



1934 Hovey Road Parking Variance

Version 4

Prepared for
Aryze Developments

Date
October 3, 2024

Project No.
08-23-0021

October 3, 2024
08-23-0021

Juan Crespi
Development Manager
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Victoria, BC
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Dear Juan:

**Re: 1934 Hovey Road, Parking Variance
Version 4**

Bunt & Associates Engineering Ltd. (Bunt) has completed our parking variance study for the proposed residential development at 1934 Hovey Road, Central Saanich, BC. Our report is provided herewith, it also addresses potential transportation impacts related to the proposed development.

We trust that our input with this report will be of assistance. Please do not hesitate to contact us should you have any questions.

Best regards,
Bunt & Associates



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Date: October 3, 2024

Project No. 08-23-0021

Status: Version 4

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EXECUTIVE SUMMARY

Aryze proposes a two-building rental residential development with a total of 197-units, at 1934 Hovey Road, Central Saanich, BC. One building (Building A) will be market rental with 135 units and the second building (Building C) is a Legion Manor which will have 62 independent living senior units. The site is currently occupied with 4 single-family homes and a duplex.

The parkade for Building A will be accessed from East Saanich Road. This has changed since previous submission. The purpose of the access change is to allow for better sightlines for vehicles turning onto East Saanich Road as well as an opportunity to increase the vehicle parking supply. Access for the Legion building and its surface parking remains on Hovey Road.

Bunt conducted traffic operation analysis for the adjacent Hovey Road & East Saanich Road intersection to examine the existing and “with development” scenario traffic operations in regard to anticipated peak period delays and V/C ratios. Weekday PM peak hour delays for minor leg Hovey Road were shown to be minimal with Level of Service B in the peak PM peak hour period both without and with the proposed development. The delays are similar to the existing condition because the through traffic volumes on East Saanich Road, which are not impacted by the proposed development, dictate the delays for vehicles wishing to turn onto East Saanich Road from Hovey Road. Delays for the new parkade access onto East Saanich Road are anticipated to be similar to the Hovey Road intersection as they will encounter the same vehicle volumes along East Saanich Road. As such no traffic related mitigation is recommended.

The site plan provides 147 parking spaces in Building A’s underground parkade and 57 at-grade parking spaces. Of the site’s total 204 parking spaces, 192 will be for residents and 12 will be for visitors. This equates to an overall resident parking ratio of 0.97 spaces per unit. The market rental building will have 147 spaces which equates to 1.09 spaces per unit while the Legion Manor will have 57 spaces for its 62 units which equates to 0.92 spaces per unit. Of these, 12 surface spaces will be reserved for visitors which equates to 0.06 visitor spaces per unit.

In addition to these on-site parking spaces, the proposed plan will result in five curbside parking spaces: three are on Hovey Road, another on Hovey Road reserved for a car-share vehicle and the fifth space will be a short-term visitor use space along the site’s East Saanich Road frontage which is an existing space. There is also a loading space that will be accessed from East Saanich Road.

The proposed total parking supply of 204 spaces is 141 spaces below Bylaw requirements. The shortfall or variance from the Bylaw is comprised of 104 resident spaces and 37 visitor spaces.

An additional variance from bylaw is the number of small vehicle spaces (31% over 30% allowed which equates to three small vehicle spaces).

The following factors are anticipated to help support a lower parking provision by reducing demand and providing nearby alternative parking supply options:

- The proposed site is well-connected to existing transit, cycling, and walking networks.
- The proposed rental tenure of all the units allows for management of the parking spaces.
- The development proposes to provide a comprehensive suite of Transportation Demand Management (TDM) measures, including, but not limited to a car share vehicle and memberships, excess secure bicycle parking in the apartment building and supporting amenities.
- In addition to the increased on-site vehicle parking supply, the site will have a total of 5 on-street parking spaces along its frontages, one of these will be reserved for a car-share vehicle while the other four are anticipated to be preferred by short-term visitors despite not being accounted for in the development's on-site parking supply.

The parking variance will be supported with the following TDM initiatives:

- Car-share memberships for all units.
- Bicycle rooms with enhanced access with at minimum 41-inch door widths to accommodate a cargo bike, electrified with 110 volt charging ability and have ground orientated spaces above bylaw requirements as well as larger sized cargo bicycle spaces;
- A bike repair station and a bike wash station to be provided within the bike room;
- An e-bike rental program;
- Mobility assist device parking;
- Unbundled parking; and,
- Transportation Options Information Package.

The development is also offering the following off-site TDM:

- Improving site fronting sidewalks and boulevards to enhance the area's walkability.
- Adding a controlled pedestrian crossing along the north leg of the adjacent East Saanich Road & Hovey Road intersection.
- A Car-Share vehicle with an on-street, site frontage parking space on Hovey Road.

1. INTRODUCTION

1.1 Study Purpose & Objectives

Aryze proposes a 197-unit rental Legion Manor, and rental apartment development at 1934 Hovey Road. The site is currently zoned as R-1M (Medium Lot Single Family Residential). The location of the proposed development site is illustrated in **Exhibit 1.1**.

The project includes a 5-storey, rental apartment building over a single-level parkade structure (Building A), and a 6-storey Legion Manor building with an at-grade parking lot (Building C). The 5-storey apartment building will have 135 rental units comprised of studios to 3-bedroom units. The Legion Manor will have a total of 62 units, 11 of these will be studio units and 51 will be 1-bedroom units.

The site will be providing a total of 204 vehicle spaces for the 197 residential units (1.04 spaces per unit). Of these, the apartment building will have 147 spaces in its parkade for residents of the building's 135 units (1.09 spaces per unit). The Legion Manor will have 45 spaces for residents for its 62 units (0.73 spaces per unit), plus 12 Visitor spaces that will be available to visitors of both buildings for a total of 57 surface spaces.

Bunt & Associates were retained by Aryze to conduct a parking review for the proposed parking variance and propose Transportation Demand Management (TDM) strategies to support the development's vehicle parking supply. This parking variance study will accompany Aryze's rezoning application.

