

**Tree Analysis
And
Management Plan**

**For Property Proposed
For Residential Development**

By

Howshel Developments Inc

Located

275 Pringle Dr.

&

**Rear (East) Portion, 97 Miller Drive
Barrie, ON**

**Prepared in Support of Application
For Re-zoning, Severance & Residential Development**

By

**Innovative Planning Solutions
Barrie, ON**

- March, 2020 -



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General Information

A 'Tree Preservation Plan' for development of the original extent of the subject property, based on (then) 75 Miller Drive was filed with the City of Barrie in October, 2006 – and, following minor amendments, a permit was issued to the owners (Howshel Developments, Inc.) under City of Barrie Tree Preservation By-law (#2005 – 120).

Since that time, development of most of the original holding has been completed according to the approved Plan of Subdivision. This involved most of the Howshel Developments' holding between Miller Drive (on the west), easterly, to the subsequently completed section of Pringle Drive.

The residual holding of the developer is an L-shaped parcel which fronts onto Pringle Drive as Lot # 275. This residual parcel is contained on its west and south limits by a high board 'privacy fence'.

The owners propose to acquire an east portion of a large lot extending from Miller Drive, easterly, along the north side of Sproule Drive to the remaining undeveloped portion of their holding at 265 Pringle Drive. [See Plan View on Page 7].

This acquisition will create a rectangular lot bounded on the east by Pringle Drive, on the south by Sproule Drive and on the west and north sides by previously developed residential lots. This will facilitate the proposed development of three residential units on the new parcel.

Inventory of Tree and Shrub Species

At the request of and under the authority of the owners of Howshel Developments, the undersigned conducted an inventory of the trees and shrubs within the limits of the proposed new parcel. The inventory and quality analysis of the growing stock was conducted in February - March 2020 as the first step in preparing a report and plan for tree preservation/conservation for the City of Barrie under its Tree Preservation By-law.

The purpose of the inventory was to determine the existing diversity of species, their quality and their potential for future enhancement of the subject setting upon completion of the proposed construction and henceforth – and, more specifically, to form a realistic basis for restoration and long term management of the property's tree-based landscape in keeping with the objectives of the City of Barrie Tree Preservation By-law.

Preliminary Observations, by Species –

Notable tree cover on the new parcel consists of an old and declining straight-line ‘hedge’ of Eastern White Cedar (*Thuja occidentalis*) located immediately east of the high board fence bounding the east border of 101 Miller Drive.

This White Cedar hedge was preserved/protected under the original Tree Preservation Plan – at a time when it was younger and more vibrant and stable.

It is a remnant of a larger windbreak/privacy planting for the original pre-2006 property landscape.

Along the existing wood fence bordering the rear (eastern) portion of 97 Miller Drive and within the yard so contained, there exists a diverse scattering of larger trees and shrubs.

Many of these closely abut the fence and, as a result, are in a straight line and crowded.

Here, the species include White Spruce (*Picea glauca*); Blue Spruce (*P. pungens*); Austrian Pine (*Pinus nigra*); Scots Pine (*P. Sylvestris*); White Elm (*Ulmus americana*); Quaking Aspen (*Populus tremuloides*) and Manitoba Maple (*Acer negundo*).

In addition, scattered Honeysuckle shrubs (*Lonicera tatarica*) occur along the east side of the fence bordering the east end of 91 Miller Drive.

These groups of woody plant growth are shown in plan view on Page 8.

Note:

These trees are a mixture of old plantings and residual natural/invasive growth.

Their ages range from approximately 25 to 50 years - and are within the interior of the proposed new rectangular lot.

No ‘species-at-risk’ were found within these residual specimens.

Analysis of Landscape Quality and Environmental Function of Existing Trees and Shrubs - With Management Recommendations*

The deciduous specimens were analyzed without foliage.

However, their potential function within the pending new landscape was easy to determine – based on their location, proximity to each other, size, general form and health.

