Kingston and now requires additional facilities in order to serve the needs of the residents and businesses served by the system.

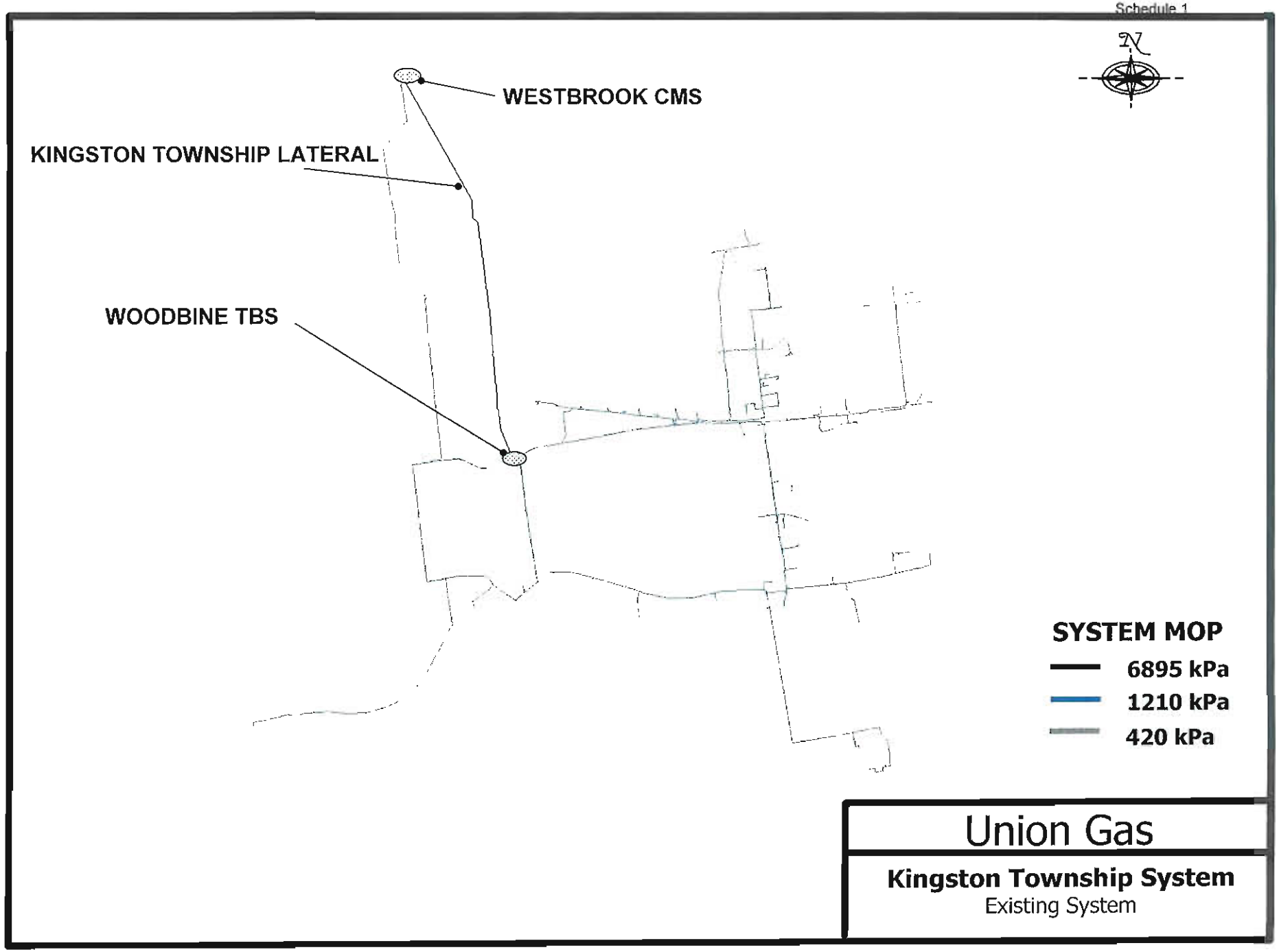
64. Union has completed a detailed review of facility alternatives and selected the most economical method for supplying additional supplies of natural gas to the Creekford Road service area.

65. The proposed route of the pipeline is primarily along existing road allowances which will result in minimal impacts to the natural environment.

66. Union has completed an environmental study report for the proposed pipeline and the results of the report show there will be no significant long term environmental impacts associated with the construction of the proposed facilities.

67. Union will construct the pipeline using experienced pipeline construction contractors following construction specifications which have been accepted in past projects and updated to reflect the site specific conditions found on this project.

68. Union will implement a lands relations program that will allow residents in the area of construction access to Union personnel so that in the event that there are landowner issues they may be resolved quickly.


WESTBROOK CMS
KINGSTON TOWNSHIP LATERAL
WOODBINE TBS
N
SYSTEM MOP
6895 kPa
1210 kPa
420 kPa
Union Gas
Kingston Township System
Existing System

