

April 26, 2018

Alec Warrender, Planner City of Kelowna Planning Department 1435 Water Street Kelowna, BC V1Y 1J4

Re: Rezoning, and Development Application Development Rationale

**Anagram PROPERTIES Inc. - Pacific Avenue RENTALS** 

Address: 1145 Pacific Avenue

Dear Alec.

MQN Architects and Anagram PROPERTIES Inc. have been working on a second project in Kelowna and are submitting the accompanying documentation for rezoning and development applications. The project at 1145 Pacific Avenue builds on the approach taken with the recently submitted Clement Avenue RENTALS and is further detailed in the design rationale below.

#### Design Rationale

MQN Architects is collaborating with Anagram PROPERTIES Inc. on the development of a multi-family rental development on Pacific Avenue in the Capri / Landmark area of Kelowna. The proposed development follows Anagram's corporate strategy of providing smart, sustainable and attainable properties. This purpose built rental project is situated a block south the Capri Centre Mall enabling residents to walk to work and social activities. Pacific Avenue is a mixed density neighbourhood which is surrounded by multiple family developments. Recent projects near to the Capri Centre Mall have focused on an increased density which is consistent with the proposal for 1145 Pacific Avenue and aligned with City of Kelowna's OCP.

Anagram PROPERTIES Inc. has selected this site in Kelowna for its central location. Pacific Avenue provides easy access to and from the Capri Centre Mall and to major thoroughfares and bus routes enabling residents reduce dependence on vehicular transit. To further enhance resident's ability to live car free, this project is providing two car share parking stalls which would be available to not just building residents but also residents of the surrounding neighbourhood. The Capri area and Gordon Drive have been evolving with new businesses locating in the area and increased residential density.

The OCP for the Capri / Landmark area states that the area is designated for generally 4 storeys with greater height (up to 12 storeys) at the Capri Mall site. The proposed building is 4 storeys of residential units on top of single level of parking. Due to the high water table this building is proposed with the parkade level at grade providing a total height of 5 storeys.



The current zoning for this property is RU6 residential which supports two dwelling residential. To achieve the proposed building scale on this site, the project is seeking a rezoning of the property to an RM5 Medium Density Apartment Housing zone.

Anagram PROPERTIES Inc. is interested in creating a design language for their projects which is shared across their developments in Kelowna. The 1145 Pacific Avenue project utilizes a similar exterior expression to the Clement project with colour banding highlighting the apartment balconies and neutral colour blocking of the protruding walls. The expression of the building includes a vertical entry feature to create street presence.

This project proposes varying the rear and side yard setbacks for the building. To achieve the parking required for this project the east side yard has been varied to 1.5m to accommodate the parking requirement. Residential units from the second to the fourth floor are stepped back to the 4.5m setback from the property line meeting the setback requirements and the fifth floor is 6.0m from the property line exceeding the setback requirements. The fifth floor is further inset on the east and west sides to reduce the scale of the building relative to the neighbouring properties. The rear yard of this project is varied to a 7.5m setback from the property line. The front yard of this facility is based on 2.5m dedication and a 1.5m setback to the ground and second level portion of the building. This setback is to accommodate ground level townhouses which front onto the street. The upper levels of the building are setback 6m from the original setback line and 3.5m from the proposed road dedication.

To achieve the proposed parking and massing of this project, the site coverage has been varied to 81% with 57% of that being the building and the remaining 24% being attributed to driveways and parking. Recognizing the potential impact that an increased site coverage will have on the storm water flow into the municipal systems we have been working with New Town Planning Services to identify storm water management options for this site. New Town has identified a preliminary concept which would include developing a storm retention tank beneath the proposed exterior driveway. The storm network would be composed of catch basins, drywells, and a variety of storm detention tanks. The storm retention tank and drywells would be designed to disperse the storm water through infiltration with storage capacity adequate to attenuate the 100-year storm, as per the City of Kelowna servicing bylaw requirements. Roof leaders and foundation drains would be designed to disperse to either rock pits or the storm network, at which point it would be allowed to infiltrate.

The Anagram building for Pacific Avenue has been designed to incorporate sustainability into project. Sustainable features for this project start from the location planning with the intent of providing housing within an urban location which reduces the need to vehicular travel. Two parking stalls have been included for car share parking providing residents and neighbours an option to owning a dedicated vehicle. The parking lot also includes four charging stations for electric vehicles spread between both the car share and private parking stalls. Approximately 100kw of solar power is planned for the project which would power the electric vehicle charging stations as well as providing electricity to the rental units and common areas.



May 11, 2018

Alec Warrender, Planner City of Kelowna Planning Department 1435 Water Street Kelowna, BC V1Y 1J4

Re: Rezoning, and Development Application Development Rationale

**Anagram PROPERTIES Inc. - Pacific Avenue RENTALS** 

**Parking Variance** 

Address: 1145 Pacific Avenue

Dear Alec,

Following our conference call yesterday, we have put together the following commentary on the approach to the parking for 1145 Pacific Avenue.

Pacific Avenue RENTALS is seeking a variance on parking for this project to reduce the number of parking stalls from the zoning bylaw requirements to a 1 stall per unit plus 1 stall per 7 units for visitors. The request for this reduction in parking has been based on several factors for the project ranging from demographics to location. The following rationale outlines the zoning baseline and the proposed parking approach.

The parking requirements by the zoning bylaw define parking for apartments as requiring parking based on the following ratios:

1.25 stalls per 1-bedroom unit / 1.5 per 2-bedroom unit / 2.0 per 3-bedroom unit

Based on these ratios the parking counts for the facility would be as follows:

Unit Type	Count	Parking Ratio	Parking Required
Bachelor	0	1.00	0
1 Bedroom	5	1.25	6.25
2 Bedroom	21	1.50	31.50
3 Bedroom	5	2.00	10.00
Visitor	31	1 per 7 units	4.43
			53

Based on the market evaluation and location the proposed variance for this project would be to reduce the parking requirements to a 1 stall per unit ratio plus visitor parking. This approach would provide the parking as follows:



Unit Type	Count	Parking Ratio	Parking Required
Bachelor	0	1.00	0
1 Bedroom	5	1.00	5
2 Bedroom	21	1.00	21
3 Bedroom	5	1.00	5
Visitor	31	1 per 7 units	4.43
			36

#### Parking Approach

Prior to starting this project Anagram PROPERTIES Inc. conducted a demographic and market study to determine their target audience for this project. The study completed in 2017 found that there has been a strong demand for rental housing in the Kelowna market with vacancy rates as low as 0.2%. In addition to a low rental vacancy rate, the demographics of incoming individuals to the area includes a large percentage of young working adults 15-34 years and retirees 65+ years. Based on these groups entering the Kelowna market, Anagram PROPERTIES Inc. is targeting the following five renter profiles:

#### Millennials: 40%

- Late 20's to 30's.
- Partnered and creating families.
- Seeking work in the Health or Tech industry.
- May have relocated from areas such as Vancouver, Toronto or Calgary because of the high cost of living.
- Often one partner may be self-employed (associated with tech sector activities) and the other has a more traditional career.
- Priced out of the single-family market and subject to high purchase sensitivity.
- Highly impacted by financing and unable to secure a down payment to purchase.
- Value experiences over material items.
- Like the flexibility and the maintenance-free lifestyle that renting provides.
- Interested in being walking distance to the urban core.
- Want to be able to live, work and play in a high density environment surrounded by nightlife, restaurants, and entertainment.