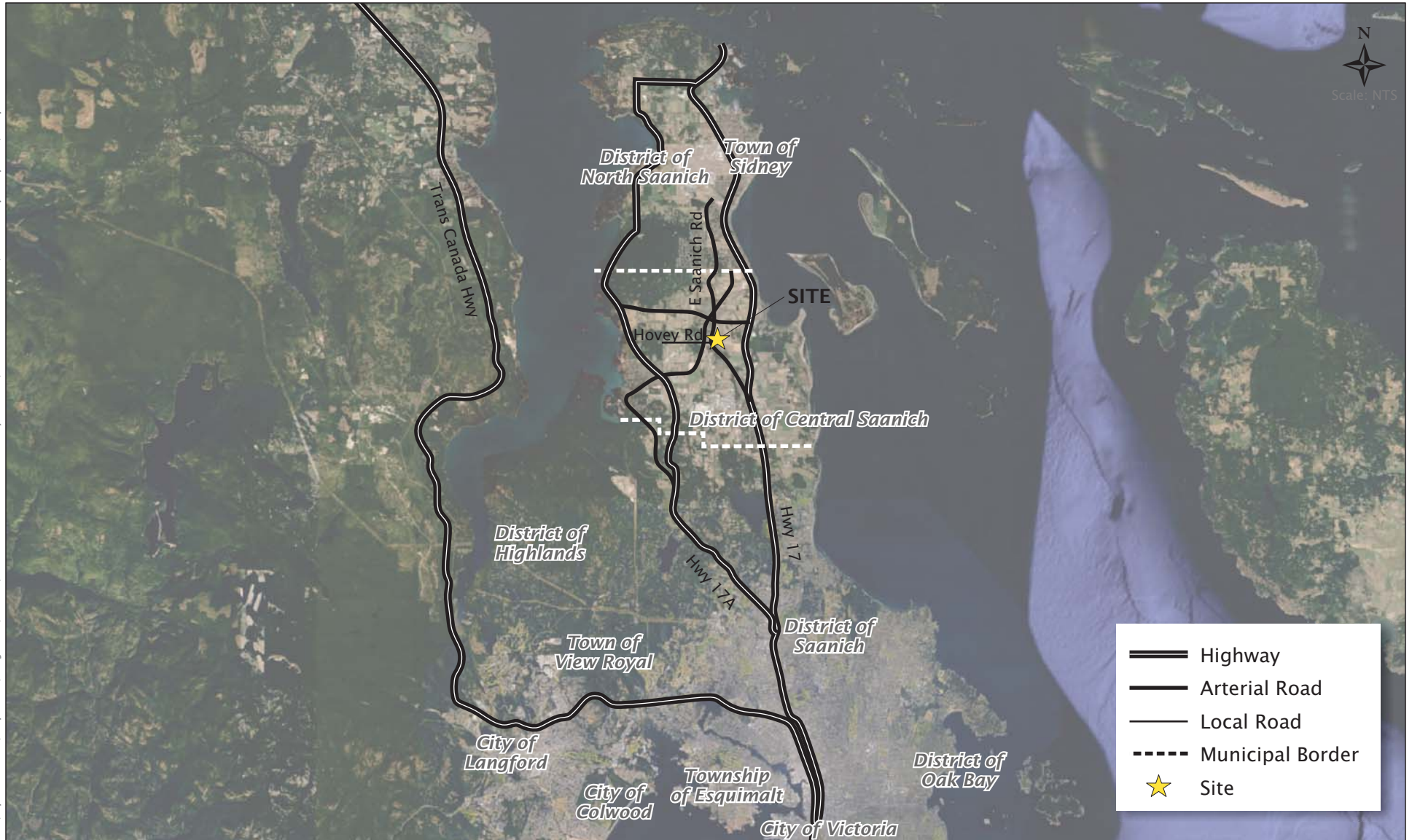


Exhibit 1.1 Site Location



1934 Hovey Road
October 2024

08-23-0021

1.2 Proposed Development

The proposed development is summarized in **Table 1.1**.

Table 1.1: Proposed Land Uses and Unit Breakdown

LAND USE	UNITS	PERCENTAGE OF TOTAL UNITS
Legion Manor - Studio	11	6%
Legion Manor - 1 bedroom	51	26%
Apartment - Studio	34	17%
Apartment - 1 bedroom	54	27%
Apartment - 2 bedrooms	23	12%
Apartment - 2 bedrooms + den	1	1%
Apartment - 3 bedrooms	23	12%
RESIDENTIAL TOTAL	197	100%*

In total, 150 or 76% of the units will be studios or 1-bedroom units, and 47 or 24% will be 2-bedroom or larger.

Separate vehicle accesses are provided to the underground parkade and the Legion Manor's at-grade parking lot, the parkade is now accessed directly from East Saanich Road and the surface parking for the Legion Manor is accessed from Hovey Road.

The development proposes 57 ground level parking spaces for the 6-storey Legion Manor and visitors, and 147 parking spaces in the underground parkade under the 5-storey apartment building for a total of 204 on-site vehicle spaces.

Twelve of the at-grade spaces will be designated for visitors, of these five will be for the Legion and 7 for the apartment building. All visitor spaces will be marked as Visitor and will be shared between the two buildings. The 12 visitor spaces equate to 0.06 visitor spaces per unit.

The site plan indicates 54 small car spaces in Building A's parkade and 10 in the surface lots which equates to 31% of the provided spaces.

The site will have a total of 13 accessible parking spaces, 5 of these are in the parkade and 8 are surface spaces.

The Building A site plan indicates a total of 209 long-term bicycle spaces in a dedicated bicycle parking room including space for oversized cargo bicycles, this exceeds bylaw requirements. The Legion Manor will provide 48 long term bicycle stalls which is below bylaw requirements but instead will provide 12 Mobility Scooter spaces which is specific to the anticipated demands of the Legion Manor. While this represents a variance from Bylaw for long-term bicycle parking for the Legion Manor it is considered suitable for the proposed residential typology.

The proposed site plan (ground level) is shown in **Exhibit 1.2**.

2. EXISTING CONDITIONS

2.1 Land Use

1934 Hovey Road is currently occupied by three single-family homes and two duplexes. One of the single-family homes is accessed off East Saanich Road, while the other properties are accessed off of Hovey Road. Land use adjacent to the site is primarily composed of a mix of agricultural and residential land uses, with a park further west of the site.

The site is located less than 1 km away from Saanichton Village, which is planned to be a vibrant, compact, walkable, and mixed-use village, featuring a strong retail/commercial centre. It is also located approximately 300m east of Centennial Park (one of Central Saanich's largest parks), 1.1 km southwest of the Saanich Peninsula Hospital, 1.4 km northeast of Stelly's Secondary School, and 2.3 km northwest of Keating Elementary School.

