Talbot Mackenzie & Associates
Consulting Arborists

Village Gardens Development

Victoria, BC

Construction Impact Assessment &

Tree Preservation Plan

Prepared For:	Village Green Apartments Limited Partnership c/o Primex Investments Ltd. #200 - 1785 West 4th Avenue Vancouver, BC V6J 1M2
Prepared By:	Talbot, Mackenzie & Associates Michael Marcucci ISA Certified # ON-1943A TRAQ – Qualified
Date of Issuance:	June 12, 2020
Revised:	December 9, 2020 (changes marked with a red asterisk *)

Box 48153 RPO - Uptown Victoria, BC V8Z 7H6
Ph: (250) 479-8733
Fax: (250) 479-7050
Email: tmtreehelp@gmail.com

Talbot Mackenzie & Associates

Consulting Arborists

Jobsite Property: 119 and 129 Croft St
420, 450, and 456/458 Niagara St
110 and 122 Menzies St

Date of Site Visit(s): October 17, 2019 (original inventory) and March-June, 2020

Site Conditions: No ongoing construction activity.

Summary:

- The proposal includes constructing a residential complex with underground parking.
- 12 bylaw protected trees will require removal due to the building and/or parkade footprint (in addition to non-bylaw protected trees and a few small potentially protected trees/hedges).
- A 45cm DBH Lawson Cypress, which is shared with the municipality, is proposed for removal due to excavations associated with the parkade excavation, retaining walls and pathways.
- The applicant is willing to use shoring for the parkade excavation where necessary to retain the Elm trees along the north-east property line (if retention is desired by the municipality).
- Elm #37 can be retained, but will require 40-50% of its live canopy be removed for building clearance.
- * The servicing plan has been updated with civil works requested by the city. The municipal Purple Leaf Plum trees (#21-27) are now proposed for removal due to the relocated sidewalk.

Scope of Assignment:

- Inventory all trees over 10cm in diameter and any trees on municipal or neighbouring properties that could potentially be impacted by construction or that are within three metres of the property line.
- Review the proposal to demolish the existing houses and residential buildings and construct Phase One of a residential complex, which includes constructing buildings up to 6 storeys high, an underground parkade and the installation of new services.
- Comment on how construction activity may impact existing trees in Phase One.
- Prepare a tree retention and construction damage mitigation plan for those trees deemed suitable to retain given the proposed impacts.

Methodology:

- We visually examined the trees on the property located in both Phase 1 and 2 and prepared an inventory in the attached Tree Resource Spreadsheet.
- Each tree was identified using a numeric metal tag attached to its lower trunk. Municipal trees and neighbours' trees were not tagged.
- Information such as tree species, DBH (1.4m), crown spread, critical root zone (CRZ), health, structure, and relative tolerance to construction impacts were included in the inventory.
- *The conclusions reached were based on the information provided within the attached architectural plans from Continuum Architecture (2020-05-04), Landscape Plan (Small and Rossell, December 1, 2020) and the conceptual servicing plan (November 25, 2020).
- *Tree protection fencing locations were added to the Landscape Plan.

Limitations:

- No exploratory excavations have been conducted and thus the conclusions reached are based solely on critical root zone calculations, observations of site conditions, and our best judgement using our experience and expertise. The location, size and density of roots are often difficult to predict without exploratory excavations and therefore the impacts to the trees may be more or less severe than we anticipate.

Trees to be Removed

Parkade and Buildings

The following trees will require removal due to being located within or in close proximity to the underground parkade and/or buildings:

#18 and 19 Leyland Cypress hedges
#20 Laurel hedge
Trees #1618 – 1633

***Relocated Sidewalk & Trees #21-27**

The 6 municipal Purple Leaf Plum trees (#21, 22, 24-27) and the shared Lawson Cypress (#23) are proposed for removal, mostly due to the excavation for the relocated sidewalk, which would otherwise have to be raised above the root systems of all the trees and curve around their trunks. #21 has fair/poor structure, #26 has poor structure and #23 Lawson Cypress is a species of tree that is prone to infection and decline as a result of the *Phytophthora* pathogen, especially if there is disturbance within its root zone. As a result, we typically do not recommend taking extreme measures to retain this species of tree.

Considering the size, species and/or structural condition of these 7 trees, in our opinion, removal and replacement is a reasonable alternative to attempting to retain them.

Potential Impacts to Trees

Underground Parkade Excavation

The parkade slab elevation is 7.5m. This will result in a significant amount of over-excavation if a 1:1 cut-slope is used with no shoring. The applicant is willing to use shoring as necessary to limit impacts to elm trees #32-37 along the north-east property line. We recommend the project arborist supervise the excavations, including the removal of the existing building adjacent to the elm trees, and coordinate with the geotechnical engineer to determine where shoring is needed, based on the amount and size of roots observed during excavations. We do not anticipate significant health impacts to any of the trees as a result of the parkade excavation if this occurs.

***Pathway through the root zones of the Elm trees**

The permeable gravel pathway proposed through the root zones of the elm trees #32-37 (see Figure 3) should be constructed above existing grade in order to avoid root loss. The grading plan shows the plan at the same grade as existing (12.05m); in reality, the gravel may be slightly above existing if surface roots are encountered immediately. Any excavation should be supervised by the project arborist.

#32 and 33 Elms (111cm and 66cm DBH, respectively)

Minor clearance pruning is anticipated for the balconies. Root loss is anticipated as a result of the patios and retaining walls, which extend past the existing building foundations. Considering the remaining intact critical-root-zone, we anticipate the trees will recover. Working room for the retaining walls should be minimized as much as possible. It should be noted that #32 has fair/poor structure with rubbing stems and included bark at its base.

#37 Elm (72cm DBH)

We do not anticipate a significant impact as a result of the foundation or parkade excavations (the parkade is farther away from this tree than the other elms). However, approximately 40-50% of the live canopy of the tree will require removal if 1m of clearance from the building and balconies is desired (see photographs #1 and 2, and Figures #1 and 2 for close-ups of the landscape plan).

A codominant union exists at 6m above ground and the larger stem leans and conflicts with the proposed building façade and to a lesser extent the balconies. The main trunk of the stem will not require removal, but almost all of the horizontal limbs will have to be removed or reduced. Elms will typically sucker rapidly and therefore reducing some limbs to branch stubs may be preferable instead of removal wounds to the trunk (there does not appear to be many suitable laterals to cut back to as almost all of the live growth is at the ends of the limbs).

*This pruning will likely result in sucker growth from the pruning wounds and along the length of this stem. If an attempt is made to properly restructure the tree after building clearance pruning, it will likely require ongoing cyclical pruning in the long-term.

Arborist Supervision

All excavation occurring within the critical root zones of protected trees should be completed under the direction or supervision of the project arborist. This includes (but is not limited to) the following activities within CRZs:

- Demolition of the existing buildings: removal of foundations within the CRZ of elms #32-37
- Parkade and building foundation excavation: #32-37
- Gravel pathway through elm tree CRZs
- Installation of any underground services that cross the CRZs of trees to be retained

General Mitigation Measures

- **Pruning Roots:** Any severed roots must be pruned back to sound tissue to reduce wound surface area and encourage rapid compartmentalization of the wound. Backfilling the excavated area around the roots should be done as soon as possible to keep the roots moist and aid in root regeneration. Ideally, the area surrounding exposed roots should be watered; this is particularly important if excavation occurs or the roots are exposed during a period of drought. This can be accomplished in a number of ways, including wrapping the roots in burlap or installing a root curtain of wire mesh lined with burlap, and watering the area periodically throughout the construction process.

- **Barrier fencing:** 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 zones.

  The barrier fencing 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 plywood, or 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.

- **Minimizing 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 or a combination of the following methods (depending on the size of machinery and the frequency of use):

  - Placing a layer of geogrid (such as Combigrid 30/30) over the area to be used and installing a layer of crushed rock to a depth of 15 cm over top or a layer of hog fuel or

coarse wood chips at least 30 cm in depth and maintaining it in good condition until construction is complete.
- 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 two layers of 19mm plywood.
- Placing steel plates

- **Demolition of the existing buildings**

  The demolition of the existing buildings 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.

  *The necessity of tree protection fencing and arborist supervision around all the existing bylaw protected trees during demolition of the existing buildings will depend on whether removal permits have been granted prior to demolition or whether all the trees need to be protected until building permits are issued. Regardless, a pre-demolition site meeting should take place between the supervising contractor and the project arborist, in order to determine which trees require protection, site access routes, areas for materials storage, etc.
  Some large trees (e.g. #1627 and 1631) are very close to the existing building foundations (<2m) and therefore if these trees must be retained, the supervising arborist may recommend parts of the existing foundations be retained in order to avoid significantly impacting the health and/or structure of the trees. Whether this will be necessary will depend on the depths of the existing foundations/slabs and whether roots encountered during their removal.

- **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 (not dyed) 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).

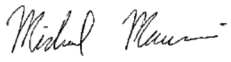
- **Landscaping and Irrigation Systems:** The planting of new trees and shrubs should not damage the roots of retained trees. The installation of any in-ground irrigation system must take into account the critical root zones of the trees to be retained. Prior to installation, we recommend the irrigation 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
    - *Project arborist to coordinate with the geotechnical engineer to determine shoring needs in the critical root zones of trees to be retained.

- **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.

Please do not hesitate to call us at (250) 479-8733 should you have any further questions.

Thank you,



Michael Marcucci
ISA Certified # ON-1943A
TRAQ – Qualified

Talbot Mackenzie & Associates
ISA Certified Consulting Arborists

Attached:

3-pages photographs and figures
4-page tree resource spreadsheet
1-page landscape plan with arborist information added (building extents, fencing)
1-page landscape grading plan
1-page servicing plan (contains trees to be removed)
1-page existing site map of trees
10-page building plans
1-page barrier fencing specifications
2-page tree resource spreadsheet methodology and definitions

Disclosure Statement

This arboricultural field review report was prepared by Talbot Mackenzie & Associates 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 Talbot Mackenzie & Associates. 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. Talbot Mackenzie & Associates 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 Talbot Mackenzie & Associates 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, Talbot Mackenzie & Associates 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.

Village Gardens – Photographs

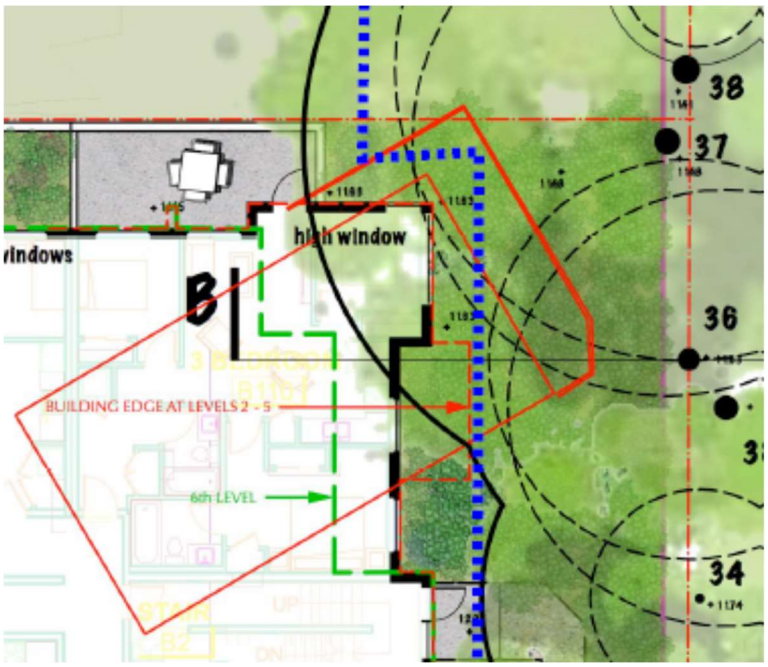


Figure 1: Close-up of building extents in relation to elm #37. The red rectangle is an existing paved picnic table area.

