

# KLIMO & ASSOCIATES

## CERTIFIED ARBORIST REPORT

**PROJECT LOCATION:**

1008 Tuxedo Dr, Port Moody

**PREPARED FOR:**

CityState Consulting Group Ltd.

**PREPARED BY:**

Klimo & Associates Ltd.

5565 15B Ave

Delta BC, V4M 2H2

Metro West IMBL #20020981

Fraser Valley IMBL #20020982

September 27, 2021

Francis Klimo

ISA Certified Arborist

ISA Certified Tree Risk Assessor

BC Wildlife Danger Tree Assessor

## **1.0 SCOPE OF WORK**

Klimo & Associates Ltd. was contracted by CityState Consulting Group Ltd. to prepare an Arborist report along with a Tree assessment, and Tree management plan in order to support a two (2) lot subdivision application located at 1008 Tuxedo Dr, Port Moody.

The objective of this assessment and report is to identify all on/off-site trees that could be impacted by the subdivision project and to ensure that the management of trees are in compliance with the “*City of Port Moody Tree Protection Bylaw, 2015, No. 2961*” and “*Best Management Practices*”. We conducted our field inspections on September 27, 2021 at around 1:30pm. Our scope of work was to identify all key trees located within the proposed working limits and off-site areas of the subdivision, assess & document their condition, and recommend measures to either protect the retained trees or to prescribe their removals.

### **1.1 Limits of assignment**

- Our investigation is based solely on visual inspection of the trees on September 27, 2021 and the analysis of photos taken and tree diagnosis gathered during the inspection.
- Our inspection was conducted from ground level. We did not conduct soil tests or below grade root examination to assess the condition of the root system of the trees.
- We conducted a level 2 assessment.
- Overcast with sunny breaks, no adverse weather conditions.

### **1.2 Purpose and use of the report**

- Meet municipal criteria for Arborist report submissions and to provide documentation pertaining to the management of on/off-site trees in relation to the subdivision and to supplement the proposed two (2) lot subdivision application being submitted to the City of Port Moody for the project address located at 1008 Tuxedo Dr, Port Moody.

## **2.0 SITE ANALYSIS / PROPOSAL**

The project site encompasses over 800 (*approx.*) square meters and located within the limits of the site, an existing dwelling along with a detached garage had been examined to be situated towards the rear section of the property. The property was examined to be bounded by residential properties spanning along its northern and southern site boundary lines, along with a laneway bounding along its eastern P/L, and with Tuxedo St observed to be fronting the site. A proposal has been set forward to subdivide the subject property in order to create two (2) new parcels along with the construction of two (2) single family dwellings.

Located within the limits of the site, the subject trees had consisted of more than twenty (20) coniferous species developing as part of a topped hedgerow spanning along the frontage of the lot. The remaining trees located within the limits of the site was observed to have consisted of several smaller diameter trees along with the remaining areas of the site having off-site trees situated within 2m of the site boundary lines.

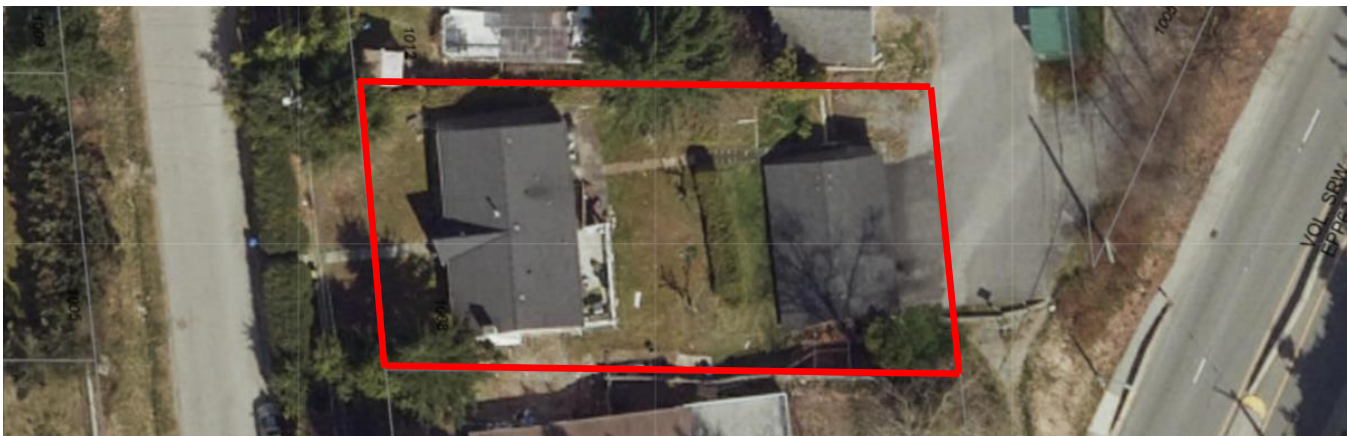


Figure 1 - Location of subject site - 1008 Tuxedo Dr, Port Moody

### 3.0 TREE ASSESSMENT PROCESS

Our tree inspection process is a systematic procedure for accurately identifying and cataloging trees. Using the site survey as a reference to their locations and the proposed site plans provided by the project planners detailing the proposed subdivision, the specifications to our Tree Protection Requirements were able to be accurately completed. In using the information of the proposed construction requirements, we have produced accurate findings to our recommendations to ensure the use of proper tree protection during the construction phase and as applicable, prescribing tree removal recommendations.

Our assessment of the on-site and off-site trees consists of gathering and documenting sizes (*DBH, Height, and Crown spread*), condition, species, location, growth form, and other site factors. The data collected has been documented into the inventory in order to convey the identified trees into a simple format. In addition, accurate tree preservation measures could be implemented for the optimal retention and protection of trees throughout the duration and up to the completion of the construction project.

