



March 05, 2021

Mr. Carlo Bonanni, M.E.S., R.P.P.
Vice President
Land & Development Planning
CreateTO
200 King Street West, Suite 200
Toronto, ON M5H 3T4

Dear Mr. Bonanni:

**Subject: Updated Precinct Plan
Allen District East
Toronto, Ontario**

We are pleased to provide you with our opinion on the updated Precinct Plan for the Allen District East at the southeast corner of the Allen Road and Sheppard Avenue West intersection. This letter will provide an overview of the revisions to the Allen District East Precinct Plan and the impacts on the Site Servicing and Stormwater Management design.

This letter also provides an update to correspondence with the City regarding the design and construction of the Almore Sanitary Sewer Upgrade.

Please note that this letter pertains to the Allen District East only as the Allen District West will be a separate submission made by another proponent and remains unchanged at this time.

Revisions to the Precinct Plan

Based on feedback from the City Staff, the Local Advisory Committee, and the Public via Public Consultation, various updates to the Allen District East Plan have been made.

The high-level revisions include:

- Revised configuration of the SWM Block so that it stretches from Allen Road to Wilson Heights Boulevard along the southern boundary of the site;
- Revised land use areas for the development;
- Max height of buildings in mixed use area revised to 14 storeys;
- Increase in SWM Block size from 1.04ha to 1.10ha;
- Revised OTA facility block in the southwest corner of the development;
- Potential future road allowance to connect Street A to Wilson Heights Boulevard.

We also received detailed building statistics from CreateTO which will allow more accurate sanitary demand calculations.

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Stormwater Management

The Allen District East Plan allows for a continuous overland flow route to the SWM Facility via Public Right-of-Ways and will no longer require an easement over the Park Block. The SWM Block will allow for a direct connection of the Pond Outlet to the sewer on Wilson Heights. The Apartment and Mixed-Use Blocks will continue to provide onsite quantity control, quality control and water balance as per the City's Wet Weather Flow Guidelines whereas the low-rise development and drainage from the public Right-of-Way and Parks will drain to the SWM Pond.

The overall imperviousness of the site remains virtually unchanged. Detailed SWM calculations along with the corresponding grading and drainage plans will be provided as part of a future Plan of Subdivision submission.

Servicing and Utilities

The revised Allen District East plan allows for all blocks and units to be serviced by gravity sanitary sewers and actually increases the options available for routing of the sanitary sewer. Gravity sanitary servicing of the future Allen District West area is still achievable by connecting to sewers in the revised plan for the Allen District East. The road network continues to allow for proper watermain looping to provide a strong and safe water supply and fire protection for the plan. Other utilities such as Gas, Telecommunications, and Hydro have sufficient access to the site from Sheppard Avenue West, Wilson Heights Boulevard, and Allen Road.

Detailed Sewer and Watermain design calculations and the corresponding Engineering Drawings including: General Servicing Plans, Grading Plans, Drainage Plans, Plan and Profile Drawings, Erosion and Sediment Control Plans, and Composite Utility Plans will be provided as part of a future Plan of Subdivision submission.

Almore Sanitary Sewer Upgrade

An upgrade of the Almore Sanitary Sewer is required to facilitate development of the Allen District East. The design and construction of this project will be undertaken as a combination Development Charge (DC) and Basement Flooding Protection project by the City of Toronto. Based on the most recent discussions with Staff at the City of Toronto, the construction is anticipated to begin in late 2021 or early 2022. The timeline for completion of the Almore Sanitary Sewer project is to be confirmed by the City.

The sanitary connection invert of 183.25m was coordinated between the City Design Team and Allen District East Design Team through various email correspondence during March and April of 2017. The sanitary connection elevation of 183.25m remains adequate for updated Allen District East Plan to provide gravity sanitary servicing. On February 22, 2017, Saleem Khan (Manager of the Almore Sewer Upgrade) confirmed the total population of 23,266 for the Downsview Area Secondary Plan (which Allen District East is a part of) was used in the design calculation for the Almore Sanitary Sewer Upgrade. The upgrade accounts for the required additional capacity to service Allen District East and West.

