



Scotty Tree & Arborist Service Ltd.

# Tree Protection Plan and Development Report

Prepared for 1035 Russell St , Victoria, BC  
November 11th, 2023



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To whom it may concern,

By request, Scotty Tree & Arborist Service Ltd has assessed the trees on the property of 1035 Russell Street, Victoria, BC for a new development proposal.

### **Executive Summary:**

The proposed development is an eight unit build on the current single-family dwelling lot. There are two bylaw protected trees neighboring this property, both of which can be retained without meaningful impacts. Both on site by-law protected trees will require removal, but 4 new trees can be planted. No municipal trees will require removal to accommodate services for the proposal. However, the placement of a new sidewalk directly beside these two trees will pose challenges. Careful management will be required to mitigate impacts to these municipal trees. Replanting of trees will be done to the specification of the Victoria Tree Protection Bylaw. See [Tree Inventory Table](#) for complete tree summary (Table 2).

### **Tree Impact Summary Table**

<b>Tree Status</b>	<b>Total</b>	<b>Retained</b>	<b>Removed</b>	<b>Planted</b>
On site bylaw protected	2	0	2	3
On site non bylaw protected	2	1	1	0
Municipal trees	2	2	0	0
Neighboring bylaw protected	2	2	0	0
Neighboring non bylaw protected	0	0	0	0
<b>Total</b>	<b>8</b>	<b>5</b>	<b>3</b>	<b>3</b>

Table 1: Tree Impact Summary.

### **Introduction:**

Scotty Tree was contracted to assess the trees on this property to determine the impact of developing the garden suite development. The entire property was assessed, including neighboring and municipal trees.

### **Methodology:**

Detailed analysis of the proposed development plan was used to inform analysis of the trees, particularly in terms of the underground service excavation locations. Scotty Tree used standard arboricultural observation and physical examinations to determine tree health and confirm rooting areas. Soil analysis was conducted by physical exploration. Consultation with the leading reference book (*Trees and Development*, Nelda Matheny and James R. Clark) was used to determine protected root zones and tree suitability for development on this property.

## Observations and Discussions:

### 1. Municipal trees side walk removal and reinstallation:

Trees M1 and M2 are municipal plum and cherry trees that will see the side walk shift from the north to the south. Careful management of this by a knowledgeable arborist will be required to prevent unnecessary damage to the roots of these trees. The concrete for the sidewalk will have to be “No dig” whereby shallow 10 to 20cm excavations will not damage large roots. Areas requiring grade raising will need to be done with root friendly fill such as crushed rock or engineered soil. Although the Plum has a moderate structure status due to powerline clearing, both trees are healthy and should not have long term impacts if due diligence measures are adhered to. If possible, this part of the project should be saved for the end of the construction. Protected rooting zones not behind protection fences will require anti compaction (root armouring: 2 X 19mm plywood or 20cm woodchip) for the duration of the construction. See picture below.



## 2. By-law Protected Birch

Tree OS2 is a protected Birch on the property line behind the proposed development. This tree is leaning and has tension roots that must be protected during development. Again, “no dig” excavations can be made to allow for the placement of a permeable surface such as pavers.



## 3. Removal of Laurel hedge and two by-law protected trees

Trees T73, T87, and the laurel hedge at the front of the lot require removal due to the development plan. Tree T87 is in Poor health due to Ganoderma infection.



## Recommendations and Conclusions:

### 1. Protective Fencing and Special Instructions for OS2

Tree OS2 has a “No Dig” root zone. “No Dig” allows for 10-20 cm excavations that don’t impact larger roots. A suitable permeable surface for the patio in this area would include pavers. Arborist direction is required for these excavations. Tree protection fence (barriers) required to be built around Tree OS2, as shown in the Site Plan. See Appendix A for more details on the Schedule “D” – Tree Protection Barriers ([Appendix D](#)).

Protective fences and signage should be installed around bylaw protected trees as specified by Victoria municipal guidelines. Protective fence dimensions, although not necessarily representative of the critical rooting zones will serve as a visual reminder to workers of the importance of not impacting these areas.

### 2. Tree Protection Bylaw Replacement tree requirements:

Schedule “E” and “F” (pg. 34-42) of the Victoria Tree Protection Bylaw was used to calculate tree replacement requirements for this property that is approximately 735 m<sup>2</sup>. This lot size requires a minimum of four medium or large trees. Three bylaw acceptable species can be accommodated. Scotty tree recommends Pacific dogwoods.; See Site Map below.