#### 3.1 Health and structure rating

Basic definitions of the general tree health in regards to the documented trees within the report has been separated based upon the total amount of trees broken up into five (5) defined categories as outlined in the table below:

| Table 1 - Health and structure rating summary table |                       |  |             |
|---|-----------------------|--|-------------|
| Rating  | Retention Suitability | Definition   | Total Trees |
| Good  | Suitable              | A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.   | 7           |
| Fair / Good   | Suitable              | Tree is growing well for its species. No overt or identifiable significant defects, and is well suited for retention.  |             |
| Fair  | Marginal              | Subject tree that has an average vigour for its species. Small amount of twig dieback, minor structural defects that could be corrected.   |             |
| Fair / Poor   | Marginal/ Unsuitable  | A tree with moderate to poor vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may affect its survival considering construction impacts.   | 24          |
| Poor  | Unsuitable            | A tree in decline, epicormics growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated. And a tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated. |             |

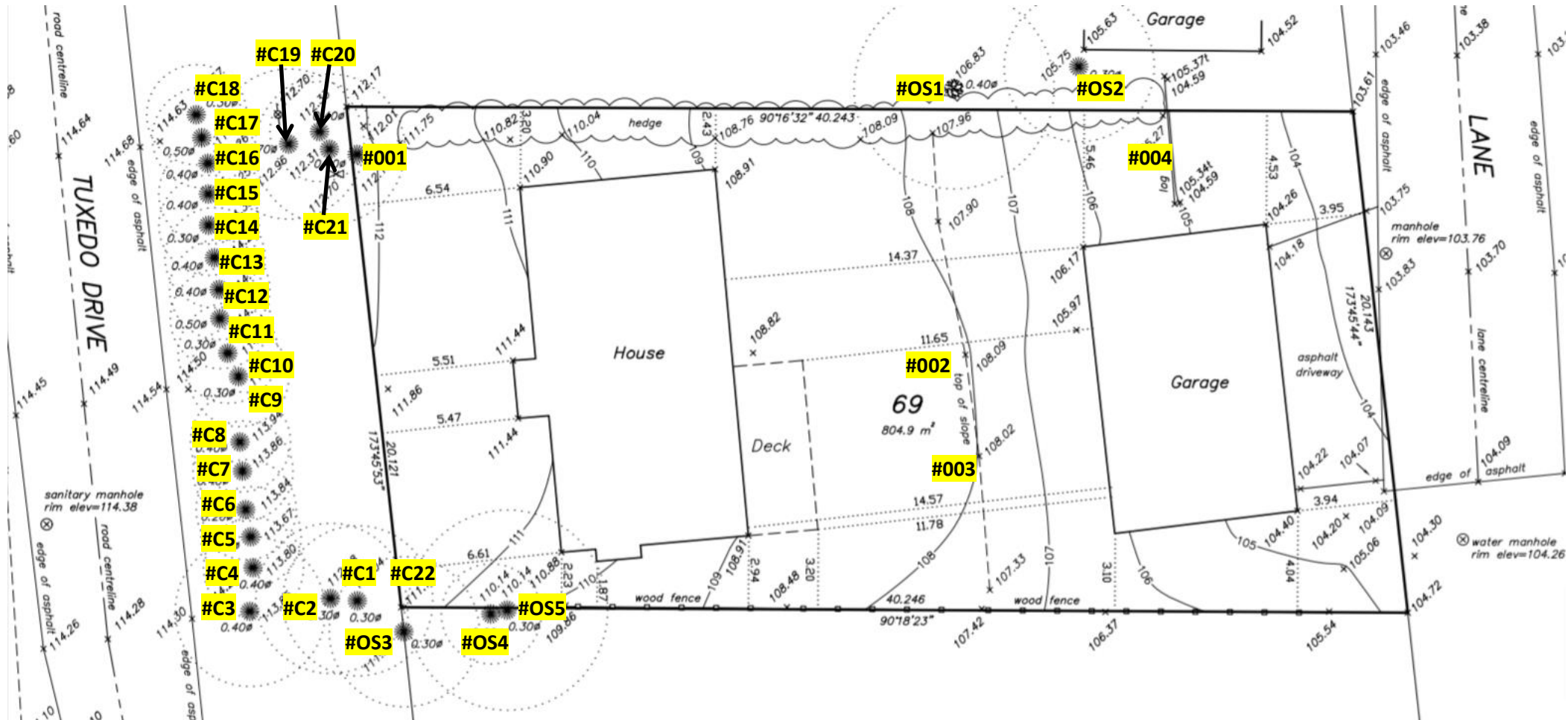
### 4.0 SUMMARY OF FINDINGS

On September 27, 2021, Klimo & Associates Ltd. had conducted a site visit & visual inspection of all trees located on and off-site. A total of thirty-one (31) trees were identified and had consisted of three (3) different types of species. The identified trees were measured to have an average DBH of 12cm to 60cm and overall, the subject trees had ranged from being in poor, fair, to good in condition.

