



CITY OF KELOWNA
MEMORANDUM

Date: May 24, 2017
File No.: Z17-0035
To: Community Planning (LK)
From: Development Engineering Manager(SM)
Subject: 2240, 2250 & 2260 Ethel Street *REVISED*

HD2

Development Engineering has the following requirements associated with this application. The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Jason Angus

.1) Domestic Water and Fire Protection

- a) The development site is presently serviced with small water services. The developer's consulting mechanical engineer will determine the domestic, fire protection requirements of this proposed development and establish hydrant requirements and service needs. Only one service will be permitted for this development.
- b) The applicant, at his cost, will arrange for the removal of the existing services and the installation of one new larger metered water service and fire hydrant. The new service should tie in to the main on Ethel St. The estimated cost of this construction for bonding purposes is **\$20,000.00**.
- c) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures. The City of Kelowna water meter contractor must salvage existing water meters, prior to building demolition. If water meters are not salvaged, the developer will be invoiced for the meters.

.2) Sanitary Sewer

- a) The development site is presently serviced with small diameter sanitary sewer services. Only one service will be permitted for this development. The developer's consulting civil engineer will determine sanitary sizing for this development. The applicant, at his cost, will arrange for the removal of the existing services and the installation of one new larger service. The estimated cost of this construction for bonding purposes is **\$15,000.00**.

.3) Storm Drainage

- a) The developer must engage a consulting civil engineer to provide a storm water management plan for these sites which meets the requirements of the City Subdivision Development and Servicing Bylaw 7900. The storm water management plan must also include provision of lot grading plans, minimum basement elevations (MBE), if applicable, and provision of a storm drainage

service and recommendations for onsite drainage containment and disposal systems.

- (b) *Only one service will be permitted for this development. The applicant, at his cost, will arrange the installation of one overflow service. The estimated cost of this construction is **\$8,000.00**.*

.4) Road Improvements

- (a) *Ethel Street fronting this development must be upgraded to an urban standard to including barrier curb & gutter, a separate sidewalk, storm drainage, road fillet & landscaped boulevard and relocation or adjustment of existing utility appurtenances if required to accommodate the upgrading construction.*
- (a) Lane fronting this development must be upgraded to SS-R2 standard to including road fillet and relocation or adjustment of existing utility appurtenances if required to accommodate the upgrading construction. The estimated cost of the road improvements for bonding purposes is **\$1,500.00**

.5) Road Dedication and Subdivision Requirements

By registered plan to provide the following:

- a) Dedicate 0.8m width along the full frontage of the lane.
- b) Lot consolidation.
- c) Grant statutory rights-of-way if required for utility services.

.6) Electric Power and Telecommunication Services

- a) All proposed distribution and service connections are to be installed underground. Existing distribution and service connections, on that portion of a road immediately adjacent to the site, are to be relocated and installed underground as this site is located within the Hospital District centre.
- b) Make servicing applications to the respective Power and Telecommunication utility companies. The utility companies are required to obtain the City's approval before commencing construction.
- c) Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es).

.7) Engineering

Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the City Engineering Department for review and marked "issued for construction" by the City Engineer before construction may begin.

.8) Design and Construction

- a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.

- b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).
- d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Works & Utilities Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

.9) Servicing Agreements for Works and Services

- a) A Servicing Agreement is required for all works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be

.10) Survey Monuments and Iron Pins

If any legal survey monuments or property iron pins are removed or disturbed during construction, the developer will be invoiced a flat sum of \$1,200.00 per incident to cover the cost of replacement and legal registration. Security bonding will not be released until restitution is made.

.11) Bonding and Levy Summary

(a) Bonding

Water works upgrade	\$20,000.00
Sanitary service upgrade	\$15,000.00
Storm Service	\$ 8,000.00
Lane Frontage Improvements	<u>\$ 1,500.00</u>

Total Bonding	<u>\$44,500.00</u>
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NOTE: The bonding amounts shown above are comprised of estimated construction costs escalated by 140% to include engineering design and contingency protection and are provided for information purposes only. The owner should engage a consulting civil engineer to provide detailed designs and obtain actual tendered construction costs if he wishes to do so. Bonding for required off-site construction must be provided, and may be in the form of cash or an irrevocable letter of credit, in an approved format. The owner must also enter into a servicing agreement in a form provided by the City.

- b) *Only the service upgrades must be completed at this time. The City wishes to defer the remainder of the upgrades to Ethel Street fronting this development. Therefore, cash-in-lieu of immediate construction is required and the City will initiate the work later, on its own construction schedule.*

Item	Cost
Drainage	\$ 937.00
Curb & Gutter	\$ 9,900.00
Sidewalk	\$ 12,375.00
Street Lighting	\$ 3,713.00
Landscape Boulevard	\$ 3,713.00
Road Fillet	\$14,850.00
Total	\$45,488.00

.12) Administration Charge

An administration charge will be assessed for processing of this application, review and approval of engineering designs and construction inspection. The administration charge is calculated as (3.5% of Total Off-Site Construction Cost plus GST).

14) Development Permit and Site Related Issues

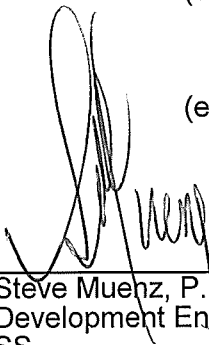
Access and Manoeuvrability

- (i) Access to the site is permitted from the lane as per bylaw.
- (ii) Review and confirm that the development and development site access does not adversely affect the lane operation as a two-way roadway. The minimum clear throat lane width must be 6.4m.

15. Geotechnical Report

As a requirement of this application the owner must provide a geotechnical report prepared by a Professional Engineer qualified in the field of hydro-geotechnical survey to address the following:

- (a) Area ground water characteristics.
- (b) Site suitability for development, unstable soils, etc.
- (c) Drill and / or excavate test holes on the site and install piezometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- (e) Additional geotechnical survey may be necessary for building foundations, etc.



Steve Muenz, P. Eng.
Development Engineering Manager
SS

Development Permit Application
Planning Rationale & Urban Design Brief

Ethel Street Development

Kelowna, British Columbia March 17, 2017



Rendering is an artistic interpretation for illustrative purposes only.

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*The Architectural & Civil drawings contained within this document are copies of the original sealed set submitted with this application.

Ethel Street Development Permit Application

Kelowna, British Columbia,

March 17, 2017

1.0 Character & Image:

In harmony with the aspiration to increase density within the health district, this multi-family project endeavors to provide a variety of different medium density housing options. This responds to the increased demand for smaller scale, centrally located, urban alternatives to the traditional single family residence. The composition of the different units, consisting of small studio apartments up to three bedroom townhouses, provides a diverse residence make-up that ultimately will contribute positively to the changing neighbourhood demographic as it transitions toward a more sustainable future.

Ethel Street Development Permit Application

Kelowna, British Columbia,REVISED JUNE 7, 2017

1.1 Preliminary Development Information

PRELIMINARY DEVELOPMENT INFORMATION														
PROJECT:		Ethel Street Development												
OWNER:		J.D. Nelson & Assoc. Ltd.												
PROJECT NO.:		16-008												
CIVIC ADDRESS:		2240, 2250, 2260 Ethel Street												
LEGAL ADDRESS:		Lot 22, 23, 24, Plan 11811												
CURRENT ZONING:		RU6												
PROPOSED ZONING:		HD2												
ISSUED FOR:		Development Permit												
SUMMARY (ZONING ANALYSIS TABLE BASED ON HD2)														
SITE DETAILS														
Site Area:		Minimum			Proposed									
	(acres)	(m2)	(ft2)	(acres)	(m2)	(ft2)								
+/-	0.22	+/-	900	+/-	9,688	+/-	0.6	+/-	2,450.94	+/-	26,383			
Site Width:		Minimum			Proposed									
			(m)		(ft)		(m)		(ft)					
			30		98.4	+/-	65.85	+/-	216.0					
Site Depth:		Minimum			Proposed									
			(m)		(ft)		(m)		(ft)					
			30		98.4	+/-	37.22	+/-	122.0					
Site Coverage (area):		Maximum			Proposed									
			(m2)		(ft2)		(m2)		(ft2)					
	Buildings		1,348.0		14,510.4	+/-	1,568.8	+/-	16,886.0					
Site Coverage (percentage):		Maximum			Proposed									
	Buildings		55%	+/-	64.0%									
DEVELOPMENT INFORMATION														
Number & Breakdown of Units:														
Type	LVL	Studio	#	1Bd	#	1Bd+Den	#	2Bd	#	2Bd+Den	#	3Bd	#	Total (ft2)
TH1	1&2											± 1300	2	± 2600
TH2	1&2									± 1300	2			± 2600
TH3	1&2											± 1300	2	± 2600
A	2	± 313	8											± 2504
A1	2	± 313	2											± 626
A1	3	± 313	2											± 626
B	3			± 540	2									± 1080
B1	1			± 595	2									± 1190
C	2					± 620	1							± 620
C	3					± 620	1							± 620
C1	1					± 700	2							± 1400
C1	3					± 700	2							± 1400
C2	1					± 745	1							± 745
C3	1					± 785	1							± 785
D	2							± 745	1					± 745
D	3							± 745	1					± 745
D1	2							± 785	1					± 785
D1	3							± 785	1					± 785
D2	2							± 775	2					± 1550
D2	3							± 775	2					± 1550
D3	2							± 740	2					± 1480
D3	3							± 740	2					± 1480
D4	4							± 870	2					± 1740
E	1									± 850	2			± 1700
E1	1									± 905	2			± 1810
F	4											± 1265	2	± 2530
Total			12		4		8		14		6		6	± 36296
Total Units														50

Floor Area:									
Level	Net (m2)*		Net (ft2)*		Gross (m2)		Gross (ft2)		
1	+/-	1,071	+/-	11,530	+/-	1,265	+/-	13,611	
2	+/-	1,134	+/-	12,210	+/-	1,240	+/-	13,351	
3	+/-	770	+/-	8,286	+/-	878	+/-	9,448	
4	+/-	397	+/-	4,270	+/-	520	+/-	5,600	
Subtotal	+/-	3,372	+/-	36,296	+/-	3,903	+/-	42,010	
P1					+/-	1,148	+/-	12,360	
Garage					+/-	304	+/-	3,276	
* As defined in the City of Kelowna Zoning Bylaw									
Floor Area Ratio:						Maximum	Proposed		
						1.4*	+/-	1.376	
*Based on providing required parking below habitable space of a principle building and entering into a housing agreement									
Building Height:		Maximum		Proposed					
		(m)	(ft)		(m)	(ft)			
		16.5	54	+/-	15.2	+/-	50.0		
Building Setbacks (from property line):		Required		Proposed					
		(m)	(ft)		(m)	(ft)			
	Front	(East)	4.5	14.8	+/-	3.5	+/-	11.5	
	Side	(North)	4.5/6.0	14.8/19.7	+/-	4.5/7.5	+/-	14.8/24.6	
	Rear	(West)	3.0	9.8	+/-	0.2	+/-	0.65	
	Side	(South)	4.5/6.0	14.8/19.7	+/-	4.5/7.5	+/-	14.8/24.6	
Private Open Space:		Required		Proposed					
Type	#	/Unit (m2)	(m2)	(ft2)		(m2)	(ft2)		
Bachelor	12	7.5	90	969					
1Bd	12	15	180	1938					
>1Bd	26	25	650	6997					
			920	9903	+/-	1,115	+/-	12,000	
Parking Stalls:						Required	Proposed		
						50	50		
Loading Spaces:						Required	Proposed		
						0	0		
Bicycle Parking:						Required	Proposed		
						Class I	25	25	
						Class II	5	5	

