

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON NOVEMBER 29, 2016</b>
<b>FROM:</b>	<b>KELLY SCHERR, P.ENG., MBA. MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>WHARNCLIFFE ROAD SOUTH ENVIRONMENTAL ASSESSMENT UPDATE</b>

<b>RECOMMENDATION</b>
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That on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, this report providing an update on the Wharncliffe Road South Environmental Assessment **BE RECEIVED** for information in conjunction with the second public information centre.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Strategic Priorities and Policy Committee – June 23, 2014 – Approval of 2014 Development Charges By-Law and DC Background Study.
- Civic Works Committee – October 6, 2014 – Environmental Assessment Appointment of Consulting Engineer

<b>2015-19 STRATEGIC PLAN</b>
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The following report supports the Strategic Plan through the strategic focus area of *Building a Sustainable City* by implementing and enhancing safe and convenient mobility choices for transit, automobile users, pedestrians and cyclists. The environmental assessment will identify solutions to improve the Wharncliffe Road South corridor including addressing the long-standing bottleneck at the Canadian National Railway (CNR) bridge.

<b>BACKGROUND</b>
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**Purpose**

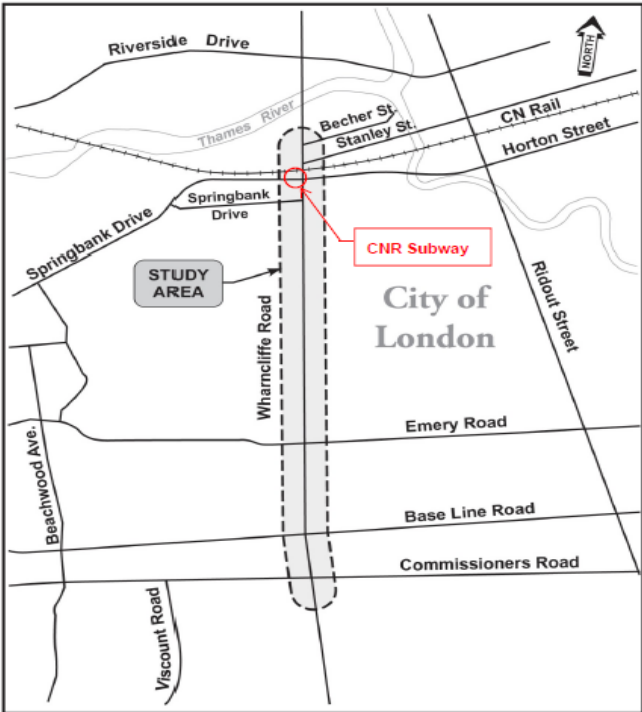
This report provides a general update on the current status of the Wharncliffe Road South Environmental Assessment (EA). A second Public Information Centre (PIC) is scheduled for:

**Time: November 30<sup>th</sup>, 2016  
4:00 pm to 7:00 pm**  
**Location: Children’s Museum  
21 Wharncliffe Rd South**

More details of the project will be provided at the PIC. The PIC Notice is attached in Appendix A.

**Context**

The purpose of this EA is to satisfy the requirements of the Environmental Assessment Act by providing a comprehensive, environmentally sound planning process with public participation, and to facilitate dialogue with parties representing a number of diverse interests. This EA is required to proceed with the implementation strategy of the transportation infrastructure needs for the Wharncliffe Road South corridor from Becher Street to Commissioners Road. The need and justification for the study was identified as part of the City of London’s 2030 Smart Moves Transportation Master Plan. See below for key map illustrating project limits.



**Wharncliffe Road South EA Limits**

The Wharncliffe Road corridor is a major north/south corridor in the City. The study portion of Wharncliffe Road South is an arterial road that accommodates approximately 31,500 vehicles per day and provides a key transportation corridor between the Southwest Area Plan (SWAP) lands and Western University, Downtown London and other destinations. The corridor comprises four through lanes throughout except in the area of the two rail bridge “bottlenecks”. This current EA assignment will address the CNR crossing. Detailed design of a construction contract is currently underway to address the CPR crossing constraint north of Oxford Street West.

The City of London 2030 Transportation Master Plan (TMP) identifies two distinct projects to improve Wharncliffe Road South. The two projects are currently being assessed under this comprehensive EA. The first project comprises widening from Becher Street to Springbank Drive from 2 lanes to 4 lanes as well as the widening of the Canadian National Railway (CNR) subway. This is an important network capacity improvement that is identified in the current Development Charges Background Study for implementation in 2019. Implementation of this project is planned immediately following approval of the EA and that will help manage traffic during the implementation of the Shift Rapid Transit network.

