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See the Concept Servicing Plan for proposed Storm and Sanitary Service Alignments to proposed lots A and B. It is understood that the service trench will be ~ 1 meter deep and 0.5 - 1.0 meters wide. It is recommended that the required tree removals occur after the servicing corridor is delineated onsite. It may be possible to preserve additional small trees or stumps of removed trees - to be reviewed in the field by the project geotechnical engineer and project arborist.

Project arborist to supervise all excavation and stump removals required within critical root zone during installation of storm and sanitary services and stormwater management systems.

Project arborist to supervise all excavation required within the critical root zone of 567, 588, NT26 to construct the foundation of the proposed residence.

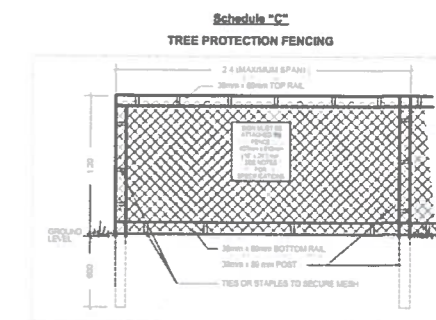
Project arborist to supervise installation of water service within the critical root zone of NT2



## LEGEND

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

## TREE PROTECTION FENCING



- Tree Protection Fencing Specifications:**
- The fence will be constructed using 38 x 89 mm (2" x 4") wood frame.
    - Top, Bottom and Posts \*
    - Use orange snow fencing mesh and secure to the wood frame with zip ties or galvanized staples.
  - Attach a sign with minimum size of 407 mm x 610 mm (16" X 24") with the following wording:
    - DO NOT ENTER- Tree Protection Zone (For retained trees) or;
    - DO NOT ENTER- Future Tree Planting Zone (For tree planting sites)
- This sign must be affixed on every fence face or at least every 10 linear metres.
- \*In rocky areas, metal posts (1-bar or rebar) drilled into rock will be accepted.



## Tree Management Plan - T1 5070 Catalina Terrace Saanich, BC

DATE: May 05, 2022  
 PREPARED FOR: Troy Restell  
 SCALE: 1 : 500 @ 11" X 17"  
 DRAWN BY: NT  
 REVISION: 1  
 REFERENCE DWG: Site Plan by Ryan Hoyt Desgin

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## 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 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 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

