

East Fraser Lands
DESIGN GUIDELINES - AREA 1

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TABLE OF CONTENTS

Introduction to the Document

1.0	Application and Intent	1
2.0	Organization and Content	2
3.0	Vision	3
4.0	Key Principles	4
5.0	Precincts	5
5.1	Town Square Precinct	6
5.2	Waterfront Precinct	7
5.3	Park Precinct	8
6.0	Historical Context	9
7.0	Design Process	10
7.1	Preliminary Development Permits	10
7.2	Naming Streets and Parks	10

Section A - Public Realm Plan

1.0	Introduction	15
1.1	Strategies for the Public Realm	15
1.2	Establishing the Central Neighbourhood framework	15
1.3	General Aims of Public Realm Plan	15
2.0	Public Realm Concept	17
2.1	Design Framework	17
2.2	Historical References and Artifacts	19
2.3	Public Realm Character Precincts	21
2.3.1	Town Square Precinct	
2.3.2	Waterfront Precinct	
2.3.3	Park Precinct	
3.0	Streetscapes Master Plan	31
3.1	Movement	33
3.1.1	Access and Circulation	
3.1.2	Pedestrian	
3.1.3	Cycling	
3.1.4	Transit	
3.2	Proposed Street Concepts	41
3.2.1	River District Crossing	
3.2.2	Sawmill Crescent(The Crescent)	
3.2.3	Marine Way	
3.2.4	Kent Ave North	
3.2.5	Kent Ave South and Greenway	
3.2.6	Vehicular Mews	
3.2.7	Pedestrian Mews	
3.2.8	Collector Roads	
3.2.9	Mill Bay Road	
3.2.10	Road ‘L’	
4.0	Park and Open Space	61
4.1	Town Square	63
4.2	Waterfront Plaza	65

4.3	Kinross Foreshore Park	69
4.4	Promontory Park	73
4.5	Avalon Park North	75
5.0	Public Realm Components	77
5.1	Landscape Components	79
5.1.1	Hard Landscape Components	
5.1.2	Street Tree Master Plan	
5.1.3	Bio-swale and Rain Garden Plants	
5.1.4	Native and Urban Adaptive Planting	
5.1.5	Songbirds	
5.1.6	Urban Agriculture	
5.2	Lighting Design	95
5.3	Universal Design, Accessibility and Wayfinding	103
6.0	Site wide Sustainability Strategies	105
6.1	Rainwater Management	105
6.2	Ecology, Habitat and the Fraser River	107

Section B - Built Form and Parcelization

1.0	Introduction	115
2.0	Building Massing	117
2.1	Building Heights	117
2.2	Overall 3D View	118
2.3	Solar Access	119
2.4	Massing Parameters	123
3.0	Development Parcels	127
3.1	Town Square Precinct	127
	Parcels 13, 14, 15, 16, 17, 18, and 19	
3.2	Waterfront Precinct	143
	Parcels 26, 27, 29-30, 31, 32, 33-34, and 35-36	
3.3	Park Precinct	159
	Parcel 20-21 and 43	

Section C - Character and Expression

1.0	Introduction	169
1.1	Purpose and Organization	169
1.2	Historical Character	170
1.3	Statement of Significance and Heritage Inventory	171
1.3.1	Statement of Significance	
1.3.2	Note on Industrial History, Geography, and Character	
1.3.3	Map Showing Industrial Character Land and Riverscape in the 1940s	
1.3.4	Photographs Illustrating Historic Character	
1.3.5	Inventory of Extant Heritage Resources	
1.3.6	Map Showing Present Location of Extent Heritage Resources	
1.3.7	Map and Photographs showing Historic Location	

	of Extent Movable Heritage Resources	
2.0	Approach to Green Building Design	181
3.0	Architecture	183
3.1	Principles for Architectural Design	183
3.2	Building Typologies	184
3.2.1	Town Homes	
3.2.2	Low and Mid-Rise	
3.2.2.1	Multi-Family	
3.2.2.2	Mixed Use	
3.2.2.3	Commercial / Office	
3.2.3	Towers	
3.2.4	Community Centre	
3.3	Materials	193
4.0	Landscape	195
4.1	Introduction	195
4.2	Approach to Landscape Design	195
4.3	Site Specific Characteristics	196
4.3.1	Retail Frontages	
4.3.2	Residential Frontages	
4.3.3	Common Garden Courts and Roof Gardens	
4.3.4	Internal Lanes and Walkways	
4.3.5	Vehicular Areas	
4.4	Planting Design	205
5.0	Lighting	207
5.1	Introduction	207
5.1.1	Lighting Design Objectives and Character	
5.2	Lighting Related to Building Typologies	208
5.2.1	Town Homes	
5.2.2	Low and Mid-rise	
5.2.2.1	Multi-Family	
5.2.2.2	Mixed Use	
5.2.2.3	Commercial / Office	
5.2.3	Towers	
5.2.4	Community Centre	
6.0	Retail	215
6.1	Introduction	215
6.2	Map of Retail Plan	216
6.3	General Principles and Character	217
6.4	Site Specific Characteristics	218
6.4.1	Town Square	
6.4.2	High Street	
6.4.3	Waterfront	

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INTRODUCTION TO THE DOCUMENT

1.0

APPLICATION AND INTENT

These Design Guidelines should be used in conjunction with the associated CD-1 By-Laws to guide development of Area 1 within the East Fraser Lands (Figure 1). As well as assisting the development permit applicant, the guidelines will be used by City staff, Development Permit Board, and the Urban Design Panel in evaluating proposed developments. The guidelines will ensure that the public realm and individual developments are compatible with the urban design concept for this area and the overall vision for East Fraser Lands (EFL). Flexibility is intended in the interpretation and application of these Guidelines where it can be clearly demonstrated that an alternate approach will produce a superior result architecturally or with respect to sustainability.

Applicants should also refer to the **East Fraser Lands Policy Statement** (approved by City Council in December 2004), the **East Fraser Lands Official Development Plan** (approved by City Council in November 2006), the **East Fraser Lands Official Development Plan 10-year Review Planning Report** (May 2017), and **High Density Housing for Families with Children Guidelines**.

The site consists of 21 hectares (52 acres) of land area. It is bounded in the south by the Fraser River, to the north by Marine Way, to the east and west by future development areas within East Fraser Lands and includes the triangular site north of Marine Way.



2.0 Organization and Content

The Design Guidelines includes three sections to be used concurrently to guide design development:

Section A – Public Realm Plan

The Public Realm Plan is a conceptual design framework that will guide the detailed design of the public realm in Area I of EFL. This section includes public realm considerations on historical references, streetscapes, parks and open space, public realm components such as landscape, lighting, accessibility and way finding, as well as site wide sustainability strategies.

Section B – Built Form and Parcelization

This section identifies and provides development direction for the individual parcels. Illustrations and design considerations are included to guide built form and massing. These considerations include building heights, views, solar access and the urban design role and characteristics of each parcel.

Section C – Character and Expression

This section of the Guidelines provides the overall design direction intended to create a sense of place for EFL. Architecture, landscape, lighting and retail are each addressed here through design goals and principles; a range of design responses for each discipline; as well as character and key attributes of the various building typologies and public realm environments within Area I of EFL. These are illustrated with photographic examples.

3.0

Vision

The Vision for East Fraserlands is:

To create a complete community consistent with Vancouver's sustainability principles. The new community should provide opportunities for its residents to live, work, learn, shop and play. It should provide housing for a variety of households, ages, and income levels . . . It should be a healthy community that promotes walking, cycling, and use of transit as efficient and attractive choices. It should provide an integrated parks and open space system . . . It should promote efficient use of natural resources in its use of land . . . It should be socially and environmentally sustainable.

East Fraserlands Policy Statement, December 2004

Area I, to which these Guidelines apply, forms the mixed-use core of the EFL neighbourhood and is based on the East Fraserlands Official Development Plan (ODP) and Policy Statement.



4.0

Key Principles

Sustainability:

As a mixed-use walkable neighbourhood, the development will comprehensively integrate diverse environmental, social, and economic sustainability strategies including high-performance green buildings and site-wide initiatives. Site-wide initiatives include a comprehensive rainwater management plan, potential neighbourhood energy utility, fish and wildlife habitat enhancement, landscape to provide bird habitat, urban agriculture opportunities, car-sharing, non-standard parking requirements, public transit, social housing and a rich array of community amenities.

A complete community:

Area 1 will establish a vibrant mixed-use heart in East Fraserlands that enables residents to live in diverse housing types and easily access transit, neighbourhood shopping, parks and open spaces, and community amenities. The ODP calls for a tightly-knit and balanced mix of land uses in a dense urban environment that promotes the evolution of a complete community where all the needs of its future residents can be met and the young and old can grow and age in place.

Comprehensive public realm:

An integrated and permeable network of diverse public spaces including streets, pedestrian mews, waterfront pathways, plazas and parks is the primary organizing pattern. Including a highly permeable network that connects key places within the neighbourhood and EFL with adjacent areas, the public realm will support a highly walkable community, reflecting the City of Vancouver’s top priorities of walking, biking, and transit. A diversity of parks and open spaces will be sensitively programmed based on community needs and aspirations and strategically designed with elements such as lighting, landscape, and street furniture to provide comfort and safety for all users.

Architectural diversity & sense of place:

Area 1 of EFL will include diverse architectural expressions that reflect the site’s industrial history, its riverine nature, and a west coast contemporary approach. Architecture and landscape design should contribute to sustainability, liveability and a strong sense of place. Architecture, blocks, and street walls should be highly legible and designed to reinforce and enhance pedestrian experience and the public spaces onto which they front.

Refer to Section A - Public Realm Plan for more specific principles relating to public realm and Section C - Expression and Character for more detailed principles relating to architecture and landscape.

5.0

Precincts

Area I is composed of three precincts, each with its own distinctive identity. The following describes the role, characteristics, and key public spaces of each precinct.



5.1 Town Square Precint

Role

The town square precinct will be an active neighbourhood commercial and social core with residents and visitors contributing to its vitality. As the front door to EFL, the town square precinct establishes a unique arrival experience to the site. This precinct is the vibrant mixed use heart of the neighbourhood and the focus of daily needs shopping, transit access and pedestrian activity.

Characteristics

- **Development Intensity and uses:** Development intensity increases gradually towards the town square, focussing more people close to shopping, services, and transit. Development parcels transition from higher-density mixed-use blocks at the town square to residential blocks at the perimeter with a variety of uses and commercial in between – establishing a variety of neighbourhood uses at the outset.
- **Towers:** Towers varied in height are clustered east and west of high street, with the two highest towers marking this precinct.
- **Marine Way:** The Marine Way frontage of this site will alter the perception and experience of this major arterial through an inviting urban treatment. It provides three key points of arrival – high street and both ends of the crescent street. Gateway buildings at the crescent intersections enhance the arrival experience with two distinctive ‘flatiron’ buildings visible from Marine Way. These towers step down to four-storey buildings, to create a strong street wall and more comfortable pedestrian experience along Marine Way. Business and medical offices and live/work uses animate the ground floor of this frontage. Office and residential uses activate the upper levels where setbacks and generous decks mitigate impact of traffic on Marine Way.
- **High Street:** An entry element (potentially a clock tower or a public art opportunity) may mark the entry onto this pedestrian-oriented street from Marine Way. The predominant four storey frontage is generally continuous from Marine Way to the CPR Crossing, opening dramatically to reveal the town square. To create continuity across the CPR right-of-way into the waterfront precinct, a similar scale and character is extended along the high street frontage south of CPR.
- **Double height ground floor retail spaces:** Double height ground floor spaces give retail and commercial space frontages a strong presence in the streetscape. These spaces are generally topped with three storeys of residential.
- **Street walls:** Street walls frame the public realm while offering a higher degree of articulation, especially at upper levels, where balconies, decks, recesses and projecting volume combine to enrich the streetscape.
- **Mount Baker view:** The view of Mount Baker from Everett Crowley Park, located north of the site, is maintained by limiting building heights to the elevation of the established view cone. Refer to Section C - 3.3 View Impact Analysis.
- **Parking:** The shopping area of this precinct will serve EFL and the surrounding community. Access to parking, while convenient and accessible will be located and designed to minimize disruption of the pedestrian realm.

Public Spaces

- **Marine Way:** EFL’s most public face flanks this well-traveled road. A series of trees in a new central median along with three new signalized intersections help mitigate the sense of a busy thoroughfare. On the south side, a row of trees, a green boulevard and private gardens create a formal urban foreground for EFL’s ‘front door’ while offering pedestrians respite from adjacent traffic.
- **Crescent street:** Crescent street provides the first impression and establishes the unique character of this precinct. Transitioning from office and residential at Marine Way to the mixed use heart at the town square, the crescent services daily needs for residents and visitors.
- **High street:** High street is the primary north-south access and pedestrian-oriented retail street connecting the town square and waterfront precincts. Articulated street walls should facilitate views into and out of the town square. Balconies and decks at upper residential levels add architectural interest and opportunities for animation.
- **Town square:** The heart of this precinct and at the crossroads of two primary streets, the town square provides a community focus as a meeting and gathering place. Restaurants, cafes, and smaller commercial enterprises animate the square on the ground floor while three storeys of residential above further defines the space. The anchor grocery store’s entry at or close to the town square, to further activate it with pedestrian activity.
- **Kent avenue greenway/CPR corridor:** The CPR right-of-way and the public spaces on either side create a generous green space between the town square precinct and the waterfront precinct. A pedestrian and cycling greenway on the north side of the corridor is lined with rain gardens and trees, overlooked by south-facing townhouses and ground-oriented dwellings.
- **Mid-block spaces:** A network of mid-block pedestrian linkages and semi-private spaces at grade will enhance the pedestrian experience, public routes, and private outdoor and indoor space at the interior of blocks.

5.2 Water Precinct

Role

This precinct unites the emerging community with the Fraser river, making the riverfront an inseparable part of the East Fraser Lands experience. As the ‘soul’ of the project, the Waterfront Precinct includes the pedestrian-oriented River District Crossing that gently curves, opening views out to the river, and terminates at a highly active and unique Waterfront Plaza. The Community Centre, Waterfront Plaza, waterfront restaurants and cafes, and riverfront parks extending east and west of the plaza are key components of this vibrant waterfront. Other aspects such as the promenade, beach, deck, dock, lookout, parks and waterfront path create opportunities for people to engage with the river **visually and physically**. Together these key elements recall the site’s industrial history, embrace its riverine nature, and facilitate vibrant pedestrian activity along the waterfront.

Characteristics

- **River District Crossing:** River District Crossing is the central, mixed-use spine connecting from the Town Square to the waterfront including residences to the east and west, retail and the Community Centre. Massing, articulation, lane-ways and pedestrian walkways through to River District Crossing create highly permeable blocks that facilitate pedestrian access to a network of diverse mid-block open spaces. As the key pedestrian-oriented shopping street, River District Crossing is characterized by strong public realm elements such as comfortable sidewalks, a strong canopy of street trees, benches, landscaping, rain gardens, lighting as well as local cafes, specialty stores, and restaurants. Together, these elements create a strong and unique sense of place along River District Crossing. It terminates at the waterfront – the place where community and river meet, and the importance of the river and site’s industrial past is emphasized.
- **River District Crossing retail:** Key specialty retail stores and services will be located at strategic locations to encourage pedestrian movement down to the riverfront.
- **Strong street wall:** Mixed use blocks fronting River District Crossing share aspects of Town Square street wall such as double height ground floor, articulated wall plane at residential levels, balconies, decks, and overlooks.
- **Inner block spaces:** Ground level residential on the rear side of River District Crossing blocks creates appealing inner block spaces that should complement the public realm network and enhance livability for residents.
- **Treatment:** The Waterfront Precinct transitions from a more formal treatment at River District Crossing and plaza, to a more relaxed and natural character at the waterfront restaurant buildings and shoreline park.
- **Waterfront buildings:** The mixed use buildings along River District Crossing step down towards the water to define the backdrop for Waterfront Buildings - Community Centre and waterfront restaurants. Generous roof decks, terraces, and balconies as well as restaurants and cafes at the ground floor of these buildings offer different opportunities to enjoy the river.
- **Waterfront retail:** Retail uses that reinforce the river experience such as food and beverage enterprises with generous outdoor seating will help to contribute to the waterfront’s vitality.

Public Spaces

- **Kent Avenue South/CPR Corridor:** As the south side of the ‘promenade’ that flanks the CPR, this street complements Kent Avenue Greenway to its north.
- **Pedestrian Mews:** The pedestrian mews is vehicle-free, and an important east-west pedestrian route, linking the elementary school site and the Community Centre. The pedestrian mews will be very intimately scaled and designed for pedestrian comfort, including planting and paving treatment that relate to the vehicular mews.
- **Vehicular Mews:** Part of the east-west pedestrian route connecting to east and west parts of the neighbourhood, the vehicular mews will be intimately-scaled with street elements such as rain gardens and decorative paver surfaces.
- **Community Centre:** A full-size Community Centre as a prime public amenity, anchors the south end of River District Crossing, Waterfront Plaza and the east-west pedestrian mews connecting to the elementary school site. As the focal point of community activity, the Community Centre will play an important role in helping to animate the Waterfront Plaza and give it a strong community focus.
- **Waterfront Plaza:** The Waterfront Plaza is the central focal point and key public open space at the juncture of River District Crossing and the waterfront park and public open space system. The plaza will provide opportunities for a wide range of public activities and programmed events such as farmers’ markets and performances. It will be designed to facilitate pedestrian activity throughout the year and to complement and capture synergy from activity at the Community Centre, River District Crossing, and surrounding residences, shops, and restaurants. Waterfront Plaza is oriented to capture and frame public views along the Fraser to Mount Baker.
- **Waterfront Promenade:** The promenade will be defined by a strong stone wall along the bay, pedestrian and cycle paths separated by trees, benches, and rain gardens, and stair openings that give access to the river and the sand and cobble beach.
- **Shoreline Park:** More relaxed in character, the shoreline park will emphasize the restoration and enhancement of the foreshore ecology and enable opportunities for pedestrians to experience the natural river’s edge. A multi-use path, controlled river access points and seating are informally arranged along the restored riverside green space.

5.3

Park Precinct

Role

As indicated in the name, the park precinct provides a significant portion of the park space allocated to Area I of EFL. A diversity of parks and open spaces including a full-sized artificial lit field and the north portion of avalon park on the main EFL site and promontory park on the west end of parcel 43 provide a rich array of programming and recreational opportunities for future residents and visitors.

As the first view of EFL westbound on both sides of Marine Way, the park precinct forms the gateway to the site and the City of Vancouver. Parcel 43 on the north side of Marine Way is a raised triangular site with townhouses, four and five storey buildings, and a tower that announces this entry. This precinct provides an extension to the future avalon park corridor, linking parcel 43 to the community upland and to the rest of EFL. Promontory park on the western end of parcel 43, offers a clear view over the park corridor to the river beyond. A strong pedestrian link to the existing communities north of the site, is created by way of a hardscaped pedestrian-cyclist path on the western edge of avalon park north, a full signalized intersection at Marine Way, and a further path through and along the edge of promontory park

Characteristics

- **Parcel 43:** Occupying a roughly triangular site on the north side of Marine Way, it sits several meters higher than the south part of EFL, giving it visual prominence. Low-rise and mid-rise perimeter buildings and a tower on the eastern end of the site announce EFL's entry.
- **Pedestrian link:** This precinct creates the primary pedestrian link between the main EFL development and the existing upland neighbourhood in Area I.
- **Marine Way frontage:** Marine Way will be treated as a major urban street in its section, landscape treatment, and the manner in which buildings relate to it. This section of Marine Way will receive a similar treatment on the south side as the sections in the town square precinct. Elements include a series of trees in a new central median, a new signalized intersection, a row of trees in a green boulevard and the entries and gardens of mixed use residential, live-work, and office buildings fronting the street. On the southern edge of parcel 43, a denser row of trees and landscaping provide a green edge that enhances the living environment of this residential parcel.
- **East-west connections:** Residences on parcel 20 and 21 are located adjacent to the avalon corridor water course and pedestrian/bike path. A pedestrian bridge over this water course and right-of-way through parcel 21 will provide additional public access between the avalon park corridor and the town square.

Public Spaces

- **Avalon park north and full sized artificial lit field:** As the northern section of a future park corridor extending from Marine Way to the river, avalon park north is located between Kent Avenue north and Marine Way. An important recreational space, this park accommodates a full-sized lit artificial playing field and field house, a water course conveying water from the uplands neighbourhoods flow as well as runoff from adjacent areas along the west edge, and a pedestrian and bike path on the east side of the watercourse.
- **Promontory park:** Located on the western end of parcel 43, promontory park creates a visual extension of the avalon park corridor and enables a strong pedestrian connection between the existing upland areas and EFL. Promontory park provides a view to the river and will be terraced to enable a variety of activities including urban agriculture opportunities.

6.0

Historical Context



The East Fraser Lands site is embedded in layers rich in history and meaning. A statement of significance and heritage inventory was conducted for East Fraser Lands in May 2008 to guide design development, use of materials, and future siting of historic resources Please refer to this study for more information regarding the site's historical context and Section C, Items 1.2, 1.3 and 3.3 of the Guidelines for historic references and use of materials.

The entire site, of which Area 1 is a part, is a 53-hectare former sawmill site on Vancouver’s Fraser River flats in the southeast corner of Vancouver. It is bounded by the North Arm of the Fraser River, Boundary Road, S.E. Marine Drive, and Kerr Street. The large site is bisected by the CPR railway line and by E. Kent Street North and South, which run along either side of the tracks.

The historic place is located within the traditional territory of the Musqueam First Nation. An archaeological assessment has been completed and no archaeological sites have been recorded. Nevertheless, for thousands of years the Fraser River and its tributary streams were the scene of an intense annual salmon fishery that drew people from all over the region. In the 19th Century, the site was used by European settlers who took advantage of the site’s adjacency to the Fraser River, using it for agricultural purposes and raising cattle. By the early twentieth century, the land was subdivided and the BC Electric Railway established an interurban line between Eburne (Marpole) and New Westminister, leasing and electrifying the CPR tracks. With rail service, the site began to industrialize. A sprawling sawmill complex developed over next several decades.

The White Pines Mill that occupied the East Fraser Lands site for much of the last century represents an important stage in the history of British Columbia and the Fraser River. Although the mill was dismantled in 2004, leaving few vestiges of its existence, there are still various opportunities within the EFL development to recall and celebrate the industrial legacy and historic memory of the site.

None of the historic and iconic mill buildings remain. A few large artifacts do remain however, including fluted v-rollers used to move raw logs, a traveling crane along the river to the west, and a large engine from the hog pit. These artifacts evoke memories of the large scale infrastructure that once dominated the site and images of the hustling and bustling mill activity in moving timber. Although none of these artifacts are currently identified in the Vancouver Heritage Register, these artifacts may be located in the public realm or integrated with public art as the site develops, playing an important role in remembering the site’s history.

Along the shore, piles and decking reflect the central role of the river in transporting raw logs. Log booms, boom boats, and boom-men still work along the edge of the site.

7.0 Design Process

7.1 Preliminary Development Permits

Prior to considering independent permits for individual blocks, those parcels identified below will be reviewed and approved as preliminary development permits generally corresponding with the precincts as outlined in Section 5.0. Each preliminary development permit will be presented to the Urban Design Panel and the Development Permit Board for their advice and approval. Consideration may be given to reviewing a limited number of the key blocks as preliminary development permits, notably those that define and shape major public spaces, with more peripheral blocks reviewed as full development permits.

7.2 Naming Streets and Parks

Names of new streets and parks within the site and referred to in these Design Guidelines are unofficial and have been identified for the purposed of reference. Streets will be officially named at the Development Permit stage while parks will be named as part of the standard Park Board procedures.



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SECTION A - PUBLIC REALM PLAN

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Section A - Public Realm Plan
Table of Contents

1.0	Introduction	15	5.1.6	Urban Agriculture	
1.1	Strategies for the Public Realm	15	5.2	Lighting Design	95
1.2	Establishing the Central Neighbourhood framework	15	5.3	Universal Design, Accessibility and Wayfinding	103
1.3	General Aims of Public Realm Plan	15	6.0	Site wide Sustainability Strategies	105
2.0	Public Realm Concept	17	6.1	Rainwater Management	105
2.1	Design Framework	17	6.2	Ecology, Habitat and the Fraser River	107
2.2	Historical References and Artifacts	19			
2.3	Public Realm Character Precincts	21			
2.3.1	Town Square Precinct	23			
2.3.2	Waterfront Precinct	25			
2.3.3	Park Precinct	29			
3.0	Streetscapes Master Plan	31			
3.1	Movement	33			
3.1.1	Access and Circulation	34			
3.1.2	Pedestrian	35			
3.1.3	Cycling	37			
3.1.4	Transit	39			
3.2	Proposed Street Concepts	41			
3.2.1	River District Crossing				
3.2.2	Sawmill Crescent(The Crescent)				
3.2.3	Marine Way				
3.2.4	Kent Ave North				
3.2.5	Kent Ave South and Greenway				
3.2.6	Vehicular Mews				
3.2.7	Pedestrian Mews				
3.2.8	Collector Roads				
3.2.9	Mill Bay Road				
3.2.10	Road 'L'				
4.0	Park and Open Space	61			
4.1	Town Square	63			
4.2	Waterfront Plaza	65			
4.3	Kinross Foreshore Park	69			
4.4	Promontory Park	73			
4.5	Avalon Park North	75			
5.0	Public Realm Components	77			
5.1	Landscape Components	79			
5.1.1	Hard Landscape Components				
5.1.2	Street Tree Master Plan				
5.1.3	Bio-swale and Rain Garden Plants				
5.1.4	Native and Urban Adaptive Planting				
5.1.5	Songbirds				

1.0

INTRODUCTION

1.1 Strategies for the Public Realm

The EFL public realm furthers the vision for a unique mixed use riverfront community where streets, parks, plazas and courtyards all contribute to a richly diverse and highly walkable experience. The design approach to the public realm for East Fraser Lands is outlined in this section.

1.2 Establishing the Central Neighbourhood framework

- The central neighbourhood extends north-south from Marine Way to the Fraser River and east-west from Kinross Park to Avalon Park
- Central neighbourhood is distinguished by higher density, more exposure on Marine Way and its preeminent public realm
- Density used to create a legible, development form that also reinforces aspects of the public realm
- Three precincts, each with its own character focused on a unique public space network; a fourth precinct, across Marine Way, extending the network north to existing neighbourhoods



1.3 General Aims of Public Realm Plan



Connectivity: permeability and a fine-grained network

- Primary (major streets), secondary (mews and collector streets) and tertiary (pedestrian SRW) routes provide a high degree of permeability for vehicles and pedestrians alike – blocks are generally less than a conventional 100m city block and most offer at-grade access through inner block open spaces
- This comprehensive network is intended to provide multiple options for pedestrian trips to encourage walking and lend vitality to all parts of the neighbourhood



Legibility: clarity through primary formal and spatial characteristics

- Key public spaces proportioned to express their specific nature, defined by streetwalls and/or strong edge treatments and given additional legibility through various architectural forms including towers to mark key locations, buildings articulated to draw the eye to a specific place and massing to express key buildings (eg: the Community Centre);



Diversity: a network of unique places offering a rich experience from urban to naturalistic

- Focus on different character of public spaces achieved through scale and massing of built form, use of materials, lighting and various other components
- Each public space to have its own distinctive quality drawing from its role and location in the public realm network



Sustainability: showcasing the ground-based systems

- Rainwater management system given a strong presence in the public realm; rain gardens,
- Bioswales and numerous water features celebrate the movement and treatment of water as it moves through the development to the river
- Songbird habitat carefully orchestrated to entice a broad range of guilds, subtly expressed in the field, shrub and tree plantings within parks and streetscapes alike
- Ecological initiatives focused on the Avalon corridor and foreshore from restoration and protection of the natural river's edge – addressing the requirements of the Fraser River Estuary Management Program

2.0

PUBLIC REALM CONCEPT

2.1

Design Framework

The Public Realm Plan for East Fraser Lands delivers a rich, vibrant and cohesive network of streets, parks and open spaces with an emphasis on varied streetscapes and strategically placed parks and open spaces. The plan is compromised of:

- a wide variety of streetscapes, including pedestrian oriented mews
- a distinctive Town Square and Waterfront Plaza,
- Waterfront Plaza with promenade and beach,
- a more casual riverfront linear park and sanctuary island,
- the northern portion of the Avalon Park corridor
- a greenway along the CP Rail R-O-W, and
- riparian areas, tidal sloughs, and inter tidal marshes,.

The Town Square and Waterfront Plaza are important open spaces connected by the River District Crossing. They provide for active edges, pedestrian accessibility, flexibility and adaptability of use.

The plans, sketches and other drawings contained in the Public Realm Plan are conceptual in nature. All components of the plan will be refined through a more detailed design process. The programming and design of parks will be conducted through public consultation with the Vancouver Park Board.

Names suggested for streets, parks and other components of the plan are for reference only.



Public Realm Plan



2.2

Historical Reference and Artifacts

The White Pines Mill that occupied the East Fraserlands site for much of the last century represents a fundamental stage in the history of British Columbia and the Fraser River. Although the mill was dismantled in 2004, leaving few vestiges of its existence, there are multiple opportunities within the EFL development to recall and celebrate the industrial legacy of the site.

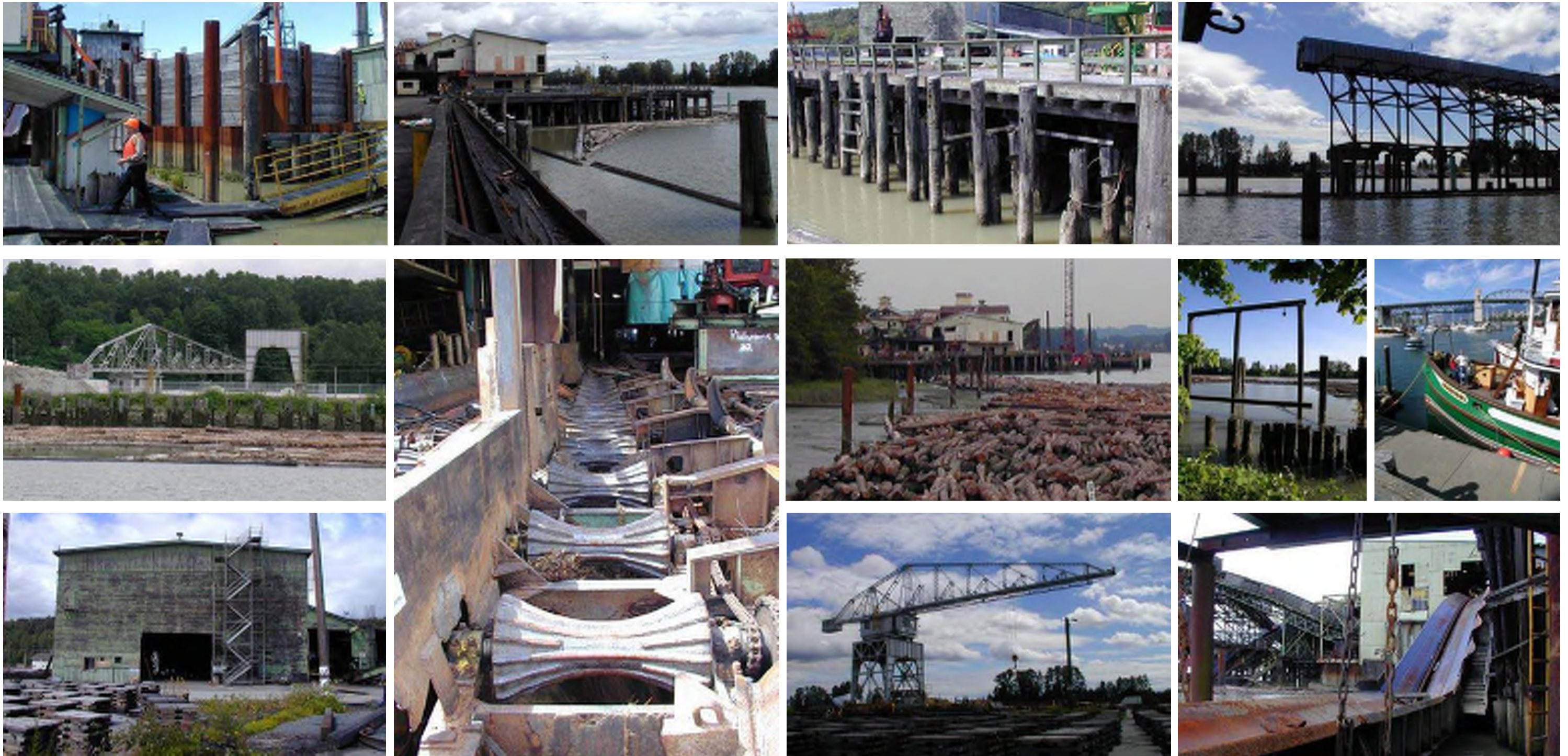
Two of the mill's most memorable features, seen in the circa 1940 photo at right, are the prominent mill building at the river's edge and the distinctive beehive burners to the east of it. The mill building will be recalled in a contemporary rendition that reestablishes its strong riverfront presence to the Waterfront Precinct as well as the restaurants and live/work uses planned for this building. As well, other buildings in the development character might also recall aspects of the former industrial structures. Unique to the forest industry, the iconic form of the beehive burner could be dramatically captured in public art initiatives.

Two artifacts remaining from the mill will also be integrated into the site. First, the imposing crane, evocative of the large scale infrastructure that once dominated the site, will be reinstated in a prominent public location as a strong reminder of mill operations and the movement of forestry products. Secondly, movement is also recalled in the heavy steel rollers that have been stored for use on the site. It is proposed that these waist-height dumbbell shapes be located in the public realm as a unique bollard. The decks on piles skirting the mill building are also intended to reflect the many pier and bulkhead structures that characterized the river's edge of the mill.



Historical Aerial Photo

Circa 1940



2.3 PUBLIC REALM CHARACTER PRECINCTS

Introduction

Three precincts, each with its own distinctive identity, provide a diversity of character and scale found in urban areas that have evolved over time. While the Town Square precinct establishes the signature commercial and social core visible from Marine Way, the Waterfront Precinct anchors the community at the river, and connects to the Town Square along the curving River District Crossing. The Park Precinct forms the gateway both to EFL and the City of Vancouver as well as connecting the existing upland communities to the development.

The basic structure of each precinct is described below followed by a brief description of key components comprising the precinct’s characteristic public realm.

Town Square Precinct

The Town Square precinct forms the main frontage of the development along Marine Way and provides the main points of arrival at Sawmill Crescent and River District Crossing. These streets are also the venue for the main commercial and retail activity in the neighbourhood. The proposed Town Square is the centrepiece of the public realm for this precinct and is located at the intersection of River District Crossing and Sawmill Crescent.

The public realm for this precinct comprises:

- Marine Way frontage,
- Sawmill Crescent
- River District Crossing,
- Town Square
- short lengths of collector roads A and D
- Kent Avenue Greenway

Waterfront Precinct

The Waterfront Precinct extends from the CP Rail ROW to the riverfront. This precinct is mostly residential in character with a variety of residential streets organized around a retail River District Crossing leading down to the river. This precinct includes the variety of community facilities and a series of open spaces that stretch along the river. The Community Centre, Waterfront Plaza and public beach are the main features of the public realm for this precinct.



Overall Concept Plan with Character Precincts
NTS

The public realm for this precinct comprises:

- River District Crossing
- vehicular and pedestrian mews
- section of collector roads B and C
- Kent Avenue South
- Mill Bay Road
- Mount Baker Way
- Waterfront Plaza
- a public beach
- restored river frontage



Park Precinct

The Park Precinct is divided into two parts north and south of Marine Way. The northerly portion of the precinct is a residential neighbourhood complete with an adjoining public park, Promontory Park and is served by a public road (road L) connecting to Marine Way. The southern portion of the precinct comprises two residential parcels and the adjoining Avalon Park. The most significant component of the public realm are the two proposed parks that in time will contribute to the Avalon Park corridor that will extend from the wooded slopes north of the development south to the river.

The public realm comprises:

- Road L
- Promontory Park
- Marine Way frontage (north and south)
- the northern portion of Avalon Park
- a short section of Sawmill Crescent
- a short section of collector road D
- a short section of Kent Avenue North parks



2.3.1 Town Square Precinct

A distinctive arrival to a vibrant mixed use core

The 'heart' of the EFL community, the town square precinct will be an active neighbourhood commercial core with residents and visitors contributing to its vitality. As the front door to EFL, the Marine Way frontage is the public face of the community and provides the three key points of arrival at high street and both ends of crescent street.

At either end of the crescent, gateway buildings enhance the arrival experience with distinctive flatiron shapes that stand out on Marine Way. These step down to four storey buildings, maintaining a strong streetwall along Marine Way. Business and medical offices as well as live/work uses bring life to the ground floor of this frontage. Office and residential uses enliven the upper levels where setbacks and generous decks mitigate the impact of the Marine Way environment.

More civic in nature, the high street entry is proposed to be marked by an element such as a clock tower or public art piece associated with the site's history. High street's four storey frontage is as continuous as possible from Marine Way to the CPR crossing, opening dramatically to reveal the town square. To create a sense of continuity across the CPR right-of-way, a similar scale and character is extended to the southern portion of high street.

Towers midway along the crescent are visual cues drawing visitors along this easily accessible street. Parking is provided on both sides of the street with generous sidewalks for retail activity.

The central focus of this precinct, the town square, offers a generous south-facing gathering place and identifiable crossroads. At the corner of the square a prominent stand of trees is proposed to provide a delightful focus. Restaurants and cafes at the ground floor provide all-season vibrancy while the three storeys above ensure strong definition of the space. Towers at the north and west edges of the square add another layer of containment and visual interest. Anchor stores in the surrounding blocks are wrapped by smaller commercial enterprises, mitigating their dominance over the finer-scaled streetfronts that characterize this development.

The Kent Avenue Corridor flanks the existing CP Rail ROW and becomes an expansive green space between this precinct and the waterfront precinct to the south. Townhouse forms on the north side of the corridor create an intimately-scaled frontage for the pedestrian/cycling greenway introduced in this area of the town square precinct.



High Street entry at Marine Way



Marine Way looking east

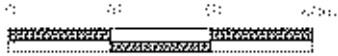


West entry to crescent from Marine Way





Town Square Precinct Concept Plan
1:1500



2.3.2 Waterfront Precinct

A unique shopping street and river experience

From the Town Square to the Waterfront Plaza, the curve of River District Crossing forms the strong mixed-use spine of this precinct. This curving frontage draws the eye from store to store, culminating in the Waterfront Plaza and a view to the river. The Community Centre lends its vibrancy to the street with the entry lobby generating all-day activity.

River District Crossing (formerly High Street) seeks to be more intimate in character with smaller, specialty retail proposed here; this character is strengthened by a variety of heights above that bring rich architectural interest through a high degree of articulation in frontage and roof form. Towers in the Waterfront Precinct should be located along River District Crossing to reinforce this character.

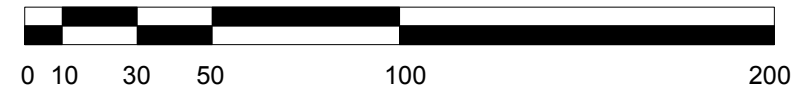
At breaks in River District Crossing frontage, mews and pedestrian routes link to blocks and open spaces east and west of River District Crossing inviting the informal strolls and chance encounters of a walkable community. Towers punctuate River District Crossing, with the taller 28 storey tower at the north end providing a strong visual connection from the Town Square and the 12 storey tower at the south end providing a strong termination to the street at Waterfront Plaza.

The mixed-use blocks of River District Crossing generally wrap the rear of retail frontages with residential units; here and in the residential buildings sharing the blocks, a high percentage of ground-oriented units create a character amenable to pedestrian activity and enliven the adjacent outdoor space. Outlying blocks all enjoy generous mid-block green spaces, enhancing the livability of these buildings and extending the open space network into these semi-public spaces.





Waterfront Precinct Public Realm Plan



Waterfront Precinct - Public Realm

The public realm along the river transitions from the formal urban treatment of the surrounding development parcels to a more informal built form expression that emphasizes the use of natural materials, restorative plantings and notions from the industrial history of this area to inform landscape elements and materiality.

Buildings defining the North edge of Mill Bay Road and the westerly tower anchors the Waterfront Plaza. Generous roof decks, terraces and balconies along with restaurants and cafes at the ground floor of these buildings will offer multiple opportunities for enjoying the river.

The plaza provides opportunities for a wide range of public activities and programmed events. East of the plaza, a treed promenade frames the main pedestrian route along the river where street furnishings will be provided to allow users places to pause along the riverbank. The promenade is terminated by a view deck to book end the waterfront precinct with a secondary deck at the terminus of Road ‘C’.

At the foreshore park to the west, blocks take on a more casual configuration and character, complementing the meandering green space that restores the natural attributes of the river’s edge. Mid-block spaces open to the river, optimizing views and providing a connective green foreground to the park.



2.3.3 Park Precinct

The Park Precinct encompasses the triangle site on the north side of Marine Way, the first phase of the avalon park corridor on the south side of Marine Way and two further residential parcels to the west of avalon park.

The Park Precinct plays two important roles in the development.

Firstly, as the gateway to Vancouver, it provides the first view of East Fraserlands on Westbound Marine Way. The proposed mid rise and high rise buildings form an important landmark at the corner of Marine Drive and Boundary and announce the entry to EFL and the city.

Secondly, the precinct provides the first phase of construction for the avalon park corridor that in time will extend from the wooded slopes north of the site down to the riverfront. On the north side of Marine Drive the proposed promontory park is elevated above the street and provides generous distant views south along the park corridor to the river. The park accommodates an important pedestrian linkage to adjoining neighbourhoods to the north and provides an attractive and gentle route through the park down to Marine Drive. Promontory park has the potential to include a linear rainwater element.

This precinct also includes the first portion of the avalon park corridor which accommodates a further extension of Avalon water course and associated trails leading south towards the river. A lit, all-weather 100m x 65m play field will also be provided in this park.

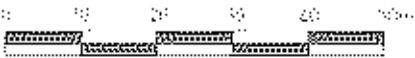
Adjoining avalon park are two residential parcels that overlook the park and are served by Kent Avenue North, to the south and collector road D and the crescent to the west. The Marine Drive and crescent streetscapes fronting these parcels play an important role in defining the character at the entrance to East FraserLands.

As with the other urban precincts the Kent Avenue corridor flanks the existing CP Rail ROW and provides an expansive green space at the south edge of the precinct.





Park Precinct Concept Plan
1:1000



3.0

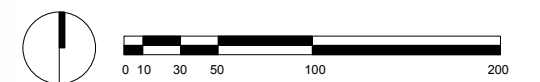
STREETSCAPES MASTER PLAN

The Public Realm for East Fraser Lands includes a hierarchy of distinct streetscapes typologies. All streets are defined by street tree plantings, rich ground plane treatments, lighting, street hardware and furnishings. An important signature component of several of the streets is the inclusion of rain gardens and bio-swales which are inherent to the rain water management strategy for the community.



LEGEND

- River District Crossing (formerly High Street)
- Arterial Streets
- Collector Streets
- Vehicular Mews
- Pedestrian Mews
- Kent Ave Greenway
- Feature Streets



3.1

Movement

Overview

East Fraserlands will be developed as a compact, vibrant and socially interactive community with everyday amenities within walking and cycling distance of the new and neighbouring communities. It will be developed around a fine-grained network of pedestrian and cycling connections that will permeate out to integrate with the surrounding neighbourhoods.

Transit connections to the future Canada Line, the SkyTrain and neighbouring communities are expected at an early stage of the development, while in the future there could potentially be a rapid transit line on the Canadian Pacific rail corridor.

The proposed Phase I development at East Fraserlands will feature 5 vehicular connections, including existing Kent Avenue North access to both Kerr Street and Boundary Road, plus 3 new signalized intersections along Marine Way (High Street and at either end of the planned Crescent Street). At final build out, there will be a total of 4 signalized intersection connections to Marine Way, 3 road connections to Kerr Street, and 3 road connections to Boundary Road.

Sustainability

East Fraserlands is adopting a comprehensive sustainable design strategy in its approach to streets and circulation. One of the key aspects of this strategy will be to focus the design of streets on pedestrians and cyclists before consideration is given for vehicular movements. In adopting this approach, road and intersection geometry can be kept to the operational minimum and in fact, would form part of the traffic calming strategy. Another key aspect is having adequate bus penetration within the new community so that everyone is within a 5-minute walk of bus stop. Parking is also an important component of the strategy and therefore opportunities for reducing it will be investigated in the context of transportation demand management measures, shared parking opportunities and by monitoring the overall accessibility of the development.

3.1.1 Access and Circulation

Transportation Policy

The City of Vancouver’s City Plan 1995 set out the following transportation policies:

- “enhance the transportation system to provide a greater emphasis on transit, walking, and biking within and between neighbourhood centres and downtown; and make better use of the existing street system for moving people and goods.”
- Managing land-use in the region to establish a more compact urban form and complete communities to minimize travel times.
- Adjusting transport service levels, including speed, convenience, frequency of service, and comfort. This can mean among other things allowing congestion to increase for single occupancy vehicles, in part to ensure Transportation Demand Management measures are more effective.

The above policies are aimed at reducing the number and length of private automobile trips, and prioritizing the street environment so that it is focused on the movement of people and goods rather than vehicles. These policies are consistent with the design approach that has been adopted for the EFL masterplan.

Design Principles

East Fraserlands is planned as a complete community with a wide variety of residential, retail, cafés and service uses, together with a community centre, schools and parks. It will be structured on design principles that promote walking, cycling, and transit use ahead of the private automobile.

A wide range of shops, restaurants, cafés, health related facilities, services, education, community facilities, etc., are planned, and these will all be within a 10-minute walk for the new community, as well as from parts of the West Fraserlands and Champlain Heights neighbourhoods. These uses will be clustered in and around the neighbourhood centre so as to maximize the synergy that they will generate. In particular, it will reduce walking distances, minimize auto use, provide better integration with transit and maximize the opportunities for communal / shared parking areas.

Urban form has played a pivotal role in the development of the transportation system for the EFL and the key features are summarized below:

- forming a permeable and fine-grained street and walkway network, providing pedestrians with more choice of routes than other road users;
- creating an engaging environment for people to walk through having buildings fronting and overlooking sidewalks and walkways to provide the ‘eyes on the street’;
- keeping road widths to the operational minimum to reduce vehicular speeds, minimize crosswalk distances and maximize the public realm;
- developing a cycle-friendly environment through a network of streets, lanes, mews, all of which will have low traffic flows and vehicle speeds, and which will be interconnected with designated commuter, riverfront and parkland routes; and,
- integration of bus waiting facilities within the urban environment making them safe, accessible and convivial for passengers to use.

These design principles will facilitate higher levels of walking, cycling and transit use and lower levels of private automobile use, compared to a conventional low to medium-density development.

3.1.2

PEDESTRIANS



Pedestrian Route Shed Diagram (Walking Time)

Pedestrian Network

Walking is expected to be the primary form of travel for short journeys and is a realistic form of travel for most people, especially over short distances, i.e. up to 2 kilometres or a 25-minute walk time. A key design principle is to create a permeable and fine-grained street and walkway network, providing pedestrians with more choice of routes than other road users. These routes connect to surrounding communities at West Fraser Lands, Champlain Heights and Marine Way Estates Business Park.

Compactness of the EFL development is demonstrated on the Pedestrian Shed Diagram, which shows that Kerr Street to River District Crossing is a 10-minute walk, while River District Crossing to Boundary Road is an 8-minute walk. This will ensure that everyday facilities are within a short walking distance, including the elementary school which will have 4,000 to 4,500 residential units within 600 metres or 7.5-minute walk at final build out, and the neighbourhood centre (including the Community Centre) will have a population of 14,000+ within 800 metres (10-minute walk), including parts of the West Fraser Lands and Champlain Heights neighbourhoods.

Pedestrian Route Diagram highlights the street network and walkway system. Pedestrians will have a selection of routes consisting of streets, mews, courtyards / lanes and walkways which break up the street blocks into a fine-grained network. Street crosswalk distances will be reduced through the use of curb extensions while the street design treatment will emphasize that this is a shared street environment through measures such as lower curb heights, pavement materials, minimal signage and pavement markings, etc.

Connections to the neighbouring communities are an important design consideration. A temporary riverfront walkway has already been provided and will be maintained throughout construction of the EFL site.



Pedestrian Route Diagram

3.1.3

CYCLING

Bicycle Network

A cycle-friendly environment will be created in the EFL through the development of a wide network of streets, lanes, mews, etc, all of which will have low traffic and vehicle speed. These will be interconnected with two main dedicated/marked bike routes, which run in an east-west direction, and with two parkland routes, which run in a north-south direction in the western and eastern neighbourhoods.

At EFL’s final build out, it is estimated that 25,000 people will be within reasonable cycling distance of the neighbourhood centre, including the Community Centre and schools. In addition, the SkyTrain at Joyce Station and the future Canada Line station at SW Marine Drive / Cambie Street will both be within a 20-minute cycle from the EFL and these transit stations will be directly accessible via existing bike routes.

The bicycle network is highlighted on the Cycling Route Diagram, and this is shown together with the possible external connections to Champlain Heights. The two existing east-west routes will be upgraded.

Kent Avenue North is a commuter route, which runs through the centre of the site and includes an off-street section that runs through the neighbourhood centre.

Cyclists can currently use the riverside route, which provides a comfortable and traffic-free connection for recreational activities, in addition to benefiting less experienced cyclists. It will connect West Fraser Lands and Marine Way Estates Business Park (via North Fraser Way) with Phase 1 of the EFL development.The route will be delineated, dedicated bicycle path with planting strips providing further segregated from pedestrians in many locations.



Cycling Route Diagram

3.1.4

TRANSIT

Transit

East Fraser Lands could have a population of 12,000+; it could employ around 2,000 to 3,000 people in the neighbourhood centre / offices, while another 10,000+ people per day could potentially be visitors. These figures suggest that EFL could support at least 3 bus routes with service frequencies at 15 minutes.

There are two existing transit routes that run close to the EFL site: route #100 runs on SE Marine Drive along the northern edge of the site, while route #116 runs on Boundary Road along the eastern edge. In addition, route # 26 serves the Champlain Heights neighbourhood with the southern most part of the route at the Champlain Crescent / Matheson Crescent intersection, while route #29 operates on the Elliott Street corridor and currently terminates just north of SE Marine Drive. TransLink will ultimately determine how best EFL is serviced.

Connections to the Champlain Heights and West Fraser Lands neighbourhood are important for the EFL as well as ones to the Canada Line at SW Marine Drive / Cambie Street (16-minutes by bus) and to the SkyTrain at either Joyce Station, Metrotown, 29th Avenue or 22nd Avenue (15-minutes by bus at the closest point).

The streets planned to accommodate bus routes are shown on the **Transit Route Diagram**. These routes will ensure that all of the EFL will be within a 5-minute walk of a transit stop (see **Pedestrian Shed Diagram** for an indication of the 5-minute walk sheds). Bus stops are anticipated close to Sawmill Crescent/River District Crossing intersection, adjacent to the Town Square. Providing accessible, convenient and safe waiting areas here will be important. It is likely that complementary facilities such as a café, kiosk, etc, will be attracted to this location. Design of bus stops will require Translink input.

In the future, the Canadian Pacific rail corridor could become a transit route, possibly connecting the EFL to the future Canada Line at SW Marine Drive / Cambie Street and to the SkyTrain in New Westminster. A location for a station facility has been identified on the north side of the rail corridor on River District Crossing, while sufficient space will be provided in and around the River District Crossing and Kent Avenue South streets. A future dock near the Waterfront Plaza is contemplated, that could accommodate a river taxi should service be established.



Transit Route Diagram

3.2

PROPOSED STREET CONCEPTS

3.2.1 River District Crossing (formerly High Street)

River District Crossing is the primary pedestrian-oriented retail street for the EFL development. It forms a ceremonial entry point to the neighbourhood from Marine Way and leads directly to the waterfront. The street is anchored by two major open spaces, the Town Square at the north end and the Waterfront Plaza at the south. The curving form of the street provides a gradually changing perspective of building forms and open spaces culminating in a view to the Waterfront Plaza and river beyond. The layout and detailing of River District Crossing are intended to create a visually rich and intimate urban shopping street.

Proposed Street Composition:

- 21.5m road allowance
- Two drive-lanes with parking on both sides
- Broad sidewalks on both sides
- Asphalt road surface
- Concrete paver sidewalks and parking bays
- Concrete cross-walks
- Bump-outs at some intersections and crosswalks
- Street trees allowing for a variety of spatial experience and framing key views
- Rain gardens located at bump-outs and intersections
- Potential sites for public art elements associated with rain gardens
- Catenary (cable suspended) street lighting system with pedestrian scale lights for sidewalks
- Street section and materials are subject to review at detailed design

Special Features

Entry Structure:

The north end of the street forms the ceremonial entry to the development and is proposed to be marked by an iconic entry structure.

Town Square (Built):

At the Town Square the proposed treatment of River District Crossing take on the proposed character of the square. The design intent is to create a rich urban plaza with “wall-to-wall” finishes, with a focus on slow traffic movement and pedestrian priority. The surface treatment is to pave the road with concrete unit pavers to match the sidewalks and pedestrian-only portions of the square. Curbs are low-profile with bollards arranged in lines. Trees contrast with adjoining street trees and are arranged symmetrically in relation to the square.

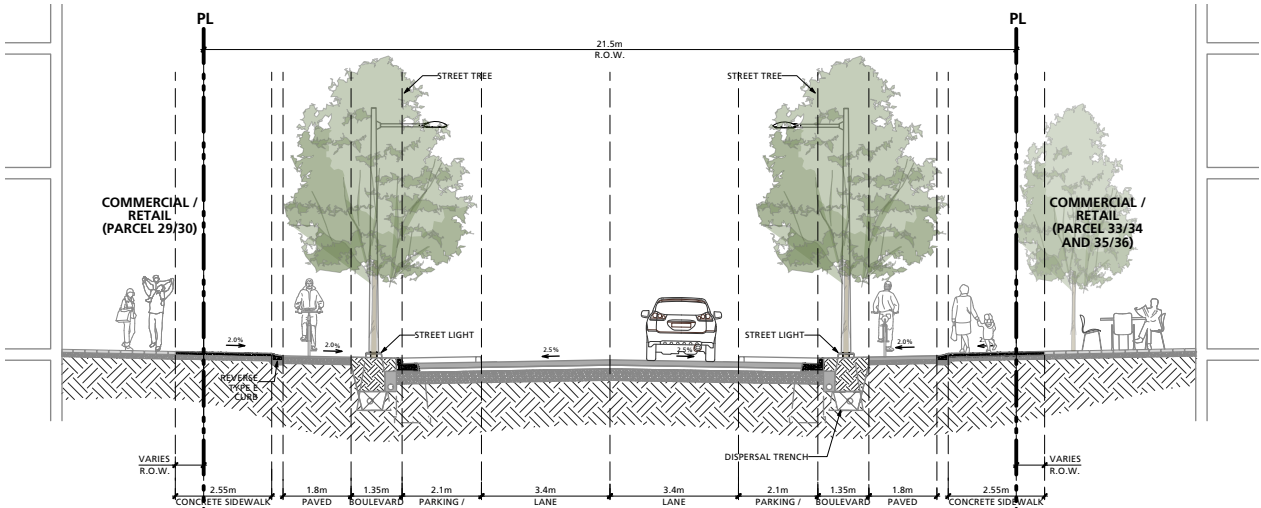
C.P. Rail Crossing (Built):

The treatment of River District Crossing at it’s crossing with the rail-line is intended to reinforce the connection between the two portions of the development. It is proposed that the treatment of the road and sidewalk surfaces be continued into the rail right-of-way and extend as close as is permitted to the line of the tracks. Low shrub plantings are proposed within the right-of-way to better define the pedestrian route.

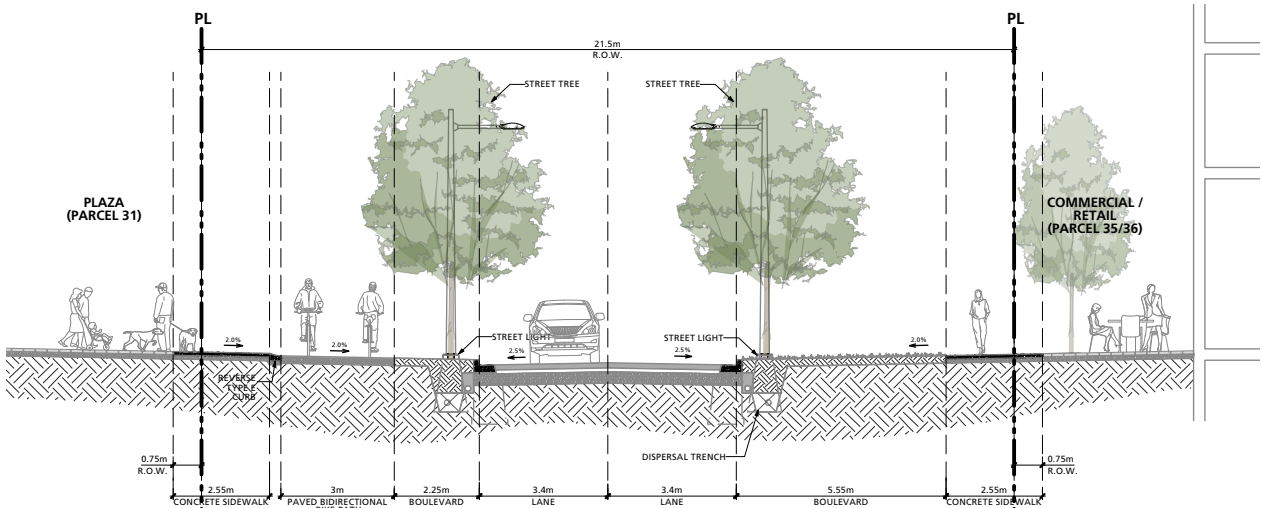
Waterfront Plaza:

At it’s south end, River District Crossing forms the north-west edge of the Waterfront Plaza. In this location the street surface is proposed to be paved in unit pavers to match the adjoining sidewalks. A roundabout is proposed at the south end of the street to allow car drivers the ability to return up River District Crossing in search of parking if necessary.

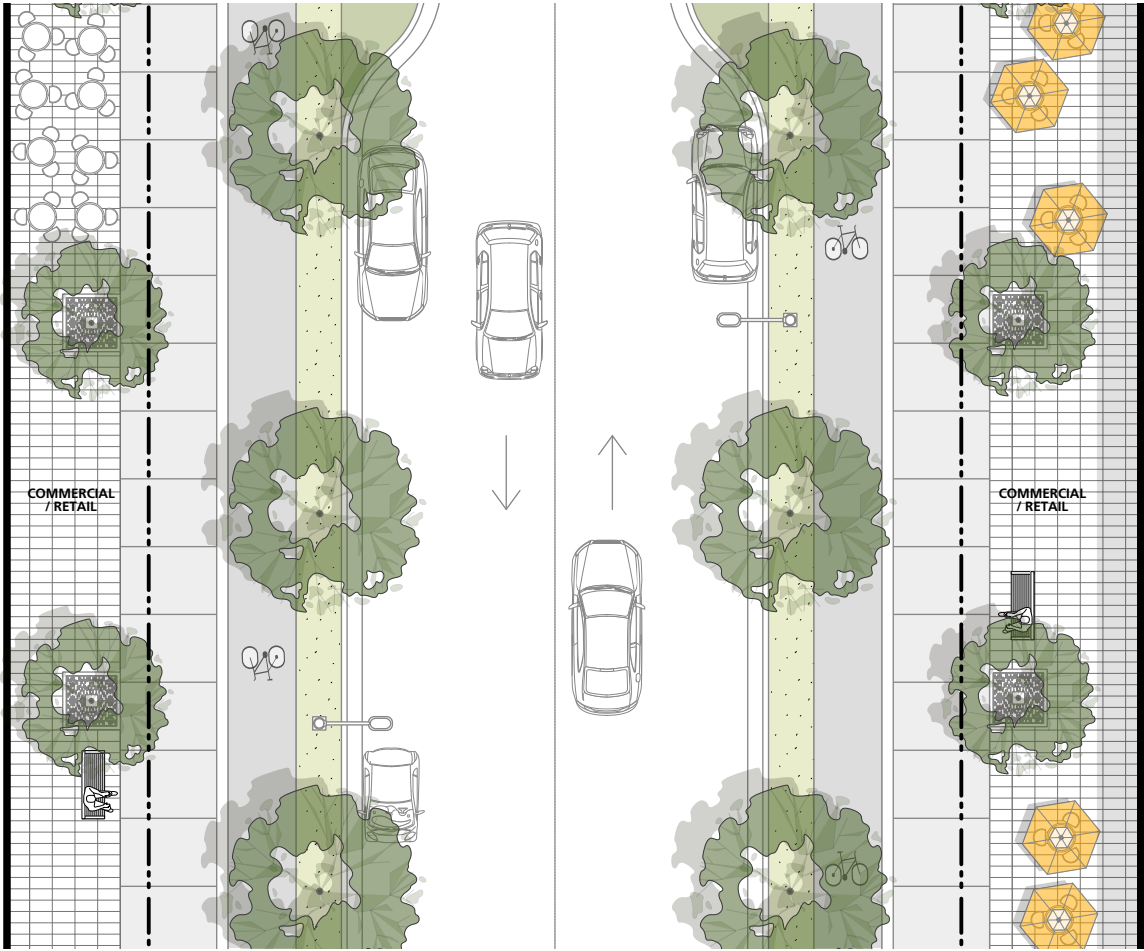




River District Crossing at Road G to Kent Avenue South - Typical Section



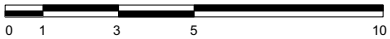
River District Crossing at Mill Bay Road to Road G - Typical Section

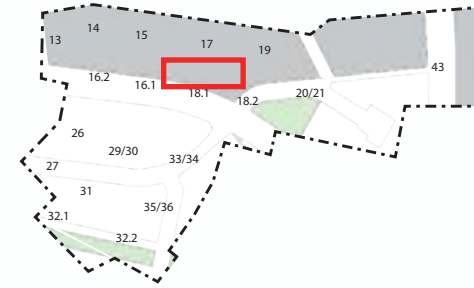


River District Crossing at Road G to Kent Avenue South - Typical Plan



River District Crossing at Mill Bay Road to Road G - Typical Plan





3.2.2

The Crescent

The crescent is the primary access to the neighbourhood from Marine Way. The crescent forms the south edge of the town square at its intersection with high street. The street provides on-street parking on both sides of the street with planted bump-outs defining parking areas.

Proposed Street Composition:

- 21.0m road allowance
- Two generous drive-lanes with room for cars and transit
- Parallel parking on both sides
- Transit stops at high street
- Broad sidewalks with room for retail activity
- Asphalt road surface
- Permeable concrete paver sidewalks and parking bays
- Concrete cross-walks
- Street trees arranged formally in pairs across the street
- Rain gardens located at intersections with access lanes
- Catenary cable-suspended lighting system with pedestrian scale lights for sidewalks
- Street section and materials are subject to review at detailed design

Special Features:

Town Square:

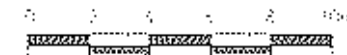
At the town square the proposed treatment of the crescent (and of the high street) take on the character of the square and may differ from the remainder of the street in terms of layout, paving finishes and furnishings (lighting, bollards etc.,).

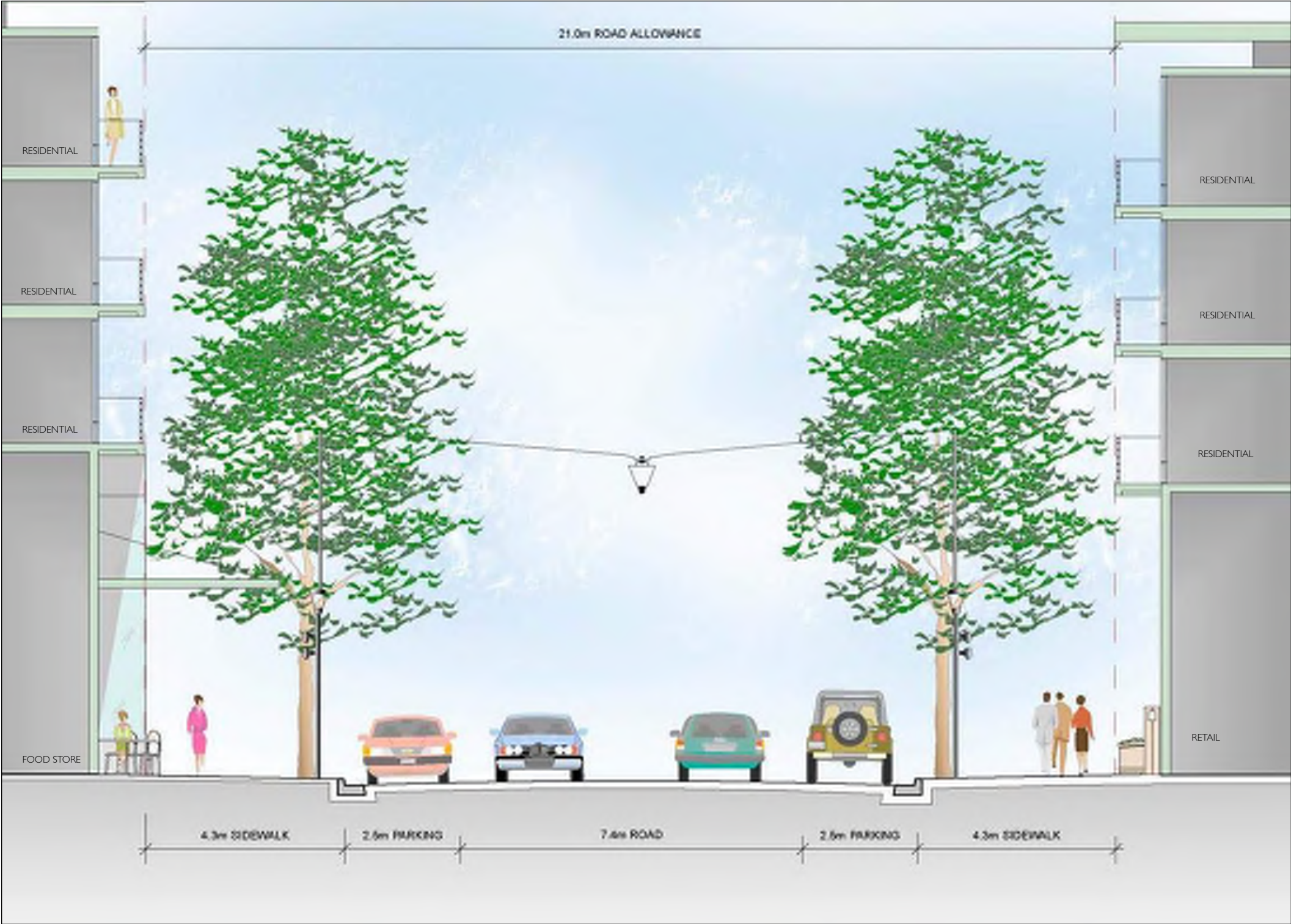
The proposed design intent is to create a rich urban plaza with “wall-to-wall” finishes, a focus on pedestrian priority and slow traffic movement. The road surface may be paved with concrete or other unit paving to match the sidewalks and pedestrian portions of the square. Curbs may be low-profile with bollards arranged in lines to define the vehicular passage. Street lighting will be provided by pole-lights in contrast to the proposed catenary cable-suspended lighting. Trees may contrast with adjoining street trees and may be arranged symmetrically in relation to the square.



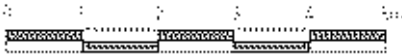
Crescent Concept Plan

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Section BB - Crescent
1:100



West entry to crescent from Marine Way

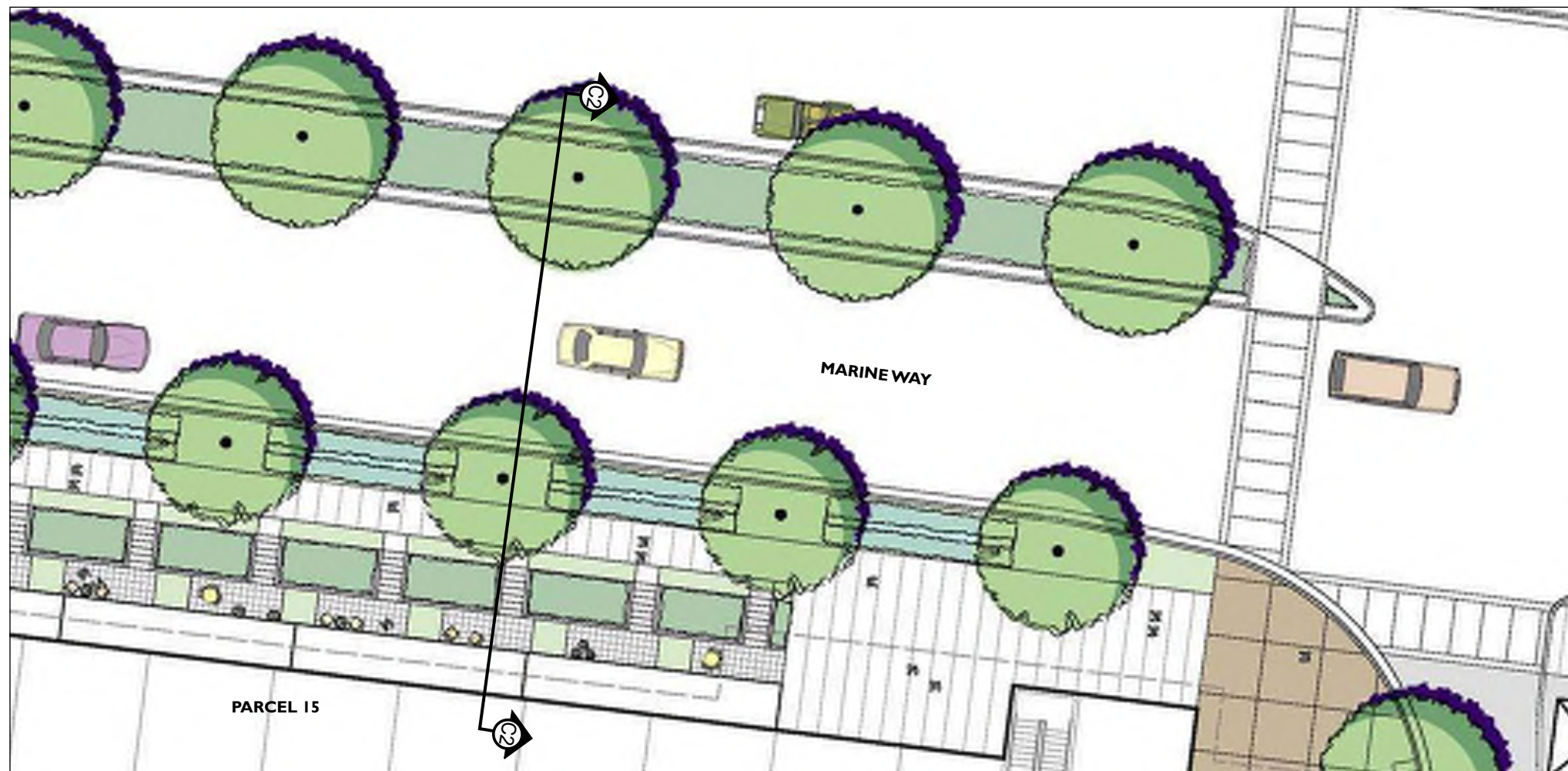
3.2.3 Marine Way

Marine Way provides the public frontage to the development. The existing street will be modified with three new signaled intersections at high street and at either end of the crescent. A new sidewalk and associated boulevards are proposed along the south edge of the street with a continuous row of large scaled avenue trees and rain gardens at the street edge. Adjoining residential frontages the sidewalk is located centrally between front and back grass boulevards. Layered shrub plantings adjoining residential units provide a buffer to the street.

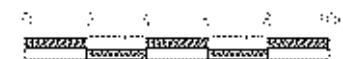
Adjoining retail frontages the sidewalk extends to the retail facade. At the corners of the two at-iron buildings a more formal urban streetscape expressions is proposed with opportunities for public art landmark features. The entry to high street is proposed to be punctuated by an iconic entry feature (proposed as a clock tower) marking the main entrance to the project and a providing focal point for views along high street. New central medians along Marine Way will be planted with low drought tolerant plantings and a single line of trees.

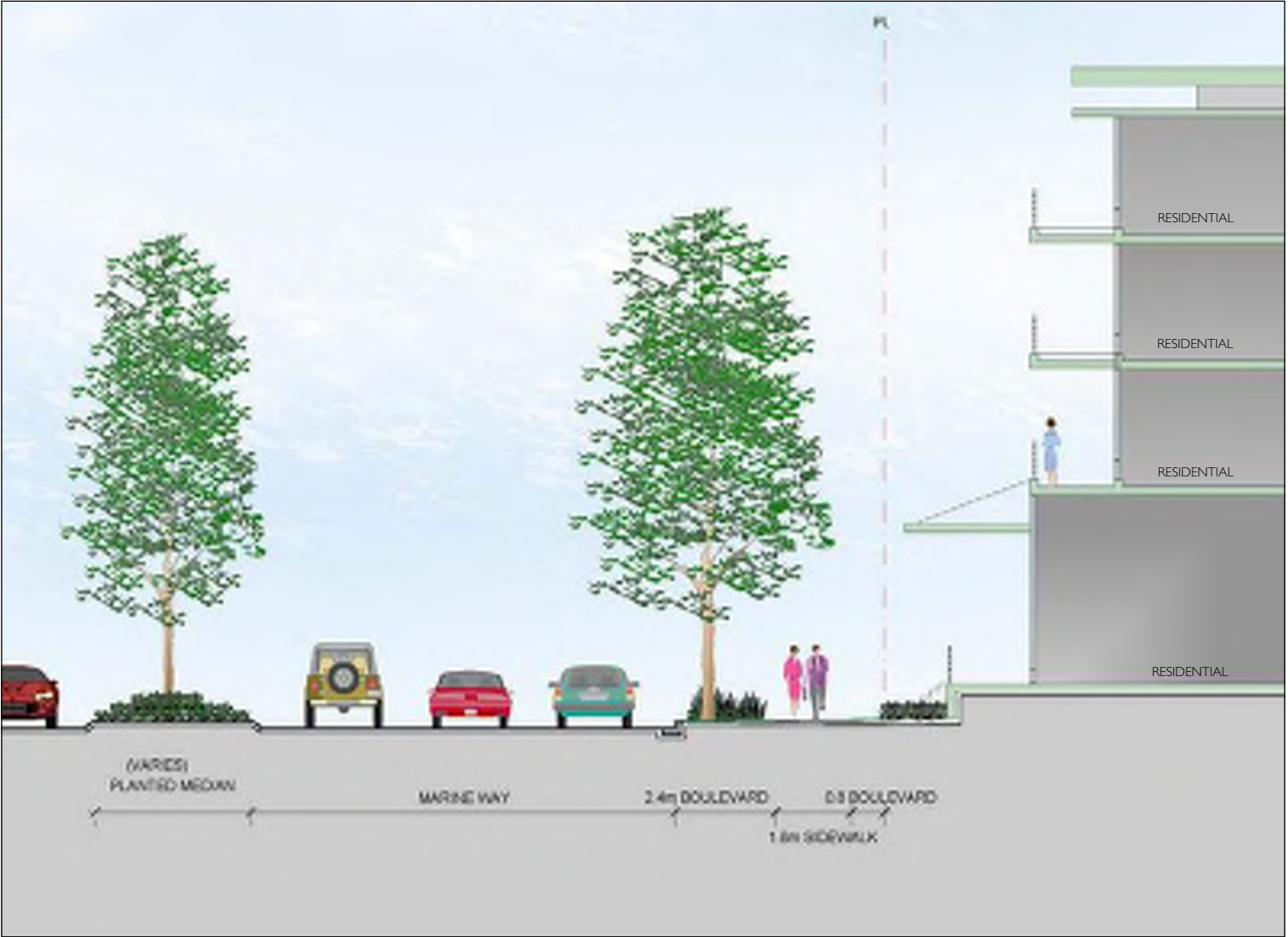
Proposed Street Composition:

- Existing multi-lane street with new signaled intersections and central median
- Iconic entry feature at intersection with high street
- Potential street corner public art sites at intersections with the crescent
- New sidewalk on south side with access to retail and residential units
- Concrete sidewalks
- Front and rear grass boulevards along residential frontages
- Sidewalk extended to building face along retail frontages
- Single row of large scaled street trees along south side
- Single row of narrow street trees in central median with low shrub plantings
- Rain gardens within front boulevard between trees
- Residential patios raised above the street
- Planting buffer between sidewalk and residential units
- Street section and materials are subject to review at detailed design

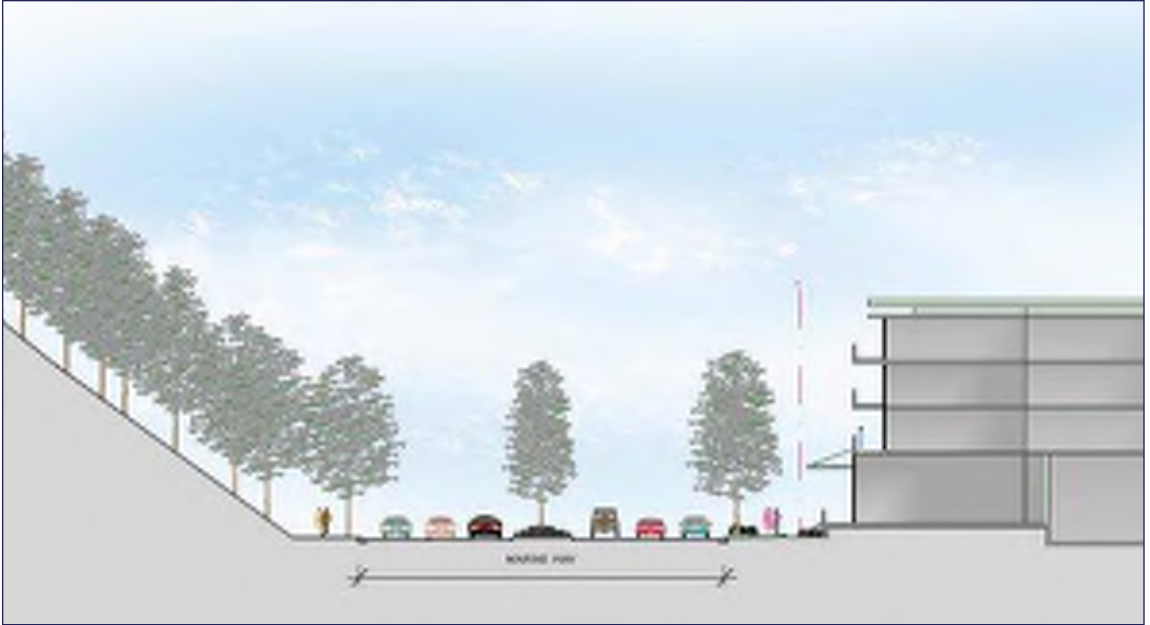


Marine Way Concept Plan
1:250





Section C2 - Marine Way at Parcel 15
1:150



Section C1 - Marine Way Overall
1:500



Marine Way looking east

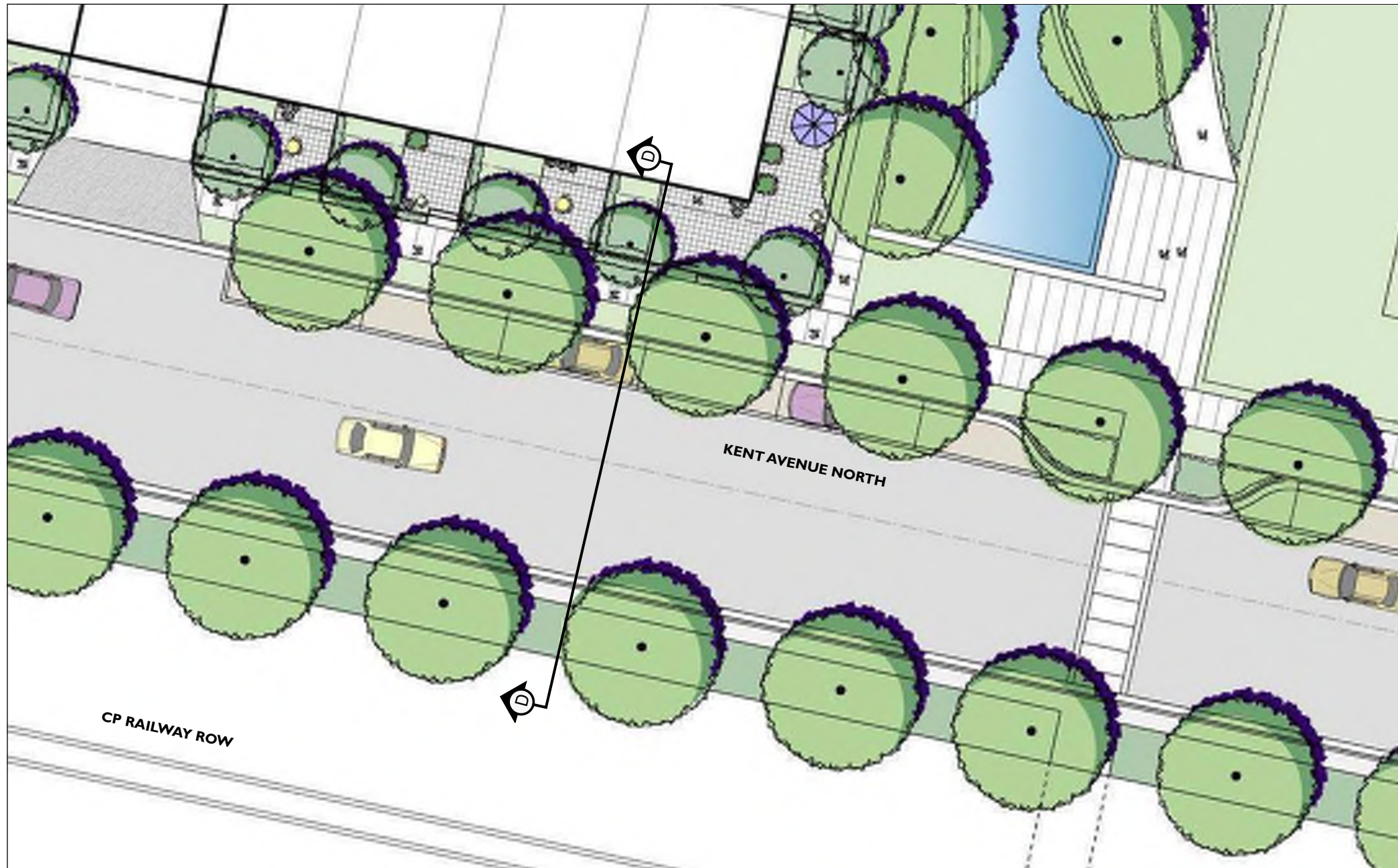


3.2.4 Kent Ave North

Kent Avenue North accommodates east-west traffic movement between the urban core of the development and more residential neighbourhoods to the east and west. These two streets run along the north side of the CP rail corridor and front residential parcels, a park and a future school site. The avenue is a part of the Kent Avenue Greenway system proposed along the entire rail corridor. In these sections of the street bikes lanes are proposed within the road surface.