An updated land use plan was provided by the Planning Partnership on February 3, 2021. Detailed building statistics have been provided to us by CreateTO and were used in conjunction with the City of Toronto's design criteria to calculate the equivalent population of the area. The following table summarizes the different proposed development types within Allen District East and the respective equivalent populations.

| Land Use Type | Area (ha)/Units | Equivalent Population Density | Total Equivalent Population |
|---------------------|-----------------|----------------------------------|-----------------------------|
| Apartment Units | 3,076 units | 1.8 persons/suite ⁽¹⁾ | 5,537 |
| Neighbourhood Units | 450 units | 2.7 persons/suite | 1,215 |
| Parks | 2.54 ha | N/A | N/A |
| Residential | | | 6,752 |
| General Office | 15.27 ha | 3.3 persons/100 m ² | 5,040 |
| Retail | 1.66 ha | 1.1 persons/100 m ² | 183 |
| OTA Facility | 1.21 ha | 86 Persons/ha | 105 |
| Commercial | | | 5,328 |
| Total | | | 12,080 |

⁽¹⁾ Persons per unit has been weighted assuming 60/30/10 ratio of 1-bedroom, 2-bedroom, & 3-bedroom units.

| Land Use Type | Total Equivalent Population | Average Daily Flow (L/p/d) | Peaking Factor (M) | Peak Flow (L/s) | Area (ha) | Infiltration (L/s) | Cumulative Design Flow (L/s) |
|---------------|-----------------------------|----------------------------|--------------------|-----------------|-----------|--------------------|------------------------------|
| Residential | 6,752 | 450 | 3.12 | 109.72 | 18.45 | 4.80 | 114.52 |
| Commercial | 5,328 | 450 | N/A | 27.75 | 10.65 | 2.77 | 30.52 |
| Total | 12,080 | | | 137.47 | | 7.57 | 145.04 |

The latest land use plan yields a total population of 12,080 and peak sanitary flow of 145.04 L/s when infiltration at a rate of 0.26L/s/ha is used. As this is a new sewer system, wet weather flows have not been calculated as it is assumed that a new sanitary sewer system will be built to City standards, therefore stormwater will not be able to enter the system. A basement flooding study has also been completed by the City of Toronto and measures to relieve any existing flooding conditions will be taken.

For general office land use, the more conservative population density of 3.3 persons per 100m² for offices was used, along with the conservative population density of 1.1 persons per 100m² for retail.

In the Functional Servicing Report prepared by WSP dated July 2016, the total peak sanitary flow was estimated to be approximately 179.81 L/s. For this calculation, the number of residential units used was 3,600 apartments and 400 townhouses/semi-detached units. This resulted in an equivalent residential population of 8,815. An equivalent commercial population of 6,525 was used.

In the 2017 servicing memo, also prepared by WSP, only the residential population of 8,338 was considered. This was calculated using 450 townhomes/semi-detached units and 3,957 apartment suites. The calculated peak residential sanitary flow in the memo was 131.70L/s. The revised Allen District Plan considered in this memo shows a reduction in total population from the 2016 FSR and residential population in the 2017 memo respectively. Compared to the 2016 FSR, the equivalent population in this memo results in a decrease of 3,260 people, with a corresponding decrease in sanitary flows of 34.77 L/s. This represents a 19% decrease in flows from the development compared to the July 2016 FSR, and an 8% decrease of the full flow capacity of the proposed sewer (525mm diameter sewer at 1.0% slope with a full flow capacity of 430L/s).



Compared to the 2017 memo, the equivalent residential population in this memo decreases by 1,586 people, with a corresponding decrease in sanitary flows of 17.18 L/s. No modifications will be required in the Almore Sanitary Sewer design as the revised plan will see a reduction in flows. The populations and corresponding sanitary flows from the Allen District East will be updated throughout the future Plan of Subdivision and Site Plan Approval process to ensure compliance with the Almore Sanitary Sewer Upgrade design. This memo constitutes a preliminary high-level assessment; a more comprehensive analysis will be provided once more detailed information pertaining to building statistics and residential unit counts becomes available. This will occur during the future Plan of Subdivision and phased zoning of the District Plan.

