

TALMACK
URBAN FORESTRY
— Consultants Limited —

Amica Jubilee House PH2, Victoria, BC
Construction Impact Assessment &
Tree Management Plan

PREPARED FOR:	Milliken Developments
PREPARED BY:	Talmack Urban Forestry Consultants Ltd. Noah Talbot – Consulting Arborist ISA Certified # PN-6822A Tree Risk Assessment Qualified
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REVISION RECORD

REVISION	DESCRIPTION	DATE (YYYY-MM-DD)	ISSUED BY
DRAFT	Draft TPP report delivered to the client for review and coordination.	2022-12-08	NT
R0	Original TPP report delivered to the client.	2023-04-06	NT

1. INTRODUCTION

Talmack Urban Forestry Consultants Ltd. was asked to complete a tree inventory, construction impact assessment and management plan for the trees at the following proposed project:

Site:	1921/1929/1933/1935 Ashgrove Street, 1900 Richmond Road
Municipality	City of Victoria
Client Name:	Milliken Development
Dates of Site Visit(s):	August 04, 2022
Site Conditions:	Urban lots. Ongoing construction activity on one lot
Weather During Site Visit:	Clear and sunny

The purpose of this report is to address requirements of the City of Victoria arborist report terms of reference, and Tree Preservation Bylaw No. 21-035. The construction impact assessment section of this report (section 8), is based on plans reviewed to date, including the Architectural DP/RZ package – dated March 06, 2023 (By dhK architects), conceptual site servicing plan – dated February 22, 2023 (By McElhanney Ltd.), and Landscape rezoning plan – dated February 24, 2023 (By LADR).

2. TREE INVENTORY METHODOLOGY

We were not provided with surveyed tree locations prior to the tree inventory (trees were located by survey after the tree inventory). For the purpose of this report, the size, health, and structural condition of trees was documented. For ease of identification in the field, numerated metal tags are attached to the lower trunks of onsite trees. Trees located on neighbouring properties or the municipal frontage were not tagged. Each tree was visually examined on a limited visual assessment basis (level 1), in accordance with Tree Risk Assessment Qualification (TRAQ) methods (Dunster *et al.* 2017) and ISA Best Management Practices.

3. EXECUTIVE SUMMARY

Based on review of the architectural, civil and landscape plans provided ,18 bylaw protected onsite trees are located where they will require removal due to impacts from the proposed onsite construction. 2 municipal trees are located where they are in conflict with the proposed new frontage design and will require removal. 2 municipal trees and 3 private offsite trees are located within influencing distance of the proposed development, where they are possible for retention, using mitigation recommendations outlined in this report.

Based on bylaw criteria, a 14 tree minimum is required for the site (site area of ~2769.5 m²). *The Landscape Rezoning Plan by LADR, provides locations for 19 new trees (from Schedule "E", part 1 of Tree Preservation Bylaw No. 21-035) and 3 new trees (from Schedule "E", part 2 of Tree Preservation Bylaw No. 21-035) If the site cannot accommodate the required quantity of replacement trees, any replacement tree planting shortfall will be compensated to the city via a cash in lieu payment by the owner.

4. TREE INVENTORY DEFINITIONS

Tag: Tree identification number on a metal tag attached to tree with nail or wire, generally at eye level. Trees on municipal or neighboring properties are not tagged.

DBH: Diameter at breast height – diameter of trunk, measured in centimetres at 1.4m above ground level. For trees on a slope, it is taken at the average point between the high and low side of the slope.

* Measured over ivy

~ Approximate due to inaccessibility or on neighbouring property

Dripline: Indicates the radius of the crown spread measured in metres to the dripline of the longest limbs.

Relative Tolerance Rating: Relative tolerance of the tree species to construction related impacts such as root pruning, crown pruning, soil compaction, hydrology changes, grade changes, and other soil disturbance. This rating does not take into account individual tree characteristics, such as health and vigour. Three ratings are assigned based on our knowledge and experience with the tree species: Poor (P), Moderate (M) or Good (G).

Critical Root Zone: A calculated radial measurement in metres from the trunk of the tree. It is the optimal size of tree protection zone and is calculated by multiplying the DBH of the tree by 10, 12 or 15 depending on the tree's Relative Tolerance Rating. This methodology is based on the methodology used by Nelda Matheny and James R. Clark in their book "Trees and Development: A Technical Guide to Preservation of Trees During Land Development."

- 15 x DBH = Poor Tolerance of Construction
- 12 x DBH = Moderate
- 10 x DBH = Good

To calculate the critical root zone, the DBH of multiple stems is considered the sum of 100% of the diameter of the largest stem and 60% of the diameter of the next two largest stems. It should be noted that these measures are solely mathematical calculations that do not consider factors such as restricted root growth, limited soil volumes, age, crown spread, health, or structure (such as a lean).

Health Condition:

- Poor – significant signs of visible stress and/or decline that threaten the long-term survival of the specimen
- Fair – signs of stress
- Good – no visible signs of significant stress and/or only minor aesthetic issues

Structural Condition:

- Poor – Structural defects that have been in place for a long period of time to the point that mitigation measures are limited
- Fair – Structural concerns that are possible to mitigate through pruning
- Good – No visible or only minor structural flaws that require no to very little pruning

Suitability ratings are described as follows:

Rating: Suitable.

- A tree with no visible or minor health or structural defects, is tolerant to changes to the growing environment and is a possible candidate for retention provided that the critical root zone can be adequately protected.

Rating: Conditional.

- A tree with good health but is a species with a poor tolerance to changes to its growing environment or has a structural defect(s) that would require that certain measures be implemented, in order to consider it suitable for retention (ie. retain with other codominant tree(s), structural pruning, mulching, supplementary watering, etc.)

Rating: Unsuitable.

- A tree with poor health, a major structural defect (that cannot be mitigated using ANSI A300 standards), or a species with a poor tolerance to construction impacts, and unlikely to survive long term (in the context of the proposed land use changes).

Retention Status:

- Remove – Not possible to retain given proposed construction plans
- Retain – It is possible to retain this tree in the long-term given the proposed plans and information available. This is assuming our recommended mitigation measures are followed
- Retain * - See report for more information regarding potential impacts

Table 1. Tree Inventory

Tag or ID #	Surveyed ? (Yes / No)	Location (On, Off, Shared, City)	Bylaw protected ? (Yes / No)	Name		dbh (cm)	Ht (m)	Critical root zone radius (m)	Dripline radius (m)	Condition		Retention Suitability (onsite trees)	Relative tolerance	General field observations/remarks	Tree retention comments	Retention status
				Common	Botanical					Health	Structural					
M1	Yes	City	Yes	European hornbeam	Carpinus betulus 'fastigiata'	21	15	2.1	3	Good	Fair		good	V pruned for overhead utilities clearance	Located within the footprint of the proposed driveway entrance.	Remove
OS1	No	Off	Yes	Cherry	Prunus sp.	35	8	4.2	3	Fair	Fair		moderate	Flowering cherry, heavily surface rooted, roots lifting asphalt, pruned for overhead utilities clearance.	*re-aligned sidewalk proposed within the critical root zone. The project arborist to supervise all excavation required within the critical root zone.	Retain*
OS2	No	Off	Yes	Cherry	Prunus sp.	37	8	4.4	3	Fair	Fair		moderate	Flowering cherry, pruned for hydro clearance, adjacent concrete lifting.	*re-aligned sidewalk and parkade proposed within the critical root zone. The project arborist to supervise all excavation required within the critical root zone.	Retain*
Hedge 1	Yes	On	No	Excelsa cedar	Thuja plicata 'excelsa'	10 - 15cm	4	2	2	Good	Fair	unsuitable	moderate	Hedge row consisting of ~20 individual stems, no bylaw stems.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
212	Yes	On	Yes	Cherry	Prunus sp.	71	8	8.5	5	fair/poor	Fair	unsuitable	moderate	Multiple stems form at 1 - 1.5m above grade, included bark, declining health condition - top dieback - 70% live crown ratio.	Located within the footprint of the proposed u/g parkade.	Remove
213	Yes	On	Yes	Magnolia	magnolia sp.	11, 11, 9, 13	8	2.5	4	Good	Fair	conditional	good	Multiple stems form at 3m above grade.	Located within the footprint of the proposed u/g parkade.	Remove
214	Yes	On	Yes	Cherry	Prunus sp.	12, 9, 8, 13	8	3	3	Good	Fair	conditional	moderate	Flowering cherry, multiple stems form at 1m above grade, historic pruning wounds with associated decay.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
215	Yes	Shared	Yes	English hawthorn	Crataegus laevigata	37	10	3.7	3	Fair	Fair	conditional	good	Multiple stems form at 1m above grade - no major weaknesses visible at stem union.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
216	Yes	On	Yes	Apple	malus sp.	13, 19	5	3.2	2	Good	Fair	conditional	moderate	Codominant stems form at 1m above grade - included bark.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
217	Yes	On	No	California lilac	ceanothus	11, 13, 7, 9	5	2.5	3	Fair	Fair	unsuitable	good	Multiple stems shrub cluster	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
218	Yes	On	No	Apple	malus sp.	29	5	3.5	3	Good	Fair	conditional	moderate	Codominant stem removed historically at .3m above grade with associated decay.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
219	Yes	On	No	Cherry	Prunus sp.	20	5	2.4	2	Fair	Fair	conditional	moderate	Fruiting cherry, cherry bark tortrix.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
220	No	On	No	Excelsa cedar	Thuja plicata 'excelsa'	6, 8, 8	4	2.6	1	Fair	Poor	unsuitable	moderate	Topped historically at 1m above grade and regenerated	Will be impacted by excavation required to construct the proposed truck access area.	Remove
221	No	On	No	Excelsa cedar	Thuja plicata 'excelsa'	10	6	1.2	1	Fair	Fair	unsuitable	moderate	Suppressed by 222	Will be impacted by excavation required to construct the proposed truck access area.	Remove

