

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment and Infrastructure

Subject: Appointment of Consulting Engineers for Contract
Administration Services: Stormwater Infrastructure and
Channel Remediation Projects

Date: June 13, 2023

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting engineers for contract administration services for three 2023 Stormwater Infrastructure and Channel Remediation construction projects:

- (a) The following consulting engineers **BE APPOINTED** to carry out consulting services for the identified stormwater infrastructure projects, at the upset amounts identified below, in accordance with the estimate on file, and in accordance with Section 15.2(g) of the City of London's Procurement of Goods and Services Policy:
- (i) AECOM Canada Ltd. **BE APPOINTED** consulting engineers to complete the resident inspection and contract administration of Mud Creek Phase 2A Culvert replacement on Oxford Street West in the total amount of \$127,098 (including contingency), excluding HST;
 - (ii) The engineering design fees for AECOM Canada Ltd. **BE INCREASED** to recognize the additional design scope of work for the project in accordance with the estimate on file, by \$196,758.61, excluding HST, from \$746,074 to a total upset amount of \$942,832.61;
 - (iii) Stantec Consulting Limited **BE APPOINTED** consulting engineers to complete the resident inspection and contract administration of Hyde Park Assignment 'A' Project, in the total amount of \$188,054.50 (including contingency), excluding HST;
 - (iv) The engineering design fees for Stantec Consulting Limited **BE INCREASED** to recognize the additional design scope of work for the project in accordance with the estimate on file, by \$15,534, excluding HST, from \$301,032.57 to a total upset amount of \$316,566.57;
 - (v) Matrix Solutions Inc. **BE APPOINTED** consulting engineers to complete the resident inspection and contract administration of Hyde Park Assignment 'B', in the total amount of \$159,815.03 (including contingency), excluding HST;
- (b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A';
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (d) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract; and,
- (e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

The engineering consultants work with city staff to complete challenging stormwater infrastructure lifecycle replacement needs in response to climate change and to accommodate development growth within the City. There are three 2023 Stormwater Infrastructure Projects for which a consultant award for contract administration is required, including Mud Creek Phase 2A, Hyde Park Package A Phase 1, Hyde Park Package B Phase 1. The engineering consulting work recommended for the 2023 projects will support the construction and reconstruction of an estimated \$10,900,000 of capital stormwater infrastructure.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2023-2027 Strategic Plan areas of focus:

- Climate Action and Sustainable Growth:
 - Waterways, wetlands, watersheds, and natural areas are protected and enhanced.
 - London is more resilient and better prepared for the impacts of a changing climate; and
 - Infrastructure is built, maintained, and secured to support future growth and protect the environment.
- Mobility and Transportation
 - London's active transportation network is better connected and serves persons of all ages and abilities.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- CWC – July 26, 2022 – Consultant Contract Increase for Mud Creek Phase 2 Detailed Design.
- CWC – March 1, 2022 – Appointment of Consulting Engineer for the Hyde Park EA SWM Works – Assignment 'B' Detailed Design
- CWC – August 31, 2021 - Appointment of Consulting Engineer for the Hyde Park EA SWM Works – Assignment 'A' Detailed Design

2.0 Discussion and Considerations

2.1 Work Description

There are three significant stormwater management infrastructure projects scheduled for construction starting in summer 2023 that require consultant awards for contract administration. Location maps of these projects are provided in Appendix 'B'.

2.1.1 Mud Creek Phase 2A: Oxford Street Culvert Crossing

In 2021, the City completed Phase 1A and 1B of the Mud Creek Project consisting of new twin tunnels under the Canadian National Railway (CNR) embankment as well as constructing a deeper and wider natural channel corridor to Wonderland Road.

AECOM's current assignment includes the detailed design and tendering of the Phase 2 Mud Creek project which includes approximately 850 linear metres of a new realigned natural channel from the CNR embankment, northerly to Oxford Street, and the construction of a new Oxford Street water crossing.

It was determined that Phase 2 needed to be split into two separate construction phases to accommodate environmental approvals and extensive tree removals. The two separate phases will be:

- Phase 2A – New Culvert construction on Oxford Street West to facilitate the realigned Mud Creek – Summer/Fall 2023.
- Phase 2B – Removal of the existing Mud Creek culvert on Oxford Street West, Mud Creek channel remediation and re-alignment from the existing twin tunnels north of the CN Rail line to Oxford Street West – Fall 2023 to Fall 2024.

