

30 November 2023

SBM-23-0700

City of London
Planning and Development
300 Dufferin Ave, PO Box 5035
London, ON N6A 4L9

Attn: Michaella Hynes
Planner I, Planning Implementation

Re: Sanitary Servicing Feasibility Study
Proposed 6-Storey Apartment Buildings (Blocks 244/245)
6555-6595 Royal Magnolia Ave, London, ON

1. INTRODUCTION

This Sanitary Servicing Feasibility Study (Study) has been prepared by Strik, Baldinelli, Moniz Ltd. (SBM) for W3 - Lambeth Farms Inc. to address the sanitary study requirement included in the City of London (City) Record of Pre-Application Consultation dated June 27, 2023, for the two (2) proposed 6-storey apartment buildings (Blocks 244/245) at 6555-6595 Royal Magnolia Ave, London, ON. The total site area (combined block 244 & 245) is approximately 1.106 ha in area.

The site abuts the Royal Magnolia Ave Right-of-Way (ROW) to the northwest, Campbell Street North ROW to the southwest, Heathwood Avenue to the southeast, and Big Leaf Trail ROW to the northeast corner. See the proposed site plan by Patrick David Trottier Architect dated June 2nd, 2023, enclosed with this Study.

Design requirements have been based on the City of London Design Specifications & Requirements Manual (DS&RM), revised March 2022.

2. SANITARY SERVICING

Based on the Approved Drawing W3 Subdivision – Phase 1 General Servicing (Sheet 6), approved April 22, 2022, appended to this Study, there is an existing 300mm diameter sanitary sewer in the Royal Magnolia Avenue ROW and an existing 200mm diameter sanitary stub at 2.0% for each Block. The Approved Drawings W3 Subdivision – Phase 1 Interim Sanitary Design Sheets (Sheet 8&9) approved June 27, 2022, have been used to calculate the sanitary flows for the proposed site. For this design, only the 118 Single Family Dwellings were included for the FUT ULT1 phase, in accordance with correspondence with the City (see email memo attached for further clarification).

The proposed development has a population of about 336 people (88 units per block at high density residential density of 1.6 ppl/unit) and a maximum population of 27 people per commercial unit. Per the City of London DS&RM (2022), a per capita flow residential flow of 230 L/cap/day was applied. The peak design flow was calculated by multiplying the per capita flow by the development uncertainty factor of 1.1, and the Harmon peaking factor “M”. The peak sewage flow plus the infiltration flow (allowance of 8640 L/day/ha) results in a peak design flow of 2.11 L/s for each Block (Blocks 244 and 245).

The Sanitary Sewer Design Sheet appended to this Study shows that the existing sanitary service stubs (200mm diameter at 2.0%) each have capacities of 46.41 L/s, which is sufficient to convey the flows generated by the proposed development.

As per the Record of Pre-Application Consultation, a sanitary sewer capacity analysis was undertaken to evaluate the capacity of downstream sanitary sewers due to the intensification proposed on the subject site. The subdivision design

allocated a total of 200 people to the subject site (with a total combined flow of 2.60 L/s for the two blocks), whereas 336 people are proposed (with a total combined flow of 4.22 L/s for both sites) resulting in a net increase of 0.98 L/s. The analysis also considered the intensification proposed on blocks 244 and 245 (under separate application) and as shown in the attached sanitary design sheet there is sufficient capacity under the interim conditions.

The subdivision's Sanitary Sewer Design Sheet was recreated accounting for the above noted increase in population. The study area terminates at the upstream end of the 750mm trunk sewer within the Campbell St N ROW. All sanitary sewers within the study area were found to flow under maximum capacity, with the highest percentage full (95%) found in the 250mm sewer at 0.25% between manholes S48 and S49 (Area 149 – SL446 and SL443 using city structure ID's), under the interim condition scenario per requirements provided to SBM by the City.

Based on the above, the City's existing sanitary infrastructure appears to have sufficient capacity to accommodate the proposed development of the 1.106 ha subject site located at 6555-6595 Royal Magnolia Ave, London, ON. Detailed design will take place at the time of the Site Plan Approval application.

3. LIMITATIONS

This Study was prepared by SBM for W3- Lambeth Farms Inc. and the City of London. Use of this Study by any third party, or any reliance upon its findings, is solely the responsibility of that party. SBM accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions undertaken as a result of this report. Third party use of this report, without the express written consent of the Consultant, denies any claims, whether in contract, tort, and/or any other cause of action in law, against the Consultant.

All findings and conclusions presented in this Study are based on site conditions as they appeared in the information presented to SBM and related to in this document. This report is not intended to be exhaustive in scope, or to imply a risk-free development. It should be recognized that the passage of time may alter the opinions, conclusions, and recommendations provided herein, as well as any changes in the layout of the development.

The design was limited to the documents referenced herein and SBM accepts no responsibility for the accuracy of the information provided by others. All designs and recommendations presented in this Study are based on the information available at the time of the review.

This document is deemed to be the intellectual property of SBM in accordance with Canadian copyright law.

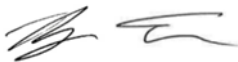
4. CLOSURE

We trust this Study meets your satisfaction. Should you have any questions or require further information, please do not hesitate to contact us.

Respectfully submitted,

Strik, Baldinelli, Moniz Ltd.

Planning • Civil • Structural • Mechanical • Electrical



Ryan Frouws, P.Eng.
Civil Eng III, Project Lead



Mariana Rodriguez Chiquiza
Civil Intern

Encl: Email memo with the City of London
Site Plan by Patrick David Trottier Architect dated June 2, 2023
Approved Drawings W3 Subdivision – Phase 1 Sanitary Drainage Area Plan (Sheet 5 of 48) approved June 27, 2022
Approved Drawings W3 Subdivision – Phase 1 Sanitary Drainage Area Plan (Sheet 6 of 48) approved June 27, 2022
Approved Drawings W3 Subdivision – Phase 1 Interim Sanitary Design Sheet (Sheet 8 of 48) approved June 27, 2022
Approved Drawings W3 Subdivision – Phase 1 Interim Sanitary Design Sheet (Sheet 9 of 48) approved June 27, 2022
Sanitary Service Design Sheet by SBM dated November 28, 2023

Ryan Frouws

From: Toner, Cailean <ctoner@london.ca>
Sent: Monday, November 27, 2023 3:15 PM
To: Ryan Frouws; Mariana Rodriguez
Cc: Di Losa, Paul; Salama, Mohamed; Masschelein, Blair; Ben Hyland; Mariana Rodriguez; Nick Dyjach; Jamie Robertson
Subject: RE: SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave
Attachments: T17503-PH1- Ultimate DS.pdf

Good afternoon Ryan,

Confirm – the school block will not be included under the interim conditions and will be held until the ultimate outlet is available and flows have been redirected, consistent with Blairs email – apologies for any confusion. Please include the 118 SF dwellings and demonstrate capacity under the interim conditions. SED will not be asking for capacity to be demonstrated under the ultimate design sheet.

I have attached the ultimate design sheet based on the Phase 1 accepted drawings for W3 Subdivision.

Thanks,



Cailean Toner
Engineering Technologist II
Sewer Engineering Division
Environment & Infrastructure

300 Dufferin Ave., P.O. Box 5035, London ON, N6A 4L9
P: 519.661.CITY x 7155
ctoner@london.ca | www.london.ca

From: Ryan Frouws <rfrouws@sbmltd.ca>
Sent: Wednesday, November 22, 2023 10:16 AM
To: Toner, Cailean <ctoner@london.ca>; Mariana Rodriguez <mrodriguez@sbmltd.ca>
Cc: Di Losa, Paul <pdilosa@london.ca>; Salama, Mohamed <msalama@london.ca>; Masschelein, Blair <bmassche@London.ca>; Ben Hyland <bhyland@sbmltd.ca>; Mariana Rodriguez <mrodriguez@sbmltd.ca>; Nick Dyjach <ndyjach@sbmltd.ca>; Jamie Robertson <jrobertson@sbmltd.ca>
Subject: [EXTERNAL] RE: SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave

Good Morning Cailean,

We are updating the sanitary design sheet and we wanted to confirm that we have the design sheet (under interim conditions) shown correctly as there is some conflicting emails. Can you confirm that the school block is to be connected only AFTER the Royal Magnolia and Campbel sanitary sewers are redirected per Blair's email on November 19th (snippet shown below).