Schedule 2

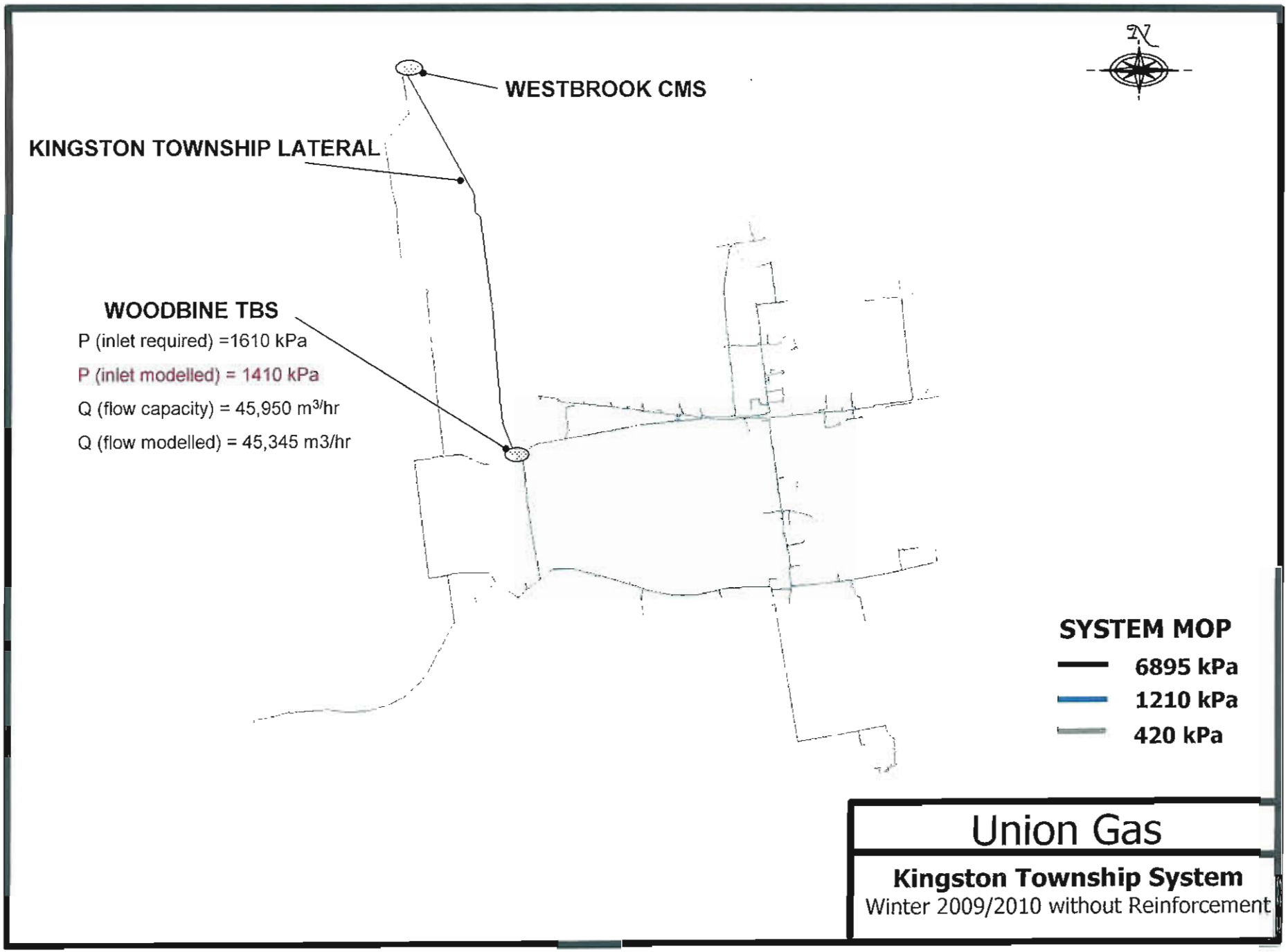
EB-2009-0061
Schedule 2

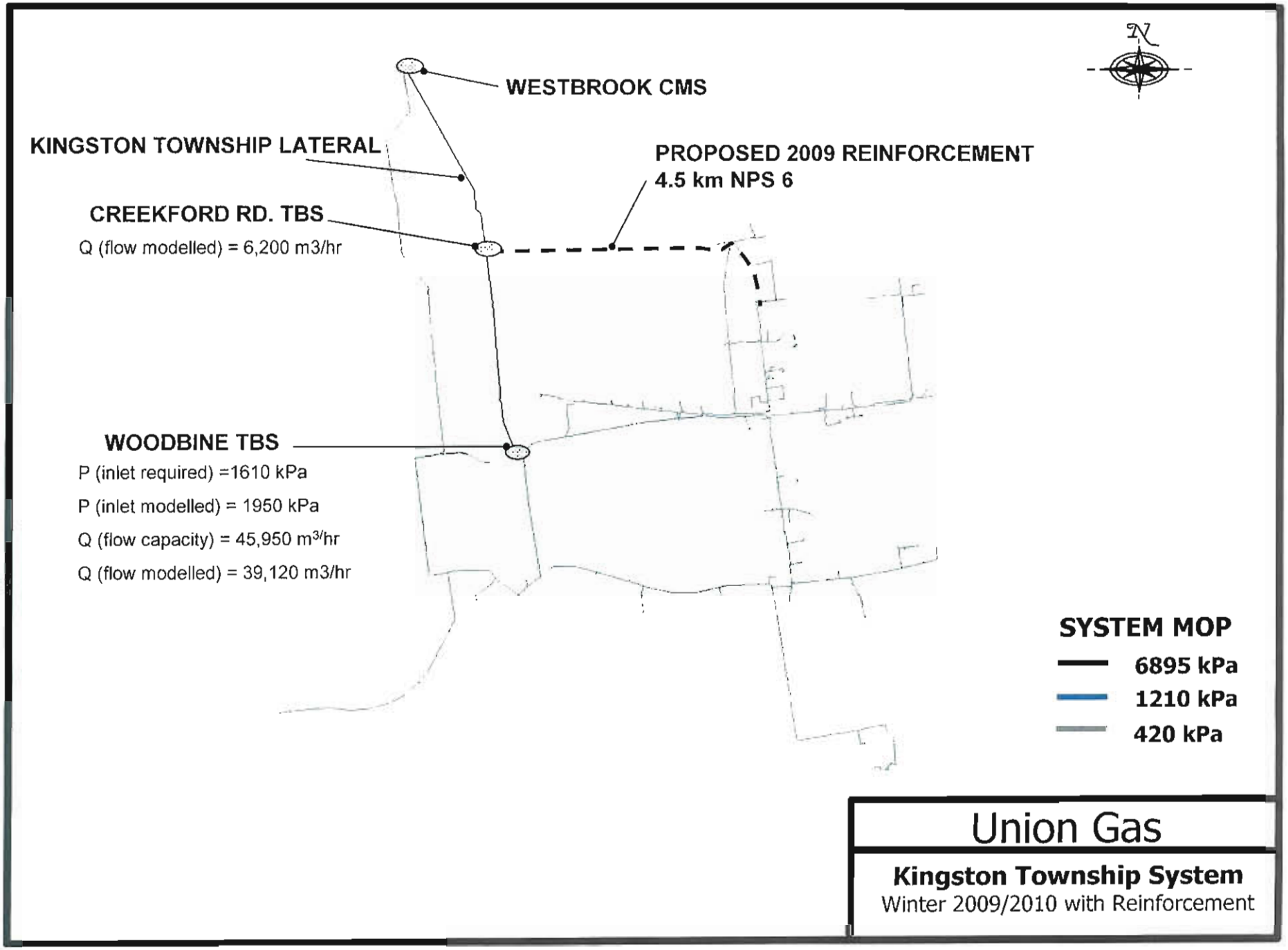
FACILITIES BUSINESS PLAN STUDY AREA

Schedule 3

Summary of FBP Forecast

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
New Residential	481	419	375	830	333	266	266	266	266	266	3768
New Multi-Family	70	361	50	7	4	2	2	2	2	2	502
Commercial	17	16	14	2	4	1	1	1	1	1	58
Industrial	1	1	1	1	0	0	0	0	0	0	4
Total	569	797	440	840	341	269	269	269	269	269	4332


WESTBROOK CMS
KINGSTON TOWNSHIP LATERAL
WOODBINE TBS
P (inlet required) =1610 kPa
P (inlet modelled) = 1410 kPa
Q (flow capacity) = 45,950 m3/hr
Q (flow modelled) = 45,345 m3/hr
N
SYSTEM MOP
6895 kPa
1210 kPa
420 kPa
Union Gas
Kingston Township System
Winter 2009/2010 without Reinforcement

