

174 Maitland Drive Residential Subdivision

Servicing Report

September 2020

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CONSULTING ENGINEERS AND PLANNERS

COLLINGWOOD · BARRIE · BELLEVILLE · KINGSTON · OTTAWA

File No. 19628-1

1.0 INTRODUCTION

Ainley Group was retained to complete a servicing brief to be included with the submission of Draft Plan of Subdivision Application for the proposed residential development at 174 Maitland Drive, Belleville, Ontario. The purpose of the report is to summarize the servicing requirements for the proposed development. The following services have been considered in this report:

- Transportation System
- Grading
- Stormwater Management
- Water Distribution System
- Sanitary and Storm Sewer Collection Systems

In addition, brief comments regarding individual utility distributions have also been provided. A number of figures have been prepared in order to facilitate future detailed design.

2.0 SITE DESCRIPTION

2.1 Existing Conditions

The property is situated on part of Lot 3, Concession 3, Township of Thurlow, Hastings County. The parcel of land is approximately 4.84 hectares (ha). The property is bounded to the west by existing residential development (Deerfield Park Subdivision), to the south by Lowe's Home Improvement Centre (fronting Millennium Drive), to the east by vacant land, and to the north by Maitland Drive.

The property is currently used by Quinte Broadcasting Co. Ltd for a transmitting tower and transmitting building, surrounded by a wooded area with a gentle slope to the southeast.

A site location plan is attached to this report as **Figure 1**.

2.2 Proposed Conditions

The property is proposed to be developed with the following:

- Thirty-six (36) single family lots,
- Sixty-one (61) townhouse units, and
- Approximately 450 m of municipal road allowance with 20m width.

The current conceptual development plan is attached to this report as **Figure 2**.

2.3 Existing Services

There is an existing watermain located within Maitland Drive, and an existing storm sewer along

the northern limits of the Lowe's Home Improvement Centre property. There is an existing sanitary sewer within the easement along the western property boundary, and a sanitary sewer stub located along the northern limits of the Lowe's property, intended for future development. It is proposed to connect to the watermain within Maitland Drive to service the development. It is proposed to connect to the sanitary sewer within the easement as well as the existing sanitary sewer trunk along the northern limits of the Lowe's property, immediately southeast of the development site (**Figure 2**).

3.0 TRANSPORTATION SYSTEM

The proposed development will be accessed from two (2) locations along Maitland Drive.

The internal two-lane Municipal roadway will be designed to meet the typical City of Belleville minimum standards for a local roadway, urban cross section with a 20m right-of-way as shown on **Figure 2**. The roadway will be designed to meet the typical local municipal minimum standards, or as recommended by the geotechnical investigation, for earth or rock as indicated below*:

40 mm	HL3 Surface Course, over
50 mm	HL8 Binder Course, over
150 mm	Granular 'A', over
300 mm	Granular 'B' Type I

*It should be noted that confirmation of the pavement structure will be required at the time of detailed design to ensure the minimum requirements are met for both earth and rock construction.

Canada Post will be circulated at the time of detailed engineering to determine the recommended location for the community mailboxes and access requirements.

4.0 GRADING

Grading of the site will be determined during detailed design and will be based predominately on the following factors:

- Matching existing grades at property limits.
- Maintaining a minimum cover of 2.7m over the sanitary sewer at the required slopes necessary for gravitational flow to the main.
- Stormwater outfall to the proposed stormwater facility block in the southeast portion of the development property.

5.0 STORMWATER MANAGEMENT

The subject site lies within the Quinte Conservation Region. As such, the stormwater management requirements are subject to the Quinte Conservation Regional Event (100-year design storm). Quality

control is subject to a 'level 1' (enhanced) treatment and quantity control measures are generally required to ensure post development discharge rates do not exceed pre-development rates.

Quality control and quantity control for the development is proposed to be provided in a wet pond facility within the SWM block (2761.3 m²) located in the southeast portion of the proposed development. Storm sewers will be provided through the development to convey stormwater toward the proposed SWM facility. They will be designed per the minimum standards for the Municipal of Belleville storm sewer design. Further detail is provided in the Stormwater Management report under separate cover.

6.0 WATER DISTRIBUTION SYSTEM

The proposed development will be serviced by the existing 400mm diameter PVC Municipal watermain within Maitland Drive. It is proposed to connect to the main to service the development with 200mm diameter PVC watermain. Further detail is provided in the Watermain Design Brief prepared under separate cover to support the proposed Draft Plan Application.

7.0 SANITARY COLLECTION SYSTEM

The proposed sanitary collection system is to consist of a standard gravitational design at a minimum depth of 2.7m. The sewer will be designed in accordance with typical minimum municipal standards. The sewer is proposed to connect to the existing 525mm diameter PVC sanitary sewer within the easement along the western limits of the property as well as the 250mm diameter PVC sanitary sewer immediately southeast of the development site, along the northern limits of the Lowe's property boundary. It is understood that the sanitary sewers were oversized in order to accommodate flows for future development. The western portion of the property will connect to the 525mm diameter sanitary sewer within the easement on the western property boundary. The remaining portion of the property will connect to the 250mm diameter sanitary sewer within the easement southeast of the property boundary on the Lowe's site.