RE: 39T-17503 W3 Phase2- 4th Submission-Deemed Complete



Masschelein, Blair <bmassche@London.ca>
To: Salama, Mohamed
Cc: Toner, Cailean; Salama, Mohamed; Aitken, Mike; Davenport, Matt; Abushehade, Ismail

Reply Reply All Forward Thu 10/19/2023

SED comments for W3 Phase 2, 4th submission

- Sheet 4 Population calculation table shows the school as if it were part of this phase. Add a note to the table to outline the flows from the school will come later when Royal Magnolia and Campbell sanit sewers are redirected.
- Sheet 4 School block to be hatched as well to avoid confusion as to what flows are permitted in the interim condition.
- Phase 1 drawings sheet 6 and 8 Supersede the accepted submission drawings to remove area A206 to avoid confusion



Blair Masschelein, C.E.T.
Senior Technologist, Sewer Engineering
City of London

300 Dufferin Ave., P.O. Box 5035, London ON, N6A 4L9
P: 519.661.CITY(2489) x 4849 | Cell: 226.926.2671 | Fax: 519.661.4562
bmassche@london.ca | www.london.ca

"Building A Sustainable City"

Can you also advise when the ultimate sanitary design sheet will be determined or if that is available?

Regards,

Ryan Frouws, P. Eng

Civil Eng III, Project Lead
P: 519-471-6667 EXT 173
E: rfrouws@sbmltd.ca



From: Toner, Cailean <ctoner@london.ca>

Sent: Thursday, November 16, 2023 2:53 PM

To: Mariana Rodriguez <mrodriguez@sbmltd.ca>

Cc: Di Losa, Paul <pdilosa@london.ca>; Salama, Mohamed <msalama@london.ca>; Masschelein, Blair <bmassche@London.ca>

Subject: RE: SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave

Hi Mariana,

Based on the most recent submission (4th submission) for 39T-17503 Phase 2 which has not been accepted to date, there is 115 SF dwelling and a potential school block permitted to connect under the interim conditions.

The 115SF dwellings and the future school block are to be included to the east of SL470 on Royal Magnolia under the interim servicing conditions.

Regards,



Cailean Toner
Engineering Technologist II
Sewer Engineering Division
Environment & Infrastructure

300 Dufferin Ave., P.O. Box 5035, London ON, N6A 4L9
P: 519.661.CITY x 7155
ctoner@london.ca | www.london.ca

From: Mariana Rodriguez <mrodriguez@sbmltd.ca>
Sent: Wednesday, November 15, 2023 2:53 PM
To: Dilosa, Paul <pdilosa@london.ca>
Cc: Nick Dyjach <ndyjach@sbmltd.ca>; Ryan Frouws <rfrouws@sbmltd.ca>; Ben Hyland <bhyland@sbmltd.ca>; Rawan Safieddine <RSafieddine@sbmltd.ca>
Subject: [EXTERNAL] RE: SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave

Hi Paul,

Wanted to follow up from last week's email. If you can please clarify where does the 115 SF dwellings fit into the design sheet?

Thank You,

Mariana Rodriguez
Civil Intern
P: 519-471-6667
E: mrodriguez@sbmltd.ca



From: Ben Hyland <bhyland@sbmltd.ca>
Sent: Thursday, November 9, 2023 1:42 PM
To: Di Losa, Paul <pdilosa@london.ca>
Cc: Nick Dyjach <ndyjach@sbmltd.ca>; Ryan Frouws <rfrouws@sbmltd.ca>; Mariana Rodriguez <mrodriguez@sbmltd.ca>
Subject: RE: SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave

Hi Paul,

Thanks for sending this through. There is some mention of 115 SF dwellings – we’re trying to determine where these fit into the design sheet. Can that be clarified?

Thanks,
Ben

Please note my typical working hours are 8am-3pm, Monday-Friday.

Ben Hyland, P.Eng., PMP

Civil Project & Team Lead, Eng III

Associate I

P: 519-471-6667 x127

E: bhyland@sbmltd.ca



From: Di Losa, Paul <pdilosa@london.ca>

Sent: Wednesday, November 8, 2023 1:50 PM

To: Ben Hyland <bhyland@sbmltd.ca>

Cc: Nick Dyjach <ndyjach@sbmltd.ca>; Ryan Frouws <rfrouws@sbmltd.ca>; Mariana Rodriguez <mrodriguez@sbmltd.ca>

Subject: RE: SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave

Good afternoon Ben,

Please see the attached response from Sewer Engineering. From what I gather, It appears there may be additional capacity in the Campbell street sewers to accommodate this development however, SBM’s report will need to be updated to reflect the additional intensification in the area. Let me know if there is anything else you require further clarification on.

Regards,



Paul Di Losa, C.Tech.

Senior Technologist

Planning and Development

City of London

300 Dufferin Ave. London ON, N6A 4L9

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pdilosa@london.ca | www.london.ca

The City of London is situated on the traditional lands of the Anishinaabek (AUh-nish-in-ah-bek), Haudenosaunee (Ho-den-no-show-nee), Lūnaapéewak (Len-ah-pay-wuk) and Attawandaron (Add-a-won-da-run). We honour and respect the history,

languages and culture of the diverse Indigenous people who call this territory home. The City of London is currently home to many First Nations, Metis and Inuit people today. As representatives of the people of the City of London, we are grateful to have the opportunity to work and live in this territory.

From: Ben Hyland <bhyland@sbmltd.ca>

Sent: Monday, October 30, 2023 3:57 PM

To: Di Losa, Paul <pdilosa@london.ca>

Cc: Nick Dyjach <ndyjach@sbmltd.ca>; Ryan Frouws <rfrouws@sbmltd.ca>; Mariana Rodriguez <mrodriguez@sbmltd.ca>

Subject: [EXTERNAL] SBM-23-0700 W3 Lambeth Farms Inc - 6595-6555 Royal Magnolia Ave

Hi Paul,

We're putting our finishing touches on the sanitary report for this application. We noticed the snip below from the Record of Pre-consultation – accordingly, find attached our draft sanitary report, and let us know once you've had a chance to review so that we can finalize it for formal submission.

Thanks,

Ben

Technical Studies with Subject Matter Experts

- Sanitary Servicing Brief
 - Contact – Paul Di Losa, Senior Engineering Technologist (pdilosa@london.ca)

*Subject Matter Experts Meeting – Where Technical Studies are identified, the applicant will contact the subject matter experts (identified) to review the study for quality and completeness prior to submitting their application.

Please note my typical working hours are 8am-3pm, Monday-Friday.

Ben Hyland, P.Eng., PMP

Civil Project & Team Lead, Eng III

Associate I

P: 519-471-6667 x127

E: bhyland@sbmltd.ca



PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL



LEGAL INFORMATION

PART OF
**LOTS 73 CONCESSION NORTH OF THE
 EAST BRANCH OF TALBOT ROAD**
 (GEOGRAPHIC TOWNSHIP OF WESTMINSTER)
 IN THE
CITY OF LONDON
 REGIONAL MUNICIPALITY OF MIDDLESEX



LIST OF DRAWINGS

SHEET SP1	SITE PLAN & ZONING CHART
SHEET SP2	DETAILS

REFERENCE DOCUMENTS:

- LEGAL INFO OBTAINED PLAN OF SUBDIVISION PROVIDED BY STANTEC GEOMATICS LTD., DWGS DATED FEB. 16, 2022

ZONING DATA CHART

GROSS LOT AREA:	11,060.0m ²	BUILDING AREA:	3377.8m ²
ASPHALT:	2486.8m ²	LANDSCAPE AREA:	5060.0m ²

No. ITEM	REQUIRED	PROPOSED
1 ZONES	RESIDENTIAL R9-7	
2 LOT AREA (m ² MIN.)	1000	11,060.0m ²
3 LOT FRONTAGE (m MIN.)	30	134.8m
7 FRONT YARD SETBACK	6.0m	9.0m
7 EXTERIOR SIDE YARD SETBACK	6.0m	9.0m
8 INTERIOR SIDE YARD SETBACK	9.0m	N/A
10 REAR YARD SETBACK	9.0m	20.31m
11 LOT COVERAGE (%)	40	30.5
11 LANDSCAPE OPEN SPACE (% MIN.)	30	45.75
12 HEIGHT (MAXIMUM)	N/A	22.5m
12 DENSITY (UNIT/ha MAX.)	150	162*