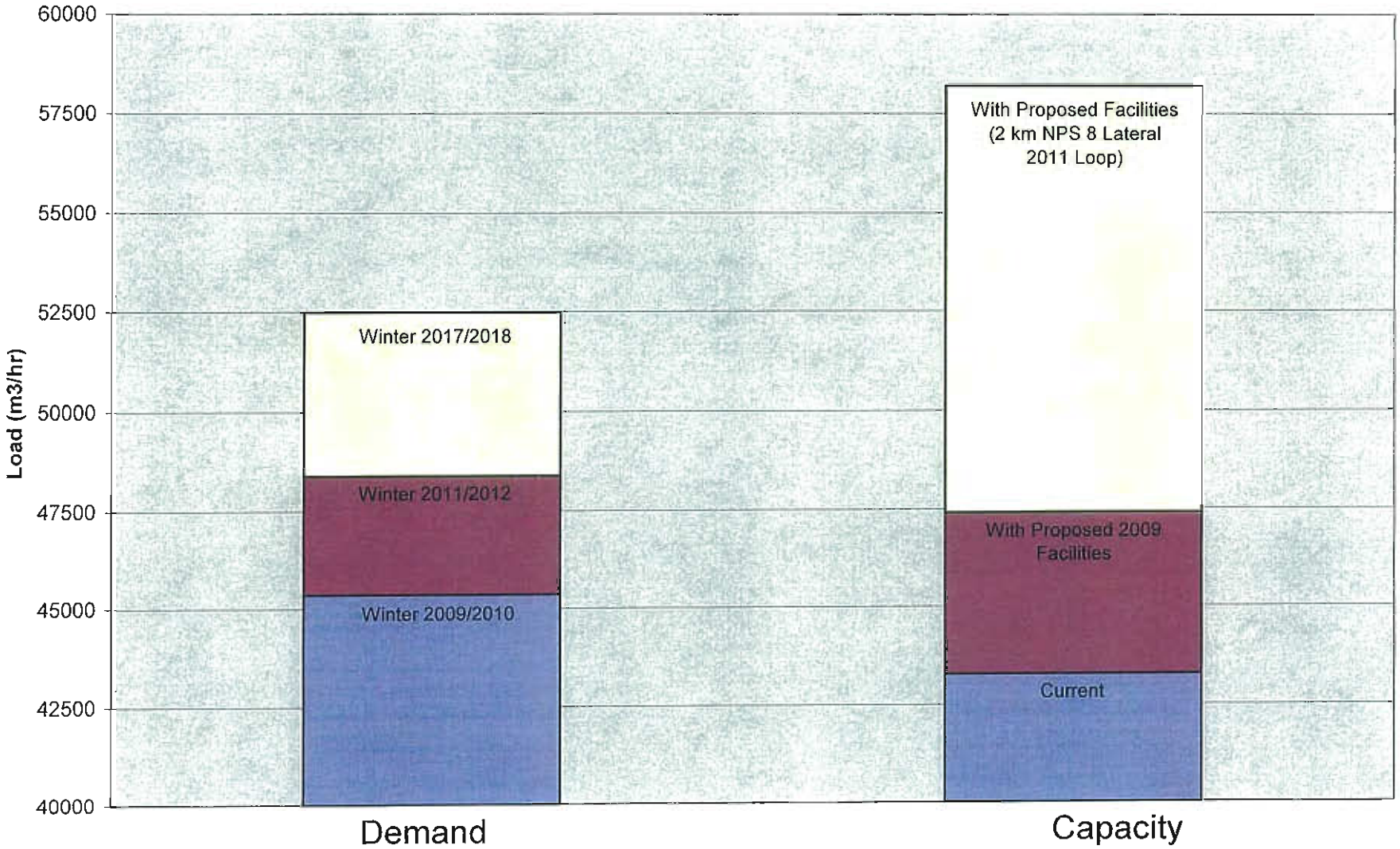


Union Gas

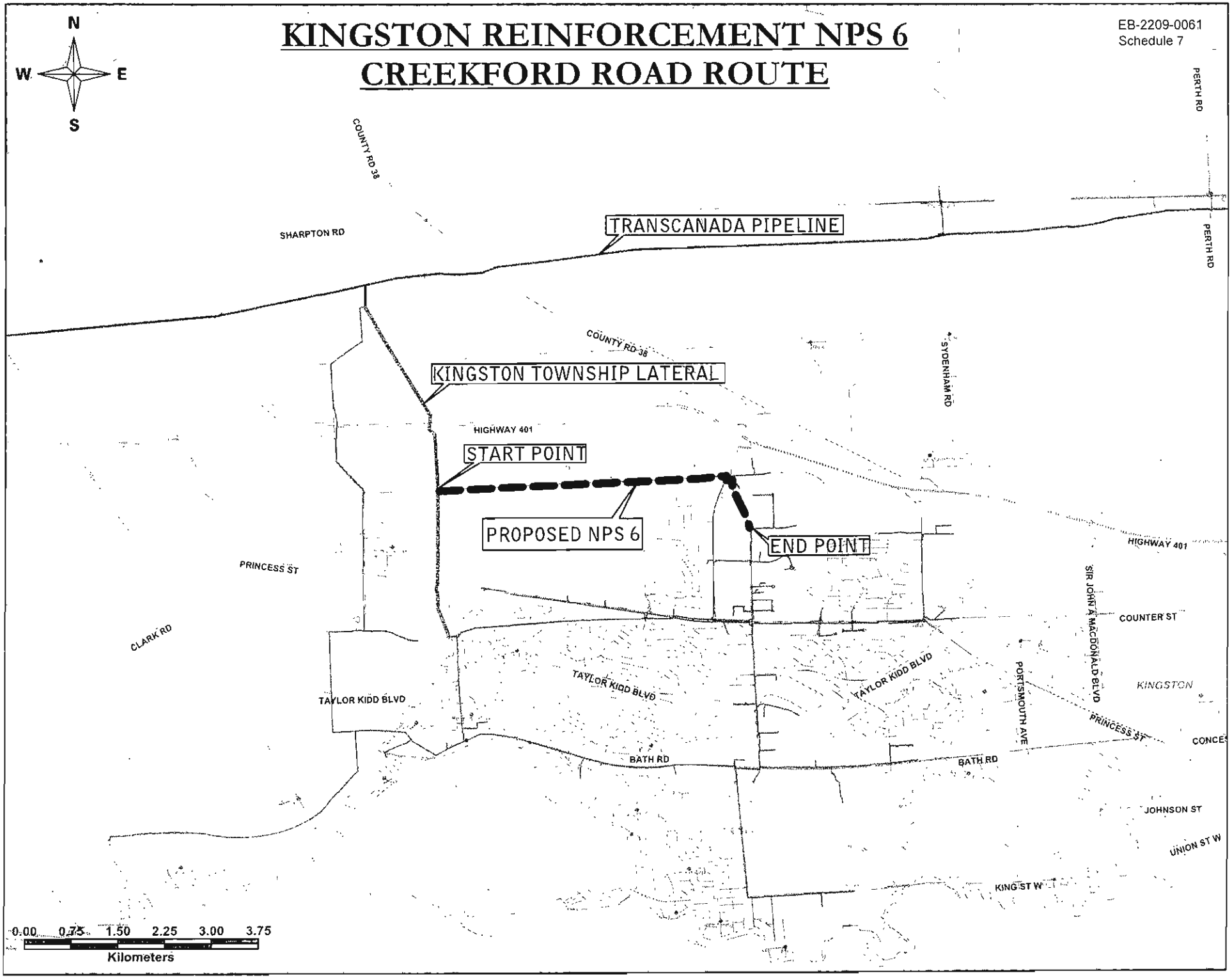
Kingston Township System

Winter 2009/2010 with Reinforcement

10 Year Demand and Capacity of the Kingston Township System



Schedule 7


KINGSTON REINFORCEMENT NPS 6
CREEKFORD ROAD ROUTE
EB-2209-0061
Schedule 7
N
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TRANSCANADA PIPELINE
KINGSTON TOWNSHIP LATERAL
START POINT
PROPOSED NPS 6
END POINT
COUNTY RD 38
SHARPTON RD
PERTH RD
SYDENHAM RD
HIGHWAY 401
PRINCESS ST
CLARK RD
TAYLOR KIDD BLVD
BATH RD
COUNTER ST
SIR JOHN A MACDONALD BLVD
PORTSMOUTH AVE
KINGSTON
JOHNSON ST
UNION ST W
KING ST W
0.00 0.75 1.50 2.25 3.00 3.75
Kilometers

Schedule 8

System Design Criteria for Reinforcement

of the

Kingston Township System Lateral

Union Gas Ltd.

Table of Contents

1.0 DOCUMENT PURPOSE

This document sets out the guidelines, process and criteria used to review the need for reinforcement of a lateral serving a distribution system, and to select the option that best meets the system demands.

The process involves examining existing facilities, forecasting system demand, understanding system operating constraints, identifying a range of reinforcement alternatives and selecting the best alternative.

2.0 ASSESSMENT GUIDELINES

The process of developing a facilities reinforcement plan for a lateral serving a distribution system is summarized below.

1. Validate Model
2. Establish current and future system operating criteria
3. Forecast design day demands
4. Assess existing system demands and capacity
5. Identify alternative ways of creating additional capacity
6. Select the best alternative

2.1. Validate Model

The hydraulic model for the system in question is validated against actual flow conditions to ensure it properly reflects the current demands and system operation.

