



February 16<sup>th</sup>, 2021

JDE Project 20116

***Deltini Commercial Developments Inc.***

***Deltini (Mulmur) Inc.***

***Deltini (Primrose) Inc.***

c/o Marika Zigon

1350 Shawson Drive

Mississauga, ON L4W 1C5

**RE: Professional Engineering Services – Entrance Analysis  
Primrose Industrial Subdivision, Hamlet of Primrose, Township of Mulmur**

**JD Northcote Engineering Inc.** [JD Engineering] is pleased to submit the following traffic letter in support of the proposed industrial development in the Hamlet of Primrose, Township of Mulmur [Township].

**1.0 BACKGROUND**

The subject site is municipally known as 636040 Prince of Wales Road, 506249 Highway 89 and 506243 Highway 89, located on the north side of Highway 89, west of Prince of Whales Road.

Access to the development is proposed via new municipal road with a full-movement entrance onto Prince of Whales Road (Dufferin Road 19). The Proposed Draft Plan of Subdivision by Jones Consulting Group Ltd. is shown in the **Appendix**.

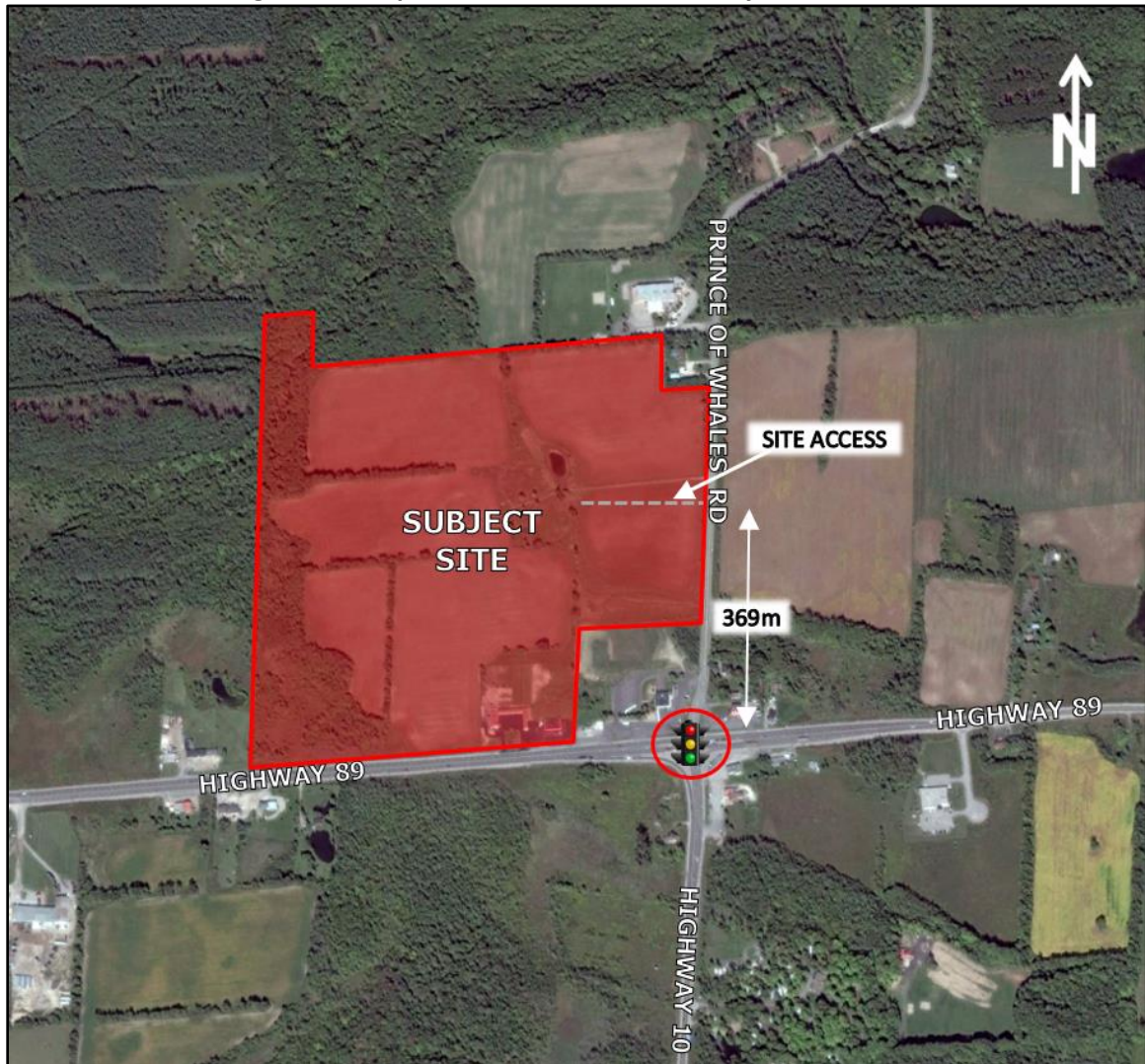
The Township/County has requested an Entrance Analysis in support of the proposed industrial subdivision and rezoning application for the subject property.

