PLAZA OF NATIONS

CD-1 (349) DRAFT DESIGN GUIDELINES

750 Pacific Boulevard, Plaza of Nations, Area 6b, North East False Creek

May 31, 2018

CANADIAN METROPOLITAN PROPERTIES
JAMES KM CHENG ARCHITECTS
PFS LANDSCAPE
BUNT ENGINEERING
INTEGRAL SUSTAINABILITY
INTERCAD SERVICES LTD.

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01

Introduction

APPLICATION AND INTENT

These Design Guidelines should be used in conjunction with the CD-1 By-Laws to guide the development of Plaza of Nation's site within the Northeast False Creek Area (NEFC). 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 Northeast False Creek area plan (NEFC). Flexibility and discretion 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.

It is anticipated that blocks comprised of multiple buildings designed by different architects will be developed through a preliminary development application process to ensure coordination and optimized relationships between the varied buildings.

02

Guiding Principles

RECONNECTING PEOPLE WITH THE WATERFRONT

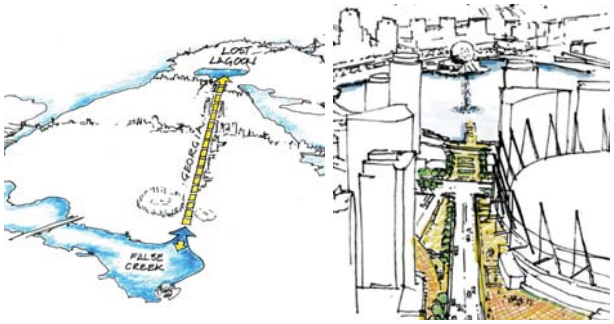
Located at the geographic centre of Vancouver's Metropolitan Core, Northeast False Creek represents approximately 58 hectares of mostly undeveloped land along the False Creek waterfront in downtown Vancouver. The area is bisected by the Georgia and Dunsmuir viaducts and is adjacent to the Central Business District, Citygate, and historic neighbourhoods of Yaletown, Gastown, Strathcona and Chinatown. The replacement of the viaducts with a new at-grade street network connecting Georgia Street to Pacific Boulevard is a transformative project that will result in one of the most significant city-building opportunities in a generation.

The new area plan will provide many benefits, including but not limited to: reconnecting historic communities to False Creek's waterfront, creating three vibrant distinct districts, expanding open parks and open space, reinforcing BC Place's Iconic presence in the skyline, improving connectivity, enhancing pedestrian and cyclist movement, and reconnecting people with the waterfront.

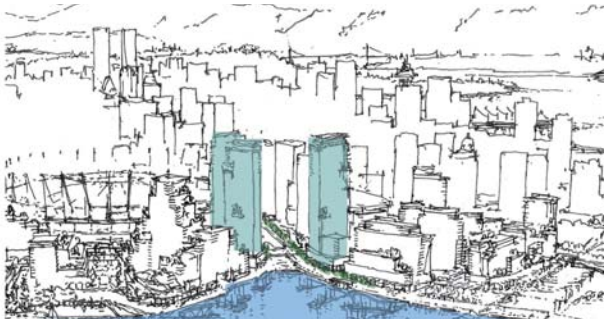

1:1000

NEFC URBAN DESIGN PRINCIPLES

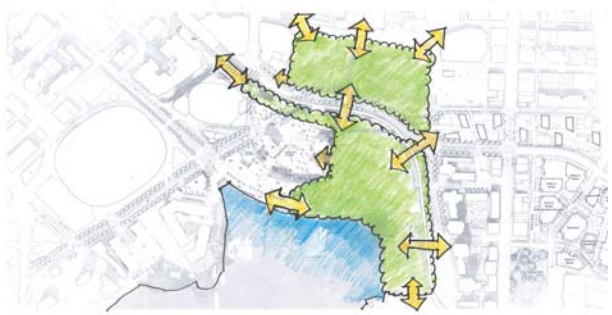
The plan uses a principled approach to shape how and where the development occurs and the appropriate built form. The following urban design principles provide structure and guidance to the more detailed policy, guidelines and regulations to be applied throughout the Northeast False Creek neighbourhood.



WATER TO WATER
Locate and design buildings to frame the view to False Creek and Science World along the alignment of Georgia Street as counterpoint to Lost Lagoon in Stanley Park. Celebrate water to water with public art, lighting and water features.

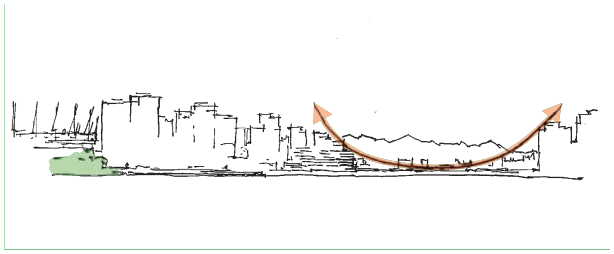


GEORGIA GATEWAY
Mark the significance of the new intersections of Georgia Street and Pacific Boulevard with higher buildings that contribute to the beauty and visual power of the city's skyline and frame street and views to the False Creek Basin.

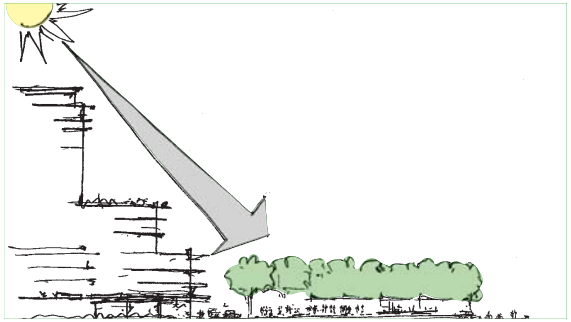


CONNECTED AND PROMINENT PARK
Configure the new Creekside Park extension to expand and open out along the water enhancing the park presence and visual accessibility from surrounding communities and the seawall. Open up the views along Pacific Boulevard at the new Carrall Greenway to visually connect the park and the open placemaking views to the water and Science World along the Carrall Greenway.

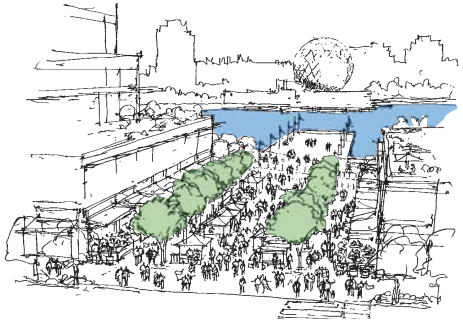
BRING THE WATER TO GEORGIA STREET
Explore opportunities to reconfigure the water and shore to bring water to the Georgia Landing, a new waterfront plaza where the city meets the water. An active waterfront will frame Georgia Street and the new inlet. Transition to a naturalized water's edge emphasizing biodiversity and habitat.



WATER / PARK / MOUNTAIN VIEW
Enhance and frame the view corridor from False Creek across the new park to the mountains.

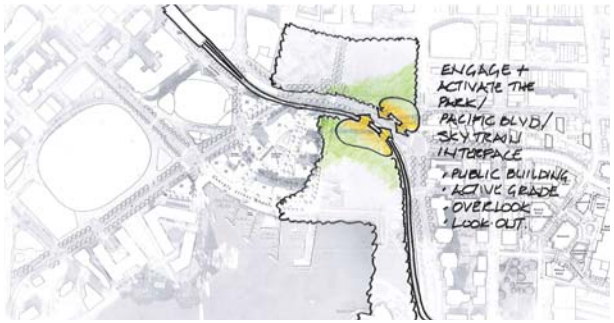


SUNLIGHT ON PUBLIC PLACES
Design and shape buildings with consideration for sunlight access on important public places.

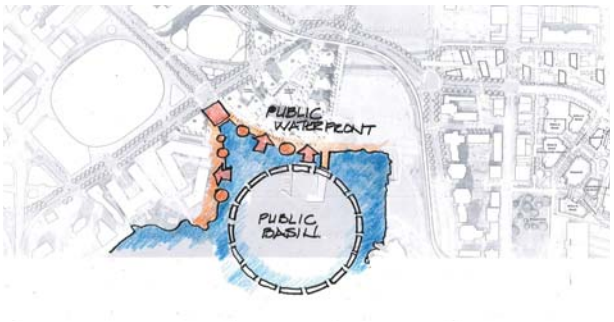


PUBLIC LIFE AND PUBLIC PLACES
Focus life on a clear fine grain network of streets, lanes and public places.

AN URBAN WATERFRONT FOR PEDESTRIANS
Prioritize pedestrians at the foot of Georgia. Design the waterfront so that the flow from restaurants, seating, and public promenades to the water's edge is not interrupted by cars in the high season and fine weather. Design waterfront restaurants and retail with primary vehicular access and servicing from off-waterfront locations.



ENGAGED PARK / PACIFIC / SKYTRAIN INTERFACE
Address the challenges of the juncture of the park, SkyTrain and the new Pacific Boulevard with uses, public park structures and/or other designs elements that engage, activate and connect. Enhance the experience of the approximately 130,000 SkyTrain trips per day for whom this section of park is the first and last view of the city before the tunnel to downtown.

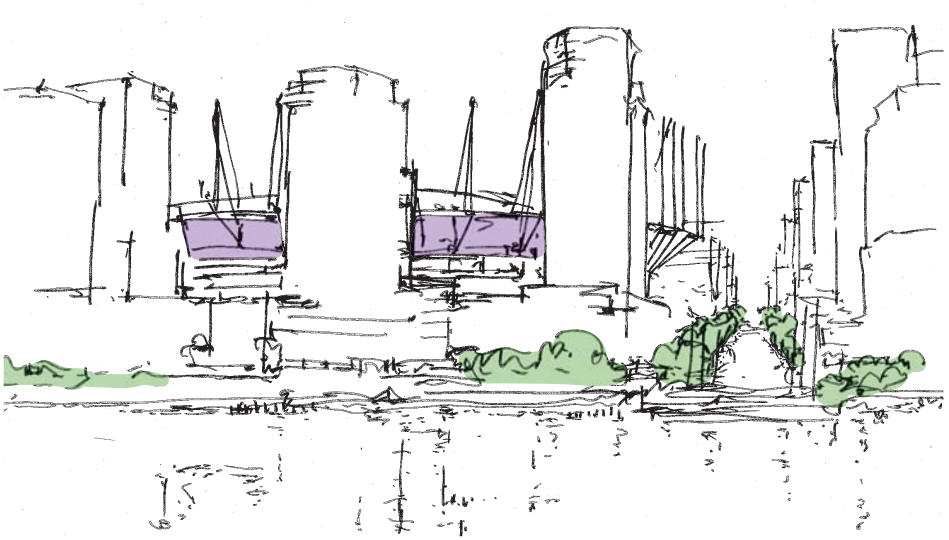


FALSE CREEK PUBLIC BASIN AND WATERFRONT
Emphasize the False Creek Basin as a public place prioritizing public use. Limit the extent of private marina use in favour of public activities along the water's edge with access both from the land and from the water. Populate the water's edge with places for people to linger, eat, drink and enjoy including restaurants, cafes, pavilions and shelters that create opportunities to engage the water at all times of the year, and in all types of weather.

THE GREAT STREET

Define and engage the space of this 'Great Street' with building and uses that bring life and activity. Infill the edge of BC Place along this important frontage. Establish a significant tree canopy to further enhance the experience and comfort of the street.

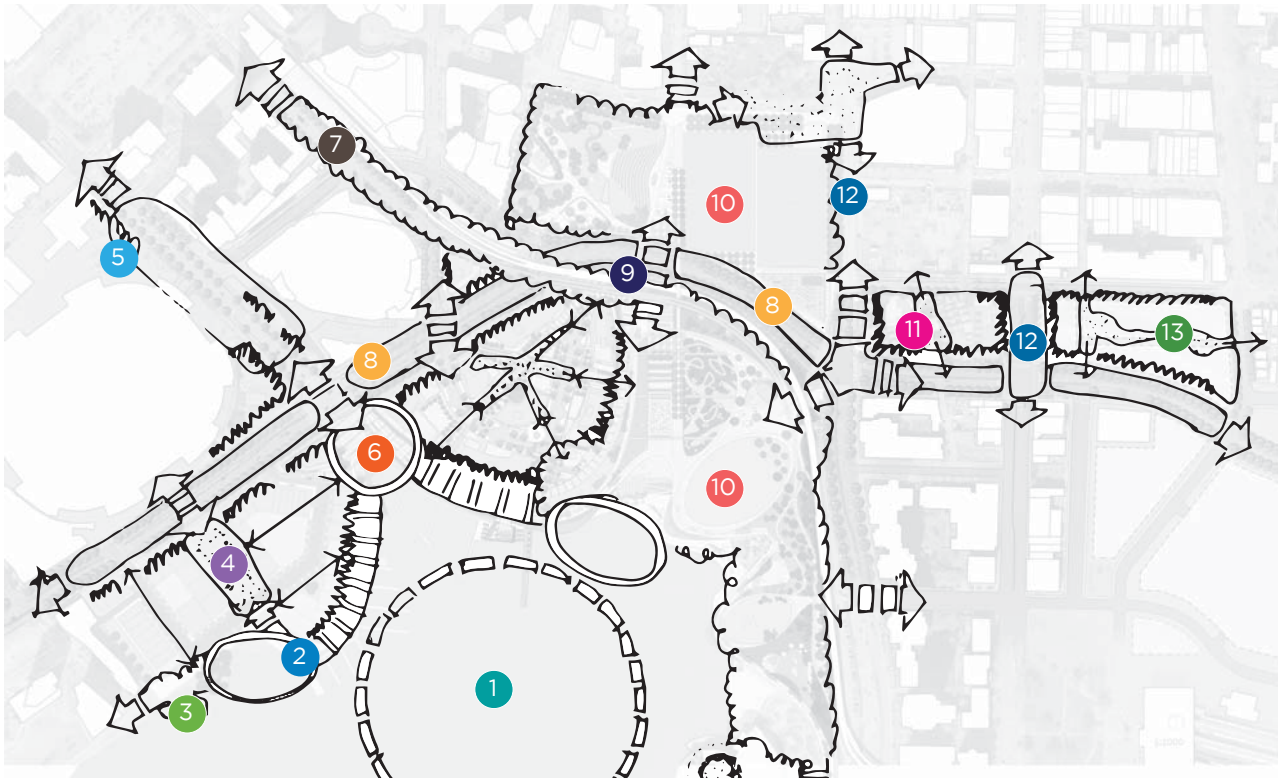
CELEBRATE BC PLACE



Preserve views to this iconic public building and its symbolic lighting. Design and locate buildings to frame views to the stadium from key public places along the seawall, the Expo line and the new Pacific Boulevard.

PLACES FOR PUBLIC LIFE IN NORTHEAST FALSE CREEK

Unique and diverse experiences are planned for North East False Creek. The creation of new diverse, active, and connected public spaces and places is essential to the success of the NEFC area plan. The Plaza of Nations site for example, will provide a strong connection from BC Place to False Creek's Public Basin. This axis will feature a lively public plaza and arts pavilion, just a few steps away from a quieter and natural habitat water's edge.



1. False Creek Public Basin
2. Arts Pavilion and Plaza
3. Habitat Water's Edge
4. Plaza of Nations
5. Georgia Street
6. Georgia Landing
7. Dunsmuir Connection
8. Pacific Boulevard
9. Carrall Plaza
10. Creekside and Andy Livingstone Park
11. Historic Shoreline
12. Reconnecting Chinatown
13. Hogan's Alley

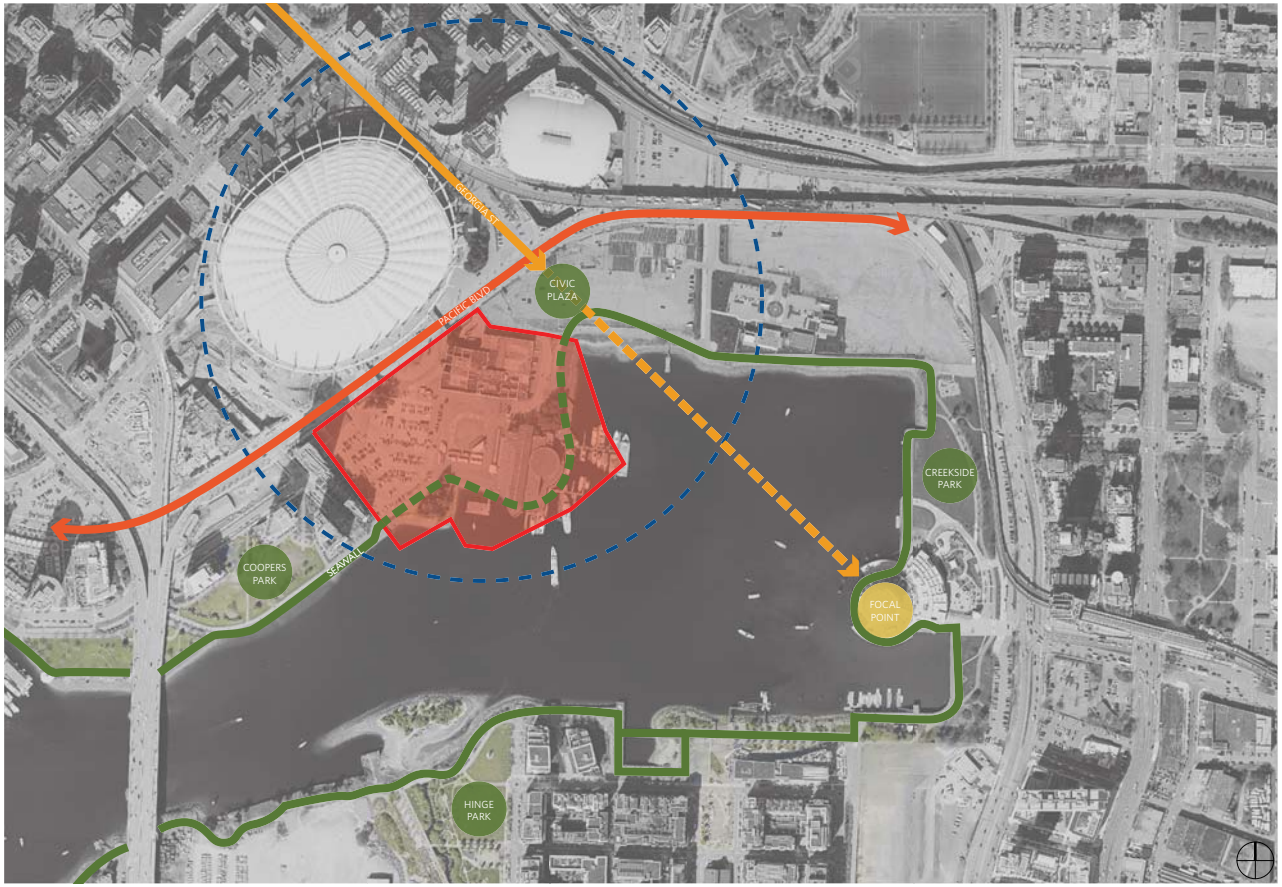
CONNECTIONS

LEFT: The site is strategically positioned to connect the city to the water, and the stadium to both the creek and the seawall.

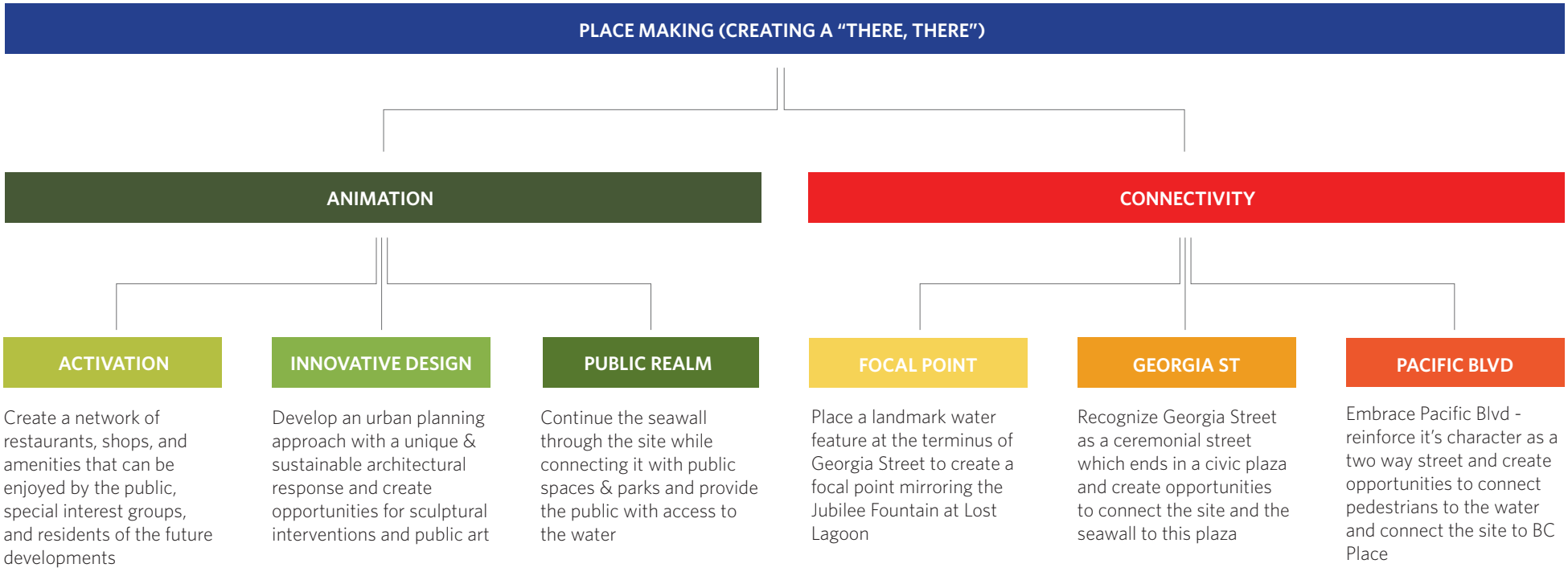
- Seawall
- Entertainment District
- Major Axes through City of Vancouver
- Major Parks
- Bodies of Water

RIGHT: Georgia Street and Robson street are two major axes through the city of Vancouver, connecting not only two bodies or water but two major parks as well. Our site provides the opportunity to enhance these connections.
The site and BC Place are viewed from many places around the basin of the creek and will build upon these visual and physical connections as well.

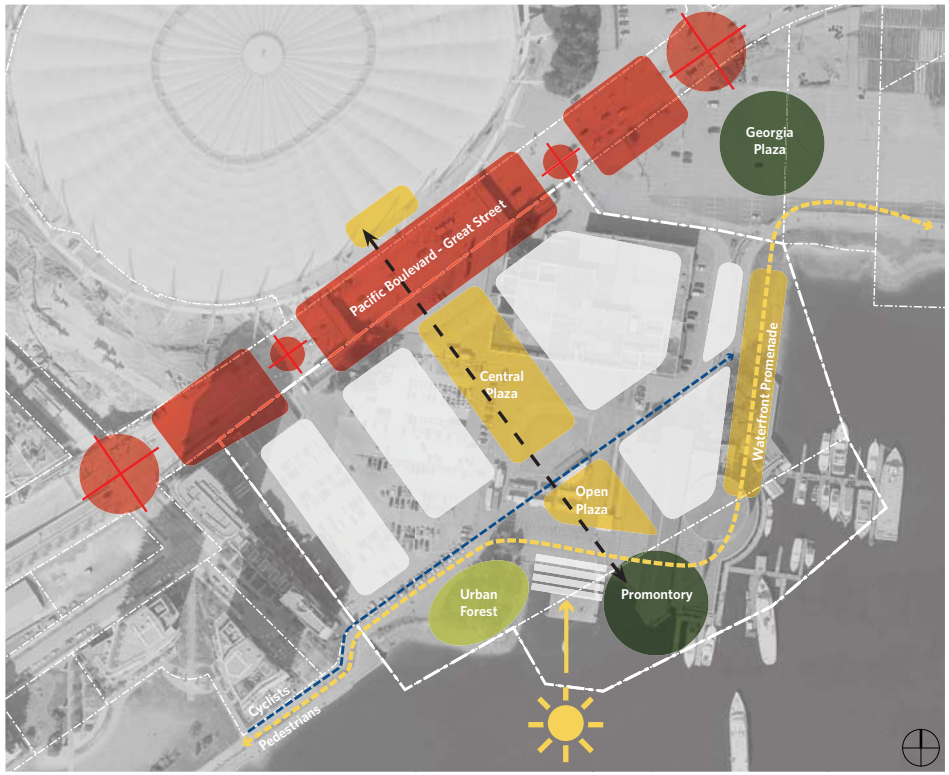
- Major Pedestrian Connections
- Seawall
- Entertainment District
- Pacific Boulevard Great Street
- Plaza of Nations Site



PLACE MAKING PRINCIPLES



PUBLIC REALM/CONNECTIVITY

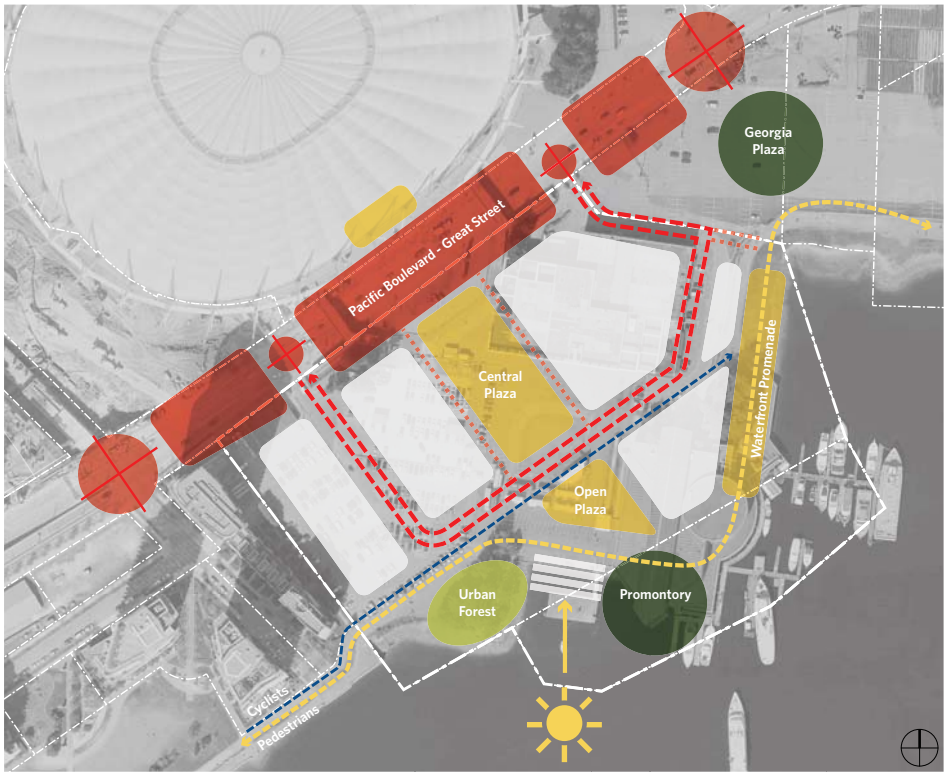


A series of varied experiences provide vibrancy and diversity to the waterfront edge. By meandering through the site along the seawall from Coopers Park to the new Georgia Plaza, one will pass by a quiet natural urban forest, a sunny public plaza filled lined with active restaurants and patios and a series of retail shops and cafes ('Waterfront Promenade').

Primary Seawall Bicycle Circulation

Primary Pedestrian Circulation

SUMMARY



Plaza of Nations is structured to become a vibrant arts and entertainment district, adding character to Pacific Boulevard, while emphasizing BC Place and creating varied experiences at the water's edge.

Primary Vehicular Circulation

03

Public Places and Spaces

OPEN SPACE PLAN - CONTEXT

OPEN SPACE FRAMEWORK

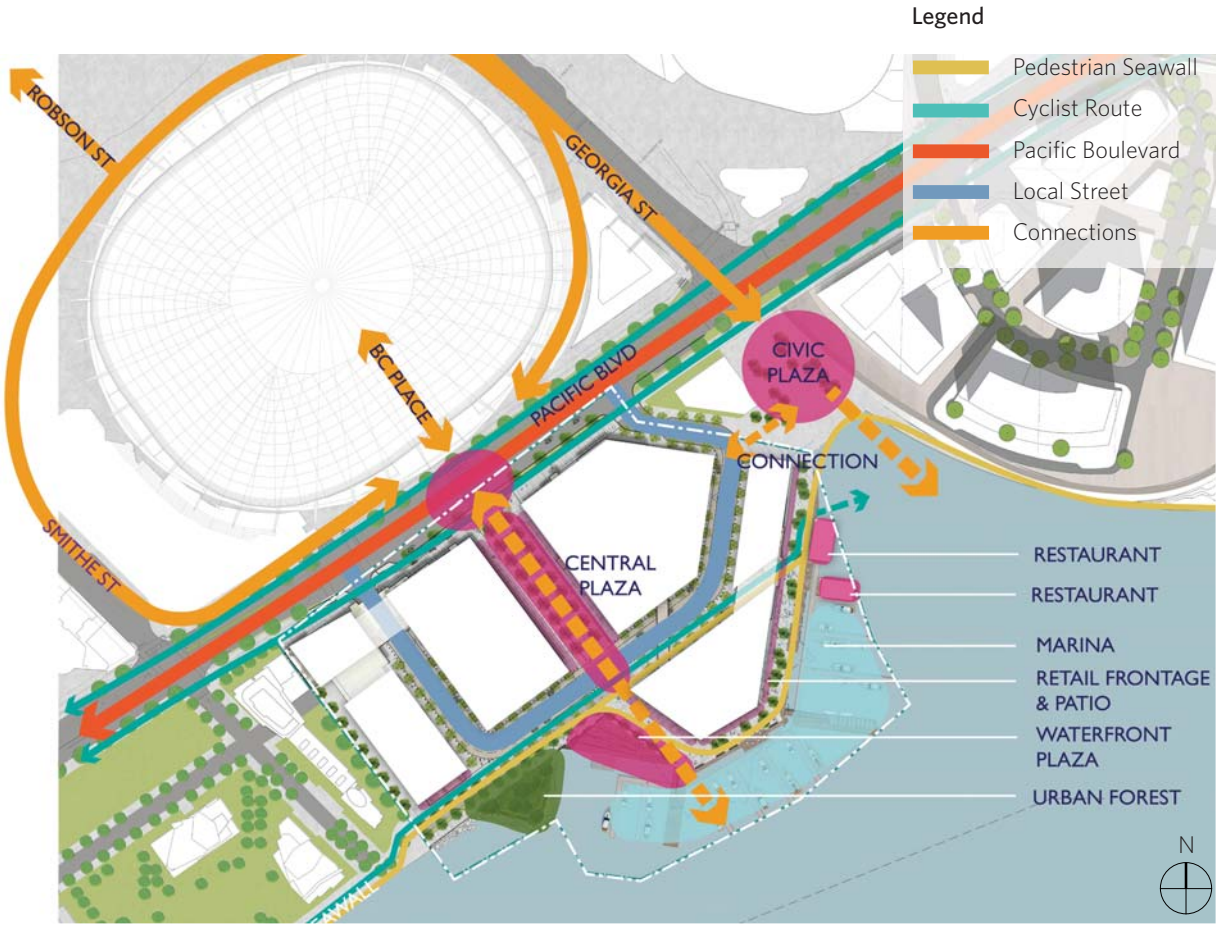
The Plaza of Nations site is within the Northeast False Creek Plan Area. The open space and streetscapes in the Plaza of Nations respond to NEFC planning and design objectives to deliver an open space framework that integrates with and complements its urban context.

Pacific Boulevard and Georgia Street are being restructured. Georgia Street will terminate at the False Creek waterfront in a major civic plaza adjacent to the Plaza of Nations site. This plaza will be the focus of event programming and a key place for the public to enjoy the waterfront. It will be used and programmed at times in relation to the new community centre located on the Plaza of Nations site. Clear and direct physical and visual connections between the civic plaza and the community centre are key to the success of these interrelationships.

A new entrance into BC Place from Pacific Boulevard combined with a major crosswalk sets up a direct alignment of the Central Plaza in the Plaza of Nations to the waterfront and the new waterfront plaza. The waterfront plaza is a node on the Seawall which is renewed along the water's edge with a generously scaled pedestrian realm, edges with dining and retail, and accommodation for cyclists west of the waterfront plaza.

A new street loops through the site to provide local access with design elements that encourage priority for pedestrians and cyclists over vehicles.

The public art plan identifies opportunities for public art within the open space framework.



PUBLIC REALM

The elements of the public realm are comprised of an interconnected series of plazas, streets and improvements to the Seawall and the Legacy Forest. The following sections outline the key concepts and design features to guide the evolution of detailed public realm plans through the development permit process.

The plans, sketches, and other information regarding the public realm are conceptual in nature, and will be refined through a more detailed design process. Street sections and materials are subject to review at detailed design.

Pedestrian and cyclist comfort, safety and enjoyment are fundamental to the plan, and integral and intentional design elements in support of this will continue to be an important part of more detailed design work to come.

Waterfront
The continuous Seawall connects Georgia Plaza to Coopers Park along the waterfront. Near its midpoint it widens into a new waterfront plaza with space for events and wide south-facing steps down to the water for sitting and sunning. The building edges along the Seawall and plaza are intended to offer weather protection, dining, retail and other publicly accessible uses that will animate the public space. The water lot will include a marina, restaurants on floats or piles, and a dock for the False Creek ferry services.

Legacy Forest
The stand of forest that remains as a legacy of Expo 86 and its surrounding waterfront edges will be renewed for improved ecological function and tree health.

Central Plaza
The Central Plaza provides an important connection between the waterfront and BC Place scaled to use on event days and designed to accommodate programming to support special events taking place in the precinct. Weather protection, seating, rows of trees and active retail edges will make it a comfortable place to move through or stay in.

Community Centre and Interface to Georgia Plaza
The public connection between the new community centre on site and Georgia Plaza to the east is designed for ease of use and ease of wayfinding to support shared programming and connectivity.

Pacific Boulevard
Pacific Boulevard has been redesigned as a Great Street by the City as part of planning to take down the Viaducts and make the streetscape more engaged and animated for special events and stadium access. Plaza of Nations will provide a wide sidewalk, weather protection and retail uses as part of the renewed streetscape.

Local Street
The local street will provide access into the site from Pacific Boulevard and be designed as a pedestrian-oriented and traffic-calmed route with special paving, wide crosswalks, street trees and active retail edges.

Western Residential Edge
The west edge of the Plaza of Nations site is lined by residential uses adjacent to an existing residential development. The ground level uses will be designed as townhouses and/or live-work units with a public realm interface with a residential character and uses.

Public Rooftop Gardens
The Plaza of Nations site contains several public gardens on the rooftops of the Community Centre and the adjacent building with waterfront retail at grade. These public rooftop gardens are accessible from the public realm by stairs and elevators. An elevated walkway provides access between the rooftop gardens over the local streetscape.

Legend

1 Waterfront

2 Legacy Forest

3 Central Plaza

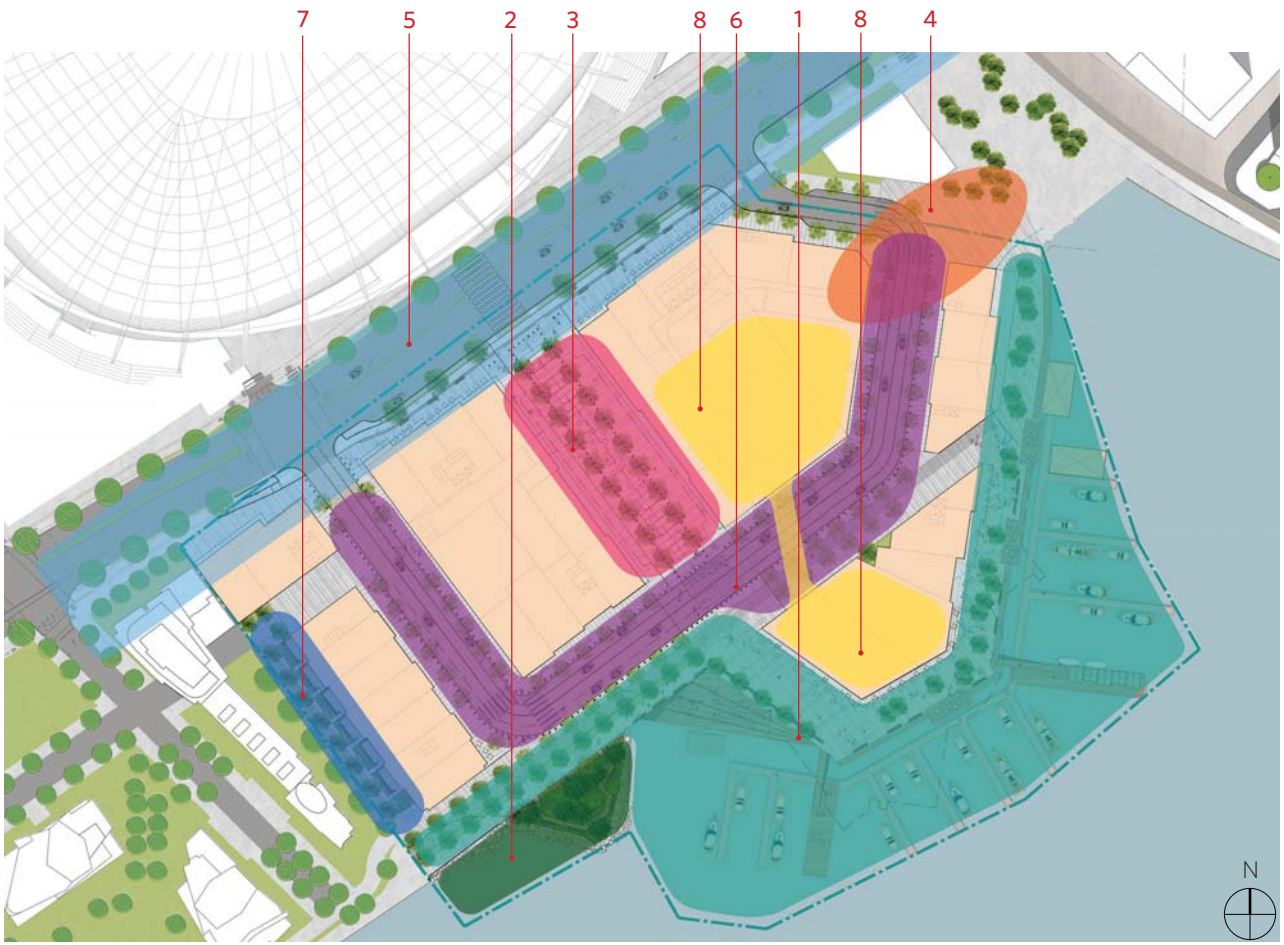
4 Community Centre and Interface to Georgia Plaza

5 Pacific Boulevard

6 Local Street

7 Western Residential Edge

8 Public Rooftop Gardens



WATERFRONT ZONE

The Waterfront Zone extends from Georgia Plaza westward to the Legacy Forest and includes the water-based uses within the water lot. The west end terminates the Central Plaza in the Waterfront Plaza with terraced access down to the water of False Creek.