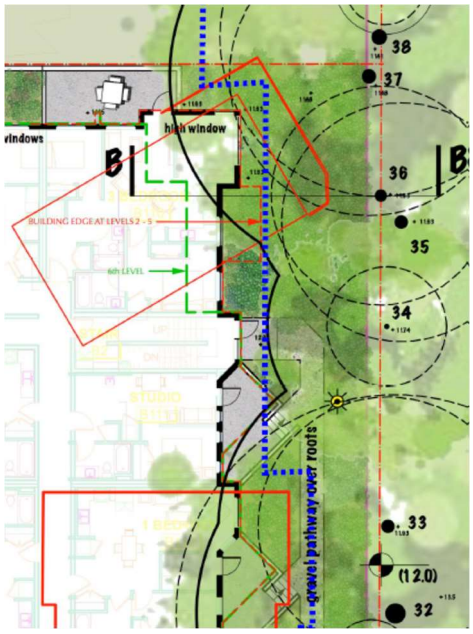


Figure 2 (right): Farther view of same plan.

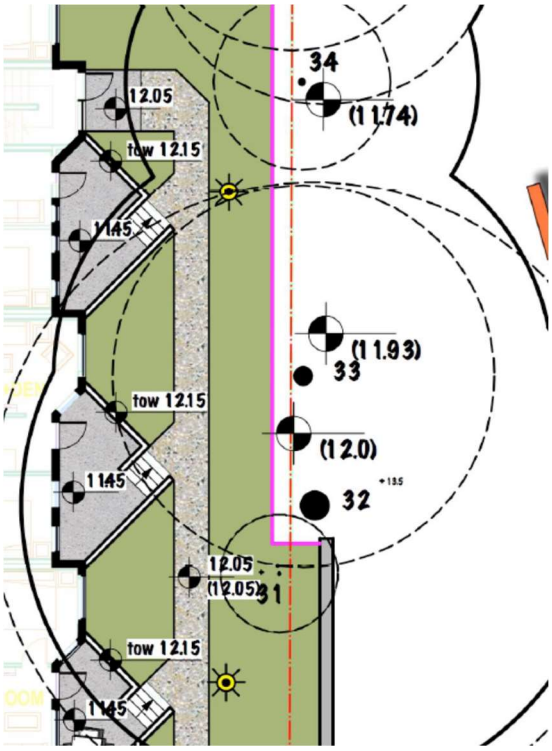


Figure 3: Grading plan for the gravel pathway within the CRZs of retained elms trees.

Photographs #1 (left photo, facing west) and #2 (right photo, facing east towards Menzies St):
The red lines indicate the approximate location of the closest building corner to elm #37. The orange lines indicate the approximate location where minimum pruning cuts would be to allow 1m of clearance from the building and balconies.

Niagara St Development (between Croft and Menzies St), Victoria
Tree Resource Spreadsheet

Tree ID (#1-39 have no tag)	Common Name	Latin Name	DBH (cm) ~ approximate	Crown Spread (diameter in metres)	CRZ (radius in metres)	Relative Tolerance (good, moderate, poor)	Health	Structure	Remarks and Recommendations	Ownership (blank - on subject property)	Bylaw Protected	Retention Status	Impacts
1	Purple Leaf Plum	*Prunus cerasifera*	20.0	6.0	2.5	M	Fair	Fair	Municipal ID 13801. Growing underneath pine canopy	Municipal	No	Phase 2	
2	Purple Leaf Plum	*Prunus cerasifera*	39.0	8.0	4.5	M	Fair	Fair	Municipal ID 13802. Growing underneath pine canopy. 20cm wide pruning wound on trunk.	Municipal	Protected	Phase 2	
3	Purple Leaf Plum	*Prunus cerasifera*	38.0	8.0	4.5	M	Fair	Fair	Municipal ID 13803	Municipal	Protected	Phase 2	
4	Purple Leaf Plum	*Prunus cerasifera*	37.0	8.0	4.5	M	Fair	Fair	Municipal ID 13804. Small *Ganoderma* fruiting body (4cm wide) on SE side of trunk at base.	Municipal	Protected	Phase 2	
5	Purple Leaf Plum	*Prunus cerasifera*	28.0	7.0	3.5	M	Fair	Fair	Municipal ID 13805. Leaning. Pruning wounds	Municipal	No	Phase 2	
6	Purple Leaf Plum	*Prunus cerasifera*	35.0	6.0	4.0	M	Fair	Fair/poor	Municipal ID 13806. Decay in scaffold limb. Crossing branches. 20cm wide pruning wound on trunk	Municipal	Protected	Phase 2	
7	Sycamore Maple	*Acer pseudoplatanus*	32.0	10.0	4.0	M	Fair	Fair	Somewhat small foliage and stunted growth form. Codominant unions at 2m	Neighbour's	Protected	Phase 2	
8	Fig tree	*Ficus* species	<15 multistem	5.0	~2	G	Fair	Fair	Growing against fence. Wire girdling largest trunk	Neighbour's	No	Phase 2	
9	Cherry	*Prunus* species	~8, 8	5.0	1.5	M	Good	Fair	Codominant at base	Neighbour's	No	Phase 2	
10	Serbian Spruce	*Picea omorika*	~13	2.0	~2	M	Fair	Good	Retaining wall near fence line	Neighbour's	No	Phase 2	
11	Weeping Willow	*Salix babylonica*	3	2	~1.5	G	Fair	Fair	Likely neighbour's. Growing against fence. Flat top at 2m tall	Neighbour's	No	Phase 2	
12	Douglas-fir	*Pseudotsuga menziesii*	~45	10	7.0	P	Fair	N/A	~5m from fence	Neighbour's	Protected	Phase 2	
13	Hedge Maple	*Acer campestre*	~12	3	~2	G	Fair/poor	Fair	Suppressed by canopy of 1613 ash	Neighbour's	No	Phase 2	
14	Variegated Western Red Cedar	*Thuja plicata* 'Zebrina'	~35	7.0	~5.5	P	Good	N/A	On neighbour's side of fence, but survey shows on subject property. Crown raised.		Protected	Phase 2	
15	Variegated Western Red Cedar	*Thuja plicata* 'Zebrina'	~35	7.0	~5.5	P	Good	N/A	On property line. Crown raised	Shared	Protected	Phase 2	
16	Variegated Western Red Cedar	*Thuja plicata* 'Zebrina'	~35	7.0	~5.5	P	Good	N/A	Neighbour's. Crown raised	Neighbour's	Protected	Phase 2	
17	Variegated Western Red Cedar	*Thuja plicata* 'Zebrina'	~25, 15	7.0	~5	P	Good	N/A	Neighbour's. Crown raised	Neighbour's	Potentially Protected	Phase 2	
18	Leyland Cypress hedge	*Cupressus x leylandii*	<26	4	2.5	G	Good	Fair	8m tall pruned hedge. Largest single stem is 26cm DBH; twin stem at end is ~20, 15.		No	Removal	Within parkade
19	Leyland Cypress hedge	*Cupressus x leylandii*	<20~	4	2.0	G	Fair	Fair	West half of hedge topped at 4m; east half 7m tall pruned hedge		No	Removal	Within parkade
20	English Laurel hedge	*Prunus laurocerasus*	8-30cm	3	< 3	G	Fair	Fair	5m tall pruned hedge. Backyard of 456/458 Niagara St. * Some stems may add up to 30cm cumulative DBH, but if so, in our opinion, as part of a trimmed hedge they should not be considered bylaw protected.		No * (in our opinion)	Removal	Within parkade
21	Purple Leaf Plum	*Prunus cerasifera*	40	8	5.0	M	Fair	Fair/poor	Municipal, ID 13780. *Ganoderma* fruiting body on west side of tree at 2.5m within union.	Municipal	Municipal	Removal	Sidewalk excavation (+parkade, patio 2.1m from tree)
22	Purple Leaf Plum	*Prunus cerasifera*	25	7	3.0	M	Fair	Fair	Municipal, ID 13781. Small 2cm wide *Ganoderma* fruiting body on south side near base. Crossing limb	Municipal	Municipal	Removal	Sidewalk excavation (+parkade)
23	Lawson Cypress	*Chamaecyparis lawsoniana*	46	9	7.0	P	Fair	Fair	Municipal, ID 13782. Tridominant at 3m. Crown raised historically	Shared	Municipal	Removal	Within sidewalk (+ parkade, retaining walls, pathways)
24	Purple Leaf Plum	*Prunus cerasifera*	20	7	2.5	M	Fair	Fair	Municipal, ID 13783. Leaning. Trunk wound	Municipal	Municipal	Removal	Sidewalk excavation (+parkade)
25	Purple Leaf Plum	*Prunus cerasifera*	26	9	3.0	M	Fair	Fair	Municipal, ID 13784. Early leaf drop or dieback in upper canopy	Municipal	Municipal	Removal	Sidewalk excavation (+parkade, 20% canopy loss from balconies)

Prepared by:
Talbot Mackenzie & Associates
ISA Certified and Consulting Arborists
Phone: (250) 479-8733
Fax: (250) 479-7050
email: tmtreehelp@gmail.com

