

8.5 Parking & Access

The main goal of the proposed development is to ensure that traffic strategies are environmentally, financially and socially sustainable. Important points of the plan are to:

- provide a legible and highly efficient network for vehicular circulation
- establish urban principles and framework of “walkable city” for the site and future adjacent developments
- reduce the need for using cars to travel to and within the site
- provide a safe environment to pedestrians with minimized vehicular traffic
- allow and encourage pedestrian and bicycle movement across and within the site (Refer to Figure 8.5).

8.5.1 Access & Circulation

The proposed circulation around and within the site represents a very simple concept that accommodates major parking and servicing in the underground with a legible framework of access points. The underground parking will be accessible primarily from Cambie and 41st Avenue with signalized intersections to ensure safe and efficient circulation.

8.5.2 Wayfinding

The graphic and architectural wayfinding elements together with the criteria for organisation and design of urban spaces, landscape and buildings will contribute to a legible urban environment. All entries to the centre and proposed buildings, starting from the Transit Plaza in the north east corner, shall use visual elements such as clearly defined paths, nodes, street markers, and signage. Access to the New Park should integrate landscape elements such as planters, green walls, and water to echo the landscape above.

Wayfinding signage for vehicular circulation is to be located at all entrances. The consolidation of parking entries into fewer but higher capacity accesses makes wayfinding easier and creates opportunities for stronger street frontages with fewer interruptions for pedestrians using the sidewalk.

As most of the parking areas are interconnected with multiple entry points, implementation of clear wayfinding paths in a highly visible format will be important in helping to navigate through the parking, especially for temporary visitors but also residents on P3 level. This will be achieved by using different graphic themes to define dedicated parking zones, and, where required, illuminated signage and clearly identified vertical circulation nodes throughout the underground parking.



Colour as Wayfinding Device



Colour as Wayfinding Device

8.5.3 Vertical Connections & Integration

Vertical Connections within the parkade shall be located and designed to be legible and reflect the qualities of the spaces above. Multiple modes of transport including stairs, elevators and escalators shall connect to the mall and public domain above. Where possible, connections shall be associated with openings to above to allow natural light and create visual connections (Refer to Figure 8.3a). In order to make a clear separation from the commercial levels, a parking and access for residents will be located on the dedicated lowest P3 level with numerous points of access to the building cores.

8.5.4 Commercial Parking

The primary access points to the Commercial parking are from major streets; two from Cambie Street and one from 41st Avenue. A secondary entry will be from Choy Yuen Crescent, at the Civic Centre. An additional entry for office parking will be accessed from 45th Avenue. Commercial parking is accommodated on parking levels P1 to P2 and P1a level below the Civic Centre (Refer to Figure 8.5). A portion of the existing commercial parkade structure to the west of the existing South Tower is also maintained in the redevelopment.

Current and proposed conditions allow commercial parking ratios at Oakridge to be reduced by approximately one-third of current levels. This reduction is facilitated by improved transit service to the Centre, expected increases in 'walk-up' traffic by on-site and local area residents, and the sharing of parking with office tenants, the community centre and retail.

-  **Entrance/Exit**
-  **Commercial (Retail)**
-  **Residential**
-  **Office**
-  **Service**
-  **Civic Centre**
-  **Existing**