Crown spread and quality; ultimate height; root pattern and spread; general health, vigour and attractiveness; stem soundness; potential seed droppings, etc are all important considerations in this urban environment – and form the basis of the ‘management’ recommendations.

Analyses and Recommendations* - by Species

It should be noted that the quantity of each species ranges from one to six in a variety of sizes from spindly saplings to 18 metres in height - with most spacing being in conflict with long term health tree and form aesthetics.

The Manitoba Maple are of typically poor form, condition and size – and should be defined as ‘invasive’ in this setting. They are a nuisance in most landscape settings – especially ‘urban residential’.

In this case, some are entangled in the existing fencing.

* Remove entirely.

The Austrian Pine are located as a small open clump - in close proximity to Pringle Drive.

These ‘non-natives’ were obviously ‘planted’ - and the species is often a handsome specimen tree in an appropriate setting.

However, these are now large trees (30-40 cm / 12-16” Dbh). [Dbh = diameter-at-breast height] by 15 metres / 50 feet in height.

And at least one specimen shows signs of Diploidia Tip Blight (*Diploid pinea*) – which is common among this species and results in a form of die-back, ruins the foliage and natural form of the tree, requires significant maintenance – and, in this case, the infected tree and the adjacent specimens could become ‘hazard trees’ adjacent to the existing City sidewalk.

* Remove

The Honeysuckle shrubs occur in no particular pattern among the larger deciduous trees fronting Pringle Drive.

They are loaded with Black Knot – a serious disease caused by the fungus *Apiosporina morbosae*. The disease results in deformation of the branches and eventual death of the infected tree or shrub – and is easily spread from one plant to others in the vicinity. Its victims are chiefly of the *Prunus* species – but will attack Oak, Honeysuckle, etc..

*They should be removed and disposed of, with caution (e.g. in garbage bags or other sealable containers), to prevent the spread of the disease – especially in this ‘urban neighbourhood’ setting.

The White Spruce and a single Blue Spruce are generally large, have lost their initial attractive pyramidal form (the lower branches are staggered or missing) – and there are signs of die-back – especially in the southeast corner of the property.

They are too large to be accommodated and /or to blend in with the proposed residential development of this area.

* Remove.

Analyses and Recommendations* - by Species, cont'd

Scots Pine should be viewed as an 'invasive exotic' – planted on a large scale in years gone-by as Christmas Tree plantations, shelter belts and, occasionally, as specimen trees in home landscapes: they grow rapidly and irregularly without regular maintenance pruning; reproduce seed aggressively, invading downwind sites, including gardens - and generally fall apart within a few decades.

*Remove

Quaking Aspen is a fast-growing / relatively short-lived forest tree species, - and is generally not suited to the urban landscape, such as this.

*Remove

White Elm is highly susceptible to Dutch Elm Disease once it reaches 6 -8 " Dbh - i.e. when the bark becomes rough enough to provide habitat for the Dutch Elm Beetle which carries the disease.

* Remove

Virtually all of the fore-going mix of tree species are situated, by design or default, along the existing board fence containing the rear (eastern) portion of the current 91 Miller Drive and/or are scattered throughout the yard area contained within 91 Miller Drive, are of generally poor quality, are located within the footprints of the proposed subject dwellings and/ or would be unavoidably damaged during construction and essential site grading .

The White Cedar 'Hedge' is a special case.

It has been functioning as a potential visual buffer to the benefit of the lot owner to the immediate west of the proposed development.

However, these have become a top-heavy mixture of upright, leaning, damaged and dying trees.

Parts of the clump have been improperly pruned over the years - resulting in dead and dying stems cut back to 1 metre in height with many inter-twined and split stems remaining.

It should be noted that Eastern White Cedar has an extremely shallow root system – which, as the tree ages and becomes top heavy, leads to severe leaning and toppling – and potential property damage - in loose soils, such as exist here.