2.2. Establish Current and Future System Operating Criteria

A lateral will have a number of operating criteria to ensure the system can operate within its constraints:

- Maximum Operating Pressures (MOP) - by code, the lateral cannot operate in excess of its MOP.
- Minimum Delivery Pressure - the lateral must meet all required delivery pressures for customers it services.
- Minimum Inlet Pressure - the lateral must be able to maintain its minimum pressure with the actual operating pressures available to it at the upstream end of the lateral.
- Design Day Demands - these are normally the firm customer demands with interruptible customers off on a design day.
- Design Day Demand Profile - Typically, customers consume natural gas at varying rates over a 24-hour period. Heat sensitive customers generally consume a higher volume of gas in the early morning and the late afternoon. Union uses unsteady state modelling techniques to simulate this consumption pattern.
- Weather - The majority of the customers served in the Eastern district are heat sensitive and their peak demand occurs on a very cold winter day. Union designs its facilities to meet the demands on a very cold day, defined to be the design day. In this case, the design day temperature is -29.1 degrees Celsius, which is equivalent to a 47.1 degree day (DD). This design day temperature is based on the lowest degree day observed in its respective weather area.

2.3. Forecast Design Day Demand

The design day demand is the peak demand of the customers served by the lateral. Future design day demands for a 10-year period are determined using the customer attachment forecast from the Facilities Business Plan (FBP).

The FBP is an internal planning process used by Union for the identification of reinforcement facilities required to support forecasted growth over a specific geographic area. The FBP includes a year-by year customer attachment forecast of demands and their locations on the system. Based on this forecast, future design day demands are used to develop long term reinforcement plans.

Based on the FBP forecast, future facilities requirements both new business and reinforcement, can be identified, economically evaluated based on the Board's E.B.O. 188 guidelines, optimized and scheduled to meet the future demands on the system.

2.4. Assess Existing Demands and Capacity

The existing system is reviewed to determine the ability of the existing lateral to meet the demands of current customers. If forecasted demands are not expected to exceed existing capacity, no further action is required within this guideline. If forecasted demands are expected to exceed existing capacity within 2 to 3 years (the lead time required to assess, design, obtain approval and construct facilities if required) the process continues through the following steps.

2.5. Identify Alternatives

If the existing facilities do not have sufficient capacity to meet the future demands, then a wide range of alternatives is generated. These may include, but are not limited to:

- upgrading the existing lateral;
- upgrading existing stations;
- looping (reinforcing along the existing route) the existing lateral;
- backfeeding (reinforcing through an entirely different route);
- joining two previously independent distribution systems;
- installing compression;
- obtaining supply from nearby non-Union pipelines.

2.6. Select Best Alternative

The above alternatives are established during the early stages of a reinforcement plan. All alternatives are given preliminary review for feasibility, and promising ones are organized into a key alternatives list.

Each alternative on the key alternatives list is further evaluated in detail to make a final recommendation for reinforcement.

Criteria for selecting the best alternative include, but are not limited to:

- economics;
- cost;
- construction feasibility;
- number of years of capacity created;
- reliability of supply;
- system integrity benefits;
- other benefits or shortcomings.

The resulting best alternative is carried forward for internal and external approvals. Schedule 8.1 provides a visual representation of the process described above.

2.7. Summary

Although each situation brings its own unique characteristics, the above guidelines set out the principles to be used for assessing the need for reinforcement of a lateral servicing a distribution system at Union Gas.

3.0 CURRENT APPLICATION

This section applies the assessment guidelines as discussed in Section 2.0 of the current OEB application for reinforcement of the Kingston Township system.

3.1. Facilities

The following section will describe the facilities of the Kingston Township system, including the pipelines and delivery locations. A schematic of the Kingston Township system can be found in Schedule 1 of the evidence.

3.1.1. Pipelines

The Kingston Township lateral is comprised of a single NPS 6 pipeline that was installed in 1966. The pipeline is supplied from the TransCanada Pipeline (TCPL), originating on Westbrook Rd. (Lot 2 Con. 5). The Kingston Township lateral operates at a common MOP of 6895 kPa with TCPL.

3.1.2. Delivery Locations

The Kingston Township lateral follows a Union easement that is approximately 5.5 km in length and delivers gas to the Woodbine Town Border Station (TBS). The pressure is regulated to an outlet MOP of 1210 kPa which supplies the high pressure network that feeds Kingston Township. The high pressure network in the Kingston Township is comprised of additional pressure regulation stations that feed the Kingston Township's distribution network.

3.2. Validate Model

The Kingston Township steady state model was validated for January 26th, 2007 which was a 34.6DD, and accurately models the system.

3.3. Operating Criteria

The following section will describe the operating criteria of the Kingston Township system.

3.3.1. Maximum Operating Pressure

The maximum operating pressure (MOP) of the Kingston Township lateral is 6895 kPa. The MOP of the high pressure network downstream of the Woodbine TBS is 1210 kPa.

3.3.2. Minimum Inlet

There is one location along the Kingston Township lateral where the system pressures must be maintained above a specific minimum pressure during a design day. This location is the inlet into the Woodbine TBS. The required minimum inlet pressure to the Woodbine TBS is 1610 kPa.

3.4. Existing and Forecast Design Day Demands and Capacity

The design day demands for the Kingston Township system were developed from the Kingston Township FBP Study. A summary of the forecasted demands on the Kingston Township System are found in Schedule 7.

3.5. Identify Reinforcement Alternatives

Union considers a broad range of alternatives during the development of a reinforcement plan. These alternatives are investigated at varying levels of detail depending upon their likely feasibility. The following alternatives were identified and assessed for the Kingston Township System Reinforcement:

3.5.1. Joining two previously independent systems

Joining two previously independent systems was considered as a reinforcement alternative in order to increase the minimum inlet into the Woodbine TBS.

The installation of 4.5 km of NPS 6 3450 kPa MOP pipeline from Union's Bath Township system, a TBS and 2.0 km of NPS 6 1210 kPa MOP pipeline to connect to the southwest

portion of the Kingston Lateral system 1210 kPa MOP network would join two previously independent systems.

This reinforcement alternative will offload the flow travelling through the Kingston Township lateral, by introducing an additional feed into the south west portion of Kingston Township high pressure network.

This reinforcement alternative was rejected due to the fact that that the location of the new tie-in will occur at a location in the system where system growth is minimal. The PI of this reinforcement alternative was less favourable than other alternatives.

3.5.2. Looping – reinforcing along the existing lateral

Looping along the existing Kingston Township lateral was considered as a reinforcement alternative that would increase the inlet pressure into the Woodbine TBS.

Starting at the Westbrook CMS, 2 km of NPS 8 pipe will loop in Union's existing easement along the Kingston Township lateral. This alternative will allow the inlet pressure into Woodbine TBS to be above its design minimum inlet pressure in the 2009/2010 winter. During the 2010/2011 winter however, Woodbine TBS will be flowing over its design capacity and will require to be rebuilt.

This alternative was rejected due to the fact that only one year of additional system capacity will be provided. In addition this alternative provides minimal security of supply benefits.

3.5.3. Reinforcing from an alternate route

Backfeeding from an alternate route was considered as a reinforcement alternative that would increase the inlet pressure into the Woodbine TBS.

Starting at Union's Sydenham road TBS site, where Union currently connects to TCPL installing 6 km of NPS 4 6895 kPa MOP pipe along Sydenham Rd. and tie into a new pressure regulating station. The new pressure regulating station located on Fortune Crescent Road, will regulate system pressures to a common 1210 kPa MOP operating system, joining

into Union's existing high pressure network via an additional 0.9 km of NPS 6 1210 kPa MOP pipe.

This reinforcement alternative was rejected due to the fact that the routing of the reinforcement pipe is not preferred. The opportunity to further reinforce the system due to future forecasted growth is not as prevalent as in other reinforcement alternatives.

