

***SouthShore Forest Consultants***

**Arborist Report**

For

GMC Projects Incorporated  
Unit 200-101 Island Highway  
Victoria BC, V9B 1E8

Site  
1015 Cook Street– Victoria BC  
Residential Demolition and Development

December 27, 2019

Prepared by:  
*SouthShore Forest Consultants*

### *SouthShore Forest Consultants*

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Incorporation # BC1069996 Ltd.

## **RE: Proposed Demolition & Development Tree Assessment & Tree Protection Plan (TPP)**

### **Executive Summary**

ShoreShore Forest Consultants was retained by our client, GMC Developments Inc., (Tonny Kiptoo V.P. Development) ) to provide Arborist Services for a residential property located at 1015 Cook Street in the City of Victoria. Our primary duty involves assessment of the site and recommendations pertaining to tree and soil protection/retention. The lot has one (1) public and one (1) protected tree positioned within the limits of disturbance. Our client has proposed to demolish and existing house and develop the site with a five story residential building. Our assessment indicates that the proposed development can be performed with the preservation and retention of the two (2) trees, a public tree positioned within the Municipal Right-of-Way and a protected size tree positioned in the rear of the property. Our assessment indicates that three undersized (3) non-protected trees can be removed with no municipal permitting required.

### **Background/Scope of Work**

SouthShore Forest Consultants was contacted by Tonny Kiptoo, VP of Development with GMC Projects Inc. Tonny had provided us with information pertaining to the proposed demolition and development of a residential lot located at 1015 Cook Street in the City of Victoria. Tonny has requested that SouthShore Forest Consultants provide arborist assessment and create a Tree Protection Plan (TPP) for the site. The site fronts Cook Street a busy residential area with a horse chestnut (*Aesculus hippocastanum*) tree is positioned in boulevard planter. This tree must be protected and preserved. The second, a pear (*Pyrus sp.*) tree positioned in the rear of the site is protected under the current City of Victoria's Tree Preservation Bylaw.

Logan Thornton, a Certified Arborist and John Hawkins with SouthShore Forest Consultants provided a site and tree assessment on Sunday December 22, 2019 at approximately 10:00 am.

## Methodology

The assessment was performed from grade. We considered this type of site inspection to be classified as a “Basic Visual Tree Assessment”. No form of invasive or diagnostic forms of arboricultural measurement tools were used during the assessment. During the assessment we utilized a standard diameter measuring tape and camera.

The weather that day was cool and overcast with temperatures around 7C. Wind speed was minor, 2-4 km per/hour.

Primary goal of the tree inventory and site assessment was to provide the client with a responsible TPP aimed at reducing demolition and construction impacts to protected trees identified in the City of Victoria’s Tree Protection Bylaw.

## Observations/Discussion

During our assessment staff observed an established single-family residential property located at 1015 Cook Street in the City of Victoria. The property was observed to be a standard sized lot for the area. The existing structure covered approximately 50% of the site. A parking lot and driveway was observed to be present. The lot appeared to be landscaped in the front with small ornamental plantings and hardscape. The rear of the lot (S/E corner) was observed to have established ornamental and non-native trees.

The site was observed to be flat and fronted Cook Street, a busy residential and commercial street within the City of Victoria. The front (west side) of the lot was observed to be positioned along Cook Street. The Municipal sidewalk and “tree wells” align the public Right-of-Way. We observed one (1) horse chestnut tree positioned in front of the lot. A Public tree the chestnut tree must be preserved as a condition of the projects approval. Our observations indicate that a Tree Protection Plan (TPP) will be required under the projects current proposal.

Our observations indicate that pear tree #132 positioned in the rear of the property is of protected size. Measuring 41cm in diameter, the tree is protected under the current City of Victoria Tree Preservation Bylaw. Our observations indicates that the tree can be retained under the current proposal. The proposed building setback is approximately 5m back from the base of the tree. Our observation indicates that a minimum of a 4m Tree Protection Zone can be establish, maintained and utilized during the demolition and construction phase of the project. Our observations indicate that over excavation will be required during the project. The utilization of the Project Arborist to assess excavation and landscape modifications will reduce impacts to the pear tree.