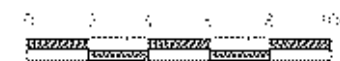
Proposed Street Composition:

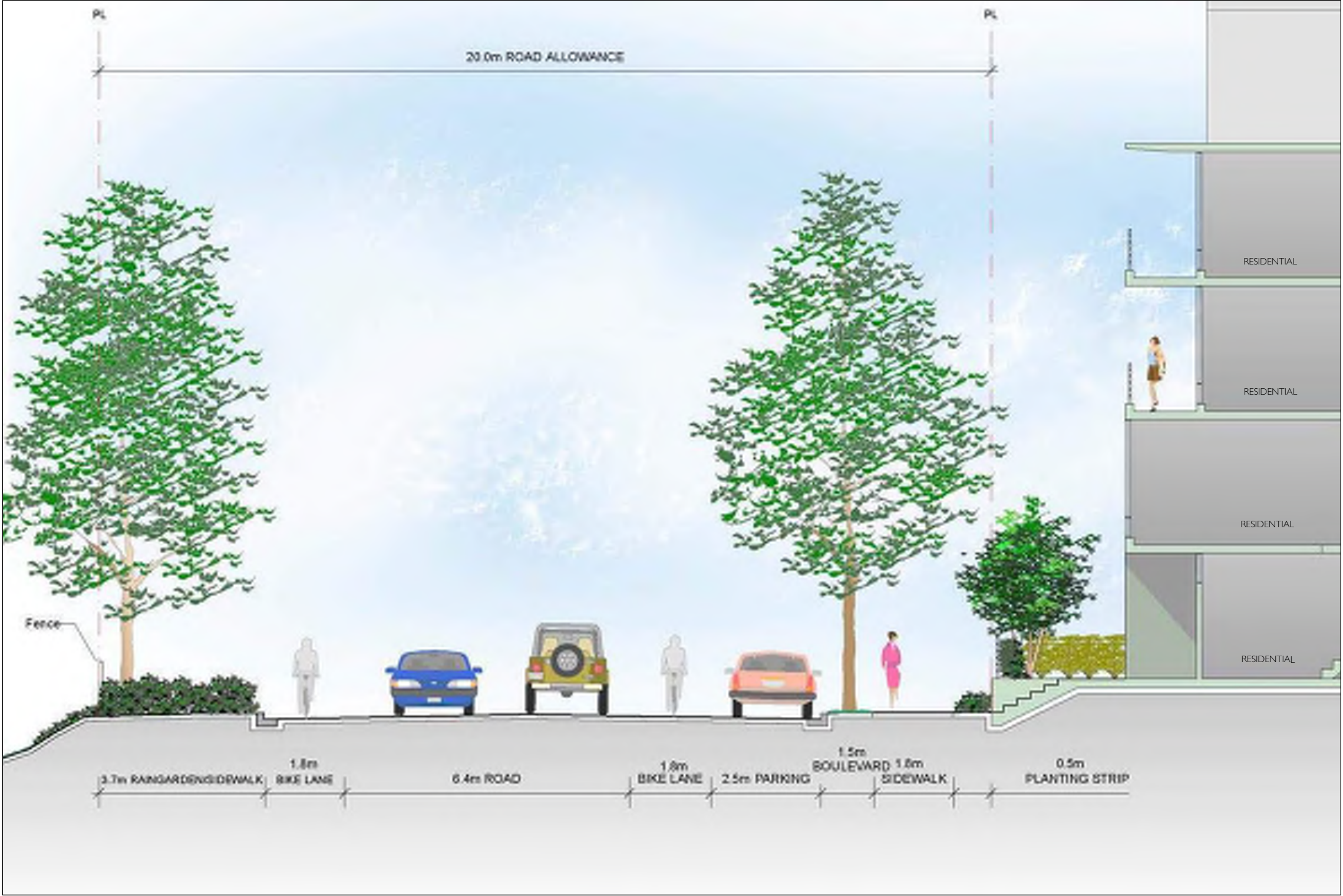
- 20m Road Allowance
- Two generous drive-lanes with room for cars, transit and bikes
- Parking on north side only
- Asphalt road surface and parking bays
- Concrete cross-walks
- Front and rear grass boulevards on north side
- Continuous single line street trees on both sides
- Street section and materials are subject to review at detailed design



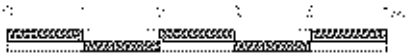
Kent Avenue North Concept Plan

1:250





Section DD - Kent Avenue North
1:100





Kent Avenue Concept Plan
1:300

3.2.5 Kent Ave South and Greenway

Kent Avenue South includes the proposed street on the south side of the CP rail corridor and the kent avenue greenway dedicated to bikes and pedestrians proposed along the north side of the rail corridor.

Kent Avenue is an important connector road providing for circulation between the two north-south collector roads and providing access to the high street, the woonerfs and driveways serving development parcels. Kent avenue is designed to accommodate cars and buses.

The avenue runs along the south side of the CP Rail ROW corridor and fronts residential parcels on it's south side. The avenue is a part of the kent avenue greenway system proposed along the entire rail corridor. In this part of the development bikes and pedestrians are encouraged to use the dedicated greenway on the north side of the CP rail corridor.

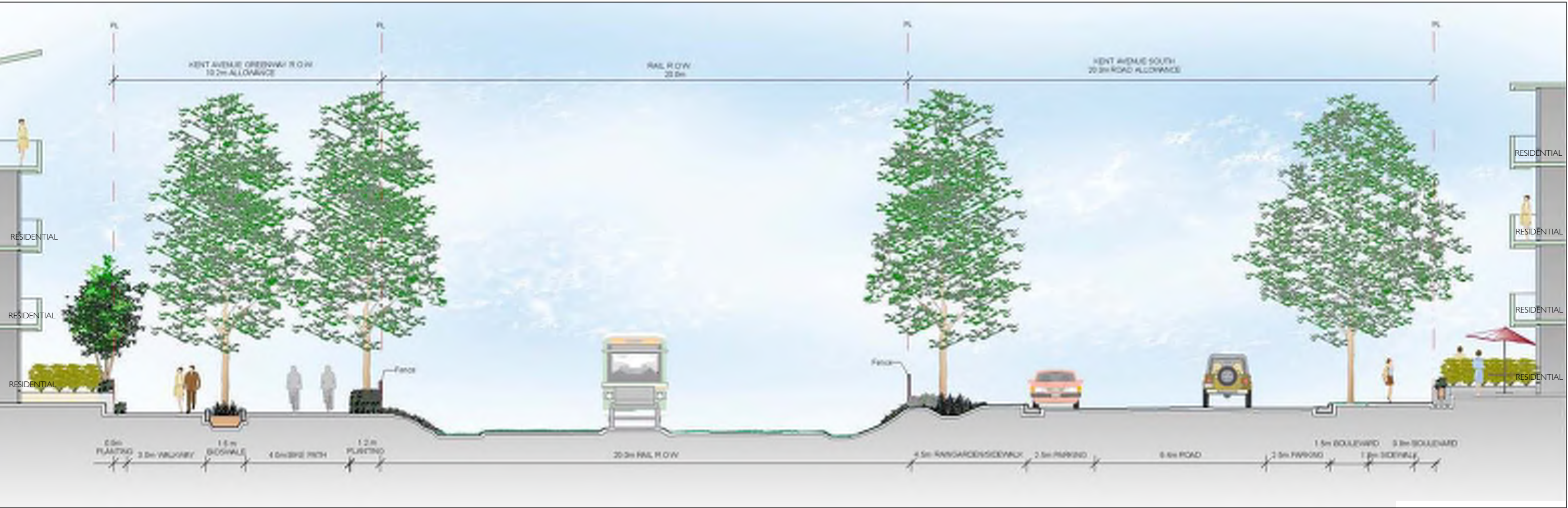
The kent avenue greenway runs along the north side of the rail corridor and provides east west movement for bikes and pedestrians. Residential units and entrances to development sites face directly onto the greenway. The greenway includes generous bike and pedestrian paths separated by a continuous landscaped median. Two rows of trees are proposed, one in the median between the two paths and a second between the bike route and the rail line. Rain gardens are proposed in the central median.

Proposed Street Composition Kent Avenue South:

- 20m Road Allowance
- Two generous drive-lanes
- Parking both sides
- Transit stops east and west bound at High Street
- Asphalt road surface and parking bays
- Concrete cross-walks
- Front and rear grass boulevards on south side
- Continuous single line street trees on south side
- Continuous single line of large scale, trees adjacent rail right-of-way
- Continuous rain gardens adjacent rail right-of-way
- Street section and materials are subject to review at detailed design

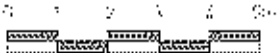
Proposed Street Composition: Kent Avenue Greenway:

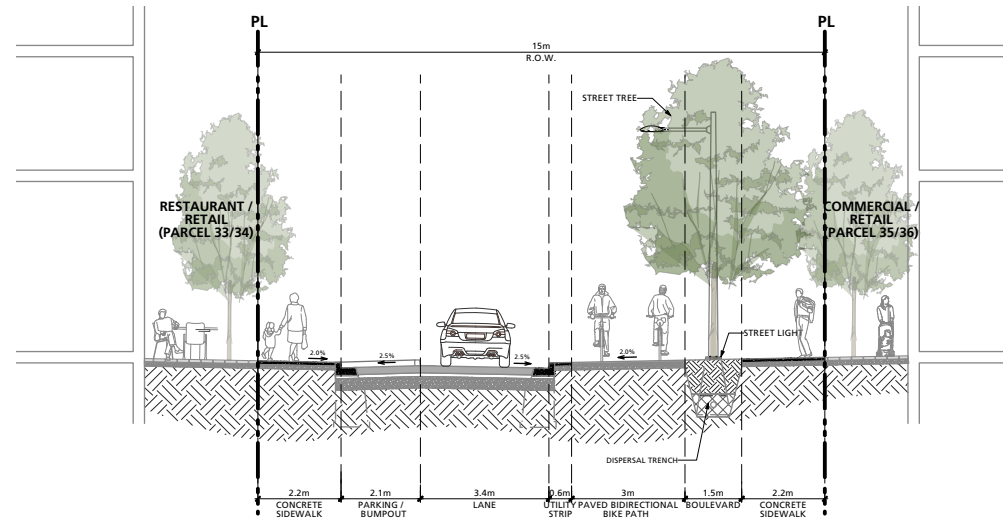
- 10.2 m Right of Way
- A separated pedestrian and bicycle greenway
- 4.0 m wide bike path
- 3.0 m wide sidewalk
- Double row of trees, with one row planted on either side of the bike path
- Continuous rain gardens located between trees in the central median
- Continuous planted buffer adjacent residential units and rail-line
- Street section and materials are subject to review at detailed design



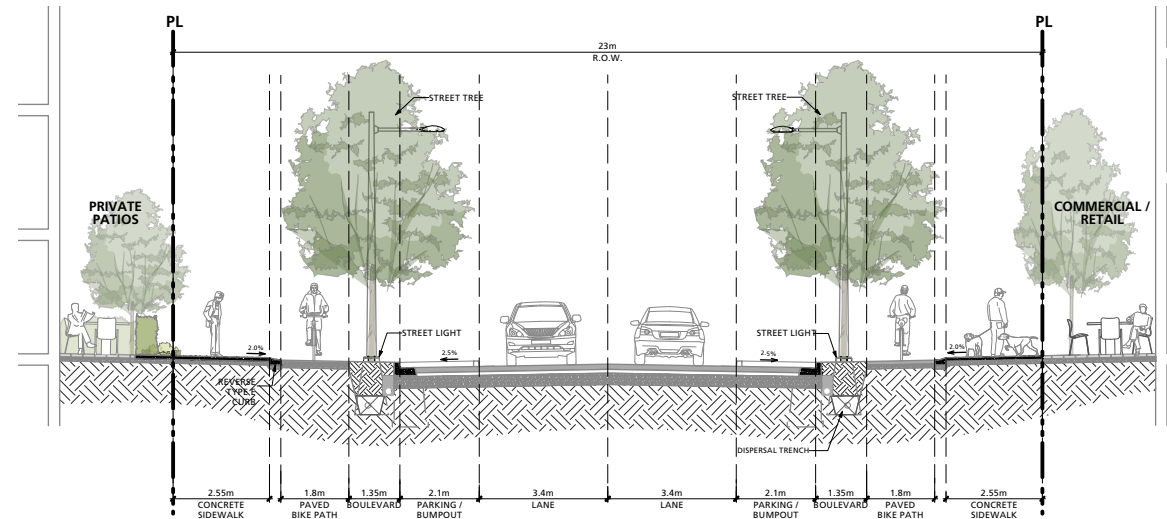
Section EE - Kent Avenue South

1:150





Mews B - Typical Section



Road G - Typical Section

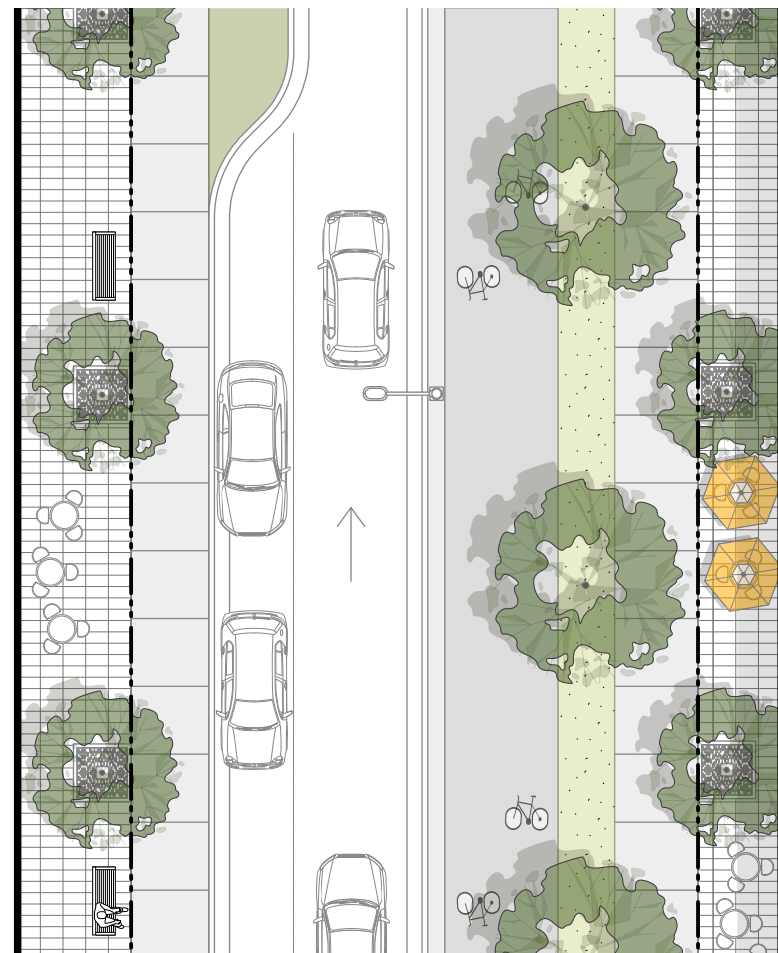
3.2.6

VEHICULAR MEWS

The vehicular mews are more intimately scaled urban green streets with mostly residential buildings fronting directly onto the street. The mews are designed for slow traffic speeds and pedestrian and bicycle priority and provide for east-west movement from River District Crossing to adjoining residential neighbourhoods.

Proposed Mews Composition:

- 15.0m - 23m Road Allowance
- Paved road surface
- Paved protected bidirectional bike path
- Concrete Sidewalks on both sides
- Street trees on one side
- Continuous curb-side rain gardens on one side of the street
- Street section and materials are subject to review at detailed design



Mews B - Typical Plan



Road G - Typical Plan





Pedestrian Mews Concept Plan

1:250

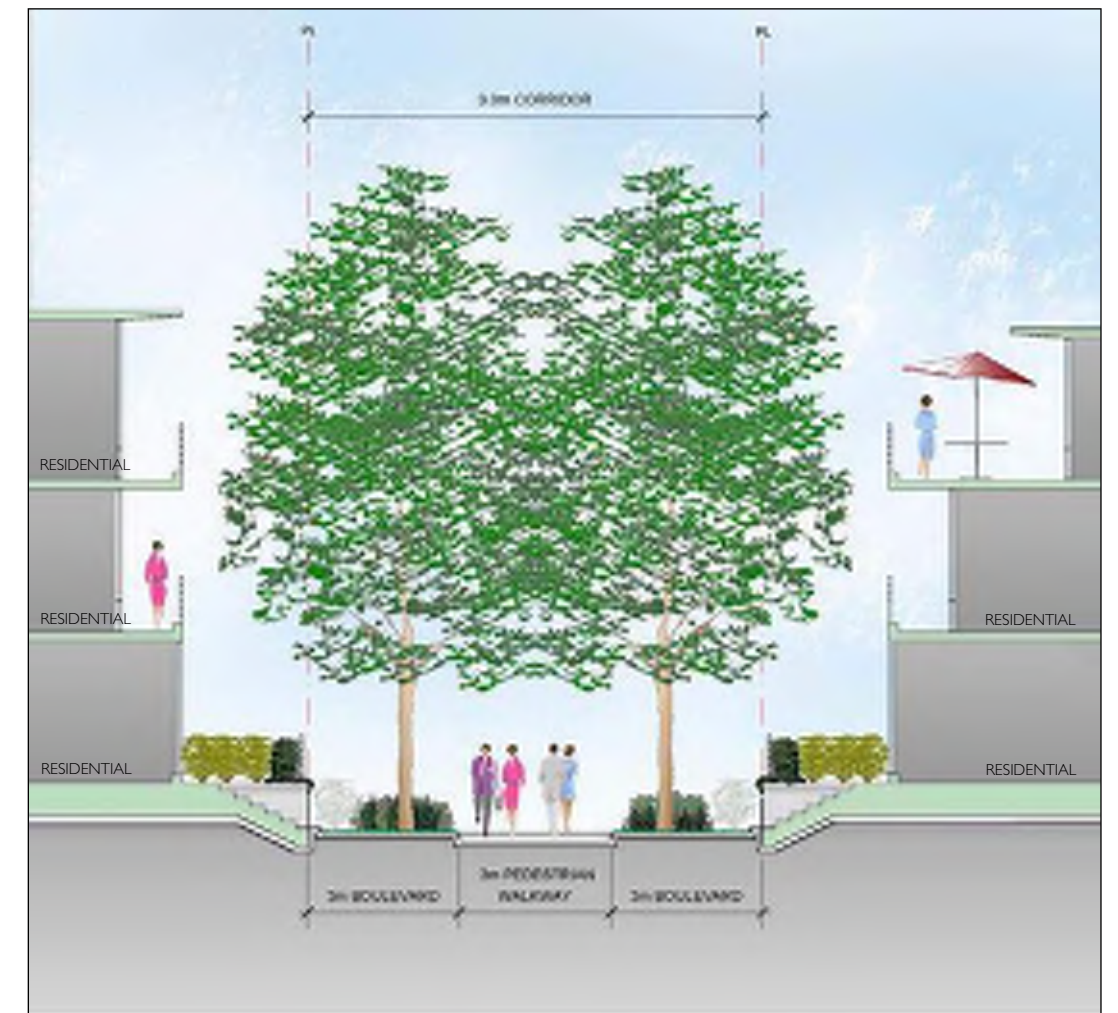
3.2.7

PEDESTRIAN MEWS

The pedestrian mews are pedestrian-only routes edged by ground oriented residential buildings. The routes add to the pedestrian permeability of the development providing convenient east-west routes connecting residential developments with the commercial retail core and school sites to the east and west.

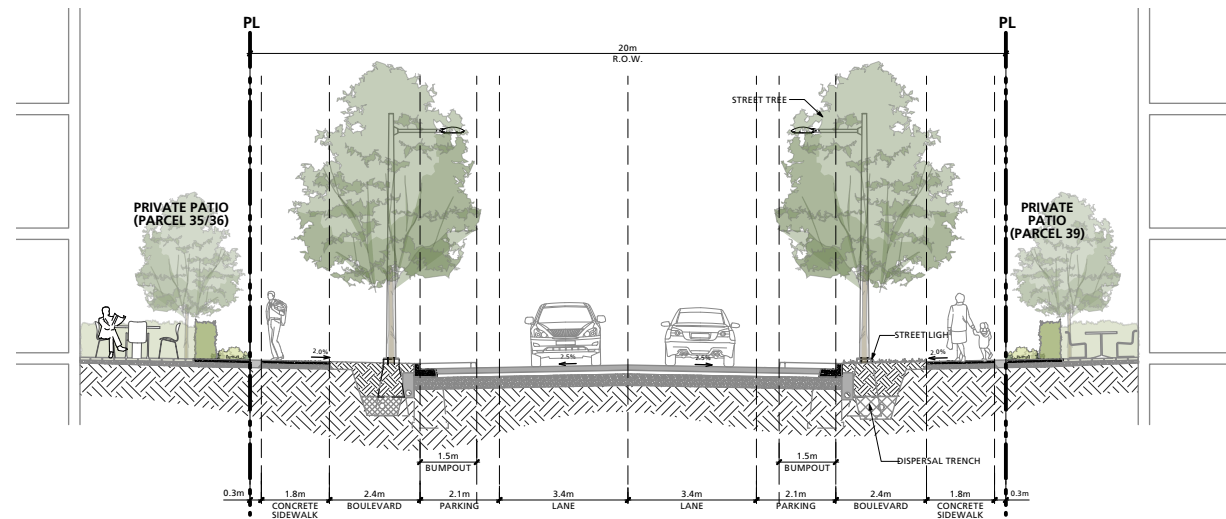
Proposed Street Composition:

- 9m wide Road Allowance
- 3m wide sidewalk
- Permeable concrete unit pavers surfacing
- Double row of medium sized trees within grass or planted boulevards
- Raingardens in boulevards to receive surface run off
- Entry paths leading directly to residential units
- Opportunities for casual seating
- Mews section and materials are subject to review at detailed design

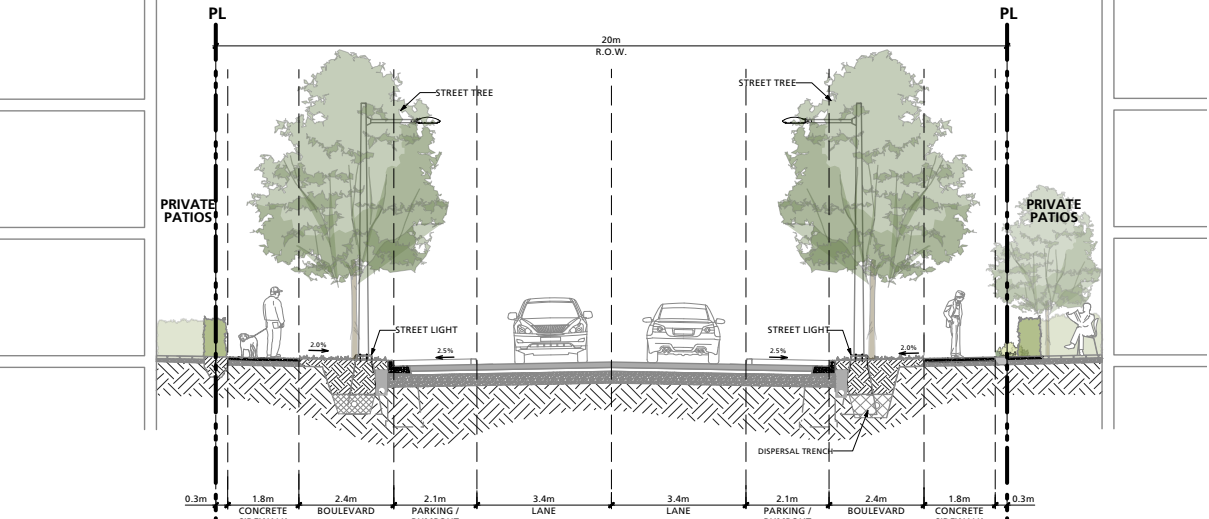


Section HH - Pedestrian Mews

1:150



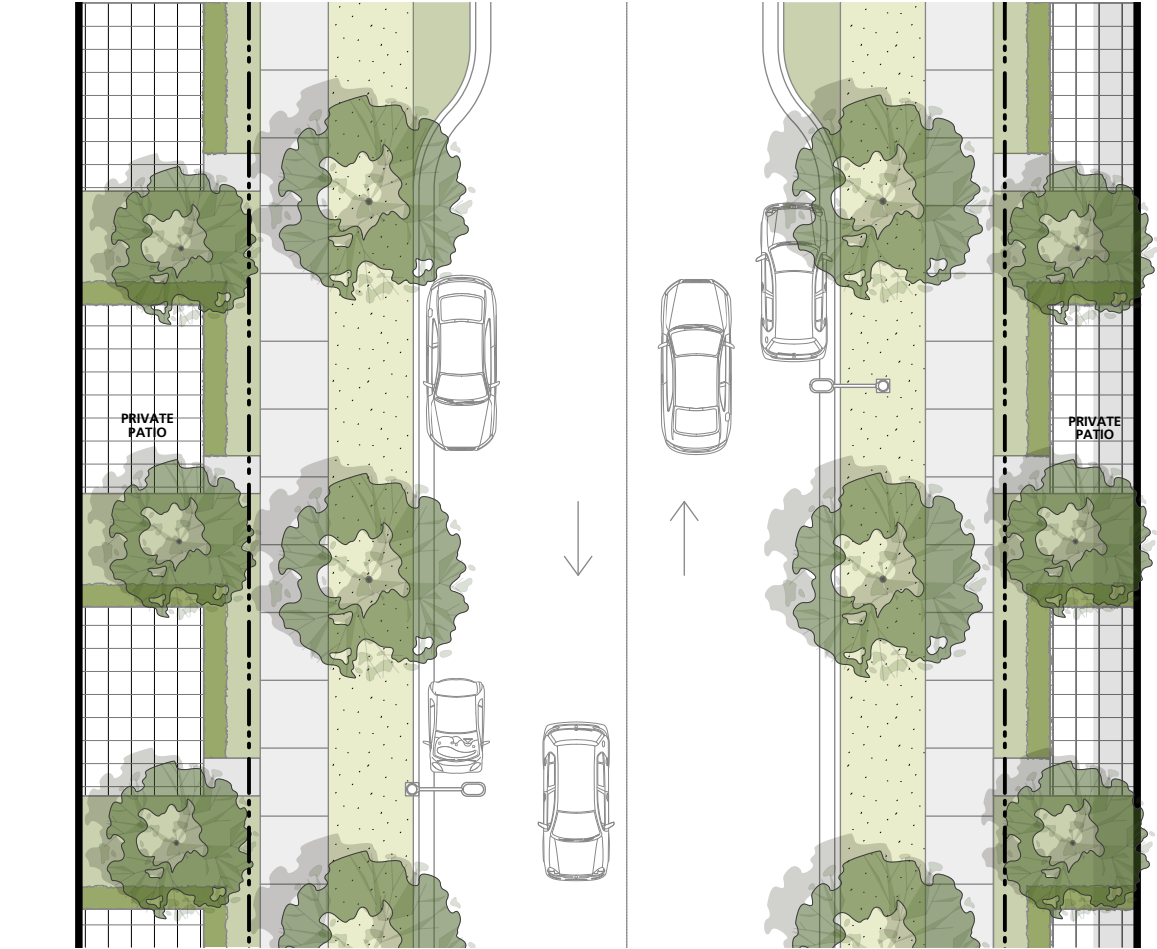
Road C - Typical Section



Road B (now called Oolichan Way) - Typical Section

3.2.8 COLLECTOR ROADS

The collector roads (Roads B and C) are the primary roads accommodating north-south traffic movement through the development. They provide the primary access routes for vehicles accessing development parcels. The two collector roads provide two travel lanes with parking on either one side or both sides and are fronted mostly by residential parcels.



Road C - Typical Plan



Road B (now called Oolichan Way) - Typical Plan

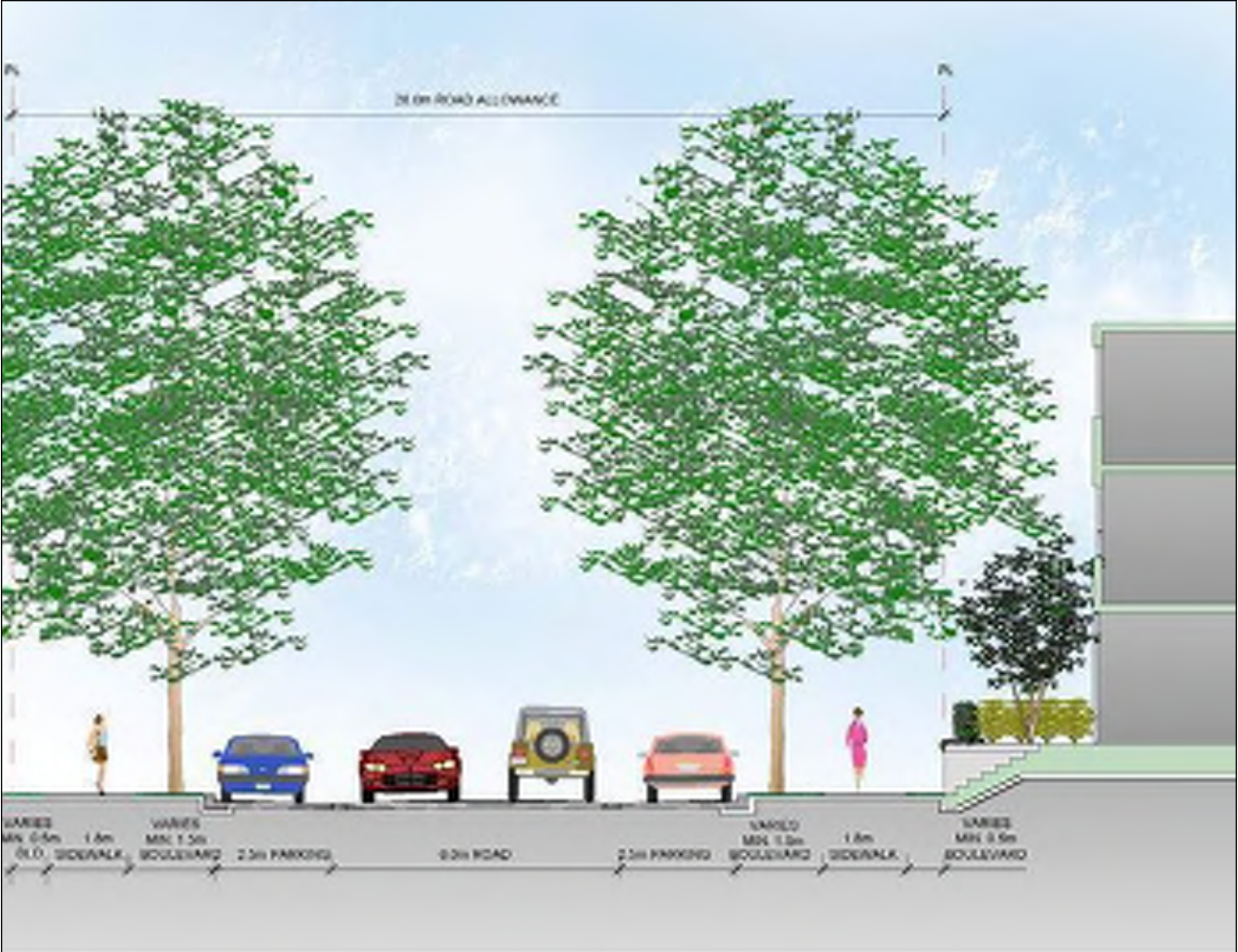


Proposed Street Composition
(Road A between Parcels 26 and 27 and the future school site only):

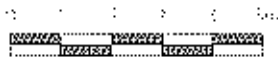
- 20.0m road allowance
- Two drive-lanes with parking on one side
- 2.5m wide bikepath separated from 1.8m wide sidewalk on west side
- 1.8m wide sidewalk on east side
- Asphalt road surface and parking bays
- Concrete sidewalks
- Front and rear boulevards along residential frontages
- Planted median separatng bikepath
- Three continuous lines of street trees
- Rain gardens at crosswalks and intersections
- Street section and materials are subject to review at detailed design

Proposed Street Composition
(All other locations):

- 20.0m road allowance
- Two drive-lanes with parking on both sides
- Asphalt road surface and parking bays
- Concrete sidewalks
- Front and rear boulevards along residential frontages
- Continuous single line of street trees on both sides
- Rain gardens at crosswalks and intersections
- Street section and materials are subject to review at detailed design



Section II - Collector Road
Similar to North of CPR ROW
1:150





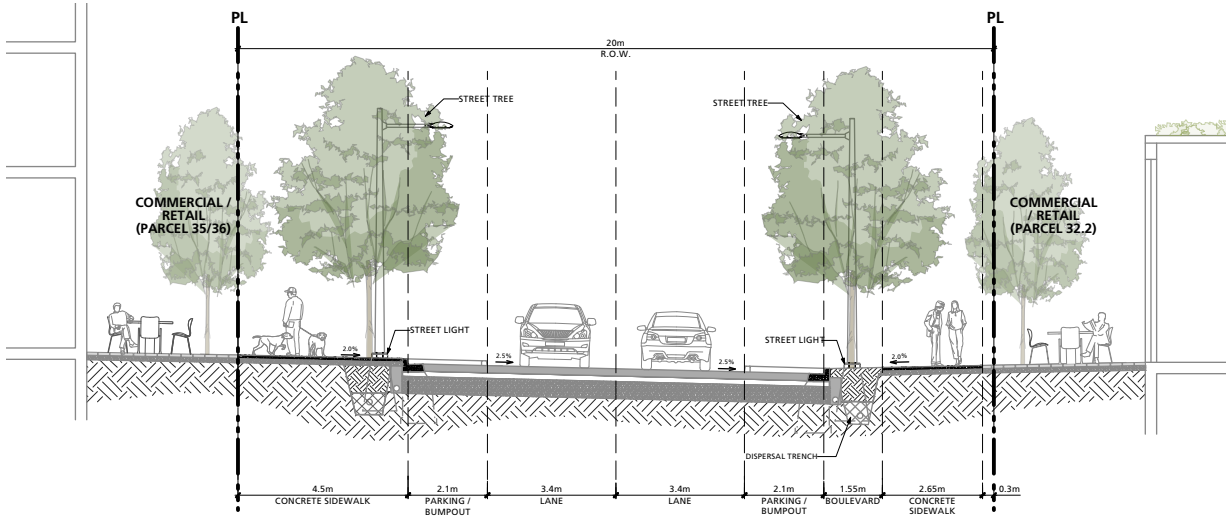
3.2.9 MILL BAY ROAD

Mill Bay Road follows the shoreline and is anchored by the Waterfront Plaza at its intersection with River District Crossing. The riverside pedestrian and bicycle route run along the south side of the street forming a continuous waterfront promenade. The north side of Mill Bay Road services a mixture of restaurants, retail and residential uses and provides road side parking.

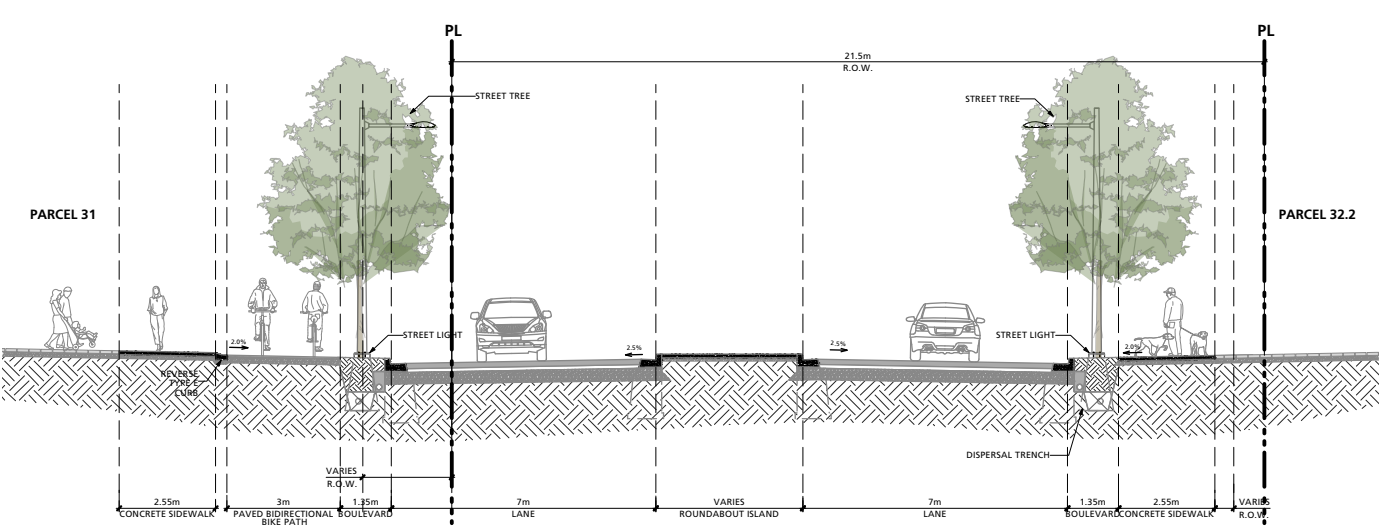
Proposed Street Composition:

- 20.0m Road Allowance
- Two drive lanes with parking on both sides
- A broad sidewalk on the north side with room for retail/restaurant activity
- 2.65 m sidewalk on south side
- 1.55m wide, raised planted median between road and sidewalk
- Asphalt road surface
- Single line of street trees on both sides of the street
- Street section and materials are subject to review at detailed design

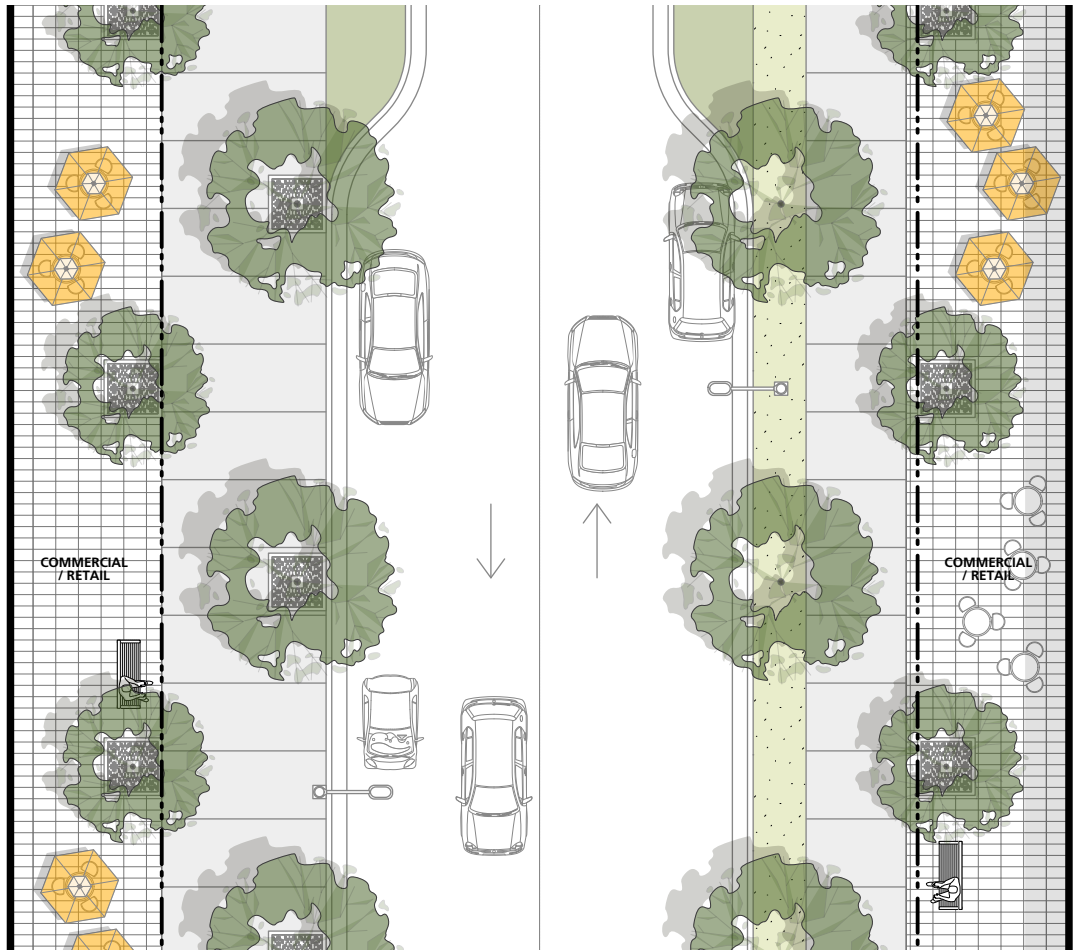




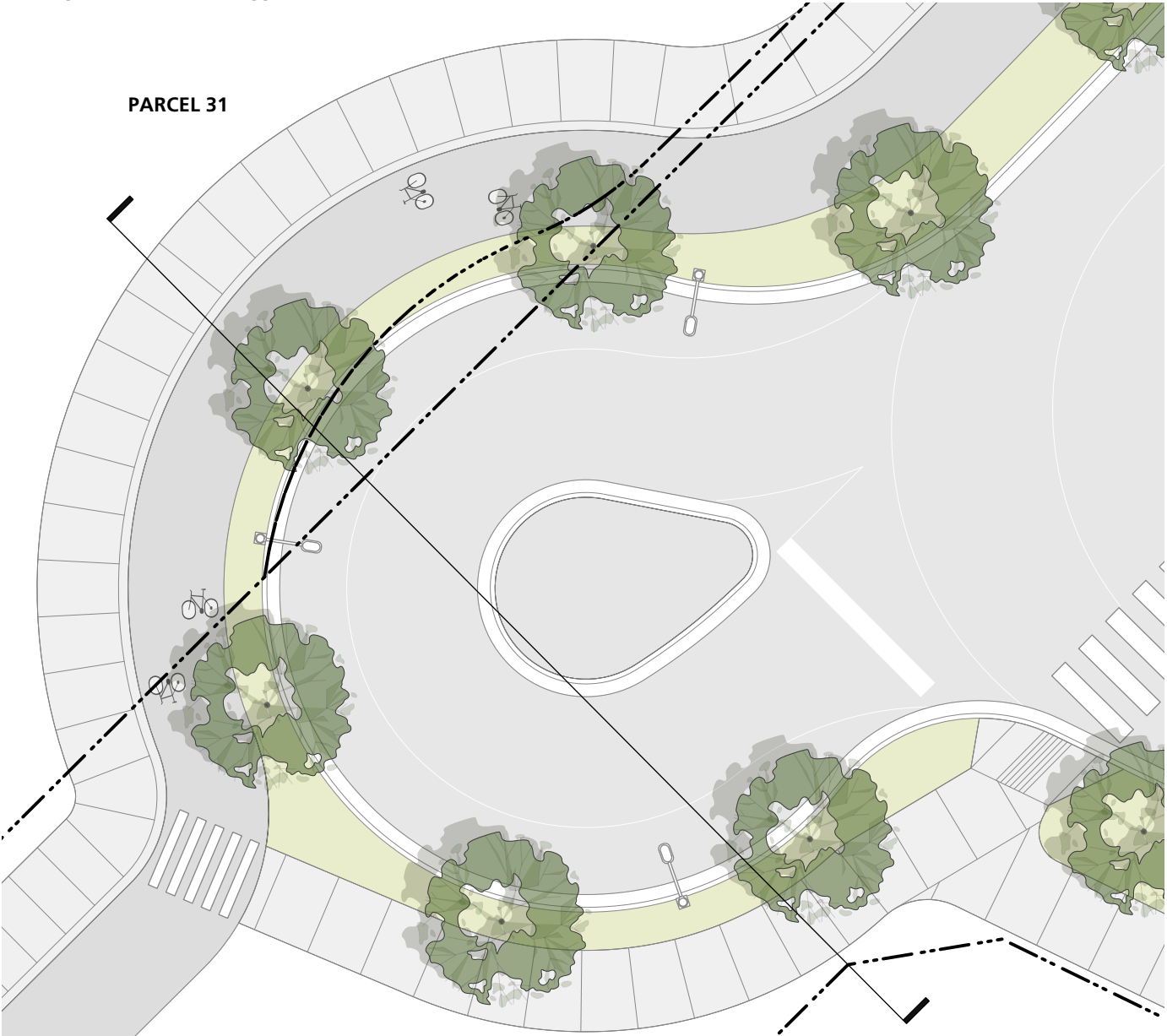
Mill Bay Road - Typical Section



Mill Bay Roundabout - Typical Section

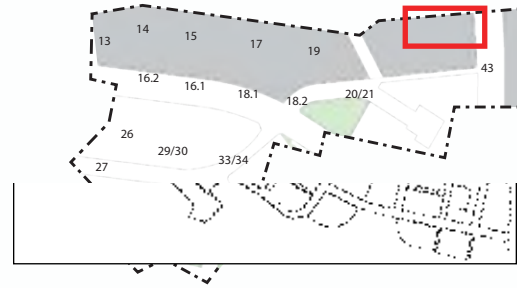


Mill Bay Road - Typical Plan



Mill Bay Roundabout - Plan





3.2.10 Road 'L'

Road L provides the main access into the Triangle Site (parcel 43). The street extends from Marine Way eastwards to the proposed development parcels and provides access to the proposed park and each of the development parcels.

This road provides two travel lanes with parking on the north side. A generous bump-out is proposed to pinch the street at the point where a pedestrian route, from adjoining neighbourhoods located to the north, crosses the street. At its east end the road forms a complete 360 degree loop providing a turn around and access to each development parcel.

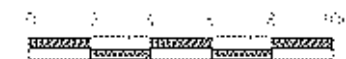
Proposed Street Composition:

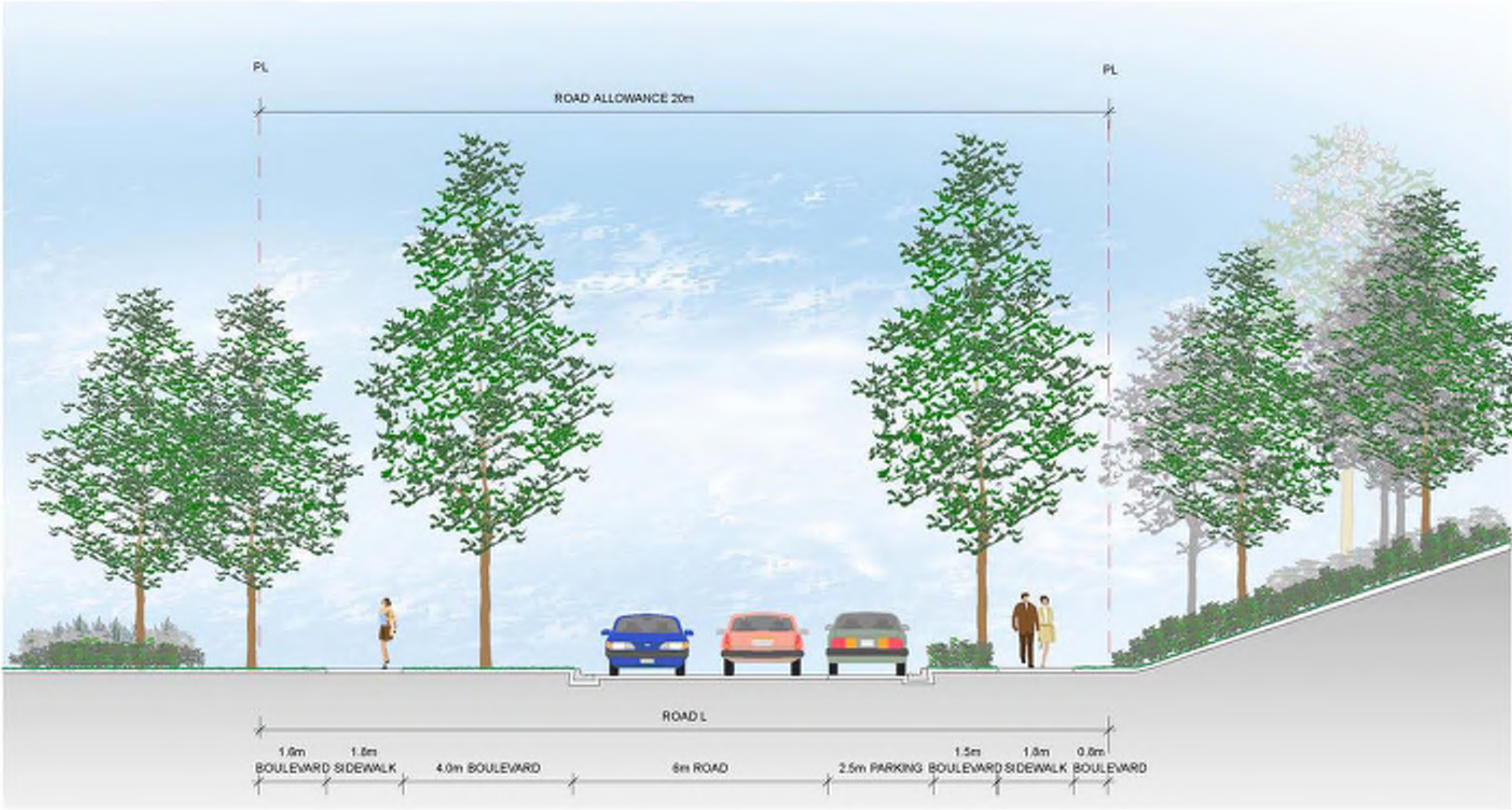
- 20.0m road allowance
- Two drive-lanes with parking on one side
- Asphalt road surface and parking bays
- Concrete sidewalks
- Front and rear boulevards
- Continuous single lines of street trees
- Rain gardens are proposed in bump-outs.
- Street section and materials are subject to review at detailed design



Road L Concept Plan

1:250





Section LL - Road L
1:100

4.0

PARK AND OPEN SPACE

The Public Realm Plan includes distinctive open spaces and a Community Centre. The public parks include the Waterfront Plaza and beach, Avalon Park north, Promontory Park, Kinross Foreshore Park and the Community Centre. The Town Square open space is located on a private parcel. The location and area of each park is illustrated below and described in more detail on the following pages.





Town Square Concept Plan
1:500



4.1 Town Square

The town square is one of the main open spaces proposed at East Fraserlands. The square anchors the north end of the high street and provides a focal point for commercial, retail and community activities.

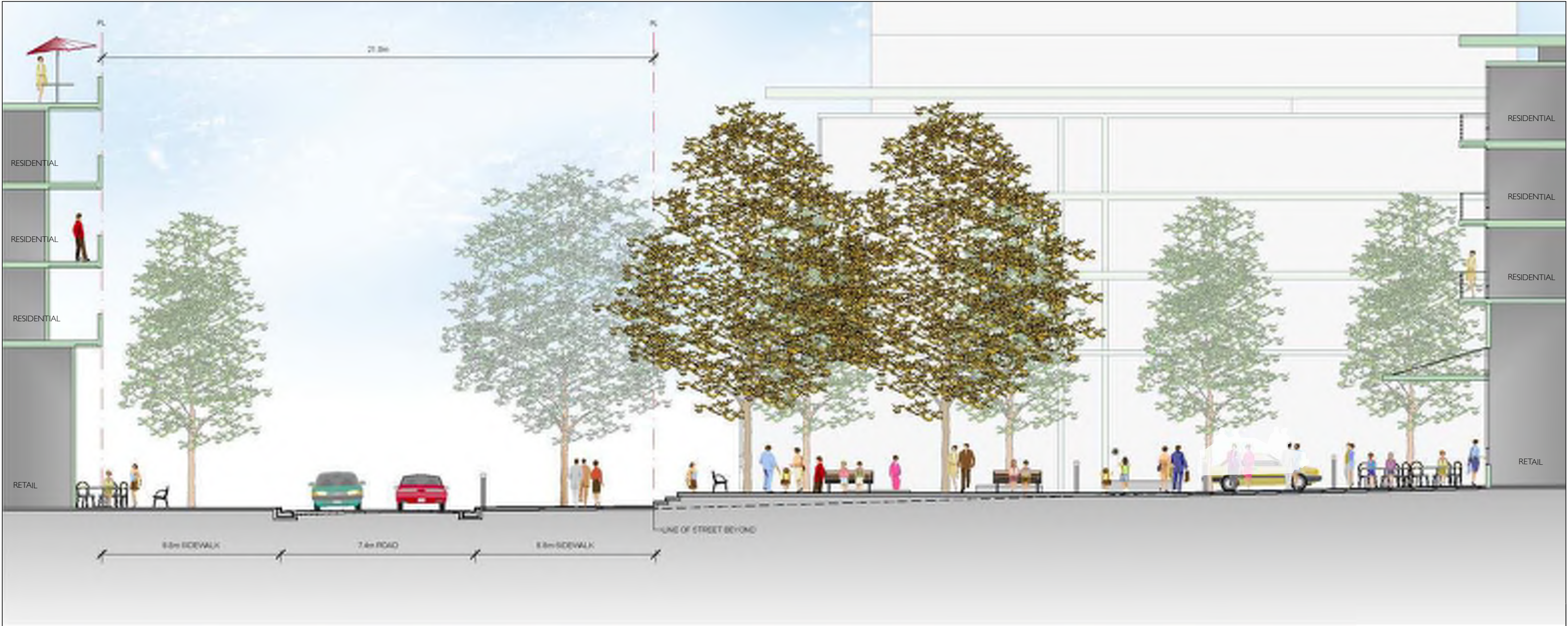
The square occupies an important location at the intersection of high street with the crescent and will be a natural focus of movement and activity.

The square will be framed by four storey commercial buildings on its northern and eastern edges and will enjoy an open aspect to the south and west. The edges of the square will allow room for restaurants and cafes to spill out into the open space. The remaining open paved area offers the opportunity for a variety of programmed activities such as vendors, performers and exhibitions.

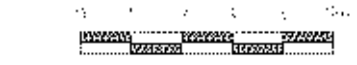
High street slopes to the south along the square. This grade change provides an opportunity for a raised terrace at the south west corner of the square, defined by steps on three sides. The terrace would be planted with a formal bosque of trees and has the potential to contain a small water feature or public art. A raised terrace in this location would provide a shaded refuge at the edge of the busy square. Seats could provide a place to sit and watch the world go by.



Town Square looking northwest



Section MM - Town Square
1:150



4.2 Waterfront Plaza

The Waterfront Plaza anchors the south end of River District Crossing and provides a focal point for commercial, retail and community activities at the waterfront. The plaza will be activated by people-oriented ground floor uses in the proposed CRU spaces and along River District Crossing and by the natural “draw” provided by the Fraser River and the proposed beach. The plaza is oriented towards Mount Baker with views up the Fraser River and serves as an extension of the mill bay promenade. It is envisioned as a gathering space for festivals, summer concerts and community events. The adjacency to the Community Centre reinforces its role as a community focal point.

A waterfront promenade extends from the plaza along the length of the beach connecting to a lookout in the east. The promenade accommodates a generous pedestrian walkway and access to the proposed beach area. A designated bikeway runs along the length of the promenade and is separated from the walkway by a continuous landscape strip accommodating trees, rain-garden plantings and site furnishings.



Waterfront Plaza Concept Plan



CUSTOM TIMBER INSPIRED FURNISHING



ARRIVAL BOSC

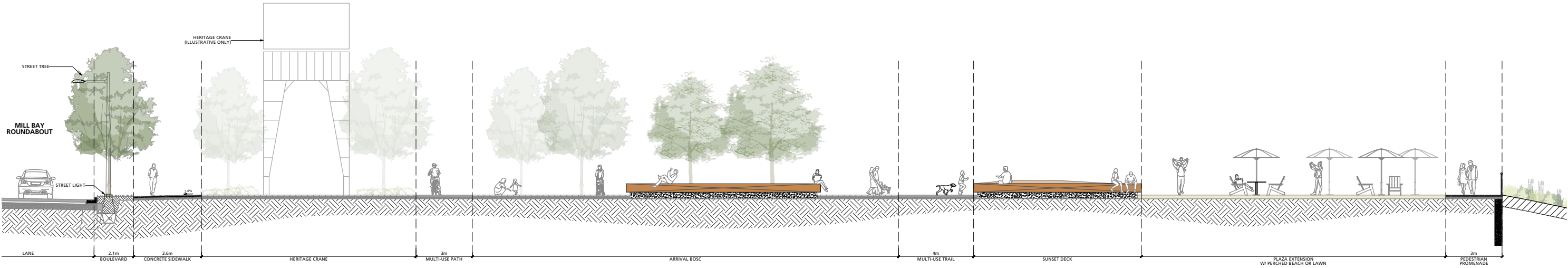


SEATING GROVE

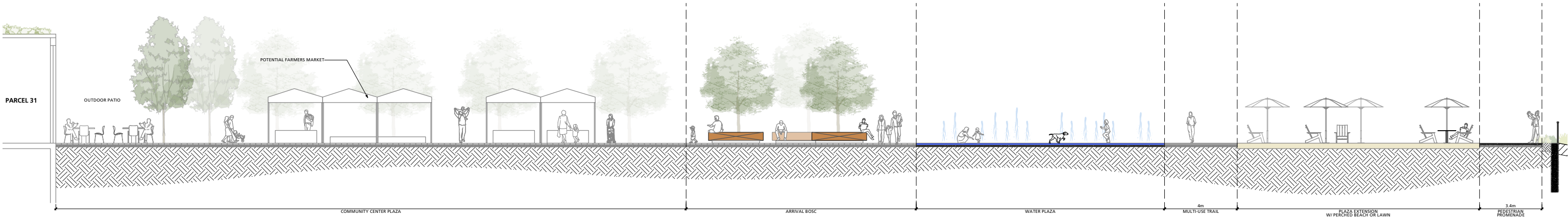


PROMENADE

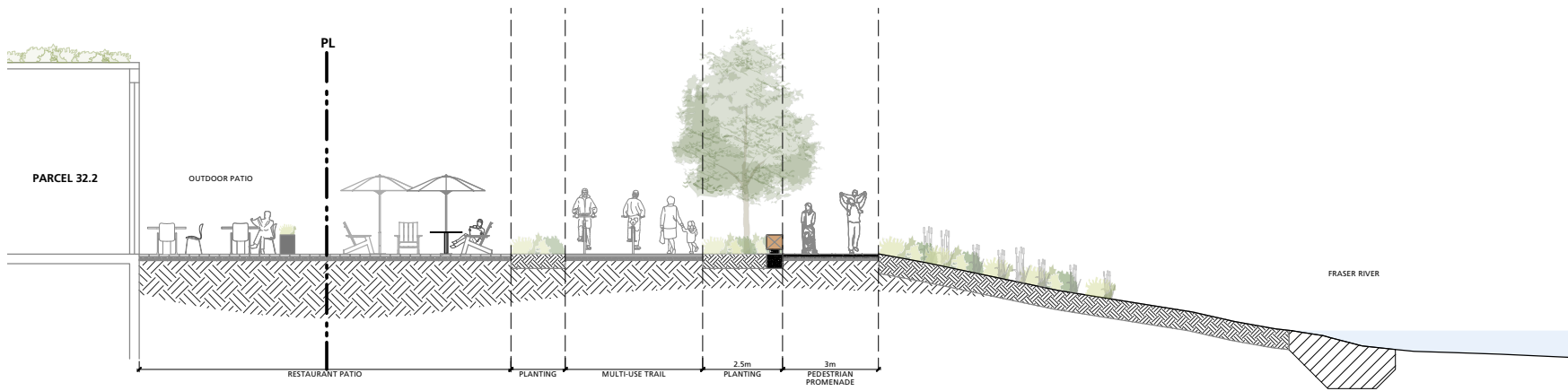




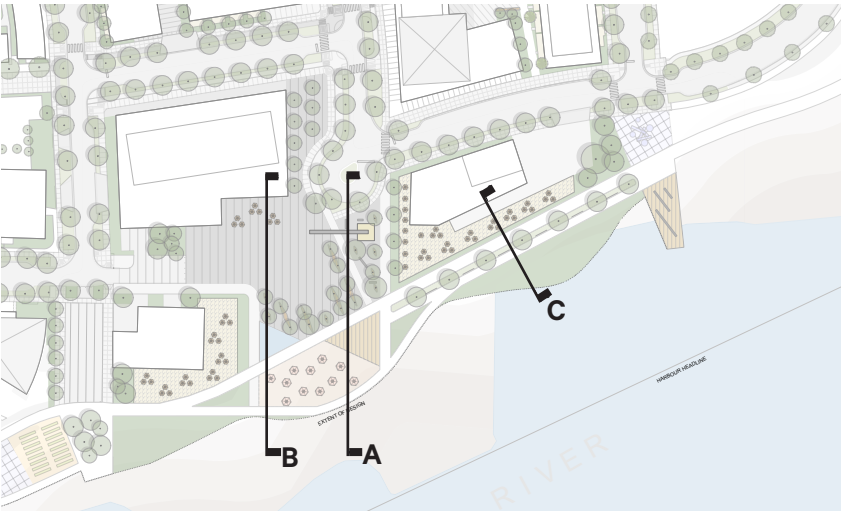
Section A



Section B



Section C

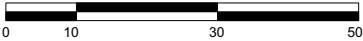


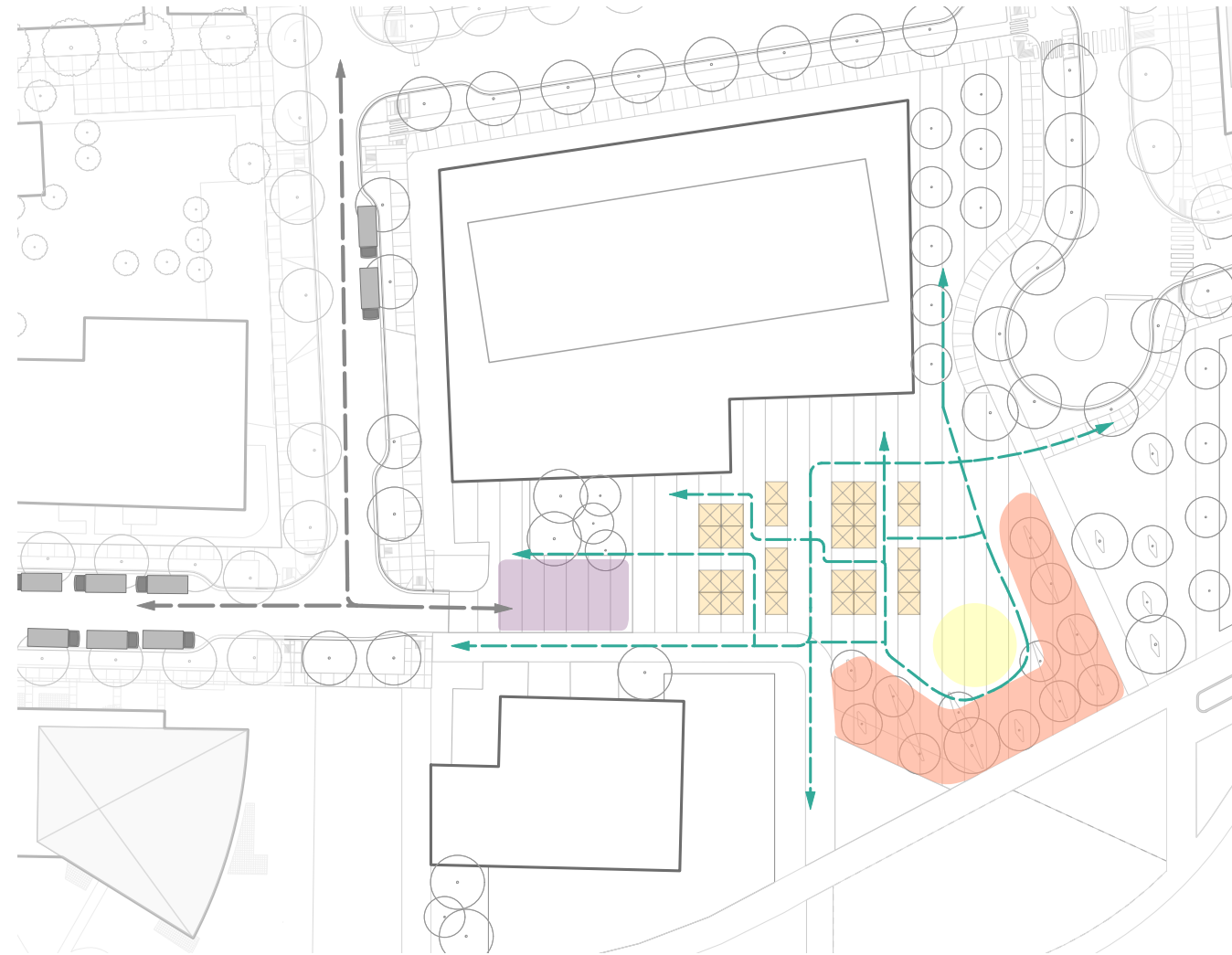


Community Festival - Conceptual Programming Diagram

Legend



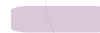
- Retail & Outdoor Eating Areas
- Active Play Area
- Multi-Use Performance / Stage Area
- Waterfront Seating Zone
- Festival Stalls
- Busking Location
- Pedestrian Circulation



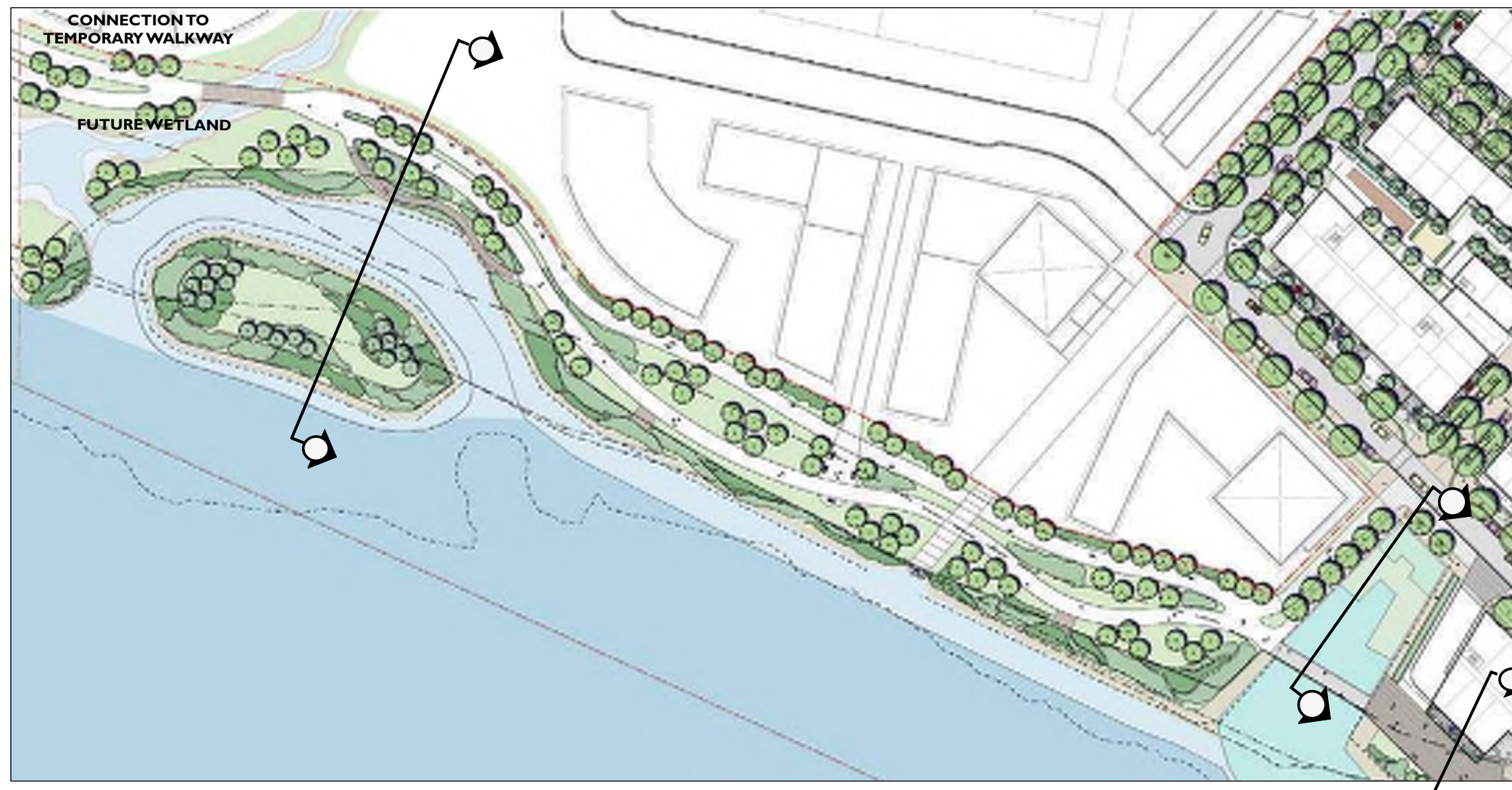
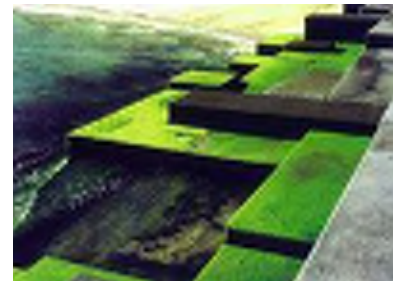


Farmers Market - Conceptual Programming Diagram

Legend

-  Produce Delivery Trucks
-  3x3m Market Tent (Capacity: 28)
-  Multi-Use Performance / Busking Area
-  Loading Zone
-  Seating / Eating Area
-  Truck Access for Markets
-  Pedestrian Circulation Through Market





Kinross Foreshore Park Concept Plan
1:1250

4.3

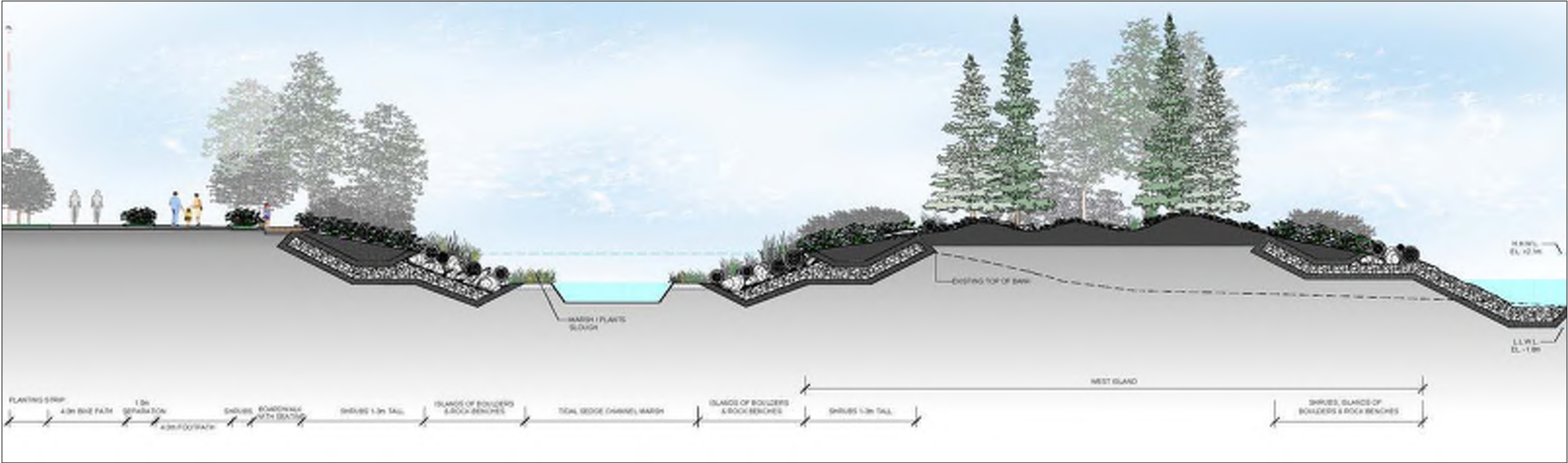
Kinross Foreshore Park

The Kinross Foreshore Park extends along the reconstructed riverbank from the Waterfront Precinct to the southern edge of the kinross park corridor and accommodates the proposed riverside walkway/ bikeway.

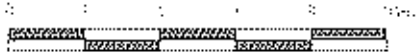
The park will be more natural in character in keeping with the riverside setting. Programming would emphasize casual, informal activities such as strolling, viewing of the river, bird watching, and ecological education. The western portion of the park includes the sanctuary island which provides inaccessible wildlife habitat separated from the rest of the park by a tidal marsh/slough.

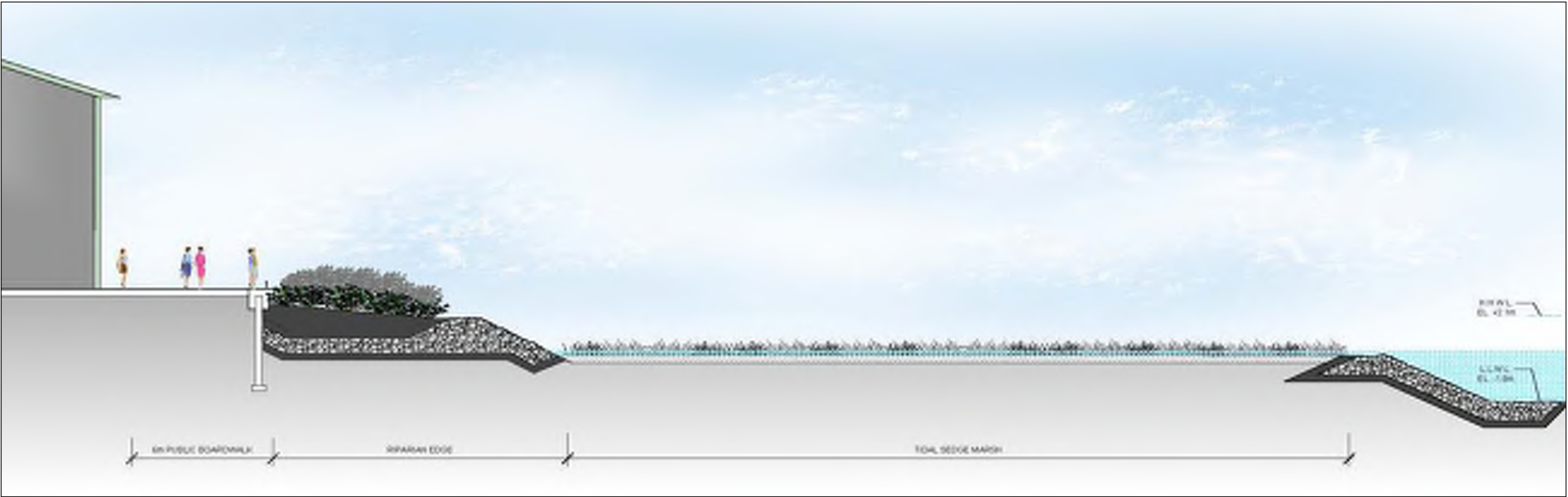
The riverside walkway and bikeway run along the entire length of the park and provide access to future development sites, to the kinross park corridor and along the river in either direction.

Riparian plantings are proposed along the length of the river bank with more ornamental shrub and tree plantings proposed in the upland areas. The waterfront park plays an important role in the providing song bird habitat with a mixture of appropriate trees and shrub species, possibly including fruit trees, to support urban agriculture. A contemplative lookout deck is proposed to be positioned at the water's edge overlooking sanctuary island with other smaller access points as well.

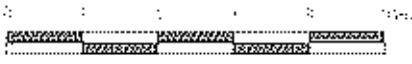


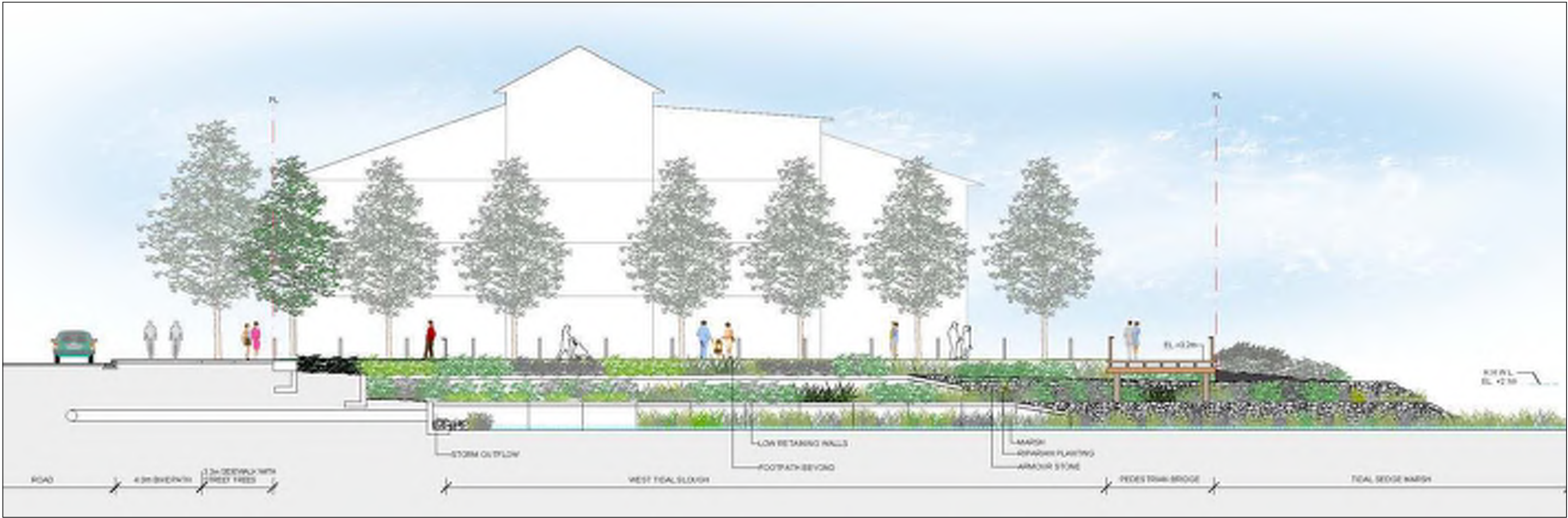
Section PP - Kinross Foreshore Park through Sanctuary Island
1:200



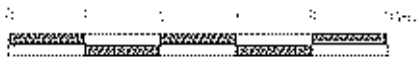


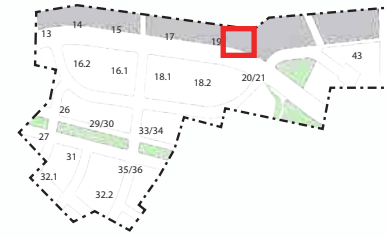
Section QQ - Kinross Foreshore Park through Mill Building
1:200





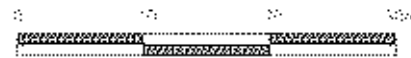
Section RR - Foreshore and Park Tidal Slough
1:200





Promontory Park Concept Plan

1:600



4.4 Promontory Park

Promontory park provides a neighbourhood park serving the resident population of the triangle site (parcel 43) and surrounding neighbours and forms an important link in the green space connection from the Champlain Heights community to the riverfront.

The park is located on the west end of the triangle site and offers extensive views over the avalon park corridor south to the riverfront.

A rain-garden is proposed as a part of the overall Rainwater Strategy.

This may be an appropriate site for a community orchard and/or other forms of edible landscaping.

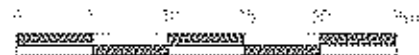


Section TT - Promontory Park
1:200





Avalon Park North Concept Plan
1:500



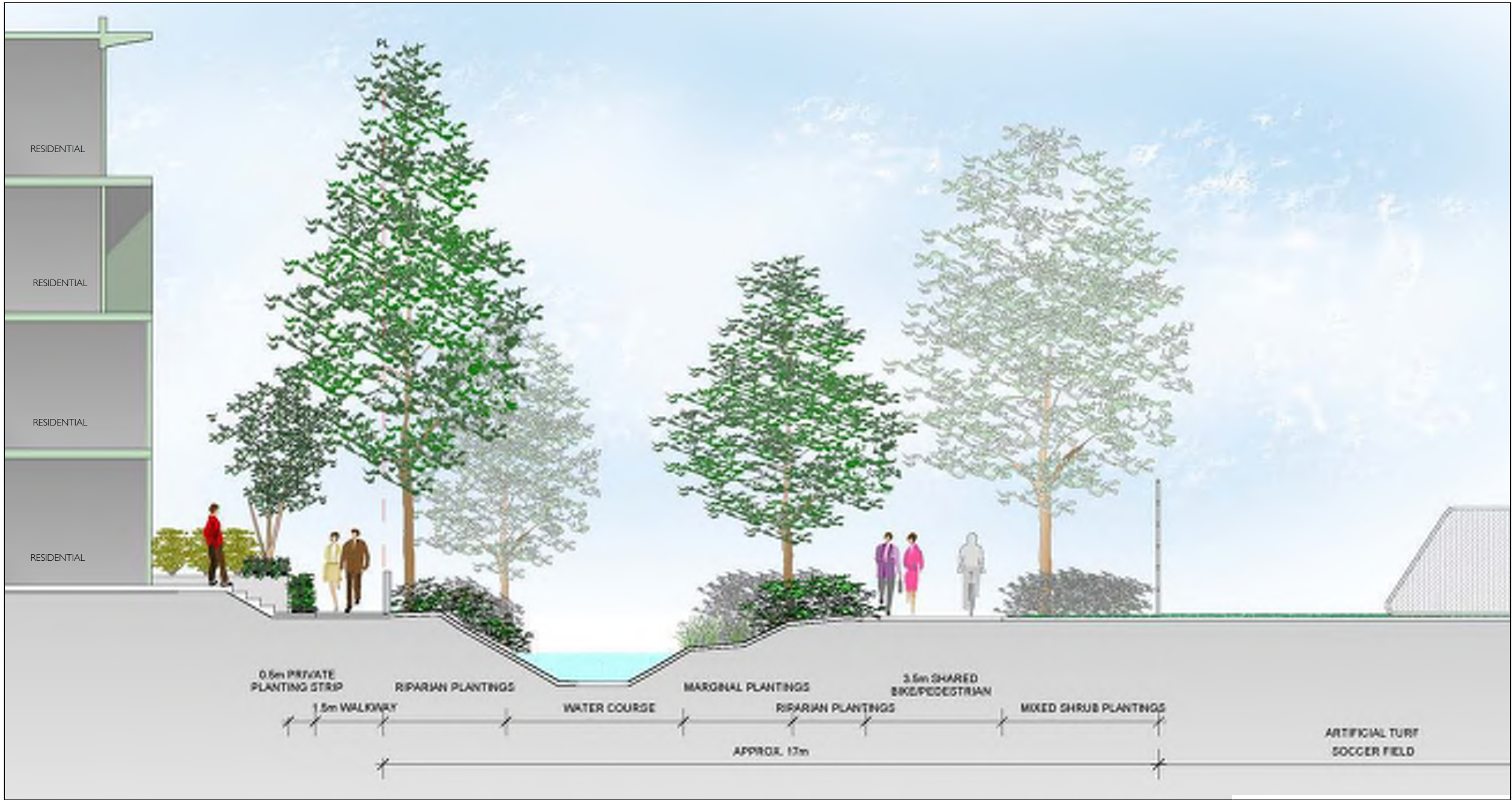
4.5

Avalon Park North

The north portion of avalon park is located between Kent Avenue north and Marine Way. The main program element for the park is a flood-lit 100mx65m artificial soccer field and field house serving the local sports community and the future adjacent school site.

The west edge of the park features a water course that conveys drainage from the Avalon Ponds across the site and into the Fraser River. The water course would be supplemented by a mixture of rain water from a storm sewer and surface drainage from the park and the adjoining development parcels. The water course is a linear feature with water conveyed in a naturalistic channel. A mixture of fresh water marginal and riparian plantings line the stream course providing valuable habitat.

A shared 3.5m hardscaped pedestrian and bike path is proposed on the east side of the watercourse providing a north-south route through the park with one link to the town centre through the residential sites to the west.



Section UU - Avalon Park North
1:100

5.0

Public Realm Components

Introduction

This section of the document describes the approach to the planning, design and detailing of the variety of landscape based components that contribute to establishing a sence of character for EFL.

The components described is this section are organized as follows:

Hard Landscape Components:

- Paving materials,
- Site furnishings,

Soft Landscape Components:

- Street trees,
- Bioswale and raingarden plants
- Native and urban adaptive plants

Sustainability Components

- Song bird strategy components
- Urban agriculture components
- Landscape based rainwater features

Lighting is described in more detail in a separate section of the document.

It is intended that the public realm character for East Fraserlands will be defined by a coordinated system of public realm components that contribute to creating a distinct sense of place for the project. As described in previous sections of the report the proposed development has been broken down into three character precincts that reflect the proposed scale, use and feel of each neighbourhood. The character of the public realm is defined by the scale, juxtaposition and character of the various buildings and by the scale, layout and detailing of the various streets and open spaces they define.

Each of the main park spaces is located in one particular precinct, such as the waterfront plaza, and as such they play an important role in influencing the character of the precincts in which they are located.

By contrast, some of proposed streets, such as the High Street, connect from one precinct to another providing a uniting element throughout the development. Street trees, paving materials.

Siite furnishings will be selected to unify the public realm character of East Fraserlands while providing contrast and variety in some locations to reflect the range of public spaces that exist within the overall plan.

The design vocabulary used in the West Fraserlands will be considered in determining appropriate detailing of elements along the waterfront.

5.1 Landscape Components

5.1.1 Hard Landscape Components

Paving Materials

Paving materials play an important role in influencing the character of public spaces and have been carefully considered in terms of aesthetics, functionality, cost and maintenance. In addition paving material selection plays an important role in the proposed rain water management plan.

