Notice of Amending Bylaw Binder

The general purpose of proposed **"Colwood Land Use Bylaw No. 151, 1989, Amendment No. 221 (HAH1 – 546 Windthrop Rd), Bylaw No. 2055, 2025"** is to rezone from A1 to a new Hillside Attached Housing 1 (HAH1) Zone to enable a 34-unit townhouse development.

Within the electronic binder, please find a copy of:

1. Staff Report for 546 Windthrop Rd to the Planning and Land Use Committee (June 2, 2025)
2. Letter of Rationale
3. Site Plan
4. Environmental Impact Assessment
5. Tree Management Plan
6. Proposed Grading Plan
7. Transportation Impact Assessment
8. Public Consultation Summary
9. Staff Presentation
10. Application Presentation
11. Proposed Bylaw No. 2055
12. Notice of Amending Bylaw

Minutes and videos of Council are publicly available and can be accessed through the following link:

- City of Colwood - Home (civicweb.net)

Colwood

STAFF REPORT

Planning and Land Use Committee
Meeting Date: June 2, 2025

To: CAO – Jason Johnson
Submitted: May 19, 2025
From: Kelsea Fielden
RE: Rezoning - 546 Windthrop Rd

RECOMMENDATION

THAT the Planning and Land Use Committee recommend to Council:

THAT the Colwood Land Use Bylaw No. 151, 1989, Amendment No. 221 (HAH1 – 546 Windthrop Rd), Bylaw No. 2055, 2025 be considered for 1st, 2nd and 3rd reading;

AND FURTHER THAT prior to adoption of the amending bylaw, the following long-term conditions be registered with a Section 219 Covenant Development Agreement:

PRIOR TO ISSUANCE OF A DEVELOPMENT PERMIT

TREE PRESERVATION COVENANT

The Owner shall register a Section 219 Tree Preservation covenant over the lands agreeing to retain and maintain a minimum area of 3,000m2 along the west and north property lines for tree preservation.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

STATUTORY RIGHT OF WAYS

The Owner shall register a Statutory Right of Way (SRW) to facilitate public access along the entire southern property line, or portions thereof as determined during detailed design. This SRW will enable the construction of a meandering public use trail system in place of traditional off-site works, in accordance with site adaptive policies.

The Owner shall register a blanket SRW enabling access to City staff as well as public access, no less than 2.5m width and 75m in length, along the western property line. The purpose of the public access SRW is to enable the construction of and public use of a trail system to access lands beyond, provided the City identifies a need to create such public access in the future.

OFF-SITE WORKS

The Owner agrees to complete frontage improvements on Windthrop Road (or enter into a Servicing Agreement or provide an equivalent cash-in-lieu payment or combination of) as required by applicable City of Colwood policies of bylaws, as amended from time to time.

CLIMATE ACTION FEATURES

The Owner covenants and agrees that they are not entitled to a Building Permit unless and until the following Climate Action Features are confirmed to the satisfaction of the Chief Building Inspector:

1. No buildings shall have a connection to a natural gas system;
2. Carbon capture concrete will be utilized wherever possible;
3. All residential units will have an EV charging rough-in;
4. All buildings are solar ready
5. All units will contain an electric heat pump for heating and cooling.

SUMMARY AND PURPOSE

The purpose of this report is to present to the Planning and Land Use Committee Rezoning Application RZ000020, which is requesting an amendment to the Land Use Bylaw No. 151 to rezone 546 Windthrop Road from the Rural 1 (A1) Zone to a new Hillside Attached Housing 1 (HAH1) Zone to enable a townhouse development.

The rezoning application is consistent with the Official Community Plan (OCP) built form policies for lands designated as Neighbourhood – Hillside and Shoreline. The application also advances goals outlined in the Climate Action Plan by enabling an alternative natured based solution to off-site works for maximum tree protection. The applicant has provided a letter of rationale (**Appendix 1**) for the proposed townhouse development shown in the attached site plan (**Appendix 2**).

Figure 1: Subject Property Map

STRATEGIC PLAN *(infrastructure governance environment)*

Colwood Strategic Plan 2024-2027

The Infrastructure and Environment Pathways highlight Council's commitment to valuing natural assets. Strategies N3 and C2 focus on prioritizing nature-based solutions to integrate climate action, biodiversity protection, and community eco-innovation. This application proposes alternative off-site works to protect significant trees. This application also supports the Well-Being Pathway by increasing housing choices and improving access to housing.

RELATED POLICIES

Housing Needs Report (2024)

The City of Colwood has a larger portion of households of 3 or more persons when compared to the Capital region. These findings reinforce the need for larger family-oriented housing. The 5-year demand estimate is 1,562 units. Since the beginning of 2024, the City has issued Development Permits for 212 townhouse units. Of those 212 units, 133 are over 3+ bedrooms. This application, if approved, could add 34 townhouse units with 24 of those as 3-bedroom units.

BACKGROUND

Applicant Information

Applicant:	Grayland Consulting Inc
Owner:	KST Management Inc
Address:	546 Windthrop Road
Legal:	LOT A SECTION 62 ESQUIMALT PLAN VIP20691
Current Zoning:	Rural 1 (A1)
Proposed Zoning:	Hillside Attached Housing 1 (HAH1)
Current OCP Designation:	Neighbourhood – Hillside and Shoreline
Development Permit Areas:	Environmental – Hillside
	Natural Hazards – Steeply Sloped
	Form & Character – Hillside & Intensive Residential

APPLICATION REVIEW

1. Proposal

The applicant is requesting an amendment to the Land Use Bylaw No. 151 to rezone 546 Windthrop Road from the Rural 1 (A1) Zone to a new Hillside Attached Housing 1 (HAH1) Zone. The zoning change would enable a 1.2 Floor Area Ratio (FAR). As part of this rezoning application, the applicant is proposing a 34-unit townhouse development within 7 blocks.

2. Site Context

The subject property is 8,111m2 (2.0 acres) in size and is located in the Latoria neighbourhood. The property is a wide square lot with an existing residential dwelling and various outbuildings. The surrounding neighbourhood has a range of uses, including large undeveloped forested land, single family residences from the 1970s, and most recently, a gentle infill small lot subdivision and townhouse development. **Table 1** summarizes the land uses and zones of properties adjacent to the site.

Table 1 | Adjacent Land Uses

Direction/Address	Existing Zone	Existing Use
North (560 Windthrop Rd and 539 Delora Dr)	A1 (yellow) & CD22 (brown)	Undeveloped forested land and 22-unit townhouse development
East (540 – 544 Windthrop, Delora Dr, Stonehouse Place, 3494 Wishart Road, 508 Windthrop)	R1 & A1 (both yellow) & CD26 & CD39 (both brown)	Single Family Dwellings, Small Lot Subdivision and 50-unit townhouse development
South (Windthrop Rd and Bunker Rd)	A1 & R1 (both yellow)	Duplex and Single Family Dwellings
West (560 Windthrop and Havenwood Park)	A1 (yellow) & P5 (blue)	Undeveloped forested land and Havenwood Park

3. Land Use Bylaw No. 151

Table 2 compares the permitted land use and regulatory conditions imposed on the lands by the existing A1 zone, and the proposed land uses and regulatory conditions for the new HAH1 zone. The amending bylaw for Council consideration is attached as **Appendix 8**.

Table 2 | Zone Comparison

	A1	Proposed new HRAH1 zone
Permitted Uses	One-family and two-family dwelling Agriculture Home occupation Accessory Building and Structures	Attached Housing Duplex Home Occupation – Office Use Only Accessory Building and Structures
Density (FAR)	N/A	1.2
Maximum units	1 single family dwelling or two-family dwelling	N/A
Height	10.5m / 12.0m	3 storey or 12.5m
Lot Coverage	10%	40%
Setbacks • Front Yard • Side yard • Side Yard • Rear Yard	 7.5m 3.0m 3.0m 10.0m	 4.0m 1.5m 1.5m 7.5m

4. Official Community Plan Bylaw No. 1700

The subject property is designated as 'Neighbourhood – Hillside and Shoreline' in the OCP which supports ground-oriented buildings including multi-unit townhouses up to approximately three storeys as permitted

under Policy 7.2.20(c) and 7.2.21(a). The designation is expected to be exceptionally supportive of protecting natural features and sensitive ecological areas. To support the land use designation, 40% of greenfield sites should be retained as part public and private open space and a strong focus on site adaptive planning principles, including clustering of development. **Table 3** outlines the proposed open space for the proposal.

Table 3 | Open Space Calculation

Open Space	Calculation
Natural Green Area (open treed areas, backyards, general landscaping, etc)	29%
Dedicated Usable Open Space • Natural Playground • Picnic Area	10%
Total	**39%**

A Section 219 tree preservation covenant is proposed over the usable open space and the natural area along the western and northern property line. This protects the trees from removal, but allows for recreational use by the residents. The estimated total covenant protected area is 3,000m2 and will be determined at the time of DP.

Further supported land use objectives include maintain the existing character and scale of existing areas, while increasing housing diversity through sensitive infill approaches that are compatible in terms of scale and intensity including ground-oriented townhomes. The proposal is consistent with OCP Objectives 6.2.4 and corresponding 6.2.4.1 which supports moderate residential growth in established single-detached neighbourhoods in the Controlled Growth Area in the form of single-detached lots single-detached lots, secondary suites including coach houses, duplexes and ground-oriented townhouses. **Table 4** describes the OCP objectives for the land use designation and how the proposal aligns with those objectives.

Table 4 | Compliance of Proposed Development with OCP Land Use Designation

Neighbourhood – Hillside and Shoreline Policies		Proposal	Staff comment
7.2.20.c **Land Use**	Ground-oriented multi-unit residential, including duplexes and townhouses.	Townhouses can be considered gentle infill that encourages greater housing choices.	OCP Policy met.
7.2.21.a **Built Form**	Ground-oriented buildings up to approximately three storeys	Three-storey townhouses.	OCP Policy met.
7.2.21.d **Built Form**	FAR ranging up to approximately 1.2	Proposed FAR is 0.59 for 34 units.	OCP Policy met.
7.2.22.b **Policy Direction**	Applying an especially strong focus on site adaptive policies for hillsides, including clustering of development in order to be set back from and preserve natural features and sensitive ecosystems.	The applicant clustered development in order to preserve the most significant environmental feature of the land, which is the large, forested area in the rear.	OCP Policy met.
7.2.22.c **Policy Direction**	Protecting and optimizing views from public spaces.	The protection of trees in the rear and along the frontage protects and optimizes natural views.	OCP Policy met.
7.2.22.d **Policy Direction**	Applying alternative infrastructure standards, where feasible, such as reduced right-of-way requirements, to reduce the development footprint.	Alternative infrastructure is proposed for off-site works including a meandering trail on both private and public property to protect significant trees.	OCP Policy met.
7.2.22.e **Policy Direction**	When considering development on greenfield sites, retain a minimum of 40% of the site area as part public and part private open space.	The applicant is providing 39% green space as a combination of useable open space and general landscaping. A Section 219 tree preservation covenant is proposed along the western and norther property lines.	OCP Policy met.

5. Site Adaptive Planning

The original concept plan depicts Block 7 as four side-by-side units occupying about 33% of the rear. Staff suggested the applicant reconsider positioning Block 7 behind Block 6 or dividing it into two duplexes, as this change could potentially save more trees, given that most trees are located in the rear. The concept design plan was subsequently revised to determine whether the reorientation would provide optimal site adaptive planning principles. Although the updated concept plan allowed for the retention of additional trees, it was determined that the healthiest and most significant trees would still be removed (**Figure 4**). The original concept plan, however, preserves the majority of good and fair trees. In accordance with site adaptive policies, the original concept plan is being considered. The grading plan (**Appendix 6**) shows the most significant slopes are in the rear, so the need for grading is reduced due to the clustering of development elsewhere on the site.

OPTION 1
TREE'S HEALTH CONDITION

	QTY
GOOD TREE	2
FAIR - GOOD TREE	7
FAIR TREE	30
FAIR - POOR TREE	6
TOTAL	45

45 good/fair trees protected

42 good/fair trees protected

OPTION 2
TREE'S HEALTH CONDITION

	QTY
GOOD TREE	2
FAIR - GOOD TREE	5
FAIR TREE	28
FAIR - POOR TREE	6
TOTAL	42

Natural Assets Inventory

The Environmental Impact Assessment (**Appendix 3**) identified a second generation forest along the northern border with high quality large Douglas Fir and Arbutus trees as the most significant feature of the land. The area is proposed as Section 219 tree preservation covenant. The natural state area represents approximately 33% of the site. Potential habitat and biodiversity value remains low due to previous disturbances; the trees are the most significant feature of the land.

Tree Inventory

The Tree Management Plan (**Appendix 4**) identifies the need to remove 84 of the 115 on-site bylaw-protected trees. In accordance with the Urban Forest Bylaw, a 2:1 replacement ratio is required. This necessitates approximately 168 replacement trees. Given the constraints of post-construction space, it is anticipated that a cash-in-lieu fee will be collected at a rate of $250 per replacement tree as opposted to a 2:1 replanting scheme. Should the applicant provide a cash-in-lieu deposit for all trees removed, the total fee will amount to $42,000. The final count of tree removal, retention, and cash-in-lieu will be determined at the DP stage. The off-site works plan aims to retain and protect 11 municipal trees. At the time of Development Permit and Building Permit stage, the applicant and staff will work closely to create a meandering trail to ensure the highest rate of both on-site and off-street tree protection.

6. Parks and Recreation Master Plan (2021) and Havenwood Park Management Plan (2022)

The Parks and Recreation Master Plan (PRMP) outlines the desire for a Beach to Mountain Route Network which is focused on linking the beach through the neighbourhoods of The Beachlands, Royal Bay, and Latoria to the high point in Havenwood Park. Staff did not identify a need to negotiate an SRW over the site to achieve the Beach to Moutain Route Network, however, a blanket SRW has been negotiated along a portion of the western property line for public access to lands beyond if the City sees a need in the future for a trail connection. If Havenwood Park expands in the future, the blanket SRW may serve as a future connection if the City sees fit. At this time, the Havenwood Park Management Plan anticipates the existing trailhead at the end of Windthrop Road to continue as the main entrance. The proposed meandering trail through the property aligns with the goal of improving mobility to the Windthrop Rd entrance.

7. Off-site works

In alignment with OCP Policy Direction 7.2.22.d, off-site frontage works have been designed to an alternative standard to preserve approximately 11 municipal trees and 4 private trees. According to the Subdivision and Servicing Bylaw No. 2000, the property is subject to drawing SSD R18 (20m ROW), which mandates the inclusion of a sidewalk and other minor infrastructure such as streetlighting, landscaping and irrigation. To protect significant trees located on the property line, the applicants have collaborated with staff to create a meandering trail that alternates between private and public property. As outlined in the Development Agreement, staff recommend constructing a portion of the off-site works now and collecting the remainder as cash-in-lieu for future frontage works. Additionally, an SRW is requested to ensure public access over the portions on private property. Detailed off-site work drawings will be reviewed at the Development and Building Permit stage.

8. Transportation Impact Assessment

A Transportation Impact Assessment (TIA) was submitted by Watt Consulting Group (**Appendix 6**). The report concluded that the proposed density of 34-units will have a limited impact on the existing road network. The TIA has been reviewed and accepted by the City's Engineering Department. The subject property is designated as an 'Urban Centre' in the Off-Street Parking Bylaw No. 151 which reduces attached housing parking rates to 1.5 per unit. However, the applicant is proposing 2-car garages for each unit which is above and beyond bylaw requirements. All other parking requirements have been met at this stage.

9. Site Servicing

In accordance with Hillside Guideline 22.1.j, all new hillside developments must be connected to the sewer system. A preliminary sewer servicing brief and stormwater management brief has been submitted and accepted. Further details and approvals will be required at the Development and Building Permit stage.

10. Building and Life Safety

All upgrades necessary to serve the development are the responsibility of the developer. A Fire Underwriters Survey (FUS) report is required at the Development Permit stage and prior to Building Permit approval. The Fire Department has provided preliminary acceptance of the site plan as presented.

11. Community Amenity Contributions

The applicant is proposing to meet Council's Community Amenity Contribution policy as identified in **Table 5**.

Table 5 | Preliminary summary of developer contributions for 34-unit residential units

Contribution by Type	Rate per unit	Total	Bylaw/Policy Reference
Community Amenity Fund (CAC)	$7,500/unit	$255,000	Policy COM 003 as amended
Affordable Housing Reserve Fund	$1,500/unit	$51,000	Policy COM 003 as amended
Fire Hall Fund	$618/unit*	$21,012	Council Resolution R2020-165
School DCCs (payable to SD62)	$900/unit	$30,600	CRD Bylaw No. 2019-01 (42 units/ha)
Water DCCs (payable to CRD)	$2,557/unit	$86,938	CRD Bylaw No. 2758 (42 units/ha)
Road DCCs	$5,268.41/unit	$179,125.94	Bylaw No. 1836-01
Sewer Enhancement Fees	$2,095/unit	$71,230	Bylaw No. 1500
Park Improvement DCC	$2,455.67/unit	$83,492.78	Bylaw No. 1900
Park Acquisition DCC	$2,537.97/unit**	$86,290.98	Bylaw No. 2037
Total Contributions		**$864,689.70**	

**2025 rate. Subject to annual CPI increase.*

***Payable on any Building Permit application associated with this rezoning that is submitted after October 28, 2025.*

12. Public Engagement

As required by Development Application Consultation Policy DEV 001, the applicant hosted an open house on-site on November 30, 2024. A summary of the applicant's engagement summary is included in **Appendix 7**.

OPTIONS / ALTERNATIVES

THAT the Planning and Land Use Committee consider recommending to Council one of the following options:

Option 1: The staff recommendation; OR

Option 2: THAT staff provide additional information before Council considers an amending bylaw for Rezoning Application No. RZ000020 for 546 Windthrop Road; OR

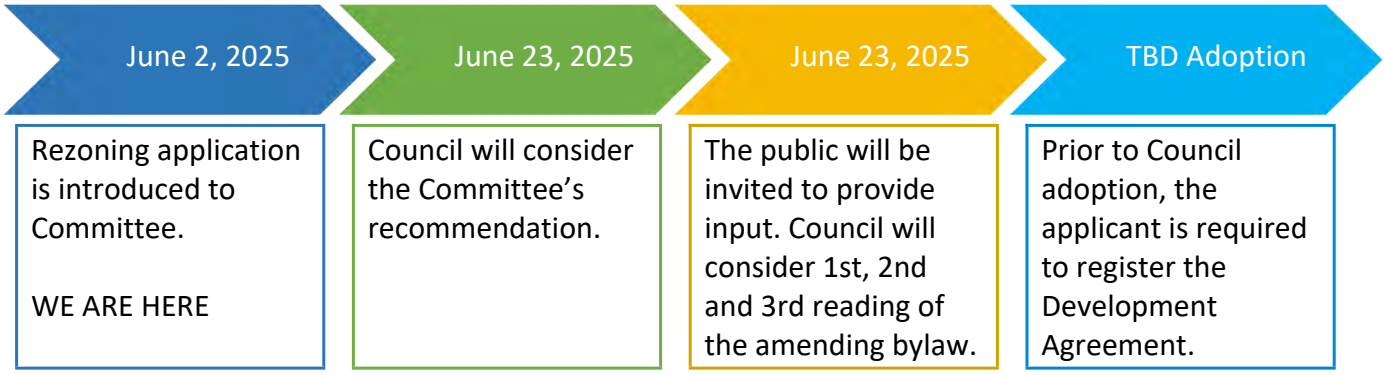
Option 3: THAT Rezoning Application No. RZ000020 for 546 Windthrop Road be denied; OR

Option 4: THAT Committee provide another option for Council's consideration.

COMMUNICATIONS & ENGAGEMENT

A development notification sign was posted on the subject property as required under the Land Use Application Procedures Bylaw No. 427. The application and supporting documents will be available for public viewing on the City's website from May 26 to June 23, 2025. In accordance with Section 464 of the *Local Government Act*, the City must not hold a public hearing as the proposed bylaw is in alignment with the OCP land use designation and is a residential development. Prior to 1st reading of the amending bylaw, the City will mail postcard notices to owners and occupants within a 100 meter radius of the subject property and post notice on the City's website and in 2 consecutive issues of a local newspaper in accordance with the Public Notice Bylaw No. 1933.

TIMELINES



CLIMATE CONSIDERATIONS

The Climate Action Plan (2023) pathway T1 seeks to prioritize climate resiliency of new developments. Further, pathway B1 seeks to build zero emission and resilient new buildings. Staff have negotiated climate action features outed in the Development Agreement including features above and beyond current City bylaws. The alternative frontage works in alignment with site adaptive principles continues to increase active transportation while also supporting natural systems.

FINANCIAL CONSIDERATION

Rezoning the subject property to permit a higher density of development will increase the assessed value of the lands, thus increasing its taxable value. **Table 5** provides a preliminary estimate of developer contributions for the proposed 34 townhouse units.

CONCLUSIONS

The proposed rezoning of 546 Windthrop Road to the HAH1 zone is consistent with the Official Community Plan and advances key strategic objectives related to housing diversity, climate action, and site-adaptive design. The application supports moderate growth through gentle infill while preserving natural features. Staff recommend that Committee recommend to Council to provide 1st, 2nd and 3rd reading of the amending bylaw.

Attachments:

Appendix 1 - Letter of Rationale
Appendix 2 - Site Plan Revised Windthrop Road
Appendix 3 - Environmental Impact Assessment
Appendix 4 - Tree Management Plan
Appendix 5 - Proposed Grading Plan
Appendix 6 - Transportation Impact Assessment
Appendix 7 - Public Consultation Summary
Appendix 8 - Colwood Land Use Bylaw No. 151, 1989, Amendment No. 221 (HAH1 - 546 Windthrop Rd), Bylaw No. 2055, 2025
Staff Presentation
Applicant Presentation

Approved by:	**Status:**
Yazmin Hernandez, Director of Planning	Approved - 21 May 2025
Heather Power, Deputy Corporate Officer	Approved - 21 May 2025
Marcy Lalande, Manager of Corporate Services	Approved - 21 May 2025

Kathy McLennan, Director of Finance	Approved - 22 May 2025
Jason Johnson, Chief Administrative Officer	Approved - 26 May 2025

Grayland Consulting Ltd.

December 5th, 2024

City of Colwood, Development Services
3300 Wishart Road
Colwood B.C. V9C 1R1

Attention: Mr. John Rosenberg - Director of Engineering & Development Services

Re: 546 Windthrop Road – Rezoning Application – Letter of Rationale Revised

Dear Sir,

On behalf of the ownership group KST Management Ltd, please accept this Letter of Rationale and associated documents in support of the proposed development at 546 Windthrop Road. The documents have been prepared in accordance with the City of Colwood checklists.
We are requesting that Council consider a rezoning of the site from the existing A1 (Rural Residential) to RM1A (Medium Density Attached Housing). We are proposing 34 townhouses units to support increased demand for residential housing, promote more efficient land use and stimulate local economic growth that higher density residential areas can bring. There will 10 units of 2- bedrooms + flex and 24 units of 3-bedrooms.

The ownership group respectfully submits these documents in support of the proposed rezoning:

- WA Architects conceptual architectural site plan, grading plan and massing plans.
- WA Architects Design Rationale
- Talmack Arborist Report
- Cascadia Biological Services Environmental Review
- WATT Traffic Impact Assessment
- J E Anderson Civil Engineering servicing concept plans

The data sheet is provided within the WA drawings

Vehicle and bike parking is intended to be provided in accordance with Colwood ratios and dimensions.

1498 White Pine Terrace Victoria B.C. | rdsansom@gmail.com | 250-889-0047

Description of the Proposal

The owners are requesting a rezoning from the existing A-1 Zone to a RM1A Zone to accommodate 34 3 storey wood frame market townhomes.

1498 White Pine Terrace Victoria B.C. | rdsansom@gmail.com | 250-889-0047

Review of City Polices

The Design Team has prepared an OCP and Hillside and Shoreline Environmental Development Permit area compliance table that can be found in Appendix A. This includes a Site Adaptive Planning commentary.

Highlights of this analysis include:

- *Environmental (Non-riparian) Considerations*

  Please refer to the Cascadia Biological Report. No Riparian areas were found on site. Environmental considerations can be found in Appendix __ for the Development Permit area for Environmental Sensitivities and Hillside and Shore Line DP area analysis.

- *Existing Tree Canopy, Tree Management and Tree Canopy Enhancement*

  Please refer to the TalMack report.

- *Site Grading Plan and retaining walls*

  Please refer to the WA sketches for grading plans. Currently no retaining walls greater than 1.2m high are anticipated.

Project Benefits and Amenities

The project will bring not only much needed housing to the area, and help Colwood fulfill it's housing mandates, but will create construction jobs for the proposed 2 year build out, as well as on going strata and administrative jobs, and maintenance of the grounds and buildings. There are no commercial components of this proposal currently.

Public amenities will be provided in accordance with the City of Colwood Amenity policy for a per unit fee.

Needs and Demands

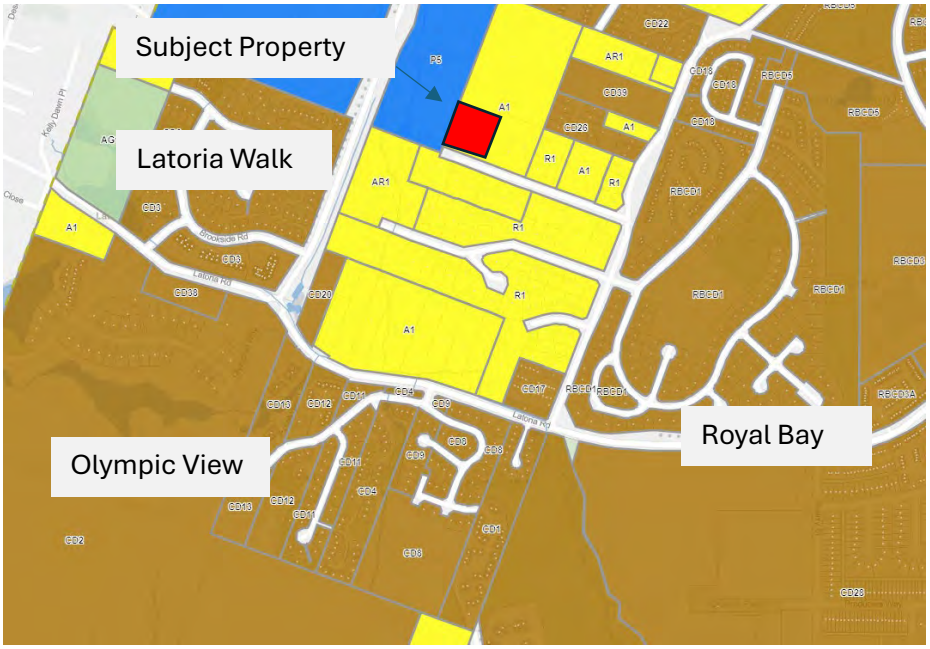
How does this meet the Housing Needs Assessment?

- Affordable housing will be provided by townhomes, that are more attainable single-family homes for many and provide an opportunity to downsize within the community.
- Housing for families can be accommodated in two or three-bedroom homes. Amenity areas will accommodate a small nature playground for residents and their children. This project is located close to area schools and recreation opportunities at Royal Bay, making it an ideal spot for young families.

Neighbourhood

This proposal bring higher density to this neighbourhood than currently exists; however, it is becoming clear that the best use of land is to create as much density as reasonable possible to make the most of existing infrastructure and to avoid urban sprawl to accommodate housing demands. Density in the urban containment area is increasing steadily with the Olympic View, Royal Bay, Beachlands and Latoria Walk projects directly adjacent.

The map below shows these properties and the adjacent Comprehensive Development zones of Olympic View, Latoria Walk and Royal Bay. There are several townhouse sites either rezoned or in process in the vicinity.



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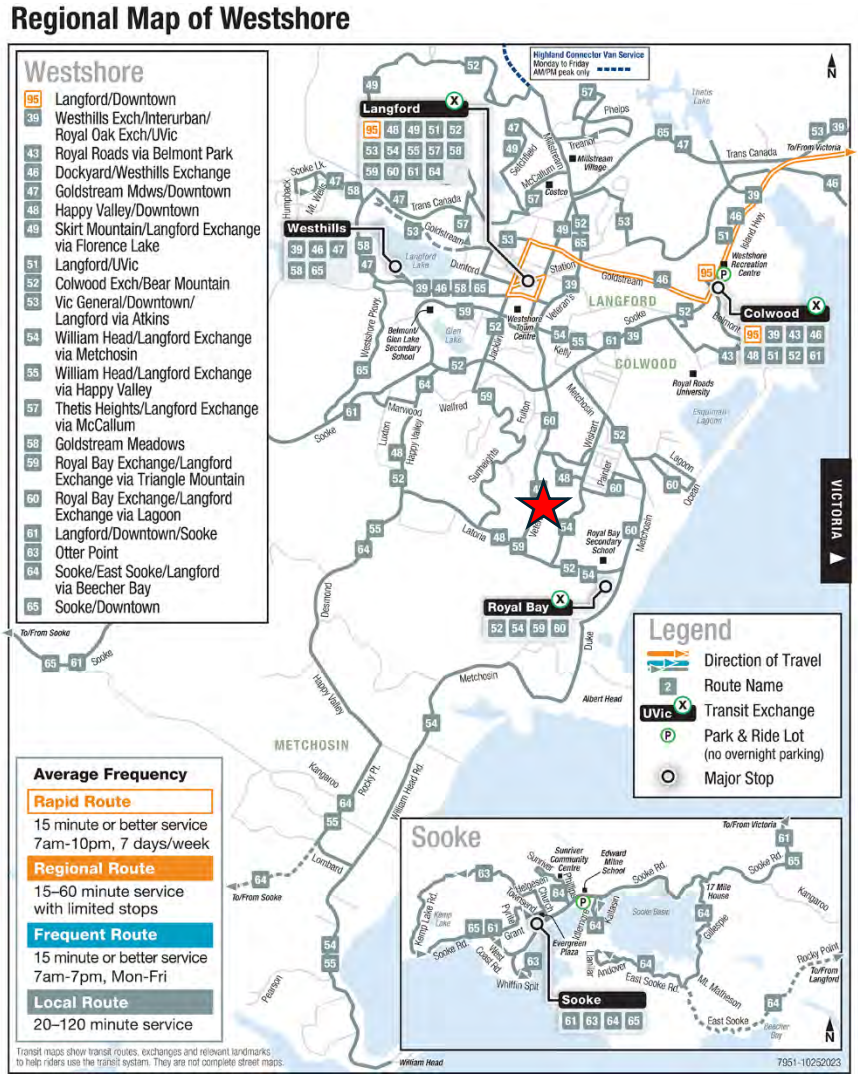
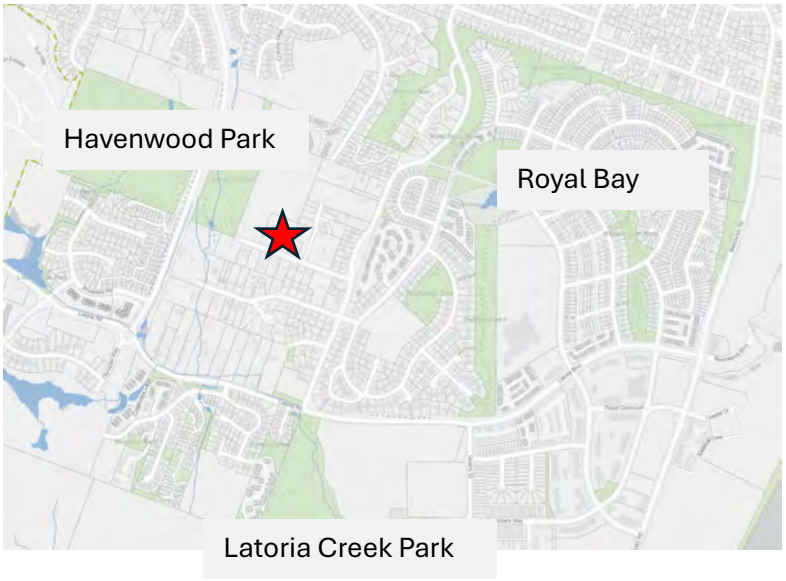
Transportation

The neighbourhood will be serviced BC Transit with stops on Wishart and Latoria Roads. Cycling is available to residents along protected bike lane either available now or will be as the City's Active Transportation Plan comes to life.



Existing Neighbourhood Amenities

The neighbourhood is served well by many nature parks as well as reasonable proximity to the Royal Bay parks and recreation facilities, as well as access to the beach through the Beachlands project.



Impacts

While the properties are currently occupied by two dwellings. The lands have been impacted by accessory uses including works shops and RV parking.

A Traffic Impact Assessment was conducted that show little impact to the surrounding road network.

This development will appeal to families. School District 62 is actively constructing new schools in the area at Royal Bay to the east and in Langford to the west.

A right of way is proposed on the west edge of this development that might provide trial connectivity to future development. Frontage improvements are also proposed.

The sanitary sewer line within Windthrop Road will be extended to this development, that may be connected to be others by private low-pressure stems, or by gravity from the properties to the west.

Building and Site Features

This proposal, while accommodating low density development, will help connect its residents with nature by providing a walking network and areas of contemplation and gathering on site. Robust canopy trees will wither be maintained or planted on site to create shaded areas. Private amenity spaces will be provided, which could include garden boxes within those private amenity spaces.

Transportation choices for commuters are primarily offered by transit in Wishart and Latoria Roads. Colwood's active transportation plan will promote cycling in the area.

Pedestrians will also enjoy the walkway system and circuit routes from this site through the Royal Bay Trail network, Latoria Creek trails and Havenwood Park.

This family friendly development will be safe, accessible and affordable.

This project will work towards Colwood's carbon neutral, energy positive and water smart policies.

The following features will be incorporated into the design:

- All buildings will be Step Code of the day or higher.
- Higher density makes use of existing services and reduces urban sprawl and dependence on automobiles.
- Electric heat pumps for heating and cooling.
- Solar ready.
- Pedestrian-friendly walkable neighbourhood – Latoria Walk to the west and Royal Bay center to the east.
- Transit and bike options – bus service and cycling networks available.
- Bike storage in private garages and visitor bike parking.
- Level 2 EV charging and bike and scooter charging available in each garage.
- Schools withing walking and biking distance (New Elementary Schools at Royal Bay and in Langford, Wishart Elementary, Dunsmuir Middle and Royal Bay Secondary, as well as Royal Roads for continuing education).
- Parks within walking/biking distance nearby: Latoria Creek, Havenwood Park, Royal Bay and Esquimalt Lagoon. Potential for pocket parks within the development area.
- Tree compensation plan.
- On sight landscape plan includes drought resistant, pollinator friendly native plants.
- LED lighting and night sky friendly lights throughout.

CEPTED

CPTED principles are considered to the development. Some strategies such as positioning of windows and balconies so that they overlook public areas, designing of spaces that clearly demarcate private from public areas, providing clear pathways, low fences and gates and allocating outdoor amenities are already incorporated into the development.

Transportation

Transit and Cycling opportunities in and around this development have been discussed throughout this rationale letter.

This development has endeavored to comply with the recommendations under Island Health's Healthy Built Environment Initiative:

- Pedestrian walkways should be designed and installed for people of all abilities, such as ensuring easy access for mobility devises. Differentiation in materials from driveway and parking lot to delineate it as pedestrian use will improve safety and comfort. Provision of lights along walkways and pathways, especially in treed areas and incorporating traffic calming within the development will enhance walkability. Walkable neighbourhoods positively influence mobility and physical activity levels, especially in older adults.
- Provision of charging stations for mobility scooters and as well as storage for bicycles will help make alternative mode transportation options safer and more convenient. Transportation options that have a lesser environmental footprint and promote physical activity, leads to overall improvements in emotional and physical wellness, lessens the obesity rates and decrease the risk of chorionic diseases.
- Provided there is sufficient space, landscaping (garden areas, benches, rooftop gardens) that provide welcoming gathering places for residents will encourage social connectedness. Studies have shown the more socially connected a person felt, the better they perceived their mental and physical health to be.
- Consider prioritizing housing for the vulnerable populations such as the elderly, low income groups, and people with disabilities. Access to permanent, safe, and healthy housing for vulnerable populations helps to keep them safe from violence, reduces the risk of injury and communicable diseases. Healthy affordable housing also allows for more income to go towards affording basic sustaining health needs such as healthy food for nourishment and accessing health services, thereby improving general health and quality of life.
- This proposed development is in an area that is experiencing rapid growth, that may lack proximity to amenities and services within walking or rolling distances. Consider proximity and accessibility to food stores, transit service, health services, schools, parks and trails, and other amenities in the area to ensure densification developments such as this one become complete neighbourhoods with less vehicle dependency.