Ethel Street Development Permit Application

Kelowna, British Columbia,

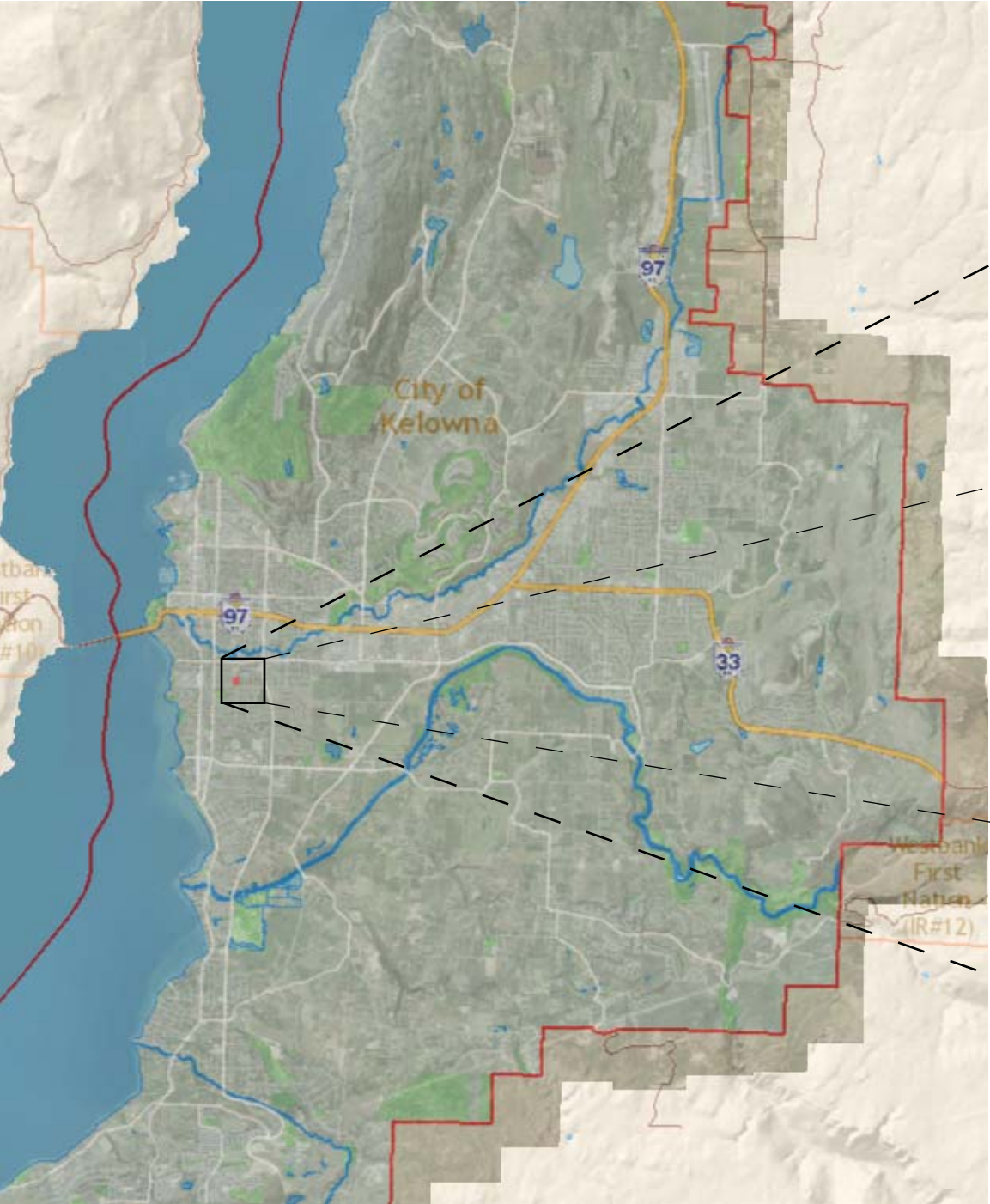
March 17, 2017

2.0 Neighborhood Context:

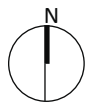
The project consists of 3 parcels that are located on Ethel Street, between Rose Avenue and Glenwood Avenue, two blocks south of Springfield Road. The project site is centrally located between downtown and the Capri Landmark Urban Centre and is close to nearby parks, schools and transit routes. The current zoning is RU6 with a future land use designation as HD2.

Ethel Street Development Permit Application
Kelowna, British Columbia, March 17, 2017

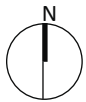
2.1 Location



Map of City of Kelowna N.T.S.



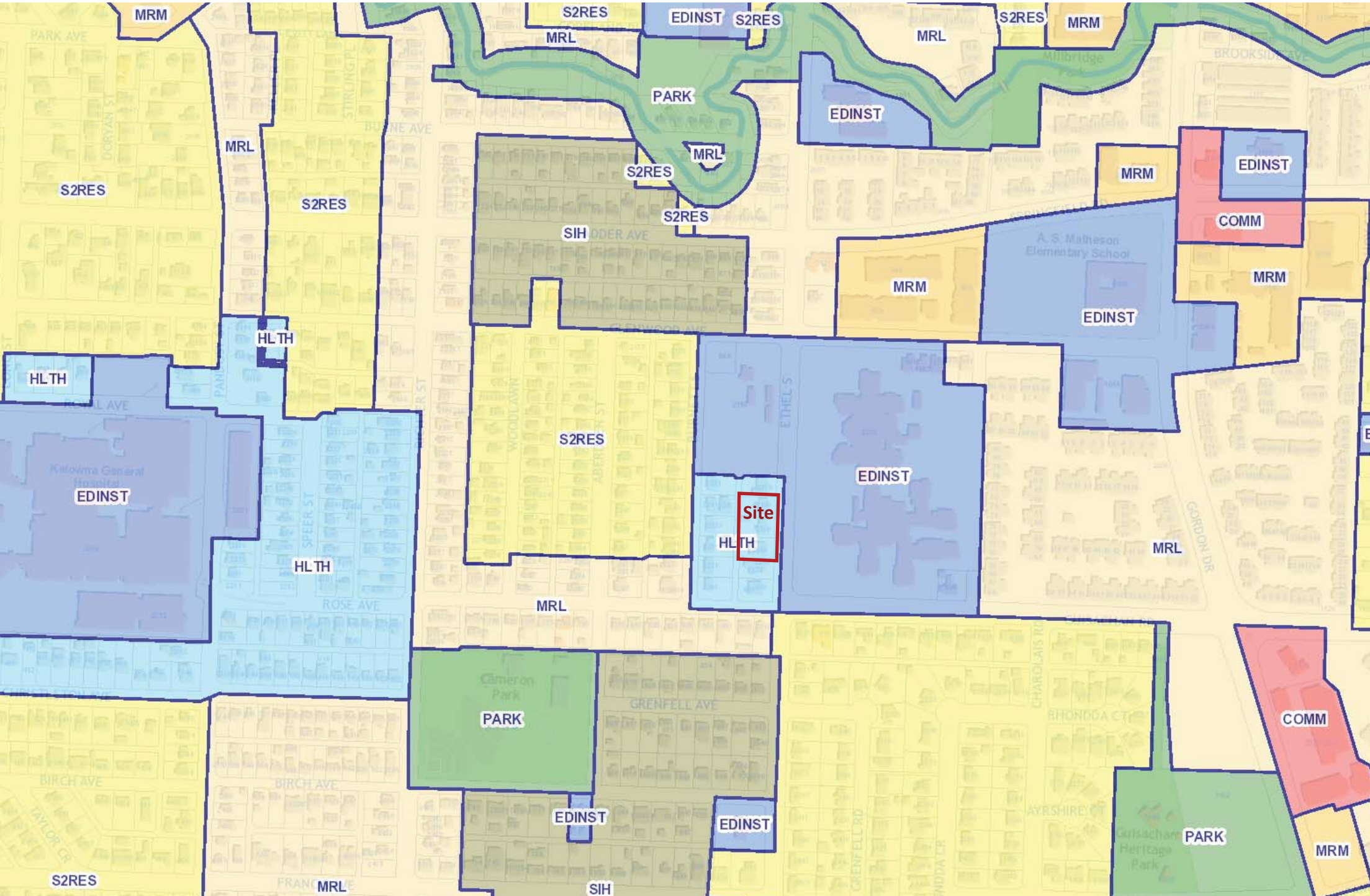
Subject Land & Context Plan N.T.S.



Ethel Street Development Permit Application

Kelowna, British Columbia, March 17, 2017

2.2 City of Kelowna Official Community Plan



Legend

Future Land Use Text

Future Land Use

Agri-Business

Commercial

Educational/Major Institutional

First Nations Reserve

Future Urban Reserve

Health District

Industrial

Industrial - Limited

Industrial - Transitional

Multiple Unit Residential - Cluster Housing

Multiple Unit Residential (High Density)

Multiple Unit Residential (Medium Density)

Multiple Unit Residential (Low Density)

Mixed Use (Residential / Commercial)

Mixed Use Tourism

Major Park/Open Space (public)

Public Service/Utilities

Private Recreation

Resource Protection Area

Service Commercial

Single / Two Unit Residential

Single / Two Unit Residential - Hillside

Sensitive Infill Housing

Transportation Corridor

Area Structure Plan

Permanent Growth Boundary

N

City of Kelowna OCP - Future Land Use N.T.S.

2.3 Existing Streetscape Photos



Ethel Street Development Permit Application

Kelowna, British Columbia,

March 17, 2017

Existing Streetscapes



Ⓐ Ethel St. & Glenwood Ave. View North



Ⓑ Ethel St. & Glenwood Ave. View NE



Ⓒ Ethel St. & Glenwood Ave. View East



Ⓓ Ethel St. & Glenwood Ave. View West



Ⓔ Ethel St. & Glenwood Ave. View South



South

Ⓕ West Side of Ethel St. North of Site



North



South

Ⓖ West Side of Ethel St. Site and Adjacent Neighbours



Site



Site



Site



North

Ethel Street Development Permit Application

Kelowna, British Columbia,

March 17, 2017

Existing Streetscapes



North

H

East Side of Ethel Street

South



I

Ethel St. & Rose Ave. View NE

J

Ethel St. & Rose Ave. View North

K

Ethel St. & Rose Ave. View South

L

Ethel St. & Rose Ave. View West

M

Rear Lane & Rose Ave. View East

Ethel Street Development Permit Application

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Existing Streetscapes



N

North End Rear Lane View North



Q

North End Rear Lane View South



R

South End Rear Lane View North



South

O

West Side of Rear Lane



North



North

P

East Side of Rear Lane



Site



Site



Site



South

Ethel Street Development Permit Application

Kelowna, British Columbia,

REVISED JUNE 7, 2017

3.0 Site Design

- For the overall site layout, the main design intent is to respond to the existing context while also addressing the future transition envisioned for the neighbourhood.
- The strategy is to step the building mass back, on all four elevations, so that the tallest portion of the building is at a minimum of 6m back from all surrounding property lines.
- The solution centrally locates the main pedestrian entrance off of the Ethel Street frontage and utilizes the rear lane for all vehicular access to the site.
- The six, two-storey townhouse units fronting onto Ethel Street serves to both frame the apartment main entrance as well as provide a pedestrian scaled street interface.
- Heading towards the west, the four-storey apartment building is situated on top of a semi-recessed parkade.
- As permitted in the HD2 zone, the parkade is recessed into the site with no more than 2.0m of the parkade's north and south wall elevations exposed. This serves to benefit the project in multiple ways: It allows for increased covered parking, and consequently increased density. It reduces the overall building height, and consequently its impact on the adjacent neighbours. It provides an opportunity for additional outdoor amenity for the building's residents in the areas where the building is set back, and it keeps the parkade above the water table. In a further effort to screen the exposed parkade walls from the adjacent neighbours, the landscape design proposes having both a fence along the north and south property lines and vertical planting intended to screen the parkade from view.
- By locating the majority of parking stalls under the building, a significant amount of the site will be utilized for both common and private outdoor amenity use.
- In addition to the parkade, the remaining required parking will be located in garages accessed directly off the rear lane.

