TORONTO

October 2017

SERVICING REPORT GROUNDWATER SUMMARY

The form is to be completed by the Professional that prepared the Servicing Report.
Use of the form by the City of Toronto is not to be construed as verification of engineering/hydrological content.

For City Staff Use Only:	
Name of ECS Case Manager (please print)	
Date Review Summary provided to to TW	

A. SITE INFORMAITON		**Included in SR (reference page number)**	**Report Includes this information City staff (Check)**
Date Servicing Report was prepared:	March 28,2019	i	
Title of Servicing Report:	11-21 Yorkville Avenue & 16-18 Cumberland Street Functional Servicing Report	i	
Name of Consulting Firm that prepared Servicing Report:	WSP Canada Group Limited	ii	
Site Address	11-21 Yorkville Avenue and 16-18 Cumberland Avenue Toronto, Ontario	Pg. 1	
Postal Code	M4W 1L1	Pg. 1	
Property Owner (identified on planning request for comments memo)	11 Yorkville Partnership Inc.	Pg. 1	
Proposed description of the project (ex. number of point towers, number of podiums, etc.)	Building A: 1 point tower -62 Storey Mixed-Use Tower Building B: 1 point tower - 2 Storey Retail Building	Pg. 1	
Land Use (ex. commercial, residential, mixed, industrial, institutional) as defined by the Planning Act	Mixed Use	Pg. 1	
Number of below grade levels	Building A: 4 levels Below Grade Building B: 1 level Below Grade	Pg. 1	

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Does the SR include a private water drainage system (PWDS)? **PWDS: Private Water Drainage System:** A subsurface drainage system which may consist of but is not limited to weeping tile(s), foundation drain(s), private water collection sump(s), private water pump or any combination thereof for the disposal of private water on the surface of the ground or to a private sewer connection or drainage system for disposal in a municipal sewer.	If **Yes** continue completing Section B (Information Relating to Groundwater) **ONLY** **If Yes, Number of PWDS?** Two Systems *(Each of these PWDS may require a separate Toronto Water agreement)* If **No** skip to Sections C (On-site Groundwater Containment) and/or D (Water Tight Requirements) as applicable	☒ YES ◯ NO	
B. INFORMATION RELATING TO GROUNDWATER		**Included in SR (reference page number)**	**Report Includes this information City Staff (Check)**
A copy of the pump schedule(s) for **ALL** groundwater sump pump(s) for the development site has been included in the FSR **or** A letter written by a Mechanical Consultant (signed and stamped by a Professional Engineer of Ontario) shall be attached to the SR stating the peak flow rate of the groundwater discharge for the development site for all groundwater sump pump(s). This peak flow rate must be based on the pump schedule(s) that have been designed by the Mechanical Consultant. A template of this letter is attached in Schedule A.	The groundwater pumping rate letter from MV Shore can be found in Appendix E of the Functional Servicing Report	Appendix E of the FSR.	

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****If there is more than one sump they must ALL be included in the letters along with a combined flow****			
Is it proposed that the groundwater from the development site will be discharged to the sanitary, combined or storm sewer?	◯ Sanitary Sewer ☒ Combined Sewer ◯ Storm Sewer	Pg. 9-10	
Will the proposed PWDS discharge from the site go to the Western Beaches Tunnel (WBT)? *Reference attached WBT drainage map*	◯ YES ☒ NO **If Yes, private water discharge fees will apply and site requires a sanitary discharge agreement.**		
What is the street name where the receiving sewer is located?	Building A: Yorkville Avenue Building B: Cumberland Street	Pg. 7, 8	
What is the diameter of the receiving sewer?	Yorkville Avenue: 600 mm Diameter Combined Sewer Cumberland Street: 450 mm Diameter Combined Sewer	Pg. 7, 8	
Is there capacity in the proposed local sewer system? ☒ YES ◯ NO	Are there any improvements required to the sewer system? If yes, identify them below and refer to the section and page number of the FSR where this information can be found. No. If a sewer upgrade is required, the owner is required to enter into an Agreement with the City to improve the infrastructure? ◯ YES	Pg. 8, 9	
Total allowable peak flow rate during a 100 year storm event (L/sec) to storm sewer When groundwater is to be discharged to the storm sewer the total groundwater and stormwater discharge shall not exceed the permissible peak flow rate during a 2 year pre development storm event, as per the City's	35.2 L/s for Building A 4.4 L/s for Building B	Pg. 17	