The second distinct project represents the development of a long-term vision for the Wharncliffe Road South corridor from Springbank Drive to Commissioners Road West. This corridor is already four-lanes wide but currently has operational and safety issues. Optimization of the corridor includes localized turn lanes, access management, bus bays, etc. This is a significant transit corridor accommodating the Southcrest, Wharncliffe and Jalna Boulevard LTC routes. The project will improve transit

performance. The timing of this project will be determined based on the identified improvements and availability of property.

Currently, the project team is completing Phase 3 of the Municipal Class Environment Assessment (MCEA) process. Phase 3 of the MCEA process involves the development and evaluation of alternative design concepts. The main outcome in this phase of the study was developing road cross-section and layout concepts for the recommended planning solution. Establishment of the land requirements for this project is a key outcome to identify mitigation measures.

CNR is an important project partner as the owner of the railway. CNR has provided input and an endorsement of a preferred grade separation design.

The purpose of the upcoming PIC is to discuss and receive feedback from residents, agencies and other interested parties. The PIC will have displays that summarize the comments to date, illustrate the alternatives, evaluation and preliminary recommended plan. Staff will be available to discuss, answer questions and receive comments. Comment sheets will also be available to formally record comments for the public record.

<b>DISCUSSION</b>
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**Project Description**

The EA for improvements to Wharncliffe Road South satisfies the requirements of the Municipal Class EA as a Schedule ‘C’ project.

**Planning and Analysis of Alternatives**

Phase 1 of the Municipal Class EA process involved the problem and opportunity statement identification. It was determined that improvements are needed in this corridor to address existing and future road/traffic operational deficiencies, future transit system efficiencies, road safety, and long-term vision of a street design that improves active transportation.

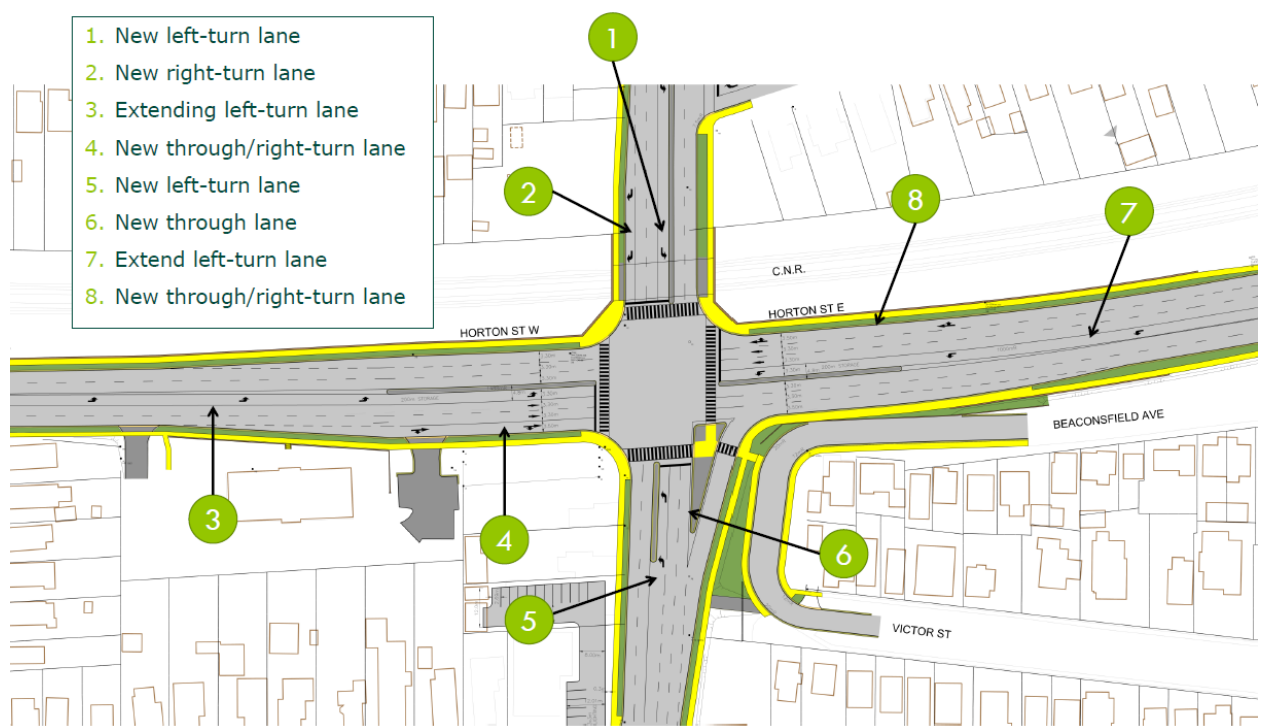
Phase 2 of the Municipal Class EA process involved identifying alternative solutions (planning alternatives) to the problem/opportunity.