3.5.4. Reinforcing with a second feed

Reinforcing with a second feed was considered as a reinforcement alternative that would increase the inlet pressure into the Woodbine TBS. This reinforcement alternative will offload the flow travelling through the Kingston Township lateral, by introducing an additional feed into the north east Kingston Township high pressure network.

The starting point for this reinforcement alternative is at the intersection of the Kingston Township lateral and Creekford Road. 4.5 km of NPS 6 1210 kPa MOP pipe will tie into the Kingston Township lateral via a new pressure regulating station. The end point of this reinforcement alternative is at Union's existing high pressure network piping facilities located on Gardiners Rd.

This reinforcement alternative is selected as being the best alternative based on:

The PI for this alternative is the highest compared to the other reinforcement alternatives.

This reinforcement alternative is in an optimal location for supplying gas into the Kingston Township high pressure network, at a location where the most significant potential growth is forecasted.

This alternative also provides added system integrity benefits to the Kingston Township system.

3.5.5. Selection of the best alternative

The best alternative of all considered is the reinforcement with a second feed via the Creekford Road option. This alternative was selected based on its, economics, capacity created and system integrity benefits.

3.5.6. Summary

Union reviewed a number of alternatives including joining two previously independent systems, reinforcing along the existing lateral, reinforcing from an alternate route and reinforcing from a second feed.

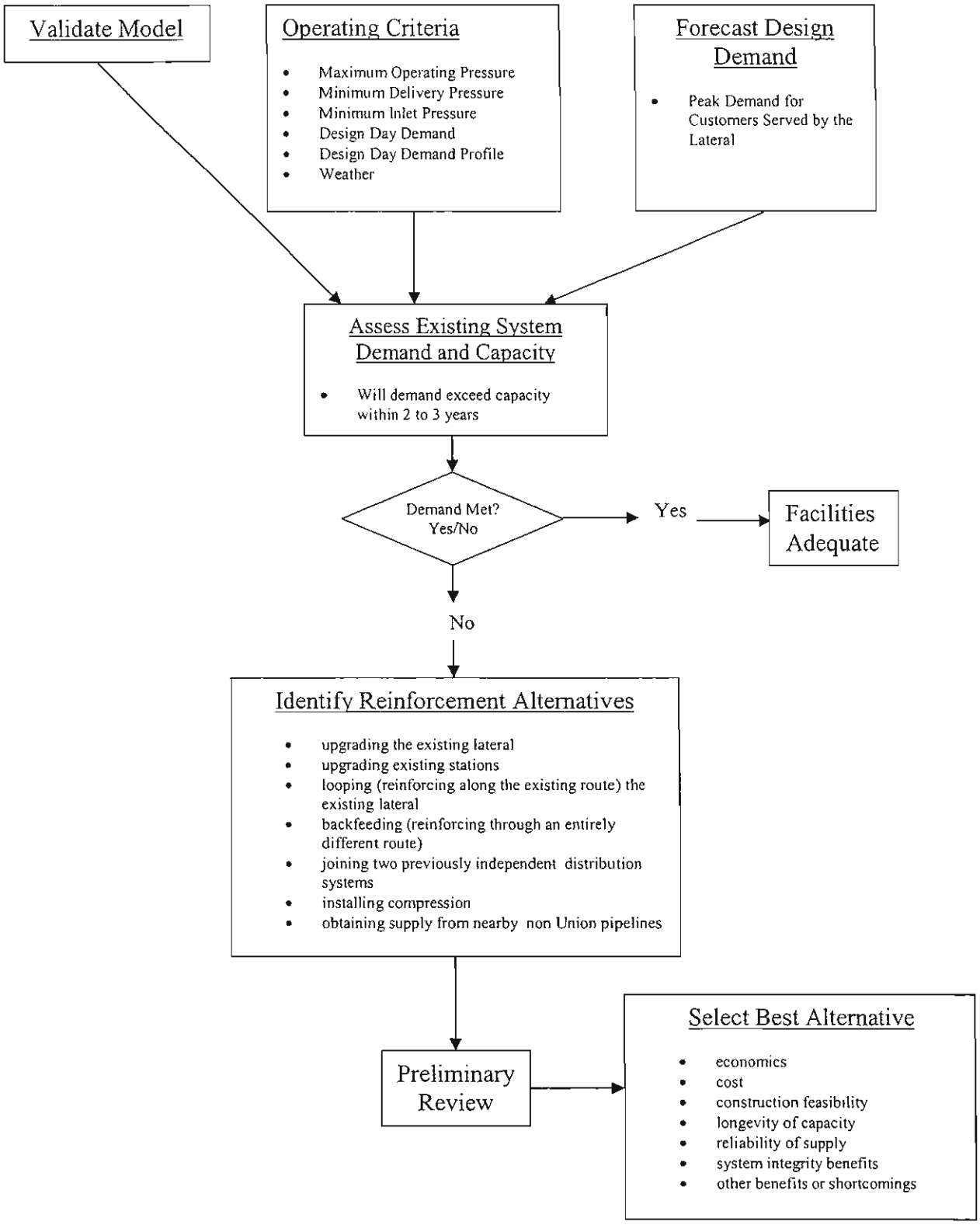
Union proposes to construct the best alternative which consists of: constructing a new regulating station and laying 4.5 km of NPS 6 1210 kPa MOP pipe. The new regulating station will tie into the existing Kingston Township lateral approximately 3.1 km from the Westbrook CMS. The 4.5 km of NPS 6 1210 kPa MOP pipe will be fed via the new regulating station on Creekford Rd. This new reinforcement pipe will tie into Union's existing high pressure network piping facilities located on Gardiners Road.

4.0 CONCLUSION

Union uses a number of criteria to review the need for reinforcement of a lateral serving a distribution system.

The process involves examining existing facilities, forecasting system demand, and understanding system operating criteria in order to identify a number of reinforcement alternatives. These alternatives are then investigated at varying levels of detail depending upon project feasibility including engineering, cost, and environmental considerations, and security of supply.

Reinforcement Assessment Flow Chart



Schedule 9

CREEKFORD ROAD REINFORCEMENT PROJECT
DESIGN AND PIPE SPECIFICATIONS

Design Specifications

Class Location	-	Class 2
Design Factor	-	0.800
Location Factor (General)	-	0.900
Location Factor (Roads)	-	0.625
Maximum Design Pressure	-	1900 kPa
Maximum Operating Pressure	-	1207 kPa
Test Medium	-	Water
Test Pressure	-	2660 kPa.
Valves/ Fittings	-	PN 50
Minimum Depth of Cover	-	1.0 m

Pipe Specifications

Size	-	NPS-6
Wall thickness	-	4.8 mm
Type	-	Electric Resistance Weld
Description	-	C.S.A. Standard Z245.1-07
Grade	-	290 MPa
Category	-	I
Coating	-	Extruded Polyethylene (Yellow Jacket)

GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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).

