

**STITTSVILLE SOUTH SUBDIVISION
CITY OF OTTAWA**

DETAILED SERVICING & STORMWATER MANAGEMENT REPORT

Prepared For:

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Prepared By:

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September 21, 2015
Revised April 11, 2016

Novatech File: 113004
Ref: R-2015-072

April 11, 2016

City of Ottawa
Planning and Growth Management Department
Development Review (Suburban) Services Branch
Infrastructure Approvals Division,
110 Laurier Avenue West, 4th Floor
Ottawa, ON K1P 1J1

Attention: Mr. Eric Surprenant, CET
Project Manager

Reference: Stittsville South – Detailed Servicing and SWM Report
Our File No.: 113004

Please find enclosed the Detailed Servicing and Stormwater Management Report for the proposed Stittsville South Development, which is part of Area 6 lands. This report outlines the detailed servicing, storm drainage and stormwater management strategy for the proposed Stittsville South Development (Cavanagh and Regional). The servicing and stormwater management design has been developed based on previously completed studies and the requirements of the City of Ottawa and Rideau Valley Conservation Authority.

Please contact the undersigned should you have any questions or comments pertaining to the enclosed report.

Yours truly,

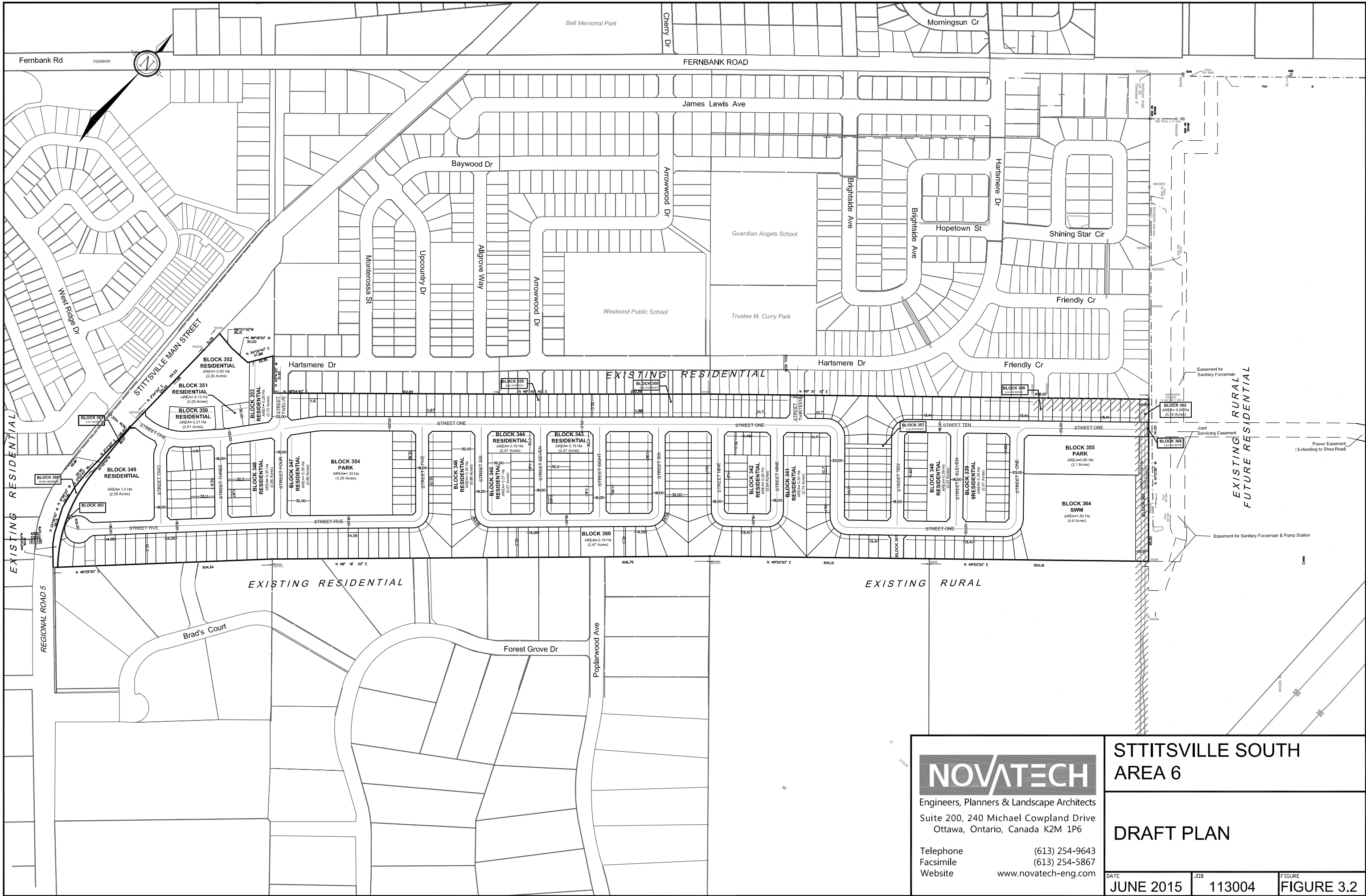
NOVATECH



Sam Bahia, P.Eng.
Project Engineer

cc: Bradley/Cinque Terre Holdings Inc. (c/o Thomas Cavanagh Construction Ltd.)
Stittsville South Inc. (c/o Regional Group Inc.)