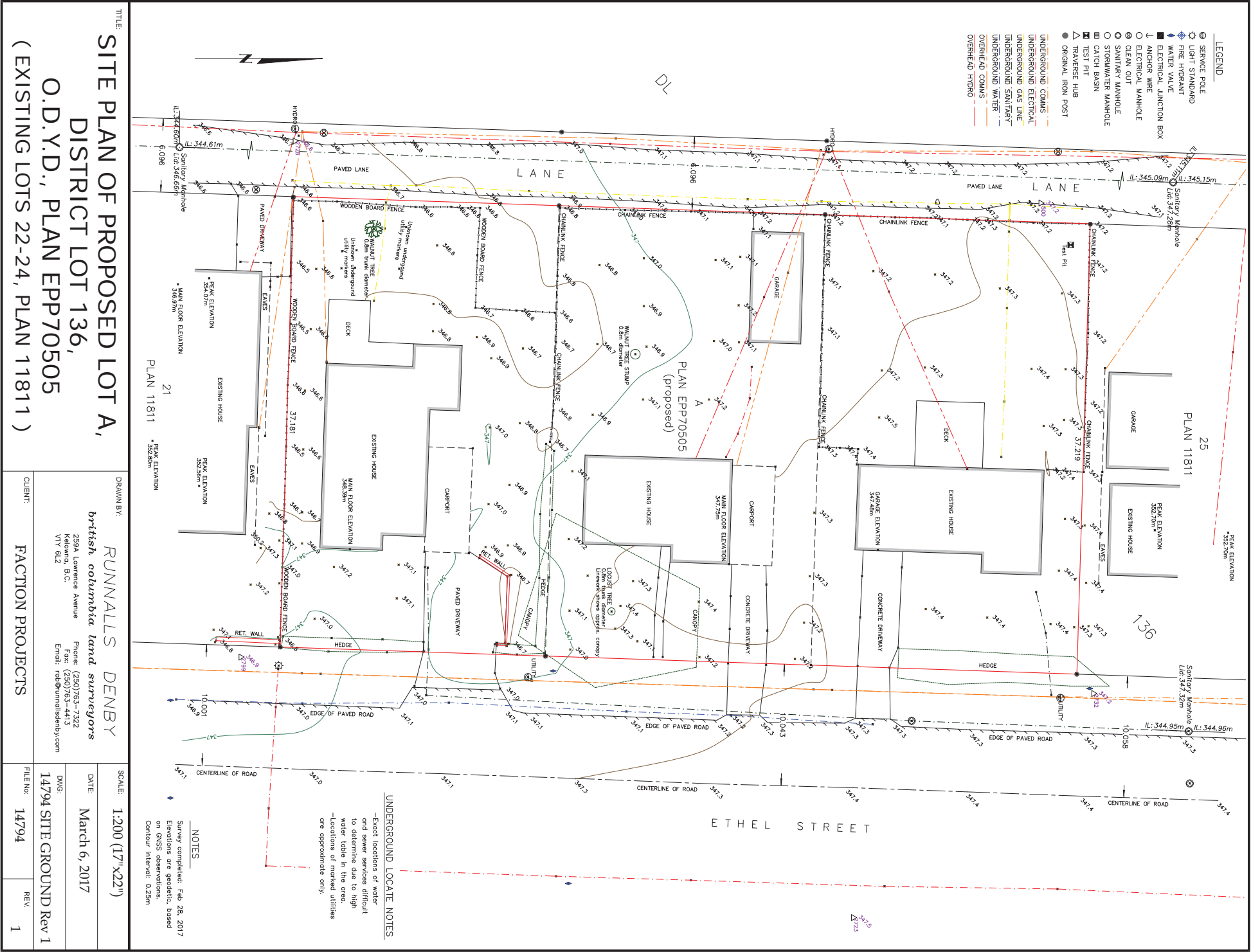
Variance

As stated, one of the goals for the project is to align with the City of Kelowna's Official Community Plan's objective to increase density through the HD2 zoning designation. With the increased density comes the associated need to provide amenity space for the residents. To address this need, the inclusion of enclosed garages off the rear lane allows the use of the roofs as additional patio spaces. The provision of these garages requires three variances. The first variance is for site coverage percentage. The overall site coverage proposed is 65% which exceeds the 55% permitted in the HD2 zone. To mitigate the impact that the increased site coverage might have on the municipal storm utility, the Civil design proposes to include on-site storm water tanks designed for infiltration and an overflow outlet connecting to the existing storm main within Ethel Street. The second and third requested variances are for the relaxation of the front and rear yard setbacks. The requested variance for the front yard setback is from 4.5m required to 3.5m proposed. The requested rear yard setback is from 1.5m to 0.2m. Based on the ground orientated nature of the six, two-storey townhouse units fronting Ethel Street the request for the reduction of the front yard setback is in keeping with other zones front yard setbacks with similar uses. To help offset the impact of close proximity to the lane, the mass was divided into six clusters with the areas between the clusters containing either stairs to access the private roof top patios or landscaping.

Ethel Street Development Permit Application

Kelowna, British Columbia, March 17, 2017

3.1 Site Survey



Site Survey N.T.S.

3.2 Ethel Street Elevation



1 - Ethel Street Elevation
Scale 1/32" = 1'-0"

Ethel Street Development Permit Application

Kelowna, British Columbia,

March 17, 2017

3.3 Landscape Design



The Ethel Street multifamily development is located between the crossroads of Glenwood Ave. and Guisachan Rd./ Rose Ave., along a major access route for both vehicular, pedestrian and cycling circulation, and across the street from the Cottonwoods Care Centre. The Ethel Street Active Transportation Corridor will make it even more convenient for residents of this development to walk or cycle north to downtown and south to Okanagan College.

A key element to the design was to reinforce the pedestrian character of the project. The development will provide a pedestrian friendly treatment along the Ethel street frontage with the installation of planting and shade trees. The main entrance to the condos includes a wide and inviting courtyard like entry with decorative paving, seating, bike racks, a large feature shade tree and the development signage. As the main entrance is sunken from the street level, stairs and an accessible ramp with handrails provide access for residents and guests. The entrance is reinforced with dense planting and columnar trees that also provide buffering from the townhouse units. Additionally, along Ethel Street on both sides of the main condo entrance, the townhouses each have their own private access paths and gates with a low decorative perimeter fence, front planted with an evergreen hedge. Foundation planting, a shade tree and a private lawn area have been included for each townhouse unit. To connect Ethel Street with the rear lane, a walkway is provided along the north property boundary.

Amidst primarily single family residential properties, another key element to the design was to ensure adequate buffering along the north and south property boundaries. This is achieved with continuous solid screen fencing, shrub planting and trees. Also, climbing vines will be trained up a timber structure attached to the exposed parkade wall for screening. Along the sides and rear lane, planters with flowering ornamental trees will be placed above the parkade and garage roofs and two large deciduous trees will flank the corners of the development along the rear lane to provide soften the edges of the development.

The common roof deck amenity areas accessed from the fourth floor will provide an excellent place for residents to gather. These spaces will take advantage of city and valley views both west and east facing. Each incorporate a decorative topping with flowering ornamental trees in moveable raised planters, and space large enough for programming that could include lounge seating, a fire table, and yoga space.



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DRAWINGS ARE NOT TO BE SCALED. Confirm all dimensions on site. Any apparent discrepancies in the Drawings shall be brought to the Architect's attention with time being of the essence.

NOTES:

SEAL:



ISSUED FOR		
NO	DATE	DESCRIPTION
1	2017-03-17	Development Permit

CONSULTANTS:



206 - 1889 Spall Road
Kelowna, BC V1Y 4B2
T (250) 868-9270
www.outlanddesign.ca

PROJECT:

ETHEL STREET
DEVELOPMENT |
KELOWNA, BC

DRAWING DESCRIPTION:

CONCEPTUAL
LANDSCAPE DESIGN

PROJECT NO.:

17-028

PLOT SCALE:

1:100

DATE ISSUED:

2017-03-17

REVIEWED:

2017-03-17

BY:

FB

L1/2

REAR LANE

PROPERTY LINE

PRIVATE PATIOS WITH
DECORATIVE TOPPING (TYP.)

PARKADE
RAMP

(13) SMALL DECIDUOUS TREE
(MAGNOLIA LILIFLORA x STELLATA
'SUSAN') IN MOVEABLE ROOF DECK
PLANTERS

LARGE DECIDUOUS TREE
(FRAXINUS AMERICANA
'JUNGINGER')
CLIMBING VINES (CAMPSIS
RADICANS) ON TIMBER STRUCTURE
ATTACHED TO EXTERIOR PARKADE
WALL

(5) SMALL DECIDUOUS TREES
(MAGNOLIA LILIFLORA x STELLATA
'SUSAN') IN MOVEABLE ROOF DECK
PLANTERS

CONDOS

1.8m HT. SOLID SCREEN FENCE ON
LOW RETAINING WALL ALONG SOUTH
PROPERTY LINE

COMMUNAL OUTDOOR LOUNGE SPACE
AROUND LARGE FIRE TABLE (BY
OTHERS)

(2) SMALL DECIDUOUS TREE
(MAGNOLIA LILIFLORA x STELLATA
'SUSAN') IN MOVEABLE ROOF DECK
PLANTERS

FURNITURE (BY
OTHERS)

LARGE DECIDUOUS TREE
(FRAXINUS AMERICANA
'JUNGINGER')
CLIMBING VINES (HEDERA HELIX) ON
TIMBER STRUCTURE ATTACHED TO
EXTERIOR PARKADE WALL

(5) SMALL DECIDUOUS TREES
(MAGNOLIA LILIFLORA x STELLATA
'SUSAN') IN MOVEABLE ROOF DECK
PLANTERS

CONDOS

COMMON ROOF DECK AMENITY
AREA W/ DECORATIVE TOPPING
FURNITURE (BY OTHERS)

(4) SMALL DECIDUOUS TREE
(MAGNOLIA LILIFLORA x STELLATA
'SUSAN') IN MOVEABLE ROOF DECK
PLANTERS

(3) COLUMNAR DECIDUOUS TREES
(LIRIODENDRON TULIPIFERA
'FASTIGIATUM')

TOWNHOUSES

ORNAMENTAL SHRUBS,
GRASSES, AND PERENNIAL
PLANTINGS (TYP.)

(6) SMALL DECIDUOUS TREE
(LIRIODENDRON TULIPIFERA
'FASTIGIATUM')

CONCRETE RAMP W/
HANDRAILS

CLASS II BIKE RACKS (10
STALLS)

DEVELOPMENT
SIGNAGE

DECORATIVE PAVING AT
ENTRY

CONCRETE STAIRS W/
HANDRAIL

(1) DECIDUOUS FEATURE
TREE (PLATANUS x
ACERIFOLIA 'BLOODGOOD')

BENCH
(TYP.)

TOWNHOUSES

TOWNHOUSE
PATIO
(3) SMALL DECIDUOUS TREES
(LIRIODENDRON TULIPIFERA
'FASTIGIATUM')

1.8m HT. SOLID SCREEN FENCE
ALONG NORTH PROPERTY LINE
CONCRETE PATH CONNECTION FROM
ETHEL TO REAR LANE

PROPERTY LINE

PRIVATE TURF AREA
(TYP.)

LOW ORNAMENTAL FENCE
W/ GATE ACCESS TO
TOWNHOUSES

CONCRETE PATHWAY
(TYP.)