Tag or ID #	Surveyed ? (Yes / No)	Location (On, Off, Shared, City)	Bylaw protected ? (Yes / No)	Name		dbh (cm)	Ht (m)	Critical root zone radius (m)	Dripline radius (m)	Condition		Retention Suitability (onsite trees)	Relative tolerance	General field observations/remarks	Tree retention comments	Retention status
				Common	Botanical					Health	Structural					
222	Yes	On	Yes	English walnut	<i>Juglans regia</i>	45	15	5.4	4	Good	Fair/poor	unsuitable	moderate	Topped historically at 15m above grade - small regrowth leaders and epicormic growth form at topping location.	Will be impacted by excavation required to construct the proposed truck access area.	Remove
223	No	On	No	Flowering dogwood	<i>Cornus florida</i>	12	5	1.4	2	Good	Fair	unsuitable	moderate	Suppressed by 222 - asymmetric crown on South side due to shading.	Will be impacted by excavation required to construct the proposed truck access area.	Remove
224	No	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	10	7	1.2	1	Good	Fair	unsuitable	moderate	Suppressed by 226	Will be impacted by excavation required to construct the proposed truck access area.	Remove
225	No	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	10	7	1.2	1	Good	Fair	unsuitable	moderate	Suppressed by 226	Will be impacted by excavation required to construct the proposed truck access area.	Remove
226	Yes	On	Yes	Plum	<i>Prunus sp.</i>	23, 19	10	4.1	3	Fair	Fair/poor	unsuitable	moderate	Fruiting plum, extensive basal decay.	Will be impacted by excavation required to construct the proposed truck access area.	Remove
227	No	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	11	7	1.3	1	Good	Fair	unsuitable	moderate	Suppressed by 226	Will be impacted by excavation required to construct the proposed truck access area.	Remove
Hedge 2	Yes	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	5-10cm	4	1	1	Good	Fair	unsuitable	moderate	Hedge row consisting of ~50 individual stems, no bylaw stems	Locaed within the footprint of the proposed u/g parkade.	Remove
M2	Yes	City	Yes	Columnar red maple	<i>Acer rumrum 'columnar'</i>	22	10	2.6	3	Fair/good	Fair/poor		moderate	Leader removed for overhead utilities clearance, basal wound.	*Curb/gutter and new sidewalk proposed within the critical root zone. The project arborist to supervise all excavation required within the critical root zone.	*Retain
M3	Yes	City	Yes	European hornbeam	<i>Carpinus betulus 'fastigiata'</i>	18	15	1.8	3	Good	Fair		good	V pruned for overhead utilities clearance	*Curb/gutter and new sidewalk proposed within the critical root zone. The project arborist to supervise all excavation required within the critical root zone.	*Retain
228	Yes	On	Yes	Atlantic cedar	<i>Cedrus atlantica</i>	59	15	7.1	6	Fair	Fair/poor	conditional	moderate	Flush cut wounds with associated surface decay heavily pruned on South side, heavily pruned on East side for overhead utilities clearance.	Located within the footprint of the proposed u/g parkade.	Remove
229	Yes	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	14	8	1.7	3	Good	Fair	conditional	moderate	Suppressed by 228 - asymmetric crown on West side due to shading.	Located within the footprint of the proposed u/g parkade.	Remove
230	Yes	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	22	8	2.6	3	Good	Fair	conditional	moderate	Crown raised.	Located within the footprint of the proposed u/g parkade.	Remove
231	Yes	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	23	8	2.8	3	Good	Fair	conditional	moderate	Crown raised.	Located within the footprint of the proposed u/g parkade.	Remove
232	Yes	On	No	Ash sp	<i>Fraxinus sp.</i>	13	8	1.3	2	Good	Fair	conditional	good	Codominant stems form at 3m above grade.	Located within the footprint of the proposed u/g parkade.	Remove
233	Yes	On	No	Excelsa cedar	<i>Thuja plicata 'excelsa'</i>	11	8	N/A	N/A	Dead	Dead	unsuitable	moderate	Recently dead tree	Located within the footprint of the proposed u/g parkade.	Remove
234	Yes	On	No	Ash sp	<i>Fraxinus sp.</i>	11, 15	8	2.2	3	Good	Fair	conditional	good	Codominant stems form at 1m above grade - included bark - active.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
235	Yes	On	No	Sawara cypress	<i>Chamaecyparis pisifera</i>	28	15	3.4	3	Fair/good	Fair	conditional	moderate	Multiple stems form at 4m above grade - narrow angles of attachment.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove

Tag or ID #	Surveyed ? (Yes / No)	Location (On, Off, Shared, City)	Bylaw protected ? (Yes / No)	Name		dbh (cm)	Ht (m)	Critical root zone radius (m)	Dripline radius (m)	Condition		Retention Suitability (onsite trees)	Relative tolerance	General field observations/remarks	Tree retention comments	Retention status
				Common	Botanical					Health	Structural					
236	Yes	On	Yes	Apple	<i>malus sp.</i>	8, 17, 5, 11	5	3.4	3	Fair/good	Fair	conditional	moderate	Multiple stems form at 1m above grade.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
237	Yes	On	Yes	Cherry	<i>Prunus sp.</i>	20, 12	4	3.3	3	Fair	Fair/poor	conditional	moderate	Fruiting cherry, cherry bark tortrix.	Located within the footprint of the proposed u/g parkade.	Remove
238	Yes	On	Yes	Apple	<i>malus sp.</i>	11, 11, 8	4	2.7	2	Fair	Fair	conditional	moderate	Multiple stems form at 1m above grade	Located within the footprint of the proposed u/g parkade.	Remove
239	Yes	On	Yes	Quince	<i>Quince sp.</i>	9, 10, 7, 11	5	2.7	2	Fair	Fair/poor	conditional	moderate	Multiple stems form at 1m above grade - narrow angles of attachment.	Located within the footprint of the proposed u/g parkade.	Remove
240	Yes	On	Yes	Ponderosa pine	<i>Pinus ponderosa</i>	42	8	5.0	3	Fair/good	Fair/poor	conditional	moderate	Codominant stems form at 2m above grade, phototropic lean to North.	Located within the footprint of the proposed u/g parkade.	Remove
241	Yes	On	Yes	Fig	<i>Ficus sp.</i>	14, 16, 14, 11, 13	10	3.3	3	Good	Fair	unsuitable	good	Multiple stems form at 1m above grade - included bark, overhead utilities cross through canopy.	Located within the footprint of the proposed u/g parkade.	Remove
242	Yes	On	Yes	Juniper	<i>Juniperus sp.</i>	9, 13, 10, 10, 11, 12, 12	10	3.1	3	Fair	Fair/poor	conditional	moderate	Multiple stems form at .3 - 1m above grade.	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
M4	Yes	City	Yes	Columnar red maple	<i>Acer rumrum 'columnar'</i>	26	15	3.1	2	Fair	Fair/poor		moderate	Heavily side pruned for hydro clearance.	*new sidewalk, curb/gutter proposed within the critical root zone. The project arborist to supervise all excavation required within the critical root zone.	*Retain
243	No	On	No	False cypress	<i>chamaecyparis sp.</i>	8, 9	6	1.7	2	Good	Fair	conditional	moderate	Codominant stems form at base	Will be heavily impacted by excavation required to construct the foundation of the proposed u/g parkade.	Remove
244	Yes	On	Yes	English hawthorn	<i>Crataegus laevigata</i>	31, 9, 12, 14	10	4.7	3	Fair	Fair	unsuitable	good	Multiple stems form at 1m above grade - narrow angles of attachment.	Located within the footprint of the proposed u/g parkade.	Remove
245	No	On	No	Evergreen magnolia	<i>Magnolia grandiflora</i>	8, 8, 8	5	1.8	3	Fair	Fair/poor	unsuitable	good	Mechanical wound at .5m above grade with associated decay.	Located within the footprint of the proposed u/g parkade.	Remove
M5	Yes	City	Yes	European hornbeam	<i>Carpinus betulus 'fastigiata'</i>	19	8	1.9	3	Good	Fair		good	V pruned for overhead utilities clearance	It is understood that this tree is proposed for removal due to conflicts with the road access requirement for the proposed PMT.	Remove
246	Yes	Shared	Yes	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	30, 29, 32, 16, 19, 15	20	8.1	4	Poor	Poor	unsuitable	moderate	In advanced stage of health decline- 5% live crown ratio. Likely infected with phytophthora	Will be heavily impacted by excavation required to install the proposed PMT.	Remove
247	Yes	On	Yes	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	36, 35	20	6.8	4	Fair/poor	Fair/poor	unsuitable	moderate	Codominant stems form at base - narrow angle of attachment, asymmetric crown on west side due to shading, likely infected with phytophthora.	Will be heavily impacted by excavation required to install the proposed PMT.	Remove

5. SITE INFORMATION & PROJECT UNDERSTANDING

The development site consists of 5 lots (1921/1929/1933/1935 Ashgrove Street, 1900 Richmond Road), in Victoria, B.C.. 4 of the properties have existing dwellings and 1 is currently in use as a staging area for the first phase of the development (see [figure 1](#)). It is our understanding that the proposal is to remove the existing buildings and construct a new multifamily building with underground parking.