The majority of the identified trees were examined to be in conflict with the proposed subdivision as the subject trees had fallen within the limits of the construction process and of the high disturbance requirement areas pertaining to the main dwellings and of the site servicing & access requirements.

| On-site<br>(Subject site) | City<br>(Trees on City lot) | Off-site<br>(Privately owned trees) | Total Tree(s) | Total Hedge(s) |        |
|---------------------------|-----------------------------|-------------------------------------|---------------|----------------|--------|
| 4                         | 22                          | 5                                   | 31            |                |        |
| 4                         | 22                          |                                     | 26            |                | Remove |
|                           |                             | 5                                   | 5             |                | Retain |

| Deciduous Tree(s) |          |  | Coniferous Tree(s) |           |                  |   | Hedge(s)     |  |
|-------------------|----------|--|--------------------|-----------|------------------|---|--------------|--|
| Common apple      | 3        |  | Western hemlock    | 24        | Western redcedar | 4 |              |  |
|                   |          |  |                    |           |                  |   |              |  |
|                   |          |  |                    |           |                  |   |              |  |
| <b>Total</b>      | <b>3</b> |  | <b>Total</b>       | <b>28</b> |                  |   | <b>Total</b> |  |

**5.0 SITE MAP**

**6.0 ON-SITE TREE INVENTORY**

| <b>Table 1 - On-site Tree Inventory</b> |                 |  |                 |                           |          |         |                 |   |  |                          |                    |            |
|---|-----------------|--|-----------------|---------------------------|----------|---------|-----------------|---|--|--------------------------|--------------------|------------|
| Klimo & Associates Ltd.                 |                 |  |                 |                           |          |         |                 |   |  |                          |                    |            |
| September 27, 2021                      |                 |  |                 |                           |          |         |                 |   |  |                          |                    |            |
| 1008 Tuxedo Dr, Port Moody              |                 |  |                 |                           |          |         |                 |   |  |                          |                    |            |
| ID#                                     | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name     | Botanical name            | DBH (cm) | LCR (%) | Canopy (Dia. M) | Condition   | Comments   | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
| 001                                     | Yes             | On-site  | Western hemlock | <i>Tsuga heterophylla</i> | 21       | 15      | 5               | Single stemmed, medium, mature co-dominant and topped coniferous tree. Enlarged base. Limb attachments at 2m in height. Crown development has been pruned to clear utility lines. Subject tree is in fair to poor condition.  | Subject tree will be in direct conflict with the proposed lot grading & site servicing requirements, and will be within the zone of the heaviest grading related requirements. | Marginal / Unsuitable    | Remove             | 1.3        |
| 002                                     | No              | On-site  | Common apple    | <i>Malus domestica</i>    | 9/19     | 60      | 5               | Bifurcated stemmed, small, mature deciduous fruiting tree. Loss of leading growth. Former limbs pruning marks along the first quarter of its main trunk. Crown growth has been shaped for landscaping. No signs of decay. Subject tree is in fair condition.                    | Subject tree will be in direct conflict with the proposed lot grading & building footprint, and will be within the zone of the heaviest grading related requirements.          | Marginal                 | Remove             | 1.7        |
| 003                                     | No              | On-site  | Common apple    | <i>Malus domestica</i>    | 16/10    | 60      | 5               | Single stem med, small, mature deciduous tree. Loss of leading growth. Former limbs have been pruned along the first quarter of its main trunk. Crown growth has been shaped for landscaping. No signs of decay. Subject tree is in fair condition.                             | Subject tree will be in direct conflict with the proposed lot grading & building footprint, and will be within the zone of the heaviest grading related requirements.          | Marginal                 | Remove             | 1.6        |
| 004                                     | No              | On-site  | Common apple    | <i>Malus domestica</i>    | 11/13    | 70      | 5               | Single stemmed, small, mature deciduous tree. Loss of leading growth. Former limbs have been pruned along the first quarter of its main stems. Crown growth has been shaped for landscaping. Decay process along the structure was observed. Subject tree is in fair condition. | Subject tree will be in direct conflict with the proposed lot grading & building footprint, and will be within the zone of the heaviest grading related requirements.          | Marginal                 | Remove             | 1.5        |

**6.1 OFF-SITE TREE INVENTORY**

| <b>Table 2 - Off-site Tree Inventory</b> |                 |  |                  |                           |          |         |                 |   |  |                          |                    |            |
|--|-----------------|--|------------------|---------------------------|----------|---------|-----------------|---|--|--------------------------|--------------------|------------|
| 1008 Tuxedo Dr, Port Moody               |                 |  |                  |                           |          |         |                 |   |  |                          |                    |            |
| ID#                                      | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name      | Botanical name            | DBH (cm) | LCR (%) | Canopy (Dia M.) | Condition   | Comments   | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
| OS1                                      | Yes             | Off-site   | Western hemlock  | <i>Tsuga heterophylla</i> | 60       | 40      | 5               | Single stemmed, medium, mature co-dominant coniferous tree. Enlarged base. Limb attachments at 2.2m in height. Crown development in contact with the neighboring tree. Ivy growth along the trunk. Subject tree is in fair condition.                                   | Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during the site clearing work and excavation & construction for the new garage.   | Marginal                 | Retain             | 3.6        |
| OS2                                      | Yes             | Off-site   | Western hemlock  | <i>Tsuga heterophylla</i> | 40       | 30      | 5               | Single stemmed, small, mature and suppressed deciduous tree. Enlarged base. Limb attachments at 1.50m in height. Crown development has been pruned for landscaping towards the south. Ivy growth along the trunk. No signs of decay. Subject tree is in fair condition. | Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during the site clearing work and excavation & construction for the new garage.   | Marginal                 | Retain             | 2.4        |
| OS3                                      | Yes             | Off-site   | Western hemlock  | <i>Tsuga heterophylla</i> | 12/5     | 40      | 5               | Bifurcated stemmed, small, mature, co-dominant and topped coniferous tree. Enlarged base. Limb attachments at 2.2m in height. Crown development was observed to be shared with adjacent trees. No signs of decay. Subject tree is in fair condition.                    | Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during the site clearing work.  | Marginal /<br>Unsuitable | Retain             | 1.2        |
| OS4                                      | Yes             | Off-site   | Western redcedar | <i>Thuja plicata</i>      | 23       | 40      | 4               | Single stemmed, medium, mature co-dominant and topped coniferous tree. Enlarged base. Limb attachments at 2m in height. Crown development has been pruned in order to clear utility lines. No signs of decay. Subject tree is in fair condition.                        | Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during the site clearing work and excavation & construction for the new dwelling. | Marginal                 | Retain             | 1.4        |
| OS5                                      | Yes             | Off-site   | Western hemlock  | <i>Tsuga heterophylla</i> | 30/23    | 40      | 5               | Single stemmed, medium, mature, co-dominant coniferous tree. Enlarged base. Limb attachments at 2.2m in height. Crown development was observed to be shared with adjacent trees. No signs of decay. Subject tree is in fair condition.                                  | Place Tree Protection barriers to protect its trunk, roots, and structure. Arborist supervision will be required during the site clearing work and excavation & construction for the new dwelling. | Marginal                 | Retain             | 3.2        |



