



## CORPORATION OF THE TOWNSHIP OF ESQUIMALT

### ADVISORY PLANNING COMMISSION

#### AGENDA

TUESDAY FEBRUARY 20, 2018

7:00 P.M.

#### ESQUIMALT COUNCIL CHAMBERS

**MEMBERS:** Ken Armour (CHAIR) Amy Higginbotham  
Duncan Cavens Christina Hamer (VICE CHAIR)  
Berdine Jonker Graeme Dempster  
Nick Kovacs

**COUNCIL LIAISON:** Councillor Beth Burton-Krahn  
Councillor Tim Morrison

**STAFF LIAISON:** Trevor Parkes, Senior Planner

**SECRETARY:** Pearl Barnard

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- I. CALL TO ORDER
- II. LATE ITEMS
- III. ADOPTION OF AGENDA
- IV. ADOPTION OF MINUTES – January 10, 2018
- V. STAFF REPORTS

**1) REZONING and OFFICIAL COMMUNITY PLAN AMENDMENT**

**520 Constance Avenue** [PID 006-289-100, Lot 132, Suburban Lot 38, Esquimalt District, Plan 2854]

**Purpose of the Application:**

The applicant is requesting an amendment to Official Community Plan Bylaw 2006, No. 2646 to change the property's designation from 'Institutional' to 'Townhouse Residential', and an amendment to Zoning Bylaw 1992, No. 2050 to change the property's zoning from 'Institutional Day Use' [P-4] to 'Multiple Family Residential' [RM-1] to permit future residential use of the subject property.

The current use of the property as 'day services for adults with disabilities' is no longer needed at the subject location as the Victoria Association for Community Living is moving their facility to another building in the neighbourhood, at 520 Comerford Street. The proposed changes will facilitate sale of the property to new owners.

**Evaluation of this application should focus on issues relevant to a change in zoning; such as the appropriateness of the proposed uses, the fit with the neighbourhood, and consistency with the overall direction contained within the Official Community Plan.**

**RECOMMENDATION:**

The Esquimalt Advisory Planning Commission recommends that the application for an Official Community Plan amendment and Rezoning, authorizing change from Institutional use to Residential use without any current changes to the property, be forwarded to Council with a recommendation to either **approve, approve with conditions, or deny the application; including reasons for the chosen recommendation.**

**2) OFFICIAL COMMUNITY PLAN AMENDMENT and REZONING APPLICATION**

**833 Dunsmuir Road**

**[PID 005-388-899 Lot 3, Section 11, Esquimalt District, Plan 9759]**

**and 835 Dunsmuir Road**

**[PID 005-388-881 Lot 2, Section 11, Esquimalt District, Plan 9759]**

**Purpose of the Application:**

The applicant is requesting a change in Official Community Plan Land Use Designation and Zoning from the current designation of “Multi-Unit, Low-Rise Residential” to “Multi-Unit, High-Rise Residential” and a change in zoning from the current mix of RD-3 [Two Family/ Single Family Residential] zone and RM-4 [Multiple Family Residential] to a Comprehensive Development District zone [CD]. This change is required to accommodate the proposed 5 storey, 34 unit, multiple family residential building including a 35 space parking garage.

This site is located within Development Permit Area No. 1 – Multi-Unit Residential. Should the rezoning application be approved, the applicant would need to obtain a Development Permit respecting the character of the development, including landscaping, and the siting, form, exterior design and finish of the proposed 5 storey, 34 unit, multiple family residential building which would be considered by both the DRC and Council in the future.

**Evaluation of this application should focus on the proposed siting, height, mass, density, lot coverage, usable open space, parking, fit with the neighbourhood, and consistency with the overall direction contained within the Official Community Plan.**

**RECOMMENDATION:**

The Esquimalt Advisory Planning Commission recommends that the application for Official Community Plan Amendment and Rezoning, authorizing a 18 metre [5 storeys], 34 unit, multiple family residential building sited in accordance with the BCLS Site Plan provided by J.E. Anderson and Associates Surveyors-Engineers, stamped “Received January 18, 2018”, and incorporating height and massing consistent with the architectural plans provided by Praxis Architects Inc., stamped “Received February 7, 2018”, detailing the development proposed to be located at PID 005-388-899 Lot 3, Section 11, Esquimalt District, Plan 9759 [833 Dunsmuir Road] and PID 005-388-881 Lot 2, Section 11, Esquimalt District, Plan 9759 [835 Dunsmuir Road] be forwarded to Council with a recommendation **to either approve, approve with conditions, or deny the application including reasons for the chosen recommendation.**

**3) OFFICIAL COMMUNITY PLAN AMENDMENT and REZONING APPLICATION**

**838 Admirals Road**

**[PID 005-074-011 Lot 17, Block 7, Section 10, Esquimalt District, Plan 2546  
Except Plan 86845]**

**and 842 Admirals Road**

**[PID 006-324-118 Lot 16, Block 7, Section 10, Esquimalt District, Plan 2546]**

**Purpose of the Application:**

The applicant is requesting a change in Official Community Plan Land Use Designation and Zoning from the current designation of “Townhouse Residential” to “Multi-Unit, Low-Rise Residential” and a change in zoning from the current mix of CD-75 [Comprehensive Development District] zone and RD-3 [Two Family/ Single Family

Residential] to a Comprehensive Development District zone [CD]. This change is required to accommodate the proposed 4 storey, 30 unit, multiple family residential building including a 28 space parking garage.

This site is located within Development Permit Area No. 1 – Multi-Unit Residential. Should the rezoning application be approved, the applicant would need to obtain a Development Permit respecting the character of the development, including landscaping, and the siting, form, exterior design and finish of the proposed 4 storey, 30 unit, multiple family residential building which would be considered by both the DRC and Council in the future.

**Evaluation of this application should focus on the proposed siting, height, mass, density, lot coverage, usable open space, parking, fit with the neighbourhood, and consistency with the overall direction contained within the Official Community Plan.**

**RECOMMENDATION:**

The Esquimalt Advisory Planning Commission recommends that the application for Official Community Plan Amendment and Rezoning, authorizing a 15.4 metre [4 storeys], 30 unit, multiple family residential building sited in accordance with the BCLS Site Plan provided by J.E. Anderson and Associates Surveyors-Engineers, stamped “Received January 18, 2018”, and incorporating height and massing consistent with the architectural plans provided by Praxis Architects Inc., stamped “Received February 8, 2018”, detailing the development proposed to be located at PID 005-074-011 Lot 17, Block 7, Section 10, Esquimalt District, Plan 2546 Except Plan 86845 [838 Admirals Road] and PID 006-324-118 Lot 16, Block 7, Section 10, Esquimalt District, Plan 2546 [842 Admirals Road] be forwarded to Council with a recommendation **to either approve, approve with conditions, or deny the application including reasons for the chosen recommendation.**

**VI. PLANNER’S STATUS REPORT**

**VII. COUNCIL LIAISON**

**VIII. INPUT FROM APC TO STAFF**

**IX. NEXT REGULAR MEETING**

Tuesday, March 20, 2018

**X. ADJOURNMENT**



**CORPORATION OF THE TOWNSHIP OF ESQUIMALT**  
**ADVISORY PLANNING COMMISSION MEETING MINUTES**  
**HELD ON**  
**TUESDAY, JANUARY 16, 2018**  
**ESQUIMALT COUNCIL CHAMBERS**

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**MEMBERS PRESENT:** Ken Armour (CHAIR)                      Christina Hamer  
Amy Higginbotham    Berdine Jonker  
Duncan Cavens    Graeme Dempster

**ABSENT:** David Schinbein

**STAFF LIAISON:** Trevor Parkes, Senior Planner

**COUNCIL LIAISON:** Councillor Beth Burton-Krahn  
Councillor Tim Morrison

**SECRETARY:** Pearl Barnard

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**I. CALL TO ORDER**

The meeting was called to order at 7:01 p.m.

**II. ELECTION OF CHAIR**

Nominations were called for and Amy Higginbotham nominated Ken Armour, seconded by Christina Hamer. Ken Armour was elected by acclamation as Chair for the year 2018

**III. ELECTION OF VICE CHAIR**

Nominations were called for and Amy Higginbotham nominated Christina Hamer, seconded by Duncan Cavens. Christina Hamer was elected by acclamation as Vice Chair for the year 2018

**IV. LATE ITEMS**

No late items

**V. APPROVAL OF THE AGENDA**

Moved by Graeme Dempster, seconded by Christina Hamer: That the agenda be adopted as circulated. **The Motion CARRIED UNANIMOUSLY**

**VI. MINUTES**

Moved by Duncan Cavens, seconded by Berdine Jonker: That the minutes of the Advisory Planning Commission held November 28, 2017 be adopted as amended to include under **Commission member's comments and questions included, the word "*Most members liked the design*".** **The Motion CARRIED UNANIMOUSLY**

**VII. STAFF REPORTS**

**DEVELOPMENT PERMIT**  
**832 Old Esquimalt Road**  
**[PID 000-150-037, Lot 7, Section 11, Esquimalt District, Plan 307]**

**Purpose of the Application:**

Alex Tang outlined that the applicant is proposing to construct a side by side strata titled Two Family Residential dwelling on the subject property. No variances are required as the proposed dwelling meets the requirements of the current RD-1 Zoning.

Craig Jackman, Blue Water Developments and Mike Staite, Owner were in attendance.

Mr. Staite gave a PowerPoint presentation detailing the site plan and a brief overview of the building design, materials and landscape plan for the project. Mr. Staite outlined that three trees will be removed and replacement trees will be planted.

**Commission Member's comments and questions included:**

- A streetscape rendering showing how the proposed dwelling fits in the neighbourhood would be helpful.
- A member like that the applicant had made an effort to retain the 3 trees.
- The proposal will increase density and is an improvement to what is currently there.
- A member asked why the applicant had chosen a flat roof. *Mr. Staite advised it was due to the Zoning height requirement.* Another member suggested a rooftop garden and *Mr. Staite advised he liked that idea.*
- A member expressed concerns with the cladding material and asked why vinyl siding was chosen when we are in a world where we are getting away from plastics. *Mr. Staite advised that vinyl siding was chosen because it was an economical option that meets the building code requirements for rain screen cladding.*
- A member thought the proposed development presents an unattractive streetscape in the form of an automobile oriented box. Another member liked the appearance from the street and thought the proposed dwelling would be a nice addition to the neighbourhood and would provide more affordable housing in that area.
- A member commented there is a preference for a taller building if it creates a livable basement.
- A member asked if the applicant had any initial discussion with the neighbours. *Mr. Staite advised that he had discussion with the neighbours on both sides.*
- A member asked Staff why this application was brought to the Advisory Planning Commission given that it is all within the Zoning and no variances are required. *Mr. Parkes advised that this is a Development Permit and the scope by which the APC is evaluating the proposal is for form and character of both the building itself as well the associated landscaping.*

**RECOMMENDATION:**

Moved by Duncan Cavens, seconded by Christina Hamer: That the Esquimalt Advisory Planning Commission [APC] recommends to Council that the application for a Development Permit limiting the form and character of the development, and authorizing the construction as illustrated in the architectural plans and the landscape plan prepared by Hartmann's Drafting & Design, stamped "Received November 28, 2017", sited as detailed on the survey plan prepared by J.E. Anderson & Associates, stamped "Received January 12, 2018", for the property located at PID 000-150-037, Lot 7, Section 11, Esquimalt District, Plan 307 [832 Old Esquimalt Road] **be forwarded to Council with a recommendation for approval** as the proposed development will increase density and is consistent with the zoning regulations and the Development Permit Guidelines in the Official Community Plan. ***Motion Carried Unanimously***

**VIII. PLANNER'S STATUS REPORT**

- Three new Rezoning Applications have been received.
  - 833/835 Dunsmuir Road - 5 storey multi- residential building – (34 units market)
  - 638/640 Constance Avenue - 4 + 6 storey multiple residential building – (30 units rental)
  - 838/842 Admirals Road – 4 storey multiple residential building – 77 units rental)
- Currently there is a great deal of interest in the Community, from small lot infill through to larger scale multi family dwellings.
- 899 Esquimalt Road – (proposal for a 12 storey building) Staff are waiting for revised plans.

**IX. COUNCIL LIAISON**

Councillor Burton-Krahn advised at the Monday, January 15<sup>th</sup> Committee of the Whole Meeting that there was a discussion about the Public Consultation process for the amenity package from the CRD. The consultant team, Whistler Centre for Sustainability, has prepared a draft for the first phase of the Public Engagement and Communications Strategy Process and an Ideas Fair has been scheduled for February 22<sup>nd</sup>.

Councillor Morrison advised that he is happy to be back on the APC Commission. He then gave an update on the Special Committee of the Whole Meeting held on January 15<sup>th</sup>. Third Period Departmental Reports were discussed. Councillor Morrison advised that the Director of Development Services provided an extensive report, indicative of the high level of interest in Esquimalt for development and growth. Esquimalt's attractive location and being part of the core makes it particularly appealing to homebuyers. As a result, it is fully expected that 2018 will be a particularly busy time for development applications. Councillor Morrison advised APC members that the Director of Development Services' report is available on the Town's website.

Congratulations to the new Chair.

**X. INPUT FROM APC TO STAFF**

There was no input from the APC members

**XI. NEXT REGULAR MEETING**

Tuesday, February 20, 2017

**XII. ADJOURNMENT**

On motion the meeting adjourned at 7:35 P.M.

CERTIFIED CORRECT



# CORPORATION OF THE TOWNSHIP OF ESQUIMALT

Municipal Hall, 1229 Esquimalt Road, Esquimalt, B.C. V9A 3P1  
Telephone (250) 414-7100 Fax (250) 414-7111

APC Meeting: February 20, 2018

## STAFF REPORT

**DATE:** February 16, 2018  
**TO:** Chair and Members of the Advisory Planning Commission  
**FROM:** Karen Hay, Planner  
**SUBJECT:** **REZONING and OFFICIAL COMMUNITY PLAN AMENDMENT**  
**520 Constance Avenue** [PID 006-289-100, Lot 132, Suburban Lot 38,  
Esquimalt District, Plan 2854]

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### RECOMMENDATION:

The Esquimalt Advisory Planning Commission recommends that the application for an Official Community Plan amendment and Rezoning, authorizing change from Institutional use to Residential use without any current changes to the property, be forwarded to Council with a recommendation to either **approve, approve with conditions, or deny the application; including reasons for the chosen recommendation.**

### BACKGROUND:

#### Purpose of the Application

The applicant is requesting an amendment to Official Community Plan Bylaw 2006, No. 2646 to change the property's designation from 'Institutional' to 'Townhouse Residential', and an amendment to Zoning Bylaw 1992, No. 2050 to change the property's zoning from 'Institutional Day Use' [P-4] to 'Multiple Family Residential' [RM-1] to permit future residential use of the subject property.

The current use of the property as 'day services for adults with disabilities' is no longer needed at the subject location as the Victoria Association for Community Living is moving their facility to another building in the neighbourhood, at 520 Comerford Street. The proposed changes will facilitate sale of the property to new owners.

**Evaluation of this application should focus on issues relevant to a change in zoning; such as the appropriateness of the proposed uses, the fit with the neighbourhood, and consistency with the overall direction contained within the Official Community Plan.**

**Context**

**Applicants:** Mike Jensen / Ellen Tarshis, Victoria Association for Community Living

**Owner:** Ellen Tarshis, Victoria Association for Community Living

**Property Size:** Metric: 394.8 m<sup>2</sup> Imperial: 4249 ft<sup>2</sup>

**Existing Land Use:** Institutional Day Use [P-4]

**Surrounding Land Uses:**

North: Single Family Residential [zoned RM-1]  
South: Single Family Residential [zoned RM-1]  
West: Single Family Residential [zoned RM-1]  
East: Multiple Family Residential [zoned RM-1][4 units]

**Existing Zoning:** Institutional Day Use [P-4]

**Proposed Zoning:** Multiple Family Residential [RM-1]

**Existing OCP Designation:** Institutional

**Proposed OCP Designation:** Townhouse Residential

**Official Community Plan [OCP]**

The Victoria Association for Community Living has requested a change in the OCP designation from 'Institutional' to 'Townhouse Residential'. This will align the designation with other properties in the immediate vicinity, and facilitate the rezoning of the property to a residential use.

The property would be added to the Multi Unit Residential Development Permit Area [DP Area No. 1]. Future owners of the property would require a development permit to allow construction of a Townhouse Residential project.

**Zoning**

The Institutional Day Use [P-4] zone, which was created in 1994 to serve the Victoria Association for Community Living program for adults with disabilities, would cease to exist. The proposed Multiple Family Residential [RM-1] zone aligns with the zoning that has been granted to the adjacent properties, by the municipality, as a means to facilitate higher density development in this area. There is a provision in the zoning bylaw that would also allow the use of the property as a single family home, within the RM-1 zone.

**Parking**

There is parking on the site for the single family residential use.



**Public Notification**

As this is an OCP amendment and a rezoning application, should it proceed to a Public Hearing, a notice would be mailed to tenants and owners of properties within 100m (328 ft) of the subject property. A sign indicating that the property is under consideration for a change in zoning will be placed on the Constance Avenue frontage of the property and would be updated to reflect the date, time and location of the Public Hearing. Additionally, notice of the Public Hearing would be placed in two editions of the Victoria News.

**Applicant neighbourhood meeting submission**

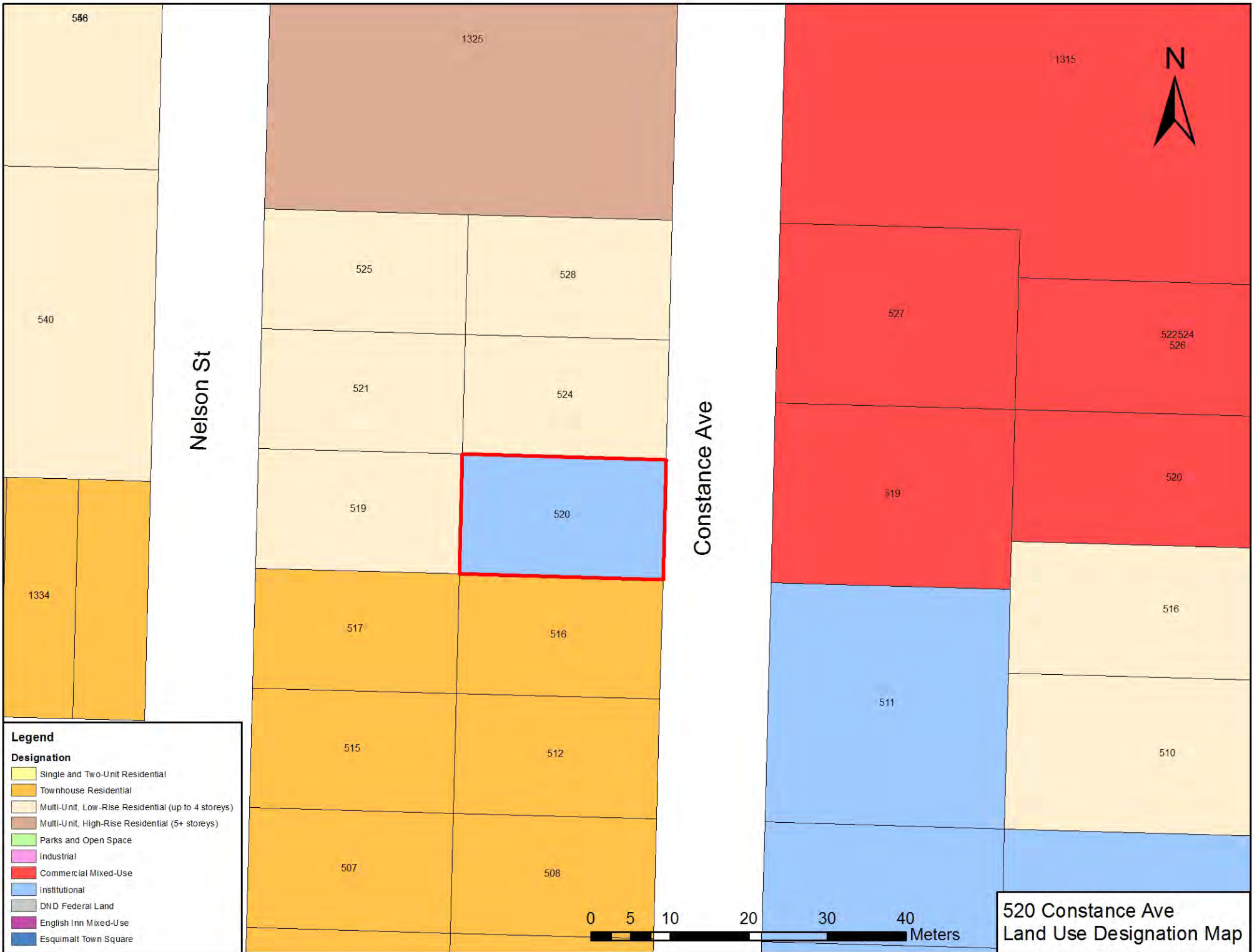
The applicants have indicated that they held the required neighbourhood meeting at the subject property on January 11, 2018. They notified all owners and residents within 100 metres of the subject property and five people attended the meeting. The only concern raised at that meeting was whether the property should be zoned for single family residential or for the multiple family residential [townhouse] use being requested.

**ALTERNATIVES:**

1. Forward the application for Rezoning to Council with a **recommendation of approval including reasons for the recommendation.**
2. Forward the application for Rezoning to Council with a **recommendation of approval including specific conditions and including reasons for the recommendation.**
3. Forward the application for Rezoning to Council with a **recommendation of denial including reasons for the recommendation.**

520 Constance Avenue





520 Constance Ave  
Land Use Designation Map



520 Constance Ave Zoning Map

## 60.1 **INSTITUTIONAL DAY USE [P-4]**

The intent of this zone is to accommodate facilities serving persons with mental disabilities.

### (1) **Permitted Uses**

The following Use and no others are permitted:

- (a) Provision by a registered non-profit organization of day services to persons with mental disabilities.

### (2) **Building Height**

- (a) No Principal Building shall exceed a Height of 7.5 metres.
- (b) No Accessory Building shall exceed a Height of 4 metres.

### (3) **Lot Coverage**

All Principal Buildings, Accessory Buildings and Structures combined shall not cover more than 40% of the Area of a Parcel.

### (4) **Siting Requirements**

#### (a) **Principal Building**

- (i) Front Setback: No Building shall be located within 7.5 metres of the Front Lot Line.
- (ii) Side Setback: No Building shall be located within 4.5 metres of an Interior Side Lot Line, nor 3.6 metres of an Exterior Side Lot Line.
- (iii) Rear Setback: No Building shall be located with 7.5 metres of a Rear Lot Line.

#### (b) **Accessory Building**

- (i) Front Setback: No Accessory Building shall be located in front of the front face of the Principal Building.
- (ii) Side Setback: No Accessory Building shall be located within 1.5 metres of an Interior Side Lot Line nor 3.6 metres of an Exterior Side Lot Line.
- (iii) Rear Setback: No Accessory Building shall be located within 1.5 metres of a Rear Lot Line.
- (iv) Building Separation: No Accessory Building shall be located within 2.5 metres of a Principal Building.

### (5) **Screening and Landscaping**

- (a) Screening and Landscaping shall be provided in accordance with Section 23.

(b) Landscaping shall be provided along the entire Front Lot Line for a minimum width of 7.5 metres except for points of ingress and egress. In the case of a Corner Lot, the exterior Side Yard Setback of 4.5 metres shall also be landscaped except for points of ingress and egress.

(6) **Off Street Parking**

Off street parking shall be provided in accordance with the requirements of Parking Bylaw, 1992, No. 2011 (as amended).

**41. MULTIPLE FAMILY RESIDENTIAL [RM-1]**

The intent of this Zone is to accommodate low density Townhouse development.

(1) **Permitted Uses**

The following Uses and no others shall be permitted:

- (a) Townhouse Residential
- (b) Home Occupation

(2) **Floor Area Ratio**

The Floor Area Ratio shall not exceed 0.40.

(3) **Building Height**

- (a) No Principal Building shall exceed a Height of 7.5 metres.
- (b) No Accessory Building shall exceed a Height of 4 metres.

(4) **Lot Coverage**

- (a) All Principal Buildings, Accessory Buildings and Structures combined shall not cover more than 40% of the Area of a Parcel.
- (b) All Accessory Buildings and Structures combined shall not exceed 10% of the Area of a Parcel.

(5) **Siting Requirements**

(a) **Principal Building**

- (i) Front Setback: No Building shall be located within 7.5 metres of the Front Lot Line.
- (ii) Side Setback: No Building shall be located within 4.5 meters of an Interior Side Lot Line, nor 3.6 metres of an Exterior Side Lot Line.
- (iii) Rear Setback: No Building shall be located within 7.5 metres of a Rear Lot Line.

(b) **Accessory Building**

- (i) Front Setback: No Accessory Building shall be located in front of the front face of the Principal Building.
- (ii) Side Setback: No Accessory Building shall be located within 1.5 metres of an Interior Side Lot Line nor 3.6 metres of an Exterior Side Lot Line.
- (iii) Rear Setback: No Accessory Building shall be located within 1.5 metres of a Rear Lot Line.

(iv) Building Separation: No Accessory Building shall be located within 2.5 metres of a Principal Building.

(6) **Usable Open Space**

Usable Open Space shall be provided in an amount of not less than 5% of the Area of the Parcel.

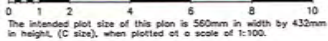
(7) **Fencing**

Subject to Section 22, no fence shall exceed a Height of 1.2 metres in front of the front face of the Principal Building and 2 metres behind the front face of the Principal Building.

(8) **Off Street Parking**

Off street parking shall be provided in accordance with the requirements of Parking Bylaw, 1992, No. 2011 (as amended).





The intended plot size of this plan is 560mm in width by 432mm in height. (C size), when plotted at a scale of 1:100.

This sketch does not constitute a redefinition of the legal boundaries hereon described and is not to be used in any matter which would assume same.

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Distances and elevations are in metres

Elevations are geodetic based on control monument 84H0153

Elevations are at natural grade unless noted otherwise

Dimensions from property line are to foundation

**SITE PLAN**

**COMMUNITY LIVING VICTORIA**

Lot 132, Suburban Lot 38,  
Esquimalt District,  
Plan 2854

ADDRESS : 520 Constance Avenue

PROJECT SURVEYOR : PJW

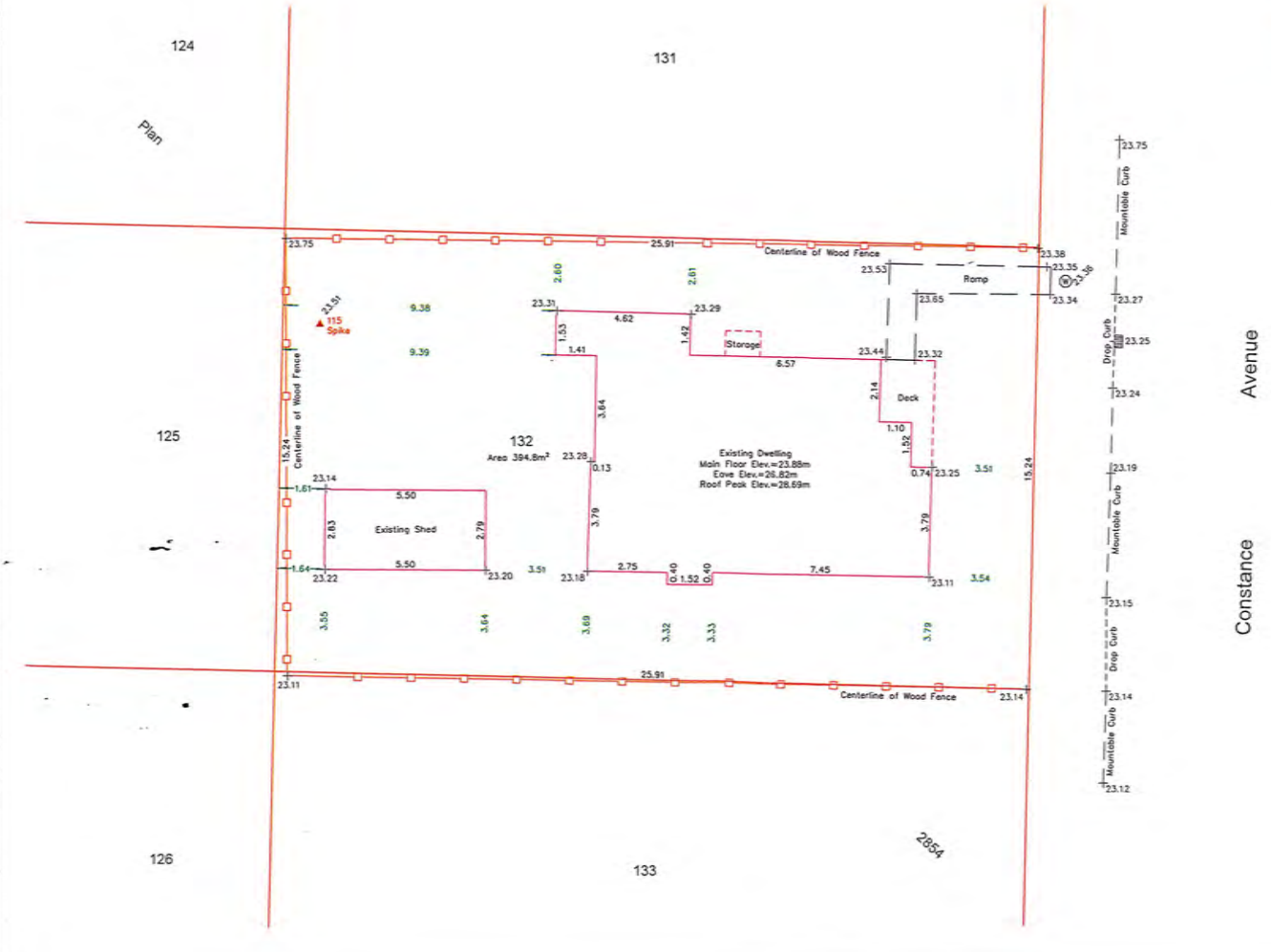
DRAWN BY : BAR      DATE : JAN 11/18

OUR FILE : 31042      REVISION :

**JEA** J.E. ANDERSON & ASSOCIATES  
SURVEYORS - ENGINEERS

4212 CLANFRSD AVE. VICTORIA, B.C. V8Z 4B7  
TEL: 250-727-2214 FAX: 250-727-3395  
E-MAIL: info@janderson.com  
VICTORIA - NANAIMO - PARKVILLE - CASPSELL RIVER

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- LEGEND**
- ▲ --- Denotes Traverse Station Found
  - --- Denotes Catch Basin
  - 23.30 --- Denotes Typical Spot Elevation
  - ⊙ --- Denotes Water Service







# CORPORATION OF THE TOWNSHIP OF ESQUIMALT

Municipal Hall, 1229 Esquimalt Road, Esquimalt, B.C. V9A 3P1  
Telephone (250) 414-7100 Fax (250) 414-7111

APC Meeting: February 20, 2018

## STAFF REPORT

**DATE:** February 16, 2018

**TO:** Chair and Members of the Advisory Planning Commission

**FROM:** Alex Tang, Planner 1  
Bill Brown, Director of Development Services

**SUBJECT: OFFICIAL COMMUNITY PLAN AMENDMENT and REZONING APPLICATION**  
**833 Dunsmuir Road**  
**[PID 005-388-899 Lot 3, Section 11, Esquimalt District, Plan 9759]**  
**and 835 Dunsmuir Road**  
**[PID 005-388-881 Lot 2, Section 11, Esquimalt District, Plan 9759]**

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### RECOMMENDATION:

The Esquimalt Advisory Planning Commission recommends that the application for Official Community Plan Amendment and Rezoning, authorizing a 18 metre [5 storeys], 34 unit, multiple family residential building sited in accordance with the BCLS Site Plan provided by J.E. Anderson and Associates Surveyors-Engineers, stamped "Received January 18, 2018", and incorporating height and massing consistent with the architectural plans provided by Praxis Architects Inc., stamped "Received February 7, 2018", detailing the development proposed to be located at PID 005-388-899 Lot 3, Section 11, Esquimalt District, Plan 9759 [833 Dunsmuir Road] and PID 005-388-881 Lot 2, Section 11, Esquimalt District, Plan 9759 [835 Dunsmuir Road] be forwarded to Council with a recommendation **to either approve, approve with conditions, or deny the application including reasons for the chosen recommendation.**

### BACKGROUND:

#### Purpose of the Application:

The applicant is requesting a change in Official Community Plan Land Use Designation and Zoning from the current designation of "Multi-Unit, Low-Rise Residential" to "Multi-Unit, High-Rise Residential" and a change in zoning from the current mix of RD-3 [Two Family/ Single Family Residential] zone and RM-4 [Multiple Family Residential] to a Comprehensive Development District zone [CD]. This change is required to accommodate the proposed 5 storey, 34 unit, multiple family residential building including a 35 space parking garage.

This site is located within Development Permit Area No. 1 – Multi-Unit Residential. Should the rezoning application be approved, the applicant would need to obtain a Development Permit respecting the character of the development, including landscaping, and the siting, form, exterior design and finish of the proposed 5 storey, 34 unit, multiple family residential building, which would be considered by both the Design Review Committee and Council in the future.

**Evaluation of this application should focus on the proposed siting, height, mass, density, lot coverage, usable open space, parking, fit with the neighbourhood, and consistency with the overall direction contained within the Official Community Plan.**

### Context

**Applicant:** Praxis Architects Inc. [Heather Spinney]

**Owner:** D.E. Mann Properties Ltd., Inc. No. BC1125695

**Property Size:** Metric: 1526 m<sup>2</sup> Imperial: 16427 ft<sup>2</sup>

**Existing Land Use:** Single Family Residential

### **Surrounding Land Uses:**

North: Single Family Residential

South: Multiple Family Residential [4 storeys]

West: Multiple Family Residential [3 storeys]

East: Multiple Family Residential [4 storeys]

**Existing OCP Designation:** Multi-Unit, Low-Rise Residential

**Proposed OCP Designation:** Multi-Unit, High-Rise Residential

**Existing Zoning:** RD-3 [Two Family/Single Family Residential] – Lot 2  
RM-4 [Multiple Family Residential] – Lot 3

**Proposed Zoning:** CD [Comprehensive Development District]

### Zoning

**Density, Lot Coverage, Height and Setbacks:** The following chart compares the floor area ratios, lot coverage, setbacks, height and usable open space of this proposal with the requirements of the RM-5 [Multiple Family Residential Zone]:

	<b>Proposed Comprehensive Development Zone</b> [Apartment with 34 Residential Units]	<b>RM-5</b> [Multiple Residential – High Density]
<b>Floor Area Ratio</b>	1.48	1.5
<b>Lot Coverage</b>	44%	30%/ 25% [above 2 <sup>nd</sup> ]
<b>Setbacks</b>		
• Front	3.5 m	7.5 m
• Rear	4.0 m	7.5 m
• Exterior Side [North]	5.5 m	7.5 m
• Interior Side [South]	7.5 m	7.5 m
<b>Building Height</b>	18.03 m [5 storeys]	20 m
<b>Off Street Parking</b>	35 spaces [1.03/unit]	45 spaces [1.3/unit]

<b>Usable Open Space</b>	159 m <sup>2</sup> [10.4%]	114 m <sup>2</sup> [7.5%]
<b>Bicycle Parking</b>	51 resident + 6 visitor	51 resident + 6 visitor

The Floor Area Ratio of this proposal is 1.48, which is less than the maximum allowable amount of 1.5 in the RM-5 [Multiple Family Residential]. The Lot Coverage measures 86% at grade to accommodate the parking structure while the residential portion of the building covers 44% of the site. By the definition of the Zoning Bylaw, the Front Lot Line is the lot line that abuts Garrett Place despite the fact that the proposed entrance faces Dunsmuir Road. Hence, the reduced front and rear setback is actually a reduction in the setback on Garrett Place and the setback abutting the eastern most lot line. The proposed height of the building is 18.03 metres, which is less than the allowed 20.0 metres in a RM-5 zone. The usable open space is 159 m<sup>2</sup>, which amounts to 10.4% of the total lot area.

Parking Bylaw, 1992, No. 2011 requires 1.3 parking spaces per unit to be provided for multiple family developments. This proposal incorporates 35 residential parking spaces within the structure which is about 1.03 parking spaces per unit. The subject property is well served by transit as Route 25 passes by the site along Dunsmuir Road and Route 15 goes along Esquimalt Road which is about 150 metres to the north. This site has a Walk Score of 72, which is considered very walkable as most errands can be accomplished on foot.

### **Official Community Plan**

Although the density of 1.48 FAR commensurates with the property's current Land Use Designation of "Multi-Unit, Low-Rise Residential", the number of storeys in the proposed building does not as it proposes five storeys. The Land Use Designation of "Multi-Unit, Low-Rise Residential" accepts buildings up to four storeys with a Floor Area Ratio of up to 1.5. Rather, the Land Use Designation of "Multi-Unit, High-Rise Residential" would allow for up to 12 storeys. Hence, an amendment to the Official Community Plan Land Use Designation from "Multi-Unit, Low-Rise Residential" to "Multi-Unit, High-Rise Residential" is required for this application in order to allow for the proposed development.

OCP Section 2 - Managed Growth – Land Use and Development states that the objectives and policies in this section are designed to promote sustainable land use and development in the community.

OCP 2.0.1(a) states the Township should encourage high quality development that enhances and benefits the community as a whole.

OCP 2.0.1(e) states the Township should support increased residential density and higher buildings along the Esquimalt Road corridor, particularly in the areas within walking distance of Esquimalt Village and the Vic West border.

OCP 2.0.2(a) states Esquimalt's future new development, infill and redevelopment will be in accordance with the land use designations shown on OCP Schedule A, together with the guidelines set out in Development Permit Areas (OCP Section 9).

OCP Section 2.2 - Residential Land Use of the Official Community Plan recognizes that modest growth is likely to occur through the infilling of vacant or under-utilized parcels, redevelopment of existing residential properties to higher densities (such as townhouses, apartment buildings and mixed commercial-residential uses) and the replacement of existing buildings.

Section 2.2.1(a) states the Township should work toward a more complete community by maintaining a healthy mixture of housing types, accommodating people with a wide range of income levels.

Section 2.2.1(b) states the Township should encourage new residential development with high design standards for building and landscaping and which enhance existing and new neighbourhoods.