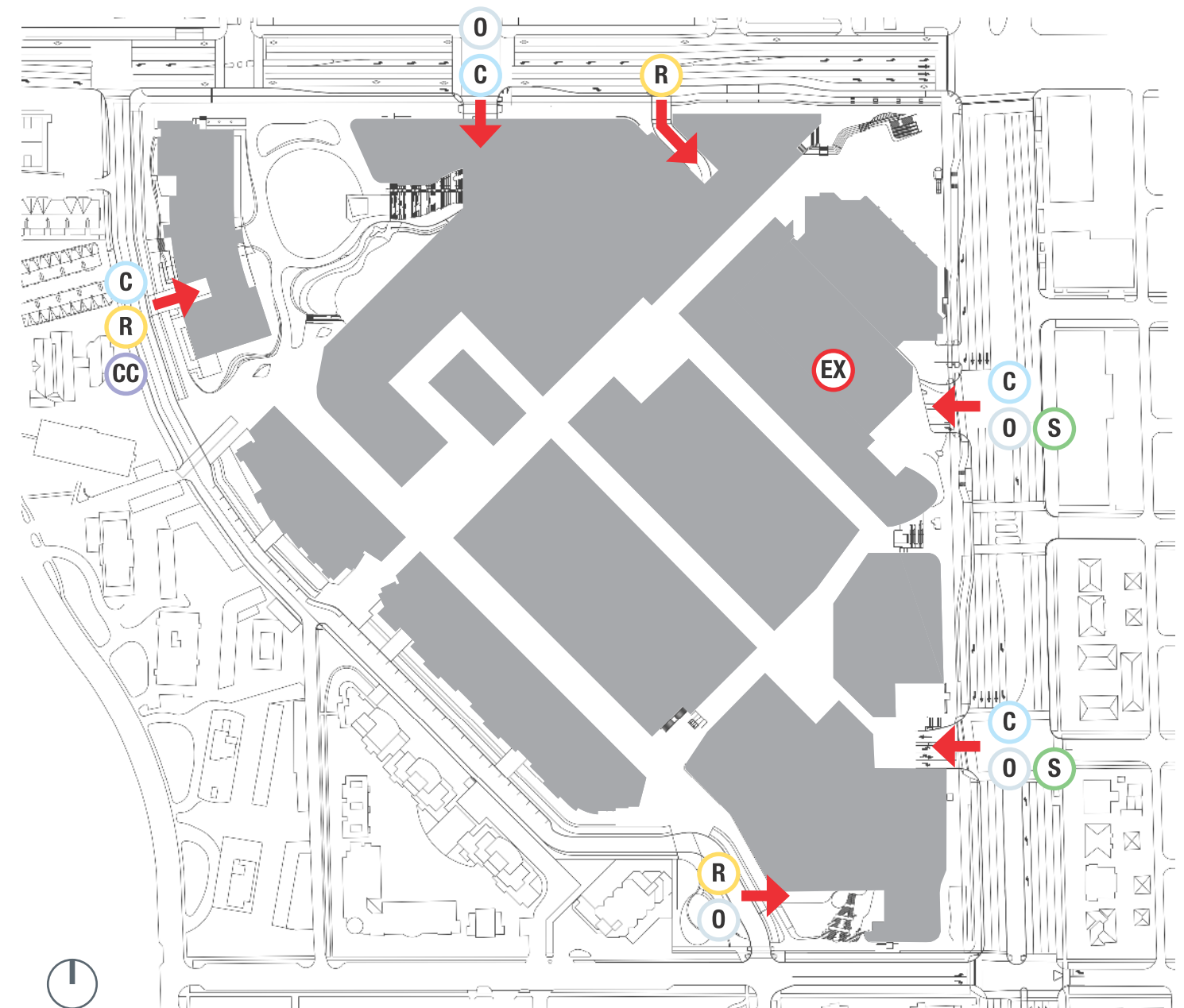


Figure 8.5.4: Parkade Entrance/Exits

NOT TO SCALE

8.5.5 Residential Parking

All residential parking is located at the P3 level. Altogether, there will be three entry points from street level accessing the P3 residential level parkade; one express ramp from 41st Avenue, one express ramp from 45th Avenue to be shared with office parking and an entry from Choy Yuen Crescent at the Civic Centre. In addition there are two internal ramps from P2 Level accessed with security gates at the commercial parking level directly above (Refer to Figure 8.5.4). The security gate from the “express” ramp should be located at the top of the ramp at grade.

8.5.6a Commercial Valet Parking

A mall sponsored valet parking service may be provided as part of a drop-off program for the retail to improve parking stall utilization and provide visitors with a high end parking service that will enhance the shopping experience at the mall. (Valet parked vehicles should be located in the least popular areas of the parking.) Additionally, several of the anchor tenants may operate their own valet service for their customers to facilitate rapid parking within their respective parking pools and enhance customer experience.

8.5.6b Residential Valet Parking

From the parkade ramps, residents will follow the main designated drive aisles to the valet drop-off zone closest to the core they live at. There will be at least 6 valet pick-up/drop-off zones scattered within P3 level. Each valet will have several pick-up/drop-off spaces. Most valet parking spaces will be in tandem arrangement with up to 4 cars stacking, but designed to be converted to conventional parking spaces or non-tandem configuration if required.

