



Talbot Mackenzie & Associates

Consulting Arborists

1301 Hillside Ave, Victoria

Construction Impact Assessment &

Tree Preservation Plan

Prepared For: Abstract Developments Inc.
301-1106 Cook St.
Victoria, BC V8V 3Z9

Prepared By: Talbot, Mackenzie & Associates
Michael Marcucci
ISA Certified # ON-1943A
TRAQ – Qualified

Date of Issuance: May 31, 2019
Revised: September 13, 2019

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Jobsite Property: 1301 Hillside Ave, Victoria, BC
Date of Site Visit: May 29, 2019
Site Conditions: Empty lot. No ongoing construction activity.

Summary:

- The proposal is to construct a six storey building
- In an attempt to reduce tree impacts, the plans have been revised to shift the building farther away from the three bylaw protected Garry Oak trees near the north-east corner of the property (#3, 4, and 7)
- Despite the revised plans, significant health and stability impacts are still possible for the oak #3 (60cm DBH) located on the neighbouring property and oak #4 (~50cm DBH, potentially shared with the neighbour, fair/poor health)
- There is a good chance that the neighbour's oak #7 (30cm DBH, fair/poor health) can be retained, but significant impacts are still a possibility.
- Municipal Paper Birch #6 (33cm DBH) will likely require removal due to the installation of services
- Relatively minor clearance pruning will be required for Garry Oak #2; the tree currently appears to be in poor health.

Scope of Assignment:

- To inventory the existing bylaw protected trees 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 construct a six storey building
- Comment on how construction activity may impact existing trees
- 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 and prepared an inventory in the attached Tree Resource Spreadsheet.
- Trees were not tagged, but were assigned identification numbers
- 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 are based on the information provided within the attached plans from Steward Howard Architects Inc (dated 2019.09.12) and the Preliminary Site Servicing Plan (Calid Engineering, 2019.09.04)
- A Tree Protection Site Plan was created by adding comments and labels to the site plan provided

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.
- The height and location of the canopies have not been surveyed. All pruning requirements and potential canopy loss percentages are estimations taken from the ground. The diameter of the cuts will depend on where the reduction or removal cuts are made. It is often difficult to estimate the amount of canopy loss without knowing the exact laterals that will be cut back to, which we recommend be determined at the framing stage.
- Where trees were not surveyed on the plans provided, we have added their approximate locations. The accuracy of our estimated locations has not been verified by a professional surveyor.
- The location of underground hydro and telecommunications services is not shown and the servicing plan is labelled as "Preliminary for Discussion Only."

Summary of Tree Resource: One bylaw protected tree exists on the subject property and may be shared with the neighbour (Garry Oak #4). A Paper Birch (#6) exists on the municipal frontage. The remaining 6 trees inventoried are Garry Oaks solely on the neighbour's property (The Cridge Centre for the Family).

Trees to be Removed

Paper Birch #6 (~33cm DBH) – This tree will require removal due to the proposed 15cm water service less than one metre west of its trunk. The location of the underground hydro has not been shown, but the hydro PMT is close to the tree indicating this will also likely be an additional impact.

Trees Potentially to be Removed

Garry Oak #3 (~55cm DBH) – The trunk of this neighbour's tree is located slightly less than 1m from the property line where there is an abrupt grade change. The revised plans have shifted the building farther from the property line north-west of this tree, thus increasing the chances of retaining this tree. However, the tree may still require removal due to the root loss anticipated approximately 1m directly west of the tree for the foundation excavation (located south-west of the tree at the property line). Significant canopy pruning is still expected for building clearance.

A short (<30cm tall) garden bed wall/curb runs parallel to the property line approximately 1-2m off the existing fence. It is possible that this has restricted some root growth, however the foundation and foundation excavation will extend to the property line into this raised bed directly west and south-west of the tree.

Despite these impacts, the applicant would like to make an attempt at retaining the tree. If retention is to be attempted, we recommend the excavation be supervised by the project arborist and the final determination of its retention viability be made at that time. The neighbour should be notified of the potential impacts to their trees.

Garry Oak #4 (~50cm DBH) – The existing survey shows this tree on the subject property; it is possible the base of the tree crosses the property line and therefore may be under shared ownership. During our site visits in September 2019, it was observed that the tree appears to be under health stress with a sparse canopy.

The revised plans have shifted the building so that the foundation is now approximately 1.5m from the trunk of the tree (instead of within the wall of the building). Despite this change, it is still possible the tree will require removal as a result of the root loss for the foundation excavation, which will be 1m west from the trunk or less (a minimum of 0.5m is typically required for working room). The short retaining wall/curb (<30cm tall) is located approximately 1m from the trunk of the tree at approximately the same location and could be restricting some root growth away from the excavation.

A significant portion of the canopy will also require removal for building clearance; the second level is almost to the trunk of the tree and is 2.5m above existing grade (34.45m elevation, existing 32.02m). The six-storey portion of the building is 3m west of the tree.

Despite the canopy reduction and potential impacts, the applicant has indicated they would like to make an attempt at retaining the tree. The project arborist should supervise the excavation and make the final determination as to its retention viability at that time.

Garry Oak #7 (30cm DBH)

This neighbour's tree is located 1.5-1.8m from the property boundary where similar to oak #3, there appears to be an abrupt grade change. The tree is leaning significantly east (away from the subject property) and therefore no clearance pruning will be required. However, the stairwell will likely require a foundation and the corner is located 1m from the property line. Excavation will therefore be 0.5m or less from the property line and therefore potentially 1.5-2.3m from the tree on the side opposite its lean.

The ground beside the tree on both sides of the fence is obscured by ivy and therefore the topography in this area is somewhat unknown. The existing short (<30cm tall) garden bed wall/curb that runs parallel to the property line may restrict some root growth, but excavation will likely intrude into this area. Soil volumes are likely limited due to the presence of rock, which increases the chances of roots being encountered. We believe the tree has a good chance at being retained, but health and stability impacts are still a possibility. Its current health is fair/poor with a sparse canopy and epicormic growth.

Restricting the extent of excavation and working room required to construct the stairwell foundation may aid in the retention of this tree. The project arborist should supervise the excavation and make the final determination of its retention at that time.

Impacts on Trees to be Retained

Garry Oaks #5 (group of neighbour's oaks, 15-20cm at DBH)

The canopy from this group of trees leans over the existing driveway entrance and sidewalk. At a minimum, clearance pruning will likely be required for pedestrian sidewalk access. During construction, if vehicles and machinery are using this existing driveway, the canopy of these trees could be damaged. Limbs of the following sizes may require removal: 7cm, 5cm, and two 3cm. The applicant has indicated they are willing to limit vehicle access from this driveway. However, installing protective fencing to block off the east portion of the driveway is limited to only one side to avoid blocking the sidewalk and pedestrian traffic. We recommend the municipality confirm their desired clearance pruning height for the sidewalk and that this pruning be completed prior to the start of construction, and this will inform the decision whether a barricade or other methods are necessary to protect the remaining canopy.

Garry Oak #1 (63cm, neighbour's)

This neighbour's tree is located 2.9m south from the curb/retaining wall along the property line. The revised plans have shifted the parking lot farther away from this tree so that it now ends 4m north-east of the tree.