8.0 UTILITY DISTRIBUTIONS

The electrical, telephone, gas and cable services for the proposed development will be installed within a joint utility trench. All electrical, telephone, gas and cable services will be designed by the various agencies and installed in accordance with their specifications. During detailed engineering design, the individual providers will be requested to provide layouts and a compiled plan will be included in the engineering plans.

The street lighting design and street light illumination plans will be completed in accordance with the municipal design standards and guidelines at the time of detailed design.

9.0 CONCLUSIONS

- Thirty-six (36) single detached units and sixty-one (61) townhouse units are proposed within the development.
- Approximately 450 m of municipal road allowance with 20m width is proposed.
- A stormwater management facility block is proposed to be provided within the development site to provide quality and quantity control for the property.
- The development will be serviced by a municipal water system (new 200mm diameter PVC watermain) within the proposed roadway.
- The development will be serviced by a gravity sanitary collection system directing effluent to the existing sanitary sewers within easements along the western limits of the property as well as the southeastern limits of the property.
- Natural gas, electrical, telephone and cable utilities will be designed in accordance with the distributor's specifications and incorporated into the subdivision detail design.

We trust the above information meets your needs at this time and should you have any further questions or concerns, please do not hesitate to contact our office.

Sincerely,

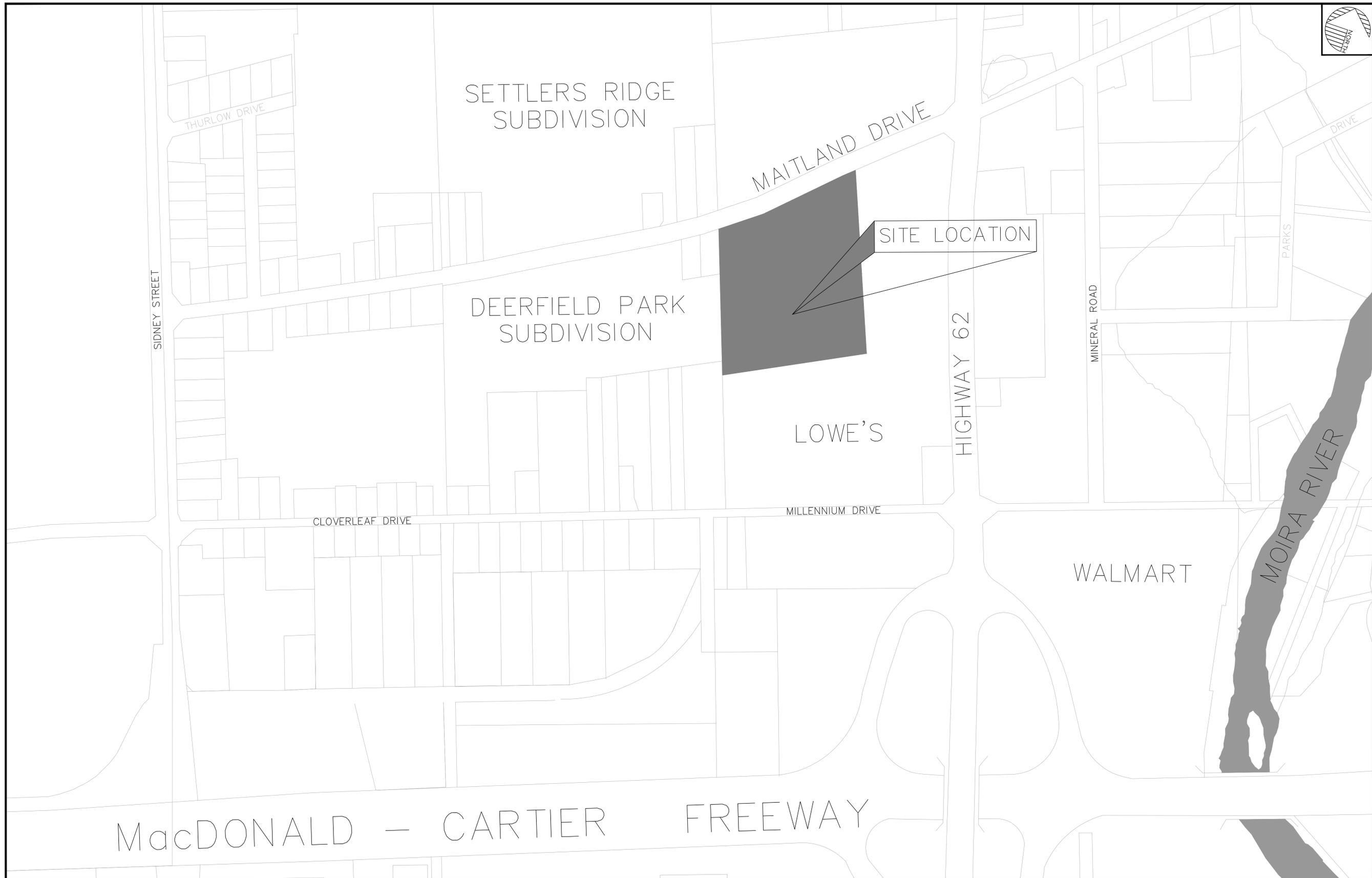
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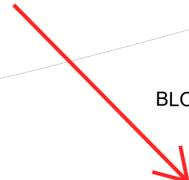
174 MAITLAND DRIVE
CITY OF BELLEVILLE