Civil Servicing & Storm Water Management

Please refer to the J.E. Anderson Preliminary Design Documents.

Site Access and Emergency Services

Access routes to all units must meet the requirements outlined in the BC Building Code and Colwood Building Bylaw. Turns within the access routes must meet the fire department turning template. Please see the attached fire truck turning template.

Sprinklers will be required as per the Colwood Sprinkler Bylaw.

We trust the foregoing is satisfactory for the first phase of submission materials. Additional information will be provided upon staff review and comment. We look forward to working with Council and staff to move this exciting project forward.

Best Regards,

Rachael Sansom, A.Sc.T., Grayland Consulting Ltd.
Agent for 1336265 BC Ltd

546 WINDTHROP ROAD – REZONING APPLICAðON 2023	
NEIGHBOURHOOD – HILLSIDE AND SHORELINE OCP COMPLIANCE with SITE ADPATIVE PLANNING COMMENTARY	
The land use objective for these areas is the same as in the "Neighbourhood" land use designation, as well as to be exceptionally supportive of protecting natural features and sensitive ecological areas.	The property has been impacted by the existing residential uses. No riparian areas have been identified. The plan stives to protect as many existing trees as possible within the north and west property boundaries to preserve at minimum 25% of the land.
7.2.20 USES a. Single-detached residential b. Secondary suites and coach houses c. **Ground-oriented multi-unit residential, including duplexes, townhouses, and apartments that are subject to the provisions of the Royal Beach Sub Area Plan** d. Live/work and home occupations e. Institutional f. Limited small-scale commercial and mixed-use (to a maximum of 250m2) sensitive to the existing neighbourhood. g. Low rise multi-unit residential in very limited situations, and only where significant environmental and ecological benefits to the overall site can be achieved, while minimizing ecosystem disturbance, protecting habitat areas and incorporating existing natural features.	Existing tree canopy will be preserved as much as possible and new trees will be planted that will be appropriate for the area as well as longevity and will provide canopy and carbon sequestration for years to come.

7.2.21 BUILT FORM a. **Ground-oriented buildings up to approximately three storeys** b. Low rise buildings of no more than six storeys c. Apartment up to four storeys subject to the provisions of the Royal Beach Sub Area Plan d. FAR ranging up to approximately 1.2	We are seeking to rezone the site from A1 (Rural Residential) to RM1A (Medium Density Attached Housing). As per Bylaw 151 – 6.1 A.02, the existing density shall be one per dwelling unit per 370 square meters of lot area which allows 21.9 units. We propose 34 townhouses units to support increased demand for residential housing, promote more efficient land use and stimulate local economic growth that higher density residential areas can bring. There will 10 units of 2- bedrooms + flex and 24 units of 3-bedrooms.

7.2.22 OTHER DIRECTIONS Support the land use objectives for Neighbourhood – Hillside and Shoreline areas by: a. Adhering to the "Other Directions" policies for the Neighbourhood land use designation. b. Applying an especially strong focus on site adaptive policies for both hillsides and shorelines in Section 11 (Park Spaces and Natural Assets), including clustering of development to be set back from and preserve nature features and sensitive ecosystems, consistent with Figure 16. c. Protecting and optimizing views from public spaces. d. Applying alternative infrastructure standards, where feasible, such as reduced rights-of-way requirements, to reduce the development footprint. e. When considering development on	Site adaptive planning is implemented by clustering development to protect as many trees as feasible, which are the significant environmental features on this site. New native and complimentary species planted in and around the units as part of the comprehensive landscape plan to be provided at Development Permit stage. No views are impacted. Screening fence will be provided on the east boundary. Private roads and services are proposed within the development which will be maintained by the strata.

greenfield sites, retain a minimum of 40% of the site area as part public and part private open space. If an area plan is in place, each subdivision application will benefit from the overall conditions of the plan as it relates to open space retention on an area-wide basis. That is, if 40% of the area has been retained for open space through the area-wide plan, individual parcels created through subdivision within designated development areas will not be expected to achieve the 40% open space on a site by site basis. Detailed urban design directions and other guidelines for hillsides and shorelines are provided in both the Environmental Development Permit Area and Form and Character Development Permit Area.	Trails, seating areas and amenity spaces will be provided for the residents.

SITE ADAPTIVE PLANNING	
1. **IDENTIFY FORMATIVE SYSTEMS AND FEATURES** Identify the formative systems, topographic forms, and features of the site. On most sites the formative system is runoff, usually some combination of overland flow, stormflow, and stream flow, and corresponding features like swales, seasonal channels, streams, and wetlands.	The property slopes gently from north to south. The buildings will be designed to settle into the grades reducing the amount of cuts, fills and blasting that might be required. Currently no retaining walls over 1.2m are anticipated. Please refer to the Cascadia Biological Services report dated September 4th 2024 for an overall environmental conditions assessment.
2.0 MAP OUT A SITE ANALYSIS Provide maps that identify key site forms and features, including those earmarked for protection by the community (as defined in the OCP), and including but not limited to the following: a) Hydrologic Features: areas that contribute runoff and areas that receive runoff, such as swales and wetlands. Those areas that receive runoff should either be protected from development or developed with designs that avoid disrupting the drainage system. b) Topographic Features: areas that are too steep to develop given the site's proposed development program. c) Vegetation/habitat: areas of designated high value due to their rarity (for example, Environmentally Sensitive Areas) or have high value placed upon them by the community, as represented in the development permit area guidelines.	While the site slopes up towards the north, the site is not too steep for the proposed development and is not within a steep slope DP area. Large retaining walls are not required.

3.0 OUTLINE A FRAMEWORK PLAN Compare the site analysis with the proposed development program to identify apparent opportunities and constraints. For most sites, the outcome yields two classes of land: areas that pose constraints to the proposed development, and areas with opportunities (few or no constraints) for the proposed development. Land marked with constraints is: (a) ground that will result in significant disruption to landscape systems if developed; and (b) ground that will violate declared community values (i.e. conflict with development permit area design guidelines) if developed.	Working with our environmental professionals, the buildings have been placed in areas of the least impact.
4.0 PLAN FOR DEVELOPMENT Plan development such that facilities (i.e., roads, buildings, etc) fall within the areas with the least constraints, and thus cause the least landscape disruption. The most important measures of landscape disruption is (1) the severity of clearing, blasting, and grading needed in site preparation, and (2) the amount and cost of piping and related infrastructure that must be invoked to offset the disruption.	The plans are designed to work with existing grades limiting the amount of earthworks required, however blasting is expected to be necessary. Drainage facilities will mimic exiting flows and treated and detained on site to mimic existing conditions. Please refer to the JE Anderson Design Brief .

SITE ADAPTIVE PLANNING FOR HILLSIDES	
q. Protect wildlife habitat and corridors, and environmentally sensitive areas on hillsides. r. Identify significant features prior to development and protect hillside character and natural features. s. Conserve unique natural features such as landforms, rock outcrops, mature trees and vegetation, hilltops, and ridge lines. t. Minimize blasting and re-contouring of hillsides.	There are no rock outcroppings on the property. Existing trees will remain at the north and west property lines. The plans are designed to work with existing grades limiting the amount of earthworks required, however blasting is expected to be necessary.

22.0 HILLSIDE ENVIRONMENTAL DPA	
Hillsides form the backdrop for many of the views within Colwood, and views of Colwood from neighbouring municipalities. Hillsides and ridgelines are important travel corridors for wildlife and form the headwaters of the creeks and streams. Careful development of these areas protects views, natural drainage patterns and wildlife habitat, while ensuring slope stability and protecting property values both on and below hillsides. The following guidelines apply in areas identified as hillsides in the map presented in Figure 18. In many cases these areas are also within other DP areas, and those guidelines also apply. The following design guidelines are intended to complement a site adaptive planning approach to minimize ecosystem disturbance and protect open space and wildlife corridors.	
22.1 Hillsides a. Open space and corridors between development areas or lots should be retained to provide continuous habitat linkages within the site and surrounding area. Significant features such as rock outcrops, streams, cliffs, and stands of trees should be incorporated into the open space and corridors as much as possible.	There are no rock outcrops on the property. Please refer to the Cascadia Biological EIA dated September 4th 2024. Habitat linkages can be realized within the protected areas on the north and west areas of the site
b. Windfirm treed buffers must be maintained between the subject parcel and adjacent lots and should also be applied along major roads fronting the development.	The Talmack arborist report dated _____does not note any windfirm tree issues.
c. Where trees are not present, and soils are suitable, new trees which are native to the Coastal Douglas-Fir Bio geoclimatic Zone must beplanted.	New trees are proposed within the landscape plan (to be submitted at DP stage).
d. Development on steep slopes and hillsides must not alter quantity, timing or quality of runoff from the site.	There are no steep slopes or hillsides on the site.
e. Discourage development on ridge lines.	There are no ridgelines.

f. A rainwater management plan, prepared by a Qualified Professional, must be submitted which demonstrates that post-development conditions closely match pre-development conditions. The plan must: i. Protect natural flow paths, volumes and storage resources. ii. Avoid impacts to trees, vegetation and other environmental features due to changes in drainage patterns. iii. Ensure no negative impact on water quality of run-off during and post- development. iv. Address sediment and erosion control requirements. v. Ensure no off-site drainage impacts (e.g., drainage from an upper lot to a lower lot)	Please refer to the JE Anderson design brief. Detailed Storm Water Management Plans will be provided with the detailed development servicing plans in accordance with Colwood Bylaws. Per Colwood Bylaws and Provincial Regulations. The professional engineer of record will provide erosion and sediment control plans prior to the start of any work on site.
g. Post-development, exposed soil on steep slopes subject to erosion shall be re- vegetated with vegetation native to the Coastal Douglas-Fir Bio geoclimatic zone otherwise protected from run-off erosion.	Any exposed areas will be replanted with the appropriate native vegetation under the supervision of the QEP.
h. Avoid using fast-growing non-native plants to retain soils. Temporary erosion control measures must be maintained during and post-construction until native vegetation is re-established and capable of protecting slopes from erosion.	OK
i. Avoid tree removal on steep slopes. Trees intercept precipitation and reduce stormwater runoff volumes, protect soils from erosion, and protect the scenic quality of the community.	There are no steep slopes

j. All new Hillside development must be sewered or be connected to a sewerage system that does not discharge treated effluent within the Hillside DP area.	Sanitary sewers are planned.
k. Do not clear more trees and vegetation than is necessary to install services for any given phase of the development.	OK

l. Take advantage of topography and minimize disruption of rock outcroppings, sensitive ecosystems, mature trees and culturally significant features.	There have been none noted.
m. Design sites to incorporate, protect and enhance remnant riparian zones, watercourses, and urban forests and to optimize opportunities to establish new ecological connections through the site, such as urban forest corridors and watercourses.	Yes, this has been done.
n. Assess the development site for high-value natural vegetation that provides effective stormwater management.	This will be provided vis restorative plantings.
o. Provide a landscaped or forest leave (retention) area with an increased building setback where residential uses are located at grade along a high traffic corridor, for unit comfort.	This has been provided at then north and west boundaries, with solid 1.8m fencing along the east boundary.

WINDTHROP DEVELOPMENT COLWOOD, B.C.

CIVIC ADDRESS: 546 WINDTHROP RD, COLWOOD, BRITISH COLUMBIA
LEGAL ADDRESS: LOT A, PLAN VIP20691, SEC 62, ESQUIMALT LAND DISTRICT PID: 003-576-213

ISSUED FOR REZONING

SITE MAP

LOCATION MAP

CONSULTANT LIST

CLIENT	CLIENT REP	ARCHITECT	CIVIL ENGINEER
KTS MANAGEMENT INC.	RACHAEL SANSOM	WA ARCHITECTS	J.E. ANDERSON & ASSOCIATES
c/o RACHAEL SANSOM	TEL.: 250-889-0047	950 - 1500 WEST GEORGIA ST.	4212 GLANFORD AVENUE
19131 - 21 AVENUE	CONT: RACHAEL SANSOM	VANCOUVER B.C. V6G 2Z6	VICTORIA, B.C. V8Z 4B7
SURREY, BC V3Z 3M3		TEL: 604-685-3529	TEL: 250-727-2214
		CONT: DAVID ECHAIZ-McGRATH	CONT: COLTON KILLIP
		CELINE MOTZ	

DRAWING LIST

ARCHITECTURAL		A1.201	BLOCK 1 FLOOR & ROOF PLANS	A5.201	BLOCK 5 LEVEL 1 & 2 PLANS
A000	COVER SHEET - STATISTICS	A1.301	BLOCK 1 ELEVATIONS	A5.202	BLOCK 5 LEVEL 3 & ROOF PLANS
A101	SURVEY PLAN	A1.302	BLOCK 1 ELEVATIONS	A6.201	BLOCK 6 LEVEL 1 & 2 PLANS
A102	SITE PLAN	A2.201	BLOCK 2 FLOOR & ROOF PLANS	A6.202	BLOCK 6 LEVEL 3 & ROOF PLANS
A141	CONTEXT SITE SECTIONS	A3.201	BLOCK 3 FLOOR & ROOF PLANS	A7.201	BLOCK 7 FLOOR & ROOF PLANS
A142	CONTEXT SITE SECTIONS	A4.201	BLOCK 4 FLOOR & ROOF PLANS		

PROJECT STATS

Windthrop Rd Residential

Project No. 22070

REVISION NO.	6			DATE:	14-May-25
SITE INFORMATION					
LEGAL DESCRIPTION	LOT A, SECTION 62, ESQUIMALT DISTRICT PLAN 20691, PID: 003-576-213				
CIVIC ADDRESS	546 Windthrop Rd, Colwood, B.C.				
	EXISTING			PROPOSED	
ZONING	A1			HRAH1 - Hillside Residential Attached Housing 1	
SITE AREA (ft²)	87,113 ft²	2.00 Acres aprox.	8,093 m²		
SITE DATA	BYLAW REFERENCE	DESCRIPTION	MAX. ALLOWED	PROPOSED (metric)	PROPOSED (imperial)
FAR	Bylaw 151 - 6.13.5 HRAH1		1.20	0.59	
LOT COVERAGE	Bylaw 151 - 6.13.5 HRAH1		40%	25.7%	
BUILDING HEIGHT (Pop-Up Height)	Bylaw 151 - 6.13.5 HRAH1		3 storey or 12.5m	12.50 m	41.01 ft
BUILDING HEIGHT (Top of Parapet)	Bylaw 151 - 6.13.5 HRAH1		3 storey or 12.5m	9.80 m	32.15 ft
SETBACKS	Bylaw 151 - 6.13.5 HRAH1	FRONT (WINDTHROP STREET)	4.00m	7.50 m	24.61 ft
		REAR (NORTH)	7.5m	9.18 m	30.12 ft
		SIDE (EAST)	1.50m	6.00 m	19.69 ft
		SIDE (WEST)	1.50m	6.00 m	19.69 ft
NATURAL GREEN AREA	To be retained		40-50%	2,381.48	29.4%
USABLE OPEN SPACE (TOTAL AMENITY)	Bylaw 151 - 6.13.5 HRAH1 - min. 10%			809.19 m	10.00%
USABLE OPEN SPACE - NATURE PLAYGROUND				298.22 m	3.68%
USABLE OPEN SPACE - PICNIC AREAS				510.97 m	6.31%
SRW				157.46 m	1.95%

BUILDING DATA					
UNIT MIX	DESCRIPTION	GROSS AREA (ft²)	# OF UNITS	COMBINED (m²)	COMBINED (ft²)
A1	2 BED + FLEX	1,380 ft²	10	1,282 m²	13,800 ft²
B1	3 BEDROOM	1,587 ft²	17	2,506 m²	26,979 ft²
B2	3 BEDROOM	1,549 ft²	7	1,007 m²	10,843 ft²
B3 (Tandem)	3 BEDROOM	2,085 ft²	0	0 m²	0 ft²
TOTAL UNITS	**(Saleable Area)**		**34**	**4,796 m²**	**51,622 ft²**
PARKING DATA (RESIDENTIAL)	BYLAW REFERENCE	DESCRIPTION		REQUIRED	PROPOSED
REGULAR STALL	Bylaw 1909 - 3.1 Table 1	1.5 per dwelling unit (urban area eligible)		51.00 stalls	**68 stalls**
VISITOR	Bylaw 1909 - 3.5.2	0.1 visitor parking per 1 dwelling units	Not included in total	3 stalls	3 stalls
ACCESSIBLE STALL	Bylaw 1909 - 3.4 (Table 2)	0-10 spaces - 1 acc. 51-100 spaces - 2 acc.	Included in total	2 stalls	2 stalls
TOTAL				**54 stalls**	**71 stalls**
BICYLE PARKING	BYLAW REFERENCE	DESCRIPTION		REQUIRED	PROPOSED
BICYCLE AREA	Bylaw 5.1 Table 5	Long Term 1 per unit		34 stalls	34 stalls
		Short Term 6		6 stalls	6 stalls
TOTAL				40 stalls	40 stalls

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

COVER SHEET
MAY 14, 2025

1 SITE PLAN
A0102 1" = 50'-0"

TREE'S HEALTH CONDITION

- GOOD TREE
- FAIR - GOOD TREE
- FAIR TREE
- FAIR - POOR TREE

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

SITE PLAN - GREEN SPACE
MAY 14, 2025

SITE PLAN OF LOT A, SECTION 62, ESQUIMALT DISTRICT, PLAN 20691.

0 7 21 35

Scale 1:350. All distances are in metres.

NOTE:

Lot dimensions shown are based upon Plan 20691.

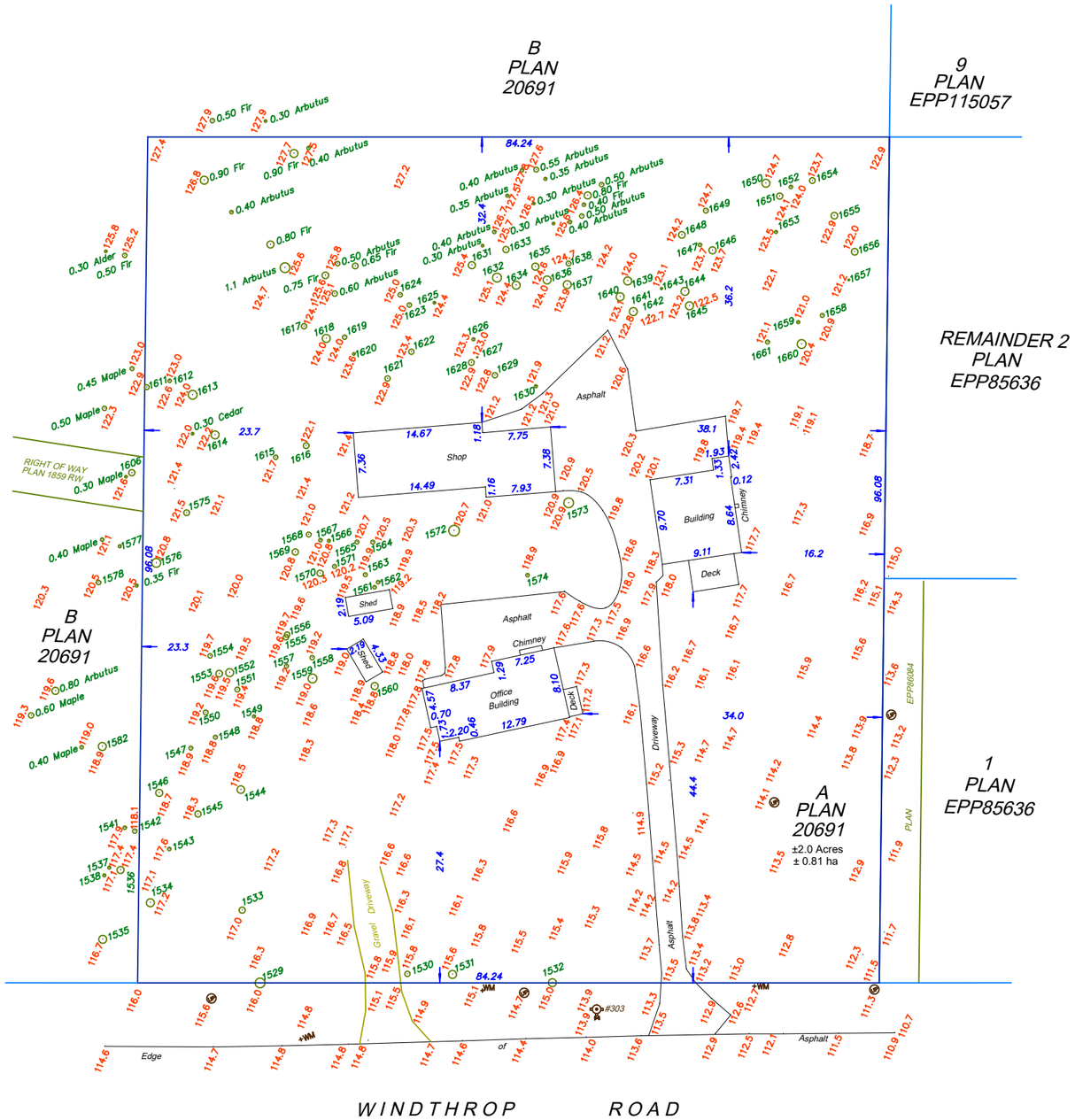
Lot dimensions, offsets, and area shown may vary upon completion of a comprehensive legal survey.

Geodetic elevations shown are based upon observations to geodetic control monuments 88H3944 (Elev.=98.070m) and 88H3968(Elev.=79.560m).

This plan is for discussion purposes only and is for the exclusive use of our client. This plan shall not be used to define property lines or property corners. Unregistered interests have not been included or considered.

Field surveys June 21st, 22nd, 28th and 30th, 2022.
Field survey May 22nd, 2024.

PID: 003-576-213



1 SURVEY PLAN
A0101 1" = 50'-0"

LEGEND

+WM	Denotes water meter
0.75 Fir	Denotes approximate tree location & type (no tag)
1533	Denotes approximate tree location & tag number
116.0	Denotes ground elevation
	Denotes utility pole
	Denotes water valve
	Denotes hydrant

File: W136-SANSOM-SD3 | Date: May 28, 2024

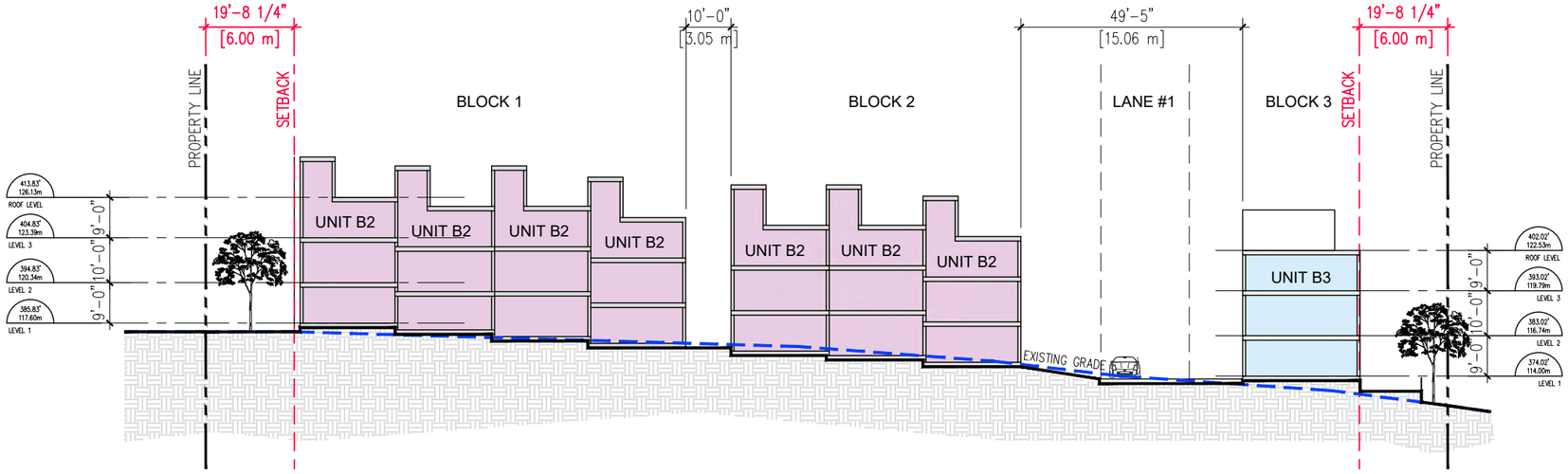
Jason C. Kozina, BCLS 787

WA ARCHITECTS

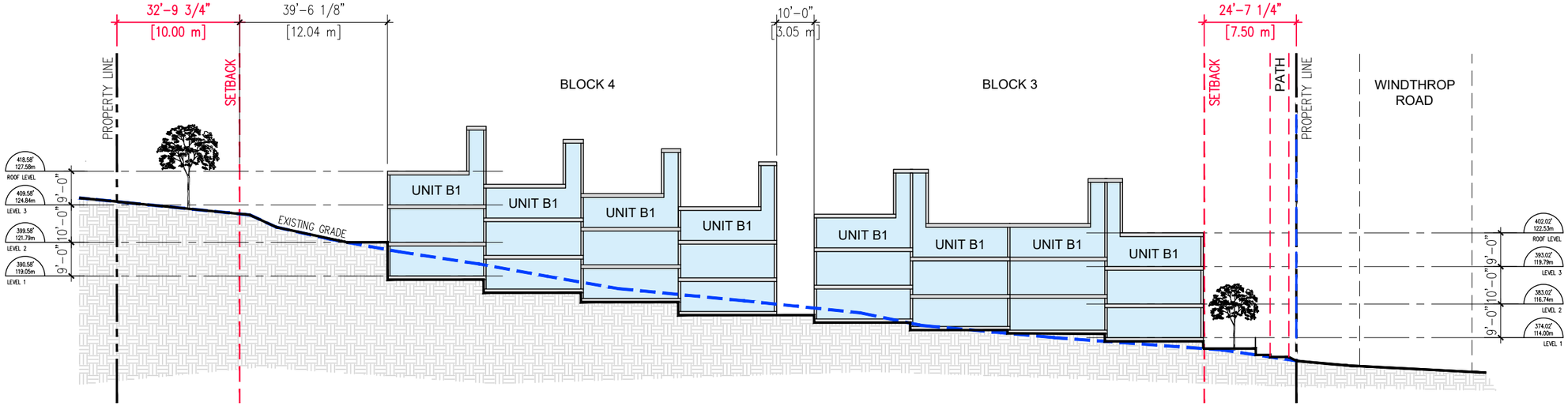
546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

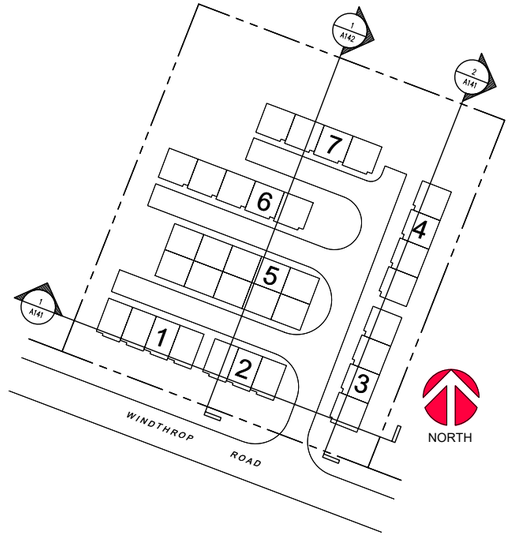
EXISTING SURVEY
AUGUST 28, 2024



1 A141 SITE SECTION 1
1/32" = 1'-0"



2 A141 SITE SECTION 2
1/32" = 1'-0"



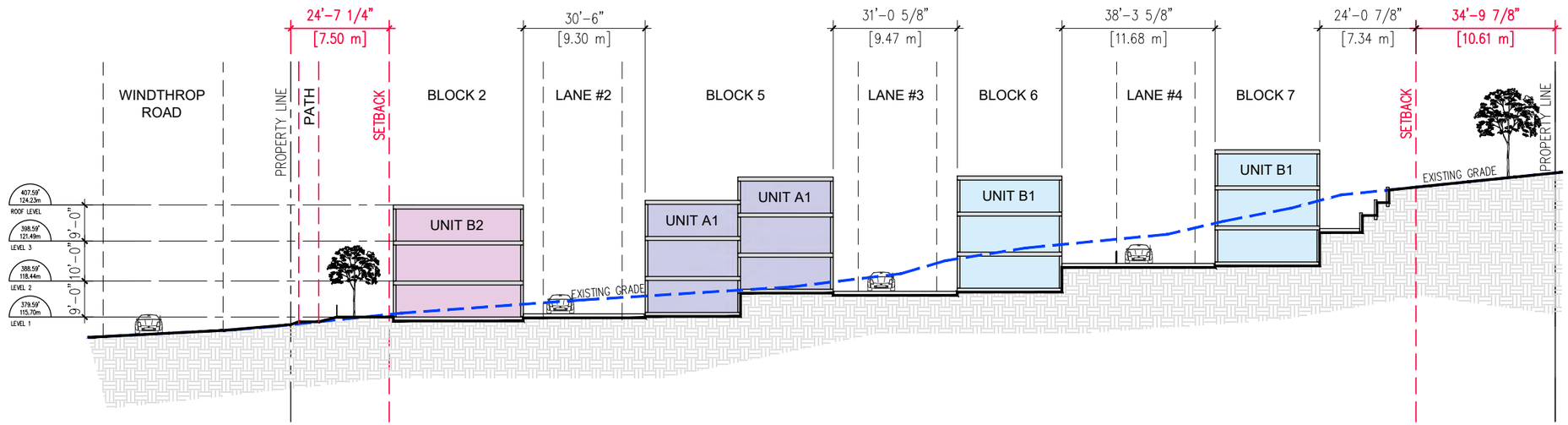
3 A141 KEY PLAN
N.T.S.

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

SITE SECTIONS
AUGUST 28, 2024



1 / A142 SITE SECTION 3
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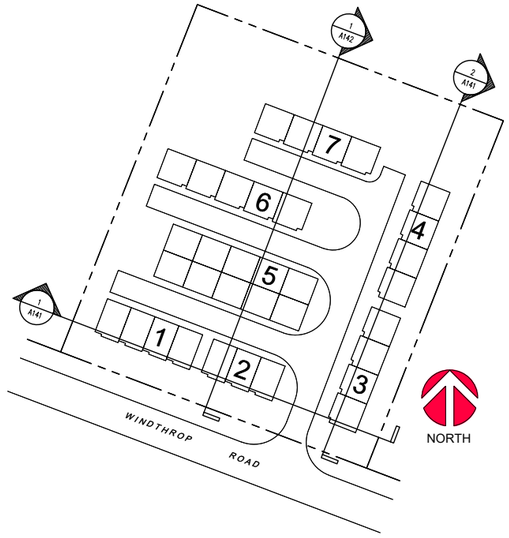


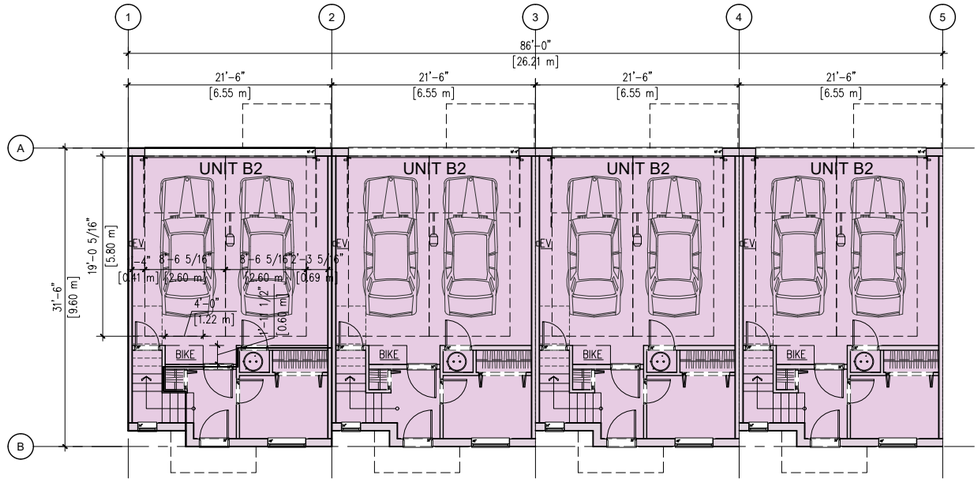
2 / A142 KEY PLAN
N.T.S.