Tree ID (#1-39 have no tag)	Common Name	Latin Name	DBH (cm) ~ approximate	Crown Spread (diameter in metres)	CRZ (radius in metres)	Relative Tolerance (good, moderate, poor)	Health	Structure	Remarks and Recommendations	Ownership (blank - on subject property)	Bylaw Protected	Retention Status	Impacts
26	Purple Leaf Plum	*Prunus cerasifera*	34	9	4.0	M	Fair	Poor	Municipal, ID 13785. Large *Ganoderma* fruiting body (20cm wide) at ground level on southwest side of tree.	Municipal	Municipal	Removal	Sidewalk excavation (+parkade, 25% canopy loss from balconies)
27	Purple Leaf Plum	*Prunus cerasifera*	33	9	4.0	M	Fair	Fair	Municipal, ID 13786	Municipal	Municipal	Removal	Sidewalk excavation (+parkade, pathway)
28	Colorado Blue Spruce	*Picea pungens*	~20	4	~2	M	Fair	Good	Retaining wall near or at property line	Neighbour's	No	Retain	
29	Pyramidal Cedar	*Thuja occidentalis* 'Pyramidalis'	15.0	2.0	2.0	M	Fair	Good	Located on subject property according to survey		No	Retain if desired	
30	Pyramidal Cedar	*Thuja occidentalis* 'Pyramidalis'	13.0	2.0	1.5	M	Fair	Good	Located on subject property according to survey		No	Retain if desired	
31	Hawthorn	*Crataegus* species	14, 11	4.0	2.0	G	Fair	Fair	Located on subject property according to survey. Suppressed. Historical stem removal at union. Crossing limbs		No	Retain if desired	
32	Elm	*Ulmus* species	111.0	20.0	11.0	G	Good	Fair/poor	Two stems; possibly two trees with the lower 4m of their trunks pressed together. Stems crossing at ~8m above ground with wound. Large pruning wounds.	Neighbour's	Protected	Retain	Parkade, retaining walls, pathway
33	Elm	*Ulmus* species	66.0	17.0	6.5	G	Good	Fair	Neighbour's or potentially shared ownership if base crosses property line.	Neighbour's or shared	Protected	Retain	Parkade, retaining walls, pathway
34	Elm	*Ulmus* species	28.0	12.0	3.0	G	Fair	Fair	Somewhat suppressed	Neighbour's or shared	No	Retain	Parkade, pathway
35	Elm	*Ulmus* species	58.0	12.0	6.0	G	Good	Fair		Neighbour's	Protected	Retain	Parkade
36	Elm	*Ulmus* species	57.0	13.0	5.5	G	Good	Fair	Potentially shared if base crosses property line.	Subject property or potentially shared	Protected	Retain	Parkade
37	Elm	*Ulmus* species	72.0	20.0	7.0	G	Good	Fair	Located on subject property according to survey. Engulfing fence ends		Protected	Retain with canopy loss	Parkade excavation, canopy loss
38	Elm	*Ulmus* species	78.0	20.0	8.0	G	Good	Fair		Subject property or potentially shared	Protected	Retain	
39	Hawthorn	*Crataegus* species	~20	5.0	~2	G	Fair	N/A	Fence obstructing view of base	Shared	No	Retain	
1600	Scots Pine	*Pinus sylvestris*	52	11	6.0	M	Fair	Good	Growing among boulders and west of retaining wall		Protected	Phase 2	
1601	Scots Pine	*Pinus sylvestris*	35	9	4.0	M	Fair	Good	Growing among boulders and west of retaining wall		Protected	Phase 2	
1602	Scots Pine	*Pinus sylvestris*	48	12	6.0	M	Fair	Fair	Growing among boulders and west of retaining wall. Codominant unions throughout		Protected	Dead; to be removed	
1603	Scots Pine	*Pinus sylvestris*	38	10	4.5	M	Fair	Fair	Growing among boulders and west of retaining wall. Asymmetric canopy		Protected	Phase 2	
1604	Scots Pine	*Pinus sylvestris*	39	10	4.5	M	Fair	Fair	Growing among boulders and west of retaining wall. Curving leader		Protected	Phase 2	
1605	Holly	*Ilex aquifolium*	17, 12	5	2.5	G	Fair	Fair	4m tall		No	Phase 2	
1606	Corkscrew Willow	*Salix matsudana*	15, 13	7	2.5	G	Fair	Fair	Asymmetric canopy		No	Phase 2	

Prepared by:
Talbot Mackenzie & Associates
ISA Certified and Consulting Arborists
Phone: (250) 479-8733
Fax: (250) 479-7050
email: tmtreehelp@gmail.com

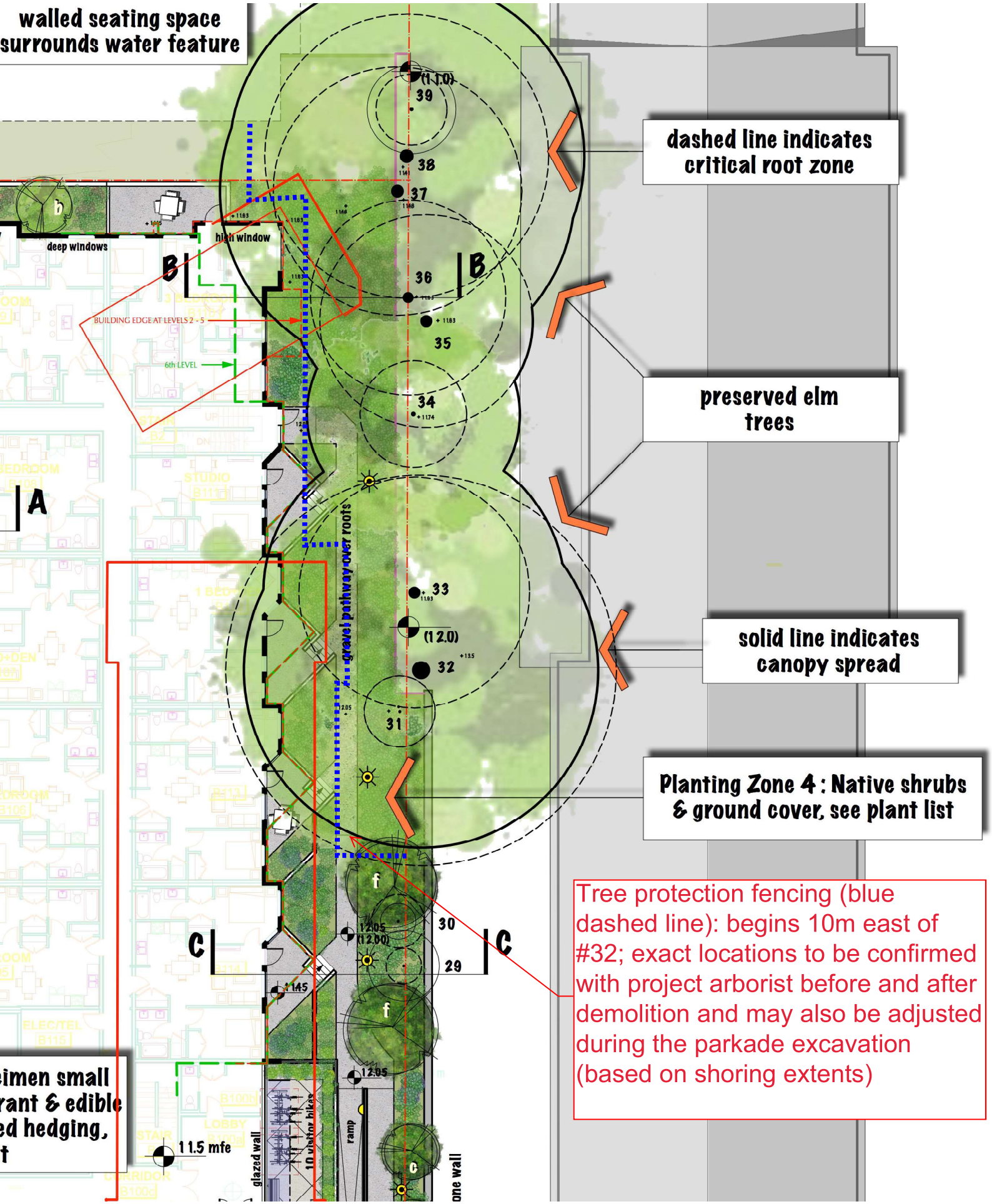
Niagara St Development (between Croft and Menzies St), Victoria
Tree Resource Spreadsheet

Tree ID (#1-39 have no tag)	Common Name	Latin Name	DBH (cm) ~ approximate	Crown Spread (diameter in metres)	CRZ (radius in metres)	Relative Tolerance (good, moderate, poor)	Health	Structure	Remarks and Recommendations	Ownership (blank - on subject property)	Bylaw Protected	Retention Status	Impacts
1607	European Ash	*Fraxinus excelsior*	12	5	~2	G	Good	Fair	Growing against fence		No	Phase 2	
1608	Palm	*Trachycarpus fortunei*	13, 12, 12	4	3.0	M	Good	Fair	Beside retaining wall. Potentially 3 separate trees		No	Phase 2	
1609	Palm	*Trachycarpus fortunei*	12	1	1.5	M	Good	Good			No	Phase 2	
1610	Palm	*Trachycarpus fortunei*	12	1	1.5	M	Good	Good			No	Phase 2	
1611	Cherry	*Prunus* species	47	6	5.5	M	Fair	Fair/poor	Surface roots with wounds and upheaving walkway. Tearout injury and large pruning wound		Protected	Phase 2	
1612	Cherry	*Prunus* species	54	8	6.5	M	Fair	Fair	Pruning wounds throughout canopy. Surface roots		Protected	Phase 2	
1613	European Ash	*Fraxinus excelsior*	58	15	6.0	G	Fair	Fair	Some limb dieback in upper canopy. Deadwood. Base growing against fence		Protected	Phase 2	
1614	English Laurel	*Prunus laurocerasus*	17, 15, 15, + 7x 10-15cm stems	6	~2	G	Good	Fair	Trimmed. This tree is technically bylaw protected if all the stems at DBH are added, but in our opinion it should not be considered bylaw protected.		Possibly Protected*	Phase 2	
1615	Sycamore Maple	*Acer pseudoplatanus*	22	9	2.5	M	Fair	Fair/poor	Measured below union at DBH which has included bark with reaction growth and seam forming already		No	Phase 2	
1616	Portuguese Laurel	*Prunus lusitanica*	21, 19	9	3.5	G	Fair	Fair/poor	Possibly considered two separate trees. One stem dying with split leader. Remaining stem with decay at base and included bark and rope wrapped around trunk		Protected	Phase 2	
1617	Scots Pine	*Pinus sylvestris*	51	13	6.0	M	Fair	Fair	Flat top. Downspout attached to trunk with wire wrapped around; removal of wire recommended if retained. Surface roots		Protected	Phase 2	
1618	Mountain Ash	*Sorbus* species	25	5	4.0	P	Good	Fair	Located in front yard of 450 Niagara St. Crossing limbs	Potentially shared with neighbour	No	Removal	Within parkade
1619	Pine	*Pinus* species	31	6	3.5	M	Fair	Fair	White pine species.		Protected	Removal	Parkade/ building excavation
1620	Sycamore Maple	*Acer pseudoplatanus*	33, 31, 29, 27	14	8.5	M	Fair	Fair/poor	Codominant unions with included bark. Large stem removal wound on one stem. Pruned for hydro on one side. Base growing against and engulfing walkway.		Protected	Removal	Parkade/ building excavation
1621	Fig tree	*Ficus* species	17, 13, 13, ~12	7	~2	G	Good	Fair	Located in backyard of 450 Niagara St. * None of the stems appear to connect above ground and therefore this tree should not be considered bylaw protected in our opinion.		No *	Removal	Within parkade
1622	Laburnum	*Laburnum x watereri*	22	6	2.5	M	Good	Good	Located in backyard of 450 Niagara St.		No	Removal	Within parkade
1623	European Ash	*Fraxinus excelsior*	11, 11, 11, 9, 7	7	3*	G	Good	Poor	Located in backyard of 450 Niagara St. Crossing limbs and included bark. *Protected if all stems are calculated cumulatively, but considering the base is 31cm in diameter at ground level, it should not be considered protected in our opinion.		No * (in our opinion)	Removal	Within parkade
1624	Laburnum	*Laburnum x watereri*	22, 17	8	3.5	M	Fair	Fair			Protected	Removal	Within parkade
1625	Cherry	*Prunus* species	33, 28	12	6.0	M	Fair	Fair	Codominant union		Protected	Removal	Within parkade
1626	Cherry	*Prunus* species	43	11	5.0	M	Fair	Fair	Crossing limbs.		Protected	Removal	2m from building
1627	Lombardy Poplar	*Populus nigra* 'Italica'	176	20	17.5	G	Fair	Poor	Stems fused at DBH; weak union with sap stains from included bark. Less than 3m from existing building foundation		Protected	Removal	Within parkade

Prepared by:
Talbot Mackenzie & Associates
ISA Certified and Consulting Arborists
Phone: (250) 479-8733
Fax: (250) 479-7050
email: tmtreehelp@gmail.com