Seawall Promenade

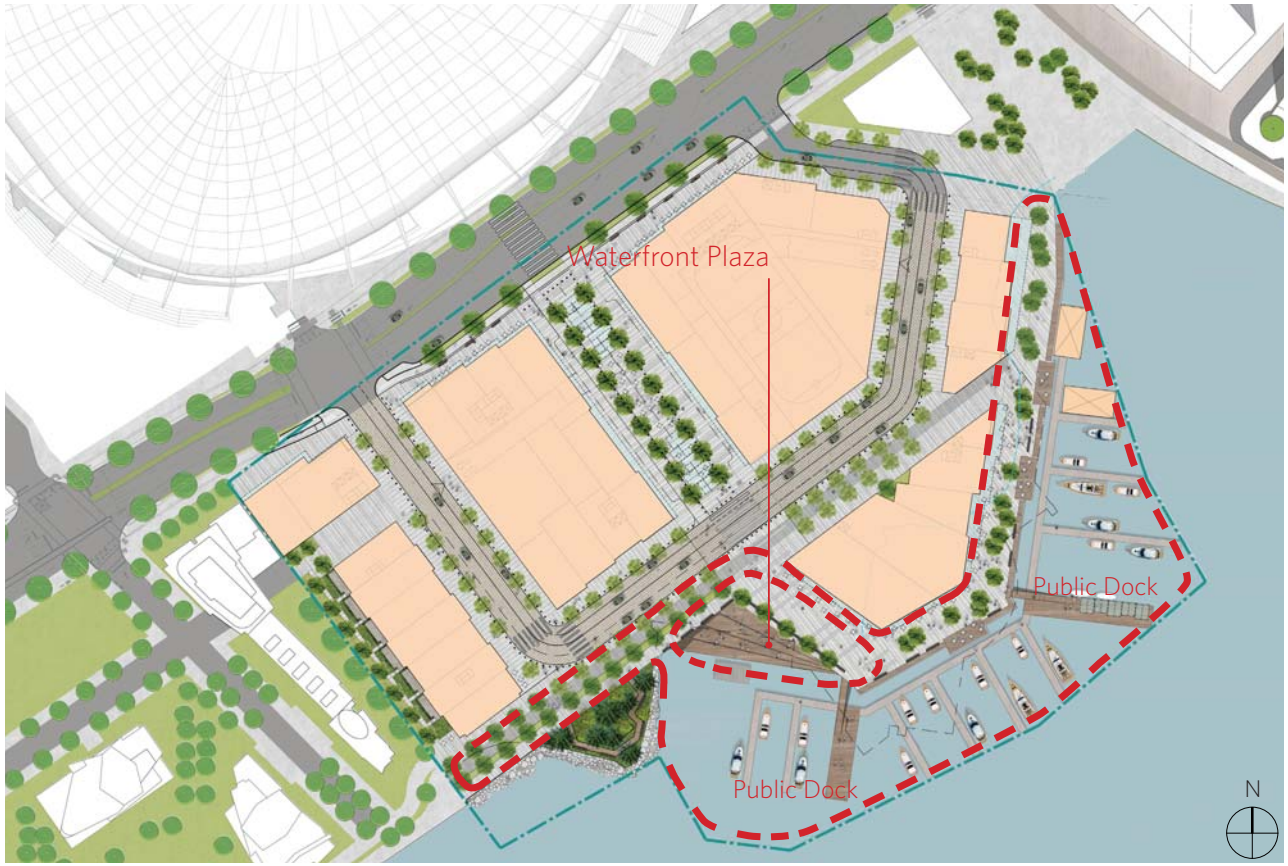
The Seawall between Georgia Plaza and the new waterfront plaza will be a generously scaled pedestrian zone offering a variety of seating choices on benches and moveable tables and chairs and trees for shade and visual interest. West of the waterfront plaza, the Seawall will accommodate both pedestrians and cyclists and be built to the City of Vancouver's Seawall design standards. The ground floor uses of the adjacent buildings are intended to be restaurants, cafes and retail stores with outdoor eating and views into their interiors to animate the pedestrian experience.

Design features include:

- Paved central pedestrian promenade
- Dining terraces on piled decks over the water
- Weather protection and outdoor eating opportunities along the building edges
- Seawall will be built to the exceed the predictions for sea level rise in 2100 and be adaptable beyond the next century

Water Uses

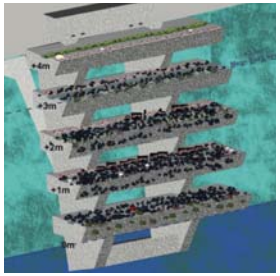
The water lot will be used for a marina accessed by floating docks. Public docks for the electric ferry services will offer access to the water. Two public restaurants are proposed on piles or floats outboard of the seawall promenade as another way for people to enjoy the waterfront.



Key Plan

SEAWALL PROMENADE AND WATER USES

Riparian/aquatic habitat

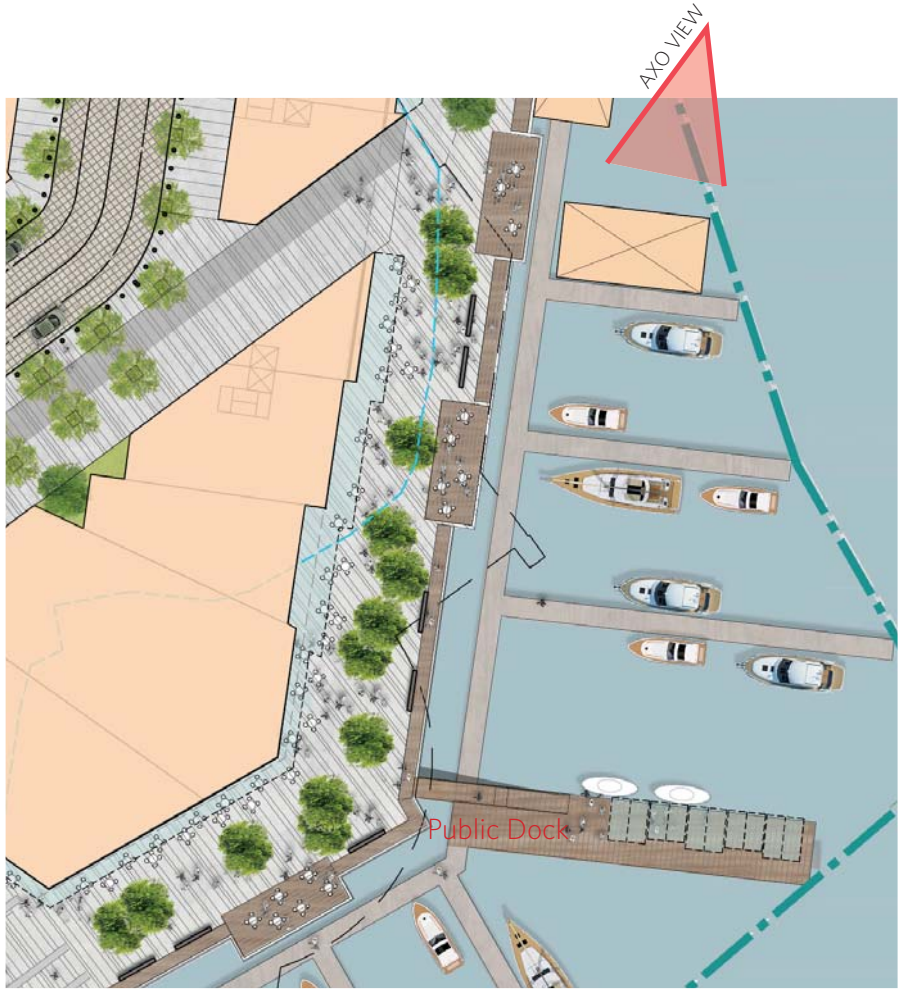


Eco-benches

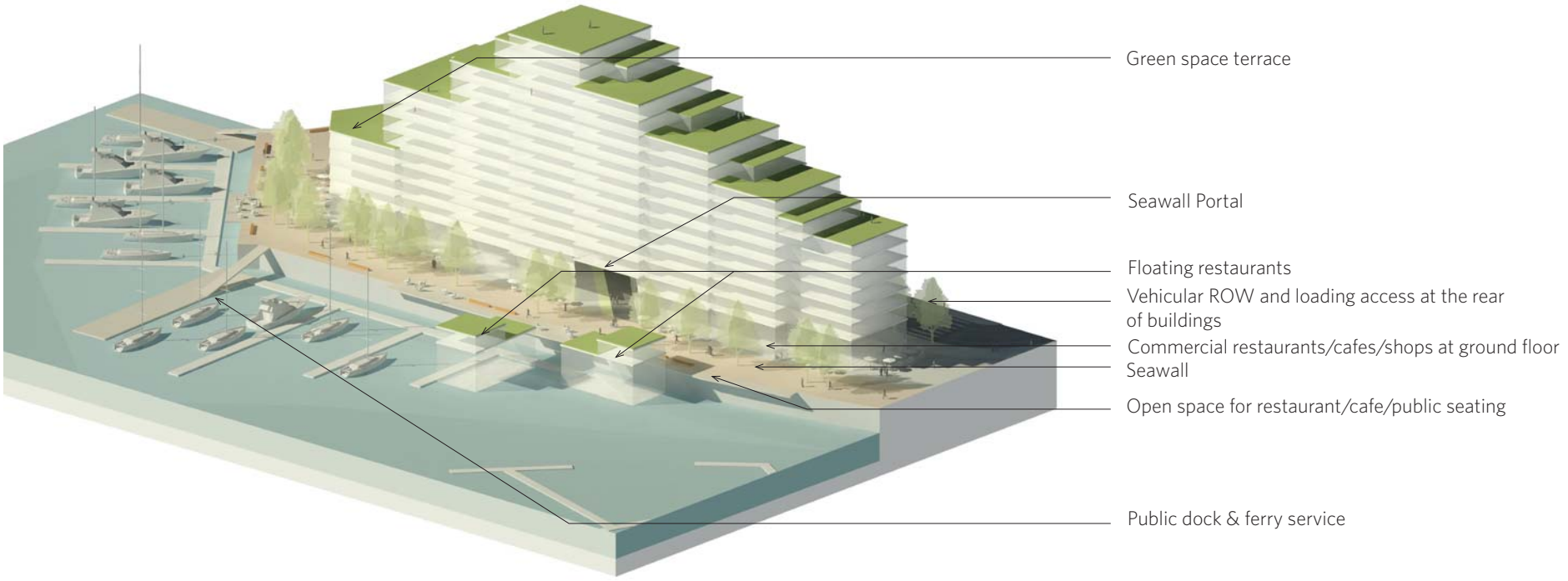
Pedestrian Edge / Retail Edge

Seating Steps

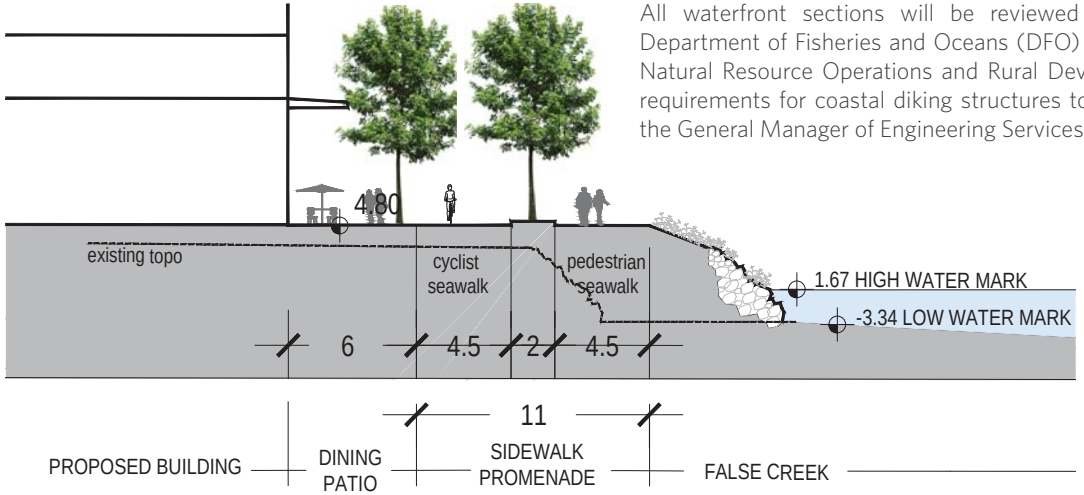
Restaurant on the water



Seawall Axonometric

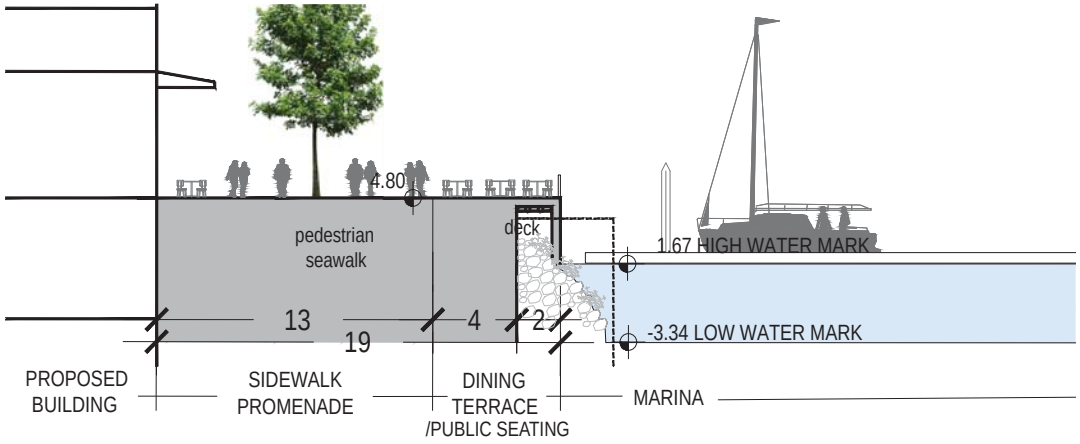


A - Seawall Proposed Riprap Zone

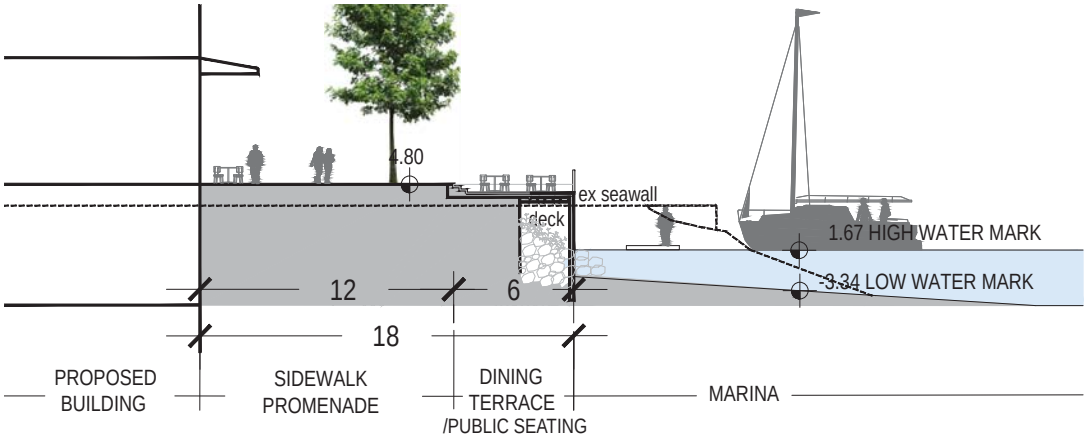


All waterfront sections will be reviewed and comply with Department of Fisheries and Oceans (DFO) and Forests, Lands, Natural Resource Operations and Rural Development (FLNRO) requirements for coastal diking structures to the satisfaction of the General Manager of Engineering Services.

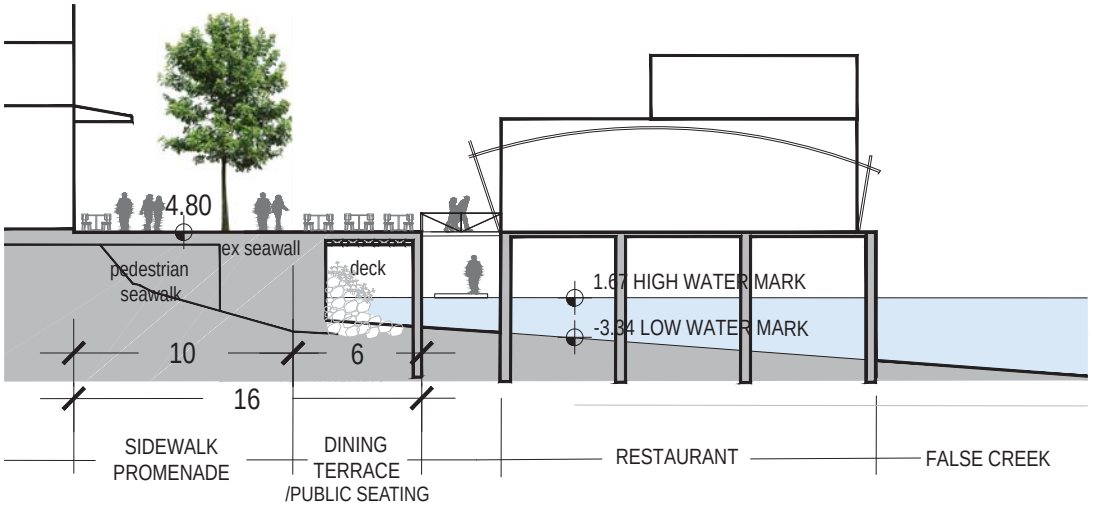
B- Proposed Seawall



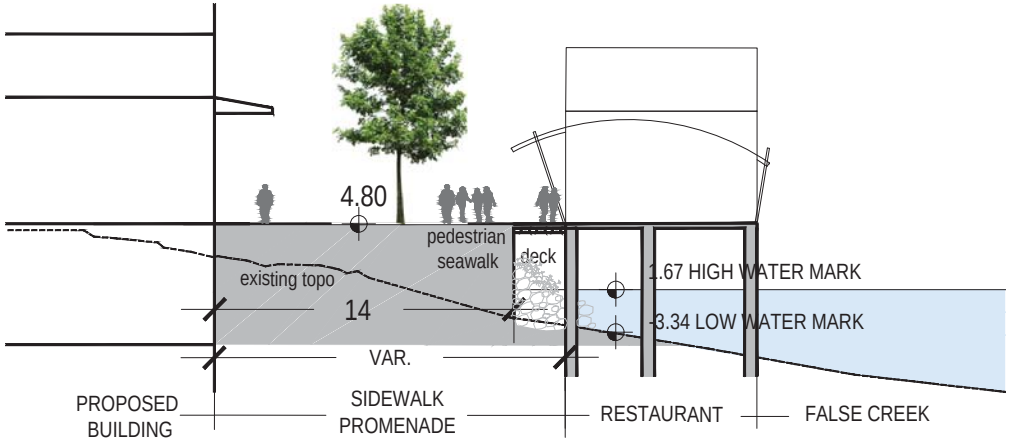
C- Proposed Marina



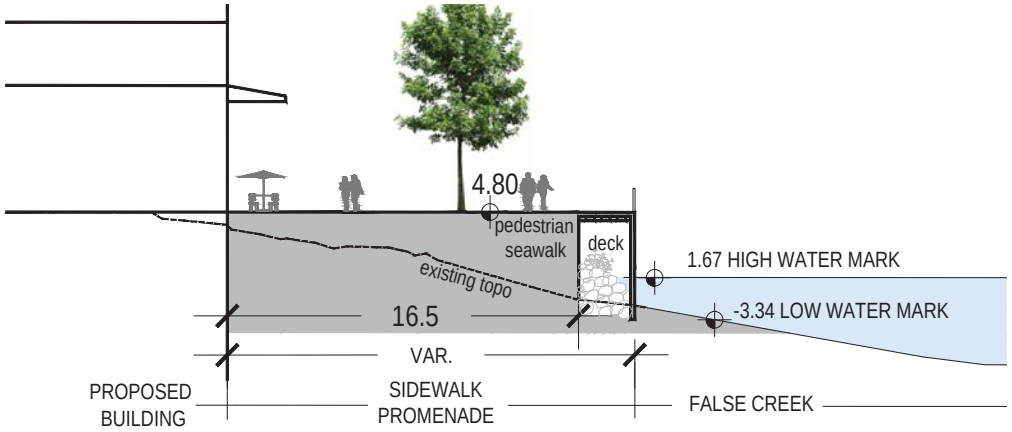
D - Proposed Deck



E - Proposed Structure



F- Proposed Structure

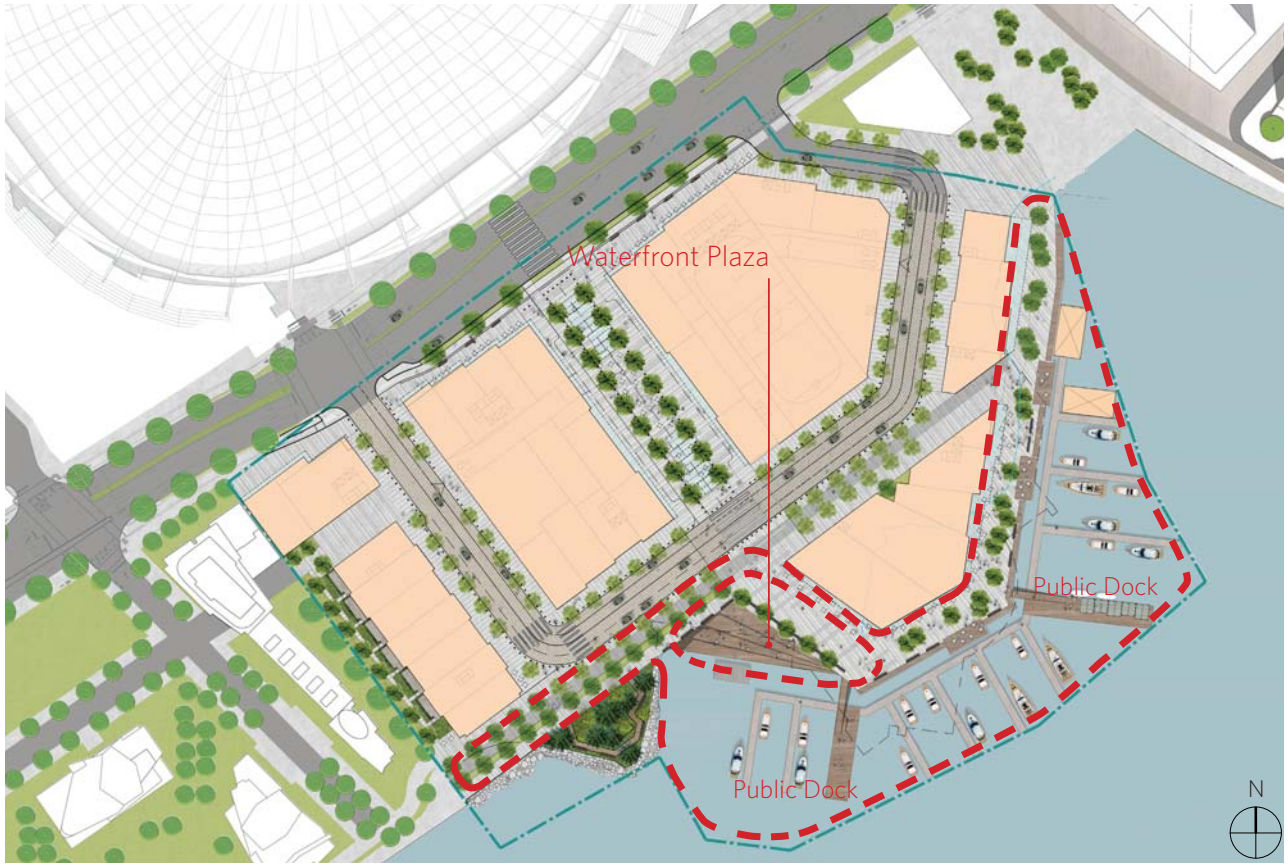


WATERFRONT PLAZA

A waterfront plaza shares a design language and materials with the Central Plaza connecting through the development to Pacific Boulevard. The plaza is intended to be a gathering space and is provided with infrastructure to facilitate set up for community and special events. Terraced wood decks offer ample south-facing, sunny seating for groups and individuals at the water's edge.

Design features include:

- Plaza for daily use and special event programming
- Access to a public pier as a point of prospect over the water
- Opportunities for integration of public art and night lighting
- Weather protection and outdoor dining opportunities along the building edges
- Stair and elevator access to the adjacent upper public terrace.



Key Plan

WATERFRONT PLAZA

Pedestrian Walkway

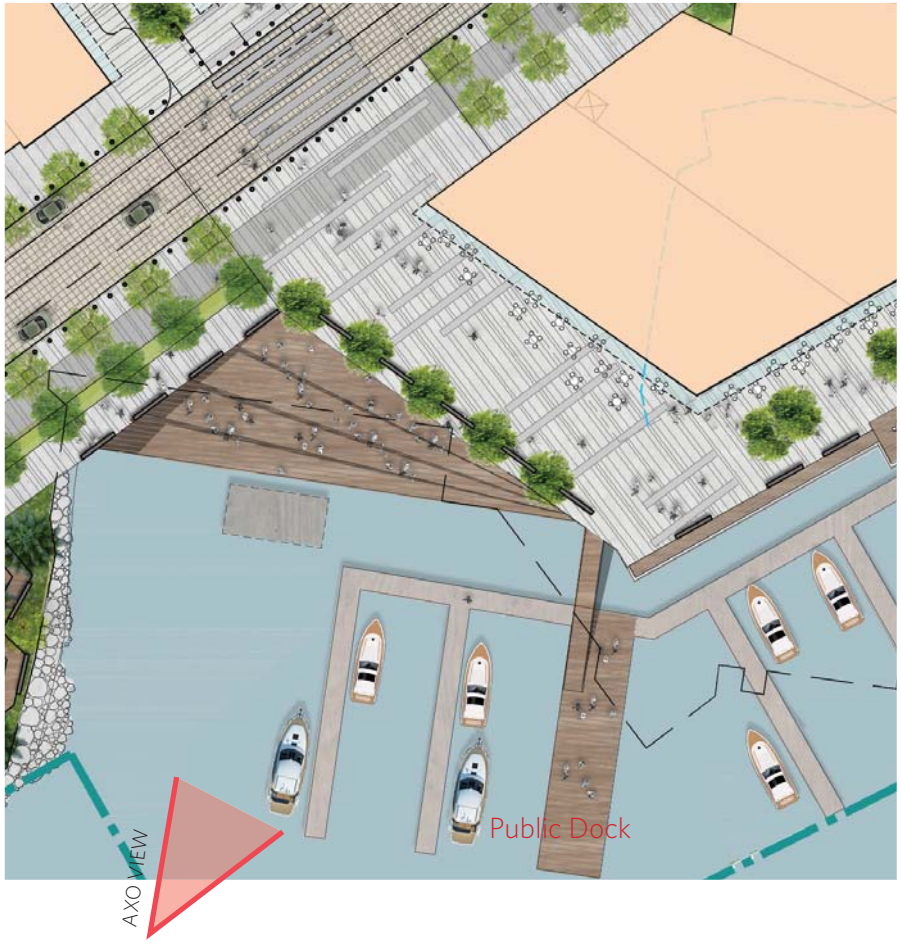
Seating Edge

Outdoor Dining

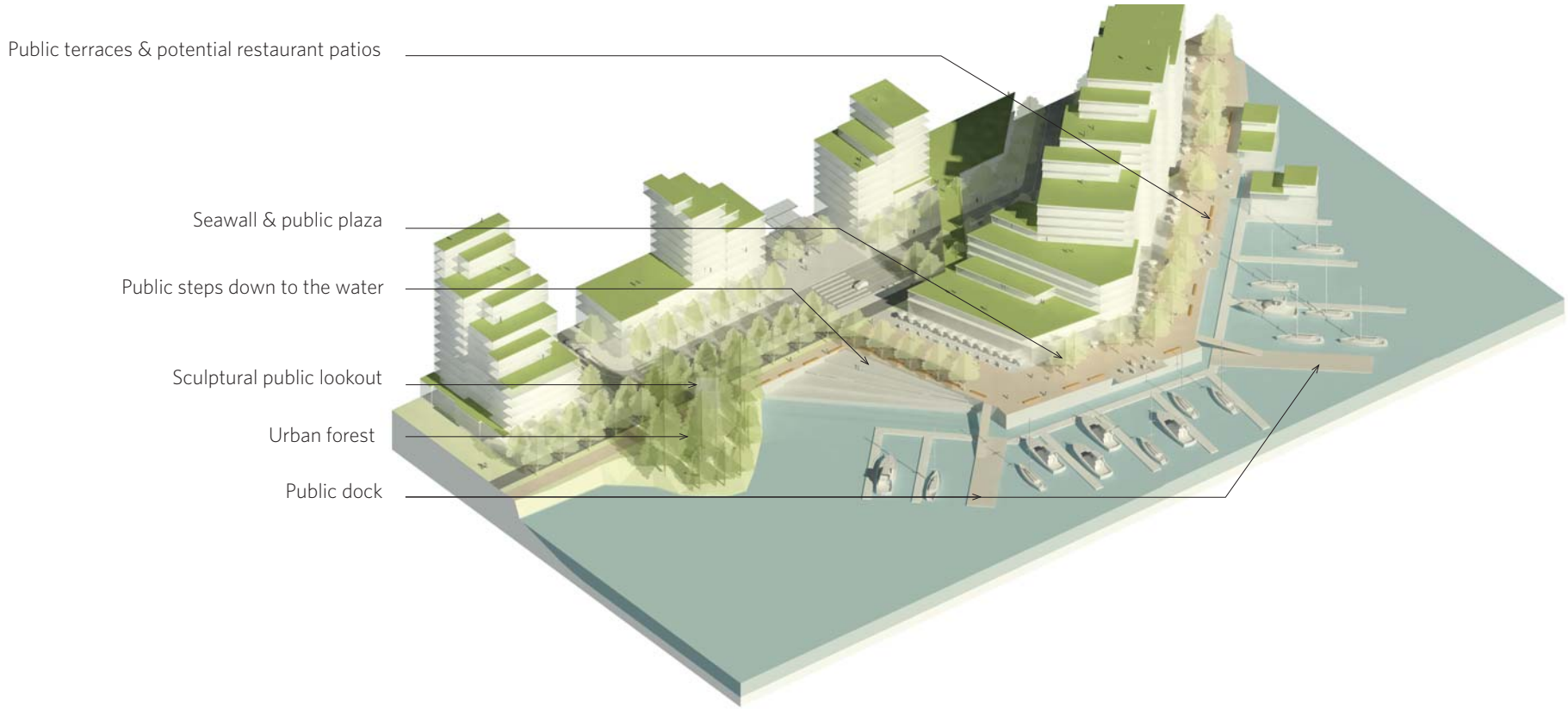
Public Art/ Iconic Structures

Animation of the Edge

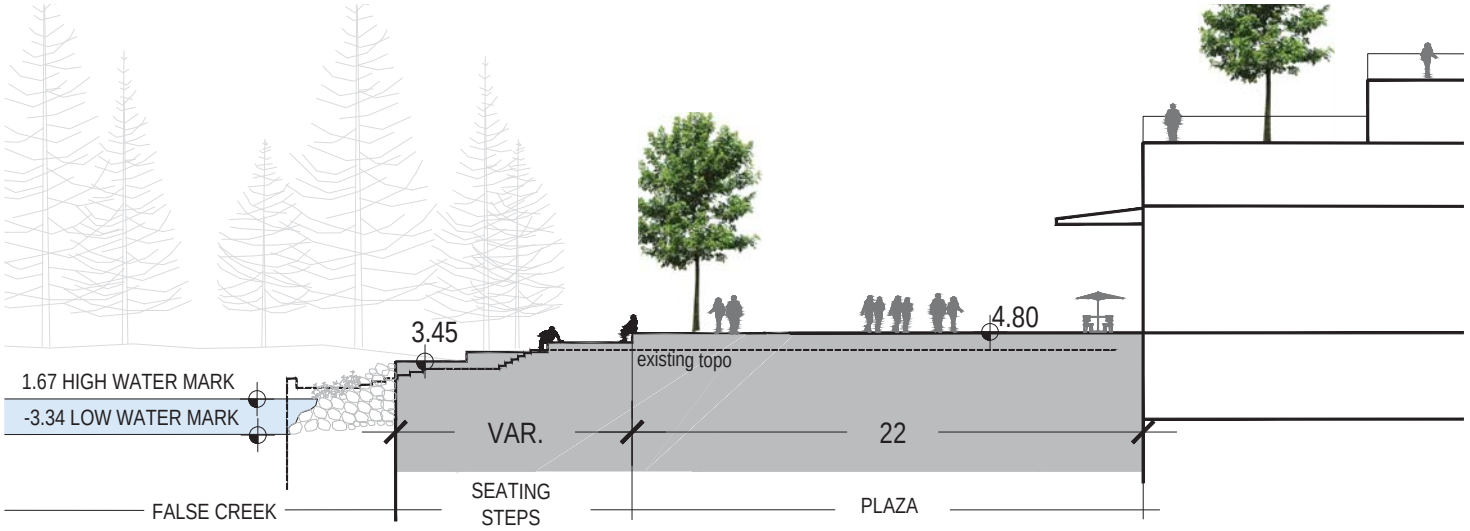
Lighting/ Way Finding



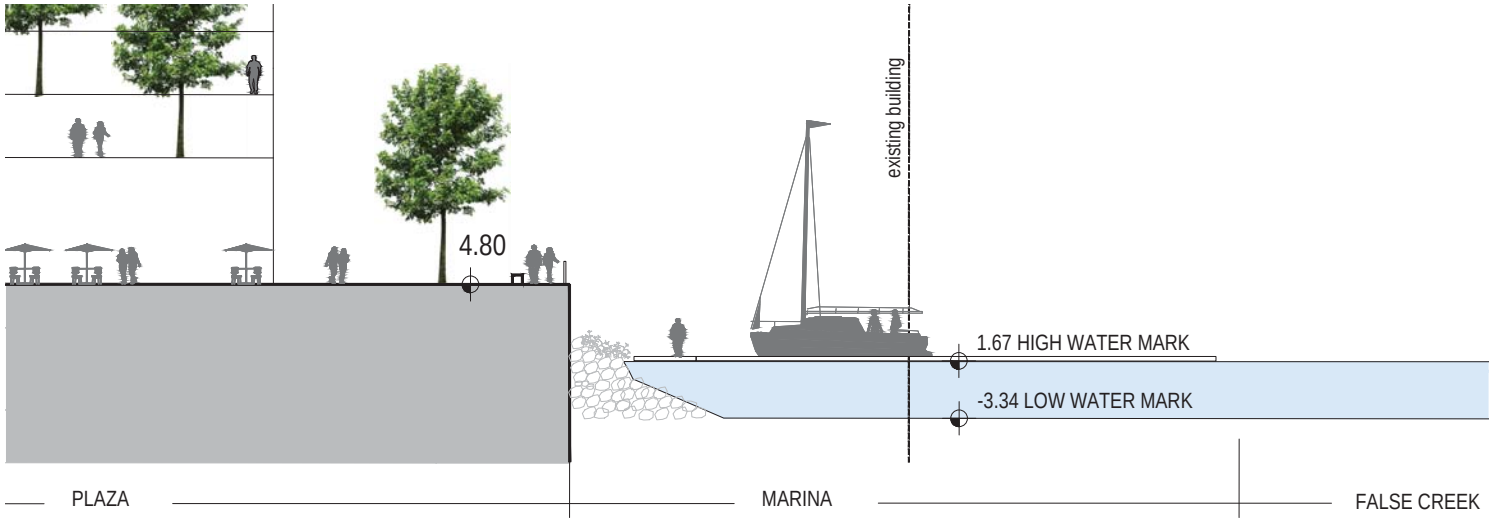
Waterfront Plaza Axonometric



A - Proposed Waterfront Plaza



B - Proposed Pier



LEGACY FOREST / ECOLOGICAL ENHANCEMENT

The legacy forest is a remnant of Expo 86 planted as an expression of the Pacific Northwest landscape and intended to be temporary. The trees and understory plants were planted in shallow soil pockets and have become more stressed as they have matured inadequate growing conditions. The intent is to retain all viable trees and landscape plants and replicate a Northwest forest on this site with improved conditions for long-term tree health and ecological function. The foreshore will continue to be protected with plants and rocky intertidal zone.