WA ARCHITECTS

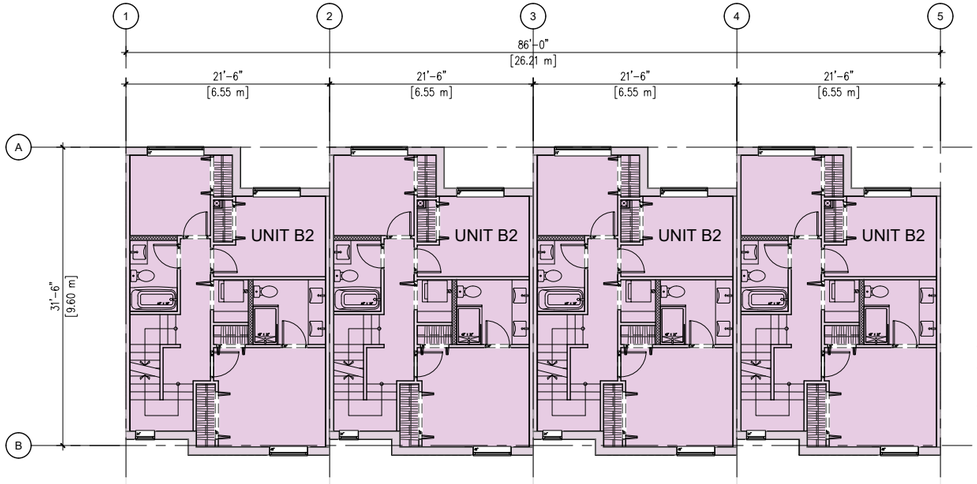
546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

SITE SECTION
AUGUST 28, 2024



1 A1-201 BLOCK 1 - 1st FLOOR PLAN
1/16" = 1'-0"



3 A1-201 BLOCK 1 - 3rd FLOOR PLAN
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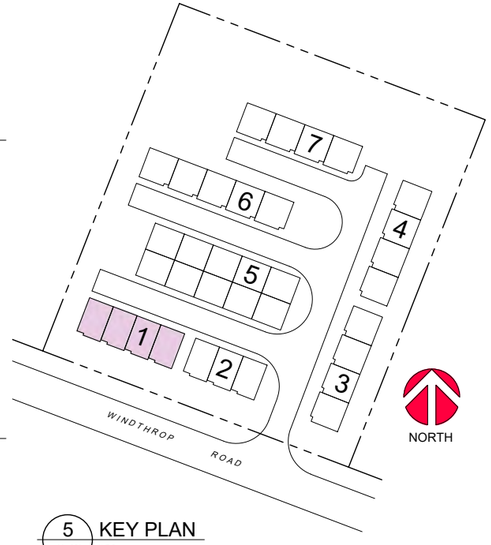
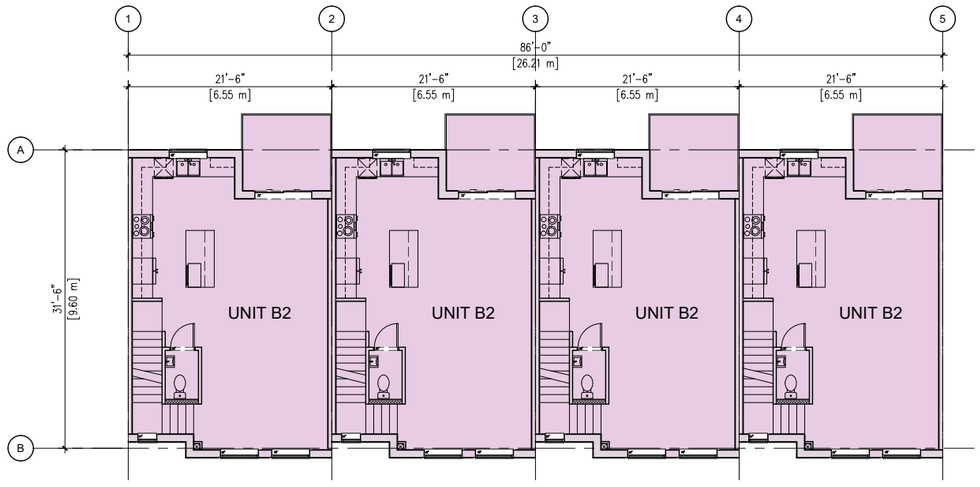


5 A1-201 KEY PLAN
N.T.S.



2 A1-201 BLOCK 1 - 2nd FLOOR PLAN
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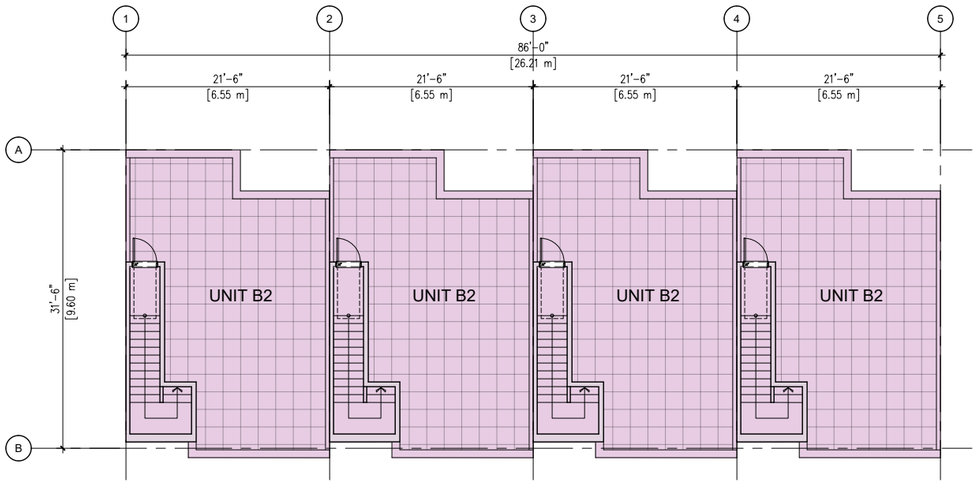


4 A1-201 BLOCK 1 - ROOF FLOOR PLAN
1/16" = 1'-0"

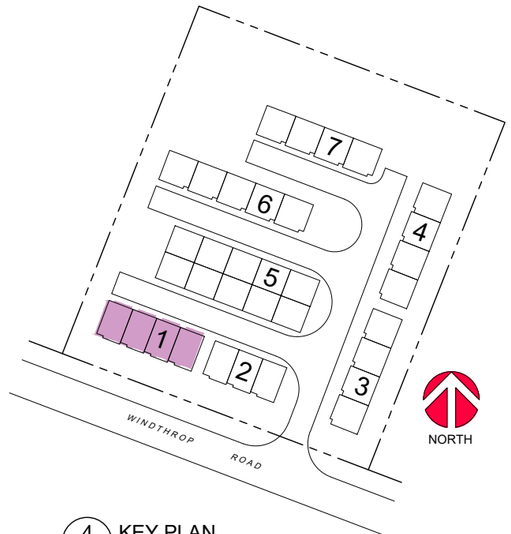
WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 1 - FLOOR & ROOF PLANS
AUGUST 28, 2024

1 A1–301 BLOCK 1 - NORTHEAST VIEW
N.T.S.



4 A1–302 KEY PLAN
N.T.S.

2 A1–301 BLOCK 1 - NORTH ELEVATION
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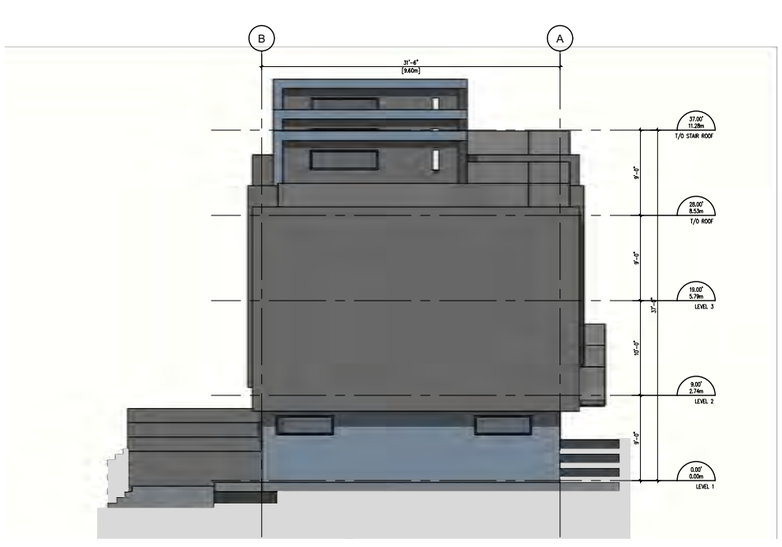


3 A1–301 BLOCK 1 - EAST ELEVATION
1/16" = 1'-0"

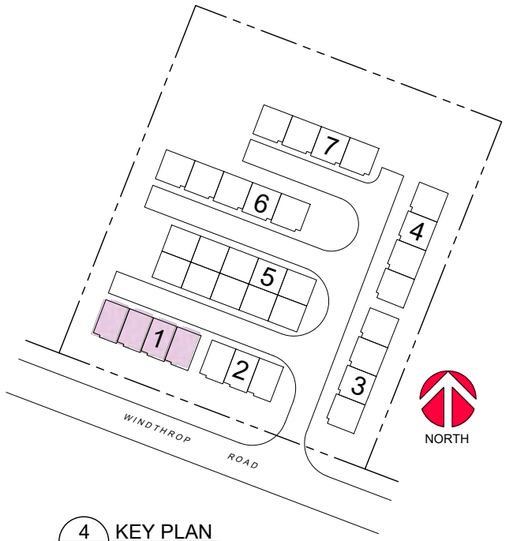
WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

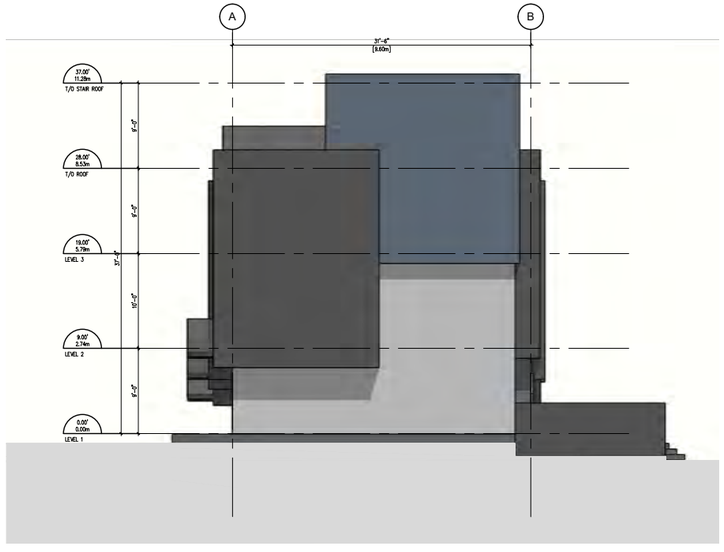
BLOCK 1 - ELEVATIONS
AUGUST 28, 2024

1 A1-301 BLOCK 1 - SOUTHWEST VIEW
N.T.S.



4 A1-301 KEY PLAN
N.T.S.

2 A1-301 BLOCK 1 - WEST ELEVATION
1/16" = 1'-0"



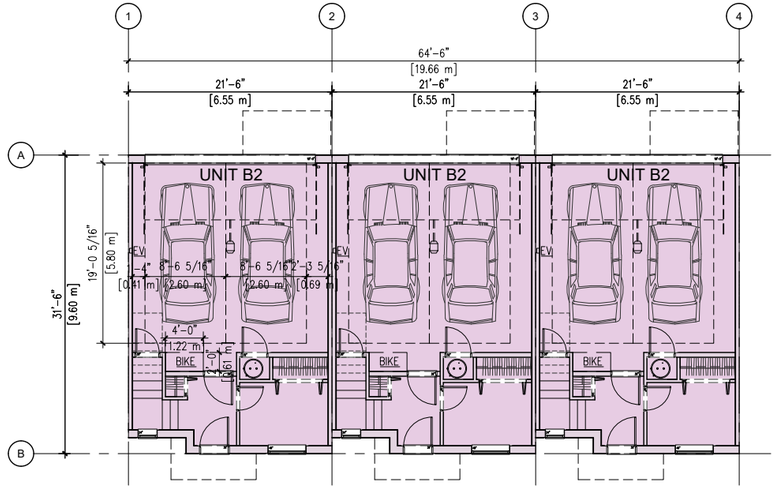
3 A1-301 BLOCK 1 - SOUTH ELEVATION
1/16" = 1'-0"

WA ARCHITECTS

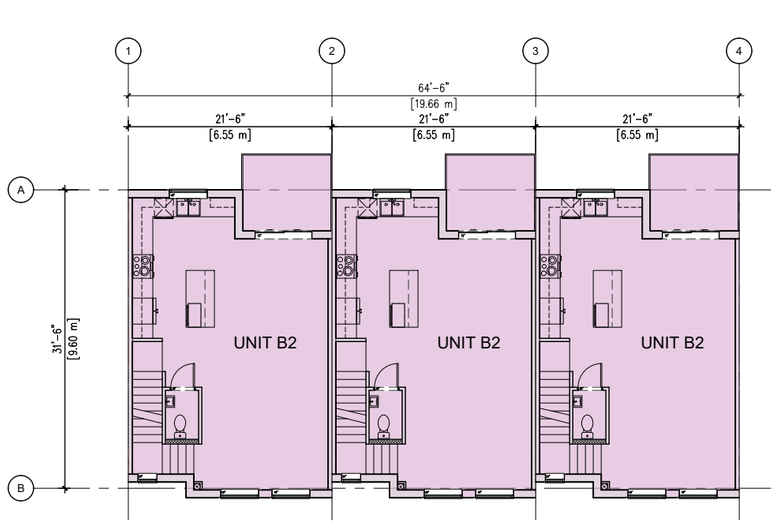
546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 1 - ELEVATIONS
AUGUST 28, 2024



1 A2-201 BLOCK 2 - 1st FLOOR PLAN
1/16" = 1'-0"



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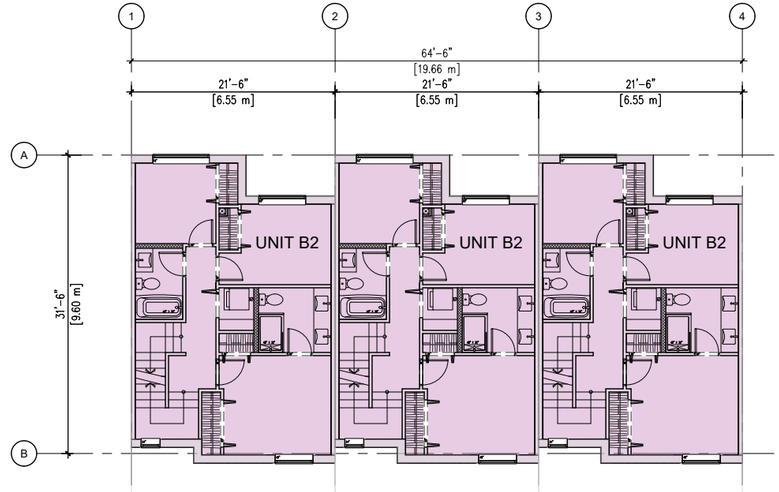

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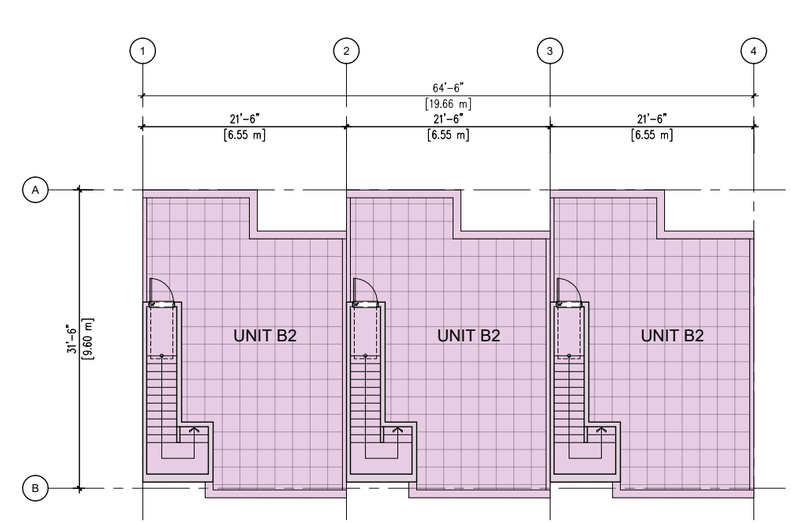

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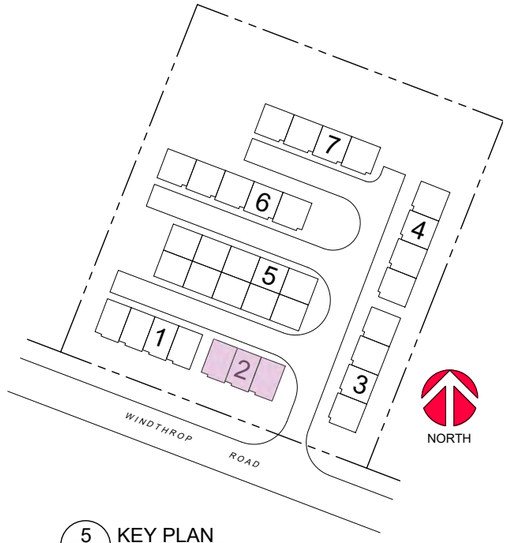


5 A2-201 KEY PLAN
N.T.S.

WA ARCHITECTS

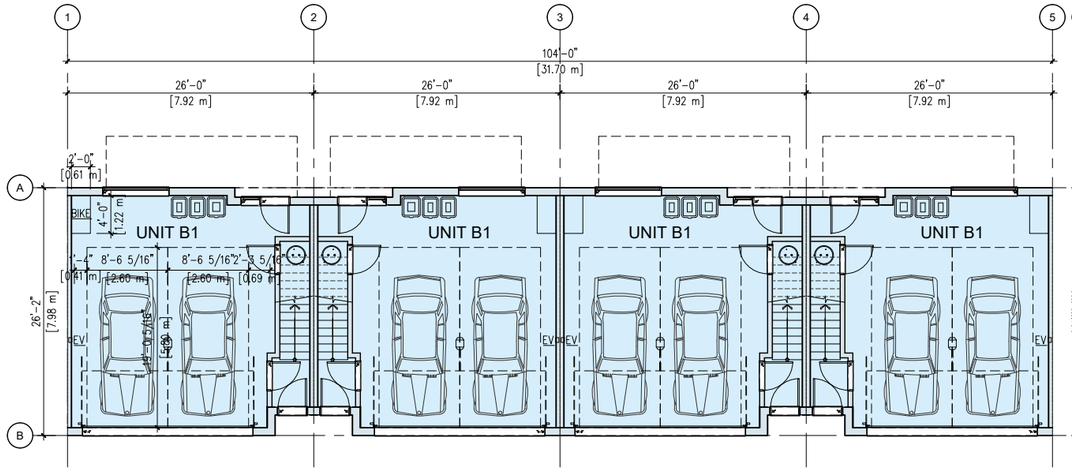
546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070

SCALE: 1/16" = 1' - 0"

BLOCK 2 - FLOOR & ROOF PLANS

AUGUST 28, 2024



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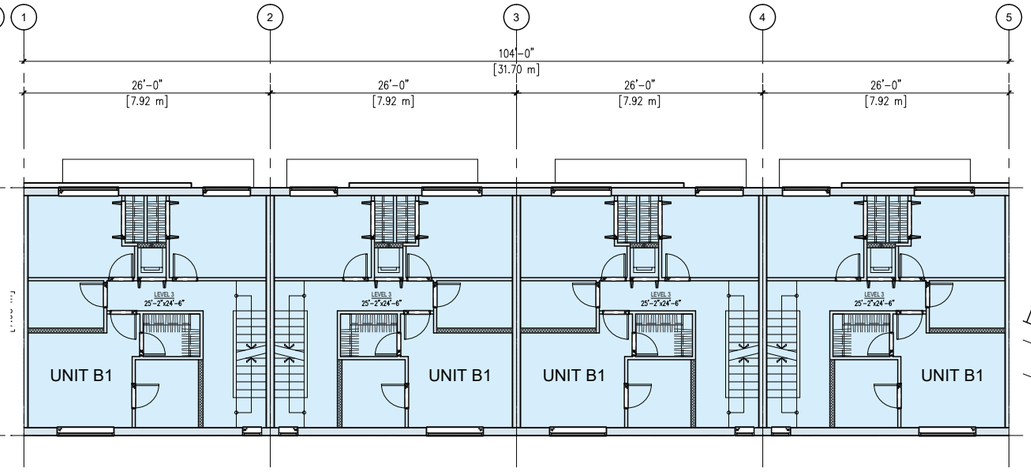

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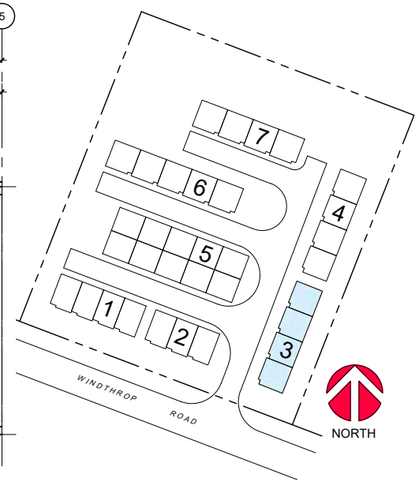

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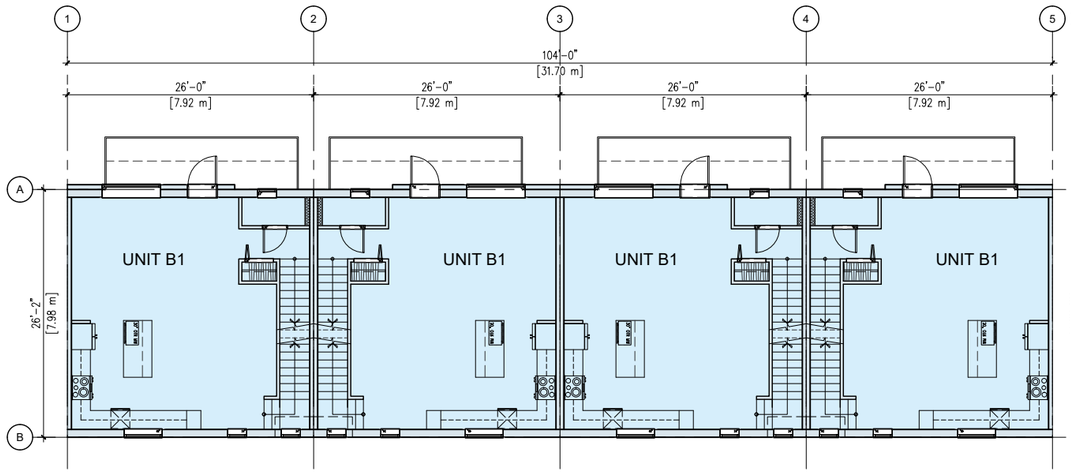
A3-201 N.T.S.



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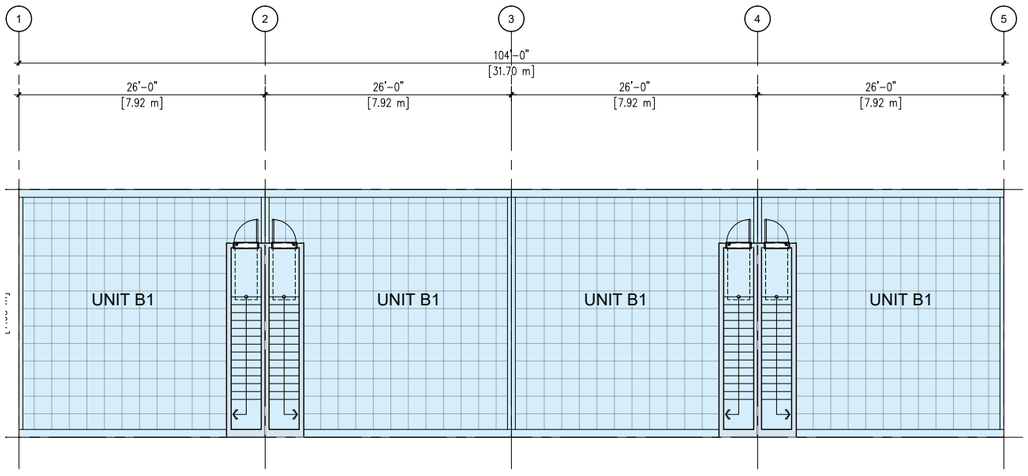

4 BLOCK 3 - ROOF FLOOR PLAN
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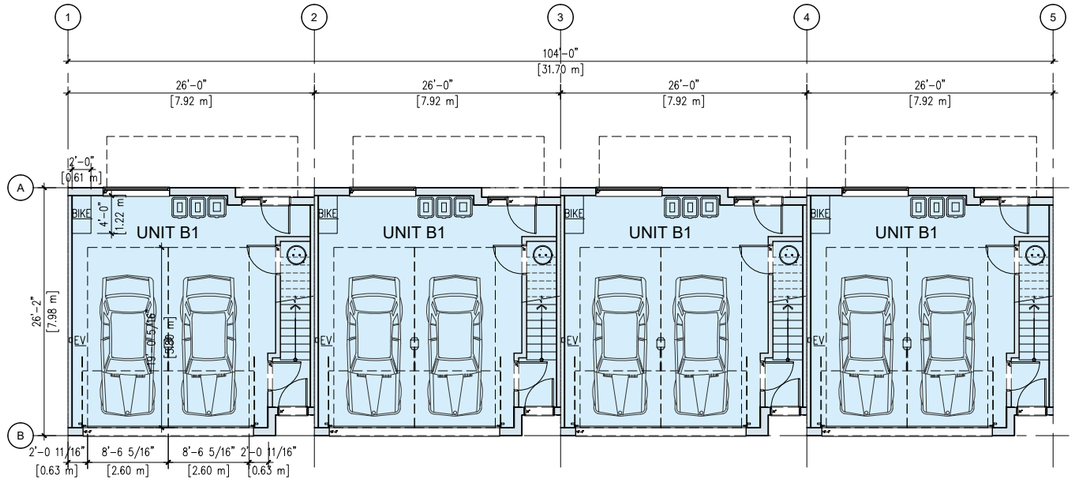
WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 3 - FLOOR & ROOF PLANS
AUGUST 28, 2024



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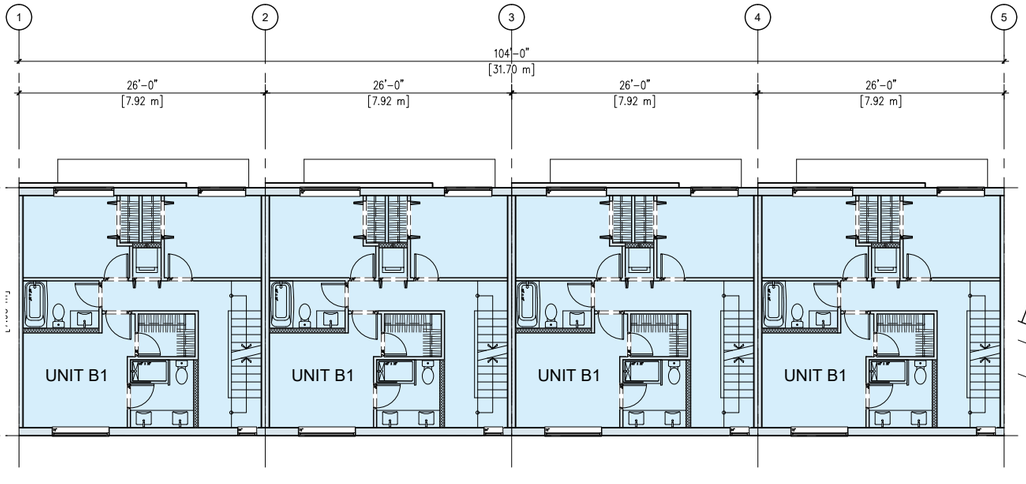

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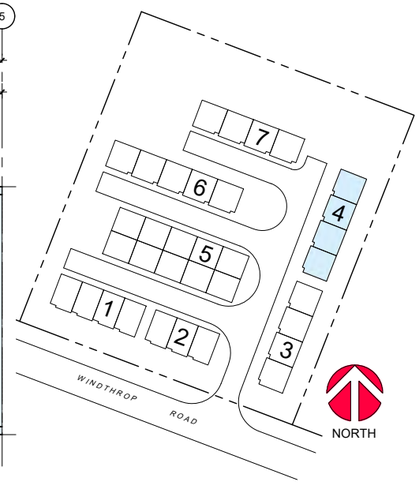

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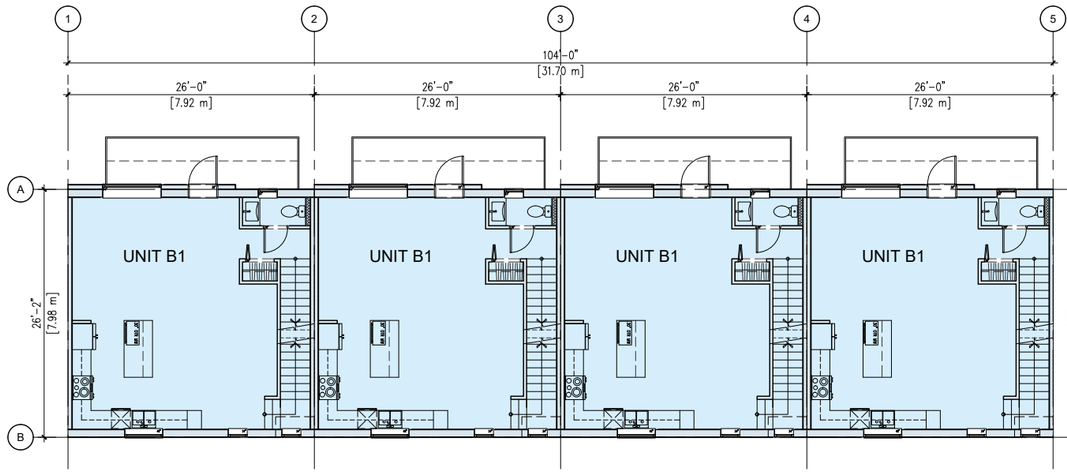

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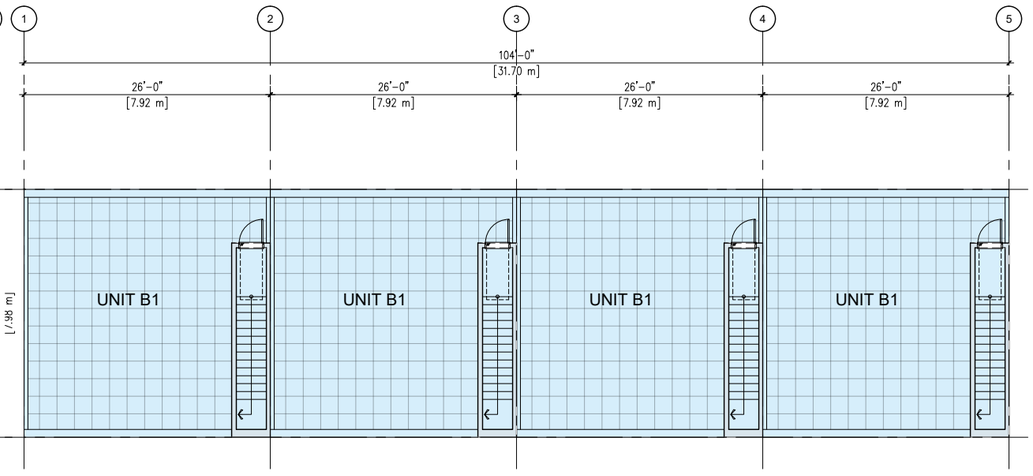


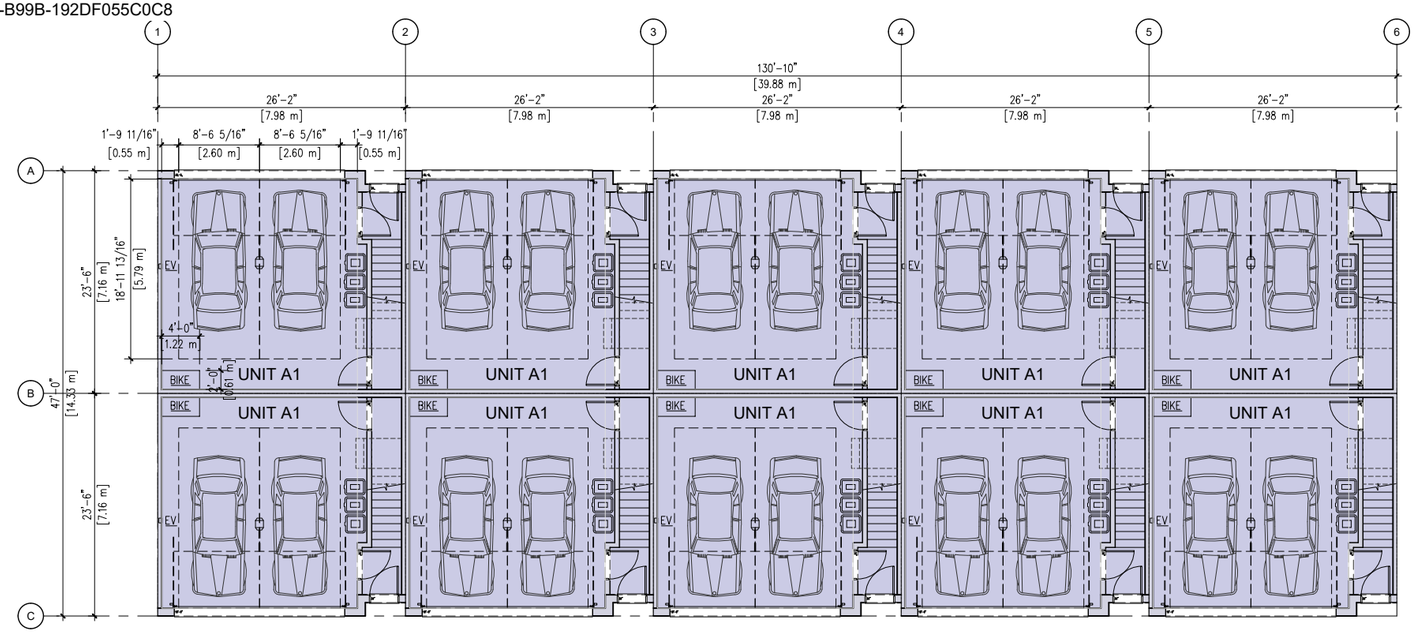
4 BLOCK 4 - ROOF FLOOR PLAN
A4-201 1/16" = 1'-0"

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 4 - FLOOR & ROOF PLANS
AUGUST 28, 2024



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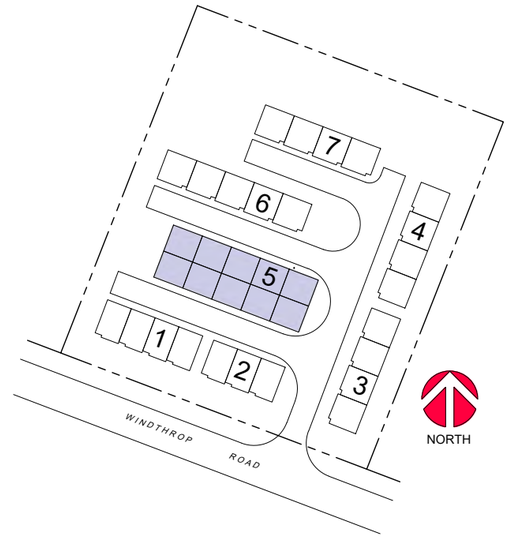

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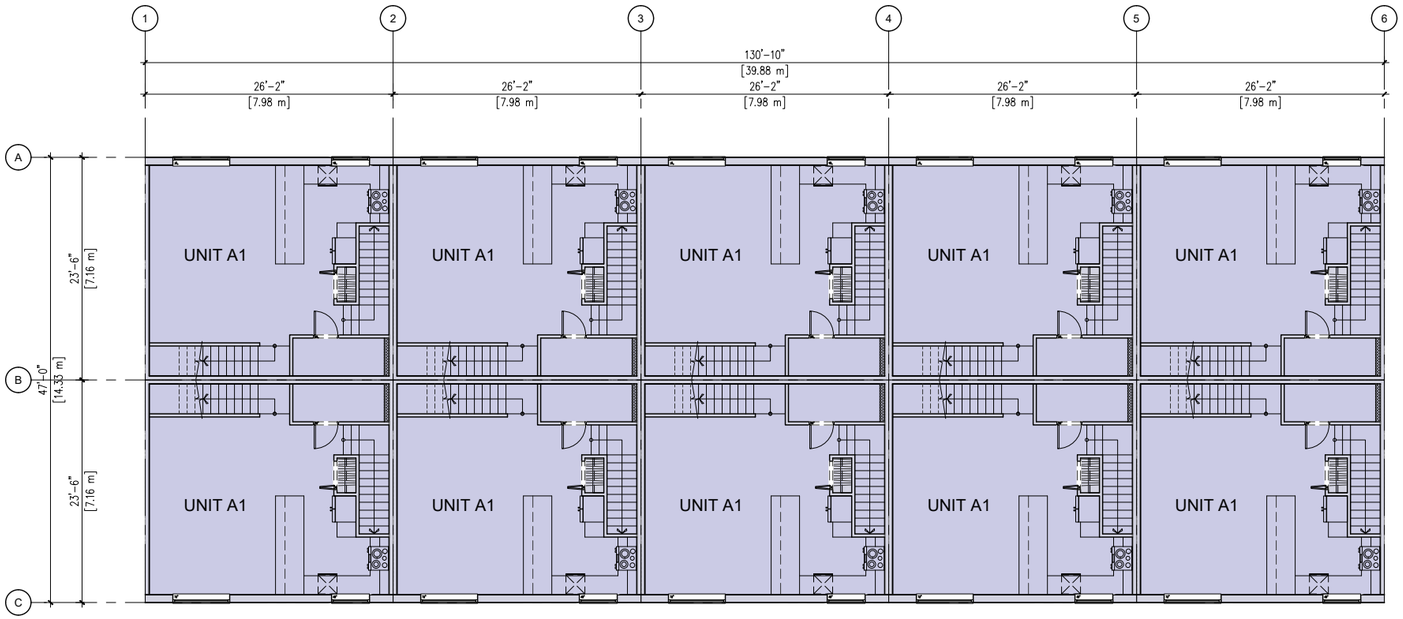
A5-201 N.T.S.