**Figure 1** illustrates the location of the subject site in relation to the surrounding area.



**JD Engineering**  
Phone: 705.725.4035  
Email: Info@JDEngineering.ca

**Figure 1 – Proposed Site Location and Study Area**



## 2.0 INFORMATION GATHERING

**Prince of Whales Road (Dufferin Road 19)** is designated as a County Road within the County's Official Plan with a two-lane rural cross-section through the study area. Prince of Whales Road provides one lane of travel per direction with a posted speed limit of 60 km/h. Prince of Whales Road is under the jurisdiction of the County.

**Highway 89** is designated as Class 2B – Arterial road with a two-lane rural cross-section east of Prince of Whales Road and a four-lane rural cross-section to the west. The posted speed limit on Highway 89 through the study area is 80 km/h. Highway 89 is under the jurisdiction of the MTO.

### 3.0 SIGHT DISTANCE ANALYSIS

A review of the available sight distances at the Site Access on Prince of Whales Road intersection completed as part of this analysis. Sight distances were measured during a site visit, based on the existing vertical and horizontal sight constraints at the proposed entrance location.

The sight distances were evaluated based on both the minimum stopping sight distance and intersection sight distance requirements as recommended in the Transportation Association of Canada Design Guide for Canadian Roads (2017) [TAC Guidelines]. With a posted speed of 60km/h, a design speed of 80km/h (posted speed + 20km/h for higher speed roads) was utilized for Prince of Whales Road.

The available sight distance was identified through field observations. The photographs provided in the **Appendix** illustrate the available sight distance from the critical location (driver's eye height of 1.08 metres and object height of 0.6m), as identified in the TAC Guidelines. **Table 1** summarizes the sight distance review.

**Table 1 – Sight Distance Review**

Turning Movement Description	TAC Guidelines (80km/h design speed)	Available Sight Distance	
		North	South
Minimum Sight Stopping Distance	130m	202 m	311m
Intersection Sight Distance	170m		

As outlined above, the sight distances at the Site Access are greater than both the minimum stopping sight distance and minimum intersection sight distance requirements as identified in the TAC Guidelines for the applicable design speed.

As such, the available sight distances in the study area are acceptable for the intended use.

### 4.0 SITE ACCESS SPACING

The proposed spacing between the Site Access and the existing residential driveway to the north and commercial driveway to the south is in excess of the suggested minimum corner clearance requirements as identified in the TAC Guidelines – Figure 8.8.2 (Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections) – 35 metres for arterial roads for unsignalized conditions.

The proposed spacing between the proposed Site Access and Highway 89 (approximately 369 metres) is slightly less than the desirable offset spacing criteria as identified in the MTO Highway Management Guideline (2013) – Figure 13 (Public Road and Commercial / Private Road Access Connections for Medium / High Volume Traffic Generators) – 400 metres. However, the proposed

spacing does exceed the desirable offset spacing criteria for a Low Volume Traffic Generator (Figure 12) – 85 metres.

The available sight distance was reviewed for an intersection located at the recommended 400 metre offset distance from Highway 89. The sight distance at this location meets the TAC requirements to the south; however, the sight distance to the north is less than the required intersection sight distances by approximately 5 metres. In consideration of this limitation, it is recommended that the Site Access is located at the proposed 369 metre offset.

