



March 8, 2023  
File: 161413851

**Attention: Mr. Paul Di Losa**  
Corporation of the City of London  
City of London  
300 Dufferin Avenue  
London, ON N6A 4L9

Dear Mr. Di Losa,

**Reference: Site Plan Application, 530 Oxford Street West, London, Ontario**

This letter is written to support the commercial and residential development at 530 Oxford Street West in the City of London in providing confirmation that the existing sanitary servicing will meet the demands of the development.

The site is approximately 5.4 hectares (ha) in size and is located on the Southeast corner of Oxford Street West and Wonderland Road.

#### **EXISTING SANITARY SEWAGE CONTRIBUTION**

An analysis of the existing commercial developments on the proposed site lands as well as the adjacent lands to the south was executed to obtain a conservative estimate of the contributing population to the existing 1050mm sanitary trunk sewer which services the aforementioned lands via a 150mm sewer entering the site at the southeast boundary. Using OBC 8.2.1.3.B a population was calculated for the existing shopping mall on site as well as the adjacent site. See table 3 below for a population summary.

Table 1 outlines what is currently flowing into the existing 1050mm sanitary trunk sewer from the proposed development lands as well as the southern commercial property.

**Table 1 - Existing Sanitary Contribution from Site and adjacent commercial to the south to the existing 1050mm Sanitary trunk sewer**

<b>HECTARES</b>	<b>TOTAL POP.</b>	<b>PEAKING FACTOR</b>	<b>INFILT L / s</b>	<b>SEWAGE L / s</b>	<b>TOTAL L / s</b>
7.83	391	4.03	0.78	5.01	5.79

#### **PROPOSED SANITARY SERVICING SEWAGE FLOW**

The proposed development consists of 7 commercial units totaling 1703m<sup>2</sup> and two thirty-two storey residential towers with approximately 204 units each with 233.1m<sup>2</sup> of street fronting

**Design with community in mind**



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commercial space as per the conceptual site plan completed by Stantec dated September 9, 2022. City of London standards and the Ontario Building Code (OBC) Table 8.2.1.3B were used to determine population and demand requirements. The number of employees per 8-hour shift and number of water closets have been conservatively estimated based on similar venues to the proposed.

**Table 2 - Population Summary**

Description	Floor Area (m <sup>2</sup> )	Sewage Design Flow Reference	Rate	# of water closets	# of employees /8 hour shift	Daily Flow (L/day)	Equivalent Pop. (based on C.o.L. flow 230 L/cap/day)
unit 1 Commercial Space	212	OBC 8.2.1.3.B - food service operation	190 L/day/9.25m <sup>2</sup> + 75/employee + 950L/day/ water closet	2	6	6705	29
unit 2 Commercial Space	149	OBC 8.2.1.3.B - food service operation	191 L/day/9.25m <sup>2</sup> + 75/employee + 950L/day/ water closet	2	6	5411	24
unit 3 Commercial Space	216	OBC 8.2.1.3.B - food service operation	192 L/day/9.25m <sup>2</sup> + 75/employee + 950L/day/ water closet	2	6	6787	30
unit 4 Commercial Space	213	OBC 8.2.1.3.B - stores	5L/day/1m <sup>2</sup> + 1230L/day/ water closet	2	-	3525	15
Existing Commercial mall	12234	OBC 8.2.1.3.B - Shopping Centre	5L/day/1m <sup>2</sup>			61170	266
Proposed unit 5-8	913	OBC 8.2.1.3.B - stores	5L/day/1m <sup>2</sup> + 1230L/day/ water closet	8	-	14405	63
Proposed 32 Storey 204 Unit Apt Bld 3 (Residential)	-	City of London Design Specifications & Requirements Manual	1.6 people/unit				326
Bld 3 Commercial Space	233.1	OBC 8.2.1.3.B - stores	5L/day/1m <sup>2</sup> + 1230L/day/ water closet	4	-	6086	26



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Proposed 32 Storey 204 Unit Apt Bld 4 (Residential)	-	City of London Design Specifications & Requirements Manual	1.6 people/unit				326
Bld 4 Commercial Space	236.4	OBC 8.2.1.3.B - stores	5L/day/1m <sup>2</sup> + 1230L/day/ water closet	4	-	6102	27
Existing adjacent Commercial mall to the south	5751	OBC 8.2.1.3.B - Shopping Centre	5L/day/1m <sup>2</sup>			28755	125
						<b>Total</b>	<b>1257</b>

The above table shows a total population of 1257 for the proposed development along with the adjacent property to the south which is an increase of 871 from the existing conditions. In terms of addressing municipal sewer capacity, the current City of London standard per capita flow of 230 L/day was used to determine total flow from the site. Flows from proposed site are shown in Table 3 below.