Please reference the Site Map for the location of the three Planting Areas, and refer to the Tree Replacement Table.

For further clarifications feel free to text 250-220-9298.

Sincerely,



Scott Mitchell  
Submitted  
11 November, 2023

ISA Arborist, PN-6138-A, PNW CTRA 309, TRAQ certified  
Pacific Northwest Hazard Tree Assessor, CTA 309

Scotty Tree & Arborist Service  
#7 10075 Fifth St, Sidney BC, V8L-2X8

## Tree Inventory Table:

Tree ID	Species	Status	DBH (cm)	PRZ * Factor	PRZ* (m) Radius	Canopy Spread (m) Diameter	Health	Structural Condition	Site specific Construction Tolerance	Retain or: Removal - reason	Remarks / Recommendations
M1	Plum	Municipal	39	12:1	4.7	5	Good	Moderate	Good	Retain	Municipal Tree. Moderate structure due to powerline clearing.
M2	Cherry	Municipal	36	12:1	4.3	5	Good	Good	Good	Retain	Municipal Tree
T73	Pear	Protected Tree	66/50**	12:1	7.9/6.0**	6	Moderate	Good	NA	Excavations	Development requires removal.
T87	Pear	Protected Tree	35	12:1	4.2	4	Poor (Ganoderma Infection)	Moderate	NA	Excavations	Development requires removal. 3 Stem, 24, 23, 47.
OS1	Cedar	Protected	35	12:1	4.2	4	Good	Moderate	Good	Retain	
OS2	Birch	Protected	33	12:1	4.0	5	Good	Good	Good	Retain	
Hedge (Back)	Cedar	NBL	10 (average)	12:1	1	2 (average)	Good	Good	Good	Retain	
Hedge (Front)	Laurel	NBL	10 (average)	12:1	N1	2	Good	Good	Good	Excavations	Development requires removal.

Table 2: Tree Inventory

\*PRZ - Protected Root Zone (12 to 1 for Good-Moderate construction tolerance & healthy trees / 18 to 1 for Poor construction tolerance or poor health) NBL = Non-Bylaw protected tree.

\*\* - Adjusted root zone for multi-stem trees or reduced canopies.

### Soil Volume Calculation Table: Schedule “E”

Planting Area ID	Area (m <sup>2</sup> )	Soil Volume Multiplier	Replacement Trees Proposed				Soil Volume Required (m <sup>3</sup> )			
			A. Estimated Soil Volume (m <sup>3</sup> )	B. Small	C. Medium	D. Large	E. Small	F. Medium	G. Large	Total**
<b>Onsite</b>										
Planting Area 1	25.0	1	25.0		Pacific Dogwood			20.00		25.00
Planting Area 2	24.0	1	24.0		Pacific Dogwood			20.00		24.00
Planting Area 3	24.0	1	24.0		Pacific Dogwood			20.00		24.00

Table 3: Soil Volume Calculation

\*\*Total must not exceed A. If Total exceeds A, then the number or size of proposed replacement trees must be reduced.



### Tree Replacement Table:

	Count	Multiplier	Total
<b>ONSITE Minimum replacement tree requirement</b>			
A. Protected trees removed	2	X1	2
B. Replacement trees proposed per Schedule "E", Part 1	4	X1	3
C. Replacement trees proposed per Schedule "E", Part 2	0	X 0.5	0
D. Replacement trees proposed per Schedule "E", Part 3	0	X1	0
E. Total replacement trees proposed (B+C+D) <i>Round down to nearest whole number</i>			3
F. Onsite replacement tree deficit (A-E) <i>Record if negative number</i>			0
<b>ONSITE Minimum trees per lot requirement (onsite trees)</b>			
G. Tree minimum on lot*			4
H. Protected trees retained (other than specimen trees)		X1	0
I. Specimen trees retained		X3	0
J. Trees per lot deficit (G-(B+C+H+I)) <i>Record 0 if negative number</i>			1
<b>OFFSITE Minimum replacement tree requirement (offsite trees)</b>			
K. Protected trees removed	0	X1	0
L. Replacement trees proposed per Schedule "E", Part 1 and 3	0	X1	0
M. Replacement trees proposed from Schedule "E", Part 2	0	X 0.5	0
N. Total replacement trees proposed (L+M) <i>Round down to nearest whole number</i>			0
O. Offsite replacement tree deficit (K-N) <i>Record 0 if negative number</i>			0
<b>Cash-in-lieu requirement</b>			
P. Onsite trees proposed for cash-in-lieu <i>Enter F. or J., whichever is the greatest number</i>			1
Q. Offside trees proposed for cash-in-lieu <i>Enter O.</i>			0
R. Cash-in-lieu proposed ((P+Q) x \$2,000).			2000