Design features include:

- A meandering, low-impact pedestrian pathway
- Quiet spots with benches for sitting and enjoying nature
- Woodland and forest ecological enhancement.

Key Plan

LEGACY FOREST / ECOLOGICAL ENHANCEMENT

Existing Legacy Forest / Foreshore

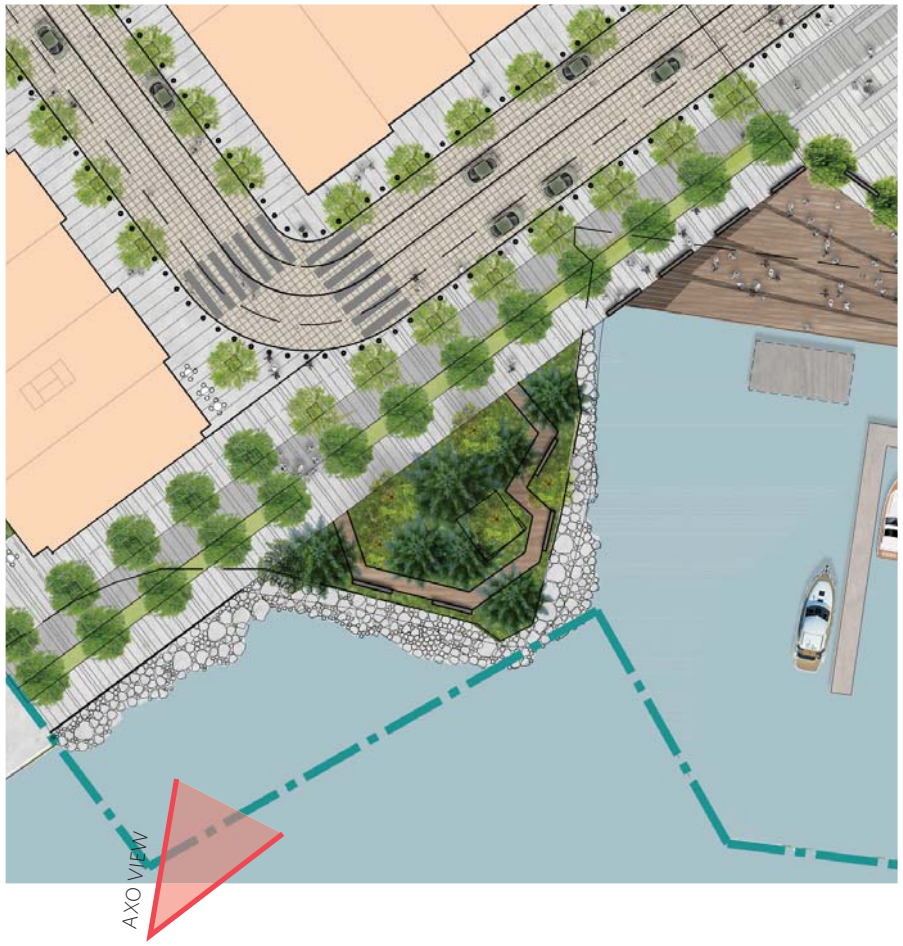
Existing Legacy Forest / Foreshore

Existing Legacy Forest / Foreshore

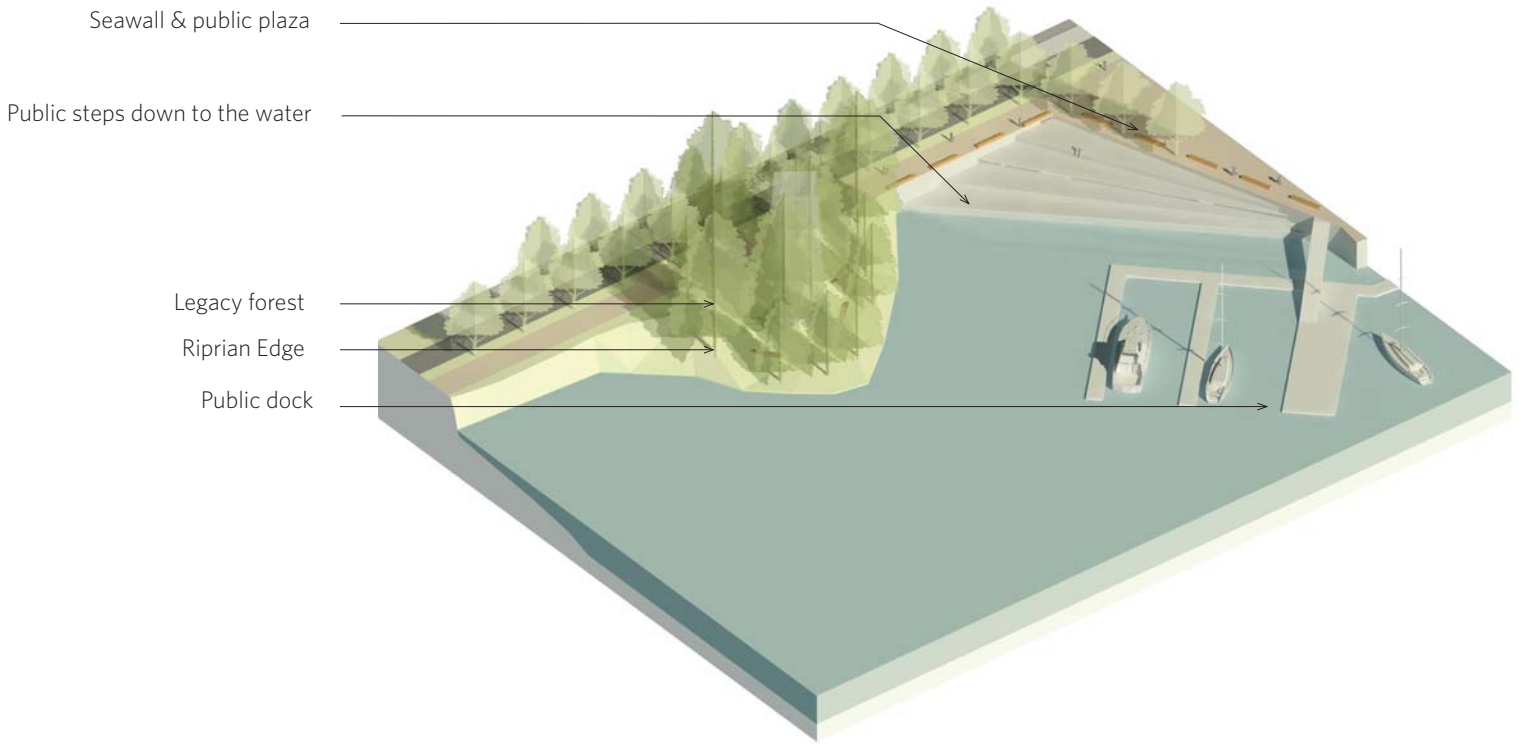
Riparian Edges

Rocky Intertidal Zone

Woodland Path

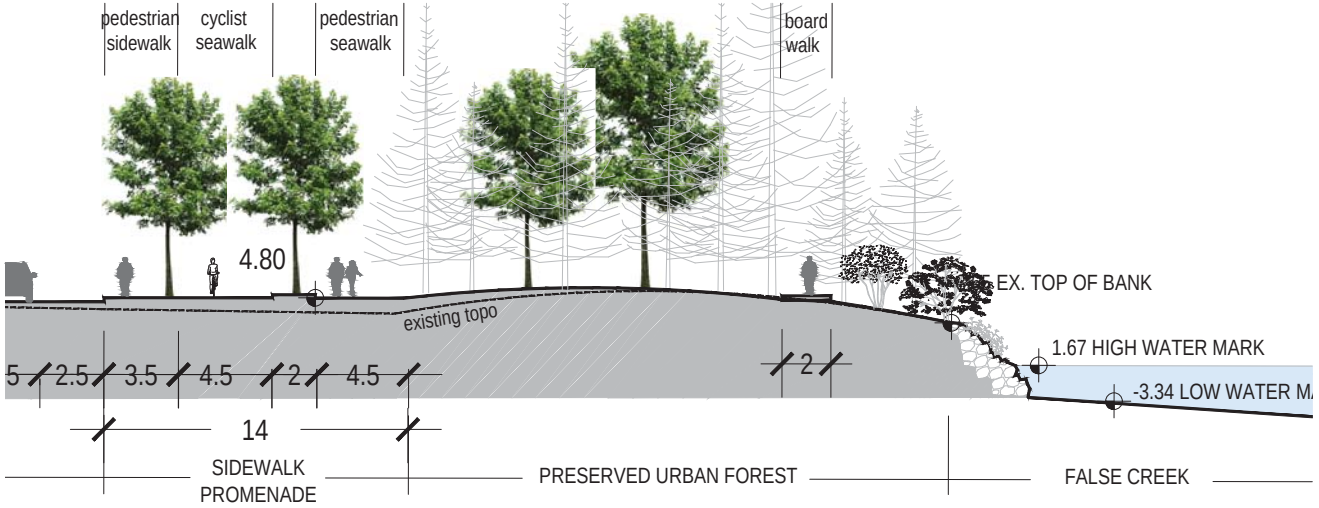


Legacy Forest Axonometric



Legacy Forest / Ecological Enhancement

Proposed Legacy Forest Zone



CENTRAL PLAZA

The Central Plaza connects to a new entrance to BC Place on Pacific Boulevard and an associated pedestrian crossing at its north end and with the proposed waterfront plaza to the south. It is aligned to frame views of the BC Place Stadium structure from False Creek and the Seawall.

Design features include:

- Two rows of regularly spaced significant trees to create a formal allee that marks the central pedestrian-only space.
- Moveable tables and chairs within the central allee
- Retail uses at grade to add interest and animation along the edges
- Partial overhead and potentially retractable canopy for weather protection in sections of the central allee
- Infrastructure to support temporary events with a focus on linear, temporary market stalls and food trucks during major precinct-wide events such as the Sun Run.

Key Plan

CENTRAL PLAZA

Special Paving

Canopy

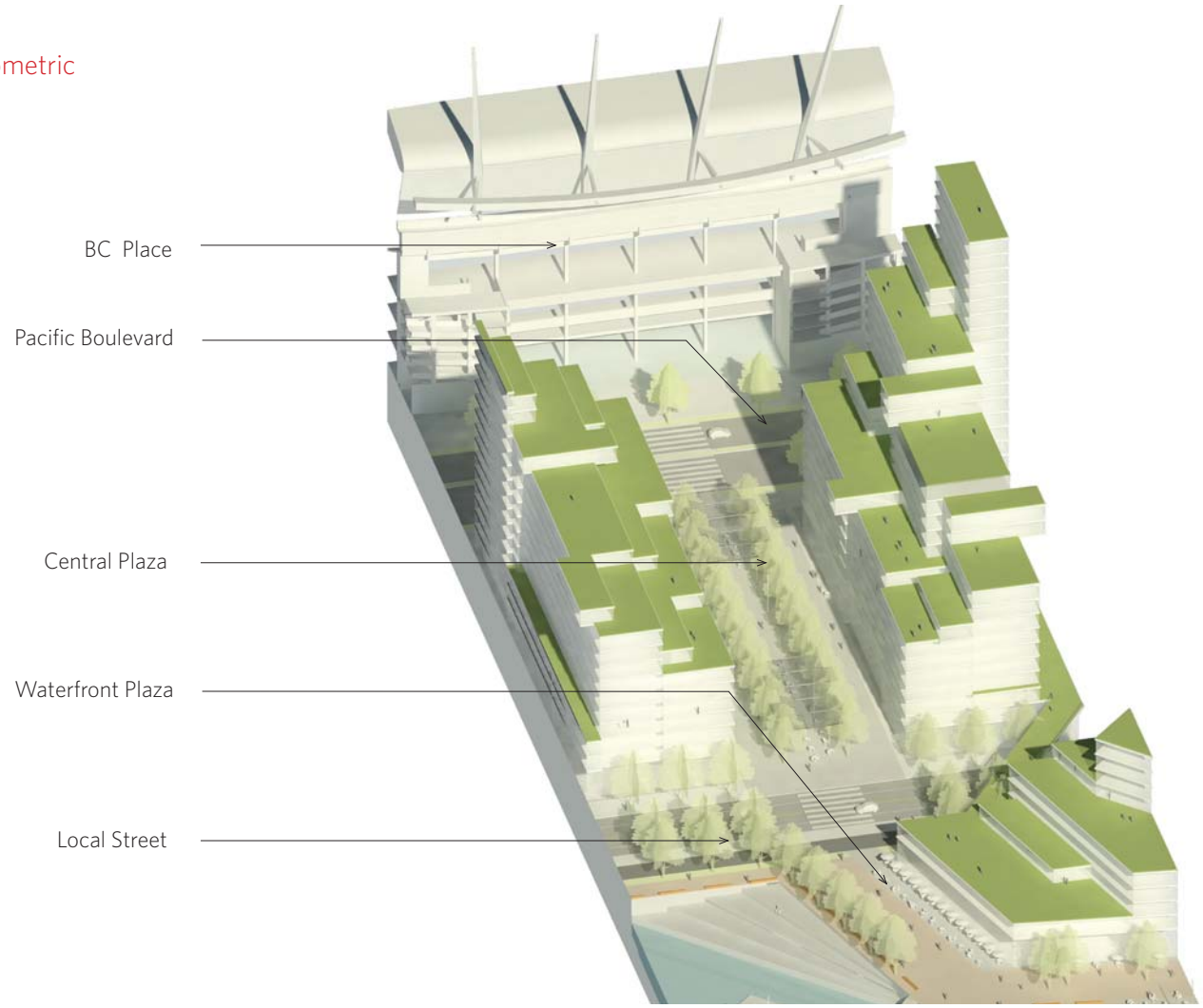
Retail Frontage / Weather Protection

Outdoor Market

Playful Water Feature

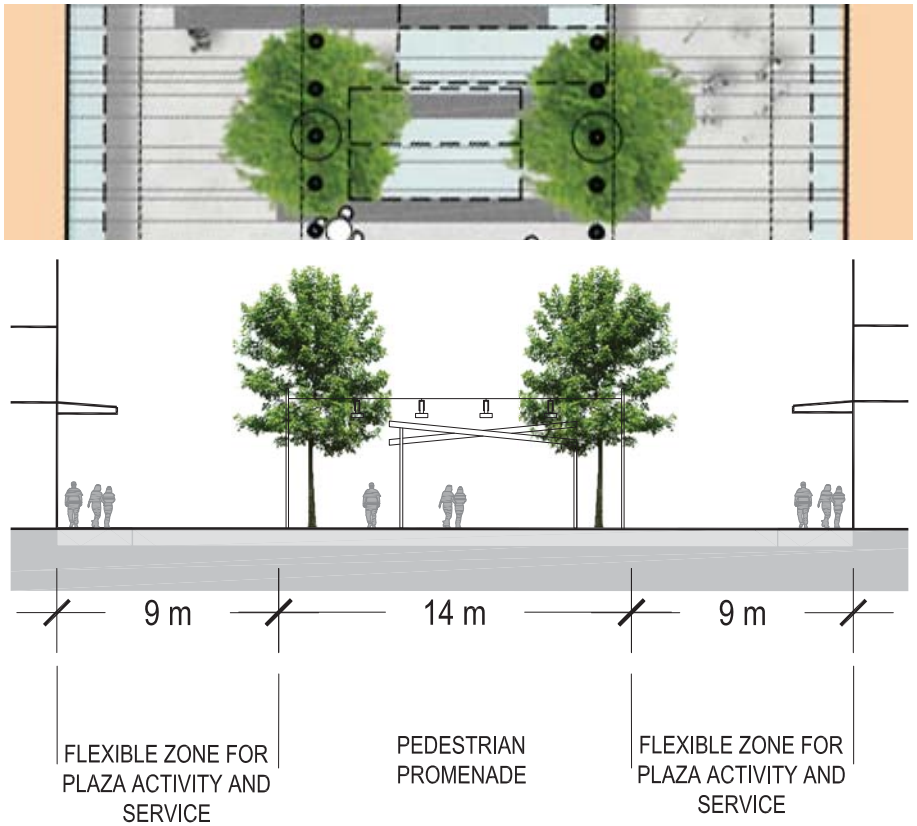
Outdoor Performance

Central Plaza Axonometric



Las Ramblas, Barcelona - Pedestrian Street Precedent

Proposed Central Plaza Section



COMMUNITY CENTRE AND INTERFACE TO GEORGIA PLAZA

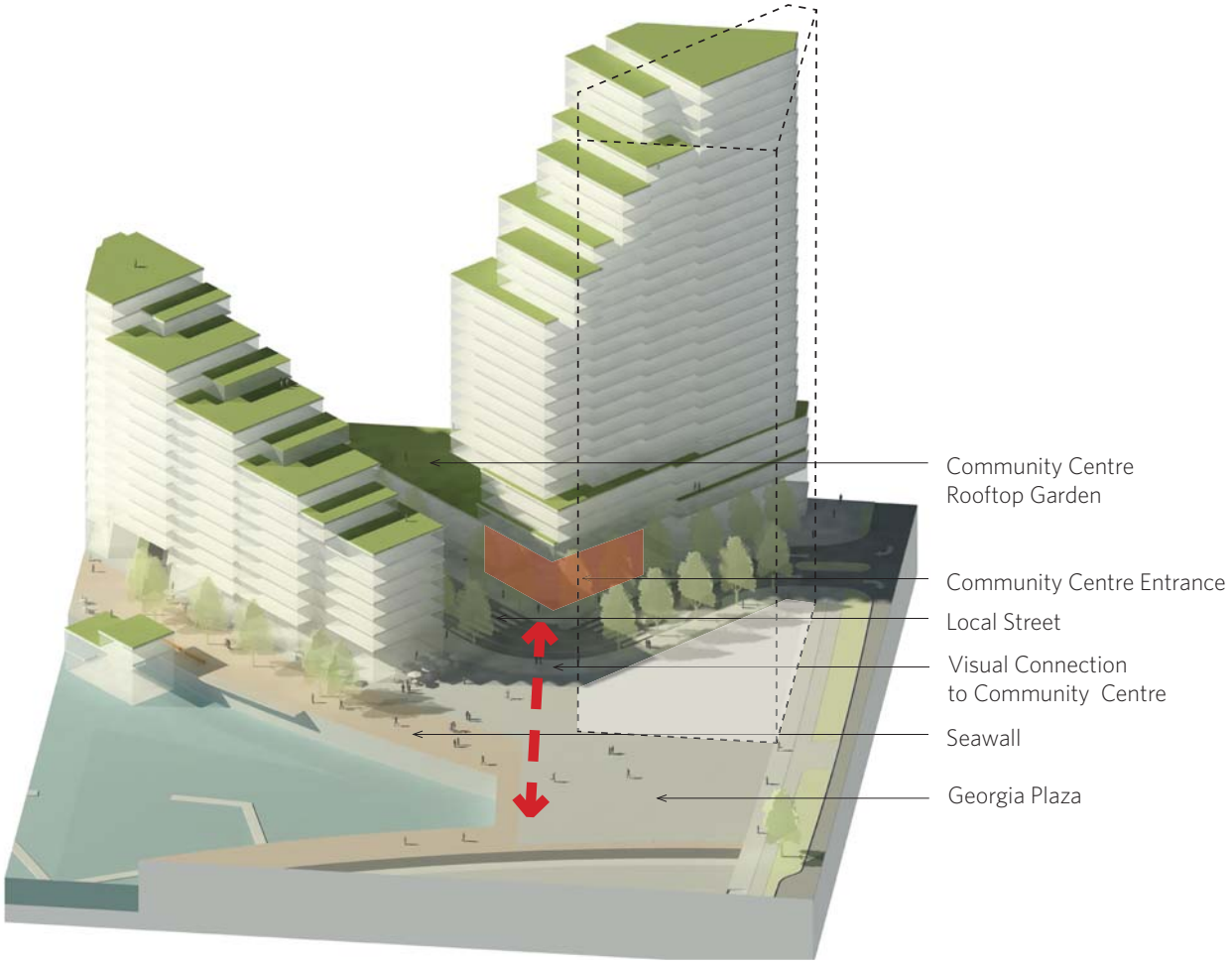
Georgia Plaza is a major public space on the adjacent site to the east. This plaza is intended to be the primary public space for large events and gatherings. The spaces within the Plaza of Nations sites will be complimentary to Georgia Plaza in the types of event infrastructure and open space programming offered to the community. The new community Centre on the Plaza of Nations site will have direct physical and visual connections from its main entrance to Georgia Plaza to facilitate movements during events and on a daily basis.

Design features include:

- Ground floor uses that animate and add interest to the pedestrian connection
- Special paving across the local street related in materials and design to adjacent pedestrian areas
- Clearly demarcated pedestrian and vehicular service areas and adequate wayfinding and night lighting.

Key Plan

Community Centre and Interface to Georgia Plaza Axonometric



Waterfront Animation

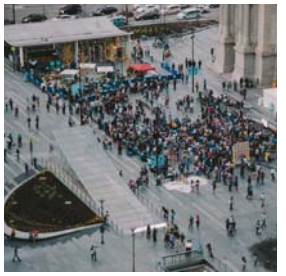
Special Paving

Kayak Access

Event Space

Retail Frontage

Event Space



PACIFIC BOULEVARD

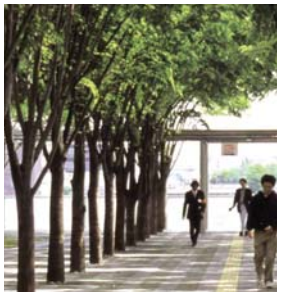
Pacific Boulevard is envisioned as a complete and 'Great Street' with legacy-scale street trees defining safe, comfortable, and generous pedestrian and cycling areas. An amenity strip between the cycle path and the pedestrian path will provide a place for seating, furnishings, and pedestrian scale lighting as well as providing clear separation of modes. Additional building setbacks beyond the pedestrian sidewalk, increasing towards the Central Plaza, will create places for patios, displays, seating areas and other amenities to spill out to the street, contributing to a vibrant public life that as part of the Events and Entertainment District function of the area. Coordination of sidewalk treatments between Pacific Boulevard and the Plaza of Nations site will continue as part of the Development Permit process.

Key Plan

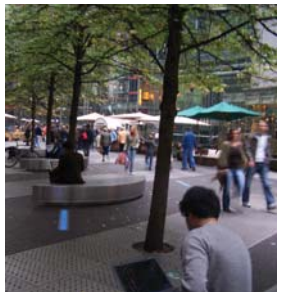
PACIFIC BOULEVARD

Bike Lane / Sidewalk

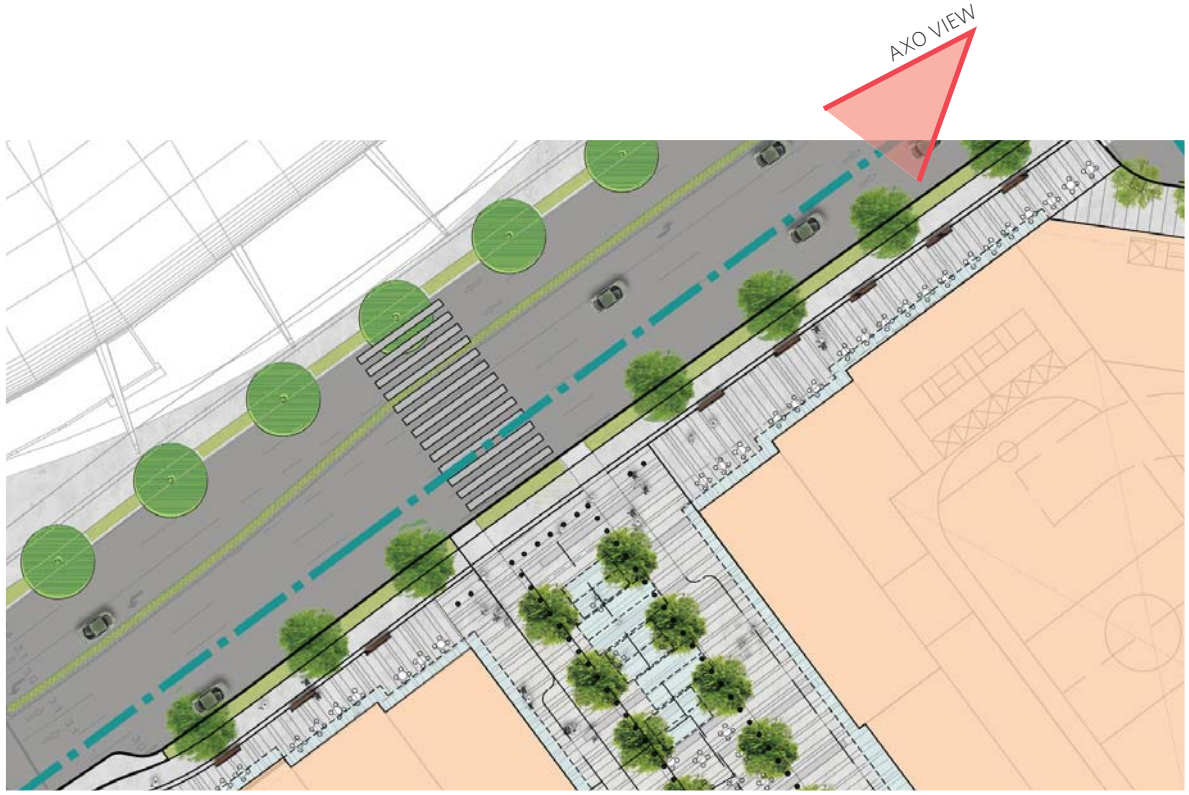
Street Trees



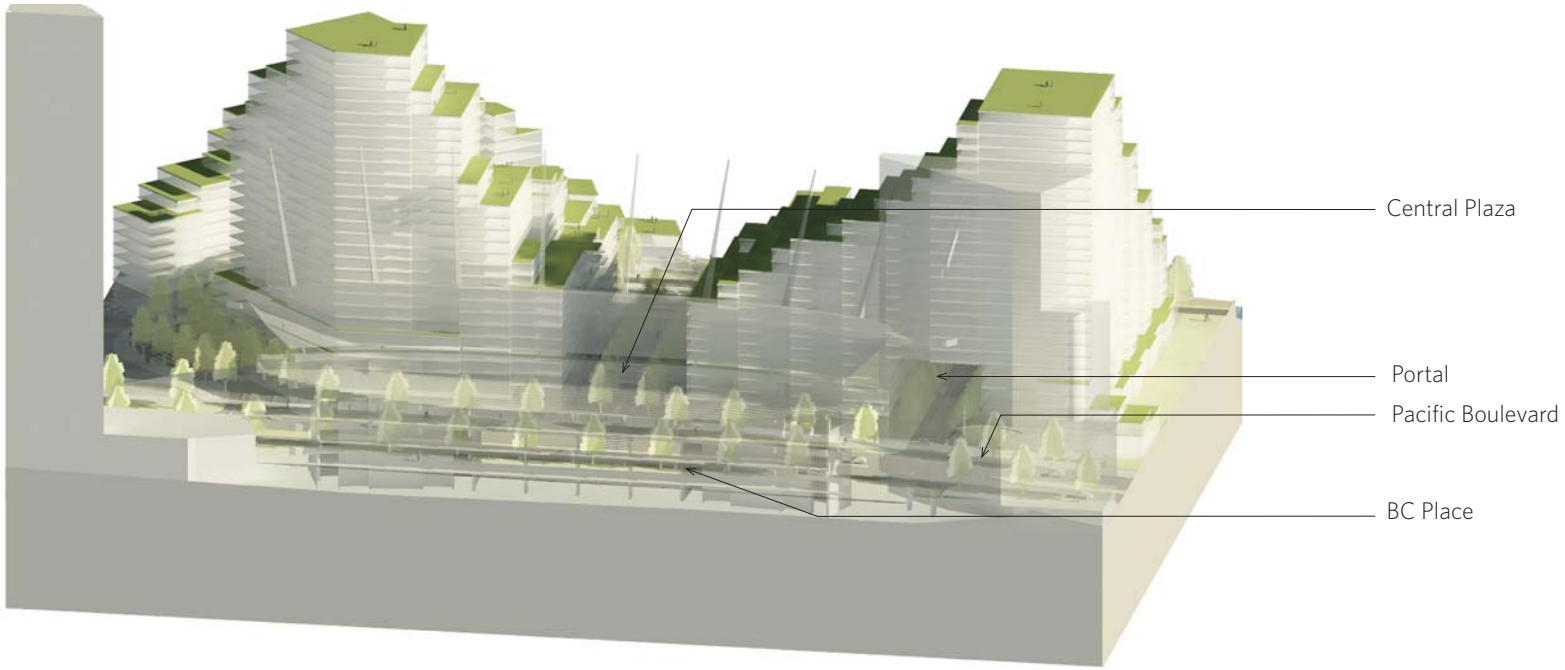
Commercial Street



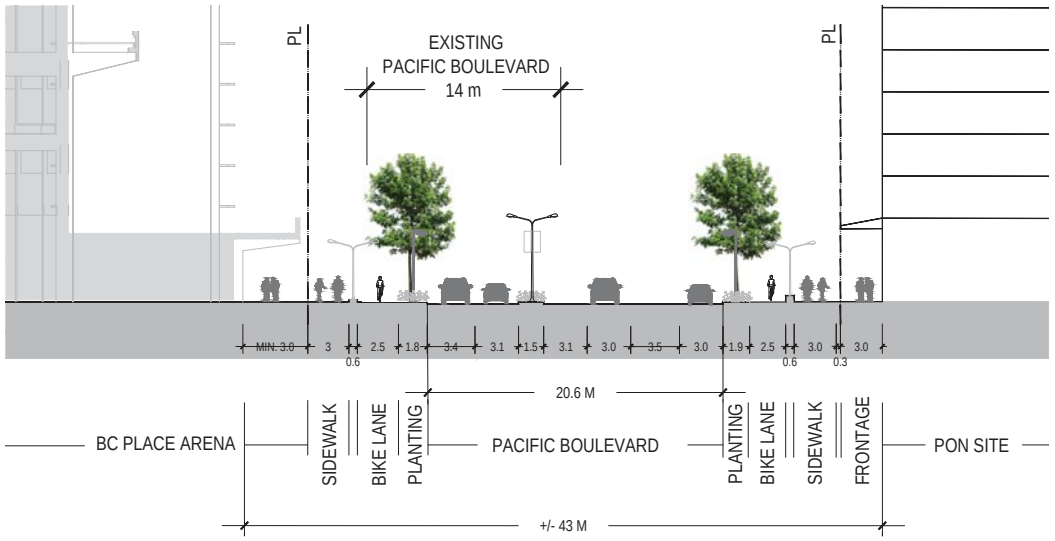
Weather Protection



Pacific Boulevard Axonometric



Pacific Boulevard Section

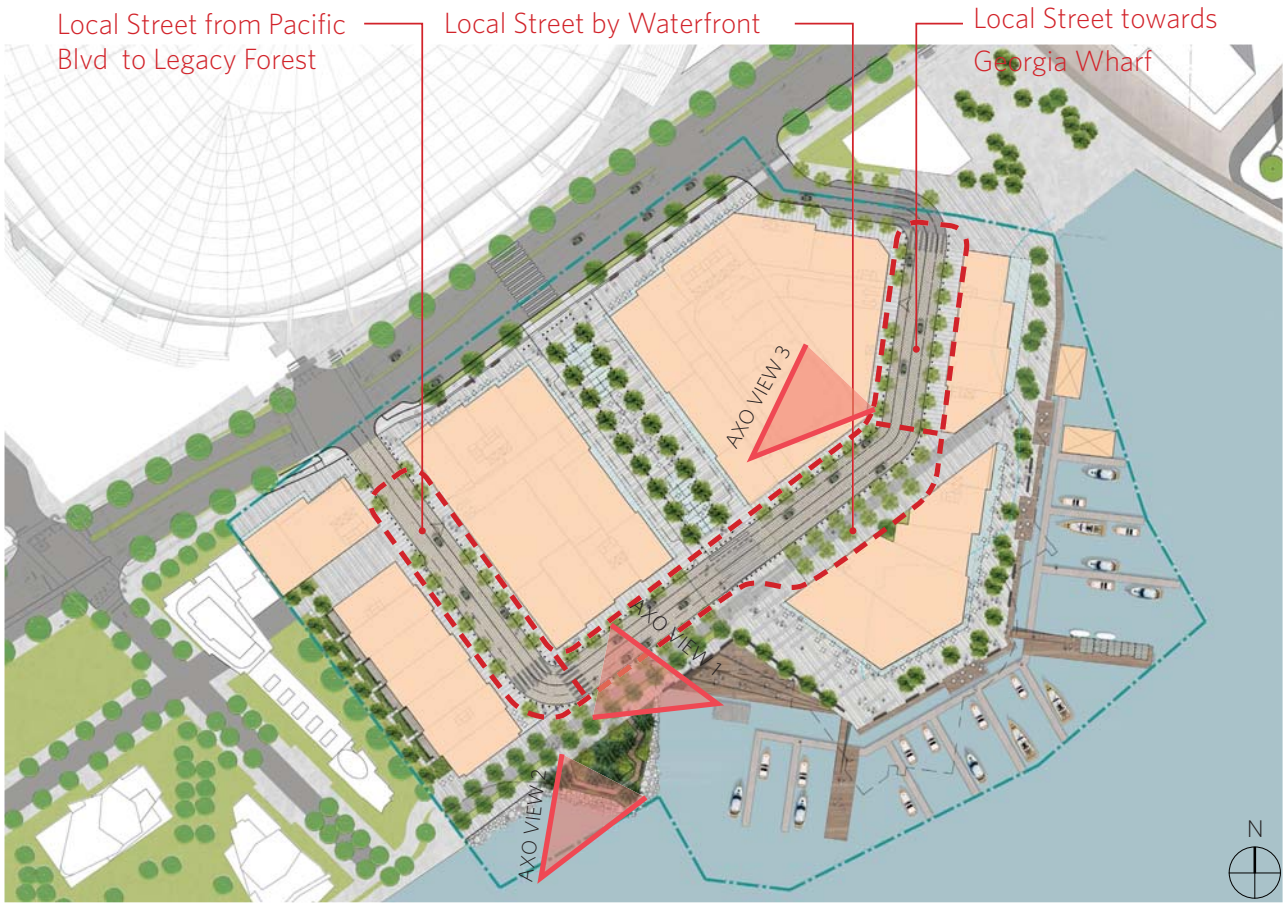


LOCAL STREET

A local street provides access into the Plaza of Nations site in a U-shape from Pacific Boulevard. It is intended to be local-serving and highly traffic-calmed. One travel lane in each direction and parking on both sides is anticipated in the streetscape section. The section of the local streetscape that abuts Georgia Plaza should be coordinated in its design and materials with the plaza.

Design features include:

- Patio zones along the street
- Active frontages that enhance the streetscape
- Ground floor retail frontages with weather protection for pedestrians
- Special paving coordinated with the paving of adjacent plazas to express vehicular use and to mark pedestrian crossings
- Street furnishings and lighting coordinated with the palette of the overall development
- Regularly spaced street trees, including a double row where space is available
- Separated bike routes in locations where the City identifies bike circulation is desired.