2.2 Existing Transportation Network

2.2.1 Road Network

The attributes for the key streets in the area surrounding the site have been outlined in **Table 2.1. Exhibit 2.1** displays the existing laning and traffic control. Though the streets have not been formally designated as such, Bunt expects Wallace Drive and East Saanich Road to operate like arterial roads, as they provide key connections from south Central Saanich to north Central Saanich. On the other hand, Bunt expects Hovey Road and Prosser Road will operate as local roads, as they are both no-through routes, each servicing approximately 10 properties. All the nearby intersections, including East Saanich Road and Hovey Road, Wallace Drive and Hovey Road, and East Saanich Road and Prosser Road, are stop-controlled, with free flow traffic on Wallace Drive and East Saanich Road. In addition, various on-street parking facilities are available nearby.

Table 2.1: Existing Street Characteristics

STREET	CLASSIFICATION	NUMBER OF TRAVEL LANES	POSTED SPEED	PARKING FACILITIES
East Saanich Road	Arterial	2	50 km/hr	None
Wallace Drive	Arterial	2	50 km/hr	None
Hovey Road	Local	2	50 km/hr	West of Wallace Drive: On-street EB free parking
Prosser Road	Local	2	50 km/hr	East of Wallace Drive: On-street EB free parking West of Wallace Drive: On-street both sides

On Hovey Road east of East Saanich Road, the limited curbside space is currently being used as parallel street parking informally.

2.2.2 Transit Network

The site is well served by public transit, with multiple transit stops within 800 metres of the site (an approximate ten-minute walk). These routes and local area bus stops are presented in **Exhibit 2.3**.

The site is located less than 200m from stops on local route #72, less than 400m from stops on local routes #81 and #75, and within 800m of stops on local routes #87 and #82. Though not within the typical walking distance of 800m, one is able to make connections to regional routes #70 and #71 using the local bus routes. Regional routes #70 and #71 run along Highway 17, making key connections to the Swartz Bay Ferry Terminal in the north and Downtown Victoria in the south. **Table 2.2** shows the frequencies of the transit routes near the site.

Table 2.2: Existing Transit Service Frequency

ROUTE		APPROXIMATE HEADWAY (MIN.)				
#	BUS ROUTE NAME	AM	MID-DAY	PM	EVENING	WEEKEND
72	Swartz Bay / Downtown	30	30	30	30 - 60	30 - 60
75	Saanichton / Royal Oak / Downtown	15 - 30	30	15 - 30	45 - 60	30 - 60
81	Brentwood / Saanichton / Sidney / Swartz Bay	30 - 60	50 - 70	30 - 50	70 - 120	120
82	Sidney / Saanichton (via Stautw Rd.)	30 - 70	50 - 70	30 - 50	70 - 120	120
87	Saanichton / Sidney (via Dean Park)	120	120	120	-	-

2.2.3 Cycling & Pedestrian Networks

The site is well connected to the cycling network. East Saanich Road, which is directly adjacent to the site, is a marked on-street bike route that connects from south Central Saanich to the north municipal border. Using this route, Saanichton Village is a short 4-minute bike away. Within 400m of the site, the bike route on Wallace Drive is also available, connecting to Brentwood Bay Village in the southwest and intersecting with East Saanich Road in the north. Both routes have the ability to lead to the Lochside Regional Trail, a popular multi-use trail that runs from Swartz Bay to Victoria. The existing cycling network surrounding the site is shown in **Exhibit 2.3**.

The site is well connected to the pedestrian network, with sidewalks available on most streets surrounding the development including recent additions north of the site on East Saanich Road which were added in coordination with the Prosser Place development. Saanichton Village, where residents may access their daily amenities and services, is a 10-minute walk away with sufficient sidewalk facilities to support the journey. Gaps in the network, such as the lack of pedestrian facilities on Wallace Drive south of Hovey Road, are to be addressed as outlined in the Central Saanich Active Transportation Plan. There are also plans for Hovey Road to have complete roadside pedestrian facilities to connect to Centennial Park. The existing pedestrian facilities surrounding the site are displayed in **Exhibit 2.3**.

2.2.4 Car-Share

Modo is a two-way car-sharing service; registered members can pick up the vehicle from a parking spot and must return it to the same spot when they are done. The site has two Modos carshare vehicles located just over 800m away (an estimated 10 to 15-minute walk or 5-minute bike) at Wallace Drive and Mount Newton Cross Road. The carshare service features a compact car and SUV.

Another potential car-sharing option for residents of the proposed development is Turo. Turo allows individuals to rent out their private vehicles when not in use. As of September 2023, more than 200 cars are listed that can be picked up at or near the development site.

Other new car-sharing opportunities are anticipated in the years ahead as these types of businesses become more viable with app based and autonomous vehicle technologies.

