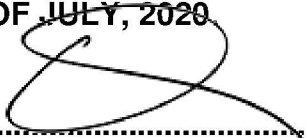


THIS IS EXHIBIT "L"
REFERRED TO IN THE AFFIDAVIT OF
JANE MUSTAC
SWORN BEFORE ME THIS 24TH DAY
OF JULY, 2020

.....
A Commissioner, etc.

Mackenzie, Diane

From: Mark Murray <Mark.Murray@enbridge.com>
Sent: Friday, February 28, 2020 3:55 PM
To: Krystal Kalbol; Kristoffer Balallo
Cc: Rob Marson; Tammy Mungar; George Adams
Subject: FW: Windsor Line Project Design Depth of Cover in ROW RE: County of Essex concern
Attachments: Windsor Line Alignment Rationale Pg 001 to 051.xlsx

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Krystal,

As we discussed the alignment drawings for this project have been amended to identify the location of the pipeline, setback from other infrastructure, setback from property lines, depth of pipeline and identification of pipeline proposed to be abandoned. Abandoned pipeline is still subject to any comments and/or consents from directly affected landowners.

Due to the size these drawings are being hand delivered to your office.

In addition attached is the Alignment Rationale document, which identifies, any utility conflicts, distance from road edge, service depth, bore holes and bore hole traffic restrictions where applicable. This should document should help explain the factors considered in this final pipeline design. One item you will see is the significant reduction in the number of days of impacts to traffic flow as a result of this construction, specifically a reduction from 267 to 44 days. This reduction is a combination of some adjusts and change to construction methodology, completion of activities simultaneously and a general review of the entire project.

With respect to pipeline depth, at our meeting we did discuss the County of Essex's desire that a minimum depth of cover of 1.5 meters be maintain for the length of this pipeline within the boundaries of County Road 46, to account for any proposed future road work. We have reviewed this request and the impacts of this increased depth both from a present and future constructability and maintain point of view. In response Enbridge is proposing to construct the pipeline with a minimum depth of cover in the untraveled portion of the ROW of 0.75m. This depth of cover adheres to Enbridge's Construction & Maintenance manual specification and exceeds the requirements of the TSSA regulated CSA Z662 pipeline design and operating code, for a pipeline installed under the travelled portion of a roadway, which is 0.6m.

The design of the proposed pipeline considers the impact/loading from vehicular traffic and the pipeline will operate safely as proposed.

What the County of Essex may not have considered in requesting a minimum pipeline depth of cover of 1.5m is the create significant impacts to construction and road closures during initial installation of the pipeline and services and future installation of services off this line. All excavations for installation will be significantly deeper and wider during construction now and in the future as well as more disturbance to municipal drains near property lines. There would be a significant number of existing water services and mains at this depth and will be in conflict with future attachments to water mains. As well at construction and maintenance work at this depth trench shoring will become a more significant issue and will require the use of trench boxes which will widen the construction and future maintenance footprint and encroachment into County Road 46, which will result in increased traffic interruptions.

One of the safety factors that Enbridge is concerned about is the possible increased risk of water and drainage issue during any construction activities and the impact that might pose to its contractors.

Enbridge does understand and confirms the cost obligations upon Enbridge as per the terms of the Road Agreement, namely that any future relocation of the pipeline is to be solely paid for by Enbridge, and the possibility that a deeper depth may mitigate some of those costs.

As we discussed on our call, we feel that it would be very beneficial for both parties to meet and give us the opportunity to review and explain the construction of the pipeline, alignment questions and provide a short power point presentation, based upon recent similar construction projects, to provide a visual review of various aspects of this pipeline construction, including traffic control plans, stringing and welding of pipeline and location and use of construction equipment.

For this meeting Tammy Mungar, George Adams, Rob Marson and Lee Whitton would be attending on behalf of Enbridge so that again the subject matter experts are available to answer any questions you may have. We would very much like to set this meeting up as an initial morning meeting, on either Wednesday or Thursday to provide yourself and your staff an opportunity to review the drawings and Alignment Rationale.