*ZONING DEFICIENCY

PARKING DATA CHART

OFF-STREET VEHICLE PARKING			
No. ITEM	REQUIREMENT	REQUIRED	PROPOSED
1 RESIDENTIAL	0.5/UNIT (176 UNITS)	88 SPACES	274 SPACES
2 TIER 1	1/20m ² (99.6m ²)	5 SPACES	
3 B.F. PARKING	2+2% OF TOTAL REQUIRED PARKING (294 SPACES)	8 SPACES	8 SPACES (4 TYPE A, 4 TYPE B)
4 TOTAL	SEE ABOVE	93 SPACES	274 SPACES
BICYCLE PARKING			
No. ITEM	REQUIREMENT	REQUIRED	PROPOSED
1 TIER 1	3+0.3/100m ² (99.6m ²)	4 SPACES	5 SPACES
2 RESIDENTIAL (SHORT TERM)	0.1/UNIT (176 UNITS)	18 SPACES	22 SPACES
3 RESIDENTIAL (LONG TERM)	0.9/UNIT (176 UNITS)	158 SPACES	202 SPACES

*ALL PURPOSED VEHICLE & BICYCLE PARKING ASSUMED TO BE SPLIT EVENLY BTWN BLDGS.

LEGEND

SYMBOL:	DESCRIPTION:
	PRINCIPAL BARRIER FREE ENTRANCE & FIRE FIGHTER ACCESS ENTRANCE
	SECONDARY BARRIER FREE ENTRANCE
	EMERGENCY EXIT
	PROPOSED SIGNAGE: REFER TO DETAILS FOR MORE INFO. ALL SIGNAGE TO BE ATTACHED TO ADJACENT WALL OR CURB NO SIGN SHALL IMPEDE THE SIDEWALK CLEAR WIDTHS
	PROPOSED BUILDING
	PROPOSED SNOW STORAGE
	PROPOSED BARRIER FREE S/W ACCESS CURB RAMP, REFER TO DETAILS FOR ADDITIONAL INFO.
	FIRE DEPARTMENT CONNECTION
	PROPOSED FIRE HYDRANT

#	ISSUED FOR	DATE
01	ISSUED FOR CLIENT REVIEW	2023.05.01
02	ISSUED FOR CLIENT REVIEW	2023.05.24
03	ISSUED FOR SPC	2023.06.02
04	ISSUED FOR ZBA	2023.12.06
05	RE-ISSUED FOR ZBA	2024.01.15

PROJECT:
**6 STOREY APARTMENT BLDGS
 (88 UNITS EA.)
 6555-6595 ROYAL MAGNOLIA
 AVE. LONDON, ON**

CLIENT:
 *TENDER INQUIRIES CONTACT
 Name: York Developments c/o
 Address: 303 Richmond St. #201, London, ON
 Phone: 519-433-7587
 E-mail: info@yorkdev.ca



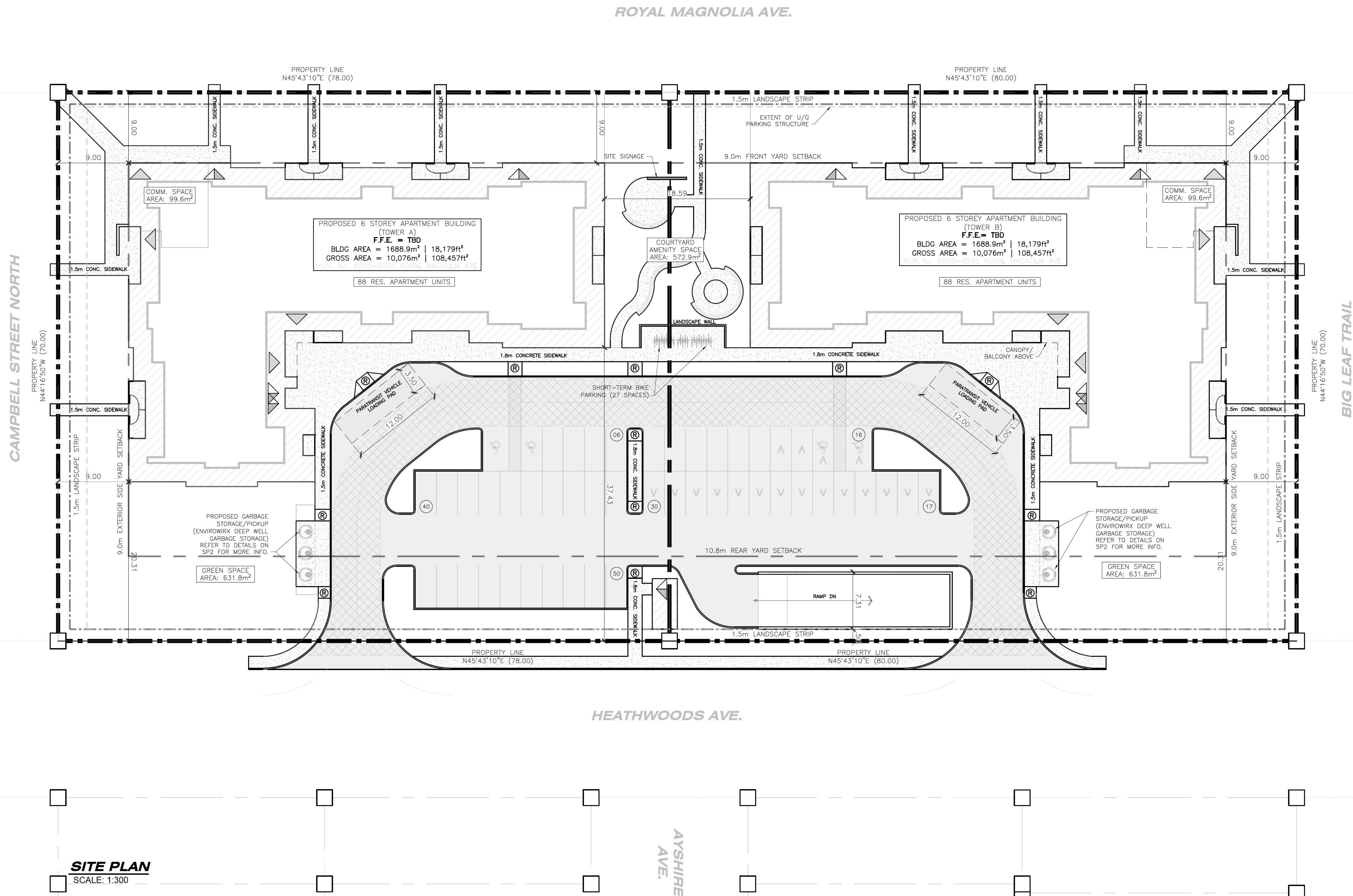
DRAWING DESCRIPTION
SITE PLAN & ZONING CHART

PROJECT #XX-XX P.D.T.A.
 SBM-23-0700
 SCALE: AS INDICATED
 REVIEWED: P.D.T.A.
 DRAWN: OMP DWG #

SP1

DISCLAIMER:
 1. THIS IS A COMPILED PLAN AND SHOULD NOT BE CONSIDERED A PLAN OF SURVEY.
 2. CONCEPT PLAN IS PRELIMINARY AND HAS NOT BEEN REVIEWED BY THE CITY.