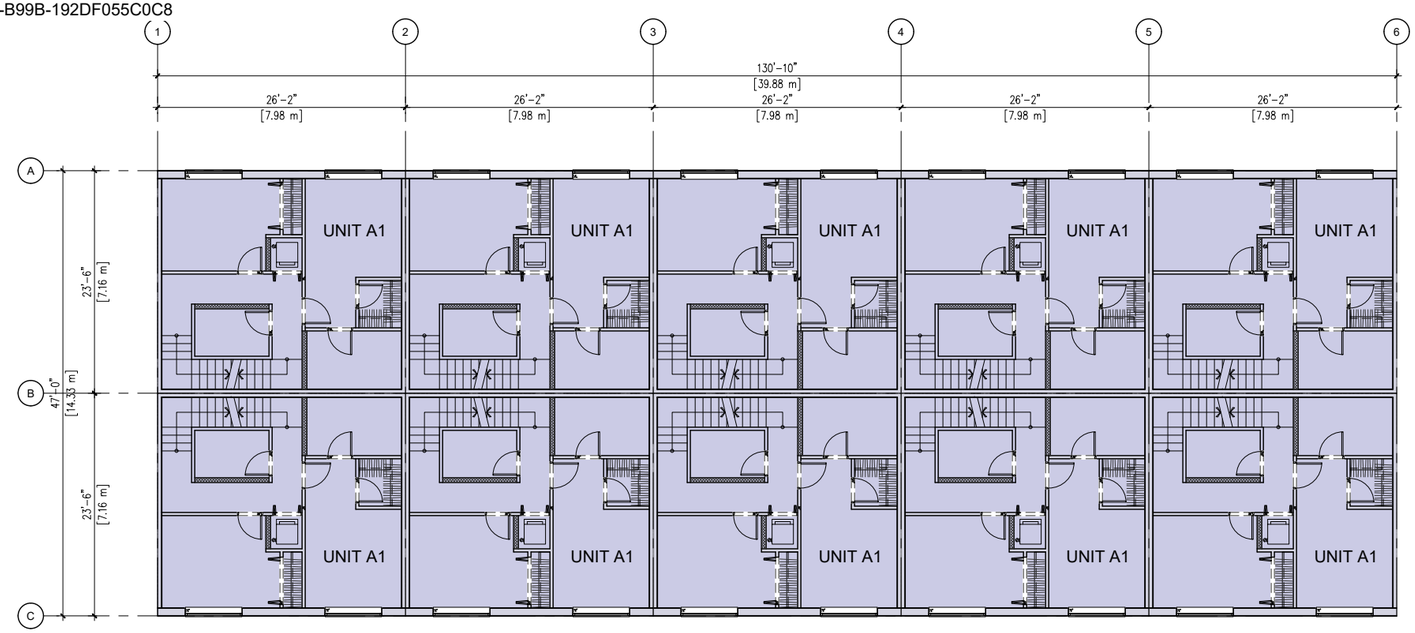
2 BLOCK 5 - 2nd FLOOR PLAN
A5-201 1/16" = 1'-0"

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 5 - FLOOR & ROOF PLANS
AUGUST 28, 2024



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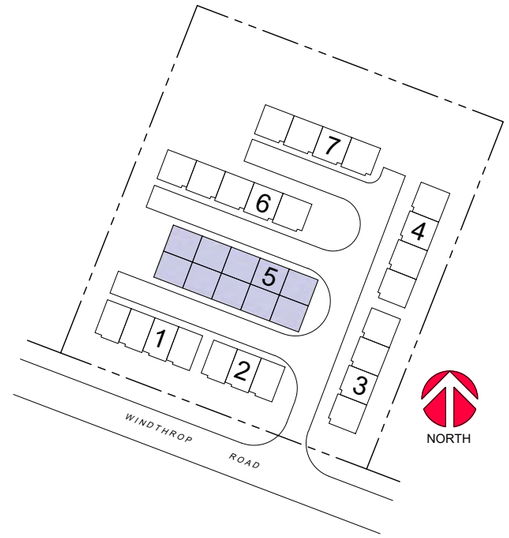

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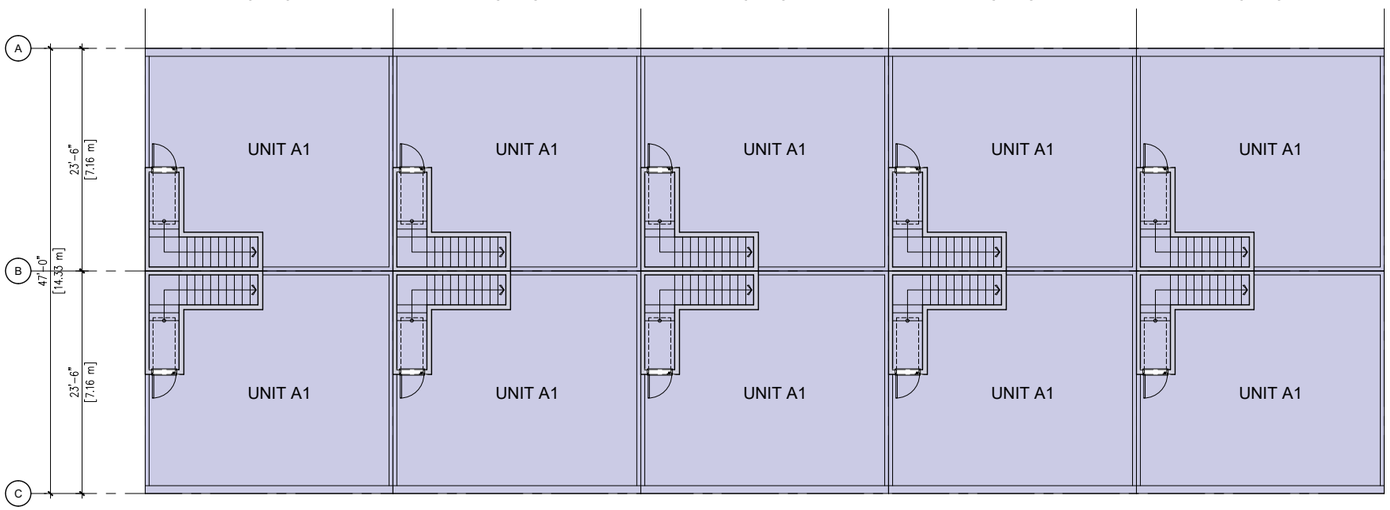
A5-202 N.T.S.



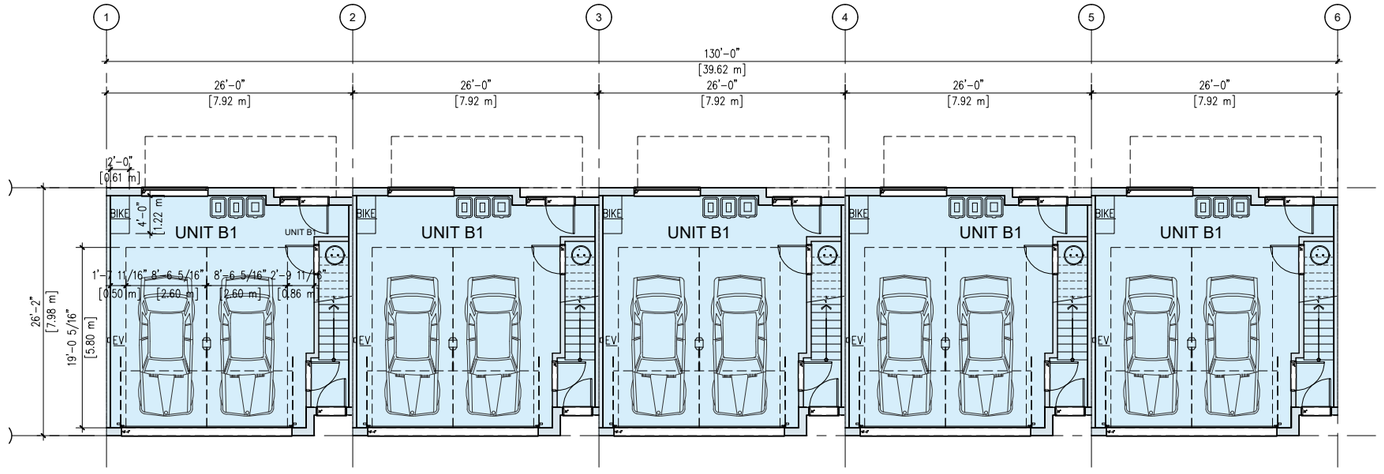
2 BLOCK 5 - ROOF FLOOR PLAN
A5-202 1/16" = 1'-0"

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 5 - FLOOR & ROOF PLANS
AUGUST 28, 2024



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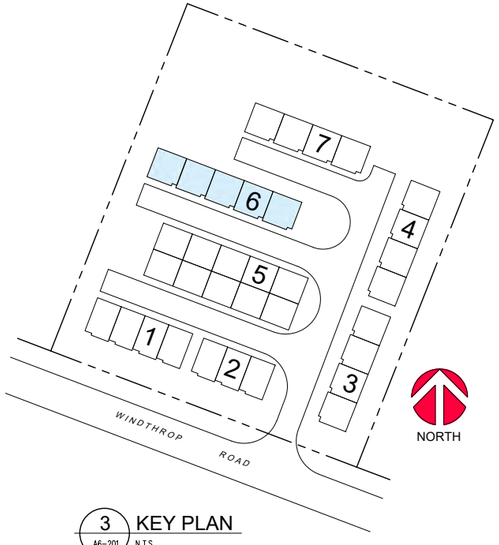

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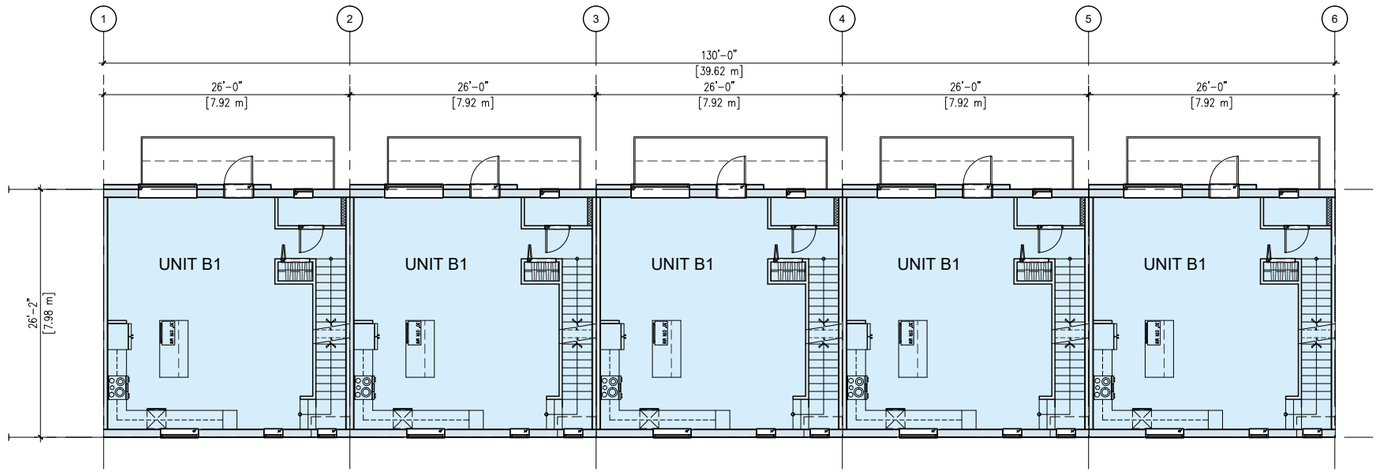

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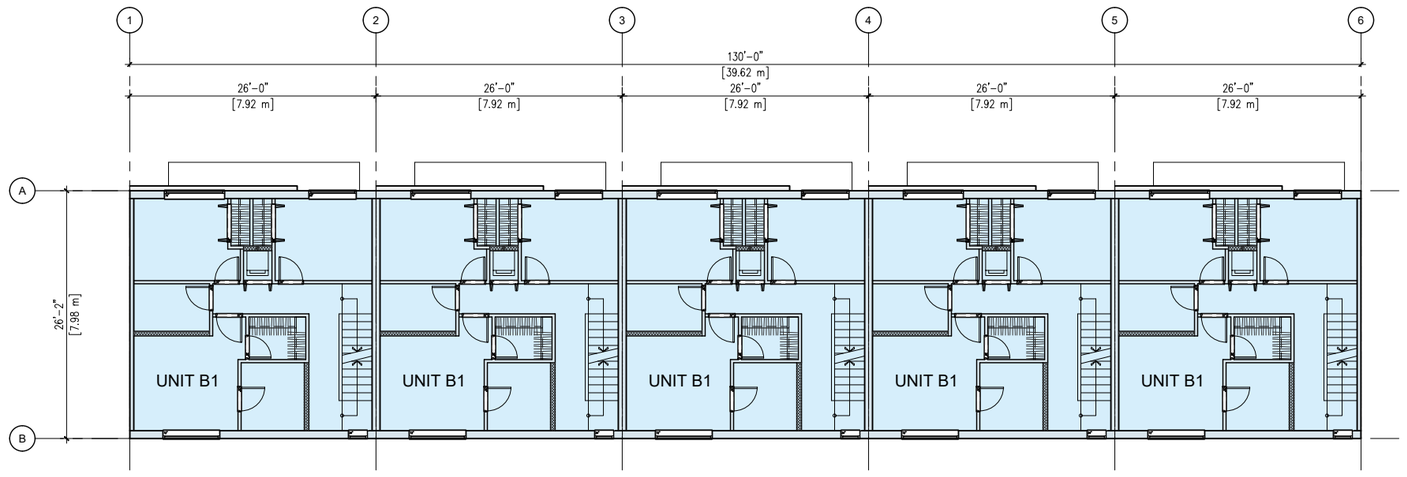
WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 6 - FLOOR PLANS
AUGUST 28, 2024



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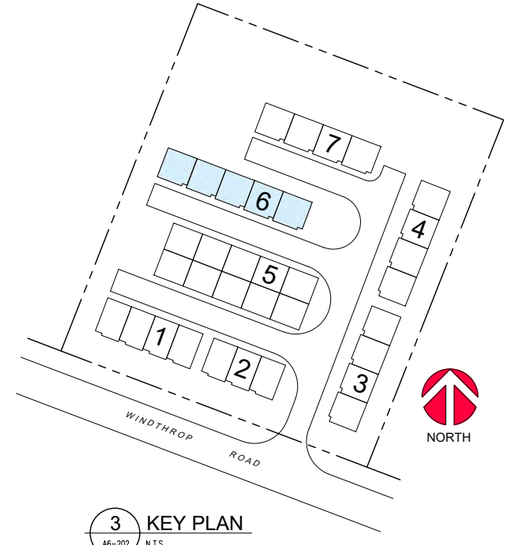

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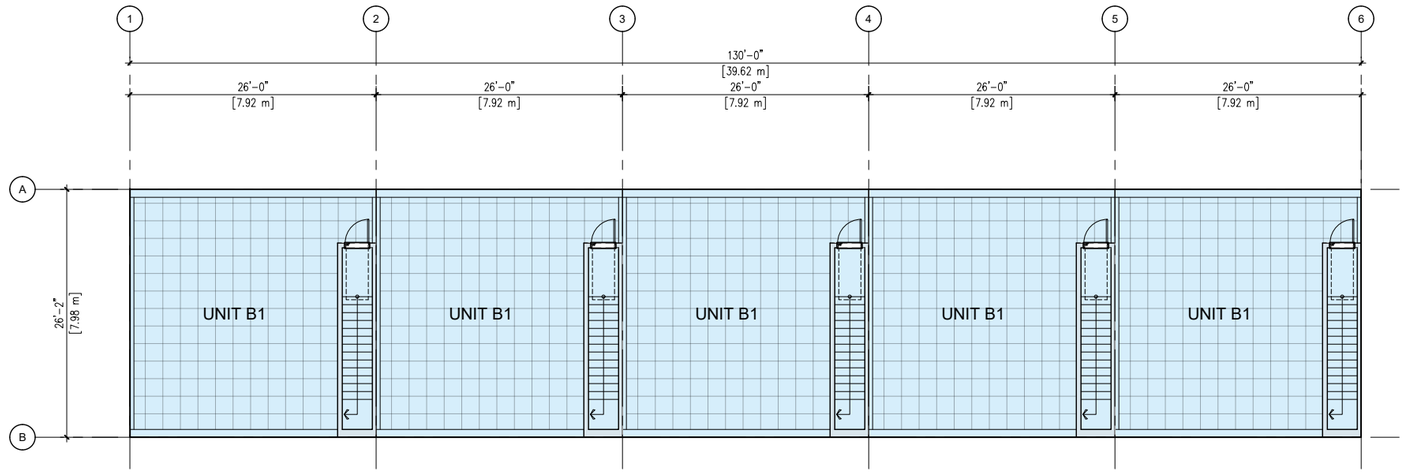


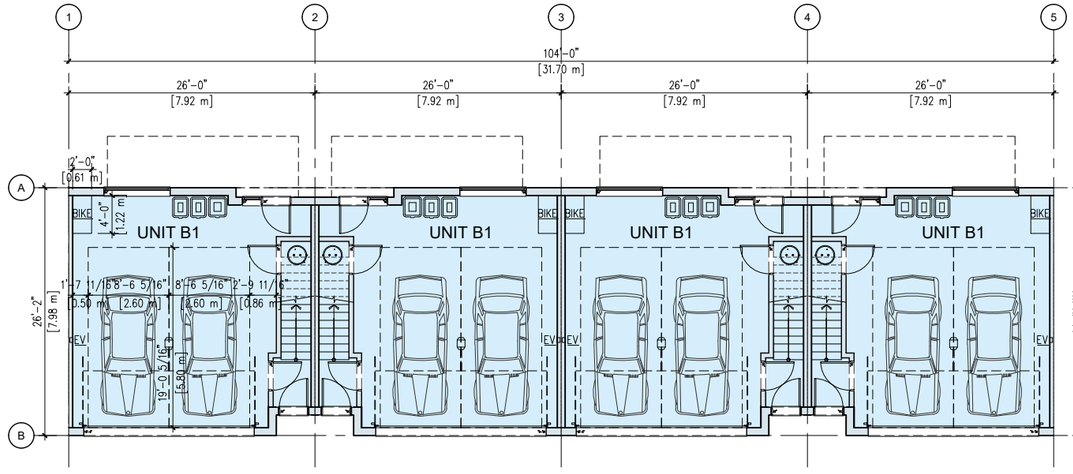
2 A6-202 BLOCK 6 - ROOF FLOOR PLAN
1/16" = 1'-0"

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 6 - FLOOR & ROOF PLAN
AUGUST 28, 2024



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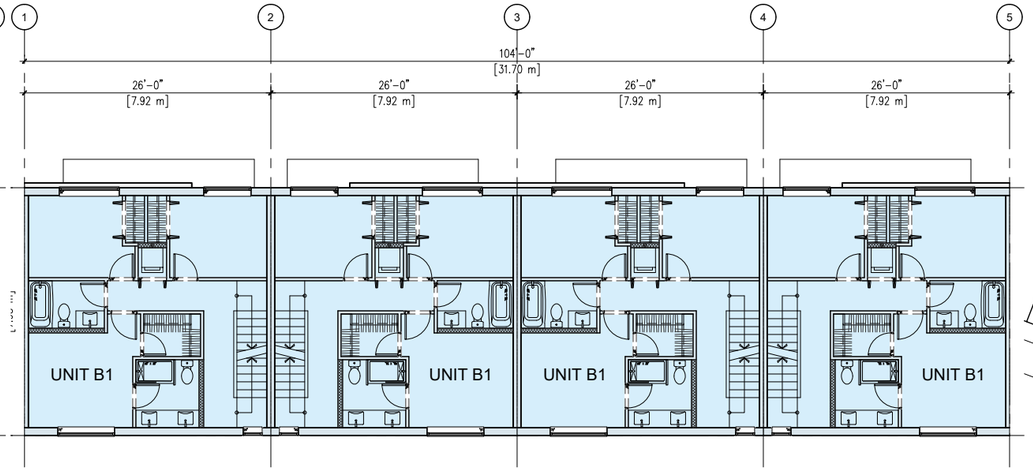

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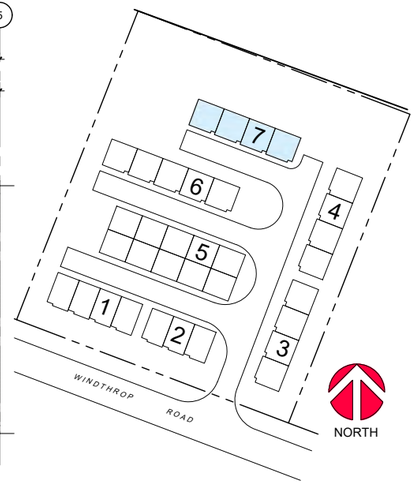

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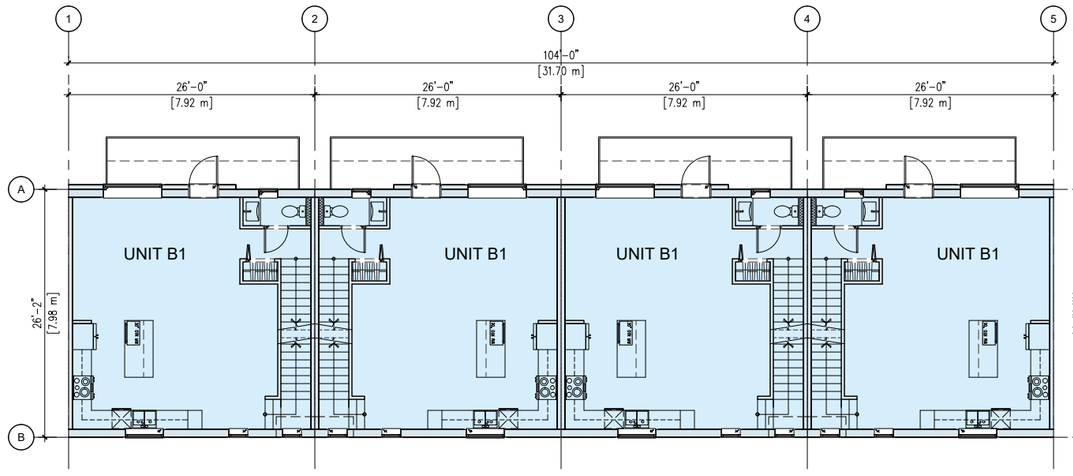

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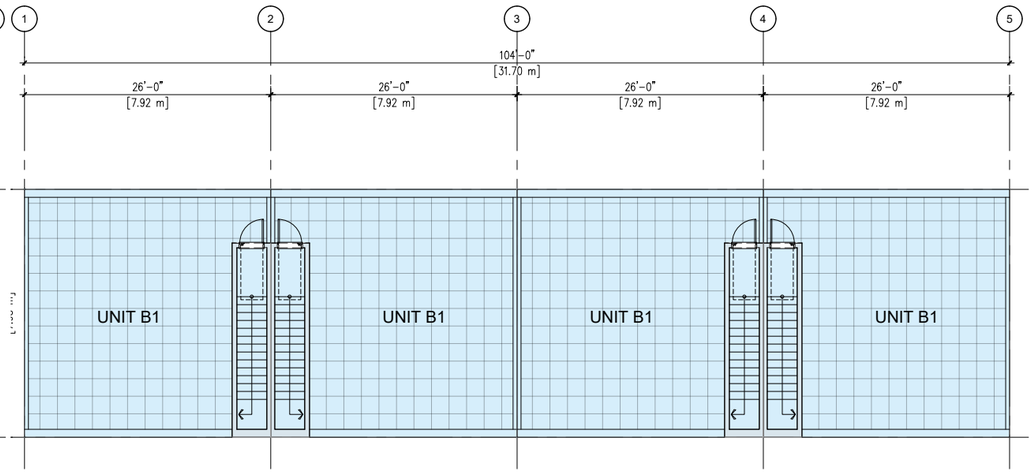


4 BLOCK 7 - ROOF FLOOR PLAN
A7-201 1/16" = 1'-0"

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: 1/16" = 1' - 0"

BLOCK 7 - FLOOR & ROOF PLANS
AUGUST 28, 2024

Cascadia Biological Services

Cascadia Biological Services
772 Goldstream Ave
PO Box 27034
Victoria, BC
V9B 5S4

September 4th 2024

City of Colwood
3300 Wishart Road
Victoria, British Columbia
Canada, V9C 1R1
Attn: Planner

Environmental Impact Assessment
546 Windthorp Road – Langford BC

Purpose

This report is in response to a request by the City of Colwood for an assessment of environmentally significant attributes as well as potential impacts resulting from the proposed development located at 546 Winthrop Road (refer to Attachment I, II, and III for an overview map showing the subject property location, environmentally significant attributes as well as areas of significance). Located along the southern boundary of the city with the District of Metchosin, the property has been identified as having a Hillside and Shoreline development permit area (DPA). At the time of our assessment in May and June of 2022 as well as in July of 2023 and finally August of 2024, the property was being used actively as a business including a primary residence/office as well as some commercial outbuildings. The property is located immediately north of Windthorp Road and equidistant from both the Veterans Memorial Parkway and Wishart Road.

Because of the potential for high value habitat, this assessment will determine if our study area as shown in Attachment I falls within existing environmentally sensitive areas and if so, how best to mitigate and/or reduce the overall environmental impacts associated with the development. As well, the assessment is also required to determine if the Riparian Areas Protection Regulations (RAPR) legislation applies to the property in regard to watercourses that may be present on site and/or immediately adjacent to the property thereby fulfilling the requirements of the legislation.

Background

At the request of Mrs. Rachael Sansom (agent for landowner), Cascadia Biological Services was retained to conduct an environmental impact assessment of the proposed disturbed area (majority of lot) associated with the development of 546 Windthorp Road

as shown in Attachment(s) I- IV. The subject property, measuring approximately 8000 m^2 (0.8 hectares) in area, has a southerly aspect and fronts onto Windthorp Road. For this project, our assessment focused on the older second-generation forest along the northern boundary of the proposed development. These areas appeared to be in more of a natural state as compared to the disturbed areas along the centre and southern sections of the property. This natural state area measures 2634 m^2 (0.2634 hectares) and represents 32.9% of the entire subject property. Please refer to Attachment IV for the natural state areas map. Fieldwork to assess the study area was completed by Thomas Roy, QEP of Cascadia Biological Services between May and June of 2022 as well as in July 2023 and again in August of 2024. The purpose of the site visit therefore was to examine the physical and biological attributes of the proposed disturbed area within the Habitat/Biodiversity polygons, the potential for riparian areas as well as to review proposed works, and finally, to discuss how best to minimize or offset the environmental impacts resulting from the proposed development. Prior to the field visit, an overview search of existing environmentally significant areas was conducted including a search of rare elements as documented by the BC Conservation Data Centre. Typical site photos are presented in Attachment V.

Environmental Assessment Findings

1) **Land Use –** Properties to the south and southeast of the subject property have been utilized for small to larger acreage type residential purposes and remain for the most part relatively undisturbed except for house sites and ornamental plantings including grasses and fruit trees. Properties to the north and west consist of more treed and less developed larger scale properties. Most of the native vegetation in and around the subject property including neighbouring properties have been replaced by lawns and ornamental gardens comprised primarily of introduced species with the exception of small to mid size native ecosystem polygons interspersed between the existing disturbed areas.

2) **Subject Property** - The subject property consists of a total area of 8,000 m^2 (0.8 hectares) of which over 5366 m^2 (67.1%) has been previously disturbed. Further to the previous disturbances on the property, the proposed disturbances associated with the development plan, include land alterations to an additional 1134 m^2 (0.1134 hectares) of moderately rated (marginal habitat) older second-generation forests. Please refer to Attachment IV for an overview map with the natural state area(s) identified. Typical site photographs are presented in Attachment V. For the sake of this assessment, moderately rated habitat is indicative of an indigenous ecosystem, however, does not possess environmentally significant attributes including nesting/denning sites and/or rare plants. Overall, the ecosystem provides some habitat for birds and other small/large mammals including raccoons, deer etc. Given the isolation of the majority of the ecosystem and fragmentation of available habitat, the natural state area is considered of low-moderate value with the exceptional higher quality large Douglas fir and arbutus trees at the rear of the property. Some of this area is being proposed as a natural state covenant area.

3) **Rare Plants/Wildlife/Ecosystems** – From our assessment, there are no environmentally significant attributes including rocky outcrops, sharp-tailed snake habitat, wildlife trees, raptor nests, wildlife dens, rare plants/wildlife within the proposed disturbed area (Potential habitat and biodiversity polygons). Overall, potential habitat and biodiversity values with the proposed disturbed area remain low due to previous disturbances and the introduction of non-native species. Provincial and regional Sensitive Ecosystem Inventory mapping shows the potential for rare ecological communities and/or vascular plants/animals are limited to areas outside of the study area. That being said, our assessment focused on these attributes having the potential to occur on the property. These include the potential for old growth and older second-generation forests as well as the ecocritical community of Douglas fir/Oregon grape. Potential sharp tailed snake habitat was also one of our assessment focal points. Please refer to Attachment II and III for an overview map displaying known rare elements in and around the study area. From our assessments, this property was determined to not have any of those attributes except for the occasional discontinuous smaller polygons of older second-generation forest.

4) **Watercourses** – From our assessment of the property, there are no waterbody(s) located within or outside of the property that would project a 30m Provincial Riparian Assessment Area (RAA) onto the proposed development. As a result, a Riparian Assessment Protection Regulations (RAPR) report will not be required to be submitted to the Province for or in support of the Development Permit Application (DPA).

Options and Recommendations

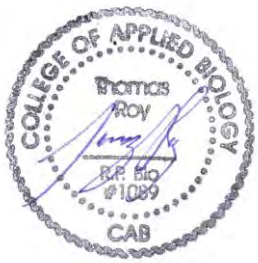
From our environmental assessment of the subject property located at 546 Windthorp Road, it is in my opinion that the proposed development undergoing a development permit application as shown in Attachment I-III, will not adversely impact the local environment if the following recommendations are adhered to:

1) Works within the proposed disturbed area will be monitored by a Registered Professional Biologist (R.P. Bio.) during the initial excavation to ensure wildlife and fisheries values are not harmed. This includes monitoring for any new avian nests as well as small mammal dens etc.
2) Set aside as part of the development layout, a minimum of 20% of the total land area as a Section 219 Environmental Protection Covenant. The proposed covenant area as shown in Attachment VI meets this criteria
3) Limit disturbances to adjoining properties as well as the proposed covenant area;
4) As a result of the proposed disturbed area and vegetation removal, Cascadia Biological Services recommends that two nesting boxes (QEP to determine sizes and configuration) be installed along the proposed park/open space dedication;
5) Landscape planting should maximize use of native species (QEP to provide lists of acceptable plant species);

Cascadia Biological Services

If you have any questions regarding this assessment, please do not hesitate to contact me by means below.

Thanks for your time.



Thomas Roy, R.P. Bio.,
Cascadia Biological Services
772 Goldstream Avenue
PO Box 27034
Victoria BC
V9B 5S4
(250) 888-4864

Attachment I – Overview Map of the Subject Property

Note: Subject property identified as red polygon above

Attachment II – Overview Environmentally Sensitive Area (ESA) Map

Attachment III – Overview Areas of Significance Map

Attachment IV – Overview Natural State Areas Map

Note: Purple polygon represents the natural state area (0.2634 hectares) of the property

Attachment V – Typical Site Photographs

Plate #1 – Typical view of the natural state area along the northern boundary of the property

Plate #2 – Typical view of the natural state area along the northern boundary of the property

Plate #3 – Typical view of the existing disturbed area on the property

Attachment VI – Proposed Environmental Covenant Area Map

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

SITE PLAN
AUGUST 28, 2024

Note: Grey polygon (proposed covenant area) represents 25% of the total property area

TALMACK
URBAN FORESTRY
Consultants Limited

Box 48153 RPO - Uptown Victoria, BC V8Z 7H6
Ph: (250) 479-8733
Fax: (250) 479-7050
Email: Trees@Talmack.ca

546-550 WINDTHROP ROAD— COLWOOD, BC

CONSTRUCTION IMPACT ASSESSMENT & TREE MANAGEMENT PLAN

PREPARED FOR: KST Management Inc. c/o Rachael Sansom
19131 – 21 Avenue
Surrey, BC
V3Z 3M3

PREPARED BY: Talmack Urban Forestry Consultants Ltd.
Robert McRae – Consulting Arborist
ISA Certified # PN-7125A
Tree Risk Assessment Qualified
Tree Appraisal Qualified

DATE OF ISSUANCE: September 26, 2024

CONTENTS

TABLES

APPENDICES

REVISION RECORD

REVISION	DESCRIPTION	DATE (YYYY-MM-DD)	ISSUED BY
0	Original TMP report for the proposed construction.	2024-09-26	RM

1. INTRODUCTION

Talmack Urban Forestry Consultants Ltd. was engaged to complete a tree inventory, construction impact assessment and tree management plan for the trees at the following proposed project:

Site:	546-550 Windthrop Road
Municipality:	City of Colwood
Client Name:	KST Management Inc.
Dates of Site Visit(s):	June 20th-21st, 2022 (initial inventory); July 24th, 2024; August 22nd, 2024
Site Conditions:	2 residential lots sloping south to north with no ongoing construction activity.
Weather During Site Visit:	Clear and sunny

The purpose of this report is to address requirements of the City of Colwood arborist report terms of reference and bylaw No. 1735, as well as City of Colwood Policy for the Management of Trees on City-Owned or Occupied Land,. The construction impact assessment section of this report **(Section 8)** is based on plans reviewed to date, including site survey by Summit Land Surveying (dated May 22nd, 2024), building plans from WA Architects (dated August 30th, 2024), and servicing/grading plans from JE Anderson & Associates (dated September 10, 2024).

2. TREE INVENTORY METHODOLOGY

For the purposes of this report: the size, health, and structural condition of trees were documented. For ease of identification in the field, numerated metal tags are attached to the lower trunks of onsite trees. Trees located on neighbouring properties, the municipal frontage or in areas where access was restricted, were not tagged. Each tree was visually examined on a limited visual assessment basis (level 1), in accordance with Tree Risk Assessment Qualification (TRAQ) methods (Dunster *et al.* 2017) and ISA Best Management Practices.

3. EXECUTIVE SUMMARY

Based on review of the building plans, eighty-four (84) on-site bylaw-protected trees are likely to require removal due to impacts from the proposed construction. See **Section 8.2.** All other on-site trees are located where their retention is possible, provided impact mitigation recommendations outlined in **Section 8.2.1.** are followed.

Multiple off-site and municipal trees may be significantly impacted by the proposed construction (based on estimated locations). We recommend these trees are surveyed for accuracy, with the construction impact assessment updated accordingly. Until this time, municipal trees M1-M11 and off-site trees OS1-OS8 have been assigned the retention status “to be determined (TBD).” See **Sections 8.1.1.** and **8.3.1.** for additional impact mitigation recommendations for municipal and off-site trees.

As per Part 6—Section 9 (2) of Bylaw No. 1735, the eighty-four (84) protected trees proposed for removal on-site shall be replaced at a 2:1 ratio—a total of one hundred and sixty-eight (168) replacement trees will be required on-site. See **Section 8.4.**

It is unlikely that the property (post-construction) can accommodate the number of replacement trees required. Compensation for any replacement tree shortfall shall be made cash-in-lieu.

Based on our assessment of existing site conditions and expected alterations to wind dynamics, light exposure, and water availability resulting from the proposed development, we recommend all trees selected for retention are re-assessed for long-term viability following construction. These trees should also be monitored for changes to their health and structural conditions during the construction timeframe.

4. TREE INVENTORY DEFINITIONS

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 not tagged.

NT: No tag due to inaccessibility or ownership by municipality or neighbour.

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.

* Measured over ivy

~ Approximate due to inaccessibility or on neighbouring property

Dripline: Indicates the radius 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 vigor. 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 themethodology 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

To calculate the critical root zone, the DBH of multiple stems is considered the sum of 100% of the diameter of the largest stem and 60% of the diameter of the next two largest stems. It should be noted that these measures are solely mathematical calculations that do not consider factors such as restricted root growth, limited soil volumes, age, crown spread, health, or structure (such as a lean).

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

Suitability ratings are described as follows:

Rating: Suitable.

- A tree with no visible or minor health or structural defects, is tolerant to changes to the growing environment and is a possible candidate for retention provided that the critical root zone can be adequately protected.

Rating: Conditional.

- A tree with good health but is a species with a poor tolerance to changes to its growing environment or has a structural defect(s) that would require that certain measures be implemented, in order to consider it suitable for retention (ie. retain with other codominant tree(s), structural pruning, mulching, supplementary watering, etc.)

Rating: Unsuitable.

- A tree with poor health, a major structural defect (that cannot be mitigated using ANSI A300 standards), or a species with a poor tolerance to construction impacts, and unlikely to survive long term (in the context of the proposed land use changes).