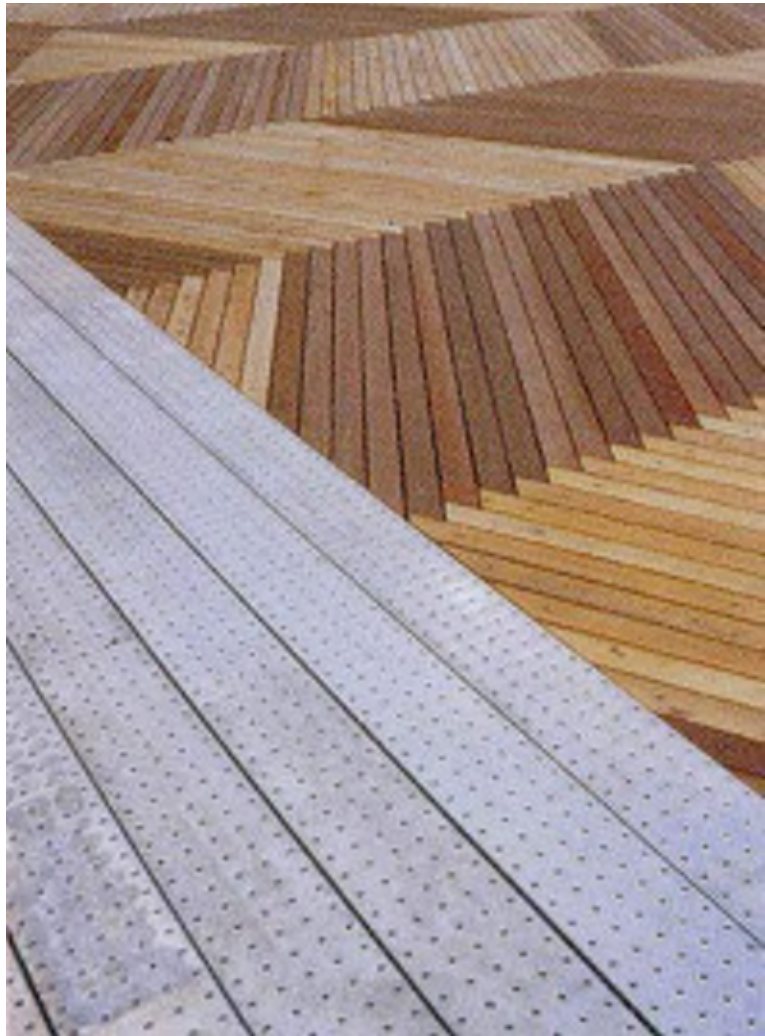
Each of the streets that make up the development has a unique role in the road network and contribute to the character of the precincts within which they are located. With some exceptions paving materials proposed for each street will be consistent along the entire length of the street. The character of each street is dictated by a combination of factors such as scale and proportion, character of adjoining buildings, layout and organization, and finally, materials, furnishings, tree and other soft landscaping.

Paving materials for streets have been proposed to suit the intended level of use, aesthetics, functionality, cost and durability maintenance. Asphalt will be used in many cases.

Permeable pre cast concrete pavers are proposed for road surfaces and some parking bays in the main civic areas where appearance is most critical and traffic volumes and speeds are intended to be lowest. Paver road surfaces are proposed along portions of River District Crossing adjacent the Town Square and Waterfront Plaza, the vehicular mews.

Permeable hard surfaces will assist in meeting the projects goals for rain-water infiltration.





Concrete pavers sidewalks are proposed for most of the main retail streets such as Sawmill Crescent, River District Crossing and mill bay road and for the pedestrian oriented streets such as the vehicular mews. A wider range of paving patterns, paver sizes and alternate colours and texture could be explored for pedestrian areas.

Permeable pre cast concrete unit pavers are also proposed for sidewalks in the main civic areas. A wider range of sizes, colours, textures and paving patterns would be considered for pedestrian areas. The design intent for paver selection would be to reinforce the distinct character of the various streets and open spaces proposed in the plan.

Concrete permeable pavers offer the potential for permeable hard surfaces for vehicles in parking bays. These are proposed in more public areas where the additional costs are offset by improved aesthetics.

Concrete would be used for sidewalks in streets outside of the main commercial retail core such as the Collector Roads. Concrete is also proposed to create pedestrian crossings, let-downs, paving bands and special areas of paving. Permeable asphalt will be considered as a potential permeable surface for the extensive bike route proposed along the Kent Avenue rail corridor.

Paving materials for parks may include a wide potential range of materials including cast concrete, stone, concrete pavers and gravel. Material selections would relate to the detailed design, programming and budgets for the parks.

Note: Materials selections are proposed to guide detailed design and are subject to change. A life cycle analysis will be required for any non-standard treatments.

Site Furnishings

Site furnishings coordinated with paving materials and lighting help define the character on public places and can play a key role in creating a unified character in urban areas influenced by a variety of architectural styles. The design intent for East Fraserlands is to develop a coordinated range of site furnishings that are appropriate to the various character precincts of the development. Site furnishings for East Fraserlands will include lights, benches, trash cans, bike racks, signage and miscellaneous hardscape elements such as detailing for rain gardens.

Distinct but coordinated families of site furnishings are proposed for each of the character precincts. Final designs and product selections will be made based on aesthetics, availability, durability and cost.

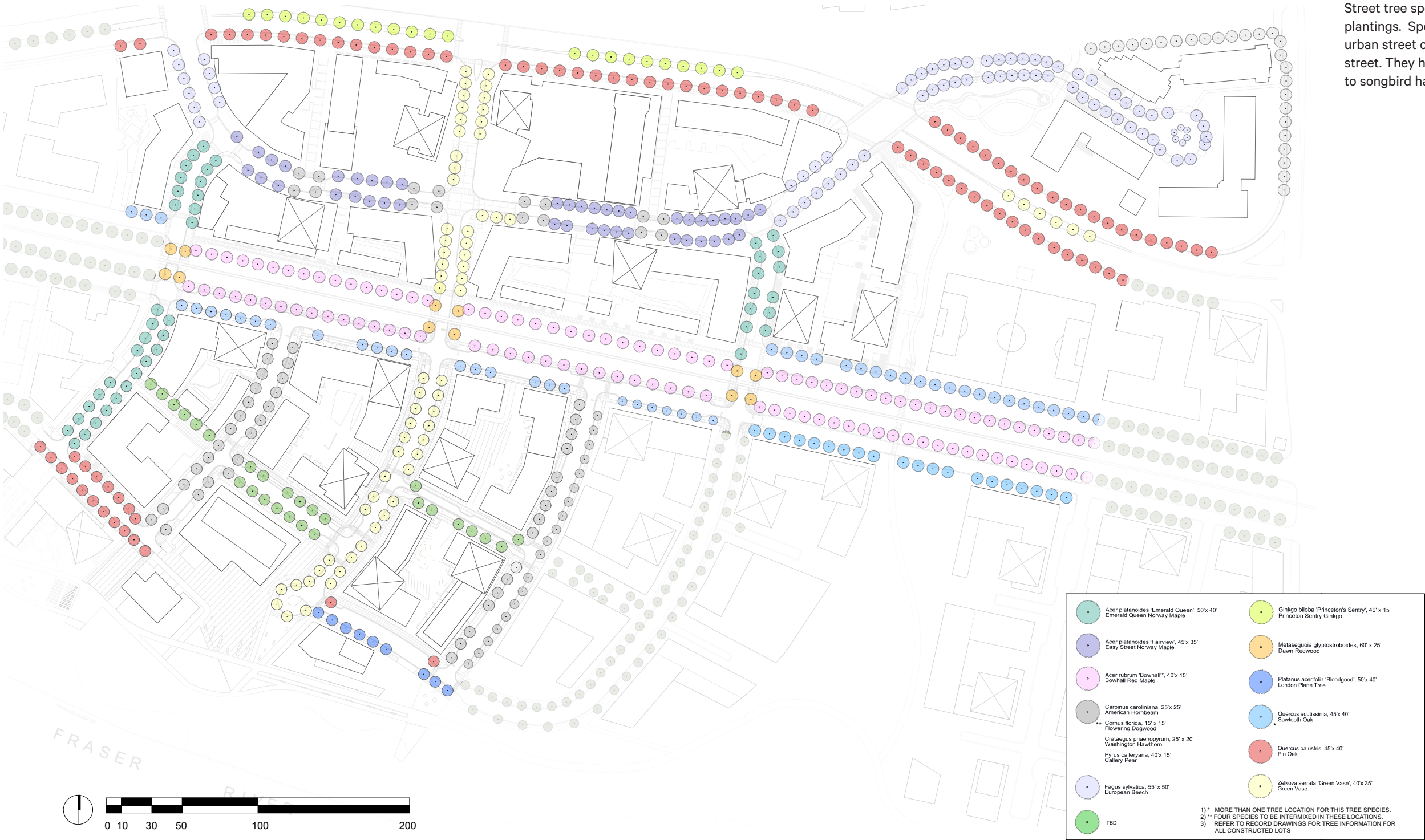




5.1.2

STREET TREE MASTER PLAN

Street tree species have been proposed for all street tree plantings. Species have been selected for suitability to urban street conditions and in relation to the scale of each street. They have also been proposed for their contribution to songbird habitat.





Acer platanoides 'Emerald Queen', 50'x40'
Emerald Queen Norway Maple



Acer platanoides 'Fairview', 45'x35'
Fairview Maple



Acer rubrum 'Franks Red', 45'x35'
Red Sunset Maple



Acer rubrum 'Bowhall', 45'x15'
Bowhall Red Maple



Carpinus caroliniana', 25'x25'
American Hornbeam



Cornus florida, 15'x15'
Flowering Dogwood



Crataegus phaenopyrum, 25' x 20'
Washington Hawthorn



Pyrus calleryana, 40'x15'
Callery Pear



Fagus sylvatica 55'x50'
Beech Tree



Ginkgo biloba 'Princeton's Sentry' 40'x15'
Princeton Sentry Ginkgo



Metasequoia glyptostroboides 60'x25'
Dawn Redwood



Pinus contorta, 30'x15'
Shore Pine



Platanus acerifolia 'Bloodgood', 50'x40'
London Plane Tree



Quercus acutissima, 45'x40'
Sawtooth Oak



Quercus palustris, 45'x40'
Pin Oak



Zelkova serrata 'Green Vase', 40'x35'
Green Vase Japanese Zelkova

5.1.3 Bio-sweale and Rain Garden Plants

Bioswales and rain gardens will form important components of an integrated approach to site drainage and rainwater management at East Fraserlands. These features will be designed to slow runoff and filter rainwater while hosting combinations of plants that thrive in periodically flooded soils. There will be a range of species, with those that will experience flooding located in the centre of each garden or swale. Many of the plants are proposed to be native species, such as ninebark, sedges, and willows in the center; currants, mockorange, and huckleberry in the intermediate zones, and yarrow, goldenrod, salal and creeping mahonia near the edges. Plants selected for rain gardens are typically deep rooted, allowing them to survive periodic drought. Many of the species also attract a range of pollinators to the site. The ability of a given species to assimilate pollutants such as heavy metals and hydrocarbons is as important as its appearance, and its individual cultural requirements. Mulch will be specified for its effectiveness in filtering runoff, and supporting microorganisms that break down oil based compounds before they reach the soil. The rain gardens in East Fraserlands will be strategically placed throughout the residential neighbourhoods and urban areas, and bio-swales are proposed in the parks, beach areas, and along the foreshore.



Rosa gymnocarpa



Physocarpus opulifolius



Cornus sericea 'Flaviramea'



Viburnum tinus



Eupatorium



Helictotrichon sempervirens



Pennisetum alopecuroides



Miscanthus sinensis



Salix purpurea 'Nana'

5.1.4 Native and Urban Adaptive Planting

Native and adaptive species will be prominent in the planting design for the parks, open spaces and residential neighbourhoods at East Fraserlands. In this context, adaptive species are defined as those that provide habitat and biodiversity, and which do not require irrigation or fertilizers to flourish. Native and adaptive species will include trees, woody and herbaceous perennials, and riparian plants.

Extensive use of plants such as kinnikinnick, roses, evergreen huckleberry and salal, where appropriate, will reflect the regional landscape. The individual development parcels will create opportunities to feature combinations of native species that are adapted to site conditions both aesthetically, and from a biological standpoint. These will include riparian species proposed for the kinross foreshore park and lookout park, beach grasses in mill bay, and blends of woody and perennial plants through the residential areas, and public open spaces.



Symphoricarpos albus



Rosa rugosa



Arctostaphylos uva-ursi



Lonicera involucrata



Gaultheria shallon



Vaccinium ovatum



Rosa nutkana



Ribes sanguineum



Spiraea betulifolia



Mahonia repens

5.1.5 Songbirds

Songbird Strategy

East Fraserlands is located on the important Pacific Flyway for migrating birds along the west coast of North American. EFL is the first neighbourhood in the region to propose a strategy to protect existing bird habitat along the edge of the river and to develop a comprehensive strategy to integrate urban songbird habitat elements into the community landscape.

The songbird habitat guidelines are intended to be a design tool for landscape architects as well as to be a tool for the regulatory review of landscape designs in the development permit and building permit stages. These guidelines are intended to inform approaches to landscape design, recognizing that open space in a dense community such as EFL has multiple programming and design issues to consider:

The EFL songbird strategy was developed by addressing the key elements of natural songbird habitat (particular foraging areas) and adapting them to a range of urban spaces where similar ecological structure and function could be achieved. It is important to note that the habitats created are “urban” in nature and do not offer the full range of characteristics of pristine bird habitat. However, in the context or extensive urbanization of bird habitat in the Lower Mainland, it is believed that this attention to habitat characteristics in the open space of EFL will enhance songbird population health.

Foraging guilds of birds (in no particular order)	Natural habitat types (in no particular order)	Urban habitat space opportunities (in no particular order)
Insect Gleaners Hawkers Probing Chiseling Leaf tossers Diving Swooping Dabbling Wading	Deciduous forest Mixed forest Park Wetland Old field Meadow Hedgerows Riparian Interstitial	Kinross / avalon / promontory parks Kinross / avalon / promontory parks Parks Kinross / avalon / promontory parks / Road ROWs Kinross park / sanctuary island Parks / Road ROWs Road & Rail ROWs/ Parks Kinross / avalon / promontory parks Kinross / avalon / promontory parks / Road ROWs



EFL Habitat Spaces

The following outlines the urban habitat space opportunities, where natural habitat patterns have been revised and fit into the urban spaces, with effort to retain as much ecological bird habitat structure and function as possible.

Kinross foreshore park, and mill bay beach area

These areas can offer modified wetland, riparian, hedgerow, park and mixed forest environments. It will provide habitat in the protected areas along the river; a wetland / intertidal marsh area, as well as islands of trees and shrubs throughout the grassed park areas along the promenade.

Mill Bay Pier

The proposed pier can be a highly urban space, offering some modified wetland, riparian and deciduous forest environments. It can provide habitat in the rivers edge grass and sedge zones adjacent the beach area.

Large Park (Avalon & Kinross)

The larger park areas (Avalon and Kinross) can offer modified riparian, wetland, park, old field, hedgerow, deciduous and mixed forest habitat patterns.They can provide significant urban habitat value along the rainwater runoff channels in the parks, along with the forest and shrub corridors and islands throughout the park area.The provision of a naturalized island along the river's edge that inaccessible by humans and pets can also provide significant habitat value.

Neighbourhood Parks

The neighbourhood park areas can offer modified park, hedgerow and deciduous forest habitat patterns. These parks will provide habitat through shrub and tree clusters in these open spaces, as well as rain-gardens in select areas.

Rights of way / Greenway

Rights-of-way (incl the CP Rail ROW) can offer modified park and hedgerow habitat patterns.Trees of high habitat value and various forms of hedgerows can frame pedestrian and cyclist paths and possible future transit routes located with the rights-of-way.The rights-of-way can serve the key ecological function of providing habitat continuity connecting other significant habitat spaces such as Kinross and Avalon Parks.

Boulevards and Streets

Boulevards and streets can offer modified park, modified wetland and hedgerow habitats. Streets will be planted with a diversity of tree species of high habitat value, and these can be envisioned from a habitat point of view to be in conjunction with the private land adjacent the street. Habitat may be further enhanced with rain gardens, bioswales and a diverse shrub layer in appropriate areas beneath the street trees, where applicable.



mixed forest



hedgerow



riparian



meadow



park



old field



deciduous tree groves



wetland

River District
Songbird Habitat



- Park
- Courtyards (Mixed)
- Tree Groves
- Old Field
- Riparian
- Wetland
- Streetscape Planting



5.1.6

URBAN AGRICULTURE



Urban Agriculture and the Productive Landscape in East Fraser Lands

Introduction -

Urban agriculture is one of the many facets of developing a sustainable urban community at East Fraser Lands. Urban agriculture encompasses a wide range of activities and elements that support growing plants for food and other related uses within urban centres. Integration of urban agriculture uses into public parks and street Rights-Of-Way will be considered to increase the presence and opportunity for growing food in this high density neighbourhood.

Approach -

The approach to urban agriculture at East Fraser Lands proposes a variety of elements located in both the public and private realms to achieve a productive landscape.

The public realm components could include:

1. Farmers Market Site
2. Communal Gardening for food production
3. Apiary
4. Edible Landscape Design including:
 - Fruit Trees on streets, parks and open spaces
 - Fruit bearing shrubs and ground covers plants
 - Fruit bearing vines used on walls, fences, trellises etc.
 - Culinary herbs

Farmer's Market

The Waterfront Plaza is proposed to be designed for a multitude of uses, included but not limited to a farmer's market, providing the opportunity for local farmers and other vendors to sell their produce directly to the local community.

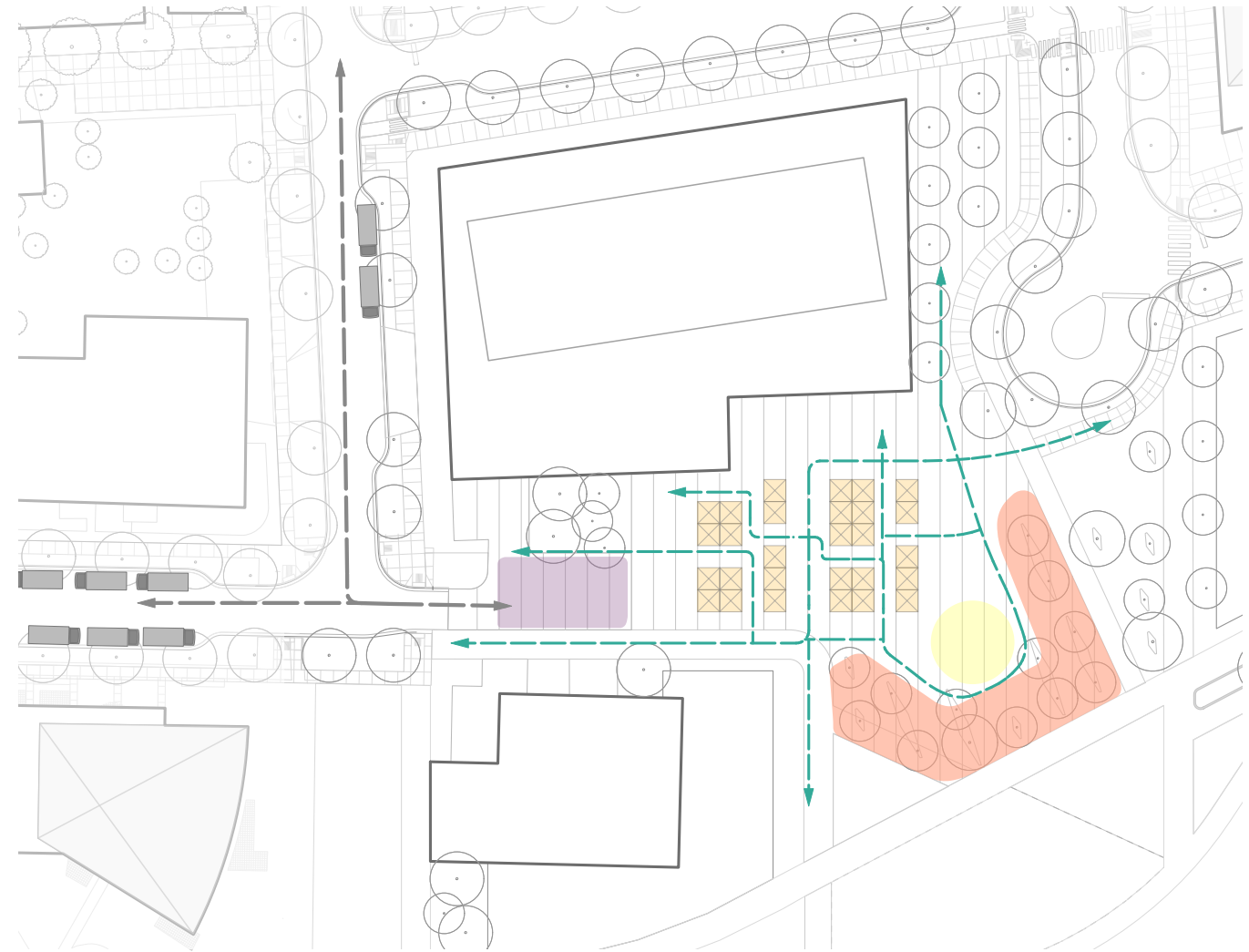
The farmer's market will complement other retail activity in the precinct and attract residents and visitors to the waterfront on a regular basis.

Communal Gardening:

Communal gardening is proposed to provide access to food growing opportunities for residents. These could be organized with shared garden areas or possibly arranged as individual garden plots. Communal garden opportunities can be integrated into public park spaces and some road rights-of-way, where they do not displace other uses and are supported by the community.



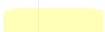

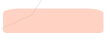


Edible Landscape

Edible landscaping means using plants that produce food or can be eaten as well as performing a wide range of other functions such as shading, screening, separating etc.. East Fraser Lands will place specific focus on the food value of plants for humans (and wildlife) through edible landscaping.



Farmers Market - Conceptual Programming Diagram

Legend

-  Produce Delivery Trucks
-  3x3m Market Tent (Capacity: 28)
-  Multi-Use Performance / Busking Area
-  Loading Zone
-  Seating / Eating Area
-  Truck Access for Markets
-  Pedestrian Circulation Through Market





Productive Landscape Approach: Public Realm

A variety of approaches are proposed at East Fraser Lands to establish a robust urban agriculture.

Design and Public Process

When consulting with the public in the planning and detailed design of all parks at East Fraser Lands, Park Board should consider the inclusion, locations and types of productive landscape elements such as orchards, community gardens, herb gardens etc.

Edible landscaping

Planting design for the public realm landscape should consider the potential for edible plants in planters or planting beds. Plants to consider include fruit bearing trees, shrubs, vines and edible plants or culinary herbs in conjunction with other native or exotic ornamental plantings.

Public art and ornamental structures

Fruit bearing vines or plants may be integrated with or as public art or other ornamental structures in parks, and street rights-of-way.

Herb gardens

Potential herb garden sites and the inclusion of herbs in planted areas should be considered at detailed park design.

Espalier fruit/nut trees

Small espaliered fruit trees can be grown where space is limited, such as along railings or on arbours, trellises, or other structures.

Heritage fruit orchard

Heritage fruit orchards may be considered for parks, schools and along streets.

Living/green wall, railing or fence

“Living walls” may occur either against the side of a park building, on a railing or as free standing fences or walls. Herbs and other productive plants should be given preference.

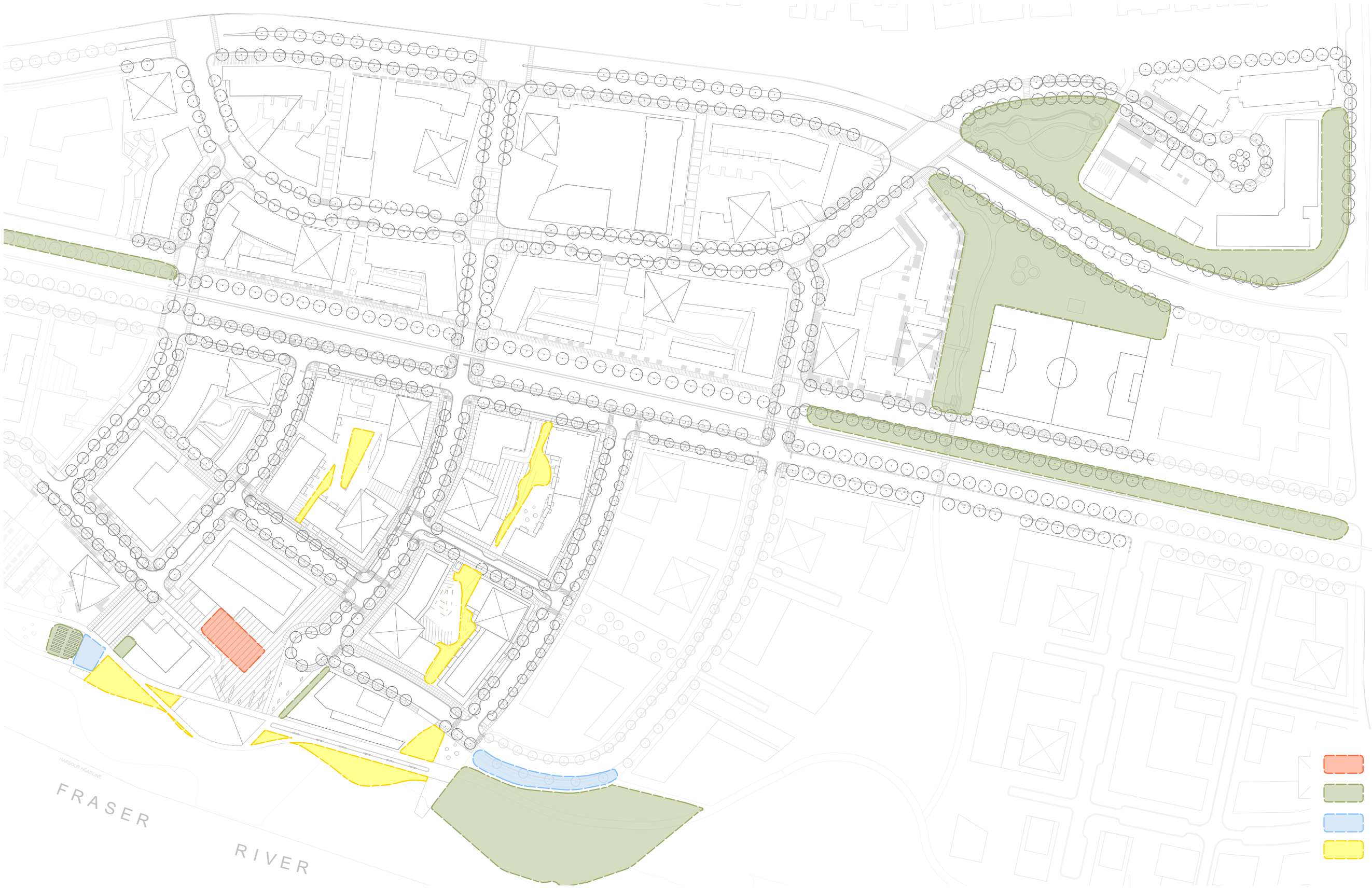
Small greenhouse

Where appropriate, small greenhouse structures and potting sheds may be considered in parks and other public realm areas.

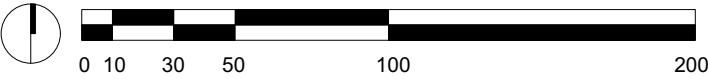
Farmer’s market space

The Waterfront Plaza should be designed to accommodate a farmers’ market.

River District
Urban Agriculture
Components



- Proposed Farmers Market Site
- Edible Landscapes within Parks or Street Right of Ways
- Potential Fruit Trees in Streets
- Pollinator Planting



5.2 LIGHTING DESIGN

Hierarchy of Light

East Fraser Lands will have lighting that will generate a clear visual hierarchy and provide a ‘structure’ to the area at night. Important factors such as visual comfort, legibility, feelings of safety, pride of place, the highest and best use of technology and sustainable system viability, will be emphasized. Necessary to achieving these goals is the establishment of a Hierarchy of Light throughout the project.

For East Fraser Lands, lighting will center on and promote safe pedestrian uses. This hierarchy of street lighting, low level pathway light, precision roadway lighting with carefully applied accents, highlighting of building facades, public art and environmental graphics, will unify and complement each precinct.

Technical Standards

Target exterior illumination levels will emphasize visibility at near and far distances. Using ‘vertical’ illuminance (lux) standards as a principal design metric will enhance individual interaction within the area. . Vertical illuminance (v/lux) is more relevant for many outdoor lighting tasks than basic horizontal illuminance measures. Vertical illuminance best reveals surface details such as pedestrian faces, potential vehicle conflicts such as bicyclists, and it provides enhanced visual information that reveals activity and enhances pedestrian orientation and sense of safety.

A limited palette of luminaires and lamps will be selected with considerations for high photometric performance, ease of installation and maintenance, and visual consistency with the architecture and landscape.

Dark Skies
Use ‘best practices’ to mitigate against light pollution... sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.

Technology
Use lowest lamp wattage available to achieve lighting goals.
Establish energy ‘effectiveness’ as design metric, as a balanced approach to design.
Create a limited ‘palette’ of standard luminaires, lamps and control equipment to facilitate long term maintenance of the system

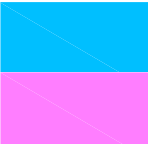
Design Standards

Use ‘white light’ sources: metal halide, fluorescent, inductive fluorescent (QL), and LED. White light provides superior visual acuity under mesopic and scotopic lighting conditions: low and mid-level outdoor night time light levels. The use of white light may also enable lower light level targets as perception is enhanced, particularly in the peripheral viewing range.

Minimize ‘visual noise’. Provide lighting that minimizes glare, spill light, light trespass and light pollution. Glare makes the task of seeing more difficult, produces momentary discomfort or disability and moves the focus from the environment to the bright luminaire.

Lighting fixtures types should show a similar design attitude. Physical design should exhibit a family of unified components, finishes and lamp types.





HIGH STREET

Catenary roadway fixture creates a dynamic signature, avoids expense and maintenance of additional street poles, with potential of significant energy savings.

Single lamp, pole mounted metal halide luminaire, provides illumination for pedestrians.

Proximate light from buildings and public will contribute significant low energy, high quality light.

Lighting will provide a visual connection between North and South High Street at the rail right of way by the use of light columns.

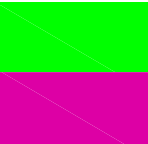


Options for pedestrian scale lighting. These fixtures share lamping, optics and quality characteristics with a different aesthetic appeal



KENT AVENUE CORRIDOR

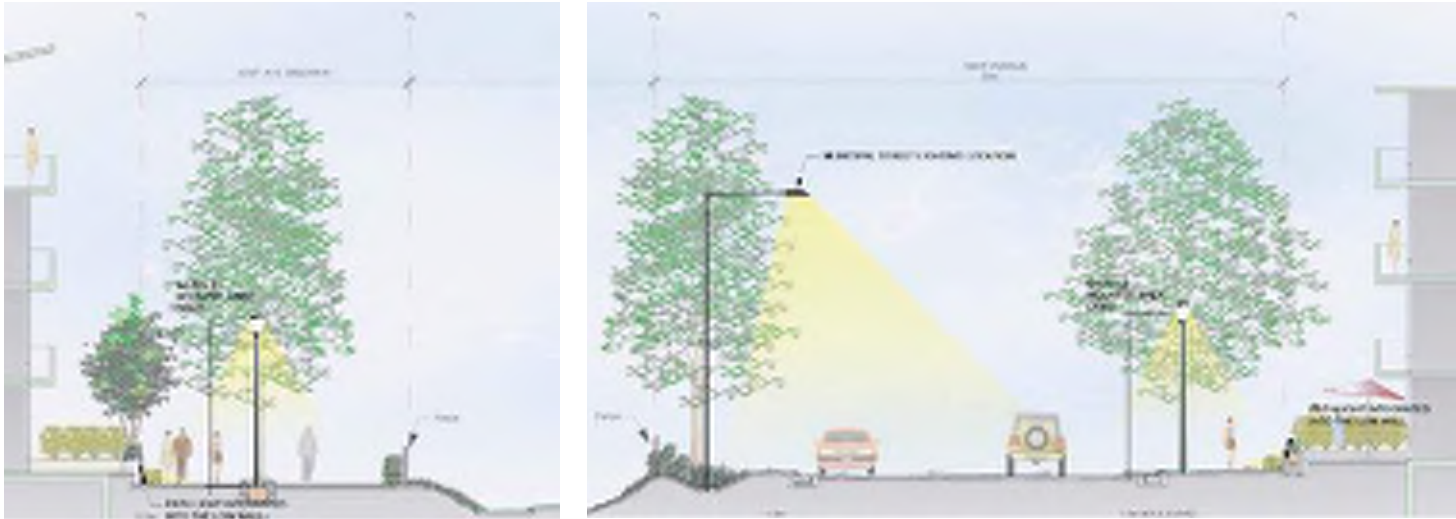
KENT AVENUE NORTH



Colonnade of pedestrian scale, single lamp street lights provide illumination for paths and accents of trees.

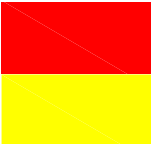
Pole mounted metal halide accent light supports wayfinding at major intersections with Kent Avenue.

Steplights will illuminate the sidewalk assisting in way finding and providing another layer of light



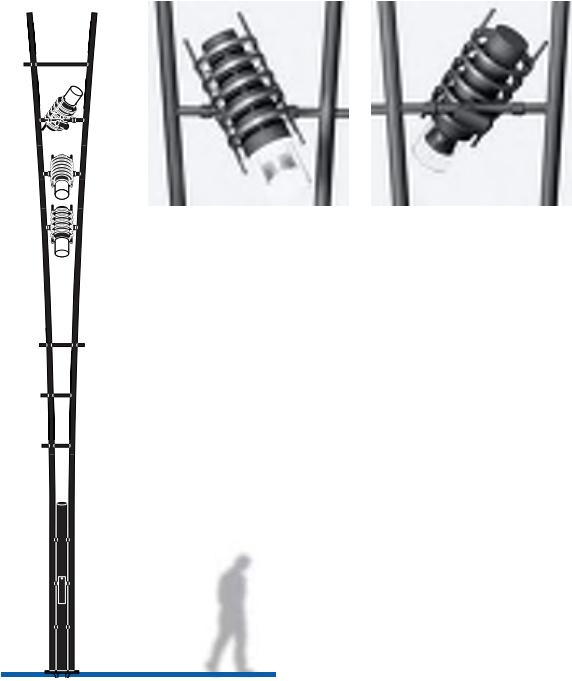
Options for pedestrian scale lighting. These fixtures share lamping, optics and quality characteristics with a different aesthetic appeal





Richly textured lighting to support this area as an important venue. Lighting will be an 'urban admixture' from built forms and street lights, with significant contribution from proximate buildings, shop fronts, kiosks, etc.

Iconic, useful, festive, and artful lighting marks this civic zone and celebrates the river.





Low wattage (fluorescent, HID or LED lamps) lighting fixtures integrated into the low walls provide quality of light appropriately scaled for pedestrian footpaths. Pedestrian scale illumination will add interest and intimacy to the general lighting provided by the pole mounted luminaires along the street.

Surface mounted compact fluorescent fixtures will be integrated into residential entry gate.

Options for pedestrian scale lighting. These fixtures share lamping, optics and quality characteristics with a different aesthetic appeal





Bulkhead mounted luminaires for washlight on path and accentlighting on beach.

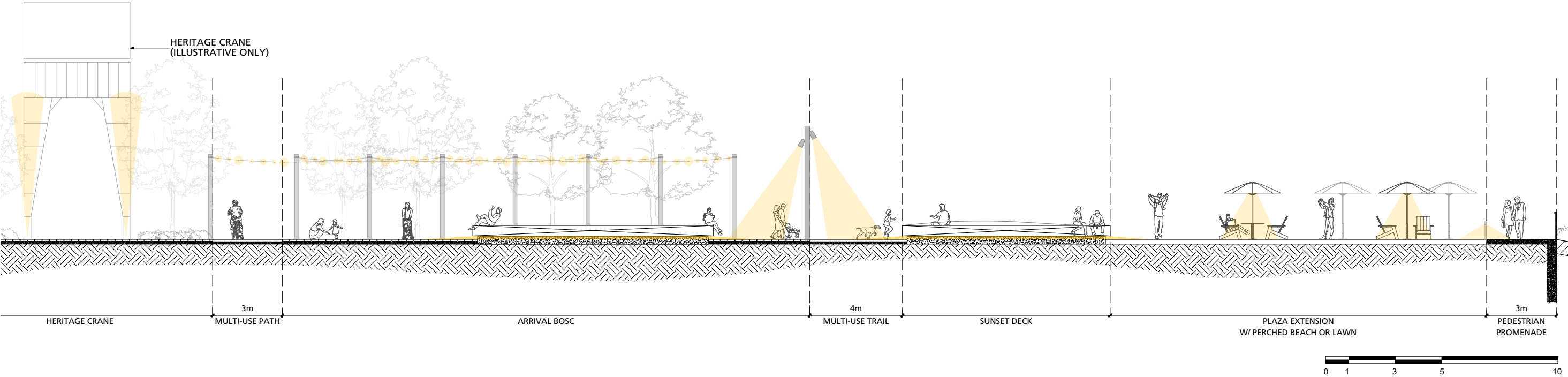
Low wattage (fluorescent, HID or LED lamps) lighting fixtures incorporated into low walls provide quality of light appropriately scaled for pedestrian footpaths.

Options for pedestrian scale lighting. These fixtures share lamping, optics and quality characteristics with a different aesthetic appeal



WATERFRONT PLAZA

Landscape lighting within the Waterfront Plaza area will include low level lighting to ensure a safe and comfortable pedestrian environment. Lighting will consist of glare free fixtures where possible and will be designed to accent key wayfinding routes, landscape elements and structures. Opportunities for programmability, user engagement and whimsy should also be explored to assist in the all-season activation of this space.



5.3

Universal Design, Accessibility and Wayfinding

Universal Design

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Inclusive community design is at the heart of the Universal Design concept which seeks to ensure that products, buildings and exterior spaces are usable by all people. With the rapid increase of seniors populations, there is a growing need for Universal design. Universal design has demonstrated its multiple benefits including reduced health care costs and stress, opportunities for dignified aging in place and safer environments that accommodate diverse lifestyles.

Site Design Considerations

Site design features to consider for universal design in East Fraserlands include, parks, signage, street furniture, pathways and trails, curb ramps, pedestrian crossings, parking, exterior routes, arrival and departure areas, outdoor amenities, obstructions, stairs and waterfront.

Seven Principles of Usability

Designers wishing to better integrate features that meet the needs of as many users as possible should consider the following seven principles of usability:

- 1/ Equitable use: The design is useful and marketable to people with diverse abilities.
- 2/ Flexibility in use: The design accommodates a wide range of individual preferences and abilities.
- 3/ Simple and intuitive use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
- 4/ Perceptible information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
- 5/ Tolerance for error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.
- 6/ Low physical effort: The design can be used efficiently and comfortably and with a minimum of fatigue.
- 7/ Size and space for approach and use: Appropriate size and space is provided for approach, reach, manipulation and use regardless of the user's body size, posture or mobility.

In addition to usability, other considerations including economic, engineering, cultural, gender and environmental must also be incorporated into universal design initiatives.

Wayfinding

Wayfinding is a related and increasingly important consideration in site design. There are two key aspects to wayfinding:

- 1. Understanding where you are in the environment; and
- 2. Finding your way to where you want to go specific wayfinding principles include:
 - a. Establish a sense of place
 - b. Divide large spaces into distinct small parts
 - c. Provide frequent directional cues
 - d. Understand different people have different perspectives of the same space
 - e. Provide three types of expectations for space:
 - without prior knowledge of the space
 - with prior knowledge of the space
 - searching where there is no target (browsing)

Strong visual cues are preferred over signage, allowing users to navigate through the community more intuitively.

6.0 SITE WIDE SUSTAINABILITY STRATEGIES

6.1 Rainwater management

Introduction

The rainwater Strategy for East Fraser Lands is an integrated approach involving a mixture of engineering based and landscape based solutions. In general the aim is to collect, slow down and cleanse water thereby increasing the quality and reducing the quantity of rainwater leaving the site.

A variety of landscape based rainwater elements serve to add to the richness of the urban landscape, as well as the quality of the environment.

Guiding Principles

The following principles provide a conceptual framework for development of the EFL rainwater management strategy:

- Focus on water quality as the primary beneficial outcome of water management systems;
- Emphasize systems that achieve rainwater runoff capture within roadways;
- Integrate rainwater management functions into landscape features within parks;
- Allow surface flows from private land to public open space, where necessary to augment rainwater capture;
- Demonstrate sustainable rainwater management features, where practical

Plan Elements

Potential landscape based elements of a rainwater management plan proposed are:

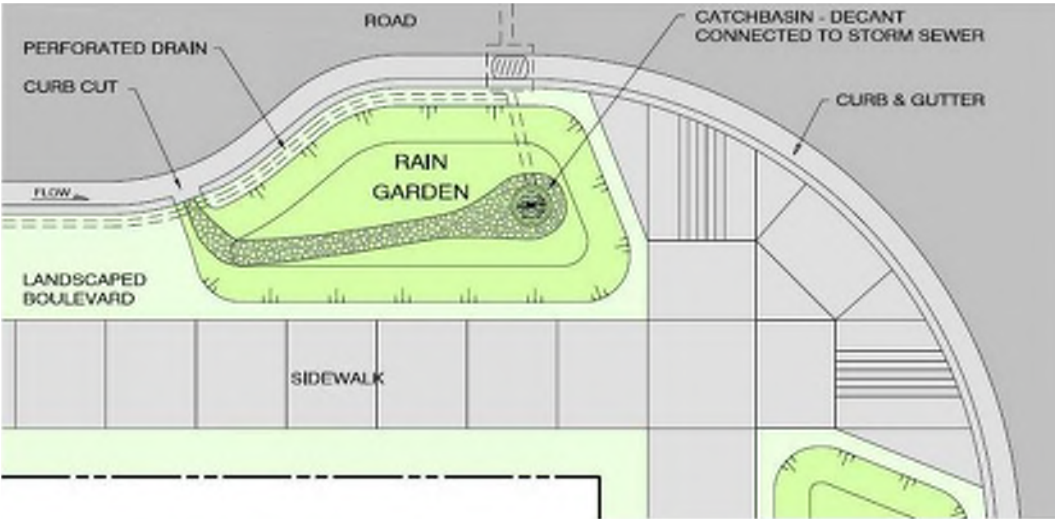
Rain Gardens

Rain gardens in boulevards will maximize rainwater capture and treatment, while providing an overflow pipe system to redirect overflow drainage to the storm sewer during heavy rainfall events, and during extended wet periods.

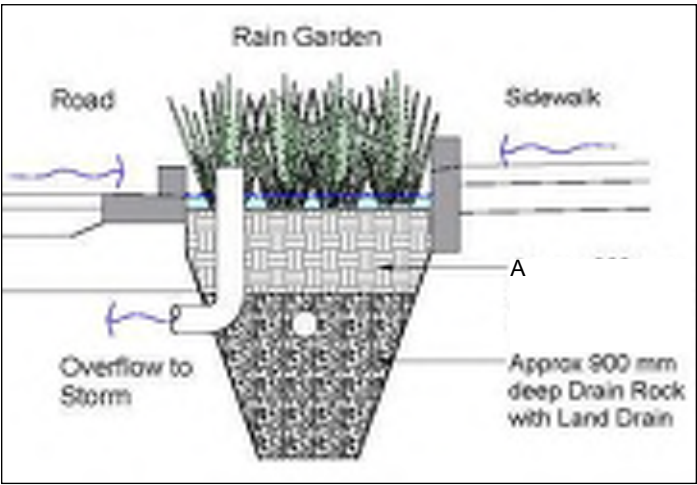
Dispersal trenches are proposed for boulevards where rain gardens and swales cannot be accommodated. Trenches will include outlets from roadway catch basins to direct low-flow and first flush drainage into subsurface porous gravel zones within the boulevard areas. Rainwater then enters the gravel area where it will seep into surrounding soils over time. Catch basins will also be provided with an overflow outlet to allow rainwater to overflow to the storm sewer.



Typical River District Rain Gardens



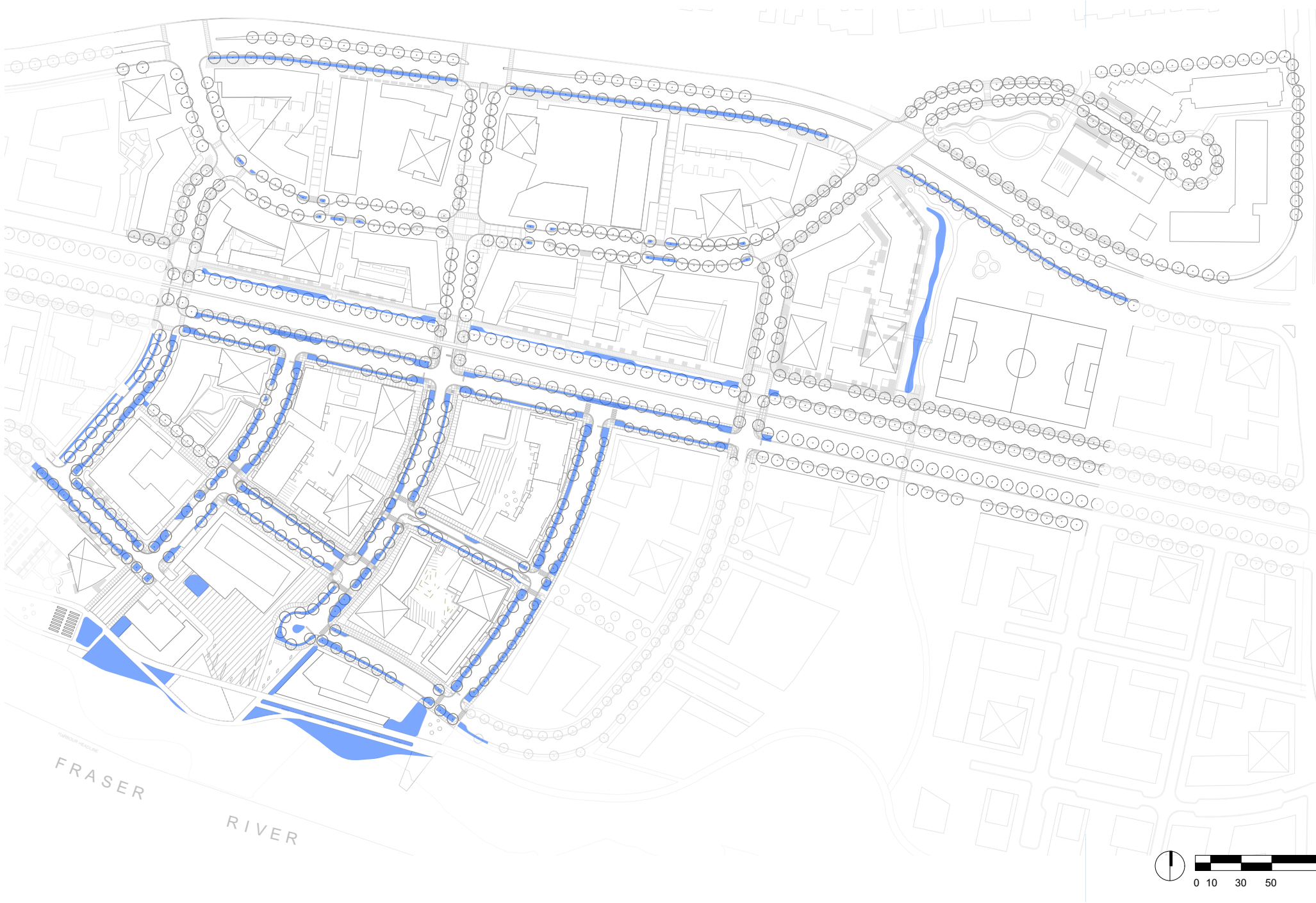
Typical Rain Garden Plan



Potential Rain Garden Detail

Landscape Based Rainwater Components

The following plan shows the distribution of bioswales and rain gardens proposed in the public realm. The northern portion of the site slopes south, so the rainwater may be collected by an extensive linear bio-swale that will form the central spine of the greenway running along the rail line. The southern portions of the site will be graded to form a series of water catchments where rainwater will be directed to a series of separate rain gardens within the street rights-of-way, and at the edges of public open space.



River District
Landscape Based
Rain Water System
Conceptual Plan

Rainwater Elements:
Public Land

All Locations shown are indicative and
will subject to final design

6.2 Ecology, Habitat and the Fraser River

plantings that provide food and cover for fish and wildlife.

Armouring Stone is required to protect the banks and maintaining shoreline integrity. However, innovative measures are proposed have been incorporated to promote fish habitat, including burying the armour stone, and creating riparian benches above high water; adding soil to encourage natural colonization of herbaceous vegetation and greening of the rock; and installing rocks and root wads to increase habitat diversity.

The will result in productive shoreline for fish and wildlife, that has higher aesthetic qualities and offers a changing interesting shoreline for residents using the public walkway and parks.

Design will need to consider the role of plantings to:

- 1. meet the objectives fo the song bird starategy
- 2. determine appropriate interim plant species fro the back water areas prior to the completion of the whole kinross corridor
- 3. to encourage amphibians to wetland areas

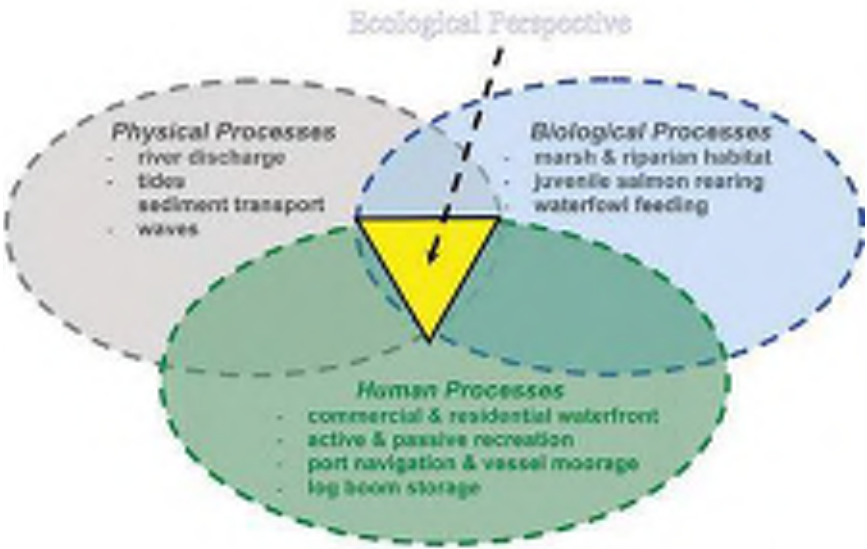
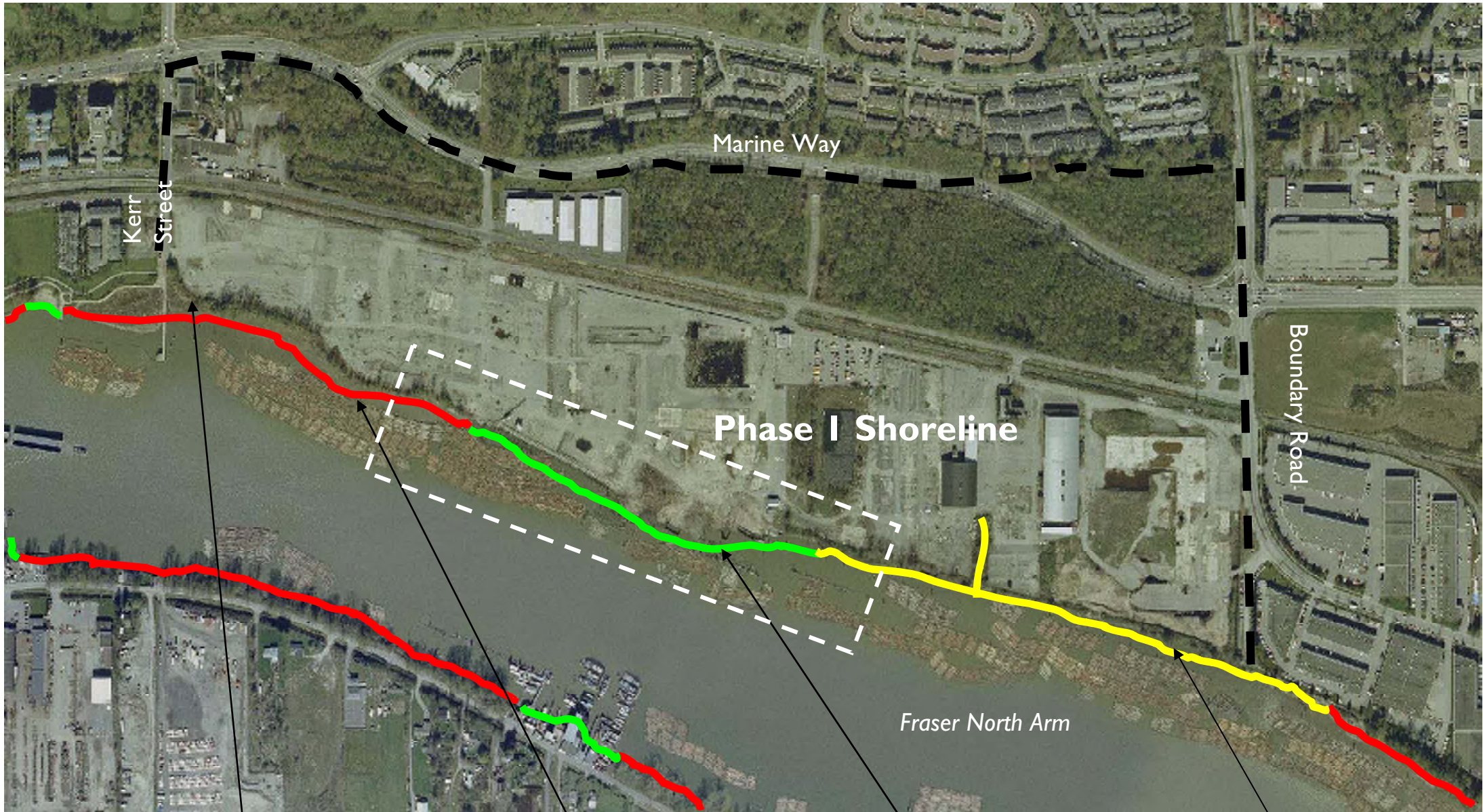


Figure 2
An ecological perspective, is one the approaches utilized to achieve sustainable shoreline design.



Intertidal marsh and mudflat.



Highly productive (red) habitat zone.



Low productivity (green) habitat zone.



Moderately productive (yellow) zone.

Figure 1
East Fraserlands site showing Phase I shoreline location and FREMP habitat classification zones

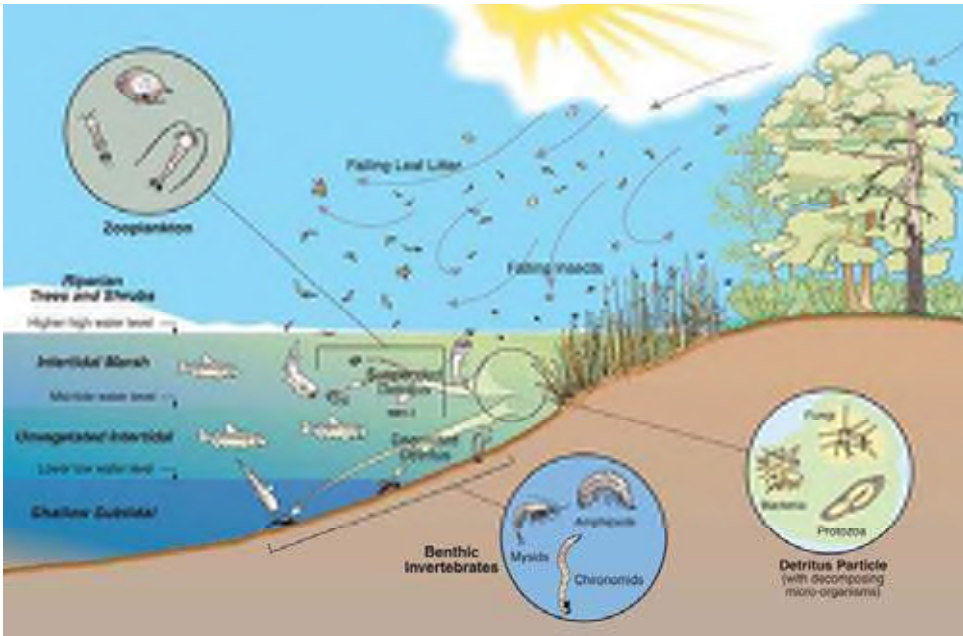


Figure 3
East Fraserlands intertidal and riparian habitats used by juvenile salmon for feeding.

Shoreline Fish and Wildlife Habitats

The East Fraser Lands site is located in the Fraser River estuary. The Fraser River is one of the world’s most important Pacific salmon rivers and the Fraser estuary is a critical link in the Pacific Flyway, that is used by over a million migratory birds annually.

Although the former industrial uses at the Fraser Lands site severely impacted much of the property, shoreline habitats still remain and are important to sustaining fish and wildlife. High-ly productive intertidal habitats, such as mudflat and sedge marsh, and riparian areas, such as trees and shrubs, are located along the western shoreline near Kerr Street. The central por-tion, location of the former mill and log handling operations, has been heavily impacted and shoreline habitats are limited with low productivity. Towards Boundary Road, the intertidal zone narrows. The riparian trees and shrubs provide fish and wildlife habitat but invasive species such as blackberry limit productivity. These habitat zones have been mapped and classified by the Fraser River Estuary Management Program (FREMP) using a colour coded rating system, to facilitate development along the Fraser River.

The shoreline habitats serve as critical feeding and refuge areas for juvenile salmon (see Figure 3). The large intertidal mudflats east of Kerr Street contain large numbers of worms, insect larvae and other small animals that are preyed upon by juvenile salmon and other resident and migratory fish. The intertidal sedge marshes that line the shoreline provide a refuge for salmon fry migrating downstream from upriver spawning beds, and also provide productive feeding areas when the high tides inundate the marsh. Numerous species of birds frequent the East Fraser Lands site, including waterfowl and shore-birds

in the intertidal habitats, songbirds in the upland areas, and birds of prey in the trees lining the shoreline. Although feeding is the main avian activity, where vegetation cover is denser, nesting may also occur. Wildlife includes several species of mammals, including muskrat, racoon, beaver, otter, coyote, voles, etc. Use of the site is more transitory and often associated with shoreline or wetland habitats. The main activities are searching for food and seeking cover in vegetated areas.



Juvenile chinook fry feeding.



Great blue heron in wetlands.



Proposed shoreline Habitat Features



Habitat Zones

East Fraserlands Shoreline Design Features

To implement a sustainable shoreline design, four approaches are proposed to maximize fish and wildlife habitat at the East Fraserlands community:

- preserve high productive habitat,
- create new or unique habitat features (tidal channel, sanctuary island);
- enhance habitat productivity (marsh benches, riparian plantings); and
- use innovative design for infrastructure (concealed armour stone with riparian plantings, soil addition to rip rap to promote natural vegetation, addition of habitat features such as root wads)

Kinross Corridor Waterfront

The western-most shoreline modification consists of excavation of upland to create a tidal marsh channel and sanctuary island dedicated to fish and wildlife. There will be no public access to the island. This feature will provide high value habitat for fish and wildlife and will restore off-channel habitat that has been eliminated during urbanization of the Fraser River estuary.

The tidal channel will be transplanted with sedge, while the sanctuary island will be transplanted with native trees and shrubs to provide food and cover for birds and wildlife and provide shoreline cover for fish.

The banks will be dressed with armour stone to protect the slopes from erosion due to wave action, but several innovative measures will be implemented to create a softer and greener treatment. The upper portion will be buried (concealed armour stone) to create shrub planting benches and soil will be added to encourage establishment of herbaceous vegetation. Root wads, boulders and other habitat enhancement features will also be added to increase the fish and wildlife value of the slope protection.



Excavated tidal channel transplanted with sedge between planted riparian area and tress island (shown at low tide).



Kerr Street sedge marsh.



Shrub plantings above marsh channel.

Park Shoreline Between the Kinross Corridor and Waterfront Plaza

The shoreline treatment is proposed to consist of armour stone with shrub benches. Planting in the riparian benches will be dense to provide cover for fish and create a woody border along the high water line. Only native species are proposed to be planted along the shoreline to ensure the shrubs and trees provide maximize benefits to fish and wildlife. Vertical walls are proposed to be installed along this section of shoreline to reduce habitat impacts and provide for park areas adjacent the public walkway.

The addition of soil pockets to the armour stone and installation of boulder clusters and root wads will increase the habitat value for fish and wildlife, and provide a greener appearance to the rock shoreline protection. Riparian plantings along the shore will also include park landscaping. Native trees and shrubs will be planted along the riverside of the public walkway to provide shade and fish and wildlife habitat, while more upland a mix of native and non-native plants will be used to enhance park landscaping. To ensure connectivity with the water along public park areas, plantings will be planted in clusters to allow views of the river. Just prior to Waterfront Plaza, new shoreline features are proposed to include construction of a large sedge marsh bench to benefit fish and waterfowl. The marsh bench will be created just above mean tide level and be transplanted with native sedge, bulrush and cattail. The public walkway, boardwalk and piers will provide public access to the Fraser River.



Riparian bench in concealed armour stone.



Open riparian plantings along public walkway.



Intertidal marsh bench with public walkway.



SECTION B - BUILT FORM AND PARCELIZATION

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Section B - Built Form and Parcelization
Table of Contents

1.0	Introduction	115
2.0	Building Massing	117
2.1	Building Heights	117
2.2	Overall 3D View	118
2.3	Solar Access	119
2.4	Massing Parameters	123
3.0	Development Parcels	127
3.1	Town Square Precinct	127
	Parcels 13, 14, 15, 16, 17, 18, and 19	
3.2	Waterfront Precinct	143
	Parcels 26, 27, 29-30, 31, 32, 33-34, and 35-36	
3.3	Park Precinct	159
	Parcel 20-21 and 43	

1.0

INTRODUCTION



Three precincts, each with its own distinctive identity, provide the rich diversity of character and scale found in urban areas that have evolved over time. While the Town Square Precinct establishes the signature commercial and social core visible from Marine Way, the Waterfront Precinct anchors the community at the river, every building and open space linked visually and physically with the water. Connecting these two areas is River District Crossing its curving frontage attracting visitors to the river and multiple east-west pedestrian routes linking outlying blocks to this prime mixed use street. The Park Precinct forms the gateway both to EFL and the City of Vancouver as well as connecting the existing upland communities to the development.

Until December 2020, roughly 3,500 residents, of the total anticipated population of approximately 12,500 based on the original ODP, have moved into EFL. The project is generally on schedule to achieve 50% build-out by 2025. It is anticipated that full build out of the plan, including Area 3, will take another 20-25 years.

The following sections 2.1 through 2.4 provides an overview of site wide building massing, heights, shadow analysis and defines the public view of Mount Baker from Everett Crowley Park. Section 2.5 outlines massing parameters that apply to the individual development parcels. Section 3.0 addresses the individual blocks that make up each precinct.

2.0

2.1

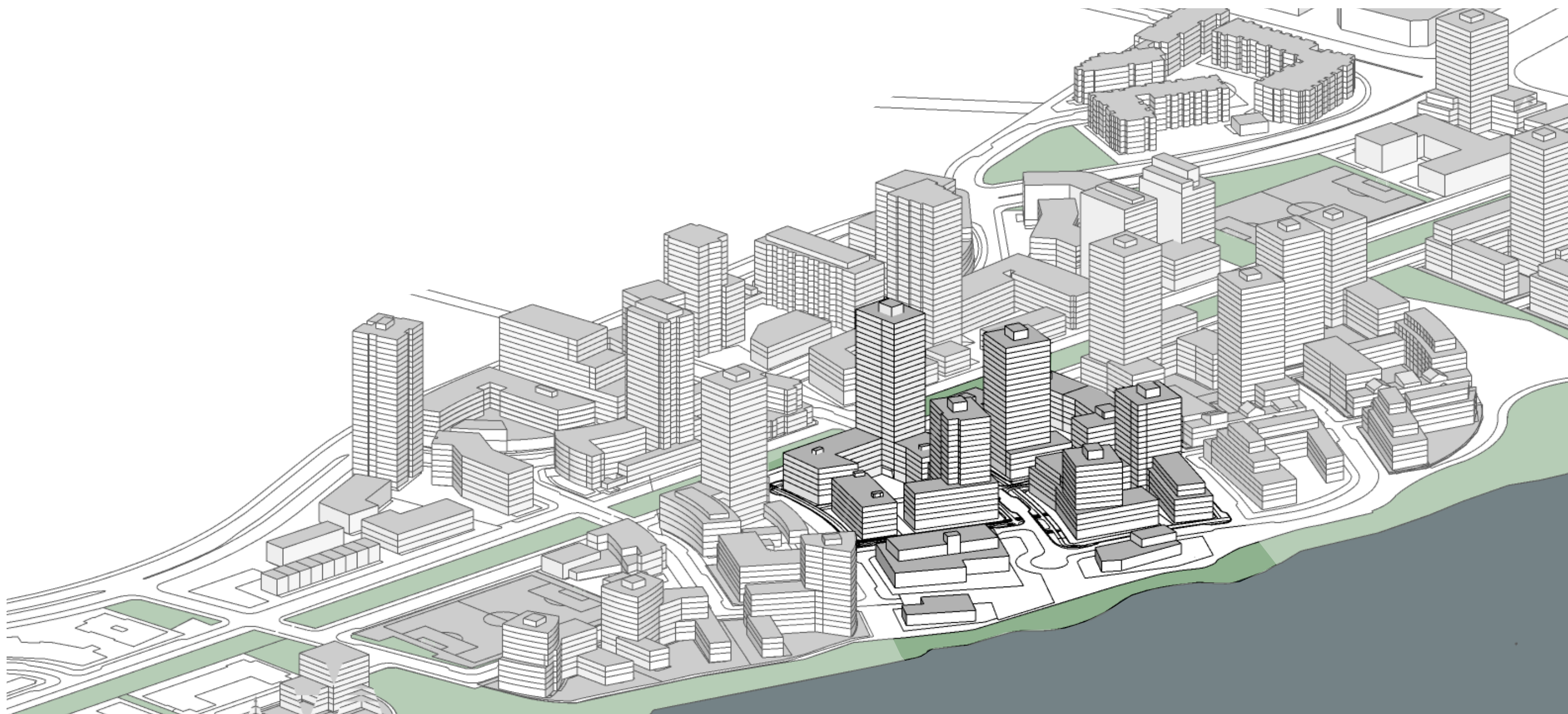
BUILDING MASSING

Building Heights



2.2

OVERALL 3D VIEW



2.3

SOLAR ACCESS

The development of remaining parcels in Area 1 has been configured to accomplish an appropriate density while mitigating shadowing of key public spaces, semi-private open spaces and residential units.

As demonstrated in the following studies, tower forms especially have been carefully located to ensure superior solar access to parks, squares and open public spaces for most times of day in the summer, spring and fall scenarios.

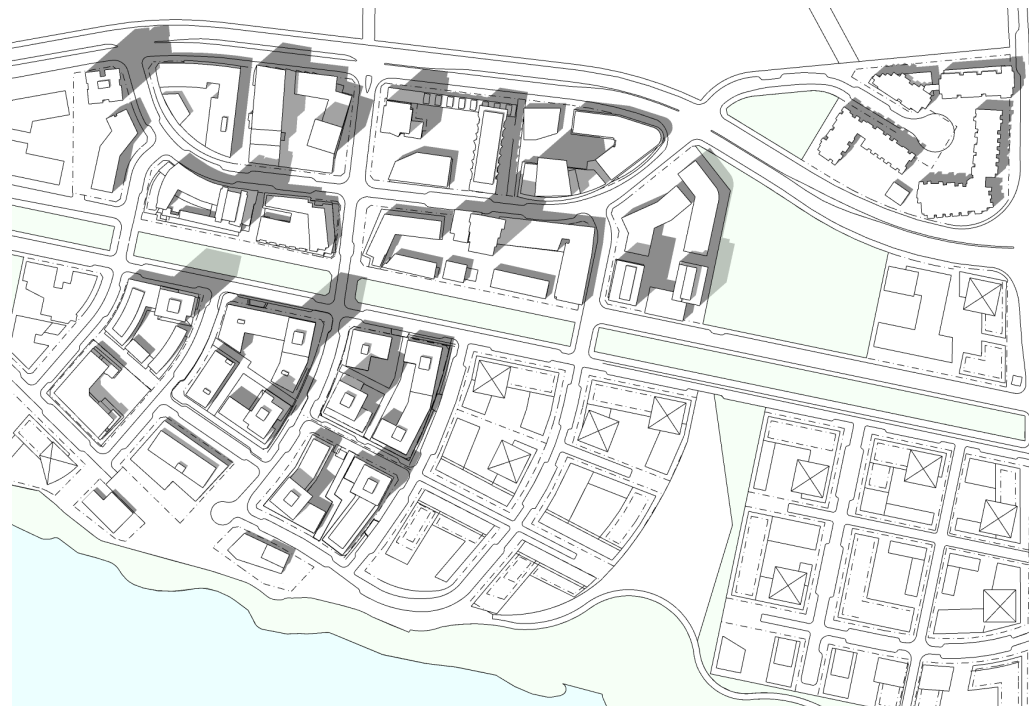
The winter studies show more significant shadowing of all open spaces due to the very shallow sun angles at this time of year. Some shadowing of existing uplands housing at times during the day is also anticipated mid winter, while no shadowing will occur through summer, spring and fall.



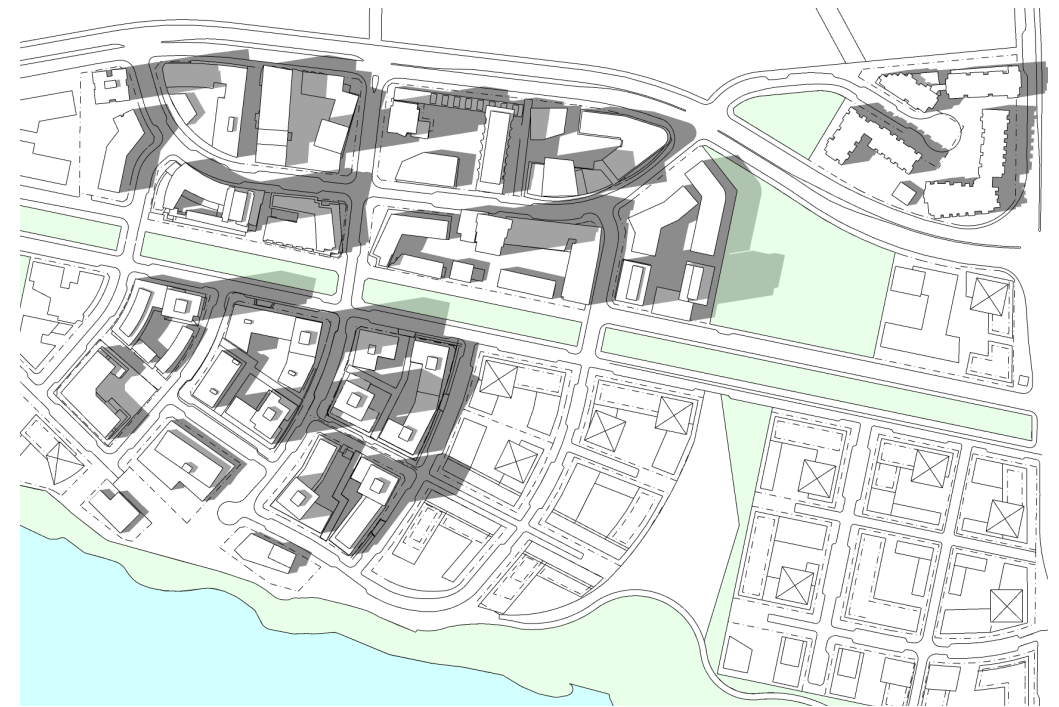
JUNE 21 - 10 AM



JUNE 21 - 12 PM



JUNE 21 - 2 PM



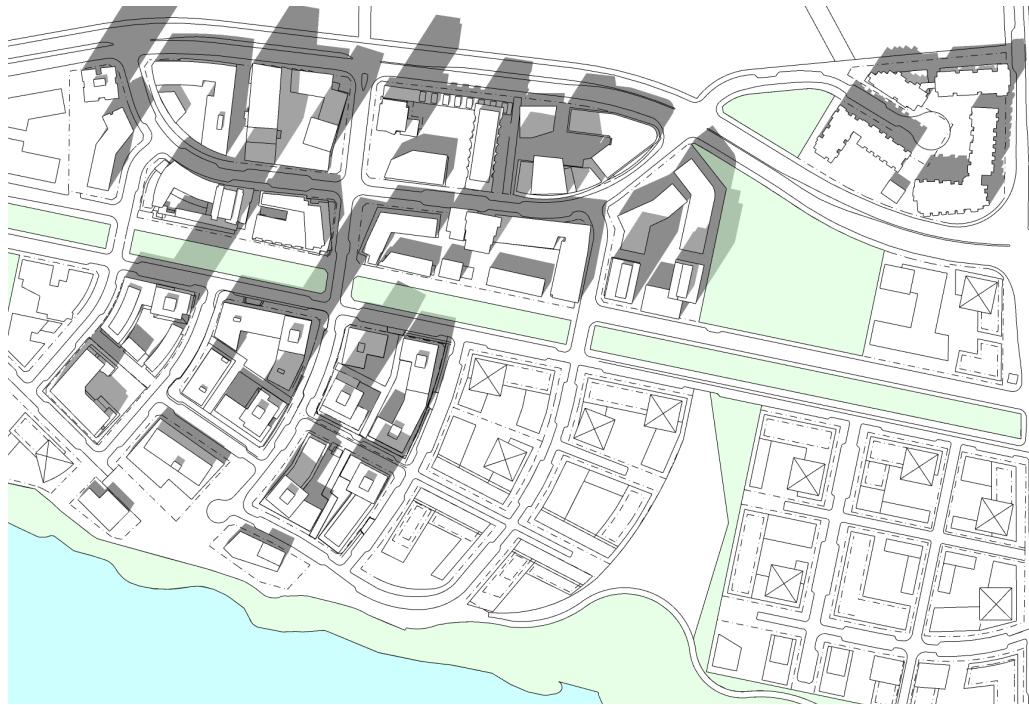
JUNE 21 - 4 PM



MARCH 21/SEPT 21 - 10 AM



MARCH 21/SEPT 21 - 12 PM



MARCH 21/SEPT 21 - 2 PM



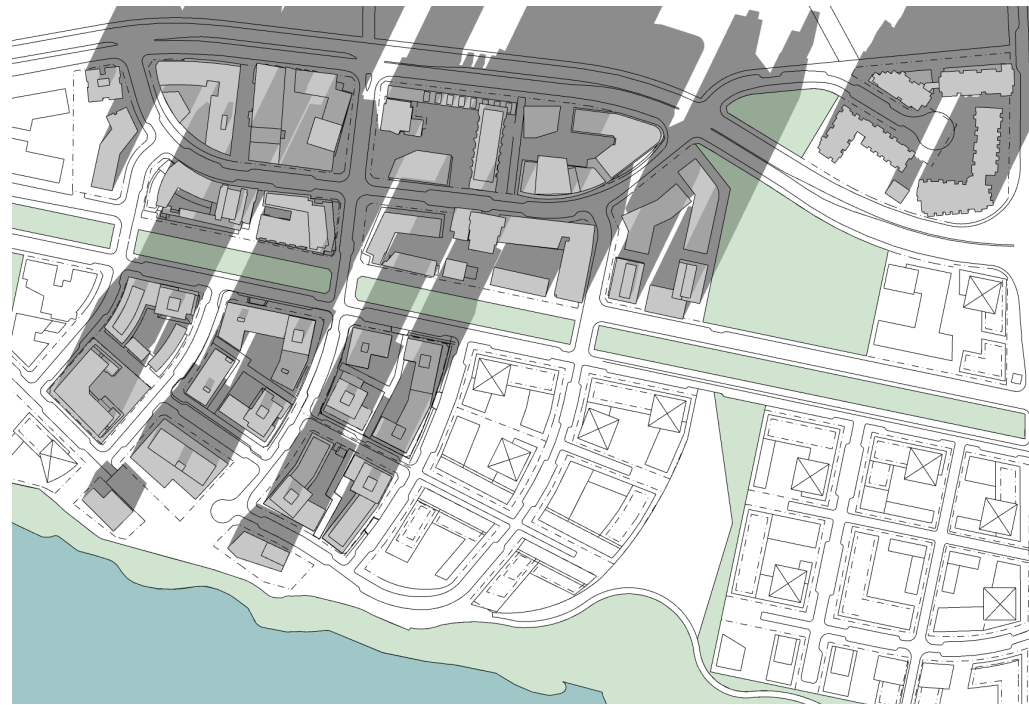
MARCH 21/SEPT 21 - 4 PM



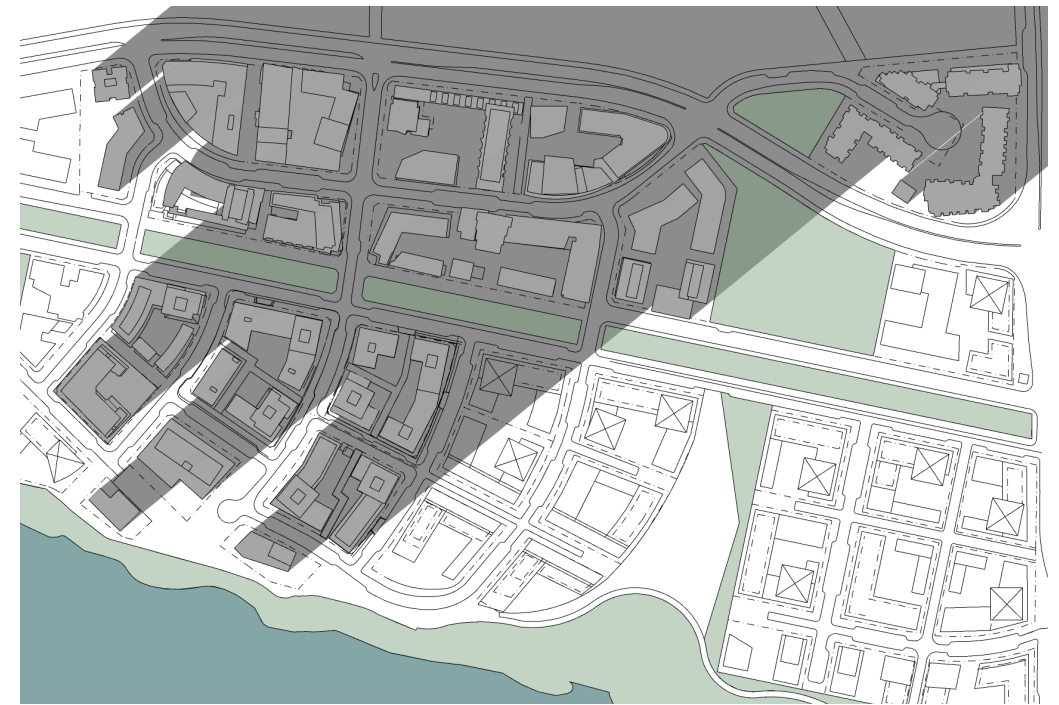
DECEMBER 21 - 10 AM



DECEMBER - 12 PM



DECEMBER 21 - 2 PM



DECEMBER 21 - 4 PM

2.4

MASSING PARAMETERS

Introduction and Intent :

The parcel studies contained in this document reflect the goals of the ODP to create a diverse and highly legible urban fabric clearly defining a public realm network of memorable public places. Comprised of streets, plazas, promenades, parks and the riverfront, this network reinforces the unique identity of East Fraser Lands, encourages walking and contributes to a high level of livability.

This document demonstrates the general viability of development in each of the parcels in terms of density, use and access. The intention of these studies is to provide a general framework giving different architects the opportunity to contribute a higher level of diversity in the East Fraser Lands development.

While the illustrative built form is intended as a demonstration and guide to the further development of each block, there may be potential to accomplish the key urban design role and meet the guidelines in an alternate form. Consideration may also be given through the approvals process to modest reallocation of floorspace within a Precinct. Of primary concern to considering variations in massing and floorspace allocation, will be ensuring that key urban design objectives are met, and that the scale and definition of the streets and public spaces is not diminished by the changes.

Net Floorspace/FSR

Building areas have been calculated based on the net floorspace (FSR) indicated by the solid line at the perimeter of building plans. There are no exclusions accounted for in these areas, and the plans are deliberately simple, with minimal articulation to provide an easily understood base case. The simplified building footprints have been set with sufficient room in the parcel to accommodate additional building mass generated by exclusions. While the plans are illustrated simply, a high level of architectural articulation is sought, and the three-dimensional massing illustrations begin to demonstrate how further design development might see the building form evolve. In the following massing parameters, the dotted line illustrates possible articulation of the gross floor area.

Building Setbacks and Streetwall Envelopes

Setbacks, indicated by a dashed red line, establish the frontages for the public realm and set the extent for building projections. Simple building footprints are illustrated with a 1m space between the building and the setback. This space is called the streetwall envelope. The streetwall envelope provides for design flexibility to ensure a richly diverse development, a means to achieve the spatial qualities anticipated for the public realm, and room to accommodate additional building mass generated by areas excluded from floorspace calculations.

Envelopes have not been defined for the interior faces of blocks, as there is greater room for flexibility in building placement and massing in these locations, and the interior block faces do not for the most part affect or define the spatial quality of the public realm. The mid-block open spaces are an important aspect of EFL’s urban fabric and although building configurations demonstrated in the development parcels are expected to evolve in design development , the general approach to open spaces is strongly encouraged. It is anticipated that the building depths illustrated will expand and courtyard widths will decrease somewhat to accommodate articulation and additional building mass generated by areas excluded from floorspace calculations.

Projections into Streetwall Envelope:
Projections of interior floor areas into the streetwall envelope are limited to 50% of the building frontage (not including outdoor balconies, architectural elements, solar shading devices, and other similar features). At retail frontages, this area is intended to allow for merchandise displays and seating areas, contributing to generous sidewalk widths. Building projections such as bays that contribute to display and enrich the pedestrian experience of the retail frontage may be allowed provided they occupy no more than 50% of the streetwall envelope area.

Projections into Setback:
Consideration may be given to extending outdoor balconies into the setback provided the spatial qualities of the public realm, the amenity and useability of street gardens (including solar access and rain exposure), and the amenable relationship of dwelling to street are maintained.

Statutory R.O.W.:
The lanes, mews, pedestrian paths and breezeways that create breaks through building frontages are an important part of the fine-grained pedestrian network that facilitates movement through blocks. Key connections are indicated with public r.o.w., for which the precise width and location will be determined at development permit.

Maximum Height and rooftop access and articulation

The general height for all building types assumes a floor-to-floor height of generally 3m (10’) for residential and 3.8m (12’-6”) for office except ground floor. To encourage a high degree of articulation at tops of buildings, and to facilitate roof-top access and use for residents, projections above this will be allowed up to a maximum height of an additional 3m “articulation zone”. These projections will be limited in a building to no more than 40% of floor area below. Partial development associated with roof top access at this level will not be considered as a storey for purposes of the CD-1 by-law. If the height of the projection for a residential floor exceeds 4.3 meters (14’) the floor area of the projection must be included in the building area. Section 10 of the General Regulations of the City of Vancouver Zoning and Development By-law addresses projections beyond this maximum height.

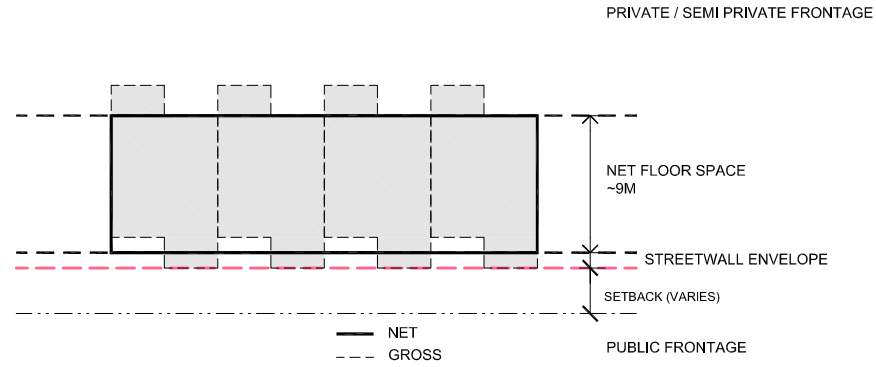
Note: A maximum height calculated from the base surface has been established for each parcel. Refer to the CD-1 by-law for details.