Based on our review, proposed Site Access (at a 369 metre offset from Highway 89) will provide the necessary spacing to ensure safe and efficient traffic flow, including consideration for any potential future intersection improvements at the Prince of Whales Road / Highway 89 intersection, including installation of traffic signals and auxiliary turn lanes.

## 5.0 CONCLUSION

This section summarizes the conclusions and recommendations from the study.

- 1) The available sight distance at the Site Access is in excess of the both the minimum stopping sight distance and intersection sight distance requirements suggested as identified in the TAC Guidelines.
- 2) The proposed spacing between the Site Access and the existing residential driveway to the north and commercial driveway to the south is in excess of the suggested minimum corner clearance requirements as identified in the TAC Guidelines.
- 3) The proposed spacing between the proposed Site Access and Highway 89 is acceptable for the intended use.

We trust that you find this proposal satisfies your requirements.

Yours truly,  
**JD Northcote Engineering Inc.**



John Northcote, P.Eng.  
President



## **APPENDIX**



**PICTURE 1**



Picture taken from Site Access facing north



**PICTURE 2**



Picture taken from Site Access facing south



**PICTURE 3**



Picture taken from north facing Site Access

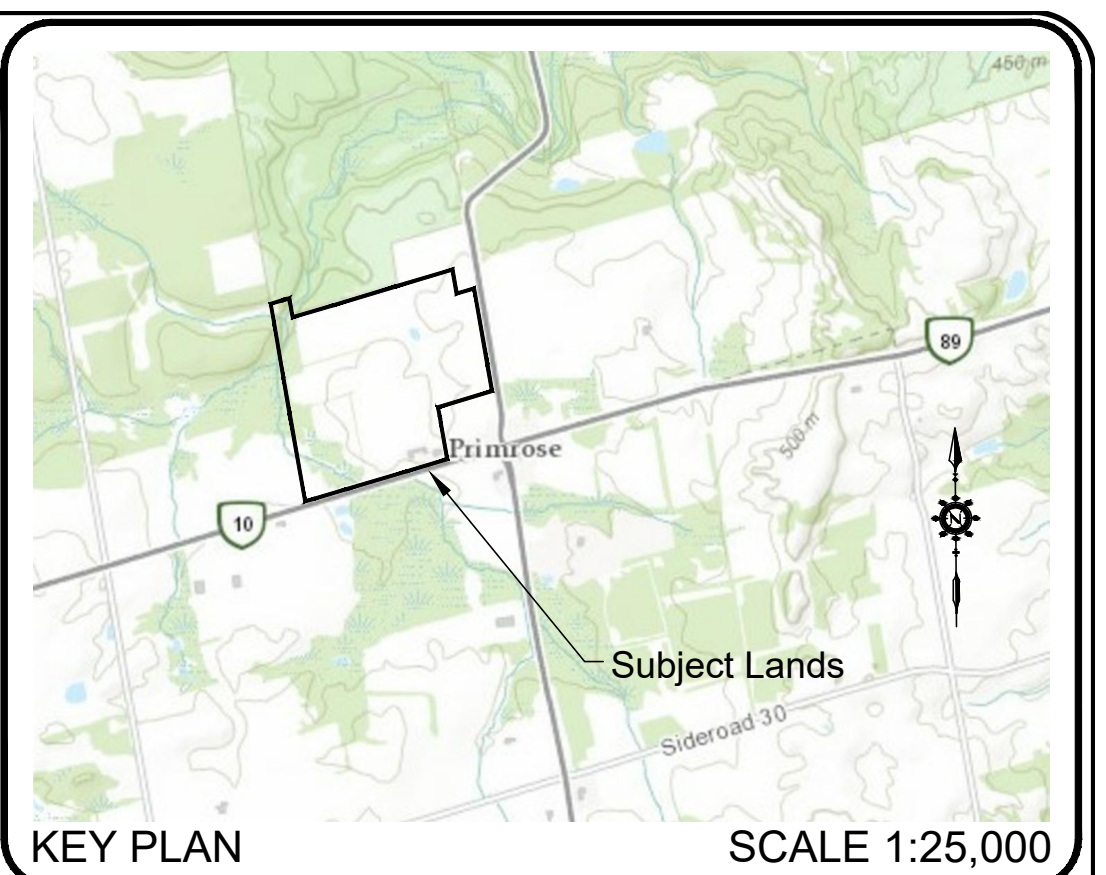
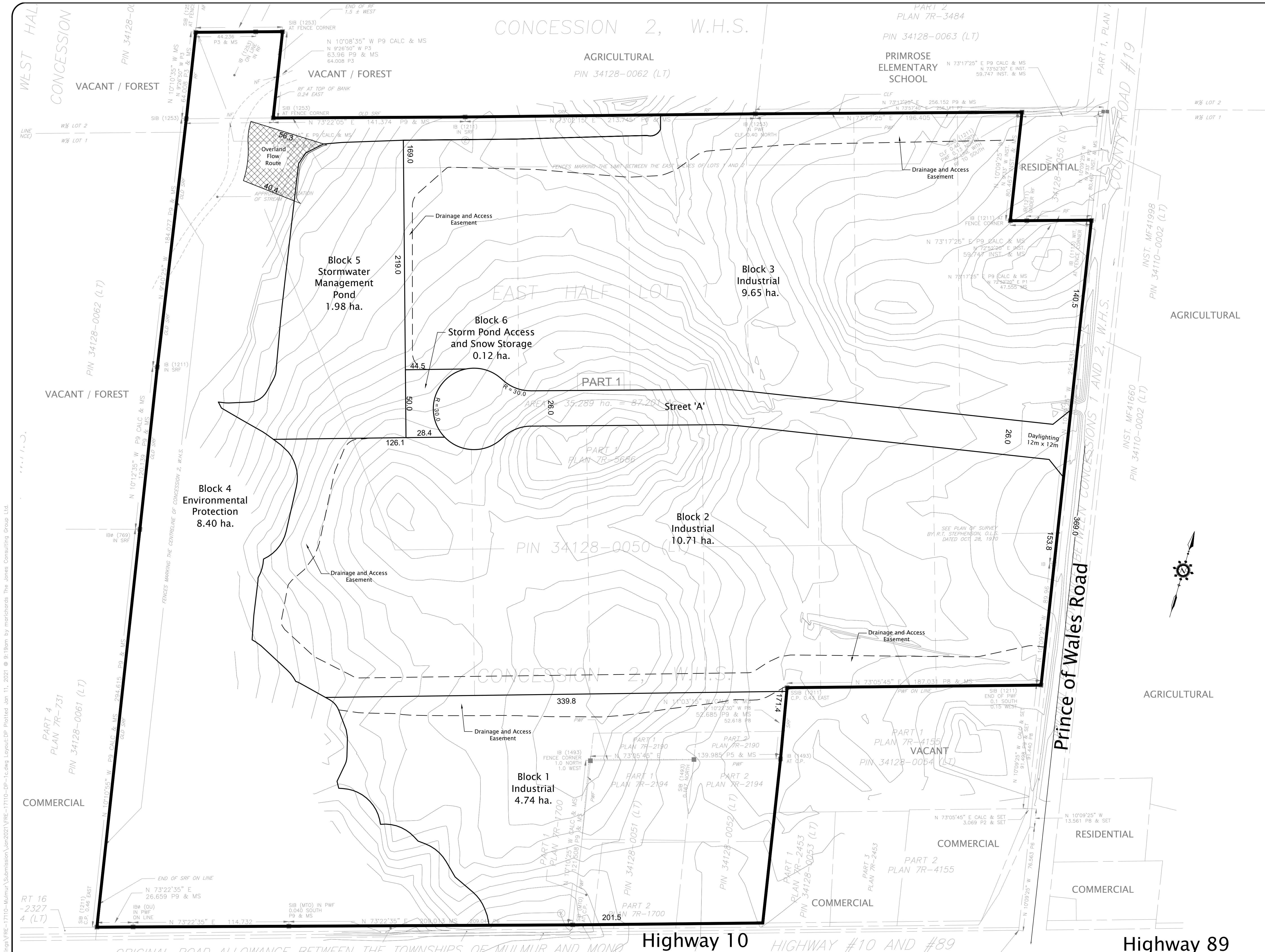