**6.2 CITY TREE INVENTORY**

| <b>Table 3 - City Tree Inventory</b> |                 |  |                     |                               |              |         |                 |   |   |                          |                    |            |
|--------------------------------------|-----------------|--|---------------------|-------------------------------|--------------|---------|-----------------|---|---|--------------------------|--------------------|------------|
| 1008 Tuxedo Dr, Port Moody           |                 |  |                     |                               |              |         |                 |   |   |                          |                    |            |
| ID#                                  | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name         | Botanical name                | DBH (cm)     | LCR (%) | Canopy (Dia M.) | Condition   | Comments  | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
| C1                                   | Yes             | City   | Western<br>redcedar | <i>Thuja plicata</i>          | 42           | 30      | 3               | Single stemmed, medium, mature co-<br>dominant & topped coniferous tree.<br>Enlarged base. Limb attachments at 2m in<br>height. Crown development was observed<br>to have been pruned in order to clear<br>utility lines. Subject tree is in fair to poor<br>condition.         | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.6        |
| C2                                   | Yes             | City   | Western<br>redcedar | <i>Thuja plicata</i>          | 59           | 60      | 3               | Single stemmed, medium, mature co-<br>dominant & topped coniferous tree.<br>Enlarged base. Limb attachments from<br>the base. Crown development has been<br>pruned in order to clear utility lines.<br>Subject tree is in fair to poor condition.                               | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 3.6        |
| C3                                   | Yes             | City   | Western<br>hemlock  | <i>Tsuga<br/>heterophylla</i> | 30/19<br>/18 | 40      | 3               | Multi stemmed, small, mature and co-<br>dominant & topped coniferous tree.<br>Enlarged base. Limb attachments at 2 in<br>height. Crown development has been<br>pruned in order to clear utility lines.<br>Subject tree is in fair to poor condition.                            | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 4.1        |
| C4                                   | Yes             | City   | Western<br>hemlock  | <i>Tsuga<br/>heterophylla</i> | 18/15<br>/14 | 40      | 4               | Multi stemmed, small, mature co-<br>dominant & topped coniferous tree.<br>Enlarged base along with limb<br>attachments that have developed. Crown<br>development has been pruned in order to<br>clear utility lines. Slight lean. Subject tree<br>is in fair to poor condition. | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.9        |
| C5                                   | Yes             | City   | Western<br>hemlock  | <i>Tsuga<br/>heterophylla</i> | 26/20        | 40      | 5               | Bifurcated stemmed, small, mature, co-<br>dominant & topped coniferous tree.<br>Enlarged base. Limb attachments from<br>the base. Crown development has been<br>pruned in order to clear utility lines.<br>Subject tree is in fair to poor condition.                           | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.8        |

| ID# | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name        | Botanical name                | DBH (cm)     | LCR (%) | Canopy (Dia M.) | Condition  | Comments  | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
|-----|-----------------|--|--------------------|-------------------------------|--------------|---------|-----------------|--|---|--------------------------|--------------------|------------|
| C6  | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 18/16<br>/22 | 40      | 5               | Multi stemmed, small, mature, co-<br>dominant & topped coniferous tree.<br>Enlarged base. Limb attachments from<br>the base. Crown development has been<br>pruned in order to clear utility lines.<br>Subject tree is in fair to poor condition.                                   | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 3.4        |
| C7  | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 14/19        | 40      | 5               | Bifurcated, small, co-dominant & topped<br>coniferous tree. Enlarged base along with<br>limb attachments. Crown development<br>has been pruned in order to clear utility<br>lines. Subject tree is in fair to poor<br>condition.   | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.0        |
| C8  | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 19/11<br>/13 | 40      | 3               | Topped in order to clear overhead utility<br>lines. Multi stemmed, medium, and<br>mature coniferous tree. Enlarged base<br>along with limbs attachment. Crown<br>development was observed to be shared<br>with adjacent trees. Subject tree is in fair<br>to poor condition.       | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.6        |
| C9  | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 16/19<br>/16 | 40      | 4               | Topped in order to clear overhead utility<br>lines. Multi stemmed, small, mature, co-<br>dominant coniferous tree. Limb<br>attachments from the base. Crown<br>development was observed to be shared<br>with adjacent trees. Subject tree is in fair<br>to poor condition.         | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 3.1        |
| C10 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 20/21        | 40      | 3               | Topped in order to clear overhead utility<br>lines. Bifurcated stem, small, co-dominant<br>& mature coniferous tree. Enlarged base<br>along with limb attachments. Crown<br>growth was observed to be shared with<br>adjacent trees. Subject tree is in fair to<br>poor condition. | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.5        |
| C11 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 18/11        | 50      | 5               | Topped in order to clear overhead utility<br>lines. Bifurcated stem, small, co-dominant<br>& mature coniferous tree. Enlarged base<br>along with limb attachments. Crown<br>growth was observed to be shared with<br>adjacent trees. Subject tree is in fair to<br>poor condition. | Subject tree was examined to be an<br>unsuitable candidate for long term<br>retention due to its poor overall<br>structure and would fall towards the<br>edge of the heaviest construction &<br>high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 1.8        |