Low and Mid-rise Massing flexibility

While tower heights and numbers of storeys specified for towers are maximums, consideration may be given to additional height and additional one or two storeys in low and midrise massing. Consideration may also be given to additional mid-rise massing up to nine storeys in association with towers, and the provision of secondary small floorplate buildings up to 10 storeys.

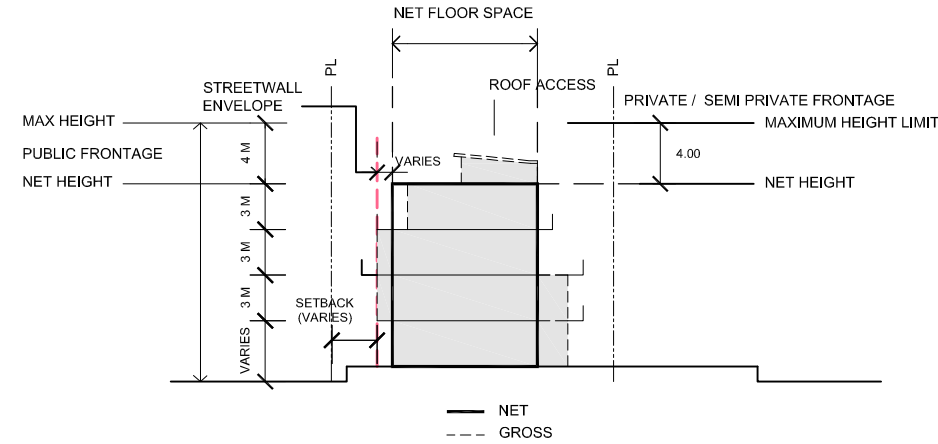
Refer to section C, “Character and Expression” for further information regarding massing and articulation of different building typologies.

TOWNHOUSES



PLAN

- **Plans:** Townhouses are intended to have a high degree of articulation. For most of the units, a streetwall envelope of 1 m is set for the front of the unit while more flexibility is anticipated at the rear of the unit where projections and recesses may be introduced to optimize outdoor use.

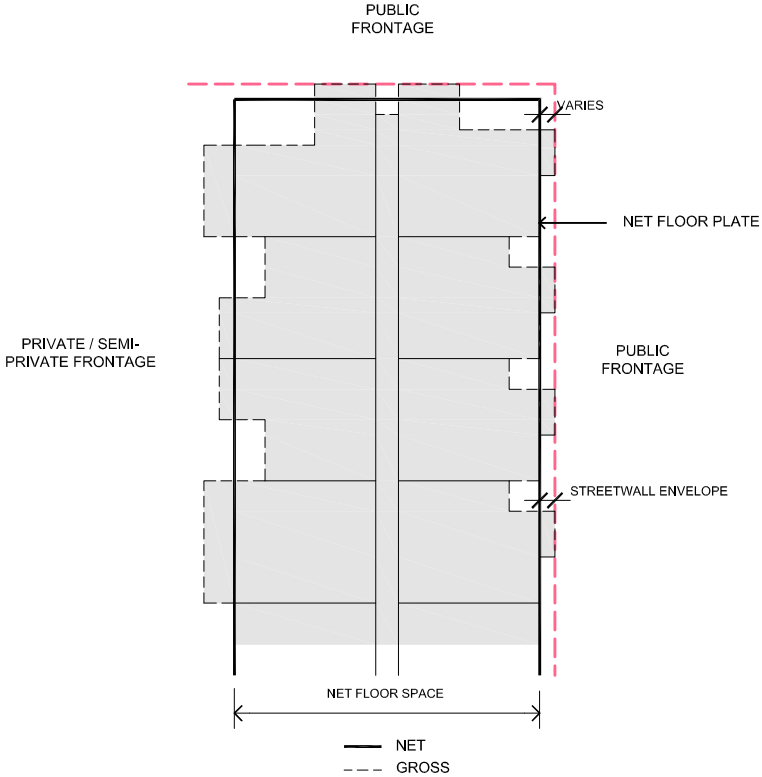


SECTION - 3 and 4 STOREYS

- **Sections:** Floor-to-floor heights in townhouses are generally 3m (10') with the exception of the ground and uppermost floors which vary. Similar to the tower and mid-rise buildings, a net height provides the general height whereas certain appurtenance are anticipated for areas and increased articulation. Refer to note on “Maximum Height”.

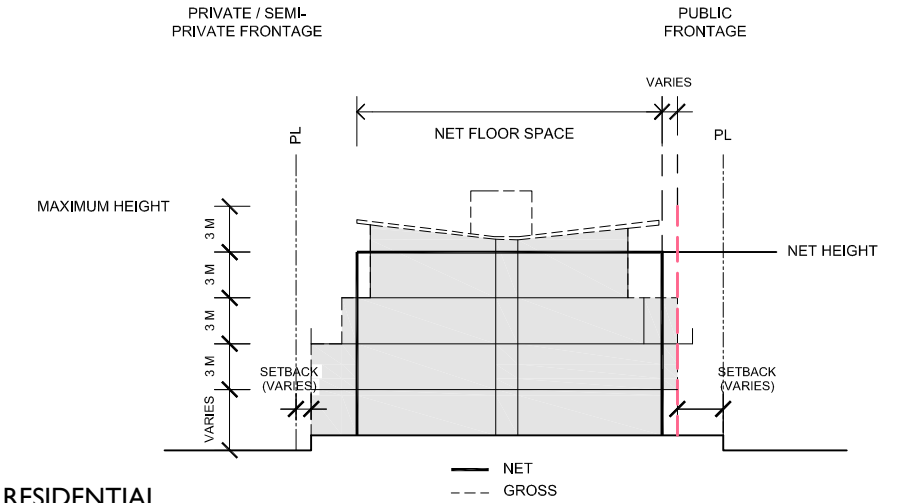
SCALE 1:500

PLAN:

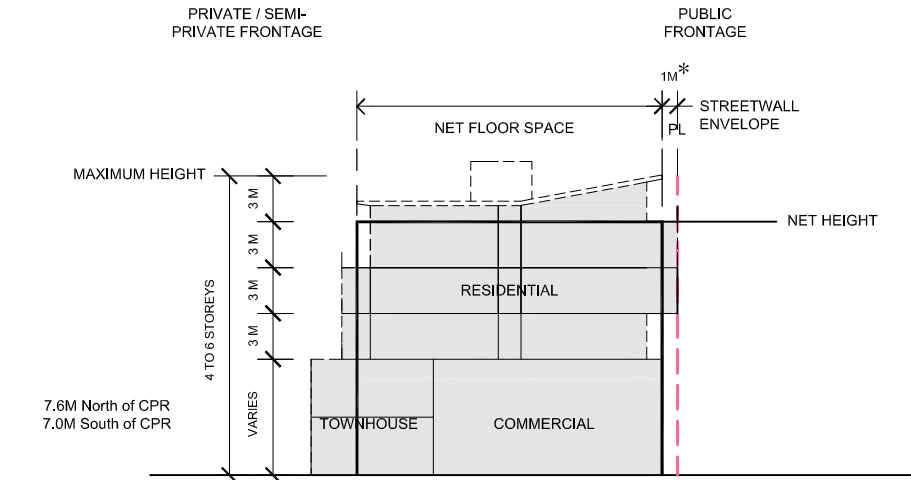


TYPICAL FLOOR PLAN (PARTIAL)

SECTIONS:

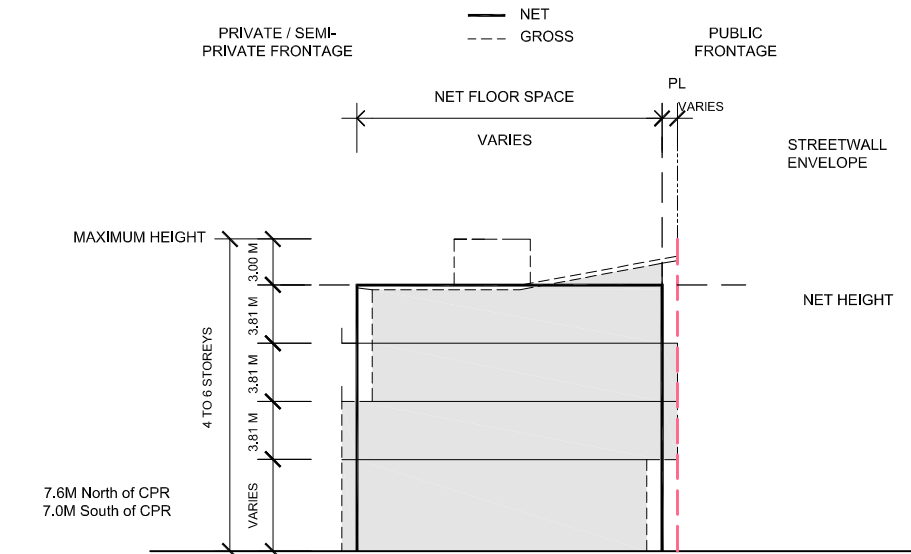


RESIDENTIAL



MIXED USE

* **Note:** Intent for this IM space at grade is to allow for tables and chairs as well as merchant displays. Projection of built form is limited to 50% of the frontage.



COMMERCIAL OFFICE

SCALE 1:500

- **Plans:** Generally, the streetwall envelope is established at 1m beyond the net floorspace for commercial and public frontages to ensure a well-defined public realm. The plan diagram demonstrates how projections to and recesses from the net floorspace can be accommodated within the envelope (dashed line) at the public frontage.

Note : The net floorspace for low and mid-rise buildings is generally indicated as 18m to 20m in width.

- **Sections:** Low-rise buildings are up to 4 storeys in height; mid-rise buildings range from 5 to 6 storeys, and floor-to-floor heights vary depending on the use (refer to diagrams). For instance, it is intended that commercial uses at grade have generous floor-to-floor heights, appropriate to the public nature of this frontage. Residential uses at grade would make use of overheight space for lobbies but would generally follow the average residential floor-to-floor height of 3m. Middle storeys are indicated as 3m for residential and 3.81m for office use to allow for servicing requirements. At top floors, where a high degree of articulation is encouraged, heights are expected to vary, allowing for an additional 3m to achieve this.
- In general, recessing of floors above four storeys from the streetwall should be considered.

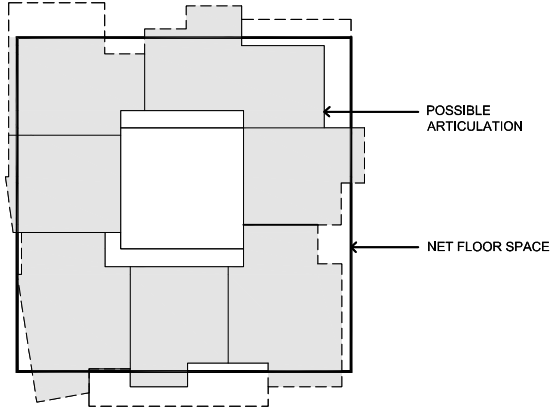
EXAMPLE 1:

EXAMPLE 2:

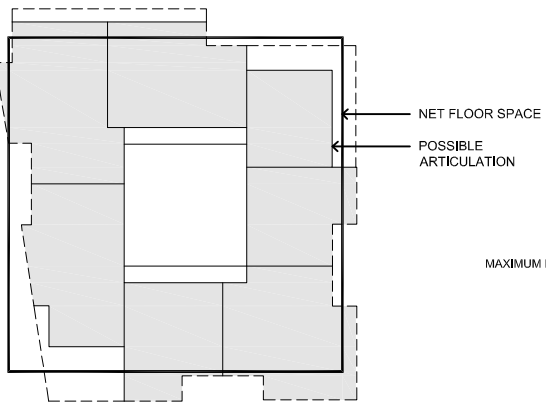
TOWERS

- **Plans:** Examples of upper and lower floor plans for two towers are provided to demonstrate possible articulation and the intent for reducing tower mass at upper levels.
- **Sections:** Towers in EFL are generally integrated into a lower mid-rise building base. Massing for towers is anticipated to have a high degree of articulation with a reduction of mass at the upper levels. To achieve this, tower design should take the following vertical zones into consideration:
 - **Streetwall zone** - up to 6 storeys
The tower is integrated into the mid-rise building streetwall, generally following mid-rise massing parameters. (Note: This does not preclude some legibility of the tower in this zone.)
 - **Transition zone** - from streetwall up to 9 storeys.
There is flexibility in this transition zone for a variety of massing approaches: Extended mid-rise base; Simple low, mid-rise base or small secondary tower element.
 - **Tower zone** - 10th floor and higher
Reduced floorplates create a slimmer tower profile at upper levels and articulation of top floors provides architectural interest and a distinctive identity.

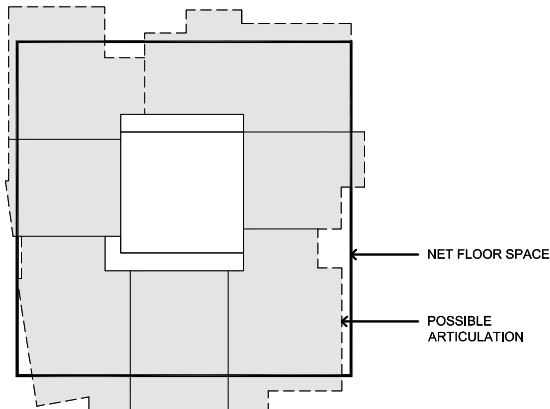
Floor-to-floor heights for towers are generally indicated as 3m for typical floors. However, as in mid-rise buildings at ground floor and penthouse levels, a range is provided. At grade, this increased height is intended to encourage higher entry lobbies and easier integration with retail at the base. At the top floor, screening of the mechanical penthouse and a more interesting architectural expression is the aim.



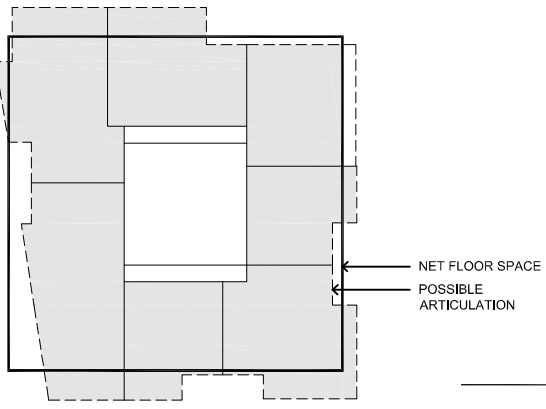
TYPICAL FLOOR PLAN, UPPER STOREYS



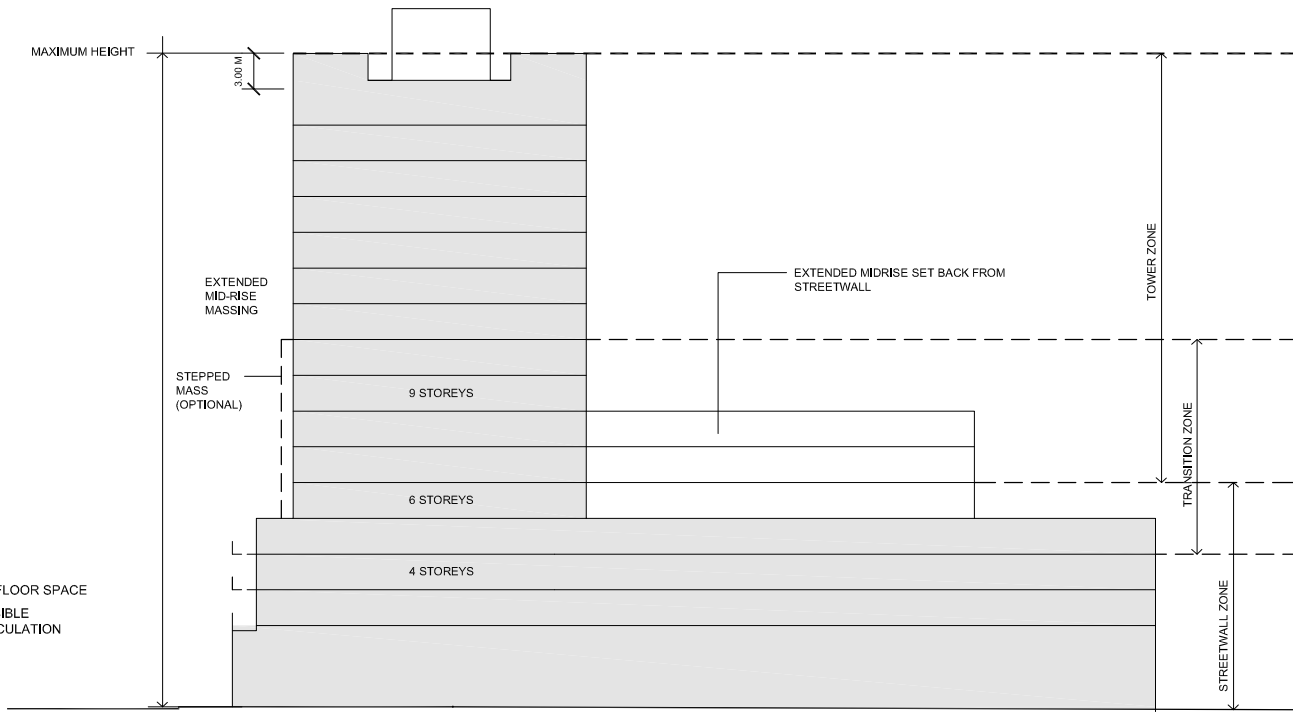
TYPICAL FLOOR PLAN, UPPER STOREYS



TYPICAL FLOOR PLAN, LOWER STOREYS

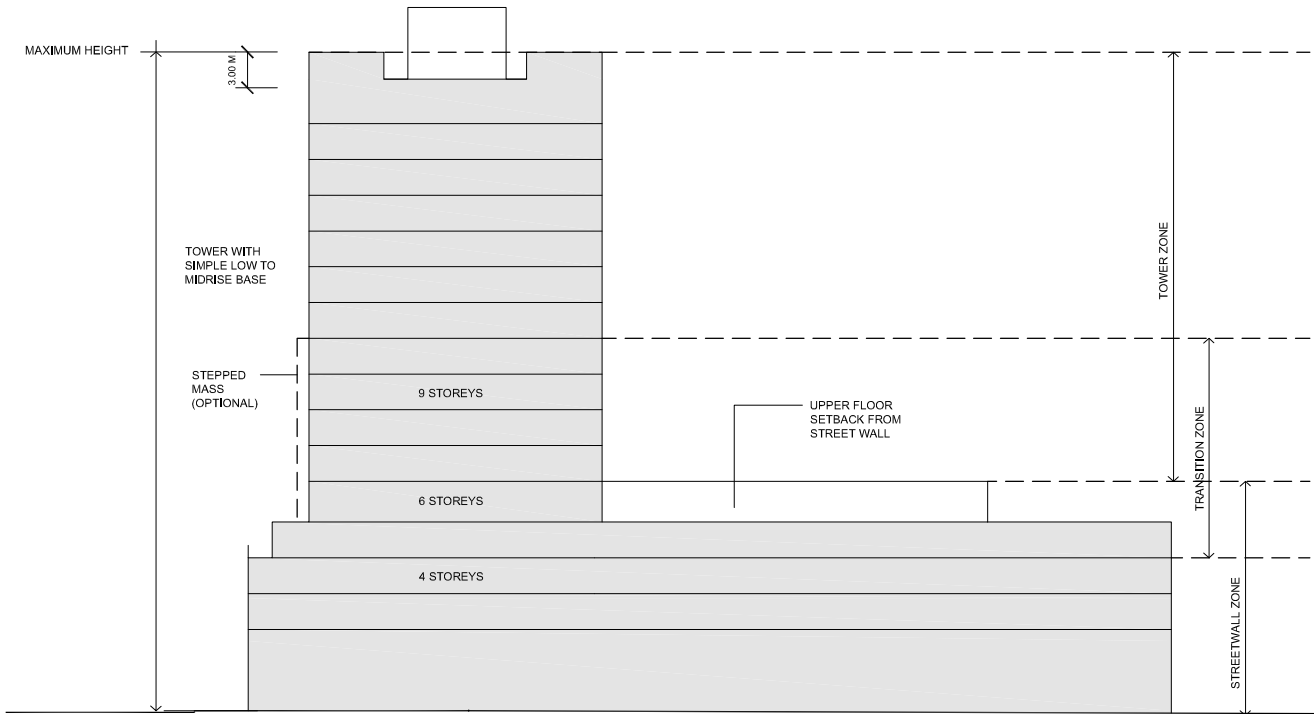


TYPICAL FLOOR PLAN, LOWER STOREYS

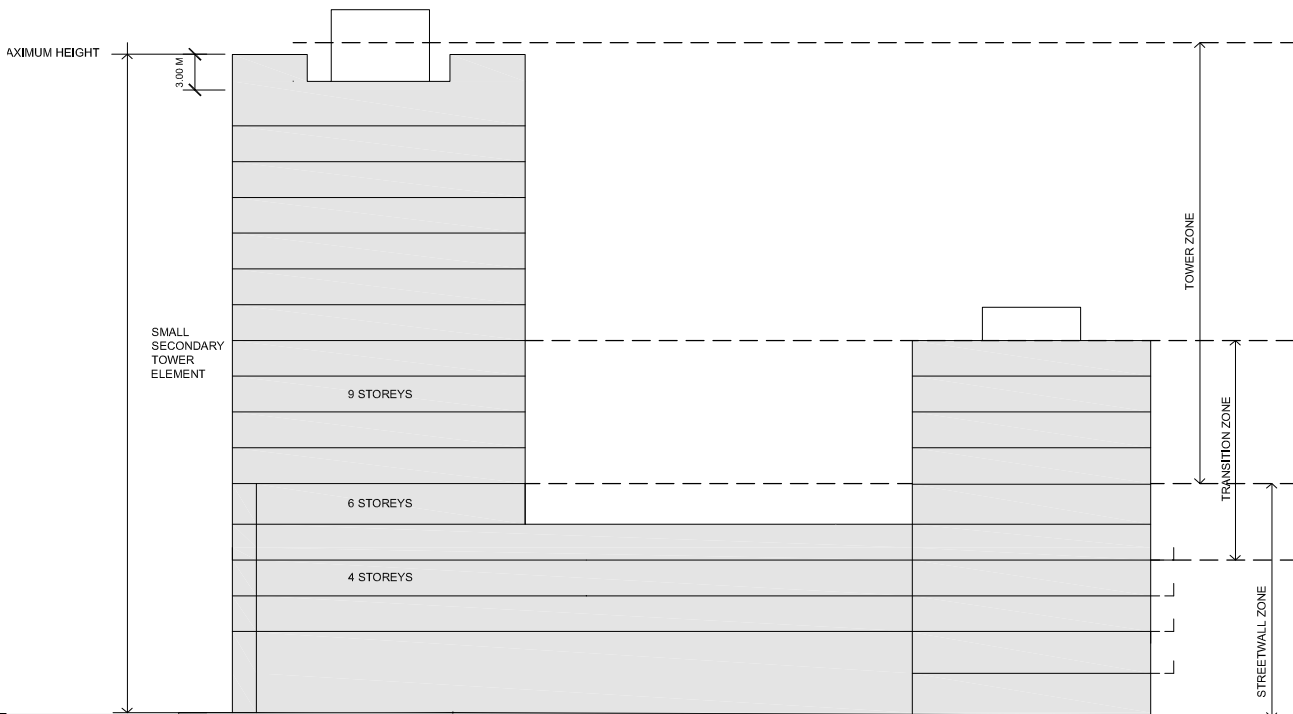


SECTION I - EXTENDED MID-RISE BASE

— NET
--- GROSS



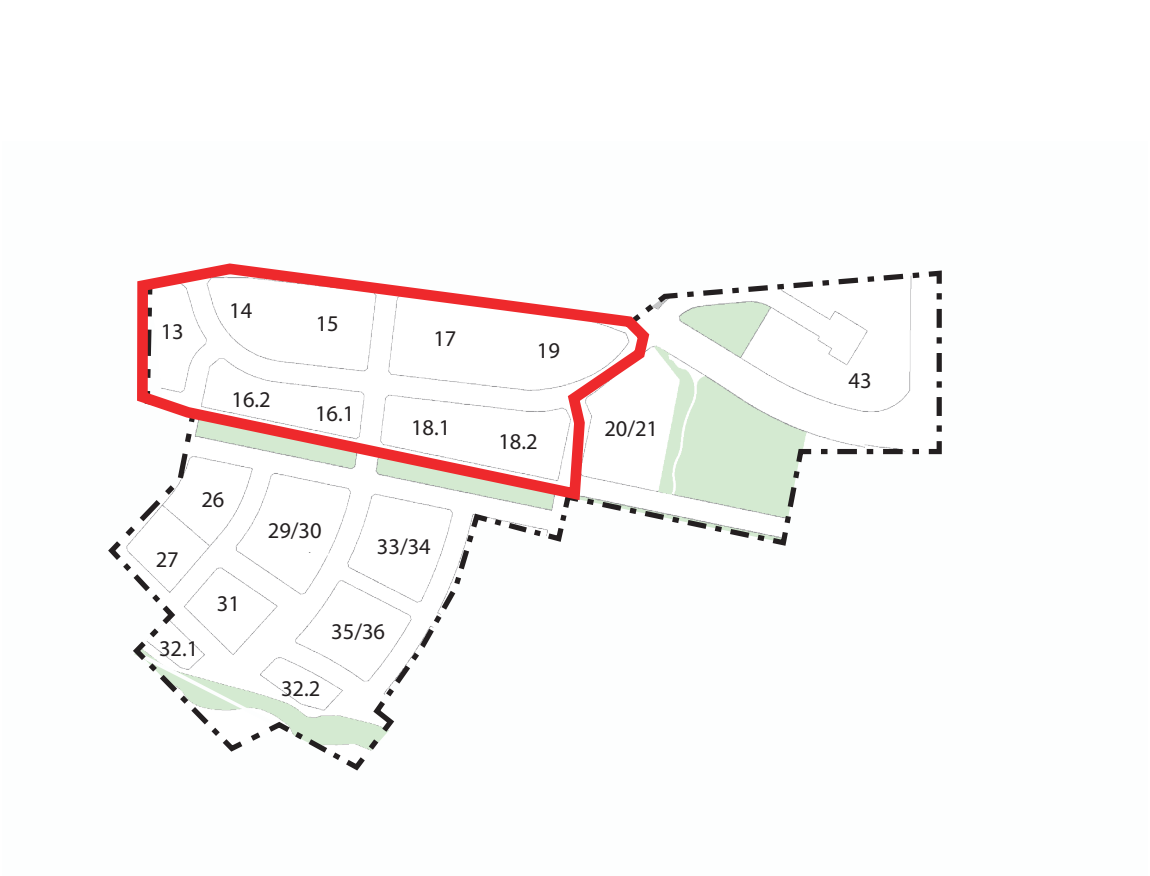
SECTION 2 - SIMPLE LOW - MID-RISE BASE



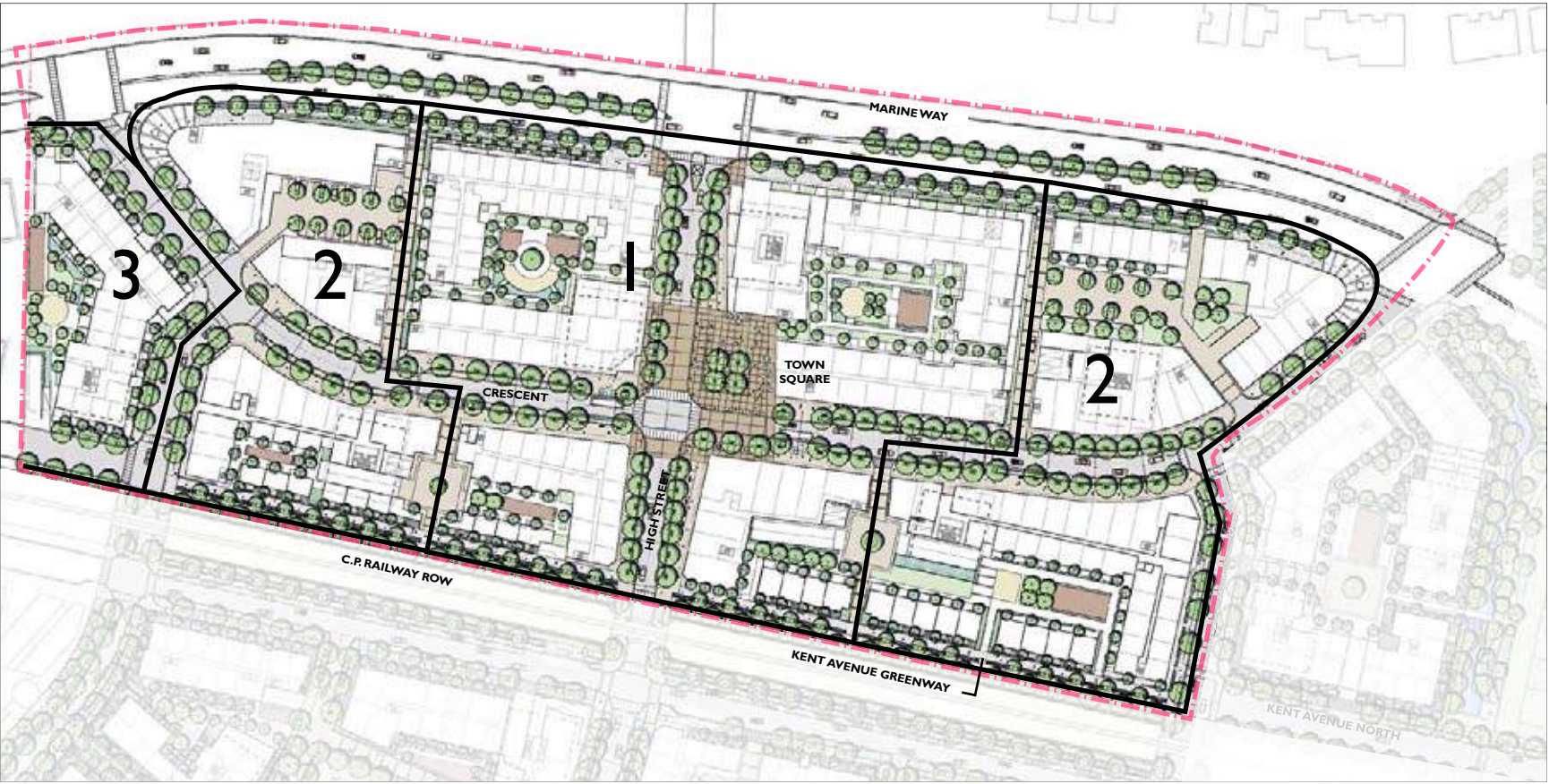
SECTION 3 - SMALL SECONDARY TOWER ELEMENT

3.0 Development Parcels

3.1 Town Square Precinct



3.1 Town Square Precinct



	RESIDENTIAL		FLEX USE				COMMERCIAL/RETAIL		TOTAL	
			COMMERCIAL/LIVE-WORK		OFFICE					
	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.
TOWN SQUARE PRECINCT										
Precinct Sub-Total	140,594	1,513,341	9,284	99,932	14,422	155,237	15,183	163,428	179,483	1,931,939
Sub Area 1 Total	57,634	620,367					15,183	163,428	72,817	783,796
Parcel 15	21,982	236,612					5,263	56,650	27,245	293,263
Parcel 16.1	5,652	60,838					2,100	22,604	7,752	83,442
Parcel 17	23,986	258,183					5,820	62,646	29,806	320,829
Parcel 18.1	6,014	64,734					2,000	21,528	8,014	86,262
Sub Area 2 Total	63,840	687,168	9,284	99,932	14,422	155,237			87,546	942,337
Parcel 14	3,173	34,154	1,391	14,973	8,844	95,196			13,408	144,323
Parcel 16.2	20,738	223,222	1,894	20,387					22,632	243,609
Parcel 18.2	26,373	283,877	2,562	27,577					28,935	311,454
Parcel 19	13,556	145,916	3,437	36,996	5,578	60,041			22,571	242,952
Sub Area 3 Total	19,120	205,806							19,120	205,806
Parcel 13	19,120	205,806							19,120	205,806



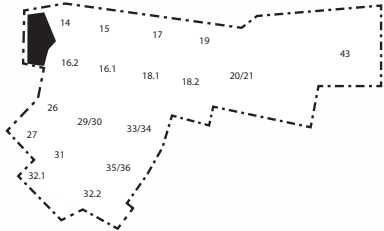
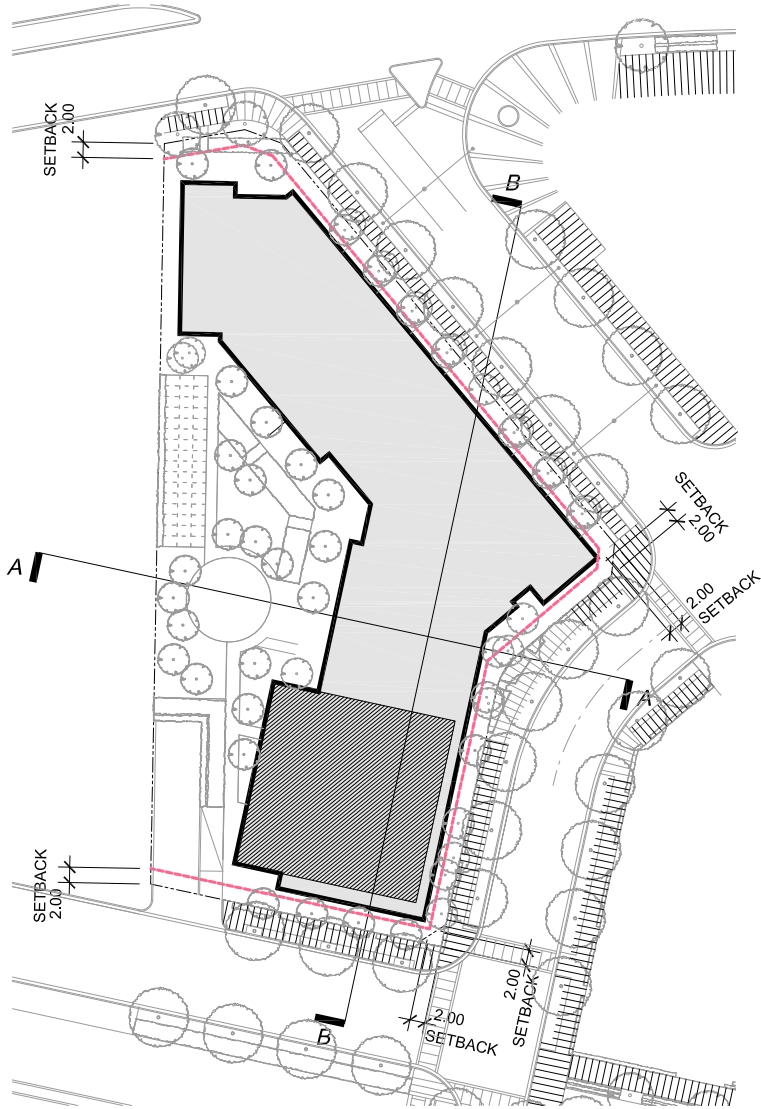
PARCEL 13 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	20	19,120	205,806
Total Residential		19,120	205,806

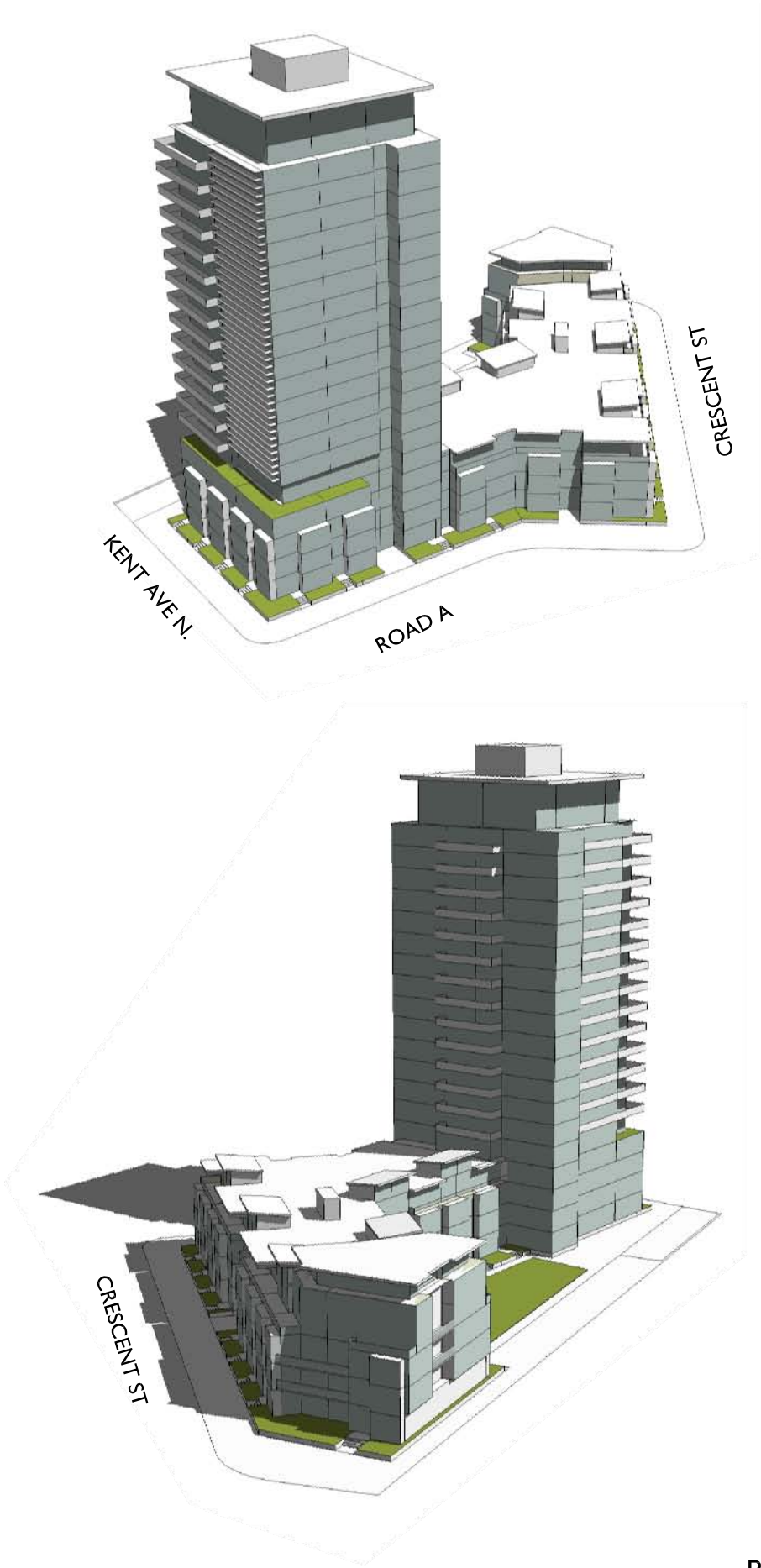
Urban design role: High profile residential block at entry to Crescent

Characteristics:

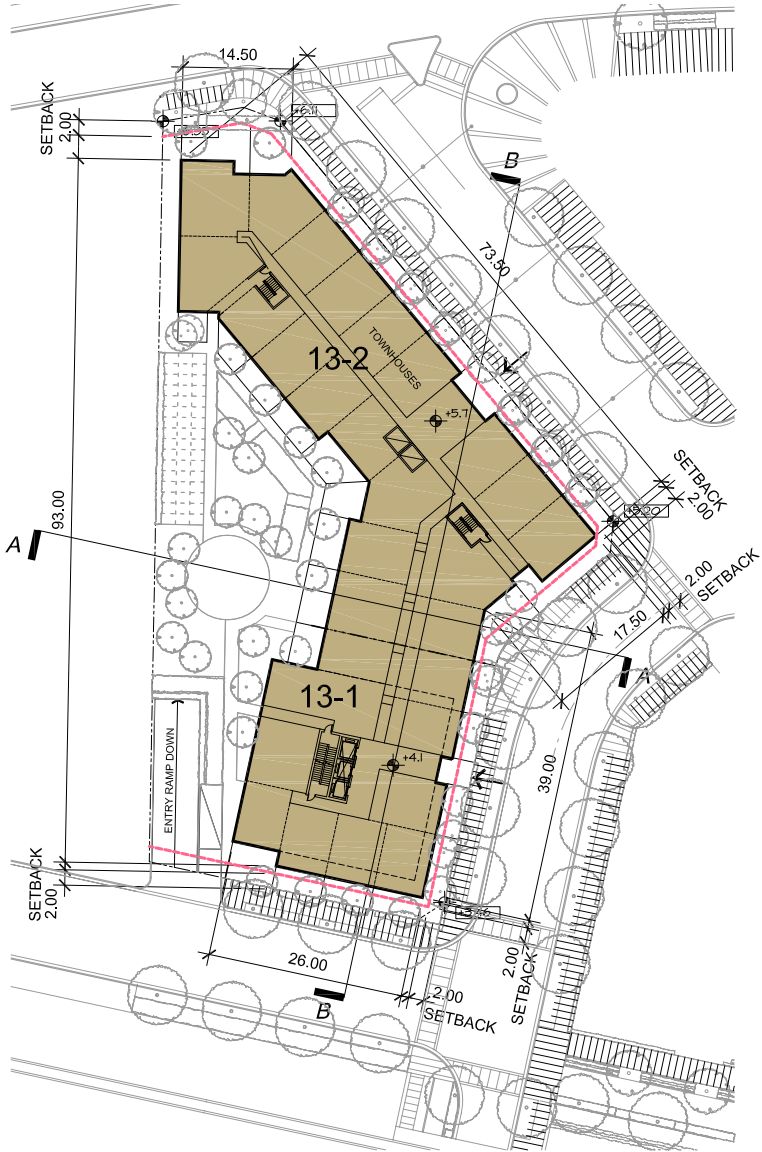
- Frontage along Crescent provides an urban character; townhouse forms complement the commercial 'gateway' building opposite on Parcel 14; stronger massing at NW corner provides an entry gesture
- Setbacks are generally tighter (2m) to reinforce sense of urbanness along Crescent at NE; east and south frontages transition to a less urban treatment
- 20 storey tower marks the western edge of the Town Square precinct and accentuates the corner of this access to the Crescent; corresponds to 16 storey tower at Parcel 21
- Inner block establishes a semi-private garden court
- Building configuration maximizes open space between this development and future adjacent neighbour; units are generally located as far as possible from the existing storage facility; units closest to shared property line are oriented toward the garden court
- Access to underground parking at SW corner of site takes advantage of lower grade and also separates Parcel 13 from storage facility
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



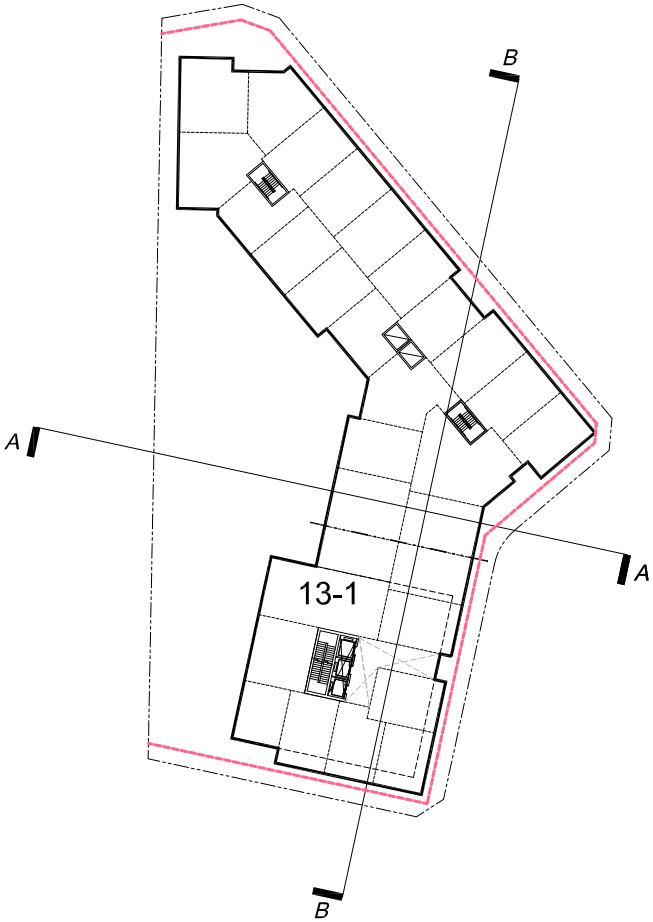
MASSING DIAGRAM



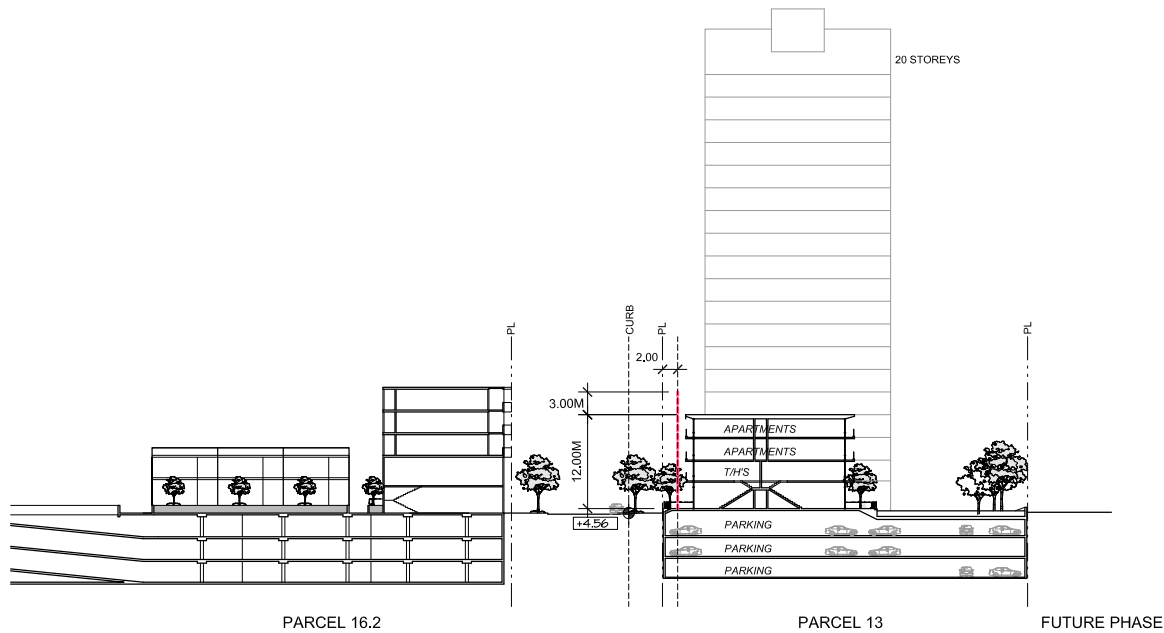
PARCEL 13
I3.a



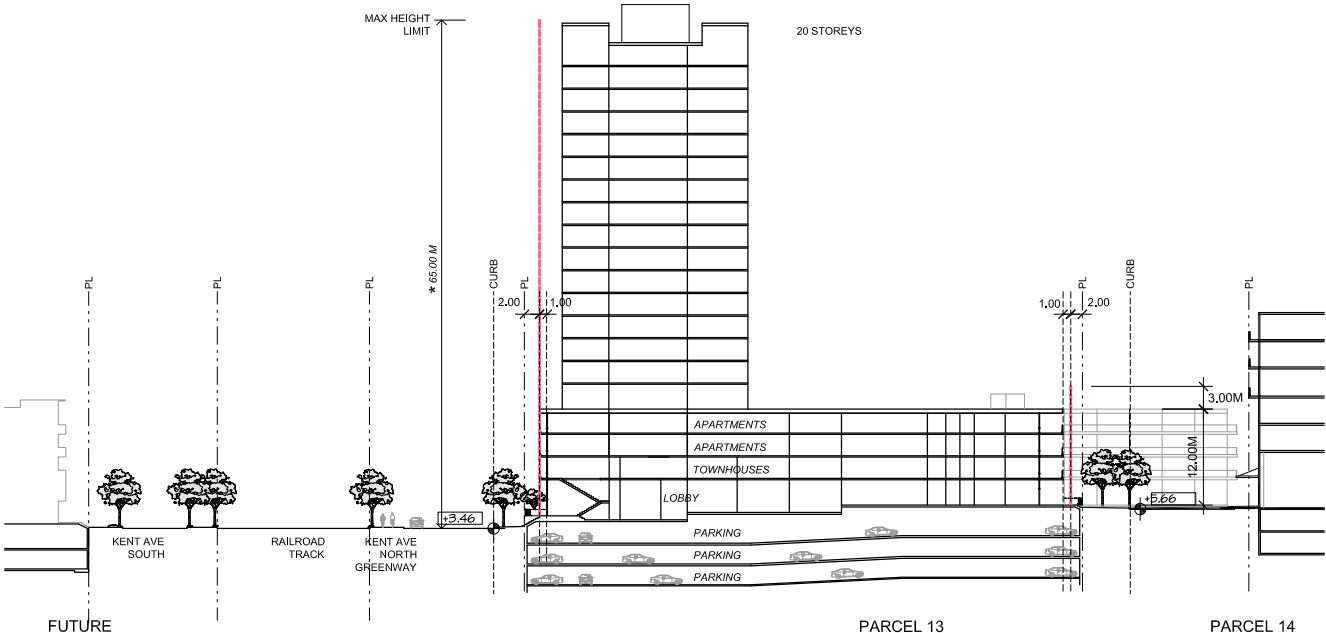
GROUND LEVEL



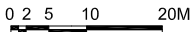
LEVEL 2



SECTION A-A



*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.



PARCEL 13
SCALE 1:1000
13.b

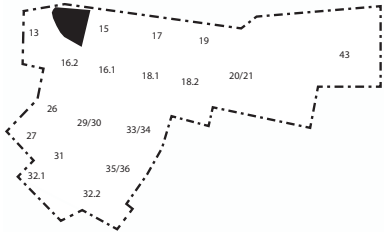
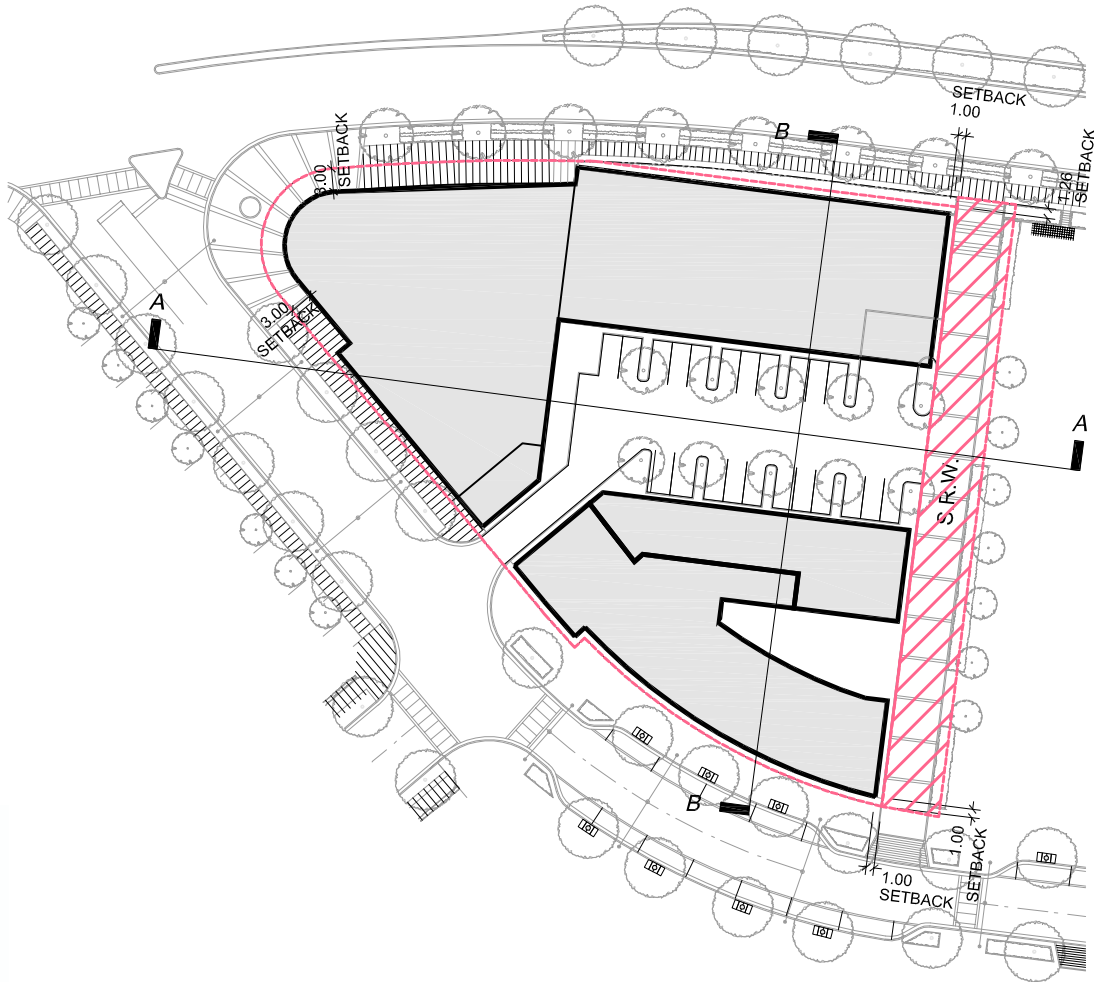
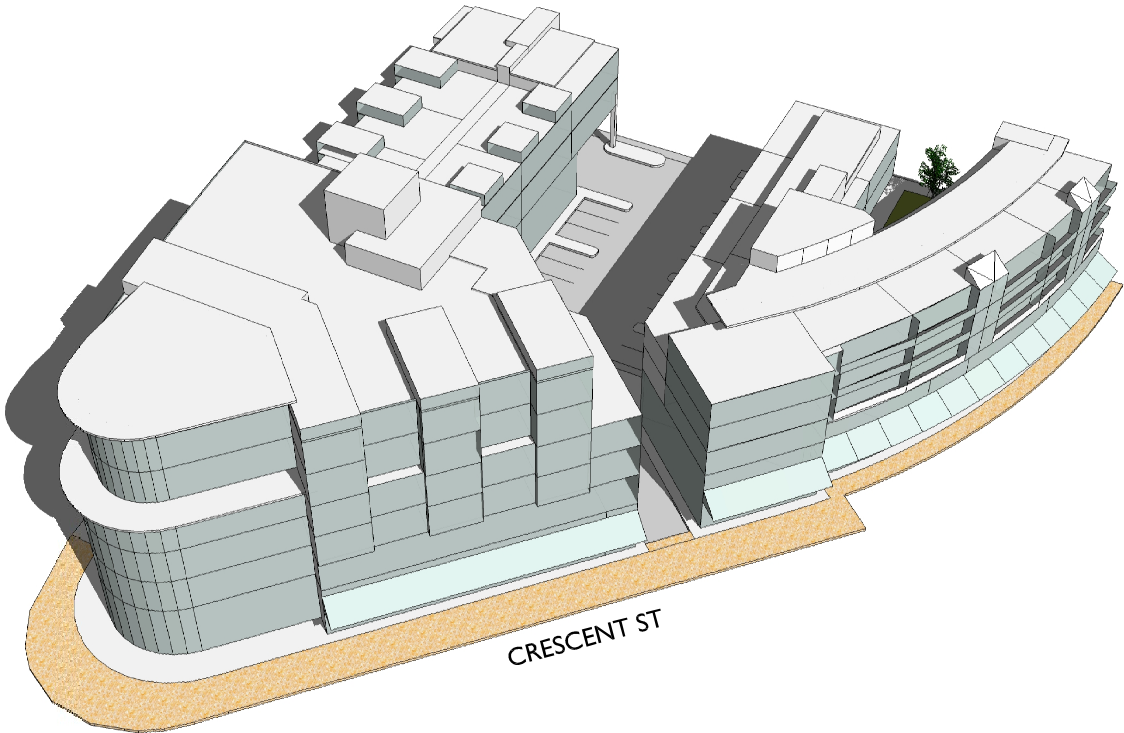
PARCEL 14 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	7	13,408	144,323
Total Residential		3,173	34,154
Total Commercial/Live-work		1,391	14,973
Total Office		8,844	95,196

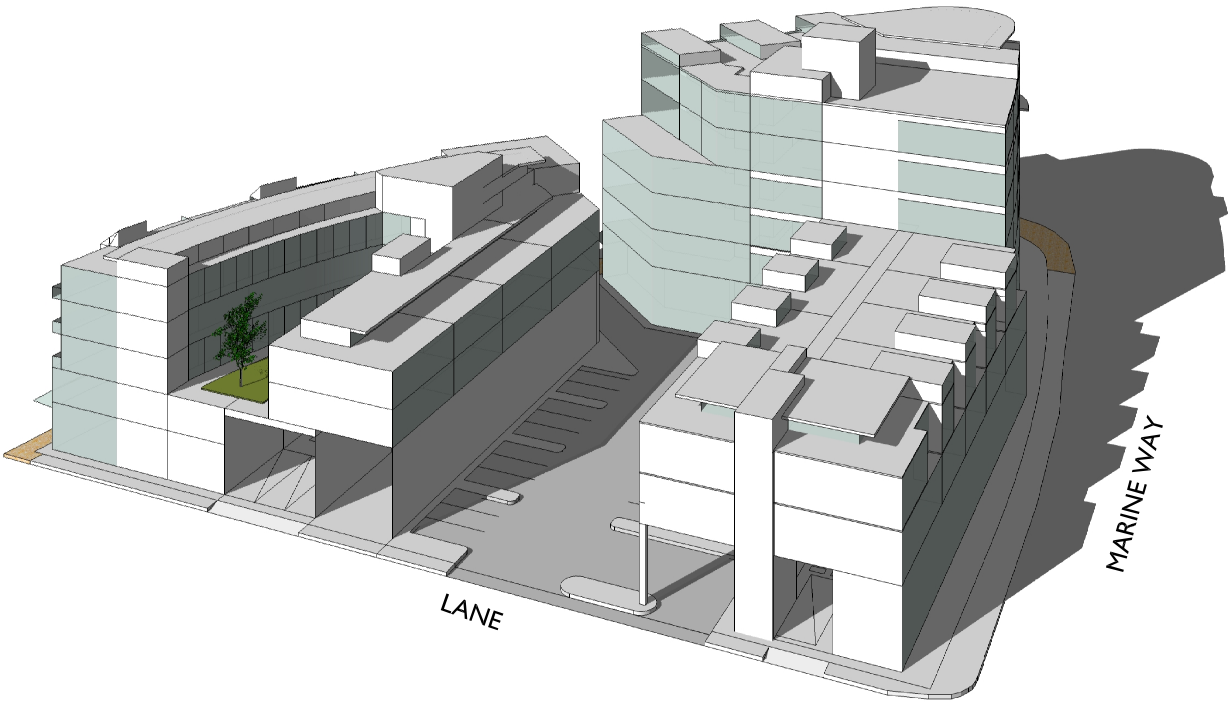
Urban design role: West 'gateway' block; high exposure to Marine Way; first indication of commercial core

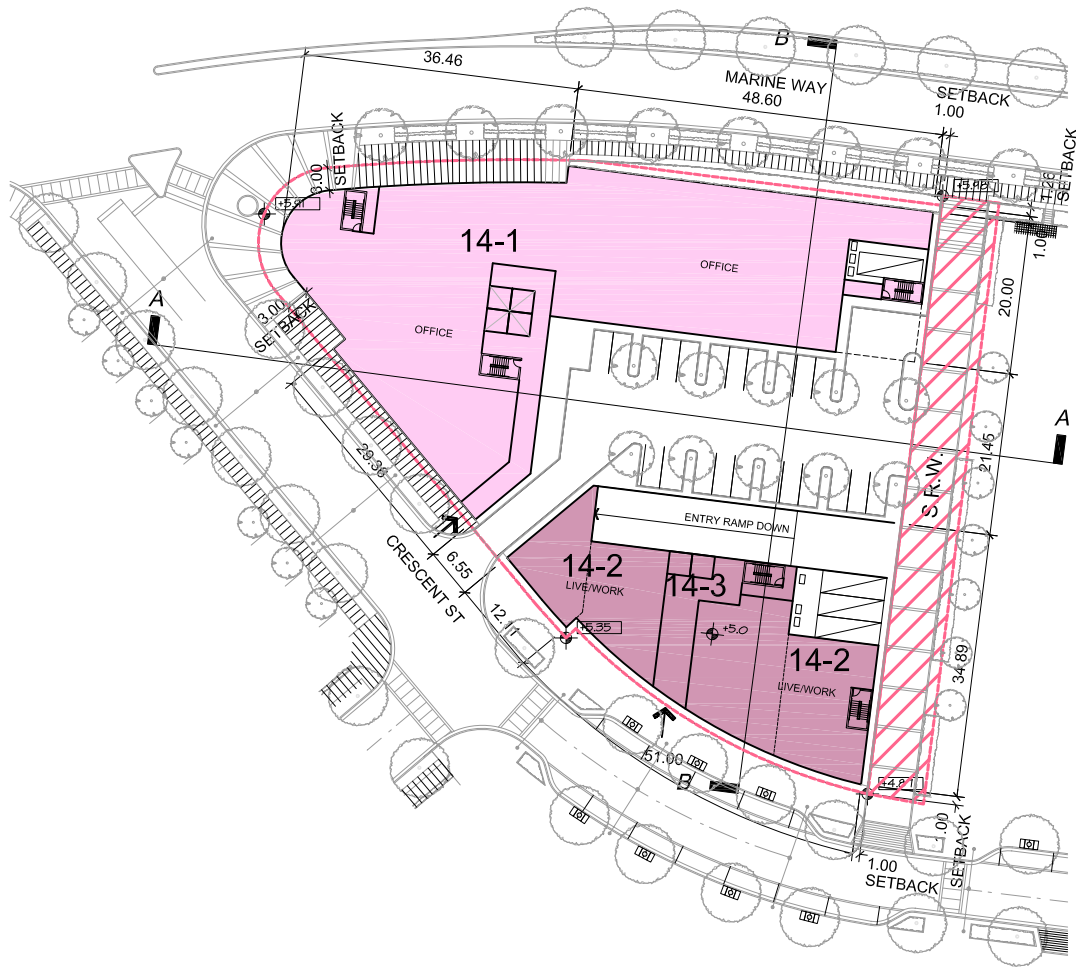
Characteristics:

- Six storey flatiron form creates a distinctive building at the west entry to precinct
- Marine Way frontage steps from six storeys to four - corresponding to general height on adjacent Parcel 15
- Inner block provides a treed parking court for easy access to commercial; access from Crescent at two points facilitates circulation for multiple users; porte cochere provided as ambulance access for possible health agency*
- Underground parking accessed from lane on east side, immediately on entering the site; lane shared with Parcel 15
- Live/work uses fronting on Crescent has a strong urban character; ground floor heights are similar to retail in adjacent mixed use blocks; canopies may be less continuous but clearly marking entrances to 'service commercial' spaces within live/work
- *Public health agency may be accommodated in building 14-1. Program and detailed configuration to be confirmed.
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.
- Commercial / Live-Work uses include: Live-Work, Residential, Manufacturing, Cultural, Recreational, Institutional and Service uses. Refer to relevant CD-1 by-law for details and conditions.



MASSING DIAGRAM

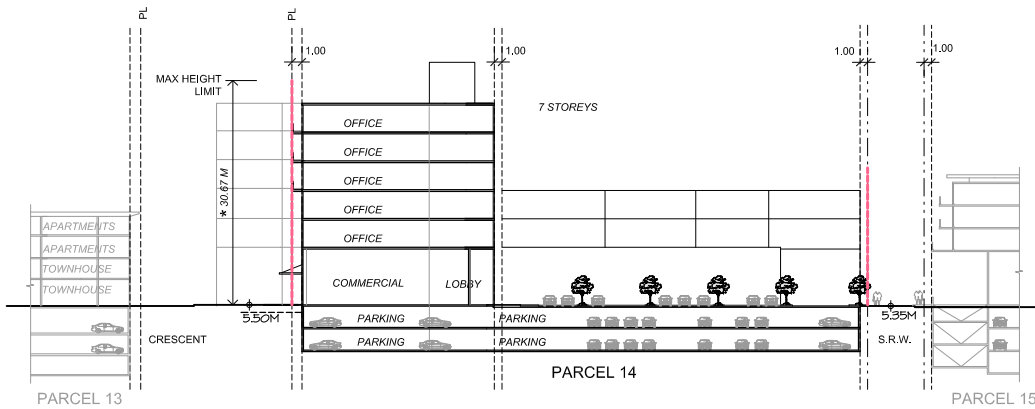




GROUND LEVEL

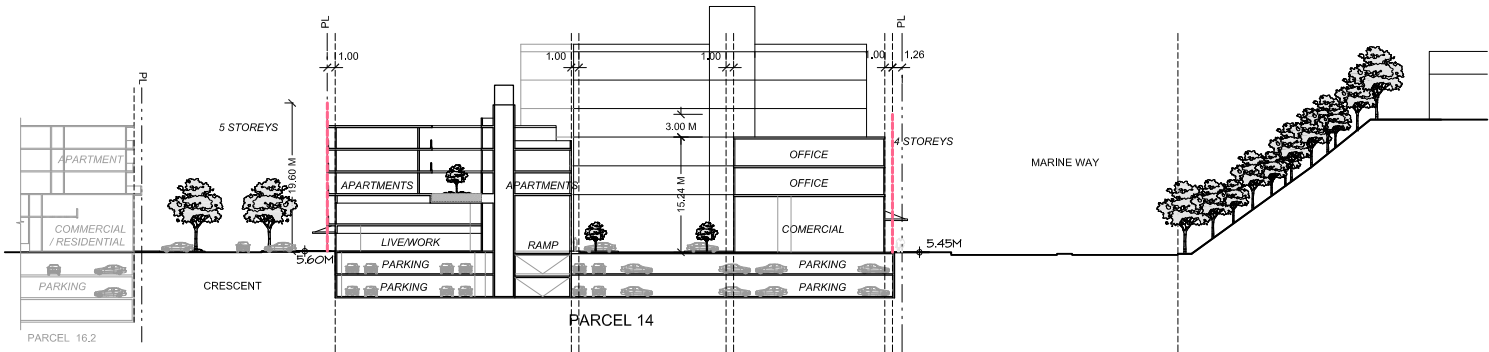


LEVEL 3 & 4



*Dimensions provided are for illustrative purposes only.
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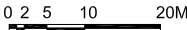
SECTION A-A



SECTION B-B



PARCEL 14
SCALE 1:1000
14.b



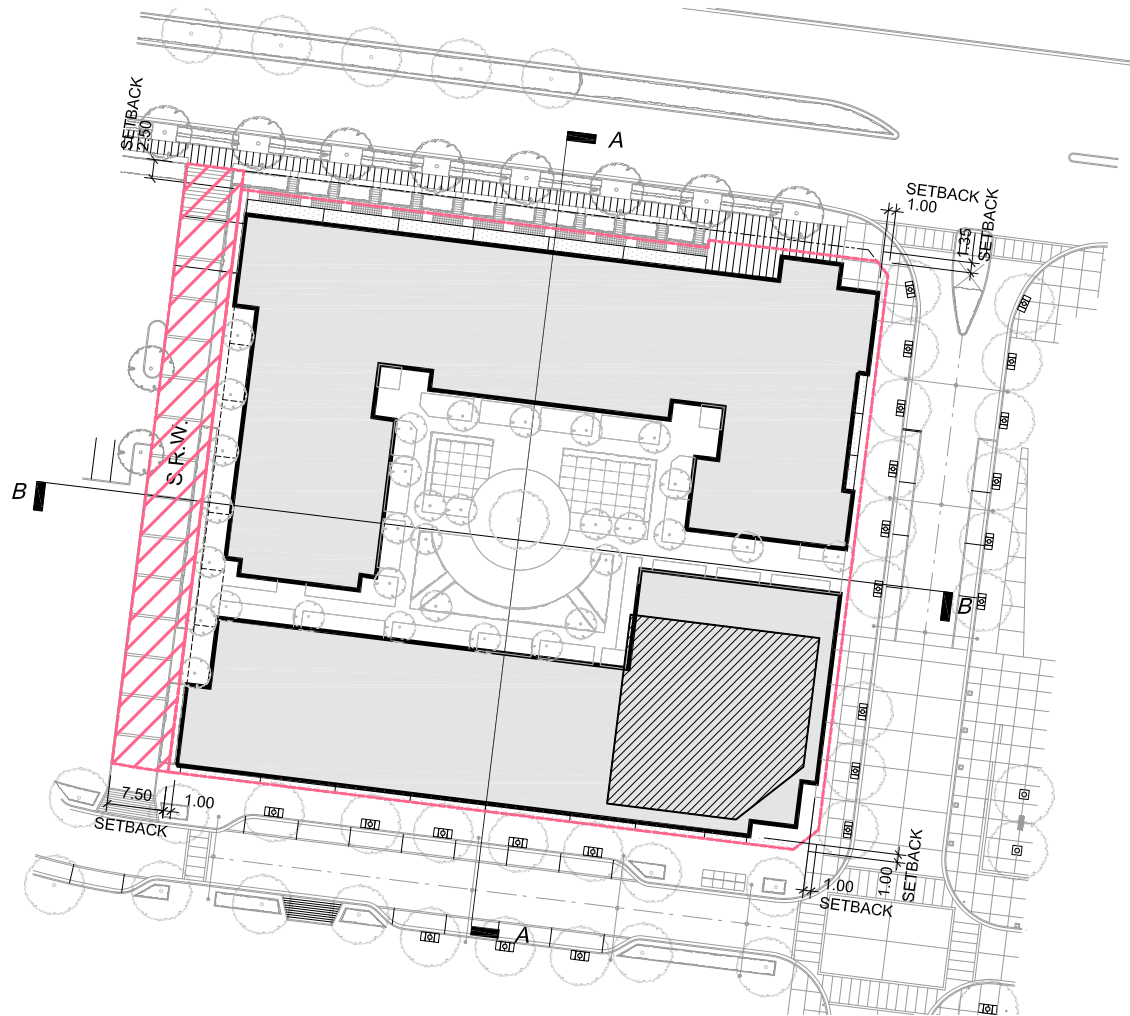
PARCEL 15 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	17	27,245	293,263
Total Residential		21,982	236,612
Total Commercial/Retail		5,263	56,650

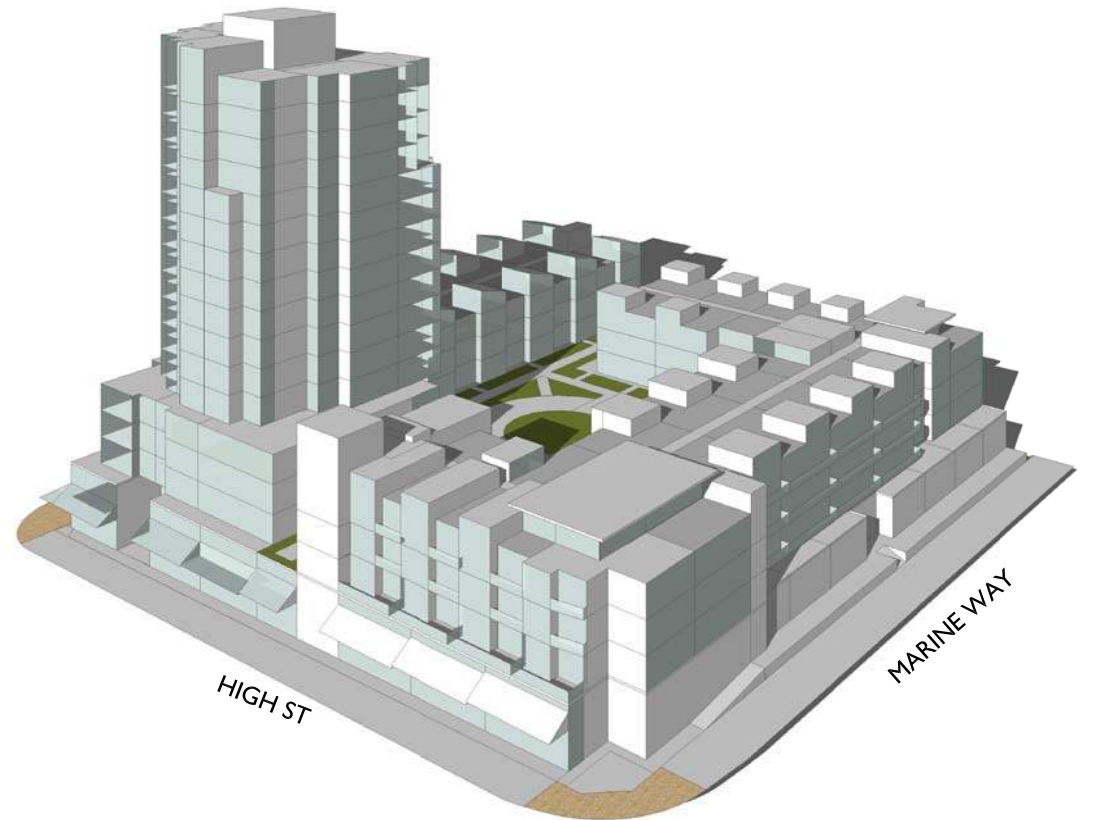
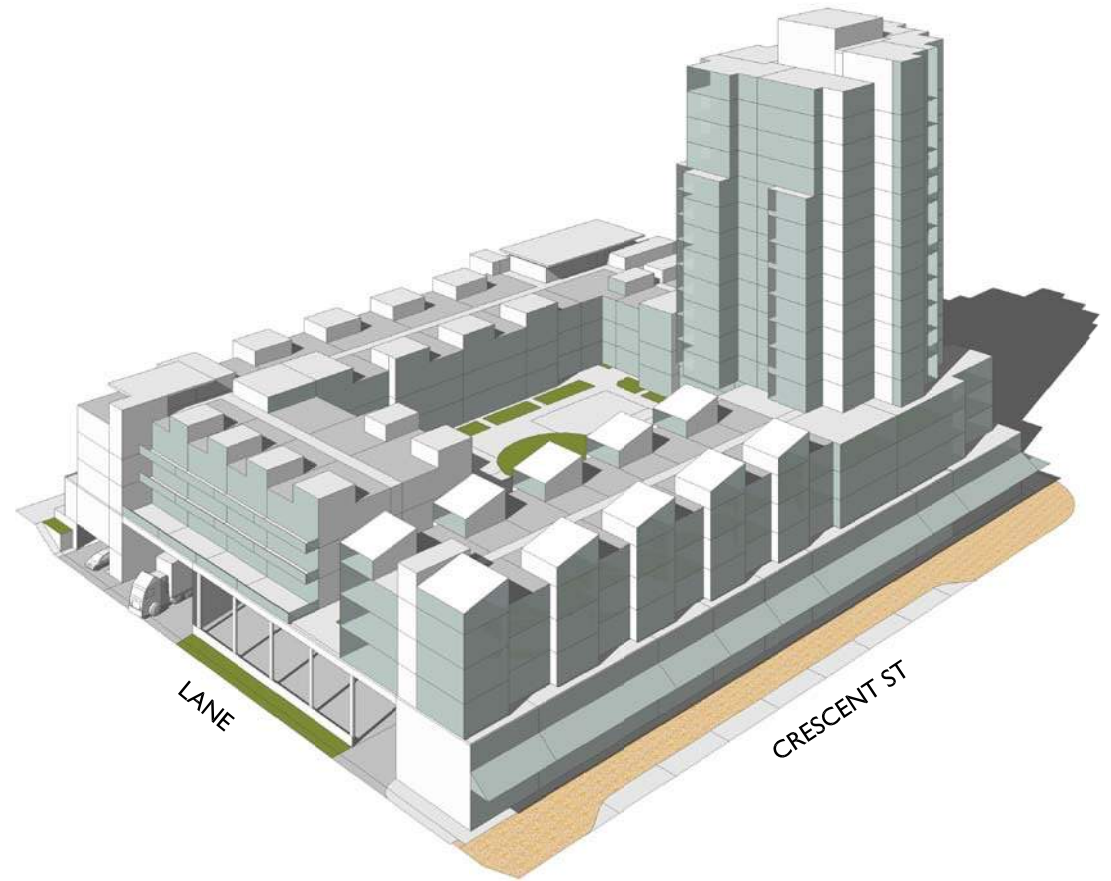
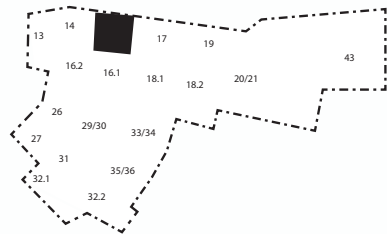
Urban design role: Creates formal entry (with Parcel 17) to High Street and anchors east corner of Town Square with a 17 storey tower; distinctive volume at NE corner mirrors Parcel 17 to reinforce the sense of threshold to the development

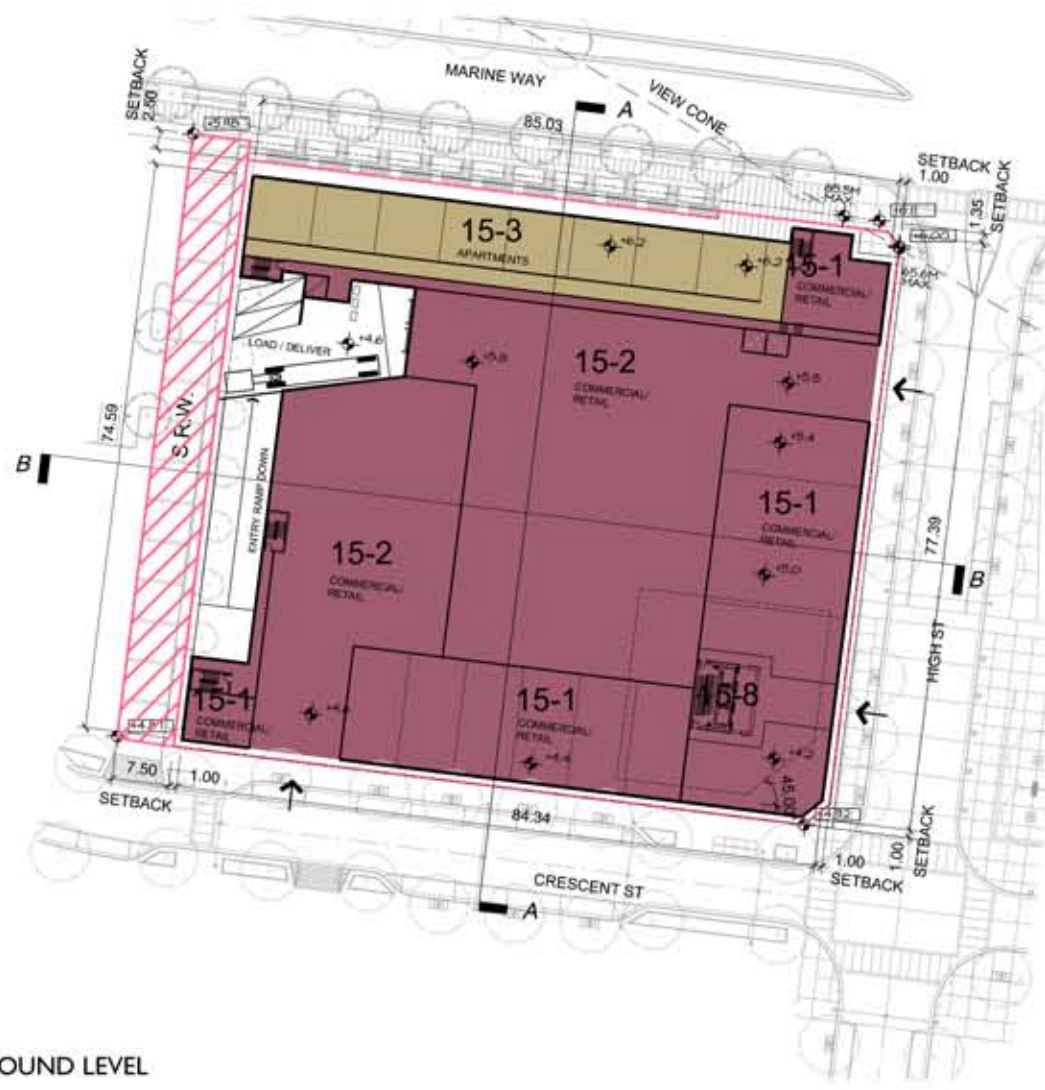
Characteristics:

- Frontage on High Street, Town Square and Crescent calls for a strong urban expression; outdoor access (balconies, decks and the like) is important but should not weaken the streetwall definition for these spaces
- Ground floor and private outdoor space for residential uses at Marine Way frontage to be raised above sidewalk level to provide a more comfortable separation from the street
- Generous garden deck over ground floor commercial provides a lush green semi-private outdoor amenity for residents; private garden patios at perimeter and garden plots in the centre take full advantage of this space for urban gardeners
- Lane at west side provides access to inner block, commercial and residential loading as well as underground parking ramp; stair at north end of lane provides pedestrian access to and from Marine Way; pavers provide a surface reflecting the mixed pedestrian/vehicular use of the lane
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.

