



2396584 Ontario Inc.

Teviotdale Industrial Subdivision, Town of Minto
Site Servicing Report

GMBP File: 322035

June, 2023



TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	ENGINEERING OPPORTUNITIES AND CONSTRAINTS	1
2.1	Environmental Issues.....	2
2.2	Grading	2
2.3	Municipal Servicing.....	2
2.3.1	Sanitary Servicing	2
2.3.2	Watermain.....	2
2.3.3	Storm Servicing and Stormwater Management (SWM).....	2
2.4	Utilities and Lighting.....	3
2.5	Roadways	3
2.6	Other Considerations	3
2.7	Summary.....	3

APPENDICES

Appendix A Concept Drawings

TEVIOTDALE INDUSTRIAL SUBDIVISION, TOWN OF MINTO
2396584 ONTARIO INC.

1. INTRODUCTION

GM BluePlan Engineering Limited (GMBP) has been retained by the property owner, 2396584 Ontario Inc, to prepare this preliminary servicing report in support of a Draft Plan application for a parcel of land herein named the Teviotdale Industrial Subdivision (hereafter known as the subject property or site). The intention of the draft plan is to subdivide the land for the purposes of creating approximately 12 industrial lots.

The subject property is located in the Town of Minto in the settlement of Teviotdale, immediately south of the OPP station, and is legally described as Part of Lot 114 Concession D, Town of Minto. The parcel is approximately 8.26 hectares (20.41 acres) in size. The site has frontage on Wellington Road 109 and also has access to Wellington Road 123 (Perth Line 93). A Draft Plan drawing showing the conceptual road and lot layout for the purposes of this report is provided in Appendix 'A'.

The site is crossed by the Minto Municipal Drain No. 59, including the Main Drain and branches 'B' and 'C'. Minto Drain No. 59 provides drainage to both this site as well as lands both east and south of the site and drains in a northwest direction with outlet into the Teviotdale Drain approximately 490m downstream of the site boundary.

A topographic survey was provided that was performed by Van Harten Surveying Inc. The topographic survey shows that the site slopes gently from the southeast corner to northwest corner, generally towards the Teviotdale Drain, with a maximum relief of approximately 2.75m.

In preparing this report, we have undertaken the following actions:

- Obtained drawings and reports of the Minto Drain No. 59;
- Obtained a detailed topographical and legal survey;
- Held discussions with the Town of Minto and the County of Wellington regarding servicing and access;
- Reviewed available local mapping, including topographical and parcel boundaries;
- Held discussions with the Maitland Valley Conservation Authority (MVCA); and
- Reviewed the "Municipal Servicing and Design Standards" from the Town of Minto.

The report which follows briefly summarizes anticipated opportunities and constraints associated with the potential development of this site as an industrial subdivision and recommends a proposed strategy to provide servicing.

This report focuses primarily on engineering-related matters related to potential development and should be read in conjunction with the accompanying Planning Justification Report prepared on behalf of the Owner by MHBC Planning.

2. ENGINEERING OPPORTUNITIES AND CONSTRAINTS

The following subsections briefly describe servicing opportunities and constraints identified to date. The engineering assessment has been broken down into environmental issues, grading, servicing (sanitary, water, and storm water), utilities, roadways, and other considerations.

2.1 Environmental Issues

Following the pre-consultation meeting held on September 13th, 2022 it was confirmed by the County of Wellington that due to the lack of local environmental features no environmental impact study would be required. It was also noted that a nitrate (D-5-4) study would not be required and that septic design could be determined based on the findings of the geotechnical report.

No site-specific environmental issues have been identified to date.

2.2 Grading

Based on our review of the site and preliminary calculations, we consider that the development can be graded to conform to the intent of the Minto's Municipal Servicing and Design Standards.

The site undulates but generally slopes from a south to north and east to west direction with an average slope of 0.63%. The intention is to grade the site so that runoff from the lots and the proposed roadway will sheetflow on the surface to a combination of rear-yard and road-side ditches, all of which will be routed to a proposed stormwater management facility. In general, it proposed to grade all lots from rear to front, although some split drainage may be required. It is possible this site may require fill to achieve the desired lot grades.

The gradient of the lots shall be a minimum 2% according to Minto's standards to ensure proper sheetflow. Considering the low overall slope of the site, it may be required to drop the elevation of the proposed road or raise the elevation of the top bank of the proposed open ditch along the southern perimeter of the site to achieve the desired gradient. Site grading will be further refined during the detailed design process.

2.3 Servicing

The proposed development is rural in nature and therefore all servicing will be private, with individual water wells and septic systems on each lot.

2.3.1 Sanitary Servicing

All lots will be provided with individual septic systems. Septic systems will need to be sized to the use of each proposed building, but in general, assuming small dry-type industrial operations with 15-20 employees, and assuming that local soils are poor with a T-time greater than 50, it is expected that fill-based type septic systems will be required and will be approximately 500 m² in area. The smallest lots proposed are 1 acre (4,050 m²) in size and as a result it is expected that private septic servicing will be readily achievable in this development.

All septic systems with a design flow rate of less than 10,000 L/day will require a permit from the Minto Building Department. Systems exceeding the 10,000 L/day limit require a permit from the Ministry of Environment, Conservation and Parks (MECP) however this is considered a highly unlikely scenario.

2.3.2 Water Servicing

All proposed lots will require an individual water supply well, to be drilled by a licensed well drilling contractor and include a water tight casing, all in accordance with O.Reg 903. No investigations have been undertaken to confirm the ability of the local aquifer to supply the proposed development. It is expected however that the development will consist of dry-type low demand industrial uses, and it is noted that there are a number of surrounding commercial/industrial uses also on private water wells. As such, it is expected that servicing with individual water wells will be achievable. It is also noted that Wellington County did not require any additional investigation during the pre-consultation process.