8.5.7 Safety & Security

A sense of safety and security is an important life-quality factor in high density environments. Special attention is required especially when combining and integrating residential and non-residential . The design will fully reinforce strategies outlined in CPTED program starting from the consideration of the appropriate integration of various design elements at a large scale, up to the implementation of infrastructure for innovative security systems.

There will be multiple program zones with either shared or segregated access with different times of operation that represent a framework when considering security strategies for the future development:

- Public interface zones at grade (spaces surrounding the proposed buildings linking plazas at the major nodes, building entrances and the High Street zone)
- Retail and shopping mall area on two levels with four major entry points at grade
- Residential –towers, mid-rise, townhouses, amenities and semi-public and private zones on the roof level
- Roof New Park (Public and semi-public zones)
- Commercial parking serving shoppers, office staff and visitors (P1 to P2)
- Residential parking (P3)
- Community centre and public amenities
- Office component in five locations with pedestrian access off the Transit Plaza, Cambie Street and the High Street

Well considered and appropriate security strategies will be developed during next design phases and applied for a particular zone based on Crime Prevention Through Environmental Design (CPTED) standards in order to satisfy various program groups and also public safety requirements. Elevator lobbies shall be located under all residential buildings and will meet City of Vancouver CPTED design guidelines. Any residential storage and bicycle areas should be clearly marked with lighting and signage corresponding to Section 8.5.4.

8.5.7a Secured path through the Mall

A secured path provided from the Transit Plaza for the public through the mall during hours of operation of the Canada Line that will help residents to cross the site safely (Refer to Figure 5.3.7a).

8.5.7b The High Street

Although views from the residential buildings will help to oversee High Street after hours, an enhanced security plan should be introduced for this zone after hours. These safety measures, such as frequent patrolling in combination with high-end surveillance systems, should also consider appropriate building articulation, landscape and proper lighting in order to provide a safe environment that minimizes hidden places and blind spots. The presence of valet parking staff will also contribute to safety and security of below grade parking areas.

8.5.7c Access to parking & securing parking areas

There will also be monitoring throughout all the parking areas via surveillance camera systems and security services to improve safety especially in areas with public access. The residential parking will be equipped by automatic parking gates secured by a remote and/or card access together with camera surveillance when accessing ramps to the segregated zone on the P3 level dedicated to residents.

8.5.7d Concierge

The major residential towers will have concierge service to provide additional security to residential tenants.

8.6 Loading & Servicing

Commercial and residential use deliveries, service activity and waste/recycling collection will be located underground and positioned in three locations. Most of this activity will occur along a planned service vehicle corridor extending along the south, west and north edges of the P3 parking level (Refer to Figure 8.5a), with vehicle access via the South Cambie access intersection. Commercial and residential loading will also be positioned on the P2 level in the southeast corner of the site, with access via the South Cambie access intersection (Refer to Figure 8.5b). A third loading court area for commercial and residential use is planned on the P1 level with access via the North Cambie access intersection (Refer to Figure 8.5c).

Pizza/Amazon deliveries for residential are proposed to be via the Delivery Loop on P3.