The finished grade of the parking surface has not been finalized. We do not anticipate a significant amount of roots will be encountered close to the surface, but if roots are encountered prior to bearing soil being reached, the supervising project arborist may recommend the specifications

outlined in the “Paving Above Tree Roots” section be followed. We recommend the future grading plans allow enough space for the paving material and the base layers to be installed above existing grade in case surface roots are encountered. The same recommendations would apply for the sidewalk replacement.

If removal of the existing wall/curb is required, we recommend the project arborist supervise its removal. We recommend the wall/curb and the pavement north of it be left in place and removed towards the end of construction to protect potential roots below them. Removal of the existing water service should also be completed under arborist direction.

Minimal to no pruning for building clearance is anticipated for this tree as the building is located 6m east from the tree. During our most recent site visit, we observed that the tree is in a state of health stress with a sparse canopy and twig dieback throughout its crown.

Garry Oak #2 (~45cm, neighbour's)

During our most recent site visit, we observed that this tree is in poor health, with significant health stress evident. The canopy of the tree is sparse and there is twig dieback through the canopy of the tree.

Root loss is not anticipated from this neighbour's oak, located 5-6m from the property line where a retaining wall is present. The canopy of the tree leans towards the subject property and overhangs the property line by 4.3m. Two 3-4cm lower limbs may conflict with desired clearance for the second floor rear deck. The upper canopy above these limbs can likely be retained above the deck with minimal clearance issues. Three 2-3cm limbs from the upper canopy will require pruning if 1m of building clearance is desired for the second storey building, located 4.2m from the property line.

If scaffolding is required, this will require significantly more clearance pruning. The applicant has informed us that they are willing to avoid using scaffolding in this section of the building, as per our recommendations in the “scaffolding” section below.

We recommend pruning be completed during the framing stage of the project, so that it can be determined exactly what branches will require reduction or removal. The final cuts should be made by an ISA Certified Arborist.

Other Mitigation Measures

- **Arborist Supervision:** All excavation occurring within the critical root zones of protected trees should be completed under supervision by the project arborist. In particular, the following activities should be completed under the direction of the project arborist:
 - Garry Oak #1
 - Sidewalk replacement
 - Water service removal,
 - Removal of existing pavement and retaining wall (if required)
 - Excavation associated with the parking stalls and building foundation within its CRZ
 - Garry Oaks #3, 4 & 7: Excavation associated with the building foundation and removal of the existing fence pilings.
 - Installation of any underground services within the CRZ of retained trees
- **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, as shown on the Tree Protection Site Plan. 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 of the following methods:

- Installing a layer of hog fuel or coarse wood chips at least 20 cm in depth and maintaining it in good condition until construction is complete.
 - Placing medium weight geotextile cloth over the area to be used and installing a layer of crushed rock to a depth of 15 cm over top.
 - Placing two layers of 19mm plywood.
 - Placing steel plates.
- **Removal of Existing Services:** Any existing 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 access, barrier fencing must be erected immediately after the supervised removal.
 - **Paved Surfaces Above Tree Roots:**

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

The objective is to avoid root loss and to instead raise the paved surface and its base layer above the roots. This may result in soils which are high in organic content being left intact below the paved area.

To allow water to drain into the root systems below, if roots are encountered, we may recommend that the surface be made of a permeable material (instead of conventional asphalt or concrete) such as permeable asphalt, paving stones, or other porous paving materials and designs such as those utilized by Grasspave, Gravelpave, Grasscrete and open-grid systems.

- **Mulching:** Mulching can be an important proactive step in maintaining the health of trees and mitigating construction related impacts and overall stress. Mulch should be made from a natural material such as wood chips or bark pieces and be 5-8cm deep. No mulch should be touching the trunk of the tree. See “methods to avoid soil compaction” if the area is to have heavy traffic.
- **Blasting:** Care must be taken to ensure that the area of blasting does not extend beyond the necessary footprints and into the critical root zones of surrounding trees. The use of small low-concussion charges and multiple small charges designed to pre-shear the rock face will reduce fracturing, ground vibration, and overall impact on the surrounding environment. Only explosives of low phytotoxicity and techniques that minimize tree damage should be used. Provisions must be made to ensure that blasted rock and debris are stored away from the critical root zones of trees.
- **Scaffolding:** This assessment has not included impacts from potential scaffolding including canopy clearance pruning requirements. If scaffolding is necessary and this will require

clearance pruning of retained trees, the project arborist should be consulted. Depending on the extent of pruning required, the project arborist may recommend that alternatives to full scaffolding be considered such as hydraulic lifts, ladders or platforms. Methods to avoid soil compaction may also be recommended (see "Minimizing Soil Compaction" section).

- **Landscaping and Irrigation Systems:** The planting of new trees and shrubs should not damage the roots of retained trees. The installation of any in-ground irrigation system must take into account the critical root zones of the trees to be retained. Prior to installation, we recommend the irrigation technician consult with the project arborist about the most suitable locations for the irrigation lines and how best to mitigate the impacts on the trees to be retained. This may require the project arborist supervise the excavations associated with installing the irrigation system. Excessive frequent irrigation and irrigation which wets the trunks of trees can have a detrimental impact on tree health and can lead to root and trunk decay.
- **Arborist Role:** It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:
 - Locating the barrier fencing
 - Reviewing the report with the project foreman or site supervisor
 - Locating work zones, where required
 - Supervising any excavation within the critical root zones of trees to be retained
 - Reviewing and advising of any pruning requirements for machine clearances
- **Review and site meeting:** Once the project receives approval, it is important that the project arborist meet with the principals involved in the project to review the information contained herein. It is also important that the arborist meet with the site foreman or supervisor before any site clearing, tree removal, demolition, or other construction activity occurs and to confirm the locations of the tree protection barrier fencing.

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

Encl. 1-page tree resource spreadsheet, 1-page site plan with trees, 17-page building plans, 1-page Paved Surfaces Above Root Systems specification, 2-page tree resource spreadsheet methodology and definitions

Talbot Mackenzie & Associates

Disclosure Statement

The tree inventory attached to the Tree Preservation Plan can be characterized as a limited visual assessment from the ground and should not be interpreted as a "risk assessment" of the trees included.

Arborists are professionals who examine trees and use their training, knowledge and experience to recommend techniques and procedures that will improve their 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. It is not possible for an Arborist to identify every flaw or condition that could result in failure or can he/she guarantee that the tree will remain healthy and free of risk.

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.