OCP Section 2.2.4.1 Multi-Unit Residential Policies [attached] are intended to provide more predictability for residents and give direction to design teams preparing development proposals. This proposal for a 34 unit residential building is consistent with many policies contained in this section while it is unclear at this time whether it is consistent with the following policy as no units are explicitly proposed to be constructed to accessibility standards:

Section 2.2.4.1(f) states that wherever desirable and achievable consideration will be given to special needs and assisted housing including seniors, disabled persons and families.

OCP Section 2.2.4.4 Multi-Unit, High-Rise Residential states that in areas designated Multi-Unit, High-Rise Residential on Schedule A, building heights of up to 12 storeys are acceptable with a Floor Area Ratio of up to 3.0. Buildings with shallow setbacks must step down to no more than three storeys at street level in order to provide appropriate human scale along the sidewalk. The requirements and guidelines of Development Permit Area No. 1 apply. This proposed building sets back at the fifth storey and is inconsistent with this policy.

OCP Section 3.3.1(a) Affordable Housing Objectives states that the Township should encourage a range of housing by type, tenure, and price to ensure that people of all ages, household types, abilities and incomes have a diversity of housing choice in Esquimalt.

OCP Section 9.3 Development Permit Area No. 1 - Multi-Unit Residential [attached] contains Development Permit Guidelines for land designated Multi-Unit Residential. As the Development Permit is not being considered at this time it would be inappropriate to address many of these guidelines with the following exceptions that are relevant to the discussion of zoning and parking issues:

Section 9.3.5(b) states, in part, that new buildings should be designed and sited to minimize visual intrusion onto the privacy of surrounding homes and minimize the casting of shadows onto the private outdoor space of adjacent residential units. The proposed building has a proposed height of 18.03 metres which is less than the allowed height in a RM-5 zone but is one storey higher than allowed under the current Official Community Plan Land Use Designation. The recessed fifth storey aids to minimize the casting of shadows as its shadow is quite similar to that of a four storey building mass.

Section 9.3.5(c) states that high density multi-unit residential buildings should be designed so that the upper storeys are stepped back from the building footprint with lower building heights along the street front. The massing of the proposed building steps back at the 5<sup>th</sup> storey.

Section 9.3.5(f) states that underground parking will be provided for any multi-unit residential building exceeding four storeys. This proposal works with the natural topology to provide one level of parking that is underground at the northwest corner and at grade at the southeast corner.

### **Green Building Features**

The applicant has completed the Esquimalt Green Building Checklist [attached].

### **Comments From the Design Review Committee**

This application was considered at the regular meeting of the Design Review Committee held on February 14, 2018.

Members commented that the development was appropriate for the site. A member questioned the benefit of the layby in comparison to an additional street parking space. A member questioned the usefulness of the usable open space. A member remarked that the 5<sup>th</sup> storey setback was suitable. A member had issues with the entry to the building parking lot off Dunsmuir Road as it breaks up the streetscape.

The Design Review Committee resolved unanimously that the application be forwarded to Council with a recommendation of approval as the proposed development is appropriate for the site.

### **Comments From Other Departments**

The plans for this proposal were circulated to other departments and the following comments were received:

**Building Inspection:** Building to be constructed to requirements of BC Building Code 2012 and Municipal Building Code Bylaw, 2002, No. 2538. Applicant must address all issues contained within the Township Development Protocol should application be approved. Plans will be reviewed for compliance with BC Building Code upon submission of a Building Permit application.

**Engineering Services:** Engineering staff has completed a preliminary evaluation of Works and Services that would be required for the 34 unit multiple family residential building proposed to be located at 833 and 835 Dunsmuir Road. Staff confirms that the design appears achievable on the site and that appropriate works and services are available in the immediate area. If approved, the development must be serviced in accordance with bylaw requirements including, but not limited to, new sewer and drain connections, underground hydro, telephone and cable services and new road works may be required up to the centre line of Dunsmuir Road and Garrett Place. Should the application be approved, additional comments will be provided when detailed civil engineering drawings are submitted as part of a Building Permit application.

**Parks Services:** Parks staff has completed a preliminary review of the proposed on-site and off-site landscaping and commented that the landscape plan was adequate.

**Fire Services:** Fire Services staff has completed a preliminary review of the proposed plans and have no concerns at this time.

**Public Notification**

As this is an Official Community Plan Amendment and Rezoning application, should it proceed to a Public Hearing, notice would be mailed to tenants and owners of properties within 100m (328ft) of the subject property. In order to satisfy the requirements of the *Local Government Act*, staff is also required to provide additional notice to relevant government and institutional stakeholders within the Capital Region. Two signs indicating that the property is under consideration for a change in Official Community Plan Land Use Designation and Zoning has been installed on the Dunsmuir Road frontage while one sign has been installed on the Garrett Place frontage. This sign would be updated to include the date, time, and location of the Public Hearing.

**ALTERNATIVES:**

1. Forward the application for OCP Amendment and Rezoning to Council with a **recommendation of approval including reasons for the recommendation.**
2. Forward the application for OCP Amendment and Rezoning to Council with a **recommendation of approval including specific conditions and including reasons for the recommendation.**
3. Forward the application for OCP Amendment and Rezoning to Council with a **recommendation of denial including reasons for the recommendation.**





Wollaston St

733

Sea Terr

820

815

821

819

827

734

730

836

Dunsmuir Rd

833

844

Garrett Pl

835

831

Subject Property Map:  
833 and 835 Dunsmuir Rd



SEA TERR

820

823  
825 821

815

817

734

2-730

DUNSMUIR RD

836

833

835

GARRETT PL

554

831

- g) The Township is not supportive of new applications for infill housing, including rezoning and subdivision for panhandle lots in the 1100 and 1200 blocks of Old Esquimalt Road and the 600 block of Fernhill Road.

#### **2.2.4 Multi-Unit Residential**

Over the years, townhouses and apartment buildings have tended to be developed in clusters throughout the neighbourhoods of Esquimalt. They are generally located in the following areas:

- On both sides of Esquimalt Road from Grafton Street to Dunsmuir Road;
- The area around Craigflower Road and Selkirk Avenue;
- Admirals Road, Astle and Nelson Streets;
- West Bay south of Dunsmuir Road; and
- West Parklands.

Smaller clusters of multi-unit development are also found along Lampson Street between Devonshire and Old Esquimalt Roads, Lampson Street south of Lyall Street, and Ellery Street south of Esquimalt High School. This scattered pattern of development has contributed to residents' concerns related to the proliferation of multi-unit developments in neighbourhoods where single-unit and two-unit homes have been the predominant land use.

##### **2.2.4.1 Multi-Unit Residential Policies**

The following policies provide more predictability for residents in mixed residential use neighbourhoods and give direction to design teams involved in the preparation of development proposals.

- a) Multi-Unit Residential refers to three or more dwelling units on a parcel. Multi-unit Residential does not refer to a single-unit home with a secondary suite.
- b) The Township encourages the concentration of multi-unit residential development where such development is in keeping with the overall goals of this Plan.
- c) Wherever practical, multi-unit residential housing will be located near a Major Road as shown on "Schedule B". This supports transit service and also helps maintain the integrity of single-unit and two-unit housing neighbourhoods;
- d) Wherever feasible, major multi-unit residential projects will be located within reasonable distance of one of Esquimalt's commercial areas in order to encourage walking and cycling;
- e) A mix of housing types will be provided in multi-unit residential areas in order to provide visual interest and to meet the varying housing needs of Esquimalt's current and future residents;
- f) Wherever desirable and achievable, consideration will be given for special needs and assisted housing, including seniors, disabled persons and families.
- g) Within the areas designated on "Schedule A" as Townhouse Residential, Multi-Unit, Low-Rise Residential and Multi-Unit, High-Rise Residential, the following criteria

will be used to evaluate development proposals requiring an application for rezoning:

- o The massing and height of the project will respond sensitively to the prevailing character of the immediate neighbourhood. This will vary by location;
  - o The project will relate to the street. Its exterior finishes, scale, treatment of parking areas, and landscaping, will enhance the appearance of the neighbourhood and contribute positively to the streetscape;
  - o The proponent will demonstrate that the neighbourhood has been consulted in a fair and meaningful way, and that residents' concerns have been appropriately responded to in the proposal; and
  - o Where new multi-unit residential projects are proposed, they should not "land-lock", otherwise isolate, or negatively affect the development potential of adjacent parcels. Projects must either consolidate the isolated parcels or leave a sufficient area available to allow for the eventual redevelopment of the adjacent land.
- h) Development proposals with heights and /or densities greater than those set out in policies 2.2.4.2 to 2.2.4.4. may be considered, where appropriate, through variances to zoning and/or parking regulations and density bonusing of floor-space where new affordable, accessible or special needs housing units or amenities are provided for the benefit of the community.
- i) For the purposes of density bonuses, "amenities" may include, but not be limited to:
- o Privately-owned, publicly-accessible open space;
  - o Public art;
  - o Contributions towards the enhancement of public recreation facilities;
  - o Contributions towards street and boulevard enhancements, including street furniture and decorative lighting;
  - o Daycare facilities; and
  - o Preservation of heritage structures or features.
- j) In new multi-unit residential developments, secure bicycle storage for residents should be provided in the ratio of 1.5 storage spaces per dwelling unit. In addition to the residents' parking, each multi-unit building should have six (6) bicycle lock-up spaces for the use of visitors.



A bicycle storage requirement may be waived or varied in a Development Permit where, in the opinion of Council, there is no demonstrated need, such as in a congregate care facility.

## Development Permit Area No. 1 – Multi-Unit Residential

### 9.3.1 Scope

All land designated Multi-Unit Residential on Schedule “C” are part of DPA No. 1.

### 9.3.2 Category

Section 919(1)(f) of the *Local Government Act* – form and character, multi-family residential.

### 9.3.3 Justification

This Plan emphasizes the importance of protecting residential neighbourhoods and encouraging a high quality of construction for new development. It is essential that new multi-unit residential development not have a negative impact on, or be out of character with, existing residential neighbourhoods. The primary objective of Development Permit Area No. 1 is to ensure that the development of multi-unit residential sites is compatible with surrounding uses.

### 9.3.4 Requirements of Owners of Land within the Development Permit Area

a) Owners of land within Development Permit Area No. 1 must not do any of the following without first obtaining a development Permit in accordance with the guidelines for this Development Permit Area:

- i) subdivide lands; or
- ii) construct or alter a building or structure;

without first obtaining a Development Permit in accordance with the guidelines of this Development Permit Area.

b) Exemptions:

The following do not require a development permit:

- i) construction of buildings or structures less than 10 square metres in area;
- ii) minor additions to existing dwellings where the floor area of the addition does not exceed 10 percent of the ground floor area of the dwelling;
- iii) emergency repairs to existing structures and public walkways where a potential safety hazard exists;
- iv) fences;
- v) the cutting of trees as permitted upon application under the municipal tree protection bylaw; and
- vi) placement of signs less than 1.5 sq. metres in area.

### 9.3.5 Guidelines for Owners of Land within the Development Permit Area

a) The size and siting of buildings that abut existing single- and two-unit and townhouse dwellings should reflect the size and scale of adjacent development and complement the surrounding uses. To achieve this, height and setback restrictions may be imposed as a condition of the development permit.

- b) New buildings should be designed and sited to minimize visual intrusion onto the privacy of surrounding homes and minimize the casting of shadows onto the private outdoor space of adjacent residential units.
- c) High-density multi-unit residential buildings or mixed commercial/residential buildings in commercial areas with a zero front setback should be designed so that the upper storeys are stepped back from the building footprint, with lower building heights along the street front.
- d) Landscaping of multi-unit residential sites should emphasize the creation of an attractive streetscape, as well as provide privacy between individual buildings and dwellings, screen parking areas and break up large expanses of paving.
- e) Surface parking areas in multi-unit residential developments less than five storeys in height, will be situated away from the street and screened by berms, landscaping or solid fencing or a combination of these three.
- f) Underground parking will be provided for any multi-unit residential buildings exceeding four storeys.
- g) The retention of public view corridors particularly views to the water should be encouraged wherever possible.
- h) To preserve view corridors and complement natural topography, stepped-down building designs are encouraged for sloping sites.
- i) Retention and protection of trees and the natural habitat is encouraged wherever possible.
- j) Townhouses will be designed such that the habitable space of one dwelling unit abuts the habitable space of another unit and the common wall overlap between adjoining dwellings shall be at least 50 percent.
- k) Site lighting in multi-unit residential developments should provide personal safety for residents and visitors and be of the type that reduces glare and does not cause the spill over of light onto adjacent residential sites.
- l) Garbage receptacle areas and utility kiosks should be screened by solid fencing or landscaping or a combination of the two.
- m) For waterfront sites, retention of natural features and existing trees should be a priority in site planning considerations.
- n) When any existing single-unit residence or duplex residence is being redeveloped to a multi-unit residential use by adding on of one or more dwelling units, such addition will be designed so that all of the units form a cohesive whole. In order to achieve cohesiveness:
  - i) both, the existing and proposed structures will be in the same architectural style;
  - ii) variations between the roofline of the existing building and any proposed addition(s) will be no greater than 1.5 metres;



- iii) roof styles and pitches must be complementary;
- iv) architectural features such as sloping roofs and dormers should be incorporated into the design to unite the various parts of the structure; and
- v) the existing and proposed structure will be constructed using the same or complimentary exterior finishes including roofing materials, window treatments, door styles and other finishing details.
- o) Within the area bounded by Tillicum, Craigflower, Lampson and Transfer Streets, redevelopment to multi-unit residential use will require that vehicular access to these sites be off Lampson Street rather than Tillicum, in recognition of the high levels of traffic currently using Tillicum Road.
- p) To create a more aesthetic and functional design that links each multi-unit residential project with the streetscape, the following guidelines are recommend:
  - i) Avoid long, narrow parcels with minimal road frontage (consolidate one or more parcels where necessary);
  - ii) Place parking areas away from the street; and
  - iii) Design porches and windows overlooking the street to increase personal interaction and safety.



**P R A X I S**  
architects inc.

833 + 835 Dunsmuir Redevelopment

401-1245 Esquimalt Road, Victoria, B.C. V9A 3P2  
Ph. (250) 475-2702  
Fax (250) 475-2701

Township of Esquimalt  
1229 Esquimalt Road  
Esquimalt, BC V9A 3P1

December 12, 2017

RE: 833 + 835 DUNSMUIR ROAD

Dear Mayor and Council,

The proposed project at 833 and 835 Dunsmuir Road will be a new market multiple residential building, with potentially up to 5 storeys of wood-frame construction. According to the current Official Community Plan, Schedule A - Land Use Designation, these properties are identified as Multi-Unit, Low-Rise Residential (MULRR) which means up to 4 storeys are permitted and a maximum floor area ratio (FAR) of 1.5 is permitted. An amendment to the OCP would be required to permit more than 4 storeys. We understand from informal conversations with Esquimalt Planning Department, that staff may be recommending to council that MULRR designated properties be considered for up to 6 storeys in height in most cases.

We would like to acknowledge that we have reviewed the West Bay Neighbourhood Design Guidelines and note that this particular property has been identified as having 4 storeys. This proposal does include 2 units on level 5 which are set back from the north, east and western edges. As such, the shadows cast compared to a 4 storey building will be insignificant, if noticable at all. From a visual and massing perspective, we consider the additional storey to be complimentary to the overall appearance of the proposed building.

This proposal was presented at a neighbourhood meeting which was held November 27, 2017. The meeting was quite well attended and our impression from the feedback was that the proposal for a 5 storey building was generally well received. Attached with this letter please find a copy of the notification for the neighbourhood meeting, sign-in sheets as well as a summary flyer of the meeting which was shared with the West Bay Residents Association president, Carole Witter.

833 Dunsmuir is currently zoned RM-4 (Multi-Unit Family) and 835 Dunsmuir is currently zoned RD-3 (Two Family / Single Family Residential). We understand from informal conversations with Esquimalt Planning Department that rezoning to a Comprehensive Development would be the appropriate approach for the redevelopment of these properties.

Trusting this is sufficient for submission requirements,

Sincerely,

Heather Spinney, Architect AIBC  
Praxis Architects Inc.







## **833 + 835 Dunsmuir Road**

### **Parking Study**

Prepared for: **GT Mann Contracting**

Prepared by: **Watt Consulting Group**

Our File: **2258**

Date: **December 6, 2017**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Subject Site.....	1
1.2	Site Characteristics.....	2
<b>2.0</b>	<b>PROPOSED DEVELOPMENT .....</b>	<b>3</b>
2.1	Proposed Parking Supply.....	4
<b>3.0</b>	<b>PARKING REQUIREMENT .....</b>	<b>4</b>
<b>4.0</b>	<b>EXPECTED PARKING DEMAND .....</b>	<b>4</b>
4.1	Resident Parking, Vehicle Ownership.....	4
4.2	Resident Parking, Observations.....	6
4.3	Precedent Sites .....	6
4.4	Visitor Parking.....	6
4.5	Summary of Expected Parking Demand .....	7
<b>5.0</b>	<b>ON-STREET PARKING .....</b>	<b>7</b>
<b>6.0</b>	<b>TRANSPORTATION DEMAND MANAGEMENT .....</b>	<b>9</b>
6.1	Bike Parking.....	9
6.2	Carshare.....	9
<b>7.0</b>	<b>SUMMARY.....</b>	<b>10</b>
7.1	Recommendations .....	10

## 1.0 INTRODUCTION

Watt Consulting Group was retained by GT Mann Contracting to conduct a parking study for the proposed development at 833-835 Dunsmuir Road in the Township of Esquimalt. The purpose of this study is to assess the adequacy of the proposed parking supply by considering parking demand at representative sites and to identify transportation demand management (TDM) options.

### 1.1 SUBJECT SITE

The proposed redevelopment site is 833-835 Dunsmuir Road in the Township of Esquimalt. See **Figure 1**. The site is zoned RD-3 | Two Family/Single Family Residential and RM-4 | Multiple Family Residential.

**FIGURE 1. SUBJECT SITE**



## 1.2 SITE CHARACTERISTICS

The following provides information regarding services and transportation options in close proximity to the subject site. See **Figure 2**.



### SERVICES

The site is located 400m from the intersection of Esquimalt Road and Head Street that has various retail stores including anchor Shoppers Drug Mart, small scale restaurants, and medical services. The area is identified in the Official Community Plan (OCP)<sup>1</sup> as a “commercial node” where commercial services and concentrations of medium- and high-density residential will be focused. Esquimalt Village and Downtown Victoria are located over 1-km from the site and have the majority of services site residents may need.



### TRANSIT

The closest bus stop to the site is located less than 100m away on Dunsmuir Road and serves Route 25 | Maplewood/Admirals Walk. This route is classified as a local route that has a service frequency between 20 and 120 minutes. Route 15 | Esquimalt/Uvic stops 150m from the site on Esquimalt Road and is a regional route with a service frequency of 15 to 60 minutes with limited stops. This route provides direct service between the DND Esquimalt base and the University of Victoria, via downtown Victoria.

BC Transit’s Transit Future Plan identifies Esquimalt Road as a “Frequent Transit Corridor”<sup>2</sup> that will provide frequent service (15 minutes or better between 7am and 10pm, 7 days per week) with improved transit travel times achieved by fewer stops, transit priority measures and enhanced bus stop infrastructure. The subject site will benefit from frequent, reliable and convenient transit service.



### WALKING

There are sidewalks on both sides of Dunsmuir Road, providing connection to Esquimalt Road. Esquimalt Road provides for a relatively pleasant pedestrian environment, the result of a streetscape revitalization initiative in approximately 2010. Sidewalks are provided on both sides of Esquimalt Road with crosswalks at major intersections and various mid-block crosswalks. The site has a Walkscore<sup>3</sup> of 72, which suggests most errands can be accomplished on foot.

<sup>1</sup> Corporation of the Township of Esquimalt Official Community Plan, 2006, Bylaw No. 2646. Available online at: [https://www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/bylaw\\_no\\_2646\\_2006\\_official\\_community\\_plan\\_consolidated\\_march\\_2017\\_complete\\_document.pdf](https://www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/bylaw_no_2646_2006_official_community_plan_consolidated_march_2017_complete_document.pdf)

<sup>2</sup> More information on the Victoria Transit Future Plan is available online at: <http://bctransit.com/victoria/transit-future/victoria-transit-future-plan>

<sup>3</sup> Walkscore. For more information see: <https://www.walkscore.com/score/833-dunsmuir-rd-victoria-bc-canada>



## CYCLING

Bike lanes are provided on Esquimalt Road with direct connection to downtown Victoria and the Galloping Goose Regional Trail. The site is approximately 400m from the Esquimalt + Nanaimo (E+N) Rail Trail, which provides a direct off-road cycling route to View Royal and the Western Communities.

**FIGURE 2. TRANSPORTATION OPTIONS SURROUNDING THE SITE**



## 2.0 PROPOSED DEVELOPMENT

The proposal is for 34 Multi-family Residential units. The site will be a condominium subject to strata ownership and will consist of a combination of one and two bedroom units. See **Table 1**.

**TABLE 1. PROPOSED UNIT COMPOSITION<sup>4</sup>**

<b>Number of Bedrooms</b>	<b>Quantity</b>
One-Bedroom	21
Two-Bedroom	13
<b>Total</b>	<b>34</b>

## **2.1 PROPOSED PARKING SUPPLY**

The proposed parking supply is 37 spaces - a parking supply rate of 1.09 spaces per unit.

The proposal also includes the provision of 51 long-term bike parking spaces (1.5 bike parking spaces per unit) and a six-space bike rack at the building entrance.

## **3.0 PARKING REQUIREMENT**

The Township of Esquimalt Parking Bylaw No. 2011<sup>5</sup> identifies a minimum parking supply rate of 1.3 spaces per unit for Medium and High Density Apartment uses (assumes RM-4 zoning). Applied to the subject site, this results in a requirement for 44 parking spaces. The Bylaw also requires that 11 of the required spaces are reserved for visitors, and one space is designed and designated as Disabled Persons' parking.

## **4.0 EXPECTED PARKING DEMAND**

Expected parking demand is estimated in the following sections based on vehicle ownership information from the Insurance Corporation of British Columbia ("ICBC"), observations of representative study site, research and surveys.

### **4.1 RESIDENT PARKING, VEHICLE OWNERSHIP**

Vehicle ownership information was obtained from ICBC for representative sites. See **Table 2**. Sites selected exhibit similar characteristics to the subject site - all sites are condominium (i.e., strata ownership) and in a similar location / context. The average vehicle ownership rate is 0.98 vehicles per unit and ranges from 0.78 to 1.2 vehicles per unit.

Research suggests that parking demand varies based on the size of unit - the higher the number of bedrooms, the higher the parking demand. For each study site the total parking demand has been redistributed based on number of bedrooms.

<sup>4</sup> Unit composition information per email correspondence from Praxis Architects, received September 18 2017

<sup>5</sup> The Township's Zoning Bylaw is available online at:  
[www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/parking\\_bylaw\\_2011\\_july.pdf](http://www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/parking_bylaw_2011_july.pdf)

Overall vehicle ownership at each study site has been factored to account for unit configuration (i.e., number of bedrooms) as follows:

1. Overall vehicle ownership data for each site;
2. The breakdown of unit type (i.e., number of bedrooms) at each site; and
3. The assumed “ratio differences” between each unit type based on the King County Metro<sup>6</sup> study which recommends one-bedroom units have a 20% higher parking demand than bachelor units, two-bedroom units have a 60% higher parking demand than one-bedroom units, and three-bedroom units have a 15% higher parking demand than two-bedroom units.

Results suggest that average parking demand when factored for unit configuration is as follows:

- One-Bedroom Units (21) = 0.68 vehicles per unit, 14 vehicles
- Two-Bedroom Units (13) = 1.06 vehicles per unit, 14 vehicles

The subject site has more one-bedroom units and less two-bedroom units than is typical of the study sites, which explains why the expected parking demand is reduced when factored for unit configuration (i.e., number of bedrooms).

**TABLE 2. VEHICLE OWNERSHIP AT REPRESENTATIVE SITES**

Location	Number of Units	Vehicle Ownership based on ICBC Data		Assumed Vehicle Ownership Distribution (vehicles per unit)	
		Total	Rate (vehicles per unit)	1-Bedroom	2-Bedroom
885 Ellery St	20	24	1.2	0.81	1.30
830 Esquimalt Rd	21	17	0.81	0.56	0.90
848 Esquimalt Rd	51	40	0.78	0.60	0.96
924 Esquimalt Rd*	58	53	0.91	0.62	0.99
929 Esquimalt Rd	31	31	1.00	--	1.00
1000 Esquimalt Rd	30	32	1.07	0.7	1.12
1315 Esquimalt Rd*	78	79	1.01	0.68	1.09
614 Fernhill Pl	21	19	0.90	--	0.90
331 Robert St	10	11	1.10	0.79	1.26
<b>Average</b>			<b>0.98</b>	<b>0.68</b>	<b>1.06</b>

\* Unit breakdown information was unavailable for these sites, and so an average of unit breakdown at other representative sites was applied to these sites.

<sup>6</sup> King County Metro. (2013). Right Size Parking Model Code. Table 2, page 21.  
Available online at: <http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/140110-rsp-model-code.pdf>

## 4.2 RESIDENT PARKING, OBSERVATIONS

Observations of parked vehicles were conducted at select sites assessed above in 2015 as part of a previous study<sup>7</sup> and were updated for this study to determine if the ICBC vehicle ownership information from 2015 (see above) is reflective of current demand at the representative sites. Results of observations from 2015 and 2017 - shown in **Table 3** – demonstrate that parking conditions are virtually identical to 2015, suggesting that the vehicle ownership information from 2015 (presented in Section 4.1) is an accurate measure of current parking demand.

**TABLE 3. SUMMARY OF OBSERVATIONS AT REPRESENTATIVE SITES**

Location	Number of Units	Parking Supply	Thurs, Dec 02 2015 @ 10:30pm		Tues, Sept 19 2017 @ 9:30pm	
			Vehicles	Rate	Vehicles	Rate
885 Ellery St	20	26	16	0.80	16	0.80
830 Esquimalt Rd	21	30	17	0.81	16	0.76
614 Fernhill Pl	21	24	20	0.95	20	0.95
<b>Average</b>				<b>0.85</b>		<b>0.84</b>

## 4.3 PRECEDENT SITES

A recent development (924 Esquimalt Road) was assessed, as it is deemed representative to the subject site and reflects parking demand characteristics of newer developments. The site has a vehicle ownership rate of 0.91 vehicles per unit over 24% one- and 76% two-bedroom units. Considered by number of bedrooms, this assumes ownership rates of 0.63 vehicles per one-bedroom unit and 1.0 vehicles per two-bedroom unit. Applied to the subject site, the anticipated resident parking demand is 26 vehicles.

## 4.4 VISITOR PARKING

Observations were conducted as part of a study by Metro Vancouver<sup>8</sup> that concluded typical visitor parking demand is less than 0.1 vehicles per unit. This is similar to observations that were conducted for parking studies in the City of Langford and the City of Victoria, and suggests that visitor parking demand is not strongly influenced by location.

As such, it is estimated that visitor parking demand will be no more than 0.1 vehicles per unit.

<sup>7</sup> 826 Esquimalt Road Parking Study. Available online at:  
<https://esquimalt.ca.legistar.com/LegislationDetail.aspx?ID=3663&GUID=B883D3FE-6D24-4C02-9550-0339E2D847A4>

<sup>8</sup> Metro Vancouver Apartment Parking Study, Technical Report, 2012. Available online at:  
[http://www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment\\_Parking\\_Study\\_TechnicalReport.pdf](http://www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment_Parking_Study_TechnicalReport.pdf)



#### 4.5 SUMMARY OF EXPECTED PARKING DEMAND

Expected parking demand is approximately 31 vehicles, 6 less than is proposed. See **Table 4**.

**TABLE 4. SUMMARY OF EXPECTED PARKING DEMAND**

		Units	Expected Parking Demand	
			Rate	Total
Resident	One Bedroom	21	0.68 / unit	14
	Two Bedroom	13	1.06 / unit	14
Visitor		34	0.1 / unit	3
<b>Total Expected Parking Demand</b>				<b>31</b>

#### 5.0 ON-STREET PARKING

On-street parking conditions were observed surrounding the site on Dunsmuir Road (from West Bay Terrace to Wollaston Street) and Garrett Place (from Dunsmuir Road to the cul-de-sac). Parking restrictions on these road segments are either unrestricted or there is no parking available. See **Table 4** and **Figure 3**.

Observations were completed during a weekday afternoon and evening to reflect the anticipated “peak” periods. Observations were conducted during the following time periods:

- Tuesday September 19, 2017 at 9:30pm
- Friday September 22, 2017 at 2:45pm

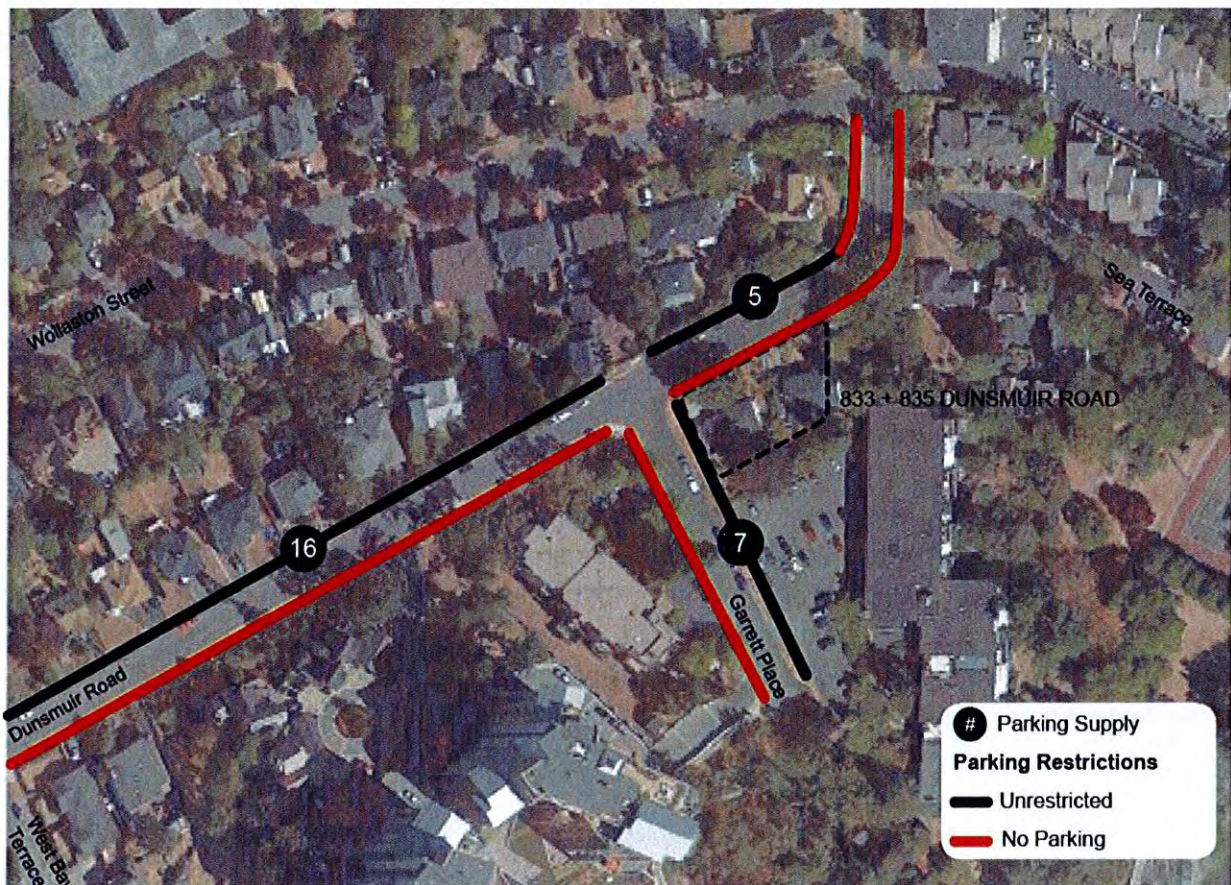
Peak occupancy was observed during the weekday afternoon observation (Friday at 2:45pm) when available parking was 75% occupied, with seven parking spaces still available. This demonstrates reasonable utilization of nearby on-street parking supply but sufficient availability of parking in case of spillover.

High parking occupancy rates were observed on Garrett Place and many of the same vehicles observed during both observations. These vehicles are assumed to be attributed to the Multi-Family Residential building immediately adjacent. It is anticipated that any resident or visitor parking spillover associated with the subject site would seek parking on Dunsmuir Road due to proximity to the front entry, and are unlikely to displace vehicles parking on Garrett Place nor be inconvenienced by the high occupancy rate.

**TABLE 4. SUMMARY OF ON-STREET PARKING CONDITIONS**

Street		Side	Restrictions	Parking Supply (spaces)	Vehicles Observed	
					Tues. 09/19/17 @ 9:30pm	Fri. 09/22/17 @ 2:45pm
Dunsmuir Road	West Bay Terr – Garrett Pl	N	Unrestricted	16	11	10
		S	No Parking	-	-	-
	Garret Pl – Wollaston St	N	Unrestricted	5	2	4
		S	No Parking	-	-	-
Garret Place	Dunsmuir Rd – cul-de-sac	W	No Parking	-	-	-
		E	Unrestricted	7	7	7
				<b>28</b>	<b>20</b> 71%	<b>21</b> 75%

**FIGURE 3. ON-STREET PARKING SUPPLY AND RESTRICTIONS**



## 6.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) is the application of strategies and policies to influence individual travel choice, most commonly to reduce single-occupant vehicle travel. TDM measures can be pursued to encourage sustainable travel, enhance travel options and decrease parking demand. The following summarizes TDM options for the applicant's consideration.

### 6.1 BIKE PARKING

Bike parking is not currently required in the Township's Parking Bylaw. However, the Township of Esquimalt Official Community Plan includes policy that states:

*In new multi-unit residential developments, secure bicycle storage for residents should be provided in the ratio of 1.5 storage spaces per dwelling unit. In addition to the residents' parking, each multi-unit building should have six (6) bicycle lock-up spaces for the use of visitors.*

The applicant is providing bike parking as per the policy in the OCP, which is higher than typical bike parking requirements in other communities.

### 6.2 CARSHARE

Modo Carshare is the carshare organization most wide spread in the Capital Region. Monthly Modos members pay \$5 per month, a \$10 registration fee, \$8 per hour (including gas, insurance, and maintenance) and receive the first 200 kilometers of their trip for free. Member-owner memberships are \$500 (refundable share purchase).

There is currently one Modos vehicle located in the Skyline Residences at 924 Carlton Terrace (Esquimalt Road/Head Street) and a second vehicle will be included in the Multi-Family Residential development under construction at 826 Esquimalt Road within the next year<sup>9</sup>. This vehicle will be approximately 250m from the subject site and may be accessed within a 3-4 minute walk. To facilitate carshare use among site residents, the applicant may consider purchasing carshare memberships for each unit that would allow residents to access the carshare vehicle without paying the up-front membership cost (the resident would only pay for usage). The cost to the applicant would be approximately \$17,000 (34 units X \$500 non-refundable membership).

<sup>9</sup> Staff report can be found online at: <https://esquimalt.ca.legistar.com/LegislationDetail.aspx?ID=3663&GUID=B883D3FE-6D24-4C02-9550-0339E2D847A4>. Staff Report-DEV-16-002.

## 7.0 SUMMARY

The proposed development is for 34 units and 37 off-street parking spaces - a parking supply rate of 1.09 spaces per unit. The Township's Parking Bylaw identifies a required minimum parking supply of 44 parking spaces; seven more than is proposed.

Parking demand was estimated for the site based vehicle ownership data and observations of representative study sites. Results suggest an expected parking demand of 28 resident vehicles and 3 visitor vehicles – a total site parking demand of 31 vehicles. Site parking demand is expected to be accommodated within the proposed off-street parking supply and without impacting the surrounding neighbourhood.

Long- and short-term bicycle parking will be provided, consistent with the policy in the Township's OCP (1.5 long-term bike parking spaces per unit and a six-space rack at the building entrance).