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**STTITSVILLE SOUTH
AREA 6**

DRAFT PLAN

DATE JUNE 2015	JOB 113004	FIGURE FIGURE 3.2
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Table 3.2: Cavanagh & Regional Draft Plan Land Use and Yield

Land Use	Unit Count		Total Unit Count	Gross Area (ha)
	Cavanagh	Regional		
Low Density	192	149	341	-
Medium Density	103	60	163	-
High Density	152	0	152	-
Bell Lands (By Others)	-	-	100	-
Total	447	209	756	34.65

3.3 Stittsville South Development - Phasing and Construction Staging

3.3.1 Construction Staging

In order to facilitate the above phasing division and servicing constraints (i.e. proposed Sanitary Pump Station), the development's servicing will require a staged approach for sanitary, storm, watermain components, and temporary cul-de-sacs. Refer to **Drawing 113004-SP**, Staging Plan.

As part of Stage 1, the following section describes the rationale and significance of the staging:

- **Storm and Sanitary Sewers:** The proposed sewers for Stage 1A will ultimately outlet at the east end of the site. In order to service Stage 1A of the development, the trunk sewers within Parade Drive will be built to the Stormwater Management Facility and Stittsville South Pump Station.
- **Stormwater Management Facility:** The proposed Stormwater Management Facility will be built to its ultimate configuration.
- **Sanitary Pump Station:** The proposed Stittsville South Sanitary Pump Station will be built to its required configuration. Refer to the *Stittsville South SPS Report*.
- **Watermain:** As part of Stage 1, the watermains will be built within Stage 1 and connections will be made at Main Street (intersecting Westridge Drive), and three locations along Hartsmere Drive (Hartsmere Extension, Block 359 Pathway, and Dalmatian Way).

In Stage 2, the remainder of the servicing will be implemented as per the ultimate servicing plan, which includes a final watermain connection at Friendly Crescent (Block 356 Pathway).

Stage 3 will allow the development of the high density blocks when future site plan applications are submitted and approved.

7.0 BLOCK 349, BLOCK 353 AND BELL LANDS (FL1) SERVICING POTENTIAL

Due to the location of high density residential lands that are upstream of Stage 1A, namely Block 349, Block 353 and the Bell Lands, the following sections will provide preliminary details for the servicing of the aforementioned blocks. Refer to **Figure 7.1** for illustration.

7.1 Block 349

Based on the current demonstration plan, the proposed development of Block 349 consists of 72 high density residential dwellings to be managed by a condominium corporation. Municipal servicing and utilities will be connected to the public infrastructure on Falabella Street.

The demand for this block has been accounted for in the downstream sewers and potable water hydraulic analysis. Similarly, public utilities have taken into account the development potential of this block. Block 349 has been assigned a release rate of 240 L/s/ha. It is estimated that this release rate can be achieved in the 100-year storm with on-site storage of approximately 100 m³. This storage requirement could be achieved using the estimated available 130m³ of surface storage in the parking lot areas.

As per Section 6.5.1, with regard to the water servicing constraints and proposed elevations of this Block, there is low pressures during peak hour conditions that do not meet the design criterion (<40 psi). As potential mitigation measures, it is proposed to install jet pumps at building services, where buildings are greater than two stories tall, to meet the design criteria. The jet pumps will be owned and maintained by the condominium corporation. Such mitigation measures, including the jet pumps, will be finalized within the servicing report in support of the Block 349's site plan application.

7.2 Block 353

The current demonstration plan proposes the development of Block 353 to consist of a 80 units, high density residential apartment building to be managed by a condominium corporation. Municipal servicing and utilities will be connected to the public infrastructure on Parade Drive.

The demand for this block has been accounted for in the downstream sewers and potable water hydraulic analysis. Similarly, public utilities have taken into account the development potential of this block. Block 353 has been assigned a release rate of 120 L/s/ha. It is estimated that this release rate can be achieved in the 100-year storm with on-site storage of approximately 170 m³. This storage requirement could be achieved with a combination of underground storage using 80m of 1200mm diameter pipe (90m³) and 80m³ of surface storage in the parking lot areas.

As per Section 6.5.1, with regard to the water servicing constraints, proposed elevations and building configuration of this Block, there is low pressures during peak hour conditions that do not meet the design criterion (<40 psi). As potential mitigation measures, it is proposed to install a jet pump at the building mechanical room to meet the design criteria. Such measures will be owned and maintained by the condominium corporation. These details will be finalized within servicing reports in support of the Block 353's site plan application.