Key Plan

Local Street Streetscape

Bike Lane / Sidewalk

Paving on Street / Bollards

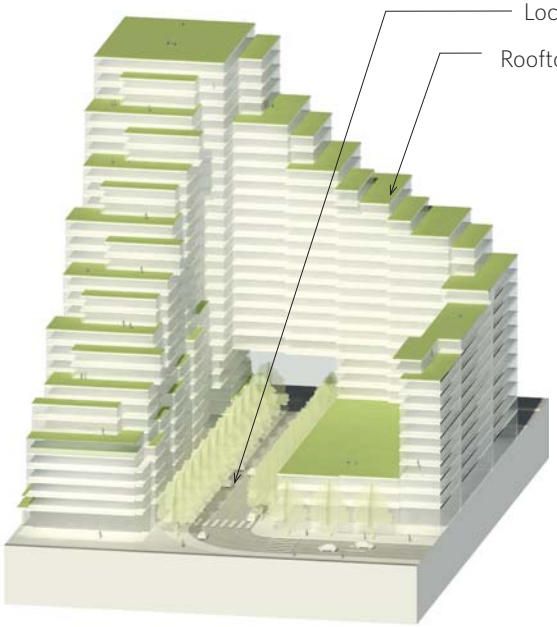
Weather Protection / Outdoor Dining

Retail Frontage

Street furnishing - bike racks

Street furnishing - benches

Local Street Axonometrics

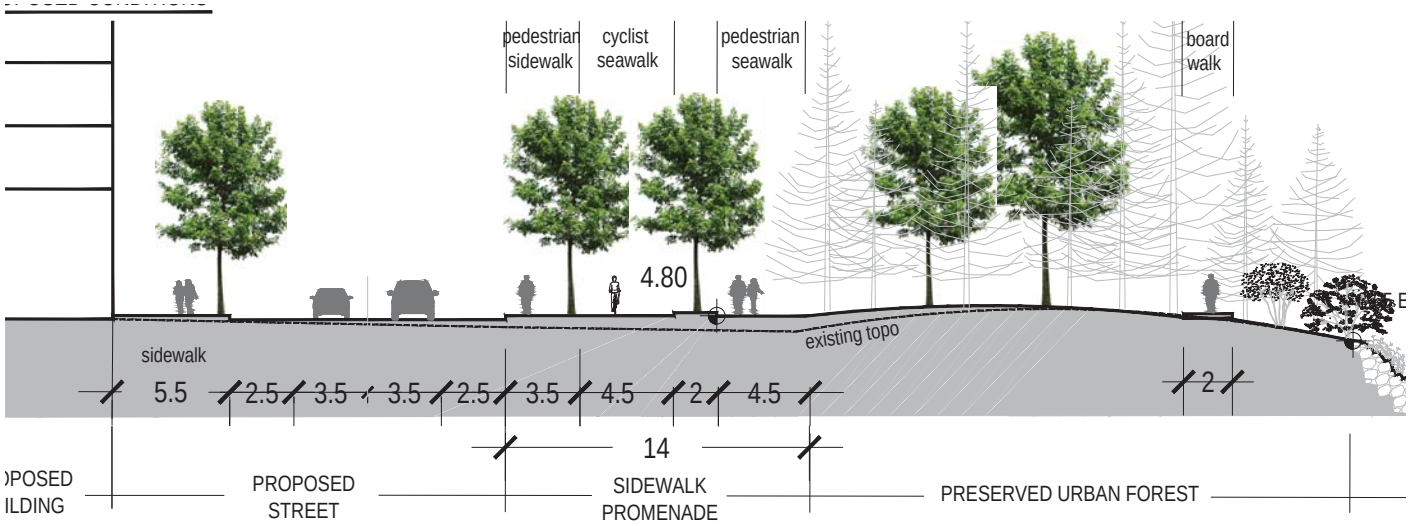


View 1 - Local Street from Pacific Blvd to Legacy Forest

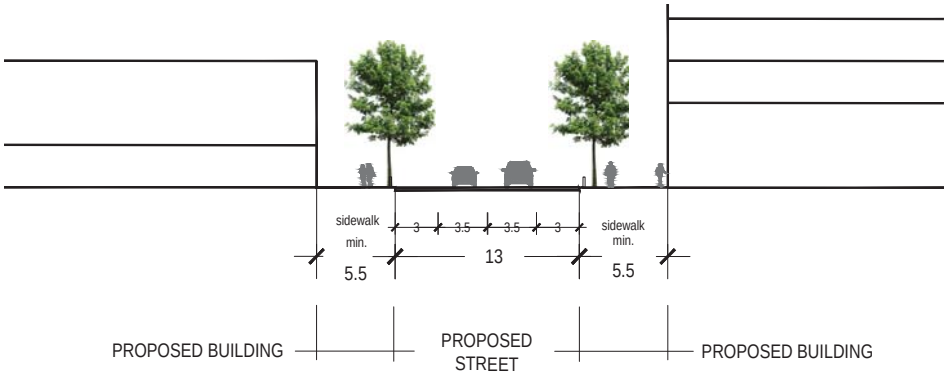
View 2 - Local Street from Waterfront

View 3 - Local Street towards Georgia Wharf

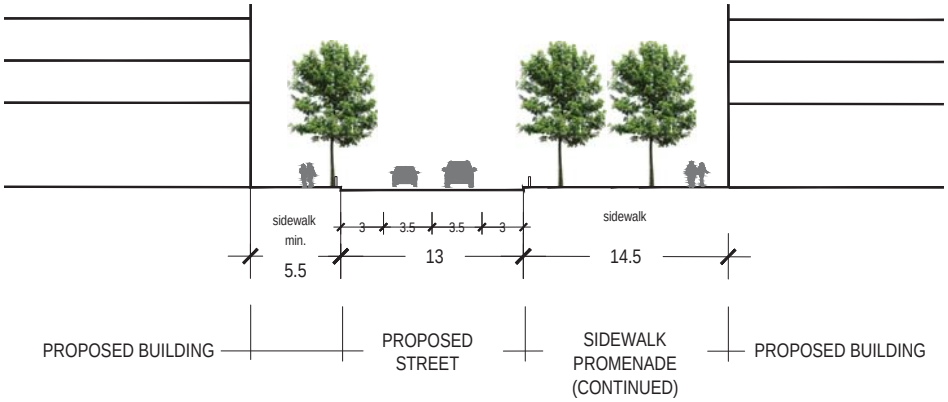
Local Street by Waterfront



Local Street towards Georgia Wharf



Local Street from Waterfront (between Commercial Buildings)



WESTERN EDGE

The western edge of the development envisions a terraced residential building along the property line that terraces from a tower in a series of steps toward the waterfront. The scale of the western façade should be moderated through articulation of the façade and the potential inclusion of residential townhouses or flexible live-work units at grade. A change in elevation to the finished grades of the adjacent development to the west should be carefully considered and resolved with landscaping that also serves to express the individual character of the ground floor residential / live-work units. A pedestrian connection will be provided under the portal connecting to the existing right-of-way on the neighbouring site.

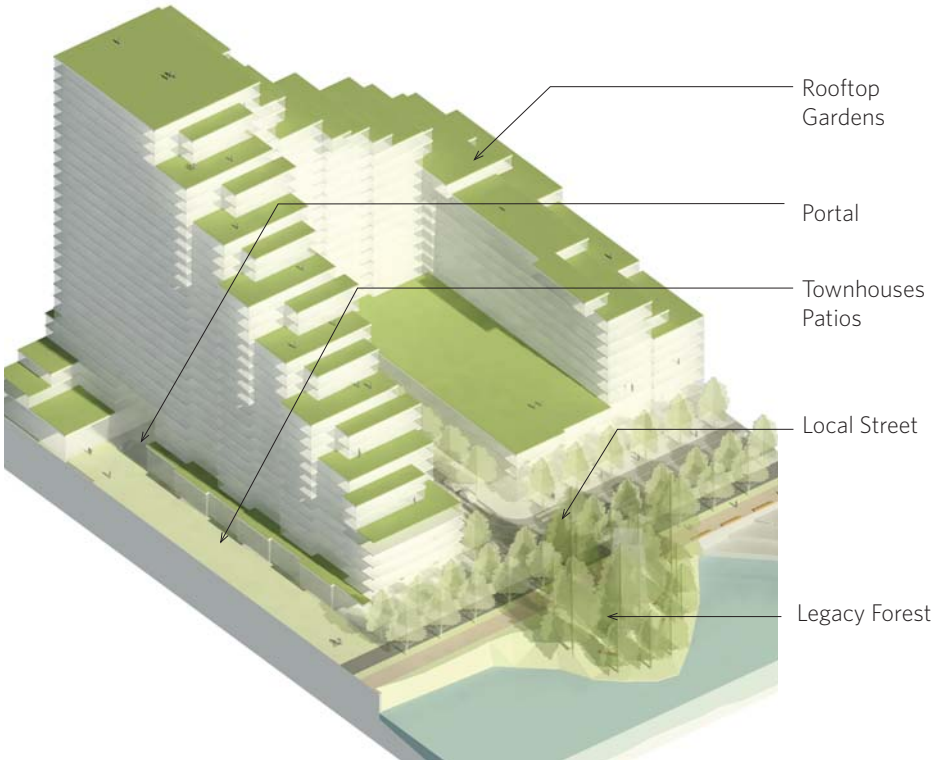
Townhouse patio

Townhouse patio

Key Plan

WESTERN EDGE PLAN

Western Edge Axonometric



PUBLIC ROOFTOP GARDENS

The Plaza of Nations site contains several public gardens on the rooftops of the Community Centre and the adjacent building with waterfront retail at grade. These public rooftop gardens are accessible from the public realm by stairs and elevators. An elevated walkway provides access between the rooftop gardens over the local streetscape.

- Easy access / transparency on ground-level
- Inviting, clearly public stairs integral to the architecture
- Rooftop for potential community uses and childcare/ daycare outdoor play area
- Public patio - for public access, outdoor dining, seating opportunities, community access
- Maximize the volume of soil, tree canopy cover and planting on all common areas
- Design integral planting areas with conditions to ensure plantings thrive including sufficient growing medium, irrigation, etc.
- Reduce or eliminate use of portable water for irrigation
- Provide a diversity of trees and layered planting to suit varied conditions, provide habitat, extend natural corridors, and layered plantings
- Incorporate rainwater retention and use on rooftop gardens as part of the overall sustainability strategy
- Provide urban agriculture that is co-located with amenity rooms and common areas, including necessary infrastructure

Key Plan

Overhead Walkway

Vertical access - stairs

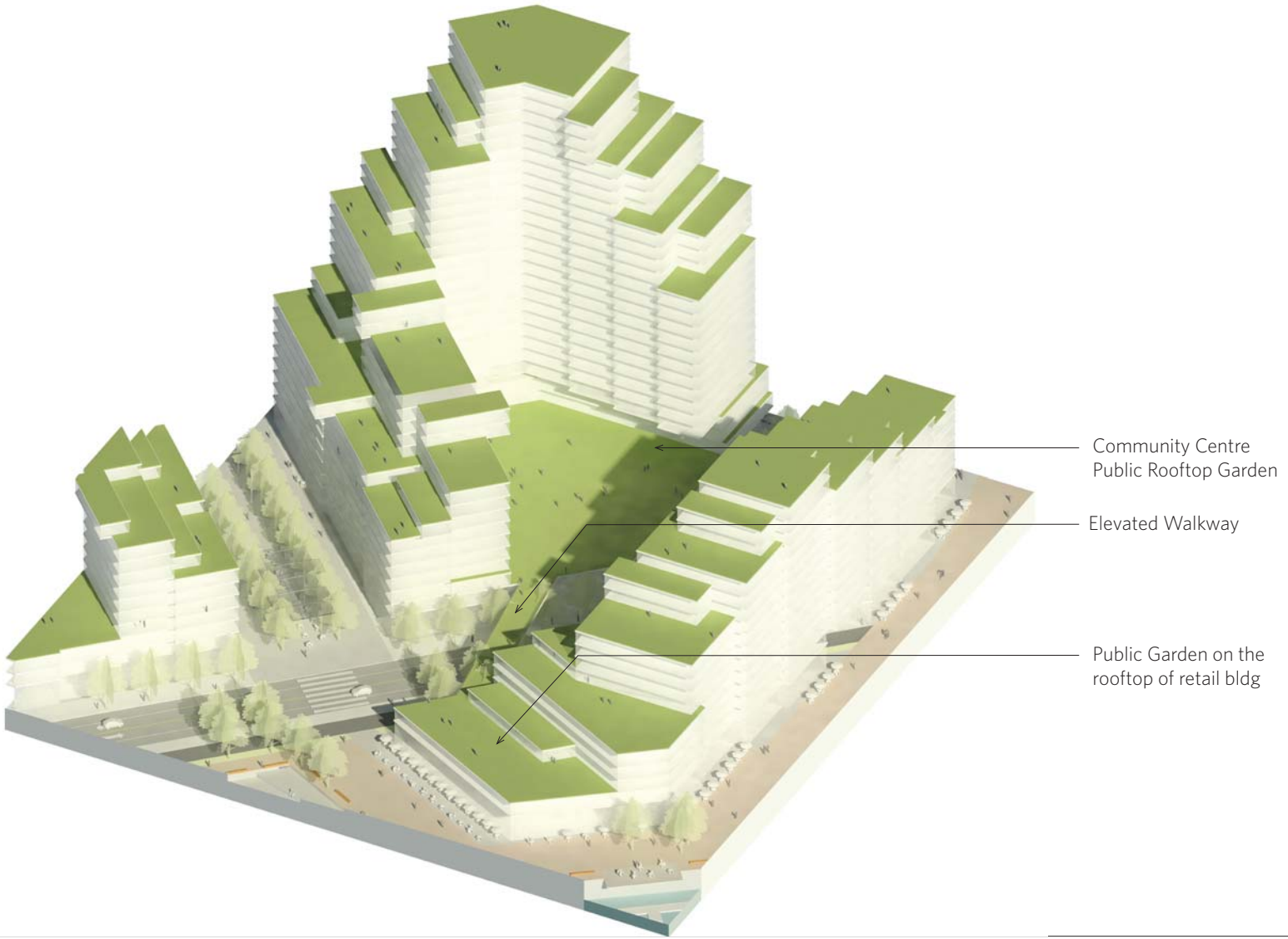
Vertical access - elevator

Urban Agriculture

Rooftop childcare

Dining Patio

Rooftop Gardens Axonometric



PRIVATE AND COMMON ROOFTOP GARDENS

Bringing green and garden up the buildings is a central concept in the overall form of development, in the landscape design, and in the sustainability strategies for the site.

- Maximize the volume of soil, tree canopy cover and planting on all common areas and private terraces
- Design integral planting areas with conditions to ensure plantings thrive including sufficient growing medium, irrigation, etc.
- Reduce or eliminate use of portable water for irrigation
- Provide a diversity of trees and layered planting to suit varied conditions, provide habitat, extend natural corridors, and layered plantings
- Incorporate rainwater retention and use on rooftop gardens as part of the overall sustainability strategy
- Provide urban agriculture that is co-located with amenity rooms and common areas, including necessary infrastructure
- Incorporate intensive green roofs and green walls
- Concider the introduction of green, treed planting areas axtending up vertical walls of building in addition to the terraced gardens
- Provide a planting and maintenance strategy with each development permit
- Employ permeable paving and grading solutions that direct water to soil or to rainwater storage using treatment chains

Rooftop amenity space

Dining Patio

Roof Garden

Common Rooftop Gardens

Intensive green roofs

Rooftop Gardens

Legend

1 Private Patio

2 Public Patio

3 Daycare Play Area

4 Urban Agriculture

5 Rooftop Amenity

6 Roof Garden

GROUND FLOOR ANIMATION

The design and uses within the ground floors of buildings that edge the public spaces and streetscapes within the Plaza of Nations development should engage and animate the public realm. These edges have a direct relationship to the life and experience of the public realm and to people's sense of safety and security. Ground floor edges are the interface between indoor and outdoor and the places where key amenities are located including canopies for weather protection, outdoor eating areas, exterior displays of merchandise and views into shops and other publicly accessible spaces.

Design elements should include:

- Transparent glass in ground floor windows, avoiding opaque, tinted and reflective finishes
- Visual and physical permeability, with frequent entrances and storefronts
- Windows and other façade elements that open to the outside in good weather, including for placing food orders
- Generous and continuous weather protection along the building facades, refer to City of Vancouver Weather Protection Guidelines
- Building materials of high quality and well detailed. Awnings and canopies of varied materials, colours, support systems and heights
- Outdoor eating patios and display areas that are setback into facades to maintain adequate sidewalk movement zones
- Seating and other street furnishings including garbage containers, pedestrian scale lighting mounted on facades, bike racks, etc.
- Limited and minimized vehicular crossings to entry points into structured parking.
- Building edges and lower levels designed to create comfort and a sense of human scale, reduce wind, and improve microclimate

Outdoor eating

Open Facade

Restaurant Patios

Outdoor display

Weather protection along the building facades

PROGRAMMING - EVENT SPACE CAPACITY

EVENT SPACE CAPACITY:

- **Standup, tight crowd = 0.4 sqm/ person**
- **Standup,loose crowd = 0.9 sqm/ person**
- **Seating crowd = 1.5 sqm/ person**

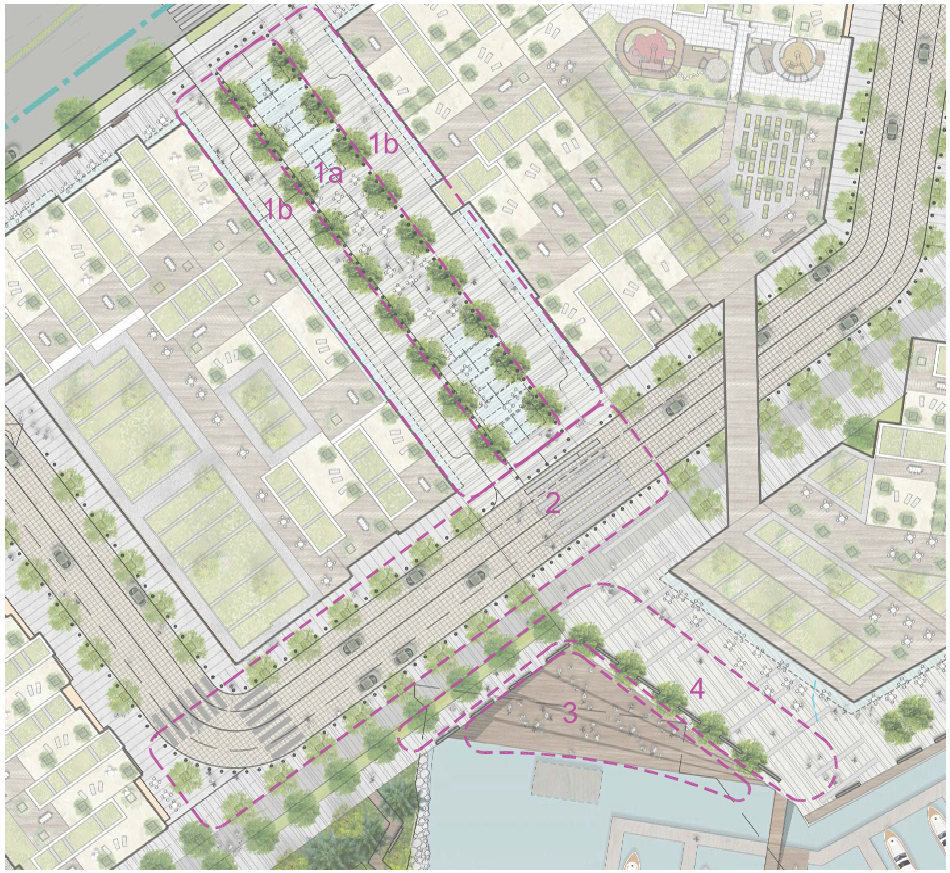
Zone 1a = 1120 sqm
- Standup, loose crowd = 1245 persons
- Seating crowd =750 persons

Zone 1a +1b = 2800 sqm
- Standup, loose crowd = 3110 persons
- Seating crowd = 1860 persons

Zone 2 = 2080 sqm
- Standup, loose crowd = 2310 persons
- Seating crowd =1380 persons

Zone 3= 575 sqm
- Seating crowd = 384 persons

Zone 4 = 870 sqm
- Standup, tight crowd = 2175 persons
- Standup, loose crowd = 970 persons



PROGRAMMING

MARKET
- Market stalls = 40, at 3x3m
- Trucks = 16, at 2.2m wide x 7.5m long
- Single aisle circulation

SMALL PERFORMANCE EVENT
- Floating Stage = 6m x 12m
- Seating crowd at the steps = 384 persons
- Standup crowd at the plaza = 970 persons

PROGRAMMING

SUN RUN VANCOUVER

- Market stalls in the Central Plaza = 25 at 3x3m providing a supporting event space for a major event in the Northeast False Creek Precinct

SUSTAINABILITY

1. SUSTAINABLE SITES (SS)

The following LEED Landscape Credits are under consideration:

5.1 Site Development - Protect or restore habitat
- Retain the priority and healthy existing trees
- Restore 20% of the total site are with native or adapted vegetation.
- Green wall and green roof with native or adapted vegetation.
- Connect open space areas to provide habitat corridor.

5.2 Site Development - Maximize open space
- Provide vegetated open space equal to 20% of the project's site area.
- Accessible central open space, green way, plazas, community garden and courtyards.
- Naturally design ponds to provide ecosystem services.

6.1 & 6.2 Stormwater Design - Quantity Control & Quality Control
- Manage precipitation on site
- Rain Gardens, bioswales, pervious pavement and retention ponds.
- Harvesting stormwater
- Cisterns and Jelly Fish system.
- Promote sustainability awareness.







7.1 & 7.2 Heat Island Effect - Non-Roof and Roof LEED Credits

- Trees, large shrubs, vegetated trellis to provide shading.
- Limit the amount of impervious hardscape.
- Vegetated roofs.
- High-reflectance materials.

8 Light Pollution Reduction

- Shield all outdoor luminaries.
- No uplights.

2. WATER EFFICIENCY (WE)

1 Water Efficient Landscaping - Protect existing trees and habitat

- Drip system, smart irrigation controllers, and weather-based central control system.
- Native or adapted vegetation.
- Reuse harvested rainwater.

3. SOCIAL SUSTAINABILITY

In addition to the LEED Credits, the project supports social sustainability:

- Pedestrians and cyclists emphasis.
- Linkage to public amenities, parks, bike ways, transits and shoppings.
- Bird Friendly.

REHABITATED LEGACY FOREST AND SHORELINE

LEGACY FOREST PLANT SPECIES

TREES

Conifer

- Pseudotsuga menziesii - Douglas Fir
- Thuja plicata - Western Red Cedar

Deciduous

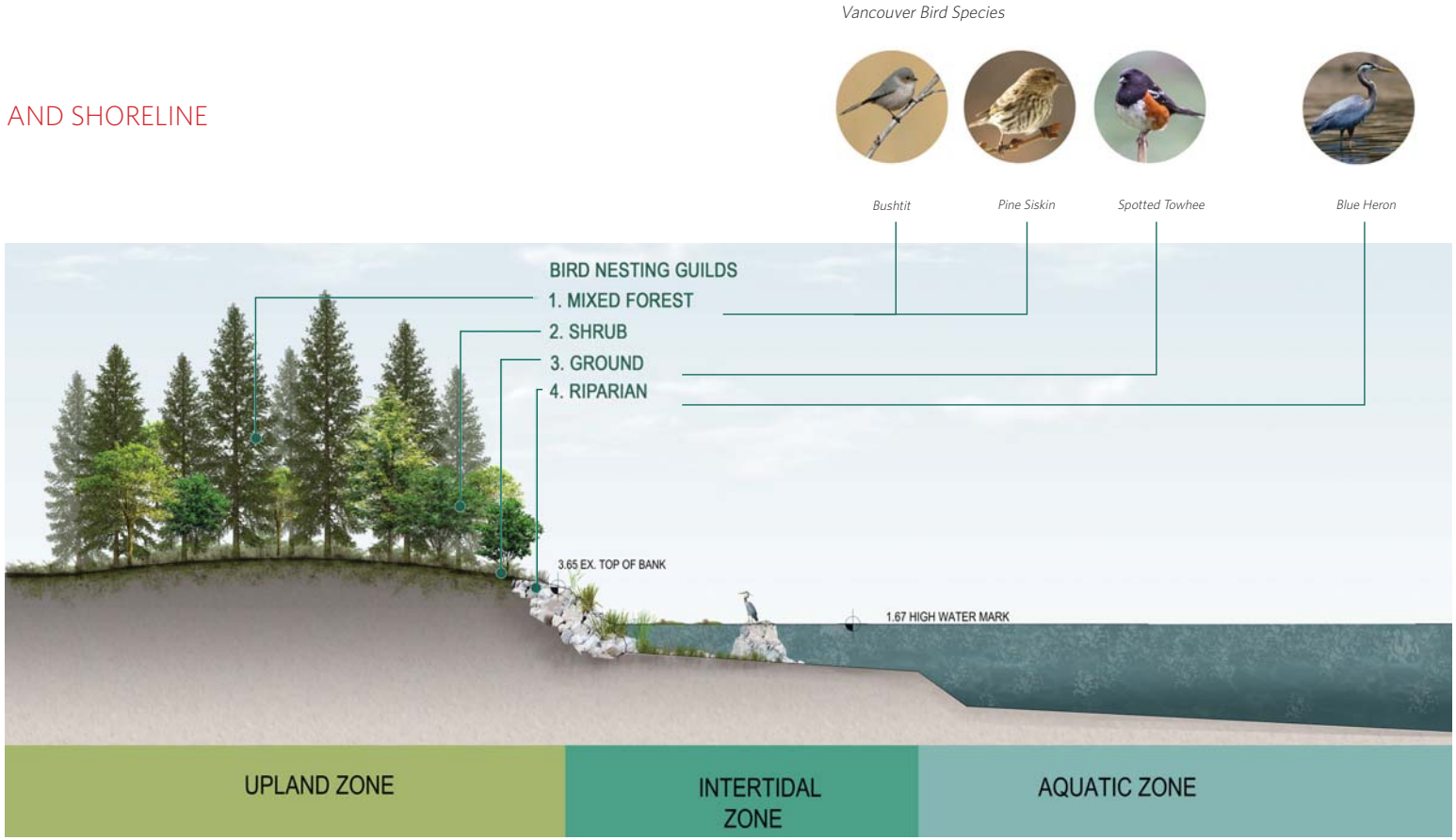
- Acer macrophyllum - Bigleaf Maple
- Alnus rubra - Red Alder

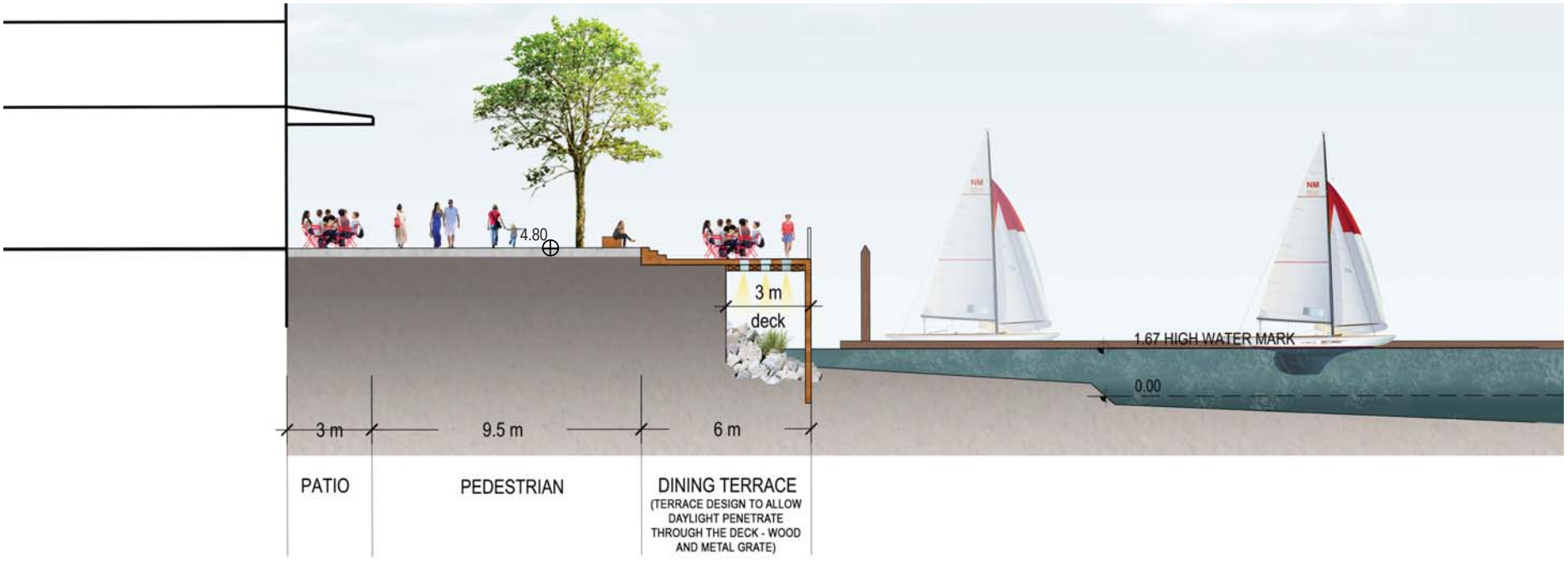
SHRUBS

- Rosa nutkana - Nootka Rose
- Amelanchier alnifolia - Saskatoon Serviceberry

GROUNDCOVER

- Gaultheria shallon - Salal
- Polystichum munitum - Western Swordfern
- Thymus pseudolanuginosus - Wooly Thyme




4.80
3 m
deck
1.67 HIGH WATER MARK
0.00
3 m
9.5 m
6 m
PATIO
PEDESTRIAN
DINING TERRACE
(TERRACE DESIGN TO ALLOW DAYLIGHT PENETRATE THROUGH THE DECK - WOOD AND METAL GRATE)
WATERFRONT PROMENADE
MIN. 16 m

LANDSCAPE PLAN - TREE MANAGEMENT

EXISTING FOREST ISSUES

- Some 'Forest' trees are not viable for retention due to the declining conditions. The dead trees present some concerns around the issues of potential hazards of falling.
- There are challanges to grow trees in this urban site with pockets of planting soils placed in the 1980's over compacted fills. The tree groups are growing in mounds or berms of soil, presumably to provide larger soil volumes necessary to support tree growth.
- The south edge of this area at False Creek is seriously eroded, as no rip-rap is present to retain the edge of the Creek.

REPLANTING STRATEGY

- Removed all dead trees and trees w/ declining conditions.
- Removed part of the compacted fills, refill w/ continuous growing medium to provide the required soil volume for planting/trees.
- New riparian edge will be installed to prevent bank erosion.
- The 'Forest' areas will be planned and planted to replicate forests, with an understory and layered planting and native shrubs, and perennials. Understory plantings shade tree root zones, and provide habitat and a zone from which seeds germinate, and new plant begin to grow.
- Consider retention of habitat trees or standing snags.
- Mitigate compaction to improve soil conditions for existing trees.

TREE PLANTING

ZONE A - PACIFIC BOULEVARD STREET TREES

(CoV standard)

1. *Zelkova serrata* Japanese Zelkova Tree

ZONE B - CENTRAL PLAZA

OPTIONS:

1. *Platanus x acerifolia* London Plane
2. *Zelkova serrata* Japanese Zelkova Tree

ZONE C - INTERNAL STREET

OPTIONS:

1. *Sorbus aria* Whitebeam Tree
2. *Fraxinus pennsylvanica* 'Cimmzam' Cimmaron Ash

ZONE D - WATERFRONT

OPTIONS:

1. *Gleditsia Triacanthos* Honey locust
2. *Acer Platanoides* 'Emerald Queen' Norway Maple

ZONE E - SEAWALL (TBD by The City)

OPTIONS:

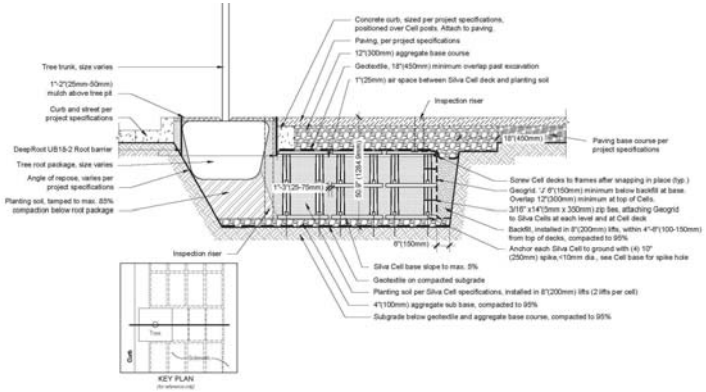
1. *Nyssa sylvatica* Black Gum
2. *Prunus Yedoensis* Akebano Daybreak Cherry

SOIL VOLUME

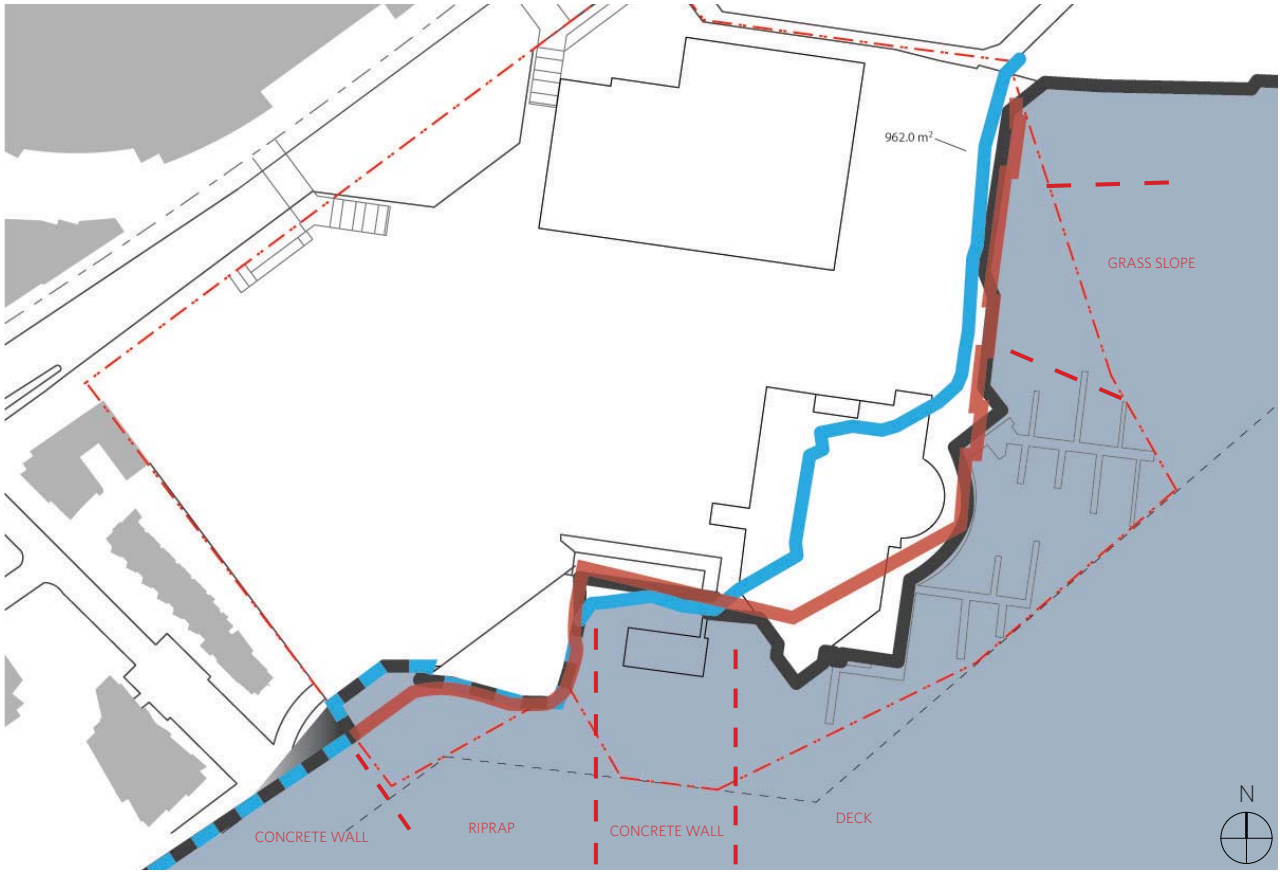
SOIL VOLUME

Support for the underground parking extending under the streets and many areas of the public realm is dependent on the ability to deliver a quality streetscape with trees of appropriate type and scale, planted in conditions where they may thrive. At a minimum 10 cubic metres of soil volume will be provided for each tree as per BCSLA recommendation. Continuous tree trenches are preferred and will be provided wherever possible, and will be integrated with the Rainwater Management Plan.

SILVA CELL TYPICAL DETAIL



SHORELINE DIAGRAM



The City of Vancouver has adopted a policy that cut and fill along the shoreline of False Creek should be balanced to ensure that the existing extent of water is maintained as redevelopment occurs. The proposed extent of fill and deck over water is reduced in comparison to the existing Plaza of Nations site.