Tree ID (#1-39 have no tag)	**Common Name**	**Latin Name**	**DBH (cm)** ~ approximate	**Crown Spread** (diameter in metres)	**CRZ** (radius in metres)	**Relative Tolerance** (good, moderate, poor)	**Health**	**Structure**	**Remarks and Recommendations**	**Ownership** (blank - on subject property)	**Bylaw Protected**	**Retention Status**	**Impacts**
1628	Elm	*Ulmus* species	102	22	10.0	G	Good	Fair	Endweighted limbs.		Protected	Removal	Within parkade
1629	Elm	*Ulmus* species	87.0	20.0	8.5	G	Good	Fair	Endweighted limbs. ~2m from building foundation		Protected	Removal	Within parkade
1630	European Ash	*Fraxinus excelsior*	80.0	19.0	8.0	G	Fair	Fair	Dieback and dead limbs in upper canopy		Protected	Removal	Within parkade
1631	Elm	*Ulmus* species	101.0	26.0	10.0	G	Fair	Fair/poor	~2m from building foundation. Historical pruning wounds. Recent large ~50cm scaffold limb failure from trunk (December 8, 2020)		Protected	Removal	Within parkade
1632	European Ash	*Fraxinus excelsior*	71.0	16.0	7.0	G	Fair	Fair/poor	Large historical limb removal wounds; cavity. Asymmetric canopy twig dieback in upper canopy		Protected	Removal	Within parkade
1633	European Ash	*Fraxinus excelsior*	59.0	15.0	6.0	G	Fair	Poor	Large historical limb removal wounds; cavity at 1m		Protected	Removal	Within parkade

Prepared by:
Talbot Mackenzie & Associates
ISA Certified and Consulting Arborists
Phone: (250) 479-8733
Fax: (250) 479-7050
email: tmtreehelp@gmail.com


walled seating space surrounds water feature
dashed line indicates critical root zone
preserved elm trees
solid line indicates canopy spread
Planting Zone 4 : Native shrubs & ground cover, see plant list
Tree protection fencing (blue dashed line): begins 10m east of #32; exact locations to be confirmed with project arborist before and after demolition and may also be adjusted during the parkade excavation (based on shoring extents)
deep windows
high window
BUILDING EDGE AT LEVELS 2 - 5
6th LEVEL
gravel pathway over roots
ramp
glazed wall
11.5 mfe
39
38
37
36
35
34
33
32
31
30
29
B
C
A

LANDSCAPE PLAN

municipal trees to be removed

proposed replacement tree planting - see plant list

proposed tree planting - see plant list

proposed clipped hedges - see plant list

proposed shrub & groundcover planting see plant list

broom finish concrete surfaces

decomposed granite surface

gravel (permeable) pathway surface

precast unit pavers

proposed grade

existing spot elevation refer to Grading Plan L4

new street light

sconce style wall-mounted light fixture

recessed step light fixture

bollard style pathway light fixture

PHASE 2

future garden expansion

On-site Rainwater Management
The central courtyard green space lies above the parkade roof slab and can therefore be classified as an intensive green roof to provide rainwater treatment/detention prior to slow release to the piped system

dog run (100m2)
decomposed granite surface

walled seating space surrounds water feature

dashed line indicates critical root zone

preserved elm trees

solid line indicates canopy spread

Planting Zone 4 : Native shrubs & ground cover, see plant list

Tree protection fencing (blue dashed line): begins 10m east of #32; exact locations to be confirmed with project arborist before and after demolition and may also be adjusted during the parkade excavation (based on shoring extents)

to underground parking

niagara st

menzies st

key intersection

slight adjustment of tree spacing to ensure adequate clearance from hydro pole

4000

Planting Zone 1 : Tree-lined frontage, mixed native & ornamental shrubs & ground-cover, see plant list

PUBLIC SEATING PLAZA PEDESTRIAN LIGHT

tree pit to provide each tree with 17m3 growing media

to beacon hill park

public seating plaza & building entrance

to waterfront

Planting Zone 2 : Mixed native & ornamental groundcover beneath street tree canopy, see plant list

Planting Zone 3 : Specimen small trees, ornamental fragrant & edible fruiting shrubs, clipped hedging, see plant list

remove cypress #23 (municipal tree)

aluminum railings, (1.0m high)

linear tree pit "trench" to provide each tree with 17m3 growing media

telus 6-4" ducts in concrete encasement

remove street trees (flowering plums)

building entrance plaza

short walk to play park & bust stop

to parliament building & inner harbour

#465

#132

0 5 10 15 M

SMALL & ROSSELL
LANDSCAPE ARCHITECTS
3012 manzer road, sooke, b.c., v9z 0c9
t: 250-642-6967
design@smallandrossell.com
www.smallandrossell.com

Revision

No.	Description	Date
1	CoV Application Review:- Building footprint revisions Central courtyard area reduced RoW/sidewalk revisions Removal of existing street trees New street trees & tree soil volumes U/g Telus identified accurately Public seating plaza redesigned with pedestrian light Building Entrance Plaza redesigned Garage entry ramp repositioned On-site Menzies landscape revised On-site Niagara landscape revised Street lights added on Niagara St. On-site rainwater management statement added	18 Nov 2020

Issue	Issue Date
Development Permit	22 June 2020
Development Permit R1	1 Dec 2020

Project

PRIMEX INVESTMENTS

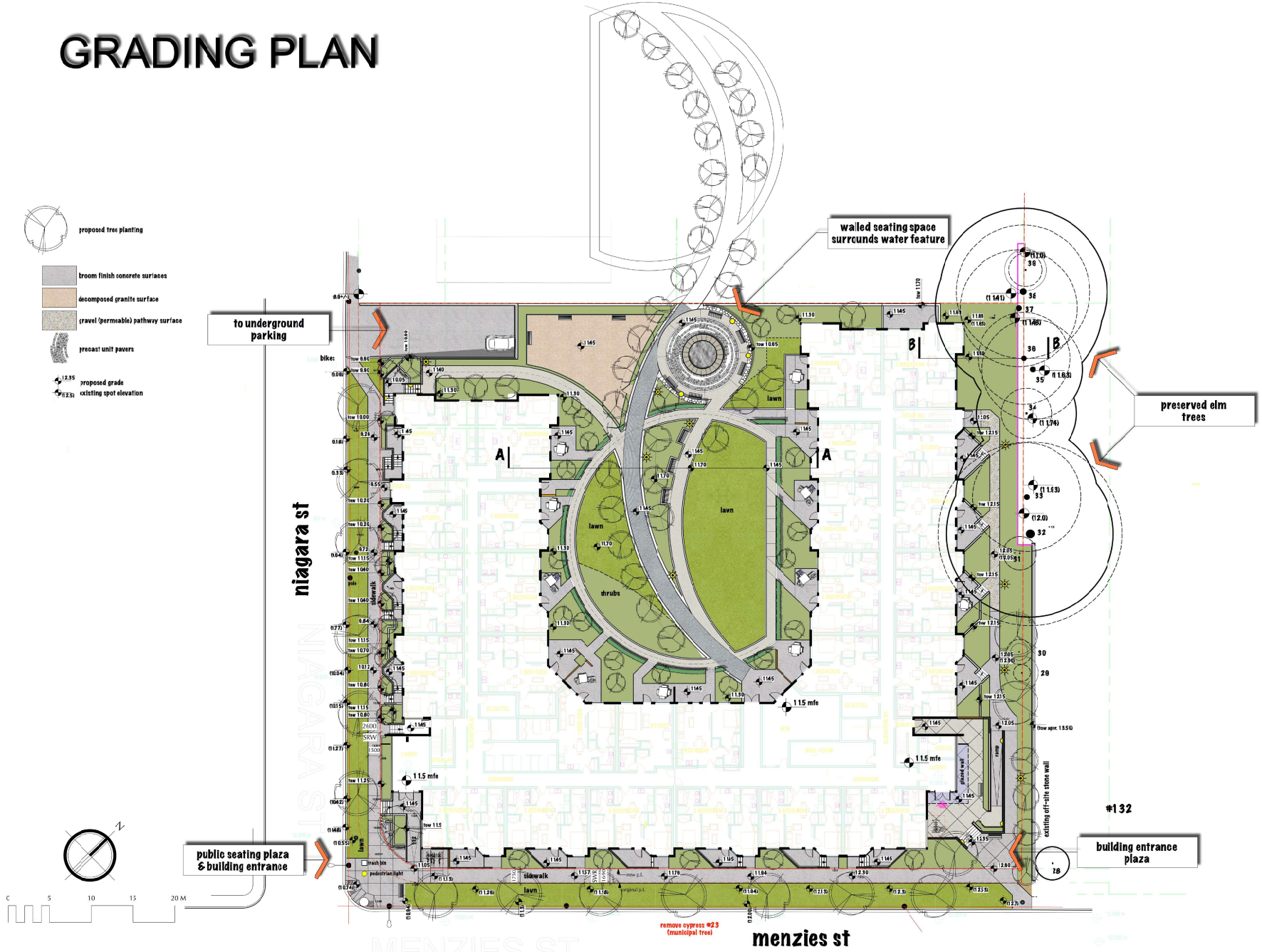
VILLAGE GARDENS RESIDENTIAL COMPLEX

Sheet Title

LANDSCAPE PLAN

Drawn By	Checked
AJS	CAR
Project Number	Scale
	1:200
Revision	Sheet Number
1	L1

GRADING PLAN



SMALL & ROSSELL
LANDSCAPE ARCHITECTS
30'2 manzer road, sooke, b.c., v9z 0c9
t: 230-642-6967

design@smallandrossell.com
www.smallandrossell.com

Revision No.	Description	Date
1	CoV Application Review:- Grading Plan L4 added to Landscape Plan set	18 Nov 2020