*Remove this group prior to start-up of any site alteration or construction & immediately replace with a minimum of nine 8 ft tall balled & burlapped Emerald Cedars (*Thuja occidentalis* var. 'Techny') in alternating pattern, commencing at the northwest corner of property and planted 2 metres to the east of, and parallel to, the existing board fence between 275 Pringle Drive and 101 Miller Drive - to provide continued screening of the subject property from the property to the immediate west. Planting instructions for the hedge replacement will be made available prior to any construction start-up..

Summary Recommendation

In summary, the existing tree cover on the subject site is lacking in quality of form, health, species mix, appropriate spacing and functional landscape potential.

As a result, it is my professional recommendation that the trees within the proposed lot be removed in their entirety – and that a 'Tree Replacement Plan' - suited to the dimensions of the new lot(s), the size and orientation of the proposed dwellings, drainage, soils, sun and viewing angles and the characteristics of the adjacent streetscape - be prepared, possibly as a condition of approval.

The result will be an aesthetically pleasing, low maintenance, functional and complementary component of the neighbourhood landscape and of the larger City of Barrie 'Urban Forest'.

Declaration of Interest

I hereby certify that I have no familial or financial interests in the subject property and related development proposal other than the provision of professional consulting services, at cost, as agreed to with the owners – and that this inventory of species and the related management recommendations are based upon decades of experience in urban and rural forest management and the application of related landscape design principles.

Respectfully submitted,

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Howshel Developments

275 Pringle Dr, Barrie, ON

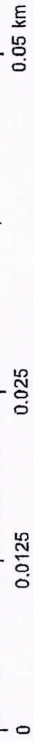
Tree Inventory & Management Plan

Detailed Location

- (A)** Land to be Retained
(97 Miller Drive)
- (B)** Land to Be Conveyed
(97 Miller Drive)
- (C)** Existing
Howshel Dev'ts Property
(275 Pringle Drive)



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Howshel Developments
275 Pringle Dr, Barrie, ON

Tree Inventory & Management Plan

Plan View of Subject Property Showing Existing Vegetation Groups

Legend:

G Open, Grassed

CW Old Cedar Hedge

FL 'Fence Line' Trees (Mixed Species & Sizes)

FL/O 'Fence Line' + Scattered Open Trees (Mixed Species & Sizes + Shrubs)

O Scattered Open 'Yard Trees' (Mixed Species & Sizes)