| ID# | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name         | Botanical name            | DBH (cm)     | LCR (%) | Canopy (Dia M.) | Condition   | Comments   | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
|-----|-----------------|--|---------------------|---------------------------|--------------|---------|-----------------|---|--|--------------------------|--------------------|------------|
| C12 | Yes             | City   | Western<br>redcedar | <i>Thuja plicata</i>      | 9/3          | 50      | 3               | Topped in order to clear overhead utility lines. Bifurcated stem, small, co-dominant & mature coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be shared with adjacent trees. Subject tree is in fair to poor condition.            | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 1.2        |
| C13 | Yes             | City   | Western<br>hemlock  | <i>Tsuga heterophylla</i> | 25/16<br>/15 | 40      | 3               | Topped in order to clear overhead utility lines. Single stemmed, medium, mature co-dominant coniferous tree. Enlarged base. Limb attachments at 2m. Crown development was observed to be shared with adjacent trees. Subject tree is in fair to poor condition.             | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 3.4        |
| C14 | Yes             | City   | Western<br>hemlock  | <i>Tsuga heterophylla</i> | 25/16<br>/15 | 40      | 5               | Topped in order to clear overhead utility lines. Multi stemmed, small, mature co-dominant coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be suppressed and shared with adjacent trees. Subject tree is in fair to poor condition. | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 3.4        |
| C15 | Yes             | City   | Western<br>hemlock  | <i>Tsuga heterophylla</i> | 23/18<br>/10 | 40      | 6               | Topped in order to clear overhead utility lines. Multi stemmed, small, mature co-dominant coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be suppressed and shared with adjacent trees. Subject tree is in fair to poor condition. | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 3.1        |
| C16 | Yes             | City   | Western<br>hemlock  | <i>Tsuga heterophylla</i> | 23/19<br>/4  | 60      | 6               | Topped in order to clear overhead utility lines. Multi stemmed, small, mature co-dominant coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be suppressed and shared with adjacent trees. Subject tree is in fair to poor condition. | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.8        |

| ID# | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name        | Botanical name                | DBH (cm)     | LCR (%) | Canopy (Dia M.) | Condition  | Comments   | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
|-----|-----------------|--|--------------------|-------------------------------|--------------|---------|-----------------|--|--|--------------------------|--------------------|------------|
| C17 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 21/27        | 60      | 3               | Topped in order to clear overhead utility lines. Bifurcated stemmed, small, mature and co-dominant coniferous tree. Enlarged base along with limb attachments at 3m in height. Crown growth was observed to be suppressed and shared with adjacent trees. Subject tree is in fair to poor condition. | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.9        |
| C18 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 30/19<br>/18 | 60      | 5               | Topped in order to clear overhead utility lines. Multi stemmed, small, mature co-dominant coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be suppressed and shared with adjacent trees. Subject tree is in fair to poor condition.                          | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 4.1        |
| C19 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 17/18        | 40      | 3               | Topped in order to clear overhead utility lines. Bifurcated stem, small, co-dominant & mature coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be shared with adjacent trees. Subject tree is in fair to poor condition.                                     | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.1        |
| C20 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 28/15        | 40      | 5               | Topped in order to clear overhead utility lines. Bifurcated stem, small, co-dominant & mature coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be shared with adjacent trees. Subject tree is in fair to poor condition.                                     | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 2.6        |
| C21 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 17/41<br>/28 | 40      | 3               | Topped in order to clear overhead utility lines. Multi stemmed, small, mature co-dominant coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be suppressed and shared with adjacent trees. Subject tree is in fair to poor condition.                          | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 5.2        |

| ID# | Surveyed<br>Y/N | On-site (ON)<br>Off-site (OF)<br>Off-site city (C) | Common name        | Botanical name                | DBH (cm) | LCR (%) | Canopy (Dia M.) | Condition  | Comments   | Retention<br>Suitability | Retain /<br>Remove | TPZ<br>(m) |
|-----|-----------------|--|--------------------|-------------------------------|----------|---------|-----------------|--|--|--------------------------|--------------------|------------|
| C22 | Yes             | City   | Western<br>hemlock | <i>Tsuga<br/>heterophylla</i> | 30       | 40      | 3               | Topped in order to clear overhead utility lines. Single stemmed, small, mature and co-dominant coniferous tree. Enlarged base along with limb attachments. Crown growth was observed to be shared and influenced by adjacent trees. Subject tree is in fair to poor condition. | Subject tree was examined to be an unsuitable candidate for long term retention due to its poor overall structure and would fall towards the edge of the heaviest construction & high disturbance requirement areas. | Marginal /<br>Unsuitable | Remove             | 1.8        |

## **7.0 TREE RETENTION / REMOVAL RECOMMENDATIONS**

A total of **fourteen (14) trees** have been found within the limits of the subdivision project. Based on the factors that include the pre-existing condition of the subject trees as detailed in the Tree inventory, and the proposed construction, the subject trees are proposed to be treated as follows.

- ❖ ***(Please note: The current tree protection & removal recommendations are preliminary. As such, the final recommendations would be based upon the final building, civil, & lot grading plans and would be required to be updated within the Arborist report & Tree Management Plan)***

### **TREE RETENTION**

Pursuant to the “City of Port Moody Tree Protection Bylaw, 2015, No. 2961”, the following tree(s) are recommended for Retention as detailed in the Tree Inventory and recommendations as noted below. Information regarding specific recommendations can be found below each of the categorized point and further referenced within the attached Tree Management Plan and within the body of the Arborist report.