**Table 3 – Proposed Sanitary Contribution Capacity for Site**

HECTARES	TOTAL POP.	PEAKING FACTOR	INFILT L / s	SEWAGE L / s	TOTAL L / s
<b>7.83</b>	<b>1257</b>	<b>3.73</b>	<b>0.78</b>	<b>14.94</b>	<b>15.72</b>

**DOWNSTREAM SANITARY SEWER CAPACITY REVIEW**

Based on the as-built drawings provided from the City, the current 1050mm sanitary trunk sewers capacity at its critical run having 0.11% slope is shown in table 4 below. The on site sanitary sewer is currently 150mm in size and will require upgrading to a 200mm sewer to service the proposed development as shown in the attached figure and table 5 below showing a comparison of existing and proposed internal sewers at their critical runs (lowest slope at the downstream portion).



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**Table 4 – Existing Sanitary Trunk Sewer Critical Run Capacity**

PIPE SIZE	n	SLOPE (%)	CAP (L/s)	VELOCITY (m/s)
1050mm	0.013	0.11	905.65	1.05

**Table 5 – Existing and Proposed internal sewer Capacity**

CONDITIONS	PIPE SIZE	n	SLOPE (%)	CAP (L/s)	VELOCITY (m/s)
EXISTING	150	0.013	0.70	12.74	0.72
PROPOSED	200	0.013	0.45	22.00	0.70

In dry weather conditions, the proposed redevelopment will increase flow into the sewer from 5.79 L/s to 15.72L/s, a change of 9.93L/s, which in terms of magnitude is only 1.1% of the total 905.65 L/s capacity of the existing sewer.

**CONCLUSION**

This report was prepared to provide justification that the existing downstream sewers have sufficient capacity for the development of 530 Oxford Street West.

We trust this meets with your requirements. Should you have any question, or require further information, please contact the undersigned.