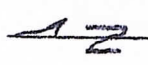
X-X Existing 6' Board Privacy Fence



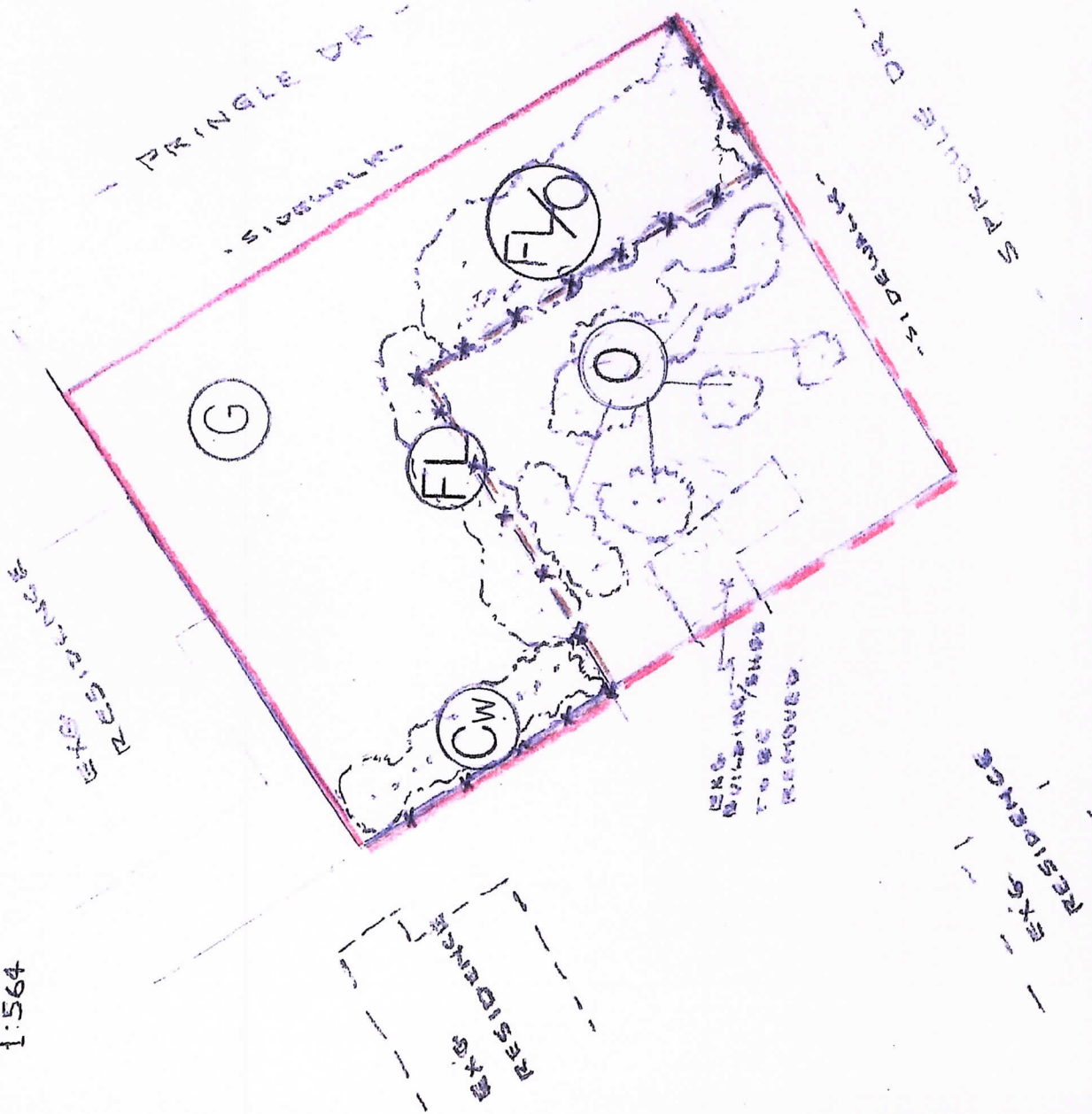
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