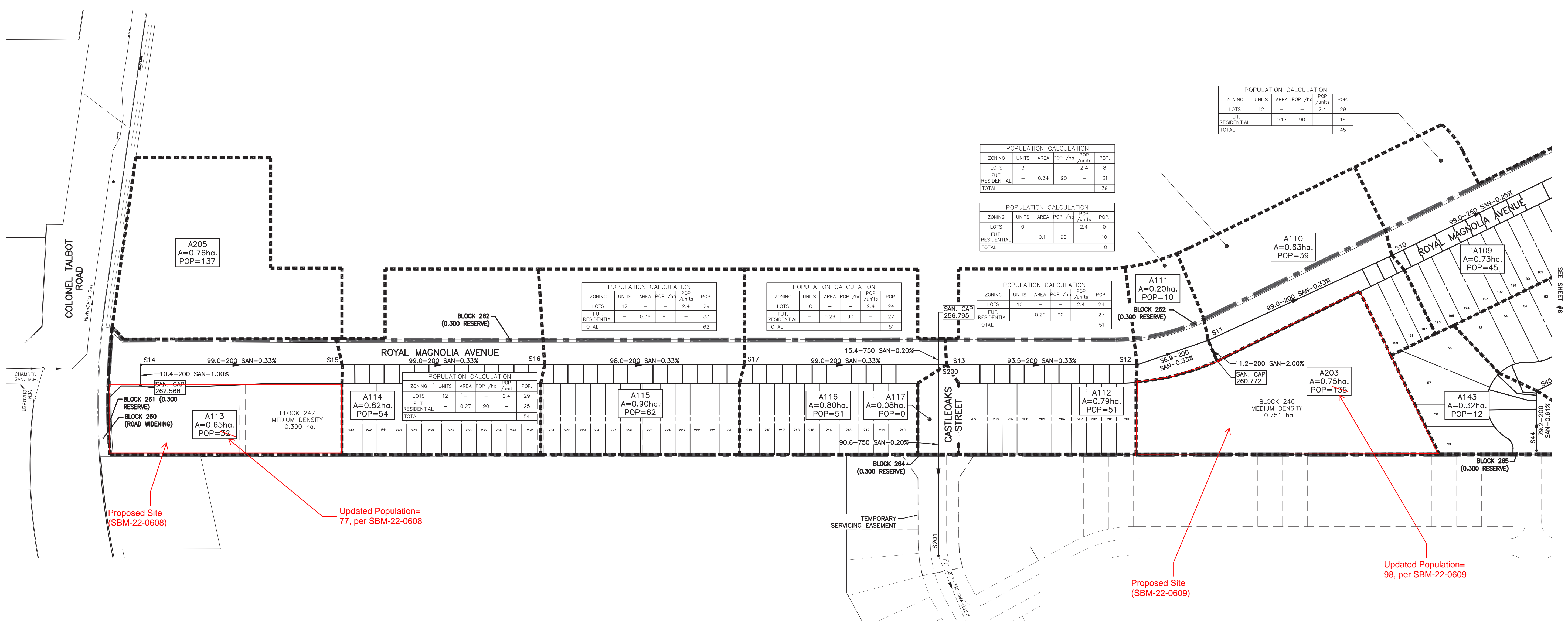
**CONCEPTUAL DESIGN
 FOR ZONING APPROVAL
 PURPOSES ONLY**



SITE PLAN
 SCALE: 1:300

LEGEND

- LIMIT OF SUBDIVISION
- DRAINAGE AREA
- EX. SANITARY SEWER
- PROPOSED SANITARY SEWER
- FUTURE SANITARY SEWER
- S2 PROPOSED MANHOLE
- EX. MH EX. MANHOLE
- MH B.O. FUTURE MANHOLE
- B.O. BY OTHERS
- 151 DENOTES REGISTERED PLAN LOT/BLOCK NUMBERS
- 4 DENOTES PROPOSED REGISTERED PLAN LOT/BLOCK NUMBERS



POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	12	-	-	2.4	29
FUT. RESIDENTIAL	-	0.17	90	-	16
TOTAL					45

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	3	-	-	2.4	8
FUT. RESIDENTIAL	-	0.34	90	-	31
TOTAL					39

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	0	-	-	2.4	0
FUT. RESIDENTIAL	-	0.11	90	-	10
TOTAL					10

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	12	-	-	2.4	29
FUT. RESIDENTIAL	-	0.36	90	-	33
TOTAL					62

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	10	-	-	2.4	24
FUT. RESIDENTIAL	-	0.29	90	-	27
TOTAL					51

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	10	-	-	2.4	24
FUT. RESIDENTIAL	-	0.29	90	-	27
TOTAL					51

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	12	-	-	2.4	29
FUT. RESIDENTIAL	-	0.27	90	-	25
TOTAL					54

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	12	-	-	2.4	29
FUT. RESIDENTIAL	-	0.27	90	-	25
TOTAL					54

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	10	-	-	2.4	24
FUT. RESIDENTIAL	-	0.29	90	-	27
TOTAL					51

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /hd	POP /units	POP.
LOTS	10	-	-	2.4	24
FUT. RESIDENTIAL	-	0.29	90	-	27
TOTAL					51

Proposed Site (SBM-22-0608) Updated Population= 77, per SBM-22-0608

Proposed Site (SBM-22-0609)

Updated Population= 98, per SBM-22-0609

V:\01614\1614_13227\Design\Drawings\DWG\Sheet_051.dwg
 2022-04-22 10:00 AM
 161413227_C-SD.dwg

EXISTING SERVICES	DRAWING #, SOURCE	DATE	CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
					DESIGN JAC	2.	AS PER 2ND SUBMISSION COMMENTS	MARCH 2021	STANTEC
					DRAWN BY JAC	3.	COI COMMENTS - 03/25/2021	MARCH 2021	STANTEC
					CHECKED DWH	4.	PARK SERVICING REVISIONS	MAY 2021	STANTEC
					APPROVED DWH	5.	ISSUED FOR TENDER	JUNE 2021	STANTEC
					DATE NOV 2019	6.	AS PER 3RD SUBMISSION COMMENTS	JULY 2021	STANTEC
						7.	AS PER 4TH SUBMISSION COMMENTS	AUG 2021	STANTEC
						8.	AS PER 5TH SUBMISSION COMMENTS	SEPT 2021	STANTEC
						9.	ISSUED FOR ACCEPTANCE	OCT 2021	STANTEC
						10.	REVISED DESIGN SHEETS	FEB 2022	STANTEC
						11.	REVISED LOT NUMBERS	APRIL 2022	STANTEC

600 - 171 Queens Avenue
London, ON, N6A 3J7
www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions are to be reported to Stantec without delay.
The Copyright in all design and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

ENGINEER'S STAMP
D. W. HERN
100077071
PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON
DEVELOPMENT SERVICES
ACCEPTED
06/27/2022
SUBJECT TO THE CONDITION(S) IDENTIFIED IN THE ACCEPTANCE LETTER OF THE SAME DATE.