Below is a general observation of the tree resource, as it appeared at the time of our site visit:

6. FIELD OBSERVATIONS

The onsite tree resource consists entirely of nonnative species growing in open landscape conditions around the perimeter of the existing residences. 2 private offsite trees and 5 municipal boulevard trees were observed within influencing distance of the proposed development.



figure 1: Site context air photo: The approximate boundary of the subject site is outlined in Yellow.

7. TREE RISK ASSESSMENT

During our August 04, 2022 site visit and in conjunction with the tree inventory, onsite trees were assessed for risk, on a limited visual assessment basis (level 1), and in the context of the existing land uses. The time frame used for the purpose of our assessment is one year (from the date of the tree inventory update). Unless otherwise noted herein, we did not conduct a detailed (level 2) or advanced (level 3) risk assessment, such as resistograph testing, increment core sampling, aerial examinations, or subsurface root/root collar examinations.

Existing Land Uses

We did not observe any trees that were deemed to be moderate, high or extreme risk (in the context of the existing land uses, that would require hazard abatement to eliminate present and/or future risks (within a 1-year timeframe). Targets considered during this TRAQ assessment include: occupants of the existing residential buildings (constant use), occupants of vehicles travelling on Ashgrove Street (frequent use), pedestrians travelling along existing sidewalks (frequent use), hydro lines (constant use).

8. CONSTRUCTION IMPACT ASSESSMENT

8.1. RETENTION AND REMOVAL OF MUNICIPAL TREES

The following municipal trees (indicated by ID #) are located where they are possible for retention providing that the critical root zones are adequately protected during construction. The project arborist must be onsite to supervise and excavation or fill placement required within its critical root zone (shown on the tree management plan (T1) in [appendix A](#)):

Retain and protect 3 municipal trees

- M2, M3, M4

The following municipal tree (indicated by ID #) is located where it is in conflict with the proposed frontage design (the existing concrete island is proposed for removal) and is proposed for removal:

Remove 2 municipal trees

- M1, M5

The municipality must provide consent prior to the pruning, removal or transplantation of any trees located on municipal property.

8.2. RETENTION AND REMOVAL OF PRIVATE OFFSITE TREES

The following private offsite trees (indicated by ID #) are located where they can be retained providing that the critical root zones are adequately protected during construction. The project arborist must be onsite to supervise and excavation or fill placement required within its critical root zone (shown on the tree management plan (T1) in [appendix A](#)):

Retain and protect 2 private offsite trees

- OS1*, OS2*

***Prior written consent from the neighbouring owner is required prior to the removal of any trees located on neighbouring properties. Unsurveyed trees may require surveying to verify ownership.**

8.3. RETENTION AND REMOVAL OF ONSITE TREES

The following bylaw protected onsite trees (indicated by tag #) are located where they are in conflict with the proposed construction and are proposed for removal:

Remove 16 bylaw protected onsite trees and 2 trees with shared ownership

- 212, 213, 214, 215(shared)*, 216, 222, 226, 228, 236, 237, 238, 239, 240, 241, 242, 244, 246(shared)**, 247.

***Note that written consent must be obtained from the neighbouring property prior to removal of this shared ownership tree.**

****Note that consent must be obtained from the municipality prior to the removal of this shared ownership tree.**

The following non bylaw protected onsite trees (indicated by tag #) are located where they are in conflict with the proposed construction and are proposed for removal:

Remove 18 non bylaw protected onsite trees

- 217, 218, 219, 220, 221, 223, 224, 225, 227, 229, 230, 231, 232, 233, 234, 235, 243, 245.

8.4. TREE IMPACT SUMMARY TABLE

Pursuant to City of Victoria Tree Preservation Bylaw No. 21-035, the tree replacement calculations are as follows:

	A	B	C	D
Tree Status	Total # of Protected Trees	# Of Trees to be REMOVED	# Of NEW or REPLACEMENT Trees to be Planted*	# Of EXISTING non-protected Trees Counted as Replacements
Onsite Trees	18	18	22*	0
Private Offsite Trees	2	0	N/A	N/A
Municipal Trees	5	2	N/A	N/A
Total	25	20	22*	0

Based on bylaw criteria, a 14 tree minimum is required for the site (site area of $\sim 2769.5 \text{ m}^2$). *The Landscape Rezoning Plan by LADR, provides locations for 19 new trees (from Schedule "E", part 1 of Tree Preservation Bylaw No. 21-035) and 3 new trees (from Schedule "E", part 2 of Tree Preservation Bylaw No. 21-035). If the site cannot accommodate the required quantity of replacement trees, any replacement tree planting shortfall will be compensated to the city via a cash in lieu payment by the owner.

9. IMPACT MITIGATION

Tree Protection Barrier: The areas, surrounding the trees to be retained should be isolated from the construction activity by erecting protective barrier fencing (see [Appendix A](#) for municipal barrier specifications). Where possible, the fencing should be erected at the perimeter of the critical root zone. The barrier fencing to be erected must be a minimum of 4 feet in height, of solid frame construction that is attached to wooden or metal posts. A solid board or rail must run between the posts at the top and the bottom of the fencing. This solid frame can then be covered with flexible snow fencing. The fencing must be erected prior to the start of any construction activity on site (i.e. demolition, excavation, construction), and remain in place through completion of the project. Signs should be posted around the protection zone to declare it off limits to all construction related activity. The project arborist must be consulted before this fencing is removed or moved for any purpose.

Arborist Supervision: All excavation occurring within the critical root zones of protected trees should be completed under supervision by the project arborist. Any severed or severely damaged roots must be pruned back to sound tissue to reduce wound surface area and encourage rapid compartmentalization of the wound. In particular, the following activities should be completed under the direction of the project arborist:

- All excavation required within the critical root zone of OS1 and OS2 for the footprint of the proposed u/g parkade and new sidewalk.
- All excavation required within the critical root zone of M2 & M3 to remove the existing sidewalk and for the installation of the proposed driveway letdown, curb/gutter, sidewalk, and to exposed and cap existing u/g utilities.
- All excavation required within the critical root zone of M4 to remove the existing sidewalk and for the installation of the proposed curb/gutter, sidewalk, and to exposed and cap existing u/g utilities.

Methods to Avoid Soil Compaction: In areas where construction traffic must encroach into the critical root zones of trees to be retained, efforts must be made to reduce soil compaction where possible by displacing the weight of machinery and foot traffic. This can be achieved by one of the following methods:

- Installing a layer of hog fuel or coarse wood chips at least 20 cm in depth and maintaining it in good condition until construction is complete.
- Placing medium weight geotextile cloth over the area to be used and installing a layer of crushed rock to a depth of 15 cm over top.
- Placing two layers of 19mm plywood.
- Placing steel plates.

Demolition of the Existing Buildings: The demolition of the existing houses, driveways, and any services that must be removed or abandoned, must take the critical root zone of the trees to be retained into account. If any excavation or machine access is required within the critical root zones of trees to be retained, it must be completed under the supervision and direction of the project arborist. If temporarily removed for demolition, barrier fencing must be erected immediately after the supervised demolition.

Paved Surfaces Above Tree Roots:

If the new paved surfaces within the CRZ of tree to be retained require excavation down to bearing soil and roots are encountered in this area, this could impact their health and structural stability. If tree retention is desired, a raised and permeable paved surface should be constructed in the areas within the critical root zone of the trees. The “paved surfaces above root systems” diagram and specifications is attached.

The objective is to avoid root loss and to instead raise the paved surface and its base layer above the roots. This may result in the grade of the paved surface being raised above the existing grade (the amount depending on how close roots are to the surface and the depth of the paving material and base layers). Final grading plans should take this potential change into account. This may also result in soils which are high in organic content being left intact below the paved area.

To allow water to drain into the root systems below, we also recommend that the surface be made of a permeable material (instead of conventional asphalt or concrete) such as permeable asphalt, paving stones, or other porous

paving materials and designs such as those utilized by Grasspave, Gravelpave, Grasscrete and open-grid systems.