**Preliminary Preferred Design**

The Preliminary Preferred Design will be displayed at the upcoming PIC and is proposed in two projects.

***Project 1 - Becher Street to Springbank Drive***

The project primarily involves the replacement of the CN structure using an on-line replacement construction methodology. This will enable the provision of one additional northbound through lane on Wharncliffe Road South to connect the four-lane cross-section that exists to the north and south. Other improvements to the Horton Street intersection are shown in the figure below and include north and southbound dedicated left-turn lanes, additional southbound right-turn lane, extension of east and westbound left-turn lane storage, additional east-westbound through/right-turn lane. With the new functionality of the Horton Street intersection, southbound left turns onto Stanley Street will be blocked to improve safety.



### Wharncliffe Road South / Horton Street East Improvements

The project involves five full and eight partial (edge, land only) property requirements. There are anticipated impacts to the following heritage properties:

- There will be substantial impact to the property located at MN100 Stanley Street, which is municipally designated under Part IV of the Ontario Heritage Act. A portion of the property is required for the widened Wharncliffe Road South and retaining wall and the remainder of the property is required for large construction equipment (e.g. cranes, drill rigs etc.) to construct the CNR grade separation. The existing shed and driveway are in direct conflict the proposed bridge abutments, retaining walls sidewalks and roadway. In addition, it is also proposed to bury the aerial hydro pole line immediately east of the new abutment, conflicting with the existing building. A Heritage Impact Statement (HIS) will be required.
- MN32 Wharncliffe Road South is listed on the City of London's Inventory of Heritage Resources as Priority 3 resource and has partial (land only) impacts.

### ***Project 2 – Springbank Drive to Commissioners Road***

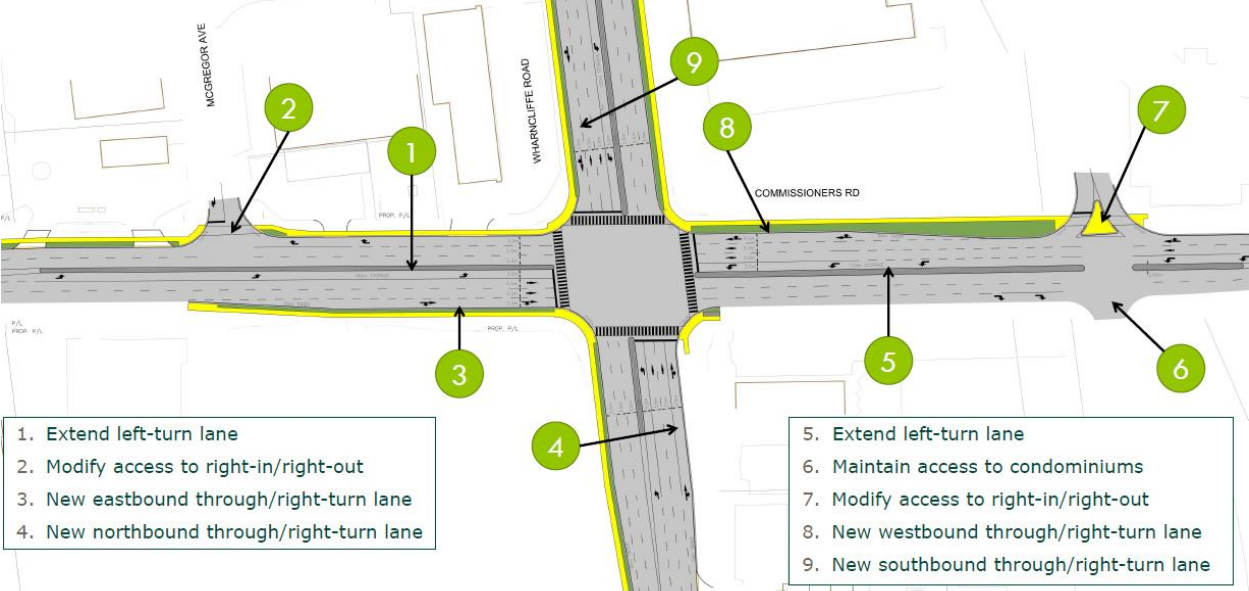
This section of Wharncliffe Road South already has four through lanes. Due to heavily constrained corridor created by a narrow right-of-way with very limited space, this project section is focused on incremental optimization improvements to the road cross-section to improve both driver and pedestrian environments.