-  Loading Access & Locations
-  Service Vehicle Corridor



Figure 8.6a: P3 loading access

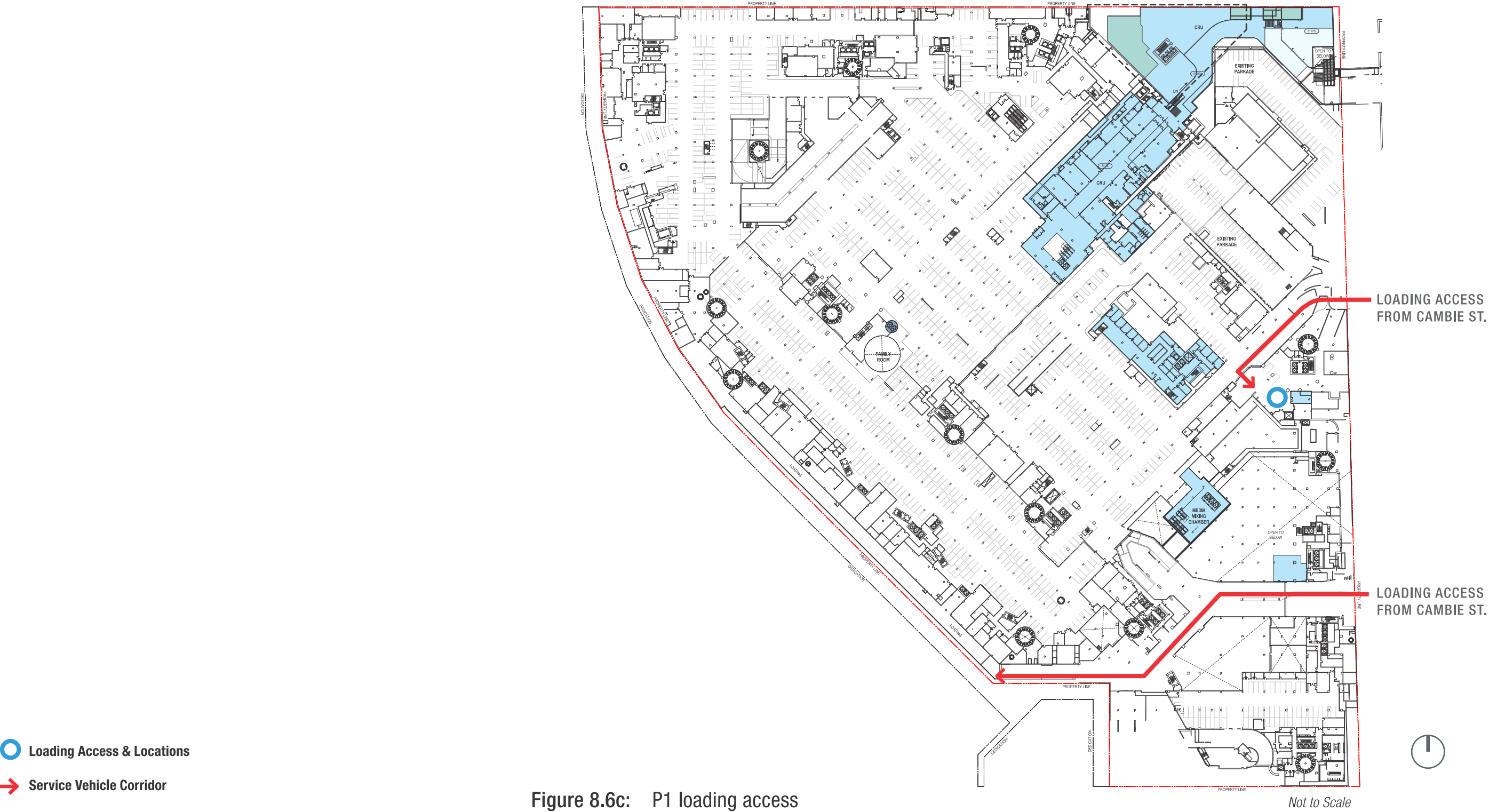
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8.6 Loading & Servicing