May 29, 2019

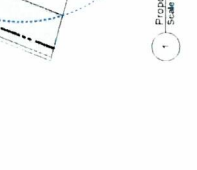
*Comment added, site visit September 12, 2019

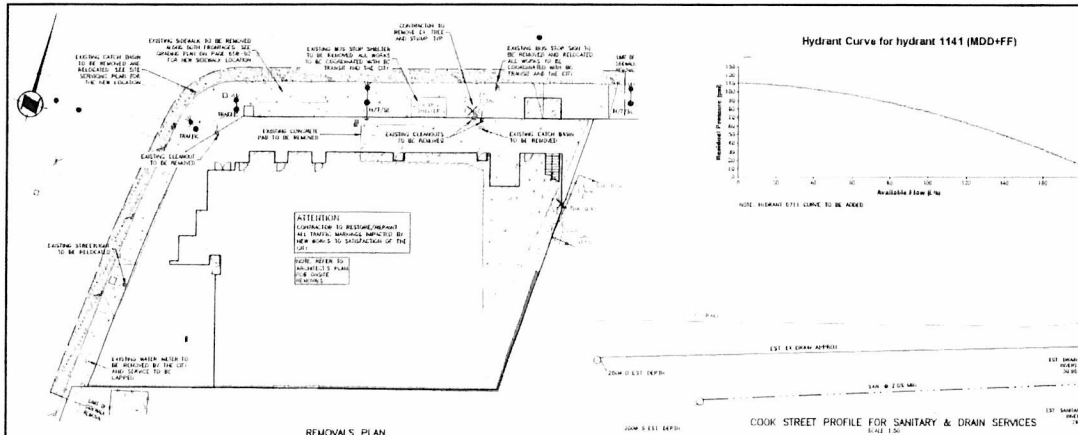
1301 Hillside Ave, Victoria
Tree Resource Spreadsheet

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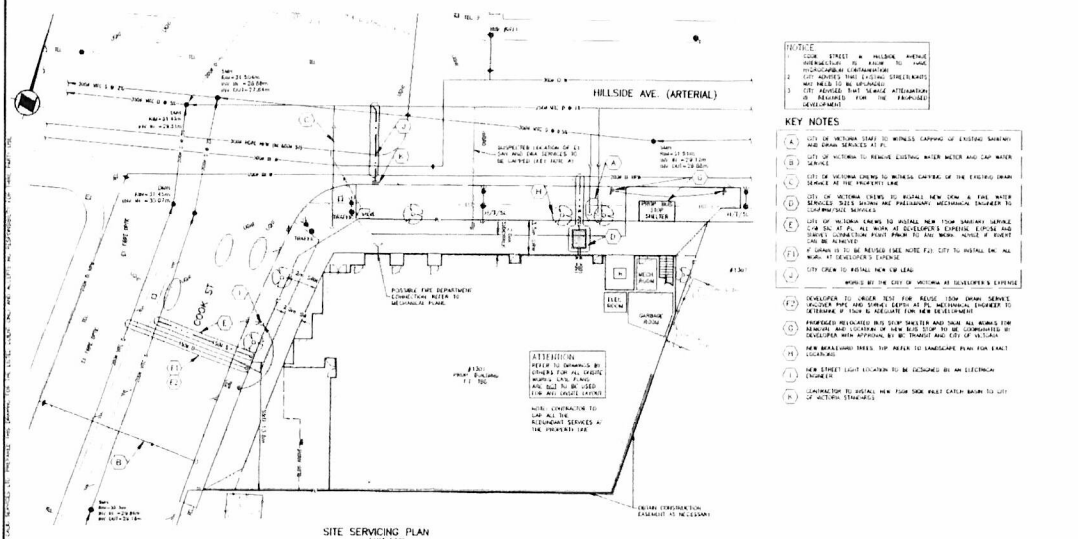
Tree ID	Common Name	Latin Name	DBH (cm) - approximate	Crown Spread (diameter in metres)	CRZ (radius in metres)	Relative Tolerance	Health	Structure	Remarks and Recommendations	Bylaw Protected	Retention Status
1	Garry Oak	<i>Quercus garryana</i>	63.0	13.0	6.5	G	Poor	Fair	Neighbour's. 2.9m from curb/retaining wall along property line. Sparse canopy with twig dieback throughout and limb dieback. Epicormic growth	Protected	Retain
2	Garry Oak	<i>Quercus garryana</i>	~45	13.0	4.5	G	Poor	Fair	Neighbour's, 5-6m from PL. Sparse canopy with significant dieback throughout. Asymmetric canopy and leaning with limbs overhanging subject property by 4m	Protected	Retain
3	Garry Oak	<i>Quercus garryana</i>	60.0	14.0	6.0	G	Fair	Fair	Neighbour's. Tag #52. Base obscured by fence and ivy. Some epicormic growth. Crossing limbs.	Protected	TBD - Potential Removal
4	Garry Oak	<i>Quercus garryana</i>	~50	13.0	5.0	G	Fair	*Fair/poor	On subject property or potentially shared. Epicormic growth. *Sparse canopy, stunted growth. Twig dieback. Deadwood and branch stubs.	Protected	TBD - Potential Removal
5	Garry Oak	<i>Quercus garryana</i>	~15-20	8.0	2.0	G	Fair	Fair	Neighbour's. Significant insect defoliation on some trees.	Protected	Retain*
6	Paper Birch	<i>Betula papyrifera</i>	33.0	10.0	4.0	M	Fair	Fair	Municipal tree (ID# 22391). V-pruned for hydro lines. Minor twig dieback	No	Removal
7	Garry Oak	<i>Quercus garryana</i>	30.0	5.0	3.0	G	Fair/Poor	Fair/Poor	Neighbour's. Tag #54. Leaning east. Sparse canopy with epicormic growth.	Protected	TBD - Potential Removal
8	Garry Oak	<i>Quercus garryana</i>	~50	10.0	5.0	G	Poor	Fair	Neighbour's, 6m from PL. Significant dieback throughout and epicormic growth	Protected	Retain

Prepared by:
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- GENERAL NOTES**
1. ALL CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 2. ALL UTILITY LINES ARE TO BE MAINTAINED TO ORIGINAL OR BETTER CONDITION BY THE CONTRACTOR.
 3. SERVICES ON AND OFF SITE ARE TO BE MAINTAINED AND COMPLETED BY THE CONTRACTOR TO COMPLY WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 4. ALL WORK IS TO BE COMPLETED BY THE CONTRACTOR IN SUCH A MANNER AS TO PREVENT THE RELEASE OF POLLUTANT LARVAE INTO THE WATERWAYS OF THE CITY OF VICTORIA.
 5. ALL CONSTRUCTION AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 6. REVISIONS TO THE ORIGINAL DESIGN AND CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 7. ELECTRICAL/TELEPHONE LINES SHALL BE MAINTAINED AND COMPLETED BY THE CONTRACTOR TO COMPLY WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 8. CONSTRUCTION OF LATERAL LINES OF PROPOSED UNDERGROUND SERVICES SHALL BE COMPLETED BY THE CONTRACTOR TO COMPLY WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 9. CONSTRUCTION OF PROPOSED SERVICES SHALL BE COMPLETED BY THE CONTRACTOR TO COMPLY WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 10. ALL UTILITY REPAIRS SHALL BE COMPLETED BY THE CONTRACTOR TO COMPLY WITH THE CITY OF VICTORIA SPECIFICATIONS AND STANDARDS, UNLESS OTHERWISE SPECIFIED AND LATEST EDITION OF THE B.C. STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 11. THE CONTRACTOR TO MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND SERVICES.
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KEY NOTES

1. CITY OF VICTORIA TO MAINTAIN EXISTING SANITARY AND DRAIN SERVICES.
2. CITY OF VICTORIA TO MAINTAIN EXISTING WATER MAIN AND SANITARY MAIN.
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UNDERGROUND SERVICE INFORMATION

UTILITY	DEPTH (mm)	DIAMETER (mm)	LENGTH (m)	DATE
WATER MAIN	1000	150	100	2020
SANITARY MAIN	1000	150	100	2020
TELEPHONE	1000	100	100	2020
POWER	1000	100	100	2020