The proposed improvements in this section include reconstructing the existing cross-section at preferable widths to create a more comfortable environment for all road users. This includes uniform lane widths, boulevards and wider sidewalks. A new centre left-turn lane is proposed between Emery Street and Base Line Road.

The following intersection recommendations are also proposed:

- Emery Street – addition of north and southbound dedicated left-turn lanes;
- Base Line Road – extension of southbound left-turn lane; and,

Commissioners Road – addition of east/westbound and north/southbound through/right-turn lanes and extension of east and westbound left-turn lanes as illustrated below. The access to McGregor Avenue and Highland Avenue will be modified to right-in/right-out. The access to the condominium residences opposite Highland Avenue will be maintained.



### Wharncliffe Road South / Commissioners Road Improvements

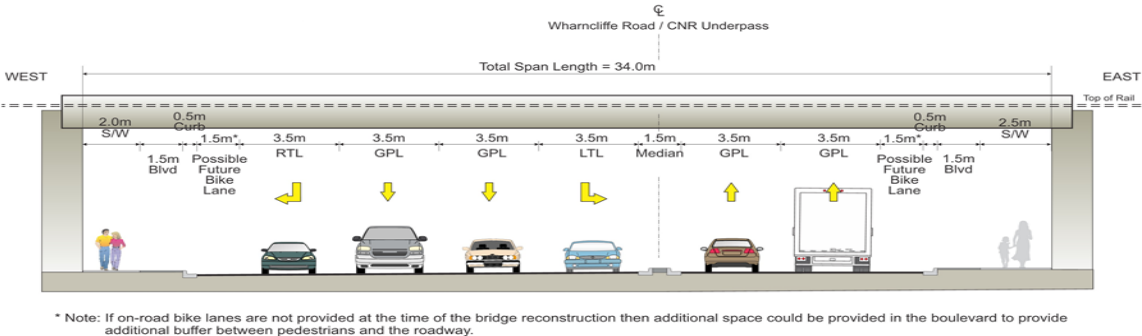
The cross-section improvements generally involve a widening to the west, to minimize the overall property impacts. There are anticipated impacts to the following heritage properties:

- One (1) property, MN189 Wharncliffe Road South, included on the City of London’s Inventory of Heritage Resources as a Priority 2 resource, will be fully impacted. An evaluation of the property’s potential cultural heritage value or interest will be required prior to consideration of its removal.
- Six (6) heritage listed properties will be partially impacted with acquisition of land only through strip widenings.

The property impacts in the corridor are extensive despite the modest nature of the improvements. Due to the extent of the property impacts, implementation timing and phasing of this project will be reviewed. Implementation may be timed as properties redevelop and property becomes available and impacts are minimized. A long-term corridor vision will also be illustrated that builds upon property redevelopment.

### CNR Bridge Design Alternatives

Improvements to the Horton Street intersection to accommodate four through lanes plus turn lanes on Wharncliffe Road South requires the replacement of the railway bridge with a larger structure. See the illustration below for the proposed fully developed road widening configuration beneath the proposed CNR bridge.



## **Proposed Road Cross-Section at CNR Bridge**

The construction of this project is complex and requires rail traffic to be maintained. This aspect of the project is subject to the input and approval of CNR. Two construction alternatives were considered:

### ***On-Line Replacement***

- This alternative entails constructing the new longer bridge while train traffic is maintained on the existing tracks with short-term rail blockages. The bridge platform would be constructed in the adjacent staging area then lifted onto the newly constructed abutments.
- This alternative provides little flexibility to modify the alignment of Wharncliffe Road South, given that the new bridge will be centred on the same location as the existing.

### ***Rail Diversion to the South***

- A 1.0 km long temporary rail diversion and bridge carrying the existing two rail tracks would be required across Wharncliffe Road South, just south of the existing bridge. Rail traffic would be diverted to the temporary diversion while a new bridge is constructed in place.
  - This alternative was complicated by the extraordinary length of the two-track rail diversion that is required due to the curve in the existing rail line and the need to tie back in to the exiting track alignment west of the York Street CNR bridge.
  - The temporary bridge and diversion require significant areas of temporary fill and retaining walls along Horton Street, contributing to significantly more time and cost than the In-Place Replacement Alternative.