Issue	Issue Date
Development Permit R1	18 Nov 2020

Project

PRIMEX INVESTMENTS

VILLAGE GARDENS RESIDENTIAL COMPLEX

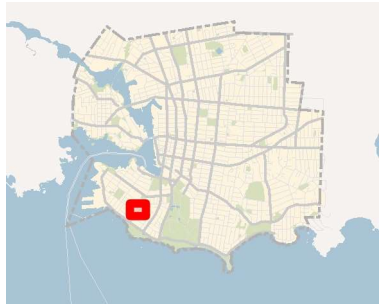
Sheet Title

GRADING PLAN

Drawn By	Checked
AJS	CAR
Project Number	Scale
	1:200
Revision	Sheet Number
1	L4

09/23/2019

Printed from VicMap



Legend

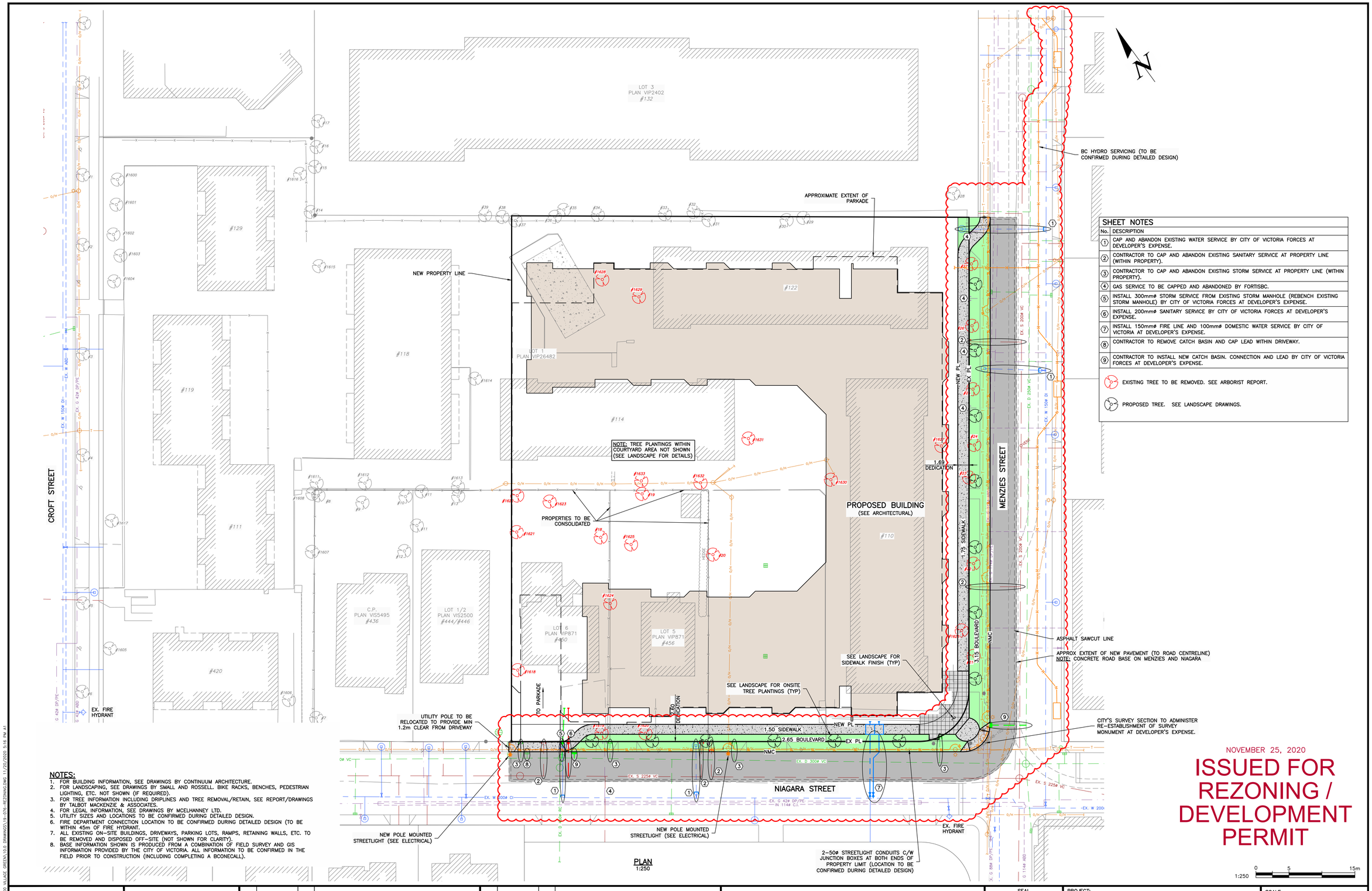
- Victoria Parcels

1: 1,600

Notes

81 0 41 81 Meters

NAD_1983_CSRS_UTM_Zone_10N



SHEET NOTES

No.	DESCRIPTION
1	CAP AND ABANDON EXISTING WATER SERVICE BY CITY OF VICTORIA FORCES AT DEVELOPER'S EXPENSE.
2	CONTRACTOR TO CAP AND ABANDON EXISTING SANITARY SERVICE AT PROPERTY LINE (WITHIN PROPERTY).
3	CONTRACTOR TO CAP AND ABANDON EXISTING STORM SERVICE AT PROPERTY LINE (WITHIN PROPERTY).
4	GAS SERVICE TO BE CAPPED AND ABANDONED BY FORTISBC.
5	INSTALL 300mmø STORM SERVICE FROM EXISTING STORM MANHOLE (REBENCH EXISTING STORM MANHOLE) BY CITY OF VICTORIA FORCES AT DEVELOPER'S EXPENSE.
6	INSTALL 200mmø SANITARY SERVICE BY CITY OF VICTORIA FORCES AT DEVELOPER'S EXPENSE.
7	INSTALL 150mmø FIRE LINE AND 100mmø DOMESTIC WATER SERVICE BY CITY OF VICTORIA AT DEVELOPER'S EXPENSE.
8	CONTRACTOR TO REMOVE CATCH BASIN AND CAP LEAD WITHIN DRIVEWAY.
9	CONTRACTOR TO INSTALL NEW CATCH BASIN. CONNECTION AND LEAD BY CITY OF VICTORIA FORCES AT DEVELOPER'S EXPENSE.

EXISTING TREE TO BE REMOVED. SEE ARBORIST REPORT.

PROPOSED TREE. SEE LANDSCAPE DRAWINGS.

NOTES:

1. FOR BUILDING INFORMATION, SEE DRAWINGS BY CONTINUUM ARCHITECTURE.
2. FOR LANDSCAPING, SEE DRAWINGS BY SMALL AND ROSSELL. BIKE RACKS, BENCHES, PEDESTRIAN LIGHTING, ETC. NOT SHOWN (IF REQUIRED).
3. FOR TREE INFORMATION INCLUDING DRIPLINES AND TREE REMOVAL/RETAIN, SEE REPORT/DRAWINGS BY TALBOT MACKENZIE & ASSOCIATES.
4. FOR LEGAL INFORMATION, SEE DRAWINGS BY MCELHANNEY LTD.
5. UTILITY SIZES AND LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
6. FIRE DEPARTMENT CONNECTION LOCATION TO BE CONFIRMED DURING DETAILED DESIGN (TO BE WITHIN 45m OF FIRE HYDRANT.
7. ALL EXISTING ON-SITE BUILDINGS, DRIVEWAYS, PARKING LOTS, RAMPS, RETAINING WALLS, ETC. TO BE REMOVED AND DISPOSED OFF-SITE (NOT SHOWN FOR CLARITY).
8. BASE INFORMATION SHOWN IS PRODUCED FROM A COMBINATION OF FIELD SURVEY AND GIS INFORMATION PROVIDED BY THE CITY OF VICTORIA. ALL INFORMATION TO BE CONFIRMED IN THE FIELD PRIOR TO CONSTRUCTION (INCLUDING COMPLETING A BCONECALL).

PLAN
1:250

1:250 0 5 15m

NOVEMBER 25, 2020

ISSUED FOR REZONING / DEVELOPMENT PERMIT

NO.	DATE	BY	ISSUED

NO.	DATE	BY	REVISIONS

McElhanney
500 - 3960 QUADRA STREET
VICTORIA, BC V8X 4A3 PH (250) 370-9221

SEAL

PROJECT:
VILLAGE GREEN
111 CROFT STREET, 450 NIAGARA STREET AND 456 NIAGARA STREET, VICTORIA, BC

TITLE:
CONCEPTUAL SERVICING

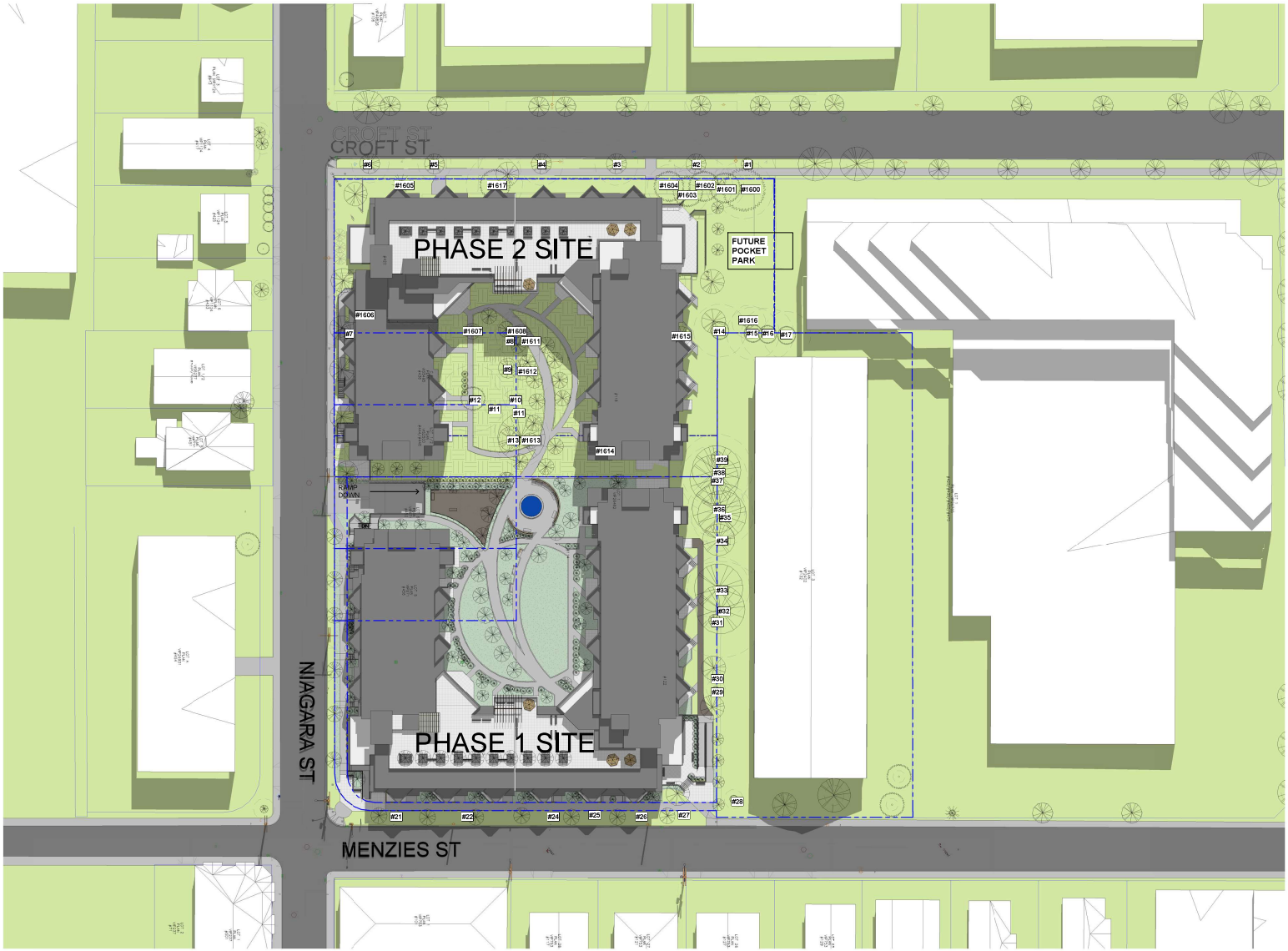
SCALE
HORIZ: 1:250 VERT:

PROJECT NO. 19-076 | ISSUED/REVISION

APPROVING AUTHORITY FILE NO.