BENCHMARK & ADDRESS

1301 Hillside Ave. Development
Off-site Servicing, Removals Plan & Notes
Client: Abstract Developments Ltd.

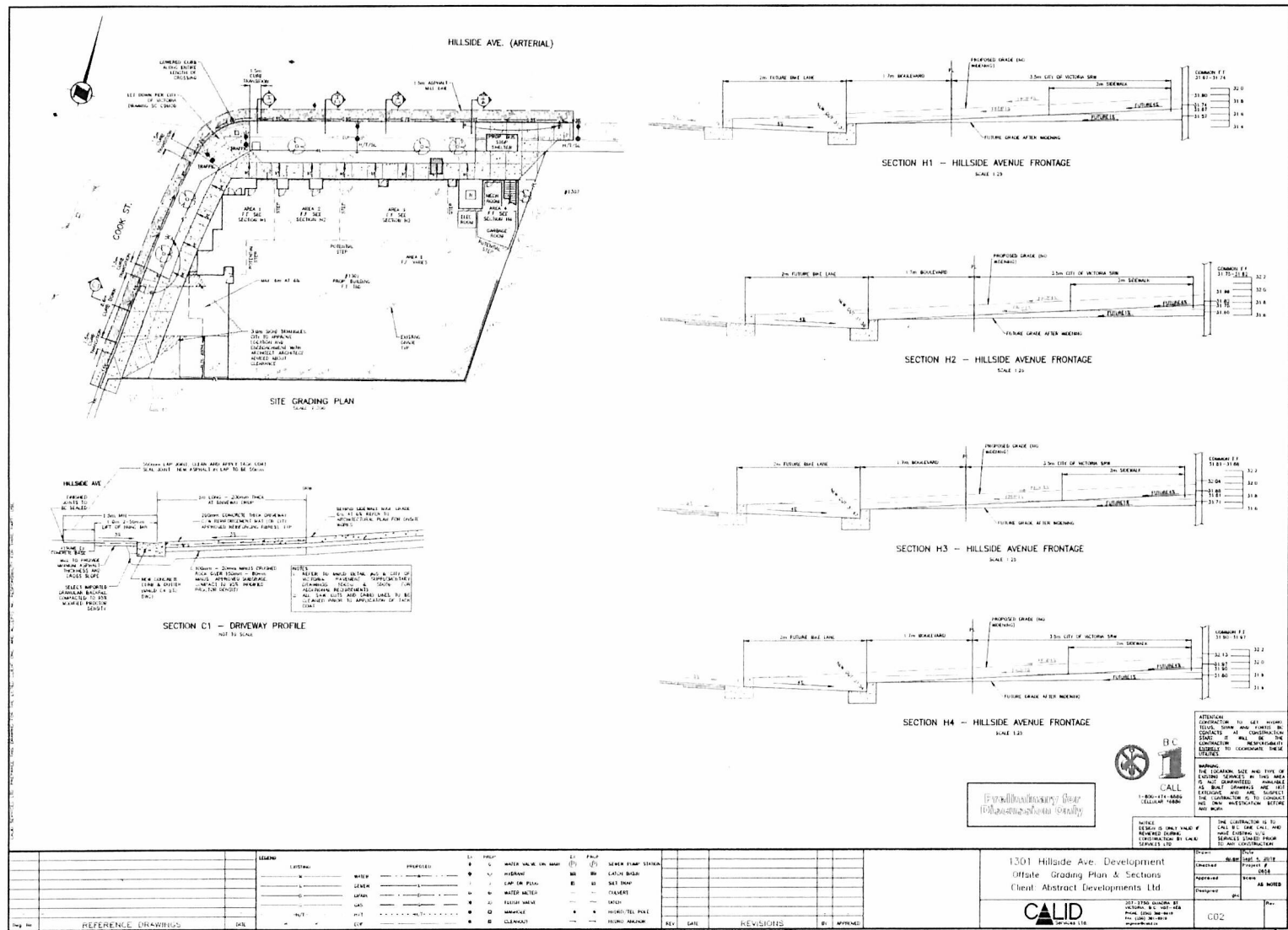
LEGAL DESCRIPTION & ADDRESS

1301 Hillside Ave. Development
Off-site Servicing, Removals Plan & Notes
Client: Abstract Developments Ltd.

KEY PLAN

1301 Hillside Ave. Development
Off-site Servicing, Removals Plan & Notes
Client: Abstract Developments Ltd.

NO.	DATE	REVISIONS	BY	APPROVED
1	2020	1	JD	JD
2	2020	2	JD	JD
3	2020	3	JD	JD
4	2020	4	JD	JD
5	2020	5	JD	JD
6	2020	6	JD	JD
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ARCHITECTURAL		
SWHSEI NO.	ANALYST TITLE	SCALE
A2-00	Course Sheet	As Issued
A2-01	Site Location	As Filed (E)
A2-02	Location Studies	As Filed
A1-01	Existing Site Plan	As Noted
A1-02	Site Plan	As Noted
A2-01	Main Floor Plan	As Noted
A2-02	2nd Floor Plan	As Noted
A2-03	3rd Floor Plan	As Noted
A2-04	4th Floor Plan	As Noted
A2-05	5th Floor Plan	As Noted
A2-06	6th Floor Plan	As Noted
A2-07	Roof Plan	As Noted
A1-01	Building Elevation	As Noted
A1-02	Building Elevation	As Noted
A1-03	Building Elevation	As Noted
A1-04	Building Elevation	As Noted
A1-05	Building Section	As Noted
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DEVELOPER
NVision Properties
301-1106 Cook St.
Victoria, BC
V8V 3Z9
1 250 883 5578

Stuart Howard Architects Inc.
405, 375 West 5th Avenue
Vancouver, BC
V5Y 1J6
604-688-5585

Murdoch & Grouff Inc.
200-524 Caldwell Road
Victoria, BC
V8Z 1G1
250-412-2891

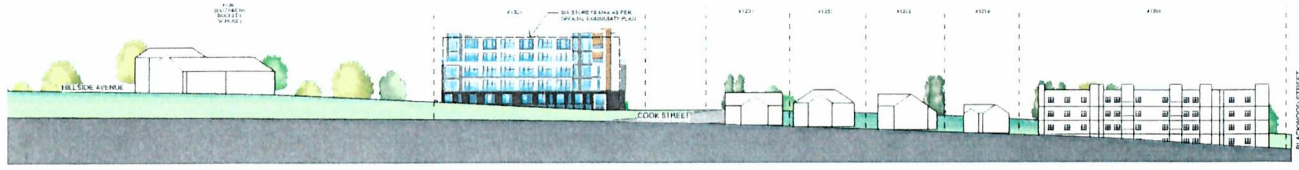
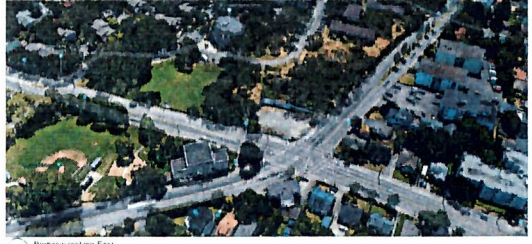
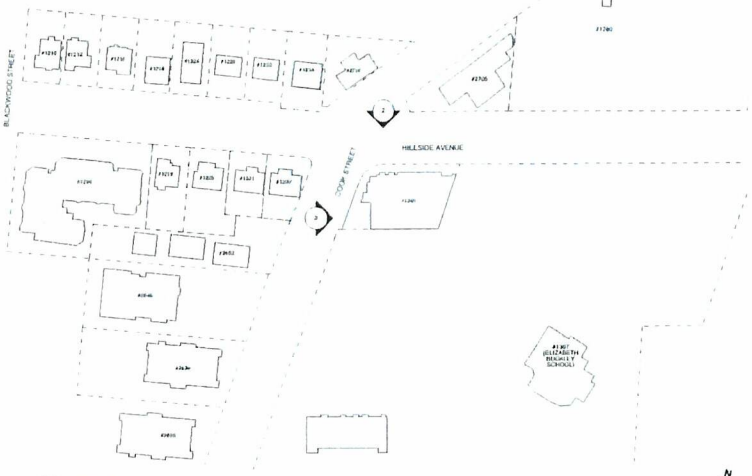
Powell & Associates
 250 2950 Douglas Street
 Victoria BC
 V8T 4N4
 250 362 8855