Our observations indicate that three (3) trees located in the rear (S/E) corner of the property are of non-protected size. Each of the three trees, #133, #134 & #135 can be removed by the client. No municipal permitting is required.

Please refer to Appendix “A – Tree Inventory” for tree specific information.

### **Tree Protection Plan (TTP)**

- Provide Tree Protection Fencing (TPF) for two specific locations at the site.
- (1) – N/T horse chestnut located in the Municipal Right-of Way. Erect TPF to represent similar positioning as indicated in Tree Site Map - Appendix “B” photo #2.
- (2) – pear tree #132 located in the S/E corner of the lot. Erect TPF to represent similar positioning as indicated in Tree Site Map – Appendix “B” photo #2. Provide fencing at a distance of 3.75m off of each fence/property line. This distance can be adjusted back to 4m once the excavation and foundation construction is completed. (Upon Project Arborist verification)
- Utilize hog-fuel/wood chips from tree removal on site. Stockpile wood chips and spread around the outside perimeter of the TPF for pear tree #132.
- Materials storage and staging of equipment is proposed to be located in N/E corner of the site.
- Provide tree pruning to reduce, elevate and provide sufficient clearances for egress into and out of the site. This may require directional pruning to be performed on the Public chestnut tree above the sidewalk and driveway entrance off Cook Street.
- Provide tree pruning for pear tree #132. This may require pruning to allow for branch removal to provide sufficient clearances for the proposed building setback and the maneuvering of constructive equipment. All Pruning MUST be performed by a Certified Arborist and licenced company in good standing with the City of Victoria’s Park Department.
- A Project Arborist Must be retained by the client form the entire term of the project. The Project Arborist will be responsible for the evaluation and assessment of TPF design and detail. The project arborist will be responsible for the coordination of excavation, root assessment and mitigation technics (hand excavation, hydro-vac & air spade) utilized when working in and around tree, Protected Root Zones. Hand digging is an option which can be used when excavating within the Protected Root Zones (PRZ) of trees proposed for retention.

## Conclusions

- The existing structure has been proposed to be demolished. A new five (5) story structure has been proposed for construction.
- The lot has a Public tree N/T horse chestnut positioned in the Municipal Right-of-Way. The chestnut tree must be retained and protected.
- The lot has protected size pear tree #132 positioned in the rear of the property. This tree can be retained under the current proposal.
- Three non-protected trees located in the rear of the lot can be removed by the client with no permitting required.

## Recommendations

- ✚ Provide tree protection and retention for two (2) trees, N/T horse chestnut and pear tree #132.
- ✚ Remove trees #133, #134 & #135
- ✚ Provide Project Arborist for all on site excavation, root exposure and tree pruning services. Project Arborist must be an ISA Certified Arborist and Certified Tree Risk Assessor.

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## ATTACHMENTS

- Appendix A – Tree Inventory
- Appendix B – Site Photos

**Arborist Disclosure Statement:**

Arborist are tree specialists who use their education, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risks.

Arborist cannot detect every condition that could possibly lead to structural failure of a tree.

Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below the ground.

Arborist cannot guarantee that the tree will be healthy and safe under all circumstances, or for a specific period.

Trees are dynamic specimens, not static. Changes in conditions including the environment are unknown.

Remedial treatments cannot be guaranteed.

Trees can be managed, but they cannot be controlled. The only way to eliminate all risk is to eliminate all trees

### Tree Assessment Condition Rating

- Good - A tree specimen which is exempt defects, branch dieback, moderate insect and fungal identification. This tree has evenly distributed branching, trunk development and flare. The root zone is undisturbed, leaf, bud and flower production and elongation are normal for its distribution.
- Fair - A tree specimen which has minor defects, branch dieback, previous limb failure, identification of cavities and insect, or fungal identification. This tree has multiple (2-3) primary stem attachments; previous utility pruning, callus growth and poor wound wood development. Minor root girdling, soil heave and identifiable mechanical damage to the root flare or root zone.
- Poor- A tree specimen where 30-40% of the canopy is identifiably dead, large dead primary branching, limited leaf production, bud development and stem elongation. Limb loss or failure, and heavy storm damage leading to uneven weight distribution. Large pockets of decay, multiple cavities, heavy insect and fungal infection. Root crown damage or mechanical severing of roots. Root plate shifting, heavy lean and movement of soil.
- Dead- Tree has been observed to be dead with no leaf, foliar and bud development. No stump sprouts and root suckers are present.