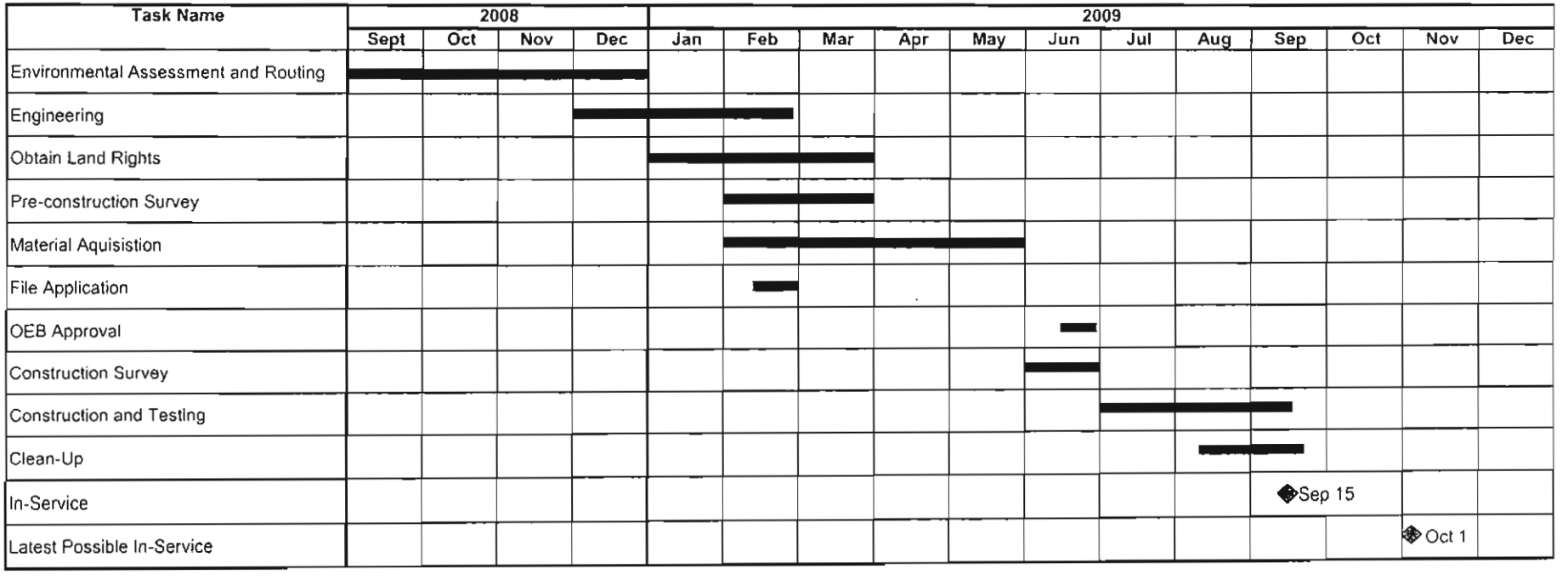
Cleaning and Testing

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.

CreekFord Road Reinforcement
Pipeline Construction Schedule



Schedule 12

CREEKFORD REINFORCEMENT PROJECT
TOTAL ESTIMATED PROJECT COSTS

Pipeline and Equipment		
4500 meters of NPS 6	$ 158,940	
Valves, fittings, misc.	25,092	
Stores Overhead	14,889	
Total Pipeline and Equipment		$ 198,921
Construction and Labour		
Prime Contract	$ 1,610,500	
Ancillary Contracts	128,700	
Company Labour	15,600	
Land Rights	90,500	
Total Construction and Labour		$1,845,300
Total Pipeline and Equipment and Construction and Labour		$2,044,221
Contingencies		50,000
Sub-Total		2,094,221
Interest during Construction		44,600
Total Estimated Project Costs		$2,138,821

Includes the Estimated Environmental Costs Identified in Schedule 18

Schedule 13

Union North
Project Information Summary
Creekford Reinforcement Project
February 18, 2009

Rate Area:	UnionNorth
Description:	
Division:	Kingston
Project Number:	No project number supplied
Comments:	

DCF Economic Results Base Case	
Profitability Index	**1.27**
Net Present Value	**2,732,102**
Total Project ROE	**14.52%**
First yr. of Corp. Revenue Sufficiency	**5**

Sensitivities on DCF Base Case			
Capital		Volume	
Less 5 %	Add 5 %	Less 5 %	Add 5 %
1.33	**1.22**	**1.24**	**1.31**
3,181,473	**2,282,731**	**2,360,327**	**3,101,465**
15.77%	**13.36%**	**13.73%**	**15.29%**
7	**7**	**7**	**7**

Cumulative Discounted Cash Flows.

Inflows	$ 12,762,877
Outflows	$ 10,030,775
Year the Cumulative PI =1.0	24

Revenue (Deficiencies)/Sufficiencies.	2009	2010	2011	2012	2013	Final Year
Company Total	$ (70,133)	$ (211,959)	$ (172,767)	$ (114,876)	$ 16,927	$ 929,916
Residential Class	$ (306,752)	$ (88,732)	$ (6,483)	$ 94,553	$ 271,182	$ 1,028,006
Per Residential Customer	1.02 -	0.29 -	0.02	0.31	0.88	3.33
Earnings Before Interest and Taxes *	$ (54,763)	$ 153,029	$ 308,770	$ 475,983	$ 648,309	
Financial Statement Earnings *	$ (28,390)	$ (5,308)	$ 61,246	$ 141,515	$ 253,222	
Financial Statement ROE *	-10.23%	0.42%	3.05%	5.59%	8.92%	

Aid Information

Total amount of contribution required for desired PI of -->	1.00	$ -
Remaining amount of contribution after lump sum for desired PI		$ -

Input Summary

	2009	2010	2011	2012	2013	Total Project
Number of Attachments	569	797	440	840	341	4,332
Gross Capital Expenditures	$ 3,590,491	$ 1,373,500	$ 1,702,684	$ 1,595,877	$ 575,129	$ 11,068,866
Contribution in Aid of Construction	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital	$ 3,590,491	$ 1,373,500	$ 1,702,684	$ 1,595,877	$ 575,129	$ 11,068,866

Project Life	40.0
Discount Rate	5.36%
In Service Month.	Nov
Rate Inflator	0.00%
Inflation Factor	0.00%

Union North
Discounted Cash Flow Analysis
Creekford Reinforcement Project
February 18, 2009

Project Year		2009 Year 1	2010 Year 2	2011 Year 3	2012 Year 4	2013 Year 5	2014 Year 6	2015 Year 7	2016 Year 8	2017 Year 9	2018 Year 10	2019 Year 11	2020 Year 12
Cash Inflows													
Total Sales Margin		28,278	425,996	696,007	977,992	1,219,953	1,336,275	1,438,045	1,539,815	1,641,585	1,743,355	1,794,240	1,794,240
O & M Expense		-22,552	-76,694	-125,722	-176,455	-223,264	-247,441	-268,765	-290,089	-311,412	-332,736	-343,398	-343,398
Property (Municipal) Tax		-34,554	-46,481	-62,447	-76,637	-81,656	-85,561	-89,465	-93,370	-97,275	-101,179	-101,179	-101,179
Capital Tax		-10,028	-13,620	-18,025	-21,943	-22,737	-23,125	-23,497	-23,854	-24,197	-24,527	-23,546	-22,604
Income Tax		39,972	-63,544	-120,175	-174,061	-215,212	-241,988	-267,534	-293,165	-318,877	-344,666	-354,656	-359,969
Large Corporation Tax		0	0	0	0	0	0	0	0	0	0	0	0
Total Cash Inflow	$	1,117	226,658	369,638	528,897	677,083	738,161	788,783	839,337	889,824	940,247	971,462	967,090
Cash Outflows													
Capital Expenditure		-3,590,491	-1,373,500	-1,702,684	-1,595,877	-575,129	-446,237	-446,237	-446,237	-446,237	-446,237	0	0
Contribution		0	0	0	0	0	0	0	0	0	0	0	0
Change in Working Capital		-2,127	-9,595	-7,437	-7,744	-6,590	-3,137	-2,743	-2,743	-2,743	-2,743	-1,371	0
Total Cash Outflows	$	-3,592,618	-1,383,095	-1,710,121	-1,603,621	-581,719	-449,374	-448,980	-448,980	-448,980	-448,980	-1,371	0
Net Cash Flows	$	-3,591,502	-1,157,437	-1,340,482	-1,074,724	95,364	288,786	339,803	390,357	440,844	491,268	970,090	967,090
NPV per Period		-3,588,506	-1,129,204	-1,257,217	-950,445	74,560	223,278	249,895	272,895	292,865	310,060	585,826	554,347
Cumulative NPV	$	-3,588,506	-4,717,711	-5,974,928	-6,925,373	-6,850,813	-6,627,535	-6,377,640	-6,104,745	-5,811,880	-5,501,820	-4,915,994	-4,361,647
Net Present Value Project	$	**2,732,102**											
Profitability Index per Period		0.00	0.04	0.09	0.13	0.19	0.25	0.30	0.35	0.40	0.45	0.51	0.57
Profitability Index Project		1.27											