ETHEL STREET

FRONT YARD SET BACK REDUCED TO 3.5M TO
ACCOMMODATE THE 0.8M REAR LANE DEDICATION
REQUESTED BY DEVELOPMENT ENGINEERING. REFER TO
REVISED ARCHITECTURAL SITE PLAN DATED JUNE 7, 2017

EVERGREEN PLANTING BETWEEN SIDEWALK
& FENCE (BUXUS SEMPERVIRENS 'GREEN
GEM')

(6) DECIDUOUS BOULEVARD
TREE (QUERCUS FRAINETTO
'SCHMIDT')

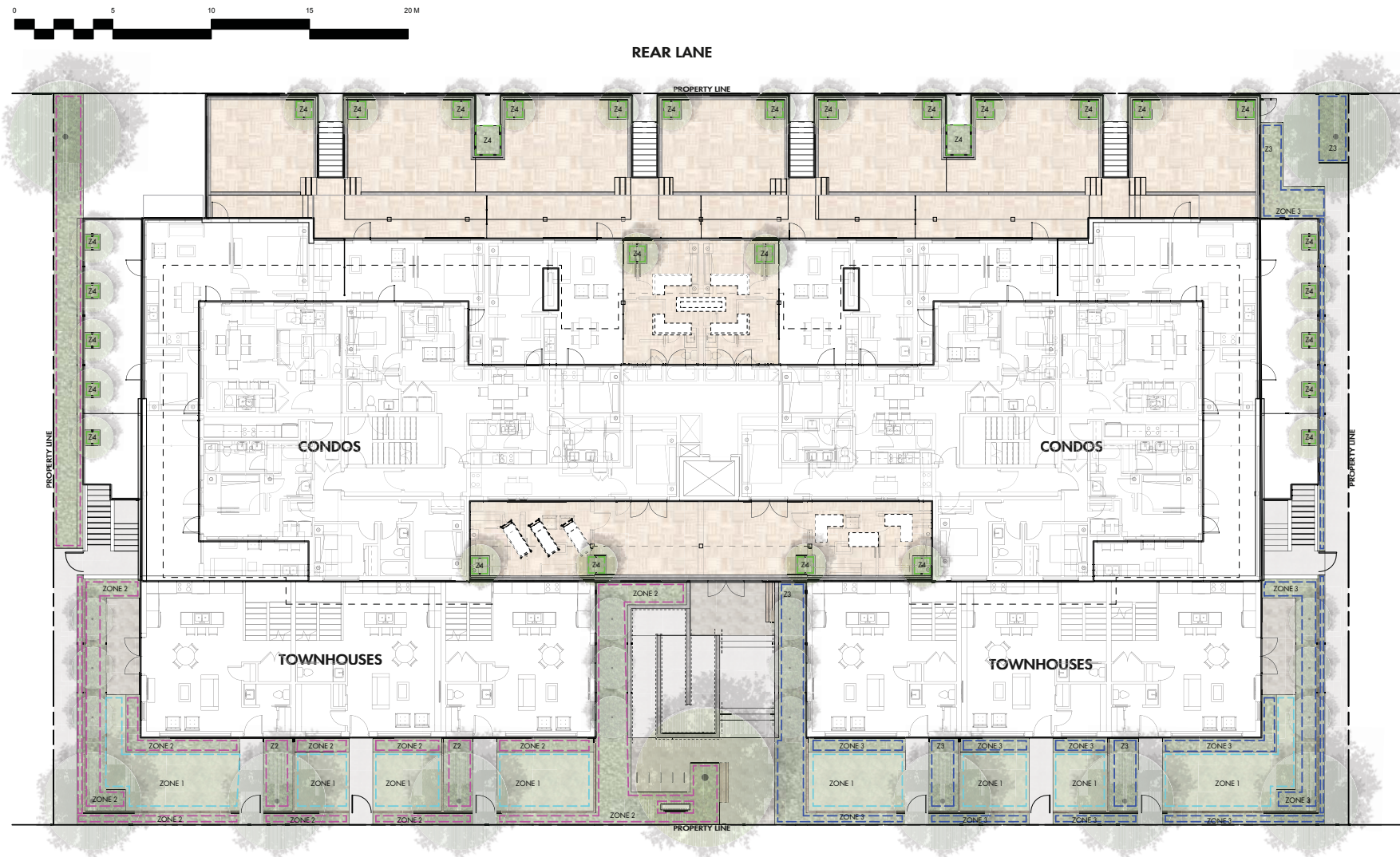
PLANT LIST

BOTANICAL NAME	COMMON NAME	QTY	SIZE/SPACING & REMARKS
TREES			
FRAXINUS AMERICANA 'JUNGINGER'	AUTUMN PURPLE ASH	2	6cm CAL.
LIRIODENDRON TULIPIFERA 'FASTIGIATUM'	COLUMNAR TULIP TREE	12	6cm CAL.
MAGNOLIA LILIFLORA x STELLATA 'SUSAN'	SUSAN MAGNOIA	24	6cm CAL.
PLATANUS x ACERIFOLIA 'BLOODGOOD'	LONDON PLANE TREE	1	6cm CAL.
QUERCUS FRAINETTO 'SCHMIDT'	FOREST GREEN OAK	6	6cm CAL.
PERENNIALS, GRASSES & SHRUBS			
BUXUS SEMPERVIRENS 'GREEN GEM'	GREEN GEM BOXWOOD	75	#02 CONT. /0.6M O.C. SPACING
CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	20	#01 CONT. /0.9M O.C. SPACING
CORNUS ALBA 'SIBIRICA VARIEGATA'	SIBERIAN VARIEGATED DOGWOOD	17	#05 CONT. /1.0M O.C. SPACING
HEMEROCALLIS 'RUBY STELLA'	RUBY STELLA DAYLILY	29	#01 CONT. /0.75M O.C. SPACING
HOSTA 'HALCYON'	HALCYON HOSTA	17	#01 CONT. /1.0M O.C. SPACING
HYDRANGEA ARBORESCENS 'ANNABELLE'	ANNABELLE HYDRANGEA	8	#05 CONT. /1.5M O.C. SPACING
MISCANTHUS SINENSIS 'GRACILLIMUS'	MAIDEN GRASS	12	#01 CONT. /1.2M O.C. SPACING
NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	20	#01 CONT. /0.9M O.C. SPACING
PACHYSANDRA TERMINALIS	JAPANESE SPURGE	44	#01 CONT. /0.6M O.C. SPACING
PANICUM VIRGATUM 'ROSTRAHLBUSCH'	RED SWITCH GRASS	12	#01 CONT. /1.2M O.C. SPACING
PENNISETUM ORIENTALE 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	17	#01 CONT. /1.0M O.C. SPACING
PHILADELPHUS LEWISII	MOCKORANGE	8	#02 CONT. /1.5M O.C. SPACING
PICEA ABIES 'LITTLE GEM'	LITTLE GEM NORWAY SPRUCE	29	#02 CONT. /0.75M O.C. SPACING
VINES			
CAMPIS RADICANS	TRUMPET VINE	14	#01 CONT. /1.2M O.C. SPACING
HEDERA HELIX	ENGLISH IVY	14	#01 CONT. /1.2M O.C. SPACING

NOTES

- PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED B.C.L.N.A. STANDARDS.
- ALL SOFT LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC TIMED UNDERGROUND IRRIGATION SYSTEM.
- TREE AND SHRUB BEDS TO BE DRESSED IN A MINIMUM 50mm DOUGLAS RED FIR MULCH OR ROCK MULCH, AS SHOWN IN PLANS. DO NOT PLACE WEED MAT UNDERNEATH TREE AND SHRUB BEDS.
- TREE AND SHRUB BEDS TO RECEIVE A MINIMUM 300mm DEPTH TOPSOIL PLACEMENT.
- 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.

March 17, 2017



IRRIGATION NOTES

1. IRRIGATION PRODUCTS AND INSTALLATION METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE WATER USE REGULATION EYALAW NO. 10400 AND THE SUPPLEMENTARY SPECIFICATIONS IN THE CITY OF KELOWNA EYALAW 7900 (PART 8, SCHEDULE 5).
2. THE IRRIGATION SYSTEM SHALL MEET THE REQUIREMENTS, REGULATIONS, AND EYALAWS OF THE WATER PURVEYOR.
3. THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH AN APPROVED BACKFLOW PREVENTION DEVICE, WATER METER, AND SHUT OFF VALVE LOCATED OUTSIDE THE BUILDING ACCESSIBLE TO THE CITY.
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 ANNUAL CLIMATE.
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.
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.

IRRIGATION LEGEND

- ZONE #1: LOW VOLUME POP UP SPRAY HEADS FOR TURF AREAS.
TOTAL AREA: 107 sq. m.
MICROCLIMATE: SOUTH EXPOSURE, PARTIALLY SHADED BY TREES
ESTIMATED ANNUAL WATER USE: 155 cu. m.
- ZONE #2: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR
MODERATE WATER USE PLANTING AREAS.
TOTAL AREA: 129 sq. m.
MICROCLIMATE: SOUTH WEST EXPOSURE, PARTIALLY SHADED BY TREES
ESTIMATED ANNUAL WATER USE: 72 cu. m.
- ZONE #3: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR
MODERATE WATER USE PLANTING AREAS.
TOTAL AREA: 90 sq. m.
MICROCLIMATE: SOUTH EAST EXPOSURE, PARTIALLY SHADED BY TREES
ESTIMATED ANNUAL WATER USE: 50 cu. m.
- ZONE #4: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR
MODERATE WATER USE PLANTING AREAS.
TOTAL AREA: 21 sq. m.
MICROCLIMATE: NORTHEAST EXPOSURE, PARTIALLY SHADED BY TREES
ESTIMATED ANNUAL WATER USE: 10 cu. m.

WATER CONSERVATION CALCULATIONS

LANDSCAPE MAXIMUM WATER BUDGET (WB) = 347 cu.m. / year
ESTIMATED LANDSCAPE WATER USE (WU) = 286 cu.m. / year
WATER BALANCE = 61 cu.m. / year
*REFER ATTACHED IRRIGATION APPLICATION FOR DETAILED CALCULATIONS

FACTION
ARCHITECTURE

201 - 3935 LAKESHORE ROAD
KELOWNA, BC
V1W 1V3
250-980-4510

Drawings shall be brought to the Architect's attention with time being of the essence

NOTES:

SEAL:



ISSUED FOR		
NO	DATE	DESCRIPTION
1	2017-03-17	Development Permit

CONSULTANTS:



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

PROJECT: **ETHEL STREET
DEVELOPMENT
KELOWNA, BC**

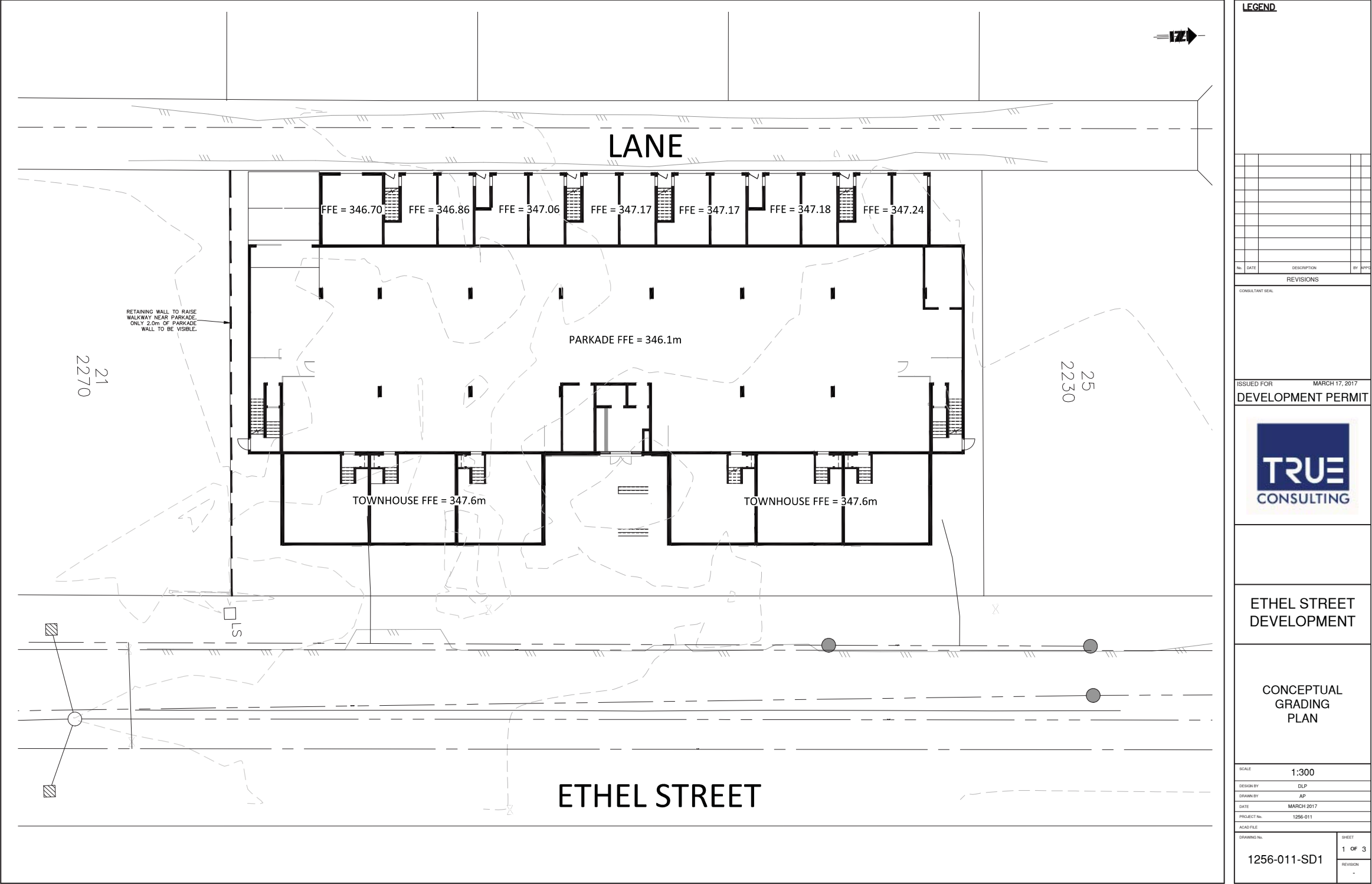
DRAWING DESCRIPTION:

IRRIGATION & WATER
CONSERVATION PLAN

PROJECT NO: 17-028		DRAWING NO:
PLOT SCALE: 1:100		L2/2
DATE ISSUED: 2017-03-17		
REVIEWED: 2017-03-17	BY: FB	

Water Conservation & Irrigation Plan N.T.S.

3.4 Civil Design



Civil Lot Grading Plan N.T.S.

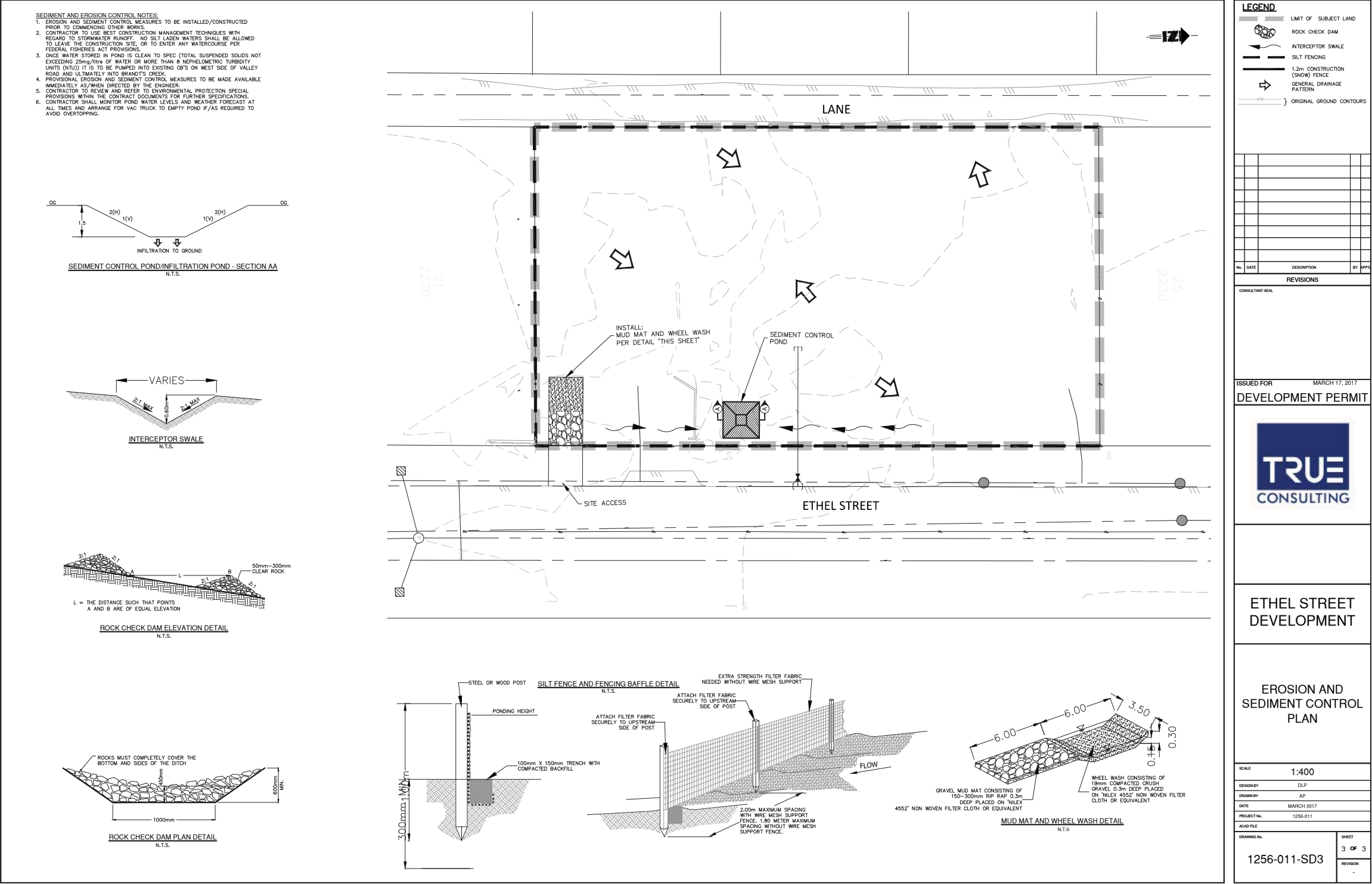


Civil Utilities Site Servicing N.T.S.

Ethel Street Development Permit Application

Kelowna, British Columbia,

March 17, 2017



Civil Erosion and Sediment Control Plan N.T.S.

Ethel Street Development Permit Application

Kelowna, British Columbia,

March 17, 2017

4.0 Architectural Treatment:

Approaching the site from the east, the townhomes create an interactive, pedestrian scaled interface with the street frontage. The benefits of this approach will be fully realized once the future construction of the Active Transpiration Corridor by the City of Kelowna is complete. The building steps back from the Ethel Street frontage. For the larger apartment building, the massing is downplayed through the strategic placement of extensive exterior living space.

The exterior treatment of the project's façade employs a mix of glazing, masonry, and fibre cement cladding. The balanced façade composition employs the different materials to frame and articulate various elements of the building. For the townhomes, the use of masonry and fibre cement cladding responds to both the traditional walk-up vernacular and a modern regional context.

Sustainability:

The design of the proposed new multi-family housing project takes into account the following sustainability strategies:

- Selecting plant species that are low maintenance, thereby conserving water,
- Adding trees on the site and adjacent to the building, sidewalk and parking area that provides shade.
- Increasing the density of the existing site to increase the efficiency of land use,
- Design the building envelope to include high efficiency glazing, and increased insulation in wall cavities and roofing system,
- Use low V.O.C. emitting materials and materials that contain re-cycled content,
- Use regional materials and services where possible,
- Utilize natural ventilation,
- Provide access to natural light and views
- High albedo roof

4.1 Conceptual Renderings



Rendering is an artistic interpretation for illustrative purposes only.

North East Corner View from Ethel Street



Rendering is an artistic interpretation for illustrative purposes only.

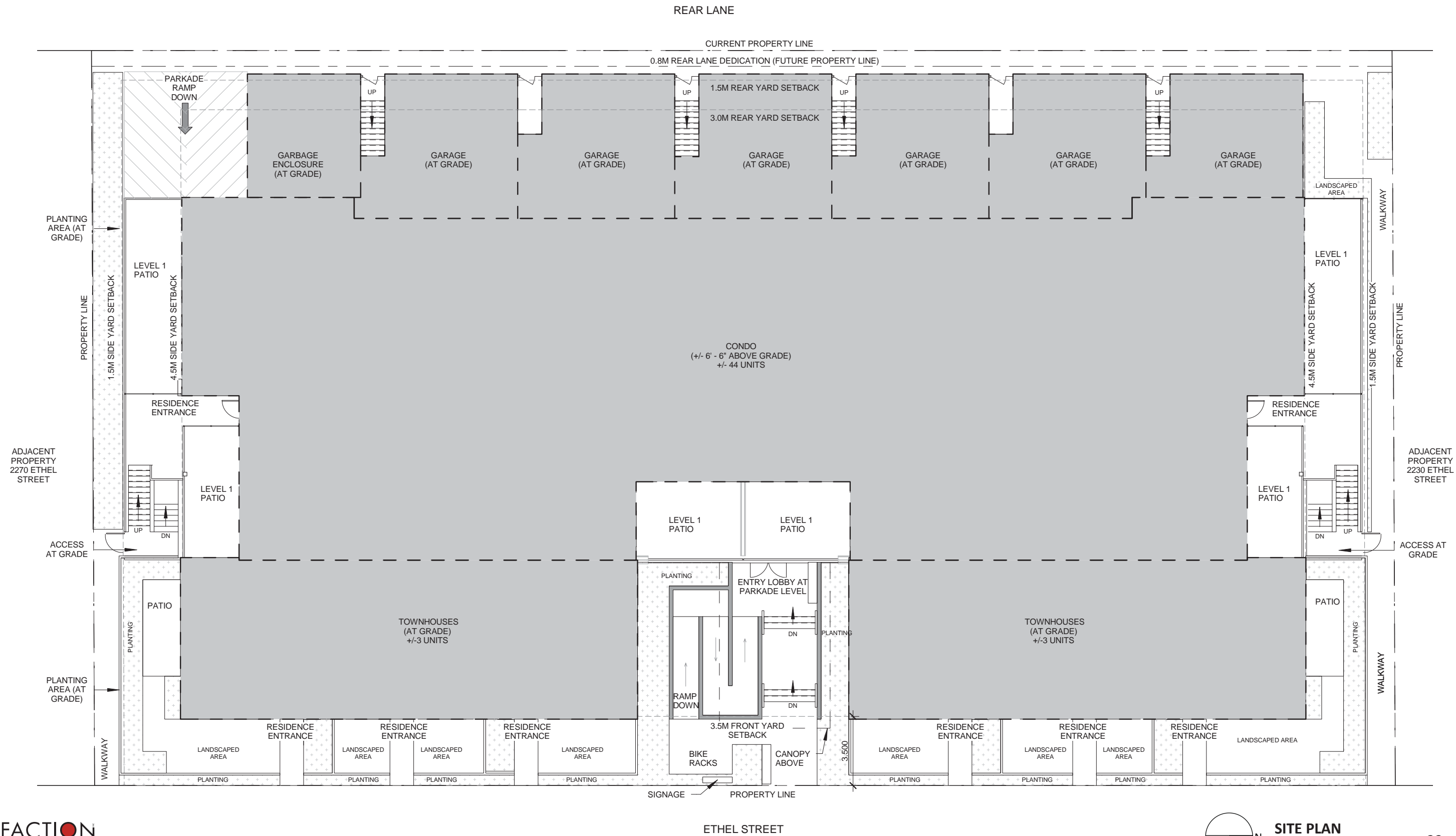
North West Corner from the Rear Lane



Rendering is an artistic interpretation for illustrative purposes only.