#### Students: 10%

- 17 to 25 years of age. Couples or single individuals.
- Studying at UBCO or Okanagan College.
- Tend not to have vehicles, but rather use public transportation, bikes and carpools.
- Inclined to reduce their cost of living by sharing housing with friends/family.
- Some may be working part/full time while attending school.
- Students from out of town have parents helping them with their living expenses.
- Cost of living off campus is comparable to the cost of living in campus residence,



thus students prefer offsite living.

• The idea of living downtown is appealing to a young individual.

#### Restarts: 35%

- 40 to 60's. Divorced and may have financial equity available from the sale of a martial home.
- Likely have their children part-time and are more likely to be female than male.
- Some may be on fixed-incomes and typically continue to rent until they remarry or receive an inheritance.
- May have moved from Vancouver or Calgary for a slower pace of life and more relaxed lifestyle.
- Have guests that frequently visit and stay with them.
- Looking to live in a community close to amenities and activities.
- Enjoy dining out, socializing and recreational activities with friends.
- May currently be renting in the area with an eye out to purchase, but unsatisfied with re-sale options on the market.
- Interior design tastes and preferences are clean and contemporary.

#### Downsizers: 10%

- 45 to 60 years of age, active married couples looking to sell their single-family home in Kelowna for a less maintenance intensive home in the immediate area.
- Approximately 40% will come from out of town, such as Vancouver, Alberta, and other BC communities looking for a change in lifestyle.
- May be looking to spend a portion of their year in another location and therefore value the option of "locking and leaving" their primary home in a secure community while they are away.
- Tend to be more interested in single level living with main floor master bedroom.
- They are looking ahead to aging in place.
- Proximity to Downtown Kelowna and access to natural amenities like the Knox mountain trail system is a primary consideration to these buyers.
- Proximity to the workplace is important to those buyers who are still working.
- Even though they are downsizing they have concerns about having enough space.
- Interior design tastes and preferences oriented to clean contemporary designs.

#### Retirees: 5%

- 60+, either a couple or widow/widower.
- They have friends and family that like to stay occasionally.
- Interested in low maintenance and cost. Little need for amenities. Security and affordability is a concern because of fixed incomes.
- Very social and prefer high walkability to keep their mind and body active.
- They may be in a temporary transition from their larger single family home.

  Renting in the interim and planning to purchase a condo and age in place.
- May be past the need for home ownership.



Based on these groups and their lifestyles, there is an expectation that there will be a lower dependence on personal vehicles than with traditional renters. Many studies have been completed on the millennial market finding that they are less likely to drive than previous age groups which fits well with a 1 car per unit ratio like students. The Restarts also are likely to only have a single vehicle based on the marital status. Retirees are also less likely to have a dependence on a multiple vehicle lifestyle due to not having to work. Based on the demographics of the intended rental pool it is possible that there will be units in the building which will not require parking. To address this possibility the parking for this project will not be provided based on a fixed stall per unit approach but rather will be a managed pool providing flexibility to the parking.

Based on an intent to provide the rental units for the above groups, Anagram PROPERTIES Inc. sought a property which is situated in a rising urban core of Kelowna. The Pacific Ave location was selected for this project based on the central location and the planned amenities nearby. The Capri/Landmark area of Kelowna is targeted in the OCP to experience a growth of 1250 multi unit housing, this growth is focused around the redevelopment of the Capri Mall location at the core. Pacific Avenue is one block away from the Capri Mall location and is well situated to provide a walkable lifestyle with nearby amenity space. As a defined urban centre within Kelowna, the Capri is currently serviced with public transit and will see this increasing as the urban network evolves further reducing car reliance. The combination of target renters having a lower than typical vehicular reliance with a central location and public transit provides the first portion of the rationale for a parking reduction, this project also includes amenities designed to further reinforce this approach.

Within the parameters of this project, Anagram PROPERTIES Inc. has approached the design from their ethos of Smart + Sustainable + Attainable. From the start of work on this project, there has been an intent to provide rental housing with amenities which enhance a reduced car lifestyle. Central to this approach has been the inclusion of a car share program with two dedicated parking stalls. Anagram PROPERTIES Inc. has been in discussion with local car share program operators to integrate their stalls into the existing car share program. The City of Kelowna has informed the design team that the City of Kelowna is working on a car share parking reduction which would allow a 5 to 1 ratio of stall reduction for every car share included in a project. This project is seeking a reduction towards the variance based on this approach. To further meet the intent of being Smart + Sustainable + Attainable, this project is integrating a solar array to the building roof. As part of the intent of this roof top solar system which will be used to reduce the costs for electricity for this building, Anagram is looking to make part of the car share an electric vehicle.

To increase this project's goals of promoting a sustainable lifestyle, the project is including a bike share program. This program would be open to the building residents and includes 3 bike share parking stalls within the building parkade. The intent of this bicycle program is to provide residents with an alternative to single vehicle transit to get around the city. This additional



bicycle program goes beyond the minimum parking requirements of the zoning bylaw providing a convenient service which should help to reduce vehicle reliance.

To summarize, the intent of this project to seek a parking variance of one stall per unit. Based on the demographics of the target audience, and urban location this project is well suited to promoting a lifestyle with reduced car dependence. The inclusion of amenities such as the car share and bicycle share programs at this project will work to further reinforce the one car lifestyle. Based on this approach the sought reduction of parking to 36 stalls we believe that this project aligns with the City of Kelowna's Community Vision to create urban communities that are compact and walkable with housing that is affordable.

Regards,

Roger Green

Architect AIBC

CC: Reg Hamilton – Anagram PROPERTIES Inc.

Vicki Topping - MQN Architects

# Development Permit & Development Variance Permit DP17-0296 & DVP17-0297



This permit relates to land in the City of Kelowna municipally known as

1145 Pacific Avenue

and legally known as

Lot 1 District Lot 137 ODYD Plan 7833

The development has been approved subject to any attached terms and conditions, and to full compliance with the approved plans bearing the stamp of approval and the above described development permit number.

The present owner and any subsequent owner of the above described land must comply with any attached terms and conditions.

<u>Date of Decision:</u> February 12, 2019

Decision By: CITY COUNCIL

<u>Issued Date:</u> Tbd

<u>Development Permit Area:</u> Comprehensive Development Permit Area

<u>File Manager:</u> Alec Warrender

This permit will not be valid if development has not commenced by February 12, 2021.

Existing Zone: RM5 – Medium Density Multiple Housing Future Land Use Designation: Multiple Unit Residential (Medium Density)

#### This is NOT a Building Permit.

In addition to your Development Permit, a Building Permit may be required prior to any work commencing. For further information, contact the City of Kelowna, Development Services Branch.