Figure 8.6b: P2 loading access

8.6 Loading & Servicing







9.0

Sustainability Strategy

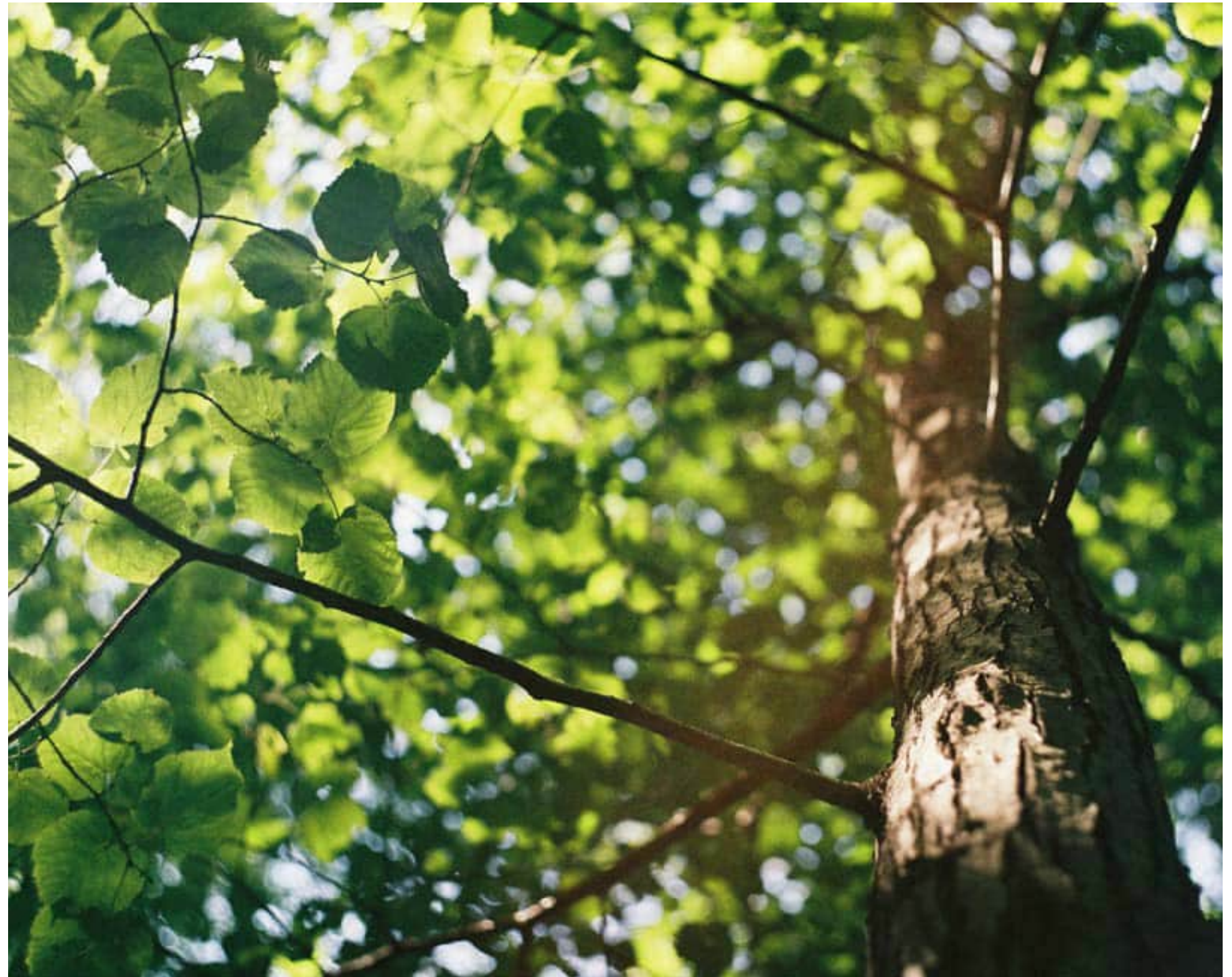
9.1 Sustainability Strategy

Oakridge will address the major issues outlined in the City of Vancouver document, Rezoning Policy for Sustainable Large Developments published August 1, 2013. Following is a brief summary of highlights of the Oakridge Sustainability Strategy. The Civic Centre will be LEED Gold.

9.2 Sustainable Site Design

In addition to strategies adopted from the Passive Design Toolkit, a high level of sustainability will be achieved through the commitment to the Green Building rezoning policy as was amended January 23, 2017, including total energy use intensity (TEUI), thermal energy demand intensity (TEDI) and greenhouse gas intensity GHGI) limits for all individual buildings within the Oakridge redevelopment. Airtightness of buildings will be considered throughout design and construction to improve building performance. Airtightness testing will also be conducted. Sustainable site design of the public realm should consider:

- Water conservation including exploring the potential to use non-potable water sources for irrigation including ground water wells.
- Sustainable food systems including a well programmed and highly functional community gardens.
- Design strategies in the public realm to bring people, especially neighbours, into social contact.
- Provision of waste receptacles for categories of recyclables that are supported in the city.



9.3 Access to Nature

As highlighted in Section 5.0 Public Places, access to nature for residents, workers, and visitors to the Oakridge site is a key driver of the New Park concept with the intent to integrate acres of open space into the overall redevelopment plans. Substantial areas of green space will contribute to air quality and moderate energy use through shade. Potential strategies to enhance access to nature should include:

- A variety of plant species in landscapes including ones that attract birds and bees.
- Reducing hazards to bird populations particularly at lower levels.
- Inclusion of areas within the overall landscape for quiet contemplation in gardens.