Conclusion

The updated Allen District East Plan is generally consistent with the previously submitted plan as referenced in the memo prepared by WSP dated October 20, 2017. Below is a summary on the effects on Municipal Servicing and Stormwater Management for the Allen District East Plan:

- Stormwater Management
 - Continuous overland flow and storm sewer route without any requirement of easements over parkland
 - SWM Pond Block is virtually unchanged
 - Percentage Imperviousness is virtually unchanged
- Sanitary Servicing
 - Site can be fully serviced by gravity
- Water Distribution Servicing
 - Ability to fully service the site remains
 - Ability to Loop the watermain system remains
- Almore Sanitary Sewer Upgrade
 - Construction anticipated to start in late 2021 or early 2022
 - Agreed connection invert of the site of 183.25m will service the site
 - Updated plan decreases the flows to the sanitary sewer compared to the 2016 FSR and the 2017 servicing memo

We trust that this letter meets your requirements, please call me at 647-730-7156 should you have any further questions or concerns.

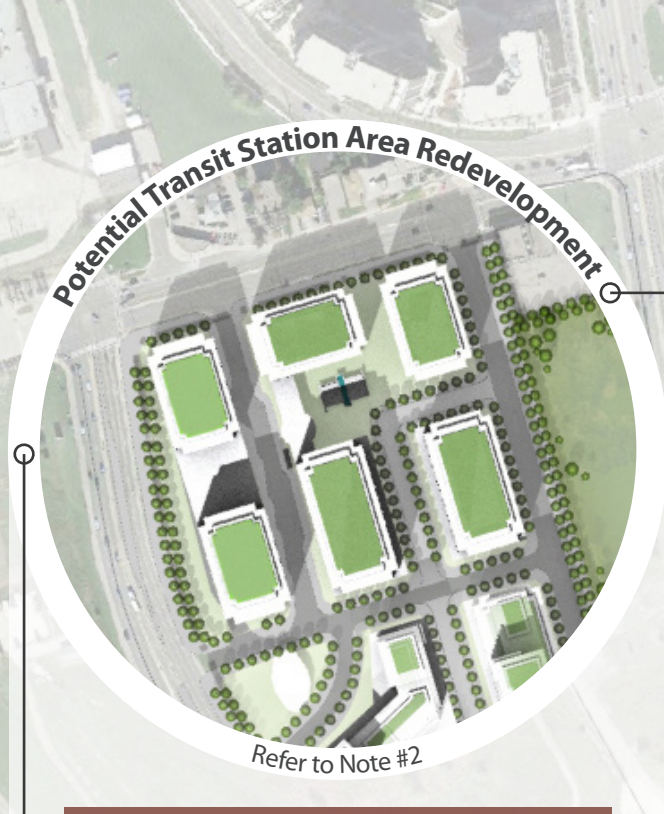
Yours very truly

WSP CANADA GROUP LIMITED

A handwritten signature in blue ink, appearing to read 'Alex Williams'.

Alex Williams, P.Eng.
Project Manager
Land Development

PROPOSED DEMONSTRATION PLAN STATISTICS A.3



MIXED USE AREA

Including Potential Transit Station Area Redevelopment

Area: 10.65ha
FSI: 2.43 Combined
0.90 Residential
1.53 Non-residential
Units: 1,323
Max. Height: 14 storeys