Legend

- Natural Shoreline
- Existing Fill and Cover
- Proposed Fill and Cover

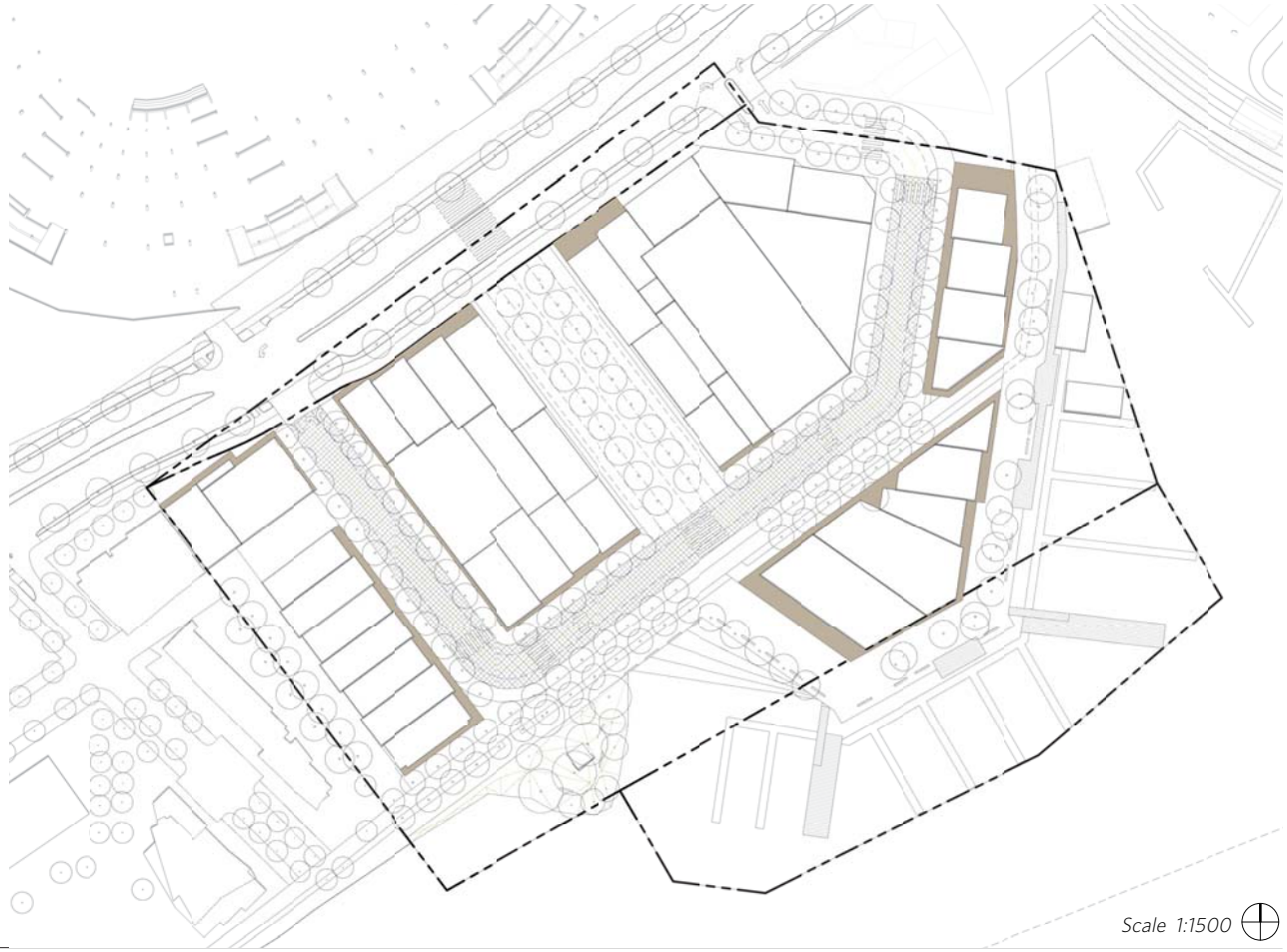
1 - PATIOS/DECKS/CANOPIES

Patios
To enhance the animation and energy on the Plaza of Nations, restaurants and cafes will be permitted to have outdoor patios spill out onto the sidewalk. The following illustrates potential patio zones throughout the site.

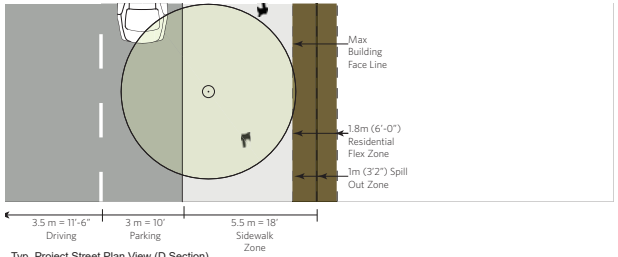
The intent of the patio zone is to provide activation of the street. Patio's should not encroach on pedestrian right-of-ways.

Decks
Decks along the waterfront allow additional opportunity for seating and patio space, while further animating the seawall and enhancing the pedestrian experience.

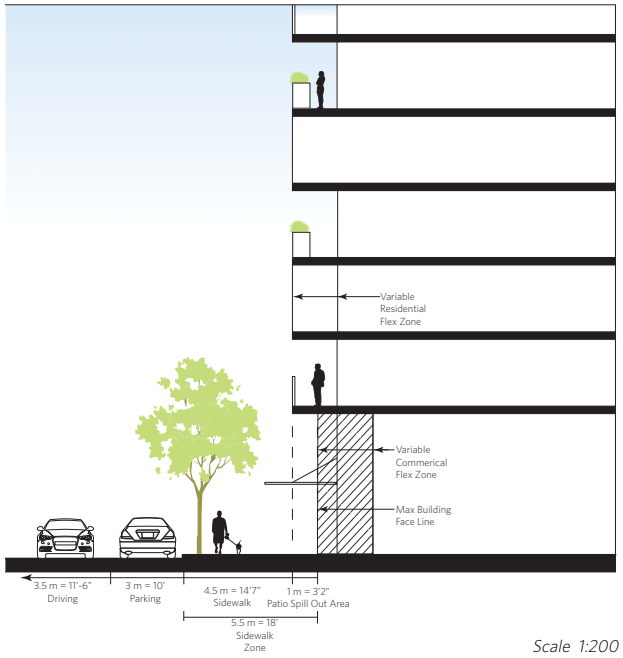
Weather Protection
Overhead canopies, awnings and weather protection are an important part of the pedestrian experience. Explore a variety of materials, different heights and extents, and ensure the canopies relate to the facade of the building.



Ground Floor Patio Areas



Typ. Project Street Plan View (D Section)
1 : 100



Scale 1:200

Outdoor Patio Precedents

2 - LIGHTING & SIGNAGE STRATEGY

The Plaza of Nations will be a hub for entertainment and activity and a major region for art and cultural activities. A unique and comprehensive strategy for lighting and signage will need to be developed to enhance this character.

Lighting

Placemaking opportunities for events and entertainment can be enhanced through the use of lighting, both decorative and functional. A cohesive lighting strategy is important to create a strong continuous visual language throughout the site.

- Promote safe pedestrian uses
- Introduce a hierarchy of street lighting
- Highlight building facades, public art and environmental graphics
- Provide programmable and flexible lighting to enable event organizers to reduce setup costs

Signage

Develop a cohesive wayfinding strategy throughout the site. Utilize paving and lighting to enhance wayfinding, and ensure the proposed strategy is clear and intuitive.

Utilize signage and wayfinding as a means to illustrate sustainable systems at work throughout the project.

Public Lighting Precedents

04

Building Typology and Massing

BUILDING TYPOLOGY DESIGN INTENT

Intent
The building typology for this project was intended to evolve beyond the standard tower and podium of Vancouverism. The following chapters provides an overview of the terrace typology and the factors that have influenced the evolution of it's massing and form.

Building Form Strategies
Key strategies that informed the overall form of the Plaza of Nations include:

1 Preserving Views to the Stadium

2 Evoking a Terraced Form

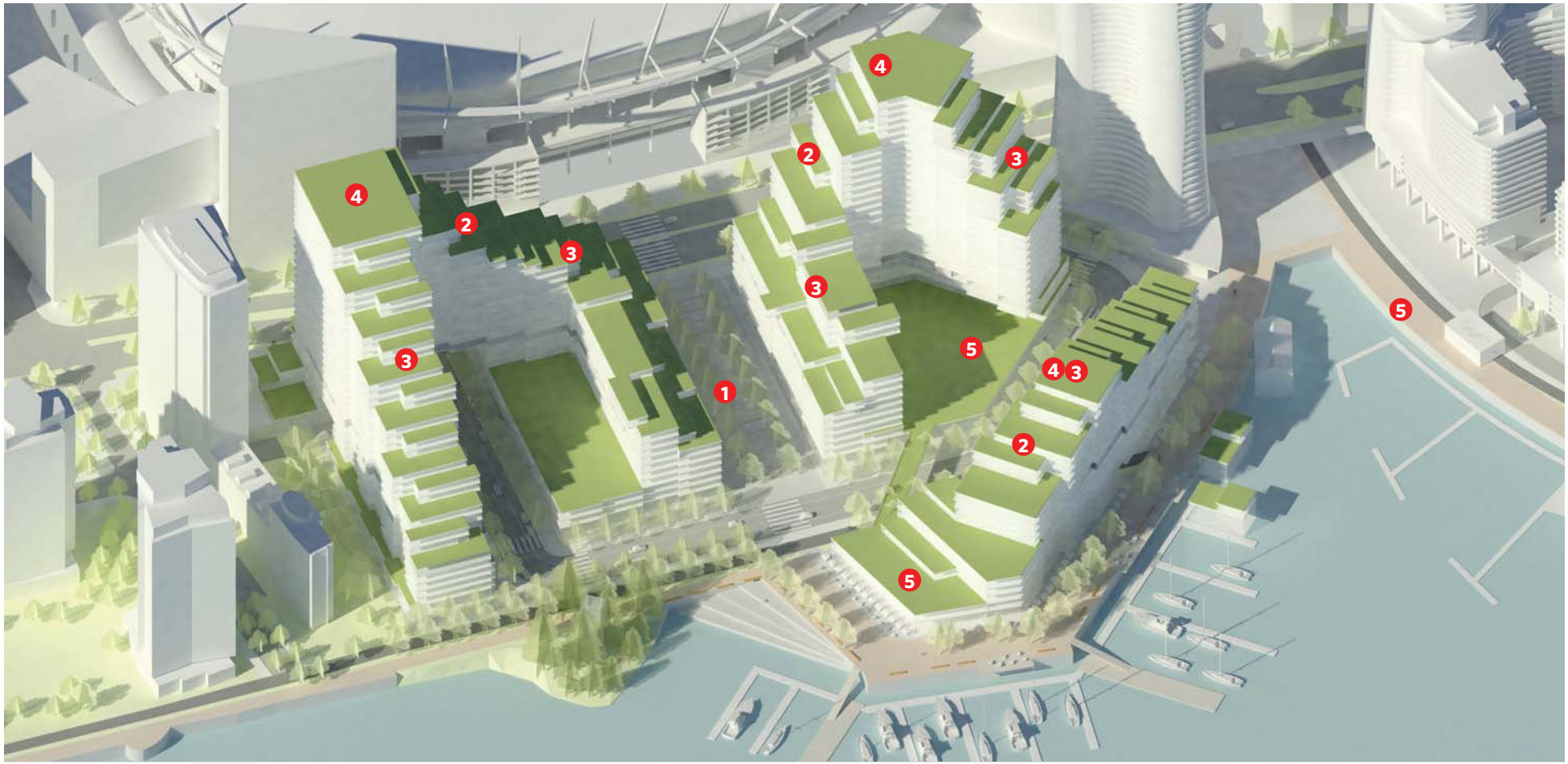
3 Extending Vertical Green

4 Respecting View Cones

5 Protecting Sunlight on Public Spaces

View from Olympic Village

View from Science World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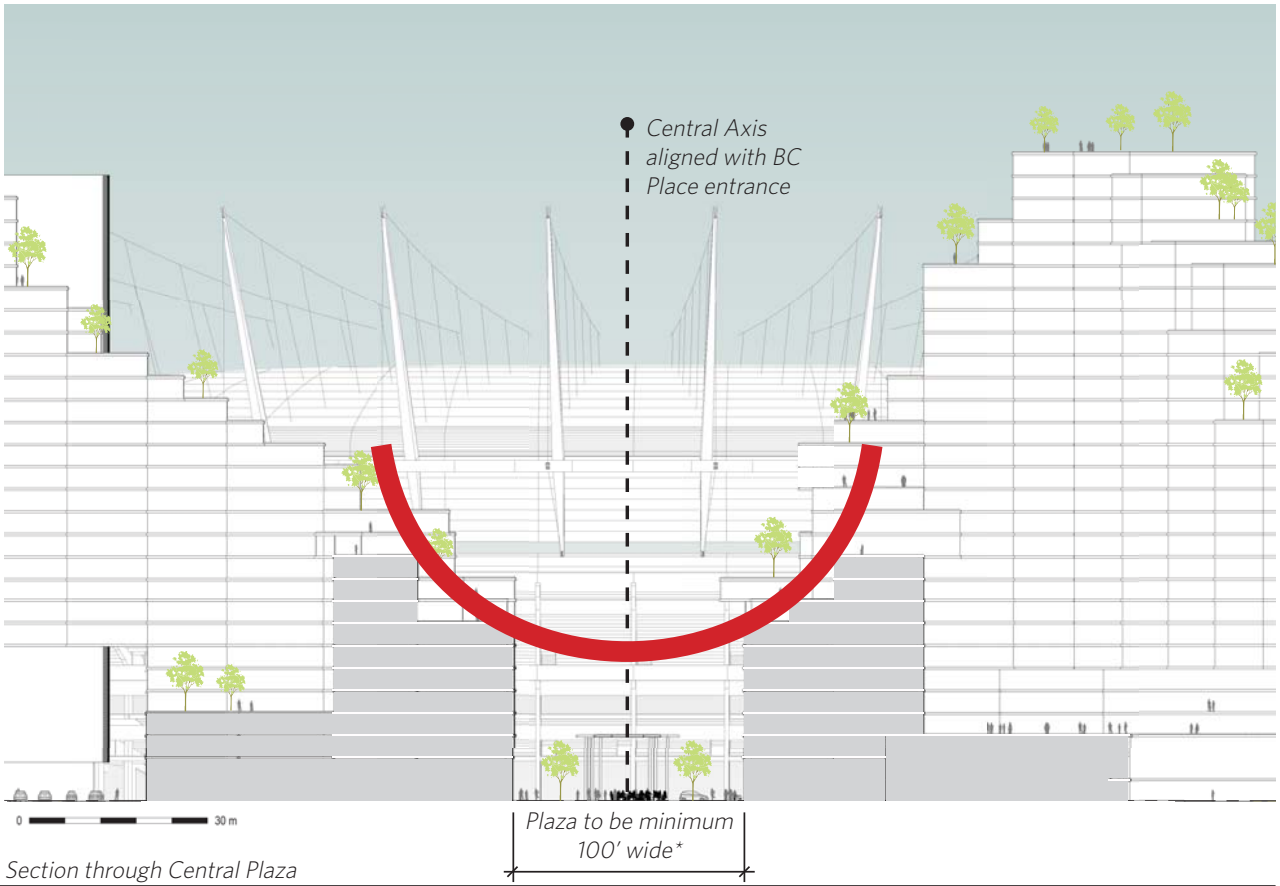
1 - KEY MASSING CONCEPTS AND PARAMETERS

Intent
The Plaza of Nations massing was formed to terrace up from the water, while creating a bow-like form to preserve views from False Creek to BC Place.

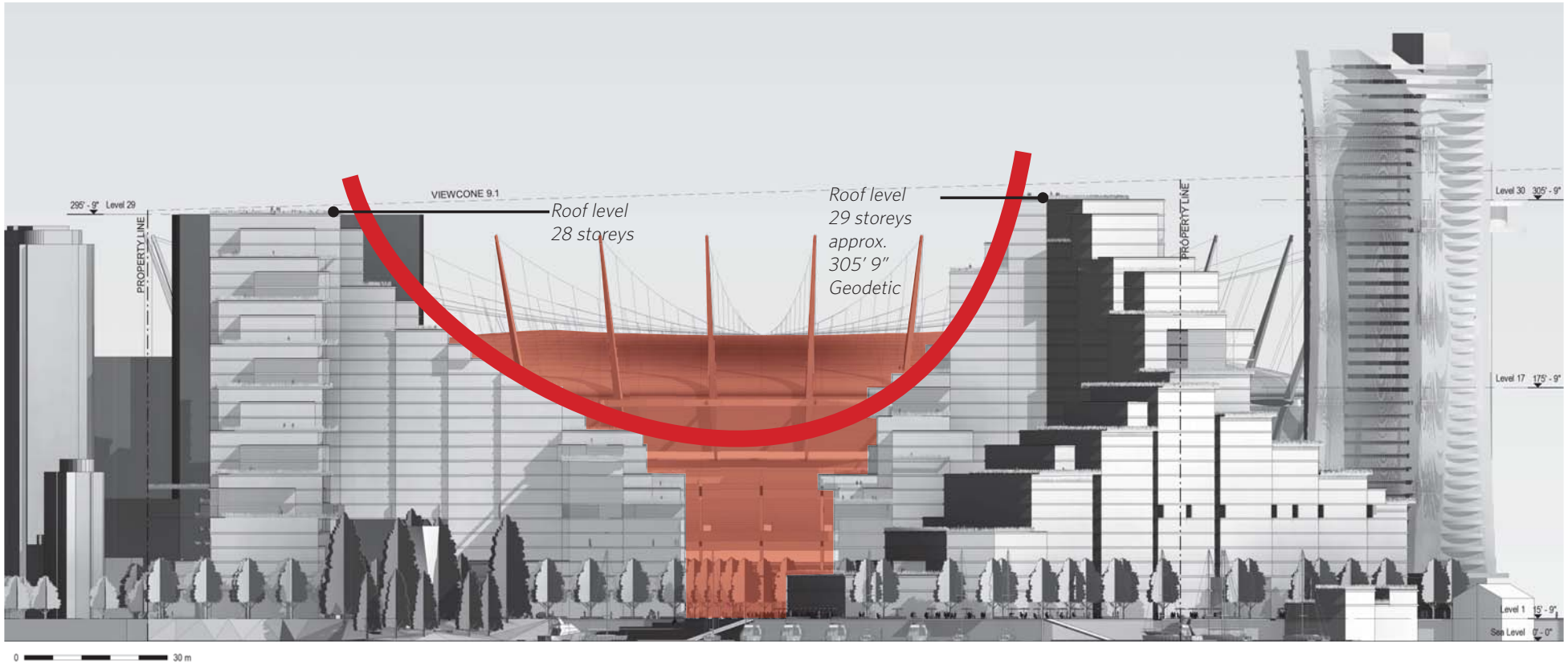
Flexibility in detailed configuration and finer scale massing to allow for design development, to be assessed for performance at development permit.

Design development to the west building adjacent to the existing neighbouring development will modify massing to create a more dynamic form, terracing pattern and reduced massing at upper levels in the interest of achieving a more neighbourly relationship.

**Note: Flex zone projections and horizontal weather protection elements may project into the specified 100' plaza, building face to building face separation*



Section through Central Plaza



South Elevation, Terracing Form Intent

2 - TERRACED FORMS

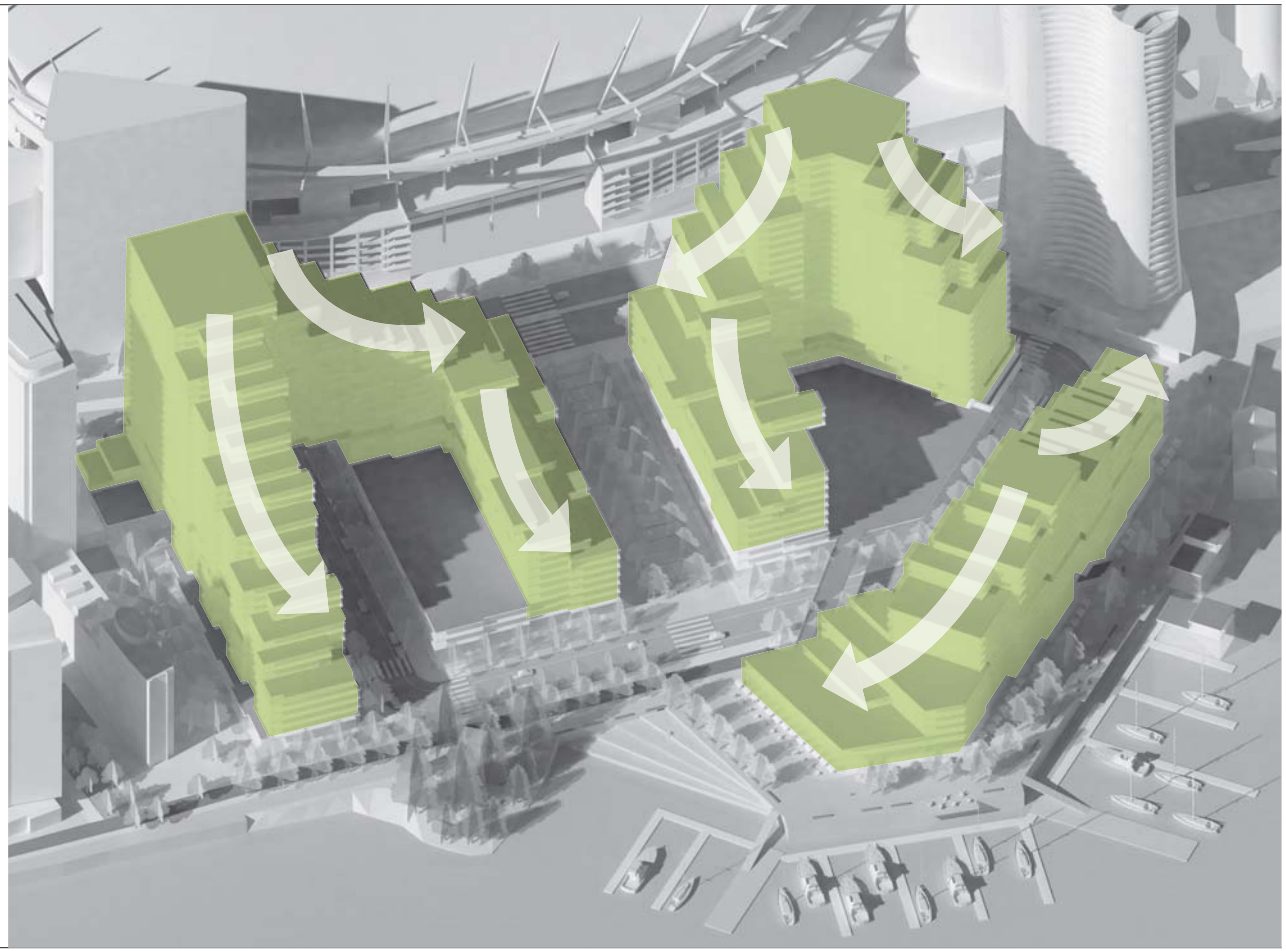
Intent

Moving away from Vancouver's standard tower-podium typology, the Plaza of Nations masterplan proposes a fluid and continuous terracing landscape that enhances the backdrop of the North Shore Mountains.

Strategically positioned to capture natural sunlight, this habitable topography wanders along the seawall providing new pedestrian infrastructure, multiple public spaces and stunning views to the city and False Creek's Waterfront

The terraced form's general intent is to step down towards the water and other major public open spaces to maximize sunlight exposure and views to the sky, while framing views to the stadium.

A series of publicly accessible roof-top terraces will connect the public to upper level restaurants and gardens. Please refer to Chapters '03 Public Places & Spaces & '05 Community & Civic Uses' for more information on the terraced rooftop gardens.



Form

A dynamic pattern of terraced forms with varied steps and irregular massing is encouraged.

- The west building block terraces down from under view cone height to approximately 70' from grade at the western edge at the waterfront
- Both the west and east building blocks terrace down from under view cone height to frame the Central Plaza at Pacific Boulevard at approximately 100' from grade
- Both the west and east building blocks terrace down along the Central Plaza to approximately 80' at the waterfront
- The waterfront building block terraces down from approximately 160' to 30' at the west waterfront end and 80' at the east waterfront end by Georgia Plaza
- All heights are approximate and will be reviewed and finalized at development permit

Terrace Opportunities

- Rooftop gardening and landscaping
- Increased biodiversity and vegetated biomass
- Expansion of the Public Realm (restaurants, community gardens, etc.)
- Storm water retention
- Connectivity between uses (Commercial & Civic)

Please refer to chapter '07 Architecture & Expression' for more information on facade treatment, articulation and diversity opportunities in these terraced forms.

Nicolinehus, AART Architects, Aarhus, Denmark

Arts A, NL Architects, Arnhem, Netherlands

3 - VERTICAL GREEN

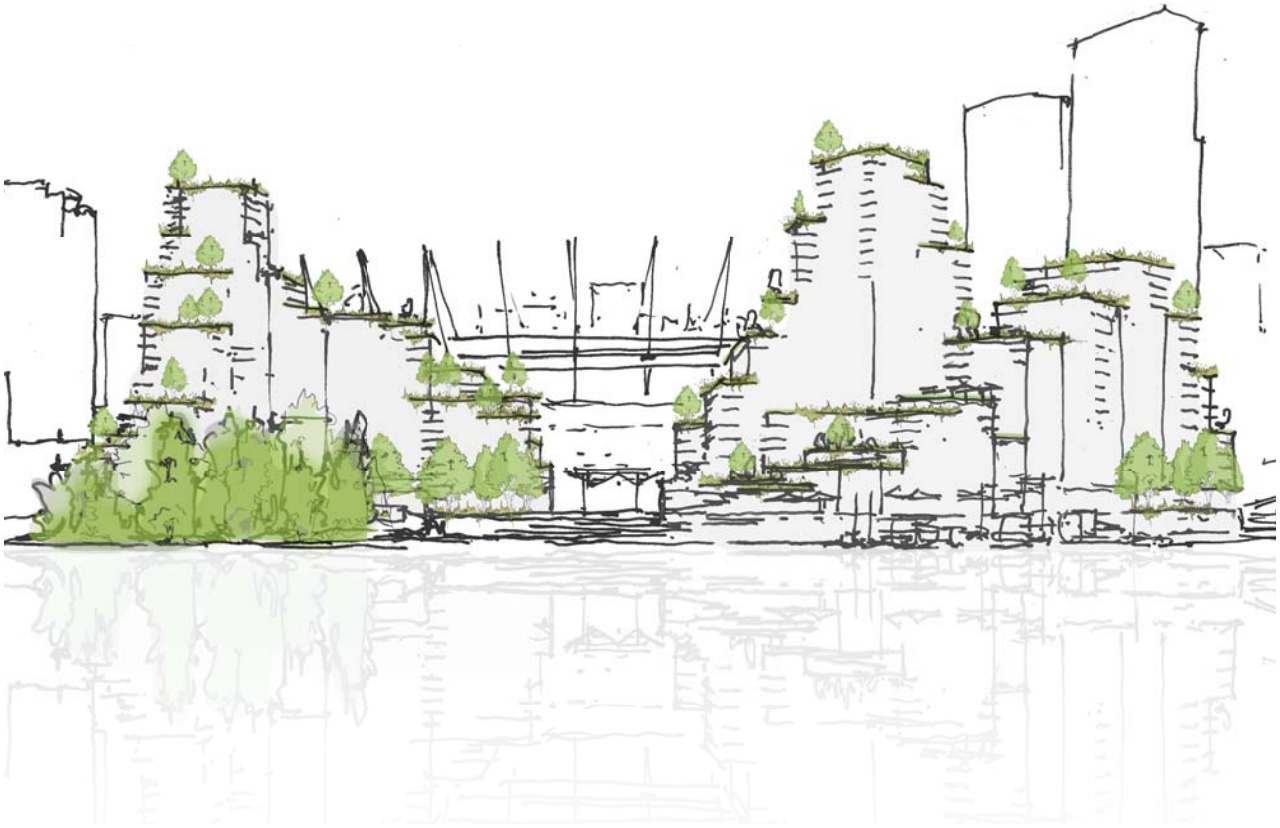
Intent
Inspired by the urban forest on the Plaza of Nations site, this project envisions to increase biodiversity by extending vegetation vertically onto a series of landscaped terraces.

This "vertical green" provides a network of natural corridors, in similar fashion to the following recent Bosco Verticale (Vertical Forest) in Milan, Italy.

These structures extend natural environments from the water's edge into the city while encouraging inhabitation by birds and insects.

Roof Terraces
Roof terraces should be designed as visual composition as well as an inviting environment with significant planting. These spaces create opportunities for urban ecology and agriculture. These green areas are also intended as visual appealing roofscapes when viewed from higher terraces in the project.

Note:
Every effort should be made to ensure proper access to green areas for maintenance and irrigation.



Planting Design
A variety of planting forms are encouraged to provide a variety of conditions suited to wildlife habitat. Trees of appropriate and form and scale should be selected to complement the scale of the terraced buildings. Please refer to Section 03, Public Places and Spaces for more information on landscape planting, recommended soil volumes etc.

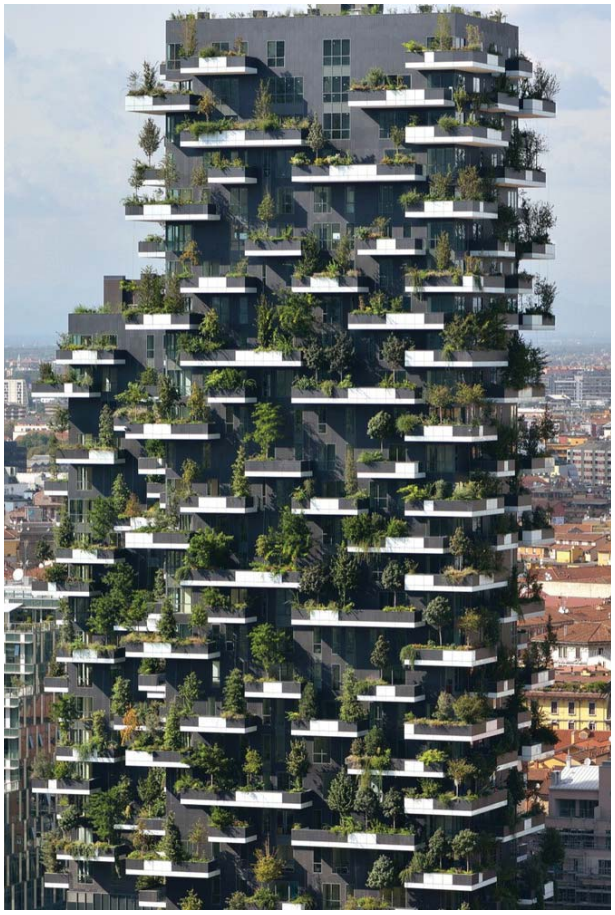
Urban Ecology
A wide range of mixed plants and range of trees, shrubs, herbaceous plants, grasses, ferns, herbs and vines that offer a range of potential shelter and food are required to create opportunities for urban wildlife to co-exist (particularly birds).

Urban Agriculture
Increase access to locally grown food by creating opportunities for urban farming and agriculture within the project.

Strategies to Support and Maintain the Vertical Green
- Provide a variety of types of plantings and vegetation
- Develop a maintenance plan with planned inspections for public terraces

Habitat 67, Moshe Safdie

Evergreen Building, Arthur Erickson



Bosco Verticale, Boeri Studio

4 - CAMBIE STREET VIEWCONES

Intent
Viewcones protect Vancouver's ocean and mountain views enhancing the city's connection to nature.

Protected Viewcones
The following viewcones must be preserved by ensuring building heights don't exceed these protected view corridors:

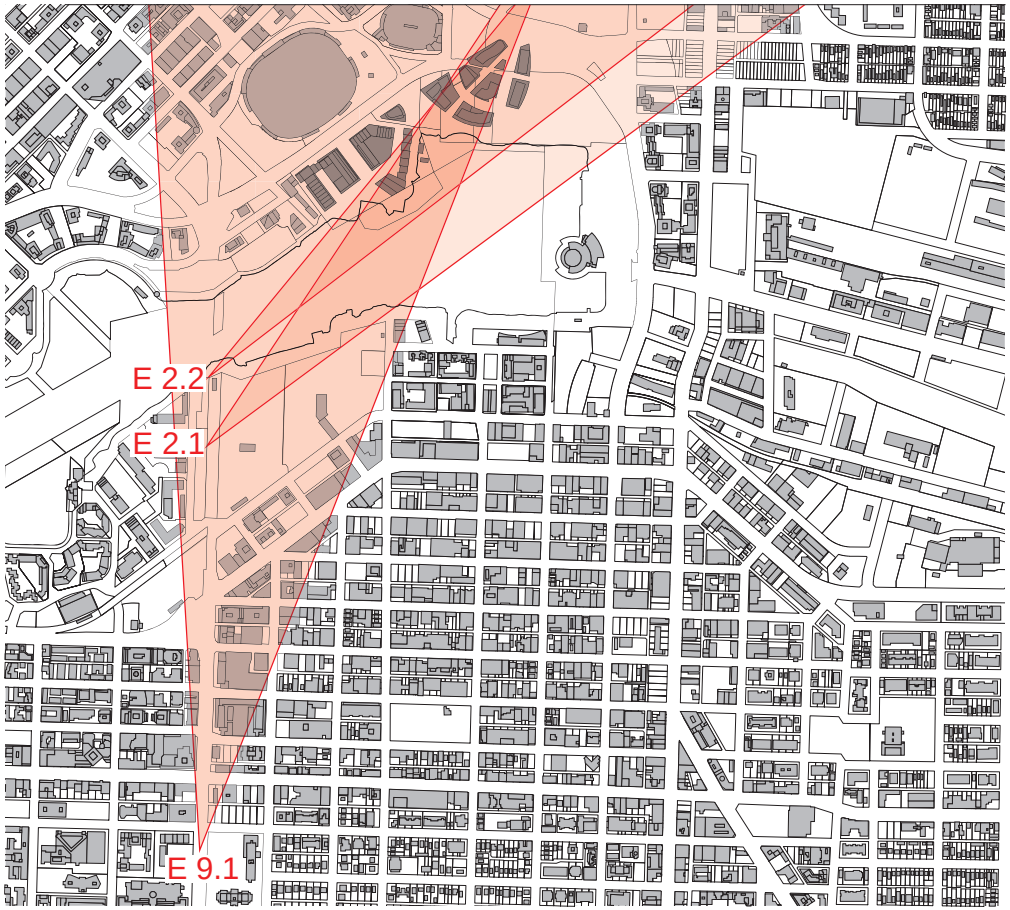
Viewcone E2.1 - Cambie Bridge, protecting views to Mount Seymour

Viewcone 2.2 - Cambie Bridge, protecting views to Mount Seymour

Viewcone 9.1 - Cambie Street

Building Height
"The maximum building height calculated for view protection includes all appurtenances such as mechanical penthouses, decorative roofs and aerials, etc." - City of Vancouver View Protection Guidelines

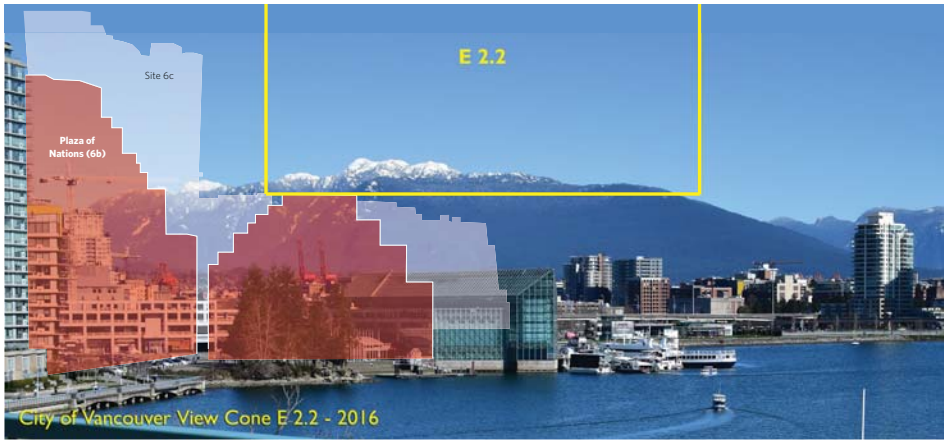
The conceptual massing assumes that the mechanical penthouses will be incorporated into the volume of the building under the view cone and anticipate design strategies such as two storey penthouse units at the top levels. If the detailed design moves away from these strategies, some reduction in density may be required to ensure that the buildings sit below the view cone limits.



View Cone Analysis

View Cone 2.1

View Cone 9.1



View Cone 2.2

5 - SUNLIGHT ON PUBLIC SPACES

Intent
Public spaces are shaped and positioned to optimize solar exposure.

Solar Access

Solar access Is of particular importance between the Spring and Fall Equinox, aligning with most extensive outdoor activity and the growing season, and through the hours of 10:00am to 4:00pm. The Plaza of Nations siting and orientation is particularly advantageous for morning to mid-day sun.