FIGURE 1
KEY MAP

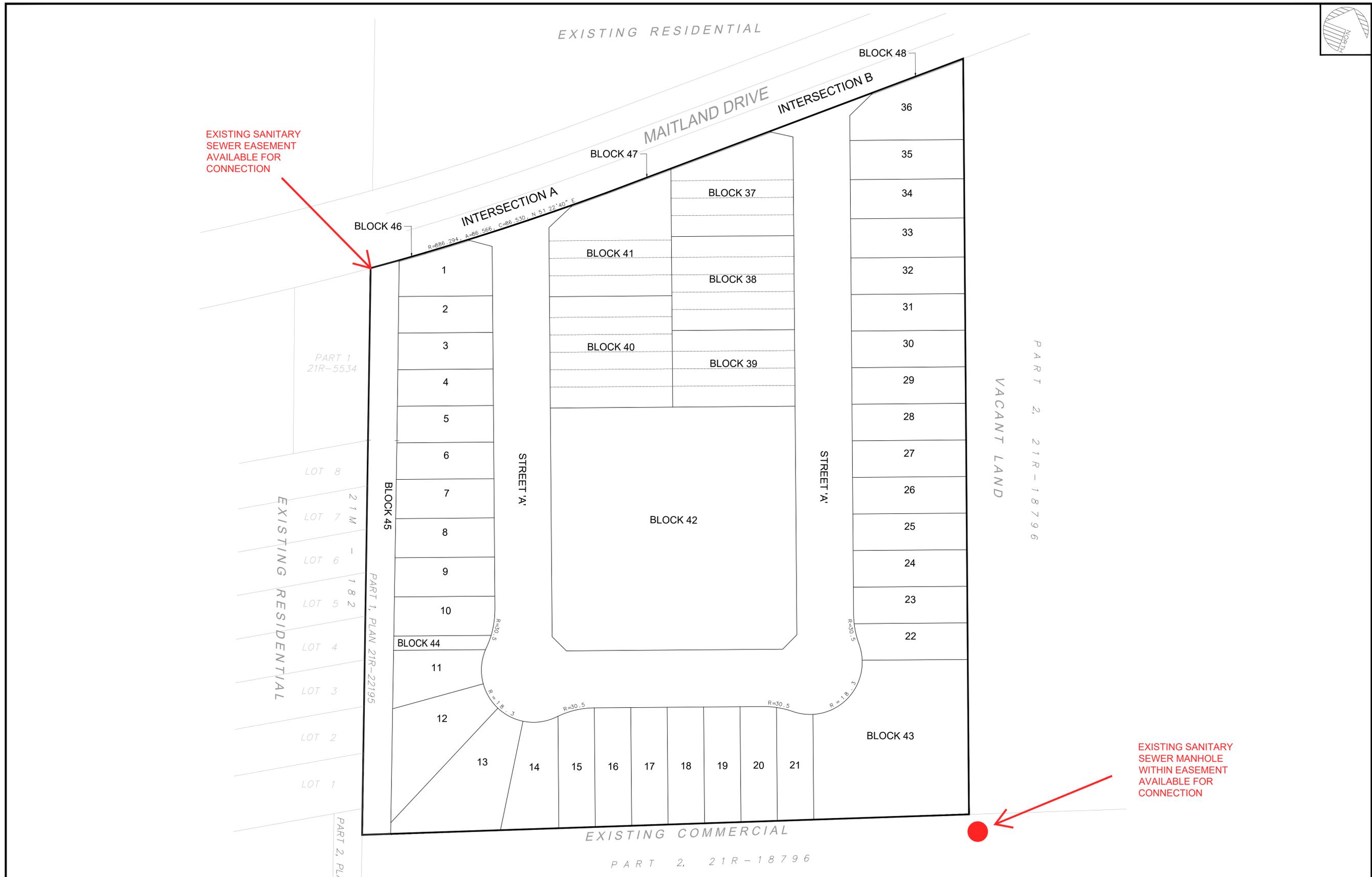
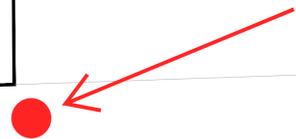




EXISTING SANITARY
SEWER EASEMENT
AVAILABLE FOR
CONNECTION



EXISTING SANITARY
SEWER MANHOLE
WITHIN EASEMENT
AVAILABLE FOR
CONNECTION



174 MAITLAND DRIVE
CITY OF BELLEVILLE

FIGURE 2
CONCEPT PLAN