Union North
Discounted Cash Flow Analysis
Creekford Reinforcement Project
February 18, 2009

2021 Year 13	2022 Year 14	2023 Year 15	2024 Year 16	2025 Year 17	2026 Year 18	2027 Year 19	2028 Year 20	2029 Year 21	2030 Year 22	2031 Year 23	2032 Year 24	2033 Year 25	2034 Year 26
1,794,240	1,794,240	1,794,240	1,794,240	1,794,240	1,794,240	1,794,240	1,794,240	1,690,758	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277
-343,398	-343,398	-343,398	-343,398	-343,398	-343,398	-343,398	-343,398	-340,940	-338,483	-338,483	-338,483	-338,483	-338,483
-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179
-21,700	-20,832	-19,998	-19,199	-18,431	-17,693	-16,986	-16,306	-15,654	-15,028	-14,427	-13,850	-13,296	-12,764
-365,070	-369,968	-374,669	-379,182	-383,515	-387,674	-391,667	-395,500	-362,690	-329,733	-333,124	-336,380	-339,506	-342,506
0	0	0	0	0	0	0	0	0	0	0	0	0	0
962,893	958,864	954,996	951,282	947,716	944,296	941,010	937,857	870,296	802,864	800,064	797,385	794,813	792,345
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	3,106	3,106	0	0	0	0
0	0	0	0	0	0	0	0	3,106	3,106	0	0	0	0
962,893	958,864	954,996	951,282	947,716	944,296	941,010	937,857	873,400	805,960	800,064	797,385	794,813	792,345
523,884	495,172	468,104	442,581	418,508	395,799	374,372	354,150	313,074	274,216	258,346	244,392	231,221	218,785
-3,837,763	-3,342,591	-2,874,487	-2,431,906	-2,013,397	-1,617,598	-1,243,225	-889,075	-576,001	-301,785	-43,438	200,954	432,174	650,959
0.62	0.67	0.71	0.76	0.80	0.84	0.88	0.91	0.94	0.97	1.00	1.02	1.04	1.06

Union North
Discounted Cash Flow Analysis
Creekford Reinforcement Project
February 18, 2009

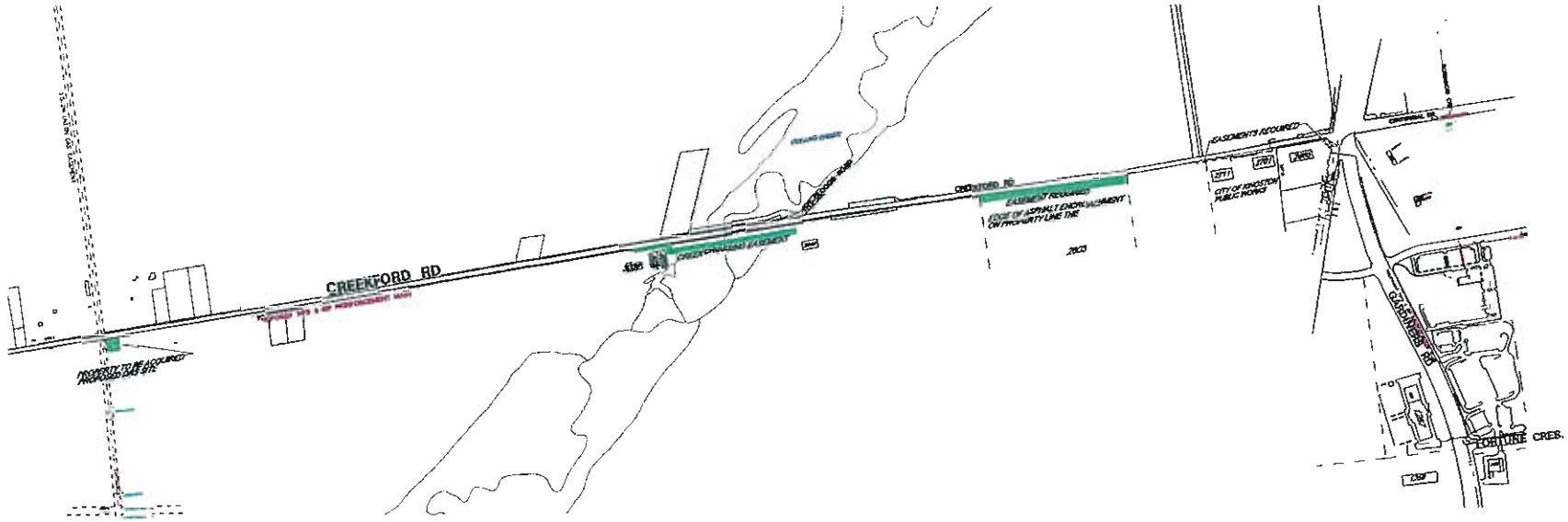
2035 Year 27	2036 Year 28	2037 Year 29	2038 Year 30	2039 Year 31	2040 Year 32	2041 Year 33	2042 Year 34	2043 Year 35	2044 Year 36	2045 Year 37	2046 Year 38	2047 Year 39	2048 Year 40
1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277	1,587,277
-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483	-338,483
-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179	-101,179
-12,253	-11,763	-11,293	-10,841	-10,407	-9,991	-9,591	-9,208	-8,839	-8,486	-8,146	-7,821	-7,508	-7,207
-345,387	-348,152	-350,807	-353,355	-355,802	-358,150	-360,405	-362,570	-364,648	-366,642	-368,557	-370,396	-372,161	-373,855
0	0	0	0	0	0	0	0	0	0	0	0	0	0
789,975	787,700	785,515	783,419	781,406	779,473	777,618	775,837	774,128	772,486	770,911	769,398	767,946	766,552
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
789,975	787,700	785,515	783,419	781,406	779,473	777,618	775,837	774,128	772,486	770,911	769,398	767,946	766,552
207,042	195,951	185,475	175,576	166,223	157,383	149,027	141,127	133,658	126,594	119,914	113,595	107,617	101,961
858,002	1,053,953	1,239,427	1,415,004	1,581,226	1,738,609	1,887,636	2,028,763	2,162,421	2,289,015	2,408,929	2,522,524	2,630,141	2,732,102
1.09	1.11	1.12	1.14	1.16	1.17	1.19	1.20	1.22	1.23	1.24	1.25	1.26	1.27

Schedule 14

KINGSTON REINFORCEMENT

CITY OF KINGSTON

INSTALLATION OF +-4300.0M OF NPS 6 REINFORCEMENT MAIN ALONG CREEKFORD ROAD & GARDINERS ROAD.