#### NOTICE

This permit does not relieve the owner or the owner's authorized agent from full compliance with the requirements of any federal, provincial or other municipal legislation, or the terms and conditions of any easement, covenant, building scheme or agreement affecting the building or land.

Owner: Okanagan Opportunity (Pacific) Gp Inc.

Address: 1593 Ellis Street
City: Kelowna, BC

Ryan Smith, Community Planning Department Manager Community Planning & Strategic Investments Date

**SCOPE OF APPROVAL** 

This Development Permit applies to and only to those lands within the Municipality as described above, and any and all buildings, structures and other development thereon.

This Development Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied or supplemented by this permit, noted in the Terms and Conditions below.

The issuance of a permit limits the permit holder to be in strict compliance with regulations of the Zoning Bylaw and all other Bylaws unless specific variances have been authorized by the Development Permit. No implied variances from bylaw provisions shall be granted by virtue of drawing notations that are inconsistent with bylaw provisions and that may not have been identified as required Variances by the applicant or Municipal staff.

#### 2. CONDITIONS OF APPROVAL

- a) The dimensions and siting of the building to be constructed on the land be in accordance with Schedule "A";
- b) The exterior design and finish of the building to be constructed on the land be in accordance with Schedule "B";
- c) Landscaping to be provided on the land be in accordance with Schedule "C"; and
- d) The applicant be required to post with the City a Landscape Performance Security deposit in the form of a "Letter of Credit" in the amount of 125% of the estimated value of the landscaping, as determined by a Registered Landscape Architect.
- e) Council approved variances:

#### Section 13.11.6 (b) Development Regulations – Site Coverage

To vary the site coverage (buildings) from 40% required to 57% proposed; and

To vary the site coverage (buildings, driveways & parking areas) from 65% required to 81% proposed.

#### Section 13.11.6 (c) Development Regulations - Height

To vary the height from 18m / 4.5 storeys proposed to 18.3m / 5 storeys proposed.

#### Section 13.11.6 (d) Development Regulations – Front Yard Setback

To vary the front yard setback for a portion of the building above 2 ½ storeys (3rd storey) from 6.om required to 3.5m proposed.

#### Section 13.11.6 (e) Development Regulations – Side Yard Setback (East)

To vary the side yard setback (east) for portions of the building below  $2\frac{1}{2}$  storeys from 4.5 m required to 1.5 m proposed and from 7.0m required to 4.8m proposed for the  $2^{nd} - 4^{th}$  storey portions of the building.

#### Section 13.11.6 (f) Development Regulations – Rear Yard Setback

To vary the rear yard setback from 9.om required to 7.5m proposed.

#### Table 8.1 – Parking Schedule

To vary the minimum parking requirement from 48 stalls required to 36 stalls proposed.

This Development Permit & Development Variance Permit is valid for two (2) years from the date of Council approval, with no opportunity to extend.

#### 3. PERFORMANCE SECURITY

As a condition of the issuance of this Permit, Council is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Developer and be paid to the Developer or his or her designate if the security is returned. The condition of the posting of the security is that should the Developer fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the Municipality may use enter into an agreement with the property owner of the day to have the work carried out, and any surplus shall be paid over to the property own of the day. Should the Developer carry out the development permitted by this Permit within the time set out above, the security shall be returned to the Developer or his or her designate. There is filed accordingly:

a) A Certified Cheque in the amount of tbd.

Before any bond or security required under this Permit is reduced or released, the Developer will provide the City with a statutory declaration certifying that all labour, material, workers' compensation and other taxes and costs have been paid.

#### 4. Indemnification

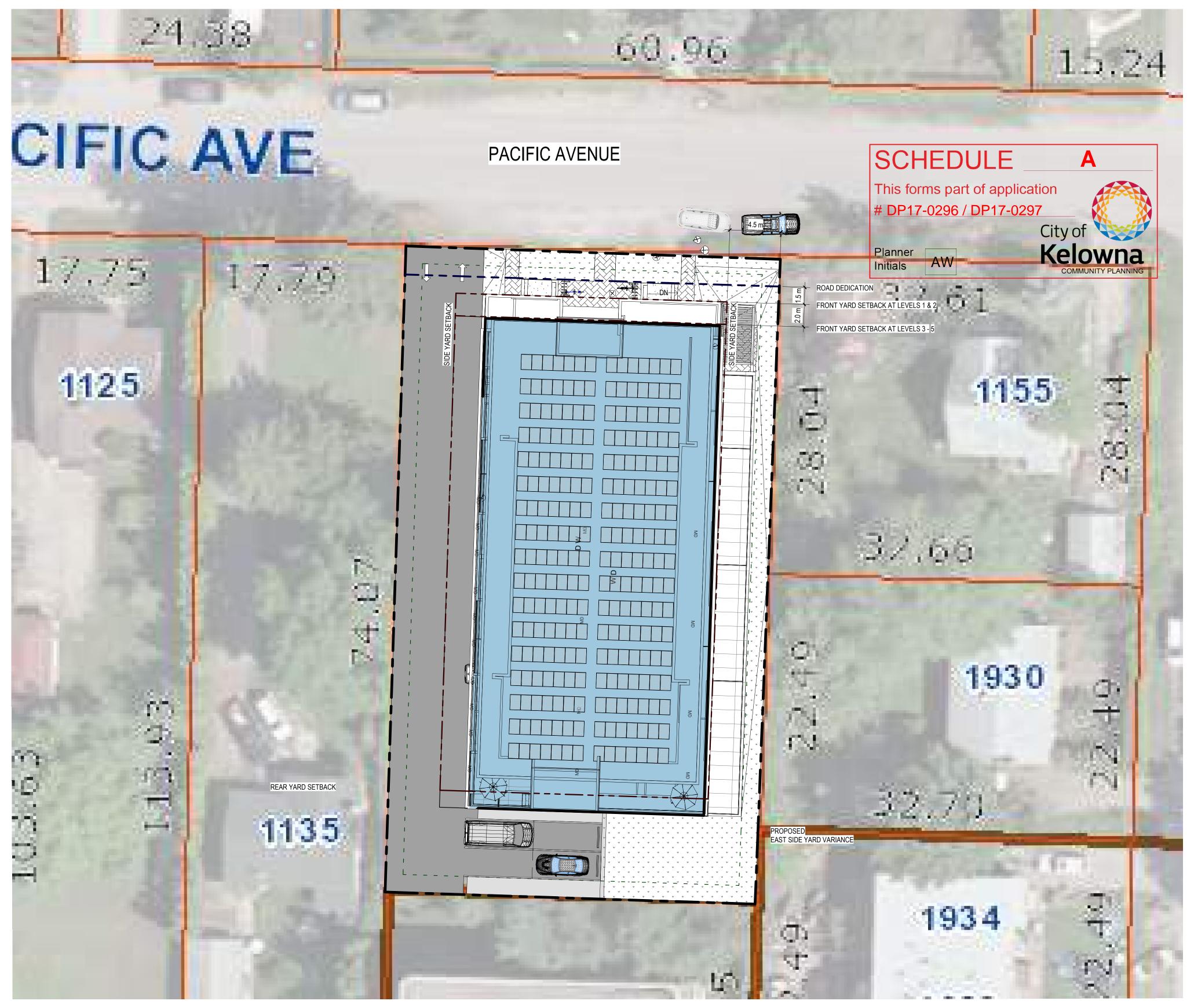
Upon commencement of the works authorized by this Permit the Developer covenants and agrees to save harmless and effectually indemnify the Municipality against:

a) All actions and proceedings, costs, damages, expenses, claims, and demands whatsoever and by whomsoever brought, by

reason of the Municipality said Permit.