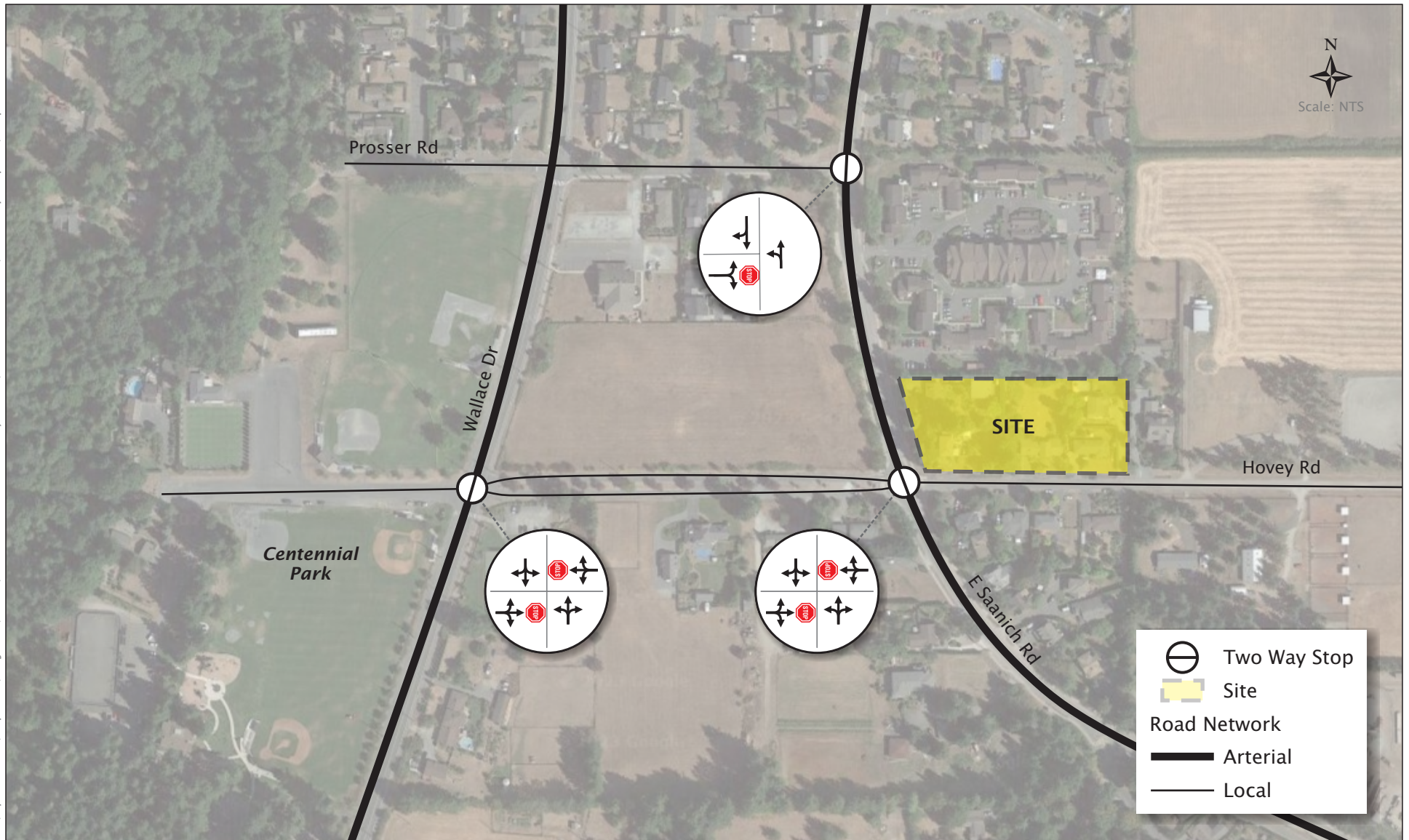


Exhibit 2.1 Existing Laning & Traffic Control

08-23-0021

1934 Hovey Road
August 2023



Exhibit 2.2 Transit Routes & Stops

08-23-0021

1934 Hovey Road
August 2023



Exhibit 2.3 Cycling & Pedestrian Network

3. SITE PLAN DESIGN REVIEW

3.1 Site Access Design

The proposed development will have two vehicle access points. The parkade under the market rental building will be accessed from East Saanich Road while the surface parking lot adjacent to the Legion Manor will be accessed from Hovey Road. Pedestrian access to the site’s apartment units will be accessed from East Saanich Road. Pedestrian access to the Legion Manor will be from Hovey Road.

3.2 Parking Supply

3.2.1 Vehicle Parking Bylaw Requirements

The vehicle parking requirement rates for the relevant land uses as per Part 6 of the District of Central Saanich’s Land Use Bylaw are summarized below in **Table 3.1**. The Residential Apartment land use was applied for the Legion Manor, as the Bylaw had no specific rates for independent senior living. The Bylaw specifies a rate of 0.6 spaces per dwelling for assisted seniors’ living, which was not directly applicable for the development.

Table 3.1: Off-Street Vehicle Parking Supply Requirement Rates

LAND USE	REFERENCE	BYLAW RATE
Residential Apartment	Bylaw 2072 - Section 6.5	1.5 spaces per dwelling unit
		0.25 visitor spaces per dwelling unit
Legion Manor (Residential Apartment)	Bylaw 2072 - Section 6.5	1.5 spaces per dwelling unit
		0.25 visitor spaces per dwelling unit
-	-	-

Applying these rates, **Table 3.2** below summarizes the required number of parking spaces and compares it to the proposed parking provision.

Table 3.2: Off-Street Vehicle Parking Requirements

LAND USE	SIZE	REQUIREMENT		PROVIDED		DIFFERENCE
		TYPE	SPACES	TYPE	SPACES	SPACES
Residential Apartment	135 units	Residential	202.5	Residential	142	-61
		Visitor	33.75	Visitor	5	-29
Legion Manor (Residential Apartment)	62 units	Residential	93	Residential	50	-43
		Visitor	15.5	Visitor	7	-8
-	197 UNITS	-	345 (49 VIS, 296 RES)	1	204 (12 VIS, 192 RES)	-141 (-37 VIS, -104 RES.)

As shown in Table 3.2, the proposed total parking supply of 204 spaces is 141 spaces below Bylaw requirements. The shortfall from the Bylaw is comprised of 104 resident spaces and 37 visitor spaces.

147 of the parking spaces will be located in a parkade under the apartment building, which will be accessed off of East Saanich Road, an additional 14 at-grade spaces will also be accessed from East Saanich Road. The remaining 43 spaces will be at grade and accessible from Hovey Road.

Overall, the site will be providing 204 vehicle spaces for the 197 residential units (1.04 spaces per unit). Of these, the rental apartment building will have 147 spaces in its parkade for the building's 135 units (1.09 spaces per unit). The Legion Manor will have 57 spaces for residents for its 62 units (0.92 spaces per unit). Of these spaces 12 will be for Visitors of both buildings which equates to 0.06 visitor spaces per unit. After removing Visitor spaces, the rental apartment building will have 1.05 spaces per unit for residents and the Legion Manor will have 0.81 spaces per unit for residents.

Resident Parking

The total of 192 on-site residential parking spaces represents a variance of 104 resident parking spaces (296 required versus 192 provided).

Visitor Parking

According to Bylaw, the development should provide 0.25 visitor spaces per unit which would equate to a site total of 49 visitor parking spaces. The site plan indicates a total of 12 on-site visitor parking spaces (0.06 spaces per unit). This therefore represents a variance of 37 visitor parking spaces.

Accessible Parking

According to Section 6.5.1 of the Land Use Bylaw, the development requires 2 Type A (van accessible) and 11 Type B (regular) accessible spaces. The site plan indicates a total of 13 Accessible stalls (2 Type A and 11 Type B) and is therefore compliant with bylaw.

Small Vehicle Parking

According to Bylaw, 30% of the vehicle spaces can be small vehicle spaces. The site plan indicates a total of 54 in Building A's parkade and 10 in the surface lots which equates to 31% of the provided spaces. This therefore exceeds Bylaw and represents a variance of three small vehicle spaces.

3.2.2 Bicycle Parking Bylaw Requirements

Well managed, secure, accessible and covered bicycle parking will be provided as part of the development plan. The Building A site plan indicates a total of 209 long-term bicycle spaces in a dedicated bicycle parking room including space for oversized cargo bicycles, which exceeds bylaw requirements.