Mulching: Mulching can be an important proactive step in maintaining the health of trees and mitigating construction related impacts and overall stress. Mulch should be made from a natural material such as wood chips or bark pieces and be 5-8cm deep. No mulch should be touching the trunk of the tree. See “methods to avoid soil compaction” if the area is to have heavy traffic.

Blasting: Care must be taken to ensure that the area of blasting does not extend beyond the necessary footprints and into the critical root zones of surrounding trees. The use of small low-concussion charges and multiple small charges designed to pre-shear the rock face will reduce fracturing, ground vibration, and overall impact on the surrounding environment. Only explosives of low phytotoxicity and techniques that minimize tree damage should be used. Provisions must be made to ensure that blasted rock and debris are stored away from the critical root zones of trees.

Scaffolding: This assessment has not included impacts from potential scaffolding including canopy clearance pruning requirements. If scaffolding is necessary and this will require clearance pruning of retained trees, the project arborist should be consulted. Depending on the extent of pruning required, the project arborist may recommend that alternatives to full scaffolding be considered such as hydraulic lifts, ladders or platforms. Methods to avoid soil compaction may also be recommended (see “Minimizing Soil Compaction” section).

Landscaping and Irrigation Systems: The planting of new trees and shrubs should not damage the roots of retained trees. The installation of any in-ground irrigation system must take into account the critical root zones of the trees to be retained. Prior to installation, we recommend the irrigation technician consult with the project arborist about the most suitable locations for the irrigation lines and how best to mitigate the impacts on the trees to be retained. This may require the project arborist supervise the excavations associated with installing the irrigation system. Excessive frequent irrigation and irrigation which wets the trunks of trees can have a detrimental impact on tree health and can lead to root and trunk decay.

Arborist Role: It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:

- Locating the barrier fencing
- Reviewing the report with the project foreman or site supervisor
- Locating work zones, where required
- Supervising any excavation within the critical root zones of trees to be retained
- Reviewing and advising of any pruning requirements for machine clearances

Review and site meeting: Once the project receives approval, it is important that the project arborist meet with the principals involved in the project to review the information contained herein. It is also important that the

arborist meet with the site foreman or supervisor before any site clearing, tree removal, demolition, or other construction activity occurs and to confirm the locations of the tree protection barrier fencing.

10. DISCLOSURE STATEMENT

This arboricultural field review report was prepared by Talmack Urban Forestry Consultants Ltd. for the exclusive use of the Client and may not be reproduced, used or relied upon, in whole or in part, by a party other than the Client without the prior written consent of Talmack Urban Forestry Consultants Ltd.. Any unauthorized use of this report, or any part hereof, by a third party, or any reliance on or decisions to be made based on it, are at the sole risk of such third parties. Talmack Urban Forestry Consultants Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report, in whole or in part.

Arborists are professionals who examine trees and use their training, knowledge, and experience to recommend techniques and procedures that will improve a tree's health and structure or to mitigate associated risks. Trees are living organisms whose health and structure change and are influenced by age, continued growth, climate, weather conditions, and insect and disease pathogens. Indicators of structural weakness and disease are often hidden within the tree structure or beneath the ground. The arborist's review is limited to a visual examination of tree health and structural condition, without excavation, probing, resistance drilling, increment coring, or aerial examination. There are inherent limitations to this type of investigation, including, without limitation, that some tree conditions will inadvertently go undetected. The arborist's review followed the standard of care expected of arborists undertaking similar work in British Columbia under similar conditions. No warranties, either express or implied, are made as to the services provided and included in this report.

The findings and opinions expressed in this report are based on the conditions that were observed on the noted date of the field review only. The Client recognizes that passage of time, natural occurrences, and direct or indirect human intervention at or near the trees may substantially alter discovered conditions and that Talmack Urban Forestry Consultants Ltd. cannot report on, or accurately predict, events that may change the condition of trees after the described investigation was completed.

It is not possible for an Arborist to identify every flaw or condition that could result in failure nor can he/she guarantee that the tree will remain healthy and free of risk. The only way to eliminate tree risk entirely is to remove the entire tree. All trees retained should be monitored on a regular basis. Remedial care and mitigation measures recommended are based on the visible and detectable indicators present at the time of the examination and cannot be guaranteed to alleviate all symptoms or to mitigate all risk posed.

Immediately following land clearing, grade changes or severe weather events, all trees retained should be reviewed for any evidence of soil heaving, cracking, lifting or other indicators of root plate instability. If new information is discovered in the future during such events or other activities, Talmack Urban Forestry Consultants Ltd. should be requested to re-evaluate the conclusions of this report and to provide amendments as required prior to any reliance upon the information presented herein.

11. IN CLOSING

We trust that this report meets your needs. Should there be any questions regarding the information within this report, please do not hesitate to contact the undersigned.

Yours truly,

Talmack Urban Forestry Consultants Ltd.

Prepared by:



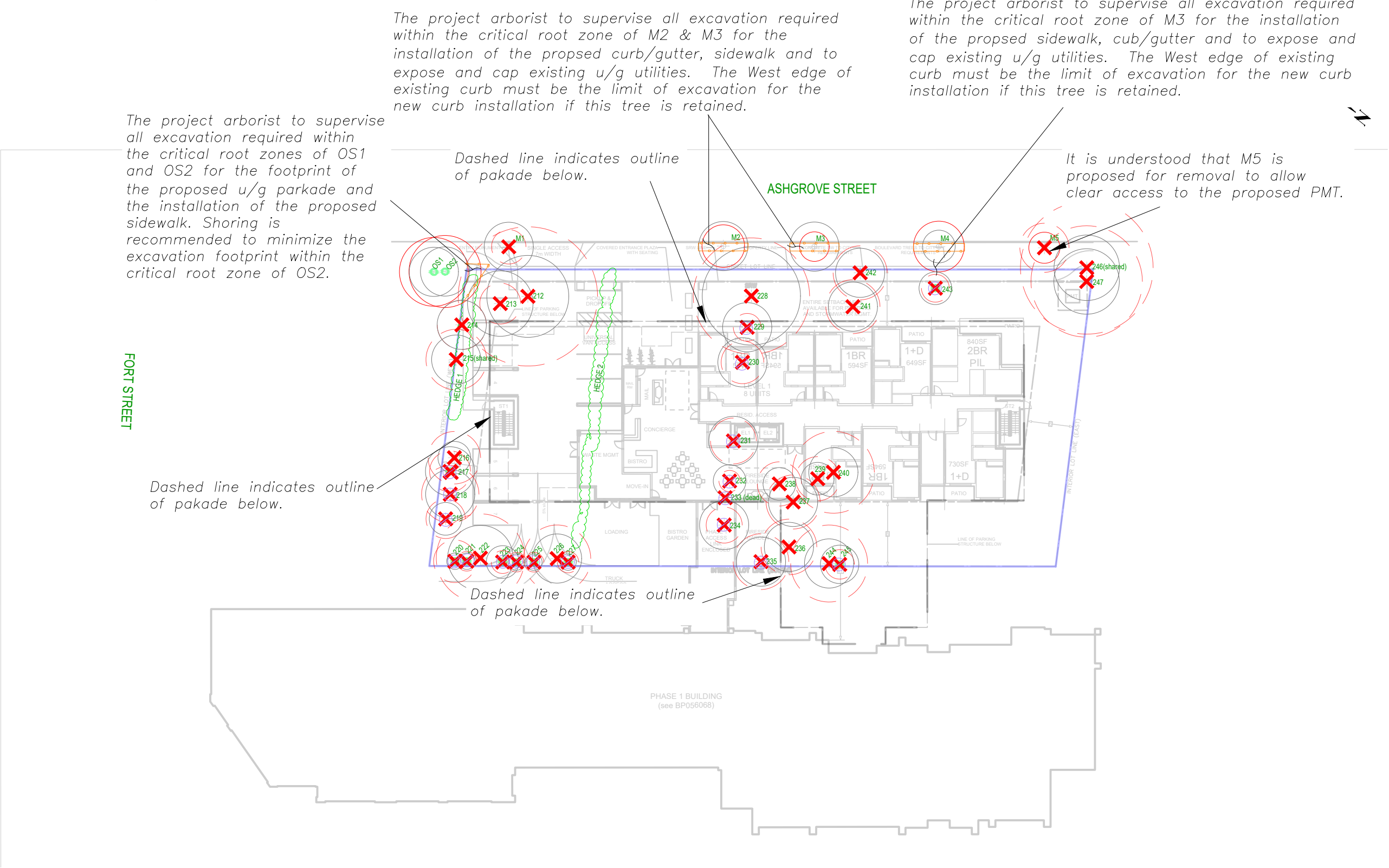
Noah Talbot, BA
ISA Certified Arborist PN – 6822A
Tree Risk Assessment Qualification
Email: tmtreehelp@gmail.com

12. REFERENCES

Dunster, J.A., E.T. Smiley, N. Matheny, and S. Lily. 2017. Tree Risk Assessment Manual, International Society of Arboriculture (ISA).

The City of Victoria Tree Preservation Bylaw No. 21-035.