Retention Status:

- Remove – 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

TABLE 1. TREE INVENTORY

Tag or ID #	Surveyed? (Yes/No)	Location (On, Off, Shared, City)	Bylaw protected? (Yes/No)	Name		dbh (cm)	Dripline diameter (m)	Critical root zone radius (m)	Condition		Relative tolerance	Retention Suitability (on-site trees)	General field observations/remarks	Tree retention/location comments	Retention status
				Common	Botanical				Health	Structural					
M1	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	31 at 1m	7	4.7	Fair	Fair	Poor	N/A	Culvert installation adjacent (recently), secondary stem removed historically.	Possible impacts from frontage improvements (if required).	**TBD**
M2	No	Municipal	**Municipal**	Big-leaf Maple	*Acer macrophyllum*	21	9	2.5	Fair-good	Fair	Moderate	N/A	Topped for hydro clearance historically, corrected lean, included bark in unions.	Possible impacts from frontage improvements (if required).	**TBD**
M3	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	11,3	4	1.7	Fair	Fair	Poor	N/A	Topped for hydro clearance historically.	Possible impacts from frontage improvements (if required).	**TBD**
M4	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	17	5	2.6	Fair-poor	Fair	Poor	N/A	Twig dieback, small foliage.	Possible impacts from frontage improvements (if required).	**TBD**
M5	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	20 at 1.4m AGL	7	3	Fair	Fair	Poor	N/A	Lean south (corrected), some decay around pruning wound near base.	Possible impacts from frontage improvements (if required).	**TBD**
M6	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	30	8	4.5	Fair	Fair	Poor	N/A	Lean south, some clearance pruning over street historically.	Possible impacts from frontage improvements (if required).	**TBD**
M7	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	6 below union	4	1	Fair-poor	Fair	Poor	N/A	Sparse foliage, branch failures historically.	Possible impacts from frontage improvements (if required).	**TBD**
M8	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	36	9	5.4	Fair	Fair	Poor	N/A	Lean south, some clearance pruning over street historically.	Possible impacts from frontage improvements (if required).	**TBD**
M9	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	31	7	4.7	Fair	Fair	Poor	N/A	Topped for hydro clearance historically, canopy weighted east.	Possible impacts from frontage improvements (if required).	**TBD**
M10	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	17	7	2.6	Fair	Fair	Poor	N/A	Lean south, narrow crown due to canopy competition.	Possible impacts from frontage improvements (if required).	**TBD**

M11	No	Municipal	**Municipal**	Arbutus	*Arbutus menziesii*	35	10	5.3	Fair	Fair	Poor	N/A	Lean east, large deadwood.	Possible impacts from frontage improvements (if required).	**TBD**
175	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	76.5	12	11.5	Good-fair	Good-fair	Poor	N/A	Burls on lower trunk, irregular bulging at base, large deadwood, canopy weighted to the south,		**Retain**
188	No	Off-site	**Yes**	Big leaf maple	*Acer macrophyllum*	30.5	14	3.7	Good-fair	Good-fair	Moderate	N/A	Leans to the west, asymmetrical canopy (phototrophic), secondary stem from ~.5m agl, dead stem from ~.5m		**Retain**
409	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	49.5, 49,	18	11.8	Fair	Fair	Poor	N/A	Three large stems from base (southwestern most stem dead, growing next to deadatop, irregular bulging at base, deadwood, central colic decay in northern most stem from base ~2m agl,		**Retain**
410	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	20.5	6	3.1	Fair	Fair	Poor	N/A	Significant lean to the west, being supported by big leaf maple, secondary dead stem at base		**Retain**
411	Yes	On-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	70	10	10.5	Fair	Fair	Poor	Conditional	Large exposed buttress roots, historical crack on northwest side of lower trunk (pitching), exposed surface roots, epicormic growth,	Possible impacts from proposed pathway.	**Retain***
412	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	25,7	10	4.4	Fair	Fair	Poor	Conditional	Deadwood, large central historically removed, two stems growing from dead stump,	Potential root and canopy impacts from proposed pathway.	**TBD**
413	Yes	On-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	75	10	11.3	Fair	Fair	Poor	Conditional	Large exposed buttress roots, leans to the east (corrected), canopy competition with adjacent firs, epicormic growth,	Conflict with proposed building footprint (blasting), possible impacts from pathway.	**X**
414	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	12,10	8	2.7	Good-fair	Good-fair	Poor	Conditional	Two stems from base, third stem historically removed from base, small deadwood	Possible impacts from proposed pathway, removal of 1119 stump, blasting	**TBD**
415	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	12.5, 12, 10	6	3.9	Good-fair	Good-fair	Poor	Conditional	Multistemmed from base. (Likely epicormics) , included unions, canopy weighted to the north, irregular bulging at base, central most stem historically removed (cavity at base)	Blasting, over-excavation (building footprint).	**TBD**
416	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	15	6	2.3	Fair	Fair	Poor	Unsuitable	Rooted atop of rock, leans to the south corrected, mechanical wound on north side of lower trunk, hangers in cnaopy	Conflict with building footprint.	**X**

417	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	38	12	5.7	Fair	Fair	Poor	Unsuitable	Canopy weighted to the north, rooted atop of rock, leans to the north, tip dieback, exposed surface roots, possible undermining, asymmetrical canopy (shaded),	Conflict with building footprint.	**X**
418	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	29	6	4.4	Fair	Fair	Poor	Conditional	Canopy weighted to the south (phototrophic), low lcr, high canopy, small deadwood,	Possible impacts from proposed pathway, exposure changes.	**Retain***
419	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	19	6	2.9	Fair	Fair	Poor	Unsuitable	Significant lean to the southwest, understory tree, hangers, slight trunk deflection at ~.5m agl, irregular bulging at base,	Conflict with building footprint.	**X**
420	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	26	5	3.9	Fair	Fair	Poor	Unsuitable	Large deadwood, mechanical wound at base with associated decay, deflected trunk at ~.5m agl, cavity on lower trunk on east side, hangers in canopy, historical branch wounds with associated decay	Conflict with building footprint.	**X**
421	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	45	14	6.8	Fair	Fair	Poor	Unsuitable	Canopy weighted to the south (asymmetrical, irregular bulging at base, possibly central column of decay in northside of trunk (not a lot of response growth),	Conflict with building footprint.	**X**
422	Yes	On-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	35.5	12	5.3	Fair	Fair	Poor	Conditional	Deadwood in lower canopy, low lcr, growing next to large Douglas fir,	Potential impacts from building footprint, exposure changes.	**TBD**
423	Yes	On-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	72	10	10.8	Good-fair	Good-fair	Poor	Conditional	Pitching on south side of lower trunk, leans to the north, girdling root	Potential impacts from building footprint, exposure changes.	**TBD**
424	No	On-site	**Yes**	Arbutus	*Arbutus menziesii*	27	4	4.1	Poor	Poor	Poor	Conditional	Significant Central column of decay on the northside of lower trunk, stem centrally historically failed, small deadwood, canopy weighted to the north,	Possible impacts from proposed pathway; monitor health.	**Retain***
425	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	43	14	6.5	Fair	Fair	Poor	Conditional	Mechanical wound on northside of lower trunk, irregular bulging at the base, deadwood, asymmetrical (shaded)	Possible impacts from proposed pathway.	**Retain***
953	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	41	12	6.2	Fair	Fair	Poor	Conditional	Mechanical wound at base (cambium dieback), canopy weighted to the south, deflected stem (phototrophic)	Potential impacts from proposed pathway.	**Retain***
954	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	60	14	9	Fair	Fair	Poor	Conditional	Co dominant at ~2.5m (included), large exposed buttress roots, irregular bulging at base, tip dieback, deadwood	Potential impacts from proposed pathway.	**Retain***

955	No	On-site	**Yes**	Arbutus	*Arbutus menziesii*	16	6	2.4	Fair	Fair	Poor	Conditional	Leans to the southeast, main stem historically remove/failed (cavity at base) small deadwood,	Possible impacts from proposed pathway.	**Retain***
956	No	On-site	**Yes**	Arbutus	*Arbutus menziesii*	17	8	2.6	Fair	Fair	Poor	Conditional	Central most stem historically failed/removed (cavity at base) two smaller stems at base dead, leans to the southeast, small dradwood	Possible impacts from proposed pathway.	**Retain***
957	No	Likely shared	**Yes**	Arbutus	*Arbutus menziesii*	14	8	2.1	Fair	Fair	Poor	Conditional	Central most stem removed/failed (cavity), canopy weighted to the north, mechanical damage on exposed roots, undermining st base, small deadwood, barbwire inside of main trunk	Possible impacts from proposed pathway.	**Retain***
958	No	Likely shared	**Yes**	Arbutus	*Arbutus menziesii*	16	6	2.4	Fair	Fair	Poor	Conditional	Barbwire in stem, central most historically failed/removed (cavity), multiple stems at ~2.5-3m agl	Possible impacts from proposed pathway.	**Retain***
1001	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	27	4	4.1	Fair	Fair	Poor	N/A	Cavity on lower trunk, canopy weighted to the north(phototrophic), deadwood, low lcr (shaded),		**Retain**
1002	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	46	16	6.9	Fair	Fair	Poor	N/A	Large deadwood, high canopy (shaded), canopy weighted to the north,		**Retain**
1003	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	8	5	1.2	Fair	Fair	Poor	N/A	Irregular bulging at base, larger over extended secondary stem that is mostly dead, co dominant at ~6m agl,		**Retain**
1004	No	Off-site	**Yes**	Western red cedar	*Thuja plicata*	42	7	5	Good-fair	Good-fair	Moderate	N/A	Deadwood, leggy, somewhat sparse canopy (shaded), possibly seam in northwest side of central stem ~2.5m agl,		**Retain**
1005	No	Off-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	52	10	7.8	Good-fair	Good-fair	Poor	N/A	Top historically removed (tridominant), deadwood, high canopy (shaded)		**Retain**
1006	Yes	Off-site	**Yes**	Big leaf maple	*Acer macrophyllum*	38	14	4.6	Good-fair	Good-fair	Moderate	N/A	Large deadwood, canopy weighted to the north, deflected stem at ~7m agl, asymmetrical canopy (shaded), irregular bulging at the base,		**Retain**
1007	Yes	Off-site	**Yes**	Big leaf maple	*Acer macrophyllum*	42	10	5	Good-fair	Good-fair	Moderate	N/A	Larger deadwood, large exposed surface root, corrected lean,		**Retain**

1008	No	Off-site	**Yes**	Big leaf maple	*Acer macrophyllum*	32.5	12	3.9	Fair	Fair	Moderate	N/A	Deflected stem, canopy weighted to the north, burls on lower trunk, deadwood, asymmetrical canopy (shaded),		**Retain**
1118	No	Off-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	58	8	8.7	Good-fair	Good-fair	Poor	N/A	Leans to the south corrected, deadwood in lower canopy, low lcr, high canopy, girdling roots, exposed surface roots, exposed buttress roots		**Retain**
1119	Yes	On-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	60	10	9	Fair	Fair	Poor	Unsuitable	Deadwood, large exposed buttress roots, over extended limbs (not heavily end weighted), slight lean to the west (corrected),	Conflict with building footprint.	**X**
1120	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	44	12	6.6	Poor	Poor	Poor	N/A	Central column of decay from base ~6m agl, low lcr, deadwood, historical branch wound on lower trunk with associated decay,		**Retain**
1121	No	Off-site	**Yes**	Douglas fir	*Pseudotsuga menziesii*	73.5	9	11	Good-fair	Good-fair	Poor	N/A	Leans to the north corrected, low lcr, large exposed buttress roots (likely shallow rooted), pitching on lower trunk (small amount), deadwood, Less than ~3m east from existing gravel roadway, hangers in crown		**Retain**
1122	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	37	10	5.6	Fair	Fair	Poor	N/A	Deadwood, canopy weighted to the north, low lcr, low lcr, high canopy (shaded), girdling root, irregular bulging at base,		**Retain**
1529	Yes	Shared municipal	**Yes**	Arbutus	*Arbutus menziesii*	107 below wound, 15	16	16.2	Fair	Fair-poor	Poor	Conditional	Large socket tear-out wound at 1.8m with some decay, hydro clearance pruning historically, epicormic growth, possible inclusion at primary union.	Potential impacts from sidewalks, patio, frontage improvements (if required).	**TBD**
1530	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	57	11	8.6	Fair-good	Fair	Poor	Unsuitable	Some hydro clearance pruning south side. Soil compaction from parking area northwest CRZ.	Within footprint of proposed sidewalk.	**X**
1531	Yes	On-site	**Yes**	Leyland Cypress	*Cuprocyparis leylandii*	84	12	8.4	Good	Fair-poor	Good	Unsuitable	Multiple large stems emerging in close proximity from 2-5m AGL, included bark, possibly topped in this location historically. Hydro clearance pruning south side.	Within footprint of proposed sidewalk.	**X**
1532	Yes	Shared municipal	**Yes**	Leyland Cypress	*Cuprocyparis leylandii*	84	12	8.4	Good	Fair-poor	Good	Unsuitable	Multiple large stems emerging in close proximity from 5m AGL, included bark, possibly topped in this location historically. Hydro clearance pruning south side.	Conflict with sidewalks, patios, adjacent tree removals.	**X**

1533	Yes	On-site	**Yes**	Western Red Cedar	*Thuja plicata*	78	8	9.4	Fair-poor	Poor	Moderate	Unsuitable	Topped at ~7m, deadwood, woodpecker activity, seams in lower trunk (sounded hollow).	Within proposed building footprint.	**X**
1534	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	80	13	12	Fair	Fair-poor	Poor	Conditional	Trunk swelling at secondary stem attachment (~5m AGL), branch failures historically, hangers.	Potential conflict with building footprint, canopy clearance. Possible impacts from pathway. Crown clean if retained.	**TBD**
1535	Yes	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	72,17	12	11.1	Fair	Fair-poor	Poor	N/A	Large socket tear-out injury at ~1.4m historically, deadwood, branch failures, root damage from adjacent driveway.	Possible impacts from proposed pathway/sidewalk.	**Retain***
1536	Yes	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	43,29	14	6.2	Fair-good	Fair	Moderate	N/A	Smaller stem has large deadwood. Tagged larger stem.	Possible impacts from proposed pathway.	**Retain***
1537	Yes	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	31	5	4.7	Fair	Fair	Poor	N/A	High, narrow crown.		**Retain**
1538	Yes	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	33	5	5	Fair	Fair	Poor	N/A	High, narrow, asymmetrical crown.		**Retain**
1539	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	41	12	4.9	Good	Fair-good	Moderate	N/A	Surface roots, possible root damage from driveway installation.		**Retain**
1540	No	Off-site	**Yes**	Western Red Cedar	*Thuja plicata*	31	7	4.7	Fair	Fair	Poor	N/A	Suppressed, rooted next to 1539.		**Retain**
1541	Yes	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	45,20	6	7.4	Fair-poor	Fair-poor	Poor	N/A	Health stress, pini fruiting bodies on secondary stem, corrected lean, fused with 1542.	Possible impacts from proposed pathway, monitor condition and re-assess when construction complete.	**TBD**
1542	Yes	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	48,14	8	6	Poor	Poor	Moderate	N/A	Primary stem dead, secondary stem has dead top, live crown measured in one direction (east)—comprised of large epicormic growth, small stem near base partially failed, decay at base with km fruiting bodies.	Possible impacts from proposed pathway, monitor condition and re-assess when construction complete.	**TBD**
1543	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	41	6	6.2	Fair	Fair	Poor	Unsuitable	Trunk bends.	Conflict with proposed building footprint.	**X**

1544	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	87	10	13.1	Fair	Fair-poor	Poor	Unsuitable	Codominant from ~2m with included bark, wound on secondary stem at ~5m AGL, ps fruiting bodies on ground adjacent.	Within proposed driveway footprint.	**X**
1545	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	63	7	9.5	Fair	Fair	Poor	Unsuitable	Health stress, deadwood, corrected lean.	Within proposed driveway footprint.	**X**
1546	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	67	9	10.1	Fair	Fair	Poor	Conditional	Some health stress, flat top.	Potential impacts from proposed driveway/building footprint.	**TBD**
1547	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	71	13	10.7	Fair	Fair	Poor	Unsuitable	Deadwood, some extended limbs, deflected trunk.	Conflict with proposed driveway/parking space.	**X**
1548	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	46	7	6.9	Fair	Fair-poor	Poor	Unsuitable	Inordinate root flare (bulbous base), asymmetrical crown, deflected leader.	Conflict with proposed driveway/parking space.	**X**
1549	Yes	On-site	**Yes**	Western Red Cedar	*Thuja plicata*	37	6	4.4	Fair	Fair-poor	Moderate	Unsuitable	Dead top, multiple acutely attached leaders, corrected lean	Within footprint of proposed parking space.	**X**
1550	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	53	7	8	Fair	Fair-poor	Poor	Unsuitable	Pini fruiting bodies, extended limbs, health stress, epicormic growth, historical stem removal at base, surface roots corrected lean (north)	Potential impacts from proposed driveway/parking space, relatively poor existing structure.	**X**
1551	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	49	5	7.4	Fair	Fair-poor	Poor	Unsuitable	Surface roots, corrected lean to the south, asymmetrical crown, dead wood, multiple trunk deflections	Potential impacts from proposed parking spaces, building footprint, removal of adjacent trees.	**X**
1552	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	48,40	7	9.4	Fair	Fair-poor	Poor	Unsuitable	40cm deflected trunk, extended limbs, included union at base, asymmetrical crown	Potential impacts from proposed parking spaces, building footprint, removal of adjacent trees.	**X**
1553	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	69	7	10.4	Fair	Fair	Poor	Unsuitable	Crown competition, chafing, lean to the north, surface roots, dead wood	Potential impacts from proposed parking spaces, building footprint, removal of adjacent trees.	**X**
1554	Yes	On-site	**Yes**	Grand fir	*Abies grandis*	45	8	6.8	Fair	Fair-poor	Poor	Unsuitable	Deflected leader, possible nesting activity, dead wood, partially suppressed, damaged surface roots	Potential impacts from proposed parking spaces, building footprint, removal of adjacent trees.	**X**

1555	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	49	4	7.4	Fair	Fair	Poor	Unsuitable	Bendy trunk, high narrow crown, deflected leader	Within proposed building footprint.	**X**
1556	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	49	4	7.4	Fair	Fair-poor	Poor	Unsuitable	Lean with limited correction to northeast, dead wood, health stress, irregular taper	Within proposed building footprint.	**X**
1557	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	45	5	6.8	Fair	Fair-poor	Poor	Unsuitable	Very asymmetrical, extended limbs, health stress, corrected lean to the south	Within proposed building footprint.	**X**
1558	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	44	6	6.6	Fair	Fair	Poor	Unsuitable	Narrow high crown, slight lean to the northeast	Within proposed building footprint.	**X**
1559	Yes	On-site	**Yes**	Grand fir	*Abies grandis*	83,24	8	13	Fair	Poor	Poor	Unsuitable	Very large active inclusions, watery ooze out of inclusion, large buttress roots	Within proposed building footprint.	**X**
1560	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	68	10	10.2	Fair	Fair	Poor	Unsuitable	Dead wood, extended limbs, epicormic growth, retaining wall to the east	Within proposed building footprint.	**X**
1561	Yes	On-site	**Yes**	Grand fir	*Abies grandis*	40	5	6	Fair	Fair-poor	Poor	Unsuitable	Corrected lean to south, top suppressed, historical top failure, unilateral canopy south side	Within proposed driveway footprint.	**X**
1562	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	33	6	5	Fair	Fair	Poor	Unsuitable	Suppressed, canopy on east and south side, corrected lean to the south, slightly deflected leader	Within proposed driveway footprint.	**X**
1563	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	42	2	6.3	Fair-poor	Fair	Poor	Unsuitable	Very narrow canopy, epicormic growth, health stress, some surface rooting	Within proposed driveway footprint.	**X**
1564	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	44	4	6.6	Fair	Fair	Poor	Unsuitable	Asymmetrical crown, dead wood	Conflict with building/driveway footprint.	**X**
1565	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	45	4	6.8	Fair	Fair	Poor	Unsuitable	Trunk deflections, narrow canopy, flat top, epicormic growth, health stress	Conflict with building/driveway footprint.	**X**
1566	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	31	4	4.7	Fair	Fair	Poor	Unsuitable	Rapid taper, asymmetrical crown, dead wood, light competition growth	Conflict with building/driveway footprint.	**X**

1567	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	~43	4	6.5	Fair	Fair	Poor	Unsuitable	Suppressed, asymmetrical to the south, competition for light, located within possible historical dumping gound	Conflict with building/driveway footprint.	**X**
1568	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	52	7	7.8	Fair	Fair	Poor	Unsuitable	Dead wood, unusual bark pattern, asymmetrical, refuse area	Within proposed building footprint.	**X**
1569	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	60	9	9	Fair	Fair	Poor	Unsuitable	Trunk deflection, extended limb to the northwest, corrected lean to the south	Conflict with building/driveway footprint.	**X**
1570	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	37,34	5	5	Fair	Fair-poor	Poor	Unsuitable	Top missing on 37cm stem, 34cm stem suppressed and deflected, asymmetrical crown to the south, active inclusion at base	Within proposed driveway footprint.	**X**
1571	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	43	5	6.5	Fair-poor	Fair	Poor	Unsuitable	Deflected trunk, health stress, epicormic growth, pronounced buttress roots, deflected leader	Within proposed driveway footprint.	**X**
1572	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	113	21	17	Fair	Fair	Poor	Unsuitable	Dead wood, past failures, rooted on slope, building foundation installation 4m north of root flare, end weighted foliage	Within proposed building footprint.	**X**
1573	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	109	19	16.4	Fair-good	Fair-good	Poor	Unsuitable	Building foundation installation within 2m north west of the root flare, end weighted limbs, paved surface within 2m east of root flare	Within footprint of proposed parking space; conflict with proposed building footprint.	**X**
1574	Yes	On-site	**Yes**	Western Red Cedar	*Thuja plicata*	34, 12	8	4.9	Fair	Fair-poor	Moderate	Unsuitable	Multiple leaders, historically topped at 1.5m, rooted on top of retaining wall	Within proposed driveway footprint.	**X**
1575	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	64	10	9.6	Fair-good	Fair	Poor	Unsuitable	Corrected lean to the north	Conflict with proposed building footprint.	**X**
1576	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	104	23	15.6	Fair	Fair	Poor	Conditional	Large wound on lower trunk, large dead limbs, some decay in wounds, good response growth, possible included primary union with swelling	Conflict with building footprint, canopy clearance. Possible impacts from pathway.	**X**
1577	Yes	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	36,6	16	4.4	Fair	Fair	Moderate	N/A	Large dead wood, included bark at branch attachments		**Retain**

1578	Yes	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	29,24,12,11	12	4.9	Fair	Fair	Moderate	N/A	Large inclusion between 12 and 11, asymmetrical crown to the south. Tag missing as of August 2024.		**Retain**
1579	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	70	18	10.5	Fair	Fair	Poor	N/A	Large dead wood, twig die back, past failures,		**Retain**
1580	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	59	15	7.1	Fair-good	Fair-poor	Moderate	N/A	Ganoderma fruiting body at base, active inclusions at primary union, asymmetrical crown to the west		**Retain**
1581	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	34	10	4.1	Fair-good	Fair	Moderate	N/A	Cavity at base, response growth		**Retain**
1582	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	66	4	9.9	Poor	Poor	Poor	N/A	Primary stem failure at 6m, large column of decay on south side extending full length of stem		**Retain**
1583	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	63	15	9.5	Fair	Fair	Poor	N/A	Possible root damage on west side due to driveway installation, dieback, past failures, rooted on edge of cut slope, lower trunk wound on north side		**Retain**
1584	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	38,25	8	6.8	Fair	Fair	Poor	N/A	Girdled root around larger stem, die back, health stress, high narrow crowns		**Retain**
1585	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	79	10	11.9	Fair-poor	Fair-poor	Poor	N/A	Basal cavity at base with good response growth, large dead wood, majority of stems are dead or declining, large past failures		**Retain**
1586	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	47	8	7.1	Fair	Fair	Poor	N/A	Trunk wounds at 10m, deflected trunk, slight asymmetrical crown		**Retain**
1587	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	73	10	11	Fair	Fair	Poor	N/A	Trunk deflection		**Retain**
1588	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	33	4	5	Fair-poor	Fair	Poor	N/A	Highly suppressed, asymmetrical crown, deflected lower trunk		**Retain**

1589	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	17,17,15,9	10	3.6	Fair-good	Fair	Moderate	N/A	Driveway 2m west of root flare, asymmetrical crown to the west		**Retain**
1590	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	25,22,18,15, 12,13,12,8,11	18	5.4	Fair	Fair	Moderate	N/A	Multiple stems, extended lower limbs, dead wood, included bark at base		**Retain**
1591	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	80,58	20	14.8	Fair-poor	Fair-poor	Poor	N/A	Large dead wood, die back, lean to the east with some response growth, column of decay on north side of 58cm stem, large wound with decay on 58cm stem		**Retain**
1592	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	55	8	8.3	Fair	Fair	Poor	N/A	Some end weighted limbs,		**Retain**
1593	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	30,11	8	3.8	Fair-good	Fair	Moderate	N/A	Asymmetrical crown, grade decrease 1m west of root flare		**Retain**
1594	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	44	8	6.6	Fair-poor	Fair-poor	Poor	N/A	50-60% of cambium has died up to primary union at 10m, small dead wood, health stress		**Retain**
1595	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	73	12	11	Fair	Fair-poor	Poor	N/A	Large surface roots, Bend in trunk, asymmetrical crown, die back, some end weighted limbs over adjacent driveway		**Retain**
1596	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	20	14	3	Fair	Fair-poor	Poor	N/A	Lean over adjacent driveway, supported by maple, end weighted, some twig die back		**Retain**
1597	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	37	8	5.6	Fair	Fair-poor	Poor	N/A	Large deadwood, some twig dieback, good response growth, girdle root		**Retain**
1598	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	73	20	11	Fair	Fair-poor	Poor	N/A	Large dead wood, large burls, health stress, twig die back, possible inclusions at primary union		**Retain**
1599	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	71,46	23	12.7	Fair	Fair-poor	Poor	N/A	Large dead wood, possible included primary union on larger stem, die back, some health stress		**Retain**

1600	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	30	9	4.5	Fair-poor	Fair-poor	Poor	N/A	Heavy lean, resting on adjacent arbutus, low lcr, past failures		**Retain**
1601	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	31	9	3.7	Fair-good	Fair	Moderate	N/A	Asymmetrical crown, lean to the west, deflected trunk		**Retain**
1602	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	32	12	3.8	Fair	Fair	Moderate	N/A	Dead wood, trunk deflections, epicormic growth, die back		**Retain**
1603	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	49,49,33	20	8.9	Fair	Fair-poor	Poor	N/A	Basal cavity at base of dead stem, 33cm stem is dead, dead wood, die back, small foliage, health stress		**Retain**
1604	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	44	12	6.6	Fair-poor	Fair-poor	Poor	N/A	Low lcr, lean to east, large deadwood		**Retain**
1605	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	35	9	4.2	Fair-poor	Fair-poor	Moderate	N/A	Foul-smelling sap production on lower, large rib at 10m, epicormic growth, dead wood, high crown		**Retain**
1606	Yes	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	51,42	10	9.9	Fair-poor	Fair-poor	Poor	N/A	Past failures, large dead wood, die back, health stress	Possible impacts from proposed pathway, over-excavation from building footprint.	**Retain***
1607	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	42	14	5	Fair	Fair-poor	Moderate	N/A	Partially surface rooted, dead wood, deflected trunk at 4m and 15m		**Retain**
1608	No	Off-site	**Yes**	Western Red Cedar	*Thuja plicata*	42	9	5	Fair	Fair	Moderate	N/A	Girdling root around base		**Retain**
1609	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	51	8	7.7	Fair	Fair-poor	Poor	N/A	3-4 deflected leaders, historically top failure, dead wood		**Retain**
1610	No	Off-site	**Yes**	Big-leaf Maple	*Acer macrophyllum*	37	12	4.4	Fair	Fair-poor	Moderate	N/A	Dramatic trunk deflection, dead wood, hanging dead wood, burls		**Retain**
1611	Yes	Shared	**Yes**	Arbutus	*Arbutus menziesii*	55	15	8.3	Fair	Fair	Poor	Conditional	Large failure with response growth, twig dieback, some larger pieces of deadwood	Possible impacts from proposed pathway, building footprint, possible canopy clearance; crown clean.	**Retain***

1612	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	33	12	5	Fair-poor	Fair	Poor	Conditional	Braided rope trunk appearance, lean towards north, end weighted trunk, health stress	Monitor lean.	**Retain***
1613	Yes	On-site	**Yes**	Western Red Cedar	*Thuja plicata*	103	9	12.4	Fair-good	Fair	Moderate	Conditional	Bifurcation of stem in the last 2-3m of trunk, two leaders	Potential conflict with building footprint, canopy clearance. Possible impacts from pathway.	**TBD**
1614	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	10,8,5,5	4	2.2	Fair	Poor	Poor	Unsuitable	Suckers off past failed stump, some browning foliage	Within proposed building footprint.	**X**
1615	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	46	10	6.9	Fair-poor	Fair	Poor	Unsuitable	Health stress, lean to the south, small dead wood, large failure at 1.5m with decay, small foliage	Within proposed building footprint.	**X**
1616	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	61	11	9.2	Fair	Fair	Poor	Unsuitable	Epicormic growth, very extended limbs, deflections in trunk	Within proposed building footprint.	**X**
1617	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	53	10	8	Fair	Fair	Poor	Conditional	Rope attached at 5m no visible girdle, some twig dieback	Potential impacts from proposed building footprint, exposure changes.	**TBD**
1618	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	40,36	15	8.1	Fair	Fair	Poor	Conditional	Heavy twig die back, epicormic growth,	Conflict with proposed building footprint (blasting), adjacent tree removals (stumps), exposure changes.	**X**
1619	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	37	10	5.6	Fair-poor	Fair-poor	Poor	Unsuitable	Some basal decay adjacent to past stem failure, dead wood, lean to the east, low lcr	Conflict with proposed building footprint; relatively poor condition.	**X**
1620	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	26	6	3.9	Poor	Poor	Poor	Unsuitable	Late stage decline, past trunk failure at 10m, lean to the east	Conflict with proposed building footprint; poor condition.	**X**
1621	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	51	12	7.7	Fair	Fair-poor	Poor	Unsuitable	Lower trunk decay, deadwood, canopy weighted south, deadwood	Within proposed driveway footprint.	**X**
1622	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	52	15	7.8	Fair	Fair	Poor	Unsuitable	Lean to the south, high crown, dead wood,	Within proposed building footprint.	**X**
1623	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	47	11	7.1	Fair-poor	Fair	Poor	Unsuitable	Stem removal at base with good response growth, dead wood, twig die back, health stress, lean to south	Within proposed building footprint.	**X**

1624	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	16	4	2.4	Poor	Poor	Poor	Unsuitable	Functionally dead, column of decay on lower trunk, past stem failure with decay	Within proposed building footprint.	**X**
1625	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	24	9	3.6	Poor	Poor	Poor	Unsuitable	Late stage decline, historical failed stem at base, low lcr, die back, smaller basal cavity	Within proposed building footprint.	**X**
1626	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	36	8	5.4	Fair	Fair	Poor	Unsuitable	Lower dead wood, surface roots, high crown	Within proposed building footprint.	**X**
1627	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	8	4	1.2	Fair-good	Fair-good	Poor	Unsuitable	Small Douglas fir hanger	Within proposed building footprint.	**X**
1628	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	60	9	9	Fair-poor	Fair	Poor	Unsuitable	Lower dead wood, sparse canopy, health stress, some surface rooting down slope	Within proposed building footprint.	**X**
1629	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	28,14,14,7	10	5.3	Fair	Poor	Poor	Unsuitable	Historically larger tree that failed, basal decay, canopy weighted to the south, some twig die back	Within proposed driveway footprint.	**X**
1630	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	32	6	4.8	Fair-good	Fair	Poor	Unsuitable	Debris in the root zone, rooted on top of retaining wall, wound at 3.5m,	Within proposed driveway footprint.	**X**
1631	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	70	8	10.5	Fair	Fair	Poor	Unsuitable	Heavy epicormic growth, rooted on a bit of a mount, some health stress, dead wood, nice taper	Within proposed building footprint.	**X**
1632	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	86	9	12.9	Fair	Fair	Poor	Unsuitable	Heavy epicormic growth, rooted on a bit of a slope, some health stress, dead wood, nice taper	Within proposed building footprint.	**X**
1633	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	59	8	8.9	Fair	Fair	Poor	Unsuitable	Bend in trunk, health stress, thinning canopy, small deadwood, rooted on a bit of a slope	Conflict with proposed building footprint.	**X**
1634	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	18,11	8	3.2	Fair	Fair-poor	Poor	Unsuitable	Corrected lean of larger stem, basal cavity with decay, some die back	Within proposed building footprint.	**X**
1635	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	66	10	9.9	Fair	Fair	Poor	Unsuitable	Asymmetrical crown, health stress, decent taper, extended lower limbs	Within proposed building footprint.	**X**

1636	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	29,9,5	10	4.6	Fair	Fair-poor	Poor	Unsuitable	Large stem failure with decay, larger stem with heavy lean to the south, twig dieback, smaller stem off shooting from past failure	Within proposed building footprint.	**X**
1637	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	10,4	4	1.6	Fair	Fair-poor	Poor	Unsuitable	Suckers from stump with some decay	Within proposed building footprint.	**X**
1638	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	49	12	7.4	Fair	Fair-poor	Poor	Unsuitable	Past failure with basal decay, canopy weighted south, some die back,	Within proposed building footprint.	**X**
1639	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	17,11,7,5,	5	3.3	Fair-poor	Poor	Poor	Unsuitable	Suckers from stump, some die back	Within proposed building footprint.	**X**
1640	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	9,7,3	3	1.8	Poor	Poor	Poor	Unsuitable	Suckers from stump, some die back	Within proposed building footprint.	**X**
1641	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	24,22,15,13	8	5.7	Fair-poor	Poor	Poor	Unsuitable	13 and 15cm stem undermined, historical large stem failure with decay, possibly root damage due to retaining wall, die back	Within proposed building footprint.	**X**
1642	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	11	3	1.7	Fair	Fair-poor	Poor	Unsuitable	Possible root damage due to past retaining wall, basal decay, die back	Within proposed building footprint.	**X**
1643	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	22	5	3.3	Fair	Fair-poor	Poor	Unsuitable	Basal decay associated with past large stem failure, lean to the south, deadwood	Conflict with proposed building footprint.	**X**
1644	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	27,18,8,19, 11,11,4,3	8	6.3	Fair-poor	Poor	Poor	Unsuitable	Heavy center decay associated with past failure, twig dieback, smallest stems are dead	Conflict with proposed building footprint; poor condition.	**X**
1645	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	15,9	5	2.6	Fair	Poor	Poor	Unsuitable	Heavy basal decay, heavy lean to the south, die back	Conflict with proposed driveway; poor structure.	**X**
1646	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	68	8	10.2	Fair-good	Fair-good	Poor	Unsuitable	Pronounced butress roots, small dead wood, nice taper	Conflict with proposed building footprint; grading.	**X**
1647	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	30	4	4.5	Fair	Fair	Poor	Unsuitable	Suppressed, health stress, epicormic growth	Conflict with proposed building footprint; grading.	**X**

1648	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	62	10	9.3	Fair-good	Fair-good	Poor	Unsuitable	Small deadwood, some epicormic growth, slight asymmetrical crown	Conflict with proposed building footprint; grading.	**X**
1649	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	48	7	7.2	Fair	Fair	Poor	Conditional	Thinning canopy, dieback, dead wood	New exposure - monitor health; possible impacts from grading and adjacent tree removals.	**TBD**
1650	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	79	12	11.9	Fair-poor	Fair	Poor	Conditional	Dieback, dead wood, thinning canopy, extended limbs, stunted leader, epicormic growth	Crown clean prior to occupancy. Possible impacts from pathway, new exposure.	**Retain***
1651	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	61	15	9.2	Fair	Fair	Poor	Conditional	Wound on lower trunk with response growth, lean to the south, deadwood, health stress	Crown clean prior to occupancy. Possible impacts from pathway, new exposure.	**Retain***
1652	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	32	10	4.8	Fair-good	Fair	Poor	Conditional	Lean to the east, some twig dieback	Possible impacts from pathway.	**Retain***
1653	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	25	8	3.8	Fair	Fair-poor	Poor	Conditional	Past trunk failure with decay, some twig die back	Monitor stability, assess prior to occupancy.	**Retain***
1654	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	58	14	8.7	Fair	Fair	Poor	Conditional	Fairly extended limbs, dead wood, some die back, bulbous base	Crown clean prior to occupancy. Possible impacts from pathway, new exposure.	**Retain***
1655	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	63	15	9.5	Fair	Fair	Poor	Suitable	Fairly extended limbs, dead wood, some die back, health stress, bulbous base	Crown clean prior to occupancy.	**Retain***
1656	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	69	16	10.4	Fair-poor	Fair-poor	Poor	Suitable	Multiple trunk deflections, large dead wood, extended limbs with end weight, health stress	Crown clean prior to occupancy.	**Retain***
1657	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	17	4	2.6	Fair	Fair-poor	Poor	Unsuitable	Heavily decayed at base and up the trunk, some twig dieback, unstable	Poor condition, new targets.	**X**
1658	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	38	9	5.7	Fair-poor	Fair-poor	Poor	Unsuitable	Rooted in dry stack retaining wall, lean to south east, basal cavity, past failures, die back	Conflict with proposed building footprint.	**X**
1659	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	29	2	4.4	Poor	Poor	Poor	Unsuitable	Possible nesting activity, canopy comprised of epicormic shoots with green leaves, primary trunk with a column of decay up to 3m	Conflict with proposed building footprint; poor condition.	**X**

1660	Yes	On-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	96	18	14.4	Fair-poor	Fair	Poor	Unsuitable	Heavy health stress, sparse foliage, wide canopy, exposed, rooted adjacent to dry stack retaining wall	Within proposed building footprint.	**X**
1661	Yes	On-site	**Yes**	Arbutus	*Arbutus menziesii*	39	7	5.9	Fair-poor	Fair-poor	Poor	Unsuitable	Topped at 2m, enveloping concrete sidewalk, canopy comprised of suckers	Within proposed building footprint.	**X**
3471	No	Off-site	**Yes**	Big leaf maple	*Acer macrophyllum*	31	6.5	3.7	Moderate	Fair	Moderate	N/A	Deadwood, asymmetrical (shaded)		**Retain**
OS1	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	35	8	5.3	Fair-poor	Fair-poor	Poor	N/A	Likely significant root loss on east side, rooted on rock edge, basal cavity, dead wood, die back	Likely conflict with building footprint.	**TBD**
OS2	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	42	8	6.3	Fair-poor	Fair-poor	Poor	N/A	Likely significant root loss on east side, rooted on rock edge, dead wood, die back	Likely conflict with building footprint.	**TBD**
OS3	No	Off-site	**Yes**	Grand fir	*Abies grandis*	32	7	4.8	Fair	Fair-poor	Poor	N/A	Top failure with new leader, impacted by OS8	Possible conflict with building footprint.	**TBD**
OS4	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	58	12	8.7	Fair	Fair-poor	Poor	N/A	Topped at 10m, extended limbs on to property, possible root damage on east side, surface roots on east side	Possible conflict with building footprint.	**TBD**
OS5	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	40	10	6	Fair	Fair-poor	Poor	N/A	Topped at 10m, extended limbs on to property, possible root damage on east side, sheer plane crack in one of the limbs, grade change on east side	Possible conflict with building footprint.	**TBD**
OS6	No	Off-site	**Yes**	Grand fir	*Abies grandis*	30	7	4.5	Fair	Fair	Poor	N/A	Suppressed	Possible conflict with building footprint.	**TBD**
OS7	No	Off-site	**Yes**	Douglas-fir	*Pseudotsuga menziesii*	60	10	9	Fair	Fair-poor	Poor	N/A	Topped at 10m, grade changes on the east side historically,	Possible conflict with building footprint.	**TBD**
OS8	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	28,28	11	5.9	Fair	Fair	Poor	N/A	Grade changes on east side, leans on OS3 with northern stem, lower trunk wound on northern stem	Possible conflict with building footprint.	**TBD**

OS9	No	Off-site	**Yes**	Arbutus	*Arbutus menziesii*	~36	7	5.4	Fair	Fair	Poor	N/A			**Retain**

5. SITE INFORMATION & PROJECT UNDERSTANDING

The development site consists of two residential lots (546-550 Windthrop Road) in Colwood, B.C., which has an existing residence. It is our understanding that the proposal is to demolish the existing structures, followed by construction of a new multi-unit residential complex. At this time, we have not reviewed a plan that shows how the new construction will connect to hydro, though we anticipate an underground connection.