## 7.1 RECOMMENDATIONS

1. It is recommended that the Township grant the requested variance to the minimum parking supply to allow for provision of 37 parking spaces (1.09 space per unit); and



## 833 / 835 DUNSMUIR ROAD DEVELOPMENT

### Traffic Impact Assessment

Prepared for: GT Mann Contracting  
Prepared by: **Watt Consulting Group**  
Our File: 2258.B01  
Date: December 11, 2017



## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Study Area .....	1
<b>2.0</b>	<b>EXISTING CONDITIONS .....</b>	<b>2</b>
2.1	Land Use .....	2
2.2	Road Network .....	2
2.3	Traffic Count .....	2
2.4	Traffic Modelling – Background Information .....	2
2.5	Existing Traffic – Results.....	3
<b>3.0</b>	<b>POST DEVELOPMENT CONDITIONS .....</b>	<b>3</b>
3.1	Proposed Land Use .....	3
3.2	Site Access .....	3
3.3	Trip Generation.....	4
3.4	Trip Assignment.....	5
3.5	Post Development Traffic Analysis Results - Full Build Out.....	5
<b>4.0</b>	<b>SAFETY AND GEOMETRICS .....</b>	<b>7</b>
4.1	Access Spacing and Grades .....	7
4.2	Sight Distance.....	7
4.2.1	Design Speed .....	7
4.2.2	Sight Distances .....	7
<b>5.0</b>	<b>OTHER MODES.....</b>	<b>8</b>
5.1	Pedestrians and Cyclists.....	8
5.2	Transit.....	8
<b>6.0</b>	<b>CONCLUSIONS.....</b>	<b>9</b>
<b>7.0</b>	<b>RECOMMENDATIONS.....</b>	<b>9</b>

## APPENDICES

- Appendix A: Synchro Background
- Appendix B: 2017 Existing Conditions
- Appendix C: 2017 Post Development Conditions

## LIST OF FIGURES

Figure 1: Study Area and Site Location .....	1
Figure 2: Existing PM Volumes and Levels of Service.....	3
Figure 3: Proposed Site Plan and Access .....	4
Figure 4: Site Trip Assignment .....	5
Figure 5: 2017 Post Development PM Volumes and Levels of Service .....	6

## LIST OF TABLES

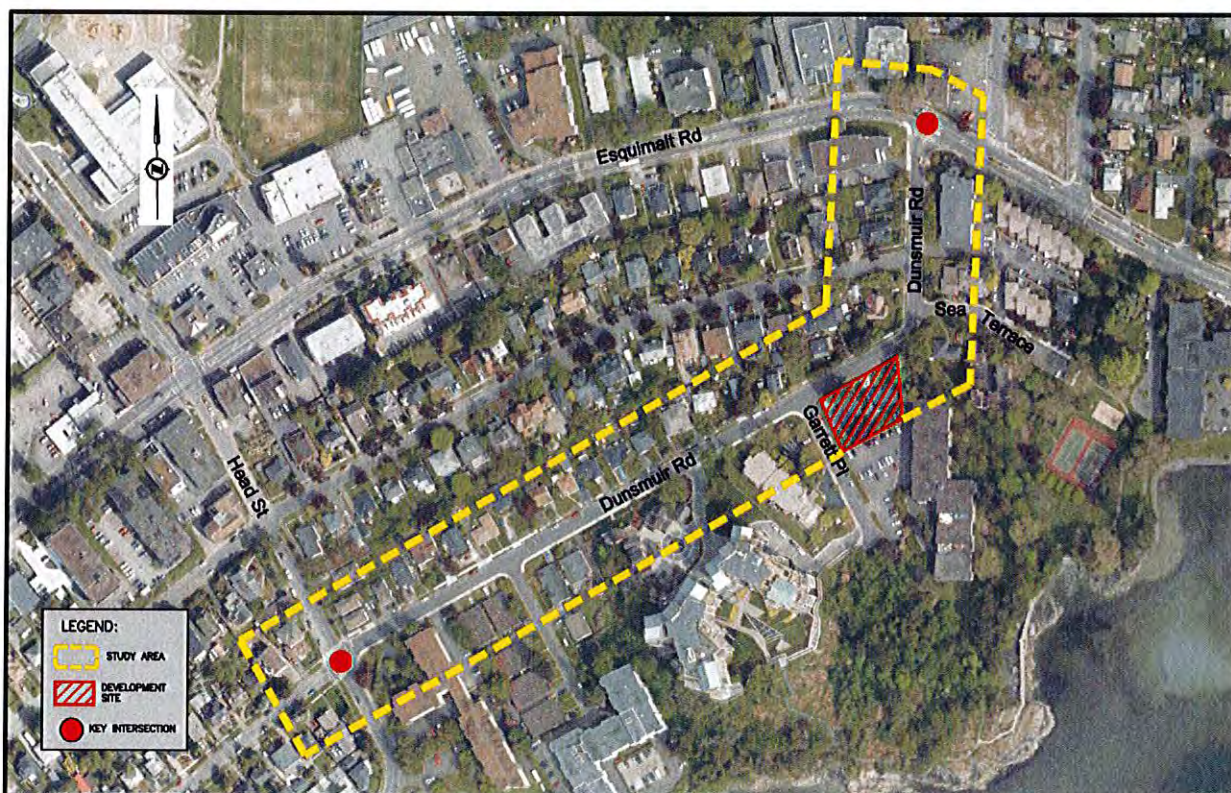
Table 1: PM Peak Hour Trip Generation .....	4
Table 2: 2017 PM Peak Conditions at Esquimalt RD/Dunsmuir Rd.....	6
Table 3: 2017 PM Peak Conditions at Head St/ Dunsmuir rd .....	6
Table 4: Sight Distances at Site Access on Dunsmuir Rd .....	8

## 1.0 INTRODUCTION

Watt Consulting Group was retained by GT Mann Contracting to conduct a traffic impact assessment for the proposed residential development at 833 / 835 Dunsmuir Road in the Township of Esquimalt, BC. An analysis of post-development conditions was undertaken in order to provide a clear view of the impacts at two key intersections on Dunsmuir Road. The proposed site access location (underground parkade ramp) was also reviewed to establish the functionality and safety of the access. Study recommendations and conclusions are to provide safe and efficient movement of vehicular traffic for the proposed development while minimizing the impact to non-site trips.

### 1.1 STUDY AREA

The development site is located at the south-east corner of Dunsmuir Road / Garrett Place. The study area includes Dunsmuir Road, Esquimalt Road, Head Street, Garrett Place and the site access. There are two key intersections in the study area: Esquimalt Road / Dunsmuir Road and Head Street / Dunsmuir Road. See **Figure 1** for the study area and site location.



**Figure 1: Study Area and Site Location**



## 2.0 EXISTING CONDITIONS

### 2.1 LAND USE

There are two single family houses on the existing site (two residential lots). The surrounding land use is a mix of single-family and multi-family residential along Dunsmuir Road. To the north is a commercial area along Esquimalt Road.

### 2.2 ROAD NETWORK

Dunsmuir Road is a residential east-west local road with on-street parking along the north side in the study area. It connects to Esquimalt Road east of the development site. Esquimalt Road is an east-west major road with a three-lane cross section (centre medians or two-way left turn lane) through the town. There are bike lanes on Esquimalt Road for both sides. Head Street is a two-lane collector road running north-south.

At the intersection of Esquimalt Road / Dunsmuir Road, the northbound turn movement is stop control with channelization (right out only). There is a dedicated left turn lane on Esquimalt Road at Dunsmuir Road. A 30 km/h speed limit sign is posted on Esquimalt Road at Dunsmuir Road. Head Street / Dunsmuir Road is stop controlled for Dunsmuir Rd with a zebra crosswalk across each leg of Head Street. On Dunsmuir Road adjacent to the development site, traffic calming measures have been implemented including a speed hump and a crosswalk with curb extensions.

### 2.3 TRAFFIC COUNT

Turning movement counts were undertaken at the two key intersections (Esquimalt Road / Dunsmuir Road and Head Street / Dunsmuir Road) in the PM peak hour on September 14, 2017. See **Figure 2** for the 2017 existing peak hour traffic volumes. At the two study intersections, 2017 traffic volumes did not increase compared with previous counts (measured in the early 2000s).

### 2.4 TRAFFIC MODELLING – BACKGROUND INFORMATION

Analysis of the traffic conditions at the intersections within the study area were undertaken using Synchro software (for signalized and stop-controlled intersections).

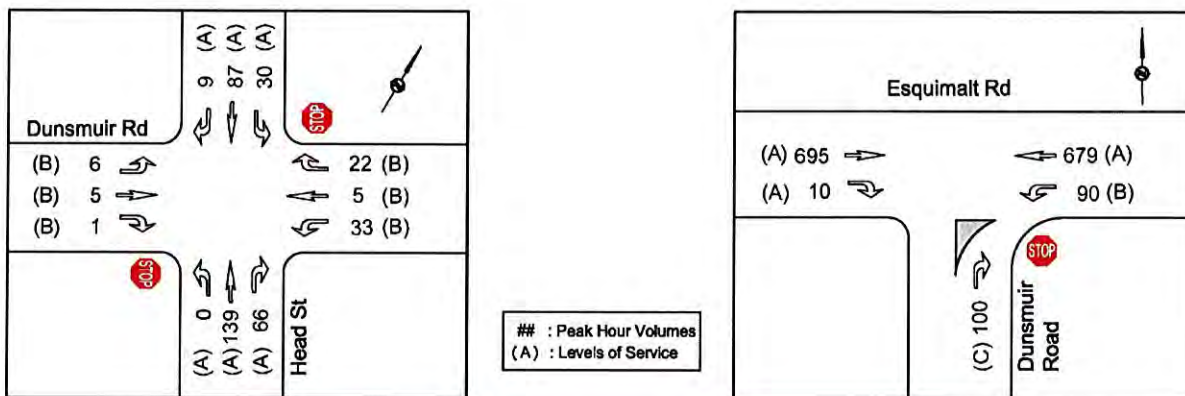
Synchro / SimTraffic is a two-part traffic modelling software that provides analysis of traffic conditions based on traffic control, geometry, volumes and traffic operations. Synchro software (Synchro 8) is used because of its ability to provide analysis using the Highway Capacity Manual (2010) methodology, while SimTraffic integrates established driver behaviours and characteristics to simulate actual conditions by randomly “seeding” or positioning vehicles travelling throughout the network. These measures of effectiveness include level of service (LOS), delay and 95th percentile queue length.

The type of traffic control are analyzed to determine the level of service and delays. The level of services are broken down into six letter grades with LOS A being excellent operations and LOS F being unstable/failure operations. Level of service C is generally considered to be an acceptable

LOS by most municipalities. Level of service D is generally considered to be on the threshold between acceptable and unacceptable operations. A description of level of service and Synchro is provided in **Appendix A**.

## 2.5 EXISTING TRAFFIC – RESULTS

Existing traffic conditions were analyzed at the two key intersections within the study. All movements operate a LOS A/B except the northbound right turn movement (stop control: LOS C) from Dunsmuir onto Esquimalt Road in the PM peak hour. See **Figure 2** for the 2017 existing peak hour volumes and levels of service.



**Figure 2: Existing PM Volumes and Levels of Service**

## 3.0 POST DEVELOPMENT CONDITIONS

### 3.1 PROPOSED LAND USE

The proposed development is a multi-family residential building with a total of 34 multi-family units as of December 11, 2017. At the time of this study commencement 36 units were proposed, and this is the number assessed in this report. Therefore this analysis is a slightly conservative assessment.

### 3.2 SITE ACCESS

A site access (ramp to underground parkade) is proposed on Dunsmuir Road at a middle point of the development frontage. The proposed access is located just east of the existing speed hump on Dunsmuir Road. See **Figure 3** for the proposed site plan and accesses.



**Figure 3: Proposed Site Plan and Access**

### 3.3 TRIP GENERATION

Site trips were estimated using the *ITE Trip Generation Manual (9<sup>th</sup> Edition)*. The *Trip Generation Manual* provides trip rates for a wide variety of land uses gathered from actual sites across North America over the past 35 years. The site trips were estimated for the PM peak hour which reflects a recurring worst case time period of weekdays.

**Table 1** summarizes trip generation for the proposed land use. The proposed land use (multi-family residential) is assumed an apartment building since trip generation (ITE rates) by rental apartments is slightly greater than ownership condominiums. The development will generate 20 new trips in the PM peak hour after the existing trip deduction. A residential development does not generate pass-by trips. The generated site trips are considered all primary trips within the study area.

**TABLE 1: PM PEAK HOUR TRIP GENERATION**

ITE Code	Land Use	Size	Trip Rate	Total Trips	Trips In	Trips Out
220	Multi-family Residential (Apartment Building)	36 units	0.62 trips/unit	22	14	8
210	Existing Trip Deduction (Single-family)	2 units	1.00 trip/unit	(-2)	(-1)	(-1)
			Net Trips Total	20	13	7

### 3.4 TRIP ASSIGNMENT

The site trip assignment is based on the existing trip distributions at the study intersections and commuter traffic patterns. The following summarizes directional split percentages of the site trips at the two key intersections within the study area.

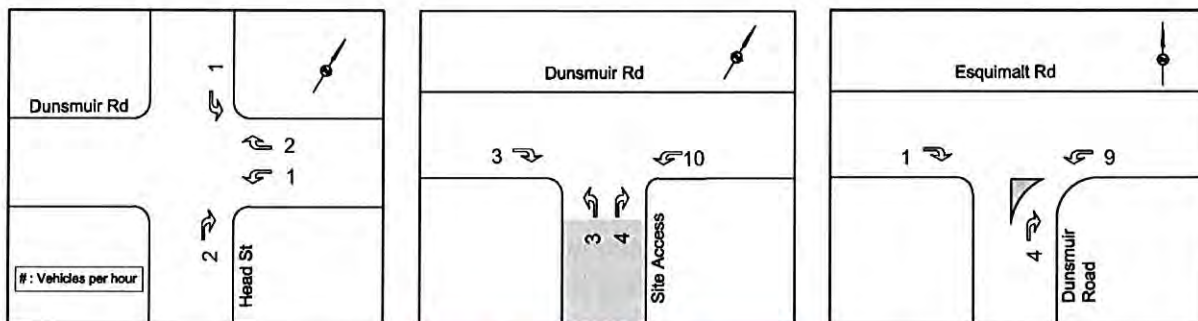
#### Trips In (PM Peak Hour : 13 Vehicles)

- 70% of site trips are from Esquimalt Rd westbound (9 Veh)
- 10% of site trips are from Esquimalt Rd eastbound (1 Veh)
- 10% of site trips are from Head St southbound (1 Veh)
- 10% of site trips are from Head St northbound (2 Veh)

#### Trips Out (PM Peak Hour : 7 Vehicles)

- 60% of site trips are to Esquimalt Rd eastbound (4 Veh)
- 25% of site trips are to Head St northbound (2 Veh)
- 15% of site trips are to Head St southbound (1 Veh)

See **Figure 4** for the site trip assignment at the access roads.



**Figure 4: Site Trip Assignment**

### 3.5 POST DEVELOPMENT TRAFFIC ANALYSIS RESULTS - FULL BUILD OUT

Based on the post-development analysis, all movements at the two key study area intersections will operate at the same levels of service as existing with the development and operate at a good LOS (C or better), and the additional average delay will be less than one second in the PM peak hour for all intersection movements.

No queuing issues were found with the development. At the intersection of Esquimalt Road / Dunsmuir Road, the westbound left 95<sup>th</sup> queue length (18.5m) will be accommodated within the existing storage length (20m). At the proposed site access on Dunsmuir Road, all movements will operate at a LOS A.

Based on the analysis results, the development will not trigger any mitigations measures at any of the study intersections.

**Table 2** and **3** summarize delays and queues for 2017 existing and post development at the two study intersections. **Figure 5** summarize post-development volumes and levels of service at the key intersections.

**TABLE 2: 2017 PM PEAK CONDITIONS AT ESQUIMALT RD/DUNSMUIR RD**

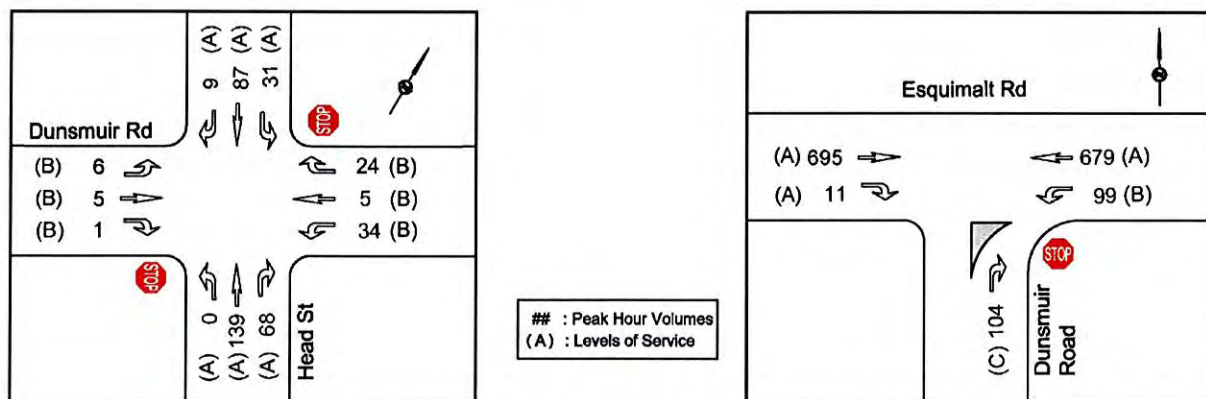
Movement	Existing			Post Development		
	LOS	Delay (s)	95 <sup>th</sup> Queue (m)	LOS	Delay (s)	95 <sup>th</sup> Queue (m)
EBTR	A	0	4.7	A	0	4.8
WBL	B	10.0	17.2 (20)	B	10.1	18.5 (20)
WBT	A	0	11.8	A	0	23.2
NBR	C	17.9	21.1	C	18.1	23.5

\*Notes: EB & WB = Esquimalt Rd, NB = Dunsmuir Rd; 95th Queues based on SimTraffic results, (##) = existing turn lane length

**TABLE 3: 2017 PM PEAK CONDITIONS AT HEAD ST/ DUNSMUIR RD**

Movement	Existing			Post Development		
	LOS	Delay (s)	95 <sup>th</sup> Queue (m)	LOS	Delay (s)	95 <sup>th</sup> Queue (m)
EB	B	12.7	13.0	B	12.8	12.5
WB	B	13.0	18.9	B	13.0	18.6
NB	A	0	3.1	A	0	3.3
SBL	A	8	11.3	A	8	13.3

\*Notes: EB & WB = Dunsmuir Rd, NB & SB = Head St; 95th Queues based on SimTraffic results, (##) = existing turn lane length



**Figure 5: 2017 Post Development PM Volumes and Levels of Service**

## 4.0 SAFETY AND GEOMETRICS

The site access is proposed to intersect Dunsmuir Road. A safety review was undertaken for the proposed site access ramp to the underground parkade based on the Transportation Association of Canada (TAC)'s Geometric Design Guide for Canadian Roads and municipal design standards.

### 4.1 ACCESS SPACING AND GRADES

The proposed access is located the Dunsmuir Road 20m east of Garrett Place and 25m west from the adjacent driveway (at 831 Dunsmuir Road). The proposed access location exceeds the TAC's suggested minimum corner clearance for multi-family residential driveways of 5m to minor intersections and of 3m between driveways.

The proposed access and ramp design should conform to the municipal engineering specifications. According to the Township's Design and Construction Specifications (R-8: Driveway Grades), the maximum grade of driveway is 15%. Also, the driveway and finished boulevard grade must be at the same elevation at the center of the existing road surface and the minimum level distance is 7.5m for residential roads.

### 4.2 SIGHT DISTANCE

The provision of adequate sight distance for the exit maneuver from the driveway is one of the most critical elements for safety. The required sight distance is determined in consideration of the design speed of the intersecting roadway and the sight line requirements for approach and departure vehicles.

#### 4.2.1 DESIGN SPEED

Dunsmuir Road is designed with to a lower speed than a typical 50 km/h road based on the existing geometrics of the road. There is a curve section on Dunsmuir Road 40m east of the proposed site access location. The design speed of the road at the curve (curve radius of 16m) was calculated at 26 km/h based on the TAC's design guide (Chapter 3: Table 3.2.2 and Equation 3.2.3). There is a 30km/h speed warning sign before the curve for southbound-to-westbound traffic. To the west of the site access, there is a speed hump and a crosswalk with curb extensions which also serve to reduce vehicle speeds on Dunsmuir Road. Therefore, the design speed of Dunsmuir Rd is taken to be 40 km/h to the west of the site and 26km/h to the east (due to the sharp curve).

#### 4.2.2 SIGHT DISTANCES

At the proposed site access location on Dunsmuir Road, in-field sight distances were measured. **Table 4** is a summary of sight distances at the proposed site access on Dunsmuir Road. Sight distance looking to left (west) exceeds the minimum required turning sight distance (75m). However, sight lines looking to the right (east) are limited due to the road curvature and existing vegetation (boxwood hedge). At the access location, the available sight distance to the east is

54m under existing conditions (over the sidewalk line). This is less than recommended turning sight distance at 30 km/h (of 65m) but meets the minimum turning sight distance for 26 km/h (which is 54m)<sup>1</sup>, which is the design speed of the curve. On Dunsmuir Road, sight distances for approaching vehicles also exceed minimum stopping sight distance (50m) for 40 km/h from the west or 35m from the east. Therefore, the proposed site location meets the minimum turning sight distance requirements and exceeds stopping sight distance minimums. The curve warning advisory speed signage, however, is currently posted for higher than the design speed; reducing this advisory speed to 20 km/h would more accurately reflect the condition of the curve and better match sight line conditions for the site access.

**TABLE 4: SIGHT DISTANCES AT SITE ACCESS ON DUNSMUIR RD**

Sight Line Direction	Required Sight Distance	Measured at Site Access	Sight Distance Met?
Looking Left from Access	75m at 40 km/h	92m	Yes
Looking Right from Access	54m at 26 km/h	54m	Yes
Looking Forward along Dunsmuir – from West	50m (SSD)	90m	Yes
Looking Forward on Dunsmuir – from East	35m (SSD)	54m	Yes

## 5.0 OTHER MODES

### 5.1 PEDESTRIANS AND CYCLISTS

There is concrete sidewalk along the north side of Dunsmuir Road and asphalt sidewalk along the development frontage. Concrete sidewalk will be required along the development frontage of Dunsmuir Road.

There are bike lanes along both sides on Esquimalt Road and no bike lanes on Dunsmuir Road. On Dunsmuir Road, it is appropriate for cyclists to share the road with motorists given it is a local road with traffic calming. On site pedestrian/bicycle facilities should adhere to the Township specifications.

### 5.2 TRANSIT

There are two transit bus routes adjacent to or near the site; one (#25) is on Dunsmuir Road and the other (#15) is on Esquimalt Road. These bus routes connect the Esquimalt town centre to Downtown Victoria or UVic several times per hour on weekdays. The closest bus stop (#25) is on Dunsmuir Road 80m west of the proposed site and a bus stop for the route #15 is on Esquimalt Road within a walking distance (250m) from the development.

<sup>1</sup> Eq. 9.9.1, Pg 67, Chapter 9 – Intersections, TAC Geometric Design Guide for Canadian Roads

## 6.0 CONCLUSIONS

The following conclusions are made regarding the traffic impact assessment for the proposed 34-unit development at 833/855 Dunsmuir Road. In terms of operational impacts, the proposed development will not impact the two intersections the study area. Esquimalt Road / Dunsmuir Road and Head Street / Dunsmuir Road will operate with the same levels of service and without adverse queues in the post development period. The development does not trigger any traffic capacity mitigation requirements.

The proposed access location meets TAC's access spacing requirements and the access (ramp) should be designed based on the municipal standards. The Dunsmuir Road horizontal curve to the east of the site is constructed with a design speed of 26 km/h, and this represents the design speed to the east of the access location. Turning sight distance is just met looking east, and exceeds minimum requirements looking west. The existing southbound-to-westbound curve warning sign has an advisory speed of 30 km/h. This is higher than the design speed and therefore a consideration is to reduce this advisory speed to 20 km/h to better reflect as-built conditions.

There are sidewalks on both sides of Dunsmuir Road, and a concrete sidewalk will be required along the development frontage on Dunsmuir Road. Cyclists are accommodated on-street, with traffic calming serving to limit vehicle speeds. The area is well served by two BC Transit routes.

## 7.0 RECOMMENDATIONS

The following measures are recommended:

- The proposed site access (ramp to underground parking) should be designed based on the municipal standards.
- Provide a concrete sidewalk along the development frontage of Dunsmuir Road to municipal standards
- Modify the existing curve warning sign advisory speed for southbound-to-westbound drivers from 30 km/h to 20 km/h to better match the curve design.



## APPENDIX A: SYNCHRO BACKGROUND

## SYNCHRO MODELLING SOFTWARE DESCRIPTION

The traffic analysis was completed using Synchro and SimTraffic traffic modeling software. Results were measured in delay, level of service (LOS) and 95th percentile queue length. Synchro is based on the Highway Capacity Manual (HCM) methodology. SimTraffic integrates established driver behaviours and characteristics to simulate actual conditions by randomly “seeding” or positioning vehicles travelling throughout the network. The simulation is run five times (five different random seedings of vehicle types, behaviours and arrivals) to obtain statistical significance of the results.

### Levels of Service

Traffic operations are typically described in terms of levels of service, which rates the amount of delay per vehicle for each movement and the entire intersection. Levels of service range from LOS A (representing best operations) to LOS E/F (LOS E being poor operations and LOS F being unpredictable/disruptive operations). LOS E/F are generally unacceptable levels of service under normal everyday conditions.

The hierarchy of criteria for grading an intersection or movement not only includes delay times, but also takes into account traffic control type (stop signs or traffic signal). For example, if a vehicle is delayed for 19 seconds at an unsignalized intersection, it is considered to have an average operation, and would therefore be graded as an LOS C. However, at a signalized intersection, a 19 second delay would be considered a good operation and therefore it would be given an LOS B. The table below indicates the range of delay for LOS for signalized and unsignalized intersections.

**Table A1: LOS Criteria, by Intersection Traffic Control**

Level of Service	Unsignalized Intersection Average Vehicle Delay (sec/veh)	Signalized Intersection Average Vehicle Delay (sec/veh)
A	Less than 10	Less than 10
B	10 to 15	11 to 20
C	15 to 25	20 to 35
D	25 to 35	35 to 55
E	35 to 50	55 to 80
F	More than 50	More than 80

## **APPENDIX B: 2017 EXISTING CONDITIONS**

**Intersection**

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↑	↑		↑
Traffic Vol, veh/h	695	10	90	679	0	100
Future Vol, veh/h	695	10	90	679	0	100
Conflicting Peds, #/hr	0	21	21	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	200	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	63	78	83	92	93
Heavy Vehicles, %	5	0	2	5	0	3
Mvmt Flow	747	16	115	818	0	108

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	784	0	-	778
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.327
Pot Cap-1 Maneuver	-	-	834	-	0	395
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	832	-	-	386
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	386	-	-	832	-
HCM Lane V/C Ratio	0.279	-	-	0.139	-
HCM Control Delay (s)	17.9	-	-	10	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	0.5	-

2: Head St & Dunsmuir Rd

09/20/2017

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	6	5	1	33	5	22	0	139	66	30	87	9
Future Vol, veh/h	6	5	1	33	5	22	0	139	66	30	87	9
Conflicting Peds, #/hr	3	0	5	5	0	3	12	0	32	32	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	42	25	75	63	92	92	77	83	75	81	56
Heavy Vehicles, %	0	0	0	6	0	0	0	12	3	3	20	0
Mvmt Flow	12	12	4	44	8	24	0	181	80	40	107	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	446	499	132	460	467	255	135	0	0	292	0	0
Stage 1	207	207	-	252	252	-	-	-	-	-	-	-
Stage 2	239	292	-	208	215	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.16	6.5	6.2	4.1	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.554	4	3.3	2.2	-	-	2.227	-	-
Pot Cap-1 Maneuver	526	476	923	505	496	789	1462	-	-	1264	-	-
Stage 1	800	734	-	743	702	-	-	-	-	-	-	-
Stage 2	769	675	-	785	729	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	483	440	908	463	459	762	1455	-	-	1260	-	-
Mov Cap-2 Maneuver	483	440	-	463	459	-	-	-	-	-	-	-
Stage 1	791	701	-	720	680	-	-	-	-	-	-	-
Stage 2	734	654	-	739	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	13	0	1.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1455	-	-	496	528	1260	-	-
HCM Lane V/C Ratio	-	-	-	0.056	0.144	0.032	-	-
HCM Control Delay (s)	0	-	-	12.7	13	8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0.1	-	-

**Intersection: 1: Dunsmuir Rd & Esquimalt Rd**

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	R
Maximum Queue (m)	9.1	20.3	22.8	26.3
Average Queue (m)	0.5	10.7	1.5	12.5
95th Queue (m)	4.7	17.2	11.8	21.1
Link Distance (m)	243.6		215.2	74.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		20.0		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		3	0	

**Intersection: 2: Head St & Dunsmuir Rd**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.5	24.5	6.4	15.6
Average Queue (m)	5.9	10.8	0.3	3.1
95th Queue (m)	13.0	18.9	3.1	11.3
Link Distance (m)	124.6	307.5	107.1	117.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Zone Summary**

Zone wide Queuing Penalty: 3

## **APPENDIX C: 2017 POST DEVELOPMENT CONDITIONS**

**Intersection**

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↖		↗
Traffic Vol, veh/h	695	11	99	679	0	104
Future Vol, veh/h	695	11	99	679	0	104
Conflicting Peds, #/hr	0	21	21	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	200	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	63	78	83	92	93
Heavy Vehicles, %	5	0	2	5	0	3
Mvmt Flow	747	17	127	818	0	112

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	786	0	-	779
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.327
Pot Cap-1 Maneuver	-	-	833	-	0	394
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	831	-	-	385
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	831	-
HCM Lane V/C Ratio	0.29	-	-	0.153	-
HCM Control Delay (s)	18.1	-	-	10.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.2	-	-	0.5	-



**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	6	5	1	34	5	24	0	139	68	31	87	9
Future Vol, veh/h	6	5	1	34	5	24	0	139	68	31	87	9
Conflicting Peds, #/hr	3	0	5	5	0	3	12	0	32	32	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	42	25	75	63	92	92	77	83	75	81	56
Heavy Vehicles, %	0	0	0	6	0	0	0	12	3	3	20	0
Mvmt Flow	12	12	4	45	8	26	0	181	82	41	107	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	451	504	132	464	471	256	135	0	0	294	0	0
Stage 1	210	210	-	253	253	-	-	-	-	-	-	-
Stage 2	241	294	-	211	218	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.16	6.5	6.2	4.1	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.554	4	3.3	2.2	-	-	2.227	-	-
Pot Cap-1 Maneuver	522	473	923	502	494	788	1462	-	-	1262	-	-
Stage 1	797	732	-	742	701	-	-	-	-	-	-	-
Stage 2	767	673	-	782	726	-	-	-	-	-	-	-
Platoon blocked, %										-	-	-
Mov Cap-1 Maneuver	477	437	908	459	457	761	1455	-	-	1258	-	-
Mov Cap-2 Maneuver	477	437	-	459	457	-	-	-	-	-	-	-
Stage 1	788	698	-	719	679	-	-	-	-	-	-	-
Stage 2	730	652	-	735	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	13	0	2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1455	-	-	491	528	1258	-	-
HCM Lane V/C Ratio	-	-	-	0.057	0.15	0.033	-	-
HCM Control Delay (s)	0	-	-	12.8	13	8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0.1	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↑		↑	
Traffic Vol, veh/h	100	3	10	100	3	4
Future Vol, veh/h	100	3	10	100	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	80	85	92	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	4	12	109	4	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	243	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1478	-	745	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1478	-	738	942
Mov Cap-2 Maneuver	-	-	-	-	738	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	842	-	-	1478	-
HCM Lane V/C Ratio	0.01	-	-	0.008	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

**Intersection: 1: Dunsmuir Rd & Esquimalt Rd**

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	R
Maximum Queue (m)	10.6	22.2	45.2	28.9
Average Queue (m)	0.5	11.1	2.4	13.3
95th Queue (m)	4.8	18.5	23.2	23.5
Link Distance (m)	243.6		254.8	74.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		20.0		
Storage Blk Time (%)		1	0	
Queuing Penalty (veh)		8	0	

**Intersection: 2: Head St & Dunsmuir Rd**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.2	26.1	5.5	18.3
Average Queue (m)	5.2	9.8	0.4	4.1
95th Queue (m)	12.5	18.6	3.3	13.3
Link Distance (m)	124.6	305.6	107.1	117.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 10: Site Access & Dunsmuir Rd**

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	7.4	9.2
Average Queue (m)	0.4	2.4
95th Queue (m)	3.3	9.0
Link Distance (m)	67.5	72.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Network Summary**

Network wide Queuing Penalty: 8



## GREEN BUILDING CHECKLIST

The purpose of this Checklist is to make property owners and developers aware of specific green features that can be included in new developments to reduce their carbon footprints to help create a more sustainable community.

Creating walkable neighbourhoods, fostering green building technologies, making better use of our limited land base and ensuring that new development is located close to services, shops and transit are some of the means of achieving sustainability.

The Checklist which follows focuses on the use of **Green Technologies** in new buildings and major renovations. The Checklist is not a report card, it is a tool to help identify how your project can become 'greener' and to demonstrate to Council how your project will help the Township of Esquimalt meet its sustainability goals. It is not expected that each development will include all of the ideas set out in this list but Council is looking for a strong commitment to green development.

There are numerous green design standards, for example, Built Green BC; LEED ND; Living Building Challenge; Green Shores; Sustainable Sites Initiative. Esquimalt is not directing you to follow any particular standard, however, you are strongly encouraged to incorporate as many green features as possible into the design of your project .

As you review this checklist, if you have any questions please contact **Development Services at 250.414.7108** for clarification.

**New development is essential to Esquimalt.  
We look forward to working with you  
to ensure that development is  
as green and sustainable as possible.**

Other documents containing references to building and site design and sustainability, which you are advised to review, include:

- Esquimalt's Official Community Plan
- Development Protocol Policy
- Esquimalt's Pedestrian Charter
- Tree Protection Bylaw No. 2664
- A Sustainable Development Strategic Plan for the Township of Esquimalt



“One-third of Canada’s energy use goes to running our homes, offices and other buildings. The federal government’s Office of Energy Efficiency (Natural Resources Canada) reports that a corresponding one-third of our current greenhouse gas (GHG) emissions come from the built environment.”  
 [Green Building and Development as a Public Good, Michael Buzzelli, CPRN Research Report June 2009]

Please answer the following questions and describe the green and innovative features of your proposed development. Depending on the size and scope of your project, some of the following points may not be applicable.