AECOM's original design assignment did not anticipate the following additional items:

- Separation of the project into two phases and the subsequent the need for two separate tenders
- Structural design effort to develop a design and specifications for the pedestrian bridge crossing within the Phase 2B corridor
- Civil design work to size and specify a new outfall on the north side of Oxford St.
- Additional Environmental and Arboricultural work
- Increase consultation meetings with external, directly impacted interested parties with the project

2.1.2 Hyde Park EA Works Assignment 'A' – Phase 1

Stantec's assignment included the detailed design of several components of the stormwater management (SWM) works recommended by the Hyde Park EA Addendum. Appendix 'B' shows the location of the works identified as follows:

1. Hyde Park SWM 1 Retrofit within existing block.
2. Hyde Park SWM 1B1 Retrofit within existing block.
3. Trenchless design of a new storm culvert under the CP Rail line, and a new storm channel south of the CP Rail into a new inlet into SWM facility 1B1.
4. Decommissioning of the temporary Matthews Hall Subdivision SWM Facility.

All work was designed and will be constructed in accordance with the mitigation and compensation plan identified in the Environmental Impact Study (EIS) and additional features identified through this detailed design.

Due to ongoing land acquisition negotiations and CP Rail tunnel crossing approvals, the above noted work was separated into two project tenders. Phase 1 tender will consist of Item #1 and the remaining items #2-4 will be included in the Phase 2 tender.

Stantec's original design assignment did not anticipate the separation of this project into two separate tender phases and thus, additional engineering fees are required to facilitate the preparation of two separate tenders for the above noted phases.

2.1.3 Hyde Park EA Works Assignment 'B'

The Consultant assignment included the detailed design of several components of the stormwater management (SWM) works recommended by the Hyde Park EA Addendum. Appendix 'B' shows the location of the works identified as follows:

1. Retrofit Outlet Structure for Hyde Park SWMF 3E.
2. Investigations of Existing Canterbury Estates SWM Facility.
3. 70 +/- metres of Stanton Drain natural channel Remediation (110 +/- metres following the centerline of the channel); and
4. Incorporate and/or verify natural channel design, ecological enhancements and applicable mitigation/compensation features for projects listed above, as identified in the Environmental Impact Study (EIS) completed during the EA, and any additional features identified through this detailed design.

All work was designed and will be constructed in accordance with the mitigation and compensation plan identified in the Environmental Impact Study (EIS) and additional features identified through this detailed design.

Based on current engineering estimates, all three construction tenders are anticipated to be awarded through the Administrative Approval of Tender Acceptance/Contract Award (AATACA), to an upset limit of \$6 million per project.

3.0 Financial Impact/Considerations

3.1 Consulting Engineer Services

In accordance with Section 15.2 (g) of the City of London’s Procurement of Goods and Services Policy, Civic Administration recommends that the engineering services associated with the increase in design and the resident inspection and contract administration services be awarded to ensure that the City receives the product specified and associated value.

Due to the knowledge and positive performance on the detailed design assignments, each consultant was invited to submit a proposal to carry out the resident inspection and contract administration for their project. A summary of the fees is included in Table 1. All values include a minimum 10% contingency and excludes HST.

Table 1: Summary of Project Assignments

Assignment	Consultant	Design Fee Increase	Inspection and Contract Administration Fee	Previously Awarded Fees	Total Project Fees
Mud Creek Phase 2A	AECOM	\$196,758.61	\$127,098.00	\$746,074	\$1,069,930.61
Hyde Park Assignment ‘A’ – Phase 1A	Stantec	\$15,534	\$188,054.50	\$301,032.57	\$504,621.07
Hyde Park Assignment ‘B’	Matrix	\$0	\$159,815.03	\$172,416.50	\$332,231.53

Staff have reviewed the fee submissions, including hourly rates and the time allocated to each project task, as provided by each consultant. The submissions were found to be consistent with other project assignments of similar scope. The continued use of the identified consultant on each project for resident inspection and contract administration is of financial advantage to the City because the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

In addition to the financial advantage, there are also accountability and risk reduction benefits. The City requires a Professional Engineer to seal all construction drawings. These ‘record drawings’ are created based on field verification and ongoing involvement by the Professional Engineer. This requirement promotes consultant accountability for the design of these projects, and correspondingly, reduces the City’s overall risk exposure. Consequently, the continued use of the consultant who created and sealed the design drawings is required in order to maintain this accountability process and to manage risk.