The Legion Manor will provide 48 long term bicycle stalls which is below bylaw requirements but instead will provide 12 Mobility Scooter spaces which is specific to the anticipated demands of the Legion Manor. While this represents a variance from Bylaw for long-term bicycle parking for the Legion Manor it is considered suitable for the proposed residential typology.

In addition, a minimum of 42 short-term bicycle spaces will be provided at ground level in well lit, weather protected and highly visible areas.

Current District of Central Saanich bicycle Bylaw requirements are summarized in **Table 3.3**.

Table 3.3: Bicycle Parking Supply Requirement & Provision

LAND USE	DENSITY		BYLAW RATE	BYLAW SUPPLY REQUIREMENT	PROVIDED	DIFFERENCE
	REQ'D PARKING SPACES	DWELLING UNITS				
Residential Apartment	235	135	Short-term: 1 space per 10 required vehicular parking spaces Long-term: 1.5 spaces per dwelling unit -	24 Short-term 203 Long-term	24 Short Term 209 Long Term	- +6 Long Term
Legion Manor (Residential Apartment)	109	62		10 Short-term 93 Long-term	18 Short-term 48 Long term 12 Mobility Scooter	+ 8 Short term- -45 Long-term +12 Mobility Scooters
TOTAL				34 SHORT-TERM 296 LONG-TERM	42 SHORT-TERM 257 LONG-TERM 12 MOBILITY SCOOTERS	+8 SHORT TERM -39 LONG TERM +12 MOBILITY SCOOTERS

Overall, the proposed development plan is 39 long-term bicycle spaces short of bylaw requirements, however it is noted that the proposed Long Term bicycle parking supply exceeds Bylaw requirements for the apartment building while the Legion Manor is tailored for their specific needs, with 12 Mobility Scooter spaces. The development’s short term bicycle spaces exceed bylaw requirements.

4. PARKING SUPPLY ANALYSIS

4.1 Resident Parking

This section reviews factors that influence parking demand in the context of the proposed development and its vehicle parking variance.

4.1.1 Site Location

As described in Section 2.2, the proposed site is connected to existing transit, cycling, and walking networks. The local transportation network and proximity of amenities is anticipated to allow residents and visitors to commute and run daily errands without a private vehicle.

Despite the development being within walking range of transit which connects the site to the Greater Victoria area and the Saanichton commercial centre area to the north, the area overall is considered rural in nature. The site is approximately 1 km from Saanichton commercial centre.

Within the District of Central Saanich, the site is considered to be within Central Saanich's central or core catchment area which has been designated for more density.

Comparable developments in the area include the Marigold Lands at 7900 Lochside Drive in Saanichton which has a rental building with 235 units, it had a vehicle parking variance approved to a rate of 1.2 parking spaces per unit.

4.1.2 Unit Size

It is noted that the Institute of Transportation Engineers (ITE) Parking Generation Manual suggests 0.68 stalls per dwelling unit for 1-bedroom units and 1.23 stall per dwelling unit for 2+ bedrooms for General Urban/ Suburban areas (not dense Urban or City Core areas). These rates were achieved with little to no Transportation Demand management support. When these ITE rates are applied to the proposed development's unit mix where 150 of the units are studios or one-bedroom apartments and 47 units are 2-bedroom plus units, the anticipated resident parking demand would be 160 vehicle spaces or a site overall parking ratio of 0.81 spaces per unit. This is significantly lower than the proposed 204 spaces which also does not account for the impact of transportation demand management initiatives and also the potential lower-than-average parking demands associated with the senior orientated Legion Manor component of the development.

4.1.3 Rental Tenure Parking Management

As the proposed development is all rental residential units, rather than strata owned units, this would allow for substantive management of the on-site parking spaces. In this way, the site's operator will be able to screen prospective tenants and ensure there is mutual understanding of the limited available site parking before the tenant enters into a rental agreement. This would help minimize the chances of vehicle parking ownership exceeding the available supply.

4.1.4 Affordability

Residential units that qualify as affordable or have another form of subsidization have lower parking ownership rates than market units. Approximately 40% of the Legion Manor units are anticipated to be considered affordable. Since this is yet to be formally confirmed we have omitted this factor from our analysis but do note that the anticipated affordable units are expected to have lower vehicle ownership rates and correspondingly lower vehicle parking demands.

4.1.5 Senior Housing

Senior housing typologies such as independent seniors housing have lower parking rates than regular apartment rates. The development group has been able to obtain parking demand data from the adjacent Legion residential facilities which formed the basis of the proposed parking supply.

4.1.6 On-Street Parking Supply

The proposed plan will result in a total of five curbside parking spaces and one loading space. Four are on Hovey Road, one of these will be reserved a car-share vehicle and the other three will be for short term visitor use. The fifth on-street parking space is the existing space along the site's East Saanich Road frontage.

While these on-street curbside parking spaces do not count towards the development's parking supply, they are anticipated to allow for short term pick-up/ drop-off vehicles. It is noted that short term visitors such as food delivery vehicles typically prefer to use curbside parking rather than traveling into a parkade structure.

4.1.7 Transportation Demand Management (TDM) Measures

Transportation Demand Management (TDM) is defined as the "application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or in time". A successful TDM program can influence travel behaviour away from Single Occupant Vehicle (SOV) travel during peak periods towards more sustainable modes such as High Occupancy Vehicle (HOV) travel, transit, cycling or walking. The responsibility for implementation of TDM measures can range across many groups, including regional and municipal governments, transit agencies, private developers, residents/resident associations or employers.

To help support the proposed reduced parking supply, the developer proposes to implement a comprehensive TDM strategy for the development. This strategy, which was developed in coordination with Bunt, includes a suite of measures intended to promote the use of alternative transportation modes and reduce the site's reliance on private vehicle ownership. Details of the proposed TDM measures are provided in Section 6.

4.2 Visitor Parking

Previous research conducted by Bunt has repeatedly suggested that a visitor parking rate of 0.05 - 0.08 spaces per unit for residential buildings is adequate to accommodate peak demands. This is supported by

various datasets in a range of density areas and a range of residential typologies. These studies found peak visitor parking demand rates in the range of 0.05 to 0.08 vehicles per unit for multi-family residential regardless of the building being in an urban or more rural setting and was also found to be consistent through residential typologies where, for example, a senior orientated building may have fewer social visitors but instead have more employed visitors. These visitor parking rates are also consistent with Bunt's in-house database of peak visitor parking demand rates.