Given the complexity of these alternatives, additional time has been spent to fully develop and understand all possible advantages and disadvantages of each. The input of CNR was also a key component.

The environmental assessment evaluation recommended the in-place replacement alternative because it is quicker to construct, has fewer impacts to traffic on Wharncliffe Road South, more cost effective, and overall more efficient. This method was also endorsed by CNR. CNR was concerned about operations on the rail diversion alternative that would increase the curve in the rail line.

While the rail diversion alternative appeared to offer some opportunity to shift the future road alignment, it does not avoid impacts to MN100 Stanley Street. More significantly, the construction staging and access for both alternatives will require large construction equipment (e.g. cranes, drill rigs etc.) to be located on the property at MN100 Stanley Street, in close proximity to the dwelling.

Detailing the construction methods, staging, access and timing has allowed the project team to confirm that there will be impacts to MN100 Stanley Street for both Alternatives. Even if the dwelling is not directly impacted, the property would not be accessible or inhabitable during construction. No access will be possible due to lowering Stanley Street or envisaged due to the elimination of the existing shed and laneway.

## **Implementation**

Implementation of the project from Becher Street to Springbank Drive is planned immediately following approval of the Environmental Assessment (EA) Study. Improvements to corridor operation and traffic flow gained from widening the Canadian National Railway (CNR) subway will be monitored following construction.

It is estimated that an on-site construction duration in the order of 15 months is necessary for the CNR rail bridge construction. The intersection at Horton Street will be lowered by about 1.8 m in order to achieve the required clearance under the new rail bridge. Similarly, Stanley Street will be lowered by about 0.8 m in order to connect to Wharncliffe Road. Reconstruction of the grade separation will require long-term closures of Wharncliffe Road and the intersections at Horton Street and Stanley Street. The details, durations and mitigations for these closures will be further developed during the remainder of the EA and detail design.

The subsequent plan for optimization improvements of Wharncliffe Road South from Springbank Drive to Commissioners Road West will continue to be under review for implementation. The timing and implementation of this section will also be determined based on the identified improvements and availability of property.

## **Environmental Study Report Schedule**

Following the PIC, the project team will review all public and agency comments and incorporate any revisions to finalize the preliminary design plans.

The project team will present the Recommended Preliminary Design and Cultural Heritage Assessment Report to the London Advisory Committee on Heritage. The Transportation Advisory Committee will also be consulted. The Environmental Study Report will be prepared and presented to Civic Works Committee in early 2017, followed by filing the ESR for public review.

## **Public and Agency Consultation**

A Notice of Study Commencement for the project was issued in February 9, 2015. A project website page was also developed at the outset of this study. Responses from residents were received that related to property and access impacts, timing and duration of construction, pedestrian and cyclist safety and high traffic volumes.

The project team met with CNR in January 2015, and January 2016. In April 2016, a structural preliminary design report was provided to CNR to facilitate their internal review process. City and CNR staff discussed the project again in August 2016. In October 2016, CNR decisively approved the in place replacement alternative. CNR conveyed concerns related to the extensive rail diversion required under the other alternative.

Two meetings have occurred with Riverforks Community Organization. In addition, staff met individually with property owners who are most significantly impacted on October 19 and 20, 2016. The final extent of potential land requirements and in few cases, potential property buy-outs will be refined accordingly during the remainder of the EA process and discussed further with property owners through the property acquisition process. In the south project, it is assumed much of the property needs may be acquired through development road widening dedications in the long term.

PIC 1 was held on June 11, 2015 to review the study scope, existing conditions, need and justification, planning alternatives, and design concept alternatives.

PIC 2 is scheduled for November 30, 2016. This meeting will present a summary of the public and agency feedback to date and illustrate the preliminary preferred alternative, impacts and mitigation.

<b>CONCLUSION</b>
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This report provides an update on the current status of the EA for Wharncliffe Road South. Preliminary preferred alternatives have been identified for the improvements. A key component of this project is the reconstruction of the CNR rail bridge to eliminate the long-standing bottleneck north of the Horton Street intersection. The EA has identified a preliminary preferred solution to this problem with the complex construction of a new rail bridge.