## Tree Protection Plan

- i. Provide a detailed sign specifying that tree protection measures are in place and will be followed during the project. Fines will be posted for malicious acts and can be placed on individuals who disregard the tree protection plan and its guidelines. Signs will be placed at each entrance of the project detailing what is expected when working in potentially high impact tree protection zones.
- ii. Provide tree protection fencing for all trees identified with protection requirement in this report. This fencing shall be four (4ft) feet in height and made of orange plastic. If required, header and footer boards will be used to secure the protective fencing. Use the City of Victoria tree protection specifications.
- iii. Tree protection and root protection signs will be placed on the fencing. No entry will be allowed, unless specified by the project arborist and in their presents while on site.
- iv. Restrict vehicle traffic to designated access routes and travel lanes to avoid soil compaction and vegetation disturbances.
- v. Make all necessary precautions to prevent the storage of material, equipment, stockpiling of aggregate or excavated soils within tree protection areas. No dumping of fuels, oils or washing of concrete fluids will be allowed in tree protection zones.
- vi. Provide an onsite arborist when a risk of root damage, root cutting, or limb removal is required within the tree protection zone.
- vii. Avoid alterations to existing hydrological patterns to minimize vegetation impacts to the site.
- viii. The use of a project arborist is required to provide layout of tree protection zones. The project arborist(s) will provide pre-construction information to all parties involved with the project. **The arborist must be notified 72 hrs prior to construction activities in sensitive areas. The project arborist must be utilized for all excavation activities at the site. This includes Tree Protection Installation, Excavation and Tree Pruning activities identified for the project. Michael Butcher – 250.893.9056 or butcherlodi@aol.com**
- ix. At no time will tree protection zones be removed from the project unless approved by the project arborist.

## Appendix “B”

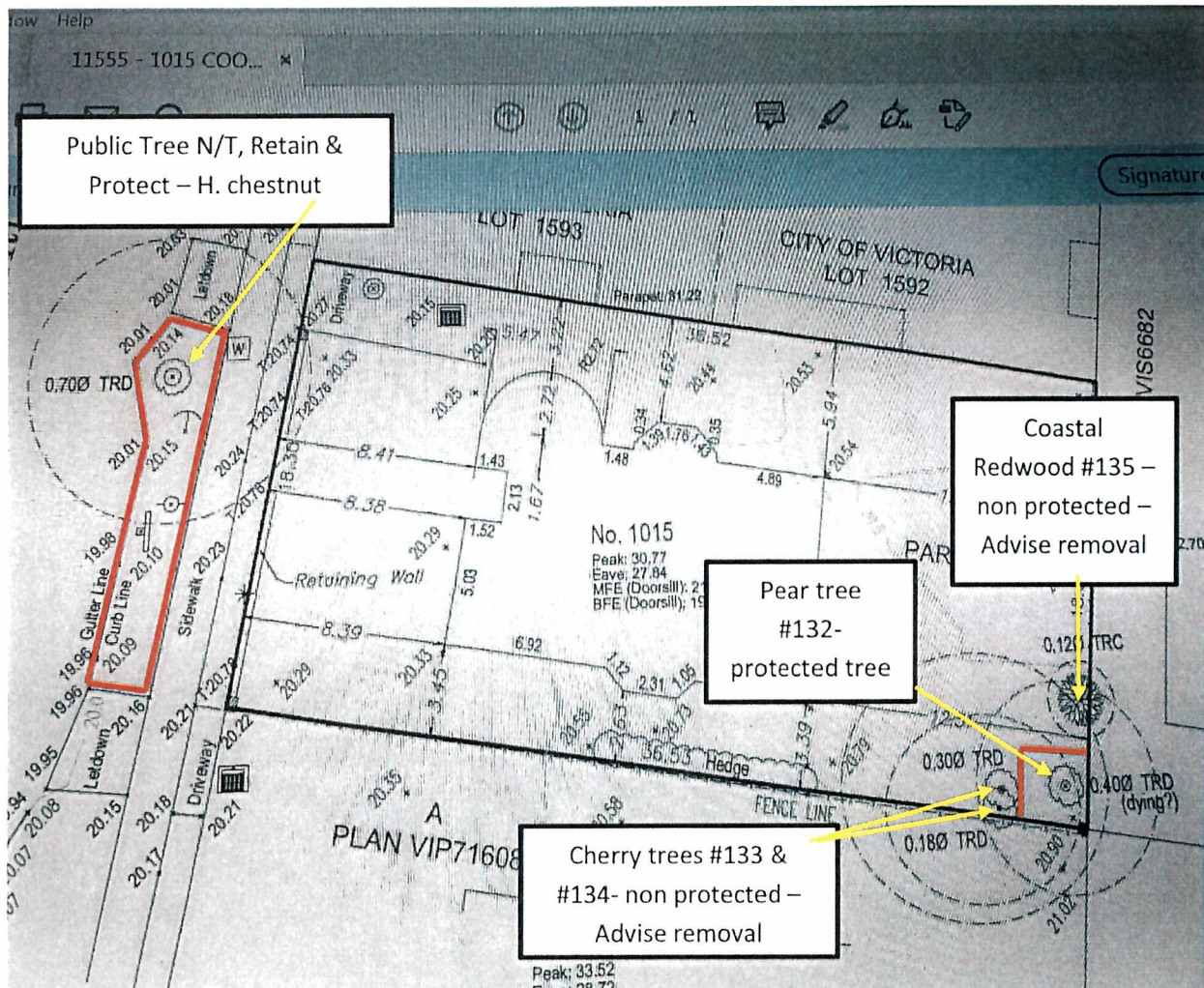
Photo #1 – Tree Protection Fencing Construction