### Green Building Standards

*Both energy use and emissions can be reduced by changing or modifying the way we build and equip our buildings.*

1	Are you building to a recognized green building standard? If yes, to what program and level? <u>BUILT GREEN</u>	Yes 	No
2	If not, have you consulted a Green Building or LEED consultant to discuss the inclusion of green features?	Yes	No
3	Will you be using high-performance building envelope materials, rainscreen siding, durable interior finish materials or safe to re-use materials in this project? If so, please describe them. <u>TO MEET NECB 2011</u>	Yes 	No
4	What percentage of the existing building[s], if any, will be incorporated into the new building?	<u>N/A</u> %	
5	Are you using any locally manufactured wood or stone products to reduce energy used in the transportation of construction materials? Please list any that are being used in this project. <u>TBD DURING FURTHER DETAILED DESIGN</u>		
6	Have you considered advanced framing techniques to help reduce construction costs and increase energy savings?	Yes 	No
7	Will any wood used in this project be eco-certified or produced from sustainably managed forests? If so, by which organization? <u>FOREST STEWARDSHIP COUNCIL (FSC) OR SUSTAINABLE FORESTRY INITIATIVE</u>  For which parts of the building (e.g. framing, roof, sheathing etc.)? <u>SHEATHING</u>		
8	Can alternatives to Chlorofluorocarbon’s and Hydro-chlorofluorocarbons which are often used in air conditioning, packaging, insulation, or solvents] be used in this project? If so, please describe these. _____ <u>THE GOAL WILL BE TO MINIMIZE USE OF CFC AND HCFC - TBD DURING FURTHER DETAILED DESIGN</u>	Yes 	No
9	List any products you are proposing that are produced using lower energy levels in manufacturing. <u>TBD DURING FURTHER DETAILED DESIGN</u>		
10	Are you using materials which have a recycled content [e.g. roofing materials, interior doors, ceramic tiles or carpets]?	Yes 	No
11	Will any interior products [e.g. cabinets, insulation or floor sheathing] contain formaldehyde?	Yes	No 







## Water Management

*The intent of the following features is to promote water conservation, re-use water on site, and reduce storm water run-off.*


### Indoor Water Fixtures

12	Does your project exceed the BC Building Code requirements for public lavatory faucets and have automatic shut offs? N/A	Yes	No	
13	For commercial buildings, do flushes for urinals exceed BC Building Code requirements? N/A	Yes	No	
14	Does your project use dual flush toilets and do these exceed the BC Building Code requirements? TBD DURING FURTHER DETAILED DESIGN	Yes	No	
15	Does your project exceed the BC Building Code requirements for maximum flow rates for private showers? TBD DURING FURTHER DETAILED DESIGN	Yes	No	
16	Does your project exceed the BC Building Code requirements for flow rates for kitchen and bathroom faucets? TBD DURING FURTHER DETAILED DESIGN	Yes	No	

### Storm Water


17	If your property has water frontage, are you planning to protect trees and vegetation within 60 metres of the high water mark? [Note: For properties located on the Gorge Waterway, please consult Sections 7.1.2.1 and 9.6 of the Esquimalt Official Community Plan.]	Yes	No	N/A 
18	Will this project eliminate or reduce inflow and infiltration between storm water and sewer pipes from this property?	Yes	No	N/A 
19	Will storm water run-off be collected and managed on site (rain gardens, wetlands, or ponds) or used for irrigation or re-circulating outdoor water features? If so, please describe. <u>IMPERVIOUS SURFACES WILL BE MINIMIZED.</u>	Yes	No	N/A 
20	Have you considered storing rain water on site (rain barrels or cisterns) for future irrigation uses? IT HAS BEEN CONSIDERED, BUT IS NOT APPROPRIATE FOR THIS SITE	Yes 	No	N/A
21	Will surface pollution into storm drains will be mitigated (oil interceptors, bio-swales)? If so, please describe. <u>OIL INTERCEPTORS</u>	Yes 	No	N/A
22	Will this project have an engineered green roof system or has the structure been designed for a future green roof installation?	Yes	No 	N/A
23	What percentage of the site will be maintained as naturally permeable surfaces? IMPERVIOUS SURFACES WILL BE MINIMIZED - TBC DURING FURTHER DETAILED DESIGN			%

### Waste water

24	For larger projects, has Integrated Resource Management (IRM) been considered (e.g. heat recovery from waste water or onsite waste water treatment)? If so, please describe these. _____	Yes	No	N/A 
----	--	-----	----	--

## Natural Features/Landscaping

*The way we manage the landscape can reduce water use, protect our urban forest, restore natural vegetation and help to protect the watershed and receiving bodies of water.*

25	Are any healthy trees being removed? If so, how many and what species? <u>REFER TO REPORT PREPARED BY TALBOT MACKENZIE &amp; ASSOCIATES</u> Could your site design be altered to save these trees? NO Have you consulted with our Parks Department regarding their removal? YES	Yes 	No	N/A
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26	Will this project add new trees to the site and increase our urban forest? If so, how many and what species? <u>REFER TO LANDSCAPE PLAN</u>	Yes 	No	N/A
27	Are trees [existing or new] being used to provide shade in summer or to buffer winds?	Yes 	No	N/A
28	Will any existing native vegetation on this site be protected? If so, please describe where and how. _____	Yes	No	N/A 
29	Will new landscaped areas incorporate any plant species native to southern Vancouver Island?	Yes 	No	N/A
30	Will xeriscaping (i.e. the use of drought tolerant plants) be utilized in dry areas?	Yes 	No	N/A
31	Will high efficiency irrigation systems be installed (e.g. drip irrigation; 'smart' controls)?	Yes 	No	N/A
32	Have you planned to control invasive species such as Scotch broom, English ivy, Himalayan and evergreen blackberry growing on the property?	Yes	No	N/A 
33	Will topsoil will be protected and reused on the site?	Yes 	No	N/A

### Energy Efficiency

*Improvements in building technology will reduce energy consumption and in turn lower greenhouse gas [GHG] emissions. These improvements will also reduce future operating costs for building occupants.*

34	Will the building design be certified by an independent energy auditor/analyst? If so, what will the rating be? <u>TBD DURING FURTHER DETAILED DESIGN</u>	Yes 	No	N/A
35	Have you considered passive solar design principles for space heating and cooling or planned for natural day lighting?	Yes 	No	N/A
36	Does the design and siting of buildings maximize exposure to natural light? What percentage of interior spaces will be illuminated by sunlight? <u>55 - 60% +/- %</u>	Yes 	No	N/A
37	Will heating and cooling systems be of enhanced energy efficiency (ie. geothermal, air source heat pump, solar hot water, solar air exchange, etc.). If so, please describe. <u>TBD DURING FURTHER DETAILED DESIGN</u> If you are considering a heat pump, what measures will you take to mitigate any noise associated with the pump? _____	Yes	No	N/A
38	Has the building been designed to be solar ready?	Yes 	No	N/A
39	Have you considered using roof mounted photovoltaic panels to convert solar energy to electricity?	Yes	No	N/A 
40	Do windows exceed the BC Building Code heat transfer coefficient standards?	Yes 	No	N/A
41	Are energy efficient appliances being installed in this project? If so, please describe. <u>ENERGY STAR</u>	Yes 		
42	Will high efficiency light fixtures be used in this project? If so, please describe. <u>LED</u>	Yes 	No	N/A
43	Will building occupants have control over thermal, ventilation and light levels?	Yes 	No	N/A
44	Will outdoor areas have automatic lighting [i.e. motion sensors or time set]?	Yes 	No	N/A
45	Will underground parking areas have automatic lighting?	Yes 	No	N/A

### Air Quality

*The following items are intended to ensure optimal air quality for building occupants by reducing the use of products which give off gases and odours and allowing occupants control over ventilation.*

46	Will ventilation systems be protected from contamination during construction and certified clean post construction?	Yes	No	N/A
47	Are you using any natural, non-toxic, water soluble or low-VOC [volatile organic compound] paints, finishes or other products? If so, please describe. <u>TBD DURING FURTHER DETAILED DESIGN</u>	Yes	No	N/A
48	Will the building have windows that occupants can open?	Yes	No	N/A
49	Will hard floor surface materials cover more than 75% of the liveable floor area?	Yes	No	N/A
50	Will fresh air intakes be located away from air pollution sources?	Yes	No	N/A

### Solid Waste

*Reuse and recycling of material reduces the impact on our landfills, lowers transportation costs, extends the life-cycle of products, and reduces the amount of natural resources used to manufacture new products.*

51	Will materials be recycled during demolition of existing buildings and structures? If so, please describe. <u>EXPLORING OPTIONS REGARDING MOVING EXISTING HOUSES</u>	Yes	No	N/A
52	Will materials be recycled during the construction phase? If so, please describe. <u>WASTE WOOD</u>	Yes	No	N/A
53	Does your project provide enhanced waste diversion facilities i.e. on-site recycling for cardboard, bottles, cans and or recyclables or on-site composting?	Yes	No	N/A
54	For new commercial development, are you providing waste and recycling receptacles for customers?	Yes	No	N/A

### Green Mobility

*The intent is to encourage the use of sustainable transportation modes and walking to reduce our reliance on personal vehicles that burn fossil fuels which contributes to poor air quality.*

55	Is pedestrian lighting provided in the pathways through parking and landscaped areas and at the entrances to your building[s]?	Yes	No	N/A
56	For commercial developments, are pedestrians provided with a safe path[s] through the parking areas and across vehicles accesses?	Yes	No	N/A
57	Is access provided for those with assisted mobility devices?	Yes	No	N/A
58	Are accessible bike racks provided for visitors?	Yes	No	N/A
59	Are secure covered bicycle parking and dedicated lockers provided for residents or employees?	Yes	No	N/A
60	Does your development provide residents or employees with any of the following features to reduce personal automobile use [check all that apply]: <input type="checkbox"/> transit passes <input checked="" type="checkbox"/> car share memberships <input type="checkbox"/> shared bicycles for short term use <input type="checkbox"/> weather protected bus shelters <input checked="" type="checkbox"/> plug-ins for electric vehicles			

**Is there something unique or innovative about your project that has not been addressed by this Checklist? If so, please add extra pages to describe it.**

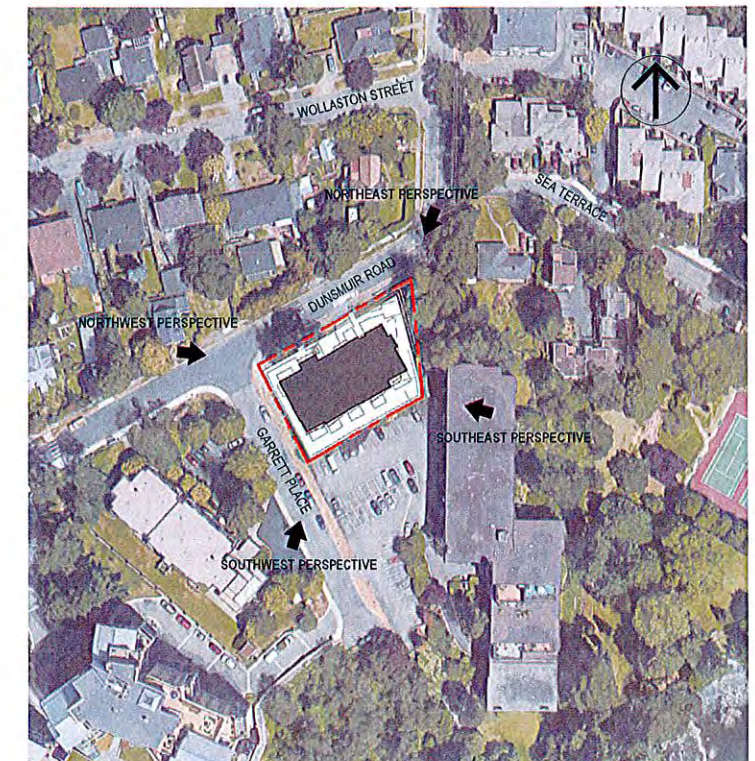


# DUNSMUIR 833 + 835

ISSUED FOR REZONING - 2017.12.12



VIEW FROM DUNSMUIR AT GARRETT



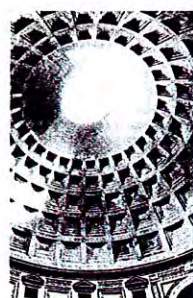
CONTEXT PLAN

## PROPOSED PROJECT INFORMATION

EXISTING ZONING	835 = RD-3 (2 FAMILY / 1 FAMILY) 833 = RM-4 (MULTI-FAMILY)	
REZONE TO	NEW COMPREHENSIVE ZONE	
SITE AREA	0.15 Ha / 0.37 Ac / 1,528 m <sup>2</sup> / 16,447 ft <sup>2</sup>	
NO. UNITS	34 (5 STOREYS)	
PARKING PROVIDED	35	
BIKE PARKING	51 + RACK FOR 6 AT ENTRANCE	
UNIT AREA (+/-)	50m <sup>2</sup> (538 ft <sup>2</sup> ) - 113 m <sup>2</sup> (1,216 ft <sup>2</sup> )	
TOTAL UNIT AREA	2,176 m <sup>2</sup> (23,422 ft <sup>2</sup> )	
BUILDING AREA	628 m <sup>2</sup> (6,760 ft <sup>2</sup> )	
FLOOR AREA RATIO	1.4 : 1	
COVERAGE	41%	
SETBACKS (PER RM-4)	FRONT 7.5m (24.6') REAR 7.5m (24.6') INTERIOR SIDE 6.0m (19.7') EXTERIOR SIDE 3.6m (11.8')	VARIANCE REQ'D: +2m @ ENTRY VARIANCE REQ'D: +1.9m @ S/E CORNER

## DRAWING LIST

A00	COVER PAGE
A01	SITE PLAN
A02	PARKADE
A03	LEVEL 1
A04	LEVEL 2
A05	LEVEL 3 - 4
A06	LEVEL 6
A07	ELEVATIONS
A08	SECTIONS
A09	STREET VIEWS
A10	SHADOW STUDIES
L1	LANDSCAPE PLAN



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

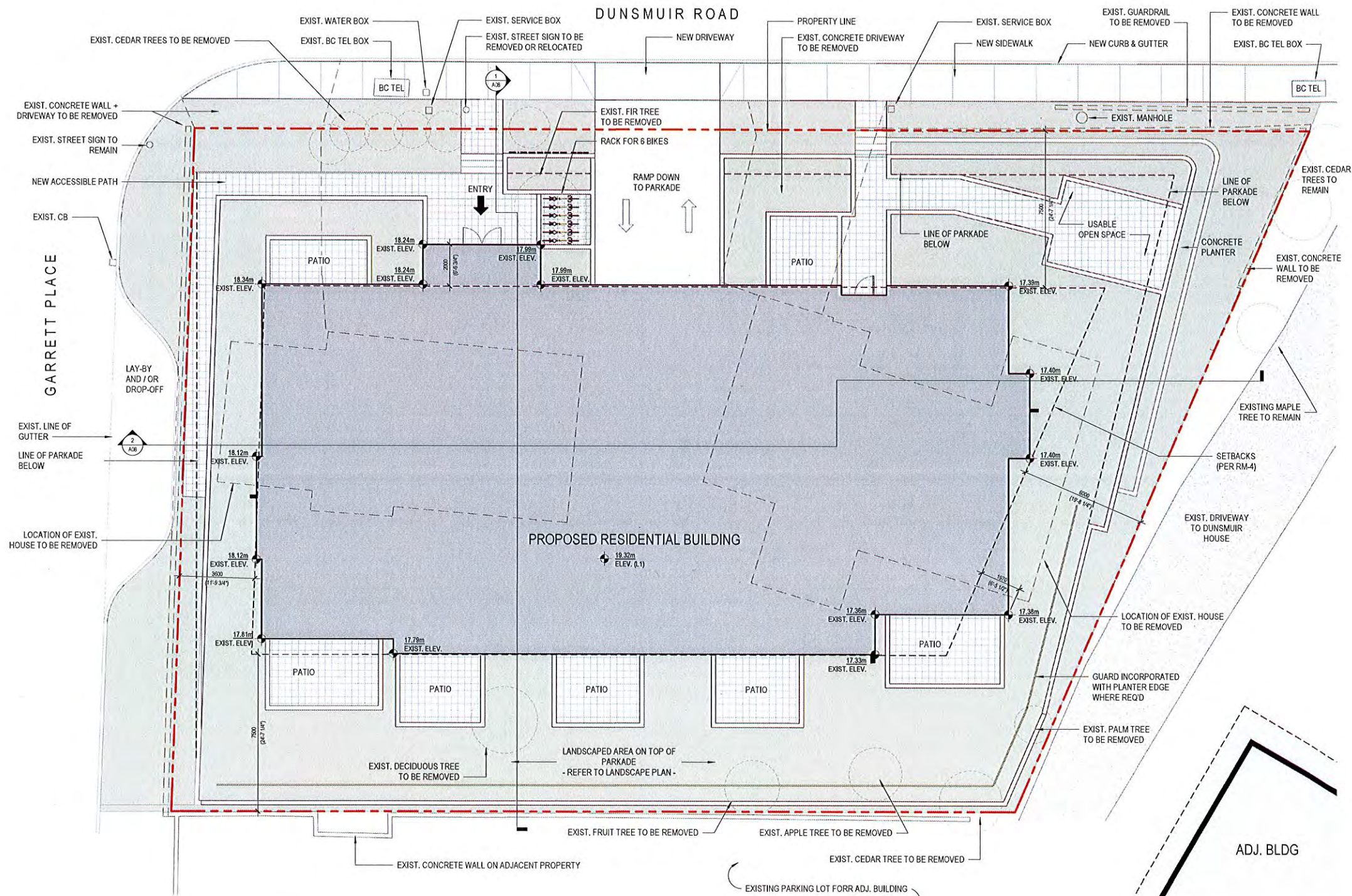
833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

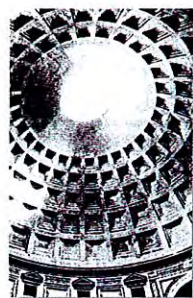
COVER PAGE

2018.01.30 - REVISED PER PLANNING

**A0.0**



1 SITE PLAN  
1:100



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architects inc.

DUNSMUIR 833 + 835

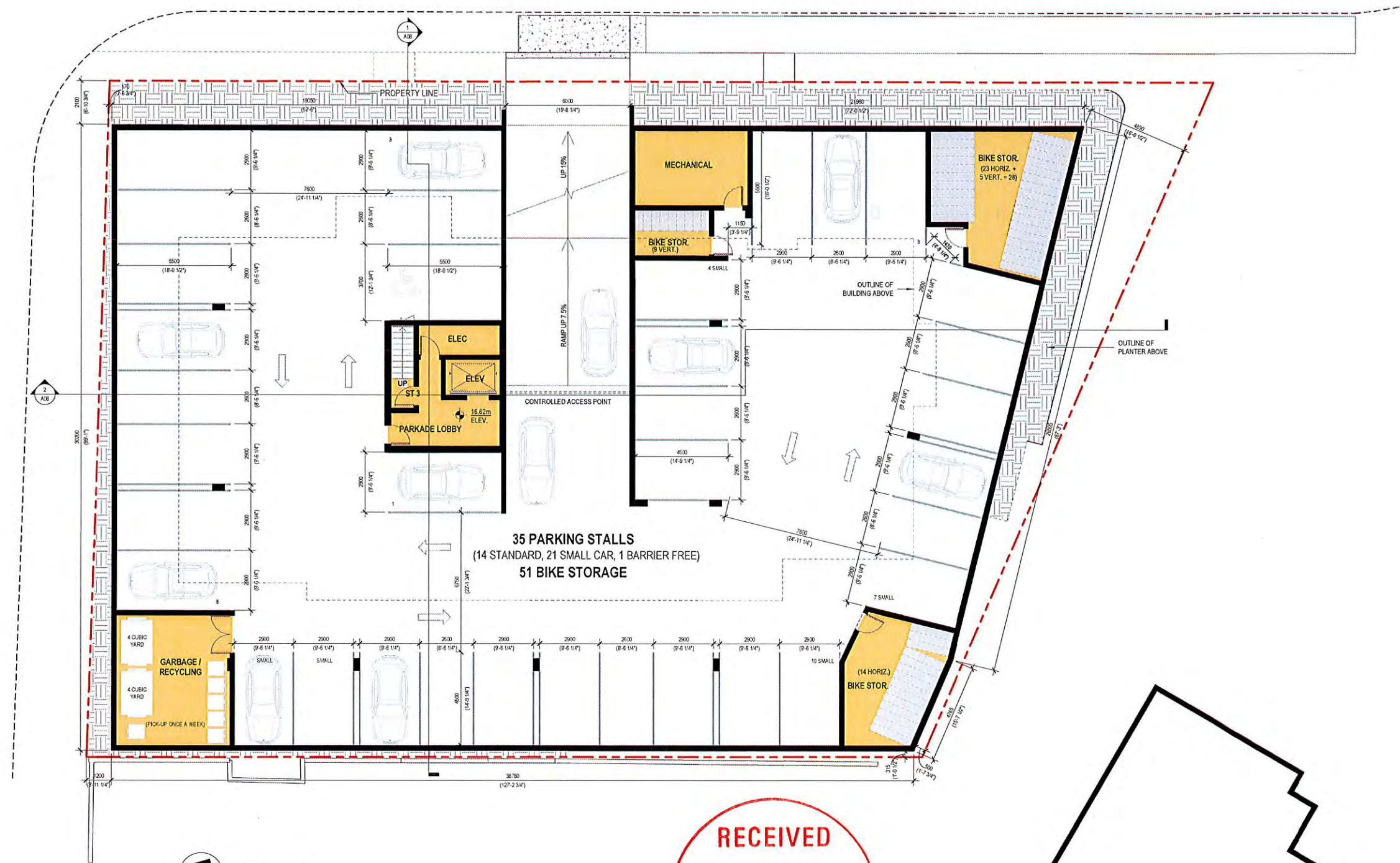
833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

SITE PLAN

2018.01.30 - REVISED PER PLANNING

**A01**



35 PARKING STALLS  
(14 STANDARD, 21 SMALL CAR, 1 BARRIER FREE)  
51 BIKE STORAGE

1 PARKADE  
1:100

RECEIVED  
FEB 07 2018  
CORP. OF TOWNSHIP  
OF ESQUIMALT  
DEVELOPMENT SERVICES



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

833/835 DUNSMUIR ROAD PROJECT NO. 17-012

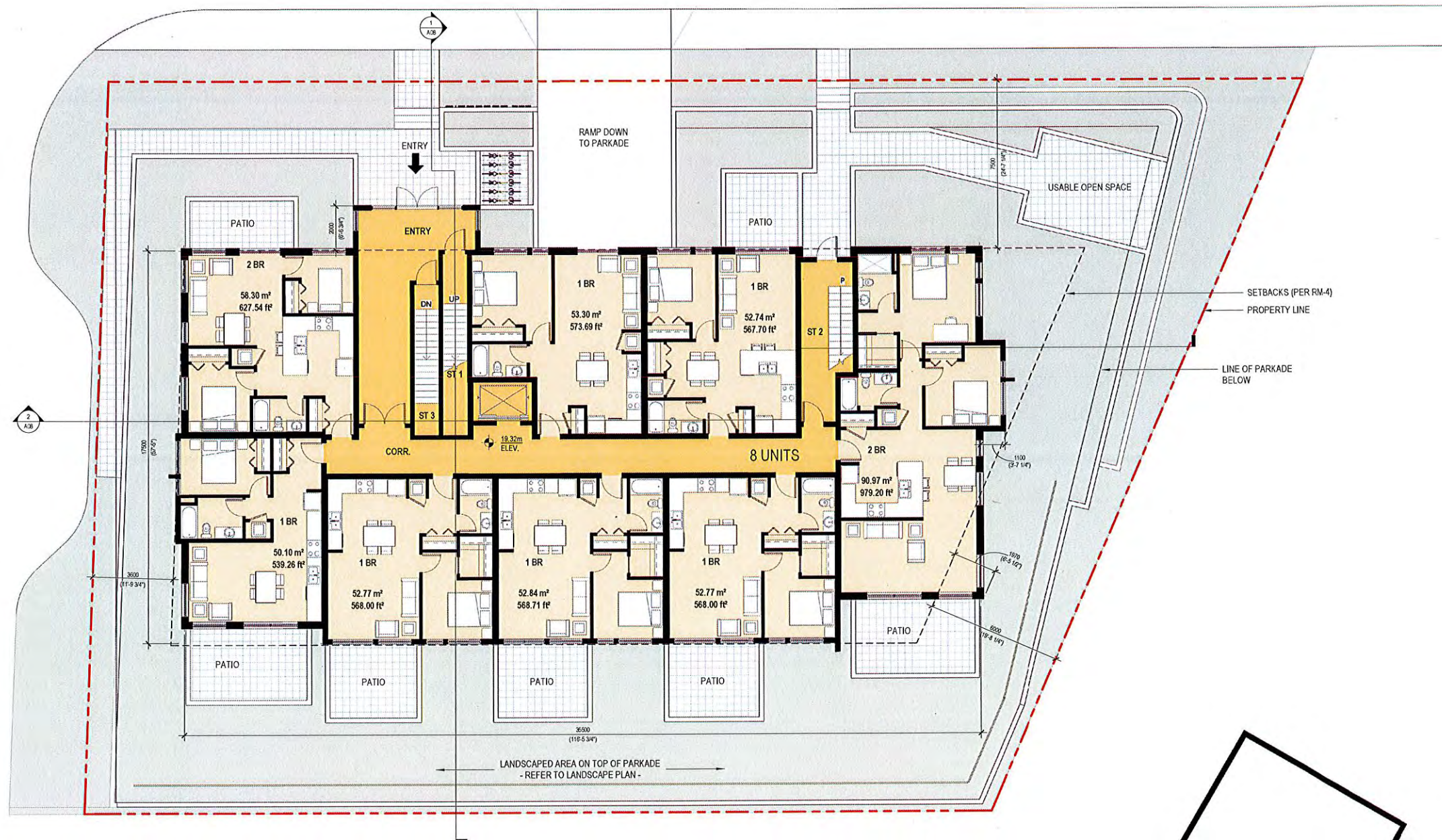
PARKADE

2018.01.30 - REVISED PER PLANNING

A02

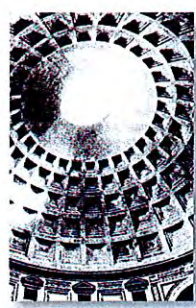
DUNSMUIR ROAD

GARRETT PLACE



① LEVEL 1  
1:100

RECEIVED  
 FEB 07 2018  
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 DEVELOPMENT SERVICES



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DUNSMUIR 833 + 835

833/835 DUNSMUIR ROAD PROJECT NO. 17-012

LEVEL 1

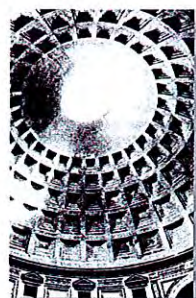
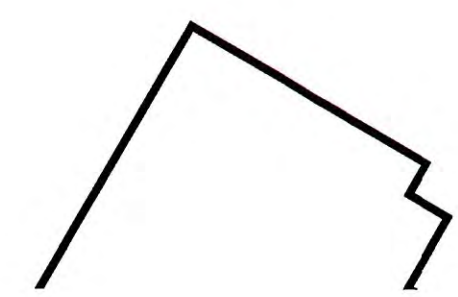
2018.01.30 - REVISED PER PLANNING

**A03**



① LEVEL 2  
1:100

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FEB 07 2018  
CORP. OF TOWNSHIP  
OF ESQUIMALT  
DEVELOPMENT SERVICES



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

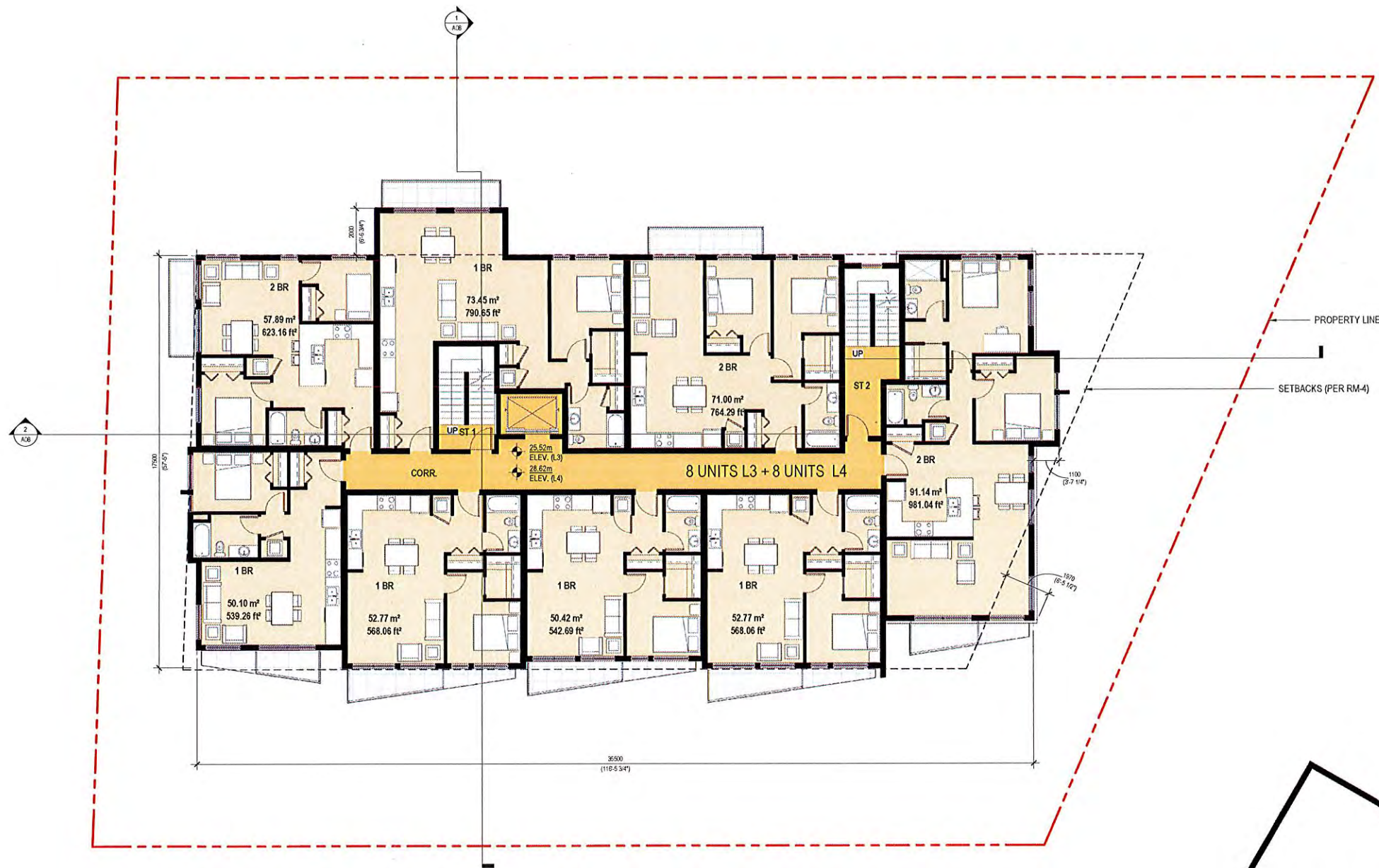
833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

LEVEL 2

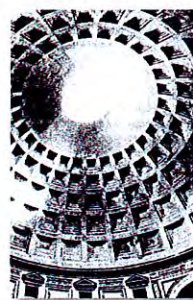
2018.01.30 - REVISED PER PLANNING

**A04**



1  
LEVEL 3-4  
1 : 100

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FEB 07 2018  
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OF ESQUIMALT  
DEVELOPMENT SERVICES



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

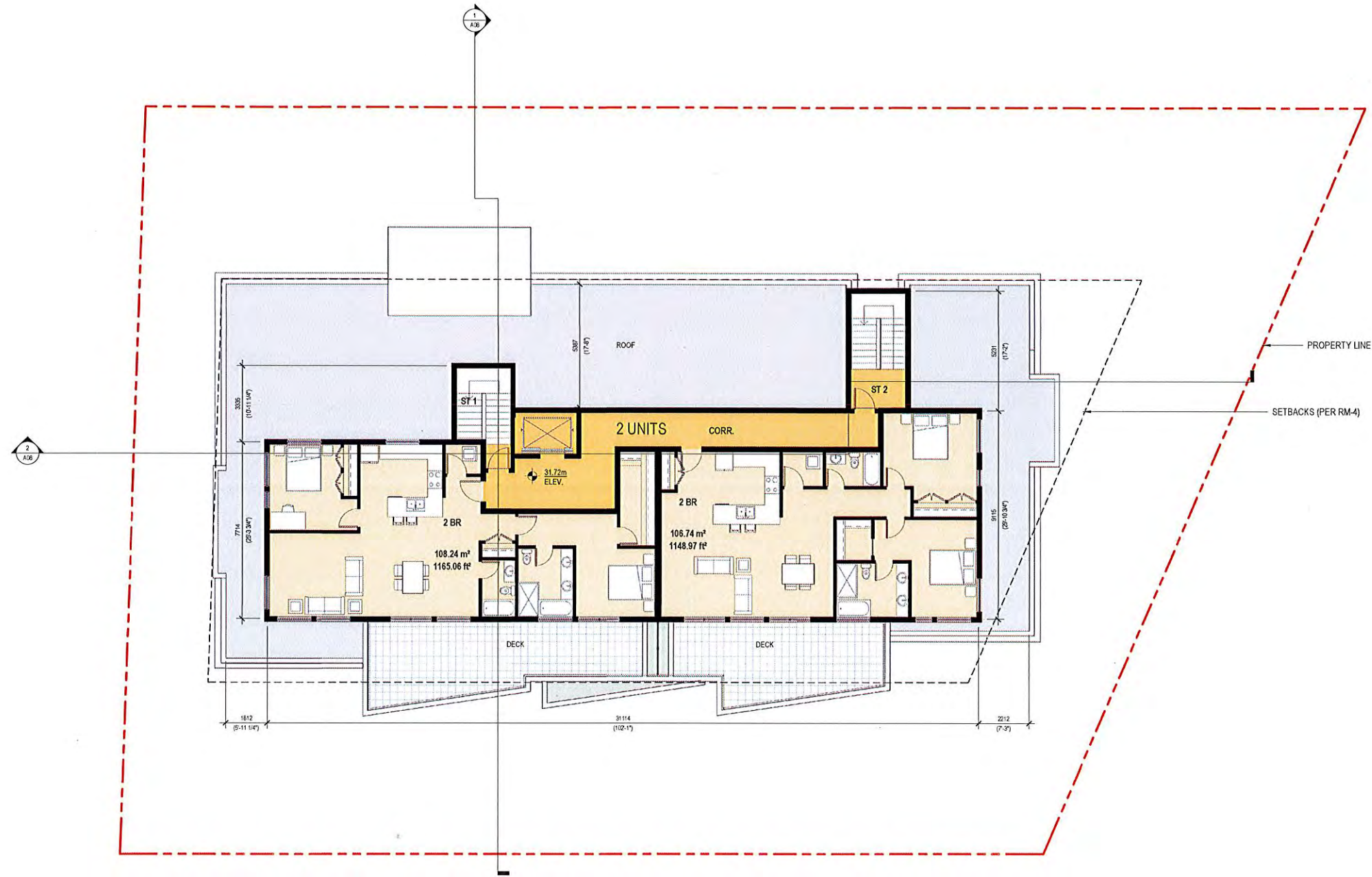
833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

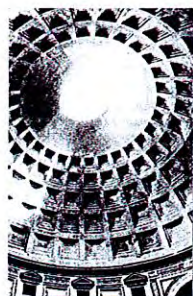
LEVEL 3-4

2018.01.30 - REVISED PER PLANNING

**A05**



① LEVEL 5  
1 : 100



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

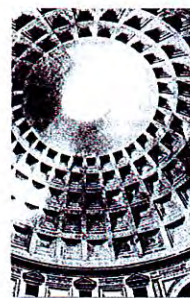
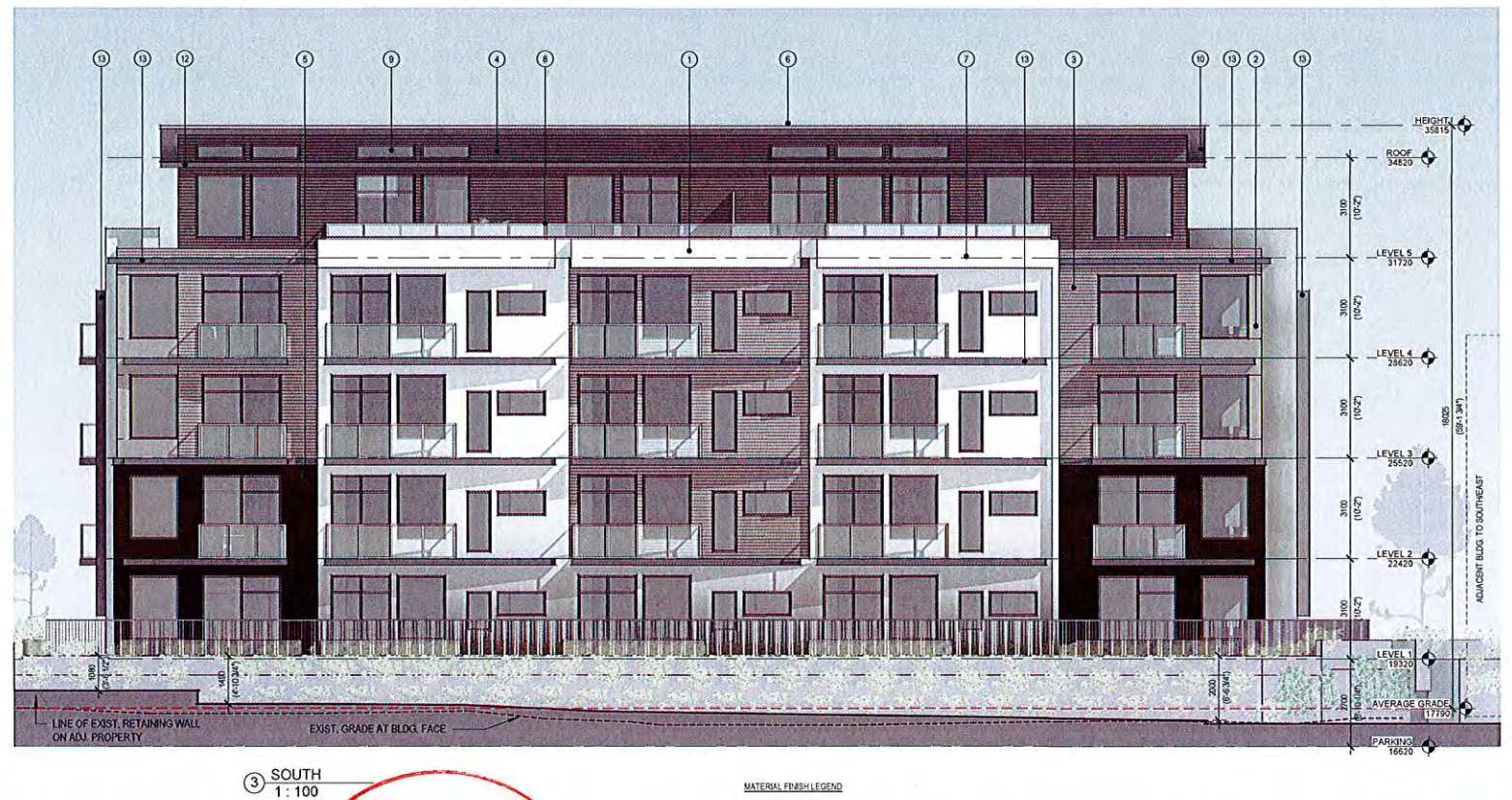
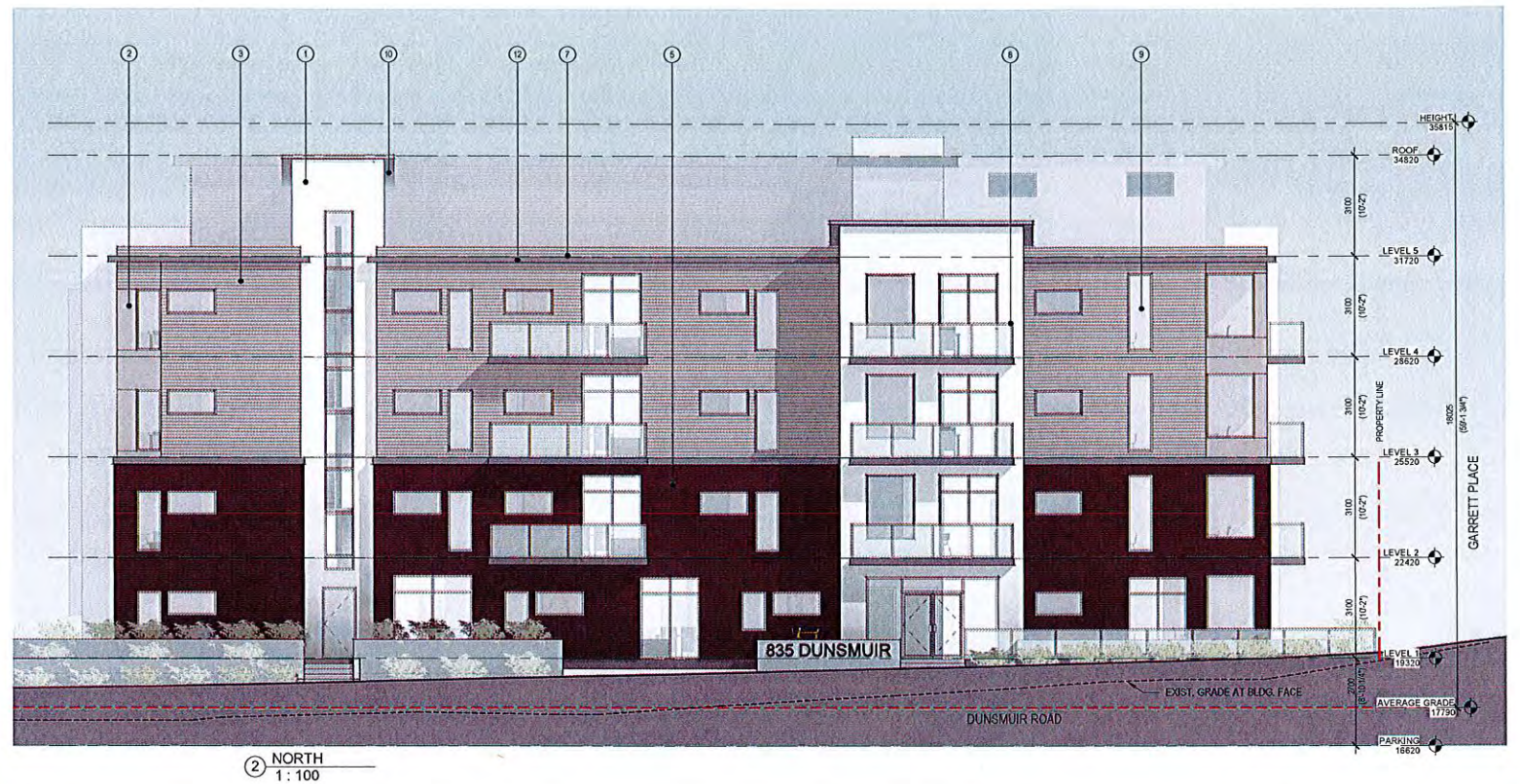
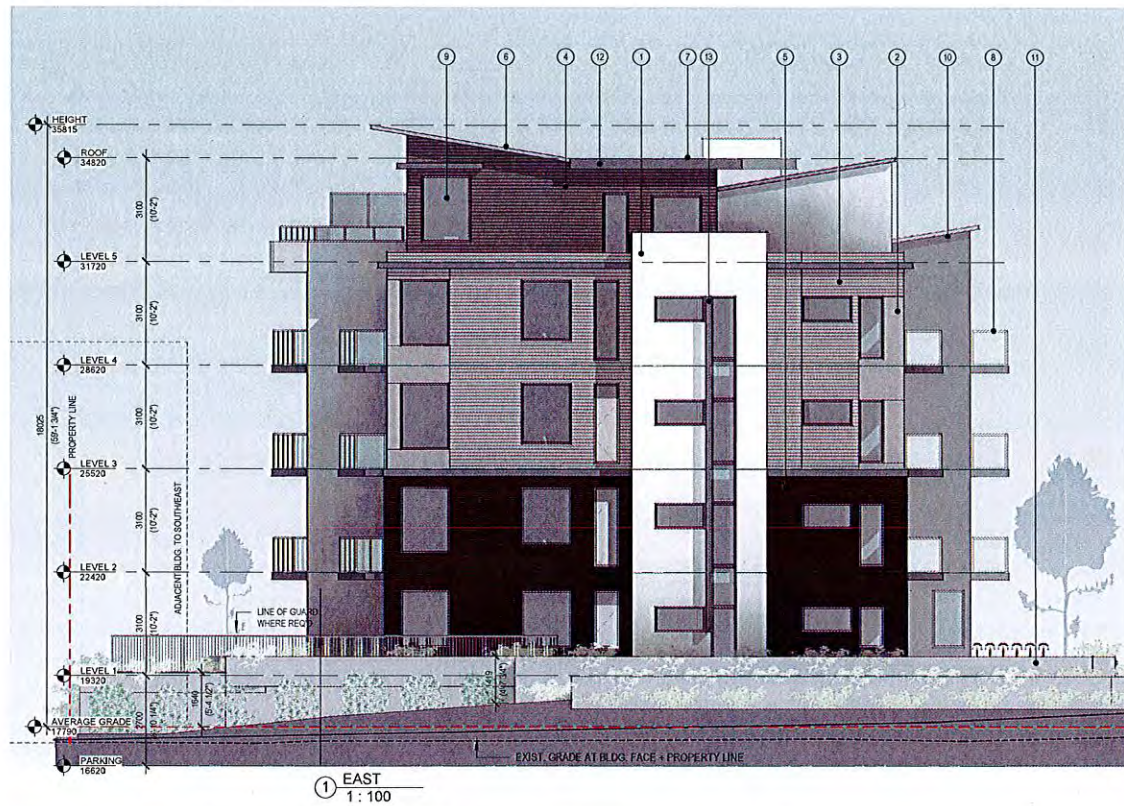
833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