All costs, expenses, claims that may be incurred by the Municipality where the construction, engineering or other types of works as called for by the Permit results in damages to any property owned in whole or in part by the Municipality or which the Municipality by duty or custom is obliged, directly or indirectly in any way or to any degree, to construct, repair, or maintain.

The PERMIT HOLDER is the <u>CURRENT LAND OWN</u>ER. Security shall <u>ONLY</u> be returned to the signatory of the Landscape Agreement or their designates.



### PACIFIC AVENUE PROPERTY - ANAGRAM

This project is planned for 1145 Pacific Avenue in Kelowna. The proposed project is a 31 unit apartment building consisting of a ground floor of parking and building entrance and four floors of residential units. The following is a summary of the proposed zoning for this site:

**EXISTING ZONING: RU6 - TWO DWELLING HOUSING** 

PROPOSED ZONING: RM5 - MEDIUM DENSITY MULTIPLE HOUSING

## **ZONING REQUIREMENTS**

RM5 **PROPOSED** 30m X 35m 32.4m X 74.0m MINIMUM LOT MINIMUM AREA 1851.8m<sup>2</sup> 1700m<sup>2</sup> MAX FAR 1.1 + 0.1 Parking + 0.2 Urban Center 1.345 **BUILDING COVER** 50% SITE COVER 81%

4.5m (6.0m FLANKING STREET)

SETBACKS **FRONT** 

SIDE

1.5m / 6.0m 1.5m NORTH (0 - 2.5 floors)

> 3.5m (2.5 - 5th floor) 1.5m WEST (Parkade)

4.8m (2nd to 4th floor) 7.3m (5th floor) 7.0qqm EAST

7.5m SOUTH

REAR 9.0m

PRIVATE OPEN SPACE 15.0m<sup>2</sup> 1 BEDROOM

2+ BEDROOM 25.0m<sup>2</sup>

18.0m **BUILDING HEIGHT** 17.4m PRIMARY ROOF,

18.3m ENTRY PARAPET

## PROPOSED BUILDING CONFIGURATION

PRIVATE OPEN SPACE 760.6 m<sup>2</sup>

BICYCLE PARKING

UNITS 31 TOTAL (5 x 1BR, 21 x 2BR, 5 x 3BR)

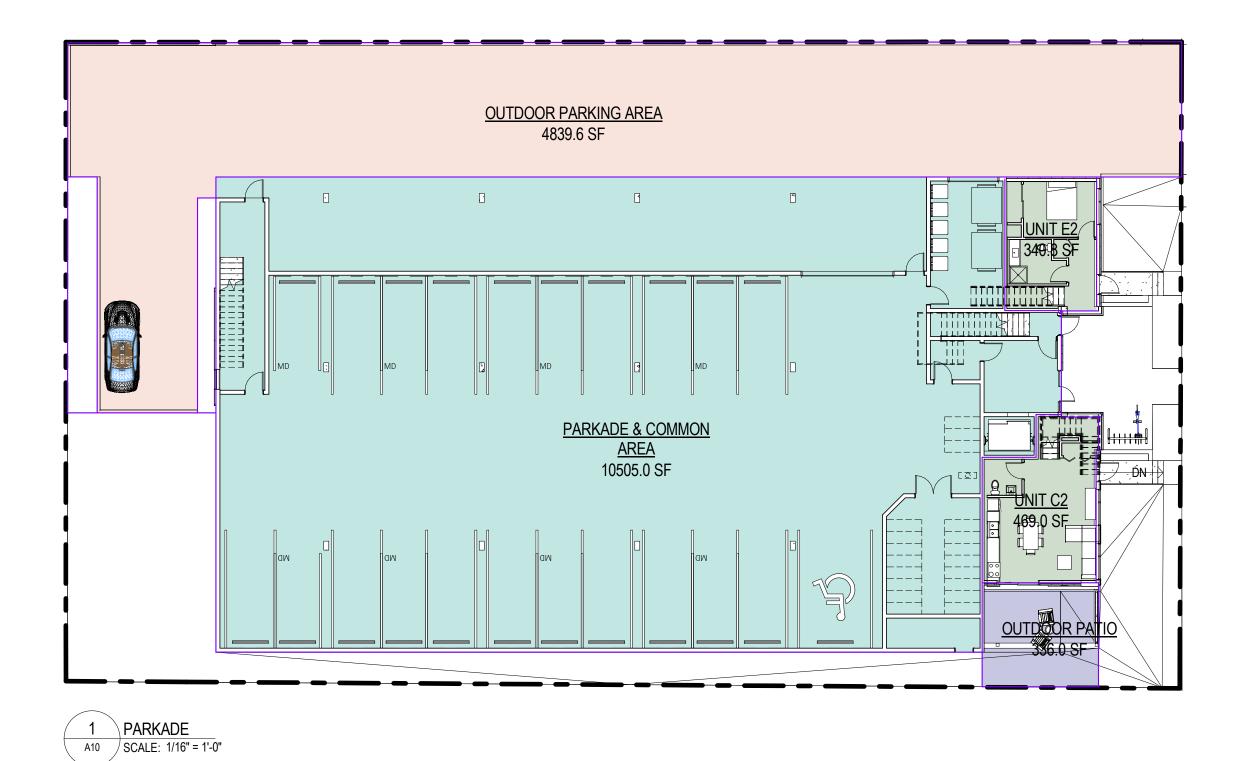
**PARKING** 17 REGULAR (50%), 18 MEDIUM (50%), 0 SMALL (2%) + 1 HC = 36 STALLS