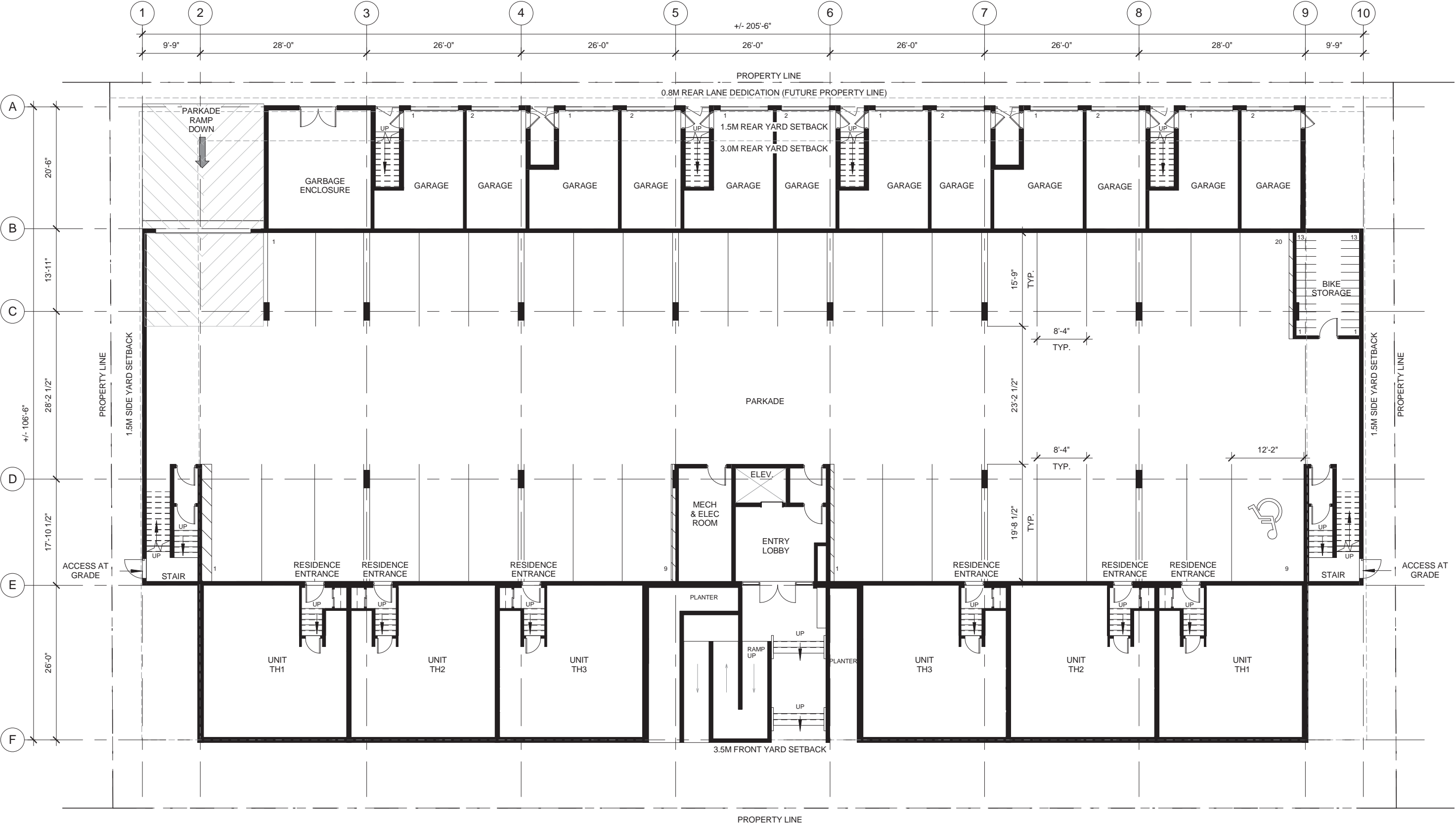
Apartment Main Entry off of Ethel Street

4.2 Architectural Drawings

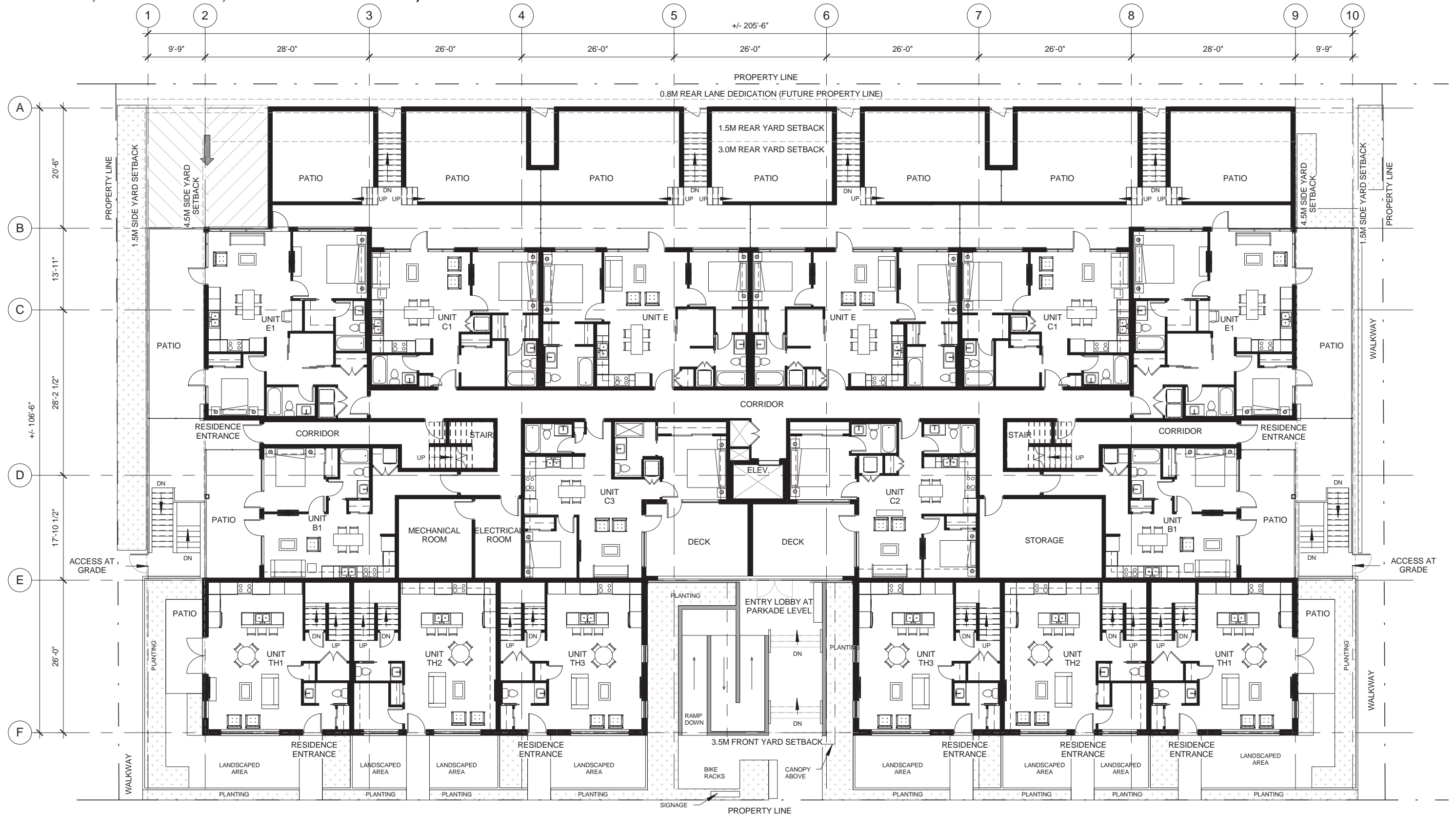


Ethel Street Development Permit Application

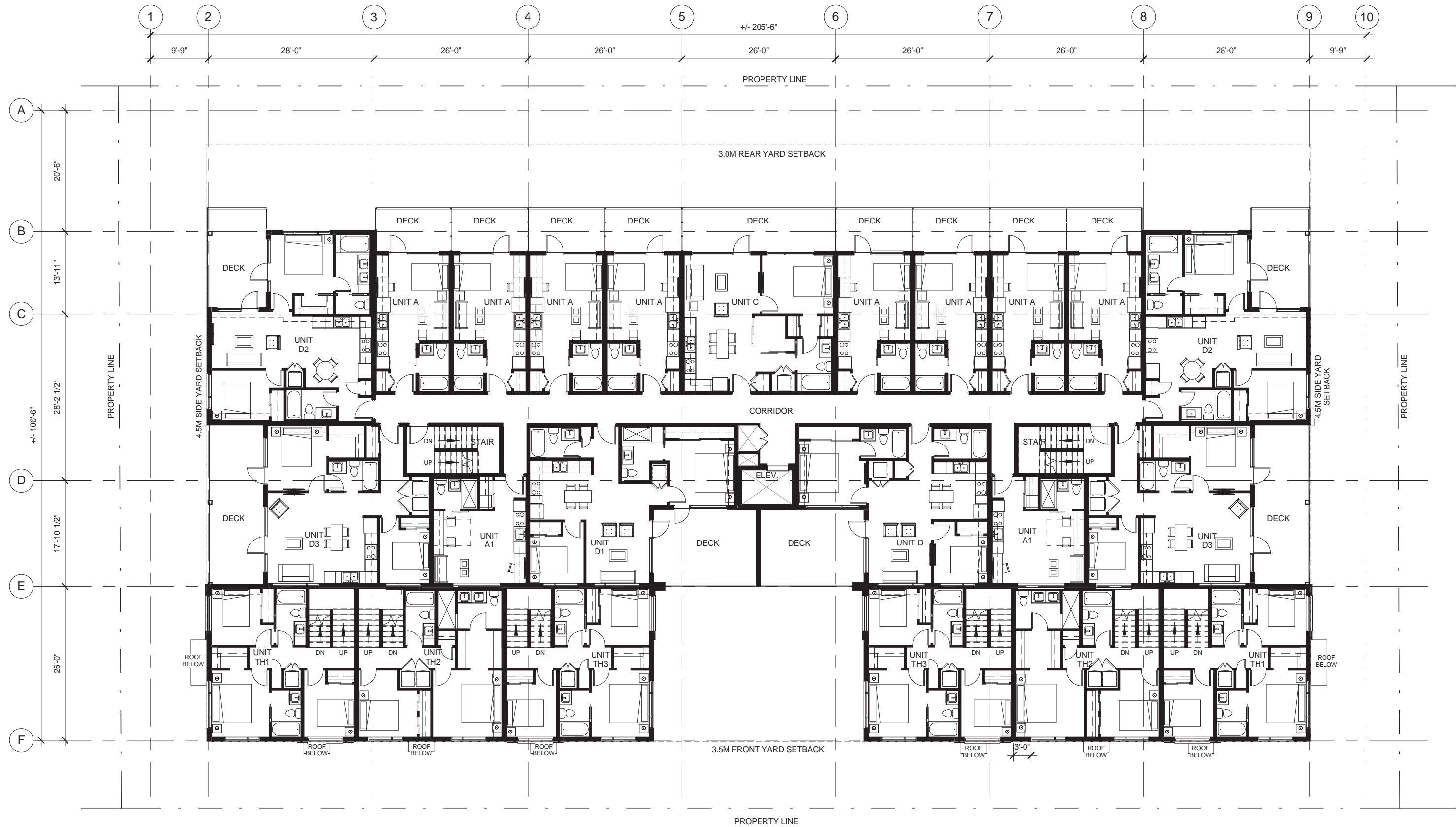
Kelowna, British Columbia, REVISED JUNE 7, 2017



REVISÉ JUNE 7, 2017



Ethel Street Development Permit Application
Kelowna, British Columbia, REVISED JUNE 7, 2017