Below is a general observation of the tree resource, as it appeared at the time of our site visit(s):

6. FIELD OBSERVATIONS

The on-site protected tree resource consists of primarily native species growing in open landscape conditions (see **Figure 1**). The upper (northern) section of the property is quite rocky:

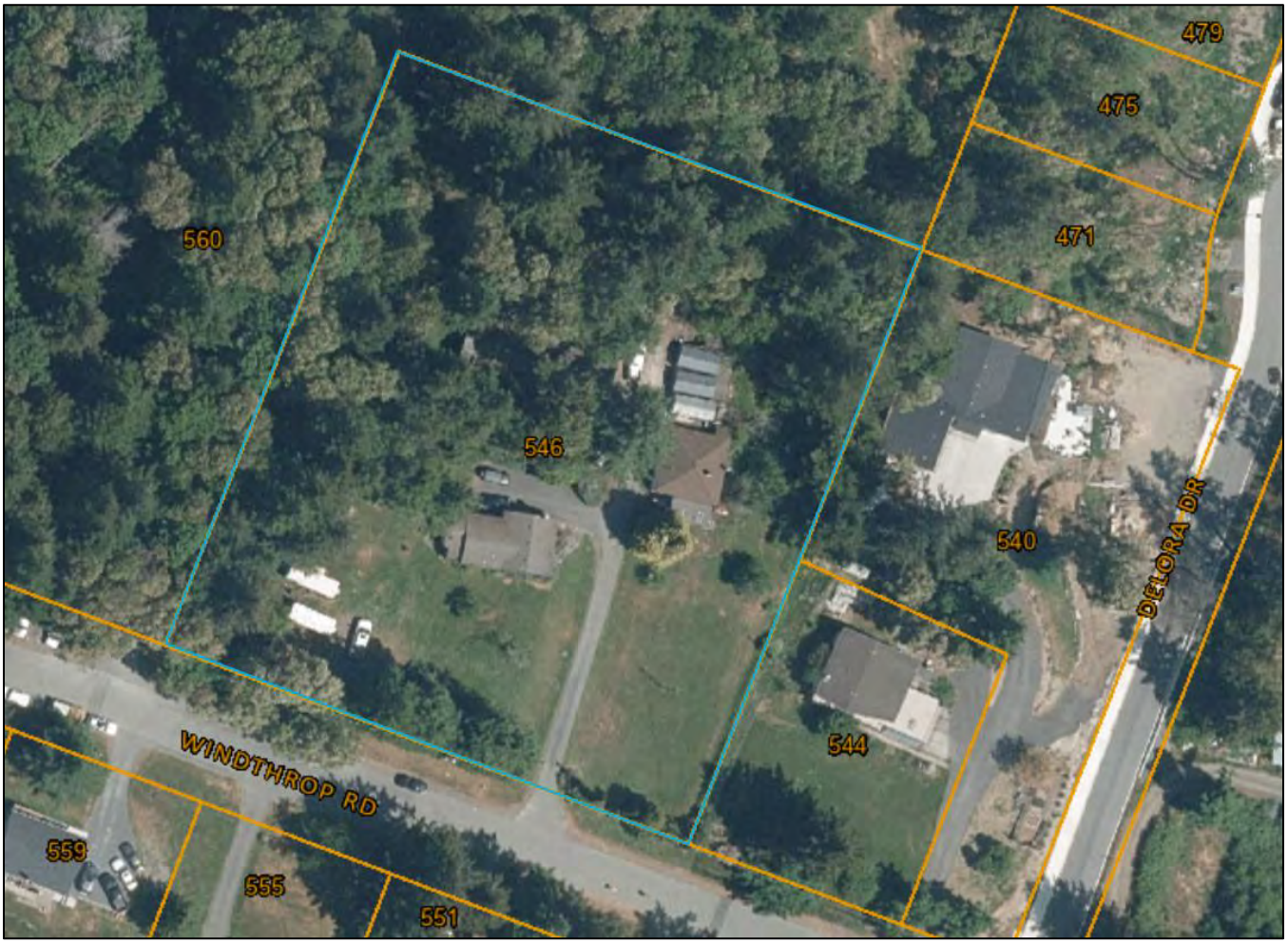


Figure 1: *Site context air photo (2023): The approximate boundary of the subject site is outlined in blue.*

7. TREE RISK ASSESSMENT

During our August 29, 2022 site visit (updated July 24, 2024) and in conjunction with the tree inventory, on-site trees were assessed for risk on a limited visual basis (level 1), in the context of the existing land uses. The time frame used for the purpose of our assessment is one year (from the date of this report). Unless otherwise noted herein, we did not conduct a detailed (level 2) or advanced (level 3) risk assessment, such as resistograph testing, increment core sampling, aerial examinations, or subsurface root/root collar examinations.

Existing Land Uses

We did not observe any trees that were deemed to be high or extreme risk (in the context of the existing land uses, that would require hazard abatement to eliminate present and/or future risks) within a 1-year timeframe. Targets considered during this TRAQ assessment include: occupants of the existing residences on-site and neighbours' (constant use), occupants of vehicles travelling or parked on Windthrop Road (occasional use), occupants of front, rear, and side yards on-site and neighbours' (occasional use), hydro lines (constant use).

8. CONSTRUCTION IMPACT ASSESSMENT

8.1. RETENTION AND REMOVAL OF MUNICIPAL TREES

The following municipal trees (indicated by ID#) are located where they may be possible to retain provided that the critical root zones can be adequately protected during construction. The project arborist must be on site to supervise any excavation or fill placement required within their critical root zones—shown on the tree management plan in ***Appendix A***:

Retain and protect 11 municipal trees

- M1-M11[tbd]

  "tbd" *indicates retention status "to be determined" by the project arborist as new information becomes available or at the construction phase.*

8.1.1. ADDITIONAL MITIGATION MEASURES FOR MUNICIPAL TREES

Frontage improvements, including sanitary sewer (SS) mainline extension are indicated on the civil plans, to occur within the CRZs of **M1-M11**, based on estimated locations**:**

- The civil plans indicate a variance required for a "…proposed pathway complete with bio-swale for preservation of existing trees at road frontage," which should result in fewer tree impacts than the sidewalk requirement from Colwood Servicing Bylaw No. 2000. Therefore, we support the variance application indicated on the civil plans. It should be noted that tree impacts are likely to result from pathway and bio-swale installation as well, including anticipated clearance pruning.
- Requirements for road widening, curb & gutter, and SS mainline installation may also result in additional impacts to M1-M11.
- It should also be noted that M1-M11 were not included in the site survey and therefore their locations are based on estimates only. We recommend these are surveyed for accuracy.

- These trees have been assigned the retention status "to be determined (TBD)." We anticipate some removals will be required—the project arborist must be contacted to review all plans and update retention statuses based on more detailed information at the building permit stage.
- The project arborist must also be contacted to supervise all excavations and/or additions of fill within the CRZs of municipal trees, with retention statuses of remaining trees updated at construction phase.
- At this time, we have not reviewed a plan that shows how the new construction will connect to hydro, though we anticipate an underground connection. To minimize potential impacts to M1-M11 (and on-site tree #1529), we recommend the connection is made via the power pole near the eastern property boundary.

8.2. RETENTION AND REMOVAL OF ON-SITE TREES

The following bylaw-protected on-site trees (indicated by tag#) are located where they may be possible to retain provided that the critical root zones can be adequately protected during construction. The project arborist must be on site to supervise any excavation or fill placement required within their critical root zones—shown on the tree management plan in ***Appendix A*:**

Retain and protect 31 bylaw-protected on-site trees

- #411, 412[tbd], 414-415, 418, 422-423[tbd], 424-425, 953-956, 957-958[sh], 1529[tbd & sh], 1534[tbd], 1546[tbd], 1611[sh], 1612, 1613[tbd], 1617[tbd], 1649[tbd], 1650-1656

  "tbd" *indicates retention status "to be determined" by the project arborist at the time of construction.*

  "sh" indicates tree under shared ownership.

The following bylaw-protected on-site trees (indicated by tag #) are located where they are likely to be severely impacted by the proposed construction and are recommended for removal:

Remove 84 bylaw-protected on-site trees

- #413, 416-417, 419-421, 1119, 1530-1531, 1532[sh], 1543-1545, 1547-1576, 1614-1616, 1618-1648, 1657-1661

  "sh" indicates tree under shared ownership.

8.2.1 ADDITIONAL MITIGATION MEASURES FOR ON-SITE TREES

BLASTING/BUILDING FOOTPRINTS/WALKWAYS/FRONTAGE IMPROVEMENTS

The new building footprints and driveways are proposed within the CRZs of **arbutus *(Arbutus menziesii)* #412** (25/7cm DBH), **414** (12/10cm DBH), **415** (12.5/12/10cm DBH), **Douglas-firs *(Pseudotsuga menziesii)* #422 & 423** (35.5cm & 72cm DBHs), **1534** (80cm DBH), **1546** (67cm DBH), and **1649** (48cm DBH), as well as **western red cedar *(Thuja plicata)* #1613** (103cm DBH):

- 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. We recommend the project arborist meet with the blasting contractor prior to rock removal, to discuss blasting layout and materials used.

- The project arborist must supervise all excavations within the CRZs, review all clearance pruning required, and determine the final retention statuses based on cumulative impacts incurred.

Block 1, walkways & patio areas, as well as frontage improvements, including sanitary sewer (SS) mainline extension are also proposed within the CRZ **arbutus #1529** (107cm trunk diameter measured below wound):

- Walkways within the CRZ appear to be proposed as paved surfaces. If the tree is retained, we recommend these are installed above the root system using techniques outlined in ***Appendix B***—"Hard Surfaces Above Tree Roots Detail".
- The civil plans indicate a variance required for a "…proposed pathway complete with bio-swale for preservation of existing trees at road frontage," which should result in fewer tree impacts than the sidewalk requirement from Colwood Servicing Bylaw No. 2000. Therefore, we support the variance application indicated on the civil plans.
- The project arborist must supervise all excavations required to install the Block 1 foundation, road widening, curb & gutter, bio-swale, and SS mainline, as well as review any pruning required for roof/pathway clearance. This tree has been assigned the retention status "to be determined (TBD)" based on impacts we anticipate from the current plans—the project arborist must also be contacted to review all final civil plans and update retention status based on more detailed information at the building permit stage.

PATHWAY

A new pathway is proposed around the west and north edges of the property, to cross within the CRZs of **Douglas-firs #411** (70cm DBH), **1534** (80cm DBH), **1546** (67cm DBH), **and 1006** (37cm DBH), as well as **arbutus *(Arbutus menziesii)* #412, 414, 415, 418** (29cm DBH)**, 424** (27cm DBH)**, 425** (43cm DBH)**, 953** (41cm DBH)**, 954** (60cm DBH)**, 955** (16cm DBH)**, 956** (17cm DBH)**, 957** (14cm DBH)**, 958** (16cm DBH):

- The proposed pathway must be installed above the root systems. If paved surfaces area used, we recommended techniques outlined in ***Appendix B***—"Hard Surfaces Above Tree Roots Detail" are utilized.
- The project arborist must supervise all excavations and/or additions of fill within the CRZs. This includes two additional trees captured on the site survey (near the north property boundary, not included in the inventory due to access constraints).
- Possible indicators of structural weakness were detected in the lower trunk of #411. We recommend the tree is re-assessed following initial clearing and again prior to building occupancy (if the proposal is accepted). Additional (advanced) risk assessment may be recommended thereafter.
- The project arborist must also review any clearance pruning required for pathway installation. We anticipate significant canopy impacts to #412—the project arborist shall finalize its retention status based on the extent of canopy that requires removal.

TREE REMOVALS/NEW EXPOSURE/HYDROLOGY CHANGES

Based on our assessment of existing site conditions and expected alterations to wind dynamics, light exposure, and water availability resulting from the proposed development, we recommend all trees selected for retention are re-assessed for long-term viability following construction. These trees should also be monitored for changes to their health and structural conditions during the construction timeframe.

DEMOLITION/HYDRO CONNECTION

If protected trees must be retained during the demolition phase, we recommend the project arborist meet with the demolition contractor to delineate access routes, areas where arborist supervision is required, and/or additional protective barrier fencing.

At this time, we have not reviewed a plan that shows how the new construction will connect to hydro, though we anticipate an underground connection. To minimize potential impacts to on-site trees, we recommend the connection is made via the power pole near the eastern property boundary.

8.3. RETENTION AND REMOVAL OF OFF-SITE TREES

The following bylaw-protected off-site trees (indicated by tag# or ID#) are located where they may be possible to retain provided that the critical root zones can be adequately protected during construction. The project arborist must be on site to supervise any excavation or fill placement required within their critical root zones—shown on the tree management plan in ***Appendix A*:**

Retain and protect 66 bylaw-protected off-site trees

- #175, 188, 409-410, 1001-1008, 1118, 1120-1122, 1537-1540, 1541-1542^{tbd}, 1577-1610, 3471, OS1-OS8^{tbd}, OS9

  "^{tbd}" *indicates retention status "to be determined" by the project arborist as new information becomes available or at the construction phase.*

***Prior written consent from the tree owner(s) is required prior to the removal of any trees located on neighbouring properties.**

8.3.1 ADDITIONAL MITIGATION MEASURES FOR OFF-SITE TREES

BLASTING/BUILDING FOOTPRINT

The new Block 4 footprint is proposed within the CRZs of off-site **arbutus OS1, OS2** (35cm & 42cm DBHs), and **OS8** (28/28cm DBH), **grand fir *(Abies grandis)* OS3 & OS6** (32cm & 30cm DBHs), **Douglas-firs OS4, OS5, and OS7** (58cm, 40cm, and 60cm DBHs, respectively):

- Based on estimated locations, we anticipate some of these trees may require removal due to construction impacts. We recommend these are surveyed for accuracy, with construction impact assessment updated accordingly.
- If the trees are retained, 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. We recommend the project arborist meet with the blasting contractor prior to rock removal, to discuss blasting layout and materials used.

- The project arborist must supervise all excavations within the CRZs, review all clearance pruning required, and determine the final retention statuses based on cumulative impacts incurred.

PATHWAY

A new pathway is proposed around the west and north edges of the property, to cross within the CRZs of off-site **arbutus #1535 & 1582** (72/17cm & 66cm DBHs)**, big-leaf maples *(Acer macrophyllum)* #1536 & 1542** (43/29cm & 48/14cm DBHs)**,** and **Douglas-fir #1541** (45/20cm DBH):

- The proposed pathway must be installed above the root systems. If paved surfaces area used, we recommended techniques outlined in ***Appendix B***—"Hard Surfaces Above Tree Roots Detail".
- The project arborist must supervise all excavations and/or additions of fill within the CRZs.
- Possible indicators of structural weakness were detected in the trunk of #1541. We recommend the tree is re-assessed following initial clearing and again prior to building occupancy (if the proposal is accepted). Additional (advanced) risk assessment may be recommended thereafter.

TREE REMOVALS/NEW EXPOSURE/HYDROLOGY CHANGES

Based on our assessment of existing site conditions and expected alterations to wind dynamics, light exposure, and water availability resulting from the proposed development, we recommend all trees selected for retention are re-assessed for long-term viability following construction. These trees should also be monitored for changes to their health and structural conditions during the construction timeframe.

8.4. TREE IMPACT SUMMARY TABLE

Pursuant to City of Colwood bylaw No. 1735 and City of Colwood Policy for the Management of Trees on City-Owned or Occupied Land, the tree replacement calculations are as follows:

Quantity of Existing trees	# of Trees Retained	# of Trees Removed	Relevant Bylaw section (if applicable)	Replacement Tree Ratio	Replacement Trees Required
On-site (Bylaw-protected)					
115	31	84 (bldng env.)	(No. 1735) Part 6—Section 9 (2)	2:1	168
Municipal Trees (live)					
11	11 (TBD)	0	(PMTCO) Part 10—Section 5	2:1	0
Off-site (Bylaw-protected)					
66	66 (10 TBD)	0	Part 6—Section 9 (2)	2:1	0
192	111	81	**Total:**		162

Figure 2: *Based on bylaw (No. 1735) criteria, one hundred and sixty-eight (168) replacement trees are required on-site as compensation for the removal of eighty-one (81) protected trees. Any "TBD" trees that require removal shall also be compensated at a 2:1 replacement tree ratio.*

Based on City of Colwood Policy for the Management of Trees on City-Owned or Occupied Land, if any "TBD" trees are removed from municipal property, they shall be replaced at a 2:1 ratio.

It is our opinion that it is unlikely that the property is unlikely to accommodate all 168 replacement trees post-construction. We recommend a landscape plan is developed to plant as many trees on site as possible. The project arborist may be contacted to review the suitability of planting sites and make recommendations regarding tree species, size of stock, and other replacement tree specifications. Any replacement tree shortfall shall be compensated cash-in-lieu.

9. IMPACT MITIGATION

Tree Protection Barrier: The areas surrounding the trees to be retained should be isolated from the construction activity by erecting protective barrier fencing (see ***Appendix A*** for municipal barrier specifications). Where possible, fencing should be erected at the perimeter of the critical root zone. The barrier fencing to be erected 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 flexible snow fencing. The fencing must be erected prior to the start of any construction activity on site (i.e. demolition, excavation, construction), and remain in place through completion of the project. Signs should be posted around the protection zone to declare it off limits to all construction related activity. The project arborist must be consulted before this fencing is removed or moved for any purpose.

Arborist Supervision: All excavation occurring within the critical root zones of protected trees should be completed under supervision by the project arborist. Any severed or severely damaged roots must be pruned back to sound tissue to reduce wound surface area and encourage rapid compartmentalization of the wound. In particular, the following activities should be completed under the direction of the project arborist:

- Any excavations or additions of fill within the CRZs of trees to be retained.

Methods to Avoid Soil Compaction: In areas where construction traffic must encroach into the critical root zones of trees to be retained, efforts must be made to reduce soil compaction where possible by displacing the weight of machinery and foot traffic. This can be achieved by one of the following methods:

- Installing a layer of hog fuel or coarse wood chips at least 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 15-20 cm over top.
- Placing two layers of 19mm plywood.
- Placing steel plates.

Demolition of the Existing Buildings: The demolition of the existing houses, driveways, and any services that must be removed or abandoned, must take the critical root zone of the trees to be retained into account. If any excavation or machine access is required within the critical root zones of trees to be retained, it must be completed under the supervision and direction of the project arborist. If temporarily removed for demolition, barrier fencing must be erected immediately after the supervised demolition.

Paved Surfaces Above Tree Roots:

If the new paved surfaces within the CRZ of tree to be retained require excavation down to bearing soil and roots are encountered in this area, this could impact their health and structural stability. If tree retention is desired, a raised and permeable paved surface should be constructed in the areas within the critical root zone of the trees. 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 the grade of the paved surface being raised above the existing grade (the amount depending on how close roots are to the surface and the depth of the paving material and base layers). Final grading plans should take this potential change into account. This may also result in soils which are high in organic content being left intact below the paved area.

To allow water to drain into the root systems below, we also 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.

10. DISCLOSURE STATEMENT

This arboricultural field review report was prepared by Talmack Urban Forestry Consultants Ltd. 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 Talmack Urban Forestry Consultants Ltd.. 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. Talmack Urban Forestry Consultants Ltd. 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 Talmack Urban

Forestry Consultants Ltd. 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, Talmack Urban Forestry Consultants Ltd. 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.

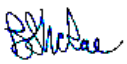
11. In Closing

We trust that this report meets your needs. Should there be any questions regarding the information within this report, please do not hesitate to contact the undersigned.

Yours truly,

Talmack Urban Forestry Consultants Ltd.

Prepared by:



Robert McRae
ISA Certified Arborist PN – 7125A
Tree Risk Assessment Qualified
Tree Appraisal Qualified
Email: Robbie@Talmack.ca

12. References

Dunster, J.A., E.T. Smiley, N. Matheny, and S. Lily. 2017. Tree Risk Assessment Manual, International Society of Arboriculture (ISA).

The City of Colwood Urban Forest Bylaw No. 1735

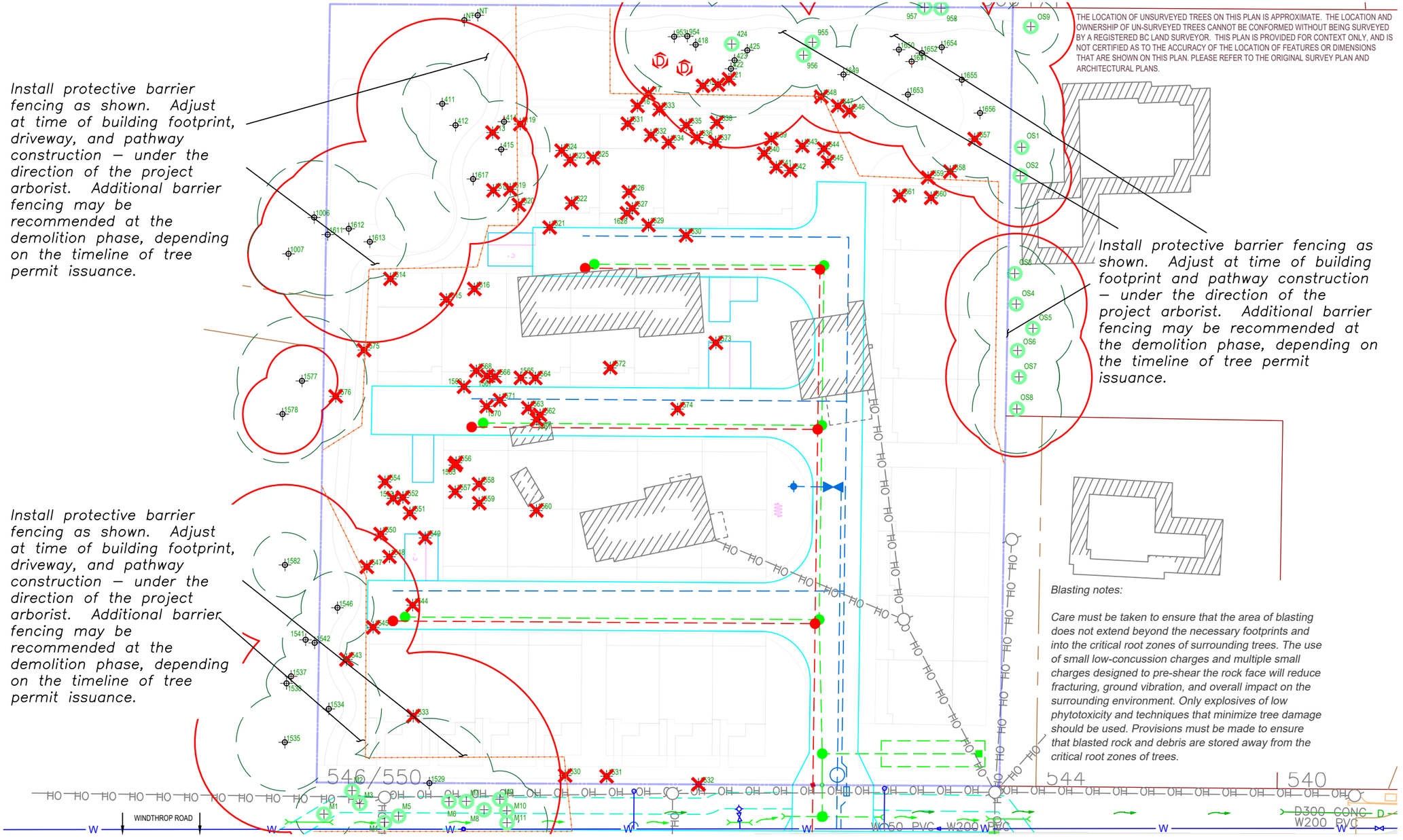
13. COMPANY INFORMATION

General Liability: Intact Insurance, Policy No. 5V2147122 : $5,000,000

APPENDIX A - TREE MANAGEMENT PLAN

Install protective barrier fencing as shown. Adjust at time of building footprint, driveway, and pathway construction – under the direction of the project arborist. Additional barrier fencing may be recommended at the demolition phase, depending on the timeline of tree permit issuance.

Install protective barrier fencing as shown. Adjust at time of building footprint, driveway, and pathway construction – under the direction of the project arborist. Additional barrier fencing may be recommended at the demolition phase, depending on the timeline of tree permit issuance.



THE LOCATION OF UNSURVEYED TREES ON THIS PLAN IS APPROXIMATE. THE LOCATION AND OWNERSHIP OF UN-SURVEYED TREES CANNOT BE CONFORMED WITHOUT BEING SURVEYED BY A REGISTERED BC LAND SURVEYOR. THIS PLAN IS PROVIDED FOR CONTEXT ONLY, AND IS NOT CERTIFIED AS TO THE ACCURACY OF THE LOCATION OF FEATURES OR DIMENSIONS THAT ARE SHOWN ON THIS PLAN. PLEASE REFER TO THE ORIGINAL SURVEY PLAN AND ARCHITECTURAL PLANS.

Blasting notes:

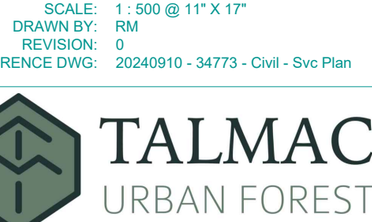
Care must be taken to ensure that the area of blasting does not extend beyond the necessary footprints and into the critical root zones of surrounding trees. The use of small low-concussion charges and multiple small charges designed to pre-shear the rock face will reduce fracturing, ground vibration, 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.

0 1:500 25

LEGEND

- Existing tree with tag or ID #
- Tree protection fencing
- Dripline radius (m)
- Critical root zone radius (m)
- Tree proposed for removal
- Unsurveyed tree
- Dead tree
- Site boundary

TREE PROTECTION FENCING



Tree Protection Fencing Specifications:

1. The fence will be constructed using 38 x 89 mm (2" x 4") wood frame:
   - Top, Bottom and Posts.*
   - Use orange snow fencing mesh and secure to the wood frame with "zip" ties or galvanized staples.
2. Attach a sign with minimum size of 407 mm x 610 mm (16" X 24") with the following wording:
   a) **DO NOT ENTER**- Tree Protection Zone (For retained trees) or;
   b) **DO NOT ENTER**- Future Tree Planting Zone (For tree planting sites)

This sign must be affixed on every fence face or at least every 10 linear metres.

*In rocky areas, metal posts (t-bar or rebar) drilled into rock will be accepted.

DATE: November 2019
SCALE: N.T.S

TREE PROTECTION NOTES

Tree protection barrier: The areas, surrounding the trees to be retained, should be isolated from the construction activity by erecting protective barrier fencing. Where possible, the fencing should be erected at the perimeter of the critical root zone. The barrier fencing to be erected must be a minimum of 1200mm in height, of solid frame construction that is attached to wooden or metal posts. A solid board or rail must run between the posts at the top and the bottom of the fencing. This solid frame can then be covered with flexible snow fencing. The fencing must be erected prior to the start of any construction activity on site (i.e. demolition, excavation, construction), and remain in place through completion of the project. Signs should be posted around the protection zone to declare it off limits to all construction related activity. The project arborist must be consulted before this fencing is removed or moved for any purpose.

Arborist supervision: All excavation occurring within the critical root zones of protected trees must be completed under the supervision of the project arborist. Any severed or severely damaged roots must be pruned back to sound tissue to reduce wound surface area and encourage rapid compartmentalization of the wound.

Demolition: The demolition of the existing houses, driveways, and any services that must be removed or abandoned must take the critical root zone of the trees to be retained into account. If any excavation or machine access is required within the critical root zones of trees to be retained, it must be completed under the supervision of the project arborist. If temporarily removed for demolition, barrier fencing must be erected immediately after the supervised demolition.

Methods to avoid soil compation: In areas where construction traffic must encroach into the critical root zones of trees to be retained, efforts must be made to reduce soil compaction where possible by displacing the weight of machinery and foot traffic. This can be achieved by one of the following methods:

- Installing a layer of hog fuel or coarse wood chips at least 20cm in depth and maintaining it in good condition until construction is complete.
- Placing medium weight geotextile cloth over the area to be used and installing a layer of crushed rock to a depth of 15cm over top.
- Placing two layers of 19mm plywood.
- Placing steel plates.

Mulching: Mulching can be an important proactive step in maintaining the health or trees and mitigating construction related impacts and overall stress. Mulch should be made from a natural material such as wood chips or bark pieces and be 5-8cm deep. No mulch should be touching the trunk of the tree. See "methods to avoid soil compaction" if the area is to have heavy traffic.

Pruning: We recommend that any pruning of bylaw-protected trees be performed to ANSI A300 standards and Best Management Practices.

Paved surfaces above tree roots: Where paved areas cannot avoid encroachment within critical root zones of trees to be retained, construction techniques, such as floating permeable paving, may be required. The "paved surfaces above tree roots" detail above offers a compromise to full depth excavation (which could impact the health or structural stability of the tree). The objective is to avoid root loss and to instead raise the paved surface above the existing grade (the amount depending on how close roots are to the surface and the depth of the paving material and base layers). Final grading plans should take this potential change into account. This may also result in soils which are high in organic content being left intact below the paved area. To allow water to drain into the root systems below, we also 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 utilitzed by Grasspave, Gravelpave, Grasscrete and open-grid systems.

Blasting and rock removal:Care must be taken to ensure that the area of blasting does not extend beyond the necessary footprints and into the critical root zones of surrounding trees. The use of small low-concussion charges and multiple small charges designed to pre-shear the rock face will reduce fracturing, ground vibrations and overall impact to the surrounding environment. Only explosives of low phytotoxicity and techniques that minimize tree damage should be used. Provisions must be made to ensure that blasted rock and debris are stored away from the critical root zones of trees.

Scaffolding:This assessment has not included impacts from potential scaffolding including canopy clearance pruning requirements. If scaffolding is necessary and this will require clearance pruning of retained trees, the project arborist should be consulted. Depending on the extent of pruning required, the project arborist may recommend that alternatives to full scaffolding be considered such as hydraulic lifts, ladders or platforms. Methods to avoid soil compaction may also be recommended (see "Minimizing Soil Compaction" section).

Landscaping and irrigation systems: The planting of new trees and shrubs should not damage the roots of retained trees. The installation of any in-ground irrigation system must take into account the critical root zones of the trees to be retained. Prior to installation, we recommend the irrigation technical consult with the project arborist about the most suitable locations for the irrigation lines and how best to mitigate the impacts on the trees to be retained. This may require the project arborist supervise the excavations associated with installing the irrigation system. Excessive frequent irrigation and irrigation which wets the trunks of trees can have a detrimental impact on the tree health and can lead to root and trunk decay.

Arborists role: It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:

- Locating the barrier fencing.
- Reviewing the report with the project foreman or site supervisor.
- Locating work zones and machine access corridors where required.
- Supervising excavation for any areas within the critical root zones of trees to be retained including any proposed retaining wall footings and review any proposed fill areas near trees to be retained.