Thank you, for you help with this .
Mark

Mark Murray J.D.
Supervisor, Lands

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Alignment Drawing Page	Distance to Road Edge (meters)	Utility Conflict Forcing Alignment	Comments	Service Depth Issues if Moved	Planned Bore (meters)	Reduced Traffic Restriction from Bore
AL-01_011	1m off ROW	Future road widening	moved to accommodate - primarily small drains or covered			
AL-012	3.6	MD, WM	1m from WM any movement places in middle of covered drain	X	300	X
AL-013	3.2	MD, WM	1m from WM large drain too large for service connections if bore	X		
AL-014	3.9	MD, WM	1m from WM, reduction in lane requirements w altered plan		500	
AL-015	4.1		bore introduced through entire area		500	X
AL-016	5		bore introduced through entire area		340	X
AL-017	3.6	MD, WM	any movement south of WM places on edge of drain	X	360	
AL-018	3.6	MD, WM	any movement south of WM places on edge of drain, reduced lane issues	X	280	X
AL-019	3.6	MD, WM, B	cannot move south conflict all water main services, bell conflict and drain edge	X		
AL-020	3.6		land avail for working off road, reduced lane restrictions		108	X
AL-021	3.3	MD, H	Hydro & large drain to south of WM in conflict for move, reduced lane restrictions	X		X
AL-022	4	WM, H	Hydro & WM conflict in movement south, work area on grassed area		180	
AL-023	4.7		no move possible - set up for bore of river with reduced lane restrictions	X	180	X
AL-024	5.6	WM, H, B, SD	no moves possible without multiple conflicts - work in grassed area		85	X
AL-025	6	WM, H, B, SD	no moves possible without multiple conflicts - work in grassed area			X
AL-026	6	WM, H, B, SD	no move possible - conflict w storm drains, water services and tree line	X	110	
AL-027	6	SD, WM	no move without conflict w storm drain, water services and tree line	X	100	
AL-028	3.3	SD	15+ storm drain conflicts, significant bore, reduced lane issues		380	X
AL-029	2.6	WM, H, B, SD	tight alignment to all utilities, further south conflicts with storm and drain	X	250	X
AL-030	5.7	SD	weaving storm drains all along section prevents smooth running line		75	
AL-031	3	SD	weaving storms, significant drill to reduce lane restrictions		340	X
AL-032	3.2	SD	multiple storm drain conflicts			
AL-033	2.7-3.3	WL	road crossing to prepare for river bore/wetland setback requirements		425	
AL-034	3.9	WL	primarily bore through residential area, bore through wetland area		680	X
AL-035	3	WL	primarily bore through residential area out from wetland area		690	X
AL-036	3	MD	primarily bore, no further move w treeline and drain, less lane restriction		400	X
AL-037	3.6	MD	primarily bore through to Myers Rd reduce conflicts and lane restrictions		475	X
AL-038	3.5	MD	following WM running line, no further move without conflicts w drain depths	X	@490	X
AL-039	3	Bell, Cable, Hydro	cannot meet minimum clearance to other utilities no move possible	X	300	
AL-040	3	Drain	cannot meet minimum clearance, move places on edge of drain w large treeline	X	@350	
AL-041	3		little movement possible without drain issues		@450	X
AL-042	3		little movement possible without drain issues		200	
AL-043	3	MD, WM	prep for rail bore, large drain to south, WM prevents movement	X	@500	
AL-044	2	MD, CB, WM	WM prevents movement, large drain, catch basins and drains conflict w any move	X		
AL-045	2.5	MD, WM	WM prevent move, large dain in conflict w any move	X	230	
AL-046	3	WM, FB	South move conflicts w WM, fibre installed on north side			
AL-047	2.8	River Bore	reduced lane restrictions, bore for Ruscom River, all utilities on south side			X
AL-048	3.7		congested area, best utilization on N of WM, movement puts conflict w drains	X		
AL-049	3		congested as above - move south places main in conflict and crosses all utilities	X		
AL-050	3	MD, WM, FS, H	congested as above - hydro, water and fibre prevent any movement	X		

Storm Drain	SD
Muni Drain	MD
Hydro	H
Water Main	WM
Bell	B
Fibre	FB
Wetlands	WL

Considerations for Alignment Selection

<p>Review of new running line considered proximity to road edge and location of all major utilities. The proposed running line follows clearance to location and depths of all utilities with an attempt to align with a 1m clearance to the water main. This offers a typical use of space given construction requirements for an NPS6.</p>
<p>Due to the age, condition and supporting criteria for replacement the existing pipeline needs to remain in service while installation occurs for the new main. There is a minimum of 2 meter clearance for public and worker safety required to be maintained throughout installation from this live NPS10. At all crossing points added safety procedures are required for construction.</p>
<p>The average area of gravel off road edge varies from 2 to 3m along County Road 46. In general, the alignment of our pipeline maintains a minimum of 3 meters distance from road edge which places the main primarily in lower elevation grassed areas.</p>
<p>Increasing the distance further from road edge than what is currently proposed will position our pipeline at the side slope of large municipal drains. This is not a typical location to install as it causes significant disruption to drainage for construction and remediation costs both with the current project and subsequent distribution maintenance.</p>
<p>Enbridge does not suggest placement in or at the edge of large drains. From a safety perspective, any future customer connections to the distribution line would be significantly more difficult to execute, and would require the use of trench boxes or dam and pump practices. The increase in complexity and restricted work with water levels or seasonal in-water work restrictions would also increase the average cost significantly.</p>
<p>Of the utilities in conflict, many do not follow consistent running lines and offer varying clearance measures from road edges. Establishing a running line further from road edge behind any of these utilities increases risk of crossing multiple service types, being at similar depths causing future connection conflicts and adding cost to project for construction process and additional time required.</p>
<p>In all areas the project plan has been amended to an increased portion of directional drilling of bores to increase utilization of temporary land use and significantly reduce traffic lane restriction requirements. Mitigation of lane closures with the alterations of construction practices and convenience bores have added cost implications to the overall construction labour.</p>