LEVEL 5

2018.01.30 - REVISED PER PLANNING

**A06**



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

833/835 DUNSMUIR ROAD

PROJECT NO. 17-012



MATERIAL FINISH LEGEND

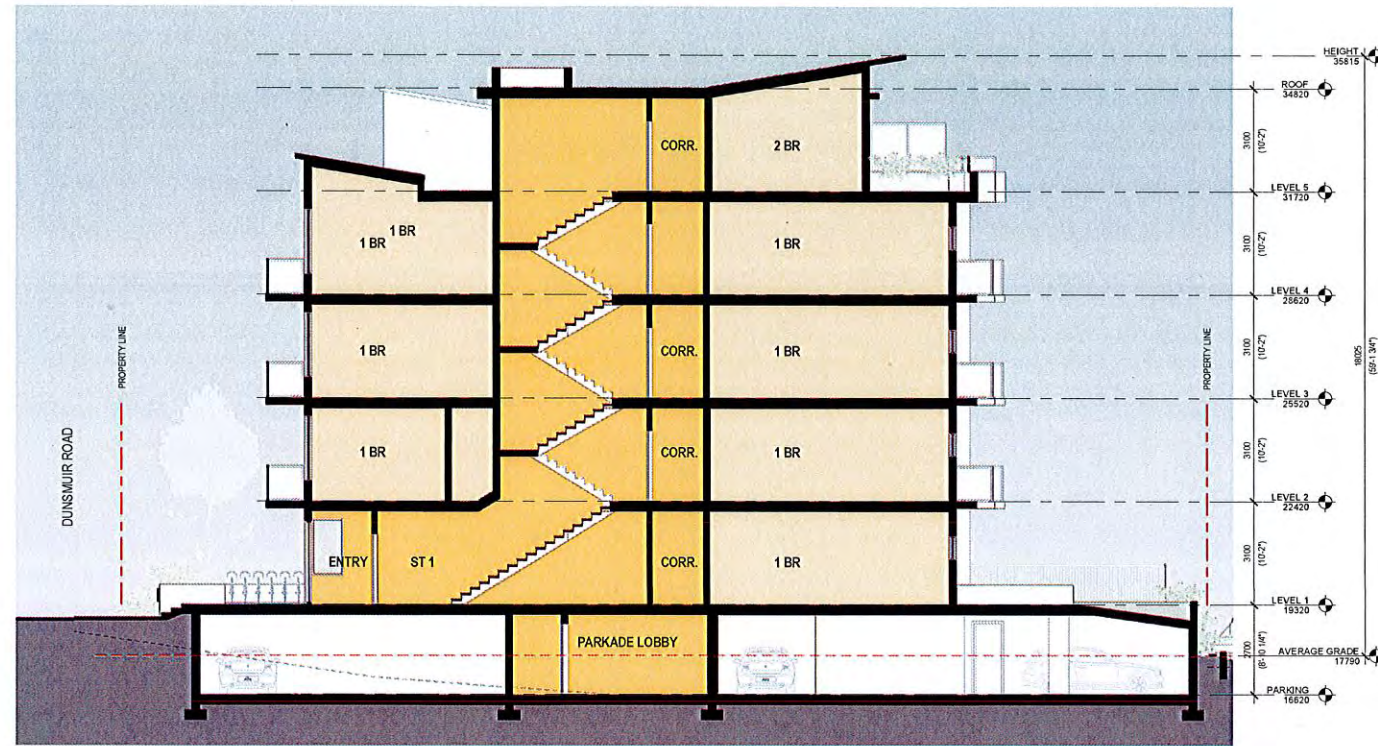
1 FIBRE CEMENT PANEL - ARCTIC WHITE	5 BRICK - ENOICOTT - MANGANESE IRONSPOT VELOUR MODULAR	8 ALUMINUM-CLAD VINYL WINDOWS
2 FIBRE CEMENT PANEL - PEARL GRAY	6 METAL STANDING SEAM ROOF (CHARCOAL)	10 SOFFIT
3 HORIZONTAL SIDING - FIBRE CEMENT - PEARL GRAY	7 S85 MEMBRANE ROOF	11 CONC. PLANTER
4 HORIZONTAL SIDING - FIBRE CEMENT - AGED FEWTER	8 GLASS AND ALUMINUM RAILING	12 FASCIA
		13 SUNSHADE (PREFIN. METAL)

ELEVATIONS

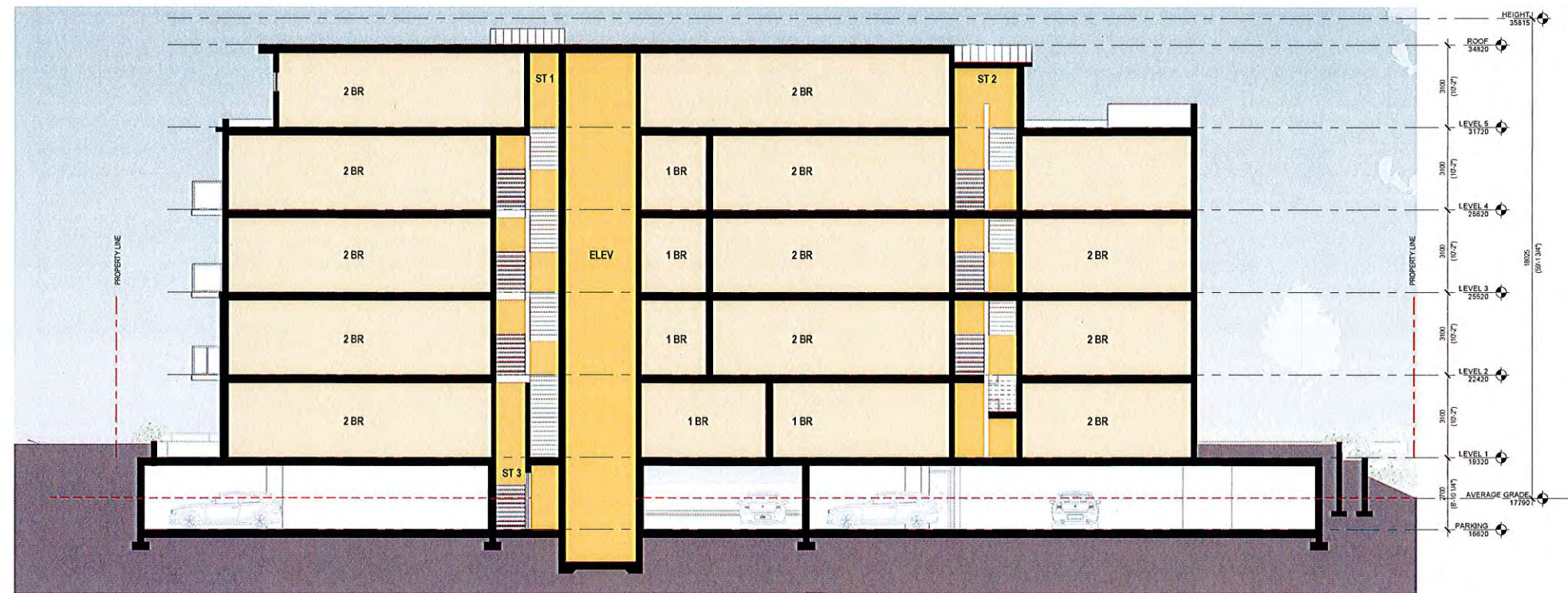
2018.01.30 - REVISED PER PLANNING

**A07**

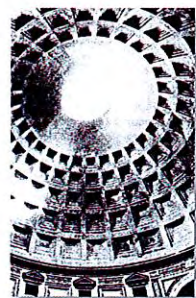




① SHORT SECTION  
1:100



② LONG SECTION  
1:100



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

SECTIONS

2018.01.30 - REVISED PER PLANNING

**A08**



1 NORTHWEST PERSPECTIVE (FROM DUNSMUIR ROAD)



2 NORTHEAST PERSPECTIVE (FROM DUNSMUIR ROAD)



3 SOUTHWEST PERSPECTIVE (FROM GARRETT PLACE)



4 SOUTHEAST PERSPECTIVE (FROM APARTMENT PARKING LOT)



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

833/835 DUNSMUIR ROAD

PROJECT NO. 17-012



STREET VIEWS

2018.01.30 - REVISED PER PLANNING

**A09**



① SUMMER 10AM  
1: 1200



② SUMMER 12PM  
1: 1200



③ SUMMER 3PM  
1: 1200



④ SUMMER 5PM  
1: 1200

SUMMER SOLSTICE - JUNE 21



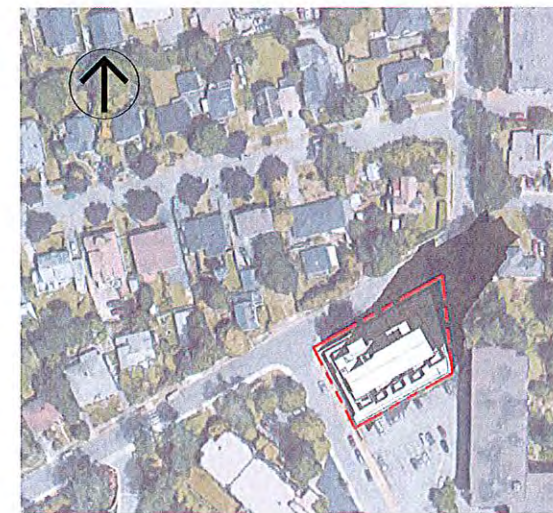
⑤ SPRING / FALL 10AM  
1: 1200



⑥ SPRING / FALL 12PM  
1: 1200

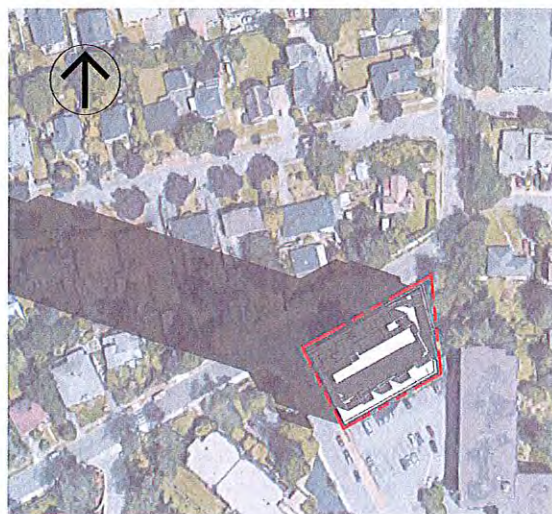


⑦ SPRING / FALL 3PM  
1: 1200



⑧ SPRING / FALL 5PM  
1: 1200

SPRING / FALL EQUINOX - MARCH 21 / SEPTEMBER 21



⑨ WINTER 10AM  
1: 1200



⑩ WINTER 12PM  
1: 1200

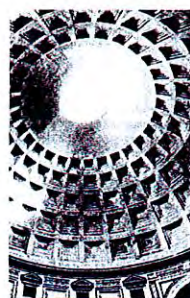


⑪ WINTER 3PM  
1: 1200



⑫ WINTER 5PM  
1: 1200

WINTER SOLSTICE - DECEMBER 21



**PRAXIS**  
architects inc.

DUNSMUIR 833 + 835

833/835 DUNSMUIR ROAD

PROJECT NO. 17-012

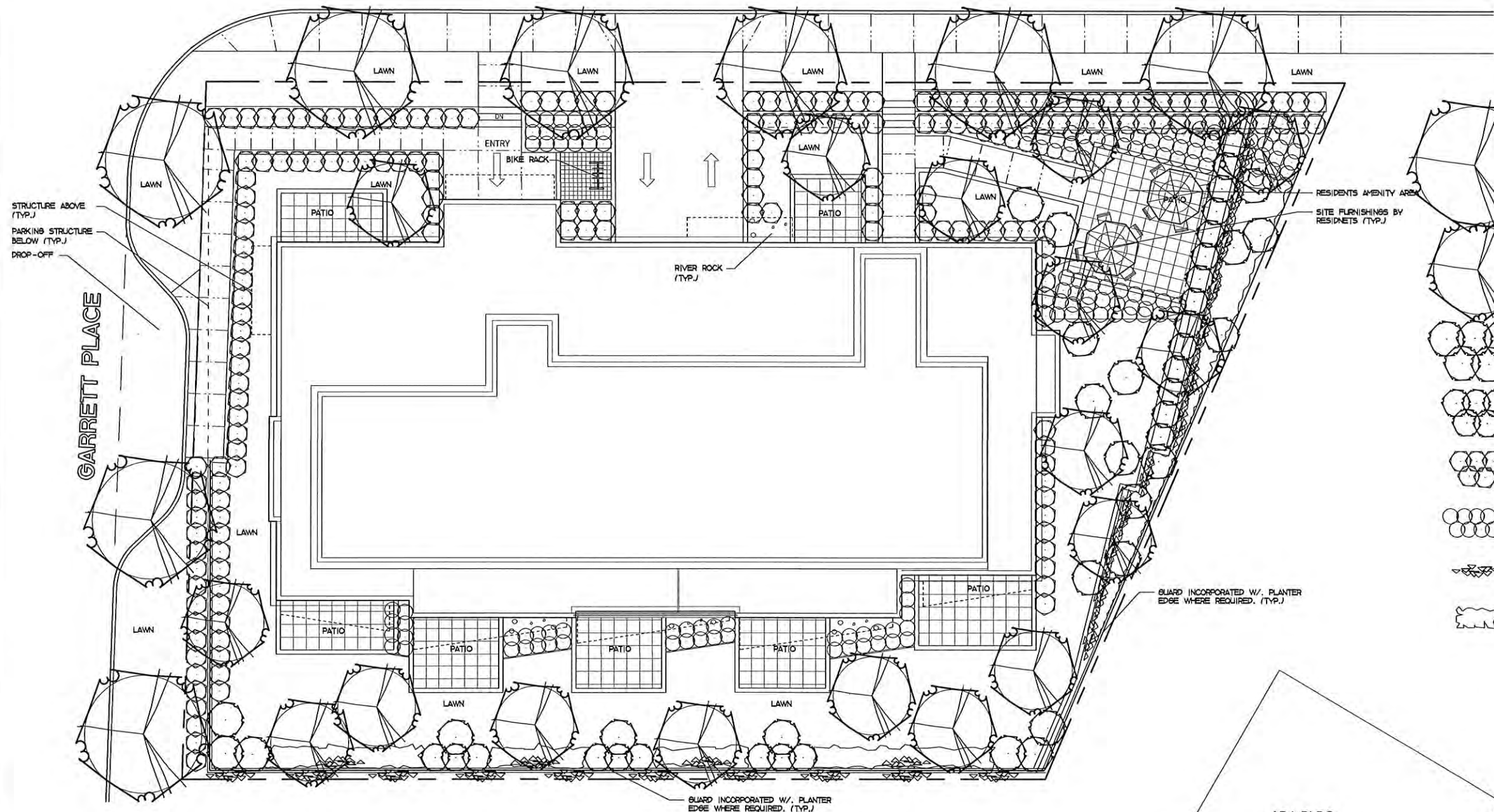


SHADOW STUDIES

2017.12.12 - REZONING APPLICATION

**A10**

DUNSMUIR ROAD



LEGEND

MEDIUM DECIDUOUS TREE TO BE A SELECTION OF:  
RED MAPLE, KATSURA TREE, HEDGE MAPLE, HONEY  
LOCUST, LITTLE LEAF LINDEN, TESOLING ASPEN,  
SIZE 8.0 CM CAL., APPROXIMATE NO. - 8

SMALL DECIDUOUS TREE TO BE A SELECTION OF:  
KOUSSA DOGWOOD, RED DOGWOOD, JAPANESE MAPLE,  
PINK DOGWOOD,  
SIZE 2.0 - 2.5 M HT., APPROXIMATE NO. - 17

SPECIMEN SHRUB TO BE A SELECTION OF:  
RHODODENDRON (BU), VIBURNUM (BU), DECIDUOUS  
AZALEA (DEC), WILLOWLEAF COTONEASTER (BU),  
PORTUGUESE LAUREL (BU), RUBUS ESCALLONIA (BU),  
SIZE 27 CM POT, APPROXIMATE NO. - 23

LARGE SHRUB TO BE A SELECTION OF: GLOSSY  
ABELIA (BU), PIERIS (BU), RHODODENDRON (BU),  
MEXICAN ORANGE (BU), DECIDUOUS AZALEA (DEC),  
COTONEASTER (BU), PORTUGUESE LAUREL (BU),  
FIRETHORN (BU), HYDRANGEA (DEC),  
SIZE 27 CM POT, APPROXIMATE NO. - 23

MEDIUM SHRUB TO BE A SELECTION OF: MAHONIA (BU),  
RHODODENDRON (BU), JAPANESE AZALEA (BU), PINK  
ESCALLONIA (BU), BARBERRY (BU), BUXTIS (BU), FERNS (BU),  
SIZE 27 CM POT, APPROXIMATE NO. - 193

SMALL SHRUB TO BE A SELECTION OF: DWARF  
RHODODENDRON (BU), EDWARD BOUCHER ABELIA (BU),  
LAVENDER (BU), GOLDEN SPIREA (DEC), DWARF  
JAPANESE AZALEA (BU), NEWPORT DWARF ESCALLONIA (BU),  
LONG LEAF MAHONIA (BU), FERNS (BU),  
SIZE 21 CM POT, APPROXIMATE NO. - 145

VINES TO BE A SELECTION OF: HONEYSUCKLE (DEC),  
EUREKIAN IVY (DEC), CLEMATIS (DEC),  
SIZE 21 CM POT, APPROXIMATE NO. - 26

GROUNDCOVER TO BE A SELECTION OF:  
PERIWINKLE (BU), KINKIKINICK (BU),  
WINTERGREEN (BU), BEARBERRY (BU),  
SIZE 15 CM POT, PLANT 45 CM O.C.

NOTES

- LANDSCAPE AREAS ARE TO BE IRRIGATED WITH A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
- THIS DRAWING IS CONCEPTUAL ONLY AND NOT INTENDED FOR CONSTRUCTION PURPOSES.
- THIS DRAWING IS FOR SOFT LANDSCAPE ONLY.



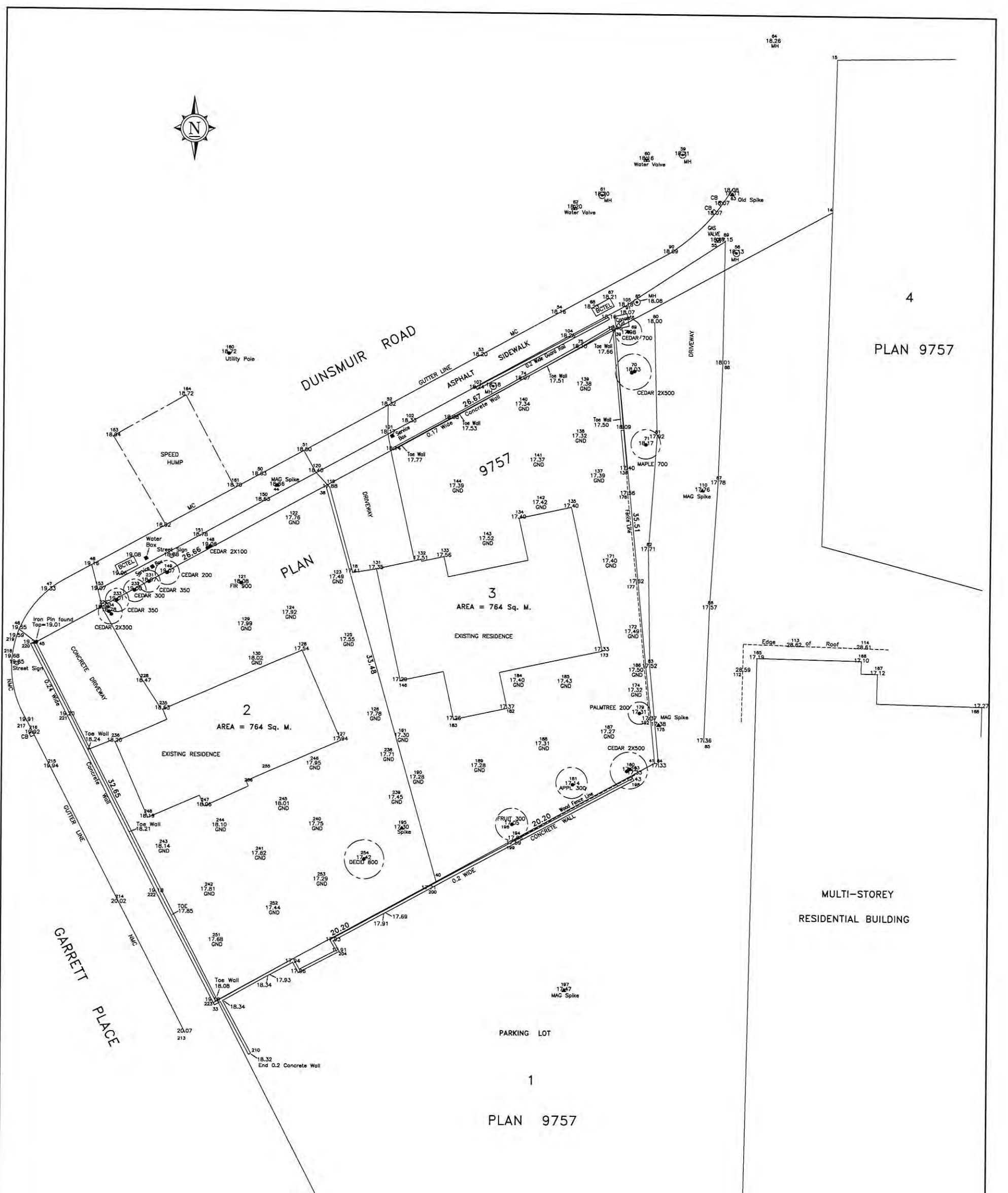
NO.	DATE	BY	REVISION
1.	FEB.07.18	S.P.	GENERAL
DATE: S.P.			
DESIGNER: J.P.			
DATE: DECEMBER 12, 2017			
DRAWING: 833 DR - PIRB			
SCALE: 253 17 01			



833+835 DUNSMUIR  
VICTORIA, B.C.

DATE: 11/11/17  
SCALE: 1:100





4  
PLAN 9757

9757  
3  
AREA = 764 Sq. M.  
EXISTING RESIDENCE

2  
AREA = 764 Sq. M.  
EXISTING RESIDENCE

1  
PLAN 9757

MULTI-STORY  
RESIDENTIAL BUILDING



F.C. Anderson and Associates  
SURVEYORS ENGINEERS  
VICTORIA NANAIMO



SITE PLAN	
AT 833/835 DUNSMUIR ROAD	PIDS 005-388-881 005-388-899
LEGAL : LOTS 2 AND 3, SECTION 11, ESQUIMALT DISTRICT, PLAN 9757	
DRAWN BY : DBL	PROJECT SURVEYOR : D.R. CARRIER
SCALE : 1 : 150	DATE : JUNE 15, 2017.
CLIENT : GT MANN CONTRACTING	
OUR FILE : 30536	REVISION :

NOTE : ELEVATIONS ARE TO GEODETIC DATUM  
 THE DECIMAL POINT OF THE ELEVATION  
 DENOTES THE LOCATION OF THE SHOT  
 TAKEN UNLESS OTHERWISE NOTED  
 BUILDING SETBACKS ARE CALCULATED  
 TO THE EXTERIOR OF SIDING  
 TREE INFORMATION MUST BE CONFIRMED BY AN ARBORIST  
 TREE DIAMETERS ARE SHOWN IN mm  
 PROPERTY BOUNDARIES HAVE BEEN CALCULATED  
 FROM CURRENT SURVEY AND EXISTING SURVEY RECORDS  
 DUE TO A LACK OF SURVEY EVIDENCE - IF MINIMUM SETBACKS  
 ARE CONTEMPLATED, A REPOSTING SURVEY WILL BE REQUIRED



# CORPORATION OF THE TOWNSHIP OF ESQUIMALT

---

Municipal Hall, 1229 Esquimalt Road, Esquimalt, B.C. V9A 3P1  
Telephone (250) 414-7100 Fax (250) 414-7111

APC Meeting: February 20, 2018

## STAFF REPORT

**DATE:** February 16, 2018

**TO:** Chair and Members of the Advisory Planning Commission

**FROM:** Alex Tang, Planner 1  
Bill Brown, Director of Development Services

**SUBJECT: OFFICIAL COMMUNITY PLAN AMENDMENT and REZONING APPLICATION**  
**838 Admirals Road**  
**[PID 005-074-011 Lot 17, Block 7, Section 10, Esquimalt District, Plan 2546 Except Plan 86845]**  
**and 842 Admirals Road**  
**[PID 006-324-118 Lot 16, Block 7, Section 10, Esquimalt District, Plan 2546]**

---

### RECOMMENDATION:

The Esquimalt Advisory Planning Commission recommends that the application for Official Community Plan Amendment and Rezoning, authorizing a 15.4 metre [4 storeys], 30 unit, multiple family residential building sited in accordance with the BCLS Site Plan provided by J.E. Anderson and Associates Surveyors-Engineers, stamped "Received January 18, 2018", and incorporating height and massing consistent with the architectural plans provided by Praxis Architects Inc., stamped "Received February 8, 2018", detailing the development proposed to be located at PID 005-074-011 Lot 17, Block 7, Section 10, Esquimalt District, Plan 2546 Except Plan 86845 [838 Admirals Road] and PID 006-324-118 Lot 16, Block 7, Section 10, Esquimalt District, Plan 2546 [842 Admirals Road] be forwarded to Council with a recommendation **to either approve, approve with conditions, or deny the application including reasons for the chosen recommendation.**

### BACKGROUND:

#### **Purpose of the Application:**

The applicant is requesting a change in Official Community Plan Land Use Designation and Zoning from the current designation of "Townhouse Residential" to "Multi-Unit, Low-Rise Residential" and a change in zoning from the current mix of CD-75 [Comprehensive Development District] zone and RD-3 [Two Family/ Single Family Residential] to a Comprehensive Development District zone [CD]. This change is required to accommodate the proposed 4 storey, 30 unit, multiple family residential building including a 28 space parking garage.

This site is located within Development Permit Area No. 1 – Multi-Unit Residential. Should the rezoning application be approved, the applicant would need to obtain a Development Permit respecting the character of the development, including landscaping, and the siting, form, exterior design and finish of the proposed 4 storey, 30 unit, multiple family residential building, which would be considered by both the Design Review Committee and Council in the future.

**Evaluation of this application should focus on the proposed siting, height, mass, density, lot coverage, usable open space, parking, fit with the neighbourhood, and consistency with the overall direction contained within the Official Community Plan.**

### Context

**Applicant:** Praxis Architects Inc. [Heather Spinney]

**Owner:** Admiral Apartments Ltd., Inc. No. BC1128252

**Property Size:** Metric: 1416 m<sup>2</sup> Imperial: 15242 ft<sup>2</sup>

**Existing Land Use:** Single Family Residential

#### **Surrounding Land Uses:**

North: Multiple Family Residential [3 storeys]

South: DND Federal Land

West: Multiple Family Residential [3 storeys]

East: DND Federal Land

**Existing OCP Designation:** Townhouse Residential

**Proposed OCP Designation:** Multi-Unit, Low-Rise Residential

**Existing Zoning:** RD-3 [Two Family/Single Family Residential] – Lot 16  
CD-75 [Comprehensive Development District] – Lot 17

**Proposed Zoning:** CD [Comprehensive Development District]

### Zoning

**Density, Lot Coverage, Height and Setbacks:** The following chart compares the floor area ratios, lot coverage, setbacks, height and usable open space of this proposal with the requirements of the RM-5 [Multiple Family Residential Zone]:

	<b>Proposed Comprehensive Development Zone [Apartment with 30 Residential Units]</b>	<b>RM-5 [Multiple Residential – High Density]</b>
<b>Floor Area Ratio</b>	1.32	1.5
<b>Lot Coverage</b>	46%	30%/ 25% [above 2 <sup>nd</sup> ]
<b>Setbacks</b>		
• <b>Front</b>	3.8 m	7.5 m
• <b>Rear</b>	7.5 m	7.5 m
• <b>Exterior Side [East]</b>	3.6 m	7.5 m
• <b>Interior Side [West]</b>	6.0 m	7.5 m

<b>Building Height</b>	15.4 m [4 storeys]	20 m
<b>Off Street Parking</b>	28 spaces [0.93/unit]	45 spaces [1.3/unit]
<b>Usable Open Space</b>	132 m <sup>2</sup> [9.3%]	106 m <sup>2</sup> [7.5%]
<b>Bicycle Parking</b>	51 resident + 6 visitor	45 resident + 6 visitor

The Floor Area Ratio of this proposal is 1.32, which is less than the maximum allowable amount of 1.5 in the RM-5 [Multiple Family Residential]. The Lot Coverage measures 80% at grade to accommodate the parking structure while the residential portion of the building covers 44% of the site. Moreover, the bicycle storage building accounts for another 2% for a total of 46% overall lot coverage. The majority of the principal building is set back 7.5 metres off the front lot line while the lobby is the feature that protrudes out, reducing the front setback to 3.8 metres. The proposed height of the building is 15.4 metres, which is less than the allowed 20.0m in a RM-5 zone. The usable open space is 132 m<sup>2</sup>, which amounts to 9.3% of the total lot area.

Parking Bylaw, 1992, No. 2011 requires 1.3 parking spaces per unit to be provided for multiple family developments. This proposal incorporates 28 residential parking spaces within the structure which is about 0.93 parking spaces per unit. The subject property is served by transit Route 24 and 46 along Admirals Road. As this development is planned to be a purpose-built rental residential building, the demand for parking is decreased to 27 parking spaces according to Watt Consulting Group in their parking study.

### **Official Community Plan**

This proposed development is not consistent with the current Land Use Designation of “Townhouse Residential”. The proposal for a four storey, 30 unit apartment building requires the Official Community Plan Land Use Designation to be amended to “Multi-Unit, Low-Rise Residential”, which accepts buildings up to four storeys with a Floor Area Ratio of up to 1.5.

OCP Section 2 - Managed Growth – Land Use and Development states that the objectives and policies in this section are designed to promote sustainable land use and development in the community.

OCP 2.0.1(a) states the Township should encourage high quality development that enhances and benefits the community as a whole.

OCP 2.0.2(a) states Esquimalt’s future new development, infill and redevelopment will be in accordance with the land use designations shown on OCP Schedule A, together with the guidelines set out in Development Permit Areas (OCP Section 9).

OCP Section 2.2 - Residential Land Use of the Official Community Plan recognizes that modest growth is likely to occur through the infilling of vacant or under-utilized parcels, redevelopment of existing residential properties to higher densities (such as townhouses, apartment buildings and mixed commercial-residential uses) and the replacement of existing buildings.

Section 2.2.1(a) states the Township should work toward a more complete community by maintaining a healthy mixture of housing types, accommodating people with a wide range of income levels.



Section 2.2.1(b) states the Township should encourage new residential development with high design standards for building and landscaping and which enhance existing and new neighbourhoods.

OCP Section 2.2.4.1 Multi-Unit Residential Policies [attached] are intended to provide more predictability for residents and give direction to design teams preparing development proposals. This proposal for a 30 unit residential building is consistent with many policies contained in this section while it is unclear at this time whether it is consistent with the following policy as no units are explicitly proposed to be constructed to accessibility standards:

Section 2.2.4.1(f) states that wherever desirable and achievable consideration will be given to special needs and assisted housing including seniors, disabled persons and families.

OCP Section 2.2.4.3 Multi-Unit, Low-Rise Residential states that in areas designated Multi-Unit, Low-Rise Residential on Schedule A, building heights of up to four storeys are acceptable with a Floor Area Ratio of up to 1.5.

OCP Section 3.3.1(a) Affordable Housing Objectives states that the Township should encourage a range of housing by type, tenure, and price to ensure that people of all ages, household types, abilities and incomes have a diversity of housing choice in Esquimalt.

OCP Section 9.3 Development Permit Area No. 1 - Multi-Unit Residential [attached] contains Development Permit Guidelines for land designated Multi-Unit Residential. As the Development Permit is not being considered at this time it would be inappropriate to address many of these guidelines with the following exceptions that are relevant to the discussion of zoning and parking issues:

Section 9.3.5(b) states, in part, that new buildings should be designed and sited to minimize visual intrusion onto the privacy of surrounding homes and minimize the casting of shadows onto the private outdoor space of adjacent residential units. The majority of the areas with shadows casted by this development onto adjacent properties is parking areas of adjacent apartment buildings.

### **Green Building Features**

The applicant has completed the Esquimalt Green Building Checklist [attached].

### **Comments From Other Departments**

The plans for this proposal were circulated to other departments and the following comments were received:

**Building Inspection:** Building to be constructed to requirements of BC Building Code 2012 and Municipal Building Code Bylaw, 2002, No. 2538. Applicant must address all issues contained within the Township Development Protocol should application be approved. Plans will be reviewed for compliance with BC Building Code upon submission of a Building Permit application.

**Engineering Services:** Engineering staff have completed a preliminary evaluation of Works and Services that would be required for the 30 unit multiple family residential building proposed to be located at 838 and 842 Admirals Road. Staff confirms that the design appears achievable on the site and that appropriate works and services are available in the immediate area. If approved, the development must be serviced in accordance with bylaw requirements including, but not limited to, new sewer and drain connections, underground hydro, telephone and cable services and new road works may be required up to the centre line of Admirals Road and Naden Street. Should the application be approved, additional comments will be provided when detailed civil engineering drawings are submitted as part of a Building Permit application.

**Parks Services:** Parks staff has completed a preliminary review of the proposed on-site and off-site landscaping and commented that the landscape plan looks appropriate.

**Fire Services:** Fire Services staff has completed a preliminary review of the proposed plans and recommended a new fire hydrant to be installed on the corner of Admirals Road and Naden Street that ties into a 350mm wDI Water Main. This installation would facilitate future developments into the area. Furthermore, sprinklers should be installed in the building.

### **Comments From the Design Review Committee**

This application was considered at the regular meeting of the Design Review Committee held on February 14, 2018.

A member commented on the strong articulation of the building and the suitability of the accentuated corner. A member questioned the limited size of the upper storey balconies. A member commented on the inhospitable exposed wall of the parking level on Admirals Road. Members were sad to see the loss of a significant Garry Oak. A member disliked the location of the bike storage locker around back.

The Design Review Committee resolved unanimously that the application be forwarded to Council with a recommendation of approval as the proposed development conforms to the requirements and is compatible with the neighbourhood.

### **Public Notification**

As this is an Official Community Plan Amendment and Rezoning application, should it proceed to a Public Hearing, notice would be mailed to tenants and owners of properties within 100m (328ft) of the subject property. In order to satisfy the requirements of the *Local Government Act*, staff is also required to provide additional notice to relevant government and institutional stakeholders within the Capital Region. One sign indicating that the property is under consideration for a change in Official Community Plan Land Use Designation and Zoning has been installed on the Admirals Road frontage while one sign has been installed on the Naden Street frontage. This sign would be updated to include the date, time, and location of the Public Hearing.

**ALTERNATIVES:**

1. Forward the application for OCP Amendment and Rezoning to Council with a **recommendation of approval including reasons for the recommendation.**
2. Forward the application for OCP Amendment and Rezoning to Council with a **recommendation of approval including specific conditions and including reasons for the recommendation.**
3. Forward the application for OCP Amendment and Rezoning to Council with a **recommendation of denial including reasons for the recommendation.**



861

Kindersley Rd

855

849

841

Naden St

854

850

842

838

Admirals Rd

Colville Rd

1267

Subject Property Map:  
838 and 842 Admirals Rd



- g) The Township is not supportive of new applications for infill housing, including rezoning and subdivision for panhandle lots in the 1100 and 1200 blocks of Old Esquimalt Road and the 600 block of Fernhill Road.

#### **2.2.4 Multi-Unit Residential**

Over the years, townhouses and apartment buildings have tended to be developed in clusters throughout the neighbourhoods of Esquimalt. They are generally located in the following areas:

- On both sides of Esquimalt Road from Grafton Street to Dunsmuir Road;
- The area around Craigflower Road and Selkirk Avenue;
- Admirals Road, Astle and Nelson Streets;
- West Bay south of Dunsmuir Road; and
- West Parklands.