APPENDIX A - TREE MANAGEMENT PLAN (T1)



TREE PROTECTION NOTES

Tree protection barrier: The areas, surrounding the trees to be retained, should be isolated from the construction activity by erecting protective barrier fencing. Where possible, the fencing should be erected at the perimeter of the critical root zone. The barrier fencing to be erected must be a minimum of 1200mm in height, of solid frame construction that is attached to wooden or metal posts. A solid board or rail must run between the posts at the top and the bottom of the fencing. This solid frame can then be covered with flexible snow fencing. The fencing must be erected prior to the start of any construction activity on site (i.e. demolition, excavation, construction), and remain in place through completion of the project. Signs should be posted around the protection zone to declare it off limits to all construction related activity. The project arborist must be consulted before this fencing is removed or moved for any purpose.

Arborist supervision: All excavation occurring within the critical root zones of protected trees must be completed under the supervision of the project arborist. Any severed or severely damaged roots must be pruned back to sound tissue to reduce wound surface area and encourage rapid compartmentalization of the wound.

Demolition: The demolition of the existing houses, driveways, and any services that must be removed or abandoned must take the critical root zone of the trees to be retained into account. If any excavation or machine access is required within the critical root zones of trees to be retained, it must be completed under the supervision of the project arborist. If temporarily removed for demolition, barrier fencing must be erected immediately after the supervised demolition.

Methods to avoid soil compaction: In areas where construction traffic must encroach into the critical root zones of trees to be retained, efforts must be made to reduce soil compaction where possible by displacing the weight of machinery and foot traffic. This can be achieved by one of the following methods:

- Installing a layer of hog fuel or coarse wood chips at least 20cm in depth and maintaining it in good condition until construction is complete.
- Placing medium weight geotextile cloth over the area to be used and installing a layer of crushed rock to a depth of 15cm over top.
- Placing two layers of 19mm plywood.
- Placing steel plates.

Mulching: Mulching can be an important proactive step in maintaining the health of trees and mitigating construction related impacts and overall stress. Mulch should be made from a natural material such as wood chips or bark pieces and be 5-8cm deep. No mulch should be touching the trunk of the tree. See "methods to avoid soil compaction" if the area is to have heavy traffic.

Pruning: We recommend that any pruning of bylaw-protected trees be performed to ANSI A300 standards and Best Management Practices.

Paved surfaces above tree roots: Where paved areas cannot avoid encroachment within critical root zones of trees to be retained, construction techniques, such as floating permeable paving, may be required. The "paved surfaces above tree roots" detail above offers a compromise to full depth excavation (which could impact the health or structural stability of the tree). The objective is to avoid root loss and to instead raise the paved surface above the existing grade (the amount depending on how close roots are to the surface and the depth of the paving material and base layers). Final grading plans should take this potential change into account. This may also result in soils which are high in organic content being left intact below the paved area. To allow water to drain into the root systems below, we also recommend that the surface

be made of a permeable material (instead of conventional asphalt or concrete) such as permeable asphalt, paving stones, or other porous paving materials and designs such as those utilized by Grasspave, Gravelpave, Grasscrete and open-grid systems.

Blasting and rock removal: Care must be taken to ensure that the area of blasting does not extend beyond the necessary footprints and into the critical root zones of surrounding trees. The use of small low-concussion charges and multiple small charges designed to pre-shear the rock face will reduce fracturing, ground vibrations and overall impact to the surrounding environment. Only explosives of low phytotoxicity and techniques that minimize tree damage should be used. Provisions must be made to ensure that blasted rock and debris are stored away from the critical root zones of trees.

Scaffolding: This assessment has not included impacts from potential scaffolding including canopy clearance pruning requirements. If scaffolding is necessary and this will require clearance pruning of retained trees, the project arborist should be consulted. Depending on the extent of pruning required, the project arborist may recommend that alternatives to full scaffolding be considered such as hydraulic lifts, ladders or

platforms. Methods to avoid soil compaction may also be recommended (see "Minimizing Soil Compaction" section).

Landscaping and irrigation systems: The planting of new trees and shrubs should not damage the roots of retained trees. The installation of any in-ground irrigation system must take into account the critical root zones of the trees to be retained. Prior to installation, we recommend the irrigation technical consult with the project arborist about the most suitable locations for the irrigation lines and how best to mitigate the impacts on the trees to be retained. This may require the project arborist supervise the excavations associated with installing the irrigation system. Excessive frequent irrigation and irrigation which wets the trunks of trees can have a detrimental impact on the tree health and can lead to root and trunk decay.

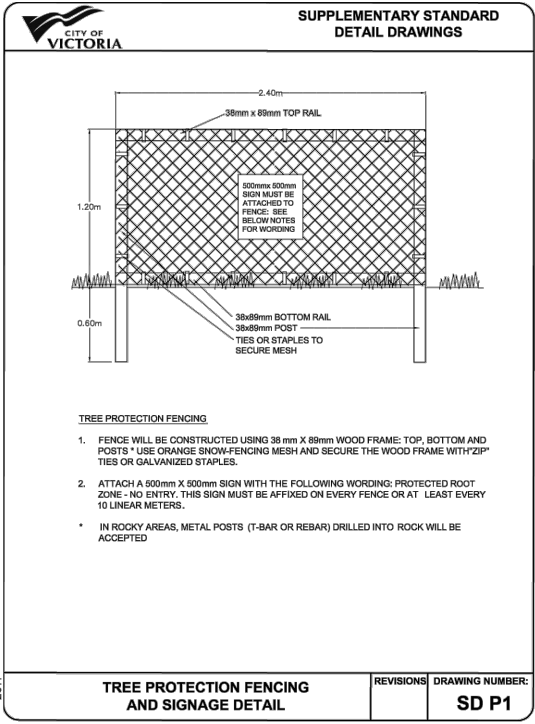
Arborists role: It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:

- Locating the barrier fencing.
- Reviewing the report with the project foreman or site supervisor.
- Locating work zones and machine access corridors where required.
- Supervising excavation for any areas within the critical root zones of trees to be retained including any proposed retaining wall footings and review any proposed fill areas near trees to be retained.

LEGEND

- Existing tree with tag or ID #
- Dripline radius (m)
- Tree protection fencing
- Critical root zone radius (m)
- Tree proposed for removal
- Non-bylaw onsite tree
- Unsurveyed tree
- Site boundary

TREE PROTECTION FENCING



Tree Management Plan - T1
Amica Jubilee House PH2
Victoria, BC

DATE: April 06, 2023
PREPARED FOR: Milliken Developments
SCALE: 1 : 500 @ 11" X 17"
DRAWN BY: NT
REVISION: 0
REFERENCE DWG'S: Site plan and parkade plan by DHK
topographic survey by Polaris Land Surveying

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Consultants Limited

APPENDIX B – TREE PRESERVATION SUMMARY

Tree Preservation Summary			
City of Victoria Project No: Unknown			
Address: 1921/1929/1933/1935 Ashgrove Street, 1900 Richmond Road			
Arborist: Noah Talbot, BA			
Certifications/Qualifications: ISA Certified Arborist (PN6822A), Tree Risk Assessment Qualified			
	Count	Multiplier	Total
ONSITE Minimum replacement tree requirement			
A. Protected Trees Removed	18	X 1	A. 18
B. Replacement Trees Proposed per Schedule "E", Part 1	19*	X 1	B. 19*
C. Replacement Trees Proposed per Schedule "E", Part 2	3*	X 0.5	C. 1.5*
D. Replacement Trees Proposed per Schedule "E", Part 3	16*	X 1	D. 16*
E. Total replacement trees proposed (B+C+D) Round down to nearest whole number			E. 20*
F. Onsite replacement tree deficit (A-E) Record 0 if negative number			F. 0*
ONSITE Minimum trees per lot requirement (onsite trees)			
G. Tree minimum on lot*			G. 14
H. Protected trees retained (other than specimen trees)	0	X 1	H. 0
I. Specimen trees retained	0	X 3	I. 0
J. Trees per lot deficit (G - (B+C+H+I) Record 0 if negative number			J. 0
OFFSITE Minimum replacement tree requirement (offsite trees)			
K. Protected trees Removed	0	X 1	K. 0
L. Replacement trees proposed per Schedule "E", Part 1 or Part 3	0	X 1	L. 0
M. Replacement trees proposed from Schedule "E", Part 2	0	X 0.5	M. 0
N. Total replacement trees proposed (L+ M) Round down to nearest whole number			N. 0
O. Offsite replacement tree deficit (K - N) Record 0 if negative number			O. 0*
Cash-in-lieu requirement			
P. Onsite trees proposed for cash-in-lieu Enter F. or J., whichever is the greater number			P. 0
Q. Offsite trees proposed for cash-in-lieu Enter O.			Q. 0
R. Cash-in-lieu proposed ((P+Q) X \$2,000)			R. \$0
Summary prepared and submitted by: <i>Noah Talbot</i>			*Refer to Landscape Plan by others
Date: April 06, 2023			

APPENDIX C – SITE PHOTOGRAPHS



Photograph 1. Yellow arrow indicates municipal hornbeam (M1).