Alignment Drawing Page	Distance to Road Edge (meters)	Utility Conflict Forcing Alignment	Comments	County Comments	Service Depth Issues if Moved	Planned Bore (meters)	Reduced Traffic Restriction from Bore
AL-01_011	1m off ROW	Future road widening	moved to accommodate - primarily small drains or covered	*GENERAL COMMENT from PL2449-AL-012 to PL2449-AL-05, Town of Lakeshore requires 1.5 meters separation from watermain, not 1.0 meter as shown in the submission.			
AL-012	3.6	MD, WM	1m from WM any movement places in middle of covered drain	No comment, the County is in agreement with revised alignment	X	300	X
AL-013	3.2	MD, WM	1m from WM large drain too large for service connections if bore		X		
AL-014	3.9	MD, WM	1m from WM, reduction in lane requirements w altered plan			500	
AL-015	4.1		bore introduced through entire area			500	X
AL-016	5		bore introduced through entire area			340	X
AL-017	3.6	MD, WM	any movement south of WM places on edge of drain	Enbridge to relocate main to 1 to 1.5 meters from property limit to be consistent with AL-01 to AL-011.	X	360	
AL-018	3.6	MD, WM	any movement south of WM places on edge of drain, reduced lane issues		X	280	X
AL-019	3.6	MD, WM, B	cannot move south conflict all water main services, bell conflict and drain edge		X		
AL-020	3.6		land avail for working off road, reduced lane restrictions			108	X
AL-021	3.3	MD, H	Hydro & large drain to south of WM in conflict for move, reduced lane restrictions		X		X
AL-022	4	WM, H	Hydro & WM conflict in movement south, work area on grassed area			180	
AL-023	4.7		no move possible - set up for bore of river with reduced lane restrictions			180	X
AL-024	5.6	WM, H, B, SD	no moves possible without multiple conflicts - work in grassed area	Room to potentially relocate south closer to p/l. to be consistent with alignment on AL-025 to AL-027 (6.0 meters from road edge)	X	85	X
AL-025	6	WM, H, B, SD	no moves possible without multiple conflicts - work in grassed area				X
AL-026	6	WM, H, B, SD	no move possible - conflict w storm drains, water services and tree line	No comment, the County is in agreement with revised alignment	X	110	
AL-027	6	SD, WM	no move without conflict w storm drain, water services and tree line		X	100	
AL-028	3.3	SD	15+ storm drain conflicts, significant bore, reduced lane issues	Enbridge to verify property limit from Municipal #1245 to Municipal #1319.		380	X
AL-029	2.6	WM, H, B, SD	tight alignment to all utilities, further south conflicts with storm and drain	County right of way is wider than what is shown on Enbridge Drawings therefore room to relocate south closer to be consistent with alignment on AL-025-AL-027 (6.0 meters from road edge)	X	250	X
AL-030	5.7	SD	weaving storm drains all along section prevents smooth running line			75	
AL-031	3	SD	weaving storms, significant drill to reduce lane restrictions			340	X
AL-032	3.2	SD	multiple storm drain conflicts				
AL-033	2.7-3.3	WL	road crossing to prepare for river bore/wetland setback requirements	Enbridge must maintain a proposed distance of 3.0 meters minimum from road edge. No concerns with location of distribution line.		425	
AL-034	3.9	WL	primarily bore through residential area, bore through wetland area			680	X
AL-035	3	WL	primarily bore through residential area out from wetland area			690	X
AL-036	3	MD	primarily bore, no further move w treeline and drain, less lane restriction			400	X
AL-037	3.6	MD	primarily bore through to Myers Rd reduce conflicts and lane restrictions			475	X

UTILITY LEGEND	
Storm Drain	SD
Muni Drain	MD
Hydro	H
Water Main	WM
Bell	B
Fibre	FB
Wetlands	WL

AL-038	3.5	MD	following WM running line, no further move without conflicts w drain depths		X	@490	X	
AL-039	3	Bell, Cable, Hydro	cannot meet minimum clearance to other utilities no move possible		X	300		
AL-040	3	Drain	cannot meet minimum clearance, move places on edge of drain w large treeline		X	@350		
AL-041	3		little movement possible without drain issues			@450	X	
AL-042	3		little movement possible without drain issues			200		
AL-043	3					@500		
		MD, WM	prep for rail bore, large drain to south, WM prevents movement	<p style="color: red; font-size: small;">Enbridge must maintain a proposed distance of 3.0 meters minimum from road edge or alternatively move in existing easement, where possible. May be challenging based on 1.5 meters separation from watermain and current 3.0 meters minimum.</p>	X			
AL-044	2	MD, CB, WM	WM prevents movement, large drain, catch basins and drains conflict w any move		X			
AL-045	2.5	MD, WM	WM prevent move, large drain in conflict w any move		X	230		
AL-046	3	WM, FB	South move conflicts w WM, fibre installed on north side					
AL-047	2.8	River Bore	reduced lane restrictions, bore for Ruscom Rrver, all utilities on south side					X
AL-048	3.7		congested area, best utilization on N of WM, movement puts conflict w drains		X			
AL-049	3		congested as above - move south places main in conflict and crosses all utilities		X			
AL-050	3	MD, WM, FB, H	congested as above - hydro, water and fibre prevent any movement		X			