#### **City & Off-site Tree(s) that are recommended for Retention,**

- For the duration of the subdivision project, **off-site trees #OS1, #OS2, #OS3, #OS4, and #OS5** has been recommended to be retained throughout the construction process. As the protected trees were examined to be situated near the limits of the proposed subdivision and of its related construction works, the subject trees will require the placement of Tree Protection Barriers in order to protect their trunks, roots, and structures. The placement of Tree Protection Barriers would be required to be placed along their drip lines or to their specified measurements as outlined in the Tree Inventory (*TPZ Column*) or as per the attached Tree Management Plan and left throughout the duration of the construction project.
- **Off-site plantings (Non Bylaw Sized)**  
As several off-site trees and surrounding plantings were examined to be populating along the lengths of the northern and southern site boundary lines and were all examined to be of non-by-law sized, it would be the builder/developers responsibility to ensure that the subdivision and the proposed construction works does not adversely affect any of the retained off-site trees or any other neighboring plantings. As part of the subdivision, the off-site trees & plantings have been recommended to be respected and have measures to protect them throughout the construction process.

#### **Arborist Supervision Requirements - Demolition Process**

- **Demolition of the existing dwelling,**  
As part of the demolition process, the existing garage encompassing within the **TPZ of tree #OS5** as well as its foundations has been proposed to be removed. In order to limit the amount of disturbance occurring within the TPZ of the subject tree, the existing structure located within its protective areas would have to be removed under Arborist supervision and no excavation machinery will be allowed to encroach into its TPZ throughout the demolition process.
- **Removal of trees, bushes, vegetation etc. within the TPZ(s) of the retained tree(s)**  
Several sections of existing vegetation, on-site trees, and shrubs have been proposed to be removed due to conflicts with the proposed subdivision and to allow for the site clearing works to proceed. As the site clearing work (*includes the removal of existing landscaping features such as retaining wall, wooden ties etc.*) would encroach into the **TPZ(s) of trees #OS1, #OS2, #OS3, #OS4 and #OS5**, all work occurring within their protected areas are required to be completed under Arborist supervision.
  - **General site clearing methodology,**  
When removing vegetation within the TPZ(s) of retained trees, the removal work is required to be performed by hand and no excavation machinery or any other heavy equipment would be allowed to encroach into their TPZ(s) throughout the clearing process. Larger stumps of the removed shrubs are recommended to be either left in situ or grinded out. (*Please note: the remaining stumps cannot be pulled out by heavy machinery in order to ensure the protection of the retained trees*)

### **Arborist Supervision Requirements - Main Dwelling Excavation Requirements**

➤ **Excavation requirements for the main dwelling,**

Minor encroachment of the excavation process for the main dwelling is expected to encroach into the **TPZ(s) of trees #OS4 and #OS5**. Due to the minor encroachment, Arborist supervision will be required during the excavation process and in order to limit the amount of disturbance occurring within the TPZ(s) of the subject trees, the line of excavation to be remediated in order to avoid the desiccation of roots (*If roots are exposed & by following further remedial measures as outlined by the project post excavation*).

➤ **Construction requirements for the garage,**

Encroachment of the excavation & construction process for the garage is expected to encroach into the **TPZ(s) of trees #OS1 and #OS2**. Due to the encroachment, Arborist supervision will be required during the excavation process along with the installation of forms of the garage and of its eastern foundation line.

The proposed foundations of the new garage would mirror within the footprint of the existing garage and as the new garage has been proposed to have a “*Slab on Grade foundation*”, the natural grades located beyond its footprint would be left intact and no major excavation or any other grading works would be encroached into the native CRZ(s) of the off-site trees.

- **Root Pruning methodology (*During excavation*)**

If roots are exposed during the excavation process within the TPZ, Root pruning may be performed by the project Arborist while using sharp, appropriate tools, namely bypass pruners (*loppers*) or a saw and pruning cuts must be made at 90 degrees to the direction of the root. This minimizes the surface area exposed to pathogens and encourages healthy new root growth from the end of the cut root or for proper wound closure. (***Further remedial measures may be required depending upon the post completion of the excavation works***)

### **Management of Trees & Protection Requirements**

➤ **Tree Removals**

During the Removal and/or pruning of existing trees as identified on the landscape plan/Tree Management Plan, shall be undertaken or supervised by a certified arborist and performed in accordance with relevant Best Management Practices produced by ISA and ANSI A-300 Pruning Standards and shall comply with all relevant City of Port Moody Tree Bylaw.

➤ **Staging and storage of materials on site discussion (*General for all Trees*)**

During the construction process, no storage or staging of materials, equipment, or debris can be placed within the TPZ of the protected Trees and or within their TPB enclosure. The proposed construction will require the storage and staging of its materials within the back yard area and will not be required to be placed towards any other areas within the property or near the protected Trees. In order to limit the potential disturbance within the TPZ of the protected Trees, no heavy equipment would be allowed to encroach, park, or traverse through their TPZ(s).

➤ **Removal of surrounding invasive growth / Site Clearing work**

When clearing through the TPZ(s) of the retained trees, all clearing work as well as the grade preparation works are required to be performed by hand and no excavation machinery or any other heavy equipment would be allowed to encroach into their TPZ(s) throughout the clearing process. Larger stumps of removed vegetation are recommended to be either left in situ or grinded out. (*Please note: the remaining stumps cannot be pulled out by heavy machinery in order to ensure the protection of the retained trees*)

➤ **General Landscaping Methodology within TPZ(s)**

General landscaping work is proposed and may occur within the TPZ of a few on-site trees. During the landscaping process, no fill and or soil can be deposited within its TPZ and any type of landscaping requiring extensive areas of poured concrete is not acceptable. Permeable surfaces can be placed on the original grade for hardscapes, all to be supervised and guided by an onsite Arborist.