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Wet Weather Flow Management Guidelines, dated 2006			
Short-Term Groundwater Discharge Provide proposed total flow rate to the sanitary/combined sewer in post-development scenario Total Flow (L/sec) = sanitary flow + peak short-term groundwater flow rate	0 L/s San flow (bldg is not complete yet) + 3.15 L/s (Bldg A) 3.15 L/s (Bldg A) 0 L/s San flow (bldg is not complete yet) + 0.16 L/s (Bldg A) 0.16 L/s (Bldg A) _____ L/sec	Pg. 10, 11	
Long-Tem Groundwater Discharge Provide proposed total flow rate to the sanitary/combined sewer in post-development scenario Total Flow (L/sec) = sanitary flow + peak long-term groundwater flow rate	**Building A** 12.47 L/s Peak Sanitary +0.07 L/s Infiltration +6.30 L/s Pumped Groundwater 18.84 L/s (Bldg A Total) **Building B** 0.03 L/s Peak Sanitary +0.01 L/s Infiltration +0.63 L/s Pumped Groundwater 0.67 L/s (Bldg B Total)	Pg. 7, 10	
Does the water quality meet the receiving sewer Bylaw limits? ◯ YES ☒ NO A settlement tank is required	If the water quality does not meet the applicable receiving sewer Bylaw limits and the applicant is proposing a treatment system the applicant will need to include a letter stating that a treatment system will be installed and the details of the treatment system will be included in the private water discharge application that will be submitted to TW EM&P.	Attached to this summary and included in Appendix E of the FSR	
C. ON-SITE GROUNDWATER CONTAINMENT		**Included in SR (reference page number)**	**Report Includes this information City Staff (Check)**
How is the site proposing to manage the groundwater discharge on site?			

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Has the above proposal been approved by:	◯ TW-WIM And ◯ TW-EM&P And ◯ ECS		
If the site is proposing a groundwater infiltration gallery, has it been stated that the groundwater infiltration gallery will not be connected to the municipal sewer? A connection between the infiltration gallery/dry well and the municipal sewer is not permitted Please be advised if an infiltration gallery/dry well on site is not connected to the municipal sewer, the site **must** submit two letters using the templates in Schedule B and Schedule C.	◯ YES ◯ NO		
Confirm that the infiltration gallery can infiltrate 100% of the expected peak groundwater flow year round, ensure that the top of the infiltration trench is below the frost line (1.8m depth), not less than 5 m from the building foundation, bottom of the trench 1m above the seasonally high water table, and located so that the drainage is away from the building.			
D. WATER TIGHT REQUIREMENTS		**Included in SR (reference page number)**	**Report Includes this information City Staff**

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		(Check)
If the site is proposing a water tight structure: 1. The owner must submit a letter using the template in Schedule D. 2. A Professional Engineer (Structural), licensed to practice in Ontario and qualified in the subject must submit a letter using the template in Schedule E.		

Provide a copy of the approved SR to Toronto Water Environmental Monitoring & Protection Unit at pwapplication@toronto.ca.

Consulting Firm that prepared Servicing Report: WSP CANADA GROUP LIMITED

Professional Engineer who completed the report summary: Andrew Kerr
Print Name

Professional Engineer who completed the report summary: _____
Signature

Schedule A: Template Letter from Mechanical Consultant confirming peak groundwater flow rate

[Mechanical Consultant Company Letterhead]
[Company Name]
[Company Address and Contact Information]

As requested, please see attached letter from Mechanical on following page.