1301 HILLSIDE
1301 Hillside Ave.
Victoria, BC

REZONING APPLICATION

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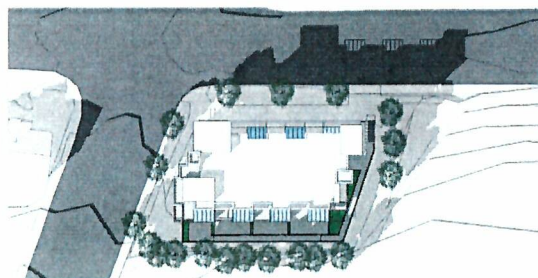
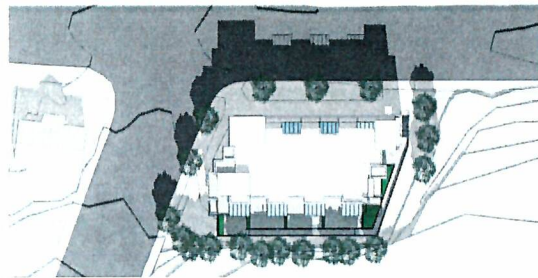
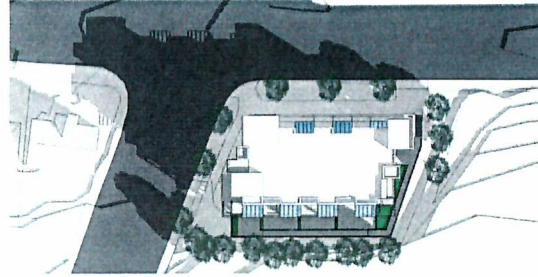
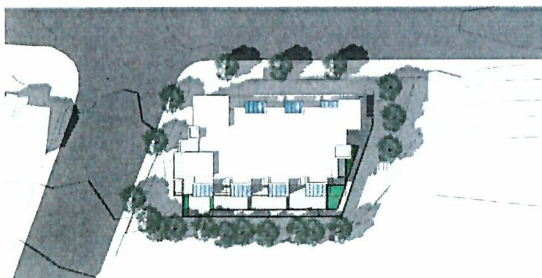
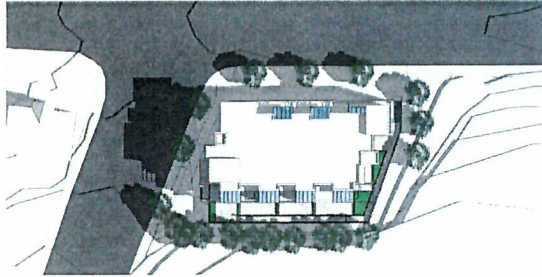