In this photo you can observed a typical Tree Protection Fence. This type of construction is square with right angles.



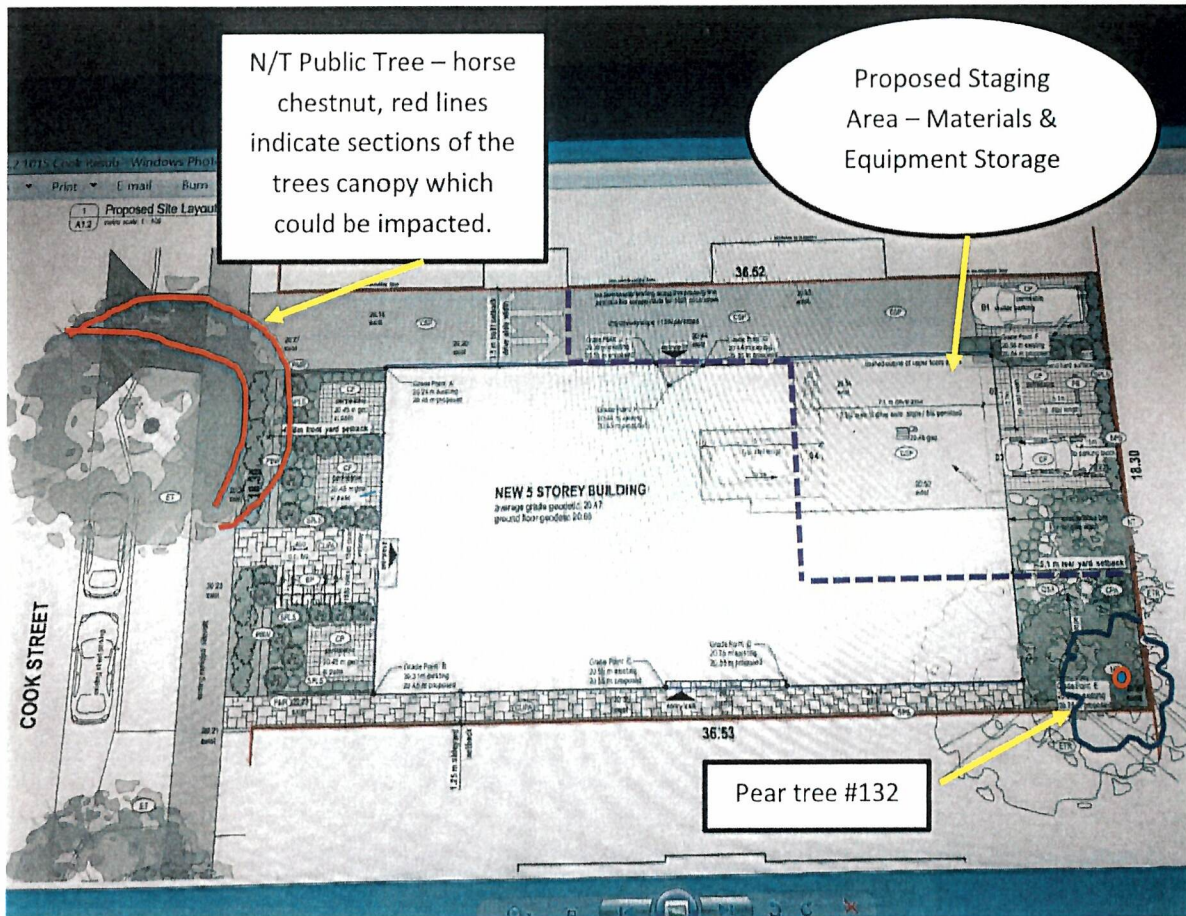
Photo #2- Tree Site Map – 1015 Cook Street