Tree Management Plan

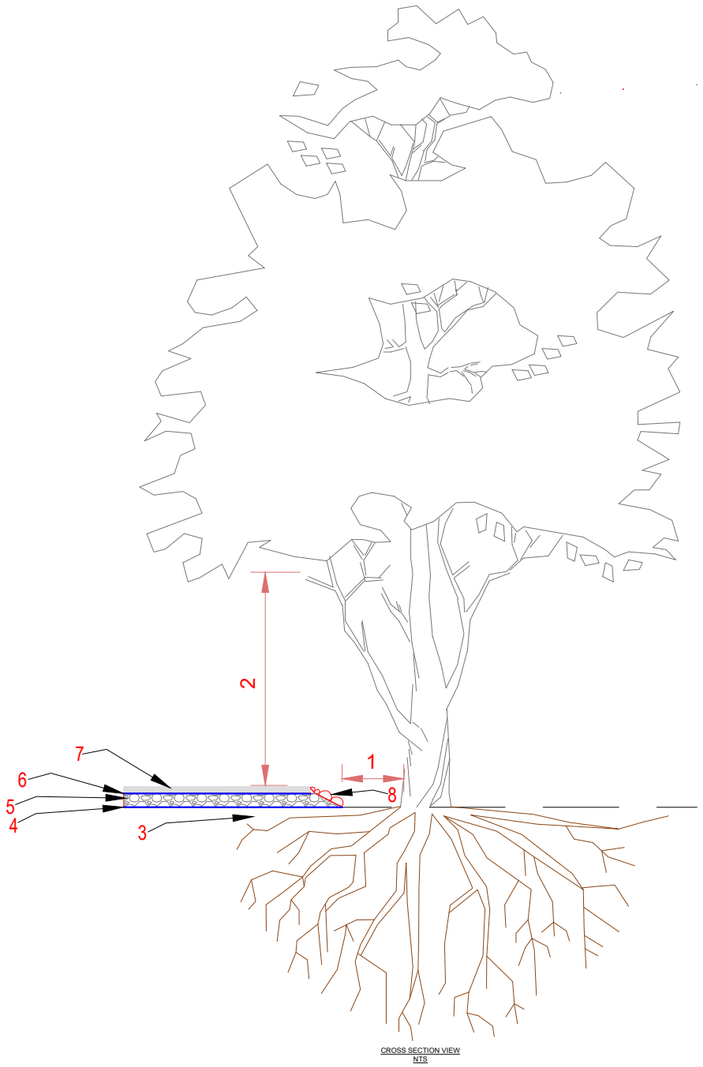
546-550 Windthrop Road
Colwood, BC

DATE:	September 25, 2024
PREPARED FOR:	KST Management Inc.
SCALE:	1 : 500 @ 11" X 17"
DRAWN BY:	RM
REVISION:	0
REFERENCE DWG:	20240910 - 34773 - Civil - Svc Plan

TALMACK URBAN FORESTRY

APPENDIX B – HARD SURFACES ABOVE TREE ROOTS DIAGRAM

HARD SURFACE ABOVE TREE ROOTS DETAIL

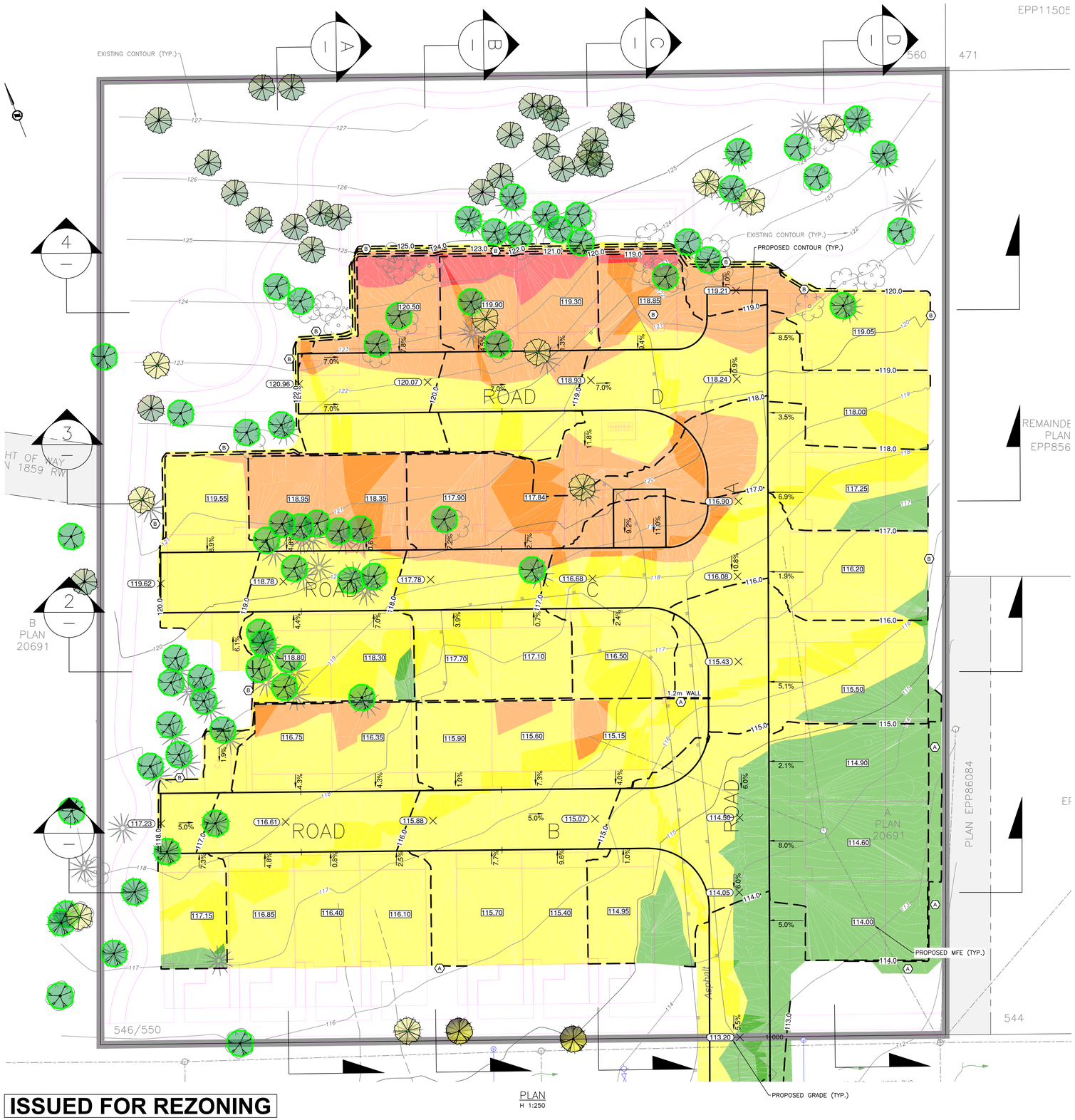


CROSS SECTION VIEW
NTS

HARD SURFACE ABOVE TREE ROOTS NOTES

1. Maintain as large a setback between the fill encroachment and the root collar of the tree as possible.
2. Review any canopy clearance pruning requirements to accommodate vehicle or pedestrian clearances (Pruning to be performed to ANSI A300 standards).
3. Excavate the new footprint of the driveway or sidewalk under the supervision of the project arborist. Excavation will be limited to the removal of the existing sod layer. Excavation around root structures must be performed by hand, airspade, or hydroexcavation.
4. Install a two-dimensional (such as Combigrid $\frac{30}{30}$) or Three-dimensional geogrid reinforcement.
5. Install a 150mm depth layer of clear crushed gravel (no fines) using 20mm and/or 75mm diameter material or approved equivalent. *Note - the depth may be less than 150mm in some situations (dependant on grading constraints).
6. Install 4 oz non woven geotextile over the clear crushed gravel layer to prevent fine particles of sand from infiltrating this layer.
7. The bedding or base layer and new driveway or sidewalk surface can be installed directly on top of the felted filter fabric.
8. Fill slopes - where possible install loose stacked boulders to reduce the footprint of the fill slopes that encroach within the critical root zone. Fill slope materials must be permeable to air and water. Do not pile fill material directly against the trunk of a tree.

TALMACK
URBAN FORESTRY
Consultants Limited



SHEET NOTES:

(A) PROPOSED MAXIMUM 1.2m HIGH RETAINING WALL. DETAILED DESIGN TO BE AT BUILDING PERMIT BY OTHERS.

(B) PROPOSED ROCK CUT SLOPES. FINAL CUT SLOPES TO BE DESIGNED AT BUILDING PERMIT STAGE. ALL CUT SLOPES TO BE SPECIFIED BY DEVELOPER'S GEOTECHNICAL ENGINEER.

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-6.000	-4.000	
2	-4.000	-2.000	
3	-2.000	0.000	
4	0.000	2.000	

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
FG VOLUME (1)	1.000	1.000	5168.68sq.m	6453 Cu. M.	361 Cu. M.	6092 Cu. M.<Cut>
Totals			5168.68sq.m	6453 Cu. M.	361 Cu. M.	6092 Cu. M.<Cut>

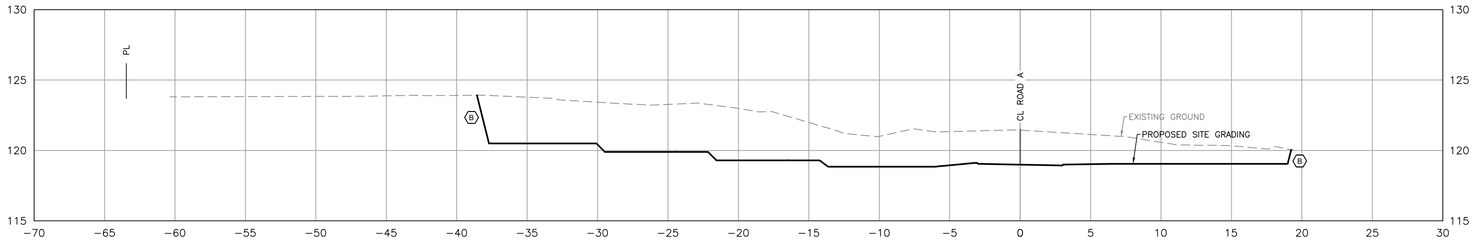
ISSUED FOR REZONING

T. C. KILLIP # 60157 ENGINEER — EGBC# 1001272 — 2024-09-10

546 Windthrop Road
KTS Management
Preliminary Grading Plan

Scale horiz. 1:250
Sheet 1 of 3
Eng. Project No. 34773
Drafted by. CK

J E ANDERSON & ASSOCIATES
SURVEYORS - ENGINEERS
VICTORIA NANAIMO PARKSVILLE CAMPBELL RIVER
PHONE: 250-727-2214 info@jeanderson.com



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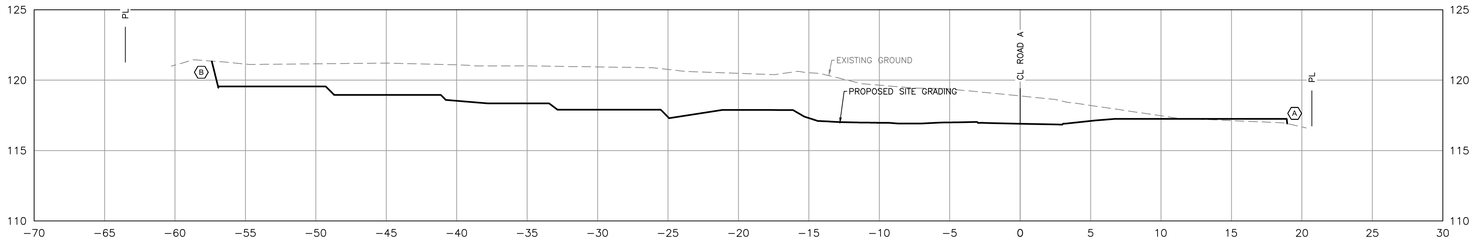

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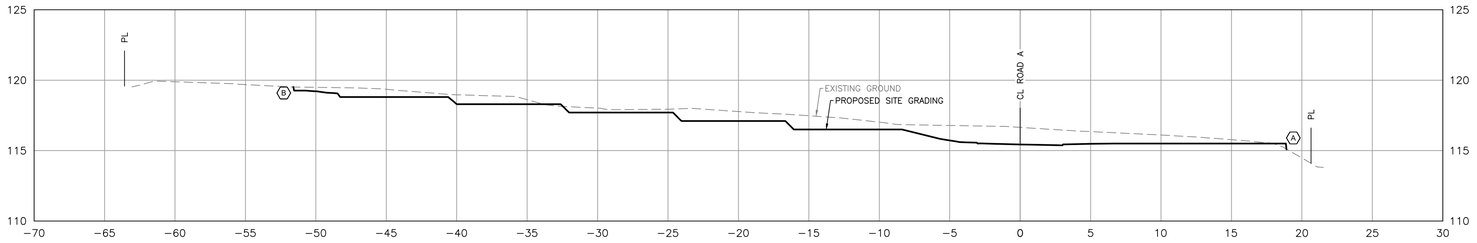

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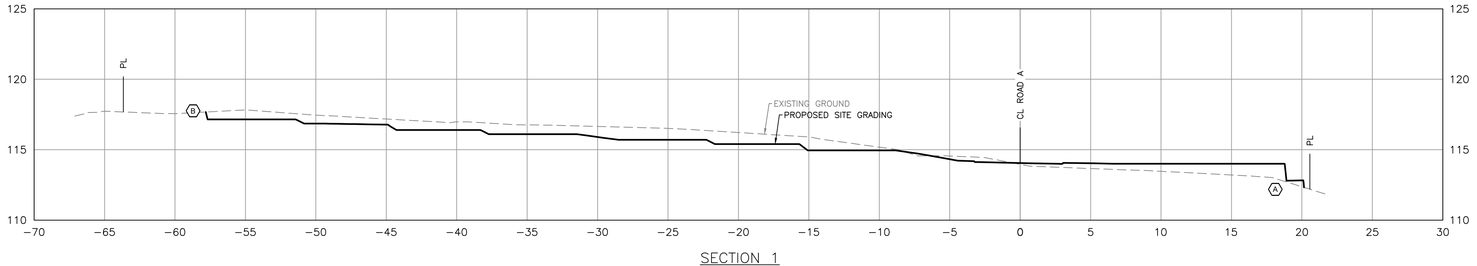

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ISSUED FOR REZONING

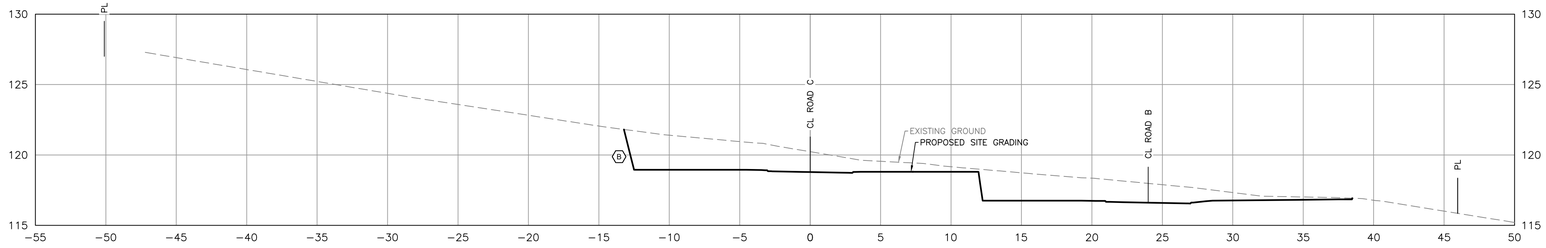
\\Victoria01\Common_Projects\34773 – KST Management Inc. – 546 Windthrop Rd\05 – Engineering\03 – Drawings & Sketches (Eng)\34773 – Production Grading.dwg Plot Date: September 10, 2024

T. C. KILLIP # 60157 BRITISH COLUMBIA ENGINEER
Date signed: 2024-09-10
EGBC® 1001272

546 Windthrop Road
KTS Management
Preliminary Grading Plan

Scale horiz.	1:250	Scale vert.	1:250
Sheet	2	of	3
Eng. Project No.	34773		
Drafted by.	CK		

J E ANDERSON & ASSOCIATES
SURVEYORS - ENGINEERS
VICTORIA NANAIMO PARKSVILLE CAMPBELL RIVER
PHONE: 250-727-2214 info@jeanderson.com



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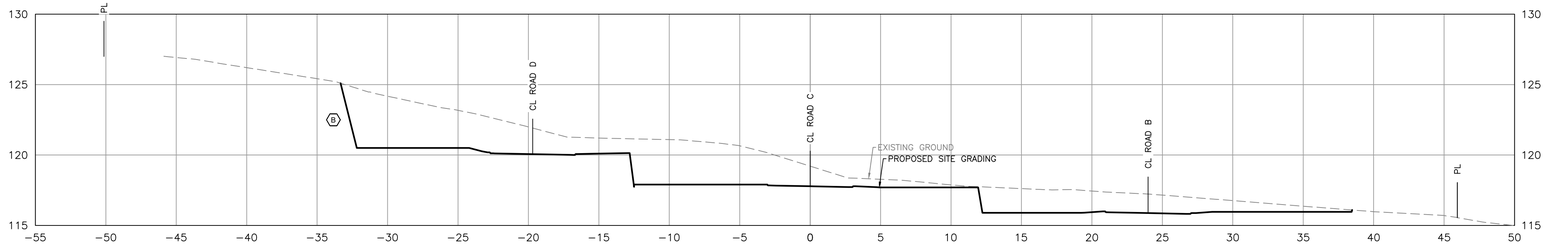

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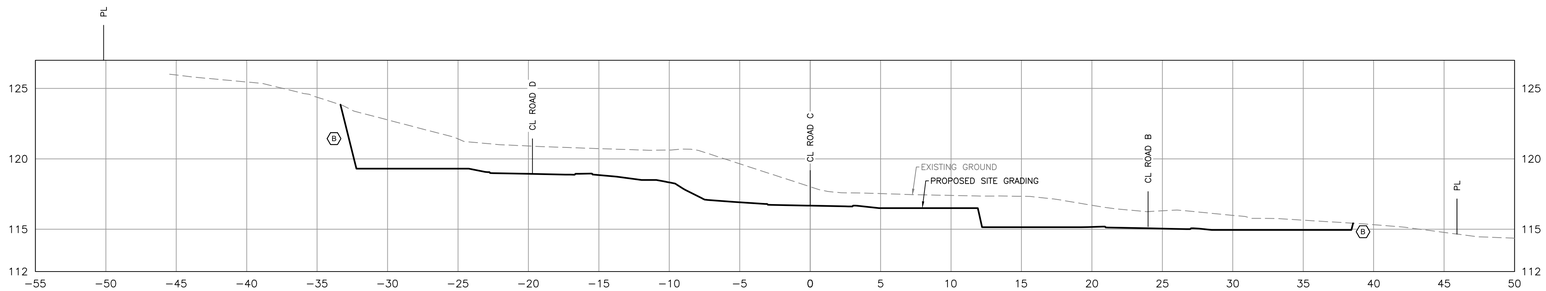

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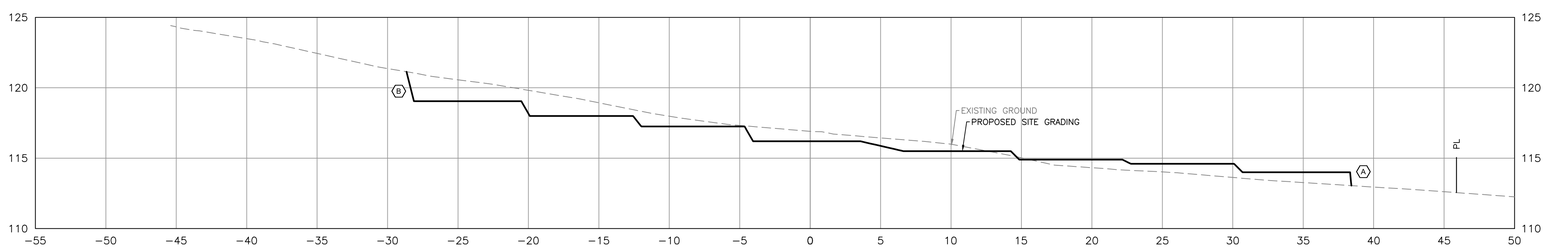

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SHEET NOTES:

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ISSUED FOR REZONING

\\Victoria01\Common_Projects\34773 – KST Management Inc. – 546 Windthrop Rd\05 – Engineering\03 – Drawings & Sketches (Eng)\34773 – Production Grading.dwg Plot Date: September 10, 2024

PROFESSIONAL ENGINEER
T. C. KILLIP
60157
BRITISH COLUMBIA
2024-09-10
EGBC# 1001272

546 Windthrop Road
KTS Management
Preliminary Grading Plan

Scale horiz.	1:250	Scale vert.	1:250
Sheet	3	of	3
Eng. Project No.	34773		
Drafted by.	CK		

JEA J E ANDERSON & ASSOCIATES
SURVEYORS - ENGINEERS
VICTORIA NANAIMO PARKSVILLE CAMPBELL RIVER
PHONE: 250-727-2214 info@jeanderson.com

WATT Consulting Group

546 WINDTHROP RD

Traffic Impact Assessment

Kristen Bacler – Transportation Technologist
Author

Kristen Machina – P.Eng.
Senior Transportation Engineer
Reviewer

PERMIT TO PRACTICE:
Number 1001432

Prepared For: KST Management Inc.
Date: March 18, 2025
Our File No: 3740.B01

WATT VICTORIA
302 – 740 Hillside Ave
Victoria, BC V8T 1Z4
250-388-9877

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

WATT Consulting Group is retained by KST Management Inc. to prepare a Transportation Impact Assessment (TIA) for a proposed 34-unit townhouse development at 546 Windthrop Road in the City of Colwood. The site location is illustrated in **Figure 1**.

1.1 The Site Today

The site is bound by Windthrop Road to the south, and single-family homes and undeveloped land to the east, west, and north.

The site today is occupied by two (2) single-family homes.

1.2 Proposed Development

The proposed development will include 34 three-storey townhouses.

1.3 This Report

This report is provided as part of the rezoning application being submitted to the City of Colwood. Based on the City of Colwood's guidelines this study falls under TIA level 1 (5-25 two-way trips) as the maximum number of 2-way trips is 17 in the PM peak hour.

This report provides the following:

- An overview of the existing transportation context, including vehicular, pedestrian, cycling, and transit facilities, and area travel characteristics
- An overview of the proposed development and the transportation-related features of the proposed site plan
- An overview of the transportation demand management (TDM) opportunities available for the site
- A projection of the site's trip generation


SITE
DELORA DRIVE
WINDTHROP ROAD
BUNKER ROAD
WISHART ROAD
NORTH

2.0 TRANSPORTATION CONTEXT

2.1 Road Network

2.1.1 Existing Road Network

An outline of the characteristics of the existing roads in the vicinity of the site is provided in **Table 1**.

Table 1 – Existing Roads

Road Name	Ownership	Classification	Cross Section	Posted Speed Limit	Features
Windthrop Road	City of Colwood	Local	Rural	50 km/h	On-street gravel shoulder parking, 2 lanes

2.1.2 Evolving Road Network

The *Colwood Transportation Master Plan* (2015) outlined the possible future linking of Delora Drive to be a through connection in the vicinity of the site. This connection may be an attractive option to reach Veterans Memorial Parkway via Mary Anne Crescent to Cairndale Road for residents. **Figure 2** illustrates the possible future connection of Delora Drive.


DELORA DRIVE
NORTH
Possible future link
SITE
DELORA DRIVE
WINDTHROP ROAD
WISHART ROAD

2.2 Transit Network

2.2.1 Existing Transit Network

The existing transit network in the vicinity of the site is illustrated in **Figure 3**. An outline of the nearby transit routes within the study area is provided in **Table 2**.

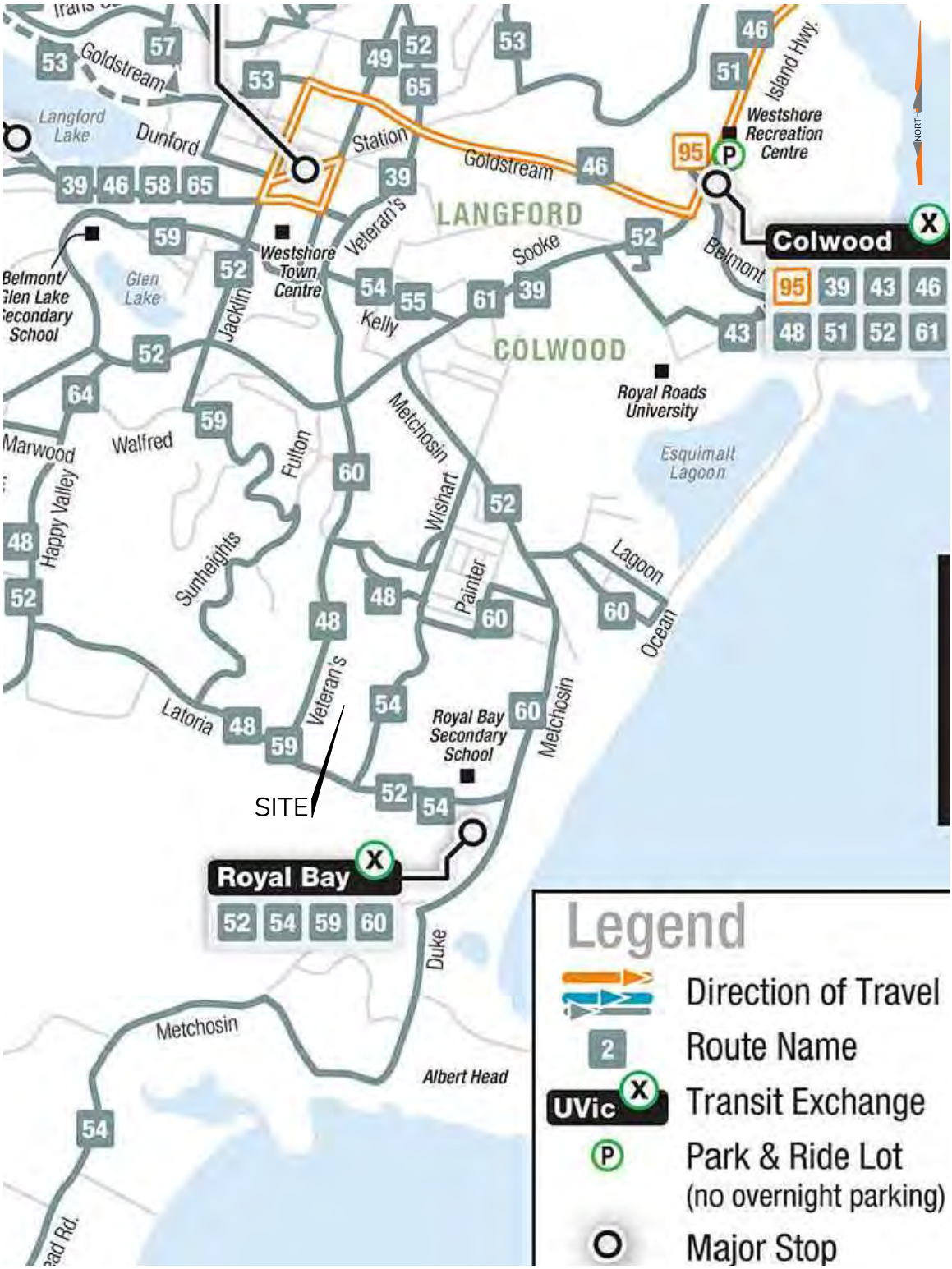
Table 2 – Existing Transit Network

Route # and Name	Nearest Stop	Walking Distance to Nearest Stop	Headways
Route 52 – Colwood Exchange / Bear Mountain	Latoria Road / Wishart Road	650 metres (9 minutes)	Weekdays: Every 15 – 60 minutes Weekends: Every 20 – 60 minutes
Route 54 – Metchosin / Langford Exchange	Wishart Road / Royal Bay Drive	290 metres (3 minutes)	Weekdays: Every 55 – 125 minutes Weekends: Every 120 – 145 minutes
Route 59 – Triangle Mountain / Langford Exchange	Latoria Road / Wishart Road	650 metres (9 minutes)	Weekdays: Every 45 – 70 minutes Weekends: Every 60 – 70 minutes

The bus stop at Wishart Road / Royal Bay Drive is equipped with a bus bench and a bust stop signpost. There is sidewalk on the east side of the road where the bus stop exists; however, there is no sidewalk along Windthrop Road leading up to the bus stop and only a gravel pathway to the crosswalk on the west side of the road. The bus stop at Latoria Road / Wishart Road is equipped with a bus stop signpost only. There is no sidewalk on the north side of the road where the bus stop exists; however, there is enough room to walk on the gravel road shoulder. There is a crosswalk at the Latoria Road / Wishart Road intersection on the east leg and a pedestrian pathway that leads to the residential development north of Latoria Road.

2.2.2 Evolving Transit Network

The *West Shore Transit Future Plan* (2022) designates Latoria Road as a Frequent Transit Network (FTN). Phase 2 proposes a restructuring of the West Shore Network, which will give route 52 improved frequency, and a new terminus point at Colwood Exchange / Millstream to allow it to function as an FTN.


Goldstream
Langford Lake
Dunford
Station
Goldstream
Island Hwy.
Westshore Recreation Centre
LANGFORD
Colwood
Belmont/ Glen Lake Secondary School
Glen Lake
Westshore Town Centre
Veteran's
Sooke
Belmont
Jacklin
Kelly
COLWOOD
Royal Roads University
Esquimalt Lagoon
Marwood
Walfred
Fulton
Metchosin
Wishart
Happy Valley
Sunheights
Painter
Lagoon
Ocean
Latoria
Veteran's
Royal Bay Secondary School
Metchosin
SITE
Royal Bay
Duke
Metchosin
Albert Head
Legend
Direction of Travel
Route Name
Transit Exchange
Park & Ride Lot
(no overnight parking)
Major Stop

2.3 Cycling Network

2.3.1 Existing Cycling network

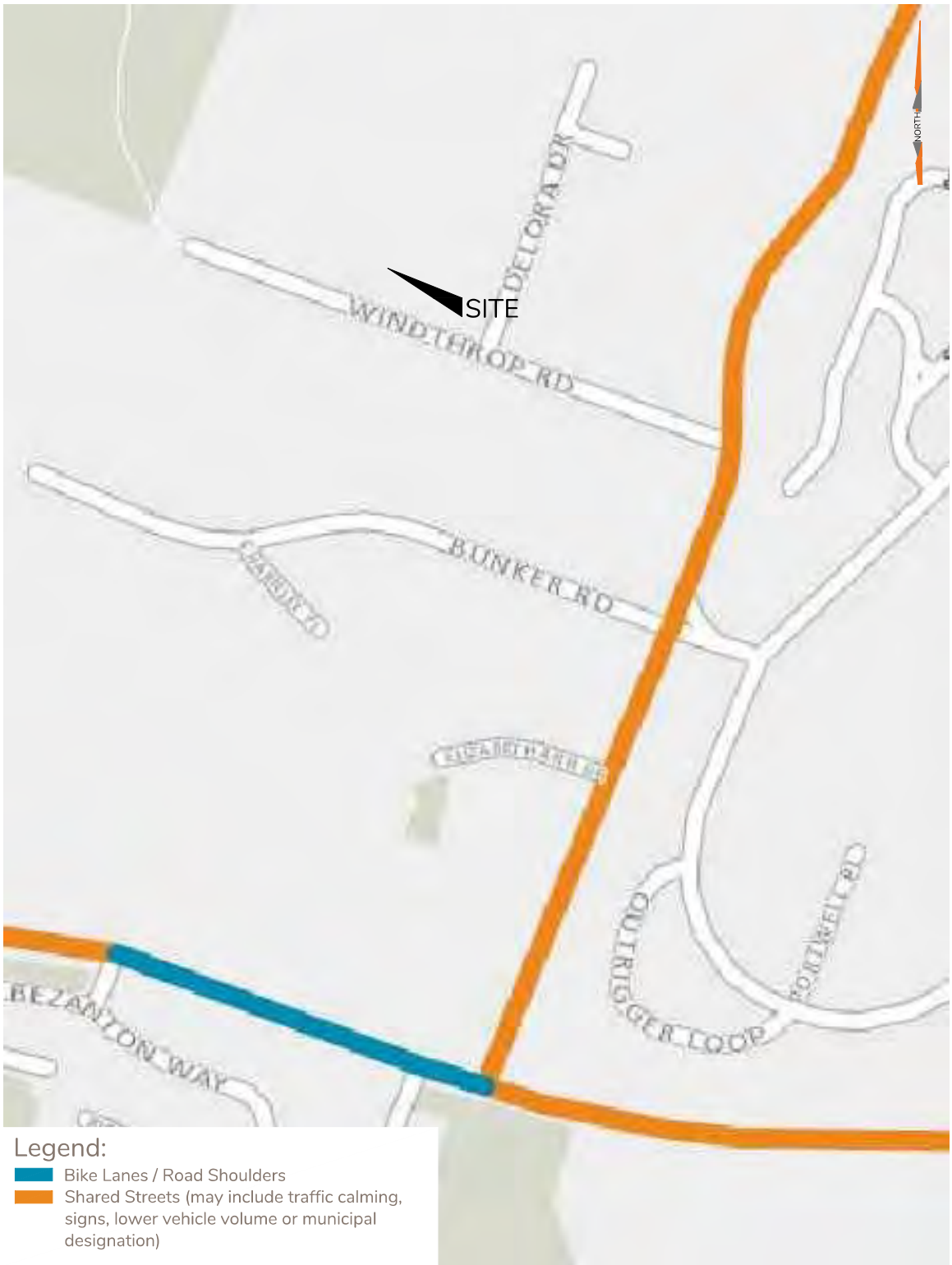
The existing cycling network in the vicinity of the site is summarized in **Table 3**, and illustrated in **Figure 4**.

Table 3 – Existing Cycling Network

Road Name	Type of Facility	Features
Wishart Road	Bike Lanes – Metchosin Road to Cairndale Road Shared Street – Cairndale Road to Latoria Road	Connects to Latoria Road and Metchosin Road, Painted Lanes (portions of road)

2.3.2 Evolving Cycling Network

According to the *Colwood Active Transportation Network Plan* (Draft July 2022), Windthrop Road is identified as a long-term future neighbourhood bikeway, and south of Cairndale Road, Wishart Road is slated to be upgraded to bicycle lanes (paint separated) in the future.


SITE
WINDTHROP RD
DELORA DR
BUNKER RD
BEZANTON WAY
OUTRIGGER LOOP
NORTH
Legend:
Bike Lanes / Road Shoulders
Shared Streets (may include traffic calming, signs, lower vehicle volume or municipal designation)

2.4 Pedestrian Network

2.4.1 Existing Pedestrian Network

The existing pedestrian network in the vicinity of the site is summarized in **Table 4**.

Table 4 – Existing Pedestrian Network

Road Name	Type of Facility	Features
Windthrop Road	Gravel Shoulders	No features

There are no sidewalks on Windthrop Road.

2.4.2 Evolving Pedestrian Network

Windthrop Road is identified as part of the Priority Pedestrian Network according to the *Active Transportation Network Plan* (2022. It is the City of Colwood's intent to build out the sidewalk network to include concrete sidewalks on at least one side of all local roads. Due to the ditch along Windthrop Road, the site will have a pedestrian pathway within the site to contribute to the sidewalk network.

3.0 PROPOSED DEVELOPMENT

The proposed development consists of 34 three-storey townhouses with parking on the ground level. The key land uses and transportation-related elements of the proposed site plan are summarized in **Table 5**. The current site plan is provided in **Appendix A**.

Table 5 – Development Proposal

Site Element	Details	
Residential Units	34 units	
Vehicular Access	Vehicle access to the development provided from Windthrop Road via a north-south access road. Access to the townhouses is provided via an internal road network	
Vehicular Parking Supply	Residential	68 spaces
	Visitor	6 spaces
	Total	74 spaces

Based on architectural plans prepared by WA Architects, dated June. 18, 2024.

3.1 Site Access

Vehicular access is provided from Windthrop Road on the north side and internal roads give access to the townhouses. The access to the development is stop-controlled and approximately 75 metres west from the intersection of Windthrop Road / Delora Drive. Looking east the access has good sight lines to the end of the road where Windthrop Road meets Wishart Road. Looking to the west, the access can see to the top of the vertical curve; however, stopping distance is met (65 metres) and the road is a dead end so very little traffic will approach from the west.

3.2 Vehicular Parking

3.2.1 Vehicle Parking Requirements

The site is currently subject to the parking requirements outlined in the City of Colwood *Bylaw No.1909, 2022*. As the site is located in the "Urban Centre" area, reduced parking requirements are available. Per Section 3.2 in *Bylaw No.1909*, the calculation of parking

and loading requirements must round fractional parking numbers to the nearest whole number. Therefore, the vehicular parking requirements applicable to the site are outlined in **Table 6**.

Table 6 – Vehicular Parking Requirements

Use	Units	Minimum Rate	Minimum Requirement
Townhouse	34 units	1.5 spaces / unit	51 spaces
Visitor Parking	34 units	0.10 spaces / unit	4 spaces
Accessible	-	51-100 spaces = 2	2 spaces (Included in Required Total)
Small Parking (Optional)	34 units	30% of Required Total	17 spaces (Optional)
Total			**55 spaces**

3.2.2 Vehicular Parking Supply

A total of 74 parking spaces are proposed on the site, including 68 resident spaces (2 stalls per unit), 6 visitor stalls and 2 accessible stalls. The proposed development meets the parking requirements of the City of Colwood *Bylaw No.1909*.

3.3 Bicycle Parking

3.3.1 Bicycle Parking Requirements

The site is currently subject to the bicycle parking requirements outlined in City of Colwood *Bylaw No.1909*. The bicycle parking requirements applicable to the site are outlined in **Table 7**

Table 7 – Bicycle Parking Requirements

Use	Units	Minimum Rate	Minimum Requirement
Attached Housing – Long Term	34 units	1.0 space / unit	34 spaces[1]
Short-term	6 buildings	6 spaces per building	36 spaces[1]
Total			**70 spaces**

Notes: 1. A minimum of 10% are required to be designed as oversized bicycle parking

A total of 76 bicycle parking stalls are proposed in the current site plan, including 34 long term, and 36 short term spaces. The City of Colwood *Bylaw No.1909* states that a minimum of 10% of the required bicycle parking stalls must be designed as oversized bicycle parking. The long-term bicycle parking will be within the garages of the townhouses and will be able to accommodate oversized bicycles as needed. The proposed development meets the bicycle parking requirements of the City of Colwood *Bylaw No.1909*.

3.4 Post-Development Conditions

3.4.1 Existing Site Trip Generation

Given the limited trip generation potential of the existing uses on the site (i.e. two single family homes), existing site trips were not removed from the trip generation forecast.

3.4.2 New Site Trip Generation

The new site will consist of 34 three-storey townhouses.

Vehicular trip generation rates for the proposed mixed-use development are generally based on the *ITE Trip Generation Manual (11th Edition)*. The trip generation forecast for the site is provided in **Table 8**. The proposed development is forecast to generate 14 new trips in the weekday AM peak period, and 17 new trips in the weekday PM peak period.