DOWNSVIEW AREA SECONDARY PLAN MAXIMUM FSI

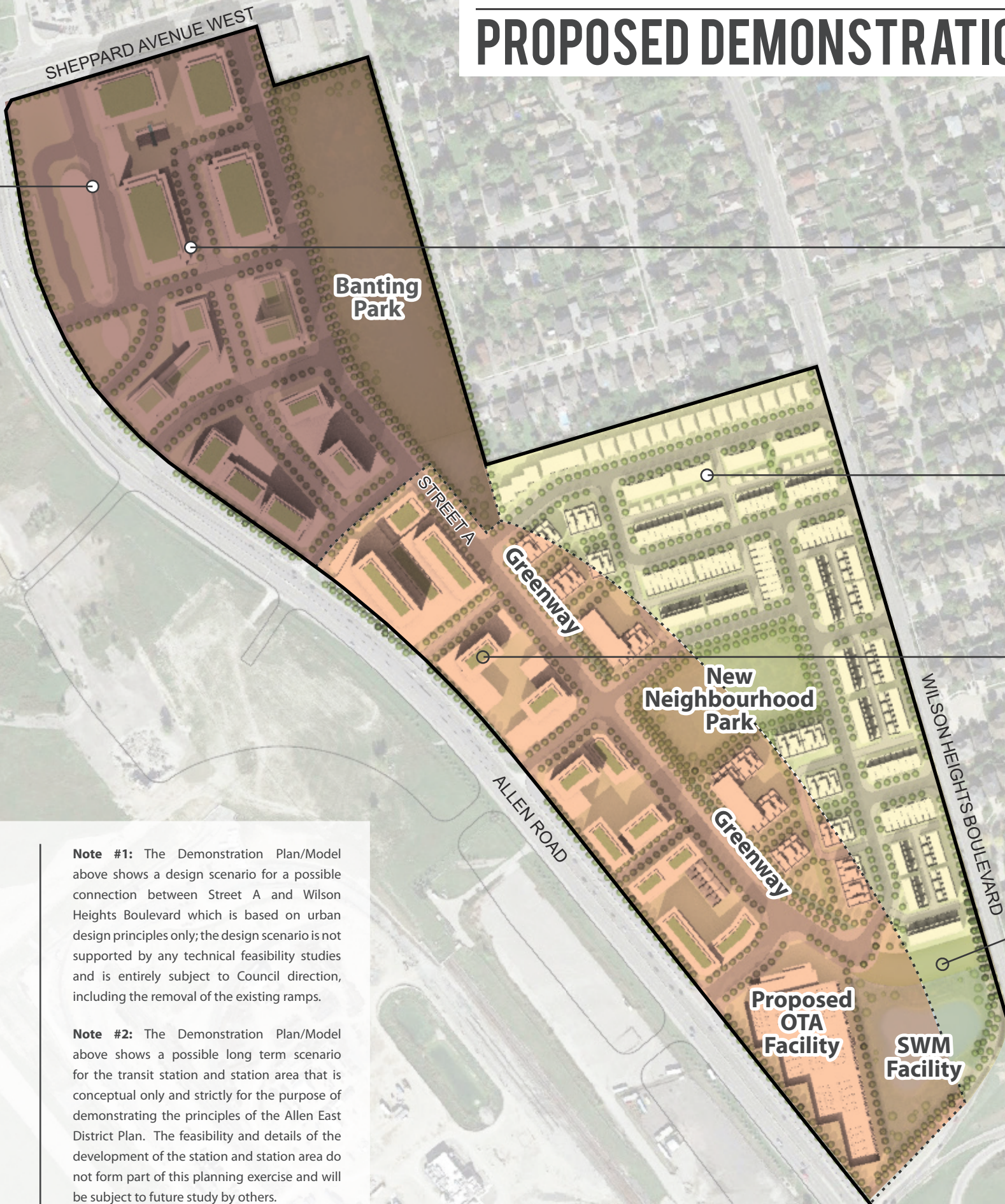
Mixed Use Area: 3.0 Combined
1.0 Residential
2.0 Non-Residential
Apartment Neighbourhood: 1.5
Neighbourhood: 0.85

LAND USE DESIGNATIONS

- Mixed Use
- Apartment Neighbourhood
- Neighbourhood

Note #1: The Demonstration Plan/Model above shows a design scenario for a possible connection between Street A and Wilson Heights Boulevard which is based on urban design principles only; the design scenario is not supported by any technical feasibility studies and is entirely subject to Council direction, including the removal of the existing ramps.

Note #2: The Demonstration Plan/Model above shows a possible long term scenario for the transit station and station area that is conceptual only and strictly for the purpose of demonstrating the principles of the Allen East District Plan. The feasibility and details of the development of the station and station area do not form part of this planning exercise and will be subject to future study by others.



MIXED USE AREA

Area: 10.65ha
FSI: 1.99 Combined
0.90 Residential
1.09 Non-residential
Units: 1,323
Max. Height: 14 storeys

NEIGHBOURHOOD

Area: 8.40ha
FSI: 0.80
Units: 430
Max. Height: 4 storeys

APARTMENT NEIGHBOURHOOD

Area: 10.05ha
FSI: 1.50 Combined
1.28 Residential
0.22 Non-residential
Units: 1,753
Max. Height: 14 storeys