Photograph 2 – Yellow arrow indicates municipal maple (M2).



Photograph 3 – Yellow arrow indicates municipal maple (M3).



Photograph 4 – Yellow arrow indicates Municipal maple (M4).



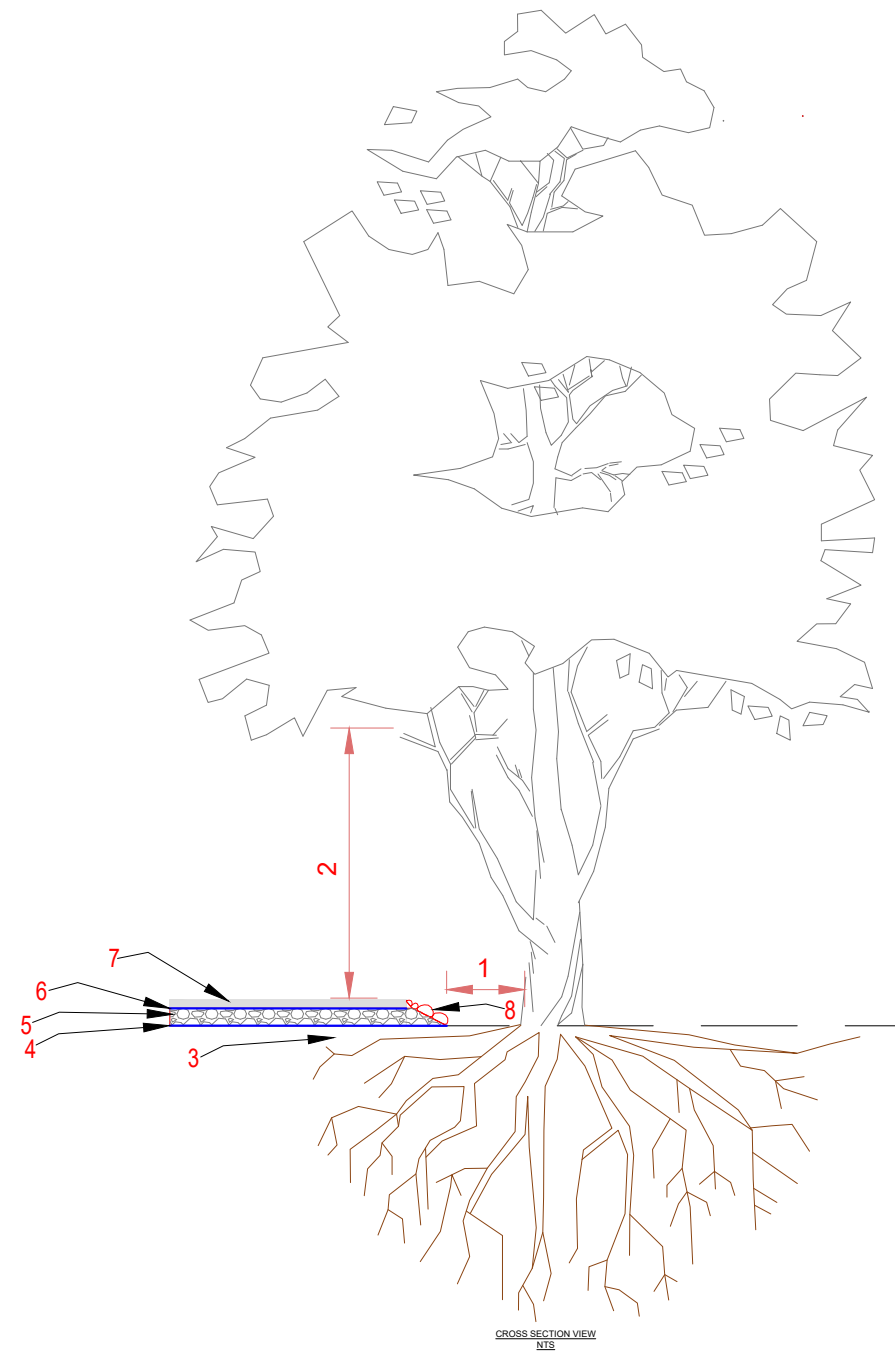
Photograph 5 – Yellow arrow indicates municipal hornbeam (M5).



*Photograph 6 – Yellow arrows indicate Lawson cypress (tag# 246 – right) & (tag# 247 – left). *Note the declining health condition.*

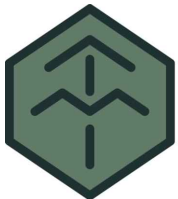
APPENDIX D – HARD SURFACE OVER TREE ROOTS DETAIL

HARD SURFACE ABOVE TREE ROOTS DETAIL



HARD SURFACE ABOVE TREE ROOTS NOTES

1. Maintain as large a setback between the fill encroachment and the root collar of the tree as possible.
2. Review any canopy clearance pruning requirements to accommodate vehicle or pedestrian clearances (Pruning to be performed to ANSI A300 standards).
3. Excavate the new footprint of the driveway or sidewalk under the supervision of the project arborist. Excavation will be limited to the removal of the existing sod layer. Excavation around root structures must be performed by hand, airspade, or hydroexcavation.
4. Install a two-dimensional (such as Combigrid $\frac{30}{30}$) or Three-dimensional geogrid reinforcement.
5. Install a 150mm depth layer of clear crushed gravel (no fines) using 20mm and/or 75mm diameter material or approved equivalent. *Note - the depth may be less than 150mm in some situations (dependant on grading constraints).
6. Install meduim weight geotextile fabric (such as Nilex 4535 or similar) over the clear crushed gravel layer to prevent fine particles of sand from infiltrating this layer.
7. The bedding or base layer and new driveway or sidewalk surface can be installed directly on top of the felted filter fabric.
8. Fill slopes - where possible install loose stacked boulders to reduce the footprint of the fill slopes that encroach within the critical root zone. Fill slope materials must be permeable to air and water. Do not pile fill material directly against the trunk of a tree.



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APPENDIX E – LANDSCAPE PLAN WITH SOIL VOLUME SUMMARY TABLE

Recommended Nursery Stock

Trees	Quantity	Botanical Name	Common Name	Size
	1	Acer rubrum 'Armstrong' (Med. / 1:1)	Armstrong Maple	6cm cal.
	1	Alnus rubra (Lrg / 1:1)	Red Alder	6cm cal.
	9	Cercidiphyllum japonicum (Med. / 1:1)	Katsura Tree	6cm cal.
	5	Cercis canadensis (Med. / 1:1)	Eastern Redbud	6cm cal.
	2	Cornus x 'Venus' (1:1 Structure)	Venus Cornus	4cm cal.
	2	Malus domestica 'Jonagold' (Sm. / 2:1)	Semi-Dwarf Apple	6cm cal.
	1	Stewartia pseudocamellia (Sm. / 2:1)	Japanese Stewartia	6cm cal.

Large Shrubs

Total: 72	Botanical Name Ceanothus thyrsiflorus 'Victoria' Choisya ternata Cornus sericea 'Flaviramea' Oemleria cerasiformis Philadelphus lewisii Pieris 'Forest Flame' Vaccinium ovatum	Common Name Victoria Ceanothus (California Lilac) Mexican Orange Blossom Midwinter Fire Dogwood Indian Plum Mock Orange Forest Flame Pieris Evergreen Huckleberry	Size #5 pot #5 pot #5 pot #5 pot #5 pot #5 pot #5 pot
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Medium Shrubs