9.4 Sustainable Food Systems

The community gardens for the entire site have been combined in one central location and are intended to be provided with supporting infrastructure to ensure their productivity refer to Section 5.2.5e: Community Gardens.

9.5 Green Mobility

As highlighted in Section 4.0 Movement Plan, a number of strategies may be used to prioritize more sustainable travel to and from the site such as:

- Provision of a dedicated residential car share program.
- Integration of bike share locations.
- Cycling Network Connectivity and Bike Silos
- Promotion and connectivity to public transit

9.6 Rainwater Management

Extensive areas of new vegetation will reduce impervious surfaces across the site. This soil- and vegetation-based strategy will reduce stormwater runoff volumes and improve water quality through infiltration and replication of the hydrology cycle. To further address stormwater runoff quality, water quality devices will be included at each municipal storm system connection. Rainwater may be collected on site where feasible.

9.7 Zero Waste Planning

Solid Waste management will be addressed with a system that sorts, separates and transports waste and recyclables from each residential component as well as the retail and amenity components to a centralized waste facility on site prior to off-site transport. Waste generated through demolition and construction activities will be sorted to improve diversion of materials from landfill and increase rates of recycling or reuse.

9.8 Affordable Housing

The development will propose a range of Affordable housing options that may include:

- Non-Market (family, senior's and accessible)
- Low-End of Market Rental

Affordable housing is discussed further in Section 7: Affordable Housing.

9.9 Low Carbon Energy Supply

A centralized energy plant will create opportunities for heat exchange between commercial, institutional and residential uses throughout the site and as part of a District Energy strategy. The site will use both existing and expanded geoexchange infrastructure to further reduce the project's carbon footprint. The intention for the design of the energy plant is to maintain interoperability with the future district energy systems on the Cambie Corridor (south).

9.10 Integrated Community Design

The project will promote the creation of walkable streets within a compact mixed-use neighbourhood by providing basic services and job opportunities in proximity to housing. In conjunction with the adjacent rapid transit connections, the project has the opportunity to reduce reliance on the use of cars for transportation.

9.11 Resiliency

The Civic Centre will be a gathering hub in the event of some types of natural disasters and will be built to the VBBL standard as a "High Importance" building."



Sustainable Food Systems



Bicycle Silo Parking





10.0

Phasing

10.1 Proposed Phasing

The phasing plan for the construction of the expansion is predicated on several factors that affect retail operations and the current centre’s lease obligations. These factors include parking ratios during construction, overall parking efficiency, lease relocations during construction, minimum required retail area, constructibility and life safety considerations. These interrelated elements will require the parking, retail and residential to be phased independently during the course of construction.

During the first Phase of construction the majority of the mall will be shut down except for the retail and medical offices in the Terraces building. Subsequent phases are subject to variables such as changes to construction strategy and methods, feasibility, retailer input and/or design strategy may be modified as part of the development permit phase. The intent, however, will remain the same; the retail centre will be constructed in the timeliest manner possible with the least amount of interruption to the current retail operation and adjacent neighbours.

10.1.2 Parking Phasing

Constructibility requires the preparation of a detailed parking and access plan for every particular phase of the development to ensure that parking ratios are satisfied for retail, amenities and residential. A large portion of the parking along the north and east portions of the site will be built in phase 1 including all parking access points for residential and commercial parking and loading.

10.1.3 Residential Phasing

The residential phasing will be highly dependent on the phasing of both the retail and parking levels. The other factor which influences the phasing is to ensure that affordable housing is delivered per the conditions of the rezoning.

10.1.4 Timing & Delivery of Amenities & Affordable Housing

Part of the timing for the delivery of the Amenity and Affordable Housing is based on the phasing outlined in Section 10.1.3 Residential Phasing.

10.1.4a Amenities Delivery & Timing

The New Park will be delivered in a number of phases throughout the construction process but will generally be completed in conjunction with the associated residential phases except where construction of an adjacent portion requires staging areas. The Civic Centre will be provided in Phase 1. A portion of the park could be delivered at the end of Phase 1 with the balance available at the completion of Phase 2.