- As part of the landscaping process, a new wooden fence may be constructed along the lengths of the site boundary lines. The excavation for the main post holes will have to either be placed outside of the trees TPZ(s) or have the individual post holes excavated individually by hand. The new fencing is required to be installed without the use of continuous footings through the TPZ(s) of the retained trees.
- Ensuring any fill within protected root zone of existing trees does not exceed 4" (10cm) depth of sandy loam will be required and also during the removal and/or pruning of existing trees as identified on the landscape Tree Management Plan, shall be undertaken only by a qualified arborist certified by the International Society of Arboriculture (ISA) and in accordance with relevant Best Management Practices produced by ISA. Tree work shall comply with all relevant City of Port Moody Tree Bylaws.

**TREE REMOVAL**

Pursuant to the “*City of Port Moody Tree Protection Bylaw, 2015, No. 2961*”, the following tree(s) are recommended for removal as per the following sections or as detailed in the report.

**On-site & City Tree(s) that recommended for Removal,**➤ **Conflicts with the proposed building footprint,**

**On-site tree #001, #002, #003, and #004** will be in direct conflict with the proposed subdivision as the subject trees would fall towards the edge of the proposed building footprint or would be located within an area requiring the heaviest excavation & grading requirements. The subject trees would be impacted and become structurally destabilized during the works as the subject trees fall within an area requiring the heaviest grade disturbances related to the dwellings and of its perimeter construction related requirements.

- **Removal of on-site non-bylaw sized trees**

Several other on-site plantings & non bylaw sized trees located within the limits of the site has been recommended for removal due to conflicts with the site access and of the proposed subdivision. In combing their stems, none of the individual trees or mature shrubs had been identified to be “protected” as categorized within the City of Port Moody Tree Bylaw.

- **Removal of hedges**

An on-site hedge will be in direct conflict with the proposed subdivision as sections of the hedging would fall towards the edge or would be in direct conflict with the proposed subdivision and would be in conflict with the high disturbance requirements related to the construction works occurring within the limits of the site.

- ***As a portion of the on-site hedge was examined to be spanning within the limits of the neighbor’s property, the neighbor’s authorization may be required for the hedges removal.***

➤ **Species unsuitable for long term retention,**

**City trees #C1, #C2, #C3, #C4, #C5, #C6, #C7, #C8, #C9, #C10, #C11, #C12, #C13, #C14, #C15, #C16, #C17, #C18, #C19, #C20, #C21, #C22, and on-site tree #001** were observed to be unsuitable candidates for long term retention as determined by their poor overall structures & health. The repetitive clearing of their overall crowns in order to conform to the desired sized and clear the overhead utility lines had resulted in the trees to become potentially weakened and have mutilated their overall development.

Select city trees would also be will be in direct conflict with the proposed development as the subject trees would restrict site access, fall towards the edge of the proposed entrances, and would be located within an area requiring the heaviest excavation & site servicing requirements.

- ❖ ***As trees #C1, #C2, #C3, #C4, #C5, #C6, #C7, #C8, #C9, #C10, #C11, #C12, #C13, #C14, #C15, #C16, #C17, #C18, #C19, #C20, #C21, and #C22, were examined to be situated within the limits of the city’s property, the City of Port Moody’s (Parks) authorization would be required for their removal.***



## **8.0 SITE PHOTOS**



Photo 1 - Facing towards the frontage of the lot and of city trees #C1 - #C22



Photo 2 - Facing towards the frontage of the lot and of city trees #C1 - #C22



**City Trees #C1 - #C22 - Photos**



**Photo 3 - Facing towards city trees #C1 - #C22**



**Photo 4 - Facing towards off-site trees #OS3, #OS4, #OS5, and city trees #C1 - #C8**



**Photo 5 - Facing towards on-site trees #001 and of city trees #C9 - #C21**



**On-site Trees #002, #003, #004 & Off-site Trees #OS1 & #OS2 - Photos**



Photo 6 - Facing towards on-site trees #002, #003, and off-site trees #OS1 and #OS2 within the distant



Photo 7 - Facing towards on-site tree #004 and of the rear yard area

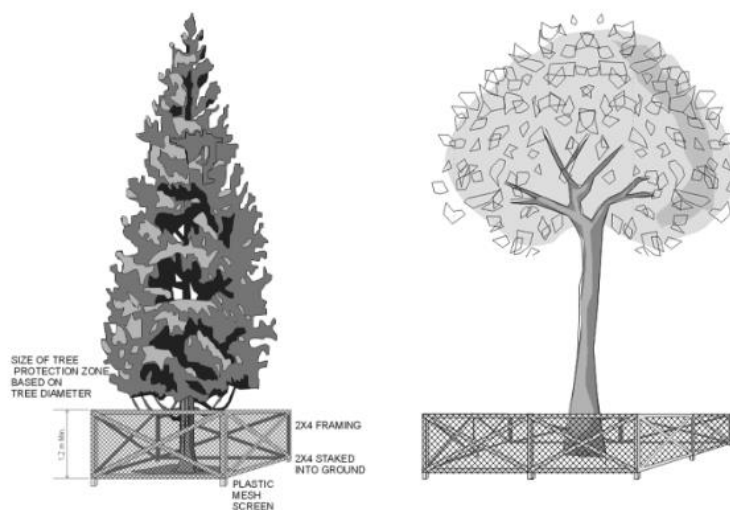


**9.0 TREE PROTECTION BARRIER**

| Tree Protection Barrier Summary |         |   |
|---------------------------------|---------|---|
| Tree number (species)           | DBH(cm) | Minimum tree protection barrier Radial span (m) |
| OS1                             | 60      | 3.6   |
| OS2                             | 40      | 2.4   |
| OS3                             | 12/5    | 1.2   |
| OS4                             | 23      | 1.4   |
| OS5                             | 30/23   | 3.2   |