Total: 150	Botanical Name Hydrangea macrophylla 'Lanarth White' Mahonia aquifolium Rhododendron 'Fantastica' Rhododendron macrophyllum Ribes sanguineum Symphoricarpos albus	Common Name Lanarth White Hydrangea Tall Oregon Grape Fantastica Rhododendron Pacific Rhododendron Red Flowering Currant Snowberry	Size #5 pot #5 pot #5 pot #5 pot #5 pot #5 pot
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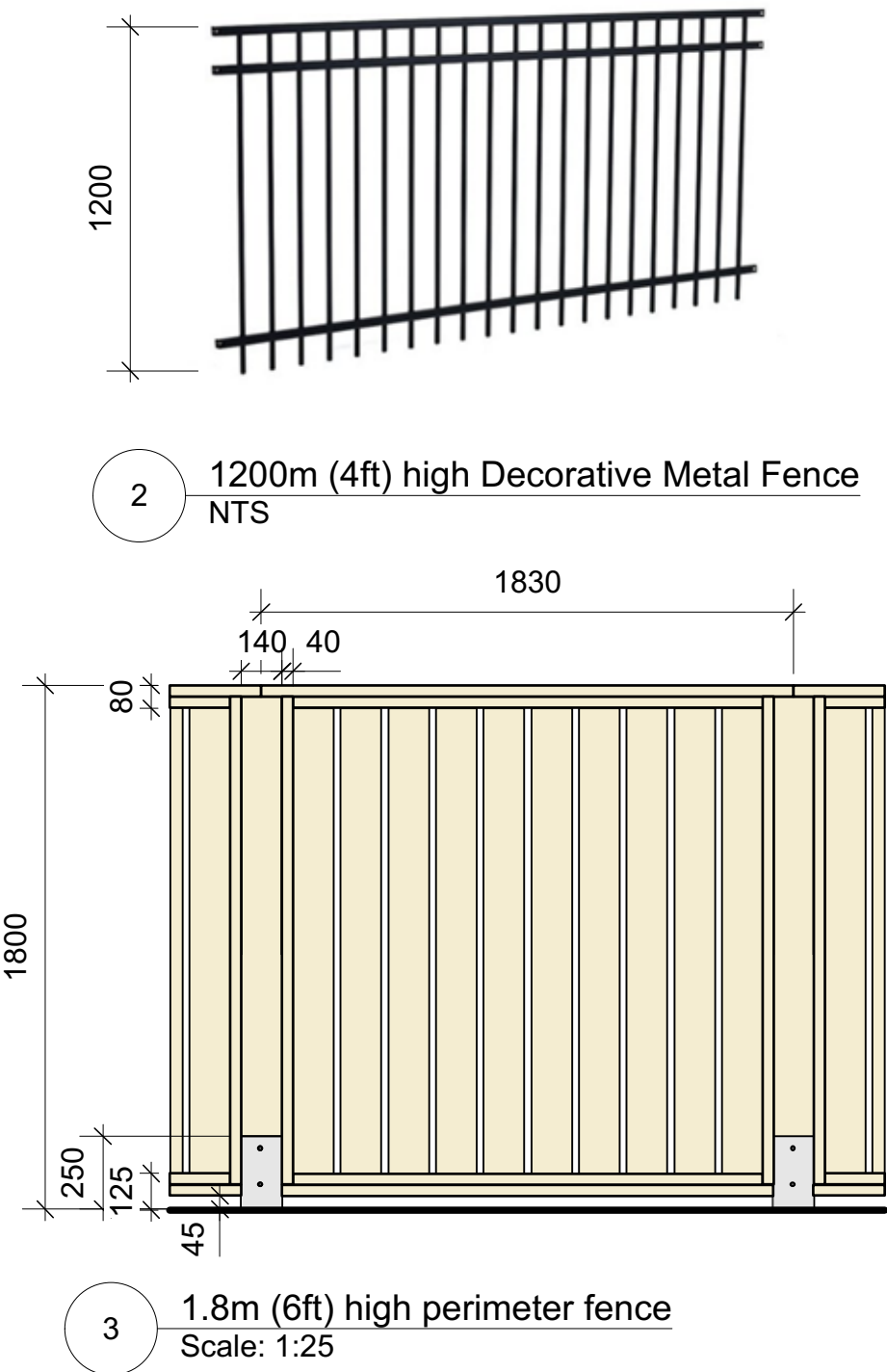
Small Shrubs

Total: 561	Botanical Name Azalea japonica 'Herbert' Azalea 'Snowbird' Berberis thunbergii f. atropurpurea 'Bagatelle' Ceanothus 'Blue Sapphire' Cistus x argenteus 'Silver Pink' Cornus stolonifera 'Kelsey' Gaultheria shallon Hebe odora 'New Zealand Gold' Hydrangea macrophylla 'Lanarth White' Lavandula angustifolia 'Munstead' Lavender stoechas 'Anoluk' Mahonia nervosa Nandina domestica 'Wood's Dwarf' Sarcococca hookeriana var. humilis	Common Name Herbert Evergreen Azalea Snowbird Azalea Dwf Purpleleaf Japanese Barberry Blue Sapphire Ceanothus Silver Pink Rock Rose Kelsey Dogwood Salal New Zealand Hebe Lanarth White Hydrangea Munstead English Lavender Anouk Spanish Lavender Low Oregon Grape Wood's Dwarf Heavenly Bamboo Dwarf Sweet Box	Size #1 pot #1 pot #1 pot #1 pot #1 pot #1 pot #1 pot #1 pot #1 pot #5 pot #1 pot #1 pot #1 pot #1 pot #1 pot
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Perennials, Annuals and Ferns

Total: 207	Botanical Name Calamagrostis x acutiflora 'Karl Foerster' Festuca idahoensis Helictotrichon sempervirens Perovskia atriplicifolia Phormium tenax 'Tiny Tiger' Polystichum munitum Stipa tenuissima	Common Name Karl Foerster Feather Reed Grass Idaho Fescue Blue Oat Grass Russian Sage Dwarf Variegated New Zealand Flax Sword Fern Mexican Feather Grass	Size #1 pot #1 pot #1 pot #1 pot #1 pot #1 pot #1 pot
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- Notes:
- All work to be completed to current CSLA Landscape Standards
 - All soft landscape to be irrigated with an automatic irrigation system



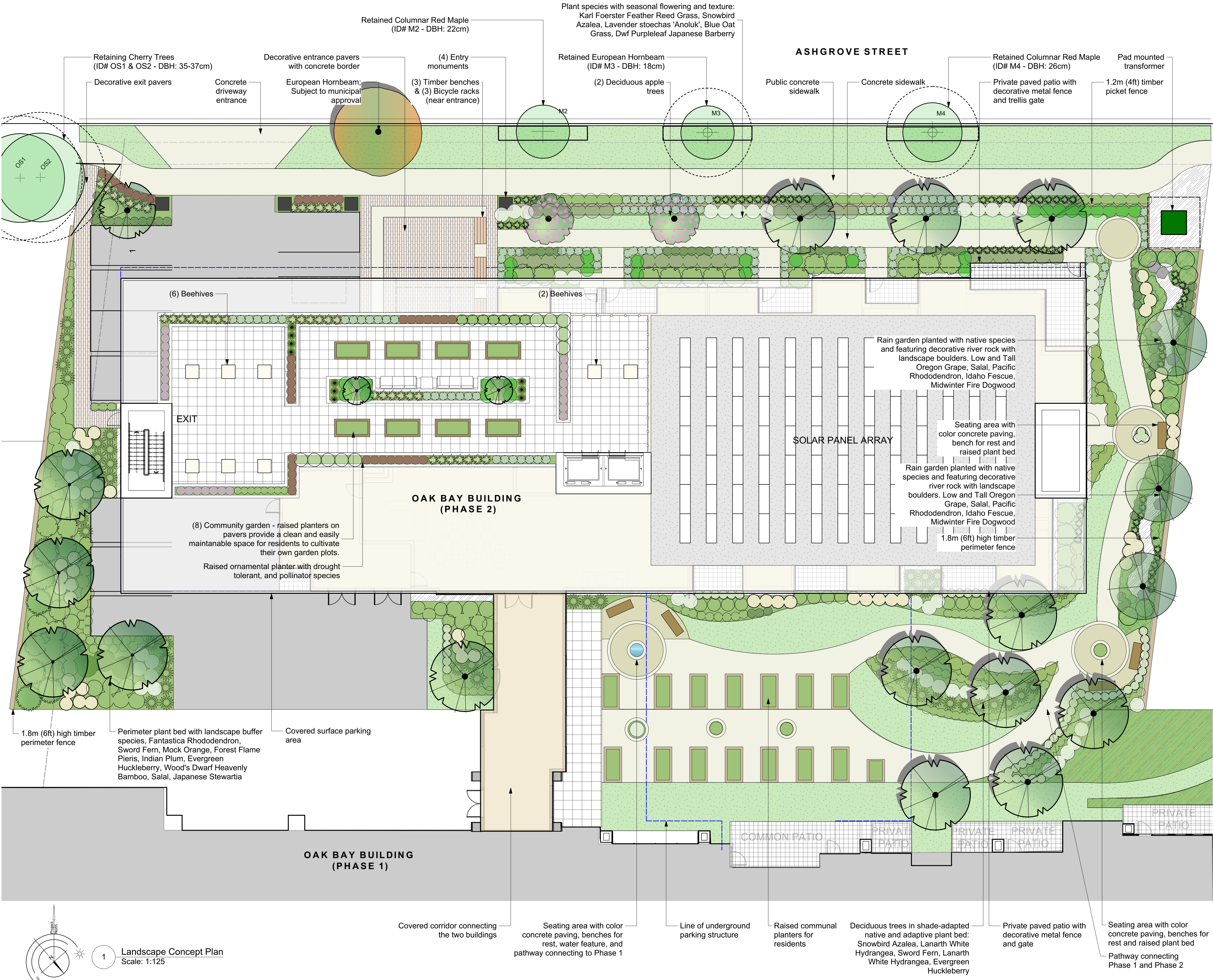
Revision E | Issued for DP ReSubmission | Apr. 11/23
Revision D | Issued for Draft DP ReSubmission | Feb. 24/23
Revision C | Issued for Draft DP Submission | Dec. 15/22
Revision B | Issued for Coordination | Dec. 7/22
Revision A | Issued for Rezoning | Sept. 16/22



Project No: 2214 13 May 2022

#3-864 Queens Ave. Victoria B.C. V8T 1M5
Phone: (250) 598-0105

Landscape Concept Plan - Oak Bay Phase 2



[illegible]