2.3.3 Storm Servicing and Stormwater Management (SWM)

The storm servicing and stormwater management for this subdivision will be detailed in the Preliminary Stormwater Management Report.

Overland flow from surrounding properties will be captured and conveyed by a proposed ditch along the southern and western perimeter of the Site, eventually rejoining Municipal Drain No. 59.

2.4 Utilities and Lighting

Known local utility providers include Wightman Telecom, Hydro One Networks, and Enbridge Gas. It is not expected that the development will include heavy industrial facilities and as a result the servicing demands of the available utilities will be relatively light.

It is anticipated that LED street lighting will be required on all new internal streets in keeping with Minto's standards, at the developer's cost.

Confirmation of adequate utility services will be made again at a later date prior to registration and construction.

2.5 Roadways

The proposed roadway will be designed to ensure proper drainage and to comply with Minto's standards. The minimum longitudinal gradient shall be 5%, with a minimum 2% crossfall and 5% shoulders. It is expected that total roadway width will consist of 8m of asphalt and 1m shoulders on a 26.0m wide right-of-way. Roadside ditches will be installed to a depth of 0.3m below road subbase grade with 3:1 side slopes. No sidewalk is proposed.

Road base design will be determined by the geotechnical investigation, however preliminary design envisions 450mm of granular 'B' overlain by 150mm of granular 'A' and two layers of HL-4 asphalt with a total thickness of 100mm.

The road will include a cul-de-sac with a radius of 13m. The roadway will connect to Wellington Road 109 with intersection radii of 10m. All entrances from the roadway to individual lots will comply with Minto's standards for industrial developments.

2.6 Other Considerations

A geotechnical investigation will be performed on the Site, the results of which will be adhered to during the detailed design phase. We are familiar with typical soil types in the area and do not expect any adverse conditions.

In addition, an Archaeological study, a scoped Traffic Impact Analysis, and a Noise & Land Use Compatibility study have been performed and are submitted under separate cover.

We do not anticipate that any studies in addition to those listed will be required.

2.7 Summary

In our opinion, development of the 2396585 Ontario Inc property as an industrial subdivision is achievable from an engineering perspective.

Conceptually, the subject property can be privately serviced with individual septic and water well systems. Existing grades on the subject property suggest that a rural open-ditch style storm network servicing the property is possible, including a proposed stormwater management facility with outlet to an existing Municipal Drain.

Connections can also be made to existing utilities on the adjacent County roadway.

GM BluePlan Engineering is pleased to have undertaken this servicing strategy study for the Owner and is available to discuss this study with the Town of Minto in further detail if desired.



All of which is respectfully submitted.
GM BLUEPLAN ENGINEERING LIMITED
Per:

A handwritten signature in black ink, appearing to read 'Matt Ash'.

Matt Ash, C.E.T.

Appendix A
Concept Drawings

DRAFT PLAN OF SUBDIVISION

LEGAL DESCRIPTION

PART OF LOT 114
CONCESSION D
TOWN OF MINTO
COUNTY OF WELLINGTON

OWNER'S CERTIFICATE

I HEREBY AUTHORIZE MACNAUGHTON HERMSEN BRITTON CLARKSON PLANNING LIMITED TO SUBMIT THIS PLAN FOR APPROVAL.

DATE: _____

DOUG TAYLOR, OWNER
FRONTIERS DESIGN BUILD INC.

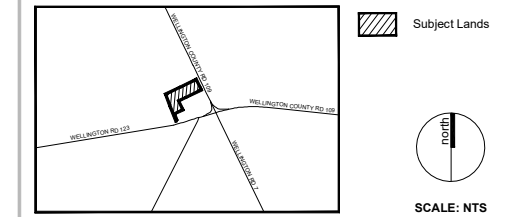
SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

DATE: _____

JOHN S. SCOTT, OLS
VAN HARTEN SURVEYING INC.

KEY PLAN



Additional Information Required Under Section 51(17) of the Planning Act R.S.O. 1990, c.P.13 as Amended

- | | | |
|--|---------------------|-------------|
| A. AS SHOWN | B. AS SHOWN | C. AS SHOWN |
| D. RURAL INDUSTRIAL, STORMWATER MANAGEMENT, FUTURE DEVELOPMENT | | |
| E. AS SHOWN | F. AS SHOWN | G. AS SHOWN |
| H. NOT APPLICABLE | I. LOAM / CLAY LOAM | J. AS SHOWN |
| K. ALL SERVICES AS REQUIRED | | |

AREA SCHEDULE

	LOTS/BLOCKS	AREA (ha.)	(ac.)
RURAL INDUSTRIAL	1-12	6.118	15.12
STORM WATER MANAGEMENT	13	0.684	1.69
FUTURE DEVELOPMENT	14	0.364	0.90
0.3m RESERVE	15-17	0.003	0.00
ROADS		1.091	2.70
TOTAL	15	8.260	20.41

Notes

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN

Revision No.	Date	Issued / Revision	By



Approval Stamp

Date	April 18, 2023
File No.	22343A
Plan Scale	1: 1,000 (Arch D)
Drawn By	LC

Project	TEVIOTDALE	Checked By	PC
---------	------------	------------	----

Applicant	FRONTIERS DESIGN BUILD INC.	Other	
-----------	-----------------------------	-------	--



File Name	DRAFT PLAN OF SUBDIVISION	Dwg No.	1 of 1
-----------	---------------------------	---------	--------