In this photo you can see the approximate positioning of the Tree Protection Fencing (TPF) indicated in red. Our observations indicate that pear tree #132 can be preserved and retained. A 5.1m setback for the proposed new structure is expected to impact a moderate portion of the trees Critical Root Zone (CRZ).



Photo # 3 – Proposed Development Layout



In this photo you can see the positioning of the proposed building within the lot. The chestnut tree will require elevation and branch reduction pruning to provide sufficient construction clearances. Pear tree #132 can be retained and may require branch reduction and elevation pruning to provide sufficient equipment clearances. Materials staging should be positioned in the N/E corner of the site (indicated by the hatched purple lines).



Photo # 4 – N/T Horse Chestnut – Public Tree



In this photo you can see the chestnut tree positioned in the Municipal Boulevard. The boulevard must be protected during the entire length of the project (red lines). Low branching will require pruning to allow for vehicle and materials egress, (yellow hatched line).



Pear tree #132

Photo #5 – Pear tree #132



In this photo you can see the pear tree #132 positioned in the S/E corner of the site. Our observations indicate that the tree can be protected and preserved. A Protected Tree, the trees diameter measures 41cm at 1.4 m above grade.



Photo #5 – Rear Yard, S/E Corner



In this photo you can see an existing driveway pad (yellow outline) and three trees. Pear tree #132 is in the corner of the lot. The red lines indicate the approximate positioning for the installation of the TPP.

## Southshore Forest Consultants

### APPENDIX A - TREE INVENTORY/HAZARD RATINGS SUMMARY

Location: 1015 Cook Street- Victoria BC

22/12/2019

Conditions: Cool and overcast, 6C with light winds. Proposed demolition and construction of an urban residential lot within a core business section in the City of Victoria. The Municipal Boulevard in front of the lot contains a Public Tree. The Public Tree will be preserved and protected by the client for the full duration of the project.

TAG #	Spec.	DBH (cm)	Hght (m)	PRZ (m)R	Cond. G,F,P	Retain	Remove	Comments/Recommendations
N/T	Hchest	68	15	7	F	X		Public Tree – Preserve/Monitor – Project Arborist
132	pear	41	15	4	F	X		Tree is of Protected size, Preserve & Protect.
133	cherry	25	14	3	F		X	Non-protected tree, Tree removal recommended.
134	cherry	13	14	1	F		X	Non-protected tree. Tree removal recommended.
135	Crdwd	20	15	2	F		X	Non-protected tree. Tree removal recommended.

#### Species List

Hchest - Horse chestnut (*Aesculus hippocastanum*)

pear - Pear species (*Pyrus sp.*)

cherry - Cherry species (*Prunus sp.*)

Crdwd - Coastal redwood (*Sequoia sempervirens*)

DBH – Diameter Breast Height = is a measurement taken at 1.4 metres above grade on any given tree stem

PRZ – Protected Root Zone = is a measurement of a radial distance out from the stem of any given tree.