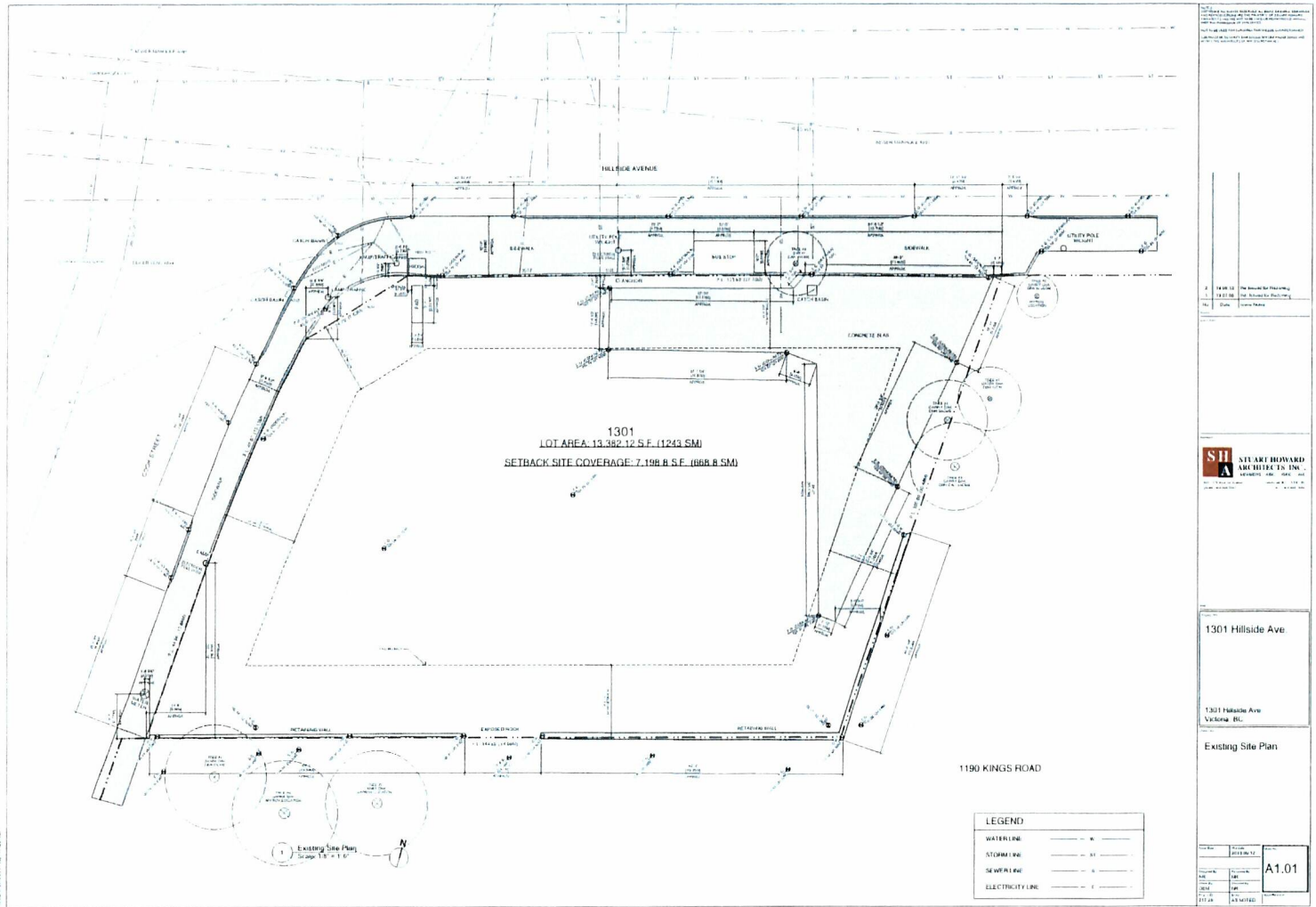
1301 Hillside Ave
Victoria, BC

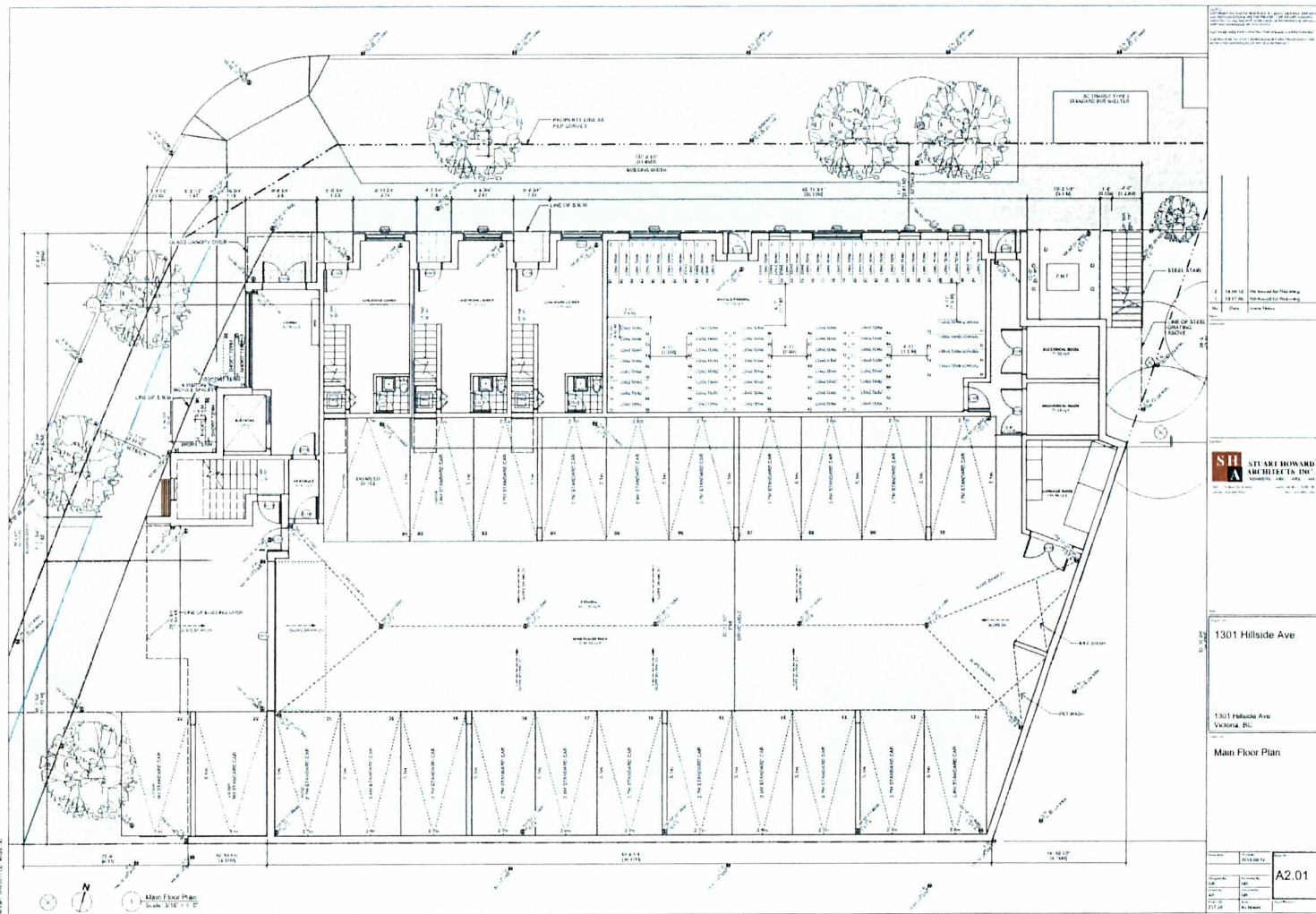
Site Context

Project	1301 Hillside Ave
Location	Victoria, BC
Scale	1/2" = 10'
Date	2018
Author	SH
Checker	SH
Drawn	SH
Notes	