Tree Inventory Table																	
Tag #	Report #	Location (City, State, County)	Byte Investment	Name	Common	DBH (in)	Height (ft)	Canopy cover (%)	Days to maturity	Condition	Reproductive status	Regime	General field observations/remarks	Tree survival prospects	Relevant notes		
M1	Yes	City	Yes	Russian Red Pine	Pinus resinosa	21	15	2.1	3	Good	Fair	good	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove		
O61	No	Off	Yes	Cherry	Prunus sp.	36	8	4.2	3	Fair	Fair	moderate	Flowering trees, heavily shaded, several dead limbs. No fruit seen. The project will require removal of this tree.	Planted for ornamental utility clearance	Remove		
O62	No	Off	Yes	Cherry	Prunus sp.	36	8	4.2	3	Fair	Fair	moderate	Flowering trees, heavily shaded, several dead limbs. No fruit seen. The project will require removal of this tree.	Planted for ornamental utility clearance	Remove		
Hedge 1	Yes	No	No	Excavator track	Thaps alba	15	15	4	2	2	Good	Fair	moderate	Heavy shade, no fruit seen. 1-50 individual stems, no foliage seen.	Planted for ornamental utility clearance	Remove	
212	Yes	On	Yes	Cherry	Prunus sp.	11	8	8.5	3	Moderate	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove		
213	Yes	On	Yes	Magnolia	magnolia sp.	15	11	11	4	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
214	Yes	On	Yes	Apple	Prunus sp.	13	8	3	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
215	Yes	Shaded	Yes	Cornus	Cornus sp.	37	10	3	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove		
216	Yes	Apple	make up	Apple	apple sp.	15	16	5.2	3	2	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
217	Yes	No	California Redwood	Redwood	Redwood	11	11	1.8	3	2.5	3	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
218	Yes	No	Apple	make up	apple sp.	29	5	3.5	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
219	Yes	No	Cherry	Prunus sp.	36	8	4.2	3	2	4	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
220	No	No	Cherry	Thaps alba	Thaps alba	6	8	4	2	1	Fair	Poor	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
221	No	No	No	Excavator track	Thaps alba	10	6	1.2	1	1	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
222	Yes	English	Angled	Angled	Angled	16	16	5.4	4	4	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
223	No	No	No	Excavator track	Thaps alba	12	5	1.4	2	2	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
224	No	No	No	Excavator track	Thaps alba	10	7	1.2	1	1	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
225	No	No	No	Excavator track	Thaps alba	10	7	1.2	1	1	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
226	Yes	Yes	Flam	Prunus sp.	Prunus sp.	29	18	4.1	3	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
227	No	No	No	Excavator track	Thaps alba	11	7	1.3	1	1	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
Hedge 2	No	No	No	Excavator track	Thaps alba	5	4	1	1	1	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
M2	City	City	Yes	California Redwood	Redwood	22	10	2.6	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove		
M3	City	City	Yes	Russian Red Pine	Pinus resinosa	18	15	1.8	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove		
228	Yes	On	Yes	Almond	Almond	59	15	7.1	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove		
229	Yes	On	Yes	Excavator track	Thaps alba	14	8	1.7	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
230	Yes	On	Yes	Excavator track	Thaps alba	14	8	1.7	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
231	Yes	No	No	Excavator track	Thaps alba	13	8	2.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
232	Yes	No	Ash	Prunus sp.	Prunus sp.	23	8	1.3	2	2	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
233	Yes	No	No	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
234	Yes	No	Ash	Prunus sp.	Prunus sp.	11	8	2.2	3	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
235	Yes	No	No	Excavator track	Thaps alba	26	15	2.4	3	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
236	Yes	On	Yes	Apple	apple sp.	15	16	5.2	3	2	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove
237	Yes	On	Yes	Cherry	Prunus sp.	36	8	4.2	3	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
238	Yes	On	Yes	Apple	apple sp.	15	16	5.2	3	2	3	Fair	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove
239	Yes	On	Yes	Excavator track	Thaps alba	14	8	1.7	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
240	Yes	On	Yes	Excavator track	Thaps alba	14	8	1.7	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
241	Yes	On	Yes	Excavator track	Thaps alba	13	8	2.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
242	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
243	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
244	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
245	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
246	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
247	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
248	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
249	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
250	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
251	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
252	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
253	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
254	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
255	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
256	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
257	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
258	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
259	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
260	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
261	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
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265	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
266	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
267	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
268	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
269	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
270	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
271	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
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274	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
275	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
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279	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
280	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
281	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
282	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
283	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
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295	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
296	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
297	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
298	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate	Planted for ornamental utility clearance	Planted for ornamental utility clearance	Remove	
299	Yes	On	Yes	Excavator track	Thaps alba	11	8	1.8	3	3	Good	Fair	moderate				

Tree Preservation Summary

Tree Preservation Summary				
City of Victoria Project No: Unknown				
Address: 1921/1929/1933/1935 Ashgrove Street, 1900 Richmond Road				
Arboret: Noan Talbot SA				
Certifications/Qualifications: ISA Certified Arborist (PN68232) Tree Risk Assessment Qualified				
	Count	Multiplier		Total
ONSITE Minimum replacement tree requirement				
A. Protected Trees Removed	18	X 1	A.	18
B. Replacement Trees Proposed per Schedule "E", Part 1	19 ¹	X 1	B.	19 ¹
C. Replacement Trees Proposed per Schedule "E", Part 2	3 ²	X 0.5	C.	1.5 ²
D. Replacement Trees Proposed per Schedule "E", Part 3	16 ³	X 1	D.	16 ³
Total replacement trees proposed (B+C+D) Round down to nearest whole number				E. 20 ⁴
Onsite replacement tree deficit (A-E) Record 0 if negative number				F. 0 ⁵
ONSITE Minimum replacement tree requirement (onsite trees)				
G. Tree minimum on lot ⁶			G.	14
H. Protected trees retained (other than specimen trees)	0	X 1	H.	0
I. Specimen trees retained	0	X 3	I.	0
J. Trees per lot deficit (G - (H+C+H)) Record 0 if negative number			J.	0
Offsite Minimum replacement tree requirement (offsite trees)				
K. Protected Trees Removed	0	X 1	K.	0
L. Replacement trees proposed per Schedule "E", Part 1 or Part 3	0	X 1	L.	0
M. Replacement trees proposed per Schedule "E", Part 2	0	X 0.5	M.	0
N. Total replacement trees proposed (L + M) Round down to nearest whole number			N.	0
Offsite replacement tree deficit (K - N) Record 0 if negative number				O. 0 ⁷
Cash-in-lieu requirement				
P. Onsite trees proposed for cash-in-lieu Enter F, or J, whichever is the greater number			P.	0
Q. Offsite trees proposed for cash-in-lieu Enter O			Q.	0
R. Cash-in-lieu proposed (P+Q) X \$2,000			R.	\$0

¹Refer to Landscape Plan by others

Summary prepared and submitted by: Noan Talbot

Date: 11/01/2023

Planting Area (ID)	Area (m2)	Soil Volume (m)	Est. Soil Volume	Replacement Trees Proposed			Soil Volume Required (m3)				Compliance (Y / N)			
				B Small	#	C Medium	#	D Large	#	E # Small		F # Medium	G Large	#
1	169	0.75	126.75	0.0		1.0		0.0		0.0	20.0	0.0	20.0	Y
2	360	0.75	270	2.0		6.0		2.0		16.0	120.0	70.0	206.0	Y
3	75	0.75	56.25	0.0		1.0		0.0		0.0	20.0	0.0	20.0	Y
4	70	0.75	52.5	0.0		2.0		0.0		0.0	40.0	0.0	40.0	Y
5	129	0.75	96.75	0.0		4.0		0.0		0.0	80.0	0.0	80.0	Y
6	14.2	0.75	10.65	1.0		0.0		0.0		8.0	0.0	0.0	8.0	Y
7	12.5	1	12.5	2.0		0.0		0.0		12.0	0.0	0.0	12.0	Y
8	33	0.75	24.75	0.0		1.0		0.0		0.0	20.0	0.0	20.0	Y
		TOTAL	650.15							TOTAL			406.0	

	A	B	C	D
Tree Status	Total # of Protected Trees	# Of Trees to be REMOVED	# Of NEW or REPLACEMENT Trees to be Planted*	# Of EXISTING non-protected Trees Counted as Replacements
Onsite Trees	18	18	22*	0
Private Offsite Trees	2	0	N/A	N/A
Municipal Trees	5	2	N/A	N/A
Total	25	20	22*	0

Retained Tree

← Crown Spread

← Tree Tag #. See Tree Inventory for assessment.

← Critical Root Zone

Removed Tree

← Critical Root Zone

← Tree Tag #. See Tree Inventory for assessment.

1 Landscape Tree Management Plan
Scale: 1:125

Revision E | Issued for DP ReSubmission | Apr. 11/23
Revision D | Issued for Draft DP ReSubmission | Feb. 24/2
Revision C | Issued for Draft DP Submission | Dec. 15/22
Revision B | Issued for Coordination | Dec. 7/22
Revision A | Issued for Rezoning | Sept. 16/22