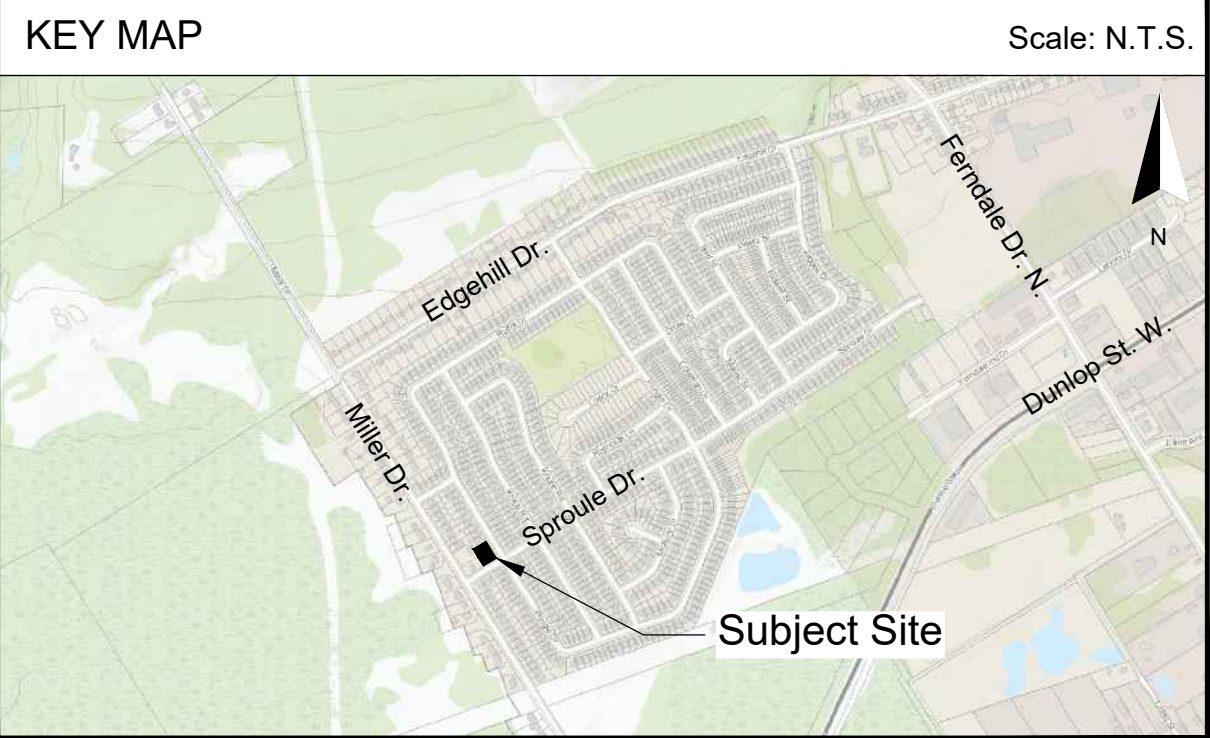
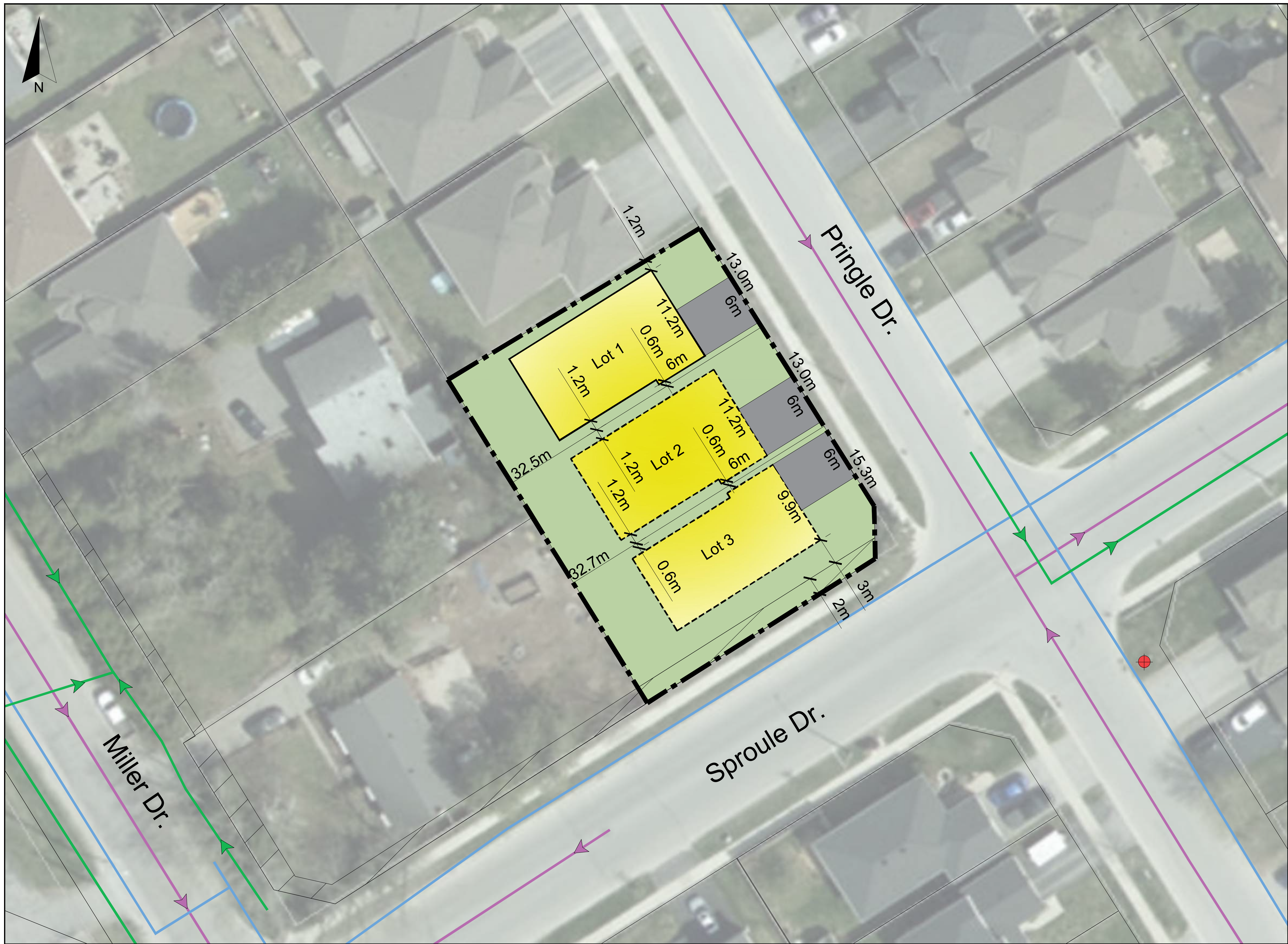
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Handwritten signature
Date: 20/02