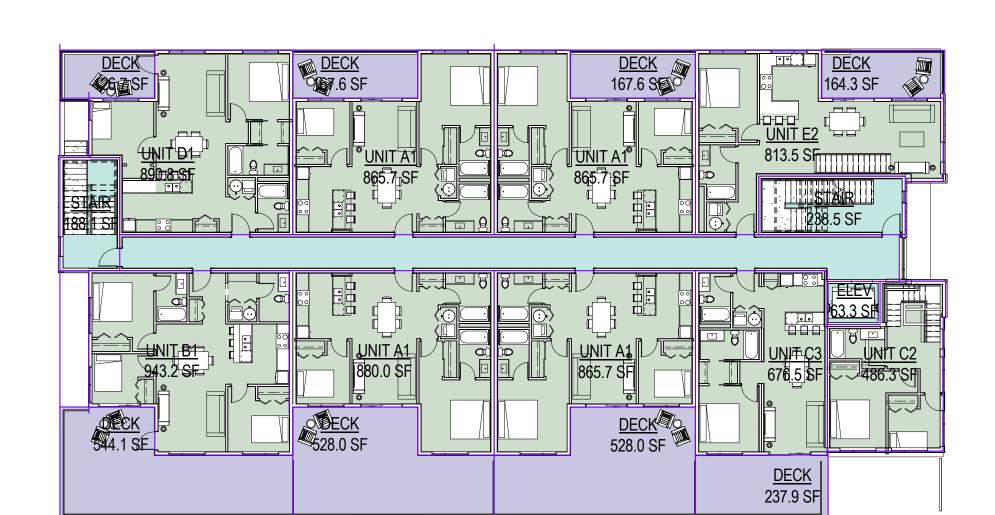
18 CLASS I 6 CLASS I



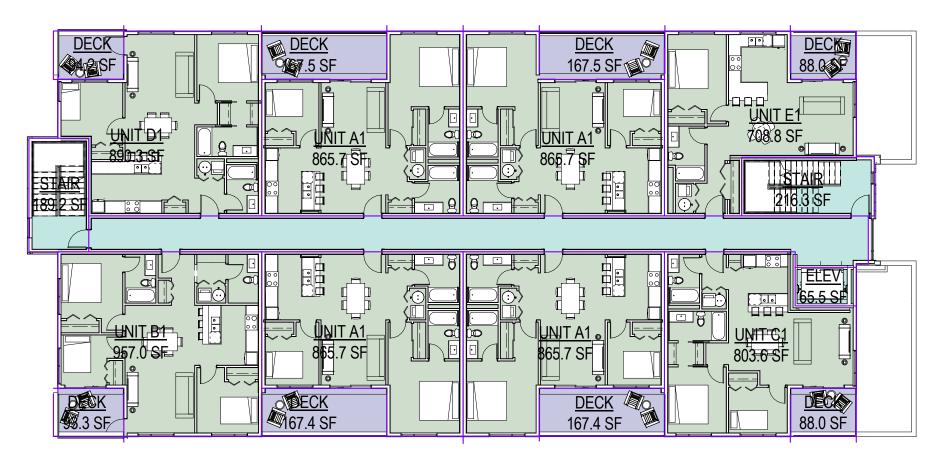




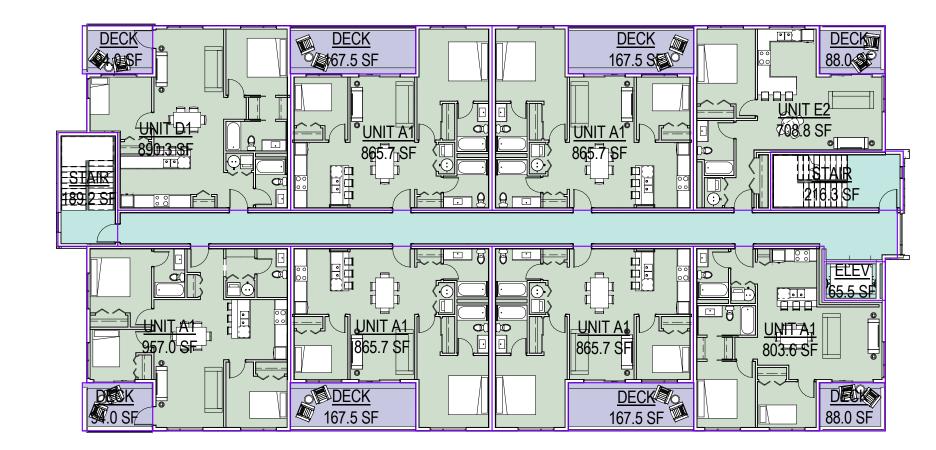




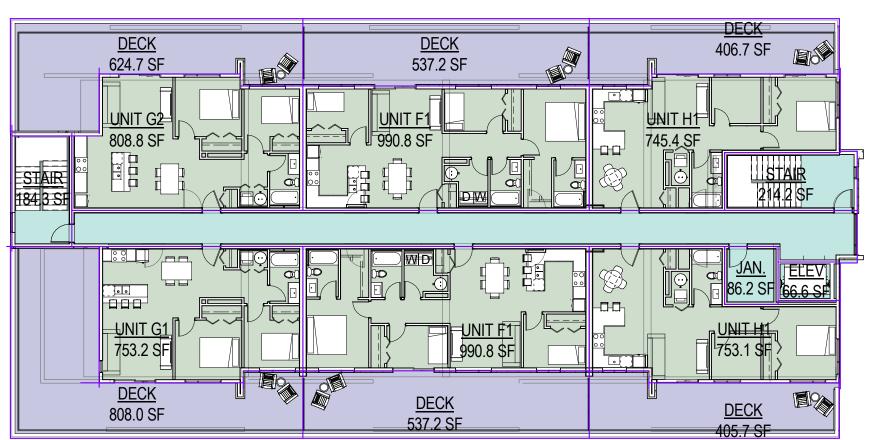








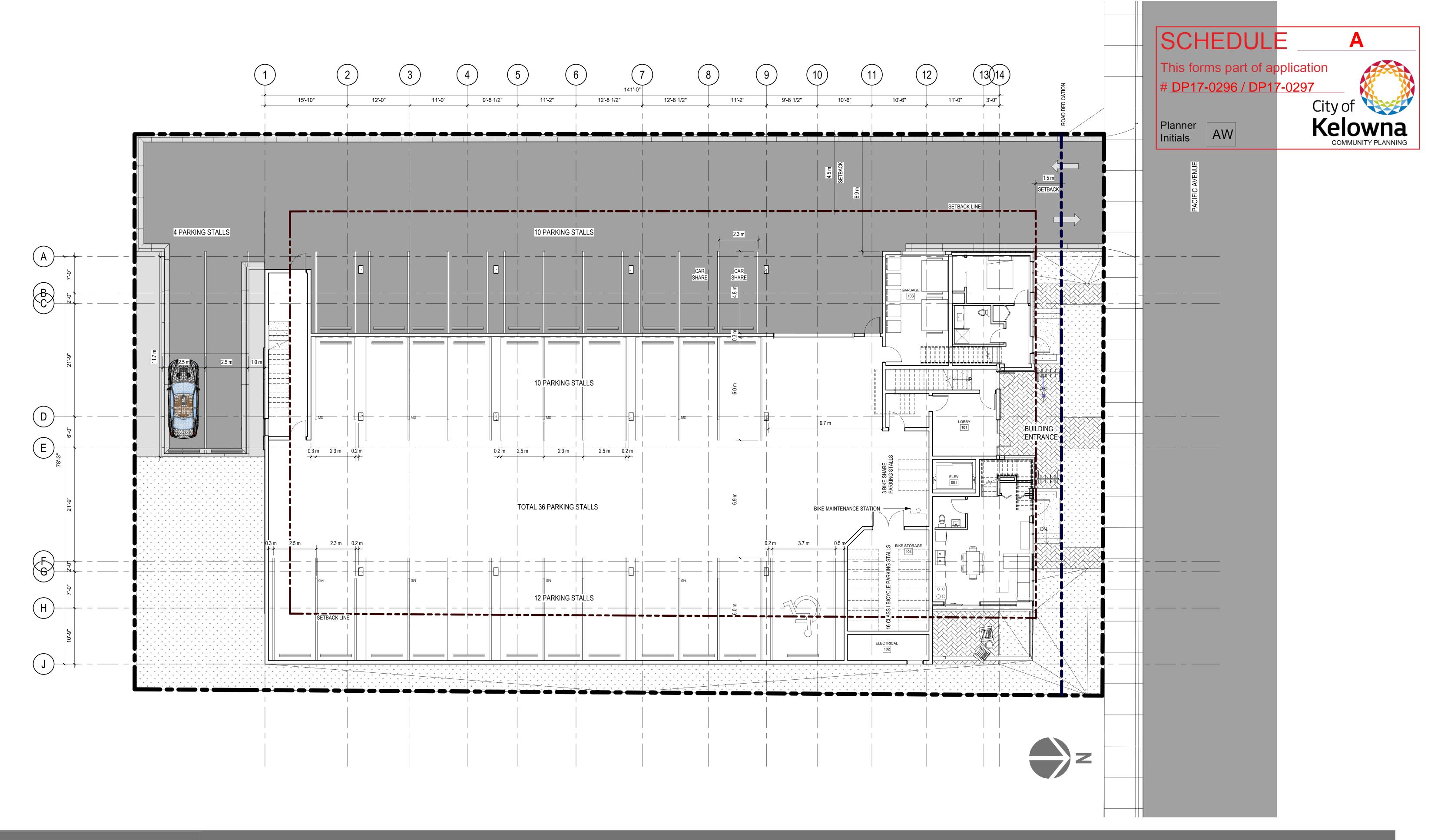






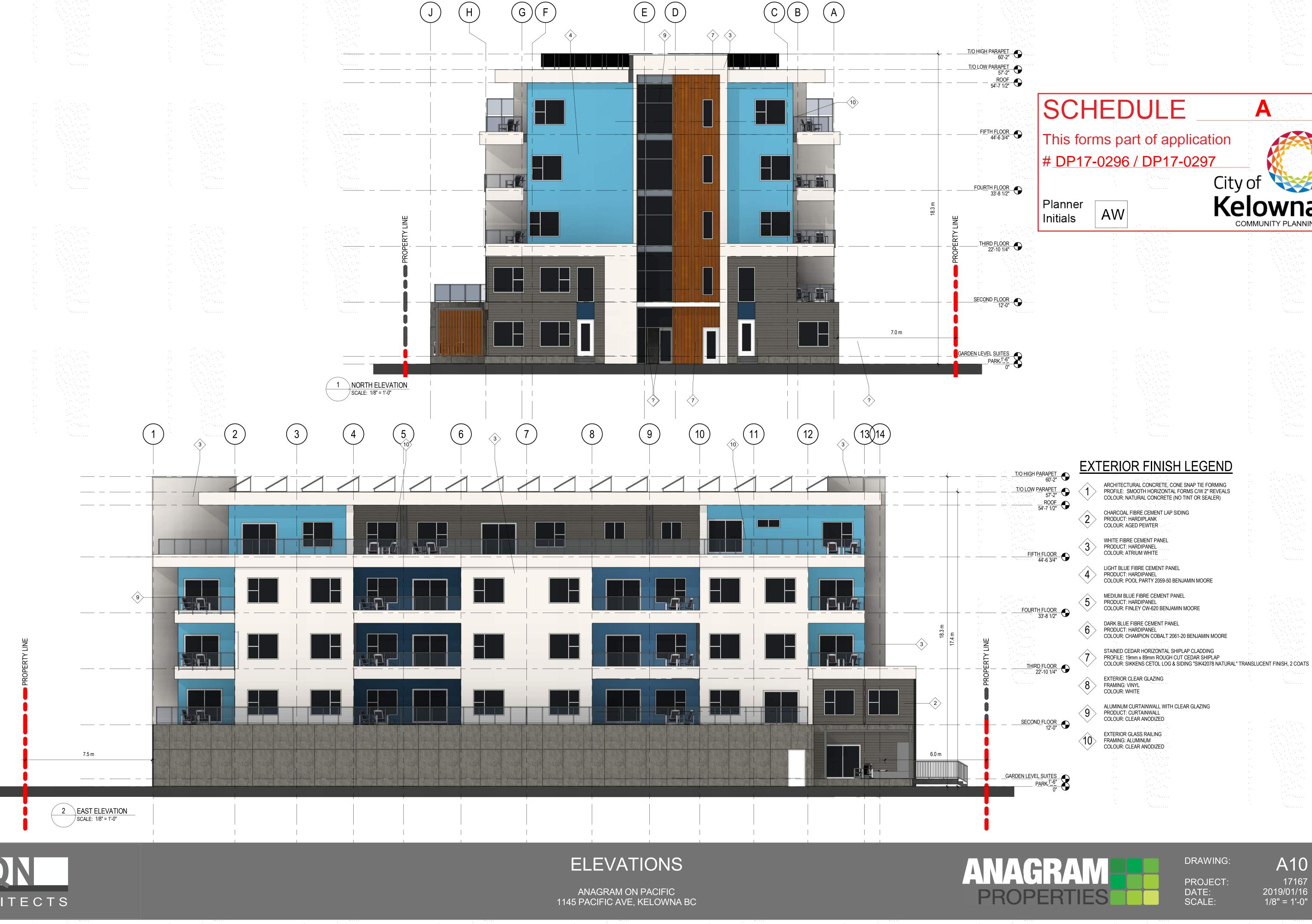


SITE COVERAGE CALCULATION		FAR CALCULATION		
TOTAL SITE AREA	1851.8 m <sup>2</sup>	TOTAL SITE AREA	1851.8 m <sup>2</sup>	FAR AREAS
BUILDING AREA	1051.2 m <sup>2</sup>	EXCLUDED AREA	1461.5 m²	INCLUDED AREA
PARKING AREA	449.6 m <sup>2</sup>	INCLUDED AREA	2488.3 m <sup>2</sup>	
	0.57	PARKING AREA	449.6 m <sup>2</sup>	EXCLUDED AREA
BUILDING COVERAGE	0.57	PRIVATE OPEN SPACE	760.6 m <sup>2</sup>	PRIVATE OPEN SPACE
PARKING COVERAGE	0.24			
TOTAL SITE COVERAGE: (BUILDINGS, DRIVEWAYS, & PARKING)	0.81	FLOOR AREA RATIO:	1.345	PARKING AREA









ARCHITECTS





SCALE:

