Smaller clusters of multi-unit development are also found along Lampson Street between Devonshire and Old Esquimalt Roads, Lampson Street south of Lyall Street, and Ellery Street south of Esquimalt High School. This scattered pattern of development has contributed to residents' concerns related to the proliferation of multi-unit developments in neighbourhoods where single-unit and two-unit homes have been the predominant land use.

##### **2.2.4.1 Multi-Unit Residential Policies**

The following policies provide more predictability for residents in mixed residential use neighbourhoods and give direction to design teams involved in the preparation of development proposals.

- a) Multi-Unit Residential refers to three or more dwelling units on a parcel. Multi-unit Residential does not refer to a single-unit home with a secondary suite.
- b) The Township encourages the concentration of multi-unit residential development where such development is in keeping with the overall goals of this Plan.
- c) Wherever practical, multi-unit residential housing will be located near a Major Road as shown on "Schedule B". This supports transit service and also helps maintain the integrity of single-unit and two-unit housing neighbourhoods;
- d) Wherever feasible, major multi-unit residential projects will be located within reasonable distance of one of Esquimalt's commercial areas in order to encourage walking and cycling;
- e) A mix of housing types will be provided in multi-unit residential areas in order to provide visual interest and to meet the varying housing needs of Esquimalt's current and future residents;
- f) Wherever desirable and achievable, consideration will be given for special needs and assisted housing, including seniors, disabled persons and families.
- g) Within the areas designated on "Schedule A" as Townhouse Residential, Multi-Unit, Low-Rise Residential and Multi-Unit, High-Rise Residential, the following criteria

will be used to evaluate development proposals requiring an application for rezoning:

- o The massing and height of the project will respond sensitively to the prevailing character of the immediate neighbourhood. This will vary by location;
  - o The project will relate to the street. Its exterior finishes, scale, treatment of parking areas, and landscaping, will enhance the appearance of the neighbourhood and contribute positively to the streetscape;
  - o The proponent will demonstrate that the neighbourhood has been consulted in a fair and meaningful way, and that residents' concerns have been appropriately responded to in the proposal; and
  - o Where new multi-unit residential projects are proposed, they should not "land-lock", otherwise isolate, or negatively affect the development potential of adjacent parcels. Projects must either consolidate the isolated parcels or leave a sufficient area available to allow for the eventual redevelopment of the adjacent land.
- h) Development proposals with heights and /or densities greater than those set out in policies 2.2.4.2 to 2.2.4.4. may be considered, where appropriate, through variances to zoning and/or parking regulations and density bonusing of floor-space where new affordable, accessible or special needs housing units or amenities are provided for the benefit of the community.
- i) For the purposes of density bonuses, "amenities" may include, but not be limited to:
- o Privately-owned, publicly-accessible open space;
  - o Public art;
  - o Contributions towards the enhancement of public recreation facilities;
  - o Contributions towards street and boulevard enhancements, including street furniture and decorative lighting;
  - o Daycare facilities; and
  - o Preservation of heritage structures or features.
- j) In new multi-unit residential developments, secure bicycle storage for residents should be provided in the ratio of 1.5 storage spaces per dwelling unit. In addition to the residents' parking, each multi-unit building should have six (6) bicycle lock-up spaces for the use of visitors.



A bicycle storage requirement may be waived or varied in a Development Permit where, in the opinion of Council, there is no demonstrated need, such as in a congregate care facility.

## Development Permit Area No. 1 – Multi-Unit Residential

### 9.3.1 Scope

All land designated Multi-Unit Residential on Schedule “C” are part of DPA No. 1.

### 9.3.2 Category

Section 919(1)(f) of the *Local Government Act* – form and character, multi-family residential.

### 9.3.3 Justification

This Plan emphasizes the importance of protecting residential neighbourhoods and encouraging a high quality of construction for new development. It is essential that new multi-unit residential development not have a negative impact on, or be out of character with, existing residential neighbourhoods. The primary objective of Development Permit Area No. 1 is to ensure that the development of multi-unit residential sites is compatible with surrounding uses.

### 9.3.4 Requirements of Owners of Land within the Development Permit Area

a) Owners of land within Development Permit Area No. 1 must not do any of the following without first obtaining a development Permit in accordance with the guidelines for this Development Permit Area:

- i) subdivide lands; or
- ii) construct or alter a building or structure;

without first obtaining a Development Permit in accordance with the guidelines of this Development Permit Area.

b) Exemptions:

The following do not require a development permit:

- i) construction of buildings or structures less than 10 square metres in area;
- ii) minor additions to existing dwellings where the floor area of the addition does not exceed 10 percent of the ground floor area of the dwelling;
- iii) emergency repairs to existing structures and public walkways where a potential safety hazard exists;
- iv) fences;
- v) the cutting of trees as permitted upon application under the municipal tree protection bylaw; and
- vi) placement of signs less than 1.5 sq. metres in area.

### 9.3.5 Guidelines for Owners of Land within the Development Permit Area

a) The size and siting of buildings that abut existing single- and two-unit and townhouse dwellings should reflect the size and scale of adjacent development and complement the surrounding uses. To achieve this, height and setback restrictions may be imposed as a condition of the development permit.



- b) New buildings should be designed and sited to minimize visual intrusion onto the privacy of surrounding homes and minimize the casting of shadows onto the private outdoor space of adjacent residential units.
- c) High-density multi-unit residential buildings or mixed commercial/residential buildings in commercial areas with a zero front setback should be designed so that the upper storeys are stepped back from the building footprint, with lower building heights along the street front.
- d) Landscaping of multi-unit residential sites should emphasize the creation of an attractive streetscape, as well as provide privacy between individual buildings and dwellings, screen parking areas and break up large expanses of paving.
- e) Surface parking areas in multi-unit residential developments less than five storeys in height, will be situated away from the street and screened by berms, landscaping or solid fencing or a combination of these three.
- f) Underground parking will be provided for any multi-unit residential buildings exceeding four storeys.
- g) The retention of public view corridors particularly views to the water should be encouraged wherever possible.
- h) To preserve view corridors and complement natural topography, stepped-down building designs are encouraged for sloping sites.
- i) Retention and protection of trees and the natural habitat is encouraged wherever possible.
- j) Townhouses will be designed such that the habitable space of one dwelling unit abuts the habitable space of another unit and the common wall overlap between adjoining dwellings shall be at least 50 percent.
- k) Site lighting in multi-unit residential developments should provide personal safety for residents and visitors and be of the type that reduces glare and does not cause the spill over of light onto adjacent residential sites.
- l) Garbage receptacle areas and utility kiosks should be screened by solid fencing or landscaping or a combination of the two.
- m) For waterfront sites, retention of natural features and existing trees should be a priority in site planning considerations.
- n) When any existing single-unit residence or duplex residence is being redeveloped to a multi-unit residential use by adding on of one or more dwelling units, such addition will be designed so that all of the units form a cohesive whole. In order to achieve cohesiveness:
  - i) both, the existing and proposed structures will be in the same architectural style;
  - ii) variations between the roofline of the existing building and any proposed addition(s) will be no greater than 1.5 metres;



- iii) roof styles and pitches must be complementary;
- iv) architectural features such as sloping roofs and dormers should be incorporated into the design to unite the various parts of the structure; and
- v) the existing and proposed structure will be constructed using the same or complimentary exterior finishes including roofing materials, window treatments, door styles and other finishing details.
- o) Within the area bounded by Tillicum, Craigflower, Lampson and Transfer Streets, redevelopment to multi-unit residential use will require that vehicular access to these sites be off Lampson Street rather than Tillicum, in recognition of the high levels of traffic currently using Tillicum Road.
- p) To create a more aesthetic and functional design that links each multi-unit residential project with the streetscape, the following guidelines are recommend:
  - i) Avoid long, narrow parcels with minimal road frontage (consolidate one or more parcels where necessary);
  - ii) Place parking areas away from the street; and
  - iii) Design porches and windows overlooking the street to increase personal interaction and safety.



**P R A X I S**  
architects inc.

838 – 842 Admirals Redevelopment

401-1245 Esquimalt Road, Victoria, B.C. V9A 3P2  
Ph. (250) 475-2702  
Fax (250) 475-2701

Township of Esquimalt  
1229 Esquimalt Road  
Esquimalt, BC V9A 3P1

December 15, 2017

RE: 838 – 842 ADMIRALS ROAD



Dear Mayor and Council,

The proposed project at 838 – 842 Admirals Road will be a new purpose-built rental multiple residential building, with 4 storeys of wood-frame construction. According to the current Official Community Plan, Schedule A - Land Use Designation, these properties are identified as Townhouse Residential which means up to 3 storeys are permitted and a maximum floor area ratio (FAR) of up to 0.70 is permitted. An amendment to the OCP would be required to permit 4 storeys and allow for increased density. We understand from informal conversations with Esquimalt Planning Department that the new OCP may change the land use designation for these sites to Multi-Unit Low-Rise Residential (MULRR). Staff may also be recommending to council that MULRR designated properties be considered for up to 6 storeys in height in most cases.

838 / 839 Admirals is currently zoned CD-75 (Comprehensive Development) and 842 Admirals is currently zoned RD-3 (Two Family / Single Family Residential). We understand from informal conversations with Esquimalt Planning Department that rezoning to a Comprehensive Development would be the appropriate approach for the redevelopment of these properties.

This proposal was presented at a neighbourhood meeting which was held December 4, 2017. Our impression from those who attended was that the proposal was generally well received. Attached with this letter please find a copy of the notification for the neighbourhood meeting as well as sign-in sheets from the meeting.

A parking study prepared by Watt Consulting Group provides supporting information for requested parking variance, and is included with this package.

Talbot Mackenzie and Associates Consulting Arborists have also been retained to provide a tree protection plan, which will be submitted separately.

Trusting this is sufficient for submission requirements,

Sincerely,

Heather Spinney, Architect AIBC  
Praxis Architects Inc.



Talbot Mackenzie & Associates

Consulting Arborists

# **838-842 Admirals Road, Esquimalt**

## **Construction Impact Assessment &**

## **Tree Preservation Plan**

PREPARED FOR:

GT Mann Contracting Ltd.  
1551 Broadmead Avenue  
Victoria, BC  
V8P 2V1

PREPARED BY:

Talbot, Mackenzie & Associates

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

DATE OF ISSUANCE:

January 23, 2018

Box 48153 RPO - Uptown Victoria, BC V8Z 7H6

Ph: (250) 479-8733

Fax: (250) 479-7050

Email: [tmtreehelp@gmail.com](mailto:tmtreehelp@gmail.com)



## Talbot Mackenzie & Associates

Consulting Arborists

Jobsite Property: 838-842 Admirals Road, Esquimalt

Date of Site Visit: December 21, 2017

Site Conditions: Two residential properties. No construction activity present.

**Summary:** Oaks #986 and 990, and Plum #128 will require removal. We recommend that the five municipal Horsechestnut trees growing underneath the power lines be removed due to their poor structural condition and the potential impacts from the underground parkade and sidewalk. Garry Oak #984 will likely be significantly impacted by the excavations for the underground parkade and pathway. If tree retention is desired in the long-term, we recommend restricting the extent of excavation to within the footprint of the existing house's foundation and eliminating the below-grade pathway adjacent to this tree.

**Scope of Assignment:** To inventory the existing bylaw protected trees and any trees on neighbouring properties that could be potentially impacted by construction or that are within 3 meters of the property line. Review the proposal to demolish the two existing houses and construct a four-storey 30 unit residential building and comment on how construction activity may impact existing trees. Prepare a tree retention and construction damage mitigation plan for those trees deemed suitable to retain given the proposed impacts.

**Methodology:** We visually examined the trees on the property and prepared an inventory in the attached Tree Resource Spreadsheet. Each by-law protected tree was identified using a numeric metal tag attached to its lower trunk. Municipal trees and neighbours' trees were not tagged. Information such as tree species, DBH (1.4m), crown spread, critical root zone (CRZ), health, structure, and relative tolerance to construction impacts were included in the inventory. The by-law protected trees with their identification numbers were labelled on the attached Site Plan. The conclusions reached were based on the information provided within the attached Site Plan from Praxis Architects Inc. (dated 2017.12.15).

**Summary of Tree Resource:** 14 trees and shrubs were inventoried. No nearby trees were identified on neighbouring properties. NT 01-09 are municipal trees, most of which are Horsechestnut trees that have been severely pruned for the primary hydro lines above them. There are three large Garry Oak trees on the subject property (#984, 986, 990).

**Private Trees to be Removed:**

- **Garry Oaks #986 and 990** (78 and 87cm DBH respectively): Located within the proposed building footprint.
- **Purple Leaf Plum #128** (multiple stems): Located less than 1.5 metres from the underground parking excavation and will require multiple large diameter stems be removed for building clearance.
- **English Holly #92** (two stems, 26 and 18cm in DBH): Located within the underground parking footprint.
- **Municipal Horsechestnut Trees NT 04-08**

In our opinion, these five municipal Horsechestnut trees are not suitable for retention. They are in poor structural condition due to being topped for the three primary hydro lines above them. NT 08 will be 1.5m from the underground parking and will likely require removal as a result. NT 06 will require removal for the proposed water service. This water service excavation may have an impact on NT 05 and NT 07 as well. The underground parkade will be approximately 4m away from the remaining trees; even with shoring techniques restricting the excavation to 4m, there will likely be some root loss.

It is our understanding that a sidewalk is proposed on Naden Street directly adjacent to the trees, which will have additional impacts. If the trees are to be retained, the roots will need to be preserved underneath the sidewalk, which will require raising the sidewalk and building on organic materials. Considering the poor structural condition of these trees and their location underneath the primary hydro lines, in our opinion it would be more suitable to remove these trees and replant with smaller growing trees more suitable to the location.

**Trees with Retention Status To Be Determined**

- **Garry Oak #984** (79cm DBH)

There is a 1.8m tall retaining wall that runs 1.5m south and a 3.5m west of the tree (along the sidewalk and along the neighbouring driveway). The rooting area of the oak has thus been confined mostly to the north and east, so we expect to find a significantly higher density of roots in this area compared to if the roots had not been confined on two sides.

The proposed underground parkade is located 5m north of this tree. Even if sheet piling or other shoring techniques are used to restrict the extent of excavation to approximately 5m, we expect that a significant amount of root loss will occur. Additionally, the pathway that runs from the sidewalk to the doorway of the underground parkade will require significant excavation (approximately 1.5m in depth) to match the height of the underground parking floor height. Working room will also be required to construct a retaining wall adjacent to this pathway which will likely result in significant root loss.

As a result of these excavations, we anticipate that the health of the tree will be significantly impacted and may decline as a result. If tree retention is desired in the long-term, we recommend restricting the extent of excavation to within the footprint of the existing house foundation (approximately 2m from where the underground parking is currently proposed) and eliminating the below-grade pathway which requires excavation.

Additionally, the grading plans (A06, South side) show the finished grade as below the existing grade around the tree. If this occurs, the tree will likely have to be removed immediately. If the tree is to be retained, we would recommend no significant grade change in this area.

Despite these impacts, it is our understanding that tree retention is desired and thus have included mitigation measures. We recommend that the retaining wall adjacent to the sidewalk and neighbour's driveway be left in place to prevent further damage to roots that could be growing against it. To minimize additional root loss, we recommend that the existing sewer and drain services east of Garry Oak #984 be capped and abandoned instead of being excavated and removed. This will minimize the amount of excavation required.

### **Trees to be Retained**

- **NT 9 English Hawthorn:** This municipal tree will not be impacted.
- **English Holly Trees NT 1-3**  
These three English Holly trees on municipal property can be retained if desired. The new driveway is approximately in the same footprint as the old driveway, in the area adjacent to these trees.

### **Other Mitigation Measures**

- **Barrier fencing:** The areas surrounding the trees to be retained should be isolated from the construction activity by erecting protective barrier fencing. Where possible, the fencing should be erected at the perimeter of the critical root zones. The barrier fencing must be a minimum of 4 feet in height, of solid frame construction that is attached to wooden or metal posts. A solid board or rail must run between the posts at the top and the bottom of the fencing. This solid frame can then be covered with plywood, or flexible snow fencing. The fencing must be erected prior to the start of any construction activity on site (i.e. demolition, excavation, construction), and remain in place through completion of the project. Signs should be posted around the protection zone to declare it off limits to all construction related activity. The project arborist must be consulted before this fencing is removed or moved for any purpose.

- **Arborist Supervision:** All excavation occurring within the critical root zones of protected trees should be completed under supervision by the project arborist. Any roots encountered 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:
  - Excavation for the underground parking and pathway within the CRZ of Garry Oak #984
  - Excavation of any underground services within the CRZ of Garry Oak #984
  - If trees NT 4-7 are retained, excavation within their CRZs associated with the underground parking and sidewalk
  
- **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 cm over top.
  - Placing two layers of 19mm plywood.
  - Placing steel plates.
  
- **Demolition of the existing building:** The demolition of the existing house 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.
  
- **Mulching:** Mulching is an important proactive step to maintaining the health of the trees to be retained 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. As much of the area within two times the dripline of the tree should be mulched, both inside and outside of the critical root zone. 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.



- **Irrigation Systems:** 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 demolition, site clearing or other construction activity occurs.

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

Yours truly,  
Talbot Mackenzie & Associates  
ISA Certified Consulting Arborists

Encl. 1-page tree resource spreadsheet, 1-page site plan with barrier fencing locations and tree labels, 1-page preliminary servicing, 1-page original survey

**Disclosure Statement**

Arborists are professionals who examine trees and use their training, knowledge and experience to recommend techniques and procedures that will improve their health and structure or to mitigate associated risks.

Trees are living organisms, whose health and structure change, and are influenced by age, continued growth, climate, weather conditions, and insect and disease pathogens. Indicators of structural weakness and disease are often hidden within the tree structure or beneath the ground. It is not possible for an Arborist to identify every flaw or condition that could result in failure or can he/she guarantee that the tree will remain healthy and free of risk.

Remedial care and mitigation measures recommended are based on the visible and detectable indicators present at the time of the examination and cannot be guaranteed to alleviate all symptoms or to mitigate all risk posed.

Tree ID	Common Name	Latin Name	DBH (cm)	Crown Spread (m)	CRZ (m)	Relative Tolerance	Health	Structure	Remarks and Recommendations	Retention Status X = Removal TBD = To be Determined
92	English Holly	<i>Ilex aquifolium</i>	26, 18	6.0	3.5	Good	Good	Fair		X
128	Purple Leaf Plum	<i>Prunus cerisifera</i>	48, 46, 41, 41, 32	14.0	10.0	Moderate	Fair	Fair/poor	Codominant union at base with included bark	X
984	Garry Oak	<i>Quercus garryana</i>	79.0	16.0	8.0	Good	Good	Fair	1.8m tall retaining walls 1.5m south and 3.5m west of tree, confining root growth	TBD- Significant Health Impacts
986	Garry Oak	<i>Quercus garryana</i>	78.0	12.0	8.0	Good	Good	Fair	Asymmetric crown	X
990	Garry Oak	<i>Quercus garryana</i>	87.0	15.0	8.5	Good	Good	Fair	Asymmetric crown , slight lean	X
NT 01	English Holly	<i>Ilex aquifolium</i>	26, 21, 18	5.0	4.0	Good	Good	Fair	Municipal	Retain
NT 02	English Holly	<i>Ilex aquifolium</i>	Multistem	3.0	2.5	Good	Good	Fair	Municipal	Retain
NT 03	English Holly	<i>Ilex aquifolium</i>	Multistem	3.0	2.5	Good	Good	Fair	Municipal	Retain
NT 04	Horsechestnut	<i>Aesculus hippocastanum</i>	34.0	7.0	4.0	Moderate	Fair	Poor	Municipal. Topped severely for three primary hydro lines above. Slight lean and asymmetric	X
NT 05	Horsechestnut	<i>Aesculus hippocastanum</i>	51.0	11.0	6.0	Moderate	Fair	Poor	Municipal. Topped severely for three primary hydro lines above	X
NT 06	Horsechestnut	<i>Aesculus hippocastanum</i>	57.0	13.0	7.0	Moderate	Fair	Poor	Municipal. Topped severely for three primary hydro lines above	X
NT 07	Horsechestnut	<i>Aesculus hippocastanum</i>	53, 39	14.0	9.0	Moderate	Fair	Poor	Municipal. Topped severely for three primary hydro lines above. Codominant union at DBH level with reaction wood	X
NT 08	Horsechestnut	<i>Aesculus hippocastanum</i>	23.0	5.0	3.0	Moderate	Fair	Fair/poor	Municipal. Leaning away from hydro lines. 1.5m from property line.	X
NT 09	English Hawthorn	<i>Crataegus laevigata</i>	25.0	5.0	2.5	Good	Good	Fair	Municipal. 2m from property line trajectory	Retain

Prepared by:

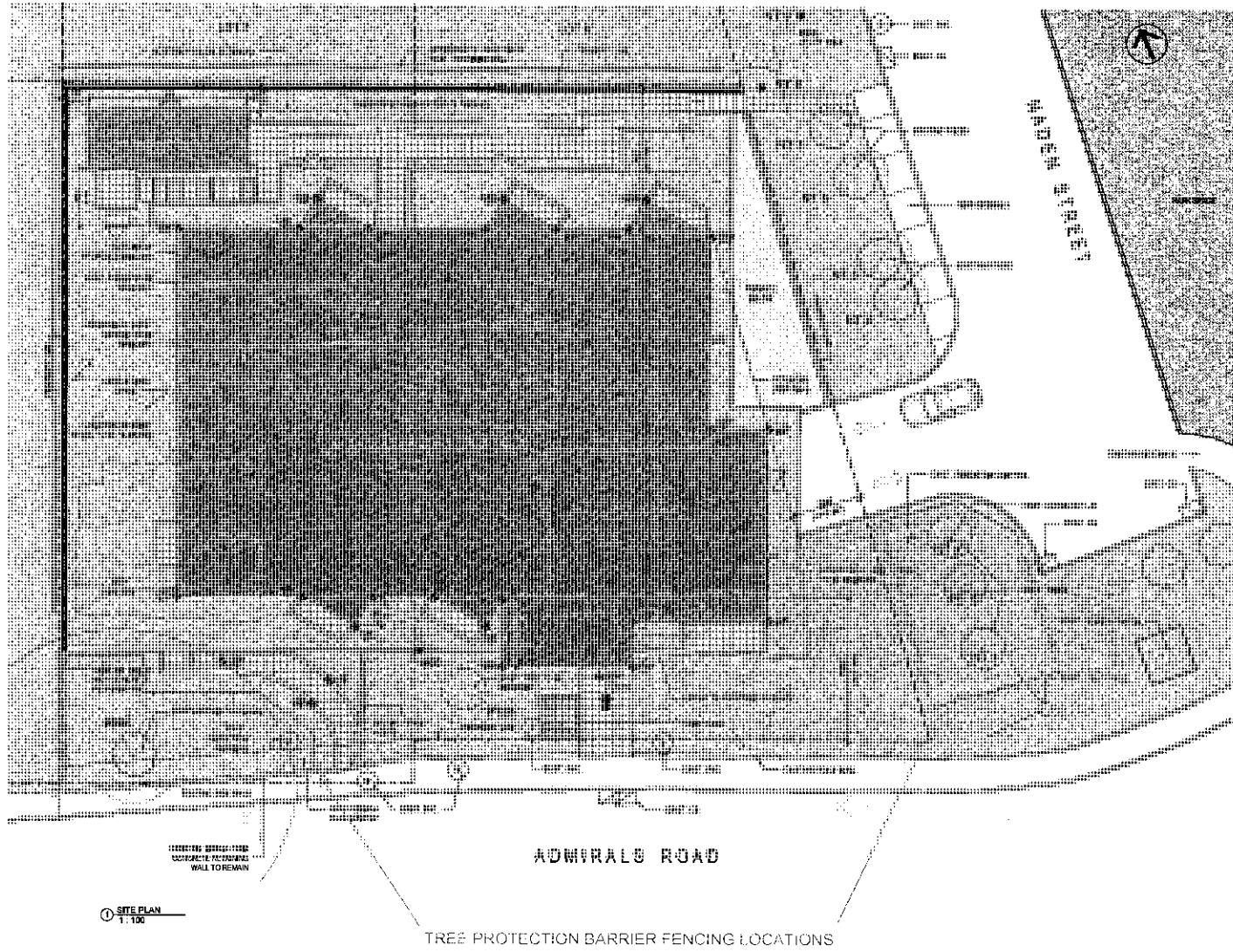
Talbot Mackenzie &amp; Associates

ISA Certified and Consulting Arborists

Phone: (250) 479-8733

Fax: (250) 479-7050

email: tmtreehelp@gmail.com



**PRAXIS**  
architects inc.

838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD

PROJECT NO. 17-013

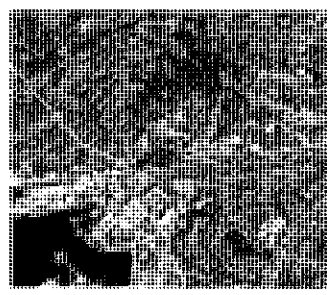
SITE PLAN

2017.12.15 - REZONING APPLICATION

**A01**



- DETAILED CONSTRUCTION NOTES:**
- ① TOWNSHIP OF ESQUIMAULT TO INSTALL 150mm SEWER AND 80mm SERVICES AT DEVELOPERS EXPENSE. SEWER AND 80mm SERVICES TO BE COMPLETED PRIOR TO CONSTRUCTION.
  - ② TOWNSHIP OF ESQUIMAULT TO CAP EXISTING SEWER AND 80mm SERVICES AT DEVELOPERS EXPENSE.
  - ③ CITY OF VICTORIA TO INSTALL 150mm FIRE AND 100mm WATER SERVICE AT DEVELOPERS EXPENSE.
  - ④ CITY OF VICTORIA TO CAP EXISTING WATER SERVICES AT DEVELOPERS EXPENSE.
  - ⑤ CONTRACTOR TO REMOVE EXISTING DRIVEWAY AND RESTORE CURB, WALL AND SIDEWALK.



KEY PLAN  
M15

GT MANN  
838/842 ADMIRALS ROAD  
CONCEPTUAL  
SERVICING PLAN

Scale 1:200  
Date \_\_\_\_\_  
Sheet 1 of 1  
Eng. Project No. 30895

**JEA** J E ANDERSON & ASSOCIATES  
SURVEYORS - ENGINEERS  
VICTORIA NANAIMO PRINCEGEORGE  
PHONE 250-727-2214 FAX 250-727-3396



**PRELIMINARY ONLY**

**SITE PLAN OF LOT 16 and LOT 17, EXCEPT PART IN PLAN VIP86845,  
BOTH IN BLOCK 7, SECTION 10, ESQUIMALT DISTRICT, PLAN 2546**

Address: 638-842 Admirale Road, Esquimalt  
Date: August 3, 2017

Scale 1:250

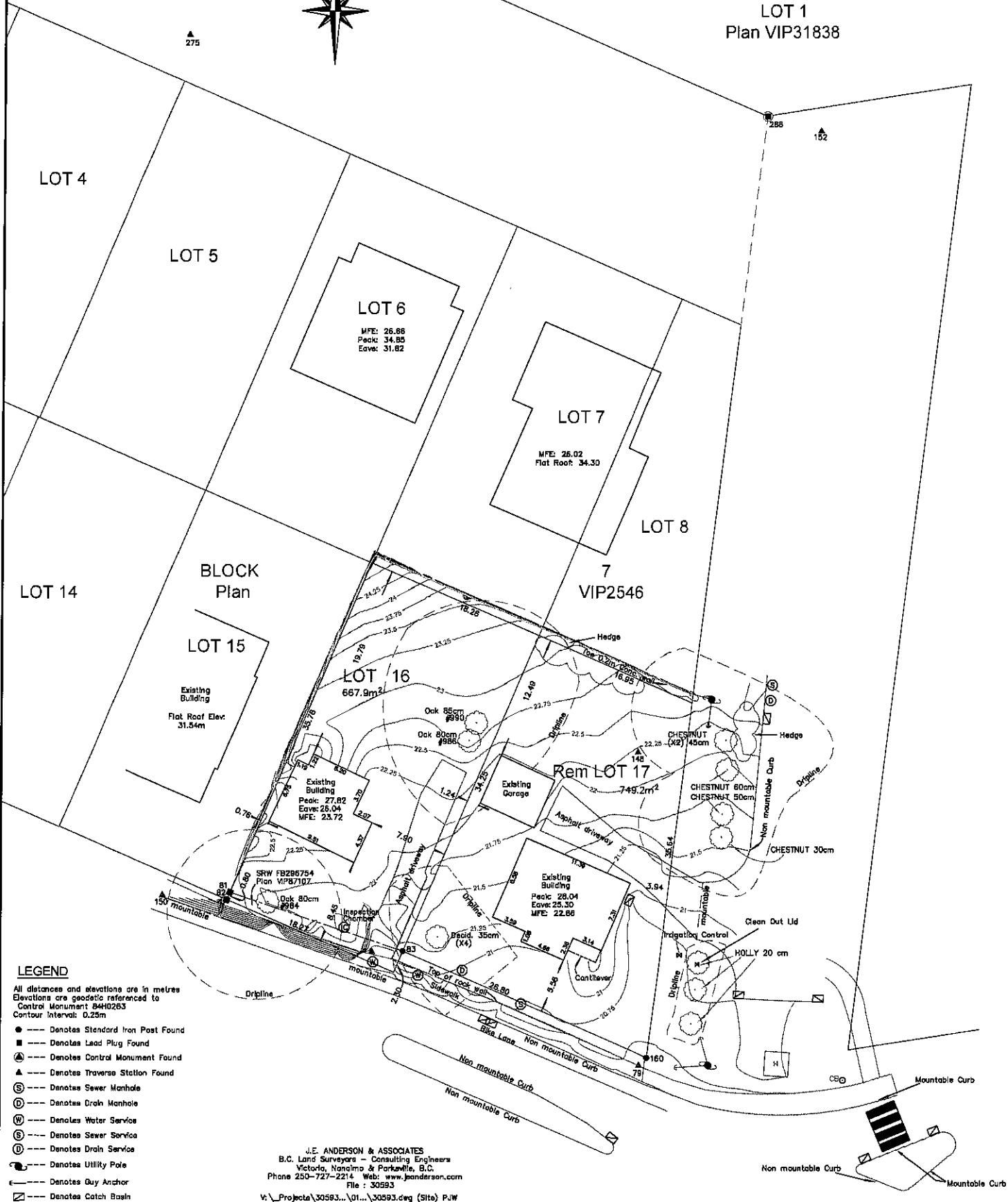


The intended plot size of this plan is 432mm in width by 560mm in height (C Size) when plotted at a scale of 1:250

CLIENT: GT MANN CONSTRUCTION LTD.



LOT 1  
Plan VIP31838



**LEGEND**

All distances and elevations are in metres  
Elevations are geoidal referenced to  
Control Monument 8440263  
Contour Interval: 0.25m

- --- Denotes Standard Iron Post Found
- --- Denotes Lead Plug Found
- ▲ --- Denotes Control Monument Found
- ▲ --- Denotes Traverse Station Found
- ⊙ --- Denotes Sewer Manhole
- ⊕ --- Denotes Drain Manhole
- ⊖ --- Denotes Water Service
- ⊗ --- Denotes Sewer Service
- ⊘ --- Denotes Drain Service
- ⊙ --- Denotes Utility Pole
- ⊙ --- Denotes Guy Anchor
- ⊙ --- Denotes Catch Basin

J.E. ANDERSON & ASSOCIATES  
B.C. Land Surveyors - Consulting Engineers  
Victoria, Nanaimo & Parksville, B.C.  
Phone 250-727-2214 Web: www.jeanderson.com  
File: 30593

V:\Project\30593\01\30593.dwg (Site) P.W



**838 / 839 – 842 Admirals Road**

**Parking Study**

Prepared for: **GT Mann Contracting**

Prepared by: **Watt Consulting Group**

Our File: **2258**

Date: **December 6, 2017**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Subject Site.....	1
1.2	Site Characteristics.....	2
<b>2.0</b>	<b>PROPOSED DEVELOPMENT.....</b>	<b>3</b>
2.1	Proposed Parking Supply.....	3
<b>3.0</b>	<b>PARKING REQUIREMENT.....</b>	<b>3</b>
<b>4.0</b>	<b>EXPECTED PARKING DEMAND.....</b>	<b>3</b>
4.1	Resident Parking, Observations.....	3
4.2	Visitor Parking.....	5
4.3	Summary of Expected Parking Demand.....	6
<b>5.0</b>	<b>ON-STREET PARKING CONDITIONS.....</b>	<b>6</b>
<b>6.0</b>	<b>TRANSPORTATION DEMAND MANAGEMENT.....</b>	<b>7</b>
6.1	Bike Parking.....	8
<b>7.0</b>	<b>SUMMARY.....</b>	<b>8</b>
7.1	Recommendation.....	8

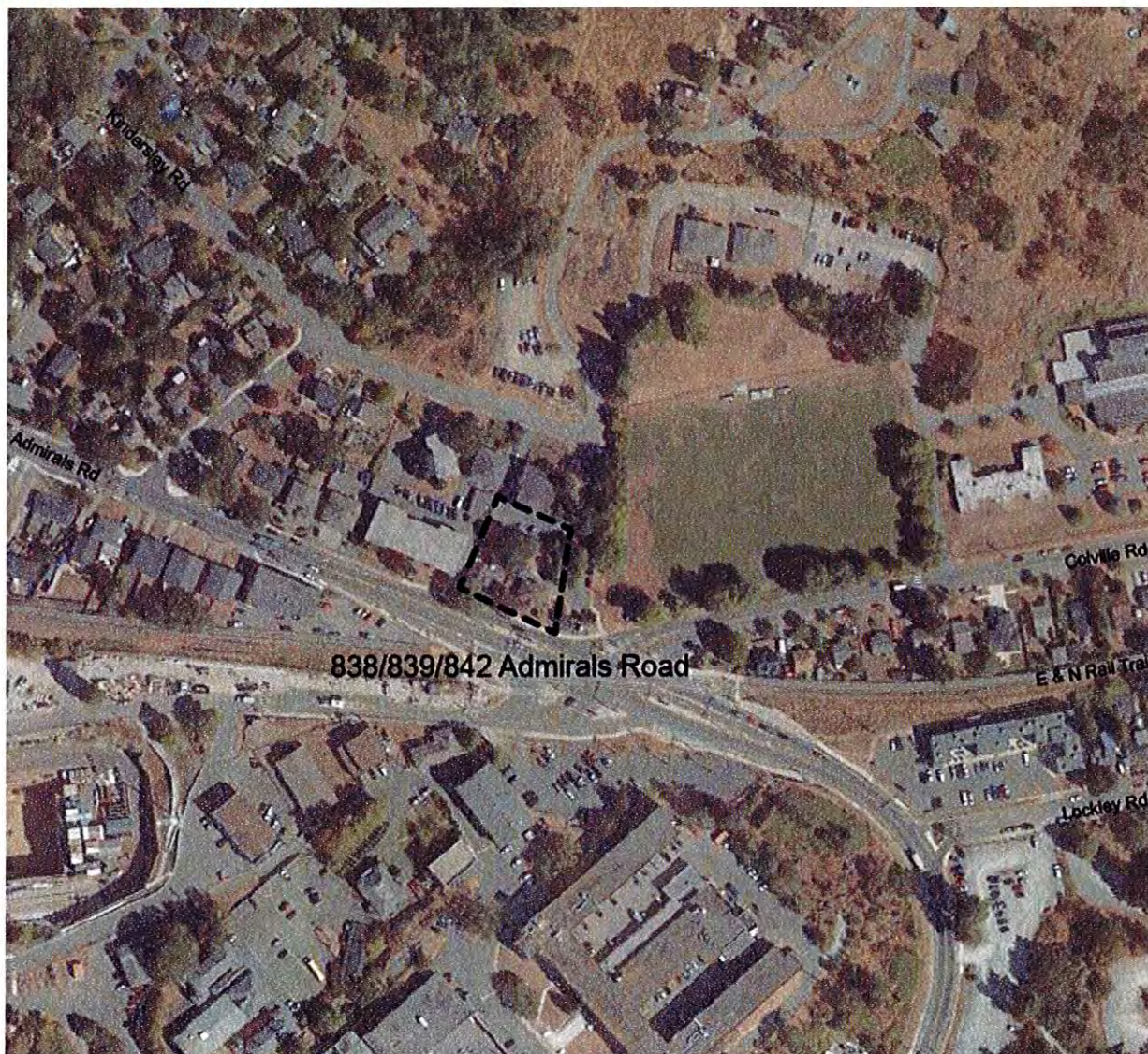
## 1.0 INTRODUCTION

Watt Consulting Group was retained by GT Mann Contracting to conduct a parking study for the proposed development at 638/640 Constance Avenue and 637 Nelson Street in the Township of Esquimalt. The purpose of this study is to assess the adequacy of the proposed parking supply by considering parking demand at representative sites and to identify transportation demand management (TDM) options.

## 1.1 SUBJECT SITE

The proposed redevelopment site is 638/640 Constance Avenue and 637 Nelson Street in the Township of Esquimalt. The site is zoned RD-3 | Two Family/Single Family Residential + CD-75 | Comprehensive Development District No.75 . See **Figure 1**.

**FIGURE 1. SUBJECT SITE**





## 1.2 SITE CHARACTERISTICS

The following provides information regarding services and transportation options in close proximity to the subject site.



### SERVICES

The site is located just over 1km from Admirals Walk that has various retail, restaurant, office and medical services. Esquimat Village is located 2km from the site and has similar services as Admirals Walk.



### TRANSIT

The closest bus stop is 100m from the site on Colville Road and serves Route 24 | Cedar Hill/Admirals Walk. The closest bus stop on Admirals Road is 120m from the site and serves Route 25 | Maplewood/Admirals Walk. These routes are classified as local routes with a service frequency of 20 to 120 minutes, depending on the time of day and day of week.

BC Transit's Victoria Transit Future Plan<sup>1</sup> identifies Admirals Road as a "Frequent Transit Corridor"<sup>2</sup> that will provide frequent service (15 minutes or better between 7am and 10pm, 7 days per week) with improved transit travel times achieved by fewer stops, transit priority measures and enhanced bus stop infrastructure. The subject site will benefit from frequent, reliable and convenient transit service.