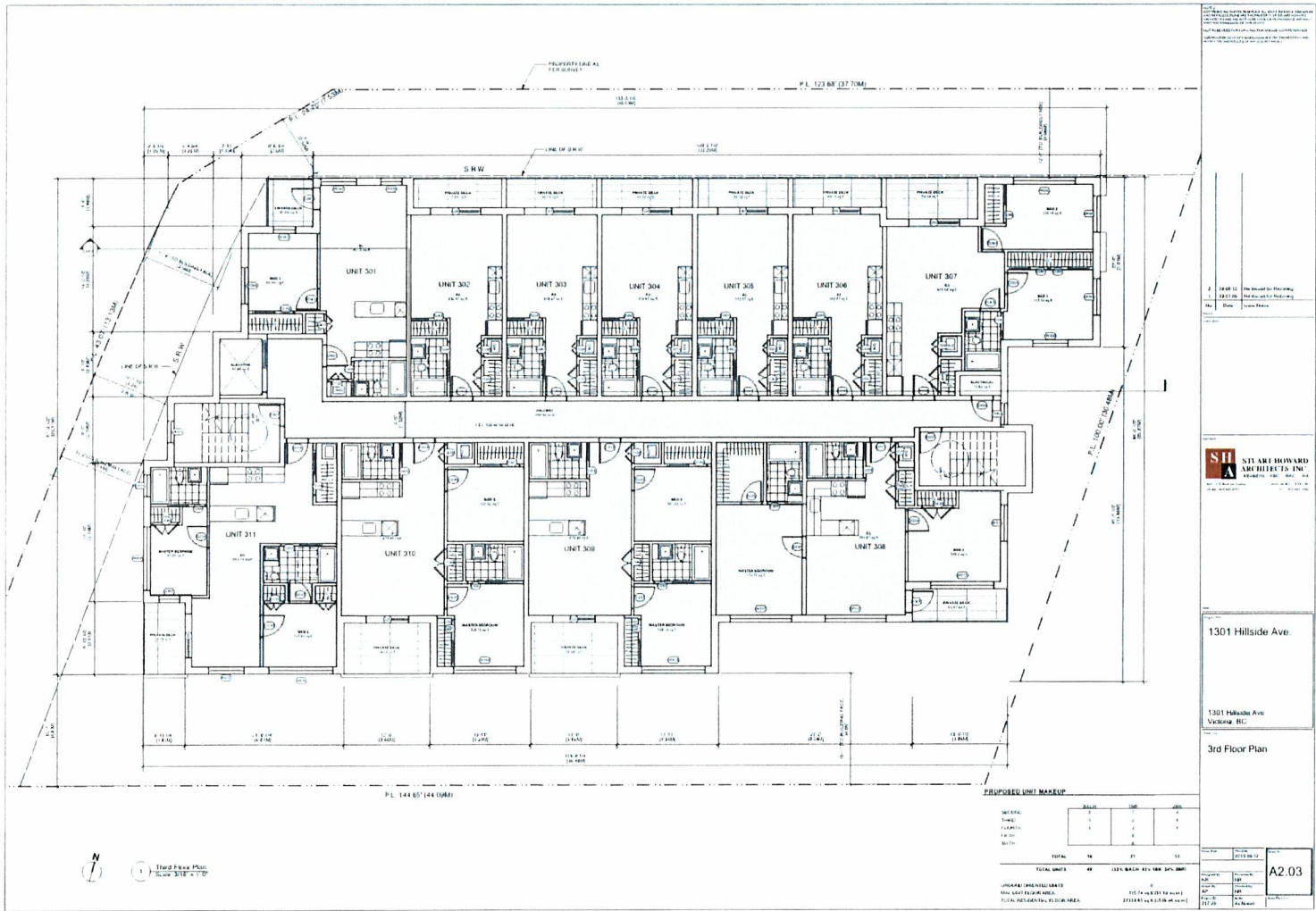
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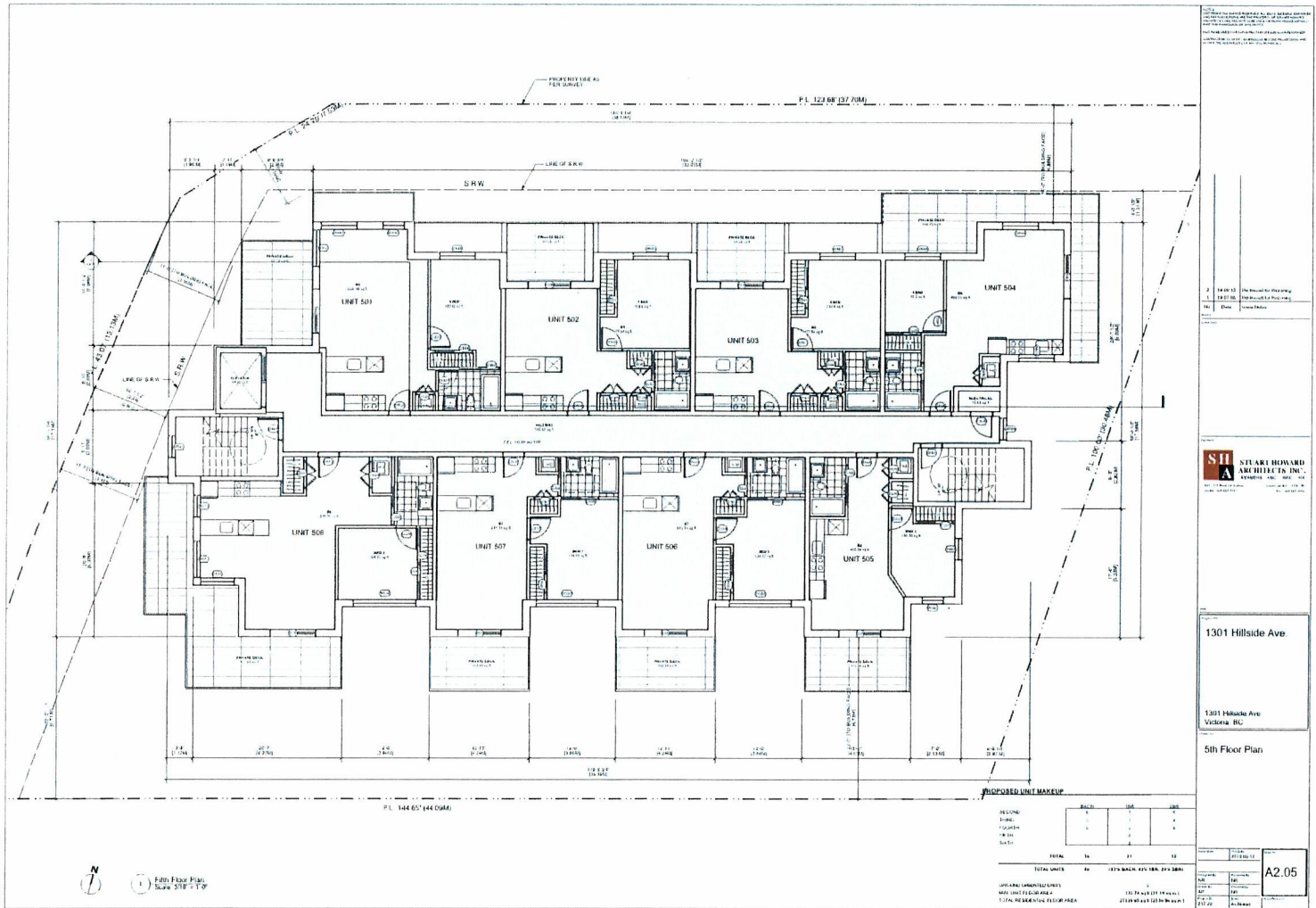