Funds have been budgeted in the Stormwater and Parks Planning capital budgets to support the recommended awards, as identified in Appendix ‘A’ - Sources of Financing.

Conclusion

Replacing infrastructure at the end of its lifecycle and rehabilitating existing stormwater infrastructure is essential to building a sustainable city and to adapt to climate change for the future. The recommended engineering consultant assignments will allow the construction projects to be completed in the best financial and technical interests of the City. It is recommended that AECOM, Stantec, and Matrix Solutions continue as the consulting engineers on their respective projects for the purpose of resident inspection and contract administration services in accordance with Section 15.2(g) of the City of London's Procurement of Goods and Services Policy.

Prepared by: **Shawna Chambers, P.Eng., DPA**
Division Manager, Stormwater Engineering

Submitted by: **Ashley Rammeloo, MMSc, P.Eng.**
Director, Water, Wastewater, and Stormwater

Recommended by: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure

cc: John Freeman
Gary MacDonald
Alan Dunbar
Jason Davies
Paul Titus

Appendix 'A' – Sources of Financing

Appendix 'B' – Location Maps

Appendix "A"

#23122

June 13, 2023

(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for Contract Administration Services for Stormwater Infrastructure and Channel Remediation Projects

(Subledger SWM21003) Mud Creek Phase 2A

(Subledger SWM21005) Hyde Park Assignment A

(Subledger SWM22002) Hyde Park Assignment B

Capital Project ES2681-2 - Mud Creek East BR Phase 2

Capital Project ES3020-HP6 - SWM Facility - Hyde Park No 6

AECOM Canada Ltd.- \$323,856.61 (excluding HST) - Mud Creek Phase 2A

Stantec Consulting Limited - \$203,588.50 (excluding HST) - Hyde Park Assignment 'A'

Matrix Solutions Inc. - \$159,815.03 (excluding HST) - Hyde Park Assignment 'B'

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To This Date	This Submission	Balance for Future Work
ES2681-2 - Mud Creek East BR Phase 2				
Engineering	1,346,566	1,017,010	329,556	0
Construction	17,323,034	5,680,949	0	11,642,085
ES2681-2 Total	18,669,600	6,697,959	329,556	11,642,085
ES3020-HP6 - SWM Facility - Hyde Park No 6				
Engineering	457,682	87,881	369,801	0
Land Purchase	669,748	669,748	0	0
Construction	1,286,270	506,111	0	780,159
City Related Expenses	3,000	2,780	0	220
ES3020-HP6 Total	2,416,700	1,266,520	369,801	780,379
Total Expenditures	\$21,086,300	\$7,964,479	\$699,357	\$12,422,464

Sources of Financing

ES2681-2 - Mud Creek East BR Phase 2

Drawdown from Sewage Works Renewal Reserve Fund	11,780,517	4,226,412	207,950	7,346,155
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (note 1)	6,889,083	2,471,547	121,606	4,295,930
ES2681-2 Total	18,669,600	6,697,959	329,556	11,642,085

ES3020-HP6 - SWM Facility - Hyde Park No 6

Drawdown from Sewage Works Renewal Reserve Fund	99,306	52,043	15,196	32,067
Drawdown from City Services - Storm Water Reserve Fund (Development Charges) (Note 1)	2,317,394	1,214,476	354,605	748,312
ES3020-HP6 Total	2,416,700	1,266,520	369,801	780,379
Total Financing	\$21,086,300	\$7,964,479	\$699,357	\$12,422,464

Appendix "A"

#23122

June 13, 2023

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Chair and Members

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Matrix Solutions Inc. - \$159,815.03 (excluding HST) - Hyde Park Assignment 'B'