SCALE
HORZ - 1 : 1000
10 0 20m

TITLE
W3 SUBDIVISION - PHASE 1
W3 FARMS INC.
SANITARY DRAINAGE AREA PLAN
PART 1

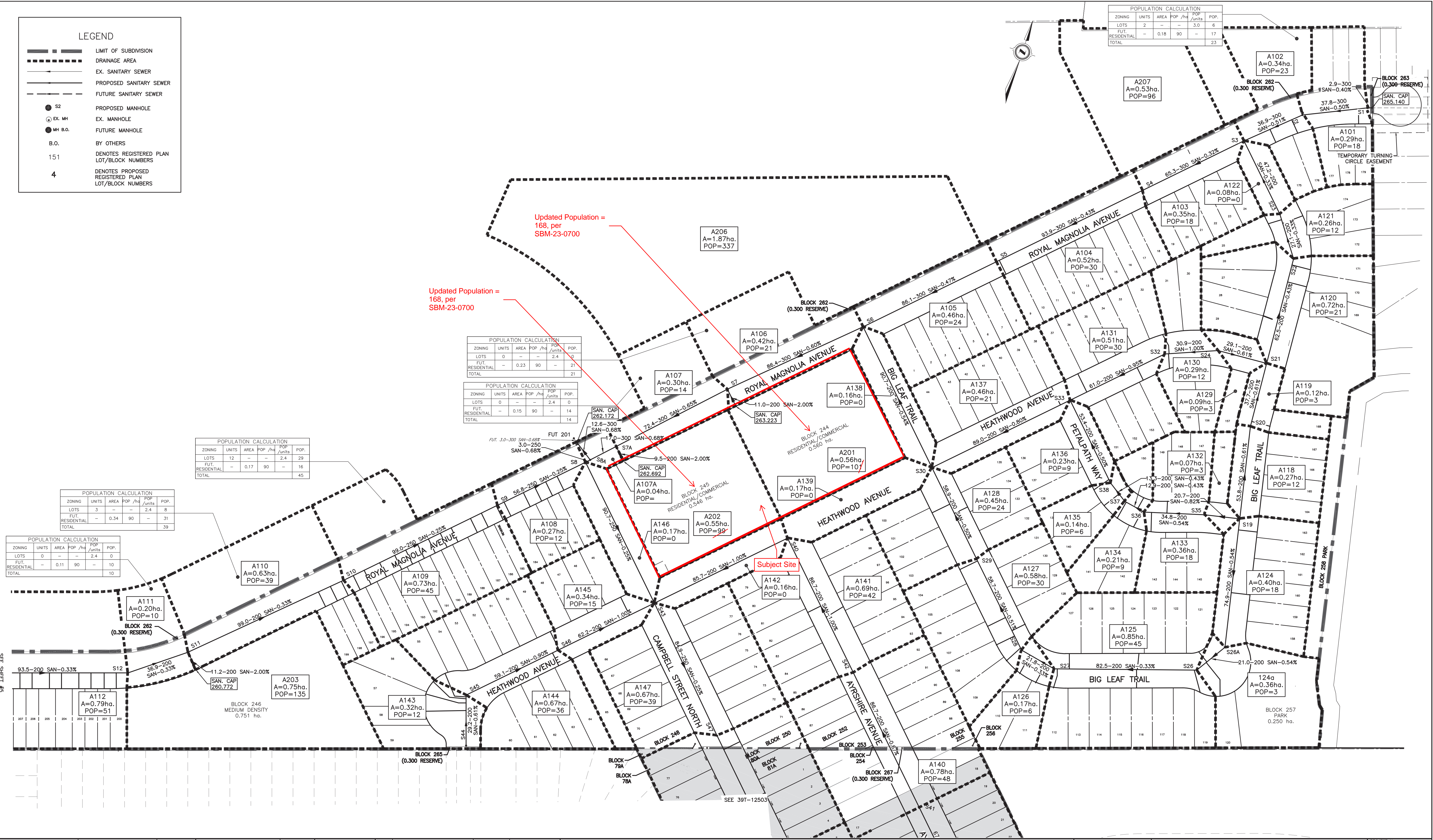
PROJECT No. **161413227**
SHEET No. **5 of 48**
PLAN FILE No.

LEGEND

- LIMIT OF SUBDIVISION
- DRAINAGE AREA
- EX. SANITARY SEWER
- PROPOSED SANITARY SEWER
- FUTURE SANITARY SEWER
- S2 PROPOSED MANHOLE
- EX. MH EX. MANHOLE
- MH B.O. FUTURE MANHOLE
- BY OTHERS
- 151 DENOTES REGISTERED PLAN LOT/BLOCK NUMBERS
- 4 DENOTES PROPOSED REGISTERED PLAN LOT/BLOCK NUMBERS

POPULATION CALCULATION

ZONING	UNITS	AREA	POP /ha	POP /units	POP.
LOTS	2	-	-	3.0	6
FUT. RESIDENTIAL	-	0.18	90	-	17
TOTAL	-	-	-	-	23



EXISTING SERVICES	DRAWING #, SOURCE	DATE	CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
					DESIGN	JAC	2. AS PER 2ND SUBMISSION COMMENTS	MARCH 2021	STANTEC
					DRAWN BY	JAC	3. COI COMMENTS - 03/25/2021	MARCH 2021	STANTEC
					CHECKED	DWH	4. PARK SERVICES REVISIONS	MAY 2021	STANTEC
					APPROVED	DWH	5. ISSUED FOR TENDER	JUNE 2021	STANTEC
					DATE	NOV 2019	6. AS PER 3RD SUBMISSION COMMENTS	JULY 2021	STANTEC
							7. AS PER 4TH SUBMISSION COMMENTS	AUG 2021	STANTEC
							8. AS PER 5TH SUBMISSION COMMENTS	SEPT 2021	STANTEC
							9. ISSUED FOR ACCEPTANCE	OCT 2021	STANTEC
							10. REVISED DESIGN SHEETS	FEB 2022	STANTEC
							11. REVISED LOT NUMBERS	APRIL 2022	STANTEC

600 - 171 Queens Avenue
London, ON, N6A 3J7
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ENGINEER'S STAMP
D. W. HERN
100077071
PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON
DEVELOPMENT SERVICES
ACCEPTED
06/27/2022
SUBJECT TO THE CONDITION(S) IDENTIFIED IN THE ACCEPTANCE LETTER OF THE SAME DATE.

SCALE
HORIZ - 1 : 1000
10 0 20m

TITLE
W3 SUBDIVISION - PHASE 1
W3 FARMS INC.
SANITARY DRAINAGE AREA PLAN
PART 2

PROJECT No. **161413227**
SHEET No. **6 of 48**
PLAN FILE No.

V:\0161413227\Design\Drawings\DWG\Sheet_06161413227_C-SD.dwg
 2022-04-27 10:23:43 AM System Administrator

RESIDENTIAL COMMERCIAL AND INSTITUTIONAL POPULATION DENSITIES

THE FOLLOWING POPULATION ALLOWANCES WILL APPLY WHEN DESIGNING SANITARY SEWERS:
 LOW DENSITY (SINGLE-FAMILY / SEMI-DETACHED) = 30 UNITS / HECTARE @ 3 PEOPLE / UNIT
 MEDIUM DENSITY (MULTI-FAMILY / TOWNHOUSE / ROWHOUSE) = 75 UNITS / HECTARE @ 2.4 PEOPLE / UNIT
 HIGH DENSITY (APARTMENT S) = 150 - 300 UNIT / HECTARE @ 1.6 PEOPLE / UNIT
 COMMERCIAL / INSTITUTIONAL = 100 PEOPLE / HECTARE
 SECONDARY SCHOOL = 1500 PEOPLE
 ELEMENTARY SCHOOL = 600 PEOPLE

SANITARY SEWER DESIGN SHEET
CITY OF LONDON

DESIGN CRITERIA
 SEWAGE = 230 LITRE / CAPITA / DAY
 INFILTRATION = 8640 LITRES / HECTARE / DAY
 PEAKING FACTOR $1 + 14 \sqrt{4 + P^{0.5}}$