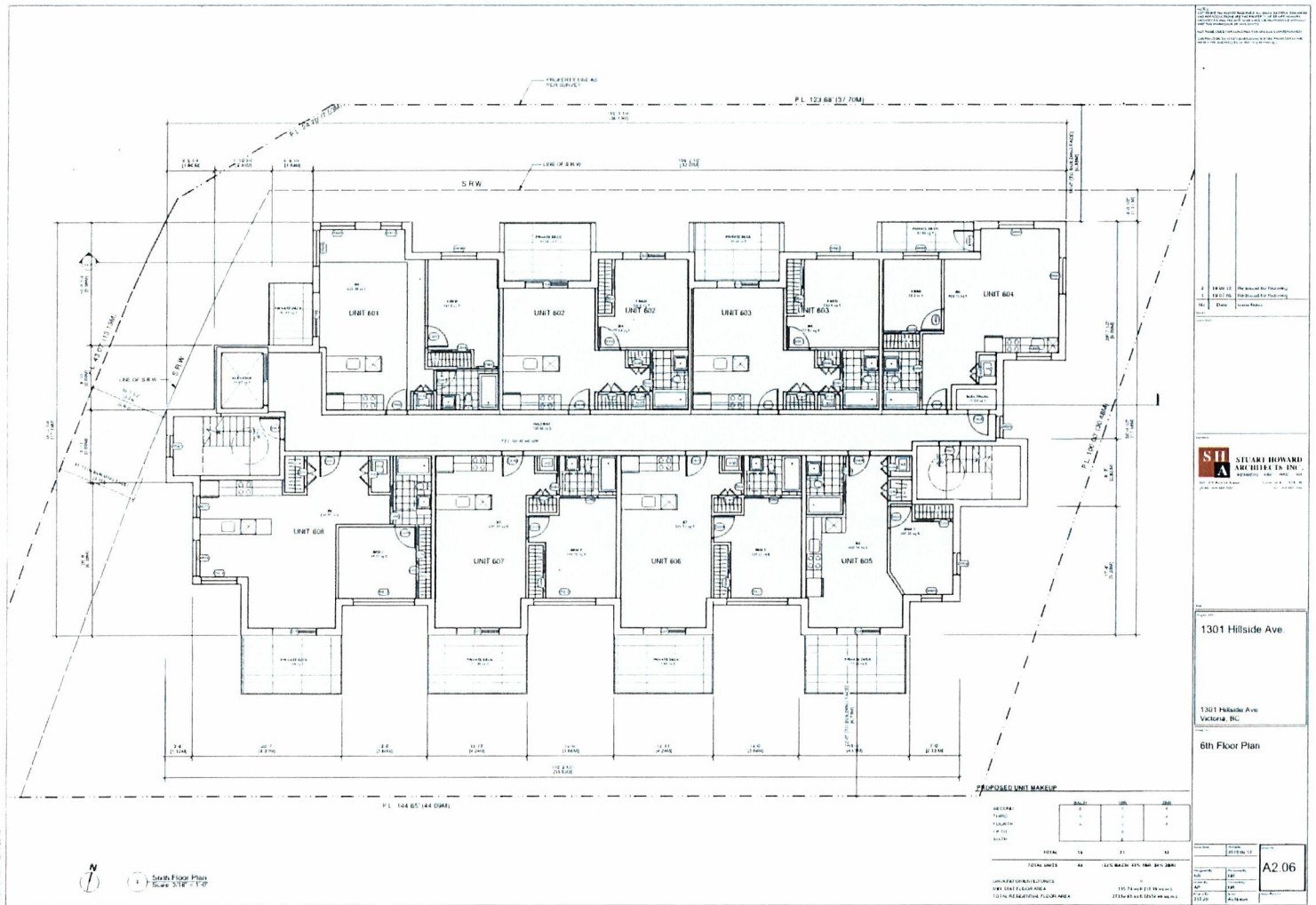












STUART HOWARD ARCHITECTS INC.
1301 Hillside Ave
Victoria, BC
6th Floor Plan

A2 06

EXTERIOR FINISH SCHEDULE

- 1. WHITE GRASSBOARD LAMINATE WALL/CEILING SYSTEM
- 2. FINISHMENT CLADDING UNDER FINISHMENT SYSTEM
- 3. METAL CLADDING BRIDGE FRAMES/PROPRIETARY WALL/CEILING SYSTEM
- 4. VINYL FRAME GLAZING
- 5. METAL CLADDING WHITE FINISH LOW POLYMER EASY MAINTENANCE SYSTEM
- 6. CLADDING WALL GLAZING
- 7. GLASS GLAZING
- 8. FINISHMENT BRIDGE FRAMES
- 9. VINYL FRAME
- 10. METAL CLADDING COOK
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- 100. METAL CLADDING COOK



1301 Hillside Ave.

1301 Hillside Ave.

Victoria, BC

Building Elevations

STUART HOWARD ARCHITECTS INC.

1301 Hillside Ave.

Victoria, BC

Phone: (250) 363-1111

Fax: (250) 363-1112

Email: info@stuart-howard.com

Project No. 1301 Hillside Ave.

Scale 1/8" = 1'-0"

Sheet No. A3.01

EXTERIOR FINISH SCHEDULE

- 1 WALL CLADDING: LIGHT PROPRIETARY PANELLED SYSTEM
- 2 FINISHED: CLADDING: GREY PROPRIETARY PANELLED SYSTEM
- 3 METAL CLADDING: LIGHT PROPRIETARY PANELLED SYSTEM
- 4 WHITE FRAMING GLAZING
- 5 METAL CLADDING: GREY PROPRIETARY PANELLED SYSTEM
- 6 CLADDING: WHITE BRICK
- 7 GLAZED BALCONY
- 8 PLASTER: STUCCO (RANDOM)
- 9 BRICK: RED
- 10 BRICK: WHITE
- 11 METAL CLADDING: GREY
- 12 BRICK: WHITE
- 13 BRICK: WHITE
- 14 BRICK: WHITE

NOT TO SCALE
 ALL DIMENSIONS ARE IN METERS
 ALL FINISHES ARE TO BE SUPPLIED BY THE CONTRACTOR
 ALL FINISHES ARE TO BE MATCHED TO THE EXISTING BUILDING
 ALL FINISHES ARE TO BE MATCHED TO THE EXISTING BUILDING

1 10/01/12 10/01/12
 2 10/01/12 10/01/12
 3 10/01/12 10/01/12

SH STUART HOWARD
 ARCHITECTS INC.
 1301 Hillside Ave
 Victoria, BC
 V8M 1A1
 Tel: 250-363-1111
 Fax: 250-363-1112
 Email: info@stuart-howard.com

1301 Hillside Ave
 1301 Hillside Ave
 Victoria, BC
 Building Elevations

1301 Hillside Ave
 1301 Hillside Ave
 Victoria, BC
 Building Elevations
 A3.04





1 NW Corner - Aerial
N15



2 SW Corner - Aerial
N15



3 NW Corner - Street Level
N15



4 NE - Aerial
N15

1301 Hillside Ave. 1301 Hillside Ave Victoria, BC Perspectives	
DATE: 2015.06.12 PROJECT: 1301 Hillside Ave DRAWN: [Name] CHECKED: [Name]	1301 Hillside Ave 1301 Hillside Ave Victoria, BC Perspectives
DATE: 2015.06.12 PROJECT: 1301 Hillside Ave DRAWN: [Name] CHECKED: [Name]	1301 Hillside Ave 1301 Hillside Ave Victoria, BC Perspectives



1301 Hillside Ave

1301 Hillside Ave
Victoria, BC

Perspectives

Drawn By	DATE	Rev
1301 Hillside Ave	1301 Hillside Ave	1301 Hillside Ave
1301 Hillside Ave	1301 Hillside Ave	1301 Hillside Ave
1301 Hillside Ave	1301 Hillside Ave	1301 Hillside Ave

A7.02

[illegible][illegible]

[illegible][illegible]

1. **What is the student's background in general education mathematics?**
 The student is a high-achieving student in general education mathematics, having earned a 4.0 GPA in the course. The student is currently enrolled in the Honors program and is planning to take advanced mathematics courses in the future.

2	18 00 12	The amount for that entry
1	18 07 06	The amount for that entry
14c	Date	Source Number

SH
A

**STUART HOWARD
ARCHITECTS INC.**
ARCHITECTS • INTERIORS • LANDSCAPE ARCHITECTS

400 N. 7th Street, Suite 200, Minneapolis, MN 55401
(612) 338-8800

1301 Hillside Ave

1301 Hillside Ave
Victoria, BC

Door Schedule

[illegible]



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 July 24, 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 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.

Health Condition:

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

Structural Condition:

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

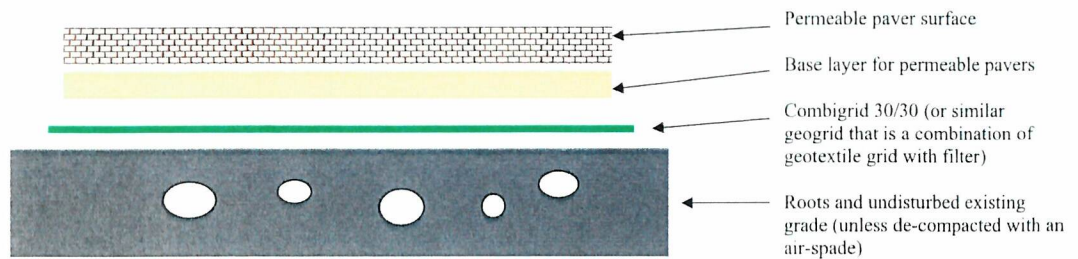
Retention Status:

- 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.
- NS - Not suitable to retain due to health or structural concerns

Talbot Mackenzie & Associates

Consulting Arborists

Diagram – Permeable paver surface crossing over Critical Root Zone



Specification #1 for Paved Surfaces Over Critical Root Zones (driveway, parking or walkway areas)

1. Minimal excavation to remove turf and loose soil for the required permeable surface, under the supervision of the project arborist. Root loss to be avoided.
2. A layer of Combigrd 30/30 geotextile is to be installed over the existing grade.
3. Construct base layer of well-draining material and permeable surface over geogrid layer to required grade.