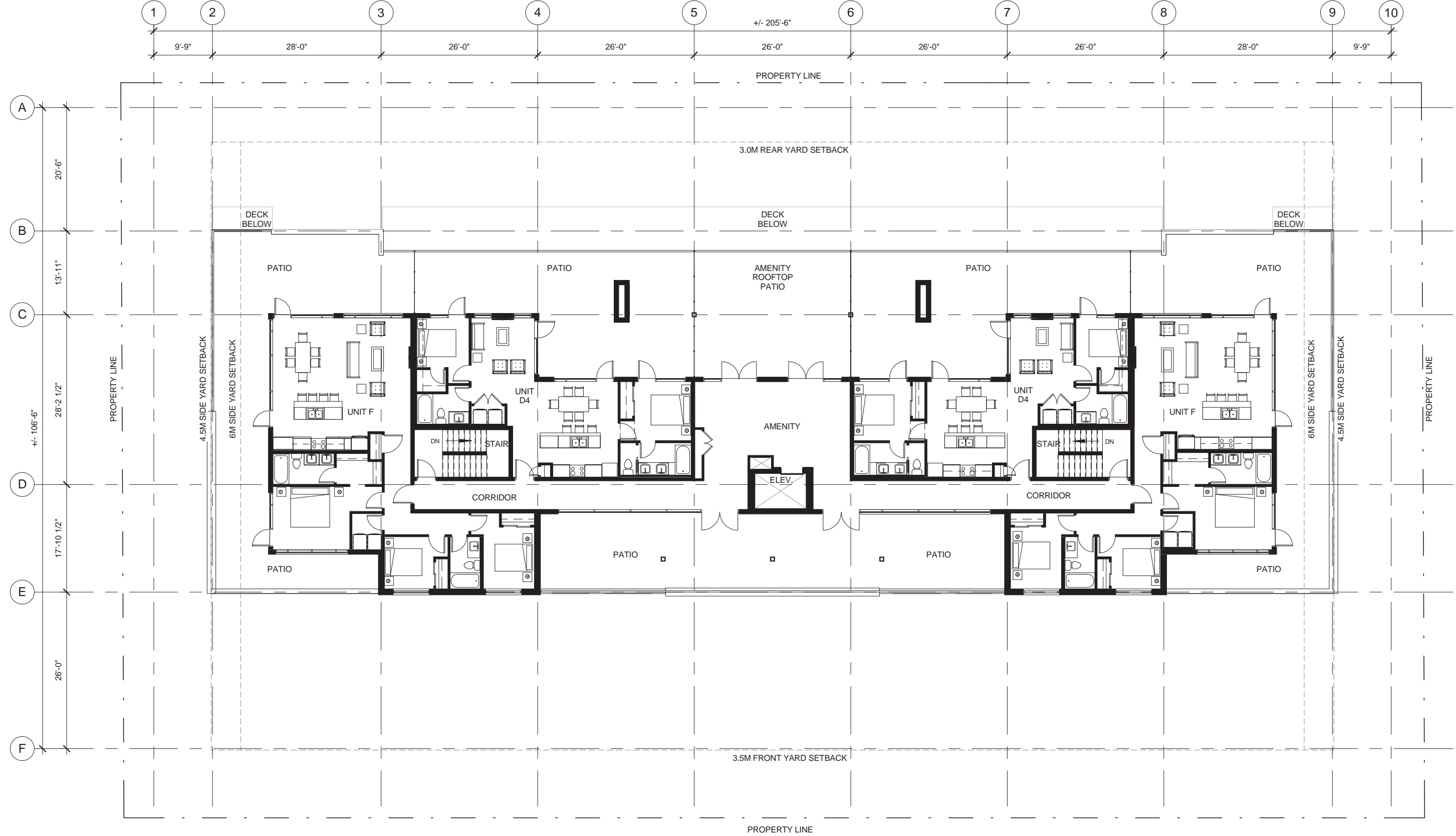


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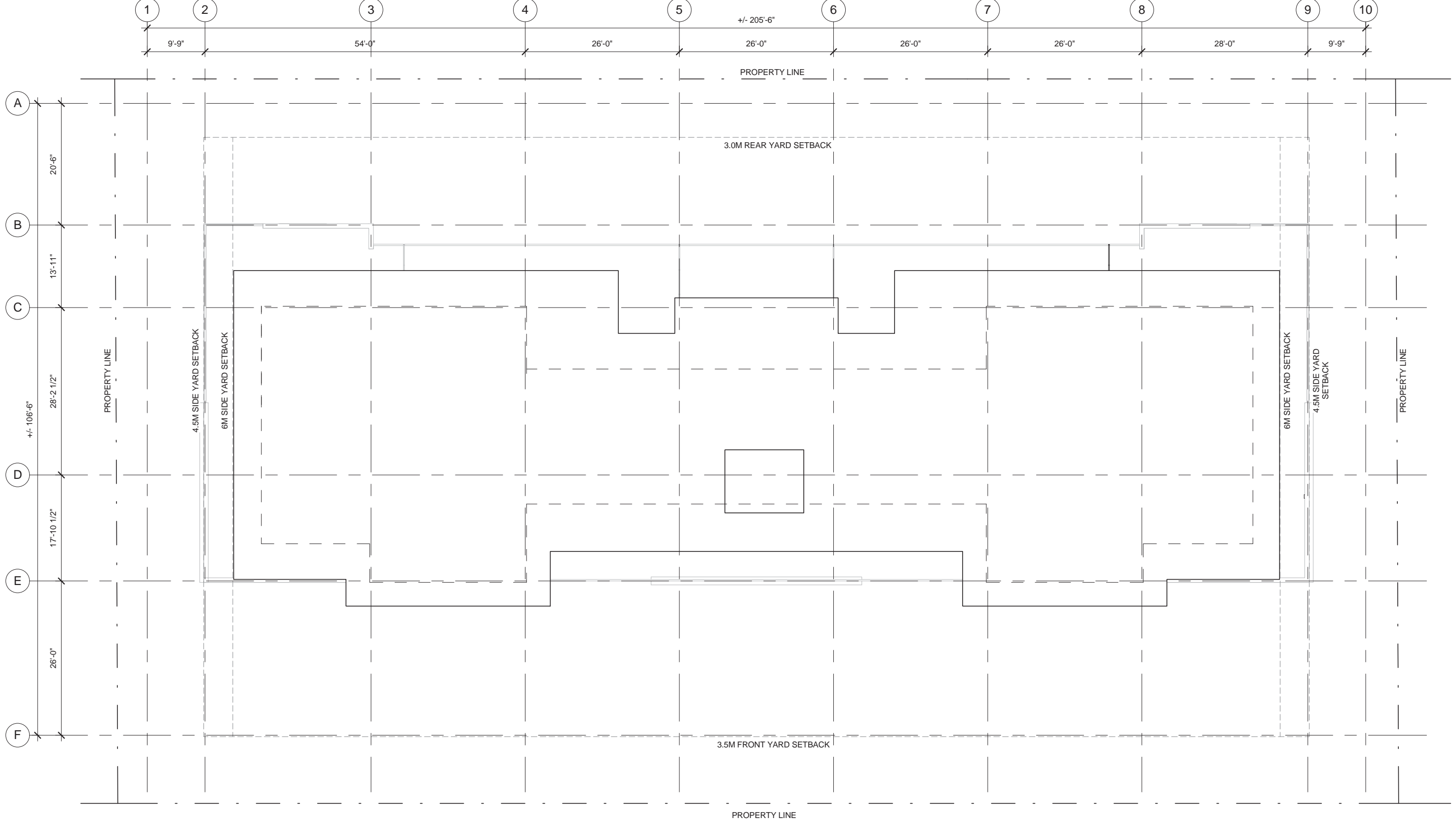
REVISÉ JUNE 7, 2017



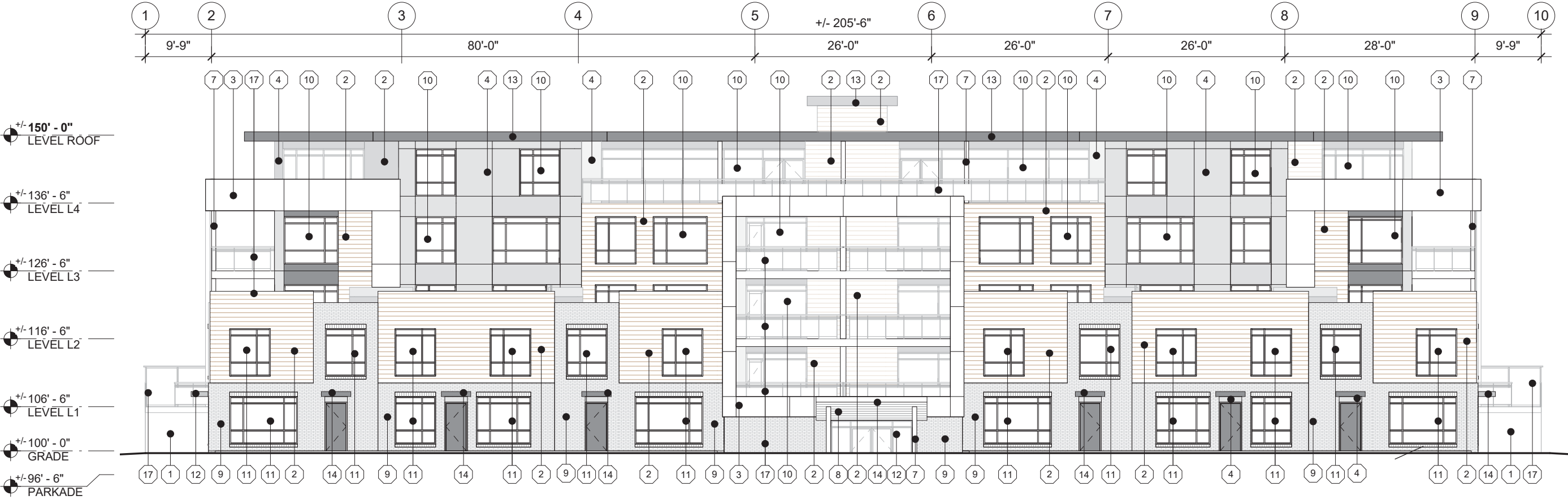
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Kelowna, British Columbia, REVISED JUNE 7, 2017