PERSPECTIVE LOOKING WEST



**AERIAL LOOKING NORTHWEST** 



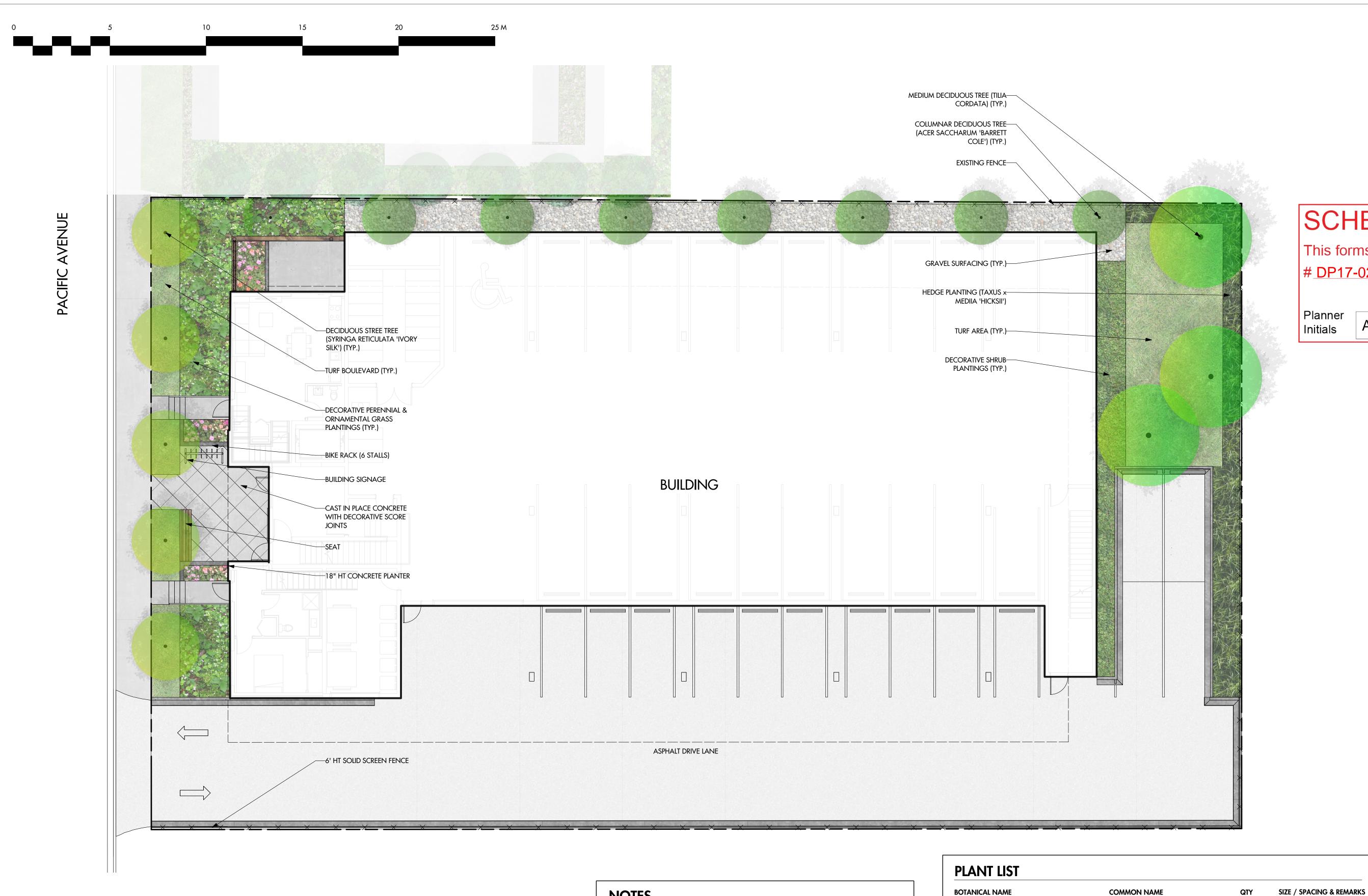


PERSPECTIVE LOOKING EAST



AERIAL LOOKING SOUTHEAST







303-590 KLO Road Kelowna, BC V1Y 7S2 T (250) 868-9270 www.outlanddesign.ca

# SCHEDULE

This forms part of application # DP17-0296 & DVP17-0297

AW



PROJECT TITLE

## 1145 PACIFIC AVENUE

Kelowna, BC

DRAWING TITLE

## CONCEPTUAL LANDSCAPE PLAN

1	18.04.26	Review	
2			
3			
4			
5			

PROJECT NO	17-141
DESIGN BY	FB
DRAWN BY	NG
CHECKED BY	FB
DATE	APR. 26, 2018
SCALE	1:100



DRAWING NUMBER

**ISSUED FOR REVIEW ONLY** 

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**NOTES** 

1. PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED C.N.L.A. STANDARDS.

2. ALL SOFT LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC TIMED UNDERGROUND IRRIGATION SYSTEM.

3. TREE AND SHRUB BEDS TO BE DRESSED IN A MINIMUM 50mm WOOD MULCH. DO NOT PLACE WEED MAT UNDERNEATH TREE AND SHRUB BEDS.

4. TREE AND SHRUB BEDS TO RECEIVE A MINIMUM 300mm DEPTH TOPSOIL PLACEMENT.

5. TURF AREAS FROM SOD SHALL BE NO. 1 GRADE GROWN FROM CERTIFIED SEED OF IMPROVED CULTIVARS REGISTERED FOR SALE IN B.C. AND SHALL BE TOLERANT OF DROUGHT CONDITIONS. A MINIMUM OF 100mm DEPTH OF GROWING MEDIUM IS REQUIRED BENEATH TURF AREAS. TURF AREAS SHALL MEET EXISTING GRADES AND HARD SURFACES FLUSH.

ACER SACCHARUM 'BARRETT COLE' SYRINGA RETICULATA 'IVORY SILK'

TILIA CORDATA

BUXUS 'GREEN GEM'

CORNUS STOLONIFERA 'FARROW' HYDRANGEA PANICULATA 'JANE' PHILADELPHUS 'SNOWBELLE' SYRINGA MEYERII 'PALIBIN' TAXUS X MEDIA 'HICKSII'

PURPLE CONEFLOWER MAY NIGHT MEADOW SAGE

APOLLO MAPLE

IVORY SILK TREE LILAC

GREEN GEM BOXWOOD

LITTLE LIME HYDRANGEA

DWARF KOREAN LILAC

HICK'S YEW

SNOWBELLE MOCKORANGE

LITTLE LEAF LINDEN

PEACH BLOSSOM FALSE SPIREA

ARCTIC FIRE RED TWIG DOGWOOD

PERENNIALS & GRASSES ASTILBE JAPONICA 'PEACH BLOSSOM' CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER' KARL FOERSTER FEATHER REED GRASS ECHINACEA PURPUREA 'MAGNUS' SALVIA NEMOROSA 'MAY NIGHT'