DATE: Mar-21
 DESIGNED BY: JAC

PROJECT NAME: **W3 SUBDIVISION**
 (TOP) = TOP END OF SEWER TRIBUTARY

PROJECT FILE NO. 161413227

LOCATION				AREA			POPULATION					SEWAGE FLOWS			SEWER DESIGN						PROFILE						
AREA No.	STREET NAME	FROM MANHOLE	TO MANHOLE	NET OR GROSS	DELTA HECTARES	TOTAL HECTARES	POP. PER HECTARE	PER LOT	NO. OF LOTS	DELTA POP.	TOTAL POP.	PEAKING FACTOR	INFILT L/s	SEWAGE L/s	TOTAL L/s	PIPE SIZE mm	n	SLOPE %	CAP L/s	VELOCITY m/s	LENGTH m	FALL IN SEWER	HEADLOSS IN U.S. MH	DROP IN MANHOLE	INVERT ELEVATION		
																									U.S.	D.S.	
ULT 1	FUTURE PHASES	(TOP)	S1	N	0.00	40.08				4834	4834	3.26	4.01	46.13	50.13	300	0.013	0.40	61.2	0.87	2.9	0.012	-	-	265.140	265.128	
A101	ROYAL MAGNOLIA AVENUE	S1	S2	N	0.29	40.37	3.0	6	18	4852	4852	3.26	4.04	46.28	50.31	300	0.013	0.50	68.2	0.97	37.8	0.188	-	0.030	265.098	264.910	
A102	ROYAL MAGNOLIA AVENUE	S2	S3	N	0.34	40.71			23	4875	4875	3.26	4.07	46.47	50.54	300	0.013	0.50	68.4	0.97	36.9	0.185	-	0.030	264.880	264.696	
A118	BIG LEAF TRAIL	S19 (TOP)	S20	N	0.27	0.27	3.0	4	12	12	12	4.41	0.03	0.15	0.18	200	0.013	0.61	25.6	0.82	53.8	0.328	-	-	265.855	265.527	
A119	BIG LEAF TRAIL	S20	S21	N	0.12	0.39	3.0	1	3	15	15	4.40	0.04	0.19	0.23	200	0.013	0.61	25.6	0.82	37.7	0.230	-	0.030	265.497	265.267	
A129	HEATHWOODS AVENUE	S24	S21	N	0.09	0.09	3.0	1	3	3	3	4.45	0.01	0.04	0.05	200	0.013	0.61	25.6	0.82	29.1	0.177	-	-	265.444	265.267	
A120	BIG LEAF TRAIL	S21	S22	N	0.72	1.20	3.0	7	21	39	39	4.34	0.12	0.50	0.62	200	0.013	0.43	21.5	0.68	62.5	0.269	-	0.030	265.237	264.968	
A121	BIG LEAF TRAIL	S22	S23	N	0.26	1.46	3.0	4	12	51	51	4.31	0.15	0.64	0.79	200	0.013	0.33	18.8	0.60	27.1	0.089	-	0.030	264.938	264.849	
A122	BIG LEAF TRAIL	S23	S3	N	0.08	1.54			0	51	51	4.31	0.15	0.64	0.80	200	0.013	0.33	18.8	0.60	47.2	0.156	-	0.030	264.819	264.663	
A103	ROYAL MAGNOLIA AVENUE	S3	S4	N	0.35	42.60	3.0	6	18	4944	4944	3.25	4.26	47.04	51.30	300	0.013	0.32	55.0	0.78	65.3	0.211	-	0.100	264.563	264.352	
A207	MEDIUM DENSITY BLOCK	(TOP)	S4	N	0.53	0.53	180			96	96	4.25	0.05	1.19	1.25												
A104	ROYAL MAGNOLIA AVENUE	S4	S5	N	0.52	43.65	3.0	10	30	5070	5070	3.24	4.37	48.09	52.46	300	0.013	0.45	64.9	0.92	90.0	0.405	-	0.030	264.322	263.917	
A105	ROYAL MAGNOLIA AVENUE	S5	S6	N	0.46	44.11	3.0	8	24	5094	5094	3.24	4.41	48.29	52.70	300	0.013	0.45	64.9	0.92	90.0	0.405	-	0.030	263.887	263.482	
A206	MEDIUM DENSITY BLOCK	(TOP)	S6	N	1.87	1.87	180			337	337	4.06	0.19	4.00	4.19												
A124	BIG LEAF TRAIL	S19 (TOP)	S26A	N	0.40	0.40	3.0	6	18	18	18	4.39	0.04	0.23	0.27	200	0.013	0.54	24.1	0.77	74.9	0.404	-	-	265.854	265.450	
A124a	BIG LEAF TRAIL	S26A	S26	N	0.36	0.76	3.0	1	3	21	21	4.38	0.08	0.27	0.35	200	0.013	0.54	24.1	0.77	21.0	0.113	-	0.030	265.420	265.306	
A125	BIG LEAF TRAIL	S26	S27	N	0.85	1.61	3.0	15	45	66	66	4.29	0.16	0.83	0.99	200	0.013	0.33	18.8	0.60	82.5	0.272	-	0.030	265.276	265.004	
A126	BIG LEAF TRAIL	S27	S28	N	0.17	1.78	3.0	2	6	72	72	4.28	0.18	0.90	1.08	200	0.013	0.33	18.8	0.60	21.8	0.072	-	0.030	264.974	264.902	
A127	BIG LEAF TRAIL	S28	S29	N	0.58	2.36	3.0	10	30	102	102	4.24	0.24	1.27	1.50	200	0.013	0.51	23.5	0.75	58.7	0.301	-	0.030	264.872	264.571	
A128	BIG LEAF TRAIL	S29	S30	N	0.45	2.81	3.0	8	24	126	126	4.21	0.28	1.56	1.84	200	0.013	0.50	23.2	0.74	58.9	0.295	-	0.030	264.541	264.247	
A130	HEATHWOODS AVENUE	S24 (TOP)	S32	N	0.29	0.29	3.0	4	12	12	12	4.41	0.03	0.15	0.18	200	0.013	1.00	32.8	1.04	30.9	0.309	-	-	266.011	265.702	
A131	HEATHWOODS AVENUE	S32	S33	N	0.51	0.80	3.0	10	30	42	42	4.33	0.08	0.53	0.61	200	0.013	0.95	32.0	1.02	61.0	0.580	-	0.030	265.672	265.093	
A132	PETALPATH WAY	S19 (TOP)	S35	N	0.07	0.07	3.0	1	3	3	3	4.45	0.01	0.04	0.05	200	0.013	0.82	29.7	0.95	20.7	0.170	-	-	265.855	265.685	
A133	PETALPATH WAY	S35	S36	N	0.36	0.43	3.0	6	18	21	21	4.38	0.04	0.27	0.31	200	0.013	0.54	24.1	0.77	34.8	0.188	-	0.030	265.655	265.467	
A134	PETALPATH WAY	S36	S37	N	0.21	0.64	3.0	3	9	30	30	4.35	0.06	0.38	0.45	200	0.013	0.43	21.5	0.68	12.9	0.055	-	0.030	265.437	265.382	
A135	PETALPATH WAY	S37	S38	N	0.14	0.78	3.0	2	6	36	36	4.34	0.08	0.46	0.54	200	0.013	0.43	21.5	0.68	13.3	0.057	-	0.030	265.352	265.295	
A136	PETALPATH WAY	S38	S33	N	0.23	1.01	3.0	3	9	45	45	4.32	0.10	0.57	0.67	200	0.013	0.50	23.2	0.74	53.4	0.267	-	0.030	265.265	264.998	
A137	HEATHWOODS AVENUE	S33	S30	N	0.46	2.27	3.0	7	21	108	108	4.23	0.23	1.34	1.57	200	0.013	0.80	29.3	0.93	89.0	0.712	-	0.030	264.968	264.256	
A138	BIG LEAF TRAIL	S30	S6	N	0.16	5.24			0	234	234	4.12	0.52	2.82	3.35	200	0.013	0.54	24.2	0.77	90.7	0.493	-	0.030	264.217	263.724	
A106	ROYAL MAGNOLIA AVENUE	S6	S7	N	0.42	51.64			21	5686	5686	3.19	5.16	53.16	58.32	300	0.013	0.60	75.0	1.06	86.4	0.519	-	0.030	263.452	262.933	
A201	MED/COMM BLOCK	(TOP)	S7	N	0.56	0.56	180			101	101	4.24	0.06	1.25	1.31	200	0.013	2.00	46.4	1.48	11.0	0.220	-	-	263.223	263.003	
A107	ROYAL MAGNOLIA AVENUE	S7	S7A	N	0.30	52.50			14	5801	5801	3.18	5.25	54.10	59.35	300	0.013	0.65	77.9	1.10	72.4	0.470	-	0.030	262.903	262.433	
A202	MED/COMM BLOCK	(TOP)	S7A	N	0.55	0.55	180			99	99	4.24	0.06	1.23	1.29	200	0.013	2.00	46.3	1.47	9.5	0.189	-	-	262.692	262.503	
A107A	ROYAL MAGNOLIA AVENUE	S7A	S8A	N	0.04	53.09			0	5900	5900	3.18	5.31	54.90	60.21	300	0.013	0.68	79.6	1.13	17.0	0.115	-	0.030	262.403	262.288	