Table 8 – New Site Trip Generation

Use	AM Peak Hour			PM Peak Hour		
	In	Out	2-Way	In	Out	2-Way
Trip Generation Rates						
Multifamily Housing (Low-Rise) (LU 220)[1]	0.10	0.30	0.40	0.32	0.19	0.51
Vehicular Trip Generation						
Low-Rise (34 units)	3	11	14	11	6	17
Total	**3**	**11**	**14**	**11**	**6**	**17**

Notes:
1. Trip rates are per dwelling unit

4.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is the application of strategies and policies to influence the travel choice of an individual, most commonly to reduce single-occupant vehicle travel. TDM measures typically aim to encourage sustainable travel, enhance travel options, and decrease parking demand. The applicant is not pursuing a reduction in the parking supply; therefore, TDM measures are not required to support the proposed development.

5.0 CONCLUSIONS

The proposed development of 34 townhouses will generate 14 AM peak hour trips and 17 PM peak hour trips, which will have a limited impact on the existing roads.

Transit connections are available within a 10-minute walking distance on Wishart Road and on Latoria Road. The pedestrian network is limited; however, there is room to walk on the gravel shoulders. Windthrop Road is in Colwood's priority pedestrian network, and the City intends to install concrete sidewalks on at least one side of all their local roads. The development will install a pedestrian pathway within the site to contribute to the sidewalk network in the area. Bike lanes in the immediate vicinity of the site are limited, but there are bike lanes available on Latoria Road and at the north end of Wishart Road.

The minimum number of required parking stalls for a development in an "urban centre" has been met. No TDM measures should be needed as the parking requirements are met.

The proposed development meets the parking and bicycle parking requirements of the City of Colwood *Bylaw No.1909*.

APPENDIX A – SITE PLAN

WINDTHROP DEVELOPMENT COLWOOD, B.C.

CIVIC ADDRESS: 546 WINDTHROP RD, COLWOOD, BRITISH COLUMBIA
LEGAL ADDRESS: LOT A, PLAN VIP20691, SEC 62, ESQUIMALT LAND DISTRICT PID: 003-576-213

ISSUED FOR REZONING AUGUST 28, 2024

SITE MAP

LOCATION MAP

CONSULTANT LIST

CLIENT	CLIENT REP	ARCHITECT	CIVIL ENGINEER
KTS MANAGEMENT INC.	RACHAEL SANSOM	WA ARCHITECTS	J.E. ANDERSON & ASSOCIATES
c/o RACHAEL SANSOM	TEL.: 250-889-0047	950 - 1500 WEST GEORGIA ST.	4212 GLANFORD AVENUE
19131 - 21 AVENUE	CONT: RACHAEL SANSOM	VANCOUVER B.C. V6G 2Z6	VICTORIA, B.C. V8Z 4B7
SURREY, BC V3Z 3M3		TEL: 604-685-3529	TEL: 250-727-2214
		CONT: DAVID ECHAIZ-McGRATH CELINE MOTZ	CONT: COLTON KILLIP

DRAWING LIST

ARCHITECTURAL		A1.201	BLOCK 1 FLOOR & ROOF PLANS	A5.201	BLOCK 5 LEVEL 1 & 2 PLANS
A000	COVER SHEET - STATISTICS	A1.301	BLOCK 1 ELEVATIONS	A5.202	BLOCK 5 LEVEL 3 & ROOF PLANS
A101	SURVEY PLAN	A1.302	BLOCK 1 ELEVATIONS	A6.201	BLOCK 6 LEVEL 1 & 2 PLANS
A102	SITE PLAN	A2.201	BLOCK 2 FLOOR & ROOF PLANS	A6.202	BLOCK 6 LEVEL 3 & ROOF PLANS
A141	CONTEXT SITE SECTIONS	A3.201	BLOCK 3 FLOOR & ROOF PLANS	A7.201	BLOCK 7 FLOOR & ROOF PLANS
A142	CONTEXT SITE SECTIONS	A4.201	BLOCK 4 FLOOR & ROOF PLANS		

PROJECT STATS

Windthrop Rd Residential

Project No. 22070

REVISION NO.	4		DATE:		28-Aug-24
SITE INFORMATION					
LEGAL DESCRIPTION	LOT A, SECTION 62, ESQUIMALT DISTRICT PLAN 20691, PID: 003-576-213				
CIVIC ADDRESS	546 Windthrop Rd, Coolwood, B.C.				
	EXISTING			PROPOSED	
ZONING	A1			RM1A	
SITE AREA (ft²)	87,113 ft²	2.00 Acres aprox.	8,093 m²		
SITE DATA	BYLAW REFERENCE	DESCRIPTION	MAX. ALLOWED	PROPOSED (metric)	PROPOSED (imperial)
DENSITY	Bylaw 151 -6.1A.02 1 units per 370 (m²)		21.9 units	**34 units**	
LOT COVERAGE	Bylaw 151 - 6.1A.05		35%	**25.7%**	
NATURAL GREEN AREA	To be retained		40-50%	**46.9%**	
BUILDING HEIGHT	Bylaw 151 - 6.1A.03		9.00 m	**9.00 m**	**29.53 ft**
SETBACKS	Bylaw 151 - 6.1A.04	FRONT (WINDTHROP STREET)	7.50 m	**7.50 m**	**24.61 ft**
		REAR (NORTH)	10.00 m	**9.18 m**	**30.12 ft**
		SIDE (EAST)	6.00 m	**6.00 m**	**19.69 ft**
		SIDE (WEST)	6.00 m	**6.00 m**	**19.69 ft**
BUILDING DATA					
UNIT MIX	DESCRIPTION	GROSS AREA (ft²)	# OF UNITS	COMBINED (m²)	COMBINED (ft²)
A1	2 BED + FLEX	1,380 ft²	10	1,282 m²	13,800 ft²
B1	3 BEDROOM	1,587 ft²	17	2,506 m²	26,979 ft²
B2	3 BEDROOM	1,549 ft²	7	1,007 m²	10,843 ft²
TOTAL UNITS	**(Saleable Area)**		**34**	**4,796 m²**	**51,622 ft²**
AMENITY AREA				COMBINED PROPOSED (m²)	COMBINED PROPOSED (ft²)
USABLE OPEN SPACE	Bylaw 6.1A.08- min. 5% of lot (404m²) required			404 m²	4,349 ft²
TOTAL AMENITY				**404 m²**	**4,349 ft²**
PARKING DATA (RESIDENTIAL)	BYLAW REFERENCE	DESCRIPTION		REQUIRED	PROPOSED
REGULAR STALL	Bylaw 1909 - 3.1 Table 1	1.5 per dwelling unit (urban area eligible)		51.00 stalls	**68 stalls**
VISITOR	Bylaw 1909 - 3.5.2	0.1 visitor parking per 1 dwelling units	Not included in total	4 stalls	6 stalls
ACCESSIBLE STALL	Bylaw 1909 - 3.4 (Table 2)	11-50 spaces - 1 acc. 51-100 spaceS - 2 acc.	Included in total	2 stalls	2 stalls
TOTAL				**55 stalls**	**74 stalls**
BICYLE PARKING	BYLAW REFERENCE	DESCRIPTION		REQUIRED	PROPOSED
BICYCLE AREA	Bylaw 5.1 Table 5	Long Term 1 per unit		34 stalls	34 stalls
		Short Term 6		6 stalls	6 stalls
TOTAL				40 stalls	40 stalls

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

COVER SHEET
AUGUST 28, 2024

1 SITE PLAN
A0102 1" = 50'-0"

NORTH

WA ARCHITECTS

546 WINDTHROP ROAD
COLWOOD, BC

PROJECT # 22070
SCALE: AS NOTED

SITE PLAN
AUGUST 28, 2024

December 2nd, 2024

Ms. Kelsea Fielden, Planner I
City of Colwood
3300 Wishart Road
Victoria, British Columbia, V9C 1R1

Dear Ms. Fielden,

Re: Public Consultation Summary 546 Windthrop Road Proposed Rezoning

In accordance with Colwood policy, Grayland Consulting conducted a Public Information Meeting on November 30th to provide the neighbours with an opportunity to view the project, ask questions and to convey any concerns they may have.

Notices were mailed in early November, however due to the Canada Post Strike, some may not have received their notices, so additional flyers were hand distributed the week prior to the meeting. Approximately 27 notices were mailed. Those unable to attend were also provided with an email and phone number to reach out at any time.

Nine neighbours representing 5 addresses were in attendance. Their comments were as follows (*our comments in italics*):

1. Traffic safety – currently speeding on Windthrop Road is an issue, as well as safety concerns the intersection at Winthrop and Wishart. Suggestions regarding rumble strips or other traffic calming measures were suggested. *Please note that the application has provided the City with a Traffic Impact Analysis (TIA) that did not identify any road improvements beyond the required frontage works.*

2. Pedestrian Safety – complete the trail from Delora to the trail at Havenwood Park. The project is responsible for improvements in the frontage. *Anything extra can be discussed as part of an amenity package.*

3. Sewers – can they be extended all the way to the end of the road? *Apparently if 50% of the residents wish for sewer, Colwood will provide – Colwood to advise. This project will bring the sewer from Delora to the site entrance.*

4. Visitor Parking – Is it adequate? *Parking will be provided in accordance with Colwood Bylaws.*

5. Trees and the Environment – ensure a nesting study is carried out before any falling at any time. Can the public have access to the reports? Concerns about construction impacts to those trees slated to remain. *All work will be performed under the supervision of the project biologist and arborist.*

6. Storm Water Management – Ensure not downstream impacts. *The project will be designed and built to Colwood standards, including no net increase in volume or velocity of rainwater for the design storm.*

We trust that this summary is satisfactory and look forward to further public participation throughout the rezoning process.

Best Regards,

Rachael Sansom, agent for the owners of 546 Windthrop Road

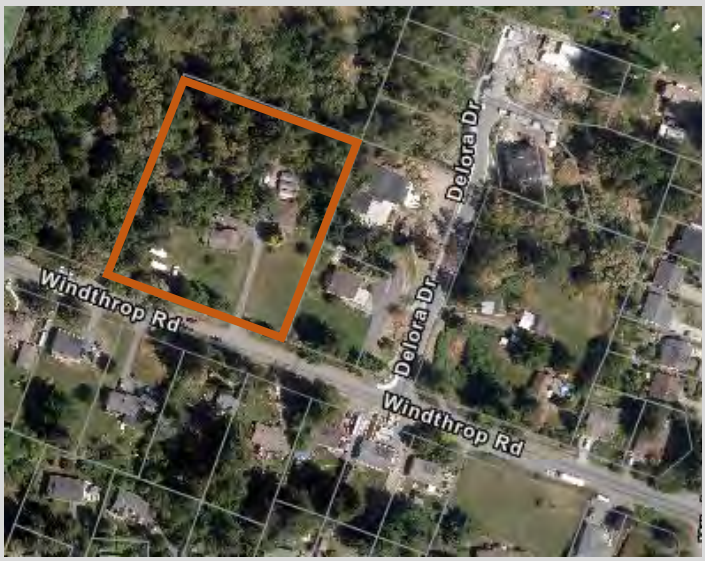
November 27th, 2024

Re: 546 Windthrop Road – Proposed Rezoning for Residential Townhomes – Invitation to an Information Meeting

HAND DELIVERED DUE TO CANADA POST STRIKE

Dear Neighbour,

An application has been submitted to the City of Colwood to rezone the above noted property from the existing A1 Rural Residential Zone to a new Comprehensive Development Zone that will accommodate a multi unit residential townhome development, in accordance with the Official Community Plan.



Location Plan 546 Windthrop Road

Proposed site plan

We wish to invite you to a Public Information Meeting on **Saturday November 30th from 11:00am to 1:00pm on site at 546 Windthrop Road**.

Here, you will have an opportunity to view the project plans and ask any questions you may have about the proposed development. Light refreshments will be served.

In the meantime, you can reach out at any time to discuss. My cell number is 250-889-0047 or email rdsansom@gmail.com.

Notices will be provided by the City when public meetings are scheduled to consider this proposal.

We look forward to meeting you.

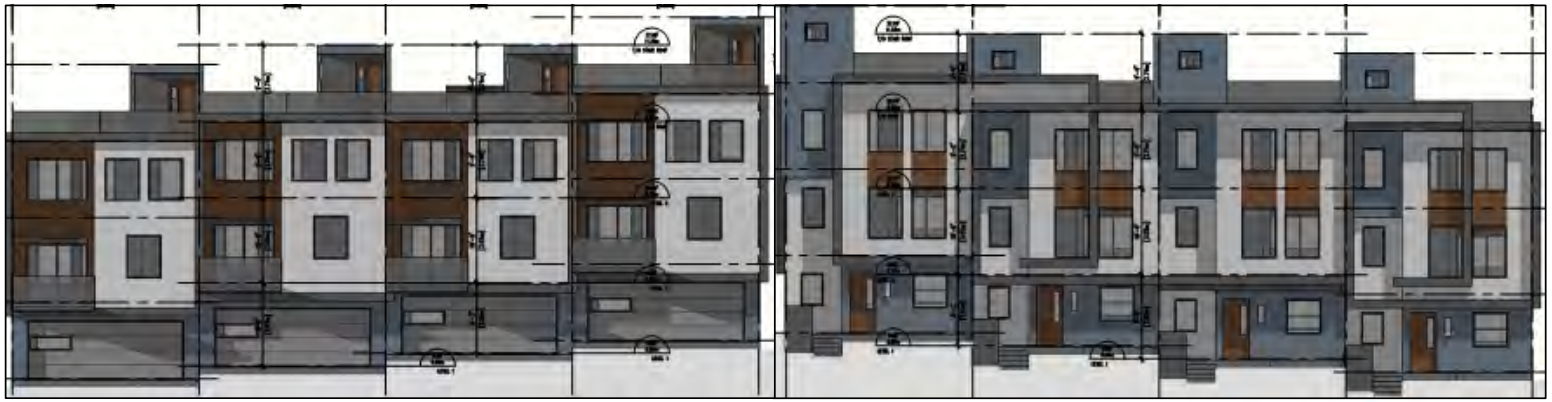
Rachael Sansom, agent for the owners 546 Windthrop Road.

546 Windthrop Road

Rezoning Application
Kelsea Fielden, Planner 1
Planning and Land Use Committee
June 2, 2025

Proposal

- Rezone to a new Hillside Attached Housing 1 (HAH1) zone
  - Enables 1.2 FAR
- 34-unit townhouse development
  - Proposed 0.59 FAR



Colwood

Site Context

Address: 546 Windthrop Road

Zoned: A1

OCP Designation: Neighbourhood – Hillside and Shoreline

Colwood

Official Community Plan

- Neighbourhood – Hillside and Shoreline
  - Ground-oriented multi-unit residential including duplexes and townhouses
  - Applying an especially strong focus on site adaptive policies including clustering of development in order to be setback from and preserve natural features
  - Applying alternative infrastructure standards
  - Retain a minimum 40% as open space
  - 1.2 FAR

Colwood

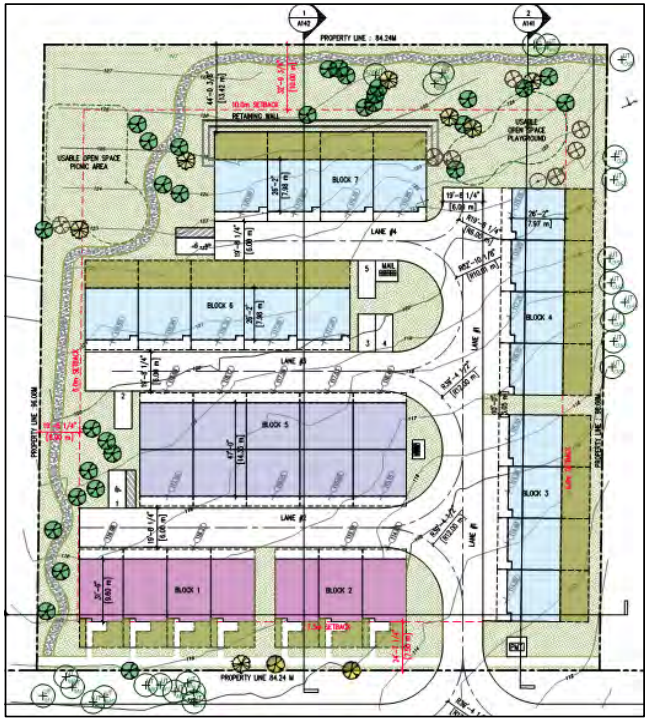
Land Use Bylaw

- New Hillside Attached Housing 1 (HAH1) zone enables density and site adaptive expectations envisioned as part of the 'Neighbourhood – Hillside and Shoreline' Land Use Designation specifically for townhouses.
  - Attached Housing Use
  - Usable Open Space minimum
  - 3 storey
- Proposed setbacks are those set out in the 'Hillside' guidelines to ensure environmental protection.
  - Hillside townhouse sites expected to rezone to HAH1

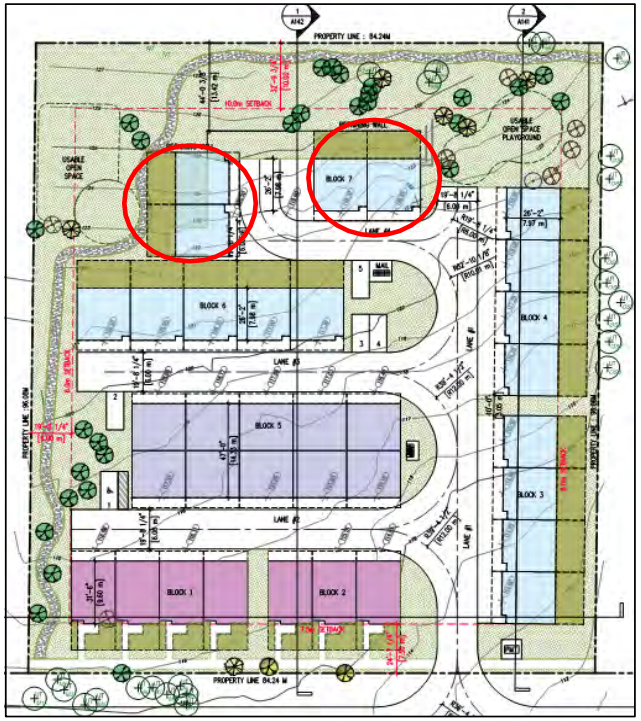
Colwood

Site Adaptive Planning

Original Concept Plan



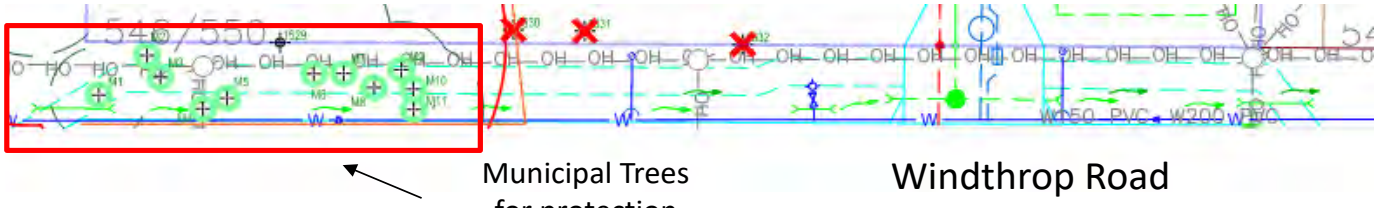
Revised Block 7



Colwood

Off-Site Works

- SRW for meandering trail over private and public property to protect significant on-site and off-street trees.
  - Policy direction 7.2.22.d: Applying alternative infrastructure standards, where feasible, such as reduced right-of-way requirements, to reduce the development footprint.



Communication

- Development Notification Sign Posted
- Applicant led public consultation summary
- Notification postcards within 100m will be sent prior to amending bylaw readings
  - Ad in local newspaper
  - Highlighted on website

Colwood

Options / Alternatives

Option 1	Staff recommendation
Option 2	Recommend that Council request staff to provide additional information
Option 3	Recommend to Council that the application be denied
Option 4	Committee provides another option for Council consideration

Thank you!

Planning and Land Use Committee, June 5th, 2025

564 Windthrop Road

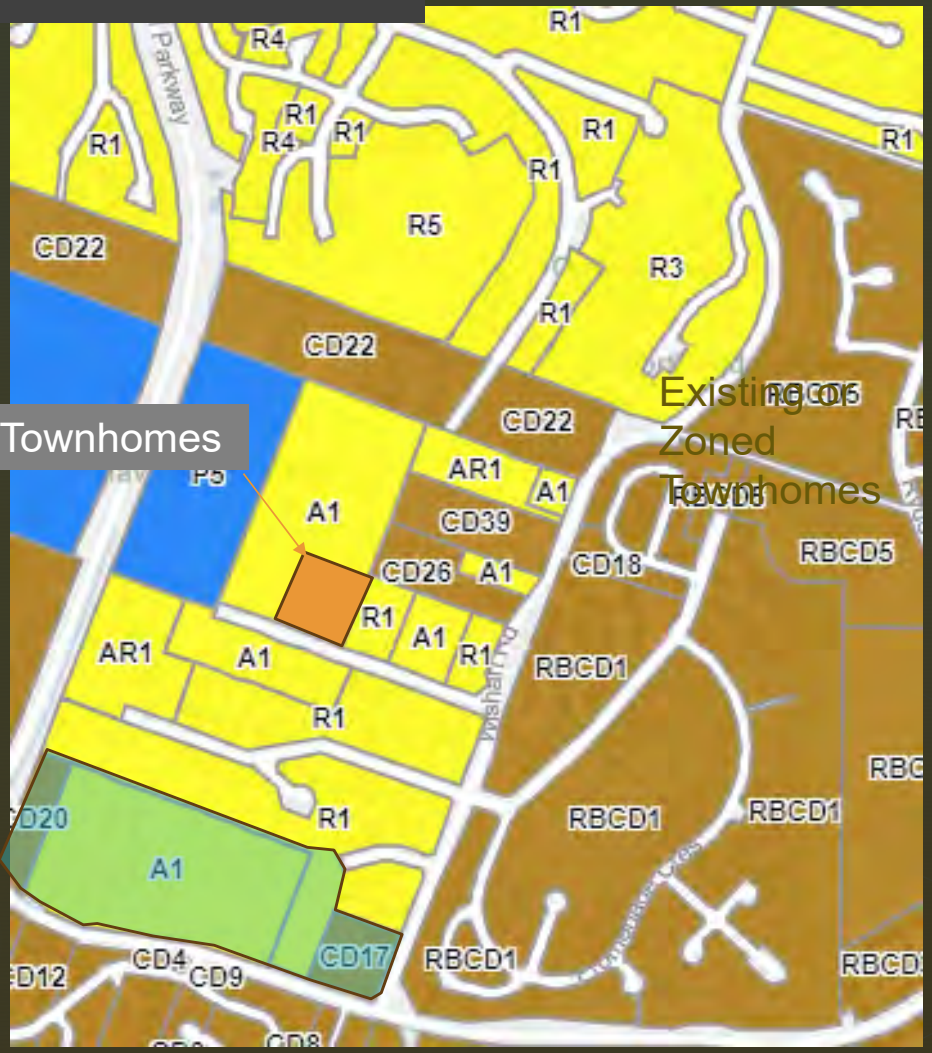
Rezoning for a Residential Townhome Community


WINDTHROP RD
DELORIA DR
WISHART RD
BUNKER RD
CHARNLEY PL
ELIZABETH ANN DR
PROMENADE CRES
ROYAL BAY DR
REGENCY PL
PRIVATE DRIVEWAY
GURUNANK LANE
PROMENADE CRES
LONGWORTH PL
546

Location

Existing Conditions

Adjacent Land Uses



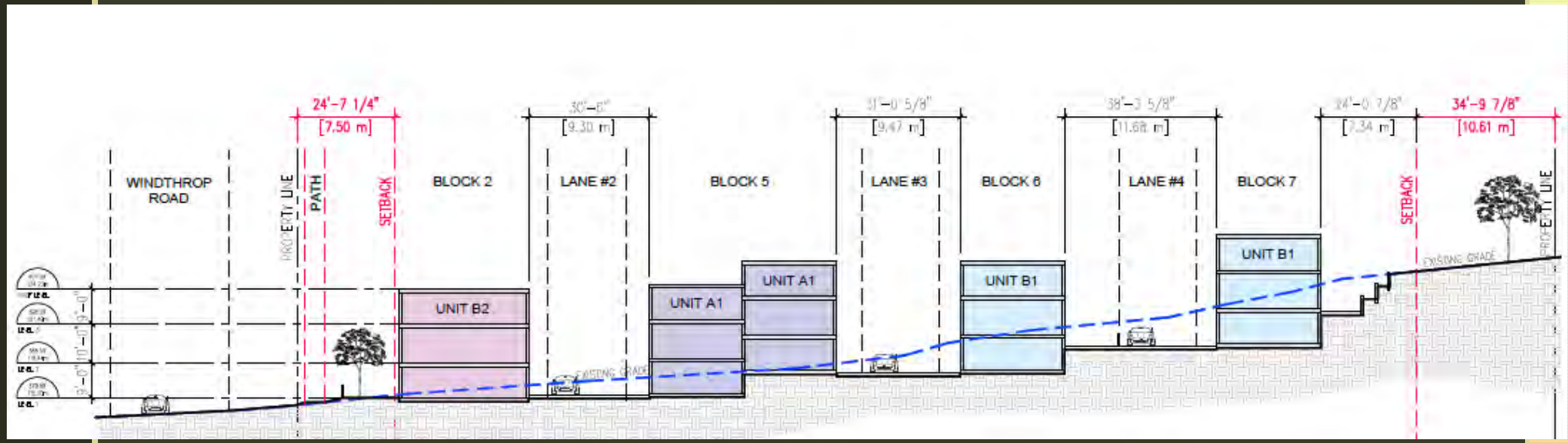
Project Summary

- Proposed zone: HAH1, Hillside Attached Housing for residential townhomes.
- 34, 3 storey, 2 bedroom and den and 3-bedroom family homes.
- 2 parking spaces per unit plus 3 visitor spaces (per bylaw).
- Greenspace and tree preservation.
- Shared amenity spaces.
- Public consultation within the 100m radius of the site.
- Serviced by Colwood for sanitary sewer, CRD water for domestic and fire. Sewer to be extended to site from Delora Drive.
- Storm water will be managed on site for no increase to pre-development flows.

Proposed Townhomes – View from Windthrop

Proposed Townhomes – View from Windthrop

Proposed Townhomes – Section



Green Spaces and Trees

- Approx 29% preserved green space – natural and enhanced. Native species and pollinators.
- Approx 10% open space picnic and natural playground for the residents.
- Tree protection covenant.
- Tree replacement on site and cash-in-lieu.
- Future trail connection to the west

Green Checklist

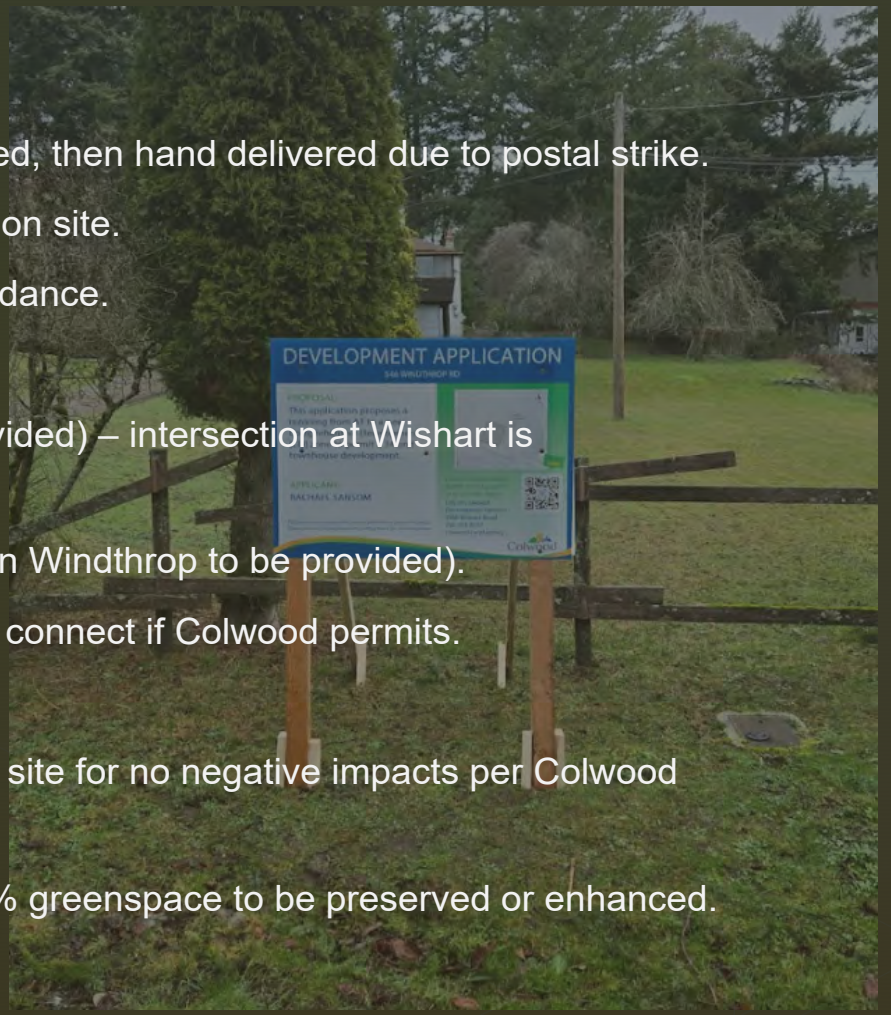
- BC Zero Carbon Step Code construction.
- Electric heat pumps for reduced fossil fuel dependency.
- Long lasting low maintenance cladding – composite concrete or metal.
- High efficiency rated windows.
- EV chargers in each garage.
- Permeable patio pavers.
- Solar infrastructure ready.
- Bike storage in each garage.
- EnergyStar appliances included.
- New trees to be planted, with native and pollinator friendly species.

Windthrop Road Improvements

City may consider a temporary trail with future concrete sidewalk cash in lieu in order to retain as many trees as possible in frontage.
Streetlights to be provided.

Consultation Summary

- Notices sent to neighbours in a 100m radius. Mailed, then hand delivered due to postal strike.
- Neighbourhood open house November 30th, 2024, on site.
- Nine neighbours representing 5 addresses in attendance.
- Summary of comments:
  - Traffic Safety (Traffic Impact Assessment provided) – intersection at Wishart is problematic.
  - Pedestrian Safety (Trail and future sidewalk on Windthrop to be provided).
  - Sewers – to be extended to site – others may connect if Colwood permits.
  - Visitor parking – provided per bylaw.
  - Storm water management – to be manage on site for no negative impacts per Colwood bylaws.
  - Tree & greenspace preservation – approx 30% greenspace to be preserved or enhanced.



THANK YOU!

546 Windthrop Road

Rezoning for a Residential Townhome Community

CITY OF COLWOOD
BYLAW NO 2055

A BYLAW TO AMEND BYLAW NO. 151 BEING THE "COLWOOD LAND USE BYLAW, 1989"

The Council of the City of Colwood, in open meeting assembled, enacts as follows:

1. CITATION

This Bylaw may be cited as "**Colwood Land Use Bylaw No. 151, 1989, Amendment No. 221 (HAH1 - 546 Windthrop Road), Bylaw No. 2055, 2025**".

2. AMENDMENT

Bylaw No. 151, the "**Colwood Land Use Bylaw, 1989**" is amended as follows:

a. Amend Schedule "A" (Zoning Map) by deleting from the Rural 1 (A1) Zone and adding to the HILLSIDE ATTACHED HOUSING 1 (HAH1) ZONE, the property shown in Schedule 1 attached to this bylaw and described as "LOT A SECTION 62 ESQUIMALT PLAN VIP20691".

b. In Section 1.2 "DEFINITIONS", under the heading "MULTIPLE-FAMILY RESIDENTIAL ZONES", insert "HAH1".

c. In Section 1.3.09 under the heading "SHORT FORM" insert "HAH1" and under the heading "ZONE" insert "HILLSIDE ATTACHED HOUSING 1".

d. Add Section 6.13 HILLSIDE ATTACHED HOUSING 1 (HRAH1) Zone as per Schedule 2 of this bylaw.

e. Add the following to SCHEDULE B – AMENITY CONTRIBUTIONS

Zone	Bylaw No.	Legal Description	Amenity Contribution
HAH1	2055	LOT A SECTION 62 ESQUIMALT PLAN VIP20691 (546 Windthrop Rd)	a) Contributes to the Affordable Housing Fund $1,500 per additional residential unit; b) Contribute to the Community Amenity Fund $4,500 per additional dwelling unit for an apartment use; c) Contribute to the Fire Hall Fund $618 per additional dwelling unit; d) All dollar amounts referred to above are the 2025 baseline rates and shall increase annually starting on January 1 st of each year starting on

			January 1, 2026 as per the Victoria Consumer Price Index (CPI).

READ A FIRST TIME on the day of 2025

READ A SECOND TIME on the day of 2025

READ A THIRD TIME on the day of 2025

ADOPTED on the day of 2025

Mayor

Corporate Officer

SCHEDULE 1

Subject Property Map

SCHEDULE 2

SECTION 6.13 HILLSIDE ATTACHED HOUSING 1 (HAH1) ZONE

6.13.1 Purpose

The purpose of this zone is to provide for the orderly development of attached housing in lands designated as Neighbourhood – Hillside and Shoreline in the Official Community Plan. The goal is to minimize the impacts of development on the natural environment, topography, open space and encompass the spirit of site adaptive planning. The zone provides the parameters outlined in the Neighbourhood – Hillside and Shoreline designation specifically for attached housing.

6.13.2 Permitted Uses

1. In addition to the uses permitted by Section 2.1.10, the following uses and no others are permitted in the HAH1 zone:

    a. Attached Housing
    b. Duplex
    c. Home Occupation – Office Use Only
    d. Show Home
    e. Accessory Buildings and Structures

6.13.3 Permitted Base Development

1. In the HAH1 Zone the number of dwelling units shall not exceed 1.

6.13.4 Development Conditions

1. Despite the restrictions in Section 6.13.3, on land whose legal description is set out in Table 1 of Schedule B of the Land Use Bylaw, the density of development is permitted up to a maximum of 1.2 FAR in accordance with Section 6.13.5 if the owner pays to the City of Colwood the amount specified in Table 1 of Schedule B of the Land Use Bylaw.

2. Payment of the contributions in Section 6.13.3.1 shall be made at the time of issuance of a building permit.

6.13.5 Regulatory Conditions

1. Regulatory conditions for the HAH1 Zone shall be as shown on the following table:

Regulation	General
Minimum lot area	3000m^2
Minimum lot frontage	50m
Maximum lot coverage	40%
Maximum building height	3 storey or 12.5m
Maximum FAR	1.2

Minimum usable open space	10%
Minimum Building Setbacks	
Front	4.0m
Side	1.5m
Rear	7.5m

10.48.7 General

1. The relevant provisions of Divisions 1 and 2 shall apply. In the case of a conflict between the provisions of Divisions 1 and 2 and the provisions of this Zone, the latter shall prevail.

NOTICE OF AMENDING BYLAW

Colwood Land Use Bylaw No. 151, 1989, Amendment No. 221 (HAH1 – 546 Windthrop Rd), Bylaw No. 2055, 2025

MEETING:	**Regular Meeting of Council**
DATE and TIME:	**Monday, June 23, 2025, 6:30pm**
PLACE:	**Council Chambers, 3300 Wishart Road, Colwood BC**

NOTICE IS GIVEN that Council of the City of Colwood will consider First, Second and Third Reading on Monday, June 23, 2025, at 6:30pm in relation to the proposed "**Colwood Land Use Bylaw No. 151, 1989, Amendment No. 221 (HAH1 – 546 Windthrop Rd), Bylaw No. 2055, 2025**".

PURPOSE: This application proposes a rezoning from A1 to a new Hillside Attached Housing 1 (HAH1) Zone to enable a 34-unit townhouse development.

SUBJECT PROPERTY: This Bylaw applies to the lands legally described as "LOT A, SECTION 62, ESQUIMALT LAND DISTRICT, PLAN VIP20691" (546 WINDTHROP RD).

INSPECTION OF MATERIALS: Copies of the proposed bylaw and related materials can be viewed at https://www.colwood.ca/news.

We want to hear from you!

WRITE TO US

The deadline for written submissions is 12:00 pm on the day of the meeting and must include your name and civic address.

- Email corporateservices@colwood.ca
- Mail/Drop-off: City of Colwood, 3300 Wishart Road, Colwood, BC V9C 1R1

SPEAK TO COUNCIL

In Person: The public is welcome to provide comments in person during the public participation portion of the meeting.

Electronically: To pre-register to speak please contact corporateservices@colwood.ca up until noon on the day of the meeting.

NEED MORE INFORMATION? Contact Planning at (250) 294-8153 or planning@colwood.ca.

Colwood