NAME AND ADDRESS	LEGAL DESCRIPTION	PERMANENT EASEMENT Estimated Dimenstions (Metres) Length	Width	Area (Hectares)	TEMPORARY EASEMENT Estimated Dimenstions (Metres) Length	Width	Area (Hectares)
Mary Gurnsey 3403 Creekford Road Westbrook, ON K7P 2Z7	PIN 36129-0093 Part of Lot 1 Concession 3, Western Addition Former Township of Kingston, Now City of Kingston County of Frontenac **FEE PURCHASE for DRS 50 feet x 100 feet** **NOTE: Station property overlaps existing UGL easement**						
Stanley Joseph and Beth Wilma Gavel 3039 Creekford Road Westbrook,ON K7P 2Z3	PIN 36089-0500 Part of Lot 5 Concession 3 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 47 metres **141 m2** **0.0141 ha**					
Ann Rose Harrison 1780 Washburn Road Inverary,ON K0H 1X0	PIN 36089-0505 Part of Lot 5 Concession 3 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 100 metres 300 m2 0.030 ha					
Braebury Homes Corporation 366 King Street East Kingston, ON K7K 6Y3	PIN 36089-0519 Part of Lot 6 Concession 3 As in FR184921 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 100 metres 300 m2 0.030 ha					

NAME AND ADDRESS	LEGAL DESCRIPTION	PERMANENT EASEMENT Estimated Dimenstions (Metres) Length	Width	Area (Hectares)	TEMPORARY EASEMENT Estimated Dimenstions (Metres) Length	Width	Area (Hectares)
Braebury Homes Corporation 366 King Street East Kingston, ON K7K 6Y3	PIN 36089-1120 Part of Lots 6&7 Concession 3 Part 2&7 on Plan 13R-3169 excepting part 3 Plan 13R-16 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 335 metres 1005 m2 0.1005 ha					
Tamarack (Catarqui West 2 Corporation) 685 Justice Drive Kingston, ON K7M 4H5	PIN 36089-1522 Part of Lots 6&7 Concession 3 Parts 3&6 on Plan 13R-3169, Part 1 13R-2983 Excepting Part 1 13R-7492 and Parts 1&2 13R-7721 Excepting Parts 14-15 13R-18619 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 366 metres 1098 m2 0.1098 ha					
Garafalo - Antonio, Lucia, Vincenzo,lueke, Giovanni, 715 Arlington Park Kingston, ON K7M 7E4	PIN 36089-1243 Part of Lots 8&9 Concession 3 Parts 1 to 6 13R-16203 excepting Plan 13M36, 13M57,13 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 335 metres 1005 m2 0.1005 ha					
The Corporation of the City of Kingston 216 Ontario Street Kingston, ON K7L 2Z3	PIN 36089-0544 Part of Lots 9&10 Concession 3 Part 1 to 5 Plan 13R-8779 Former Township of Kingston, Now City of Kingston County of Frontenac	3.0 metres x 216 metres 648 m2 0.0648 ha					

Additional Property Identifier(s) and/or Other Information

This is an easement in Gross

EASEMENT FOR HYDROCARBON DISTRIBUTION LINE

WHEREAS the Transferor is the owner in fee simple of those lands and premises more particularly described as (hereinafter called the "Transferor's lands").

WHEREAS the Transferee is the owner in fee simple of those lands and premises (hereinafter called the "Transferee's lands") situate, lying and being in the Township of Dawn-Euphemia, formerly in the geographic Township of Dawn, in the County of Lambton and Province of Ontario and being composed of the west half (w½) of Lot Number 25 in the 2nd Concession of the said Township.

The Transferor (and the Mortgagee) do 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 in box 5 of page one of this Schedule (hereinafter referred to as "the said 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 or distribution of gas (hereinafter referred to as "the said pipe line") 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 said 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, privileges and easement hereby granted. The Parties hereto mutually covenant and agree each with the other as follows:

1. Consideration for the rights and interest granted herein shall be the sum of 00/100 DOLLARS ($) of lawful money of Canada (hereinafter called "the consideration"), which sum is payment in full for the rights and interest hereby granted, injurious affection to remaining lands and the effect, if any, of registration on title of this document subject to Clause 11 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 shall execute and deliver a surrender thereof.

2. The Transferee shall make to the Transferor (or the person or persons entitled thereto) due compensation for any physical damages to the said 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 therefor. Any gates, fences and tile drains interfered with by the Transferee shall be restored by the Transferee 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.

3. The said pipe line (including attachments, equipment and appliances for cathodic protection but excluding valves, take- offs and fencing installed under Clause 8 hereof) shall be laid to such a depth that upon completion of installation it will not obstruct the natural surface run-off from the said lands nor ordinary cultivation of the said lands nor any tile drainage system existing in the said lands at the time of installation of the said pipe line nor any planned tile drainage system to be laid in the said 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 said pipe line; provided that the Transferee may leave the said pipe line 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.

4. As soon as reasonably practicable after the construction of the said pipe line, the Transferee shall level the said lands and unless otherwise agreed to by the Transferor, shall remove all debris therefrom and in all respects restore the said lands to their former state so far as is practical, save and except for items in respect of which compensation is due under Clause 2 hereof.

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Additional Property Identifier(s) and/or Other Information

5. The Transferee shall indemnify the Transferor for all losses, costs, claims, injuries, actions and causes of actions which are directly attributable to the exercise of the rights hereby granted, except to the extent that the losses, costs, claims, injuries, actions and causes of actions have been caused by the negligence or wilful misconduct of the Transferor or persons acting within the control 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.

7. Except in case of emergency, the Transferee shall not enter upon any lands of the Transferor, other than the said 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 said lands is hereby granted.

8. The Transferor shall have the right to fully use and enjoy the said lands except for planting trees over a six (6) metre strip centred over the said pipe line or over the full width of the said lands, whichever is less, 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 said 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 farm fences, constructing or repairing his tile drains and domestic sewer pipes, water pipes, and utility pipes and constructing or repairing his lanes, roads, driveways, pathways, and walks across, on and in the said 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 thirty (30) clear days notice in writing pointing out the work desired so as to enable the Transferee to evaluate the work 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 said pipe line, (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 said pipe line as may be required by the Transferee.

9. Notwithstanding any rule of law or equity and even though the said pipe line and its appurtenances may become annexed or affixed to the realty, title thereto shall nevertheless remain in the Transferee.

10. 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 said 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 monies payable hereunder shall be paid to the Transferor only in the proportion that his interest in the said lands bears to the entire interest therein.

11. In the event that the Transferee fails to pay the consideration as hereinbefore provided, the Transferor shall have the right to declare this easement cancelled 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 purchase price; 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.

12. 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 and to the Transferee at Union Gas Limited, 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

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from time to time appoint in writing.

13. 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.

14. The Mortgagee in Mortgage/Charge Number , in consideration of the sum of Two Dollars ($2.00) the receipt whereof is hereby acknowledged, joins herein for the purpose of consenting hereto and agrees to the easement hereby granted and covenants that the Transferee shall have quiet possession of the rights, privileges and easements hereby granted. The Mortgagee certifies that the Mortgagee is at least eighteen years old.

_____
(Name of Mortgagee)
Witness:

(Per: _____

Date of Signature _____

(Per: _____

Date of Signature

"I/we have authority to bind the corporation."

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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 Municipality of Chatham-Kent, in the Province of Ontario.

DO SOLEMNLY DECLARE THAT

1. I am of Union Gas Limited, the Transferee in the attached Grant of Easement and as such have knowledge of the matters herein deposed 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 distribution 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 ,2007

A Commissioner, etc.

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Schedule 17

Schedule 18

Summary of Comments

TO BE FILED WHEN RECEIVED

Creekford Road Reinforcement Project
Total Estimated Environmental Costs

Pre-Construction		
Environmental Report	$ 30,000	
Archaeology	7,000	
Water Well	10,000	
Geo-Technical Survey	40,000	
Environmental Surveys	10,000	
OEB Hearing Cost	5,000	
Environmental Planning	5,000	
Total Pre-Construction	**$ 107,000**	**$ 107,000**
Construction		
Environmental Inspection and Monitoring	$ 5,000	
Watercourse Crossing	2000	
Site Restoration	$ 85,000	
Total Construction	**$ 92,000**	**$ 199,000**
Post Construction		
Site Restoration	$ 21,250	
Tree Replacement	$ 5,000	
Total Post Construction	**$ 26,250**	**$ 225,250**
Total Estimated Environmental Costs		**$ 225,250**