The proposed on-site visitor parking supply of 12 spaces (7 in Building A's parkade and 5 in the Legion Manor's surface lot) equate to 0.06 spaces per unit which is consistent with Bunt's anticipated peak visitor demand.

Central Saanich's Land Use Bylaw Section 6.3.3 may be used to permit the sharing of visitor parking between the two proposed buildings.

While 5 additional curbside visitor spaces are available along site frontages and are anticipated to be used by visitors and short-term delivery vehicles, they do not count towards the site's parking count which must all be on-site. However, their presence is noted and if included from a pragmatic perspective they would increase the visitor parking supply to 0.08 spaces per unit.

4.3 Vehicle Parking Supply and Demand Summary

In summary, the following items are anticipated to collectively reduce the parking demand and provide alternative supply options for the proposed development to support the proposed reduced parking supply:

- The proposed site is connected to existing transit, cycling, and walking networks, which reduces the reliance of private vehicle ownership.
- The proposed rental tenure of the residential units allows for management of the on-site parking spaces where prospective tenants would be informed of the limited parking space availability before entering into a rental agreement.
- The development proposes to provide a comprehensive suite of TDM measures to promote the use of alternative transportation modes and reduce the site's reliance on private vehicle ownership (detailed discussion is covered in Section 6 of this report).
- The proposed on-site visitor parking demand is anticipated to accommodate the development's peak demand according to Bunt research.
- The on-street parking spaces along Hovey Road and East Saanich Road do not count towards the site's parking provision, however they are anticipated to be widely used by visitors to the building and are anticipated to have a significant in accommodating short term visitor parking demand.

5. TRAFFIC IMPACT ASSESSMENT

5.1 Existing Operations

5.1.1 Performance Thresholds

The existing operations of study area intersections and access points were assessed using the methods outlined in the 2000 Highway Capacity Manual (HCM), using the Synchro 11 analysis software (Build 1). The traffic operations were assessed using the performance measures of Level of Service (LOS) and volume-to-capacity (V/C) ratio.

The LOS rating is based on average vehicle delay and ranges from “A” to “F” based on the quality of operation at the intersection. LOS “A” represents optimal, minimal delay conditions while a LOS “F” represents an over-capacity condition with considerable congestion and/or delay. Delay is calculated in seconds and is based on the average intersection delay per vehicle.

Table 5.1 below summarizes the LOS thresholds for the six Levels of Service for unsignalized intersections.

Table 5.1: Intersection Level of Service Thresholds

LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)
	UNSIGNALIZED
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

Source: Highway Capacity Manual

The volume to capacity (V/C) ratio of an intersection represents ratio between the demand volume and the available capacity. A V/C ratio less than 0.85 indicates that there is sufficient capacity to accommodate demands and generally represents reasonable traffic conditions in suburban settings. A V/C value between 0.85 and 0.95 indicates an intersection is approaching practical capacity; a V/C ratio over 0.95 indicates that traffic demands are close to exceeding the available capacity, resulting in saturated conditions. A V/C ratio over 1.0 indicates a very congested intersection where drivers may have to wait through several signal cycles. In downtown and Town Centre contexts, during peak demand periods, V/C ratios over 0.90 and even 1.0 are common.

The performance thresholds that were used to trigger consideration of roadway or traffic control improvements to support roadway or traffic control improvements employed in this study are listed below:

Unsignalized Intersections:

- Individual movement Level of Service = LOS E or better, unless the volume is very low in which case LOS F is acceptable.

In interpreting of the analysis results, note that the HCM methodology reports performance differently for various types of intersection traffic control. In this report, the performance reporting convention is as follows:

- For unsignalized two-way stop-controlled intersections: HCM 2000 LOS and V/C output is reported just for individual lanes as the HCM methodology does not report overall performance. SimTraffic estimated queues and delays have also been reported, as the HCM 2000 methodology does not directly take into account the gaps afforded by adjacent signalized intersections;
- For unsignalized All-way Stop controlled intersections: HCM 2000 unsignalized LOS is reported for the overall intersection as well as by intersection approach LOS. The HCM 2000 methodology does not report an overall V/C ratio for All Way Stop controlled intersections. Degree of Utilization calculated with the HCM 2000 methodology is reported for individual movements in place of V/C, which is not part of the HCM 2000 report.

The performance reporting conventions noted above have been consistently applied throughout this document and the detailed outputs are provided in **Appendix A**.

5.1.2 Existing Traffic Analysis Assumptions

Synchro Parameters

Peak hour factors as well as counted pedestrians and cyclists have been input into Synchro. Otherwise, default parameters were used.

5.1.3 Existing Operational Analysis Results

The operations of the study area intersection under existing conditions are shown in **Table 5.2**.

Table 5.2: Existing Traffic Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	PM	
		LOS	V/C
Hovey Road & East Saanich Road (Two-way Stop Control)	EBLTR	B	0.07
	WBLTR	B	0.03
	NBLTR	A	0.01
	SBLTR	A	0.00

EBLTR – Eastbound Left Through Right vehicle movements in lane.

Table 5.2 indicates the study area intersection currently operates within operation thresholds.

5.2 Site Traffic

Vehicle trip generation for a typical condo residential building of this type is in the range of 0.4 total wo-way vehicle trips per weekday PM peak hour (ITE Trip Generation Manual, Edition 10) which equates to approximately 80 vehicle trips either entering or exiting the site per peak hour. It is acknowledged that the Legion building is likely to have lower trip generation rates due to it having fewer parking spaces and the demographic not traveling as often during the peak hour period however this one trip rate was applied to both residential types, this adds a layer of conservatism to the analysis.

Trip assignment and distribution for future site trips was estimated using existing travel patterns along East Saanich Road as well as engineering judgement.

5.3 Future Traffic Operations

5.3.1 Total Traffic

The total traffic includes both the assumed background traffic as previous described, as well as the estimated site generated traffic.

5.3.2 Future Traffic Analysis Assumptions

Peak hour factors have been kept the same as existing and growth factor was applied to the counted pedestrians and cyclists for future scenario analysis. Otherwise, default parameters were used.

5.3.3 Future Operations Analysis Results

Bunt modeled the adjacent Hovey Road & East Saanich Road intersection to also examine the “with development” scenario traffic operations in regard to anticipated peak period delays and V/C ratios. Weekday PM peak hour delays for minor leg Hovey Road were shown to be minimal with Level of Service B in the peak PM peak hour period both without and with the proposed development.