### WALKING

There are sidewalks on both sides of Admirals Road, and adequate crosswalks at major intersections. Admirals Road underwent an extensive street improvement project in 2015 that included installing two-way left-turns, median islands, street lighting upgrades, and sidewalk improvements.



### CYCLING

There are bike lanes on both sides of Admirals Road between Lyall Street and Maplebank Road, which was a part of the improvement project in 2015. The site is directly adjacent the Esquimalt and Nanaimo (E+N) Rail Trail, which provides a direct off-road cycling route to View Royal and the Western Communities.

<sup>1</sup> Transit Future Plan, Victoria Region, May 2011. Available online at: <https://bctransit.com/servlet/documents/1403641054473>

<sup>2</sup> More information on the Victoria Transit Future Plan is available online at: <http://bctransit.com/victoria/transit-future/victoria-transit-future-plan>

## 2.0 PROPOSED DEVELOPMENT

The proposal is for 30 Multi-family Residential units. This will be a rental apartment building with units offered at market rates (i.e., no subsidy) consisting of a combination of one- and two-bedroom units. See **Table 1**.

**TABLE 1. PROPOSED UNIT COMPOSITION<sup>3</sup>**

Number of Bedrooms	Quantity
One-Bedroom	12
One-Bedroom + Den	6
Two-Bedroom	10
Two-Bedroom + Den	2
<b>Total</b>	<b>30</b>

### 2.1 PROPOSED PARKING SUPPLY

The proposed parking supply is 30 spaces - a parking supply rate of 1.0 spaces per unit.

The proposal also includes provision of 45 long-term bike parking spaces (1.5 bike parking spaces per unit) and a six-space bike rack at the building entrance.

### 3.0 PARKING REQUIREMENT

The Township of Esquimalt Parking Bylaw No. 2011<sup>4</sup> identifies a minimum parking supply rate of 1.3 spaces per unit for Medium and High Density Apartment uses (assumes RM-4 zoning). Applied to the subject site, this results in a requirement for 39 parking spaces. The Bylaw requires that 10 of the required spaces are reserved for visitors, and one space is designed and designated as Disabled Persons' parking (28 resident, 10 visitor, 1 disabled).

### 4.0 EXPECTED PARKING DEMAND

Expected parking demand is estimated in the following sections based on observations and research.

#### 4.1 RESIDENT PARKING, OBSERVATIONS

Observations of parked vehicles were completed for eight representative sites within Esquimalt to determine an appropriate parking demand rate for the subject site. Study sites are generally located in the western portion of the Township with similar access to public transit and cycling routes as the proposed site. All study sites are market rental apartment buildings.

<sup>3</sup> Unit composition information per email correspondence from Praxis Architects, received September 18 2017

<sup>4</sup> The Township's Zoning Bylaw is available online at:  
[www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/parking\\_bylaw\\_2011\\_july.pdf](http://www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/parking_bylaw_2011_july.pdf)

Observations were conducted on Thursday October 5 and Wednesday October 11 between 9:00pm and 10:00pm (representing peak period for residential land uses). All representative sites have surface parking, which allowed access to complete counts of parked vehicles.

Results suggest an average peak parking demand of 0.61 vehicles per unit and an 85<sup>th</sup> percentile of 0.72 vehicles per unit, with rates ranging from 0.45 to 0.72 vehicles per unit. See **Table 2**. The 85<sup>th</sup> percentile parking demand rate applied to the subject site suggests a total parking demand of 22 vehicles.

Study sites that are in close proximity to the subject site were assessed in more detail to calculate an accurate representation of parking demand at the subject site. Average peak demand of those sites (850 Admirals Road and 841 Kindersley Road) is 0.69 vehicles per unit; higher than the average among all sites. This is likely a result of these sites being located farther from services and transportation options. The majority of these sites are in close proximity to CFB Esquimalt and it is assumed that a portion of residents are CFB employees and do not require a vehicle.

**TABLE 2. SUMMARY OF OBSERVATIONS AT REPRESENTATIVE SITES**

Location	Number of Units	Thursday October 5, 9:00pm		Wednesday October 11, 9:00pm	
		Vehicles Observed	Demand Rate (vehicles per unit)	Vehicles Observed	Demand Rate (vehicles per unit)
850 Admirals Rd	20	13	0.65	13	0.65
841 Kindersley Rd	11	8	0.73	7	0.64
625 Constance Ave	29	15	0.52	13	0.45
639 Constance Ave	19	8	0.42	10	0.53
1337 Saunders St	28	16	0.57	15	0.54
1340 Sussex St	39	21	0.54	24	0.62
1357 Esquimalt Rd	50	32	0.64	36	0.72
611 Admirals Rd	25	16	0.64	18	0.72
<b>Average</b>			<b>0.59</b>		<b>0.61</b>
<b>85<sup>th</sup> Percentile</b>			<b>0.65</b>		<b>0.72</b>

Research suggests that parking demand varies based on the size of unit - the higher the number of bedrooms, the higher the parking demand. For the two sites closest to the subject site, the total parking demand has been redistributed based on number of bedrooms.

Overall vehicle ownership at the study sites closest to the subject site have been factored to account for unit configuration (i.e., number of bedrooms) as follows (see **Table 3**):

1. Overall adjusted peak vehicle ownership data for each site<sup>5</sup>;
2. The breakdown of unit type (i.e., number of bedrooms) at each site<sup>6</sup>; and
3. The assumed “ratio differences” between each unit type based on the King County Metro<sup>7</sup> study which recommends one-bedroom units have a 20% higher parking demand than bachelor units, two-bedroom units have a 60% higher parking demand than one-bedroom units, and three-bedroom units have a 15% higher parking demand than two-bedroom units.

Results suggest that average parking demand when factored for unit configuration is as follows:

- One-Bedroom Units (18) = 0.65 vehicles per unit, 12 vehicles
- Two-Bedroom Units (12) = 1.04 vehicles per unit, 12 vehicles
- Total Vehicles = 24 vehicles

**TABLE 3. PARKING DEMAND BY UNIT TYPE AT SELECT REPRESENTATIVE SITES**

Location	Adjusted Demand Rate	Assumed Vehicle Ownership Distribution (vehicles per unit)	
		1-Bedroom	2-Bedroom
850 Admirals Rd	0.72	0.62	0.99
841 Kindersley Rd	0.80	0.68	1.09
<b>Average</b>	<b>0.76</b>	<b>0.65</b>	<b>1.04</b>

#### 4.2 VISITOR PARKING

Observations were conducted as part of a study by Metro Vancouver<sup>8</sup> that concluded typical visitor parking demand is less than 0.1 vehicles per unit. This is similar to observations that were conducted for parking studies in the City of Langford and the City of Victoria, and suggests that visitor parking demand is not strongly influenced by location.

As such, it is estimated that visitor parking demand will be no more than 0.1 vehicles per unit.

<sup>5</sup> The peak parking demand rates were also factored up to account for any residents that may not have been home during observations. A conservative factor of 10% is applied to each site (this is based on known ratio differences between results from observations and vehicle ownership information at similar sites)

<sup>6</sup> Actual breakdown by unit type was unknown at each site, and thus an assumed breakdown was used for each site of 10% bachelor, 60% one-bedroom, 30% two-bedroom (based on averages of multiple representative sites)

<sup>7</sup> King County Metro. (2013). Right Size Parking Model Code. Table 2, page 21.  
Available online at: <http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/140110-rsp-model-code.pdf>

<sup>8</sup> Metro Vancouver Apartment Parking Study, Technical Report, 2012.  
Available online at: [www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment\\_Parking\\_Study\\_TechnicalReport.pdf](http://www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment_Parking_Study_TechnicalReport.pdf)

### 4.3 SUMMARY OF EXPECTED PARKING DEMAND

Expected parking demand is approximately 27 vehicles, 3 less than the proposed parking supply. See **Table 5**.

**TABLE 5. SUMMARY OF EXPECTED PARKING DEMAND**

		Units	Expected Parking Demand	
			Rate	Total
Resident	One Bedroom	18	0.65 / unit	12
	Two Bedroom	12	1.04 / unit	12
Visitor		30	0.1 / unit	3
<b>Total Expected Parking Demand</b>				<b>27</b>

### 5.0 ON-STREET PARKING CONDITIONS

On-street parking conditions were observed surrounding the site on Naden Street (from Kindersley Road to the cul-de-sac), Kindersley Road (from Naden Street to Coles Street), and Colville Road (from Admirals Road to Harman Avenue). Parking restrictions on these road segments are unrestricted, 3 Hour, Residential Only, or there is no parking available. See **Table 6** and **Figure 2**.

Observations were completed during a weekday afternoon and evening to reflect the anticipated “peak” periods. Observations were conducted during the following time periods:

- Tuesday September 19 at 10:30pm
- Friday September 22 at 2:30pm

Results from both observation periods were fairly consistent; weekday evening was observed at 29% occupied (with 34 spaces unoccupied) and weekday afternoon was observed at 31% occupied (with 33 spaces unoccupied). This suggests there is sufficient availability of on-street parking resources in case of spillover.

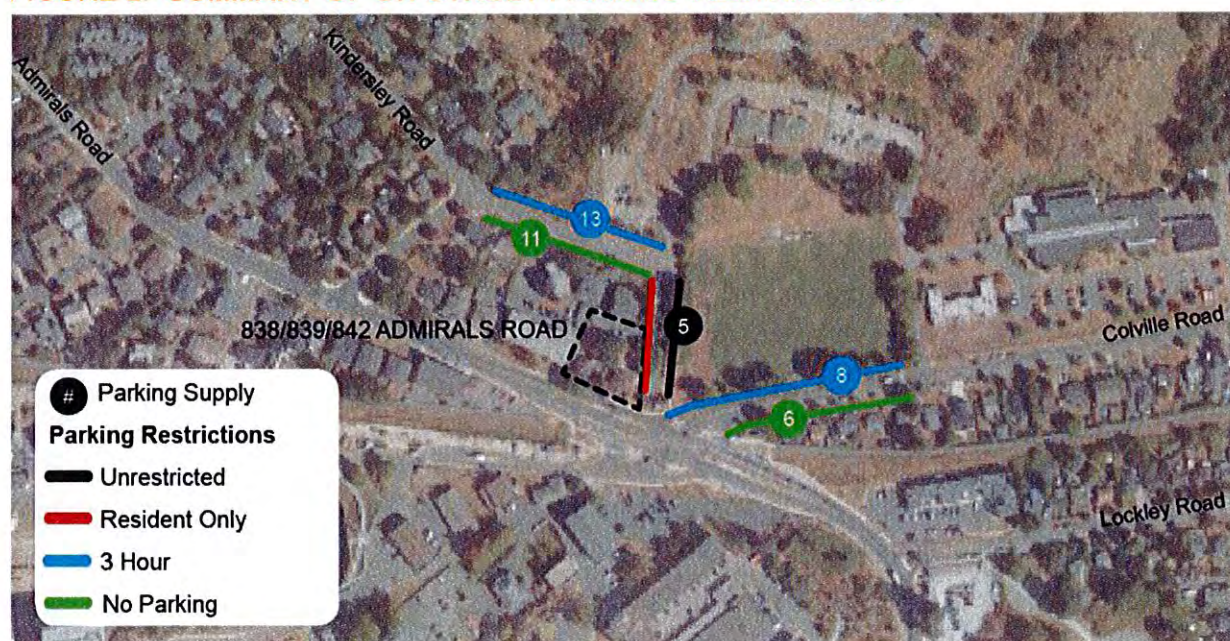
When considering on-street parking conditions by restrictions, the following is noted:

- Unrestricted parking was 80% occupied during the weekday afternoon observations with only two spaces available. This is likely attributed to activity at the DND;
- Resident only parking was 65% occupied during the weekday evening observation with six spaces available. This suggests this parking is well utilized, with sufficient space available to accommodate additional vehicles;
- The 3 hour parking is not well utilized with a peak total occupancy of 14%.

**TABLE 6. SUMMARY OF ON-STREET PARKING CONDITIONS**

Street		Side	Restrictions	Parking Supply (spaces)	Vehicles Observed	
					Tues. 09/19/17 @ 10:30pm	Fri. 09/22/17 @ 2:30pm
Naden Street	Kindersley Rd – cul de sac	W	No Parking	-	-	-
		E	--	10	0	8
Kindersley Rd	Naden St – Coles St	N	3 Hour	13	2	0
		S	Resident Only	11	7	2
Colville Rd	Admirals Rd – Harman Ave	N	3 Hour	8	1	2
		S	Resident Only	6	4	3
				<b>48</b>	<b>14</b> <b>29%</b>	<b>15</b> <b>31%</b>

**FIGURE 2. SUMMARY OF ON-STREET PARKING RESTRICTIONS**



## 6.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) is the application of strategies and policies to influence individual travel choice, most commonly to reduce single-occupant vehicle travel. TDM measures can be pursued to encourage sustainable travel, enhance travel options and decrease parking demand. The following are identified for the applicant's consideration.

## 6.1 BIKE PARKING

Bike parking is not currently required in the Township's Parking Bylaw. However, the Township of Esquimalt Official Community Plan includes policy that states:

*In new multi-unit residential developments, secure bicycle storage for residents should be provided in the ratio of 1.5 storage spaces per dwelling unit. In addition to the residents' parking, each multi-unit building should have six (6) bicycle lock-up spaces for the use of visitors.*

The applicant is providing bike parking as per the policy in the OCP, which is higher than typical bike parking requirements in other communities.

## 7.0 SUMMARY

The proposed development is for 30 units and 30 off-street parking spaces – a parking supply rate of 1.0 spaces per unit. The Township's Parking Bylaw identifies a required minimum parking supply of 39 parking spaces; nine more than is proposed.

Expected parking demand was calculated for the site based on vehicle ownership data and observations of representative study sites. Results suggest an expected parking demand of 24 resident vehicles and 3 visitor vehicles – a total site parking demand of 27 vehicles. Site parking demand is expected to be accommodated within the proposed off-street parking supply and without impacting the surrounding neighbourhood.

Long- and short-term bicycle parking will be provided, consistent with the policy in the Township's OCP (1.5 long-term bike parking spaces per unit and a six-space rack at the building entrance).

## 7.1 RECOMMENDATION

1. It is recommended that the Township grant the requested variance to allow for provision of 30 parking spaces (1.0 spaces per unit)



## GREEN BUILDING CHECKLIST

The purpose of this Checklist is to make property owners and developers aware of specific green features that can be included in new developments to reduce their carbon footprints to help create a more sustainable community.

Creating walkable neighbourhoods, fostering green building technologies, making better use of our limited land base and ensuring that new development is located close to services, shops and transit are some of the means of achieving sustainability.

The Checklist which follows focuses on the use of **Green Technologies** in new buildings and major renovations. The Checklist is not a report card, it is a tool to help identify how your project can become 'greener' and to demonstrate to Council how your project will help the Township of Esquimalt meet its sustainability goals. It is not expected that each development will include all of the ideas set out in this list but Council is looking for a strong commitment to green development.

There are numerous green design standards, for example, Built Green BC; LEED ND; Living Building Challenge; Green Shores; Sustainable Sites Initiative. Esquimalt is not directing you to follow any particular standard, however, you are strongly encouraged to incorporate as many green features as possible into the design of your project .

As you review this checklist, if you have any questions please contact **Development Services at 250.414.7108** for clarification.

**New development is essential to Esquimalt.  
We look forward to working with you  
to ensure that development is  
as green and sustainable as possible.**

Other documents containing references to building and site design and sustainability, which you are advised to review, include:

- Esquimalt's Official Community Plan
- Development Protocol Policy
- Esquimalt's Pedestrian Charter
- Tree Protection Bylaw No. 2664
- A Sustainable Development Strategic Plan for the Township of Esquimalt





“One-third of Canada’s energy use goes to running our homes, offices and other buildings. The federal government’s Office of Energy Efficiency (Natural Resources Canada) reports that a corresponding one-third of our current greenhouse gas (GHG) emissions come from the built environment.”  
 [Green Building and Development as a Public Good, Michael Buzzelli, CPRN Research Report June 2009]

Please answer the following questions and describe the green and innovative features of your proposed development. Depending on the size and scope of your project, some of the following points may not be applicable.

## Green Building Standards



*Both energy use and emissions can be reduced by changing or modifying the way we build and equip our buildings.*

1	Are you building to a recognized green building standard? If yes, to what program and level?	Yes	No 
2	If not, have you consulted a Green Building or LEED consultant to discuss the inclusion of green features?	Yes 	No
3	Will you be using high-performance building envelope materials, rainscreen siding, durable interior finish materials or safe to re-use materials in this project? If so, please describe them. TO MEET NECB 2011	Yes 	No
4	What percentage of the existing building[s], if any, will be incorporated into the new building?	N/A %	
5	Are you using any locally manufactured wood or stone products to reduce energy used in the transportation of construction materials? Please list any that are being used in this project. TBD DURING FURTHER DETAILED DESIGN		
6	Have you considered advanced framing techniques to help reduce construction costs and increase energy savings?	Yes 	No
7	Will any wood used in this project be eco-certified or produced from sustainably managed forests? If so, by which organization? <u>TBD DURING FURTHER DETAILED DESIGN</u>  For which parts of the building (e.g. framing, roof, sheathing etc.)? <u>SHEATHING</u>		
8	Can alternatives to Chlorofluorocarbon’s and Hydro-chlorofluorocarbons which are often used in air conditioning, packaging, insulation, or solvents] be used in this project? If so, please describe these. _____ THE GOAL WILL BE TO MINIMIZE USE OF CFC AND HCFC - TBD DURING FURTHER DETAILED DESIGN	Yes 	No
9	List any products you are proposing that are produced using lower energy levels in manufacturing. <u>TBD DURING FURTHER DETAILED DESIGN</u>		
10	Are you using materials which have a recycled content [e.g. roofing materials, interior doors, ceramic tiles or carpets]?	Yes 	No
11	Will any interior products [e.g. cabinets, insulation or floor sheathing] contain formaldehyde?	Yes	No 







## Water Management

The intent of the following features is to promote water conservation, re-use water on site, and reduce storm water run-off.


### Indoor Water Fixtures

12	Does your project exceed the BC Building Code requirements for public lavatory faucets and have automatic shut offs? N/A	Yes	No	
13	For commercial buildings, do flushes for urinals exceed BC Building Code requirements? N/A	Yes	No	
14	Does your project use dual flush toilets and do these exceed the BC Building Code requirements? TBD DURING FURTHER DETAILED DESIGN	Yes	No	
15	Does your project exceed the BC Building Code requirements for maximum flow rates for private showers?	Yes	No	
16	Does your project exceed the BC Building Code requirements for flow rates for kitchen and bathroom faucets?	Yes	No	

### Storm Water


17	If your property has water frontage, are you planning to protect trees and vegetation within 60 metres of the high water mark? [Note: For properties located on the Gorge Waterway, please consult Sections 7.1.2.1 and 9.6 of the Esquimalt Official Community Plan.]	Yes	No	N/A 
18	Will this project eliminate or reduce inflow and infiltration between storm water and sewer pipes from this property?	Yes	No	N/A 
19	Will storm water run-off be collected and managed on site (rain gardens, wetlands, or ponds) or used for irrigation or re-circulating outdoor water features? If so, please describe. <u>THERE WILL BE VERY LITTLE STORM WATER RUN-OFF</u>	Yes	No	N/A 
20	Have you considered storing rain water on site (rain barrels or cisterns) for future irrigation uses? <u>IT HAS BEEN CONSIDERED, BUT IS NOT APPROPRIATE FOR THIS SITE</u>	Yes 	No	N/A
21	Will surface pollution into storm drains will be mitigated (oil interceptors, bio-swales)? If so, please describe. <u>OIL INTERCEPTORS</u>	Yes 	No	N/A
22	Will this project have an engineered green roof system or has the structure been designed for a future green roof installation?	Yes	No 	N/A
23	What percentage of the site will be maintained as naturally permeable surfaces?	_____%		

### Waste water

24	For larger projects, has Integrated Resource Management (IRM) been considered (e.g. heat recovery from waste water or onsite waste water treatment)? If so, please describe these. _____	Yes	No	N/A 
----	--	-----	----	--

## Natural Features/Landscaping

The way we manage the landscape can reduce water use, protect our urban forest, restore natural vegetation and help to protect the watershed and receiving bodies of water.

25	Are any healthy trees being removed? If so, how many and what species? <u>REFER TO REPORT PREPARED BY TALBOT MACKENZIE &amp; ASSOCIATES</u> Could your site design be altered to save these trees? NO Have you consulted with our Parks Department regarding their removal? YES	Yes 	No	N/A
----	--	--	----	-----

26	Will this project add new trees to the site and increase our urban forest? If so, how many and what species? <u>REFER TO LANDSCAPE PLAN</u>	Yes 	No	N/A
27	Are trees [existing or new] being used to provide shade in summer or to buffer winds?	Yes 	No	N/A
28	Will any existing native vegetation on this site be protected? If so, please describe where and how. _____	Yes	No	N/A 
29	Will new landscaped areas incorporate any plant species native to southern Vancouver Island?	Yes 	No	N/A
30	Will xeriscaping (i.e. the use of drought tolerant plants) be utilized in dry areas?	Yes 	No	N/A
31	Will high efficiency irrigation systems be installed (e.g. drip irrigation; 'smart' controls)?	Yes 	No	N/A
32	Have you planned to control invasive species such as Scotch broom, English ivy, Himalayan and evergreen blackberry growing on the property?	Yes	No	N/A 
33	Will topsoil will be protected and reused on the site?	Yes 	No	N/A

### Energy Efficiency

*Improvements in building technology will reduce energy consumption and in turn lower greenhouse gas [GHG] emissions. These improvements will also reduce future operating costs for building occupants.*

34	Will the building design be certified by an independent energy auditor/analyst? If so, what will the rating be? <u>TBD DURING FURTHER DETAILED DESIGN</u>	Yes 	No	N/A
35	Have you considered passive solar design principles for space heating and cooling or planned for natural day lighting?	Yes 	No	N/A
36	Does the design and siting of buildings maximize exposure to natural light? What percentage of interior spaces will be illuminated by sunlight? <u>_TBC_%</u>	Yes 	No	N/A
37	Will heating and cooling systems be of enhanced energy efficiency (ie. geothermal, air source heat pump, solar hot water, solar air exchange, etc.). If so, please describe. <u>TBD DURING FURTHER DETAILED DESIGN</u> If you are considering a heat pump, what measures will you take to mitigate any noise associated with the pump? _____	Yes	No	N/A
38	Has the building been designed to be solar ready?	Yes 	No	N/A
39	Have you considered using roof mounted photovoltaic panels to convert solar energy to electricity?	Yes	No	N/A 
40	Do windows exceed the BC Building Code heat transfer coefficient standards? TO MEET NECB 2011	Yes	No	N/A
41	Are energy efficient appliances being installed in this project? If so, please describe. ENERGY STAR			
42	Will high efficiency light fixtures be used in this project? If so, please describe. LED	Yes 	No	N/A
43	Will building occupants have control over thermal, ventilation and light levels?	Yes 	No	N/A
44	Will outdoor areas have automatic lighting [i.e. motion sensors or time set]?	Yes 	No	N/A
45	Will underground parking areas have automatic lighting?	Yes 	No	N/A

## Air Quality

The following items are intended to ensure optimal air quality for building occupants by reducing the use of products which give off gases and odours and allowing occupants control over ventilation.

46	Will ventilation systems be protected from contamination during construction and certified clean post construction?	Yes	No	N/A
47	Are you using any natural, non-toxic, water soluble or low-VOC [volatile organic compound] paints, finishes or other products? If so, please describe. <u>TBD DURING FURTHER DETAILED DESIGN</u>	Yes	No	N/A
48	Will the building have windows that occupants can open?	Yes	No	N/A
49	Will hard floor surface materials cover more than 75% of the liveable floor area?	Yes	No	N/A
50	Will fresh air intakes be located away from air pollution sources?	Yes	No	N/A

## Solid Waste

Reuse and recycling of material reduces the impact on our landfills, lowers transportation costs, extends the life-cycle of products, and reduces the amount of natural resources used to manufacture new products.

51	Will materials be recycled during demolition of existing buildings and structures? If so, please describe. <u>EXPLORING OPTIONS REGARDING MOVING EXISTING HOUSES</u>	Yes	No	N/A
52	Will materials be recycled during the construction phase? If so, please describe. <u>WASTE WOOD</u>	Yes	No	N/A
53	Does your project provide enhanced waste diversion facilities i.e. on-site recycling for cardboard, bottles, cans and or recyclables or on-site composting?	Yes	No	N/A
54	For new commercial development, are you providing waste and recycling receptacles for customers?	Yes	No	N/A

## Green Mobility

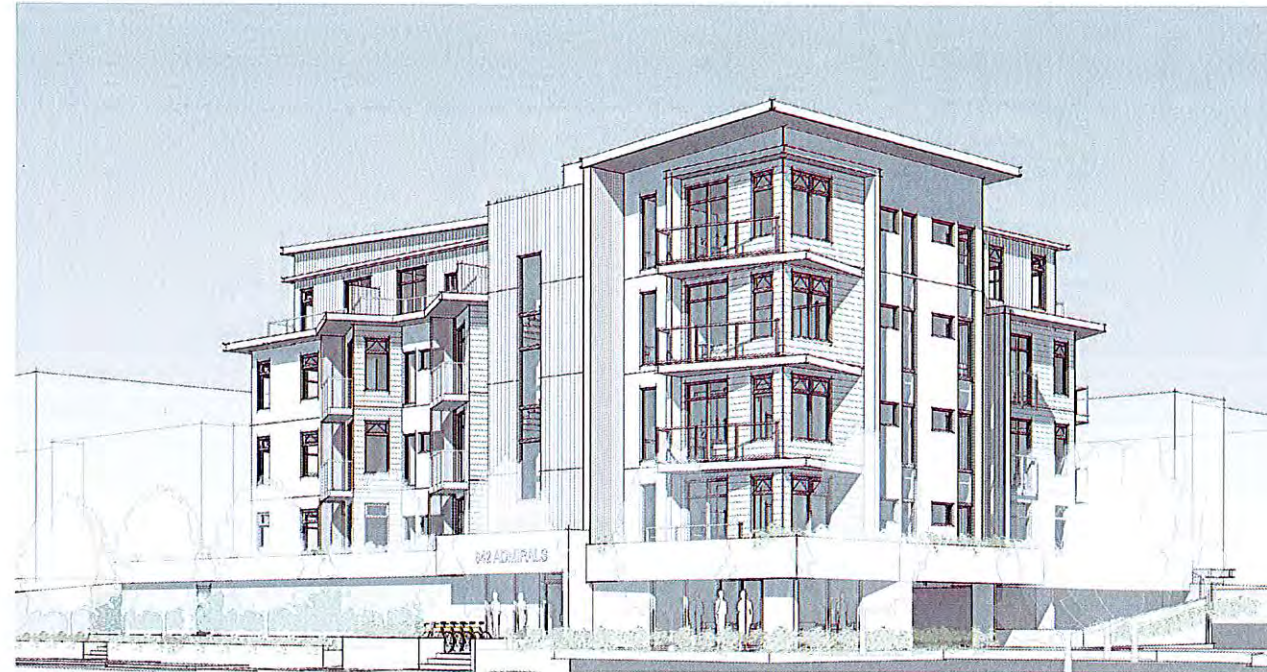
The intent is to encourage the use of sustainable transportation modes and walking to reduce our reliance on personal vehicles that burn fossil fuels which contributes to poor air quality.

55	Is pedestrian lighting provided in the pathways through parking and landscaped areas and at the entrances to your building[s]?	Yes	No	N/A
56	For commercial developments, are pedestrians provided with a safe path[s] through the parking areas and across vehicles accesses?	Yes	No	N/A
57	Is access provided for those with assisted mobility devices?	Yes	No	N/A
58	Are accessible bike racks provided for visitors?	Yes	No	N/A
59	Are secure covered bicycle parking and dedicated lockers provided for residents or employees?	Yes	No	N/A
60	Does your development provide residents or employees with any of the following features to reduce personal automobile use [check all that apply]: <input type="checkbox"/> transit passes <input checked="" type="checkbox"/> car share memberships <input type="checkbox"/> shared bicycles for short term use <input type="checkbox"/> weather protected bus shelters <input checked="" type="checkbox"/> plug-ins for electric vehicles			

Is there something unique or innovative about your project that has not been addressed by this Checklist? If so, please add extra pages to describe it.

# 838-842 ADMIRALS ROAD

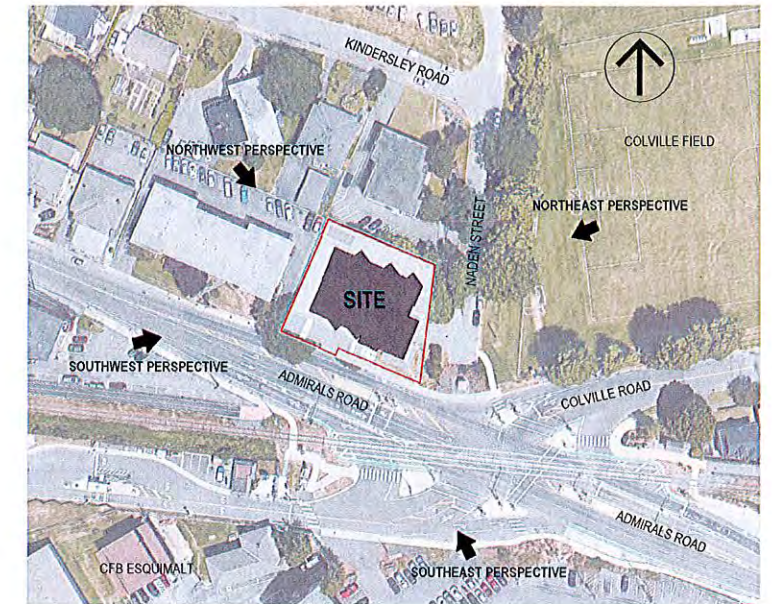
ISSUED FOR REZONING - 2017.12.15



VIEW FROM ADMIRALS AT COLLVILLE

**DRAWING LIST**

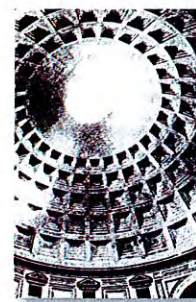
- A00 COVER PAGE
- A01 SITE PLAN
- A02 PARKADE PLAN
- A03 LEVEL 1
- A04 LEVEL 2 - 3
- A05 LEVEL 4
- A06 ELEVATIONS
- A07 SECTIONS
- A08 STREET VIEWS
- A09 SHADOW STUDIES
- L1 LANDSCAPE PLAN



CONTEXT PLAN

**PROPOSED PROJECT INFORMATION**

<b>EXISTING ZONING</b>	842 = RD-3 (2 FAMILY / 1 FAMILY) 838 = CD-75 (COMPREHENSIVE DEVELOPMENT)	
<b>REZONE TO</b>	NEW COMPREHENSIVE ZONE	
<b>SITE AREA</b>	0.14 Ha / 0.35 Ac / 1,417 m <sup>2</sup> / 15,252 ft <sup>2</sup>	
<b>NO. UNITS</b>	30 (4 STOREYS)	
<b>PARKING PROVIDED</b>	30	
<b>BIKE PARKING</b>	45 + RACK FOR 6 AT ENTRANCE	
<b>UNIT AREA (+/-)</b>	49m <sup>2</sup> ( 527 ft <sup>2</sup> ) - 88 m <sup>2</sup> (947 ft <sup>2</sup> )	
<b>TOTAL FLOOR AREA</b>	1,781 m <sup>2</sup> (19,171 ft <sup>2</sup> )	
<b>BUILDING AREA</b>	594 m <sup>2</sup> (6,394 ft <sup>2</sup> )	
<b>FLOOR AREA RATIO</b>	1.3 : 1	
<b>COVERAGE</b>	42%	
<b>SETBACKS (PER RM-4)</b>	FRONT 7.5m (24.6') REAR 7.5m (24.6') INTERIOR SIDE 6.0m (19.7') EXTERIOR SIDE 3.6m (11.8')	VARIANCE REQ'D VARIANCE REQ'D



**PRAXIS**  
architects inc.

838-842 ADMIRALS ROAD

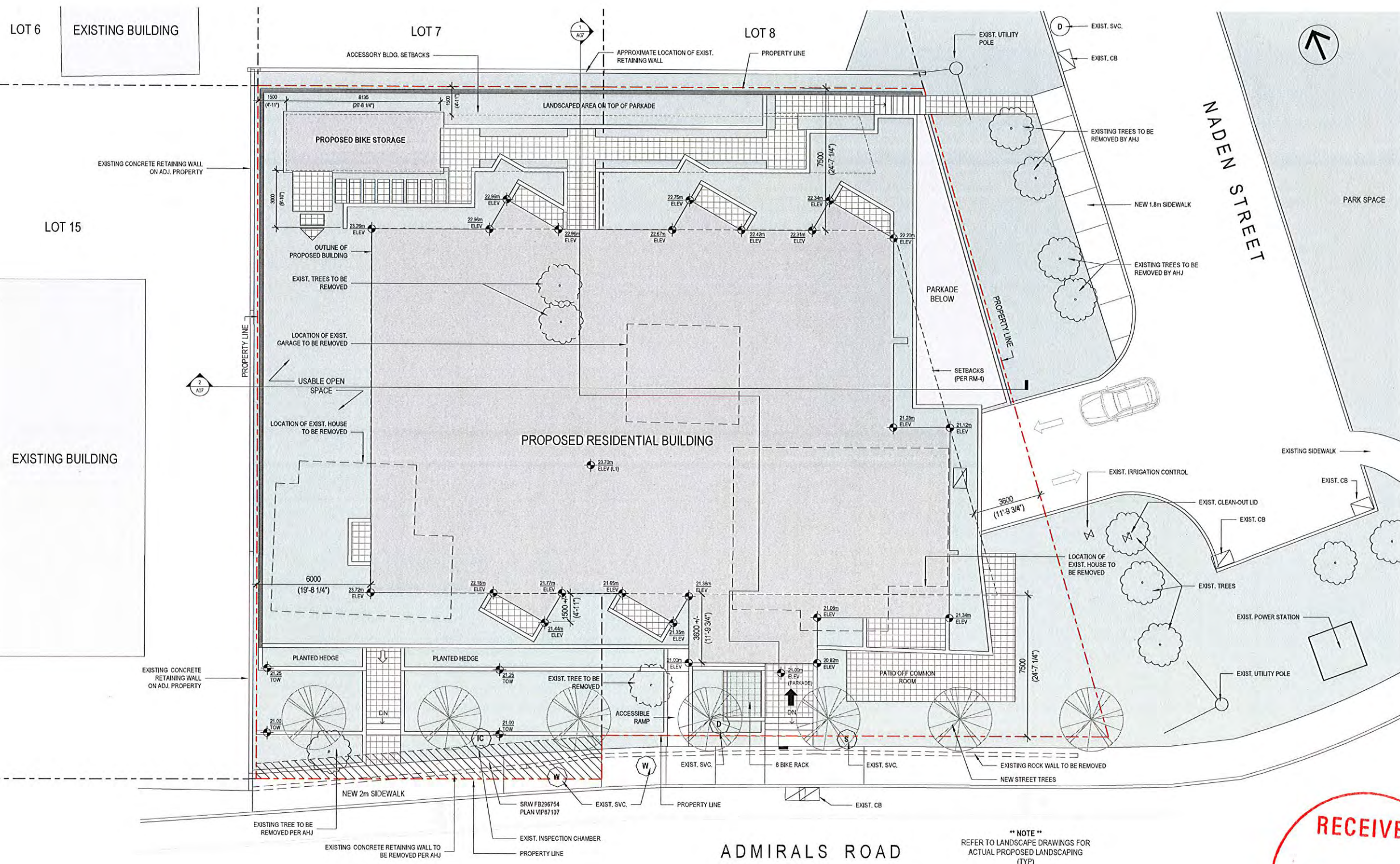
838-842 ADMIRALS ROAD

PROJECT NO. 17-013

COVER SHEET

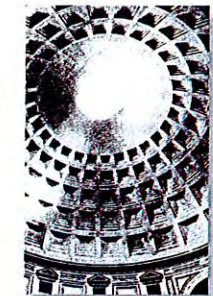
2018.02.05 - REVISED PER PLANNING

**A00**



**\*\* NOTE \*\***  
REFER TO LANDSCAPE DRAWINGS FOR ACTUAL PROPOSED LANDSCAPING (TYP)

1 SITE PLAN  
1 : 100



**PRAXIS**  
architects inc.

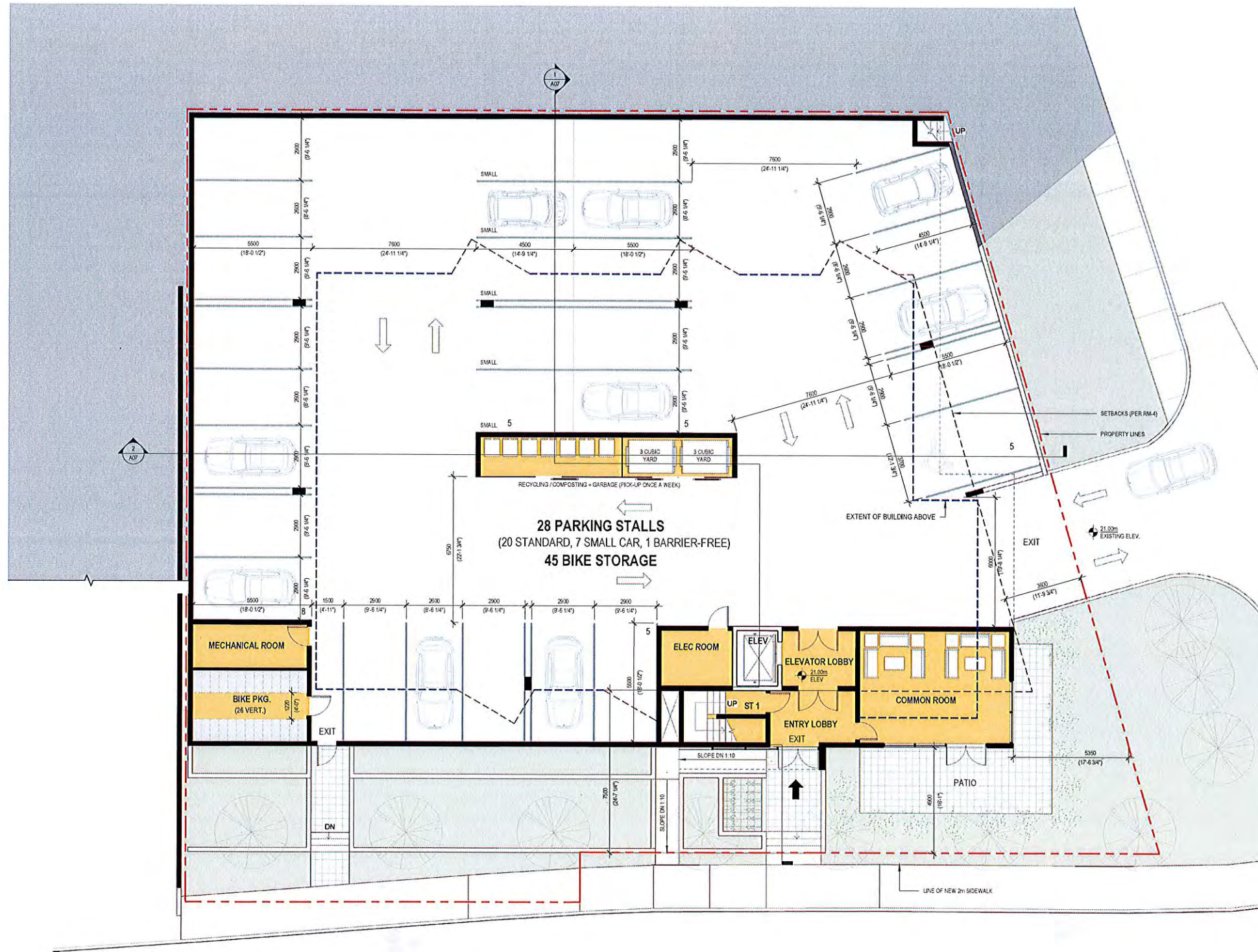
838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD PROJECT NO. 17-013