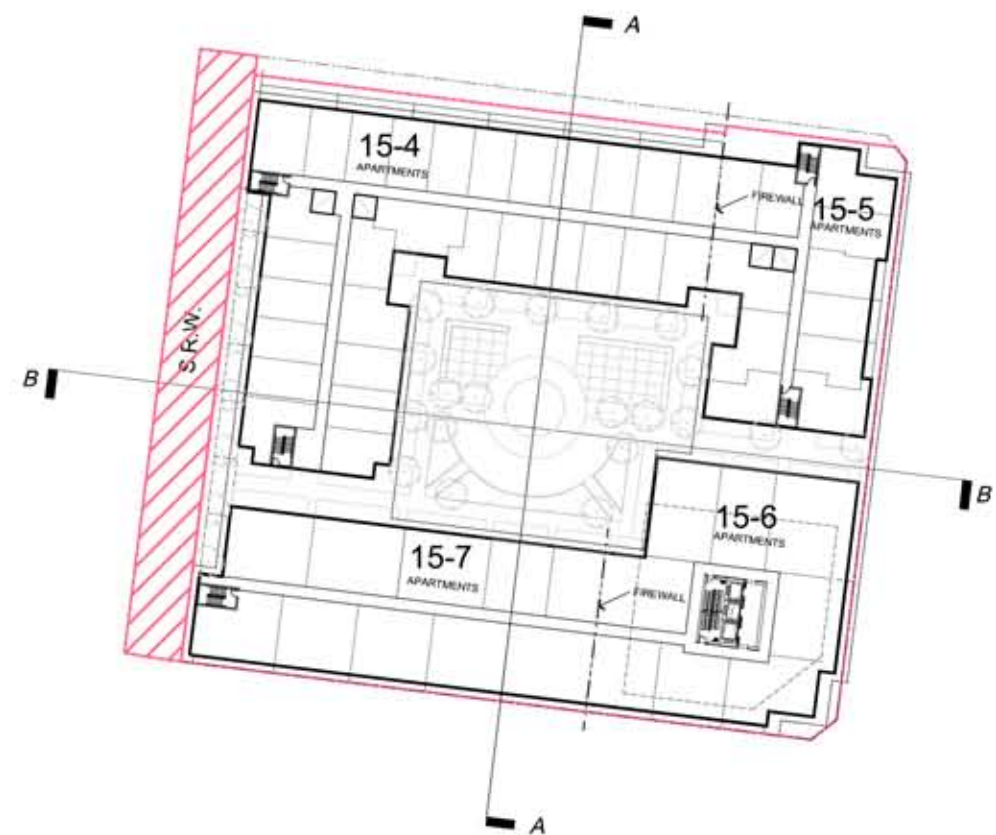


MASSING DIAGRAM

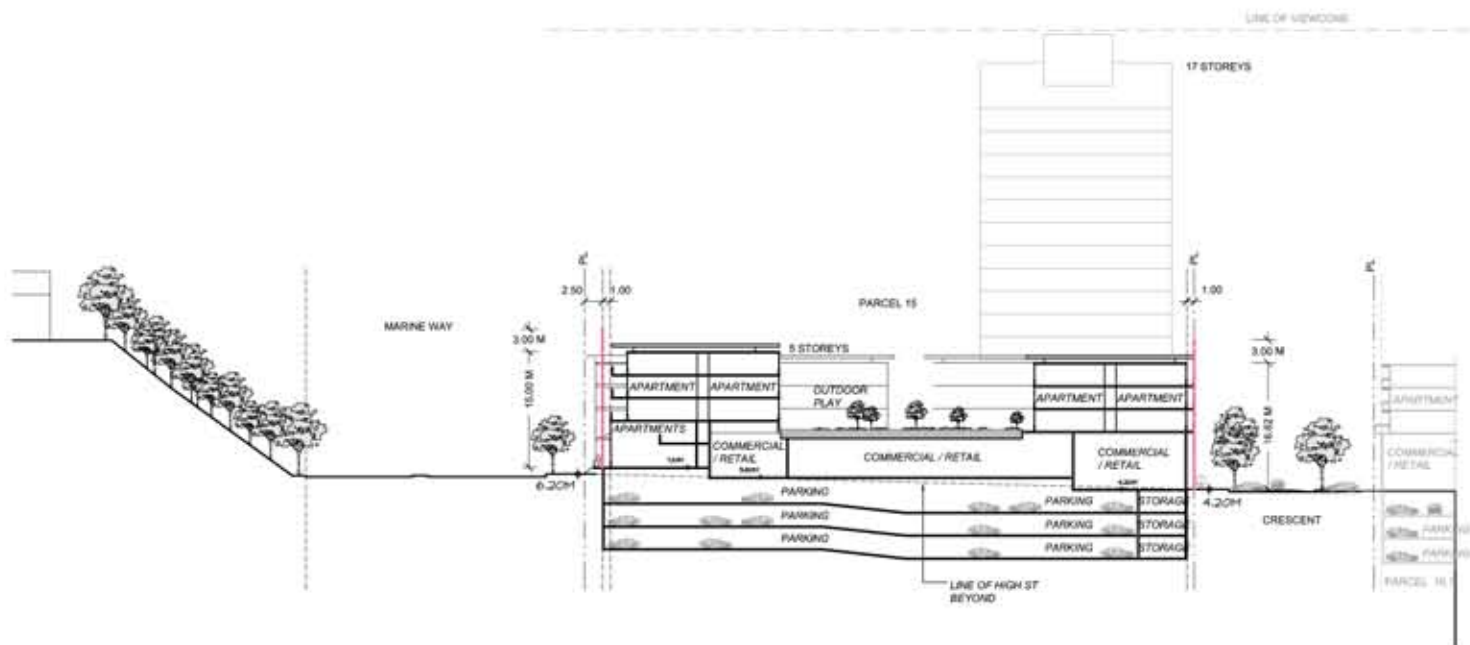




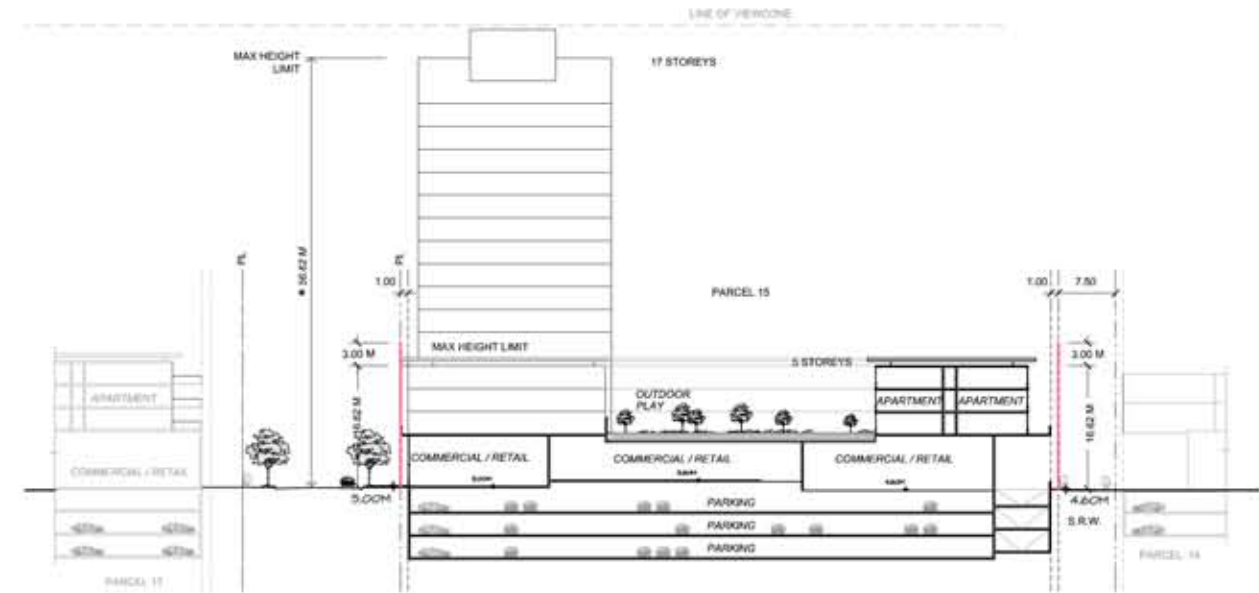
GROUND LEVEL



LEVEL 3



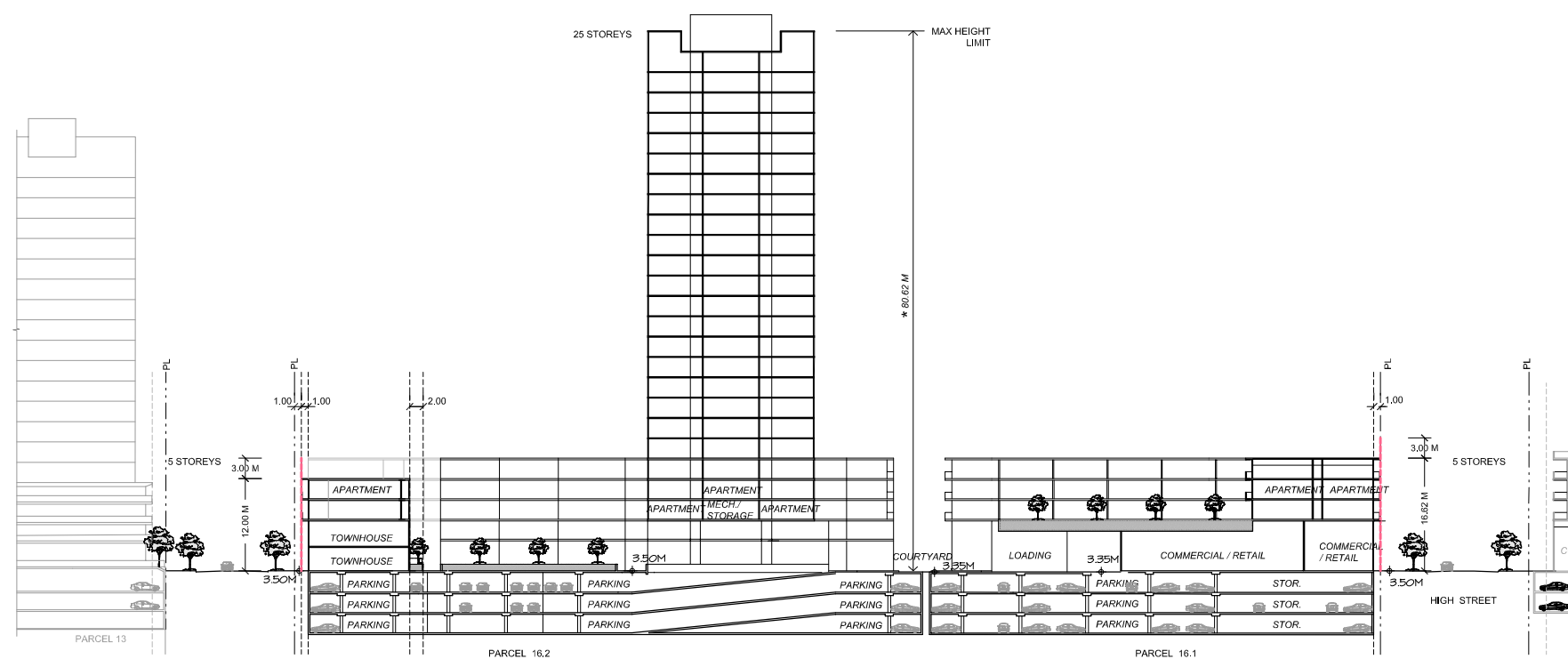
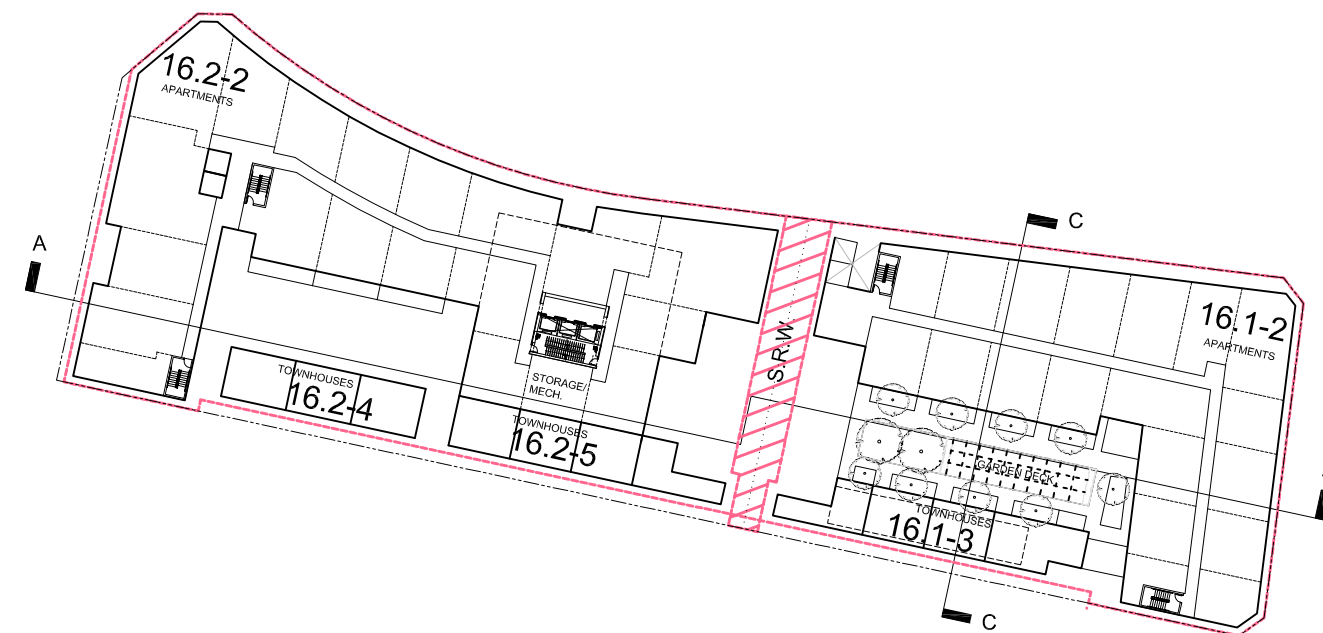
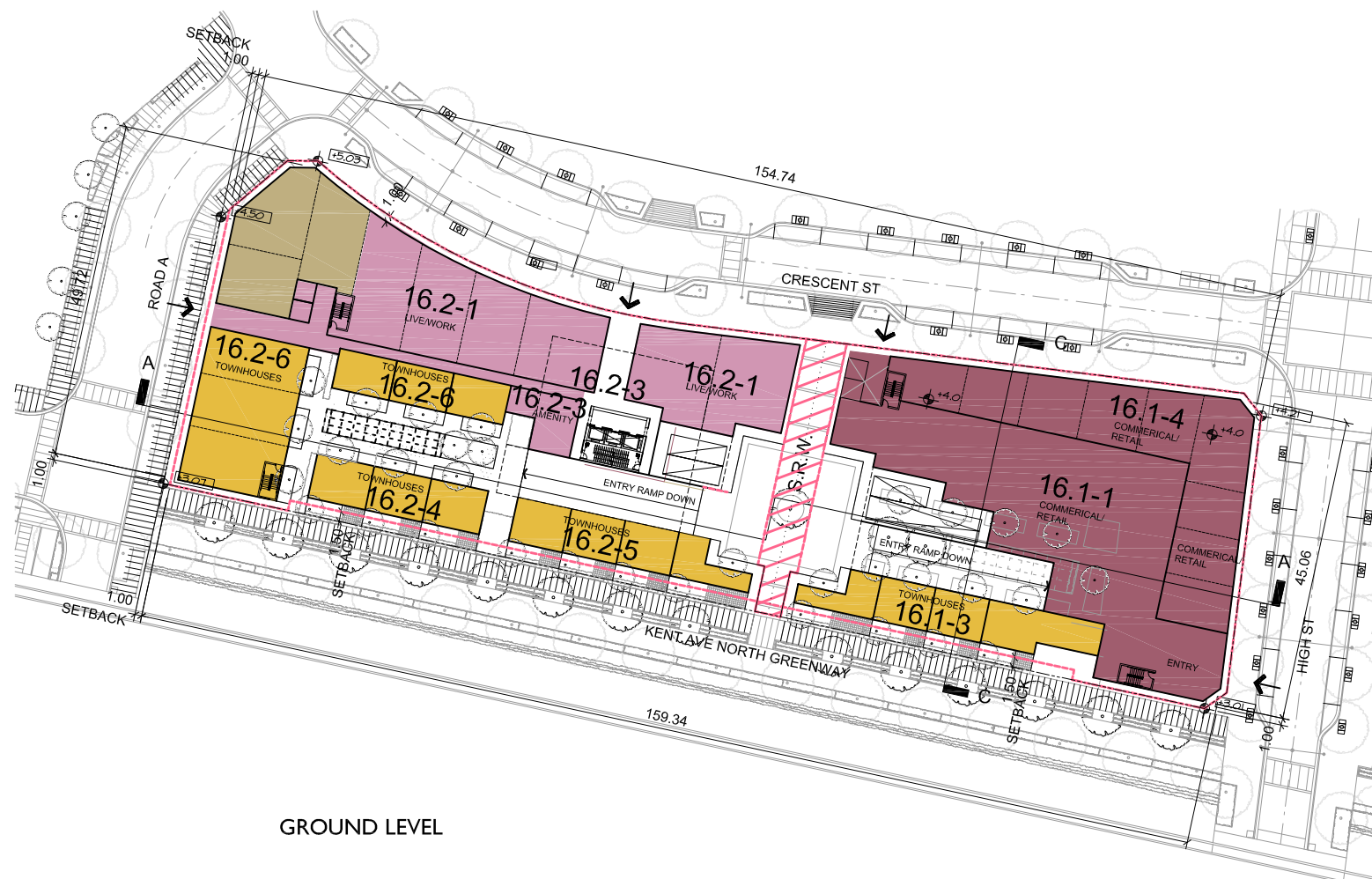
SECTION A-A



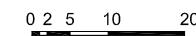
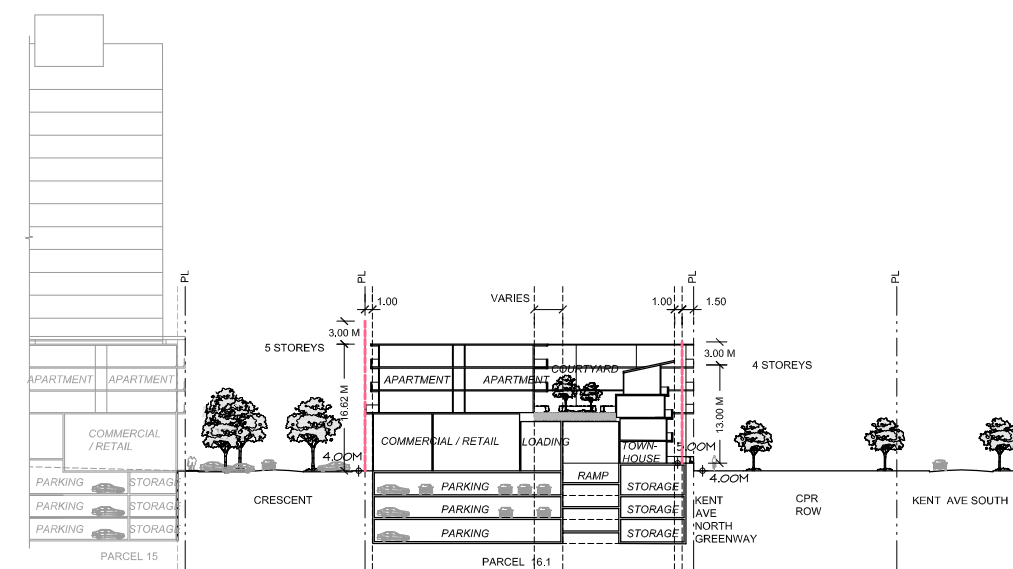
SECTION B-B

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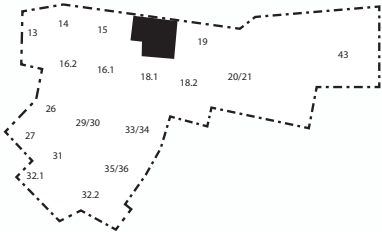
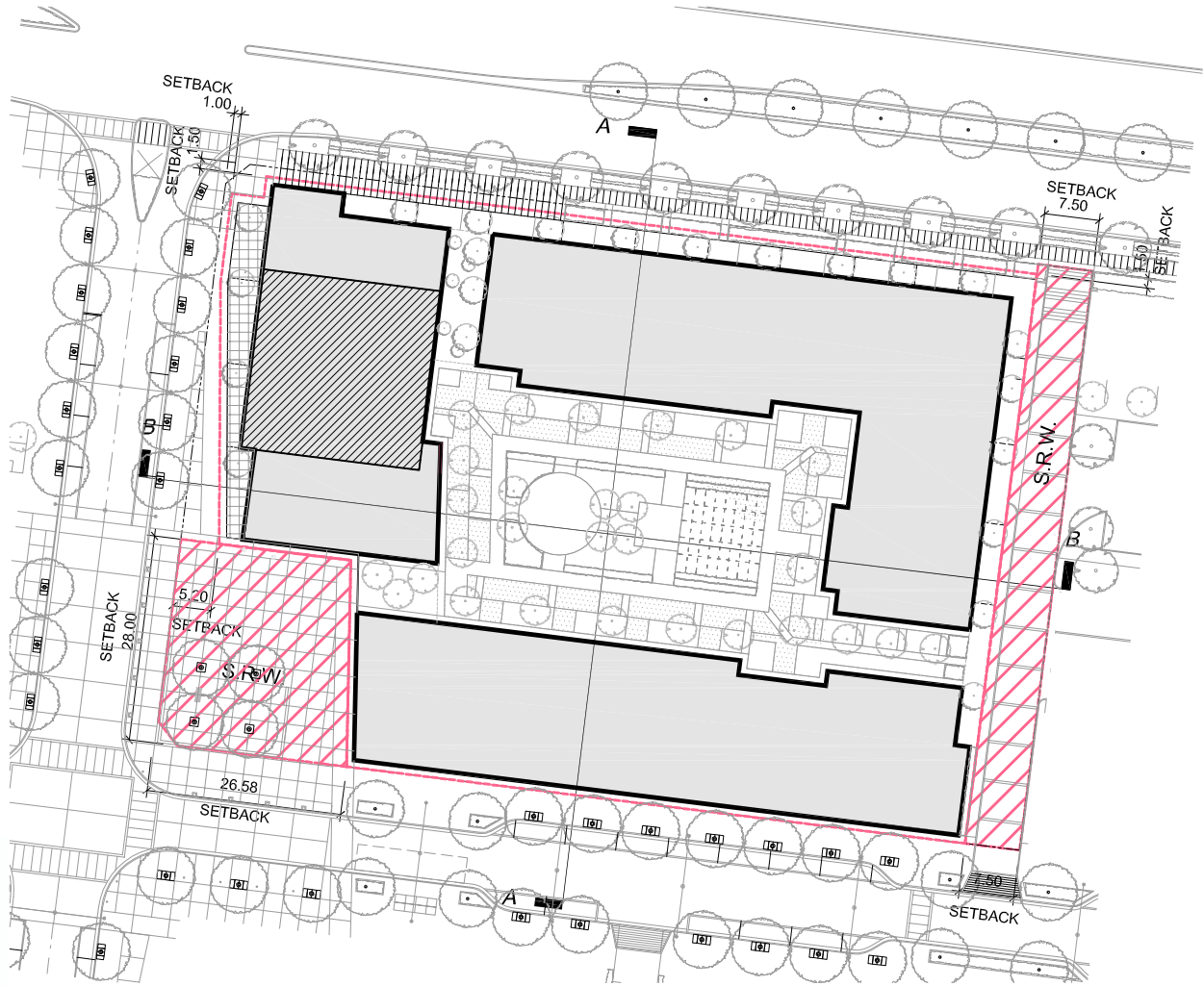
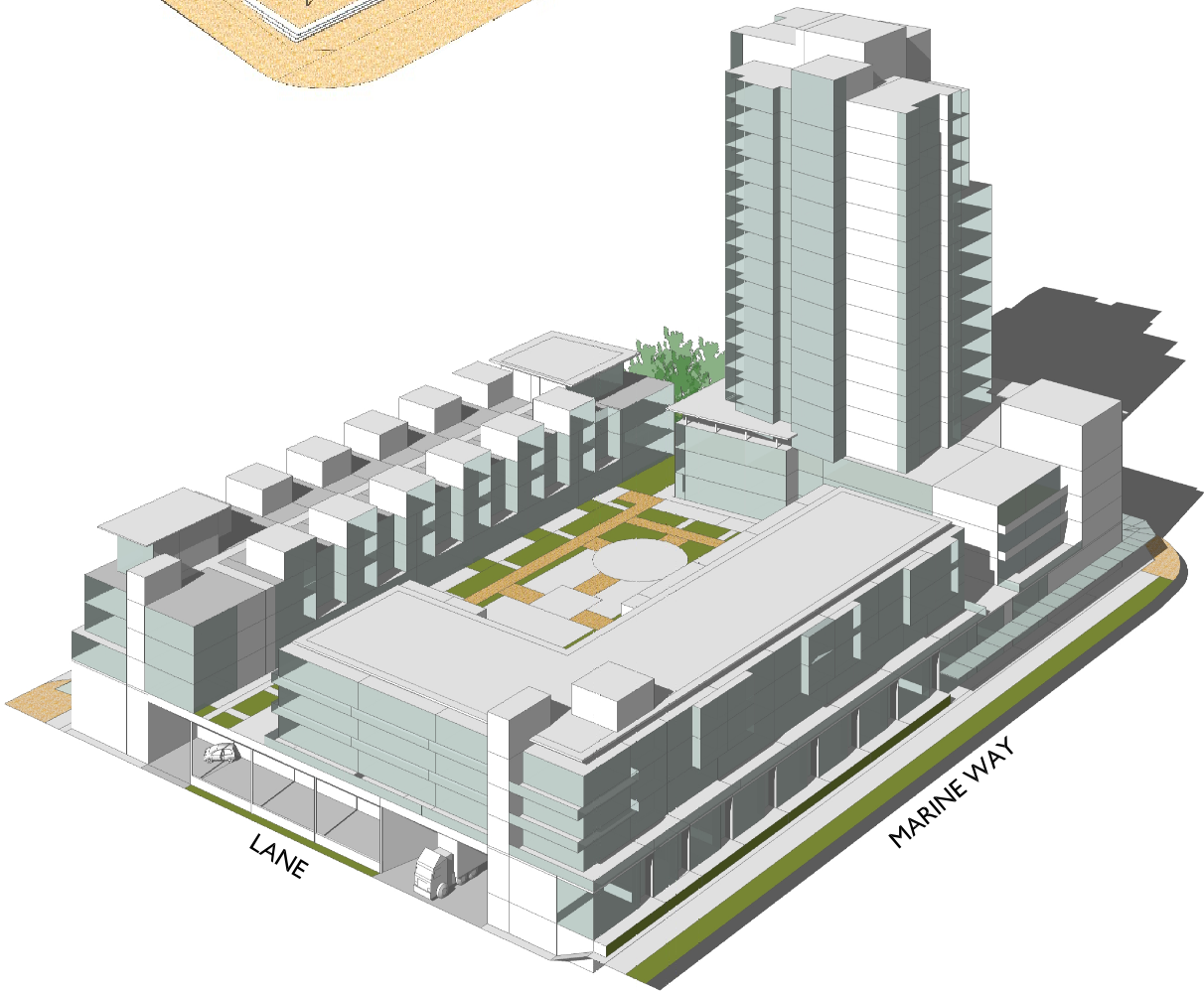
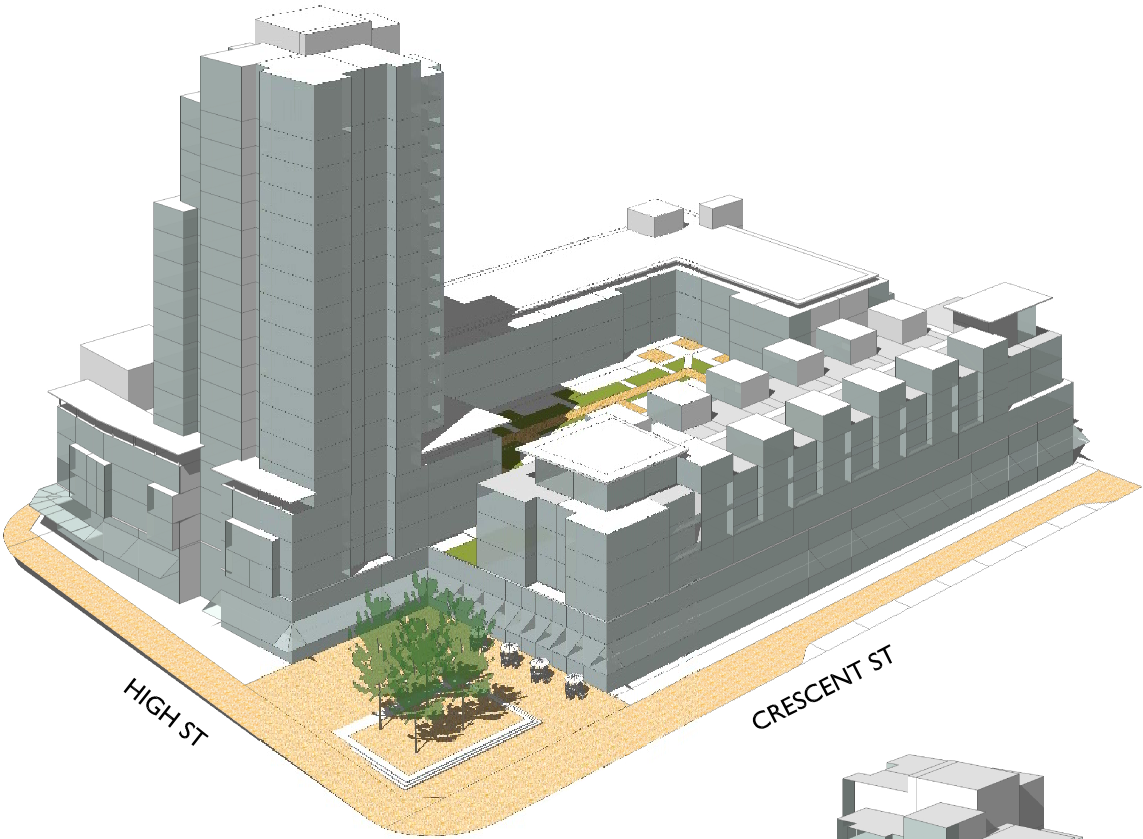
PARCEL 17 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	19	29,806	320,829
Total Residential		23,986	258,183
Total Commercial/Retail		5,820	62,646

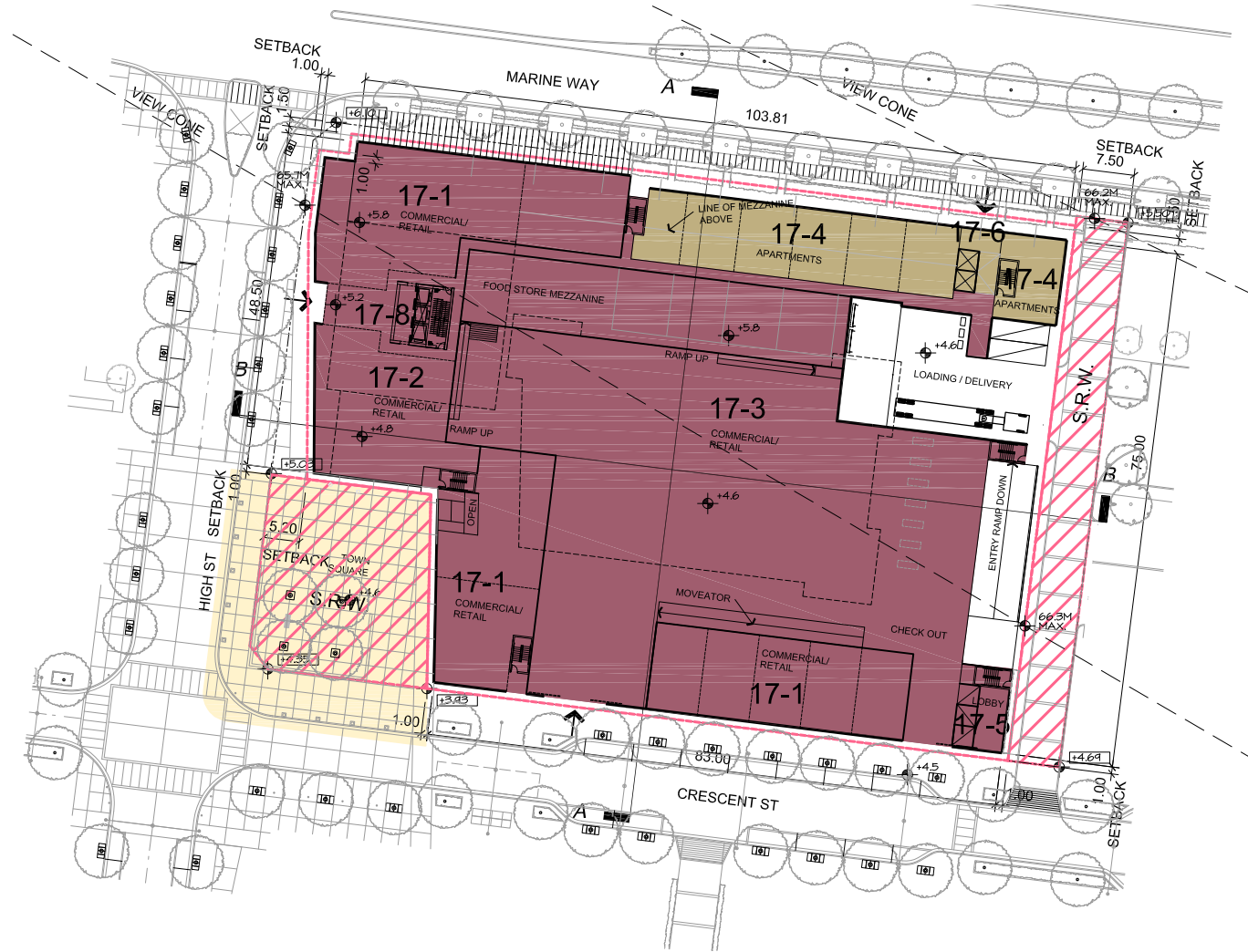
Urban design role: The Town Square parcel, defines the precinct's key outdoor space with strong streetwall and an 18 storey tower flanking the north side; vibrancy of Town Square supported by generous, sunny areas for outdoor seating, food and beverage uses in the surrounding retail spaces, broad canopies offering weather protection, balconies and decks offering overlooks above and vertical access from underground parking ensuring steady pedestrian traffic

Characteristics:

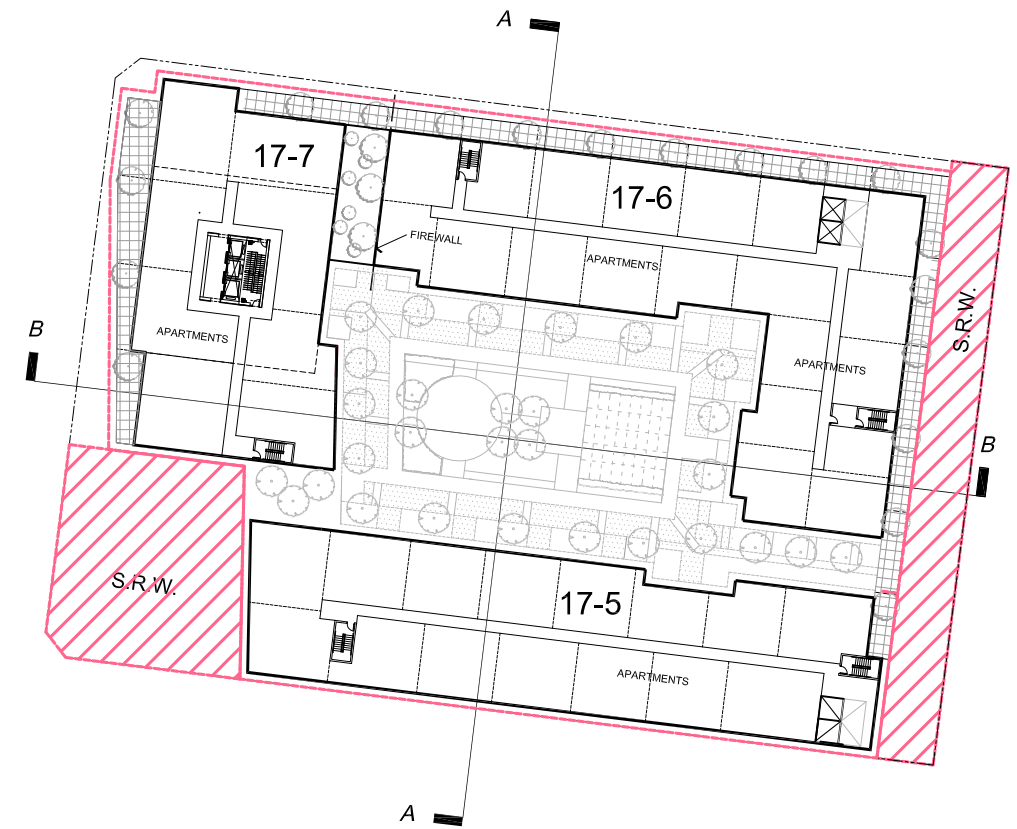
- Vertical access to be given a strong visual presence on the square - a 'beacon' on the square
- East side of formal entry to High Street; distinctive architectural form and expression at NW corner is a visual cue and invitation to the precinct
- High Street frontage extends angle of public right-of-way at north side of Marine Way, anticipating a future pedestrian connection from existing uplands; this angle also provides a direct view to the Town Square from Marine Way and mirrors a similar angle in Parcel 18 - this angle and Town Square to be public right-of-ways
- Refer to Parcel 15 for: approach to Marine Way frontage, garden deck, lane and access to parking and loading
- Grocery store entry to be close to Town Square at Crescent frontage
- An important public view from Everett Crowley Park will be maintained across the development site. Refer to maximum elevations indicated on Ground level plan
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



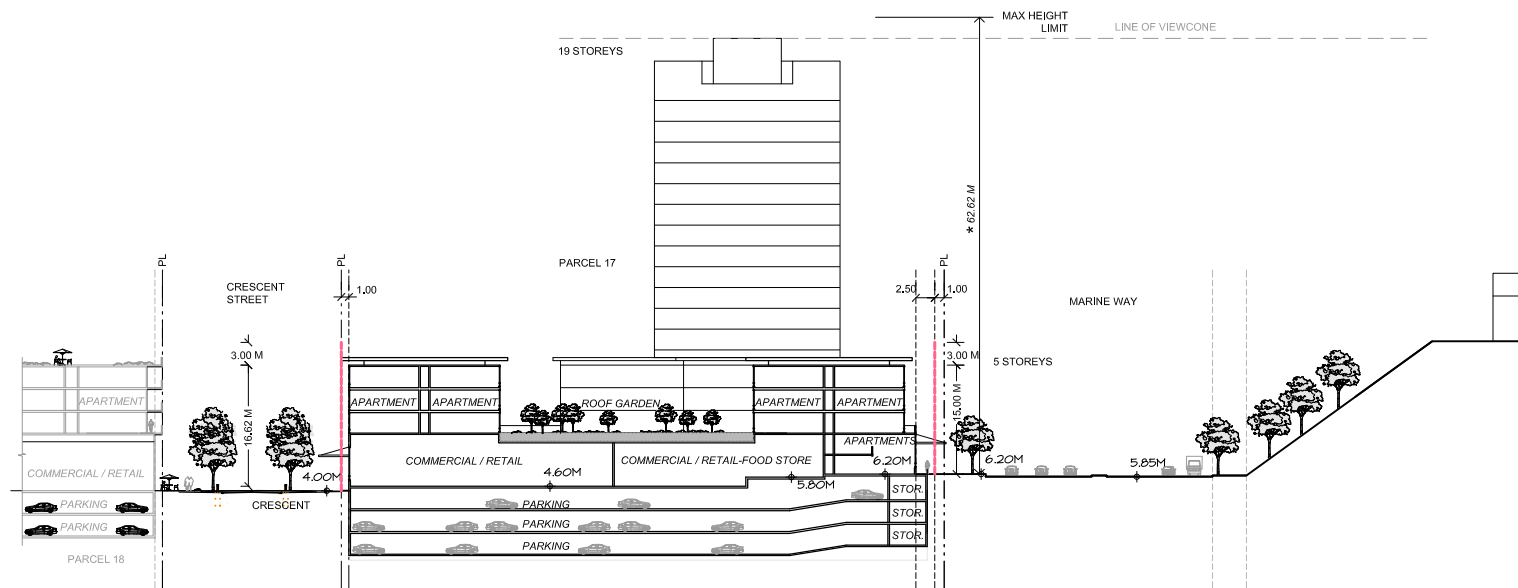
MASSING DIAGRAM



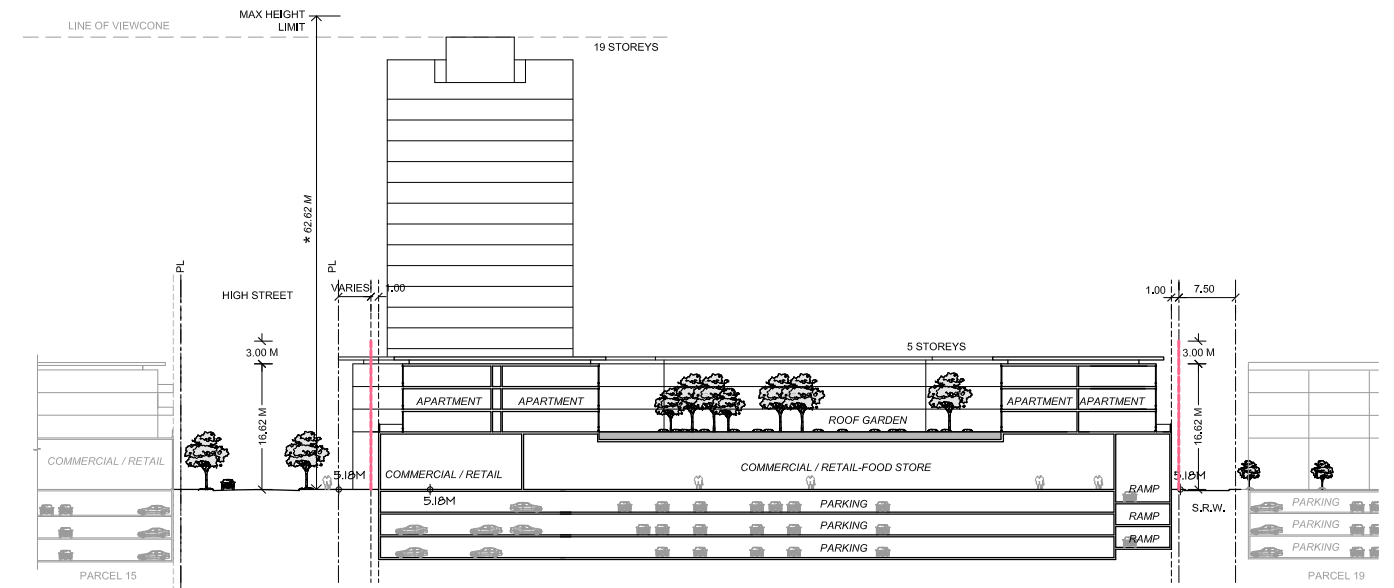
GROUND LEVEL



LEVEL 3-4



*Dimensions provided are for illustrative purposes only.
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SECTION A-A

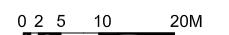


*Maximum height outside of view cone.

SECTION B-B



PARCEL 17
SCALE 1:1000
17.b



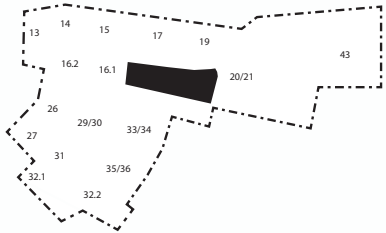
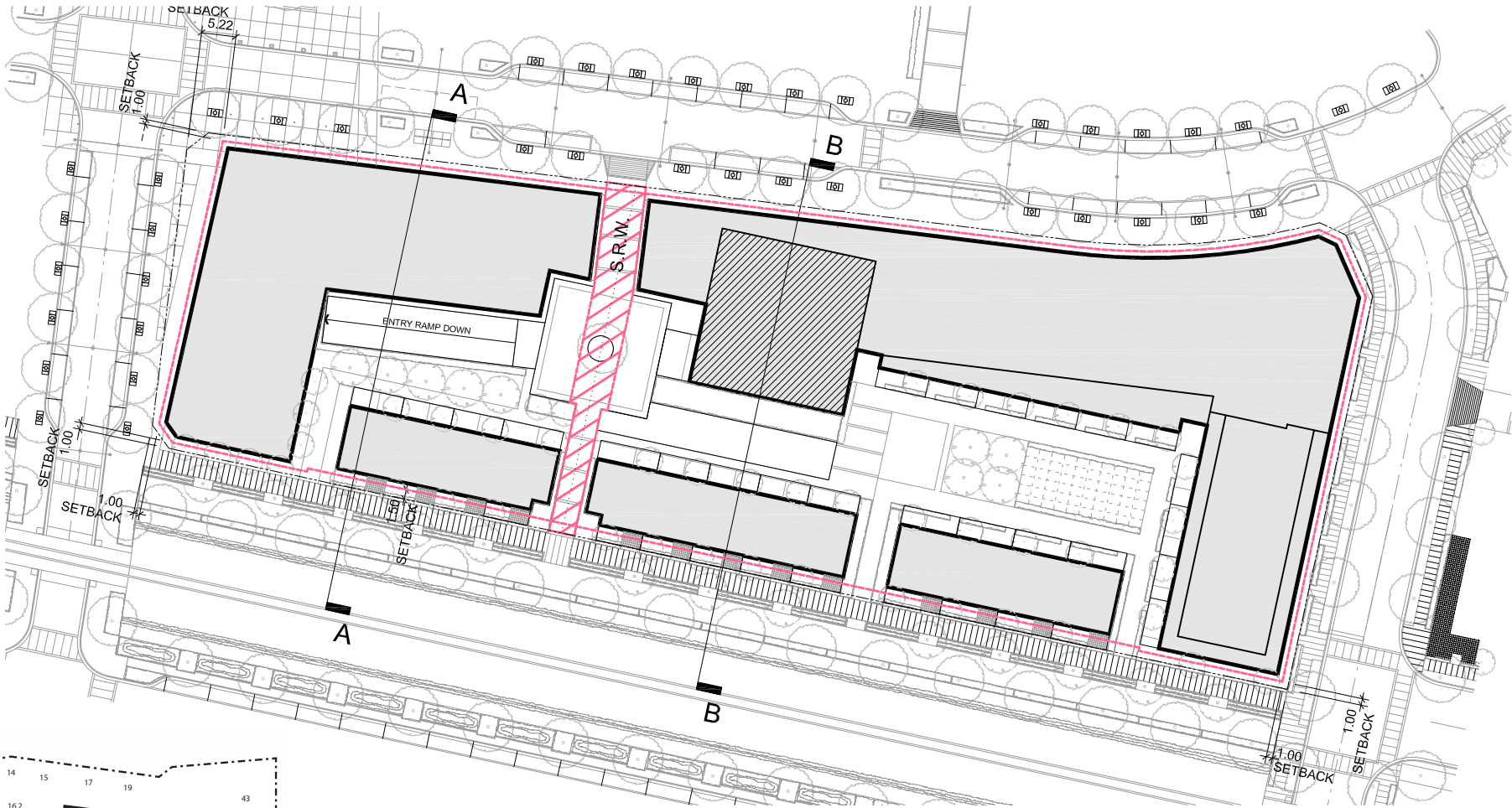
PARCEL 18 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	25	36,949	397,716
Total Residential		32,387	348,611
Total Commercial/Live-work		2,562	27,577
Total Commercial/Retail		2,000	21,528

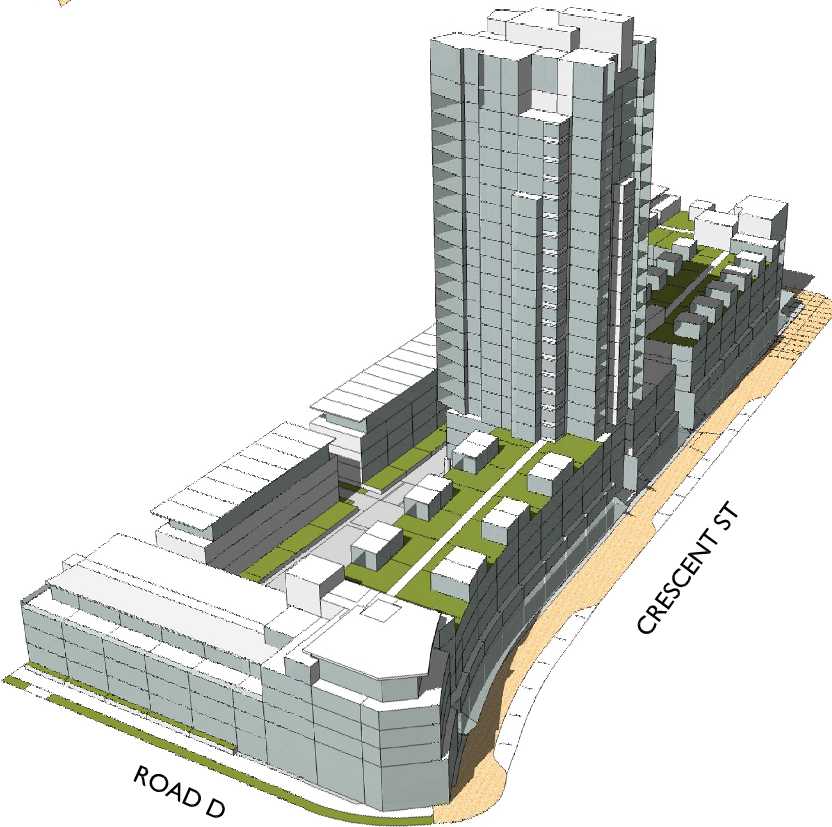
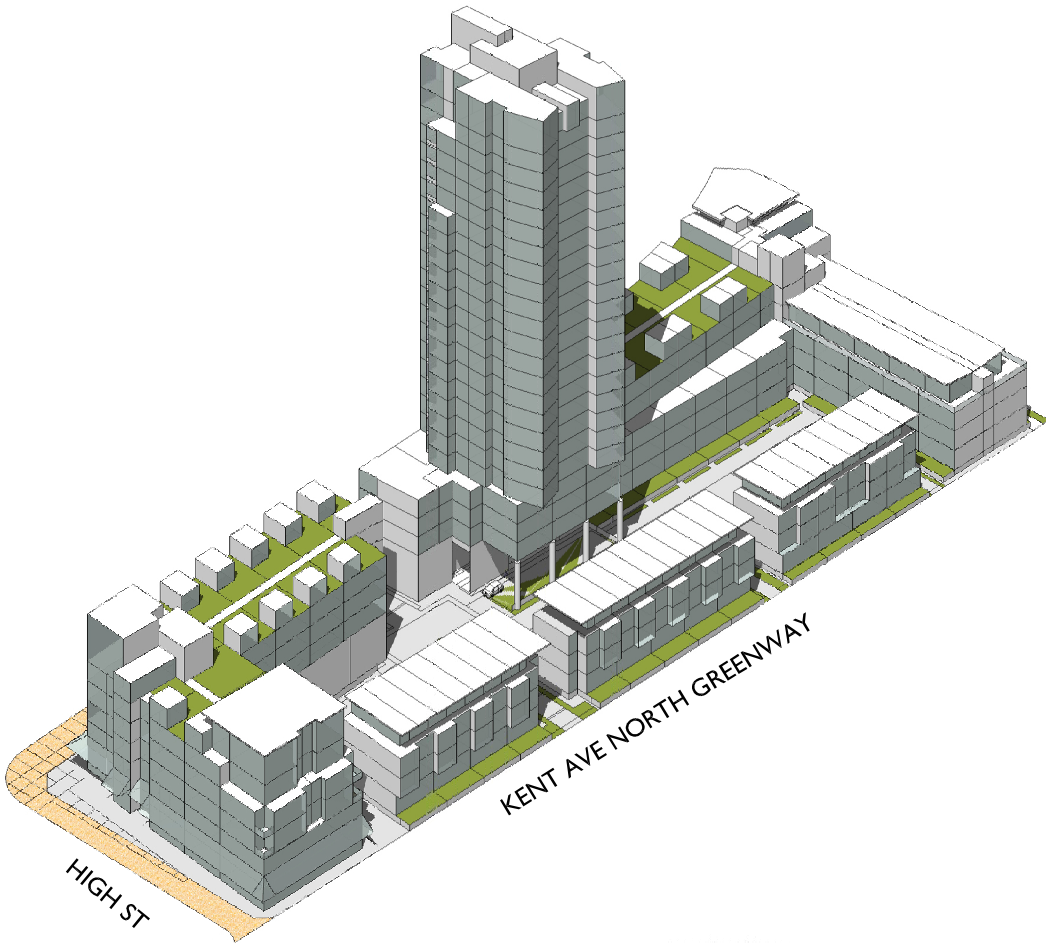
Urban design role: High exposure arriving from the east on Crescent calls for a dignified streetwall of strong urban character; good visual connection from Marine along High Street to NW corner of this block - location for a commercial 'magnet' - and the 25 storey tower

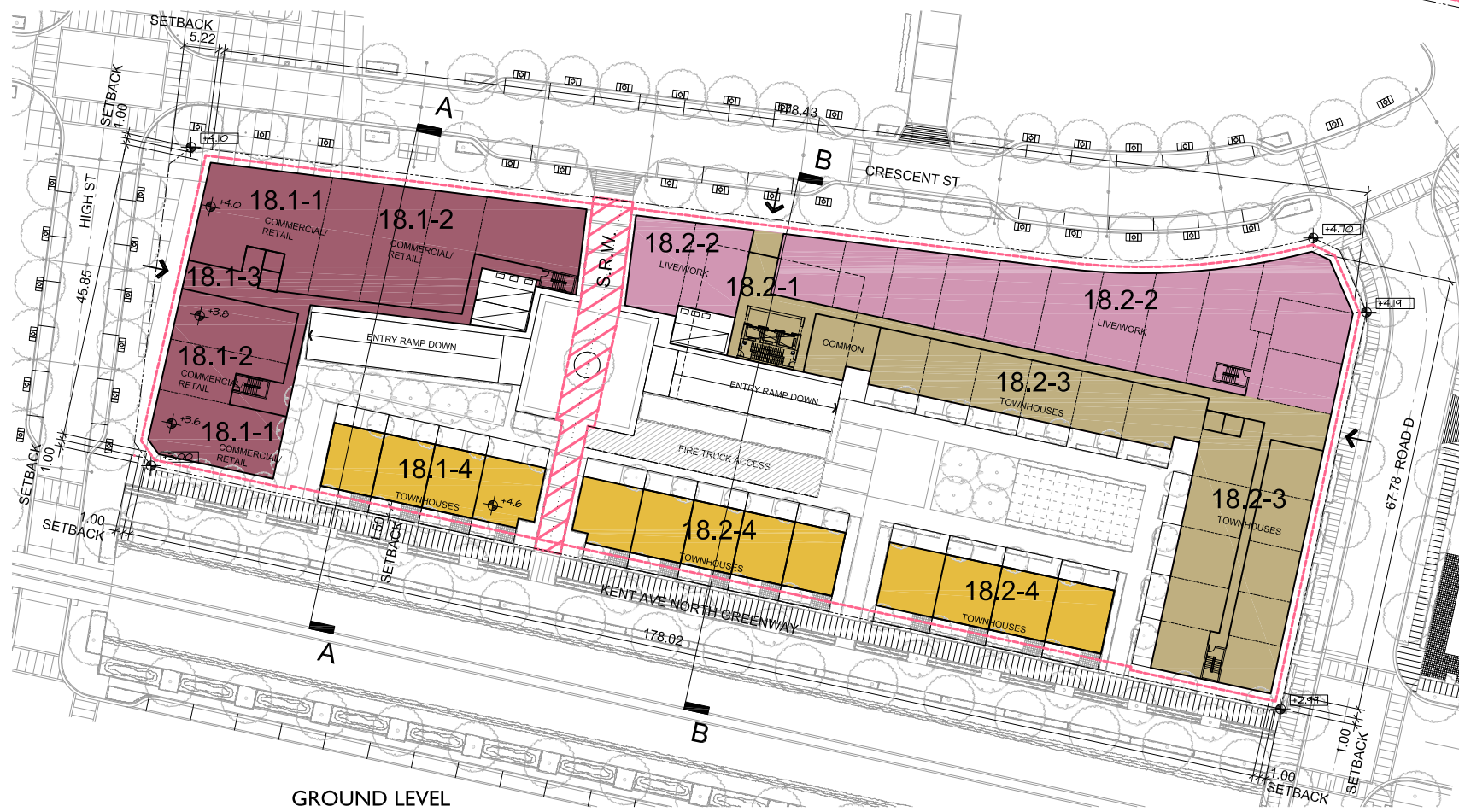
Characteristics:

- Tower anchors view north from woonerf in South High Street precinct
- South frontage gives strong definition to Kent Avenue corridor; townhouse forms extend neighbourhood character of Parcel 16 - Setback of - provides a comfortable separation from adjacent pedestrian traffic as well as opportunities for planting and seating.
- Mid-block court similar to Parcel 16, flanked by semi-private garden spaces - possible location for garden plots supporting urban agriculture; a variety of pedestrian routes through the block offer good permeability and the opportunity for passersby to enjoy these green spaces; fire access addressed as a paved linear terrace, integrated with the overall mid-block landscape design
- High Street frontage is angled to open view from Town Square to High Street and vice versa; this area is dedicated R.O.W.
- Frontage at Crescent and Road 'D' is more urban in character with 1m setback from the property line; a modest planting area and steps up to a recessed entry offer additional separation from the street on Road 'D'
- Prominent form of 'magnet' retail space at SW corner provides a strong visual connection from High Street south of CPR R.O.W
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.
- Commercial / Live-Work uses include: Live-Work, Residential, Manufacturing, Cultural, Recreational, Institutional and Service uses. Refer to relevant CD-1 by-law for details and conditions.

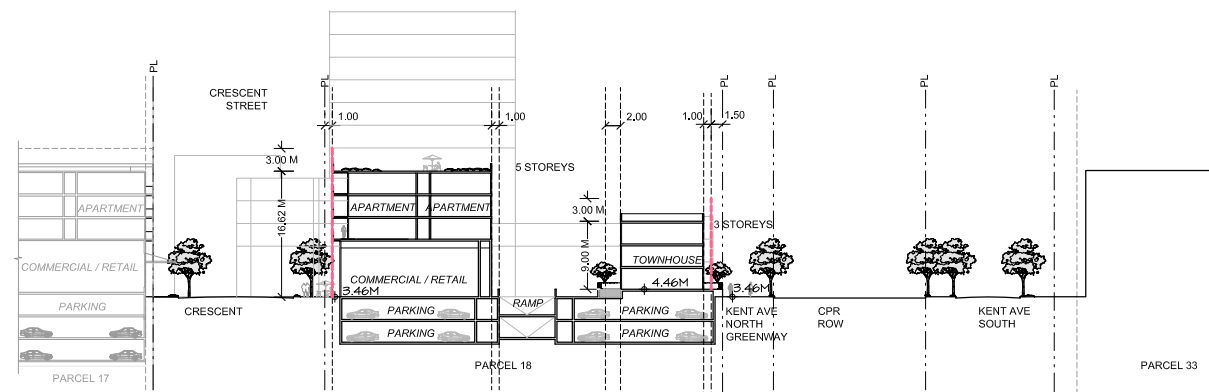


MASSING DIAGRAM

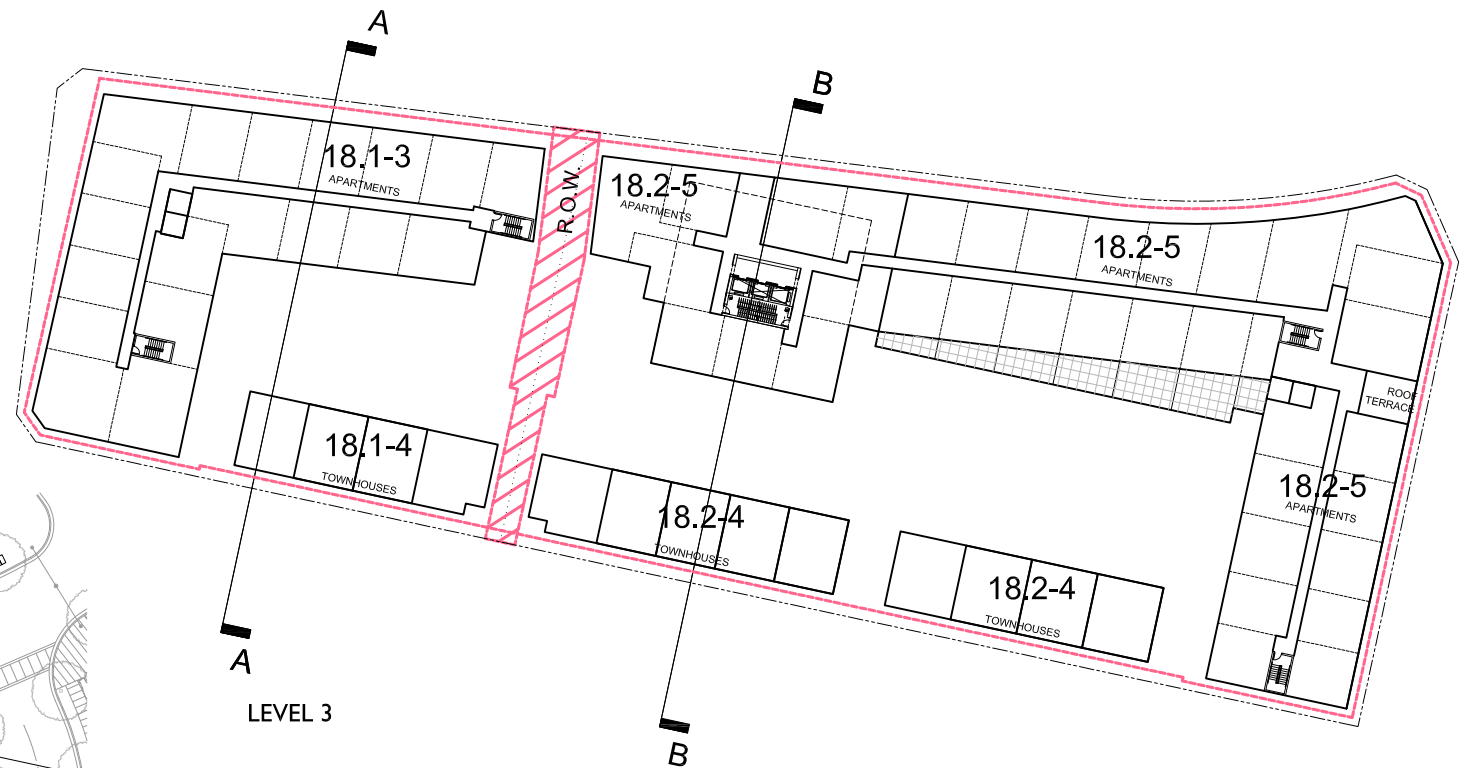




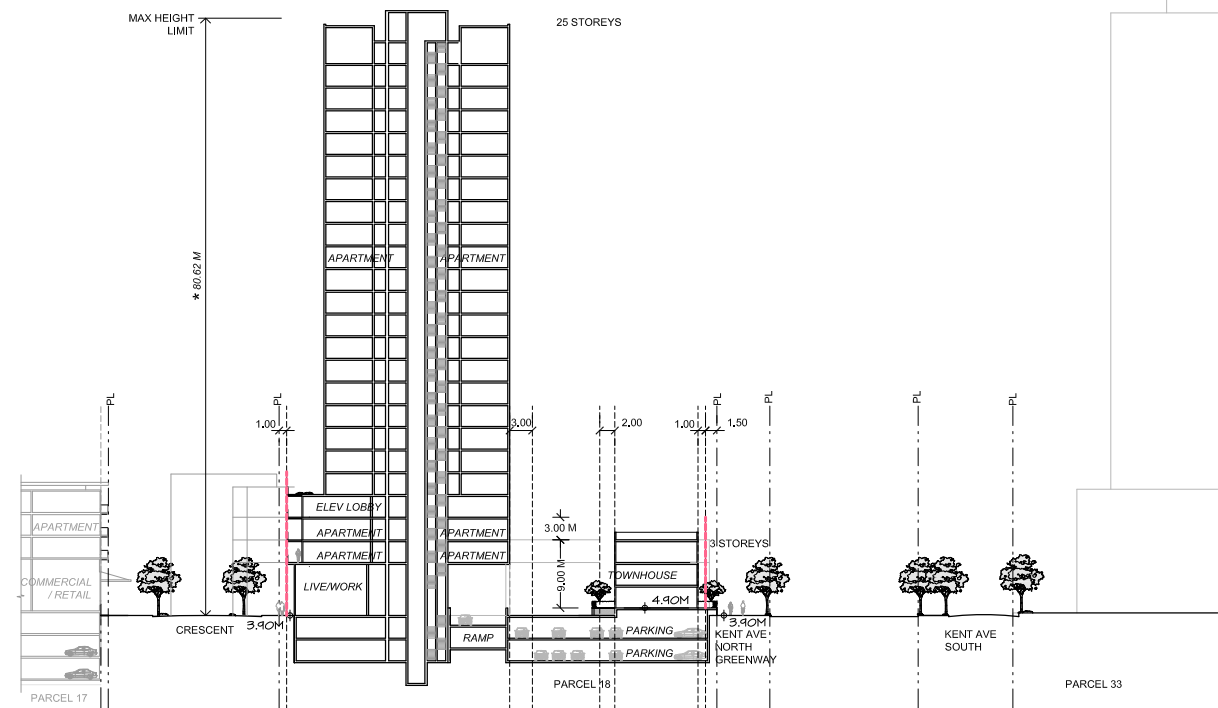
GROUND LEVEL



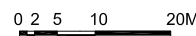
SECTION A-A



LEVEL 3



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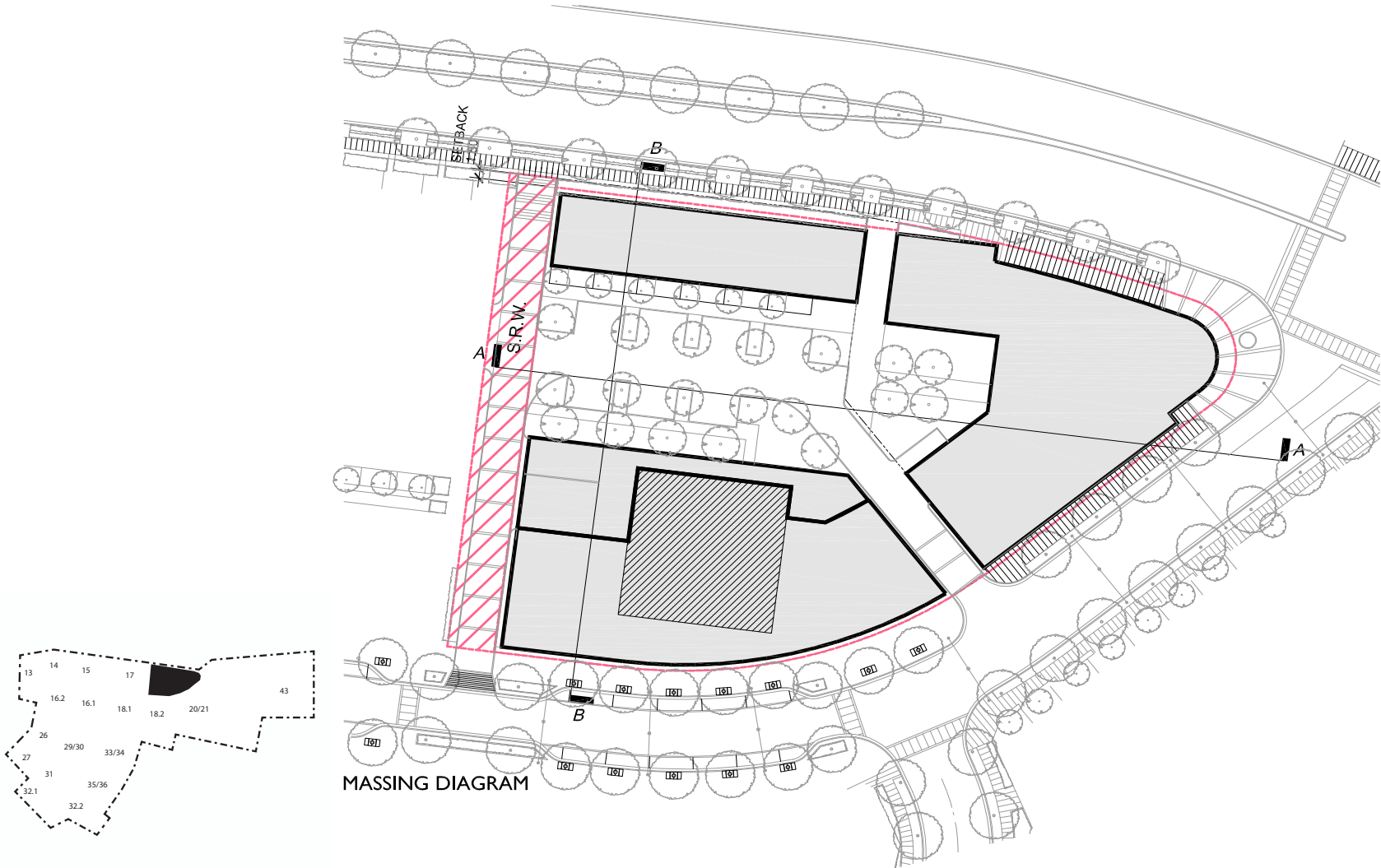
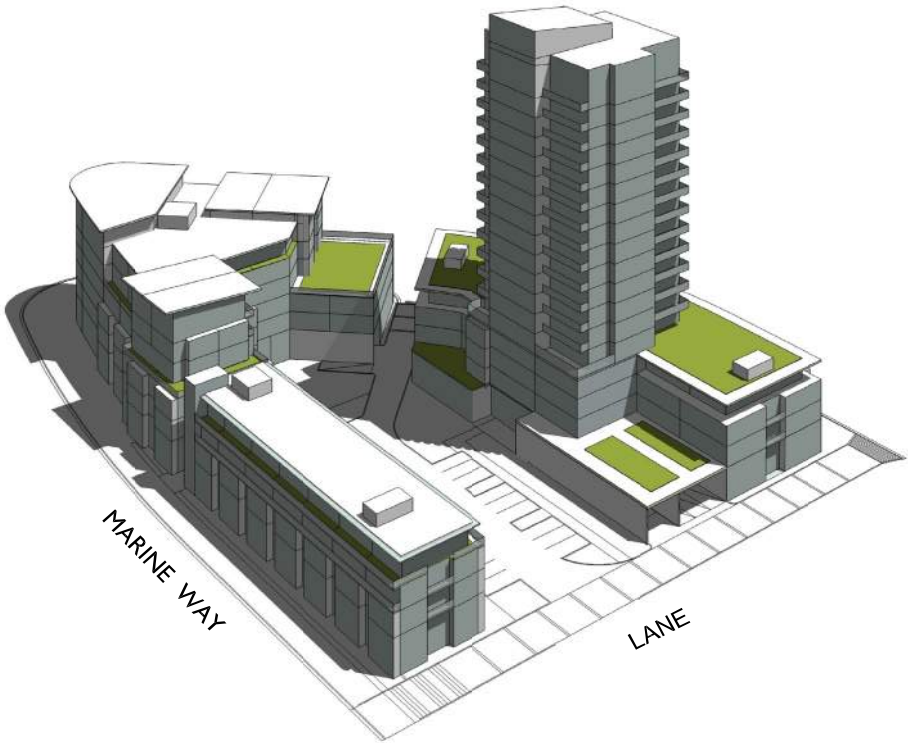


PARCEL 18
SCALE 1:1000
18.b

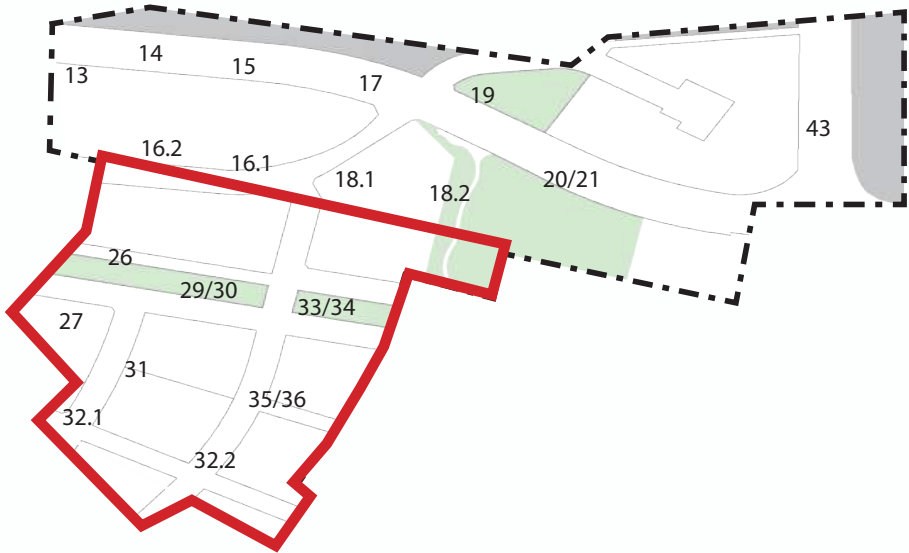
PARCEL 19 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	18	22,571	242,962
Total Commercial/Live-work		3,437	36,996
Total Commercial/Retail		5,578	60,041
Total Residential		13,556	145,915
Amenity Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
		560	6,025
Total Childcare		560	6,025

- Urban design role:** East 'gateway' block; 6 storey flatiron building mirrors massing at Parcel 14, clearly defining the extent of the precinct along Marine Way
- Characteristics:**
- Similar to Parcel 14 in approach to: mid-block court, Crescent frontage, and shared lane access to underground parking and loading
 - 18 storey tower marks east end of Crescent and begins transition from 25 storey tower in Parcel 18 to lower towers in Parcels 20 and 21
 - Childcare facility at upper floor of mid-rise base building on Crescent provides outdoor play at roof with westerly orientation for afternoon sun. Separate elevator is access required
 - An important public view to Mount Baker from Everett Crowley Park will be maintained across the development site. Refer to maximum elevations indicated on Ground level plan
 - The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.
 - Commercial / Live-Work uses include: Live-Work, Residential, Manufacturing, Cultural, Recreational, Institutional and Service uses. Refer to relevant CD-1 by-law for details and conditions.

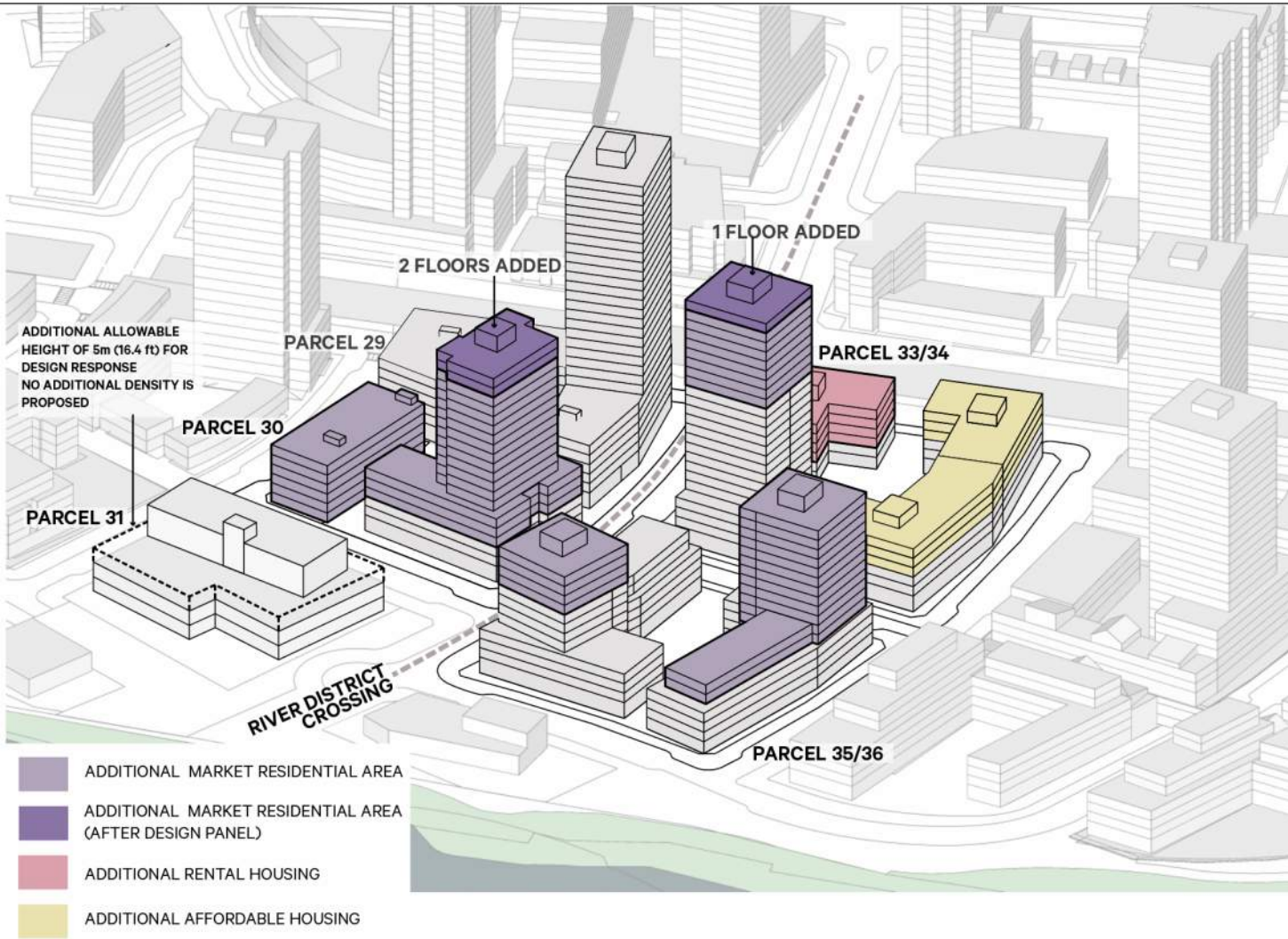
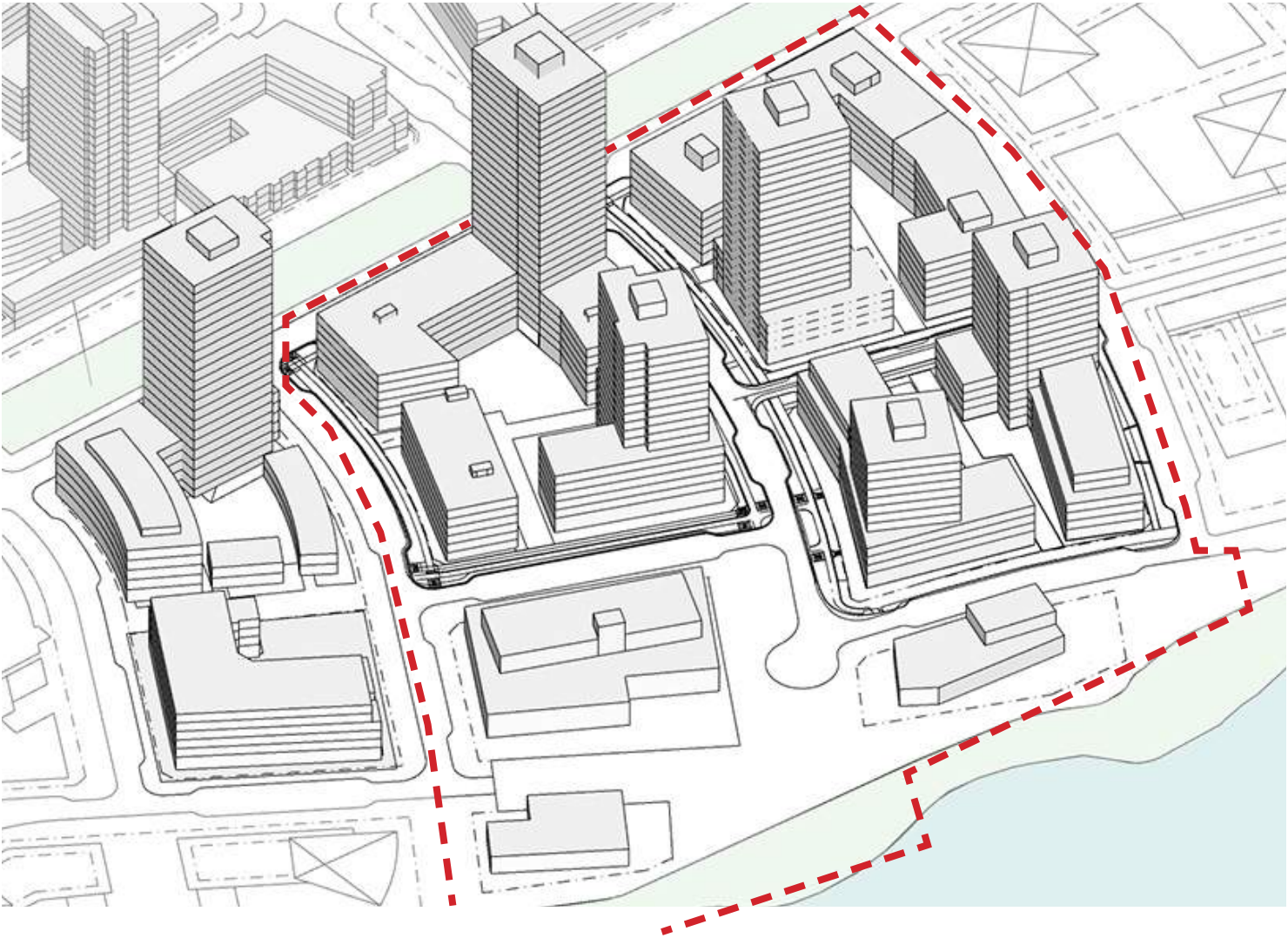


3.2 Waterfront Precinct



3.2 Waterfront Precinct

	RESIDENTIAL								CIVIC					
	STRATA		RENTAL		AFFORDABLE		COMMERCIAL/RETAIL		COMMUNITY CENTER		DAYCARE		TOTAL	
	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.
WATERFRONT PRECINCT														
Precinct Sub-Total	107,176	1,153,630	9,290	100,000	12,601	135,636	8,164	87,877	2,787	29,999	1,528	16,447	141,546	1,523,589
Parcel 29/30	47,494	511,217					1,897	20,419					49,391	531,636
Parcel 31									2,787	29,999	1,528	16,447	4,315	46,446
Parcel 33/34	10,907	117,407	9,290	100,000	12,601	135,636	1,758	18,925					34,557	371,968
Parcel 35/36	27,902	300,331					3,066	33,004					30,968	333,335
Parcel 32.1							479	5,153					479	5,153
Parcel 32.2							964	10,376					964	10,376
Parcel 26*	13,837	148,940											13,837	148,940
Parcel 27*	7,036	75,735											7,036	75,735



the total floor area of 39,246 sq. m (422,442 sq. ft.) proposed in the application submitted on October 25, 2021, an additional 1,951 sq. m (21,000 sq. ft.) of strata-titled residential floor area has been added. The additional 1,951 sq. m (21,000 sq. ft.) will be manifested in three additional floors spread over two towers on Parcel 30 and Parcel 33/34 (see Revised Form of Development drawings under “Application documents”). Staff assessed the original rezoning proposal and determined the additional floor area was supportable from a massing perspective and would help ensure the delivery of the community centre, a priority for this area. In addition, to ensure the 30,000 sq. ft. community centre and co-located childcare fit with suitable space to enable an architectural response, the maximum height of the community centre is proposed to be amended by 1 additional storey of 5 m (16.4 ft.).