A second PIC is scheduled for November 30th, 2016 from 4:00 pm to 7:00 pm at the Children’s Museum, 21 Wharncliffe Rd South. The purpose of the public meeting is to present a summary of the previous public and agency feedback, present the preliminary preferred alternative and identify impacts for mitigation considerations. More details from the EA will be provided at the PIC.

**Acknowledgements**

This report was prepared with the assistance of Ted Koza, P.Eng., Transportation Design Engineer and Josh Ackworth, C.E.T., Technologist II of the Transportation Planning & Design Division.

<b>SUBMITTED BY:</b>	<b>REVIEWED &amp; CONCURRED BY:</b>
<b>DOUG MACRAE, P.ENG. DIVISION MANAGER, TRANSPORTATION PLANNING &amp; DESIGN</b>	<b>EDWARD SOLDO, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION</b>
<b>RECOMMENDED BY:</b>	
<b>KELLY SCHERR, P.ENG., MBA MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>	

Attachment: Appendix A – Notice of Public Information Centre 2

c. Gillian Thompson – WSP/MMM Group



Appendix A  
Notice of Public Information Centre 2



NOTICE OF PUBLIC INFORMATION CENTRE # 2

Wharncliffe Road South  
Municipal Class Environmental Assessment Study

The City of London has retained MMM Group, to undertake a Municipal Class Environmental Assessment (EA) Study for Wharncliffe Road South from Becher Street to Commissioners Road West. This project is being carried out under the planning and design process for a Schedule C project as outlined in the *Municipal Class Environmental Assessment* (as amended in 2007, 2011 and 2015).

Location:	Wharncliffe Road South from Becher Street to Commissioners Road West, including the Canadian National Rail (CNR) Subway immediately north of Horton Street.										
Purpose of the Study:	The City of London 2030 Transportation Master Plan (TMP) recommends replacement of the Canadian National Railway (CNR) Subway with one additional northbound lane on Wharncliffe Road north of Horton Street, and optimization of Wharncliffe Road South from Horton Street to Commissioners Road. This Class EA will confirm the needs, identify and assess a range of planning and design alternatives and consider optimization measures which include: one additional northbound lane north of Horton Street, intersection improvements, road cross-section improvements and access management.										
Public Information Centre # 2:	<p>Two Public Information Centres (PICs) are being held during this study. The first PIC was held on June 11, 2015 and provided stakeholders with an opportunity to meet the Project Team, review the study scope, existing conditions, need and justification, planning alternatives, and design concept alternatives.</p> <p>The second PIC will present a summary of the public and agency feedback received during the study and the Preliminary Preferred Alternative, which includes the proposed replacement of the CNR Subway, improvements to the Wharncliffe Road South cross-section and intersections.</p>	<table><tr><th colspan="2">Public Information Centre # 2</th></tr><tr><td>Date:</td><td>Wednesday November 30, 2016</td></tr><tr><td>Place:</td><td>London Children's Museum 21 Wharncliffe Road South, London, ON</td></tr><tr><td>Time:</td><td>4:00 p.m. to 7:00 p.m. (drop-in format)</td></tr></table>		Public Information Centre # 2		Date:	Wednesday November 30, 2016	Place:	London Children's Museum 21 Wharncliffe Road South, London, ON	Time:	4:00 p.m. to 7:00 p.m. (drop-in format)
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Date:	Wednesday November 30, 2016										
Place:	London Children's Museum 21 Wharncliffe Road South, London, ON										
Time:	4:00 p.m. to 7:00 p.m. (drop-in format)										
How to Provide Input:	Public consultation is an important and vital component of this study. Learn about our work on the City's website at <a href="http://www.london.ca">www.london.ca</a> and then please share your thoughts with us (see contact details below). Comments will be considered throughout the planning process. Please note: Information will be collected in accordance with the <i>Municipal Freedom of Information and Protection of Privacy Act</i> . With the exception of personal information, all comments received will become part of the public record.										
For More Information:	City of London Contact: Ted Koza, P.Eng. Transportation Design Engineer Transportation Planning and Design Tel: 519-661-2500, ext. 5806 Email: <a href="mailto:tkoza@london.ca">tkoza@london.ca</a>	Consultant Contact: Jay Goldberg, P.Eng. Project Coordinator, WSP MMM 2655 North Sheridan Way Mississauga, ON L5K 2P8 Tel: 905-823-8500 ext. 1284 Email: <a href="mailto:goldbergj@mmm.ca">goldbergj@mmm.ca</a>									