DRAWING NO.
19-076-REZONING

X:\2241\CIVIL\PROJECTS\19-076-00 VILLAGE GREEN\10.0 DRAWINGS\19-076-REZONING.DWG 11/20/2020 5:16 PM A1



1 | PHASING SITE PLAN
1 : 400

0m 8m 16m 24m 32m 40m

VISUAL SCALE 1:400 @ Arch D

continuum ARCHITECTURE
519 PANDORA AVENUE, VICTORIA, B.C. V8W 1N5 +1 250 388 4261

PRIMEX INVESTMENTS

No.	Description	Date
2	REISSUED FOR REZONING	2020-07-09
1	ISSUED FOR REZONING	2020-04-03

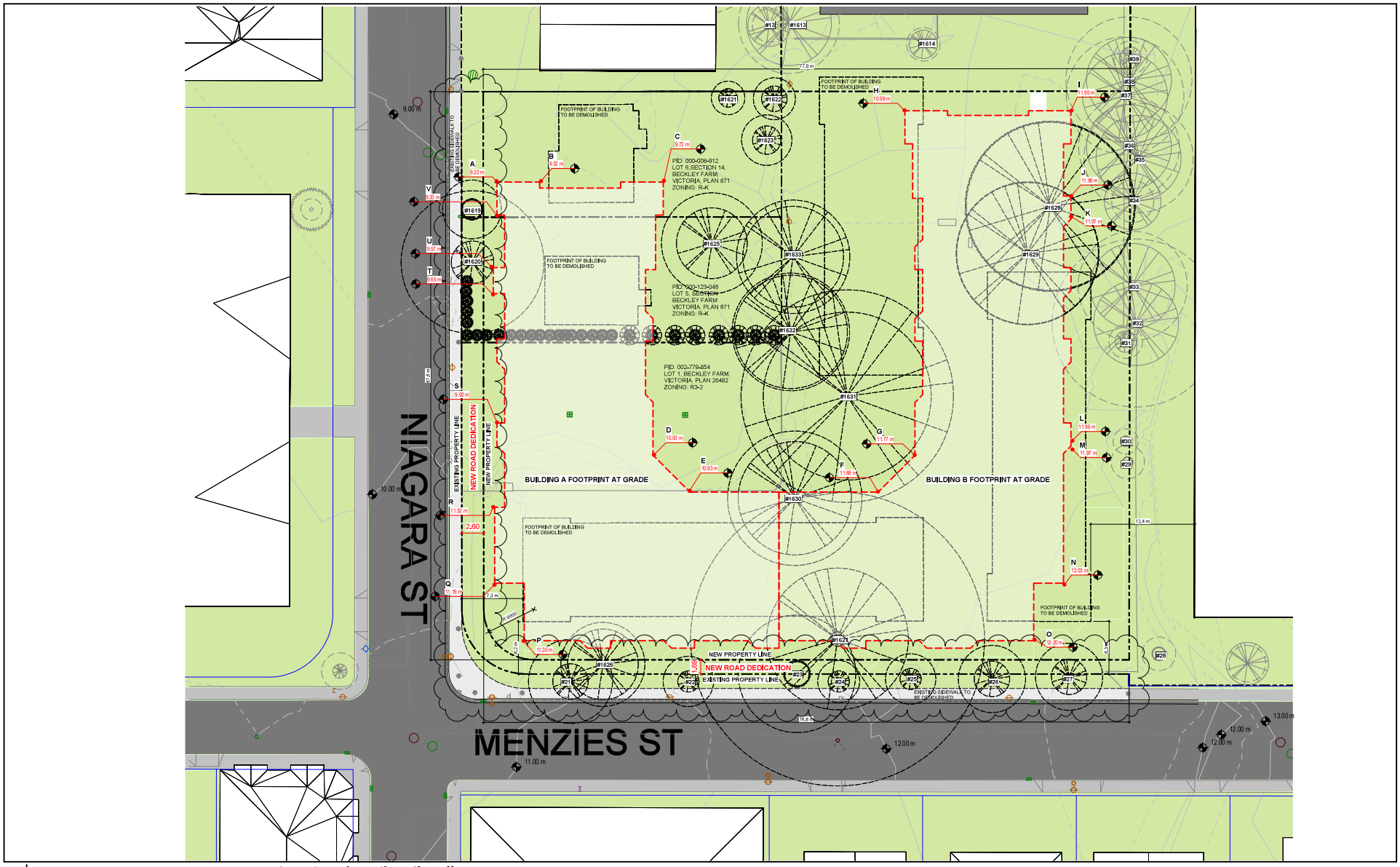
VILLAGE GREEN RESIDENTIAL COMPLEX

110 MENZIES ST, VICTORIA BC V8V 1H1

PHASING SITE PLAN

A-1.0

JOB No.: 1933 | SCALE: 1 : 400 | DATE: 2020/11/19



1 | SITE PLAN - EXISTING/DEMO
1 : 200

0m 4m 8m 12m 16m 20m
VISUAL SCALE 1:200 @ Arch D

continuum ARCHITECTURE
519 PANDORA AVENUE, VICTORIA, B.C. V8W 1N5 +1 250 388 4261

PRIMEX INVESTMENTS

No.	Description	Date
2	REISSUED FOR REZONING	2020-07-09
1	ISSUED FOR REZONING	2020-04-03

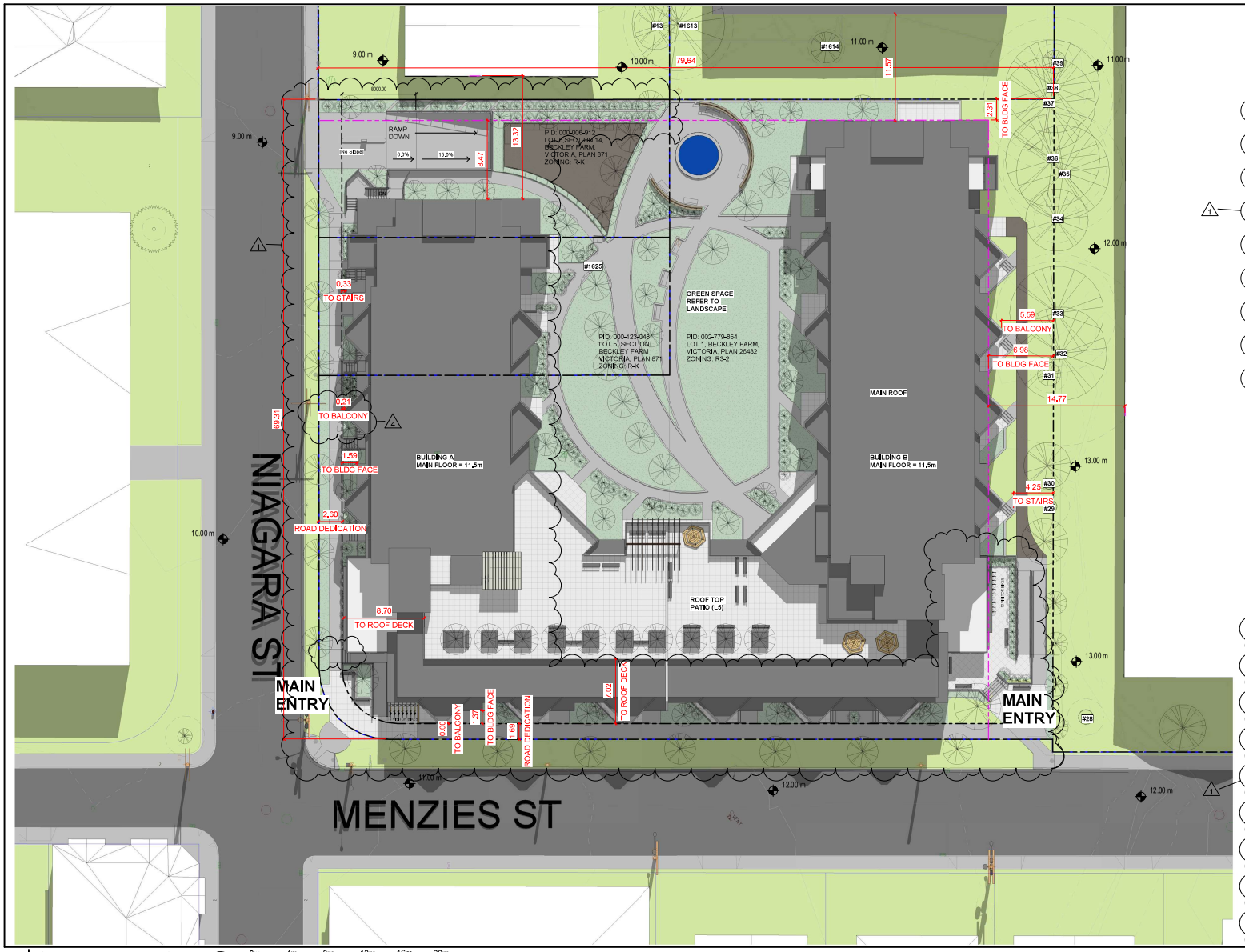
VILLAGE GREEN RESIDENTIAL COMPLEX

110 MENZIES ST, VICTORIA BC V8V 1H1

SITE PLAN - EXISTING/DEMO

A-1.1

JOB No.: 1933 | SCALE: 1 : 200 | DATE: 2020/11/19



1 SITE PLAN - PHASE 1
1 : 200

0m 4m 8m 12m 16m 20m
VISUAL SCALE 1:200 @ Arch D

ZONING DATA

SITE DATA	
MUNICIPAL ADDRESS:	110 MENZIES ST, VICTORIA, BC, V8V 1H1
LEGAL DESCRIPTION:	LOT 1, BECKLEY FARM, VICTORIA, PLAN 26482
SITE AREA:	5197 m²
ZONING DATA	
CLASSIFICATION:	R3-2

FSR AREA SCHEDULE			FSR AREA SCHEDULE	
	BLDG A - L1	1187 m²	BLDG A - L4	991 m²
	BLDG B - L1	1330 m²	BLDG B - L4	1231 m²
L1 (11,50m)		2517 m²	L4	2223 m²
	BLDG A - L2	1142 m²	BLDG B - L5	838 m²
	BLDG B - L2	1284 m²	L5	838 m²
L2		2426 m²	BLDG B - L6	663 m²
	BLDG A - L3	1142 m²	L6	663 m²
	BLDG B - L3	1284 m²	GRAND TOTAL	11091 m²
L3		2426 m²		

	ALLOWABLE	PROPOSED
SITE COVERAGE:	1851 m² (30%)	2892.03m² (57%)
OPEN SPACE:	MIN 3301.4 m² (60%)	2304.07m² (43%)
FLOOR SPACE RATIO:	1.6:1	2.13:1
BUILDING HEIGHT:	18.5m	20.30m
AVERAGE GRADE:		10.97m

SETBACKS	REQUIRED	PROVIDED
NORTH (REAR YARD):	0	2.31m (TO BLDG)
EAST (SIDE YEARD):	0	6.98m (TO BLDG)
SOUTH (STREET FACING)	13.5m (6 STOREY)	1.37m (TO BLDG)
WEST (STREET FACING)	13.5m (6 STOREY)	1.59m (TO BLDG)

REFER TO DRAWING A-2.0 FOR PARKING DATA

BUILDING CODE DATA

Description	
Building Code:	BCBC 2018 - PART 3
Building Type:	RESIDENTIAL APARTMENT WITH UNDERGROUND PARKADE
Residential Building Group:	C - RESIDENTIAL
Underground Parkade Group:	F3 - LOW HAZARD INDUSTRIAL
Occupancy Classification:	3,2,2,50 - 6 storey Sprinklered
Max Area per Floor:	1500 m²
Construction Type:	Combustible
Occupancy Separations (F3 - C):	2 hour
Sprinklered:	PARKADE - Yes / RESIDENTIAL BUILDING - Yes
Max Travel Distance (parkade):	45m

GROSS FLOOR AREA - BLDG A

LEVEL	AREA	AREA m2
L1 (11,50m)	13403 SF	1245,2 m²
L2	12936 SF	1201,8 m²
L3	12937 SF	1201,9 m²
L4	11226 SF	1043,2 m²
BUILDING A TOTAL	50503 SF	4691,8 m²

GROSS FLOOR AREA - BLDG B

LEVEL	AREA	AREA m2	COMBINED TOTAL
L1 (11,50m)	15003 SF	1393,8 m²	2639,1 m²
L2	14522 SF	1349,1 m²	2550,9 m²
L3	14521 SF	1349,0 m²	2550,9 m²
L4	13919 SF	1293,1 m²	2336,1 m²
L5	9509 SF	883,4 m²	883,4 m²
L6	7591 SF	705,2 m²	705,2 m²
BUILDING B TOTAL	75045 SF	6973,6 m²	11665,6 m²