All trees identified above will require tree protection barriers to protect and prevent the tree trunk, branches and roots being damaged by any construction activities/operations. Prior to any construction activity on site, tree protection fences must be constructed at the specified distance from the tree trunks. The protection barrier or temporary fencing must be at least 1.2 m in height and constructed of 2 by 4 lumber with orange plastic mesh screening. Structure must be sturdy with vertical posts driven firmly into the ground. This must be constructed prior to excavation or construction and remain intact throughout the entire period of construction. Further standards for fencing construction can be found at: *City of Port Moody Tree Protection Bylaw, 2015, No. 2961*

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**10.0 TREE REPLACEMENT PLAN**

Outlined in the "City of Port Moody Tree Protection Bylaw, 2015, No. 2961", the requirement for replacement Trees will be required based upon the trees being cut or removed. Two (2) trees are to be planted for each permit-sized tree removed (2:1 ratio).

| On-Site, City, & Off-site Trees (Including city trees within proposed lanes) | Number of Trees |
|--|-----------------|
| Protected Trees Identified   | 31              |
| Protected Trees to be Removed  | 26              |
| Protected Trees to be Retained   | 5               |
| Total Replacement Trees Required:  |                 |
| On-site trees requiring 2 to 1 replacement ratio                             | 4 Trees         |
| 4 X one (1) = 4  |                 |
| City trees requiring X to X replacement ratio                                |                 |
| 22 X TBD ( ) =   |                 |
| <b>Total Replacement Trees required</b>                                      | <b>4</b>        |
| <b>Replacement Trees Proposed</b>  | <b>4</b>        |
| <b>Replacement Trees for Cash in leu</b>                                     |                 |

| Tree Replacement Species  |                   |                         |
|---|-------------------|-------------------------|
| Planting(s) should be scheduled for the late winter/ early spring or early fall |                   |                         |
| Quantity  | Name              | Species                 |
| 2   | Persian ironwood  | <i>Parrotia persica</i> |
| 2   | Flowering dogwood | <i>Cornus florida</i>   |

Please see map for location Note: Planting cannot be within 3 meters of another significant tree

**General Tree Planting Methodology**

Replacement trees must meet plant condition and structure requirements as stated in "BC Landscape Standard" of the BCSLA/BCLNA and "Canadian Standards for Nursery Stock" of the CNTA. Also, the Replacement trees must be planted and maintained according to the requirements as stated in the "BC Landscape Standard" of the BCSLA.

It is important to locate your new plantings in accordance with the species' growing habits or tendencies. It is crucial to avoid planting your trees alongside buildings in which root ingress into drainage systems can occur and this can result in costly remedial work, also it is good practice not to plant your tall growing trees under power lines or utility lines as this can lead to pruning that may grossly adulterate the overall form or shape of the tree. Planting trees in the right location is the key to sustaining a balanced urban forest.

The proposed replacement Trees are to be a minimum size of 6cm caliper if deciduous, which is measured at 15 cm above the ground, or 3 m tall if coniferous at the time of planting (*trunk width measured at 15 centimetres above the ground*) At least 1.0 metre away from any site boundary line, at least 3.0 metres away from any principle building or any accessory building or any other structure on or adjacent to the site that may adversely affect the tree and; at least 2.5 metres away from any other tree on or adjacent to the site including driveway or any other hardscape or underground service/utility lines.

**11.0 CONCLUSIONS**

Based on our findings, a total of thirty-one (31) trees have been identified on/off-site. A total of twenty-six (26) city/on-site trees have been recommended for removal due to conflicts with the proposed subdivision and as the subject trees and hedge had fallen within the constructions high disturbance requirement areas relating to its site servicing and of other construction related activities occurring within the limits of the site.

A total of five (5) off-site trees have been recommended for retention with the retained off-site trees having the requirement of erecting Tree Protection Barriers due to their close proximity towards the proposed construction working limits. Also, in order to ensure the off-site trees and of their protection, Trigger points have been identified on the Tree Management Plan requiring Arborist supervision when working inside of their TPZ(s) during a few of the construction milestones.

Thank you for choosing Klimo & Associates Ltd. Any further questions can be forwarded to Francis Klimo at (604)358-5562 or by email at [klimofrancis@gmail.com](mailto:klimofrancis@gmail.com)

Regards,



Francis Klimo

ISA Certified Arborist #PN-8149A

ISA Certified Tree Risk Assessor (TRAQ)

BC Wildlife Danger Tree Assessor #7193





BUILDING BETTER COMMUNITIES

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ATTN: Andrei Pop, Development Planner  
100 Newport Drive  
Port Moody, BC V3H 5C3  
BY EMAIL: [apop@portmoody.ca](mailto:apop@portmoody.ca)

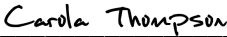
October 19, 2022

Dear Andrei Pop,

**RE: Tree Replanting Commitment Letter**

I, Carola Thompson of CityState Consulting Group, the applicant of the property located at 1008 Tuxedo Drive, Port Moody, BC (the "Property") have applied to the City of Port Moody to rezone and subdivide the Property, and I hereby irrevocably agree and covenant to implement all measures necessary for the planting of three (3) replacement trees for each new lot created byway of subdivision. A formal replanting plan will be provided by our arborist at the detailed design stage.

I HEREBY AGREE TO THE TERMS OF THIS LETTER OF COMMITMENT AS STATED ABOVE

DocuSigned by:  
  
0A6EA4AFE1A0494...  
Carola Thompson  
Senior Planner, CityState Consulting Group