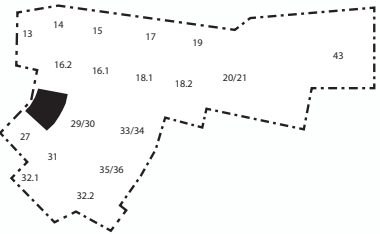
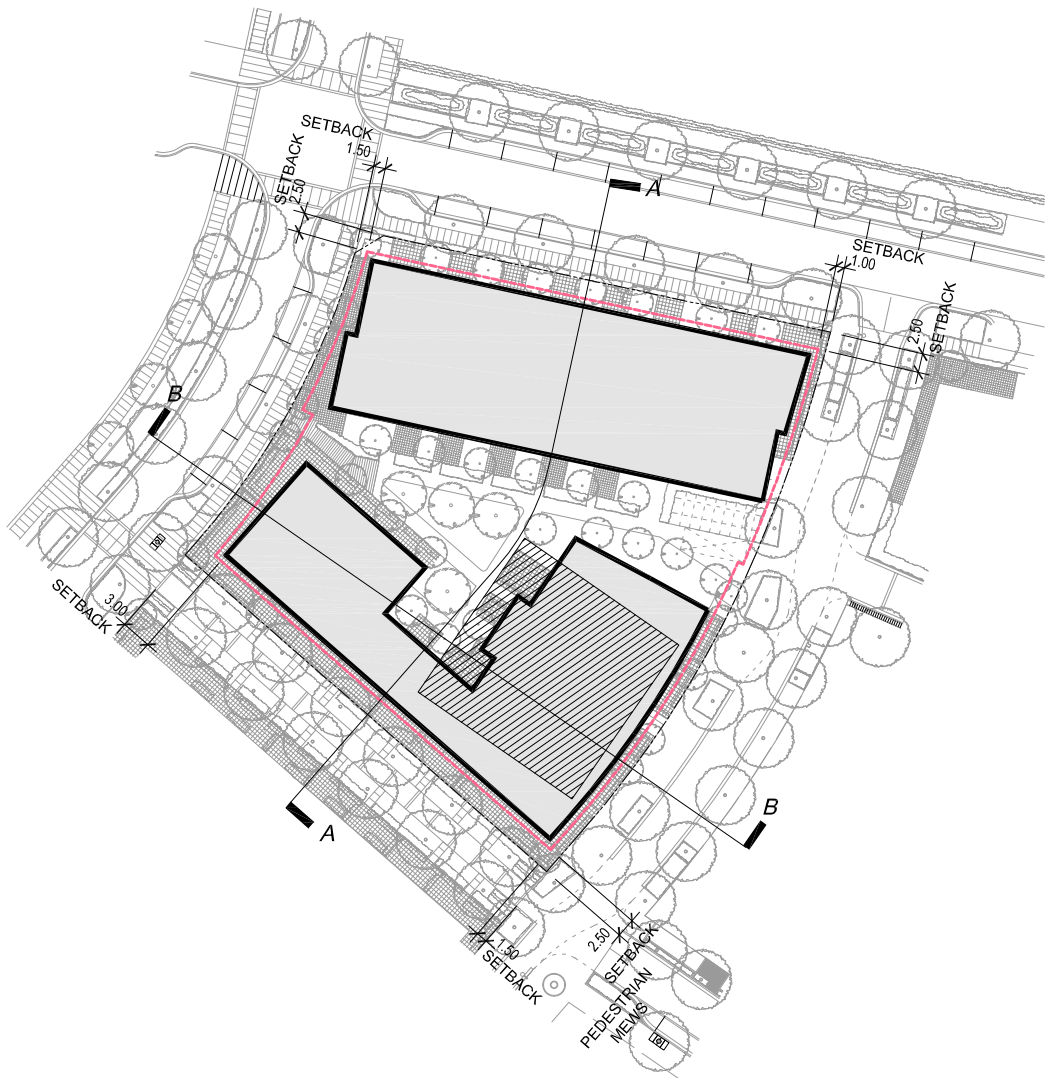
PARCEL 26 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	14	13,837	148,940
Total Residential		13,837	148,940

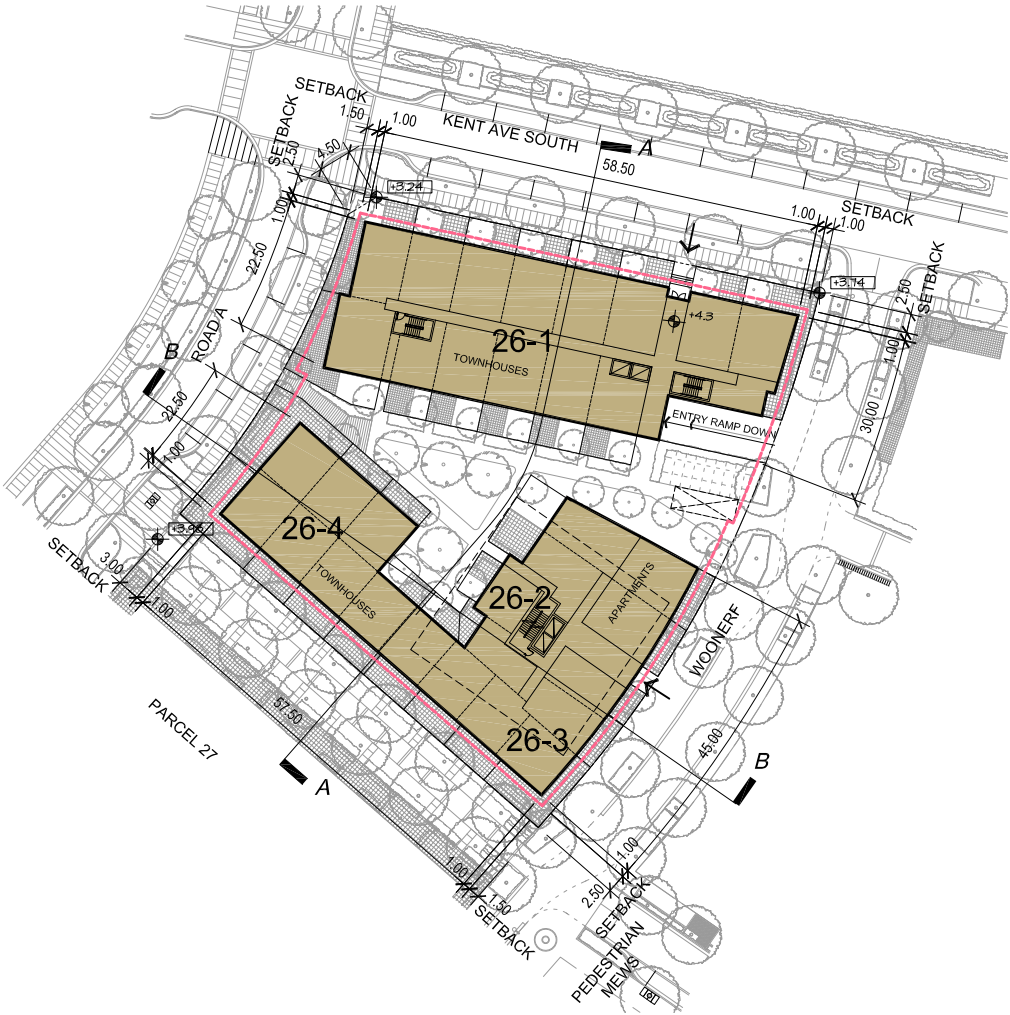
Urban design role: Frames (with Parcel 27) the east-west pedestrian mews between the Community Centre and the future school site; town homes flanking the mews provide a richly articulated streetwall and deep garden patios to enhance the pedestrian experience along this key route

Characteristics:

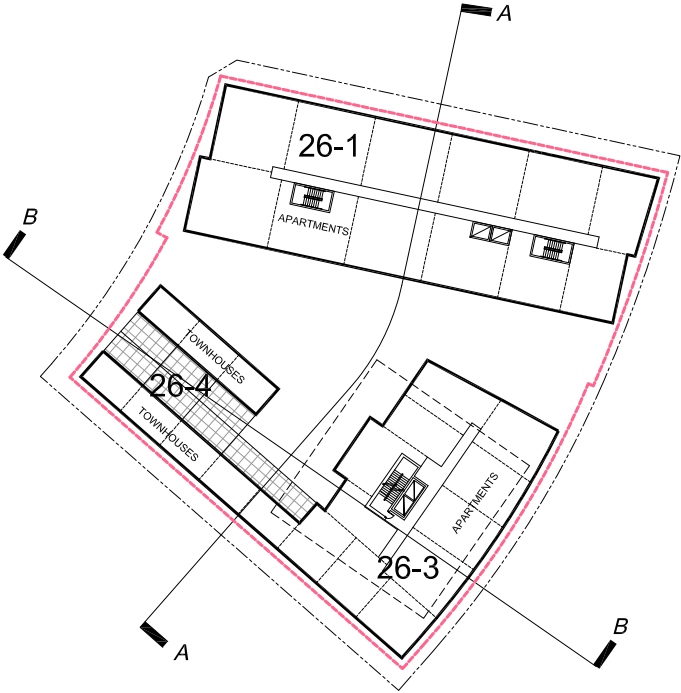
- At mid-block, townhomes of buildings 26-1 and 26-4 animate the garden courtyard with front doors accessed from mid-block walks
- Mass and streetwall of block 26-1 give strong definition to Kent Ave South; upper levels step back to provide generous roof decks
- Small 14 storey tower positioned as a visual anchor to the neighbourhood park locates multiple units on this green amenity. The 5 storey base of tower gives strong definition to park and woonerf. The tower set back from base maintains a reasonable scale toward the immediate public realm (the woonerf). Tower configuration should optimize solar access to park
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



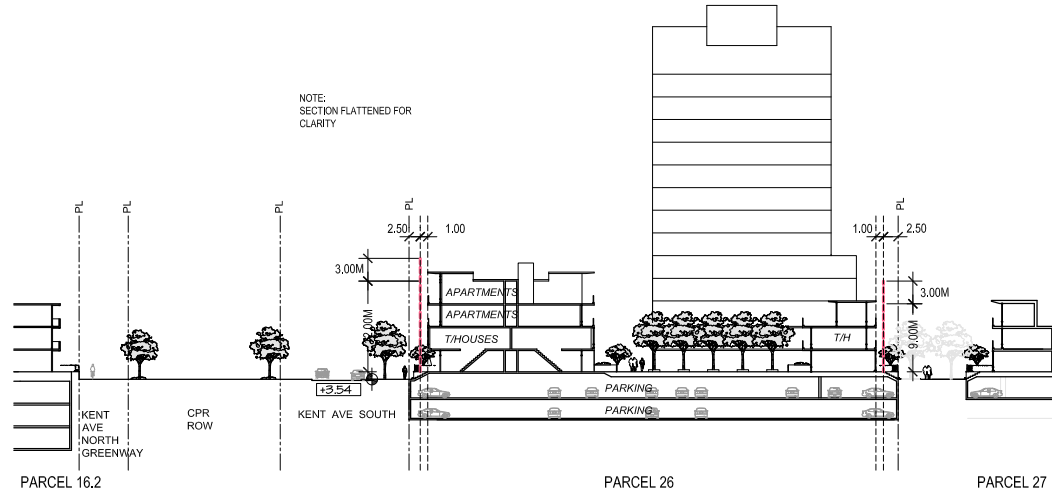
MASSING DIAGRAM



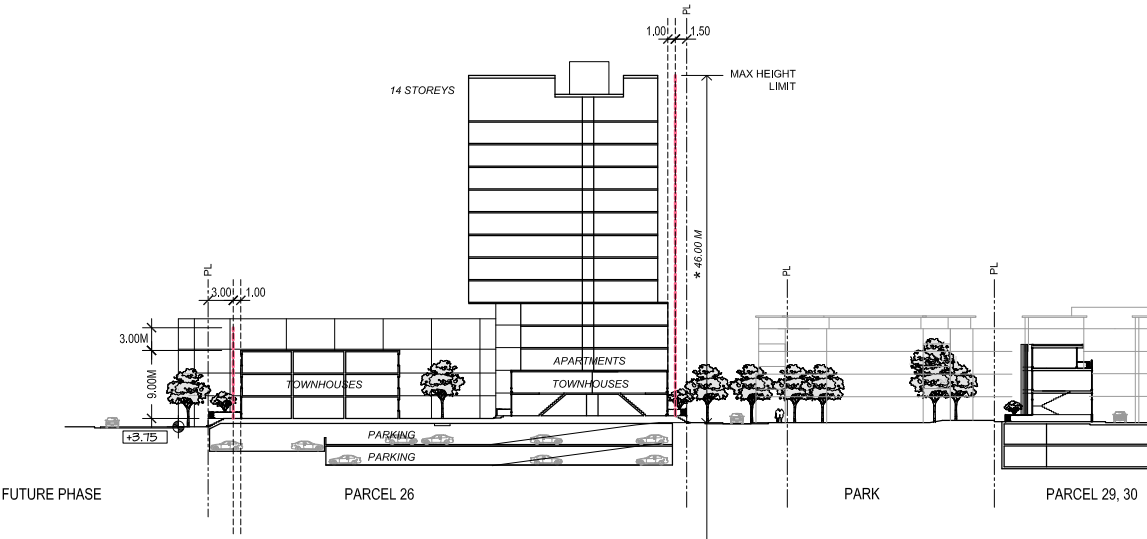
GROUND LEVEL



LEVEL 3

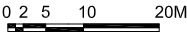


SECTION A-A



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SECTION B-B



PARCEL 26
SCALE 1:1000
26.b

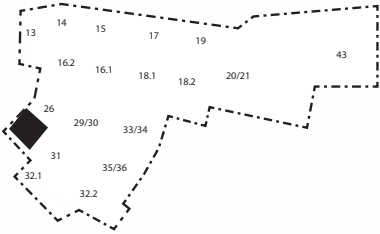
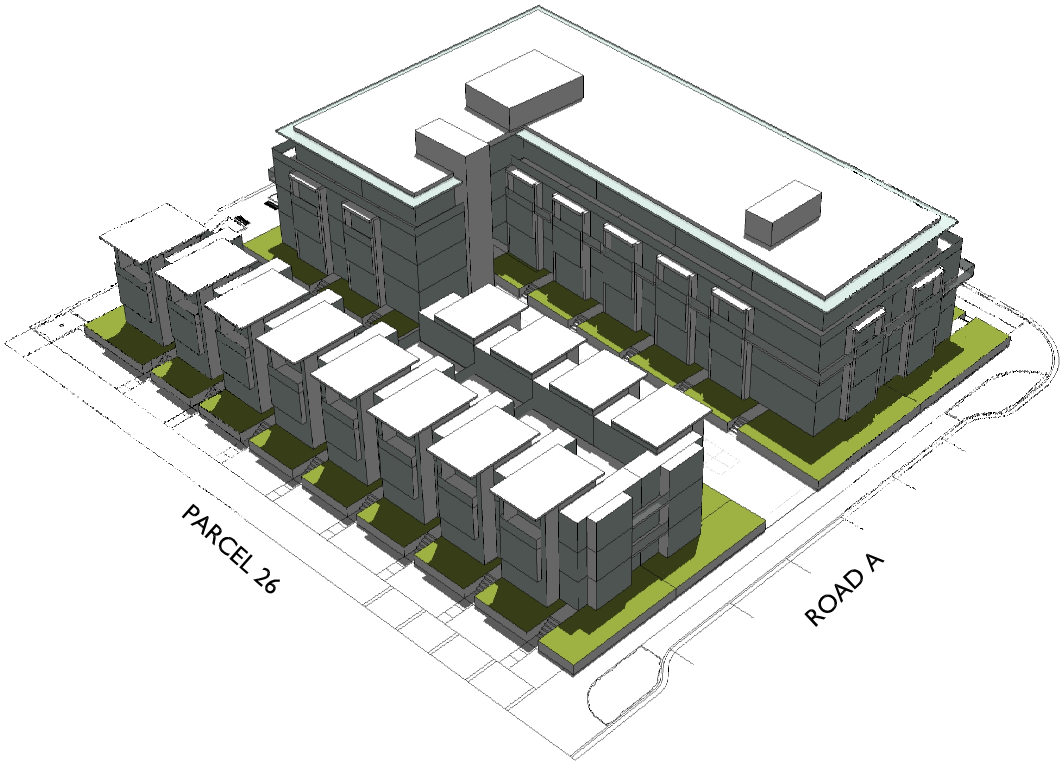
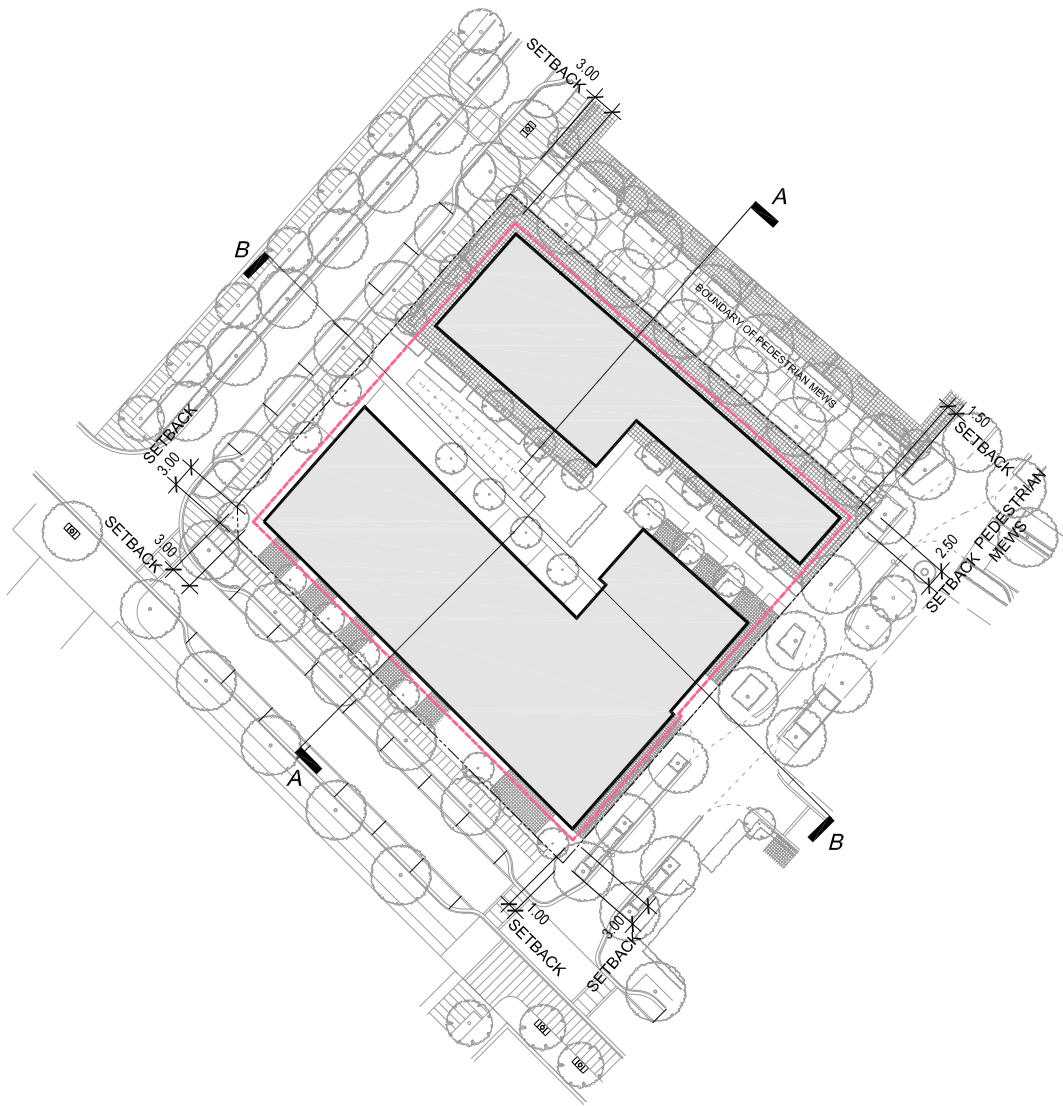
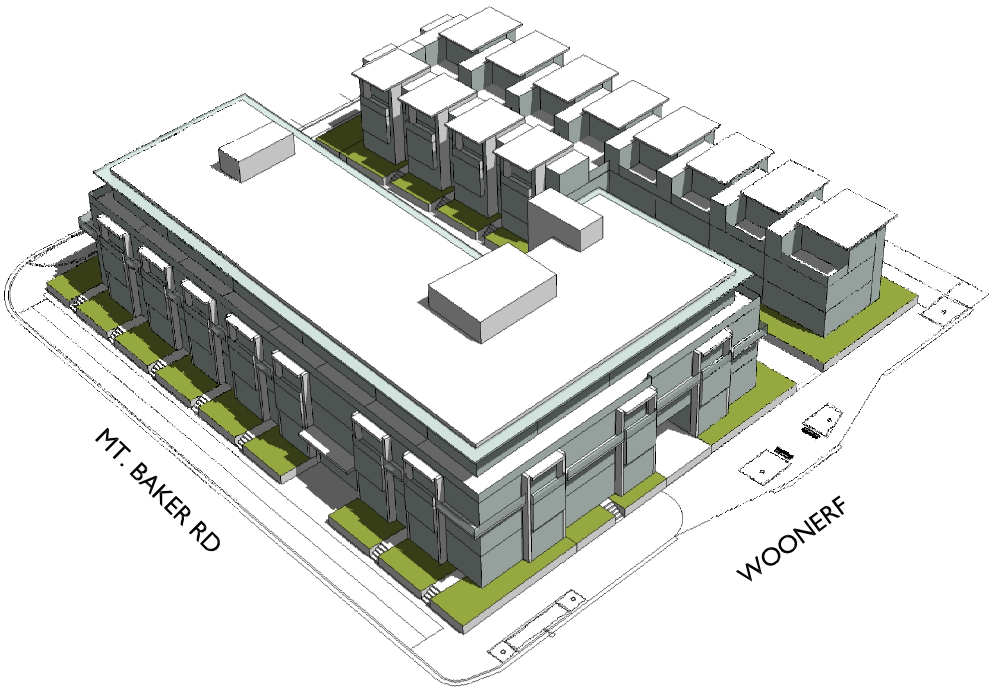


PARCEL 27 DATA

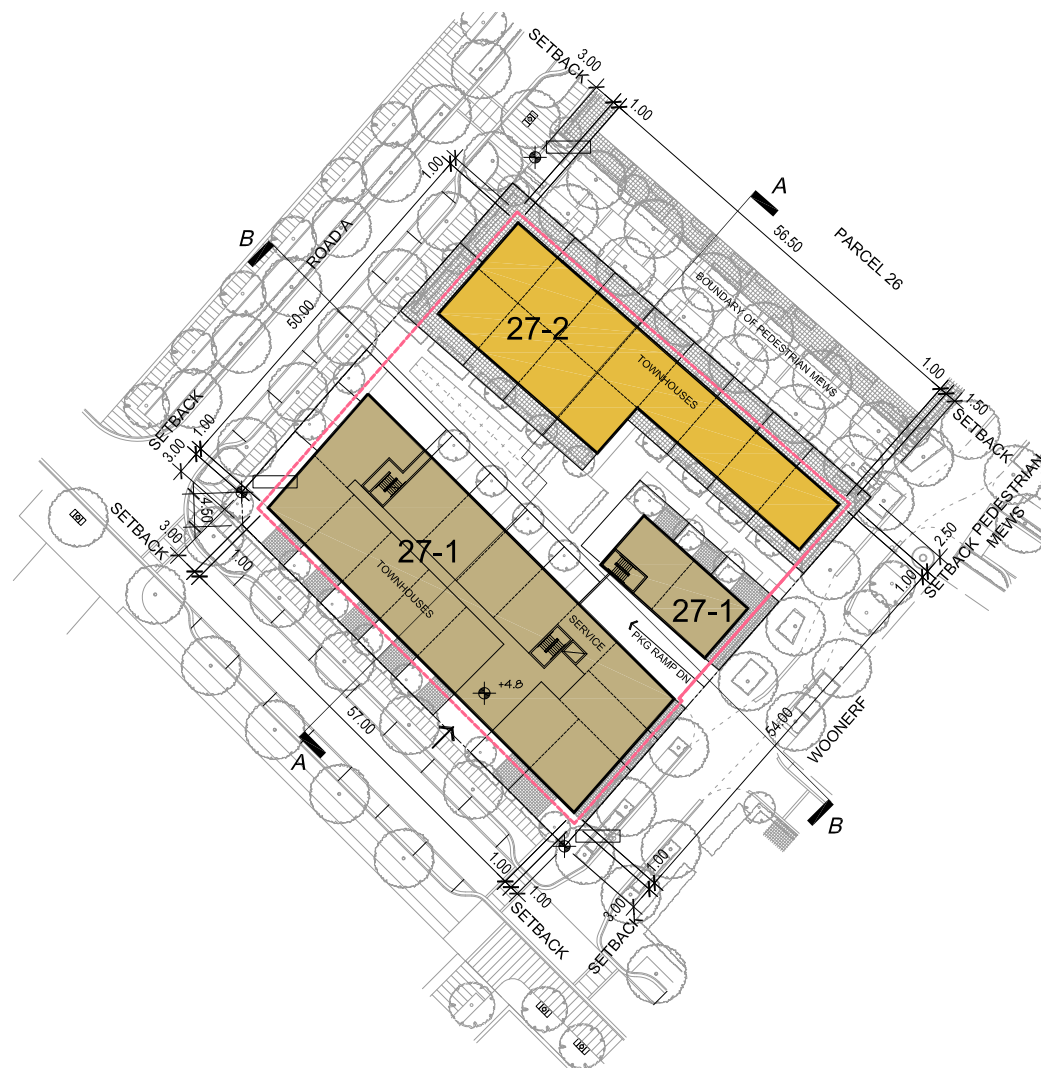
Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	4	7,036	75,735
Total Residential		7,036	75,735

Urban design role: Provides south edge to east-west pedestrian mews. A similar approach to massing and garden patios as Parcel 26 is utilized for a character consistent with this important pedestrian route

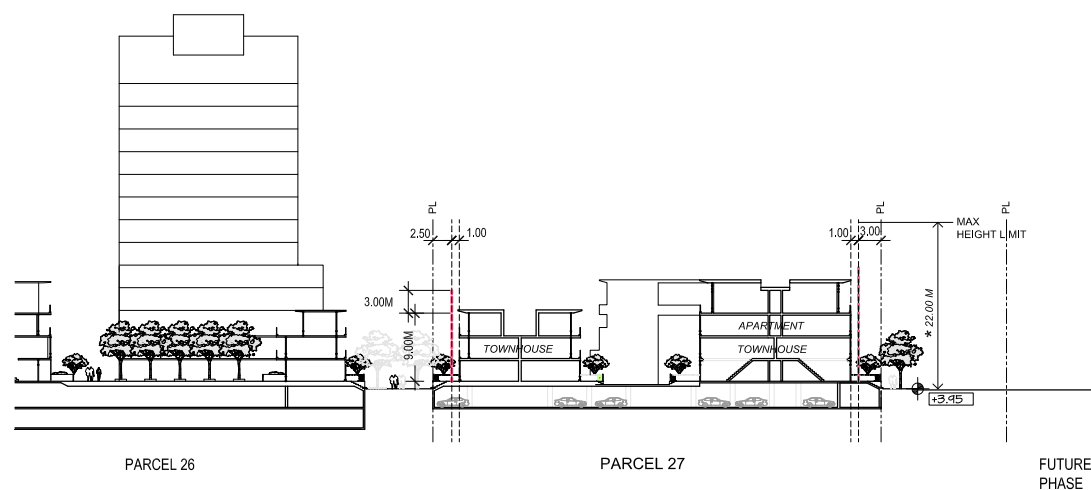
- Characteristics:**
- L-shaped mid-rise building defines north side of Mt.Baker Road and west side of woonerf. The 3m setback at Road 'I' is in keeping with the scale of this neighbourhood collector while a reduced setback at woonerf creates a more intimate scale encouraging walking, cycling, and informal play which is anticipated on this special street
 - Modest scale of mid-block open spaces is consistent with the finer-grained nature of this predominantly residential quarter of the precinct. Stand alone townhouses and townhouses at the base of the mid-rise reinforce this character
 - The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



MASSING DIAGRAM

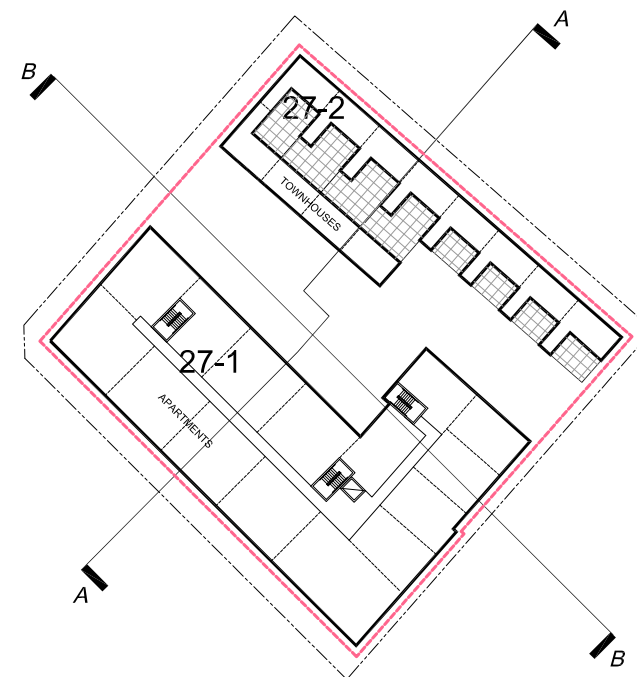


GROUND LEVEL

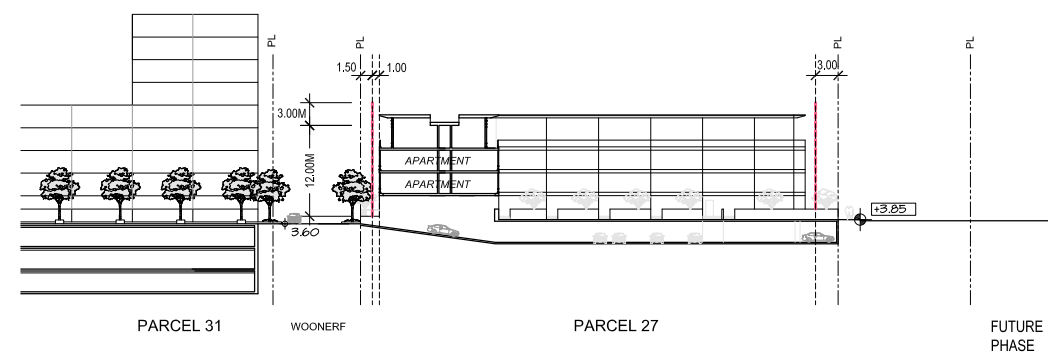


*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.

SECTION A-A



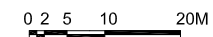
LEVEL 3



SECTION B-B



PARCEL 27
SCALE 1:1000
27.b

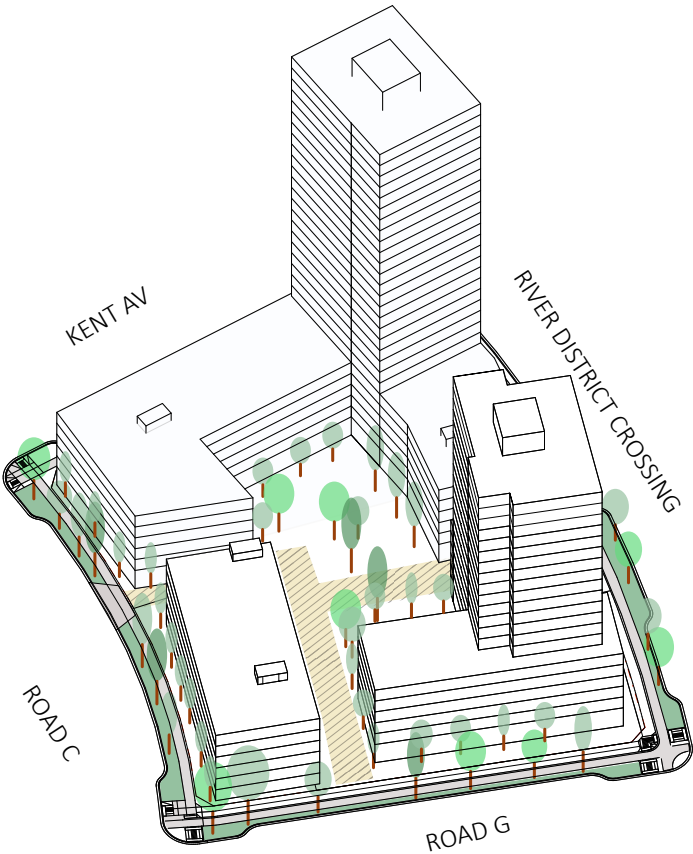


Parcel 29/30

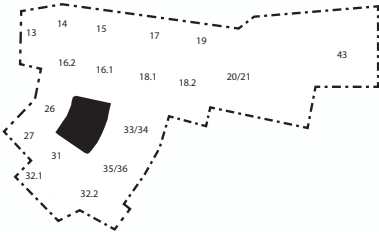
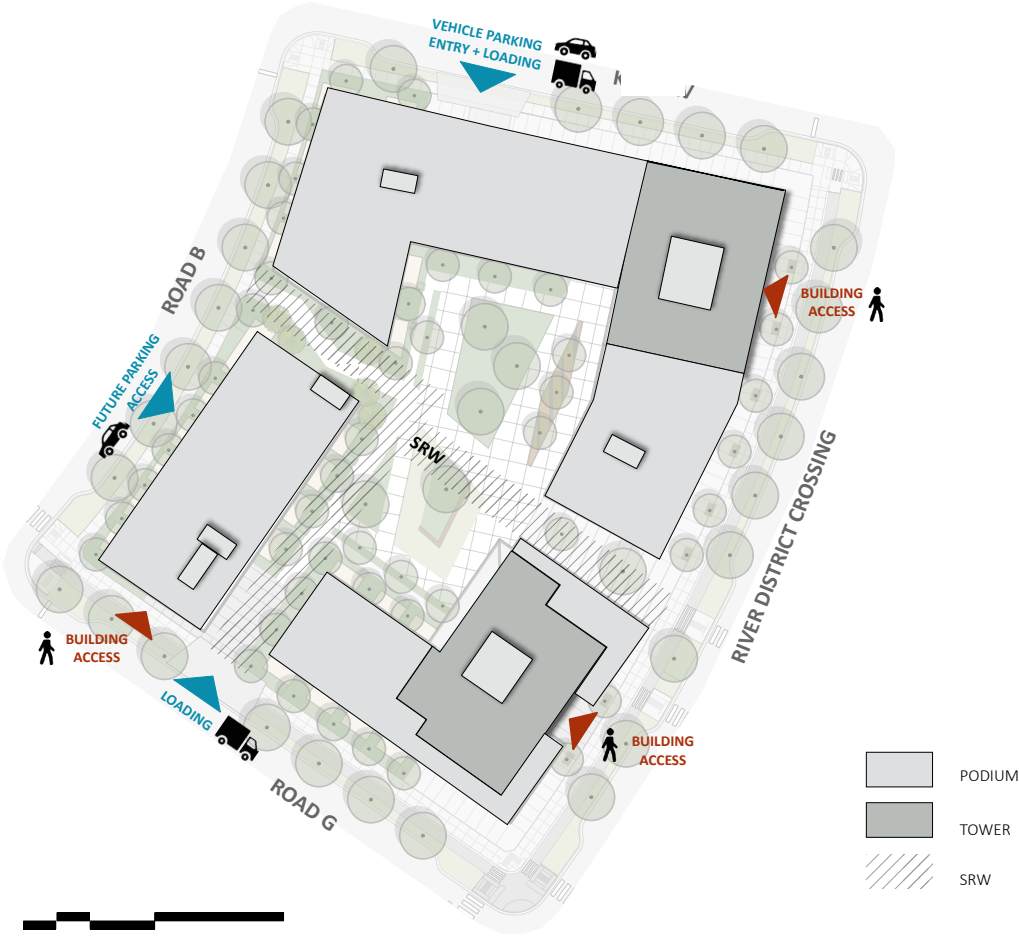
USE	STOREYS	Building Area Net (m2)	Building Area Net (sf)
Total Residential (STRATA)	28	47,494	511,217
Total Commercial/Retail	1	1,897	20,419
TOTAL		49,391	531,636

Urban Design Role: The buildings on this parcel form a gateway to the Waterfront Precinct along with those on Parcel 33/34. The proposed tower creates a visual landmark at the intersection of Kent Ave and River District Crossing, supported by a distinctive volume of CRU, which is a functional response to the Town Square on the other side of Kent Ave.

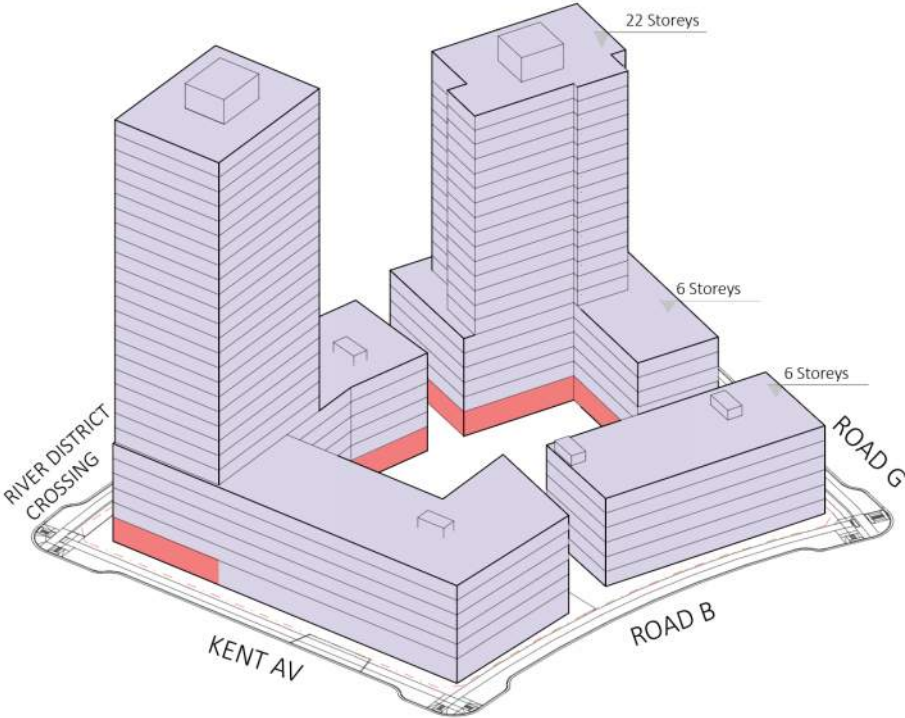
- Characteristics:**
- The commercial spaces are organized along River District Crossing with some of them being double-sided and opening into the internal plaza.
 - A public ROW across the internal courtyard provides important east-west permeability, that connects pedestrians to River District Crossing and connect to Road G.
 - Generous semi-public open space offers a green overlook for ground floor patios, indoor common space and surrounding units; it can also accommodate garden plots.
 - The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



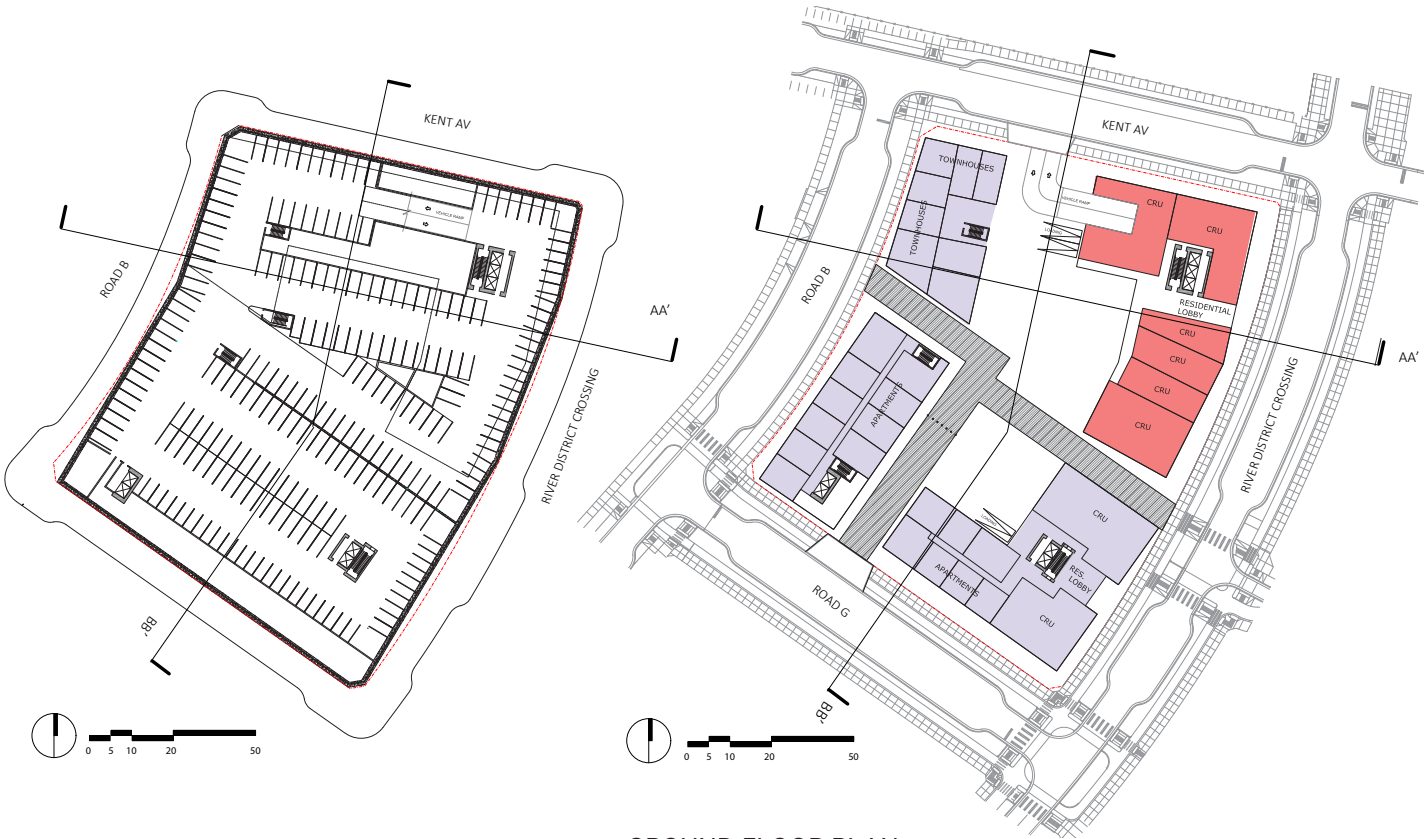
MASSING VIEW FROM SOUTH WEST



SITE PLAN

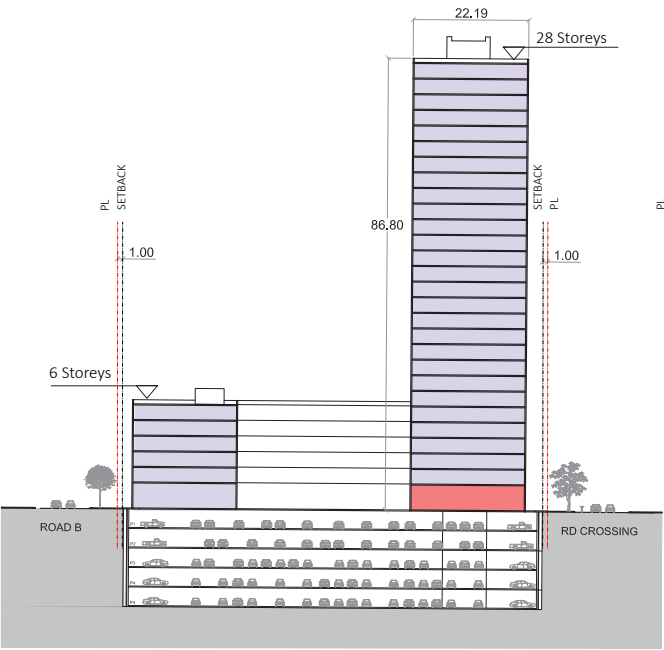


MASSING VIEW FROM NORTH WEST

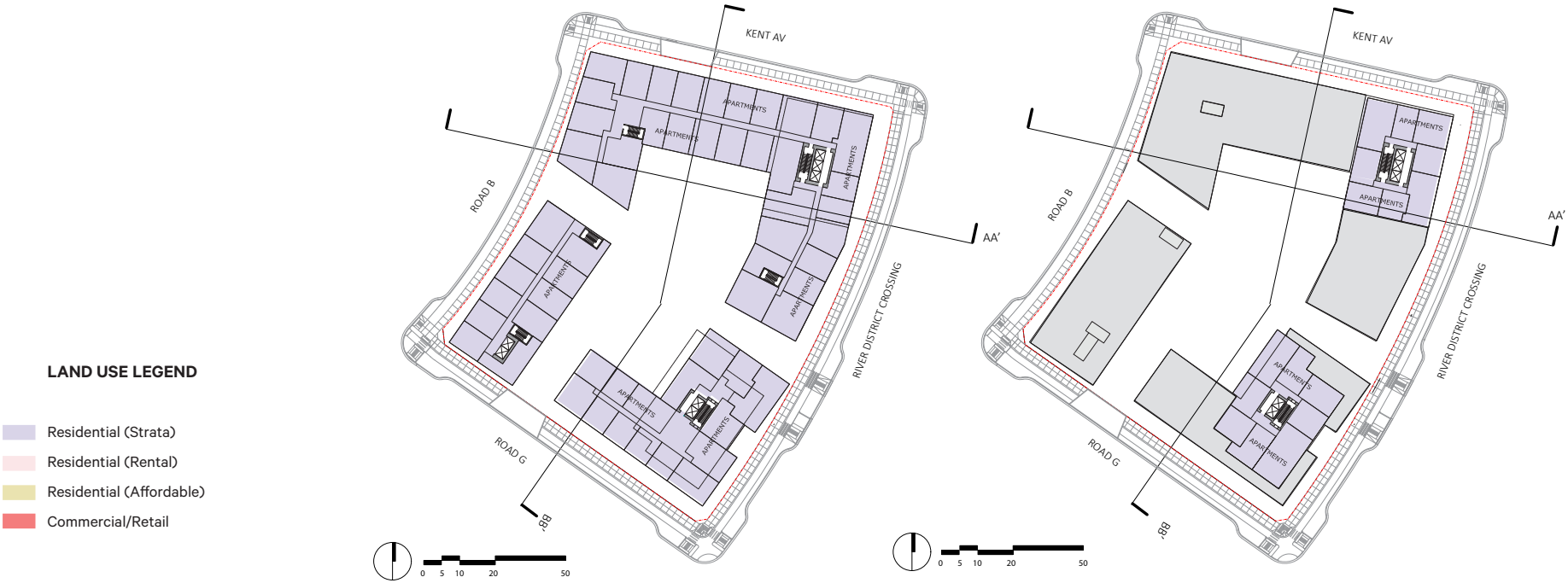


PARKING PLAN

GROUND FLOOR PLAN



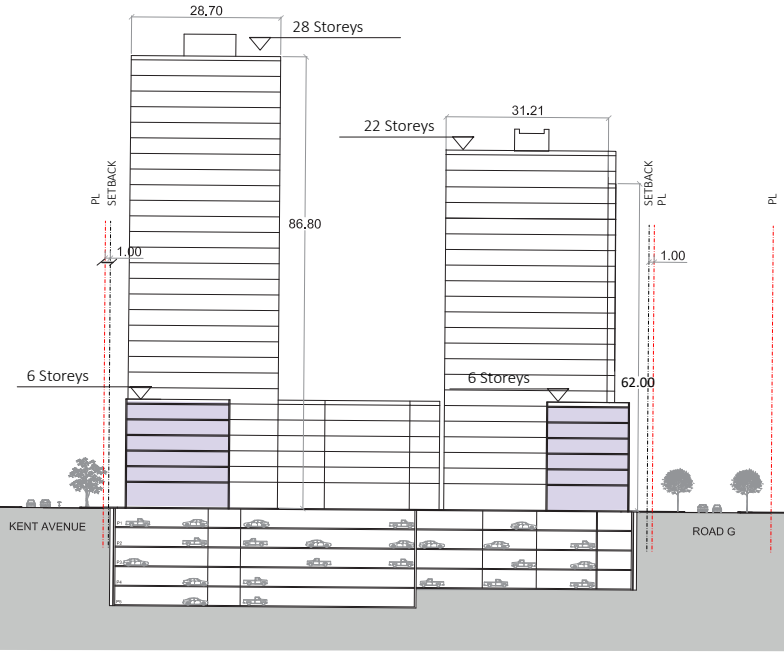
SECTION AA'



TYPICAL FLOOR PLAN - PODIUM

TYPICAL FLOOR PLAN - TOWER

- LAND USE LEGEND**
- Residential (Strata)
 - Residential (Rental)
 - Residential (Affordable)
 - Commercial/Retail



SECTION BB'

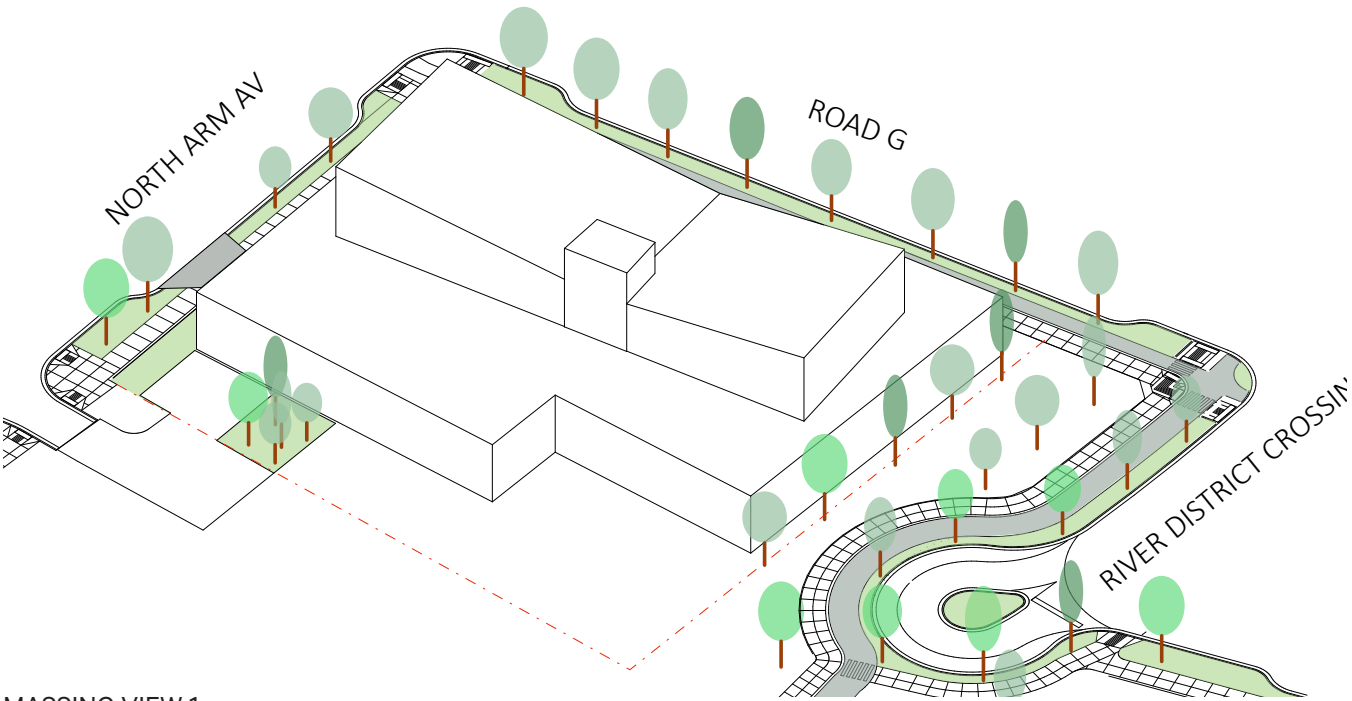
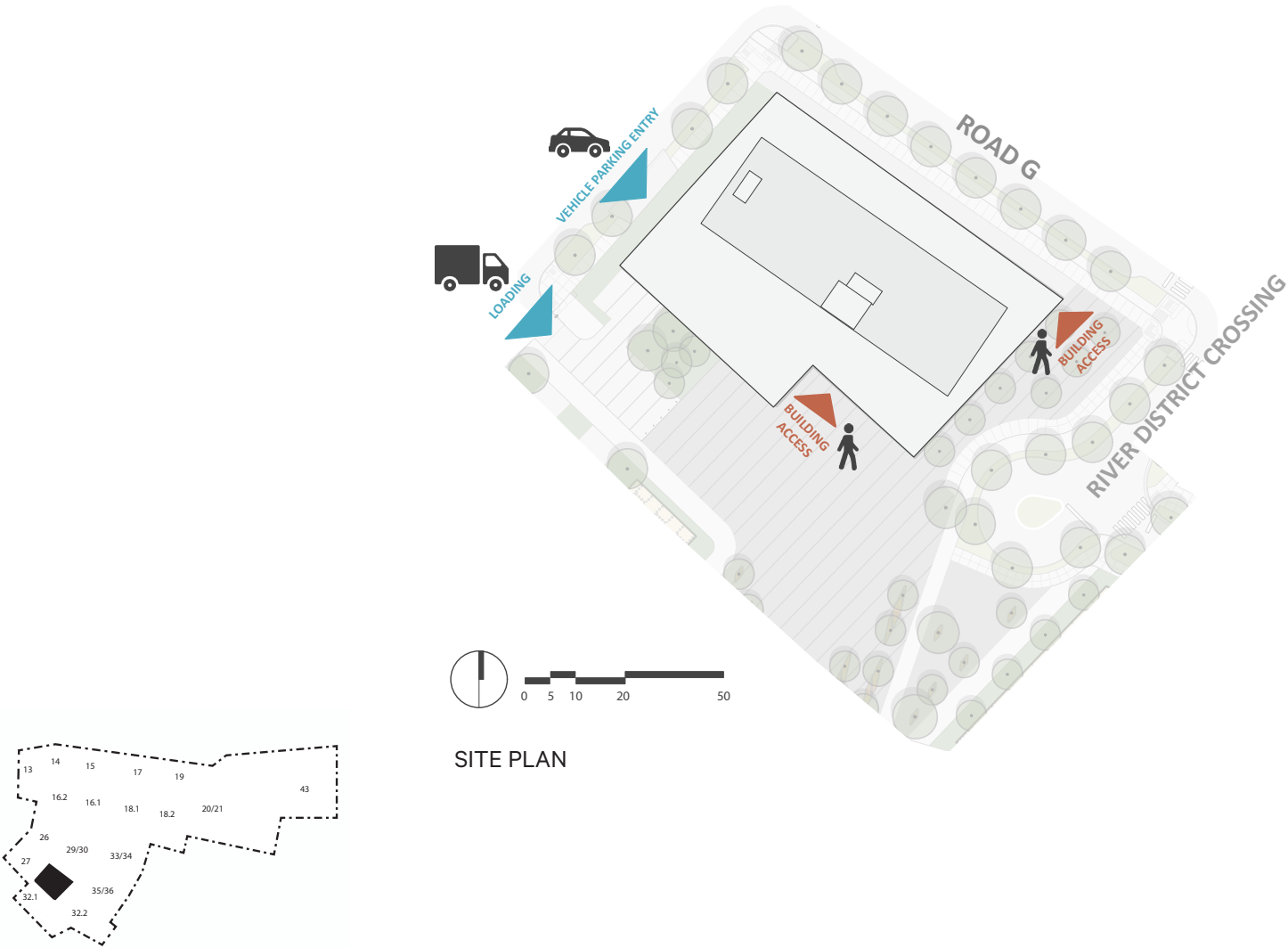
* Dimensions provided for illustrative purposes only.

Parcel 31

USE	STOREYS	Building Area Net (m2)	Building Area Net (sf)
Total Daycare	1	1,528	16,447
Total Community Centre	2	2,787	29,999
TOTAL		4,315	46,446

Urban Design Role: Key civic building and focus of community recreational activity; building serves to lend vibrancy to the surrounding areas by providing views to as many of the interior activities as possible and creating outdoor spaces like the mid-block courtyard and the rooftop play areas where some of this activity can expand. It also marks the end of River District Crossing and plays a key role in the articulation of the public realm and the public plaza at the waterfront.

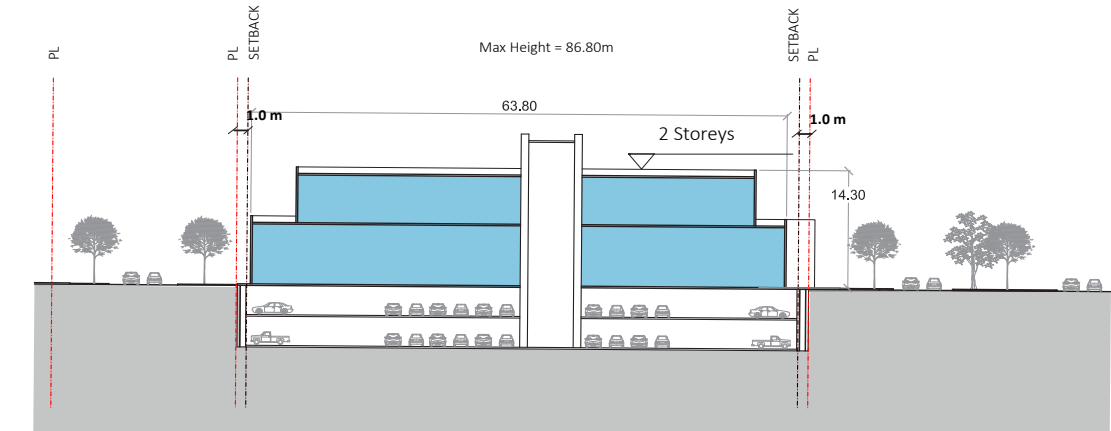
- Characteristics:**
- A 2 storey building that establishes a strong presence of civic use along River District Crossing and interfacing closely with the waterfront.
 - Daycare takes advantage of a large roof area to create sunny spaces for outdoor play; facility should be legible from the street, distinguishing from but complementing the overall composition with the Community Centre; required weather protection has potential as a dynamic architectural element at north edge of roof
 - The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process.



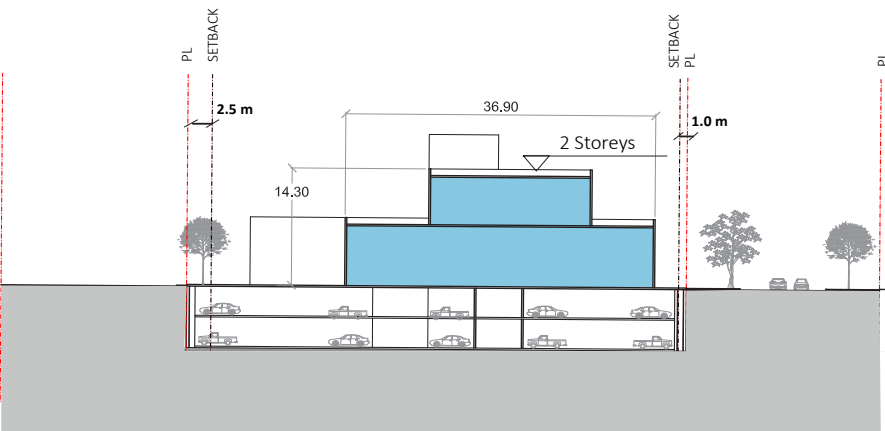
MASSING VIEW 1

LAND USE LEGEND

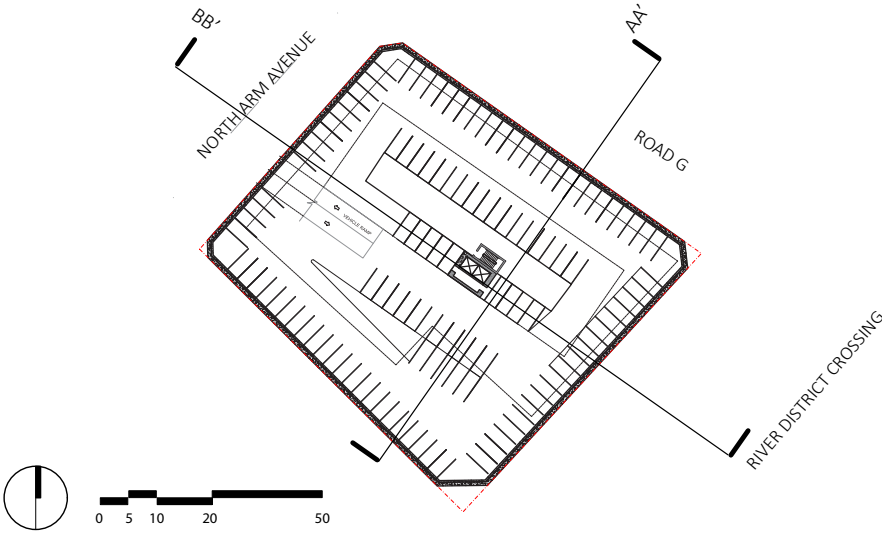
Civic



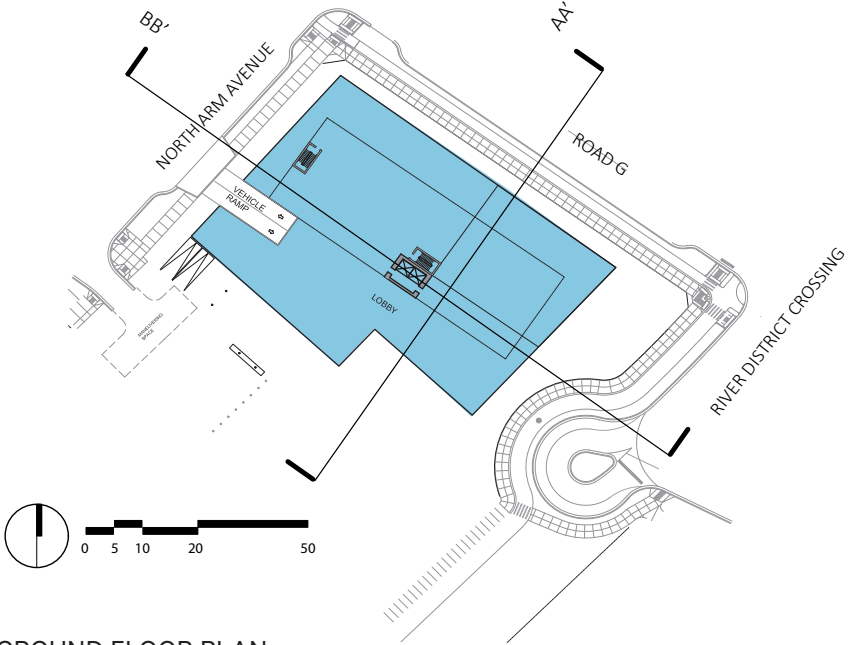
SECTION BB'



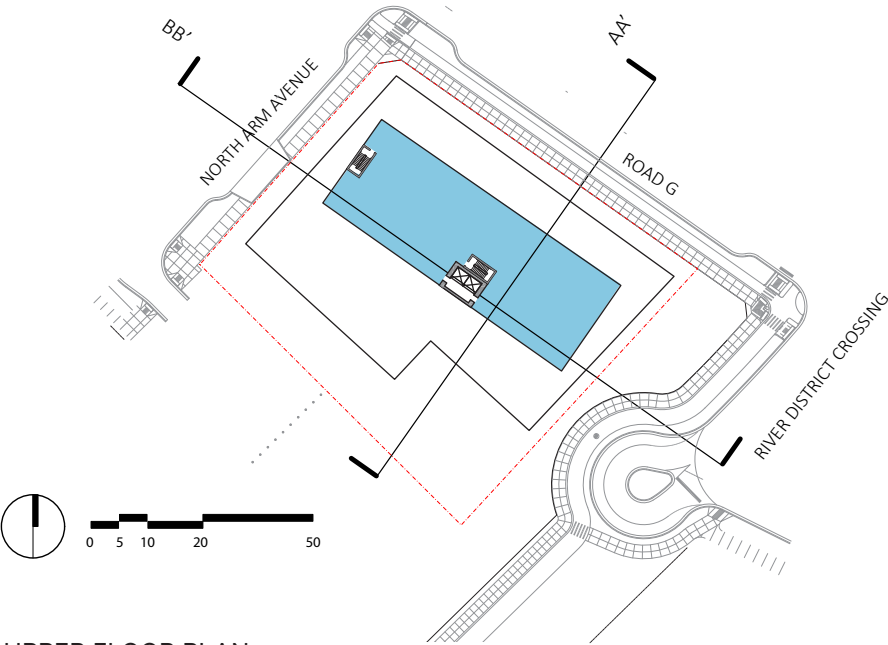
SECTION AA'



PARKING PLAN



GROUND FLOOR PLAN



UPPER FLOOR PLAN

* Dimensions provided for illustrative purposes only.

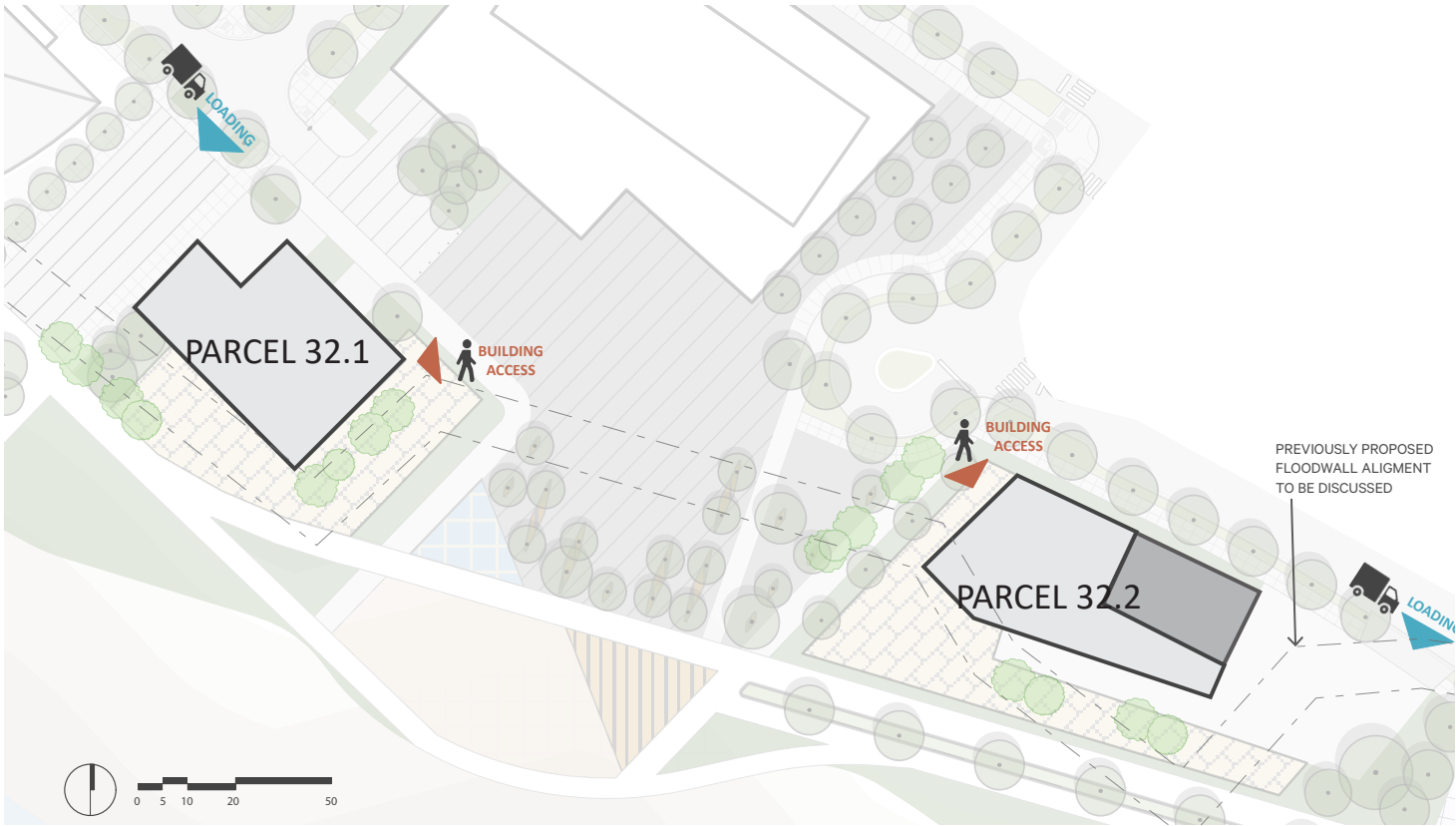
Parcel 32.1 & 32.2

USE	STOREYS	Building Area Net (m2)	Building Area Net (sf)
PAREL 32.1 Total Commercial/Retail	1	479	5,153
PAREL 32.2 Total Commercial/Retail	1	964	10,376

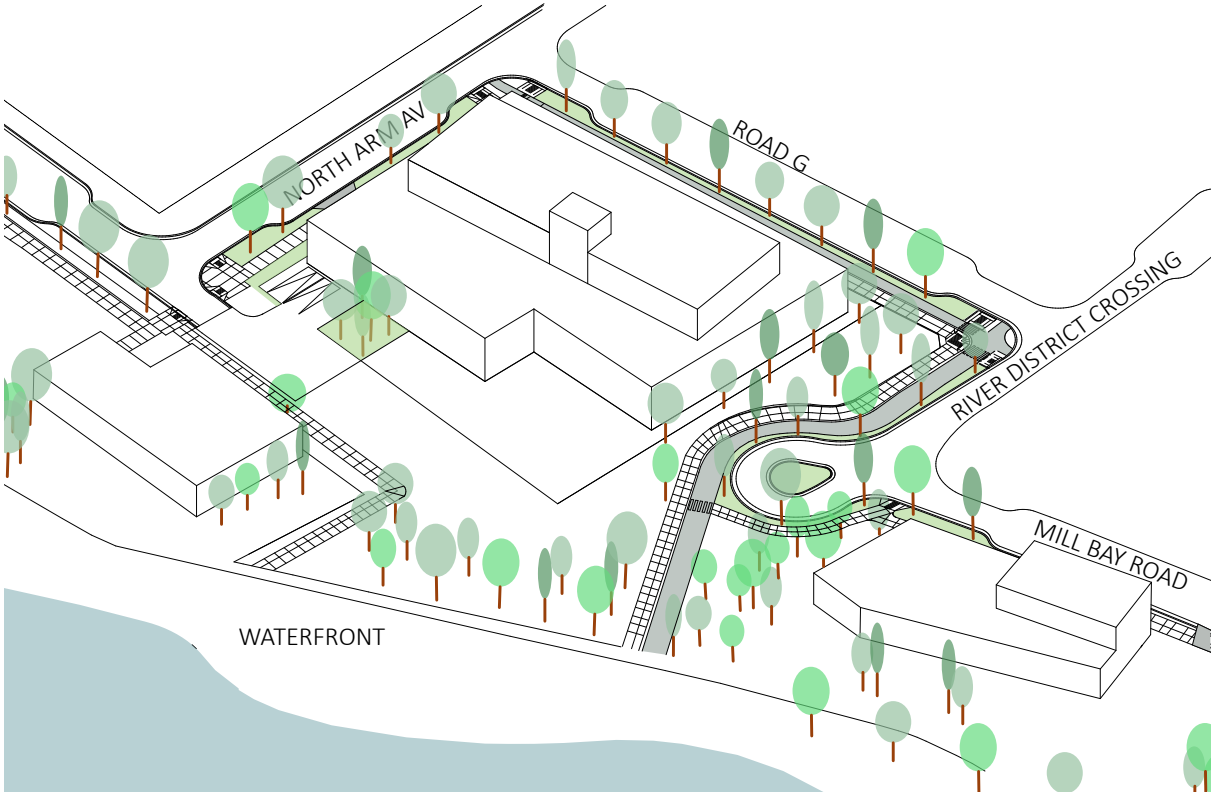
Urban Design Role: Supporting the vibrancy of the Waterfront Plaza and precinct and providing the community with more activities along the waterfront, Parcel 32.1 & 32.2 comprise of commercial uses. In response to civic uses on the other side of North Arm Avenue, restaurants on these parcels will the support the activation of the adjoining public realm.

Characteristics:

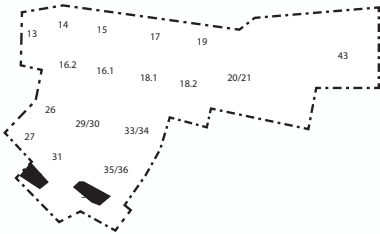
- These parcels are intended to have restaurants with generous outdoor space to allow tables and chairs to spill out onto a patio and activate the waterfront.
- Contemporary expression is encouraged to capture the essence of the old mill buildings as opposed to recreating them; generous opening on axis with River District Crossing offers a broad view south to the river; an expansive deck forms the south edge of this Parcel, wrapping around the east and west ends and extending through River District Crossing opening;
- Parking for Parcel 32.1 and 32.2 will be provided off-site. Loading cannot have turning movements located on site.
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process.



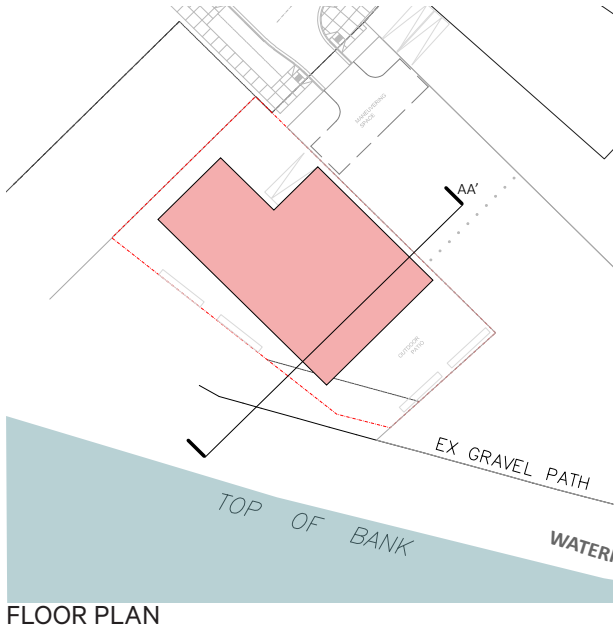
SITE PLAN



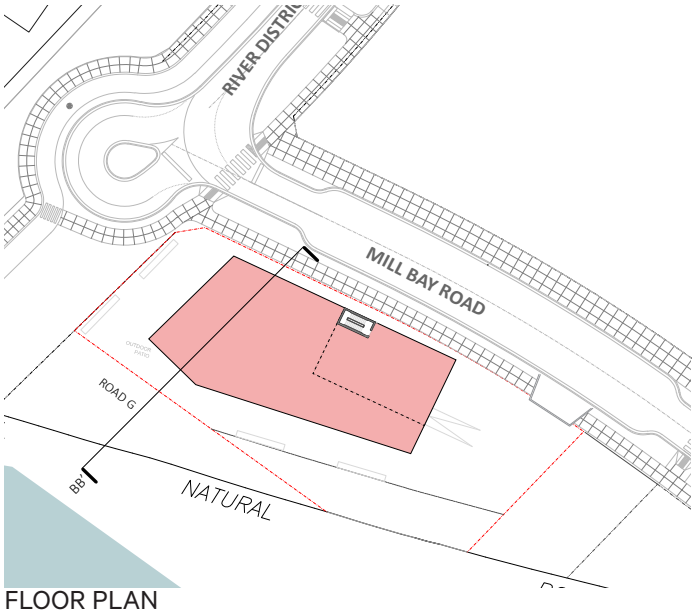
MASSING VIEW 1



Parcel 32.1 - Floor Plan and Section

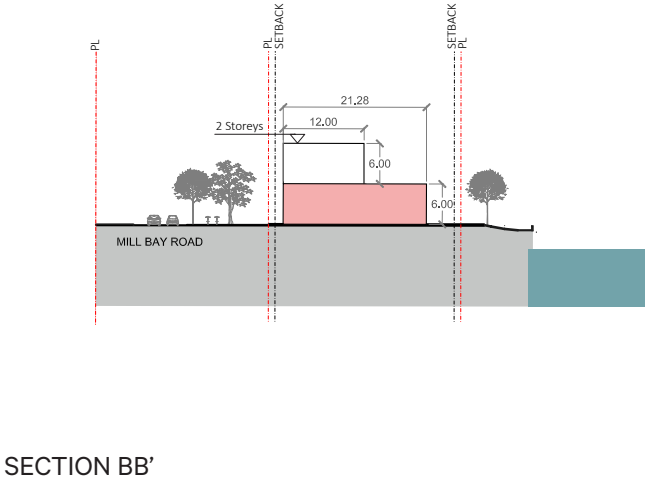
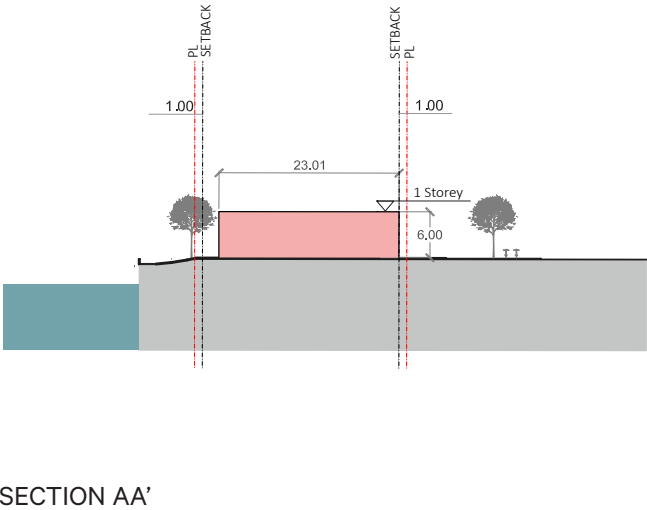


Parcel 32.2 - Floor Plan and Section



LAND USE LEGEND

Commercial/Retail



* Dimensions provided for illustrative purposes only.

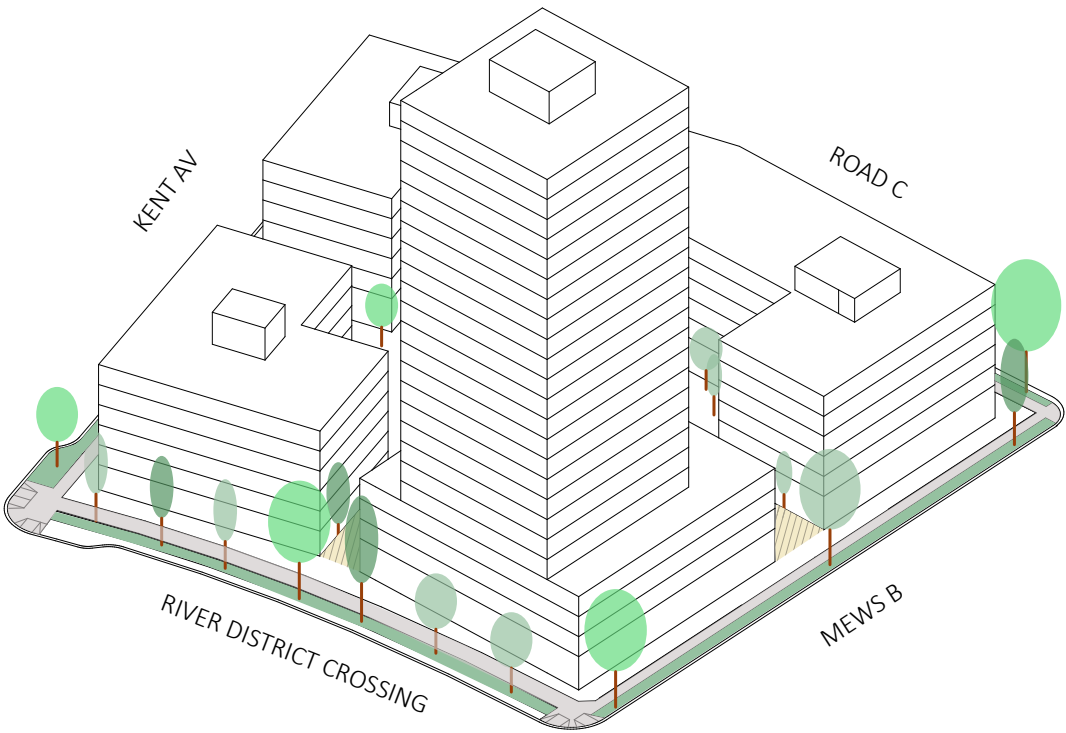
Parcel 33/34

USE	STOREYS	Building Area Net (m2)	Building Area Net (sf)
Total Residential (STRATA)	22	10,907	117,407
Total Residential (RENTAL)	6	9,290	100,000
Total Residential (AFFORDABLE)	6	12,601	135,636
Total Commercial/Retail	1	1,758	18,925
TOTAL		34,557	371,968

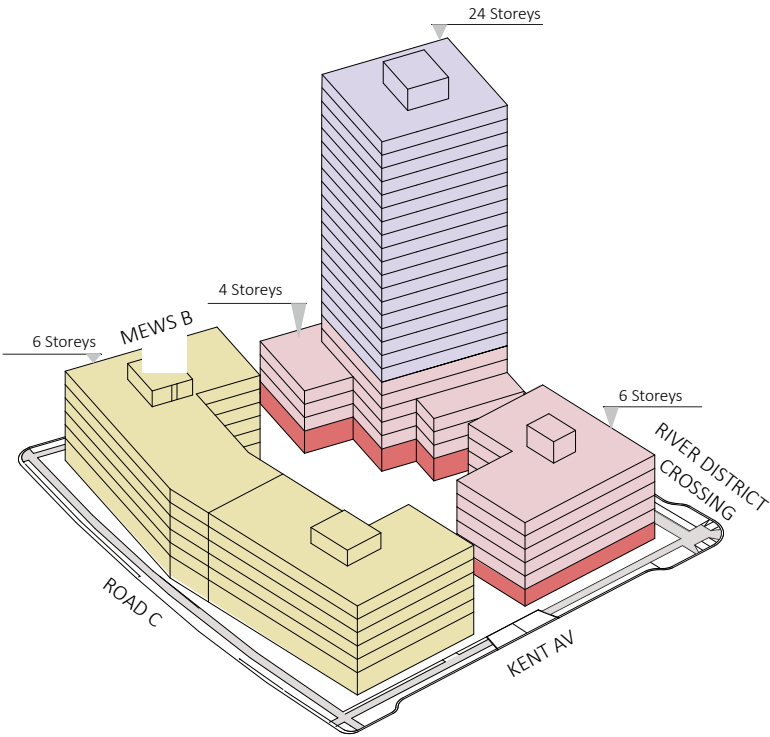
Urban Design Role: East part of gateway to Waterfront Precinct; distinctive form at corner is a visual draw for ‘magnet’ retail located here

Characteristics:

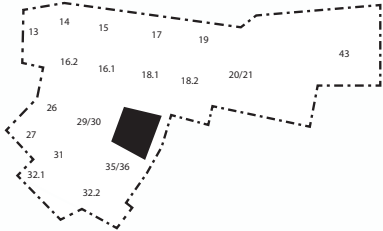
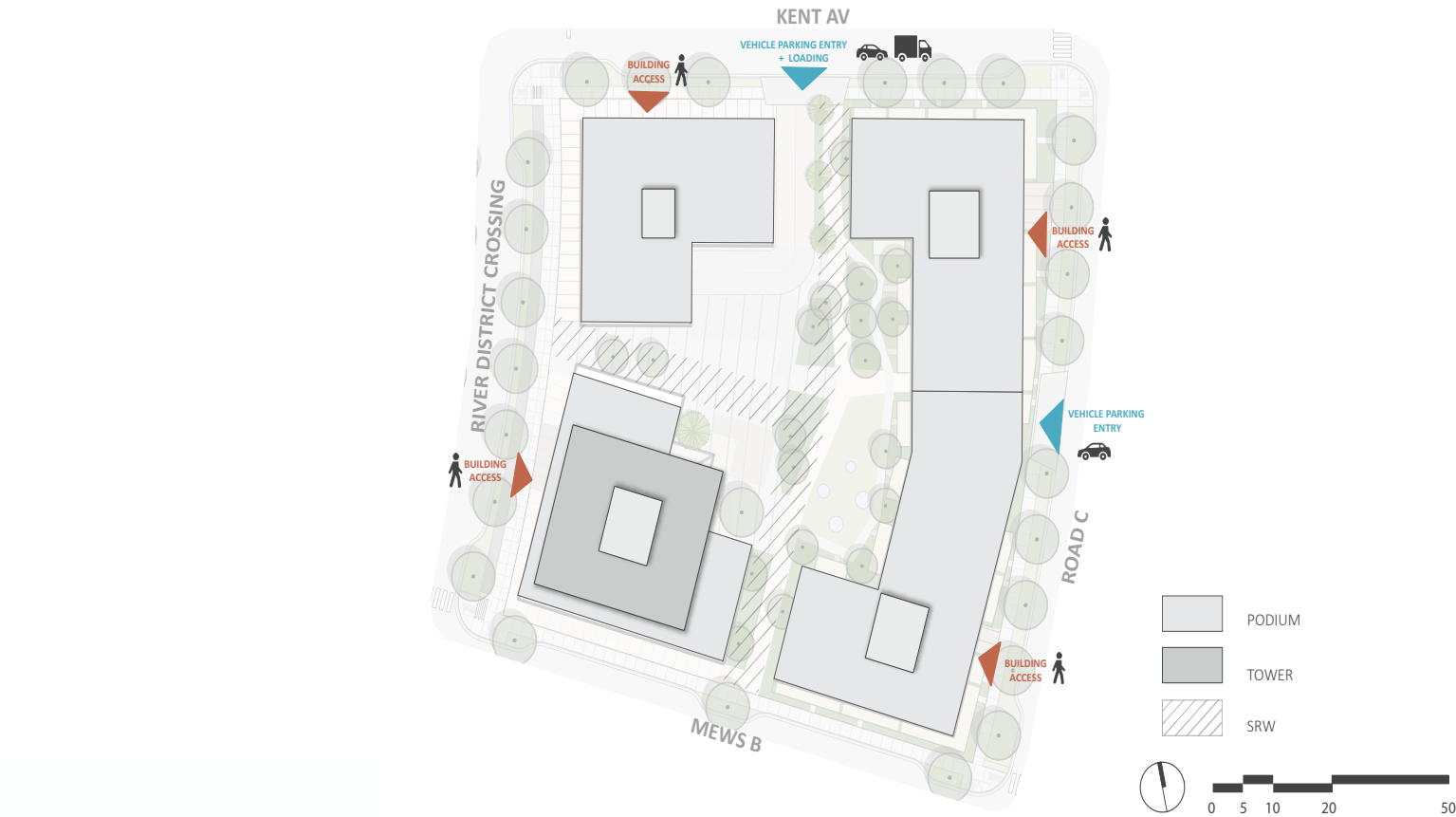
- Semi-private garden court provides generous green open space for surrounding buildings, extends the garden patios at grade and offers the possibility of garden plots for residents.
- The commercial spaces are organized along River District Crossing.
- Building heights of this parcel create a synergy with those on Parcel 29/30 to maximize on light, ventilation and privacy of residents.
- Walkways across the internal plaza provide important North-South permeability, and pedestrian connection to River District Crossing.
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



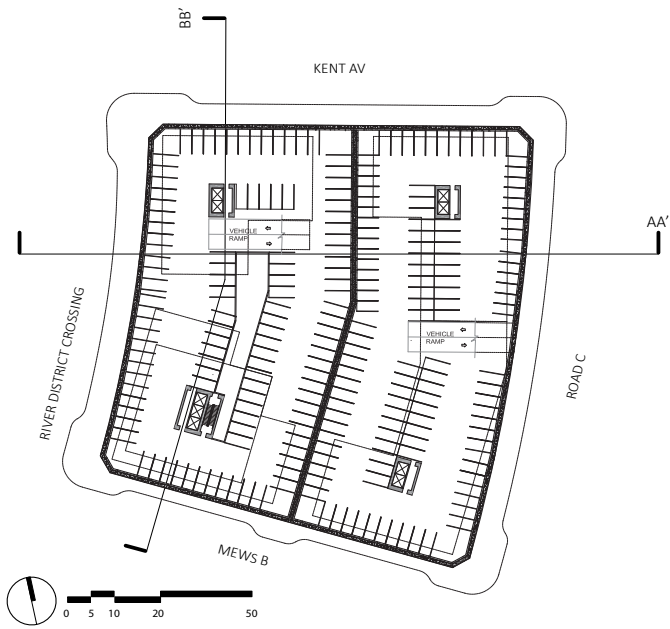
MASSING VIEW FROM SOUTH WEST



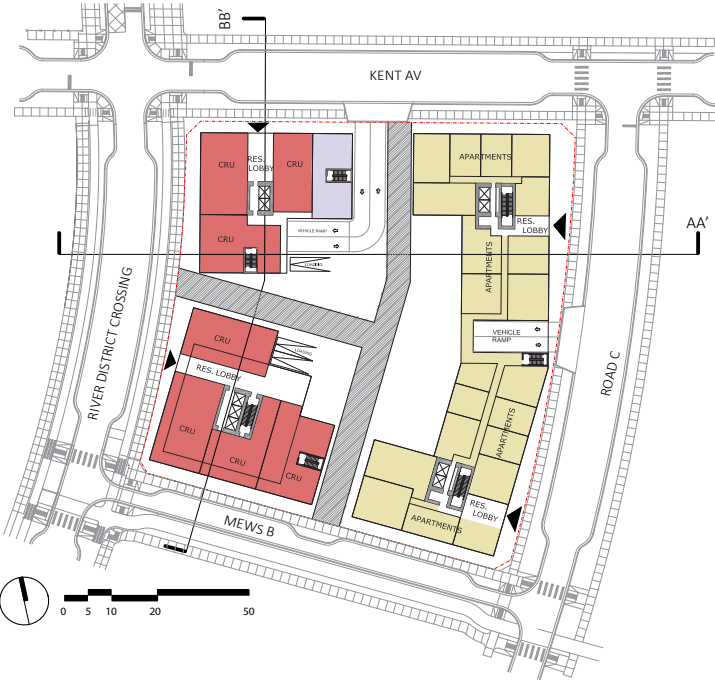
MASSING VIEW FROM NORTH EAST



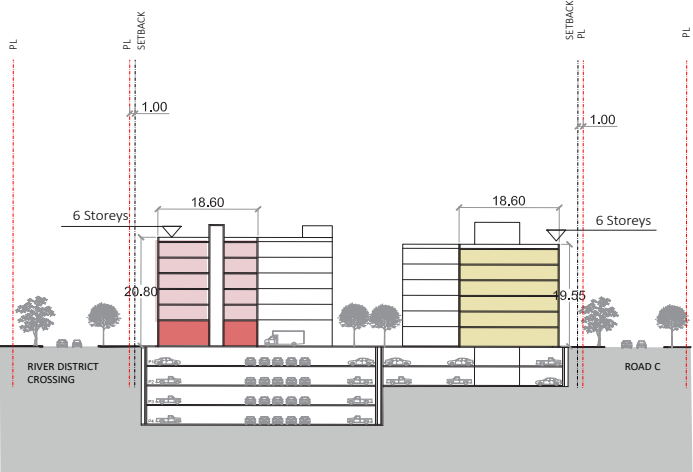
SITE PLAN



PARKING PLAN

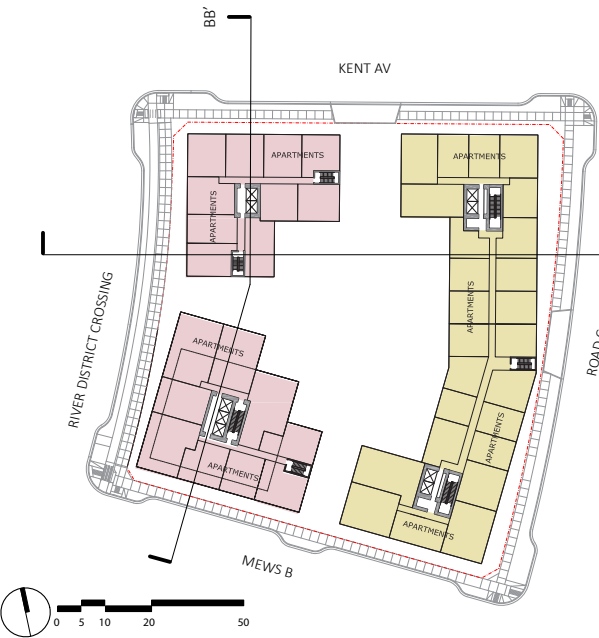


GROUND FLOOR PLAN

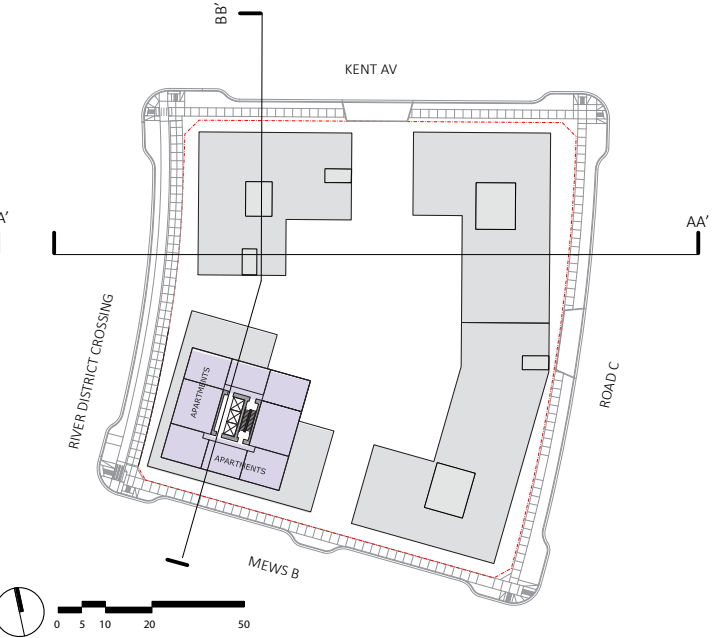


SECTION AA'

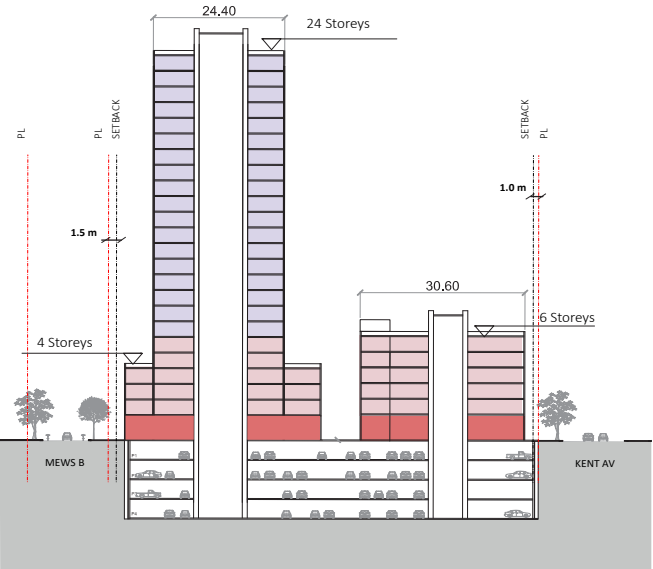
- LAND USE LEGEND**
- Residential (Strata)
 - Residential (Rental)
 - Residential (Affordable)
 - Commercial/Retail



TYPICAL FLOOR PLAN - PODIUM



TYPICAL FLOOR PLAN - TOWER



SECTION BB'

* Dimensions provided for illustrative purposes only.