NET FLOOR AREA SCHEDULE - BLDG A

BLDG A - L1	1156,7 m²
BLDG A - L2	1113,1 m²
BLDG A - L3	1112,9 m²
BLDG A - L4	967,2 m²
BUILDING A TOTAL	4349,9 m²

2 HOUR FIREWALL

NET FLOOR AREA SCHEDULE - BLDG B

		COMBINED TOTAL
BLDG B - L1	1301,6 m²	2458,3 m²
BLDG B - L2	1255,8 m²	2399,0 m²
BLDG B - L3	1257,2 m²	2370,1 m²
BLDG B - L4	1203,3 m²	2170,5 m²
BLDG B - L5	802 m²	802,0 m²
BLDG B - L6	632,5 m²	632,5 m²
BUILDING B TOTAL	6452,5 m²	10802,4 m²

UNIT DATA

LEVEL:	STUDIO:	1 BED	1+DEN	2 BED	3 BED	TOTAL
L1	3	4	4	12	4	27
L2	3	1	8	13	3	28
L3	3	1	8	12	4	28
L4	5	9	8	4	2	28
L5	1	2	4	3	0	10
L6	1	9	0	0	0	10
TOTAL	16 (12%)	26 (20%)	32 (24%)	44 (33%)	13 (11%)	131

continuum ARCHITECTURE
519 PANDORA AVENUE, VICTORIA, B.C. V8W 1N5 +1 250 388 4261
PRIMEX INVESTMENTS

No.	Description	Date
3	REISSUED FOR REZONING	2020-07-29
2	RESUBMITTED FOR REZONING	2020-04-23
1		

VILLAGE GREEN RESIDENTIAL COMPLEX

110 MENZIES ST, VICTORIA BC V8V 1H1

PHASE 1 - SITE PLAN

A-1.2

JOB No. 1933 | SCALE: As indicated | DATE: 2020/11/19

AVERAGE GRADE CALCULATION			
POINTS	AVERAGE OF POINTS	DISTANCE	TOTALS
A-B	((9,32+9,32)/2)=9,32	x5,1	47,53
B-C	((9,32+9,72)/2)=9,52	x14,7	139,94
C-D	((9,72+10,00)/2)=9,86	x32,5	320,45
D-E	((10,00+10,93)/2)=10,47	x5,2	54,91
E-F	((10,93+11,45)/2)=11,19	x22,4	250,66
F-G	((11,45+11,45)/2)=11,45	x5,2	70,99
G-H	((11,45+10,99)/2)=11,22	x41	460,02
H-I	((10,99+11,94)/2)=11,47	x19,8	227,11
I-J	((11,94+11,96)/2)=11,95	x10,1	120,7
J-K	((11,96+11,96)/2)=11,96	x3,1	15,06
K-L	((11,96+11,96)/2)=11,96	x26,3	314,55
L-M	((11,96+11,45)/2)=11,7	x,3	3,51
M-N	((11,45+11,45)/2)=11,45	x16,4	187,78
N-O	((11,45+12,20)/2)=11,825	x5,8	80,41
O-P	((12,20+11,33)/2)=11,77	x60,7	714,44
P-Q	((11,33+11,16)/2)=11,25	x5,8	78,5
Q-R	((11,16+11,32)/2)=11,24	x9,1	102,28
R-S	((11,32+9,92)/2)=10,62	x10,0	106,20
S-T	((9,92+9,65)/2)=9,79	x15,4	150,77
T-U	((9,65+9,57)/2)=9,61	x3,1	29,80
U-V	((9,57+9,33)/2)=9,45	x5,2	58,59
V-A	((9,33+9,22)/2)=9,28	x4	37,12
Totals		326,2m	3579,07

3579,07/326,2m=10,97m

NOTE: ALL ELEVATIONS ARE FINISHED GRADE UNLESS OTHERWISE NOTED.

1 | AVERAGE GRADE PLAN
1 : 200

0m 4m 8m 12m 16m 20m
VISUAL SCALE 1:200 @ Arch D

continuum ARCHITECTURE
519 PANDORA AVENUE, VICTORIA, B.C. V8W 1N5 +1 250 388 4261

PRIMEX INVESTMENTS

No.	Description	Date
2	REISSUED FOR REZONING	2020-11-19

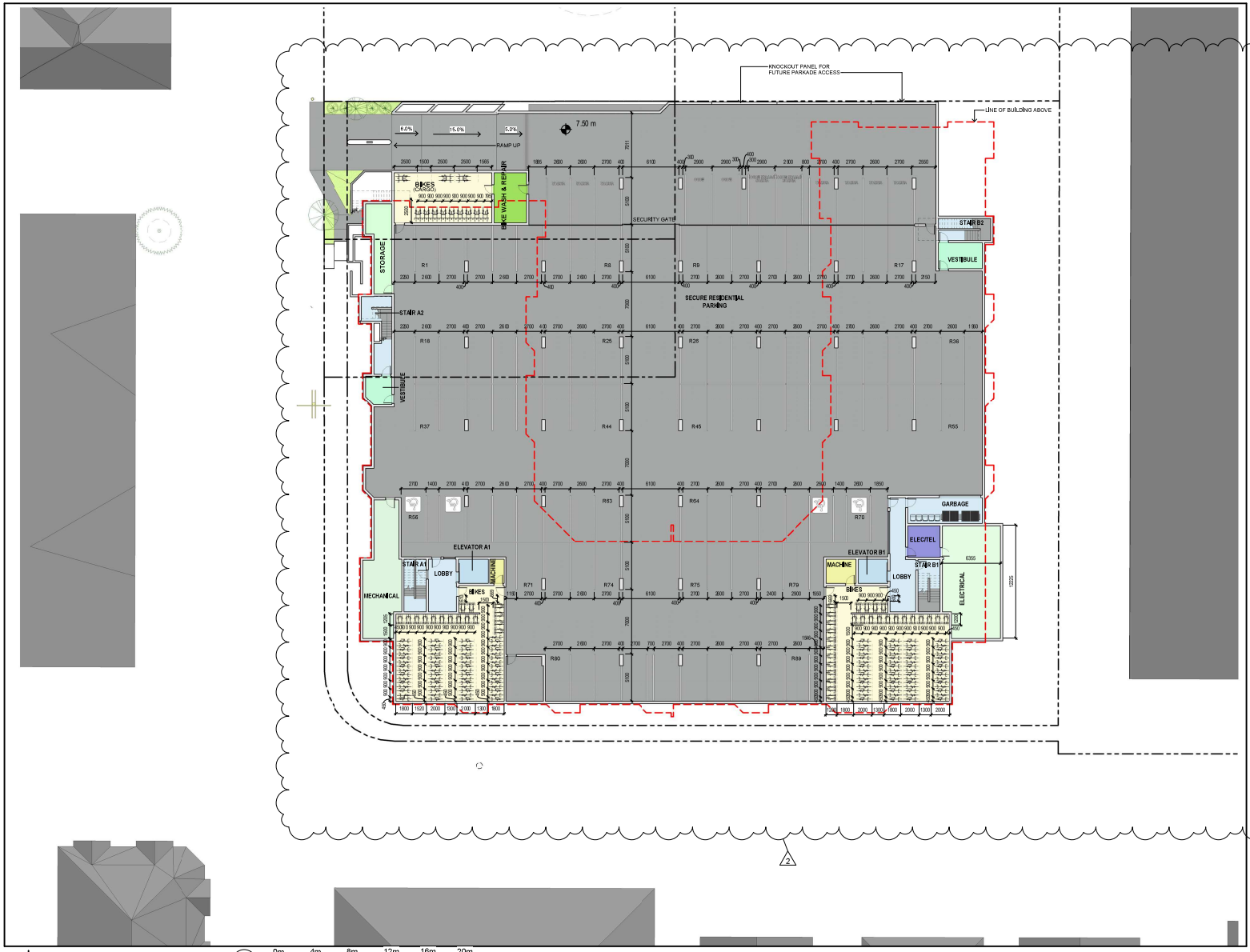
VILLAGE GREEN RESIDENTIAL COMPLEX

110 MENZIES ST, VICTORIA BC V8V 1H1

AVERAGE GRADE PLAN

A-1.6

JOB No. 1933 | SCALE: As indicated | DATE: 2020/11/19



PARKING DATA

	REQUIRED	PROVIDED
RESIDENTIAL PARKING STALLS:		
< 45 m² 0.75 / UNIT x 10 =	8	
45 - 70 m² 0.9 / UNIT x 49 =	45	
> 70 m² 1.3 / UNIT x 72 =	94	
SUB TOTAL =	147	89
VISITOR PARKING STALLS: (0.1/UNIT)	15	9
CAR SHARE STALLS:		2
TOTAL PARKING STALLS:	146	101
LONG TERM BICYCLE PARKING:		
< 45 m² 1 / UNIT x 10 =	10	
> 45 m² 1.25 / UNIT x 121 =	152	
SUB TOTAL =	162	233
SHORT TERM BICYCLE PARKING:		
.1 / UNIT x 131	14	17
TOTAL BICYCLE PARKING:		250

AREA SCHEDULE - UNDER 45m2

NAME	OCCUPANCY	AREA m2
A111	STUDIO	42 m²
B111	STUDIO	42 m²
A211	STUDIO	42 m²
B212	STUDIO	42 m²
A311	STUDIO	44 m²
B312	STUDIO	42 m²
A411	STUDIO	38 m²
B412	STUDIO	45 m²
B507	STUDIO	44 m²
B607	STUDIO	38 m²
SUBTOTAL: 10		412 m²

AREA SCHEDULE - OVER 70m2

NAME	OCCUPANCY	AREA m2
A101	2 BEDROOM	76 m²
A102	2 BEDROOM	76 m²
A103	2 BEDROOM	78 m²
A105	1 + DEN	77 m²
A106	1 + DEN	76 m²
A107	2 BEDROOM	76 m²
A109	3 BEDROOM	86 m²
A110	3 BEDROOM	86 m²
A112	2 BEDROOM	76 m²
A113	2 BEDROOM	76 m²
B101	2 BEDROOM	76 m²
B102	2 BEDROOM	76 m²
B103	2 BEDROOM	78 m²
B106	2 BEDROOM	76 m²
B109	3 BEDROOM	86 m²
B110	3 BEDROOM	88 m²
B113	2 BEDROOM	76 m²
B114	2 BEDROOM	76 m²
A201	2 BEDROOM	77 m²
A202	2 BEDROOM	76 m²
A203	2 BEDROOM	78 m²
A205	1 + DEN	77 m²
A206	1 + DEN	76 m²
A207	2 BEDROOM	76 m²
A209	3 BEDROOM	88 m²
A210	3 BEDROOM	86 m²
A212	2 BEDROOM	76 m²
A213	2 BEDROOM	76 m²
B201	2 BEDROOM	77 m²
B202	2 BEDROOM	76 m²
B203	2 BEDROOM	78 m²
B205	1 + DEN	76 m²
B206	1 + DEN	77 m²
B207	2 BEDROOM	76 m²
B210	3 BEDROOM	86 m²
B211	2 BEDROOM	86 m²
B214	2 BEDROOM	76 m²
B215	2 BEDROOM	77 m²
A05	1 + DEN	77 m²
A301	2 BEDROOM	77 m²
A302	2 BEDROOM	76 m²
A303	2 BEDROOM	78 m²
A306	1 + DEN	76 m²
A307	2 BEDROOM	76 m²
A309	3 BEDROOM	86 m²
A310	3 BEDROOM	86 m²
A312	2 BEDROOM	76 m²
A313	2 BEDROOM	76 m²
B301	2 BEDROOM	77 m²
B302	2 BEDROOM	76 m²
B303	2 BEDROOM	78 m²
B305	1 + DEN	76 m²
B306	1 + DEN	77 m²
B307	2 BEDROOM	76 m²
B310	3 BEDROOM	86 m²
B311	3 BEDROOM	86 m²
B314	2 BEDROOM	76 m²
B315	2 BEDROOM	76 m²
A405	1 + DEN	77 m²
A406	1 + DEN	76 m²
A407	2 BEDROOM	76 m²
B405	1 + DEN	77 m²
B406	1 + DEN	76 m²
B407	2 BEDROOM	76 m²
B410	3 BEDROOM	86 m²
B411	3 BEDROOM	86 m²
B414	2 BEDROOM	76 m²
B415	2 BEDROOM	77 m²
B501	1 + DEN	76 m²
B502	2 BEDROOM	76 m²
B509	2 BEDROOM	76 m²
B510	2 BEDROOM	76 m²
SUBTOTAL: 72		5565 m²