[Date]
Attention: Executive Director, Engineering and Construction Services
c/o Manager, Development Engineering
[ADDRESS]

cc: General Manager, Toronto Water
c/o Manager, Environmental Monitoring and Protection Unit
30 Dee Ave, Toronto ON M9N 1S9

M.V. SHORE
ASSOCIATES (1993) LIMITED
Consulting Professional Engineers

April 30, 2018 Project no: 17-052

Attention: **Executive Director, Engineering & Construction Services**
16/F, 55 John Street, Toronto, ON M5V 3C6
c/o: **Avi Bachar, P.Eng. PMP**
Manager, Development Engineering
Engineering and Construction Services

cc: **General Manager, Toronto Water**
c/o: **Manager, Environmental Monitoring & Protection Unit**
30 Dee Ave, Toronto ON M9N 1S8

Address: **11 Yorkville Avenue, Toronto**

Dear Sir or Madame;

This letter is to confirm that the permanent Private Water Drainage system from ground water will be collected and discharged into sanitary control manholes, at a maximum daily peak flow rate of:-

- High-rise building: 196m³/day (average 2.27L/s or 36USgpm) per figure provided in Hydrogeological Assessment Report prepared by EXP Services Ltd dated March 13, 2018)
- Commercial building: 9.0m³/day (average 0.1L/s or 1.6USgpm) per figure provided in Hydrogeological Assessment Report prepared by EXP Services Ltd dated March 13, 2018)

Groundwater pumps will be provided and sized to handle the above flow rate:-

- High-rise building: pump will be sized at 6.3 L/s (100 Usgpm) and is expected to run approximately 8.5 hours per day.

- Commercial building: pump will be sized at 0.63 L/s (10 Usgpm) and is expected to run approximately 3.85 hours per day.

Groundwater pump for each building will discharge water to their respective sanitary control manhole.

This daily peak flow rate will be used for assessing capacity for the peak discharge flow into the City's combined sewer system.

1200 Eglinton Avenue East • Suite 402 • Don Mills • Ontario • Canada • M3C 1H9
Phone: (416) 443-1995 • Fax: (416) 443-1415
email: mvs@mvshore.com

M.V. SHORE
ASSOCIATES (1993) LIMITED

Consulting Professional Engineers

Once the proposed ground water daily peak flow rate of 196m³/day for the high-rise building and 9m³/day for the commercial building is approved by Engineering Construction Services (ECS), City of Toronto, the Property Owner will not be allowed to amend this flow rate in the future. Should there be any amendment to the daily peak flow rate in the future, the Property Owner shall re-submit either the updated pump schedule or a revised letter to ECS. In addition, the sewer capacity will need to be re-assessed.

For additional information, please contact the undersigned.

LICENSED PROFESSIONAL ENGINEER
C.W.C. CHAN
7440593
PROVINCE OF ONTARIO

.....
Bill Chan, P.Eng.

Seal

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M.V. SHORE
ASSOCIATES (1993) LIMITED
Consulting Professional Engineers

To Whom it May Concern

March 13, 2019

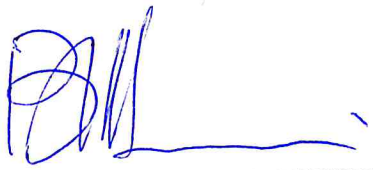
RE: **11 Yorkville Avenue – Toronto**

Ref. No: 19-002

SUBJECT: **Private Water Drainage System**

This letter is to confirm that the permanent Private Water Drainage System for ground water will be provided with a treatment system, including a settling tank/chamber, prior to discharge to the sanitary control manhole. Also ground water sampling access port and water meter will be provided in accordance to Toronto Standard T-709.020 and T-709.010.

M. V. SHORE ASSOCIATES (1993) LIMITED



Bill Chan, P.Eng.

BC:a

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