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EXISTING SERVICES	DRAWING #, SOURCE	DATE	CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
					DESIGN JAC	2.	AS PER 2ND SUBMISSION COMMENTS	MARCH 2021	STANTEC
					DRAWN BY JAC	3.	COL COMMENTS - 03/25/2021	MARCH 2021	STANTEC
					CHECKED DWH	4.	PARK SERVICING REVISIONS	MAY 2021	STANTEC
					APPROVED DWH	5.	ISSUED FOR TENDER	JUNE 2021	STANTEC
					DATE NOV 2019	6.	AS PER 3RD SUBMISSION COMMENTS	JULY 2021	STANTEC
						7.	AS PER 4TH SUBMISSION COMMENTS	AUG 2021	STANTEC
						8.	AS PER 5TH SUBMISSION COMMENTS	SEPT 2021	STANTEC
						9.	ISSUED FOR ACCEPTANCE	OCT 2021	STANTEC
						10.	REVISED DESIGN SHEETS	FEB 2022	STANTEC
						11.	REVISED LOT NUMBERS	APRIL 2022	STANTEC

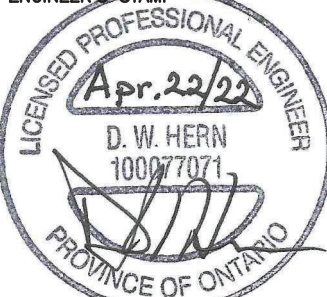
CONSULTANT OR DIVISION



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 London, ON, N6A 3J7
 www.stantec.com

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ENGINEER'S STAMP



D. W. HERN
 100977071
 PROVINCE OF ONTARIO

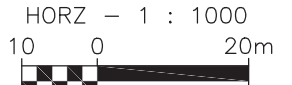
CORPORATION OF THE CITY OF LONDON
 DEVELOPMENT SERVICES

ACCEPTED
 06/27/2022

SUBJECT TO THE CONDITION(S) IDENTIFIED IN THE ACCEPTANCE LETTER OF THE SAME DATE.

SCALE

HORZ - 1 : 1000
 10 0 20m



TITLE

W3 SUBDIVISION - PHASE 1
 W3 FARMS INC.

ULTIMATE SANITARY DESIGN SHEET

PROJECT No. **161413227**

SHEET No. **9 of 48**

PLAN FILE No.



LONDON LOCATION
1599 Adelaide St. N., Units 301 & 203
London, ON N5X 4E8
P: 519-471-6667

KITCHENER LOCATION
1415 Huron Rd., Unit 225
Kitchener, ON N2R 0L3
P: 519-725-8093

www.sbmltd.ca

sbm@sbmltd.ca

Sanitary Sewer Design Sheet

City of London

Design Parameters

DS&RM 2022 Daily Flow (L/cap/day) 230
DS&RM 2022 Sewage Infiltration (Litres/hectare/day) 8640
Harmon Formula (Peaking Factor) $M = (1 + 14/(4+P^{0.5}))$
Uncertainty Factor 1.1
Manually Inputted Value

Date: November 30, 2023
Job Number: SBM-23-0700
Client: W3- Lambeth Farms Inc.
Project: Proposed 6 Storey Apartment Developments (Tower A&B)
Location: 6555-6595 Royal Magnolia Ave. London, ON

Designed By: MR
Reviewed By: BH/RF

INTERIM SANITARY

Residential Population Densities

(A) Area Basis

Low Density Residential (Single Family/Semi-Detached)
Medium Density Residential (Multi-Family/Townhouse)
High Density Residential (Apartment Buildings)

= 30 Units/hectare @ 3 people/unit
=75 Units/hectare @ 2.4 people/unit
=150-300 Units/hectare @ 1.6 people/unit

Location			Area		Population					Sewage Flows				Sewer design					
Area No.	From MH	To MH	Delta Hectare	Total Hectare	No. of Units	People Per Unit	People Per Hectare	Delta Pop.	Total Pop. (230 L/day)	Harmon Peaking Factor	Infil L/S	Sewage L/S	Total L/S	n	*Pipe Slope %	*Dia. mm	Capacity L/S	Velocity m/s	Q/Qcap %
Upstream Conditions																			
ULT 1 (Dwellings)*****																			
	Top	S1	5.12	5.12	118	3		354	354	4.05	0.51	4.19	4.7	0.013	0.40%	300	61.20	0.87	8%
	Top	S1	0	40.08				4834	4834	3.26	4.01	46.13	50.14	0.013	0.40%	300	61.20	0.87	82%
A101	S1	S2	0.29	5.41	6	3		18	372	4.04	0.54	4.4	4.94	0.013	0.50%	300	68.42	0.97	7%
A102	S2	S3	0.34	5.75				23	395	4.02	0.58	4.66	5.24	0.013	0.50%	300	68.42	0.97	8%
A118	S19	S20	0.27	0.27	4	3		12	12	4.41	0.03	0.15	0.18	0.013	0.61%	200	25.63	0.82	1%
A119	S20	S21	0.12	0.39	1	3		3	15	4.40	0.04	0.19	0.23	0.013	0.61%	200	25.63	0.82	1%
A129	S24	S21	0.09	0.09	1	3		3	3	4.45	0.01	0.04	0.05	0.013	0.61%	200	25.63	0.82	0%
A120	S21	S22	0.72	1.2	7	3		21	39	4.34	0.12	0.5	0.62	0.013	0.43%	200	21.52	0.69	3%
A121	S22	S23	0.26	1.46	4	3		12	51	4.31	0.15	0.64	0.79	0.013	0.33%	200	18.85	0.60	4%
A122	S23	S3	0.08	1.54				0	51	4.31	0.15	0.64	0.79	0.013	0.33%	200	18.85	0.60	4%
A103	S3	S4	0.35	7.64	6	3		18	464	3.99	0.76	5.42	6.18	0.013	0.32%	300	54.73	0.77	11%
A207	Top	S4	0.53	0.53			180	96	96	4.25	0.05	1.19	1.24						
A104	S4	S5	0.52	8.69	10	3		30	590	3.94	0.87	6.8	7.67	0.013	0.45%	300	64.91	0.92	12%
A105	S5	S6	0.46	9.15	8	3		24	614	3.93	0.92	7.06	7.98	0.013	0.45%	300	64.91	0.92	12%
A206	Top	S6	1.87	1.87			180	337	337	4.06	0.19	4	4.19						
A124	S19 (Top)	S26A	0.4	0.4	6	3		18	18	4.39	0.04	0.23	0.27	0.013	0.54%	200	24.12	0.77	1%
A124a	S26A	S26	0.36	0.76	1	3		3	21	4.38	0.08	0.27	0.35	0.013	0.54%	200	24.12	0.77	1%
A125	S26	S27	0.85	1.61	15	3		45	66	4.29	0.16	0.83	0.99	0.013	0.33%	200	18.85	0.60	5%
A126	S27	S28	0.17	1.78	2	3		6	72	4.28	0.18	0.9	1.08	0.013	0.33%	200	18.85	0.60	6%
A127	S28	S29	0.58	2.36	10	3		30	102	4.24	0.24	1.27	1.51	0.013	0.51%	200	23.44	0.75	6%
A128	S29	S30	0.45	2.81	8	3		24	126	4.21	0.28	1.56	1.84	0.013	0.50%	200	23.21	0.74	8%
A130	S24 (Top)	S32	0.29	0.29	4	3		12	12	4.41	0.03	0.15	0.18	0.013	1.00%	200	32.82	1.04	1%
A131	S32	S33	0.51	0.8	10	3		30	42	4.33	0.08	0.53	0.61	0.013	0.95%	200	31.99	1.02	2%
A132	S19 (Top)	S35	0.07	0.07	1	3		3	3	4.45	0.01	0.04	0.05	0.013	0.82%	200	29.72	0.95	0%
A133	S35	S36	0.36	0.43	6	3		18	21	4.38	0.04	0.27	0.31	0.013	0.54%	200	24.12	0.77	1%
A134	S36	S37	0.21	0.64	3	3		9	30	4.35	0.06	0.38	0.44	0.013	0.43%	200	21.52	0.69	2%
A135	S37	S38	0.14	0.78	2	3		6	36	4.34	0.08	0.46	0.54	0.013	0.43%	200	21.52	0.69	3%
A136	S38	S33	0.23	1.01	3	3		9	45	4.32	0.10	0.57	0.67	0.013	0.50%	200	23.21	0.74	3%
A137	S33	S30	0.46	2.27	7	3		21	108	4.23	0.23	1.34	1.57	0.013	0.80%	200	29.35	0.93	5%
A138	S30	S6	0.16	5.24			0	234	234	4.12	0.52	2.82	3.34	0.013	0.54%	200	24.12	0.77	14%
*A106	S6	S7	0.42	16.68				21	1206	3.75	1.67	13.23	14.90	0.013	0.60%	300	74.95	1.06	20%