Regards,

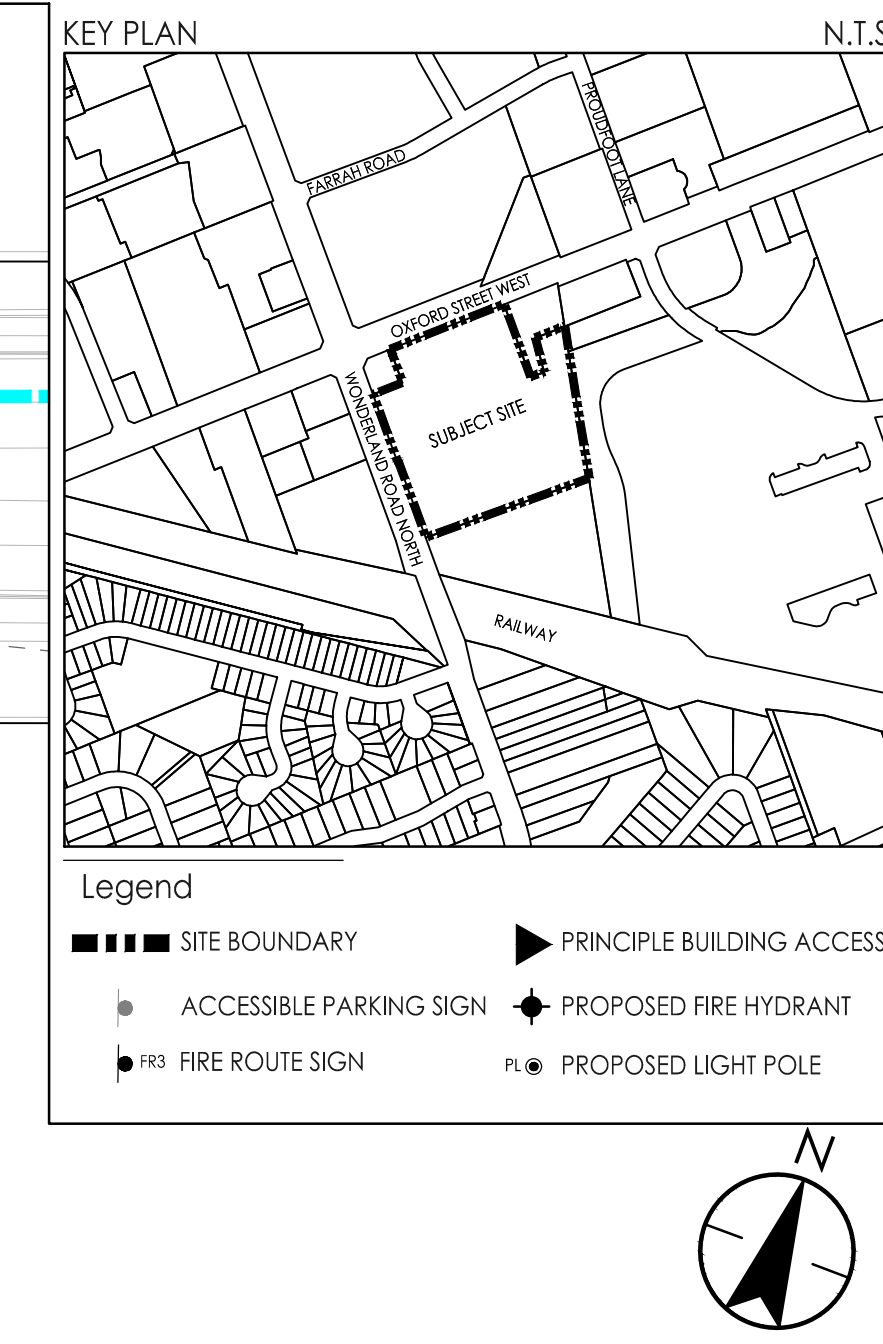
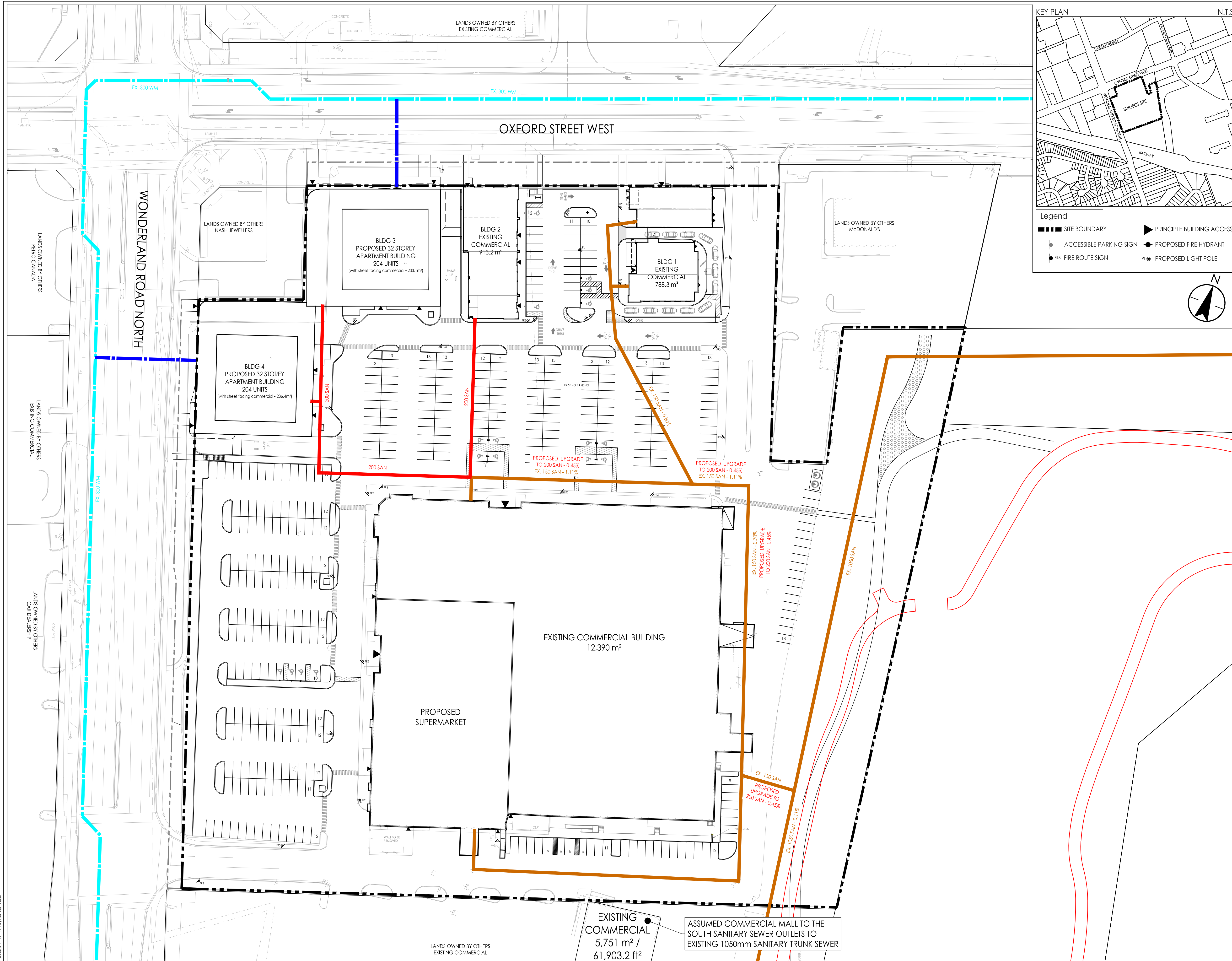
**STANTEC CONSULTING LTD.**

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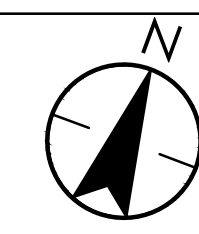
Attachment: Servicing figure for proposed development



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- Legend
- SITE BOUNDARY
  - ▲ PRINCIPLE BUILDING ACCESS
  - ACCESSIBLE PARKING SIGN
  - ◆ PROPOSED FIRE HYDRANT
  - FR3 FIRE ROUTE SIGN
  - FL ● PROPOSED LIGHT POLE



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Client/Project  
YORK DEVELOPMENTS

530 OXFORD STREET WEST

London, ON Canada

Title  
SERVICING FIGURE

Project No. 161413851	Scale 1:600
Drawing No. 1	Sheet 1 of 1
	Revision