Table 5.3 shows the forecasted operations for the Total (with site) scenario.

Table 5.3: With Development Total Vehicle Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	PM	
		LOS	V/C
Hovey Road & East Saanich Road (Two-way Stop Control)	EBLTR	B	0.09
	WBLTR	B	0.09
	NBLTR	A	0.01
	SBLTR	A	0.02

Analysis indicates that the study intersection is expected to operate well within acceptable operational thresholds after the introduction of the proposed development.

The delays are similar to the existing condition because the through traffic volumes on East Saanich Road, which are not impacted by the proposed development, dictate the delays for vehicles wishing to turn onto East Saanich Road from Hovey Road.

6. TRANSPORTATION DEMAND MANAGEMENT (TDM)

The following section describes the individual TDM measures proposed for the development. These measures are intended to support the reduced parking supply by promoting the use of alternative transportation modes and reducing the site's reliance on private vehicle ownership. The measures were identified have by Bunt to be suitable for the size, location, and requested parking variance of the proposed development, and have been agreed to by the developer.

6.1 Proposed TDM Initiatives

6.1.1 Pedestrian Crossing

It is recommended that a marked pedestrian crossing be introduced along the Hovey Road & East Saanich Road intersection's north leg to assist pedestrians wishing to cross East Saanich Road. The design of the crossing should be consistent with the crossing located just south of Prosser Road which is approximately 170m to the north along East Saanich Road. That crossing has push-button activation with flashing lights. This crossing will provide a connection with future anticipated road work and pedestrian amenities on Hovey Road between East Saanich Road and Wallace Drive in coordination with a future Civic Facility.

6.1.2 Car-Share Vehicle, Memberships, and Driving Credit

The developer is in discussions with Modo to confirm if they can purchase a car-share vehicle and arrange for it to be parked in one of the four on-street parking spaces on Hovey Road. This space would be a dedicated car-share parking space.

Modo is the primary car-share service in Greater Victoria, offering round trips for members. A car-share vehicle will enable residents to have short-term access to a vehicle, without having to buy or maintain their own. As part of the purchase agreement, Modo waives the \$500 membership fee for units, to the value of the provided vehicle. Each membership is tied to a unit and can be transferred between units or to new tenants, as needed. Modo will also provide \$100 in driving credit to any resident joining for the first time.

Various studies have examined the impact of car-share on vehicle ownership. Studies suggest that each shared car may remove 3-11 private vehicles from the local area street system. In addition, the number of vehicles owned per household was reduced by 27% when a Modo membership was acquired¹.

6.1.3 Mobility Assist Parking

The proposed 12 Mobility Scooter spaces for the Legion Manor, in lieu of long-term bicycle spaces are considered appropriate due to the experience of the Legion Manor and their understanding of their members / future resident's particular mobility needs.

¹ <http://www.metrovancouver.org/services/regional-planning/PlanningPublications/MetroVancouverCarShareStudyTechnicalReport.pdf>

6.1.4 Improved Bicycle Parking and Access

The developer is planning to provide high-quality lighting, grades, surfacing, and other amenities that will improve the access to and experience of the bicycle storage rooms. This may include installation of bright LED lights along the access path and in the bicycle room, at-grade or ramp access to the bicycle rooms, extra-wide automatic doors for large bicycle access.

The developer will provide electric charging capabilities for the long-term bicycle parking spaces.

6.1.5 Bicycle Maintenance Facilities

The developer is planning to provide a bicycle wash station and/or repair stand in or near the bicycle storage room. A bicycle wash station features a hose, stand, and drain for washing bicycles. A bicycle repair stand provides a stand with tools for repairing and maintaining a bicycle (e.g., allen keys, pump, tire patches, screwdrivers, etc.). **Figures 6.2** and **6.3** illustrate an example of a bicycle wash station and a bicycle repair stand, respectively.

This removes one of the barriers to cycling for residents who may otherwise have to purchase the tools required to perform basic maintenance on their bicycles. With the significant supply of bicycle parking and strong access to nearby cycling routes, a bike repair station would likely be well used in this development.

Figure 6.2: Bicycle Wash Station Example



Figure 6.3: Bicycle Repair Stand Example



6.1.6 Cargo Bicycle Spaces

The developer will provide extra-large spaces for cargo bicycles in the bicycle storage room. Electric cargo bicycles have high storage capacity and power and are excellent for commutes and for errands, such as grocery shopping. For these reasons, cargo bicycles are more effective at replacing the need for a private vehicle than standard bicycles. **Figure 6.4** illustrates an example of a cargo bicycle.

Figure 6.4: Cargo Bicycle Example



6.1.7 E-Bike Rentals

The development is proposing a e-bike rental program to its residents. This beyond recommended initiative may positively facilitate residents to consider cycling as a viable transportation option for specific trips.

6.1.8 Specialized Parking

Current Bylaw requires Electric Vehicle Energy Management Systems, it is our understanding that Aryze will meet or exceed these Bylaw requirements.

6.1.9 Unbundled Parking Spaces

The development manager will not package parking spaces with the proposed rental units. Instead, tenants will have the option of renting a parking space for an additional monthly fee, subject to availability. Because the monthly rental price will not include a parking space, tenants will not feel an obligation to own a vehicle to utilize an amenity they are already paying for. This policy will also help attract tenants who do not own a vehicle and help incentivise a car-free lifestyle.

Parking spaces should be offered to the larger 2-bedroom and larger units first.

6.1.10 Transportation Options Information Package

New residents are considered a pliable demographic for transportation mode change as they have yet to establish travel patterns from their new address. Clear and simple messages along with practical information about local transit services and walking and cycling routes to and from the site can help encourage residents to use more sustainable transportation modes. Information should be distributed to residents upon their move-in or made available through a website or webpage. The information provided in print or on-line should include:

- Map showing local transit routes (can be obtained from BC Transit - Victoria website);
- Map showing local area cycling routes (can be obtained from CRD website);
- Map showing amenities within a typical walking catchment of 800 metres (can be obtained from Walk Score website: www.walkscore.com).