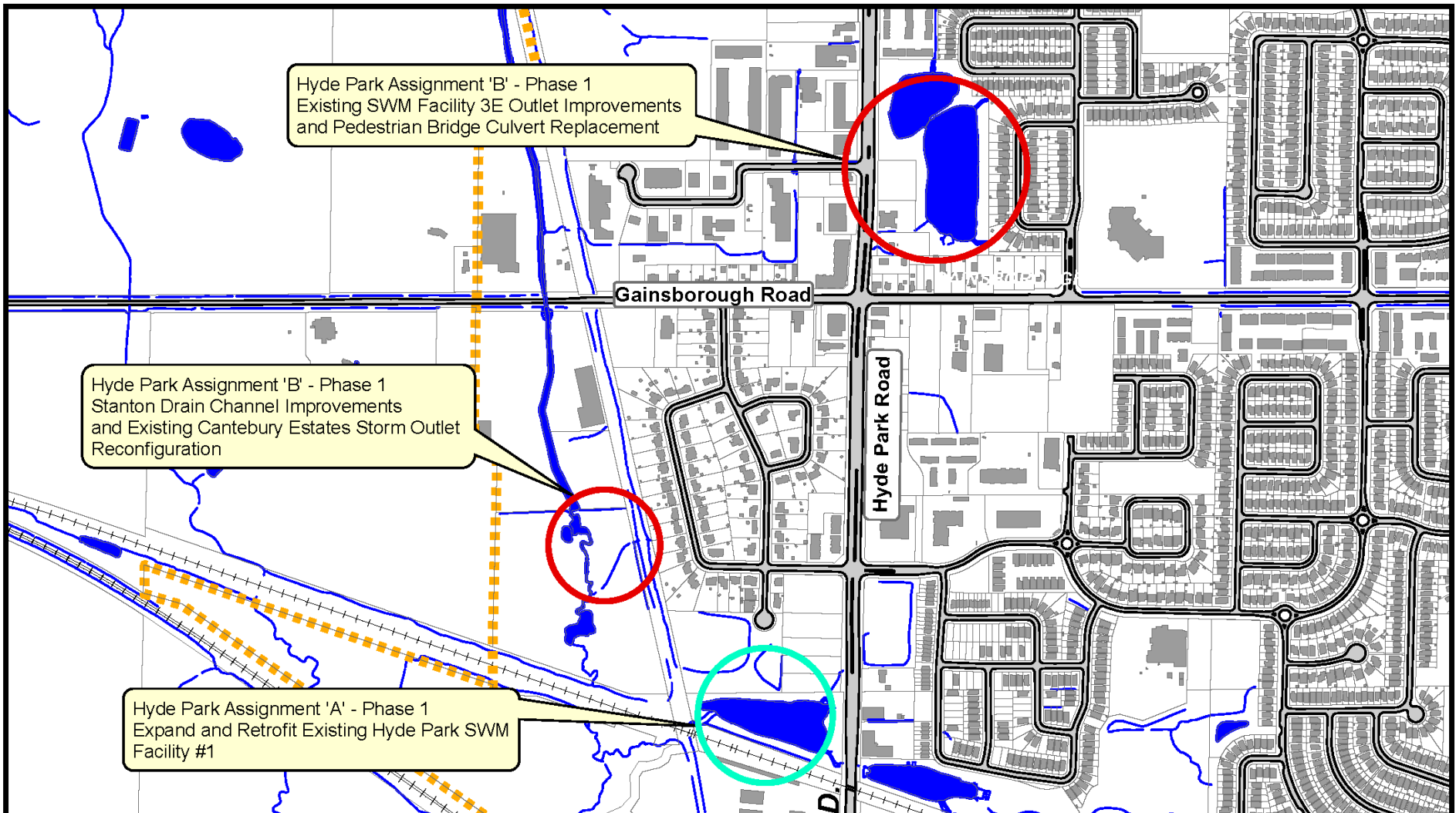
Financial Note:	ES2681-2 (AECOM)	ES3020-HP6 (Stantec Consulting)	ES3020-HP6 (Matrix Solutions)	Total
Contract Price	\$323,857	\$203,589	\$159,815	\$687,261
Add: HST @13%	42,101	26,467	20,776	89,344
Total Contract Price Including Taxes	365,958	230,056	180,591	776,605
Less: HST Rebate	-36,402	-22,883	-17,963	-77,248
Net Contract Price	<u>\$329,556</u>	<u>\$207,173</u>	<u>\$162,628</u>	<u>\$699,357</u>

Note 1: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Alan Dunbar

Manager of Financial Planning & Policy

hb



PROJECT LOCATION MAP : HYDE PARK ASSIGNMENT 'A' AND 'B'