AREA SCHEDULE - 45m2 TO 70m2

NAME	OCCUPANCY	AREA m2
A104	STUDIO	38 m²
A108	1 BEDROOM	53 m²
B104	1 BEDROOM	65 m²
B105	1 BEDROOM	63 m²
B107	1 + DEN	65 m²
B108	1 BEDROOM	52 m²
B112	1 + DEN	65 m²
A204	STUDIO	38 m²
A208	1 + DEN	65 m²
B204	1 BEDROOM	65 m²
B208	1 + DEN	65 m²
B209	1 + DEN	65 m²
B213	1 + DEN	65 m²
A304	STUDIO	38 m²
A308	1 + DEN	65 m²
B304	1 BEDROOM	65 m²
B308	1 + DEN	65 m²
B309	1 + DEN	65 m²
B313	1 + DEN	65 m²
A401	STUDIO	52 m²
A402	1 BEDROOM	62 m²
A403	1 BEDROOM	63 m²
A404	STUDIO	55 m²
A408	1 + DEN	65 m²
A409	1 BEDROOM	57 m²
A410	1 BEDROOM	57 m²
A412	1 BEDROOM	62 m²
A413	1 BEDROOM	62 m²
B401	STUDIO	51 m²
B402	1 BEDROOM	62 m²
B403	1 BEDROOM	63 m²
B404	1 BEDROOM	65 m²
B408	1 + DEN	65 m²
B409	1 + DEN	65 m²
B413	1 + DEN	65 m²
B503	1 + DEN	65 m²
B504	1 + DEN	65 m²
B505	1 BEDROOM	57 m²
B506	1 BEDROOM	57 m²
B508	1 + DEN	65 m²
B601	1 BEDROOM	62 m²
B602	1 BEDROOM	62 m²
B603	1 BEDROOM	52 m²
B604	1 BEDROOM	52 m²
B605	1 BEDROOM	57 m²
B606	1 BEDROOM	57 m²
B608	1 BEDROOM	62 m²
B609	1 BEDROOM	62 m²
B610	1 BEDROOM	62 m²
SUBTOTAL: 49		2978 m²

1 | FLOOR PLAN - PARKADE
1 : 200

0m 4m 8m 12m 16m 20m
VISUAL SCALE 1:200 @ Arch D

continuum ARCHITECTURE
519 PANDORA AVENUE, VICTORIA, B.C. V8W 1N5 +1 250 388 4261

PRIMEX INVESTMENTS

No.	Description	Date
2	REISSUED FOR REZONING	2020-07-03
1	ISSUED FOR REZONING	2020-04-03

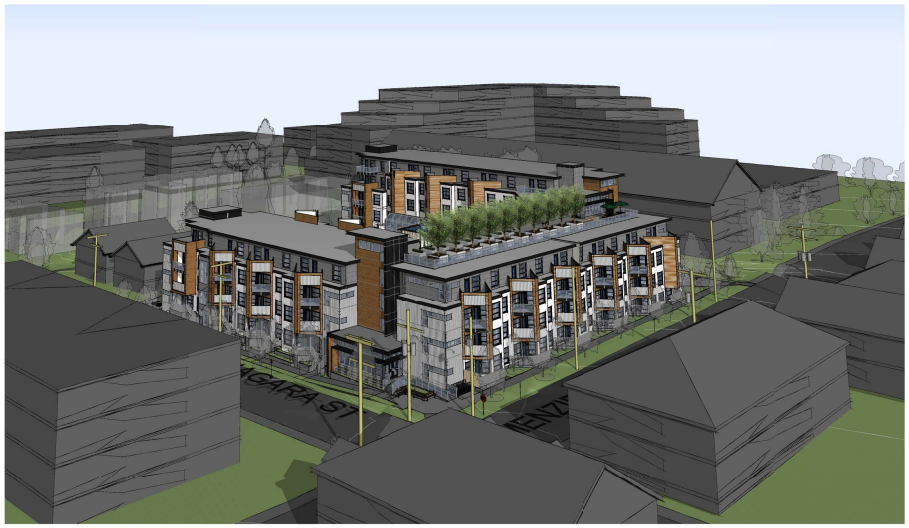
VILLAGE GREEN RESIDENTIAL COMPLEX

110 MENZIES ST, VICTORIA BC V8V 1H1

PARKADE PLAN

A-2.0

JOB No.: 1933 SCALE: As indicated DATE: 2020/11/19



1 | 3D BIRD'S EYE - SOUTH

2 | 3D BIRD'S EYE - WEST

3 | 3D BIRD'S EYE - NORTH

4 | 3D BIRD'S EYE - EAST

continuum
ARCHITECTURE
519 PANDORA AVENUE, VICTORIA, B.C. V8W 1N5 +1 250 388 4261

PRIMEX INVESTMENTS

No.	Description	Date
2	REISSUED FOR REZONING	2020-12-19
1	ISSUED FOR REZONING	2020-04-03

VILLAGE GREEN RESIDENTIAL COMPLEX

110 MENZIES ST, VICTORIA BC V8V 1H1

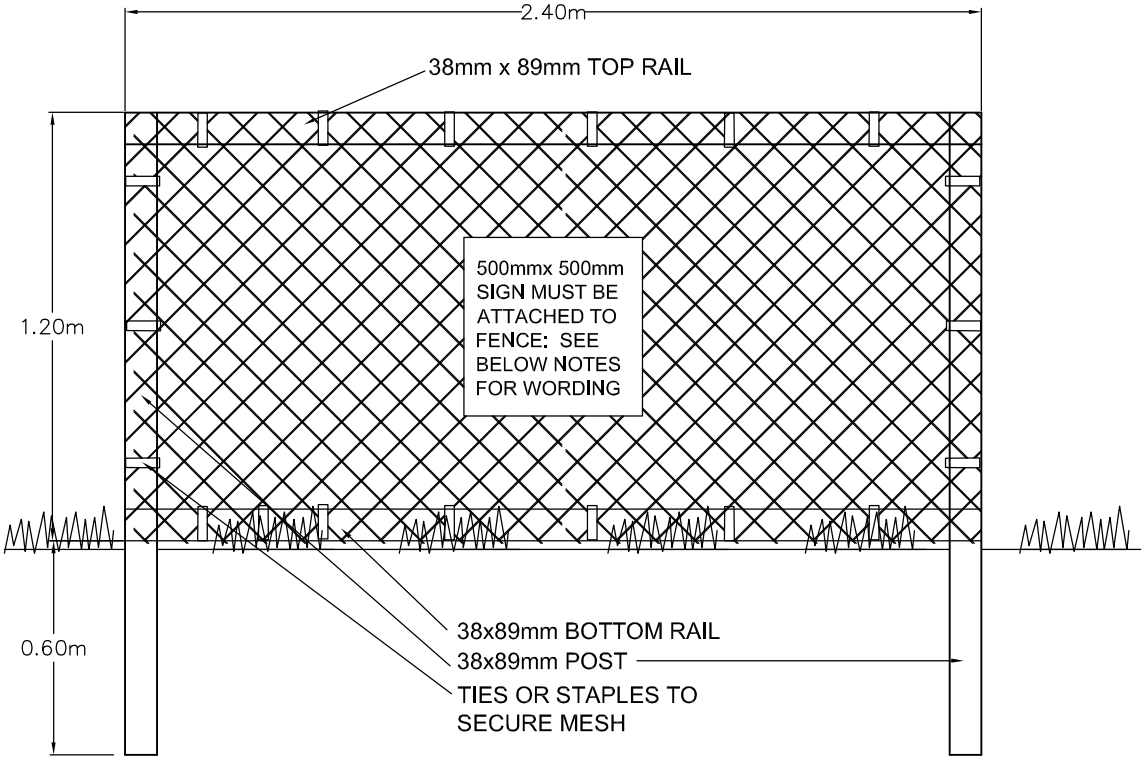
BIRD'S EYE 3D VIEWS

A-5.1

JOB No.: 1933

SCALE:

DATE: 2020/11/19



TREE PROTECTION FENCING

1. FENCE WILL BE CONSTRUCTED USING 38 mm X 89mm WOOD FRAME: TOP, BOTTOM AND POSTS * USE ORANGE SNOW-FENCING MESH AND SECURE THE WOOD FRAME WITH"ZIP" TIES OR GALVANIZED STAPLES.

2. ATTACH A 500mm X 500mm SIGN WITH THE FOLLOWING WORDING: WARNING- TREE PROTECTION AREA. THIS SIGN MUST BE AFFIXED ON EVERY FENCE OR AT LEAST EVERY 10 LINEAR METERS.

* IN ROCKY AREAS, METAL POSTS (T-BAR OR REBAR) DRILLED INTO ROCK WILL BE ACCEPTED

Talbot Mackenzie & Associates
Consulting Arborists

Box 48153 RPO - Uptown Victoria, BC V8Z 7H6
Ph: (250) 479-8733
Fax: (250) 479-7050
Email: tmtreehelp@gmail.com

Tree Resource Spreadsheet Methodology and Definitions

Revised November 28, 2019

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 generally not tagged ("NT #").

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.
~ Approximate due to inaccessibility or on neighbouring property

Crown Spread: Indicates the diameter 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 local 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

This method is solely a mathematical calculation that does not consider factors such as restricted root growth, limited soil volumes, age, crown spread, health, or structure (such as a lean). To calculate the critical root zone of trees with multiple stems below 1.4m, the diameter is considered the sum of 100% of the diameter of the largest stem and 60% of the diameter of the next two largest stems. This however can result in multi-stem trees having exaggerated CRZs. Where noted, sometimes the CRZ for trees with multiple stems will be calculated using the diameter of the trunk below the unions. In specific cases, some CRZs will be approximate (~).

Note that in most cases, our inventories include a Level 1 Limited Visual Assessment, which only comprises a brief assessment to identify obvious defects and conditions. The inspection may have only been completed from one-side of the tree, depending on the defined scope of work, property lines and/or site conditions.

Health Condition:

- Poor – Tree is weak, under significant stress and/or declining
- Fair – Tree has average vigour for its species and site conditions
- Good – Tree is growing well and appears to be free of significant health stress

Structural Condition:

- Poor – Significant structural defects observed
- Fair – Moderate to minor structural concerns; mitigation measures likely feasible
- Good - No visible or only minor structural concerns

Retention Status:

- Removal (or "X)- 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
- TBD (To Be Determined) - The impacts on the tree could be significant. However, in the absence of exploratory excavations and in an effort to retain as many trees as possible, we recommend that the final determination be made by the supervising project arborist at the time of excavation. The tree might be possible to retain depending on the location of roots and the resulting impacts, but concerned parties should be aware that the tree may require removal.