#01 CONT. /0.75M O.C. SPACING #01 CONT. /0.75M O.C. SPACING #01 CONT. /0.6M O.C. SPACING #01 CONT. /0.75M O.C. SPACING

#01 CONT. /0.75M O.C. SPACING

#01 CONT. /1.0M O.C. SPACING

#01 CONT. /1.2M O.C. SPACING

#01 CONT. /1.0M O.C. SPACING

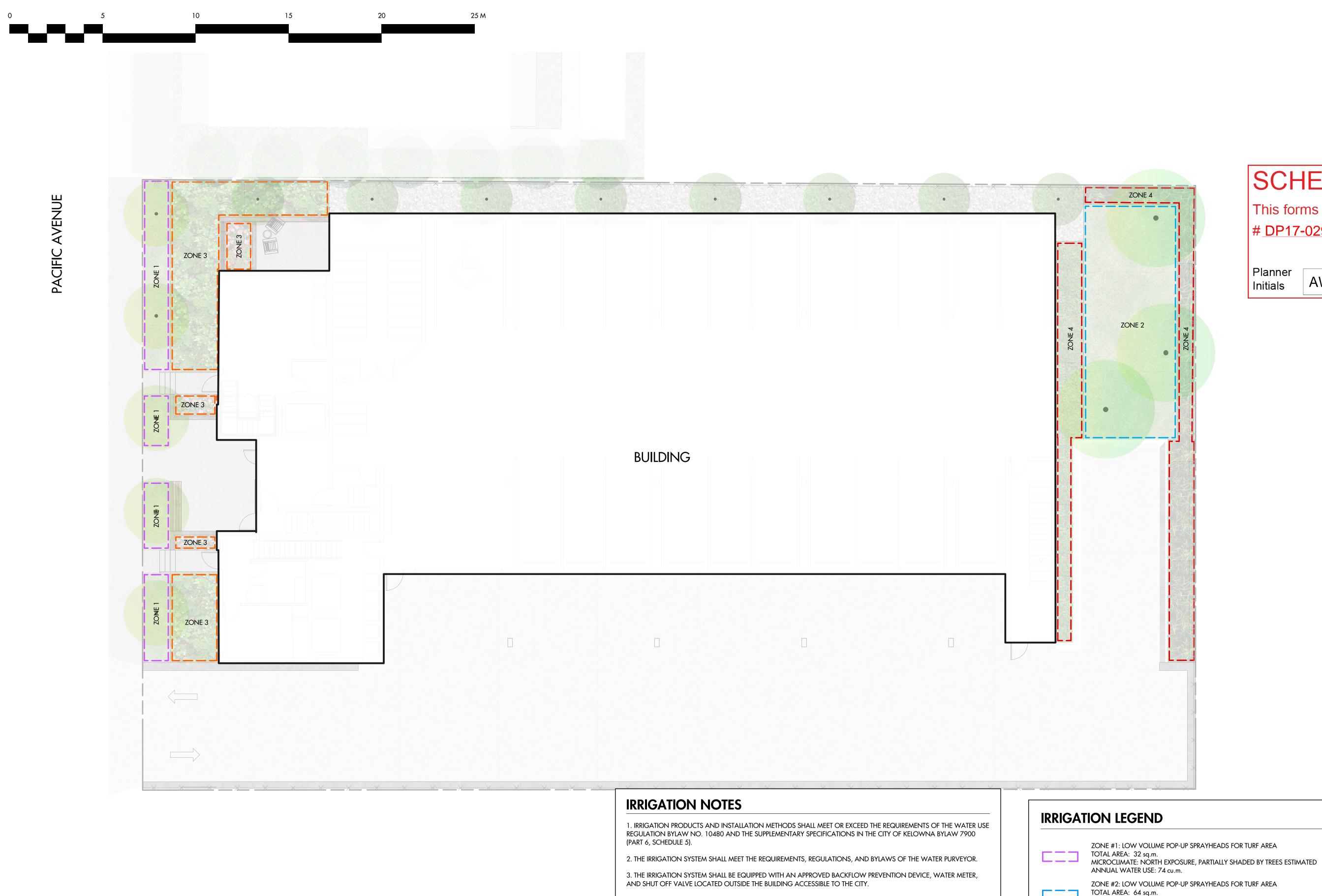
#01 CONT. /1.2M O.C. SPACING

#01 CONT. /0.75M O.C. SPACING

6cm CAL.

6cm CAL.

6cm CAL.



# OUTLAND DESIGN LANDSCAPE ARCHITECTURE

206 - 1889 Spall Road Kelowna, BC V1Y 4R2 T (250) 868-9270 www.outlanddesign.ca

# SCHEDULE

C

This forms part of application # DP17-0296 & DVP17-0297

AW

MICROCLIMATE: SOUTH EXPOSURE, PARTIALLY SHADED BY TREES

MICROCLIMATE: NORTH EXPOSURE, PARTIALLY SHADED BY TREES

MICROCLIMATE: SOUTH EXPOSURE, PARTIALLY SHADED BY TREES

ZONE #3: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE

ZONE #4: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE

ESTIMATED ANNUAL WATER USE: 91 cu.m.

ESTIMATED ANNUAL WATER USE: 25 cu.m.

ESTIMATED ANNUAL WATER USE: 19 cu.m.

WATER USE PLANTING AREAS

WATER USE PLANTING AREAS

TOTAL AREA: 60 sq.m.

TOTAL AREA: 64 sq.m.



PROJECT TITLE

## 1145 PACIFIC AVENUE

Kelowna, BC

DRAWING TITLE

## WATER CONSERVATION **PLAN**

1	18.04.26	Review
2		
3		
4		
5		

PROJECT NO	17-141
DESIGN BY	FB
DRAVVN BY	NG
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DATE	APR. 26, 2018
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DRAWING NUMBER

ISSUED FOR REVIEW ONLY

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- 4. AN APPROVED SMART CONTROLLER SHALL BE INSTALLED. THE IRRIGATION SCHEDULING TIMES SHALL UTILIZE A MAXIMUM ET VALUE OF 7" / MONTH (KELOWNA JULY ET), TAKING INTO CONSIDERATION SOIL TYPE, SLOPE, AND
- 5. DRIP LINE AND EMITTERS SHALL INCORPORATE TECHNOLOGY TO LIMIT ROOT INTRUSION.
- 6. IRRIGATION SLEEVES SHALL BE INSTALLED TO ROUTE IRRIGATION LINES UNDER HARD SURFACES AND FEATURES.
- 7. IRRIGATION PIPE SHALL BE SIZED TO ALLOW FOR A MAXIMUM FLOW OF 1.5m /SEC.

WATER CONSERVATION CALCULATIONS

\*REFER ATTACHED IRRIGATION APPLICATION FOR DETAILED CALCULATIONS

LANDSCAPE MAXIMUM WATER BUDGET (WB) = 289 cu.m. / year

ESTIMATED LANDSCAPE WATER USE (WU) = 206 cu.m. / year

WATER BALANCE = 83 cu.m. / year

8. A FLOW SENSOR AND MASTER VALVE SHALL BE CONNECTED TO THE CONTROLLER AND PROGRAMMED TO STOP FLOW TO THE SYSTEM IN CASE OF AN IRRIGATION WATER LEAK.