1:9,000

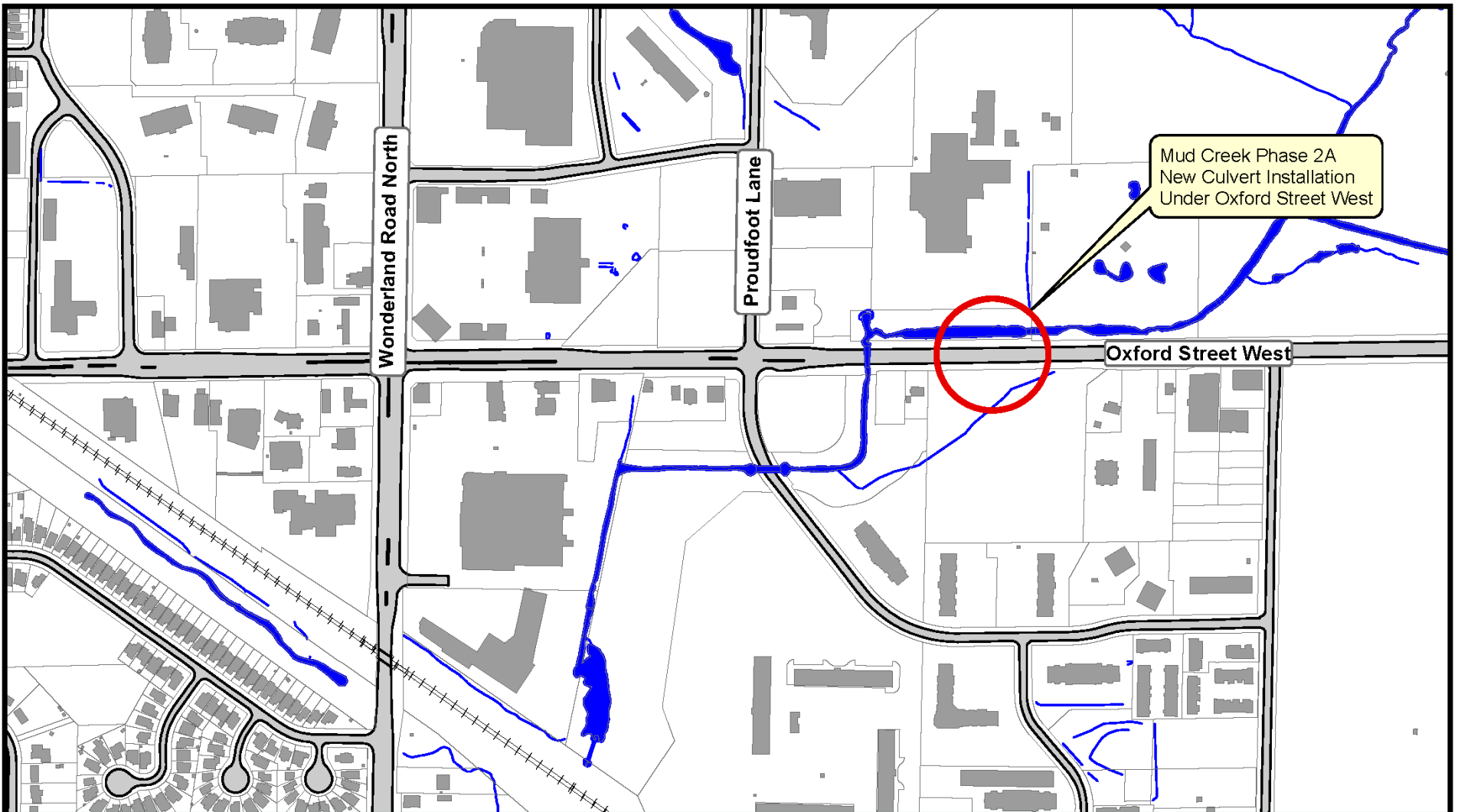


Legend

- Hyde Park Assignment 'A' - Phase 1
- Hyde Park Assignment 'B' - Phase 1
- Urban Growth Boundary
- Land Parcel
- Road
- Railroad
- Water Body



London
CANADA



PROJECT LOCATION MAP : MUD CREEK PHASE 2A





1:6,000

0 0.1 0.2 0.4

Kilometers

Legend

 Mud Creek Phase 2A
New Culvert Installation

 Water Body

 Land Parcel

 Road

 Railroad



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