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SEVERANCE SKETCH

Scale 1:500m



LEGEND

- Subject Site Area: 1,364.4m²
- Proposed Building Envelope
- Future Road Widening (24.0m)
- Water Hydrants
- Sanitary Pipes
- Storm Pipes
- Water Mains

ZONE: RESIDENTIAL THREE (R3) ZONE

PROVISION	REQUIRED	PROVIDED: LOT 1	PROVIDED: LOT 2	PROVIDED: LOT 3
Lot Area (min.)	400.0m ²	432.2m ²	422.5m ²	442.4m ² (excl. road widening)
Lot Frontage (min.)	12.0m	13.0m	13.0m	15.3m
Front Yard to Dwelling Unit (min.)	4.5m	>4.5m	>4.5m	>4.5m
Front Yard to Attached Garage (min.)	7.0m	7.0m	7.0m	7.0m
Interior Side Yard (min.)	1.2m	1.2m	1.2m	1.2m
Interior Side Yard to Attached Garage (min.)	0.6m	0.6m	0.6m	0.6m
Side Yard Abuts a Street (min.)	3.0m	N.A.	N.A.	3.1m
Rear Yard (min.)	7.0m	>7.0m	>7.0m	>7.0m
Dwelling Unit Floor Area (min.)	70.0m ²	>70.0m ²	>70.0m ²	>70.0m ²
Lot Coverage (max. % of lot area)	45.0%	<45.0%	<45.0%	<45.0%
Height of Main Bldg. (max.)	10.0m	<10.0m	<10.0m	<10.0m
Parking Standards (5.3.6.1)	50% (front yard parking coverage)	<50.0%	<50.0%	<50.0%

Source: City of Barrie Zoning By-Law 2009-141
 County of Simcoe Interactive Mapping, 2018 Imagery
 Note: Information shown in approximate and subject to change.

SEVERANCE SKETCH - 3 UNITS

275 PRINGLE DR., BARRIE

SCHEDULE OF REVISIONS			
No.	Date	Description	By
1	Dec. 17, 2019	Update concept plan as per comments from City.	AS

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Date: October 23, 2019 Drawn By: A.S.
 File: 19-845 Checked: C.S.