Downstream Conditions																			
A201 (Block 244) - Residential	Stub	S7	0.56	0.56	88	1.6		141	141	4.20	0.06	1.73	1.79	0.013	2.00%	200	46.41	1.48	4%
A201 (Block 244) - Commercial								27	168	4.17	0.06	2.05	2.11	0.013	2.00%	200	46.41	1.48	
*A201 (Block 244)	Top	S7	0.56	0.56				180	101	4.24	0.06	1.25	1.31	0.013	2.00%	200	46.41	1.48	3%
****A107	S7	S7A	0.30	17.54				14	1388	3.70	1.75	15.05	16.80	0.013	0.65%	300	78.01	1.10	22%
A202 (Block 245) - Residential	Stub	S7A	0.55	0.55	88	1.6		141	141	4.20	0.06	1.73	1.79	0.013	2.00%	200	46.41	1.48	4%
A202 (Block 245) - Commercial								27	168	4.17	0.06	2.05	2.11	0.013	2.00%	200	46.41	1.48	
*A202 (Block 245)	Top	S7A	0.55	0.55				180	99	4.24	0.06	1.23	1.29	0.013	2.00%	200	46.41	1.48	3%
****A107A	S7A	S8A	0.04	18.13				0	1556	3.67	1.81	16.71	18.52	0.013	0.68%	300	79.79	1.13	23%
	S8A	S8	0.00	18.13					1556	3.67	1.81	16.71	18.52	0.013	0.68%	250	49.07	1.00	38%
A205	Top	S14	0.76	0.76				180	137	137	4.20	0.08	1.69	1.77					
A113 (Block 247)*****	S14	S15	0.65	1.41	32	2.4		77	214	4.14	0.14	2.59	2.73	0.013	0.33%	200	18.85	0.60	14%
**A113	S14	S15	0.65	1.41	13	2.4		32	169	4.17	0.14	2.07	2.21	0.013	0.33%	200	18.85	0.60	12%
****A114	S15	S16	0.82	2.23				54	268	4.10	0.22	3.21	3.43	0.013	0.33%	200	18.85	0.60	18%
****A115	S16	S17	0.90	3.13				62	330	4.06	0.31	3.92	4.23	0.013	0.33%	200	18.85	0.60	22%
****A116	S17	S13	0.80	3.93				51	381	4.03	0.39	4.50	4.89	0.013	0.33%	200	18.85	0.60	26%
****A117	Top	N/A	0.08	0.08				0	0	4.50	0.00	0.00	0.00						
****A112	S13	S12	0.79	4.72				51	432	4.01	0.47	5.07	5.54	0.013	0.33%	200	18.85	0.60	29%
****A111	S12	S11	0.20	4.92				10	442	4.01	0.49	5.18	5.67	0.013	0.33%	200	18.85	0.60	30%
***A203 (Block 246)	Top	S11	0.75	0.75	41	2.4		98	98	4.25	0.08	1.22	1.30	0.013	2.00%	200	46.41	1.48	3%
***A203	Top	S11	0.75	0.75				180	135	4.21	0.08	1.66	1.74	0.013	2.00%	200	46.41	1.48	4%
****A110	S11	S10	0.63	6.30				39	579	3.94	0.63	6.68	7.31	0.013	0.33%	200	18.85	0.60	39%
****A109	S10	S9	0.73	7.03				45	624	3.92	0.70	7.17	7.87	0.013	0.25%	250	29.75	0.61	26%
****A108	S9	S8	0.27	7.30	5	2.4		12	636	3.92	0.73	7.30	8.03	0.013	0.25%	250	29.75	0.61	27%
****A146	S8	S43	0.17	25.60				0	2192	3.55	2.56	22.81	25.37	0.013	0.25%	250	29.75	0.61	85%
A139	Top	S40	0.17	0.17				0	0	4.50	0.02	0.00	0.02						
A140	S41 Top	S42	0.78	0.78	16	3.0		48	48	4.32	0.08	0.61	0.69	0.013	0.67%	200	26.86	0.86	3%
A141	S42	S40	0.69	1.47	14	3.0		42	90	4.26	0.15	1.12	1.27	0.013	1.00%	200	32.82	1.04	4%
A142	S40	S43	0.16	1.80				0	90	4.26	0.18	1.12	1.30	0.013	1.00%	200	32.82	1.04	4%
A143	S44	S45	0.32	0.32	4	3.0		12	12	4.41	0.03	0.15	0.18	0.013	0.61%	200	25.63	0.82	1%
A144	S45	S46	0.67	0.99	12	3.0		36	48	4.32	0.10	0.61	0.71	0.013	0.90%	200	31.13	0.99	2%
A145	S46	S43	0.34	1.33	5	3.0		15	63	4.29	0.13	0.79	0.92	0.013	1.00%	200	32.82	1.04	3%
****A147	S43	S47	0.67	29.40	13	3.0		39	2384	3.53	2.94	24.61	27.55	0.013	0.25%	250	29.75	0.61	93%
****A148	S47	S48	0.76	30.16	15	3.0		45	2429	3.52	3.02	25.03	28.05	0.013	0.25%	250	29.75	0.61	94%
****A149	S48	S49	0.34	30.50	5	3.0		15	2444	3.52	3.05	25.16	28.21	0.013	0.25%	250	29.75	0.61	95%
A152	S51	S51A	0.63	0.63	14	2.4		34	34	4.35	0.06	0.43	0.49	0.013	1.00%	200	32.82	1.04	1%
	S51A	S49	0.00	0.63				0	34	4.35	0.06	0.43	0.49	0.013	1.00%	200	32.82	1.04	1%
A401	Top	S52	0.40	0.40	7	3.0		21	21	4.38	0.04	0.27	0.31	0.013	1.00%	200	32.82	1.04	1%
EXT-1	Top	Stub 1	5.95	5.95			90		536	3.96	0.60	6.21	6.81						
A403	Stub 1	S52	0.09	6.04				0	536	3.96	0.60	6.21	6.81	0.013	0.50%	200	23.21	0.74	29%
A153	S52	S52A	0.65	7.09	14	2.4		34	591	3.94	0.71	6.81	7.52	0.013	0.99%	200	32.65	1.04	23%
	S52A	S49	0.00	7.09				0	591	3.94	0.71	6.81	7.52	0.013	1.00%	200	32.82	1.04	23%
****A150	S49	S50	0.20	38.42	2	3.0		6	3074	3.43	3.84	30.91	34.75	0.013	0.20%	300	43.27	0.61	80%
****A150a	S50	S50A	0.69	39.11	14	3.0		42	3116	3.43	3.91	31.28	35.19	0.013	0.20%	300	43.27	0.61	81%
****A151	S50A	S200	0.50	39.61	8	3.0		24	3140	3.43	3.96	31.50	35.46	0.013	0.23%	300	46.40	0.66	76%

* Refer to Sanitary Sewer Design Sheet prepared by Stantec, Project No. 1614-13227 (included in this Study) for upstream areas
** Refer to SBM-22-0608 Sanitary Service Design Sheet, dated March 08, 2023 (Block 247)- FILE IS CURRENTLY UNDER SPA REVIEW SO SFS HAS BEEN UPDATED TO REFLECT MOST CONSERVATIVE APPLICATIONS.
*** Refer to SBM-22-0609 Sanitary Service Design Sheet, dated February 15, 2023 (Block 246)-FILE IS CURRENTLY UNDER SPA REVIEW SO SFS HAS BEEN UPDATED TO REFLECT MOST CONSERVATIVE APPLICATIONS.
**** Total populations updated to reflect proposed development
***** Per email from CoL Dated October 16, 2023
***** Per Site Plan by SBM