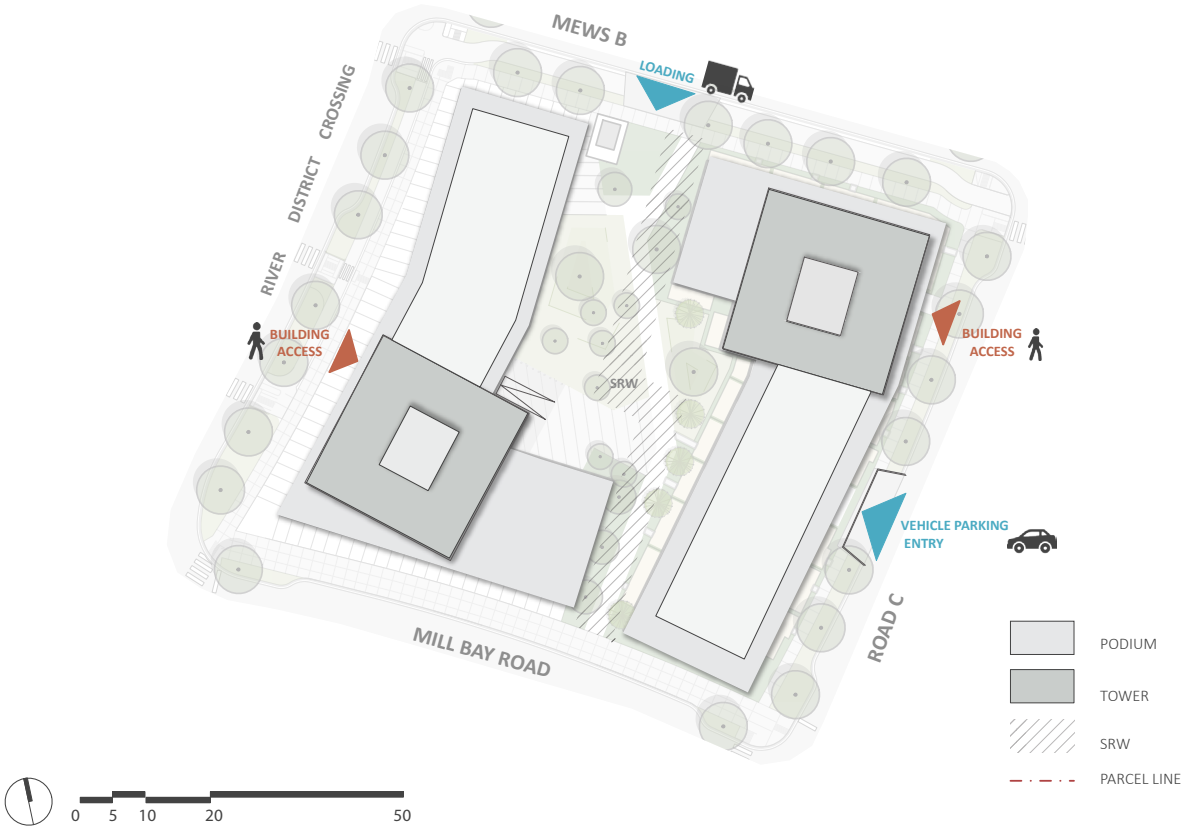
Parcel 35/36

USE	STOREYS	Building Area Net (m2)	Building Area Net (sf)
Total Residential (STRATA)	16	27,901	300,331
Total Commercial/Retail	1	3,066	33,004
TOTAL		30,967	333,335

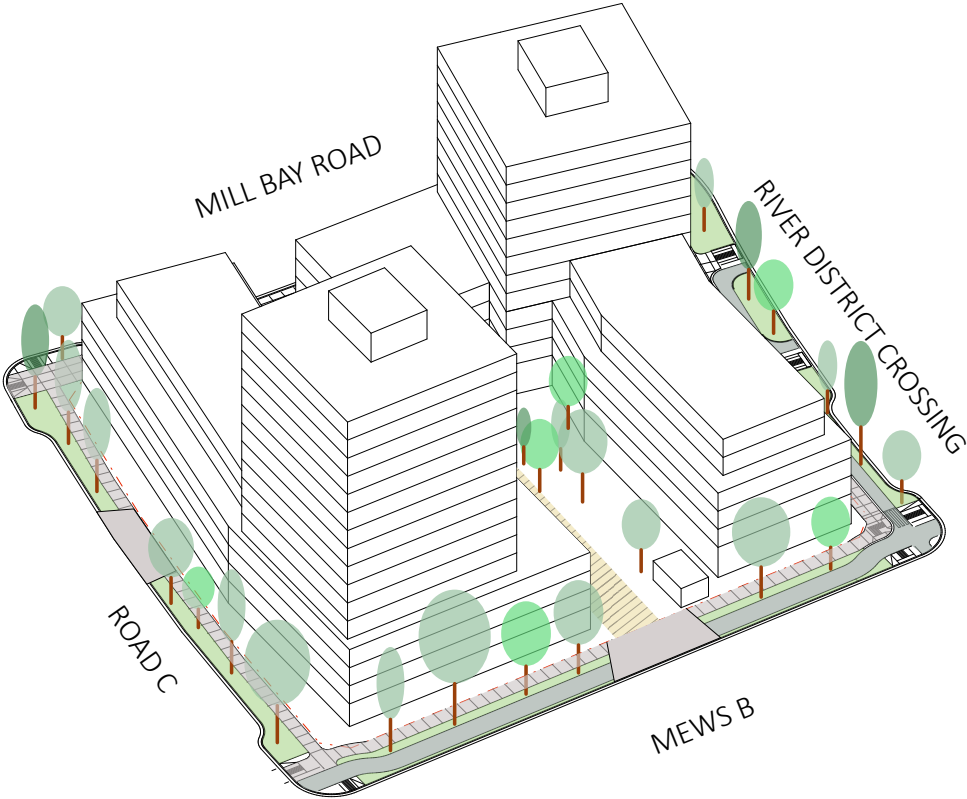
Urban Design Role: Parcel 35/36 mark the end of River District Crossing with the plaza to west and Community Centre across the street. This presents an opportunity for dwelling units to be located in vicinity to amenities and with a view of the water. There is potential for commercial uses along River District Crossing and Mews G (facing the water).

Characteristics:

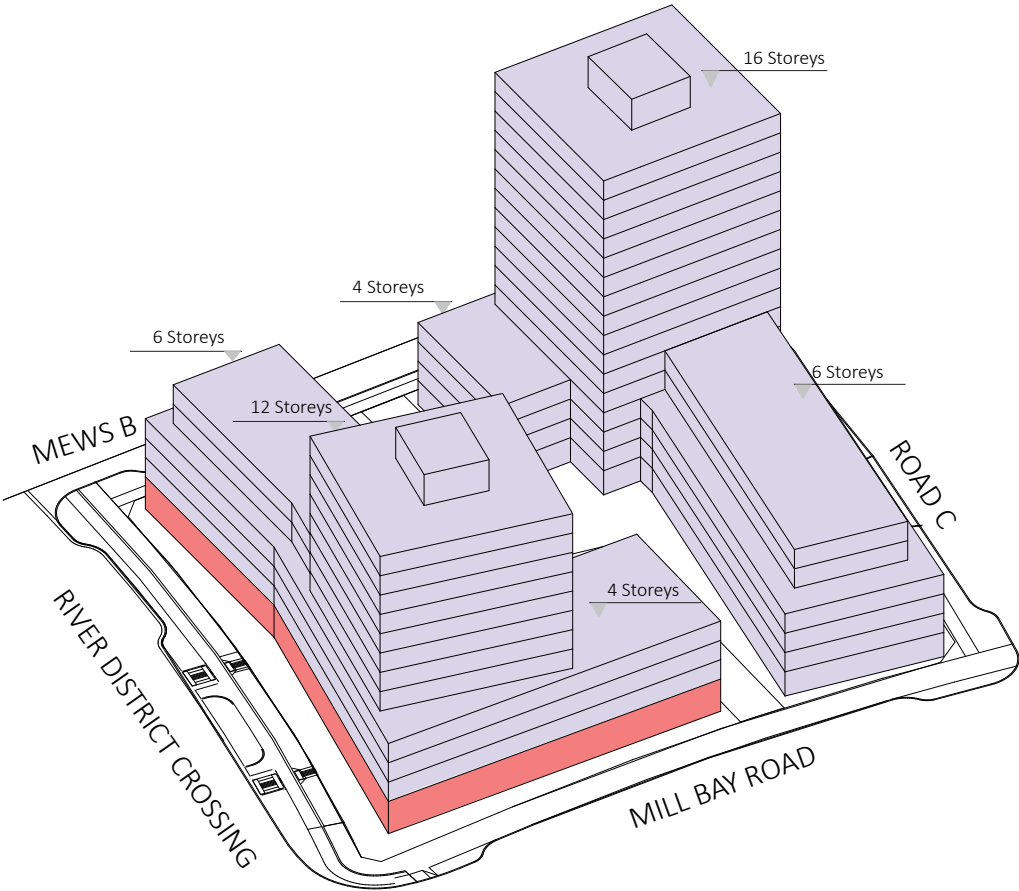
- Commercial uses at waterfront face include restaurants and other commercial uses that contribute to the recreational character of the Waterfront Precinct; generous canopies and sidewalk accommodate plenty of outdoor seating.
- Building heights of this parcel create a synergy with those on Parcel 33/34 to maximize on light, ventilation and privacy of residents. Setbacks after 4-6 levels create a pedestrian friendly scale.
- Mid block open space comprises a semi-private green with private garden patios at north, east and west edges.
- North-south pedestrian route extend through breezeways to waterfront road and River District Crossing respectively, giving this parcel a high level of permeability
- Loading is generally located at ends of buildings, minimizing visual impact on residential uses.
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



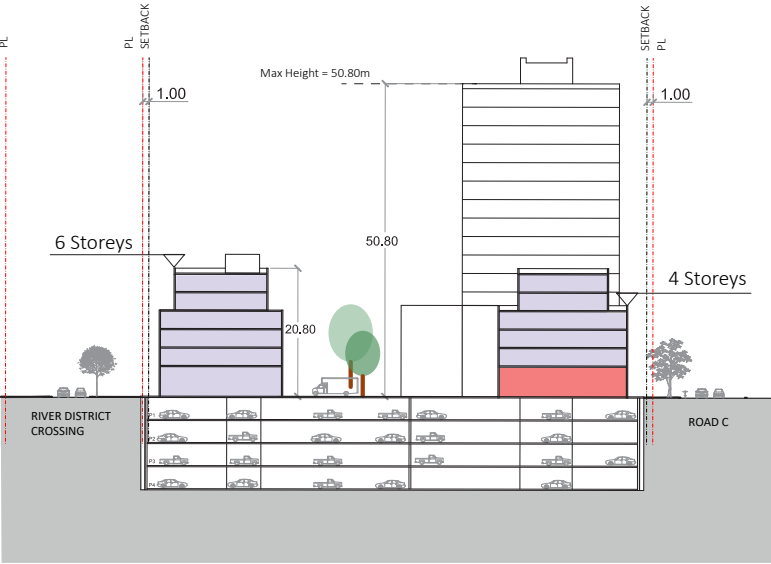
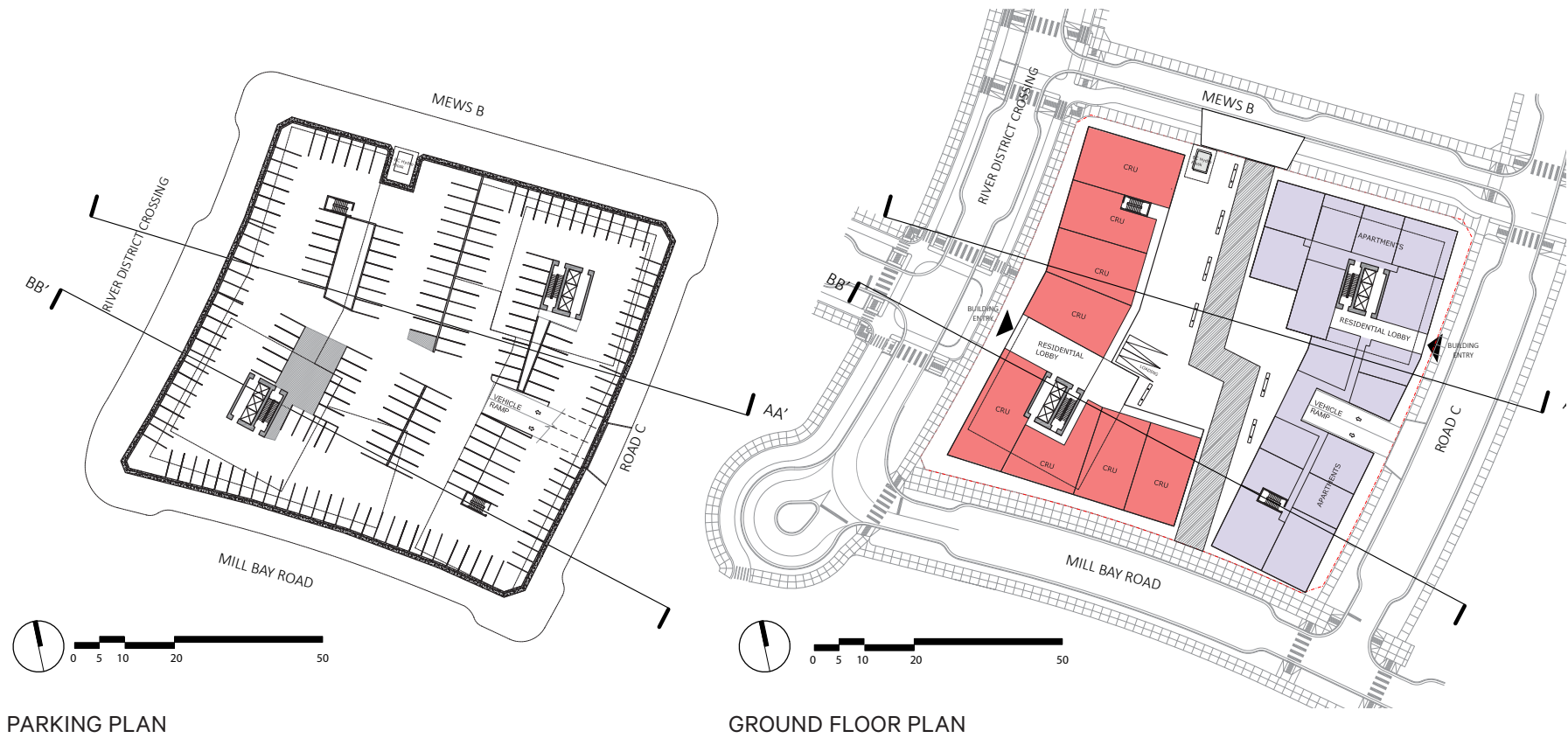
SITE PLAN



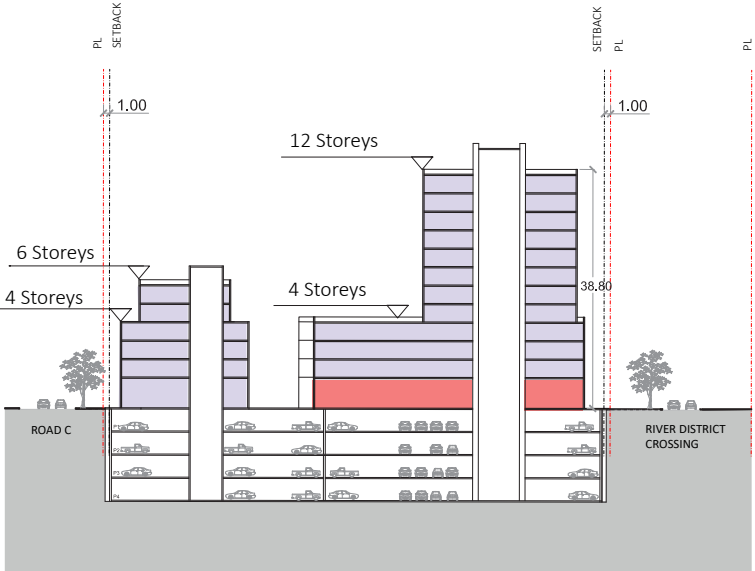
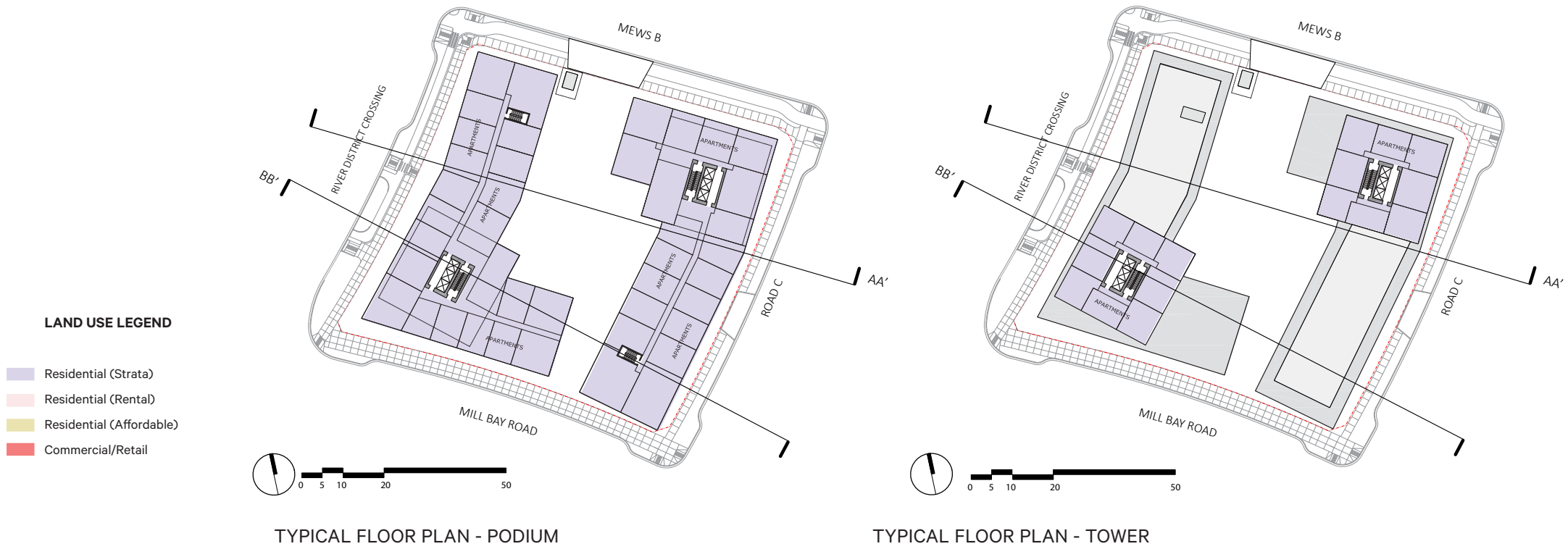
MASSING VIEW FROM NORTH EAST



MASSING VIEW FROM SOUTH WEST



SECTION AA'



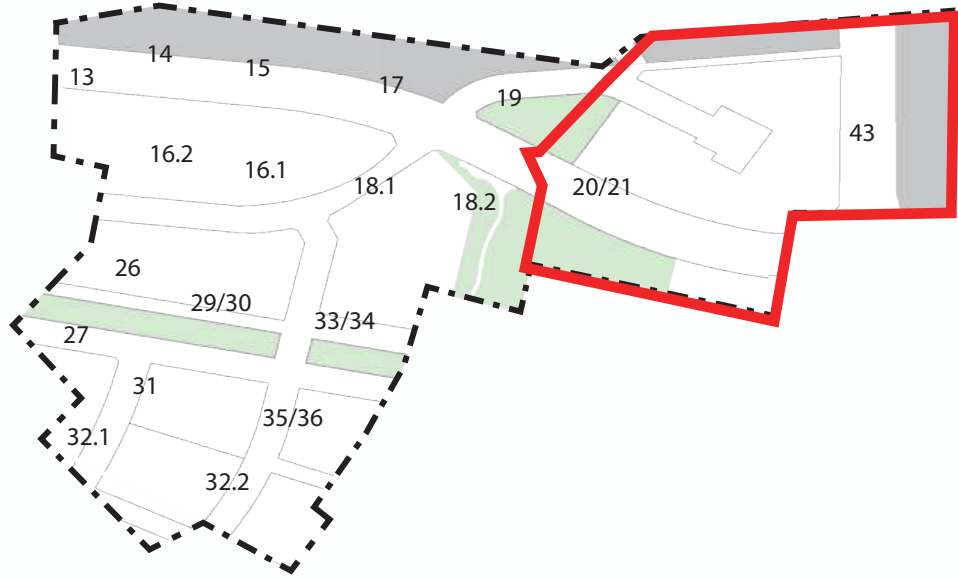
SECTION BB'

LAND USE LEGEND

- Residential (Strata)
- Residential (Rental)
- Residential (Affordable)
- Commercial/Retail

* Dimensions provided for illustrative purposes only.

3.3 Park Precinct



	FLEX USE									
	RESIDENTIAL		COMMERCIAL/LIVE-WORK		OFFICE		COMMERCIAL/RETAIL		TOTAL	
	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.	m2	sq.ft.
PARK PRECINCT										
Precinct Sub-Total	62,608	673,907							62,608	673,907
Sub Area 1 Total	30,773	331,238							30,773	331,238
Parcel 20-21	30,773	331,238							30,773	331,238
Sub Area 2 Total	31,835	342,669							31,835	342,669
Parcel 43	31,835	342,669							31,835	342,669



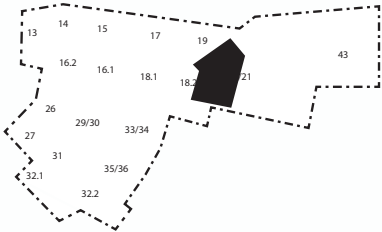
PARCEL 20-21 DATA

Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	16	30,773	331,238
Total Residential		30,773	331,238

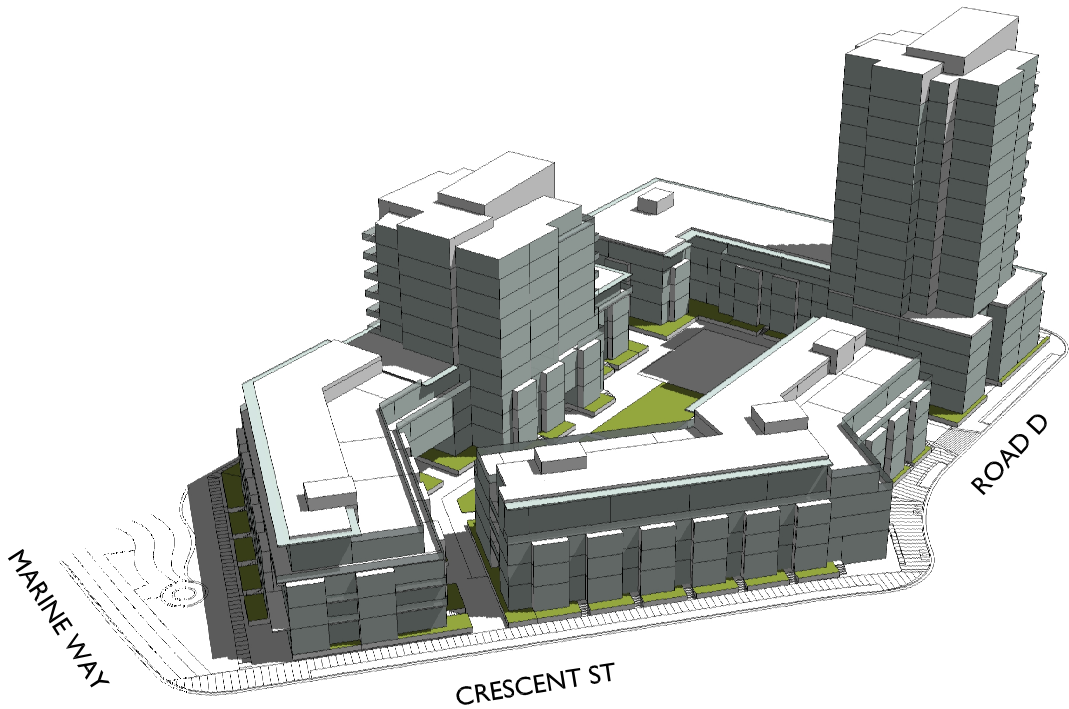
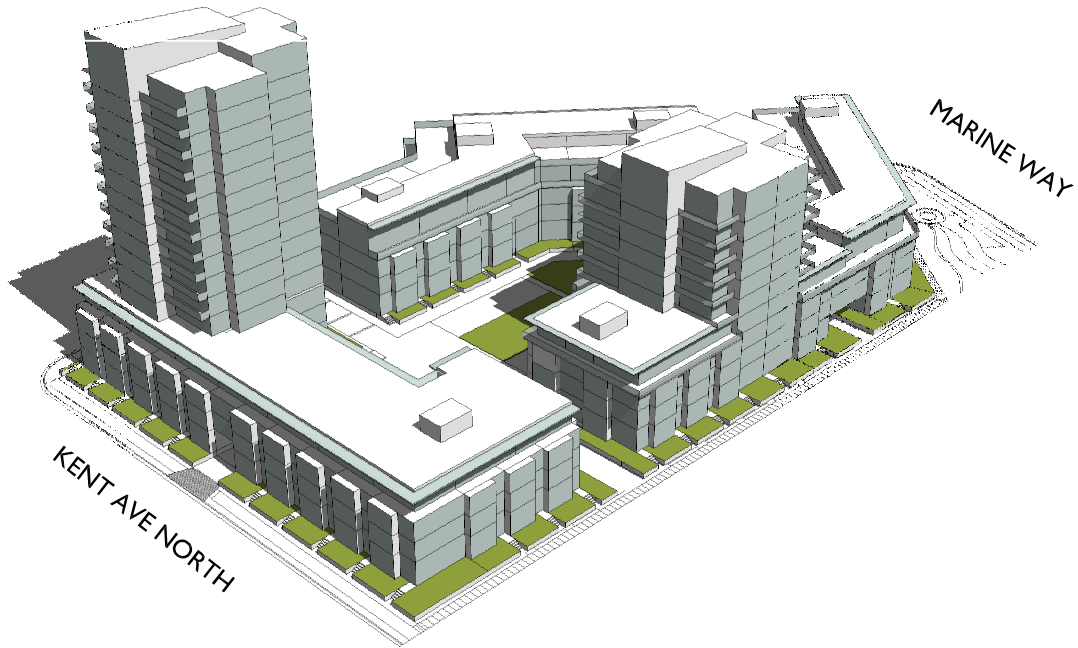
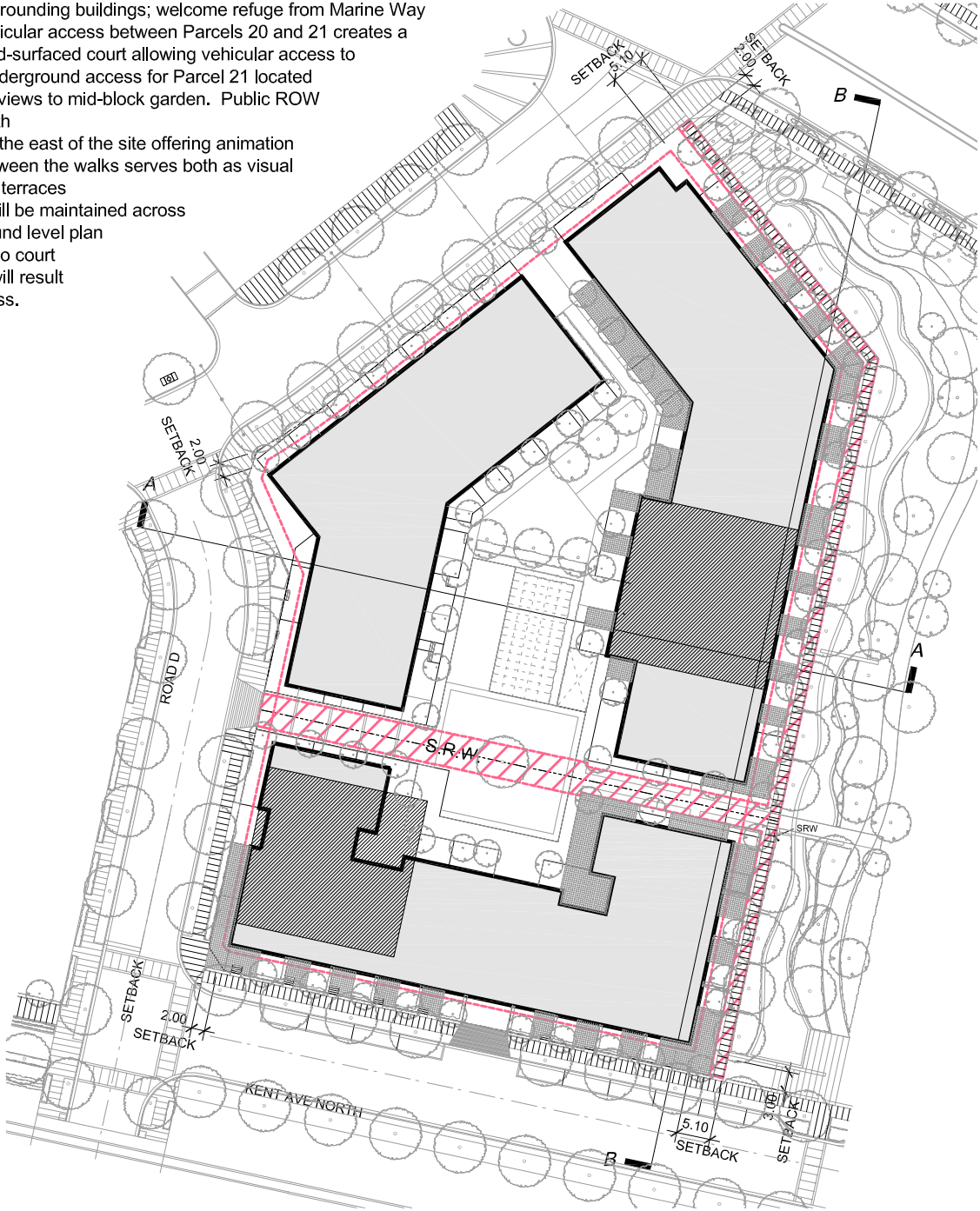
Urban design role: High exposure of all frontages - Crescent, park, Kent and Road 'D' - calls for a dignified residential character appropriate to this very public position at east entry to the Town Square precinct

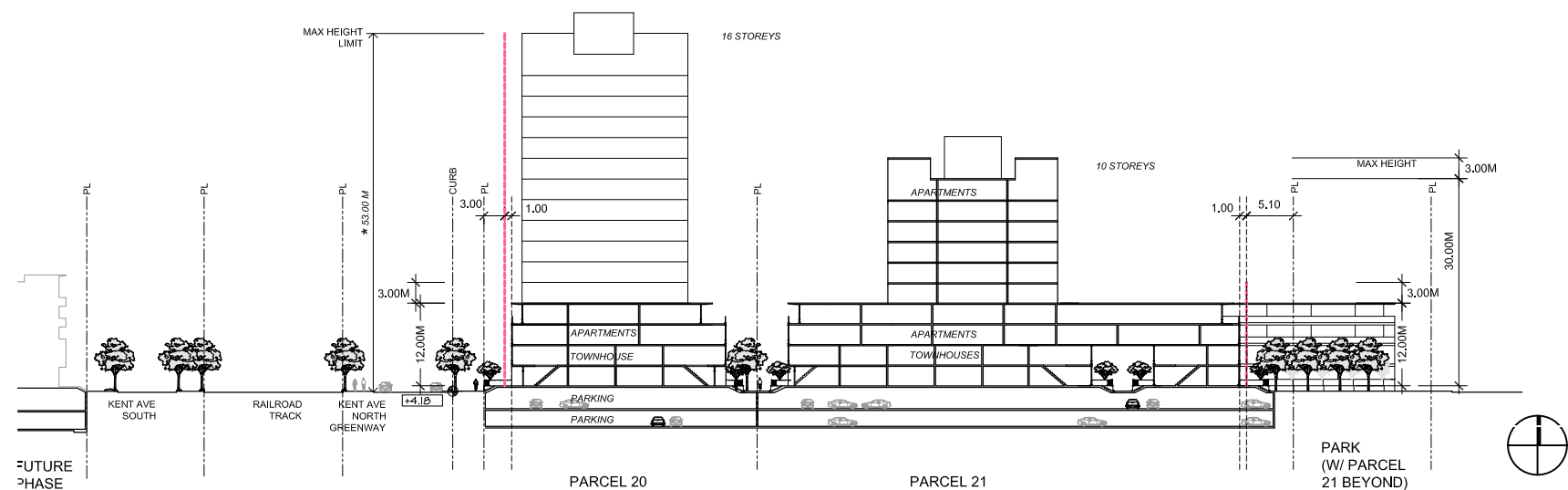
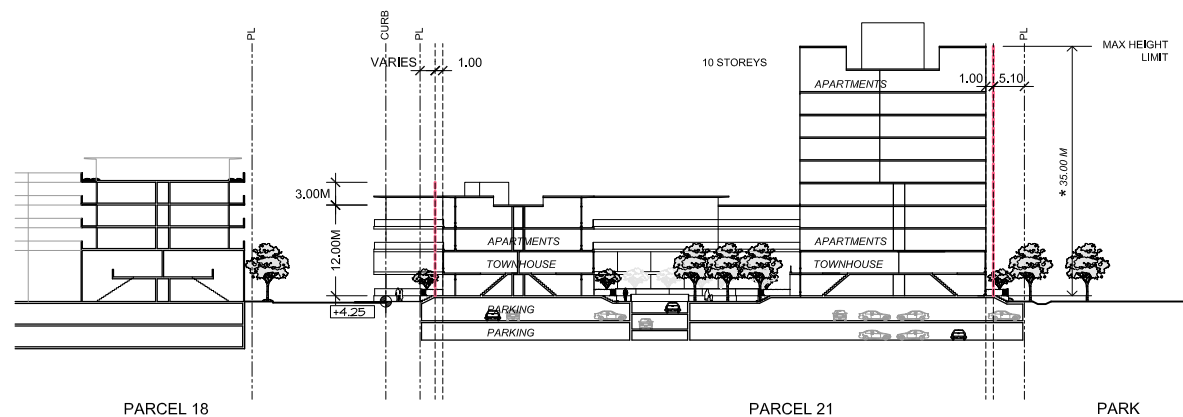
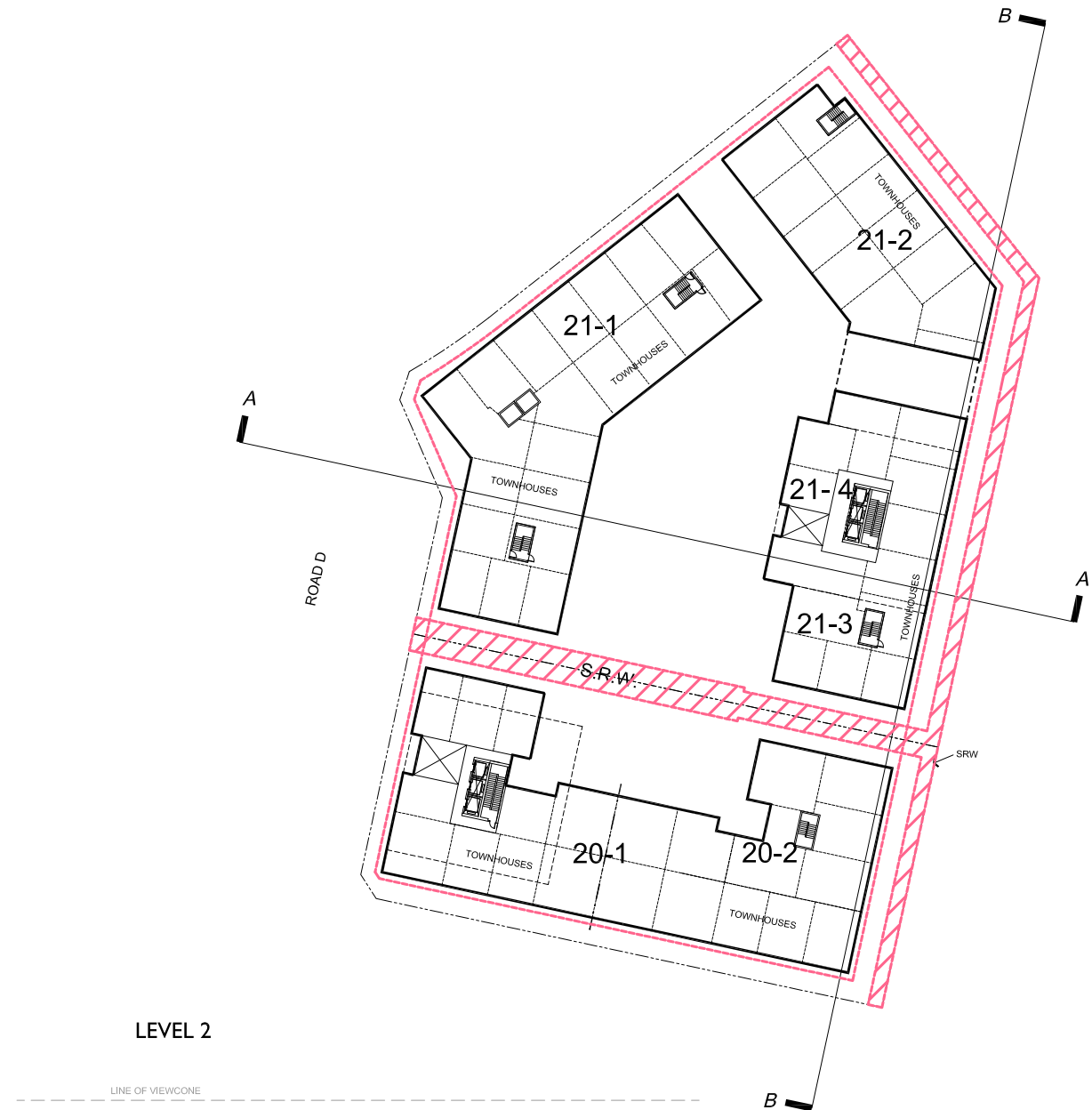
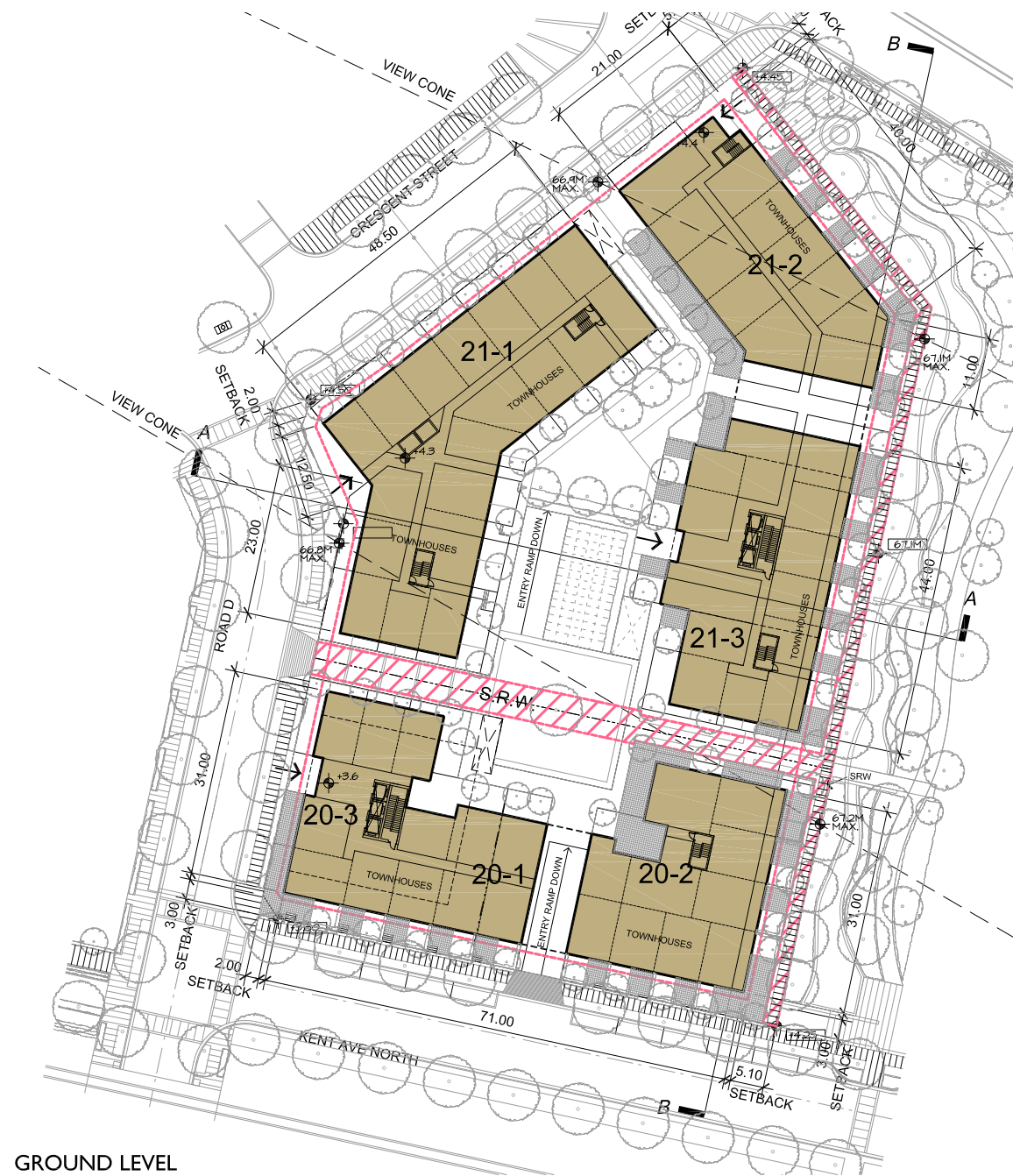
Characteristics:

- Townhouse forms at grade giving strong character and legibility to the street wall on all sides of this block; frontage on Crescent and Road 'D' is more urban in character with modest setbacks from the property line; a small planting area and steps up to a recessed entry offer additional separation from the street on Road 'D'; deeper setbacks create a more relaxed, residential character at Kent Ave Greenway; additional density in frontage on the park/play field creates a higher 5 storey base for the small 10 storey tower centered in this façade - a visual anchor for the expansive open space
- A 16 storey tower at the SW corner of Parcel 21 marks the west end of the Park Precinct and the route to the Crescent along Road 'D', corresponding to tower at Parcel 13
- Large mid-block garden court offers generous green overlooks for surrounding buildings; welcome refuge from Marine Way activity and noise; and good potential for garden plots; pedestrian/vehicular access between Parcels 20 and 21 creates a direct connection to the play field across the parcel with a central, hard-surfaced court allowing vehicular access to underground parking ramp for Parcel 20 and loading for Parcel 21; underground access for Parcel 21 located centrally in Kent Avenue frontage - two storey through opening offers views to mid-block garden. Public ROW to maintain through block connection from Road D to Avalon Park North
- Generous garden terraces for ground floor units face onto the park to the east of the site offering animation and eyes on adjacent public and private walkways; a watercourse between the walks serves both as visual amenity for residents and buffer between public park and semi-private terraces
- An important public view to Mount Baker from Everett Crowley Park will be maintained across the development site. Refer to maximum elevations indicated on Ground level plan
- Emergency access to the eastern tower provided by hard-surfaced auto court
- The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



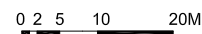
MASSING DIAGRAM





*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.

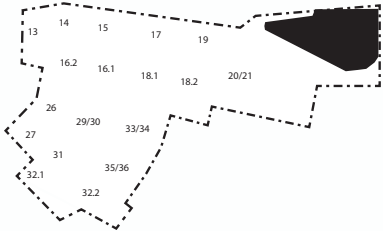
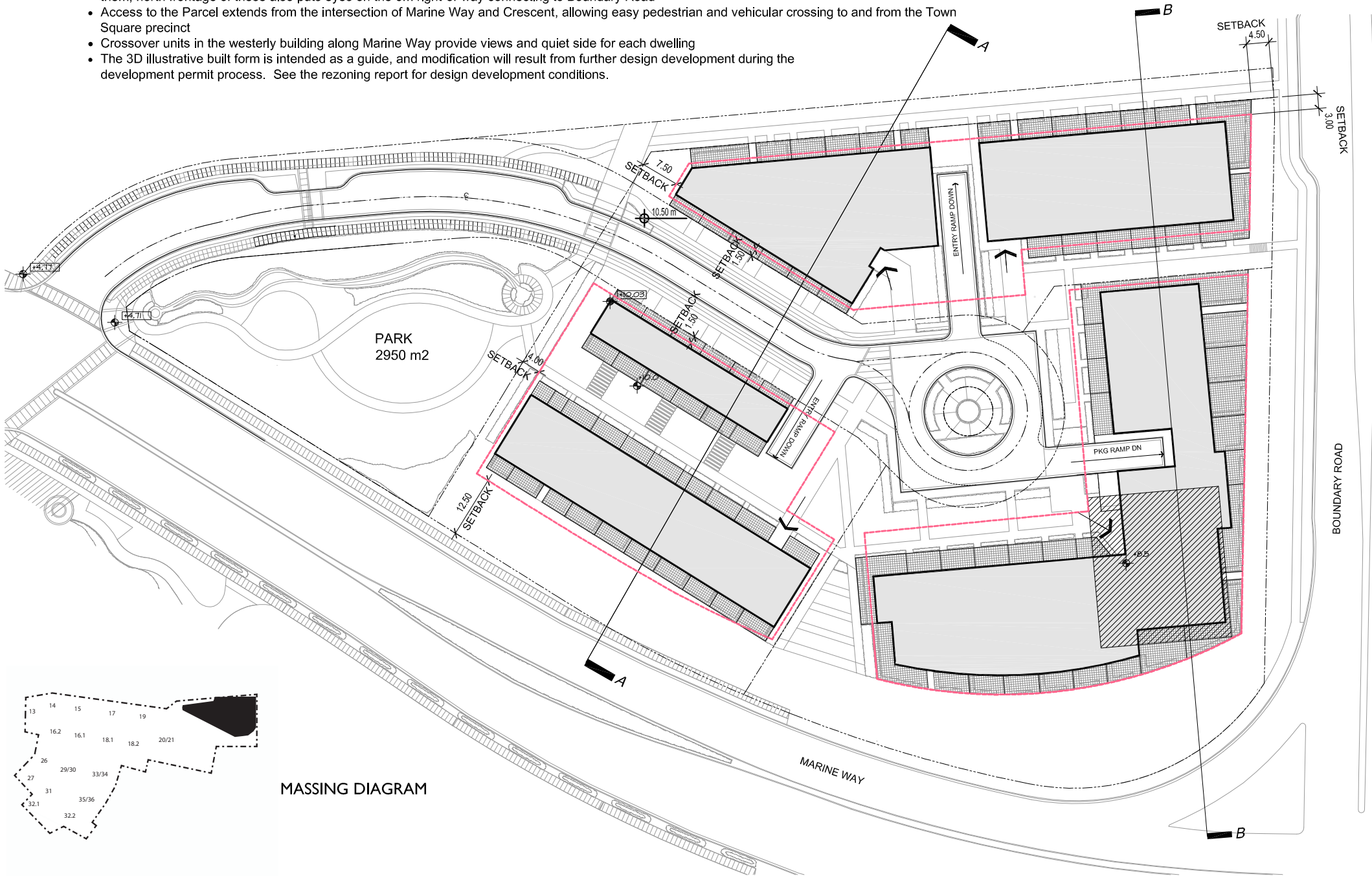
PARCEL 20-21
SCALE 1:1000
20-21.b



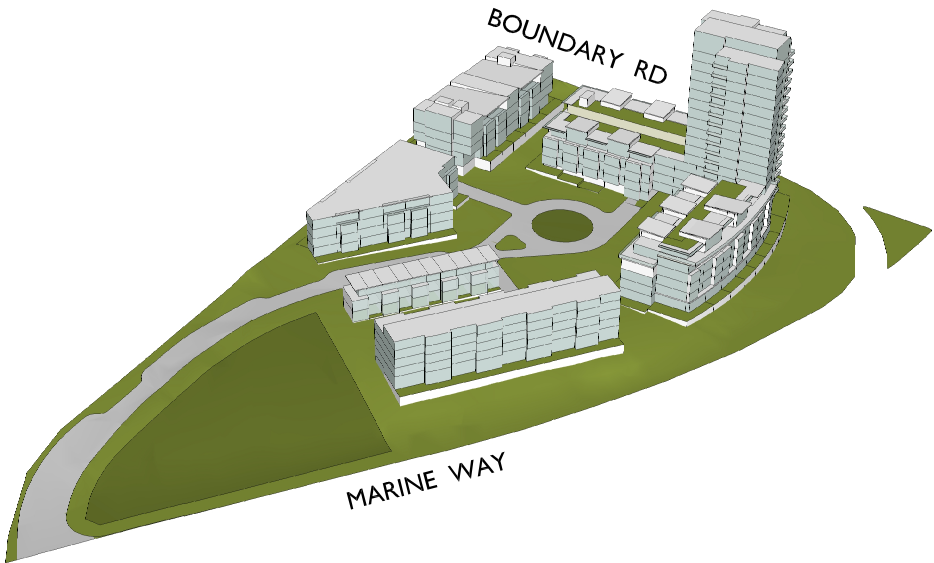
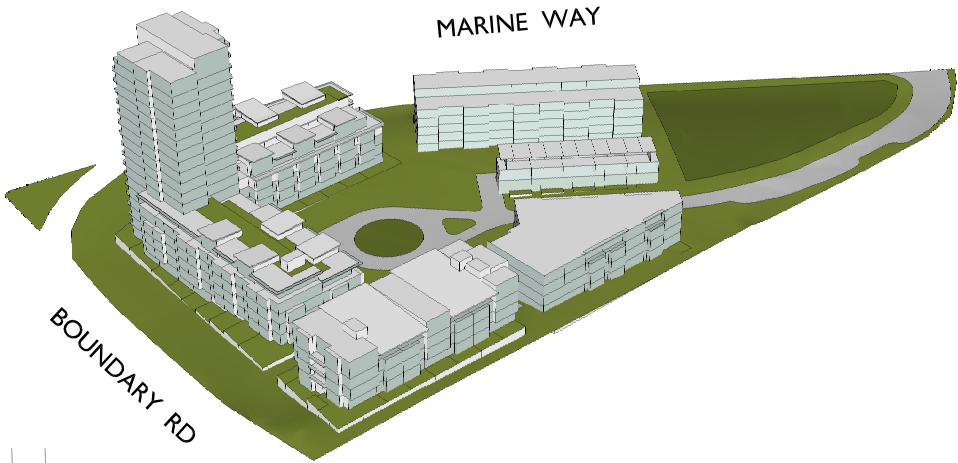
PARCEL 43 DATA

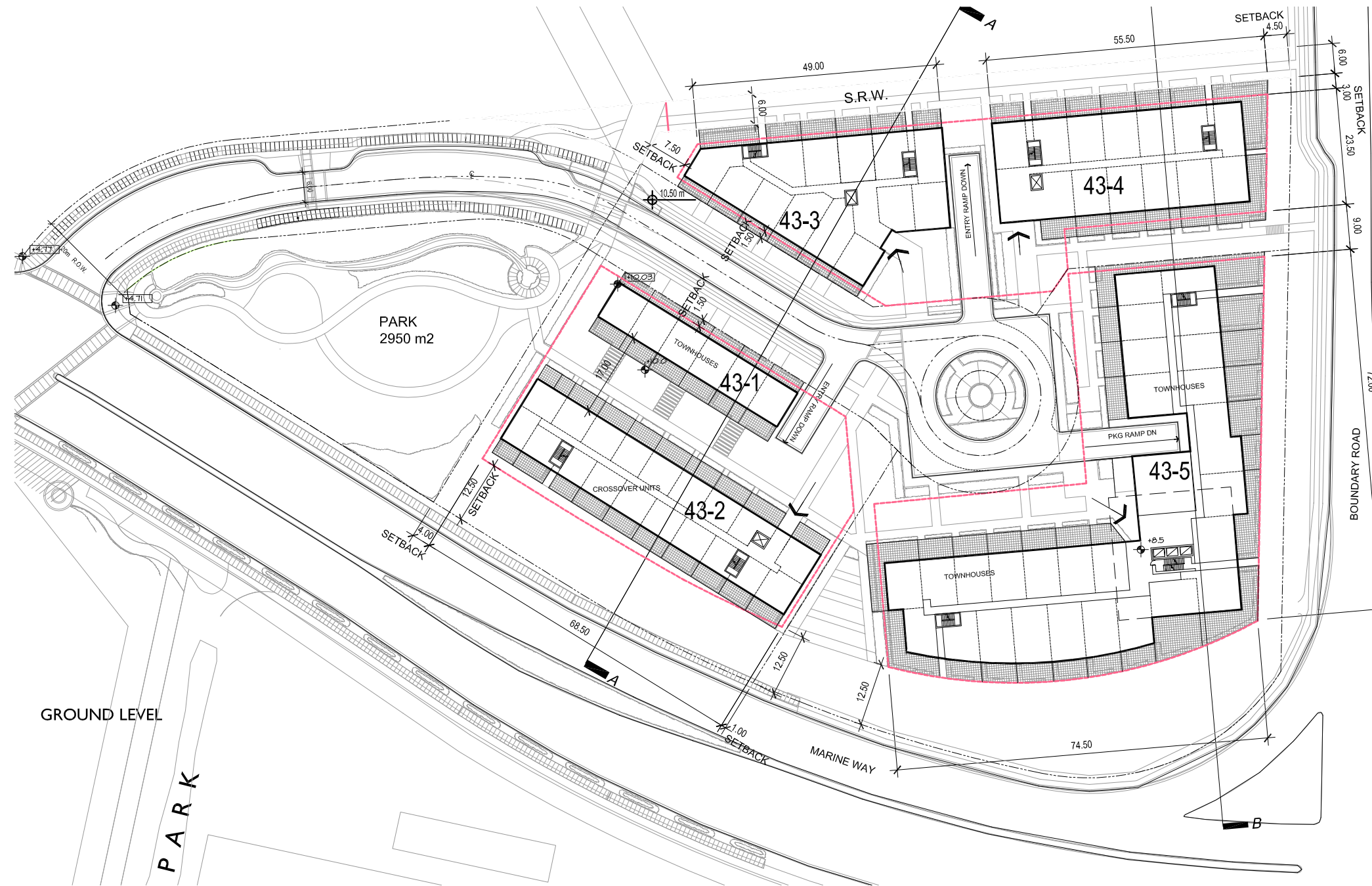
Use	Storeys	Building Area Net (m2)	Building Area Net (sq.ft.)
	18	31,835	342,669
Total Residential		31,835	342,669

- Urban design role:** Gateway to Vancouver; low-rise and mid-rise perimeter buildings and a tower on the eastern end of the site create a strong edge at the SE corner following the sweeping curve of the property; the 18 storey tower at the SE corner marks this threshold in the distant view.
- Characteristics:**
- Located on the western end of parcel 43, Promontory Park creates a visual extension of the Avalon Park corridor and enables a strong pedestrian connection between the existing upland areas and EFL; Promontory Park provides a view to the river and will be terraced to enable a variety of activities including urban agriculture opportunities
 - A strong pedestrian link to the existing communities north of the site, is created by way of a path on the western edge of Avalon Park, a fully signalized intersection at Marine Way, and a further path through and along the edge of Promontory Park
 - On the southern edge of parcel 43, a denser row of trees and landscaping provide a green edge that enhances the living environment of this residential parcel
 - Centering the composition of the parcel's buildings and the landscape is a well-defined, coherent open space buffered from Marine Way; the open space provides a quieter green outlook for the units around it; free of underground structure, it can accommodate trees of a generous scale
 - Two four storey buildings at the north edge of the property provide a reasonable transition to the existing three and four storey homes on the ridge above them; north frontage of these also puts eyes on the 6m right-of-way connecting to Boundary Road
 - Access to the Parcel extends from the intersection of Marine Way and Crescent, allowing easy pedestrian and vehicular crossing to and from the Town Square precinct
 - Crossover units in the westerly building along Marine Way provide views and quiet side for each dwelling
 - The 3D illustrative built form is intended as a guide, and modification will result from further design development during the development permit process. See the rezoning report for design development conditions.



MASSING DIAGRAM

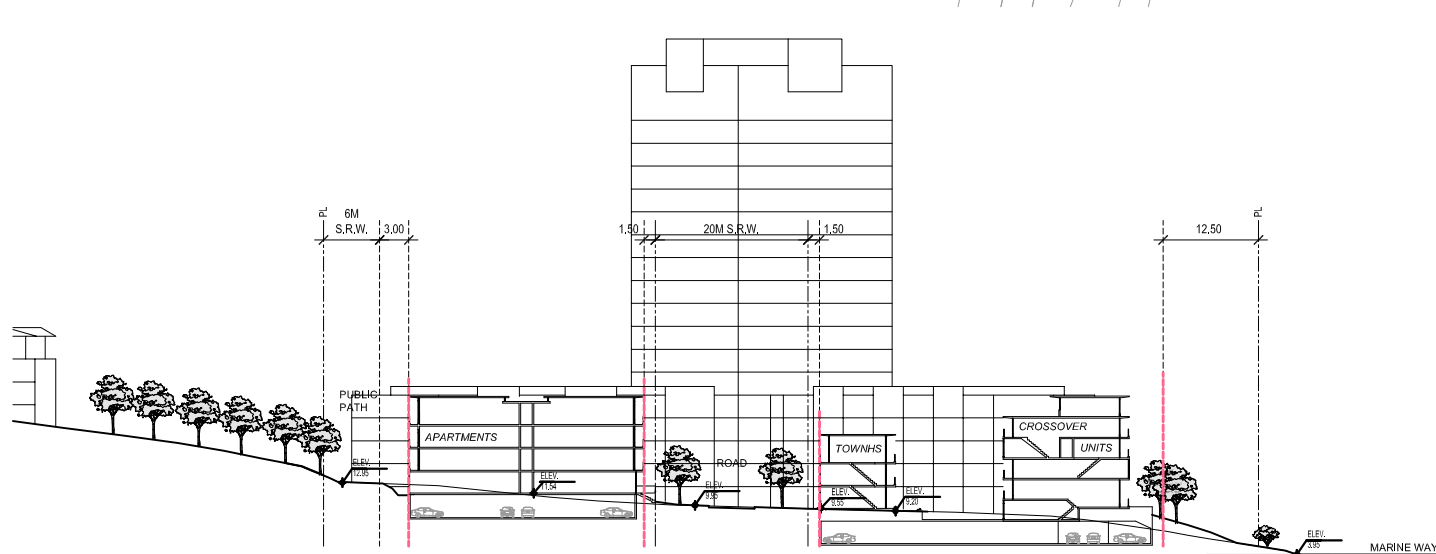




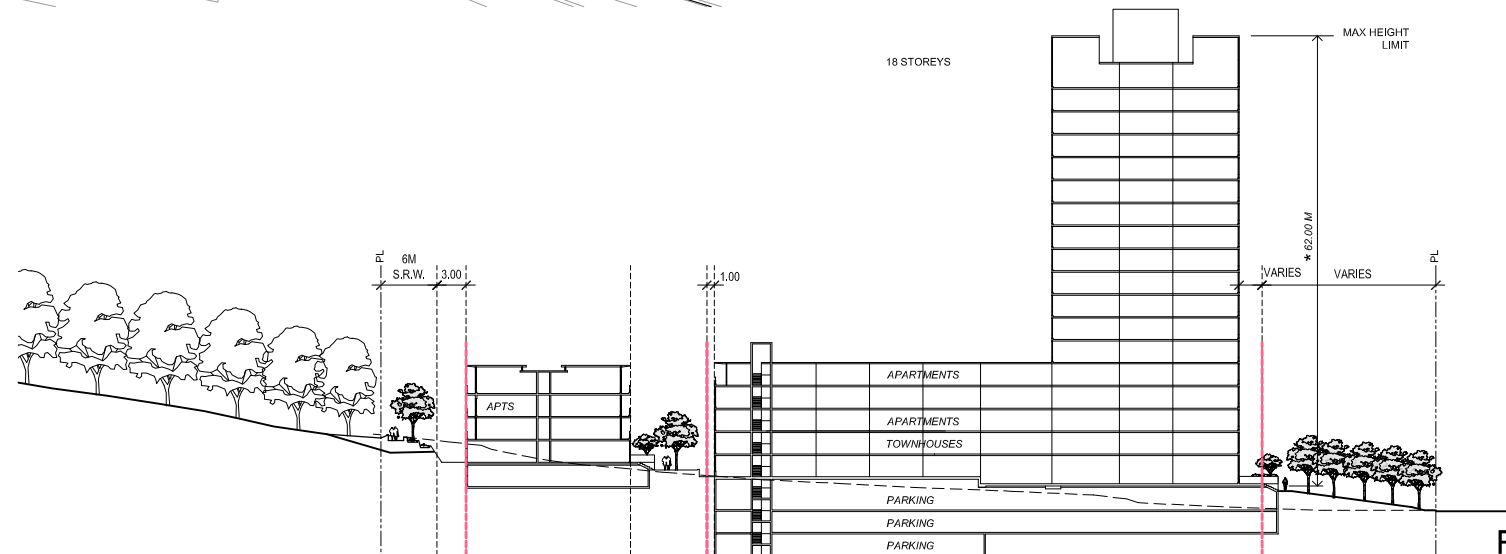
GROUND LEVEL

PARK

BOUNDARY ROAD



SECTION A-A



SECTION B-B

*Dimensions provided are for illustrative purposes only.
The maximum height as identified in the by-law is taken from the base surface.

0 2 5 10 20M

PARCEL 43
SCALE 1:1000
43.b

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SECTION C - CHARACTER AND EXPRESSION

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Section C Character and Expression
Table of Contents

1.0	Introduction	169	5.2.1	Town Homes	
1.1	Purpose and Organization	169	5.2.2	Low and Mid-rise	
1.2	Historical Character	170	5.2.2.1	Multi-Family	
1.3	Statement of Significance and Heritage Inventory	171	5.2.2.2	Mixed Use	
1.3.1	Statement of Significance		5.2.2.3	Commercial / Office	
1.3.2	Note on Industrial History, Geography, and Character		5.2.3	Towers	
1.3.3	Map Showing Industrial Character Land and Riverscape in the 1940s		5.2.4	Community Centre	
1.3.4	Photographs Illustrating Historic Character				
1.3.5	Inventory of Extant Heritage Resources		6.0	Retail	215
1.3.6	Map Showing Present Location of Extent Heritage Resources		6.1	Introduction	215
1.3.7	Map and Photographs showing Historic Location of Extent Movable Heritage Resources		6.2	Map of Retail Plan	216
2.0	Approach to Green Building Design	181	6.3	General Principles and Character	217
3.0	Architecture	183	6.4	Site Specific Characteristics	218
3.1	Principles for Architectural Design	183	6.4.1	Town Square	
3.2	Building Typologies	184	6.4.2	High Street	
3.2.1	Town Homes		6.4.3	Waterfront	
3.2.2	Low and Mid-Rise				
3.2.2.1	Multi-Family				
3.2.2.2	Mixed Use				
3.2.2.3	Commercial / Office				
3.2.3	Towers				
3.2.4	Community Centre				
3.3	Materials	193			
4.0	Landscape	195			
4.1	Introduction	195			
4.2	Approach to Landscape Design	195			
4.3	Site Specific Characteristics	196			
4.3.1	Retail Frontages				
4.3.2	Residential Frontages				
4.3.3	Common Garden Courts and Roof Gardens				
4.3.4	Internal Lanes and Walkways				
4.3.5	Vehicular Areas				
4.4	Planting Design	205			
5.0	Lighting	207			
5.1	Introduction	207			
5.1.1	Lighting Design Objectives and Character				
5.2	Lighting Related to Building Typologies	208			

1.0

Introduction



1.1 Purpose and organization

This section of the guidelines builds on the public realm plan to set out a more detailed design direction for the key components that together provide the character and expression of this unique community. Architecture, landscape, lighting and commercial design are addressed, the essential attributes of each described and illustrative examples provided.

The section is organized as follows:

1.0 Historical Character sets the context and provides the fundamental character-building cues for capturing the essence of this unique place. A Statement of Significance provides a comprehensive overview of EFL historical facts, imagery and artifacts.

2.0 Green Building Design reflects the strong commitment to sustainable design at EFL, summarizing the aim of a Gold level for both LEED and Built Green Homes, including the mandatory requirements established by the City of Vancouver. Building designs showcasing sustainable initiatives will be a key aspect of the EFL character.

3.0 Architecture provides design direction for the various building typologies, identifying the key attributes of each and demonstrating, through illustrations, the diversity of architectural responses anticipated. General direction for building materials is also included, establishing an overall palette for the unique architecture anticipated in EFL.

4.0 Landscape provides general direction for hard and soft landscape treatment to the various frontages defining the roads, pedestrian routes, open spaces and parks of the public realm. It also addresses the semi-private spaces that have a direct affect on these public spaces. As integral aspects of the landscape character and the approach to sustainability, planting design, materials, urban agriculture, rainwater management and urban ecology are also addressed.

5.0 Lighting establishes the general approach to illumination for the building typologies identified in Architecture, above, and reflects the importance of the nighttime character of buildings and related landscape to the overall public realm.

6.0 Commercial identifies the key design characteristics of EFL's significant retail component, recognizing the potential for these frontages to enliven the streets and public spaces they flank. General principles for retail design are provided as well as the specific attributes of storefront design that contribute to the unique EFL character.

1.2 Historical Character

The historic aspects of the White Pine Mill – industrial installations and structures, and elements of the working river – provide references for developing a memorable architectural character for East Fraserlands. It is anticipated that building designs will draw from these references and combine them with a fresh contemporary expression. The architecture will be influenced by the nature of the precinct to which it belongs and historic references. The precincts are characterized as follows:

- Town Square Precinct – a more urban expression, reflecting the busy mixed-use core
- Waterfront Precinct – informal, more dynamic expression, with a vibrant shopping street making the transition from Town Square to Waterfront
- Park Precinct – major parks and gateway to Vancouver and uplands neighbourhoods

There are many elements of the mill and the working river from which an architectural direction may be set. These are loosely organized into the following related groups:

Built elements

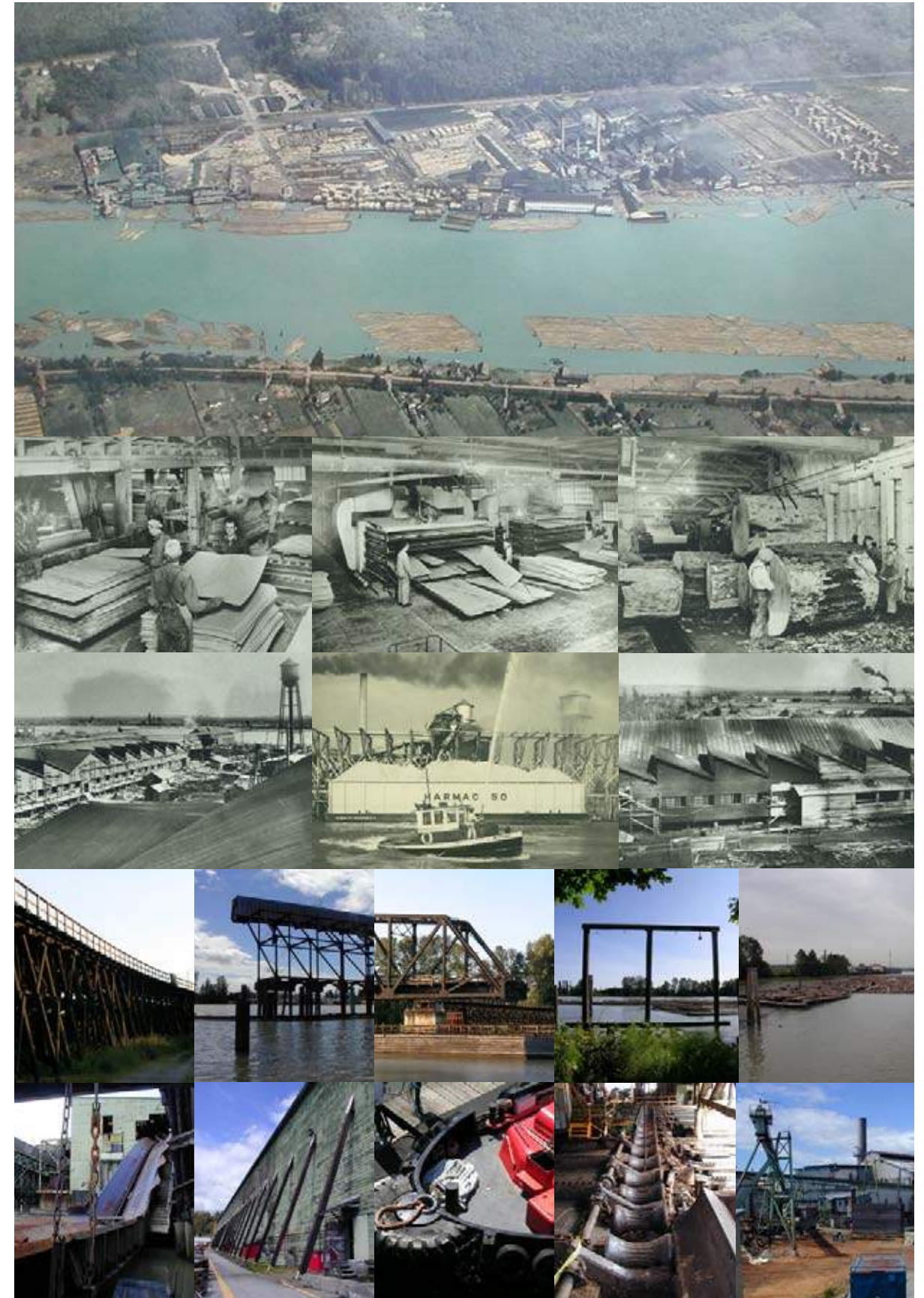
- Expansive but simple building forms with robust, often dynamic structures
- Steel and wood trusses, columns, bracing and supports
- Continuous roof monitors with clerestoreys
- Sawtooth roof forms with skylights
- Corrugated metal and wood board siding
- Single punched windows, repeated in series
- Massive sliding wood doors and steel rails, hangers and hardware
- Collections and assemblies of simple buildings of different scales
- Heavy timber

The river

- Riverfront piles
- Timber piers supported on piles and floating docks secured to them
- Pile and board retaining walls
- Tugboats, barges and mill boats
- Log booms
- Wooden decks

The industry

- Giant wood log
- Beehive burners
- Heavy striated rollers
- Criss-crossed structure of cranes and conveyors
- Chimneys and furnaces



1.3 Statement of Significance and Heritage Inventory

Note: This document follows generally the form of the Statement of Significance (SOS), which has been adopted by the City of Vancouver in accordance with the template developed by Parks Canada and the Historic Places Initiative. It differs somewhat from a standard SOS because it considers a large area rather than a building, and because the historic place is a brownfield site that has been cleared of most buildings and structures.



Image: Google Map

1.3.1 Statement of significance

Description of the Historic Place

The historic place is a 53-hectare former sawmill site on Vancouver's Fraser River flats in the southeast corner of Vancouver. It is bounded by the North Arm of the Fraser River, Boundary Road, S.E. Marine Drive, and Kerr Street. The large site is bisected by the CPR railway line and by E. Kent Street North and South, which run along either side of the tracks.

South of Kent Street, most of the sawmill buildings have been cleared. It is primarily open ground (under remediation). The land is fenced with the entrance on Kent Street. A few buildings and large artifacts remain, notably the 1970s administration building on Kent Street, a large storage building to the east, and a travelling crane along the river to the west. A new pedestrian path runs along the dyke, on the north shore of the river. The river shoreline continues to be used to store and sort logs. Impressive views can be had to Lulu Island and its working river shore to the south, and to Mt. Baker to the southeast.

North of Kent Street, the land is mostly covered in deciduous trees, with a few developed properties, notably a cluster of buildings at Kerr Street, a self-storage warehouse complex near Kinross Street, and a keylock truck-fuelling station at Boundary Road.

Heritage Value

The heritage value of the site lies in its richly layered history, which is contained in stories about its past, in aspects of its geography, and in remaining tangible objects.

The historic place is located within the traditional territory of the Musqueam First Nation. An archaeological assessment has been completed and no archaeological sites have been recorded. Nevertheless, for thousands of years the Fraser River and its tributary streams were the scene of an intense annual salmon fishery that drew people from all over the region.

When European settlement took place in the mid-nineteenth century, the East Fraser Lands featured natural pastures and a mixed wet coniferous forest that was susceptible to flooding. Bears, elk, deer, and cougar were sighted in the area. Two creeks crossed the land: one was a short watercourse or tidal slough and the other flowed down from the bench above the flats. Later known as Kinross Creek, the stream was buried by landfill in the twentieth century and no sign of it remains. Aspects of the historical geography remain legible in the landscape, including its flatness, the relationship to the river, and the views of natural features such as Mount Baker.

Like the Musqueam, the early European settlers placed the river at the centre of their world, using it for transportation, sustenance, and recreation. The early community, called North Arm, was made up of people living on both sides of the river. The earliest settlement along this stretch is associated with the Royal Engineers, who were brought to British Columbia to assist in the establishment of the colony. The land now known as East Fraser Lands was bought at auction by the sons of William Rowling, a Royal Engineer. They bought it (later exchanging it with their father for lands in Richmond) because 'that was where the little natural pastures were where we ran our cows.' Marine Drive, which follows the route of the rough trail built between Marpole (South Vancouver) and New Westminster in the 1860s, is a tangible reminder of this early colonial settlement along the Fraser River.

The site has value for reflecting the transition from agriculture to industry. By the early twentieth century, the Rowlings' cow pasture had been subdivided into long narrow lots and the area now known as Fraser View appeared on some maps as 'Rowling Heights'. In 1909 the BC Electric Railway established an interurban line between Burnaby (Marpole) and New Westminster, leasing and electrifying the recently constructed CPR tracks that cross the site today. With both

passenger (BCER) and freight (CPR) rail service in place, parts of the waterfront along the north arm of the Fraser began to industrialize, including here at the East Fraser Lands. South of Kent Street, between the river and the railway tracks, a sprawling sawmill complex (with its own interurban railway stop) took shape over a period of several decades. The loading dock, the CPR tracks, and the utility poles and roadway (Kent Street) that flank the tracks on both sides are all important reminders of the role that transportation played in enabling the area’s industrial past.

The sawmill complex was known first (in 1923) as Dominion Mills and later as Canadian White Pine. It eventually became part of the empire of British Columbia’s mid-20th-century forest industry giant, MacMillan Bloedel Limited. In recent times the mill sawed Douglas fir and manufactured plywood. The latter operation was the first major plywood factory in the Province. The place has particular value because of its association with BC’s vital forestry industry in general, and with ‘MacBlo’ in particular. It also reflects how closely Vancouver’s economy was, for many years, tied to the coastal forest sector.

The hustle and bustle of the predominately male workforce, the smell of freshly cut wood, and smoke from the beehive burners are gone now, but the potential for story-telling about Vancouver’s industrial history is tremendous. The site has considerable value for its associations with the history of labour in British Columbia, especially of the IWA; the contributions to the sawmill industry of ethno-cultural minorities, particularly Sikhs and Chinese; and the role of women in Canada’s wartime effort. The stories of individuals, such as union organizer Darshan Sangha and Gladys Shunaman, the first female to hold an elected office in the IWA, stand out in this regard. Corporate leaders at MacMillan Bloedel were also important public figures associated with the site. This is exemplified by the career of Bert Hoffmeister, who joined Dominion Mills in 1930, returned after wartime service in which he became the most decorated Canadian soldier, and later become the President of MacMillan Bloedel. The site, still known as the Canadian White Pine Mill, was acquired by Weyerhaeuser of Seattle when it purchased MacBlo in 1999.

A travelling crane, fluted v-rollers used to move raw logs, and a large engine from the hog pit remain on the site as reminders of how the place was all about moving and cutting wood. Other tangible remainders include the wood administration building (with its safety signs and other memories of the forestry industry), built in the 1970s; and a large, glulam-arch-roofed storage facility, likely built in the 1960s. Neither is listed on the Vancouver Heritage Register and neither appears to have heritage value. More structures survived until recently, but were demolished when Weyerhaeuser sold the mill equipment in 2000. Along the shore, piles and decking reflect the central role of the river in transporting raw logs. Log booms, boom boats, and boom-men still work along the edge of the site.

The industrial history of the historic place is well documented. UBC Special Collections hold photographs and papers from MacMillan Bloedel Limited, including a collection of papers relating to the Canadian White Pine Division. A review of maps, aerial photographs, and images of the industrial site shed light on its internal geography as well as providing information about the industrial forms and materials that characterized it. Panoramic images of the site can be found at the Vancouver Public Library. The Vancouver Museum has a collection of Canadian White Pine artifacts.