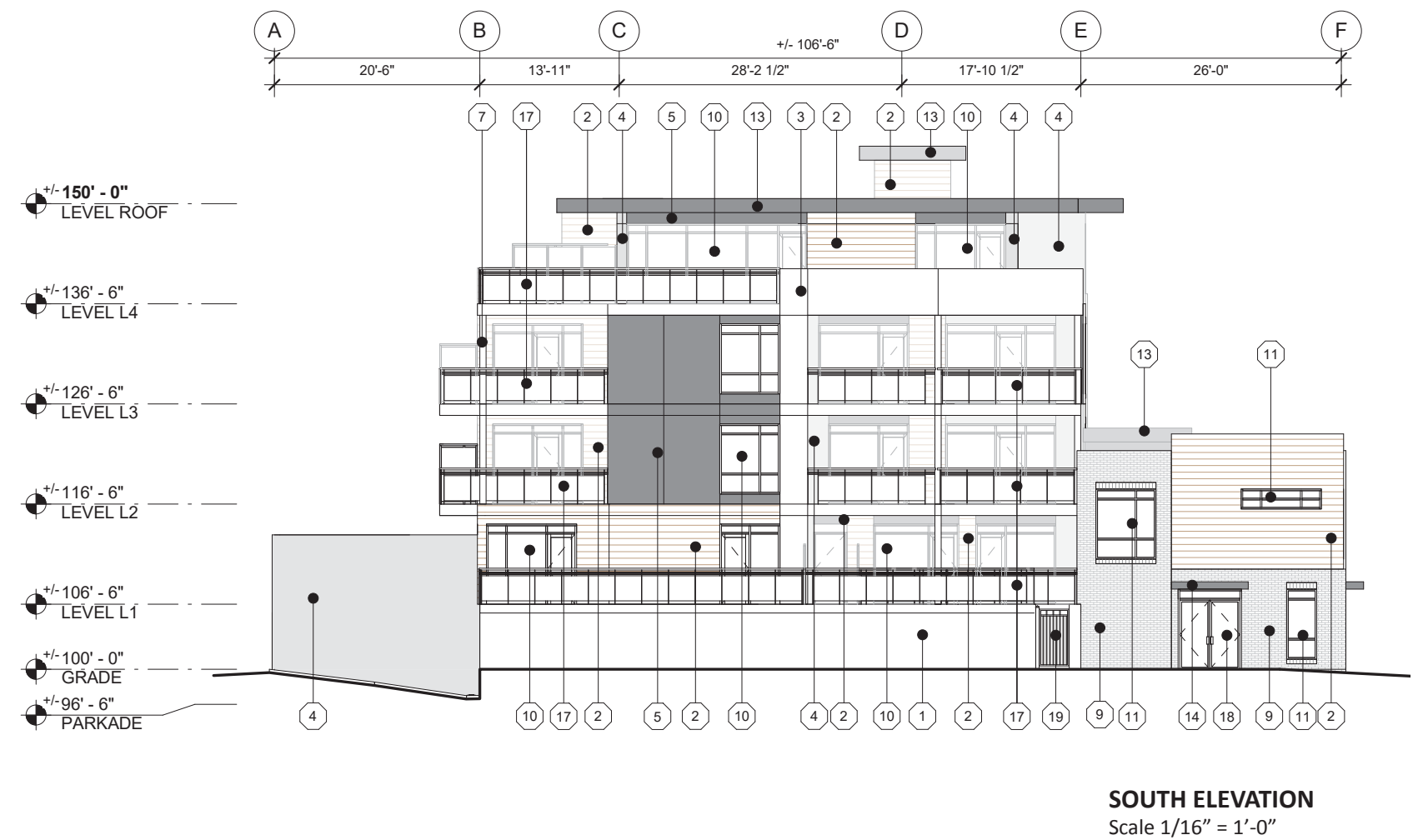


EXTERIOR FINISH LEGEND			
1	CONCRETE FACED INSULATION	10	GLAZING FRAME TYPE 1
2	FIBRE CEMENT CLADDING (COLOUR 1)	11	GLAZING FRAME TYPE 2
3	FIBRE CEMENT CLADDING (COLOUR 2)	12	GLAZING FRAME TYPE 3
4	FIBRE CEMENT CLADDING (COLOUR 3)	13	PREFINISHED METAL FLASHING
5	FIBRE CEMENT CLADDING (COLOUR 4)	14	CANOPY
6	NOT USED	15	OVERHEAD DOOR
7	FIBRE CEMENT CLAD STRUCTURAL COLUMN	16	METAL DOOR
8	FIBRE CEMENT SOFFIT	17	METAL AND GLASS GUARDRAIL
9	MASONRY VENEER	18	PATIO DOOR
		19	METAL FENCE c/w GATE

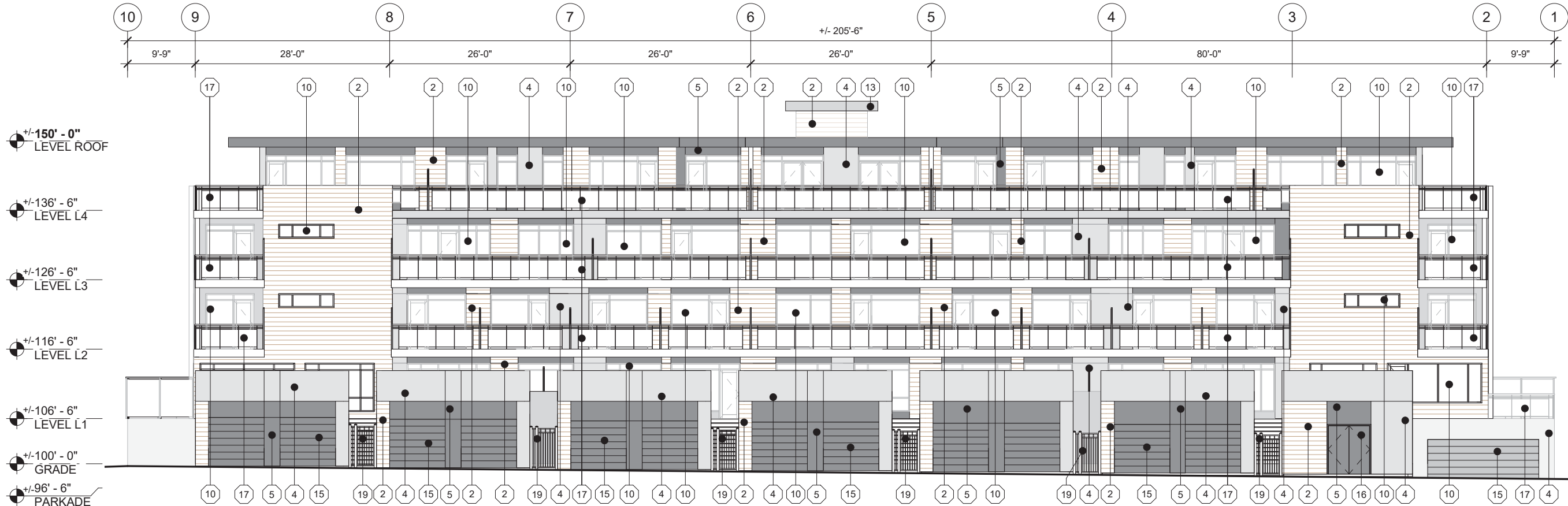


EAST ELEVATION
Scale 1/16" = 1'-0"

EXTERIOR FINISH LEGEND			
1	CONCRETE FACED INSULATION	10	GLAZING FRAME TYPE 1
2	FIBRE CEMENT CLADDING (COLOUR 1)	11	GLAZING FRAME TYPE 2
3	FIBRE CEMENT CLADDING (COLOUR 2)	12	GLAZING FRAME TYPE 3
4	FIBRE CEMENT CLADDING (COLOUR 3)	13	PREFINISHED METAL FLASHING
5	FIBRE CEMENT CLADDING (COLOUR 4)	14	CANOPY
6	NOT USED	15	OVERHEAD DOOR
7	FIBRE CEMENT CLAD STRUCTURAL COLUMN	16	METAL DOOR
8	FIBRE CEMENT SOFFIT	17	METAL AND GLASS GUARDRAIL
9	MASONRY VENEER	18	PATIO DOOR
		19	METAL FENCE c/w GATE



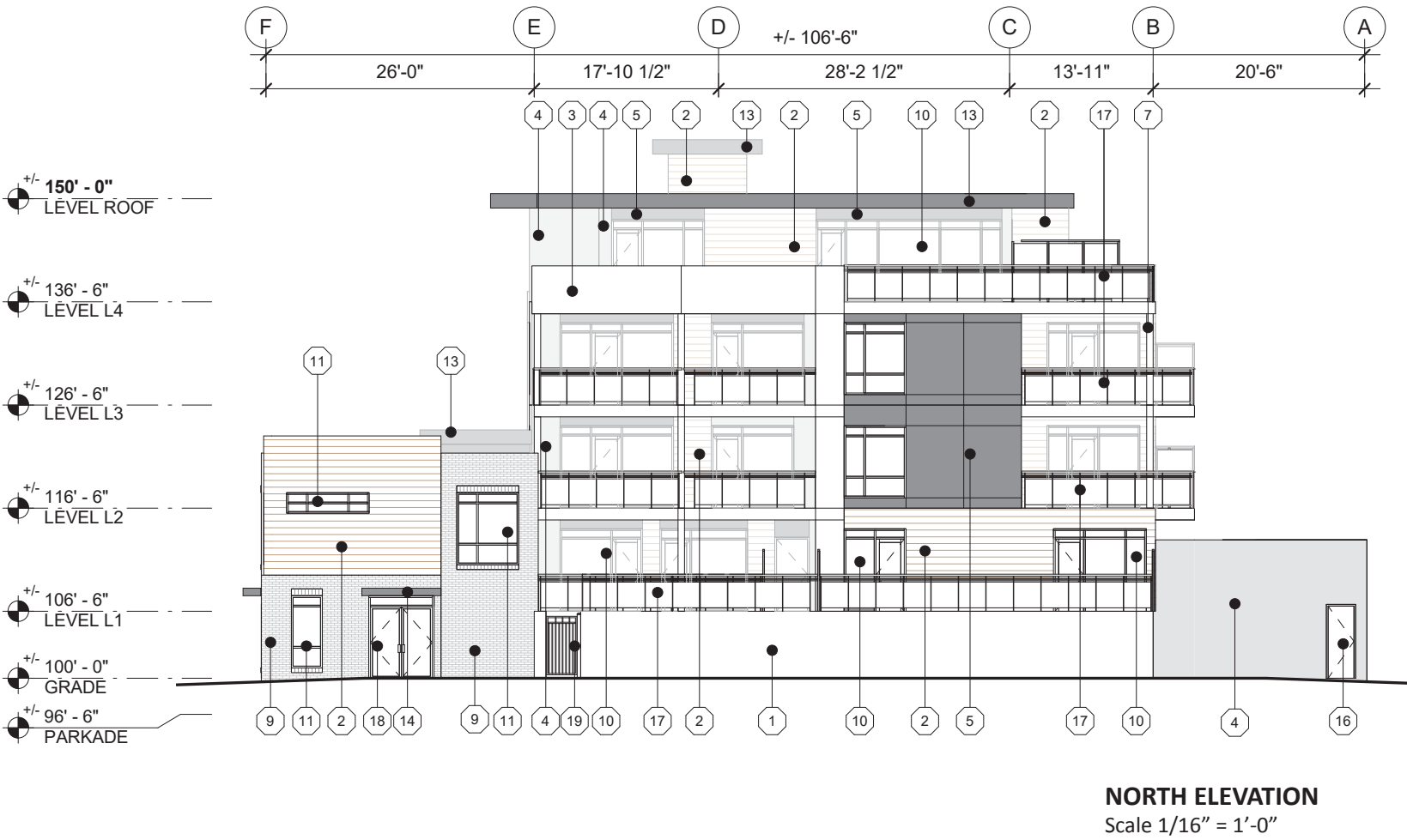
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2	FIBRE CEMENT CLADDING (COLOUR 1)	11	GLAZING FRAME TYPE 2
3	FIBRE CEMENT CLADDING (COLOUR 2)	12	GLAZING FRAME TYPE 3
4	FIBRE CEMENT CLADDING (COLOUR 3)	13	PREFINISHED METAL FLASHING
5	FIBRE CEMENT CLADDING (COLOUR 4)	14	CANOPY
6	NOT USED	15	OVERHEAD DOOR
7	FIBRE CEMENT CLAD STRUCTURAL COLUMN	16	METAL DOOR
8	FIBRE CEMENT SOFFIT	17	METAL AND GLASS GUARDRAIL
9	MASONRY VENEER	18	PATIO DOOR
		19	METAL FENCE c/w GATE



WEST ELEVATION

Scale 1/16" = 1'-0"

EXTERIOR FINISH LEGEND			
1	CONCRETE FACED INSULATION	10	GLAZING FRAME TYPE 1
2	FIBRE CEMENT CLADDING (COLOUR 1)	11	GLAZING FRAME TYPE 2
3	FIBRE CEMENT CLADDING (COLOUR 2)	12	GLAZING FRAME TYPE 3
4	FIBRE CEMENT CLADDING (COLOUR 3)	13	PREFINISHED METAL FLASHING
5	FIBRE CEMENT CLADDING (COLOUR 4)	14	CANOPY
6	NOT USED	15	OVERHEAD DOOR
7	FIBRE CEMENT CLAD STRUCTURAL COLUMN	16	METAL DOOR
8	FIBRE CEMENT SOFFIT	17	METAL AND GLASS GUARDRAIL
9	MASONRY VENEER	18	PATIO DOOR
		19	METAL FENCE c/w GATE





EXTERIOR FINISH LEGEND			
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2	FIBRE CEMENT CLADDING (COLOUR 1)	11	GLAZING FRAME TYPE 2
3	FIBRE CEMENT CLADDING (COLOUR 2)	12	GLAZING FRAME TYPE 3
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5	FIBRE CEMENT CLADDING (COLOUR 4)	14	CANOPY
6	NOT USED	15	OVERHEAD DOOR
7	FIBRE CEMENT CLAD STRUCTURAL COLUMN	16	METAL DOOR
8	FIBRE CEMENT SOFFIT	17	METAL AND GLASS GUARDRAIL
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