Areas where the building massing performance with respect to sunlight on public spaces is of particular importance are:

a) Central Plaza: Heights and stepped forms on the south side of the plaza that enhance sunlight access to this space.

b) Community Centre and childcare rooftop open space: particular regard is to be given to solar access for the outdoor child play areas.

c) Georgia Wharf, north side: the waterfront building should be designed and massed not to shadow the north side of the Georgia Wharf on adjacent Area 6C at the Equinox, 4:00pm

Summer Solstice, 10am

Spring Equinox, 4pm

05

Community & Civic Uses

COMMUNITY & CIVIC USES

Intent
This chapter will highlight the wide variety and diversity of components and uses intended for this mixed-use development:

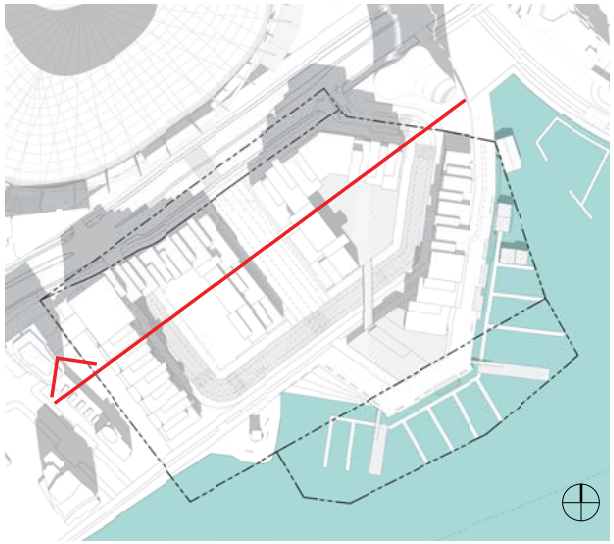
1 Community Centre

2 Ice Rink

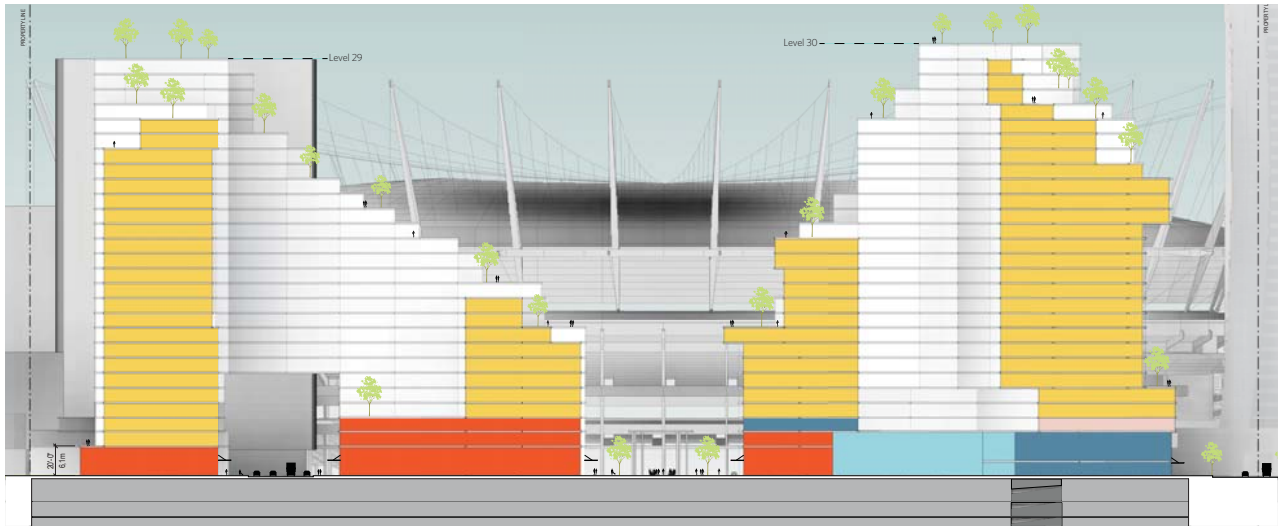
3 Childcare

4 Other Publicly Accessible Uses and Services

5 A 'Music & Presentation Centre' may be co-located with the community centre in the project. It will be designed with a clear presence in the public realm, with the ability to become expandable to the exterior, either on a rooftop garden or on the ground plane.



Scale: 1:1000



Commercial
Residential
Community Centre
Ice Rink
Childcare

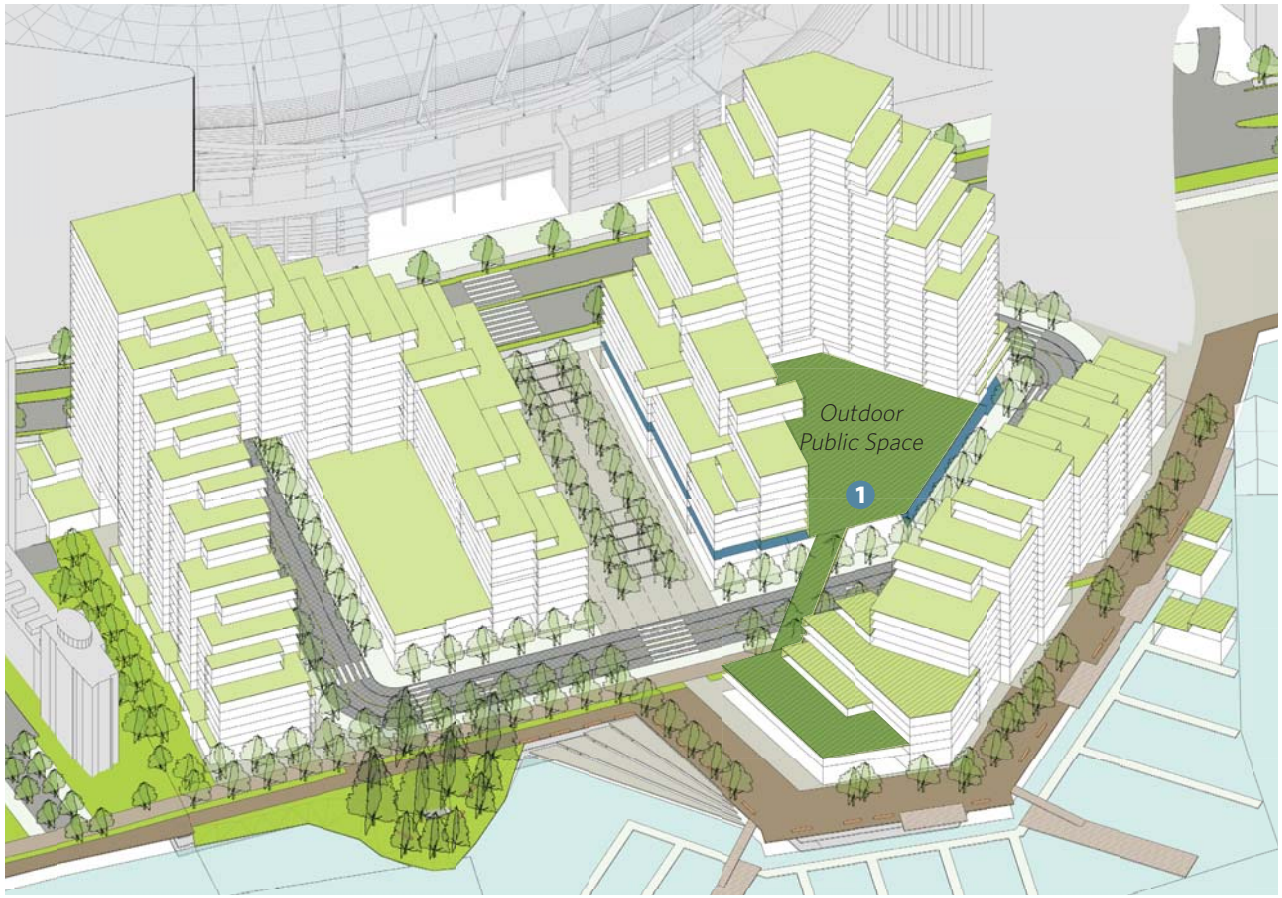
Local Street | Plaza | Community Centre, Ice Rink, & Childcare | Shared ROW

1 - COMMUNITY CENTRE

The heart of the neighborhood amenity facilities is the Community Centre. This Centre will host a variety of functions and will evolve over 3 floors of building block B, with direct access to Georgia Plaza.

Community Centre Programming
Preliminary programming is subject to the park board and may include the following:

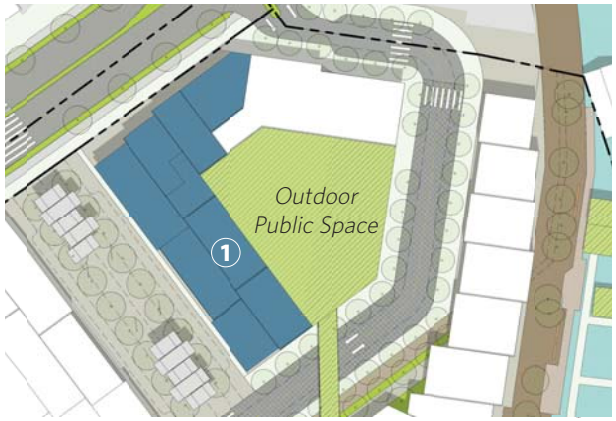
- Meeting rooms
- Multi-purpose rooms
- Youth room
- Public Terrace
- Childcare
- Covered Outdoor Area
- Washrooms
- Storage rooms
- Reception Area
- Maintenance rooms
- Offices
- Staff rooms
- Locker rooms
- Ice Rink
- Team rooms
- First Aid
- Shops
- Gymnasium
- Spin Studio
- Yoga Studio
- Movement Studio
- Fitness Centre
- Gymnasium
- Experimental space
- Arts and Crafts Studio
- 55+ Activity Multi-Purpose room
- Surfacing Machine & Workshop



Community Centre Public Space
Community Centre

Level 1 Floor Diagram

Level 2 Floor Diagram



Level 4 Floor Diagram

Scale 1:1500

Basketball / Volleyball Court *(Precedent)*

Gym (Precedent)

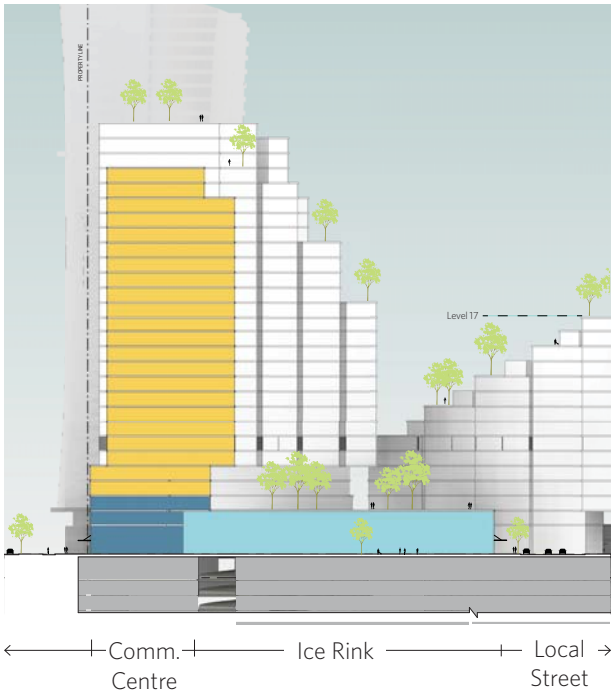
2 -ICE RINK

A publicly accessible ice hockey/skating rink will be provided and used by both the community and as a training facility for the Canucks. A sports science centre is also associated with this facility.

It will be located on ground floor and it's program and associated spaces will occupy approximately 33,000 SF.

Ice Rink

Level 1 Floor *Diagram* *Scale 1:1500*



Precedents

3 -CHILDCARE

A daycare centre for 69 children is provided on the 4th floor of block B, facing south and overlooking a courtyard with their own outdoor space for the children to play.

Refer to the City of Vancouver's Childcare Design Guidelines.

Childcare

Level 4 Diagram *Scale 1:1500*

Precedent

Precedent

4 - PUBLICLY-ACCESSIBLE USES AND SERVICES

1 Commercial Patio

2 Daycare Play Area

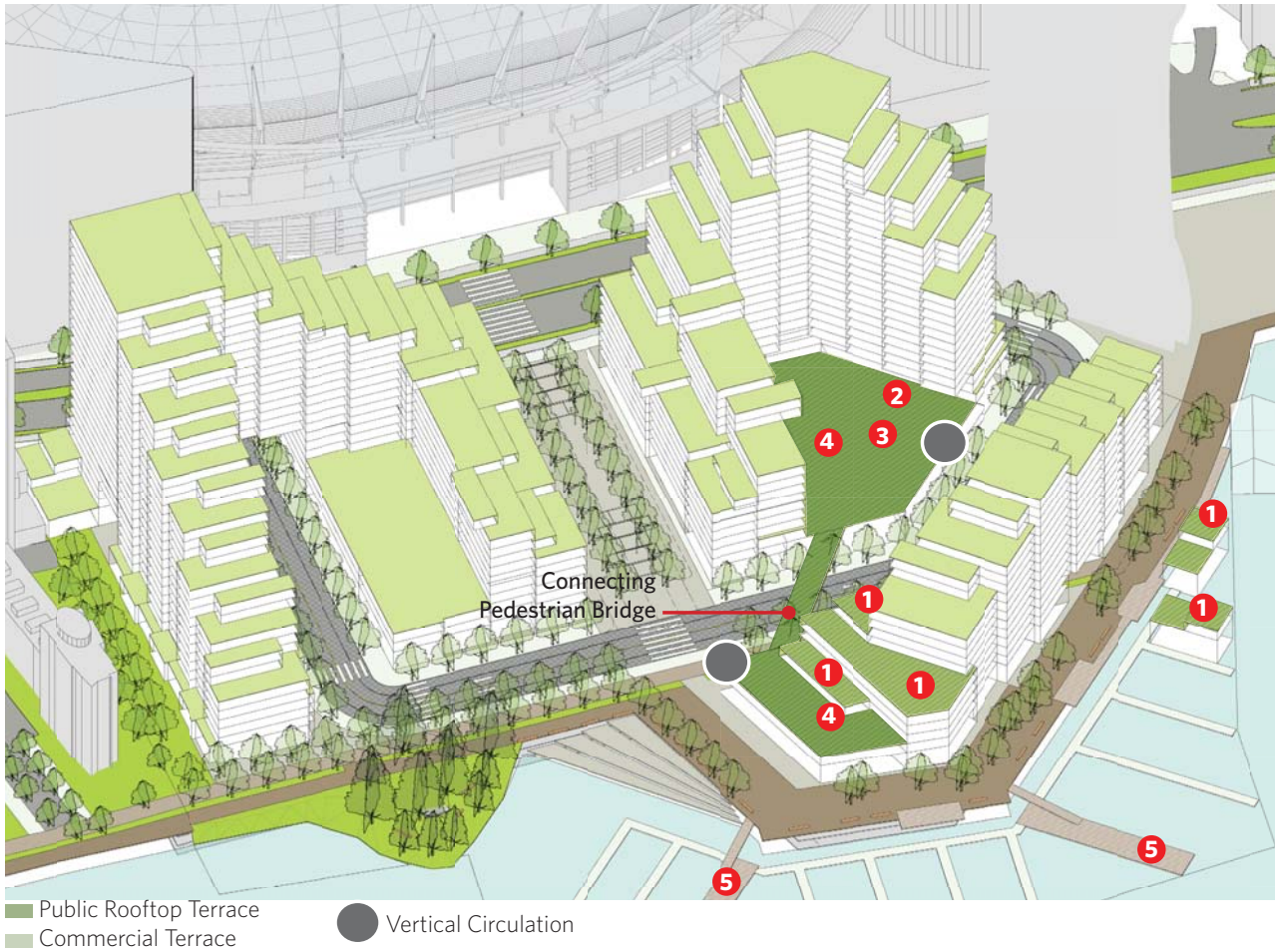
3 Urban Agriculture

4 Rooftop Amenity

5 Publicly accessible docks

Public Rooftop Gardens and Walkway Bridge
A variety of terraced roofs will create a dynamic network of public spaces connected by bridges and terraced forms. Strategically positioned with a southern exposure, these public terraces will create desirable restaurant patios, green spaces, urban farms and viewing platforms.

Character
- Easy access to terraces with transparency at the ground-level
- Rooftop for community center and childcare uses (i.e.: daycare outdoor play area)
- Areas dedicated for urban agriculture
- Public Patio for public access with seating opportunities



Rooftop Vertical Circulation Diagram *Scale 1:1500*

Public Rooftop Terrace Connectivity
Highly visible, inviting and accessible access should be provided from grade at the waterfront and at the community centre, with bridging across the local street between the rooftop terraces of the waterfront building and the community centre. A combination of sculptural stairs, stepping terraces and elevator access should be considered.

- Accessible from street level with an elevator or stairs
- High level of transparency at the ground level for rooftop access
- All public terraces to be connected

Publicly Accessible Docks
Public docks to allow paddlers, ferry, motorized and non-motorized watercrafts.

Other Publicly Accessible Uses
A variety of other publicly accessible uses and services will be available on site, such as:

- Public Art space (In Central Plaza)
- Gallery / Presentation Centre (Inside the Community Centre)
- Expo forest
- Community Farming
- 4 Bus routes, Skytrain and Ferry route within a 400 meter radius
- Dedicated Bike lane separated from walk path
- Target minimum of 1885 Bike Parking spaces

Vertical Circulation

Roof Terrace

Competition for Paris Metro Station / Kengo Kuma

06

Blocks, Parcels and Buildings

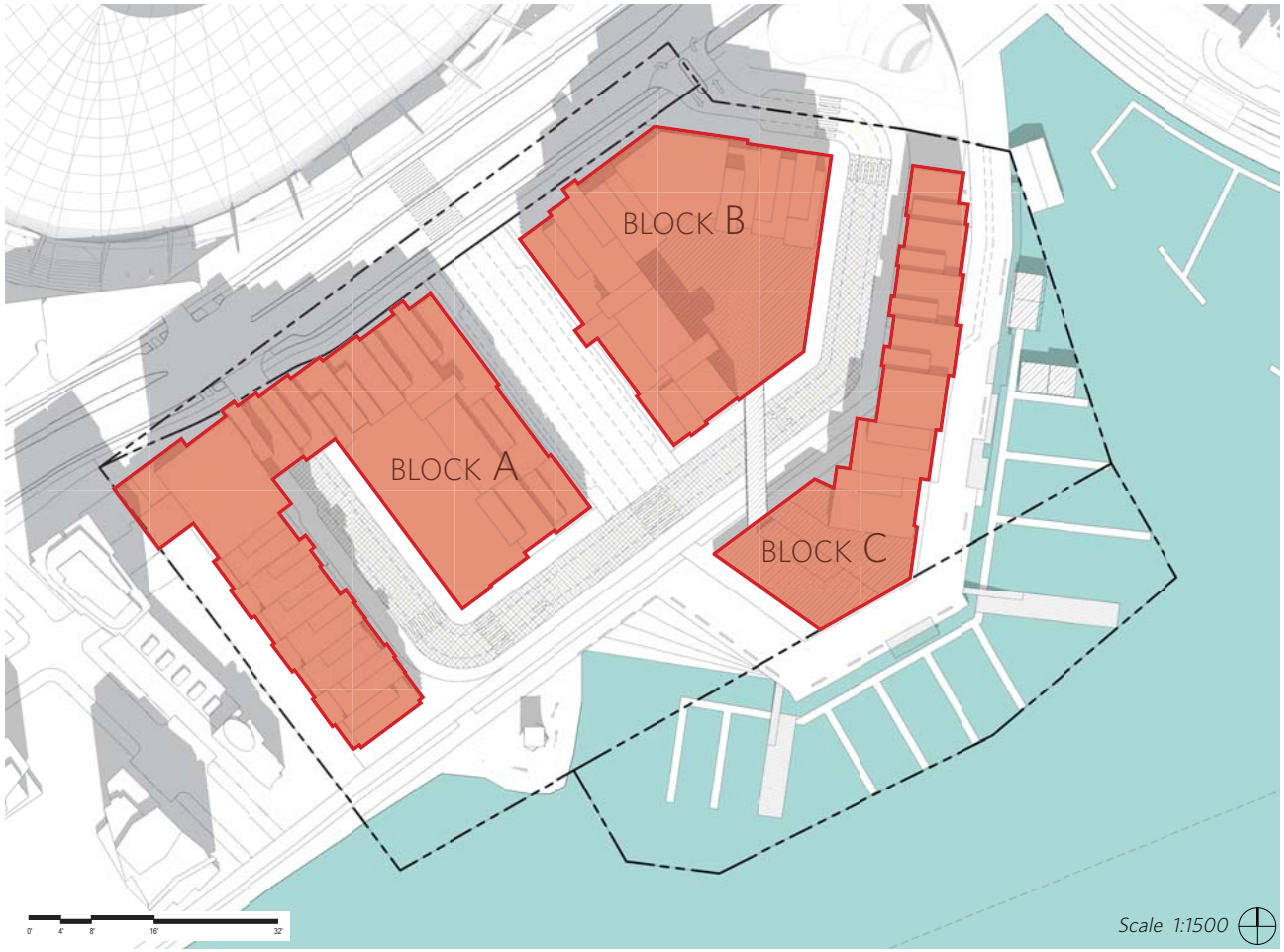
1 - BLOCKS

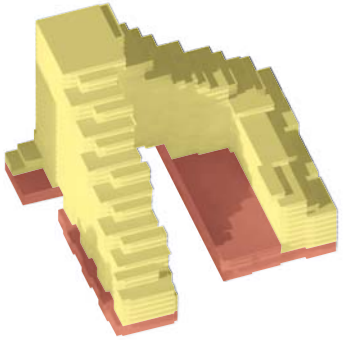
Intent
The following section identifies and provides development direction for the individual blocks and buildings of the project.

Block subdivision
The project is subdivided above ground into 3 blocks, with a common underground parking. These blocks can be subdivided further into separate buildings and different phases facilitating participation by multiple architects.

It is anticipated that there will be a master architect overseeing and coordinating design of the multiple buildings within each block and integration with the common underground parking structure and servicing area.

Preliminary development permit reviews are recommended for each block to ensure coordination between individual buildings and their architects, and to best enable the design to be developed in response to emerging directions and considerations for livability and overlook.

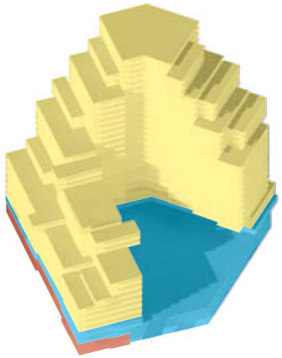




Block A

Height: 295'-9" (Level 29)

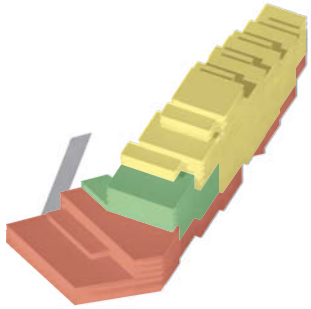
- Residential
- Commercial



Block B

Height: 305'-9" (Level 30)

- Residential
- Commercial
- Community



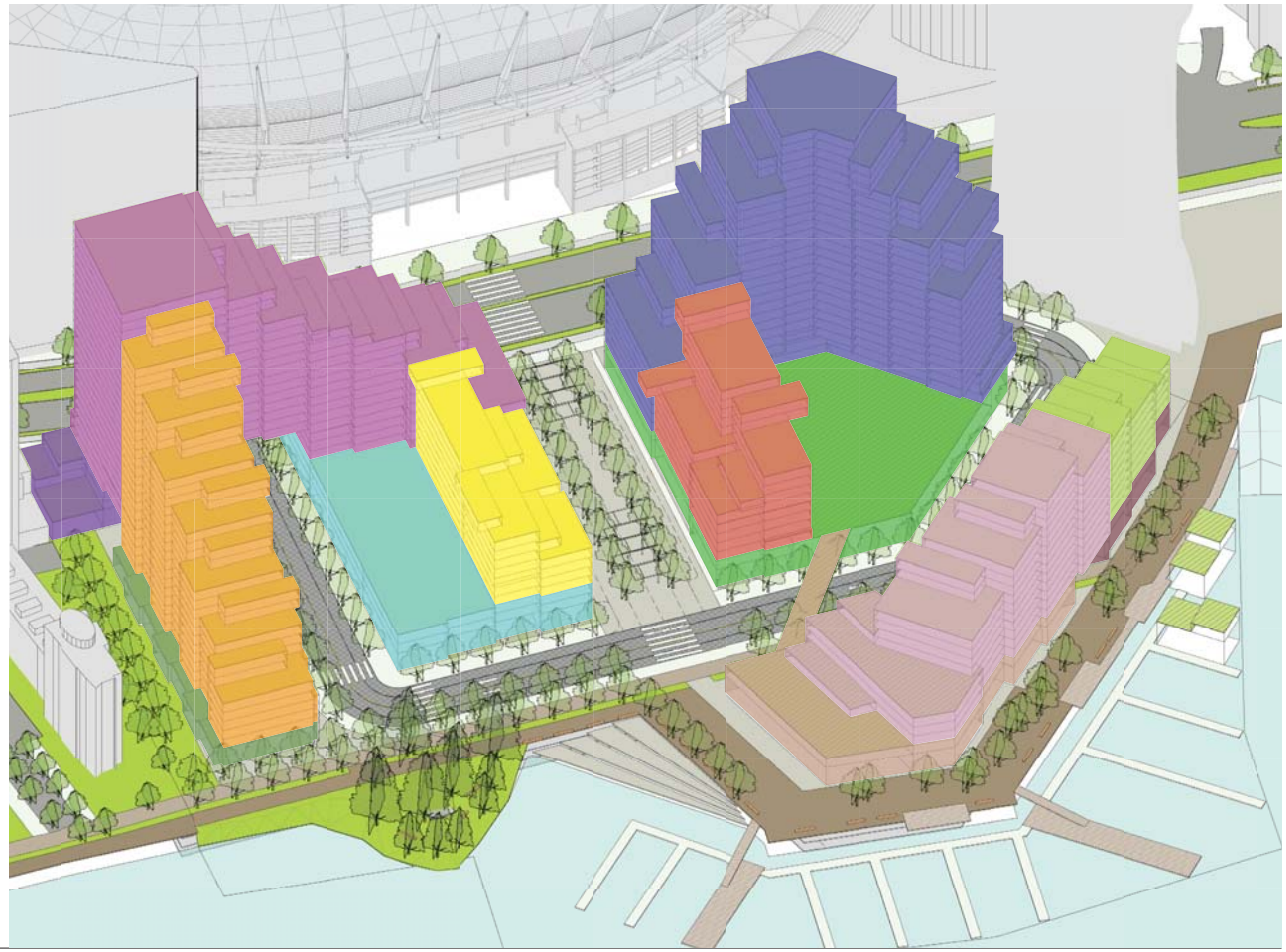
Block C

Height: 175'-9" (Level 17)

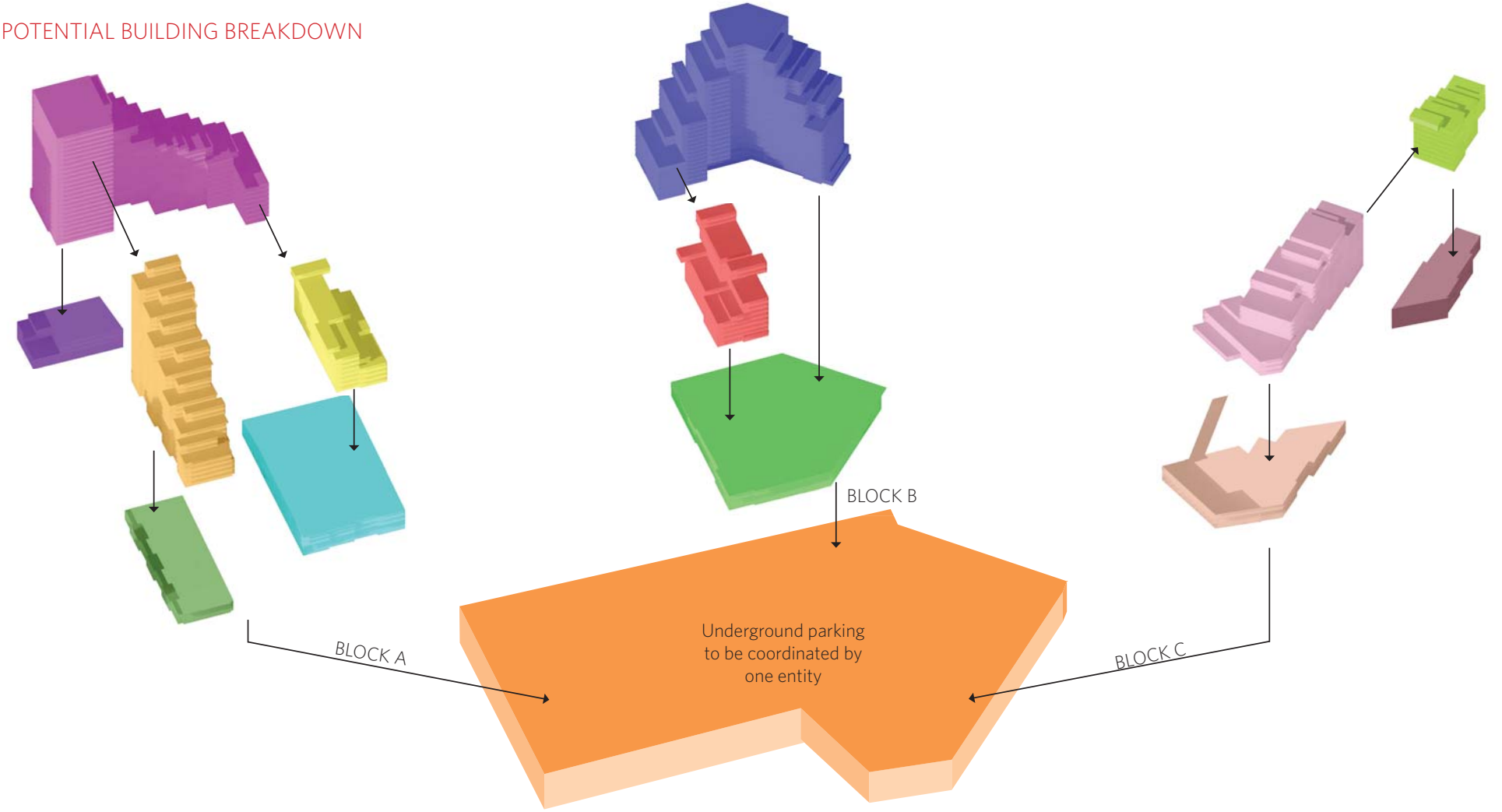
- Residential
- Commercial
- Hotel (*Location and size may vary)

2 - BUILDINGS

The following diagram highlights a potential subdivision and/or phasing of the three blocks into separate buildings.



POTENTIAL BUILDING BREAKDOWN



3 - UNDERGROUND PARKING AND LOADING

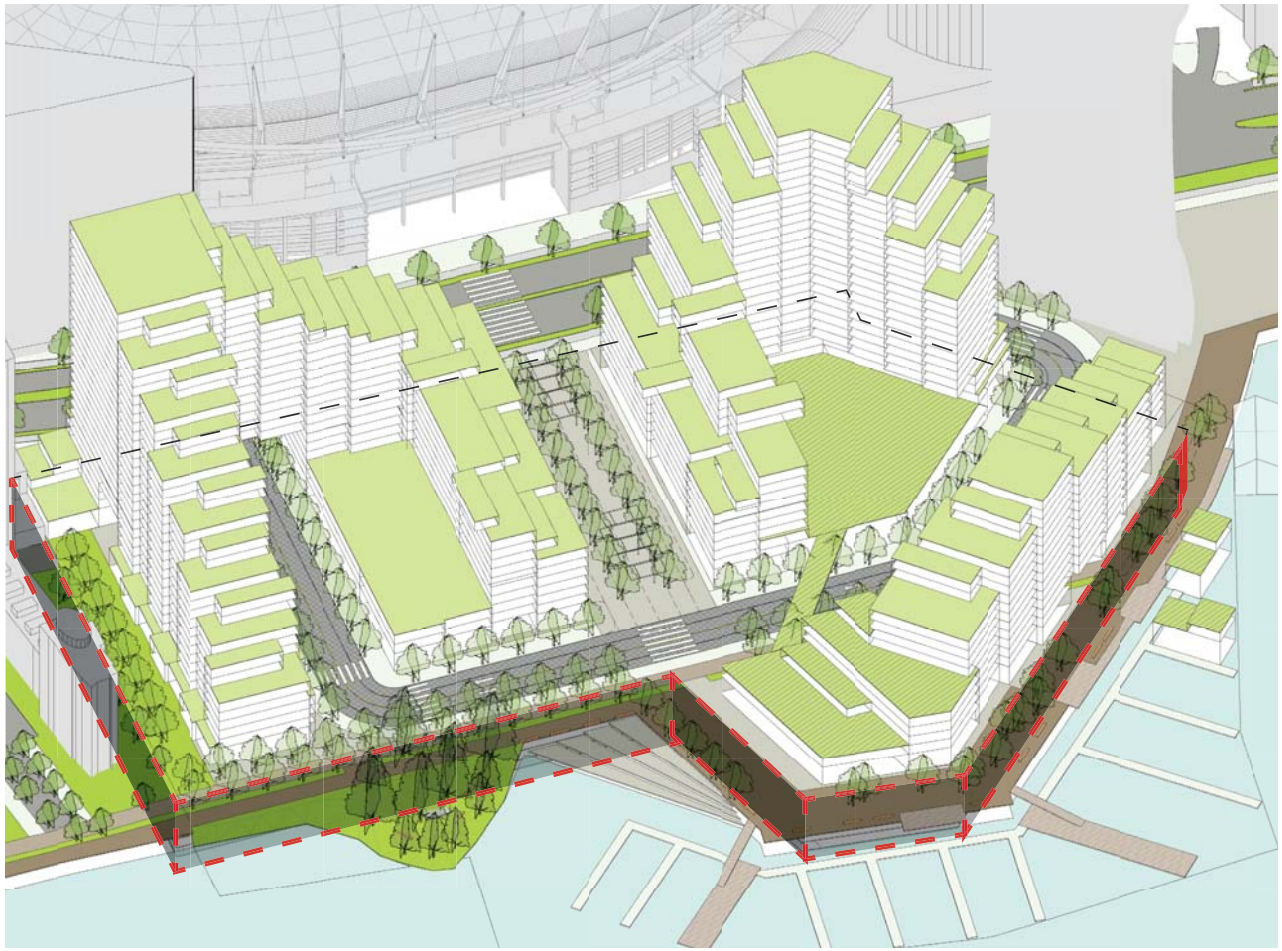
All loading areas and parking to be located underground. One large continuous underground parking area is planned to service all buildings.

Charging Stations*
The target is to provide the following charging stations :

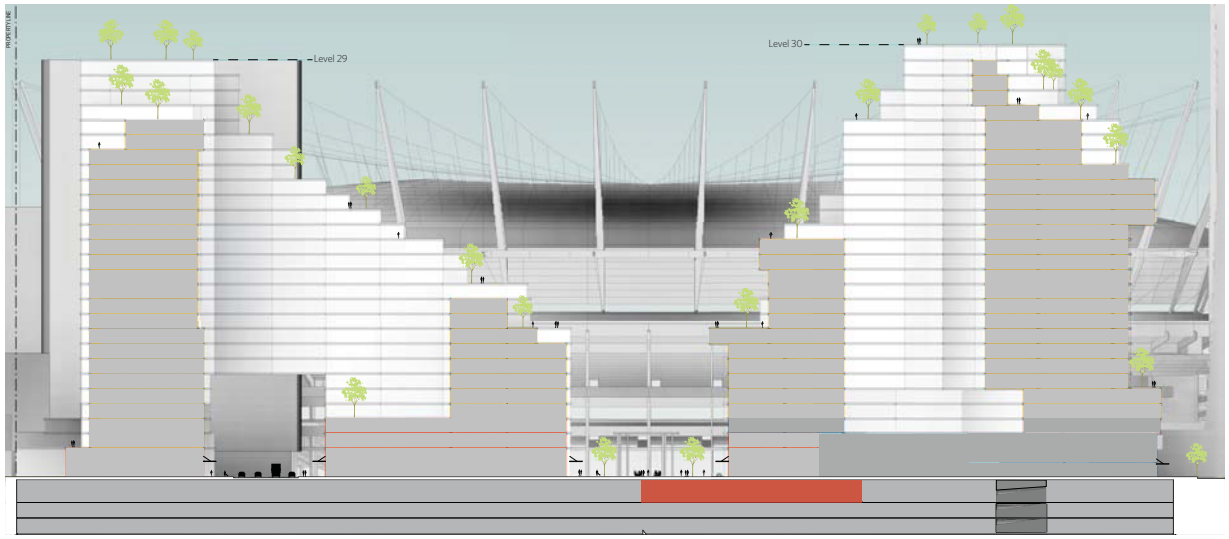
- 20% of total residential parking spots
- 10% of commercial parking spots

Bicycle Parking*
- Targeting a minimum of 1885 bike parking spaces

*Consider targeting up to 20% beyond the minimum charging station and bicycle parking requirements.



The centralized parking will assist with wayfinding for visitors to the events and entertainment district. Two main parkade entries are planned along with a centralized loading area to serve the site and minimize crossing and access impacts on the public realm. This strategy will also facilitate the division of blocks into a variety of scales of buildings that can be designed by different architects. It is important to note that the parking garage must be designed to allow sufficient depth and conditions to enable large scale trees to thrive in the streets and plazas of public realm above. Support for the contiguous parking strategy for the site is dependent on delivery of a quality public realm that is not limited by the parking beneath.