**PICTURE 4**



Picture taken from south facing Site Access





# Draft Plan of Subdivision

Part of the East Half of Lot 1 And,  
Part of the East Half of Lot 2, Concession 2,  
West of Hurontario Street  
Township of Mulmur  
County of Dufferin  
2021

**OWNER'S CERTIFICATE**  
I, THE UNDERSIGNED, BEING THE REGISTERED OWNER OF THE SUBJECT LANDS, HEREBY AUTHORIZING THE JONES CONSULTING GROUP LTD., TO PREPARE THIS DRAFT PLAN OF SUBDIVISION AND TO SUBMIT SAME TO THE TOWNSHIP OF MULMUR FOR APPROVAL.

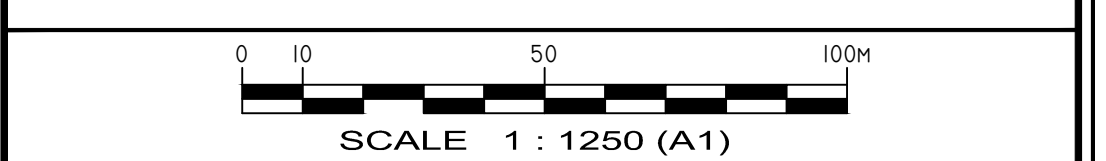
**DATE** \_\_\_\_\_  
636040 Prince of Wales Road:  
Deltini Commercial Developments Inc.  
506249 Highway 89: Deltini (Mulmur) Inc.  
506243 Highway 89: Deltini (Primrose) Inc.

**SURVEYOR'S CERTIFICATE**  
I CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

**DATE** \_\_\_\_\_  
P.J. WILLIAMS, OLS

- ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT**
- |                         |  |
|-------------------------|--|
| a) SHOWN ON DRAFT PLAN  | g) SHOWN ON DRAFT PLAN                   |
| b) SHOWN ON DRAFT PLAN  | h) MUNICIPAL PIPED WATER TO BE PROVIDED  |
| c) SHOWN ON KEY PLAN    | i) SANDY/CLAY LOAM                       |
| d) INDUSTRIAL, EP & SWM | j) SHOWN ON DRAFT PLAN                   |
| e) SHOWN ON DRAFT PLAN  | k) ALL MUNICIPAL SERVICES TO BE PROVIDED |
| f) SHOWN ON DRAFT PLAN  | l) SHOWN ON DRAFT PLAN                   |

STATISTICS	AREA (ha.)
Industrial Blocks (BLOCKS 1 - 3)	25.10 ha.
Environmental Protection (BLOCK 4)	8.40 ha.
Stormwater Management (BLOCK 5)	1.98 ha.
Snow Storage (BLOCK 6)	0.12 ha.
Road (STREET 'A')	1.37 ha.
TOTAL	36.97 ha.



MULMUR PROPERTY  
PROPOSED DRAFT PLAN OF SUBDIVISION

Raymond J. Dufresne  
REGISTERED PROFESSIONAL PLANNER  
R.P.P.

Date Issued: JULY 9, 2020

Checked By:	RD
Project No.:	FRE-17110
Drawn By:	m.c.r.
Drawing Name:	FRE-17110-DP-1c.dwg

**JONES**  
CONSULTING GROUP LTD.  
PLANNERS & ENGINEERS  
228 Mapleview Drive East, Unit 1, Barrie, Ontario L4N 6W5  
Phone: 705-734-2538 Fax: 705-734-1056  
www.jonesconsulting.com

SCHEDULE OF REVISIONS		
DATE	DESCRIPTION	DRAWN
OCT. 20/2020	REVISIONS AS PER COMMENTS	m.c.r.
JAN. 11/2021	REVISIONS AS PER ENG COMMENTS	m.c.r.

# DRAFT PLAN OF SUBDIVISION

## HAMLET OF PRIMROSE, TOWNSHIP OF MULMUR

G:\Planning Drawings\FRE-17110-Mulmur\Submission\Non2021\FRE-17110-DP-1c.dwg Layout.DP Plotted Jan 11, 2021 @ 9:19am by mardwards The Jones Consulting Group Ltd.