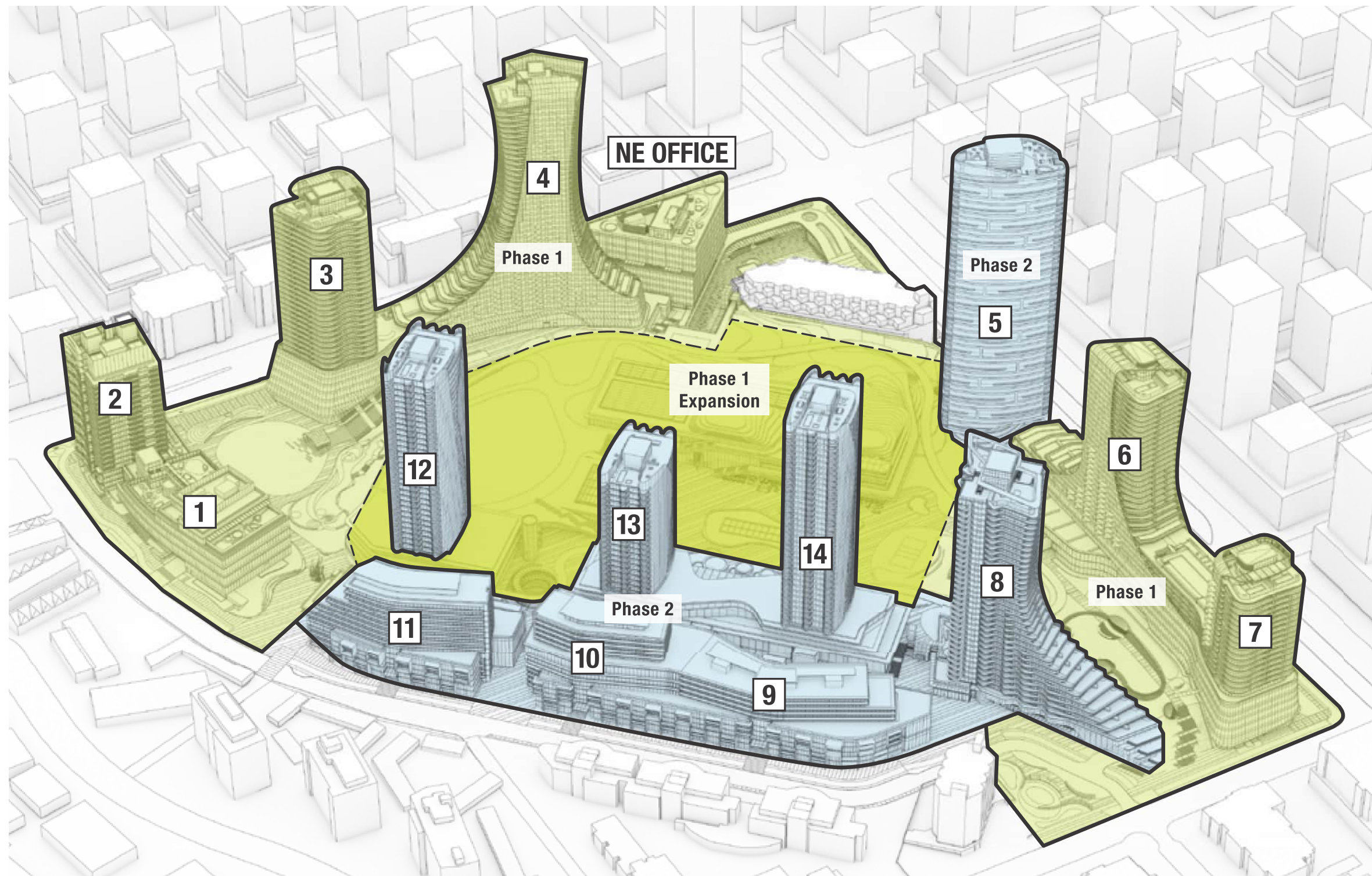
10.1.4b Affordable Housing Delivery & Timing

The Affordable Housing will be delivered as follows:

- Rental Housing – Phase 2
- Non-Market Housing – Phase 1 & 2

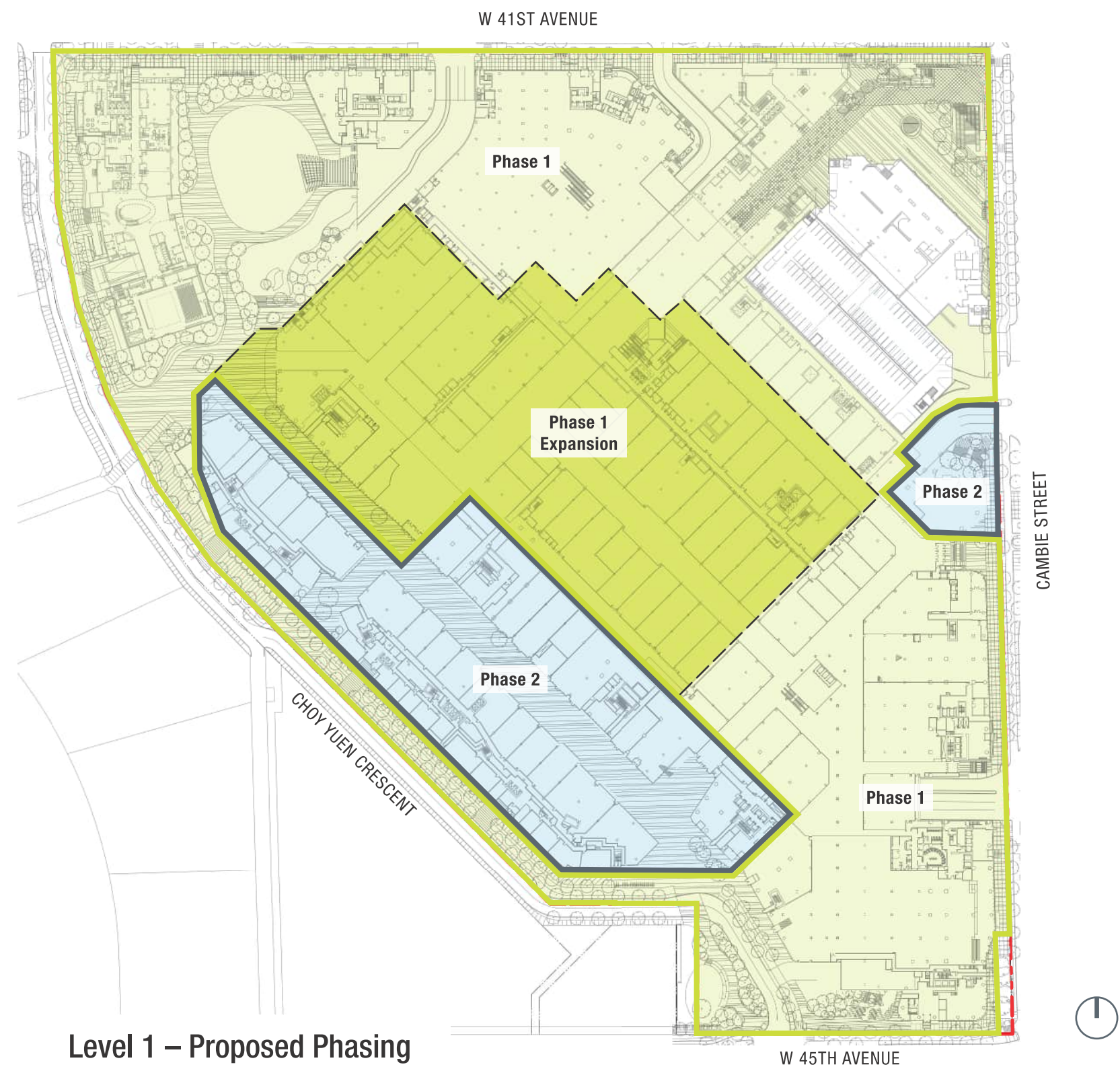


Aerial View looking North



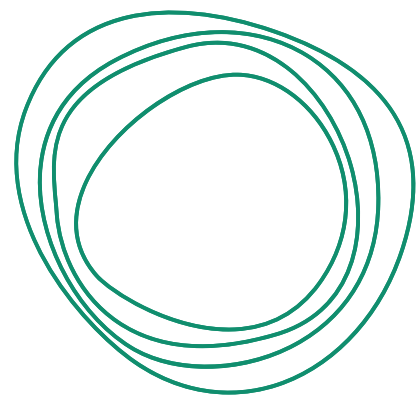
Proposed Phasing

* Construction of Buildings 8 and 12 delayed to Phase 2.



Level 1 – Proposed Phasing





OAKRIDGE