P1 Loading Area *Scale 1:1000*

Ground Floor Loading entry areas Diagram *Scale 1:3000*

P1 Loading Area Diagram *Scale 1:3000*

4 -COMMERCIAL

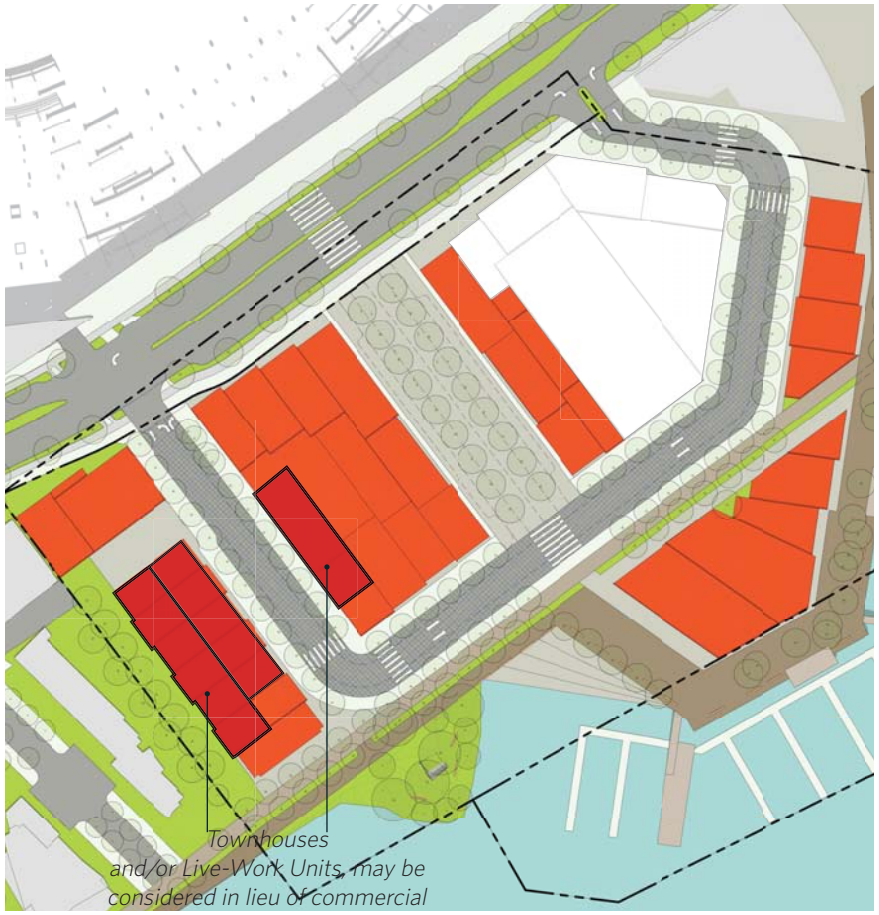
The commercial area will include a wide diversity of uses and scales.

This area (as well as the community centre and ice rink) will include a variety of job opportunities including, among others, office, service, retail, hotel, and restaurant uses.

All retail to be curated to allow for maximum vibrancy. A Retail Curation Strategy will be provided at Development Permit.

Diversity of Use & Scale
Potential commercial uses include, but are not limited to the following:

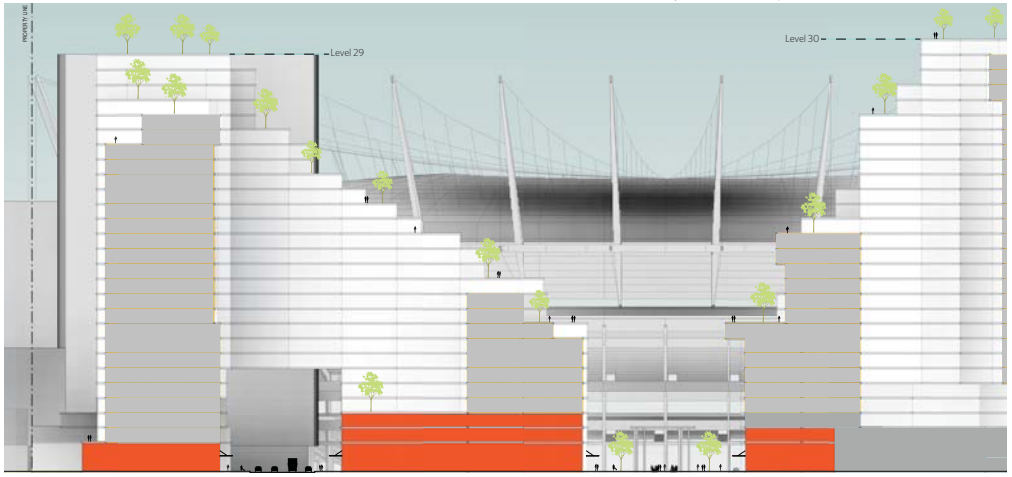
- Hotel
- Shops
- Restaurants
- Drinking establishments
- Grocery Store
- Offices
- Mooring & Fish boats (along the water)
- Etc...



Ground Floor Diagram *Scale 1:1500*

Patio (Precedent)

Active Streets (Precedent)



Section Diagram *Scale 1:1000*

07

Architecture and Expression

1 - FLEX ZONE

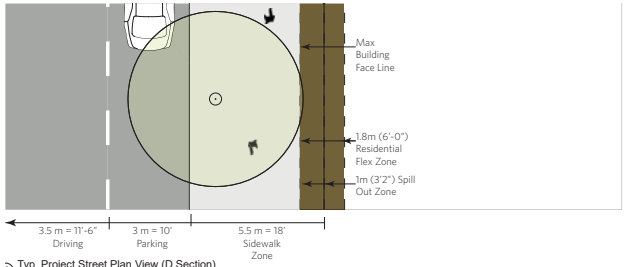
Intent
The Plaza of Nations will include a diversity of architectural expressions to promote a fine grain expression and strong sense of place. The architectural expression should be highly legible and designed to reinforce and enhance pedestrian experience and the public spaces onto which they front.

The facade of the building is intended to be highly textured and varied. By introducing a 'flex zone' to the building massing, this allows further manipulation of the facade and mass.

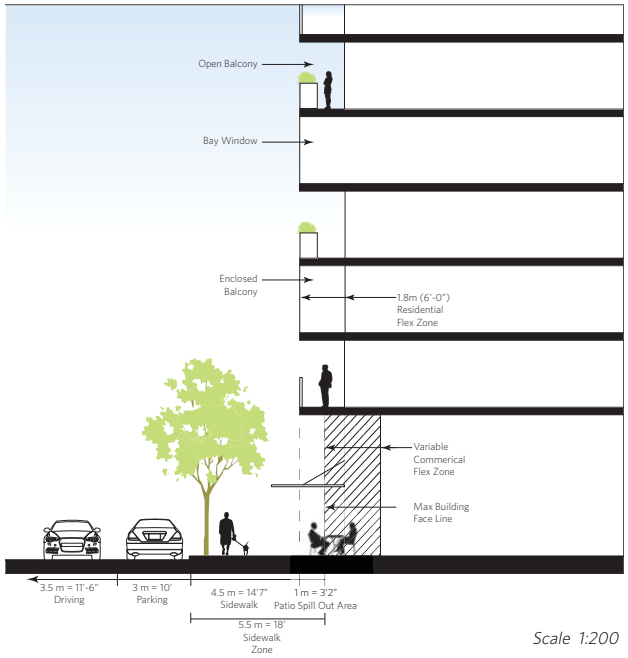
Flex Zone
The perimeter of the buildings have a planned flex zone up to 6' (1.8m). This will accommodate open balconies, closed balconies and/or bay windows. A maximum of 50% of this area can be occupied.

The main building setbacks and the flex zones are set to provide a minimum 5.5m sidewalk area on the local streets, of which up to 1m may be patio zone with building overhangs above street level.

Scale 1:1500



Typ. Project Street Plan View (D Section)
1 : 100



Scale 1:200

Cafe, Copenhagen

VM building, BIG, Copenhagen

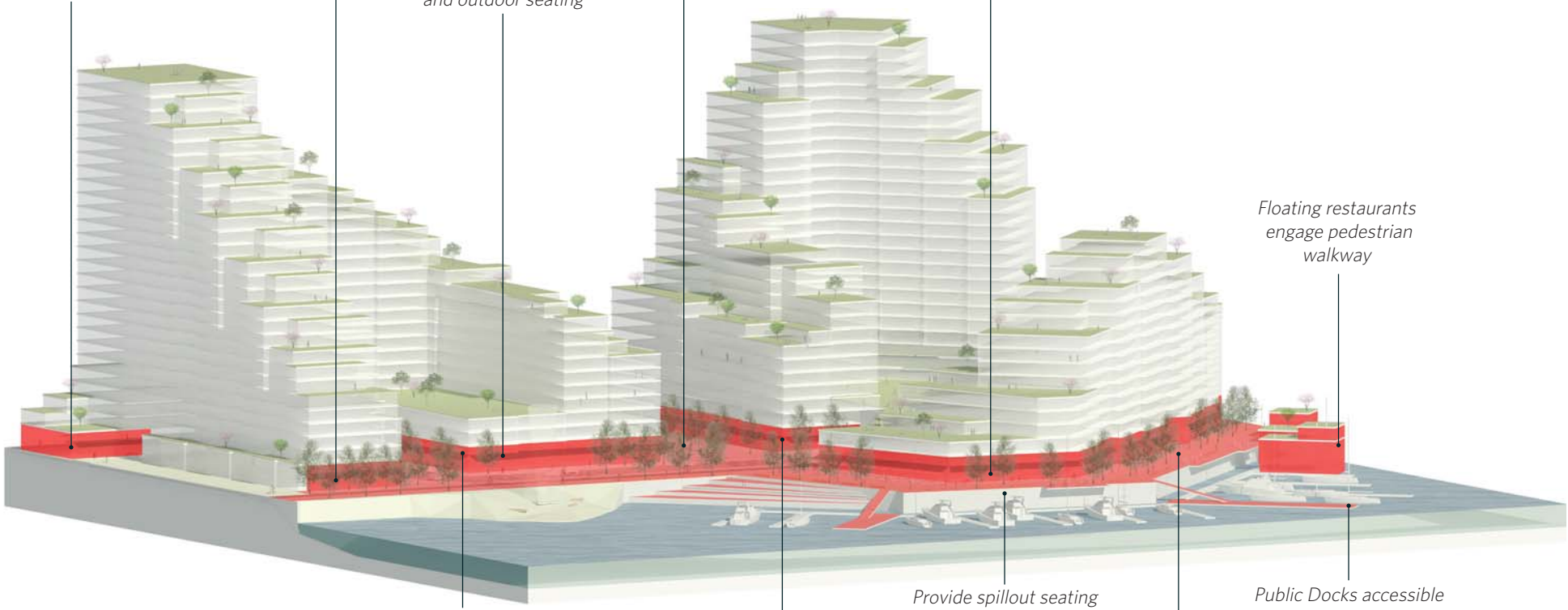
Carnaby Street, London

Residential building, Amsterdam

2 - GROUND FLOOR FACADE

Intent
Design ground-floor facades as per NEFC's Streetscape Urban Design Framework's Ground Floor Design Guidelines.

The following diagram illustrates some of these principles.

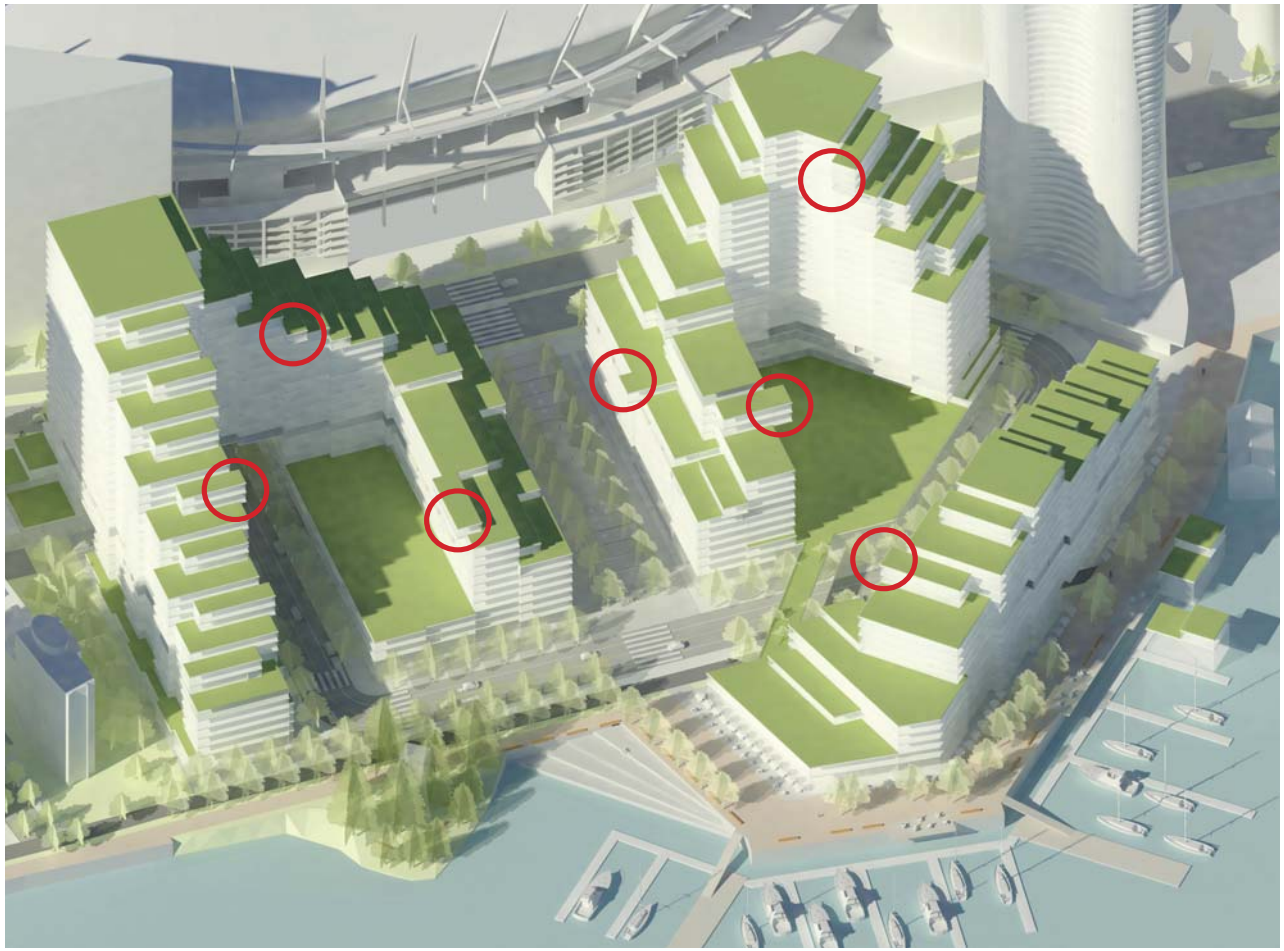


- *Locate parkades off main pedestrian streets and away from areas with important staying activities or high pedestrian flow*

3 - SPECIAL ELEMENTS

Intent
Special architectural devices will be used throughout the area to add variety to the facades, while creating interesting moments and spaces throughout.

Unique architectural elements to be considered on a building by building basis.



Civil Justice Center, Denton Corker Marshall, Manchester

Biotechnological facility, Tatiana Bilbao, Mexico

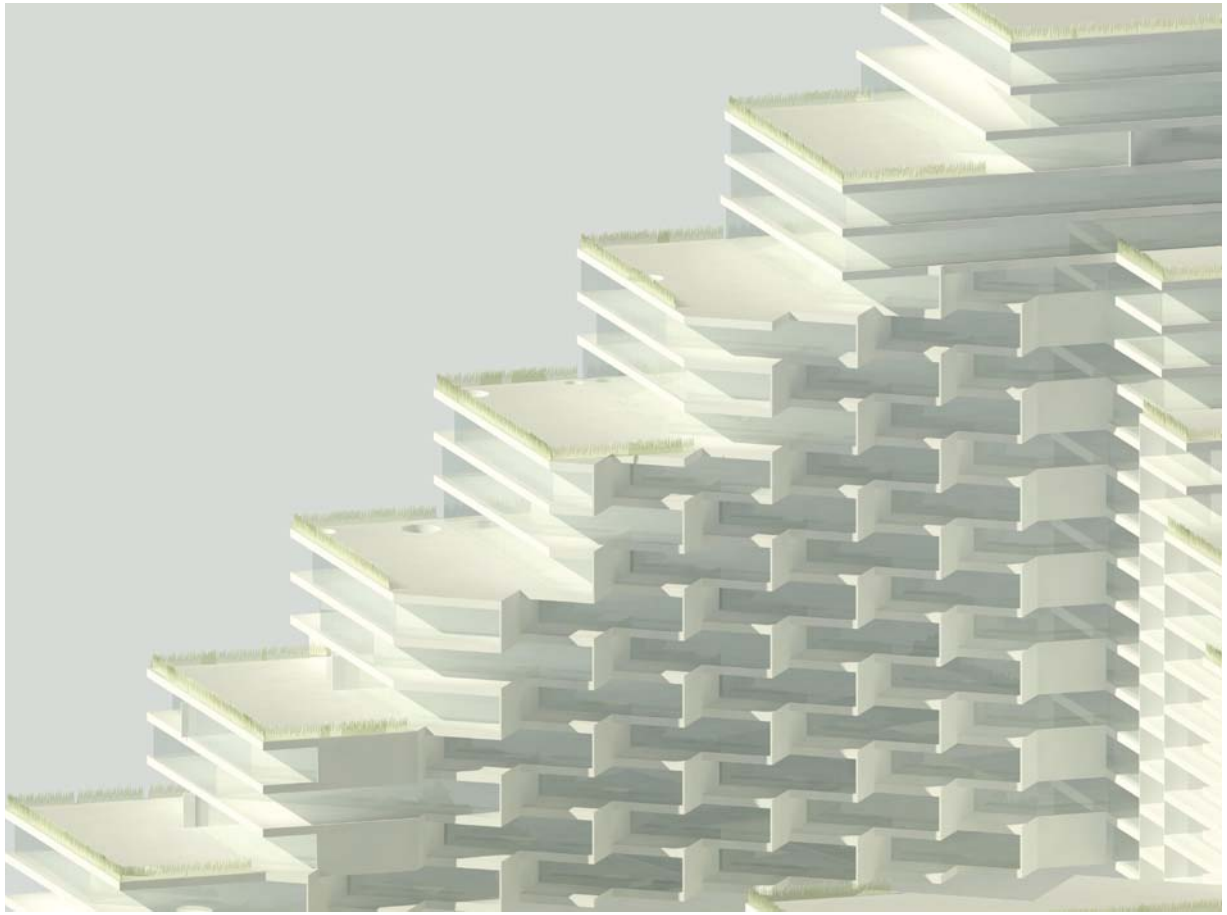
Axis Viana Business & SPA Hotel

4 - FACADE TREATMENT

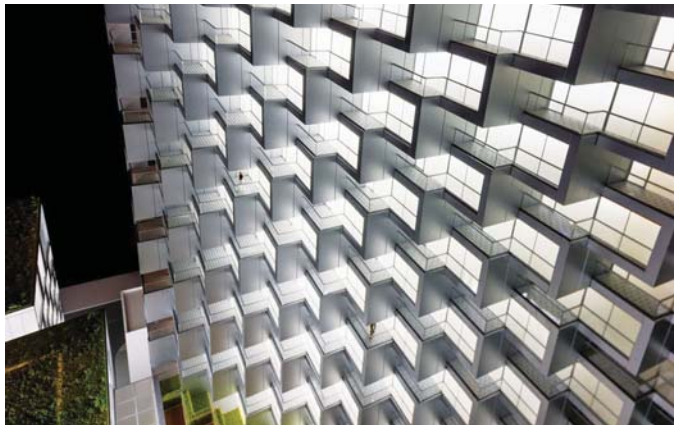
Intent
The facades of the buildings within each block should be diverse and of a fine grain character. A monolithic building massing and articulation is strongly discouraged.

Textured Facades
On all buildings, where possible, interesting facade textures are necessary to enrich the overall texture and visual amenity of the development. Projecting forms, overhangs and thoughtful placements of balconies are important.

Unit Overlook
Privacy between units is also important. This can be achieved by the thoughtful articulation of the facade. Internal facades with potential overlook (such as those shown in the diagrams to the right), can be designed to avoid overlook between units.



Facade exploration



Vancouver House, BIG, Vancouver

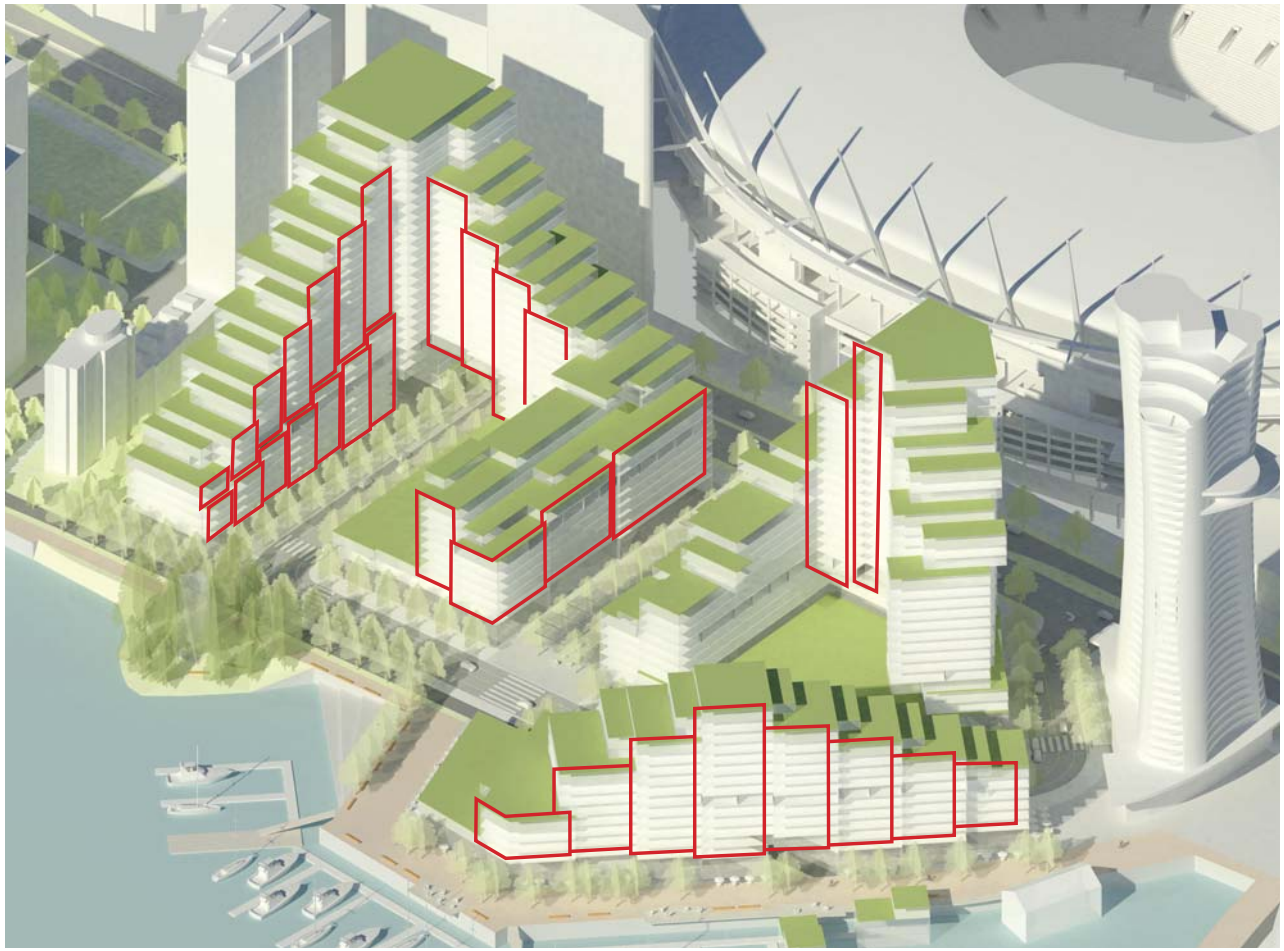
ODA, New York

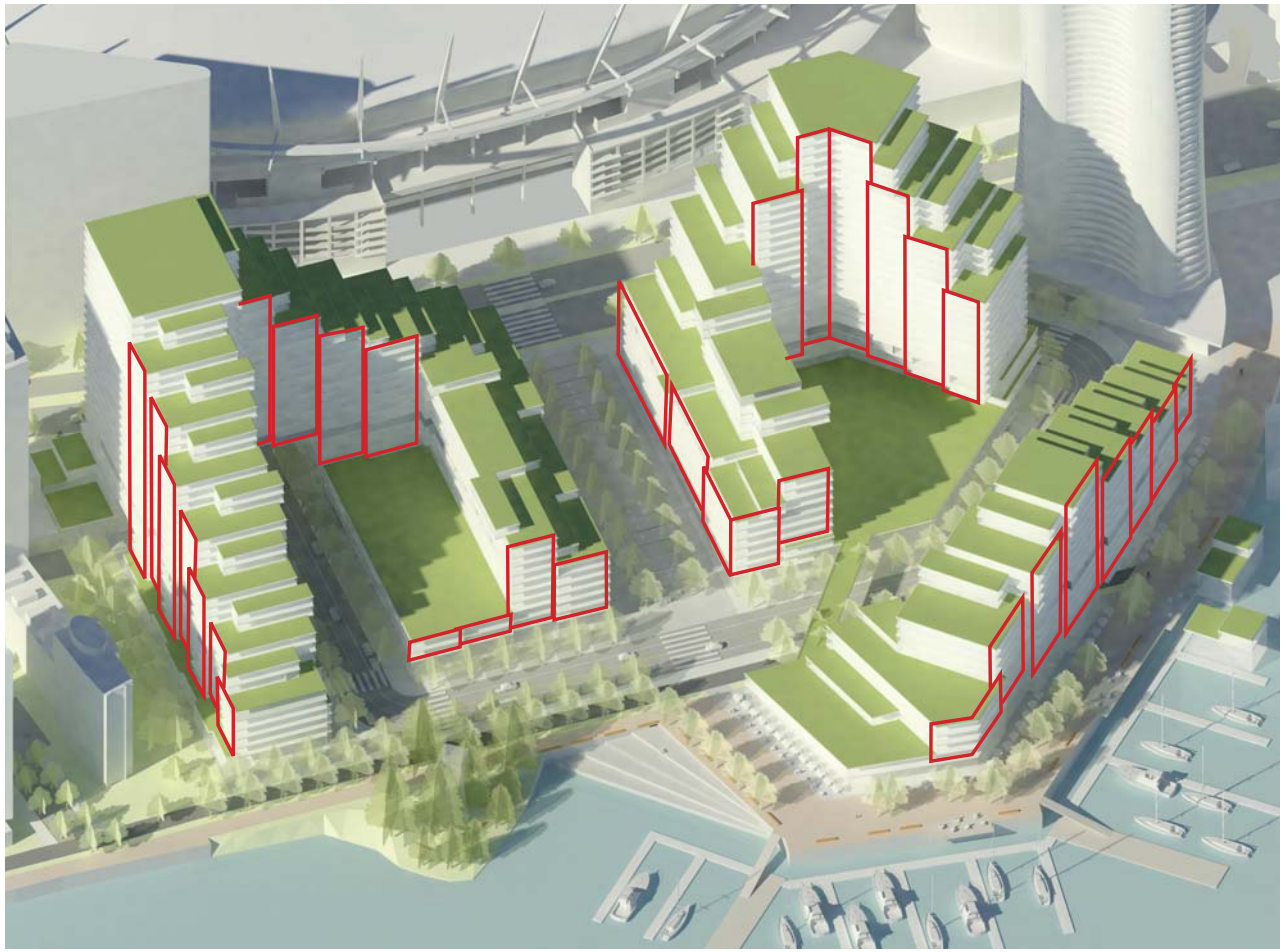
5 - DIVERSITY IN ARCHITECTURE

Facade Expression
The terraced typology shown allows the mass of the buildings to be broken down into a finer grain. This can be achieved in a variety of ways with either vertical or horizontal expression. A potential vertical breakdown of the facade is shown in the adjacent diagrams.

Opportunities for Multiple Architects
The intent is that various architects will be introduced to create further diversity in the facade under the guidance of a coordinating executive architect.

The Waterfront building is a particular opportunity for a variety of expressions given its prominence on the waterfront and the suitability of the form.





Waterfront, Oslo

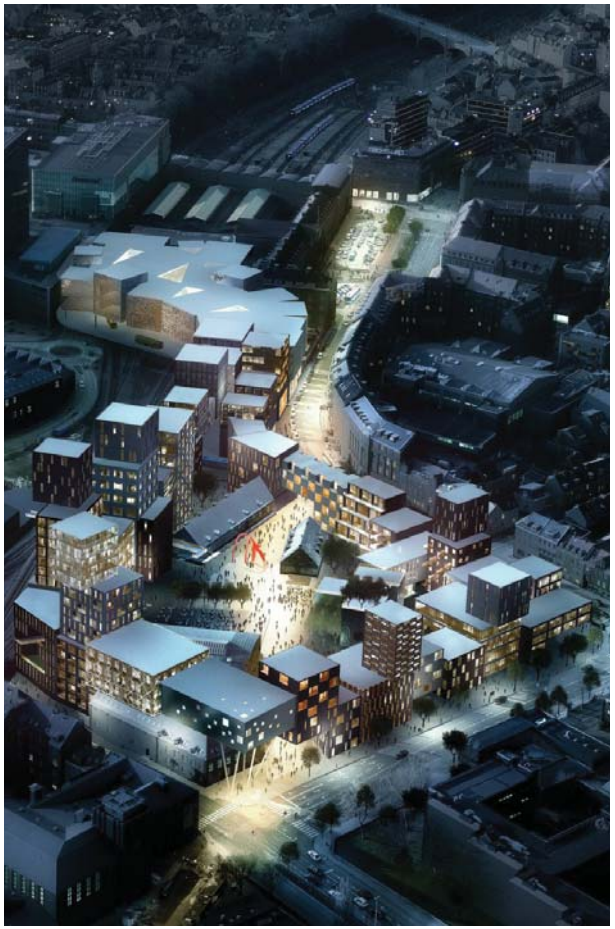
Row Houses, Borneo, Amsterdam

5 - DIVERSITY IN ARCHITECTURE

The following images illustrate examples of other large scale projects that convey a fine grain facade articulation. These vary the facades expression vertically into blocks, a similar approach to that shown on the previous page.

Aarus Central Station Area, Denmark. COBE Architects

Deutzer Hafen, Cologne, Germany. COBE Architects



Aarus Central Station Area, Denmark. COBE Architects

Deutzer Hafen, Cologne, Germany. COBE Architects

6 - ACOUSTICAL DESIGN

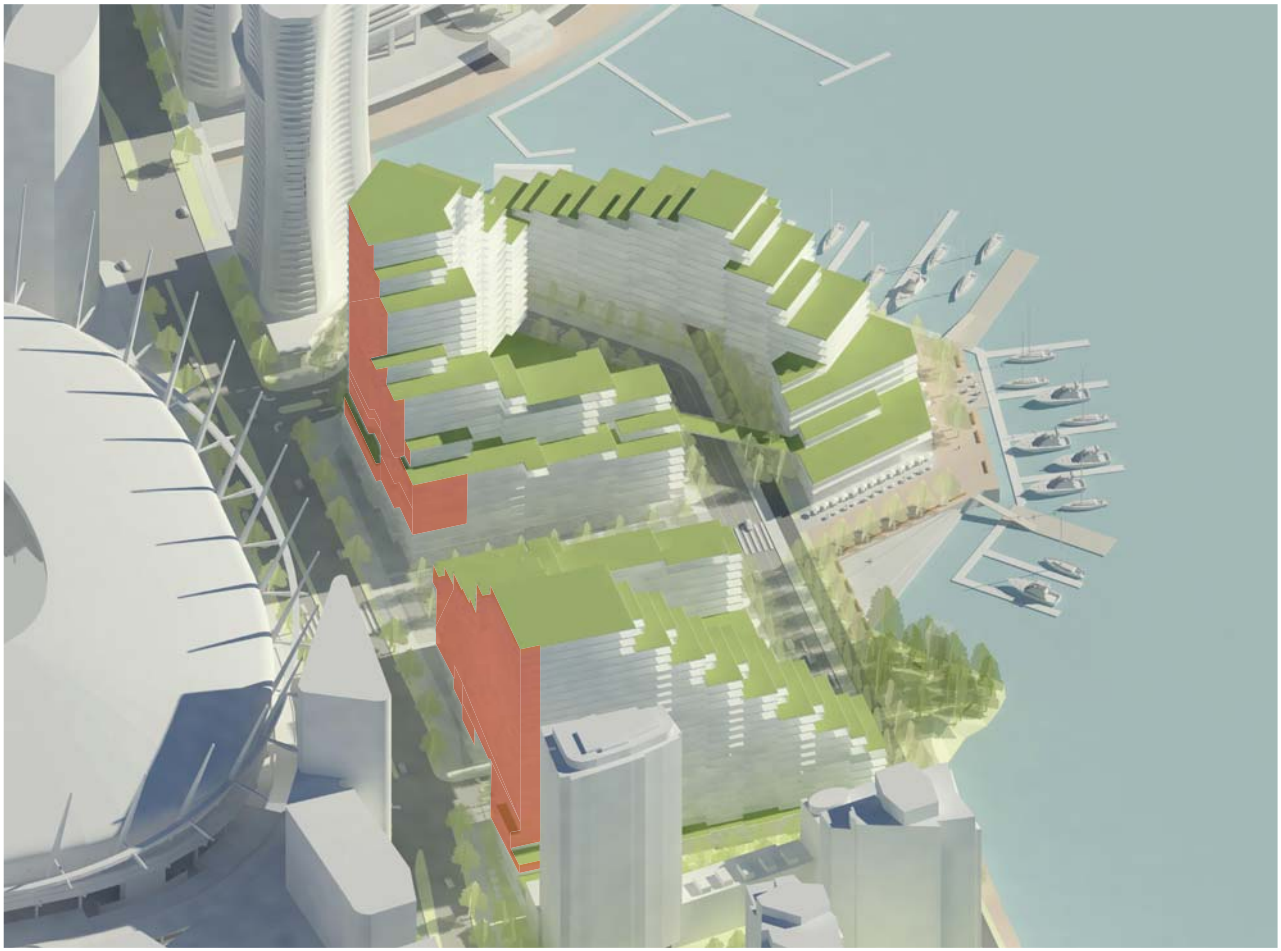
Intent
To mitigate noise from the stadium and Pacific Blvd, acoustic solutions will need to be considered to address the comfort of the inhabitants.

Enclosed Balconies
Enclosed balconies will improve livability by reduction of noise in residential units along Pacific Blvd. Innovative approaches to further enliven the facade with enclosed balconies are strongly encouraged.

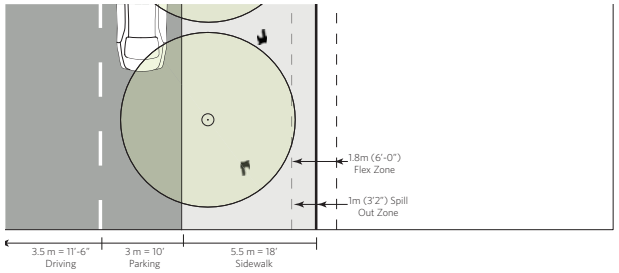
Further acoustical studies required as part of the development permit process will highlight the extent and location of enclosed balconies

Other Acoustical Measures
Mitigate noise by exploring other acoustical strategies beyond enclosed balconies, such as:

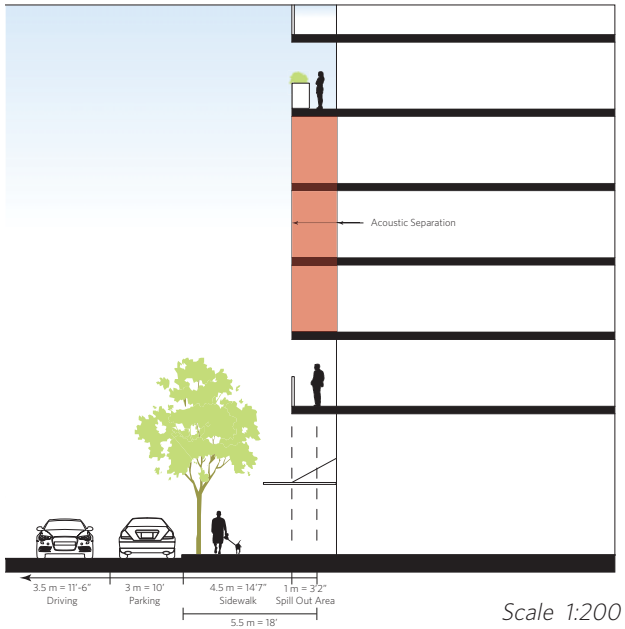
- Wall assemblies
- Window/Wall Ratio
- Glazing types
- Material Selection
- Unit Layout



Denotes spaces and units requiring special acoustic considerations



Typ. Project Street Plan View (D Section)
1 : 100

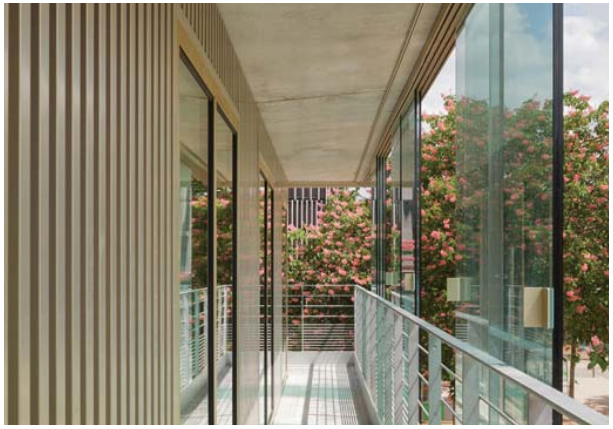


Scale 1:200

Enclosed balcony

Enclosed balcony

Enclosed balcony



Enclosed balcony

7 - ADJACENT SITE RELATIONSHIPS

Exploration
The following images illustrate the explorations made comparing the standard tower podium typology with that of a terrace scheme. It was concluded that the standard tower blocked more view from neighboring units.