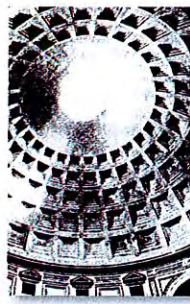
SITE PLAN

2018.02.05 - REVISED PER PLANNING

A01



① PARKADE  
1:100



**PRAXIS**  
architects inc.

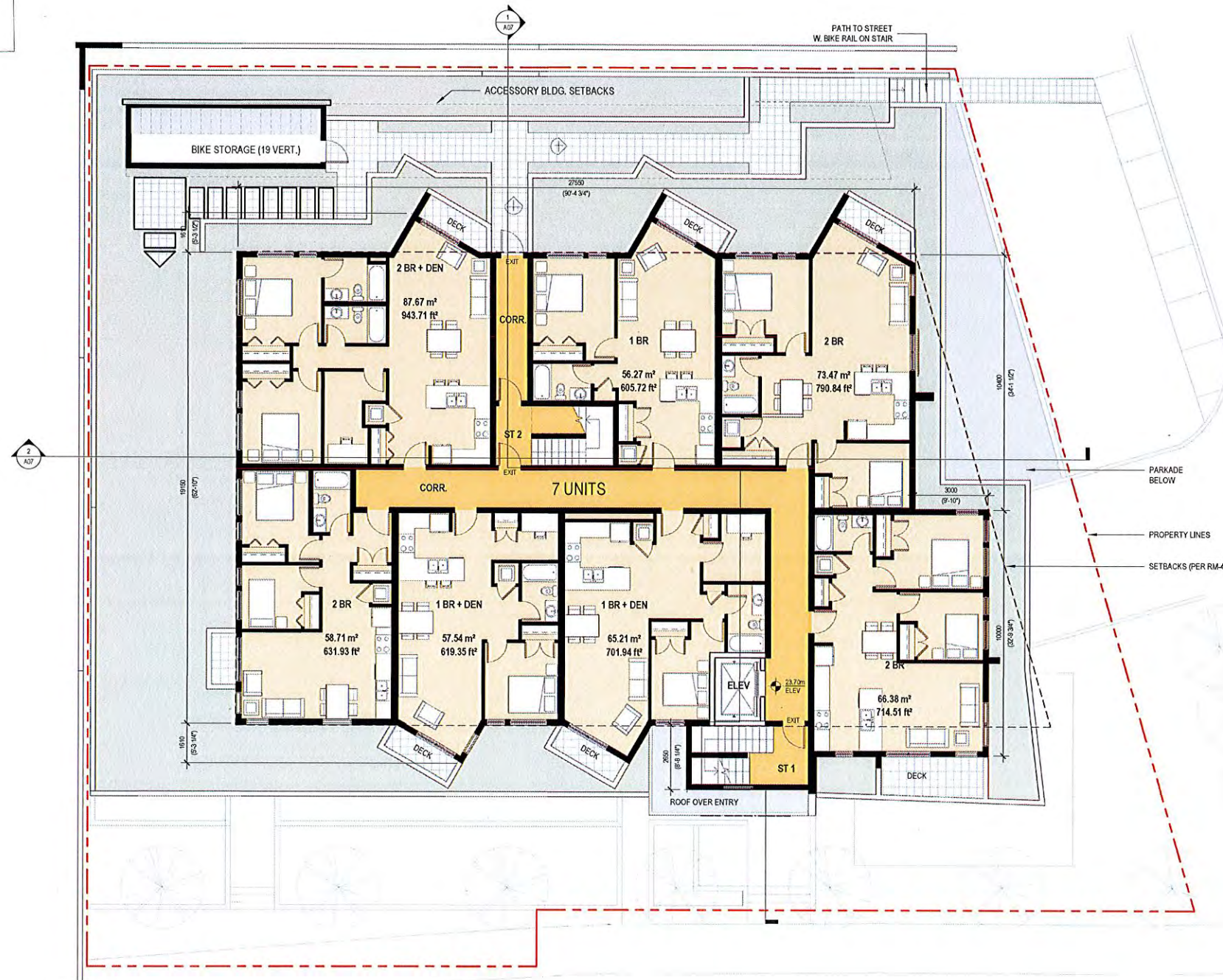
838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD PROJECT NO. 17-013

PARKADE PLAN

2017.02.05 - REVISED PER PLANNING

**A02**



① LEVEL 1  
1 : 100



**PRAXIS**  
architects inc.

838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD

PROJECT NO. 17-013

LEVEL 1

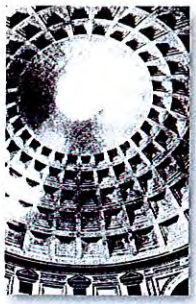
2017.12.15 - REZONING APPLICATION

**A03**





① LEVEL 2  
1:100



**PRAXIS**  
architects inc.

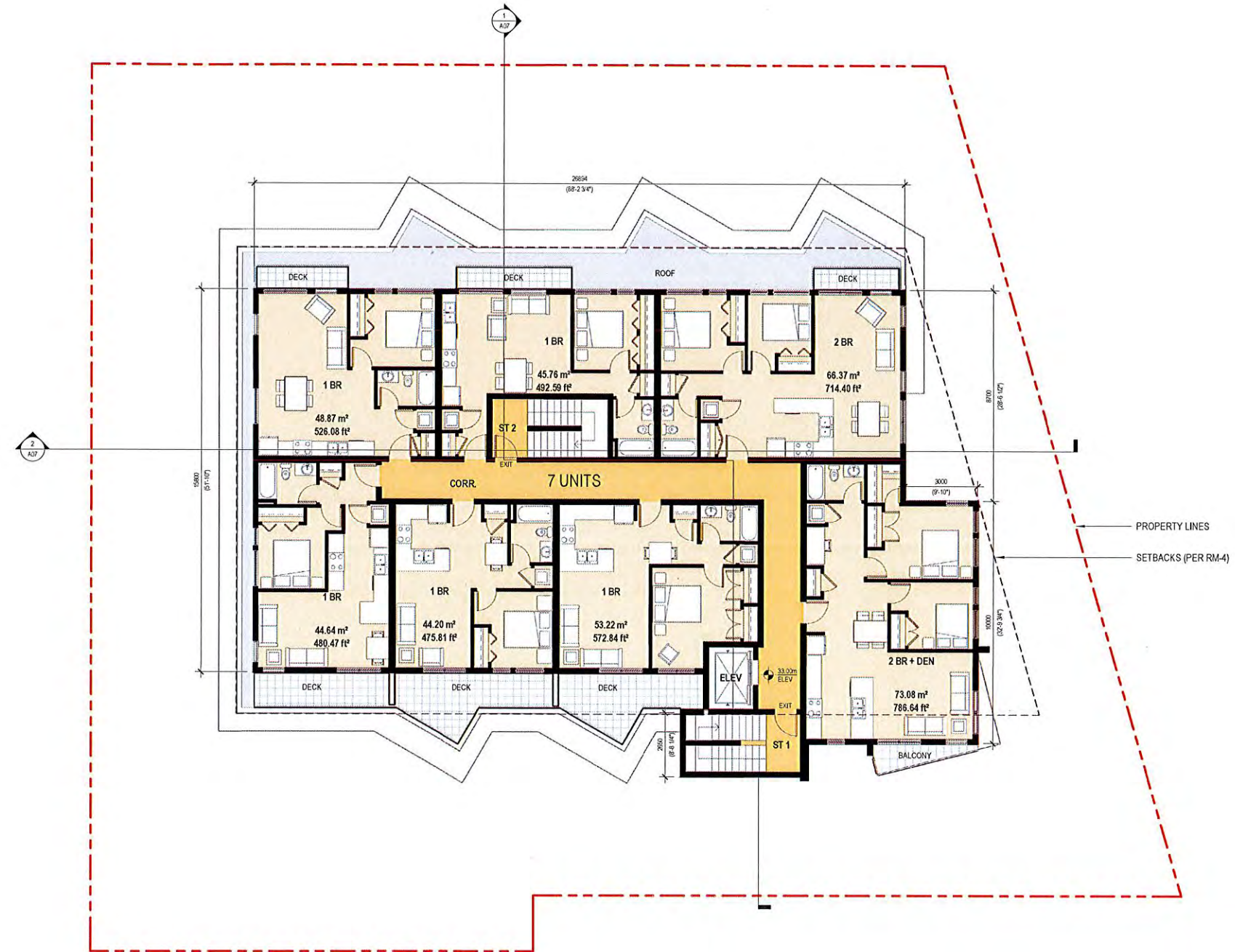
838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD PROJECT NO. 17-013

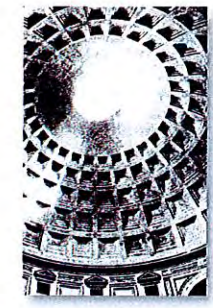
LEVEL 2-3

2017.12.15 - REZONING APPLICATION

**A04**



① LEVEL 4  
1 : 100



**PRAXIS**  
architects inc.

838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD PROJECT NO. 17-013

LEVEL 4

2017.12.15 - REZONING APPLICATION

**A05**



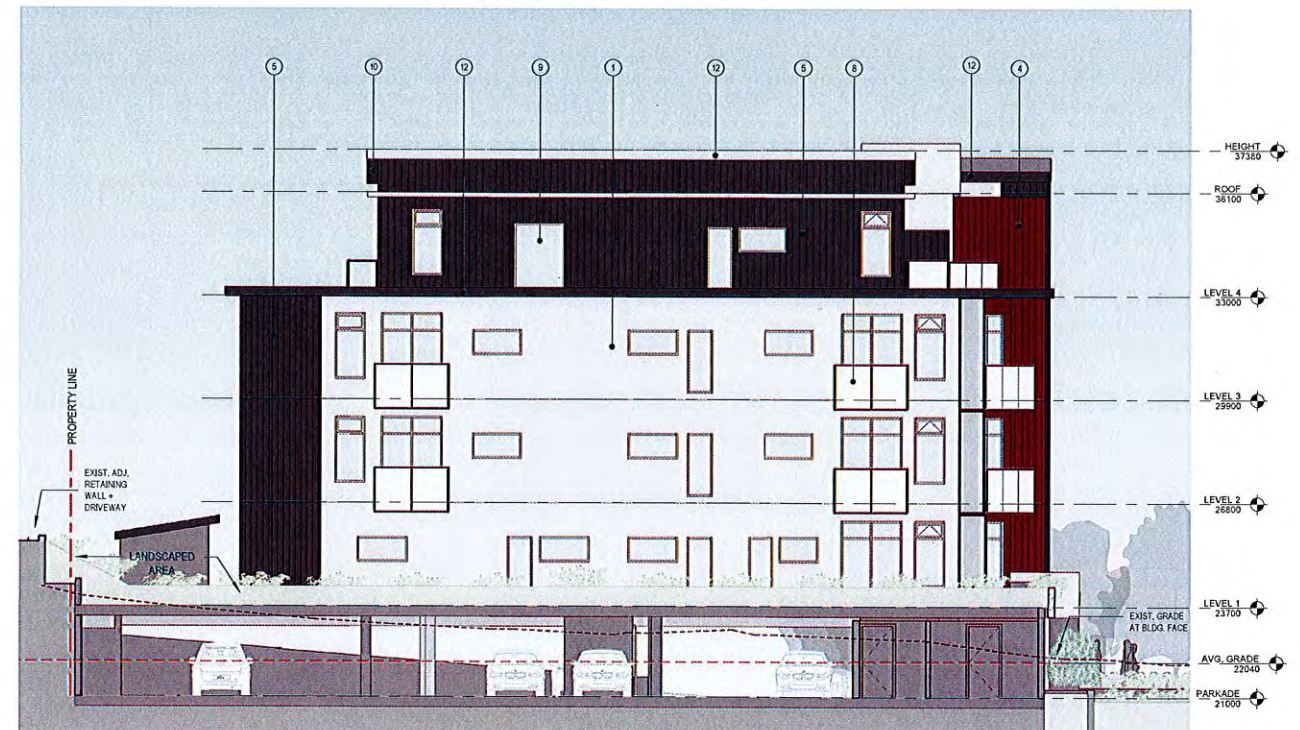
1 NORTH  
1:100



2 EAST  
1:100



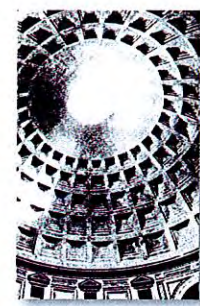
3 SOUTH  
1:100



4 WEST  
1:100

MATERIAL FINISH LEGEND

- |  |  |
|--|--|
| 1 FIBRE CEMENT PANEL - ARCTIC WHITE                  | 8 GLASS AND ALUMINUM RAILING                 |
| 2 FIBRE CEMENT PANEL - TRADITIONAL RED               | 9 ALUMINUM-CLAD VINYL WINDOWS                |
| 3 HORIZONTAL SIDING - FIBRE CEMENT - TRADITIONAL RED | 10 SOFFIT                                    |
| 4 VERTICAL SIDING - FIBRE CEMENT - TRADITIONAL RED   | 11 CONCRETE - SMOOTH FINISH                  |
| 5 VERTICAL SIDING - FIBRE CEMENT - IRON GRAY         | 12 FASCIA - PREFIN. METAL TO MATCH IRON GRAY |
| 6 METAL STANDING SEAM ROOF - CHARCOAL                | 13 SUN SHADE (PREFIN. METAL)                 |
| 7 SBS MEMBRANE ROOF                                  |  |



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838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD

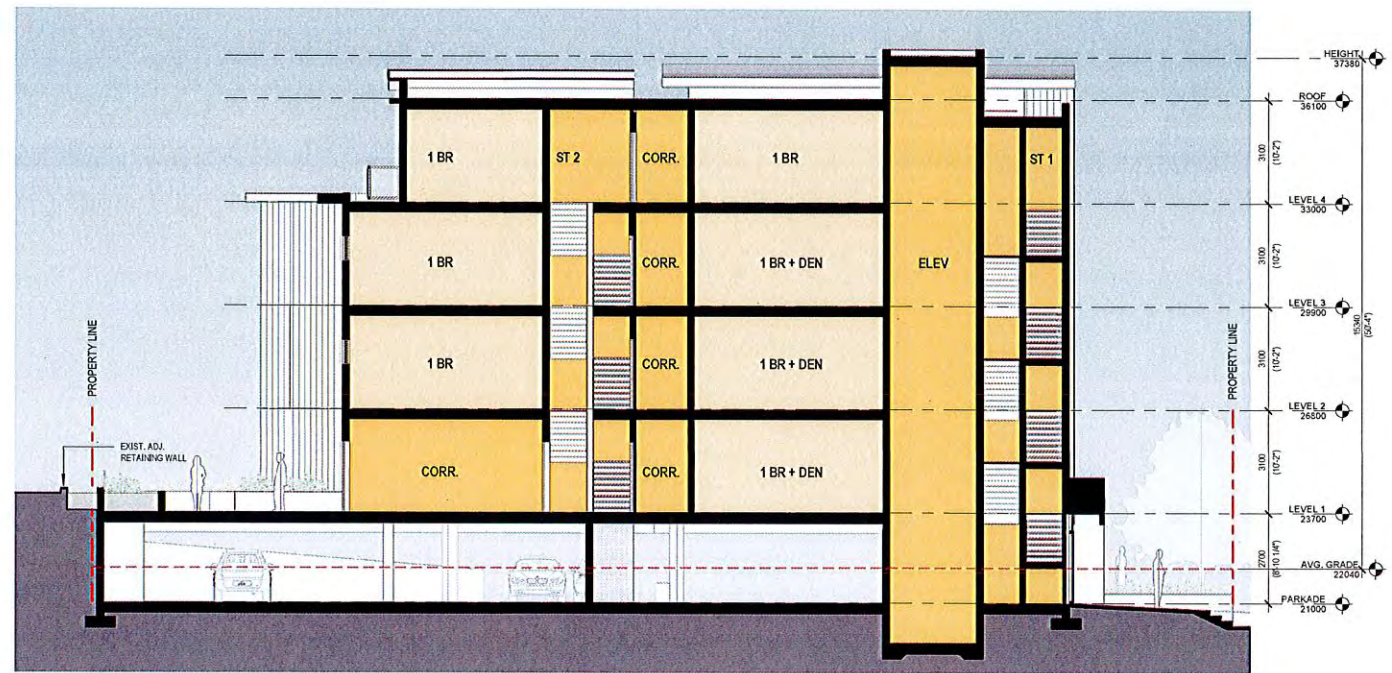
PROJECT NO. 17-013



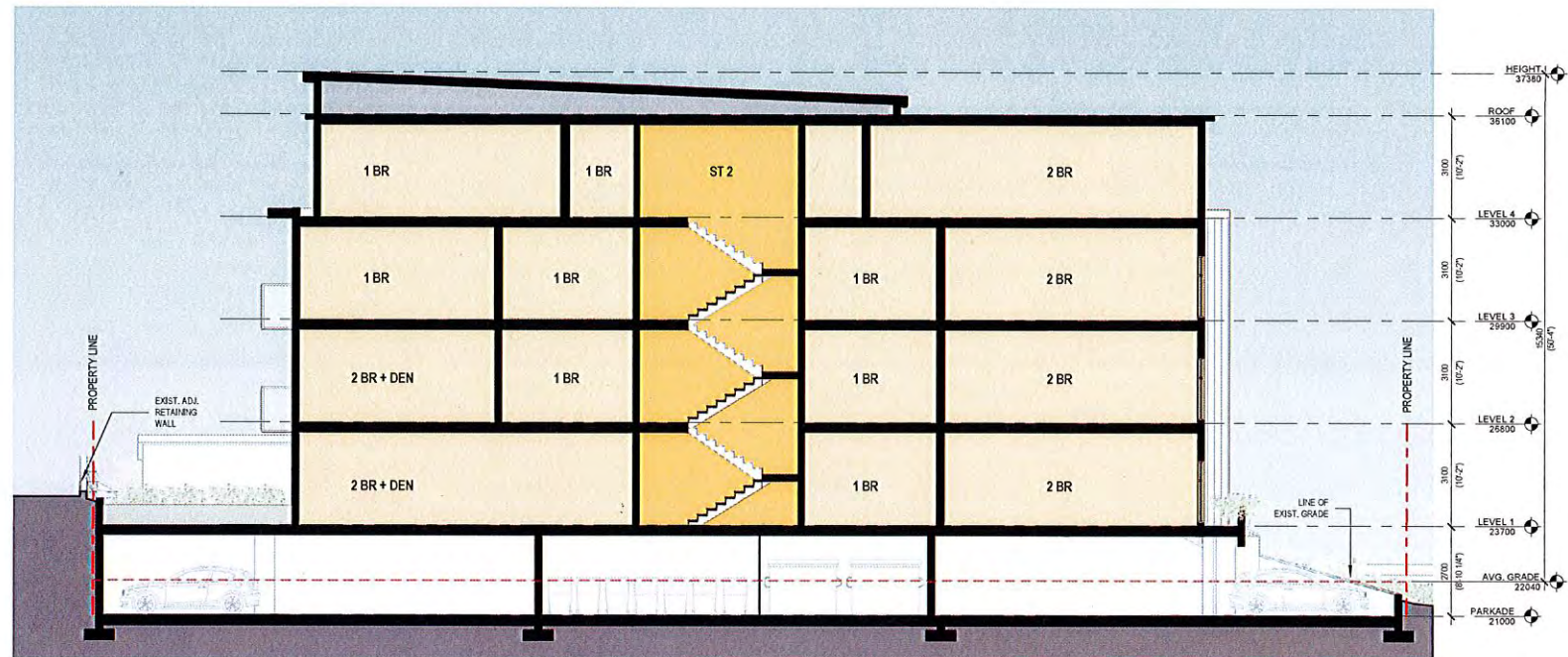
ELEVATIONS

2018.02.05 - REVISED PER PLANNING

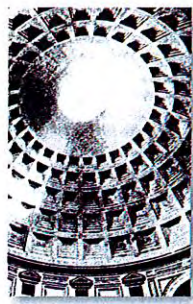
**A06**



① SHORT SECTION  
1 : 100



② LONG SECTION  
1 : 100



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838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD

PROJECT NO. 17-013

SECTIONS

2018.02.05 - REVISED PER PLANNING

**A07**



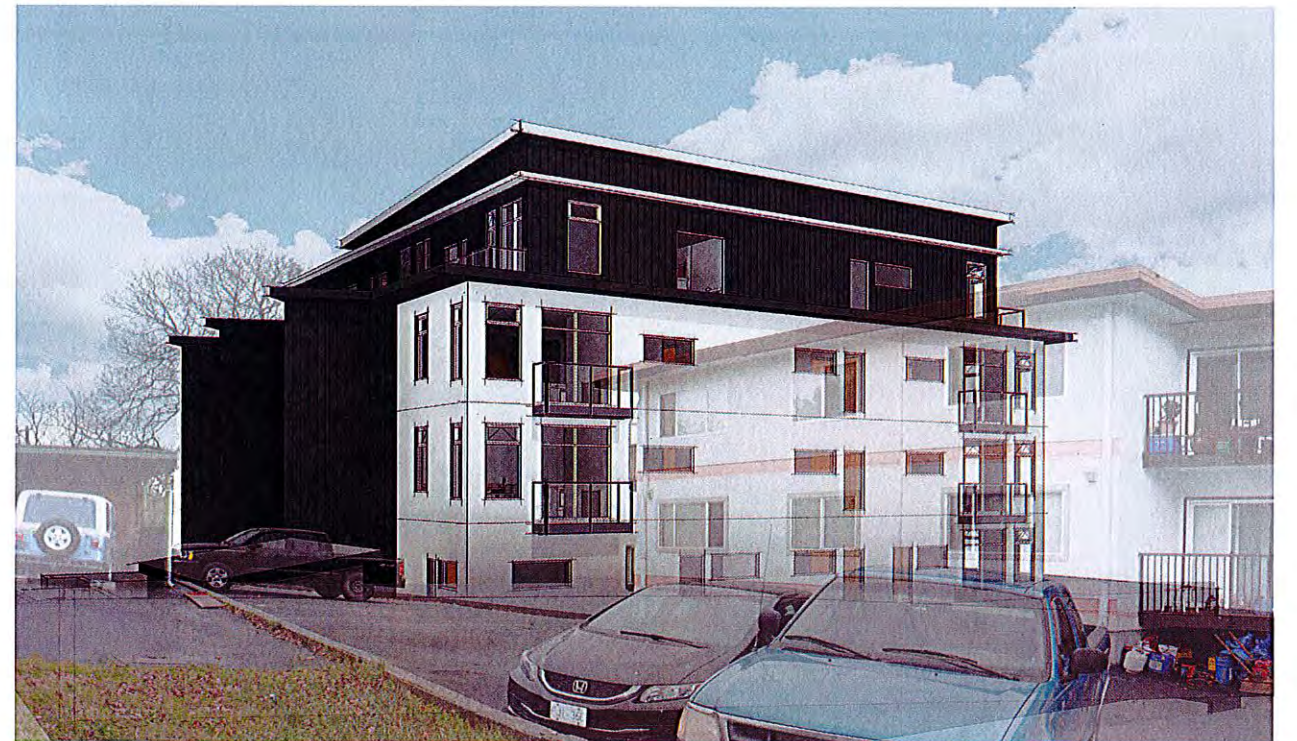
① SOUTHEAST PERSPECTIVE



② NORTHEAST PERSPECTIVE



③ SOUTHWEST PERSPECTIVE



④ NORTHWEST PERSPECTIVE



**PRAXIS**  
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838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD

PROJECT NO. 17-013



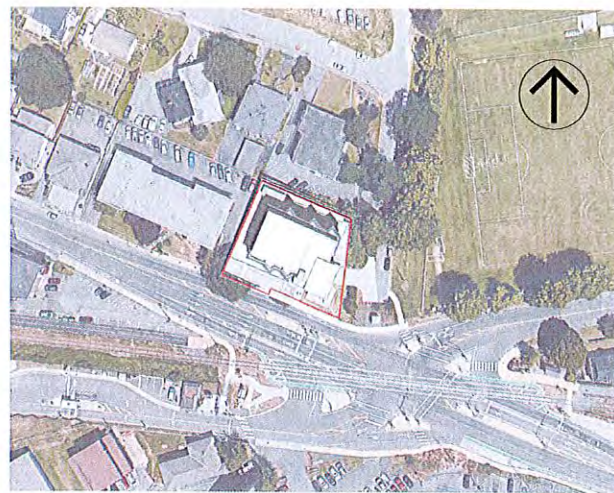
STREET VIEWS

2018.02.05 - REVISED PER PLANNING

**A08**



1 SUMMER 9AM  
1: 1200



2 SUMMER 12PM  
1: 1200



3 SUMMER 3PM  
1: 1200



4 SUMMER 6PM  
1: 1200

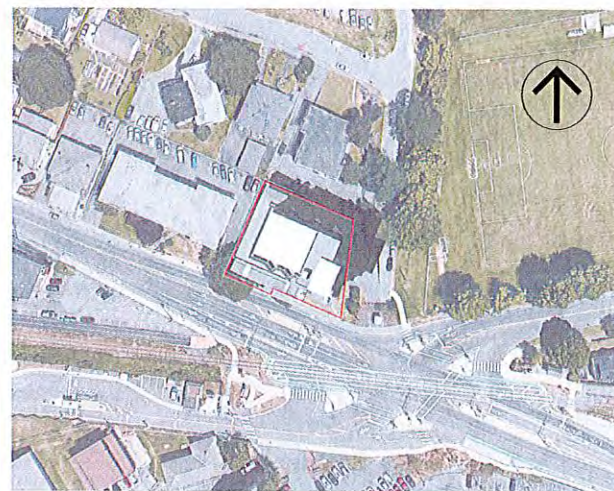
SUMMER SOLSTICE - JUNE 21



5 SPRING / FALL 9AM  
1: 1200



6 SPRING / FALL 12PM  
1: 1200



7 SPRING / FALL 3PM  
1: 1200



8 SPRING / FALL 6PM  
1: 1200

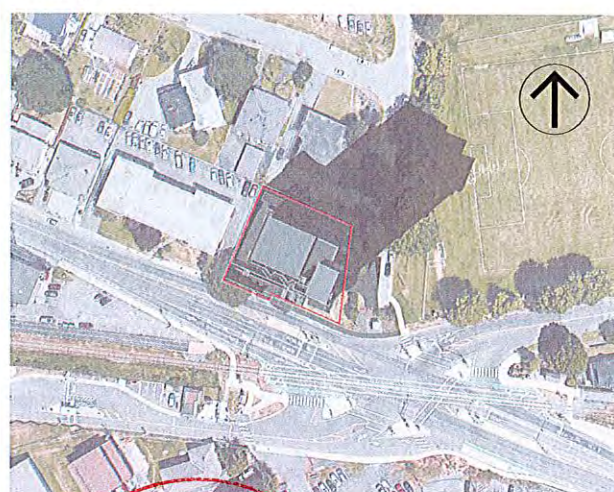
SPRING / FALL EQUINOX - MARCH 21 / SEPTEMBER 21



9 WINTER 9AM  
1: 1200



10 WINTER 12PM  
1: 1200



11 WINTER 3PM  
1: 1200



12 WINTER 6PM  
1: 1200

WINTER SOLSTICE - DECEMBER 21



**PRAXIS**  
architects inc.

838-842 ADMIRALS ROAD

838-842 ADMIRALS ROAD

PROJECT NO. 17-013



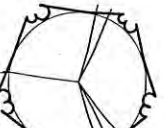

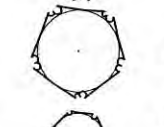
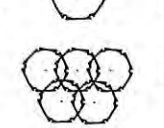
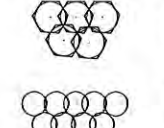
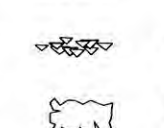



SHADOW STUDIES

2017.12.15 - REZONING APPLICATION

**A09**

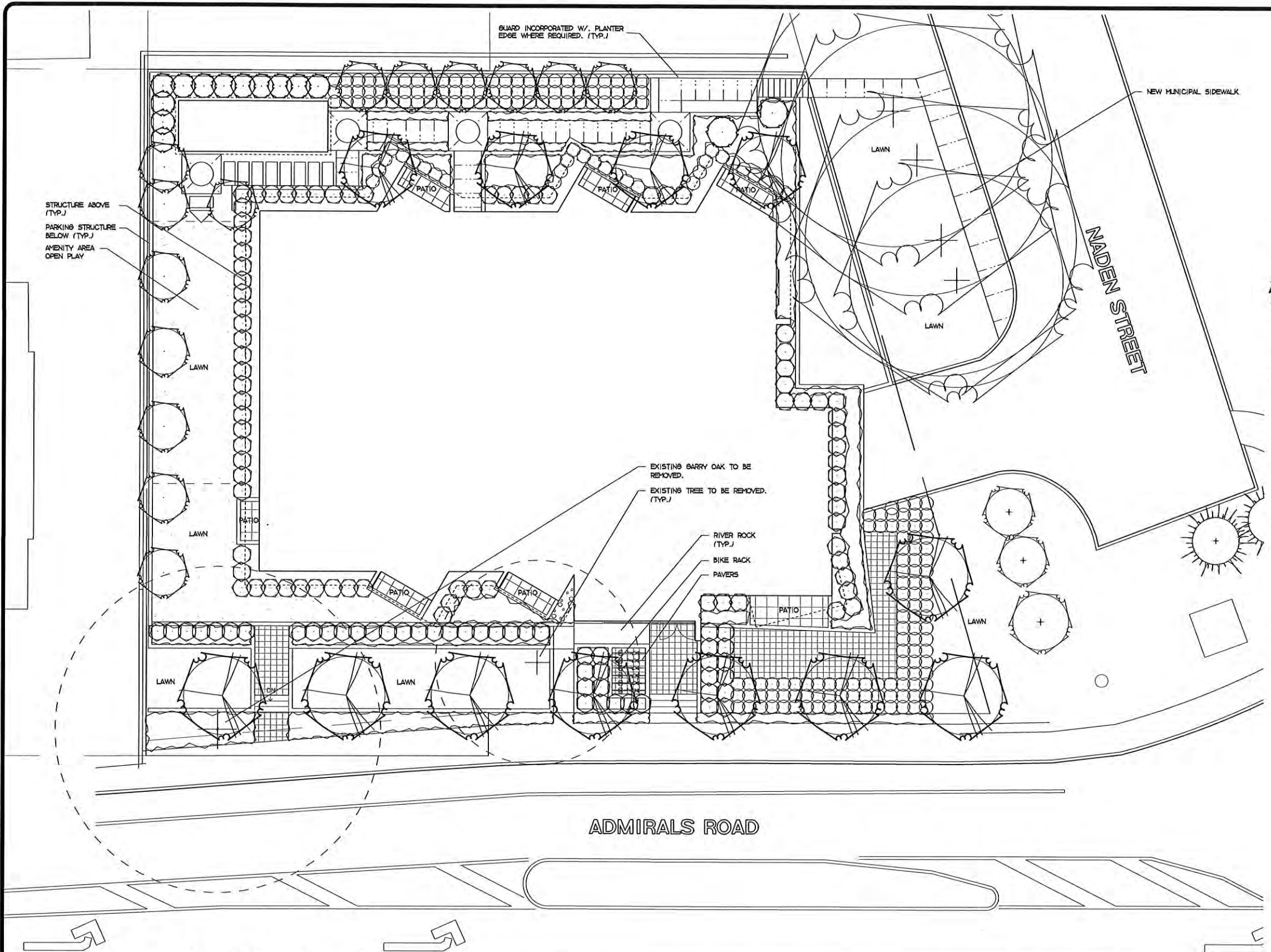


**LEGEND**

-  COLUMNAR DECIDUOUS TREE TO BE A SELECTION OF: COLUMNAR RED MAPLE, AUTUMN BALZE MAPLE, BRISTOLS 'GOLD' MAPLE, SIZE 7.0 CM CAL., APPROXIMATE NO. - 05
-  SMALL DECIDUOUS TREE TO BE A SELECTION OF: KOLEA DOGWOOD, RED DOGWOOD, JAPANESE MAPLE, PINK DOGWOOD, SIZE 2.0 - 2.5 M HT., APPROXIMATE NO. - 04
-  MULTISTEM TO BE A SELECTION OF: STAR MASHOLIA (DEC), STARBORN SLMAC (DEC), HOLLY (BL), CANELIA (BL), JAPANESE ARALIA (BL), LILAC (DEC), SIZE 1.2 M HT., APPROXIMATE NO. - 14
-  SPECIMEN SHRUB TO BE A SELECTION OF: RHODODENDRON (BL), VIBURNUM (BL), DECIDUOUS AZALEA (DEC), WILLOWLEAF COTONEASTER (BL), SIZE 27 CM POT, APPROXIMATE NO. - 02
-  LARGE SHRUB TO BE A SELECTION OF: GLOSSY ABELIA (BL), PIERIS (BL), HANSA ROSE (DEC), MEXICAN ORANGE (BL), DECIDUOUS AZALEA (DEC), SIZE 27 CM POT, APPROXIMATE NO. - 12
-  MEDIUM SHRUB TO BE A SELECTION OF: MAHONIA (BL), RHODODENDRON (BL), JAPANESE AZALEA (BL), PINK ESCALLONIA (BL), BARBERRY (BL), BUDIS (BL), FERNS (BL), SIZE 27 CM POT, APPROXIMATE NO. - 125
-  SMALL SHRUB TO BE A SELECTION OF: DWARF RHODODENDRON (BL), EDWARD GARDNER ABELIA (BL), LAVENDER (BL), BOLD PLANE SPIREA (DEC), DWARF JAPANESE AZALEA (BL), NEWPORT DWARF ESCALLONIA (BL), LONG LEAF YAPONIA (BL), FERNS (BL), SIZE 21 CM POT, APPROXIMATE NO. - 214
-  VINES TO BE A SELECTION OF: HONEYSUCKLE (DEC), ESSELBANK IVY (DEC), CLEMATIS (DEC), SIZE 21 CM POT, APPROXIMATE NO. - 13
-  BROADCOVER TO BE A SELECTION OF: PERIWINKLE (BL), KINKIKINICK (BL), WINTERGREEN (BL), BEARBERRY (BL), SIZE 15 CM POT, PLANT 45 CM O.C.

**NOTES**

- LANDSCAPE AREAS ARE TO BE IRRIGATED WITH A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
- THIS DRAWING IS CONCEPTUAL ONLY AND NOT INTENDED FOR CONSTRUCTION PURPOSES.
- THIS DRAWING IS FOR SOFT LANDSCAPE ONLY.



NO.	DATE	BY	REVISION
1.	FEB.09.18.	S.P.	STREET FRONTAGE
DESIGN	S.P.		
DRAWN	J.P.		
DATE	DECEMBER 19, 2017		
DRAWING	838 AR-PIR6.DWG		
SCALE	1 : 100		



**838-842 ADMIRALS ROAD**  
VICTORIA, B.C.



  
**LANDSCAPE PLAN** | P1



**SITE PLAN OF LOT 16 and LOT 17, EXCEPT PART IN PLAN VIP86845, BOTH IN BLOCK 7, SECTION 10, ESQUIMALT DISTRICT, PLAN 2546**

Address: 838-842 Admirals Road, Esquimalt  
Date: August 3, 2017

CLIENT: GT MANN CONSTRUCTION LTD.

Scale 1:250  
0 2.5 5 10 15 20 25  
The intended plot size of this plan is 432mm in width by 560mm in height (C Size) when plotted at a scale of 1:250



**LEGEND**

- All distances and elevations are in metres  
Elevations are geodetic referenced to Control Monument 84H0263  
Contour interval: 0.25m
- --- Denotes Standard Iron Post Found
  - ▲ --- Denotes Lead Plug Found
  - ▲ --- Denotes Control Monument Found
  - ▲ --- Denotes Traverse Station Found
  - ⊙ --- Denotes Sewer Manhole
  - ⊙ --- Denotes Drain Manhole
  - ⊙ --- Denotes Water Service
  - ⊙ --- Denotes Sewer Service
  - ⊙ --- Denotes Drain Service
  - ⊙ --- Denotes Utility Pole
  - ← --- Denotes Guy Anchor
  - ⊠ --- Denotes Catch Basin

J.E. ANDERSON & ASSOCIATES  
B.C. Land Surveyors - Consulting Engineers  
Victoria, Nanaimo & Parksville, B.C.  
Phone 250-727-2214 Web: www.jeanderson.com  
File : 30593

V:\Projects\30593...01...30593.dwg (Site) PJW