Table 4: Tree Replacement

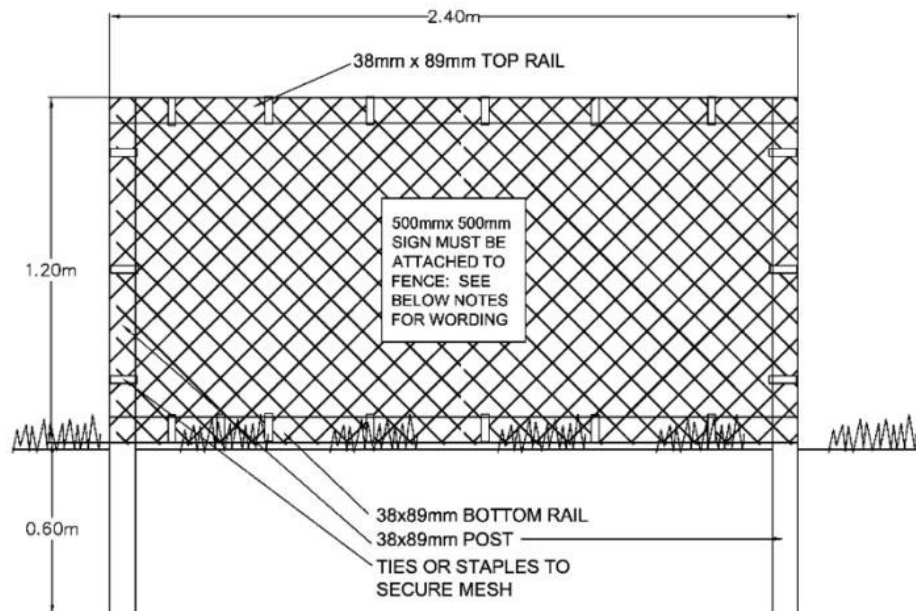
## APPENDIX A: Schedule “D”, Victoria Tree Bylaw

### SCHEDULE “D” TREE PROTECTION BARRIER REQUIREMENTS

1 The requirements for tree protection barriers are as follows:

- (a) The barrier must be placed around the outside of the protected root zone of the tree, or as approved by the Director; and
- (b) The barrier must meet the following specifications: (i) it must have a minimum height of 1.2 m,
- (ii) 38 mm x 89 mm timbers must be used for vertical posts, top and bottom rails (in rocky areas, metal posts (T-bar or rebar) drilled into rock will be accepted), and cross-bracing (in an "X"),
- (iii) spacing between vertical posts must be a maximum of 3.0 meters on center,
- (iv) the structure must be sturdy with vertical posts driven firmly into the ground,
- (v) there must be continuous plastic mesh high visibility screening (e.g. orange snow fencing), and
- (vi) it must have visible all weather 500 mm x 500 mm signage on it with the wording “Warning –Tree Protection Area”.