7. SUMMARY

1. The proposed development at 1934 Hovey Road consists of 197 rental residential units. 135 of these are regular rental apartments in Building A, and 62 in a Legion Manor (Building C) which will be independent living senior units.
2. Vehicle access to the parkade and 14 surface spaces will be from East Saanich Road while the remaining surface parking spaces will be accessed from Hovey Road.
3. Of the site's total 204 parking spaces, 192 will be for residents and 12 will be for visitors. This equates to an overall resident parking ratio of 0.97 spaces per unit. The market rental building will have 147 spaces which equates to 1.09 spaces per unit while the Legion Manor will have 45 spaces for its 62 units which equates to 0.73 spaces per unit. The remaining 12 surface spaces will be reserved for visitors which equates to 0.06 visitor spaces per unit.
4. Variances from Bylaw are:
 - Resident Parking - The total of 192 on-site residential parking spaces represents a variance of 104 resident parking spaces (296 required versus 192 provided).
 - Visitor Parking - The 12 Visitor parking spaces (0.06 per unit) is 37 spaces below the required 49 Visitor spaces (0.25 visitor spaces per unit).
 - Small Vehicle Parking - The site plan indicates 64 small vehicle spaces which equates to 31% of the provided spaces which is greater than the bylaw requirement of 30% of provided spaces. This therefore exceeds Bylaw and represents a variance of three small vehicle spaces.
5. The number of accessible parking is compliant with bylaw with 13 Accessible spaces (2 Type A and 11 Type B).
6. Building A's 1.09 spaces per unit rate is considered consistent with ITE parking rates for rental apartment buildings in non-urban density locations with the proposed unit mix in regard to unit sizes. The Legion Manor's parking demand is specific for its anticipated demand as they have existing parking demand data to draw from.
7. The following factors are anticipated to help support a lower than bylaw parking provision by reducing demand and providing nearby alternative parking supply options:
 - The proposed site is connected to existing transit, cycling, and walking networks, which reduces the reliance of private vehicle ownership.
 - The proposed rental tenure of the residential units allows for management of the on-site parking spaces where prospective tenants would be informed of the limited parking space availability before entering into a rental agreement.

- The development proposes to provide a comprehensive suite of TDM measures to promote the use of alternative transportation modes and reduce the site's reliance on private vehicle ownership.
 - The proposed on-site visitor parking demand is anticipated to accommodate the development's peak demand according to Bunt research.
 - The on-street parking spaces along Hovey Road and East Saanich Road do not count towards the site's parking provision, however they are anticipated to be widely used by visitors to the building and are anticipated to have a significant in accommodating short term visitor parking demand.
 - If one of the two buildings has excess parking spaces, they could potentially lease a space to a resident from the other building.
8. The Building A site plan indicates a total of 209 long-term bicycle spaces in a dedicated bicycle parking room including space for oversized cargo bicycles, which exceeds bylaw requirements. The Legion Manor will provide 48 long-term bicycle stalls and also will provide 12 Mobility Scooter spaces which is specific to the anticipated demands of the Legion Manor. While this represents a variance from Bylaw it is considered suitable for the proposed residential typology. In addition, a minimum of 42 short-term bicycle spaces will be provided at ground level in well lit, weather protected and highly visible areas.
9. The site is anticipated to generate approximately 80 vehicle trips during the weekday PM peak hour period. This level of traffic generation is not anticipated to significantly impact local area traffic operations. The immediate Hovey Road & East Saanich Road intersection was examined using Synchro software analysis, the traffic model indicates the intersection will continue to operate well within road capacity thresholds with the added traffic from the proposed development.
10. The post-development vehicle delays are similar to the existing condition because the through traffic volumes on East Saanich Road, which are not impacted by the proposed development, dictate the delays for vehicles wishing to turn onto East Saanich Road from Hovey Road.

The parking variance will be supported with the following TDM initiatives:

- Car-share memberships for all units;
- Bicycle rooms with enhanced access with at minimum 41-inch door widths to accommodate a cargo bike, electrified with 110 volt charging ability and have ground orientated spaces above bylaw requirements, and larger-sized cargo bicycle spaces;
- A bike repair station and a bike wash station to be provided within the bike room;
- An e-bike rental program;

- Mobility assist device parking;
- Unbundled vehicle parking; and,
- Transportation Options Information Package.

The development is also offering the following off-site TDM:

















- Improving site fronting sidewalks and boulevards to enhance the area's walkability.
 - Adding a controlled pedestrian crossing along the north leg of the adjacent East Saanich Road & Hovey Road intersection.
 - A Car-Share vehicle with an on-street, Hovey Road site frontage parking space.
11. It is Bunt's view that the proposed vehicle parking supply at 1934 Hovey Road is appropriate for this development and this location and represents right-sized vehicle parking. Saved costs from not building additional parking spaces can be passed onto residents through reduced rental fees.

APPENDIX A

SYNCHRO TRAFFIC OPERATION OUTPUT

















HCM Unsignalized Intersection Capacity Analysis
 1: E Saanich Rd & Hovey Rd

Existing
 09-27-2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	5	20	5	5	5	16	252	5	5	224	8
Future Volume (Veh/h)	12	5	20	5	5	5	16	252	5	5	224	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	5	22	5	5	5	17	274	5	5	243	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	576	570	248	592	572	276	252			279		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	576	570	248	592	572	276	252			279		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	97	99	99	99	99			100		
cM capacity (veh/h)	417	424	791	397	423	762	1313			1284		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	40	15	296	257								
Volume Left	13	5	17	5								
Volume Right	22	5	5	9								
cSH	565	484	1313	1284								
Volume to Capacity	0.07	0.03	0.01	0.00								
Queue Length 95th (m)	1.8	0.8	0.3	0.1								
Control Delay (s)	11.9	12.7	0.6	0.2								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.9	12.7	0.6	0.2								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			31.8%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 1: E Saanich Rd & Hovey Rd

Total
 09-27-2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	10	20	15	10	15	16	252	25	20	224	8
Future Volume (Veh/h)	12	10	20	15	10	15	16	252	25	20	224	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	11	22	16	11	16	17	274	27	22	243	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	634	626	248	640	618	288	252			301		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	634	626	248	640	618	288	252			301		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	97	97	96	97	98	99			98		
cM capacity (veh/h)	366	388	791	360	393	752	1313			1260		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	46	43	318	274								
Volume Left	13	16	17	22								
Volume Right	22	16	27	9								
cSH	502	459	1313	1260								
Volume to Capacity	0.09	0.09	0.01	0.02								
Queue Length 95th (m)	2.4	2.5	0.3	0.4								
Control Delay (s)	12.9	13.7	0.5	0.8								
Lane LOS	B	B	A	A								
Approach Delay (s)	12.9	13.7	0.5	0.8								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			28.9%		ICU Level of Service					A		
Analysis Period (min)			15									