Additionally, the terrace scheme allows flexibility and a multitude of variations which can further reduce the appearance and dominance of the western block as currently shown. The illustrations to the right are potential approaches to achieving the design intent that will be explored further during the development permit process.

Standard Tower Podium Scheme

Proposed Terrace Scheme

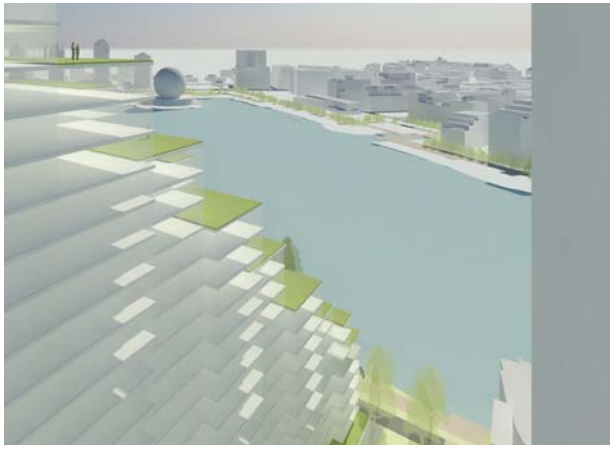
Standard Tower Podium Scheme
Site Plan

Standard Tower Podium Scheme
View from Mid Height Coopers Lookout Tower

Standard Tower Podium Scheme
View from Penthouse Coopers Lookout Tower

Proposed Terrace Scheme
Site Plan

Proposed Terrace Scheme
View from Mid Height Coopers Lookout Tower



Proposed Terrace Scheme
View from Penthouse

7 - ADJACENT SITE RELATIONSHIPS

Design Intent

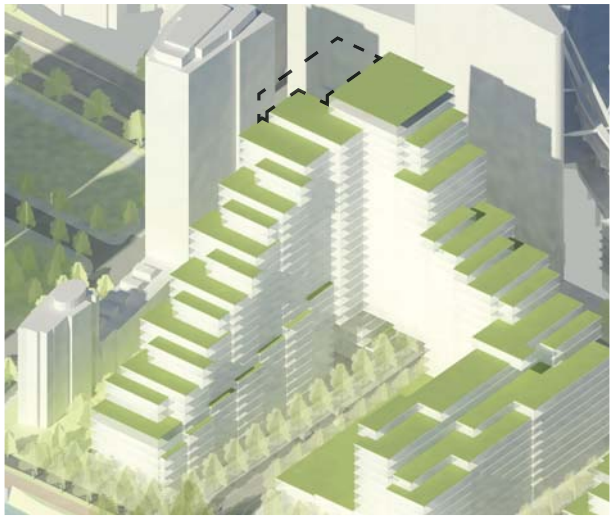
Further design development to the massing of the west building of the west block will focus on the creation of a more dynamic form and terracing pattern, a reduction in massing at upper levels, and an improved relationship to the neighbouring building at Coopers Landing.

Strategies to be explored include:

- Introducing significant breaks in upper level massing that open views and light, and assist in articulating and differentiating building forms and expression.
- Shifting residential density eastward at upper levels into areas where views to the stadium spires are blocked by the Parq Casino and Hotel building
- Reworking massing to better reflect the 'habitable topography' concept through a more varied pattern of stepping heights and projecting forms.
- Setting floors back or angling massing to improve adjacent sightlines and soften the apparent building massing.
- Reallocating residential density to areas of the ground level of the western block creating townhouse frontages in keeping with the neighbouring building.

Exploration of Massing

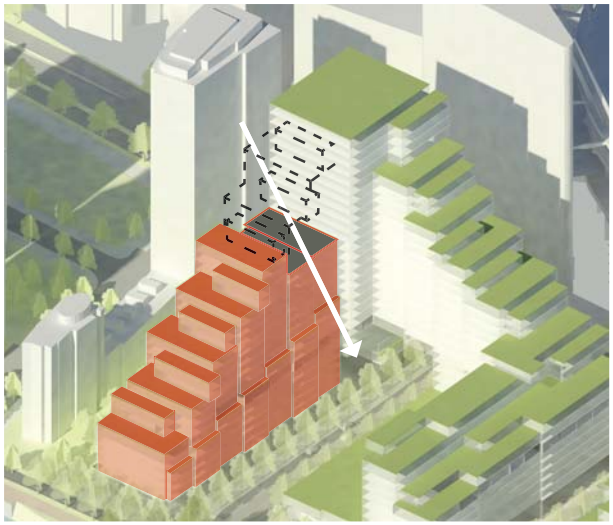
The illustrations to the right are potential approaches to achieving the design intent that will be explored further during the development permit process.



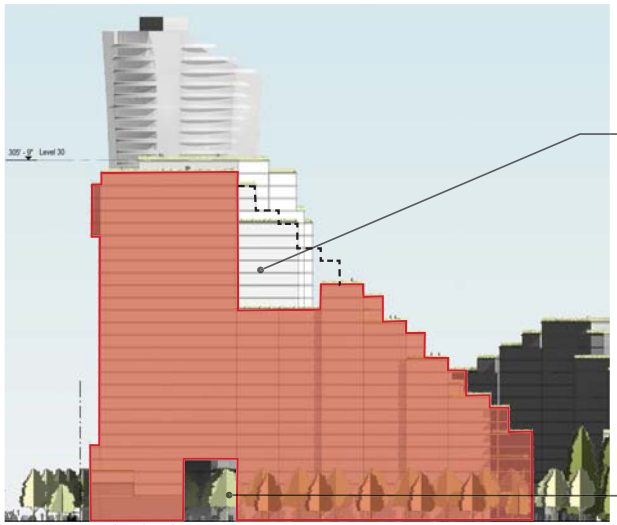
Potential Mass Redistribution Exploration

Western Block Elevation
Potential Mass Redistribution Exploration

Scale 1:1200



Potential Mass Redistribution Exploration



Western Block Elevation
Potential Mass Redistribution Exploration

8 - PORTALS & BRIDGES

Intent
The intent of the portal is to frame views and provide vistas through the site. Explore innovative and thoughtful treatments for the underside of architectural structures, such as those shown below. Consider lighting, texture, animation, material and overlook.

Explore carving and shaping the underside of the portals to access additional light, enhance overlook and add visual interest. Vibrancy and pedestrian scale should be maintained.

1 Local Street Portal

2 Seawall Portal

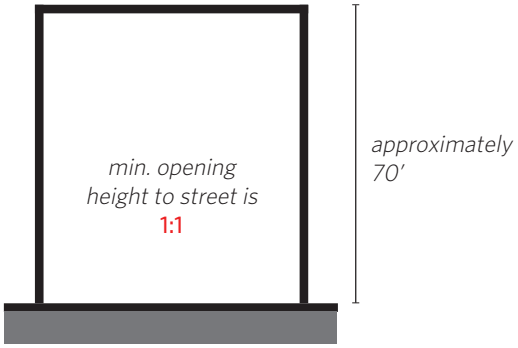
3 Pedestrian Bridge

Location of Architectural Significant Portals *Scale 1:3000*

1 *Local Street Portal*

1 Local Street Portal

This is a unique design opportunity in the city as a main entry portal to the site.



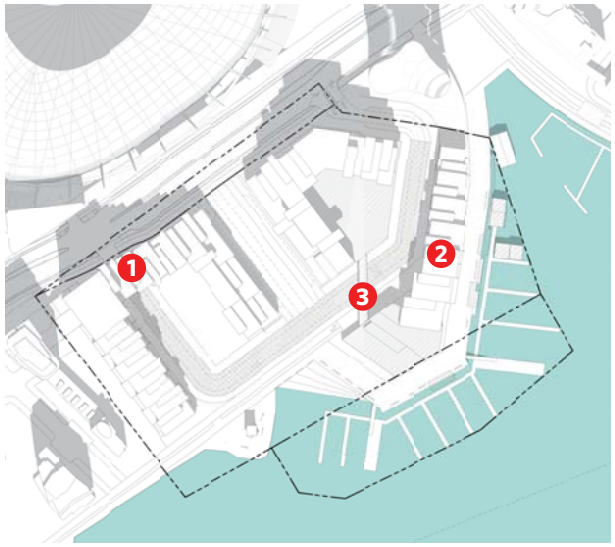
MVRDV, Market Hall, Rotterdam

2 Seawall Portal

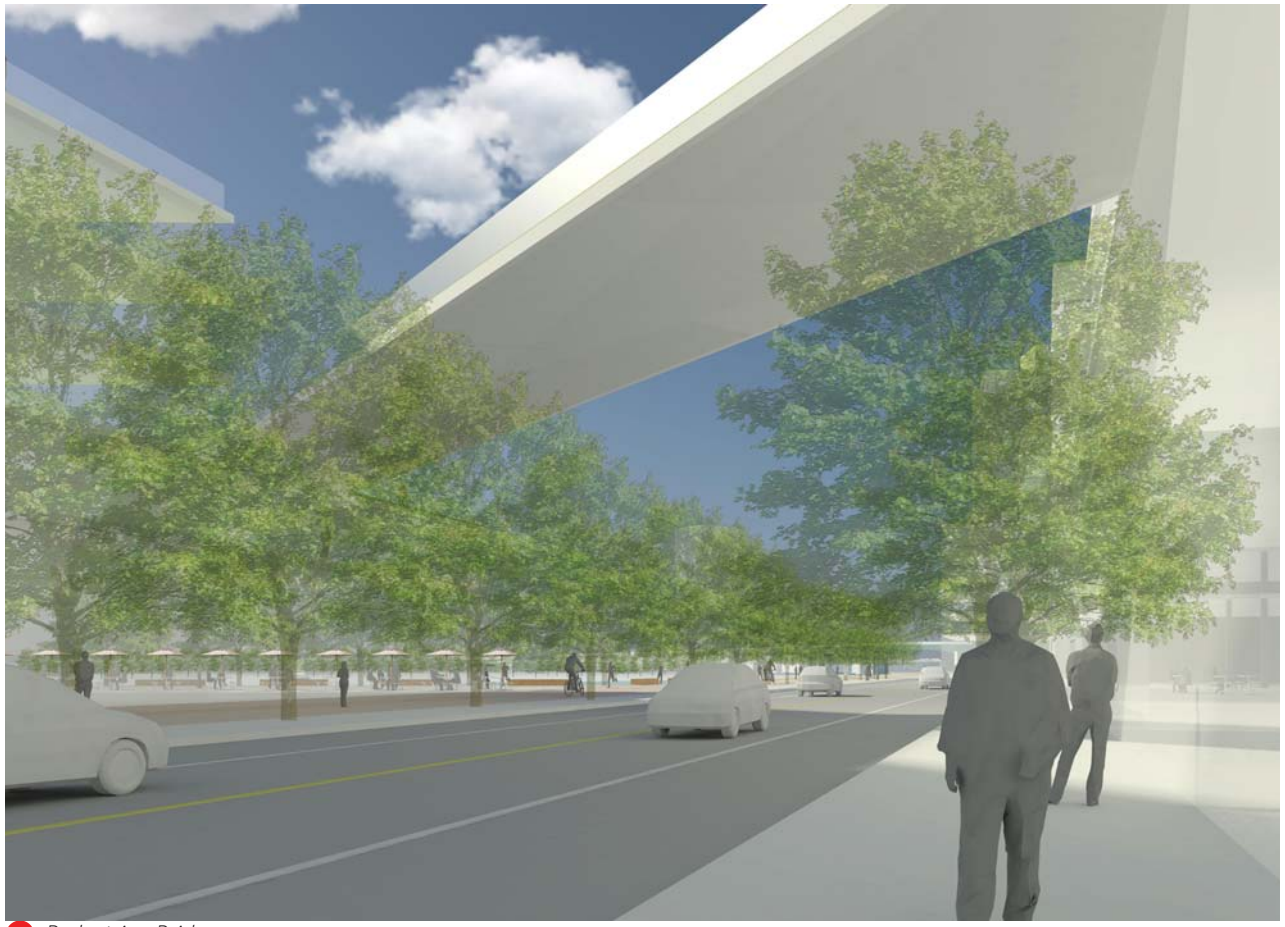
The seawall portal will be an important moment in the seawall experience for cyclists and pedestrians, and must be designed for safety, visibility and enjoyment.

2 *"Seawall Portal"*

8 - PORTALS & BRIDGES



Location of Architectural Significant Portals *Scale 1:3000*



3 *Pedestrian Bridge*

DVVD Engineers Architects Designers, Paris

John Pawson, Sackler Crossing, London

Beach district neighbourhood, Vancouver

The Carve, ALab

08

Sustainability

SUSTAINABILITY

The intent is to use sustainability principles to evolve and guide a design concept.

1 - Low Carbon energy supply

2 - Green Building Design

3 - Climate Change Adaptation

4 - Renewable City

5 - Biodiversity and Habitat

6 - Water: Conservation and Quality

7 - Environmental Education Commitment

8 - Sustainable Food Systems Commitment

9 - Zero Waste Design

10 - Affordable Housing

AIR FILTRATION
Vertical greening and increase tree canopy provide natural filtration of air pollution

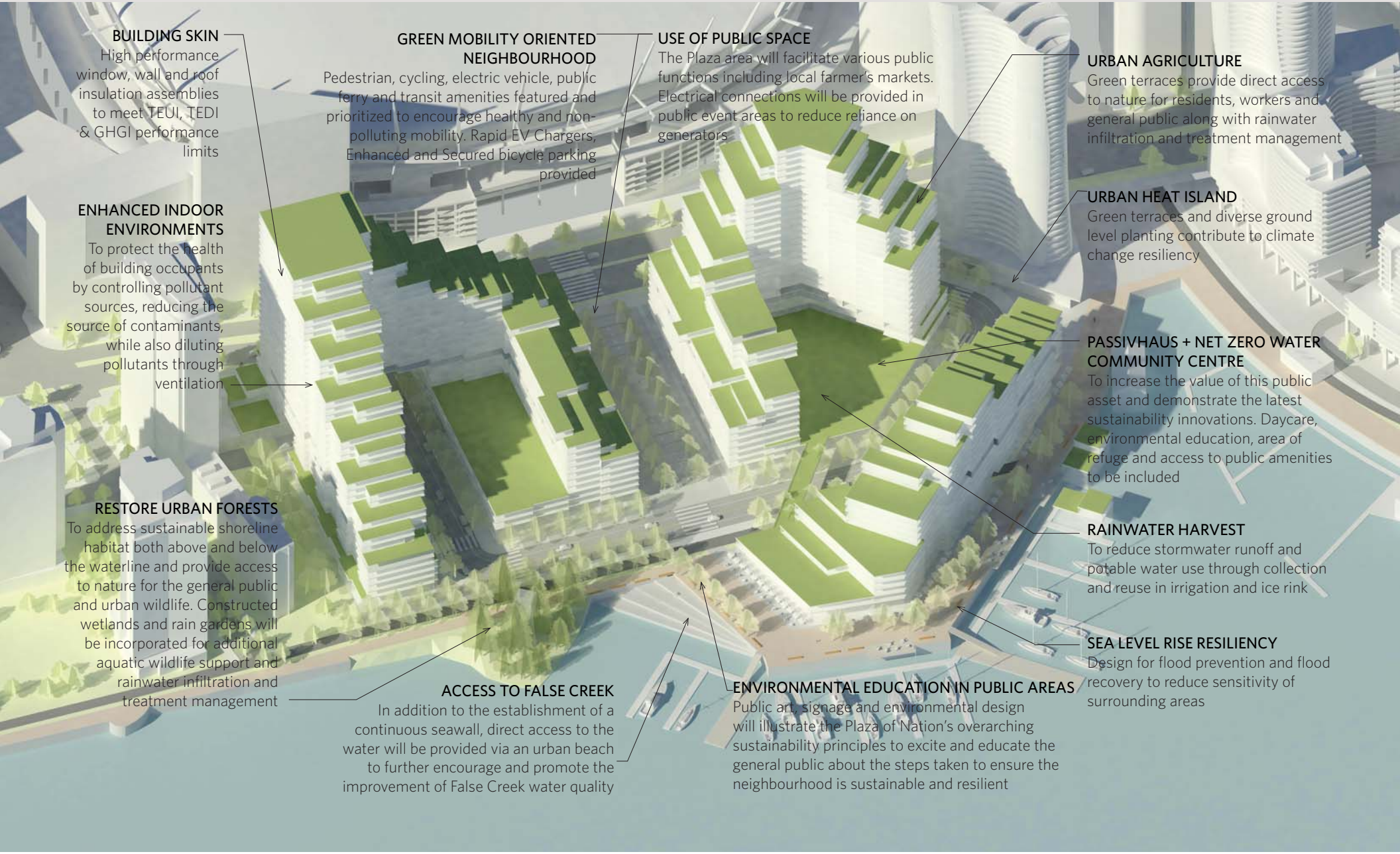
SOLAR ACCESS
Massing optimized for solar exposure in public realm with architectural and vegetative shading for summer and future climate change resilience

URBAN ORCHARD
Bird-friendly trees provide fruit for community and wildlife. Root systems will be supported with tree cell to encourage optimized canopy growth and rainwater infiltration and treatment management

ONGOING WASTE MANAGEMENT
Zero waste planning includes on-site organics management and multi-stream waste collection and reuse of organic compost in Urban Agriculture areas

RESTORE UNDERWATER CONDITIONS
To create an inter-tidal habitat skirt, improving sunlight penetration, optimizing depth and incorporating texture and surface elements to suit red and blue listed aquatic life

DAYLIGHTING
Massing and solar shading optimized for passive design and daylight availability within + beyond site boundary


BUILDING SKIN
High performance window, wall and roof insulation assemblies to meet TEUI, TEDI & GHGI performance limits
ENHANCED INDOOR ENVIRONMENTS
To protect the health of building occupants by controlling pollutant sources, reducing the source of contaminants, while also diluting pollutants through ventilation
RESTORE URBAN FORESTS
To address sustainable shoreline habitat both above and below the waterline and provide access to nature for the general public and urban wildlife. Constructed wetlands and rain gardens will be incorporated for additional aquatic wildlife support and rainwater infiltration and treatment management
GREEN MOBILITY ORIENTED NEIGHBOURHOOD
Pedestrian, cycling, electric vehicle, public ferry and transit amenities featured and prioritized to encourage healthy and non-polluting mobility. Rapid EV Chargers, Enhanced and Secured bicycle parking provided
ACCESS TO FALSE CREEK
In addition to the establishment of a continuous seawall, direct access to the water will be provided via an urban beach to further encourage and promote the improvement of False Creek water quality
USE OF PUBLIC SPACE
The Plaza area will facilitate various public functions including local farmer's markets. Electrical connections will be provided in public event areas to reduce reliance on generators
ENVIRONMENTAL EDUCATION IN PUBLIC AREAS
Public art, signage and environmental design will illustrate the Plaza of Nation's overarching sustainability principles to excite and educate the general public about the steps taken to ensure the neighbourhood is sustainable and resilient
URBAN AGRICULTURE
Green terraces provide direct access to nature for residents, workers and general public along with rainwater infiltration and treatment management
URBAN HEAT ISLAND
Green terraces and diverse ground level planting contribute to climate change resiliency
PASSIVHAUS + NET ZERO WATER COMMUNITY CENTRE
To increase the value of this public asset and demonstrate the latest sustainability innovations. Daycare, environmental education, area of refuge and access to public amenities to be included
RAINWATER HARVEST
To reduce stormwater runoff and potable water use through collection and reuse in irrigation and ice rink
SEA LEVEL RISE RESILIENCY
Design for flood prevention and flood recovery to reduce sensitivity of surrounding areas

1. LOW CARBON NEIGHBORHOOD ENERGY SYSTEMS & SUPPLY

The Plaza of Nations is targeting a carbon neutral design to set a benchmark for the next generation of sustainable community projects. Buildings are responsible for over 41% of the greenhouse gas emissions in Vancouver.

Energy demand can be significantly reduced by way of low carbon energy supply, sophisticated envelope design, passive considerations on each facade, heat recovery, solar hot water systems etc.

Buildings will be connected to the Council approved Neighbourhood Energy Utility expansion of SEFC unless they meet the Passive House standard for energy consumption. Waste energy from the ice rink will also be utilized to further reduce the overall carbon footprint of the development.

Monitoring and reporting through the Post Occupancy Study (POS) submission requirements three years following occupancy of each building to track the successes of the sustainability plan.

Amager Bakke Ski Slope Concept, Bjarke Ingels Group, Copenhagen, Denmark.

2. GREEN BUILDING DESIGN

Community Centre - Green Building Certification
To increase the value of this public asset, the building will be designed to meet Passivhaus standards and will target net zero potable water use by way of a rainwater capture and reuse system. Other opportunities will be explored to ensure this component of the Plaza of Nations shines a spotlight on sustainable design.

Sustainable Site Design Plan
- Maximize passive daylighting with higher than usual floor-to-floor heights
- Tailor the position and massing of buildings to maximize sun penetration throughout the day, allowing the capture of solar gains on south-facing facades and reducing winter heating demand.
- Explore unique solar shading treatments for each unique orientation of the building.
- Include architectural shading, vegetation and large tree canopies to provide protection from sun and rain
- Allow generous and diverse tree species to provide added benefits of climate change adaptation and improved air quality from increased number and size of tree plantings

Enhanced Indoor Environmental Quality
- Provide outdoor air ventilation to all occupied indoor spaces
- Ventilation design to reduce occupant exposure to indoor pollutants
- Select healthier material ingredient options for interior finishes and coatings to limit the quantities of harmful volatile organic compounds (VOCs)
- Conduct testing for formaldehyde, particulates, ozone, total volatile organic compounds and carbon monoxide, and share results with the City of Vancouver.

Enhanced & Ongoing Building Performance
- Airtightness Testing
- Enhanced Commissioning
- Energy System Sub-Metering and Reporting

Low Emissions Green Buildings
Buildings that are not meeting the Passive House standard will meet the High Performance Buildings policy in section 11.1 of the NEFC Plan and as outlined in the "Low Emissions Green Buildings" section of Green Buildings Policy for Rezonings. Thermal bridging, air tightness and ventilation are critical factors in building envelope design.

The Austria Haus, Whistler, by Treberspurg & Partner Architekten, (First registered Passivhaus building in Canada)

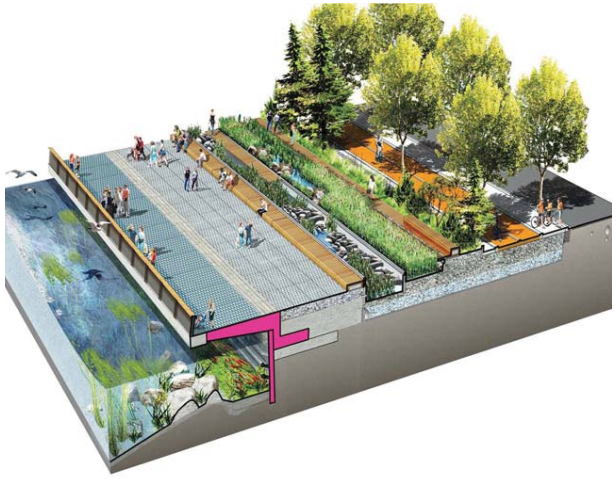
3. CLIMATE CHANGE ADAPTATION & FLOOD PROTECTION

Sea Level Rise Resiliency Commitment

- Maintain a minimum 4.8 m Floor Construction Level throughout the development, with contingency for a future additional 1.0 m accommodation following flood defense Provincial requirements.
- Consider how flood defense measures can enhance the public realm, increase canopy cover, improve the foreshore, and create a diverse and adaptable habitat. Study approaches such as “Green Shores” and “Living Dike”concepts.
- Protect all habitable areas and critical infrastructure and locate them above the Flood Construction Level.
- Ensure all ground level infrastructure will include additional flood defense design approaches in alignment with flood defense Provincial requirements and reports published by Simon Fraser University Adaptation to Climate Change
- Consider best management practices utilized for the Seattle Waterfront redevelopment, “Rebuild by Design” measures utilized in New York and New Jersey following Hurricane Sandy and The Bay Area Challenge “Resilient by Design” in regard to sea level rise and flood protection.
- Meet seismic requirements in flood management zone

Resilient Drinking Water Access

Potable water access points to be provided where possible along publicly accessible grade and lower floors within buildings.



Seattle Waterfront Redevelopment

4. RENEWABLE CITY

Refrigerant Emissions & Embodied Emissions
In pursuit of carbon neutrality, The Plaza of Nations development will utilize multiple life cycle assessments focusing on building materials and refrigerants to minimize wherever feasible the impact of embodied emissions.

Life cycle assessments will help identify the most appropriate and impactful areas for material and refrigerant substitutions, to mitigate embodied emissions related to the Plaza of Nation's construction.

- Require building material and product Suppliers to provide industry regulated ingredient declarations, and identify the environmental impacts associated with each material.
- Select materials, where feasible to have 3rd party verified certification like GreenScreen v1.2, Cradle to Cradle, or REACH.

Green Mobility Plan
This will include prioritizing walking, cycling, and public transit over automobile use, and support for low-carbon vehicles, such as electric vehicles.

The also seeks to contribute to the Transportation 2040 and Greenest City targets of: increasing walking, cycling and public transit to form a minimum of 50% of all trips by 2020 and 66% of all trips by 2040; reducing motor-vehicle kilometers traveled per resident by 20% from 2007 levels.

Bicycle Storage & Repair Stations

- Provide enhanced bicycle storage and repair stations
- Integrate charging infrastructure for electric bikes
- Examine opportunities for bicycle share infrastructure

Electric Vehicle Infrastructure & Capacity

- Target the integration and supply of Level 3 electric vehicle rapid charging stations
- Incorporate rapid charging stations into street and plaza design where possible to improve the visibility of these green mobility amenities.
- Include additional conduit infrastructure in the parkade to accommodate future, widespread electric vehicles demand.
- Provide electrical conduit in appropriate Plaza areas to ensure outdoor events will have access to a supply of power and will not need to rely on generators.

Cycling Infrastructure
State-of-the-art cycling infrastructure will support The Plaza of Nation development's aspiration to be a showcase sustainable community. This includes ample secure bike parking, both in the public and private realms to support bicycle theft prevention through use of robotic bicycle parking in excess of bylaw requirements. Opportunities for this level of bicycle theft protection and convenience include underground and above ground parking systems such as the Biceberg and Bigloo from ma-Sistemas

End of Trip Facilities
End of trip facilities, enhanced bicycle storage and repair stations, and charging infrastructure for electric bikes to be provided. These should target 20% beyond the City of Vancouver's' building bylaw minimum.

End of trip facilities for businesses and residents to be studied in more detail in the design development phase.

Eco cycle automated cycle above-ground storage

5. BIODIVERSITY AND HABITAT

Overview

Currently one of Vancouver's last remaining undeveloped waterfront properties, the Plaza of Nations development intends to improve the health and wellbeing of the community, making space for new and existing habitats to enhance ecosystem functions and services, while improving public access to nature, creating spaces for socialization.

Increase Vegetated Biomass

Diversity of local tree plantings in accordance with City requirements along street and public spaces, will provide shading, aesthetic, air quality and habitat benefits. Trees will be included at grade locations where possible but also on slab with appropriate growing mediums. Intensive and extensive vertical greening of the built environment will exceed current rooftop garden requirements.

- Provide Residential tenants access to the terraced open and green spaces
- Ensure all plantings have increased soil depths to support resilient plant growth and contribute to rainwater management at the site
- Select plantings based on their ability to facilitate resting, nesting and foraging birds
- Reference the Bird Advice for False Creek guidelines provided by the City of Vancouver during further detailed design development

Revive the Expo 86 Legacy Forest

The Plaza of Nations will contribute to habitat creation and restoration through appropriate establishment of an ongoing ecological management plan to ensure the Legacy Forest is protected and improved. A Qualified Environmental Professional must be involved for this process.

- Retain existing mature trees wherever possible
- Provide habitat for urban wildlife and marine birds
- Create habitat viewing opportunities for residents and visitors.
- Incorporate rain gardens to the Urban Forest to treat rainwater before reaching False Creek and provide habitat for marine birds.
- Include native vegetation appropriate for shading the intertidal area to provide habitat for terrestrial species such as song birds along the top bank's riparian area
- Reference the Rocky Intertidal Guidelines for NEFC provided by the City of Vancouver during further detailed design development

Restore underwater conditions

- Restore underwater conditions for red and blue listed aquatic life along the Urban Forest and Seawall
- Improve the ecosystem through the re-establishment of marine life (Refer to the best practice from projects such as the Vancouver Convention Centre or the Seattle Waterfront redevelopment)
- Design the inter-tidal zone to support the establishment of blue mussel, barncales, limpets, rockweed and other rocky inter-tidal species.
- Incorporate floating elements from the inter-tidal zone along the shore for perching birds to further draw them away from the active marina traffic (Refer to the Rocky Intertidal Guidelines for NEFC provided by the City of Vancouver during further detailed design development)

Complete the False Creek Seaside walkway and bike route
Seawall completion between Coopers Park Neighbourhood and the foot of the Georgia Street axis guarantees waterfront access while connecting multiple distinct spaces of publicly accessible green and open areas suitable for wildlife and event viewing.

Provide direct access to False Creek
Expand the public realm and provide new opportunities to access False Creek with a substantial waterfront pier and marina. This will enhance the connectivity and animation of the community and further encourage and promote the improvement of False Creek water quality.

Habitat Skirt Below the Vancouver Convention Centre

Habitat Skirt Below the Vancouver Convention Centre

6. WATER CONSERVATION & QUALITY

Integrated Rainwater Management Plan Overview

The intent is to reduce stormwater discharge, treat surface runoff to reduce contaminants, and conserve potable water use. Open spaces, including publicly accessible vegetated terraces and the Legacy Forest will contribute to rainwater infiltration and decreased stormwater run-off volume and rate.

Rainwater Capture

The Plaza of Nations development will utilize a rainwater capture and reuse system to offset irrigation and support a reduction in indoor potable water use, including net zero potable water use for the Community Centre.

Storm water interceptors (i.e., Stormceptors) to be installed at all storm sewer connections. This will remove sediment, screen large debris and allow oil and grease to separate from storm water runoff for future collection and environmentally sound removal on site. This also reduces the contaminants to the municipal storm sewer system,

Green infrastructure considerations

- Include sufficient soil and plant species quality, depth and variety to successfully intercept and retain rainwater in vertical greening terraces.
- Apply best management practices from the Vancouver Convention Centre's largest vegetated roof in Canada.
- Optimize tree growth and manage stormwater from adjacent hardscape areas with tree well structures
- Collect rainwater from inaccessible and non-vegetated surfaces and diversion to a cistern for reuse through irrigation applications.
- Explore the opportunity to use captured rainwater for the Community Centre's toilet-flushing
- Consider Constructed Wetlands, and the biological processes associated with emergent aquatic plants and sedimentation which allows for natural opportunities of water quality processing
- Utilize bioretention facilities around the Urban Forest to capture and filter runoff from adjacent impervious surfaces

Water Conservation

- Target the supply low flow fixtures and EnergyStar appliances in residential and commercial spaces
- Install water efficient drip irrigation only when necessary. (The planting species selected will be generous, diverse, drought-resistant and tolerant to climate variability to ensure the vegetation scheme is adaptable to climate change and suitable for the project's water conservation goals.)
- Connect the high efficiency drip irrigation system to a rainwater reuse system to ensure no potable water is required. Use smart controls and sensors to reduce the volume of water required for landscaping.
- Explore opportunities to utilize and recycle rainwater for the ice rink and any water features
- Examine opportunities to use ice rink waste water
- Include water sub-meters throughout the development to ensure the reduced water demand fixtures and water reuse systems are functioning appropriately and the development is reaching its water conservation targets
- Consider conservation measures like rainwater conservation for irrigation and toilet flushing wherever possible
- Rainwater Management Plans should state targets for capture, clean and convey of pre-development volumes
- Consider setting targets for residents and businesses for per capital reduction of potable water

7. ENVIRONMENTAL EDUCATION

Overview
The ongoing performance of the site is heavily dependent on building occupant and visitor participation. Where innovative technology is used, a robust education program accessible to the general public will be included.

General Public Sustainable Education
- Signage and wayfinding to explain environmental systems and their associated benefits.
- Public art and environmental design to illustrate the Plaza of Nation's overarching sustainability principles

Where permanent installations of public art or signage is not possible, the project commits to developing a long-term operations management and environmental education program, identifying the costs associated and establishing funding opportunities either through municipal, provincial, federal government initiatives or through private investment.

Consider using a representative from the community to champion sustainability measures in the development such as the Greencierge concept. The Greencierge can capture requirements from many areas of the Plan like Zero Waste, IRMP, Green Building (commissioning and reporting) Green mobility Food Systems and composting.

8. SUSTAINABLE FOOD SYSTEMS

Overview
The Plaza of Nations development will incorporate local and sustainable food assets to boost social sustainability and improve resiliency within the community.

Community kitchens, garden waste composting, and edible landscapes are a few examples of sustainable food system amenities that could be provided.

Urban Agriculture and Edible Landscapes
- Edible plant species throughout terraces will provide a local source of harvestable food for building occupants.
- Signage to be included where edible plant species are provided to educate passersby's of the opportunity for food harvesting.

Edible plants may include species such as:
- Oregon grape
- Coastal strawberry
- Evergreen huckleberry
- Hazelnut
- Thimbleberry
- Salmon berry
- Apple tree

Plants that provide food to local fauna may include species such as:
- Flowering currant nectar
- Pacific dogwood

Community gardens
The target is to have a minimum of 30% of residents to have access to plots.

Community gardening workshops
These may be held in the plaza and park area in conjunction with the Community Centre. The work of the Vancouver Foundation will be referenced to establish a collaborative approach of program development and ongoing support for Greenest City Community Grants.

Community Food Market
The Central Plaza will be used as a site for a local Farmers' Market or Food Trucks, promoting the consumption of sustainable, locally harvested goods and socialization of the site

On-Site Organics Management and Storage
Due to the scale of the development, the Plaza of Nations will utilize an on-site, in-vessel bio-digester to manage organic waste resulting from the preparation and consumption of food in the commercial retail units, as well as from residential occupants. On-site organic storage such as the Molok underground storage system, will also be utilized for use in public and private gardens. This type of technology protects against common issues with pests and odors.

Edible Garden precedent

The on-site organics collection system will be:
- Accessible to all building occupants.
- Allow building occupants to easily identify and divert organic materials from the garbage waste stream

9. ZERO WASTE DESIGN AND OPERATIONS PLAN

Overview
Foster ongoing waste reduction and increased diversion of products and materials form the waste stream through re-use, composting and recycling.

The City requires a Zero Waste Design and Operations Plan that considers deconstruction, infrastructure design and post-construction operations.

Consider the use of the "Greencierge" concept if applicable in the coordination of these goals in conjunction with other sustainable strategies.

Construction waste management
Beginning with green demolition of existing structures, construction waste management will be an integral part of the building process, firstly through source minimization, smart product selection, packaging and transport. Furthermore, waste generated on site during construction will be addressed through a comprehensive waste management plan, detailing recycling facilities and documenting the diversion of standard debris from landfill.

Construction materials
Recycled content and regionally sourced materials will be preferred through the selection process, focusing on steel, concrete and glass components, reducing the impact of extracting of virgin resources. These materials retain their high value in the recycling chain and so once the service life of the proposed building comes to an end, re-use and integration into new building materials is a viable option.

Diversion of recyclables and organics
On-site organics management and multi-stream waste collection will be standard for all building designs.

Collection areas in the parkade, lobbies, and common spaces will be utilizing signage and color coding to visually distinguish each waste stream from the others. Signage will include visual cues of the appropriate items for each waste stream to aide in the identification and separation of materials by both staff and occupants.

A potential reduction of single use containers in local businesses to be considered.

Target a minimum of 70% waste diversion on site.

Ice Rink
Opportunities for reuse of ice rink greywater waste will be explored

10. AFFORDABLE HOUSING

Overview
To address the demand for more housing affordability, types and choices within the City of Vancouver, the project will include:

- A range of unit types to accommodate individuals and families of all ages and abilities
- Housing for individuals and families that fall under the Housing Income Limits published by BC Housing
- Purpose-built rental housing for moderate income households
- Turn-key social housing deliverable to the City as per City By-laws