2 Below is an example showing an acceptable barrier:



# TREE MANAGEMENT SITE PLAN

MODIFIED FROM CLIENT PROVIDED SITE PLAN

For informational purposes only  
November 11, 2023

Scotty Tree and Arborist  
#7 10075 Fifth St  
Sidney, BC, V8L 2X8

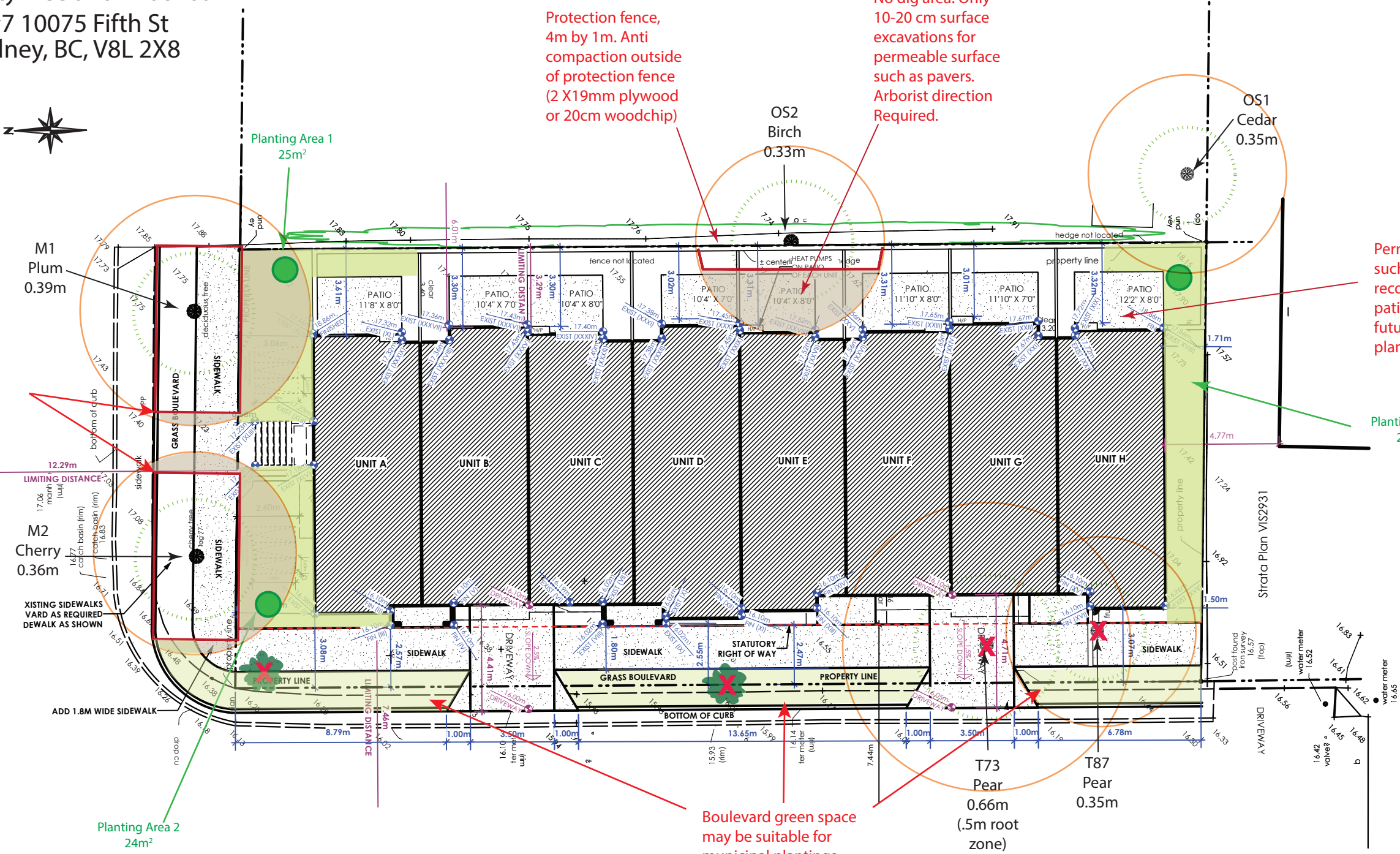


Protection fence, 3.6m by 7m. Anti compaction outside of protection fence (2 X19mm plywood or 20cm woodchip). Leave sidewalk changes to end of project.

Protection fence, 4m by 1m. Anti compaction outside of protection fence (2 X19mm plywood or 20cm woodchip)

No dig area. Only 10-20 cm surface excavations for permeable surface such as pavers. Arborist direction Required.

Permeable surface such as pavers recommended for this patio to avoid future conflicts with planting.



Planting Area 2  
24m²

Boulevard green space may be suitable for municipal plantings.

Planting Area 3  
24m³

- Replacement tree area as per development plans
- Hedges / shrubs as per development plans
- Unfenced protected area - no storage of material or construction activities without arborist supervision. No transiting machinery or vehicles without arborist supervision and/or anti-compaction measures.
- Protective Fencing
- Anti-compaction Zone (2 X 19mm plywood/20cm wood chips)
- Potential Tree Replacement soil Zone
- Tree to be removed
- Canopy Spread
- Protected Root Zone established by DBH or assessments