Character-Defining Elements

General Setting

- Views and sounds of the North Arm of the Fraser River and its industrial activity, including log booms, piles, and boom boats
- Rise and fall of the river through the day and through the seasons
- The experience of river as a natural habitat
- View southeast to Mount Baker; a view that defines the region
- Generally flat topography
- Treed benchland rising to the north

Boundaries and Corridors

- Existing street network linked to East Kent Street, SE Marine Drive, Kerr Street, and Boundary Road. Kerr and Boundary both go through to the river.
- Ragged quality of E. Kent Street, particularly in comparison to Marine Drive and Boundary Road
- Railway right of way and track, lined with utility poles
- Large administrative and parking compound south of Kent Street, with fixed entry points and fencing
- Dike and river shore shaped by industry

Buildings, Structures, and Artifacts

- Wood administration building from the 1970s, with no apparent heritage value
- Arch-roofed storage facility, likely from the 1960s, with no apparent heritage value
- Large travelling industrial crane (without its rails) with its off-white colour; ‘doghouse’, and other early features
- Fluted v-rollers from the mill, with their patina of wear
- Large engine with its patina of wear
- Large abandoned pipe (south of the storage building)
- Raised loading dock and remnants of railway siding track (probably more on the site)
- Signs, such as ‘no caulk boots,’ that are reminders of the industrial history of the site
- Piles, decking, and other structures along the shoreline

Other

- Archival and photographic record at local repositories

I.3.2 A Note on Industrial History, Geography, and Character

Former features of the East Fraser Lands that relate to its industrial history have been identified from a review of aerial photographs, fire insurance plans, maps, and photographs. These features no longer exist, but could serve to inform the design of the site in terms of forms, materials, and overall geography. The language of sawmilling, documented in the report on the history of the site prepared by Propeller Communications Research, could also be incorporated into the design of the public spaces.

The focus is on the state of the sawmill complex in the mid-twentieth century, when the forest industry dominated British Columbia's economy.

Description of the Industrial Complex

Located on the Fraser River, MacMillan Bloedel's 'White Pine Division' sprawled out along the shore between Kerr and Boundary. The most densely developed part of the complex extended west of the Cromwell Street allowance to the Hurley Street allowance. At the centre were two sawmills, a powerhouse, beehive burner, smokestacks, and raised tanks, clustered on the riverfront. Log booms, tugboats, and piles cluttered the riverbanks while along the shore there were wharves, ramps, and scows. The boundary between the water and the land was obscured by buildings that extended out over the water, creating 'rooms' along the shore.

Raw logs were sorted and then moved from the water via jackladders (also called a log haul) and hoists. From here the logs went into the sawmills to be debarked and cut. As the wood worked its way through the mills it was further finished and dimensioned. Behind the mills were kilns, a massive planing mill, and a drying shed that extended out to Kent Street. Administrative offices faced Kent Street. Yards full of stacked lumber extended around the buildings. Motorized Ross Carriers (a specialized truck) were used to move the cut lumber. These yards had an order of there own with lanes and plank roads.

The BCER sidings extended onto the site for shipping. A system of conveyors, ramps, and roads were used to move wood through buildings and around the site.

A third mill was located at the western edge of the White Pine site where there was another sawmill complex extended from the river back to Kent Street. It included kilns, drying sheds, and yards.

Photographs and site plans show large structures framed and sided in wood, with wide doors or open sides for moving machines and materials. Most of the buildings were one-storey high with a variety of roof forms including flat, sawtooth (veneer factory) and arched. The cedar mill at the western edge of the site used a clerestory and monitor roof to supply additional light to interior spaces.

To the east of the sawmill cluster was the Vancouver Plywood Division. This enormous plant straddled the Cromwell Street allowance and ran from the river to Kent Street. Another large lumber yard extended east of the plant.

Further west, off of Kerr Street, there was a cedar mill variously known as the North West Cedar Mill and the BC Red Cedar Shingle Mill. It is not clear whether this was owned by MacMillan Bloedel.

In the early years of its operation, before World War Two, Douglas Fir, cut into lengths of up to 40 feet was the main product of the mill. The mill later expanded to cut Western White Pine, Hemlock , Sitka Spruce, and Western Red Cedar.

This intensely developed site had its own BC Electric Station (Dominion Mills). The most obvious points of entry were at the east side of the veneer complex and on the west side of the general offices, where there were time offices. The cedar mill had a separate entry off of Kerr.

Although the site was primarily industrial, site plans show a "Chinese Bunkhouse" at the foot of the Hurley Street road allowance. It was not unusual in British Columbia to find such clearly segregated accommodation on industrial sites.

As with any large industrial site this one had an organic character that shifted with the introduction of new technologies and changes in the lumber market. Photographs from the 1990s reveal an organic industrial complex with large shed like buildings constructed in wood and sheet metal. Industrial green is the most prominent colour although there is some evidence of MacMillan Bloedel's corporate colours of red and white.

Character Defining Elements of the Former Industrial Land and Riverscape

The principal boundaries, corridors, buildings, structures, forms and materials are listed below. Maps and photographs have been prepared to show where many of these features were located and to illustrate forms, materials, and use of the site.

Boundaries and Corridors

- Gated entrances to the sawmill complex south of Kent Street, with large signs (not sure exactly where the entries were)
- Internal system of roadways and laneways

Buildings and Structures –General

- Dense complex of large and small buildings along the river and west of the Cromwell Street road allowance
- Beehive burners and smokestacks, east of the dense complex
- Lower density on the rest of the site, with a number of stacked lumber across much of the site, with a maze of narrow lanes between the stacks
- Huge saws and other machines for cutting, dimensioning, and finishing logs
- Conveyors of various kinds (log haul, jack-ladder, greenchains, rollers) Ross carriers, and cranes for moving logs, cutting them up wood, and moving it again

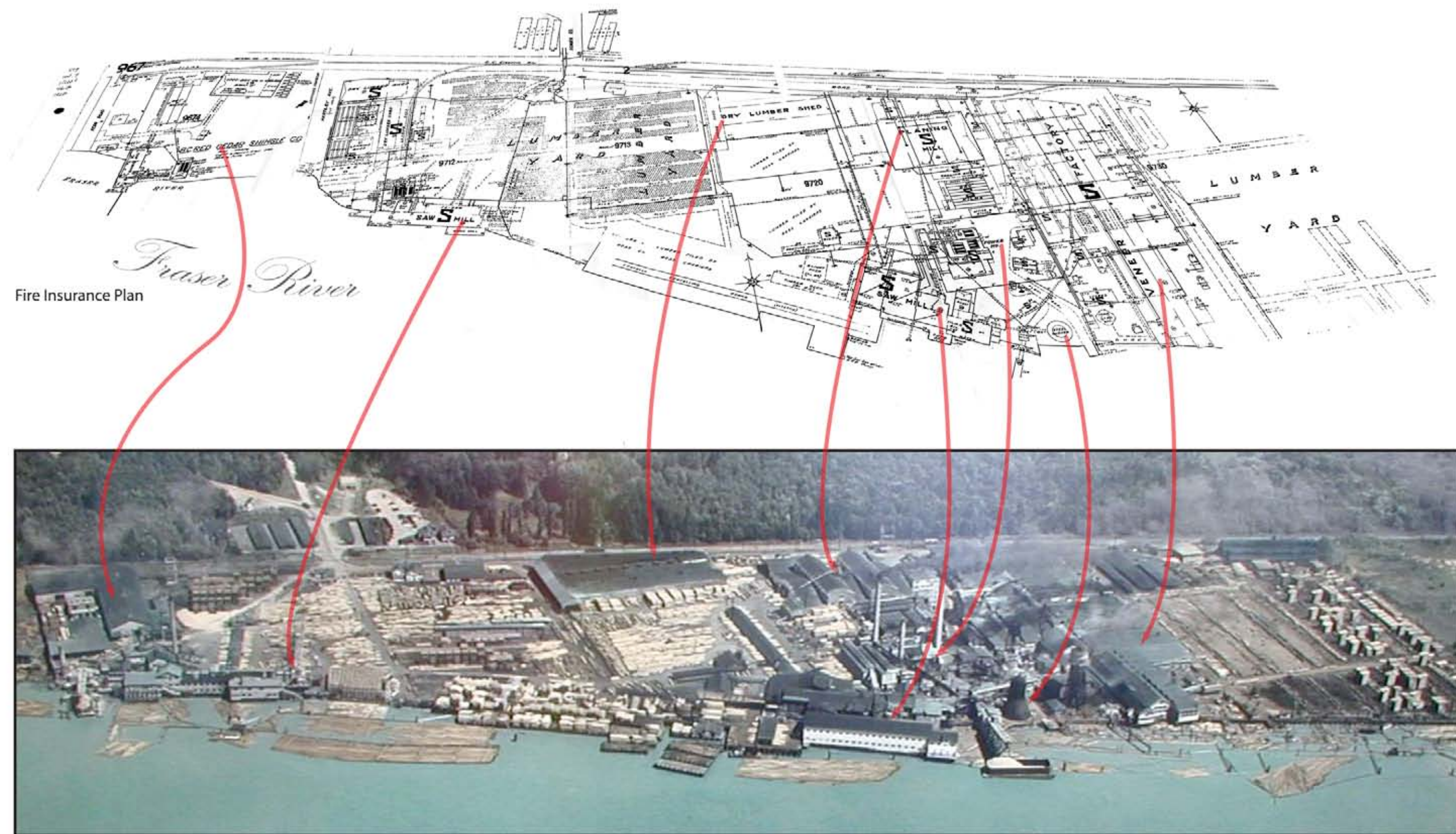
Forms and Materials – Industrial

- Sprawling, one-storey, wood and/or sheet-metal buildings and shed-like structures.
- Monitor roofs (with clerestory windows) and big doors; sawtooth roofs
- Industrial structure systems with wood columns, large wood beams
- Huge flat and pitched roof planes in asphalt shingle
- Mullion windows in horizontal bands
- Industrial green, rusting sheet metal, metal ramps and stairs

Forms and Materials – Riverine

- Forest of piles along the river's edge, projecting out into the water lots
- Ramps, loghauls, wharves, all kinds of ways of linking shore to the river; built of wood and later metal
- Log booms, enclosed and semi-enclosed spaces on the water
- Scows, tugboats, and boomboats
- Buildings projecting over the water

1.3.3 Map Showing Industrial Character Land and Riverscape in the 1940s



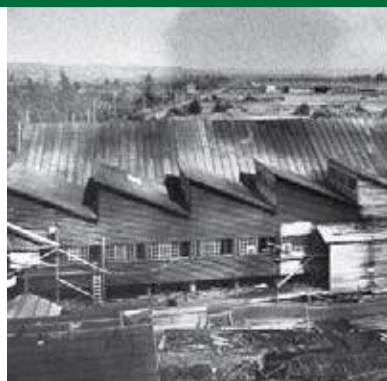
Aerial Photograph of the White Pine Mill, circa 1940

1.3.4 Photographs Illustrating Historic Character

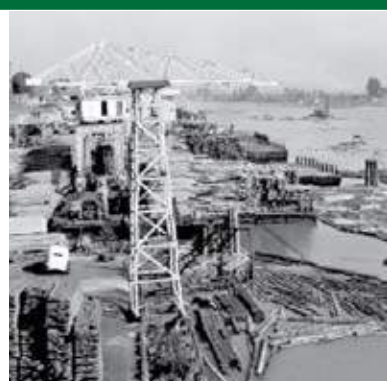
Boundaries and Corridors



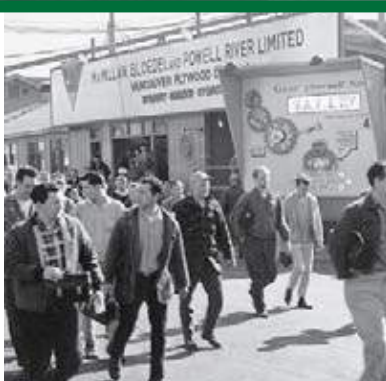
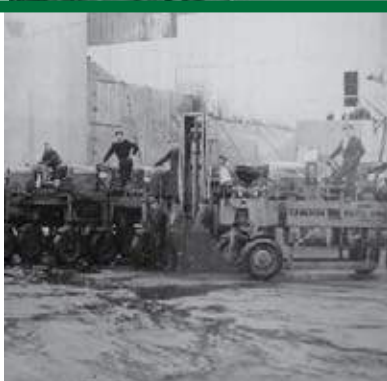
Industrial



Riverine



People



Note: These photographs portray the site at mid-century.

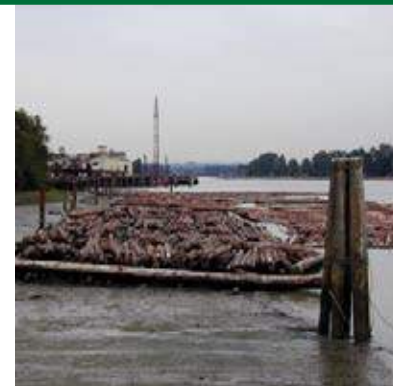
Boundaries and Corridors



Industrial



Riverine



Note: These photographs portray the site c. 2000.

1.3.5 Inventory of Extant Heritage Resources

INTRODUCTION

The inventory of heritage resources lists what remains on the site. Each resource has been photographed, briefly described, and assigned a reference number. The current locations of all of the resources have been mapped. The historic locations of the large movable resources (B1-B4) have also been mapped.

A. Buildings



Resource No.	A1
Description	Storage Building
Location	South of Kent Avenue between right-of-ways for Dudley and Cromwell Streets
Notes:	Arched roof



Resource No.	A2
Description	Administration Building
Location	Just south of Kent Avenue at the foot of Cromwell Street
Notes:	

B. Structures, Remnants of Structures, Machinery, Linear Features (Land)



Resource No.	B1
Description	Travelling Crane
Location	Near shoreline, just east of Kinross Street
Notes:	Off white in colour; doghouse and other original features remain intact; no longer on rails Set on rails and powered by electricity, mobile cranes were used to move sawn lumber from the mill for shipping and storage. Located west of the main sawmill complex near the river.



Resource No.	B2
Description	Fluted V Rollers
Location	In a pile behind (south) of Administration Building, off Kent and Cromwell
Notes:	Patina of wear, rust The Fluted V Rollers were part of the loader log infeed system used to move the raw logs from the water to the mill for debarking and sawing.



Resource No.	B3
Description	Large Engine from the Hog Pit
Location	In a pile behind (south) of Administration Building, off Kent and Cromwell
Notes:	Patina of wear, rust “Hog” – or sawdust mixed with bark, wood, and shavings, was used as fuel for the powerhouse at the site. A mechanical shredder was used to make the hog from waste materials. This engine likely either drove the shredder or the series of conveyor belts that connected the hog pit to different parts of the mill (where the waste material came from) and to the powerhouse, beehive burner, and scows (where the waste went).



Resource No.	B4
Description	Large pipe across the site
Location	Located in the vicinity of the Dudley Street right-of-way
Notes:	Patina of wear, rust Early twentieth century maps show the shoreline along the Fraser protected by a dike. In the 1920s ditch ran north south, along the Cromwell Street Allowance, providing drainage between Kent and the river. This ditch is later replaced by a large pipe and a pump connection, which is shown at the foot of Cromwell in the 1950s. This large pipe is likely associated with these drainage features.



Resource No.	B5
Description	Raised loading dock and remnants of railway siding tracks
Location	Between Kinross and Cromwell Streets bordering Kent Avenue
Notes:	<p>Probably more track and ghosts of track to be found on site</p> <p>Associated with BC Electric Railway and shipping of lumber by rail. The rail line was built circa 1908.</p>



Resource No.	B6
Description	Industrial signs
Location	On the Administration Building (just south off Kent Avenue, bordering Cromwell Street)
Notes:	<p>Reminders of the industrial history of the site</p>



Resource No.	B7
Description	Railway right-of-way and tracks
Location	Running parallel to the property on its northern border
Notes:	<p>Built circa 1908 by the Vancouver and Lulu Island Railway, a subsidiary of the CPR. Leased and electrified by BC Electric Railway in 1909.</p>

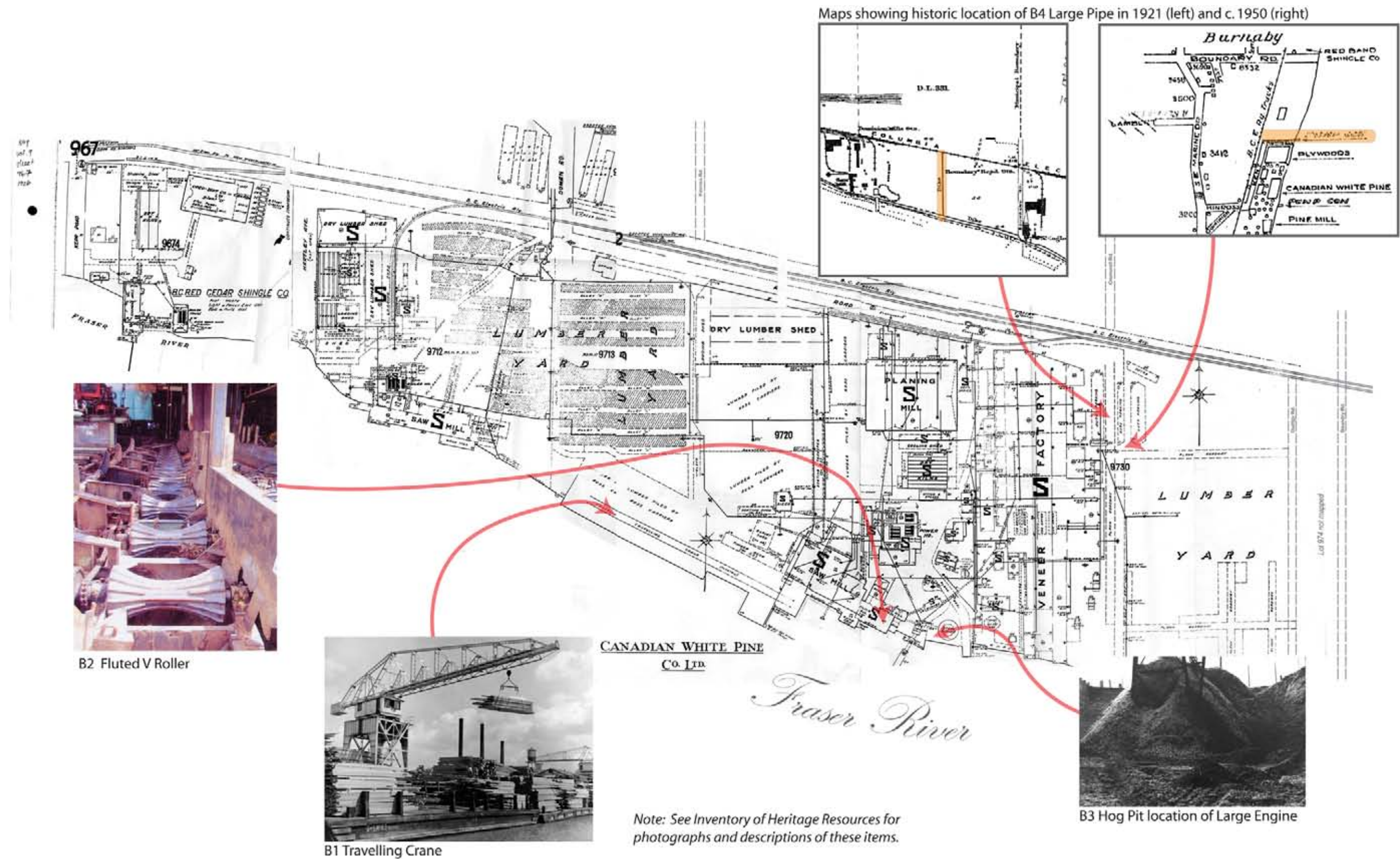


Resource No.	B8
Description	Piles, decking and other shoreline structures
Location	All along the shoreline of the property between Kerr and Boundary Streets
Notes:	<p>Has a view across the river and can see log booms in the foreground.</p> <p>Reminders of the industrial history of the site</p>

1.3.6 Map Showing Present Location of Extent Heritage Resources



1.3.7 Map and Photographs Showing Historic Location of Extent Movable Heritage Resources



2.0 APPROACH TO GREEN BUILDING DESIGN

SUSTAINABILITY AND BUILDINGS

A green building strategy for the East Fraser Lands will achieve a minimum baseline of environmental performance in all facets of building design and construction. This strategy applies to all residential, mixed-use, commercial, and institutional developments in EFL. This strategy is founded on the principles of the LEED® green building assessment as well as Built Green™ program, which provide a robust tool to guide development of a variety of green building types. Based on its type, each building will be designed and target performance according to a minimum LEED Gold equivalent or Built Green Gold equivalent with an Energuide 80. While registration and certification with the LEED and Built Green programs is not mandatory, the community centre will achieve LEED Gold certification.

MEASURING GREEN BUILDING PERFORMANCE

The several types of buildings associated with this project will have particular characteristics related to LEED and Built Green rating systems, including:

Built Green Rating Systems

The Built Green Homes and MS&RT (Multi) systems provide a comprehensive method of measuring the green strategies used in the project. Points are awarded from each of the eight areas of the checklist to give a cumulative total. Each separate category has minimum point totals that must be met.

The low and mid-rise wood frame construction residential buildings within this project will achieve Built Green Gold and will go beyond the Built Green requirements to provide an Energuide score of 80.

LEED Green Building Rating System

- The LEED rating system offers a comprehensive approach to green building design. The following LEED scorecard have been prepared based on two types of credits:
- a. Credits that will be targeted as a minimum (indicated under the column heading “Mandatory”);
 - b. All other credits will be investigated and selected according to the specific building context and program to meet the LEED Gold level (39 points).

LEED Canada-NC 1.0 Project Checklist

Table Key:		Required credit consistent with Vancouver GBS	
			Vancouver GBS 08/09 VBBL 08/09 Mandatory
Sustainable Sites			14 Points
			4
Prereq 1	Erosion & Sedimentation Control	Required	Y
Credit 1	Site Selection ***		
Credit 2	Development Density		1
Credit 3	Redevelopment of Contaminated Site		
Credit 4.1	Alternative Transportation, Public Transportation Access		1
Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms		1
Credit 4.3	Alternative Transportation, Alternative Fuel Vehicles		1
Credit 4.4	Alternative Transportation, Parking Capacity		
Credit 5.1	Reduced Site Disturbance, Protect or Restore Open Space		
Credit 5.2	Reduced Site Disturbance, Development Footprint		
Credit 6.1	Stormwater Management, Rate and Quantity		
Credit 6.2	Stormwater Management, Treatment		
Credit 7.1	Heat Island Effect, Non-Roof		
Credit 7.2	Heat Island Effect, Roof		
Credit 8	Light Pollution Reduction		
Water Efficiency			5 Points
			2
Credit 1.1	Water Efficient Landscaping, Reduce by 50%		1
Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation		
Credit 2	Innovative Wastewater Technologies		
Credit 3.1	Water Use Reduction, 20% Reduction		1
Credit 3.2	Water Use Reduction, 30% Reduction		
Energy & Atmosphere			17 Points
			3
Prereq 1	Fundamental Building Systems Commissioning	Required	
Prereq 2	Minimum Energy Performance	Required	Y
Prereq 3	CFC Reduction in HVAC& R Equipment	Required	Y
Credit 1	Optimize Energy Performance 20%	1 to 10	2
Credit 1.2	Optimize Energy Performance 30%		
Credit 1.3	Optimize Energy Performance 40%		
Credit 1.4	Optimize Energy Performance 50%		
Credit 1.5	Optimize Energy Performance 60%		
Credit 2.1	Renewable Energy, 5% *		
Credit 2.2	Renewable Energy, 10% *		
Credit 2.3	Renewable Energy, 20% *		
Credit 3	Best Practice Commissioning		
Credit 4	Ozone Protection		1
Credit 5	Measurement & Verification **		
Credit 6	Green Power		

Materials & Resources		14 Points	3
Prereq 1	Storage & Collection of Recyclables	Required	Y
Credit 1.1	Building Reuse: Maintain 75% of Existing Walls, Floors, and Roof		
Credit 1.2	Building Reuse: Maintain 95% of Existing Walls, Floors, and Roof		
Credit 1.3	Building Reuse: Maintain 50% of Interior Non-Structural Elements		
Credit 2.1	Construction Waste Management: Divert 50% from Landfill		1
Credit 2.2	Construction Waste Management: Divert 75% from Landfill		1
Credit 3.1	Resource Reuse: 5%		
Credit 3.2	Resource Reuse: 10%		
Credit 4.1	Recycled Content: 7.5% (post-consumer + ½ post-industrial)		
Credit 4.2	Recycled Content: 15% (post-consumer + ½ post-industrial)		
Credit 5.1	Regional Materials: 10% Extracted and Manufactured Regionally		
Credit 5.2	Regional Materials: 20% Extracted and Manufactured Regionally		
Credit 6	Rapidly Renewable Materials		
Credit 7	Certified Wood		
Credit 8	Durable Building		1

Indoor Environmental Quality		15 Points	8
Prereq 1	Minimum IAQ Performance	Required	Y
Prereq 2	Environmental Tobacco Smoke (ETS) Control****	Required	Y
Credit 1	Carbon Dioxide (CO ₂) Monitoring		
Credit 2	Ventilation Effectiveness		
Credit 3.1	Construction IAQ Management Plan: During Construction		
Credit 3.2	Construction IAQ Management Plan: Testing Before Occupancy		
Credit 4.1	Low-Emitting Materials: Adhesives & Sealants		1
Credit 4.2	Low-Emitting Materials: Paints and Coating		1
Credit 4.3	Low-Emitting Materials: Carpet		1
Credit 4.4	Low-Emitting Materials: Composite Wood and Laminate Adhesives		1
Credit 5	Indoor Chemical & Pollutant Source Control		
Credit 6.1	Controllability of Systems: Perimeter Spaces		1
Credit 6.2	Controllability of Systems: Non-Perimeter Spaces		
Credit 7.1	Thermal Comfort: Compliance		1
Credit 7.2	Thermal Comfort: Monitoring		
Credit 8.1	Daylight & Views: Daylight 75% of Spaces		1
Credit 8.2	Daylight & Views: Views 90% of Spaces		1

Innovation & Design Process		5 Points	2
Credit 1.1	3 stream waste diversion		1
Credit 1.2	Urban Agriculture		1
Credit 1.3	Innovation in Design		
Credit 1.4	Innovation in Design		
Credit 2	LEED® Accredited Professional		

Mandatory Credits		22
Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-70 points		

*The City of Vancouver will accept the EFL NEU as equivalent to satisfaction of this credit.
** The City of Vancouver will accept in-suite energy use displays
***The City of Vancouver will accept a negotiated standard that differs from LEED
**** All conditions of the credit apply however no mechanical testing will be required.

GENERAL CONDITIONS

Additional conditions are to be met by the development teams for this project:

- The development parcels for this project will connect to a proposed Neighbourhood Energy Utility (NEU) should the proposed NEU be approved and implemented by the time of development.
- No electrical baseboards will be used in this project for heating residential suites. Some electrical base board heaters may be used in appropriate locations such as utility rooms in the parkade.
- All domestic appliances installed in residential units that are applicable to the Energy Star™ program will have an Energy Star™ label.
- Provide for individual in-suite metering for energy use. Meter displays will be in a prominent location to encourage usage and improve effectiveness.
- No natural gas fireplaces are to be installed within dwelling units. Ornamental non-combustion fireplaces are permitted if they are not heat producing.
- Heat recovery from large retailers such as grocery stores will be part of the LEED Gold initiatives.
- Provide a green roof over concrete structures, excluding the tops of towers. Such roofscapes should be highly programmable, useable and accessible.
- Provide three streams of waste removal both in-suite and in-building for the development parcel (regular garbage, recyclable materials and organics).The development site is to provide adequate space and infrastructure to accommodate three streams of waste removal including fully outfitted areas that can be made active upon implementation of an organics collection system.
- Twenty percent of all residential parking spaces (excluding visitor parking) will have electric outlets for electric vehicle.

COMPLIANCE

Each development will provide a compliance strategy and timeline that outlines the documentation process required to achieve LEED NC-1 Gold and/or Built Green Gold equivalent, including reference to appropriate documentation at development permit, building permit and occupancy permit stages.

3.0

Architecture

3.1 Principles for Architectural Design

1. Rich architectural diversity within a cohesive urban fabric.

Design individual buildings with distinctive architectural expression while achieving a complementary response to the overall block and streetwall.

2. A unique architecture that captures the history of the site.

Recall the forms, components, materials and other characteristics of the working river and the historic mill in the design of buildings and blocks. Key opportunities include the Community Centre and Mill Buildings.

3. A contemporary architecture with a high degree of livability and acknowledgement of place.

Design buildings based on the tenets of west coast modernism:

- A strong relationship between interior and exterior.
- Use of locally-produced materials including natural elements (eg: wood, stone).
- A simple, clean approach to building systems for flexibility and economy.
- Adaptation of natural structures such as the cantilever.
- Orientation for environmental efficiency and views.
- Use of space-making/-expanding properties of the interplay of plane and geometry.

4. A legible sustainable architecture that addresses the social as well as the environmental aspects of building design.

Include physical elements of sustainability such as sun shades, deep roof overhangs and the like as well as social aspects of sustainability such as access to quality outdoor space and highly transparent interior common spaces.

5. An expressive and permeable architecture that enhances the legibility of the urban structure and facilitates connectivity of retail, residential and community facilities.

Create visual cues in building designs that mark key spaces, routes and zones. Where breaks in retail frontage occur, as at the CPR ROW, these cues will provide important visual connections. Introduce breezeways and arcades in streetwalls to allow secondary routes through development blocks.

6. A distinctive character for each of the three precincts in Area I.

Town Square precinct: The mixed use heart of EFL will be defined by a more urban architecture with strong frontages defining the streetscapes; towers and signature buildings will announce EFL at Marine Way entries.

Waterfront precinct: The connective fabric between the town square and the waterfront, this precinct will be more relaxed in character where a variety of building configurations and massing create a rich environment for the fine-grained pedestrian network centred at High Street and connecting to outlying blocks. It is also an opportunity to celebrate the river and recall the historic mill buildings.

Park precinct: Gateway to the city, this precinct will be characterized by strong, dignified building designs that define the edges of the site above Marine Way and provide a distinctive form at the end of Avalon Park.

7. An architecture that enhances the pedestrian experience and supports the walkability of the community.

Commercial: Design ground floor spaces to allow for a diversity of retail frontages with a high degree of transparency. Create diversity and visual interest in individual storefronts through details and components such as signage and canopies.

Residential: Design ground floor units with front doors on the street to enhance street vitality and comfort. Enhance the public realm with front terraces with opportunities for planting and create main entrances that are transparent and welcoming.

8. Landscape treatments that give individual parcels their own identity while integrating them with the framework of the public realm.

Landscape design for individual parcels should relate to their respective precincts; perimeter frontages should complement and enhance the public realm.

9. An approach to lighting design that creates nighttime legibility to reinforce the distinctive character of precincts, public spaces and parcels and places priority on pedestrian comfort.

Lighting should complement the public realm strategy that identifies the specific lighting character zones of the site (Refer to the Public Realm Plan).

10. Integration of sitewide ecological initiatives.

Design buildings and open spaces to demonstrate sustainability initiatives such as the songbird strategy, urban agriculture, rainwater management, solar shading and the like.



Massing of townhouses to clearly distinguish individual units

TH1



Semi-private spaces at grade designed for privacy and landscape contribution to the public realm

TH2



Individual architectural elements such as roofs and canopies to distinguish units

TH3



Upper level setbacks providing generous outdoor space and articulation

TH4



Simple geometry of northwest modernism contrasting large glazed areas with solid wall planes

TH5



Taking advantage of opportunities for outdoor space

TH6

3.2 Building Typologies

Residential

3.2.1 Townhouses

The townhouse contributes a low-scale, fine-grain form that gives the individual home a presence in the streetscape. Although stand alone townhouse development is not the prevalent building typology, most low and mid-rise residential buildings adopt a townhouse form at grade to extend this intimate, pedestrian-friendly character throughout the public realm.

Form and Character:

Massing:
Townhouse forms and articulation should clearly distinguish individual units both in plan and elevation. This can be achieved in a variety of ways including projecting bays, recesses, vertical 'framing', individual roofs and entry canopies. Consistent with the concept of a low-scale form, setting back frontage above the second level is encouraged to express the townhouse base in low and mid-rise buildings.

Access to outdoors:
An advantage of the stand alone townhouse form is the through unit with front and rear areas at grade. These semi-private spaces should be designed to distinguish individual domiciles while providing a landscaped buffer between house and public realm. At upper levels, balconies, terraces and roof decks are strongly encouraged to provide private outdoor space and increased articulation. Simple but legible roof shapes can provide further architectural interest.

Simple, clean expression:
Townhouse designs should reflect the simple geometry of northwest modernism contrasting large glazed areas with solid wall planes and clearly define outdoor spaces. Landscape walls and projecting wall planes to increase privacy between units are encouraged.



Articulation to mitigate scale and enrich the streetscape

LM1



Transparent stairs to encourage residents to walk up instead of using the elevator

LM2



Passages to break down building mass and provide a more diverse pedestrian experience

LM3

3.2.2 Low and Mid-rise Buildings

Overview

The underpinning of East Fraserlands' physical form is the 4-6 storey low-rise, including multi-family or mixed use. Generally positioned at the perimeter of blocks, the extensive frontage of these buildings plays a primary role in shaping and giving character to the adjacent public realm.

Articulation:

This character is enhanced through the design and articulation of the building - recesses and projections in building frontages creating a more comfortable scale and a more interesting streetscape. The degree of articulation largely depends on the adjacent public realm. For instance, a more vertical, urban streetwall should be designed for prime public street frontage whereas, a more informal treatment with deeper setbacks in both the vertical and horizontal planes is encouraged for private frontages at mid-block locations.

Permeability and Passages:

Breaks in building frontages serve to reduce the apparent mass of these forms and to increase block permeability. Whether in the form of breezeways or passages open to the sky, these offer an opportunity for enriching the public realm, punctuating the streetscape and offering glimpses to inner blocks. It is important that these passages are welcoming to passersby – sightlines, lighting and materials being key considerations.

Transparency:

Building lobbies and stair access in this typology are intended to be as transparent as possible for visual interest and a sense of security.

Roofscapes:

Many of these buildings will be concrete construction, allowing for green roofs. Whether treated as accessible garden areas or inaccessible green areas, they are intended to contribute to overall rainwater control and serve as visual amenities. These green areas are also intended to create a more appealing roofscape when viewed from higher buildings in the development.



Ground-oriented units to provide a richer, more diverse character that lends vibrancy to the public realm

MF1



Setbacks at upper floors to mitigate the scale of the streetwall

MF2



Articulation of building frontages to mitigate scale and provide visual interest

MF3



Green roofs as rainwater control and visual amenity

MF4



Roof shapes to give distinct character to individual buildings and enrich the overall expression

M5



Transparent lobbies at the street for interest, comfort

M6



Diverse range of private outdoor space

M7

3.2.2.1 Multi-family residential

The most prevalent of the low and mid-rise typology, these buildings are the face of the residential neighbourhoods. Fronting on a wide range of public and semi-public spaces from major streets to local lanes and courtyards, these buildings present opportunities for diverse architectural responses, contributing to a high level of visual interest and unique pedestrian environments.

Form and character

Ground-oriented suites:

Most residential frontages will have two storey units at grade. Designed to be individually legible, these units will contribute to a finer, more human scale at the level of the pedestrian. With front doors on the street, these two-storey units generally follow the design principles of townhouse design. Raised entry areas at most ground level suites provide comfortable semi-private space for a garden and patio several steps up from grade. Most ground-oriented suites will also have accessible entries from interior corridors or courtyards. Other opportunities exist to provide accessibility directly from the public realm through ramping or in some cases fully at-grade units.

Massing:

A strategy of setting floors back at the upper levels will help soften the building massing and increase access to daylight. Setbacks are especially encouraged in mid-block courtyards for daylighting and privacy as well as providing generous deck space for residents.

On all buildings, where possible, interesting roof shapes are encouraged to enrich the overall texture and visual amenity of the development. Curving forms, deep overhangs, and sloped planes are, appropriate to an understated modernist expression. Peaked roof forms are discouraged. Stair enclosures serving roof decks can also add to this diversity of form.

Green roofs:

It is anticipated that green roofs will be provided on concrete buildings except perhaps at the tops of towers. Green roofs should be designed as visual amenity as well as an attractive environment for outdoor common space with opportunities for significant planting and urban agriculture.

Transparency and legibility of indoor public spaces:

These buildings are generally double-loaded with a transparent lobby fronting on the primary facing street. Common interior spaces such as entry lobbies, stairs, exercise rooms, and lounges should be as transparent to the exterior as possible, encouraging a visual connection between these spaces and the exterior community.

Balconies:

The CD-I bylaw for EFL allows for more extensive open balconies than typical to improve solar shading and to enhance the livability and useability of private outdoor space. The design and expression of the balconies should contribute to the articulation and architectural expression of the building.

Enclosed balconies:

The CD-I bylaw considers approval of enclosed balconies in some locations along Marine Way to improve livability by reduction of noise in residential units. Enclosed balconies should:

- be clearly expressed on the exterior of the building
- project somewhat from the main façade
- be highly glazed with transparency and openness at corners
- appear to be open balconies that have been enclosed



Frontages on prime shopping streets to express an idea of multiple buildings creating a richly diverse streetscape

MU1



A more urban streetwall to give strong definition to prime shopping streets

MU2



Double height ground floor spaces to give prominence to retail frontage and the shopping street

MU3



Setbacks at upper levels to mitigate height and mass and provide options for outdoor space

MU4



A range of options for semi-private outdoor space

MU5



Child care

MU6



Live/work units are more urban in character.

MU 7

3.2.2.2 Mixed-use

On commercial streets, including Sawmill Crescent, River District Crossing (formerly High Street) and Mill Bay Road, this typology combines the multi-family form with commercial uses at the ground floor. The mixed use buildings will bring a 24 hour presence and provide vitality to the commercial streets. The form and scale of these buildings will define the proportions of the commercial streets on which they front.

Form and character

Design Expression:

In responding to the urban design roles mentioned above, the design should;

1. Create a comfortable scale for a walkable shopping environment by providing:
 - Shop fronts that are small in scale to maximize pedestrian interest. 4.5m to 6.0m is encouraged and 7.5m is the maximum
 - Visual interest in the articulation and diversity of storefront
 - Canopies to mitigate streetwall height and offer weather protection

NB: For major anchors like the food and drug stores, the frontage may be greater, providing more exposure for these key uses. Creative storefront merchandising will also be necessary to provide appealing views into these spaces and contribute vibrancy to adjacent street life. (Refer to 'Retail' section)
2. Design retail spaces as visual cues to guide shoppers from one part of a commercial street to another.
3. The residential portions of the mixed-use buildings will generally follow the design tenets for multi-family buildings as described in 3.2.2.1 above.

Massing:

1. Generally 4 to 6 storeys in height, The primary aim of this typology is to create streetwalls as a series of different but complementary building frontages. To achieve this, block frontages should be broken into increments, or express a rhythm ranging from 7.5m to 15m.
2. An over height ground floor provides flexibility for a variety of retail uses as well as streetfront space and the possibility of a mezzanine for live/work enterprises. (Refer to 'Commercial' section 3.2.2.3)
3. Setbacks at the uppermost residential storeys of mixed use buildings will be encouraged to create a comfortable street level scale increase privacy for residents, and enhance sun access to the public street.
4. Setback at retail frontage: A 1m setback is provided to allow retail stores to make use of this zone for display and seating. Where a deeper seating area is required, frontage may be recessed to achieve this.



Gateway buildings, giving the mixed use core a presence on Marine Way.

C1



Overheight ground floor space to give stature to this building type in the streetscape.

C2



Highly-transparent, legible entrances

C3



Balconies, terraces and roof decks as workplace amenities

C4

3.2.2.3 Commercial

The two commercial buildings in East Fraserlands mark both Crescent Street entries from Marine Way. In response to their high profile locations, they accentuate the flatiron shape of the site, the curved 'prow' rising to a unique six storey form anchoring the east and west views from Marine Way.

Form and character

Design expression:

1. The commercial buildings provide an opportunity to respond to their prominent placement at the entries to EFL. These buildings should also complement the scale and tenor of the Town Square Precinct, giving careful attention to articulated streetwalls that enhance the pedestrian experience.
2. Following the tenets of good sustainable design, these buildings will also strive to deliver an enhanced workplace for occupants. Access to daylight, glazed stair enclosures to encourage their use, access to outdoor space, operable windows and envelope systems designed for optimal energy conservation are all initiatives that should provide a visible expression of sustainability.
3. Addressing the above goals, designers are challenged to create a new model for commercial buildings in the EFL development.

Relationship to the street/ street frontage:

Significant ground floor height gives the commercial buildings a scale appropriate to their gateway roles and to their frontages on the Crescent. Designs should create visually engaging frontages at this level, ensuring these significant masses are broken down into increments to create a more comfortable scale for pedestrians. Active spaces should be located at the perimeter, as opposed to closed individual offices. Public lobbies, located at the inner block to mitigate Marine Way traffic, should be highly transparent and clearly visible from the Crescent.

A livable workplace:

1. Occupant comfort is a primary aim for these buildings. As one of the simplest but most effective ways of creating livable office environments, good daylighting should be an integral part of the building design.
2. Balconies, terraces and roof decks are all opportunities for a breath of fresh air, a coffee break or an ad hoc meeting. Their contribution to the exterior architecture can also be very positive, helping to articulate the mass in a variety of ways as well as bringing life to the street.



Strong sculpting and clean expression of elements

T1



Articulation to provide a variety of units and increased opportunities for outdoor space

T2



Slimming tower mass to mitigate impact and promote livability

T3



Careful articulation of tower at upper storeys to provide distinctive character for individual towers within a harmonious skyline composition

T4

3.2.3 Towers

The tower typology is a powerful form-giver in the overall development fabric. Location and height are used to:

- 1. provide a three dimensional composition that ‘frames’ the mixed use core of the Central Neighbourhood, giving it legibility from Marine Way and from across the river
- 2. create ‘cues’ for navigating the community – for example, the two highest towers, located midway along the east and west legs of Sawmill Crescent, are clear visual markers viewed from the Marine Way and the tower at the foot of River District Crossing dramatically marks the location of the Waterfront Plaza
- 3. terminate views, especially to provide connectivity between different parts of the community – for example, the two towers in the Town Square precinct completing the view from the South of River District Crossing precinct

Towers should be designed and configured to reflect their larger role in the overall plan and to respond to localized urban design conditions. To enable greater design flexibility these guidelines have limited specifications regarding dimensions and configuration. However, the following are important considerations in the design of each tower.

Form and character

1. Tower Floorplates

Tower floorplates above the 9th storey should not exceed 605m2, including all interior floorspace but excluding exterior balconies, except, at the discretion of the Director of Planning, an increase to 650m2 may be considered where the proposed building demonstrates all of the following:

- a. exceptional green building design, particularly in the area of energy performance. Exceptional green building design and energy performance will be assessed relative to evolving city standards at time of each development permit application.
- b. exceptional architectural design. While all buildings at EFL are expected to achieve a high standard of quality, materiality and architectural design, taller, larger buildings should be exceptional. Particular emphasis should be placed on articulation to de-emphasize perceived building mass.
- c. contextually appropriate massing. An increase in building floorplate should be suitable to the localized urban design condition and the role of the building within the overall plan. It should not adversely affect sun on public places, or the perceived scale of buildings adjacent to important public places.

2. Solar Access

Towers should be articulated and shaped to optimize solar access on important public places such as Waterfront Plaza, the Town Square, and parks.

3. Mount Baker View Cone

There is an important public view to Mount Baker from a view point in Everett Crowley Park. A ‘view cone’ has been surveyed across the site, with specific height limits identified in the parcel plans. No portion of any building shall be allowed to project into the Mount Baker view cone.

Views from uphill in Champlain Heights and from within EFL should be considered in the shaping and orientation of towers.

4. General Expression

Towers should recall the simple, strong sculpting and clean expression of elements associated with northwest modernist design. A combination of solid planes, punched windows and larger glazed areas, should mitigate the scale of the towers and provide visual interest. The northwest character, combined with provisions for extensive balcony areas, readily support sustainable design initiatives with deep overhangs offering effective shade, solid or punched planes providing increased thermal value and selected areas of glazed wall and clerestories providing generous access to daylight and views.

5. Relationship to Streetwall

Tower forms should generally be set back from the streetwall to allow the scale of low and mid-rise buildings to form and define the streetscape, however, in some locations, limited portions of towers such as at corner entry areas may extend uninterrupted to grade as part of the street base. For example, the tower at the southwest corner of the High Street and Kent Avenue South should come to grade to announce the entry to the South High Street and Waterfront Precinct.

6. Tower Tops

Upper levels should typically have reduced floorplates to accommodate terraces, to enable sculpting and capping, to limit apparent massing, create architectural interest, and contribute to skyline.

Elevator penthouses should be screened, integrated into a roof structure, and/or partially concealed by upper levels and volume spaces of top level units.

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Focal point for community activity

CC1



An expression of contemporary northwest design

CC2



Highly transparent public areas



CC3

Opportunities for dynamic forms, especially in roofs, massing of interior public space and other key spaces like the gymnasium

CC4



3.2.4 Community Center

A prime public amenity and focal point for community activity, the community centre is intended to have a strong presence in the urban fabric and anchor the high street, the waterfront plaza, and the pedestrian east-west mews connecting to the school site. The community centre is an important public building and should be designed to express its civic stature. The design of the building should reflect ecological and social priorities of community programming, and the dynamic nature of a recreational facility. The design of the centre will be informed by public consultation to ensure that community's needs and aspirations are met in the design of the building. The following elements have been included in the illustrative built form for consideration in the future design of this building.

Form and Character

Over height volume:

While a double volume ground floor emphasizes the building's civic nature, a three-storey volume at the reception helps to make it a beacon on high street. As the primary frontage, the north-facing atrium should have a two-storey volume, formal exterior, finely-crafted glazed wall, and strong repeating structure.

Transparency:

The atrium should be highly transparent to facilitate visibility of inside activity and good light exposure for recreational spaces, community events and exhibitions.

Flexible design:

The gymnasium should be designed with flexibility to accommodate a wide array of recreational activities. The building's vertical circulation and overall layout should enable the sharing of large activity areas (e.g. gymnasium) between the daycare and community centre.

Weather protection:

Extensive and expressive weather protection should be integrated into the building design and include creative use of glass or fabric structures and coverings along the street and on roof top spaces and play areas.

Legibility of childcare:

A childcare facility in the upper level(s) of the community centre should be expressed with a legible presence in the overall building composition. Childcare facilities must be designed to meet the City's Childcare Design Guidelines.

3.3

Materials

3.3 Materials

This section describes the general approach to materials anticipated in the East Fraserlands buildings. It does not dictate specific materials but offers a range of possibilities consistent with the aims for character set out in previous sections.

General Material Palettes

A number of material palettes evocative of the East Fraserlands spirit are provided below with the intent that they provide a starting point for design. Given the goal for a unique contemporary architectural language that captures both the history and the riverine nature of the site, creative combinations and reinterpretations of the materials presented here are expected in the building designs. Some examples of how these materials might be reinterpreted are also provided.

Note: In developing an architectural expression, the following materials - whether alone or in combination – should be considered within the context of the character precinct to which the building belongs.

Industrial

- Dramatic industrial structural systems - steel and heavy timber
- Large expanses of glazing with mullion grids reminiscent of industrial steel windows
- Corrugated metal or polyurethane
- Wood siding
- Large shingled roof planes
- Industrial grating, stairs and like components
- Galvanized steel

Contemporary west coast

- Simple structures in wood, concrete or steel
- Generous glazing especially in connection with outdoor space
- Concrete or stone walls, stairs and platforms
- Wood and cementitious wall panels
- Wood windows and doors
- Metal windows and doors
- Latticed wood or metal screens
- Wood and metal railings

Riverine

- Robust structures including wood piles, steel and wood trusses
- Large glazed doors and windows
- Wood decking
- Wood siding and simple volumes
- Nautical – especially evocative of working boats
- Cable railings



These images illustrate the broad range of materials anticipated. Materials are intended to capture the industrial and/or riverine character of EFL within a contemporary west coast expression.

4.0

Landscape

4.0 Landscape

4.1 Introduction

The landscape design for private parcels should complement the public realm design for East Fraser Lands while injecting richness and variety into the overall development through a variety of site specific design solutions. The design and detailing of open spaces within development sites will make a signifcant contribution to the overall character of the East Fraser Lands community. The public frontages of development sites, the commercial street frontages, the residential stoops and yards lining streets, parks and lanes that permeate the parcels play an important role in realizing the urban design objectives of the development.

4.2 Approach to Landscape Design

The landscape guidelines provide guidance on a range of site specific characteristics that relate to the variety of urban landscapes that make up the community, namely retail frontages, residential frontages, common garden courts, internal lanes and walkways and vehicular areas. A separate section is provided on planting design.

Design Approach: A wide variety of approaches to the landscape design may be encouraged to create variety and richness within the community. However all design solutions should satisfy a number of landscape design principles that are key to the overall approach to East Fraser Lands.

Context and Character: East Fraser Lands is proposed as a new, high density, sustainable urban community located on an historic industrial site on the banks of the Fraser River. The landscape design for EFL should aim to draw on these historical and physical contexts.

Private / Public Realm Interface: the design of the private realm landscape must be complimentary and supportive of adjoining public realm landscapes. For example, residential landscape adjoin-inginternal lanes should encourage their use for public access and encourage a sense of directness, permeability and public safety.

Sustainability: East Fraser Lands has been planned as a sustainable urban community. All aspects of the landscape design should support this philosophy including satisfying the need for prudent water use, provision for bio-diversity, ap-propriate rainwater management, responsible material selection and the accommodation of urban agriculture. Where possible sustainable aspects of the landscape design such as urban agricultural features and rainwater treatment com-ponents should be seen as opportunities to visually emphasize these sustainability based initiatives as strong generators of character.



Retail frontages add richness to the public realm



Outdoor seating and retail displays animate the street



Reinforce public access along lanes and passageways



Hard landscape components contribute to street character

4.3 Site Specific Characteristics

4.3.1 Retail Frontages

General Design and Character: Opportunities for streetscape treatments along retail frontages will vary depending on the width of building set backs and the degree of facade articulation for windows, doors, retail display, sitting areas, etc. In addition building frontages are typically punctuated along their length by lanes and passages that provide the opportunity to extend the retail frontage around corners and create more intimate side spaces along the street. Generally paving treatments should match or compliment the streetscape in their materiality and quality. Elements such as steps, railings, signs, lighting and planters, should be considered as potential contributors to the character of the street.

High street

High Street is envisioned as the primary pedestrian focussed retail street with highly articulated building facades emphasizing individual store fronts. Paving treatments, furnishings, stairs, ramps etc. should be detailed to emphasize the character of each individual retail unit or building block. The character along high street should generally be smaller in scale (than crescent street) and fined grained to suit the pedestrian character of the street. Where retail frontages turn the corner along cross streets or at lanes, the treatment of the streetscape should be designed to reinforce the continuity of the retail frontage.

Crescent street

Retail frontages on crescent street are limited to the parcels immediately adjacent town square. Typically set back areas should be detailed to visually extend the streetscape treatment to the building faces.

Town square

The town square is envisioned as an urban square that visually extends from wall to wall across high street and crescent street. Retail frontages facing town square should each play their part in maintaining and reinforcing the integrity of the design and character of the square. The character and material treatment of the square should over-ride the material treatment of the streets so that the streets start and finish at the edges of the square.



Residential frontages express the character of buildings along the street.



A variety of approaches is encouraged to distinguish each development.



Residential frontages reinforce the expression of individual homes.



Encourage a sense of identity and community.



Provide a balance of privacy and overlook at the street edge.

4.3.2 Residential Frontages

General Design and Character

Residential frontages will occur along a wide variety of street types from Marine Way to internal lanes. Differing landscape treatments will be required to suit this range of conditions. Private outdoor residential spaces will vary from simple stoops to larger front yards with opportunities for outdoor relaxation, entertaining, gardening etc. Residential frontages will influence the character and grain of the adjoining streets and parks.

The Public / Private Interface: The interface between the public and private realms needs to be designed to provide public security while maintaining a level of privacy for residents. Visual connection and engagement between residents and street users is typically encouraged.

Residential Expression: Residential frontages should reinforce the identity of individual homes, and create a greater sense of community. The treatment of the residential landscape physically and visually connects residences and the street. Residential front doors, entry stoops, pathways, steps, gates, lighting and signage will all play a part in defining personal space and residential character. The design and detailing of each garden frontage should allow for some elements of uniqueness for each type of use.

Materials: Material selection should match or be complementary to architectural building materials. Concrete, brick or stone should be used as the primary hard materials for walls and stairs. Metalwork, glass and timber will be used to design screens, fences, gates and overhead structures. Heavy timber, metal and glass can reflect the site’s riverside location and industrial past. Cast-in-place concrete walling units, proprietary timber fence panels and standard aluminum picket fences should not be used.

Changes in Grade: Residential units and associated entrances and outdoor spaces may be elevated above the street level to provide a degree of separation and overlook. The change in grade may vary. The smallest change in grade will be most applicable where residences face onto pedestrian priority streets or where a greater level of accessibility is proposed. Most ground-oriented units will be fully accessible from interior corridors or courtyards. Other opportunities exist to provide accessibility directly from the public realm through ramping or in some cases, fully at-grade units.

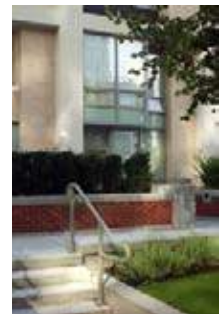
Visual Connections: The design of residential doors and windows, coupled with the treatment of patios, walls, railings and soft landscaping will determine the effectiveness of the interrelationship between the public and private realms. Residences will typically be elevated above adjoining streets and parks to allow for a strong sense of overlook from private to public. This arrangement will also increase the sense of privacy for residents. Windows, walls, railings and planting will be arranged to provide privacy for residents inside their homes. Floor to ceiling windows and glazed doors should not face out directly onto a sidewalk. A layered approach and the use of opaque glass and planting can be effective in achieving this effect.

Usable outdoor space: Outdoor spaces that encourage outdoor use will increase the level of activity and encourage social interaction at the street level. This will be important to improve security and a sense of community. Careful articulation of the grade change, a variety of heights, orientation and detailing of walls, railings and hedges all play an important role in defining the character of the street edge, expressing individual homes and creating a layered edge to the street. Tall and/or monotonous lines of solid walls, fencing and hedging will be discouraged. Low, layered planting in conjunction with planter walls and low fences will provide privacy and richness while allowing for views out to the street.

Privacy and Neighbourliness: Separation between adjoining outdoor spaces will be designed to achieve an appropriate balance of privacy and neighbourliness. Typically yards will be separated by walls, fences, plantings or a combination of these elements. A height of 0.9-1.2m is preferred for lower walls or fences. A taller, more solid screen may be desired depending on architectural design. Hedges, shrubs and vines on fencing or trellises are all possible contributors to the design.



Elevate residential units above the street to provide overlook and privacy



Encourage opportunities for outdoor activity and social interaction.



Utilize a layering of walls, fences and planting to provide richness and define public from private.



Small trees can help to separate units and provide a foil against windows.



Soften fences, screens and walls with climbing and trailing plants.

Direct adjacency of residential spaces to other ancillary uses such as loading areas, parking areas, parkade ramps etc. should be avoided by careful planning and mitigated where necessary with appropriate buffering such as trellises, arbours and planting.

Soft Landscape Treatments: Small trees may be used to separate one home from another and to provide a foil against windows. Mixed plantings of hedging, shrubs and other plants should be considered provide separation, soften built structure and provide interest for residents and passers-by. Climbing and trailing plants may be used to soften and enhance walls, screens and fences. Monotonous lines of hedging should not be avoided.

Site Specific Recommendations

Marine Way: The speed and volume of vehicular traffic along Marine Way will require a modified approach to the design of the residential frontages in this location. The design of these frontages needs to provide a high level of visual and aural screening from the road while creating a frontage that reflects the residential nature of the community.

A more significant grade change between units and the street is encouraged. Solid walls or screens should be considered to provide noise attenuation. Yards located on the north side the building may not offer great potential for use by residents but will provide a layer of separation from the street and the opportunity for visual amenity from within the units. Relatively solid walled or screened edges are encouraged, backed by plantings that soften the outward appearance of the development while providing a green outlook from within units.

A simple, strong rhythm of built and planting elements is encouraged in response to the scale and speed of the street. Unlike other locations this is a place for simplicity, and treatment on a larger scale.

Collector Roads, Kent Avenue and The Crescent: Kent Avenue, crescent street and the collector roads represent some of the busiest on-site roads in the development. Higher levels of car traffic and bus movements are anticipated compared to other internal streets.

These streets are a part of the more urban, mixed-use core. They play an important role in defining the character of the community as one arrives and departs by car or bus and are an important part of the arrival experience for EFL.

The residential frontages on these streets should be designed to reinforce an urban character. Traffic volumes suggest a greater need to provide buffering between residences and the street. Visual connection between residences and the street is an important part of the design challenge as is the expression of individual homes. A combination of walls (concrete, brick, stone), railings and plantings should be explored to define the private/ public edge.

The expression of individual residences is encouraged but a stronger sense of uniformity and consistency is encouraged to suit the scale of the streets.

Vehicular Mews: The Vehicular Mews are tighter, more intimate urban streets. These streets serve local pedestrian and vehicular traffic. Sidewalks are proposed to be pavers with boulevards accommodating street trees and rain-gardens. Building setbacks are minimal to encourage a stronger street wall and a tight urban character. Building facades should create variety of form, space and character along the street and should emphasize the expression of individual homes. Front yard treatments play an important role in reinforcing this character. Some yard spaces may be more limited and more stoop-like. Harder, more urban, high quality design solutions will be encouraged. Front yard treatments will play a major role in creating a pedestrian scaled, friendly neighbourhood street. High walls, fences or plantings along the street edge or between homes would be discouraged.



Harder, more urban, high quality design solutions will be encouraged.



Front yards reinforce the tighter urban character of the streets.



Utilize paving changes and steps to create a transition between front doors and the street

Pedestrian Mews: The pedestrian mews provide public pedestrian access between development sites. Residential units may face directly onto the mews and create a small enclave of private gardens. Front yards should be elevated above the walkway allowing for overlook and privacy. The absence of traffic makes these spaces eminently usable garden spaces. Material selection and detailing should emphasize the residential garden character of the space providing starting point for adoption and development by future owners.

Parks and Greenways: Residential units face directly onto parks and greenways in several locations. These private spaces are completely removed from vehicular traffic. A footpath will be provided along each residential frontage to allow access to units through the park. Yards and building entrances should be elevated above the park or greenway to provide privacy, to accentuate the potential level of surveillance and add to the opportunity for extensive views. Walls, railings and planting should be kept low to allow for strong visual connections. The park or greenway setting suggests the opportunity for a softer design approach with a focus on soft landscaping.

Internal roads and lanes: Mid-block lanes serve pedestrian, bicycle and vehicular circulation and are an important part of the permeability of development sites. The design of the residential units facing the lanes will play an important role in defining the character of the lanes. Setbacks along lanes allow room for the development of sizable yards. These garden spaces should be designed to enable and encourage gardening and other uses by residents and to foster visual and physical connections between residences and the lane. High fences and walls along the lane edge and between neighbours, other than immediately next to the units are discouraged. A combination of brick or concrete walls, metal railings and plantings may be considered. Material selection and detailing should emphasize the residential garden character of the space providing a starting point for adoption and development by future owners.



Reinforce pedestrian permeability through courts



A wide variety of design approaches is encourages



Ref ect the urban, riverside, character



Provide areas for casual relaxation

4.3.3 Common Garden Courts and Roof Gardens

General Design and Character

The design and character of these spaces plays an important role in determining their usefulness as a common space, their contribution to sustainability goals of the project and the look and feel of the residential environment. Competition for space for a wide variety of programmatic needs will likely drive the design. The allocation of space for each use, it's siting and interrelationships will be key to successful outcomes.

Semi-enclosed garden courts, edged by 4-6 storey building blocks and connected to adjoining streets by lanes and passages are typical of the larger outdoor spaces proposed within parcels at East Fraserlands. For the main retail parcels (parcels 15, 16 and 17), such spaces are above retail spaces at the podium level. For most other parcels, common spaces are typically provided at or near street level over parking garages. Roof garden opportunities also exist on the upper roofs of low-rise apartment and commercial buildings and the upper roofs of residential towers.

The character of common garden courts may vary from parcel to parcel and should relate strongly to the proposed architectural direction. The sustainability goals of the project dictate that these spaces are useful spaces that serve the social and ecological needs of the community. The accommodation of programmatic needs should not be pursued at the expense of aesthetic considerations and the goal to achieve a distinct sense of character and identity.

Residential common spaces at East Fraserlands will need to accommodate a wide range of uses including:

- Pedestrian Access
- Vehicular Access
- Loading
- Exiting
- Private Yard Spaces
- Visual Amenity
- Passive Recreation
- Active Recreation
- Children's Play
- Urban Agriculture
- Rainwater management features
- Urban habitat and ecology

Vehicular access and parking: Ground level garden courts typically accommodate vehicular movement in the form of lanes, turnarounds, parking ramp access and loading areas. Guidelines for these elements are referred to separately above.

Visual Amenity: Visual amenity is an important goal in the design of common open spaces in high-density housing. Typically common open spaces are enjoyed as much as a visual amenity from surrounding units as they are as an open space, especially in winter months. The design of open spaces therefore needs to be carefully considered in terms of their plan views. A wide variety of approaches can succeed in this respect but designers should seek to take advantage of elevated perspectives from residences. Repetitious patterns, strong plan forms, paving patterns, bold plant massing, lighting are all elements that should be considered. Trees can be used to provide privacy to lower floor units and private outdoor spaces, screening oblique views from above. The visual impact of disruptive elements such as loading bays should also be consider with respect to views from above.



Consider year round visual amenity provided by common outdoor spaces.



Provide a variety of opportunities for passive recreation.



Explore a variety of play opportunities. Consider them as integral parts of the landscape.



Passive Recreation: Common outdoor spaces provide the opportunity for passive outdoor recreation. This may range from seating areas, individual benches, tables and chairs, walls and other elements that create resting opportunities, lawn areas and other treatments that cater to passive recreation. Seating should be provided in sunny and shady locations. Seating spaces should be located to avoid conflict with adjoining residences and located in a way to encourage use, social interaction and to provide a positive relationship with other uses such as play areas and garden plots.

Children’s Play: Play areas require careful siting to avoid conflict with adjoining uses and to provide a good relationship with compatible uses such as indoor amenity areas, seating spaces and in locations where there is a high level of visual overlook from family sized units. Formal play structures and associated safety surfaces take up large areas, are often difficult to fit into confined spaces and provide limited play value. Play structures can also be very visually dominant elements in the landscape. Other opportunities for play, other than play structures, should be considered as an integral part of the landscape design. Examples include, sidewalk games areas, circular paved routes for tricycles and bikes, mounded lawns, work tables (for crafts and eating), children’s gardens, sand or gravel zones with rocks and small boulders etc. Typically play areas should be located in sunny areas.

Private Yard Space: Private yards are typically provided for “ground” level units. For higher density sites, where greatest competition exists for common open space, the extent of private gardens should be carefully considered in relation to competing needs of the overall community. Private spaces should be designed, like street frontages, to provide usable outdoor space for residents. Private yards should be enclosed with walls, fences, screens or plantings between adjoining neighbours and common areas. A combination of these elements should be used where possible to create variety in layout and form.



Provide opportunities for individual or shared garden plots.

Use native plants where appropriate.



Use wall shrubs or climbing plants to soften walls and fences.



Garden plots can be provided as shared gardens



Combine shrub plantings, perennial plants and food plants.



Provide a range of plant forms including evergreen and deciduous plants, trees, shrubs, vines, groundcover plants etc. to provide a variety of habitat opportunities.



Urban Ecology: Creating opportunities for urban wildlife to co-exist (particularly birds) requires a fresh look at plant species selection and design. Reliance on purely ornamental species to produce typically static designed environments is unlikely to serve this goal. The use of mixed plants, including a range of trees, shrubs, herbaceous plants, grasses, ferns, herbs and vines, that offer a range of potential shelter and food are required to make any real contribution. Native plants are typically better host plants for urban wildlife and can be combined with other fruit bearing plants that can contribute as a food source for birds and/or humans. Areas of “wilder” less manicured plantings should be considered in some locations to provide more cover for birds.

Urban Agriculture: The accommodation of urban agricultural and rainwater treatment components provides an opportunity to visually emphasize these sustainability-based initiatives as strong generators of character.

Garden plots need to be easily accessible and in areas of highest sun access. Theses facilities may generate a lot of activity and their siting in relationship to ground floor units should be carefully considered. Individual garden plots and shared garden plots should be integrated into the overall design and located in conjunction with seating and play spaces. Creative layout of garden plots that are integrated into the overall design will be encouraged over highly regimented layouts. Garden plots should be integrated with more permanent plantings of herbaceous plants and shrubs.

Food bearing plants such as fruit trees, berry bushes, vines, herb gardens and other edible landscaping should be integrated into the design of common areas. Innovative design solutions should be sought for the integration of such elements into a modern, high density urban context.

Walls, fences and hedges should be replaced by fruiting vines or other espaliered fruiting plants grown on trellises. Vines can be used as green screens on buildings or around service areas. Planters and pots can also be used to provide incidental gardening opportunities for residents.



Consider rooftop rain-gardens as a means to slow the flow and cleanse run off.



Utilize collected rainwater as a landscape feature.



Plant species should be selected for drought tolerance.



Rainwater Management: The rainwater management approach for EFL proposes that rainwater collection, infiltration and cleansing can be partially accommodated in landscape features within common areas of development parcels. Strategies would include maximizing areas of soft landscaping (and associated soils), permeable surfacing relying on filtering water to sub-level drains, rather than direct drainage to a pipe, use of drought tolerant plant species and high efficiency irrigation systems. Rainwater collected and detained in the landscape may provide the opportunity for landscape features using plants tolerant of inundation by water. Such features may also provide opportunities to create bio-diversity and urban habitat. The accommodation of such features will serve to visually express the sustainability of the development.

In addition rainwater may be collected from roofs or other hard surface areas and directed to cisterns with the potential for re-use for toilets, irrigation or other non-potable uses. Collection systems can also be visibly expressed as building and landscape features.



Reinforce legibility of routes. Provide clear lines of sight with continuity of paving and lighting.



Provide clear lines of sight with continuity of paving and lighting.



Higher quality materials, with more finely grained pedestrian scale detailing are encouraged.



Incorporate trees between cars to provide shade and screening.



Consider environmental impact of large paved areas.

4.3.4 Internal Lanes And Walkways

General Design and Character:

Achieving highly permeable urban neighbourhoods is an important objective for the East Fraserlands community. Developments should be designed to encourage free flow of pedestrian and cyclists through parcels via a network of interconnected lanes and alleys. Design and detailing of such routes should reinforce their legibility and scale and, where applicable, emphasize their shared use by pedestrians and vehicles. Their locations are important to provide connectivity and linkages through adjoining sites. Buildings that frame lanes should be carefully detailed to emphasize the public nature of the routes and reinforce visual connectivity, framing views and creating safe and legible routes.

The ground plane material selection is critical to achieving this goal. Curbed roads with asphalt or blandly detailed concrete surfaces are unlikely to be successful. Higher quality materials, with more finely grained pedestrian scale detailing is encouraged. The ground plane should explore options for patterning, texture and colour.

Where lanes and passageways meet public roads the interconnection should be very carefully considered. Pedestrian priority should take precedence over vehicular movement. All components of the streetscape should serve to reinforce the notion that lanes are publicly accessible pedestrian priority routes.

Clear lines-of-sight, continuity of paving materials and a linear arrangement of planting and lighting are some of the devices that may be explored to encourage and invite use. Gateways, grade changes and poor legibility of route all deter public use and are discouraged.

4.3.5 Vehicular Areas

Parking Courts: Where parking is required in open courtyards these should be envisioned and detailed as urban plazas that accommodate cars. These spaces often contribute to pedestrian routes and are highly visible from residential units above. Conventional car park detailing comprising concrete curbs and asphalt surfacing will be strongly discouraged. Paving materials should provide a high level of texture and detailing. Trees are an important component of such spaces and will require careful structural planning to allow them to be integrated into the design as “street trees” given the “on slab” context. Pedestrian movement through parking courts should be carefully considered with adequate space provided to allow for legible, accessible routes. The environmental impacts of large paved spaces should be given careful consideration in terms of permeability and heat island affect. Where possible trees should be integrated into the design to shade surfaces and provide screening from above.

Vehicular Turn-arounds: Vehicular turning areas are required on some parcels. Turn-arounds are space-consuming features that need to be accommodated in tight communal courtyard spaces. Vehicular turnarounds should, like parking courts, be designed as “plaza” spaces that blend into the surrounding landscape courtyard. Conventional road detailing comprising concrete curbs, blandly detailed concrete surfaces or asphalt surfacing will be strongly discouraged. Turn-around spaces typically provide for vehicular and pedestrian movement and should be designed as shared surfaces. Turn-arounds are typically located along the length of internal lane and should be designed to reinforce the continuity of the pedestrian routes and their shared use. Turn-arounds will be highly visible from adjoining residences. Their design should explore options for patterning, texture and colour. The central portion of each turn-around offers to opportunity to create a feature, either hard paved, planted or comprising other landscape features. The environmental impacts of large paved spaces should be given careful consideration in terms of permeability and heat island affect. Where possible trees should be integrated into the design to shade surfaces and provide screening from above.

Loading areas and access to underground parking: Loading areas and parking access should be carefully sited to minimize conflicts with adjoining units and impacts on circulation and views. Like turn-arounds, loading bays need to be fitted into already congested common courtyards. They should be sited in such a way as to minimize conflicts and to allow for screening. Paving materials should be high quality to match adjoining shared lanes. Vertical screens with climbing plants should be provided to minimize views. Consideration should be given to views from above and mitigation provided.



Trees of appropriate form and size should be accommodated to complement the scale of the buildings.



Hedges can be used to provide evergreen or deciduous “walls” within the design.



A mixture of deciduous and evergreen shrubs and groundcovers plants should be used in the overall planting composition.



Drought tolerant, native plants and food producing plants provide the added benefit of reduced water use, wildlife habitats and opportunities for casual harvesting of foods and herbs by residents.

4.4 Planting Design

Planting design will play a critical role in defining the character and feel of common spaces. Trees, shrubs, groundcovers, herbaceous plants and climbers should all be considered in the soft landscape design.

Trees of appropriate form and size should be accommodated to complement the scale of the buildings. Trees in courtyards can be used to create privacy, shading (for facades and ground plane) and wildlife habitat. Hedges can be used to provide evergreen or deciduous “walls” within the design. Single species hedges should not be excessively used in order to avoid over compartmentalization of the spaces. A mixture of deciduous and evergreen shrubs and groundcovers plants should be used in the overall planting composition. Climbing plants can be used with screens and trellis to “green” vertical facades, provide overhead screening and provide a foil between uses. Herbaceous plants can provide seasonal variation in the landscape and can be successfully used in conjunction with shrubs. Drought tolerant plant materials should be used in all cases to minimize irrigation needs. Native plants may suit this purpose with the added benefit of providing wildlife habitat.

A variety of planting forms, evergreen and deciduous, high, medium and low, dense and open types provide a variety of conditions in a landscape suited to wildlife habitat, particularly for songbirds. A wide range of food producing plants should be incorporated into designs to provide the opportunity for casual harvesting of foods and herbs by residents. Planting within private parcels should be designed so as to encourage song birds in the urban landscape.

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5.0

Lighting

5.1 Introduction

5.1.1 Lighting Design Objectives and Character

1. Create a safe, energy effective, and sustainable environment
2. Generate a clear visual hierarchy of lighting elements
3. Support wayfinding at road crossings and critical decision points
4. Prioritize pedestrian activity
5. Use a limited palette of standard luminaires and light sources for ease of long term maintenance
6. Use white light sources (metal halide, fluorescent, LED) for effective visual acuity and light perception
7. Incorporate sustainability:
 - Promote a conscientious use of energy resources
 - Utilize long life light sources to minimize maintenance and resource use
 - Minimize light trespass, glare, and light pollution
8. Integrate private and public areas
 - Select a palette of luminaires and lamps for ease of installation, photometric performance, and visual consistency with architecture and landscape
 - Avoid overlighting by careful integration of private and public realm lighting design
 - Fixture choice and placement should follow the design intent and the aesthetic approach outlined in this section



Simple surface mounted fixtures will provide the required light levels at entries.



Lit planes at entry to accentuate architecture while providing a safe inviting threshold.



Semi-private patios with low level lighting to provide transistion to internal private space.



Surface mount lighting at entries to highlight and provide wayfinding.



Decorative elements will add personality and individuality to the townhouse entries.

5.2 Lighting related to building typologies

Residential

5.2.1 Town homes

Lighting should provide higher levels of illumination at unit entries for safety, wayfinding, and clear identification of each townhouse entrance. Decorative lighting elements at the entrance should enhance the architecture as well as the lighting design objective and character.

Semi-private patio and landscape setbacks provide a transition from the public realm to the private dwelling. Lighting for these areas should be low level and close to the ground to provide low-glare illumination. These fixtures can accent selected pieces within the landscape and/or be integrated into elements of the hardscape.



Lighting incorporated into entry areas to highlight hierarchy of building.



The common areas should be illuminated to low light levels.



Decorative options for the entrance can enhance the homes without creating glare.



Series of fixtures mounted in hardscape features and as poles to accentuate wayfinding and highlight pathways.



5.2.2 Low and Mid-rise

Lighting should prioritize way finding and highlight building entrances by creating a clear hierarchy along the frontage of the building. The techniques for illuminating transition areas should follow the articulation of the building.

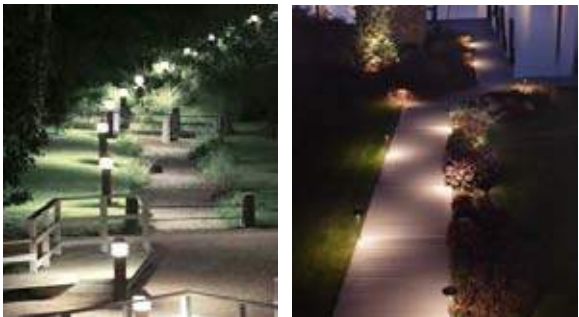
Mid block passages and pedestrian walkways that lead to inner block spaces should be designed and lit to provide a safe and inviting atmosphere. The lighting levels at the entries to these passages should inform pedestrians of the presence of the walkways. Lighting for townhouses at the base of the low-and mid-rise buildings should be designed as in Section 5.2.1. (townhouses)



Entrances will have personality unique to the architecture. Lighting at entries will help to provide wayfinding and a safe inviting environment.



The connections and pathways will be lit with low level small scale fixtures.



Pathway lighting will help to aide in wayfinding by lighting the way and accentuating the rythm of the site.



Lighting design elements will be integrated into the hard-scape elements for a seamless marriage between form and light.



Series of light fixtures will aide wayfinding and will create interest in landscape planes at night.

5.2.2.1 Multi-family

Lighting of multi family residential buildings should draw upon the lighting concept of the public realm. Lighting should assist in defining the identity of the units as well as respecting the characteristics of this building typology.

Courtyards:
Lighting levels should be appropriate for pedestrian safely while considering light pollution into units facing the courtyard.

Lighting should reinforce the landscape design by accenting selected shrubs or trees and by integration with hardscape and benches. These lighting elements or shapes can provide delight and playfulness to the area by enhancing the simple forms of the architecture.

In addition to the courtyards, the roofs will be developed into usable green spaces. Lighting will provide a simple approach with low level lighting that will caste subtle soft lighting onto the ground.

Ground level oriented units will follow the same concepts as the townhomes with individually highlighted entries that help to provide wayfinding while remaining inviting.



Series of pedestrian scale poles help to highlight wayfinding in connecting spaces.



Plazas and streetscapes will be lit with low glare pedestrian scale poles.



Activated facades with retail and restaurants will help to create lively night time ambience.



Softly lit facade will help to connect residential and retail environments.



Lighting elements integrated into landscape features and paving will help to provide low level lighting and create wayfinding.

5.2.2.2 Mixed-use

Lighting for the Mixed-use buildings should be more lively in nature than the exclusively residential parcels. The public realm concepts should take precedence to create a pedestrian experience in an inviting environment.

Canopy mounted accent lights, low-glare pedestrian scale poles, landscape highlights and low level illumination should be used.

Lighting will be complementary to the public realm lighting and emphasize the diversity of individual stores. Lighting should be integrated with outdoor seating to create a night time appeal.

The town square will be a focal point with whimsical low level lighting integrated into landscape features.



Integrated lighting in landscape features.



Glowing lobbies as beacons creates transparency between exterior and interior.



Pools of light and color at entries to facilitate wayfinding.



Lighting to activate facades to create visual interest.

5.2.2.3 Office

These high profile buildings should act as beacons for the community and as an introduction to the Town Square precinct at Marine Way entries. Main lobbies will be focal points that can be identified day and night as landmarks.

Lighting at the pedestrian level is encouraged, and building grounds and plaza lighting surrounding each building should complement the lighting approach in the adjacent public realm. The concept should be applied and modified to fit the geometrical, harder shapes of these buildings.

Lighting of the flatiron prow and the entry sequence of the buildings should be bright and welcoming giving the buildings an identity on Marine Way.



Special lighting elements should accentuate architectural design.

5.2.3 Towers

Lighting for the towers should enhance the clean form and the northwest modernist style. Building lighting that is not glare producing or flood distributing is encouraged.

Tower lobbies and building grounds that interact with the public realm should be treated to match the rest of the community creating a cohesive whole. The lighting should give the entranceway presence in the street frontage.



Points of light continue to pedestrian level.



LED fixtures for long life and low maintenance.



Entries highlighted for wayfinding.



Reception area and galleries should have a warm, glowing appearance.



Gymnasium will be a lit volume with transparency to activities within.



Outdoor play spaces with general lighting and low level highlights.

5.2.4 Community Centre

Lighting for the community centre should provide the facility with an appealing, legible nighttime presence. Accesses to the building should be highlighted with a warm and welcoming lighting approach. At the main entry, this will be reinforced by the lighting of the three storey reception lobby which will act as a beacon in the night streetscape. Similarly, lighting of the east-west galleria will provide a warm glow to the adjacent mews allowing views into the many interior activity areas along this space.

There are many opportunities to accentuate specific volumes (eg: the gymnasium) or program components (eg: the childcare facility and its outdoor play areas) each of which should be used to enhance the nighttime appearance of the building.

6.0

Retail



The commercial areas of EFL are to have a rich mix of retail uses and a unique sense of place.

6.1 Introduction

Each commercial precinct within the overall development has a specific role to play in creating a greater overall commercial experience. The commercial core of East Fraserlands is comprised of three distinct areas:

Town Square:
The town square has a rich commercial mix designed to meet the community needs and create a unique sense of place. The focus will be on local serving retail including two anchor stores; a grocery store and drug store.

High Street:
Connecting the town square to the waterfront is the High Street lined by specialty shops and restaurants.

Waterfront:
The Waterfront is where the community meets the Fraser River. To celebrate and take advantage of the beautiful surroundings and the working river; the Waterfront is the natural destination for large gatherings. The location lends itself to create a cultural, nightlife and entertainment district.

6.2 MAP OF RETAIL PLAN



6.3 General Principles and Character

Architectural Detail:

At street level, the quality and level of detail, materials and proportions, should be designed to enhance the overall street experience.

The architecture of the retail frontage should allow for different storefront widths; as well storefronts should express variations in depth (refer to variations in the streetwall) to improve the shopping experience.

Storefronts:

Storefronts are to express a unique identity through design and use of materials. Storefronts should vary between 4.5-7.6m wide and incorporate large windows to maximize transparency and visibility to goods and activities within. Avoid tinted or reflective glass on street level storefronts.

Weather Protection:

Weather protection features such as arcades and awnings are critical to pedestrian comfort and should be as continuous as possible while providing variation from store to store. Canopy heights and depth should be designed to ensure functionality

Setbacks and variations in setbacks:

Retail frontages are expected to have variations in setbacks to provide visual interest as well as functional requirements. While the one metre zone at these frontages allows for projections for such as display windows, it is also anticipated that recesses will be introduced to accommodate more seating for restaurants, distinctive store entries and additional outdoor display.

Signage:

Shop entrances must be clearly identified through architecture, signage and landscape design custom merchant signs, awnings and lighting will serve to give a distinct personality to each storefront. A comprehensive approach to signage will be pursued. Public parking entrances will be clearly marked.

Landscape:

Daylight and sun exposure must be taken into consideration to maximize terraces on sunny sides of the street. Trees, planting and shrubbery will soften the hard edges of buildings, care must be taken to choose trees and shrubs to accentuate entrances.

Public Spaces:

Establishing events and traditions early in the project will make EFL a place to remember; retail frontages should provide opportunities for banners, flags, special lighting and other initiatives that will help set a festive tone throughout the community.

Store Entrances:

The main entrances to anchor stores will be located as close as possible to the High Street.

Shop Depths:

A range of shop depths will be provided to ensure viability of retail spaces. In general, retail spaces will be between 15 and 20 metres deep. However, shallower depths are anticipated for shops wrapping anchor stores and for a limited number of 'boutique-style' enterprises that will lend diversity to the mix.

Double Height Storefronts:

Retail frontages will benefit from a double height volume, providing a stronger street presence, additional flexibility in the design of the storefront and opportunities for increased daylighting to the interior. Maximum heights for retail will range from 6.0 metres south of the CPR ROW to 7.62 metres north of the ROW.

Mezzanines:

Mezzanines may provide additional retail and seating areas or areas for support needs such as storage, office space and the like. Floor areas in the development parcels typically have additional retail floor area available (approximately 10% of the retail area of the parcel) to enable some mezzanine spaces within the double height volume.

Outdoor seating:

Attractive outdoor seating areas for restaurants and cafes are encouraged to bring a heightened level of activity to sidewalks and open spaces in commercial areas.



'Magnet' stores attract pedestrians through unique architectural form and expression.



Detailing of shop fronts and human scale to enhance the pedestrian experience.



Signage designed to give each store a unique identity.



Weather protection to provide pedestrian comfort and scale and protect outdoor displays.



Comfortable, attractive outdoor seating areas to enliven streets and open spaces adjacent to retail.



Anchor stores to have distinct character, especially at entry to High Street.



Openable storefronts to engage pedestrians and animate the street.



Paving and street furniture to define commercial spaces.



Seating to be moveable, allowing it to spill into town square and waterfront plaza.



Public events to be programmed, especially for town square and waterfront plaza to maintain a lively environment at all times of the year.

6.4 Site Specific Characteristics

6.4.1 Town Square

To create a distinctive and memorable place the design of the town square should include:

- memorable architecture and landscape to mark the intersection of High Street and Crescent, the heart of the community
- CRU's designed to wrap the anchor stores and animate the town square
- seating tables and umbrellas designed to be flexible, movable and allowed to spill into the square
- anchor store entrances located as close to the High Street as possible
- paving, street furniture and materials to further define the commercial spaces
- events and festivals in the town square that may extend to the street on special occasions

6.4.2 High Street

The high street connects the town square to the waterfront and will be designed to create a unique pedestrian experience. The design should include:

- building and streetscape elements that assist in retail continuity and connectivity across the CPR rail corridor to connect the townsquare to the waterfront
- storefronts that open to the street with spill-out spaces, take-out counters, seating areas and terraces providing interaction and animation.

6.4.3 Waterfront

The waterfront takes on a more relaxed character with an architectural expression evocative of the riverfront setting and the historic mill. The cultural and entertainment retail here is well-suited to this expression and should be designed to enhance it. Programming of the waterfront plaza will be important to keeping this space animated at all times of the year:

- The architecture at the waterfront should celebrate the site's history and industrial heritage. These references should extend to the materials, colours and design and signage of waterfront retail
- Fully operable windows are essential to food and beverage units which open onto the waterfront plaza and can be in the form of French doors, glass garage doors or glass accordion doors
- Creative three dimensional signs are encouraged with lighting that considers the nighttime destination of the waterfront
- Landscape should offer a diversity of seating opportunities
- The relationship from inside to exterior should be seamless
- Support for programmed events (e.g.: electrical outlets, furniture storage) should be considered in the design of the plaza.

The background of the entire page is a grayscale photograph of a coastal landscape. In the foreground, there's a body of water with some small structures or boats. In the middle ground, there are some trees and a small settlement. In the background, a range of mountains is visible under a hazy sky.

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